

YMIP Grant **16-056**

A Summary Technical Report on the **Crooked Project**
A Focussed Regional Module, Hard Rock Type

A Geochemical Report

No claims staked under this grant.

Location

115P01 and 115P02,

Heli Camp at 418,450, 7,009,480, Elev 754 m

Road Camp at 424,890, 7,001,460, Elev 698 m

UTM NAD 83, Zone 8

Grant awarded to Gordon Richards

Work performed by Gordon Richards & Jeff Mieras

Report written by Gordon Richards

September 20, 2016

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SUMMARY

Work described in this report was conducted under a YMEP Focused Regional Grant, Hardrock Type. YMEP 16-056 awarded to Gord Richards.

The following is an historical account of events on this project:

June 25. Flew from Dubloon Project of Jeff Mieras's YMEP Grant to Crooked Project Heli-camp area. Slung camp to site. Dropped off in northwest corner of area and sampled back to camp. Set up camp.

June 26, 27. Collected MMI and lesser Black Spruce Twig samples.

June 28. Demobbed Heli Camp to Road Camp of Crooked Area located in inactive gravel pit along Klondyke Highway. Dropped off in west end of Road Camp Area and sampled back to camp. Truck had been previously parked in gravel pit to be used for completion of sampling from this camp.

June 29 to July 2. Collected MMI and lesser Black Spruce Twig samples.

July 3 and 4. Drove Whitehorse, dried and sorted gear, returned phones, dropped samples at Bureau Veritas Labs, and shipped MMI samples to SGS Labs in Vancouver.

The target area occurs in the underexplored Reid glaciated terrain south of Stewart Crossing and east and west of the Klondyke Highway within the Reid

Lakes Batholith Complex. The project is located on NTS Map Sheets 115P01 and 115P02.

Richards and Mieras flew by helicopter from Mieras's Dubloon Project Area 40 km northwest into a campsite central to the area to be prospected. From this camp the two prospectors made daily traverses for three days before moving the camp 10 km southeast to an inactive gravel pit along the Klondyke Highway. From this camp and with use of a truck the prospectors made daily traverses for five days followed by driving to Whitehorse to end the project.

The area was selected for potential of both porphyry style mineralization and VMS mineralization. Volcaniclastic rocks of the Reid Lakes Complex have been shown by U-Pb dating to be Early Mississippian age identical to the rocks enclosing the Wolverine deposit. The volcaniclastics include rhyolite that is a common rock type at Wolverine.

RGS geochemical responses from creeks draining the target areas have numerous re-calculated threshold values of 90%, 95%, or 98% for Cu, Mo, Au, Ag, Pb, Zn, Se, Hg, and Ba, with significant lower level support from other elements in these same samples and from other nearby samples.

The Crooked Area was glaciated by Reid glaciations (50 ka). A blanket of McConnell age loess 10 to 20 cm thick covers the area and has been removed on steeper slopes. MMI samples were collected from this loess and underlying till. Organic soil was sometimes quite thick and made collection of MMI samples impossible due to frost. In these areas black spruce twig samples were collected. Silt samples were collected from flowing streams on sample lines.

The area has a low number of MinFile occurrences and quartz claims well removed from the area of interest. This low occurrence in the general area may reflect low prospectivity or simply underexplored terrain. Recent YGS/GSC bedrock and surficial geological mapping, government sponsored aeromagnetic surveys, and reanalyses of RGS data has helped provide encouragement for prospecting in the area.

All garbage was removed from camps and taken to Whitehorse for disposal.

GEOLOGY.

Regionally the target area lies within the Reid Lakes Complex of the Yukon Tanana Terrane.

The most detailed and recent geology map is provided by Canadian Geoscience Map 7, *Geology Southwestern McQuesten and parts of Northern Carmacks* by J.J. Ryan, M. Colpron, and N. Hayward at a scale of 1:125,000. A page size copy of this map is provided as Figure 2 showing the location of the Crooked Project Area within the Reid Lakes Complex of the Yukon Tanana Terrane. *“Much of the Reid Lakes batholiths (MgRL) comprises compositionally monotonous, coarse-grained, massive, quartz-phyric, biotite monzogranite. Only in close proximity to the Willow Lake fault is there a weakly developed fabric.”* (from notes to Geoscience Map 7). A copy of a portion of this map is provided as Figure 3 showing the Crooked Project Areas. Geology legend is provided in Table 1.

Southwest of the target area, the Willow Lake Fault is an important fault with significant movement. *“In the northeastern part of the map area, the Reid Lakes complex has escaped the regional deformation recorded in the Yukon-Tanana terrane south of Willow Lake fault. Rocks of the complex are only foliated in proximity to the fault and preserve evidence for metamorphism in the form of local chloritization of mafic minerals. The Willow Lake fault is well defined in the aeromagnetic data where it corresponds to a magnetic low, and truncation on anomalies. Although sense of displacement along the Willow Lake fault is unknown, the juxtaposition of the Reid Lakes complex next to intensely deformed and metamorphosed rocks to the south suggests an important (down-to-the-northeast) vertical component of displacement.”* (notes to Geoscience Map 7).

North of the target area, the Tintina Fault is another significant fault. *It is well defined in the aeromagnetic data and marked by a prominent topographic lineament. Regionally, Tintina fault is well constrained to have dextral displacement of ~425 km since the Eocene (Gabrielse et al., 2006).* (notes to Geoscience Map 7).

Thus the target area lies midway between two of the most significant northwest trending faults on the southwest McQuesten map sheet.

The Reid Lakes Batholith is a good target for possible porphyry style mineralization because of RGS results discussed below and the occurrence of

many porphyry deposits within batholiths worldwide. More importantly previous YMEP funded projects at the Lake and Pirate Projects located within the batholith 40 km northwest of the Crooked Project have identified a cluster of five porphyry sized targets defined by consistently anomalous values for Cu, Mo and many other elements in MMI and black spruce twig samples.

The eastern contact of the Reid Lakes Complex in the northwest target area is not constrained by outcrops on Geoscience Map 7 for about three km from its plotted contact on Figure 3. The red dashed line on Figure 3 outlines where no outcrops have been mapped on Geoscience Map 7. Float collected at RGS sites 3287, 3288, and 3387 shown on Figure 14 are described as monzogranite derived from the batholith. Float at RGS sites 3388 and 3389 are described as derived from the volcanoclastic cover rocks. Thus the area underlain by the northwest heli-camp target area could include rocks of the batholith.

The volcanoclastics provide a target for VMS mineralization. They include rhyolite and are the same age as the Finlayson Lake District which hosts the Wolverine VMS Deposit. RGS data described below provide additional support.

Drying conditions of the last glacial period, McConnell Glaciation ca 22 ka has deposited a 10 to 20 cm loess blanket across the countryside on the Crooked Project area.

RGS DATA.

Samples from the original 115P RGS survey (OF1650) have recently been re-assayed using new instrumentation with much more precise measurements and were released as OF 2012-09. Geochemical data from sample sites that are lying only in 115P within the pre-Reid glaciated area and within Yukon Tanana Terrane were used to recalculate threshold values for a number of elements. It was believed that using data from those sites occurring only in this large contiguous pre-Reid glaciated area would give a more representative data-set on which to evaluate exploration potential for this area. Recalculated threshold values $\geq 70\%$ for Cu, Mo, Ag, Au, Pb, As, Sb, Se, Zn, Hg, and Ba, from OF 2012-09 for RGS samples occurring in and near the project area are provided on Figure 14.

However, the Crooked Project Area lies within Reid glaciated terrain adjacent to the pre-Reid glaciated terrain and not the pre-Reid glaciated terrain for which the recalculated thresholds were made. Although more till is probably

present on hillsides within the Reid glacial terrain than in the pre-Reid glacial terrain the same thresholds were used for evaluating the potential of the Crooked Project Area.

The high thresholds for Cu and Mo in the RGS data provided encouragement for prospecting for porphyry mineralization. The high thresholds for Au, Ag, As, Sb, Hg, Te, Bi, Ba, and Pb provided encouragement for prospecting for VMS and Au mineralization.

SURVEY METHODS

General

Geochemical sampling used the selective leach MMI method because of the method's success in defining porphyry signatures in previous grants within the batholith 40 km northwest where pre-Reid glaciation is described. MMI sampling can, where effective, "see through" deep overburden including glacial till. Also MMI sampling involved collection of relatively shallow soils (10 to 20 cm deep) thereby improving success of collecting samples in this area of shallow permafrost with a slow thawing process in summer months. Where frost was shallow usually due to thick organic moss and organic matter, black spruce twig samples were collected although they were known to be less reliable in providing meaningful anomalous geochemical patterns. Silt samples were collected from flowing streams where crossed on sample lines.

There were **195 MMI** samples, **126 twig** samples, and **6 silt** samples collected on the Crooked Project Area. Sample lines were placed 400 m apart across the area as shown on the maps in an attempt to sample areas drained by or down ice from anomalous RGS samples. Sample interval was 100 m. Although this sampling is fairly coarse for VMS style mineralization it was a first pass attempt to obtain some geochemical encouragement for further investigations. For porphyry style mineralization it was deemed an acceptable sample interval but also quite coarse for target definition.

MMI sample details such as rock-chip type, soil colour, texture, depth, dampness and site slope were described in notes. Twig samples had the diameter of the tree at chest level recorded. Silt samples had stream size, organic content and float type recorded. Sample locations were recorded in a handheld Garmin GPSmap 60Cx unit. Some UTM co-ordinates were also recorded in notebooks as a

backup in case of loss of the GPS unit or loss of data stored on the unit. No such loss occurred.

Selected results are provided in three tables for MMI, twigs and silts and shown graphically on the figures. Values were selected manually to provide 70%tile (pink), 80%tile (red) and 90%tile (purple) for the MMI and twig samples.

MMI Soil Samples.

MMI analysis uses a weak partial extraction to improve the conventional geochemical response over buried ore deposits. The process measures the mobile metal ions from mineralization, which have moved vertically toward the surface and become loosely attached to the surfaces of soil particles. They concentrate within the 10 to 20 cm soil depth which on the Project Area is a mixture of loess, till and angular pebbles with loess by far the more common component. Its effectiveness has been documented in over 1000 case histories on six continents and includes numerous commercial successes. The anomalies are sharply bounded and in most cases directly overlie and define the extent of the surface projection of buried primary mineralized zones. The MMI process is a proprietary method developed by Wamtech of Australia. SGS Minerals Services in Toronto purchased all rights to the method and provides analyses in Vancouver and Toronto.

Watch and ring were removed prior to sampling. Pits were dug by shovel to a depth of 30 cm in order to expose the soil profile for sampling. The profile was scraped clean with a plastic scoop to remove any metal effect from the shovel. A continuous strip of soil was collected by plastic scoop over the interval of 10 to 20 cm below the top of true soil, placed in a pre-numbered ziplock baggie and placed in an 11 inch by 20 inch 2 mil plastic bag. Loess was present at nearly all sample sites and was the sample medium for the bulk of the **195 MMI soils** collected. Samples were kept cool until they were shipped to SGS Minerals Services, 3260 Production Way, Burnaby, B.C., V5A 4W4.

In the SGS Lab, samples are not dried or prepared in any way. The MMI process includes analyses of an unscreened 50-g sample using multi-component extractants. Metal contents are determined for 53 elements by ICP-MS.

Response Ratios were calculated for 16 elements as shown on Table 2 and on the figures. For each element the average value for results of the lower

quartile was calculated. One-half of detection limit was used for those samples with values reported as less than detection limit. Then each result was divided by the lower quartile average to obtain its response ratio. A response ratio of 10 or more is considered very significant for indicating underlying mineralization. Lesser values of 5 to 10 can also be important particularly where more than one element has such a value and adjacent samples are similarly anomalous. Response ratios can best be thought of as multiples of background in interpreting results.

Black Spruce Twig Samples.

126 black spruce twig samples comprising the most recent two years of growth were snipped from around the circumference of a single tree wherever MMI samples were impossible to collect. Black spruce was easily identified by observing with a hand lens minute red hairs on the circumference of twigs of the past few years growth. In central Yukon, this amount of growth is typically about a hand-span in length, at which point, the twig diameter is about 4 mm. This diameter is quite critical because many trace elements concentrate in the bark part of the twig, whereas the woody tissue (the cortex) has lower concentrations of most elements. Consequently, unless there is a consistency in the diameters of the twigs that are collected, any analysis of twig tissue can result in variability among samples simply because of the differing ratios of woody to twig bark. About ten black spruce twigs with needles were placed into porous polypropylene bags (Hubco' Inc's Sentry II). The use of plastic bags was avoided to minimize the chance of moulds forming thereby losing sample integrity.

Analysis of the black spruce twig samples was carried out at Bureau Veritas Analytical Laboratories Ltd (Vancouver) using their VG101-EXT method. In the laboratory, twig samples were thoroughly dried at 60 degrees Centigrade in an oven with a forced-air fan for 24 hours to remove moisture. The needles were then separated from the twigs. In preparation for chemical analysis, each twig sample was then milled to a powder using a Wiley mill. A 1 g split of milled material was digested in nitric acid then aqua-regia digestion, and analyzed by ICP_MS ultralow detection limits for 52 elements and selected REE.

Absolute values of results for 8 elements are provided in Table 3 and shown on the figures.

Silt Samples.

Six stream sediment samples were collected from flowing creeks where crossed on sample lines. The samples were collected by plastic scoop, placed into a numbered gusseted kraft sample bag and stored in an 11 by 20 cm plastic bag. The samples were collected to evaluate the upstream potential for VMS and porphyry mineralization. The samples were sent to Bureau Veritas in Vancouver, B.C., where it was dried at 60°C, 100g sieved through an 80 mesh screen, digested in 1:1:1 Aqua Regia and then sent for Ultratrace MS-ICP analysis.

Values for 9 elements are provided in Table 4.

RESULTS.

Results for all **327 samples** are provided in electronic format in the digital report copy. Response ratios for selected elements of the **195 MMI soil samples** are provided in Table 2 along with UTM NAD83 coordinates. Values of selected elements for the **126 black spruce twig samples** are provided in Table 3 along with UTM NAD83 coordinates. Values of selected elements for the **6 stream sediment samples** are provided in Table 4 along with UTM NAD83 coordinates. No rock chip samples were collected.

Results are provided on Figures 5 to 23 and are divided into two sets of maps, one from the helicopter camp shown on Figures 5 to 13 and one from the road camp along the Klondyke Highway shown on Figures 15 to 23. Figure 14 is a reference map showing the location of all areas surveyed in relation to topography, the highway, RGS samples and Reid Glaciation with last ice direction. In plotting the results for MMI and twig samples, threshold values were chosen to divide the results into 90%tile (purple), 80%tile (red) and 70%tile (pink) groupings for all elements. Limits of anomalous Cu and Mo are plotted on all element maps for reference.

Heli Camp.

A small dozer clearing at the edge of an old burn at UTM co-ordinates 416,800/7,009,820 exposed the only angular rock noted in the survey area. Angular medium-grey dacite rubble probably belongs to the Reid Lakes Complex volcanoclastic unit that is presumed to be intruded by the batholith. The volcanoclastics provide a target for VMS mineralization.

The more northerly sample area has a strongly anomalous Cu-Zn-Ni response over an 800 m length and 200 m width. This zone could extend another 400 m west if one MMI sample and three twig sample results are ignored. The Cu-Ni with lesser U anomalous response is similar to several porphyry target responses developed in the north end of the batholith at the RGS/Pirate claims. The Cu-Zn with lesser Pb anomalous response is more indicative of a VMS target. The high Ti response north of the anomalous Cu is common in batholith rocks away from anomalous Cu-Mo porphyry targets at the RGS/Pirate claims and could be indicative of underlying batholith rocks here with the hill to the south capped by volcanoclastics. High Ti is probably derived from oxidation of illmenite within the underlying monzogranite of the batholith.

The more southerly sample area has a geochemical footprint more clearly indicative of porphyry mineralization. Here anomalous Cu extends over an area 800 m by 800 m open to the north and possibly east. Limiting samples to the east are twig samples that are believed to be less reliable than soil samples. The Cu pattern has a core of anomalous Mo and Ag and associated anomalous Au, Ni and U as shown on the figures. Anomalous values for Ti, Pb and Zn are distributed spottily around the Cu anomalous zone. All twig sample results are background for Ti. Most MMI samples beyond the Cu zone have high Ti results.

Road Camp.

Two survey areas are shown on Figures 15 to 23. The north area is drained by a north flowing creek sampled by RGS sample 3230 and the south area by sample 3231. Both samples are highly anomalous for several elements using recalculated thresholds from 276 samples collected within pre-Reid glaciated terrane underlain by Yukon Tanana Terrane.

Four zones of anomalous Cu are shown on the figures, one in the south area and three in the north area. The south area Cu anomalous zone is based solely on twig sample results and has no support from any of the other elements.

In the north area, Cu anomalous zones occur on the edges of the survey area and are thus very much open for potential size. Only the most northerly pattern has associated anomalous Mo and Ag. High Pb and Ti and to a lesser extent Zn occur peripheral to the high Cu patterns. High Ni and to a lesser extent U occur with the high Cu. High Au occurs across the whole of this northerly survey

area. Its origin could be related to porphyry mineralization or to reworked placer Au as placer Au has been indicated in the general area by claim staking with no reported results in 1987 in the creek to the south as shown on the figures.

CONCLUSIONS.

- The project area is underlain by Reid Lakes Complex monzogranite and related volcanoclastics and was glaciated by Reid Glaciation. A 10 to 20 cm blanket of McConnell age loess covers most terrane and was the common sampling medium for MMI soil sampling. Sample lines were spaced as shown on the figures usually at 400 m spacing with sample interval of 100 m. Wherever MMI samples could not be collected due to thick organic material and frost, black spruce twig samples were collected. Stream sediment samples were collected from flowing streams where crossed on sample lines.
- The heli-camp area has two RGS samples with high Cu Mo and other values based on recalculated thresholds. Both anomalous RGS samples have been explained in part by geochemically anomalous targets. The southerly heli-camp target has a Cu anomalous zone 800 m square open to the north and possibly the east if twig sample results are discounted. The target has an anomalous Mo and Ag core and anomalous Au, Ni, and lesser U throughout. Spottily anomalous Zn and Pb occur peripherally and are compatible with peripheral Pb-Zn veins known to occur on many types of porphyry. Most MMI samples peripheral to the Cu zone are highly anomalous in Ti. This relationship is believed to reflect illmenite in the unaltered batholith producing high values around the Cu zone and having been removed by hydrothermal alteration associated with introduction of porphyry mineralization within the Cu zone.
- The northerly heli-camp target has a Cu anomalous zone 800 m by 200 m and open to the south. The zone could be as large as 1200 m wide if twig sample results are discounted. The zone does not have anomalous Mo or Ag but is similar in all other respects to the south Cu zone with the following important exception. There are strongly anomalous values for Zn with and beyond the anomalous Cu. This signature is more representative

of VMS mineralization. Dacite rubble occurs near the top of the hill to the southwest of the Cu anomalous zone which fits with a VMS environment. The high Ti to the north of the Cu zone fits well with the batholith existing in that area. Perhaps the Cu anomalous zone occurs near the contact between volcanoclastics to the south and the batholith to the north leaving both mineralization targets as possibilities.

- The road-camp area has two RGS samples with high Cu and other values based on recalculated thresholds. Only the northerly anomalous RGS sample has been explained by geochemically anomalous targets. The more southerly anomalous RGS sample has not had its high metal values explained by the current work.
- On the northerly road-camp survey area there are three Cu anomalous zones measuring up to 800 m long. All are clearly open in one or more directions. The northerly of these three zones has a core of anomalous Mo and Ag. All three zones have strongly anomalous Ni. The north and southwest Cu zones have strongly anomalous U. Strongly anomalous Pb and less so Zn occur peripherally to all three zones and are compatible with peripheral Pb-Zn veins known to occur on many types of porphyry. Most MMI samples peripheral to the Cu zone are highly anomalous in Ti. This relationship is believed to reflect ilmenite in the unaltered batholith producing high values around the Cu zone and having been removed by hydrothermal alteration associated with introduction of porphyry mineralization within the Cu zone. Strongly anomalous Au occurs across all of the north area and could be related to underlying porphyry mineralization or possibly to placer mineralization remobilized and smeared by glaciation. Six stream sediment samples were collected from flowing streams where crossed on samples lines. Using recalculated thresholds from the RGS data only one of these samples contained anomalous values for several metals. Sample T274 draining the east zone of anomalous Cu contains 95%tile values for Au and As and elevated values for Cu and Mo.

- There is no record or field evidence of any previous mineral exploration work ever having been conducted other than the placer claims staked in 1987 and minor prospecting conducted at the same time along the creek shown on the figures.

RECOMMENDATIONS.

1. Additional MMI soil sampling is recommended across and around the five anomalous areas described to provide targets for drilling.
2. Geophysical surveys should be considered either after the above recommended work is completed or in conjunction with it. Induced polarization surveys are recommended over porphyry targets and electromagnetic and/or magnetic surveys of VMS target.
3. Additional reconnaissance exploration similar to that described in this report should be undertaken near to the present project area to find additional similar targets.

Respectfully submitted,

Gordon G Richards P.Eng.

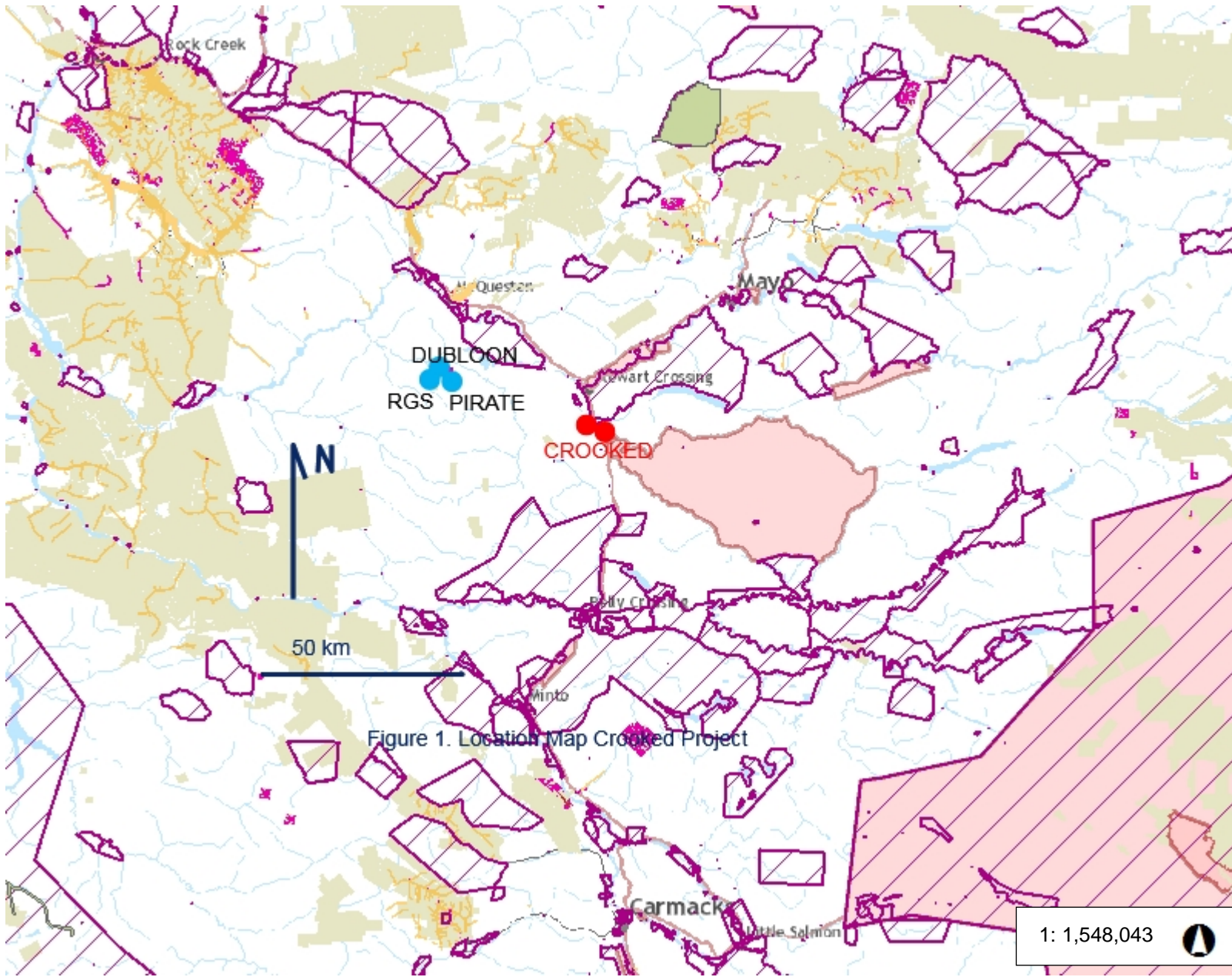


Figure 1. Location Map Crooked Project



Legend

- Current Class 1 Notifications**
- Valid
 - In Review
 - Pending
 - Cancelled
 - Expired
 - Rejected
 - Closed
- Other Land Status**
- Areas defined by OIC
 - First Nation Surveyed Lands -
 - First Nation Unsurveyed Lands
 - New Placer Claims (1M)
 - Placer Claims (1M)
 - New Quartz Claims (1M)
 - Quartz Claims (1M)
 - Areas withdrawn from staking

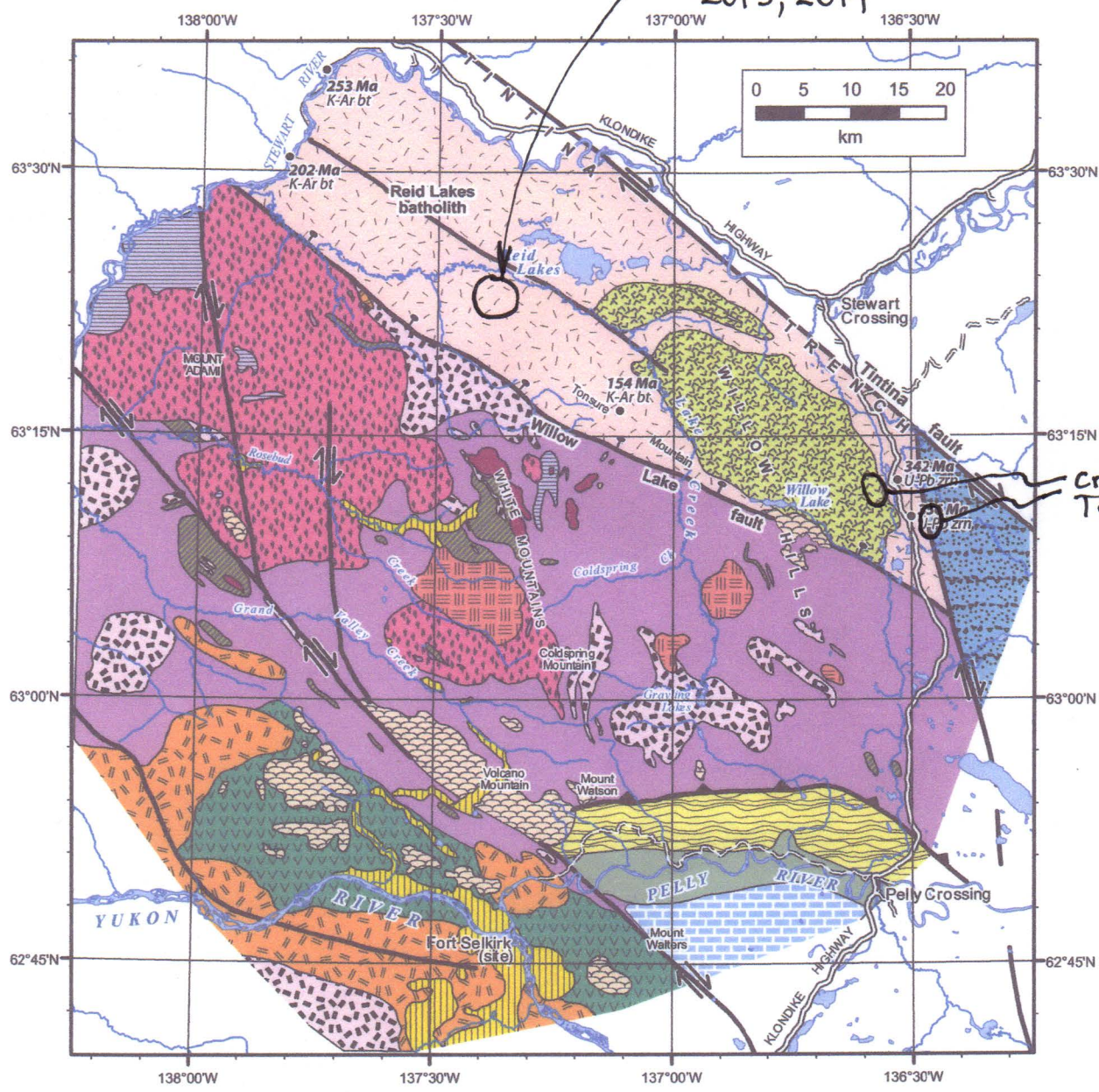
Notes

78.6 0 39.32 78.6 Kilometers

1: 1,548,043



RGS & PIRATE
2013, 2014



Crooked Target

- | | | |
|--|--|---|
| <p>Post-accretionary rocks</p> <ul style="list-style-type: none"> Quaternary Selkirk volcanics: basalt Upper Cretaceous Carmacks Group: dacite, andesite, basalt Cretaceous monzogranite to granodiorite <p>Stikinia/Quesnellia?</p> <ul style="list-style-type: none"> Early Jurassic granodiorite to monzogranite Upper Triassic augite-phyric andesite and dacite (Povoas or Semenof formation?) <p>Quesnellia</p> <ul style="list-style-type: none"> Paleozoic? - Boswell assemblage intermediate metavolcanic to metavolcaniclastic rocks amphibolite schist (minor garnet amphibolite) marble | <p>Yukon Tanana terrane</p> <p>Permian</p> <ul style="list-style-type: none"> Sulphur Creek plutonic suite: augen monzogranite Klondike Schist: metafelsite and metabasite <p>Early Mississippian Reid Lakes complex</p> <ul style="list-style-type: none"> andesite to dacite flows, volcanic conglomerate, breccia and tuff monzogranite, granodiorite, and quartz monzonite <p>Late Devonian - Early Mississippian</p> <ul style="list-style-type: none"> Simpson Range plutonic suite: monzogranite to granodiorite orthogneiss; tonalite to diorite gneiss serpentinitized peridotite (Paleozoic?) Finlayson assemblage: metavolcaniclastic and siliciclastic rocks | <p>Late Devonian and older</p> <ul style="list-style-type: none"> amphibolite Snowcap assemblage: quartzite, quartz-mica schist, garnet schist <p> dextral strike-slip fault</p> <p> extensional fault</p> <p> thrust fault</p> <p> 356 Ma U-Pb zrn previous geochronology samples</p> |
|--|--|---|

Figure 2. Simplified geological map of southwest McQuesten-northern Carmacks area (after J.J. Ryan, M. Colpron and N. Hayward, in prep.).

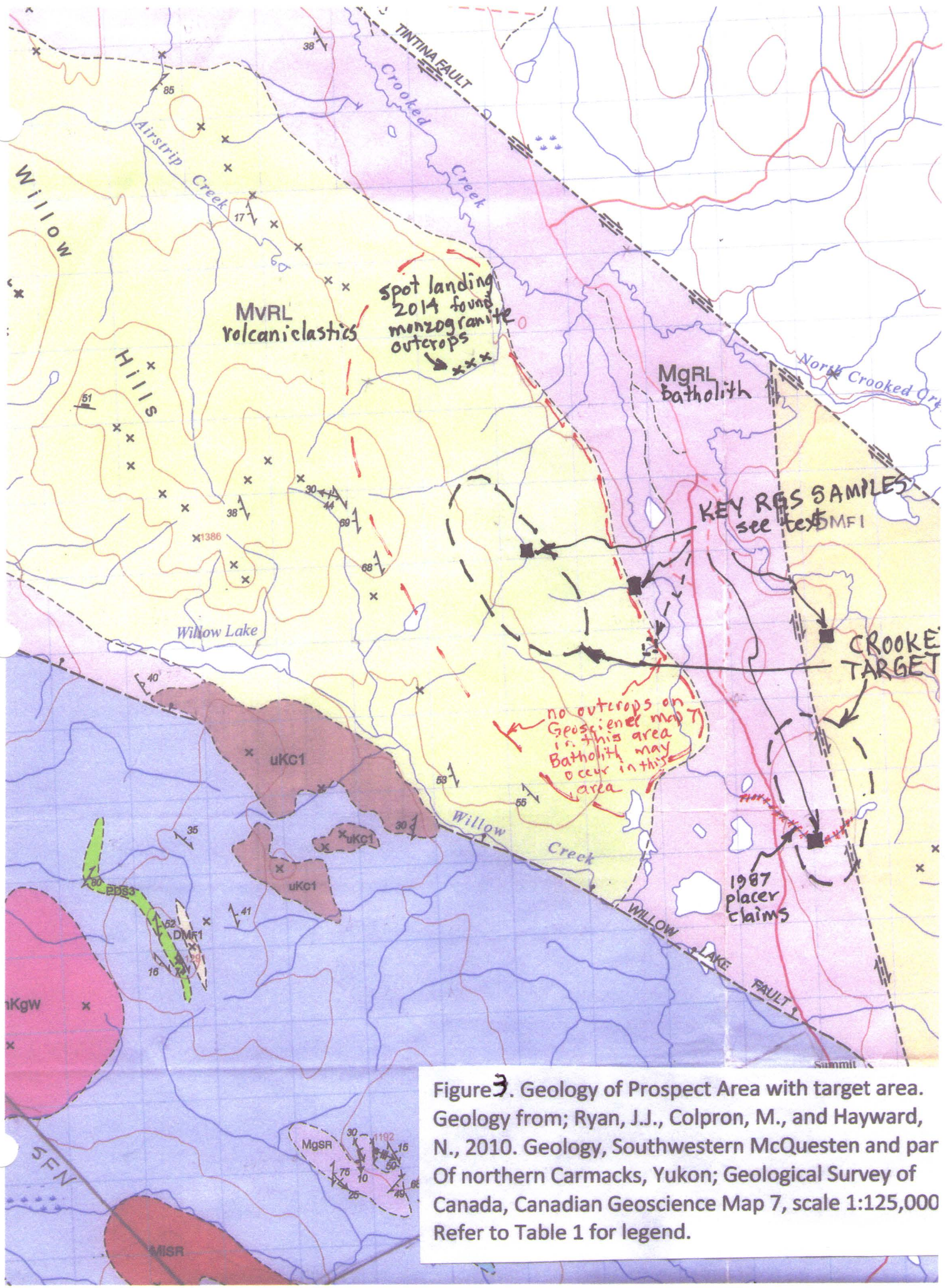


Figure 3. Geology of Prospect Area with target area. Geology from; Ryan, J.J., Colpron, M., and Hayward, N., 2010. Geology, Southwestern McQuesten and part of northern Carmacks, Yukon; Geological Survey of Canada, Canadian Geoscience Map 7, scale 1:125,000 Refer to Table 1 for legend.

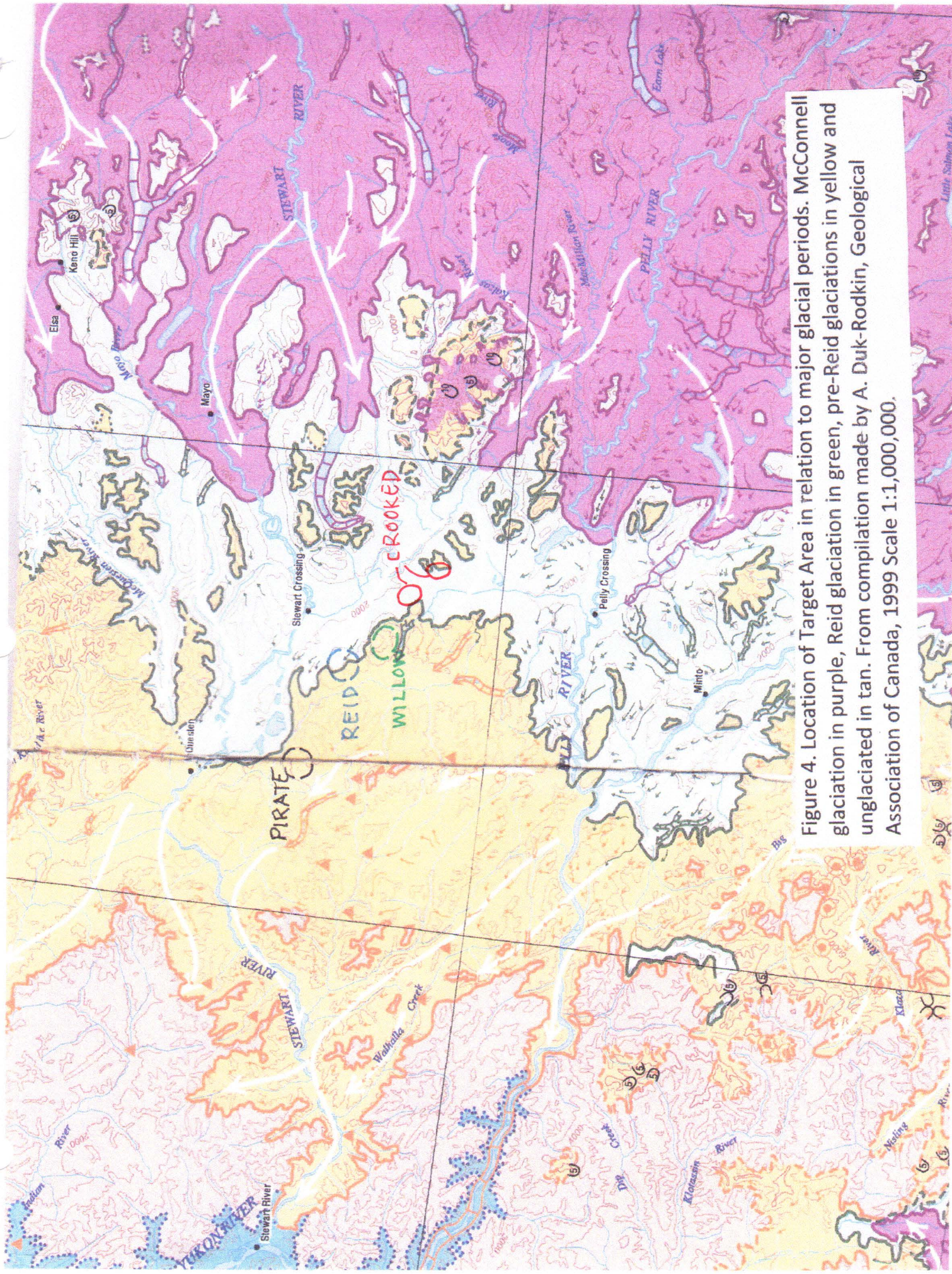
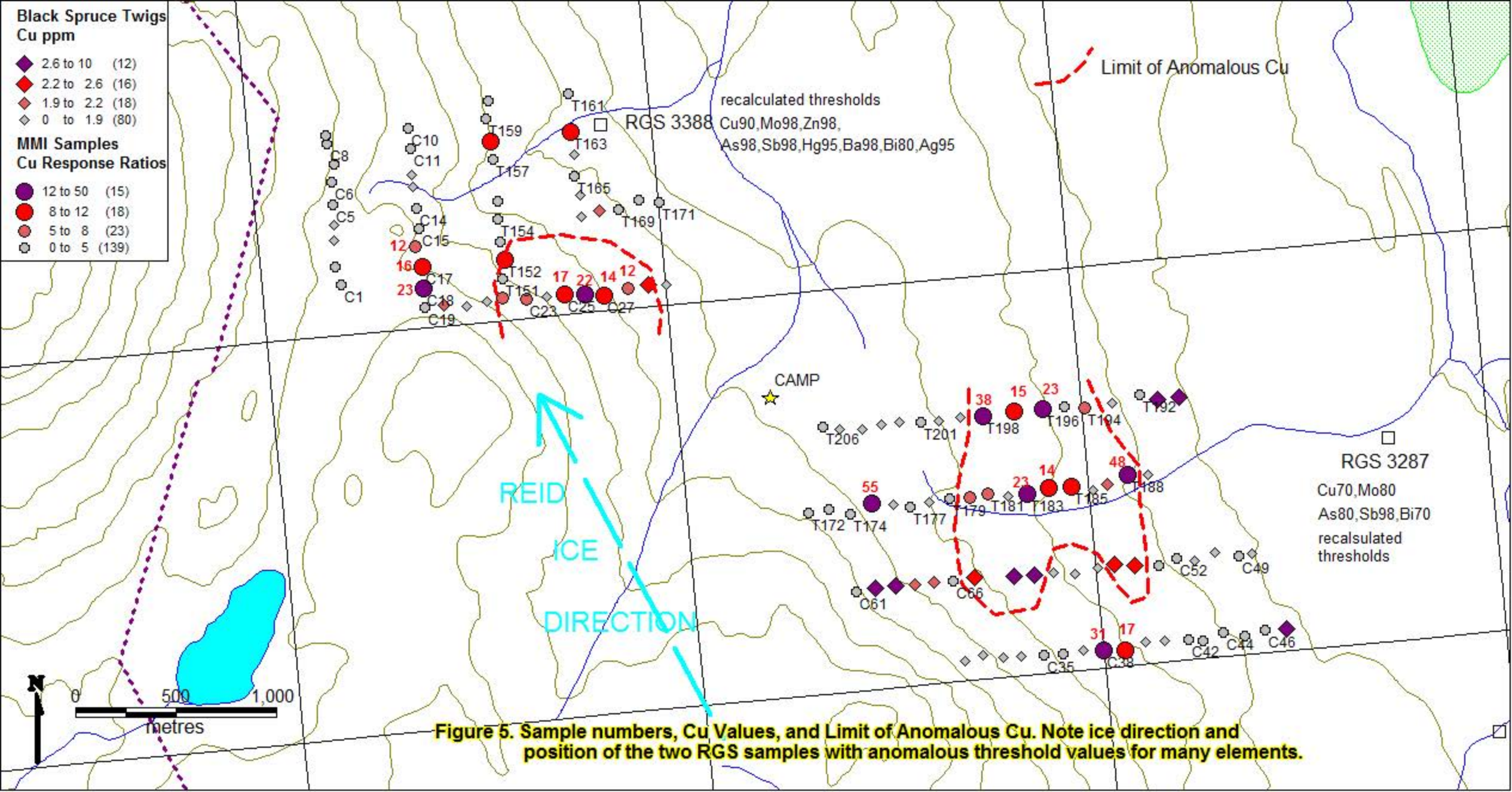
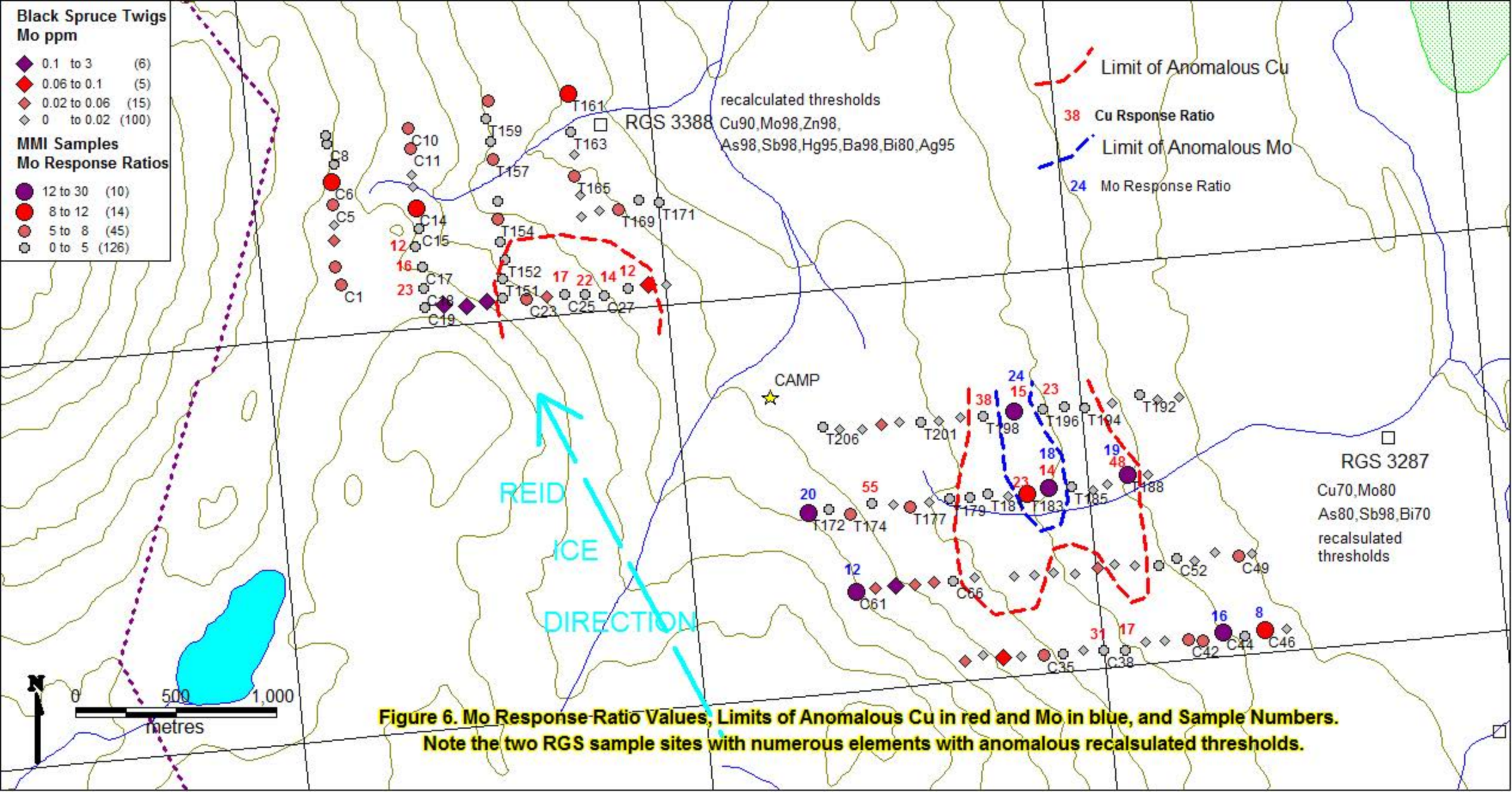


Figure 4. Location of Target Area in relation to major glacial periods. McConnell glacialiation in purple, Reid glacialiation in green, pre-Reid glacialiations in yellow and unglaciated in tan. From compilation made by A. Duk-Rodkin, Geological Association of Canada, 1999 Scale 1:1,000,000.





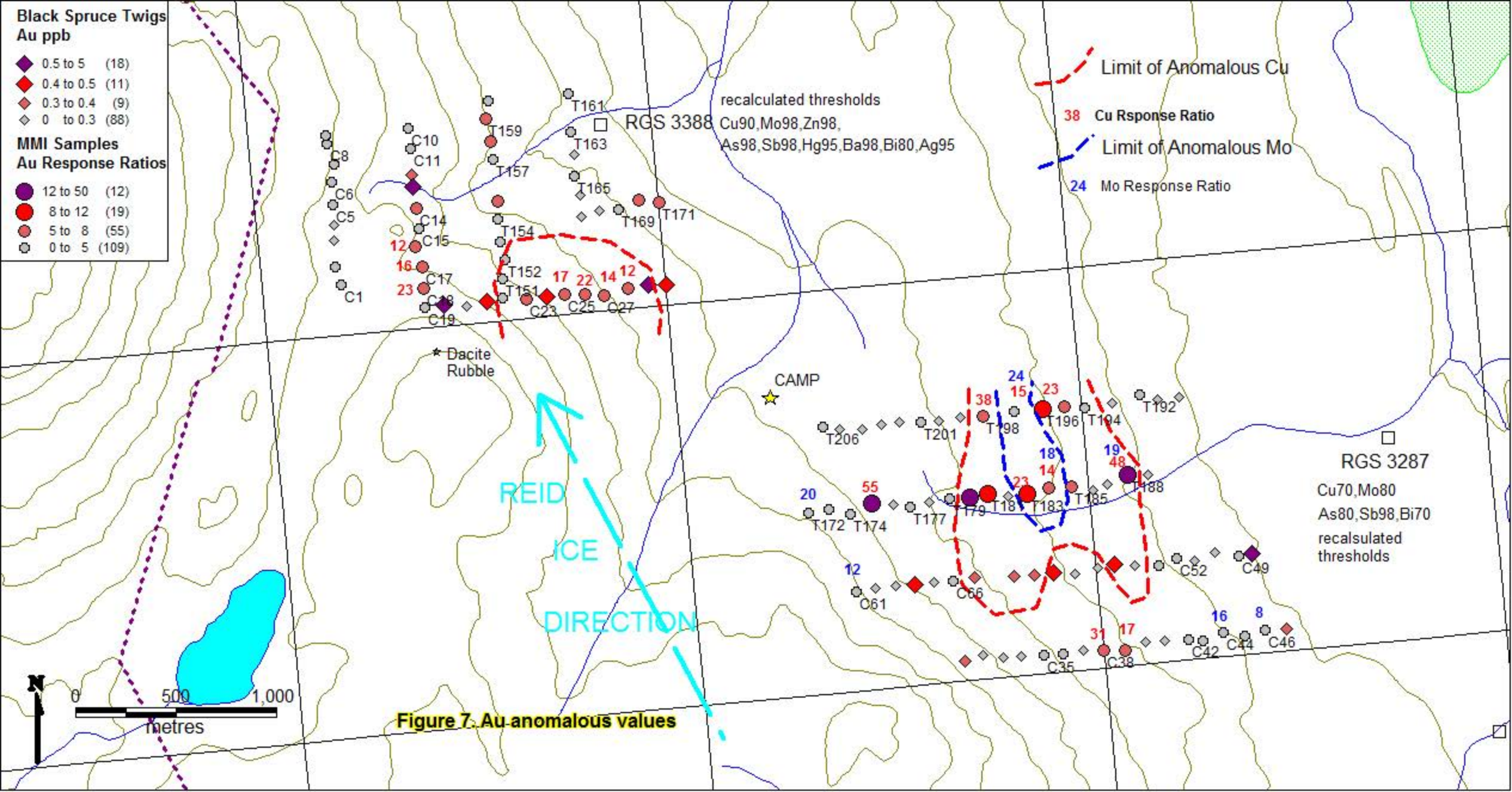
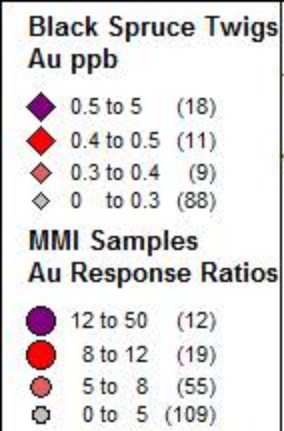


Figure 7. Au anomalous values

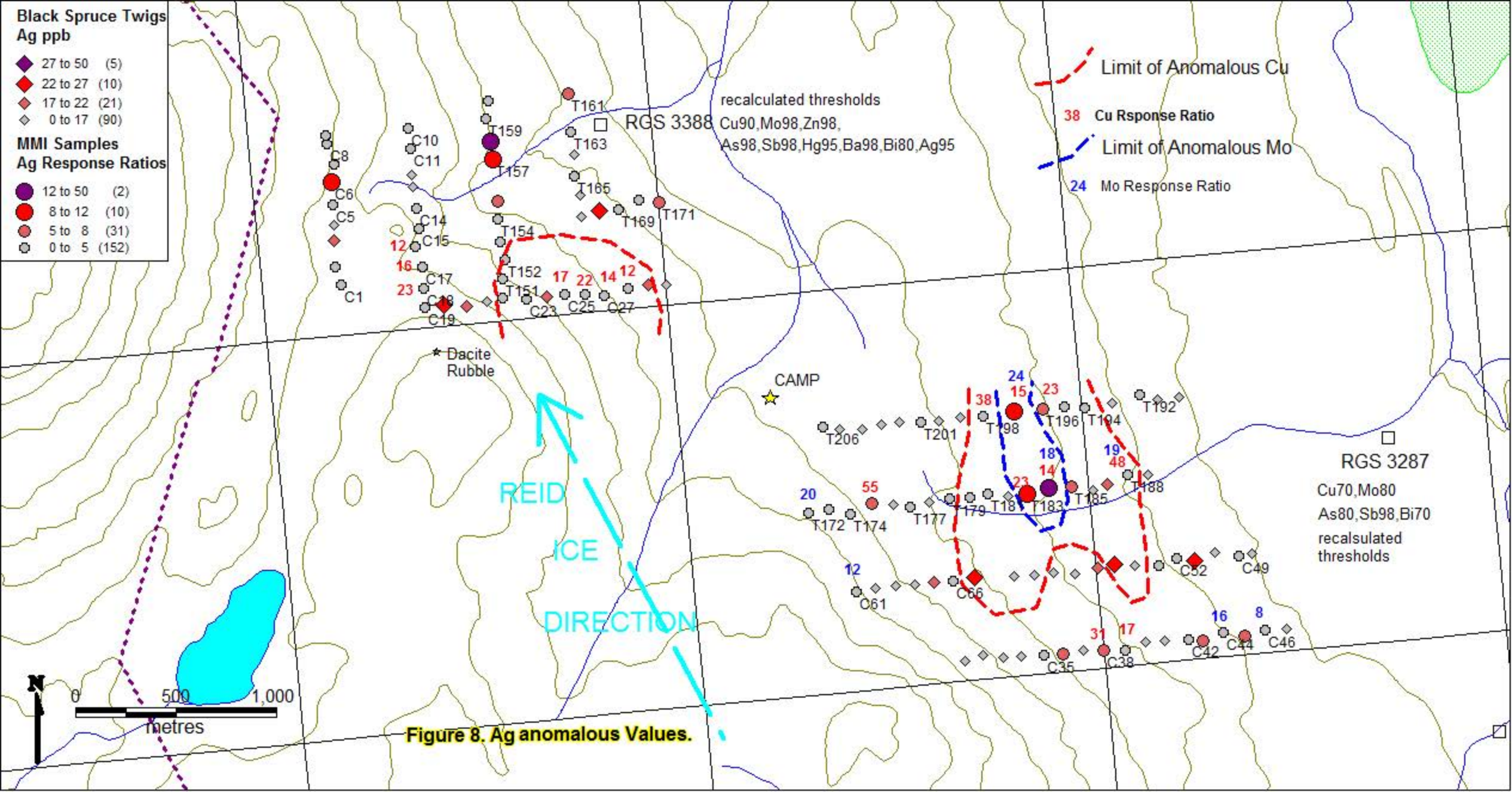
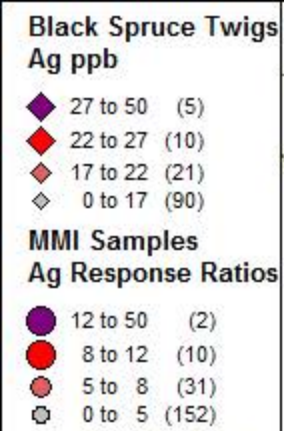


Figure 8. Ag anomalous Values.

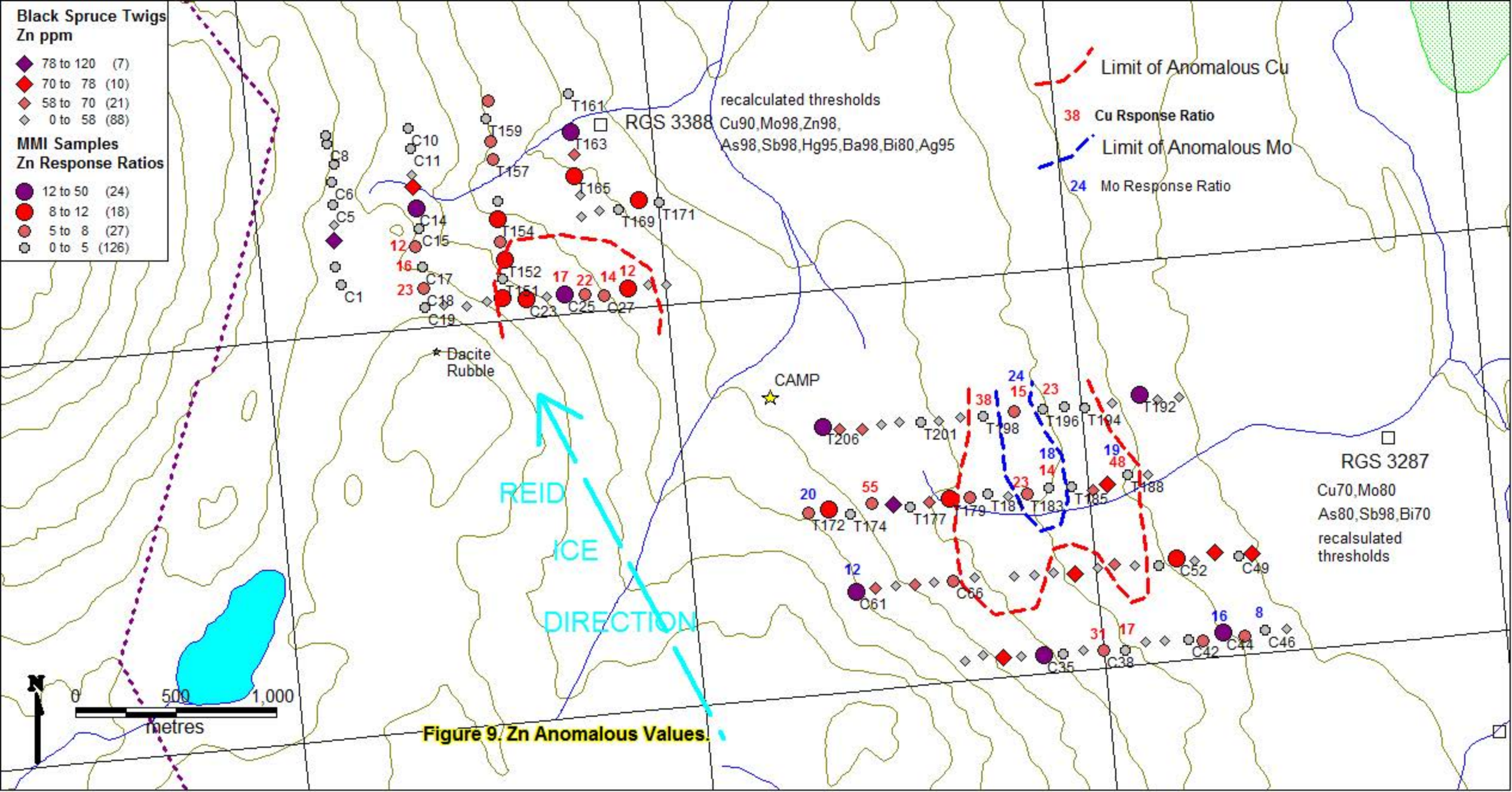
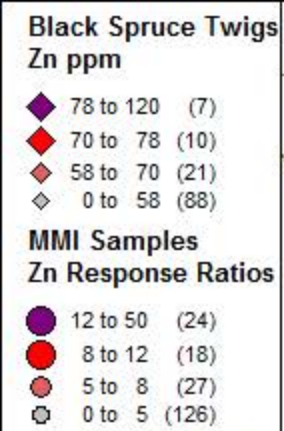


Figure 9. Zn Anomalous Values.

**Black Spruce Twigs
Pb ppm**

- ◆ 0.11 to 2 (9)
- ◆ 0.09 to 0.11 (15)
- ◆ 0.08 to 0.09 (15)
- ◆ 0 to 0.08 (87)

**MMI Samples
Pb Response Ratios**

- 12 to 30 (6)
- 8 to 12 (29)
- 5 to 8 (48)
- 0 to 5 (112)

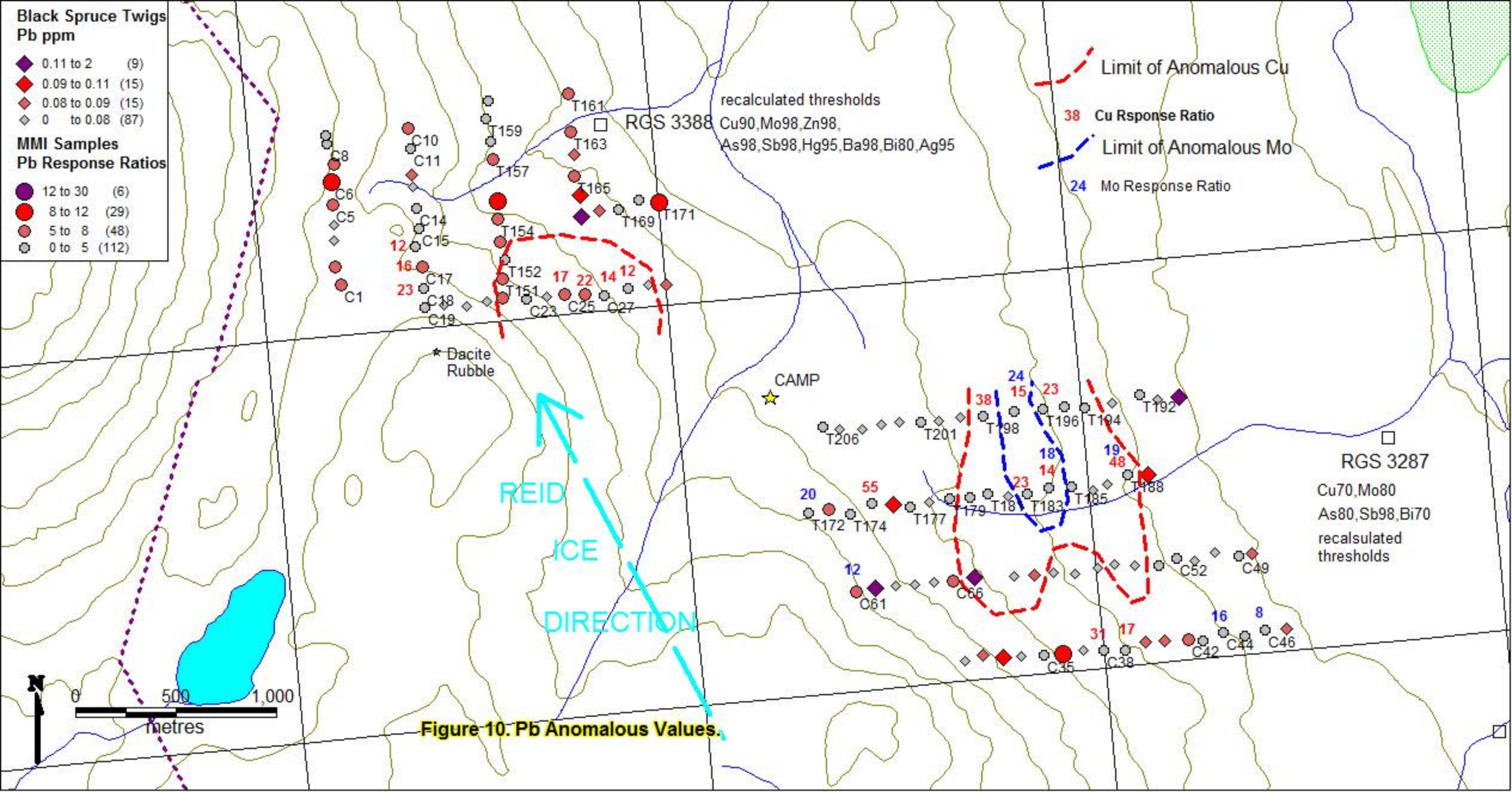


Figure 10. Pb Anomalous Values.

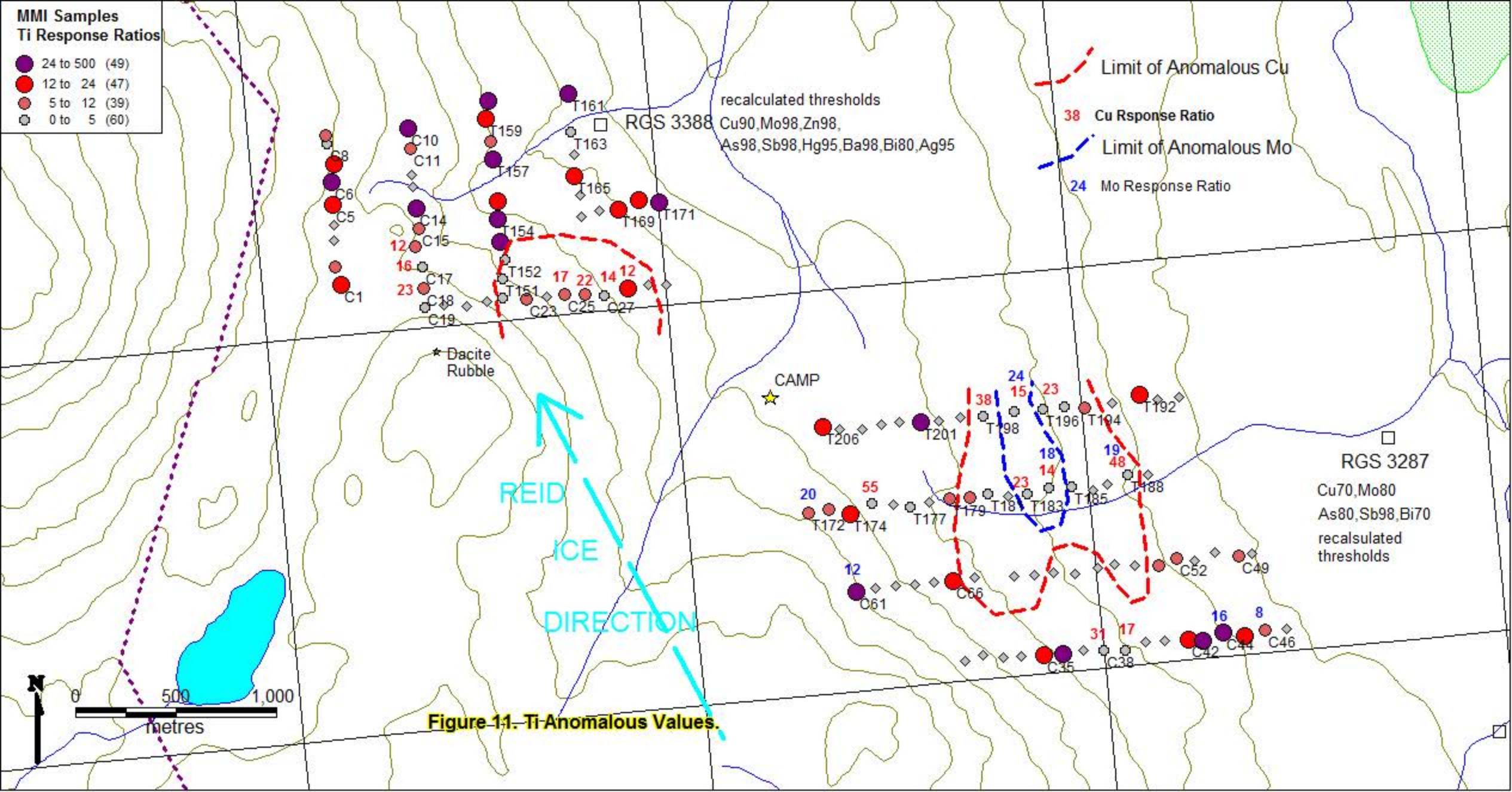


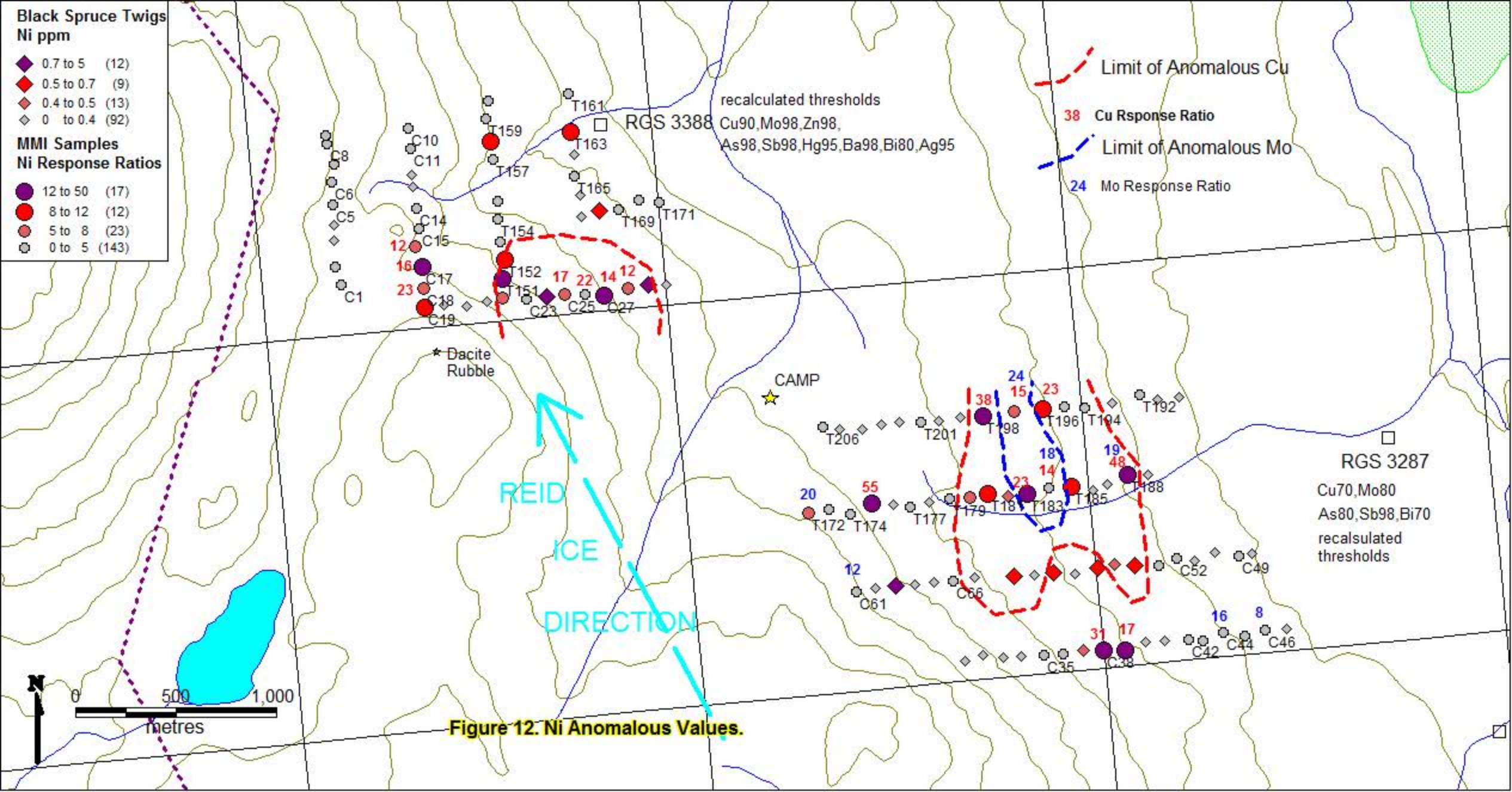
Figure 11. Ti Anomalous Values.

**Black Spruce Twigs
Ni ppm**

- ◆ 0.7 to 5 (12)
- ◆ 0.5 to 0.7 (9)
- ◆ 0.4 to 0.5 (13)
- ◆ 0 to 0.4 (92)

**MMI Samples
Ni Response Ratios**

- 12 to 50 (17)
- 8 to 12 (12)
- 5 to 8 (23)
- 0 to 5 (143)



recalculated thresholds
RGS 3388
Cu90, Mo98, Zn98,
As98, Sb98, Hg95, Ba98, Bi80, Ag95

Limit of Anomalous Cu
38 Cu Response Ratio
Limit of Anomalous Mo
24 Mo Response Ratio

RGS 3287
Cu70, Mo80
As80, Sb98, Bi70
recalculated thresholds

Figure 12. Ni Anomalous Values.

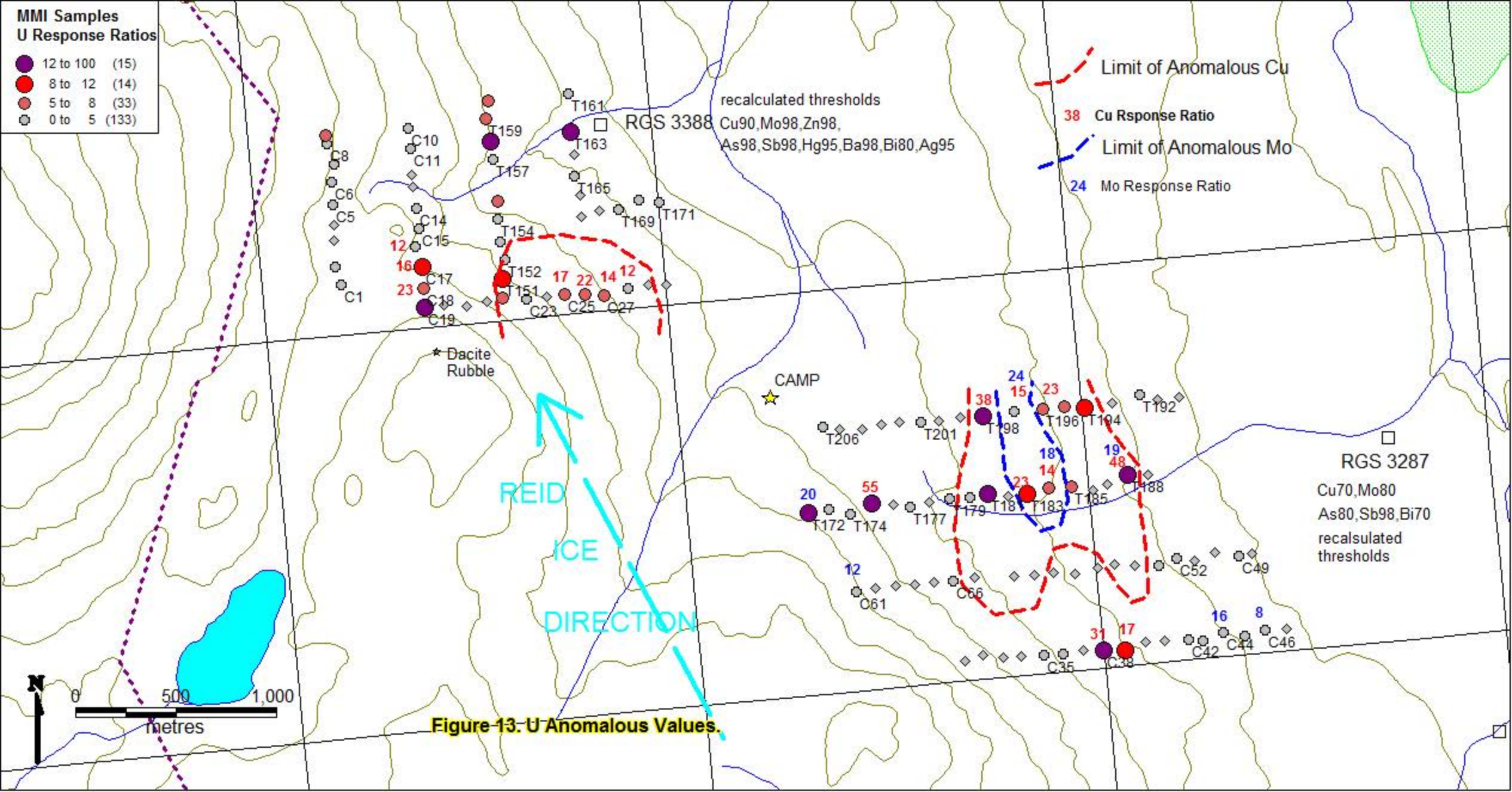


Figure 13. U Anomalous Values.

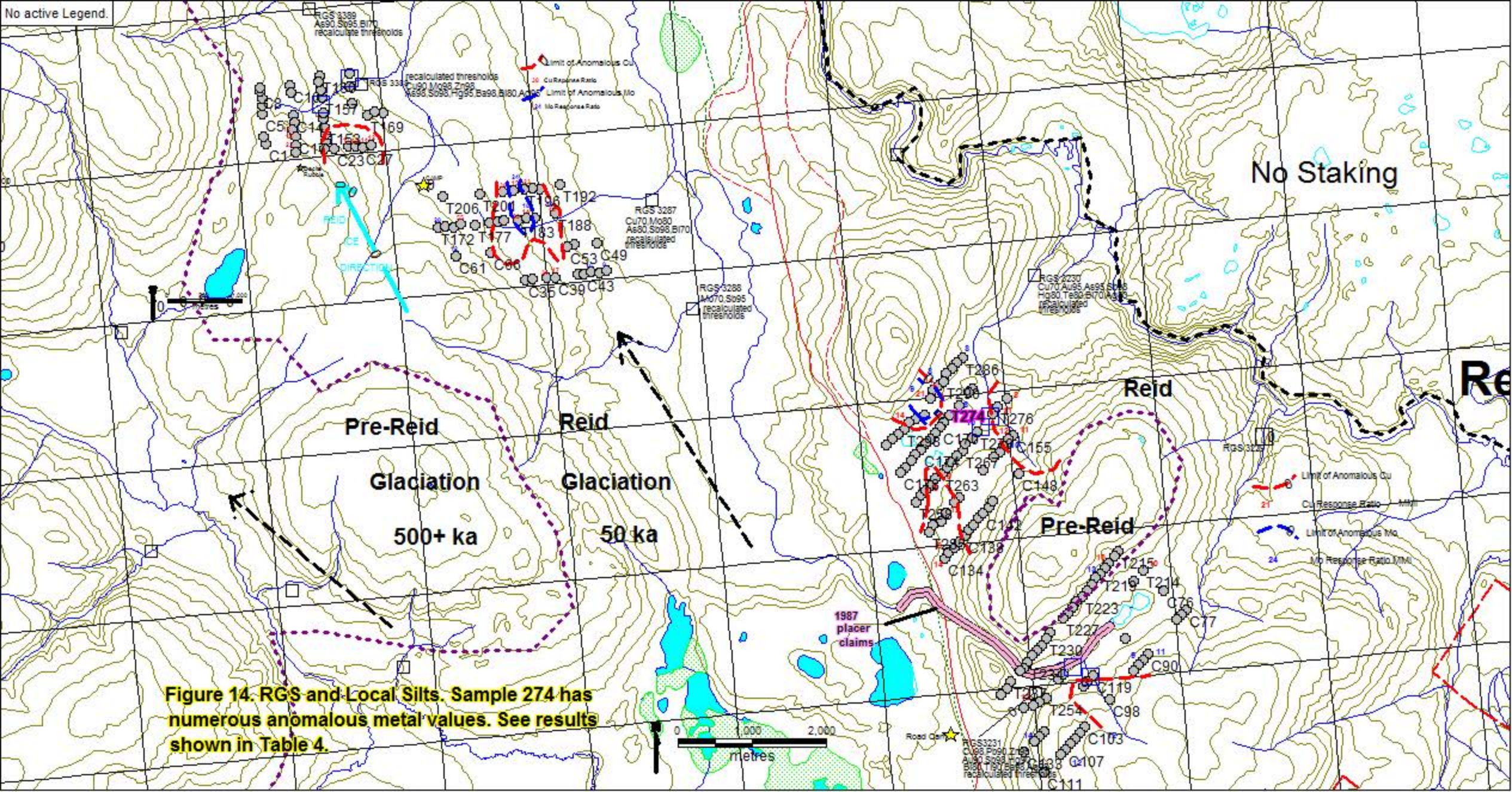


Figure 14. RGS and Local Silts. Sample 274 has numerous anomalous metal values. See results shown in Table 4.

- Black Spruce Twigs
Mo ppm**
- ◆ 0.1 to 3 (6)
 - ◆ 0.06 to 0.1 (5)
 - ◆ 0.02 to 0.06 (15)
 - ◆ 0 to 0.02 (100)
- MMI Samples
Mo Response Ratios**
- 12 to 30 (10)
 - 8 to 12 (14)
 - 5 to 8 (45)
 - 0 to 5 (126)

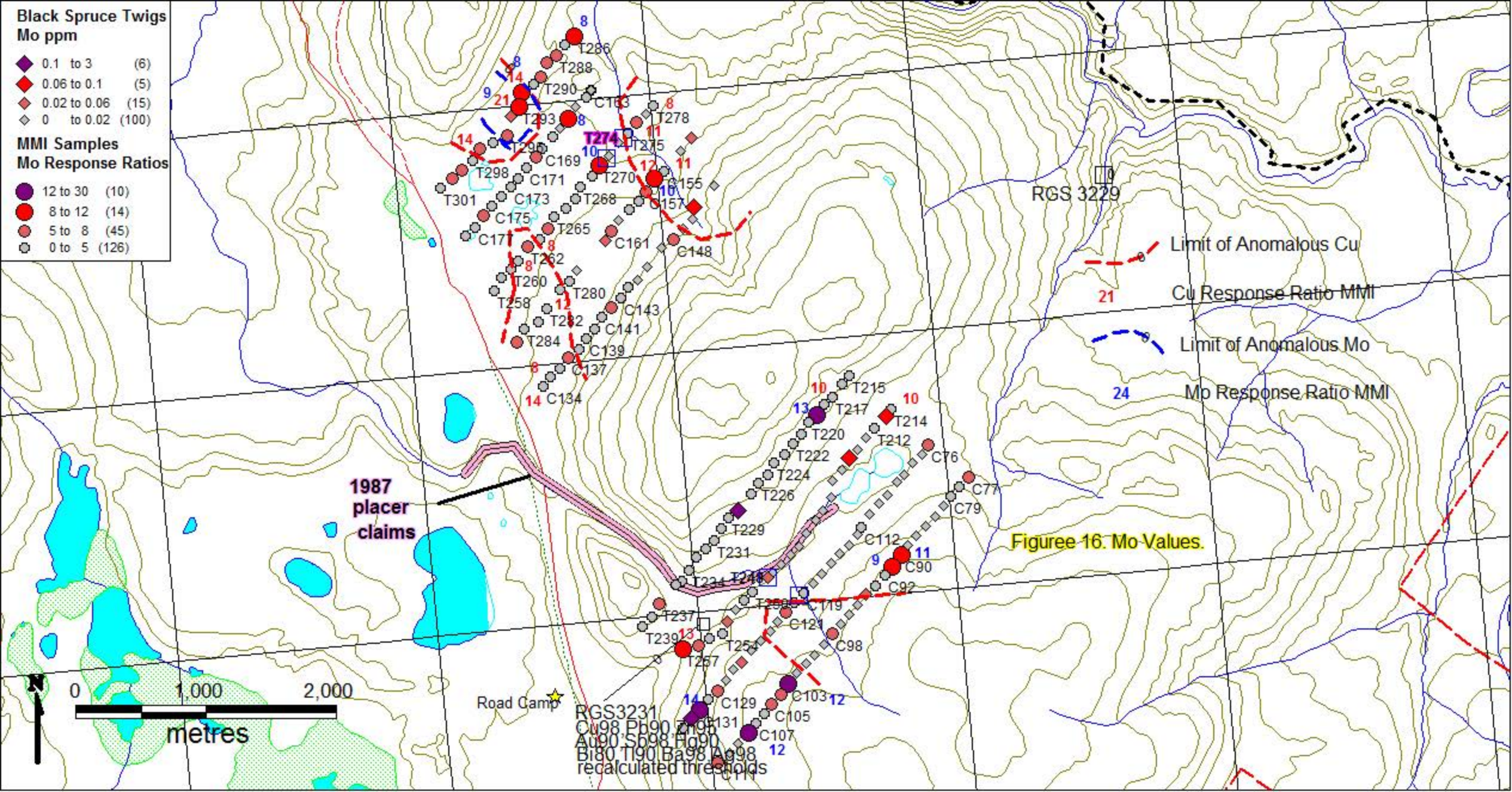


Figure 16. Mo-Values.

RGS3231
 Cu98 Pb90 Zn95
 Au90 Sb98 Hg90
 Bi80 Tl90 Ba98 Ag98
 recalculated thresholds

**Black Spruce Twigs
Au ppb**

- ◆ 0.5 to 5 (18)
- ◆ 0.4 to 0.5 (11)
- ◆ 0.3 to 0.4 (9)
- ◆ 0 to 0.3 (88)

**MMI Samples
Au Response Ratios**

- 12 to 50 (12)
- 8 to 12 (19)
- 5 to 8 (55)
- 0 to 5 (109)

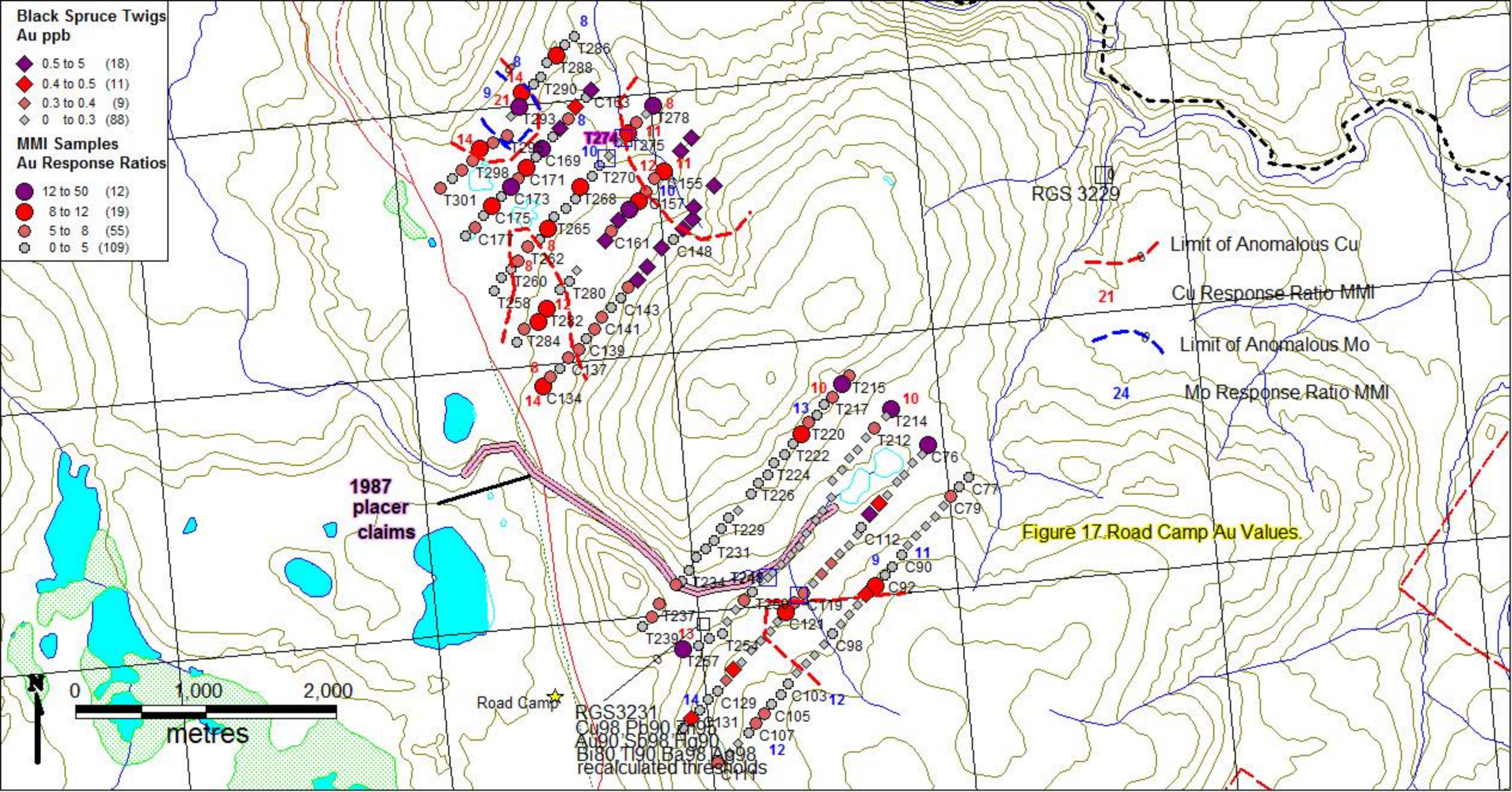


Figure 17. Road Camp Au Values.

RGS3231
Cu98 Pb90 Zn95
Au90 Sb98 Hg90
Bi80 Tl90 Ba98 Ag98
recalculated thresholds

- Black Spruce Twigs
Ag ppb**
- ◆ 27 to 50 (5)
 - ◆ 22 to 27 (10)
 - ◆ 17 to 22 (21)
 - ◆ 0 to 17 (90)
- MMI Samples
Ag Response Ratios**
- 12 to 50 (2)
 - 8 to 12 (10)
 - 5 to 8 (31)
 - 0 to 5 (152)

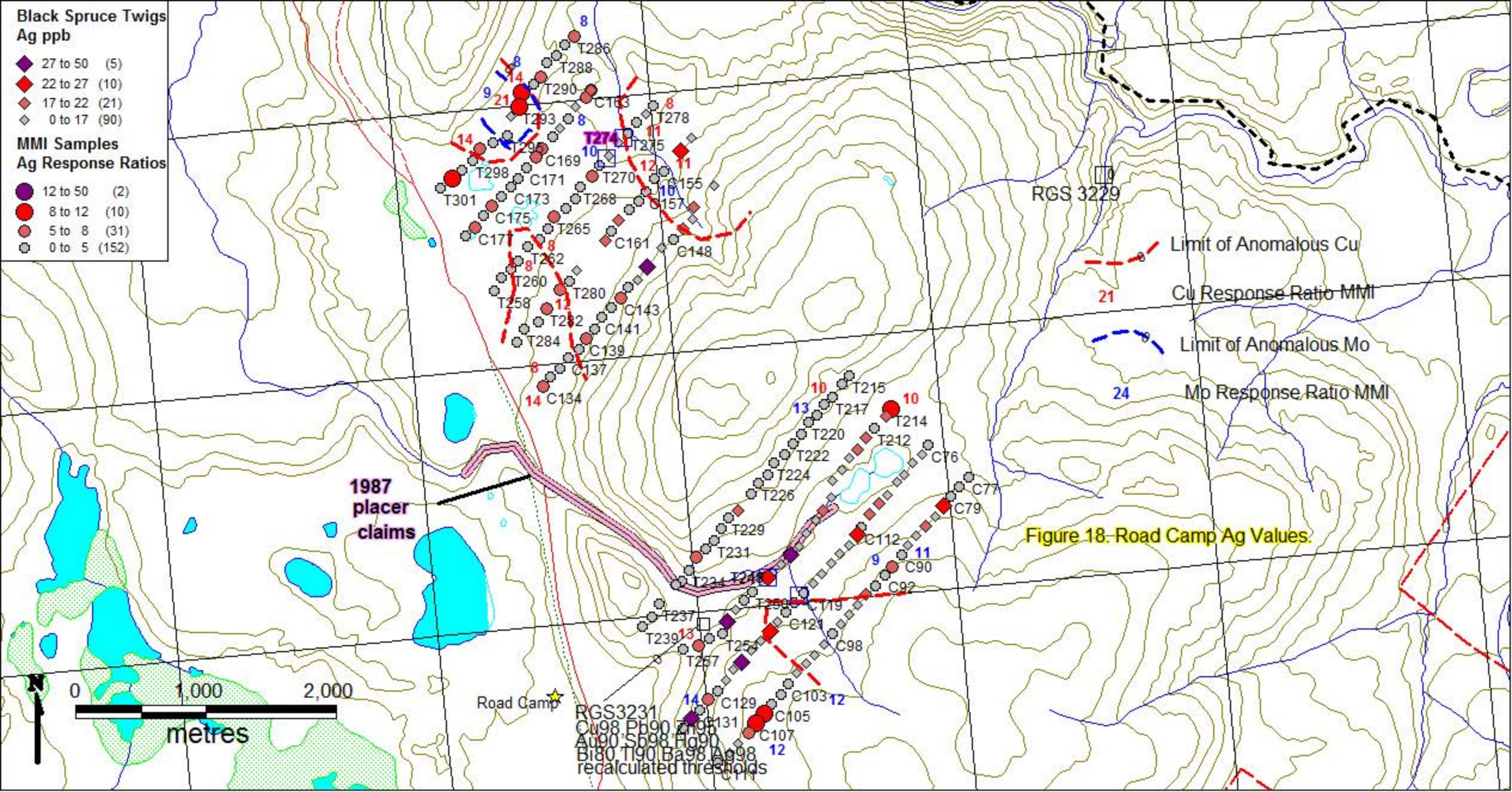


Figure 18. Road Camp Ag Values.

RGS3231
 Cu98 Pb90 Zn95
 Au90 Sb98 Hg90
 Bi80 Tl90 Ba98 Ag98
 recalculated thresholds

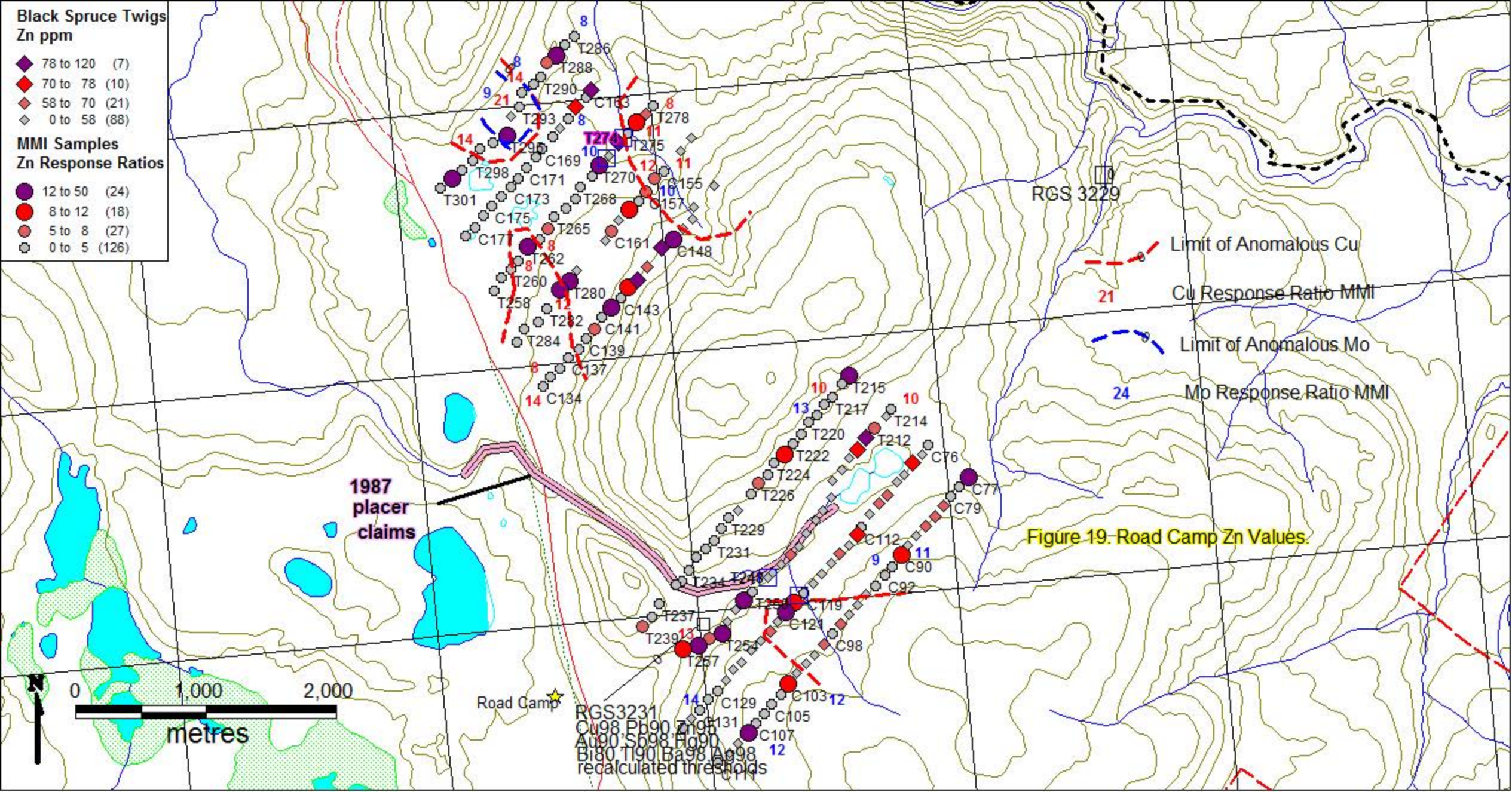
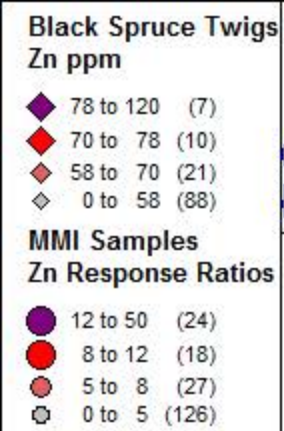


Figure 19. Road Camp Zn Values.

RGS3231
Cu98 Pb90 Zn95
Au90 Sb98 Hg90
Bi80 Tl90 Ba98 Ag98
recalculated thresholds

**Black Spruce Twigs
Pb ppm**

- ◆ 0.11 to 2 (9)
- ◆ 0.09 to 0.11 (15)
- ◆ 0.08 to 0.09 (15)
- ◆ 0 to 0.08 (87)

**MMI Samples
Pb Response Ratios**

- 12 to 30 (6)
- 8 to 12 (29)
- 5 to 8 (48)
- 0 to 5 (112)

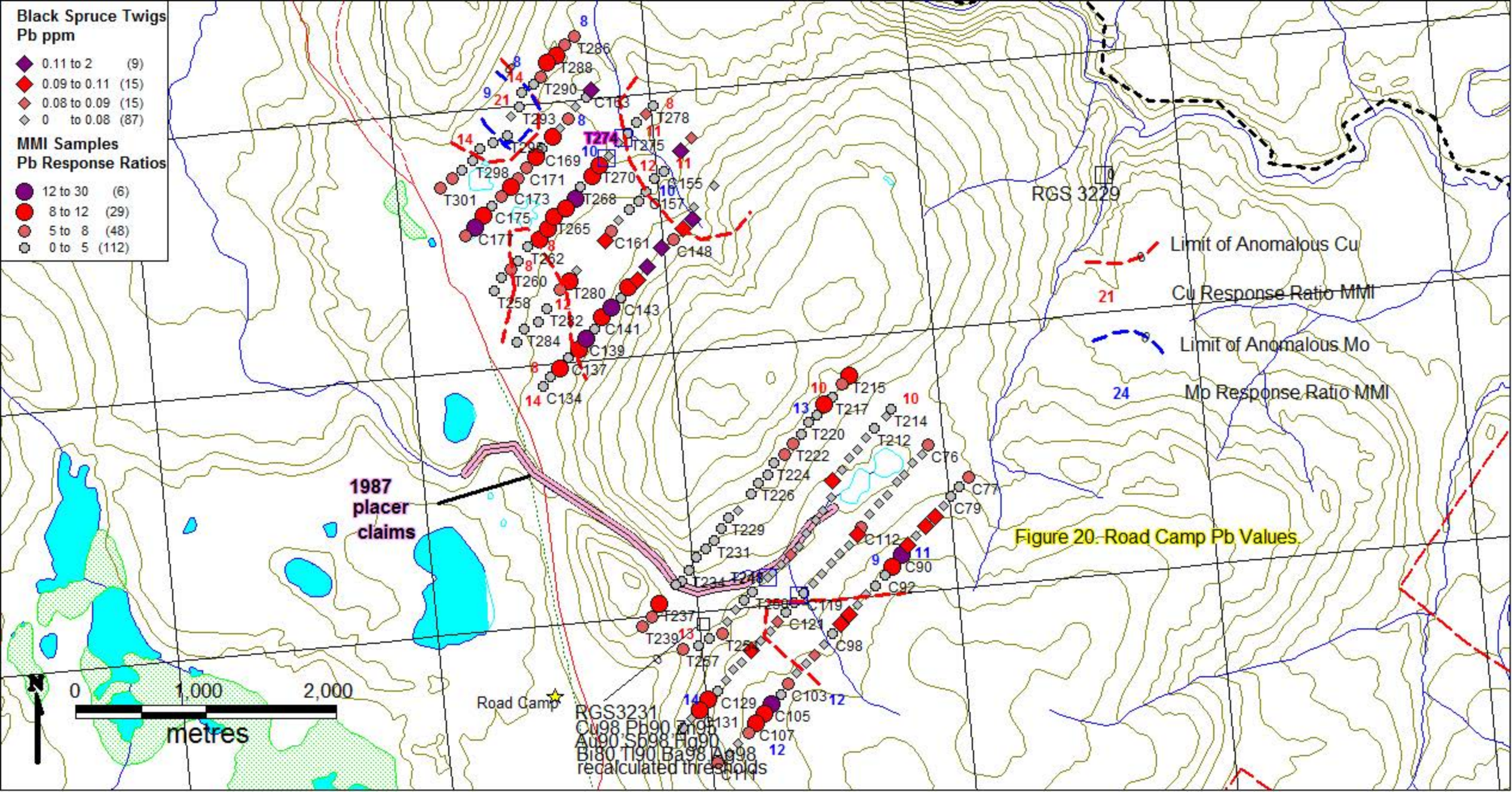
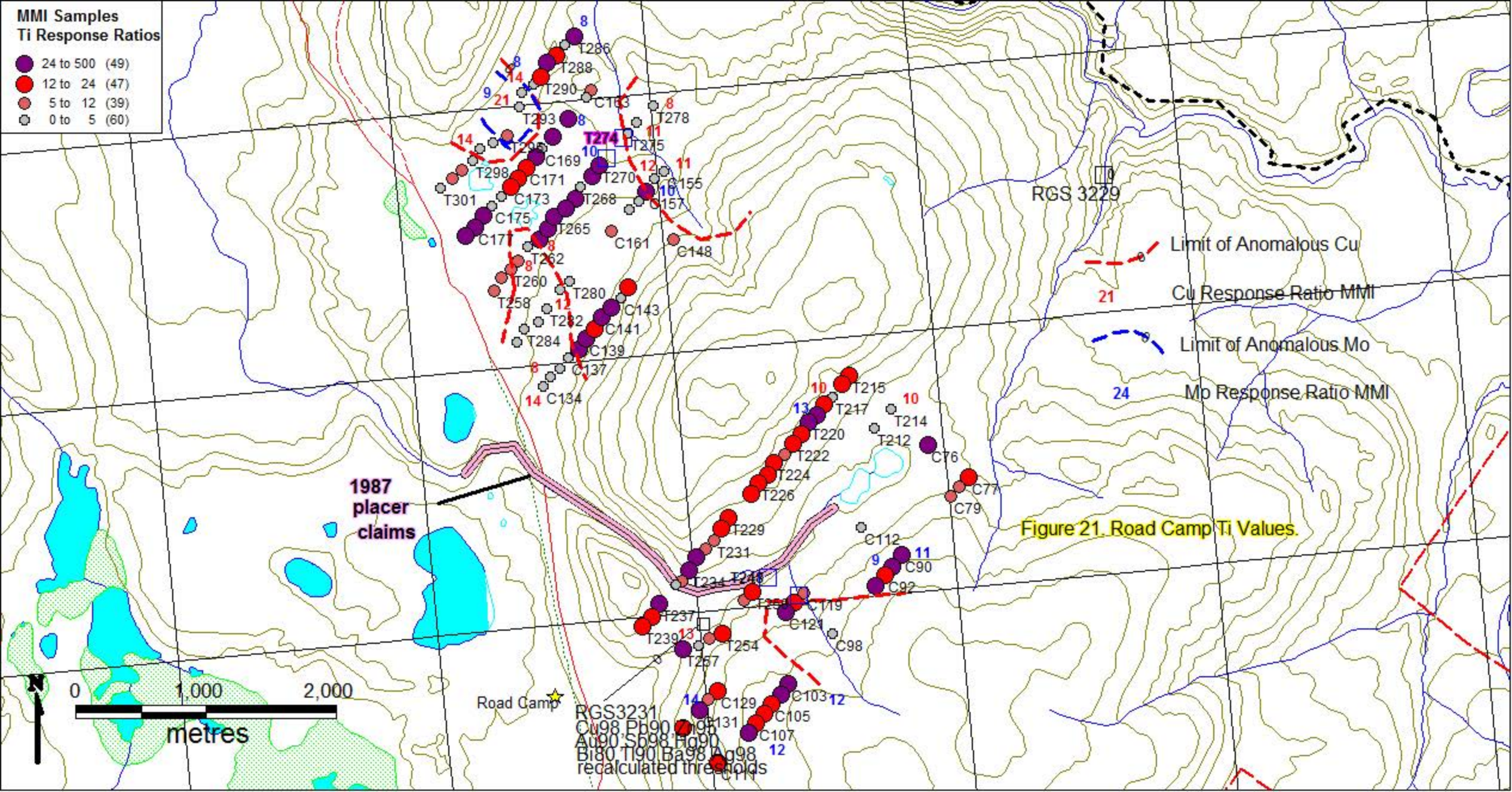
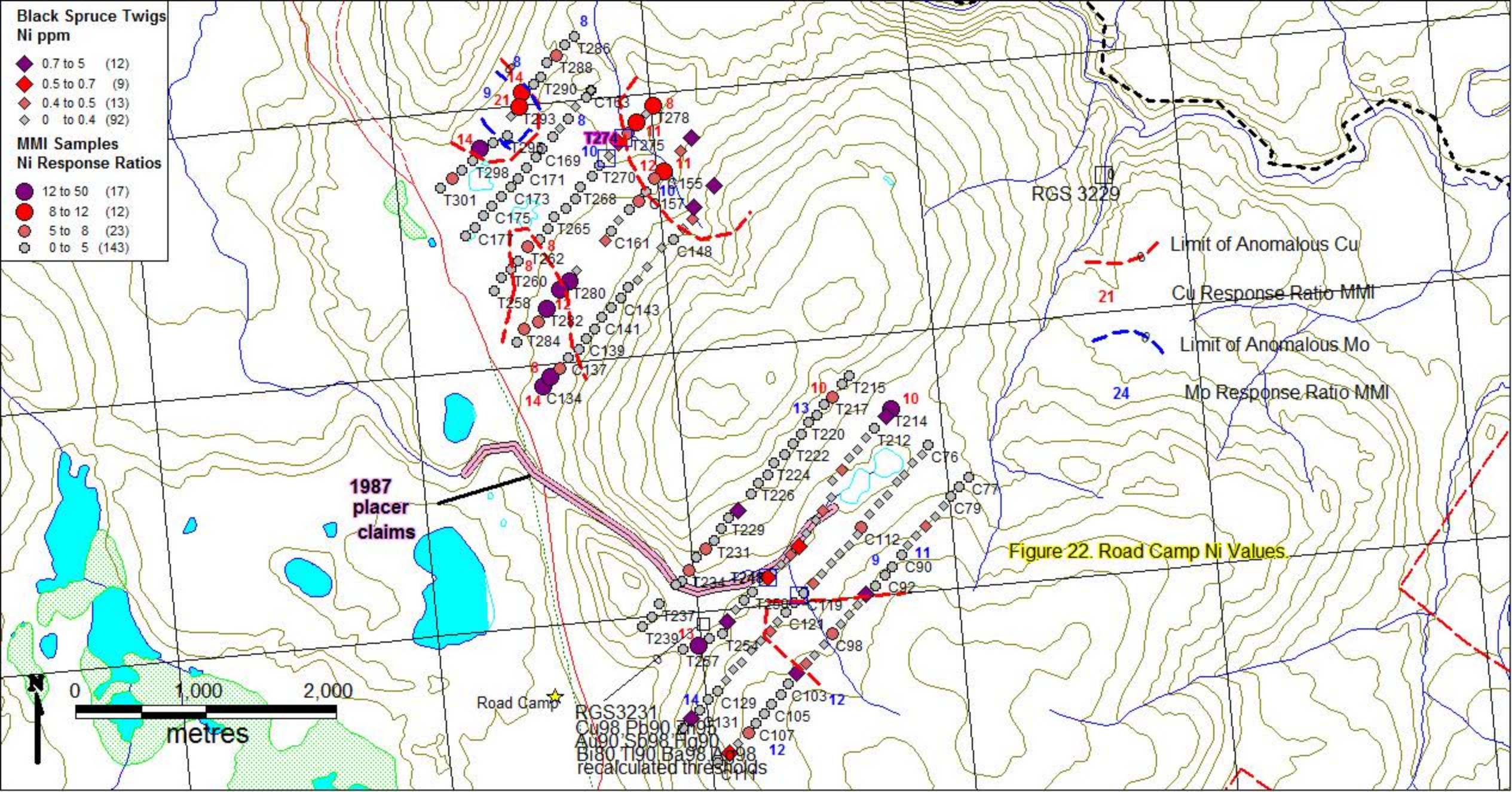
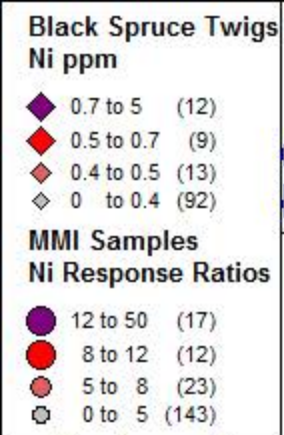


Figure 20. Road Camp Pb Values

RGS3231
Cu98 Pb90 Zn95
Au90 Sb98 Hg90
Bi80 Tl90 Ba98 Ag98
recalculated thresholds





uKc2

Basalt to basaltic andesite flows and/or sills; locally hornblende-phyric; high magnetic susceptibility.

uKc1

Dacite to rhyodacite; commonly plagioclase-phyric; may correlate with Donjek Volcanics.

MIDDLE CRETACEOUS?

mKgw

Whitehorse suite: pink to grey monzogranite to granodiorite, locally syenogranite; generally biotite-bearing; locally K-feldspar porphyritic; forms undeformed cross-cutting plutons and dykes.

EARLY MISSISSIPPIAN**Reid Lakes complex (MgRL, MgRL, MqRL, MvRL)**

MgRL

Reid Lake batholith: polyphase; undeformed to weakly foliated monzogranite, granodiorite and quartz monzonite; typically biotite-bearing and exhibiting abundant blebby to porphyritic smoky quartz; fresh magmatic hornblende and K-feldspar phenocrysts common in eastern extent; slightly foliated adjacent to Willow Lake fault; easily confused with undeformed post-Triassic intrusions.

MqRL

Quartz sandstone; little metamorphosed, with blue grey colour; associated with Reid Lake volcanic rocks.

MvRL

Volcanic and volcanoclastic rocks; andesite to dacite flows, volcanic conglomerate, breccia and tuff; local rhyolite to rhyodacitic porphyritic flows; generally unlayered, except for faint layering in volcanic sandstone; local volcanic siltstone; presumed extrusive equivalents of the Reid Lake batholith.

LATE DEVONIAN - EARLY MISSISSIPPIAN**Moderately to strongly foliated (orthogneissic) plutonic rocks****Simpson Range suite (MgSR, MiSR, MagSR)**

MgSR

Monzogranite to granodiorite; equigranular; pink to orange; generally biotite-bearing (after hornblende?); homogeneous to layered.

MiSR

Intermediate to mafic granitoid (tonalite to diorite) sheets; intermediate to dark colour; homogeneous to layered.

Metavolcanic and metasedimentary rocks**Finlayson Assemblage? (DMF1, DMF2)**

DMF1

Carbonaceous quartzite to mica-quartz schist; black to white quartzite, with schist and garnet schist interlayers; and rare black phyllite; possibly equivalent to Nasina formation, or simply a carbonaceous member of the Snowcap assemblage.

LATE DEVONIAN AND OLDER**Snowcap assemblage (PDS1, PDS2, PDS3)**

PDS3

Amphibolite schist to garnet-amphibolite; metabasite; usually garnet-hornblende-plagioclase or hornblende-plagioclase, with local chlorite-biotite; probably derived from mafic volcanic to volcanoclastic rocks; some layers that are internally homogeneous may be mafic sills; more intermediate varieties can have rosettes of decussate, larger hornblende.

PDS2

Marble; metacarbonate (derived from pure to impure limestone); associated calcisilicate schist (derived from calcareous metapelite).

PDS1

Quartzite to quartz-mica schist; banded to massive, grey to white in colour; locally conglomeratic; commonly contains beds of micaceous quartz arenite; clastic in origin; quartz-muscovite-biotite schist is possibly derived from siliceous siltstone; commonly finely interlayered with garnet-metapelite.

Table 2. 2016 Crooked MMI Response Ratios for selected Elements.

ID	UTM 83E	UTM 83N	Cu RR	Mo RR	Ni RR	U RR	Ti RR	Pb RR	Zn RR	Au RR	Ag RR
C1	416396	7010251	1	5	2	2	20	6	2	3	3
C2	416373	7010342	2	6	1	2	7	5	1	3	2
C5	416388	7010652	0	5	1	1	15	5	1	1	1
C6	416394	7010765	1	9	2	1	55	10	3	1	11
C7	416412	7010852	1	2	1	1	16	7	1	2	4
C8	416389	7010955	1	1	1	1	1	4	1	1	1
C9	416388	7011001	1	1	1	5	8	3	2	3	3
C10	416798	7010998	2	6	2	4	30	5	3	3	2
C11	416803	7010895	1	5	1	1	9	4	4	1	2
C14	416799	7010594	2	11	2	3	24	4	13	5	3
C15	416805	7010494	1	4	3	3	8	3	2	3	3
C16	416777	7010410	7	4	6	4	6	2	6	6	3
C17	416805	7010302	9	1	14	11	2	5	4	5	3
C18	416802	7010197	13	4	5	7	9	4	6	6	3
C19	416797	7010100	3	1	9	53	1	2	1	2	3
C23	417304	7010096	6	5	3	4	9	3	11	6	3
C25	417494	7010101	9	1	5	5	6	6	13	5	2
C26	417594	7010093	12	3	4	7	8	5	6	6	4
C27	417688	7010079	8	1	12	6	2	3	5	5	2
C28	417814	7010099	7	4	5	4	13	1	11	6	1
C35	419702	7008093	0	5	1	1	19	3	15	1	2
C36	419796	7008091	2	4	1	2	29	9	3	2	5
C38	419999	7008089	17	4	16	18	1	3	5	5	6
C39	420106	7008077	10	4	13	11	0	1	1	5	4
C42	420421	7008103	1	6	1	2	21	5	3	1	3
C43	420494	7008091	1	5	1	1	24	4	5	1	5
C44	420595	7008121	1	16	2	3	24	3	31	1	1
C45	420705	7008096	1	4	1	2	13	3	5	1	5
C46	420808	7008114	2	8	3	2	5	1	2	2	2
C49	420710	7008494	1	6	1	4	9	3	1	1	4
C52	420404	7008507	2	4	1	1	9	2	11	2	1
C53	420309	7008481	2	4	2	1	5	1	3	3	1
C61	418802	7008493	1	12	1	1	28	7	23	1	1
C66	419284	7008499	1	4	1	2	21	7	5	1	1
C76	427880	7003117	5	7	1	7	55	6	2	14	4
C77	428162	7002839	1	6	2	3	14	6	29	2	1
C78	428088	7002774	2	1	1	2	8	3	1	3	2
C79	428017	7002710	5	1	4	5	5	3	4	5	2
C90	427594	7002292	2	11	1	5	50	29	9	3	4
C91	427520	7002209	2	9	1	2	57	10	3	3	5
C92	427451	7002151	1	1	1	2	17	4	1	3	1
C93	427371	7002075	2	3	2	3	29	4	1	8	1
C98	427014	7001736	6	5	6	7	2	0	4	3	2
C103	426638	7001391	3	12	2	4	68	6	8	3	1
C104	426578	7001313	1	5	1	1	55	3	2	1	0

ID	UTM 83E	UTM 83N	Cu RR	Mo RR	Ni RR	U RR	Ti RR	Pb RR	Zn RR	Au RR	Ag RR
C105	426498	7001249	2	5	1	2	20	12	1	3	4
C106	426431	7001181	3	3	1	3	21	11	1	5	9
C107	426363	7001108	3	1	1	3	17	8	1	6	10
C108	426298	7001044	3	12	5	2	61	7	15	3	5
C111	426043	7000837	4	5	3	5	21	7	4	5	3
C112	427308	7002531	2	3	6	20	1	5	1	3	3
C119	426823	7002076	3	1	2	2	5	4	1	6	2
C120	426738	7002004	3	3	1	3	12	2	8	5	1
C121	426674	7001938	5	5	2	4	24	4	19	8	2
C129	426098	7001384	1	5	1	1	17	4	2	1	0
C130	426017	7001323	3	3	1	1	11	10	1	3	6
C131	425948	7001255	1	14	1	2	28	8	3	2	4
C133	425803	7001127	1	4	2	2	19	4	2	3	2
C134	424979	7003834	14	3	12	11	0	1	2	8	6
C135	425042	7003908	8	1	13	9	0	1	3	5	4
C136	425123	7003967	6	3	5	5	3	9	3	3	2
C137	425196	7004036	6	5	4	4	3	0	4	6	3
C138	425279	7004100	2	4	2	2	27	8	4	5	1
C139	425343	7004175	1	3	2	1	40	13	4	1	6
C140	425415	7004238	4	4	3	3	19	4	5	5	3
C141	425477	7004329	1	1	2	1	30	9	2	5	4
C142	425558	7004392	1	6	1	1	39	12	12	2	2
C143	425637	7004454	1	1	2	1	3	4	2	2	7
C144	425703	7004537	7	4	4	9	22	10	11	6	2
C148	426076	7004871	2	5	1	2	8	6	17	3	1
C155	426058	7005395	11	4	10	10	3	1	3	8	1
C156	425975	7005345	12	10	7	3	0	0	5	6	2
C157	425909	7005256	3	6	3	2	37	4	6	5	1
C158	425847	7005186	6	1	7	6	2	1	2	8	3
C159	425765	7005128	3	3	3	1	3	0	10	18	1
C161	425611	7004972	3	5	3	1	10	7	6	5	1
C163	425557	7006071	2	4	2	1	7	5	2	2	7
C164	425513	7006021	1	2	2	1	1	1	1	2	7
C166	425365	7005869	1	8	2	1	24	7	3	6	2
C168	425229	7005743	1	4	2	1	40	8	2	2	0
C169	425138	7005660	4	1	2	3	0	1	0	12	5
C170	425085	7005596	2	6	1	1	64	11	3	3	7
C171	425013	7005525	3	2	2	5	22	6	1	9	2
C172	424940	7005446	1	1	2	3	17	6	1	6	2
C173	424874	7005389	4	1	3	13	22	8	1	15	3
C174	424796	7005316	1	1	3	6	2	7	1	3	4
C175	424715	7005258	2	1	3	7	1	4	1	8	5
C176	424649	7005182	1	6	1	1	32	10	3	1	4
C177	424569	7005102	2	4	1	4	74	12	2	6	5
C178	424498	7005043	1	3	1	2	29	7	1	3	3
T150	417186	7010110	7	1	7	6	4	6	10	3	3

ID	UTM 83E	UTM 83N	Cu RR	Mo RR	Ni RR	U RR	Ti RR	Pb RR	Zn RR	Au RR	Ag RR
T151	417197	7010205	4	1	15	10	2	5	2	1	3
T152	417214	7010298	9	4	9	4	3	1	8	1	2
T153	417203	7010392	2	3	2	3	31	5	5	3	2
T154	417201	7010507	3	5	2	3	30	6	9	3	2
T155	417205	7010596	4	1	2	6	21	10	1	6	6
T157	417205	7010803	2	7	3	3	45	6	5	3	9
T158	417199	7010894	8	2	10	14	11	4	5	6	16
T159	417189	7011006	4	2	3	7	21	3	4	6	3
T160	417204	7011094	3	6	2	6	38	3	6	3	2
T161	417607	7011092	1	8	1	1	58	5	4	1	6
T163	417598	7010906	9	3	10	13	4	7	15	2	2
T165	417599	7010682	1	7	1	1	21	5	11	1	3
T169	417802	7010499	2	5	2	3	14	3	4	3	1
T170	417905	7010533	4	4	3	2	15	1	8	5	4
T171	418007	7010515	1	1	1	1	31	9	2	5	5
T172	418602	7008905	4	20	5	33	5	0	5	3	2
T173	418702	7008912	1	3	1	1	11	5	9	2	2
T174	418806	7008879	1	5	1	2	15	4	3	3	2
T175	418919	7008922	31	4	18	53	2	3	5	12	5
T177	419107	7008890	1	6	1	1	3	1	2	3	1
T179	419306	7008910	3	4	3	2	11	4	10	3	1
T180	419408	7008908	6	4	6	4	7	1	6	17	3
T181	419494	7008917	6	3	8	12	2	1	2	11	2
T183	419692	7008901	13	10	13	9	2	1	5	8	8
T184	419800	7008917	8	18	3	5	0	1	3	6	12
T185	419915	7008912	9	3	8	6	1	0	1	6	5
T188	420199	7008948	27	19	13	23	0	0	0	12	3
T192	420295	7009336	1	4	1	1	12	4	20	1	1
T194	420018	7009295	6	4	3	8	6	1	4	3	2
T195	419913	7009313	3	1	2	5	2	2	1	6	1
T196	419811	7009311	13	2	10	5	2	1	2	11	7
T197	419663	7009313	8	24	7	2	0	2	6	1	9
T198	419507	7009302	21	1	18	18	0	1	4	6	4
T201	419200	7009302	1	4	3	2	29	4	2	3	0
T206	418709	7009323	1	4	1	1	13	1	25	1	0
T212	427479	7003279	3	3	4	3	2	1	7	6	2
T214	427623	7003416	10	1	16	14	1	1	1	12	9
T215	427321	7003700	1	2	4	2	18	8	19	6	3
T216	427260	7003644	2	1	2	3	19	6	4	18	3
T217	427178	7003553	10	3	7	3	0	1	3	6	4
T218	427115	7003504	1	2	2	1	19	9	3	2	1
T219	427048	7003419	1	13	2	1	51	2	3	2	4
T220	426978	7003374	2	3	3	2	33	4	2	6	1
T221	426913	7003286	3	1	3	5	13	2	1	8	1
T222	426845	7003221	1	1	2	1	20	7	2	2	3
T223	426771	7003147	1	1	3	2	10	6	11	1	1

ID	UTM 83E	UTM 83N	Cu RR	Mo RR	Ni RR	U RR	Ti RR	Pb RR	Zn RR	Au RR	Ag RR
T224	426691	7003084	2	1	2	2	22	4	1	3	1
T225	426632	7003005	2	1	2	2	12	4	1	3	2
T226	426557	7002941	3	1	4	2	20	4	5	2	2
T227	426493	7002871	2	1	3	1	22	3	4	3	1
T229	426301	7002697	1	1	1	1	13	1	1	2	0
T230	426238	7002626	2	2	2	3	15	3	1	3	2
T231	426178	7002541	1	1	2	2	11	3	1	3	2
T232	426107	7002480	2	1	5	1	10	3	2	1	2
T233	426027	7002418	2	4	3	2	24	4	3	3	6
T234	425957	7002325	2	3	5	1	27	4	3	1	3
T235	425899	7002252	1	1	3	1	5	4	0	3	3
T236	425848	7002225	3	1	3	5	0	1	1	6	2
T237	425711	7002091	6	5	4	3	37	8	4	6	3
T238	425645	7001997	2	3	3	4	22	5	2	5	2
T239	425566	7001934	2	3	4	1	20	7	5	1	3
T250	426430	7002116	2	3	1	3	12	4	4	2	1
T251	426361	7002063	3	3	2	2	6	2	22	5	3
T254	426175	7001823	4	3	4	3	14	6	13	3	2
T255	426068	7001789	2	2	1	3	7	3	6	2	3
T256	425981	7001742	13	5	15	7	3	1	19	3	6
T257	425855	7001728	1	10	1	1	27	6	9	18	2
T258	424674	7004608	2	1	3	2	5	2	1	2	2
T259	424737	7004700	4	3	3	2	5	2	1	3	2
T260	424815	7004758	2	1	2	2	5	5	1	3	3
T261	424882	7004817	8	2	2	9	8	1	2	6	1
T262	424958	7004920	8	5	7	6	2	1	13	5	3
T263	425054	7004965	1	1	1	2	54	10	3	3	3
T264	425130	7005039	6	5	3	5	32	9	5	9	2
T265	425187	7005124	2	3	2	2	35	10	2	2	6
T266	425276	7005182	1	2	1	1	30	8	1	1	2
T267	425356	7005246	2	4	1	1	81	15	2	3	4
T268	425404	7005334	2	1	3	7	1	3	1	8	1
T269	425500	7005410	2	2	1	2	44	10	2	3	6
T270	425567	7005490	1	10	1	1	33	8	14	1	1
T275	425812	7005711	7	2	6	7	4	3	3	8	1
T276	425878	7005790	11	6	8	5	2	2	10	6	2
T278	426019	7005903	8	2	9	3	0	1	1	14	4
T280	425253	7004622	4	1	15	11	0	8	12	3	3
T281	425174	7004562	6	1	15	12	0	7	15	3	5
T282	425058	7004428	12	1	13	13	0	1	1	9	6
T283	424988	7004335	7	1	5	4	0	3	1	8	3
T284	424872	7004292	7	1	5	3	1	1	2	6	3
T285	424813	7004196	1	5	1	0	4	2	2	1	2
T286	425470	7006492	1	8	1	1	30	6	4	2	5
T287	425388	7006435	2	3	3	1	1	6	2	3	3
T288	425317	7006359	7	5	5	3	12	9	15	8	2

ID	UTM 83E	UTM 83N	Cu RR	Mo RR	Ni RR	U RR	Ti RR	Pb RR	Zn RR	Au RR	Ag RR
T289	425234	7006306	3	5	2	1	40	11	5	1	2
T290	425185	7006207	1	6	1	1	15	6	2	1	5
T291	425121	7006153	2	2	2	2	4	3	1	2	1
T292	425029	7006097	14	8	8	11	0	1	0	11	11
T293	424994	7005995	21	9	10	8	0	2	1	12	9
T295	424889	7005778	7	5	2	2	5	1	12	5	4
T296	424771	7005738	3	4	2	2	0	1	1	5	1
T297	424669	7005701	14	5	20	31	0	1	1	9	5
T298	424604	7005612	3	1	3	5	0	1	1	6	3
T299	424514	7005553	4	5	2	8	10	4	3	6	2
T300	424433	7005489	3	7	5	6	5	5	12	3	8
T301	424340	7005425	2	3	2	4	1	7	1	6	1

Table 3. 2016 Crooked Black Spruce Twig Values.

ID	UTM 83E	UTM 83N	Mo	Cu	Pb	Zn	Ag	Ni	U	Au
			ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb
T164	417610	7010789	0.005	1.14	0.08	58.8	13	0.1	0.005	0.1
T166	417621	7010584	0.005	1.1	0.09	50.9	11	0.2	0.005	0.1
T167	417616	7010480	0.005	1.27	0.11	50.3	14	0.3	0.005	0.1
T168	417704	7010502	0.01	2.01	0.08	51.1	23	0.6	0.005	0.1
T176	419023	7008908	0.01	1.51	0.09	79	6	0.05	0.005	0.1
T178	419206	7008905	0.005	1.41	0.05	58.6	15	0.3	0.005	0.1
T182	419598	7008898	0.005	1.03	0.04	38.4	13	0.4	0.005	0.1
T186	420021	7008884	0.005	1.63	0.05	59.9	14	0.2	0.005	0.1
T187	420095	7008911	0.005	1.97	0.06	70.7	20	0.1	0.005	0.1
T189	420298	7008940	0.005	1.01	0.1	54.1	14	0.05	0.005	0.1
T190	420486	7009308	0.005	2.92	0.11	37.8	12	0.3	0.005	0.1
T191	420382	7009305	0.005	4.76	0.06	44	16	0.2	0.005	0.1
T193	420153	7009308	0.005	1.42	0.05	49	8	0.1	0.005	0.1
T199	419398	7009307	0.005	1.83	0.05	49.8	4	0.2	0.005	0.1
T200	419291	7009303	0.005	1.54	0.06	45.2	7	0.2	0.005	0.1
T202	419095	7009313	0.005	1.11	0.07	54.9	7	0.2	0.005	0.1
T203	419004	7009309	0.02	1.31	0.07	42.3	6	0.2	0.005	0.1
T204	418903	7009295	0.01	1.25	0.06	58.6	6	0.1	0.005	0.1
T205	418791	7009305	0.005	1.28	0.06	64.9	12	0.2	0.005	0.1
T207	427119	7002912	0.01	2.11	0.1	28.1	5	0.3	0.005	0.1
T208	427198	7002982	0.005	1.64	0.06	36.1	10	0.4	0.005	0.1
T209	427264	7003071	0.07	1.18	0.04	51.6	15	0.2	0.005	0.1
T210	427339	7003133	0.005	1.32	0.06	74.7	17	0.1	0.005	0.1
T211	427405	7003218	0.005	1.47	0.06	78.2	17	0.2	0.005	0.1
T213	427575	7003363	0.07	1.59	0.06	25.6	21	1.1	0.005	0.1
T228	426377	7002750	0.11	2.26	0.06	32.6	21	0.7	0.005	0.1
T240	427099	7002783	0.005	1.78	0.04	43.6	11	0.3	0.005	0.1
T241	427030	7002690	0.005	2.14	0.06	35.5	18	0.4	0.005	0.1
T242	426962	7002621	0.005	1.58	0.05	34.5	7	0.2	0.005	0.1
T243	426882	7002528	0.005	1.52	0.04	29.8	13	0.2	0.005	0.1
T244	426820	7002429	0.005	2.53	0.05	41.7	9	0.5	0.005	0.1
T245	426747	7002370	0.005	1.29	0.08	63.6	29	0.4	0.005	0.1
T246	426668	7002310	0.005	1.28	0.04	46.6	9	0.2	0.005	0.1
T247	426601	7002249	0.005	1.51	0.07	34.8	12	0.1	0.005	0.1
T248	426556	7002215	0.02	1.57	0.06	37.4	25	0.5	0.005	0.1
T252	426286	7001995	0.005	1.53	0.06	41.3	11	0.2	0.005	0.1
T253	426221	7001907	0.02	1.63	0.06	50.5	47	0.9	0.005	0.1
T272	425646	7005549	0.005	1.03	0.06	55.1	9	0.2	0.005	0.1
T273	425725	7005644	0.005	1.44	0.07	108	15	0.5	0.005	0.1
T277	425959	7005842	0.005	1.35	0.08	67.4	14	0.2	0.005	0.1
T279	425316	7004698	0.005	0.98	0.07	56.8	15	0.2	0.005	0.1
T294	424928	7005924	0.04	1.29	0.06	49.4	13	0.1	0.005	0.1
C3	416376	7010473	0.03	1.12	0.06	98.5	21	0.05	0.005	0.1
C4	416386	7010549	0.005	1.11	0.05	49.3	8	0.1	0.005	0.1

ID	UTM 83E	UTM 83N	Mo	Cu	Pb	Zn	Ag	Ni	U	Au
			ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb
C12	416795	7010761	0.005	1.66	0.08	43.1	9	0.2	0.005	0.3
C13	416794	7010707	0.005	1.41	0.05	73.9	10	0.2	0.005	0.6
C20	416892	7010107	0.15	2.04	0.07	56	23	0.3	0.005	0.6
C21	417004	7010087	0.12	1.1	0.05	46.2	17	0.2	0.005	0.1
C22	417106	7010099	0.14	1.31	0.06	43.5	5	0.1	0.005	0.4
C24	417405	7010096	0.05	1.38	0.06	37.9	17	0.8	0.005	0.4
C29	417915	7010111	0.08	2.25	0.05	31.4	20	1.5	0.005	0.5
C30	418002	7010102	0.005	1.87	0.08	45.9	11	0.3	0.005	0.4
C31	419309	7008099	0.04	0.86	0.07	52.3	5	0.05	0.005	0.3
C32	419398	7008122	0.005	1.47	0.08	45.2	11	0.2	0.005	0.1
C33	419496	7008102	0.07	1.87	0.09	75.2	7	0.1	0.005	0.1
C34	419588	7008097	0.005	0.93	0.07	39.3	9	0.1	0.005	0.1
C37	419898	7008099	0.005	1.21	0.06	44.1	8	0.4	0.005	0.1
C40	420208	7008110	0.005	1.72	0.08	56.5	11	0.3	0.005	0.1
C41	420304	7008110	0.005	1.01	0.08	56.2	4	0.2	0.005	0.1
C47	420911	7008111	0.01	3.11	0.08	30.5	11	0.2	0.005	0.3
C48	420779	7008501	0.005	1.2	0.08	77.5	14	0.2	0.005	1.3
C50	420595	7008519	0.005	1.29	0.07	72.6	15	0.2	0.005	0.1
C51	420491	7008491	0.005	1.78	0.05	50	22	0.1	0.005	0.2
C54	420191	7008493	0.005	2.28	0.05	55	11	0.5	0.005	0.1
C55	420090	7008509	0.005	2.33	0.07	65.9	23	0.4	0.005	0.4
C56	420005	7008502	0.03	1.58	0.06	53.3	18	0.5	0.005	0.1
C57	419891	7008482	0.005	1.62	0.06	71.6	8	0.2	0.005	0.1
C58	419787	7008498	0.005	1.57	0.07	43.9	15	0.6	0.005	0.4
C59	419690	7008491	0.005	5.99	0.08	48.8	8	0.2	0.005	0.3
C60	419590	7008499	0.005	3.66	0.05	53.8	6	0.5	0.005	0.3
C62	418894	7008500	0.02	3.19	0.11	61.7	10	0.2	0.005	0.2
C63	418996	7008505	0.11	3.35	0.06	42.4	14	0.8	0.005	0.1
C64	419091	7008499	0.03	2.06	0.07	64.8	13	0.1	0.005	0.4
C65	419191	7008502	0.04	1.99	0.06	47.3	21	0.2	0.005	0.2
C67	419394	7008506	0.005	2.37	0.11	43.1	25	0.2	0.005	0.3
C69	427380	7002626	0.005	2.22	0.06	47.7	18	0.2	0.005	0.8
C70	427463	7002699	0.005	1.71	0.07	67	18	0.2	0.005	0.4
C71	427532	7002764	0.005	2.27	0.07	64.2	12	0.05	0.005	0.2
C72	427612	7002853	0.005	2.39	0.07	48	13	0.2	0.005	0.2
C73	427675	7002906	0.01	1.36	0.05	47.2	10	0.1	0.005	0.1
C74	427750	7002985	0.005	2.71	0.07	73.5	9	0.1	0.005	0.1
C75	427828	7003047	0.005	2.09	0.05	50.6	10	0.1	0.005	0.1
C80	427950	7002640	0.005	1.86	0.07	63.4	24	0.2	0.005	0.1
C81	427879	7002566	0.005	3.42	0.1	62.5	13	0.2	0.005	0.1
C82	427804	7002491	0.01	2.18	0.09	58.9	19	0.4	0.005	0.1
C83	427723	7002430	0.005	1.86	0.07	53.2	11	0.2	0.005	0.1
C84	327650	7002360	0.01	2.41	0.05	58.9	14	0.3	0.005	0.1
C94	427300	7002020	0.02	2.39	0.06	36.9	18	1	0.005	0.4
C95	427220	7001946	0.005	2.05	0.06	47.4	12	0.2	0.005	0.1

ID	UTM 83E	UTM 83N	Mo	Cu	Pb	Zn	Ag	Ni	U	Au
			ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb
C96	427149	7001875	0.005	3.68	0.09	40.2	10	0.2	0.005	0.1
C97	427086	7001811	0.005	2.83	0.09	63.8	14	0.3	0.005	0.1
C99	426939	7001661	0.005	2.08	0.07	58.4	7	0.2	0.005	0.1
C100	426860	7001588	0.01	1.53	0.08	48.6	13	0.05	0.005	0.2
C101	426787	7001529	0.005	2.56	0.07	43.6	11	0.4	0.005	0.2
C102	426713	7001466	0.005	1.8	0.06	38.1	11	0.8	0.005	0.1
C109	426215	7000969	0.005	1.99	0.06	54.2	16	0.1	0.005	0.1
C110	426139	7000901	0.01	1.31	0.06	42.1	8	0.5	0.005	0.1
C122	426605	7001874	0.005	2.68	0.08	40.5	10	0.2	0.005	0.1
C123	426535	7001803	0.005	2.54	0.05	63.1	25	0.4	0.005	0.1
C124	426458	7001738	0.005	1.74	0.04	45	11	0.1	0.005	0.1
C125	426383	7001670	0.005	2.15	0.09	53.3	12	0.1	0.005	0.2
C126	426295	7001586	0.05	2.02	0.05	32.9	27	0.3	0.005	0.1
C127	426232	7001534	0.01	1.69	0.04	39.2	7	0.2	0.005	0.4
C128	426167	7001465	0.005	1.55	0.06	45.5	7	0.05	0.005	0.3
C132	425875	7001194	0.17	2.11	0.04	30.7	33	1.1	0.005	0.4
C145	425776	7004587	0.005	2.14	0.1	78.6	9	0.2	0.005	1.6
C146	425859	7004676	0.005	2.38	0.12	69.4	38	0.1	0.005	1.1
C147	425983	7004809	0.005	1.67	0.13	85.3	6	0.1	0.005	1.4
C149	426160	7004945	0.005	2.11	0.1	47.3	21	0.3	0.005	1.3
C150	426243	7005012	0.005	1.99	0.12	48.1	14	0.4	0.005	1.1
C151	426254	7005099	0.07	2.39	0.06	35.9	21	3	0.005	1.8
C152	426428	7005250	0.005	1.63	0.05	30.3	9	1	0.005	1
C153	426289	7005628	0.02	1.26	0.08	39.5	16	1.1	0.005	1.1
C154	426200	7005541	0.005	1.71	0.3	44.9	25	0.4	0.005	2.6
C160	425676	7005052	0.005	1.59	0.06	29.3	20	0.3	0.005	0.6
C162	425563	7004908	0.04	1.65	0.09	53.3	18	0.4	0.005	2
C165	425430	7005949	0.01	1.52	0.04	73	6	0.1	0.005	0.4
C167	425290	7005803	0.005	1.45	0.07	45.9	13	0.05	0.005	0.6
C89	427653	7002364	0.005	2.42	0.09	47	16	0.2	0.005	0.1
C113	427273	7002477	0.005	1.41	0.09	71.7	24	0.2	0.005	0.1
C114	427203	7002406	0.005	1.8	0.04	52.3	8	0.2	0.005	0.1
C115	427126	7002345	0.005	1.69	0.06	59.9	5	0.05	0.005	0.1
C116	427053	7002277	0.005	1.54	0.06	41.1	9	0.05	0.005	0.3
C117	426972	7002203	0.005	1.55	0.04	43.7	7	0.3	0.005	0.3
C118	426901	7002140	0.005	1.67	0.04	32.7	12	0.4	0.005	0.1
C163	425557	7006071	0.01	1.72	0.23	79.8	17	0.3	0.005	3.4

Table 4. 2016 Crooked Silt Sample Values.

ID	UTM 83E	UTM 83N	Mo	Cu	Pb	Zn	Ag	Ni	As	U	Au
			ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppb
T156	417179	7010704	0.39	9.96	4.72	40.5	60	12.1	4.8	0.7	3.4
T162	417603	7011016	0.34	7.74	3.57	37.7	46	11.1	4.3	0.7	0.1
T248	426556	7002215	0.49	5.87	3.35	32.7	38	8.4	3.3	0.7	14.6
T271	425626	7005538	0.19	4.33	3.12	29.3	27	7.4	4	0.5	0.8
T274	425768	7005681	0.58	10.81	5.94	53.7	80	14.7	12	0.8	6.1
S5	426788	7002059	0.6	5.4	3.24	29.7	36	8.3	3.1	0.6	13.6