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## 2022 Summer Prospecting Report on the Howie Lake gold property.

Completed by: William Kuran

August 2022

## Kawashegamuk Lake Area- Kenora Mining Division

Summary:

6 days in the summer of 2022 (June-Aug) were spent prospecting and sampling a heterolithic breccia unit on Kawijekawa Lake (Kawie Lake). Prospecting and sampling was carried out on mining cells 116416, and 23494. The property is centered at UTM co-ordinates 539820 E and 5470940 N, Zone 15, NAD 83. The claims are in the Kawashegamuk Lake area map sheet in the Kenora Mining Division.

Anomalous gold values up to 1100 ppb have been returned from a 30-metre wide by 700 m long zone in sheared and altered heterolithic breccia, much of the zone is under Kawijekiwa Lake. Additional prospecting, detailed mapping and channel sampling would be the next logical step. A mag low is associated with the most intensely silicified area on the Kawie Breccia Zone.



2022 Sample Location Map of Kawie Breccia Zone

## Prospecting Log:

### June 11-12:

Travel from home to Kawie Lake, spent day prospecting and sampling shoreline. Pen showing discovered and sampled. Prospecting and sampling of NW shore zone. Returned home.

### <u>July 2-3:</u>

Travel from home to Kawie Lake. Prospecting and sampled Soggo zone. Returned home.

### <u>Aug 6-7:</u>

Travel from home to Kawie Lake. Prospecting and sampling of area NW of Soggo Zone. Return home.

## Sample Descriptions and Results

Sample	Sample Description	Results	UTM Coordinates
#		(Au ppb)	(15 U)
1048151	Massive breccia, slightly silicified, trace py	7	540360 E 5471180 N
1048152	Silicified and slightly foliated breccia, 1-2% Py.	101	540359 E 5471181 N
1048153	Silicified breccia, brown ankerite band, 20% diss py,	181	540360 E 5471192 N
	mafic clasts are heavily mineralized with py.		
1048154	Heavily altered carbonate rich, light brown sericite	718	540360 E 5471198 N
	enriched breccia, quartz clasts distinguishable, clasts		
	rotated and flattened parallel to foliation, trace py in		
	clasts.		
1048155	Massive breccia, slightly altered, moderate	742	540359 E 5471211 N
	silicification, 2% py. (Surprisingly high in Au)		
1048156	Grab of 1-metre-wide old channel sample, Esso 1983.	62	539835 E 5471431 N
	(No previous assay results documented) Silicified		
	Breccia zone, heavily sheared, bleached yellow-white,		
	5% py, trace cpy, trace aspy.		
1048157	Silicified breccia and mottled quartz, 2% py.	134	539833 E 5471435 N
1048158	1 m wide shear zone, Silicified breccia and mottled	184	539838 E 5471435 N
4040450	quartz, 2% py.	1.40	520022 5 5474 425 N
1048159	Grab of silicified, breccia containing mottled grey	140	539832 E 5471435 N
	green quartz stringers, 5-10 py in breccia, trace in quartz.		
1048160	Grab representative of 15 m wide altered zone in	188	539837 E 5471432 N
1040100	breccia unit, tightly foliated, siliceous matrix, small	100	555657 L 5471452 N
	quartz clasts rotated and flattened parallel to		
	foliation, 2% py in matrix with 5- 10 py in quartz		
	clasts.		
1048161	Massive breccia, slightly silicified, trace py.	25	539981 E 5471297 N
1048162	Massive breccia, slightly silicified, trace py.	39	539992 E 5471304 N
1048163	Rusty, weathered foliated breccia, py weathered out.	140	539995 E 5471303 N
1048164	2 m wide composite chip sample of area that hosts	913	540011 E 5471309 N
	sample # 1048163. At lake edge, would represent		
	multi meter wide zone, requires stripping.		
1048165	30 m SE of # 1048164, rusty, weathered, foliated	700	540030 E 5471297 N
	breccia, sulphides weathered out, gossanous showing.		
	Area requires stripping.		
1048166	Chip sample of 3 m wide zone of rusty, sheared	523	540231E 5471241 N
	breccia unit. Heavily silicified, 5 % py diss throughout.		
1048167	Beside # 1048166, grab of less sheared, well silicified	1150	540231 E 5471246 N
	breccia, clasts distinguishable to a degree. 2-3 % py		
1048168	Chip sample of 2 m wide rusty, massive silicified	1040	540229 E 5471254 N
	heavily altered breccia, 5-10 % py, trace cpy, trace		
	bornite.		

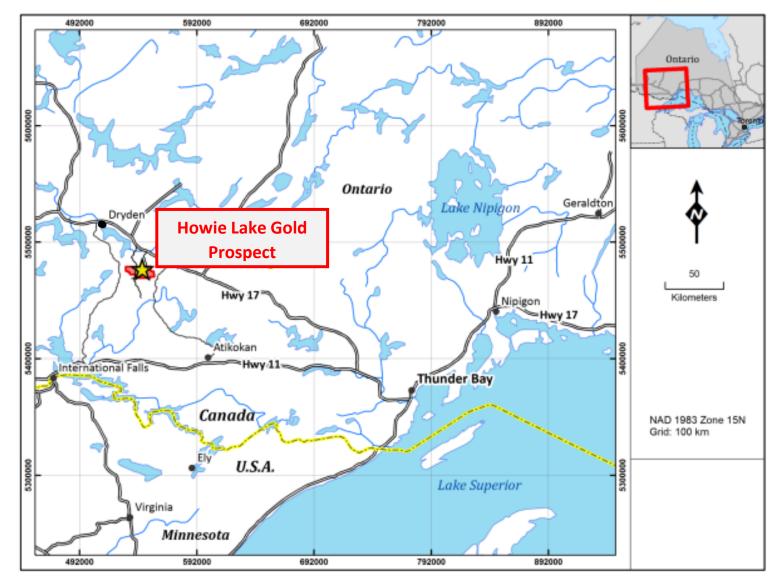
1048169	Grab from 0. 3 m wide heavy sulphide rich zone. 20-	733	540228 E 5471260 N
1010100	30 % py.	,	0102202 017220011
1048170	Grab from same zone that hosts # 1048169. Sample	334	540230 E 5471258 N
	very weathered, sulphides weathered out.		
1048171	Grab from highly siliceous 17 m wide foliated breccia	12	539770 E 5471462 N
	zone. Up to 20 % py, in matrix as well as heavy		
	sulphides in mafic clasts that again, are flattened and		
	rotated parallel to foliation of unit. Samples were		
	surprisingly low in Au.		
1048172	Same as 1048171	7	539771 E 5471465 N
1048173	Same as 1048171	16	539774 E 5471470 N
1048174	Same as 1048171	5	539774 E 5471475 N
1048175	Same as 1048171	8	539776 E 5471480 N

## Cost Breakdown of 2022 Program

Total Costs:	= \$ <u>4896.52</u>	
Report writing:	= \$ 500.00	
Shipping and Assay costs:	= \$ 1410.35	
Accommodations:	= \$ 495.39	
Fuel:	= \$ 426.78	
Wages: 6 days x \$ 350 per day = \$ 2100.00		

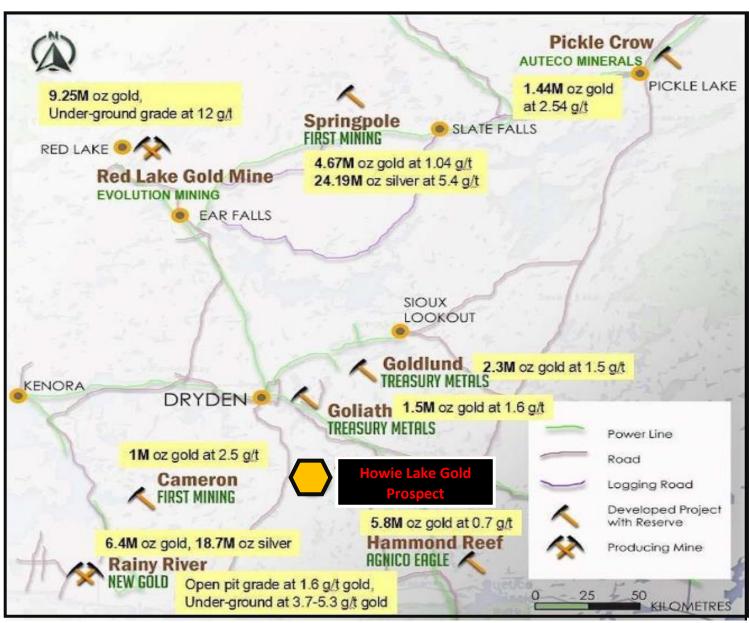
# Howie Lake Gold Prospect

The property is located approximately 55 km southeast of Dryden, Ontario. Access to the property is via the Snake Bay Road, which is an all-weather gravel road which leads south from Highway 17. This road runs through the middle of the claim group, and several logging roads lead off this road providing additional access to the region. The property consists of 61 mining cells, approximately 956 Ha.



**Property Location Map** 

## Major Gold Deposits in Northwest Ontario.



## Previous Work in the Area:

Around 1936 gold was discovered at Thundercloud Lake (Pelham Prospect, current defined 200K oz Au resource – currently owned by Dynasty Gold – formerly Teck and Noranda). The Howie Lake Gold property is located a few kilometres immediately east of the Pelham Prospect. The two properties share a common boundary.

Esso Minerals Canada explored for gold south of Snake Bay in the early 1980's. The company discovered numerous gold bearing showings in the vicinity of Howie Lake and carried out

airborne mag, rock and soil sampling as well as diamond drilling on the property (1983-1987). Esso drilled numerous shallow holes on the property. Shallow diamond drilling on the **Twilight Zone** returned values such as **0.5 oz/t Au over 0.54 m, 0.26 oz/t Au over 0.51 m, and 0.14 oz/t Au over 0.85m and 0.79 m** in three holes. Esso drill logs are available for some drilling on the Twilight Zone; however, assay results were omitted. Drill logs show widespread sampling of the core. Drill logs indicate wide zones of alteration in a favourable setting for gold. Visible gold was noted in one hole under Howie Lake in the Howie Lake Carbonate Zone. Zones up to 20 metres in width comprised of well mineralized silicified gabbro, carbonate breccia, carbonate alteration, fuchsite, py and aspy and quartz veins were intersected in numerous holes drilled in the Twilight Zone and the Howie Lake Carbonate Zone.

In 2003-2006 prospectors Alex Glatz and Joe Riives carried out prospecting and undertook a wide scale rock sampling program and expanded the known gold showings. In 2013, New Klondike optioned the property from Glatz and Riives and resampled a few of the known gold showings. The area has seen little exploration for gold, as base metals were the primary focus for several years. For example, prospectors Glatz and Riives discovered gold mineralization along a new logging on the adjacent Thundercloud Lake property in 2006. Their discovery outcrop returned **8.02 g/t gold over 39.0 m.** 

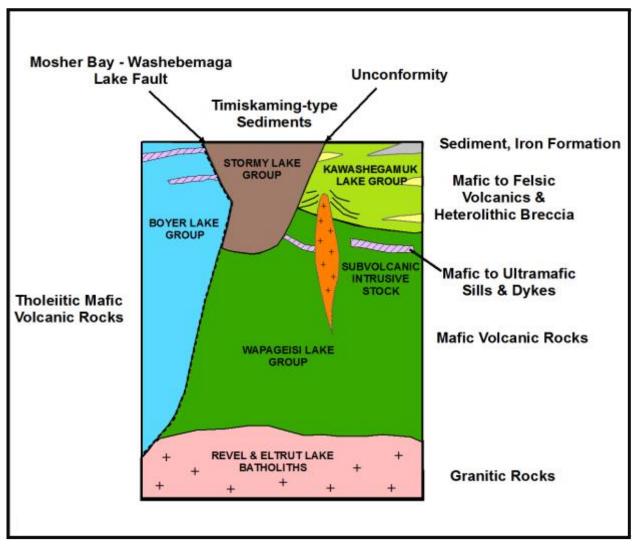
## HOWIE LAKE GOLD PROSPECT

- Geology and structure of the property area is analogous to the TIMISKAMING TYPE in the Abitibi belt.
- Highly Anomalous gold over large area (3km x 2km).
- Proximity to Mosher Bay-Washeibemaga Lake Fault.
- Extensive carbonate alteration zones.
- Structurally controlled gold environment.
- Recent sampling by the author has identified wide intervals of low-grade gold (0.3 1.1 g/t Au) over widths of 30 m in a heterolithic brecia unit.
- Positive drill results that require follow up.
- Next door to (Dynasty Gold Corp) Pelham Gold Deposit on adjacent property that has wide historic drill intercepts:
- DDH 88-10: 113m @1.72 g/t Au. (Pelham)
- DDH TC08-11: 55.25 m @ 2.19 g/t Au, including 9.34m @7.91 g/t Au (Pelham)
- DDH 88-05: 60.3m @ 1.46 g/t Au (Pelham)

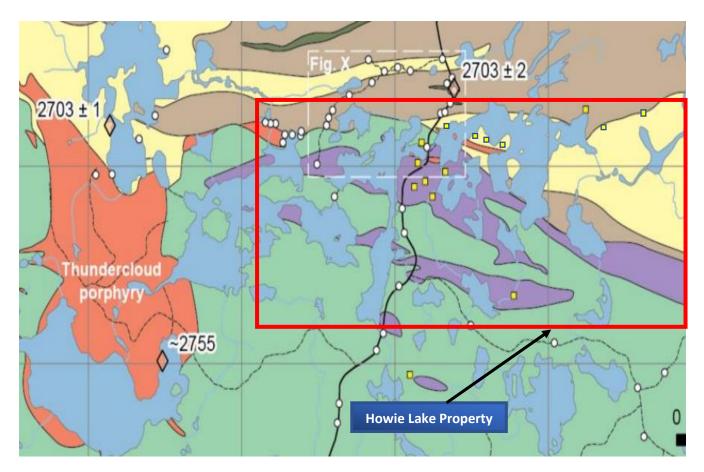
- Howie Lake Gold Property hosts gold in identical lithologies as to the Pelham area (gabbro, heterolithic breccia, and conglomerate).
- Underexplored area-numerous recent gold discoveries on neighbouring property.

## **Regional Geology**

The claim group is underlain by two stratigraphic groups of supracrustal rocks: the Wapageisi Lake group, and the Stormy Lake group (Figure 1). The metavolcanics of the Wapageisi Lake group comprise a thick sequence of pillowed, mafic volcanics of tholeiitic affinity with thin intercalated horizons of intermediate to felsic calc-alkaline flows and associated interflow sediments (chert/argillite). The sequence is capped by a thick (> 1 km) sequence of mafic to felsic pyroclastic breccia. Unconformably overlying the Wapageisi Lake group is the Stormy Lake group which consists of a thick {3000 m} succession of polymictic and volcanic conglomerates with thin intercalated rhyolite and basaltic flow horizons.



Geological Cross Section of the Howie Lake Area - West to East

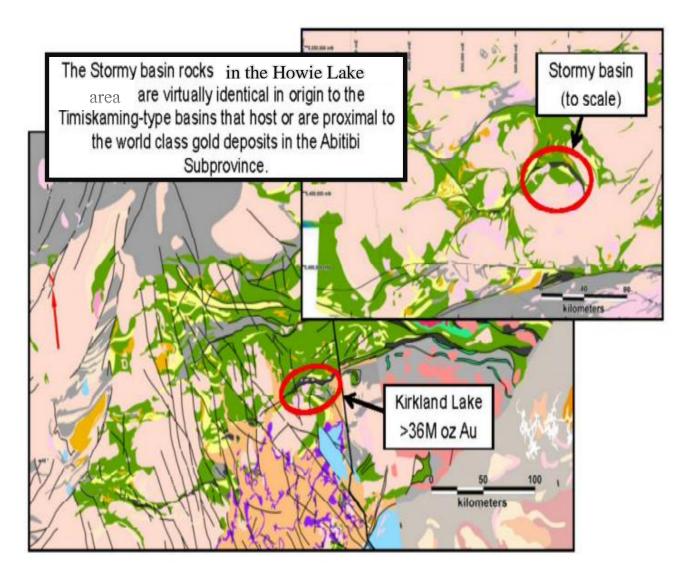


## Regional Area Geology (modified from Blackburn, 1980; Stone et al., 2010)

SYN-DEFORMATIONAL INTRUSIVE ROCKS Quartz-feldspar porphyritic rocks Granodioritic to tonalitic rocks		
STORMY LAKE GROUP Mudstone, sandstone, and conglomerate units Intermediate to felsic volcanic or volcaniclastic units Mafic to intermediate volcanic units BOYER LAKE GROUP Mafic to intermediate volcanic units Diorite to gabbro units WAPAGEISI GROUP Mafic to intermediate volcanic units Diorite to gabbro units	● ○	Roads/trails Lakes/streams Field station Fault and/or shear zone U-Pb zircon crystallization age Gold occurrence

## HOWIE LAKE GOLD PROSPECT

## **TIMISKAMING-TYPE COMPARISON**



Geology and structure of the property area is analogous to the TIMISKAMING TYPE in the Abitibi belt.

## Wapageisi Lake Group

(a) <u>Basalts</u>; The southern portion of the claim group is underlain by a homoclinal sequence of basalts. The basalts are generally well pillowed with the pillows giving consistent north-northeasterly facing (younging) directions. Numerous coarse-grained massive flows (subvolcanic sills) generally 50 m in thickness, occur throughout the group. In the uppermost kilometre of the sequence, thin (< 15 m) discontinuous lenses of finely laminated cherts and argillites occur. Two, thin (75 m) felsic flow/tuff horizons with locally abundant argillite and chert beds, are found conformably intercalated with the basalts near Katisha Lake.

(b) Heterolithic Volcanic Unit; A thick sequence (up to 1200 m) of mixed heterolithic volcanic breccia with minor argillite horizons caps the Wapageisi Lake Group on the claim group, forming a wedge which thickens to the east along the north shore of Katisha Lake, through Kawijekiwa Lake. A discontinuous argillite unit locally containing abundant magnetite (up to 20%) is present near the basal contact of the unit. West of Kawijekiwa Lake in the vicinity of the Main and North Katisha showings, the unit comprises fine-grained, well-laminated argillite or fine-grained tuffaceous rocks.

## " Pre-Tectonic" Intrusive Suite

On the property a suite of compositionally and temporally diverse intrusive rocks have intruded the Wapageisi group prior to shear zone development.

- (a) Layered Gabbro Sills: Two layered gabbroic sills intrude the Wapageisi basalt and heterolithic breccia sequence and coalesce near the western edge of the property just north of Seggemak Lake. The lower sill ranges from 70 to 350 m in thickness and the upper sill is approximately 500 m in thickness. Both sills are compositionally layered with a pyroxene porphyritic base grading into an anorthositic centre which in turn grades into a fine-graded oxide-bearing upper portion.
- (b) <u>Thundercloud Porphyry</u>; is a pear-shaped, 4 x3 km, sub-volcanic stock of silicic composition. The stock associated dykes and pyroclastics are composed of a compositionally homogeneous assemblage of sodic plagioclase, quartz, K-feldspar and muscovite. Intruded into the Wapageisi group volcanics and the gabbro sills is a series of quartz porphyritic dykes related to the Thundercloud Porphyry stock located at the southwestern corner of the claim group.

## "Tectonic" - Fault/Shear Zone Related Intrusions

This group of intrusions occur as dykes and/or sills within structural zones throughout the property and comprise two compositionally discrete suites.

Ultramafic-Lamprophyre/pyroxenite/gabbro suite; Three large, and numerous smaller lamprophyre dyke/sill bodies are found on the Howie Lake Property. These ultramafic bodies are characteristically composite, ranging in mineralogy from phlogopite-bearing lamprophyre to pyroxenite to gabbro. The lamprophyric portions are invariably carbonatized.

<u>Kawijekiwa Sill</u>: The largest ultramafic body occurs as a 2.0 km long sill 10 to 35 metres thick, along the north shore of Kawijekiwa Lake and locally occupies the unconformity between the Wapageisi Lake and Stormy Lake groups. Near the northeastern corner of Kawijekiwa Lake, the sill cuts down section into the crystal tuff unit, and abruptly changes strike to the southeast and eventually pinches out. This sill body is compositionally zoned from west to east as follows: lamprophyre - pyroxenite - gabbro/quartz diorite.

**Eastern Ultramafic Body**: A north-easterly trending pyroxenite/gabbro dyke, 10-35 metres wide, is found occupying a left-hand fault zone at the southeastern corner of the property. This dyke cuts volcanic breccia and is massive in appearance and composition. Numerous, thin, lamprophyric dykes occur within shear zones on the property, the best exposed of these are found at the 0-Zone, Zig and Twilight Zone occurrences. Typically, these dykes are foliation parallel or slightly oblique and occur near the centre of the shear zones. Typically, they are moderately to intensely carbonatized but weakly foliated with respect to the rocks in the shear zone. (b) Felsic-Quartz Diorite Sills/Dykes; A suite of tonalitic to quartz monzonitic sills/dykes are found near the north shore of Katisha, Howie and Kawijekiwa Lakes. The largest of these bodies is present as a 20 to 150 m wide dyke, which occurs within an east-west trending tectonized zone developed in gabbro near the north end of Katisha Lake.

## Stormy Lake Group

The Stormy Lake group occurs as a thick (3000 m) assemblage of polymictic conglomerate, dacitic flows/breccias and basalt flows which underlie the northern portion of the claim group above an east-west trending unconformity which cuts across the centre of the claim group. (a) Polymictic Conglomerates - Argillites; A thick wedge-shaped accumulation (1.0 km) of polymictic conglomerates overlies the unconformity at the eastern portion of the property. The conglomerates are composed of poorly sorted, moderately to well-rounded granitoid, felsic-intermediate volcanic, mixed sedimentary and some gabbroic clasts indicating a mixed provenance area. Bedding orientations generally face northwesterly in this sequence. Proximal to the unconformity, numerous magnetite-chlorite-bearing beds are present. (b) Dacite Breccia - Overlying the polymictic conglomerate is an intermediate to felsic volcanic unit which is exposed as a 100 m thick east-west trending zone of massive and vesicular flows. This unit extends as far east as

the Snake Bay Road and thickens to the west, and in the vicinity of Washiebemaga Lake is over 1 km thick. Towards the west the flow grades into tuff and lapilli tuffs.

## Structural Geology

The structural geology of the property is dominated by three distinct phases of shear zone and fault development. The earliest phase is marked by the formation of a conjugate set of shear zones trending approximately 180 /90 and 120/40S. Overprinting these shear zones are two east-west trending shear/fault zones. A late period of north-easterly left-hand faults cuts across the southeastern portion of the property with offset generally less than 150 m.

#### North-South Structural Zone

A continuous zone of north-south trending foliated shear and carbonatized zones extends from the northeastern arm of Katisha Lake south to the southern perimeter of the property. The zone is sharply bounded to the east by the **"East Fault Zone"** which is a fault with 150 metres of apparent right-hand offset. This fault is marked by a 2- to 5-metre-high southerly trending escarpment along which the gabbroic and basaltic rocks have been extensively foliated, refolded, locally lineated (near vertical in the foliation plane), and extensively carbonatized. This fault zone hosts the Twilight Zone, the Howie Zone (Old Timer) and South Katisha zones. The footwall contact of the fault dips to the west at approximately 60-80 degrees. The western boundary of the structural zone is less sharply defined. A north-south line or fault zone with apparent left-hand offset extends from the Zig zone south for approximately 500 metres.

#### Howie Lake Carbonatized Zone

An east-west (110 degree) trending zone of extensive carbonate alteration extends from the Twilight Zone to the east for 600 metres. This zone varies along strike in style of alteration and deformation. Near Howie Lake, east of the Twilight Zone, it is characterized by a weak to strong foliation (100 - 120/70S) with local mylonitic zones and a minerology of chlorite-fuchsite-carbonate-leucoxene-pyrite.

### Kawie Lake Deformation Zone

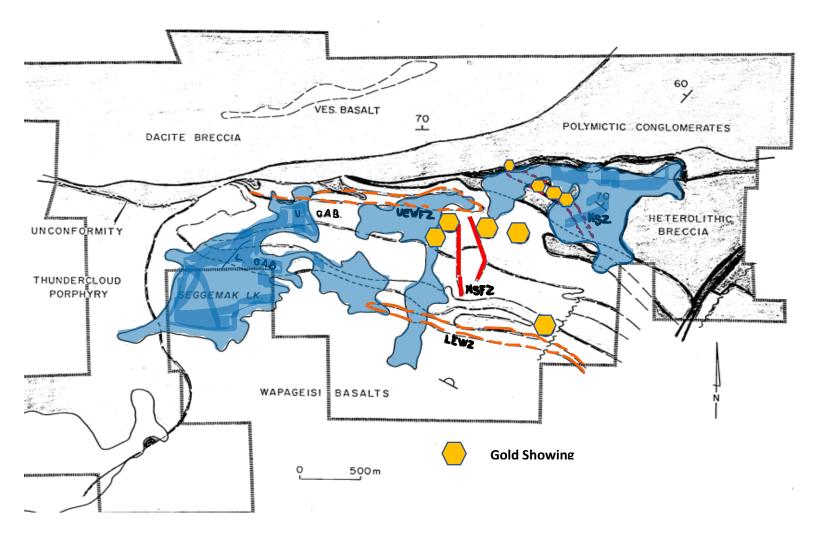
A wide tectonized zone developed in the heterolithic breccia unit extends for over 700 m across Kawiejekima Lake. The zone trends southeasterly and ranges in width from 50 to 150 metres. The volcanic breccia is moderately to intensely carbonatized, and locally sericitized, pyritized and silicified. It is truncated against a lamprophyre dyke to the north and a feldspar porphyry dyke to the southeast. Throughout the zone is a well developed, closely spaced cleavage in the matrix of the breccia. The clasts have been rotated and flattened in the direction of the schistosity with numerous minor folds, developed by the folding of already foliated breccia.

#### Lower East-West Structural Zone (LEWSZ)

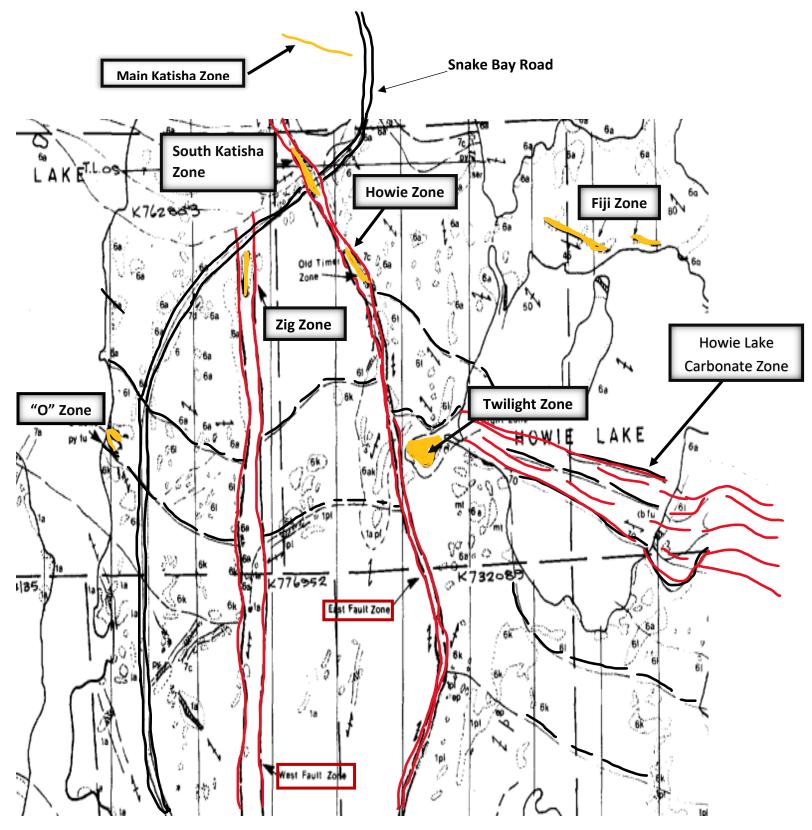
The zone is defined by numerous carbonatized and sheared zones in basalt near Katisha Lake. Sheared and carbonatized east-west trending Thundercloud porphyry dykes (15 metres) are present. To the east the zone bifurcates into two well-developed shear/mylonite zones with the southern zone 10 to 35 m wide, developed in pillow basalts. Further to the east an intensely carbonatized and sheared lamprophyre dyke cores the zone. The northern portion of this structural zone trends east west and comprises sheared and mylonitized pillow basalts and interflow sediments with numerous thin 2.0 metre Thundercloud porphyry dykes. No widespread pervasive carbonate/pyrite alteration is developed but a 1- to 2-metre-wide carbonate vein, trending east-west is found in the centre of the zone.

#### Upper East-West Structural Zone (UEWSZ)

This zone cuts across the northern shores of Katisha and Seggemak Lakes for a total distance of approximately 1.5 kilometers. It is characterized by an intensely developed east-west trending foliation with minor amounts of sericitic and carbonate alteration present. An unfoliated quartz diorite dyke cores this structural zone.



GENERA	L GEOLOGY - SNAKE CLAIMS
STORMY LAKE GROUP	Dacite Breccia Conglomerate
WAPAGEISI LK. GRP.	Heterolithic Breccia Layered Gabbro Thundercloud Porpl Basalt
STRUCTURAL ZONES	UEWFZ - Upper East-West Fault Zone KSZ - Kawajekiwa Shear Zone NSFZ - North-South Fault Zone LEWFZ - Lower East-West Fault Zone
	- Lamprophyre Dykes



Main Howie Lake Gold and Fault Zones

#### **Mineralized Zones**

#### Katisha Lake-Kawijekiwa Lake area (Au)

Seven (7) gold occurrence of this type are documented in the OGS Mineral Deposit Inventory as lying within the Howie Lake Property. These zones are referred to as the **Main Katisha, South Katisha, Zig, Fiji, Twilight, Old Timer (Howie) and Fringe zones**. Samples from these zones have been reported in assessment reports to range from nil to 16 g/t Au in drill core. Several other gold occurrences have been found by (Glatz, 2007; 2008; Riives, 2010), and Kuran 2021.

Gold mineralization in this area is best described by Blackburn et al, 1989: "The most significant mineralized zones are hosted by numerous, 1 to 15 m wide, north trending faults and northwest-trending shear zones in a magnetite bearing, composite gabbro sill and magnetite bearing mafic metavolcanic flows. The shear zones have been sericitized, and pervasively and intensely iron carbonatized, and host colloform textured carbonate veins up to 5 m in width. The carbonate veins contain angular xenoliths of wallrock and minor disseminated pyrite. The carbonate alteration is postdated by pervasive silicification and quartz veining, associated with abundant disseminated pyrite, arsenopyrite and gold. The silicified zones are pod-shaped and concentrated in flexures and wider sections of the shear zones. A second phase of silicification consisting of barren quartz veins overprints the earlier gold-bearing phase of silicification".

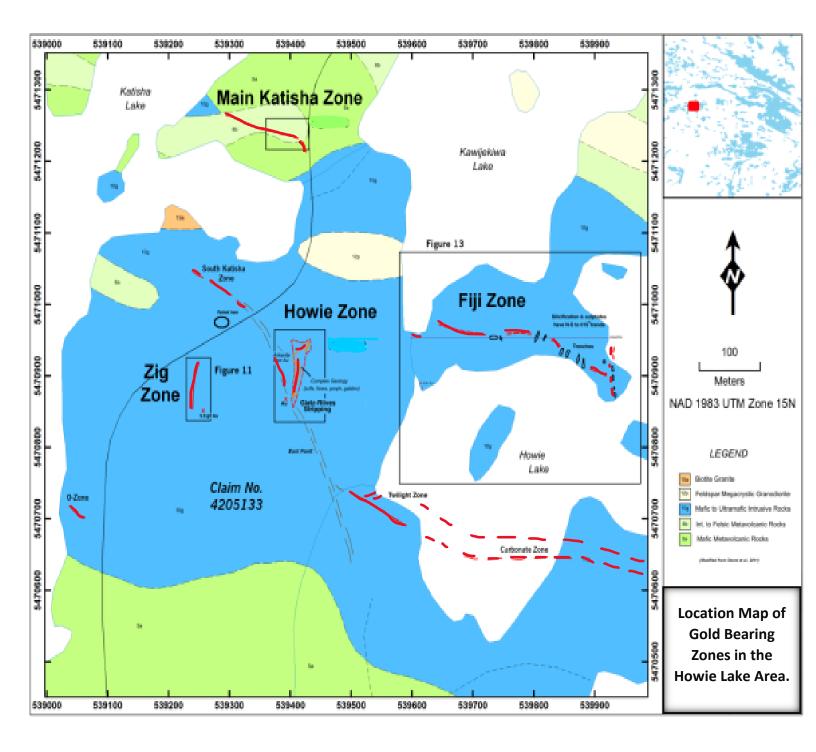
**Esso Minerals Canada:** "The most significant gold mineralization on the Snake Bay property (Howie Lake Property) is hosted by shear zones cutting oxide-bearing gabbro. The shear zones are part of a conjugate set trending 180°/90° and 120 /40 S respectively throughout the property. To date seven main mineralized zones have been discovered by EMC of which five have been drilled. The shear zones range from 1.0 to 15m in width and are marked by an intense foliation developed parallel to the trend of the zones. These zones are the focal point for hydrothermal alteration and associated veining, generally consisting of an early carbonate (Fe-carbonate + minor pyrite) generation overprinted by a quartz stockwork vein set. The early carbonate veins are typically colliform textured, up to 5.0m in width, and have formed parallel to, and in the centre of, the shear zones. Consanguineous with the carbonate veining, carbonatized haloes in the wallrock developed up to 15.0 away from the zones. In the wider shear zones, thin (2m), lamprophyre dykes are found intruded along the centre of the veins. Sporadically developed zones of quartz-stockwork veining and associated silicification overprint the carbonate veining. These silicified gold enriched zones vary in width up to 2m and are formed at the widest portions or bends in the shear zones. Sulphide mineralization (py aspy), locally present in amounts up to

40% is found within the silicified zones. Significant gold values up 16 g/t Au are intimately associated with this sulphide mineralization.

Two parallel northerly tracing fault zones (West Fault Zone and East Fault Zone) between Howie and Katisha Lake require additional exploration. The East Fault Zone is host to numerous showings. The **Katisha South Zone**, **Howie Lake Zone**, **Swamp Zone**, and the **Twilight Zone**. The West Fault Zone is host to the Zig Zone.

### **Howie Zone**

The Howie (Old Timer Zone) occurs 100 metres southeast of the South Katisha Zone and is the southern extension of the same structure with similar alteration and mineralization suggesting that the South Katisha structure has a minimum strike length in excess of 250 metres. The Howie zone is exposed over a strike length of 50 metres with an exposed width of 5.0 metres. A sheared and carbonatized Thundercloud Porphyry dyke, 1 m wide, cores the zone which dips 50 to 80 to the west. The footwall and hangingwall gabbros are extensively carbonatized and sheared. The zone itself is composed of a colliform textured carbonate vein ranging in width from 1.0 to 2.5 metres with locally abundant (5-10%) pyrite. A silicified lens, up to 2.0 wide occurs in the middle of the zone. This lens has abundant pyrite (up to 15%) and fuchsite. Grab and channel samples have returned values of 0.5 to 5.0 g/t Au. Parallel silicified/carbonatized zones presumably lie to the west underneath the swamp for approximately 10 metres, based on the drill intersection in the South Katisha Zone. Glatz and Riives discovered a 10 m wide by 75 m long NE trending zone hosting anomalous gold values branching off the Howie Zone area.



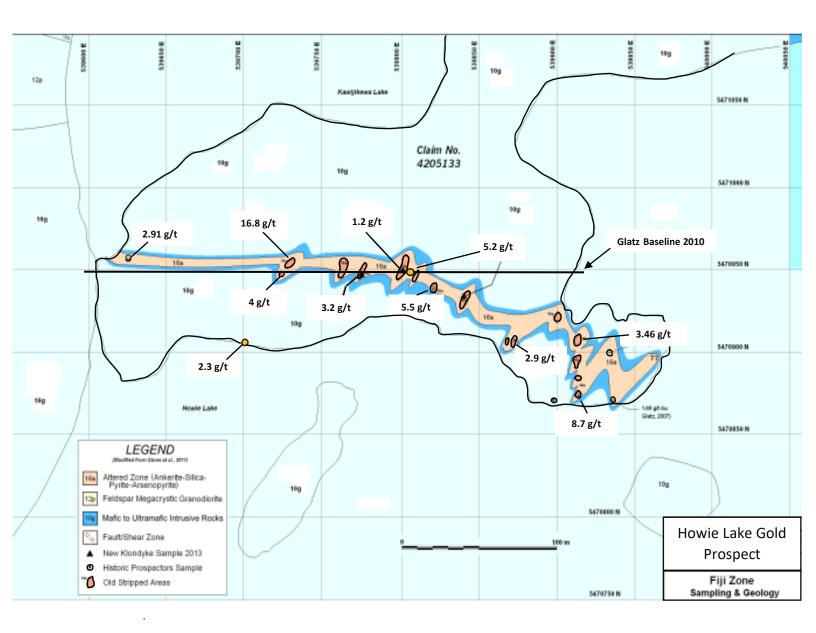
#### **Twilight Zone**

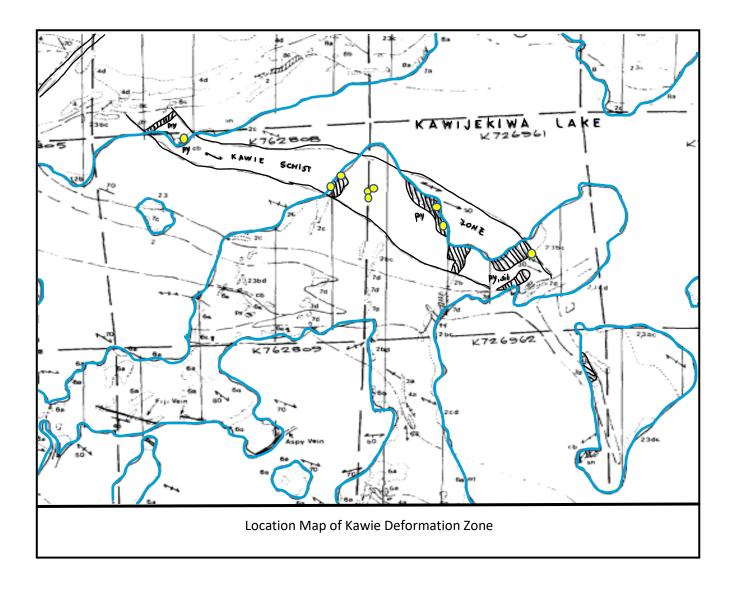
Esso Minerals Canada report the following:

The Twilight Zone occurs approximately 200 metres southeast from the Howie Zone. The Twilight Zone is exposed on surface in a triangular (15 x 25 m) shaped area marked by extensive fuchsite alteration, carbonate veining and irregular sericitized and silicified zones. Channel sampling to date indicates values up to 6.5 g/t Au, throughout various alteration facies. The zone itself lies on the eastern edge of the "East Fault Zone" where it intersects the Howie Lake carbonatized zone. Hydrothermal alteration of the Twilight Zone has evolved four distinct zones/facies: (a) quartz-carbonate-sericite-pyrite, (b) silicified pyaspy-bearing zone, (c) massive colliform-textured carbonate vein, and (d) chlorite-carbonate-fuchsiteleucoxene-pyrite schist. A small lens of brecciated carbonate measuring 1.0 x 2.0 metres, containing 5 to 25% pyritized gabbro fragments gave the highest gold values up to 6 g/t Au on the showing. The alteration zones occur as parallel, northeasterly trending layers which truncate against carbonatized gabbro to the southwest. The western margin of the zone grades into a northerly trending shear zone with the intensity of schistosity increasing towards the west. Several parallel silicified (quartz-fuchsitepyrite) pods and lamprophyre/gabbro and monzonite dykes occur in this shear. An intensely carbonatized, vesiculated lamprophyre dyke trending parallel to a 100 foliation cuts across the zone from east to west. Towards the western limit of the zone the dyke shifts to a 30-degree direction parallel to the north-south shear. As in all other zones on the property, the mafic dykes are intruded into predeveloped structures and hence are intruded late in the structural development of the zones. These dykes, however, are invariably carbonatized and therefore most likely are intruded before or during the peak of carbonate alteration. Additional drilling of this zone is warranted because of its large size, the intensity of alteration present, and the down dip/plunge potential of the gold bearing zone to widen out based on the apparent obliquity of the hangingwall and footwall.

### Fiji Vein

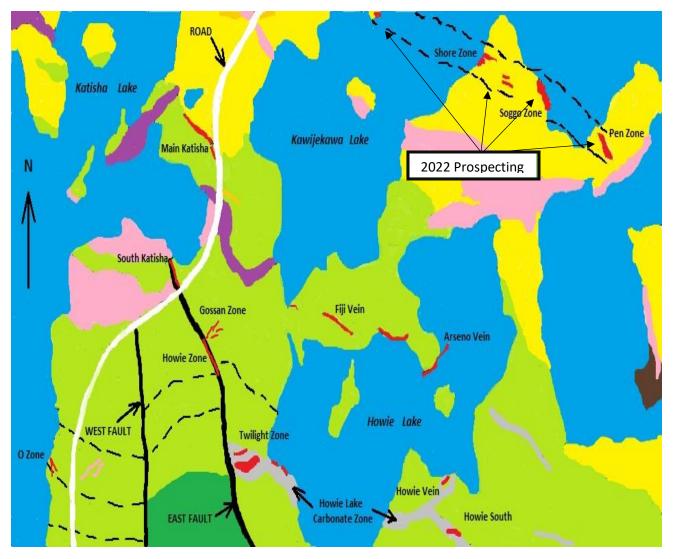
The host rocks for the Fiji Zone appear to be a relatively flat lying mafic to ultramafic sill as described by previous workers. The Fiji Vein is an anastomosing gold bearing zone that strikes in an east west fashion and is traceable for over 300 metres. Numerous high-grade samples up to 16 g/t Au have been reported from this structure. Most recently a chip sample over 3m returned over 5 g/t Au. Most of the silicified lenses at the Fiji Zone are oriented from north-south to 030 degrees and their dip orientation is unclear. Previous work has assumed that the mineralized zones are parallel to the apparent strike direction of the host structure, i.e., 100 to 110 degrees. There is a strong probability that the mineralized lenses are either stacked en-echelon along this trend or they are developed along the axis of pre-existing folds.





#### **Kawie Deformation Zone**

Recent prosecting by the author of this report has led to the belief that this is an overlooked deformation zone in the heterolithic breccia unit that may splay off the Mosher Bay-Washeibemaga Lake Fault. The Kawie Zone is developed in the heterolithic breccia unit that extends for over 700 m across Kawiejekima Lake. The zone trends southeasterly and ranges in width from 50 to 150 metres. The volcanic breccia is moderately to intensely carbonatized, and locally sericitized, pyritized and silicified. Up to 10% Py occurs as disseminations and clots in the more silicified sections. Heavy carbonate alteration is present in places making the original rock type difficult to identify. Fine tourmaline needles are present in clusters in the heavy carbonated sctions. Recent sampling has returned gold values in the 300-1100 ppb range over wide intervals at various locations in the Kawie Zone.

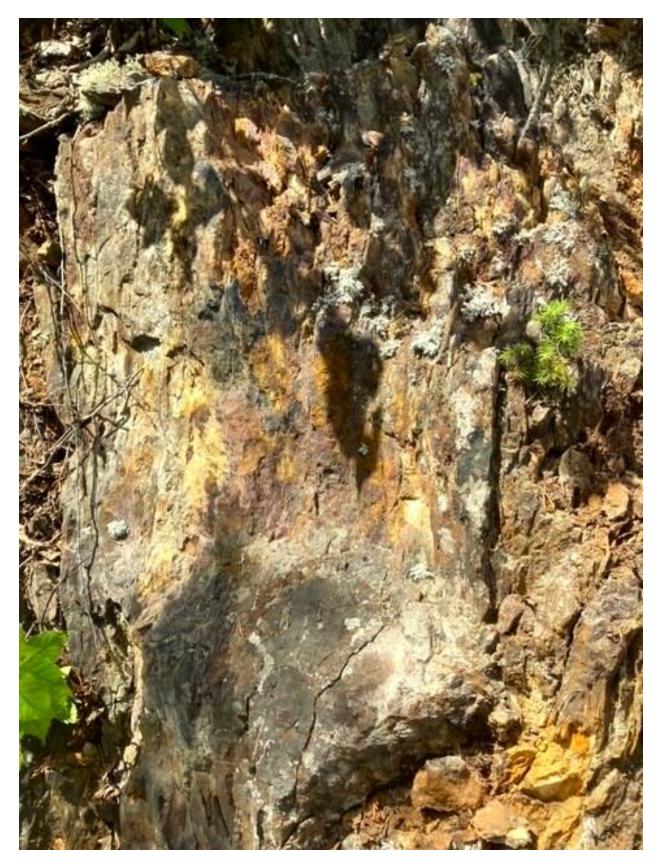


## Simplified Geology Map of Howie Lake Area

Gabbro
Intermediate and Felsic Metavolcanics (flows, tuffs, breccias)
Mafic Metavolcanics (flows, pillowed)
Quartz Porphyry
Quartz Diorite
Conglomerate
Gold Zone



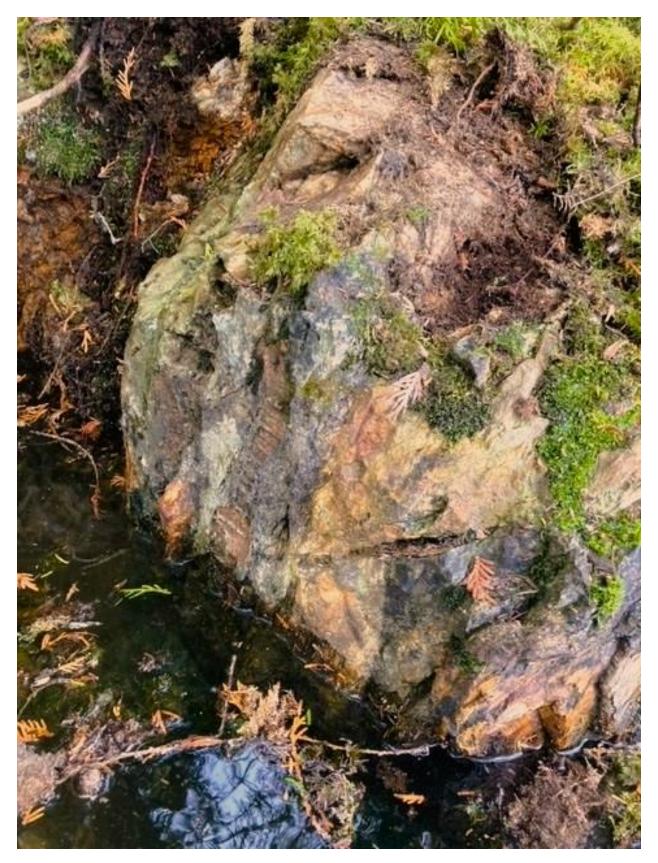
Gold Bearing Deformation Zone in Heterolithic Breccia (2022)



Intensely Altered Gold Bearing Heterolithic Breccia (2022)



Altered Gold Bearing Heterolithic Breccia (2022)



Gold Bearing Altered Heterolithic Breccia (2022)

Report No.:A22-09477Report Date:20-Jul-22Date Submitted:07-Jul-22Your Reference:

William Kuran PO Box 355 East Selkirk MB R0E 0M0 Canada

ATTN: William Kuran

### CERTIFICATE OF ANALYSIS

25 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-Dryden	QOP AA-Au (Au - Fire Assay AA)	2022-07-20 06:12:20

#### REPORT A22-09477

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

#### Notes:

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3



ACTIVATION LABORATORIES LTD. 264 Government Road, Dryden, Ontario, Canada, PBN 2R3 TELEPHONE +807 223-6168 cr +1.882 25.527 FAX +1.905 645 9613 E-MAIL Dryden@actiabs.com ACTLABS GROUP WEBSITE www.actiabs.com CERTIFIED BY:

Emmanuel Eseme , Ph.D. Quality Control Coordinator

Page 1/3

Analyte Symbol	Au
Unit Symbol	ppb
Lower Limit	5
Method Code	FA-AA
1048151	7
1048152	101
1048153	181
1048154	718
1048155	742
1048156	62
1048157	134
1048158	184
1048159	140
1048160	188
1048161	25
1048162	39
1048163	140
1048164	913
1048165	700
1048166	523
1048167	1150
1048168	1040
1048169	733
1048170	334
1048171	12
1048172	7
1048173	16
1048174	< 5
1048175	8

2022 Assay results for the Kawie Breccia Zone

