## SUMMARY / TECHNICAL REPORT AND DAILY LOG



PROJECT AREA: NTS MAP SHEET 115014A GPS NORTH BOUNDRY: $139^{\circ} 09^{\prime} 17^{\prime \prime} \mathrm{W} \quad 63^{\circ} 49^{\prime} 18^{\prime \prime} \mathrm{N}$ GPS SOUTH BOUNDRY: $139^{\circ} 09^{\prime} 55^{\prime \prime} \mathrm{W} \quad 63^{\circ} 48^{\prime} \mathbf{2 8} \mathrm{N}$

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May 16, 2010 through July 13, 2010


#### Abstract

PROJECT LOCATION AND ACCESS ROUTE The project area, located in the Indian River Drainage, is $\mathbf{2 2} \mathbf{~ k m}$ south of Dawson City, Yukon and approximately, 1.5 km north of Calder Creek. This small tributary, drains south into Calder, then Quartz Creek and eventually into the Indian River. Previously underexplored, this interesting area is shown on Map Sheet 115014A, as well as on a topographic map produced by Yukon Department of Energy, Mines and Resources and labeled Grand Forks 1150/14.


The northern boundary GPS coordinates are: $139^{\circ} 9^{\prime} 17^{\prime \prime} \mathrm{W}$ $63^{\circ} 49^{\prime} 18^{\prime \prime} \mathrm{N}$

The southern boundary GPS coordinates are: $139^{\circ} 9^{\prime} 55^{\prime \prime}$ W $63^{\circ} 48^{\prime} 28^{\prime \prime} \mathrm{N}$

Three access routes were developed during the project. Originally, access was limited to the following route which prevented anyone from reaching the area with a vehicle or ATV. Access was gained by traveling Bonanza Creek Road to Upper Bonanza and Quartz Creek Roads for approximately 32 km to GPS position $139^{\circ} 6^{\prime} 53^{\prime \prime} \mathrm{W}, 63^{\circ} 46^{\prime} 48^{\prime \prime} \mathrm{N}$. By continuing along Calder Creek on an ATV trail for another 2.2 Kilometers, one could arrive at GPS position $139^{\circ} 10^{\circ} 10^{\prime \prime} \mathrm{W}, 63^{\circ} 48^{\prime} 17^{\prime \prime} \mathrm{N}$. The work site could only be reached by hiking north from that point, through thick underbrush in a narrow, marshy gulch for an additional 1.5 kilometers. See Appendix A, Map \# 1

Soon after arriving and prior to beginning work at the site, it was determined that additional access routes should be created. This could be achieved by improving some existing, rarely traveled roads. Washes were filled in, downed trees were cut up and heavy brush was removed from a steep, almost undetectable trail. The final 3.2 km of access had apparently been abandoned many years ago. After undertaking the road repairs and clearing, it was now possible to access the project site from both Upper Bonanza Creek Road and Eldorado Road. This provided a much needed escape route in the event of fire. However, constant heavy rains threatened access and were a more serious concern during the $\mathbf{2 0 1 0}$ season.

Access from Bonanza Creek Road and Upper Bonanza Creek Road can now be gained by proceeding south from the Intersection of Klondike Highway and Bonanza Creek Road for $\mathbf{2 0 . 9 2} \mathbf{~ k m}$. At this point, an unnamed gravel road on the right crosses Upper Bonanza Creek and proceeds uphill for $7.08 \mathbf{k m}$ before intersecting with another unnamed gravel road. Turn right again and proceed uphill (south) for 4.3 kilometers. Make no left turns during these 4.3 $\mathbf{k m}$. Turn left and proceed .9 km . to a dirt road on the right (switchback - too short, can't make turn with $4 \times 4$ ). Proceed ahead .16 km . to turn around (U turn area and possible helicopter landing site). See 10 five gallon buckets of rock on your left. Make U turn and drive back $\mathbf{. 1 6} \mathbf{~ k m}$ to left turn. Turn left (southwest) and continue $\mathbf{2 . 2}$ kilometers to YMIP Project \# 10-019 Trench A. There a machine dug trench, 6 meters long by 61 centimeters wide, can be found approximately 2 meters below the road surface. This trench has been backfilied and left well marked. Continue .16 km to Camp where you will find one old truck,
abandoned by a prior claim holder and one $5 \times 8$ foot wooden building. You have just passed 2 claim posts on the right side, approximately 3 meters from the road. These are Payloader 7 (P 49451) Claim Post 1 and Dream 1 (P 49450) Claim Post 2. See Appendix A, Map \# 2

An alternate route to the site would include travel of approximately 35.5 km . from the intersection of Klondike Highway and Bonanza Creek Road southeast of Dawson City. From this intersection, drive south on Bonanza Creek Road for 14 km . to the intersection of Upper Bonanza Creek Road and El Dorado Road. Continue straight ahead on El Dorado Road for 8.6 km (crossing El Dorado Creek). Turn left on a dirt road found at that point and proceed uphill 4.8 kilometers. Next, turn right and proceed uphill (south) for 4.3 kilometers. Make no left turns during these 4.3 kilometers. Turn left and proceed .9 km . to a dirt road on the right (switchback - too short, can't make turn with 4x4). Proceed ahead . 16 km . to turn around (U turn area and possible helicopter landing site). See 10 five gallon buckets of rock on your left. Make U turn and drive back $\mathbf{. 1 6 ~ k m}$ to left turn. Turn left (southwest) and continue $\mathbf{2 . 2}$ kilometers to YMIP Project \# 10-019 Trench A. There a machine dug trench, 6 meters long by 61 centimeters wide, can be found approximately 2 meters below the road surface. This trench has been backfilled and left well marked. Continue $\mathbf{. 1 6} \mathbf{~ k m}$ to Camp where you will find one old truck, abandoned by a prior claim holder and one $5 \times 8$ foot wooden building. You have just passed 2 claim posts on the right side, approximately 3 meters from the road. These are Payloader 7 (P 49451) Claim Post 1 and Dream 1 (P 49450) Claim Post 2. See Appendix A, Map \# 3

Both hand dug shafts (Grassroots 1: RTB \& AK, YMIP 10-003) are approximately 1.6 km south of Camp and accessible by foot only. A plywood sign on the north end of Camp directs visitors toward the stripped area on Dream 1, Claim \# P 49450 (directly below Camp). To locate hand dug Shaft \# 1, continue south through the brush, follow flags toward the creek and follow the small stream south. The GPS position of Shaft \#1 is: $139^{\circ} 09^{\prime} 16^{\prime \prime} \mathrm{W}, 63^{\circ} 49^{\prime}$ $10^{\prime \prime} \mathrm{N}$. At that location, a $1 \mathrm{~m} \times 1 \mathrm{~m}$, well flagged, back-filled shaft is visible. To locate hand dug Shaft \# 2, continue south (downstream) on the left (northeast) side of the creek. Follow the flags to GPS position: $139^{\circ} 09^{\prime} 20^{\prime \prime} \mathrm{W}, 63^{\circ} 49^{\prime} 05^{\prime \prime} \mathrm{N}$. Here, you will find the second 1 mx 1 m , well marked, back-filled hand dug shaft. See Appendix C

## LOCATION HISTORY

Due to limited access and steep terrain, this small seasonal stream remained underexplored. The remains of old cabins in the area suggest prospecting may have taken place many years ago, however, no documented results could be found. Robert Truswell, a deceased prospector and miner, held ownership to 25 placer claims on this small tributary from 1988 through 2003. Although Mr. Truswell's prospecting and mining results are not well known, acquaintances believe his efforts were successful. Following Mr. Truswell's death, Alex Seely held ownership to the $\mathbf{2 5}$ claims and offered them for sale. No exploration was undertaken during this time.

Although no placer deposits from this small tributary have been recorded, Quartz Creek (farther downstream) has production history dating back to 1940. According to the Yukon Placer Database Stream Report, Quartz was one of the first to have gold found in its gravels. Some higher production years were: 1990 ( $6,366 \mathrm{oz}$.), 1995 ( $5,546 \mathrm{oz}$.) and 1948 ( $4,723 \mathrm{oz}$.) In 2005 to 2006, the database reports 1,533.34 oz. of gold recovered.

While this small tributary of Calder Creek appears to have been underexplored, both nearby downstream locations (Calder and Quartz Creeks) have been mapped and well described. According to the Yukon Placer Database Stream Report, Calder Creek bedrock is mapped as Carboniferous and Permian tan to rusty and black weathering muscovitic and or cloritic quartzite and quartz-muscovite-chlorite schist; quartz and / or feldspar augen-bearing quartzmuscovite ( $+/$-chlorite) schist; includes augen gneiss and amphibolites (Klondike Schist) Middle Permian Sulphur Creek Suite moderately to strongly foliated biotite quartz monzonite gneiss, the Sulphur Creek Orthogneiss; coarse grained, homogenous, hornblende-biotitebearing granite, granodiorite and quartz-monzonite with narrow foliated and mylonitic zones of the Ram Stock (Sulphur Creek Orthogneiss, Ram Stock.

## References

Debicki R.L. Yukon Mineral Industry 1941-1959. Ottawa: DIAND, 1983.p. 39 Geological Survey of Canada. Annual Report Vol.XIV, Reports
A, B, F, H, J, M, O, S,1901 Ottawa: GSC,1905.:p.54B

## PROJECT PARTICIPANTS

The Applicant, Robert Betts, is a Prospector with over $\mathbf{1 0}$ years of placer and quartz mining experience. Robert has been extensively involved in the exploration of desert regions in the southwestern United States. In addition to being an experienced equipment operator, welder and mechanic, he has extensive experience with collecting, processing and evaluating materials. Robert can accurately access the grade of placer deposits and recognize the many distinct characteristics of Yukon gold.

Abrol Kakharov is an accomplished Geologist with extensive mining experience. Abrol has authored 3 books and over 60 articles on mining and mining economics. His resume is impressive and has been included with this summary for your inspection. See Appendix B: Professor Abrol Kakharov, Ph.D.

## ACTIVITIES COMPLETED

This project, designed to thoroughly explore the mineral potential of a previously underexplored tributary, began on May 18, 2010 and was completed on July 13, 2010. The project included: creating access routes to the proposed evaluation sites, completing two hand dug shafts, collecting, labeling, processing and analyzing material from various depths within the shafts and from surrounding areas within the gulch. Constant heavy rains and a disproportionate amount of groundwater complicated this project and at times significantly impaired progress. Roads deteriorated and required constant maintenance due to the heavier
than average rainfall in May, June and July. Continued access to camp and the shaft locations often was threatened by weather conditions. However, the project, once undertaken, continued and was completed on schedule.

The area chosen for this grassroots placer prospecting project could best be described as a gently sloping, tree covered gulch that is extremely narrow at its northernmost boundary. The $V$ shaped valley broadens and flattens as it continues south. A dendritic drainage pattern best represents the general water flow from this small tributary as it meanders toward Calder Creek, which then joins Quartz Creek and eventually enters the Indian River. Ingress and egress for the project location remains poorly designed, steep and difficult to navigate.

The sites selected for two hand dug shafts were approximately $\mathbf{1 5}$ to $\mathbf{3 0}$ meters northeast of the small creek that flows through the gulch. Surface vegetation at the shaft sites consisted of small spruce (many dead or dying) and a thick green/yellow moss mat, atop dark, rich soil. Permafrost was present approximately 25 centimeters below the surface. Both hand dug shafts descended 2 meters through black muck with small angular gravels intermixed. At a depth of $\mathbf{2 . 5}$ meters (+ or -) a tan, sandy clay layer was found. This till varies in depth from $\mathbf{3 0}$ to 45 cm and is apparent throughout the gulch.

Drainage continued to present a problem throughout the project and both hand dug shafts required bailing and/or pumping out at this level. Shaft \# 2 required tin and several $2 \times 4$ inch wooden supports to reduce sloughing and prevent collapse. As progress continued, thawing was retarded by covering the shaft openings and removing frozen material. Bed rock, was visible in Shaft \# 1 at 3.8 meters. At this depth, samples were collected, screened and panned. Three small flakes of gold were retrieved. Shaft \# 2 did not reach bedrock, but became hopelessly flooded at approximately 4.5 meters and was subsequently backfilled. This aquifer may have indicated an impermeable surface of slate or shale had been reached? However, the volume of water flowing through the shaft made it impossible to collect accurate samples from this depth.

Most material collected from locations throughout the project area and from various shaft depths consisted of clastic rock. Breccias, made up of poorly sorted, angular particles were common; as were gray and blue shale. Other identifiable samples contained multicolored Migmatite, displaying bands of medium grained gneiss/quartz and schist. Small, well rounded pebbles were abundant along the creek surface and in Shaft \# 1 at approximately 4 meters. Due to almost daily rainfall, the small, clear stream continued to flow throughout May, June and July. However, in future years, without the excessive moisture experienced in 2010, it could become completely arid following snow melt and spring run off.

In summary: Multiple access routes were established, easy to follow directions with GPS positions of the camp site and hand dug shafts were recorded. Topographical maps describing the project site were prepared. Two shafts, hand dug to depths of 3.8 and 4.5 meters, were completed. Materials were collected, processed, analyzed, and labeled with the results. Shafts were then back-filled, well flagged and left clearly visible from land or air.

Signs were posted at camp to direct visitors to the project site. A generous number of photographs were taken throughout the project and a daily log of activities was compiled and attached to this Summary. All tabulated results and a photograph of three gold flakes which were recovered from hand dug Shaft \#1, are displayed in Appendix E. See Appendices A, C, D, E\&F

## RESULTS AND RECOMMENDATIONS

Three access routes were developed and described in detail and now provide vehicle access to the unnamed gulch and to within 1.6 km . of the shaft sites. Eleven samples of material, collected from depths of between 1 and 5 meters, were screened, labeled and transported to camp for closer examination. The concentrates were evaluated and the results are displayed in Appendix E. Gold was absent in ten of the samples. One sample, collected on July 8, 2010, from shaft \# 1, at a depth of 3.8 meters, contained 3 bright gold flakes. This was estimated to represent . 02 OZ/YD3. See Photo, Appendix E

On June 6, 2010, Sharon Betts staked a two mile area which included the sample sites for this project. The prospecting lease application is currently pending approval of the Dawson Mine Recorder. Grassroots 1 RTB-AK, concluded on July 13, 2010 with satisfactory results. The gravel found in Shaft \#1, based on a visual estimate by the trained eye of Abrol Kakharov, represented a grade of $\mathbf{\$ 2 4}$ per cubic yard. Placer gold was also found to be present approximately $\mathbf{2}$ kilometers north (upstream) from Shaft \#1. Please see YMIP 10-019, P49451 Payloader 7 Summary \& Technical Report for details. Although these results do not indicate "bonanza grades", this gulch has the potential to produce a bulk deposit averaging at least $\$ 10$ per cubic yard.

Five local drill contractors were contacted in an attempt to expand this exploration project during the $\mathbf{2 0 1 0}$ season. Due to prior commitments and the necessity to "walk in" equipment an unreasonable distance, only one driller, Dave Laurenson, located in Chief Gulch, would consider the task. This plan ultimately would have to be abandoned when it was determined that the width of the drill itself and poor conditions of the road prevented its access. Every source was investigated and every effort was exhausted to secure a drill. Several attempts to rent and repair inoperable equipment were unsuccessful, as were attempts to employ local miners that do not drill professionally. Thus, the width and length of the pay streak in this gulch will remain undetermined until 2011.

Access to this site, requires that a tracked drill be walked (driven in) a minimum of $\mathbf{1 6} \mathbf{~ k m}$ (approximately 8 hours) each way. Excessive wear on the undercarriage of a machine, caused by this type of use, often means costly repairs for a drill operator. The project applicant, Robert Betts, owns a light, truck mounted auger drill, similar to one described by Diane Brent in a 1995 publication entitled "Light Auger Drilling for Prospecting in the Klondike District". This report is available from: Exploration and Geological Services Division, Indian and Northern Affairs Canada.

This small drill can be easily transported to a site and can be operated without the restraints of larger drills. Although, moving the Applicant's equipment from Nevada to the project site would be costly as well, it remains the best course of action. A small truck mounted auger drill appears to be the most practical way to expand exploration and accurately evaluate the potential of this difficult to reach valley. Given the amount of groundwater encountered in 2010, auger drilling, rather than trenching, could be expected to proceed with fewer difficulties and yield the most accurate results. Auger drilling, in appropriate locations on both the right and left limit of this tributary, is recommended for 2011.

## EXPLANATION OF EXPENDITURES

DAILY FIELD EXPENSES: Robert Betts actively participated in YMIP Project 10-003 for 33 days. During this time, he supplied a chainsaw, generator, hand tools, building materials and all prospecting equipment necessary to complete the prospecting project. While engaged in this project, Robert repaired abandoned roads creating three access routes to the project area. Robert dug two shafts, collected and processed sample materials, backfilled and marked the sample locations. Robert remained at or near the prospecting site from May 18, 2010 until completion of the project on July 13, 2010.

Abrol Kakharov participated in YMIP Project 10-003 on June 12, 2010 and June 25, 2010. A Geologist, with extensive mining experience both in Yukon and Abroad, Abrol was a priceless participant in this project. He explained the difficulties encountered when working with frozen ground and suggested appropriate mining techniques. While cautioning that this method could not be consistently relied on, Abrol estimated bedrock depth by examining overburden exposed by road cuts on the sides of the gulch. After examining previously uncovered quartz veins, he described the schist bedrock that would most likely be found in the hand dug shafts. Abrol thoroughly examined labeled bags of material collected from the shafts and surrounding areas in the gulch. While on site, Abrol provided valuable guidance and offered recommendations for future exploration.

PERSONNEL: Robert Betts, the Applicant / Prospector on this Grassroots Project has not been listed as "Personnel" on the YMIP EXPENSE CLAIM.

Abrol Kakharov, an experienced, Senior Geologist will be reimbursed for travel and living expenses during the project period. In addition he will receive $\mathbf{\$ 1 , 0 0 0}$ for his on-site guidance and participation in the grassroots prospecting project.

EQUIPMNET RENTAL: All equipment used for this project and noted on the YMIP EXPENSE CLAIM was privately owned. All equipment was transported from Carson City, Nevada to the project site by Robert Betts. The F250 4x4 truck and enclosed trailer (shown in Appendix D PROJECT PHOTOGRAPHS) transported the ATV and all equipment necessary to construct a camp and carry out the exploration and sampling project. It also provided daily transportation for participants from camp to Dawson City for fuel and supplies. The ATV was used to gain access to the proposed camp site, move tools and materials and transport samples to camp for additional processing and analysis. It was also needed on location to
provide emergency transportation in the event the F250 became inoperable or the access routes became impassable by $4 \times 4$. This equipment was present and in use at the project location for 33 days between May 18, 2010 and July 13, 2010. The daily rates as suggested on the YMIP 2010 Expense Claim Guidelines were used to prepare the YMIP EXPENSE CLAIM enclosed with this SUMMARY / TECHNICAL REPORT AND DAILY LOG.

OTHER: Travel within Yukon consisted of one round trip by F250 $4 \times 4$ truck with trailer from Whitehorse to Dawson City when beginning and on completion of the Project. One round trip of $\mathbf{1 , 0 7 0} \mathbf{k m}$ billed at $\mathbf{5 9 5}$ cents per $\mathbf{k m}$ equals $\$ 636$. has been included on the YMIP EXPENSE CLAIM FORM

Report preparation includes: All documents necessary to request YMIP funding and document completion of the project. This includes but is not limited to the YMIP Application, Proposal, Project Status Report, YMIP Expense, Financial Summary Report, Final Submission Form and the Summary / Technical Report with Daily Log of Activities. The $\$ \mathbf{4 0 0}$ charge is within the maximum allowable $10 \%$ of eligible expenses.

GRAND TOTAL: YMIP Project \#10-003 expenditures do not appear as duplicate expenditures on other YMIP funded projects (YMIP 10-019 Payloader 7). Expenditures for YMIP 10-003 totaled \$9,034. The YMIP Contribution Agreement states that "an amount equal to $100 \%$ of eligible exploration expenses but not to exceed $\$ 8,700$ shall be provided". The total contribution requested for this Project is therefore $\$ \mathbf{8 , 7 0 0}$. Please see: YMIP EXPENSE CLAIM submitted with this SUMMARY / TECHNICAL REPORT AND DAILY LOG.

## APPENDIX A ACCESS ROUTES



Map \#1
Original access route to Project Site via Quartz Creek Road
White-ATV Trail
Red-Foot Path
Camp $139^{\circ} 09^{\prime} 34^{\prime \prime} \mathrm{W}$
$63^{\circ} 49^{\prime} 27^{\prime \prime} \mathrm{N}$
Shaft \#1 $139^{\circ} 9^{\prime} 16^{\prime \prime}$ W
$63^{\circ} 49^{\prime} 10^{\prime \prime} \mathrm{N}$
Shaft \#2 $139^{\circ} 9^{\prime} 20^{\prime \prime} \mathrm{W}$ $63^{\circ} 49^{\prime} 05^{\prime \prime} \mathrm{N}$


Map \# 2
Access to the project site via Upper Bonanza to Victoria Gulch

> Helipad $139^{\circ} 10^{\prime} 00^{\prime \prime} \mathrm{W}$
> $63^{\circ} 50^{\prime} 22^{\prime \prime} \mathrm{N}$


## Map \# 3

## Grassroots 1 RTB-AK access route via El Dorado Road

Camp $139^{\circ} 09^{\prime} 34^{\prime \prime} \mathrm{W}$ $63^{\circ} 49^{\prime} 27^{\prime \prime} \mathrm{N}$

Shaft $1139^{\circ} 09^{\prime} 16^{\prime \prime}$ W $63^{\circ} 49^{\prime} 10^{\prime \prime} \mathrm{N}$

Helipad $139^{\circ} 10^{\prime} 00^{\prime \prime} \mathrm{W}$
$63^{\circ} 50^{\prime} \mathbf{2 2 ^ { \prime \prime }} \mathrm{N}$
Shaft $2139^{\circ} 09^{\prime} 20^{\prime \prime} \mathrm{W}$ $63^{\circ} 49^{\prime} 05^{\prime \prime} \mathrm{N}$

## APPENDIX B

 PROJECT PARTICIPANTS

Abrol Kakharov and Robert Betts

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## APPENDIX C

HAND SHAFT LOCATION MAP


Shaft \# 1
Shaft \# 2
$139^{\circ} 09^{\prime} 16^{\prime \prime} \mathrm{W}$
$139^{\circ} 09^{\prime} \mathbf{2 0}^{\prime \prime} \mathrm{W}$ $63^{\circ} 49^{\prime} 10^{\prime \prime} \mathrm{N}$ $63^{\circ} 49^{\prime} 05^{\prime \prime} \mathrm{N}$

## APPENDIX D PROJECT PHOTOGRAPHS



F250 and trailer used for YMIP 10-003


Beginning Camp set up

Flagged access route to Hand Shafts



ATV used to transport samples


Abrol Kakharov in Camp


Robert Betts begins Hand Shaft \# 1


Vegetation removed


Hand Shaft \# 1 at 61 cm


Digging continues on Shaft \# 1


Hand Shaft \# 1

Hand Shaft \# 1


Hand Shaft \# 1


Robert examines soil horizons.


Hand Shaft \# 1

## Sampling at various depths



Hand Shaft \# 1 bedrock ( $\mathbf{3 . 8} \mathbf{~ m}$ )


Abrol evaluates samples \& records results


Robert screens and pans samples


Hand Shaft \# 1 backfilled and flagged


Robert selects site for Hand Shaft \# 2


Brush is cleared to prepare site

YMIP 10-003 GRASSROOTS 1 RTB-AK


Robert removes moss \& flags Hand Shaft \#2


Hand Shaft \# 2 begins


Permafrost at 25 cm


Permafrost thawing slowly with sunlight


Hand Shaft \# 2 at 76 cm


Hand Shaft \# 2 bailed out

YMIP 10-003 GRASSROOTS 1 RTB-AK


Hand Shaft \# 2
Hand Shaft \# 2 at 1.5 m


Hand Shaft \# 2


Hand Shaft \# 2


Hand Shaft \# 2


Hand Shaft \# 2 backfilled


Robert sluices samples


Sign at Camp directing visitors to Project sites

## APPENDIX E

## ANALYTICAL ANALYSIS

## PROJECT RESULTS

|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Shaft \# | Sample \# | Size | Date | Depth | OZYD3 |
| 1 | 1 | 50 pounds | $6 / 6 / 10$ | 1 meter | - |
| 2 | 1 | 50 pounds | $10 / 6 / 10$ | 1 meter | - |
| 1 | 2 | 50 pounds | $13 / 6 / 10$ | 1.5 meter | - |
| 2 | 2 | 50 pounds | $13 / 6 / 10$ | 2 meters | - |
| 1 | 3 | 50 pounds | $25 / 6 / 10$ | 2 meters | - |
| 2 | 4 | 50 pounds | $25 / 6 / 10$ | 3 meters | - |
| 1 | 5 | 50 pounds | $4 / 7 / 10$ | 3.5 meters | - |
| 1 | 6 | 50 pounds | $5 / 7 / 10$ | 2.5 meters | - |
| 1 | 5 | 50 pounds | $8 / 7 / 10$ | 3.8 meters | 0.02 |
| 2 |  | 5 | $7 / 7 / 10$ | 3 meters | - |

All samples were gathered and prepared by Robert Betts. Each 20 liter pail of material was marked with the appropriate shaft \# and depth. Pails were carried by hand to an ATV and transported to camp. Screening was done with quarter inch followed by 20 mesh. The remaining material was then bagged and labeled for panning. Concentrates were examined and visually analyzed by Abrol Kakharov.

Shaft $1 \quad 139^{\circ} 09^{\prime} 16^{\prime \prime} \mathrm{W}$
$63^{\circ} 49^{\prime} 10^{\prime \prime} \mathrm{N}$

Shaft $2139{ }^{\circ} 09^{\prime} 20^{\prime \prime} \mathrm{N}$
$63^{\circ} 49^{\prime} 05^{\prime \prime} \mathrm{N}$


GRASSROOTS 1 RTB - AK HAND SHAFT\# 1 GOLD FLAKES
These flakes passed through a 20 mesh screen and were magnified to better define the distinct color and characteristics. This photo does not represent "actual size".

# DAILY ACTIVITES LOG FOR YMIP 10-003 GRASSROOTS 1 RTB - AK PROSPECTING 

PROJECT START DATE: MAY 18, 2010<br>PROJECT END DATE: JULY 13, 2010

May 16, 2010
Robert, Sharon and Joan Betts arrived in Whitehorse with 1 F250 $4 \times 4$ truck, one $7 \times 14$ foot enclosed cargo trailer, 1 Honda ATV, 1 chain saw, 2 generators, hand tools and all equipment and building materials necessary to construct a seasonal camp and complete YMIP Project 10-003 (Grassroots 1 RTB - AK). This is a placer gold prospecting project located on a currently unclaimed portion of a small unnamed tributary of Calder Creek in the Dawson Mining District. The location is believed to be approximately $\mathbf{2 5} \mathbf{~ k m}$ south of Dawson City. Robert 0 Hours

May 18, 2010 Project Start Date
Robert drove the F250 $4 \times$ 4, towing a trailer containing an ATV, tools, building materials and all equipment from Whitehorse to Dawson City ( 535.9 km ). Gas was purchased for the F250, ATV, chain saw and generator. Food and camp supplies were purchased in Dawson and the F 250 was serviced in preparation for multiple $\mathbf{4 5} \mathbf{~ k m}$ trips to th project location.
Robert 10 Hours
May 19, 2010
8AM - Robert, Sharon and Joan Betts depart Dawson City for the grassroots project area with a F250 4 X 4, ATV and tools. A slightly shorter route to the project area was chosen over the one initially proposed. This route would require some road repairs, tree removal and extensive brush clearing but would provide vehicle access to within a few miles of the proposed project site. This route would include driving 14 km south on Bonanza Creek Road to Upper Bonanza Creek Road, crossing 1 creek followed by driving approximately $\mathbf{2 6 . 5} \mathbf{~ k m}$ of steep, abandoned, dirt road. When selecting this route, one arrives at a ridge previously trenched by the Klondike Star Mining Company. Ten, 5 gallon buckets of sample rock, remain at this site. The GPS coordinates at that location are: $139^{\circ} 10^{\prime} \mathbf{0 0 ^ { \prime \prime }} \mathrm{W}$ and $63^{\circ} 50^{\prime} \mathbf{2 2 ^ { \prime \prime }} \mathrm{N}$.

The ATV, chain saw, machete and rifle were unloaded here. Approximately $\mathbf{. 1 6} \mathbf{~ k m}$ from this point, an old access road that was last used by Robert Truswell, a previous claim holder, is almost invisible due to overgrowth. Dense brush was removed and downed trees were cut with a chain saw and cleared from the roadway. After 6 hours, the ATV and tools were loaded into the F250 and returned to Dawson City.
Robert 9 Hours

May 20, 2010
Robert and Sharon Betts departed Dawson City in the F250 with one ATV, chain saw, machete, GPS and rifle destined for the ridge north of the site proposed for the camp. They continued to clear brush and cut trees on the old overgrown access road. Six hours later, they had cleared an additional .8 km of roadway. The ATV and tools were loaded and returned to Dawson City for the night.
Robert 9 Hours
May 21, 2010
Robert and Joan Betts departed Dawson City in the F250 with ATV, chain saw, machete, GPS and rifle and drove to within 2.4 km of the proposed camp site. Brush was cut and several downed trees were removed to access an additional .8 km . Approximately 1.6 additional kilometers of overgrown historic road remain to be cleared to access and establish a camp. The ATV and equipment was reloaded and returned to Dawson City.
Robert 6.5 Hours
May 22, 2010
Robert, with Sharon and Joan Betts drove the F250 with ATV, chain saw, machete, GPS and rifle to within 1.6 km of the proposed camp site. Dense brush and trees were removed. Robert hiked south the remaining $1.2 \mathbf{k m}$ to evaluate road conditions. The surface was determined to be passable (with an ATV) following the removal of more brush and a few more trees. And, after a reasonable amount of hand shoveling, it would be accessible by
$4 \times 4$ vehicles. Approximately 1.2 km of willows, spruce trees and underbrush remain to be cleared prior to arriving at a suitable site for a camp. Materials, generator and a few small power tools can then be brought in and a small cabin / storage building erected. The last 1.2 $\mathbf{k m}$ is steep and includes a switchback that will require additional clearing to provide room for backups. Most vehicles would not be able to navigate the short right turn to continue the last . $\mathbf{1 6} \mathbf{~ k m}$ to the site location. Participants returned to the F250, loaded ATV and tools and returned to Dawson City.
Robert 10 Hours
May 23, 2010
Robert with Sharon and Joan Betts drove the F250 $4 \times 4$ truck with an ATV, chain saw and all hand tools, rifle, etc. to approximately 1.2 km from the proposed camp site. All equipment was unloaded and the remaining brush and trees were cleared from the old roadway. A small rockslide was removed and a few washes filled in. The access road from the ridge top to the camp site is now $4 \times 4$ vehicle accessible. Unfortunately, a switchback with no turnaround space will prevent trailers or long vehicles from traveling the last 3 kilometers. All participants returned to Dawson City.
Robert 7 Hours

May 25, 2010
Robert with Sharon and Joan Betts drove the F250 $4 \times 4$ with the ATV, GPS, rifle, generator and all hand tools to site of proposed camp. The GPS coordinates at this site are: $139^{\circ} 09^{\prime}$ $34^{\prime \prime} \mathrm{W}$ and $63^{\circ} \mathbf{4 9} \mathbf{2 9 \prime}$ N. Brush and debris (oil, fuel containers and misc. trash) were collected and placed in bags and 55 gallon drums for transport to the Dawson City Dump. The ATV and generator were secured to a tree and tools, rifie, etc. were loaded for a return trip to Dawson City.
Robert 10 Hours
May 26, 2010
Robert and Sharon Betts purchased fuel and supplies in Dawson City to begin construction of a camp. The F250 $4 \times 4$ with tools and materials was driven approximately 35.4 km from Dawson City to the camp site. More brush was cleared and the camp site was leveled with a pick and hand tools. Construction of a temporary camp began. This is expected to reduce travel while exploration, hand dug shafts, sampling and evaluation takes place. Participants returned to Dawson City for another night.
Robert 7 Hours
May 29, 2010
Robert with Sharon Betts drove F250 with hand tools to the proposed camp site and partially erected a small ( $5 \times 8$ foot) wooden building for sleeping and tool / equipment storage. Floor and sides completed today. A . $6 \mathrm{~m} \times .6 \mathrm{~m} \times 2 \mathrm{~m}$ deep hole was dug to serve as a camp site latrine. Tarps were hung surrounding the shower / toilet area. All tools were loaded and returned to Dawson City.
Robert 9 Hours
May 30, 2010
Robert with Joan Betts drove the F250 $4 \times 4$ with tools to the camp site. Framing for the roof of the $5 \times 8$ foot, sleeping / storage building was completed and a plywood door was attached. A tarp served as a temporary roof. The participants then hiked south along the creek to explore the area and locate appropriate sites for the $\mathbf{2}$ proposed hand shafts. Robert and Joan returned to camp for the night.

## Robert 11 Hours

May 31, 2010
Robert with Joan Betts used machetes to cut a trail south from camp to the small creek and toward the selected site for hand dug Shaft \#1. The cut trail was generously flagged and both participants returned to camp with machetes, rifle, air horn, GPS and camera.
Robert 4 Hours

June 1, 2010
Robert with Joan Betts continued clearing brush to establish a trail south toward to the site selected for hand dug Shaft \#1. The cut was flagged. Quartz samples from the nearby creek bed were collected and carried to camp for a thorough examination.
Robert 6 Hours
June 3, 2010
Robert with Sharon Betts continued to establish and flag a trail to the location selected for hand dug Shaft \#1. The GPS Coordinates for this site are: $139^{\circ} 09^{\prime} 16^{\prime \prime} \mathrm{W}-63^{\circ} 49^{\prime} 1 \mathbf{1 0}^{\prime \prime} \mathrm{N}$. A small glacier was discovered approximately 24 meters west of the selected site for this hand dug shaft. Photographs were taken of this ice covered creek bed and the undisturbed, moss covered site that had been selected for the first shaft. A 1m X 1m area of surface material (dense green and yellow moss) was cut away, exposing the permafrost below. The black muck, $\mathbf{3 0} \mathbf{~ c m}$ below the surface, was flagged, photographed and left to thaw. Participants returned to camp for the night.

## Robert 5 Hours

June 4, 2010
Robert and Sharon Betts followed the cleared and flagged trail from camp to Hand Shaft \#1. Black muck was thawing nicely. Participants continued south to search for an appropriate site for Hand dug Shaft \#2 and to explore the terrain south toward Calder Creek. The creek bed gravels and surrounding topography were examined to identify the most likely location for a placer deposit. Materials were screened and panned. No black sand or gold flakes were visible in surface gravels. An appropriate location, with reasonably good drainage, was chosen for Hand dug Shaft \#2. The GPS Coordinates at this location are: $139^{\circ} 09^{\prime} \mathbf{2 0 1} \mathbf{W}$ $63^{\circ} 49^{\prime} 05^{\prime \prime} \mathrm{N}$. The chosen site was cleared of brush, generously flagged and the presently undisturbed surface vegetation was photographed. Participants returned to camp.

## Robert 7 Hours

June 6, 2010
Robert and Joan Betts returned to camp from Dawson City with the F250 truck. Robert drove the ATV with bucket, shovel, rifle, air (bear) horn, bear spray, GPS, and camera south toward Hand Shafts \#1 and \#2. Due to ditches and marshy conditions, the ATV cannot reach the shaft sites. A portion must be traversed on foot. An additional $\mathbf{6 0} \mathbf{~ c m}$ of material was removed from 1m X 1m hand dug Shaft \#1. Sample material was collected, bagged and marked with the shaft \# and depth. Photographs were taken. The participants continued south to Shaft \#2 and removed an additional $\mathbf{6 0} \mathrm{cm}$ of thawed muck from this 1m X 1m shaft. Material was collected, screened and panned in the nearby stream. Activities were photographed and both participants returned to camp.
Robert 6 Hours

June 10, 2010
Robert and Sharon Betts drove F250 4 X 4 from Dawson City to camp. The ATV with a bucket, shovel, air horn, bear spray, rifle, GPS and camera was driven as far as possible (approximately 1.3 km ) toward the hand dug shaft locations. Robert then removed $\mathbf{6 0} \mathbf{~ c m}$ of water and approximately 30 cm of muck and small angular gravels from Shaft \#1. The participants then continued south to Shaft \#2. There, Robert bailed out approximately $\mathbf{4 0} \mathbf{~ c m}$ of water and muck. Sample materials were collected, bagged and marked "Shaft \#2 - 1m". The sample was then screened and panned in the nearby stream. Significant black sand was visible in this material. The shaft progress was photographed and participants returned to camp.
Robert 7 Hours

June 12, 2010
Robert Betts, accompanied by Abrol Kakharov, drove the F2504 X 4 truck from Dawson City to camp. They hiked to hand dug Shaft \#1 and Shaft \#2 to inspect and discuss locations and progress. Additional samples of soil, sand and small angular gravels from various depths in both shafts were collected and labeled for further examination at camp. The findings were discussed and it was determined that the shaft locations were appropriate and that samples at more depth would be necessary for evaluating these sites. The 2 participants returned to camp. Photos were taken of activities and both participants returned to Dawson City.
Robert 9 Hours
Abrol 9 Hours

June 13, 2010
Robert drove the F250 $4 \times 4$ from Dawson City to camp. Robert proceeded as far as possible on the ATV toward both hand dug shafts. The ATV carried a bucket, shovel, air horn, bear spray, rifle and a camera. Robert then continued on foot to hand dug Shaft \#1. Here, he removed an additional 15 cm of material and collected clay and gravels for later, more thorough examination. Robert continued south to hand dug Shaft \#2 and removed approximately 30 cm of muck and gravels. He collected, bagged and marked sample materials for processing. Photographs were taken before returning to camp. Samples were screened, panned and evaluated.
Robert 4.Hours

June 14, 2010 through June 24, 2010
No activity on Grassroots Project 10-003 occurred during this time. YMIP 10-019 Payloader 7 Project began and machine trenching was underway.

June 25, 2010
Robert Betts, accompanied by Abrol Kakharov, drove the F250 $4 \times 4$ from Dawson City to camp. Abrol and Robert processed and examined the most recent sample materials. They then identified the soil, vegetation and rock types most prevalent in the area. Variations of quartz and schist were noted. Additional samples, taken at or near bed rock, will be collected for future evaluation. Photographs were taken and both participants returned to Dawson City.
Robert 8 Hours
Abrol 8 Hours

June 29, 2010
Robert and Joan Betts returned to camp from Dawson City. Both participants hiked to hand dug Shaft \#1 with a bucket, rope, shovel, air horn, bear spray, rifle and camera. Robert bailed out water and removed 45 cm of muck and gravels. Progress on Shaft \#1 was photographed and participant continued to hand dug Shaft \#2. Here, Robert bailed out water and removed an additional 30 cm of muck, sand, clay and small angular gravels. Progress on Shaft \#2 was documented with photos and participants returned to camp.
Robert 4 Hours

June 30, 2010
Robert hiked to hand dug Shaft \#1. A large black bear was sighted in the area and it was determined to be unsafe to proceed with the project today. Robert vacated and returned to camp with plans to return tomorrow.
Robert 1.5 Hours
July 1, 2010
Robert and Joan Betts hiked to hand dug Shaft \#1 and used a hand pump from a fuel drum to drain water from the shaft. Sides are sloughing in. Two sheets of roofing tin and wood was needed to prevent the shaft from collapsing. Robert and Joan removed additional material with a bucket and rope to reach a depth of 2.2 meters. Progress to date was photographed and participants returned to Dawson City.

## Robert 10.5 Hours

July 4, 2010
Robert and Joan returned to camp from Dawson City. They hiked from camp to hand dug Shaft \#2 with a small generator and electric drill. This shaft is now at a depth of 2 meters. One meter of water was removed from the shaft. Robert drilled multiple holes with an electric drill to penetrate permafrost and accelerate thawing. It was determined that drilling holes had a minimal effect on thawing the frozen material. Next, a jack hammer was utilized to fracture layers of frozen material. Removal of approximately 50 cm of soil, sand and small angular rock resulted in a shaft depth of 2.5 meters. The shaft opening was covered with plywood to retard thawing, reduce flooding and eliminate bailouts. Sample material was collected and labeled. Participants returned to camp to process and examine the samples.
Robert 12 Hours

July 5, 2010
Robert and Joan hiked to hand dug Shaft \#2 with rifle and camera. A mixture of muck, sand and small angular gravel predominated and was removed to a depth of 3.2 meters. The shaft opening was covered to retard thawing. The generator and jack hammer was relocated to hand dug Shaft \#1. Here it was used to fracture and remove a $\mathbf{6 0} \mathbf{~ c m}$ layer of frozen soil, sand and rock. This shaft opening was also covered to retard thawing. Participants returned to camp where samples were screened and panned. Concentrates were bagged and labeled for future examination. Specimens of rock from this shaft were identified and recorded.
Robert 7 Hours

July 6, 2010
Robert and Joan returned to hand dug Shaft \# 1 with additional tin and wood to prevent the sides of the shaft from caving in. The generator and jack hammer were again utilized to reach a depth of 2.75 meters. This shaft opening was covered. Robert returned to hand dug Shaft \# 2 and progressed approximately 60 cm by removing less soil and increased amounts of sand and angular rock. Photographs were taken and the shaft opening was covered. Both participants returned to camp.
Robert 9 Hours

July 7, 2010
Robert and Joan returned to hand dug Shaft \# 1. Approximately 60 cm of water, sand and gravels were removed this morning. Additional samples were acquired and collection points were flagged and recorded. The shaft opening was protected by covering with plywood. Participants returned to hand dug Shaft \# 2. A drainage problem has existed in this location throughout the excavation process and has become more severe. This shaft, now at a depth of 3.8 m has been extended by removing water and an additional 45 cm of sand and gravel. The shaft opening was covered and participants returned to camp.
Robert 6 Hours

July 8, 2010
Robert and Joan returned to Shaft \# 1 and removed an additional 45 cm of, clay, sand and rounded rock. It was determined that the schist visible at a depth of 3.8 m in this shaft represented bedrock. Various samples of the rounded gravels and schist were collected, bagged and marked. These materials were screened and panned in a nearby stream. Black sand and several small flakes of bright gold was clearly visible in the concentrate. Additional samples were collected and transported to camp for further analysis. The shaft was covered to prevent accidental entry by humans or animals prior to backfilling.
Robert 12.5 Hours

July 9, 2010
Robert and Joan Betts returned to hand dug Shaft \# 2 with the generator and jack hammer. Additional water, sand and gravel were removed. At a depth of 4.5 m , gravel layer filled rapidly with water. No material present at this depth indicated the shaft had reached bedrock. Sample materials were collected from below the rapidly rising water. Water could no longer be pumped out fast enough to accurately inspect the surface of the shaft. This shaft was determined to be complete. The collected materials were screened and panned in the nearby stream. No gold was visible in these samples. However, continuous water flowing through the shaft at this level made accurate sampling difficult. The shaft was covered to prevent accidental entry by humans or animals until backfilling was complete. Both participants returned to camp.

## Robert 7 Hours

July 10, 2010
Robert and Joan Betts returned to Shaft \# 1 to remove ladder, roofing tin and wood supports. Backfilling of Shaft \# 1, by hand shoveling, was begun but would require another day to complete. The generator and jack hammer was returned from Shaft \# 2 to camp.
Robert 6 Hours
July 11, 2010
Robert and Joan Betts completed the backfilling of Shaft \# 1. Photographs were taken of the site. The site location remained well flagged and visible by air. Tin, wood supports, buckets and shovels were removed from the site location and returned to camp.
Robert 5 Hours
July 12, 2010
Robert and Joan Betts returned to Shaft \# 2 to find that approximately 3.5 m of water had filled the shaft. Never the less, hand shoveling began and this shaft was $60 \%$ backfilled when both participants returned to Dawson City for the night.
Robert 6 Hours
July 13, 2010
Robert and Joan Betts drove from Dawson City to Camp. Robert drove the ATV approximately 1.3 km toward the hand dug Shaft locations. Both participants returned to Shaft \# 2 and completed backfilling. All tools and materials were removed from the site and photographs were taken of the surface area. The site was left well flagged and visible from the air. Both participants returned to camp.
Robert 6 Hours
This Grassroots Prospecting Project was considered complete on July 13, 2010. However, samples from this still somewhat underexplored area, were retained and will receive additional analyses. After carefully considering all of the information gathered during this project, the area's potential will be thoroughly evaluated and recommendations offered in the YMIP 10-003 Summary and Technical Report .

