WORK REPORT ON SUMMER, 2024, FOLLOWUP SURFICIAL GEOLOGIC MAPPING, MAGNETIC SURVEY & SAMPLING ON PLACER PROSPECTING LEASE IW00774, NEW BAUER CREEK, MT. NANSEN AREA, YUKON

Field Work & Report by: William C. Hood, P.Geo. Beausejour, Manitoba

Property Holder:
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Field Work July 14, 15 & 16; 2024 Report Completed July 30, 2024

Summary of Reported Work:

Geographic Area: NTS 115-I-03-P, Mt. Nansen area Mineral Disposition: Placer Prospecting Lease IW00774

Target Commodity: placer gold

GPS Flagged Grid: 0.44 line-km, 100m line spacing, 20m station spacing

Surficial Geologic Mapping: 0.44 line-km, 1:2000 scale

Ground TF Mag Survey: 0.44 line-km, 100m line spacing, 10m station spacing

Hand Auguring: 1 hole, 10 ft

Hand Pitting: 1/2 yard, 1 bucket sampled

Report Software: Microsoft Office Word, Paint

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SUMMARY

This report describes the results of a small program of follow-up flagged grid installation, surficial geological mapping, magnetic surveying and sampling in the south-central and eastern areas of a one-mile prospecting lease on New Bauer Creek in the Mt. Nansen area of the Yukon. The prospecting lease was staked in August, 2021, by the author to cover ground believed prospective for placer gold. Work during 2022 and 2023 located an area of fluvial gravels along the south side of the New Bauer Creek valley. This report is being prepared for the purpose of satisfying work requirements on the lease prior to conversion to placer claims.

The Mt. Nansen district has had a history of modest placer gold production along Nansen Creek and Victoria Creek, as well as various tributaries. These placer creeks occur in the area of two main bedrock gold vein and porphyry systems, the Mt. Nansen deposit, presently undergoing site rehabilitation, and the Klaza deposit, presently under active exploration. Placer gold exploration in the Mt. Nansen area is complicated by glaciation, which has both covered and redistributed surficial gold, but recent discoveries of significant placer accumulations at depth above weathered bedrock has generated new interest in the area. Both bedrock mineral showings and glacially redistributed material may have shed placer gold into New Bauer Creek.

The summer, 2024, work program was intended mainly to sluice a 1-yard sample from fluvial gravels that were found along the south side of the valley in 2022 and 2023, plus do additional geology and geophysics. However, it was found that there was insufficient water available in the immediate area of the gravels for sluicing, due to drought conditions, so the 2024 sampling program was reduced. Over three days on July 14-16, 2024, three additional lines of flagged grid, surficial geologic mapping and magnetic surveying were completed along the south side of the valley in the east central area of the lease, filling in the gap between previous work in the central and eastern areas. Instead of a 1-yard sluiced sample, approximately 1/2 bucket of sample was taken from the identified fluvial gravels

and screened/panned at camp. As well, additional prospecting, hand auguring and sampling was completed in the area of old excavator pits along the creek near the east end of the lease.

Results overall were negative from this 2024 work on New Bauer Creek, however, it is in an area that could be favourable for placer gold, with significant mineralized bedrock gold showings in the area, and minimal glaciation. Conversion of the upper half of the lease to placer mining claims is recommended.



William C. Hood, P.Geo. July 30, 2024

INTRODUCTION

This report describes the results of a small program of follow-up flagged grid installation, surficial geological mapping, magnetic surveying and sampling in the south-central and eastern areas of a one-mile prospecting lease on New Bauer Creek in the Mt. Nansen area of the Yukon. The prospecting lease was staked in August, 2021, by the author to cover ground believed prospective for placer gold. Work during 2022 and 2023 located an area of fluvial gravels along the south side of the New Bauer Creek valley. No gold was found during initial pans of these gravels. The 2024 work was mainly intended to sluice one yard of these gravels, however, no water was available in the immediate area due to drought conditions. This report is being prepared for the purpose of satisfying work requirements on the lease prior to conversion to placer claims.

The Mt. Nansen district has had a history of modest placer gold production along Nansen Creek and Victoria Creek, as well as various tributaries. These placer creeks occur in the area of two main bedrock gold vein and porphyry systems, the Mt. Nansen deposit, presently undergoing site rehabilitation, and the Klaza deposit, presently under active exploration. Placer gold exploration in the Mt. Nansen area is complicated by glaciation, which has both covered and redistributed surficial gold, but recent discoveries of significant placer accumulations at depth above weathered bedrock has generated new interest in the area. Both bedrock mineral showings and glacially redistributed material may have shed placer gold into New Bauer Creek.

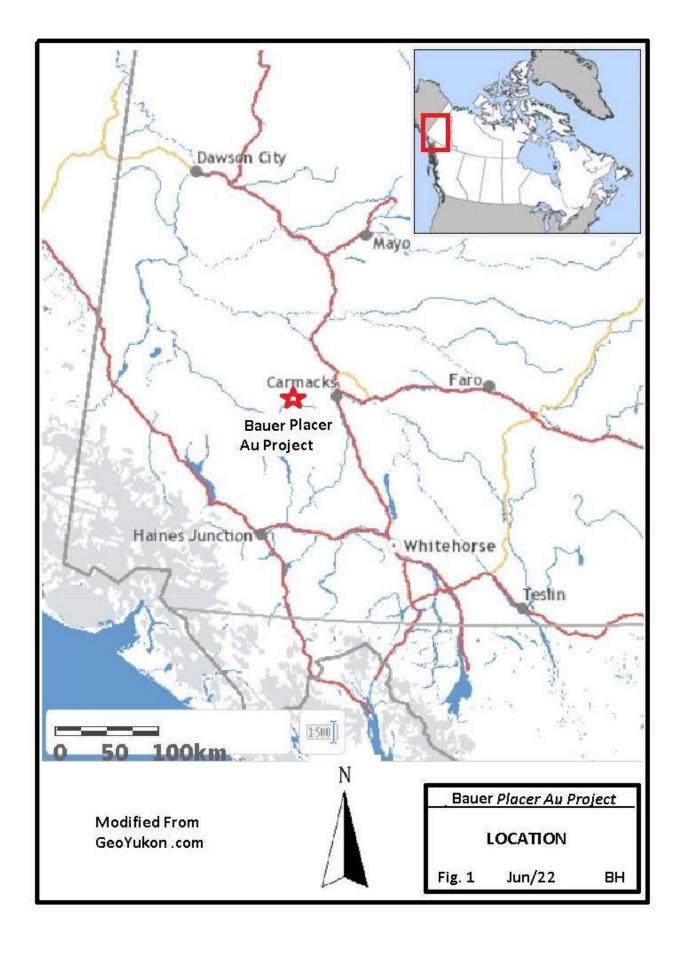
This work on New Bauer Creek is intended to provide baseline geological and geophysical data for future drilling and/or backhoe sampling.

LOCATION, ACCESS & PHYSIOGRAPHY

The New Bauer Creek placer prospecting lease is situated in southwestern Yukon, about 170 km northwest of Whitehorse, and 40 km due west of Carmacks (Fig. 1). Basic groceries, supplies, fuel and accommodations are available in the town of Carmacks. The prospecting lease is 2 km southwest of the Mt. Nansen mine, which is presently undergoing site rehabilitation. Access to the area is from the Mt. Nansen Road, which is a 1 to 1.5 lane gravel road that is maintained year-round by the Yukon government to provide access to the Mt. Nansen mine rehabilitation project as well as placer mines and exploration projects in the area.

Access to New Bauer Creek is from the unmaintained Nansen/Klaza road, which extends to the west and north from the Mt Nansen mine site. New Bauer Creek is accessed by driving 1.1 km west from the Mt Nansen mill/bunkhouse road, then 0.5 km south on the Dry Creek placer road to a point just past "Survey Post Hill", and then about 1 km southeast by ATV on an old drill road to the #2 post of the lease at the top of New Bauer Creek. Camp for this project was on the Nansen/Klaza road at a point 0.4 km west of the Dry Creek turnoff, utilizing camp facilities from a previous mineral project that were not in use in summer, 2024.

Physiography in the New Bauer Creek area is hilly, with ridges flanking both the north and south sides of the valley, which trends about 080 by 260 degrees azimuth. Elevations along the location line range from 1081m at the #1 post to 1238m at the #2 post near the top of the valley. The south-facing, north side of the valley and valley bottom of New Bauer Creek is well treed with spruce and minor poplar. The north-facing, south side of the valley is sparsely vegetated with hummocky moss, buckbrush and minor spruce. The creek bottom is brushy with willows and buckbrush. The creek runs mainly in black organic material with no surface gravels. Permafrost underlies most of the south side of the valley at shallow depths, as well as under the creek bottom in many locations.



CLAIM STATUS

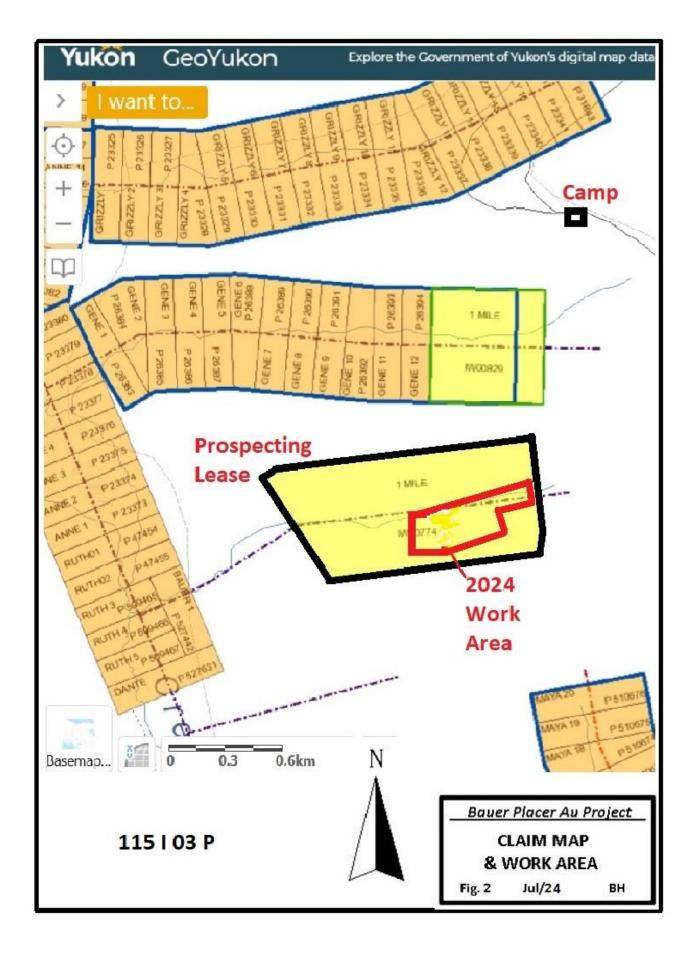
The New Bauer Creek placer gold property comprises a single 1-mile prospecting lease, IW00774, covering the top half of the creek. The central location line trends about 080 by 260 degrees azimuth along New Bauer Creek. The lease was staked in August, 2021, and is in good standing until expiry in September, 2024. The present intent is to convert all or a portion of the lease to placer claims before expiry of the lease. The lease is held by the author of this report, William C. Hood, of Beausejour, Manitoba. The claim map and 2024 work areas are shown in Figure 2.

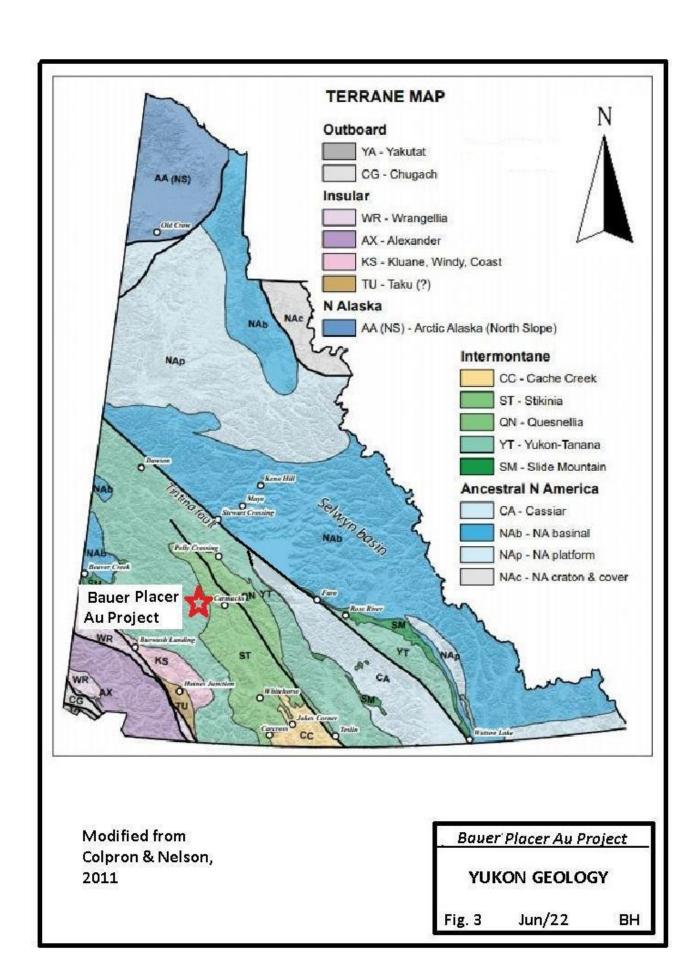
GEOLOGY

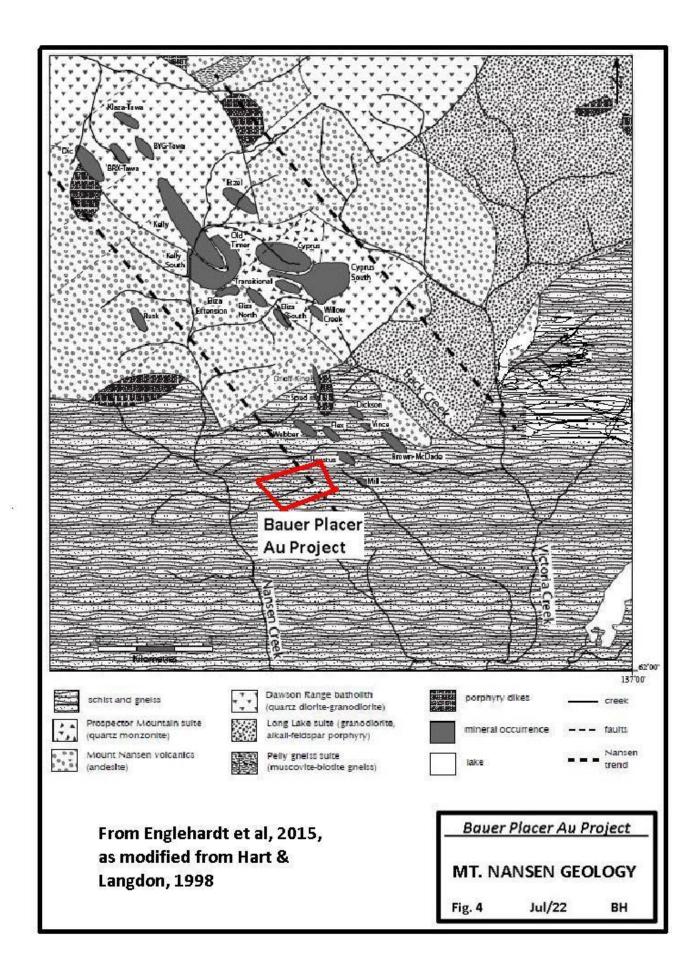
The Mt. Nansen area lies within the Yukon Tanana terrane, which is interpreted to have formed in an island-arc, back-arc basin environment associated with Mesozoic era continental accretion. Basement rocks in this terrane comprise assorted schists and gneisses of Proterozoic through Paleozoic age. These rocks are cut by a range of intrusive and volcanic rocks of Jurassic to Cretaceous age (Fig. 3).

The Mt. Nansen area is underlain by older metamorphic rocks of the Yukon Group to the south, cut by younger Cretaceous intrusive and volcanic rocks to the north, including the southeast end of the Dawson Range Batholith. These rocks are intruded by numerous late porphyritic dikes throughout the area, with associated gold-bearing veins and porphyry systems, including the formerly producing Mt. Nansen mine and the Klaza deposit, presently under active exploration (Fig. 4).

The area of the New Bauer Creek project is underlain by older schist, gneiss and amphibolite which has been intruded by younger granite and granodiorite. Gold mineralization associated with both veining and porphyry style alteration is widespread throughout the area. The Heustus showing lies near the top of New







Bauer Creek valley (Fig. 5), and bedrock trenching of mineralization has been noted near the northeast corner of the prospecting lease.

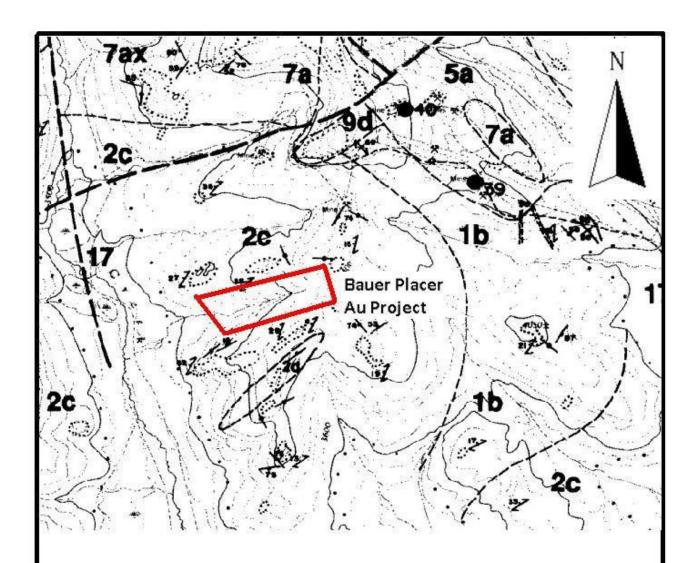
Placer gold production, and the interpretation of potential target areas for additional production, has been complicated by glaciation which has both redistributed gold grains and covered pay gravels with till (Fig. 6). Most historical production has been from surface gravels, and above the "false bedrock" of claybearing glacial till units, but recent work has indicated that significant gold can be recovered from deep gravels above weathered bedrock, though with high stripping ratios.

WORK PROGRAM; SUMMER, 2024

The summer, 2024, work program was intended mainly to sluice a 1-yard sample from fluvial gravels that were found along the south side of the valley in 2022 and 2023, plus do additional geology and geophysics. However, it was found that there was insufficient water available in the immediate area of the gravels for sluicing, due to drought conditions, so the 2024 sampling program was reduced.

Over three days on July 14-16, 2024, three additional lines of flagged grid, surficial geologic mapping and magnetic surveying were completed along the south side of the valley in the east central area of the lease, filling in the gap between previous work in the central and eastern areas. Instead of a 1-yard sluiced sample, approximately 1/2 bucket of gravels was packed from the identified fluvial gravels and screened/panned at camp. As well, additional prospecting, hand auguring and sampling was completed in the area of old excavator pits along the creek near the east end of the lease.

As in 2022 and 2023, the additional grid was installed by GPS. This flagged grid provided control for subsequent work, and an opportunity to collect elevation data. Lines were spaced at 100m with stations marked at 20m intervals along



- 17 Quaternary: unconsolidated alluvium
- 9 Cretaceous to Paleocene; Mt Nansen Ste: d) porphyritic granodiorite to quartz monzonite stocks
- 7 Cretaceous to Paleocene; Mt Nansen Ste: a) andesite to latite massive flows & feeders
- 5 Early Cretaceous; Dawson Range Plutonic Ste: a) Casino granodiorite
- 2 Paleozoic: a) hornblende-biotite-feldspar gneiss; c) biotite-quartz-feldspar schist, amphibolite, minor quartzite & marble
- 1 Paleozoic: b) quartz-feldspar-mica schist/gneiss

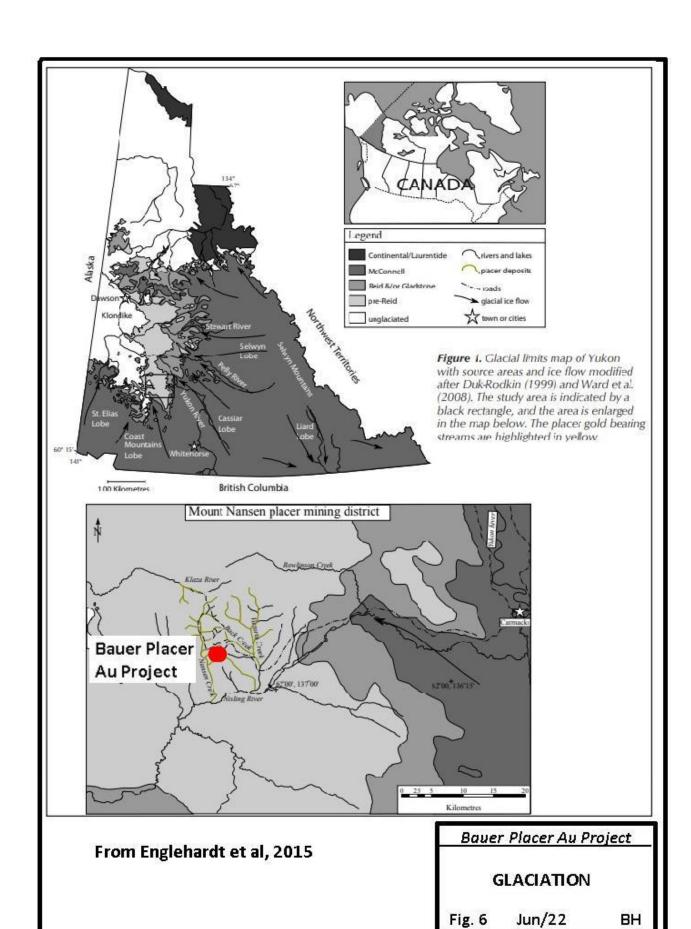
From G.G. Carlson, Open File 1987-2

Bauer Placer Au Project

PROPERTY GEOLOGY

Fig. 5 Jul/22

BH



lines. Grid stations were located using a Garmin 66S instrument. Specifications for this instrument indicate 3m accuracy, but where visible over a distance, accuracies appear to be better than 2m. Lines were run north-south on UTM coordinates. Lines and stations were numbered with the last four digits of the NAD83, Zone 8, UTM coordinates, so grid easting plus 380,000 equals true UTM easting, while grid northing plus 6,879,000 equals true UTM northing. Flags on 100m stations were marked with both line number and station coordinates, while the 20, 40, 60 and 80m stations were only marked with the grid northing. Locations for readings taken at 10m points were estimated between flagged stations. The new grid lines installed in 2024, lines 6200E, 6300E and 6400E, totaled 0.44 line-km.

Detailed mapping of the surficial materials was completed by the author at a scale of 1:2000. The detailed magnetic survey was completed by the author using an instrument owned by the author. The VLF-EM surveying that was done in previous years was not done over the new grid area in 2024 because the station used in this area, NPM, Hawaii, 21.4 khz was off the air at the time of this work, and other stations did not have good signal strength and field nulls. The objective of this work was to characterize the surficial materials, and determine whether the creek had any distinctive geophysical characteristics which could relate to placer gold mineralization. In the course of this work, any prospective gravels would be sampled, screened and panned. Sample descriptions and field notes from the mapping are included in Appendix I. Several photographs are in Appendix II.

The total field magnetic survey was completed using a Geometrics G-856 proton precession magnetometer. Details and specifications on this instrument are included in Appendix III. All field readings were looped from a base station location at L6600E/1340N. All data was leveled relative to this point in direct proportion to elapsed time, and levelled to the 2022 value at this base station, of 56,302 nT. The magnetic survey was run on a day when solar activity and geomagnetic disturbances were minimal, as monitored on shortwave station

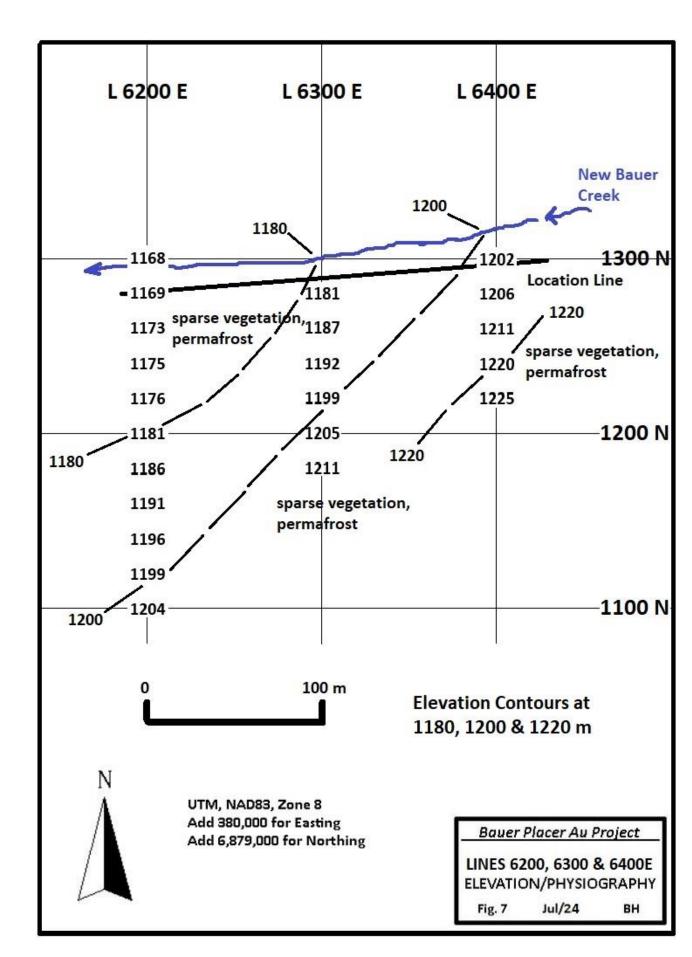
WWV. The maximum drift within a loop was 15 nT. Data error is expected to fall within a plus/minus 5 nT bracket, which is adequate for this survey.

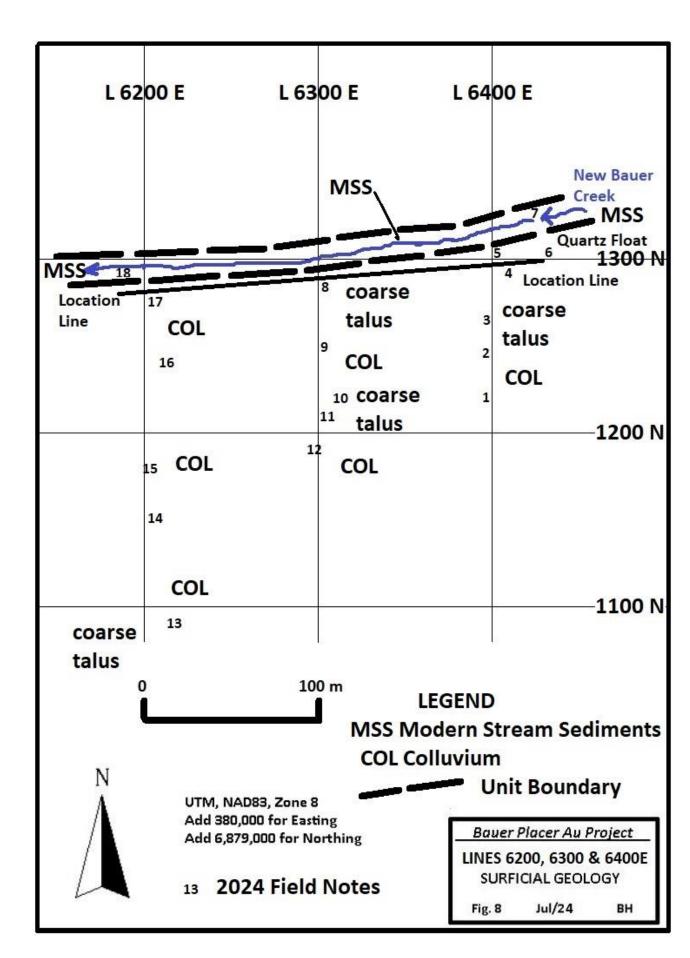
Elevation data/contours, vegetation and general physiography of the 2024 work area is shown on Figure 7. Elevations in the work area ranged from 1168 to 1225m. The south-facing, north slopes of the valley are generally well-treed with spruce and local poplar. The north-facing, south slope of the valley, where this work was done, has sparse, stunted spruce trees, with thick sphagnum moss, thin buckbrush and shallow permafrost. The valley bottom has local thick buckbrush and willows along the creek, with thick organic deposits of moss, humus and black organic material.

The 2024 surficial geologic mapping on lines 6200, 6300 and 6400E is shown on Figure 8. Organic material, mainly brown sphagnum moss and black humus, typically about 10 to 20 cm thick, but thicker along creeks and low flat areas, is ignored in this mapping. Also ignored is the ubiquitous white to grey White River tephra/ash deposit, typically 5 to 10 cm thick, immediately underlying the organics. Field notes are included in Appendix I and provide background data to the interpreted surficial geology.

Most of the 2024 work area across lines 6200, 6300 and 6400E, south of the creek, is underlain by brown colluvium (unit COL), which generally comprised about 50% clay-silt matrix and 50% angular pebble, cobble and boulder sized clasts. Much of the area was found to be underlain by coarse cobble-boulder angular talus, with no matrix material present at surface. Clasts were mainly a fine-grained, schistose granodiorite to diorite lithology, with minor intermediate composition schist and dark fine-grained sediment. Clasts of white biotite granite were locally present, especially on line 6400E. An area of angular quartz vein float was also found at 6430E/1300N.

The youngest surficial unit (unit MSS) is the modern stream sediments occurring in a narrow band along New Bauer Ck. These comprise thin beds of brown claysilt-sand locally exposed along the creek and in the banks. Most of New Bauer Ck runs in a thick deposit of black organic material, and permafrost was commonly



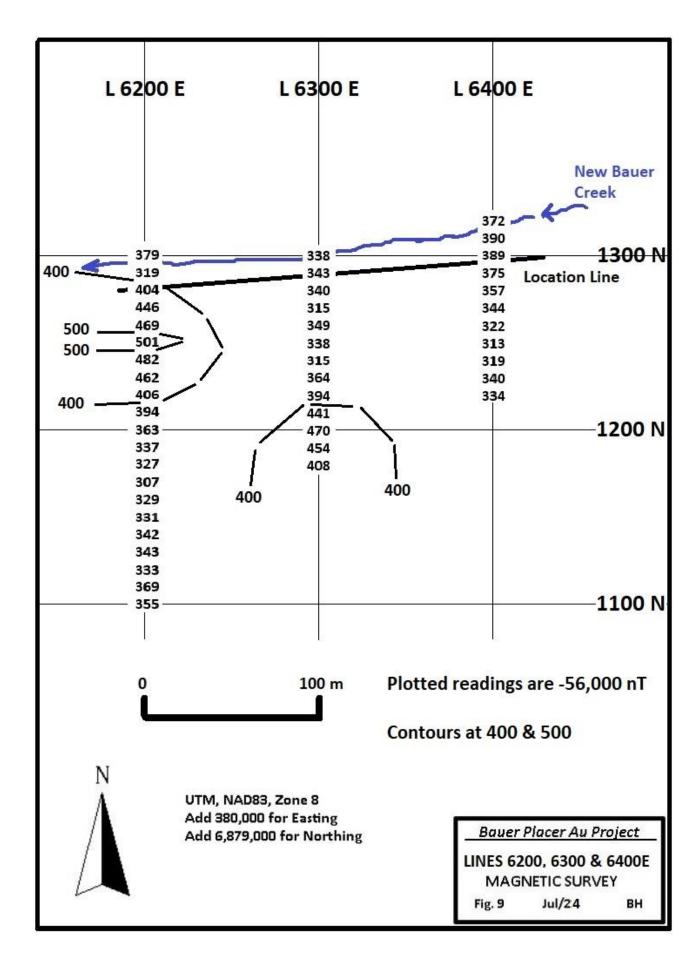


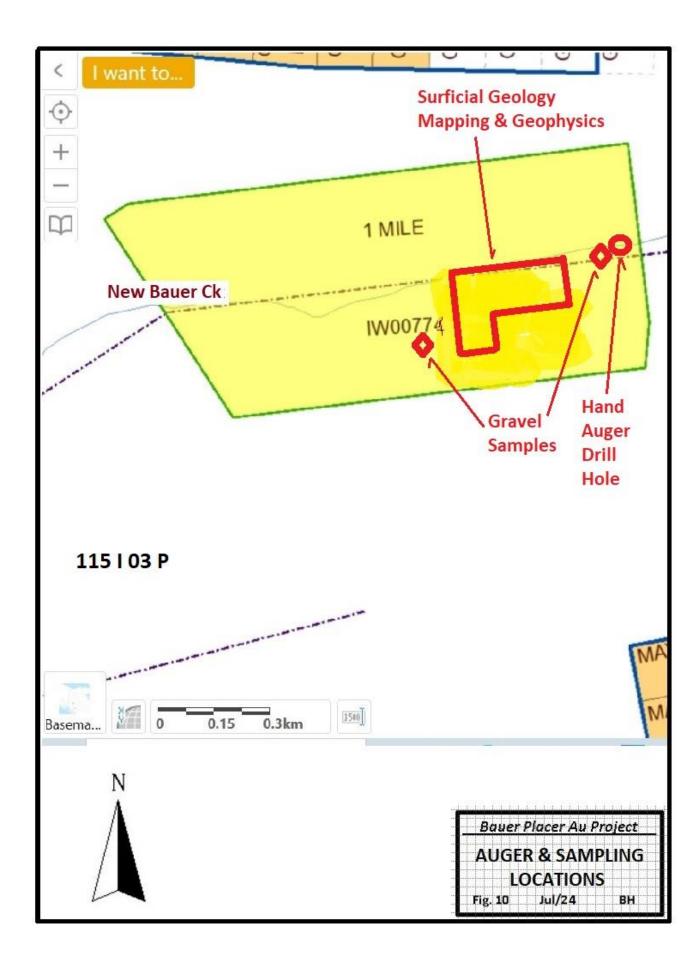
found at shallow depths under the creek. It is notable that no fluvial gravels were found exposed along the present stream bed of New Bauer Creek.

The total field magnetic survey results are shown on Figure 9. Magnetic readings in this work area were fairly flat, falling within a 200 nT range, from 56,307 nT to 56,501 nT. A slight magnetic high is present at the north end of line 6200E, just south of the creek, but this is believed to reflect a bedrock feature. No obvious correlation with surficial lithology or placer potential is noted.

One of the main objectives of the 2024 work program was to sluice a 1-yard test of the fluvial gravels previously found on line 6000E at 1060N, but this was not possible due to lack of water. Instead, a sample of about 1/2 bucket was taken to camp and panned (Fig. 10). These clast-supported, pebble to cobble gravels are brown coloured for the top 40cm, then change to grey below 40cm. They vary from subangular to subrounded. and comprise about 50% intermediate to mafic composition schist, 25% fine-grained foliated to schistose granodiorite and 25% white medium-grained biotite granite, with minor quartz pebbles. No gold was panned from this sample.

Since no fluvial gravels have been found exposed at surface along New Bauer Creek, auger holes were drilled by hand from the bottom of three old excavator pits near the east end of the lease. These pits, which are along the creek, were found to be dry in summer, 2024, affording an opportunity to auger below them. An auger hole in the most westerly pit within the creek, at 386505E/6880335N, recovered brown silty organic sediments down to 2 feet depth, where permafrost was encountered. A second auger hole, at 386590E/6880351N, also in a pit along the creek, recovered brown silty organic sediments down to a depth of 10'. A third pit, situated at 386580E/6880331N, about 10m south of the creek, was augured, encountering gravels about 2' below the bottom of the excavator pit. A pit was then hand dug by shovel to obtain a 1-bucket sample of these gravels, which were screened and panned. These "gravels" were found to be angular, comprising mainly schist and minor white granite, and were concluded to be





colluvium which had sloughed into the modern stream sediments along the creek. No gold was found in this sample.

Results overall were negative from this 2024 work on New Bauer Creek, however it is in an area that could be favourable for placer gold, with significant mineralized bedrock gold showings in the area, and minimal glaciation.

CONCLUSIONS & RECOMMENDATIONS

A small program of flagged grid installation by GPS, mapping and sampling of surficial materials, magnetic surveying and hand auguring of sediments was completed during July, 2024, in the east-central area of placer prospecting lease IW00774 on New Bauer Creek. A small area of fluvial gravels was located in the south-central area of the lease in 2022 and 2023, but no additional prospective gravels were located in 2024. No gold was found in any of the 2024 samples.

Results overall were negative from this 2024 work on New Bauer Creek, however it is in an area that could be favourable for placer gold, with significant mineralized bedrock gold showings in the area, and minimal glaciation. Conversion of the upper half of the lease to placer mining claims is recommended.



William C. Hood, P.Geo. July 30, 2024

CERTIFICATE

For: William C. Hood, P.Geo.

P.O. Box 1722; 508 Elm Ave. Beausejour, Manitoba Canada R0E0C0 (204)268-3455 bhood @ mts.net

- 1) I am a graduate of the University of Manitoba (1979) with a B.Sc. (Honours) Degree in Science (Geology) and I have practiced my profession since that time.
- 2) I am a Registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of Manitoba since 1982.
- 3) I have been employed by Tantalum Mining Corporation (1979-1983), Province of Manitoba Departments of Labour (1992 1995) & Energy and Mines (1995 1997), and ProAm Exploration Corporation (1997 2000), as well as operating my own business as W.C. Hood, Consulting Geologist (1983 1992 & 2000 present).
- 4) I have researched, conducted and supervised a wide range of exploration programs for hydrothermal and placer gold, volcanogenic copper-zinc, magmatic nickel-copper-PGE, pegmatitic tantalum-lithium-cesium, kimberlitic diamonds and various industrial mineral commodities.



William C. Hood, P.Geo. July 30, 2024

APPENDIX I – 2024 FIELD NOTES

Lines 6200, 6300 & 6400 E (Fig. 8):

- 1) 6395E/1225N: 20cm sphagnum moss & black humus; into 20cm of colluvium with 50% angular pebbles & cobbles and 50% brown clay-silt matrix; clasts are 75% intermediate composition schist & 25% white biotite granite; into probable schist bedrock.
- 2) 6395E/1245N: same colluvium as @ 1).
- 3) 6395E/1265N: 20cm moss & black humus; into coarse talus of angular cobbles & boulders; mix of fine-grained diorite composition schist & white granite.
- 4) 6410E/1290N: small hill with heavier buckbrush; 20cm moss & black humus; 20cm white volcanic ash; into coarse talus with about 50% schist & 50% white granite.
- 5) 6400E/1300N: same talus colluvium as @ 4).
- 6) 6430E/1315N: area of coarse angular quartz vein float; no sulphides.
- 7) 6425E/1320N: heavy buckbrush along rusty creek; damaged aluminum drill pipe buried under moss & black organics; cut 8' logs nearby suggest possible drill hole in this area in past.
- 8) 6300E/1280N: 20cm moss & black humus; into coarse talus of sheared white granite.
- 9) 6300E/1250N: 40cm moss & humus; into permafrost.
- 10) 6310E/1220N: 30cm moss & humus; 10cm clay-silt probable colluvium; then into permafrost.
- 11) 6300E/1210N: coarse talus.
- 12) 6295E/1190N: coarse talus.
- 13) 6215E/1090N: 20cm moss & humus; into coarse angular talus; all fine- to medium-grained foliated biotite granite to granodiorite schist.
- 14) 6200E/1150N: 30cm sphagnum moss; into 10cm brown silt; then into 10cm white volcanic ash; then into 20cm+ of brown silt-sand.
- 15) 6200E/1180N: 30cm moss & black humus; into brown colluvium with 50% clay-silt matrix & 50% angular cobbles of schist & granite.
- 16) 6210E/1240N: 30cm moss & humus; into 20cm+ of brown silt.
- 17) 6200E/1270N: 20cm moss & humus; into brown colluvium with mix of angular schist & granite in a silty matrix.
- 18) 6190E/1290N: heavy buckbrush along creek; hummocky moss; modern stream sediments along creek are fine brown-black silt with organics.



Photo 1. Looking west down New Bauer Creek valley toward Nansen Creek at W. Hood during surficial geological mapping at L6200E/1270N.



Photo 2. Looking west down New Bauer Creek from east end of prospecting lease at W. Hood during magnetic survey.



Photo 3. W. Hood hand auguring sediments to 10 ft depth from bottom of old excavator pit near east end of prospecting lease.



Photo 4. Examining augured sediments near east end of lease.



Photo 5. W. Hood digging pit to sample gravels below bottom of old excavator pit near east end of prospecting lease.

APPENDIX III – INSTRUMENT SPECIFICATIONS



G-856 Memory-MagTM

Proton Precession Magnetometer

MODEL G-856A & AX OP MAN EDITION 2/2002 REV 02

M. SPECIFICATIONS

Displays Six digit display of magnetic field to resolution of

0.1 gamma or time to nearest second. Additional three digit display of station, day of year, and line number.

Resolution Typically 0.1 gamma in average conditions. May

degrade to lower resolution in weak fields, noisy

conditions or high gradients.

Absolute

Accuracy

One gamma, limited by remnant magnetism in sensor and

crystal oscillator accuracy.

Clock

Julian clock with stability of 5 seconds per month at room temperature and 5 seconds per day over the temperature range of -20 to +50 degrees Celsius.

Tuning

Push button tuning from keyboard with current value

displayed on request. Tuning range 20 to 90

kilogammas.

Gradient

Tolerance

Tolerates gradients to 1800 gammas/meter. When high gradients truncate count interval, maintains partial

reading to an accuracy consistent with data.

Cycle Time

Complete field measurement in three seconds in normal

operation. Internal switch selection for faster cycle (1.5 seconds) at reduced resolution or longer cycles

for increased resolution.

Manual Read

Takes reading on command. Will store data in memory

on command.

Memory

Stores more than 5000 readings in survey mode, keeping track of time, station number, line number day and magnetic field reading. In base station operation, computes for retrieval but does not store time of recording designated by sample interval, allowing

storage of up to 12,000 readings.

Output

Plays data out in standard RS-232 format at selectable baud rates. Also outputs data in real time byte parallel, character serial BCD for use with digital recorders.

Inputs

Will accept an external sample command.

Special Functions An internal switch allows: 1) adjustment of polarization time and count time to improve

performance in marginal areas or to improve resolution

or speed operation, 2) three count averaging, 3) choice of lighted displays in auto mode.

Physical

Instrument console: 7 x 10 1/2 x 3 1/2 inches

(18 x 27 x 9 cm) 6 LB (2.7 kg)

Sensor:

3 1/2 x 5 inches (9 x 13 cm)

4 LB (1.8 kg)

Staff:

1 inch x 8 feet (3cm x 2.5m)

2 LB (1kg)

Environmental

Meets specifications from 1 to 40°C. Operates

satisfactorily from -20 to 50°C.

Power

Operates from 9 D-cell flashlight batteries (or 13.5 volts external power). May be operated at 18 volts external power to improve resolution. Power failure or replacement of batteries will not cause loss of

data stored in memory.

ACCESSORIES

Standard:

Sensor

Staff Backpack

Two sets of batteries

Carrying case

Applications Manual for Portable Magnetometers

RS-232 Cable

Optional:

Cold weather battery belt Rechargeable Battery option 50' External power / Sensor cable

Spares Kit