

# Yukon hardrock mining, development and exploration overview 2023

Sarah Ellis\* and Patrick J. Sack†  
Yukon Geological Survey

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## Introduction

Despite tough market conditions, the Yukon saw another year of significant exploration results and new discoveries. At the time of writing, Yukon Geological Survey (YGS) estimated exploration expenditures in the territory to be \$147M for the year, based on company press releases, SEDAR (System for Electronic Document Analysis and Retrieval Overview) postings and conversations with industry clients. This estimate is up 18% from \$124M in 2022 (Fig. 1). Development expenditures for 2023 are estimated to be \$95M (Fig. 1) and mineral production is estimated to be \$495M (approximately 87% attributed to gold production, 10% to silver production and 3% to copper production), down from a total of \$543M in 2022; Fig. 2).<sup>1</sup> It was a challenging year for production due to the closure of the Minto mine and the two-week closure of Victoria Gold's Eagle Gold mine due to wildfires in the Mayo region; however, strong precious and base-metal prices throughout the year, increased production at Eagle Gold mine, and the re-opening of the Keno Hill mine suggests that 2023 production revenue will remain strong.

There were 82 active exploration projects in the territory in 2023 (Fig. 3, Appendix 1), which was similar to 2022; however, the number of active companies and individual prospectors continues to decline. The notable increase in exploration expenditures compared with 2022 can be attributed to the progression of several exploration projects into more advanced stages. In total, 31 companies spent more than \$500K on exploration and development; 19 of those spent more than \$1M. Additionally, several companies were able to raise extra funding mid-season, which extended their initial proposed exploration programs.

The primary commodity in terms of total exploration expenditures in the territory continues to be gold, representing 55% of spending (\$80.5M), followed by zinc-lead (25%, \$37.7M), silver (9%, \$13.4M), copper (9%, \$13.2M), tungsten (1%, \$1.0M) and nickel-PGE (1%, \$900K; Fig. 4). Gold exploration has dominated expenditures since the late 1980s, often representing upward of 80% of total expenditures; however, in recent years there has been a progressive shift to a more equal split between precious metal and critical mineral exploration expenditures.

As of November 1, 2023, 5119 quartz claims had been staked in 2023 (Fig. 5). Most of the new claims were in the Mayo Mining District (60%), followed by the Whitehorse (25%) and Dawson (15%) mining districts; no new claims were staked in the Watson Lake Mining District (Fig. 6). A total of 162 564 claims remain in good standing, down from 164 924 in 2022.

\* [sarah.ellis@yukon.ca](mailto:sarah.ellis@yukon.ca)

† [patrick.sack@yukon.ca](mailto:patrick.sack@yukon.ca)

1. All estimated expenditure projections reflect the current estimates as of November 30, 2023 and will not be finalized until the end of January 2024.

There has been a renewed interest in gold exploration in the Selwyn basin due to the 2021 discovery of a significant reduced intrusion-related gold (RIRG) target by Snowline Gold at their Rogue property (Valley

occurrence). This has led to a substantial increase in exploration in the region and a number of companies assessing the potential for RIRG at their properties.

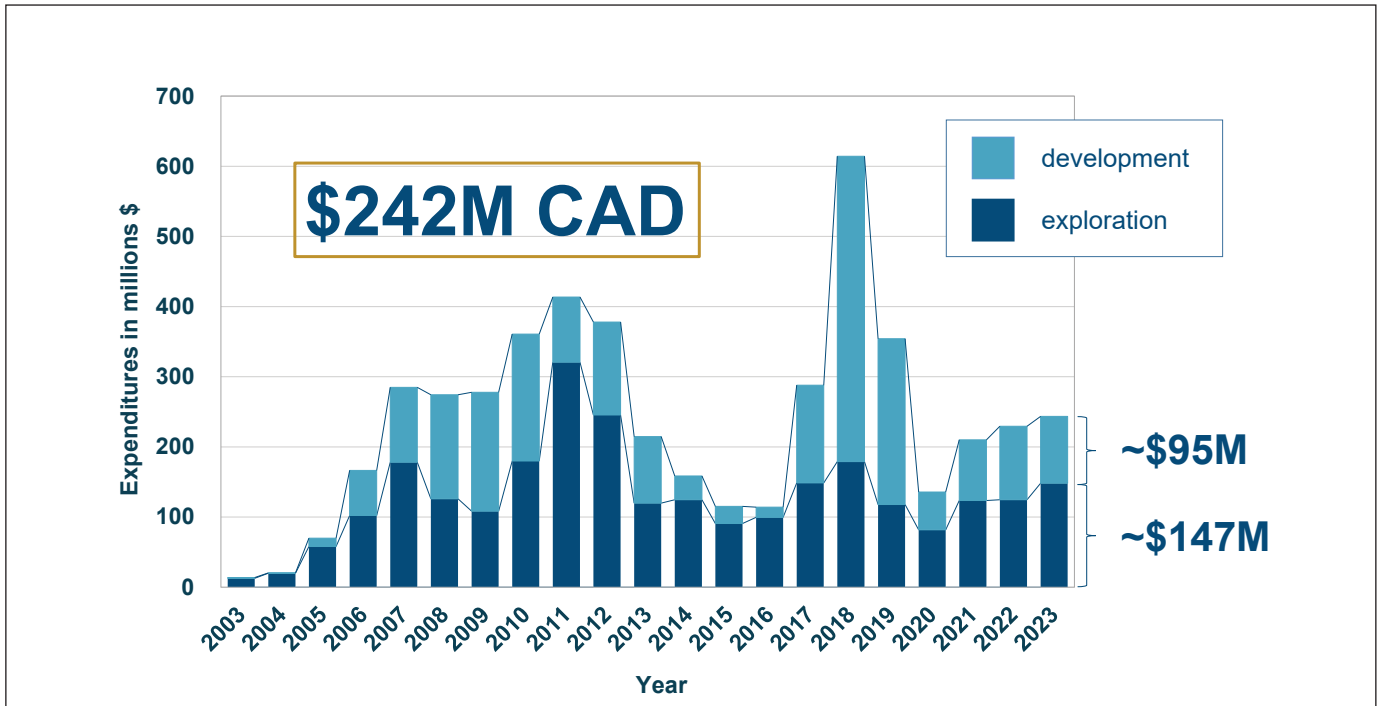


Figure 1. Yukon Geological Survey–estimated exploration and development expenditures for 2023.

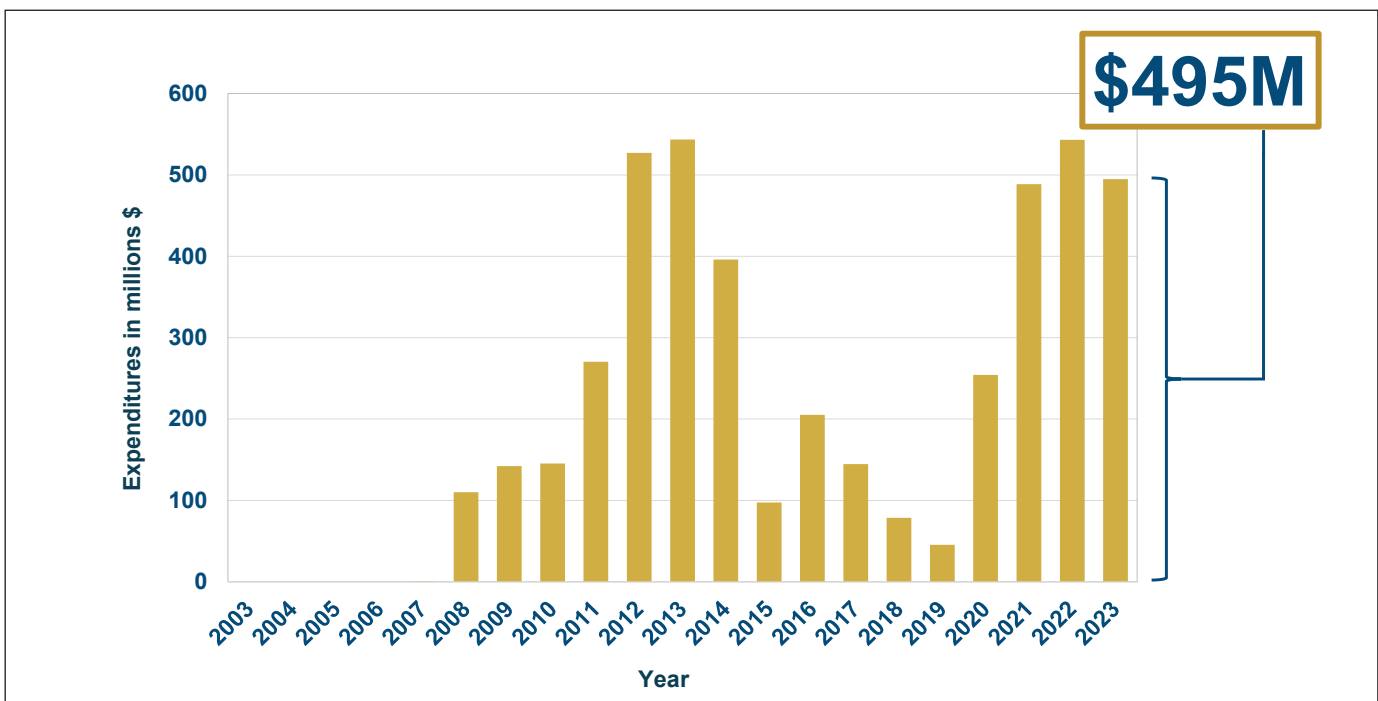


Figure 2. Yukon Geological Survey–estimated production values for 2023.

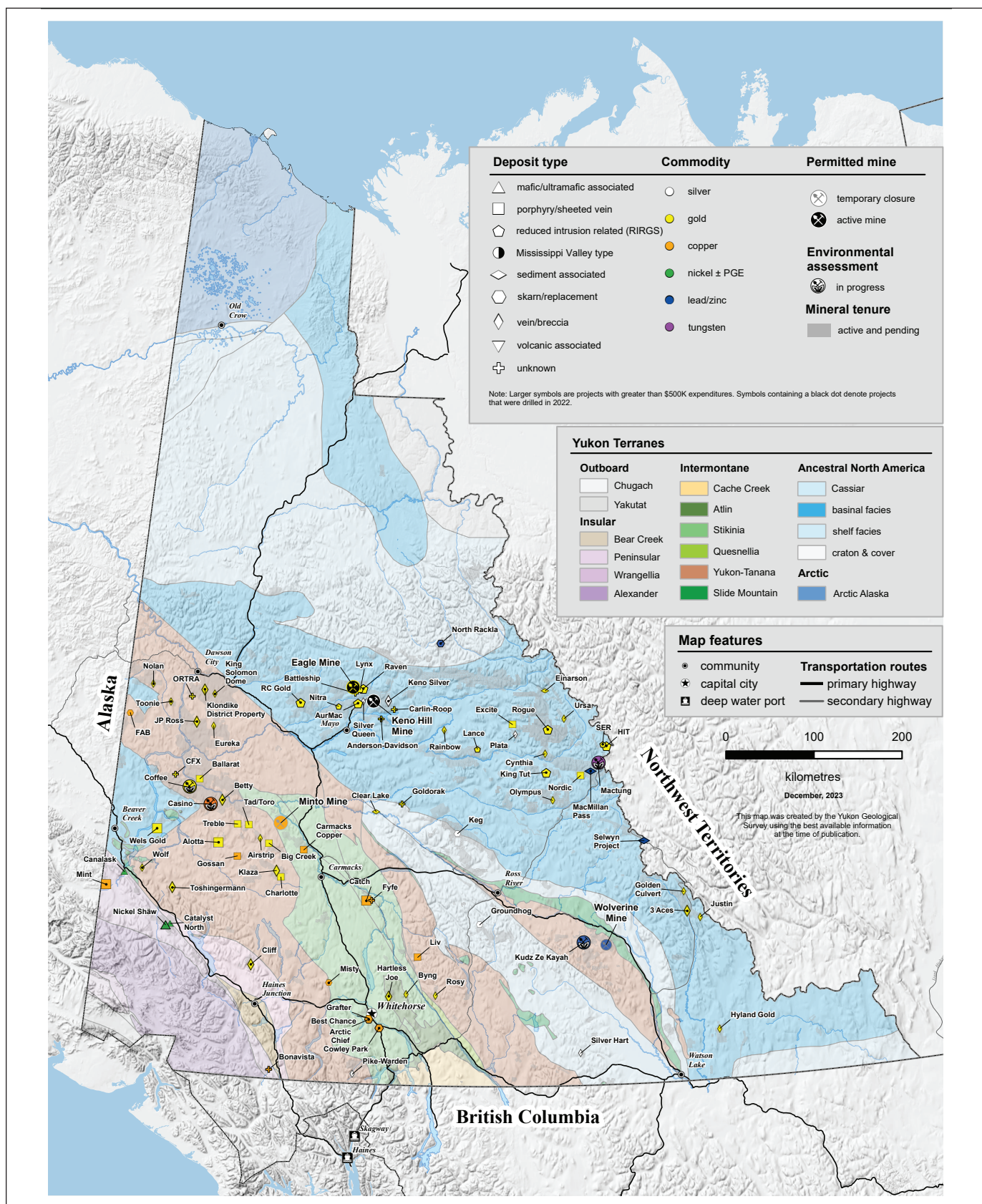


Figure 3. Active hardrock projects in the Yukon, 2023.

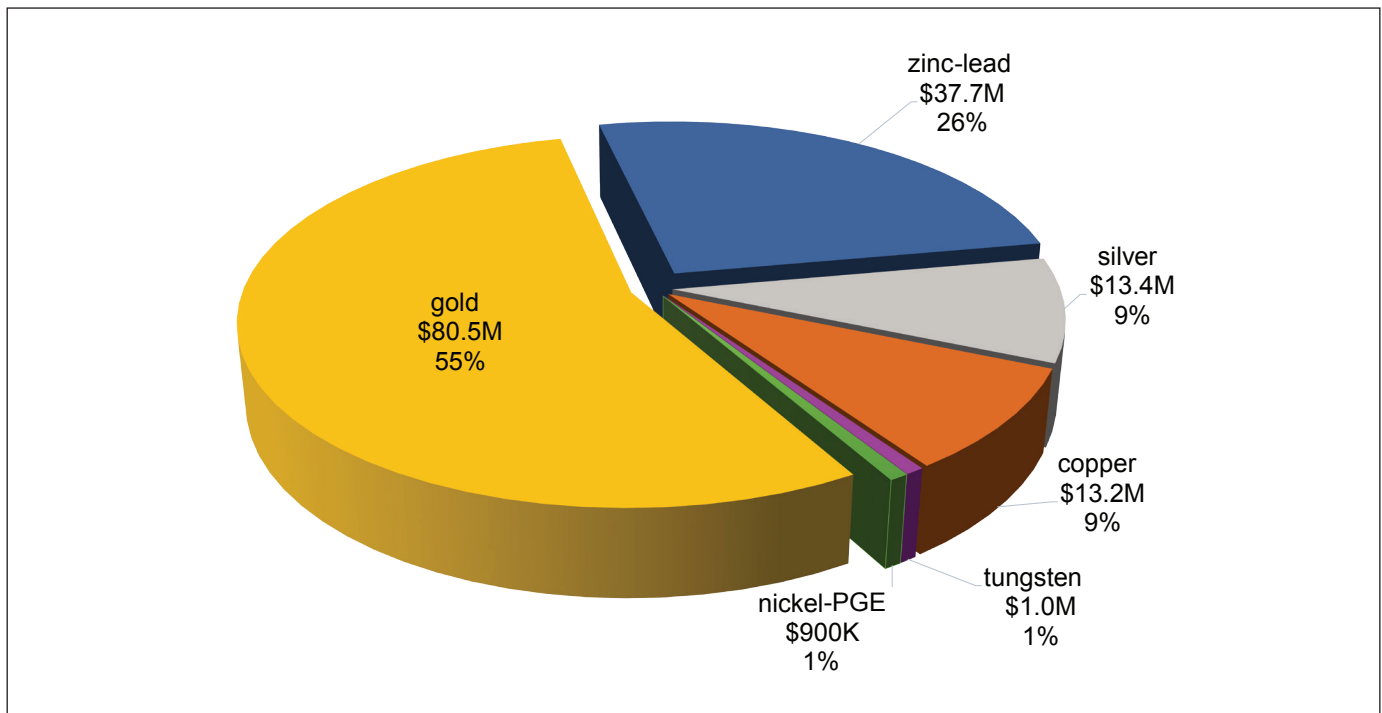


Figure 4. Breakdown of 2023 exploration expenditures in the Yukon by commodity.

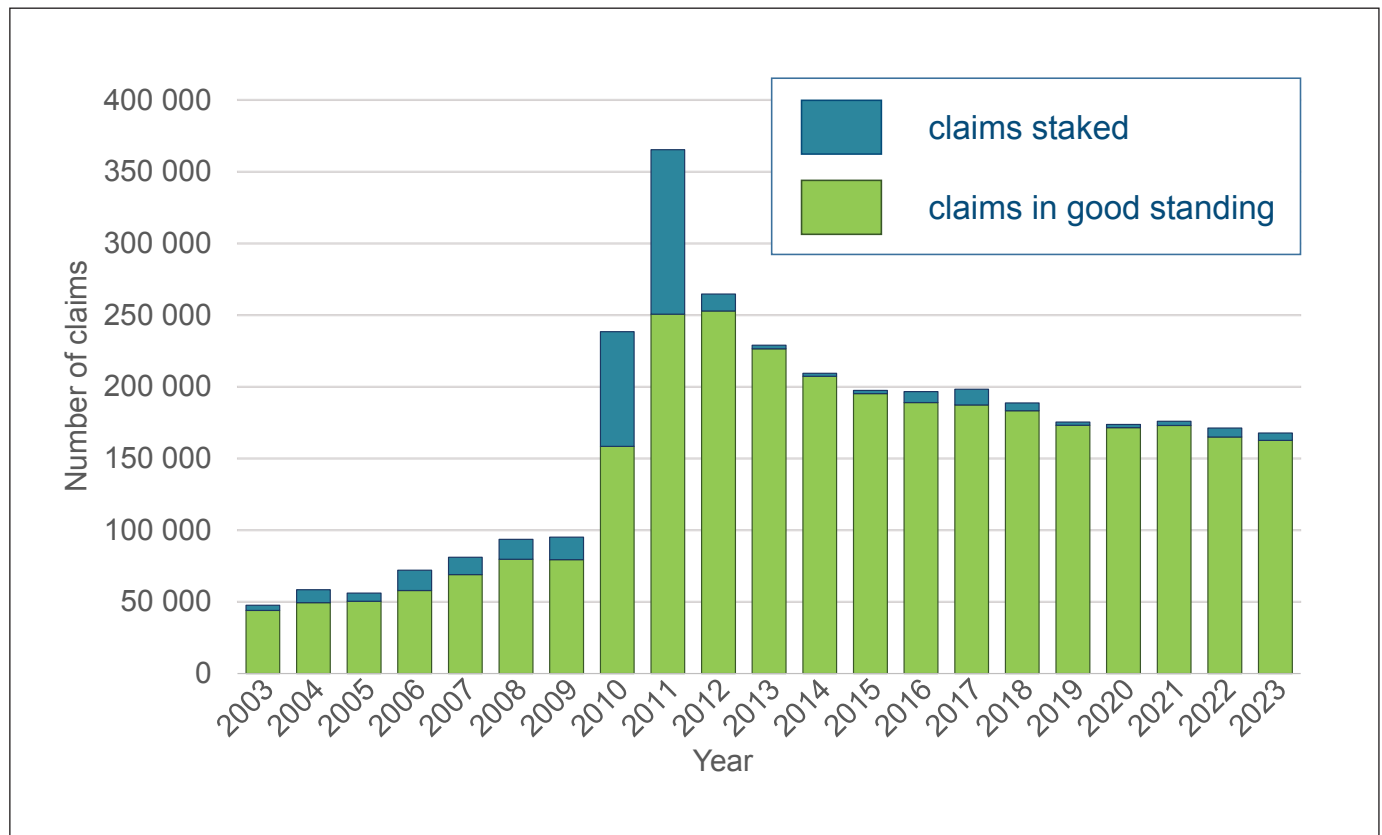


Figure 5. Claim staking activity during 2023 in the Yukon.

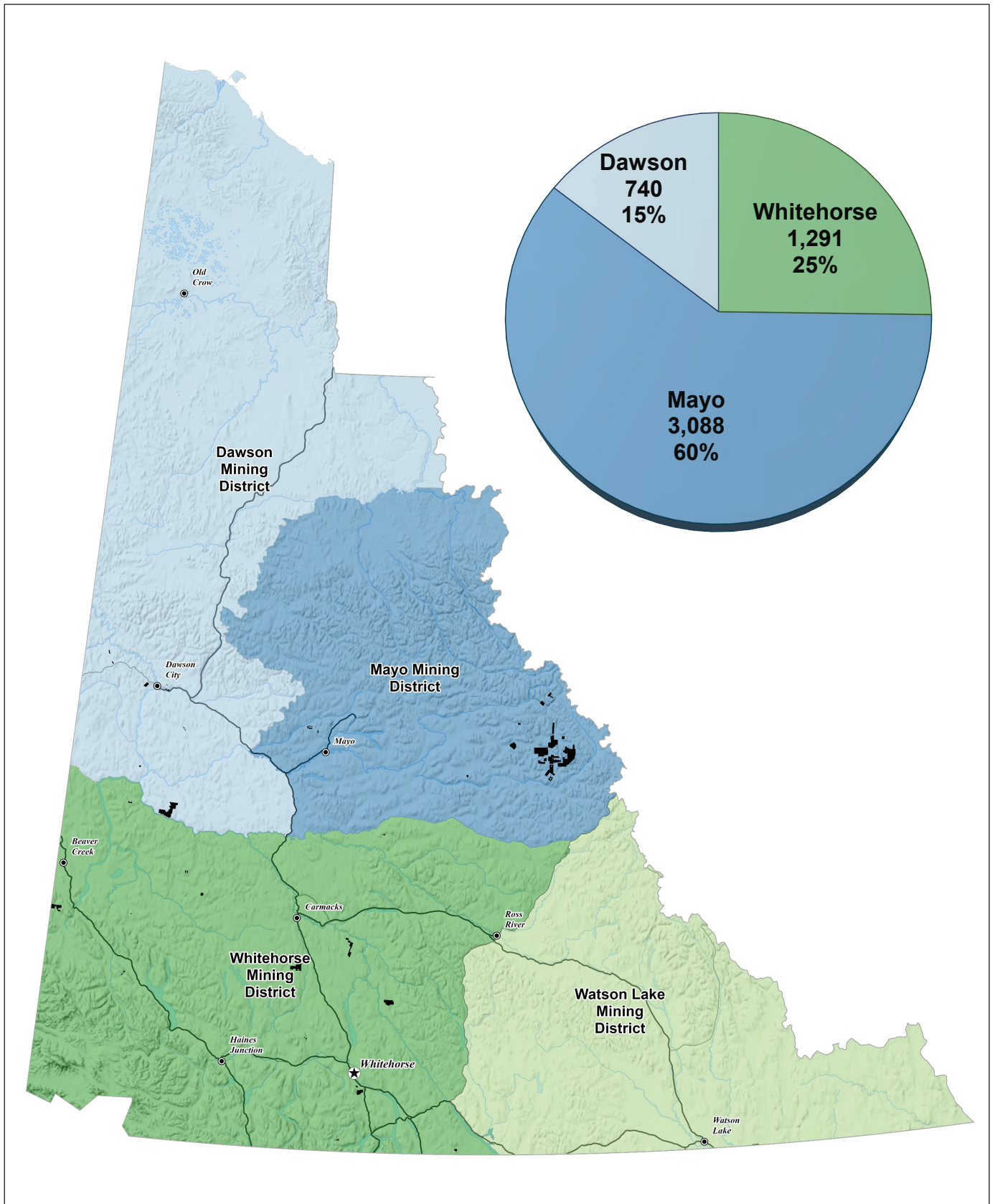


Figure 6. Claim staking activity during 2023 in the Yukon by mining district.

## Mining activity

Victoria Gold Corporation's Eagle Gold mine is completing its fourth year of production. The first gold pour at the mine took place in September 2019 and commercial production began July 1, 2020. The mine produced 124 749 oz Au in the first three quarters of 2023, up 17% compared to 2022. Mine production was impacted in the third quarter by a two-week evacuation due to wildfires in the Mayo region; however, production guidance for year-end remains 160 000 to 180 000 oz of gold (Victoria Gold Corp., 2023a).

Victoria Gold's exploration focus was predominantly at their Raven project east of the Eagle Gold mine, which has an Inferred Mineral Resource of 1 070 239 oz gold (20 Mt at 1.67 g/t Au). Their drill program focused on confirming mineralization along strike of 1.7 km and increasing confidence in the resource. Drilling also identified several high-grade, base-metal vein intercepts that are distinctly different from the gold-bearing massive sulphide veins typically observed at the deposit. Victoria Gold anticipates releasing an updated Mineral Resource for Raven in 2024. In September 2023, the company also acquired Sabre Gold Mines Corporation's 100%-owned Gold Dome and Grew Creek exploration properties as well as the past-producing Brewery Creek mine, which has a Mineral Resource of 1.1 Moz Measured and Indicated and 1.0 Moz Inferred Au (Victoria Gold Corp., 2023b).

Minto Metals Corporation ceased operations at their Minto mine on May 13, 2023 and the mine was placed into court-appointed receivership in late July. As of the end of November 2023, the receiver is in the middle of a sales process, which it aims to complete by March 31, 2024. Site operation and reclamation are currently under the supervision of the Government of Yukon, who is working with Selkirk First Nation to advance reclamation and closure of the site.

Hecla Mining Company acquired Alexco Resource Corporation and the Keno Hill Silver project in September 2022. Hecla re-opened the Keno mill in May 2023, and was working toward full production. Production is focused on their Flame and Moth, and Bermingham deposits. The company produced 900 000 oz Ag during the first three quarters of the year and has a revised production guidance for 2023 of 1.6 to 1.8 Moz Ag (Hecla Mining Company, 2023).

Hecla's exploration program focused on surface and underground resource definition drilling. The surface program consisted of drilling at their Bermingham,

Coral-Wigwam, Hector-Calumet and Silver King targets and their underground program was focused at Bermingham, primarily in the Bear zone.

## Permitting and mine development

Newmont Corporation's Coffee project received a positive recommendation from the Yukon Environmental and Socio-economic Assessment Board (YESAB) in 2022 and submitted an application for a Quartz Mining License in November 2023. The Coffee project has a Mineral Resource (Measured, Indicated and Inferred) of 2.37 Moz Au (58.1 Mt grading 1.43 g/t Au; Newmont Corporation, 2023) and will be a heap-leach operation with a 10-year operation phase and 11-year closure plan. In 2023, the company focused on exploration drilling and drill-testing extensions of their current resource, completing 18 856 m in 216 holes (8406 m reverse circulation (RC); 10 450 m diamond drilling). The company also worked on geological and structural interpretations to better constrain deposit formation at the property and regional scale. Newmont also completed a regional bulk leach extractable gold (BLEG) stream sediment survey spanning a 3000 km<sup>2</sup> area north of the Coffee property.

Western Copper and Gold Corporation's Casino project is one of Canada's largest undeveloped copper-gold deposits. The Casino project received strategic investments by Rio Tinto in 2021 (\$25.6M) and 2023 (\$6M), resulting in Rio Tinto's ownership of approximately 9.7% of Western Copper's outstanding common shares (Western Copper and Gold Corporation, 2023a). The company also received a \$21.3M strategic investment in 2023 by Mitsubishi Materials, who now owns approximately 5% of outstanding common shares (Western Copper and Gold Corporation, 2023b). The 2023 program at Casino consisted of 2200 m of metallurgical and infill drilling in seven holes within the current pit boundaries. Western Copper also completed 800 m of geotechnical and hydrogeological drilling to test ground conditions for proposed mine infrastructure. The company is in the early stages of the assessment process and received a revised environmental and socio-economic effects (ESE) statement guideline from YESAB in September 2023. Casino has indicated that it plans to submit an ESE statement in the second half of 2024 (Western Copper and Gold Corporation, 2023c).

BMC Minerals Limited's Kudze Kayah (KZK) project is a replacement-style volcanogenic massive sulphide (VMS) deposit with total Probable Reserves (open pit and underground) of 15.7 Mt of 0.9% Cu, 1.7% Pb,

5.8% Zn, 1.3 g/t Au and 138 g/t Ag, and an Indicated and Inferred Mineral Resource Estimate of 19.1 Mt grading 6.3% Zn, 1.9% Pb, 0.9% Cu, 148 g/t Ag and 1.49 g/t Au (BMC Minerals Ltd., 2019). The company received a positive decision document from the governments of Yukon and Canada in June 2022, approving the proposed mine to proceed to the regulatory phase, and submitted Type A Water Licence and Quartz Mining Licence applications in September 2022. BMC was active at KZK in 2023, completing induced polarization (IP) and unmanned aerial vehicle magnetic (UAV-MAG) surveys to test potential for mineralization extension at their ABM deposit. Additionally, BMC received a positive Economic Review for the project on October 9, 2023, confirming the robust economics of the proposed ABM mine (BMC Minerals Ltd, 2023a), and acquired 100% ownership of the Kona copper-gold deposit located 20 km south of the proposed ABM mine (BMC Minerals Ltd., 2023b).

## Exploration activities in 2023

Most exploration activities and exploration-related expenditures were in the Mayo Mining District in 2023; this has been a consistent trend during the last couple of years. The Mayo Mining District comprises the Clear Creek, Keno and Mayo regions, as well as most of Selwyn basin northwest of the North Canal Road (Figs. 3, 6). This region hosts a variety of mineralization styles, including reduced intrusion-related gold (RIRG), carbonate replacement, vein and breccia hosted gold, high-grade silver-lead-zinc veins, and sediment-hosted massive sulphide.

## Gold exploration projects

There were 51 active exploration gold projects in the Yukon in 2023. Exploration expenditures related to these projects represented approximately 55% of total expenditures this year (\$80.5M).

Banyan Gold Corporation's AurMac project is interpreted to be a reduced intrusion-related deposit. In May 2023, Banyan released a new pit-constrained Inferred Mineral Resource estimate of approximately 6.2 Moz across their three deposits (Aurex Hill, Powerline and Airstrip; Table 1). Their drill program of 24 700 m was able to connect mineralization between Aurex Hill and Powerline as well as expand mineralization within and proximal to the current Mineral Resource at Aurex Hill and Powerline. Banyan also completed property-wide surface exploration programs at their AurMac and Nitra properties. Highlights from the 2023 drill program

include 39.9 m of 0.60 g/t Au from 61.6 m downhole (AX-23-455), 34.2 m of 0.95 g/t Au from 33.5 m downhole (AX-23-458), 16.1 m of 1.66 g/t Au from 85.8 m downhole (AX-23-458), and 70.0 m of 0.31 g/t Au from 10.0 m downhole (AX-23-460; Banyan Gold Corp., 2023).

Snowline Gold Corporation's Rogue project has generated renewed interest in gold exploration in the Selwyn basin following the Valley discovery in 2021 and a successful drill program in 2022. Rogue is a RIRG target associated with a coarse-grained, mid-Cretaceous granodiorite of the Mayo suite. The company completed 15 917 m in 38 holes at Valley in 2023, testing, expanding and proving continuity of mineralization in three dimensions (Fig. 7). Selected drilling highlights from the program include 553.8 m at 2.48 g/t Au from 2.7 m downhole, including 183.3 m at 4.34 g/t Au (V-23-039); and 383.8 m at 2.47 g/t Au from 6.2 m downhole, including 120.0 m at 4.06 g/t Au (V-23-037; Snowline Gold Corp., 2023a). A NI 43-101 Technical Report for the Rogue property was filed in June 2023, effective May 15, 2023 (Snowline Gold Corp., 2023b). At the time of writing, assay results from 8300 m of drilling at Valley and satellite drill targets were still pending.

Snowline completed additional exploration drilling at their Rogue property on their Gracie (2061 m), LM/Reid (623 m) and Cujo (452 m) targets. They were also active at two of their exploration projects in southwestern Yukon, carrying out prospecting and mapping, as well as maiden drill programs at both their Cliff (1283 m) and Tosh (1716 m) projects. At the Cliff project, selected

**Table 1.** Banyan Gold's Mineral Resource Estimate, effective May 18, 2023

Deposit	Au cut-off (g/t)	Tonnage (Mt)	Average Au grade (g/t)	Contained Au (koz)
Airstrip	0.25	41.2	0.68	897
Powerline	0.25	197.4	0.61	3840
Aurex Hill	0.30	74.3	0.60	1444
Average grade and cut off	0.25–0.30		0.61	
Total combined		312.9		6181

highlights from assays received from three of five drill holes at the time of writing include 3.0 m at 1.42 g/t Au including 1.5 m at 2.04 g/t Au (CL-23-001) and 6.0 m at 0.94 g/t Au, 1.5 m at 4.58 g/t Au, and 1.8 m at 6.64 g/t Au (CL-23-003; Snowline Gold Corp., 2023c). At the Tosh project, assay results from two of the six drill holes had been received at the time of writing; selected highlights include localized elevated Au (0.10–0.45 g/t) and lenses of semi-massive sulphides returning 9.50 to 48.4 g/t Ag, 0.02 to 0.27% Cu and >1% Zn (Snowline Gold Corp., 2023d).



**Figure 7.** Moderate to high-density, quartz-sulphide sheeted veins at Snowline Gold’s Rogue property Valley target as seen in drillhole V-23-034 from 158.7 to 194.5 m; average grade of this section is 4.32 g/t Au (Snowline Gold Corp., 2023e).

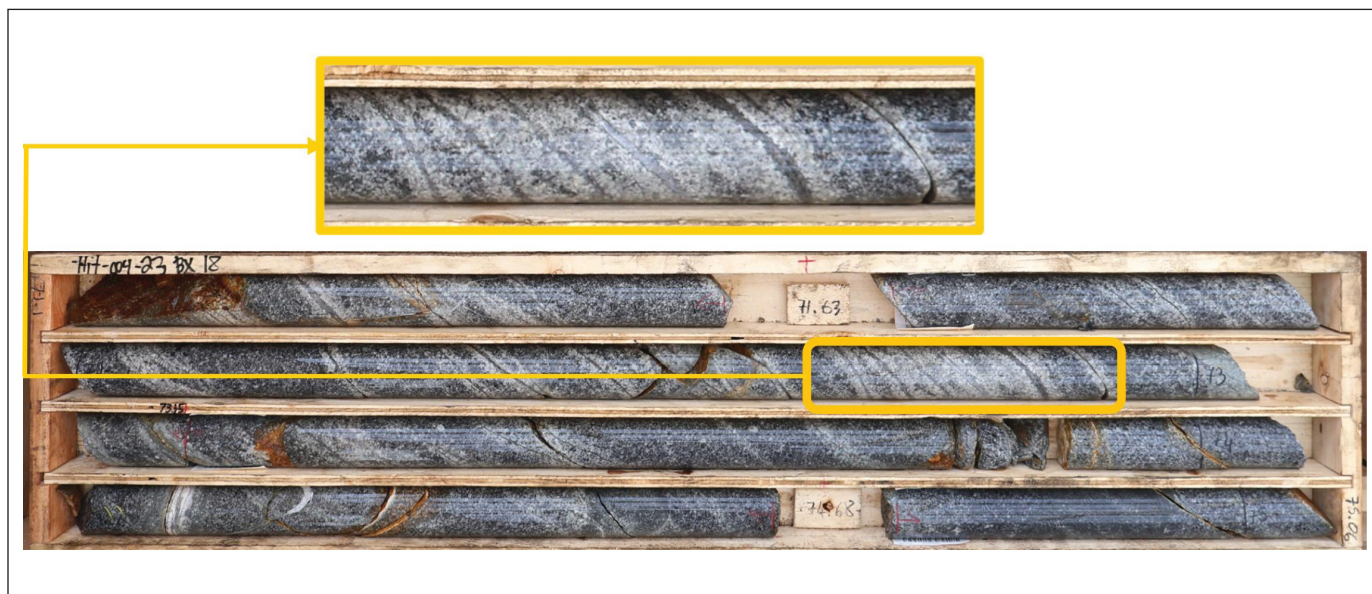
On January 19, 2023, Sitka Gold Corporation released a maiden Mineral Resource Estimate of 1.34 Moz Au at their Blackjack and Eiger deposits (Table 2). Their 2023 program comprised 6515 m of drilling in 16 holes, and focused on stepping out at Blackjack to test the margins of their current resource. They also completed a maiden drill program and property-scale airborne magnetics and lidar at their Josephine target. Highlights from one of their best drillholes to date are 219.0 m of 1.34 g/t Au from 190.0 m downhole, including 124.8 m of 2.01 g/t Au from 233.0 m downhole; and 55.0 m of 3.11 g/t Au from 276.0 m downhole, including 14.0 m of 5.53 g/t Au from 311.0 m downhole (DDRCCC-23-047; Sitka Gold Corp., 2023).

Additional RIRG targets are Rackla Metals Incorporated’s HIT and SER properties in the eastern Selwyn basin, associated with mid-Cretaceous Tungsten suite intrusions. The company optioned the claims in late 2022 to early 2023 and completed their first field season on both properties in 2023. At HIT, mapping identified sheeted quartz-sulphide veins over a 2.2 by 1.2 km area, and soil and talus sampling defined a gold-bismuth-arsenic anomaly over a 1.5 by 1.0 km area. The latter area guided a maiden drill program consisting of five drillholes (997.5 m); two out of five holes encountered millimetre-scale sheeted quartz-sulphide veins with wide sericitic alteration halos (Fig. 8). Highlights from the drill program include 129.8 m grading 0.248 g/t Au (HIT-003) and 45.5 m grading 0.516 g/t Au (HIT-004; Rackla Metals Inc., 2023a).

Onyx Gold Corporation was spun out of HighGold Mining in May 2023 and spent the 2023 field season at their King Tut property testing the RIRG potential of Main Tut and Golden Mask. The company initially completed property-wide lidar, drone magnetic surveys,

**Table 2.** Mineral Resource Estimate for Sitka Gold’s RC Gold property.

Deposit	Au cut-off (g/t)	Tonnage (Mt)	Average Au grade (g/t)	Contained Au (koz)
Blackjack	0.25	33 743	0.83	900
Eiger	0.25	27 362	0.50	440
Average grade and cut-off	0.25		0.68	
Total combined		61 105		1340



**Figure 8.** Sheeted quartz-sulphide veins with wide sericitic halos from drillhole HIT-004 at Rackla Metal's HIT property; close-up photograph is from the inset outlined in yellow (Rackla Metals Inc., 2023b).

soil surveys, mapping and prospecting. Following their surface programs, Onyx Gold completed a maiden drill program of 2123 m on Golden Mask and Main Tut. Selected drilling highlights include 0.13 g/t Au over 187.0 m, including 0.36 g/t Au over 21.0 m and 2.93 g/t Au over 1.0 m (KT23-002), and 0.30 g/t Au over 32.5 m including 0.56 g/t Au over 8.0 m (KT23-005; Onyx Gold Corp., 2023).

Honey Badger Silver Incorporated completed fieldwork at their Plata project, a past-producing silver-zinc-lead mine west of Snowline Gold that produced 290 000 oz Ag during operations between 1983 and 1984. Previous exploration focused on narrow, structurally controlled silver-zinc-lead veins similar to those in the Keno Hill district. The 2023 field program assessed RIRG potential at the property through prospecting, mapping and soil sampling.

In April 2023, White Gold Corporation released an updated Mineral Resource Estimate for their Golden Saddle, Arc, Ryan's Surprise and QV deposits. The resource contains 1.15 Moz Au (15.5 Mt at 2.28 g/t Au) Indicated and 0.94 Moz Au (19 Mt at 1.54 g/t Au) Inferred. White Gold completed two drill programs in 2023: one at the Vertigo target on their JP Ross property (five holes totalling 1022 m) and the other at Betty Ford (four holes totalling 1165 m). The Betty Ford target is a complex, multi-phase, polyolithic breccia system where mineralization observed to date is vein controlled as well as hosted in the matrix and breccia clasts. Select drill highlights from BETFD23D015 include 5.04 g/t

Au over 20.85 m from a depth of 18.65 m, including 13.34 g/t Au over 2.3 m and 11.47 g/t Au over 2.05 m, and 0.44 g/t Au over 28.55 m from a depth of 107.85 m, including 1.38 g/t Au over 6.15 m (White Gold Corp., 2023).

Klondike Gold Corporation continued to explore at their Klondike District property, completing 25 drillholes totalling 2340 m at Gold Run, Gay Gulch and eastern Stander. Highlights from the drill program include 4.39 g/t Au over 6.95 m (EC23-501) and 14.08 g/t Au over 1.10 m (EC23-502; Klondike Gold Corp., 2023). Surface programs included detailed mapping focused on identifying structural controls on emplacement of gold mineralization and rock sampling. The company has partnered with several universities to help characterize controls on mineralization in the district.

Farther south in the Dawson Range, K2 Gold Corporation was active at their Wels project, where they completed a 12-hole RC drill program totalling 1961 m at their Saddle (North, South, West), Chair and Pekoe targets. Drilling identified eight high-angle stacked mineralized structures within a corridor more than 400 m wide at their Saddle zone. Selected drilling highlights include 34.7 g/t Au over 1.52 m from 82.3 m downhole (WRC23-0006) and 1.60 g/t Au over 21.34 m from 3.05 m downhole, including 3.22 g/t Au over 9.14 m (WRC23-005; K2 Gold Corporation, 2023).

In southeastern Yukon, Seabridge Gold Incorporated focused exploration at 3 Aces on their Spades, Hearts,

Hearts West and Clubs targets in 2023. The drill program totalled 7500 m and tested a new exploration model for Hearts to better understand the structural controls and extent of mineralization. Results from the 2023 drill program were pending at the time of writing.

Strategic Metals Limited was active at several of their properties across the Yukon. Of note, Strategic completed small programs at their Byng, Lance and Mint projects. Byng is located 50 km northeast of Whitehorse and is interpreted as a low to intermediate-sulphidation epithermal gold target. A two-week field program comprising mapping and prospecting was completed; highlights include identification of a vein 1 to 3 m wide along a north-trending structure that returned 4.15 g/t Au and 29.5 g/t Ag. The Lance property is a RIRG target in the Selwyn basin. The company mapped, prospected and silt sampled within, and adjacent to, a mid-Cretaceous intrusion. Fieldwork identified sheeted quartz-arsenopyrite-pyrite veins with vein densities ranging from 2 to 11 veins per metre in outcrop. The Mint target in southwestern Yukon is a gold-copper porphyry target. Strategic drilled 1000 m in two drillholes testing mineralization at their Upper Canyon zone; results have not been made public yet. Drilling in 2023 followed up on encouraging drill results from 2012.

### Copper exploration projects

In 2023, there were 14 active copper exploration projects. These projects accounted for 9% (\$13.2M) of total exploration expenditures.

Cascadia Minerals Limited was spun out from ATAC Resource Limited in 2023 after Hecla acquired ATAC in July 2023. Cascadia was active at their Catch property where they were targeting porphyry-style mineralization hosted in Late Triassic basalt of Stikinia. Cascadia's field program comprised surface sampling, IP, ZTEM and aeromagnetic surveys to define drill targets, followed by a maiden drill program of five holes on the Diorite and Main zones. The company completed almost 2500 m of drilling: two holes, totalling 1066 m, at their Diorite zone and three holes, totalling 1400 m, at their Main zone. Drilling tested chargeability and magnetic anomalies coincident with mineralization at surface (Fig. 9). As of November 2023, results had been received from two of five holes and selected highlights include 116.60 m of 0.31% Cu and 0.30 g/t Au from 356.0 m within a broader, 435.0-m interval of 0.16% Cu and 0.09 g/t Au in CA-23-002 (Cascadia Minerals Ltd., 2023). Results from the remainder of the drill program are pending.

The Whitehorse Copper Belt is an advanced-stage exploration project that covers a number of copper ± molybdenum ± silver ± gold skarn targets and had past-producing mines that were in operation between 1967 and 1982. Gladiator Metals Corporation optioned the project in November 2022. In 2023, the company worked on regional mapping, chip sampling and drone aeromagnetic surveys as well as collating and digitizing all historical drilling results. The company also drilled 6632 m at the Cowley Park target in two phases: a 2632-m program in the spring and a 4000-m program in September. Highlights from their first phase of drilling include 13 m at 1.44% Cu and 0.15% Mo from 28 m downhole, and 33 m at 1.48% Cu from 71 m downhole within a broader interval of 113 m at 0.79% Cu (CPG-002; Gladiator Metals Corp., 2023). Results from the fall drill program were pending at the time of writing.

Triumph Gold Corporation received 2023 YMEP funding and was active at their Tad Toro and Big Creek properties. Work at Tad Toro comprised digital compilation of historical data, soil sampling, mapping and historical drillhole sampling. This work identified several broad multi-element soil anomalies, new geochemical anomalies at their Tad East zone, and porphyry-related alteration via hyperspectral analysis in historical drill core. At Big Creek, Triumph extended the multi-element soil geochemical anomaly in the Main zone to an area of 3 by 1 km.

The Alotta project in the Dawson Range is located approximately 40 km southeast of Casino and was recently optioned from Strategic Metals Limited to Benjamin Hill Mining Corporation in 2023. The company completed an IP survey and followed up with a maiden drill program to test chargeability anomalies coincident with copper and gold-in-soils. The 844-m drill program started November 8 and wrapped up November 28, 2023; results are pending.

Granite Creek Copper Limited was active at their Carmacks Copper project, completing a small YMEP-supported surface sampling program on the northern extent of their property. The company also filed a NI 43-101 Technical Report on January 19, 2023, as part of the project's Preliminary Economic Assessment and completed metallurgical work that aims to optimize copper oxide recoveries during mining (Granite Creek Copper Ltd., 2023).

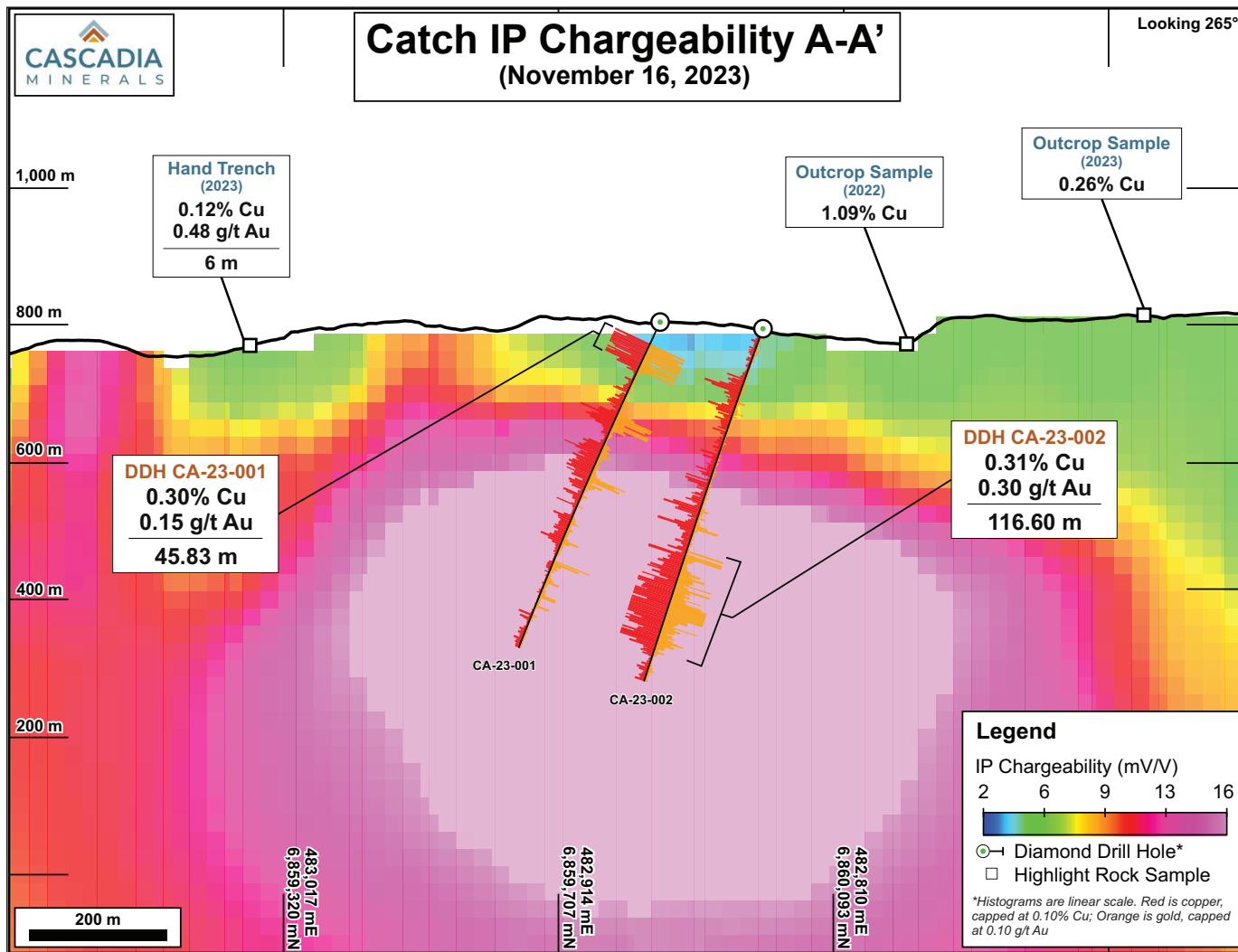


Figure 9. Cross section showing IP chargeability, drill collar locations, assay results and surface sample highlights from Cascadia Minerals Diorite Zone (Cascadia Minerals Ltd., 2023).

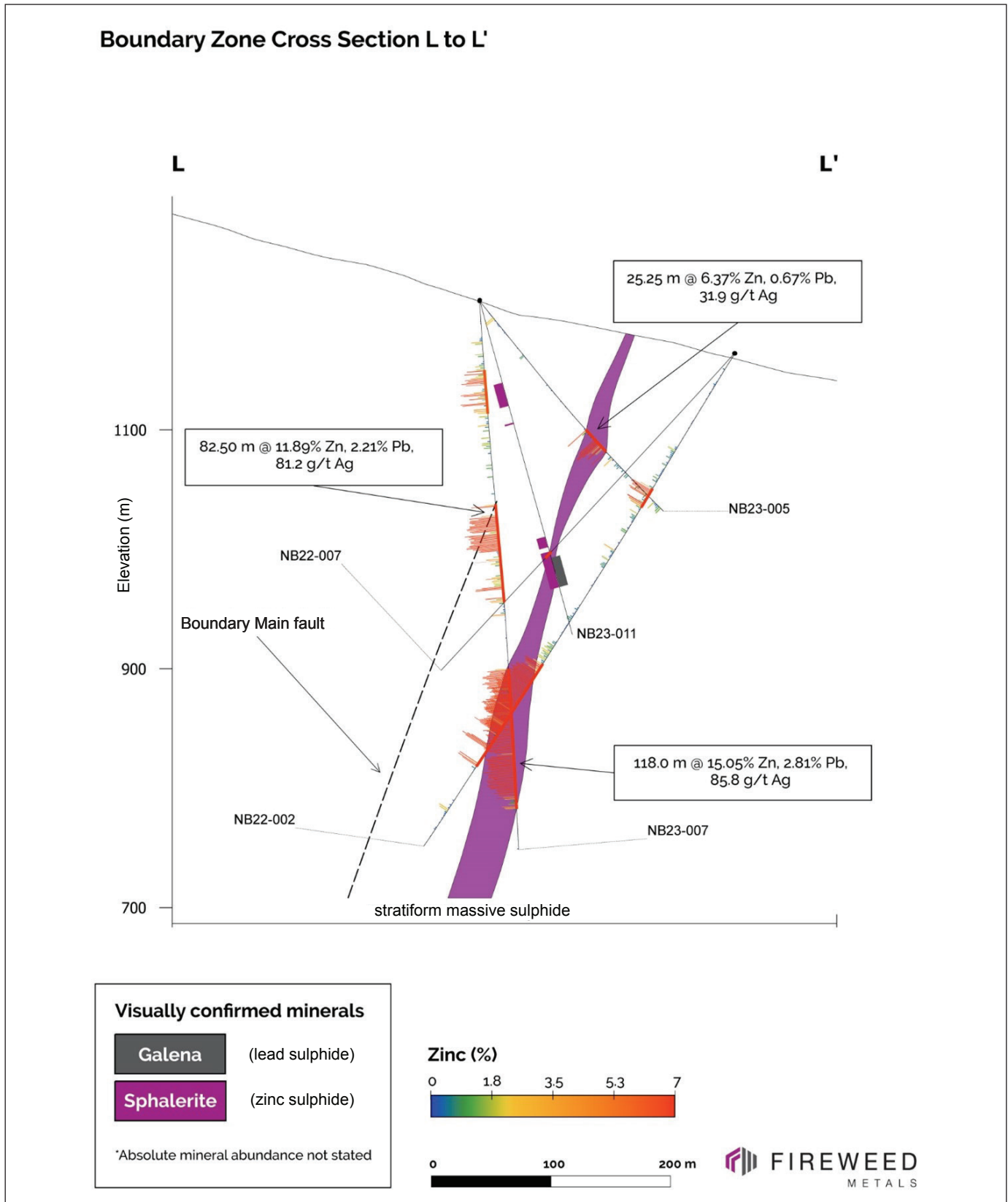
### Silver, lead-zinc and tungsten exploration projects

There were 13 active silver and lead-zinc projects and 1 tungsten project in 2023. This accounted for approximately \$52.1M in expenditures or 35% of total exploration spending in the territory.

Fireweed Metals Limited completed their largest field season ever at Macmillan Pass in 2023. Their program comprised 21 000 m in 57 holes, primarily focused at the Boundary zone as well as at the Tom and Jason deposits. Drilling aimed to expand the footprints of all known deposits and was able to connect mineralization in a high-grade feeder zone that linked their Boundary Main and Boundary West targets. Selected drill program highlights include 118 m grading 15.1% Zn, 2.8% Pb and 85.8 g/t Ag (NB23-007), including

77.07 m grading 18.7% Zn, 3.5% Pb and 101.4 g/t Ag (Fig. 10; Fireweed Metals Corp., 2023a). The company also completed a short field program to assess RIRG potential at MacMillan Pass and built an additional 48-person camp at the property, doubling their camp capacity. The company anticipates releasing an updated Mineral Resource Estimate in 2024.

In June 2022, Fireweed purchased the Mactung project, a tungsten skarn deposit associated with a mid-Cretaceous granitic intrusion(s) in eastern Yukon. The deposit straddles the border between Yukon and Northwest Territories and is one of the largest high-grade tungsten resources in the world (Fireweed Metals Corp., 2023b). In 2023, Fireweed released an updated Mineral Resource Estimate using historical drilling of 41.5 Mt of 0.73% WO<sub>3</sub> (Indicated) and 12.2 Mt of 0.59%



**Figure 10.** Cross section of Fireweed Metal’s Boundary zone showing drillhole NB23-007, which targets a high-grade feeder zone and intersects broad intervals of massive sulphides (Fireweed Metals Corp., 2023a).

WO<sub>3</sub> (Inferred). The company completed 1500 m of drilling in 2023, including a metallurgical program to validate the Resource and optimize recovery, as well as environmental work and permafrost mapping.

Metallic Minerals Corporation was active at their Keno Silver project, which spans several different targets in the Keno Hill Silver District, including two small-scale, past-producing mines, and Caribou. In 2023, the company completed four drill holes at their Formo target focused on resource expansion, and they plan on releasing a maiden bulk-tonnage Mineral Resource Estimate for their Formo, Caribou, Homestake and Fox targets in early 2024.

The Pike Warden project is an epithermal-porphyry target south of the past-producing Mount Skukum mine. This project is currently under option by Transition Metals Corporation who received YMEP funding in 2022 and 2023. The 2023 exploration program was completed in two phases. The first phase involved lidar, orthophotography, multispectral satellite alteration mapping, and surface sampling programs, which were completed to identify new target areas. The second phase was a prospecting program that followed up on first phase exploration targets. Highlights from the program include 7 new showings, bringing the total number of showings to 25. The previously defined mineralization footprint was expanded at the ERT zone and two new occurrences of molybdenite were identified. Grab sample highlights include assays of up to 954, 832 and 347 g/t Ag (Transition Metals Corp., 2023).

Lastly, Cantex Mine Development Corporation announced on October 25 that they were starting a drill program at their North Rackla project. At the time of writing, results from this project were pending.

### Nickel-PGE exploration projects

There were three active Nickel-PGE projects in southwest Yukon in 2023—Nickel Shāw, Catalyst North and Canalask—accounting for \$900K or 1% of exploration spending in the territory. Nickel Creek Platinum Corporation did not carry out any fieldwork at Nickel Shāw in 2023; however, the company updated their Mineral Resource in April and filed a Pre-Feasibility Study Technical Report September 20, 2023 (Nickel Creek Platinum Corp., 2023). Their new resource, 1.12M tonnes (2.47 Blbs) of contained nickel grading 0.26% Ni, 0.13% Cu, 0.014% Co, 0.23 g/t Pd, 0.22 g/t

Pt and 0.04 g/t Au Measured and Indicated, increases Measured tonnage by 31% and Indicated tonnage by 37%.

At Catalyst North, Stillwater Critical Minerals Corporation completed a field program comprising mapping, drone lidar and imagery acquisition, and prospecting. Stillwater is also examining the potential for carbon capture by identifying and mapping rocks for their potential to sequester carbon based on using existing data sources, remote sensing and imagery.

Palladium One Mining Incorporated completed a small airborne versatile time domain electromagnetic (VTEM™) survey at their Canalask project.

## Yukon Mineral Exploration Program

The Yukon Mineral Exploration Program (YMEP) is a Government of Yukon-funded program designed to support early-stage exploration by individual prospectors, partnerships and companies. The funding supports placer and hardrock exploration projects by reimbursing a percentage of approved exploration expenditures. The program comprises four modules of varying reimbursement rates and funding limits: the Grassroots, Focused Regional and Target Evaluation modules apply to hardrock projects, and placer projects can receive funding from the Placer module. Applications for funding and submission of project proposals are due March 31 of each year. Detailed information on project modules, eligibility and levels of funding can be found in the YMEP guidebooks at <https://yukon.ca/en/mineral-exploration-funding>.

### YMEP 2023

The total amount of YMEP funding available for the 2023–24 season was \$1.4M. The program was oversubscribed and 57 applicants sought more than \$1.9M. The breakdown of applications is shown in Table 3 and the geographic distribution of funded projects is shown in Figure 11. As of December 1, 2023, 43 applicants had funding agreements in place for the 2023–24 fiscal year: 26 (60%) hardrock and 17 (40%) placer (Table 3). An estimated \$3.7M was spent on all YMEP-supported projects, \$2.3M from industry and \$1.4M from YMEP. Hardrock projects accounted for \$2.0M of all program spending: \$1.2M from industry and \$800K from YMEP. Placer projects accounted for \$1.7M: \$1.1M from industry and \$600K from YMEP.

**Table 3.** YMEP 2023 application and funded project numbers.

Type	Module	Total applicants	Total approved
Hardrock	grassroots	2	1
Hardrock	focused regional	8	8
Hardrock	target evaluation	23	17
Placer	target evaluation	24	17
<b>Total</b>		<b>57</b>	<b>43</b>

In 2023, YGS modified the YMEP evaluation criteria for hardrock applications to encourage exploration for critical mineral targets. Up to 10% of the total score was assigned to applications targeting critical minerals; 5% was assigned for projects that included critical minerals as a secondary target. In 2023, 27 hardrock projects included at least one critical mineral as a target, including 3 projects that focused exclusively on critical minerals.

### Impacts of YMEP

The intent of the YMEP program is to support early-stage projects and stimulate new mineral discoveries in the Yukon. Several indicators can be used to measure the success of the program, including local economic benefits, dollars leveraged, new discoveries, and option agreements. The economic benefits of the program not only include the potential for same-year discoveries and long-term investment, but also short-term local spending in the territory. In 2021, YGS began collecting data from YMEP recipients to quantify the local economic impact of the program. Feedback received from 2022 YMEP recipients shows that 83% of total project expenditures stayed in the Yukon (Fig. 12).

### YMEP 2023 project spotlights and discoveries

Projects that result in new discoveries or significant advancement of a target can lead to further investment in mineral exploration in the Yukon. Every year several YMEP-funded projects stand out and demonstrate exceptional initial results. Some projects raise additional funding on equity markets to conduct further work during the same field season; others enter into property option agreements. New discoveries can fuel property and district-scale exploration, and some progress to

advanced stages of exploration. This section highlights one project from each of the four YMEP modules that returned exciting results in 2023, as well as a project that has seen ongoing YMEP investment for a few years and continues to yield promising results.

#### **Grassroots module: Bonavista project**

Prospector Chris Arsenault conducted a two-man, five-day work program near the confluence of Pirate Creek and the Tatshenshini River in southwestern Yukon. Several boulders of vein quartz up to 1 m across were found near an outcrop. These boulders, interpreted to be near source, yielded assays up to 2480 ppm Cu and 7.6 ppm Ag. Mineralized veins and a brecciated fault zone found in outcrop 200 m away assayed up to 1045 ppm Cu and 0.5 ppm Ag within a zone of massive epidote and sericite alteration. Both showings occur in granodiorite and quartz diorite of the Triassic Mount Beaton batholith. Arsenault staked two claims covering these showings.

#### **Focused regional module: Fyfe Lake project**

Prospector Ryan Burke worked his Fyfe Lake (MIL) property in 2023, discovering new epithermal veins, felsic volcanic rocks of unknown age, and significant structures immediately south of Fyfe Lake in south-central Yukon. The property was staked in 2022, and work in 2023 consisted of expanding and infilling soil sample grids plus prospecting, stream sediment sampling, and geological mapping. Burke found pervasive steam-heated alteration, strong oxidation, and brecciation of intermediate to felsic volcanic rocks (Fig. 13) coincident with Hg-As-Sb soil anomalies. He also observed coincident quartz-dickite-kaolinite alteration, and vuggy, latticed textures in outcrop, which suggest that a buried epithermal system may be nearby.

#### **Target evaluation module: Nitra project**

In addition to further drilling of the Airstrip, Powerline and Aurex Hill deposits at their AurMac property, Banyan Gold Corporation acquired YMEP funding to explore their adjacent Nitra property. The Nitra property is underlain by Neoproterozoic metasedimentary rocks of the Hyland Group intruded by mid-Cretaceous plutons of the Mayo suite. Situated between the AurMac property (6.2 Moz Au) and the producing Eagle gold mine (5.4 Moz Au), Nitra has good potential for RIRG. Banyan collected more than 4500 soil samples and had two prospectors following up on previous soil anomalies collecting 52 rock samples for assay; results are pending.

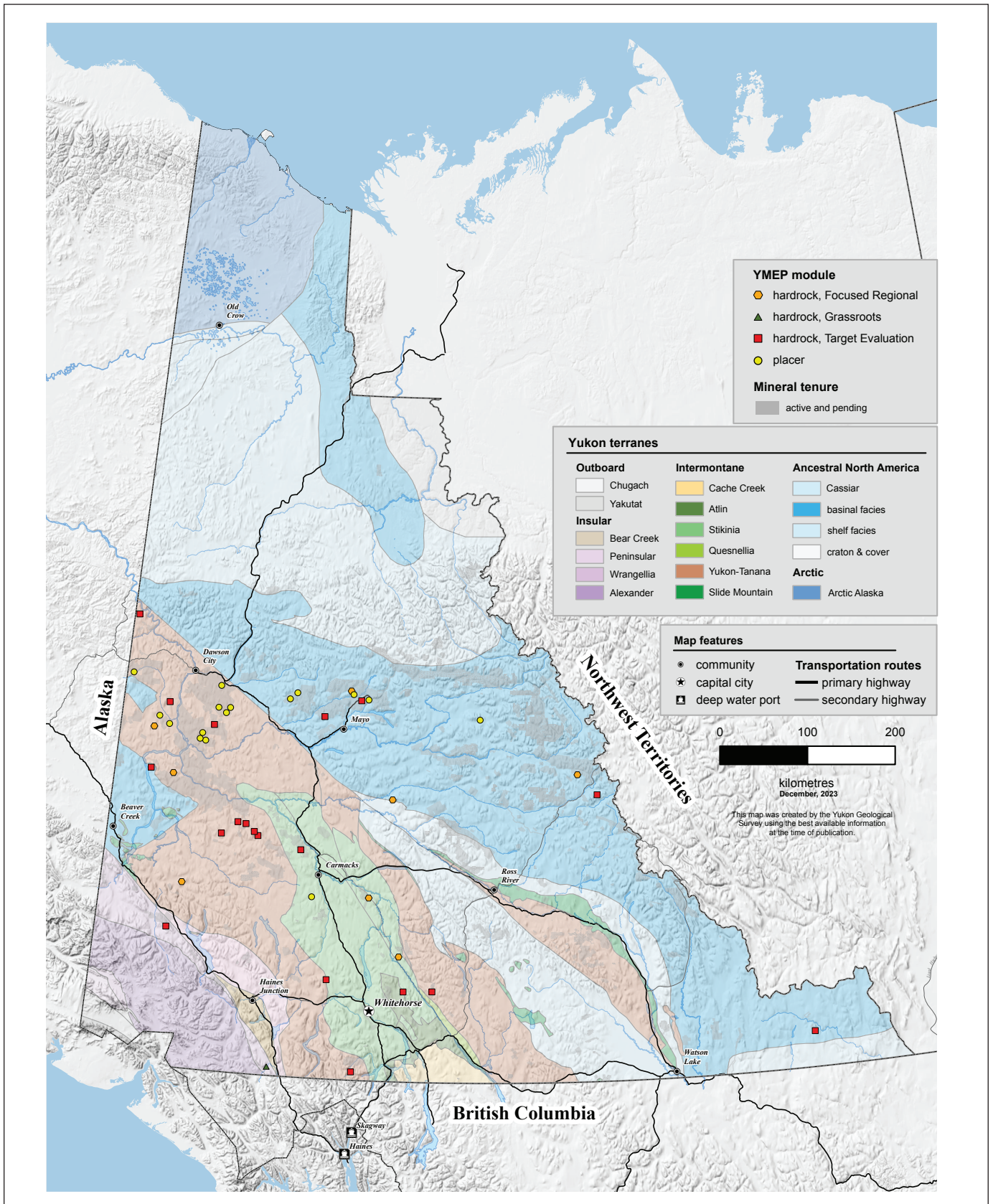


Figure 11. The 43 projects funded by YMEP during 2023–24 are located throughout southern Yukon.

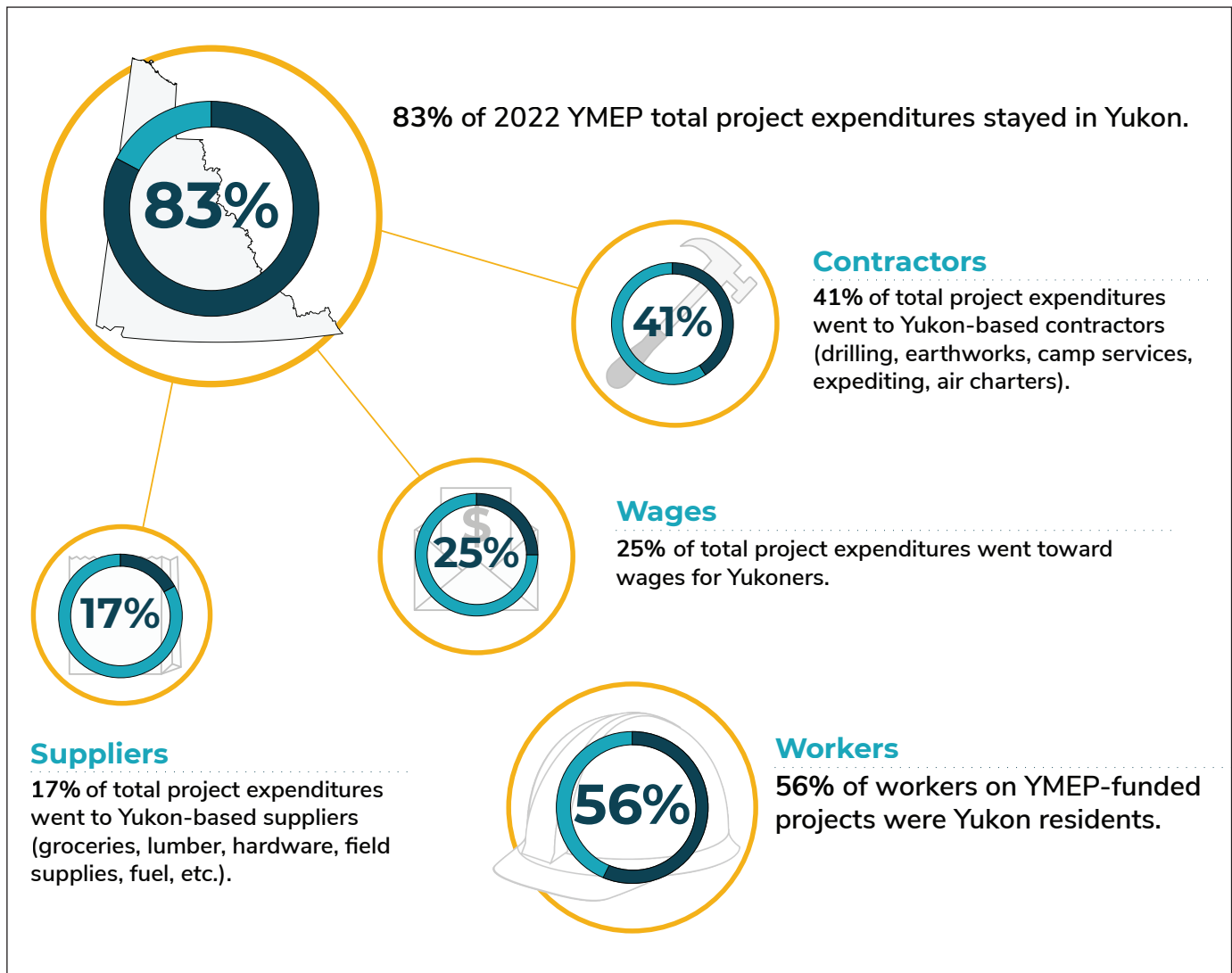


Figure 12. Breakdown of where YMEP-supported projects spent their money in 2022.

**Placer module: Veronica bench project**

Placer miner Jim Christie, owner and operator of Gimlex Entrprises Ltd., carried out test pitting on a left-limit White Channel bench deposit in the Dominion Creek valley at the confluence of Rob Roy and Veronica creeks using a Komatsu PC60 excavator. Exploration was focused along the edge of the bench, where the White Channel unit is thinnest and can be more easily prospected. Placer exploration success on this target could open up a significant amount of elevated bench ground in the lower Dominion Creek valley and is an example of the importance of exploration, even in locations with a high density of activity. To test the Veronica bench target, Christie processed three separate 1 yd<sup>3</sup> samples with a long tom and recovered appreciable gold. Results from the exposed stratigraphy in the test pits warrant additional investigation because

the coarse diamicton in the pits is a new unit not previously known in the Dominion Creek valley.

**Catch project: ongoing success**

The Catch project is in Stikinia in south-central Yukon, 56 km southeast of Carmacks. This under-explored region is prospective for Cu + Au ± Mo porphyry deposits. Catch was staked by prospector Ryan Burke in 2020, who carried out exploration work with support from a YMEP grant. In early 2022, Burke optioned the property to ATAC Resources, which spun out the Catch property as part of Cascadia Minerals Ltd. Cascadia’s 2023 program built on Burke’s work and saw the first diamond drilling on the property. The first two holes were in the Diorite zone and returned consistent low-grade Cu over long intersections including 116.6 m



**Figure 13.** Grab sample of silicified volcanic rock that assayed 640 ppm As and 124 ppm Sb.

of 0.31% Cu and 0.30 g/t Au from 356 m downhole, within a broader interval of 435 m of 0.16% Cu and 0.09 g/t Au (Cascadia Minerals Ltd., 2023). Cascadia reported spending \$2.5M on this project in 2023, which demonstrates how YMEP-supported discoveries continue to generate value.

## Summary

Although there were many challenges in 2023 related to tough financial markets, wildfires and mine closures, the Yukon mining and exploration industry has continued to stabilize following the COVID-19 pandemic. A notable increase in exploration expenditures this year (up 18% compared to 2022) is a positive sign for exploration in the territory as companies continue to make new discoveries and advance their projects. The Yukon Geological Survey estimates that development expenditures and hardrock production revenue values will decline by 10% and 9% respectively in 2023, but anticipates them rebounding in 2024 pending the sale of Minto mine, continued increased production at the Eagle Gold mine, and the achievement of full production at the Keno Hill Silver mine.

A wave of renewed interest in RIRG exploration in the Selwyn basin resulted in significant drill intercepts and exploration results, including at Snowline Gold's Rogue project, Sitka Gold's RC project and Banyan Gold's AurMac project. Several companies that were previously

active in Selwyn basin returned to explore their claims for RIRG deposits. Fireweed Metals completed their largest drill program to date and continued to make new discoveries and expand their orebodies. Many company's drill results were not released at the time of writing; the reader is encouraged to visit company websites for up-to-date exploration program results.

The YMEP continues to be well received by the Yukon exploration sector and has demonstrated significant benefits to the local economy over the years. The 2023–24 program funded 43 projects and the \$1.4M government investment is expected to leverage an additional \$2.3M in private funding for a total of \$3.7M contributed to the Yukon economy. In addition to this immediate benefit, several projects yielded new discoveries that are likely to spur additional claim staking and exploration generating economic benefits well into the future.

## References

- Banyan Gold Corp., 2023. Banyan intersects 1.66 g/t gold over 16 metres, Powerline deposit, AurMac project, Yukon, Canada. News release, September 6, 2023, <https://banyangold.com/news-releases/2023/banyan-intersects-1.66-g-t-gold-over-16-metres-powerline-deposit-aurmac-project-yukon-canada/>, [accessed December 1, 2023].
- BMC Minerals Ltd., 2019. BMC Minerals files NI 43-101 Technical Report on its Kudz Ze Kayah project Feasibility Study. News release, August 27, 2019, <https://bmcm minerals.com/news/27-aug-2019-bmc-minerals-files-ni-43-101-technical-report-on-its-kudz-ze-kayah-project-feasibility-study/>, [accessed December 1, 2023].
- BMC Minerals Ltd., 2023a. Kudz Ze Kayah project ABM mine Economic Review confirms robust project economics. News release, October 9, 2023, <https://bmcm minerals.com/news/9th-october-2023-kudz-ze-kayah-project-abm-mine-economic-review-confirms-robust-project-economics/>, [accessed December 1, 2023].
- BMC Minerals Ltd., 2023b. BMC acquires the Kona copper deposit in Yukon, Canada. News release, May 1, 2023, <https://bmcm minerals.com/news/1-may-2023-bmc-acquires-the-kona-copper-deposit-in-yukon-canada/>, [accessed December 1, 2023].

- Cascadia Minerals Ltd., 2023. Cascadia makes new copper-gold porphyry discovery with 116.60 m of 0.31% copper and 0.30 g/t gold at Catch property, Yukon. News release, November 16, 2023, <https://cascadiaminerals.com/cascadia-makes-new-copper-gold-porphyry-discovery-with-116-60-m-of-0-31-copper-and-0-30-g-t-gold-at-catch-property-yukon/>, [accessed December 1, 2023].
- Fireweed Metals Corp., 2023a. Fireweed intersects 118.0 m of 15.1% zinc, 2.8% lead, and 85.8 g/t silver and also 82.5 m of 11.9% zinc, 2.2% lead and 81.2 g/t silver: multiple zones of high-grade mineralization in single drillhole. News release, August 22, 2023, <https://fireweedmetals.com/fireweed-intersects-118-0-m-of-15-1-zinc-2-8-lead-and-85-8-g-t-silver-and-also-82-5-m-of-11-9-zinc-2-2-lead-and-81-2-g-t-silver-multiple-zones-of-high-grade-mineralization-in-single-drillhole/>, [accessed December 1, 2023].
- Fireweed Metals Corp., 2023b. Fireweed Metals announces mineral resources for the Mactung project: the largest high-grade tungsten deposit in the world\*. News release, June 13, 2023, <https://fireweedmetals.com/fireweed-metals-announces-mineral-resources-for-the-mactung-project-the-largest-high-grade-tungsten-deposit-in-the-world/>, [accessed December 1, 2023].
- Gladiator Metals Corp., 2023. Gladiator Metals announces results of maiden drill program at Cowley Park copper prospect. News release, July 24, 2023, [https://assets-global.website-files.com/62b419aec8a443ce2b29ffbe/64be235ed1506c0064710a42\\_Gladiator%20-%20NR-%20WHC-Exploration%20Update%20FINAL.pdf](https://assets-global.website-files.com/62b419aec8a443ce2b29ffbe/64be235ed1506c0064710a42_Gladiator%20-%20NR-%20WHC-Exploration%20Update%20FINAL.pdf), [accessed December 1, 2023].
- Granite Creek Copper Ltd., 2023. Granite Creek Copper announces positive PEA with net present value of \$324M on Carmacks copper-gold project in Yukon, Canada. News release, January 19, 2023, <https://gxcopper.com/news/2023/granite-creek-copper-announces-positive-pea-with-net-present-value-of-324m-on-carmacks-copper-gold-project-in-yukon-canada/>, [accessed December 1, 2023].
- Hecla Mining Company, 2023. Hecla reports third quarter 2023 results. News release, November 6, 2023, <https://ir.hecla.com/News--Media/news-releases/news-details/2023/Hecla-Reports-Third-Quarter-2023-Results/default.aspx>, [accessed December 1, 2023].
- K2 Gold Corporation, 2023. K2 drills new high grade structures at Wels project. News release, November 6, 2023, [https://k2gold.com/site/assets/files/6744/2023116\\_k2\\_gold\\_wels\\_saddle\\_results.pdf](https://k2gold.com/site/assets/files/6744/2023116_k2_gold_wels_saddle_results.pdf), [accessed December 1, 2023].
- Klondike Gold Corp., 2023. Klondike Gold intersects 4.39 g/t gold over 6.95 meters at Gay Gulch gold showing. News release, December 6, 2023, <https://www.klondikegoldcorp.com/klondike-gold-intersects-4-39-g-t-gold-over-6-95-meters-at-gay-gulch-gold-showing/>, [accessed December 6, 2023].
- Newmont Corporation, 2023. 2022 Annual Report and Form 10-K. Annual report, [https://s24.q4cdn.com/382246808/files/doc\\_financials/2022/ar/Newmont-2022-Annual-Report.pdf](https://s24.q4cdn.com/382246808/files/doc_financials/2022/ar/Newmont-2022-Annual-Report.pdf), [accessed December 1, 2023].
- Nickel Creek Platinum Corp., 2023. Nickel Creek Platinum announces filing of Pre-Feasibility Study Technical Report for its Nickel Shaw project. News release, October 6, 2023, <https://www.nickelcreekplatinum.com/investors/news-releases/press-release-details/2023/Nickel-Creek-Platinum-Announces-Filing-of-Pre-Feasibility-Study-Technical-Report-for-its-Nickel-Shw-Project/default.aspx>, [accessed December 1, 2023].
- Onyx Gold Corp., 2023. Onyx Gold reports maiden drill program confirms widespread gold mineralization at King Tut project, Yukon Territory. News release, November 15, 2023, <https://onyxgold.com/onyx-gold-reports-maiden-drill-program-confirms-widespread-gold-mineralization-at-king-tut-project-yukon-territory/>, [accessed December 1, 2023].
- Rackla Metals Inc., 2023a. Rackla Metals closing in on a reduced intrusion-related gold system (RIRGS) on the HIT property, Yukon. News release, October 31, 2023, <https://racklametals.com/rackla-metals-closing-in-on-a-reduced-intrusion-related-gold-system-rirgs-on-the-hit-property-yukon/>, [accessed December 1, 2023].

- Rackla Metals Inc., 2023b. Rackla Metals announces completion of 2023 field program and includes Hit and Astro core photos. News release, September 26, 2023, <https://racklametals.com/rackla-metals-announces-completion-of-2023-field-program-and-includes-hit-and-astro-core-photos/>, [accessed December 1, 2023].
- Sitka Gold Corp., 2023. Sitka Gold drills 219.0 metres of 1.34 g/t gold including 124.8 metres of 2.01 g/t gold and 55.0 metres of 3.11 g/t gold at its RC Gold project, Yukon. News release, September 26, 2023, <https://www.sitkagoldcorp.com/news---09262023-nr23-27.html>, [accessed December 1, 2023].
- Snowline Gold Corp., 2023a. Snowline Gold intersects 553.8 m of 2.5 grams per tonne gold from surface including 5.0 grams per tonne gold over 132.0 m along with robust mineralization at depth at Valley, Rogue project, Yukon. News release, August 3, 2023, <https://snowlinegold.com/2023/08/03/snowline-gold-intersects-553-8-m-of-2-5-grams-per-tonne-gold-from-surface-including-5-0-grams-per-tonne-gold-over-132-0-m-along-with-robust-mineralization-at-depth-at-valley-rogue-project-yuko/>, [accessed December 1, 2023].
- Snowline Gold Corp., 2023b. Snowline Gold files updated Technical Report for the Rogue gold project, Yukon. News release, September 1, 2023, <https://snowlinegold.com/2023/09/01/snowline-gold-files-updated-technical-report-for-the-rogue-gold-project-yukon/>, [accessed December 1, 2023].
- Snowline Gold Corp., 2023c. Snowline Gold further extends primary mineralization at its Valley discovery with drill results of 539.4 m of 1.2 grams per tonne gold from surface including 151.5 m of 2.4 grams per tonne gold. News release, October 5, 2023, <https://snowlinegold.com/2023/10/05/snowline-gold-further-extends-primary-mineralization-at-its-valley-discovery-with-drill-results-of-539-4-m-of-1-2-grams-per-tonne-gold-from-surface-including-151-5-m-of-2-4-grams-per-tonne-gold/>, [accessed December 1, 2023].
- Snowline Gold Corp., 2023d. Snowline Gold intersects 372.9 m of 1.5 grams per tonne gold including 212.4 m of 2.1 grams per tonne gold from surface highlighting strong grade continuity at its Valley target, Rogue project, Yukon. News release, November 9, 2023, <https://snowlinegold.com/2023/11/09/snowline-gold-intersects-372-9-m-of-1-5-grams-per-tonne-gold-including-212-4-m-of-2-1-grams-per-tonne-gold-from-surface-highlighting-strong-grade-continuity-at-its-valley-target-rogue-project/>, [accessed December 1, 2023].
- Snowline Gold Corp., 2023e. Snowline Gold intersects 418.3 m of 1.9 grams per tonne gold from surface including 216.0 m of 3.1 grams per tonne gold in first hole of season at its Valley discovery, Rogue project, Yukon. News release, July 5, 2023, <https://snowlinegold.com/2023/07/05/snowline-gold-intersects-418-3-m-of-1-9-grams-per-tonne-gold-from-surface-including-216-0-m-of-3-1-grams-per-tonne-gold-in-first-hole-of-season-at-its-valley-discovery-rogue-project-yukon/>, [accessed December 1, 2023].
- Transition Metals Corp., 2023. Transition Metals discovers additional high grade polymetallic mineralized zones, and provides exploration update for the Pike Warden project, Yukon. News release, September 11, 2023, <https://www.transitionmetalscorp.com/news/press-release/item/transition-metals-discovers-additional-high-grade-polymetallic-mineralized-zones-and-provides-exploration-update-for-the-pike-warden-project-yukon/>, [accessed December 1, 2023].
- Victoria Gold Corp., 2023a. Victoria Gold: 2023 third quarter results. News release, November 9, 2023, <https://vgcx.com/news/victoria-gold-2023-third-quarter-results/>, [accessed December 1, 2023].
- Victoria Gold Corp., 2023b. Victoria Gold: acquires Yukon properties Brewery Creek: 1.1M ozs of M&I and 1.0M ozs of inferred gold resources. News release, September 14, 2023, <https://vgcx.com/news/victoria-gold-acquires-yukon-properties-brewery-creek-1.1m-ozs-of-m-i-and-1.0m-ozs-of-inferred-gold-resources/>, [accessed December 1, 2023].

Western Copper and Gold Corporation, 2023a. Western Copper and Gold announces further investment and entry into a new investor rights agreement with Rio Tinto. News release, November 28, 2023, <https://www.westerncopperandgold.com/news-and-resources/news-release/western-copper-and-gold-announces-further-investment-and-entry-into-a-new-investor-rights-agreement-with-rio-tinto/>, [accessed December 1, 2023].

Western Copper and Gold Corporation, 2023b. Western Copper and Gold announces completion of C\$21.3 million strategic investment by Mitsubishi Materials Corporation. News release, April 14, 2023, <https://www.westerncopperandgold.com/news-and-resources/news-release/western-copper-and-gold-announces-completion-of-c21-3-million-strategic-investment-by-mitsubishi-materials-corporation/>, [accessed December 1, 2023].

Western Copper and Gold Corporation, 2023c. Western Copper and Gold provides guidance on environmental and socio-economic effects statement submission and infrastructure update. News release, November 10, 2023, <https://www.westerncopperandgold.com/news-and-resources/news-release/western-copper-and-gold-provides-guidance-on-environmental-and-socio-economic-effects-statement-submission-and-infrastructure-update/>, [accessed December 1, 2023].

White Gold Corp., 2023. White Gold Corp. intercepts 5.04 g/t Au over 20.85 m in western extension of near surface high-grade gold zone & identifies additional gold occurrences in the sulphide domain at Betty Ford target, White Gold district, Yukon, Canada. News release, November 14, 2023, <https://www.whitegoldcorp.ca/news/white-gold-corp-intercepts-504-gt-au-over-2085m-in-western-extension-of-near-surface-high-grade-gold-zone--identifies-additional-gold-occurrences-in-the-sulphide-domain-at-betty-ford-target-white-gold-district-yukon-canada>, [accessed December 1, 2023].

## Appendix 1. Exploration projects active in 2023.

Project	Company/Owner	Commodity	Deposit type	Work type
Charlotte	1011308 BC Ltd.	gold, silver, copper, zinc, lead	vein/breccia	P, G, GGP, SGC, RGC
Justin	Aben Resources Ltd.	gold	vein/breccia	RGC
Bonavista	Arsenault, Chris	copper	unknown	P, SGC, RGC
Kudz Ze Kayah	BMC Minerals Ltd.	zinc, lead, copper, gold, silver	sediment associated	AGP
Hyland Gold	Banyan Gold Corp.	gold, silver, copper, zinc, lead	vein/breccia	SGC, RGC
AurMac	Banyan Gold Corp.	gold	reduced intrusion related	P, G, SGC, RGC, DD
Nitra	Banyan Gold Corp.	gold	reduced intrusion related	CS, P, G, SGC
Alotta	Benjamin Hill Mining Corp.	gold, copper	porphyry/sheeted vein	AGP, DD
Mil	Burke, Ryan	copper	unknown	SGC, RGC
CFX	Burke, Ryan	gold	unknown	SGC, RGC
Liv	Burke, Ryan	copper	porphyry/sheeted vein	P, G, SGC, RGC
Silver Hart	CMC Metals Ltd.	silver, lead, zinc, copper	manto, vein	RGC
North Rackla	Cantex Mine Development Corp.	zinc, lead, copper, silver, gold	skarn/replacement	DD
Rosy	Cascadia Minerals Ltd.	gold, copper, silver	vein/breccia	SGC, RGC
Catch	Cascadia Minerals Ltd.	copper, gold	porphyry/sheeted vein	P, G, AGP, SGC, RGC, T, DD
Misty	Coates, Jim	copper	skarn/replacement	P, GGP, RGC, RC
Battleship	Fekete, Mark	gold	unknown	P, SGC, RGC
MacMillan Pass	Fireweed Metals Ltd.	zinc, lead, silver	sediment associated	G, SGC, RGC, DD
Mactung	Fireweed Metals Ltd.	tungsten	skarn/replacement	DD
Cowley Park	Gladiator Metals	copper, gold, silver, molybdenum	skarn/replacement	DD, RGC
Best Chance	Gladiator Metals	copper, gold	skarn/replacement	P, RGC

### Abbreviations

CS – claim staking  
P – prospecting  
G – geology  
T – trenching  
RGC – rock geochemistry  
SGC – soil/silt geochemistry

DD – diamond drilling  
RC – reverse circulation drilling  
AGP – airborne geophysics  
GGP – ground geophysics  
ES – economic studies  
DI – airborne drone imagery

**Appendix 1. (continued) Exploration projects active in 2023.**

Project	Company/Owner	Commodity	Deposit type	Work type
Arctic Chief	Gladiator Metals	copper, gold, silver, molybdenum	skarn/replacement	RGC
Grafter	Gladiator Metals	copper, gold, silver, molybdenum	skarn/replacement	P, RGC
Carmacks Copper	Granite Creek Copper Ltd.	copper, gold, silver	porphyry/sheeted vein	SGC
Keno Mine	Hecla Mining Company	silver, lead, zinc	vein/breccia	DD
Plata	Honey Badger Silver Inc.	silver, gold	vein/breccia	P, G, SGC, RGC
Clear Lake	Honey Badger Silver Inc.	lead, silver, zinc	sediment associated	P, G
Groundhog	Honey Badger Silver Inc.	silver, lead, zinc	skarn/replacement	P, G
Goldorak	Hulstein, Roger	gold	unknown	P, G, SGC, RGC
Wels Gold	K2 Gold Corp	gold	vein/breccia	RC
King Solomon Dome	Kestrel Gold Inc.	gold, copper, zinc, lead	vein/breccia	P, RGC, RC
Klondike District Property	Klondike Gold Corporation	gold	vein/breccia	P, G, RGC, DD
ORTRA	Kreft, Bernie	gold	unknown	P, G, SGC, RGC, T
FAB	Mann, Bill	copper	skarn/replacement	P, G, SGC, RGC
Carlin-Roop	Mayo Lake Minerals Inc.	gold, silver	unknown	T
Anderson-Davidson	Mayo Lake Minerals Inc.	gold	unknown	DD
Silver Queen (Keno)	Metallic Minerals Corp.	silver, lead, zinc, gold	vein/breccia	RGC
Keno Silver	Metallic Minerals Corp.	silver, lead, zinc	vein/breccia	P, G, SGC, RGC, DD
Coffee Project	Newmont Corporation	gold	vein/breccia	SGC, DD, RC
Nickel Shāw	Nickel Creek Platinum Corp.	nickel-pge	mafic/ultramafic associated	ES
King Tut	Onyx Gold Corp.	gold	reduced intrusion related	P, G, AGP, SGC, RGC, DD

**Abbreviations**

CS – claim staking

P – prospecting

G – geology

T – trenching

RGC – rock geochemistry

SGC – soil/silt geochemistry

DD – diamond drilling

RC – reverse circulation drilling

AGP – airborne geophysics

GGP – ground geophysics

ES – economic studies

DI – airborne drone imagery

## Appendix 1. (continued) Exploration projects active in 2023.

Project	Company/Owner	Commodity	Deposit type	Work type
Canalask	Palladium One Mining Inc.	nickel-pge	mafic/ultramafic associated	GGP
Hit (Mehitabel)	Rackla Metals Inc.	gold	reduced intrusion related	P, G, AGP, SGC, SGC, RGC, DD
Gossan	Rackla Metals Inc.	copper	porphyry/sheeted vein	CS, P, SGC
SER	Rackla Metals Inc.	gold	reduced intrusion related	P, G, SGC, SGC, RGC, DD
Excite	Rackla Metals Inc.	gold	porphyry/sheeted vein	P, G, AGP, SGC, RGC
Klaza	Rockhaven Resources Ltd.	gold	vein/breccia	ES
3 Aces	Seabridge Gold Inc.	gold	vein/breccia	DD, RC
Selwyn Project	Selwyn Chihong Mining Ltd.	zinc-lead	sediment associated	ES
Keg	Silver Range Resources Ltd	silver	skarn/replacement	
RC Gold	Sitka Gold Corp.	gold	reduced intrusion related	P, G, SGC, RGC, DD
Rainbow	Snowline Gold Corp.	gold	reduced intrusion related	CS, SGC, DD
Cliff	Snowline Gold Corp.	gold	vein/breccia	P, G, DD
Nordic	Snowline Gold Corp.	gold	reduced intrusion related	P, G, SGC, RGC
Cynthia	Snowline Gold Corp.	gold	reduced intrusion related	CS, SGC, G
Toshingermann	Snowline Gold Corp.	gold	vein/breccia	P, G, DD
Ursa	Snowline Gold Corp.	gold, silver	sediment associated	CS, SGC, G
Rogue	Snowline Gold Corp.	gold	reduced intrusion related	P, G, AGP, GGP, SGC, RGC, DD
Olympus	Snowline Gold Corp.	gold	vein/breccia	DI
Einarson	Snowline Gold Corp.	gold	sediment associated	CS, SGC, G
Ballarat Project	Stakeholder Gold Corp.	gold	porphyry/sheeted vein	P, G, AGP, SGC, RGC

### Abbreviations

CS – claim staking

P – prospecting

G – geology

T – trenching

RGC – rock geochemistry

SGC – soil/silt geochemistry

DD – diamond drilling

RC – reverse circulation drilling

AGP – airborne geophysics

GGP – ground geophysics

ES – economic studies

DI – airborne drone imagery

**Appendix 1. (continued) Exploration projects active in 2023.**

Project	Company/Owner	Commodity	Deposit type	Work type
Catalyst North	Stillwater Critical Minerals Corp.	nickel-pge	mafic/ultramafic associated	P, G, SGC, RGC
Golden Culvert	Stratabound Minerals Corp.	gold	vein/breccia	P, RGC
Mint	Strategic Metals Ltd.	copper	porphyry/sheeted vein	DD
Airstrip	Strategic Metals Ltd.	gold	vein/breccia	SGC, RGC
Byng	Strategic Metals Ltd.	gold, copper, silver	vein/breccia	P, G
Lance	Strategic Metals Ltd.	gold	reduced intrusion related	P, G
Pike-Warden	Transition Metals Corp.	silver, gold, copper	vein/breccia	P, G, RGC, T
Treble	Trifecta Gold Ltd.	gold, copper	porphyry/sheeted vein	SGC, RGC
Eureka	Trifecta Gold Ltd.	gold	vein/breccia	P, G, RGC
Big Creek	Triumph Gold Corp.	gold, copper	porphyry/sheeted vein	SGC, RGC
Tad/Toro	Triumph Gold Corp.	gold, copper	porphyry/sheeted vein	SGC, RGC
Lynx	Victoria Gold Corp.	gold	reduced intrusion related	P, G, SGC, T
Raven (Erin)	Victoria Gold Corp.	gold	reduced intrusion related	P, G, T, DD
Dublin Gulch (Eagle)	Victoria Gold Corp.	gold	reduced intrusion related	SGC, RGC, T
Casino	Western Copper and Gold Corp.	copper, gold, molybdenum, silver	porphyry/sheeted vein	DD, ES
Nolan	White Gold Corp.	gold	vein/breccia	DD
Wolf	White Gold Corp.	gold	vein/breccia	RC
Toonie	White Gold Corp.	gold	vein/breccia	RC
Betty	White Gold Corp.	gold	vein/breccia	DD
JP Ross	White Gold Corp.	gold	vein/breccia	DD
Hartless Joe	Private Company	gold	vein/breccia	DD

**Abbreviations**

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