



## **RC DRILLING UNDERWAY AT YIDBY GOLD PROJECT**

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### **Highlights**

- 5,500m of RC drilling commenced at Surefire's 100% owned Yidby Gold project.
- Drilling to target extensions of the known gold mineralisation at Yidby expanding the resource footprint.
- High priority targets at the Fender and Marshall prospects also to be drill tested.
- The extensive geochemical gold anomaly at the "Money" target will also be drill tested for the first time.
- Diamond drilling to acquire a bulk sample of ore grade material for further metallurgical test work to support a scoping study will be undertaken once the RC program is completed.

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Surefire Resources NL (ASX: SRN) ("Surefire" or "the Company") is pleased to advise that a 5,500m Reverse Circulation (RC) drilling programme is underway at its 100% owned Yidby Gold Project in the southern Murchison region of Western Australia (see Figure 1).

The 42 drill-hole programme has been designed to specifically test high priority targets based on the following:

- Extensions and infill to the gold zones at Yidby.
- Along strike extensions of previous wide intercepts at the Marshall and Fender prospects.
- New targets in structural interpretation from magnetic and gravity data, supported by BoxScan.
- A robust surface geochemical zone at the Money Anomaly, 1.5km south of Yidby.
- Confirm areas for future diamond drilling to acquire samples for metallurgical work to support the planned Scoping Study.

**Management Comment:** Mr Paul Burton, Managing Director said *"We are excited to be back drilling at Yidby with a well-defined, data driven campaign while gold prices remain at unprecedented high values. This solid RC programme is significant as it will enable Surefire to initiate a Scoping Study for mining and gold recovery to unlock the economic value of this area for our shareholders."*

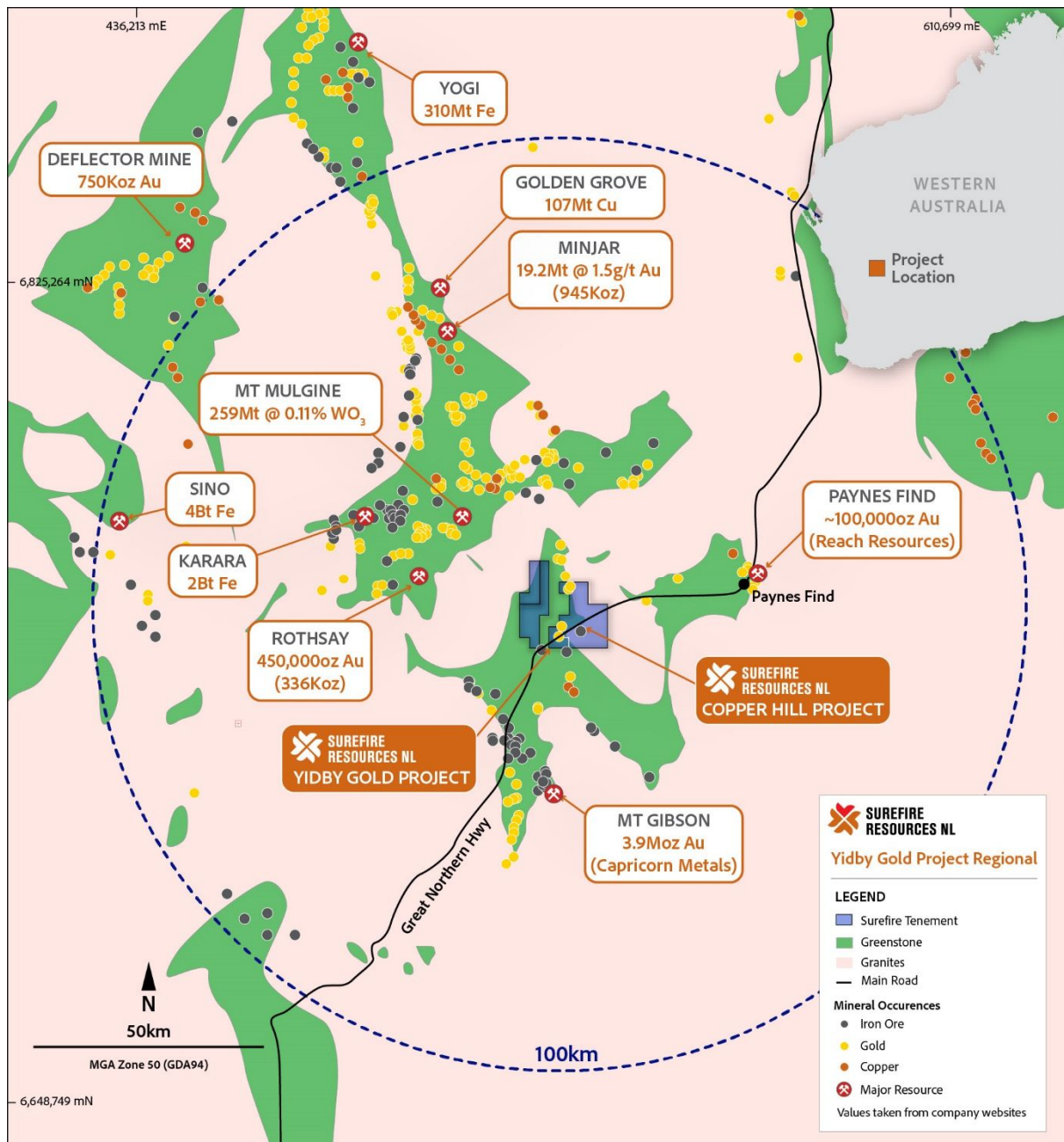
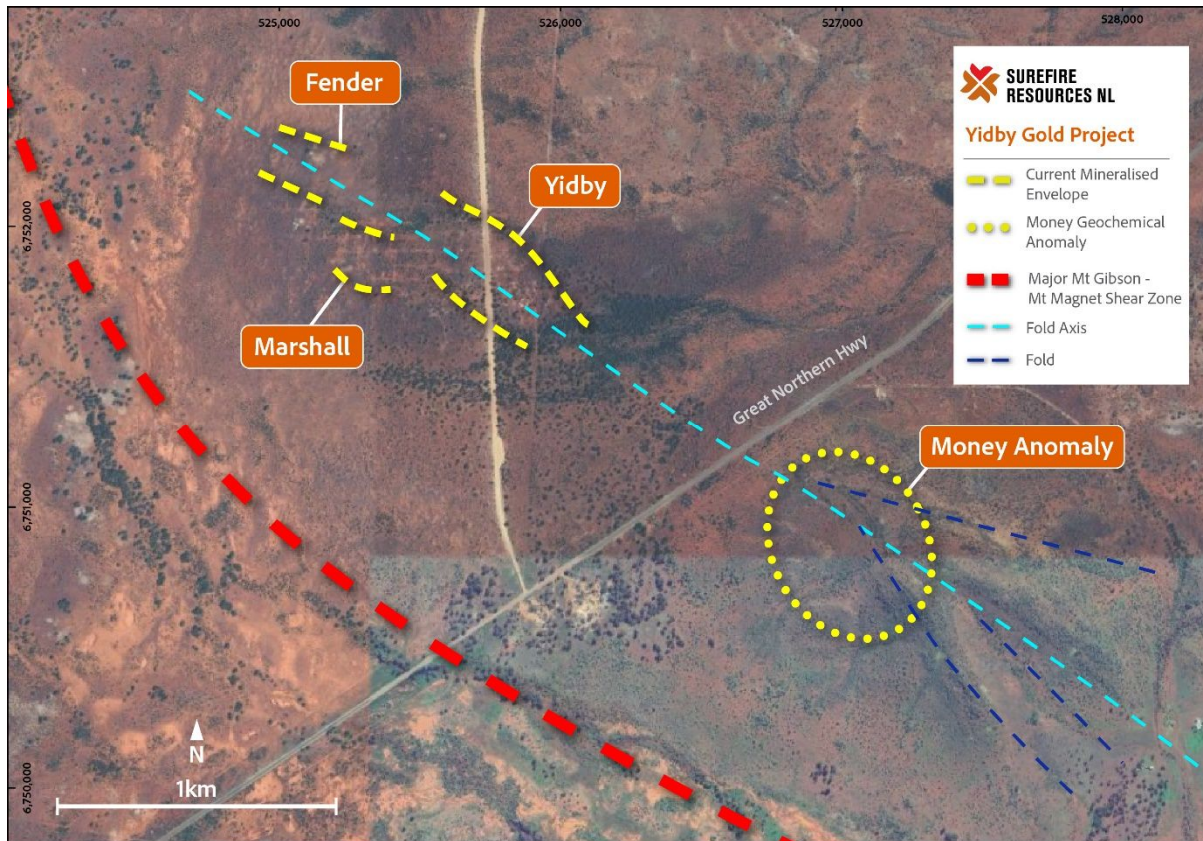


Figure 1: Location of the 100% owned Yidby Gold Project in a highly mineralised greenstone belt

## Drill targets

The current drill programme will focus on the following prospects within the Yidby Gold system; **Fender**, **Marshall**, **Yidby** and the **Money Anomaly** (see Figure 2).

Fender, Marshall and Yidby have been the focus of previous drilling intersecting broad widths and bonanza grades which is a feature of the Yidby gold system. Significant assay results are tabulated in Appendix 1.



**Figure 2: Location of prospects and anomalies at the Yidby Gold project.**

### Yidby Prospect

Yidby is located within a north-westerly trending shear in an ultramafic lithology that has been intruded by narrow NS trending felsic porphyries.

A recognisable feature of the Yidby road gold mineralisation is wide gold mineralised drilling intersections of high tenor gold grades, such as **YBRC019 10m @ 10.10 g/t Au including 1m @ 82.5g/t Au from 150m** (refer ASX announcement 5 June 2021).

The Gold zone at Yidby now extends for over 900m of strike length and remains open along strike and at depth. The Company considers there is scope for a larger gold system at depth, with more intensely developed high grade zones within the overall shear – porphyry system as seen at the Mt Gibson 3.9Moz deposit 30km to the south of Yidby.

Recent modelling of previous drill data utilising BoxScan processing of drill chip data, has confirmed the presence of a sequence of tightly folded stratigraphy and regional shear zones — key controls on mineralisation in the Yidby area.

Both coarse and fine gold has been identified to date at Yidby from metallurgical test work, leading the Company to consider underreporting of previous gold grades may have occurred (see ASX announcement 18 March 2024). During this current programme the Company will accurately establish this by Screen Fire Assay of selected samples at ALS Laboratories.



## Fender Prospect

The Fender prospect features wide continuous gold mineralisation associated with arsenopyrite on the chilled margin of multiple, wide, north – south striking subvertical quartzose feldspathic porphyry intrusives.

Gold mineralisation at Fender is open at depth and to the north. Additional drilling is planned to the north where targeting has identified a likely extension.

Fender consists of a thick intercept of mineralisation associated with a possible porphyry intrusive eg **YBRC069 20m@ 0.4g/t & 32m@0.32** (refer ASX announcement 3 August 2022). A continuation and fold closure of a gravity low, coincident with a magnetic low defines this target.

## Marshal Prospect

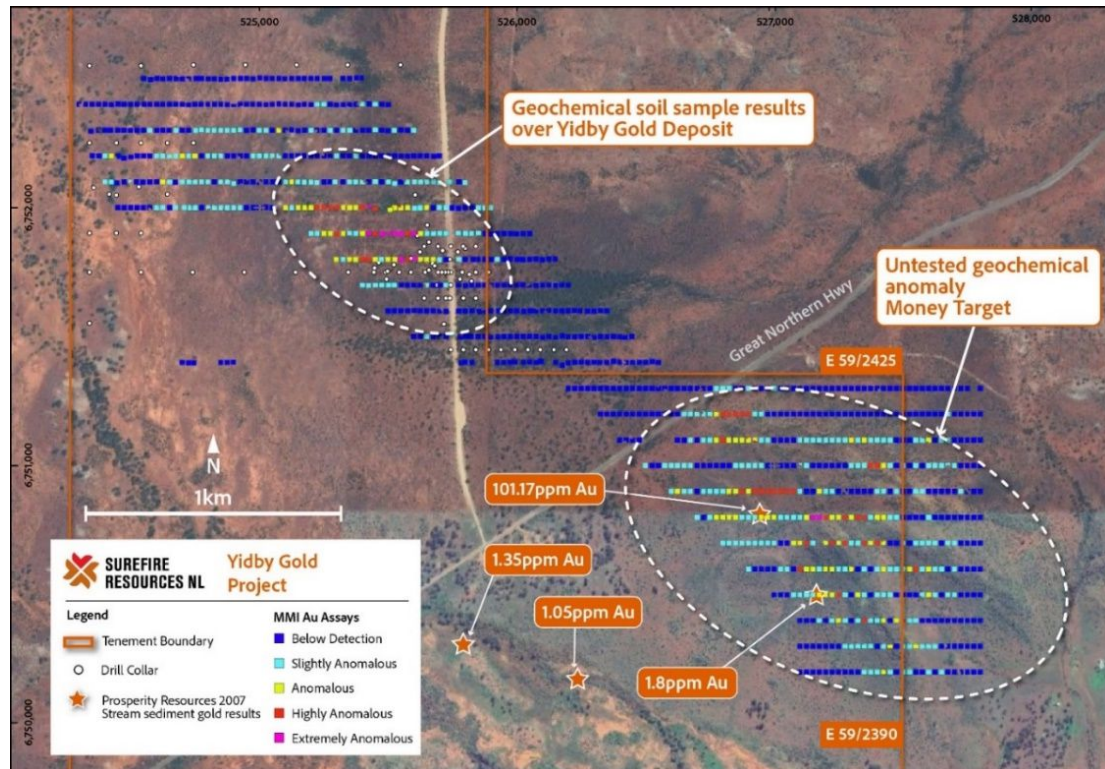
The Marshall Prospect is a gold mineralised zone, parallel to, and located approximately 150m to the west of the Yidby deposit remains open at depth and along strike. The Central gold mineralisation is hosted within a foliated to schistose mafic to ultra-mafic featuring localised quartz felsic porphyries and quartz lodes.

The gold mineralisation within the discovery hole, YBRC059, is the same as the gold intersections from within the Yidby prospect. Discovery hole YBRC059 displays a wide gold mineralised zone, **60m @1.04g/t Au, including 4m @10.40g/t within a quartz lode** (refer ASX announcement 4 August 2022). New drill holes are planned to explore extensions to the north.

## Money Anomaly

A major extension of the Yidby mineralisation is postulated to the south east where ground geochemistry had identified this area in the past<sup>1</sup> (Figure 3). Recent reinterpretation, using a Company developed novel magnetic and gravity interpretation methodology, has highlighted an area with a flexure along a magnetic break and recognised as a potential dilation zone. This zone is coincident with anomalous gold soil geochemistry and a priority drill target.

<sup>1</sup> ASX:SRN “Large 1000m X 250m Au MMI Soil Anomaly Defined at Yidby Gold Project”, 6 Sept, 2021



**Figure 3: Money anomaly showing location and scale compared to soil results over Yidby.**

### Structural Interpretation

The Yidby gold system is located in a highly mineralised greenstone belt that hosts multi-million ounce gold deposits and numerous gold prospects. Mineralisation at Yidby occurs within a favourable structural framework along the Mt Gibson to Mt Magnet dominant shear zone, with a folded and sheared greenstone and quartz porphyry sequence evident.

The gold mineralisation at Yidby has the following significant features:

1. Located within a folded greenstone sequence within granite basement, adjacent to a regional shear zone – a feature analogous to most Yilgarn gold deposit settings.
2. The shear zone is extensive and part of the major Mt Gibson to Mt Magnet shear zone.
3. The folding is apparent in detailed Airborne magnetics showing broad and tight fold closures, with a high degree of fracturing, faulting and mafic intrusions.
4. Gold mineralisation appears associated with demagnetised areas in fold limbs and fold axes, adjacent to the main shear zone.

The coincidence of gold on fold limbs and axes within demagnetised zones adjacent to a major shearing indicates the potential for repeating zones of mineralisation and identified new targets which have been incorporated into the current drill programme.

## Scoping Study

Results from this current drill programme combined with previous drill assays will be used to model the gold mineralisation to support a Scoping Study at the earliest opportunity.

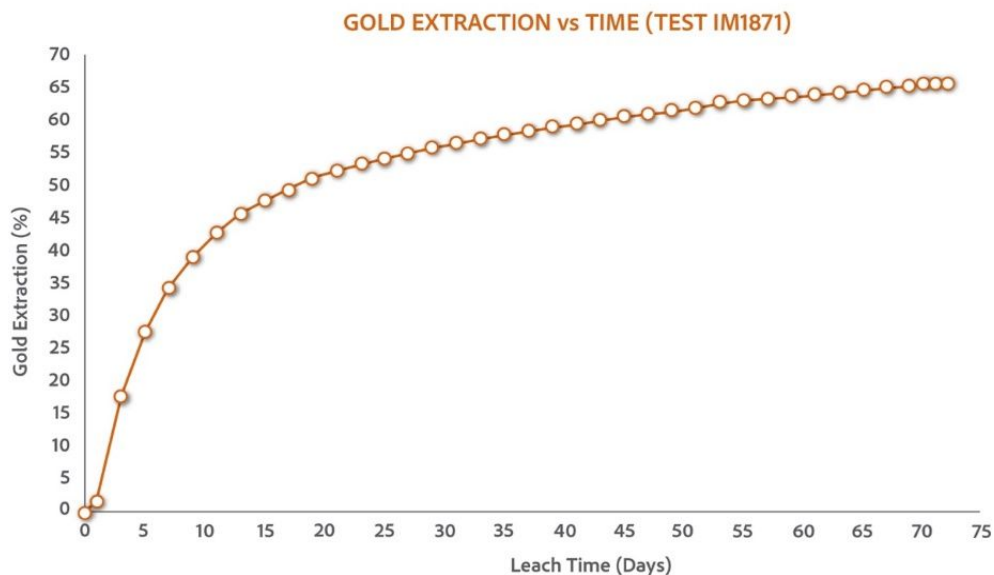
The Scoping Study will also be supported by the excellent results received from metallurgical test work to date<sup>2,3</sup>. This work showed that Yidby gold mineralisation returned exceptional gold recoveries from gravity and column leach test results. Recoveries of between 97.6% and 99.5% were achieved with a cyanide leach. Simple gravity separation 43.2% to 67.0% recoveries (Table 1).

**Table 1: Gravity and cyanide leach results on 75 micron material.**

Composite	Head Au Grade (g/t)		Au Extraction (%)						Tail Au Grade (g/t)	Reagents (kg/t)	
	Assay	Calc.	Gravity	2-hr	4-hr	8-hr	24-hr	48-hr		NaCN	Lime
1	0.87	1.06	50.91	91.93	95.40	97.45	97.45	98.11	0.02	0.37	2.60
2	2.58	2.45	43.26	92.23	94.33	95.81	97.27	97.55	0.06	0.51	0.63
3	14.2	12.5	66.97	96.46	96.81	97.98	98.55	99.56	0.06	0.40	0.50

## VAT Leach test work

Test work including assessing a coarse crush size of 100% passing 6.3mm for VAT leach testing. A 66.3% gold recovery on a was achieved over the 69-day programme with additional gold extraction continuing with time (see Figure 4).



**Figure 4: Column leach extraction results for Yidby gold samples.**

In addition, the test work indicated a 68% increase in the samples' gold content compared to the original assay results. The implication is that, for the samples used, the drilling results significantly

<sup>2</sup> ASX:SRN "Outstanding Metallurgical Results", 16 Nov, 2022

<sup>3</sup> ASX:SRN "Metallurgical Testwork Provides Excellent Gold Recovery Results", 18 March, 2024

underestimated the quantity of gold hosted within the mineralised lithologies at the Yidby Gold Project (see ASX announcement 18 March 2024). The Company plans additional VAT Column leach testing to validate previous sample results plus also a programme of Screen Fire Assay to accurately assess the coarse gold and previous under reporting.

**Authorised for release to ASX by Paul Burton, Managing Director.**

**Inquiries: Paul Burton Managing Director +61 8 6331 6330**

**Competent Person Statement:**

*The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr Edd Prumm, a Member of the Australian Institute of Mining and Metallurgy ('AusIMM') 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 Competent Persons 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 or Data:**

*SRN 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, which 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.*

## Appendix I: Significant Assay Results. YIDBY GOLD PROJECT

Hole_ID	x	y	Depth	From	To	(m)	Au g/t
YBRC001	525720	6751745	160	117	126	9	0.32
YBRC004	525705.6	6751836	78	24	32	8	0.79
YBRC005	525782.4	6751778	72	36	67	<b>25</b>	<b>1.41</b>
YBRC006	525828.3	6751734	78	32	68	<b>36</b>	<b>1.44</b>
incl				57	58	<b>1</b>	<b>17.86</b>
YBRC007	525766.1	6751837	111	44	97	<b>38</b>	<b>2.02</b>
incl				68	72	<b>4</b>	<b>13.96</b>
YBRC008	525827.3	6751751	129	12	25	13	0.68
				30	46	16	0.51
				51	62	<b>11</b>	<b>2.46</b>
incl				53	54	<b>1</b>	<b>24.16</b>
YBRC009	525858.6	6751744	102	50	69	<b>19</b>	<b>1.24</b>
YBRC010	525813.8	6751782	90	71	80	<b>9</b>	<b>1.03</b>
YBRC013	525778.5	6751809	138	42	48	6	0.35
				84	88	<b>4</b>	<b>4.37</b>
incl				84	85	<b>1</b>	<b>15.19</b>
				100	105	<b>5</b>	<b>1.71</b>
YBRC015	525762.8	6751879	150	58	63	5	0.56
				110	119	9	0.48
YBRC016	525723.7	6751839	90	18	41	23	0.65
YBRC017	525791.6	6751879	198	110	137	<b>27</b>	<b>1.39</b>
incl				113	114	<b>1</b>	<b>28.06</b>
				158	187	29	0.62
				192	198	6	0.27
YBRC019	525804.4	6751839	198	149	159	<b>10</b>	<b>10.10</b>
incl				150	152	<b>1</b>	<b>82.5</b>
				168	182	<b>14</b>	<b>1.44</b>
YBRC023	525808.8	6751811	192	157	170	13	0.49
YBRC025	525886.8	6751754	222	35	40	5	0.16
YBRC026	525839.4	6751781	186	131	143	12	0.33
				159	178	<b>19</b>	<b>1.07</b>
YBRC034	525802	6751754	114	23	26	3	0.54
YBRC035	525853.5	6751754	168	16	23	7	0.19
				126	154	<b>28</b>	<b>1.82</b>
incl				141	142	<b>1</b>	<b>16.96</b>
YBRC036	525916.6	6751754	246	34	44	10	0.54
				74	89	15	0.35
				130	134	4	0.50
				188	194	6	0.28
				212	226	14	0.59
YBRC037	525868.9	6751724	194	28	73	44	0.95
				78	86	8	0.23
YBRC041	525811.2	6751880	257	234	250	<b>16</b>	<b>1.18</b>
YBRC045	525890.2	6751724	100	32	58	25	0.64



Hole_ID	x	y	Depth	From	To	(m)	Au g/t
				65	72	<b>7</b>	<b>1.65</b>
				78	86	<b>8</b>	<b>5.60</b>
<b>incl</b>				78	79	<b>1</b>	<b>39.92</b>
<b>YBRC046</b>	525769.3	6751772	90	23	44	21	0.88
				145	176	31	0.33
<b>YBRC053</b>	525669.6	6751698	76	14	25	<b>11</b>	<b>1.05</b>
<b>YBRC059</b>	525496.9	6751900	100	32	92	<b>60</b>	<b>1.04</b>
<b>incl</b>				72	76	<b>4</b>	<b>10.4</b>
<b>YBRC075</b>	525918.5	6751779	168	24	44	20	0.20
<b>YBRC077</b>	525784.5	6751837	155	96	102	6	0.37
				105	109	4	0.48
				118	122	<b>13</b>	<b>2.46</b>
<b>incl</b>				119	120	<b>1</b>	<b>29.28</b>
<b>YBRC078</b>	525705.3	6751731	100	10	15	5	0.36
<b>YBRC080</b>	525613	6751831	288	96	107	11	0.66
<b>YDD001</b>	525296.2	6751951	85	11	21	10	0.58
<b>YDD002</b>	525500.4	6751901	101	40	45	<b>5</b>	<b>1.00</b>
				50	65	15	0.47
				78	81	<b>3</b>	<b>5.79</b>
<b>incl</b>				79	80	<b>1</b>	<b>16.50</b>
				86	90	<b>4</b>	<b>1.32</b>
<b>YDD003</b>	525665.7	6751693	85.8	18	20	<b>2</b>	<b>2.70</b>
<b>YDD004</b>	525800.7	6751839	200	151	172	<b>21</b>	<b>1.96</b>
<b>YDD005</b>	525848.2	6751765	130	77	87	<b>10</b>	<b>2.80</b>
<b>incl</b>				83	84	<b>1</b>	<b>25.20</b>

## JORC Code, 2012 Edition:

### Section 1: Sampling Techniques and Data

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

Criteria	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Reverse Circulation drilling was used to obtain 1m samples weighing approximately 3kg from the splitter on the cyclone and submitted to the laboratory (Nagrom laboratories). Preliminary 4m speared composites are used to define 1m sampling zones for the submission to the laboratory.</li> <li>The entire sample was crushed to -2mm then either riffle-split then pulverised to 95% passing 75 micron to produce a 50g charge for Fire Assay gold (Au) analysis.</li> <li>Selected samples in zones of lower prospectivity were composited to 4m after the crushing stage at the lab before 50g charge Fire Assay analysis. Where grades of &gt;0.1 g/t Au are returned for the composite the individual 1m samples are assayed for that zone.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Reverse Circulation drilling was completed using a face sampling hammer.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>RC drilling was bagged on 1m intervals and an estimate of sample recovery has been made on the size of each sample.</li> <li>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>Samples were weighed at the laboratory to allow comparative analysis. 4m speared composites are used to define 1m sampling zones for the submission to the laboratory Preliminary 4m speared composites are used to define 1m sampling zones for the submission to the laboratory.</li> </ul>
<b>Logging</b>	<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> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>Not applicable to this announcement</li> <li>Every 1m RC interval was sampled as a dry primary sample in a calico bag off the cyclone/splitter.</li> <li>Drill sample preparation and analysis carried out at registered laboratory (Nagrom Laboratories). Sample preparation is dry pulverisation to 95% passing 75 microns.</li> <li>Field sample procedures involve the insertion of registered Standards and duplicates generally every 25m and offset.</li> <li>Sampling is carried out using standard protocols as per industry practice.</li> <li>Sample sizes range typically from 2 to 3kg and are deemed appropriate to provide an accurate indication of gold mineralisation.</li> <li>Preliminary 4m speared composites samples, used to define 1m sampling zones for the submission to the laboratory, are 2 to 3kg in weight and derived from the main sample bulk using a spear method.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>Gold assays at Nagrom and ALS Laboratories in Perth, WA, using a 50g charge for Fire Assay gold (Au) total analysis.</li> <li>Selected samples in zones of lower prospectivity were composited to 4m after the crushing stage at the lab before 50g charge Fire Assay analysis. Where grades of &gt;0.1 g/t Au are returned for the composite the individual 1m samples are assayed for that zone.</li> <li>Field sample procedures involve the insertion of registered Standards and duplicates generally every 25m and offset. Standards and duplicate assays are also completed at the Lab.</li> </ul>

Criteria	Commentary
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>Selected intersections have been calculated at various cut-off grades, including a 0.1g/t minimum cut-off for the “mineralised envelope” and including “economic” cut-off grades applicable to the significant intersections (e.g. 0.3 g/t Au, 1.0 g/t Au). Where internal waste is included, the included zone must average above the stated cut-off grade to be across the added interval.</li> <li>Geological and sample data was entered into spreadsheets on site and stored on the Company’s database.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Siting of planned drillholes was completed using a DGPS and adjusted with hand-held GPS where necessary. Final collar locations will be surveyed using DGPS, which will also provide topographic data.</li> <li>Grid system MGA 2020, Zone 50.</li> <li>Downhole surveys have been completed while drilling on recent deeper holes using a REFLEX Gyro Tool. Open hole surveys will be completed on all previous and current holes not yet surveyed, subject to blockages downhole.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Sample data down hole for future resource estimation will be at no more than 1m intervals (with selected intervals composited at the lab).</li> <li>Data spacing in terms of pierce points varies from 25m to 100m from previous intersections. Assessment as to whether sufficient data has been generated to establish the degree of geological and grade continuity appropriate for (JORC 2012) Mineral Resource estimation procedure(s) is underway and, if necessary, additional drilling will be carried out to establish continuity.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Drilling orientation is designed to test the mineralisation at as close as possible to orthogonal to the mineralisation, therefore not biasing the sampling or intersection lengths.</li> <li>All intersections are downhole widths with the true widths not determined at this early stage of exploration.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>Samples transported by Company personnel direct to the Laboratory as soon as possible after drilling.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>A full review of QAQC data will be completed once all results received.</li> </ul>

## Section 2: Reporting of Exploration Results

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

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Located 320km northeast of Perth in the mid-west region of Western Australia.</li> <li>E 52/2390 and E52 /2426 are granted tenements 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>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Previous exploration work has been completed by Normandy and Monarch Gold. Normandy work included aircore 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>
<b>Geology</b>	<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>

<b>Criteria</b>	<b>Commentary</b>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• Northing and easting data generally within 5m accuracy using a GPS – with DGPS location planned.</li> <li>• RL data +/-2m</li> <li>• Location of new drillholes based on surveyed sites, and DGPS.</li> <li>• Location of previous Drillholes based on historical reports and data, originally located on surveyed sites, and DGPS.</li> <li>• Final Northing and Easting data of the Company's drillholes determined using DGPS generally within 0.1m accuracy. RL data +/- 0.2m. Down hole length +/- 0.1 m.</li> <li>• Location of new drillholes are tabulated in the body of the release. Coordinates are estimated based on planned positions and will be updated when DGPS data available.</li> <li>• Locational data are generally within 5m accuracy using a GPS – with DGPS location planned down hole length +/- 0.2m. previous drillhole locations.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• Selected intersections have been calculated at various cut-off grades as shown in Table 1, including a 0.1g/t minimum cut-off for the "mineralised envelope" and including "economic" cut-off grades applicable to the significant intersections (e.g. 0.3 g/t Au, 1.0 g/t Au). Where internal waste is included, the included zone must average above the stated cut-off grade to be across the added interval.</li> <li>• No cutting of high-grades has been carried out.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<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>
<b>Diagrams</b>	<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>• Appropriate cross sections are shown in the body of the release.</li> <li>• Tabulations of hole statistics are shown in the body of the release.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• Tabulations of hole statistics are shown in the body of the release.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• A plan of the drilling locations for the new assay results received has been included in the report.</li> <li>• No new exploration data has been generated apart from the drilling geochemical and geophysical information included in this report.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• Follow up drilling will be planned once all results are received.</li> </ul>