

# A Geological Report

By: Larry Tremblay

**The Swede Johnson Property**

**094710**

**Owner-Agent: Lorne Smith**

**Location: Headwaters of Swede Johnson Creek**

**Whitehorse Mining District**

**NTS Map 115-G-12**

MARY 1-6 YC96191-YC96196

GAMBLE 1-2 YC27985-27986

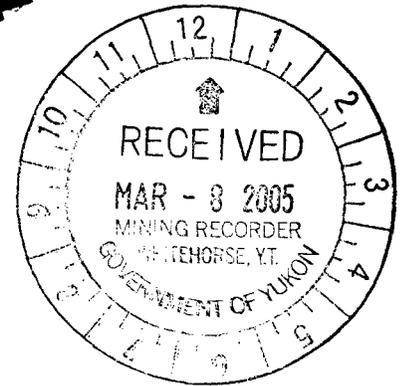
MARY 2,4 YA96192, YA96194

**Latitude: 61° 26' North**

**Longitude: 139° 27' West**

## Contents:

- **Introduction**
- **Objectives**
- **Introductory Regional Geology**
- **Work Program**
- **Observations And Assumptions**
- **Comments**
- **Attachment**
- **Assays, Collection Maps, Costs, Results-Comments**
- **Recommendations**
- **Program Costs**





Costs associated with this report have been  
approved in the amount of \$ 900.00  
for assessment credit under Certificate of Work  
No. QW 2722  
J. S. Saurwood  
Mining Recorder  
Whitehorse Mining District

## **Introduction:**

As requested by Lorne Smith, owner and agent of the block of Quartz Claims known as, The Swede Johnson Property. I agreed to carry out a limited exploration program on a segment of above claims, specifically the Mary Claims 1 to 6.

The section of the Swede Johnson Creek Valley above the area where the creek exits the Kluane Ranges and flows Northward to its junction with The Kluane River.

The report to be based on the research of regional and local geographical maps and literature as well as limited field work and sample collection with considerations given to exploration programs carried out on the Kelli and Ross Properties.

## **Objectives:**

The objective is to gain a better understanding of the geological and structural complexity of the area by identifying zones where structures are visible. Of special interest is the obvious major structural break in the Shakwak fault striking Northwesterly along the lower reaches of the Kluane Ranges (att -1) and what, if any influence this fault had on the Southern striking faulting that created the Swede Johnson Valley.

Sampling would generally be limited to the collection of random silt samples along the valley floor. Due to previous sampling, any rock samples would be an exception. Extensive surface sampling would be carried out by panning to establish the presence and extent of pathfinders.

## **Introductory Regional Geology: ( Summarized, Dr. J. S. Getsinger)**

Swede Johnson property lies within the Eastern branch of Wrangellia Terrane, bordered on the Northeast by the Denali (Shakwak) Fault and on the Southwest by the Duke River Fault. (Approximately 250-300 km of the right lateral displacement during late Mesozoic to Tertiary time, has been estimated on the Denali (Shakwak) Fault.) In this area eastern Wrangellia is comprised of Pennsylvanian to Permian Skolai Group volcanic arc and oceanic sedimentary rocks, intruded and overlain by Triassic mafic to ultramafic sills and tholeiitic flows and pillow lavas of the Nikolai Group and capped by platformal carbonates and interbedded clastics (Dodds and Campbell, 1992). The Wrangellia rocks are intruded by the early Cretaceous aged Kluane Range Intrusions.

Alteration is extensive and in some locals, massive, exhibits intense sericitization and carbonization, chloritization is extensive in the green schists. Abundance of epidote, hematite, graphite. Mineralization is moderate to abundant, pyrite, chalcopyrite is above normal and native copper nuggets common to tens of pounds. Arsenopyrite is minor, pyrrhotite above normal to abundant, sphalerite is above normal.

Economically, the Eastern branch of Wrangellia is known to host a variety of lode mineral occurrences including skarn, magnetic, volcanic red bed, volcanogenic massive sulfide,

Porphyry, vein and/or replacement deposits (Dodds and Campbell, 1992). Specific metals include copper, lead, zinc, silver, gold, nickel, molybdenum, tungsten, iron, PGE, cobalt, and titanium. Placer deposits include gold, platinum, silver and copper.

## **Work Program:**

Sept. 13, 2004

Traveled by all-terrain vehicle (ATV) from Kluane Wilderness Village to the Swede Johnson mining camp on that creek, a rough trail of approximately one and a half hours.

Spent the remaining three hours of the afternoon checking all bedrock that is exposed from about 120m. below camp near the Southern limit of the previous placer operations, just below YA96193, post 1. Photos were taken. End of day.

Sept. 14<sup>th</sup>.

Colin Asselstine of Destruction Bay arrived at 10 A.M. to assist me and to provide a safety measure rather than working alone.

As the margin of Easterly and Westerly claims striking Southerly /Northerly generally follows the valley bottom, the work was concentrated on four (4) claims specifically Mary 3 to 6. Extensive exploration of the exposed bedrock on each valley wall was carried out from just above the Swede Johnson camp to and across Mary 1 to 4. Trying to establish to what extent, if any correlation exists of the bedrock from wall to wall across the Creek Bottom.

Extensive panning of surface gravel and silts was carried out, identifying and recording pathfinders. Five random silt samples were collected on Mary 3 and 4. End of day...

Sept. 15<sup>th</sup>.

Continued our exploration of exposed bedrock on the Valley walls to the South on the remainder of Mary 3 and 4 and across Mary 5 and 6..Numerous photos were taken ..

Extensive panning produced an excellent number of quality pathfinders, quartz carbonate, nodules, graphitic schists, quartz nodules with maraposite, abundance of sulfites, especially along the Easterly margin of the Valley floor. Five random silt samples were collected.

End of day. Colin to Destruction Bay. I to Kelli Creek.

## **Observations and Assumptions:**

Extensive exploration of exposed bedrock faces on each valley wall was carried out from the camp site to about one and one-half miles up creek to the Southwest.

As exploration progressed up the valley it was noted that there appeared to be no relationship between the valley walls that flank the creek. While a number of prominent andesite dikes and other bedrock formations are clearly displayed on the Westerly bank these structures do not continue across the valley floor to the other wall, unless they do at some depth not indicated on the surface. Rather all visible evidence including extensive drag faulting to the South of the Westerly bank suggests right angle horizontal off-setting to the South of the Easterly bank that appears to exceed many hundreds of meters.

After climbing to a higher observation point it is very obvious that there is considerable difference in the topography of the ridges that flank the valley from one side to the other. Using the valley as the dividing line, the transition zone where the gentle rising flanking ridges bordering the creek meet the steep rising mountains is many hundreds of meters to the south on the Easterly ridges then on the Western ridge. Thus supporting the hypothesis of major off-setting faulting of the Easterly segment of the valley.

Swede Johnson valley is the only valley along the face of this section of the Kluane Ranges where bedrock structures cannot be easily identified and matched with like structures on each margin of the valley walls as with all other valleys where exploration has taken place. I failed to find like structures continuing across the creek and corresponding with other such structures anywhere in the lower Swede Johnson Valley.

All creeks along this section of the Kluane Ranges West of Swede Johnson Creek exit their individual valleys from the south, then bend and flow Westward, draining into the Donjek River. All three forks of Swede Johnson Creek originating to the south of this main creek also exit the mountains to the north then bend sharply Westerly until they join with Swede Johnson. Swede Johnson is the only creek along this face that exits its valley from the South and never deviates from its strike path to the Northeast, crossing the major structural break in the Denali (Shakwak) fault and continues onward to join with the Kluane River.

The major structural break (att. 1) in the Denali fault strongly supports the existence of a Northeasterly - Southwesterly cross faulting of the Northwesterly trending Denali Fault at the junction of the major break in this fault.

Panning produced some very interesting results that correspond favorably with test panning programs carried out on a number of other small streams that drain this North facing section of the Kluane Ranges.

The panning locations were randomly chosen as we worked our way up stream, generally where available material could be obtained, some from between rocks, creek and drainage silts, etc. The objective was to test a good average of all materials across the valley floor..

Whereas we obtained our most constant and abundant results from the most Easterly side of the valley, we were well satisfied with the recovery across the total valley floor. All indicated that pathfinders identified from in place formations on other creeks appeared in this sample program. The indication of higher values on the Easterly margin rather than the Westerly is constant with what we have established on the Kelli and Ross properties.

Visible gold was scarce but we did recover some very fine at most locations, a few very small native copper nuggets were also present. As with other creeks in the area this fine gold, quite bright indicates a close source that appears to be the reason for the extreme high value assays recovered from these creeks. This fine gold has been recovered from the highly altered schists at a depth where by contamination cannot be considered as a factor.

The ten assays were collected at random, the only criterion being silts, preferably from small active or dry drainage away from the creek bed ..

Location of collection sites were not measured from an established point such as a claim post due to the difficulty of maintaining a viable belt chain line when continually crossing the valley floor, panning and exploring exposed bedrock.

#### COMMENTS:

Of considerable interest will be if the assays support the panning program such as other creeks in this area. Generally our best results favored the Eastern margin of the valley floor, results from the Western margin, while satisfactory (a few indicated high values) did not overall compare with the Easterly margin.

Within the week following my visit to the creek, Glen Smith collected ten samples of silts directly up valley from the end of my sampling, as agreed he followed our program of random sampling across the valley floor without measured location. Extensive flagging of each site was carried out. for future identification.

Numerous photos with a small instant camera were taken by Glen and I, all with negative results, judged by the developer as a defective camera. I suggest photos of some of the formations take place in the spring of '05 as, there are some outstanding examples of drag faulting on the Westerly margin.

  
L. Tremblay

Date  15 /05

FIG. 1 APP. 1



197-32

511

All Creeks excepting Swede Johnson trends true north after exiting 32° east trending Valleys, then all trend to the NW. Swede Johnson is controlled by a Major break in the Denali Fault and never is allowed to deviate from the 32° east trend

APP. # 1

## **Assays - Comments**

Recorded as PPM, all assays taken by Glen and I are credible to spectacular and are consistent with such assays recovered on the Ross and Kelli properties.

Assays 1 to 10 follow the pattern of other creeks in this district. 1 to 5 was collected from the Western margin, 6 to 10 on the Eastern margin. Note that assays 7, 8, 9 are far superior to the Western margin assays.

Assay 24 collected by Glen comes from the Western margin and appears to be a single hit not supported by the assays collected on the same side of the valley floor. Possibly this indicates a bedrock source near this high value assay.

Four assays were lost due to broken collection envelopes in transit.

These assays are very encouraging and increase in value over previous assays collected from the lower valley.

Assays 7, 8, 9 basically provide support for our theory that a major structure follows the Easterly side of the valley floor as is strongly suggested on other properties in this district.



**REMIT TO:**  
 ALS Chemex  
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 Tel: (604) 984-0221 Fax: (604) 984-1809  
 Queries: accounting.canada@alschemex.com

**STATEMENT**



604 9840221

**Smith, Lorne**  
**Lorne Smith**  
**155 Tait Road**  
**Nanaimo, BC V9X 1C3**  
**Canada**

Statement Date: 31-Jan-2005  
 Account Number: SMILOR  
 Page: 1

Document	Date	Trax Type	Your PO NO.	Work Order	Project No.	Amount	Balance
1159187	12/07/04	Invoice		VA04084703		261.01	261.01
1161756	12/09/04	Invoice		VA04084703		244.76	505.77
1161755	12/09/04	Credit Memo		VA04084703		-261.01	244.76
23686987	12/14/04	Payment		Deposit No. SSDEP00		-192.71	52.05

Statement Balance (CAD) 52.05

Statement Aging:	Current	31-60 Days	61-90 Days	Over 90 Days
Days old:				
Aged amounts:	0.00	52.05	0.00	0.00



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NANAIMO BC

Page: 2 - A  
Total # Pages: 2 (A)  
Finalized Date: 7-DEC-2004  
Account: SMILOR

**CERTIFICATE OF ANALYSIS VA04084703**

Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	Au-AA23 Au ppm 0.005
SJ-04-01		0.24	0.142
SJ-04-02		0.30	NSS
SJ-04-03		0.22	NSS
SJ-04-04		0.24	0.016
SJ-04-05		0.20	0.066
SJ-04-06		0.10	0.017
SJ-04-07		0.20	0.131
SJ-04-08		0.18	0.174
SJ-04-09		0.14	0.195
SJ-04-10		0.16	0.042
SJ-04-21		0.30	0.027
SJ-04-22		0.20	0.076
SJ-04-23		0.42	0.023
SJ-04-24		0.34	1.125
SJ-04-25		0.34	0.028
SJ-04-26		0.28	0.035
SJ-04-27		0.34	NSS
SJ-04-28		0.30	NSS
SJ-04-29		0.26	0.028
SJ-04-30		0.34	NSS

Comments: NSS is non-sufficient sample.

## **Recommendations:**

A well structured program of silt and soil sampling to continue up the valley bottom and lower walls, to establish some form of pattern of the assays. Lower value assays above and below these high value assays strongly suggest a local source that are not constant with water transported minerals. Between the good and excellent is so sharp this does not happen unless the source is at or above that location.

I would also suggest that any further geo-chem programs be carried out into the upper valley to substantiate the existence of the off-setting faulting which would be of considerable help to future exploration programs.

It is believed that a large segment of the nickel deposit at the head of Nickel and Arch Creeks was laterally faulted off and has never been found. The Swede Johnson Valley fault lines up well to the Nickel fault and may well provide some answers for future exploration of both properties.

Hopefully this minor report brings up some questions especially concerning the major fault in the Shawkak and its relationship to the Swede Johnson Valley. Such a combination of massive faulting would allow for massive thermal activity along these major breaks, thus the real possibility of considerable mineral infusion of the surrounding area.

End of report.

**Expenses: Swede Johnson Project**

**Sept. 13 - 14 /2004**

**Wages:**

L.Tremblay	2 days at \$200.00 day	\$400.00
Colon	2 days at 100.00 day	\$200.00

**Expenses:**

<b>All terrain vehicle</b> : 2 days at \$50.00 day	(Tremblay)	100.00
<b>All terrain vehicle:</b> 2 days at \$50.00 day	(Colin)	100.00
<b>Food:</b> 2 men - 2 days		50.00
<b>Gas and Misc. Expenses</b>		<u>50.00</u>
<b>Total Expenses</b> By L.Tremblay		<b><u>\$900.00</u></b>

**Assays Paid By:** Lorne Smith

<b>Ship assays:</b>	\$24.00
Processing 20 Assays	<u>244.76</u>
<b>Total:</b>	<b><u>268.76</u></b>

**Total Expenditures of Project:** **\$1,168.76**