WORK REPORT ON SUMMER, 2022, SURFICIAL GEOLOGIC MAPPING, MAGNETIC SURVEY, VLF-EM SURVEY & SAMPLING ON PLACER PROSPECTING LEASE IW00774, NEW BAUER CREEK, MT. NANSEN AREA, YUKON

Field Work & Report by:
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Beausejour, Manitoba

Property Holder:
William C. Hood
P.O. Box 1722
Beausejour, Manitoba R0E0C0

Field Work June 12, 19, 20, 22, 25-29; July 1-3; 2022
Report Completed July 10, 2022

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Summary of Reported Work:

Geographic Area: NTS 115-I-03-P, Mt. Nansen area
Mineral Dispositions: Placer Prospecting Lease IW00774
Target Commodity: placer gold
GPS Flagged Grid: 1.7 line km, 100m line spacing, 20m station spacing
Surficial Geologic Mapping: 1.7 line km, 1:2000 scale
Ground VLF-EM Survey: 1.7 line km, 100m line spacing, 10m station spacing
Ground TF Mag Survey: 1.7 line km, 100m line spacing, 10m station spacing
Report Software: Microsoft Office Word, Paint

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TABLE OF CONTENTS

LIST OF FIGURES

SUMMARY

This report describes the results of a small program of flagged grid installation, surficial geological mapping, magnetic and VLF-EM surveying, and sampling over 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. This report is being prepared for the purpose of satisfying work requirements on the lease

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 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 section of New Bauer Ck had been subjected to significant bedrock mineral exploration in past, as evidenced by trenching and drilling, but little placer exploration, other than apparent claim/lease staking. Mapping determined that most of the area was covered by colluvium, with minor sand at the bottom of the lease. No evidence of fluvial gravels was found along New Bauer Ck, though a local occurrence of stream gravels was found perched on the south wall of the valley near the center of the lease, at a point 25m above the present stream level. No gold was found in several pans from pits on New Bauer Ck or the perched stream gravels.

Although results were generally negative, placer prospecting lease IW00774 on the upper section of New Bauer Ck should be renewed pending additional

examination of the perched stream gravels located on the south side of the valley at 1060N on line 6000E. Ultimately, drilling or deeper backhoe sampling will be needed to evaluate the deeper placer gold potential in this creek.

William C. Hood, P.Geo.
July 10, 2022

INTRODUCTION

This report describes the results of a small program of flagged grid installation, surficial geological mapping, magnetic and VLF-EM surveying, and sampling over 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. This report is being prepared for the purpose of satisfying work requirements on the lease

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 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 one-lane gravel road that is maintained year-round


Dawson City
Mayo
Carmacks
Faro
Bauer Placer
Au Project
Haines Junction
Whitehorse
Teslin
0 50 100km
1:500
N
Modified From
GeoYukon .com
Bauer *Placer Au Project*
LOCATION
Fig. 1 Jun/22 BH

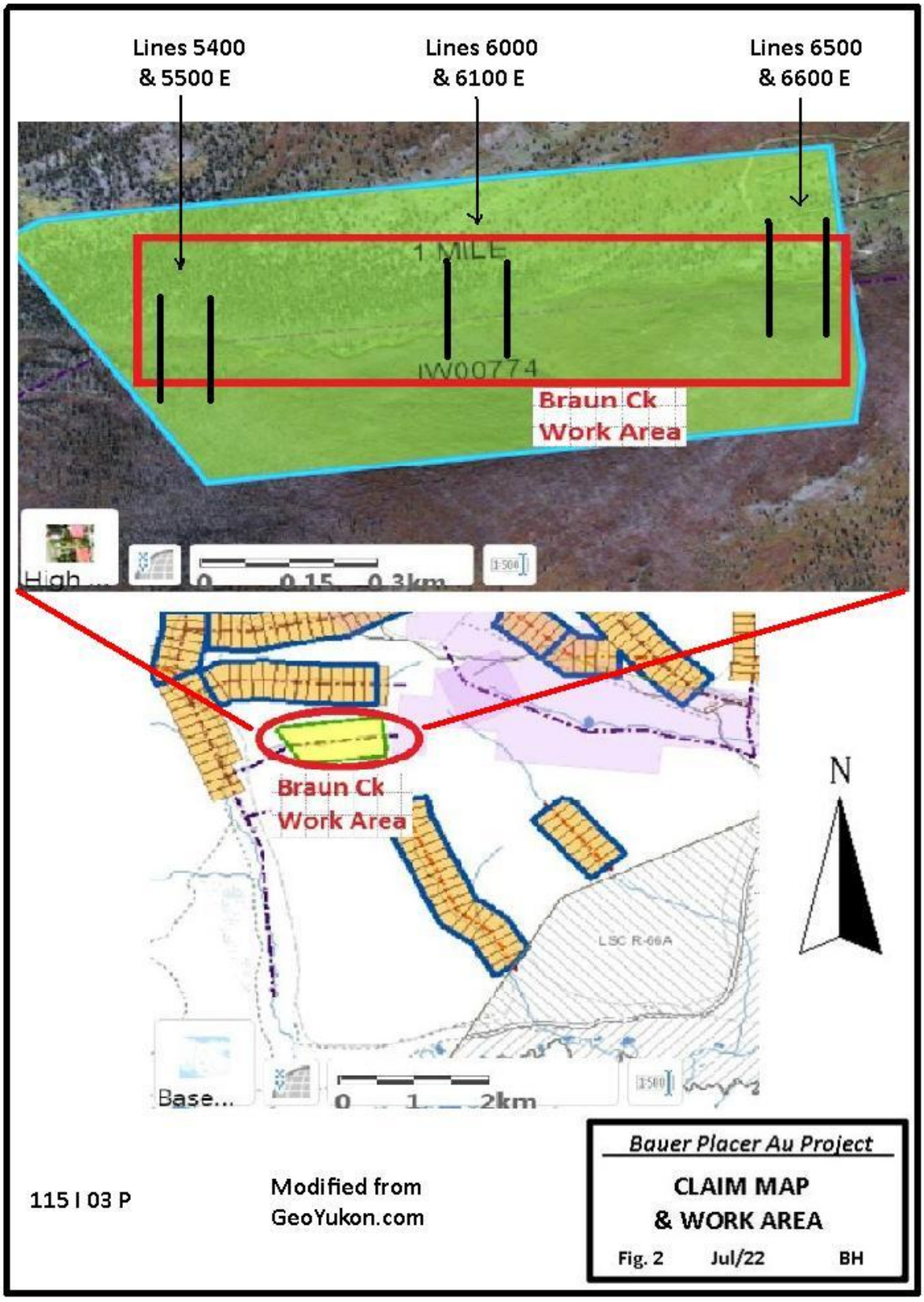
by the Yukon government to provide access to the Mt. Nansen mine rehabilitation project as well as placer mines and exploration projects in the area.

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 facilities from a previous mineral project that were not in use in summer, 2022.

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 presently in good standing until August, 2022. The lease is held by the author of this report, William C. Hood, of Beausejour, Manitoba. The claim map and work area is shown in Figure 2.


Lines 5400
& 5500 E
Lines 6000
& 6100 E
Lines 6500
& 6600 E
1 MILE
IW00774
Braun Ck
Work Area
High...
0 0.15 0.3km
Braun Ck
Work Area
LSC R-66A
N
Base...
0 1 2km
115 I 03 P
Modified from
GeoYukon.com
Bauer Placer Au Project
CLAIM MAP
& WORK AREA
Fig. 2 Jul/22 BH

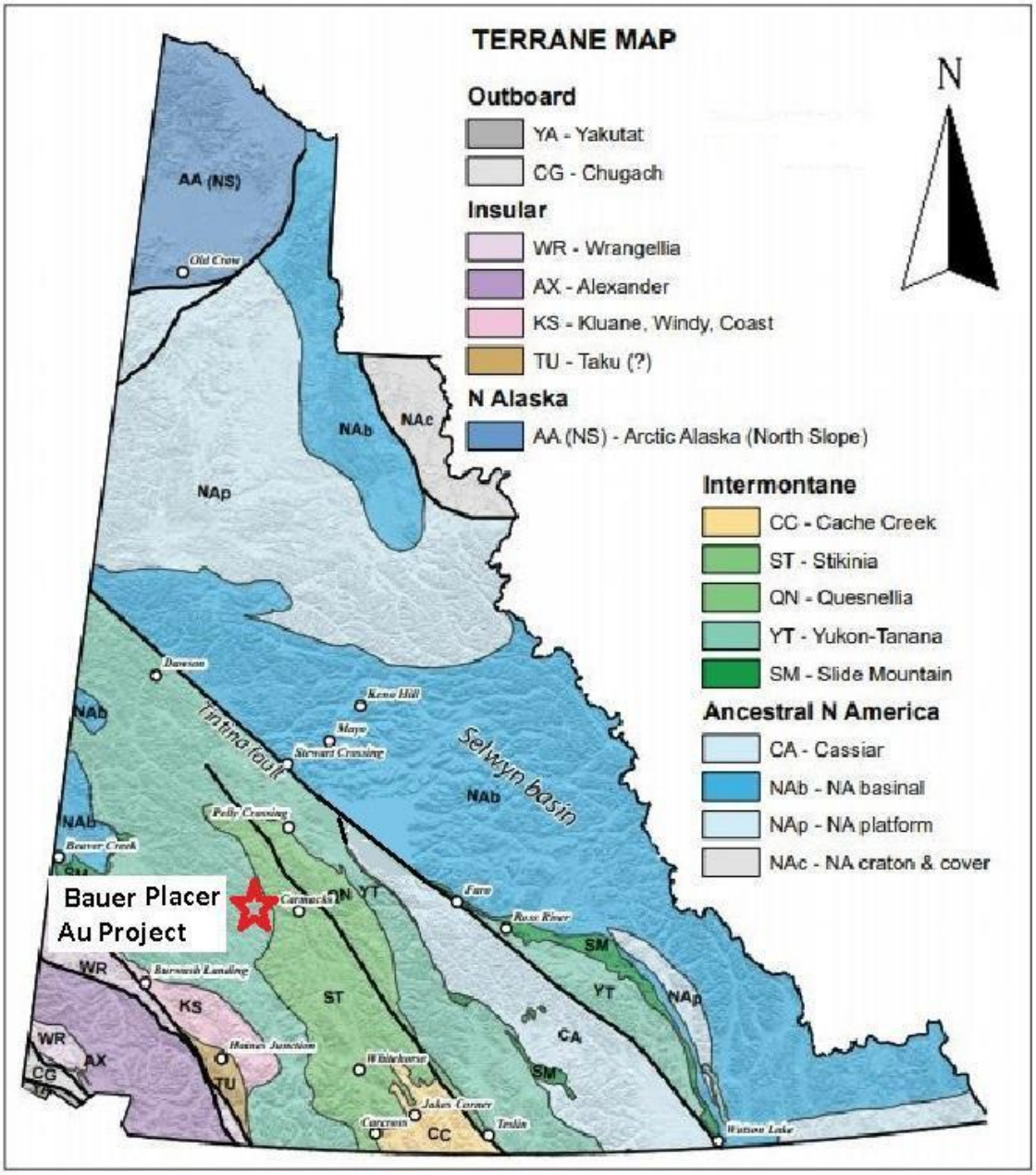
GEOLOGY

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).

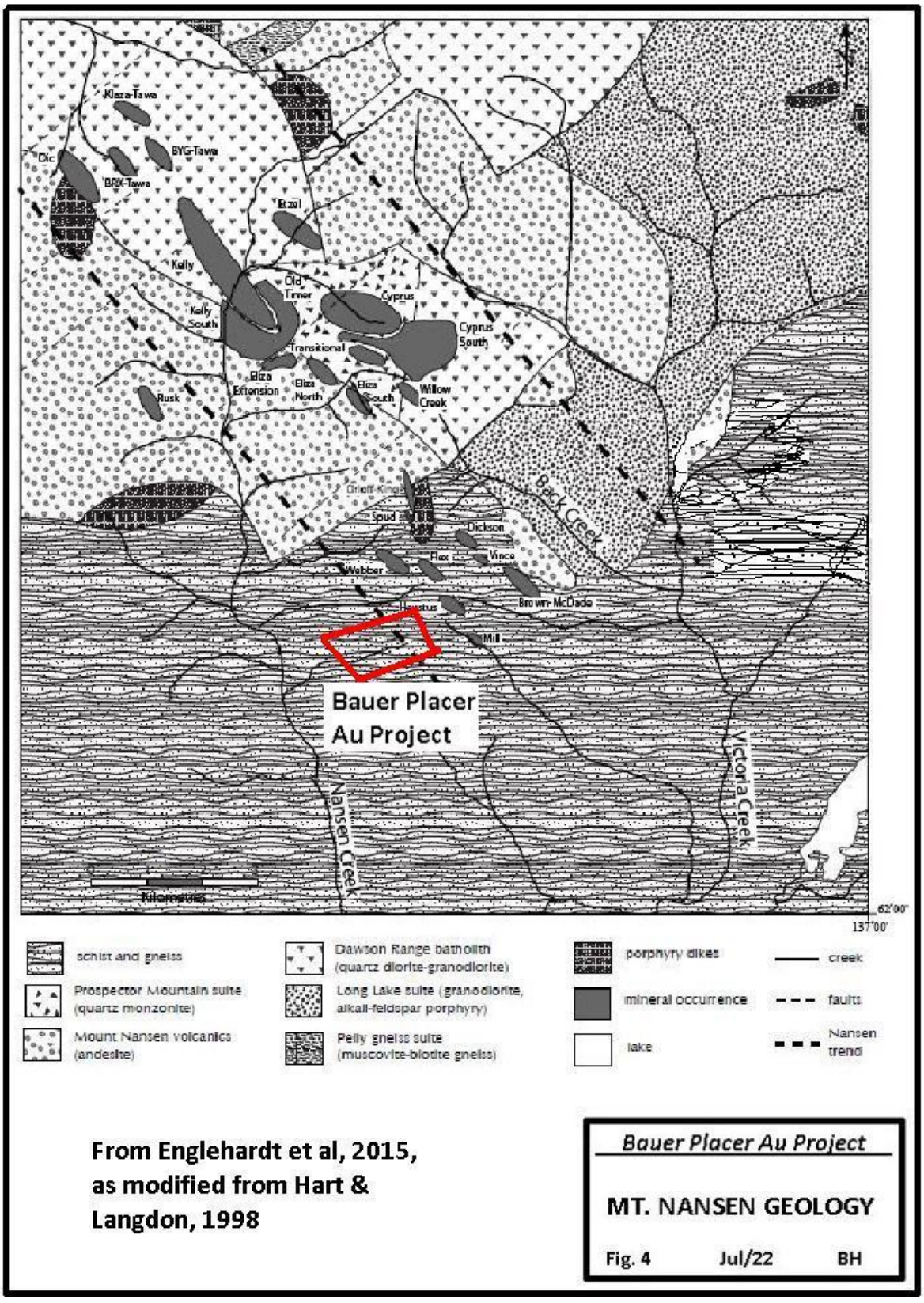
The area of the Bauer project is underlain by older schist, gneiss and amphibolite which has been intruded by younger granite and granodiorite. Gold mineralization associated with both veining and porphyry style alteration is widespread throughout the area. The Heustus showing lies near the top of New Bauer Creek valley (Fig. 5).

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 clay-bearing 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.



Modified from
Colpron & Nelson,
2011

Bauer Placer Au Project		
YUKON GEOLOGY		
Fig. 3	Jun/22	BH

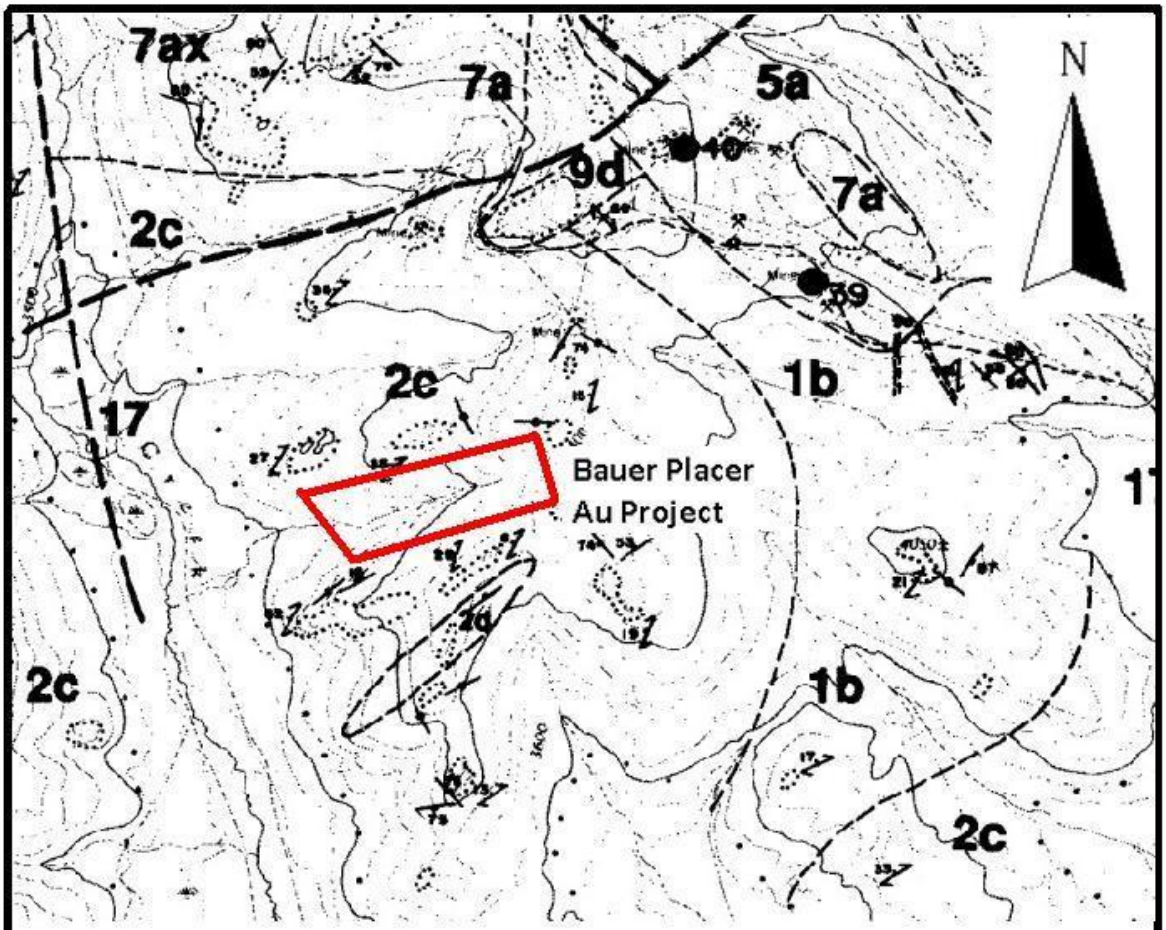


From Englehardt et al, 2015, as modified from Hart & Langdon, 1998

Bauer Placer Au Project

MT. NANSEN GEOLOGY

Fig. 4 **Jul/22** **BH**



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

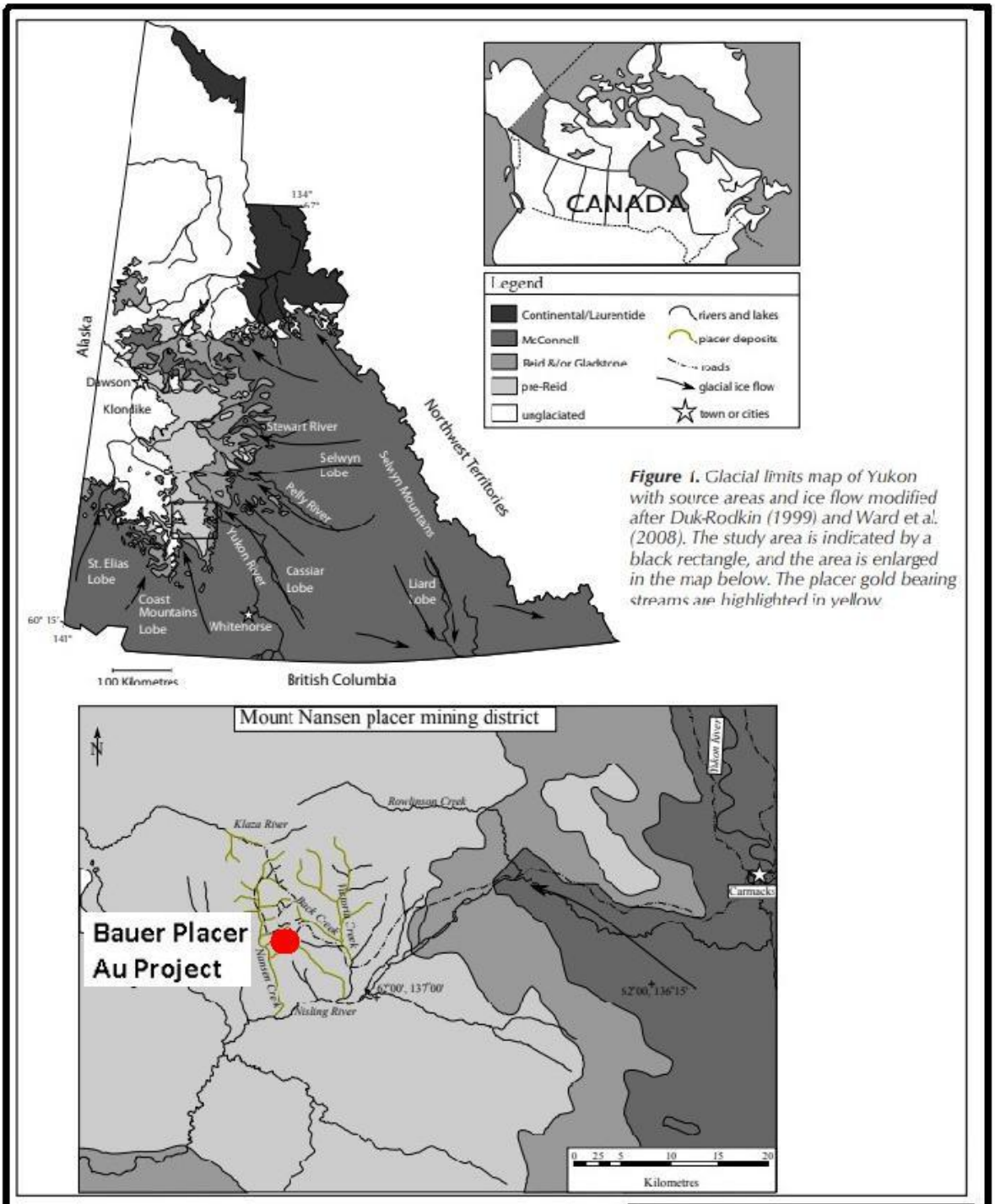


Figure 1. *Glacial limits map of Yukon with source areas and ice flow modified after Duk-Rodkin (1999) and Ward et al. (2008). The study area is indicated by a black rectangle, and the area is enlarged in the map below. The placer gold bearing streams are highlighted in yellow*

From Englehardt et al, 2015

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GLACIATION

Fig. 6 Jun/22 BH

WORK PROGRAM; SUMMER, 2022

A small program of flagged grid installation, surficial geologic mapping, magnetic surveying, VLF-EM surveying and sampling was completed over 12 days from June 12 to July 3, 2022. In order to get an initial overview of the lease area, six lines of flagged grid were installed, with two lines at the bottom of the lease, two lines at the center of the lease, and two lines at the top of the lease, as shown on Figure 2. 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 lines. Grid stations were located by GPS, using a Garmin 64S 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, with lines ranging from 220m to 320m long. Lines were run north and south from New Bauer Ck to points that were roughly 25m in elevation above the creek.

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. Stations at 20m locations utilized pink flagging, while 100m locations used orange flagging. All flags were marked with line and station numbers. Locations for readings taken at 10m points were estimated between flagged stations. The grid totaled 1.7 line km, with lines 5400 and 5500E at the bottom of the lease running from 0960N to 1280N, lines 6000 and 6100E from 1060N to 1360N, and lines 6500 and 6600E extending from 1220N to 1440N.

Detailed mapping of the surficial materials was completed by the author at a scale of 1:2000. Detailed magnetic and VLF electromagnetic surveys were completed by the author using instruments owned by the author. The objective 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/1330N. All data was leveled relative to this point, which averaged at 56,312 nT, in direct proportion to elapsed time. Magnetic surveys were run only on days when solar activity and geomagnetic disturbances were minimal, as monitored on shortwave station WWV. The maximum drift within a loop was 14 nT. Data error is expected to fall within a plus/minus 5 nT bracket, which is adequate for this survey.

The VLF electromagnetic survey was completed using a Geonics EM-16 instrument tuned to NPM, Hawaii, 21.4 khz. Details on this instrument are included in Appendix III. Although not optimum in terms of field orientation, NPM had the best combination of signal strength, null clarity and field orientation of the available stations. All VLF readings were taken facing northwest, with south-to-north, plus-to-minus (or sometimes more negative) in-phase crossovers marking conductive horizons.

Elevation data/contours, vegetation and general physiography for the three work areas are shown on Figures 7, 11 and 15. 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 has sparse, stunted spruce trees, with thick sphagnum moss, thin buckbrush and shallow permafrost. The valley bottom has local thick buckbrush along the creek. Figure 15 also shows the location of an old drill road which extends into the top of New Bauer Ck valley in the area of a bedrock mineral occurrence.

The results from surficial geologic mapping are shown on Figure 8 (lines 5400 & 5500E), Figure 12 (lines 6000 & 6100E) and Figure 16 (lines 6500 and 6600E). Organic material, mainly brown sphagnum and black humus, typically about 10 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 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.

The New Bauer Ck map area is mainly underlain by brown colluvium (unit COL), which generally comprised about 70% clay-silt sand matrix and 30% angular pebbles-cobbles of schist, which varied from felsic to mafic, and granite-granodiorite, which ranged from fine-grained and grey to medium-grained and white. Colluvium in the area of lines 6500 and 6600E at the top of the lease was locally rusty, with some fragments containing up to 5% fine disseminated pyrite. This mineralization is exposed in trenched bedrock along the drill road east of line 6600E. Trenches in colluvium and two pits along New Bauer Ck also probably relate to this bedrock mineral exploration program. An area of quartz vein float was found at grid position 6424E/1314N, west of line 6500E and about 10m south of New Bauer Ck. At the south end of line 6100E in the center of the lease, the colluvium graded into a coarse cobble talus in the area of a small creek flowing from the south.

An area of sand (unit SAN) was mapped across the south half of lines 5400 and 5500E at the bottom of the prospecting lease. The north edge of this sand unit formed a sharp 5m high scarp just south of New Bauer Ck. This type of sand unit is common in the lower part of creeks in the Mt Nansen area. The sand is light brown and well sorted, with minor (up to 10%) content of angular schist and granodiorite pebbles.

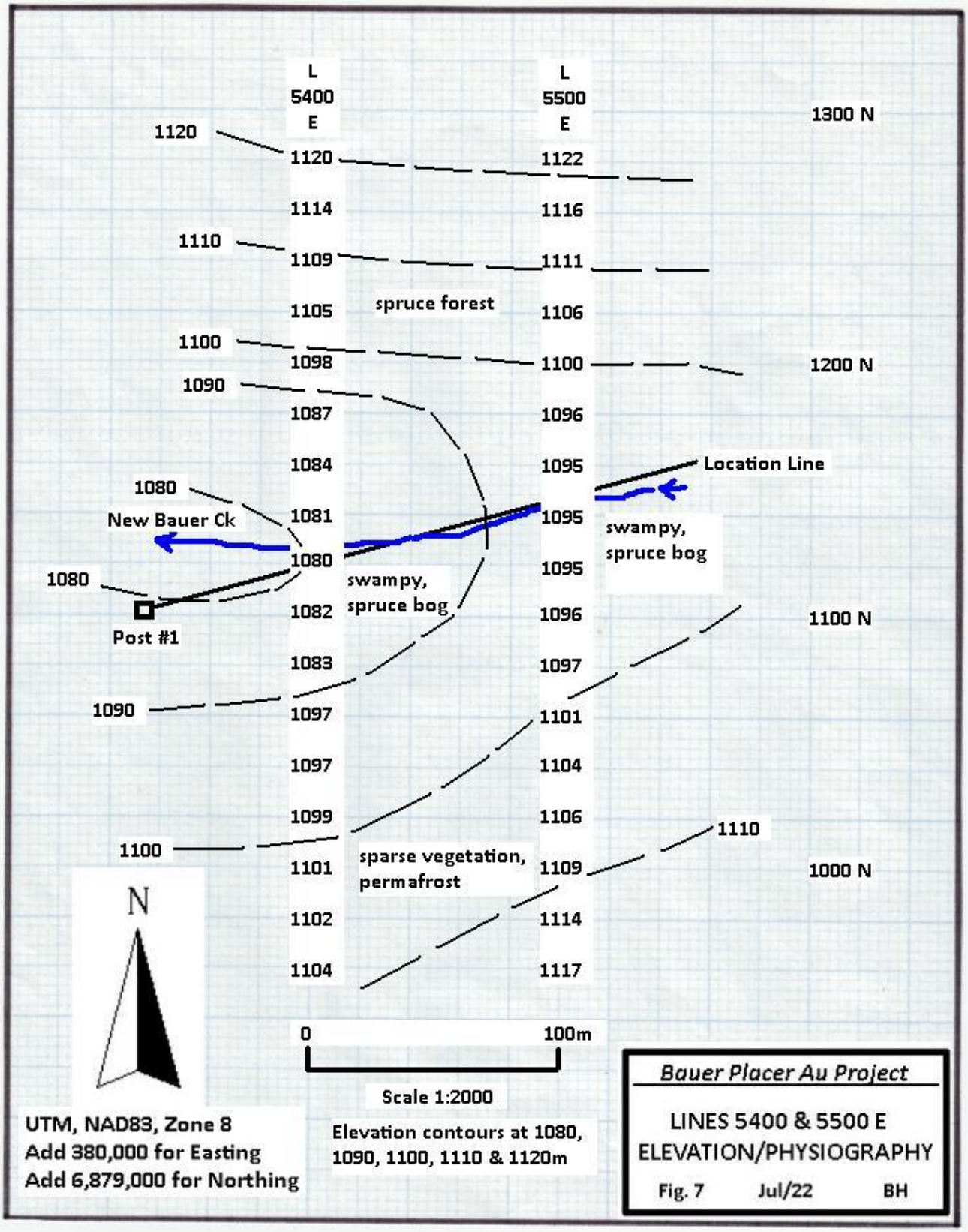
The youngest surficial unit (unit MSS) is the modern stream sediments occurring in a narrow band along New Bauer Ck. These comprise thin beds of brown clay-silt-sand locally exposed along the creek and in the banks. Most of New Bauer Ck runs in a thick deposit of black organic material, and permafrost was commonly found at shallow depths under the creek. The MSS unit is wider at the bottom of the lease on lines 5400 and 5500E, across a flat boggy area of moss, spruce bog and buckbrush adjacent to the creek. It is notable that no fluvial gravels were found at any portion of New Bauer Ck within the lease area.

The only unusual surficial unit was a local occurrence of fluvial gravels (unit FG) at the south end of line 6000E at an elevation 25m above the creek along the south side of the valley. This lithology had about 50% subrounded pebbles and cobbles of schist and granodiorite in a brown sand-gravel matrix. It is unclear whether this perched deposit of fluvial stream gravels relates to the small creek to the east, or to a previous run of New Bauer Ck along the south side of the valley, perhaps when a glacier occupied the lower portion of the valley.

The total field magnetic survey results are shown on Figures 9, 13 and 17. Magnetic readings in this work area were fairly flat, falling within a 350 nT range, from 56,182 nT to 56,537 nT. Local positive anomalies of up to 200 nT are present on all three grids, but are believed to reflect bedrock features, rather than the surficial geology. The close association of a positive magnetic anomaly on line 6600E just north of New Bauer Ck with an area of altered/mineralized bedrock suggests that other positive magnetic areas in the area may reflect bedrock mineralization. No obvious association with placer gold mineralization is apparent in this magnetic data, although the magnetic responses were generally low along the creek.

As with the magnetic survey, the VLF-EM survey returned fairly flat results, indicating a lack of significantly conductive rocks or surficial materials in the subsurface (Figures 10, 14 & 18). Two weak electromagnetic conductors were noted on lines 6500 and 6600E. Both of these conductors correspond with positive magnetic anomalies, which are believed to be associated with bedrock mineralization. An interesting, though weak, electromagnetic conductor was detected near the south end of line 6000E, just down-slope from an occurrence of fluvial stream gravels perched along the south wall of the valley. This conductor may reflect conductive clays associated with an earlier stream system.

Several pans were done, mainly from the pit muck and fine gravels from New Bauer Ck in the area of lines 6500 and 6600E, but no gold was found. A small sample of the fluvial gravels from line 6000E/1060N was panned, but no gold was found.


L 5400 E
L 5500 E
1300 N
1200 N
1100 N
1000 N
1120
1120
1122
1114
1116
1110
1109
1111
1105
spruce forest
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1100
1098
1100
1090
1087
1096
1084
1095
Location Line
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New Bauer Ck
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1095
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1080
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1082
1096
Post #1
1083
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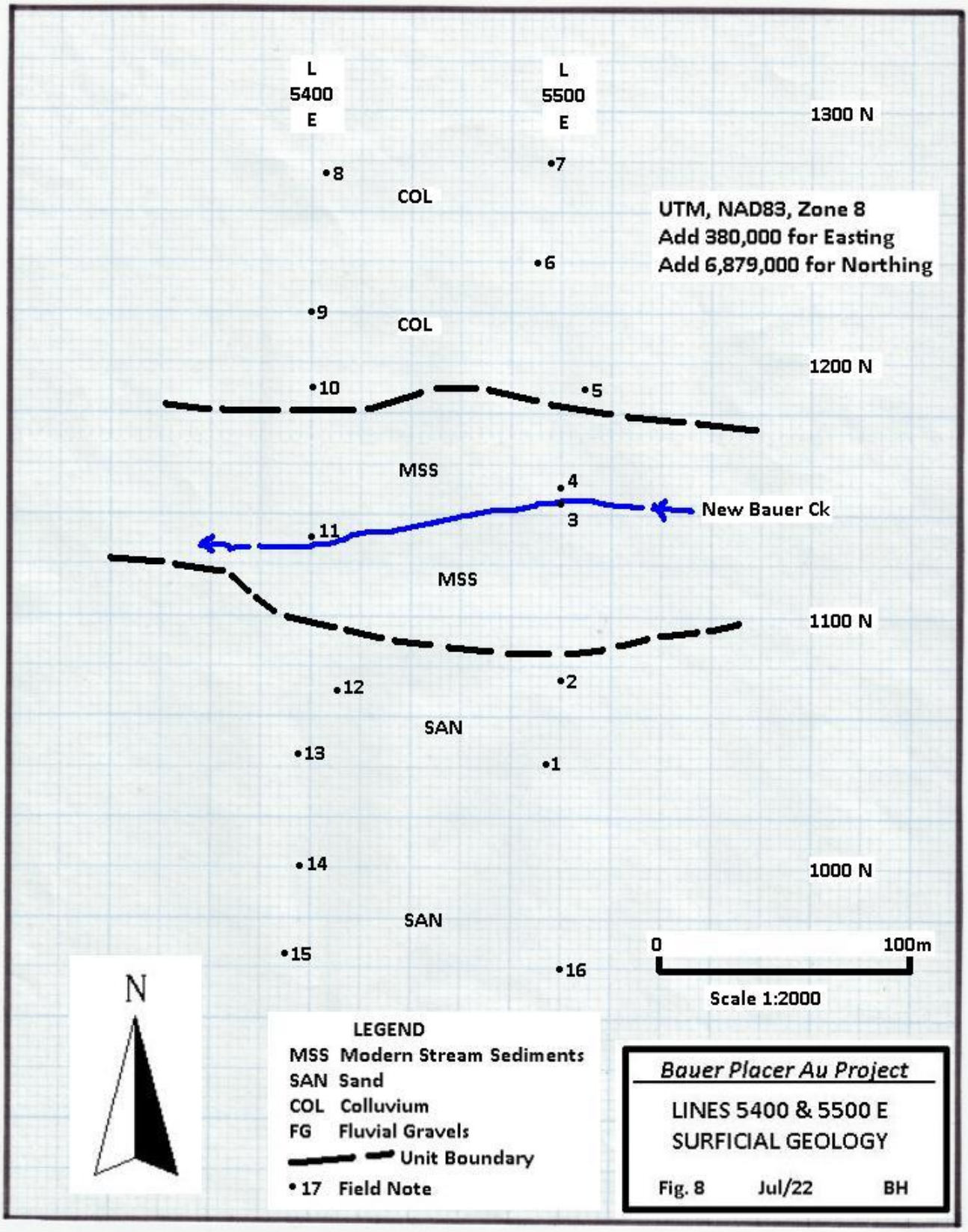
1097
1101
1097
1104
1099
1106
1110
1100
sparse vegetation, permafrost
1101
1109
1102
1114
1104
1117
N
0
100m
Scale 1:2000
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
Elevation contours at 1080, 1090, 1100, 1110 & 1120m
Bauer Placer Au Project
LINES 5400 & 5500 E
ELEVATION/PHYSIOGRAPHY
Fig. 7 Jul/22 BH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•8
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COL
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
•6
•9
COL
1200 N
•10
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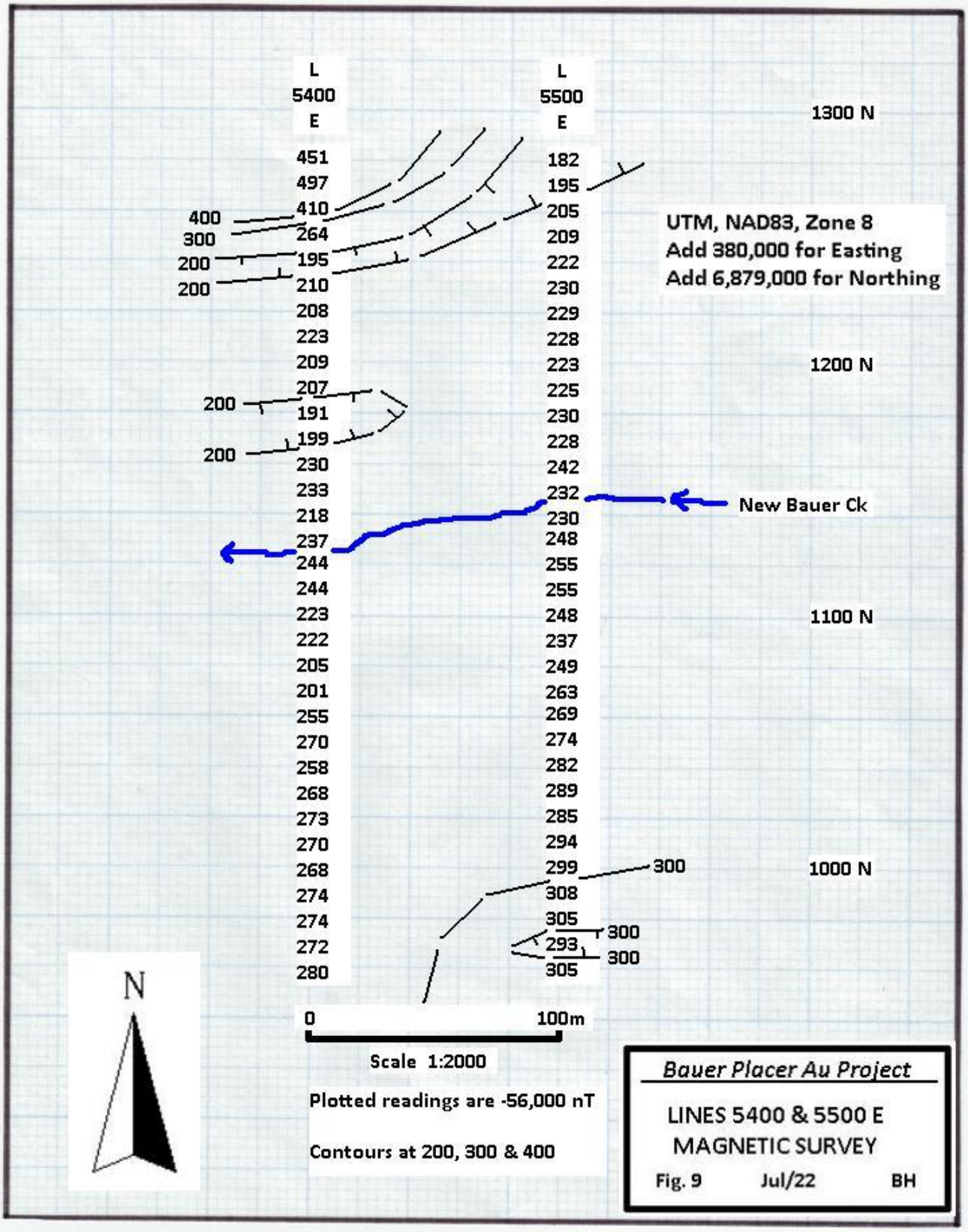
MSS
•4
New Bauer Ck
•11
3
MSS
1100 N
•12
•2
SAN
•13
•1
•14
1000 N
SAN
•15
•16
0
100m
Scale 1:2000
N
LEGEND
MSS Modern Stream Sediments
SAN Sand
COL Colluvium
FG Fluvial Gravels
Unit Boundary
• 17 Field Note
Bauer Placer Au Project
LINES 5400 & 5500 E
SURFICIAL GEOLOGY
Fig. 8 Jul/22 BH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269
274
282
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285
294
299
308
305
293
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400
300
200
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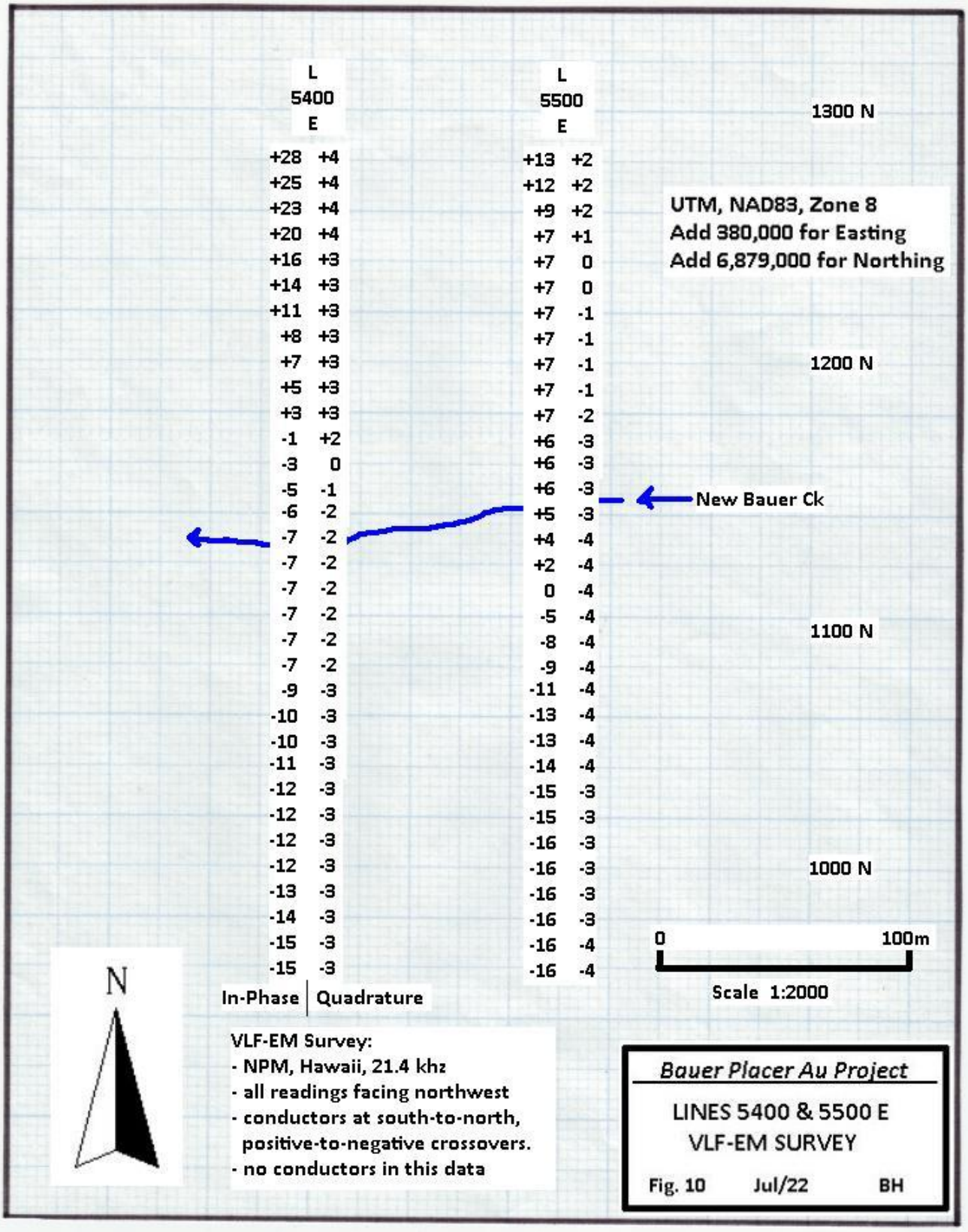
300
300
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
New Bauer Ck
N
0
100m
Scale 1:2000
Plotted readings are -56,000 nT
Contours at 200, 300 & 400
Bauer Placer Au Project
LINES 5400 & 5500 E
MAGNETIC SURVEY
Fig. 9
Jul/22
BH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+11 +3
+8 +3
+7 +3
+5 +3
+3 +3
-1 +2
-3 0
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-10 -3
-11 -3
-12 -3
-12 -3
-12 -3
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+7 0
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+5 -3
+4 -4
+2 -4
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-13 -4
-14 -4
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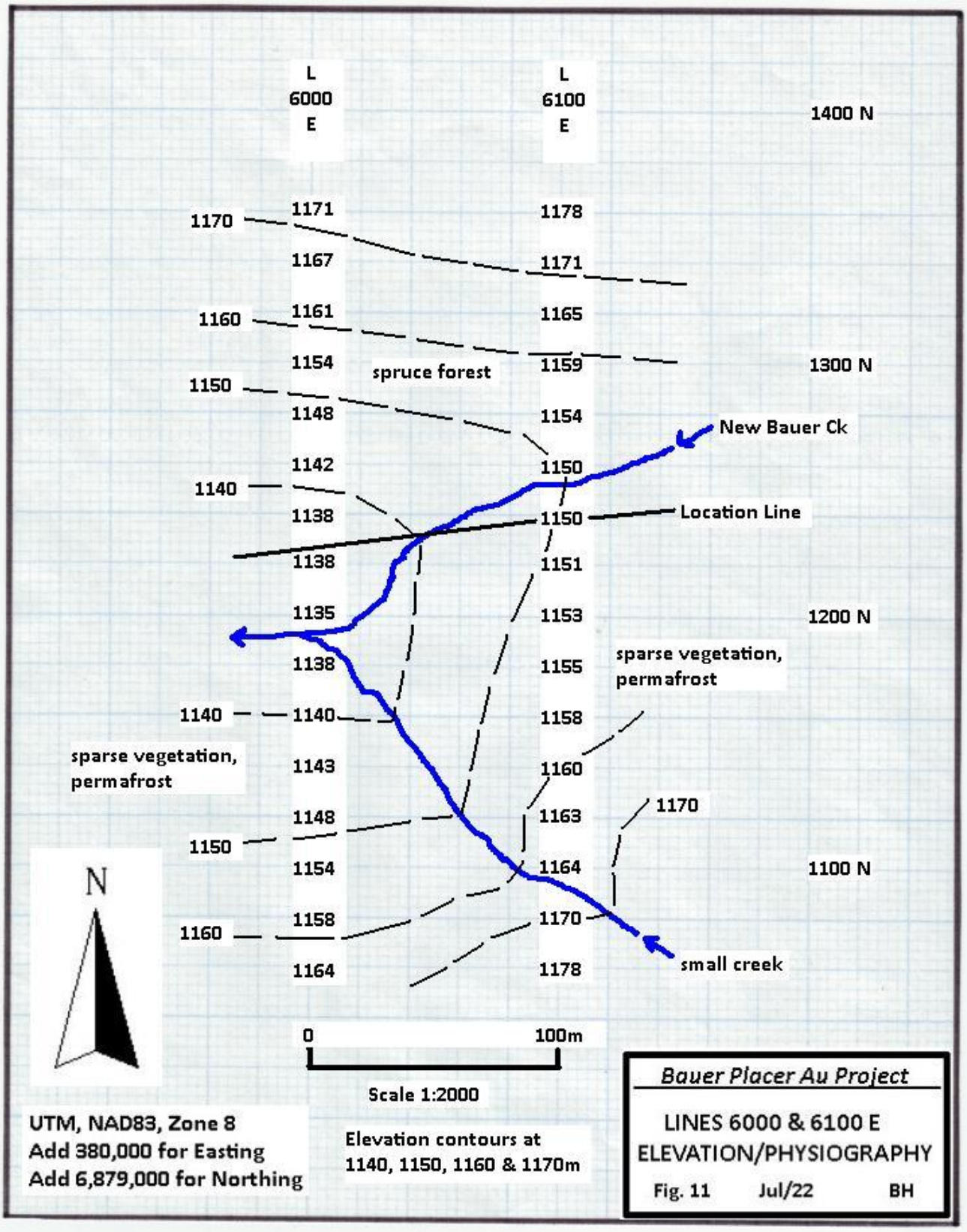
-15 -3
-16 -3
-16 -3
-16 -3
-16 -3
-16 -4
-16 -4
1300 N
1200 N
1100 N
1000 N
New Bauer Ck
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
0
100m
Scale 1:2000
N
In-Phase | Quadrature
VLF-EM Survey:
- NPM, Hawaii, 21.4 khz
- all readings facing northwest
- conductors at south-to-north, positive-to-negative crossovers.
- no conductors in this data
Bauer Placer Au Project
LINES 5400 & 5500 E
VLF-EM SURVEY
Fig. 10 Jul/22 BH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L 6100 E
1400 N
1300 N
1200 N
1100 N
1170
1171
1178
1167
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1161
1165
1154
spruce forest
1159
1150
1148
1154
New Bauer Ck
1142
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1140
1138
1150
Location Line
1138
1151
1135
1153
1138
1155
sparse vegetation, permafrost
1140
1140
1158
sparse vegetation, permafrost
1143
1160
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1164
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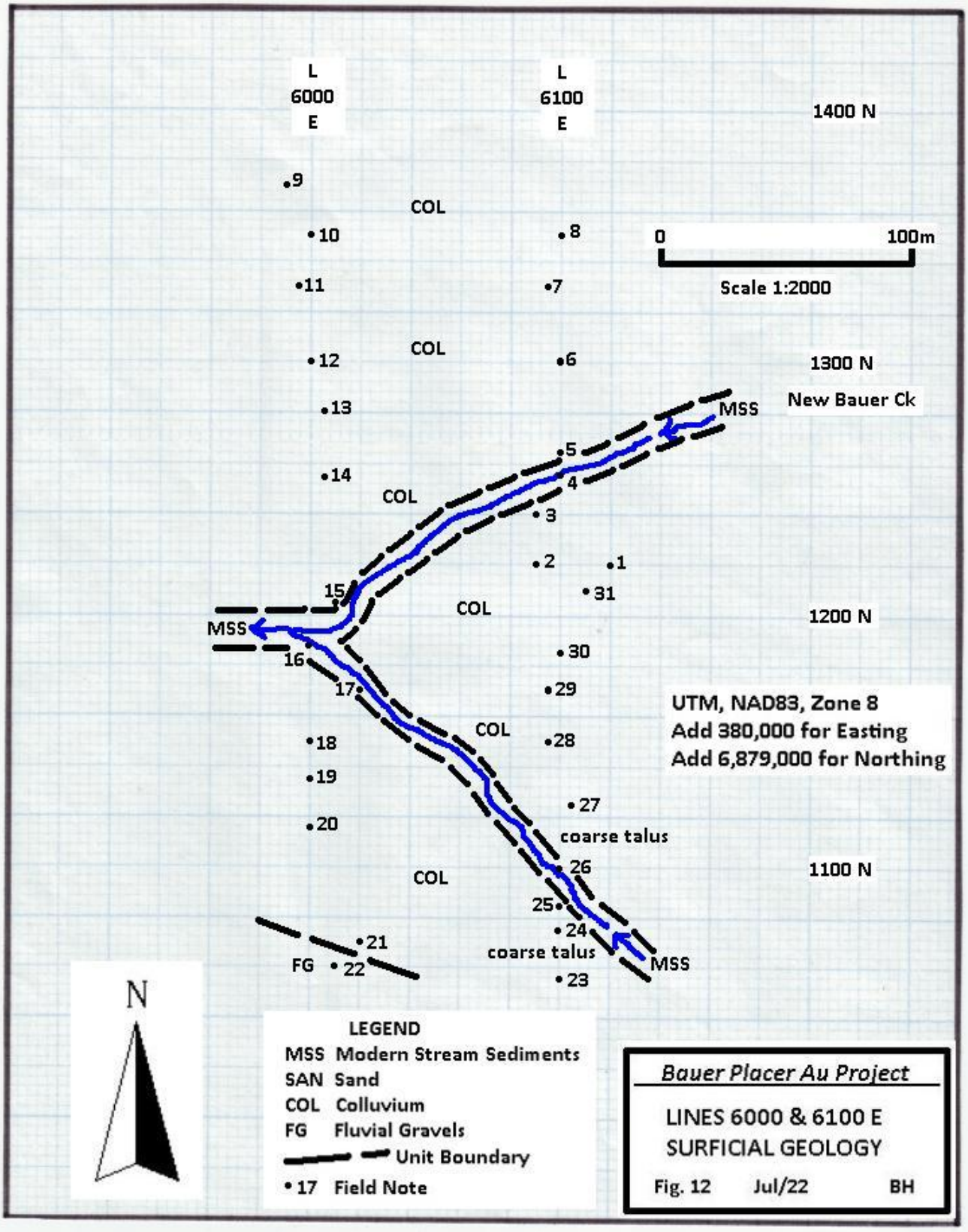
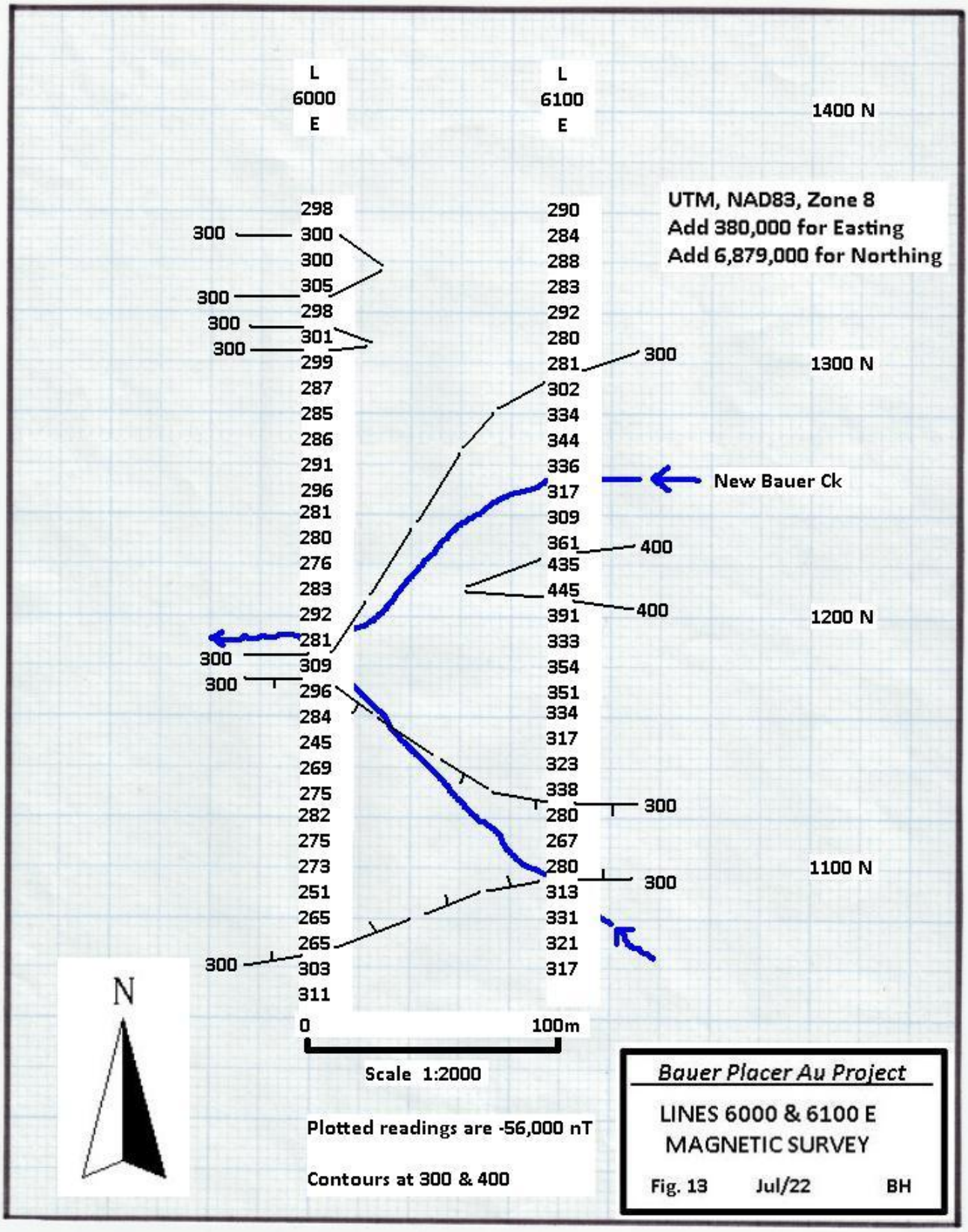
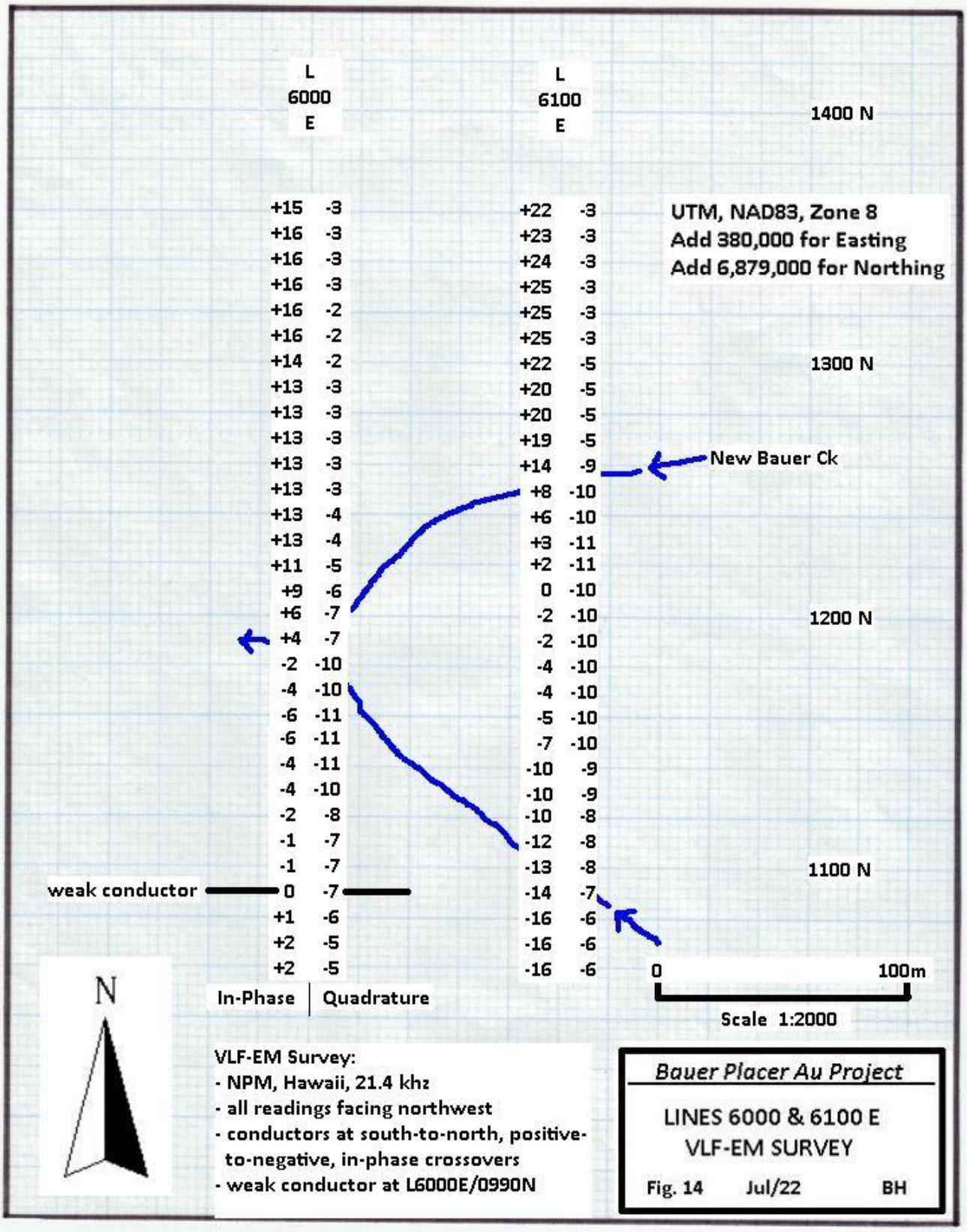
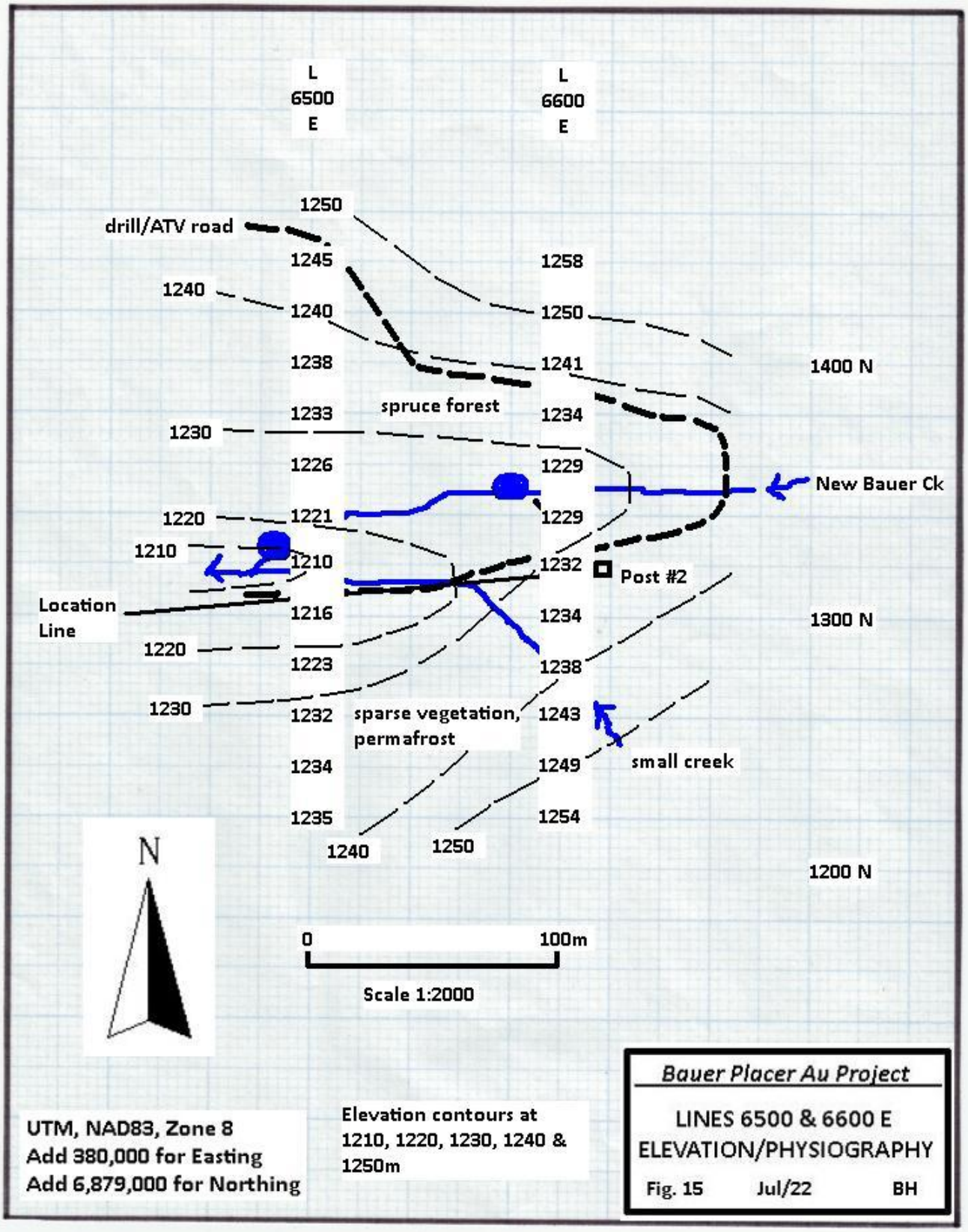
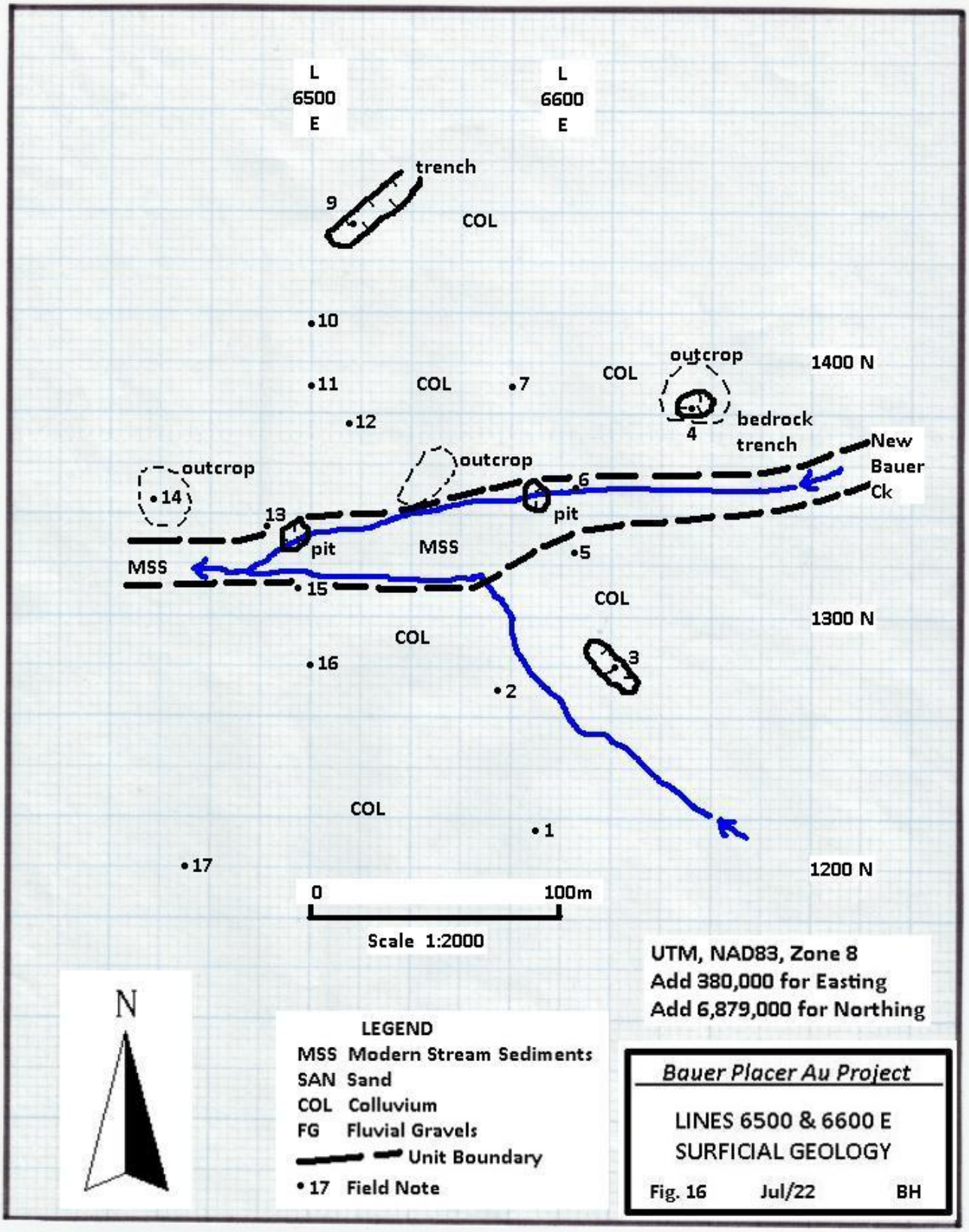
1164
1178
small creek
N
0
100m
Scale 1:2000
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
Elevation contours at 1140, 1150, 1160 & 1170m
Bauer Placer Au Project
LINES 6000 & 6100 E
ELEVATION/PHYSIOGRAPHY
Fig. 11 Jul/22 BH

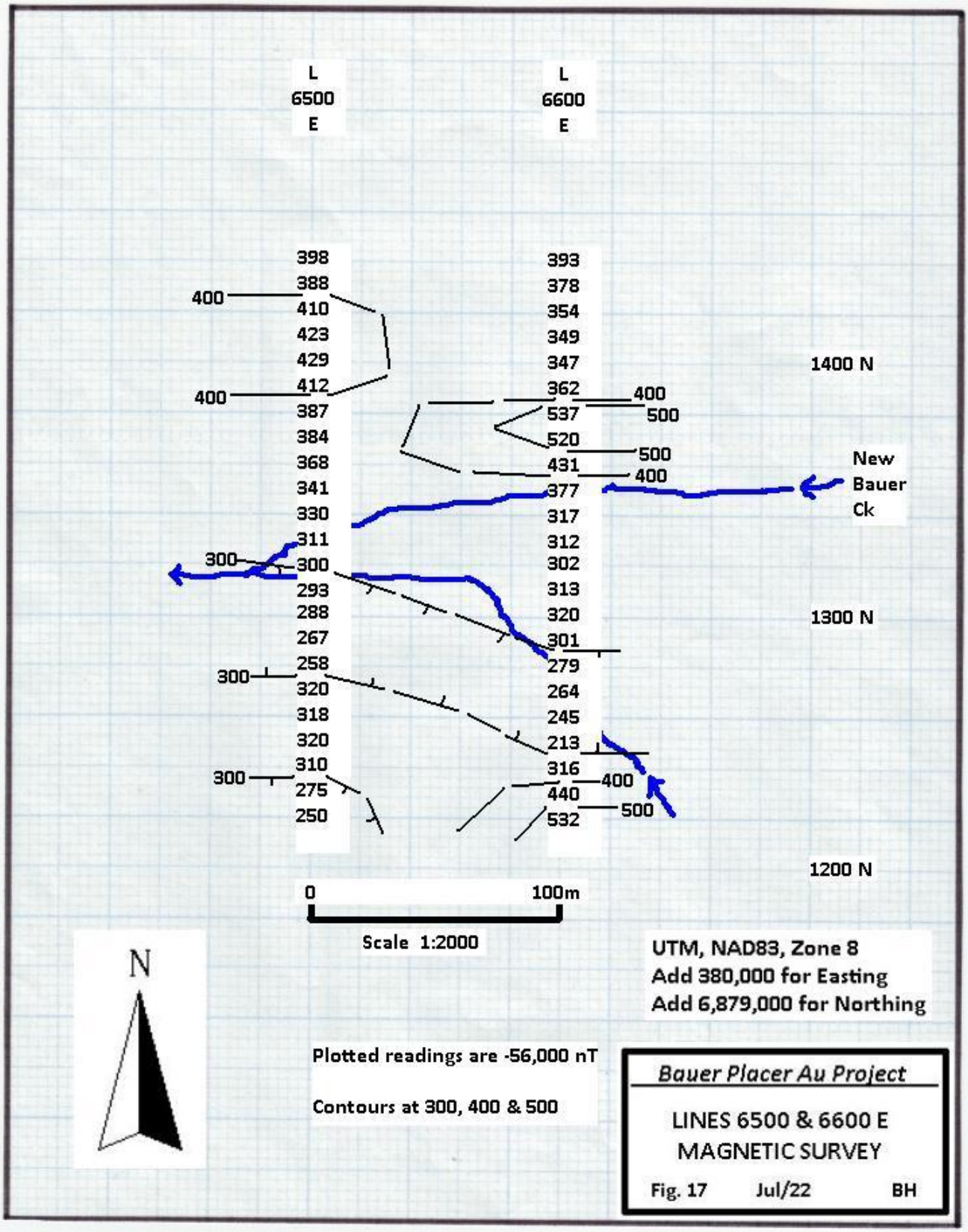

L 6000 E
L 6100 E
1400 N
1300 N
1200 N
1100 N
New Bauer Ck
MSS
COL
FG
coarse talus
0
100m
Scale 1:2000
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
N
LEGEND
MSS Modern Stream Sediments
SAN Sand
COL Colluvium
FG Fluvial Gravels
Unit Boundary
• 17 Field Note
Bauer Placer Au Project
LINES 6000 & 6100 E
SURFICIAL GEOLOGY
Fig. 12 Jul/22 BH

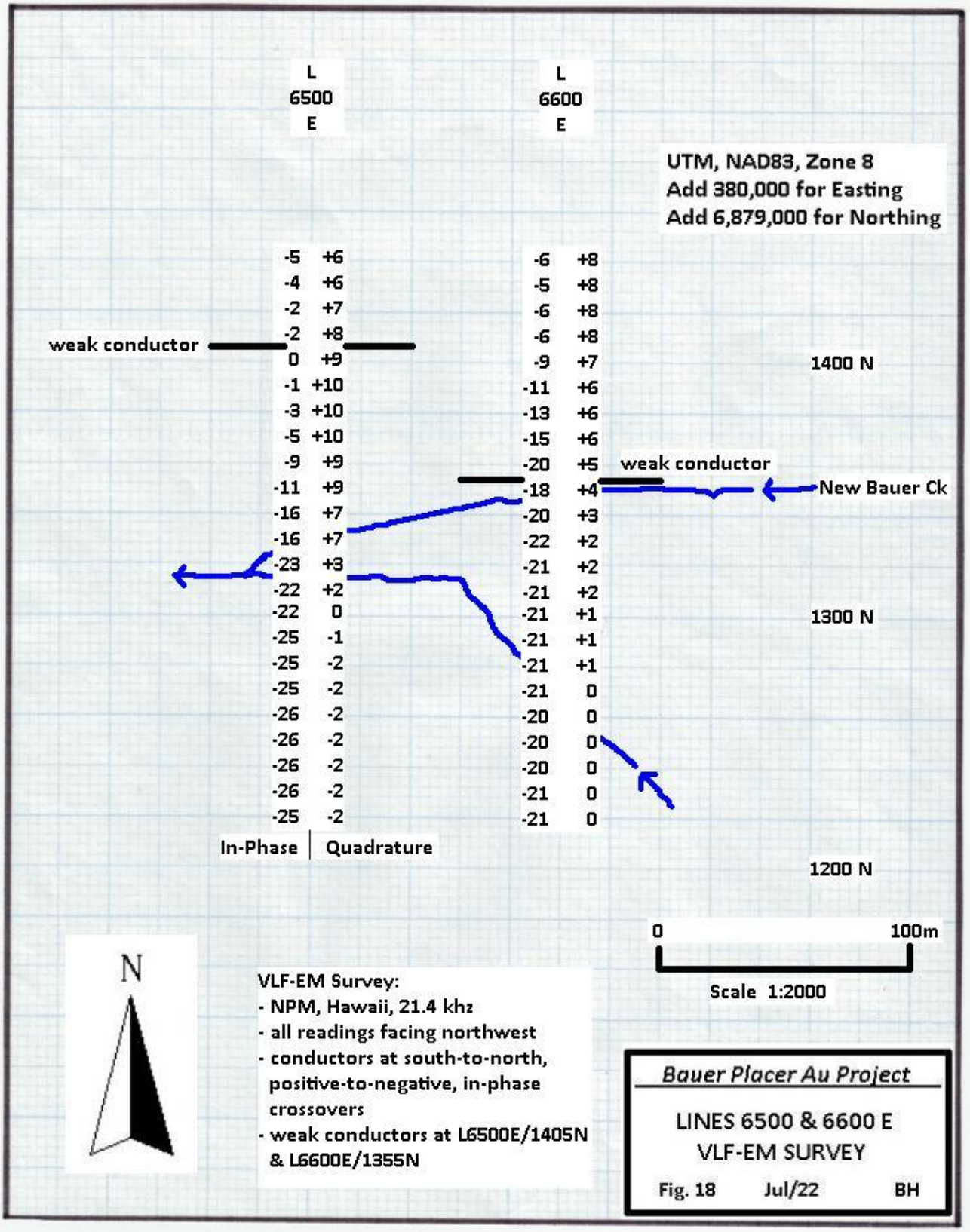

L
6000
E
L
6100
E
1400 N
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
1300 N
New Bauer Ck
1200 N
1100 N
N
0
100m
Scale 1:2000
Plotted readings are -56,000 nT
Contours at 300 & 400
Bauer Placer Au Project
LINES 6000 & 6100 E
MAGNETIC SURVEY
Fig. 13 Jul/22 BH


L 6000 E
L 6100 E
1400 N
1300 N
1200 N
1100 N
+15 -3
+16 -3
+16 -3
+16 -3
+16 -2
+16 -2
+14 -2
+13 -3
+13 -3
+13 -3
+13 -3
+13 -3
+13 -4
+13 -4
+11 -5
+9 -6
+6 -7
+4 -7
-2 -10
-4 -10
-6 -11
-6 -11
-4 -11
-4 -10
-2 -8
-1 -7
-1 -7
0 -7
+1 -6
+2 -5
+2 -5
+22 -3
+23 -3
+24 -3
+25 -3
+25 -3
+25 -3
+22 -5
+20 -5
+20 -5
+19 -5
+14 -9
+8 -10
+6 -10
+3 -11
+2 -11
0 -10
-2 -10
-2 -10
-4 -10
-4 -10
-5 -10
-7 -10
-10 -9
-10 -9
-10 -8
-12 -8
-13 -8
-14 -7
-16 -6
-16 -6
-16 -6
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
New Bauer Ck
weak conductor
In-Phase
Quadrature
N
0
100m
Scale 1:2000
VLF-EM Survey:
- NPM, Hawaii, 21.4 khz
- all readings facing northwest
- conductors at south-to-north, positive-to-negative, in-phase crossovers
- weak conductor at L6000E/0990N
Bauer Placer Au Project
LINES 6000 & 6100 E
VLF-EM SURVEY
Fig. 14 Jul/22 BH


L
6500
E
L
6600
E
1250
drill/ATV road
1245
1240
1240
1238
1233
spruce forest
1230
1226
1221
1220
1210
1210
Location
Line
1216
1220
1223
1230
1232
sparse vegetation,
permafrost
1234
1235
1240
1250
1258
1250
1241
1234
1229
1229
1232
Post #2
1234
1238
1243
1249
small creek
1254
1400 N
New Bauer Ck
1300 N
1200 N
N
0
100m
Scale 1:2000
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
Elevation contours at
1210, 1220, 1230, 1240 &
1250m
Bauer Placer Au Project
LINES 6500 & 6600 E
ELEVATION/PHYSIOGRAPHY
Fig. 15
Jul/22
BH


L
6500
E
L
6600
E
trench
9
COL
•10
•11
COL
•7
COL
outcrop
1400 N
•12
4
bedrock
trench
New
Bauer
Ck
outcrop
•14
outcrop
6
13
pit
pit
MSS
•5
MSS
•15
COL
1300 N
COL
3
•16
•2
COL
•1
•17
1200 N
0
100m
Scale 1:2000
N
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
LEGEND
MSS Modern Stream Sediments
SAN Sand
COL Colluvium
FG Fluvial Gravels
Unit Boundary
•17 Field Note
Bauer Placer Au Project
LINES 6500 & 6600 E
SURFICIAL GEOLOGY
Fig. 16 Jul/22 BH


L
6500
E
L
6600
E
398
388
400
410
423
429
412
400
387
384
368
341
330
311
300
300
293
288
267
258
300
320
318
320
310
300
275
250
393
378
354
349
347
362
400
537
500
520
500
431
400
377
317
312
302
313
320
301
279
264
245
213
316
400
440
500
532
1400 N
New
Bauer
Ck
1300 N
1200 N
0
100m
Scale 1:2000
N
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
Plotted readings are -56,000 nT
Contours at 300, 400 & 500
Bauer Placer Au Project
LINES 6500 & 6600 E
MAGNETIC SURVEY
Fig. 17
Jul/22
BH


L
6500
E
L
6600
E
UTM, NAD83, Zone 8
Add 380,000 for Easting
Add 6,879,000 for Northing
weak conductor
weak conductor
New Bauer Ck
1400 N
1300 N
1200 N
In-Phase
Quadrature
-5 +6
-4 +6
-2 +7
-2 +8
0 +9
-1 +10
-3 +10
-5 +10
-9 +9
-11 +9
-16 +7
-16 +7
-23 +3
-22 +2
-22 0
-25 -1
-25 -2
-25 -2
-26 -2
-26 -2
-26 -2
-25 -2
-6 +8
-5 +8
-6 +8
-6 +8
-9 +7
-11 +6
-13 +6
-15 +6
-20 +5
-18 +4
-20 +3
-22 +2
-21 +2
-21 +2
-21 +1
-21 +1
-21 +1
-21 0
-20 0
-20 0
-20 0
-21 0
-21 0
0
100m
Scale 1:2000
N
VLF-EM Survey:
- NPM, Hawaii, 21.4 khz
- all readings facing northwest
- conductors at south-to-north, positive-to-negative, in-phase crossovers
- weak conductors at L6500E/1405N & L6600E/1355N
Bauer Placer Au Project
LINES 6500 & 6600 E
VLF-EM SURVEY
Fig. 18 Jul/22 BH

CONCLUSIONS & RECOMMENDATIONS

A small program of flagged grid installation, mapping and sampling of surficial materials, magnetic surveying and VLF-EM surveying was completed over the upper portion of New Bauer Creek during June and early July, 2022. This section of the creek had been subjected to significant bedrock mineral exploration in past, as evidenced by trenching and drilling, but little placer exploration, other than apparent claim/lease staking. Mapping determined that most of the area was covered by colluvium, with minor sand at the bottom of the lease. No evidence of fluvial gravels was found along New Bauer Ck, though a local occurrence of stream gravels was found perched on the south wall of the valley near the center of the lease, at a point 25m above the present stream level. No gold was found in several pans from pits on New Bauer Ck or the perched stream gravels.

Although results were generally negative, placer prospecting lease IW00774 on the upper section of New Bauer Ck should be renewed pending additional examination of the perched stream gravels located on the south side of the valley at 1060N on line 6000E. Ultimately, drilling or deeper backhoe sampling will be needed to evaluate the deeper placer gold potential in this creek.

William C. Hood, P.Geo.
July 10, 2022

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 10, 2022

APPENDIX I – FIELD NOTES

Lines 5400 & 5500 E (Fig. 8):

1) 5495E/1045N; 20 cm moss & organics; minor light grey ash; into 10 cm+ of light brown sand with 30% angular schist pebbles.
2) 5500E/1075N; 10 cm organics; minor ash; into 30 cm+ of light brown well-sorted sand.
3) 5500E/1145N; creek has sediments of clay-silt-sand; north bank has 40 cm of moss and black organics, then into permafrost.
4) 5500E/1150N; 10 cm moss & organics; 10 cm ash; into sand & permafrost.
5) 5510E/0190N; 10 cm organics; 10 cm ash; into 10 cm+ of probable colluvium with 70% yellowish-brown clay-silt matrix & 30% angular felsic schist pebbles.
6) 5490E/1240N; 10 cm organics; same as 5) but mix of schist & fine-grained granodiorite.
7) 5495E/1280N; colluvium; 70% clay-silt matrix; 30% angular pebbles & cobbles with mainly fine-grained granodiorite & minor schist.
8) 5405E/1275N; 10 cm organics; 10 cm ash; into probable colluvium with 20 cm+ of clay-silt-sand with minor fine-grained granodiorite pebbles.
9) 5400E/1220N; 10 cm organics; 10 cm ash; into 20 cm+ of colluvium with 90% clay-silt matrix & 10% pebbles & cobbles of medium-grained granodiorite.
10) 5400E/1190N; steep bank; minor organics & ash; brown colluvium; 90% clay-silt matrix; 10% angular pebbles with about 90% foliated granodiorite & 10% schist.
11) 5400E/1130N; mix of clay-silt-sand along north bank of creek.
12) 5410E/1070N: 10 cm organics; 10 cm ash; into 20 cm+ of fine light brown sand with minor fine-grained granodiorite pebbles.
13) 5395E/1045N; 10 cm organics; into 30 cm+ of light brown sand with minor angular pebbles & cobbles of fine-grained granodiorite.
14) 5395E/1000N; 20 cm moss & organics; minor ash; into 10 cm brown sand with granodiorite cobbles; then into permafrost.
15) 5390E/0965N; 20 cm organics; into minor sand & ash; then into permafrost.
16) 5500E/0960N; 20 cm organics; 20 cm light brown sand; then into permafrost.

Lines 6000 & 6100 E (Fig. 12):

1) 6120E/1220N; 20 cm moss & organics; then into permafrost.
2) 6090E/1220N; 20 cm moss & organics; 10 cm light brown silt; then into permafrost.
3) 6090E/1240N; 30 cm moss& organics; then into permafrost.
4) 6100E/1255N; heavy buckbrush along creek; creek sunken into organics; minor clay-silt-sand along creek.
5) 6100E/1265N; 20 cm organics; into 20 cm+ of brown colluvium with about 60% clay-silt matrix & 40% angular pebbles-cobbles with about half schist & half granite.
6) 6100E/1300N; 10 cm organics; into 30 cm+ of probable colluvium of light brown clay-silt-sand with minor schist pebbles.
7) 6095E/1330N; 10 cm organics; into 30 cm+ of probable colluvium with brown clay-silt matrix & minor schist pebbles.
8) 6100E/1350N; 10 cm organics; into 30 cm+ of light brown colluvium with 70% silt-sand matrix & 30% angular pebbles-cobbles with 75% mafic biotite-amphibole schist & 25% granodiorite.
9) 5990E/1370N; 10 cm organics; into light brown to reddish-brown colluvium with clay-silt matrix & minor schist pebbles.
10) 6000E/1350N; 10 cm organics; into 20 cm+ of probable colluvium with 90% clay-silt matrix % 10% angular pebbles with about half schist & half granodiorite.
11) 5995E/1330N; 10 cm organics; into 30 cm+ of light brown colluvium with 70% clay-silt matrix & 30% angular pebbles with 75% schist & 25% granite.
12) 6000E/1300N; light to medium brown colluvium with 90% clay-silt matrix & 10% angular schist pebbles.
13) 6005E/1280N; 10 cm organics; into 20 cm+ of light brown clay-silt; probable colluvium.
14) 6005E/1255N; 30 cm of sphagnum moss & organics; into permafrost.
15) 6010E/1205N; 30 cm organics; then into permafrost.
16) 6000E/1190N; mossy bank just south of junction of small creek with New Bauer Ck; ~60 cm section of alternating organics, clay & silt-sand; modern stream sediments; then into permafrost.
17) 6020E/1170N; southwest bank of small creek; 20 cm moss & organics; then into 50 cm+ of brown clay-silt; modern stream sediments.
18) 6000E/1150N; 20 cm moss & organics; then into permafrost.

19) 6000E/1135N; 20 cm moss & organics; into minor ash; into permafrost with angular cobbles frozen in, with 90% granite & 10% schist; probable colluvium.
20) 6000E/1115N; 20 cm organics; then into permafrost.
21) 6020E/1070N; 20 cm moss & organics; then into granite cobbles frozen into permafrost; probable colluvium.
22) 6010E/1060N; 20 cm organics; into brown possible fluvial gravel with 50% subrounded pebbles-cobbles of schist & granodiorite in 50% sand-gravel matrix.
23) 6100E/1055N; 20 cm moss & organics; into 30 cm+ of angular schist cobbles possibly near bedrock with 30% matrix of light grey ash; coarse talus; probable colluvium.
24) 6100E/1075N; same as 23); coarse talus; probable colluvium.
25) 6100E/1085N; same as 23); coarse talus; probable colluvium.
26) 6100E/1100N; northeast bank of small creek; 30 cm moss & organics; 10 cm clay-silt modern stream sediments; into permafrost.
27) 6105E/1125N; 30 cm moss & organics; into frozen ash & coarse talus; probably same as 23), 24) & 25).
28) 6095E/1150N; 20 cm moss & organics; into permafrost.
29) 6095E/1170N; 20 cm moss & organics; 10 cm ash; into permafrost.
30) 6100E/1185N; 20 cm moss & organics; into 10 cm clay-silt; into permafrost; probable colluvium.
31) 6110E/1210N; 20 cm moss & organics; into brown colluvium with granodiorite boulders & clay-silt matrix.

Lines 6500 & 6600E (Fig. 16):

1) 6590E/1215N; 20 cm moss & organics; into probable granodiorite bedrock.
2) 6575E/1270N; 20 cm moss & organics; into permafrost with angular mafic schist & granodiorite pebbles; probable colluvium.
3) 6625E/1280N; large dozer/backhoe trench; brown colluvium; 70% clay-silt-sand matrix; 30% angular pebbles-cobbles-boulders with about half intermediate to mafic biotite schist & half granite; minor white quartz.
4) 6655E/1380N; large trench along drill road in rusty outcrop of white granite & grey felsites with minor pyrite & frequent mafic schist inclusions.
5) 6605E/1325N; rusty colluvium along about 20m of road cut just south of creek; about 50% clay-silt-sand matrix & 50% angular pebbles-cobbles; fragments are mainly grey felsic schist with up to 5% fine disseminated pyrite.

6) 6605E/1350N; muddy flat patch of clay-silt-sand along New Bauer Ck; modern stream sediments.
7) 6580E/1390N; slightly rusty brown colluvium along north side of drill road; 70% clay-silt-sand matrix; 30% angular pebbles-cobbles mainly intermediate composition greenish-grey schist.
8) ~6540E/1395N; probable drill site along road in area of slightly rusty brown colluvium.
9) 6515E/1455N; north wall of long trench extending to east; brown sandy colluvium with schist fragments.
10) 6500E/1415N; brown colluvium along possible ATV trail.
11) 6500E/1390N; brown colluvium with angular intermediate composition schist fragments.
12) 6515E/1375N; same brown colluvium as at 10) & 11).
13) 6480E/1335N; muck pile of organics and brown colluvium from backhoe pit dug in creek.
14) ~6460E/1345N; outcrop of buff weathering felsic schist/gneiss about granodiorite composition; fresh surface is light grey biotite-feldspar schist.
15) 6495E/1310N; end of drill road/ATV trail; same brown colluvium.
16) 6500E/0280N; 30 cm moss & organics; into permafrost.
17) ~6450E/1200N; old claim posts; #1 of 81862; #1 of 81863; #2 of 82026; #2 of 81861.
18) ~6545E/1310N; Post #2 of expired previous placer prospecting lease.

APPENDIX II – PHOTOGRAPHS

Photo 1. Looking west at prospecting lease post #1 on top of sand unit SAN.

Photo 2. Looking northeast at fluvial stream gravel occurrence perched on south side of valley at south end of line 6000E.

Photo 3. Looking east at colluvium along drill road between lines 6500 and 6600E.

Photo 4. Looking northeast at bedrock trench and colluvium along drill road east of line 6600E.

Photo 5. Author “selfie” looking northwest from L5500E/1020N during VLF-EM survey.

Photo 6. Looking west from near L6600E/1330N base station on ATV trail during magnetic survey.

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 ½ x 3 ½ 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

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- Metal Detectors
- Time Domain Systems
- VLF Systems
- Borehole Probes
- Data Acquisition
- Software
- Third Party Software

Downloads

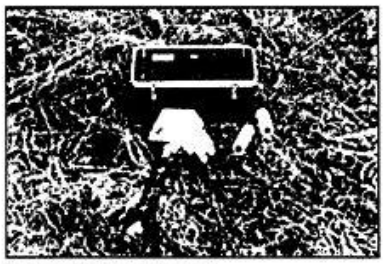
Catalogue

EM16 | EM16R | TX27

The EM16 VLF Receiver is the most widely used electromagnetic geophysical instrument of all time. Local tilt and ellipticity of VLF broadcasts are measured and resolved into inphase and quadrature components of VLF response. The EM16 has discovered several base and precious-metal ore bodies and many water-bearing fractures and faults.

The EM16R Resistivity Attachment uses a pair of electrodes to measure the apparent resistivity of the earth. The combined EM16/16R instrument can detect a second earth layer if the layer occurs within the VLF skin-depth. In addition, the EM16/16R can map resistive alteration for gold exploration.

The TX27 is a portable VLF transmitter supplying a VLF field for surveying with either the EM16 or EM16/16R if remote broadcasts are weak, intermittent or poorly coupled with the target. For EM16 surveys, the TX27 antenna consists of a long (typically 1 km) grounded wire.



Specifications

MEASURED QUANTITIES

EM16: inphase and quadrature components of the secondary VLF field, as percentages of the primary field

EM16R: apparent resistivity in ohm-metres, and phase angle between Ex and Hy

PRIMARY FIELD SOURCE

EM16: ferrite-core coil

EM16R: Stainless-steel electrodes, separated by 10 m: impedence of sensor is 100 MΩ in parallel with 0.5 pf

SENSOR

9.8 kHz

OPERATING FREQUENCY

15 to 25 kHz (optionally to 30kHz) depending on VLF broadcasting station

MEASURING RANGES

EM16: inphase: ±150%
quadrature: ±40%

EM16R: 300,3K,30KΩ-m
phase: 0 - 90°

POWER SUPPLY

EM16/EM16R: 6 alkaline "AA" cells

DIMENSIONS

EM16/EM16R: 53x30x22 cm

WEIGHTS

EM16:1.8 kg;shipping:6.2 kg

EM16R:1.5 kg;shipping:6 kg