

VANCOUVER, April 19, 2017 /CNW/ - [Trilogy Metals Inc.](#) (TSX, NYSE-MKT: TMQ) ("Trilogy Metals" or "the Company") is pleased to announce the results of a recently completed metallurgical test work program using sample material from the Arctic deposit collected during the 2016 field season. This metallurgical test program was carried out as a follow-on program to confirm previous metallurgical results completed in 2012 and in support of advancing the project to a pre-feasibility study ("PFS") planned for completion in Q1 2018.

Highlights & Recoveries and Concentrate Grades Improved from Previous Study

- Copper recoveries improved from 87% to 92%
- Zinc recoveries improved from 87% to 88%
- Copper concentrate average grade remains high at 29%
- Zinc concentrate average grade improves from 56% to 60%
- In-pit geotechnical and hydrology studies are now completed to a PFS level

The results demonstrate that excellent recoveries and clean concentrates of copper and zinc can be generated from the polymetallic copper-lead-zinc-gold-silver ores at Arctic. Concentrates of copper recovered an average of 91.7% of the copper and formed a concentrate averaging 28.7% copper metal. Concentrates of zinc recovered an average of 87.8% of the zinc and formed a concentrate averaging 60% zinc metal. Neither concentrate contains significant deleterious penalty metals and are considered excellent quality by world standards. The lead concentrate contains significant precious metals and is still undergoing further test work to determine optimal recoveries for lead, gold and silver.

The Arctic deposit is a high-grade copper-zinc-lead volcanogenic massive sulfide deposit which also contains significant amounts of precious metals. The Company is proposing a 10,000 tonne per day, open pit mining operation with a typical crush-grind-float flow sheet producing significant tonnages of copper and zinc concentrates and lessor lead concentrate containing significant quantities of precious metals. The mineralized material from Arctic has been shown to be amenable to traditional flotation methods for the production of saleable base-metal concentrates. The results of this recent test work program, completed by ALS Metallurgy of Kamloops, Canada, were in-line with previous results reported in the Company's National Instrument 43-101 - Standards of Disclosure technical report entitled "Preliminary Economic Assessment Report on the Arctic Project, Ambler Mining District, Northwest Alaska" dated effective September 12, 2013 (the "PEA") (see press release dated September 12, 2013) and will support a PFS to be completed in Q1, 2018.

Rick Van Nieuwenhuyse, President and CEO of Trilogy Metals commented, "We are very pleased with the results of this metallurgical test work program at Arctic. Recoveries and concentrate grades for our two principle metals & copper and zinc are excellent. We are currently conducting additional test work to determine the optimal recoveries of our three other metals & lead, gold and silver, and will report on that work in due course. In combination with recently completed structural, hydrological and geotechnical work, we are well poised to kick-off the approved 2017 plan and budget and complete a PFS on Arctic in Q1 of 2018. The PFS will demonstrate the true value of the high-grade Arctic deposit which we expect will be the first in a series of potential mines in the Ambler mining district. With the recent announcement that the BLM has initiated the permitting process on the AMDIAP; our recently announced option agreement with South32 whereby they will fund a \$10 million program at our Bornite deposit in 2017; and an upswing in demand for copper and zinc, the Company is well positioned to add value for shareholders by advancing development of the Ambler mining district."

The revenue stream in the PEA (see figure 1 below) showed that copper produced 60% of the revenue stream, with zinc contributing 21%, silver at 9% and gold at 6%. Lead was the least valuable of the metals and is still undergoing further test work to determine optimal recoveries for lead, gold and silver. Neither the zinc nor the copper concentrates contain any significant deleterious penalty metals and are considered excellent quality by world standards.

Metallurgical Update

A total of four diamond drill holes were completed during the 2016 field program to provide whole core for sample materials in this test work program. Drilling targeted the first seven years of planned mine production from the Arctic deposit and provided 14 major mineralized intercepts for use in the test work program.

The metallurgical flow sheet envisions a truck and shovel open-pit mining operation followed by a traditional crush-grind-float processing facility. Grinding test work completed on the 14 mineralized intercepts confirmed the material to be soft to moderate in terms of Bond Work Index characterization. Bond Ball Mill work index averaged 7.6kWhr/tonne, with a maximum value of 10.3 and minimum value of 5.3.

A composite sample of approximately 600 kilograms was prepared from the mineralized intercepts and used for metallurgical concentration test work. This composite sample was used in bench scale testing to confirm the performance of the previously defined flotation process; as well, a large volume of the sample was processed in a pilot plant to provide sufficient volumes of a copper-lead bulk concentrate to complete detailed copper and lead separation test work. A flowsheet of the Arctic flotation process is shown in Figure 2.

Metallurgical test work, as shown in Table 1, reflects good recovery and upgrading of copper, lead and zinc values. The Arctic

deposit contains talc, a naturally hydrophobic mineral. Talc is recovered via flotation prior to base metals flotation. Copper and zinc losses associated with the talc concentrate are less than one percent of the overall base metals. Copper and zinc concentrates as defined in this test work program are considered to be excellent in terms of concentrate grades. The lead concentrate which contains significant precious metals will be subject to further economic analysis and possibly additional metallurgical testing for the recovery of precious metals.

Table 1: Arctic Deposit – Overall Metallurgical Performance (Bulk Sample)

Product	Grades					Metal Recoveries				
	Cu	Pb	Zn	Au	Ag	Cu	Pb	Zn	Au	Ag
	%	%	%	g/t	g/t	%	%	%	%	%
Flotation Feed	3.13	0.93	4.75	0.61	46	100	100	100	-	-
Pre-float Conc.	0.20	0.15	0.27	0.06	5	0.8	2.0	0.7	-	-
Lead Conc.	2.72	23.8	1.32	7.12	933	2.4	76.9	0.9	63.4	59.4
Copper Conc.	28.7	1.03	2.97	0.35	113	91.7	11.8	6.9	11.0	26.0
Zinc Conc.	0.79	0.24	60.00	44	24	1.8	1.8	87.8	-	-
Final Tails	0.16	0.10	0.25	0.19	7	3.3	7.5	3.8	-	-

Geotechnical & Hydrology Update

In spring of 2015, Trilogy Metals contracted SRK Consulting (Canada) Inc. to initiate open pit geotechnical and hydrogeological field investigations to achieve prefeasibility level design for the Arctic Project. SRK's scope of work consisted of three broad phases, spanning two years of staged technical investigations.

- Phase 1 focussed on data collection by means of a field investigation program tied to the Arctic 2015 and 2016 exploration drilling programs. Geotechnical information collected from the drilling programs included geotechnical rock mass classification data from oriented drill core, testing of drill core for laboratory-derived rock properties, and downhole acoustic and optical televiewer surveying. Hydrogeological testing included packer testing, installation and monitoring of new and existing instrumentation within the proposed open pit area, airlift testing and seepage surveys. As input for the engineering studies, SRK also completed a structural geology study, and developed a fault model based on field mapping, surface LiDAR data interpretation, drill hole logging and a 3D geology model provided by Trilogy staff.
- Phase 2 undertook advanced geotechnical and hydrogeological characterization and analyses, which resulted in the identification of six relevant geotechnical design sectors for the planned open pit.
- Phase 3 included kinematic analyses, numerical modelling of representative pit sections and derivation of overall, inter-ramp and bench scale slope design recommendations for each geotechnical design sector.

Final inter-ramp angles per design sector vary depending on the slope direction within the design sector, but in general are 26 to 56 degrees (see Figure 3). We are pleased to report that SRK completed a final report documenting the structural, hydrological and geotechnical work in February 2017 – this completes the work package to a Pre-feasibility level of study.

Qualified Persons

The metallurgical information in this news release has been prepared in accordance with Canadian regulatory requirements set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators ("NI 43-101") and supervised and reviewed by Jeffrey B. Austin, P.Eng., President, of International Metallurgical and Environmental Inc., a "Qualified Person" as defined in National Instrument 43-101 and the person who oversees metallurgical developments for Trilogy Metals.

The 2015 and 2016 geotechnical and hydrological field investigations, technical analysis and slope design recommendations were completed by Qualified Persons employed by SRK Consulting (Canada) Inc. of Vancouver, Canada. Bruce Murphy P.Eng., Principal Consultant with SRK, is a Qualified Person as defined by National Instrument 43-101. Mr. Murphy has reviewed the geotechnical and hydrological technical information in this news release and approves the disclosure contained herein.

About Trilogy Metals

[Trilogy Metals Inc.](#), formerly NovaCopper Inc., is a metals exploration company focused on exploring and developing the Ambler mining district located in northwestern Alaska. It is one of the richest and most-prospective known copper-dominant districts located in one of the safest geopolitical jurisdictions in the world. It hosts world-class polymetallic VMS deposits that contain copper, zinc, lead, gold and silver, and carbonate replacement deposits which have been found to host high grade copper mineralization. Exploration efforts have been focused on two deposits in the Ambler mining district - the Arctic VMS deposit and the Bornite carbonate replacement deposit. Both deposits are located within the Company's land package that spans approximately 143,000 hectares. The Company has an agreement with NANA Regional Corporation, Inc., a Regional Alaska Native Corporation that provides a framework for the exploration and potential development of the Ambler mining district in cooperation with local communities. Our vision is to develop the Ambler mining district into a premier North American copper producer.

Cautionary Note Regarding Forward-Looking Statements

This press release includes certain "forward-looking information" and "forward-looking statements" (collectively "forward-looking statements") within the meaning of applicable Canadian and United States securities legislation including the United States Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, included herein, including, without limitation, statements relating to the potential timing and preparation of a PFS on the Arctic deposit, the future operating or financial performance of the Company, planned expenditures and the anticipated activity at the UKMP Projects, and anticipated activity with respect to the AMDIAP, are forward-looking statements. Forward-looking statements are frequently, but not always, identified by words such as "expects", "anticipates", "believes", "intends", "estimates", "potential", "possible", and similar expressions, or statements that events, conditions, or results "will", "may", "could", or "should" occur or be achieved. These forward-looking statements may include statements regarding perceived merit of properties; exploration plans and budgets; mineral reserves and resource estimates; work programs; capital expenditures; timelines; strategic plans; market prices for precious and base metals; or other statements that are not statements of fact. Forward-looking statements involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate, and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include the uncertainties involving the need for additional financing to explore and develop properties and availability of financing in the debt and capital markets; uncertainties involved in the interpretation of drilling results and geological tests and the estimation of reserves and resources; the need for cooperation of government agencies and native groups in the development and operation of properties as well as the construction of the access road; the need to obtain permits and governmental approvals; risks of construction and mining projects such as accidents, equipment breakdowns, bad weather, non-compliance with environmental and permit requirements, unanticipated variation in geological structures, metal grades or recovery rates; unexpected cost increases, which could include significant increases in estimated capital and operating costs; fluctuations in metal prices and currency exchange rates; and other risks and uncertainties disclosed in the Company's Annual Report on Form 10-K for the year ended November 30, 2016 filed with Canadian securities regulatory authorities and with the United States Securities and Exchange Commission and in other Company reports and documents filed with applicable securities regulatory authorities from time to time. The Company's forward-looking statements reflect the beliefs, opinions and projections on the date the statements are made. The Company assumes no obligation to update the forward-looking statements or beliefs, opinions, projections, or other factors, should they change, except as required by law.

Cautionary Note to United States Investors

The Arctic Preliminary Economic Assessment and the Bornite Technical Report have been prepared in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Unless otherwise indicated, all resource and reserve estimates included in this press release have been prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and the Canadian Institute of Mining, Metallurgy, and Petroleum Definition Standards on Mineral Resources and Mineral Reserves. NI 43-101 is a rule developed by the Canadian Securities Administrators which establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Canadian standards, including NI 43-101, differ significantly from the requirements of the United States Securities and Exchange Commission ("SEC"), and resource and reserve information contained therein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, the term "resource" does not equate to the term "reserves". Under U.S. standards, mineralization may not be classified as a "reserve" unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. The SEC's disclosure standards normally do not permit the inclusion of information concerning "measured mineral resources", "indicated mineral resources" or "inferred mineral resources" or other descriptions of the amount of mineralization in mineral deposits that do not constitute "reserves" by U.S. standards in documents filed with the SEC. Investors are cautioned not to assume that any part or all of mineral deposits in these categories will ever be converted into reserves. U.S. investors should also understand that "inferred mineral resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot

be assumed that all or any part of an "inferred mineral resource" will ever be upgraded to a higher category. Under Canadian rules, estimated "inferred mineral resources" may not form the basis of feasibility or pre-feasibility studies except in rare cases. Investors are cautioned not to assume that all or any part of an "inferred mineral resource" exists or is economically or legally mineable. Disclosure of "contained ounces" in a resource is permitted disclosure under Canadian regulations; however, the SEC normally only permits issuers to report mineralization that does not constitute "reserves" by SEC standards as in-place tonnage and grade without reference to unit measures. The requirements of NI 43-101 for identification of "reserves" are also not the same as those of the SEC, and reserves reported by the Company in compliance with NI 43-101 may not qualify as "reserves" under SEC standards. Accordingly, information concerning mineral deposits set forth in this press release or the Bornite Technical Report may not be comparable with information made public by companies that report in accordance with U.S. standards.

SOURCE [Trilogy Metals Inc.](#)

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