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ASSESSMENT REPORT ON THE 2019 PROPERTY VISIT KRAVCHIK - WORTHINGTON BAY PROPERTY

PRISKE TOWNSHIP THUNDER BAY MINING DIVISION, ONTARIO, CANADA NTS: 42E/10F CENTERED AT UTM NAD83 ZONE 16 482,089 mE 5,402,251 mN

> PREPARED FOR: Oren Kravchik



Prepared by: Stephen Greiner (March 2nd, 2019)

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1.0) Introduction and Summary

The following report summarizes the property visit performed in the Summer of 2019. The program was performed on the Kravchik - Worthington Bay property located, approximately 91km east of the town of Nipigon, Ontario, along the Trans-Canada Highway 17.

On June 3rd, 2019, a single day site visit was performed on the Kravchik - Worthington Bay property by Philip Escher from Pathfinder Exploration, in order to re- locate and confirm the historic Univex showing, Baker East and Baker West trenches as well as to confirm structural trends associated with the showings, and to assess the site locations to determine future work to be performed. Property access was also logistically evaluated to determine the feasibility of future mechanical stripping programs. Two samples were taken at the Baker East trench as well as two samples taken roughly 20m along strike to confirm the presence of gold mineralization.

The property visit resulted in identifying what appeared to be the probable locations of the Univex showing, Baker East and Baker West trenches. It was determined that all locations would require mechanical stripping in order re-expose the outcrop of previous historical programs in order to properly sample and assess mineralization, alteration and structural trends associated with the showings. The apparent Univex showing appeared to be associated with roughly east-west striking quartz veins hosted within granitic rock, however there were no clear indication of previous channel sampling at this location. The Baker East and Baker West trenches appear to be exposing a brittle-ductile shear zone striking approximately 40 to 50 degrees and is open in both directions. Property access for required machinery necessary to perform a proper stripping program has been determined. All samples collected returned gold values ranging from 0.833 g/t Au to 13.5 g/t Au.

2.0) Property Location and Access

The Kravchik - Worthington Bay property is located 207km east of the city of Thunder Bay, Ontario, along highway 17, and just 2.3km south of highway 17 (Figure 1). Access to the property is via Worthington Bay Road 3.7km east of the town of Schreiber, Ontario, along highway 17 followed by an ATV trail and then a hiking trail.

The Worthington Bay property consists of six single cell mining claims comprising roughly 315 acres. The property is located within the Thunder Bay Mining Division, Priske Township and is centered on UTM (NAD83, Zone 16N) 482,089mE 5,402,251mN (Figure 2).

Assessment Report – Kravchik - Worthington Bay Property 2019 Site Visit



Figure 1: Kravchik - Worthington Bay Property Location Map

Assessment Report – Kravchik - Worthington Bay Property 2019 Site Visit



Figure 2: Kravchik - Worthington Bay Land Tenure

3.0) Claims and Ownership

The Kravchik – Worthington Bay property covers approximately 315 acres and consists of six single cell mining claims (Table 1). The claims comprising the property are owned by Oren Kravchik.

		Table 1: C	laim Details		
Claim ID	Provincial Grid	<u>Township</u>	<u>Claim Status</u>	Registered	Expiry/Renewal
	<u>Cell Number</u>			<u>Holder</u>	<u>Date</u>
149527	42D14B301	Priske	Active	Oren Kravchik	22/03/2020
212317	42D14B261	Priske	Active	Oren Kravchik	22/03/2020
233874	42D14B282	Priske	Active	Oren Kravchik	22/03/2020
233875	42D14B281	Priske	Active	Oren Kravchik	22/03/2020
250237	42D14B262	Priske	Active	Oren Kravchik	22/03/2020
302131	42D14B302	Priske	Active	Oren Kravchik	22/03/2020
Regional Geo	logv		1		

The Kravchik – Worthington Bay property is located within the Wawa – Abitibi sub province of the Archean Superior province. The property is located entirely within the Terrace Bay Pluton and just east of the Western Schreiber Hemlo Greenstone Belt (WSHGB) – Terrace Bay Pluton contact (Figure 3).

The WSHGB includes Neoarchean supracrustal and intrusive rocks that are crosscut and unconformably overlain by Paleoproterozoic and Mesoproterozoic intrusive and supracrustal rocks of the southern province (Magnus, 2019). Way up indicators from the supracrustal rocks of the WSHGB show an arrangement of upright, generally open folds that are locally intensified to tight isoclinal folds proximal to plutonic boundaries and in shear zones (Magnus, 2019). A detailed description of the WSHGB lithological sequences and disconformities can be seen in OFR 6357. Supracrustal rocks along the northern boundary of the WSHGB have amphibolite facies mineral assemblages and display strong penetrative foliations which define the tight to isoclinal fold axial planes parallel to the boundary margin (Magnus, 2019). The central to southern belt shows a decrease in metamorphic intensity and folding ranging from greenschist to amphibolite mineral assemblages and have east to northeast trending foliations and fold axial traces indicating deformation under a northwest directed compression during regional deformation (Magnus, 2019). A thin 200m wide zone of high strain is present along the Terrace Bay pluton with indicators along the margin suggesting reverse, south-side up vertical displacement with a dextral horizontal displacement (Magnus, 2019)

The Terrace Bay batholith was emplaced at 2689 +/- 1.1 Ma and intrudes circa 2720 Ma the WSHGB. The pluton consists of three distinct mineral assemblages of granodiorite, monzogranite and diorite. Two hydrothermal alteration trends of chlorite-epidote and pervasive hematite occur throughout the pluton and proximal to cross-cutting regional scale faults or shears (Arnold, 2019). The pluton itself is generally massive with structural fabrics proximal to cross-cutting structures as well as the WSHGB contact. The eastern portion of the Terrace Bay pluton contains both north-south and east-west shearing whereas the western portion contains dominantly north-west shearing with minor east-west shearing trends

(Arnold K., 2019). The overall structural trends withing the Terrace Bay batholith are consistent with regional deformation in the WSHGB.



Figure 3: Regional Geology Map

5.0) Physical Environment and Overburden

Topography on the Kravchik – Worthington Bay property ranges from roughly 300m above sea level to 190m above sea level grading downslope towards the south with several different drainage streams along topographic lows flowing into Lake Superior. The property contains mainly of mature pine with variable underbrush. The property contains multiple ridges of bare bedrock eroded by lake action. Overburden depth on the property is variable and consists mainly of lacustrine sand deposits (Voltai, 1965) and large talus features along the ridges.

6.0) Exploration History

The Kravchik – Worthington Bay property has had an extensive work history dating back to the early 1900's. A brief work history of the property is listed below in Table 2 and was taken from Scott J.F., 2014 assessment File 20000014770.

Year	Description
1922 – 1965	Area was intermittently staked by various individuals who conducted unspecified work.
1965	Ray W. Pitkanen staked claims in the area and carried out limited manual prospecting.
1968	Claims lapsed and were restaked by Ray W. Pitkanen who optioned the property to Univex
	Exploration and Development Company. Claims lapsed again and were restaked by
	Pitkanen who then re-optioned them to Univex.
1970's	Univex conducted limited sampling, stripping, coupled with detailed magnetometer survey
	and soil geochemistry. Claim lapsed.
1982	Livingston Energy Corp and United Continental Energy Corp conducted combined EM, VLF-
	EM and magnetometer survey.
1983	Walter Baker, prospecting for United Continental Energy Corp., discovered what will be
	known as the Baker Vein south of the original Univex showing.
1983 -1984	H.D. McLeod did some field investigation and compiled a geologic map of the area.
1985	Lincoln Resources geologically mapped portions of the Worthington Creek area.
1990	J. Courtney and G. Daniels restaked the ground and conducted trenching, stripping and
	sampling on the Univex West, Porphyry Hill and Porphyry Ridge occurrences.
1996	J. Courtney and George Daniels manually stripped and blasted trenches, and sampled
	various locations on claim 1183300 following the contact phase between the Terrace Bay
	batholith and the volcanic package to the west. Up to 0.311 oz per tom of gold was
	reported.
1998	George Daniels power stripped and resampled the Univex
	West occurrence, Trenches 1 and 2. 2.05 oz/t Au was realized from a chip sample of
	unspecified length.
2001	Interest in the 1142416 and 1142417 was transferred to Sam Kravchik, who subsequently
	transferred them to Oren Kravchik in 2006. A widespread sampling program program was
	conducted.
2006 to present	Intermittent prospecting and sampling.

Table 2: Kravchik - Worthington Bay work history from Scott J.F., 2014 Assessment File 20000014770

7.0) Rational

The purpose of the site visit was to formally locate the historic Univex, Baker East and Baker West trenches as well as to assess logistics of performing a future mechanical stripping program as well as the potential value of future field programs.

8.0) Recon and Access

Ideal Access to the Kravchik – Worthington Bay property requires both a truck and ATV. Turn south onto Worthington Bay road 3.7km east of the town of Schreiber, Ontario, along highway 17. To access the property, follow Worthington Bay road for about 400m and turn right at the first fork in the road. Continue for about 600m and turn right into a small gravel pit to unload the ATV. Continue along the ATV trail for about 1.9km and turn south along a hiking trail located at UTM (NAD83 16U) 481,654mE and 5,403,581mN. At this point the ATV will need to be parked and you will have to continue on foot. Continue south along the hiking trail for about 1.2km where the historic Univex trench is located directly on the trail at UTM (NAD83 16U) 481,738mE and 5,402,516mN. To access the Baker trenches, continue south along the hiking trail for another 530m where the trail will then turn sharply to the northeast. Continue for another 80m to the Baker trenches (Figure 4).

Assessment Report - Kravchik - Worthington Bay Property 2019 Site Visit





9.0) Sampling and Analytical Methods

Two hours were spent sampling around the Baker East and Baker West trenches during the site visit on June 3rd, 2019 in order to confirm gold mineralization within the area as well as in an attempt to locate any potential extension of the Baker structure. Navigation was performed using a Garmin 62s GPS and Silva compass. All coordinates are recorded in UTM NAD83 zone 16U. Sample descriptions were recorded in a field notebook. All structural measurements were recorded using a Sylvan compass and using the right-hand rule. A sample location and traverse map is shown in Figure 5. A total of four grab samples were taken during the site visit. Sample descriptions are listed in Table 3 below.

Table 3: Sample Descriptions

<u>Sample</u> <u>ID</u>	<u>Easting</u> <u>NAD83</u>	<u>Northing</u> <u>NAD83</u>	<u>Description</u>	<u>Au</u>
1203961	481900	5402101	20to 30cm wide brittle to brittle-ductile shear/fracture zone in syenitic host rocks. Strike 040 to 055 deg with dips ranging from 68 to 80 deg south. Most altered and deformed section is pinkish in color and comprised of mainly k-spar and chlorite after hornblende and lesser quartz. Mineralization consists of 1-2% fg disseminated anhedral pyrite and cpy and local cm-scale lenses of massive, generally medium grained pyrite. Sample of host rock with 1-2% disseminated sulfides.	0.83 g/t
1203962	481900	5402094	Sample of massive pyrite	13.50 g/t
1203964	481827	5402033	Frost wedge block of medium grained syenite with minor mm-scale quartz veinlets. ~1% fg disseminated sulfides and locally up to 3-4% fracture controlled sulfides.	1.03 g/t
1203965	481828	5402032	Same as previous. Medium grained syenite with up to 5% fracture controlled sulfides.	1.88 g/t

Grab samples were collected by breaking off a representative sized sample sufficient for chemical analysis and inserting it into a sample bag with the sample number clearly written on the bag and the associated sample ticket inserted into the bag. The bag was then securely sealed and ready for transport. An outcrop picture along with a textural picture were taken at each sample location using a field camera. Each picture was taken with a clear object in view in order to indicate the scale of the image. A strip of flagging tape with the sample number clearly written on it was tied to a representative sample and placed at the location the sample was taken. Another strip of flagging tape with the sample number clearly written on it was hung in a tree at roughly shoulder level in order to help relocate the exact sample location in the future. All grab samples were then combined into a rice bag and were transported by Pathfinder Exploration Services personnel to ALS Laboratories in Thunder Bay, Ontario. No QA/QC samples were inserted into the batch of grab samples. The lab inserts their own standards into the sample stream, as well as blanks, in order to calibrate the instrument. The lab also performs duplicate analyses in order to confirm the accuracy and precision of its analyses. Samples were analyzed using the following codes: Au-AA24 [Au 50g FA AA Finish], Au-GRA22 [Au 50g FA-GRAV Finish]. Any pulps and rejects were discarded.





10.0) Results

10.1) Recon and Access

Access to the Univex and Baker trenches was relatively easy for future field programs, however, all trenches were completely overgrown or covered with lichen and moss (Figure 6). A trenching program will be required in order to properly map and resample these zones. In order to conduct a proper mechanical stripping program, the hiking trail leading to these zones will require a moderate amount of excavator work in order to transport the required equipment to site.



Figure 6: Overgrown Baker West Trench

10.2) Geology, Structure and Mineralization

No samples were taken at the Univex showing, however, the zone consisted of a series of generally east-west trending quartz veins within granitic host rocks. Veins have been historically exposed by stripping for a distance of approximately 40 to 50 meters along strike.

The Baker occurrence, located in the southern half of the property, consists of a 20 to 30 cm wide brittle to brittleductile shear/fracture zone within syenitic hosts rocks that strikes 040 to 050° with dips ranging from 68 to 80° south. Mineralization within this zone consists of 1-2% disseminated pyrite and chalcopyrite with locally cm scale lenses of semimassive pyrite. Samples collected at the Baker East zone returned gold values of 0.8 g/t Au and 13.5g/t Au.

Roughly 100m along strike to the southwest from the Baker structure another similar shear zone was identified where the syentic host is mineralized with 1% disseminated sulfides and locally up to 2-4% fracture-controlled sulfides. Samples from that location returned gold values of 1.0 g/t Au and 1.9 g/t Au and it is relatively safe to assume these structures are related. A sample location map with projected structure and Au values can be seen in Figure 7.





11.0) Discussion and Recommendations

The Kravchik – Worthington Bay property holds potential for further increasing the knowledge of structural controls on mineralization as well as new gold discoveries on the property. It is advised to conduct a stripping program in order to re-expose the Univex showing so that it may be properly washed, mapped and channel sampled. As well, a mechanical stripping program should also be conducted on the Baker showings. Since grab samples returned gold values on a similar structure along strike to the southwest of the Baker zone, it may be prudent to expose the structure between showings. It may also be prudent to expose a length of outcrop perpendicular to the Baker structure to identify any parallel structures. Prospecting along strike of Baker structure would also be advised.

12) References

- 1) Arnold K., 2019. "Geology and Geochemistry of the Terrace Bay Batholith, N. Ontario", MSc Thesis, Lakehead University, Thunder Bay, Ontario.
- 2) Magnus S.J., 2019. "Geology of the Western Schreiber-Hemlo Greenstone Belt: A Geological Guidbook". Open File Report 6357.
- 3) Scott J.F., 2014. "An Assessment of the Worthington Creek Area", Assessment File 20000014770, AFRO # 2.55303.
- 4) Voltai S.C., 1965. "Glacial Features of the Quetico-Nipigon Area, CJES vol. 2, pp.247-269", Map S265, Scale 1:506880.

Appendix I – Assay Certificates

www.alsglobai.com/geoch	Phone: +1 (604) 984 0221	North Vancouver BC V7H 0A7	2103 Dollarton Hwy	ALS Canada Ltd.
emistry	Fax: +1			
	(604) 984			
	8 120 1			

To: PATHFINDER EXPLORATION

Page: 1 Total # Pages: 2 (A) Plus Appendix Pages Finalized Date: 7-FEB-2020 Account: PEXJWMQR

CERTIFICATE TB20020144

Project: Worthington

This report is for 4 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 27-JAN-2020.

The following have access to data associated with this certificate:

	SAMPLE PREPARATION	
ALS CODE	DESCRIPTION	
WEI-21	Received Sample Weight	
PUL-QC	Pulverizing QC Test	
LOG-22	Sample login - Rcd w/o BarCode	
CRU-31	Fine crushing - 70% <2mm	
SPL-21	Split sample - riffle splitter	
PUL-31	Pulverize up to 250g 85% <75 um	
	ANALYTICAL PROCEDURES	
ALS CODE	DESCRIPTION	INSTRUMENT
Au-AA24	Au 50g FA AA finish	AAS

Au-GRA22

Au 50 g FA-GRAV finish

WST-SIM

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release. ***** See Appendix Page for comments regarding this certificate *****

Signature: Saa Traxler, General Manager, North Vancouver

1 203961 1203962 1203964 1203965 1203965	Sample Description	(ALS)	
	Method Analyte Units LOD	Ŭ	
0.72 0.30 1.15	WEI-21 Recvd Wt. kg 0.02		ALS Canada L 2103 Dollar North Vanco Phone: +1 (I www.alsgli
0.833 >10.0 1.025 1.875	Au-AA24 Au ppm 0.005		td. ton Hwy ouver BC V7 504) 984 07 obal.com/
13.50	Au-GRA22 Au ppm 0.05	а а	H 0A7 221 Fax: +1 (604) 984 0218 geochemistry
		Project: Worthington CERTIFICATE OF ANALYSIS	To: PATHFINDER EXPLORATION
		TB20020144	Page: 2 - A Total # Pages: 2 (A) Plus Appendix Pages Finalized Date: 7-FEB-2020 Account: PEXJWMQR

	Annual to Method	Applies to Method:		(ALS)	
	SPL-21 WEI-21 WEI-21 Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.	LABORATORY ADDRESSES Processed at ALS Thunder Bay located at 645 Norah Crescent, Thunder Bay, ON, Canada CRU-31 CRU-31 PUL-31	CERTIFICATE COMMENTS	Project: Worthington CERTIFICATE OF ANALYSIS	ALS Canada Ltd. To: PATHFINDER EXPLORATION 2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry
		PUI-OC		TB20020144	Page: Appendix 1 Total # Appendix Pages: 1 Finalized Date: 7-FEB-2020 Account: PEXJWMQR