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South32 Limited  
(Incorporated in Australia under the *Corporations Act 2001* (Cth))  
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## HERMOSA PROJECT UPDATE

**Conference call at 11.00am Australian Western Standard Time, details overleaf.**

**South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) (South32)** is pleased to provide an update following completion of a pre-feasibility study (PFS) for the Taylor Deposit, which is the first development option at our 100% owned Hermosa project located in Arizona, USA.

The PFS results support Taylor's potential to be the first development of a multi-decade operation, establishing Hermosa as a globally significant producer of metals critical to a low carbon future, delivering attractive returns over multiple stages. An initial development case demonstrates a sustainable, highly productive zinc-lead-silver underground mine and conventional process plant, in the first quartile of the industry cost curve<sup>1</sup>.

The Taylor Deposit will progress to a feasibility study, including work streams designed to unlock additional value by optimising operating and capital costs, extending the life of the resource and further assessing options identified to target a carbon neutral operation. Completion of the feasibility study and a final investment decision to construct Taylor are expected in mid CY23.

Separately, a scoping study<sup>(a)</sup> for the spatially linked Clark Deposit has confirmed the potential for a separate, integrated underground mining operation producing battery-grade manganese, as well as zinc and silver. Clark has the potential to underpin a second development stage at Hermosa, with future studies to consider the opportunity to integrate its development with Taylor, potentially unlocking further operating and capital efficiencies.

While exploration drilling to date has been focused on the Taylor and Clark Deposits, we have continued to complete surface geophysics, soil sampling and other exploration programs across our land package. This work has resulted in the definition of a highly prospective corridor including Taylor and Clark as well as the Peake and Flux exploration targets<sup>(b)</sup> which will be prioritised for drill testing in CY22.

Further details of the Taylor PFS are contained in the attached report and accompanying presentation.

South32 Chief Executive Officer, Graham Kerr said: "The Taylor Deposit provides an important first development option for our Hermosa project in Arizona, USA. The project has the potential to sustainably produce the metals critical for a low carbon future across multiple decades from different deposits.

"Completing the pre-feasibility study for the Taylor Deposit is an important milestone that demonstrates its potential to be a globally-significant and sustainable producer of base and precious metals in the industry's first cost quartile. Beyond Taylor, Clark offers the potential to realise further value from our investment in Hermosa through the production of battery-grade manganese, a mineral designated as critical in the United States.

"Additional exploration targets around Taylor and Clark are indicative of further upside while the broader land package contains highly prospective areas for polymetallic and copper mineralisation.

"We are designing the Taylor Deposit to be our first 'next generation mine', using automation and technology to minimise our impact on the environment and to target a carbon neutral operation in line with our goal of achieving net zero operational carbon emissions by 2050.

"The future development of Taylor provides a platform from which to realise Hermosa's immense potential. It will further strengthen our portfolio and align with the already substantial growth in production of metals critical to a low carbon future that we have embedded in the portfolio over the past six months."

<sup>a</sup> The references to the scoping study in respect of the Clark Deposit are to be read in conjunction with the cautionary statement in footnote 2 on page 18 of this announcement.

<sup>b</sup> The references to the Exploration Target for the Hermosa project (including Peake) are to be read in conjunction with the cautionary statement in footnote 3 on page 18 of this announcement.

### Conference call

South32 will hold a conference call at 11.00am Australian Western Standard Time (2.00pm Australian Eastern Daylight Time) on 17 January 2022 to provide an update of the Hermosa project including Q&A, the details of which are as follows:

### Conference ID

Please pre-register for this call at [link](#).

### Website

A replay of the conference call will be made available on the South32 website.

## HERMOSA PROJECT

Hermosa is a polymetallic development option located in Santa Cruz County, Arizona, and is 100% owned by South32. It comprises the zinc-lead-silver Taylor sulphide deposit (Taylor Deposit), the zinc-manganese-silver Clark oxide deposit (Clark Deposit) and an extensive, highly prospective land package with the potential for further polymetallic and copper mineralisation. Hermosa is well located with excellent access to skilled people, services and transport logistics.

We have completed a PFS for the Taylor Deposit, our first development option at Hermosa. The Taylor Deposit is a large, carbonate replacement massive sulphide deposit which extends to a depth of approximately 1,200m over an approximate strike length of 2,500m and width of 1,900m. The Mineral Resource estimate for the Taylor Deposit is 138Mt, averaging 3.82% zinc, 4.25% lead and 81 g/t silver<sup>4</sup>. The deposit remains open at depth and laterally, offering further exploration potential.

The preferred mine design applied to the PFS is a dual shaft access mine which prioritises higher grade mineralisation early in the mine's life. The mining method is longhole open stoping, with the geometry of the orebody enabling the operation of multiple concurrent mining areas. This supports our assumption of an initial 22 year resource life<sup>5</sup> with high mining productivity. Ramp up to nameplate capacity<sup>(c)</sup> of up to 4.3 million tonnes per annum (Mtpa)<sup>7</sup> is expected to be achieved in a single stage. The process design applies a conventional sulphide ore flotation circuit producing separate zinc and lead concentrates with substantial silver credits.

In addition to the current Mineral Resource estimate for Taylor, we have defined an Exploration Target ranging from 10 to 95Mt<sup>3</sup> indicating the potential for further exploration upside. The exploration opportunity at Taylor includes depth and extensional opportunities as well as new prospects in proximity to the deposit. We have identified an Exploration Target at depth to the Taylor Deposit known as Peake, with initial drilling results returning copper and polymetallic mineralisation. Further drilling at Peake is planned in CY22.

Separately, we have completed a scoping study for the spatially linked Clark Deposit, confirming the potential for an underground mining operation producing battery-grade manganese, as well as zinc and silver. We are undertaking a PFS for Clark to increase our confidence in the mining and processing assumptions of a preferred development option and customer opportunities in the rapidly growing battery-grade manganese markets.

The Clark Deposit is interpreted as the upper oxidised, manganese-rich portion of the mineralised system that hosts Taylor. As we advance both our Taylor and Clark studies, we maintain the option to merge this work and assess an integrated underground mining operation. While such a scenario would require separate processing circuits to produce base and precious metals, and battery-grade manganese, an integrated development has the potential to unlock further operating and capital efficiencies.

Our third focus at Hermosa remains on unlocking value through exploration of our regional scale land package. Through the completion of surface geophysics, soil sampling, mapping and interpretation of recently acquired data, we have identified a highly prospective corridor which will be prioritised for future drilling. Within this corridor, we plan to drill the Flux prospect following receipt of required permits, anticipated in the second half of CY22. The Flux prospect is located down-dip of a historic mining area that has the potential for carbonate hosted, Taylor-like mineralisation<sup>8</sup>.

## STRATEGIC ALIGNMENT

We continue to actively reshape our portfolio for a low carbon future, investing in opportunities that increase our exposure to base and precious metals, with strong demand fundamentals and low carbon production intensity. The Taylor Deposit is our most advanced development option at the Hermosa project, which has the potential to provide a multi-decade platform at the operation that would further improve the Group's exposure to the metals required for the transition to a low carbon future.

<sup>c</sup> The references to all Production Targets and resultant financial forecast information in this announcement is to be read in conjunction with the cautionary statement in footnote 6 on page 18 of this announcement. The key facts and material assumptions to support the reasonable basis for this information is provided in Annexure 2 of this announcement.

## SUSTAINABLE DEVELOPMENT

Sustainable development is at the heart of our purpose at South32 and forms an integral part of our strategy. The Taylor Deposit has been designed as our first “next generation mine” using automation and technology to drive efficiencies, minimise our impact and reduce carbon emissions. We have completed initial work programs and studies with respect to our communities, cultural heritage, environment and water, and any future development at Hermosa will be consistent with our approach to sustainable development.

The Taylor Deposit has been designed as a low-carbon operation, with the feasibility study to target the further potential to achieve carbon neutrality. This may be achieved through identified options to access 100% renewable energy from local providers, and the potential use of battery electric vehicles and underground equipment. The development of the Taylor Deposit would be consistent with our commitment to a 50% reduction in our operational carbon emissions by FY35 and net zero by 2050.

## CAPITAL MANAGEMENT FRAMEWORK

A final investment decision for the Taylor Deposit and its potential tollgate to construction will be assessed within our unchanged capital management framework. Our framework, which prioritises investment in safe and reliable operations, an investment grade credit rating and returns to shareholders via our ordinary dividends, also seeks to establish and pursue options that create enduring value for shareholders, such as capital investments in new projects. Our preferred funding mechanism for any future developments at Hermosa will be consistent with our commitment to an investment grade credit rating through the cycle that supports our strong balance sheet.

### PFS HIGHLIGHTS

The PFS results demonstrate Taylor’s potential to be a globally significant producer of green metals critical to a low carbon future, in the first quartile of the industry cost curve. Taylor has the potential to underpin a regional scale opportunity at Hermosa, with ongoing activities to unlock additional value from the Clark Deposit and exploration opportunities across the regional land package.

- **Our initial development scenario outlines the potential for a large scale, highly productive underground mine**
  - Dual shaft access which prioritises higher grade ore in early years
  - Proposed mining method is low technical risk, employing longhole open stoping with paste backfill
  - Single stage ramp-up to nameplate production of up to 4.3Mtpa
  - Conventional sulphide ore flotation circuit
- **Potential to be a globally significant producer of metals for a low carbon future**
  - PFS estimates annual average production ~111kt zinc, ~138kt lead and ~7.3Moz silver (~280kt zinc equivalent (ZnEq)<sup>9</sup>, with output ~20% higher across the years of steady state production<sup>10</sup>
  - Zinc is used in renewable energy infrastructure such as solar and wind for energy conversion and to protect against corrosion; silver is a key element used in solar panels; while lead demand is expected to be supported by its use in renewable energy storage systems
- **Potential for a low cost operation in the industry’s first quartile**
  - Average Operating unit costs ~US\$81/t ore milled (all-in sustaining cost (AISC)<sup>11</sup> ~US\$(0.05)/lb ZnEq) benefitting from high underground productivity
- **Directs capital to establish a multi-decade base metals operation and platform for growth at Hermosa**
  - Project capital of ~US\$1,230M (direct) and ~US\$470M (indirect) to establish the first development option
  - Low sustaining capital ~US\$40M per annum
  - Potential to realise capital efficiencies through an integrated development of Taylor and Clark
- **A large Mineral Resource with substantial exploration potential**
  - Taylor Deposit supports an initial resource life of ~22 years, and remains open at depth and laterally
  - 10 to 95Mt Exploration Target identified, indicating the potential for further exploration upside
  - Copper-lead-zinc-silver mineralisation intercepted at the proximal Peake prospect
- **Pursues the sustainable development of critical metals**
  - We are investing in local programs and partnerships that reflect the priorities of our communities
  - We are committed to working with Native American tribes to protect cultural resources
  - We have completed key biodiversity, ecosystem and water studies
  - We are pursuing a pathway to net zero carbon emissions with identified options for renewable energy

## FURTHER OPPORTUNITIES TO UNLOCK VALUE

Reflecting the early stage nature of the project we have identified numerous opportunities to unlock further value at Taylor that will be pursued prior to a final investment decision. Opportunities identified include the potential to:

- Extend the resource life, which is underpinned by the current Taylor Mineral Resource estimate and does not include the further potential identified in our Exploration Target.
- Reduce operating costs through:
  - Further optimisation of the mining schedule, power consumption and comminution circuit;
  - Supplying smelters in the Americas to realise a material reduction in transport costs; and
  - Adopting emerging technologies and further automation opportunities, targeting enhanced productivity.
- Reduce capital costs through further optimisation of the shaft design, construction and procurement.
- Achieve a carbon neutral operation through access to 100% renewable energy from local suppliers.
- Integrate the underground development with the Clark Deposit.

## NEXT STEPS

Taylor will now progress to a feasibility study which is targeted for completion in mid CY23. To maintain the preferred development path in the PFS, critical path items including construction and installation of infrastructure to support additional orebody dewatering is planned to commence in H2 FY22. Total pre-commitment capital expenditure associated with dewatering of approximately US\$55M is expected in H2 FY22, with further investment expected in FY23. This expenditure is included in the growth capital estimate in Table 1 below.

The PFS assumes a single stage ramp-up to the nameplate production rate. Based on the PFS schedule, and subject to a final investment decision and receipt of required permits, shaft development is expected to commence in FY24. First production is targeted in FY27 with surface infrastructure, orebody access, initial production and tailings storage expected on patented lands which require state-based approvals. Surface disturbance and additional tailings storage on unpatented land will require completion of the National Environmental Policy Act (NEPA) process with the United States Forest Service (USFS). The project may benefit from the classification of metals found at Hermosa as critical minerals in the United States. Zinc is proposed to be added as a critical mineral by the U.S. Geological Survey while manganese (found at the Clark Deposit) already has this designation.

## PFS SUMMARY RESULTS

Key PFS outcomes are summarised below. Given the project's early stage nature, the accuracy level in the PFS for operating costs and capital costs is -15% / +25%. The cost estimate has a base date of H1 FY22. Unless stated otherwise, currency is in US dollars (real) and units are in metric terms.

**Table 1: Key PFS outcomes**

	Nameplate production capacity	Mtpa	~4.3
	Resource life	Years	~22
	Head grades (average)	%, g/t	4.1% Zn, 4.5% Pb, 82 g/t Ag
<b>Production</b>	Annual payable zinc production (average / steady state <sup>10</sup> )	kt	~111 / ~130
	Annual payable lead production (average / steady state)	kt	~138 / ~166
	Annual payable silver production (average / steady state)	Moz	~7.3 / ~8.7
	<b>Annual payable ZnEq production<sup>9</sup> (average / steady state)</b>	kt	<b>~280 / ~340</b>
<b>Operating costs</b>	Operating unit costs (per tonne ore milled)	US\$/t	~81
	Operating unit costs (per lb ZnEq)	US\$/lb ZnEq	~(0.71)
<b>Capital expenditure</b>	Direct growth capital	US\$M	~1,230
	Indirect growth capital	US\$M	~470
	Sustaining capital (annual average)	US\$M	~40

## TAYLOR DEPOSIT PFS

The PFS for the Taylor Deposit provides confirmation that it is a technically robust project that has the potential to deliver an attractive return on investment. The PFS is based on an underground zinc-lead-silver mine development using longhole open stoping and a conventional sulphide ore flotation circuit producing separate zinc and lead concentrates, with silver by-product credits. The preferred development scenario is based on a mining and processing rate of up to 4.3Mtpa, with a resource life of approximately 22 years.

The PFS was completed with input from consultants including Fluor for the process plant and on-site infrastructure, SRK Consulting for geological and technical reviews, Stantec for mining studies, NewFields for hydrogeology, Montgomery & Associates for dewatering and tailings, Black and Veatch, and BQE for water treatment design and CPE for off-site roads. The PFS has been subject to an independent peer review.

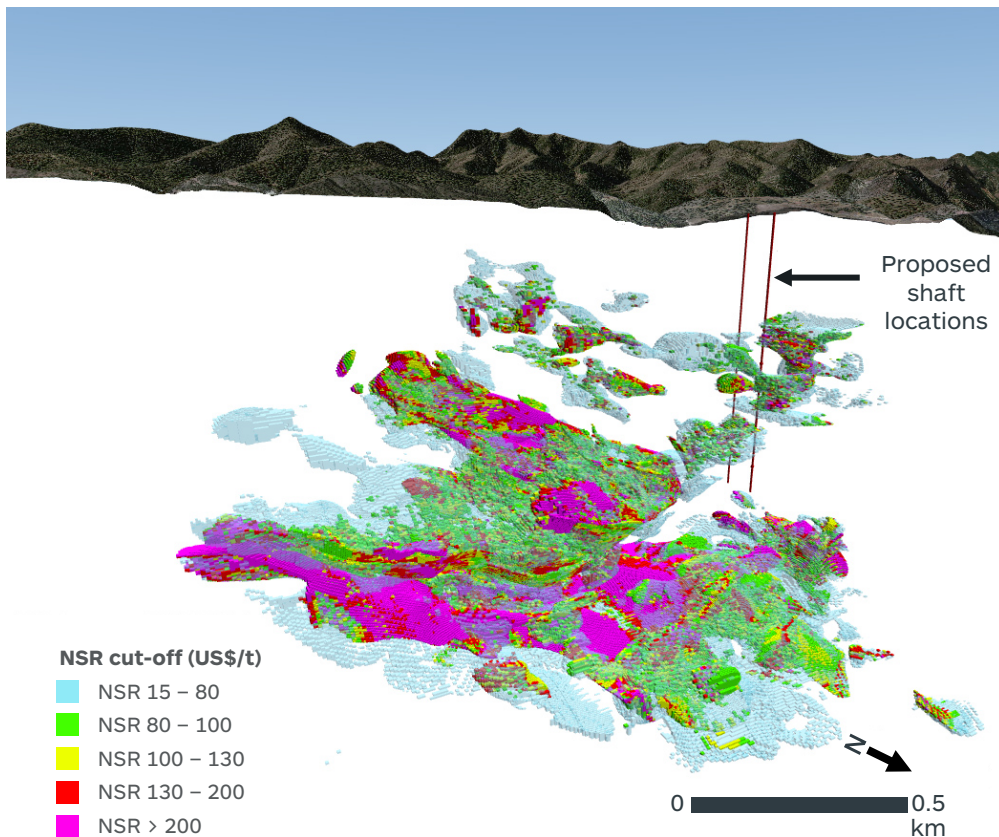
### Mineral Resource estimate

The Taylor Deposit is a carbonate replacement style zinc-lead-silver massive sulphide deposit. It is hosted in Permian carbonates of the Pennsylvanian Naco Group of south-eastern Arizona. The Taylor Deposit comprises the upper Taylor sulphide (Taylor Mains) and lower Taylor deeps (Taylor Deeps) domains that have a general northerly dip of 30° and are separated by a low angle thrust fault.

The Taylor Mineral Resource estimate is reported in accordance with the JORC Code (2012) at 138Mt, averaging 3.82% zinc, 4.25% lead and 81 g/t silver with a contained 5.3Mt of zinc, 5.9Mt of lead and 360Moz of silver. The Mineral Resource estimate is reported using a net smelter return (NSR) cut-off value of US\$80/t for material considered extractable by underground open stoping methods.

The Taylor Deposit has an approximate strike length of 2,500m and a width of 1,900m. The stacked profile of the thrust host stratigraphy extends 1,200m from near-surface and is open at depth and laterally. It is modelled as one of the first carbonate replacement deposit occurrences in the region, with all geological and geochemical information acquired to date being consistent with this model.

**Figure 1: Taylor Mineral Resource**



## Exploration Target

The Taylor Mineral Resource is within a highly prospective mineralised system and is open at depth and laterally, offering the potential for further exploration upside.

We have completed work aimed at developing an unconstrained, spatial view of the Exploration Target at the Taylor Deposit, considering extensional and near-mine exploration potential.

The Hermosa project has sufficient distribution of drill data to support evaluation of the size and quality of Exploration Targets. Tables of individual drill hole results are provided in Annexure 1 of this announcement, as well as a listing of the total number of holes and metres that support the assessment of the Exploration Target size and quality.

The tonnage represented in defining Exploration Targets is conceptual in nature. There has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource. It should not be expected that the quality of the Exploration Targets is equivalent to that of the Mineral Resource.

Estimations were performed using resource range analysis, in which deterministic estimates of potential volumes and grades are made over a range of assumptions on continuity and extensions that are consistent with available data and generic models of carbonate replacement, skarn and vein styles of mineralisation.

The estimates are supported by exploration results from prospects in and around the Taylor Mineral Resource. These results are all of carbonate replacement, skarn, and vein styles of mineralisation and are currently explored at varying degrees of maturity and exploration drilling density.

Outcomes for the Exploration Target are provided in Table 2 below. The mid case Exploration Target is approximately 45Mt.

**Table 2: Ranges for the Exploration Target for Taylor sulphide mineralisation (as at 31 December 2021)**

	Low Case				Mid Case				High Case			
	Mt	% Zn	% Pb	g/t Ag	Mt	% Zn	% Pb	g/t Ag	Mt	% Zn	% Pb	g/t Ag
<b>Sulphide</b>	<b>10</b>	<b>3.8</b>	<b>4.2</b>	<b>81</b>	<b>45</b>	<b>3.4</b>	<b>3.9</b>	<b>82</b>	<b>95</b>	<b>3.6</b>	<b>4.0</b>	<b>79</b>

Notes:

- Net smelter return cut-off (US\$80/t): Input parameters for the NSR calculation are based on South32's long term forecasts for zinc, lead and silver pricing, haulage, treatment, shipping, handling and refining charges. Metallurgical recovery assumptions are 90% for zinc, 91% for lead, and 81% for silver.
- All masses are reported as dry metric tonnes (dmt). All tonnes and grade information have been rounded to reflect relative uncertainty of the estimate, hence small differences may be present in the totals.

## Peake prospect

Our drilling programs at the Taylor Deposit have focused on improving confidence in the mine plan for the potential development, extending the resource and testing near-mine exploration prospects.

As part of our work on near-mine exploration targets, we have intersected the skarn hosted copper-lead-zinc-silver Peake prospect, located south of the Taylor Deposit at a depth of approximately 1,300-1,500m. To date, 13 drill holes have been completed at Peake, a deeper zone prospective for copper mineralisation, returning results that intersected copper, lead, zinc and silver. The geological model interpreted from these results and other recently acquired data indicates the potential for a continuous structural and lithology-controlled system connecting Taylor Deeps and Peake. Further exploration drilling is planned in CY22.

Selected exploration drilling results from the Peake prospect are shown in Table 3 below.

**Table 3: Selected Peake drilling results**

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
HDS-540	1279.2	1389.0	0.2% Cu	109.7	0.1	0.3	15	0.62
	Including							
	1303.6	1309.7	0.2% Cu	6.1	0.2	0.4	61	3.48
HDS-552	1308.2	1384.7	0.2% Cu	76.5	0.2	0.4	25	1.52
	Including							
	1309.9	1328.6	0.2% Cu	18.8	0.1	0.2	40	2.77
	And							
	1364.3	1384.7	0.2% Cu	20.4	0.1	0.3	37	2.44
HDS-661	1322.2	1374.6	0.2% Cu	52.4	0.1	1.1	105	1.73
	Including							
	1322.2	1346.0	0.2% Cu	23.8	0.1	0.8	81	3.32
	Including							
	1322.2	1330.1	0.2% Cu	7.9	0.1	0.4	81	7.89
	1386.8	1460.6	0.2% Cu	73.8	0.5	0.7	67	1.06
	Including							
	1399.6	1410.3	0.2% Cu	10.7	0.7	1.5	227	2.84
HDS-717	1456.6	1466.7	0.2% Cu	10.1	0.5	1.0	78	2.57

All exploration drilling results from the Peake prospect are shown in Table 4 below. All drill intersections used to define the Exploration Target are included in Annexure 1 of this announcement.

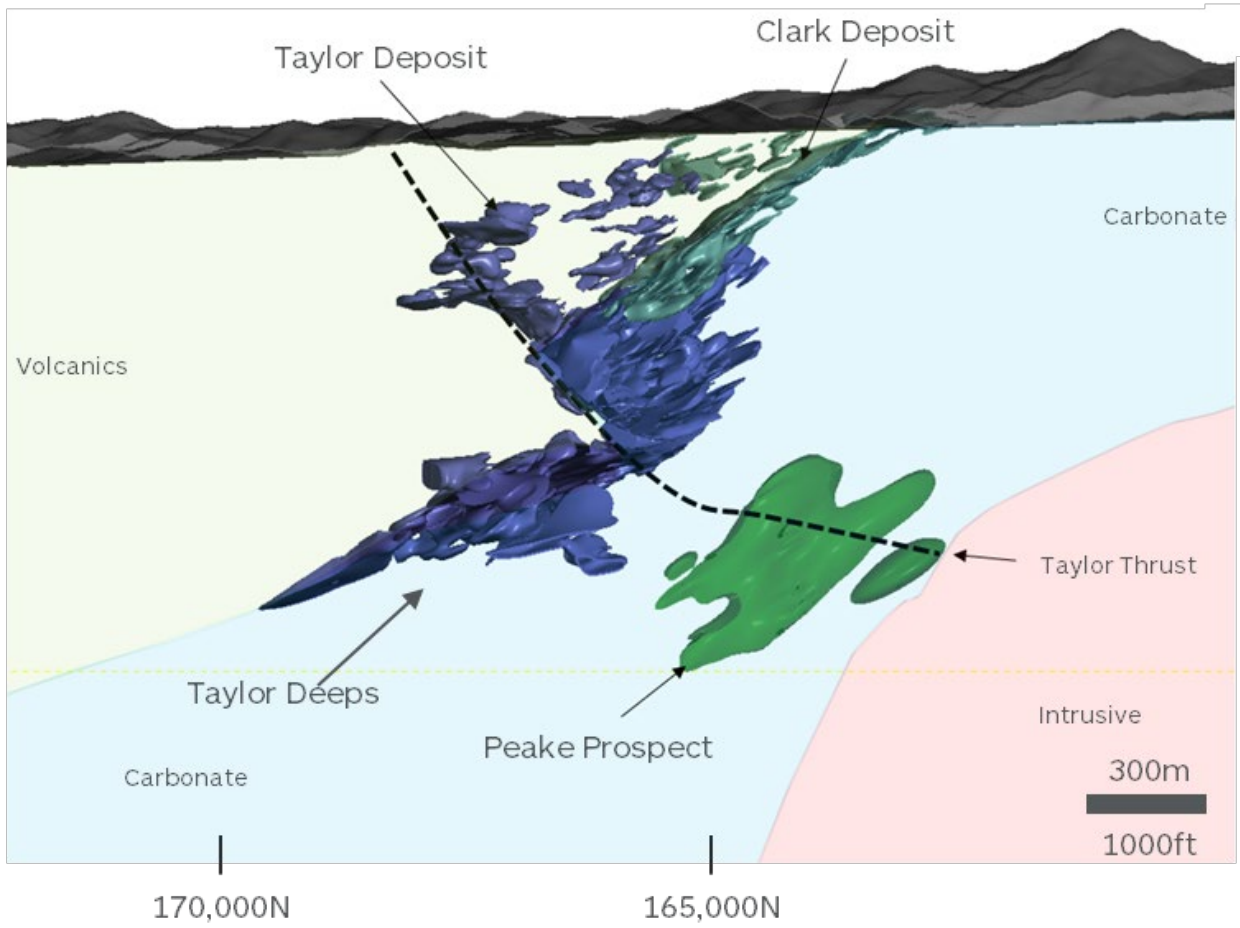
**Table 4: All Peake drilling results**

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
HDS-535	No significant intersection							
HDS-540	1279.2	1389.0	0.2% Cu	109.7	0.1	0.3	15	0.62
	Including							
	1303.6	1309.7	0.2% Cu	6.1	0.2	0.4	61	3.48
	1469.7	1488.0	0.2% Cu	18.3	0.0	0.0	10	0.63
HDS-545	No significant intersection							
HDS-549	1169.5	1175.6	0.2% Cu	6.1	1.5	1.6	312	1.92
HDS-551	1100.6	1111.6	0.2% Cu	11.0	0.0	0.2	10	0.39
	1254.9	1280.8	0.2% Cu	25.9	0.0	0.0	10	0.54
	1294.5	1372.8	0.2% Cu	78.3	0.0	0.1	10	0.51
HDS-552	1265.8	1273.9	0.2% Cu	8.1	0.2	0.5	27	0.39
	1308.2	1384.7	0.2% Cu	76.5	0.2	0.4	25	1.52

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
	Including							
	1309.9	1328.6	0.2% Cu	18.8	0.1	0.2	40	2.77
	And							
	1364.3	1384.7	0.2% Cu	20.4	0.1	0.3	37	2.44
	1478.9	1484.8	0.2% Cu	5.9	1.0	1.5	57	0.41
<b>HDS-557</b>	No significant intersection							
<b>HDS-661</b>	1298.4	1305.2	2% ZnEq	6.7	0.6	3.4	249	0.89
	1322.2	1374.6	0.2% Cu	52.4	0.1	1.1	105	1.73
	Including							
	1322.2	1346.0	0.2% Cu	23.8	0.1	0.8	81	3.32
	Including							
	1322.2	1330.1	0.2% Cu	7.9	0.1	0.4	81	7.89
	1386.8	1460.6	0.2% Cu	73.8	0.5	0.7	67	1.06
	Including							
	1399.6	1410.3	0.2% Cu	10.7	0.7	1.5	227	2.84
	And							
		1424.0	1446.9	0.2% Cu	22.9	0.5	0.6	45
	1555.1	1573.1	0.2% Cu	18	3.2	1.4	87	0.37
<b>HDS-662</b>	1316.4	1329.2	0.2% Cu	12.8	3.4	4.4	137	0.95
	1540.8	1546.7	2% ZnEq	5.9	5.9	2.1	250	0.45
<b>HDS-663</b>	1580.1	1591.8	0.2% Cu	11.7	0.1	0.0	16	0.95
	1615.9	1651.1	0.2% Cu	35.2	1.1	0.1	27	0.56
<b>HDS-691</b>	1343.6	1353.6	2% ZnEq	10.1	3.8	3.5	61	0.47
	1384.7	1395.4	0.2% Cu	10.7	2.7	2.9	38	1.03
	1405.9	1415.2	0.2% Cu	9.3	0.5	0.7	11	0.26
	1421.3	1452.1	0.2% Cu	30.8	0.7	0.8	22	0.59
	1463.6	1509.7	0.2% Cu	46.0	0.4	0.5	21	0.43
	1540.6	1549.3	0.2% Cu	8.7	0.3	0.9	51	0.61
	1563.9	1581.3	0.2% Cu	17.4	0.2	0.2	23	0.55
	1662.7	1677.9	0.2% Cu	15.2	2.8	1.1	155	1.19
	1683.4	1692.6	2% ZnEq	9.1	1.5	0.3	45	0.13
	1732.0	1735.2	2% ZnEq	3.2	6.2	0.3	107	0.18
1994.6	1997.4	2% ZnEq	2.7	1.7	0.3	54	0.08	
<b>HDS-717</b>	1065.3	1072.4	0.2% Cu	7.2	3.5	2.7	22	0.21
	1306.1	1318.3	0.2% Cu	12.2	1.8	1.8	63	0.82
	1444.1	1466.7	0.2% Cu	22.6	1.7	1.7	46	1.38
	Including							
	1456.6	1466.7	0.2% Cu	10.1	0.5	1.0	78	2.57
	1517.9	1522.2	2% ZnEq	4.3	3.0	1.8	49	0.03
	1718.6	1727.0	0.2% Cu	8.4	1.0	0.1	39	1.99
1754.1	1763.3	2% ZnEq	9.1	1.4	0.5	42	0.13	
<b>HDS-763</b>	1429.8	1439.6	2% ZnEq	9.8	2.3	0.1	3	0.02



**Figure 2: Peake prospect**



## Mining

The PFS design for Taylor is a dual shaft mine which prioritises early access to higher grade mineralisation, supporting ZnEq average grades of approximately 12%<sup>9</sup> in the first five years of the mine plan. The proposed mining method, longhole open stoping, maximises productivity and enables a single stage ramp-up to our preferred development scenario of up to 4.3Mtpa. In the PFS schedule, shaft development is expected to commence in FY24 with first production targeted in FY27 and nameplate production in FY30.

Ore is expected to be mined in an optimised sequence concurrently across four independent mining areas, crushed underground and hoisted to the surface for processing. The mine design contemplates two shaft stations, one for logistics and access, and the other for material handling. The primary haulage material handling level is expected to be located at a depth of approximately 800m.

The operation would be largely resourced with a local owner-operator workforce, with a mining fleet consisting of jumbo drills, rock bolters, production drills, load, haul and dump machines and haulage trucks. Taylor's feasibility study will evaluate the potential use of battery electric underground equipment and trucks within the mining fleet, bringing further efficiency benefits, reducing diesel consumption and carbon emissions.

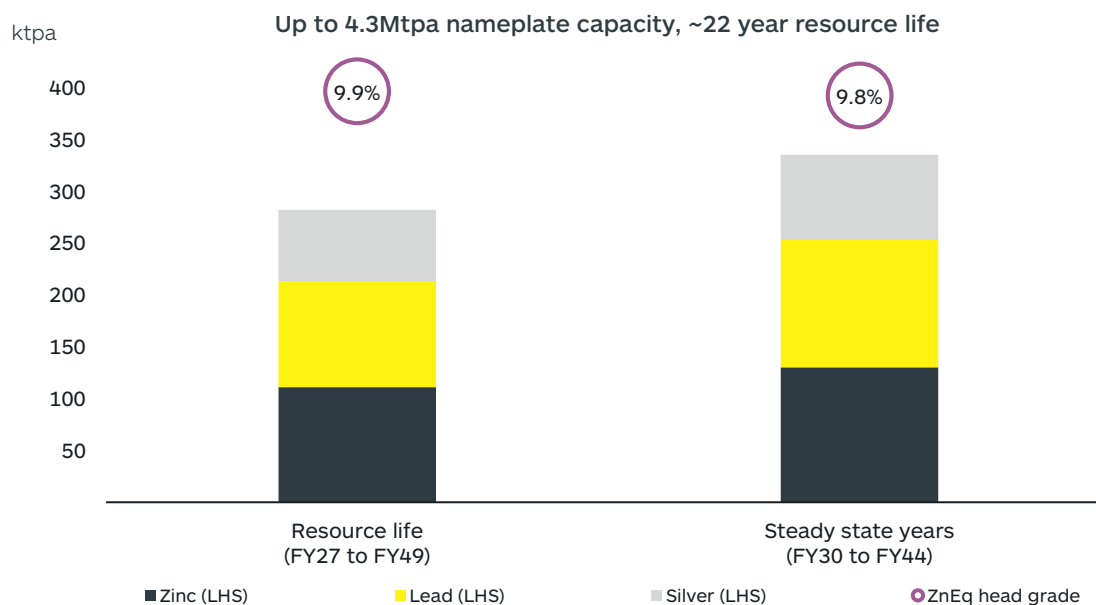
## Processing

The PFS process plant design is based on a sulphide ore flotation circuit to produce separate zinc and lead concentrates, with silver by-product credits. The flowsheet adheres to conventional principles with a primary crusher, crushed ore bins, comminution circuit, sequential flotation circuit, thickening and filtration. Tailings are processed by either filtration and drystack, or by converting to paste and returning them underground. Approximately half of the planned tailings will be sent underground as paste fill, reducing the surface environmental footprint.

Pre-flotation and pre-float concentrate cleaning steps have been included in the plant design to prevent magnesium oxide and talc from affecting flotation performance and concentrate quality. Jameson cell technology is proposed to be used in place of some traditional mechanical flotation cells to enhance recoveries. Once filtered, concentrate would be loaded directly into specialised bulk containers.

The PFS processing facility has design recoveries of 90% for zinc and 91% for lead, and target concentrate grades of 53% for zinc and 70% for lead. Silver primarily reports to the lead concentrate, with a design recovery of 81%. The zinc concentrate is considered mid-grade with relatively high silver content for zinc, and the lead concentrate is considered high-grade. Indicative production rates in the PFS are shown in Figure 3.

**Figure 3: Payable ZnEq production and head grade**



The PFS mine ramp-up enables nameplate capacity to be reached in FY30. Annual average payable production is ~111kt zinc, ~138kt lead and ~7.3Moz silver (~280kt ZnEq<sup>9</sup>). Production over the steady state years (FY30 to FY44) is expected to be approximately 20% higher, averaging ~130kt zinc, ~166kt lead and ~8.7Moz silver (~340kt ZnEq<sup>9</sup>).

## Site infrastructure

PFS capital includes estimates for non-processing infrastructure, including required tailings, power and water infrastructure.

**Figure 4: Site infrastructure**



The tailings storage facilities (TSF) have been designed in accordance with South32's Dam Management Standard, with our approach being consistent with the International Council on Mining and Metals (ICMM) Tailings Governance Framework. We are also progressing work on compliance with the Global Industry Standard on Tailings Management. Approximately half of the tailings produced will be thickened and filtered and sent back underground as paste backfill, reducing the surface environmental footprint. The remaining filtered tailings will be placed in one of two dry stack TSFs. The first facility is located on patented land and is an expansion to the existing TSF which was constructed as part of the voluntary remediation program completed in CY20. This already completed work established a state-of-the-art dry stack facility which will provide initial tailings capacity to support the commencement of operations. The PFS contemplates a second purpose-built facility on unpatented land, requiring Federal permits.

Future site power needs are expected to be met through transmission lines connecting to the local grid. Grid power is currently generated from a combination of coal, natural gas and renewables including solar, hydro and wind power. We have commenced discussions in relation to securing 100% renewable energy for the project, with options for grid-based renewable energy as well as new solar power projects to be advanced through the feasibility study.

Orebody dewatering is a critical path activity in the PFS schedule and capital expenditure has been committed to support construction and the installation of its related infrastructure, commencing from H2 FY22. The hydrogeological studies completed in the PFS and the design of the required water wells and infrastructure have been completed to feasibility-stage standards to support the execution of these early works.

Water treatment requirements are expected to met through two proposed water treatment plants (WTP). WTP1 is already installed and treatment upgrades are expected to be commissioned in Q3 FY22, while WTP2 is expected to be commissioned in Q4 FY23.

## Logistics

Hermosa is well located with existing nearby infrastructure for both bulk rail and truck shipments to numerous North American ports. The transportation of concentrates is expected to be a combination of trucking to a rail transfer facility (for subsequent rail transfer to port) and directly to port, for shipping to Asian and European smelters. Specialised bulk containers will be used to eliminate dust exposure from the time of load out until discharge to the ocean vessel. The expected trucking route in the PFS includes the construction of a connecting road to a state highway and other upgrades to road infrastructure.

PFS shipping costs assume transportation of concentrate to Asia and Europe. During feasibility we will continue to investigate the potential to supply smelters in the Americas, substantially lowering our assumed transport logistics and shipping costs.

## Operating cost estimates

The PFS includes estimates for mining, processing, general and administrative operating costs.

Mining costs (~US\$35/t ore processed) include all activities related to underground mining, including labour, materials, utilities and maintenance. Processing costs (~US\$13/t ore processed) include consumables, labour and power. General and administrative costs (~US\$10/t ore processed) include head office corporate costs and site support staff. Other costs (~US\$23/t ore processed) include shipping and transport (~US\$16/t ore processed), marketing and royalties, with private net smelter royalties averaging 2.4% (~US\$4/t ore processed).

Average PFS operating unit costs of ~US\$81/t ore processed (~US\$77/t at steady state production) reflect the high productivity rates expected from concurrently mining multiple independent underground areas and the benefit from access to local, skilled service providers.

Average PFS Operating unit costs expressed on a zinc equivalent basis of ~US\$(0.71)/lb and AISC<sup>11</sup> of ~US\$(0.05)/lb place the Taylor Deposit in the first quartile of the industry cost curve<sup>1</sup>.

**Table 5: Operating unit costs – \$/t/ore processed**

Item	US\$/t ore processed
Mining	~35
Processing	~13
General and administrative	~10
Other (including royalties)	~23
<b>Total</b>	<b>~81</b>

**Table 6: Operating unit costs – \$/lb ZnEq**

Item	\$/lb ZnEq
Mining	~0.51
Processing	~0.19
General and administrative	~0.15
Other (including royalties)	~0.33
<b>Operating unit costs</b>	<b>~1.18</b>
Lead and silver credits	~(1.89) <sup>12</sup>
<b>Zinc equivalent operating unit costs</b>	<b>~(0.71)</b>

## Capital cost estimates

Direct PFS capital expenditure estimates to construct Taylor are shown below. The construction period following a final investment decision is expected to be approximately four years. Indirect costs include contingency, owner's and engineering, procurement, and construction management (EPCM) costs to support the project. The Group will also continue to incur ongoing costs for work being undertaken across the broader Hermosa project that will be separately guided.

**Table 7: Growth capital expenditure (from 1 January 2022)**

Item	US\$M
Mining	~565
Surface facilities	~440
Dewatering	~225
<b>Direct costs</b>	<b>~1,230</b>
Indirect costs (including contingency)	~470
<b>Total</b>	<b>~1,700</b>

Mining capital expenditure includes the shafts (~US\$310M), development, mobile equipment and infrastructure. Surface facilities includes the processing plant (~US\$350M), tailings and utilities. The capital estimate reflects assumptions for key inputs including steel, cement and labour as at H1 FY22.

Additional capital is included in the PFS estimates for critical path orebody dewatering. The direct capital expenditure estimate of US\$225M includes expenditure directly attributable to water wells and a second required water treatment plant. A further ~US\$140M of owner's costs across the period of dewatering are included within indirect costs (~US\$470M).

Further value engineering work in the feasibility study will target a potential reduction in capital costs through further optimisation of the shaft design, construction and procurement.

Sustaining capital expenditure is expected to average approximately US\$40M per annum and primarily relates to mine development.

## Development approvals

The Hermosa project's mineral tenure is secured by 30 patented mining claims totaling 228 hectares that have full surface and mineral rights owned by South32. The patented land is surrounded by 1,957 unpatented mining claims totaling 13,804 hectares. The surface rights of the unpatented mining claims are administered by the USFS under multiple-use regulatory provisions.

The initial PFS mine development and surface infrastructure, including the processing plant, on-site power and the first TSF are designed to be located on patented mining claims. As a result, construction and mining of the Taylor Deposit can commence with approvals and permits issued by the State of Arizona. Several required permits for dewatering are already held, with the timeframe to receive the remaining State-based approvals expected to take up to approximately two years. Surface disturbance and additional tailings storage on unpatented land will require completion of the NEPA process with the USFS, in order to receive a Record of Decision (RoD). The ramp-up to nameplate production assumed in the PFS could take longer than contemplated if the RoD was delayed, as production may need to be slowed so tailings capacity could be restricted to patented lands until the RoD is received.

## **Our approach to sustainability at Hermosa**

Sustainable development is at the heart of our purpose at South32 and forms an integral part of our strategy. Our commitment to sustainable development is embedded in the approach we are adopting at Taylor.

We have developed a comprehensive stakeholder identification, analysis and engagement plan. Our key stakeholders include local communities within Santa Cruz County, Native American tribes with historic affiliation around the project area, and county, state and federal government agencies.

### ***Partnering with local communities***

We have developed a community investment plan for Hermosa. Key investment initiatives include a South32 Hermosa Community Fund developed in partnership with the Community Foundation for South Arizona, community sponsorships and grants to community programs that reflect the priorities of the communities around Hermosa. In addition to community investment programs, we have established local procurement and employment plans designed to provide direct economic benefits for our communities.

### ***Preserving cultural heritage***

We are committed to working with Native American tribes who have a historic affiliation with the area around the Hermosa project. While there are no Native American trust lands near Hermosa, historic habitation or use of the region by Indigenous Peoples may establish culturally significant connections. We have completed initial surveys for cultural resources on both our patented lands and unpatented mining claims and will continue to engage with Native American tribes who have historic affiliations to gain a more thorough understanding of sensitive cultural resources.

### ***Managing our environmental impact***

An environmental management plan (EMP) has been developed for Hermosa that is consistent with the South32 Environment Standard. Key aspects of the EMP include baseline studies, risk assessments and mapping of key features with respect to biodiversity, ecosystems and water. The baseline studies have included several biological studies and surveys, including for species listed under the *Endangered Species Act* (ESA) and USFS sensitive species, as well as monitoring of surface water, ground water and air quality. The ongoing collection, analysis and modelling of baseline information and survey data will align with the South32 Environment Standard and support the required permits and approvals for Hermosa.

Hermosa is in a semi-arid environment, with most rainfall occurring in the “monsoon” season of July through October. Water resource monitoring and management plans have been developed to support an understanding of the baseline conditions and numerical modelling of surface and groundwater resources. Additional studies are planned for completion as part of the Taylor feasibility study.

### ***Targeting net zero carbon operational emissions***

Taylor has been designed as a low carbon operation, with the primary sources of carbon emissions being residual diesel consumption and grid power. We have identified several opportunities to improve this starting position, with active discussions to secure 100% renewable energy for site power and the feasibility study to include further evaluation of the potential use of battery electric vehicles and underground mining equipment. We are testing technology solutions to support this, with a trial of electric vehicles planned at our Cannington zinc-lead-silver mine during FY22 and our ongoing participation in the Electric Mine Consortium<sup>13</sup>.

### ***Commodities for a low carbon future***

The proposed development of Taylor is consistent with our focus on reshaping our portfolio for a low carbon future, increasing our exposure to base and precious metals and reducing our carbon intensity.

The metals produced at Taylor are expected to play a role in supporting global decarbonisation. Zinc demand is expected to benefit from an increase in renewable energy infrastructure such as solar, where it allows for higher energy conversion, and wind, given its use in protecting key elements from corrosion. Silver is used in solar panels due to its superior electrical conductivity and has higher intensity of use in electric vehicles compared to internal combustion engine (ICE) cars. In the medium term, the ongoing growth in ICE vehicles sales will continue to see demand for lead-acid batteries grow, with lead demand also expected to be supported by its use in renewable energy storage systems.

## Taylor project summary

Key PFS assumptions and outcomes are summarised below.

**Table 8: Taylor PFS assumptions**

<b>Mining</b>	
Mineral Resource estimate	138Mt averaging 3.82% zinc, 4.25% lead and 81g/t silver
Resource life	~22 years
Mining method	Longhole open stoping with paste backfill
Mined ore grades	Zinc 4.1%, Lead 4.5%, Silver 82g/t
<b>Processing</b>	
Mill capacity	~4.3Mtpa
Concentrates	Separate zinc and lead concentrates with silver credits
Zinc recoveries (in zinc concentrate)	~90%
Lead recoveries (in lead concentrate)	~91%
Silver recoveries (in lead concentrate)	~81%
Metal payability	Zinc ~85%, Lead ~95%, Silver ~95% (in lead concentrate)
Zinc concentrate grade	~53%
Lead concentrate grade	~70%
<b>Payable metal production</b>	
Zinc	~2.4Mt (~111kt annual average)
Lead	~3.0Mt (~138kt annual average)
Silver	~160Moz (~7.3Moz annual average)
Zinc equivalent <sup>9</sup>	~6.2Mt (~280kt annual average)
<b>Capital costs</b>	
Direct capital expenditure	~US\$1,230M
Indirect capital expenditure	~US\$470M
Sustaining capital expenditure	~US\$40M annual average
<b>Schedule</b>	
First production	FY27
Steady state production	FY30-FY44
<b>Operating costs</b>	
Mining costs	~US\$35/t ore processed
Processing costs	~US\$13/t ore processed
General and administrative costs	~US\$10/t ore processed
Other operating unit costs	~US\$23/t ore processed (incl. royalties)
Operating unit costs	~US\$81/t ore processed
Zinc equivalent operating unit cost	~(US\$0.71/lb) ZnEq (incl. lead and silver credits)
All-in sustaining cost <sup>11</sup>	~(US\$0.05)/lb ZnEq (incl. lead and silver credits)
<b>Fiscal terms</b>	
Corporate tax rate <sup>14</sup>	~26%
Royalties	Average 2.4% private net smelter royalties

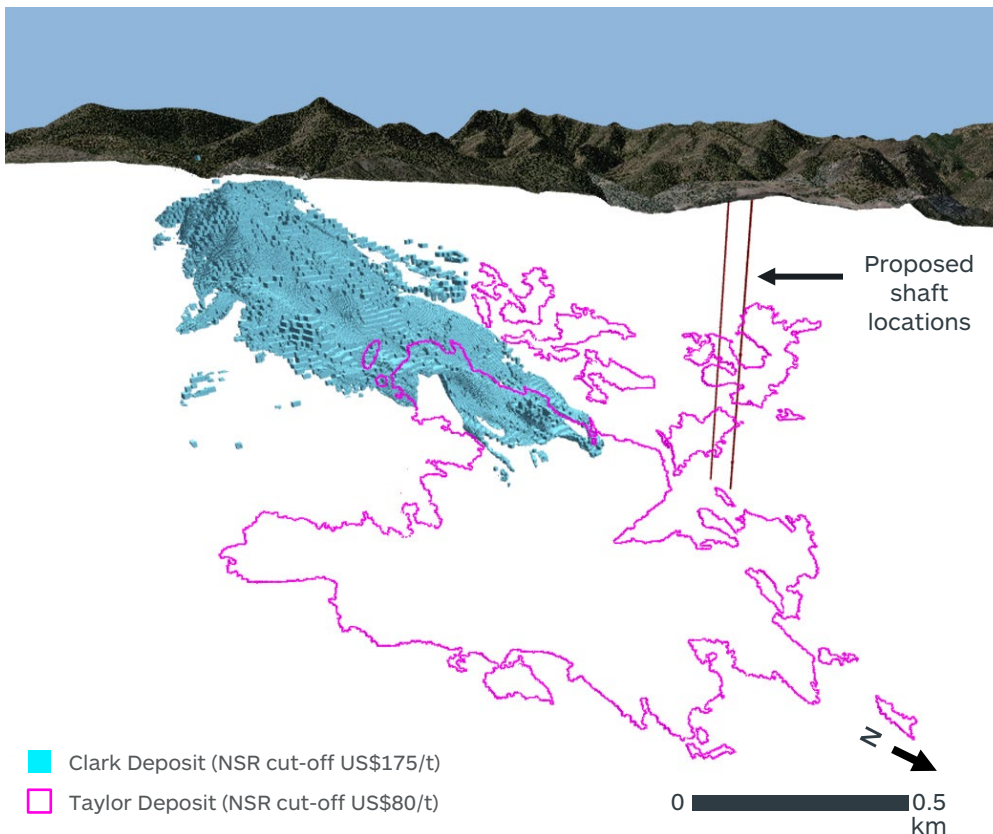
## CLARK DEPOSIT SCOPING STUDY

Clark is a manganese-zinc-silver oxide deposit located adjacent, and up-dip of the Taylor Deposit, which has a Mineral Resource estimate of 55 million tonnes, averaging 9.08% manganese, 2.31% zinc and 78 g/t silver using a NSR cut-off of US\$175/t<sup>4</sup> in accordance with the JORC Code. The Clark Deposit is interpreted as the upper oxidised, manganese-rich portion of the mineralised system, with the resource extending from near surface to a depth of approximately 600m.

The Clark Deposit has the potential to underpin a second development at Hermosa. We recently completed a scoping study<sup>2</sup> for the Clark Deposit which has confirmed viable flowsheets to produce battery-grade manganese, in the form of electrolytic manganese metal (EMM) or high purity manganese sulphate monohydrate (HPMSM). Clark has advanced to a PFS for a potential underground mine development using longhole open stoping accessed from existing patented mining claims. The PFS is designed to increase confidence in our technical and operating assumptions and customer opportunities in the rapidly growing battery-grade manganese markets. The first phase of the PFS is expected to be completed in late CY22, at which point a preferred development pathway will be selected. Many areas of the PFS, including mine planning, hydrogeology, infrastructure, sustainability and permitting will benefit from work completed in the Taylor PFS.

Our study work will also review the potential to pursue an integrated development of Taylor and Clark. An integrated development would comprise underground mining operations for Taylor and Clark with separate processing circuits to produce base and precious metals, and battery-grade manganese. An integrated development has the potential to realise operating and capital efficiencies.

**Figure 5: Clark and Taylor deposits**



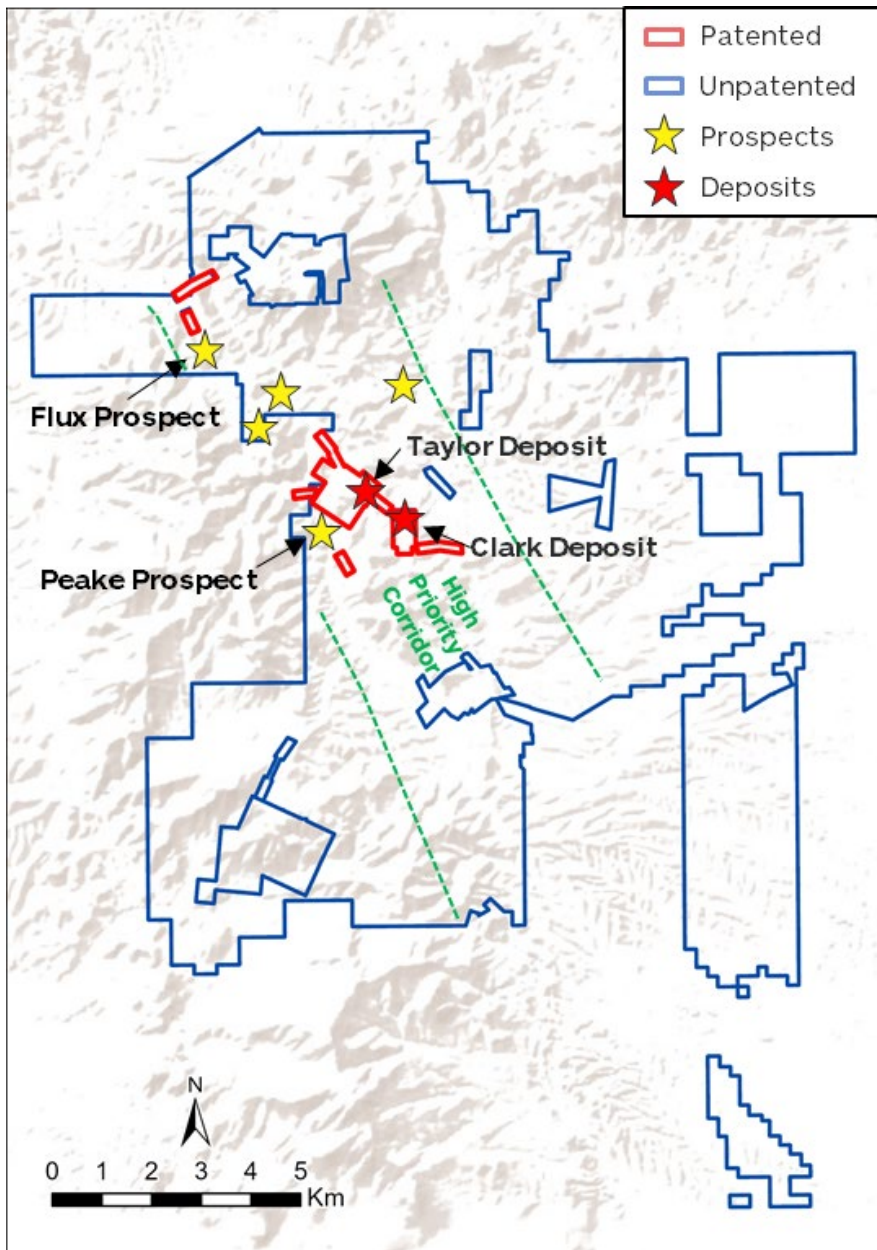


## REGIONAL EXPLORATION

Our third area of focus at Hermosa is unlocking value through exploration of our highly prospective regional land package. Since our initial acquisition, we have increased our tenure by 66%, consolidating our position in the most prospective areas. We have completed surface geophysics, soil sampling, mapping and other exploration activity, resulting in the definition of a highly prospective corridor across our land package which will be prioritised for future testing.

Within this highly prospective corridor, we plan to drill test the Flux prospect in the second half of CY22 following the receipt of required permits. The Flux prospect is located down-dip of an historic mining area in carbonates that could host Taylor-like mineralisation<sup>8</sup>. Our ongoing exploration strategy will focus on identifying, permitting and drilling new exploration targets across the land package while continuing to refine our understanding of the regional geology.

**Figure 6: Regional exploration**



## FOOTNOTES

1. Based on Taylor's estimated all-in sustaining costs (AISC) in the PFS and the Wood Mackenzie Lead/Zinc Asset Profiles. AISC includes operating unit costs (including royalties), treatment and refining charges (TCRCs), and sustaining capital expenditure.
2. Clark Deposit scoping study cautionary statement: The scoping study referred to in this announcement is based on low-level technical and economic assessments and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the scoping study will be realised. The study is based on 60% Indicated and 40% Inferred Mineral Resources (refer to footnote 4 for the cautionary statement).
3. Competent Persons Statement and cautionary statement – Exploration Results and Exploration Target: The information in this announcement that relates to Exploration Results and Exploration Targets for Hermosa (including Peake) is based on information compiled by David Bertuch, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and is employed by South32. Mr Bertuch has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr. Bertuch consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The JORC Table 1 (sections 1 and 2) related to the Exploration Results and Exploration Targets is included in Annexure 1. In respect of those Exploration Targets, the potential quantity and grade is conceptual in nature. There has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in the determination of Mineral Resources.
4. Mineral Resource Statements for the Taylor and Clark deposits: The information in this announcement that relates to Mineral Resources for the Taylor and Clark deposits is extracted from South32's FY21 Annual Report ([www.south32.net](http://www.south32.net)) published on 3 September 2021. The information was prepared by a Competent Person in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.
5. Resource life is estimated using Mineral Resources (extracted from South32's FY21 Annual Report published on 3 September 2021 and available to view on [www.south32.net](http://www.south32.net)) and Exploration Target (details of which are available in this announcement) converted to a run-of-mine basis using conversion factors, divided by the nominated run-of-mine production rate on a 100% basis. Whilst South32 believes it has a reasonable basis to reference this resource life and incorporate it within its Production Targets, it should be noted that resource life calculations are indicative only and do not necessarily reflect future uncertainties such as economic conditions, technical or permitting issues. Resource life is based on our current expectations of future results and should not be solely relied upon by investors when making investment decisions.
6. Production Targets Cautionary Statement: The information in this announcement that refers to the Production Target and forecast financial information is based on Measured (20%), Indicated (62%) and Inferred (14%) Mineral Resources and Exploration Target (4%) for the Taylor Deposit. All material assumptions on which the Production Target and forecast financial information is based is available in Annexure 1. The Mineral Resources underpinning the Production Target have been prepared by a Competent Person in accordance with the JORC Code (refer to footnote 4 for the cautionary statement). All material assumptions on which the Production Target and forecast financial information is based is available in Annexure 2. There is low level of geological confidence associated with the Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target will be realised. The potential quantity and grade of the Exploration Target is conceptual in nature. In respect of the Exploration Target used in the Production Target, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in the determination of Mineral Resources or that the Production Target itself will be realised. The stated Production Target is based on South32's current expectations of future results or events and should not be solely relied upon by investors when making investment decisions. Further evaluation work and appropriate studies are required to establish sufficient confidence that this target will be met. South32 confirms that inclusion of 18% tonnage (14% Inferred Mineral Resources and 4% Exploration Target) is not the determining factor of the project viability and the project forecasts a positive financial performance when using 82% tonnage (20% Measured and 62% Indicated Mineral Resources). South32 is satisfied, therefore, that the use of Inferred Mineral Resources and Exploration Target in the Production Target and forecast financial information reporting is reasonable.
7. Preferred case design capacity based on Taylor PFS outcomes.
8. Flux Exploration Target: The information in this announcement that relates to the Exploration Target for Flux is extracted from "South32 Strategy and Business Update" published on 18 May 2021 and is available to view on [www.south32.net](http://www.south32.net). The information was prepared by a Competent Person in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. South32 confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.
9. Payable zinc equivalent was calculated by aggregating revenues from payable zinc, lead and silver, and dividing the total revenue by the price of zinc. Average metallurgical recovery assumptions are 90% for zinc, 91% for lead and 81% for silver in lead concentrate. FY21 average index prices for zinc (US\$2,695/t), lead (US\$1,992/t) and silver (US\$25.50/oz) (excluding treatment and refining charges) have been used.
10. Based on steady state production years (FY30 to FY44).
11. AISC includes Operating unit costs (including royalties), TCRCs and sustaining capital expenditure.
12. Lead and silver credits are calculated using FY21 average index prices for lead (US\$1,992/t) and silver (US\$25.50/oz).
13. South32 is a founding member of the Electric Mine Consortium, which aims to accelerate progress towards a fully electrified zero carbon, zero particulates, mine. More information is available at [www.electricmine.com](http://www.electricmine.com).
14. Federal tax of 21.0% and Arizona state tax of 4.9% of taxable income, subject to applicable allowances. Hermosa has an opening tax loss balance of approximately US\$83M as at 30 June 2020. Property and severance taxes are also expected to be paid. Based on the PFS schedule, we expect to commence paying income taxes from FY29.

## About us

South32 is a globally diversified mining and metals company. Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. We produce bauxite, alumina, aluminium, metallurgical coal, manganese, nickel, silver, lead and zinc at our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

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Approved for release by Graham Kerr, Chief Executive Officer  
JSE Sponsor: UBS South Africa (Pty) Ltd  
17 January 2022

## Forward-looking statements

This release contains forward-looking statements, including statements about trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; and provisions and contingent liabilities. These forward-looking statements reflect expectations at the date of this release, however they are not guarantees or predictions of future performance. They involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this release. Readers are cautioned not to put undue reliance on forward-looking statements. Except as required by applicable laws or regulations, the South32 Group does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance. South32 cautions against reliance on any forward looking statements or guidance, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption arising in connection with COVID-19.

## Annexure 1: JORC Code Table 1

### HERMOSA PROJECT – EXPLORATION RESULTS

The following table provides a summary of important assessment and reporting criteria used for the reporting of Taylor sulphide exploration results for the Hermosa project, which is located in southern Arizona, USA (Figure 1), in accordance with the Table 1 checklist in The Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition) on an ‘if not, why not’ basis.

#### 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>The drilling that supports the exploration results is located outside of the current Taylor Mineral Resource estimate declared as at 30 June 2021 in the South32 Annual Report. A total of 53 diamond drill holes (HQ/NQ) totalling 73,632 metres have been drilled across the Taylor sulphide mineralisation. In order to define mineralisation continuity, the drilling information used to inform the resource is used for geological interpretation of the exploration results. In addition, the geological model also reflects input from near-surface reverse circulation (RC) drilling. All drilling is at predominantly 1.5m (5') intervals on a half core basis.</li> <li>A heterogeneity study is yet to be concluded to determine sample representivity.</li> <li>Core is competent and sample representivity is monitored using predominantly quarter or half core field duplicates submitted at a rate of approximately 1:40 samples. Field duplicates located within mineralisation envelopes demonstrate 70–90% performance to within 30% of original sample splits.</li> <li>Core assembly, interval mark-up, recovery estimation (over the 3m drill string) and photography all occur prior to sampling and follow documented procedures.</li> <li>Sample size reduction during preparation involves crushing and splitting of HQ (95.6mm) or NQ (75.3mm) half-core.</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>Data used for exploration results is based on logging and sampling of HQ diamond core, reduced to NQ in areas of difficult drilling. Triple and split-tube drilling methods were also employed in cases where conditions required these mechanisms to improve recovery.</li> <li>All drill core has been oriented using the Boart Longyear ‘Trucore’ system since mid-August 2018. In Q3 FY20, acoustic televiewer data capture was implemented for downhole imagery for the majority of drilling to improve orientation and geotechnical understanding. Structural measurements from oriented drilling have been incorporated in geological modelling to assist with fault interpretation.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Prior to October 2018, core recovery was determined by summation of individual core pieces within each 3m drill string. Recovery for the drill string has since been measured after oriented core alignment and mark-up.</li> <li>Core recovery is recorded for all diamond drill holes. Recovery of holes for the ranging and targeting exercise exceeds 96%.</li> <li>Poor core recovery can occur when drilling overlying oxide material and in major fault zones. To maximise recovery, drillers vary speed, pressure and composition of drilling muds, reduce HQ to NQ core size and use triple tube and ‘3 series’ drill bits.</li> <li>When core recovery is compared to Zn, Pb and Ag grades for both a whole data set and within individual lithology, there is no discernible relationship.</li> <li>Correlation analysis suggests there is no relationship between core recovery and depth except where structure is considered. There are isolated cases where lower recovery is localised at intersections of the Taylor sulphide carbonates with a major thrust structure.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>The entire length of core is photographed and logged for lithology, alteration, structure, rock quality designation (RQD), and mineralisation.</li> <li>Logging is both quantitative and qualitative; there are a number of examples including estimation of mineralisation percentages and association of preliminary interpretative assumptions with observations.</li> <li>All logging is peer reviewed against core photos and in the context of current geological interpretation and surrounding drill holes during geological model updates.</li> <li>Logging is to a level of detail to support the exploration results.</li> </ul>

Criteria	Commentary
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• Sawn half core and barren whole core samples are taken on predominantly 1.5m intervals for the entire drill hole after logging. Mineralisation is highly visual. Sampling is also terminated at litho-structural and mineralogical boundaries to reduce the potential for boundary/dilution effects at a local scale.</li> <li>• Sample lengths can vary between 0.75m and 2.3m. The selection of the sub-sample size is not supported by sampling studies.</li> <li>• Sample preparation has occurred offsite at an ISO17025-certified laboratory since the Taylor sulphide deposit discovery. This was initially undertaken by Skyline until 2012, then by Australian Laboratory Services (ALS). Samples submitted to ALS are generally 4–6kg in weight. Sample size reduction during preparation involves crushing of HQ (95.6mm) or NQ (75.3mm) half or whole core, splitting of the crushed fraction, pulverisation, and splitting of the sample for analysis. A detailed description of this process is as follows: <ul style="list-style-type: none"> <li>○ The entire half or whole core samples are crushed and rotary split in preparation for pulverisation. Depending on the processing facility, splits are done via riffle or rotary splits for pulp samples.</li> <li>○ Fine crushing occurs until 70% of the sample passes 2mm mesh. A 250g split of finely crushed sub-sample is obtained via rotary or riffle splitter and pulverised until 85% of the material is less than 75µm. These 250g pulp samples are taken for assay, and 0.25g splits are used for digestion.</li> </ul> </li> <li>• ALS protocol requires 5% of samples to undergo a random granulometry QC test. Samples are placed on 2 micron sieve and processed completely to ensure the passing mesh criteria is maintained. Pulps undergo similar tests with finer meshes. Results are loaded to an online portal for review to client.</li> <li>• Sample preparation precision is also monitored with blind laboratory duplicates assayed at a rate of 1:50 submissions.</li> <li>• Coarse crush preparation duplicate pairs show that 80% of all Zn and Ag pairs for sulphide mineralisation report within +/-20% of original samples. Performance drops off for Pb mineralisation, with less than 70% of duplicates reporting within the +/-20% limits.</li> <li>• More than 85% of pulp duplicates report within a 10% variance for Zn and Ag within all pulp duplicates. Performance for Pb is demonstrably poorer, similar to the preparation duplicates, with less than 80% of all pulp duplicates reporting within this tolerance.</li> <li>• Sub-sampling techniques and sample preparation are adequate for providing quality assay data for declaring exploration results but will benefit from planned studies to optimise sample selectivity and quality control procedures.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• Samples of 0.25g from pulps are processed at ALS Vancouver using ME-ICP61, where these are totally digested using a four-acid method followed by analysis with a combination of Inductively Coupled Plasma – Mass Spectrometry (ICP-MS) and Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP-AES) determination for 33 elements. Overlimit values for Ag, Pb, Zn, and Mn utilise OG-62 analysis. In November 2020, Hermosa switched to the analytical method ME-MS61 for the four acid 48 element assay for additional elements and improved detection limits alongside the addition of overlimit packages of S-IR07 for S and ME-ICP81 for Mn. Digestion batches of 36 samples plus four internal ALS control samples (one blank, two CRM, and one duplicate) are processed using a four-acid digestion. Analysis is done in groups of three larger digestion batches. Instruments are calibrated for each batch prior to and following the batch.</li> <li>• ALS internal QA/QC samples are continuously monitored for performance. In the case of a blank failure, for example, the entire batch is redone from the crushing stage. If one CRM fails, data reviewers internal to ALS examine the location of the failure within the batch and determine how many samples around the failure should be reanalysed. If both CRMs fail, the entire batch is rerun. No material failures have been observed from the data.</li> <li>• Coarse and fine-grained certified silica blank material submissions, inserted at the beginning and end of every work order of approximately 200 samples, indicate a lack of systematic sample contamination in sample preparation and ICP solution carryover. While systematic contamination issues are not observed for the blanks, the nature of the blanks themselves and suitability for use in QA/QC for polymetallic deposits is in question. <ul style="list-style-type: none"> <li>○ Failures for blanks are noted at greater than ten times detection limit or recommended upper limit for the certified blank material for each analyte, failures range from 0% for Ag (&gt;5ppm), 1% for Cu (&gt;10ppm), 3.5% for Pb (&gt;20ppm), and 7.5% for Zn (&gt;20ppm), and indicate that the blanks themselves are not truly suited for</li> </ul> </li> </ul>

Criteria	Commentary
	<p>polymetallic deposits. In particular, a coarse blank submitted from 2017–2018 demonstrated consistent contamination above detection limits for Zn, Cu, Mn, and other elements. This has since been replaced with a better performing coarse blank of the end of 2018.</p> <ul style="list-style-type: none"> <li>○ The nature of the blanks and the failures observed are very low for Ag and Cu, and failures for blanks for Zn and Pb are in the hundreds of ppm. No consistent bias has been observed and the magnitude of impacts at the low end for the blanks are very limited. It is not likely to impact the exploration results.</li> <li>● A range of certified reference materials (CRM) are submitted at a rate of 1:40 samples to monitor assay accuracy. The CRM failure rate is very low, ranging from 0.1% to 1.3% depending on analyte, demonstrating reliable laboratory accuracy.</li> <li>● External laboratory pulp duplicates and CRM checks have been submitted to the Inspectorate (Bureau Veritas) laboratory in Reno from November 2017 to 2018 and resumed in March 2021 at a rate of 1:100 to monitor procedural bias. Between 84% and 89% of samples for Zn, Pb and Ag were within expected tolerances of +/-20% when comparing three-acid (Inspectorate) and four-acid (ALS) digest methods. No significant bias was determined.</li> <li>● The nature and quality of assaying and laboratory procedures are appropriate for supporting disclosure of exploration results.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>● Core photos of the entire hole are reviewed by alternative company personnel (modelling geologists) to verify significant intersections and finalise geological interpretation of core logging.</li> <li>● Sampling is recorded digitally and uploaded to an Azure SQL project customised database (Plexer) via an API provided by the ALS laboratory and the external laboratory information management system (LIMS). Digital transmitted assay results are reconciled upon upload to the database.</li> <li>● No adjustment to assay data has been undertaken.</li> </ul>
<i>Location of data points</i>	<ul style="list-style-type: none"> <li>● Drill hole collar locations are surveyed by registered surveyors using a GPS Real Time Kinematic (RTK) rover station correlating with the Hermosa project RTK base station and Global Navigation Satellite Systems with up to 1cm accuracy.</li> <li>● Downhole surveys prior to mid-August 2018 were taken with a 'TruShot' single shot survey tool every 76m and at the bottom of the hole. From 20 June 2018 to 14 August 2018, surveys were taken at the same interval with both the single shot and a Reflex EZ-Gyro, before the Reflex EZ-Gyro was used exclusively.</li> <li>● The Hermosa project uses the Arizona State Plane (grid) Coordinate System, Arizona Central Zone, International Feet. The datum is NAD83 with the vertical heights converted from the ellipsoidal heights to NAVD88 using GEOID12B.</li> <li>● All drill hole collar and downhole survey data was audited against source data.</li> <li>● Survey collars have been compared against a one-foot topographic aerial map. Discrepancies exceeding 1.8m were assessed against a current aerial flyover and the differences attributed to surface disturbance from construction development and/or road building.</li> <li>● Survey procedures and practices result in data location accuracy suitable for mine planning.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>● Drill hole spacing ranges from 60m to 600m. The spacing supplies sufficient information for assessment of exploration results.</li> <li>● Geological modelling has determined that drill spacing is sufficient to establish the degree of geological and grade continuity necessary to support review of exploration results.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>● For geological modelling, mineralisation varies in dip between 30°NW in the upper Taylor Sulphide domain and between 20°N and 30°N in the lower Taylor Deeps and the Peake Copper-Skarn prospect. Most drilling is oriented vertically and at a sufficiently high angle to allow for accurate representation of grade and tonnage using three-dimensional modelling methods.</li> <li>● There is indication of sub-vertical structures, possibly conduits for or offsetting mineralisation, which have been accounted for at a regional scale through the integration of mapping and drilling data. Angled, oriented core drilling introduced from October 2018</li> </ul>

Criteria	Commentary
	is designed to improve understanding of the relevance of these structures to mineralisation.
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• Samples are tracked and reconciled through a sample numbering and dispatch system from site to the ALS sample distribution and preparation facility in Tucson. The ALS LIMS assay management system provides an additional layer of sample tracking from the point of sample receipt. Movement of sample material from site to the Tucson distribution and preparation facility is a combination of ALS dedicated transport and project contracted transport. Distribution to other preparation facilities and Vancouver is managed by ALS dedicated transport.</li> <li>• Assays are reconciled and results processed in an Azure SQL project customised database (Plexer) which has password and user level security.</li> <li>• Core is stored in secured onsite storage prior to processing. After sampling, the remaining core, returned sample rejects and pulps are stored at a purpose-built facility that has secured access.</li> <li>• All sampling, assaying and reporting of results are managed with procedures that provide adequate sample security.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• CSA Global audited the sampling methodology and database for the FY21 Mineral Resource estimate and noted that the sampling and QA/QC measures showed the database to be adequate.</li> <li>• An internal database audit was undertaken in February 2019 for approximately 10% of all drilling intersecting sulphide mineralisation (24 of 242 holes). Data was validated against original data sources for collar, survey, lithology, alteration, mineralisation, structure, RQD and assay (main and check assays). The overall error rates across the database were found to be very low. Isolated issues included the absence of individual survey intervals and minor errors in collar survey precision. All were found to have minimal impact on resource estimation.</li> <li>• Golder and Associates completed an independent audit of the exploration results including QA/QC of reported drillholes outside the FY21 Taylor Sulphide Mineral Resource estimate, adherence to the Resource Range Analysis process, inputs, assumptions and outcomes. Outcomes are considered appropriate for public reporting of exploration results.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• The Hermosa project mineral tenure (Figure 2) is secured by 30 patented mining claims totalling 228 hectares that have full surface and mineral rights owned fee simple. These claims are retained in perpetuity by annual real property tax payments to Santa Cruz County in Arizona and have been verified to be in good standing until 31 August 2022.</li> <li>• The patented land is surrounded by 1,957 unpatented lode mining claims totalling 13,804 hectares. These claims are retained through payment of federal annual maintenance fees to the Bureau of Land Management (BLM) and filing record of payment with the Santa Cruz County Recorder. Payments for these claims have been made for the period up to their annual renewal on or before 1 September 2022.</li> <li>• Title to the mineral rights is vested in South32's wholly owned subsidiary Arizona Minerals Inc. (AMI). No approval is required in addition to the payment of fees for the claims.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• ASARCO LLC (ASARCO) acquired the Property in 1939 and completed intermittent drill programs between 1940 and 1991. ASARCO initially targeted silver and lead mineralisation near historical workings of the late 19th century. ASARCO identified silver-lead-zinc bearing manganese oxides in the manto zone of the overlying Clark Deposit between 1946 and 1953.</li> <li>• Follow-up rotary air hammer drilling, geophysical surveying, detailed geological, and metallurgical studies on the manganese oxide manto mineralisation between the mid-1960s and continuing to 1991 defined a heap leach amenable, low-grade manganese</li> </ul>

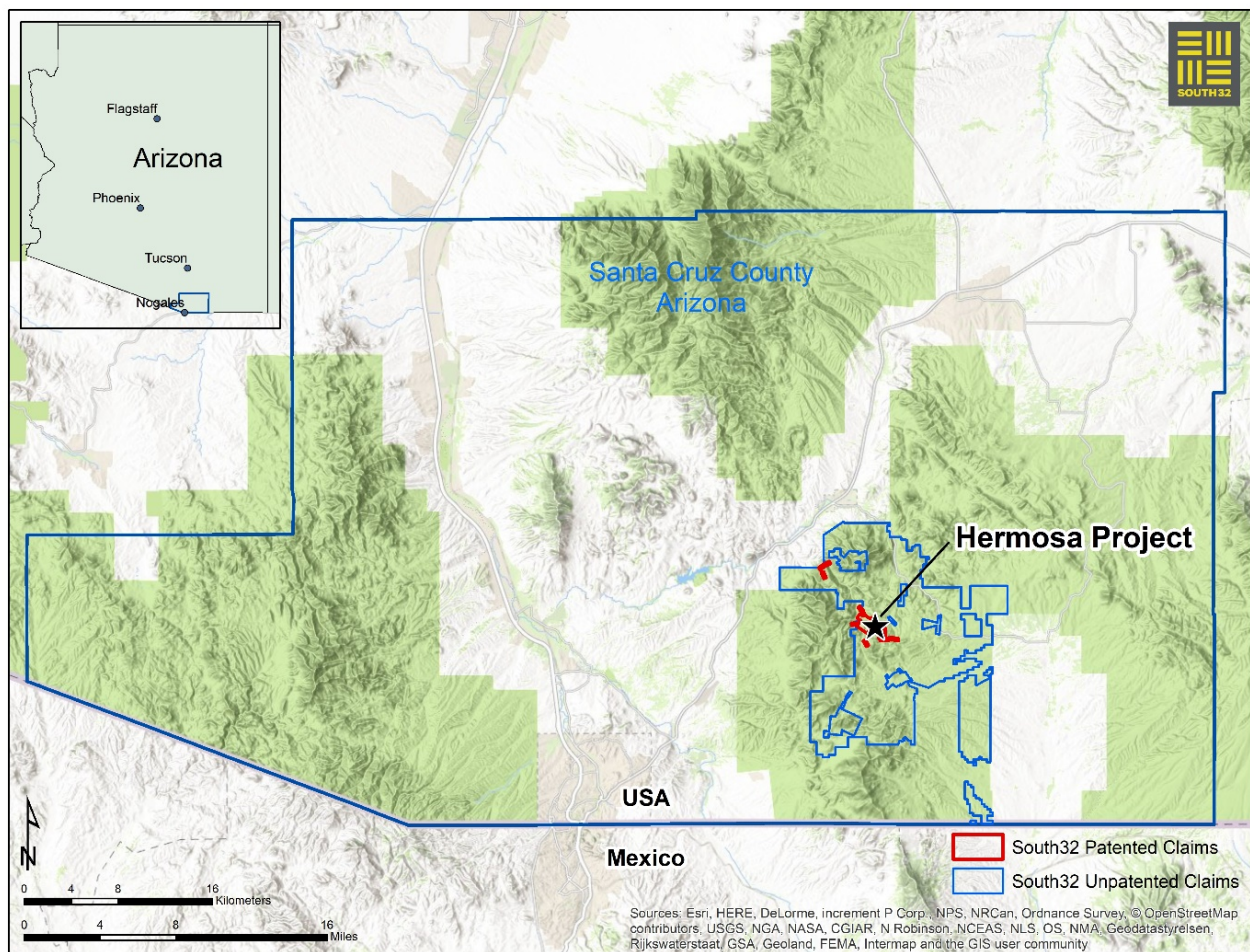
Criteria	Commentary
	<p>and silver resource, reported in 1968 and updated in 1975, 1979 and 1984. The ASARCO drilling periods account for 98 drill holes from the database.</p> <ul style="list-style-type: none"> <li>• In March 2006, AMI purchased the ASARCO property and completed a re-assay of pulps and preliminary SO<sub>2</sub> leach tests on the manto mineralisation to report a Preliminary Economic Assessment (PEA) in February 2007. Drilling of RC and diamond holes between 2006 and 2012 focused on the Clark Deposit (235 holes) and early definition of the Taylor Deposit sulphide mineralisation (16 holes), first intersected in 2010. Data collected from the AMI 2006 campaign is the earliest information contributing to estimation of the Taylor Deposit Mineral Resource.</li> <li>• AMI drill programs between 2014 and August 2018 (217 diamond holes) focused on delineating Taylor Deposit sulphide mineralisation, for which Mineral Resource estimates were reported in compliance to NI 43-101 (Foreign Estimate) in November 2016 and January 2018.</li> </ul>
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <li>• The regional geology is set within Lower-Permian carbonates, underlain by Cambrian sediments and Proterozoic granodiorites. The carbonates are unconformably overlain by Triassic to late-Cretaceous volcanic rocks (Figures 3 and 4). The regional structure and stratigraphy are a result of late-Precambrian to early-Palaeozoic rifting, subsequent widespread sedimentary aerial and shallow marine deposition through the Palaeozoic Era, followed by Mesozoic volcanism and late batholithic intrusions of the Laramide Orogeny. Mineral deposits associated with the Laramide Orogeny tend to align along regional NW structural trends.</li> <li>• Cretaceous-age intermediate and felsic volcanic and intrusive rocks cover much of the Hermosa project area and host low-grade disseminated silver mineralisation, epithermal veins and silicified breccia zones that have been the source of historic silver and lead production.</li> <li>• Mineralisation styles in the immediate vicinity of the Hermosa project include the carbonate replacement deposit (CRD) style zinc-lead-silver base metal sulphides of the Taylor Deposit and deeper skarn-style copper-zinc-lead-silver base metal sulphides of the Peake prospect and an overlying manganese-silver oxide manto deposit of the Clark Deposit.</li> <li>• The Taylor Deposit comprises the overlying Taylor Sulphide, and Taylor Deeps domains that are separated by a thrust fault. Approximately 600–750m lateral and south to the Taylor Deeps domain, the Peake copper-skarn sulphide mineralisation is identified in older lithological stratigraphic units along the interpreted continuation of the thrust fault (Figures 5 and 6).</li> <li>• The Taylor Sulphide Deposit extends to a depth of around 1,000m and is hosted within approximately a 450m thickness of Palaeozoic carbonates that dip 30°NW, identified as the Concha, Scherrer and Epitaph Formations.</li> <li>• Taylor Sulphide mineralisation is dominantly constrained within a tilted and thrust carbonate stratigraphy and to a lesser degree the overlying volcanic stratigraphy. The mineralising system is yet to be fully drill tested in multiple directions. At Taylor, the sulphide mineralisation is constrained up-dip where it merges into the overlying oxide manto mineralisation of the Clark Deposit, representing a single contiguous mineralising system.</li> <li>• The north-bounding edge of the thrust carbonate rock is marked by a thrust fault where it ramps up over the Jurassic/Triassic ‘Older Volcanics’ and ‘Hardshell Volcanics’. This interpreted pre-mineralising structure that created the sequence of carbonates also appears to be a key mineralising conduit. The thrust creates a repetition of the carbonate formations below the Taylor Sulphide domain, which host the Taylor Deeps mineralisation.</li> <li>• The Taylor Deeps mineralisation dips 10°N to 30°N, is approximately 100m thick, and primarily localised near the upper contact of the Concha Formation and the unconformably overlying ‘Older Volcanics’. Some of the higher-grade mineralisation is also accumulated along a westerly plunging lineation intersection where the Concha Formation contacts the Lower Thrust. Mineralisation has not been closed off down-dip or along strike.</li> <li>• Lateral to the Taylor Deeps mineralisation, skarn sulphide mineralisation is identified in older lithological stratigraphic units along the interpreted continuation of the thrust fault. This creates an interpreted continuous structural and lithological controlled system from the deeper skarn Cu domain into Taylor Deeps, Taylor Sulphide, and associated volcanic hosted mineralisation and the Clark oxide Deposit.</li> </ul>



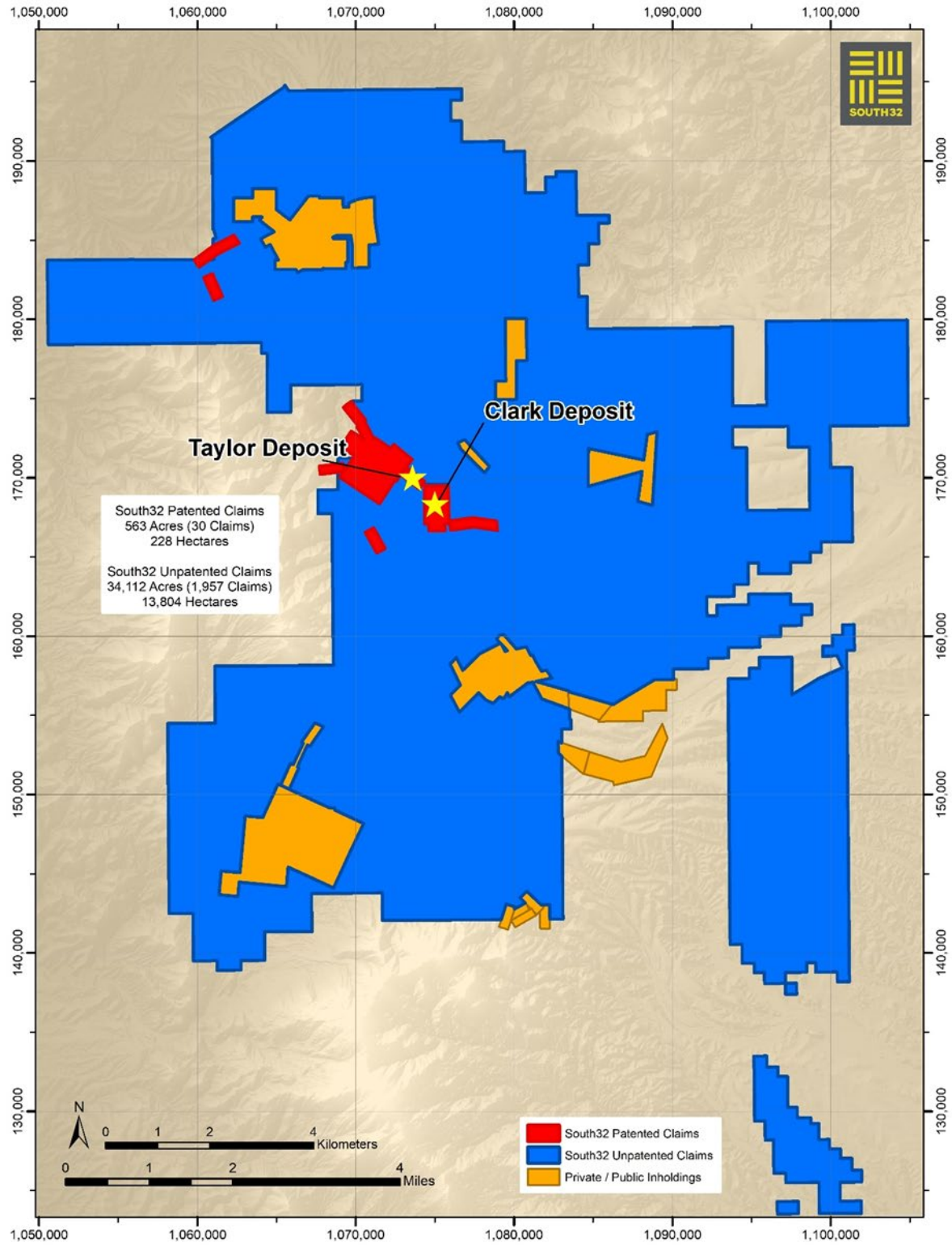
Criteria	Commentary
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• A drill hole plan (Figure 4) provides a summary of drilling collar locations that support the exploration results and surface geology. Figure 5 provides a drill hole plan relative to the Taylor FY21 and Clark FY20 Mineral Resource domains, and the Peake copper-skarn prospect. Figure 6 shows a cross section relative to key inputs in Figure 5 alongside the Taylor thrust and simplified geology.</li> <li>• Table 1 summarises all the drill holes that support Exploration Targets.</li> <li>• Table 2 summarises all significant intersections.</li> <li>• All drill hole information, including tabulations of drill hole positions and depths is stored within project data files on a secure company server.</li> <li>• Hole depths vary between 550m and 2,000m.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• Mineralisation domains were created within bounding litho-structural zones using both manually interpreted volumes and Radial Based Function (RBF) indicator interpolation of the cumulative in-situ value of metal content. The metal content descriptor, "Metval", is calculated by summing the multiplication of economic analyte grades for Zn, Pb, Ag and Cu, price and recovery. Metval cut-off ranges for mineralisation domains range from US\$5-7.5 for the different litho-structural domains. Material above the Metval cut-off was modelled utilising the indicator numerical model function in Leapfrog Geo™ to create volumes.</li> <li>• Significant assay intercepts are reported as length-weighted averages exceeding either 2% ZnEq or 0.2% Cu.</li> <li>• No top cuts are applied to intercept calculations.</li> <li>• ZnEq (%) is zinc equivalent which accounts for combined value of zinc, lead and silver. Metals are converted to ZnEq via unit value calculations using long term consensus metal price assumptions and relative metallurgical recovery assumptions. For the Exploration Target, overall metallurgical recoveries differ for geological domains and vary from 87% to 94% for zinc, 94% to 95% for lead, and 87% to 92% for silver. Exploration Target tonnage and grade is reported above an NSR that accounts for payability of metals in concentrate products, which depending on other factors, may decrease the total payable recovered metal. Average payable metallurgical recovery assumptions are zinc (Zn) 90%, lead (Pb) 91%, and silver (Ag) 81% and metals pricing assumptions are South32's prices for the December 2021 quarter. The formula used for calculation of zinc equivalent is <math>ZnEq = Zn (\%) + 0.718 * Pb (\%) + 0.0204 * Ag (g/t)</math>.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• Near vertical drilling (75–90°) amounts to the majority of holes used in the creation of the geology model. Where they intersect the low to moderately dipping (30°) stratigraphy the intersection length can be up to 15% longer than true-width.</li> <li>• Since August 2018, drilling has been intentionally angled, where appropriate, between 60° and 75° to maximise the angle at which mineralisation is intersected.</li> <li>• The mineralisation is modelled in 3D to appropriately account for sectional bias or apparent thickness issues which may result from 2D interpretation.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• Relevant maps and sections are included with this market announcement.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• Exploration results are reported considering drill holes completed outside the disclosed Mineral Resource estimate as at 30 June 2021. All drill hole intersections are considered in this assessment for balanced reporting. A list of drill holes is included as an annexure to this announcement.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• Aside from drilling, the geological model is compiled from local and regional mapping, geochemistry sampling and analysis, and geophysical surveys.</li> <li>• Magneto-telluric (MT) and induced polarisation surveys (IP) were conducted with adherence to industry standard practices by Quantec Geosciences Inc. In most areas, the MT stations were collected along N–S lines with a spacing of 200m. Spacing between lines is 400m. Some areas were collected at 400m spacing within individual lines. IP has also been collected, both as 2D lines and as 2.5D swaths, collected with a variable spacing of data receivers. IP surveying is ongoing over the project.</li> <li>• Quality control of geophysical data includes using a third-party geophysical consultant to verify data quality and provide secondary inversions for comparison to Quantec interpretations.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• The following work is planned to be conducted: <ul style="list-style-type: none"> <li>○ The deeper Peake Copper-skarn prospect will be assessed in detail.</li> </ul> </li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>○ Additional drilling of the Peake Copper-skarn prospect is planned to occur in CY22, guided by the outcomes of a detailed assessment in the area adjacent to Taylor Deeps where very little drilling is completed so far.</li> <li>○ Additional ongoing drilling will assess Taylor and Taylor Deeps extensional opportunities.</li> <li>○ Exploratory drilling underneath and downdip of the historic mine workings at the Flux prospect is planned to occur in CY22, pending permit approvals.</li> <li>○ Additional geophysics over the project is ongoing.</li> </ul>

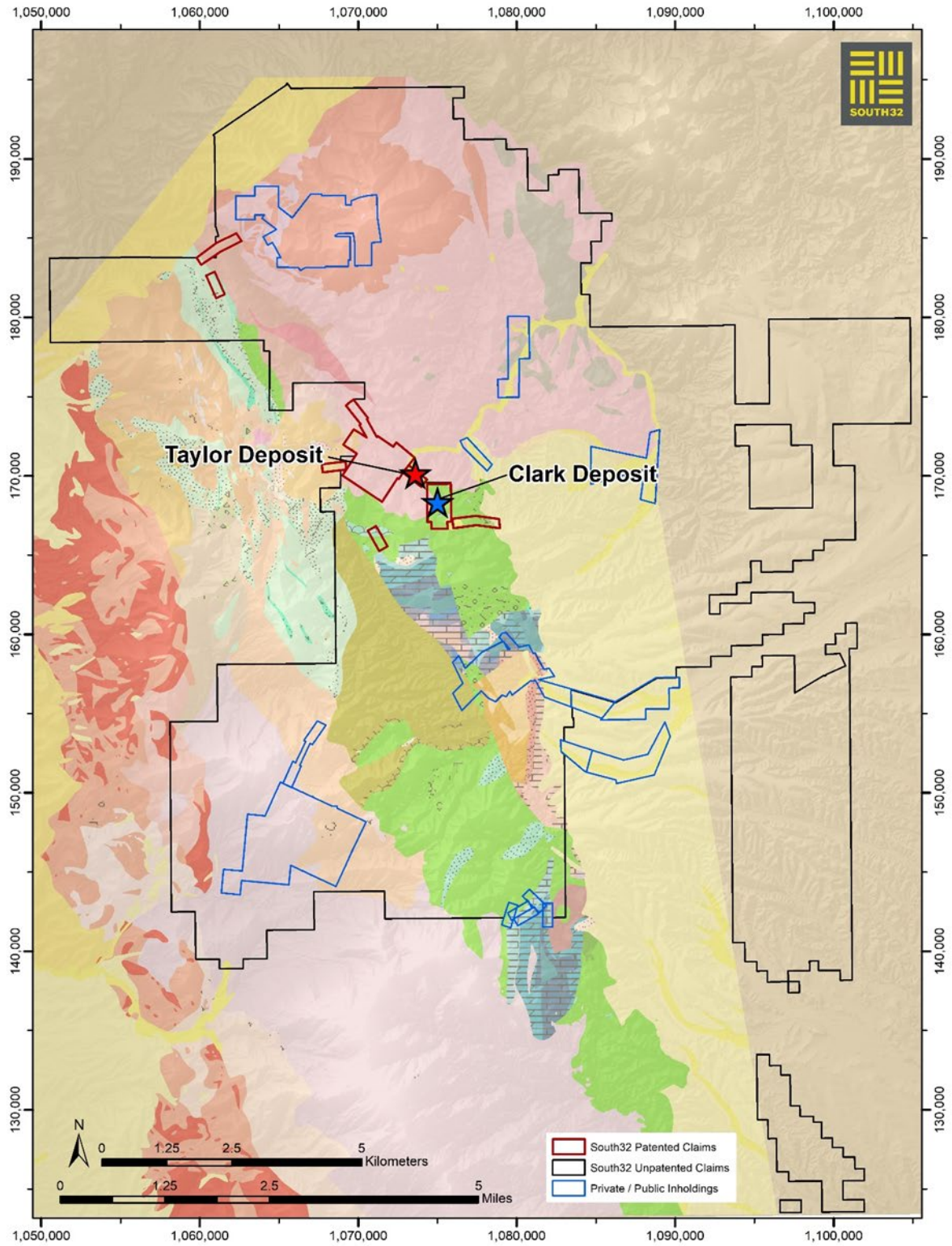
**Figure 1: Regional location plan**



**Figure 2: Hermosa project tenement map**



**Figure 3: Hermosa project regional geology**

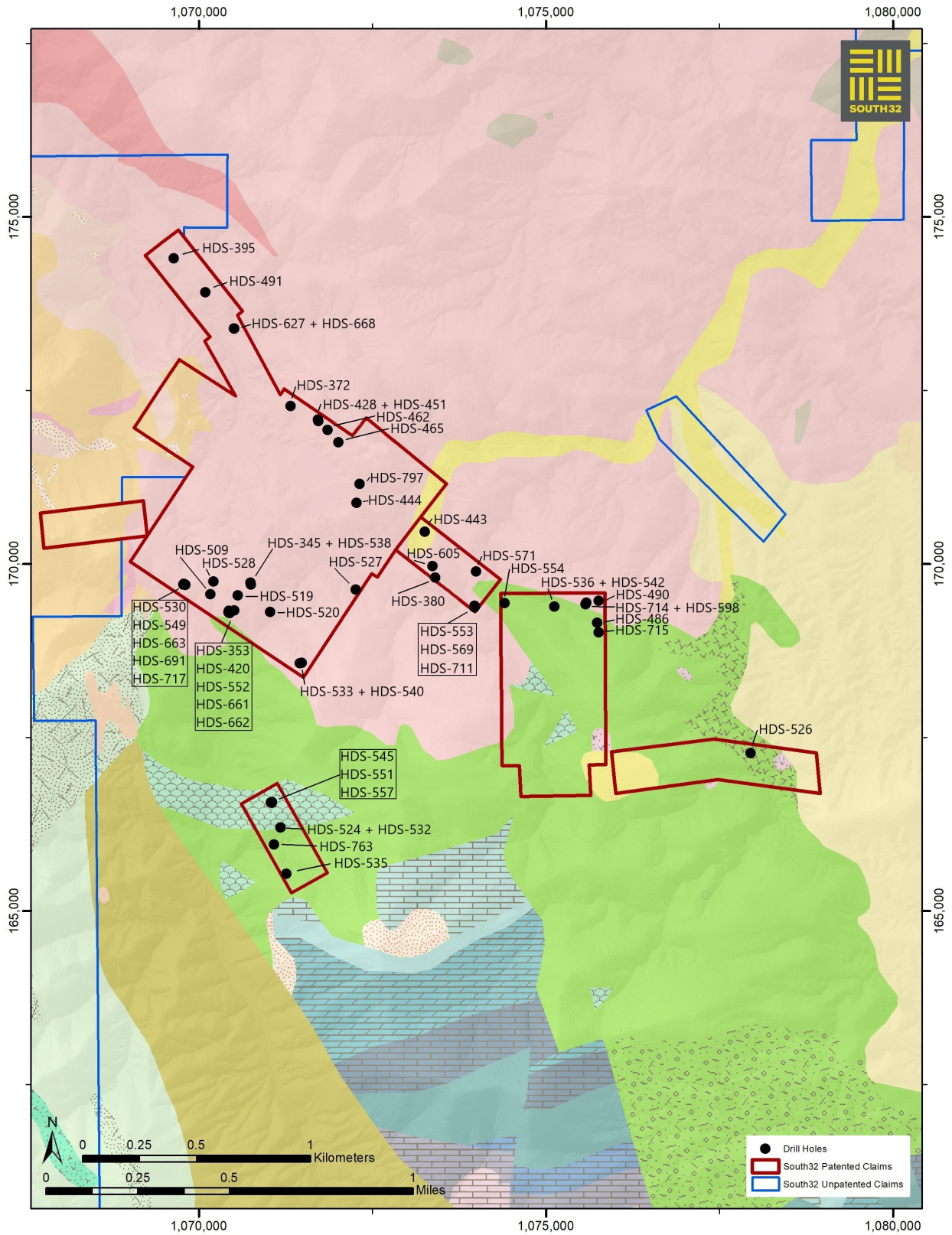


**Map units**

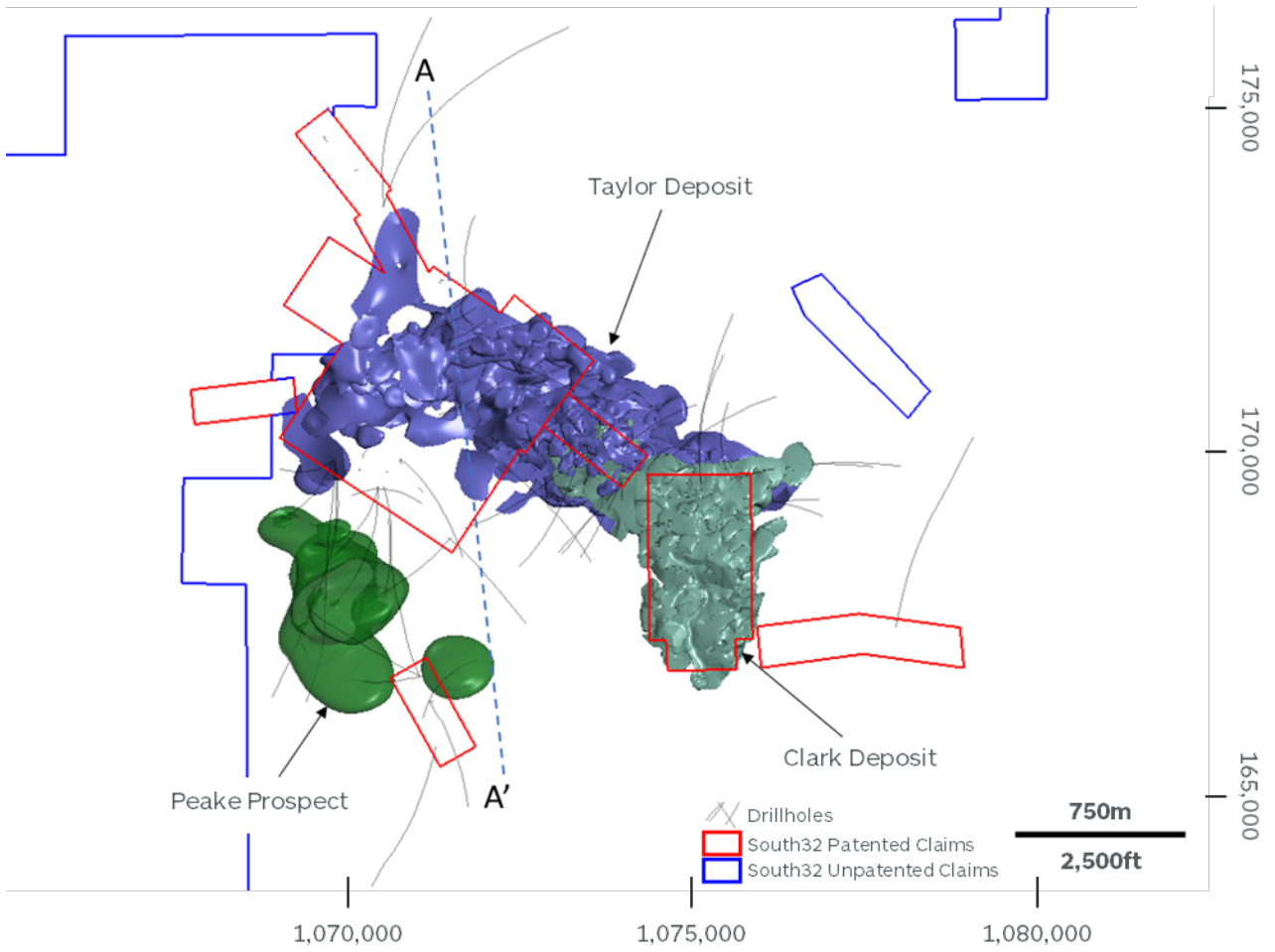
**Symbol, Unit name**

 Qal—Younger alluvium and talus	 Jtgb—Breccia, in granite of Three R Canyon (unit Jtg) of granite of Cumero Canyon
 QTal—Older alluvium	 Jcm—Porphyritic granite, in granite of Cumero Canyon
 QTg—Gravel and conglomerate	 Jcs—Equigranular alkali syenite, in granite of Cumero Canyon
 Tl—Limestone	 Jcsb—Breccia, in equigranular alkali syenite (unit Jcs) of granite of Cumero Canyon
 Tt—Biotite rhyolite tuff	 Jcg—Equigranular granite, in granite of Cumero Canyon
 si—Silicification	 Jcgb—Breccia, in equigranular granite (unit Jcg) of granite of Cumero Canyon
 Tv—Volcaniclastic rocks of middle Alum Gulch	 Jhm—Hornblende monzonite of European Canyon
 Tib—Intrusive breccia of middle Alum Gulch	 JTRv—Volcanic rocks, in silicic volcanic rocks
 Tqp—Quartz feldspar porphyry of middle Alum Gulch	 ha—Hornblende andesite dike and (or) plug, in volcanic rocks (unit JTRv)
 Tqpx—Xenolithic quartz feldspar porphyry of middle Alum Gulch	 b—Volcanic breccia, in volcanic rocks (unit JTRv)
 Tqmp—Quartz monzonite porphyry, in granodiorite of the Patagonia Mountains	 s—Sedimentary rocks, in volcanic rocks (unit JTRv)
 Tqmpb—Breccia, in quartz monzonite porphyry (unit Tqmp) of granodiorite of the Patagonia Mountains	 cg—Limestone conglomerate, in volcanic rocks (unit JTRv)
 Tg—Granodiorite, in granodiorite of the Patagonia Mountains	 qz—Quartzite, in volcanic rocks (unit JTRv)
 Tgb—Breccia, in granodiorite (unit Tg) of granodiorite of the Patagonia Mountains	 ls—Exotic blocks of upper Paleozoic limestone, in volcanic rocks (unit JTRv)
 Tlp—Latite porphyry, in granodiorite of the Patagonia Mountains	 w—Rhyolitic welded(?) tuff, in volcanic rocks (unit JTRv)
 Tbq—Biotite quartz monzonite, in granodiorite of the Patagonia Mountains	 lp—Latite(?) porphyry, in volcanic rocks (JTRv)
 Tbbq—Breccia, in biotite quartz monzonite (unit Tbq) of granodiorite of the Patagonia Mountains	 JTRvs—Volcanic and sedimentary rocks, in silicic volcanic rocks
 Tbg—Biotite granodiorite, in granodiorite of the Patagonia Mountains	 TRm—Mount Wrightson Formation
 Tibx—Intrusion breccia, in granodiorite of the Patagonia Mountains	 q—Quartzite, in Mount Wrightson Formation (unit TRm)
 Tsy—Syenodiorite or mangerite, in granodiorite of the Patagonia Mountains	 a—Biotite(?)—albite andesite lava(?), in Mount Wrightson Formation (unit TRm)
 Tag—Biotite augite quartz diorite, in granodiorite of the Patagonia Mountains	 t—Coarse volcaniclastic beds, in Mount Wrightson Formation (unit TRm)
 Tmp—Quartz monzonite porphyry of Red Mountain	 TRms—Sedimentary rocks, in the Mount Wrightson Formation (unit TRm)
 TKr—Rhyolite of Red Mountain	 Pcn—Concha Limestone
 TKggt—Gringo Gulch Volcanics	 Ps—Scherrer Formation
 Ka—Trachyandesite	 Pe—Epitaph Dolomite
 r—Rhyolite or latite, in trachyandesite (unit Ka)	 Pc—Colina Limestone
 Km—Pyroxene monzonite	 PPe—Earp Formation
 Kl—Biotite quartz latite(?)	 Ph—Horquilla Limestone
 Kv—Silicic volcanics	 Me—Escabrosa Limestone
 la—Biotite latite(?), in silicic volcanics (unit Kv)	 Dm—Martin Limestone
 Kpg—Porphyritic biotite granodiorite	 Ca—Abrigo Limestone
 Kb—Bisbee Formation	 Cb—Bolsa Quartzite
 Kbc—Conglomerate, in Bisbee Formation (unit Kb)	 pCq—Biotite or biotite-hornblende quartz monzonite
 Jtg—Granite of Three R Canyon, in granite of Cumero Canyon	 pCh—Hornblende-rich metamorphic and igneous rocks
	 pCm—Biotite quartz monzonite
	 pCd—Hornblende diorite

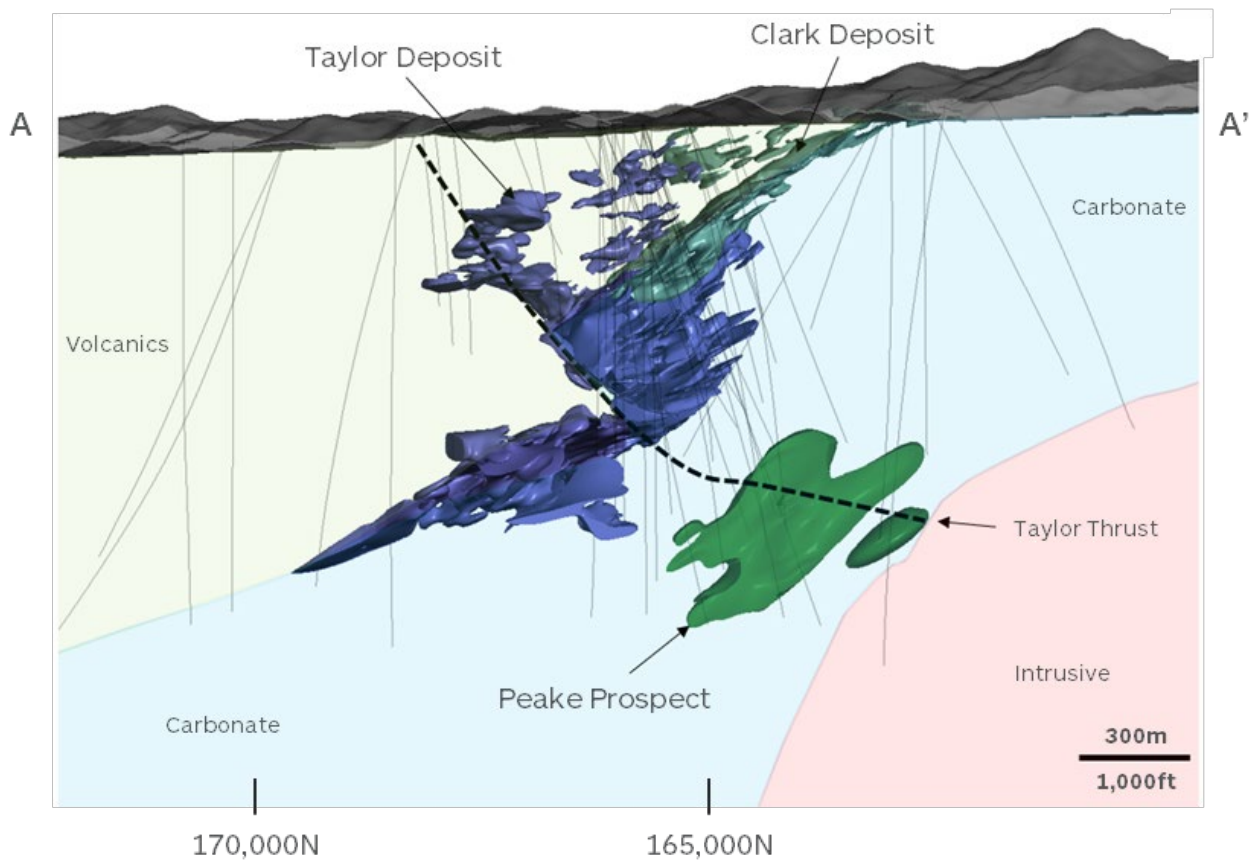
**Figure 4: Taylor Deposit local geology and Exploration Target collar locations**



**Figure 5: Plan view of the Taylor and Clark Mineralisation Domains with exploration drill holes and the Peake Copper-Skarn Prospect**



**Figure 6: Cross-section through the Taylor and Clark mineralisation domains showing exploration drill holes, simplified geology, Taylor Thrust and the Peake Copper-Skarn Prospect – looking east**





**Table 1: Hole ID, collar location, dip, azimuth and drill depth**

Hole ID	East (UTM)	North (UTM)	Elevation (m)	Dip	Azimuth	TD Depth (m)
HDS-345	525881	3480733	1603.2	-90	0	1257.9
HDS-353	525781	3480612	1592.8	-90	0	1701.5
HDS-372	526061	3481515	1564.6	-90	0	1780.9
HDS-380	526689	3480757	1580.8	-60	230	1321.9
HDS-395	525553	3482168	1502.4	-90	0	1642.0
HDS-420	525785	3480607	1592.8	-82	85	1372.8
HDS-428	526180	3481454	1578.1	-75	355	1633.6
HDS-443	526645	3480958	1525.9	-45	230	492.9
HDS-444	526347	3481088	1566.2	-65	230	825.1
HDS-451	526182	3481448	1579.4	-75	230	656.7
HDS-462	526223	3481409	1574.6	-75	230	792.8
HDS-465	526268	3481353	1569.8	-75	230	827.2
HDS-486	527398	3480552	1602.0	-75	85	1142.1
HDS-490	527406	3480648	1593.8	-60	70	1126.8
HDS-491	525690	3482016	1501.9	-90	0	1595.0
HDS-509	525701	3480691	1602.1	-90	0	1424.8
HDS-519	525822	3480685	1602.0	-90	0	1422.2
HDS-520	525963	3480611	1573.1	-90	0	1562.7
HDS-524	526002	3479665	1658.8	-90	0	1220.0
HDS-526	528068	3479975	1571.1	-65	15	1617.6
HDS-527	526339	3480706	1542.5	-63	125	1288.4
HDS-528	525716	3480747	1610.3	-90	0	1724.3
HDS-530	525583	3480735	1604.3	-82	230	1446.9
HDS-532	526001	3479666	1659.1	-60	150	1075.9
HDS-533	526092	3480386	1627.3	-65	120	1257.6
HDS-535	526026	3479462	1678.1	-60	190	1419.8
HDS-536	527211	3480625	1567.4	-60	0	1206.1
HDS-538	525878	3480741	1603.3	-70	130	1526.1
HDS-540	526101	3480387	1627.3	-70	220	1528.9
HDS-542	527211	3480624	1567.1	-70	0	1574.0
HDS-545	525960	3479775	1665.7	-60	335	1427.1
HDS-549	525585	3480738	1604.4	-78	200	1813.0
HDS-551	525963	3479774	1665.5	-75	270	1542.6
HDS-552	525806	3480620	1592.9	-70	165	1851.4
HDS-553	526860	3480624	1560.5	-75	220	1524.0
HDS-554	526992	3480642	1550.9	-65	35	1314.9
HDS-557	525963	3479776	1665.5	-60	300	1199.1
HDS-569	526861	3480630	1560.3	-62	205	900.1
HDS-571	526868	3480782	1543.4	-66	45	961.0
HDS-598	527348	3480633	1606.7	-75	333	1287.9
HDS-605	526678	3480806	1575.7	-66	185	1468.4
HDS-627	525814	3481856	1502.2	-60	20	1891.9
HDS-661	525782	3480619	1593.6	-72	179	1981.2
HDS-662	525782	3480619	1593.6	-76	190	1985.2
HDS-663	525592	3480733	1603.6	-70	175	1980.6
HDS-668	525817	3481856	1502.4	-60	20	1905.0
HDS-691	525592	3480734	1603.9	-68	180	2079.0

Hole ID	East (UTM)	North (UTM)	Elevation (m)	Dip	Azimuth	TD Depth (m)
HDS-711	526863	3480628	1560.2	-55	218	776.3
HDS-714	527351	3480641	1606.2	-52	73	1184.8
HDS-715	527404	3480509	1607.7	-65	75	817.2
HDS-717	525592	3480735	1603.9	-70	175	1782.5
HDS-763	525971	3479591	1629.9	-78	15	1943.4
HDS-797	526361	3481170	1560.0	-55	108	551.1

**Table 2: Significant intersections**

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
HDS-345	No significant intersection							
HDS-353	966.2	976.0	2% ZnEq	9.8	12.2	8.2	77	0.69
	Including							
HDS-372	966.2	971.4	2% ZnEq	5.2	22.0	14.8	130	1.21
	312.4	318.5	2% ZnEq	6.1	1.9	0.7	31	0.03
HDS-380	458.1	463.6	2% ZnEq	5.5	4.8	2.1	90	0.04
	878.1	880.4	2% ZnEq	2.3	2.6	1.8	362	0.33
HDS-395	898.7	906.3	2% ZnEq	7.6	1.0	1.9	142	0.23
HDS-420	448.7	454.3	2% ZnEq	5.6	3.3	3.7	55	0.08
HDS-428	452.5	465.3	2% ZnEq	12.8	2.5	1.1	73	0.11
	266.4	269.3	2% ZnEq	2.9	3.6	1.2	108	0.01
HDS-443	1507.7	1516.5	2% ZnEq	8.8	1.5	1.8	77	0.19
	No significant intersection							
HDS-444	691.0	716.6	2% ZnEq	25.6	1.4	0.7	15	0.04
	Including							
	709.3	716.6	2% ZnEq	7.3	3.1	1.2	22	0.04
	790.0	793.1	2% ZnEq	3.1	2.5	1.2	273	0.00
HDS-451	803.1	809.5	2% ZnEq	6.4	1.5	2.1	69	0.18
	351.1	363.3	2% ZnEq	12.2	1.4	0.5	13	0.00
HDS-462	Including							
	357.8	363.3	2% ZnEq	5.5	1.9	0.8	17	0.01
HDS-465	428.9	432.2	2% ZnEq	3.4	0.9	1.3	48	0.06
HDS-486	322.6	335.6	2% ZnEq	13.0	1.0	0.4	71	0.09
	118.0	131.7	2% ZnEq	13.7	0.1	0.9	64	0.04
	155.4	189.6	2% ZnEq	34.1	0.1	0.6	86	0.09
	Including							
HDS-490	169.8	189.6	2% ZnEq	19.8	0.1	1.0	101	0.15
	249.8	290.9	2% ZnEq	41.1	1.1	1.9	57	0.09
	191.1	197.2	2% ZnEq	6.1	0.1	0.4	77	0.08
	364.8	401.4	2% ZnEq	36.6	0.1	1.1	69	0.04
HDS-491	Including							
	379.5	399.9	2% ZnEq	20.4	0.1	1.6	97	0.05
	442.6	450.2	2% ZnEq	7.6	5.4	0.0	4	0.00
HDS-509	381.9	400.8	2% ZnEq	18.9	13.1	8.3	137	0.39
	Including							
HDS-519	387.1	399.1	2% ZnEq	12.0	17.3	11.5	171	0.42
	846.4	851.0	2% ZnEq	4.6	1.4	0.7	21	0.10
HDS-519	389.2	393.8	2% ZnEq	4.6	0.3	0.3	688	0.33
	731.5	736.1	2% ZnEq	4.6	3.1	1.6	32	0.10

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
HDS-520	684.9	689.3	2% ZnEq	4.4	2.7	1.6	39	0.37
	694.9	704.4	2% ZnEq	9.4	1.7	1.7	25	0.08
	1049.0	1053.7	2% ZnEq	4.7	1.5	1.7	37	0.37
HDS-524	No significant intersection							
HDS-526	46.3	52.7	2% ZnEq	6.4	0.0	0.1	100	0.01
	61.3	84.4	2% ZnEq	23.2	0.0	0.3	113	0.03
HDS-527	191.1	200.3	2% ZnEq	9.1	1.2	0.9	23	0.00
HDS-528	No significant intersection							
HDS-530	840.3	846.4	0.2% Cu	6.1	0.1	0.0	13	0.59
	904.3	910.4	0.2% Cu	6.1	0.3	0.1	14	0.39
	1407.6	1419.1	2% ZnEq	11.6	1.8	1.1	68	0.24
HDS-532	76.5	83.8	2% ZnEq	7.3	1.3	0.8	193	0.15
HDS-533	No significant intersection							
HDS-535	No significant intersection							
HDS-536	No significant intersection							
HDS-538	1445.4	1451.9	2% ZnEq	6.6	0.1	1.2	74	0.03
HDS-540	1279.2	1389.0	0.2% Cu	109.7	0.1	0.3	15	0.62
	Including							
	1303.6	1309.7	0.2% Cu	6.1	0.2	0.4	61	3.48
	1469.7	1488.0	0.2% Cu	18.3	0.0	0.0	10	0.63
HDS-542	128.6	133.2	2% ZnEq	4.6	0.0	0.5	80	0.03
	800.3	809.9	2% ZnEq	9.6	0.8	0.8	30	0.00
HDS-545	No significant intersection							
HDS-549	1169.5	1175.6	0.2% Cu	6.1	1.5	1.6	312	1.92
HDS-551	1100.6	1111.6	0.2% Cu	11.0	0.0	0.2	10	0.39
	1254.9	1280.8	0.2% Cu	25.9	0.0	0.0	10	0.54
	1294.5	1372.8	0.2% Cu	78.3	0.0	0.1	10	0.51
HDS-552	709.3	714.8	0.2% Cu	5.5	11.2	5.5	64	0.12
	1265.8	1273.9	0.2% Cu	8.1	0.2	0.5	27	0.39
	1308.2	1384.7	0.2% Cu	76.5	0.2	0.4	25	1.52
	Including							
	1309.9	1328.6	0.2% Cu	18.8	0.1	0.2	40	2.77
	And							
	1364.3	1384.7	0.2% Cu	20.4	0.1	0.3	37	2.44
	Including							
1375.3	1384.7	0.2% Cu	9.5	0.1	0.3	62	4.45	
1478.9	1484.8	0.2% Cu	5.9	1.0	1.5	57	0.41	
HDS-553	315.8	340.5	2% ZnEq	24.7	3.4	3.3	266	0.32
	Including							
	315.8	325.2	2% ZnEq	9.4	3.9	8.5	654	0.81
332.8	340.5	2% ZnEq	7.6	5.8	0.1	40	0.03	
HDS-554	181.7	197.8	2% ZnEq	16.2	0.4	5.8	139	0.06
	1138.3	1140.9	2% ZnEq	2.6	3.9	6.4	152	0.03
HDS-557	No significant intersection							
HDS-569	142.3	147.2	2% ZnEq	4.9	3.6	2.4	61	0.03
HDS-571	134.4	166.4	2% ZnEq	32.0	0.7	0.8	94	0.12
	691.6	698.9	2% ZnEq	7.3	4.7	3.4	56	0.14
	743.3	750.7	2% ZnEq	7.5	7.6	18.5	296	0.11
HDS-598	No significant intersection							

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)	
HDS-605	447.1	452.9	2% ZnEq	5.8	2.6	0.9	116	0.19	
	512.2	531.6	2% ZnEq	19.4	0.2	1.2	51	0.08	
	842.5	845.8	2% ZnEq	3.4	2.1	2.4	196	0.30	
HDS-627	349.9	354.5	2% ZnEq	4.6	15.2	14.9	459	0.21	
HDS-661	1298.4	1305.2	2% ZnEq	6.7	0.6	3.4	249	0.89	
	1322.2	1374.6	0.2% Cu	52.4	0.1	1.1	105	1.73	
	Including								
	1322.2	1346.0	0.2% Cu	23.8	0.1	0.8	81	3.32	
	And								
	1322.2	1330.1	0.2% Cu	7.9	0.1	0.4	81	7.89	
	1386.8	1460.6	0.2% Cu	73.8	0.5	0.7	67	1.06	
	Including								
	1399.6	1410.3	0.2% Cu	10.7	0.7	1.5	227	2.84	
	1555.1	1573.1	0.2% Cu	18.0	3.2	1.4	87	0.37	
HDS-662	1316.4	1329.2	0.2% Cu	12.8	3.4	4.4	137	0.95	
	1540.8	1546.7	2% ZnEq	5.9	5.9	2.1	250	0.45	
HDS-663	1580.1	1591.8	0.2% Cu	11.7	0.1	0.0	16	0.95	
	1615.9	1651.1	0.2% Cu	35.2	1.1	0.1	27	0.56	
HDS-668	201.2	211.8	2% ZnEq	10.7	5.5	3.9	270	0.13	
	221.0	233.2	2% ZnEq	12.2	5.7	3.9	129	0.03	
	699.5	713.2	2% ZnEq	13.7	1.3	4.2	134	0.06	
HDS-691	1343.6	1353.6	2% ZnEq	10.1	3.8	3.5	61	0.47	
	1384.7	1395.4	0.2% Cu	10.7	2.7	2.9	38	1.03	
	1405.9	1415.2	0.2% Cu	9.3	0.5	0.7	11	0.26	
	1421.3	1452.1	0.2% Cu	30.8	0.7	0.8	22	0.59	
	1463.6	1509.7	0.2% Cu	46.0	0.4	0.5	21	0.43	
	1540.6	1549.3	0.2% Cu	8.7	0.3	0.9	51	0.61	
	1563.9	1581.3	0.2% Cu	17.4	0.2	0.2	23	0.55	
	1662.7	1677.9	0.2% Cu	15.2	2.8	1.1	155	1.19	
	1683.4	1692.6	2% ZnEq	9.1	1.5	0.3	45	0.13	
	1732.0	1735.2	2% ZnEq	3.2	6.2	0.3	107	0.18	
1994.6	1997.4	2% ZnEq	2.7	1.7	0.3	54	0.08		
HDS-711	150.6	153.9	2% ZnEq	3.4	1.9	1.0	244	0.34	
HDS-714	372.5	377.0	2% ZnEq	4.6	0.0	1.1	87	0.04	
	410.6	415.1	2% ZnEq	4.6	0.0	1.2	65	0.02	
	627.9	632.5	2% ZnEq	4.6	2.1	3.6	111	0.06	
	682.8	688.8	2% ZnEq	6.1	3.0	3.9	109	0.09	
HDS-715	119.5	127.4	2% ZnEq	7.9	0.0	1.7	53	0.05	
	167.3	196.0	2% ZnEq	28.7	3.7	0.5	176	0.23	
	Including								
	172.8	180.8	2% ZnEq	8.0	7.1	1.2	218	0.71	
	300.1	342.3	2% ZnEq	42.2	2.1	1.8	94	0.09	
	Including								
	333.3	342.3	2% ZnEq	9.0	6.8	0.7	42	0.08	
	563.9	575.3	2% ZnEq	11.4	3.7	3.6	188	0.16	
	Including								
	565.4	571.5	2% ZnEq	6.1	4.5	5.4	290	0.19	
	591.3	598.9	2% ZnEq	7.6	4.7	2.1	92	0.14	
780.3	787.9	2% ZnEq	7.6	0.2	0.1	96	0.01		

Hole ID	From (m)	To (m)	Cut off	Width (m)	Zinc (%)	Lead (%)	Silver (ppm)	Copper (%)
<b>HDS-717</b>	1065.3	1072.4	0.2% Cu	7.2	3.5	2.7	22	0.21
	1306.1	1318.3	0.2% Cu	12.2	1.8	1.8	63	0.82
	1444.1	1466.7	0.2% Cu	22.6	1.7	1.7	46	1.38
	Including							
	1456.6	1466.7	0.2% Cu	10.1	0.5	1.0	78	2.57
	1517.9	1522.2	2% ZnEq	4.3	3.0	1.8	49	0.03
	1718.6	1727.0	0.2% Cu	8.4	1.0	0.1	39	1.99
	1754.1	1763.3	2% ZnEq	9.1	1.4	0.5	42	0.13
<b>HDS-763</b>	1429.8	1439.6	2% ZnEq	9.8	2.3	0.1	3	0.02
<b>HDS-797</b>	No significant intersection							

## Annexure 2: Material Assumptions for the Production Target and Forecast Financial Information

Criteria	Commentary
<i>Mineral Resource estimate for conversion to Ore Reserves</i>	<ul style="list-style-type: none"> <li>The Production Target is based on 20% Measured, 62% Indicated, 14% Inferred Mineral Resources and 4% Exploration Target. The Mineral Resources were declared as part of South32's Annual declaration of resources and reserves in the Annual Report published on 3 September 2021 and is available to view on <a href="http://www.south32.net">www.south32.net</a>. The details of the Exploration Target are included in this announcement (Annexure 1).</li> </ul>
<i>Study status</i>	<ul style="list-style-type: none"> <li>A pre-feasibility study has been completed for the Taylor Deposit in compliance with the AACE International Class 4 estimate standard.</li> <li>A technically achievable and economically viable mine plan has been determined by the study team. Material Modifying Factors have been considered and are included in this section of the report.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li>Taylor is a polymetallic deposit which uses an equivalent NSR value as a grade descriptor. NSR considers the remaining gross value of the in-situ revenue generating elements once processing recoveries, royalties, concentrate transport, refining costs and other deductions have been considered.</li> <li>The elements of economic interest used for cut-off determination include silver (Ag), lead (Pb) and zinc (Zn).</li> <li>The cut-off strategy employed at Taylor is to optimise the NPV of the operation.</li> <li>An NSR cut-off grade of US\$90/tonne was used in the development of mineable stope shapes.</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>The mining method applied is longhole open stoping with paste backfill. This is the preferred mining method based on a combination of productivity, cost, resource recovery and risk of surface subsidence.</li> <li>Geotechnical recommendations based on deposit geology have been used to develop the stope shape dimensions.</li> <li>The mining dilution is applied based on rock dilution or fill dilution dependent on the location of the stope being mined. Dilution factors are applied on a stope by stope basis using incremental dilution widths applied to the stope geometry.</li> <li>The mining recovery factor is 95% and is applied to all ore tonnes.</li> <li>Inferred Mineral Resources are incorporated into the stope designs and contribute to the overall weighted grades and NSR of the stope. Inferred Mineral Resources contribute approximately 14% and the Exploration Target contributes 4% of the total planned tonnes. A risk assessment was completed considering Inferred Mineral Resources and the Exploration Target as waste to ensure that the Production Target and forecast financial information as stated can be achieved. Accordingly, the Company believes it has a reasonable basis for reporting a Production Target including those Inferred Mineral Resources and the Exploration Target.</li> <li>Primary access to the orebody will be through a main shaft and a ventilation shaft. Ore passes, haulage levels and ventilation raises will be established to move material internally within the mine and provide ventilation and cooling. Paste backfill will be produced in a surface backfill plant and distributed underground via a backfill reticulation system.</li> <li>The proposed mining method with modifying factors applied supports a single-stage ramp-up to the preferred development scenario of up to 4.3Mt per annum.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The Taylor processing plant will consist of well-established processing techniques. Primary crushing will be conducted underground, and crushed ore will be hoisted to the surface. Grinding will be conducted by a single-stage AG mill to a size suitable for flotation. Sequential flotation will be followed by pressure filtration for concentrates and tailings.</li> <li>Metallurgical recovery is found to vary by geological domain and recovery ranges are applied based on geologic formation. Average process recoveries are: 90% for zinc in zinc concentrate; 91% for lead in lead concentrate and 81% for silver in lead concentrate.</li> <li>Lead is found to occur primarily as galena and zinc is found to occur primarily as sphalerite with small amounts of non-sulphide zinc occurring in the geological domains close to surface. Galena and sphalerite are coarse grained and easily liberated for effective recovery by sequential flotation.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Manganese occurs in relatively high concentrations in gangue and can occur as an inclusion of sphalerite especially in the higher geological domains. This can cause manganese in zinc concentrate to exceed penalty limits for most smelters. No other deleterious elements are expected to exceed penalty limits for lead or zinc concentrates.</li> <li>• Metallurgical test work has been conducted using samples covering the ore body vertically and horizontally. All metallurgical test work and the process design have been reviewed by independent consultants.</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>• The project consists of patented claims surrounded by the Coronado National Forest and unpatented claims located within the surrounding Coronado National Forest and managed by the United States Forest Service.</li> <li>• A permitting schedule has been developed for obtaining critical state and federal approvals.</li> <li>• Waste rock generated from surface and underground excavations is delineated into potentially acid generating (PAG) or non-acid generating (NAG) rock. All PAG material will report to a lined facility as will most of the NAG material, except for a limited amount that will be used for construction material.</li> <li>• The tailings storage facilities have been designed in accordance with South32's Dam Management Standard and consistent with the International Council on Mining and Metals (ICMM) Tailings Governance Framework, in addition to the Australian National Committee on Large Dams (ANCOLD) guidelines.</li> <li>• Tailings from processing will be filtered and stored in purpose-built, lined, surface storage facilities or returned underground in the form of paste backfill. An existing tailings storage facility on patented claims will be used to store tailings from early operations.</li> </ul>
<i>Infrastructure</i>	<ul style="list-style-type: none"> <li>• Current site activity is supported by and consists of office buildings, core processing facilities, an existing tailings storage facility as part of the voluntary remediation program, a water treatment plant, ponds, road networks and laydown yards.</li> <li>• Planned infrastructure will be installed to support future operations and will consist of: <ul style="list-style-type: none"> <li>○ Dual shafts</li> <li>○ Ventilation and refrigeration systems</li> <li>○ Process comminution, flotation and concentrate loadout</li> <li>○ Tailings filtration plant and tailings storage facilities</li> <li>○ Paste backfill plant</li> <li>○ Dewatering wells, another water treatment plant and pipelines</li> <li>○ Surface shops, fuel bays, wash bays and office buildings</li> <li>○ Powerlines and substations</li> <li>○ Surface stockpile bins</li> <li>○ Underground maintenance shops and ore/waste storage</li> </ul> </li> <li>• A site layout plan and construction schedule support the above listed infrastructure.</li> </ul>
<i>Costs</i>	<ul style="list-style-type: none"> <li>• The capital cost estimate is supported by sufficient engineering scope and definition for preparation of a AACE International Class 4 estimate.</li> <li>• The operating cost estimate was developed in accordance with industry standards and South32 project requirements. <ul style="list-style-type: none"> <li>○ Mining costs were calculated primarily from first principles and substantiated by detailed labour rate calculations, vendor-provided equipment operating costs and budgetary quotations for materials and consumables.</li> <li>○ Processing costs account for plant consumables/reagents, labour, power and maintenance materials and tailings storage facility costs.</li> <li>○ General and administrative costs are based on current operating structures and optimised based on industry benchmarks and fit-for-purpose sizing. Permitting and environmental estimates are based on current permitting timelines.</li> </ul> </li> <li>• Commodity price forecasts for silver, lead and zinc and foreign exchange are supplied by South32 Marketing. Price assumptions reflect South32's view on demand, supply, volume forecasts and competitor analysis. Price protocols will not be detailed as the information is commercially sensitive.</li> <li>• Transportation charges have been estimated using information on trucking costs, rail costs, export locations, transload capabilities and transit time associated with moving concentrate from site to port to market.</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Treatment and Refining Charges used for the valuation are supplied by South32 Marketing and reflect South32's view on demand, supply, volume forecasts and competitor analysis.</li> <li>• Applicable royalties and property fees have been applied using on the current US federal and state rates.</li> </ul>
<i>Revenue factors</i>	<ul style="list-style-type: none"> <li>• The life of operation plan derived from the pre-feasibility study provides the mining and processing physicals such as volume, tonnes and grades to support the valuation.</li> <li>• Revenue is calculated by applying forecast metal prices and foreign exchange rates to the scheduled payable metal. Metal payabilities are based on contracted payability terms, typical for the lead and zinc concentrate markets.</li> </ul>
<i>Market assessment</i>	<ul style="list-style-type: none"> <li>• Internal price protocols reflect South32's view on demand, supply, and stock situations including customer analysis, competitor analysis and identification of major market windows and volume forecasts.</li> </ul>
<i>Economic</i>	<ul style="list-style-type: none"> <li>• Economic inputs are described in the cost, revenue and metallurgical factors commentary.</li> <li>• Sensitivity analyses have been completed on metal prices, metallurgical recoveries, mine operating costs, growth capital costs and use of Inferred Mineral Resources and the Exploration Target to understand the value drivers and impact on the valuation.</li> <li>• The pre-feasibility study evaluated alternate cases to assess the impact of longer than expected permitting timelines and associated capital spend profiles.</li> </ul>
<i>Social</i>	<ul style="list-style-type: none"> <li>• South32 maintains relationships with stakeholders in its host communities through structured and meaningful engagement activities including: community forums, industry involvement, employee participation, local procurement and local employment.</li> <li>• A Community Management Plan has been developed in accordance with the South32 Community Standard and includes baseline studies, community surveys, risk assessments, stakeholder identification, engagement plans, cultural heritage, community investment plans, closure and rehabilitation.</li> </ul>
<i>Other</i>	<ul style="list-style-type: none"> <li>• Hermosa has developed a comprehensive risk register and risk management system to address foreseeable risks that could impact the project and future operations.</li> <li>• No material naturally occurring risks have been identified and the project is not subject to any material legal agreements or marketing arrangements.</li> </ul>