

TRANSVERSE 90-1 MAY 15: 8 km traverse down unnamed creek NTS 115J/14.

An old road leads over from Ballarat Creek along the west ridge and into the south fork of Kirkman Creek to join with the road leading up that stream. ATV access is possible on this road, and was utilized to get to the headwaters of an unnamed creek that flows southerly into the Yukon River.

Information about this creek was supplied by prospector Maynard Fuhre. The name of the creek is Toulary Creek, although on the topographic and claim maps show Toulary Creek being the next right limit tributary downriver.

Two men mined the mouth of the creek in 1953 then suspended operations (pulled out) when the steamships quit the river in 1954. The mouth of the creek enters the Yukon River 55 km upstream of the Yukon-Stewart confluence.

A cat trail follows along the first 5 km of the creek. This road was extended from the miner's original road as assessment work for claims that have now lapsed. At the mouth of the creek are two old collapsed cabins. Three hundred metres upstream are old shafts infilled by water and remnants of flumes used for ground sluicing. The workings are on an old creekbed or possible tributary that parallels the

creek. The tributary (old creekbed?) has been widened by a small machine (1950's - D6), and bedrock appears shallow, less than 5m below the surface. The creek has been stripped for 1km from the mouth (assessment work?), and above this widens to 20m wide with a gentle gradient to the 3km mark. From 5 to 7km the valley is constricted into a canyon. Here it meanders and flows rapidly. There is a rectangular, 4x3m pit alongside old claim posts at the upper limit of this canyon. This pit was probably dug at the same time as the pits near the mouth of the creek. Benches can be seen on either side of the creek, although this is not definite since no gravels were located. The pit is on an old creekbed on the left bench of the present stream, at the outside of a meander. At this point, a flat bottomed tributary enters from the right. The creek becomes a flat, wide, gently graded stream for 500m. After this it gradually steepens to its headwaters where it starts from mossy, spruce covered slopes.

Rocks in outcrop were rare, and consisted of a gneissic variety composed dominantly of quartz/feldspar bands and thinner grey to black bands interlayered with quartz

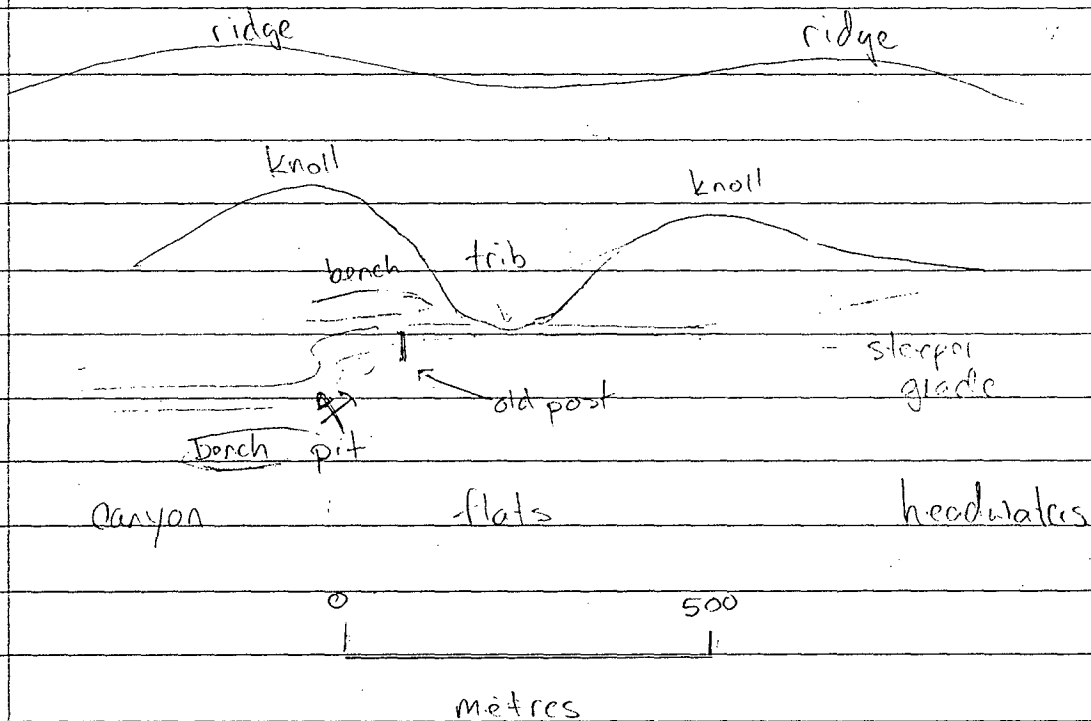
04

Muscovite schists - Small asymmetric folds could be differentiated with the gneiss, and general orientation of foliation was $064/52SE$.

The creek bed was mostly covered by glacier and gravels could not be determined.

Sketch of (Touleary) unnamed creek at 7 km from the mouth.

Longitudinal section looking west



MAY 16: 5km traverse on Agate Creek NTS 115 0/2

TRAVERSE

115 0/3

90-2

Agate creek drains easterly off Thistle Mountain into McKae Creek 1200m above the confluence of McKae-Barker Creek. Barker Creek drains northerly into the Stewart River 37 km above the Stewart-Yukon confluence. Barker Creek, which was first mined in 1898 is noted for its rich benches. Agate Creek may be a source for the gold.

The creek was mostly covered by ice and gravels could not be determined. It is incised 1 metre into the moss and flows over organic material and rock where the ice was melted. The whole valley is swampy, making hard shanking a difficult task. The valley itself is 30 to 40 m wide, with the creek occupying about 2m width. In places the valley narrows to 15m, approximately 3km from its headwaters. North facing slopes are steep and moss covered, south facing slopes are gently sloped with poplar and spruce groves.

No indications of old workings was seen, but an old line and posts dated 1969 were followed for the last 3km.

The ridge from the peak of Thistle Mtn.

06

to Agate Creek was walked and outcropping consisted of muscovite quartz schists with up to 10% biotite. Interlayered with the schist was silicious gneiss. Bull quartz boulders to 30 cm thickness

Follow along foliation which trends 060/52SE dip.

The northeastern slope of Thistle Mtn, which forms the ridge between Agate and Thistle Creek is composed of biotite-muscovite quartzite and massive grey quartzite.

MAY 17: 1.8 km traverse down headwaters of Thistle Creek,

TRAVERSE

NTS 115 0/3.

90-3

Thistle Creek drains north from Thistle Mtn for 2.5 km then bends and flows west into the Yukon River 32 km above the Yukon-Stewart confluence.

It has been the most productive creek in the area and was dredged at one time. It is currently being explored by the Hughes Lang Group for placer deposits.

At the headwaters the valley is narrow and steep, less than 10 m wide. Large spruce cover the lower west facing slopes, open mossy slopes are found to the east. At 1 km from the headwaters the valley opens to 20 m width and gravel

benches are located 3-4 m above the present creek bed. Another 500m downstream the valley widens to 100m and flattens into a meandering creek and swampy ground immediately after a short canyon. There are a series of shafts (3 in total) lined parallel to the creek here. The creek has a coarse gravel base.

May 18: office day

Studying claim maps 1150/3, 1150/2, 1155/14, 1155/15 produced four more creek traverses. Time was spent writing up the journal and tidying maps.

May 19: contracted out to Caley's Dream Inc.

Hauled waterpipe to the camp from the mouth of Ballarat Creek for Caley's Dream Inc.

08

May 28 5 km traverse down Lulu Gulch NTS 1159/3

TRaverse
90-4

Lulu Gulch drains westerly off Thistle Mtn, then north into Thistle Ck, 15.6 km upstream from where Thistle Ck. meets the Yukon River. The mouth of Lulu Gulch is located 1.6 km downstream from the upper limit of dredged ground on Thistle Ck.

The traverse down Lulu Gulch started 1.6 km from its headwaters. The upper end of the gulch is steep and narrow. The east facing to ~~the~~ south facing lower slopes are covered by thin spruce and thick willow groves. The west and north facing slopes are frozen, mossy and contain stunted spruce. At 1.2 km into the traverse, a large alluvial fan is seen on the tributary entering from the south. On the west side of this draw prominent outcropping can be seen. This area is a target for further prospecting and possible hand shafting.

The creek opens up into a wide 5m meandering channel 800 m. further downstream from this fan. The meanders are forming gravel bars and islands in the current stream. Flood deposits are abundant in this area as well. The wide channel continues for approximately 400m then narrows into a canyon. Just beyond the canyon is a flat area (possible bench?) about ~~to~~ 3m above the right side of the creek with old cut trees. A quick

look failed to uncover old workings. The channel again widens to about 4m and carries a coarse gravel bottom to the end of the traverse. The grade is moderate to slight. \bar{F}

Travelling back upstream I came across an old woodbox on poles that would have been used to carry their gravels to the creek for sluicing. I flagged up to the traverse line for reference as I was not chaining back upstream and cannot give an accurate location. Swamp grass had grown through and around the box indicating it must predate any modern prospecting.

Outcrop was minimally exposed, with most occurring on the hillslope west of the alluvial fan. The draw that we walked down to access Lulu Gulch was filled with large talus blocks of amphibolite grade metamorphic rocks containing hornblende altering to actinolite, biotite and feldspar.

10

May 21: Office day, prospecting on Ballarat. Ck. NTS 115 J/14

The first part of this day was spent updating maps and the journal. By afternoon I was up above the placer camp looking around an old pit. The pit is located on lease PL 8432 on the right limit of the creek at a small draw. The dirt has been piled around to dam up the draw and was probably used for some ground sluicing. Moss and trees have since grown on the cast-off pile indicating the workings are old. The pit is about 7m above the present creek bed and is infilled by water, making depth calculations impossible. The pit itself measures 45×9 m.

An attempt was made by myself to expose the dirt/rock piles looking for possible mineralization but the amount of dirt is immense. I travelled up the draw looking for more workings but couldn't find anything of interest. Rock exposed above the open cut/pit is composed of schist-gneiss containing $\frac{1}{2}$ to 10 cm thick bands of quartz-feldspar hornblende biotite and quartz feldspar muscovite rich units.

Muscovite defines foliation which is oriented $080/40$ south. Cleavage of the ~~gneiss~~ leucocratic bands is along the boundaries of the mafic layers. A sample of a 3cm quartz rich band bearing qz veinlets rimmed by epidote following foliation was taken here. Mineralization within the

sample consisted of square opaque metallic mineral (py?) tarnished rusty red. Sample was non-calcareous and non-magnetic. Sample labelled Bal-1. Pit trends 276° .

May 22

Snow.

Heavy rain and snow forced an indoor day. Plans were made and preparations made for a traverse up Discovery Pup, over the ridge, and along Blueberry Creek, all located on NTS 1150/3.

May 23

4 km traverse along Discovery Pup NTS 1150/3

TRAVEL
90-5

Discovery Pup is the largest feeder of Kirkman Creek and flows southerly into that creek 4 km upstream from the confluence of Kirkman/Yukon River.

It is named Discovery Pup because it was just below this feeder that the original discovery claim was staked on Kirkman in 1898. Kirkman Ck. itself is located 45 km upstream from the confluence of the Yukon and Stewart Rivers. The creek was stampeded in 1914 when up to 40 men worked the benches and main channel during the winter.

There is an old boiler and stampings and also a few shafts where Discovery Pup meets with Kirkman Creek. The hills on either side of the Pup are steep and lined with groves of poplar and birch. The valley is very wide at the mouth,

approximately 40 m, and flood deposited gravels are visible around here. At 1 km upstream the valley narrows to a 10 m wide canyon ~~the~~ with a steep grade overtop large rocks and coarse gravels. Ice was covering the creek except for a 1 m wide section. An old cut line, probably an old claim line, can be followed along the east bank for 2 km. The valley opens up to 20 m width 400 m above the canyon, but the grade remains steep. The channel is pushed against the left or east bank here. The right bank is gently sloped and covered by spruce. No old workings were seen on the creek, but the traverse mainly followed the steeper left bank and any shafts would be located on the right gently sloped banks.

The outcropping seen was minimal but large boulder fields were crossed that contained leucocratic augen gneiss that appears to be of granodioritic composition. The augens ^{or porphyroblasts} were 1 cm subrounded ~~felds~~ milky white feldspars, elongated parallel to foliation/lineation of biotite grains. Up near the headwaters, the rocks were sericite muscovite schists altered by qz-ep-hem veining and local silicification.

May 24: Traverse over from Discovery Pup to Blueberry Creek and
3.3 km traverse up Blueberry Creek NTS 115 0/3

TRAVEL

90-6

The ridge between Discovery Pup and Blueberry Creek contained biotite feldspar-quartz schist. The hillside drops very steeply (avg. 35°) into Blueberry Creek.

The traverse up Blueberry Creek covered the open upper half of the creek. Blueberry feeds into Thistle Creek 6 km downstream from Lulu Gulch and is about 2.4 km upstream from the lower end of the dredged ground on Thistle Ck.

Blueberry was handmined at its mouth and in 1948 to 1949 reportedly had the nicest and coarsest gold of the Thistle area.

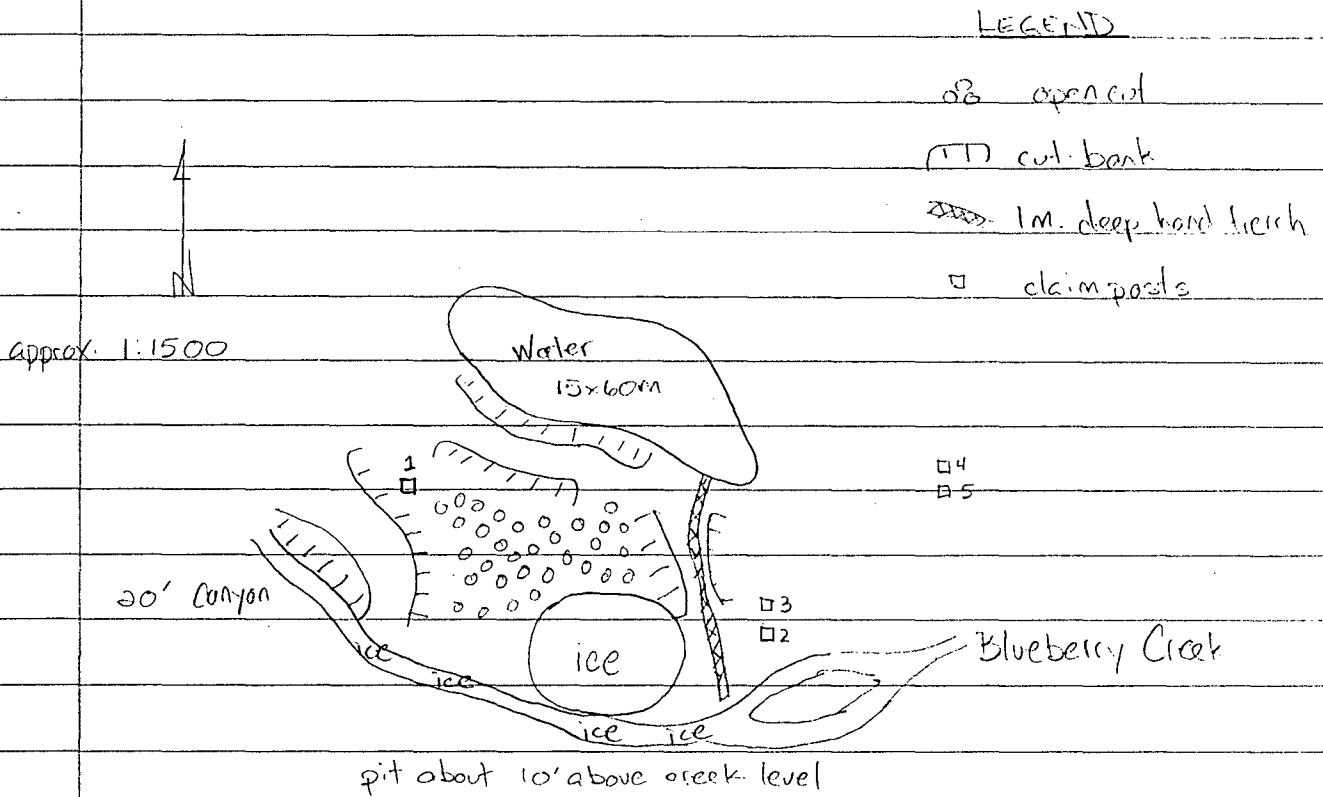
The creek is incised into the overburden about 1.5 m and has a 15 m to 30 m wide valley at the beginning of the traverse. About 250 m into the traverse we came upon a large, deep water body on the right side of the creek. This water body measured 60 x 15 m in diameter and had an open cut between it and the creek. There were ~~three~~

four separate mineral claims in the area of which only one, the Big Red, YA 87982 is in good standing. This claim is located on the claim map nearly 700 m downstream from

115 0/3

14

its true location.



Posts 1 □ Placer post 2, Fred Stretch June 29/85

2 □ Big Red, post 1, 1500R, 1500D Fred Stretch

3 □ Min 1, post 1, 1500L, 1500S Bill Lyons

4 □ Quartz claim, post 1, tag YA84642

5 □ Quartz claim, post 1, tag YA84643

The open-cut appeared old, and was probably done by horse and scraper, as the dirt pile to the east was covered by 3-4 inch poplar and 1½ inch spruce. Also the pile was not fanned the way bulldozers make them. A small hand trench, about 1m wide by 1m deep led from the upper (south) bank of the water body and towards the creek, but couldn't have been a flume as it never attains creek or water body level. The bank south of the water body was about 1m above the open cut and 3 m above the water level of the body. The open cut was dominantly composed of decomposed micaceous schists and scattered throughout were blocks of fractured bull white quartz. Three grab samples were taken from this pit.

Blu-1 Weakly to moderately bedded blue grey coarsely crystalline limestone. <1% fine grained cubic py in sample.

Blu-2 Orange weathered, black calcareous quartz-amphibole schist with graphitic coatings along foliation. Calcite/ankerite veinlets parallel foliation. <1% very fine grained py in sample.

Blu-3 Translucent to white opaque quartz with orange staining along fractures. 100% massive soft grey mineral, graphite, on one side of sample.

The grade of the creek starts to increase from this point onwards. The traverse continued up to where Blueberry Creek forks at its headwaters and continued along an old cut line following the right fork. Quite often the creek became narrow and canyon-like, with small waterfalls during its course. Until into the fork, the right side of the creek gently slopes for about 200m, while the left side climbs steeply.

Very little outcrop was seen on the traverse. Outcrop seen was mostly covered by ice and could not be assessed. This occurred around the large water body. No other signs of work were seen.

June 12 Ballarat

Downriver to Ballarat Creek with Maynard
Fuhre of Caley's Dream Inc.

June 13. 2 km traverse down the north fork of Kirkman
Creek NTS 115 0/3.

TRAVERSE

90-7

Started the traverse on the southside of the
headwaters of the north fork of Kirkman Creek.

Kirkman Creek flows easterly from Thistle Mtn into
the Yukon River 45 km upstream from the Stewart/
Yukon Rivers confluence.

We headed down into the creek valley and
noticed a brilliant white circular object about 500'
above the valley on the north hillside. Climbing
up to this object revealed it to be a huge
2x2m square knob of bull white quartz. There
were lots of quartz lenses and knobs around this
area within a host rock of chlorite muscovite schist.

This area will be better prospected later on
as an old slash trail leads into it from
further up the headwaters of Kirkman Creek.

We descended back into the creek and
crashed through the thickest bush encountered yet.
The creek valley is narrow, less than 10m wide.

and the stream drops steeply, cascading over many little waterfalls. The first tributary encountered came from the right and was very steep itself, dropping off almost into cliffs at its mouth. Just after this tributary, the valley flattens and widens to 20m. Outcrop can be seen along the north hillside forming cliffs of quartz muscovite schists and phyllites. The first draw from the south or on the left enters the creek 650m into our traverse. The mouth of this creek is level with Kirkman Creek and does not steepen until nearing its headwater. This forms a wide (300-400m?) valley area.

The main creek now has 5 times the water volume and is a 1 to 1.5m wide stream. The valley narrows back to 20-30m width and the stream now is pushed against the left bank whereas upstream it was confined mostly to the right bank. This is a good location for a bench or old streambed. At the 1600m point of our traverse the stream has incised 5m below the valley floor, which is now over 50m width. This occurs just upstream from a large tributary entering from the right. This tributary has also cut through the terrace about 5m. After this tributary the stream follows its channel at the same level as the valley.

Why this large terrace is here but not downstream is strange. Perhaps a large water/mudslide came out of the tributary at one time and dammed up the main creek. It is also interesting to note that where this tributary joins Kirkman, both creeks were bare dry and only swampy ponds (stagnant) were visible on the surface. No limestone was seen, so karsting can be ruled out. Who knows where the stream goes? Does it follow some old shafts or drifts?

June 14. 1.6 km traverse up the south fork of Kirkman Creek NB 115 5/14

TRaverse

90-8

Ran Moissan and I started where the north and south forks of Kirkman Creek join, and started hiking upstream along the right bank of the south fork. Once out of the common valley of the two forks, the south fork valley narrows to 15m and is bounded by steep sidehills. The stream cuts into the south facing hillside which has a flat intermittent terrace (possible bench) along it about 6m above the present creekbed. This bench seems to alternate between the north and south banks. All draws entering Kirkman Creek are steep and narrow, so much

that they don't show on the claim sheet.

Outcrop is visible on the north hillslopes, forming cliffs. The rock appears to be actinolite chlorite schists with varying amounts of quartz-feldspar and ^{muscovite} biotite. The rock weathers rusty colored. Structural data could not be obtained but apparent strike is northeast and dips moderately to steeply to the northwest. for foliation.

Just after entering the steep valley of Kirkman south, we crossed over to the left bank and followed it for the length of the traverse. To come back we returned through thick wet bush along the right bank. Three hundred metres downstream from the end of our traverse we came across an old pit. About 30m downstream from this were 3 pits and a collapsed 8'x8' old timer's cabin. According to Maynard Fuhre, who drilled on this fork in 1953, they quit drilling just downstream of this cabin, so it must predate the 1950's. A little more downstream we found two more pits, both cribbed. The pits were located near the creek to right against the steep north hillside, a width of 40m.

Once more, just downstream of these last pits was an old trench approximately 13m long. Leading into it was an old cat-trail.

that becomes the road leading to the mouth of Kirkman Creek. Elevation where this road meets the road that traverses the ridge between Ballarat and Kirkman Creeks is 770 m, and

JUNE 15 Ballarat Creek NTS 115J/14

I went downstream from camp to look around the old placer workings (1983 to 1985) located on the Tara-2, Tara 46 thru 52 and Oro 1-3 claims. The gold that came from this cut was along the left side of the creek and is also the first occurrence of the amphibolite unit, which is the host for the silvery mineral. The right side of the creek bore no gold or carried very poor values. Two tributaries enter around this point, one from the left and the other from the right. Above these tributaries, the gold values on the whole valley were uneconomical, at least to the end of the claims owned by what is now Caloy's Dream Inc.

The possibility that the left tributary was the gold source justified digging a large test pit near its mouth to test evaluate the creek. No significant gold values were encountered in this pit. A test pit was placed across the valley at the mouth of the right tributary. No gold values,

or very poor ones, were obtained there. Analysing airphotos of the area, shows a slide just upstream from the end of the property that diverted Ballarat Creek and also a locally named left tributary known as Danny's Creek. However this slide happened in 1985, therefore eliminating the theory that Danny's Creek was diverted in ancient times and is the actual source of the gold. Test pits were also placed on this creek as well, and turned up nothing.

According to Maynard Fuhre, gold values had decreased downstream to a point that it was no longer economic to mine in the 1950's, this occurring about 1/2 mile above the ¹⁹⁸³⁻¹⁹⁸⁵ worked ground. Therefore a valid conclusion is that the old valley was steep and canyon like, causing pockets of gold to concentrate where it flattened, and the 1983-1985 cut happened to be one of these pockets. It is interesting to note that the valley is also much wider at that location than upstream.

I drove the ATV around the cut looking for bedrock, but recent sedimentation obscured all traces. The tailing piles were very large fan-like features of mixed rock and were not very useful.

I walked up the tributaries to check the pits but they were all partially filled by water and sediment. I did take one float sample of a

light green silicified volcanic (greenstone) that contained translucent quartz veinlets. This sample has yet to be sent out for assay

The amphibolite unit, mentioned earlier, could not be seen in the cut, but occurs as outcrop downstream alongside the road leading to the Yukon River. This unit most likely represents metamorphosed gabbro or diorite sills and dykes within the Yukon Group metasediments. The potential of this rock being the silver/platinum/bismuth (?) metal source warrants further investigation and possible staking of mineral claims over this area

June 16: Office day

Today was spent updating the journal and redoing the maps, to plot on traverse lines and geology on two different sheets as the one was getting crowded and planning out mineral claims to be staked.

June 17: Preparations for 5 day prospecting trip.

The ATV was serviced and food was cooked up, as well as all prospecting gear packed for a planned 5 day staking and

Creek. From here, we faced an eight to ten kilometre hike to where we wanted to stake. As it poured rain and hail around 8:00 pm. we gave up yet again and returned back to Ballarat camp. We decided to access Blueberry via Discovery Pup and had to inform the camp of our change in plans as well.

June 20: 5 km traverse on Discovery Pup NTS 1150/3.

TRAVEL

90-9

Ron and I travelled up the right side of the Pup this time. It is a gently sloped, spruce covered slope until it steepens, then the major tree cover becomes deciduous. No workings were discovered on this side. The reason for the name of Discovery Pup is that the Discovery claim on Kirkman Creek occurred around the mouth of this tributary. Although no workings were seen, the creek bears flood gravels in a few places (the ice was gone) and the right bank is high enough and favourable enough (appears terrace-like) to warrant shafting.

The creek bed is a mixture of sands (both coarse and fine) and bedrock derived boulders in a 1 m incised, 2 to 3 m wide channel.

Rocks along the right side of the creek

32

were identical to the left side and are feldspar porphyroblastic quartz-feldspathic schist (gneiss?). We camped in our old camp of Discovery Pup that night.

June 21: Hike into Blueberry camp NTS 1150/3

TRAVELER'S

We travelled about 1 km further upstream

90-10

Discovery Pup then hiked up overtop the ridge and down into Blueberry Creek, about 0.5 km east of where we previously accessed the creek. Rock types were feldspathic-biotite quartz schists covered by moss. No outcropping was seen. We arrived at the old pit where we want to start staking and spent the afternoon setting up camp. It was interesting to note that where the ice was located as a large, semi-circular glacier just below (south) of the open cut is a 20 m diameter, sloughed in pit. This pit appears to be the Black Fox. Elevation at this pit is 693 m.

June 22: Staking mineral claims on Blueberry Creek NTS 1150/3

TRAVEL: 90-11 Ron and I started out from post 1, FRED STRETCH'S Big Red mineral claim. We throw our claims odd left even right for the full 1500' width. It is interesting that Fred has his claim to the west east of the pit and heads north, 1500' right (east). ?? He misses the hole!

We took bearings of true north (360°) and overstaked the Big Red.

The valley is almost 200m wide, all of the gently sloped spruce covered vegetation on the right side of the stream. The left bank is a steep, near cliff, and continues steeply to the ridge that divides Blueberry from Discovery Pop.

The right side starts to climb steeply at the 200m mark from post 1, Viv 1.

Rocks, both talus and outcrop, were absent along the north traverse, a distance of 3 full slope corrected claim lengths. The last set of claims placed us on the north, downhill side of the ridge, overlooking an unnamed drainage into Blueberry Creek. Our elevation at this point was 920m.

We turned off at bearing 090° and placed two claims into the drainage until we were at the proper location for continuing our claim block

due south. Talus exposure was all quartzite with 3% actinolite and chlorite along the planes of foliation. Foliation itself was very poorly developed.

Staking southwards back into Blueberry we crossed more quartzite talus. The slope starts to flatten out 300m from Blueberry Creek and gently slopes into the creek 90m south from the end of claims, the IAN 6 and 7 claims. We then followed the creek back to camp looking for signs of work, but none were seen.

June 23: Staking mineral claims south of Blueberry Creek NIS 1150/3.

TRAVEL

90-11

We travelled south up the steep hillside for one claim length throwing 1500' left and right. Rock talus along here consisted of a quartz biotite feldspar schist.

The slope is so steep that working would not be feasible on this side of the creek. Shafts should be placed on the right hand or north side of the creek.

Later on in the afternoon I hiked upstream to where we finished staking the IAN claims and recheck my altimeter. Again I followed the creek back downstream, this time along the right bank and did not see any workings.

June 24: Prospecting around the Black Fox pit, Blueberry Creek NTS
115 0/3

I looked around the pit and traversed down the creek looking for mineralization. The pit was caved in and partially filled with water, but the bank of the creek south of the pit was cut away by the ice and exposed a 2 foot thick yellow stained white opaque quartz vein striking northeast and dipping northwest shallowly, which correlates with D.D Cairnes report in G.S.C memoir 79. Two samples of the quartz vein were taken and labelled Blu-4 and Blu-5. Walking down the creek you entered into a canyon-like channel about 6m wide on either bank. Banded, blue grey limestone float was in abundance here. Rock exposure along the south bank was a quartz rich biotite schist. Another sample, Blu-6, was taken from the creek here and is probably quartzite from upstream.

June 25: Hike out of Blueberry Creek NTS 1150/3

We walked out of Blueberry Creek and descended into Discovery Pup approximately 500 m above our number 2 placer post. We then travelled down the right side of the stream to our ATV and returned to Ballarat camp. No workings

July 3: Sampling placer cut on Ballarat Creek NTS 115J/14

I took Ron up to the present cut on Ballarat Creek to show him what creek gravels look like. We then hiked up to the large pit which has been partially drained when the backhoe was up there stripping ground. We poked around the pit for a while then went back to the cut. I took some chip samples of the bedrock, black, massive to foliated amphibolite which covers the whole cut. I labelled the samples Bal 7-12 and gave them assay numbers 1605 to 1610. The samples were magnetic and contained blebs of pyrrhotite and fine grained disseminated cubes of pyrite. One sample, was a 12cm brown colored quartz lens oriented 120/60NE, parallelling foliation. (Bal-11, 1609)

July 4 Accessing Lulu Gulch NTS 115O/3

We spent the day on the ATV's getting our gear down into Lulu Gulch approximately where the government maps place the Black Fox mineral prospect. The area is open and sparsely vegetated so a large pit should be seen from atop Thistle Mtn. None can be seen. Set up camp

July 5 Staking mineral claims FAR 1-6, NTS 1150/3.

TRAVEL

90-12

Ron took the ATV up to the road to pick up some claimposts. I hiked to the summit of Thistle Mtn. looking at talus fields as I went. Rock types are placed on the claim-geology map NTS 1150/3, and varied from biotite rich quartzofeldspathic schist to quartzofeldspathic muscovite and muscovite-quartz schist.

We used the peak of Thistle Mtn. as our location point and started bearing true north. By the end of the day, we crossed Lulu Gulch at point 180m on line FAR 5/6. After finishing off the claim, we hiked down to the creek and followed the right or north side down to camp. No pit was seen.

July 6 Staking FAR 7-18, NTS 1150/3

TRAVEL

90-12

We traversed upslope to where we left off yesterday and finished our line north. Posts 2 FAR 7/8 are on top of the north ridge of Lulu Gulch among garnet bearing amphibole quartz feldspar schist. The line north went to posts 2 FAR 9/10, then we turned west to cross 3000' to get to #1 posts south. While

traversing westwards we through a couple of claims to the right, covering the headwaters of an unnamed draw between Dollar and Pinnacle Gulches.

Once headed south, we crossed over the north ridge of Lulu again, with the rock type over here consisting of muscovite quartz schists.

The slope down into Lulu Gulch was heavily vegetated and once we hit the creek, we headed upstream to our camp looking for the pit. No success. We have now covered 3000' of the headwaters of Lulu Gulch.

July 7 Staking FAR 19-22, NTS 115 0/3

TRANSVERSE

90-13

After strolling back along the creek to our line downstream we continued on the south slopes of Lulu Gulch at bearing south. Posts 2 FAR 21/22 found us just on the Lulu side of the west ridge that runs from Thistle Mountain between Kirkman Creek and Lulu Gulch. A quick glance at the rock type revealed hornblende, elongated amphibole laths lined or acicular in a finer grained felsic matrix. Lightning forced us off the ridge.

July 8. Prospecting along Lulu Gulch NTS 1150/3.

TRAVELER'S

90-14

Ron and I walked downstream from camp looking for the Black Fox pit and also intent to relocate the old dump box we had found on May 20. I stayed on the right slope just below treeline while Ron travelled along the creek. We did not find any workings for the 2.5 km. down to the dump box. The box measures 2 feet by 2 feet and is held together by manufactured nails so it can't be from the turn of the century. The box is in a slight depression overgrown by swamp grass and moss. This depression has short wood logs along two sides of it which may be cribbing.

We travelled up and down the creek for almost 1/4 mile (400m.), then hiked up a right limit tributary looking for shafts. None were located.

I can only surmise that the box is on top of the old shaft or was carried upstream by the old timers before being tossed out. We trekked back to camp along different routes and still found no workings.

July 9 Prospecting the north ridge of Lulu Gulch NTS 1150/3

Remerci
90-15

Ran and I hiked to the top of the ridge north of the creek and started to map and break open outcrop. Rock type is located on the geology sheet for 1150/3 and was a mixture of quartzite, gneiss-schist and biotite quartz feldspar schist with garnet. There are many quartz lenses within these rock types (except the quartzite) and though not all were opened, we found nothing in the ones we looked at. Sampling is difficult because if the rock appears barren you don't know whether it carries values or not and cost would be too high to sample everything. We kept our eyes open for shear zones and alteration but none of the latter was found and the sheared quartzofeldspathic schists did not appear mineralized.

The rock grades into a garnet-amphibole quartzofeldspathic schist as you go west towards posts 2 FAR 7/8

Foliation across all units is generally oriented 060/60se.

Once at the highest point on the ridge, we followed the spine north off our claims mapping chlorite muscovite schist and quartzite with layers of white feldspar.

This ridge runs between Dollar Gulch and the unnamed gulch that we staked the headwaters of.

We traversed back to the highest point and headed west along the ridge to our other claim line. Rock graded from garnet-bearing to biotite rich to muscovite rich.

quartzose schists.

Only one sample was taken off the ridge, near posts \rightarrow FAR 9/10. It was labelled Lu-1 and was a yellow red stained quartz lens in biotite quartz schist. Assay ticket number is 1614.

July 10: Hike out of Lulu Gulch to Ballarat camp NTS
1150/3, 115J/14

Demobilizing Lulu camp and getting back to base occupied the full day. Two chip samples, THIS-1 & THIS-2, were taken from the west ridge of THISTLE Mtn. Both samples came from white quartz lenses, THIS-1 in a hornblendite host, THIS-2 in a biotite quartz schist. Both contained a dark grey cubic mineral with a metallic luster and red sheen. A pale yellow white streak may pin it down as sphalerite. The occurrence of this mineral was spotty in the quartz lens and could not be found elsewhere or in quantities at the sample sites.

July 11: Office day

Most of the day I spent filling out claim forms while Ron cleaned up our gear and stowed it away. I then added the geology, sample locations and traverse routes to

46

my maps. I prepared to go to Dawson City tomorrow to record the claims.

July 12: Upriver to Midway Lodge.

I followed Jerry Kruse, who made a fuel run to Ballarat, upriver and stayed overnight at the lodge.

July 13: Dawson City

I spent the full day recording 40 mineral claims and researching ownership and expiry dates on all claims on maps 115 0/3, 0/2, J/14 and J/15

July 14-15 Dawson City

Days off, back downriver the evening of the 15th.

July 16: 1.5 km traverse up the north fork of Kirkman Creek
NB 115 0/3

Traverse

90-16

Ron and I took the ATV over the ridge to the junction of the Kirkman Creek forks. We travelled 1 mile upstream looking for workings in the wide, gently sloped valley. The left slope has the creek against its toe and climbs sharply to a ridge while the right slope

has a gradual rise for 200m before taking off at steep angles. About 800m from the junction the right side becomes a terrace. In fact the whole right side seems to step up to different benches for the whole 1.5 km distance, then stays constant in a narrower valley.

The 1.5 km mark placed us atop the canyon where Kirkman Creek seems to go underground. I travelled back along the benches looking for gravels and Ren followed the creek. Once back at camp, Maynard Fuhre asked us about the large pit located on the left side of the creek about 600m from the fork junction. We did not see this pit, so another traverse is required.

July 17: Staking mineral claims NEAR 1-12, NTS 1150/3, 1155/14.

TRAVEL

90-17

Ren and I took the ATV to the peak of Thistle Mtn. and continued the FAR 1/2 claim line southwards. Vegetation consisted of thick underbrush and moderate spruce cover once on the lower slopes. The upper slopes had small cliff-like outcrops of muscovite quartz schists with varying amounts of biotite.

At the 381m point, line NEAR 9/10, the compass needle started to deflect easterly. Once across an upper tributary, it seemed to correct itself. We probably passed over one of the black amphibolite sills which contain magnetite.

We crossed Ballarat Creek at 140m on line NEAR 11/12. We were located across the valley from the large pit on Ballarat Creek at 240m on this same line.

Rock talus seen at posts @ NEAR 11/12 is granodioritic schist of The Pelly Gneiss group mapped by Tempel-Kluit (1974).

July 18: Staking NEAR 13-30, NTS 1150/3, 115.J/14

TRANSIT
90-18

We took the other AIV to the ridge and continued a line south from posts @ FAR 21/22. The route took us across the upper catchment for the north Kirkman fork then over the ridge and along the upper right slopes of Ballarat valley.

Quartzite talus is seen around posts @ NEAR 23/24. Vegetation is thick and going was difficult trying to keep a straight line. We started climbing out of Ballarat valley on line NEAR 27/28. We reached the ridge that the road runs along at 150m on line NEAR 29/30. The rock on the ridge appeared similar to the granodioritic Pelly Gneiss. When we ended our line, we were 5m northwest of the ridge road. We then picked up the bikes and headed into camp - I'm leaving the prospecting of the south Thistle ridge for a later date.

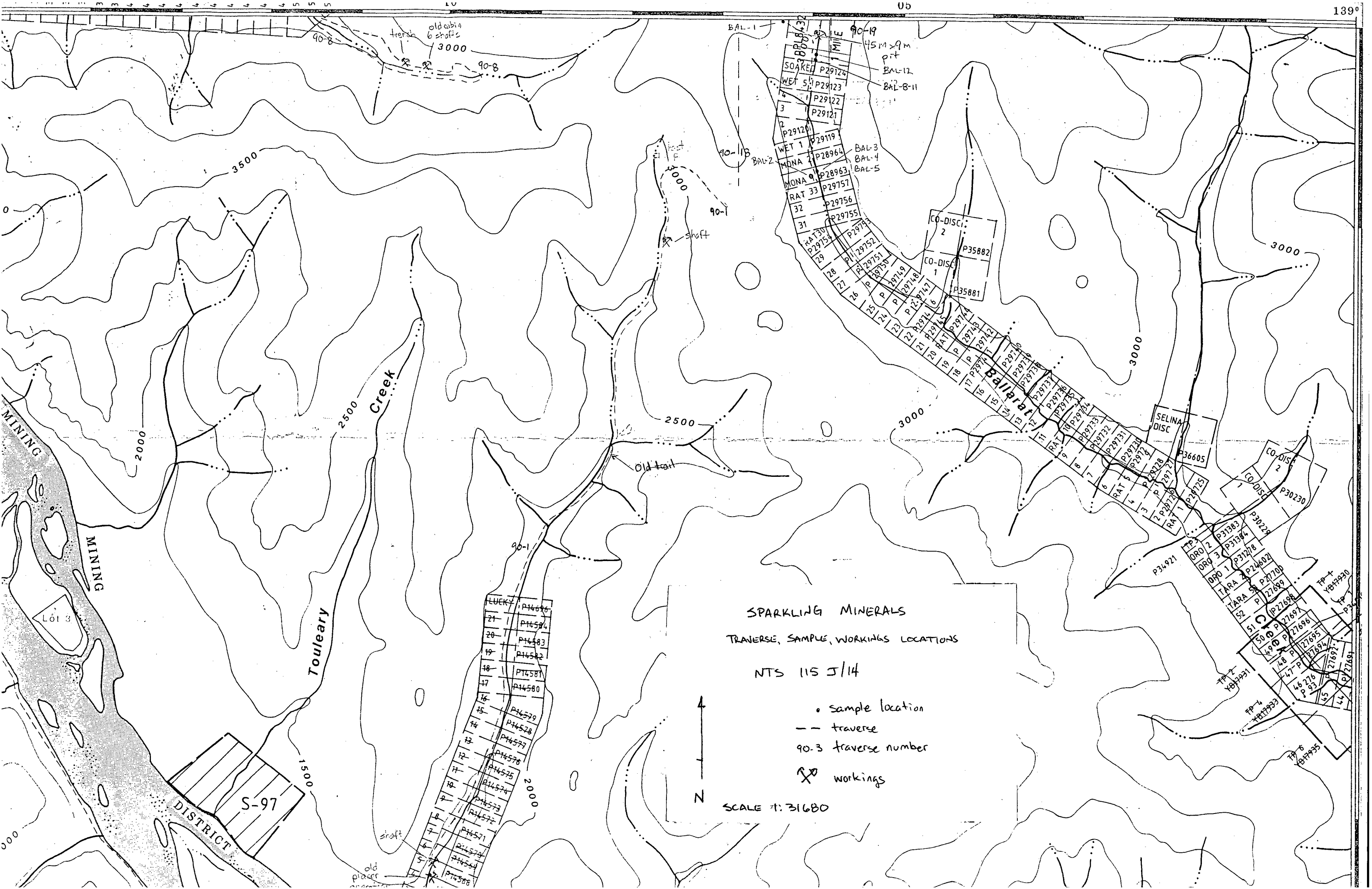
July 19: Prospecting the west ridge of THISTLE MTN., NTS 1150/3

TRANSVERSE
90-19

We started at posts 1 NEAR 13/14 and started mapping and sampling the ridge that elongates west from Thistle Mountain. The ridge was all hornblende with varying amounts of muscovite in the fine grained quartz feldspar matrix. The grain size of the mafics varies from long laths to $5\text{um} \times 1\text{um}$ in size to fine grained biotite-amphibole crystals. Where the ridge widens to the north you come upon quartz dominant quartzofeldspathic schists but the contact is under the surface and can only be inferred parallel to the contact seen between posts 1 NEAR 13/14 and posts 1 NEAR 1/2.

Foliation across the outcrop generally trended 060 with 50 to 80 degrees SE dip. Jointing was primarily 040 /vertical.

Five chip samples were taken and labelled THIS-3-7. Two samples were of white quartz lenses (1617, 1618); one was of silicified hornblende (1619); and two samples of garnet quartz altered (silicified) hornblende (1620, 1621). Locations of these samples are on the sample location map for this area.



SPARKLING MINERALS
 TRAVERSE, SAMPLE, WORKINGS LOCATIONS

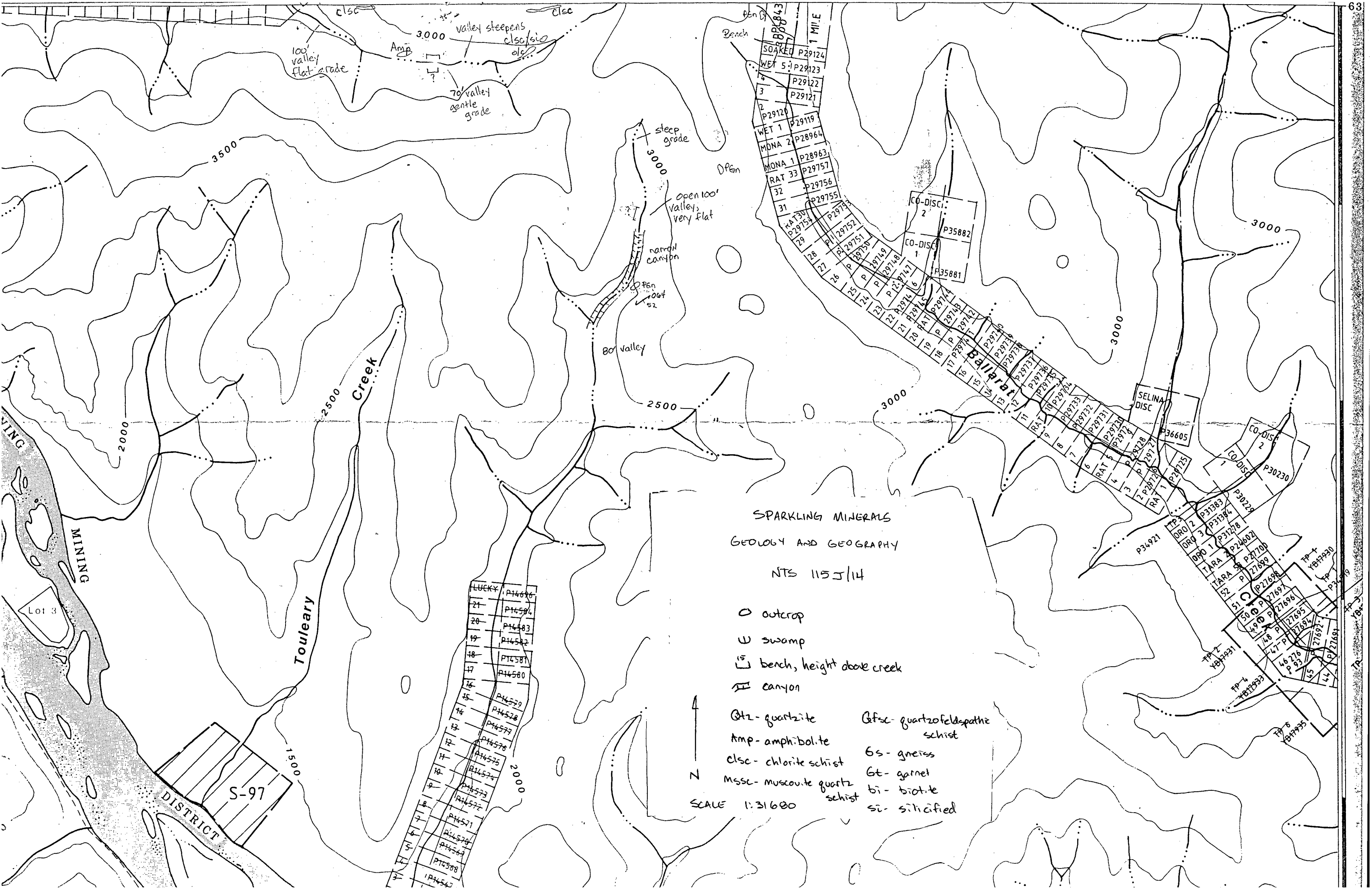
NTS 1:5 J/14



- sample location
- traverse
- 90.3 traverse number
- X workings

SCALE 1:31680

21	P4586
20	P4584
19	P4583
18	P4582
17	P4581
16	P4580
15	P4579
14	P4578
13	P4577
12	P4576
11	P4575
10	P4574
9	P4573
8	P4572
7	P4571
6	P4570
5	P4569
4	P4568



SPARKLING MINERALS
 GEOLOGY AND GEOGRAPHY
 NTS 115J/14

- outcrop
- W swamp
- bench, height above creek
- ▨ canyon

- Qtz - quartzite
- Amp - amphibolite
- clsc - chlorite schist
- msc - muscovite quartz schist
- Qtzsc - quartzofeldspathic schist
- Gs - gneiss
- Gt - garnet
- bi - biotite
- si - silicified

N

SCALE 1:31680

WING MINING

DISTRICT S-97

Touleary Creek

Creek

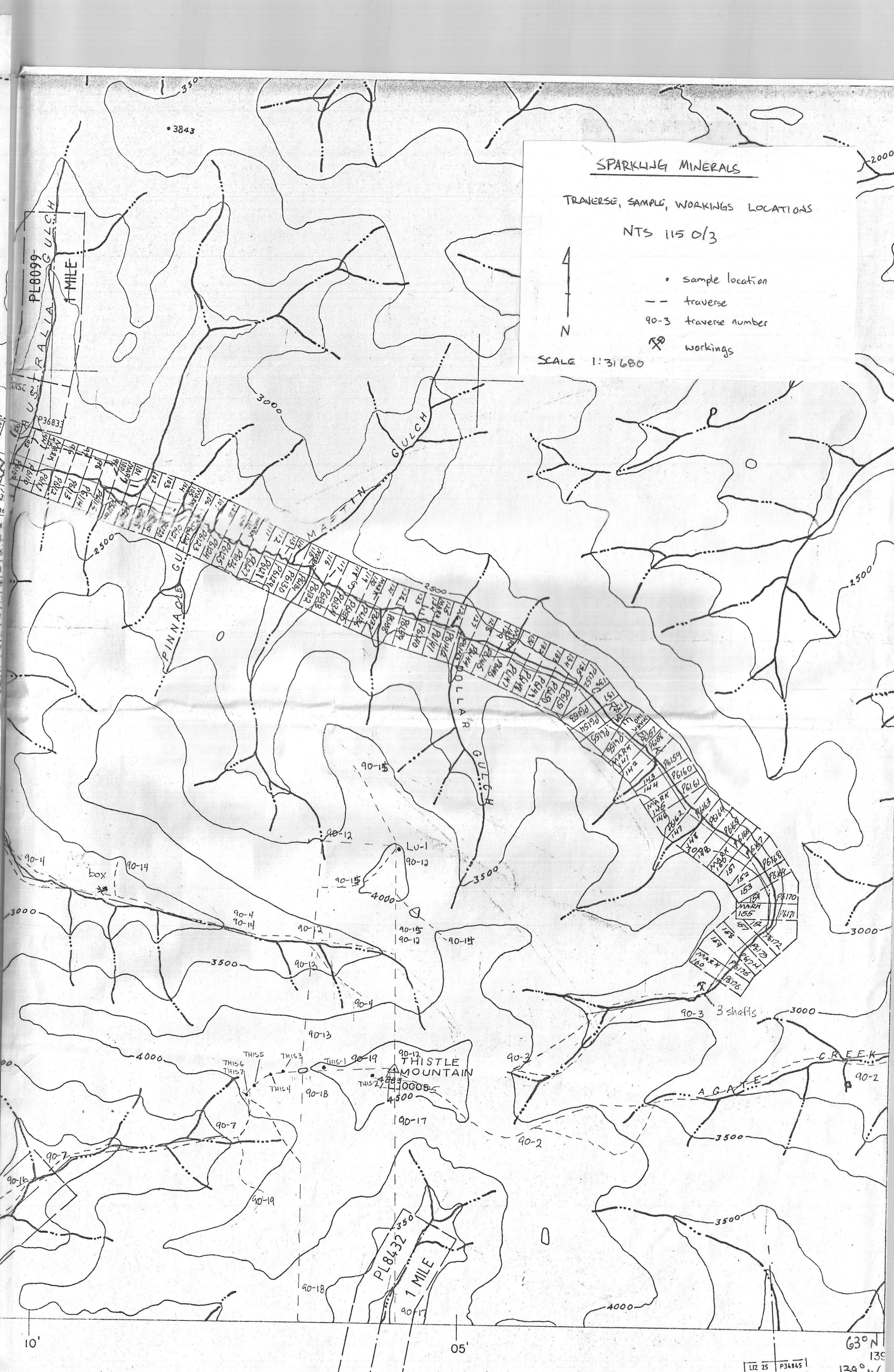
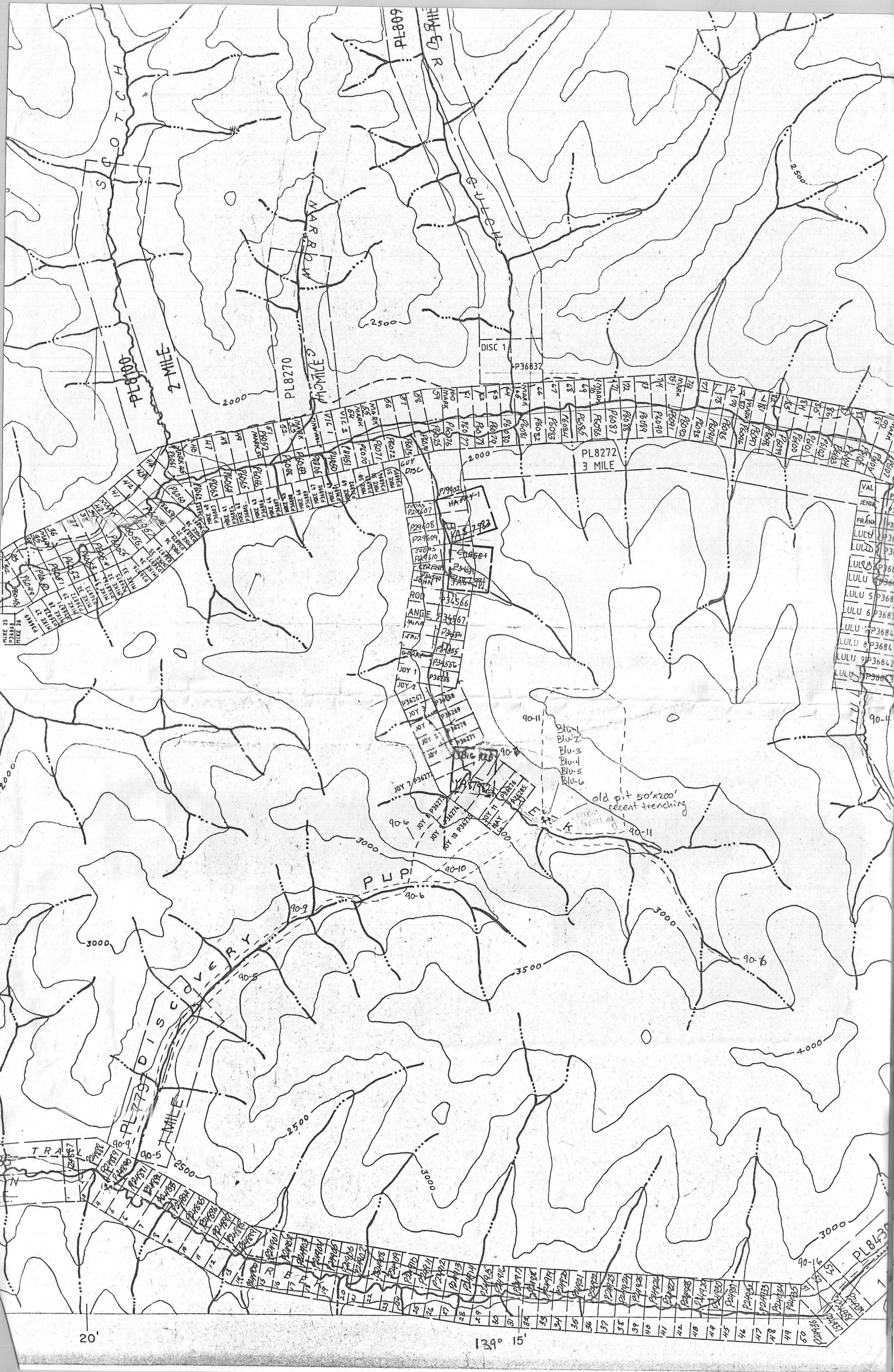
Ballerat

SELINA DISC

21	P14586
20	P14584
19	P14583
18	P14582
17	P14581
16	P14580
15	P14579
14	P14578
13	P14577
12	P14576
11	P14575
10	P14574
9	P14573
8	P14572
7	P14571
6	P14570
5	P14569
4	P14568
3	P14567
2	P14566
1	P14565

4	P29124
3	P29123
2	P29122
1	P29121
WET 1	P29119
MONA 2	P28964
MONA 1	P28963
RAT 33	P29757
32	P29756
31	P29755
30	P29754
29	P29753
28	P29752
27	P29751
26	P29750
25	P29749
24	P29748
23	P29747
22	P29746
21	P29745
20	P29744
19	P29743
18	P29742
17	P29741
16	P29740
15	P29739
14	P29738
13	P29737
12	P29736
11	P29735
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9	P29733
8	P29732
7	P29731
6	P29730
5	P29729
4	P29728
3	P29727
2	P29726
1	P29725

CO-DISC 2	P35882
CO-DISC 1	P35881
CO-DISC 2	P30230
CO-DISC 1	P30229
CO-DISC 2	P30228
CO-DISC 1	P30227
CO-DISC 2	P30226
CO-DISC 1	P30225
CO-DISC 2	P30224
CO-DISC 1	P30223
CO-DISC 2	P30222
CO-DISC 1	P30221
CO-DISC 2	P30220
CO-DISC 1	P30219
CO-DISC 2	P30218
CO-DISC 1	P30217
CO-DISC 2	P30216
CO-DISC 1	P30215
CO-DISC 2	P30214
CO-DISC 1	P30213
CO-DISC 2	P30212
CO-DISC 1	P30211
CO-DISC 2	P30210
CO-DISC 1	P30209
CO-DISC 2	P30208
CO-DISC 1	P30207
CO-DISC 2	P30206
CO-DISC 1	P30205
CO-DISC 2	P30204
CO-DISC 1	P30203
CO-DISC 2	P30202
CO-DISC 1	P30201
CO-DISC 2	P30200



SPARKLING MINERALS
TRANSVERSE, SAMPLE, WORKINGS LOCATIONS
NTS 115 0/3

• sample location
-- traverse
90-3 traverse number
⊗ workings

SCALE 1:31680

20'

129° 15'

10'

05'

LIZ 25 P34845
LIZ 24 P34844

63° N
136° W

Amp - hornblende/amphibolite
 Qtz - quartzite
 clsc - chlorite schist
 Bisc - biotite quartz schist
 mssc - muscovite quartz schist
 Qfsc - quartzofeldspathic schist
 Gs - gneiss
 sc - schist
 Gt - garnet
 bi - biotite

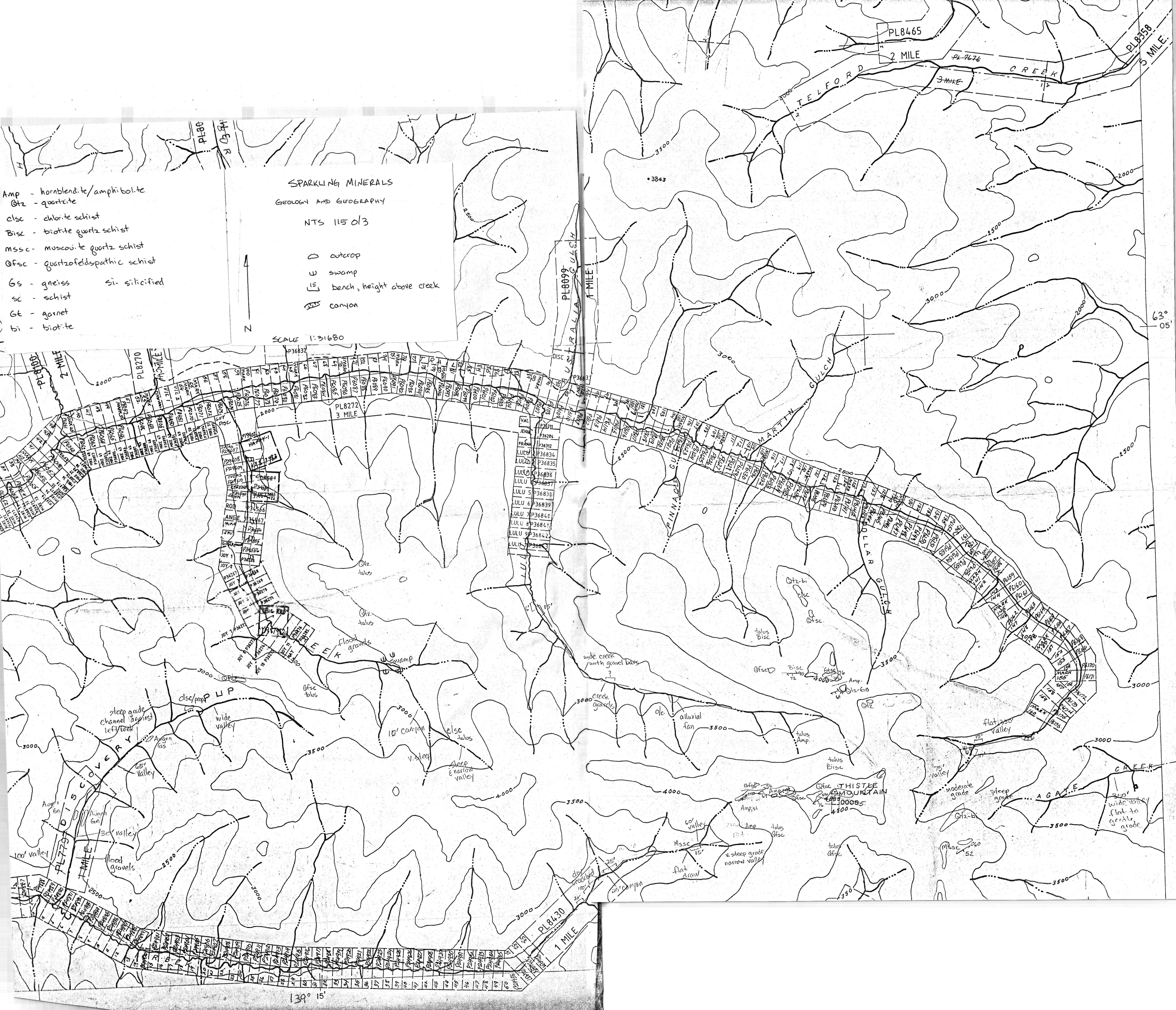
SPARKLING MINERALS
 GEOLOGY AND GEOGRAPHY

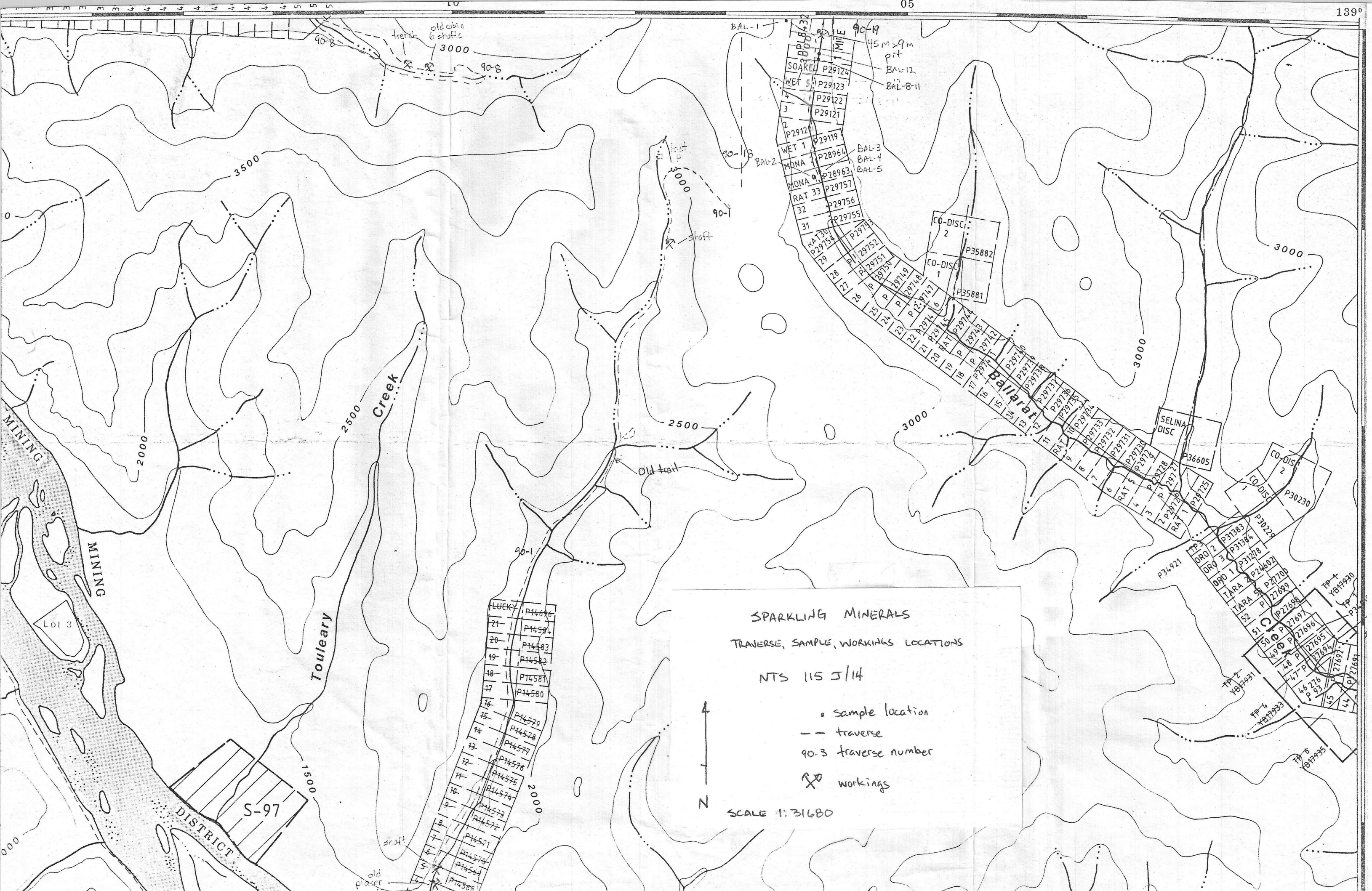
NTS 115 013

- outcrop
- U swamp
- [15] bench, height above creek
- ▭ canyon



SCALE 1:31680





SPARKLING MINERALS
 TRAVERSE, SAMPLE, WORKINGS LOCATIONS

NTS 115 J/14

- sample location
- - - traverse
- 90-3 traverse number
- ⌘ workings



SCALE 1:31680

LUCKY	P14896
21	P14584
20	P14483
19	P14522
18	P14581
17	P14580
16	
15	P14579
14	P14578
13	P14577
12	P14576
11	P14575
10	P14574
9	P14573
8	P14572
7	P14571
6	P14570
5	P14569
4	P14568

SOAKED	P29124
WET 54	P29123
	P29122
	P29121
2	P29120
1	P29119
MONA 2	P28964
MONA 9	P28963
RAT 33	P29757
32	P29756
31	P29755
RAT 30	P29754
29	P29753
28	P29752
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8	P29732
7	P29731
6	P29730
5	P29729
4	P29728
3	P29727
2	P29726
1	P29725

SELINA DISC	P36605
CO-DISC 2	P35882
CO-DISC 1	P35881
CO-DISC 2	P30230
CO-DISC 1	P30229
ORO 2	P31583
ORO 3	P31584
ORO 1	P31218
TARA 2	P24607
TARA 5	P27708
52	P27689
51	P27688
50	P27697
49	P27696
48	P27695
47	P27694
46	P27693
45	P27692
44	P27691
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39	P27686
38	P27685
37	P27684
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7	P27654
6	P27653
5	P27652
4	P27651
3	P27650
2	P27649
1	P27648



SPARKLING MINERALS
GEOLOGY AND GEOGRAPHY
NTS 115 J/14

- outcrop
- U swamp
- bench, height above creek
- ≡ canyon
- Qtz - quartzite
- Amp - amphibolite
- clsc - chlorite schist
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SCALE 1:31680



21	P14586
20	P14584
19	P14583
18	P14582
17	P14581
16	P14580
15	P14579
14	P14578
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12	P14576
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9	P14573
8	P14572
7	P14571
6	P14570
5	P14569
4	P14568
3	P14567

1 MILE	
SOAKED	P29124
WET 5	P29123
4	P29122
3	P29121
2	P29120
WET 1	P29119
MDNA 2	P28964
MONA 1	P28963
RAT 33	P29757
32	P29756
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KAT 30	P29754
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4	P29728
3	P29727
2	P29726
RAT 1	P29725

LUCKY	P14686
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