

#### ASX RELEASE

31 October 2022

#### **COMPANY DETAILS**

ASX: SNG ACN: 619 211 826

#### **CAPITAL STRUCTURE**

Issued Shares: 116,925,475 Unlisted Options: 14,293,262

#### **BOARD**

Brian Rodan Managing Director

Paul Angus Technical Director

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#### PROJECTS



# **QUARTERLY ACTIVITIES REPORT**

### FOR THE QUARTER ENDED 30 SEPTEMBER 2022

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

#### **Highlights**

- Exceptional high-grade gold-antimony mineralisation intersected at Auld Creek, including trench intersections of 6m @ 8.9g/t Au, 4.4% Sb (15.8g/t AuEq), 4.0m @ 4.4g/t Au, 0.36% Sb (4.6g/t AuEq) and 1.5m @ 17.1g/t Au, 9%Sb (31.1g/t AuEq).
- Historic diamond drillhole intersections at Auld Creek of 12m @ 4.1g/t, 2.9% Sb (8.7g/t AuEq), 4.5m @ 3.0g/t Au, 3.2% Sb (8.1g/t AuEq) and 3m @ 4.1g/t Au, 4.1% Sb (10.6g/t AuEq).
- 1km long NW trending Au anomaly identified at Mt Lyell North, 3kms north of the **Alpine United mine** that historically produced **80koz** @ **17g/t Au**.
- Trenches excavated at Lyell Goldfield, intersecting 7m @ 13.8g/t Au and 8m @ 6.3g/t Au.
- Sams Creek transaction completed on 26 October 2022, which includes the Sams Creek Dyke, containing an existing mineral resource of 588koz
   @ 2.43g/t Au at a 1.5g/t cut-off.
- Measured Group engaged to complete work necessary to define an updated mineral resource estimate at Sams Creek that includes the Main Zone, Carapace and SE Traverse, based on an underground mining scenario.
- The A2 Shoot at Big River extended to around 250m below the surface.
- The Bull West Shoot intersected in two new drillholes, extending the shoot to at least 200m and it is open up and down plunge.

#### BACKGROUND

Siren holds a large, strategic package of tenements in the Reefton, Lyell and Sams Creek Goldfields in the South Island of New Zealand. Western New Zealand was originally part of Gondwana and lay adjacent to eastern Australia until around 80 Ma ago. 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 1). 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 and Lyell 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.



The Reefton Goldfield was discovered in 1866 and produced +2M oz of gold at an average recovered grade of 16g/t from 84 historic mines. Most underground mining ceased by 1942, with the famous Blackwater mine closing in 1951 when the shaft failed after producing ~740koz of gold down to 710m below surface. Federation Mining Limited is currently developing a 3.2km twin declines to intersect below the historic mine. Federation is planning to extract over 700koz of gold down to 1,500m below surface.



Figure 1. Fold belt Paleozoic rocks at the top of the South Island

The Lyell Goldfield is the northern extension of the Reefton Goldfield located 40kms north (Figure 2). At Lyell the historic Alpine United mine produced ~80koz of gold at an average recovered grade of ~17g/t between 1874 and closing in 1912.

There are two distinctive sub-types of orogenic gold mineralisation in Victoria. The deeper (6-12kms) mesothermal deposits that formed almost all the significant gold deposits in the Bendigo and Stawell zones and the shallower (<6km) epizonal gold and stibnite deposits in the Melbourne zone and eastern Bendigo zone, including the Fosterville and Costerfield mines. The latter gold mineralising event in Victoria is characterised by arsenopyrite / pyrite hosted refractory gold and stibnite associated gold which is very similar to the Reefton and Lyell mineralisation.

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 2). Key projects include Alexander River, Big River, Auld Creek and Lyell.



The Sams Creek Gold Project is located 100kms NE of Lyell (Figure 1). The Sams Creek Dike (SCD) is up to 60m thick and can be traced for over 7kms along strike and over 1km down dip. The porphyry dyke generally dips moderately to the north and has been folded into a series of NE plunging anticlines and synclines. The anticlines are variably gold mineralised and have a combined Inferred and Indicated Mineral Resource Estimate (MRE) of 7.5Mt @ 2.43g/t Au for 588koz of contained gold at a 1.5g/t cut-off.



Figure 2. Reefton Tenement Map.

### **REEFTON PROJECTS AND ACTIVITIES**

During the quarter Siren had three diamond rigs operating at Alexander River, Big River and Sams Creek. A total of 5 holes for 2,399m was completed at Alexander River, 3 holes for 1,100m at Big River and 4 holes for 281m at Sams Creek for a total of 12 holes and 4,016m.

The Maiden Mineral Resource Estimate (MRE) for the Alexander River Gold Project was completed and fieldwork was ramped up, with mapping, soil sampling and trenching at Auld Creek and Lyell.



#### **Alexander River**

Recent exploration has been focused on finding the Loftus McKay and McVicar West shoots on the NE side of the fault and targeting the Bull West Shoot that was intersected by AX68a (Figure 1). Drillholes AX45 (2m @ 26.8g/t Au), AX47 (5m @ 9.1 g/t Au), AX50 (21.8m @ 2.3g/t Au including 7.8m @ 4.3g/t Au) and AX89 (2.3m @ 10.2g/t Au) all intersected high-grade mineralisation on the SE side of the fault (Figure 3).

Drillhole intersections on the NE side of the fault have intersected the reef track but have not intersected the shoots at this stage. The displacement across the fault is unclear but there appears to be a normal displacement of around 50m. To get a better indication of the fault displacement a drone based magnetic survey is being completed. This will better define fault offsets of the dolerite dikes that have been traced with ground-based magnetics (Figure 4). The dolerite dikes postdate the mineralisation and any offsets of the dikes will also offset the mineralisation.

Drillhole AX68a (11.1m @ 1.7g/t Au including 5m @ 2.2g/t Au) intersected the Bull West Shoot (Figure 3). The Bull West Shoot has also been intersected by AX102 (3.8m @ 2.0g/t Au) and AX103 (11m @ 1.2g/t Au), extending the shoot to at least 200m and open up and down plunge. Results for AX104, AX105 and AX106 are awaited.

Drilling has been paused at Alexander River until the results of the drone survey are available. An updated MRE will be completed in the coming months.



Figure 3. Alexander River schematic Long Section.





Figure 4. Dolerite dikes and reef track potentially offset along the Mullocky Fault.



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 was reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') 2012 edition (*refer to ASX 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 Estimate 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).

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 by Material Type – 1.5 g/t Au Cut-off

Tonnes (kt)	Grade (g/t Au)	Ounces (koz)	% MRE
302	2.9	28	21.4
699	4.6	103	78.6
1,000	4.1	131	
	Tonnes (kt) 302 699 1,000	Tonnes (kt)         Grade (g/t Au)           302         2.9           699         4.6           1,000         4.1	Tonnes (kt)Grade (g/t Au)Ounces (koz)3022.9286994.61031,0004.1131

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

Cut-off Grade	Tonnes (kt)	Grade (g/t Au)	Ounces (koz)	% MRE
McVicar East	14	6.5	3	2.2
Bull East	355	2.1	24	18.6
Bruno East	32	5.9	6	4.6
Loftus-McKay	218	4.6	32	24.7
McVicar West	382	5.3	65	49.7
Total	1.000	4.1	131	100.0

#### 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

#### **Big River**

Siren recommenced drilling in March 2022 with 9 holes for 2,887m completed to date. Eight holes have been drilled in the A2 Shoot and one hole in Shoot 4, with BR45 in progress (Figure 5).

The deeper drilling in the A2 Shoot indicates that the shoot has a slightly shallower plunge than previously interpreted and that drillholes BR40 and BR41 intersected the footwall. Drillhole returns were BR37 (**5.2m @ 6.3g/t Au** from 213m), BR41 (6m @ 1.5g/t Au from 252m) and BR39 (10m @ 1.2g/t Au from 271m, including 3m @ 2.5g/t Au).

BR44 was drilled into Shoot 4, 100m below BR35 (**6.4m @ 3.7g/t Au** from 375m). This hole intersected the mineralised zone at 425m but then intersected a 16m thick dolerite dyke that cut-off the mineralisation (Figure 4).



BR45 is now being drilled 100m above BR34 (5.9m @ 4.1g/t Au from 361m) to see if the mineralisation extends to the SE of Level 7, similar to the area below Level 3 (Figure 5).

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 6). 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. The gold soil geochemistry (Figure 7) shows a similar trend, with the results for the two southernmost lines still awaited.

Detailed mapping and trenching at Big River South, similar to that recently completed at Auld Creek (refer to ASX Announcement dated 4 October 2022) and Lyell (refer ASX Announcement dated 14 October 2022), will be undertaken to generate new drill targets.



Figure 5. Big River schematic long section.





Figure 6. Plan of arsenic soil geochemistry at Big River – St George.





Figure 7. Plan of gold soil geochemistry at Big River – St George.



#### Lyell

Recent soil sampling shows a NW trending gold anomaly that extends for over 4kms from the Alpine United mine (Figure 8). This trend also includes the Break of Day and United Victory mines. The soil samples along the NNW gold trend identify several anomalous areas (Figure 8). These may represent mineralised shoots similar to those seen at Alexander River. The Alpine United mine shoot plunged ~45° to the north and was mined down to 500m below the surface with 80koz @ 17g/t Au recovered (Figure 9).









Figure 9. Alpine United mine longitudinal section.

As previously reported, outcrops of acicular arsenopyrite mineralisation were found at **Mt Lyell** and **Mt Lyell North** that contained up to 37g/t Au. Four trenches were excavated along the Mt Lyell North anomaly (LTTR001 to LYTR004) approximately 100m apart (Figure 10). Results have been received for LYTR001 and LYTR002 with the trenches intersecting disseminated arsenopyrite with thin grey quartz veins. **LYTR001** exposed a 7m thick mineralised zone that averaged **7m @ 13.8g/t Au**, with 1m grades as high as **25g/t Au**. The true thickness of the intersection is interpreted to be around 5m. **LYTR002** exposed an 8m thick mineralised zone that averaged **8m @ 6.3g/t Au**, with 1m grades as high as **29.7g/t Au**. The true thickness of this intersection is also interpreted to be around 5m. Results for LYTR004 are awaited.

An outcropping quartz reef with significant visible gold was found in a creek close to the United Victory mine. This reef and the adjacent country rock was channel sampled and called LYTR005 (Figure 10). The United Victory reef exposed in the creek is around 0.5m thick with disseminated acicular arsenopyrite on both the hanging wall and footwall for an overall thickness estimated at approximately 2m (Figure 11). The quartz reef comprises mottled grey and white quartz with significant visible gold (Figures 12 and 13).

The United Victory reef was found close the NW end of the Mt Lyell North soil anomaly (Figure 10) which now extends 1km and is open to the NW. The Mt Lyell North is a new discovery with no historic mining or previous exploration, and it emphasises the significant potential of the Lyell project. Field exploration will continue over the next quarter with additional mapping soil sampling and trenching followed by diamond drilling in Q1 2023, subject to Department of Conservation (DoC) access.





Figure 10. Mt Lyell and Mt Lyell North areas showing trench locations.





Figure 11. Victory United Reef along with disseminated acicular arsenopyrite in the hangingwall and footwall.





Figure 12. Victory United Quartz reef with significant visible gold.



Figure 13. Magnified Gold shown in Figure 12.



#### 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 OceanaGold Ltd mined an open pit and extracted an additional 600koz from lower grade remnant mineralisation around the historic Globe Progress mine (refer to ASX Announcement dated 3 October 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 23.3g/t Au. In 1914, a drive beneath the Bonanza Shaft was revitalised and extended, returning grades up to 21.7g/t Au. The Fraternal claim was mined in a series of shallow adits situated along a 400m north-south oriented strike length. There is no recorded of gold production at Auld Creek due to the threat of litigation from the Reefton township, as the Auld Creek catchment collected Reefton's water supply.



Figure 14. Regional arsenic soil geochemistry and historic gold production.



Siren's Auld Creek epizonal deposit contains high grade gold and massive stibnite veins. For example, diamond drillhole RDD0087 intersected a true thickness of 12m @ 4.1g/t Au and 2.9%Sb and trench FFTR001 intersected 6m @ 8.9g/t Au and 4.4%Sb.

Siren has used the same gold equivalent formula ( $AuEq = Au g/t + 1.58 \times Sb \%$ ) used by Mandalay Resources Ltd for the Costerfield mine (*refer Mandalay Technical Report, 2022 dated 25 March 2022*). The formula is based on a gold price of US\$1,700 per ounce, antimony price of US\$8,500 per tonne and metal recoveries of 93% for gold and 95% for antimony. Using this formula, the RDD087 drillhole intersection would equate to **12m @ 8.7g/t AuEq**, and trench FFTR001 intersection to **6m @ 15.8g/t AuEq**.

Antimony is a critical metal of which China and Russia combined produce approximately 82% of the world's antimony raw material supply. Antimony features highly on the critical minerals lists of many countries, including Australia, the USA, Canada, Japan and the European Union. Antimony alloys with lead and tin, which results in improved properties for solders, munitions, bearings and batteries. Antimony is a prominent additive for halogen-containing flame retardants. Adequate supplies of antimony are critical to the world's energy transition, and to the high-tech industry, especially the semi-conductor and defense sectors. For example, antimony is a critical element in the manufacture of lithium-ion batteries and to the next generation of liquid metal batteries that lead to scalable energy storage for wind and solar power.

Siren has completed infill soil sampling to better define the soil anomalies. The arsenic soil anomaly now extends for over 700m along strike and clearly defines the Fraternal and Bonanza mineralisation (Figure 15). The Fraternal zone has been subdivided into the Fraternal and Fraternal North zones.

Siren has excavated five trenches across the Fraternal mineralised zone (FTTR001, FTTT002, FTTR003, FTTR005 and FTTR006) and 2 trenches across two Bonanza mineralisation zones (BZTR001 and BZTR002), as shown in Figure 15. All trenches intersected silicified sandstone with disseminated arsenopyrite, with up to 20cm thick massive stibnite veins (Figure 16). Results to date have been received for the Fraternal trenches FTTR001, FTTR002 and FTTR004.

**FTTR001** exposed an 8m thick mineralised zone (Figure 17). The outcrop was sampled at 1m intervals, with the rock description and assay results shown in Table 4. The Au and Sb grades in Table 4 indicate that the mineralisation may be wider than exposed. The intersection averages **8.9g/t Au and 4.4% Sb for AuEq of 15.8g/t over 8m.** 

FTTT002 was a resampled small historic trench perpendicular to the SW end of FTTR001 (Figure 15). This trench intersected 1.5m @ 17.1g/t Au and 9% Sb for 31.3g/t AuEq.

FTTR004 sampled the Fraternal North mineralised zone (Figure 15) and intersected at least a 4m wide zone, with the strongest mineralisation at the western end and the mineralisation potentially extends further west (Table 5). The trench intersected 4m @ 4.0g/t Au, 0.36% Sb for 4.6g/t AuEq.

The trenches indicate that the Fraternal and Fraternal North mineralised zones dip to the west and the Bonanza and Bonanza West mineralised zones dip to the east (Figure 15). The Fraternal zone has been intersected by several diamond drillholes, with one hole interpreted to have intersected the Bonanza West zone (Table 6 and Figure 18). Significant drillholes include **RDD087**, which intersected a true width of approximately **12m @ 4.1g/t Au, 2.9% Sb** for **8.7g/t AuEq** and **RDD085**, which intersected a true width of 18m @ 2.7g/t AuEq ,including **4.5m @ 3.0 g/t Au, 3.2% Sb** for **8.1g/t AuEq.** RDD087 and RDD081 were not assayed for Sb but the core photos do contain stibnite veins. Siren quarter cut and assayed RDD087 with an average intersection of 2.9% Sb, with the highest 1m interval returning 23.9% Sb (37.8 g/t AuEq). RDD081 core or pulps couldn't be found at this stage.

The Bonanza zone is interpreted to be an east dipping splay from the Fraternal zone (Figure 19). The hangingwall of the Fraternal zone has higher grade gold and stibnite mineralisation, as shown by the darker red zone. Trench FTTR001 sampled the high-grade zone ending in 25g/t AuEq and needs to be extended to find the hangingwall and footwall contacts.



The N-S long section indicates that the Fraternal shoot is moderately south plunging, and drill tested for approximately 100m (Figure 20). This shoot orientation is similar to the Globe Progress shoots 1km to the south. The height of the shoot is unknown at this stage. Trench FTTR005 excavated at the top of the Fraternal Shoot intersected a 9m thick zone of silicified sandstone and disseminated arsenopyrite but lacked any significant stibnite mineralisation.



Figure 15. Arsenic soil geochemistry, trenches, drillholes and interpreted mineralised zones.





Figure 16. Massive stibnite vein from the Fraternal Reef near FTTR001.



Figure 17. Fraternal Reef exposed in Trench FTTR001.



From	То	Geological Description	Au g/t	Sb %	AuEq g/t
0	1	Silicified sandstone with rare arsenopyrite (AP). No visible stibnite (Sb).	0.2	0.1	0.3
1	2	Silicified sandstone, full of disseminated AP, very small Sb crystals.	0.4	0.35	0.5
2	3	Silicified sandstone with disseminated AP and a 5-10cm thick massive Sb vein. Sb vein runs parallel to outcrop orientation into the next sample.	8.2	1.0	9.8
3	4	Silicified sandstone with abundant AP and 5-10cm Sb vein. Gossanous textures adjacent to 10-20mm thick quartz veins.	3.4	18.9	33.2
4	5	Silicified sandstone with ~5% disseminated acicular AP.	11.1	1.1	12.9
5	6	Silicified sandstone with ~5% disseminated acicular AP.	4.1	0.2	4.4
6	7	Silicified sandstone with ~5% disseminated acicular AP	8.7	0.5	9.5
7	8	Silicified sandstone with ~5% disseminated acicular AP and a 10-20cm Sb vein.	17.9	4.5	25.0
		Weighted Average 6m (2-8m)	8.9	4.4	15.8

### Table 4. Fraternal Trench No.1 (FTTR001) assay results.

#### Table 5. Fraternal Trench No.4 (FTTR004) assay results.

From	То	Geological Description	Au g/t	Sb %	AuEq g/t
0	1	Silicified sandstone with rare arsenopyrite (AP). No visible stibnite (Sb).	6.9	0.2	7.2
1	2	Silicified sandstone, full of disseminated AP, very small Sb crystals.	2.4	0.05	2.4
2	3	Silicified sandstone with disseminated AP and a 5-10cm thick massive Sb vein. Sb vein runs parallel to outcrop orientation into the next sample.	4.5	0.1	4.6
3	4	Silicified sandstone with abundant AP and 5-10cm Sb vein. Gossanous textures adjacent to 10-20mm thick quartz veins.	2.3	1.1	4.0
4	5	Silicified sandstone with ~5% disseminated acicular AP.	0.7	0.04	0.8
		Weighted Average 4m (0-4m)	4.0	0.36	4.6

#### Table 6. Significant Auld Creek drillhole intercepts.

Hole ID	Mineralised Zone	From	То	Interval (m)	True Width (m)	Au g/t	Sb %	AuEq g/t
96DDAC001	Fraternal	51.9	53.1	1.2	0.6	1.0	7.90	13.4
96DDAC003	Bonanza West	34.0	35.0	1.0	0.6	4.65	<0.01	4.7
RDD0081	Fraternal	45.0	51.0	6.0	3.0	1.73	n/a	
	Fraternal	57.0	67.0	11.0	6.0	2.24	n/a	
RDD0081a	Fraternal	57.0	67.0	10.0	5.5	1.71	0.06	1.8
RDD0085	Fraternal	30.0	64.0	34.0	20.5	1.61	0.70	2.7
Incl		30.0	37.0	7.0	4.5	3.02	3.20	8.1
Incl		43.0	51.0	8.0	5.2	2.62	0.17	2.9
Incl		59.0	64.0	5.0	3.4	1.58	0.03	1.6
RDD0086	Fraternal	90.0	96.0	6.0	3.0	4.14	4.10	10.6
RDD0087	Fraternal	63.0	98.0	35.0	12.0	4.11	2.90	8.7
Incl		63.0	81.0	18.0	5.5	5.74	4.80	13.3
RDD0088	Fraternal	125.0	127.0	2.0	1.4	1.28	2.90	5.9











Figure 19. Auld Creek E-W schematic cross section.





Figure 20. Auld Creek N-S schematic long section.

### SAMS CREEK PROJECT AND ACTIVITIES

Siren purchased the Sams Creek Gold Project in New Zealand for a consideration of A\$250k on 26 October 2022. OceanaGold Limited (OGL) will retain their 18.1% interest in the project *(refer ASX Announcement dated 26 October 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.

Siren believes there is significant potential at Sams Creek for a large underground mining operation. The Sams Creek Dyke (SCD) is up to 60m thick, can be traced for over 7kms along strike, has a vertical extent of at least 1km and is open at depth. Drilling to date has focused on a 1km section of the dyke from the Carapace to the Main Zone (Figure 21). Topography is very steep, with the SCD outcropping from 800m-200m above sea level and it has been intersected in drillholes to -200m. 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 22. To date around 127 diamond holes have been drilled in this zone.



Golder completed a JORC Main Zone Resource estimate in 2013 for an open pit mining scenario and included large areas of low-grade mineralisation. An Indicated and Inferred Resource of 1Moz @ 1.54g/t Au at a 0.7g/t cut-off was estimated. At a 1.5g/t cut-off the estimate is 588koz @ 2.43g/t Au (Table 7). Siren considers that Sams Creek is a potential underground mine and believes the model could be improved for an underground mining scenario by trimming some of the low-grade dyke, and using separate domains for the high-grade mineralisation along the fold hinges and lower grade fold limbs.

The 2013 resource estimate does not include the SE Traverse prospect. The SE Traverse is an isolated section of dyke approximately 500m long and 200m wide that is interpreted to be a continuation of the anticline hinge that extends from Main Zone for over 1.5kms and is open at depth. Drillhole intersections in the SE Traverse shown in Figure 21 and Table 8 confirm the continuation of the higher-grade mineralisation in the anticline hinge.

The SCD 3D wireframe from the Main Zone to Western Outcrops (approx. 3kms) is shown in Figure 22. 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.

Siren has engaged Measured Group to complete a Mineral Resource Estimate (MRE) that includes the Main Zone, Carapace and SE Traverse based on an underground mining scenario. The MRE is expected to be completed in November 2022.

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 7. 2013 Resource estimate at a 1.5g/t cut-off.

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 8. SE Traverse significant drill hole intersections.





Figure 21. Plan view from Doyle's to Main Zone showing A1 anticline and drillhole results. Mineralised shoots shown orange.





Figure 22: Sams Creek Dyke plan view.

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 23. 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.

The Barrons Flat permit expired on 26 September 2022 and Sandfire has applied for a 4-year extension, which is currently being assessed by NZPaM. As part of the work program requirement some drilling must be completed by the expiry date. Drilling commenced on Tuesday 6 September with four diamond holes completed for total of 282m. Drilling targeted an area that returned some high-grade rock chips and elevated arsenic soils, interpreted to be a NE trending fold hinge. The drilling confirmed that the dyke is folded and contains similar arsenopyrite veins that host the gold mineralisation at the Main Zone. Assay results are awaited.





Figure 23. Rock chip samples and potential NE trending fold hinges (white arrows) 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 ASX Announcement dated 19 July 22*) have already been estimated, and Main Zone and SE Traverse at Sams Creek, where a new MRE is currently being estimated.

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

#### **TENEMENT STATUS**

The Company confirms that all the Company's tenements remain in good standing. The Company has applied an exploration permit to replace the Reefton South prospecting permit that expired on 7 August 2022 (Figure 2). The Company acquired Sams Creek Gold Limited on 26 October 2022, which included the Sams Creek (EP 40338) and Barrons Flat (EP 54454) permits. The Barrons Flat permit expired on 26 September and a 4-year Appraisal Extension has been applied for. 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 Annexure 1. The Company now has over 1,073sqkm of applications and granted tenements.



#### CORPORATE

During the quarter, the Company released the half year report and accounts for the half-year ended 30 June 2022. After quarter end, the Company held a general meeting of shareholders where all resolutions were passed by poll including the approval to issue \$260,000 of Shares to Company directors and their related parties on the same terms as the \$4.4m capital raising announced on 29 July 2022.

The cash flows relating to the quarter included \$3.278m 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. Costs were also allocated to the acquisition of the Sams Creek, together with costs associated with an initial drill program and the Sams Creek Mineral Resource update.

The Company had a closing cash balance at the end of the quarter of \$2.43 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 section 5.5 of the Company's Prospectus.

Activity Description	Funds Allocated (\$)	Actual to Date (\$)
Exploration (2 years)	9,125,000	13,400,209
Administration (2 years)	1,300,000	2,186,837
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.

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

For further information, please visit or contact:

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

#### **Competent Person Statement**

The information contained in this report relating to exploration results, exploration targets and mineral resources has been previously reported by the Company (Announcements). The Company confirms that it is not aware of any new information or data that would materially affects the information included in the Announcements and, in the case of estimates of mineral resources, released on 20 July 2022 and 5 October 2022, that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.



#### **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
EPA 60928	Reefton South	Reefton Resources Pty Limited	100%	application		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
EP 40338	Sams Creek	Sams Creek Gold Limited	81.9%	27 March 1998	26 March 2025	3,046.513
EP54454	Barrons Flat	Sams Creek Gold Limited	100%	26 September 2012	26 September 2022	1,601.159

# 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 September 2022

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
1.	Cash flows from operating activities		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(3,278)	(7,137)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(97)	(249)
	(e) administration and corporate costs	(325)	(698)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	3	4
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	331	1,047
1.7	Government grants and tax incentives	-	-
1.8	Other (provide details if material)	-	-
1.9	Net cash from / (used in) operating activities	(3,366)	(7,033)

2.	Ca	sh flows from investing activities		
2.1	Pay	ments to acquire or for:		
	(a)	entities	-	-
	(b)	tenements	-	(50)
	(c)	property, plant and equipment	(16)	(135)
	(d)	exploration & evaluation	-	-
	(e)	investments	-	-
	(f)	other non-current assets	-	-

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 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	(16)	(185)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	4,150	4,313
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	(228)	(228)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	(39)	(49)
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	3,883	4,036

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,983	5,725
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(3,366)	(7,033)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(16)	(185)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3,883	4,036

Cons	solidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	(54)	(113)
4.6	Cash and cash equivalents at end of period	2,430	2,430

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	2,411	1,972
5.2	Call deposits	25	25
5.3	Bank overdrafts	-	-
5.4	Other (Corporate Credit Card)	(6)	(14)
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	2,430	1,983

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	(294)
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.		

7.	<b>Financing facilities</b> 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	(6)
7.4	Total financing facilities	50	(6)
7.5	Unused financing facilities available at qu	arter end	44
7.6	7.6 Include in the box below a description of each facility above, including the lender, intervate, 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)	(3,366)
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)	(3,336)
8.4	Cash and cash equivalents at quarter end (item 4.6)	2,430
8.5	Unused finance facilities available at quarter end (item 7.5)	44
8.6	Total available funding (item 8.4 + item 8.5)	2,474
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	0.73
	Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 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 follow	wing questions:
8.8.1 Does the entity expect that it will continue to have the current level of net operative cash flows for the time being and, if not, why not?		
	Answer: No, the Company intends to reduce its expenditures in the u	pcoming quarter.
<ul> <li>8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise cash to fund its operations and, if so, what are those steps and how likely do believe that they will be successful?</li> <li>Answer: The Company has several exploration programs and maintains its ability to capital utilising its Listing Rules 7.1/7.1A capacity. As noted in section 8.8.1, the Com also capable of and intends to revise exploration expenditure and operations overheam intain sufficient cash reserves.</li> <li>8.8.3 Does the entity expect to be able to continue its operations and to meet its b objectives and, if so, on what basis?</li> </ul>		steps, to raise further ad how likely does it
		ins its ability to raise 8.8.1, the Company is erations overheads to
		nd to meet its business
	Answer: Yes. Refer to answers to questions 8.2.1 and 8.2.2 above.	
	Note: where 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: 31 October 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.