



## **YIDBY GOLD PROJECT**

### **METALLURGICAL TESTWORK PROVIDES EXCELLENT GOLD RECOVERY RESULTS**

- **The column leach test work achieved a 68% increase in gold content above previous drill assay results due to the prominence of coarse gold (+0.5mm) at the Yidby project, indicating there is a significant underreporting of previous gold grades.**
- **The column leach results were from non-agglomerated coarse material (6.33mm) and achieved a 66.3% recovery and indicate that a finer crush size would further improve gold recovery providing a significant upside for the resource grades.**
- **The programme has also highlighted the potential for a low-cost heap or vat leach operation.**

Surefire Resources NL (“**Surefire**”, “**the Company**”) is pleased to report final results from the metallurgical column leach test work carried from its 100% owned Yidby Gold Project, located northeast of Perth near Paynes Find on the Great Northern Highway in Western Australia, (see Figure 1).

The Yidby Gold Project is a large gold system located in the Yalgoo-Singleton Greenstone Belt in the Murchison Province of the Yilgarn Craton which hosts multi-million-ounce Gold deposits. Despite this, and the proximity to other gold deposits, the Yidby mineralisation was not found by other explorers because it occurs under transported cover.

The project contains significant mineralised zones up to 80m wide and currently extends over a 3km strike length, open along strike and at depth.

Drilling intercepts to date contain mineralisation in zones of high grades gold with 5g/t Au up to 82 g/t Au and broader zones with 0.2g/t Au to 1.5g/t Au (see ASX announcements 15 December 2020, 5 May 2021, and 2 June 2021). As noted above and in this announcement these results may be significantly under reported as a conclusion of the metallurgical work.

**Management Comment:** Managing Director Paul Burton said “*Metallurgical test work results always provide more reliable and insightful information than original drill results. For Yidby these results are very encouraging and provide a solid step up for the project at a time when Gold is of increasing value. This continues to be a great asset for the Company and I look forward to presenting further updates on this exciting project*”.

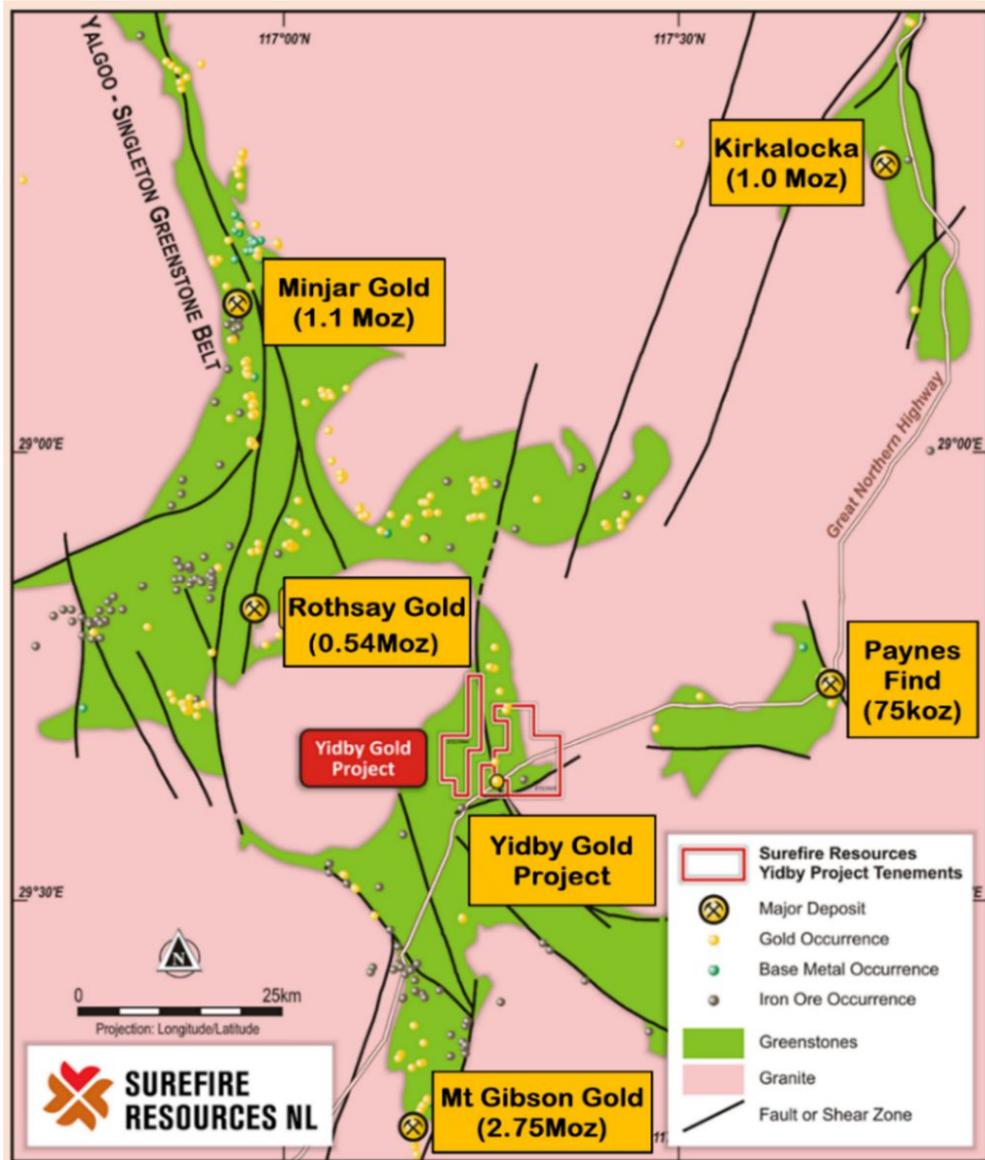


Figure 1: Surefire Resources – Yidby Tenement Package and proximal Gold mines

## Test Work

The column leach test work was completed on mineralised drill core. These were selected from 3 of 5 previously drilled diamond holes that were designed to obtain an understanding of the gold system and assess if the mineralisation is amenable to low-cost heap or vat leach gold extraction.

Of the 5 diamond holes, gold mineralised rock was taken from various depths to obtain structural and metallurgical information from 3 of the holes, YDD003, YDD004 YDD005, see Table 1 and Figure 2 below.

Leach Test 1									
Hole Id	North	East	RI	Depth	Dip	from	to	Az	Av Au (g/t)
YDD003	525393	6751895	297.86	100	-60	16	20	270	1.41
YDD004	525283	6751915	297.34	98	-60	151	163	270	1.1
YDD004	525283	6751915	297.34	98	-60	169	172	270	0.5
YDD005	525464	6751787	298.36	100	-60	77	83	180	0.28
YDD005	525464	6751787	298.36	100	-60	84	91	180	0.3
								32	0.75

Table 1 Core sample intervals used for the Column Leach Project

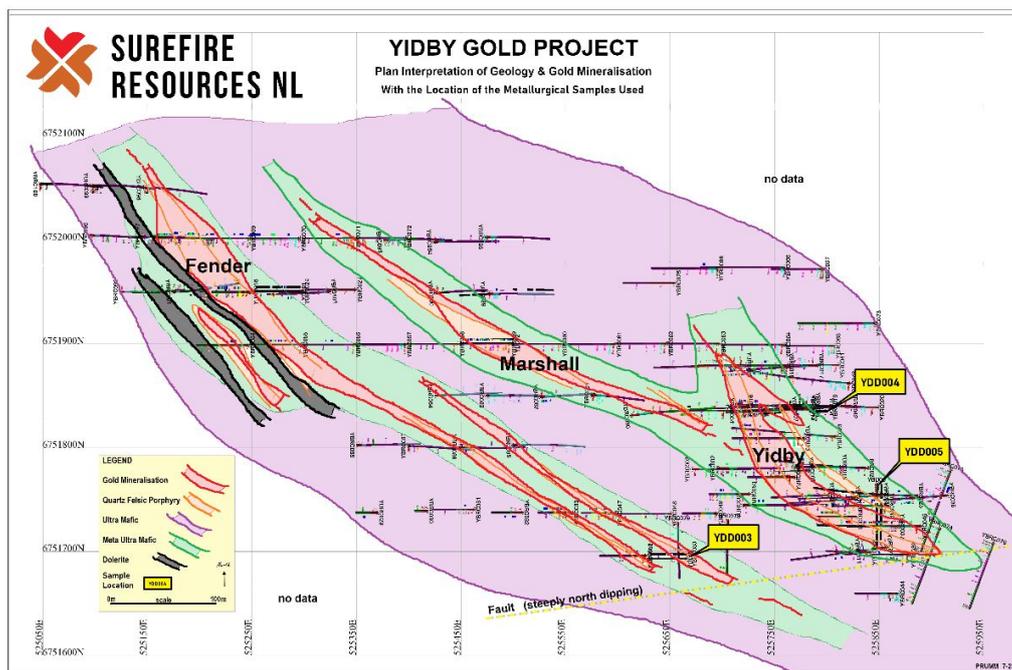


Figure 2: Yidby Gold Project Diamond Drill collar locations

### Sighter Level Test work

This phase of test work was a continuation from the preliminary sighter level test work carried out in 2022 (see ASX release 16 November 2022), which showed exceptional gold recoveries of up to 99.5%. The results from the sighter test work and this current metallurgy test work, confirm that Yidby has a high proportion of coarse free gold, with a particle size less than 0.5mm in size. The implications from the sighter test work were as follows:

1. Excellent gold recoveries of 97.6% and 99.5% from gravity and cyanide leach; and
2. The implication that the previous drilling results may be significantly under reported due to the presence of coarse gold, <0.5mm in size.

## Column Leach

The column leach test work program was a rigorous exercise conducted by ALS Global in Perth and was carried out over a duration of 10 months with many additional assaying and re-testing steps.

## Results

The metallurgical test work results provided 2 significant conclusions:

1. **A 66.3% gold recovery on a very coarse crush size of 100% passing 6.3mm** over the 69-day programme with gold extraction continuing.
2. **A 68% increase in gold content** compared to the original  $\frac{1}{4}$  core assay result obtained by using a bulk sample via the metallurgical test work. This confirms the Sighter Test Work implication that **the drilling results are significantly underestimating the quantity of gold hosted within the mineralised lithologies at the Yidby Gold Project.**

To assess the implications of a potential 68% increase in grade across the mineralisation, a selection of historical drilling gold intersections was checked and the results displayed on Table 2 below. The 2<sup>nd</sup> column from the right provides the original assay result, and the far-right column displays a 68% grade increase. A selection of previously published Ultra-wide historical drilling intersections from Yidby displaying the implications of a potential 68% grade increase (ASX releases 19 February 2021, 4 May 2021, 17 June 2021, 9 March 2022 and 2 August 2022) are shown in Table 2 below:

Hole ID	Section	From (m)	To (m)	Interval (m)	Au (g/t)	68% increase in Au
YBRC007	6,751,836mN	44	100	56	1.97	3.31
YBRC017	6,751,880mN	96	196	100	0.53	0.89
YBRC019	6,751,840mN	149	193	44	2.77	4.65
YBRC024	6,751,952mN	12	72	56	0.6	1.00
YBRC037	6,751,725mN	28	86	44	0.95	1.60
YBRC045	6,751,726mN	32	84	52	1.4	2.35
YBRC059	6,751,900mN	32	92	60	1.04	1.75

**Table 2: Selection of holes showing the potential upgrade**

## How the Gold Values were Calculated

The final gold grade provided by ALS is comprised of Gold recovered on carbon Au combined with the weighted average residue value. Table 3 and 4 below show gold calculation and the size fraction breakdown.

COLUMN LEACH TESTWORK: TEST CONDITIONS *					
Test No.	Composite ID	Crush Size (mm)	NaCN (%)	Days	PLS: Ore (m <sup>3</sup> /t)
IM1871	<b>Master Composite #2</b>	<6.3	0.050	69	3.16

\* Un-agglomerated material

COLUMN LEACH TESTWORK: SUMMARY OF RESULTS (GOLD)										
Test No.	Composite ID	Crush Size (mm)	Head Au Grade (g/t)			Au Extraction		Consumption (kg/t)		
			Assayed	Calc'd	Residue	g/t	%	NaCN	Lime	Cement
IM1871	<b>Master Composite #2</b>	<6.3	0.53	1.26	0.43	0.85	66.3	0.79	0.20	0

Note: Gold extraction based on solution assay & final residues

COLUMN LEACH TESTWORK: SUMMARY OF RESULTS (SILVER)										
Test No.	Composite ID	Crush Size (mm)	Head Ag Grade (g/t)			Ag Extraction		Consumption (kg/t)		
			Assayed	Calc'd	NaCN	Lime	Cement	NaCN	Lime	Cement
IM1871	<b>Master Composite #2</b>	<6.3	<2	2	0.8	1.04	56.2	0.79	0.20	0

Note: Silver extraction based on solution assay & final residues

**Table 2: Yidby Gold Leach Results: Au, Ag, Cu assay results- ALS Metallurgy Malaga**

The data also suggests a finer crush to 4mm or 5.0mm will provide a significant boost to the column leach gold recovery. ALS have recommended that a finer crush will provide better gold recovery.

A24281 - YIDBY HEAP LEACHING TESTWORK										
MASTER COMPOSITE # 2 - HEAD SAMPLE										
SUREFIRE RESOURCES										
SIZE BY SIZE ANALYSIS										
Operation	Size (µm)	Weight (g)	Weight (%)	Weight % <	Gold		Silver		Copper	
					(g/t)	Distribution (%)	(g/t)	Distribution (%)	(g/t)	Distribution (%)
Screening	5600	515.5	13.26	86.74	0.36	7.70	1	8.12	36	8.18
	4750	513.9	13.22	73.52	0.38	8.00	1	4.05	42	9.51
	4000	541.7	13.93	59.59	1.15	25.75	2	17.07	53	12.65
	2800	692.3	17.81	41.78	0.24	6.75	1	5.45	45	13.73
	2000	419.7	10.80	30.98	0.41	7.06	1	6.61	90	16.65
	1400	285.0	7.33	23.65	0.18	2.07	2	8.98	45	5.65
	710	315.0	8.10	15.55	0.61	7.91	3	14.89	56	7.77
	500	104.0	2.68	12.87	0.52	2.25	2	3.28	59	2.70
	-500	500.4	12.87		1.57	32.51	4	31.54	105	23.15
	Total		3887.5	100.00			100.00		100.00	
Calc'd Grade					<b>0.62</b>		<b>2</b>		<b>58</b>	
Assay Grade					<b>0.35 / 1.02 / 0.62 / 0.12</b>		<b>&lt;2</b>		<b>44</b>	
Calculated P80: <b>5167</b> µm							Below detection limit			

**Table 3 : Yidby Gold, pre-leach HEAD SAMPLE Au, Ag, Cu size fraction assaying results**

### The Gold Recovery Curve

Gold recovery of 66.3% @ 100% passing 6.3mm is an excellent result. The column leach recovered 66.3% of the available gold within 69 days, and importantly, the leach recovery had not concluded: After day 69, appreciable extraction of gold was continuing, (see Figure 3 the gold extraction curve ). If extraction was completed, the recovery line would present as horizontal.

Before leaching, a crushed sub-set was taken from the 80kg of diamond core allotted to the leach test work, to provide a calculated (predicted) grade for the leach test. The pre-leach sub-set provided a predicted head grade of 0.53g/t Au as shown in the table below. This technique is standard within the industry.

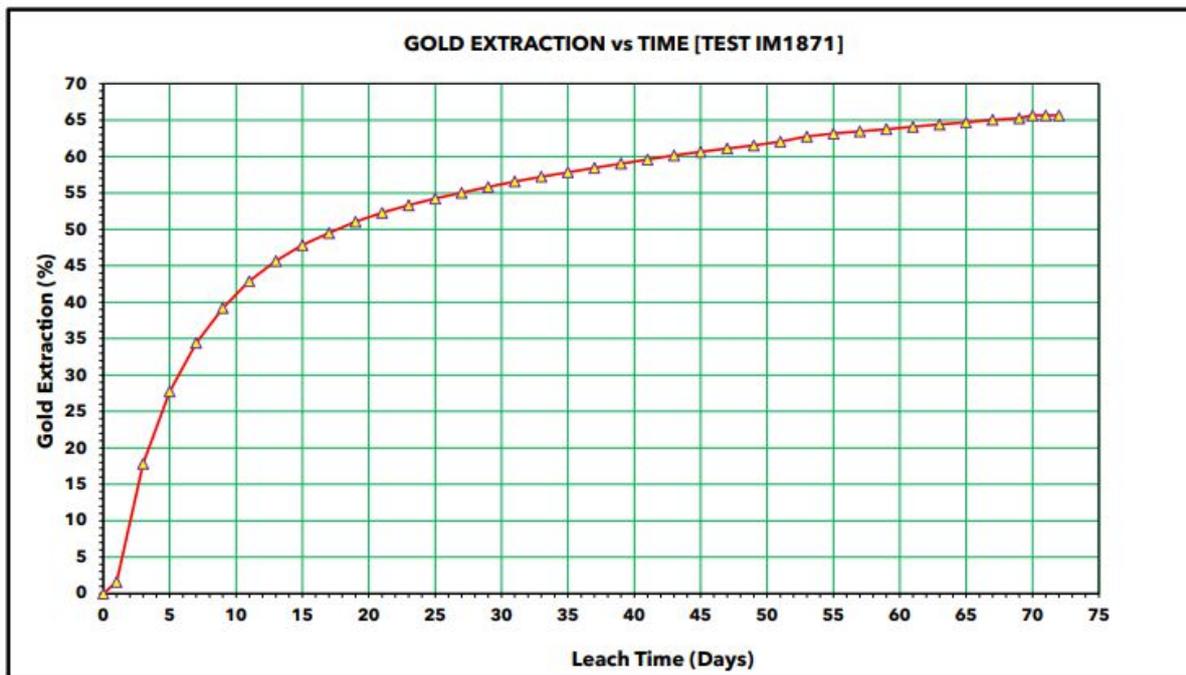


Figure 3: Gold Extraction Vs Time – Yidby Gold Project Column Leach Test 100% passing 6.3mm – not agglomerated

Authorised for ASX release by:

Paul Burton  
Managing Director

**Competent Person Statement:**

*The information in this report that relates to exploration results has been reviewed, compiled, and fairly represented by Mr Horst Prumm, a Member of the Australian Institute of Mining and Metallurgy ('AusIMM') a Member of the Australian Institute of Geoscientists and a fulltime employee of X2M (Exploration to Mining). Mr Prumm has sufficient experience relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Prumm consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

**Forward Looking Statements:**

*This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking information.*

**New Information:**

*Surefire confirms that it is not aware of any new information or data that materially affects the information included previous market announcements and, in the case of Mineral Resources, all material assumptions and technical parameters underpinning the estimates in the relevant announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.*

**JORC Code, 2012 Edition:**

**Section 1: Sampling Techniques and Data**

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

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Reverse Circulation drilling was used to obtain the 1m samples from the splitter on the cyclone.</li> <li>Spearing was used to create the (approximately 20kg in size) composite samples for Metallurgical test work. The composites were created from 3 to 4 holes per sample using 3 to 10 X 1m intervals per hole, representing various mineralisation styles.</li> <li>Diamond drilling was used to provide approximately 5% of drilling intersections for structural analysis and metallurgical test work.</li> <li>Core was sawn by ALS in Wangara Perth WA. The NQ2 sized core was quartered and assayed by ASL Wangara Perth WA.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>Reverse Circulation drilling was completed using a face sampling hammer.</li> <li>Diamond Drilling was completed using NQ2 sized diamond core</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>RC drilling samples were bagged in large green bags at 1m intervals. An estimate of sample recovery has been made on the size of each sample.</li> <li>To obtain 1m sample splits for assay, the cyclone is shut off when collecting the sample and released to the sample bags at the completion of each metre to ensure no cross contamination. If necessary, the cyclone is flushed out if sticky clays are encountered.</li> <li>Diamond drilling samples were placed into a sealed core tray and transported to Perth for analysis by a company representative. Some sample recovery issues were noted at the base of the RC pre-collars however the sample recovery within the mineralised sections was generally close to 100%.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>Geological logging was conducted per 1m sample with lithologies, and weathering zones being documented throughout.</li> <li>Representative samples from the “green bags” are sieved and in fresh rock, washed, and placed in chip trays for each hole.</li> <li>Diamond core was inspected onsite and structurally and lithologically logged by CSA Global in the Wangara ASL compound, Perth.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>Control crush feed material to &lt; 3.35mm and homogenise / split suitable representative 1.0kg sub-samples for test work</li> <li>Comprehensive head analysis on 1x 500g split, including Au(x2), Ag(LDL), As, C total, C organic, S total, S sulphide, Hg, Mo, Sb, Te, W, ICP Scan</li> <li>Grind establishment on 3x 1.0kg sub samples to P80 75µm</li> <li>Gravity separation in Knelson concentrator, with approx. 80g gravity concentrate amalgamated with mercury to recover free gravity gold particles</li> <li>The amalgam tail is then recombined with the Knelson tail and the whole sample is bottle roll leached. General leach conditions are as follows: 1000g solids, 40% solids with Perth tap water, pH 10.5 – maintain pH &gt; 9.8, 0.10% (1000ppm) start NaCN – maintain &gt; 0.05% (500ppm) NaCN, Oxygen sparge, monitor pH, DO, % NaCN, leach duration of 48hrs and intermediate and final sampling points at 2, 4, 8, 12, 24 &amp; 48hrs.</li> <li>Column leach test work was conducted by ALS Wangara and was supervised by Irene Madamombe.</li> </ul>

Criteria	Commentary
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>Assays and test work conducted at ALS Laboratories in Perth, a NATA-accredited laboratory.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>Not applicable to this program</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>Drill hole details in Figure 2 within the text.</li> <li>Grid system MGA 2020, Zone 50</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>Metallurgical composite samples created from drill holes spaced across the Yidby Gold Project, representing various styles of mineralisation.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>At this stage of exploration, we are not sure whether the drilling orientation is perpendicular to the mineralisation.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>Samples transported by Company personnel direct to the Laboratory as soon as possible after drilling.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>Data has been reviewed by company personnel.</li> </ul>

## Section 2: Reporting of Exploration Results

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

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>Located 320km northeast of Perth in the Mid-West region of Western Australia.</li> <li>E 59/2390 is a granted tenement with a 100% interest acquired by Surefire Resources NL under a sale agreement from the tenement holder Beau Resources Pty Ltd.</li> <li>A 2% Royalty on Gold production is payable to Beau Resources Pty Ltd.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Previous exploration work has been completed by Normandy and Monarch Gold. Normandy work included air-core drilling and limited RC drilling, including at the Yidby Gold Prospect. Drilling intersections in easterly oriented drilling were followed up by Surefire using westerly oriented holes and the Normandy drilling was shown to be drilled in the wrong orientation for the easterly dipping mineralised structures.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Gold mineralisation at the project is orogenic, hosted within quartz veining with minor sulphides in ultramafic/mafic lithologies and felsic porphyry intrusions.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>Northing, easting, and RL data generally within 0.1m accuracy with surveys.</li> <li>Location of previous Drillholes based on historical reports and data, originally located on surveyed sites, and either GPS or DGPS.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>Data is not composited; results are reported for whole composites.</li> </ul>

Criteria	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• Orientation of mineralised zones are still to be determined in detail. All intercepts reported are downhole depths.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• Drillhole locations and interpreted mineralisation outline are shown in Figures in the body of the release.</li> <li>• A cross section is not shown because composites were created from multiple holes in different areas.</li> <li>• Hole statistics are shown in Table 2.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• Full results are shown in Tables of the release.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• Not applicable to the testwork program.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• Follow up drilling is planned. A comprehensive testwork program will be required in future to advance the project towards development.</li> </ul>