



**HIGH-TECH METALS**  
LIMITED

17 July 2023

## HTM FIELD WORK UPDATE FOLLOWING SUCCESSFUL GROUND GEOPHYSICAL SURVEYS AT THE WERNER LAKE COBALT PROJECT

### HIGHLIGHTS

HTM continues to progress its exploration work program following successful ground magnetic and electromagnetic surveys at its Werner Lake Cobalt Project to identify high priority EM conductors and/or magnetic anomalies.

The HTM field team have collected approximately 209 rock samples over the course of June which will be used to delineate targets for potential additional sampling, detailed ground geophysics and drilling.

The Company has received and continues to appraise several new project opportunities in the vicinity of Werner Lake and continues to conduct high-level internal assessments on projects that fit the Company's objective of becoming a battery metal focused company.

High-Tech Metals Limited (ASX: **HTM**) (**High-Tech**, or **the Company**) technical and geological consultants have successfully progressed field work and sampling within the key target areas at its Werner Lake Cobalt Project located in north-western Ontario. This follows the successful orientation ground geophysical program, (**Refer to ASX Release dated 20<sup>th</sup> April 2023 and 26<sup>th</sup> May 2023**) which was pivotal in identifying potential mineral deposits and improving our understanding of the geological structure of the area.

Finalisation of targeting for Phase II is now complete with results from the sampling program, to provide additional data for a second round of electromagnetic surveying leading to an HTM planned maiden drilling program.

The field program was conducted by APEX Geoscience's team who collected 209 rock samples over the course of June which will be used to delineate targets for potential follow-up sampling and drilling testing. The field program was overseen by the Company's professional geologist, Toby Hughes, P. Geo, who has extensive experience in the region.



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Figure 1 – HTM Sampling at Werner Lake.



Figure 2 - Werner Lake outcrop and sampling zone



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## Sonu Cheema, Executive Director commented:

"HTM has successfully completed the sampling program with our team working diligently to collect a comprehensive range of samples for imminent assay analysis. We are confident that the results obtained through this sampling program will provide valuable insights and support informed decision-making regarding delineation of drill targets."

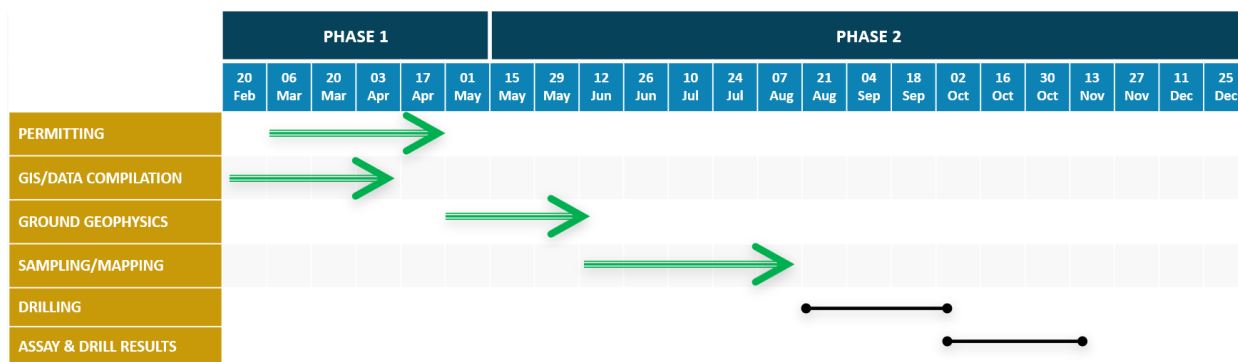


Figure 3 – Progress update on Werner Lake exploration roadmap for 2023

HTM is committed to responsible exploration practices and takes measures to minimize the impact of its exploration activities on the environment and local communities.

The Company has received and continues to appraise several new project opportunities in the vicinity of Werner Lake and continues to conduct high-level internal assessments on projects that fit the Company's objective of becoming a battery metal focused Company.

## AUTHORISED FOR RELEASE ON THE ASX BY THE COMPANY'S BOARD OF DIRECTORS

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## About Hight-Tech Metals Limited

High-Tech Metals Limited (ASX:HTM) is an ASX-listed company focused on the exploration and development of its flagship, 100 per cent owned Werner Lake Cobalt Project (the Project) located in north-western Ontario, within the Kenora Mining District, approximately 85 km north-northwest of Kenora, Ontario and approximately 170 km east-northeast of Winnipeg, Manitoba. The Project was acquired from Global Energy Metals Corporation (70%) and Marquee Resources Limited (30%).

The two largest cobalt deposits defined in Canada to date are the Werner Lake Minesite Deposit and the West Cobalt Deposit. The area has seen extensive exploration and development work since the original discovery of cobalt in 1921. The Werner Lake Cobalt Mine produced cobalt ore in the 1930s and 1940s from the "Old Mine Site" deposit area and with the discovery of the main ore area at the West Cobalt Deposit, was taken to production decision in the late 1990s. At the time, infrastructure was put in place, including four season road, mill buildings, and tailings settling area. Decline ramp, drifts and raises of over 258 metres were driven into the heart of the deposit. Mineralisation remains open at depth and along strike with the potential for undiscovered high grade zones. Metallurgical studies have shown that excellent cobalt recoveries can be yielded from a standard flotation mill process followed by a low-pressure oxidative hydrometallurgical leach (net recovery 88%), to produce a cobalt carbonate end product.







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### Competent Persons Statement

The information in this report which relates to Exploration Results is based on information compiled by Mr. Toby Hughes, P.Geo. who is a member in good standing of the Association of Professional Geoscientists of Ontario (Membership #1318). Mr Hughes is a consultant to HTM and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australian Code of Reporting of Exploration Results, Mineral Resources and ore Reserves". Mr. Hughes consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

### Forward-Looking Statements

This document includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning High-Tech Metals Limited's planned exploration programs, corporate activities, and any, and all, statements that are not historical facts. When used in this document, words such as "could," "plan," "estimate," "expect," "intend," "may", "potential," "should" and similar expressions are forward-looking statements. High-Tech Metals Limited believes that it has a reasonable basis for its forward-looking statements; however, forward-looking statements involve risks and uncertainties, and no assurance can be given that actual future results will be consistent with these forward-looking statements. All figures presented in this document are unaudited and this document does not contain any forecasts of profitability or loss.

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JORC 2012 Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"><li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the 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.</li><li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li><li>Aspects of the determination of mineralisation that are Material to the Public Report.</li><li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li></ul>	<ul style="list-style-type: none"><li>A rock sampling and geological mapping programme was conducted on the Werner Lake Property, Ontario, Canada. Rock samples were collected by geologists from APEX Geoscience Ltd, which is an independent geological consultancy.</li><li>Rock samples were collected as grab samples and chip samples from visibly mineralized outcroppings. The sample weights were approximately 0.5-1 kg in size.</li><li>Rock samples were submitted to ALS Geochemistry in Winnipeg, Canada, for preparation (method PREP-31). Preparation involved crushing to 70% passing 2mm, riffle split off 250 g, which is then pulverised to better than 85% pass 75 microns.</li><li>Prepared samples were analysed by ALS Geochemistry in Vancouver, Canada for two suites of elements.<ul style="list-style-type: none"><li>Samples were digested in aqua regia for inductively coupled plasma mass spectrometry (ICP-MS) finish (method ME-MS41).</li><li>Samples were analysed for PGE suite by fire assay and inductively coupled plasma atomic emission spectroscopy (ICP-AES) for Pt, Pd, and Au (method PGM-ICP27)</li></ul></li></ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"><li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li><li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li><li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li></ul>	<ul style="list-style-type: none"><li>The assay method and laboratory procedures were appropriate for this style of mineralisation. The Aqua Regia and ICP-MS techniques were designed to measure low level multi-element concentrations. The fire assay and ICP-AES techniques for the rock samples were designed to return precise precious metal recoveries.</li><li>ALS Geochemistry inserts its own standards and blanks at set frequencies and monitors the precision of the analyses. As well, the lab performs repeat analyses at random intervals, which return acceptably similar values to the original samples.</li><li>Laboratory procedures are within industry standards and</li></ul>



Criteria	JORC Code explanation	Commentary
		are appropriate for the commodities of interest.
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Rock samples were collected by APEX Geoscience Ltd field geologists.</li> <li>The sample sizes are considered to be appropriate for the type, style and consistency of mineralization encountered.</li> <li>The assay method and laboratory procedures were appropriate for this style of mineralization.</li> <li>To date, no assay data has been received from the laboratory.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Rock sample locations were determined by handheld Garmin GPS, which is considered to be accurate to <math>\pm 5</math> m.</li> <li>Data points were recorded on a mobile device application to ensure accuracy.</li> <li>All coordinates were recorded in UTM Zone 15 datum NAD83.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The reported rock sampling is of a reconnaissance nature, and thus, only visibly mineralised rocks were targeted for sampling.</li> <li>The reported surface sampling data is insufficient to support or establish any resource definition.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Rock sampling was reconnaissance based and targeted areas of possible outcrop mineralisation.</li> <li>No orientation bias has been identified in the data.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The rock sample data was obtained by APEX Geoscience Ltd as an independent contractor. The findings form the basis of the current announcement.</li> <li>The rock sample analysis was conducted by ALS Geochemistry Vancouver; however, results have not yet been received.</li> <li>Further data processing and interpretation are expected to provide more detailed insights into the area's geological structure and mineral potential.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding</li> </ul>	<ul style="list-style-type: none"> <li>HTM controls 100% interest in the Werner Lake project which consists of 116 patented mining claims with mining</li> </ul>



Criteria	JORC Code explanation	Commentary
land tenure status	<p>royalties, native title interests, historical sites, wilderness or national park and environmental settings.</p> <ul style="list-style-type: none"><li>• The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li></ul>	<p>rights only, 6 patented claims with surface and mining rights, 2 leaseholds with mining rights that cover approximately 1,986 hectares. There are also 11 Licenses of Occupation that cover approximately 440 hectares over water.</p> <ul style="list-style-type: none"><li>• There are no annual work requirements and the ground is subject to approximately \$8,500 in taxes due each year.</li><li>• Pursuant to an agreement, HTM and Commerce Capital became parties to the Royalty Agreement. Commerce Capital was granted a 2% NSR on the subject property.</li><li>• The Ministry on Mines completed several inspections and recommended actions to meet the requirements of the Mine Rehabilitation Code of Ontario. These actions are currently in process. There are no other impediments to ongoing work at the project.</li></ul>
Exploration done by other parties	<ul style="list-style-type: none"><li>• Acknowledgment and appraisal of exploration by other parties.</li></ul>	<ul style="list-style-type: none"><li>• The project area has seen considerable exploration since its initial discovery in the 1920's. The site was originally mined in the 1940's and a total of 143,386 lbs of cobalt were reportedly shipped for the Minesite Deposit.</li><li>• Canmine Resources carried out the most extensive exploration/development efforts on the project completing 1,923 line- kilometres of helicopter-borne geophysical surveying and extensive ground geophysics. Between 1995 and 1997 Canmine completed over 75,000 ft of diamond drilling delineating the Minesite Deposit and the West Cobalt Deposit. Several companies completed resource estimations for Canmine and work resulted in underground development of approximately 847 ft of ramping, drifting and raising into the West Cobalt Deposit. A 25-tonne bulk sample was extracted in 1997 and sent to Lakefield Research for bench test milling and chemical analysis. Test work proved positive and it was recommended that Canmine move to pre-feasibility work. Pre-feasibility work was contracted to Stoner Consulting. SNC Lavalin completed an unpublished resource estimate in 2001 prior to Canmine declaring bankruptcy.</li><li>• Puget Ventures completed an additional 7.565 metres of diamond drilling in 2009-2010 in addition to surface</li></ul>



Criteria	JORC Code explanation	Commentary
		<p>mapping and other work.</p> <ul style="list-style-type: none"> <li>Global Energy Metals completed a NI 43-101 resource report in 2018 that meets CIM reporting standard for resource estimates. All previous work has been included in this work and documents or gives reference to all previous work completed at the project</li> <li>Marquee Resources Ltd. completed a drill program in late 2018. The data from the 2018 program was not used to update the Werner Lake Mineral Resource estimate.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The Werner lake Geologic Belt is part of the Archean English River Sub province of the Superior Geological Province in Ontario. The area is underlain by metasedimentary migmatites intruded by syn- to late-tectonic felsic intrusive rocks.</li> <li>On the Werner Lake property, high-grade cobalt mineralization occurs in stacked lenses that occupy tensional areas intruded by gabbroic pegmatites to produce skarnoid assemblages. These tensional areas occur as sigmoidal folds in larger drag folds and in tensional fractures on the east side of major block faults. They occur in rare swarms over a distance of approximately 10 kilometres, extending from the Eastern Shallows Cobalt Deposit on the east side of Gordon Lake to the West Cobalt Deposit 500 meters west of the Werner Lake Minesite. Individual pegmatite dykelets are tens of centimetres wide and unusually up to five metres wide. They are discontinuous, rootless, pinch-and-swell features, with individual boudins approximately 25 metres in length. Chalcopyrite, pyrite, pyrrhotite and cobaltite are hosted by biotite-amphibole-garnet gneiss</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>No technical data has been received yet and thus not included in this report.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All available exploration results have been reported.</li> <li>The competent person regards the reporting as balanced</li> </ul>
Other substantive	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey</li> </ul>	<ul style="list-style-type: none"> <li>Significant work has been completed on the Werner Lake project over the past 90 years. The reader is directed to</li> </ul>





Criteria	JORC Code explanation	Commentary
exploration data	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.	<p>the Global Energy Metals press release dated April 30, 2018, for a summary and link to the Amended NI 43-101 Resource Report.</p> <ul style="list-style-type: none"><li>• The Amended NI 43-101 Resource Estimate for Werner Lake Cobalt Project, Werner Lake, Ontario Canada (2018) by AGP Mining Consultants Inc compiles much of the previous work and uses CIM reporting standards to file the NI 43-101 report for the project. There is significant data available in the public domain for interested readers.</li><li>• Metallurgical test work on a flotation concentrate sample from the Werner Lake deposit was carried out in 1997 at Lakefield Research (now SGS Canada Inc.) in Lakefield Ontario. The sample as received, graded 7.21 % Co, 3.19 % Cu, 2.01 % As, 27.5 % FE, and 38.6 % S; and was subjected to a program of leach testing to determine if upgrading of the concentrate should be achieved.</li><li>• High pressure leach tests, in acid and alkaline media, using a 2L batch autoclave were carried out. The optimal results of greater than 99% cobalt and copper extraction were achieved under acidic conditions at 223 °C with 100 psi oxygen overpressure, and two hours residence time. At the same time, 90% of the iron and 85% of the arsenic remained in the residue.</li><li>• Neutralisation and precipitation tests were carried on the pregnant solution from the autoclave tests. A straightforward flowsheet was developed consisting of lime precipitation to remove iron and arsenic, followed by solvent extraction to recover copper as a separate stream, followed by sodium carbonate precipitation to produce a cobalt carbonate product. Stage recovery of cobalt was calculated at 99.8% to a precipitate grading 34.8 % Co, 0.01 % Cu, and 0.006 % As. Both the pressure leaching and lime precipitation waste residues were tested using the USEPA TCLP procedure and were determined to be non-hazardous.</li></ul>
Further work	<ul style="list-style-type: none"><li>• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li><li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this</li></ul>	<ul style="list-style-type: none"><li>• Additional diamond drilling work has been recommended and a definitive plan of action will be accessed after the completion of a comprehensive compilation process has been completed.</li></ul>



Criteria	JORC Code explanation	Commentary
	<i>information is not commercially sensitive.</i>	<ul style="list-style-type: none"><li>• AGP has also recommended additional metallurgical work and underground sampling if the historic workings can be opened.</li><li>• Marquee Resources Ltd (ASX:MQR) completed a program of 23 diamond drillholes at Werner Lake during 2018. These holes have not been incorporated into the Werner Lake Mineral Resource Estimate (MRE). Auranmore is of the opinion that these holes would not make a material difference to the current MRE but future work should include these holes in an updated MRE.</li></ul>

