# New Targets Identified through Machine Learning at Auryn's Committee Bay High-Grade Gold Project

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VANCOUVER, February 19, 2019 - Auryn Resources Inc. (TSX: AUG, NYSE AMERICAN: AUG, "Auryn" or the "Company") is pleased to announce that it has received results from the machine learning targeting exercise for the Committee Bay high-grade gold project in Nunavut. The machine learning technology is provided by Computational Geosciences Inc. (CGI) and their proprietary VNet segmentation deep learning algorithm.

Highlights:

- A total of twelve new targets were generated, including:
    - Two targets overlapping with Auryn's geologist derived targets, adjacent to the Aiviq and Kalulik discoveries.
    - Two targets creating east and west extensions of the Three Bluffs deposit.
    - Multiple targets hidden beneath shallow lakes and glacial-fluvial cover.
- A third structure has been identified (in addition to the Three Bluffs structure and Aiviq and Kalulik structure) with 15 kilometers of strike length.

A Message from Michael Henrichsen, C.O.O. and Chief Geologist:

"The machine learning process is valuable because it removes bias and its in-depth analysis of our extensive, high-quality data sets outreaches the capabilities of the human brain. The resulting targets have brought our exploration plans into focus and have given us confidence in our emerging discoveries at Aiviq and Kalulik. In addition, the machine learning identified new targets under shallow lakes and glacial-fluvial cover, where surface geochemical sampling has not been possible."

"As a technical group we remain committed to the substantial opportunities we believe exist at Committee Bay, and we will continue to use innovative methods to make those potential discoveries."

The Machine Learning Technology:

The machine learning targeting was trained using data from gold in drill holes that was primarily taken from the Three Bluffs deposit. The machine randomly selects a percentage (33 - 66%) of the drill holes that contain significant gold mineralization and then analyzes the entire dataset to look for patterns that can then predict the remainder of the mineralized drill holes. After each iteration of this process another random percentage of the drill holes is selected, and this is repeated until the machine is able to predict 99% of the drill holes that contain gold mineralization. The patterns within the data that accurately predict 99% of the drill holes is then applied across the area of study to derive the machine learning targets.

Detailed Findings from Machine Learning Targets:

Auryn's technical team has concluded the following after comparing the machine learning targets to the geologist derived targets:

- Multiple targets derived from machine learning and geologists overlap (Figures 1 & 2). The overlapping of targets gives Auryn's technical team confidence in the machine learning targets and our previous targeting efforts. In particular, the targets in immediate proximity to the emerging discoveries at Aiviq and Kalulik (Figure 3) have now been confirmed as future drill targets.

- Machine learning targets indicate the Three Bluffs deposit may extend further east and west. These targets are largely hosted in glacial fluvial cover, which masks gold responses in geochemistry, therefore previously limiting Auryn's ability to complete a thorough evaluation. The technical team will now initiate further work on these targets to advance them to drill stage and create the potential to significantly expand Three Bluffs.
- Machine learning targets have highlighted a 15-kilometer-long structural domain break between greenschist supracrustal rocks and amphibolite intrusive and gneissic rocks (Figure 2). This environment is a common place for gold mineralization to occur in orogenic settings around the world. This domain break provides Auryn with a third structural corridor to focus our exploration, besides the trends along the Aiviq - Kalulik shear zone and the Three Bluffs shear zone.
- Machine learning has identified a number of additional targets under shallow lakes and areas of glacial fluvial sediments where it is not possible to obtain a surficial gold geochemical response. This provides the technical team with targets that may have otherwise been overlooked and opens up a number of areas for further evaluation and to potentially advance to drill stage.

Figure 1:

Image: https://www.accesswire.com/users/newswire/images/536012/aurynimage1.jpg

Figure 1 shows a comparison of the geologist and machine learning derived targets from the central portion of the Committee Bay gold belt. Note that there are several targets that overlap, which gives Auryn's technical team confidence in both our previous targeting efforts as well the newly derived machine learning targets.

Figure 2:

Image: https://www.accesswire.com/users/newswire/images/536012/aurynimage2.jpg

Figure 2 illustrates the machine learning derived targets as highlighted by the red ellipses. Importantly, AI targets are located immediately adjacent to the emerging discoveries at both the Aiviq and Kalulik prospects, which are effectively drill ready. In addition, there are two important targets both to the west and the east of the Three Bluffs deposit that will be advanced to drill stage in an effort to significantly expand the deposit. Finally, a third 15-kilometer-long structure has been identified that Auryn has not drill tested and that provides significant new opportunities.

Figure 3:

Image: https://www.accesswire.com/users/newswire/images/536012/aurynimage3.jpg

Figure 3 illustrates the machine learning targets adjacent to previous discoveries on the belt, including the Kalulik and Aiviq deposits as well as the Three Bluffs deposit. Importantly, the Three Bluffs extension targets and Shamrock targets are situated under glacial fluvial cover and shallow lakes where no surficial geochemical gold response could be obtained. These targets open up the potential for significant deposit expansion at Three Bluffs.

Michael Henrichsen, P.Geo, COO of Auryn, is the Qualified Person who assumes responsibility for the technical disclosures in this press release.

ON BEHALF OF THE BOARD OF DIRECTORS OF Auryn Resources Inc.

Ivan Bebek
*Executive Chairman*

For further information on Auryn Resources Inc., please contact Natasha Frakes, Manager of Corporate

Communications at (778) 729-0600, info@aurynresources.com or visit www.aurynresources.com.

About Auryn

Auryn Resources is a technically driven junior mining exploration company focused on delivering shareholder value through project acquisition and development. The Company's management team is highly experienced with an impressive track record of success and has assembled an extensive technical team as well as a premier gold exploration portfolio. Auryn is focused on scalable high-grade gold deposits in established mining jurisdictions, which include the Committee Bay and Gibson MacQuoid gold projects located in Nunavut, the Homestake Ridge gold project in British Columbia and a portfolio of copper-gold projects in southern Peru, through Corisur Peru SAC and Sombrero Minerales SAC.

About Committee Bay

The Committee Bay Gold Project is located in Nunavut, Canada. It includes over 390,000 hectares situated along the Committee Bay Greenstone Belt (CBGB). High-grade gold occurrences are found throughout the 300 km strike length of the Committee Bay Gold Belt with the most significant being the Three Bluffs deposit. The project benefits from existing infrastructure, including bulk storage fuel facilities, five high-efficiency drill rigs and a 100-person camp. The Committee Bay project is held 100% by Auryn subject to a 1% Net Smelter Royalty ("NSR") on the entire project and an additional 1.5% NSR on a small portion of the project.

Forward Looking Information and Additional Cautionary Language

This release includes certain statements that may be deemed "forward-looking statements". Forward-looking information is information that includes implied future performance and/or forecast information including information relating to or associated with the acquisition and title to mineral concessions. These statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements of the Company to be materially different (either positively or negatively) from any future results, performance or achievements expressed or implied by such forward-looking statements. Readers should refer to the risks discussed in the Company's Annual Information Form and MD&A for the year ended December 31, 2017 and subsequent continuous disclosure filings with the Canadian Securities Administrators available at www.sedar.com and the Company's registration statement on Form 40-F filed with the United States Securities and Exchange Commission and available at www.sec.gov.

The Toronto Stock Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of this release.

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