
10 April 2024

New Sorowar – Pigiput Mineralised Zone Confirmed by Latest Diamond Drilling Assays

Highlights

- Assays received for resource definition drill holes SDH531, 533 and 534 further defines new broad mineralisation along the targeted northwest trend between the existing Sorowar and Pigiput ore bodies and outside any current Inferred Resource area (this new mineralisation trend was first reported in SDH525 – refer ASX release on 4 March 2024 titled “New Mineralisation Intersected at Simberi”):
 - SDH531: 56 m @ 2.9 g/t Au from 103 m, including 28 m @ 4.7 g/t Au from 103 m;
 - SDH533: 45 m @ 2.2 g/t Au from 0 m, including 10 m @ 5.1 g/t Au from 26 m; and
 - SDH534: 14 m @ 2.2 g/t Au from 122 m including 6 m @ 4.0 g/t Au from 128 m, 16 m @ 2.0 g/t Au from 184 m, including 5 m @ 5.0 g/t Au from 188 m.
- Assays received for five other resource definition diamond drill holes of the 32-hole, 7,200 metre program (refer ASX release on 23 January 2024 titled “Simberi Resource Definition Drilling Update”) include:
 - SDH530: 50 m @ 1.7 g/t Au from 76 m, including 29 m @ 2.4 g/t Au from 77 m;
 - SDH537: 24 m @ 2.1 g/t Au from 90 m, including 3 m @ 12.2 g/t Au from 102 m.
- Assay results for all 15 resource definition drill holes at the Sorowar – Pigiput Trend have now been received, with results for eight holes (SDH526, 529 to 531, 533 to 534 and 537 to 538) returned in March. These results will be included in the upcoming Mineral Resource and Ore Reserve update at the end of Q4 June FY24.
- Four exploration diamond drill holes for 1,341.5 metres were completed in March testing the northwest striking, moderate southwest dipping Sorowar – Pigiput trend over a 400 metre long strike extent and up to 100 metres down dip from the current Inferred Resource limits.
- Exploration hole SDH542 intersected mineralisation between 80 m and 165 m similar to that observed in holes SDH525, 533 and 534 that all returned significant intercepts (described in ASX release on 4 March 2024 titled “New Mineralisation Intersected at Simberi”). Assay results are anticipated in early May 2024.

St Barbara Limited (“**St Barbara**” or the “**Company**”) (ASX: SBM) is pleased to announce that all assay results have now been returned for the resource definition drilling of the Sorowar – Pigiput Trend portion of the 24 hole, 4,700 metre diamond drill program at the Simberi Operations in Papua New Guinea (PNG). Assays results have now been received for all 15 of the resource definition diamond drill holes to be incorporated in the upcoming Mineral Resource and Ore Reserve update at the end of Q4.

Managing Director and CEO Andrew Strelein said “*This is the first sulphide focused diamond drilling program at Simberi since 2011, apart from an RC drill program conducted at Sorowar only in 2019. We are very encouraged by the results so far. The gold price for Ore Reserve definition back in 2012 was just A\$1,250 per ounce and many areas were unable to be drilled at that time because of difficult topography. We are getting positive results by applying more than 10 years of improvement in geological knowledge and targeting insufficiently drilled areas from drill pad locations now available because of more than 10 years of oxide mining.*”



“Hole SDH531 included 56 metres at 2.9 g/t Au from just 103 metres including 28 metres at 4.7 g/t Au. It is another broad intercept in the new mineralisation zone between Sorowar and Pigiput pits, but outside any current Mineral Resource. Hole SDH533, located in the valley and the southeasternmost of the holes drilled so far, has only recently been accessible for drilling after oxide mining progress in Sorowar pit and included 45 metres at 2.2 g/t Au from surface.”

“The prioritised follow-up exploration holes to test the extension along an interpreted potential 400 metre strike length have now been completed and we look forward to receiving the assay results.”

21 resource definition drill holes have been completed for 4,225.6 metres including all 15 Sorowar – Pigiput holes and six Pigibo holes.

Four exploration drill holes have been completed for 1,341.5 metres at Sorowar – Pigiput testing for new mineralisation located down dip of current Inferred Resources. These holes were prioritised due to the encouraging assay results from drill hole SDH525 also located outside the current Inferred Resource.

Assay results for all 15 Sorowar – Pigiput resource definition diamond drill holes completed including the eight new holes are set out below in Table 1.

Figure 1 below shows the location of the respective open pits on the main mining lease (ML 136) and Figure 2 shows the locations of the planned and completed diamond drill holes including resource definition, exploration and metallurgical sample holes.

Significant assays for the eight new resource definition diamond holes included:

- **SDH526: 63 m @ 0.8 g/t Au from 139 m, including 13 m @ 1.3 g/t Au from 150 m;**
- **SDH529: 16 m @ 2.3 g/t Au from 137 m, including 2 m @ 11.7 g/t Au from 146 m;**
- **SDH530: 50 m @ 1.7 g/t Au from 76 m, including 29 m @ 2.4 g/t Au from 77 m;**
- **SDH531: 56 m @ 2.9 g/t Au from 103 m, including 28 m @ 4.7 g/t Au from 103 m;**
- **SDH533: 45 m @ 2.2 g/t Au from 0 m, including 10 m @ 5.1 g/t Au from 26 m;**
- **SDH534: 14 m @ 2.2 g/t Au from 122 m including 6 m @ 4.0 g/t Au from 128 m, 16 m @ 2.0 g/t Au from 184 m, including 5 m @ 5.0 g/t Au from 188 m;**
- **SDH537: 24 m @ 2.1 g/t Au from 90 m, including 3 m @ 12.2 g/t Au from 102 m; and**
- **SDH538: 51 m @ 0.9 g/t Au from 140 m, including 10 m @ 1.7 g/t Au from 151 m.**

Figure 3 shows the the location of significant assay results for all 15 Sorowar – Pigiput resource definition drill holes. In addition, significant assay results are displayed for one Sorowar metallurgical drill hole completed in the area. The location of four completed exploration holes with pending assays at the Sorowar – Pigiput Trend are also shown.

Figures 4 to 10 provides cross-sections showing the significant assay results returned for all eight new diamond drill holes (SDH526, 529 to 531, 533 to 534 and 537 to 538). Figure 3 shows where these seven cross-sections sit relative to the current and future planned pit outlines for Sorowar and Pigiput.

Figure 4 is the key cross-section and shows the recent significant intercept received for drill hole SDH531: 56 m @ 2.9 g/t Au from 103 m, including 28 m @ 4.7 g/t Au from 103 m. This is located 50 metres southwest of SDH525: 24 m @ 1.3 g/t Au from 105 m, 22 m @ 1.6 g/t Au from 147 m, 21 m @ 4.0 g/t Au from 176 m.

Figure 5 is also key and demonstrates the importance of the significant intercept received for drill hole SDH533: 45 m @ 2.2 g/t Au from 0 m, including 10 m @ 5.1 g/t Au from 26 m. This new intercept lies at the eastern edge of the existing Mineral Resource in an area that has been insufficiently drilled because of limited access historically. Progressive oxide mining has advanced sufficiently to open up these drill locations for deeper sulphide targets which are relatively shallow and open along strike to the southeast and northwest.

These results further define new broad mineralisation along the targeted trend between Sorowar and Pigiput ore bodies and outside any current Inferred Resource areas. The significant results in drill holes SDH531 and SDH525 support the exploration model of a ‘productive window’ where there is generally higher gold grades present within a specific elevation (i.e. between +75m RL and -25m RL) for this classic epithermal deposit.

Drill holes SDH525 (results announced previously), SDH534 and SDH533 (results announced in this release) have tested 200 metres of this northwest trend below the current Inferred Resource. Mineralisation in these holes is dominantly associated with a monomict andesite shatter breccia which displays angular clast support in a matrix of quartz ± carbonate (see Figure 11). Visual pyrite is estimated between 5 to 10% and is disseminated in the altered clasts and locally within the quartz matrix. Similar hydrothermal mineralisation style has been intersected in exploration hole SDH542 between 80 m and 165 m depth. Assay results for hole SDH542 is keenly awaited.



Note: With respect to the visual observation of monomict breccia and the estimate of sulphides recorded in hole SDH542 during logging, it must be cautioned that visual observations and estimates are uncertain in nature and should not be taken as a substitute for appropriate laboratory analysis. Laboratory assay results will be reported when they are received and interpreted.

The four recently completed Sorowar – Pigiput exploration holes (see Figure 3) were designed to test for potential additional new mineralisation similar to that intersected in hole SDH525 along the full interpreted 400 metre long, northwest striking, moderate southwest dipping extension to mineralisation up to 100 metres down dip from the current Inferred Resource. Assay results are expected to be received in May 2024. The overall strike to mineralisation in plan view between Sorowar, Pigiput and Pigibo is potentially semicircular in geometry. At a broad scale, the overall strike and dip of mineralisation moving from Sorowar to Pigiput and then Pigibo is observed to rotate in a clockwise direction. Locally at Sorowar, mineralisation is interpreted to strike northwest and dip to the southwest, whereas between Sorowar and Pigiput, mineralisation appears to strike north-south and dip west. At Pigiput the strike rotates to be east-west and dips to the north, with this orientation persisting along strike to Pigibo which in turn continues to rotate clockwise striking more northwest and dipping to the northeast.

When combined, selective holes from the 15 hole resource definition drill program at Sorowar – Pigiput and the four exploration holes should satisfactorily test this northwest trending target over a 400 metre strike length. The assay results for the 15 Sorowar – Pigiput resource definition diamond holes will be included in the upcoming Mineral Resource and Ore Reserve update to meet the scheduled issue date at the end of Q4 June FY24.

Three Pigibo resource definition drill holes for 540 metres and four Pigibo exploration drill holes for 1,540 metres remain to be drilled.

Figure 12 provides a plan view of Pigibo and shows the location of the six completed holes (with assays pending) and the three remaining resource definition drill holes and four exploration drill holes to be completed. Drilling of the three remaining Pigibo resource definition drill holes should be completed in May 2024 and assay results returned by end of June 2024. The four Pigibo exploration drill holes should be completed by mid-July 2024 and assay results returned in September 2024.



Figure 1. Simberi Island Site Layout within Mining Lease

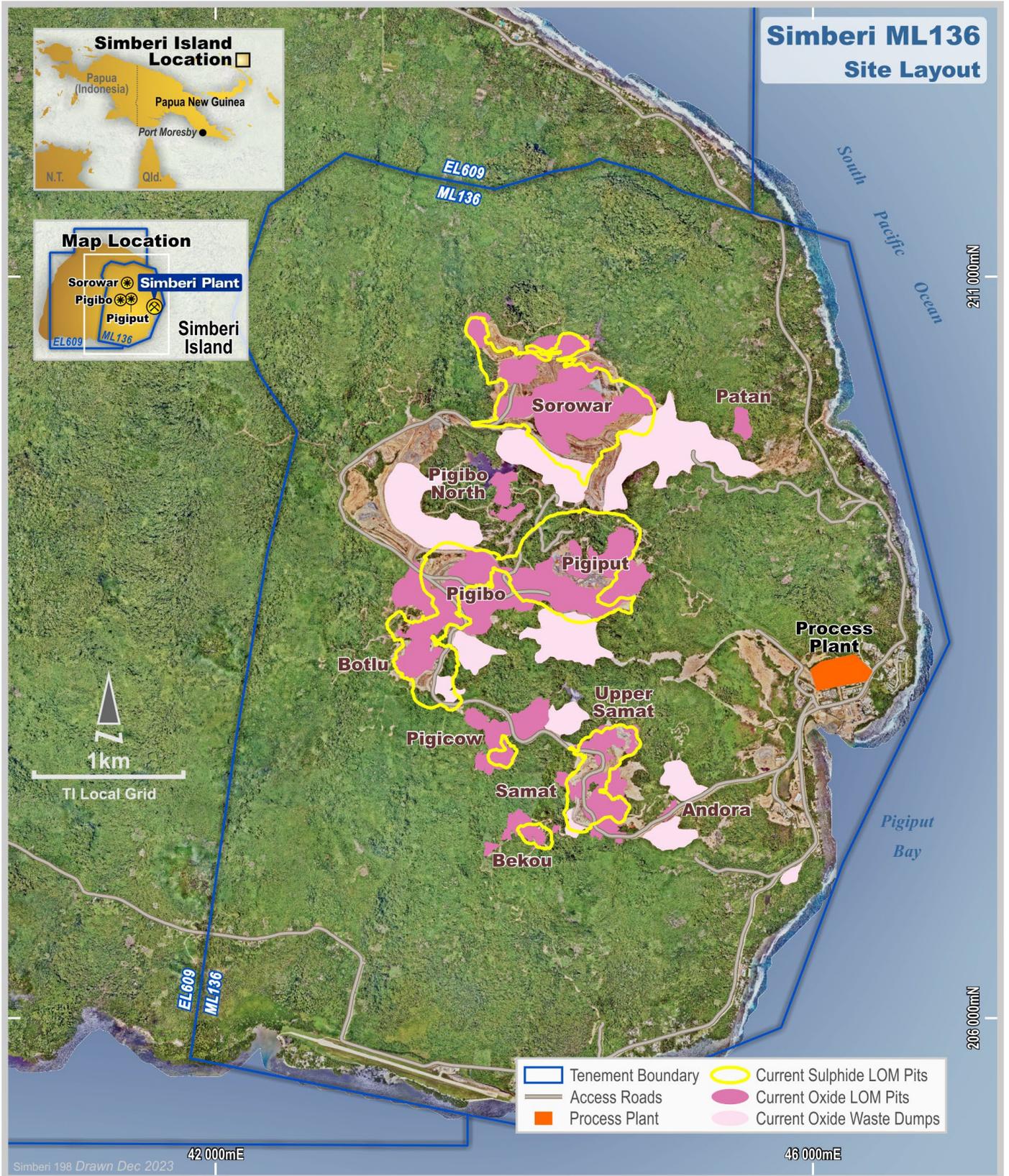




Figure 2. FY24 Completed and Planned Diamond Drilling, Simberi Island, Papua New Guinea

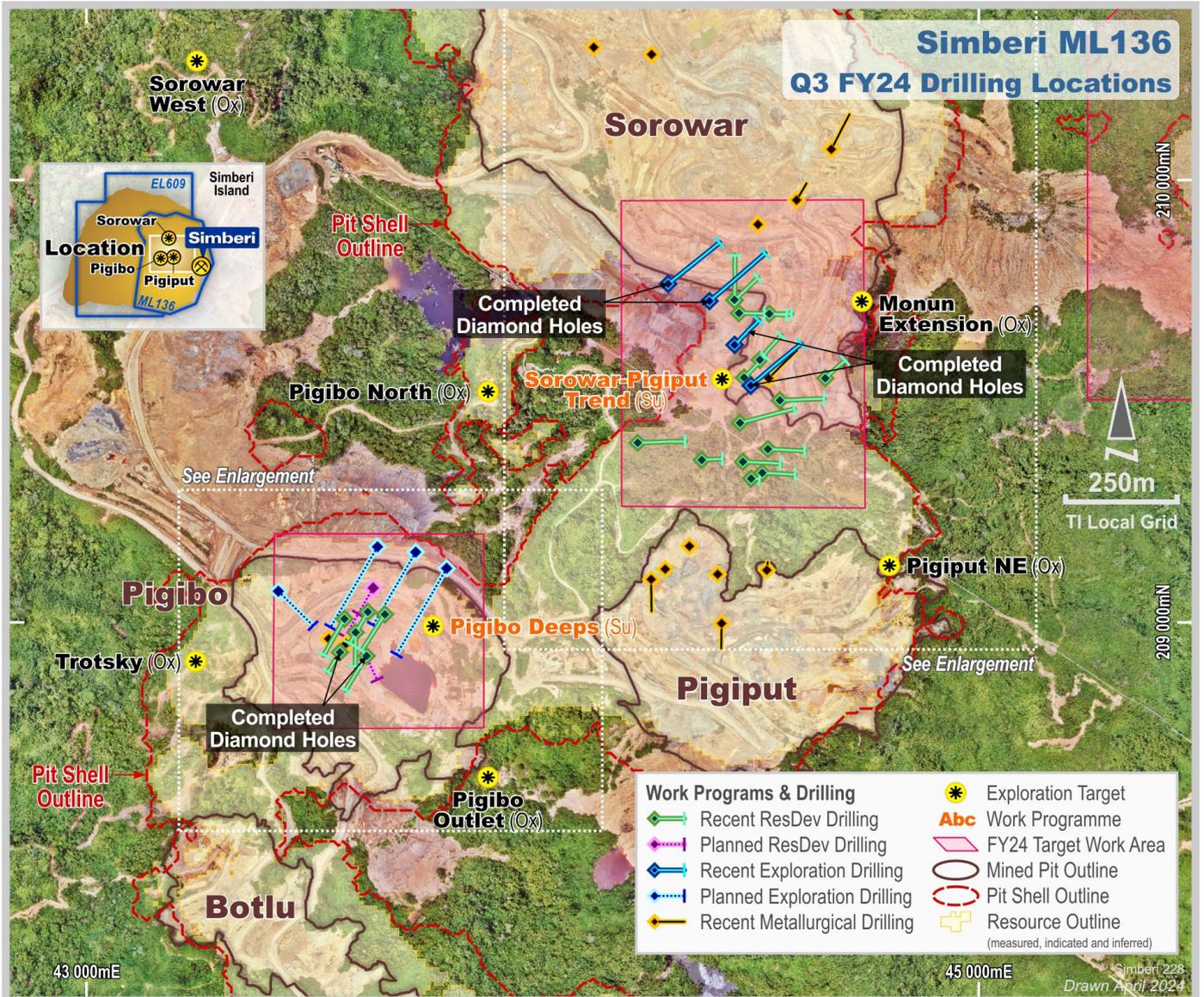




Figure 3. FY24 Completed Diamond Drilling, Sorowar – Pigiput Trend, Simberi Island

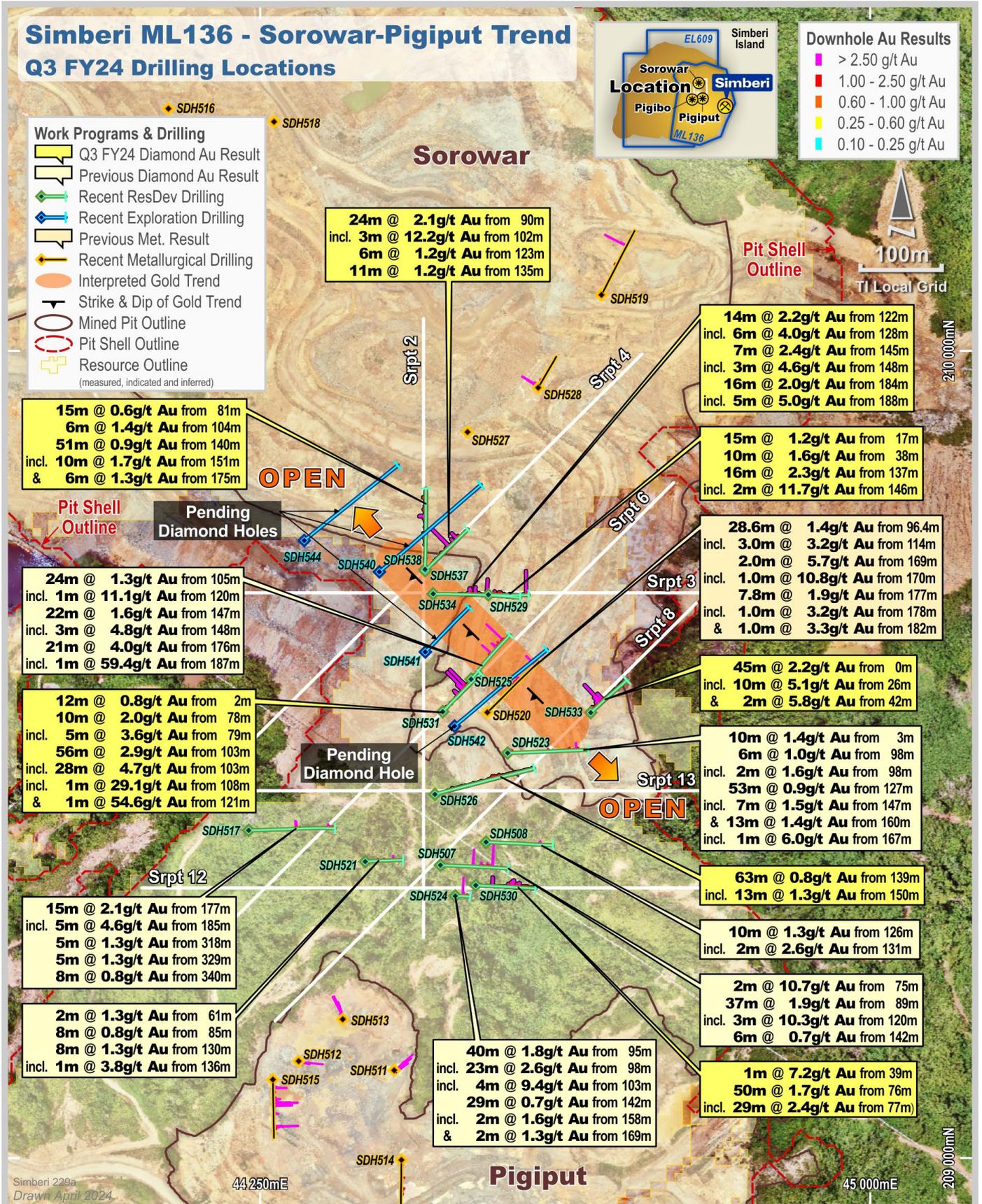




Figure 4. Drill Cross Section Srp6 (View Looking Northwest), Sorowar, Simberi Island

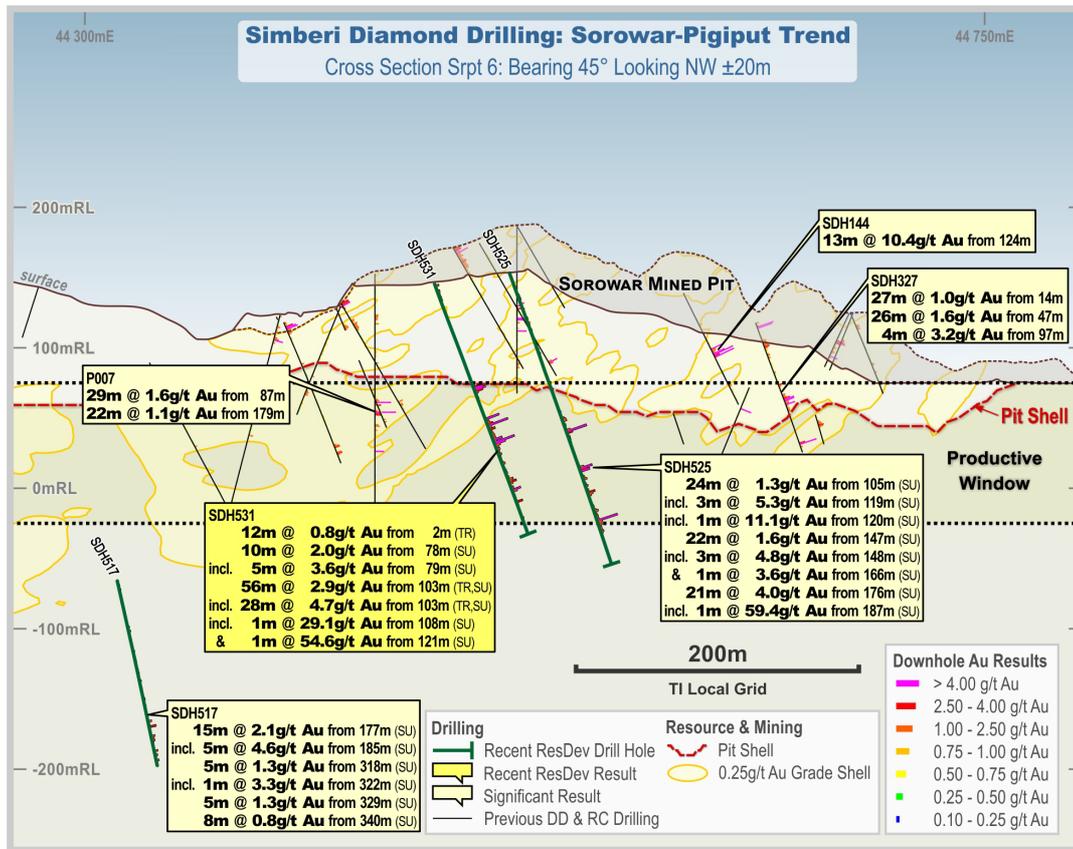


Figure 5. Drill Cross Section Srp8 (View Looking Northwest), Sorowar, Simberi Island

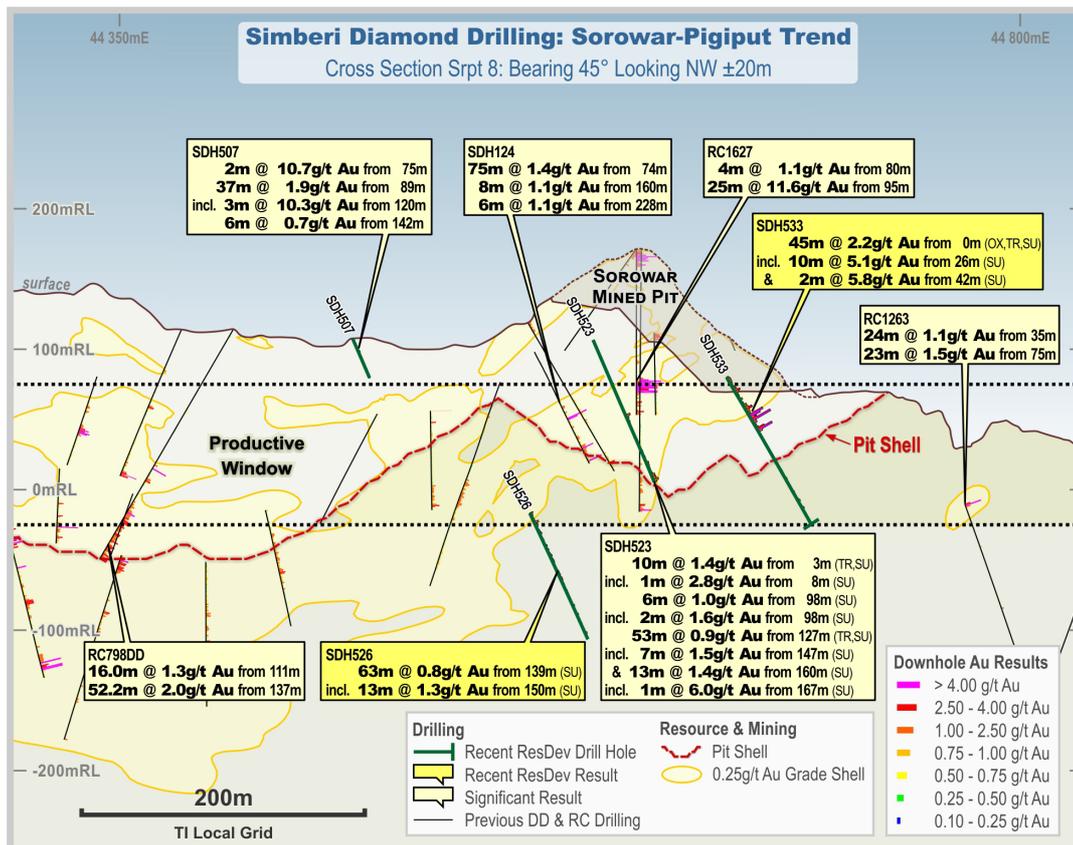




Figure 6. Drill Cross Section Srpt 2: (View Looking West), Sorowar, Simberi Island

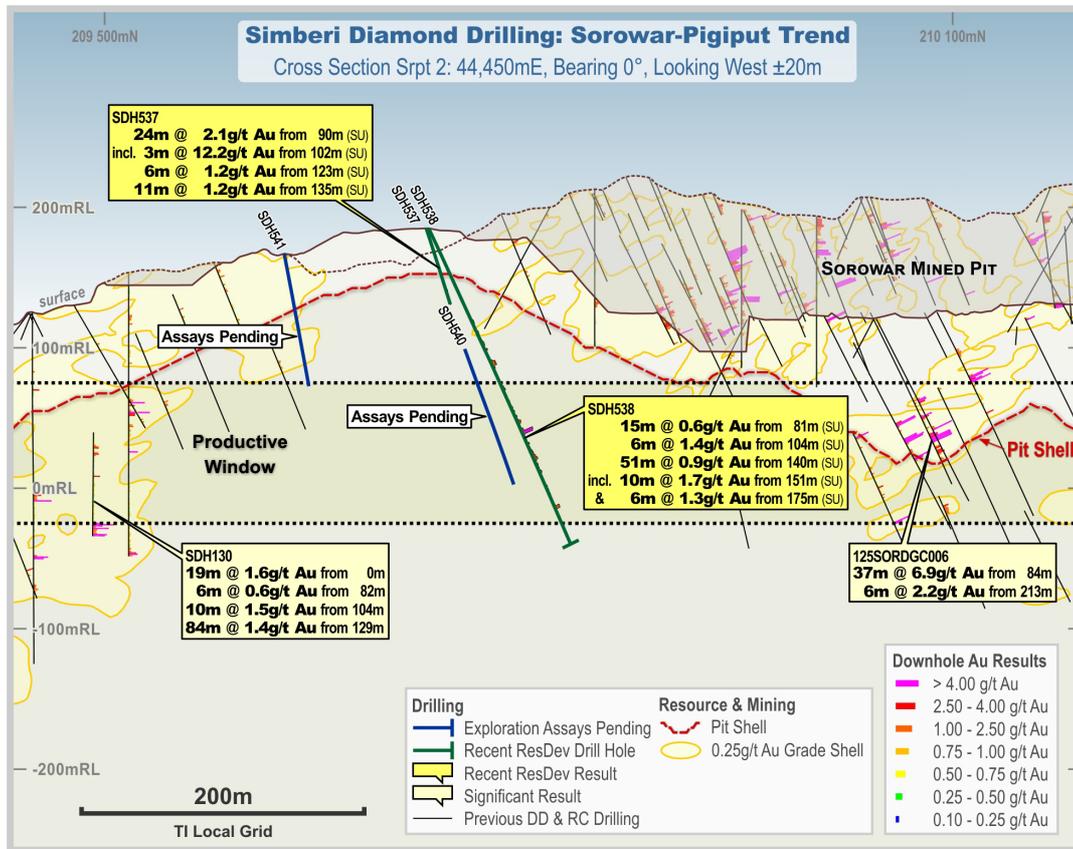


Figure 7. Drill Cross Section Srpt 3 (View Looking North), Sorowar, Simberi Island

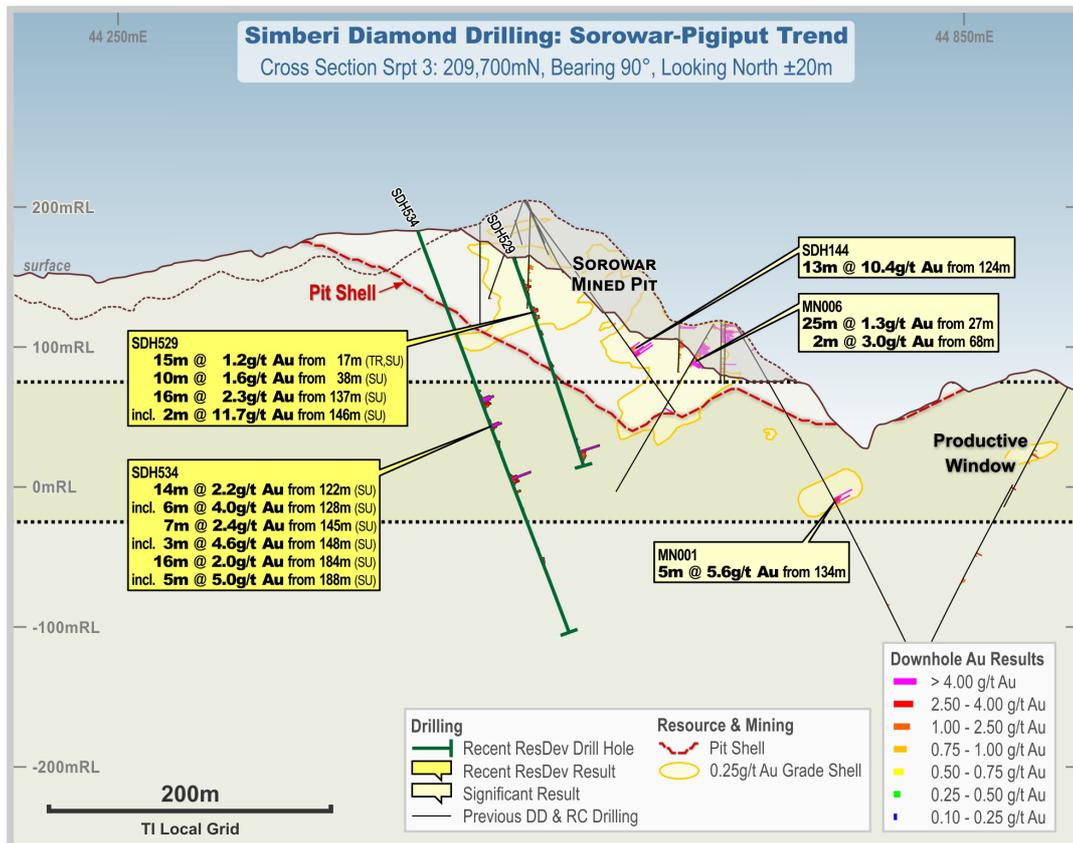




Figure 8. Drill Cross Section Srp4 (View Looking Northwest), Sorowar, Simberi Island

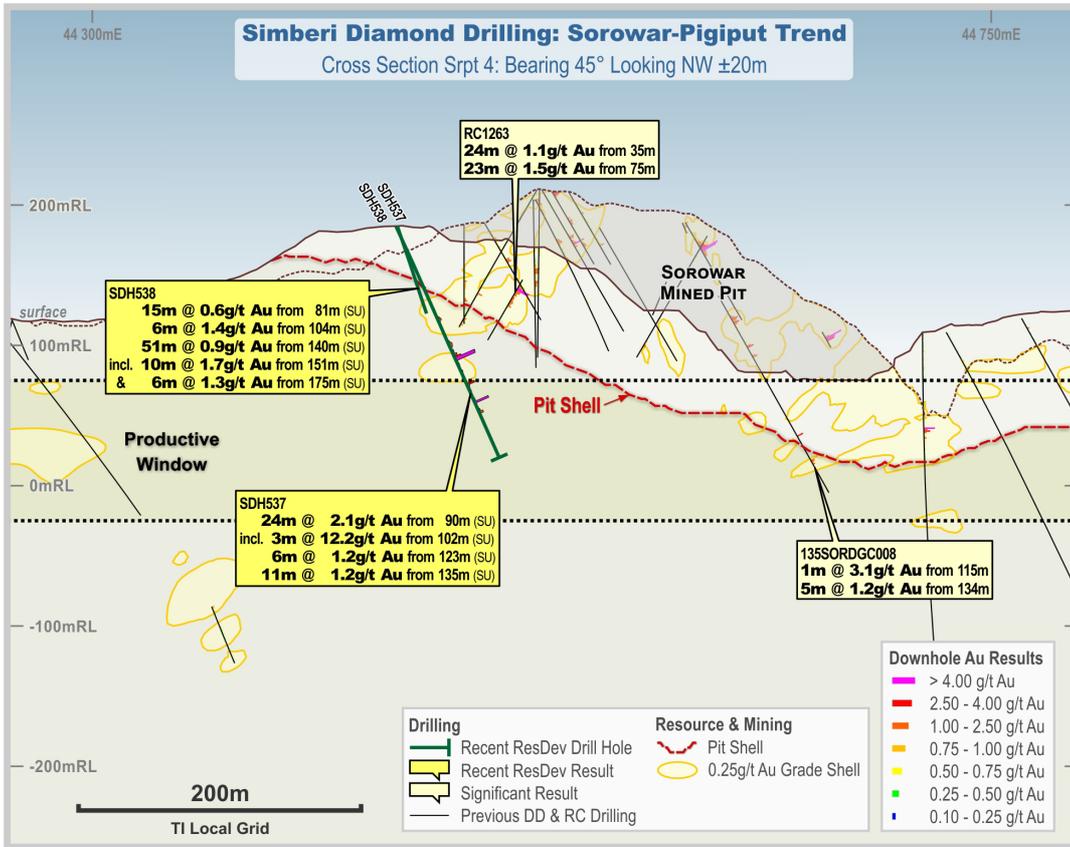


Figure 9. Drill Cross Section Srp12 (View Looking North), Sorowar, Simberi Island

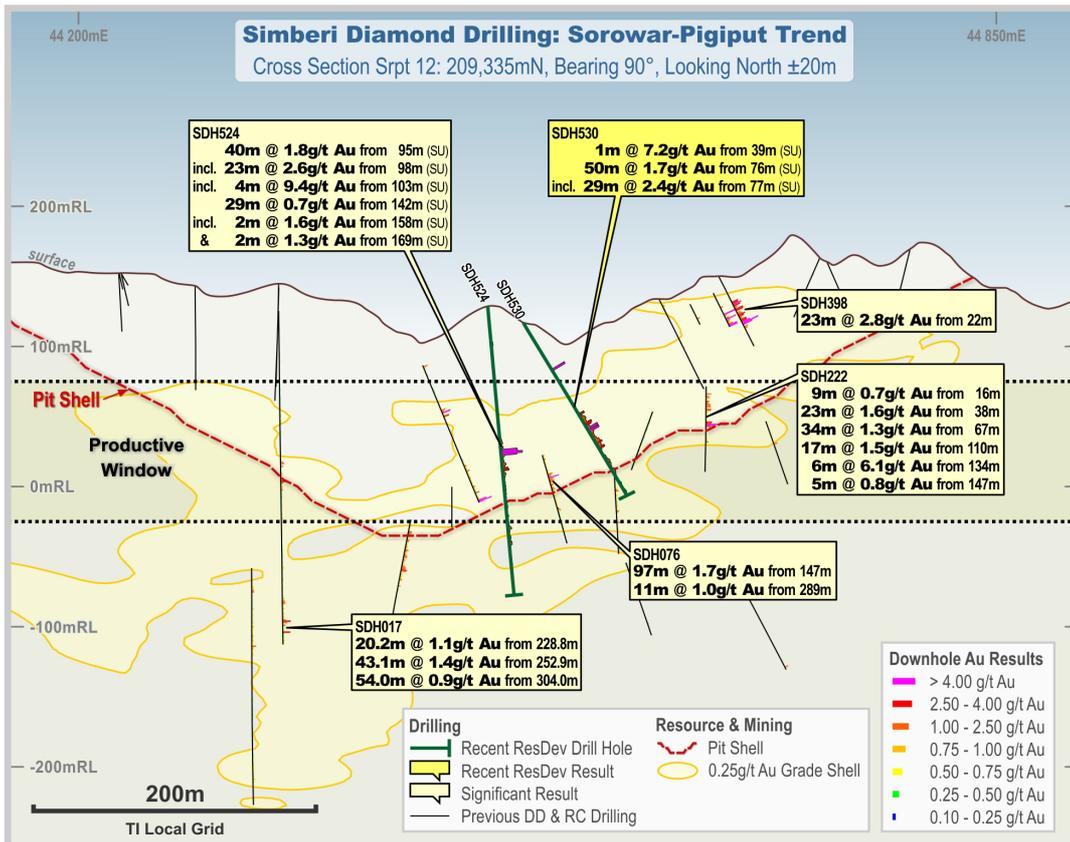
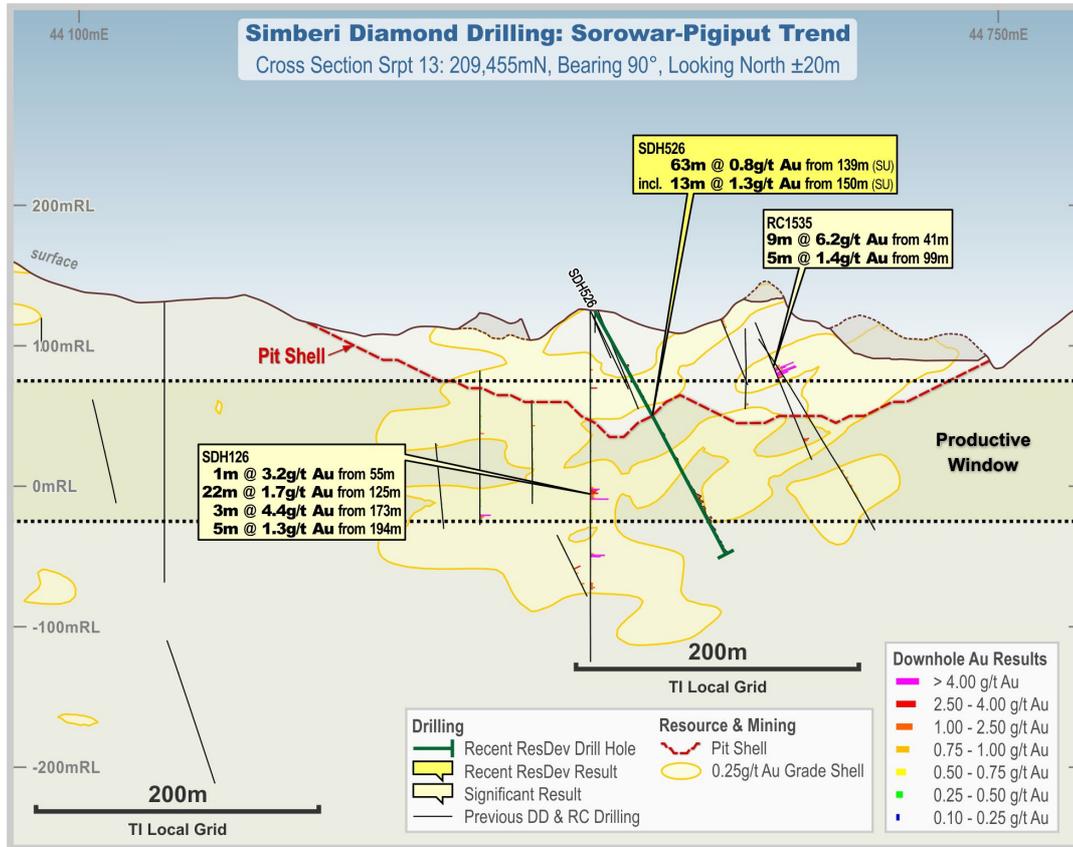




Figure 10. Drill Cross Section Srpt 13 (View Looking North), Sorowar, Simberi Island



Mineralisation displayed below in Figure 11 for diamond drill holes SDH525, SDH534, SDH533 and SDH542 is dominantly associated with a clast supported shatter breccia comprised of monomict angular andesite clasts in a matrix of quartz ± carbonate. Visual pyrite is estimated between 5 to 10% and is disseminated in the altered clasts and locally within the quartz matrix. Gold grades (in g/t Au) are displayed in yellow text for each metre interval in the upper three photos showing core from SDH525, SDH534 and SDH533. A one metre high-grade intercept of 59.4 g/t Au from 187 m depth is associated with a quartz vein displaying subtle colloform banded textures. A similar style quartz vein is observed in SDH534 returning a one metre intercept of 13.1 g/t Au from 189 m depth.

Note: The presence of monomict andesite breccia with 5% to 10% pyrite observed in SDH542 is a geological observation of non-economic minerals that are possibly associated with gold. It must be cautioned that visual observations and estimates are uncertain in nature and should not be taken as a substitute for appropriate laboratory analysis. Laboratory assay results will be reported when they are received and interpreted. Laboratory assay results will be reported when they are received and interpreted.



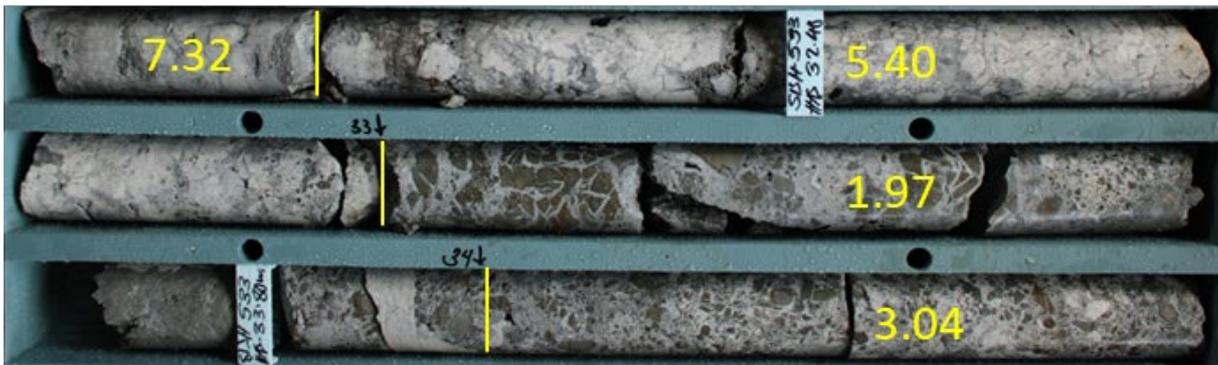
Figure 11. Diamond Drill Core from four Simberi drill holes SDH525, SDH533, SDH534 and SDH542.



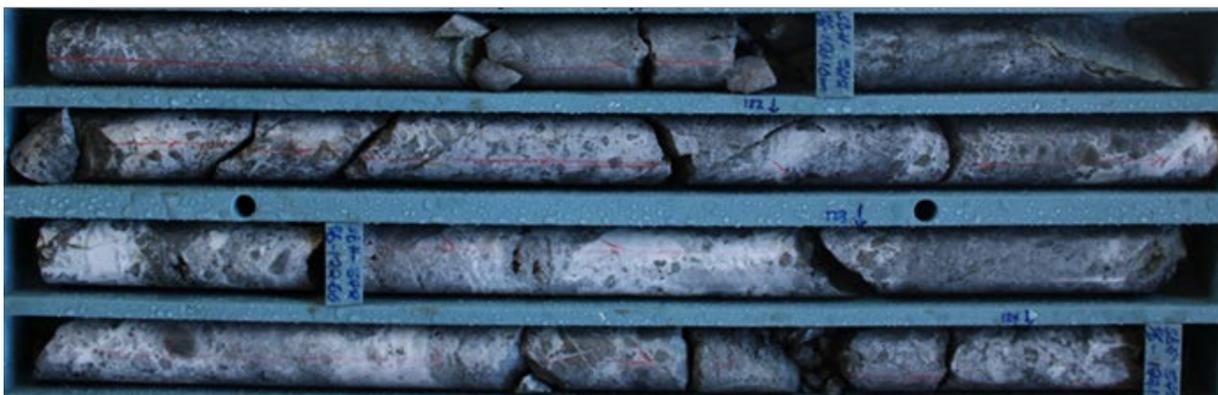
SDH525: 186.7m - 190.3m



SDH534: 188.6m - 192.5m



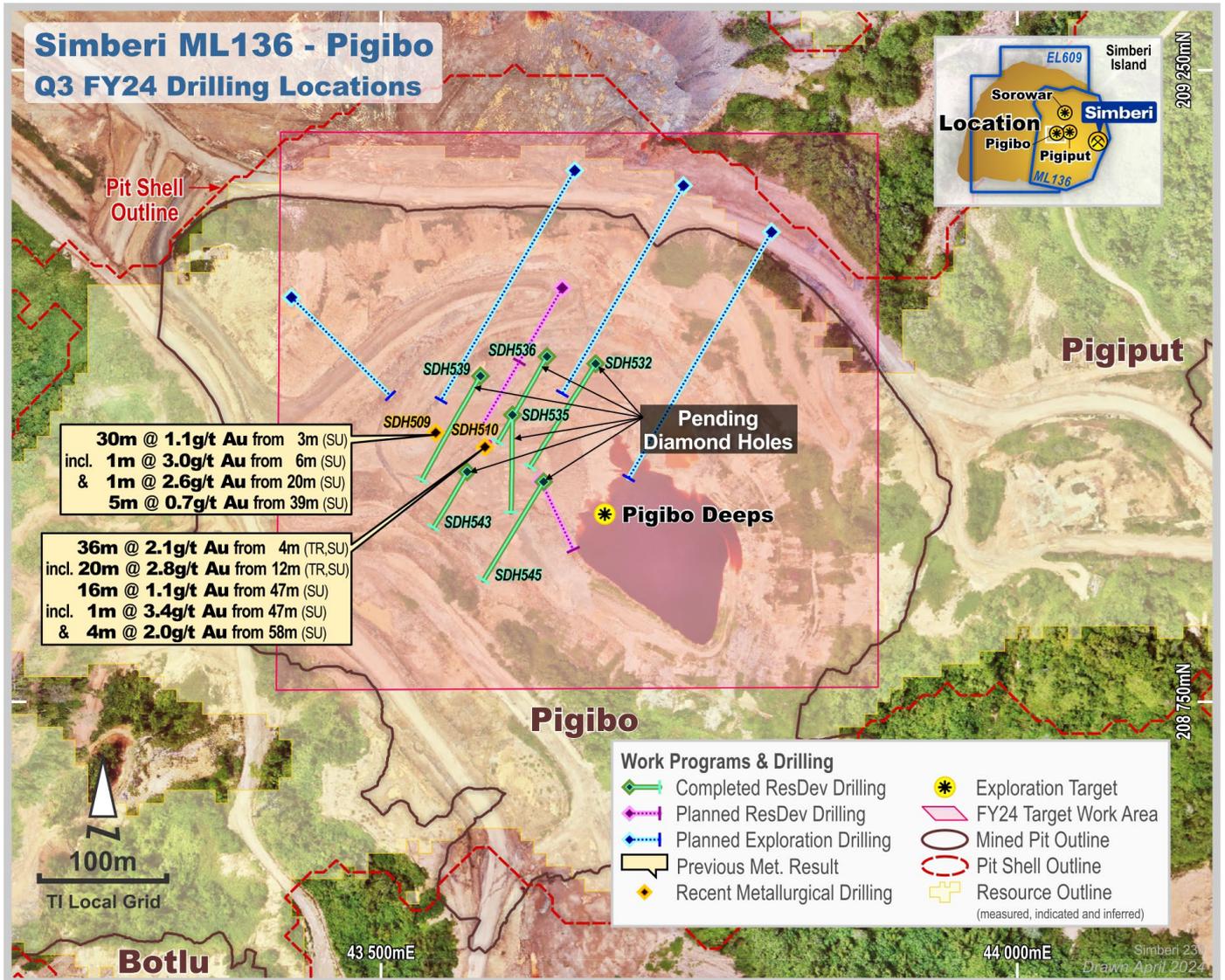
SDH533: 31.8m - 34.5m



SDH542: 120.6m - 124.1m (Assays Pending)



Figure 12. FY24 Completed and Planned Diamond Drilling, Pigibo, Simberi Island



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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Dr Roger Mustard, who is a Member of The Australasian Institute of Mining and Metallurgy. Dr Mustard is a full-time employee of St Barbara and has sufficient experience 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Mustard consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



Table 1: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Ore Type	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SDH507	209,363	44,472	107.7	-58 / 092	160.0	SU	75.0	77.0	2.0	10.7
						SU	89.0	126.0	37.0	1.9
<i>including</i>						SU	95.0	96.0	1.0	3.8
<i>and</i>						SU	109.0	110.0	1.0	3.3
<i>and</i>						SU	120.0	123.0	3.0	10.3
<i>including</i>						SU	121.0	123.0	2.0	14.1
						SU	142.0	148.0	6.0	0.7
SDH508	209,391	44,528	107.3	-59 / 092	163.7	SU	126.0	136.0	10.0	1.3
<i>including</i>						SU	131.0	133.0	2.0	2.6
SDH517	209,406	44,236	137.2	-71 / 088	352.0	SU	76.0	82.0	6.0	0.7
						SU	177.0	192.0	15.0	2.1
<i>including</i>						SU	185.0	190.0	5.0	4.6
						SU	318.0	323.0	5.0	1.3
<i>including</i>						SU	322.0	323.0	1.0	3.3
						SU	329.0	334.0	5.0	1.3
						SU	340.0	348.0	8.0	0.8
SDH521	209,367	44,379	129.9	-75 / 086	186.3	SU	61.0	63.0	2.0	1.3
						SU	85.0	93.0	8.0	0.8
						SU	130.0	138.0	8.0	1.3
<i>including</i>						SU	136.0	137.0	1.0	3.8
						SU	177.0	181.0	4.0	0.7
SDH523	209,502	44,554	137.5	-59 / 088	198.1	TR,SU	3.0	13.0	10.0	1.4
<i>including</i>						SU	8.0	9.0	1.0	2.8
						SU	98.0	104.0	6.0	1.0
<i>including</i>						SU	98.0	100.0	2.0	1.6
						TR,SU	127.0	180.0	53.0	0.9
<i>including</i>						SU	147.0	154.0	7.0	1.5
<i>and</i>						SU	160.0	173.0	13.0	1.4
<i>including</i>						SU	167.0	168.0	1.0	6.0
SDH524	209,325	44,490	128.9	-85 / 092	207.2	SU	95.0	135.0	40.0	1.8
<i>including</i>						SU	98.0	121.0	23.0	2.6
<i>including</i>						SU	103.0	107.0	4.0	9.4
						SU	142.0	171.0	29.0	0.7
<i>including</i>						SU	158.0	160.0	2.0	1.6
<i>and</i>						SU	169.0	171.0	2.0	1.3

NOTES:

OX: oxide, SU: sulphide, TR: transitional material

Previously reported intercepts (23/01/2024) are displayed as normal text and new intercepts are highlighted in bold text.



Table 1 Cont: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Ore Type	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SDH525	209,593	44,509	153.5	-70 / 041	220.0	TR	17.0	21.0	4.0	0.7
						SU	105.0	129.0	24.0	1.3
<i>including</i>						SU	119.0	122.0	3.0	5.3
<i>including</i>						SU	120.0	121.0	1.0	11.1
						SU	147.0	169.0	22.0	1.6
<i>including</i>						SU	148.0	151.0	3.0	4.8
<i>including</i>						SU	148.0	149.0	1.0	6.3
<i>and</i>						SU	166.0	167.0	1.0	3.6
						SU	176.0	197.0	21.0	4.0
<i>including</i>						SU	187.0	188.0	1.0	59.4
SDH526	209,451	44,465	124.8	-60 / 075	263.4	SU	139.0	202.0	63.0	0.8
<i>including</i>						SU	150.0	163.0	13.0	1.3
<i>and</i>						SU	169.0	172.0	3.0	1.3
						SU	209.0	217.0	8.0	0.7
SDH529	209,698	44,531	164.3	-71 / 092	156.9	TR	1.0	5.0	4.0	0.7
						TR,SU	17.0	32.0	15.0	1.2
<i>including</i>						TR	23.0	24.0	1.0	3.1
						SU	38.0	48.0	10.0	1.6
<i>including</i>						SU	40.0	41.0	1.0	2.7
						SU	55.0	59.0	4.0	0.8
						SU	79.0	83.0	4.0	0.8
						SU	137.0	153.0	16.0	2.3
<i>including</i>						SU	146.0	148.0	2.0	11.7
<i>including</i>						SU	146.0	147.0	1.0	20.4
SDH530	209,338	44,515	117.0	-59 / 093	143.5	SU	39.0	40.0	1.0	7.2
						SU	76.0	126.0	50.0	1.7
<i>including</i>						SU	77.0	106.0	29.0	2.4
<i>including</i>						SU	84.0	92.0	8.0	3.3
SDH531	209,553	44,474	154.4	-70 / 045	190.7	TR	2.0	14.0	12.0	0.8
						SU	78.0	88.0	10.0	2.0
<i>including</i>						SU	79.0	84.0	5.0	3.6
						TR,SU	103.0	159.0	56.0	2.9
<i>including</i>						TR,SU	103.0	131.0	28.0	4.7
<i>including</i>						SU	108.0	109.0	1.0	29.1
<i>and</i>						SU	121.0	122.0	1.0	54.6
						SU	166.0	167.0	1.0	3.1

NOTES:

OX: oxide, SU: sulphide, TR: transitional material

Previously reported intercepts (23/01/2024) are displayed as normal text and new intercepts are highlighted in bold text.



Table 1 Cont: Simberi Diamond Drilling Significant Intercepts – Simberi Island, Papua New Guinea

Hole Id	North	East	RL	Dip/ Azimuth	Total Depth	Ore Type	Down-hole Mineralised Intersection			
	m	m	m	degrees	m		From	To	Interval	Gold grade
							m	m	m	g/t Au
SDH533	209,552	44,656	71.5	-60 / 048	120.5	OX,TR,SU	0.0	45.0	45.0	2.2
<i>including</i>						SU	26.0	36.0	10.0	5.1
<i>including</i>						SU	35.0	36.0	1.0	24.4
<i>and</i>						SU	42.0	44.0	2.0	5.8
SDH534	209,699	44,463	184.4	-70 / 092	306.3	SU	122.0	136.0	14.0	2.2
<i>including</i>						SU	128.0	134.0	6.0	4.0
						SU	145.0	152.0	7.0	2.4
<i>including</i>						SU	148.0	151.0	3.0	4.6
<i>including</i>						SU	149.0	150.0	1.0	6.3
						SU	161.0	164.0	3.0	1.0
						SU	184.0	200.0	16.0	2.0
<i>including</i>						SU	188.0	193.0	5.0	5.0
<i>including</i>						SU	189.0	190.0	1.0	13.1
						SU	250.0	254.0	4.0	1.0
SDH537	209,727	44,453	185.0	-65 / 045	185.0	SU	71.0	75.0	4.0	0.9
<i>including</i>						SU	72.0	74.0	2.0	1.2
						SU	90.0	114.0	24.0	2.1
<i>including</i>						SU	102.0	105.0	3.0	12.2
<i>including</i>						SU	103.0	104.0	1.0	23.8
						SU	123.0	129.0	6.0	1.2
<i>including</i>						SU	123.0	124.0	1.0	3.8
						SU	135.0	146.0	11.0	1.2
<i>including</i>						SU	137.0	138.0	1.0	7.0
SDH538	209,729	44,453	185.0	-65 / 001	246.2	SU	81.0	96.0	15.0	0.6
						SU	104.0	110.0	6.0	1.4
						SU	140.0	191.0	51.0	0.9
<i>including</i>						SU	151.0	161.0	10.0	1.7
<i>including</i>						SU	159.0	161.0	2.0	5.2
<i>and</i>						SU	175.0	181.0	6.0	1.3
						SU	217.0	219.0	2.0	2.2

NOTES:

OX: oxide, SU: sulphide, TR: transitional material

Previously reported intercepts (23/01/2024) are displayed as normal text and new intercepts are highlighted in bold text.



JORC Table 1 Checklist of Assessment and Reporting Criteria Section 1 Sampling Techniques and Data – Simberi ML136 (Pigibo, Sorowar and Pigiput)

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> Diamond Drilling comprised PQ3 (83 mm) and HQ3 (61.1 mm) sized core collected using standard triple tubes. Half core was sampled on nominal 1 metre intervals with the lower or left half (looking downhole) of the core submitted for sample preparation and analysis. Competent core is half cored by an Almonte automated coresaw whereas broken or highly weathered core is manually half cored with a masonry chisel. Half core samples were fully prepared at the company's on-site sample preparation facility on Simberi Island with 150 g to 200 g pulps sent to ALS Laboratory in Townsville for further analysis. Pulp residues are stored in Townsville for six months following assay before disposal.
Drilling techniques	<ul style="list-style-type: none"> Diamond drilling comprised PQ3 (83 mm) and HQ3 (61.1 mm) core recovered using a 1.5 m barrel. Drilling was completed by Quest Exploration Drilling (QED). When ground conditions permit, an ACT Digital Core Orientation Instrument was used by the contractor to orientate the HQ3 core.
Drill sample recovery	<ul style="list-style-type: none"> Diamond drilling recovery percentages were measured by comparing actual metres recovered per drill run versus metres recorded on the core blocks. Recoveries averaged >98 % with increased core loss present in fault zones and zones of strong weathering/alteration.
Logging	<ul style="list-style-type: none"> Diamond holes are qualitatively geologically logged for lithology, structure and alteration and qualitatively and quantitatively logged for veining and sulphide mineralogy. Diamond holes are geotechnically logged with the following attributes qualitatively recorded - strength, infill material, weathering, and shape. Whole core and half core photography is completed on wet core. All holes are logged in their entirety and data recorded in templated excel workbook prior to being uploaded to the company's secure SQL database.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> All diamond drill core was half cored with the lower or left half (looking downhole) submitted for sample preparation and analysis. All drill samples are prepared at the company's on-site sample preparation facility. After oven drying for 12 hours, sample material undergoes initial crushing in a Terminator Jaw Crusher to achieve particle size <2mm. For samples weighing in excess of 1kg, a 0.8kg to 1.2kg sample split is taken using a riffle splitter. Crushed samples of ~ 1kg standardized weight are then completely pulverized in an Essa LM2 Pulveriser (90% passing 75 microns). Approximately 200g of pulverised material is retained for assaying using a metal scoop to transfer material into analytical envelopes (pulp packets) before being sent to the ALS lab in Townsville. All reported results are from analysis conducted by ALS. For internal reference, a second pulverized sub- sample (~ 100 grams) is analysed at the site lab using same QAQC reference materials as those sent to ALS lab. Quality control of sample material prepared on site consists of insertion of two (non-certified) blank control samples at the start of each hole, and between each sample, any pulverised residue in the LM2 is discarded and the bowl vacuumed and wiped clean. 150 g to 200 g pulp samples are then sent to ALS Laboratory in Townsville for assay via air freight. Pulp residues are stored in Townsville for six months following assay for re-assay if required.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> Pulps are analysed for Au via 50 g Fire Assay Atomic Absorption Spectroscopy (AAS) finish (Au-AA26 method) and multi-element (Ag, As, S, Fe, Cu, Pb, Zn, Mo and Sb) by Aqua Regia digest followed by Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) instrument read (ME-ICP41S method). QC included insertion of certified reference material (1:20); insertion of in-house blank control material (2 at the start of each job); and the insertion of lab duplicates (1:20 split from the initial jaw crushed material prepared by the site lab. QAQC results were assessed as each laboratory batch was received and again at resource estimation cycles. Results indicate that pulveriser bowls were adequately cleaned between samples. ALS Townsville insert certified standards, replicates, lab repeats and complete sizing checks (1:40) or higher as part of their internal QAQC protocols.
Verification of sampling and assaying	<ul style="list-style-type: none"> Sampling data is recorded electronically which ensures only valid non-overlapping data can be recorded. Assay and downhole survey data are subsequently merged electronically. All drill data is stored in a SQL database on secure company server.
Location of data points	<ul style="list-style-type: none"> All drill collars were surveyed by company appointed surveyors using a DGPS in Tabar Island Grid (TIG) which is based on WGS84 ellipsoid and is GPS compatible. All diamond drill holes were downhole surveyed using a Reflex EZ track single shot camera with the first reading at 9, 12 or 18 m and one at 30 m and then approximately every 30 m increments to the bottom-of-the hole where an end of hole survey is also taken.
Data spacing and distribution	<ul style="list-style-type: none"> Resource definition drilling to define Indicated Mineral Resources is completed on a nominal 30m * 40m pattern. This spacing is adequate to establish both geological and grade continuity for the Mineral Resource and Ore Reserve procedures. Sampling is typically based on one-metre intervals with no compositing applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Drilling is orientated perpendicular to the major structures controlling the distribution of gold mineralisation. The orientation of the drilling ensures unbiased sampling of structures
Sample security	<ul style="list-style-type: none"> Only company personnel or approved contractors are allowed on drill sites; drill core is only removed from drill site to secure core logging/processing facility within the gated exploration core yard; core is promptly logged, cut, and prepped on site. The samples sent to ALS are stored in locked and guarded storage facilities until receipted at the Laboratory.
Audits or reviews	<ul style="list-style-type: none"> No audits or reviews of sampling protocols have been completed.



Section 2 Reporting of Exploration Results – Simberi ML136 (Pigibo, Sorowar and Pigiput)

Criteria	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> SBM has 100 % ownership of the three tenements over the Simberi Islands; ML136 on Simberi Island, EL609 which covers the remaining area of Simberi Island, as well as Tatau Island and Big Tabar Island and 4 sub-block EL2462 which covers part of Tatau and Mapua Islands.
Exploration done by other parties	<ul style="list-style-type: none"> CRA, BHP, Tabar JV (Kennecott, Nord Australalex and Niugini Mining), Nord Pacific, Barrick and Allied Gold have all previously worked in this area. Nord Pacific followed by Allied Gold was instrumental in the discovery and delineation of the 5 main oxide and sulphide deposits at Simberi.
Geology	<ul style="list-style-type: none"> The Simberi gold deposits are low sulphidation, intrusion related adularia-sericite epithermal gold deposits. The dominant host rocks for mineralisation are andesites, volcanoclastics and lesser porphyries. Gold mineralisation is generally associated with sulphides or iron oxides occurring within a variety of fractures, such as simple fracture in-fills, single vein coatings and crackle brecciation in the more competent andesite units, along andesite/polymict breccia contact margins as well as sulphide disseminations. Deeper holes in the area between Pigiput and Sorowar intersected up to 100m of semi continuous carbonate +/- quartz base metal / Au veining, similar in style to mineralization occurring on Tatau and Big Tabar islands to the south, which are also prospective for Porphyry Cu/Au deposits.
Drill hole Information	<ul style="list-style-type: none"> Drill hole information is included in intercept table outlining collar position obtained by DGPS pickup, hole dip and azimuth acquired from a downhole surveying camera as discussed in section 1, composited mineralised intercepts lengths and depth as well as hole depth.
Data aggregation methods	<ul style="list-style-type: none"> For gold only epithermal mineralisation, broad down hole intercepts are reported as length weighted averages using a cut-off of 0.6 g/t Au, minimum width of 2 m, and a minimum grade*length of 2.5 gmpt (gram metre per tonne). Such intercepts may include material below cut-off but no more than 5 sequential metres of such material and except where the average drops below the cut-off. Supplementary cut-offs, of 1.0 g/t, 2.5 g/t, 5.0 g/t and 10.0 g/t Au may be used to highlight higher grade zones and spikes within the broader aggregated interval. Single assays intervals are reported only where ≥ 5.0 g/t Au and ≥ 1 m down hole. Core loss is assigned the same grade as the sample grade; no high-grade cut is applied; grades are reported to one decimal figure and no metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> Down hole length was reported for all holes. Simberi lodes display high variability in orientation and complex geometries because of the interplay of veining, brecciation intensity, host lithology and oxidation fronts.
Diagrams	<ul style="list-style-type: none"> Included in the body of the report.
Balanced reporting	<ul style="list-style-type: none"> Details of all holes material to Exploration Results are reported in intercept tables. This report covers seven holes of a twenty-four hole resource definition drilling program. Assay results from the first two diamond drill holes are reported in Table 1 of the ASX release Simberi Resource Definition Drilling Update January 23, 2024.
Other substantive exploration data	<ul style="list-style-type: none"> Included in the body of the report.
Further work	<ul style="list-style-type: none"> Included in the body of the report.