

The logo for Tectonic Metals Inc. features the word "TECTONIC" in a large, white, sans-serif font. The letter "E" is stylized with a gold-colored horizontal bar above it. Below "TECTONIC", the words "METALS INC." are written in a smaller, gold-colored, sans-serif font. The background is a dark blue map of North America with a white grid overlay.

# TECTONIC

METALS INC.

TECT: TSX-V  
TETOF: OTCQB  
T15B: FSE

## **FLAT GOLD PROJECT**

2023 METALLURGICAL RESULTS

To Be Read with Tectonic News Release February 16, 2023

# FORWARD LOOKING STATEMENT AND NATIONAL INSTRUMENT 43-101 COMPLIANCE

All statements in this presentation, other than statements of historical fact, are "forward-looking statements" or "forward looking information" with respect to Tectonic Metals Inc. (the "Company") within the meaning of applicable securities laws, including statements that address pro forma capitalization tables, the size and use of proceeds of any proposed financings, the discovery and development of gold deposits, potential size of a mineralized zone, potential expansion of mineralization and timing of exploration and development plans. Forward-looking information is often, but not always, identified by the use of words such as "seek", "anticipate", "plan", "continue", "planned", "expect", "project", "predict", "potential", "targeting", "intends", "believe", and similar expressions, or describes a "goal", or variation of such words and phrases or state that certain actions, events or results "may", "should", "could", "would", "might" or "will" be taken, occur or be achieved. Forward-looking information is not a guarantee of future performance and is based upon a number of estimates and assumptions of management at the date the statements are made including, among others, assumptions regarding timing of exploration and development plans at the Company's mineral projects; timing and completion of proposed financings; timing and likelihood of deployment of additional drill rigs; successful delivery of results of metallurgical testing; the release of an initial resource report on any of our properties; assumptions about future prices of gold, copper, silver, and other metal prices; currency exchange rates and interest rates; metallurgical recoveries; favourable operating conditions; political stability; obtaining governmental approvals and financing on time; obtaining renewals for existing licences and permits and obtaining required licences and permits; labour stability; stability in market conditions; availability of equipment; accuracy of historical information; successful resolution of disputes and anticipated costs and expenditures. Many assumptions are based on factors and events that are not within the control of the Company and there is no assurance they will prove to be correct.

Such forward-looking information involves known and unknown risks, which may cause the actual results to be materially different from any future results expressed or implied by such forward-looking information, including, but not limited to, the cost, timing and success of exploration activities generally, including the development of new deposits; possible variations in grade or recovery rates; failure of equipment or processes to operate as anticipated; the failure of contracted parties to perform; uses of funds in general including future capital expenditures, exploration expenditures and other expenses for specific operations; the timing, timeline and possible outcome of permitting or license renewal applications; government regulation of exploration and mining operations; environmental risks; the uncertainty of negotiating with foreign governments; expropriation or nationalization of property without fair compensation; adverse determination or rulings by governmental authorities; delays in obtaining governmental approvals; possible claims against the Company; the impact of archaeological, cultural or environmental studies within property areas; title disputes or claims; limitations on insurance coverage; the interpretation and actual results of historical operators at certain of our exploration properties; changes in project parameters as plans continue to be refined; current economic conditions; future prices of commodities; and delays in obtaining financing. The Company's forward-looking information reflect the beliefs, opinions and projections on the date the statements are made. The Company assumes no obligation to update forward-looking information or beliefs, opinions, projections, or other factors, should they change, except as required by law.

The Company has implemented a rigorous Quality Assurance / Quality Control (QA/QC) program to ensure best practices in sampling and analysis of RAB drill, soil, rock, and stream sediment samples. All assays are performed by Bureau Veritas Commodities Canada Ltd., with sample preparation carried out at the BV facilities in Fairbanks, AK, USA. Assays are completed at either the Fairbanks laboratory or the Vancouver laboratory.

All soil and stream samples at the Tibbs, Seventymile, and Northway properties were prepared using procedure SS80 (dry at 60 C and sieve 100g at -80 mesh) and analysed by method FA430 (30g fire assay with AAS finish) and MA300 (0.25g, multi acid digestion and ICP-ES analysis). All RAB drill, rock, trench, and pan concentrate samples at the Tibbs, Seventymile, and Northway properties were prepared using procedure PRP70-250 (crush, split, and pulverise 250g to 200 mesh) and analyzed by method FA430 and MA300. All samples containing >10 g/t Au were reanalyzed using method FA530 (30g Fire Assay with gravimetric finish).

The Company makes no representation or warranty regarding the accuracy or completeness of any historical data from prior exploration undertaken by others other than the company and has not taken any steps to verify, the adequacy, accuracy or completeness of the information provided herein and, under no circumstances, will be liable for any inaccuracies or omissions in any such information or data, any delays or errors in the transmission thereof, or any loss or direct, indirect, incidental, special or consequential damages caused by reliance on this information or the risks arising from the stock market.

The Qualified Person has reviewed and verified the data collected by the Company. For samples collected at the Tibbs, Seventymile, and Northway properties, QAQC samples were inserted into the sample submittals at a rate of approximately 1 QAQC sample per 10 assay samples (approximately 10%). Standards were inserted at a rate of approximately 8 standard samples per 100 assay samples (8%), blanks were inserted at a rate of approximately 2 blank samples per 100 assay samples (2%). For Rotary Air Blast ("RAB") drilling, field duplicate samples are systematically collected at a rate of 3 duplicates per 100 assay samples (3%). A selection of standards were used which are commercially available from a reputable vendor (OREAS and Rocklabs). All standards ultimately returned acceptable values (within approximately 15% of the expected value, or approximately one standard deviation). Those standard samples which returned suspect values were re-run at the companies request. Blank samples consisted of Browns Hill Quarry basalt, an unmineralized Quaternary basalt flow from the Fairbanks Mining District, Alaska.

Peter Kleespies, M.Sc., P.Geol, Vice President Exploration of Tectonic Metals Inc. and Qualified Person under National Instrument 43-101 ("NI 43-101"), has reviewed and approved the contents of this presentation.

Prospective investors should not construe the contents of this presentation as legal, tax, investment, accounting or other advice. Prospective investors are urged to consult with their own advisors with respect to legal, tax, regulatory, financial, accounting and other such matters relating to their investment in the Company.

The Company securities have not been approved or disapproved by the U.S. Securities and Exchange Commission or by any state, provincial or other securities regulatory authority, nor has the U.S. Securities and Exchange Commission or any state, provincial or other securities regulatory authority passed on the accuracy or adequacy of this presentation. Any representation to the contrary is a criminal offense.

The Company is incorporated under the laws of British Columbia, Canada. Many of the Company's assets are located outside the United States and most or all of its directors and officers are residents of countries other than the United States. As a result, it may be difficult for investors in the United States to effect service of process within the United States upon the Company or such directors and officers, or to realize in the United States upon judgments of courts of the United States predicated upon civil liability of the Company and its directors and officers under the United States federal securities laws.

# 2023 FLAT PROJECT METALLURGICAL RESULTS HIGHLIGHTS

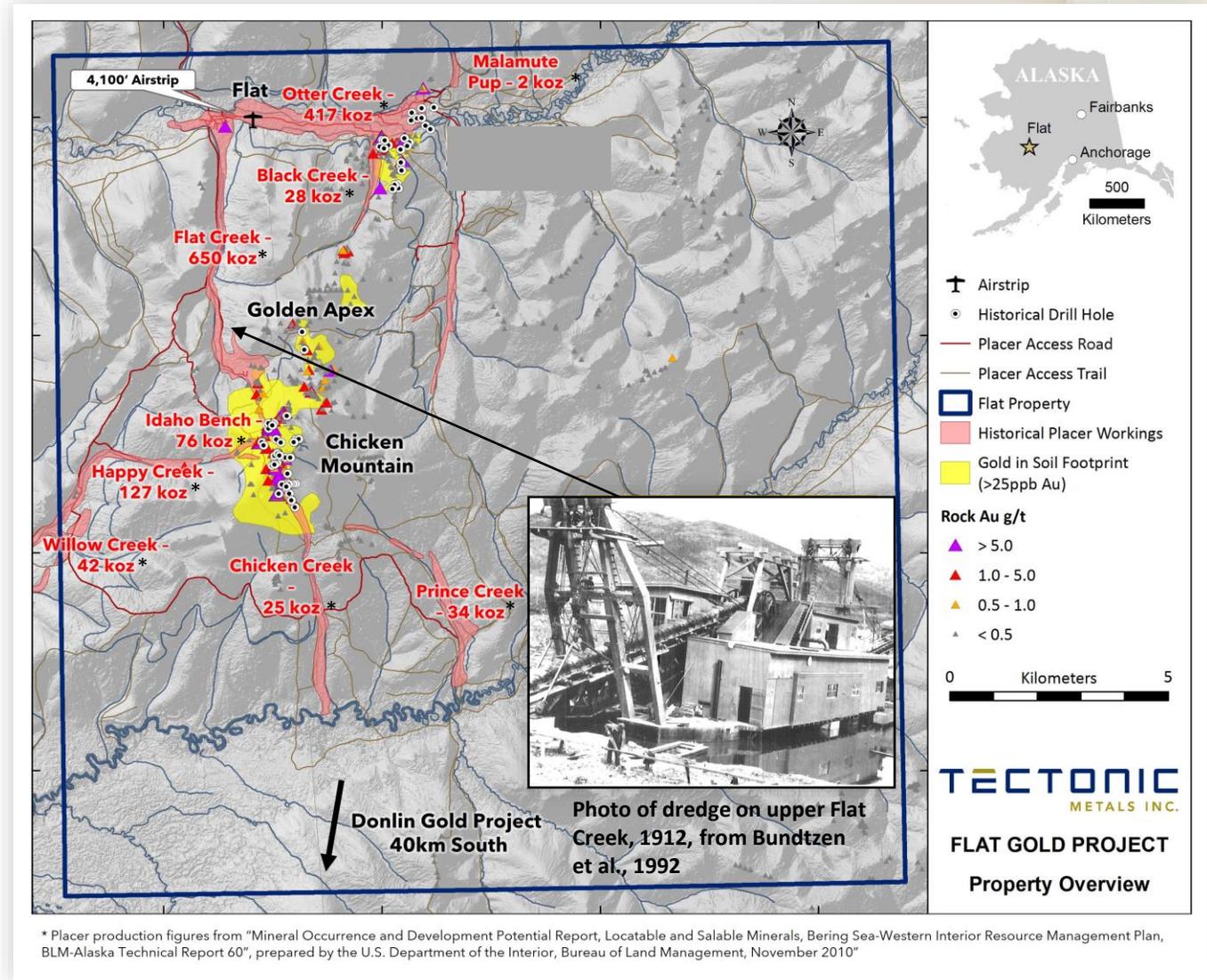
## OPEN-PIT, HEAP LEACH OPPORTUNITY IN A TIER ONE JURISDICTION

- Conventional bottle roll tests with 48-hour leach kinetics of material ground to a  $K_{80}$  of 75  $\mu\text{m}$  yields an **average gold recovery of 95.6%** with a range of 88.3% to 99.1%
- Conventional gravity + bottle roll tests with 48-hour leach kinetics of material ground to a  $K_{80}$  of 75 $\mu\text{m}$  yield an **average gold recovery of 97.2%** and a high of **98.7%** across the 5 composites. The fresh sulphide composite yielded a highly favourable gold recovery of **94.7%**.
- Coarser crush bottle rolls (6 mesh coarse crush,  $K_{100}$  of 3360 $\mu\text{m}$ ) with leach kinetics over a 192-hour period used a proxy for heap leach amenability ahead of future column leach testing achieved an **average gold recovery of 88.5%** with **4 of the 5 composites averaging 94.0%** at 3360 $\mu\text{m}$  vs 97.5% at 75 $\mu\text{m}$  indicating the majority of the tested material is not grind sensitive.
- Strong and rapid leach kinetics demonstrated throughout the various metallurgical tests.
- Very low cyanide consumption with an average of 0.22 kg/t for both the 75 $\mu\text{m}$  bottle and 3360 $\mu\text{m}$  coarse bottle rolls tests.
- Low sulphur content with 4 of 5 composites averaging 0.02% and 0.06% in the fifth composite.
- No preg robbing identified.
- The various metallurgical tests and their positive results indicate that Tectonic may have several metallurgical processing options available at Flat.

# FLAT PROJECT – BULK TONNAGE INTRUSION-HOSTED GOLD SYSTEM

OPEN-PIT, HEAP LEACH OPPORTUNITY IN A TIER ONE JURISDICTION

- Situated in the 4th largest placer mining district in Alaska
- 1.4Moz Au Historic Placer Gold Production\*
- Historical reports state Chicken Mountain is the likely source for most of the placer gold
- 2023: Gold recoveries to 96.8% from course crush bottle rolls
- Project De-Risking
  - Landmark Tectonic-Doyon Exploration, ESG and Production Lease Agreement
  - 92,160 acres of predominantly Native-owned Land



# FLAT GOLD PROJECT – LOCATION, INFRASTRUCTURE AND ACCESSIBILITY

ON-SITE 4,100 FT AIRSTRIP, PLACER ROADS TO MINERALIZED ZONES

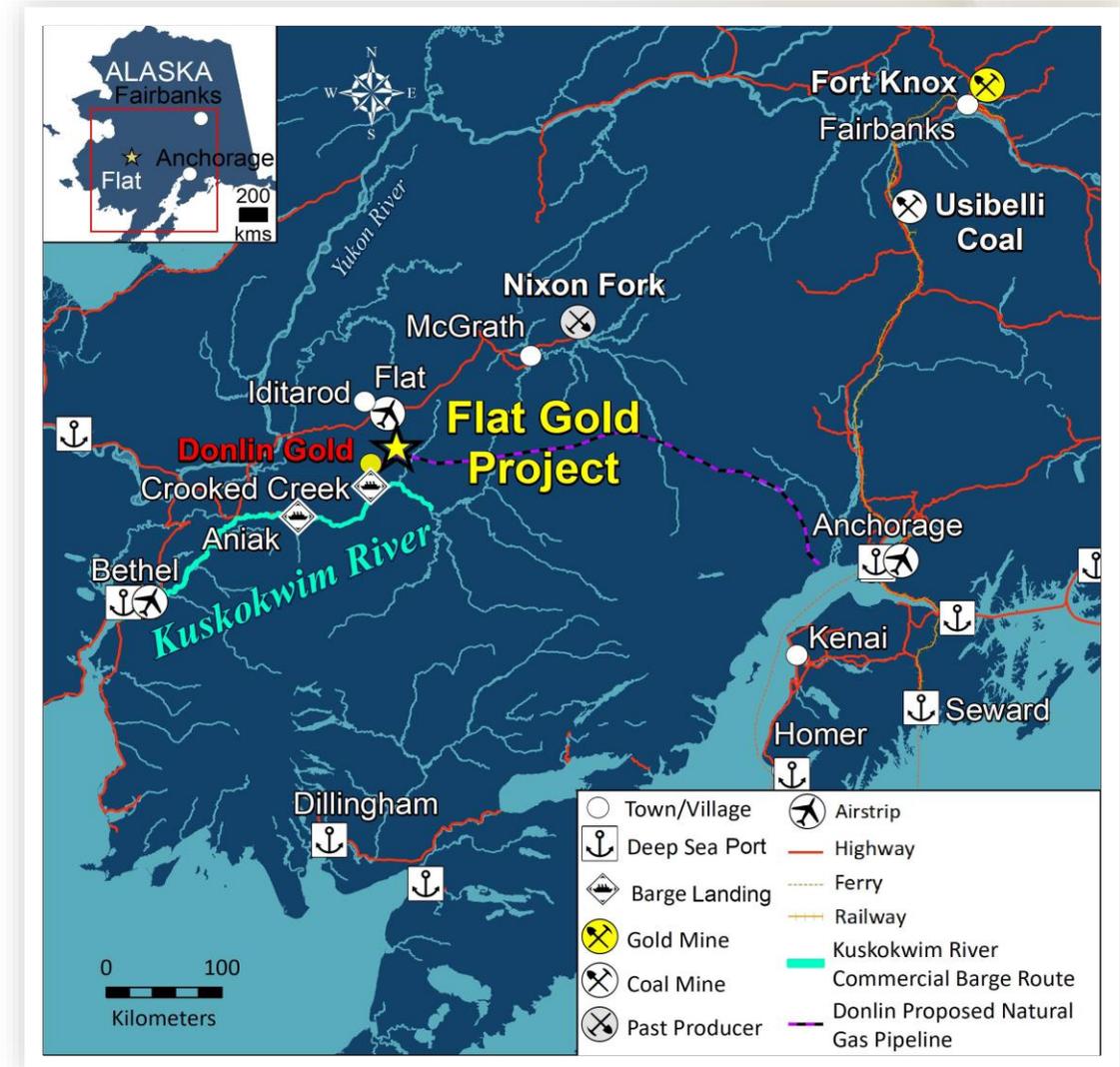
## ■ Located in the same mineral belt as the Donlin

### Gold deposit (Barrick and Novagold)\*

- Donlin 2022 budget set at \$60M\*\*
- Flat is 40km from Donlin

## ■ Existing and nearby local infrastructure

- On-site 4,100 ft Flat airstrip, Hercules (45,000 lbs payload) capable
- Road access from airstrip to mineralized zones
- Kuskokwim River commercial barge access (6 months)
- Permitted natural gas pipeline



\*2021 NI 43-101 Technical Report. Tonnage: 541,337kt at 2.24g/t Au. Measured & Indicated: 39,007koz Au. Assuming an average recovery of 89.5% and average 5% grade of 1.07, the marginal gold cut-off grade is 0.47 g/t. Gold price of \$1,200/oz is assumed

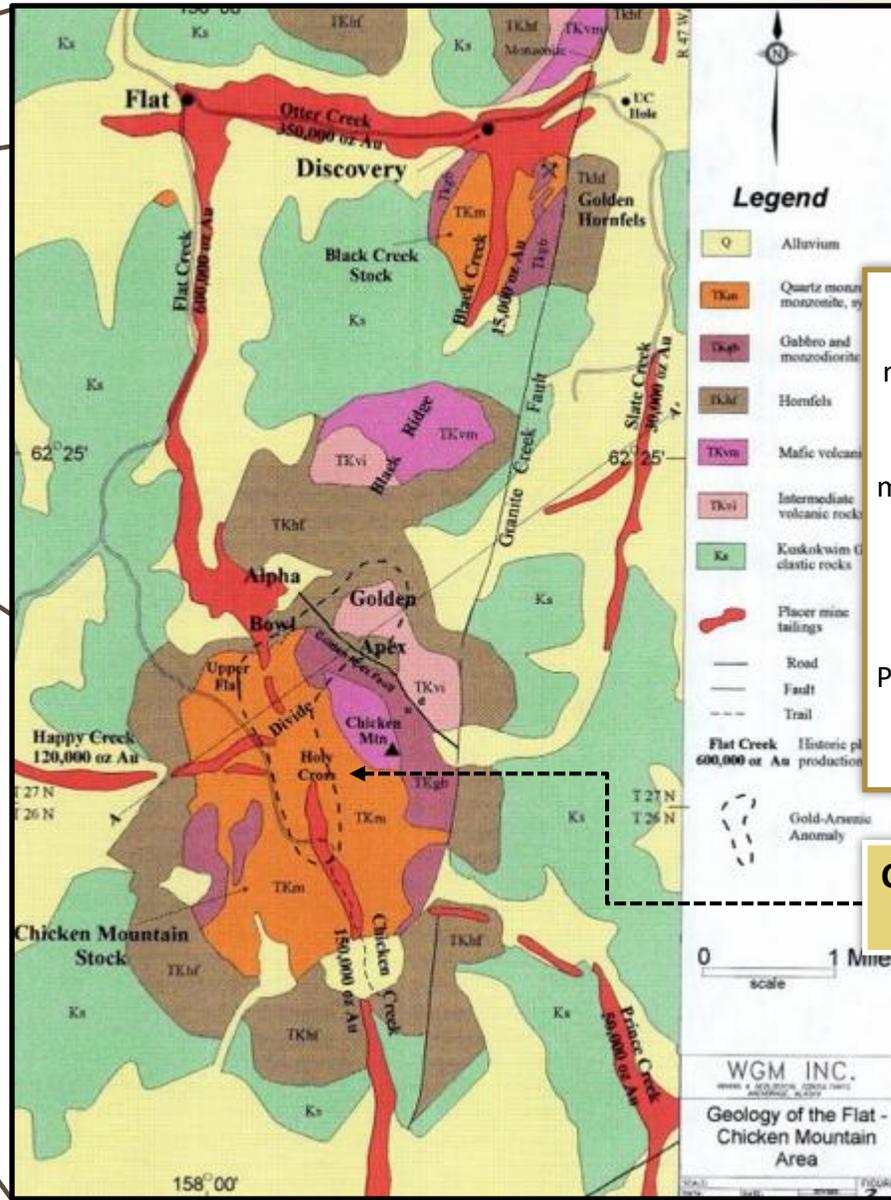
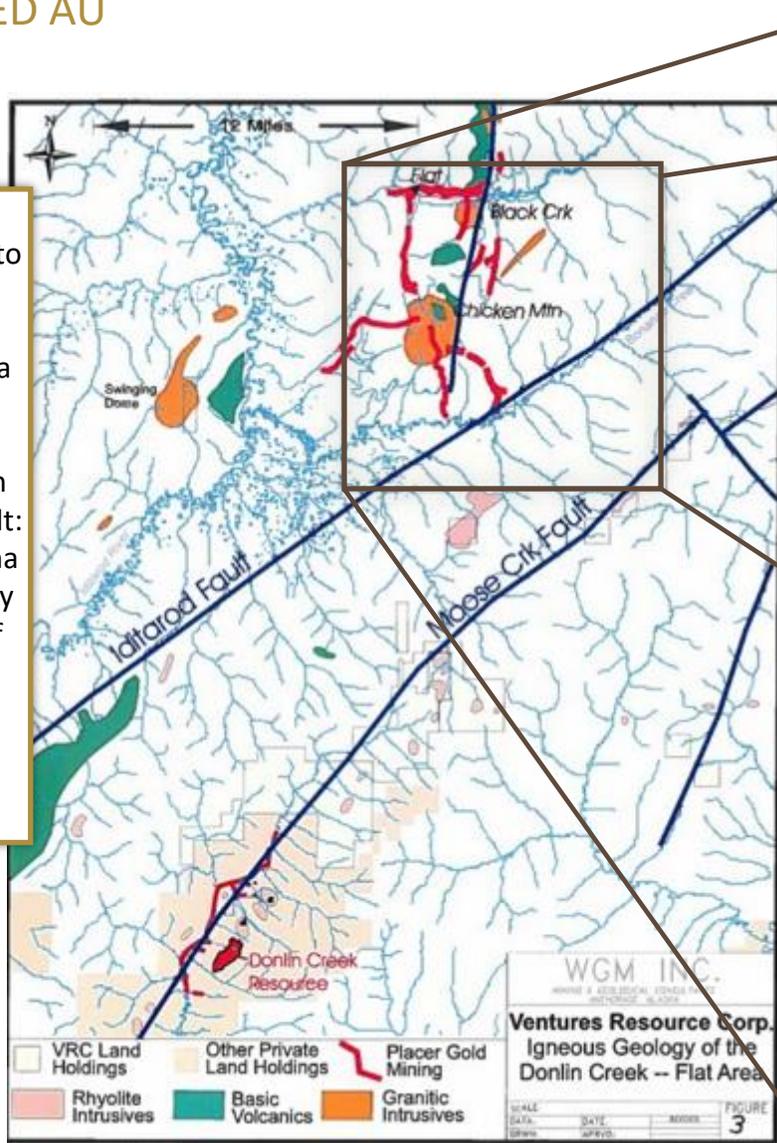
\*\*Novagold News Release February 28, 2022

# GEOLOGY AND MINERALIZATION

## INTRUSION-HOSTED AU

**Regional Geology:**  
Gold bearing Late Cretaceous to Early Tertiary intrusions emplaced within Kuskokwim sediments - part of the Tintina Gold Belt

Intrusions and mineralization controlled by the Iditarod Fault: a significant splay of the Tintina Fault System. Marks boundary between northern domain of monzonitic volcano-plutonic complexes from rhyolitic porphyry plugs and dykes to south of fault.



**Generalized Geology:**  
NNE-trending quartz monzonitic volcano-plutonic complexes with hornfelsed margins hosting gold vein mineralization. Emplacement of intrusions controlled by NNE striking Granite Creek Fault

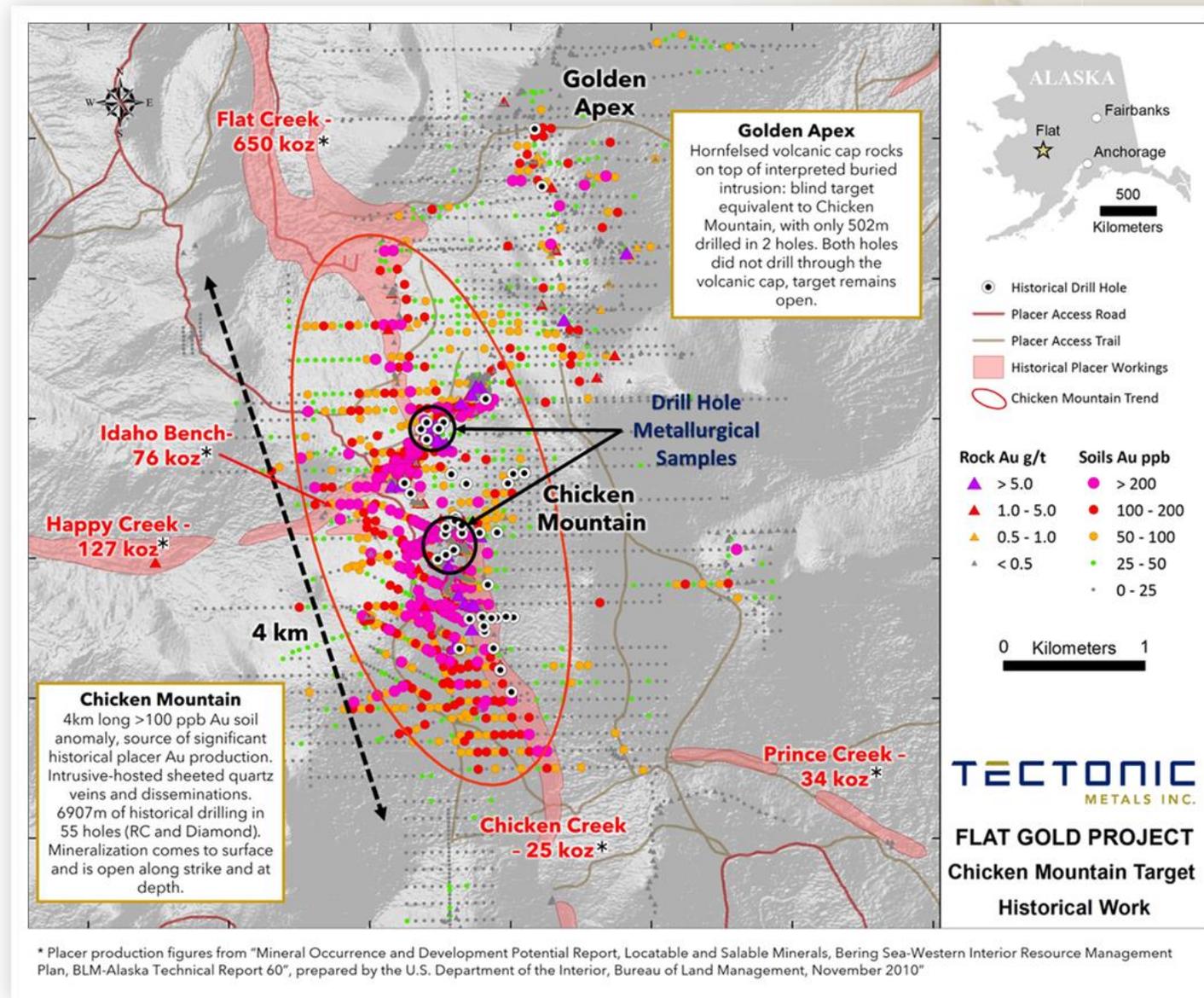
Placer gold is found within all creeks that drain the intrusions.

**Chicken Mountain Prospect**

# FLAT GOLD PROJECT – CHICKEN MOUNTAIN TARGET

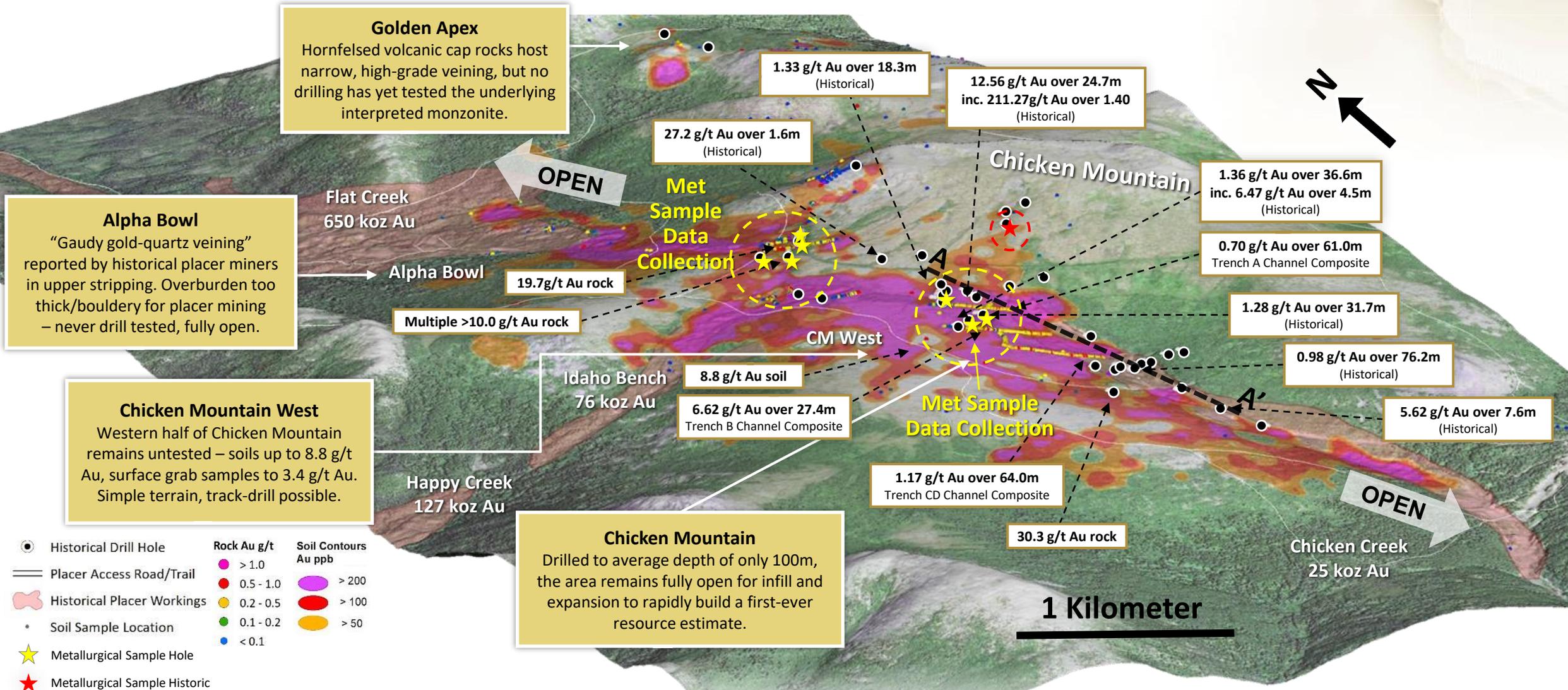
## 2022 Metallurgical Test Program

- Historical reports state Chicken Mtn is likely source of placer gold in the district
- Robust 4km long >200 ppb gold-in-soil anomaly (open)
- 6,907m of historical (diamond + RC) drilling in 55 holes
- Metallurgical test work from historic drill core samples from mineralized monzonite located at headwater areas of Flat, Chicken, and Happy Creek s
- 2022 Metallurgical Test work Program – Scoping Level
  - Sample and composite head feed characterization
  - Grind calibration
  - Cyanide kinetic leaching
  - Rougher flotation
  - Gravity testing



# CHICKEN MTN TARGET: ALL 55 DRILL HOLES INTERSECTED MINERALIZATION

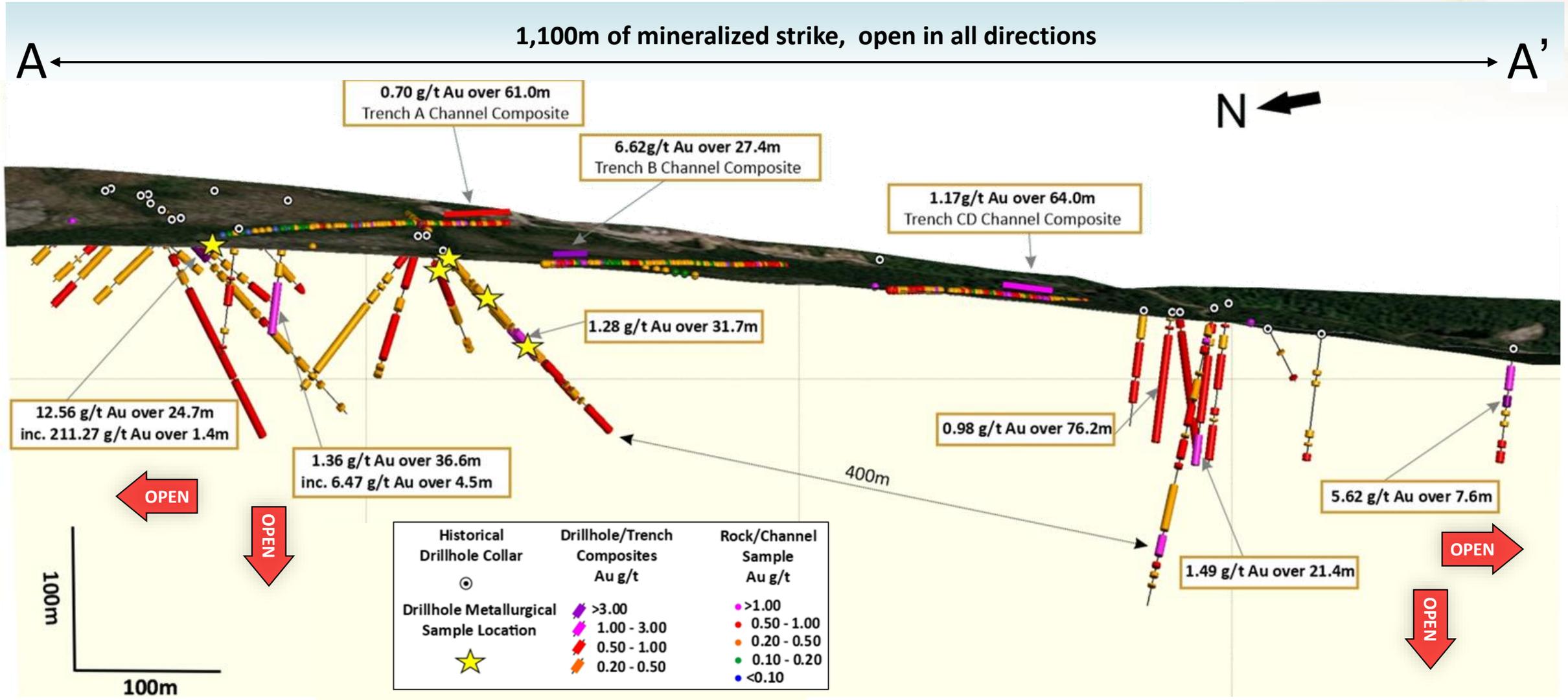
OPEN ALONG STRIKE AND AT DEPTH; 4KM LONG GOLD-IN-SOIL-ANOMALY



\*Placer production figures from “Mineral Occurrence and Development Potential Report, Locatable and Salable Minerals, Bering Sea-Western Interior Resource Management Plan, BLM Alaska Technical Report 60”, prepared by the U.S. Department of the Interior, Bureau of Land Management, November 2010”

# CHICKEN MOUNTAIN TARGET – RAPID PATH TO FIRST RESOURCE ESTIMATE

OPEN-PIT OPPORTUNITY, AVG DRILL DEPTH 100m, DRILL HOLES ENDING IN MINERALIZATION, UNTESTED CHANNEL SAMPLES IN TRENCHES



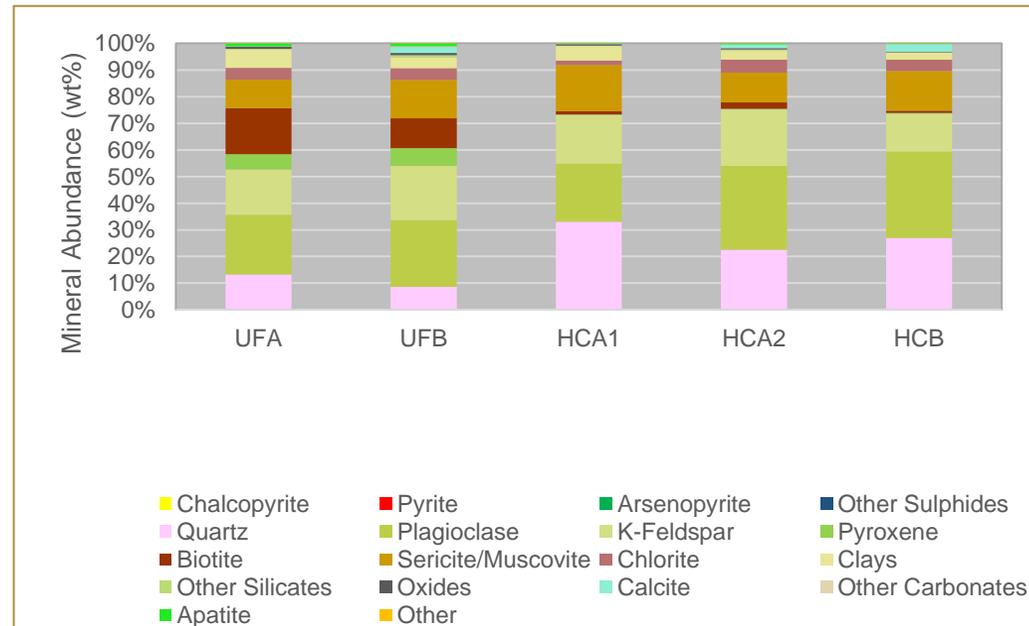
# 2023 METALLURGICAL PROGRAM COMPOSITES

## FIVE COMPOSITES CONSISTING OF FOUR OXIDE AND ONE SULPHIDE

Composite	Zone	Samples	Drill Hole	Drill Hole Sample depth range (m)	Host Rock	Mineralization Type	Assayed Composite Head		
							Au g/t	Sulphur %	Carbon %
UFA	Upper Flat	11	3	30-49	Biotite Syenite	Oxide	1.10	0.02	0.01
UFB	Upper Flat	9	3	70-119	Biotite Syenite	Oxide	0.65	0.02	0.26
HCA1	Main Chicken Mtn	7	1	4-64	Quartz Monzonite	Oxide	0.53	0.02	0.02
HCA2	Main Chicken Mtn	6	2	26-41	Quartz Monzonite	Oxide	1.08	0.02	0.42
HCB	Main Chicken Mtn	8	1	120-132	Quartz Monzonite	Fresh-Sulphide	1.14	0.06	0.42

### Composite QEMSCAN Mineralogy

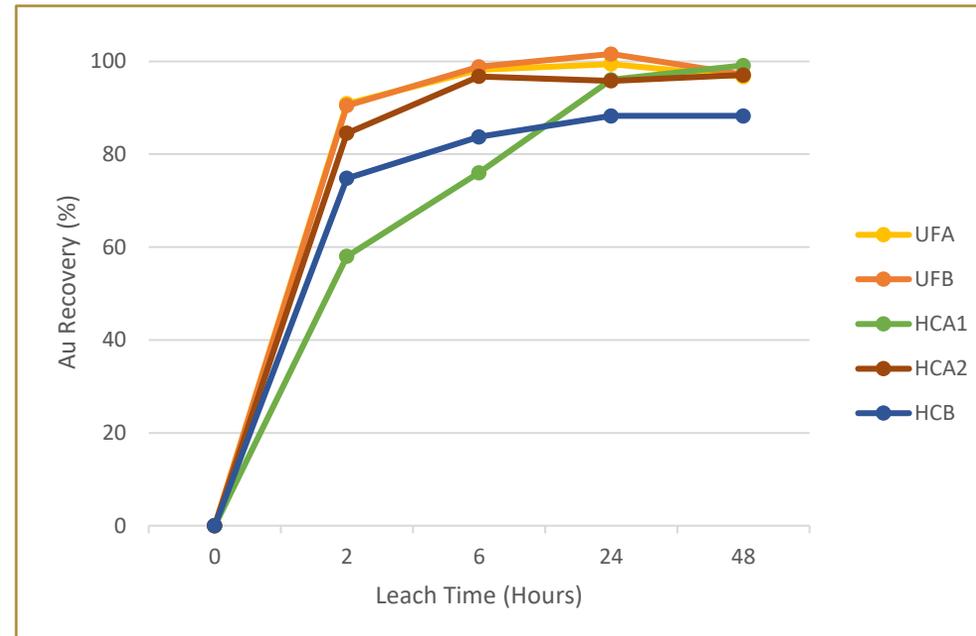
Mineral Abundance (wt%)	UFA	UFB	HCA1	HCA2	HCB
Chalcopyrite	0.00	0.01	0.01	0.02	0.01
Pyrite	0.00	0.01	0.02	0.02	0.07
Arsenopyrite	0.00	0.01	0.00	0.00	0.12
Other Sulphides	0.00	0.00	0.00	0.00	0.01
Quartz	13.3	8.54	33.0	22.6	26.8
Plagioclase	22.3	25.0	21.8	31.3	32.4
K-Feldspar	17.1	20.3	18.3	21.2	14.2
Pyroxene	5.73	6.68	0.05	0.32	0.26
Biotite	17.2	11.3	1.23	2.29	0.83
Sericite/Muscovite	10.7	14.3	17.4	11.3	14.9
Chlorite	4.36	4.49	1.71	4.78	4.19
Clays	6.94	4.02	5.46	3.51	2.63
Other Silicates	0.26	0.79	0.08	0.30	0.13
Oxides	0.89	0.81	0.57	0.51	0.30
Calcite	0.02	2.16	0.01	1.48	2.81
Other Carbonates	0.04	0.44	0.01	0.01	0.01
Apatite	1.10	1.05	0.30	0.33	0.26
Other	0.02	0.01	0.01	0.01	0.02
Total	100	100	100	100	100



# CONVENTIONAL BOTTLE ROLLS TESTS: AVERAGE GOLD RECOVERY OF 95.6%

## 48 HOUR LEACH KINETICS K80 75µm GRIND

Composite	Mineralization Type	Calculated Head Grade	Consumption (kg/t)		Au Recovery %				
					Leach Kinetics (hour)				
		Au g/t	NaCN	Ca(OH)2	2	6	24	48	Total
UFA	Oxide	1.66	0.24	2.57	90.9	98.1	99.4	96.7	<b>96.7</b>
UFB	Oxide	0.68	0.19	1.23	90.4	98.8	101.6	97.1	<b>97.1</b>
HCA1	Oxide	0.75	0.28	2.91	58.0	76.0	96.0	99.1	<b>99.1</b>
HCA2	Oxide	1.05	0.17	2.89	84.5	96.7	95.8	97.0	<b>97.0</b>
HCB	Fresh-Sulphide	1.32	0.23	0.92	74.8	83.7	88.2	88.3	<b>88.3</b>

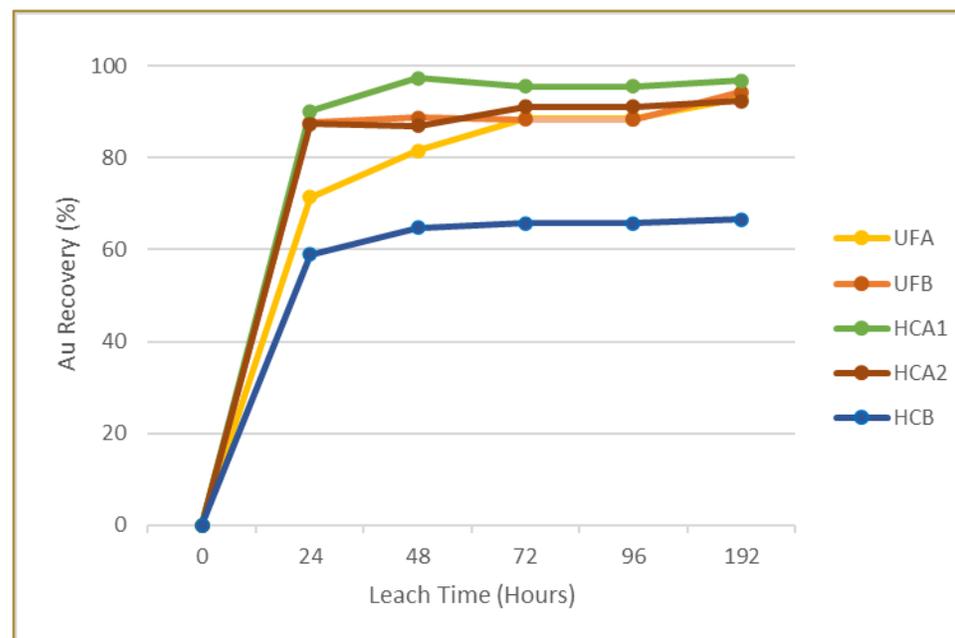


# COARSE CRUSH BOTTLE ROLL TESTS: AVERAGE GOLD RECOVERY OF 88.5%

6 MESH, K100 3360 μm OVER A 192 HOUR PERIOD

Composite	Mineralization Type	Calculated Head Grade	Consumption (kg/t)		Au Recovery (%)					
					Leach Kinetics (hour)					
					Au g/t	NaCN	Ca(OH) <sub>2</sub>	24	48	72
UFA	Oxide	1.50	0.24	4.02	71.4	81.4	88.6	88.6	92.8	92.8
UFB	Oxide	0.65	0.28	3.20	87.5	88.7	88.3	88.3	94.2	94.2
HCA1	Oxide	0.50	0.19	3.16	90.0	97.3	95.5	95.5	96.8	96.8
HCA2	Oxide	1.01	0.19	2.08	87.3	87.0	91.1	91.1	92.3	92.3
HCB	Fresh-Sulphide	0.97	0.19	1.34	58.9	64.8	65.6	65.6	66.5	66.5

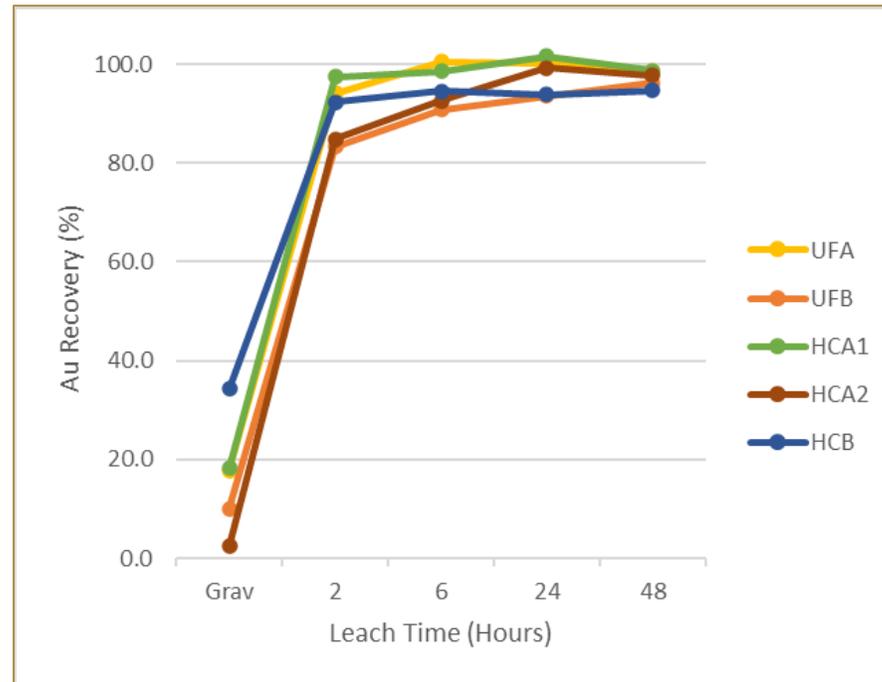
4 of the 5 composites averaging 94.0% gold recovery



# GRAVITY CONCENTRATION + BOTTLE ROLL TESTS: AVERAGE GOLD RECOVERY OF 97.2%

## 48 HOUR LEACH KINETICS K80 75µm GRIND

Composite	Mineralization Type	Calculated Head Grade	Gravity Concentrate		Bottle Roll		Au Recovery (%)				
					Consumption (kg/t)		Leach Kinetics (hour)				Total
			Au g/t	Au g/t	Recovery %	NaCN	Ca(OH)2	2	6	24	48
UFA	Oxide	1.11	127	17.8	0.2	3.23	76.3	82.7	82.5	80.8	<b>98.7</b>
UFB	Oxide	0.94	52.1	10.0	0.16	2.74	73.3	80.8	83.5	86.2	<b>96.3</b>
HCA1	Oxide	0.77	81.5	18.2	0.11	2.57	79.3	80.3	83.4	80.5	<b>98.7</b>
HCA2	Oxide	1.13	12.9	2.4	0.14	1.79	82.4	90.2	96.8	95.4	<b>97.8</b>
HCB	Fresh-Sulphide	1.12	200	34.3	0.17	1.2	58.1	60.2	59.6	60.4	<b>94.7</b>



**HCB: fresh sulphide composite yields 94.7% gold recovery**

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### Website

[www.tectonicmetals.com](http://www.tectonicmetals.com)

### Email

[info@tectonicmetals.com](mailto:info@tectonicmetals.com)

### Toll-free

1.888.685.8558