

ASX Announcement

31 January 2022

# Significant Results from High pH Leaching Test Work

Highlights:

- Further metallurgical test work results assessing use of high pH preleaching have been received
- On six fresh samples tested to date the expected gold recovery increased from an average of 35% to 80%
- On 21 transition samples tested to date the expected gold recovery increased from 52.3% to 74.5%
- Further test work commissioned on 80 samples to understand pH level, leach time and reagent consumption
- Clear potential exists not only to increase Starter Project life-of-mine gold production but also to unlock additional unmined resources outside the current pit design

Sihayo Gold Limited (**ASX:SIH** – "**Sihayo**" or the "**Company**") is pleased to provide an update on the Company's most recent metallurgical test work exploring the use of high pH preleaching to improve recoveries in refractory ore for the Sihayo Starter Project.

Sihayo's Executive Chairman, Colin Moorhead commented on the latest results:

"High pH pre-leaching aims to recover gold otherwise locked up in fine grained arsenopyrite at Sihayo. Latest test work builds on earlier positive results and continues to indicate the potential for significant improvements in recoveries for more transitional and fresh ore types. This has the potential to not only increase life-of-mine gold production but also may unlock known higher grade fresh ore resources that currently remain unmined below our designed pits. The Company is aggressively pursuing further test work to incorporate the results into the processing flow sheet design."

#### Background

As outlined in the ASX:SIH announcement "Further Metallurgical Test Work Results", dated 23 September 2021, Sihayo has been investigating the use of high pH pre-leaching of transitional and fresh ore types as a method of improving plant recoveries above levels currently adopted in feasibility studies for the Sihayo Starter Project. In the Definitive Feasibility Study completed in 2020 (refer to ASX:SIH announcement "Results of Feasibility

*Study*", dated 23 June 2020), the average life-of-mine ("LOM") recovery was assumed to be 71% and Sihayo considers improved metallurgical recoveries as an area of opportunity to significantly improve project economics.

The ore comprising the mine plan has been characterised into three broad categories based on oxidation state – oxide, transitional or fresh ore. Generally, metallurgical recoveries within the oxide ore are relatively uniform and consistently greater than 80% and mostly over 90%. Within the more refractory transitional and fresh material, recoveries are highly variable, ranging from less than 10% to 90%.

Sihayo's current metallurgical test work program includes assessing opportunities to improve metallurgical recoveries in both transitional and fresh ore.

#### **Current Metallurgical Test Work Program**

During the last six months Sihayo has been investigating the use of a high pH (~13) leach (pre-leach) followed by conventional carbon-in-leach (CIL) gold extraction.

A total of 27 crushed core samples of fresh to transitional ore material taken from selected holes drilled in the 2019 resource definition program at Sihayo (refer to Figure 1) was packed and dispatched to ALS Metallurgy Pty Ltd in Perth for high pH cyanide bottle-roll gold analyses. Results indicate that where the samples are fresh and transitional material with >0.5% sulphide sulphur, the effect of the pre-leach is to penetrate the arsenic minerals allowing enhanced gold recoveries. On fully oxidised material there is little to no benefit. Across 27 transitional and fresh sulphide samples tested, the increase in gold recovery ranges from 10% to 50% in absolute terms.

Table 1 shows the impact of the high pH pre-leach on individual drill intercepts while Table 2 shows the effect on composite samples of transitional and fresh material.

The results shown in Table 1 and Table 2 show consistent and significant uplifts in gold recoveries using high pH pre-leaching. On six fresh samples tested to date the expected recovery increased from an average of 35% to 80%. On 21 transitional samples tested to date the expected the expected recovery increased from 52.3% to 74.5%.

The pre-leach takes around 12 hours and is estimated to add between \$5 and \$10/t milled to the processing costs.

#### Table 1: Comparison of cyanide bottle-roll leach analyses on individual drill samples (See Appendix for details)

|         | Sample ID | Depth (m) |       | Original<br>Gold grade        | Recovery                        | Recovery                     | Osidation          |
|---------|-----------|-----------|-------|-------------------------------|---------------------------------|------------------------------|--------------------|
| Hole ID |           | From      | То    | (g/t) Fire<br>Assay<br>(FA51) | Without<br>high pH<br>pre-leach | With<br>high pH<br>pre-leach | Oxidation<br>State |
| SHDD550 | 1013117   | 34.3      | 34.95 | 9.46                          | 46.5%                           | 80.2%                        | Transition         |
| SHDD564 | 1013845   | 96        | 97    | 7.04                          | 60.5%                           | 70.6%                        | Transition         |
| SHDD605 | 1015932   | 48        | 49    | 1.71                          | 70.8%                           | 78.0%                        | Transition         |
| SHDD568 | 1014105   | 41        | 42    | 4.4                           | 21.8%                           | 67.8%                        | Transition         |
| SHDD571 | 1014301   | 96        | 97    | 1.46                          | 24.7%                           | 77.9%                        | Transition         |
| SHDD573 | 1014398   | 67        | 68    | 4.13                          | 67.8%                           | 84.2%                        | Transition         |
| SHDD587 | 1014928   | 97        | 98    | 1.13                          | 21.2%                           | 71.1%                        | Transition         |
| SHDD594 | 1015239   | 94        | 95    | 2.83                          | 59.7%                           | 85.8%                        | Transition         |
| SHDD596 | 1015355   | 106       | 107   | 5.26                          | 58.9%                           | 55.7%                        | Transition         |
| SHDD598 | 1015503   | 90        | 91    | 5.83                          | 37.7%                           | 49.4%                        | Transition         |
| SHDD603 | 1015828   | 79        | 80    | 2.00                          | 67.5%                           | 80.3%                        | Transition         |
| SHDD606 | 1015964   | 140       | 141   | 1.39                          | 25.9%                           | 62.5%                        | Transition         |
| SHDD606 | 1015965   | 141       | 142   | 3.83                          | 70.5%                           | 82.5%                        | Transition         |
| SHDD606 | 1015967   | 143       | 144   | 4.03                          | 68.7%                           | 82.4%                        | Transition         |
| SHDD606 | 1015969   | 145       | 146   | 4.7                           | 63.4%                           | 79.2%                        | Transition         |
| SHDD606 | 1015970   | 146       | 147   | 6.73                          | 62.1%                           | 98.7%                        | Transition         |
| SHDD606 | 1015974   | 150       | 151   | 13.6                          | 76.5%                           | 84.3%                        | Transition         |
| SHDD606 | 1015981   | 151       | 155   | 7.31                          | 56.2%                           | 73.3%                        | Transition         |
| SHDD606 | 1015982   | 156       | 157   | 11.9                          | 55.5%                           | 77.2%                        | Transition         |
| SHDD606 | 1015984   | 157       | 158   | 11.2                          | 31.7%                           | 63.7%                        | Transition         |
| SHDD606 | 1014136   | 158       | 159   | 2.41                          | 63.0%                           | 52.6%                        | Transition         |
| SHDD569 | 1015437   | 61        | 62    | 2.39                          | 41.1%                           | 83.8%                        | Fresh              |
| SHDD597 | 1015476   | 59        | 60    | 1.15                          | 41.4%                           | 84.0%                        | Fresh              |
| SHDD597 | 1015498   | 89        | 90    | 1.58                          | 26.1%                           | 67.1%                        | Fresh              |
| SHDD598 | 1015497   | 85        | 86    | 2.04                          | 31.0%                           | 86.2%                        | Fresh              |
| SHDD598 | 1015475   | 84        | 85    | 0.42                          | 37.3%                           | 90.0%                        | Fresh              |
| SHDD597 | 1013117   | 88        | 89    | 9.46                          | 33.3%                           | 84.0%                        | Fresh              |

#### Table 2: Test results on drill hole sample composites

| Composite   | Au grade<br>g/t | Conventional CIL<br>Gold Recovery | High pH Gold<br>Recovery | Oxidation State | Sulphide<br>Sulphur % |
|-------------|-----------------|-----------------------------------|--------------------------|-----------------|-----------------------|
| Composite C | 1.59            | 82.3                              | 81.1                     | Transition      | 0.06                  |
| Composite D | 3.61            | 77.6                              | 80.2                     | Transition      | 0.43                  |
| Composite E | 3.94            | 61.2                              | 86.3                     | Transition      | 1.47                  |
| Composite F | 1.58            | 37.4                              | 64.2                     | Fresh           | 2.73                  |

Selected on the basis of oxidation and sulphide sulphur content

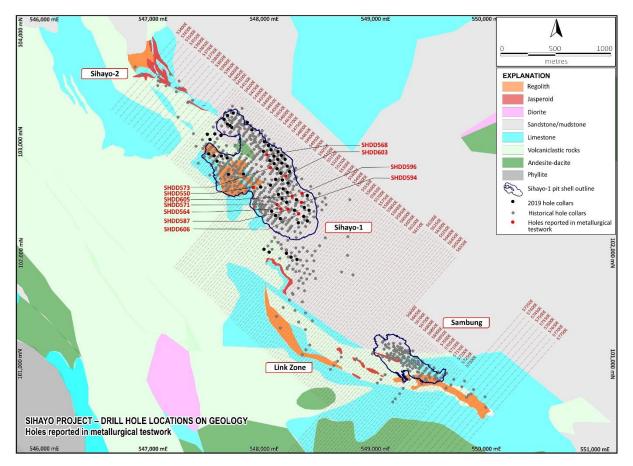


Figure 1: Sihayo - Drill Hole Locations for samples used in metallurgical test work

#### **Future work**

Further test work is planned on another 80 samples to confirm results reported above. Work will also occur to optimise the pre-leach conditions in terms of pH, leach time and reagent consumption.

#### **Additional Potential Upside**

The introduction of a high pH pre-leaching step into the Sihayo gold processing circuit has potential to unlock additional fresh to transitional gold resources, including high-grade gold-sulphide zones that are known to exist below the current pit design (refer to Figure 2).

The high-grade zones below the current pit design are constrained by lack of drilling. A drilling program is being planned to better define the limits of this mineralisation and to investigate the potential for higher-grade feeder structures located beneath and/or within the delineated gold resource. Drilling of this target may commence in the H1-2022.

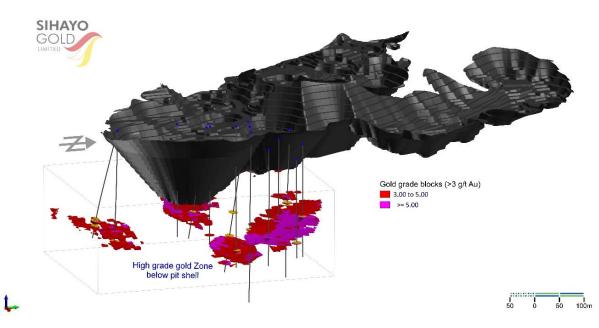


Figure 2: Sihayo – Showing higher grade resource (>3 g/t Au) and drill holes below designed pit-shell (oblique view looking NW)

This announcement has been authorised by Sihayo's Board of Directors.

For further information, please contact:

### **Colin Moorhead**

Executive Chairman

E: <a href="mailto:colin.moorhead@sihayogold.com">colin.moorhead@sihayogold.com</a>

Roderick Crowther Chief Financial Officer

E: roderick.crowther@sihayogold.com

### **Exploration Results**

The information in this report which relates to Exploration Results is based on, and fairly represents, information compiled by Mr Bradley Wake (BSc Hons. (Applied Geology)), who is a contract employee of the Company. Mr Wake does not hold any shares in the company, either directly or indirectly.

Mr Wake is a member of the Australian Institute of Geoscientists (AIG ID: 3339) and 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 Wake consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

#### Metallurgy and Process Engineering Design Results

The information in this report which relates to Metallurgy and Process Engineering Design Results is based on, and fairly represents, information compiled by Mr Andrew Goulsbra (B. App. Sc (Met)), who is a contract employee of the Company. Mr Goulsbra does not hold any shares in the company, either directly or indirectly. Mr Goulsbra is a member of the Australian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the processing of 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 Goulsbra consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

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## **Distribution Restrictions**

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| SAMPLE            |           |               |                                   | INTERTEK - Lea | achwell (no prele | each)   | ALS METALLURGY - Cyanide Leach (high pH pre-leach) |           |            | each)           |         |
|-------------------|-----------|---------------|-----------------------------------|----------------|-------------------|---------|--|-----------|------------|-----------------|---------|
| Hole ID Composite |           |               | Depth (m) Au LW200<br>No pre-lead |                | Au LW200          | FA Head | Est Rec  | Au AA14   | FA Residue | Calc Head<br>Au | Est Rec |
|                   | Composite | Sample ID     |                                   |                | No pre-leach      | Au      | %  | Pre-leach | Au         |                 |         |
|                   |           |               | From                              | То             | ppm               | ppm     |  | ppm       | ppm        | ppm             | - %     |
| SHDD550           |           | DC 1013117    | 34.3                              | 34.95          | 4.4               | 9.46    | 46.5   | 3.75      | 0.95       | 4.7             | 80.2    |
| SHDD564           | D         | DC 1013845    | 96                                | 97             | 4.26              | 7.04    | 60.5   | 4.19      | 1.76       | 5.95            | 70.6    |
| SHDD605           |           | DC 1015932    | 48                                | 49             | 1.21              | 1.71    | 70.8   | 1.4       | 0.4        | 1.8             | 78.0    |
| SHDD568           |           | DC 1014105    | 41                                | 42             | 0.96              | 4.4     | 21.8   | 3.69      | 1.77       | 5.46            | 67.8    |
| SHDD571           |           | DC 1014301    | 96                                | 97             | 0.36              | 1.46    | 24.7   | 1.26      | 0.36       | 1.62            | 77.9    |
| SHDD573           |           | DC 1014398    | 67                                | 68             | 2.8               | 4.13    | 67.8   | 3.55      | 0.66       | 4.21            | 84.2    |
| SHDD587           |           | DC 1014928    | 97                                | 98             | 0.24              | 1.13    | 21.2   | 0.64      | 0.26       | 0.9             | 71.1    |
| SHDD594           |           | DC 1015239    | 94                                | 95             | 1.69              | 2.83    | 59.7   | 2.16      | 0.36       | 2.52            | 85.8    |
| SHDD596           |           | DC 1015355    | 106                               | 107            | 2.85              | 4.84    | 58.9   | 2.97      | 2.37       | 5.34            | 55.7    |
| SHDD598           |           | DC 1015503    | 90                                | 91             | 2.2               | 5.83    | 37.7   | 2.99      | 3.03       | 6.02            | 49.4    |
| SHDD603           |           | DC 1015828    | 79                                | 80             | 1.35              | 2       | 67.5   | 0.9       | 0.22       | 1.12            | 80.3    |
| SHDD606           | E         | DC 1015964    | 140                               | 141            | 0.36              | 1.39    | 25.9   | 0.74      | 0.44       | 1.18            | 62.5    |
| SHDD606           |           | DC 1015965    | 141                               | 142            | 2.7               | 3.83    | 70.5   | 3.22      | 0.68       | 3.9             | 82.5    |
| SHDD606           |           | DC 1015967    | 143                               | 144            | 2.77              | 4.03    | 68.7   | 2.52      | 0.54       | 3.06            | 82.4    |
| SHDD606           |           | DC 1015969    | 145                               | 146            | 2.98              | 4.7     | 63.4   | 4.73      | 1.24       | 5.97            | 79.2    |
| SHDD606           |           | DC 1015970    | 146                               | 147            | 4.18              | 6.73    | 62.1   | 6.73      | 0.09       | 6.82            | 98.7    |
| SHDD606           |           | DC 1015974    | 150                               | 151            | 10.4              | 13.6    | 76.5   | 11.04     | 2.03       | 13.07           | 84.3    |
| SHDD606           |           | DC1015975/7/9 | 151                               | 155            | 5.26              | 9.36    | 56.2   | 6.66      | 2.44       | 9.1             | 73.3    |
| SHDD606           |           | DC 1015981    | 156                               | 157            | 4.06              | 7.31    | 55.5   | 5.95      | 1.75       | 7.7             | 77.2    |
| SHDD606           |           | DC 1015982    | 157                               | 158            | 3.77              | 11.9    | 31.7   | 7.82      | 4.45       | 12.27           | 63.7    |
| SHDD606           |           | DC 1015984    | 158                               | 159            | 7.06              | 11.2    | 63.0   | 4.35      | 3.82       | 8.17            | 52.6    |
| SHDD569           |           | DC 1014136    | 61                                | 62             | 0.99              | 2.41    | 41.1   | 2.02      | 0.4        | 2.42            | 83.8    |
| SHDD597           |           | DC 1015437    | 59                                | 60             | 0.99              | 2.39    | 41.4   | 1.98      | 0.39       | 2.37            | 84.0    |
| SHDD597           | F         | DC 1015476    | 89                                | 90             | 0.3               | 1.15    | 26.1   | 0.8       | 0.39       | 1.19            | 67.1    |
| SHDD598           |           | DC 1015498    | 85                                | 86             | 0.49              | 1.58    | 31.0   | 1.36      | 0.23       | 1.59            | 86.2    |
| SHDD598           |           | DC 1015497    | 84                                | 85             | 0.76              | 2.04    | 37.3   | 1.82      | 0.21       | 2.03            | 90.0    |
| SHDD597           | 7         | DC 1015475    | 88                                | 89             | 0.14              | 0.42    | 33.3   | 0.36      | 0.07       | 0.43            | 84.0    |

# Appendix 1: Detailed Sample List and Results

| The samples reported in this announcement are derived from crushed core samples taken from selected holes drilled in the 2019 Sihayo gold resource infill programe completed by PT Sorimas Mining in 2019 (See ASX:SIH announcement Quarterly Activities Report at 31 December 2019).  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| <ul> <li>The samples are crushed core samples comprising minus-2mm Boyd-crush material derived from sample processing of PQ3/HQ3 half-core sizes and held in cold storage at the sample-preparation facility of PT Intertek Utama Service in Medan.</li> <li>Splits from individual samples were individually packaged and dispatched to ALS Metallurgy Pty Ltd in Balcatta, Western Australia for sample-preparation and cyanide bottle-roll leach gold analyses.</li> <li>Each crushed core sample used for the metallurgical testing consists of 0.5-kg or 1.0-kg of minus-2mm crushed core material representing up to 1-metre sample interval within the selected drill hole.</li> <li>Individual samples reported in this announcement taken from the following drillholes (Figure 1): SHDD550, 564, 568, 571, 573, 587, 594, 596, 603, 606.</li> </ul>  |  |  |  |  |  |  |  |
| All samples reported in this announcement are from the 2019 infill resource drilling program:  |  |  |  |  |  |  |  |
| <ul> <li>The drilling method used to obtain the core samples wire-line triple-tube diamond drilling using PQ3 and HQ3 diameter coring sizes and using man-portable diamond drill rigs owned and operated by PT Indodrill Indonesia of Bogor, Indonesia.</li> <li>Drilling activities are operated on two 12-hour shifts per day, 7 days per week.</li> <li>The drill holes are surveyed at 25m down-hole intervals using a Digital ProShot downhole camera.</li> <li>Drill core is oriented on each drill run in competent ground conditions using an orientation spear in PQ drill intervals and a Coretell ORIshot down-hole orientation tool in HQ drill intervals.</li> </ul>  |  |  |  |  |  |  |  |
| <ul> <li>Core recoveries averaged over 95% for the entire program and generally exceeded 90% within the mineralised zones.</li> <li>Ground conditions are highly variable and locally poor due to a number of factors: 1) Presence of unconsolidated fault structures related to movements along fault arrays within the active Trans Sumatra Fault Zone, 2) contrast in rock strength associated with variations in alteration and reactivation by younger fault movements, 3) occurrence of karst caves/cavity features filled with unconsolidated cave-fill sediments, and 4) occasional local mine cavities. Core recovery is maximised by the careful control of water/mud injection pressure, use of specialised drilling muds, and shorter drill runs in poorly consolidated or highly broken ground.</li> <li>Core recoveries (and losses) are directly measured from the inner tube splits after of each drill run at the drill site by trained core handling technicians ("core checkers"). The core checker is on-site during the entire 12-hour shift. The core checker takes a photograph of the core from each drill run on the inner tube splits and ensures that the core is properly assembled (reconnected) and the orientation line is properly marked along the core on the inner tube splits before it is tranferred into core trays.</li> <li>Drill runs and core losses are marked up by the driller on core blocks placed in the core box after each drill run. The positions of any obvious sections of core loss (eg. cavities) are noted in the core boxes. The drill intervals, operational activities and core recoveries are recorded on Daily Shift Drilling Reports for each drilling shift. These are checked, validated and approved at the</li> </ul> |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

# Appendix 2: JORC Code, 2012 Edition – Section 1 Reporting of Current Results

|   | <ul> <li>The drilling contractor maintains appropriate mud mixtures and a high-standard of operational procedure to maximise core recovery. Maximum drill runs are 1.5 metres in length and are shortened if necessary to optimise sample recovery in broken ground conditions.</li> <li>The drill rigs are checked daily by the project geologists to ensure that maximised core recoveries, high safety and operating procedures are maintained by the drilling contractor and support personnel.</li> <li>There is no evidence of a grade bias due to variations in core recovery in the results reported.</li> </ul>  |
|---|---|
| Logging   | <ul> <li>All of the drill core is geologically and geotechnically logged. Mineralised and selected unmineralised holes are marked up for geochemical sampling and assaying.</li> <li>Logging and sample mark-up are done by the project geologists and trained geotechnicians. Drill logs record lithology, alteration, mineralisation, structure, rock strength and hardness, weathering condition, RQD and other structural defects.</li> <li>A standardised project nomenclature is used for logging and codes or abbreviations. Logging data is captured on paper logging sheets and entered into a computerised format for import into Micromine software.</li> <li>The majority of geological and geotechnical logging is qualitative in nature except for oriented core measurements (α and β), RQD and fracture frequency.</li> <li>All the drill core trays are digitally photographed in both wet and dry condition, before and after the core splitting and sampling. A photographic record of the core trays is kept on file in the Company's project database.</li> <li>Bulk density is measured from 10 cm long blocks of whole core taken at systematic 5 m intervals down the entire hole using the wax-sealed sample submersion/water displacement method.</li> <li>Logging is of a suitable standard for detailed geological analysis and later resource modeling.</li> <li>Re-evaluation of the drill logs is done on receipt of the final assay results for on-going interpretation and assessment of the results.</li> </ul> |
| Sub-sampling<br>techniques and<br>sample<br>preparation | <ul> <li>The samples pertaining to these latest results were individual minus-2mm crushed core samples split from remaining coarse-reject sample stock held in refrigeration at the sample preparation facility of PT Intertek in Medan. The samples varied in weight ranging from 0.2 to 1.2-kg and averaged 0.5-kg. Samples were individually packaged and air freighted to Perth from Jakarta.</li> <li>At ALS Metallurgy the samples were pulverized to greater than 80% passing 106 microns. The samples then split into ** kg charges for the cyanide leach test work.</li> </ul>   |
| Quality of<br>assay data and<br>laboratory tests        | <ul> <li>2019 PT Intertek Utama Services (Jakarta) produced the original Fire Assay &amp; Leachwell LW200 results referenced in this announcement:</li> <li>PT Intertek Utama Services (Jakarta/Medan) is the primary sample preparation and assaying laboratory used for the 2019 infill resource drilling program</li> <li>Coarse crush samples were prepared at the Intertek sample preparation facility in Medan, North Sumatra. Core samples are weighed and dried at 600C. The entire sample is crushed to P95 (95%) passing minus-2mm and 1.5kg is split off and pulverized to P95 (95%) passing minus-75 microns.</li> </ul>  |

- Sample pulps prepared at the facility in Medan are air freighted to Intertek's analytical laboratory in Jakarta. The samples
  are routinely assayed for gold by 50g-charge Pb-collection Fire Assay with AAS finish (FA51/AAS) and 46 multielements
  by four-acid digest and ICP/OES determination
- In addition, the jasperoid intersections are tested for a more comprehensive set of analyses to investigate the geometallurgical properties of the mineralised material. This includes assaying for gold & silver by 200-g accelerated cyanide (LeachWELL) with AAS finish (LW200/AA) and Au-tail analysis by FA (TR200/AA), mercury by Cold Vapour AAS determination (HG1/CV), and several different sulphur and carbon analyses for soluble and insoluble components (sulphates, organic carbon) (CSA03 determination of Total Carbon & Sulphur by CS analyser, CSA104 SCIS determination of carbonate-extract for soluble sulphate, C71/CSA determination of Carbon non-carbonate or Carbon graphitic ).
- The nature of the large core size (PQ3/HQ3/NQ3), the total and partial preparation procedures (total crush to P95 -2mm, 1.5kg split pulverized to P95 -75 micron), and the multiple analytical methods used to assay for gold (FA, CN) and its associated elements (silver, sulphur, carbon & multielements) are considered appropriate for evaluating the potential geometallurgical characteristics of jasperoid- gold mineralization.
- The Company inserted OREAS Certified Reference Materials (CRMs) and blanks at a rate of 1 in every 10-12 core samples (~10%) of the sample sequence to evaluate the lab's sample preparation procedures, analytical quality and/or biases. Intertek also conducts and reports its own internal laboratory QAQC checks which are reviewed as part of the QAQC analysis. The results relating to this announcement fall well within acceptable tolerances of accuracy and precision.

#### 2021 ALS Metallurgy (Balcatta, WA) produced the high pH cyanide leach results referenced in this announcement:

- The metallurgical test work results pertaining to this announcement was done by ALS Metallurgy in Balcatta, WA. This laboratory operates to international standards and procedures and participate in Geostatistical Round Robin interlaboratory test surveys.
- The samples pertaining to these latest results were individual minus-2mm crushed core samples split from remaining coarsereject sample stock held in refrigeration at the sample preparation facility of PT Intertek in Medan. The samples varied in weight ranging from 0.2 to 1.2-kg and averaged 0.5-kg. Samples were individually packaged and air freighted to Perth from Jakarta.
- At ALS Metallurgy the samples were pulverized to greater than 80% passing 106 microns. The samples then split into \*\* kg charges for the cyanide leach test work. The analysis used:
- At ALS Metallurgy the samples were split into 250-g charges for the following test work:
  - Stage grind of samples in a rod mill to P80 passing 106 microns
  - 24 hour pre-oxidation test at pH 13 (NaOH buffer) and Dissolved Oxygen >12 ppm in a continuous bottle-roller Interim checks at 1, 2, 4, 8 & 24 hours
  - Solution and residue for each sample was removed for assaying: leachate (Au, Ag, As, Ag), residue (Au, Ag, As, Sb, S (total), S (sulphide), C (total) and C (organic) analyses
  - 48 hour Carbon-In-Leach test at pH13 (NaOH buffer), DO >15 ppm and 0.05% NaCN in a continuous bottle-roller Interim checks at 8, 24 & 48 hours
  - Solution and carbon assay taken at 24 and 48 hours: Au, Ag, As, Ag

|  | <ul> <li>Residue assayed at 48 hours (Au, Ag, As, Sb, S (total), S (sulphide), C (total) and C (organic) analyses</li> <li>The analytical methods used to assay for gold (FA, CN) and its associated elements (silver, sulphur, carbon and multielements) are considered appropriate for evaluating the potential geometallurgical characteristics of jasperoid-gold mineralization.</li> <li>QA/QC procedures for metallurgical test results followed standard practices of developing mass balances for each test and comparing calculated and assay head grades for all elements of interest. Where the comparison showed a significant discrepancy between calculated and assay head grades, assays were repeated.</li> </ul>  |
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| Verification of<br>sampling and<br>assaying                      | <ul> <li>Assay results are received from the laboratory in digital format and hard-copy final certificates. Digital data are stored on a dedicated database server and back-up database server. Hard-copy certificates are stored in Jakarta Office.</li> <li>Results are received and validated by the Company's Consultant against QAQC protocols.</li> <li>Results are reported by the Company's Competent Person.</li> <li>No adjustments or calibrations are applied to any of the assay results.</li> </ul>  |
| Location of data points  | <ul> <li>Completed drill hole collars are fixed to known benchmarks and surveyed using a Topcon DS101AC Direct Aiming Total Station with accuracy of +1mm.</li> <li>The coordinates presented in this announcement represent the Total Station measurements.</li> <li>The Grid System used is WGS84/ UTM Zone 47 North.</li> <li>The drill hole paths are surveyed with a Digital Proshot camera at 25-metre down-hole intervals. Drill hole paths are tracked using Micromine software and data is plotted daily from Micromine software.</li> </ul>  |
| Data spacing<br>and<br>distribution                              | <ul> <li>The drilling program is conducted on approximately 50 m spaced lines/sections oriented near-perpendicular to the strike-projection of the gold-jasperoid target.</li> <li>No sample compositing is applied to the samples.</li> </ul>   |
| Orientation of<br>data in relation<br>to geological<br>structure | <ul> <li>Geological modelling of the Sihayo-1 gold deposit shows that the gold mineralization, host stratigraphic package and associated controlling structures related to the Trans-Sumatran Fault Zone are NW-SE striking. The gold-jasperoid target is interpreted to be stratabound by the host Permian limestone-volcaniclastic rock package. This host rock package is interpreted to have a moderate-dip to the northeast.</li> <li>The drilling program was designed in plan and section to test up-dip and along-strike projections of mineralised jasperoid intersected in historic scout drilling programs of 2004 and 2009. The hole(s) intersect the gold jasperoid target at moderate to high angle to the dip of the interpreted mineralised stratabound zone.</li> </ul> |
| Sample<br>Security   | <ul> <li>A detailed Chain-of-Custody protocol has been established to ensure the safe and secure transportation of samples from the remote project site to PT Intertek Utama Services sample preparation laboratory in Medan, North Sumatra and then by air freight to ALS Metallurgy laboratory in Balcatta, WA.</li> <li>All crushed core samples were individually packed and labelled.</li> </ul>  |