

**YUKON MINING INCENTIVES PROGRAM**

**YMIP PROJECT 98 - 047**

**LOWER FORTY MILE AREA  
PROSPECTING  
FOR PLACER GOLD**

**JUNE 13, 1998 - JANUARY 31, 1999**

**TRANSVERSE MERCATOR PROJECTION CO-ORDINATES  
latitude 64° 20' - longitude 140° 40'  
PLACER CLAIM SHEETS 116-C7**

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### **Project Location and Scope**

The purpose of this prospecting project was to examine the lower reach of the Fortymile River and its tributary creeks, for gold occurrence. The focus of my evaluation work was placer, but I also examined any interesting hardrock showings which I came across. This section of the Fortymile is bounded on the downstream end by Clinton Creek and upstream by the Fortymile Canyon; a distance of approximately 7 miles. The creeks which I examined were: Clinton Creek and a Clinton Creek tributary, Beck Creek, Mickey Creek, Maiden Creek, Powerhouse Creek, Hoodoo Creek and Voodoo Creek. I limited my activities to areas which did not have active placer claims or leases recorded on them.

The Fortymile River mining district is located approximately 40 air miles northwest of Dawson as shown on **Map 1**. The latitude of the area in which I worked is approximately  $64^{\circ} 20'$  and the longitude is approximately  $140^{\circ} 40'$ . The specific areas which I prospected are located on **Map 2**.

I performed most of my prospecting work in the late fall and early winter period. This allowed me to take advantage of the ice on the Fortymile River for travel by snowmobile, and to walk up the frozen creek beds, and to collect samples from the normally submerged creek channels. I was fortunate in that there was very little snow cover, making it easy for me to find and sample the hardrock outcroppings and the gravel deposits.

I worked with an assistant for most of the program for efficiency and safety. We travelled by snowmobiles to the various prospecting areas from our camp at Marten Creek. I used the Fortymile River down through the canyon and the Fortymile access road, which takes off over the ridge from Clinton Creek, for access to the prospecting areas. In most cases we left the snowmobiles at the mouths of the creeks and walked up the valleys. The lack of snow made travel on the river rough, especially through the canyon.

### **Areas Investigated**

The Fortymile area is a well known placer gold producing region. Gold was first discovered on the river in 1886. It is a transboundary river with much of its drainage originating in Alaska. Placer mining has taken place on both sides of the border since the discovery of placer gold until the present time. Additionally, an asbestos mine was in operation on Clinton Creek for a period of approximately 12 years. A description of the areas which I investigated follows:

**1. The mainstem of the Fortymile River below the canyon:** The area of the Fortymile River which I investigated consists of a narrow bench located on the right limit of the river, immediately downstream of the Fortymile canyon. This bench is unstaked; most of the rest of the minable gravels in the downstream portion of the Fortymile River have claims located on them. The Fortymile canyon is a narrow gorge which funnels the flow of the river through a channel approximately one quarter of its normal width. Through this canyon, a distance of one half mile, the elevation drops approximately 15 feet. The character of the placer alluvium deposited immediately downstream of the canyon is extremely coarse and well washed. Approximately 25% of the aggregate consists of boulders in excess of 1 foot in diameter, ranging to 4 and 5 feet in diameter. This bench was of interest to me because it represents the first location below the swift canyon where heavy concentrates would be deposited.

The right limit bench which I evaluated is approximately 1/2 mile long and approximately 150 feet



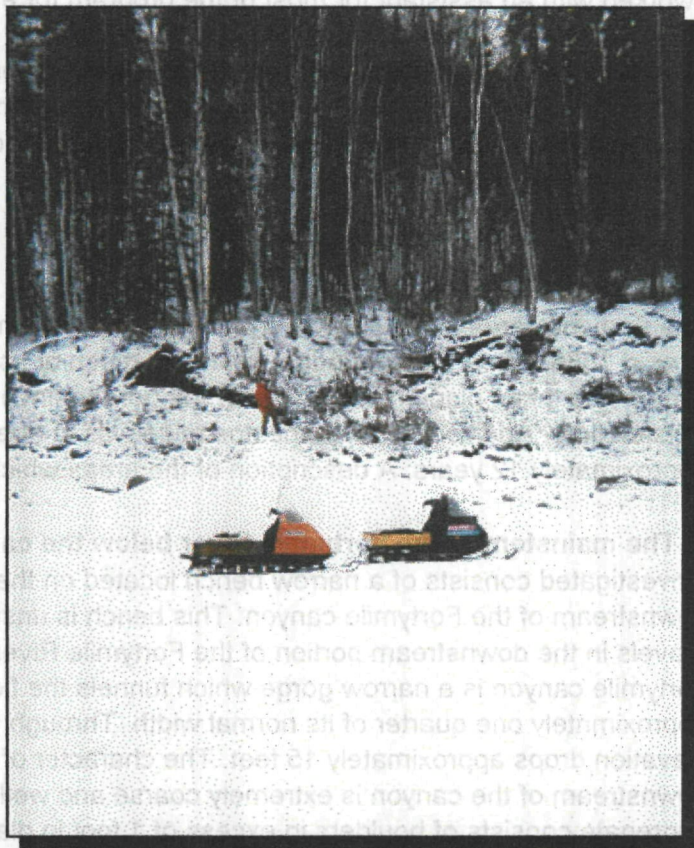
wide, pinching out at each end. The gravel on the bench is covered with permanently frozen sandy overburden, ranging from 6 to 20 feet in depth. Most of the gravel exposed in the bank is quite angular and slaty in character. I suspect that this is colluvium from the steep hillsides and that there is rounded well-washed river gravel underlying this stratum. Based on dredging reports obtained from a historic dredge, working the opposite side of the river from this deposit, I expect that the gravel section depth to bedrock would be 8 to 10 feet.

The work which I performed was hampered by the deep overburden cut bank which appears to sluff each year during high water, making access to the underlying gravel for sampling difficult, using hand methods. I was able, however, to obtain some gravel samples in this cut bank. I took 3 samples of gravel from the centre section of the bench where it is widest; the gravel in this section is angular and unwashed. The upstream one-third of the bench has less overburden and there is some washed gravel evident. I took four samples, each weighing approximately 50 lb., from the river bank in this area. The sample locations are plotted on **Map 3. Pages 11, 14 and 37** in my diary, found in appendix A, refer to my prospecting activity on the Fortymile bench. The results of the samples are detailed in **Table 1**, and also discussed in the results section of this report.

## **2. Hoodoo and Voodoo Creeks**

Hoodoo Creek is a small tributary gulch (approximately 1 1/2 miles in length) of the Fortymile River. Hoodoo Creek empties into the Fortymile on the right limit approximately 7 miles upstream from its confluence with the Yukon River. This creek is unnamed on the NTS map sheets; however it is referred to as Hoodoo Creek in early day mining records. There was a discovery claim located on the creek in the early 1900's, but I did not see any evidence of previous historic mining work.

The lower section of the creek cuts through the bench ground of the section of Fortymile River which I was prospecting. This creek is a typical Fortymile gulch, draining a narrow steep walled valley. The channel gradient is also steep for most of the length of the creek; where the creek crosses the river bench the gradient flattens and the creek meanders across the bench, cutting deeply into the overlying muck. The ground is frozen, covered with vegetation consisting of scrubby black spruce, moss, and indigenous shrubbery such as labrador tea. There is alder growing adjacent to the creek channel on the river bench. Where the creek cuts across the bench the overburden is deep, approximately 20 feet, at the location



*The confluence of Hoodoo Creek and the Fortymile River. The Fortymile bench ground is defined by the banks of the river. Gravel can be seen under a light skiff of snow, to the left of the figure, sloughing out from under the muck in the bank.*



where it empties into the river. I estimate that the depth of overburden is approximately 6 feet at the back end of the bench, against the hillside. The channel takes up most of the width of the creek valley in most sections; however there are some small benches located approximately 20 feet above the channel in parts of the valley,. Gravel consists mainly of unwashed, poorly sorted colluvium. There are some outcrops of a typical Fortymile type schist bedrock in the valley walls.

I took 4 samples, each ranging from 12 to 35 lbs., from the gravel in the steeper part of the creek. There was no gravel evident in the part of the creek which crosses the river bench. I hauled the samples back to my camp for later processing and analysis. Page 20 in my diary, in Appendix 1, discusses my work in the creek.

Voodoo Creek could be considered a twin to Hoodoo Creek. This creek empties into the Fortymile approximately ¼ of a mile downstream from Hoodoo Creek; this creek is also located on the right limit of the river. This creek is unnamed on the NTS map sheet and there is no record of any previous names attributed to it. I gave it the name Voodoo Creek for ease of reference.

This creek is approximately 1 mile long. It has similar characteristics to Hoodoo Creek, traversing the same Fortymile bench in its lower reach and draining a steep narrow gorge in the upper reach. It was heavily glaciated from overflow at the time which I investigated it. The ice glacier formed a series of steps up the creek channel. Overburden and vegetation were much the same as in Hoodoo Creek. The aggregate deposited on the valley floor is a poorly sorted collection of loose colluvium, similar to that found in Hoodoo Creek. The valley was slightly narrower with more outcrops of schist evident in the valley walls.

I collected 3 of samples in Voodoo Creek. The results of these samples are found in Table 1, and discussed in the Results section of this report. Page 19 of my diary in Appendix 1 discuss my prospecting work in Voodoo Creek.

### **3. Maiden Creek**

Maiden Creek is a right limit tributary emptying into the Fortymile River approximately four miles upstream from the mouth of the Fortymile. The creek has a main stem of approximately 1 mile at which point it forks into two small feeder streams.

The mainstem of Maiden Creek drains through a broad bench of the Fortymile River. The Maiden Creek valley at this point is very wide, the stream being bounded on either side by this river bench, which is located from 200 to 300 feet above the river level. The gradient of the mainstem of the creek is relatively shallow; the creek channel is approximately 10 feet in wide, bounded by muck banks on either side. The muck layer is deep, ranging from 10 to 20 feet. Most of the ground is frozen and covered with typical permafrost vegetation (black spruce, moss, etc.); there are some sections of the creek in which the muck overburden is unfrozen, supporting vegetation of alder, poplar, rose bushes, and other vegetation common to sandy soil. The two forks of the creek flow through the tundra; they are intermittent, some times flowing on top of the ground and sometimes underneath it. There is very little gravel exposed in the forks, so I did not extend my evaluation work up into these streams. The gravel in the lower 1,000 feet of the drainage consists of rounded washed rock which I classified as Fortymile river gravel. Further up the creek the gravel becomes more angular, and colluvial, having been concentrated in the creek bed from the valley sides. I did not see any evidence of historic placer diggings in Maiden Creek.

I bagged 5 gravel samples ranging from 7 to 12 lbs. from the creek valley. I transported the samples to my camp for later processing. Sample locations are noted on **Map 2**. Results of the samples are noted in **Table 1**. **Page 15** in my diary in Appendix 1 refers to prospecting in Maiden Creek.

#### **4. Powerhouse Creek**

This creek, unnamed on the NTS map sheet, is a left limit tributary emptying into the Fortymile approximately 3 miles from the Fortymile-Yukon confluence. I named this Powerhouse Creek because the mouth of the creek is immediately upstream of the powerhouse for the old Clinton Creek asbestos mine. This is a small tributary gulch with a mainstem of 1 mile in length. The Fortymile access road crosses this creek approximately ½ mile upstream from its mouth, where the creek flows through a culvert. I have divided the creek into two reaches, one upstream and one downstream from the culvert, because the character of the valley changes significantly at this point.

The valley formed by this gulch is wider than would be expected of a drainage this size. While the valley bottom is only 30 to 50 feet wide, benches have been formed 12 to 15 feet above the creek level on either side of the valley bottom, giving it an uncharacteristically wide profile. Depth of muck overlaying the gravel in the downstream 1/2 mile of the gulch varies from 6 inches to approximately 5 feet. Most of the ground is frozen, although there are sections of thawed ground on the left limit. While most of the vegetation is typical permafrost scrub spruce and moss, there are patches of large spruce trees with aspen on the hillside in the downstream 1/2 mile.

The confluence of this creek with the Fortymile is comprised of a bedrock reef elevated about 15 feet above the river. The water from the gulch spills over this reef, forming a cascade down into the river. Behind this reef, there is a surprisingly deep gravel deposit of at least 6 to 8 feet in depth, containing large rounded well-washed cobbles. This gravel extends over the lower reach of Powerhouse Creek, a distance of approximately 1/2 mile. I bagged 5 samples from the lower reach of the creek and transported them back to camp for later processing.

There is no gravel evident in the upper reach of the creek. The ground is more strongly gripped by the permafrost with dense overlying moss and scrub vegetation. Because of the generous width of the gulch, I suspect that the muck layer is quite deep, exceeding 10 feet; I believe that it is conceivable that, below this muck layer, lies an extension of the deposit of coarse rounded gravel evident in the lower reach. I was able to only obtain one sample from the upper reach. I collected this sample from gravel immediately upstream of the culvert. I also took 3 samples from a seam of bench gravel, approximately 6 to 8 feet wide. This seam of gravel is overlain by 15 feet of muck, and rests on a crumbly bedrock exposed by the road cutbank, on the left limit of the creek.

**Pages 23, 24, and 25** in my diary in Appendix 1 refer to prospecting work in Powerhouse Creek. Results of samples are tabulated in **Table 1** and sample location are marked on **Map 2**.

#### **5. Mickey Creek**

Mickey Creek is a right limit tributary of the Fortymile. The confluence of the creek is located approximately 3 miles upstream from the mouth of the Fortymile. The Clinton Creek road crosses Mickey Creek approximately 1 mile upstream from its mouth, where there is large culvert. Mickey Creek parallels the Clinton Creek road. The mainstem of Mickey Creek is approximately 10 miles

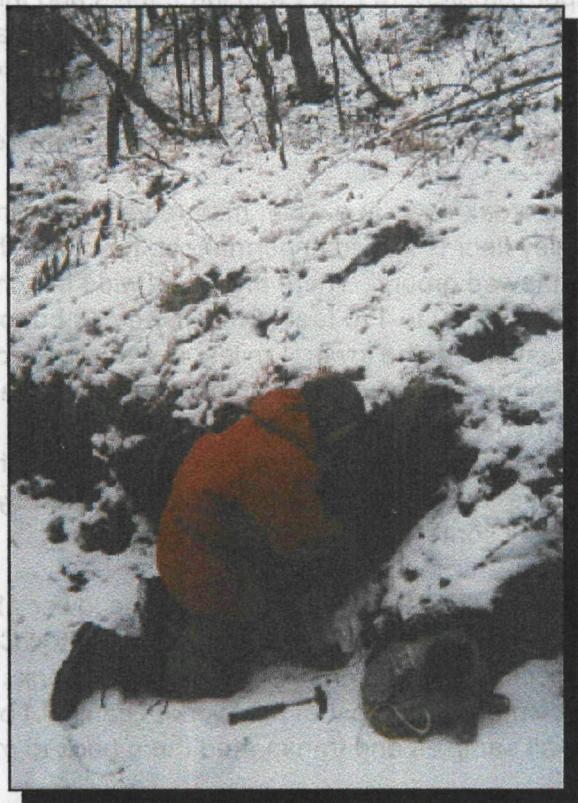


long.

I divided the creek, somewhat arbitrarily, into three reaches:

- the lower reach has a length of approximately 2 miles. In this reach, the creek flows through a broad plateau formed by the original Pliocene/ Pleistocene Fortymile River valley. This area has very interesting gravel, both from the original Fortymile River drainage and from gravel deposited and sorted by the fluvial action of the Mickey Creek drainage. However, there are a number of other land interests held in this area; for example my neighbour has a homestead and trapping concession close to the confluence, there are road allowances on either side of the Clinton Creek road, and there is a co-discovery claim on the creek in this vicinity. I therefore decided to not investigate the discontinuous segments in this reach which were unencumbered by land holdings.
- The middle reach of Mickey Creek is bounded on the downstream end by the upstream limit of the claim group. The upstream boundary is defined by a pronounced canyon-like narrowing of the valley. The middle reach is approximately 1 mile long.

This middle reach is characterized by the broad valley, averaging approximately 1500 to 2000 feet in width. There are gentle benches, approximately 40 to 50, feet high rising up on either side of the valley floor. Much of the ground is frozen, although the growth of large spruce trees in the valley bottom indicate that frost may be discontinuous. There are some areas of poplar growth close to the creek channel, indicating thawed ground. Overburden in the creek does not appear to be deep, the muck in the cut banks defining the creek channel varying from 2 to 5 feet in depth. The aggregate exposed in the cut banks and the creek channel is quite rounded, showing that the gravel has undergone a fair amount of sorting. There is also more raw-looking slabby, angular schist rock in some areas. I panned 17 samples of approximately 8 lbs. each (a struck 10 inch gold pan full). I bagged one 20 lb sample from the area immediately upstream of the claim group, and transported it to my camp for later processing. **Pages 1, 2 and 3** in my diary in Appendix 1 refer to my prospecting work in this area. Results are tabulated in **Table 1**. Sample locations are noted on **Map 3**.



*Samples could be obtained from gravel in a cutbank in the middle reach of Mickey Creek.*

- The upper reach of Mickey Creek is bounded by the downstream end of the canyon, and covers the remaining drainage. I concentrated my investigations in a 2 mile section of the third reach. This section of the creek has three very small tributary gulches emptying into it on the left limit. I investigated the area from approximately ½ miles above the upper gulch, to approximately 1/4



mile below the most downstream of the three gulches.

The creek valley is much narrower, approximately 150 to 200 feet wide. The overburden is frozen and has typical scrub permafrost vegetation. Overburden exposed in the creek banks is 2 to 6 feet deep. The gravel exposed in the creek channel is angular slabby slide rock which has found its way into the valley bottom from the hillsides. Bedrock outcrops are evident in the valley walls. I panned 17 samples on site using a 10 inch gold pan. Sample weights were approximately 8 to 10 lbs. Because my access into this reach of the creek was down a steep hillside, it was not feasible to pack samples out of the creek valley for later processing. Pages 1, 2, 3, 4, 5, and 6 in my diary in Appendix 1 refer to prospecting work in this reach of Mickey Creek. Sample locations are noted on Map 3, and results are tabulated in Table 1.

## 6. Clinton Creek

Clinton Creek is a large left limit tributary of the Fortymile, located 2½ miles upstream from the mouth of the river. Clinton Creek is a very large tributary of the Fortymile. It has a mainstem of approximately 15 miles with large forks and tributaries emptying into it. There was an asbestos mine operating on Clinton Creek for approximately 12 years. It was shut down and abandoned in 1978. The mine is located approximately 6 miles upstream from the mouth of Clinton Creek. A good road used for hauling asbestos fibre has been built parallel to the creek up to the old mine site. There is also an airstrip which was built on one of the high benches up the creek.

The creek flows in a wide, mature valley varying from 1,000 feet to ½ mile in width. Much of the valley floor is locked in permafrost, however, the meandering creek flow has created large sections of thawed ground. There are many wide benches in the valley bottom. The height of these benches vary from 20 to 150 feet above the creek bottom. The gravel in the section of the creek which I investigated, the lower 4 miles, is well rounded. There is an inordinate amount of serpentine rock in the aggregate mix. Much of this may have been washed down the creek from the mine site (serpentine is the host rock of asbestos fibre). Overburden depths varied considerably from almost none to 10 - 12 feet where it was exposed in the banks. Vegetation in permafrost area is black spruce and moss. Thawed sections created by creek meanders host large poplars, willows, alder, as well some stands of large white spruce.

My investigations concentrated on the lower 4½ miles of Clinton Creek and a left limit tributary. My evaluation of the lower section of Clinton Creek consisted of walking up the bed of the creek collecting samples from exposed gravel banks and from the dry creek bed. I was not able to use a snowmobile for most of this work because of beaver dams and overflow in the creek. I bagged 30 small samples and transported them back to my camp for later processing.

I investigated an unnamed left limit tributary, located approximately 2½ miles upstream from the mouth of Clinton Creek. I named this small stream Beck Creek, after a man who held some claims in the creek in the late 1970's. Beck Creek has a main stem of approximately 2½ miles in length. It is located in a valley approximately 200 feet wide. The creek channel, in the reach which I investigated, is incised into a bench. This gulch is located in permafrost with typical scrubby black spruce and moss vegetation. Muck depths appear to be approximately 4 to 6 feet. The gravel in this creek is surprisingly well rounded with some large cobbles, indicating that it has undergone significant sorting. I had heard that someone, whom Beck had leased the ground to, had taken a cat in to this gulch to go placer mining, but I had not heard what the results of this endeavour were.



I began my investigation of this tributary by finding the section of the creek in which the cat work had been done. I followed the rough cat trail up the valley to a place where the cat had been working in the creek bed, approximately ½ mile upstream from the mouth. It appeared that a section of the creek approximately 50 feet by 200 feet long had been mined. I took 4 samples each weighing 8 to 10 lbs., from the cut bank that had been left by the cat in the creek bed. I explored the creek further upstream to a



*The section of Beck Creek which was sluiced in previous mining. This section of the creek is approximately 25 -30 feet wide; the rest of the creek is less than half this width.*

distance of approximately 1 mile above the confluence with Clinton Creek. The creek became very narrow upstream of this point, and there was very little exposed gravel. I collected 5 more gravel samples of similar weight in the section of the creek which I traversed.

While travelling up the Clinton Creek mine road I noticed several places where gravel was overlying the bedrock rim above the road. I estimated that the gravel was approximately 250 feet higher than the creek elevation. This gravel was of interest to me because it is very well-rounded and coarse. It looked to be of river origin suggesting that the creek may have been part of a much larger drainage in a previous time. The gravel is very densely packed, almost cemented. I sampled this high level gravel in two locations on the left limit of Clinton Creek, one opposite the mouth of Beck Creek and the other further downstream, above a borrow pit approximately 1 mile from the Fortymile bridge. I took a total of 6 large samples from this high level gravel deposit approximately 20 to 25 lbs. each. I double bagged them in woven sand bags and threw them down the hillside where I collected them and hauled them back to camp for analysis.

**Pages 10, 26, 27, 28, 29, 30, 31, 35, and 36** in my diary in Appendix 1 discuss my work in Clinton Creek and Beck Creek. Results of the sampling are given in **Table 1**, and sample location are noted on **Map 3**.

### **Hard Rock Prospecting Work**

While the major focus of my work was evaluating the placer potential of the area, I took advantage of my time in the field to prospect some hard rock occurrences in the area. The focus of this work was to look for lead gold occurrence.

In my placer mining on the Fortymile I have found pieces of raw gold with quartz adhering to it, and also pieces of quartz with small particles of gold imbedded. I reasoned that this gold could not have travelled far (or the gold would have been broken away from the quartz.) I collected 4 hardrock samples from a quartz intrusion, approximately 4 feet in width, into a fault in the schist bedrock.



The schist host rock has been turned to clay around the intrusion, indicating intense heat. There is evidence of mineralization in this zone. This vein is located beside a road cut across a cliff face 200 feet above the Fortymile River, on the left limit approximately ¼ mile upstream from Marten Creek.

I collected samples from various locations over approximately 1½ miles of the Fortymile access road between mile 1 and mile 4, as measured from my camp on the Fortymile River. Chunks of quartz, exposed by grading and other road maintenance work, can be seen in the ditches along this section of road. As well, large in-place quartz occurrences are visible in this area where the vegetation has been removed. Because this quartz occurs over a large area, I was interested in sampling it. While the quartz did not appear to be heavily mineralized, I had heard that the quartz associated with the Pogo gold deposit, in the Fairbanks area, has no visible mineralization.

While travelling in the river valley, I observed another quartz occurrence which is approximately 1500 feet horizontally and approximately 2,000 feet vertically below the quartz area which I sampled on the Fortymile access road. The quartz seam shows up over a length of approximately 30 feet. I took 3 samples across this occurrence.

I continued my hardrock work along the Fortymile Access Road. I took more samples of isolated quartz occurrences but did not find any more large showings. I took a sample from an anomaly which is visible in a borrow pit approximately 8 miles from Marten Creek on the access road. It was a lustreless black in colour with distinct green (olivine?) particles imbedded in it. It was very porous suggesting volcanic origin. Most of the other samples which I collected in this area had an oxidized rusty stain. I took these samples because it looked very similar to the ore which Viceroy is mining northeast of Dawson.

I took one hardrock sample from a quartz outcrop in the bedrock reef across the mouth of Powerhouse Creek.

The last area in which I performed hard rock prospecting is the Cone Hill area, in the vicinity of the Fortymile bridge. Cone Hill is a prominent geological feature; it is, as the name suggests, a conical rock structure, rising 800 to 900 feet above the surrounding terrain. Its shape suggests a volcanic origin. It is said that in the early days an addit was driven into a quartz vein somewhere close to its summit, although I did not locate it. They were reportedly mining either silver or gold. I took 3 samples from exposed rock on Cone Hill. The rock looked to be metamorphic with some igneous quartz intrusion. There was some visible asbestos in some of this rock. I also took 4 samples from a borrow pit located approximately 1 mile from the Fortymile Bridge (the same area where I took the



*Sampling a hardrock outcrop on the Fortymile access road.*



high level bench placer samples). This rock structure interested me because it had the similar orange stain characteristic of the Viceroy ore. The rock which I sampled was unusually heavy.

### **Sample Processing Methods**

Most of the placer samples were processed in a heated cleanup facility. I had to use a gold pan to process the samples which I collected up Mickey Creek on site, because the distance involved and terrain made it impractical to pack them out. The procedure which I used for processing the samples was as follows:

- I weighed the sample.
- I screened the material through an 8 mesh Tyler screen,
- I panned the oversize material rejected by the screen to check for coarse gold.
- I processed the fine material which had passed through the screen in a 4 lead spiral gold concentrating wheel to separate the heavy fraction. I mixed approximately 1/2 teaspoon of liquid soap (Sunlight dish soap) into the feed gravel prior to feeding it to the concentrating wheel. I also used clean, warm water in the recovery process. The reason for using soap and the warm water is to reduce the surface tension of the water which causes fine gold particles to float and be lost. I fed the screened gravel into the gold wheel in small increments so that I would not overwhelm the wheel and possibly lose gold.
- I examined the concentrate split off with the gold wheel with a magnifying glass. I counted the gold colours and noted their size and shape. I also noted the relative quantity of black sand and the presence of any other interesting material contained in the concentrate, for example gamets. I recorded my observations.
- I saved the concentrate in small zip lock bags for future reference.
- Between processing each sample, I washed and rinsed with clean water all the processing equipment to prevent contamination of the next sample.

The hard rock samples which I collected weighed approximately 2 to 3 lbs each. I bagged them in plastic sample bags, and labelled according to the date. I assigned a number to each sample taken on a particular day. I split each sample, weighing, bagging, and labelling 1 lb. of material to send out for lab analysis. Because I had to haul the samples to Dawson by snowmobile, weight was a concern. The lab advised me that one lb of material would be sufficient for assay. I retained the remainder of each sample in its original labelled bag so that I would have this material for future analysis if required. I packed the samples up securely and shipped them to Acme Analytical Laboratories Ltd. in Vancouver. I requested a 30 element ICP and fire assay for each sample.

### **Results**

I have broken down the results of my placer prospecting according to the drainage which I investigated:

- **Fortymile River Bench Ground:** I did not recover any gold particles from the three grab samples which I took from the centre of the bench. Given that this gravel looked more like slide rock with a preponderance of angular, platy schist, this was not completely unexpected. This material did, however, contain black sand and other heavy concentrates indicating that there has been deposition of placer minerals. Three of the four larger samples, approximately 50 lbs each, contained placer gold particles. Although there was not enough gold to weigh, and all of the colours were small, the gold particles had a three dimensional quality, rather than being flaky (which is typical of Fortymile gold). The character of this gold is in keeping with my theory

that this is the first location where the coarser, heavier component of a body of gravel under the influence of fluvial sorting would come to rest immediately below the Fortymile canyon. I suspect that at greater depth, gold concentration would be more pronounced.

- **Hoodoo and Voodoo Creeks:** None of the samples which I took from these creeks contained any gold, although there was some black sand. The aggregate was more of a loose, raw, poorly sorted colluvium from the steep valley sides. There were some quartz particles in the samples, indicating that there may be gold bearing faults eroding into the drainage. While these results are not particularly encouraging, it is not improbable that there could be placer concentration at bedrock level. The Fortymile district is noted for small gulches which have yielded considerable amounts of coarse placer gold. This would have to be determined by further investigation by shafting or ground sluicing a drain to bedrock. It was beyond the scope of this investigation to undertake this work.
- **Maiden Creek:** None of the grab samples which I took in Maiden Creek yielded any gold. There was also a marked lack of heavy concentrates. I found nothing to spark any interest. The slack, lazy nature of the drainage may explain the barren results.
- **Mickey Creek:** I took 17 pans from the middle reach of the creek. Five of my pans contained gold. All the gold particles were very fine, probably larger than 100 mesh but smaller than 60 mesh. The best pan had 4 very fine colours, one pan had 2 colours, and two of the pans had 1 colour each. The 20 lb sample which I processed in the gold room at my camp contained 7 colours; three of the colours were barely visible with the naked eye. Because I found very fine gold in the one sample processed in a lab-like environment, it is possible that I may have lost gold this fine from samples panned in the field. The gold particles were bright and had a flaky nature typical of Fortymile gold. I expect that, from the appearance of the gold it would have a purity factor of .80 to .84. All of the samples contained a good amount of black sand; a few of the samples had an inordinately large amount of black sand. There were some small garnets approximately 1/8 " in diameter in the concentrate. I expect that grade would improve at depth in the gravel body.

I took 18 pans over approximately 1½ miles of the upper reach of Mickey Creek. I did not recover any gold from these samples. The gravel was much more angular, showing that it had not travelled far.

- **Powerhouse Creek:** I did not recover any gold in the samples which I took from the gravel of Powerhouse Creek. All of the pans had a reasonable showing of heavy concentrates, primarily magnetite. Because the gravel is well-washed and quite coarse, there could be gold deposition at bedrock depth.
- **Clinton Creek:** I took a total of 30 grab samples (8 to 10 lbs. in weight) in Clinton Creek. One of these samples had 2 very fine colours, and three each contained 1 very fine colour. The samples which contained colours were at the upstream end of the area which I investigated. All of the samples had small bits of serpentine, which had probably washed down from the mine site. There was a reasonable amount of heavy concentrates in the samples. The presence of these very fine colours indicates that there is placer gold in the drainage.

In Beck Creek I took 9 samples. In one of these samples I found 1 fine colour; under magnification

the particle looked almost round. There was more black sand in the concentrate from the samples from Beck Creek than from the samples from Clinton Creek; garnets were also present in this concentrate.

I took six samples, each weighing approximately 20 lbs., from two exposed gravel banks in the high bench gravel deposit on the left limit of Clinton Creek. Two of the samples from the furthest upstream location of the high bench contained gold. One of the samples had one very fine colour and the other had two very fine colours. The bank gravel from the downstream location did not have any gold, although there was some black sand in the concentrate.

See **Table 1** for the results of the placer samples. The sample locations are plotted on **Map 3**.

None of the hardrock samples which I had analysed gave any indication of significant gold presence. I was later advised that it would have been advantageous for me to specify the results in parts per billion; this increased accuracy may have been able to delineate areas of mineralization worthy of further work.

The rock samples which I collected around the Fortymile bridge area in lower Clinton Creek showed some elevated mineralization.

The results of the assays are given in the attached assay report. **Map 4** shows the sample locations.

### **Conclusions and Recommendations**

My placer prospecting work turned up some gravel bodies which contained traces of placer gold. I did not find any gravel which I would consider to be minable ground, although this is not particularly discouraging, given the preliminary nature of the work which I performed. All the samples which I gathered were from upper gravel layers where only trace placer showings could be expected. My intent was to, hopefully, establish gold presence in a reach or a drainage rather than to undertake detailed grade evaluation of a more limited area.

The area which was least interesting was Maiden Creek. The overburden is deep the gravel looks unsorted and young.

The work which I did in Powerhouse Creek, the lower reach of Clinton Creek, Beck Creek, and Hoodoo and Voodoo Creeks showed possibilities for placer development. However, at the current price of gold and in the present investment climate, these creeks did not show enough promise to interest me.

I believe that the middle reach of Mickey Creek, and the high bench gravel on the left limit of Clinton Creek showed promise.

- The middle reach of Mickey Creek showed gold deposition in the top layers of the gravel, and the volume of gravel in this 1 mile of ground is significant. Overburden depth is not prohibitive and road access could be easily established, so that preliminary development costs would not be onerous. Because much of the creek channel and adjacent banks are thawed, this ground could be worked using a floater dredging operation. I believe that a preliminary test program to evaluate the gravel at depth would be warranted; either drilling or trenching could accomplish



this.

- The high bench gravel turned up some very fine colours, confirming placer gold presence. Additionally, the geographic orientation of these benches is such that much of this ground is thawed. I believe that this bench continues up the creek so that there is probably an immense volume of gravel. Dome Creek, a tributary of the Fortymile in Alaska, currently supports a high bench placer operation. Dome Creek and Clinton Creek both originate on Liberty Dome. Trenching could be undertaken at the rim of the bench where gravel depths are shallow enough. I expect that drilling would be required to evaluate much of this ground because it is probably in excess of 30 feet deep.

The most interesting area which I investigated was the Fortymile bench ground below the canyon. This bench had some gold in the upper layers of gravel which I sampled. The gravel showed that it had undergone an intense sorting action, leading me to believe that there could be significant concentration on bedrock. The bench contains a large enough quantity of placer gravel to warrant further work. I calculated, roughly, that this bench could contain approximately 200,000 yds<sup>3</sup> of gravel. The fact that a dredge had successfully worked the opposite side of the river is a positive indication. I took a position on this ground by staking a discovery claim on at the mouth of Hoodoo Creek. While I wasn't particularly interested in the creek, locating in this manner gave me 2,000 feet of river frontage, the equivalent of 4 river claims.

I believe that this project was successful for the following reasons:

- I was able to eliminate areas that I believe are nonviable.
- I located some areas which I will go back to and perform further work on.
- I acquired a promising piece of bench ground which I will be investigating further.

**TABLE 1 - Results from Placer Grab Samples**

Drainage	Sample #	Weight in lb	# Colours	Comments
Fortymile River bench below canyon right limit	11-12-01	9	0	angular gravel, black sand
	11-12-02	8	0	lots of black sand
	11-12-03	11	0	garnet
	11-30-01P	55	3	fine, chunky colours, bright gold
	11-30-02P	47	0	black sand
	11-30-03P	51	3	lots of black sand, fine colours
	11-30-04P	39	8	fine colours, particles rather than flakes
Hoodoo Creek	11-16-01P	12	0	broken schist
	11-16-02P	15	0	angular gravel/broken bedrock
	11-16-03P	20	0	some black sand
	11-16-04P	35	0	gravel is more washed, quartz
Voodoo Creek	11-15-01P	12	0	some heavy concentrate and black sand
	11-15-02P	10	0	quartz particles
	11-15-03P	15	0	slatey gravel with graphitic schist
Maiden Creek	11-13-01	7	0	little black sand
	11-13-02	10	0	little black sand
	11-13-03	12	0	pea gravel
	11-13-04	8	0	light coloured gravel
	11-13-05	8	0	little black sand
Powerhouse Creek	11-18-06P	9	0	from 4' below surface in cut bank, washed gravel
	11-18-07P	12	0	from 7' below surface in cut bank, lots black sand
	11-18-08P	7	0	from 7' below surface in cut bank, magnetite
	11-19-02P	8	0	100' from mouth, lots black sand
	11-19-03P	10	0	lots of loose gravel and sand, garnets
	11-19-04P	7	0	rounded, washed gravel
	11-19-05P	9	0	rounded course gravel
	11-20-01	12	0	washed gravel from near culvert

**TABLE 1 - Results from Placer Grab Samples, continued**

Drainage	Sample #	Weight in lb	# Colours	Comments
Mickey Creek	06-13-01	~8	0	
	06-13-02	~8	0	
	06-13-03	~8	1	left limit bank, very fine colour
	06-13-04	~8	0	same location as 03
	06-13-05	~8	0	creek bed
	06-13-06	~8	2	very fine colours between 100 & 60 mesh size
	06-13-07	~8	1	fine colour, fairly large garnet
	06-13-08	22	7	3 colours extremely fine, bright flaky gold
	06-24-01	~8	0	creek bed, lots of black sand
	06-24-02	~8	0	creek bed
	06-24-03	~8	0	right limit
	06-25-04	~8	4	right limit, fine colours
	06-24-05	~8	0	right limit bank
	06-24-06	~8	1	from creek bed
	06-24-07	~8	0	from creek bed
	06-24-08	~8	0	left limit
	06-24-09	~8	0	creek bed
	06-24-10	~8	0	right limit bank
	07-08-01	~8	0	creek bed
	07-08-02	~8	0	creek bed
	07-08-03	~8	0	creek bed
	07-08-04	~8	0	right limit
	07-08-05	~8	0	right limit
	08-10-01	~8	0	mouth of upper gulch
	08-10-02	~8	0	mouth of upper gulch
	08-10-03	~8	0	mouth of upper gulch
	08-10-04	~8	0	mouth of upper gulch
	08-10-05	~8	0	mouth of middle gulch
	08-10-06	~8	0	mouth of middle gulch
	08-10-07	~8	0	mouth of middle gulch



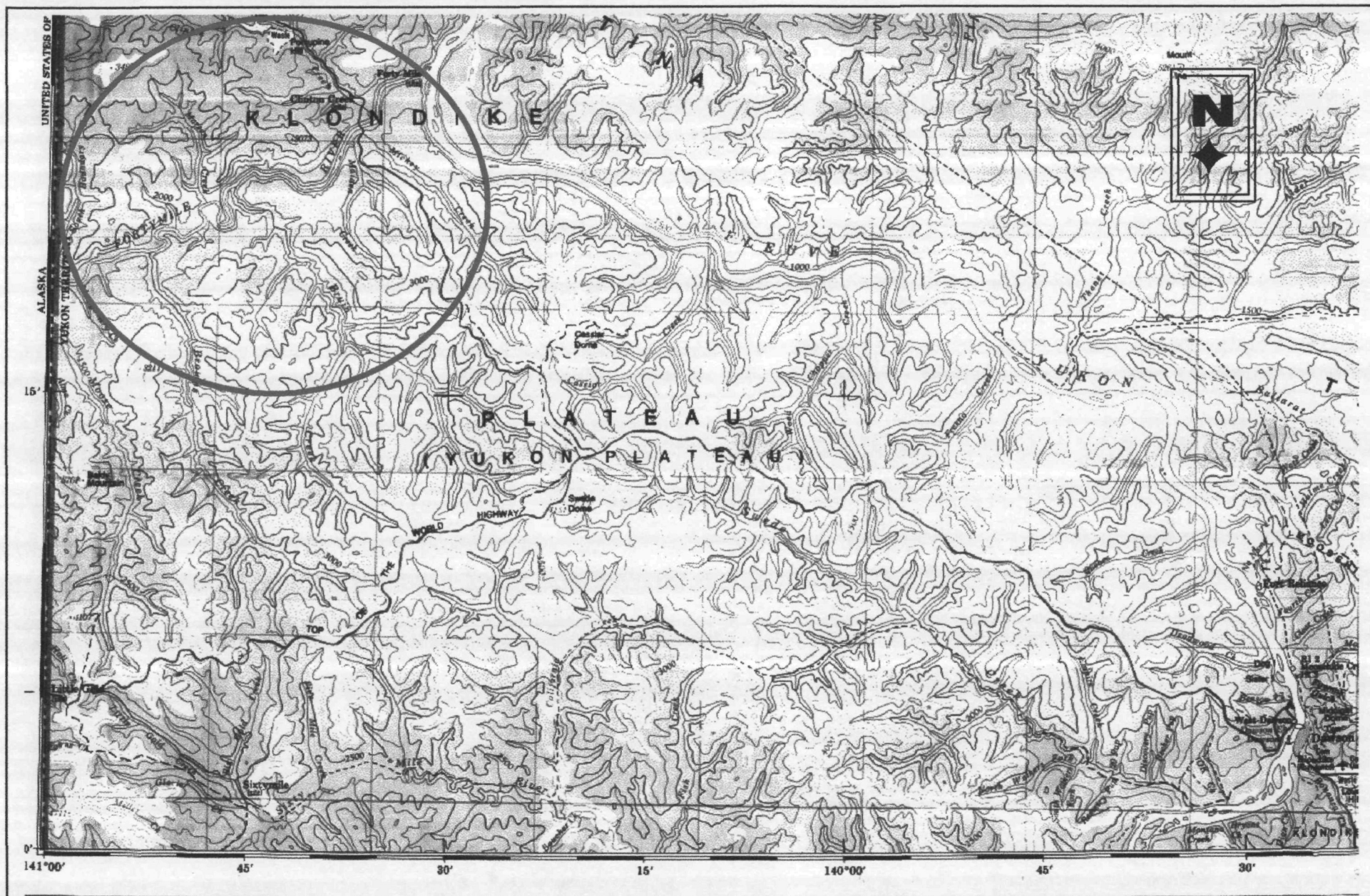
**TABLE 1 - Results from Placer Grab Samples, continued**

Drainage	Sample #	Weight in lb	# Colours	Comments
<b>Mickey Creek continued</b>	08-10-08	~8	0	lower gulch mouth area
	08-10-09	~8	0	lower gulch mouth area
	08-10-10	~8	0	lower gulch mouth area
	08-10-11	~8	0	creek bed near lower gulch
	08-10-12	~8	0	creek bed near lower gulch
	08-10-13	~8	0	creek bed near lower gulch
<b>Clinton Creek</b>	11-09-01	9	0	right limit, serpentine in sample
	11-09-02	10	0	right limit, inside bend,
	11-09-03	11	0	left limit, some black sand
	11-09-04	10	0	same location as 03, lots of black sand
	11-09-05	8	0	from mid-stream bar, angular rock
	11-09-06	9	0	left limit, some black sand
	11-09-07	10	0	bar near mouth
	11-21-01P	8	0	left limit cutbank
	11-21-02P	8	0	right limit, serpentine
	11-21-03P	10	0	right limit, coarser gravel,
	11-21-04P	11	0	left limit inside bend
	11-21-05P	9	0	left limit, black sand & heavies
	11-21-06P	8	0	from gravel bar in mid-channel, little black sand
	11-21-07P	11	0	right limit, serpentine
	11-21-08P	10	0	left limit, lots of black sand
	11-22-01P	10	0	right limit, lots of black sand
	11-22-02P	9	0	right limit, lots of black sand
	11-22-03P	11	0	right limit, lots of black sand
	11-22-04P	11	0	left limit, coarse rounded gravel
	11-22-05P	12	0	left limit, washed gravel
11-24-01P	9	1	10' depth in bank, nice washed gravel, fine colour	
11-24-02P	11	0	same location as 1, lots of heavy concentrate	
11-24-03P	8	0	same location as 1 & 2, lots of black sand	

**TABLE 1 - Results from Placer Grab Samples, continued**

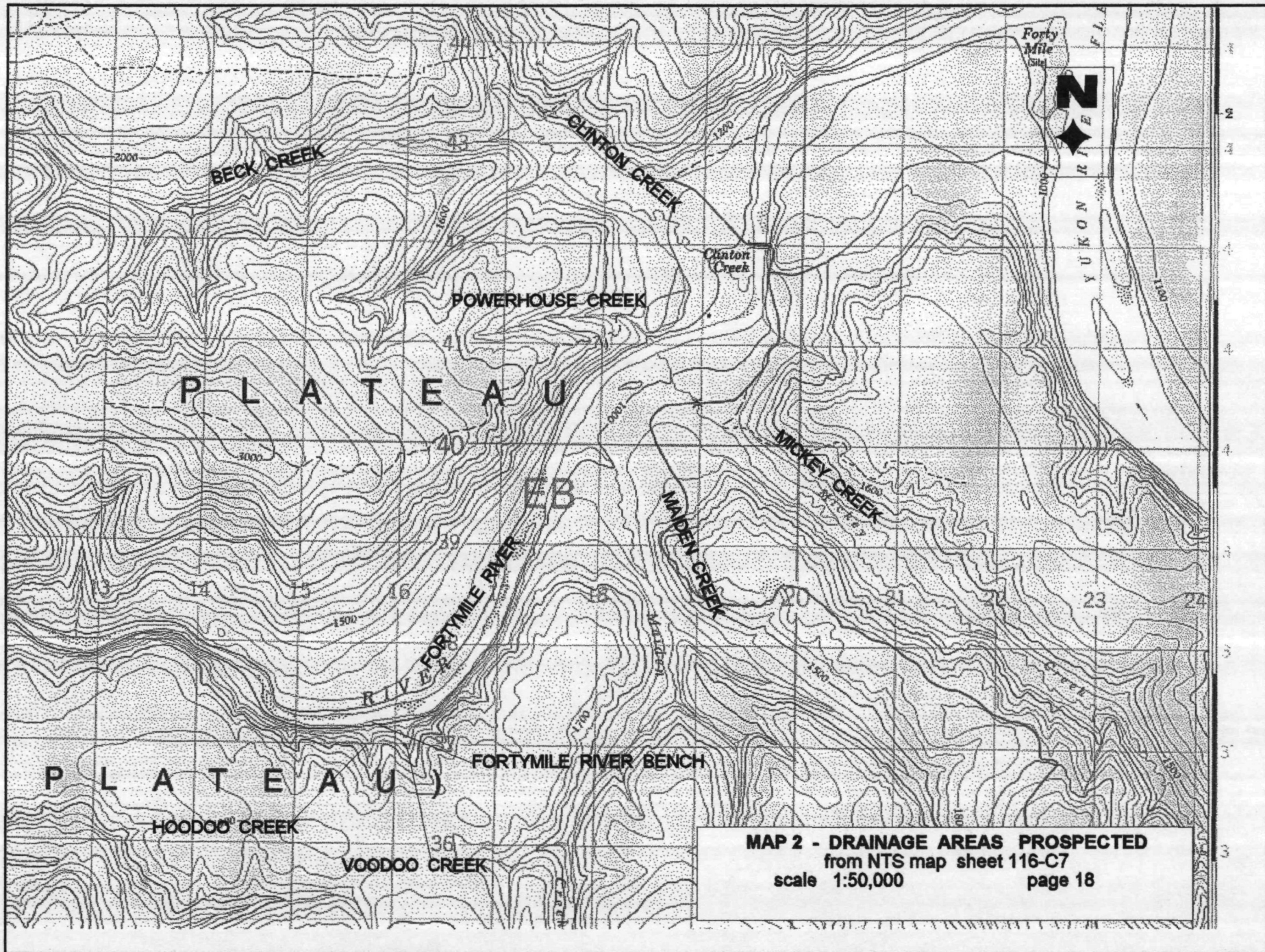
Drainage	Sample #	Weight in lb	# Colours	Comments
Clinton Creek continued	11-26-01P	9	0	right limit above Beck Creek, washed gravel
	11-26-02P	10	0	right limit above Beck Creek, sandy gravel
	11-26-03P	10	0	right limit above Beck Creek, lots black sand
	11-26-04P	10	1	left limit near Beck mouth, sandy gravel, fine colour
	11-26-05P	9	0	left limit near Beck mouth, some black sand
	11-26-06P	11	0	right limit above 01 location, coarse gravel
	11-26-07P	10	1	location as 06, lots of concentrate, fine colour
Beck Creek	11-24-04P	9	0	bank near workings, washed gravel tho still angular
	11-24-05P	10	0	location as 04, black sand
	11-24-06P	10	1	fine colour, round shape under magnification
	11-24-07P	9	0	bank near worked area, coarse gravel
	11-25-01P	9	0	right limit above old workings, black sand
	11-25-02P	7	0	left limit
	11-25-03P	11	0	left limit, pea gravel
	11-25-04P	10	0	gulch area left limit, black sand
	11-25-05P	9	0	gulch area right limit, small garnet
Clinton Creek high bench	11-29-01	25	1	very fine colour
	11-29-02	19	0	washed gravel, black sand
	11-29-03	23	2	very fine colours
	11-29-04	20	0	rounded gravel, black sand
	11-29-05	24	0	large cobbles, sandy gravel
	11-29-06	18	0	black sand





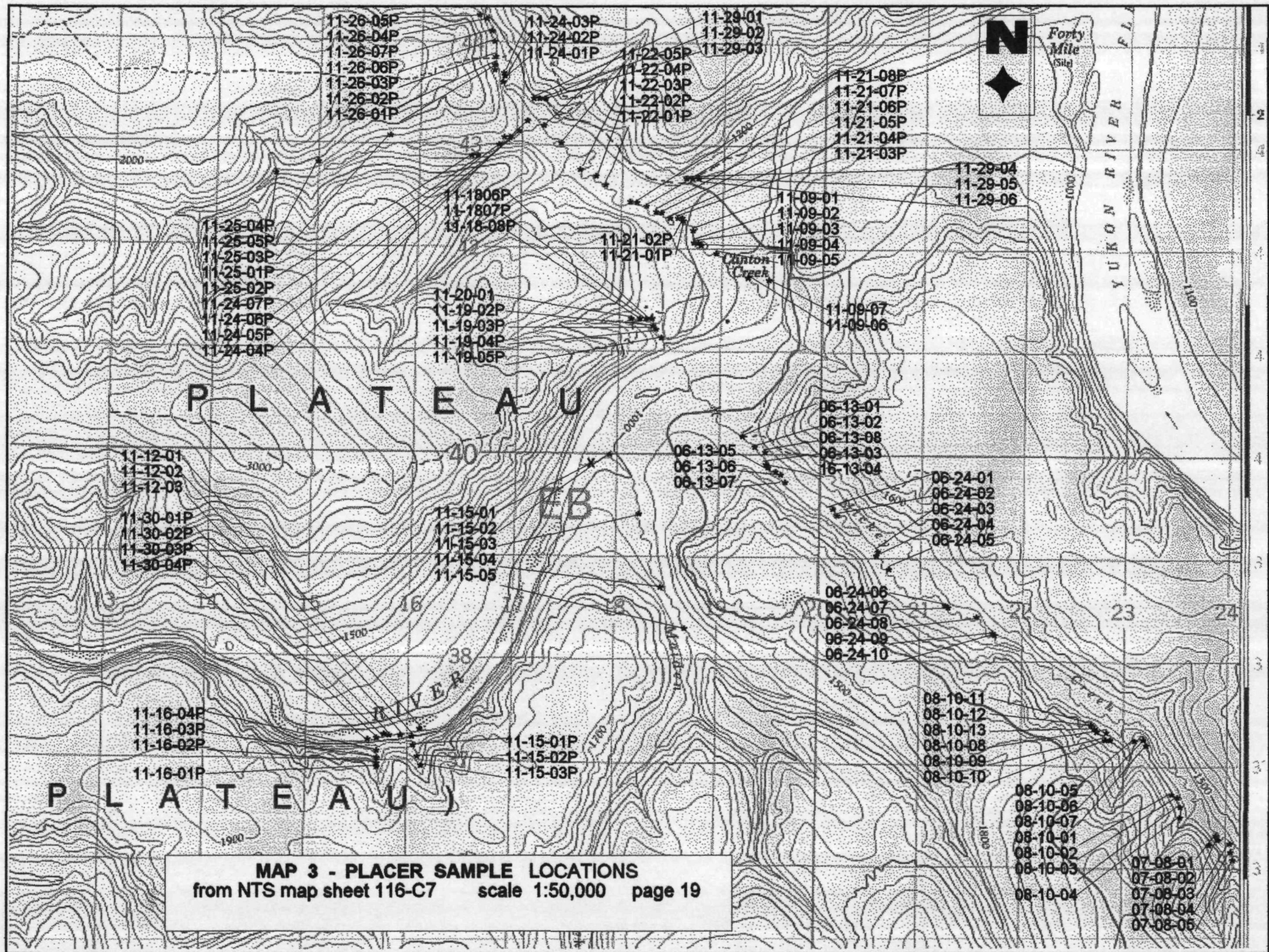
MAP 1 - PROSPECTING LOCATION (from "DAWSON" Map Sheet 116B & C) scale 1" = 6 miles (approx)





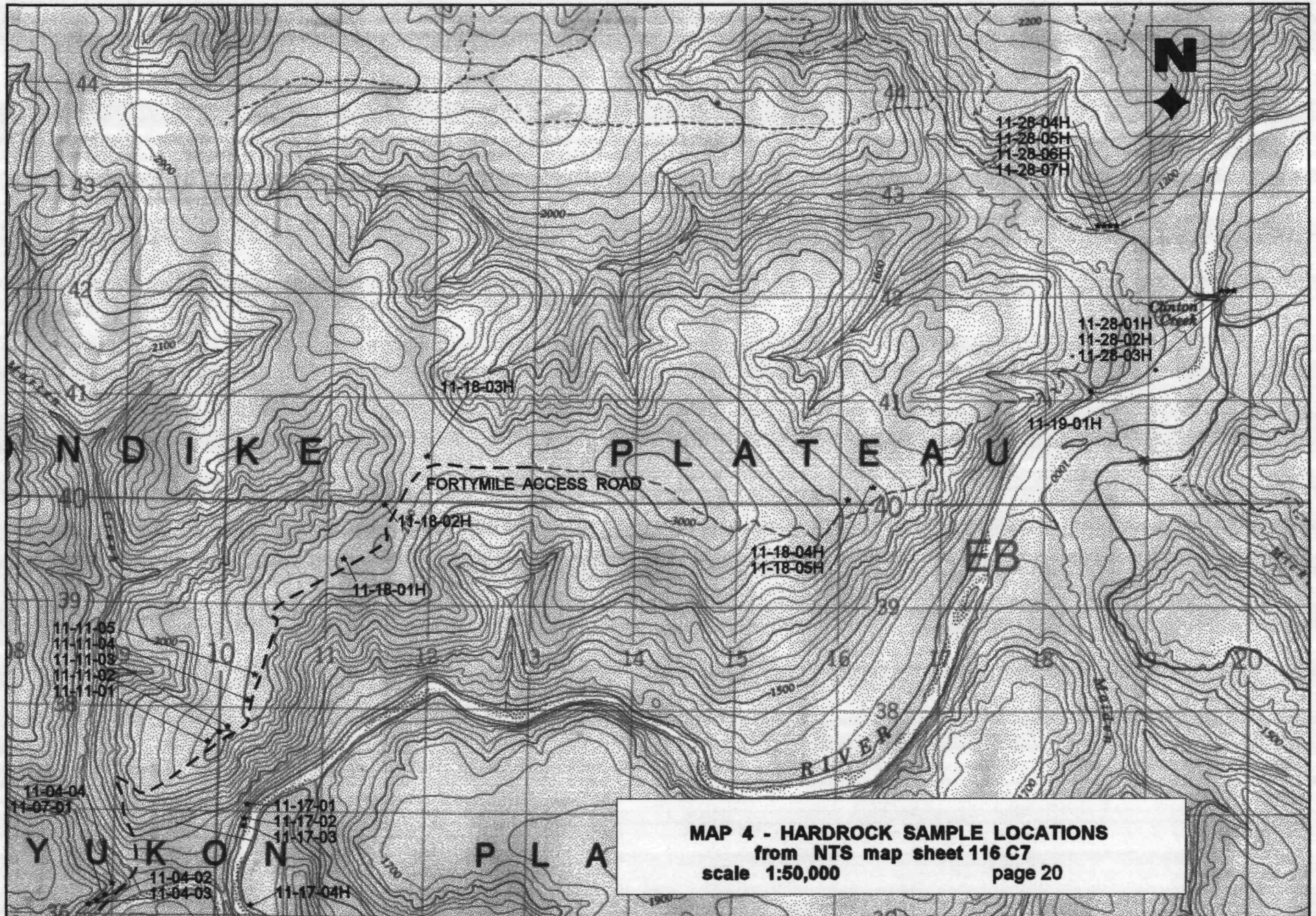
**MAP 2 - DRAINAGE AREAS PROSPECTED**  
from NTS map sheet 116-C7  
scale 1:50,000 page 18





**MAP 3 - PLACER SAMPLE LOCATIONS**  
 from NTS map sheet 116-C7 scale 1:50,000 page 19





**MAP 4 - HARDROCK SAMPLE LOCATIONS**  
 from NTS map sheet 116 C7  
 scale 1:50,000      page 20



GEOCHEMICAL ANALYSIS CERTIFICATE



Fortymile Placers File # 9805446 Page 1

Box 460, Dawson City YT Y0B 1G0 Submitted by: Leslie Chapman

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	U Au**		
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	% ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	% ppm	% ppm	%	%	%	%	%	%	ppm	oz/t
11-04-02	2	9	6	23	<.3	9	<.1	93	.55	<.2	<.8	<.2	<.2	3	<.2	<.3	<.3	7	.19	.002	<.1	18	.07	33	<.01	<.3	.13	.01	<.01	7	<.001	
11-04-03	2	46	4	94	<.3	55	24	512	5.10	<.2	<.8	<.2	2	45	.5	<.3	<.3	174	1.75	.054	5	114	1.71	915	.02	<.3	2.46	.02	.11	3	<.001	
11-04-04	2	76	5	89	<.3	21	17	498	3.54	3	<.8	<.2	<.2	58	.2	<.3	<.3	129	2.87	.052	8	35	.91	785	.01	6	1.75	.01	.05	3	<.001	
11-07-01	1	17	3	14	.4	3	3	794	1.56	6	<.8	<.2	<.2	87	.5	<.3	4	20	8.13	.009	3	12	.29	34	<.01	4	.45	.01	.01	8	<.001	
11-11-01	3	7	3	7	<.3	11	<.1	71	.50	<.2	<.8	<.2	<.2	2	<.2	<.3	<.3	3	.08	.004	<.1	25	.02	47	<.01	<.3	.06	<.01	.01	9	<.001	
11-11-02	2	5	3	7	<.3	8	<.1	73	.36	<.2	<.8	<.2	<.2	1	<.2	<.3	<.3	1	.01	.003	<.1	22	<.01	24	<.01	3	.01	.01	<.01	7	<.001	
11-11-03	3	4	<.3	6	.4	9	<.1	51	.39	<.2	11	<.2	<.2	<.1	<.2	<.3	3	1	<.01	.001	<.1	29	<.01	20	<.01	<.3	.01	.01	<.01	9	<.001	
11-11-04	3	4	<.3	6	<.3	4	1	54	.24	<.2	<.8	<.2	<.2	<.1	<.2	<.3	<.3	<.1	.01	.001	<.1	26	<.01	11	<.01	<.3	<.01	.01	<.01	13	<.001	
11-11-05	3	9	<.3	8	<.3	6	1	30	.26	<.2	<.8	<.2	<.2	1	<.2	<.3	3	1	<.01	.001	<.1	26	<.01	15	<.01	<.3	.01	<.01	<.01	11	<.001	
11-16-01	6	47	3	15	1.0	8	2	48	1.20	3	<.8	<.2	<.2	11	.2	<.3	<.3	16	.02	.056	11	30	.02	730	.01	3	.20	.01	.04	6	<.001	
11-14-02	3	10	<.3	5	<.3	4	<.1	27	.51	<.2	<.8	<.2	<.2	1	<.2	<.3	<.3	7	<.01	.011	<.1	28	<.01	20	<.01	<.3	.02	<.01	.01	14	<.001	
11-14-03	3	9	<.3	7	<.3	11	<.1	39	.38	<.2	<.8	<.2	<.2	2	<.2	<.3	3	2	<.01	.007	<.1	38	<.01	172	<.01	<.3	.01	<.01	<.01	8	<.001	
11-14-04	3	3	<.3	5	<.3	5	<.1	30	.44	<.2	<.8	<.2	<.2	1	<.2	<.3	3	2	<.01	.005	<.1	35	<.01	85	<.01	<.3	.01	<.01	<.01	13	<.001	
11-14-05	2	8	<.3	9	<.3	10	1	84	.45	2	<.8	<.2	<.2	1	<.2	<.3	<.3	3	.01	.008	2	31	.02	35	<.01	<.3	.06	.01	.03	6	<.001	
11-14-06	3	6	<.3	5	<.3	3	<.1	45	.33	<.2	<.8	<.2	<.2	1	<.2	<.3	4	1	<.01	.002	<.1	30	<.01	2	<.01	<.3	.01	<.01	<.01	12	<.001	
11-14-07	3	5	<.3	5	<.3	9	<.1	45	.35	<.2	<.8	<.2	<.2	1	<.2	<.3	<.3	1	<.01	.002	<.1	41	<.01	12	<.01	<.3	.01	<.01	.01	7	<.001	
11-14-08H	3	20	<.3	7	<.3	7	5	110	.60	<.2	<.8	<.2	<.2	3	<.2	<.3	<.3	4	.01	.002	<.1	29	<.01	20	<.01	<.3	.06	<.01	.01	14	<.001	
11-14-09	2	12	<.3	8	<.3	8	<.1	31	.47	3	<.8	<.2	<.2	2	<.2	<.3	<.3	3	<.01	.008	1	31	<.01	67	<.01	3	.03	<.01	<.01	5	<.001	
11-17-01H	3	7	<.3	8	<.3	4	<.1	31	.35	<.2	<.8	<.2	<.2	2	.5	<.3	<.3	2	.01	.003	<.1	32	.02	49	.02	3	.06	.01	.02	13	<.001	
11-17-02H	3	10	5	10	<.3	11	<.1	49	.41	<.2	<.8	<.2	<.2	1	.2	<.3	<.3	1	<.01	.002	<.1	48	.01	40	<.01	<.3	.02	<.01	.01	8	<.001	
11-17-03H	3	9	3	18	<.3	7	1	52	.50	<.2	<.8	<.2	<.2	5	<.2	<.3	3	6	.07	.006	5	36	.11	90	.01	3	.20	.02	.04	11	<.001	
11-17-04H	<.1	2	<.3	3	<.3	<.1	<.1	322	.04	<.2	<.8	<.2	<.2	272	<.2	<.3	<.3	1	36.80	.038	<.1	8	.52	42	<.01	7	.01	.01	<.01	<.2	<.001	
RE 11-17-04H	<.1	<.1	<.3	3	<.3	1	<.1	324	.03	2	<.8	<.2	<.2	278	<.2	<.3	<.3	1	37.77	.040	<.1	5	.53	48	<.01	4	<.01	.01	<.01	<.2	<.001	
11-18-01H	2	5	<.3	2	<.3	<.1	<.1	30	.23	<.2	<.8	<.2	<.2	4	<.2	<.3	<.3	1	.32	.002	<.1	19	.01	3	<.01	4	<.01	<.01	<.01	12	<.001	
11-18-02H	3	58	<.3	116	<.3	242	46	851	7.64	2	<.8	<.2	<.2	4	169	.3	<.3	140	1.23	.237	31	128	3.60	62	.59	<.3	2.95	.87	.21	2	<.001	
11-18-03H	2	44	<.3	32	<.3	39	19	590	3.58	5	<.8	<.2	<.2	4	24	<.2	<.3	107	.36	.132	17	44	.09	113	.02	<.3	.66	.01	.01	4	<.001	
11-18-04H	1	7	<.3	37	.3	1424	75	1387	4.62	65	<.8	<.2	<.2	321	.8	66	<.3	25	6.21	.005	1	684	13.15	189	<.01	<.3	.08	.03	.01	4	<.001	
11-18-05H	2	8	27	52	<.3	19	5	368	1.90	7	<.8	<.2	<.2	19	<.2	<.3	<.3	10	.60	.060	2	28	.36	31	<.01	<.3	.76	.04	.02	5	<.001	
11-19-01H	1	2	10	13	<.3	9	<.1	614	.79	<.2	<.8	<.2	<.2	2	1358	.3	<.3	1	20.66	.006	8	15	.21	33	<.01	<.3	.05	.01	.04	5	<.001	
11-28-01H	1	9	3	18	<.3	1041	53	670	3.98	73	<.8	<.2	<.2	439	.7	164	5	18	1.84	.003	<.1	542	17.63	303	<.01	8	.07	.01	.03	2	<.001	
11-28-02H	1	7	3	33	.3	802	42	1142	3.75	913	<.8	<.2	<.2	1831	<.2	553	<.3	25	10.75	.001	<.1	409	9.71	165	<.01	<.3	.08	.01	.03	2	<.001	
11-28-03H	1	61	6	24	<.3	1463	73	434	4.15	33	<.8	<.2	<.2	157	<.2	47	<.3	30	.90	.003	1	848	16.40	417	<.01	9	.21	.02	.05	<.2	<.001	
11-28-04H	1	64	<.3	72	.4	494	62	747	4.75	161	<.8	<.2	<.2	811	.7	51	4	19	12.70	<.001	<.1	651	7.22	55	<.01	<.3	.05	.01	.03	<.2	<.001	
11-28-05H	2	12	3	15	<.3	20	2	510	1.14	92	<.8	<.2	<.2	257	<.2	<.3	<.3	1	5.26	.021	3	28	.29	56	<.01	<.3	.09	.03	.06	8	<.001	
STANDARD CS/AU-1	27	72	39	181	6.2	36	12	820	3.43	57	26	3	21	27	24.2	17	24	80	.57	.093	18	172	.62	156	.09	18	1.88	.04	.16	20	.096	
STANDARD G-2	2	<.1	3	45	<.3	7	3	514	1.91	<.2	<.8	<.2	<.2	5	65	<.2	<.3	<.3	39	.60	.097	6	72	.56	224	.14	<.3	.89	.06	.47	3	<.001

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND MASSIVE SULFIDE AND LIMITED FOR NA K AND AL.  
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPM  
- SAMPLE TYPE: ROCK AU\*\* BY FIRE ASSAY FROM 1 A.T. SAMPLE.  
Samples beginning 'RE' are Returns and 'RE' are Reject Returns.

DATE RECEIVED: DEC 16 1998 DATE REPORT MAILED: DEC 21/98 SIGNED BY: [Signature] D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Duta FA 1112





Fortymile Placers FILE # 9805446



SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W Au**
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm oz/t
11-28-06H	2	14	38	34	<.3	14	6	2724	3.41	28	<8	<2	3	114	<.2	<3	<3	1	4.61	.076	7	19	.83	46	<.01	4	.15	.03	.09	9<.001
11-28-07H	1	25	8	133	.5	1447	60	2008	6.07	856	<8	<2	3	1226	1.0	2310	7	22	13.78	.003	1	562	5.09	67	<.01	<3	.10	.02	.06	<2<.001
RE 11-28-07H	1	27	6	139	.5	1483	59	2021	6.17	875	<8	<2	2	1248	1.8	2347	3	22	14.01	.001	1	571	5.18	67	<.01	<3	.09	.02	.06	<2<.001

Sample type: ROCK. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

**Additional Information**

**People who worked on the project**

Leslie Chapman

William Claxton

Tom Claxton

Dawson City

Dawson City

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**Area Investigated**

Unstaked tributaries of the lower Fortymile River

**Report Preparation**

Leslie Chapman and William Claxton prepared the report in 33 manhours.

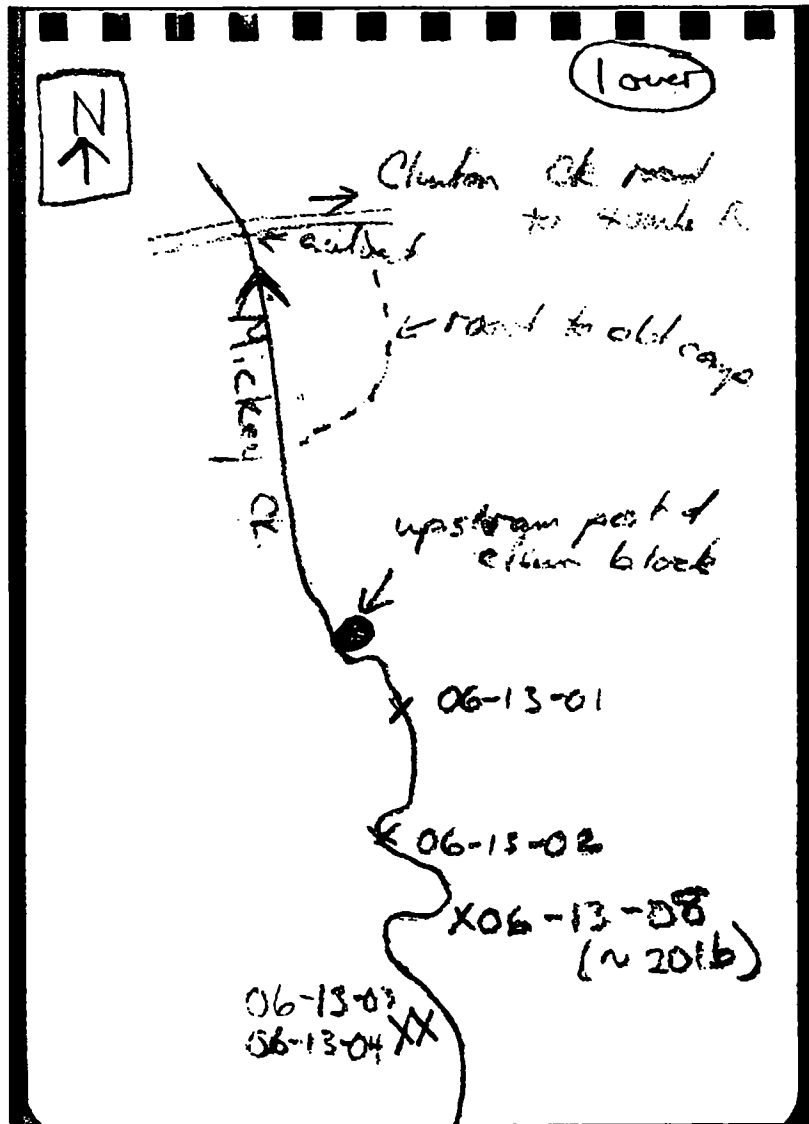
Lower Fortynite Area Prospecting 98

①

June 13 - Mickey Creek - We drove to Kilgus' old camp on Mickey Cr. upstream of Clinton Cr. road crossing (marked). I located the upper alluvial part of the 2 claim blocks on the creek + began walking up the creek from there. Research in the creek is largely + roughly equal - fairly shallow water level ~3'

Samples (continued)

- 06-13-01 panned from creek bed - 0 colors
- 06-13-02 panned from near bed - 0 colors
- 06-13-03 - left bank 1 very fine colour
- 06-13-04 - same location as '03' - 0 colors





2

06-13-05 creek bed

0 colours

06-13-06 right bank

2 colours very fine

06-13-07 same as '06

1 colour - garnet

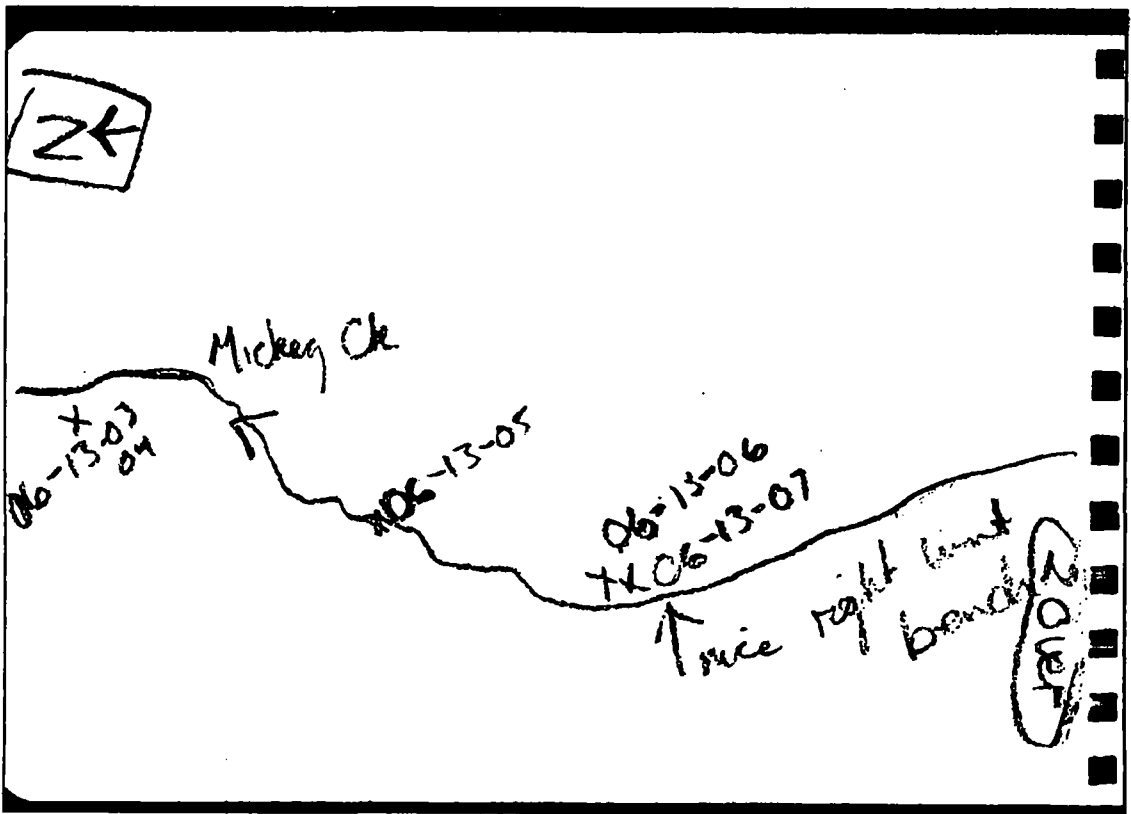
notebook amount of black sand in four samples

creek valley in relatively weak in that area for 1 mile down

notebook appears 1000' wide vegetation is fairly heavy w/ some large spruce

06-13-08 - 20% sample

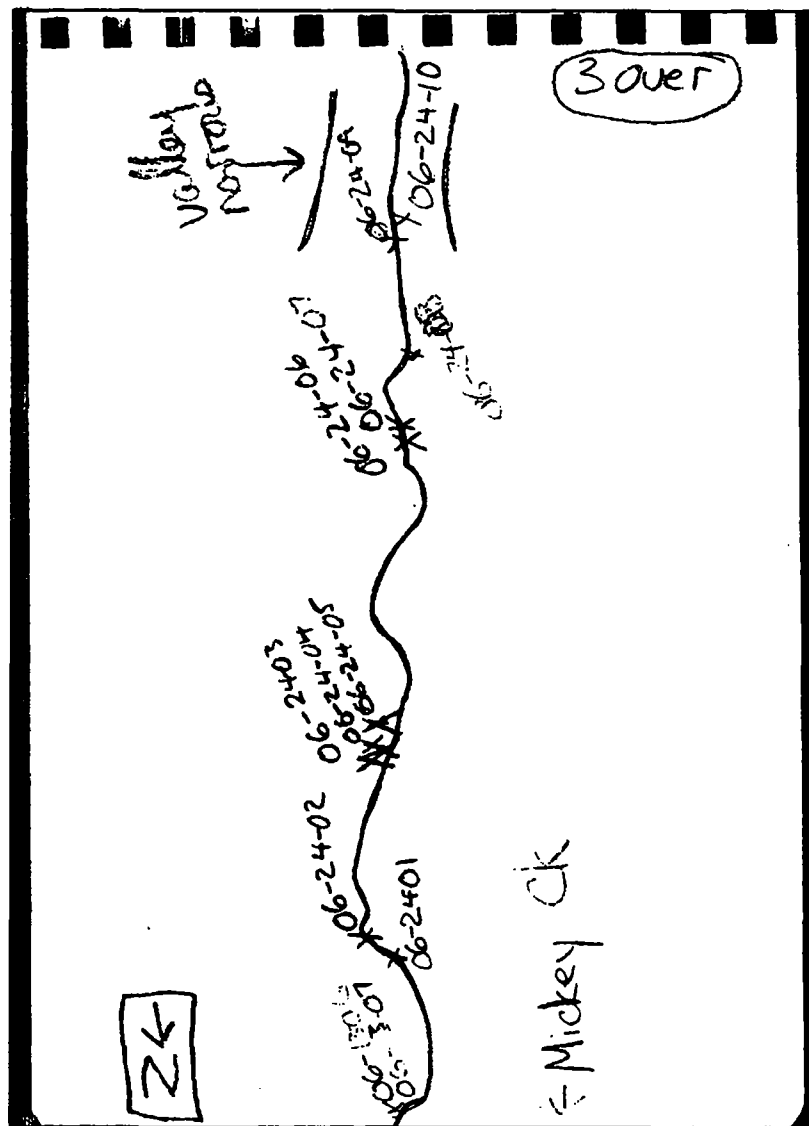
largest of the particles  
samples from  
across from  
good exposure of  
quartz



(3)

June 24/98 Mickey Creek  
 - We went back to Mickey Ck  
 to continue working our way  
 up the creek, panning as we go  
 - Creek valley widens out  
 at ~1/2-2 miles upstream  
 from mouth w/ a nice bench  
 on the right bank - Ols. is  
 shallow ~ 2-5' w/ mass +  
 mostly scrubby spruce

- 06-24-01 creek bed - 0 colours  
lots of blk sand
- 06-24-02 creek bed - 0 colours
- 06-24-03 RL - 0 colours
- 06-24-04 RL - 4 fine colours
- 06-24-05 RL bank - 0 colours
- 06-24-06 creek bed 2 colour
- 06-24-07 creek bed 0 colour
- 06-24-08 LH bank - 0
- 06-24-09 creek bed - 0
- 06-24-10 RL bank - 0



(4)

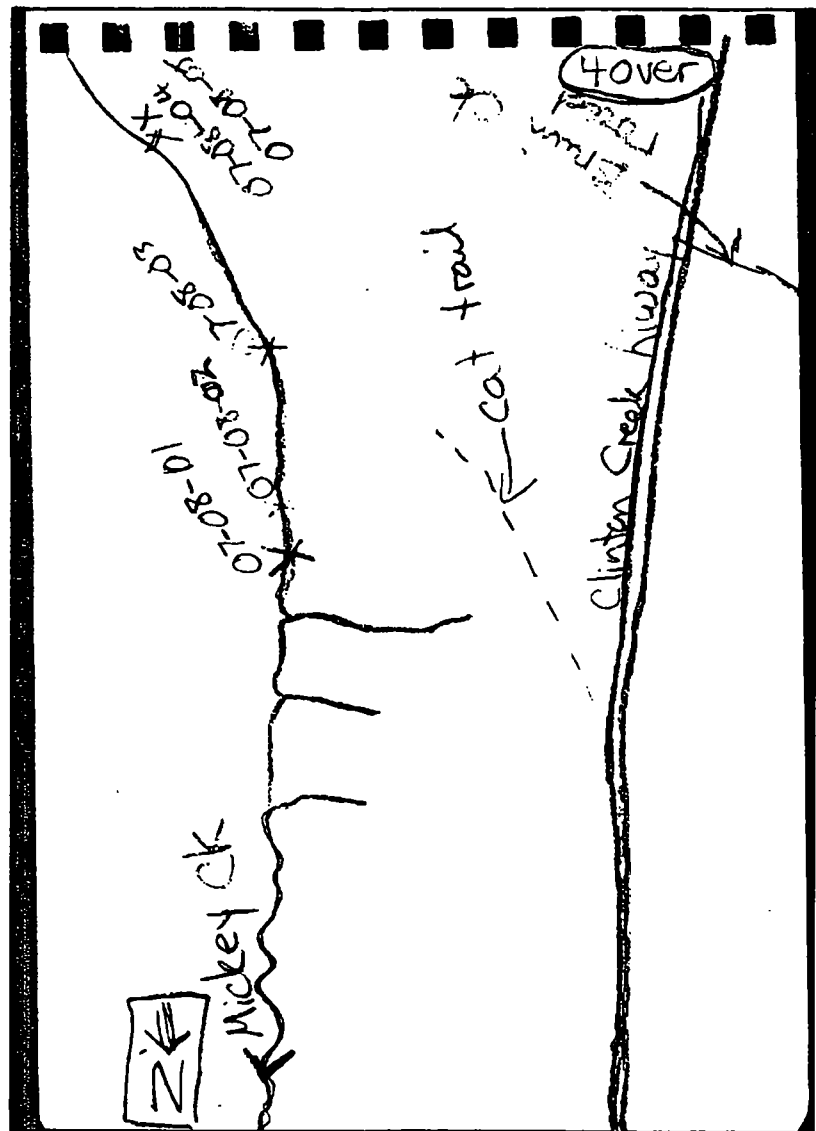
July 8/98 upper Mickey Ck.  
 I drove up the Clinton Ck  
 road to an area ~ 1/2 mile  
 before Train Ck turnoff where  
 a cat trail takes off into  
 Mickey Ck valley. I walked  
 down cat trail until I  
 was directly above creek  
 then dropped down into the  
 valley. permafrost vegetation on  
 hill slope.

creek valley in this area  
 is narrower & steeper than  
 lower reach

- less gravel in this area  
 than lower down creek

examples - walking up stream

- 07-08-01 creek bed 0 colours
- 07-08-02 " 0
- 07-08-03 " 0
- 07-08-04 RL 0 "
- 07-08-05 RL 0 colours

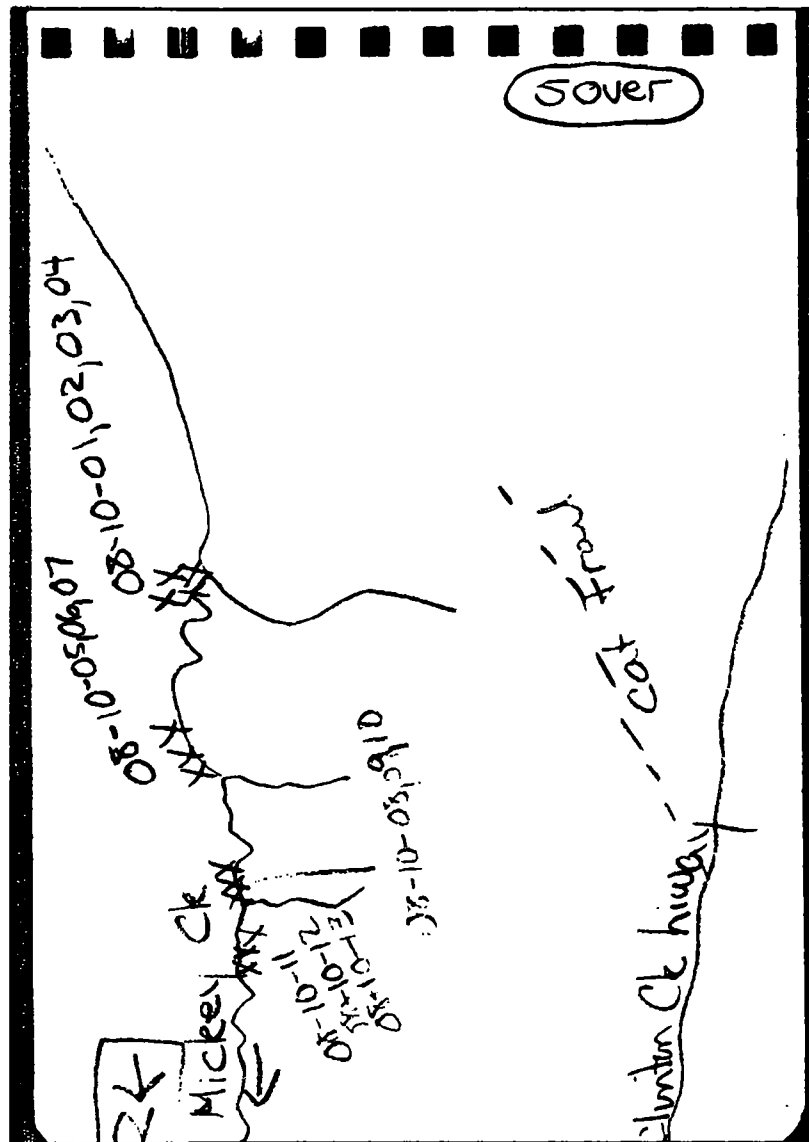




(5)

July 10/98 upper/mid Mickey Ck  
 - as on July 8 I drove to  
 cat trail on Clinton Ck road &  
 walked down to creek  
 today I walked downstream  
 - took samples at mouths of  
 LL Vitis - gulches - series of 3  
 gulches

08-10-01	top gulch mouth	- 0
08-10-02	"	- 0
08-10-03	"	- 0
08-10-04	"	0 colors
08-10-05	middle gulch	- 0
08-10-06	"	- 0
08-10-07	"	- 0
08-10-08	lower gulch	- 0
08-10-09	"	- 0
08-10-10	"	- 0
08-10-11	creek bed near lower gulch	- 0
08-10-12	"	- 0



July 10/98

-mid Mucky Ck cont.

08-10-13 near mouth of lower gulch  
-O colours

I did not see any evidence  
of old workings  
-walked up lower gulch  
(steep climb!) & back  
up highway to where I left the  
truck.

Oct 16/98 - travel day  
organized supplies for

respective trip

took ferry from Dawson on  
last day it was in the water  
based out of Morden Ck

(6)

Nov 4, 98

temp -5C in am, wind & cloudy,  
clearing in pm. High fog in  
morning

Spent morning examining quartz  
in situ in old workings  
school looked quiet, highest  
most quartz intrusions are relatively  
small

school looked a very faint & layered  
host schist has crumbled to  
clay around quartz intrusions  
must have been very soft  
observed mineralization in quartz  
zone

Scraped some soil with jack  
around largest intrusion

11-07-01 west end

11-07-02 10' above road quartz

11-07-03 probably mineralized

11-07-04 main vein of schist

(7)

⑧

vertical - quartz is very  
commonly here  
widens to ~ 4' across  
20-25' above road

⑨

Nov 7.

-10°C clear + calm  
went back to cliff road  
to re-sample west end of  
intrusion area sampled on  
Nov. 4 (sample 11-04-01 was  
lost)

• 11-07-01 (replaces 11-04-01)

I examined the cliff  
face further west but did  
not find any other significant  
intrusions. If this sampling  
proves interesting - then some  
of the smaller streaks  
could be sampled.



(10)

Nov 9

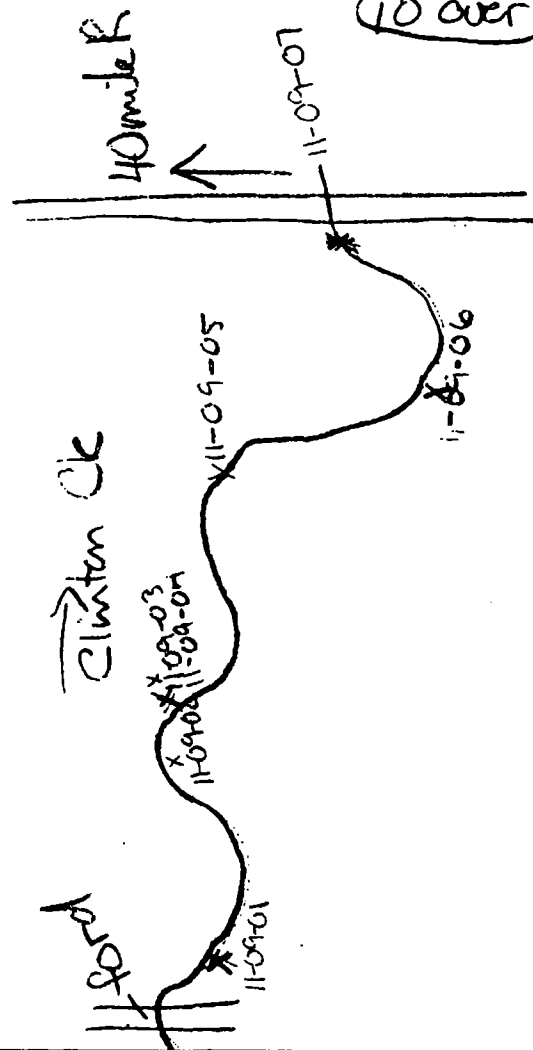
-10°C partly cloudy  
2 snowmachines over road to  
Clinton creek. We walked  
downstream of the foot to the  
mouth of the creek. Vegetation  
is heavy w/ large spaces.  
Overgrowth is 3ft high. I  
was able to collect gravel  
samples from cut banks.

- 11-09-01 light bank
- 11-09-02 right bank inside bend
- 11-09-03 left bank
- 11-09-04 same location of 03
- 11-09-05 from mid-stream bar
- 11-09-06 left bank
- 11-09-07 bar near mouth

- creek is still open in spots  
- flagged sample locations

(10 over)

N  
↓



Nov 10

(11)

-14°C cloudy

We took 2 snow machines  
& put trail in down thru  
Canyon. There are still  
quite a few open spots & the  
lack of snow makes rough going  
on the river bars. The canyon  
was tricky with hollow shelf ice  
& open water, but we got  
thru & went down to the river  
bank deposit by Hoodoo Gk.  
Examined quartz stringers in  
cliff in vicinity of Brown Cr. I  
flagged a quartz outcrop on RL  
above Brown for future sampling

Nov 11

(12)

cloudy & calm -17°C

We took 2 snow machines  
& went up the hill to  
sample quartz stringers  
up on top, about 2 miles from Marshall  
Samples: 11-11-01 took sample  
from 1st (most easterly)  
stringer of quartz by road

11-11-02 is ~25 ft. east

11-11-03 is ~30 ft east of 02

I think that this may be  
a large body of quartz.  
I will return here & see if  
I can find more stringers  
outcropping further down the  
hill side toward Brown Cr.

-11-11-04 - quartz outcrop  
further east about 1 mile  
I thought this was a colder  
quartz, but it was a

(13)

rounded knobs of a quartz  
11-11-05 quartz showing  
about 1/2 mile east  
along road

most of this quartz is fairly  
crumbly - especially 11-11-01 & 02  
It was colder on top of hill  
because it was foggy & moister

(14)

NOV. 12

-18°C cloudy & calm

We took 2 snowmachines <sup>downriver</sup> & went back down to Hoodoo Ck flat. - pretty rough going through canyon. We used hipchain to measure the bench (bank grade?) - it is 724 m. - though it pinches out to be quite narrow in width at both upriver & downriver ends.

took 3 samples of gravel from river bank

11-12-01, 11-12-02, 11-12-03  
gravel is relatively angular rather than well rounded & is slaty in character

there is up to 20' of waste

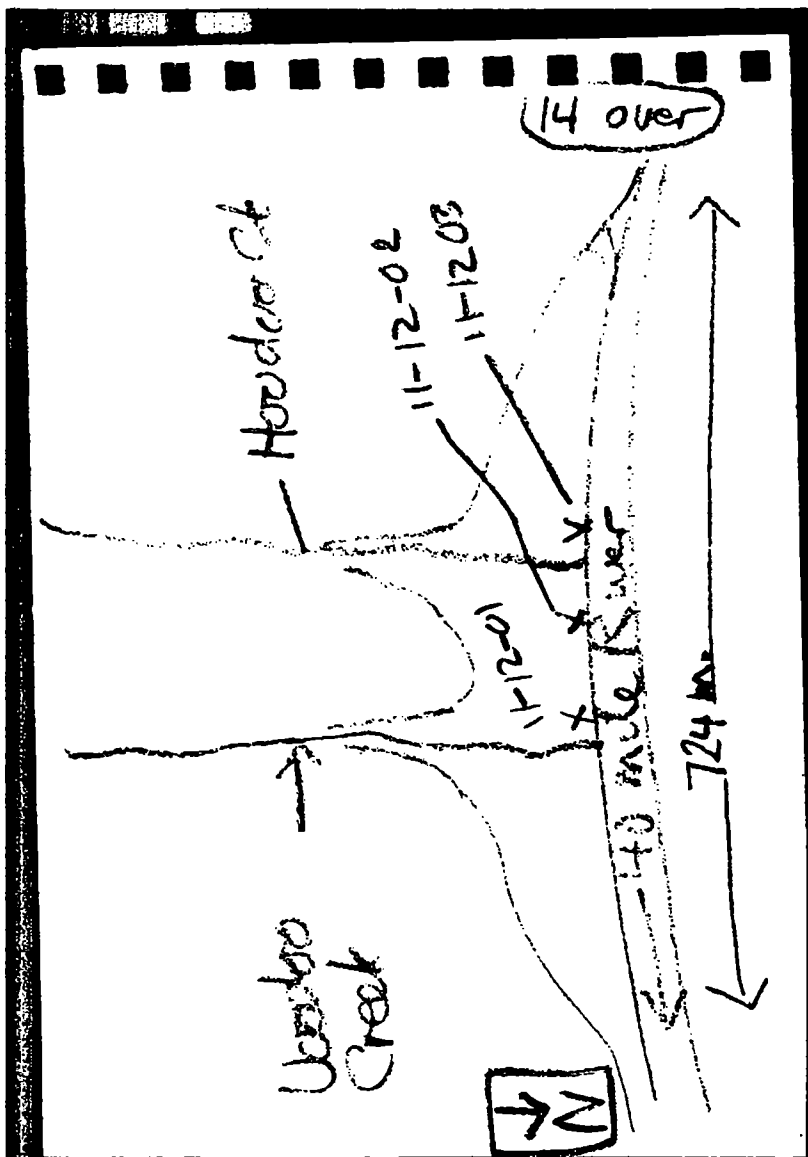


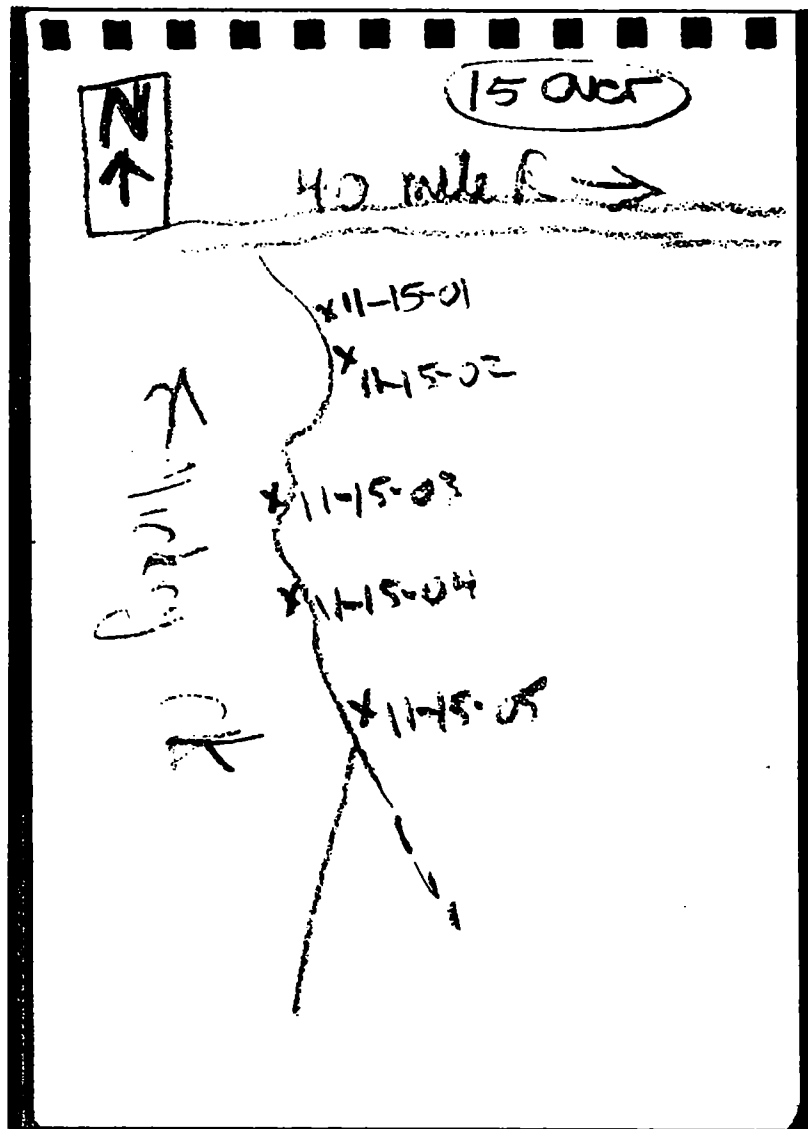
(15)

Nov 13  
-18°C partly cloudy, calm  
2 snowmachines downriver  
thru canyon. we went  
down to Maiden Ct + then  
walked up the creek.  
We walked up the creek  
about 1/2 mile. Overhanging  
heavy in Maiden Ct ~10' ft.  
Not too many areas  
available for sampling - not  
much gravel showing on all  
banks

- 11-13-01 right bank ~250' up ck
- 11-13-02 right bank above 01
- 11-13-03 left bank ~1/2 mile up
- 11-13-04 same as 03
- 11-13-05 right bank near 01's

sample locations flagged





16

Nov 14

-17°C mostly clear + calm  
 2 snow machines up on hill  
 • 11-14-02 sample taken  
 of quartz outcrop  
 ~ 1/4 mile from turn-around  
 opposite Erwin Ct (telephone spot)  
 small showing

• 11-14-02 quartz sample  
 larger showing over ~ 10 ft  
 quartz is quite oxidized  
 shiny black surface on face  
 uphill ~ 100 yds from 11-14-01.

• 11-14-03 quartz in  
 broken rock from side  
 of road - less oxidized  
 ~ 50 yds E, past telephone turn  
 around

(17)

Nov. 14 cont.

- 11-14-04 18"  $\Phi$  quartz boulder by side of road sampled - although this is not in place rock, it must have come from the immediate vicinity, probably disturbed by road building - this sample taken in road turnout

• 11-14-05

E of 11-11-01, 02 & 03 along road  
sample 6" quartz seam  
numerous smaller quartz stringers also close by

• 11-14-06

1'  $\Phi$  quartz boulder on S side of road - again rock disturbed by road building

(18)

Nov 14 cont

- 11-14-07 sample  
2'  $\Phi$  pure quartz Boulder  
N side of road

- 11-14-08 drainage turnout on S side of road opposite 11-14-07 a lot of quartz showing - some quartz chunks mixed in soil layer sample from outcrop  
I climbed down the hill to see if outcrops I could see from here contained quartz showings but they were hard gray layered schist

- 11-14-09 sample from 3 quartz boulders broken off by road building over 15' length



Nov 15

-16°C overcast calm

19

2 snowmachines down over to  
Horn's flat.

walked up creek/draw below  
Voodoo - creek eroded at mouth

then goes underground

where creek valley opens up onto  
flat creek becomes visible again  
sample taken from gravel in  
creek bed where it forms flat

- 11-15-01P
- 11-15-02P taken ~100' up the creek  
from 11-15-01P

valley is steep & ~ 20' wide

- 11-15-03P taken ~ 50' up the  
draw - slately gravel w/ graphite schist  
It's also going up a fault zone  
& we became the creek is glaciated  
& steep

40 Mile River →

19 over

N  
↑

11-15-01P x

11-15-02P x

11-15-03P x

← Voodoo Cr.

Nov 16

-17°C overcast + breezy

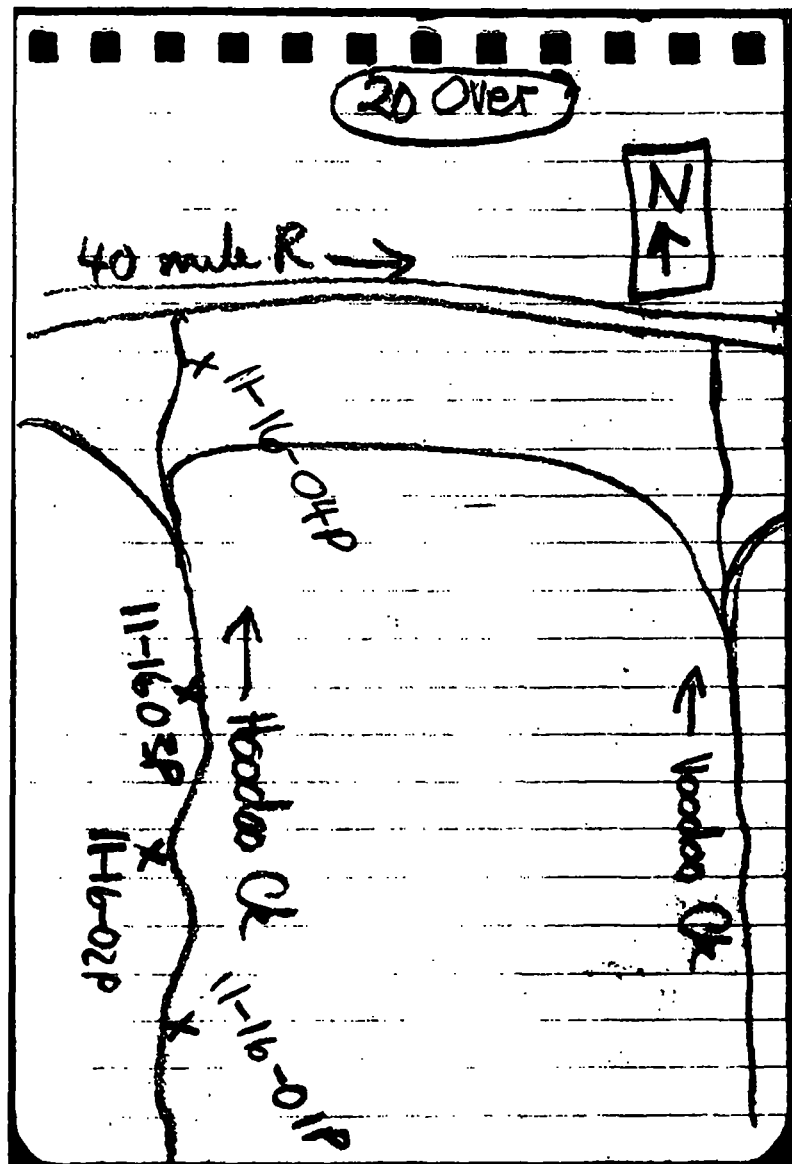
(20)

2 snowmachines to Hodder Cr  
we walked up creek/gulch ~ 600'  
fairly steep & narrow  
flagged gravel showings on way up  
& sampled on way back down

- 11-16-01P - broken schist gravel  
upper end of creek is glaciated
- 11-16-02P - broken schist & sand
- 11-16-03P - angular gravel  
Some broken outcrop to S' of
- 11-16-04P - gravel is more  
washed - ~ 50' from mouth

posed off bench at ~ 150' wide

(20 Over)



(21)

Nov 17

-19°C mostly clear w/ some high overcast, calm

looking at quartz showings on river ~ 1/2 mile upstream of Brown Cr. right limit of river quartz seam approx 12"-18" thick some oxidation

took 3 samples over ~ 30'

• 11-17-01, 02 & 03 H

(there is still almost no snow making it easy to see rock outcroppings, although travel on the river is pretty rough)

bedrock strikes ~ N 80° E & dips ~ 30°

• 11-17-04 H sampled from 20'+  $\phi$  boulders on river which have fallen from outcrop ~ 100' high x ~ 150' wide which - quartz? R. on river end of kink

(22)

Nov 18

-14°C clear very light snow last night

2 snowmachines up on road

• 11-18-01 H from large quartz 3'  $\phi$  boulder in wide part of road approx 1 mile from summit

• 11-18-02 H Clinton Cr. side of Summit - near where red clay shows up - sample is volcanic rock - very porous w/ lots of <sup>green</sup> clasts

• 11-18-03 H of idylized-red broken schist from old road bed near red clay some quartz in it

• 11-18-04 H oxidized schist orange w/ some serpentine & quartz - below steep part of road

(23)

11-18-05H - ~50yds  
from 11-18-05H quartz  
w/ limestone? broken by  
roadside

• 11-18-06 07 P placer samples  
from E side of culvert on road  
06 from ~ 4' below surface  
-07 " " ~ 7' "

• 11-18-06+08P placer sample  
40' from 06+07 from about  
7' below surface  
gravel is washed up 1/2' ab

(24)

Nov 19  
-13°C overcast w/light breeze

took 2 snowmachines over  
road to Club Ct end  
prospected creek which  
culvert on road is thru - Powerhouse Ct  
walked down creek to 10 mile  
flagging gravel showing:

• 11-19-01H hardrock sample of  
quartz outcrop at mouth of ct

• 11-19-02P placer sample 100'  
from mouth

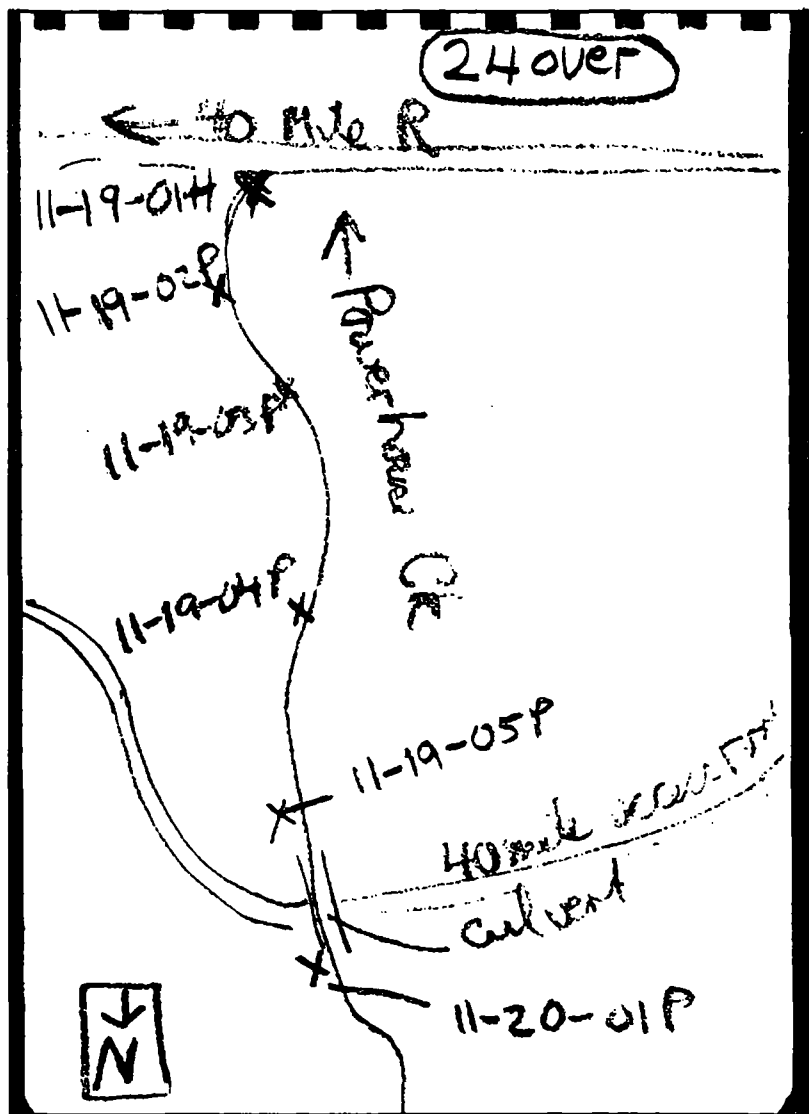
• 11-19-03P lots of loose  
gravel + sand.

found old claim posts  
from '85? poss. for 2 old dam  
also large old timbers in creek

• 11-19-04P } placer samples working

• 11-19-05P } our way up to culvert  
from mouth - nice washed gravel





(25)

Nov 20

-7°C low overcast w/ some  
light snow

snowmachine to Powerhouse

Ch walked upstream from  
the culvert

much less gravel showing  
than downstream - creek mainly  
cuts thru overburden of muck  
left limit gently sloping w/  
large spruce, right limit steeper  
w/ cross + scrubby black spruce  
about 1/2 mile up there are  
lots of old axe cut stumps - I expected  
to find a cabin but did not  
saw some of the same old  
flagging as I found downstream  
but <sup>no</sup> more claim posts  
11-20-01 from area near  
culvert

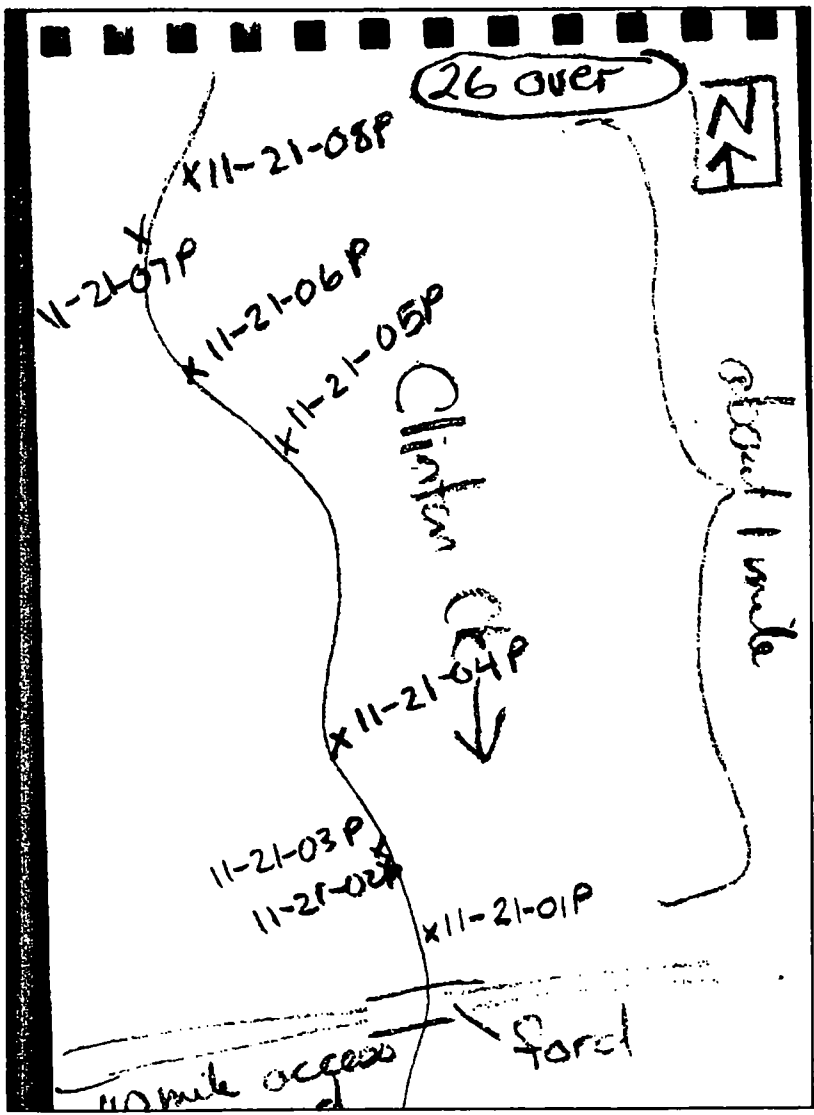
(26)

Nov 21

-12°C overcast light snow  
 2 snowmachines over road  
 to Clinton Ok.  
 we were able to travel  
 on the creek by snow machine  
 for ~ 1/4 mile until open  
 water made it impossible  
 we walked up Clinton Ok  
 taking some samples as we  
 went. we got about 1 mile  
 above forest

samples; (locations placed)

- 11-21-01P left bank cut bank
- 11-12-02P right bank
- 11-12-03P right bank
- 11-12-04P left bank from  
 inside bank w/ok
- 11-12-05P left bank
- 11-12-06P gravel bar in mid cr.  
 gravel is angular; serpentine



Nov 21 Cont  
Clinton Ck.

(27)

- 11-21-07P right bank
- 11-21-08P left bank

Overburden here is less  
than over mouth - 2-3'

Nov 22

-7°C ~2" new snow (finally!)

2 snowmachines over  
road to Clinton Ck ford  
again

Owe walked further up  
the creek than I had had  
- some open water

Col. 22

11-22-01P right bank

11-22-02P RL

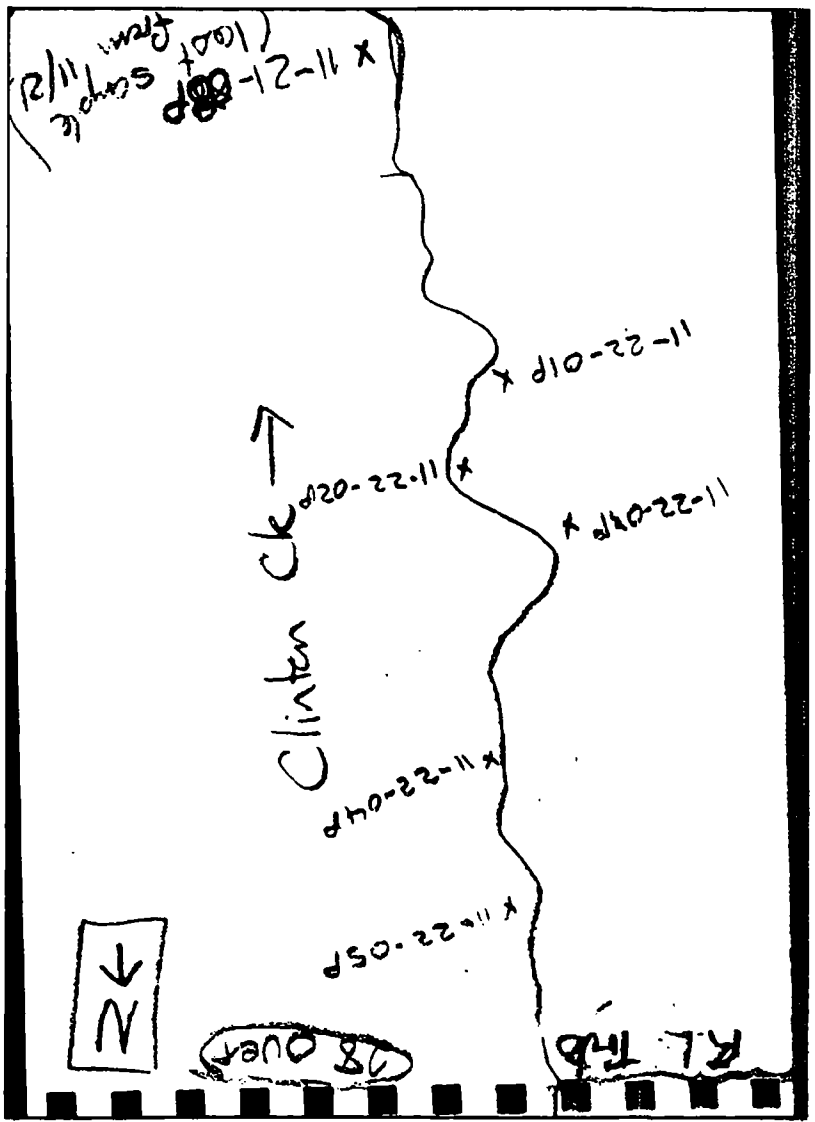
11-22-03P RL

11-22-04P LL

11-22-05P LL

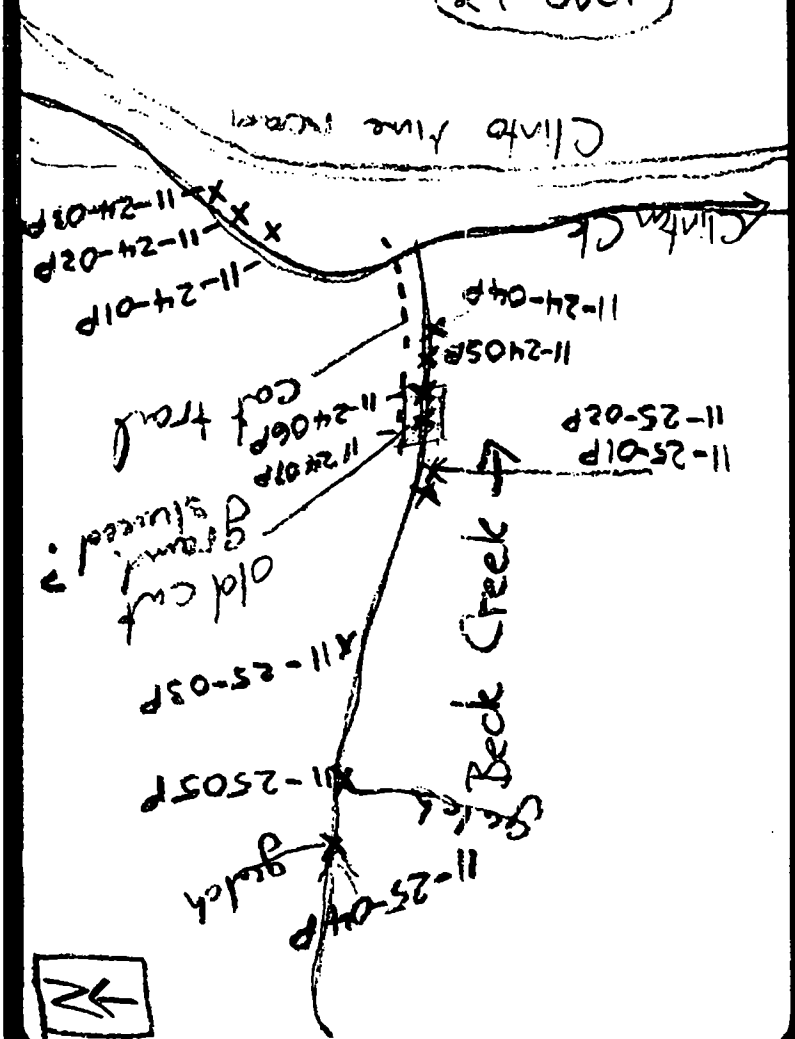
Lots of serpentine visible  
in gravel - from mine  
wash down probably

Nov 24  
 -170C overcast/clear  
 2 snow machines over road to  
 Clinton Ch. when up road up  
 Clinton - left snow machine  
 on road & attached to  
 mouth of creek (R.L. T.H.B.)  
 takes like creek overflow in  
 this area - marshy w/ meadows  
 11-24-01P - 16' bank on Clinton Ch.  
 11-24-02P - as of  
 11-24-03P - as of 1 + 2  
50' wide x 200' long cut  
 probably ground level  
 approx 1500' up creek (R.L. T.H.B.)  
 11-24-04P 2 gravel samples from  
 11-24-05P 1 gravel  
 gravel is washed the  
 gravel that remains  
 11-24-06P cut bank on gravel  
 11-24-07P slanted over top





29 over



30

Nov 25

-18°C

left crew  
returned to Clinton Cr. trail  
(R.L.) to prospect further  
up stream. The old stream  
we found yesterday was  
far as the cat trail goes.  
about 1 mile up from the  
mouth the creek gets narrower  
with gulches on both left &  
right limits.

• 11-25-01P right limit above  
old washing

• 11-25-02P as '01'

• 11-25-03P left limit

• 11-25-04P gulch area left limit

• 11-25-05P gulch area right limit

Creek is considerably narrower  
& steeper above gulches

(31)

Nov 26

-19°C snowing

2 snowmachines over road  
+ up Clinton Ck mine road  
we travelled further up the  
road past the trib which I  
have been prospecting. I had  
a look at the mouth of the  
trib upstream + the area of  
the crest in this vicinity.

good looking washed gravel - fairly  
course in size - in cut bank  
Clinton Ck. just upstream of trib mouth

11-26-01P

11-26-02P } from RL above Beck on Clinton

11-26-03P

11-26-04P - left limit trib mouth

11-26-05P left limit trib mouth

11-26-06P RL on Clinton Ck

11-26-07P above 01-02+03 location

RL Trib →

SI over

\* 11-26-05P

11-26-04P



11-26-07P

11-26-06P X

Clinton Ck.

Clinton Mine Rd.

11-26-03P

11-26-02P X

11-26-01P

Beck Ck →

(32)

Nov 27

-24°C partly cloudy

2 snowmachines down river thru  
Canyon to Hoodoo Ck

cut line for discovery claim

I'm staking a creek  
discovery claim which will  
also cover the flat along  
the route N. of  
the mouth of Hoodoo Ck  
& Hoodoo Ck

(33)

Nov 28/98

-23°C partly cloudy

2 snowmachines over road to  
Clemson Ck over bridge to  
Cone Hill

took 3 hardrock samples from  
exposed rock & large boulders on  
Cone Hill (50/50)

- 11-28-01 H orange stained  
rock w/ some Serpentine &  
asbestos fibers evident
- 11-28-02 H similar to -01 very  
hard rock
- 11-28-03 H same area some  
quartz present  
snowmachines to riprap borrow  
pit near old boat landing road  
there is a large cliff here
- 11-28-04 H  
orange stained rock similar  
to Cone Hill

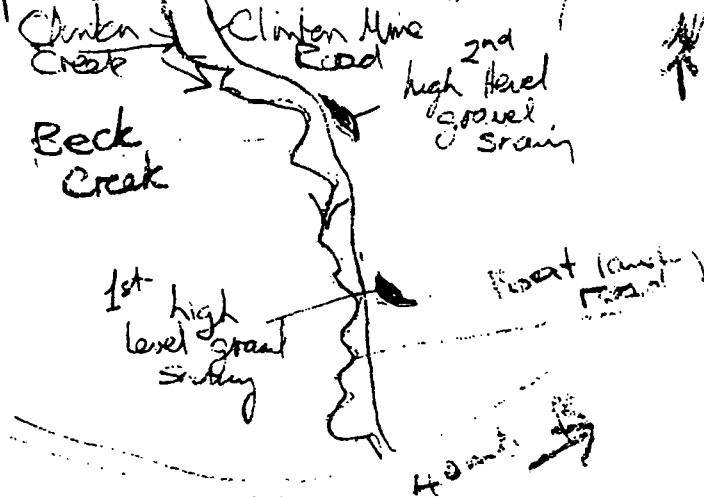
- (34)
- 11-28-05H sample from riprap pit quartz in soft mica sand overlaying
  - 11-28-06H quartz sample from riprap pit
  - 11-28-07H orange stain very hard & very heavy looks similar to one at Viceroy mine

Cone hill is across the river from the riprap pit & about 1/2 mile apart rock types look similar in both areas

(35)

Nov 29 high level deposits Clinton Cr. area

the two high level gravel showings which I sampled were 2-3' deep at the river based on previous experience I suspect they get deeper further in - possibly up to 20' deep or more. They may well be part of the same deposit





36

Nov 29 cont.

I took 3 samples of  
20 lbs each from  
deposit showing opposite  
Beck Cr  
11-29-01, 02 + 03

I took 3 more 20 lb  
samples from  
gravel showing near old  
beach landing ground

These deposits are 150-200'  
above creek level

37

Nov 30  
-27° C clear

2 snowmachines to Hoodoo Cr to  
stake claim

took more samples from

stuff in river bank

-11-30-01P } upstream of Hoodoo

-11-30-02P }

-11-30-03P } downstream of Hoodoo

-11-30-04P }

50 lb samples

samples from up stream end  
of bench

Dec 1, 2, 3

(38)

processing filter samples

Dec 4

prepared hardback  
samples for shipping

Dec 5

travel to Dawson by  
snow machines