YMIP 07-052

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# 2007 YMIP

# Stevens Creek

# Target Evaluation Project

# By

# Michal Bidrman

**Contents:**

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## Technical Report and Conclusions

### Location and Access:

Stevens Creek is tributary of Scroggie Creek and is located approx. 120 km south of Dawson City in the Yukon. It is on NTS map sheet 115J/15P in the Dawson Mining District. The coordinates for the mouth of Stevens Creek are 63°00' N Lat. And 138°36' W Long. For Marlin claim map see Map #2. The claims worked on in this project are Marlin 31 and 32, recorded on 24 October 1998 with earliest expiry on 31 December 2008. The claims can best be reached by fixed wing aircraft to an airstrip on Scroggie Creek 3 km north of the mouth of Stevens Creek. Alternatively the claims can be reached by helicopter from Dawson City, approx. 120 km. An ATV trail is also available from Pelly Farm but due to recent forest fire along 30 miles of the road it's use proved to be too difficult at this time. Bear Creek Mining (BCM) camp is within 4km of the mouth of Stevens Creek allowing the applicant to use an ATV as transportation method for this project. Applicant paid room and board at BCM camp for the duration of this project.

**General Geology:**

Most of Scroggie Creek placer gold production has come from creeks flowing across a wide contact zone of granite batholith, as mapped by H.S. Bostock, 1942 (GSC Map 711A Ogilvie), an environment that includes Stevens Creek. The exposed bedrock in the current swaths is muscovite schist. The first two feet of bedrock tested were completely decomposed leaving rock sizes no bigger than 2". The alluvial profile is simple, consisting of 2 – 4' organic layer overlaying coarsely bedded gravel measuring 4 – 6 feet thick on an unculating bedrock surface.

Organic material consists of black muck of various thickness (2 to 4 feet) with occasional silt layers directly above gravels. Four to six feet of gravels consist of uneven layers of sand and rounded rock with rock size increasing significantly in the last two feet above bedrock to a maximum four feet diameter boulder size.

**Work Done:**

Work on this project proceeded as scheduled in the application. Claims had an access road constructed some time ago, but two days were spent repairing the road to a usable condition. A D9 owned by the applicant was used to do all the work. The cost for the machine is $250/hr plus fuel and was charged at 75% of cost as allowed by YMIP. The fuel cost varied slightly during the season and was about 20% higher than budgeted for in the proposal. The rest of the expenses remained the same as proposed. All the fuels were purchased from BCM, which was flown in by fixed wing aircraft to storage facility at the

airstrip. The 2" pump was also rented from BCM. ATV is owned by the applicant and was therefore charged at 25% of rental rates.

Two swaths were dug, one on each of each consecutive claims, Marlin 31 and 32. On Marlin 31 the swath was 240 ft long and on Marlin 32 the swath was 270 ft long approximately. As in previous years the bedrock surface is was uneven, 10 samples were collected from basal 2' section of gravel in each swath, and 50 tests were collected from first 2' of bedrock plus 1' basal gravel. All work was done under BCM Water License #PM04360 effective April 16 2005. This license contains land use operation permit #AP04360. All refuse from the project was returned to BCM camp for proper disposal at their garbage site.

**Spring 2007**

*May 13 – May 17*

All work was done by the applicant.

The project started by clearing an existing access road of fallen debris. The road needed much more extensive upgrading due to poorer original quality and more extensive frost heaving. 2 days (16 hours) were spent preparing the access.

Using a dozer all the overburden and muck was stripped off. The mud was then ripped and stripped off the swath areas. The organic layer varied from 2' to 4' as predicted. Some of the mud was also very dry, easing the ripping process.

**Summer 2007**

*July 1 – July 6*

All the work was done by the applicant.

The gravel layers were removed at 1' intervals and panning was used to determine first occurrence of significant gold in the gravels. There were no significant amounts of gold or black sand showing until bottom two feet above bedrock. The gravels varied from large alluvial rocks to sections of sand. A 2" pump was used to help draining portions of the swaths flooded during melting. The two feet above basal gravels were tested at 25' intervals in each swath (see map #4) first by panning and than by running one to two $yd^3$ tests through a longtom sluicebox. The results of these tests are plotted on Gravel Test Data Sheet. Some parts of the swaths were still frozen two feet above bedrock so further testing had to be postponed until fall.

**Fall 2007**

*October 5 – October 25*

All work was done by the applicant

A 2" pump was used to help draining portions of the swaths flooded during melting. The remaining gravel was removed to expose bedrock. At this point sampling started at 25' intervals along the both sides of the swaths. Approximately one to two $yd^3$ samples were collected for each tests. The sample locations were mapped on map #5. The samples were

than screened to <¼ inch and than transported to a mechanical jig owned by the applicant and processed. Mechanical jig was used over longtom sluicebox that was used in the summer, to ensure higher accuracy of testing. Previous years the tests were screened to <1" before processing but this proved to by unnecessarily large size. In the entire previous test there was no gold bigger than 1/8" therefore handling the excess gravels proved to be unnecessary.

The samples were than panned to remove remaining impurities. Each panned concentrated had the gold fines removed by mercury amalgamation placed in a ceramic crucible and evaporate to dryness. Hg was removed by burning with nitric acid leaving a pure raw gold sample that was weighed on an electronic scale. Weight of gold were combined with sample sizes to complete average grade measured as ounces raw gold/yd and recorded on Sample Data Sheet. Fineness of gold was not assayed by a lab but presumed to be 900 fine, which is a well-established fines for Scroggie tributaries.

**Conclusion:**

Two types of samples were measured for gold grades. First lower gravel tests some of which, but not all, started at bedrock yielded lower grades than bedrock – gravel samples. The lower gravels have grades raging from 0.001 to 0.012 raw oz $Au/yd^3$ and averaging 0.005 raw oz $Au/yd^3$. Although uneconomic would probably be sluiced in a mining operations and contribute to gold production.

Second, bedrock-gravel samples yielded significantly higher average grades as expected. The results vary from 0.001 and 0.041 raw oz $Au/yd^3$. The average is 0.015 raw oz $Au/yd^3$. Plotting the results on a map showed an erratic distribution, with no trend of higher grade along the S side of the valley floor. This is a significant change in results compare to Marlin 1,2,3 and Marlin 16, 17, 18 tests. All the earlier tests indicated a trend of higher grade along the S side of the valley floor.

The gold was deposited predominantly within the first foot of bedrock. Gold grain size was much finer than found on Scroggie Creek measuring >97% less than 14 mesh and >90% less than 20 mesh. This is a significant decrease in size even compare to the tests downstream on Marlin 1-3 and Marlin 16-18. The gold was flatter as oppose to grainy which made the final cleaning process much more difficult. The creek bed runs along the S side of the valley floor, but closer to the centre of the valley in comparison to the previous sites. The swaths were dug across the valley floor on the north side of the valley floor. North side was chosen because of the location of the original access road and the larger testing area. A diversion of the creek to test along the whole width was not within the scope of this project and will be proposed for next stage of the target evaluation. From this years results it can be deduced that there are at least 3' of pay gravels and decomposed bedrock of a grade significant enough to be mined profitably at current gold prices. The test results warrant further exploration across the creek bed along the south side of the valley floor and further upstream. For this reason the applicant has staked a lease (Placer Lease ID00720) for another two miles of Stevens Creek and is in the process of obtaining necessary permits to test Stevens Creek further upstream (see Map

#2). Both swaths were reclaimed at the end of the project and overburden was distributed to promote natural regeneration of the area.

## Gravel Test Data Sheet
## Stevens Creek 2007

**Swath #1**

| Sample# | Size (yd3) | Results (raw oz Au/yd3) |
|---|---|---|
| 1 | 1 | ***0.001*** |
| 2 | 1 | ***0.001*** |
| 3 | 1 | 0.006 |
| 4 | 2 | 0.004 |
| 5 | 2 | 0.010 |
| 6 | 1 | ***0.012*** |
| 7 | 1 | 0.004 |
| 8 | 1 | 0.008 |
| 9 | 1 | 0.009 |
| 10 | 1 | 0.004 |
| **Average raw oz Au/yd3** | | ***0.006*** |

**Swath #2**

| Sample# | Size (yd3) | Results (raw oz Au/yd3) |
|---|---|---|
| 11 | 1 | ***0.001*** |
| 12 | 1 | 0.003 |
| 13 | 1 | 0.004 |
| 14 | 2 | 0.009 |
| 15 | 2 | 0.006 |
| 16 | 1 | 0.011 |
| 17 | 1 | ***0.001*** |
| 18 | 1 | ***0.001*** |
| 19 | 1 | 0.003 |
| 20 | 1 | 0.005 |
| **Average raw oz Au/yd3** | | ***0.004*** |

**Sample Data Sheet**
**Stevens Creek 2007**

| Sample# | Size (yd3) | Results (raw oz Au/yd3) |
|---|---|---|
| 1 | 1 | 0.002 |
| 2 | 1 | ***0.001*** |
| 3 | 1 | 0.028 |
| 4 | 2 | 0.004 |
| 5 | 2 | 0.011 |
| 6 | 1 | 0.032 |
| 7 | 1 | 0.018 |
| 8 | 1 | 0.015 |
| 9 | 1 | 0.032 |
| 10 | 1 | 0.027 |
| 11 | 1 | 0.028 |
| 12 | 1 | 0.005 |
| 13 | 2 | ***0.001*** |
| 14 | 2 | ***0.001*** |
| 15 | 2 | 0.026 |
| 16 | 2 | 0.003 |
| 17 | 2 | 0.018 |
| 18 | 2 | 0.007 |
| 19 | 1 | 0.007 |
| 20 | 1 | 0.039 |
| 21 | 1 | 0.009 |
| 22 | 2 | 0.022 |
| 23 | 1 | 0.013 |
| 24 | 2 | ***0.041*** |
| 25 | 2 | 0.002 |
| 26 | 2 | 0.031 |
| 27 | 2 | 0.018 |
| 28 | 2 | 0.007 |
| 29 | 1 | 0.009 |
| 30 | 1 | 0.023 |
| 31 | 1 | 0.026 |
| 32 | 2 | 0.015 |
| 33 | 2 | 0.019 |
| 34 | 2 | 0.004 |
| 35 | 2 | 0.006 |
| 36 | 1 | ***0.001*** |
| 37 | 2 | 0.039 |
| 38 | 2 | 0.006 |
| 39 | 2 | 0.005 |
| 40 | 2 | ***0.001*** |
| 41 | 2 | 0.002 |
| 42 | 2 | 0.033 |
| 43 | 2 | 0.009 |
| 44 | 2 | 0.010 |
| 45 | 2 | 0.037 |
| 46 | 2 | 0.030 |
| 47 | 2 | 0.012 |
| 48 | 2 | 0.002 |
| 49 | 2 | 0.017 |
| 50 | 2 | 0.002 |
| **Average raw oz Au/yd3** | | ***0.015*** |

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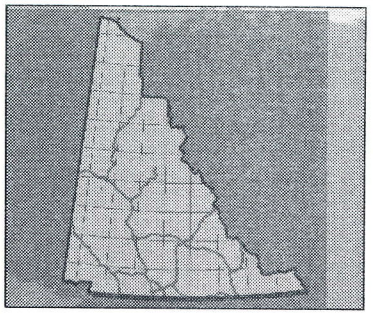
# Map #1 - Stevens Creek



## Legend

City Road Labels

Placer Claims 1M

- Active
- Expired


N

Scale: 1:10,000,000



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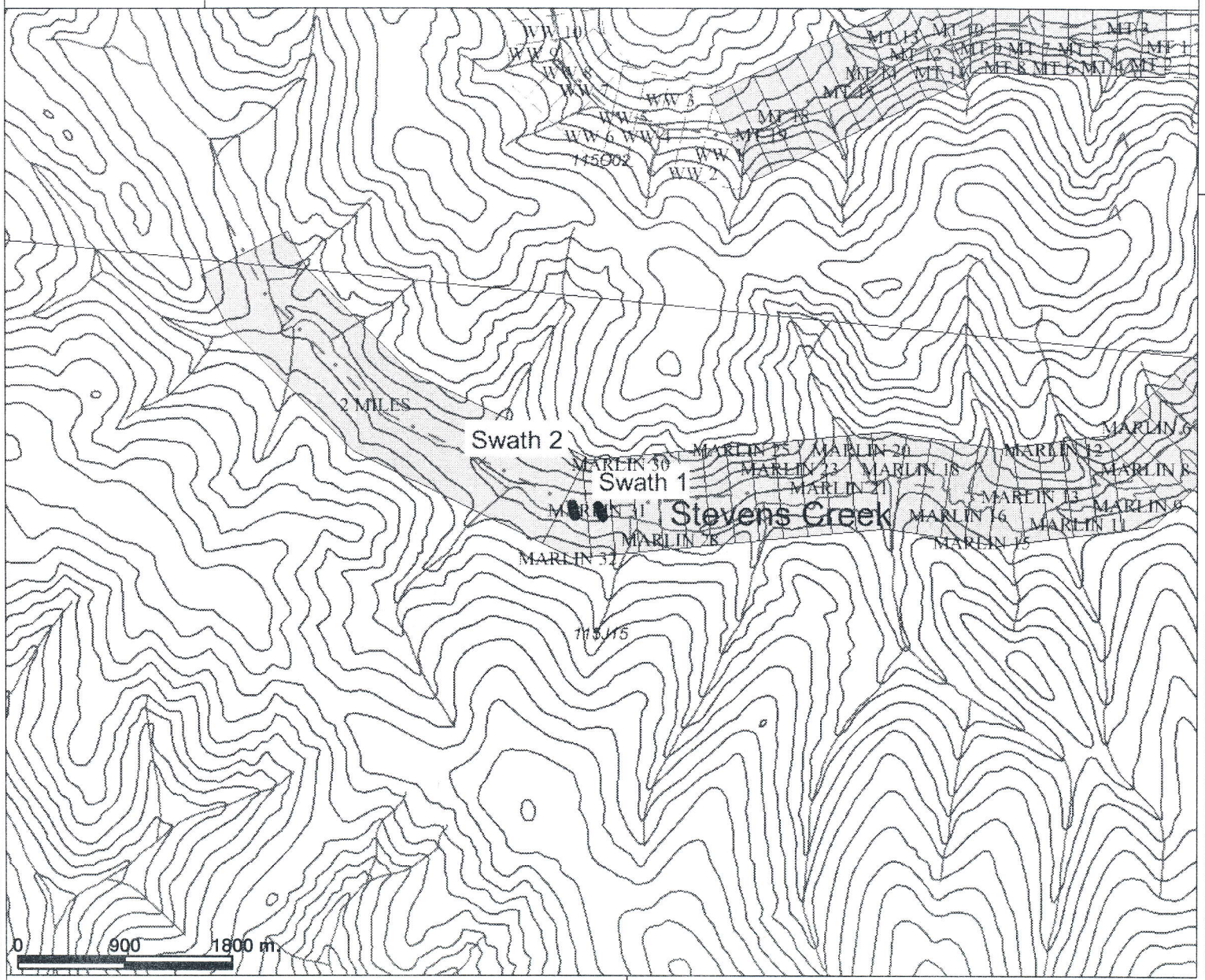
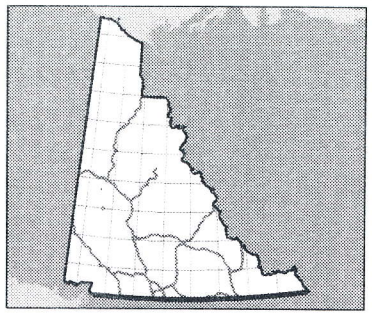
# Map #2 - Stevens Creek



## Legend

- Railway
- Trail
- City Road Labels
- Placer Baselines
- Staking Direction
- Placer Claims2
  - Active
  - Expired

Scale: 1:50,000



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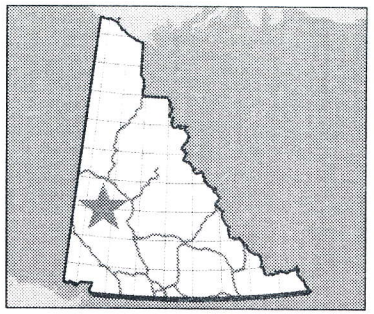
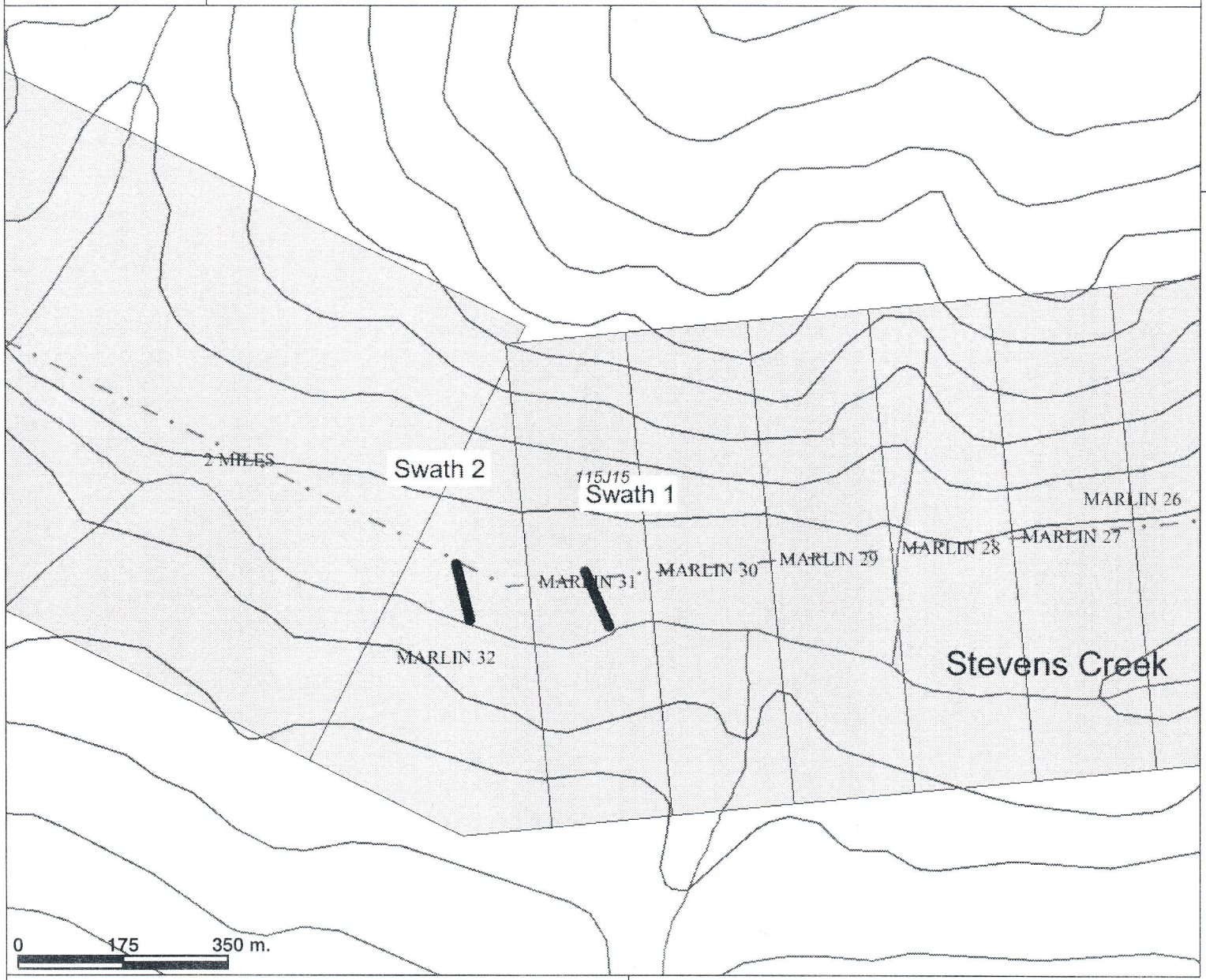
# Map #3 - Stevens Creek






## Legend

- Railway
- Trail
- City Road Labels
- Placer Baselines
- Staking Direction
- Placer Claims2
- Active
- Expired

N

Scale: 1:10,000



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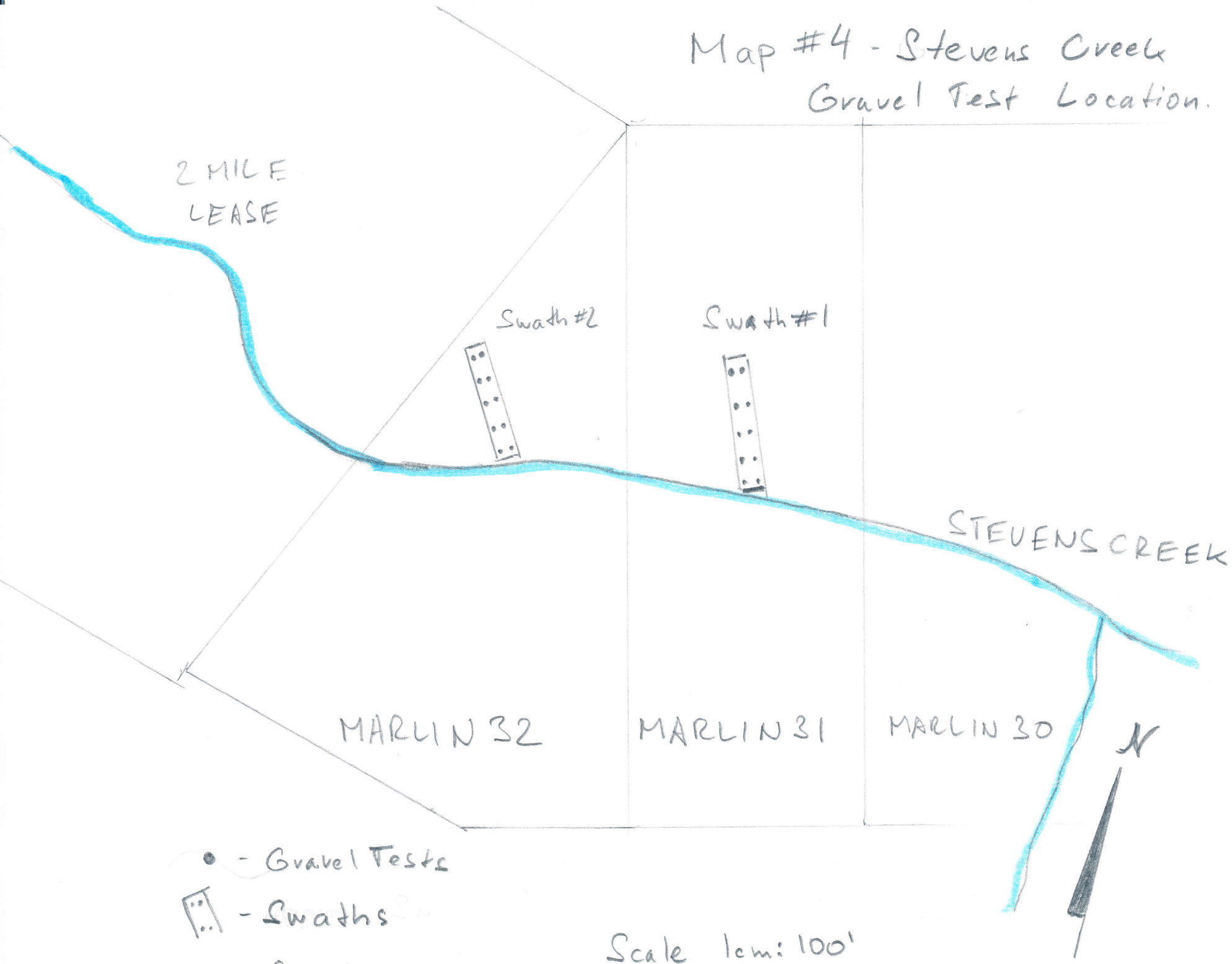
# Map #4 - Stevens Creek Gravel Test Location.



# Map #5 Stevens Creek

## Sample Location

- Sample Location
- Creek
- Swaths

Scale
2cm : 100'