



# TINKA RESOURCES LIMITED

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TSXV & BVL: TK OTCPK: TKRFF

NEWS RELEASE

November 26, 2018

## TINKA REPORTS A SUBSTANTIAL INCREASE IN ZINC AND TIN MINERAL RESOURCES AT AYAWILCA

Vancouver, Canada – Tinka Resources Limited (“Tinka” or the “Company”) (TSXV & BVL: TK) (OTCPK: TKRFF) is pleased to announce an updated Mineral Resources estimate for its 100%-owned Ayawilca zinc and tin deposits in Peru. Part of the Zinc Zone Mineral Resource is now classified as Indicated, incorporating a higher-grade portion of the deposit. In addition, the updated Inferred Mineral Resource is of a similar size and grade to the previous Zinc Zone resource reported in November 2017. The updated Tin Zone Inferred Mineral Resource is also substantially larger. This resources update follows a very successful drilling program, with the company completing approximately 20,000 metres during 2018.

### Key Highlights of Updated Mineral Resources at Ayawilca

- **Indicated Zinc Zone Mineral Resource of 11.7 million tonnes grading 6.9% zinc, 0.16% lead, 84 g/t indium and 15 g/t silver (8.1% zinc equivalent "ZnEq"),** containing:
  - 1.8 billion pounds of zinc;
  - 983 tonnes of indium;
  - 5.8 million ounces of silver; and
  - 42 million pounds of lead.
- **Inferred Zinc Zone Mineral Resource of 45.0 million tonnes grading 5.6% zinc, 0.23% lead, 67 g/t indium & 17 g/t silver (6.7% ZnEq),** containing:
  - 5.6 billion pounds of zinc;
  - 3,003 tonnes of indium;
  - 25.2 million ounces of silver; and
  - 230 million pounds of lead.
- **Inferred Tin Mineral Resource of 14.5 million tonnes grading 0.63% tin, 0.21% copper, & 18 g/t silver (0.70% tin equivalent "SnEq"),** containing:
  - 201 million pounds of tin;
  - 67 million pounds of copper; and
  - 8 million ounces of silver.

The Tin Zone and Zinc Zone resources do not overlap. The Mineral Resources are reported above an NSR cut-off value of US\$55/tonne, as estimated by Roscoe Postle Associates Inc. (RPA Inc.) of Toronto, Canada.

Dr. Graham Carman, Tinka’s President and CEO, stated: “*We are very pleased with the updated mineral resources estimation, as the Ayawilca deposit now represents one of the largest zinc resources held in a non-producing resources company. Ayawilca has for the first time, a high-grade Zinc Zone resource in the Indicated category containing 1.8 billion pounds of zinc (24% of the total zinc inventory), as well as an Inferred resource containing 5.6 billion pounds of zinc (76% of the total zinc inventory). Zinc resources were able to be partially upgraded to Indicated in those areas due to infill drilling at West and South Ayawilca in 2018. In addition, the Tin Zone resource has increased by 38% and now contains over 200 million pounds of tin. The updated Tin Zone resource is believed to be the largest undeveloped tin resource outside of a producing camp in Peru.*”

“*Tinka has had a very successful year at Ayawilca, expanding and upgrading the resources. We now look forward to completing our maiden PEA in the first half of 2019. Additional potential still exists for resource growth at Ayawilca, with additional step-out and deeper exploration drilling planned for 2019. The Company’s work programs are fully funded into the foreseeable future, with C\$13 million in cash and no debt as at the end of September 2018.*”

**Table 1 – Ayawilca Deposit Indicated Mineral Resource – Zinc Zone as of November 26, 2018: Sensitivities at various cut-off grades**

NSR \$/t Cut-off	Tonnage (Mt)	ZnEq% Grade	Zinc %	Lead %	Indium g/t	Silver g/t
40	13.6	7.4	6.3	0.16	75	15
50	12.4	7.9	6.7	0.17	80	15
<b>55</b>	<b>11.7</b>	<b>8.1</b>	<b>6.9</b>	<b>0.16</b>	<b>84</b>	<b>15</b>
60	10.8	8.5	7.2	0.16	89	16
70	9.4	9.2	7.7	0.15	99	16
80	7.9	10.0	8.4	0.15	111	17

Notes:

1. Base case highlighted with **bold** text.
2. See Table 4 for notes.

**Table 2 – Ayawilca Deposit Inferred Mineral Resources – Zinc Zone as of November 26, 2018: Sensitivities at various cut-off grades**

NSR \$/t Cut-off	Tonnage (Mt)	ZnEq% Grade	Zinc %	Lead %	Indium g/t	Silver g/t
40	52.7	6.2	5.2	0.24	60	17
50	48.1	6.5	5.4	0.24	64	17
<b>55</b>	<b>45.0</b>	<b>6.7</b>	<b>5.6</b>	<b>0.23</b>	<b>67</b>	<b>17</b>
60	41.5	7.0	5.8	0.23	70	18
70	33.9	7.6	6.4	0.22	78	18
80	26.9	8.3	6.9	0.22	86	20

Notes:

3. Base case highlighted with **bold** text.
4. See Table 4 for notes.

**Table 3 – Ayawilca Deposit Inferred Mineral Resources – Tin Zone, as of November 26, 2018: Sensitivities at various cut-off grades**

NSR \$/t Cut-off	Tonnage (Mt)	SnEq% Grade	Tin %	Copper %	Silver g/t
40	17.1	0.65	0.57	0.20	18
50	15.9	0.67	0.60	0.20	18
<b>55</b>	<b>14.5</b>	<b>0.70</b>	<b>0.63</b>	<b>0.21</b>	<b>18</b>
60	12.5	0.76	0.68	0.22	17
70	10.1	0.84	0.76	0.23	18
80	8.3	0.92	0.84	0.25	18

Notes:

1. Base case highlighted with **bold** text.
2. See Table 5 for notes.

#### **Detail of Mineral Resource Estimates**

RPA updated the Ayawilca Mineral Resource estimate using the drill results available to October 9, 2018 (Tables 4 and 5). Two types of mineralization occur at Ayawilca, zinc-indium-silver-lead mineralization (“Zinc Zone”) and tin-copper-silver mineralization (“Tin Zone”).

The Zinc Zone Mineral Resources are hosted by the 200 metre thick Triassic-Jurassic Pucará Group limestone and located beneath the Goyllarisguizga Group sandstone unit which outcrops, and hosts the Colquipucro silver oxide deposit located 1.5 km to the north. The Zinc Zone deposit is made up of multiple, gently dipping lenses or ‘mantos’ in the Central and East Ayawilca zones and as massive replacement bodies within structural zones in the West and South Ayawilca zones, all located above Paleozoic basement rocks. Most of the known polymetallic mineralization occurrences in central Peru are located in a similar geological environment. The Mineral Resources within the Zinc Zone are reported at a US\$55/t Net Smelter Return (NSR) cut-off value. Indicated Mineral Resources are estimated to total 11.7 million tonnes at average grades of 6.9% Zn, 84 g/t In, 15 g/t Ag, and 0.16% Pb. Inferred Mineral Resources are reported at 45.0 million tonnes at average grades of 5.6% Zn, 67 g/t In, 17 g/t Ag, and 0.23% Pb.

The increase in tonnage as compared to the [previous resource estimate](#), dated October 10, 2017, is due to an increase in volume of the interpreted mineralized zones defined by the additional drilling during the 2018 campaign.

**Table 4 – Zinc Zone Mineral Resources at Ayawilca as of November 26, 2018**

Area	Tonnage (Mt)	ZnEq (%)	Zn (%)	Pb (%)	In (g/t)	Ag (g/t)	Zn (Mlb)	Pb (Mlb)	In (t)	Ag (Moz)
<b>Indicated</b>										
West	7.8	7.7	6.5	0.20	72	15	1,126	35	561	3.9
South	3.9	9.1	7.6	0.09	108	16	652	8	422	2.0
<b>Total Indicated</b>	<b>11.7</b>	<b>8.1</b>	<b>6.9</b>	<b>0.16</b>	<b>84</b>	<b>15</b>	<b>1,778</b>	<b>42</b>	<b>983</b>	<b>5.8</b>
<b>Inferred</b>										
West	5.0	7.1	6.4	0.27	34	17	699	30	170	2.8
Central	18.6	5.6	4.6	0.23	62	12	1,884	95	1,153	7.5
East	11.3	5.9	5.0	0.18	56	14	1,238	44	633	5.0
South	10.2	9.6	7.9	0.27	103	30	1,764	61	1,047	9.9
<b>Total Inferred</b>	<b>45.0</b>	<b>6.7</b>	<b>5.6</b>	<b>0.23</b>	<b>67</b>	<b>17</b>	<b>5,585</b>	<b>230</b>	<b>3,003</b>	<b>25.2</b>

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are reported above a cut-off NSR value of US\$55 per tonne.
3. The NSR value was based on estimated metallurgical recoveries, assumed metal prices and smelter terms, which include payable factors, treatment charges, penalties, and refining charges. Metal price assumptions were: US\$1.15/lb Zn, US\$300/kg In, US\$15/oz Ag, and US\$1.00/lb Pb. Metal recovery assumptions were: 90% Zn, 75% In, 60% Ag, and 75% Pb. The NSR value for each block was calculated using the following NSR factors: US\$15.34 per % Zn, US\$4.70 per % Pb, US\$0.18 per gram In, and US\$0.22 per gram Ag.
4. The NSR value was calculated using the following formula:  

$$\text{NSR} = \text{Zn}(\%) * \text{US\$15.34} + \text{Pb}(\%) * \text{US\$4.70} + \text{In}(\text{g/t}) * \text{US\$0.18} + \text{Ag}(\text{g/t}) * \text{US\$0.22}$$
5. The ZnEq value was calculated using the following formula:  

$$\text{ZnEq} = \text{NSR} / \text{US\$15.34}$$
6. Numbers may not add due to rounding.

The Tin Zone Mineral Resources are hosted as disseminated cassiterite and chalcopyrite in massive to semi-massive pyrrhotite lenses at the contact between the Pucará Group and underlying phyllite of the Devonian Excelsior Group. Parts of the Tin Zone mineralization can occur as quartz sulphide stockwork veinlets hosted by the phyllite. Inferred Mineral Resources within the Tin Zone, also reported at an NSR cut-off value of \$55/t, are estimated to total 14.5 million tonnes at average grades of 0.63% Sn, 0.21% Cu and 18 g/t Ag. Similar to the Zinc Zone, the increase in tonnage is due to an increased volume of the interpreted zones due to additional drilling in 2018.

**Table 5 – Tin Zone Inferred Mineral Resources at Ayawilca as of November 26, 2018**

	Tonnage (Mt)	Sn Eq. (%)	Sn (%)	Cu (%)	Ag (g/t)	Sn (Mlb)	Cu (Mlb)	Ag (Moz)
<b>Tin Zones</b>	14.5	0.70	0.63	0.21	18	201	67	8

Notes:

1. CIM definitions were followed for Mineral Resources.
2. Mineral Resources are reported above a cut-off grade of US\$55 per tonne NSR value.
3. The NSR grade was based on estimated metallurgical recoveries, assumed metal prices and smelter terms, which include payable factors, treatment charges, penalties, and refining charges. Metal price assumptions were: US\$9.00/lb Sn, US\$2.85/lb Cu, and US\$15/oz Ag. Metal recovery assumptions were: 86% Sn, 75% Cu, and 60% Ag. The NSR value for each block was calculated using the following NSR factors: US\$155.21 per % Sn, US\$37.59 per % Cu, and US\$0.22 per gram Ag.
4. The NSR value was calculated using the following formula:  

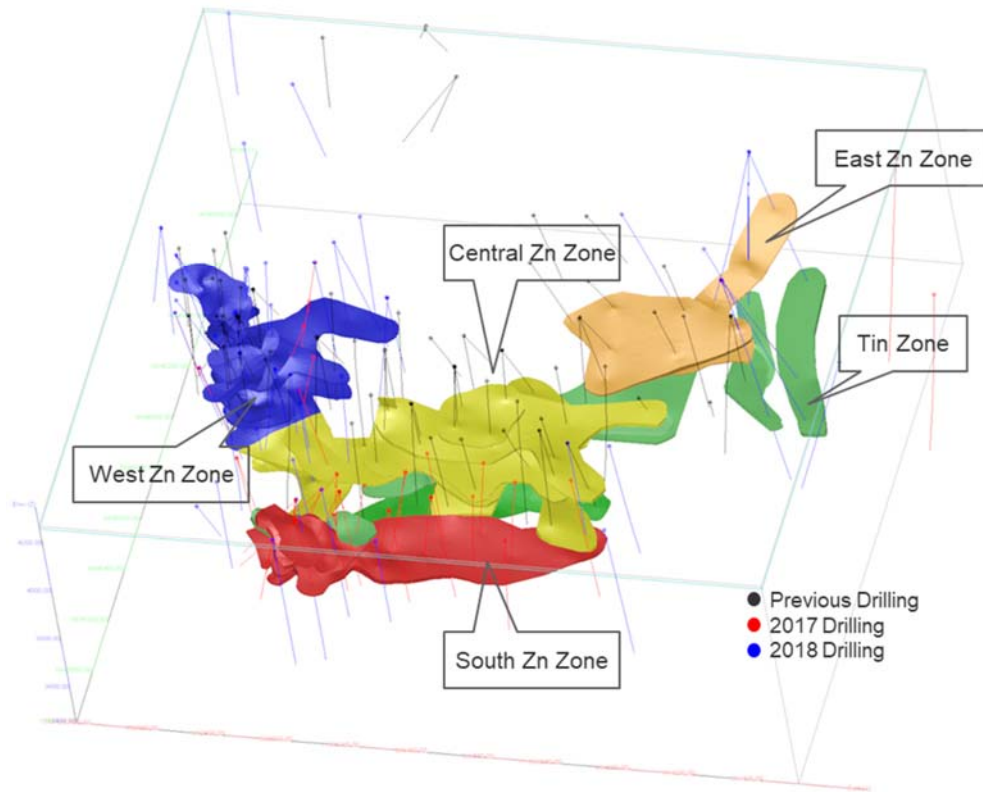
$$\text{US\$NSR} = \text{Sn}(\%) * \text{US\$155.21} + \text{Cu}(\%) * \text{US\$37.59} + \text{Ag}(\text{g/t}) * \text{US\$0.22}$$
5. The SnEq value was calculated using the following formula:  

$$\text{SnEq} = \text{NSR} / \text{US\$155.21}$$
6. Numbers may not add due to rounding.

The Ayawilca drill database includes 71,200 m in 185 drill holes. The three-dimensional wireframe models were generated using an approximate NSR cut-off value of \$50/t for both Zinc and Tin Zones (Figure 1). Prior to compositing to two metre lengths, high Sn, In, and Ag values were cut to 4%, 350 g/t to 550 g/t, and 100 g/t to 170 g/t depending on area, respectively. Block model grades within the wireframe models were interpolated by inverse distance cubed.

Despite lead grades being low it is assumed that lead and silver will be recovered in a lead concentrate. Density was estimated to be between 3.5 t/m<sup>3</sup> and 3.7 t/m<sup>3</sup> for the Zinc Zones and 3.9 t/m<sup>3</sup> for the Tin Zone based on density measurements from core samples. The Mineral Resources were assigned Indicated or Inferred category in the Zinc Zones and Inferred only in the Tin Zone due to the widely spaced drilling. The classification criteria used to define the Indicated Mineral Resources included spatial analysis, drill hole spacing, and the apparent continuity of the mineralization. The drill hole spacing within the area assigned as Indicated category commonly ranges from 40 m to 70 m. No Mineral Reserves have yet been estimated at Ayawilca.

**Figure 1 – 3D model of resource wireframes at Ayawilca**



The Mineral Resource estimate for the Colquipucro silver oxide deposit (Indicated Mineral Resource of 7.4 Mt at a grade of 60 g/t Ag for 14.3 Moz Ag and Inferred Mineral Resource of 8.5 Mt at a grade of 48 g/t Ag for 13.2 Moz Ag, using US\$15/t cut-off and a metal price of \$24/oz Ag) remains unchanged from the February 26, 2015 [news release](#).

### **Discussion and Analysis**

The Zinc Zone Mineral Resources at Ayawilca have increased substantially since the initial resource estimate in 2015. Figure 2 illustrates the growth of the zinc resources from 2015 to 2018.

Drilling conducted in 2018 significantly expanded the Zinc Zone mineralization especially at West Ayawilca, and connected mineralization from zone to zone. Central Ayawilca has now been connected to West Ayawilca through the Camp area (see resource map, Figure 3). South and Central Ayawilca are partially connected within the tin resource (see cross section in Figure 4). West Ayawilca connects with South Ayawilca at depth within the zinc resource (see cross section, Figure 5). Both zinc and tin mineralization were also discovered at Zone 3 for the first time (see Figure 4).

One of the most important aspects of the resource expansion has been the additional discovery of high-grade, relatively shallow Zinc Zone mineralization at South and West Ayawilca in 2017 & 2018, much of which has now been upgraded to the Indicated Mineral Resource category (see cross sections, Figures 5 and 6). These areas contain the thickest and highest-grade zones of mineralization discovered to date at Ayawilca. Zinc mineralization at West Ayawilca appears to be focussed around the hinge of an anticlinal fold (see cross section in Figure 6).

The zinc mineralization at Ayawilca is believed to be structurally controlled, fed by flat-dipping thrust faults and also steep feeder structures that penetrate to depth. In 2018, the drill program discovered repetitions of the prospective limestone host rock underneath ledges of the phyllite bounded by low-angle faults, with the lower repeated limestone being mineralized with very high-grade zinc (e.g. drill hole A18-129 at West Ayawilca). Note that faults are not depicted on any of the cross sections here. Based on this model for the formation of the deposit, the Company believes that more potential exists for additional resources underneath the existing resources, possibly within further repetitions of the favourable limestones. Deeper drilling is planned in 2019 to target additional high-grade zinc mineralization at depth.

**Figure 2 – Ayawilca Zinc Zone Mineral Resource Growth over Time**

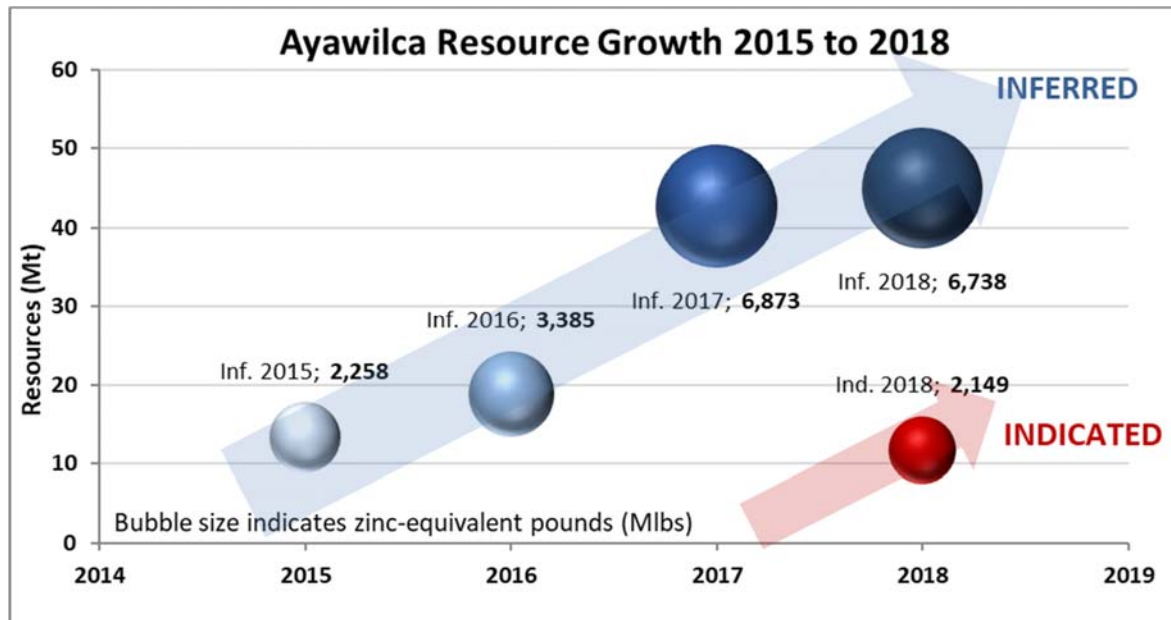


Figure 3 – Geology map and location of 2018 Mineral Resources in plan view

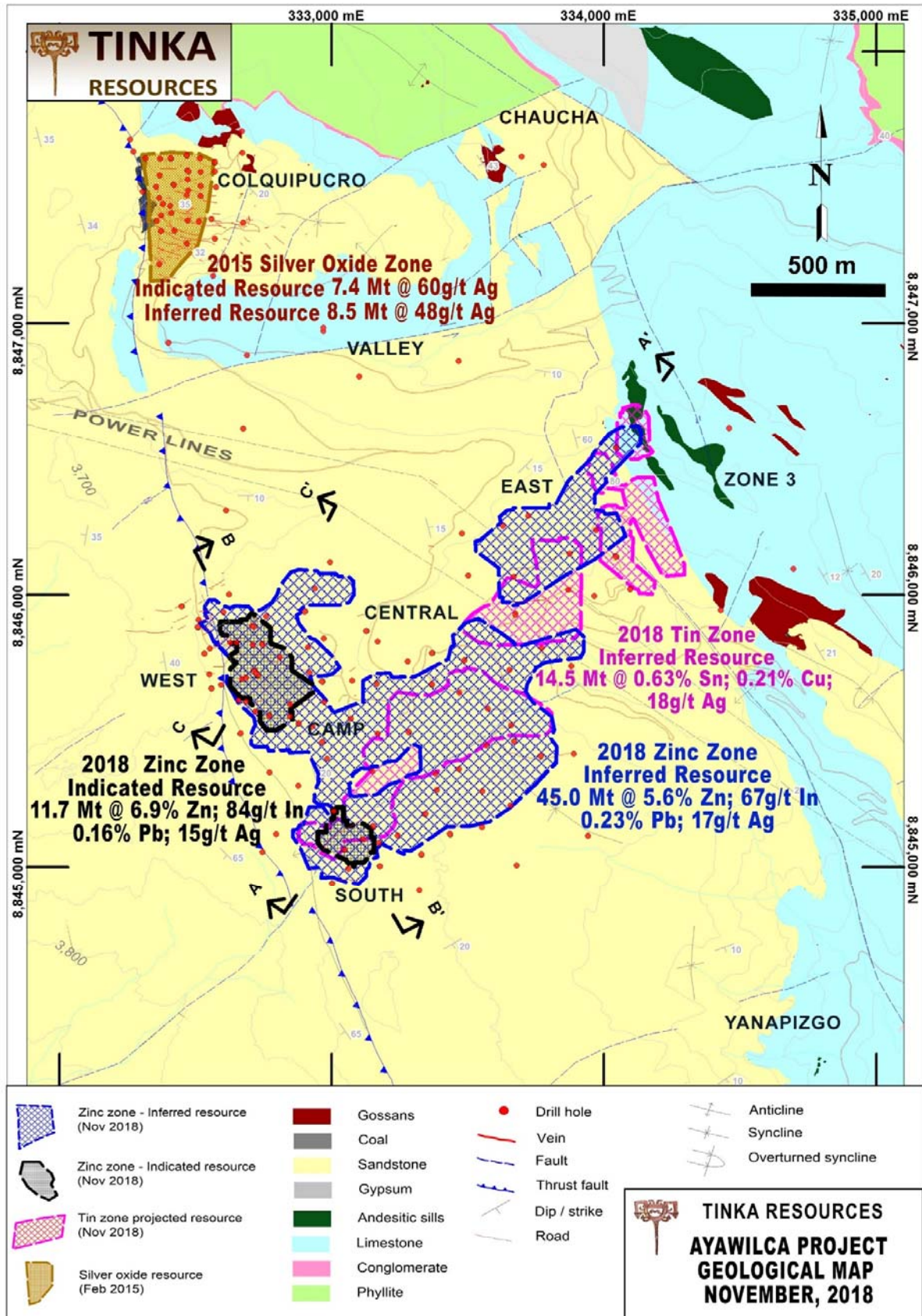
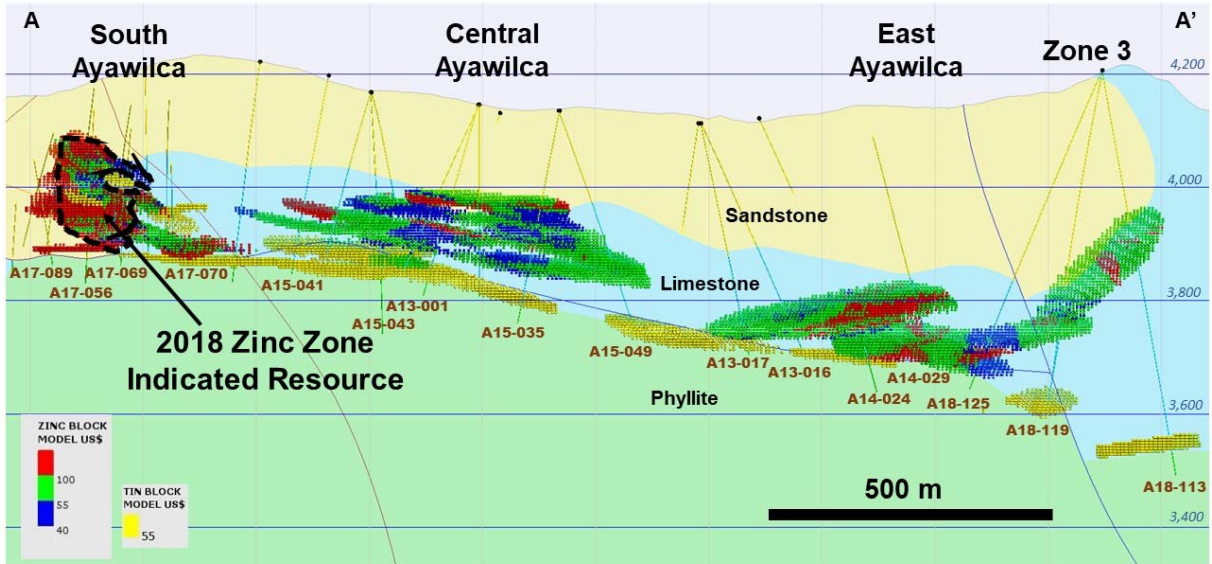
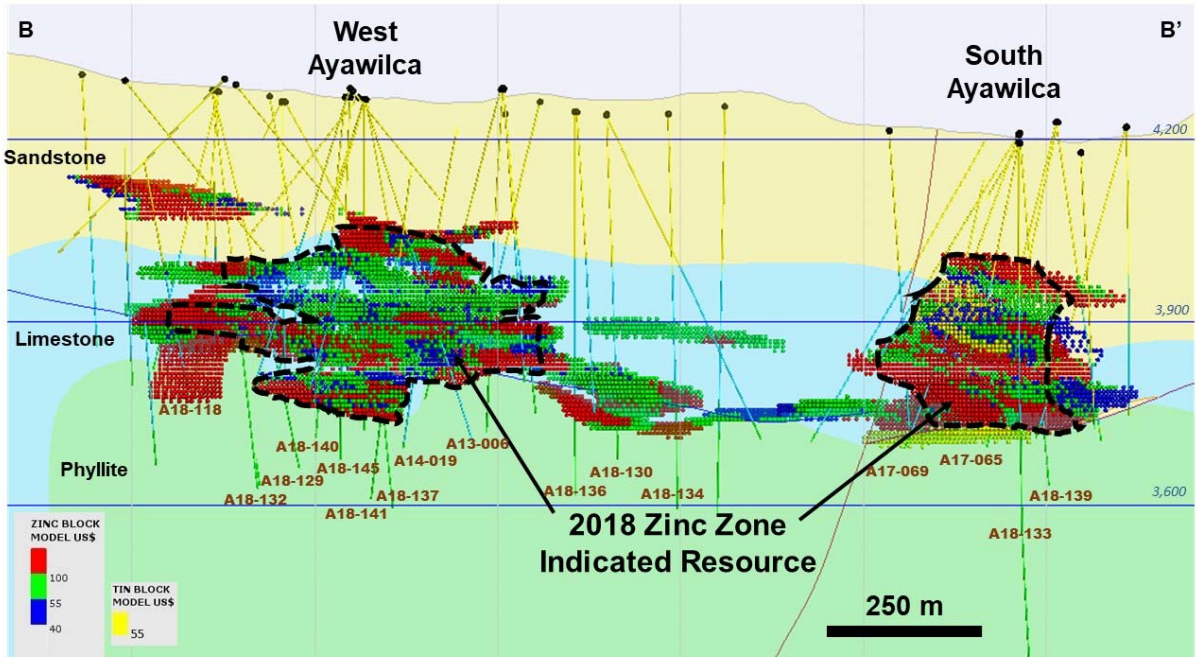


Figure 4 – Longitudinal section of Ayawilca (A-A') showing Zinc and Tin blocks by NSR value, looking northwest.



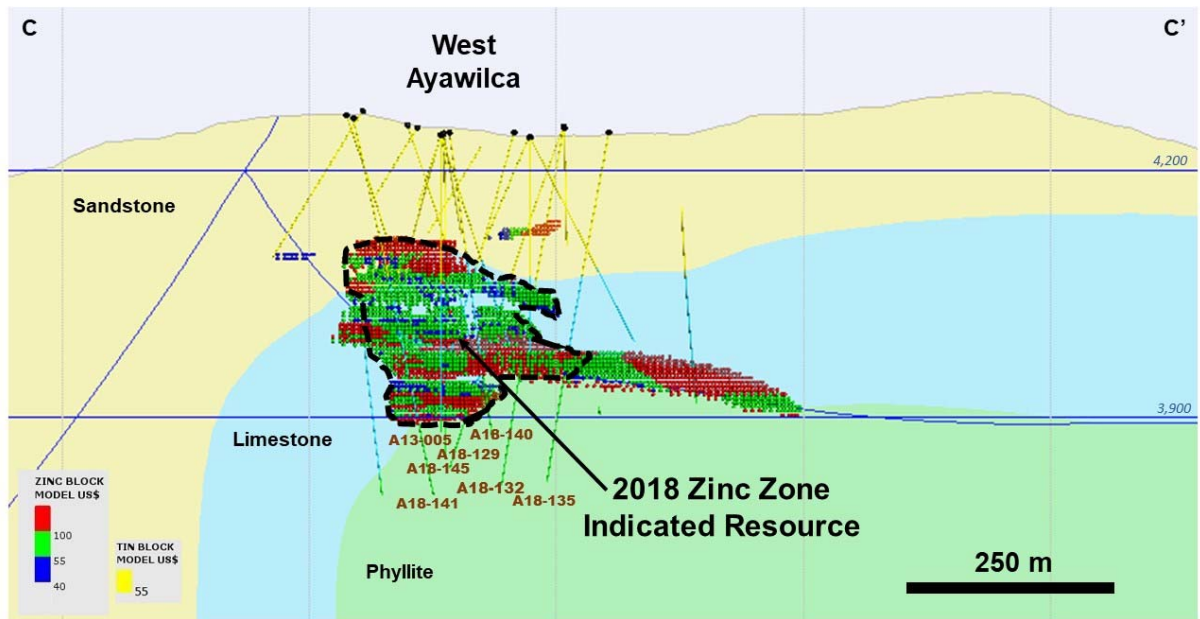
Note: The thickness of A-A' section is 180 metres

Figure 5 – Cross section of West and South Ayawilca (B-B') showing Zinc and Tin blocks by NSR value, looking east.



Note: The thickness of B-B' section is 150 metres

**Figure 6 – Cross section of West Ayawilca (C-C’) showing Zinc blocks by NSR value, looking northwest**



Note: The thickness of C-C' section is 150 metres

A National Instrument 43-101 Technical Report will be filed on SEDAR within 45 days.

**Qualified Person – Mineral Resources:** The Mineral Resources disclosed in this press release have been estimated by Ms. Dorota El Rassi, P.Eng., and Mr. David Ross, P.Geo., both employees of RPA and independent of Tinka. By virtue of their education and relevant experience, Ms. El Rassi and Mr. David Ross are “Qualified Persons” for the purpose of National Instrument 43-101. The Mineral Resources have been classified in accordance with CIM Definition Standards for Mineral Resources and Mineral Reserves (May, 2014). Both Ms. El Rassi, P.Eng. and Mr. David Ross, P.Geo. have read and approved the contents of this press release as it pertains to the disclosed Mineral Resource estimates.

The Qualified Person, Dr. Graham Carman, Tinka’s President and CEO, and a Fellow of the Australasian Institute of Mining and Metallurgy, has reviewed and verified the technical contents of this release.

On behalf of the Board,  
**“Graham Carman”**  
 Dr. Graham Carman, President & CEO

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#### **About Tinka Resources Limited**

Tinka is an exploration and development company with its flagship property being the 100%-owned Ayawilca carbonate replacement deposit (CRD) in the zinc-lead-silver belt of central Peru, 200 kilometres northeast of Lima. The Ayawilca Zinc Zone contains 11.7 Mt of Indicated Resources grading 6.9% zinc, 0.2% lead, 15 g/t silver and 84 g/t indium and 45.0 Mt Inferred Resources grading 5.6% zinc, 0.2% lead, 17 g/t silver and 67 g/t indium. The Ayawilca Tin Zone contains an Inferred Mineral Resource of 14.5 Mt at 0.63% tin, 0.23% copper & 12 g/t silver (this release). A maiden PEA is underway, with results anticipated in 1H 2019.



**Forward Looking Statements:** Certain information in this news release contains forward-looking statements and forward-looking information within the meaning of applicable securities laws (collectively "**forward-looking statements**"). All statements, other than statements of historical fact are forward-looking statements. Forward-looking statements are based on the beliefs and expectations of Tinka as well as assumptions made by and information currently available to Tinka's management. Such statements reflect the current risks, uncertainties and assumptions related to certain factors including, without limitations, drilling results, the Company's expectations regarding mineral resource calculations, capital and other costs varying significantly from estimates, production rates varying from estimates, changes in world metal markets, changes in equity markets, uncertainties relating to the availability and costs of financing needed in the future, equipment failure, unexpected geological conditions, imprecision in resource estimates or metal recoveries, success of future development initiatives, competition, operating performance, environmental and safety risks, delays in obtaining or failure to obtain necessary permits and approvals from local authorities, community agreements and relations, and other development and operating risks. Should any one or more of these risks or uncertainties materialize, or should any underlying assumptions prove incorrect, actual results may vary materially from those described herein. Although Tinka believes that assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein. Except as may be required by applicable securities laws, Tinka disclaims any intent or obligation to update any forward-looking statement.

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