

# Metallurgical Test Work Improves Gold Recovery to 85% (+22%) for the Whistler Gold-Copper Project, Alaska

22.09.2025 | [CNW](#)

[U.S. GoldMining Inc.](#) (NASDAQ: USGO) ("U.S. GoldMining" or the "Company") is pleased to announce updated results of its metallurgical test work program (the "Program") which commenced earlier this year (see news release dated April 24, 2025) for the Whistler Gold-Copper Project ("Whistler" or the "Project"), located 105 miles northwest of Anchorage, Alaska.

## Highlights:

- Recovery of up to 85.3% gold (Au), 79.1% copper (Cu) and 55.3% silver (Ag) from the combined sulphide flotation and leaching test work using a master composite derived from Whistler Deposit drill core that is representative of the global average resource grade within the Project's mineral resource estimate ("MRE").
  - Sulphide flotation locked cycle tests ("LCT") produced a copper concentrate grading 23.7% Cu with a 0.6% P<sub>80</sub> grind size of 120µm (rougher circuit) and a regrind of 16µm (cleaner circuit). The initial concentrate metallurgical test results include 54.1% Au, 79.1% Cu and 55.3% Ag.
  - Leach testing of the rougher sulphide flotation circuit tails recovered an additional 31.2% Au, for the combined recovery of 85.3% Au.
- A total of 28 flotation tests were completed together with four leach tests on a combination of master composite samples that were conducted by Base Metallurgical Laboratories Ltd., of Kamloops, B.C., Canada.
- The Program results provide key metallurgical recovery and process flowsheet inputs to the initial economic assessment ("PEA").

Tim Smith, Chief Executive Officer of U.S. GoldMining, commented: "The Company is delighted with the 2025 metallurgical test work results which have confirmed that high gold recoveries in excess of 85% may be achievable at the Project. Previous metallurgical test work only included sulphide flotation, resulting in gold recovery of approximately 70%. However, the combination of a conventional flotation and a sequential leach process has been key to improving gold metallurgical recovery at the Whistler Deposit, with gold recoveries achieving 85.3% overall, an increase of 22% over previous test work. The process flowsheet for these tests employs proven and demonstrated technology to produce a marketable copper concentrate, as well as direct production of gold doré through leaching. This simple but effective process flowsheet will be a key component of the overall process design (see news release dated June 9, 2025)."

## 2025 Metallurgical Program Details

### Sample Selection and Preparation

The 2025 metallurgical test program had the objective of achieving optimized metal recovery results from a set of Whistler Deposit drill core samples. To this end, sampling was completed on fresh 2023 and 2024 drill core comprising seven quarter core composites assembled from four drill holes (WH23-01, WH23-02, WH23-03 and WH24-02). These composites were further homogenized down to a single Master Composite that was selected to represent the global average resource grade from the MRE (see news release dated October 7, 2024).

### Crushing and Grinding Testwork

Comminution tests were completed on the master composite material resulting in being classified as 'Hard' to 'Very Hard'. From preliminary test work, a primary grind size of 120 µm was selected with a secondary grind (regrind) size of 16 µm to yield optimal recoveries.

## Flotation Testwork

A series of rougher flotation tests were completed, followed by cleaner flotation tests, which set the design criteria for a final series of locked cycle tests. The final test circuit (LCT28) consisted of the rougher concentrate reporting to a copper cleaner circuit to produce a copper concentrate of 23.7% Cu from a 0.6% mass pull with copper, gold and silver recoveries of 79.1%, 54.1% and 55.3%, respectively.

Table 1 Results of sulphide flotation test work to produce a saleable copper concentrate. Test ID LCT28 produced final optimized recoveries of 79.1% Cu, 54.1% Au and 55.3% Ag, from a concentrate containing 23.7% Cu and 35.0 g/t Au.

Type Sample	Head Cu%	Head Au g/t	Head Ag g/t	TestID	Product	Mass %	% Con Grade (% Cu)	Cu Rec %	Au Rec %	Ag Rec %
OCT WC-Var 1	0.16	1.35	1.50	C21	1st Cln Con	0.5	21.6	68.2	49.7	32.9
OCT WC-Var 2	0.11	0.45	0.80	C22	1st Cln Con	0.4	21.3	64.5	49.2	40.6
OCT WC-Var 3	0.18	0.06	0.80	C23	1st Cln Con	0.7	25.3	82.2	60.0	57.0
OCT WC-Var 4	0.29	0.88	2.10	C24	1st Cln Con	0.9	25.4	74.7	61.3	43.1
OCT WC-Var 5	0.28	0.41	1.20	C25	1st Cln Con	0.8	29.7	83.7	62.3	44.3
OCT WC-Var 9	0.14	0.22	4.20	C26	2nd Cln Con	0.5	20.5	65.8	54.6	46.9
OCT WC-Var 10	0.20	0.78	0.90	C27	2nd Cln Con	0.6	29.2	82.5	74.5	49.6
OCT Master	0.17	0.43	0.80	C09	3rd Cln Con	0.5	24.9	77.5	50.6	41.9
LCT Master	0.17	0.43	0.80	LCT28	Final	0.6	23.7	79.1	54.1	55.3

Seven variability tests were performed to determine variability across rock types in both the rougher and cleaner circuits. All tests were completed in an open circuit configuration with sequential rougher flotation, regrind of the rougher concentrate and three sequential cleaning circuits to produce a final concentrate product. Results from all tests were favorably comparable with no significant outliers. Observed metal recoveries from sulphide flotation were as high as 74.5% Au and 83.7% Cu. Future additional variability test work will be required to obtain a comprehensive representative suite of composites across the Whistler Deposit and to further study the metal grade, mineralogy and life-of-mine variability. Additional opportunities exist for further optimization via variability locked cycle tests.

## Gold Leaching Testwork

Pyrite rougher tails from the locked cycle tests were subsequently subjected to cyanidation (NaCN) leach testing, with a final extraction of 88.7% Au from the 35.2% contained in the pyrite rougher tails, with modest reagent consumption of 0.48 kg/t NaCN and 1.28 kg/t lime. The total gold recovery via cyanide leaching therefore was 31.2% (i.e. 88.7% of 35.2%).

Table 2 Summary metallurgical test results for sulphide flotation (LCT 28, see Table 1) to produce a copper concentrate, plus subsequent Py rougher concentrate and cyanidation leaching of the Py concentrate tails.

Product	Sample		Assay - percent or g/t					Distribution - percent				
	%	grams	Cu %	Au g/t	Ag g/t	S %	Cu %	Au %	Ag %	S %		
Feed	100	3,971.4	0.18	0.39	1.0	0.93	100	100	100	100		
Cu Cleaner Concentrate	0.6	24.1	23.7	35.0	92	27.6	79.1	54.1	55.3	18.0		
Py Rougher Concentrate	4.0	157.7	0.17	1.06	4.1	9.1	3.8	10.7	16.2	38.9		
Py Rougher Tail Leach	95.4	3,789.6	0.03	0.15	0.3	0.42	17.1	35.2	28.5	43.1		

Combining gold recovery from both the copper concentrate and from leaching thus provides a final gold recovery of 85.3% Au. Future upside could be possible by eliminating the pyrite rougher circuit and passing all copper rougher tails directly to leach, which may yield a small increase to gold recovery. Figure 1 illustrates the draft process flowsheet envisaged by the metallurgical test work. The Company notes that the metallurgical process flowsheet has not yet been finalized and that metallurgical recoveries demonstrated during this test work may be different from those used in the PEA which is on-going (as announced on June 9, 2025).

#### About U.S. GoldMining Inc.

U.S. GoldMining Inc. is an exploration and development company focused on advancing the 100% owned Whistler Gold-Copper Project, located 105 miles (170 kilometers) northwest of Anchorage, Alaska, U.S.A. The Whistler Project consists of several gold-copper porphyry deposits and exploration targets within a large regional land package entirely on State of Alaska mining claims totaling approximately 53,700 acres (217.5 square kilometers). The Whistler Project Mineral Resource Estimate comprises 294 Mt at 0.68 g/t AuEq for 6.48 Moz AuEq Indicated, plus 198 Mt at 0.65 g/t AuEq for 4.16 Moz AuEq Inferred.

For further information regarding the Project, refer to the technical report summary titled "S-K 1300 Technical Report Summary Initial Assessment for the Whistler Project, South Central Alaska" with an effective date of September 12, 2024, and the technical report titled "NI 43-101 2024 Updated Mineral Resource Estimate for the Whistler Project, South Central Alaska" with an effective date of September 12, 2024, available under the Company's respective profiles at [www.sec.gov](http://www.sec.gov) and [www.sedarplus.ca](http://www.sedarplus.ca).

Tim Smith, P.Geo., Chief Executive Officer of the Company, has supervised the preparation of this news release and has reviewed and approved the additional scientific and technical information contained herein. Mr. Smith is a "qualified person" as defined under NI 43-101.

Visit [www.usgoldmining.us](http://www.usgoldmining.us) for more information.

#### Forward-Looking Statements

Except for the statements of historical fact contained herein, the information presented in this news release constitutes "forward-looking statements" within the meaning of the United States federal securities laws and "forward-looking information" within the meaning of applicable Canadian securities laws (collectively, "forward-looking statements"). Such statements include statements with regard to the Company's plans expectations regarding the Project, including the proposed metallurgical testwork and the PEA. Words such as "expects", "anticipates", "plans", "estimates" and "intends" or similar expressions are intended to identify forward-looking statements. Forward-looking statements are based on U.S. GoldMining's current expectations and are subject to inherent uncertainties, risks and assumptions that are difficult to predict and involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such risks and other factors include, among others, the actual results of future exploration may not confirm expectations, variations in the underlying assumptions associated with the estimation or realization of mineral resources, the availability of capital to fund programs, accidents, labor disputes and other risks of the mining industry including, without limitation, those associated with the environment, delays in obtaining governmental approvals or permits, title disputes other risks inherent in the exploration and development of mineral properties and the other risk

factors set forth in the Company's filings with the U.S. Securities and Exchange Commission at [www.sec.gov](http://www.sec.gov) and Canadian Securities Administrators at [www.sedarplus.ca](http://www.sedarplus.ca). Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking statements contained in this news release. Forward-looking statements contained in this news release are made as of this date, and U.S. GoldMining does not undertake any duty to update such information except as required under applicable law.

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