



## **ASX ANNOUNCEMENT**

30 January 2020

# Significant High Grade Resource Increase for Agate Creek Gold Project

# **Highlights**

- Laneway is pleased to announce a significant Mineral Resource increase in the high grade near surface component of the Sherwood deposit at its Agate Creek Gold Project around and below the recently mined open cut area.
- The new Mineral Resource for the high grade domain subset at Sherwood takes into account mining depletion during 2019 and includes:

★ Measured Mineral Resource 15,000 t @ 4.9 g/t Au

★ Indicated Mineral Resource 188,000 t @ 5.6 g/t Au

Inferred Mineral Resource 2,000 t @ 3.0 g/t Au

+ Total Mineral Resource 205,000 t @ 5.5 g/t Au

→ The global Mineral Resource at Agate Creek was also updated and for the 0.5 g/t Au cut-off includes:

Measured Mineral Resource 0.015 Mt at 4.9 g/t Au

Indicated Mineral Resource 4.6 Mt at 1.6 g/t Au

Indicated Mineral Resource 3.7 Mt at 1.1 g/t Au

→ Total Mineral Resource 8.3 Mt at 1.4 g/t Au

**→** Given the recent increases in the AUD gold price the Mineral Resource estimate has also been reported at 0.3 g/t cut-off and includes:

→ Measured Mineral Resource 0.015 Mt at 4.9 g/t Au

Indicated Mineral Resource 9.0 Mt at 1.0 g/t Au

+ Indicated Mineral Resource 6.8 Mt at 0.8 g/t Au

Total Mineral Resource 15.8 Mt at 0.9 g/t Au

Total contained ounces 471,000 oz Au

- ♣ Both the 0.5 g/t Au and 0.3 g/t Au global Mineral Resource estimates are inclusive of the high grade Sherwood domains stated above.
- **★** The updated Mineral Resource includes all additional drilling completed since 2016 including:
  - over 1500 sampled grade control blast holes
  - + 201 RC drill holes.
- The updated high grade Mineral Resource and recent drilling will now be used to plan for a further high grade mining campaign this year by extending the Sherwood pit. A review of mining and toll treatment options is also currently being undertaken.



The Mineral Resource update follows the addition of both infill Mineral Resource and grade control drilling as well as depletion from mining completed in 2019.

Mining to date has primarily targeted the Sherwood high grade domain that presents as a flat quartz rich zone that outcrops and has a shallow dip and should be mostly accessible by open pitting. Most of the additional drilling since 2016 has targeted areas either mined in 2019 or extensions and deeper parallel zones at Sherwood (to be assessed for future pit extensions).

Sherwood mine production includes:

A trial parcel in 2013 of
Toll milling in 2019 of
5.5 kt at 11 g/t Au and 87% process recovery
~70 kt at 7.3 g/t Au mined and recoveries over 97%.

Sherwood mining total ~75 kt at 7.6 g/t Au for 18 koz Au.

This compares with depleted areas for the Mineral Resource with:

2016 Mineral Resource pre toll milling
 2019 Mineral Resource post mining with grade control data
 53 kt at 6.4 g/t Au for 11 koz Au
 71 kt at 7.6 g/t Au for 17.5 koz Au

The current Mineral Resource model with grade control sampling data reconciles exceptionally well however during both phases of mining the ore mined was greater tonnage and grade than predicted. Recent RC and grade control samples have reported a noticeably higher tenor in grade for the high grade areas suggesting historic RC and diamond sampling may under represent the highest grade areas at Sherwood. This observation suggests that future high grade targets should be attainable with potential for continued positive reconciliation.

The global Mineral Resource is similar to the previous estimate with new drilling principally infilling known higher grade zones. This drilling along with the introduction of additional high grade domain interpretations has resulted in more Mineral Resource allocated to the high grade selective domain and away from lower grade domains.

These high grade domains have provided a basis for assessing near surface material suitable for open pit mining and toll treating. Some of these domains may after further evaluation be determined to be too deep for economic open cut extraction at current gold prices and by toll treatment. At that stage the development options may consider underground extraction or a larger open pit development at a lower cut-off grade and on site treatment.

High grade domains at Sherwood West are interpreted at a lower cut-off to provide regional continuity in the interpretation. The new interpretation provides a basis to assess smaller higher grade areas suitable for shallow open pit mining and toll treatment or a possible smaller onsite development than currently planned.

Following the completion of this Mineral Resource update Laneway have commenced planning to undertake a further high grade mining campaign this year by extending the current open pit and if warranted commence a further pit cut back by:

- finalising mine plan and designs
- evaluation of mining options (contractor or dry hire)
- · completing related mining notifications and approvals, and
- finalising a processing plant toll treatment agreement.

For and on behalf of the Board
Paul Marshall

Company Secretary

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## **Mineral Resource**

An updated Mineral Resource estimate (JORC 2012) was completed on the Agate Creek epithermal gold project in North Queensland that includes all drilling on the project to date and includes depletion from all mining during 2019.

Mineral Resource estimates were undertaken for the Sherwood, Sherwood West and Sherwood South deposits and were based upon a total of 710 exploration drill holes and over 1500 sampled blast holes from mining. Independent consultants ResEval Pty Ltd were engaged to update the Agate Creek Project Mineral Resource.

For continuity a similar approach as previously used for Agate Creek was adopted for estimation using a recoverable resource estimation method that is adjusted to account for a selective mining option and includes an allowance for mine dilution. This was augmented with narrow restricted domain interpretations for the high grade lenses that display sufficient continuity.

A global recoverable Mineral Resource is defined for the Agate Creek Project in Table 1 at a 0.5 g/t Au cut-off suitable for a large open pit operation and is reported on the same basis as the previous resource statement.

A continuous high grade Mineral Resource can be interpreted at cut-off of 2 g/t Au for Sherwood and 1 g/t Au for Sherwood West and reported in Table 2. Table 2 represents a subset of Table1.

Table 1: Total recoverable Mineral Resource at 0.5 g/t gold cut-off grade

	9	Sherwo	od	Sho	erwood S	South	Sh	nerwood	West		Total	
Classification	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz
Measured	0.015	4.91	2,400							0.015	4.91	2,400
Indicated	2.45	1.56	123,000				2.18	1.54	108,000	4.63	1.55	231,000
Inferred	1.73	1.15	64,000	0.37	1.16	14,000	1.59	1.14	58,000	3.69	1.15	136,000
Total	4.20	1.40	190,000	0.37	1.16	14,000	3.37	1.37	166,000	8.34	1.38	370,000

Mineral Resources are inclusive of the high grade Mineral Resource included in Table 2

**Table 2: High grade Mineral Resource subsets** 

	Cut-off		Measu	red		Indicate	ed		Inferre	ed		Tota	
Area	Au	kt	Au	Au	kt	Au	Au	kt	Au	Au	kt	Au	Au
	g/t	Kt	g/t	oz	Kt	g/t	oz	Kt	g/t	oz	Kt	g/t	OZ
Sherwood	2.0	15	4.88	2,400	188	5.61	33,800	2	3.05	200	205	5.53	36,400
Sherwood West	1.0				977	1.87	58,800	118	1.72	6,700	1,095	1.86	65,400
Total		15	4.88	2,400	1,165	2.47	92,600	119	1.78	6,800	1,300	2.44	101,800

Grade and Tonnage rounded to 2 decimal places. Ounces calculated after rounding and reported to nearest 100 Oz

Given the recent increases in the AUD gold price the Mineral Resource estimates is also reported at 0.3 g/t cut-off in Table 3. No recent economic modelling has been undertaken on the project and as such the marginal cut-off grade that would be used for a bulk tonnage operation is unknown but could be assumed to be in the 0.3 to 0.5 g/t Au range.

Table 3: Total recoverable Mineral Resource at 0.3 g/t gold cut-off grade

Classification		Sherwo	od	She	erwood	South	Sh	erwood	West		Total	
Classification	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz
Measured	0.015	4.88	2,400							0.015	4.88	2,400
Indicated	4.90	1.00	157,000				4.13	1.02	135,000	9.04	1.01	292,000
Inferred	3.06	0.83	82,000	0.51	0.96	16,000	3.19	0.78	80,000	6.76	0.81	177,000
Total	7.98	0.94	241,000	0.51	0.96	16,000	7.32	0.91	215,000	15.81	0.93	471,000



# **Mineral Resource comparison**

In 2016 the previous Mineral Resource was completed by ResEval Pty Ltd with earlier work completed by Golder Associates Pty Ltd. The 2016 Mineral Resource in Table 4 and Table 5 can be compared to the current updated Mineral Resource in Table 1 and Table 2.

Table 4: Previous 2016 total recoverable Mineral Resource at 0.5 g/t gold cut-off grade

Classification		Sherwo	od	SI	Sherwood South		Sherwood West			Total		
Classification	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz
Indicated	2.8	1.6	140,000	0.0			2.2	1.6	112,000	5.0	1.6	252,000
Inferred	1.4	1.3	57,000	0.3	1.2	12,000	1.5	1.2	59,000	3.2	1.2	128,000
Total	4.2	1.5	197,000	0.3	1.2	12,000	3.7	1.4	171,000	8.2	1.4	381,000

Table 5: Previous 2016 high grade Mineral Resource subset

0.000	Cut-off		Indicate	d		Inferre	d		Total	
Area	Au g/t	kt	Au g/t	Au oz	kt	Au g/t	Au oz	kt	Au g/t	Au oz
Sherwood	2.0	89	6.01	17,300	0			89	6.01	17,300
Sherwood West	1.0	1018	1.82	59,600	146	1.72	8,100	1164	1.81	67,700
Total		1107	2.16	76,900	146	1.72	8,100	1254	2.11	85,000

The Mineral Resources prior to 2016 were also reported at the additional lower grade cut-off of 0.3 g/t Au. Though not publicly released in 2016, due to the focus on the high grade areas at that time, the lower grade cut-off report was included in the full JORC report and is included in Table 6 for reference and for comparison purposes.

Table 4: Pervious 2016 total recoverable Mineral Resource at 0.3 g/t gold cut-off grade

Classification		Sherwo	od	Sh	erwood S	outh	SI	herwood	West		Total	
Classification	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz	Mt	Au g/t	Au oz
Indicated	5.16	1.05	173,000	0.00			4.20	1.03	139,000	9.36	1.04	312,000
Inferred	2.55	0.88	72,000	0.47	0.94	14000	3.02	0.82	80,000	6.04	0.86	166,000
Total	7.71	0.99	246,000	0.47	0.94	14000	7.22	0.94	219,000	15.40	0.97	479,000

The 2019 Mineral Resource update used similar software and parameters as used in 2016. Changes in the estimates can be attributed to:

- Additional data at Sherwood and relevant to the Mineral Resource estimates including:
  - Over 1500 blast holes for grade control at Sherwood
  - o 94 RC holes in 2013 and 2014 targeting the main Sherwood vein
  - o 51 follow-up RC holes in 2018 infilling and targeting the main Sherwood vein prior to mining
  - 51 RC holes in 2019 infilling deeper vein target zones and potential pit extensions.
- Reinterpreted with additional high grade domains for Sherwood constrain infill drilled areas at Sherwood for both mined areas (6 domains) and new deeper areas (3 domains).
- Depletion of the Sherwood pit based on the final pit survey and accounting for some in-pit backfill.
- Alteration of the top cuts with:
  - o Lowering from 40 to 30 g/t Au in most areas
  - Elevating from 40 to 80 g/t Au in the new constrained Sherwood domains.
- Resampling and adjustment to wireframes due to survey and software changes over time.
- Adjustments to the estimation parameters for
  - o Removal of hard boundary dividing the Sherwood lower domains after creation of new domains constraining many high grades at or near the previous boundary
  - Reduced sample requirements for Sherwood high grade domains with smaller model blocks
  - Updated variograms models for all Sherwood domains based on closer spaced drilling



o Relaxed sample requirements for Agate Creek Fault to allow for narrow shapes in places.

Mining of 70 kt of ore in 2019 at a high 3 g/t Au cut-off has effectively depleted the Mineral Resource by 120 kt at 4.9 g/t Au for the lower 0.5 g/t Au cut-off.

## Location

The Agate Creek Gold Project is located approximately 40km south of Forsayth and 60km west of Kidston in North Queensland. The project is comprised of ML100030, MDL402, EPM17788 and EPM26460 which cover over 647km<sup>2</sup>.

Following significant exploration success, Laneway progressed 689.3Ha of MDL402 through to Mining Lease. ML100030 was granted on the 1st March 2019

The Agate Creek Project is situated within the Etheridge Goldfield which historically produced over 3.7 million ounces of gold, along with minor amounts of silver, copper, lead and other minerals from placer and hard rock (mostly vein) sources. The most significant deposit in the Etheridge Goldfield is the Kidston deposit, located some 60 km east of the Agate Creek Project. Whilst in operation Kidston produced in excess of 3 million ounces of gold.

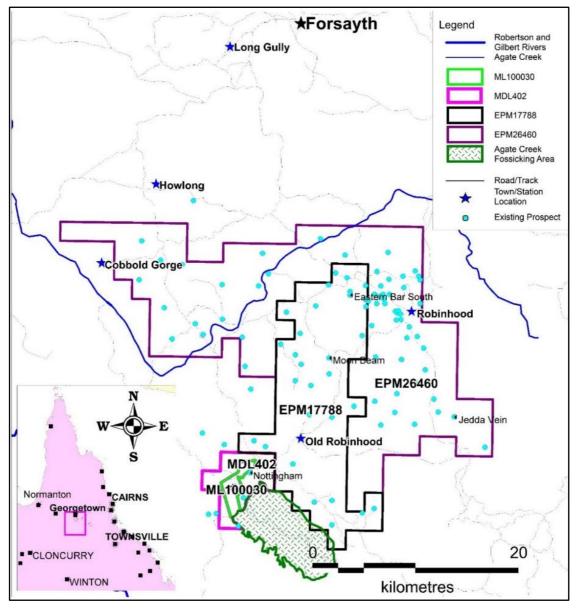


Figure 1: Location of Agate Creek Project.



# **Mining Lease**

The Mining Lease (ML 100030) - which covers the near surface high grade Sherwood and Sherwood West gold prospects as well as areas for all necessary infrastructure to support mining operations - was granted by the Queensland Department of Natural Resources, Mines and Energy with an effective date of 1st March 2019. ML100030 was excised from within MDL402 reducing it by 689Ha. The ML was granted for a period of 20 years

Area for potential mining infrastructure locations are also shown in Figure 2.

Laneway also holds significant granted exploration licences adjacent to the ML and MDL area's which has the potential of adding further resources to the project through exploration moving forwards.

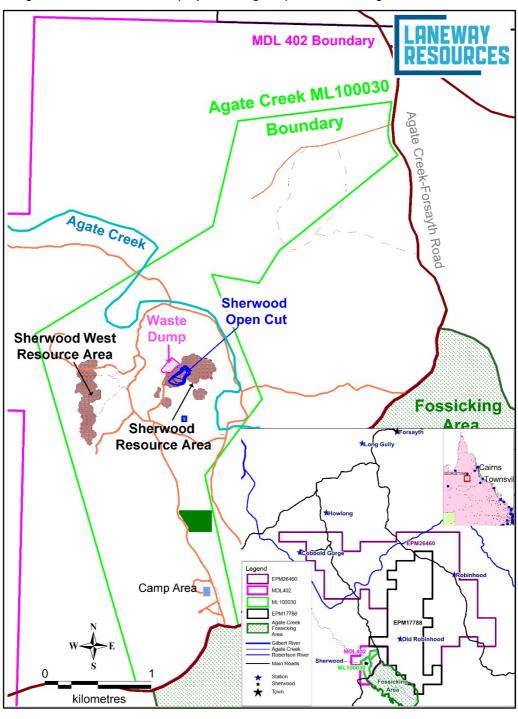
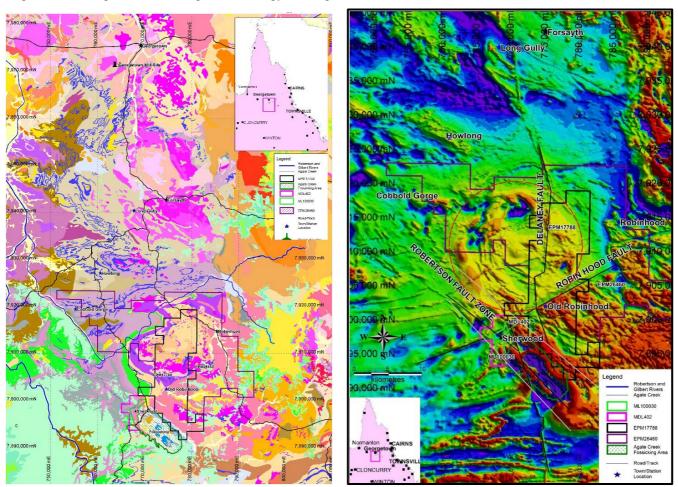


Figure 2: Mining Lease 100030Surrounding the Resource Areas



# **Geology and Interpretation**

The main styles of gold mineralisation in the area are epithermal and meso-thermal systems, which are generally associated with multiple intrusive phases associated with the Robertson Fault Zone. Narrow-vein mining has also previously taken place within the Forsayth area along or adjacent to the fault traces. The Robertson Fault Zone is recognised as one of the main controlling features for mineralisation in the region shown below as part of the RTP Magnetics see Figure 3a and Regional Geology see Figure 3b.



Figures 3a Regional RTP magnetic intensity; Figure 3b Geology

Both overlain by regional tenements

Gold mineralisation at Sherwood is a low-sulphidation, adularia-sericite type epithermal system genetically related to the emplacement of Permo-Carboniferous porphyritic rhyolite and andesite extrusives and intrusives. Most mineralisation occurs within the Robertson Fault Zone, at the intersection of the Robin Hood Fault and is spatially associated with (and often within) rhyolite. The mineralised zones are interpreted as boiling outflow zones, likely fossil geysers. The Agate Creek Fault forms the eastern boundary to mineralisation but remains open in all other directions and at depth.

# LANEWAY RESOURCES

The conceptual geological model for the Sherwood mineralisation system is depicted in Figure 4.

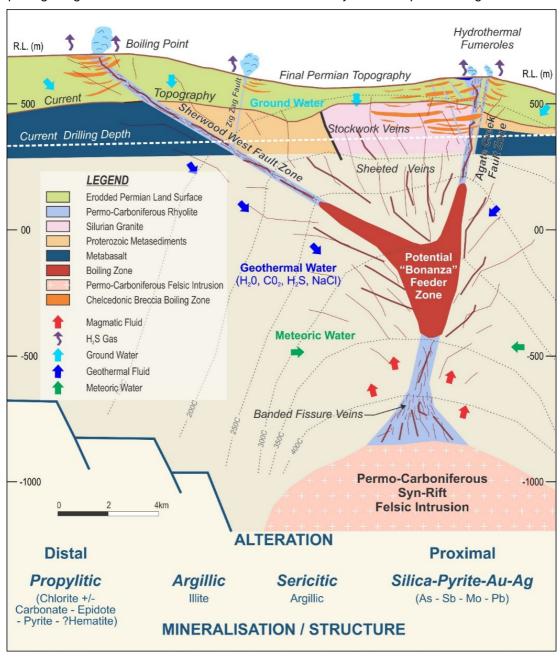


Figure 4: Low Sulphidation epithermal gold model for Agate Creek

Figure 5 displays the Agate Creek projects area and drill traces. There are two principal mineralised areas currently identified at Sherwood and Sherwood West.

Additional infill drilling from 2014 in the upper part of Sherwood has allowed a higher grade domain to be defined with confidence as a shallow NW dipping lens of mineralisation. The lens is 250 m long by 50 to 100 m wide and 2 to 8 m thick and is marked as a polygon in Figure 5 and in a long section in Figure 6.

Sherwood West is hosted within a brecciated rhyolite, infilling a thrust fault truncated in the north by the Zig Zag Fault. The faulting allowed for a rhyolite intrusion followed by fluid conduits of the active Permian epithermal plumbing system. At Sherwood West the known mineralised zone extends for over 1 km along strike and remains open to the south and at depth. There is also the potential for parallel repetitions of the currently known mineralized zone.

# LANEWAY RESOURCES

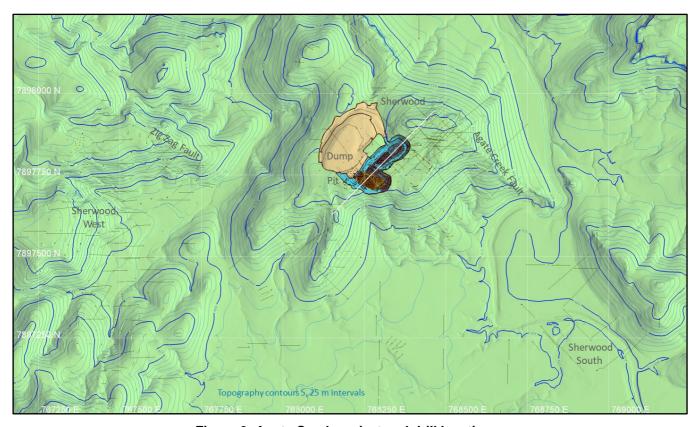


Figure 6: Agate Creek project and drill locations

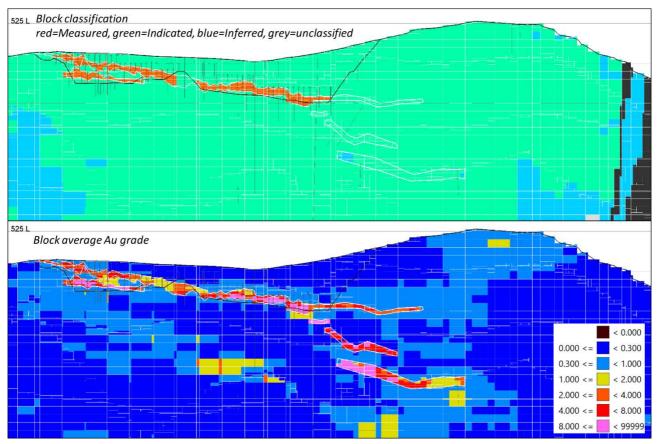


Figure 7: Sherwood long section (see Figure 4 for location)



# **Drilling techniques**

Table 5 summarises the drilling data available for the Agate Creek project.

In 2019 over 1500 open holes drilled for blasting were sampled (generally on 1.2 m intervals) where mineralisation was expected. These are restricted to the open pit area now mined out but help to inform the immediate pit wall areas. These open holes otherwise have little impact on the remaining Mineral Resource.

Other rotary air blast holes (RAB) are near surface and sample regional areas and similarly have no contribution to the Mineral Resource.

The Mineral Resource is mainly informed by reverse circulation (RC) and diamond core drilling (DD). Though only 4% of the drill holes are diamond drilling (including RC precollars) they contribute 13% of the assays.

Diamond drilling core sizes previously include NQ and HQ but more recently HQ3 for all diamond drilling.

RC drilling used a variety of hammer sizes but are predominantly greater than 5 inch diameter.

**Drill Hole** Hole Meterage **Assayed** Company **Date Holes** Samples Type (m) **Name Range** RC 25 2668 1274 RC14-39 **Rio Tinto** 1996-97 DD 15 3269 1681 DD1-40 Plutonic / Homestake 1998-01 RC 68 11209 11201 RC41-108 Normandy / Leyshon 2001 RC/DD 5 1185 872 DD109-113 **RAB** 11 143 55 LJR1-11 400 2004-10 RC 27940 27045 RC114-480 DD 4 1394 1461 DD389-392 ВН 4 49 28 SHB1-4 Laneway 2013 DD 2 907 DD481-482 904 (formerly Renison) RC 94 6082 4260 RC483-507, HG1-68 2014-15 **RAB** 14 840 0 ST1-14 **Blast** 1512 9694 7466 A1-1512 2018-19 107 3859 RC 4026 RC508-516, GC1-250 2261 69402 60109 **Total** 

Table 6: Agate Creek drilling and sampling program summary.

# Sampling and sub-sampling

RC and diamond drill sampling is predominantly on 1 m regular intervals though some historic sampling was on 2 m intervals and core sampling intervals may have been adjusted for geological contacts.

Diamond Drill (DD) core sizes previously include NQ and HQ but more recently HQ3 for all diamond drilling. Core is cut in half with one half submitted for assay. A small amount of historical core was sampled at ¼ core due to extra testing undertaken at the time. These results show no bias and are still considered representative of the sample interval.

Reverse Circulation (RC) Drill samples are submitted as 1 m intervals when smaller or using a smaller diameter hammer. For RC hammer sizes of 5 inch or larger samples were split by riffle or cone splitter on site prior to sampling and dispatch of a 2 to 4 kg sample. A limited number of wet samples were spear sampled after drying.

Open holes completed for blasting where sampling was predominantly at 1.2 m intervals, which equated to 3 samples per rod and ensured no sampling occurred across rod changes. Hole depths rarely exceeded two rods or 7.2 m in order to limit potential sample contamination issues. All drilling was supervised by experienced geological staff who also logged geology and panned for approximate gold grades in each sample interval. Samples were collected via a cyclone and conventional 3 tier splitter resulting in around 2 to 3 kg of sample as expected from the 102 mm drill bit diameter.



# Sample analysis

Sample preparation was undertaken at an accredited commercial laboratory prior to analysis. Samples were dried, crushed, pulverised to -75 microns and split for analysis of gold by fire assay and as required a multi-element suite by mixed-acid digest – ICPMS/OES.

Assaying QAQC information for previous workers is limited for previous companies. Laneway (formerly Renison) drilling programs completed since 2004 now comprise the majority of the drilling database and have included field QAQC samples. QAQC data includes only a few small batches of umpire check samples but has included regular field QAQC across all drill programs in addition to the laboratory QAQC analyses. Analysis of the QAQC has indicated no obvious bias or errors and is based on:

- Certified standards and/or blanks inserted every 30 m
- · Sample duplicates inserted every 20 m
- Umpire lab re-assays resubmitted every 50 samples.

Field duplicates indicate a high variance consistent with a coarse gold occurrence. This is consistent with the panning of visible gold from blast hole samples during mining, which was used to assist grade control.

#### **Estimation method**

Estimation was by Multiple Indicator Kriging (MIK). This is a probabilistic estimation method that estimates the grade distribution at each point. It is a method that is well suited to the estimation of mixed ore and waste materials typical of epithermal gold deposits where the definition of individual quartz veins is difficult prior to production stage information.

The MIK model point estimates were adjusted to account for the estimated variance for the Selective Mining Unit (SMU) to create a recoverable resource estimate to approximate a 5 m by 5 m by 2.5 m SMU.

Block model construction included parent block size of 10 m by 10 m by 5 m sub-blocked to 2.5 m by 5 m by 1.25 m. MIK uses broad domains that define mineralisation envelopes. The assumed dominant structural orientation is used to control the estimation. These orientations used are generally flat to shallow easterly dipping up to 35°. A few vertical fault systems are domains at the Zig-Zag and Agate Creek Faults but do not include significant mineralisation. For the high grade domains tighter domain shapes representing the quartz veins provide more specific geological control.

Estimates of gold are based on 1 m composites of grades cut to a maximum value of 30 g/t Au and local sample averages used for all MIK bin grades. For the higher grade Sherwood domains a higher 80 g/t/ Au top cut is used. 1.2 m composite length was used for blast holes to avoid unnecessary sample averaging.

Estimation for each domain used two search passes of 40 by 40 by 10 m and 120 by 120 by 20 m. Octant searching and a minimum of 3 drill holes and 7 samples used for the first pass. this was relax to 3 samples per octant for the narrow high grade zone which had a maximum block height of 1.25 m.

Extrapolation was limited by classification to 25 m unless within a more constrained interpretation.

#### Resource classification

The resource is classified on the basis of drill spacing, based on experience and variogram ranges for the low grade domains and adapted for the more restricted high grade domains as follows:

- Measured Mineral Resource: Material inside the Sherwood high grade wireframe where the blocks were estimated with more than 5 drill holes and the average composite distance of less than 6 m and the closest sample less than 4 m. This targeted the grade control area drilled to 3 m spacing with blast holes.
- Indicated Mineral Resource: Within low grade wireframe interpretations and estimated in first grade estimation pass such that 15 samples fell inside the 40 x 40 x 10 m search radii, with a maximum of 7 samples per octant and a minimum of 3 drill holes. Within the high grade domains if within 25 m of a drill hole.



• Inferred Mineral Resource: The remaining material within the low or high grade wireframe interpretations where the blocks were estimated for the blocks within 25 m of a drill hole in the plane of the mineralisation. Within the high grade domains if beyond 25 m from a drill hole.

The classification varies in three dimensions. Figure 8 presents the classification in a plan projection of the uppermost blocks that are above 0.5% cut-off and a 30% recovery probability.

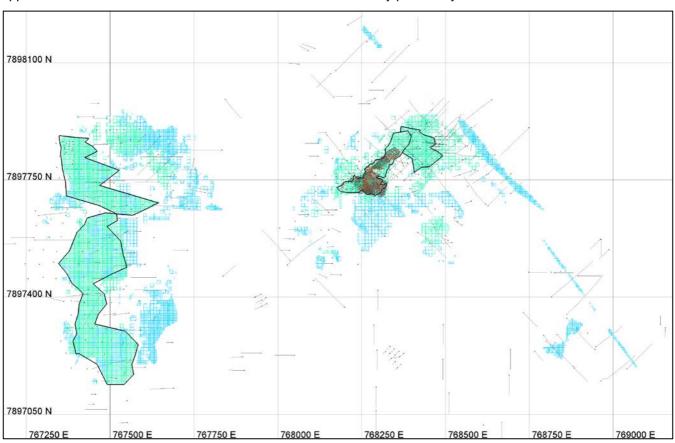


Figure 8: Agate Creek classification projected to plan view

# **Cut-off grades**

Previous resource statements for Agate Creek have been at a low cut-off grade of 0.3 and 0.5 g/t Au on the basis of a potential large scale open pit operation. For continuity both the 0.3 and the 0.5 g/t Au cut-off have been reported as these still represent potential larger scale development scenarios.

In 2019 Laneway successfully completed initial mining at Sherwood with toll treatment of ore off site. The small throughput and trucking costs required a higher cut-off of 3 g/t Au for grade control. For Sherwood a rough cut-off of 2 g/t Au was used previously and currently to emulate the same mining target and provide the continuity to allow interpretation. This approach was found effective with mining resulting in similar grade and tonnes to production.

The high grade interpretations at Sherwood West is based on roughly a 1 g/t Au cut-off. This is based on the geological continuity as the veins are lower grade than at Sherwood West but present a significant target for evaluation.

# Mining considerations

Sherwood and Sherwood West both present near surface outcrop zones with shallow dips to the East. For Sherwood West the dip of the most significant mineralisation runs parallel to the hill providing a significant area of low overburden zone before dipping under significant overburden in the valley floor.

For the low grade domains the MIK estimation method and SMU adjustment accounts for the mineralisation dip and provides an estimate of the recoverable resource i.e. includes most mining dilution factors. For the narrow high



grade domains some additional edge dilution will be encountered due to the hard boundaries used for the estimation. This will be greater at Sherwood West where the orientation of around 30° is less favourable and additional dilution will be incurred due to the need to bench up for mining. The shallower 5 to 10° dip for the Sherwood high grade domain will provide an opportunity to extract ore and waste on separate lifts and should limit mining dilution (Figure 7).

The rock types include massive quartz, granite and rhyolite with limited oxidation near surface. Drill and blast was required in all areas and weathering types.

## **Metallurgical considerations**

Several phases of metallurgical test work have been undertaken on the Agate Creek Project investigating gold extraction via heap leach, dump leach and CIL processing with and without gravity. The main test work programs completed were in 1999 by AMMTEC and in 2004 & 2005 by HRL. These programs all showed that Agate Creek ore was amenable to cyanide extraction with low chemical consumptions 0.5 to 1 kg/t lime and cyanide; a relatively high work index of 18 kW/t; and recoveries of approximately 95% with grind sizes of 80% passing 75 µm.

In early 2014 a trial mine sample from the Sherwood high grade zone was processed through the Georgetown CIL gold processing plant. The 5472 t sample produced 1725 ounces of gold was with the recovered gold grade of 9.8 g/t Au, from a feed grade of 11.2 g/t Au, representing an overall recovery of 87%. Issues with the setup and reagents of the process plant were identified.

In 2019 a larger mining parcel totalling ~70,000 t averaging 7.3 g/t Au was toll treated with recoveries over 97%.

These milled parcels show comparable metallurgical characteristics to the previous test work and is being used as baseline recovery and consumption numbers moving forwards.

# **Recent mining at Agate Creek**

In 2019 the Company brought the project into production quickly following the grant of the Mining Lease (ML100030) over the Sherwood deposit - achieving the first gold pour within 10 weeks of the Lease being granted, and mining for this first program was completed within 5 months. No Environmental or Safety incidents occurred during the mining program.

Mining commenced within ML100030 on the 10th April with the first ore being trucked to Maroon Gold's Black Jack Gold Processing Plant at Charters Towers on the 13th April. First ore was fed into the crushing circuit on 17 April, with processing starting soon afterwards. The first Gold pour (pictured below) occurred on 23 April 2019 with 22kg bullion recovered from approximately 1,300 tonnes of ore averaging 15 g/t by Gravity, ILR and CIL processing methods. Processing was completed on the 16th September 2019.

Gold recovery was good – with  $\approx$ 50% of the recovery from gravity, ILR (Intensive Leach Reactor) and  $\approx$ 50% CIL (Cyanide in Leach) extraction at Maroon's Black Jack Processing Plant - processing rates averaged  $\approx$ 21 tonnes per hour, with recoveries impressive of  $\approx$ 98%.

Final production of 69,759 tonnes of ore was processed from initial mining campaign, with recovery >97% at an estimated head grade of 7.3 g/t gold totalling almost 16,000 oz or just under 500kg of refined gold. Laneway's calculation of its share of the gold sales is 5,242 ounces and the value for Laneway's net share of refined gold sold since mining commenced is approximately \$10.6 million.



# Further high-grade mining potential

Following this Mineral Resource update mine design and optimisation of possible mining scenarios can be properly investigated in regards to additional high grade tonnes identified. Several areas will be reviewed within the mining lease area for the possibility of a small cut back on the current open cut pit area to allow mining of the current pit floor. Results from previous grade control drilling programs and the results reported above confirm the potential for additional high grade tonnes immediately below the current pit floor and also extensions into the walls on both sides of the pit appear to show potential for additional tonnes to be mined. Current modelling shows that there is likely 20-25,000 tonnes of high grade ore in close vicinity to the current open cut however, volumes of waste to be removed as part of any cut back and costs associated with processing must be finalised prior to final pit designs being created. The planned evaluation study will consider potential economics and strip ratios required for a possible cut back of the pit walls in the current mine area. Laneway will announce the outcome pit cutback designs when they are complete. Potential processing options are being negotiated along with mining and transport options which will all effect final mine designs along with projected revenues. This is ongoing and will be announced once contracts have been agreed.

The long term aim for the Agate Creek mine is for conventional on site processing of the larger commercial grade resource that has been defined at Agate Creek. However, while the gold price is at record AUD levels additional potential toll treatment of high grade ore will be targeted shorter term to provide additional cash flow to fund significant further exploration for the company without further requirements for equity capital raisings.

## **Competent Persons statements**

The information in this report that relates to Exploration Results is based on information compiled by Mr Scott Hall who is a member of the Australian Institute of Mining and Metallurgy. Mr Hall is a full-time employee of Laneway Resources Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Hall consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Resources is based on information compiled by Mr John Horton who is a Chartered Fellow of the Australian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Horton is a full-time employee of ResEval Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.' Mr Horton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

This information was prepared under the JORC Code 2012 with additional details provided in the following JORC Table 1 assessment (see Attachment 1).

## **Attachment 1**

# Agate Creek Gold Project January 2020

# **JORC TABLE 1**

CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA (THE JORC CODE, 2012 EDITION)

JORC TABLE 1 provides a summary of assessment and reporting criteria used for the Agate Creek Gold Project 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)".

## Ore Reserves and Mineral Resources Reporting Requirements

As an Australian company with securities listed on the Australian Securities Exchange ("ASX"), Laneway Resources Limited (Laneway) is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act and the ASX. Investors should note that it is a requirement of the ASX listing rules that the reporting of ore reserves and mineral resources in Australia comply with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code") and that Laneway's ore reserve and mineral resource estimates comply with the JORC Code.

# Section 1 Sampling Techniques and Data

Criteria	J	ORC Code explanation	Commentary
Sampling techniques	•	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the	Reverse Circulation (RC) Drill samples are submitted as 1 m intervals. Wet samples are spear sampled after drying.
		minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Diamond Drill Hole (DDH) samples are submitted as half core 1 m intervals. Where appropriate the intervals may be varied to take account of logged geological boundaries and discrete vein sampling. Core is cut in half with one half submitted for assay. Core sizes used historically include NQ and HQ but current standard is HQ3 for all diamond drilling.
			Some historical samples both RC and DDH were submitted as 2 m composites regardless of geological boundaries but these make up a minor portion of the total data set.
			Open hole used for blasting were sampled for grade control purposes on mostly 1.2 m intervals. These are mostly mined out but are retained for reconciliation and contribute to resource estimation of the near pit vicinity.
	•	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Duplicates, blanks, and standards are submitted to ensure results are repeatable and accurate. Laboratory comparison checks are also completed. With no statistically significant lab errors or biasing shown.
	•	In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay').	Since 2006 RC drilling has been utilised to collect 1 m samples from which a representative 2 to 4kg sample is sent to an accredited laboratory for analysis. Samples are pulverised to -75 microns and analysed for gold by fire assay and as required a multi-element suite by mixed-acid digest – ICPMS/OES.
Drilling techniques	•	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core	RC hammer size has dominantly been 5 inch or larger. In cases where smaller diameter holes were drilled an adequate sample size was recovered. Drill samples are homogenised by riffle or cone splitting prior to sampling and a 2 to 4kg split sample is submitted for assay.
		is oriented and if so, by what method, etc).	Diamond Drill Hole (DDH) samples are submitted as half core 1 m intervals. Where appropriate the intervals may be varied to take account of logged geological boundaries and discrete vein sampling. Core is cut in half with one half submitted for assay. Core sizes used historically include NQ and HQ but current standard is HQ3 for all diamond drilling. Core is orientated using digital orientation tools. Historical core has been orientated using industry best standards at the time.
			Drilling company, method and quantities are summarised in Table 5 of the announcement.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries a results assessed.</li> </ul>	nd RC samples are split on 1 m intervals using a riffle or cone splitter with the following data recorded at the time of sampling:
		<ul> <li>Sample recovery was visually estimated and documented; and</li> <li>Any biases in sample recovery were observed and recorded; and</li> <li>Samples were documented as being dry, moist or wet (in excess of 98% of samples recovered were dry).</li> </ul>
		DDH drill runs were measured and compared to actual core recovered to calculate drilling recovery. Overall DDH drill recovery is > 97%.
	<ul> <li>Measures taken to maximise sample recovery and ensure representation nature of the samples.</li> </ul>	If poor RC sample recovery is encountered during drilling, the geologist and driller endeavour to rectify the problem to ensure maximum sample recovery. Visual assessment is made for moisture and contamination. The cyclone and splitter were used to ensure representative samples were taken, with both being routinely cleaned and inspected for damage.
		If poor DDH sample recovery is encountered during drilling, the geologist and driller endeavour to rectify the problem to ensure maximum sample recovery by changing muds or drilling methods appropriate for the ground conditions.
	Whether a relationship exists between sample recovery and grade a whether sample bias may have occurred	No obvious sample bias has been identified or is expected given the nature of the mineralisation and the sampling methods employed.
Logging	Whether core and chip samples have been geologically and geotechnical logged to a level of detail to support appropriate Mineral Resourcestimation, mining studies and metallurgical studies.  Whether logging is qualitative or quantitative in nature. Core (or costed channel, etc) photograph	minerals, vein percentage, sulphide type and percentage, colour, weathering, hardness, grain size, core to bedding angle, recovery, vein angles, fractures, joints and RQD. All historical data has been reviewed and as necessary relogged and validated so it is now considered equivalent to
	The total length and percentage of the relevant intersections logged.	All RC and DDH drilling is qualitatively and quantitatively logged for a combination of geological and geotechnical attributes in their entirety. All DDH core and RC chip trays have been photographed. Representative samples of the individual metres from RC chips have been retained in 20 m chip trays.
		Panning of RC samples has been considered part of the standard geological logging technique since 2010 with most meters drilled also panned for visible gold, if noted by suitable qualified geologists this observation also forms part of the geological logs. This proved effective for grade control in 2019 from blast holes with good correlation to assays for the 3 g/t/ cut-off required.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	DDH Core is cut with a diamond saw along the orientation line in intervals with one half of the core submitted for assay.
and sample preparation		A small amount of historical core was sampled at ¼ core due to extra testing undertaken at the time. These results show no bias and are still considered representative of the sample interval.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Prill samples are homogenised by riffle or cone splitting prior to sampling and a 2 to 4 kg split sample is submitted for assay.
		Wet samples are spear sampled after drying. These are of a very limited number, and checks are in place to monitor wet sample biasing.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Typically a representative 2 to 4 kg sample has been sent to an accredited laboratory for analysis. Samples are pulverised to -75 microns and analysed for gold by fire assay, and as required for a multi-element suite by mixed-acid digest and ICPMS/OES as determined by the onsite geologist.
		The sample preparation technique is appropriate for the style of mineralisation being analysed.
	Quality control procedures adopted for all sub-sampling stages to maximis representivity of samples.	sample is submitted for assay.
	<ul> <li>Measures taken to ensure that the sampling is representative of the in sit material collected, including for instance results for field duplicate/second half sampling.</li> </ul>	
	Whether sample sizes are appropriate to the grain size of the material bein sampled.	The sample size is appropriate taking into account the grain size of the material, as well as the style of mineralisation being analysed.
Quality of assay data and	The nature, quality and appropriateness of the assaying and laborator procedures used and whether the technique is considered partial or total.	The method employed is industry standard and considered appropriate for the style of deposit and elements being assayed.
laboratory tests	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, th parameters used in determining the analysis including instrument mak and model, reading times, calibrations factors applied and their derivation etc.</li> </ul>	9

ates, external laboratory checks) and whether acceptable levels of icy (i.e. lack of bias) and precision have been established	Sample batches have Certified Standard Reference Material and/or blanks inserted at start and end of every lab submission. Standards and/or blanks are inserted at least every 30 m and sample duplicates are taken every 20 m. There is no umpire or check samples available except for a small number of check samples undertaken on early pre 2004 drilling.  In 2007, 2011, 2016 & 2019 all available data was compiled and reviewed in detail the QAQC for the previous companies and the first four Renison drilling programs. This indicated no significant issues though some duplicate and primary sampling by spears was found to have high variance owing to the occurrence of some coarse gold at Agate Creek.  QAQC data analysis of the control procedures outlined above has been completed with no obvious bias or errors have been detected. Drilling was supervised by experienced geologists.
	the previous companies and the first four Renison drilling programs. This indicated no significant issues though some duplicate and primary sampling by spears was found to have high variance owing to the occurrence of some coarse gold at Agate Creek.  QAQC data analysis of the control procedures outlined above has been completed with no obvious
ntive company personnel.	All assay data received including significant intercepts are reviewed by at least 2 appropriately qualified persons for validation purposes. All reported significant intercepts are verified by at least 2 appropriately qualified persons.
se of twinned holes.	Twinned holes are used to verify historic drilling and have shown reasonable correlation.
torage (physical and electronic) protocols.	All historical data was manually checked and validated from original documents during a database audit undertaken in 2008. Procedures are in place for data storage, manipulation, data entry, validation and verification which are considered industry standard.
	Hard copy field data is collated into a file for each drill program and is stored in the Brisbane office. Electronic data is stored on the Company server, with appropriate security controls being in place.
ss any adjustment to assay data.	No adjustment of assay data was considered necessary.
	The primary returned assay result is used for reporting of all intersections and in mineral resource estimation, no averaging with field duplicates or laboratory repeats was undertaken so as not to introduce volume bias.
ne	entation of primary data, data entry procedures, data verification, orage (physical and electronic) protocols.

Criteria	JORC Code explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down hole surveys), trenches, mine workings and other locations used in Mineral Collaboration.	
	Resource estimation.	The majority of drill holes have been down hole surveyed at 30 to 50 m intervals using best practice instruments available at the time. Vertical holes less than 60 m have not been downhole surveyed historically.
		A significant amount of historical downhole surveys are dip only as they were conducted within the drill rods and azimuths are considered invalid.
	Specification of the grid system used.	All data has been converted to MGA 94 (Zone 54). Elevation values are in AHD RL.
	Quality and adequacy of topographic control.	Elevation control was based on topographic contours extracted from the 100 000 map sheet data.
		The current topographic model and data was acquired from Survey Graphics Mapping Consultants in March 2015. This is photogrammetry data comprising 1&5m contours collected at 1:11,000 scale and based on aerial photos flown in 2006. The survey accuracy is reports as ±0.15 m.
		The Sherwood pit was surveyed to provide and accurate update to the pit as mined as well as surface fill and pit backfill model.
Data spacing and	Data spacing for reporting of Exploration Results.	Step out exploration drilling is generally conducted on 40 m sections along strike and 40 m down dip, this is considered sufficient to establish continuity of the mineralisation.
distribution		Drilling density to define the Mining Targets will average less than 20 m by 20 m. The drill spacing is considered geologically sufficient for the high grade vein system which is being targeted.
	<ul> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Minera Resource and Ore Reserve estimation procedure(s) and classification applied.</li> </ul>	This drilling density is considered appropriate to establish the continuity of the mineralisation. Infill
	Whether sample compositing has been applied.	For estimation samples are composited to 1 m regular intervals. This matches the majority of the original sample lengths. Blas hole samples were composted at 1.2 m to match the majority of interval lengths and remove unnecessary sample averaging.
		Composites were optimised to avoid interval < 0.3 m Estimation also use length weighting to remove any remaining difference in composite length.

Criteria	JC	ORC Code explanation	Commentary
Orientation of data in relation to geological structure	•	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Wherever possible drill holes have been planned to intersect the interpreted mineralised structure as near to perpendicular as possible (subject to dill collar access constraints).  No sample biasing due to drill orientation has been observed.
	•	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Drilling orientations are considered appropriate to the mineralisation type with no bias observed as a result of the drill orientation.
Sample security	•	The measures taken to ensure sample security.	The chain of custody is managed by the project geologist who generally dispatches the sample bags directly from site to the lab by an authorised company representative. Sample dispatches by others have historically been similar in nature.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	In 2008 a complete data review was completed up to drill hole 333, including a thorough QAQC audit. Relogging and checking of all historical data was completed during the same period
			The results of the 2008 review included updated geological logging and additional QAQC procedures as part of the continuous improvement process.
			In 2019 original assay sheets were reacquired and reimported to verify all the assays were suitably allocated and remained intact in the drill hole database.

# Section 2 Reporting of Exploration Results

Criteria	J	ORC Code explanation	Commentary
Mineral tenement and land tenure status	•	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The entire Agate Creek Resource and current drilling program lies within Mineral Lease 100030 which is located approximately 50 km South of Forsayth (QLD). ML100030 is held 100% by Laneway Resources, but is subject to a Royalty Agreement based on gold production.  Laneway has a current Native Title Compensation Agreement and a CHMA with the determined Native Title group for all mining activities within ML100030. Current Conduct and Compensation Agreements are in place with the underlying land holders.
	•	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The Mining Lease (ML 100030) - which covers the near surface high grade Sherwood and Sherwood West gold prospects as well as areas for all necessary infrastructure to support mining operations - was granted by the Queensland Department of Natural Resources, Mines and Energy with an effective date of 1st March 2019 for a term of 20 years.
Exploration done by other	•	Acknowledgment and appraisal of exploration by other parties	Exploration by previous parties have held to define the Sherwood and Sherwood West deposits at Agate Creek. These include:
parties			1996 to 1997 Rio Tinto with 40 RC and DD holes in 2 programs 1998 to 2001 Plutonic – Homestake with 74 RC and DD holes in 3 programs 2001 Normandy – Leyshon with 6 DD holes
			All historical data has been reviewed and as necessary relogged and validated so it is now considered equivalent to current geological logs and data quality across the project.
Geology	•	Deposit type, geological setting and style of mineralisation.	Gold mineralisation at Sherwood is a low-sulphidation, adularia-sericite type epithermal system genetically related to the emplacement of Permo-Carboniferous porphyritic rhyolite and andesite extrusives and intrusives. Most mineralisation occurs within the Robertson Fault Zone, at the intersection of the Robin Hood Fault and is spatially associated with (and often within) rhyolite. The mineralised zones are interpreted as boiling outflow zones, likely fossil geysers. The Agate Creek Fault forms the eastern boundary to mineralisation but remains open in all other directions and at depth.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	No exploration results are reported in this Mineral Resource statement.  Location of the drilling data in relation to the resource is summarised in plan view in Figure 4 and 6.
	<ul> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	No drill information is excluded from the resource estimate.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No exploration results are reported in this Mineral Resource statement.  Weighting, compositing and cutting are addressed elsewhere for the Mineral Resource
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	The majority of the drilling angled vertical or at 60° into roughly flat dipping structures at Sherwood and almost perpendicular to mineralisation at Sherwood West. This provides an optimal orientation.  However there is potential for some vertical vein orientations at Sherwood. Historic drilling has tested the deposit at almost every possible azimuth orientation. Consequently no systematic orientation bias will present.  Recent drilling for the Sherwood upper high grade zone has used vertical RC drilling into a system dipping at most by at most 10°, providing essentially true widths.

Criteria	JORC Code explanation	Commentary
	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width no known').</li> </ul>	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercept should be included for any significant discovery being reported Thes should include, but not be limited to a plan view of drill hole collar location and appropriate sectional views.</li> </ul>	e
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is no practicable, representative reporting of both low and high grades and/of widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	December 2013 is adjacent to the Sherwood upper high grade zone (see March 2015 Quarterly report).
		IVIINING AND TOIL TEATMANT OF ~ / I II II II II WAS COMPILED IN VITTU AIOND WITH OVAL TALIII II ASSAVAD NIAST
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for later extensions or depth extensions or large-scale step-out drilling).</li> </ul>	The most recent RC drilling program in 2019 targeted the near pit Sherwood upper high grade zone areas well as deeper zones with open pit potential.
		Laneway are currently investigating the economics of extending the Sherwood open pit assessed for the current mineral resource update.
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided the information is not commercially sensitive.</li> </ul>	

# Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	Golder Associates compiled the previous resource estimates up until 2014 and reviewed the drilling database. Historic data were compared visually and similar estimates confirmed historic areas were unchanged except for resurveys.  Recent Laneway drilling data was compiled independently from original assay certificates.
		Downhole integrity and cross validation were used to validate the entire drilling database.
		In 2019 original assay sheets were reacquired and used to validate the drilling database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	Scott Hall has visited site on extensively having first visited the site in 2004 and has supervised and managed exploration onsite since 2007. He was also present during trial mining in 2013 and during mining in 2019.
	<ul> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	John Horton visited site on 21 Sep 2008 as part of a previous geological review.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	Agate Creek mineralisation is epithermal is style and associated with quartz veining. Both grade and quartz logging are used to aid geological interpretation in additional to geological contacts between the rhyolite and granite which are proximal and parallel to the main mineralisation at Sherwood West and the upper mineralisation at Sherwood.  Quartz veining is dominantly near horizontal at Sherwood and dip at 30° to the east at Sherwood West. Early interpretations included vertical veining along fault zones at Sherwood and Zig-Zag faults, however there is room to interpret these areas to low angle structures. Other vertical veins are present around Sherwood and could possibly contribute to mineralisation. Examination of core indicates here is mineralisation without evident quartz veining indicating some areas are more
		complicated.  Mining undertaken on the upper high grade zone at Sherwood confirms a gentle dip to the east that is now defined by infill RC drilling completed since November 2014. The high grade zones displays a strong relationship to quartz veining though not all quartz is mineralised.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	<b>Sherwood</b> comprises mostly sub-horizontal quartz veins and mineralisation with the main zone containing veins spread over a core area of 370 m NE-SW by 300 m NW-SE by 300 m RL. It is bounded to the East by the Agate Creek Fault a vertical NNW-SSE system with some mineralisation.
		<b>Sherwood West</b> is predominately a single zone dipping 30° to the east and up to 750 m N-S by 350 m E-W and 20 m in vertical thickness. There are some minor horizontal veins in the hanging wall sequence and additional mineralisation near the Zig Zag Fault. <b>Sherwood South</b> comprises a few largely vertical veins is minor extent.

Criteria	J	ORC Code explanation	Commentary
Estimation and modelling techniques	•	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Estimation was by Multiple Indicator Kriging (MIK). This is a probabilistic estimation method that estimates the grade distribution at each point. It is a method that is well suited to the estimation of mixed ore and waste materials typical for epithermal gold deposits where the definition of individual quartz veins is difficult prior to production stage information.
	•	Any assumptions behind modelling of selective mining units	The MIK model point estimates were adjusted to account for the estimated variance for the Selective Mining Unit (SMU) to create a recoverable resource estimate using a block reduction factor of 0.3 (or F factor) to approximate a 5 m by 5 m by 2.5 m SMU.
	•	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	Block model construction included parent block size of 10 m by 10 m by 5 m sub-blocked to 2.5 m by 5 m by 1.25 m.
	•	Description of how the geological interpretation was used to control the resource estimates.	MIK uses broad domains that define mineralisation envelopes. The assumed dominant structural orientation is used to control the estimation. For the high grade domains tighter domain shapes representing the quartz veins provide more specific geological control.
			Estimation was orientated towards the interpreted direction of continuity and vein orientation which included:
			<ul> <li>Horizontal for most Sherwood upper and lower domains</li> <li>Shallow easterly dip (10→000) for Sherwood upper high grade zone</li> <li>Vertical (90→050) for Sherwood Agate Creek Fault</li> <li>Shallow easterly dip (30→90) for Sherwood West main zone</li> <li>Shallower dip (13→090) for Sherwood West upper hangingwall.</li> <li>Near vertical (80→060) for Zig Zag Fault.</li> </ul>
			Estimation was undertaken for each domain with two search passes:
			<ul> <li>Pass 1: 40 x 40 x 10 m, max 7 samples per octants, min 3 drill holes and 15 samples</li> <li>Pass 2: 120 x 120 x 20 m, max 7 samples per octants</li> </ul>
			These parameters were relaxed for narrower constrained high grade veins where the maximum block height is restricted to 1.25 used a maximum 3 samples per octant
			Extrapolation is limited to 25 m from a drill hole unless within a constrained interpretation.

Criteria	J	ORC Code explanation	Commentary
	•	Any assumptions about correlation between variables. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Only gold is estimated and there are limited analyses for other elements.  Silver analysis is not complete and not included in the estimate. Silver grades are sufficient to probably cover the refining costs for its removal.
	•	Discussion of basis for using or not using grade cutting or capping.	Composite grades were cut to a maximum of 30 g/t Au, except for the Sherwood high grade domains that were cut at 80 g/t Au.
	•	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	The low grade domains contain mixed ore and waste samples making comparison of sample and block averages meaningless. Log probability plots between the declustered composites and the MIK grade distribution indicated similar distributions prior to the SMU adjustment.
			For the higher grade domains the domain averages were compared for the composite and block grades and indicated similar results.
	<ul> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes</li> </ul>	Ordinary Kriged estimates were also undertaken and provided similar results the MIK block average estimates.	
		appropriate account of such data.	Previous estimates by ResEval 2016 and Golder Associates in 2011, 2008 and 2006 provide a basis for comparing the results after accounting for the additional drilling.
Moisture	•	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The host rock and mineralisation ore hard fresh rock and contain little free or inherent moisture. All material is reported on a dry basis.
Cut-off parameters	•	The basis of the adopted cut-off grade(s) or quality parameters applied.	Previous resource statements for Agate Creek have been at a low cut-off grade 0.5 g/t Au on the basis of a potential large scale open pit operation. For continuity this cut-off is adopted for reporting.
			The narrower higher grade domains at Sherwood and Sherwood West are reported separately. The interpretation at Sherwood is largely based on a 2 g/t Au cut-off which becomes the effective cut-off grade for this domain.
Mining factors or assumptions	•	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable	The MIK estimates are a recoverable resource estimate and incorporate mining assumptions for large scale open pit mining with selectivity down to a 5 m by 5 m by 2.5 m SMU. Following the acquisition of infill RC and 3 m spaced blast holes at Sherwood the variogram models were updated.

Criteria	JC	ORC Code explanation	Commentary
	methods, but the assumptions made regarding mining methods and value parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.  The litting seems of the mining assumptions made.	These along with the additional data has affected the MIK estimates. Though generally shorter in variogram range the updated models did not warrant the alteration of the SMU adjustment factors.	
		The narrow high grade domain interpretations for Sherwood Upper and Sherwood West incorporate little lower grade or waste material. Though also estimated by MIK with SMU adjustments the selective nature of the interpretation these domains are effectively block grade estimates a within a selective interpretation. A minimum height of 2 m is used for the interpretations and should provide a minable target, however edge dilution and mining loss will be expected in the high grade domains. For Sherwood the lower cut-off of 2 g/t used for interpretation compared to 3 g/t Au for grade control has in part accounted for mining dilution and reconciled well with mining.	
Metallurgical factors or assumptions	•	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	Several phases of metallurgical test work have been undertaken on the Agate Creek Project investigating gold extraction via heap leach, dump leach and CIL processing with and without gravity. The main test work programs completed were in 1999 by AMMTEC and in 2004 & 2005 by HRL. These programs all showed that Agate Creek ore was amenable to cyanide extraction with low chemical consumptions 0.5 to 1 kg/t lime and cyanide; a relatively high work index of 18 kW/t; and recoveries of approximately 95% with grind sizes of 80% passing 75 $\mu m$ .
			In 2014 a metallurgical sample was treated at the Georgetown CIL gold processing plant. The 5472t sample produced 1725 ounces of gold was with the recovered gold grade of 9.8 g/t Au (87%) from a feed grade of 11.2 g/t Au%. Issues with the setup and reagents of the plant were identified.
			In 2019 a larger mining parcel totalling ~70000 t was toll treated with recoveries in the order of 97%.
			These milled parcels show comparable metallurgical characteristics to the previous test work and is being used as baseline recovery and consumption numbers moving forwards.
Environmental factors or	•	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining	Current mining plans involves ore processing off site utilising toll treatment, tailings disposal will be at a 3 <sup>rd</sup> party site which has its own separate management and environmental authorities in place.
assumptions	reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported.	All waste material will be characterised prior to removal but given that only oxide resources are currently planned to be mined it is unlikely there will be any material with AMD issues. Waste dumps will be placed according to industry best practice and be incorporated into surrounding landform contouring and rehabilitated with native growth as soon a s practicable. Required monitoring of runoff and waste waters will be undertaken in accordance with Environmental Authority conditions.	
Bulk density	•	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness	Density samples are limited to a few metallurgical samples that were between 2.55 and 2.6 t/m³. There is limited oxidation and the dominant rock types of quartz, rhyolite and granite would all be expected to have dry bulk densities of more than 2.7 t/m³ for solid material. A conservative average

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	<ul> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	dry bulk density of 2.5 t/m³ is assumed for resource work to account for some expected vughs and cavities.
		40 additional density measurements by Archimedes principals were undertaken in 2019 from surface and pit samples indicated similar though slighter higher average bulk density of around 2.6 2.5 t/m³. However, after consideration of vein cavities not measured these readings essentially confirm the current density assumption.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.  Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).  Whether the result appropriately reflects the Competent Person's view of the deposit.	The Mineral Resources are classified on the basis of drill spacing based on experience and variogram ranges as follows:
		Measured Mineral Resource. Within the Sherwood high grade interpretations targeting blast hole drilling at a spacing of 3.
		Indicated Mineral Resource: Within low grade wireframe interpretations and estimated in first grade estimation pass such that 15 samples fell inside the 40 x 40 x 10 m search radii, with a maximum of 7 samples per octant and a minimum of 3 drill holes.
		Inferred Mineral Resource: The remaining material inside Within low grade wireframe interpretations where the blocks were estimated and the blocks are within 25 m of a drill hole in the plane of the mineralisation.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Golder Associates previously undertook the reviews of the database and earlier MIK estimates between 2006 and 2011.
		The current estimate has not been independently reviewed or audited.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.	MIK provides a robust method for estimating mixed ore and waste materials when mineralisation is variable or difficult to contain within a selective domain interpretations. It is particularly suited to the estimation of epithermal deposits. This geostatistical method accounts for mixed materials by calculating the recoverable resource to the 5 by 5 by 2.5 m block size assumed as the smallest selective unit for open pit mining scenario. These provide a probabilistic estimation method suited to global resource estimation.
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	The high grade domain interpretations used for the resource updated will result in block average grade estimates due to the narrow domains and exclusion of low grade material. The method will result in similar estimate to Ordinary Kriging which were done in parallel as a check. Estimation of

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	<ul> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	the high grade Sherwood upper zone will be locally correct as there drilling spacing is closer and the method will result in reliable block estimation.