
**2013 TECHNICAL ASSESSMENT REPORT
ON PROSPECTING AND SAMPLING
OF THE DOC PROPERTY**

**South Unuk River
Skeena Mining Division
British Columbia**

**NTS 104B/08
56 20' N/130 27' W**

**BC Geological Survey
Assessment Report
34406**

Event #5465253

Tenure #'s:

**833972, 834955, 618066, 618064, 618083, 618063, 601260, 601304, 748642,
618065, 577958, 1020793, 1020807, 1020800, 1015614, 1016861, 834211,
834203, 637043, 645983, 637003, 1015608**

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&

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UTM Exploration Services Ltd.

Smithers, BC

October 2013

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1. SUMMARY

In August 2013 Jon Bot contracted UTM Exploration Services Ltd. of Smithers, BC to conduct a three (3) day prospecting and sampling program of the Doc properties, northeast of Stewart, BC. The program involved exploring the property for additional mineralized zones, and locating historical findings.

Areas of historical interest were targeted in hopes of finding extensions or parallel zones of interest. Reconnaissance work focused on following historical trends, but included exploring other areas in efforts to find new areas of interest.

The property is located approximately 55km northwest of Stewart. The property consists of 23 mineral claims. Exploration included rock sampling, and minor reconnaissance fieldwork.

The property is underlain by late Triassic metavolcanics and metasedimentary rocks that have been intruded by granitic rocks. Historical work has identified nine west-northwest trending, steeply dipping, mesothermal quartz-sulphide veins containing significant gold and silver values. Q17 and Q22 are contiguous veins that currently present the most significant mineralization on the property, with Inferred mineral Resources of 119,100 tonnes at a grade of 12.0g/t Au. Other known vein structures on the property show locally significant gold and silver values. The Doc property suggests potential for skarn hosted precious and base metals mineralization and possible volcanogenic base metal mineralization.

2. INTRODUCTION AND TERMS OF REFERENCE

This report borrows/quotes from historical assessment reports of the area as noted in the References section.

3. PROPERTY DESCRIPTION AND LOCATION

3.1 ACCESSIBILITY AND INFRASTRUCTURE

The property was accessed from the Bob Quinn airstrip, 70km northeast of the property, where construction camps and helicopter bases are located. Access by helicopter to the claims was heavily affected by weather. Access while on the property was mostly accessible by foot, but facilitated by helicopter.

3.2 MINERAL TENURE INFORMATION

The Doc property consists of 23 mineral claims totaling 4090.41 ha (Table 1). The property is located on NTS map sheet 104B/08 in the Skeena Mining Division, approximately 55km northeast of Stewart, BC. The geographic coordinates of the approximate property center are 56 20' N Latitude, 130 27' W longitude (Figures 1 and 2).

TABLE 1. MINERAL TENURE CLAIMS.

Tenure Number	Claim Name	Tenure Type	Map Number	Issue Date	Good To Date	Status	Area (ha)
577958	GOLDEN GRACE	Mineral	104B	2008/mar/06	2015/jul/06	GOOD	358.7048
601260		Mineral	104B	2009/mar/18	2015/jul/06	GOOD	17.9304
601304		Mineral	104B	2009/mar/19	2015/jul/06	GOOD	53.7912
618063	GRACE	Mineral	104B	2009/aug/12	2015/jul/06	GOOD	107.5827
618064	GRACY	Mineral	104B	2009/aug/12	2015/jul/06	GOOD	430.1168
618065	GOLDEN	Mineral	104B	2009/aug/12	2015/jul/06	GOOD	143.4162
618066	GRACE	Mineral	104B	2009/aug/12	2015/jul/06	GOOD	268.9393
618083	GRACEFUL	Mineral	104B	2009/aug/12	2015/jul/06	GOOD	179.3458
637003	GRAND	Mineral	104B	2009/sep/18	2014/oct/01	GOOD	17.9795
637023	GRAND 2	Mineral	104B	2009/sep/18	2014/oct/01	GOOD	413.4478
637043	GRAND 3	Mineral	104B	2009/sep/18	2014/oct/01	GOOD	215.6271
645983	GRAND 4	Mineral	104B	2009/oct/02	2014/oct/01	GOOD	35.928
748642		Mineral	104B	2010/apr/14	2015/jul/06	GOOD	17.9304
833972	CB	Mineral	104B	2010/sep/20	2014/oct/01	GOOD	71.6555
834203	GRACE	Mineral	104B	2010/sep/24	2015/jul/06	GOOD	71.8684
834211	GRACE 2	Mineral	104B	2010/sep/24	2015/jul/06	GOOD	17.9651
834955	GT	Mineral	104B	2010/oct/03	2014/oct/01	GOOD	448.0209
1015608	UNIK RIVER	Mineral	104B	2013/jan/01	2015/jul/06	GOOD	179.5473
1015614	UNUK 2	Mineral	104B	2013/jan/01	2015/jul/06	GOOD	107.6866
1016861	UNUK ONE	Mineral	104B	2013/feb/13	2014/oct/01	GOOD	17.971
1020793	GRACEFUL	Mineral	104B	2013/jul/04	2015/jul/06	GOOD	681.6715
1020800	GRACIUOS	Mineral	104B	2013/jul/04	2015/jul/06	GOOD	179.4487
1020807	GRACIOUS 2	Mineral	104B	2013/jul/04	2015/jul/06	GOOD	53.8335
						Total Hectares:	4090.4085

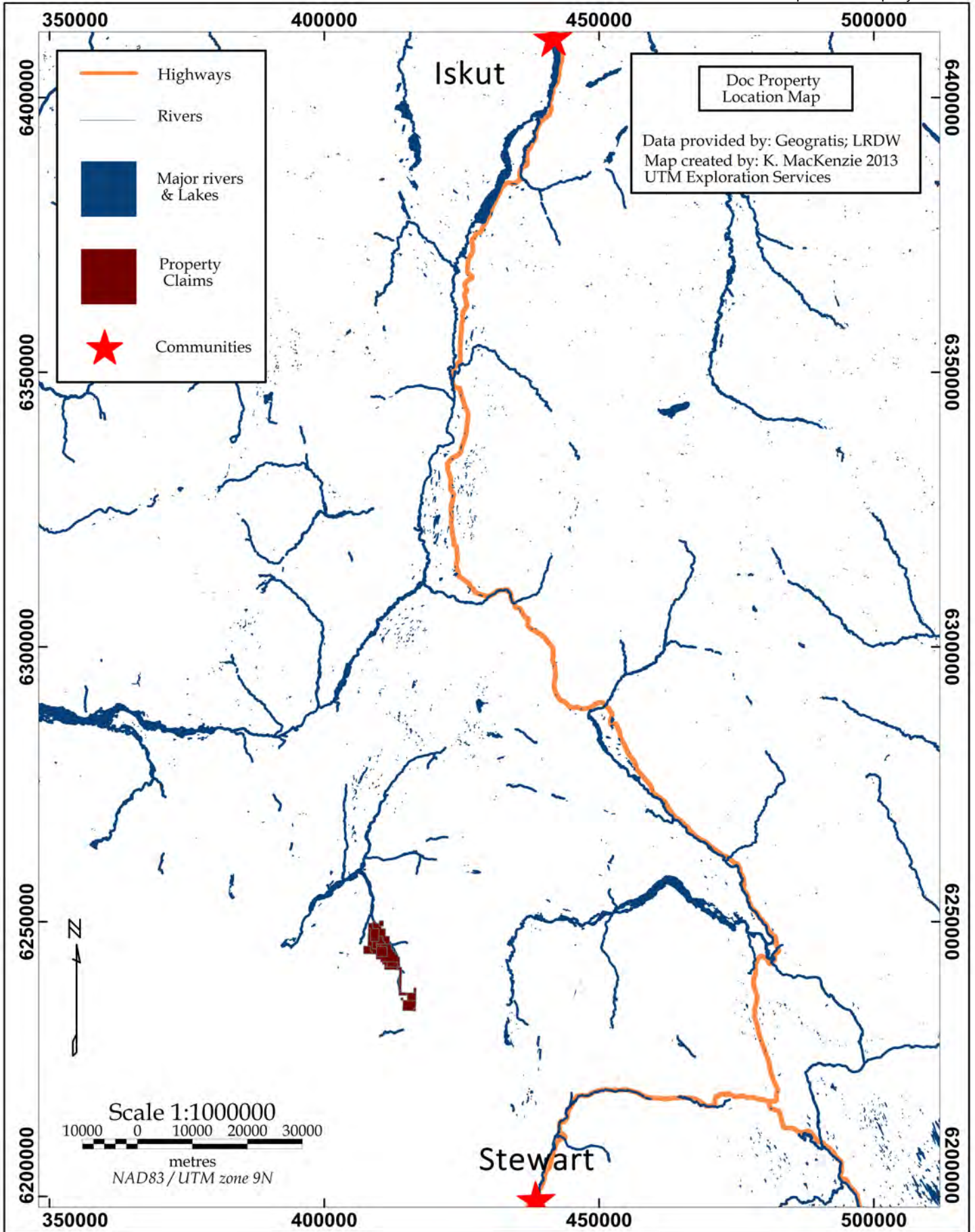


Figure 1. Property Location Map.

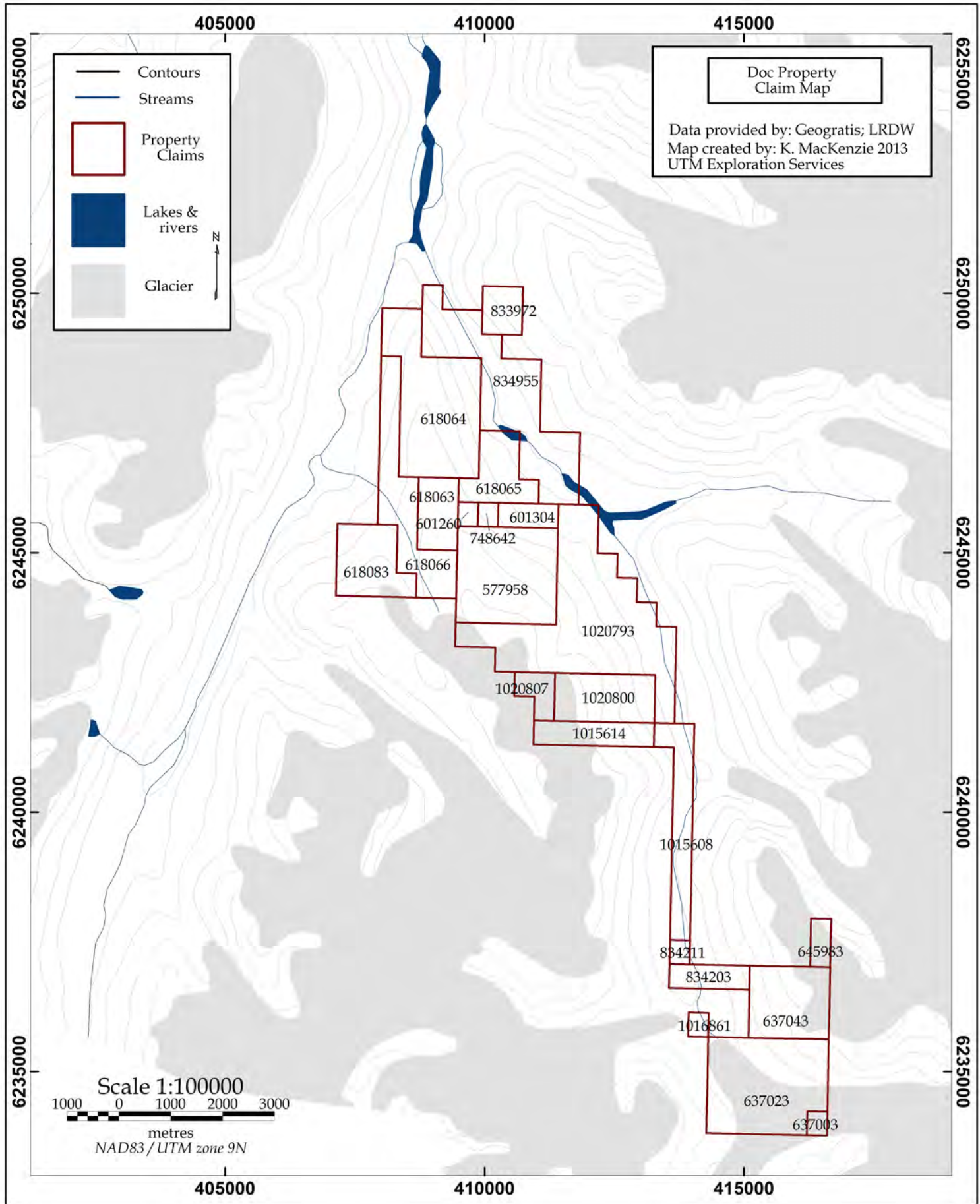


Figure 2. Mineral Tenures Map.

3.3 PHYSIOGRAPHY AND CLIMATE

The property sits on the upper portions of a mountain to the southwest of the South Unuk River where it meets with the Divilbliss Creek. The property covers an area of exposed rugged outcrop, glaciated peaks, as well as heavily wooded sections. Elevation ranges from approximately 600m to 1600m. Vegetation varies from dense coniferous forest in the north-northeast of the claim to glaciated sections in the east and southeast, to moss and grass covered alpine meadows.

Snow accumulations are typical for this area, which limits surface exploration to the summer and early fall months. Weather is a heavy factor on access by helicopter, with low cloud coverage and fog restricting access to even the lower elevations of the property at times.

4. HISTORY

The region has been explored since the 1880's. Below lists a brief description of work done in the area.

- At the turn of the century vein-hosted gold-silver mineralization was discovered on adjacent Globe property. Short adits were driven and a three (3)-ton/day stamp mill was erected. The Globe mineral claims were crown granted in 1902.
- Prospecting activities from 1930-1990s in the area resulted in multiple producing mines including Eskay Creek and Granduc. In more recent times Seabridge Gold and Pretium are working to becoming mines as well.
- 1946-1949: Gold and silver-bearing quartz veins were discovered on the Doc property, previously known as the Gracey property. Halport Mines Ltd. did exploration work including 75 surface trenches and 1900 metres of diamond drilling in 29 holes.
- 1974: New Minex Resources resampled existing trenches and conducted a magnetometer survey over 10.7km.
- 1980: DuPont of Canada Exploration Ltd. collected 447 soil samples on a grid covering 207 hectares. Mapping was done at 1:2500, and produced 19 rock samples.
- 1985: Silver Princess Resources Inc. acquired the Doc property.
- 1986-1987: Magna ventures Ltd. entered a joint venture agreement with Silver Princess Resources Inc. This led to more trenching, mapping, sampling,

33.5m of underground crosscutting, and 913m of diamond drilling over 10 holes.

- 1988: Echo Bay Mines Ltd. joined the joint venture agreement with Magna and Silver Princess. Continued work on reserve definition around the main veins took place.
- 1996: Glencairn Exploration Ltd. picked up the lapsed claims and did limited prospecting to satisfy assessment work requirements.

5. GEOLOGICAL SETTING

5.1 REGIONAL GEOLOGY

The Unuk River area is within the western part of the Intermontane tectonic belt which is bounded on the west by the Coast Plutonic Complex (Carter, 2001). The Stikine terrane underlies the Intermontane belt, and is comprised of Jurassic, Cretaceous, and Tertiary magmatic arcs, as well as Late Triassic submarine island-arc volcanic, volcanoclastic, and sedimentary rocks of the Jurassic Hazelton Group, Jurassic to Cretaceous sedimentary rocks of the Bowser Lake, Skeena, and Sustut Groups, and finally continental volcanic rocks of the Kasalka, Ootsa Lake and Goosly Lake Groups (Figure 3).

The Hazelton Group sequences are topped partly by the Bowser Lake Sediments in the Unuk River Stikine terrane rocks. These two groups are variably deformed and metamorphosed. Coeval and younger granitic rocks that are related to the Coast Plutonic Complex intrude into this layered sequence.

Several mineral deposits have been found within the Unuk River area, ranging in style from polymetallic quartz veins hosting gold and silver, porphyry copper-gold deposits with minor molybdenum, and volcanogenic massive sulphide deposits.

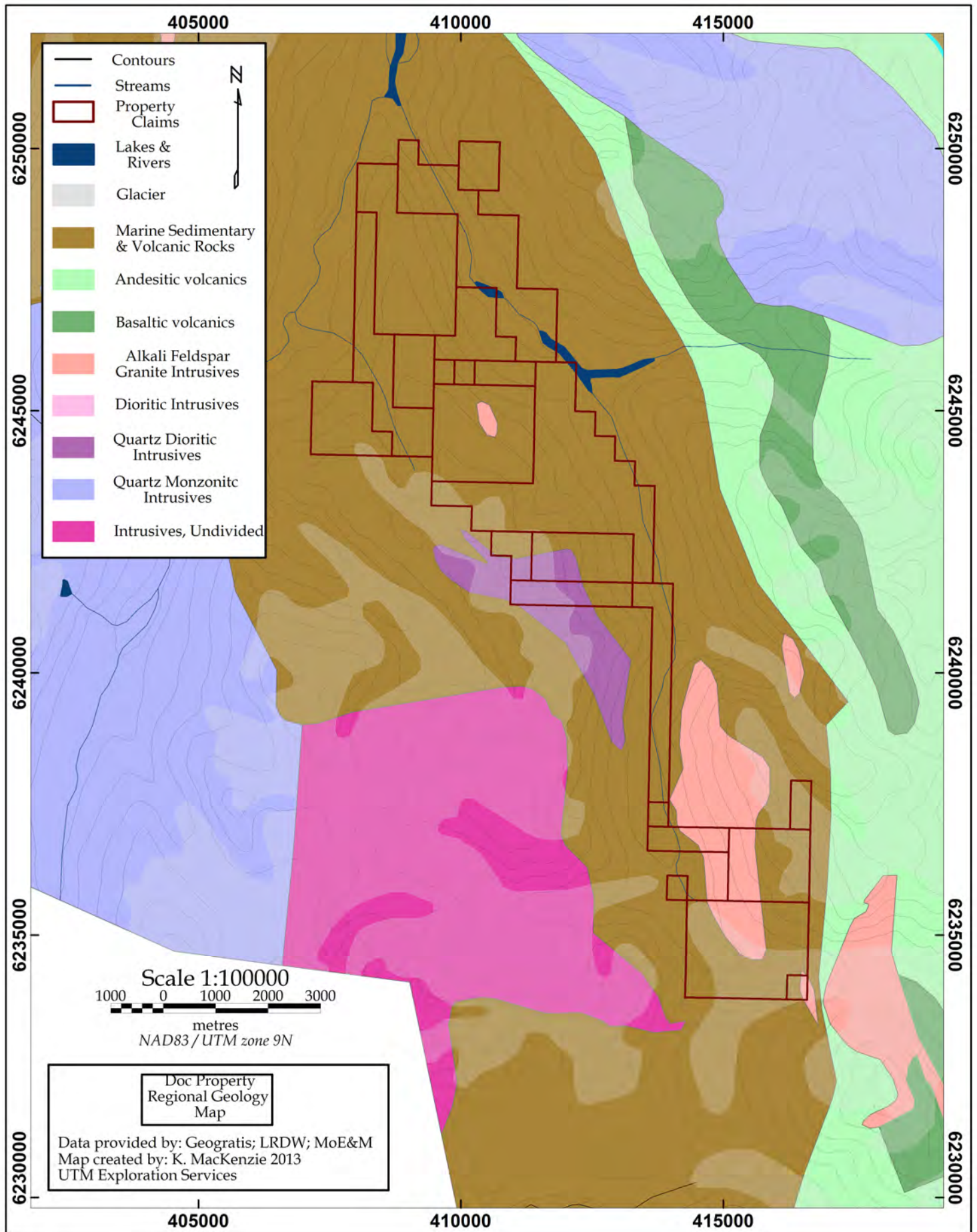


Figure 3. Regional Geology Map.

5.2 LOCAL GEOLOGY

The Doc property mainly hosts a layered metavolcanic and metasedimentary sequence of the Late Triassic Stuhini Group. Crosscutting these rocks is a series of diorite intrusions.

Mostly seen on the property are porphyritic andesites along with intercalated siltstones and limestones. Both have been strongly deformed into schists and gneisses. Foliated or gneissic quartz diorites can be seen intruding the volcanic and sedimentary rocks. Chevron folding is distinct.

Mineralization is most evident in quartz veins hosting gold and silver. To date 10 vein structures have been located. The veins are within shear and dilatant zones, parallel with the northwest structural trend, at a vertical to steep dip. Significant mineralization is more present in rocks marginal to the granitic intrusions.

The Q17-Q22 vein structures, which are contiguous, and host the most significant grades to date, consist of quartz, minor calcite, and 5-10% sulphides (pyrite, chalcopyrite, sphalerite, galena), magnetite, and specularite. Underground work has further defined them to extend over 250m at an average of 2 meters thickness. Brecciated limonitic quartz hosts the gold mineralization, with better values where fresh unoxidized pyrite is visible, or local presence of specularite and galena.

Q-17 trench sampling has recorded 16.03 g/t gold and 86.1 g/t silver over an average width of 2.33 metres and a length of 139.5 metres (Carter, 2001). Underground sampling defined a weighted average grade of 11.90 g/t gold over average width of 1.81m and length of 163m, with a cutoff grade of 3.43 g/t.

Q-22 trench sampling recorded a weighted average grade of 6.34 g/t gold over an average width of 2.54 metres and length of 140 metres.

Q-28 trench sampling over 95m strike suggests a weighted average grade of 7.20 g/t gold over an average width of 1.95 metres. Surface drilling intersected a vein at shallow depths, which could be Q-28, and resulted in 15.06 g/t gold over .60 metres width in hole 88-27 and 24.55 g/t over .30 metres in hole 88-29.

Q-25 was sampled in two segments, a western and eastern portion. The western portion showed 18.48 g/t gold over 2.42 metres width and 28 metres of strike. The eastern portion showed 4.28 g/t over 3 meters width and 8 metres strike. Surface drilling shows an average grade of 8.83 g/t gold over a 0.74 metre width.

Q-19 trench sampling shows a weighted average grade of 7.65 g/t gold over 1.50 metres width and 25 metre strike.

The Pyramid Zone is a northwest striking shear zone about 10 to 15 metres wide, that shows local silicified and quartz veined sections, with clay alteration and pyrite mineralization (Carter, 2001). In the northwestern section a calculated weighted average grade over 200 metres of trench sampling is 2.80 g/t gold over .65 metres width. The southeastern section calculated a weighted average grade of .56 g/t gold over .86 metres width and 110 metres strike (Carter, 2001).

6. EXPLORATION

6.1 METHODOLOGY AND PROCEDURE

Between August 24th and August 27th, 2013, Kay MacKenzie of UTM Exploration Services Ltd. conducted a reconnaissance and prospecting program to build on the existing known mineralized zones of the Doc property.

Historical assessment reports identified areas of the property where most exploration work had taken place. Proposed work for the 3 days was to identify the main vein systems and continue along trend, as well as on trend parallel to the main veins in hopes of locating new veins. More exploratory work was to focus on the northeast wooded sections, and the southwest. On August 24th she was able to locate the two cabins, the adit, a couple of trenches, and five (5) exposures of quartz veins, as well as potential new locally mineralized zones. All sites were recorded and marked with a Garmin handheld GPS unit (Table 2) and marked in Figure 4. August 25th fieldwork focused on the southwest cliffs, which were bounded to the east by a glacier. Multiple mineralized quartz veins were located in that area, and sampled. Heading north-northwest more historically sampled veins and semi massive mineralized zones were identified by old flagging, and were re-sampled. On August 27th she was able to locate three (3) bull quartz veins, one of which extended over 100 metre strike length. All veins were sampled. Two more historical trenches were located to the northwest.

TABLE 2. POINTS OF INTEREST.

Point of Interest	Easting (NAD83)	Northing (NAD83)	Elevation (m)
Cabins	410437	6244857	1163
Adit	410306	6244875	1193
QV1 SE	410197	6244696	1259
QV1 SE.2	410159	6244709	1270
QV1 NW	410137	6244714	1276
QV1 NW.2	410122	6244719	1280
QV2	410095	6244728	1285
QV3 SE	410240	6244531	1293
QV3 NW	410227	6244534	1296
QV 4	410289	6244668	1249
QV 5	410352	6244827	1194
Historical sample (flagging)	410322	6243202	1516
Trench 1	409687	6244862	1305
Trench 2	409623	6244588	1376
Trench 3	409376	6244757	1349

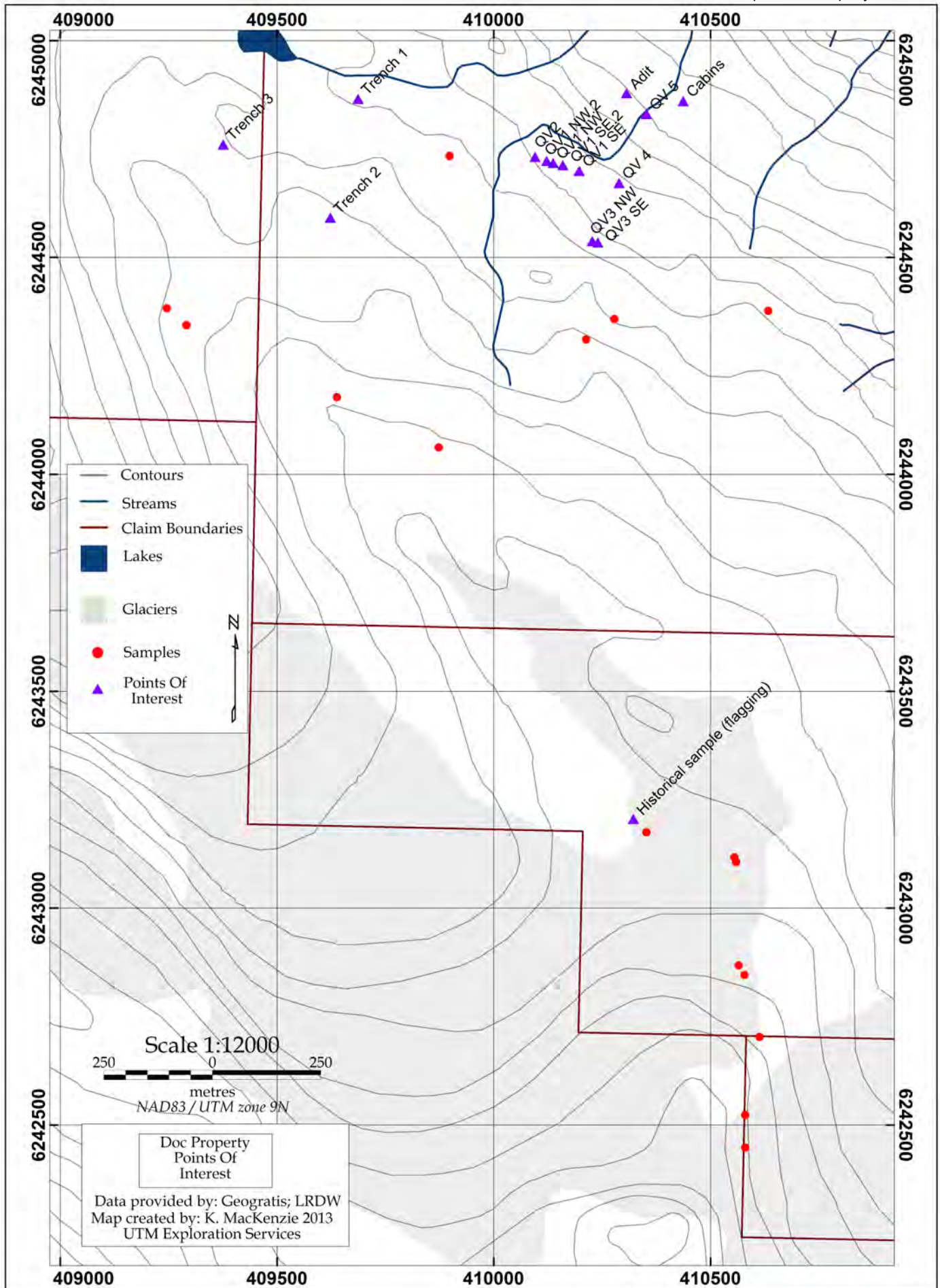


Figure 4. Points of Interest Map.

6.2 ROCK SAMPLING

Eighteen rock samples were taken over the Doc properties. All but two were taken from outcrop. When quartz veins appeared to be within mineralized host rocks, samples of the host rock were taken. All samples were photographed before being placed in their 12x20 6mm poly bag, as well as the outcrop from which the sample was taken to show the extent of veining or mineralization. The poly bags had the sample number written on the outside to match the sample tag that was placed inside the bag, which was then sealed with a zap strap. Representative rock samples were taken of samples showing significant mineralization. Details on rocks sampled and geological points of interest are listed in Table 3 and show on Figure 5.

TABLE 3. SAMPLES AND GEOLOGICAL POINTS OF INTEREST STATIONS.

Station #	Sample #	Easting	Northing	Elevation (m)
St 1	55051	409246	6244383	1373
St 2	55052	409291	6244344	1385
		409396	6244227	
St 3		409488	6244262	1432
St 4	55053, 55054	409638	6244178	1454
St 4.2		409659	6244145	1463
St 5	55055	409873	6244062	1469
St 6		409899	6244045	1469
St 7		409894	6243818	1494
St 8	55056	409898	6244734	1318
St 9	55057	410556	6242523	1621
St 10	55058	410531	6242448	1661
St 11	55059	410613	6242703	1581
St 12	55060	410578	6242846	1554
St 12.2		410608	6242852	1546
St 13	55061, 55062	410565	6242868	1555
St 14	55063	410559	6243106	1507
St 15	55064	410555	6243117	1511
		410515	6243148	1513
St 16	55065	410352	6243175	1515
		410283	6243221	1517
St 17	55066	410633	6244377	1317
St 18	55067	410278	6244358	1354
St 19	55068	410213	6244311	1385
St 19.2		410193	6244301	1391
St 19.3		410161	6244308	1389
St 19.4		410150	6244297	1383

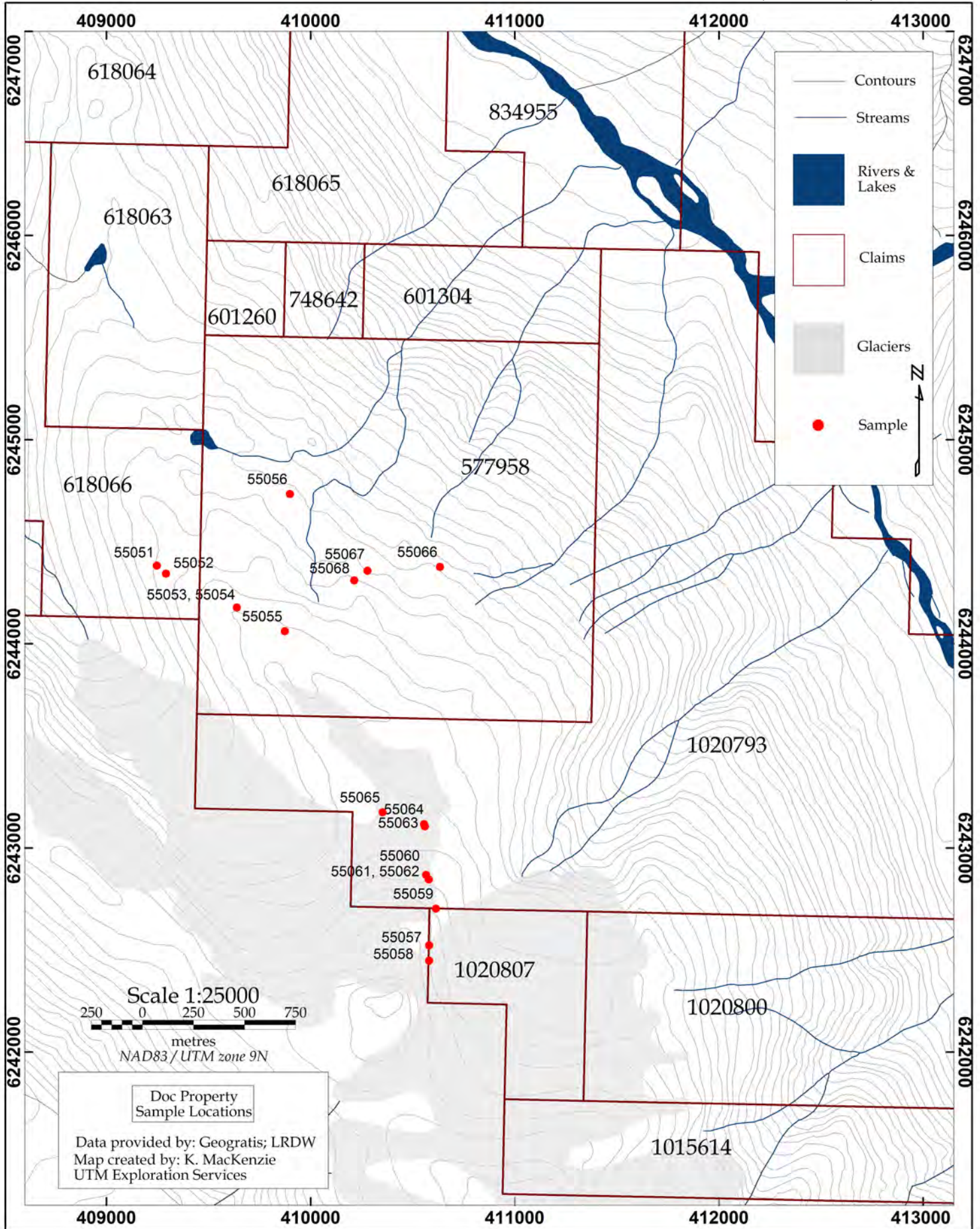


Figure 5. Sample and Site Location Map.

7. SAMPLING

7.1 SAMPLING METHOD AND APPROACH

See section 6.2 for details of on-site sampling methods. After sample collection, samples were bagged, sealed with a sample list, and stored by UTM personnel until they were delivered to ALS Labs in Terrace, BC.

7.2 SAMPLE PREPARATION, ANALYSES, AND SECURITY

Lab methodology is described in Appendix II.

7.3 DATA VERIFICATION

No standards or blanks were submitted, although ALS runs their own tests regularly.

7.4 RESULTS

All assay results may be found in Appendix I. See Figure 5 for the sample location map and Figure 6 for the geochemical map.

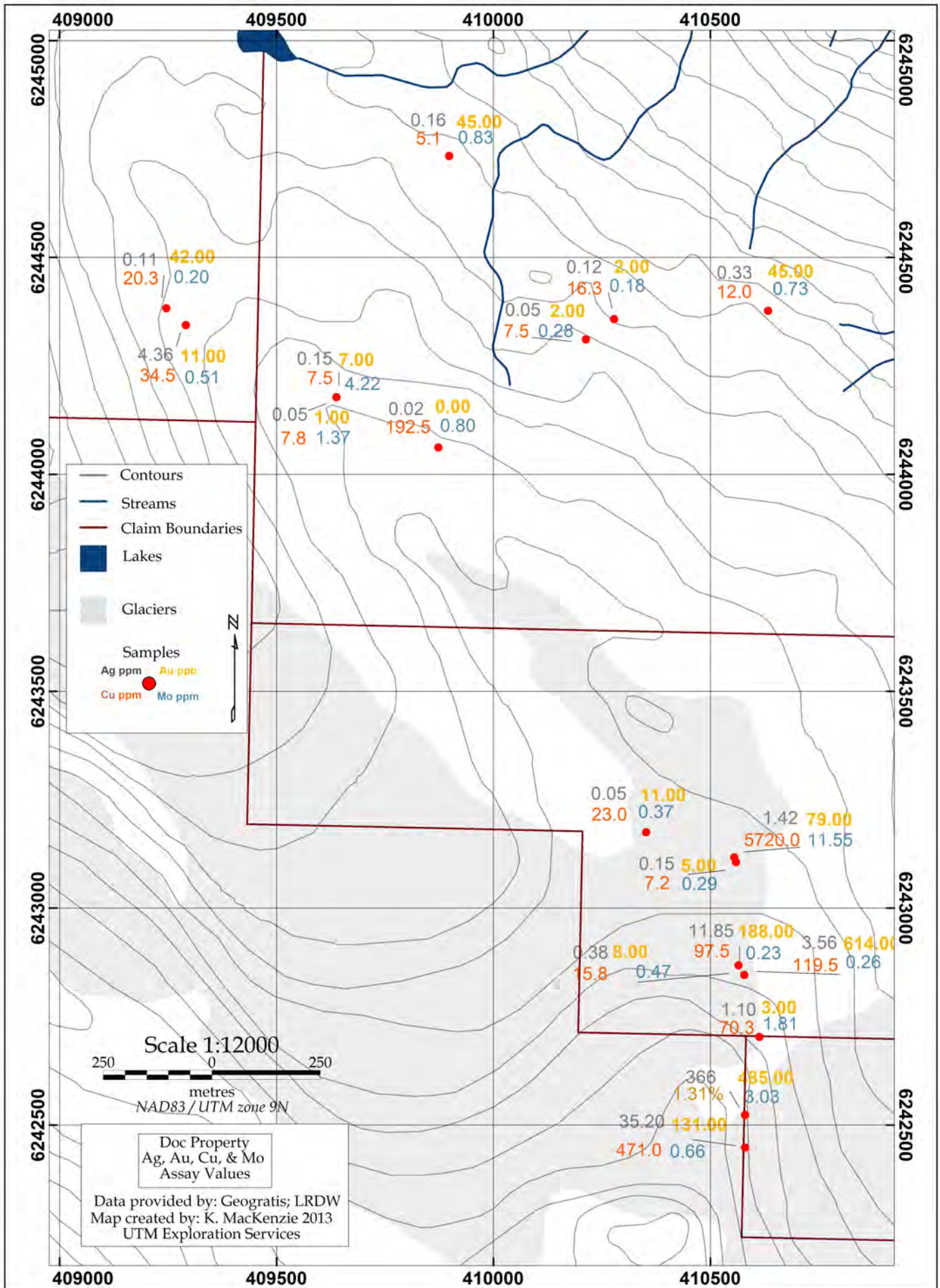


Figure 6. Map of Assay Results (Geochemistry).

8. INTERPRETATION AND CONCLUSION

There is excellent potential for new mineral discoveries on and throughout the property. The 2013 exploration program, though small in comparison to previous years' programs, focused on locating new areas of interest along strike of the known vein set as well as peripheral to the existing vein set in hopes of discovering more en echelon veining and associated mineralization. Sampling to the south of the main area of the Q17-Q22 veins and adit was also conducted and this was designed to follow up the area on the Doc property that was directly adjacent to the Cache Exploration claims to the west (see Cache Exploration news release dated August 19th 2013). This area is directly southeast of the new vein sets discovered in 1989.

Sample #55057 located immediately east of the Cache Exploration success assayed 1.31% Cu, 366 ppm Ag and 485 ppb Au and Sample #55058 assayed 471 ppm Cu, 35.2 ppm Ag and 131 ppb Au. Given the nature of the common structural orientation of the vein sets and the azimuth of the known mineralization corridors, being that northwest-southeast orientation, there is potential for continued new discoveries yielding similar results.

The Doc property consists of multiple sources of mineralization. The main source, quartz vein-hosted gold and silver, are distributed over the property in parallel northwest trending, steeply dipping vein sets that show sulphide mineralization (pyrite, chalcopyrite, galena, pyrrhotite, and sphalerite) as well as magnetite, and specularite. The main vein set, around Q17-Q22 zone also display a hematite/limonite alteration zone, with shearing at the margins of the vein which also hosts mineralization. Mineralization is likely due to proximity to granitic intrusions, and which provided mesothermal fluids. These veins are hosted in metavolcanics. This area shows good resource potential from previous drilling and exploration.

A new vein set showing potential high-grade mineralization, with pyrite, specularite, and chalcopyrite present in the vein, was located in the southwestern portion of the Doc property. The veins are not as thick as the main set, but do show potential for extension along strike. Some veins show mineralization, weak shearing and alteration at the margins, but one vein showing massive sulphides has potentially more significant mineralization. These veins are hosted in metavolcanics as well. Secondary sources of mineralization are present in a zone of highly hematized metasedimentary rocks showing localized blebs of semi-massive sulphides (pyrite, pyrrhotite, and magnetite). Parts show weak shearing. This area extends over a length of 700x300m (Glover, 1989) and is suggested to be skarn-style mineralization.

No known investigation other than surface sampling has taken place over this area.

9. RECOMMENDATIONS

While the northwestern portion of the property was planned to be explored more extensively over the 3 days, exploration was limited due to weather.

To date the property has seen 5052m of surface drilling within 74 drill holes, 695m of underground drilling, 607m of underground development of adit, 11.2km of Total Field Magnetic survey, prospecting, soil sampling, detailed (1:10,000) mapping and trenching. The property boasts a significant amount of historical data collected over the years and as a result, exhibits substantial potential. Further work is certainly warranted on the property and the following is recommended:

- **Phase I:** Complete and concise database compilation - designed to generate new and up to date referenced maps, waypoints, 3D models
 - Estimated budget: \$20,000-\$25,000
- **Phase II:** Field due diligence and complete G.P.S. rendering of all areas outlined in the database: i.e. true waypoints of veins, GPS mark for adit and underground workings, GPS points of all visible trenches, etc
 - Detailed geochemical soil sampling program over select areas of the property beginning with the areas of known mineralization and extending to accommodate strike length of vein system
 - EM/VLF geophysical survey atop the same soil grid in efforts of better identifying the quartz veins
 - Trenching – using a small excavator – at the open ends of the known mineralized veins; i.e. Q17, Q22, Q25, etc.
 - Regional mapping and prospecting beginning with the known areas and working away to better identify size and true potential of veined corridor and any related mineralized structures – mapping should focus on lithology, structure, alteration and veining
 - Estimated budget: \$300,000 - \$350,000
- **Phase III:** database compilation update so to include Phase II
 - Focused drill program to test vein corridor along strike and to depth
 - Exploration drill program to test outlying areas in wider spaced drillhole centers.
 - Estimated budget: \$300,000 - \$500,000

10. Statement of Costs

John Bot - Doc Property Program					
Personnel (Name)* / Position	Field Days (list actual days)	Days	Rate	Subtotal	
Kay Mackenzie	August 24 - 27	4	\$625.00	\$2,500.00	
				\$2,500.00	\$2,500.00
Office Studies	List Personnel (note - Office only, do not include field days)				
		Hours	Rate	Subtotal	
Map/field preparation	Richard Beck (Aug. 22 - 23)	12.0	\$55.00	\$660.00	
Pre field prep work	Kay Mackenzie (August 22 - 23)	8.0	\$55.00	\$440.00	
Field/yard preparation for field work	Gerald Maurer (Aug. 22 - 23)	8.0	\$55.00	\$440.00	
Post field report preparation	Kay Mackenzie (Sept. 4 - 6)	8.0	\$55.00	\$440.00	
Report preparation	Richard Beck (Sept.- Nov.)	30.0	\$55.00	\$1,650.00	
Report preparation	Anastasia Ledwon (Sept.- Nov.)	10.0	\$105.00	\$1,050.00	
GIS	Sept. - Nov.	14.0	\$70.00	\$980.00	
				\$5,660.00	\$5,660.00
Airborne Exploration Surveys	Line Kilometres / Enter total invoiced amount				
Aeromagnetics			\$0.00	\$0.00	
Radiometrics			\$0.00	\$0.00	
Electromagnetics			\$0.00	\$0.00	
Gravity			\$0.00	\$0.00	
Digital terrain modelling			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	\$0.00
Remote Sensing	Area in Hectares / Enter total invoiced amount or list personnel				
Aerial photography			\$0.00	\$0.00	
LANDSAT			\$0.00	\$0.00	
Other (specify)			\$0.00	\$0.00	
				\$0.00	\$0.00
Ground Exploration Surveys	Area in Hectares/List Personnel				
Geological mapping				\$0.00	
Regional					
Reconnaissance					
Prospect					
Underground				\$0.00	
Trenches				\$0.00	
				\$0.00	\$0.00
Ground geophysics	Line Kilometres / Enter total amount invoiced list personnel				
Radiometrics					
Magnetics					
Gravity					
Digital terrain modelling					
Electromagnetics					
SP/AP/EP					
IP					
AMT/CSAMT					
Resistivity					
Complex resistivity					
Seismic reflection					
Seismic refraction					
Well logging					
Geophysical interpretation					
Petrophysics					
Other (specify)					
				\$0.00	\$0.00
Geochemical Surveying	Number of Samples	No.	Rate	Subtotal	
Drill (cuttings, core, etc.)			\$0.00	\$0.00	
Stream sediment			\$0.00	\$0.00	
Soil			\$0.00	\$0.00	
Rock		18.0	\$47.13	\$848.34	

11. REFERENCES

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12. STATEMENT OF QUALIFICATIONS

I, Kay MacKenzie, do hereby state that:

1. I reside at 10 Christies Road, Boutiliers Point, NS B3Z 1S1
2. I am a member in training in good standing of the Association of Professional Geoscientists of Nova Scotia since June 2013. Membership # 56.
3. I graduated from Saint Mary's University in 2009 with a Bachelor of Science degree in Geology, with Honours.
4. I have no investments or stock options in this property.
5. This statement refers to the 2013 Technical Assessment Report for the Doc property for John Bot.

Signed this 20th day of November, 2013 in Halifax, Nova Scotia.

Kay MacKenzie, MIT
UTM Exploration Services Ltd.

I, Richard Beck, residing at 4901 Slack Road, Smithers, British Columbia, do hereby certify that:

- I am part owner of and currently employed as the Ex. Vice President of Exploration and Development and President by:

UTM Exploration Services Ltd

PO Box 5037

Smithers, BC V0J 2N2

- I attended Dalhousie University from 1985 to 1989, specializing in geology;
- Between 1987 and 1990, and 1996 to present I have been continuously employed as a junior geologist/project manager/senior exploration geologist in the mineral exploration sector;

- I did not visit this property but supervised the data herein collected.

Dated at Smithers, British Columbia, this 20th day of November, 2013.

Richard Beck

President and Executive VP of Exploration and Development

UTM Exploration Services Ltd.

I, Anastasia Ledwon, do hereby state that:

1. I reside at 4901 Slack Road, Smithers, BC V0J 2N2
2. I am an owner and the Professional Geoscientist for UTM Exploration Services Ltd. of Smithers, BC.
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of BC and have been since September, 2009. License # 33898.
4. I graduated from the University of Victoria in 1997 with a Bachelor of Science degree in Earth and Ocean Sciences, With Honours, With Distinction.
5. I have no investments or stock options in this property nor Electrum Resource Corp.
6. This Statement refers to the 2013 Technical Assessment Report for the Marmot Property, for Electrum Resources Inc.
7. I did not visit the project site but am directly involved in UTM's QA/QC procedures and assisted Mr. Beck and UTM in setting up this program and writing this subsequent report.

Signed this 20th day of November, 2013, in Smithers, BC.

Anastasia Ledwon, P.Geo #33898
UTM Exploration Services Ltd.

APPENDIX I: ASSAY CERTIFICATES



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Phone: 604 984 0221 Fax: 604 984 0218 www.alsglobal.com

To: UTM EXPLORATION SERVICES LTD.
 3176 TATLOW ROAD
 BOX 5037
 SMITHERS BC VOJ 2N0

Page: 1
 Finalized Date: 20-SEP-2013
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CERTIFICATE TR13162258

Project:
 P.O. No.: 680
 This report is for 21 GRAB samples submitted to our lab in Terrace, BC, Canada on 3-SEP-2013.
 The following have access to data associated with this certificate:
 RICHARD BECK

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
PUL-QC	Pulverizing QC Test

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Cu-OG62	Ore Grade Cu - Four Acid	VARIABLE
Au-ICP21	Au 30g FA ICP-AES Finish	ICP-AES
ME-MS61	48 element four acid ICP-MS	
Aq-OG62	Ore Grade Aq - Four Acid	VARIABLE
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES

To: UTM EXPLORATION SERVICES LTD.
 ATTN: RICHARD BECK
 3176 TATLOW ROAD
 BOX 5037
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This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Colin Ramshaw, Vancouver Laboratory Manager



Minerals

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CERTIFICATE OF ANALYSIS TR13162258

Sample Description	Method Analyte Units LOR	WEI-21	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Recvd Wt. kg	Ag ppm	Al %	As ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm	Cs ppm	Cu ppm	Fe %
E055051		0.77	0.11	6.37	3.1	230	0.69	1.14	0.16	0.03	18.25	16.6	20	0.11	20.3	8.87
E055052		0.90	4.36	4.05	11.0	350	0.48	0.71	3.21	45.4	13.95	25.2	44	0.46	34.5	3.61
E055053		1.25	0.15	6.70	2.8	210	1.08	0.16	1.54	0.02	26.3	15.8	30	0.30	7.5	8.75
E055054		0.76	0.05	5.68	1.3	80	0.79	0.05	1.12	0.04	17.15	7.6	27	0.09	7.8	3.25
E055055		1.15	0.02	0.12	2.6	10	<0.05	0.04	0.78	0.12	3.87	8.4	40	<0.05	192.5	0.82
E055056		1.37	0.16	0.47	1.9	150	0.26	0.01	0.02	0.08	0.38	3.1	27	0.33	5.1	0.91
E055057		1.05	>100	0.85	11.0	200	0.23	2.10	7.54	23.2	6.62	19.0	23	0.13	>10000	11.35
E055058		0.81	35.2	3.05	11.8	950	2.07	14.95	0.70	9.05	5.18	7.8	12	2.12	471	1.98
E055059		1.12	1.10	7.24	0.8	150	0.68	0.09	2.56	0.19	29.7	40.4	255	1.23	70.3	6.72
E055060		1.33	0.38	0.75	<0.2	80	0.13	0.07	0.62	0.22	1.40	4.7	20	0.35	15.8	0.82
E055061		1.11	11.85	0.90	0.9	120	0.25	0.10	0.01	0.14	1.97	0.9	21	0.37	97.5	1.18
E055062		0.70	3.56	11.10	2.1	1380	3.77	0.15	0.02	0.05	11.80	5.3	43	8.06	119.5	5.40
E055063		1.05	0.15	0.28	0.7	50	<0.05	0.01	0.16	0.07	0.38	1.2	23	0.11	7.2	0.74
E055064		1.10	1.42	1.03	5.6	50	1.28	0.45	1.95	0.25	12.15	102.0	20	0.23	5720	25.3
E055065		1.18	0.05	0.29	0.6	10	0.81	0.11	4.19	0.02	14.30	59.5	7	<0.05	23.0	36.2
E055066		1.33	0.33	1.08	0.5	40	0.45	0.01	0.01	0.04	17.70	2.1	32	0.24	12.0	0.77
E055067		0.88	0.12	5.82	0.7	50	6.56	0.25	0.17	0.02	9.25	1.4	12	<0.05	16.3	0.79
E055068		0.72	0.05	4.88	1.6	110	1.71	0.14	0.17	0.03	5.57	1.5	18	0.31	7.5	0.76
E055069		0.76	0.76	4.05	16.5	130	0.58	8.50	9.05	0.05	10.95	518	5	0.56	11.3	11.75
E055070		0.82	0.07	0.10	<5	20	<0.05	0.82	32.9	0.12	5.41	56.8	1	<0.05	13.2	3.88
E055071		1.00	0.27	4.91	<5	600	4.43	0.08	12.25	3.58	12.75	17.9	42	3.97	15.5	8.85



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CERTIFICATE OF ANALYSIS TR13162258

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61
		Ga ppm	Ge ppm	Hf ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm	Na %	Nb ppm	Ni ppm	P ppm	Pb ppm
E055051		11.25	0.17	0.1	0.033	0.30	8.2	2.5	0.61	207	0.20	4.13	1.1	9.7	920	5.6
E055052		9.78	0.14	0.1	0.140	1.99	5.9	1.2	1.31	1150	0.51	0.05	1.7	38.0	750	2830
E055053		23.4	0.12	0.6	0.023	1.11	13.9	5.7	0.74	88	4.22	4.10	3.1	61.2	810	4.3
E055054		15.80	0.07	3.2	0.012	0.42	8.2	2.0	0.25	121	1.37	3.80	4.4	18.8	300	5.9
E055055		0.63	0.05	<0.1	0.015	0.01	3.8	0.3	0.03	243	0.80	0.04	0.1	9.3	230	1.2
E055056		1.49	<0.05	<0.1	0.009	0.23	<0.5	0.9	0.05	132	0.83	0.10	0.2	3.0	60	6.8
E055057		2.79	0.19	<0.1	0.793	0.02	2.8	5.8	3.34	5010	3.03	0.15	0.5	79.3	140	53.1
E055058		11.05	0.08	0.1	0.049	1.52	2.8	13.4	0.27	646	0.66	0.03	1.0	6.3	260	4320
E055059		17.65	0.23	0.2	0.055	0.41	13.9	24.0	6.88	283	1.81	2.00	4.1	228	1130	13.3
E055060		2.14	0.05	<0.1	0.012	0.36	0.6	1.1	0.11	505	0.47	0.01	0.2	9.3	90	25.8
E055061		2.71	<0.05	0.1	0.028	0.46	0.7	1.1	0.06	52	0.23	0.01	0.3	3.0	40	21.0
E055062		31.0	0.21	0.1	0.206	6.36	4.2	13.7	0.76	126	0.26	0.31	2.5	10.8	250	5.4
E055063		1.18	<0.05	<0.1	<0.005	0.04	<0.5	2.6	0.26	136	0.29	0.01	0.1	4.2	10	2.0
E055064		6.85	0.30	0.2	0.231	0.02	9.5	1.4	1.52	279	11.55	0.09	0.9	48.0	500	3.7
E055065		10.50	0.59	0.1	0.079	0.01	8.2	5.1	1.60	486	0.37	0.09	0.4	64.5	930	0.8
E055066		2.53	<0.05	<0.1	0.010	0.39	10.8	0.9	0.05	108	0.73	0.30	0.6	8.0	30	3.0
E055067		26.8	0.06	2.0	0.069	0.08	2.8	1.8	0.10	277	0.18	5.02	62.7	1.2	200	2.9
E055068		12.10	0.06	0.8	0.013	0.46	3.1	1.3	0.08	94	0.28	3.05	3.2	6.7	60	2.7
E055069		8.28	0.15	0.4	0.059	2.16	5.1	3.3	0.31	1250	5.35	0.06	1.4	4.7	970	5.1
E055070		0.30	0.05	<0.1	0.057	0.03	2.1	0.5	0.11	4290	1.23	0.01	0.1	0.7	20	4.8
E055071		16.50	0.11	0.1	0.066	2.77	5.3	25.2	5.53	4610	0.18	0.12	0.8	51.4	1150	15.7

**** See Appendix Page for comments regarding this certificate ****



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CERTIFICATE OF ANALYSIS TR13162258

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	ME-MS61	
		Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm	Th ppm	Ti %	Tl ppm	U ppm	V ppm
		0.1	0.002	0.01	0.05	0.1	1	0.2	0.2	0.05	0.05	0.2	0.005	0.02	0.1	1
E055051		7.5	<0.002	1.10	0.87	8.0	3	0.3	155.5	0.13	0.60	1.3	0.082	0.04	0.1	72
E055052		54.7	<0.002	1.27	7.20	9.0	3	0.5	65.7	0.20	0.50	1.1	0.109	0.19	0.2	90
E055053		23.4	0.011	3.75	0.69	30.0	3	2.7	76.4	0.19	0.86	0.6	0.659	0.17	3.9	379
E055054		8.8	0.004	1.31	0.50	8.9	1	2.5	38.3	0.36	0.21	2.9	0.254	0.04	1.8	90
E055055		0.4	<0.002	0.14	0.33	0.5	1	0.2	7.1	0.05	<0.05	<0.2	0.008	<0.02	0.3	6
E055056		12.1	<0.002	0.03	0.72	1.8	<1	0.2	7.3	<0.05	0.17	<0.2	0.037	0.06	0.1	23
E055057		0.9	<0.002	2.16	262	10.8	2	0.3	579	0.15	0.05	<0.2	0.025	<0.02	0.2	65
E055058		80.5	<0.002	1.33	8.28	2.0	6	0.7	68.3	0.17	2.25	0.4	0.050	0.46	0.4	69
E055059		8.3	0.007	3.68	0.99	22.1	6	0.6	170.0	0.42	0.26	1.5	0.344	0.41	0.4	140
E055060		17.6	<0.002	0.08	0.51	3.2	1	0.2	14.1	0.05	0.16	<0.2	0.032	0.11	<0.1	23
E055061		18.9	<0.002	0.10	0.78	3.3	2	0.3	2.2	0.08	2.03	<0.2	0.047	0.12	0.1	28
E055062		186.5	<0.002	0.42	2.48	48.9	2	1.8	19.6	0.26	2.67	0.6	0.507	1.78	0.2	350
E055063		1.7	0.002	0.02	0.40	0.8	<1	<0.2	5.9	<0.05	<0.05	<0.2	0.019	<0.02	<0.1	12
E055064		1.2	0.011	>10.0	0.76	2.5	21	0.8	10.0	0.05	0.76	0.3	0.072	0.21	0.7	32
E055065		0.3	0.006	2.20	0.21	0.8	1	0.6	13.2	<0.05	0.76	0.6	0.057	<0.02	0.3	843
E055066		19.7	0.002	0.11	0.65	1.3	1	0.4	3.7	<0.05	0.34	0.6	0.029	0.15	0.1	22
E055067		1.5	0.002	0.01	0.21	11.8	1	3.2	43.1	16.65	0.05	6.1	0.019	<0.02	12.7	9
E055068		13.7	0.003	0.03	0.28	1.7	1	3.2	53.5	0.58	0.09	1.1	0.030	0.06	1.5	8
E055069		81.2	0.003	>10.0	1.08	5.2	4	1.2	130.0	0.09	9.33	1.1	0.120	0.41	7.2	60
E055070		1.4	0.003	4.20	0.05	8.3	4	<0.2	448	<0.05	0.87	<0.2	<0.005	<0.02	0.1	1
E055071		156.0	0.004	4.20	2.60	17.4	2	0.6	603	0.07	0.42	0.7	0.176	0.94	0.3	181



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CERTIFICATE OF ANALYSIS TR13162258

Sample Description	Method Analyte Units LOR	ME-MS61	ME-MS61	ME-MS61	ME-MS61	Ag-OG62	Cu-OG62	Au-ICP21
		W ppm	Y ppm	Zn ppm	Zr ppm	Ag ppm	Cu %	Au ppm
		0.1	0.1	2	0.5	1	0.001	0.001
E055051		0.2	2.0	28	2.3			0.042
E055052		0.2	4.2	3950	3.4			0.011
E055053		0.8	14.1	7	14.0			0.007
E055054		0.2	18.6	8	57.9			0.001
E055055		0.1	6.4	5	0.9			<0.001
E055056		5.6	0.6	11	0.6			0.045
E055057		17.8	8.9	232	<0.5	366	1.315	0.485
E055058		7.5	5.5	162	1.5			0.131
E055059		0.2	17.2	89	3.9			0.003
E055060		1.1	2.3	11	0.8			0.008
E055061		1.6	2.2	15	1.3			0.188
E055062		35.3	2.3	44	1.2			0.614
E055063		0.2	1.4	10	<0.5			0.005
E055064		2.9	12.3	19	6.4			0.079
E055065		0.4	5.5	7	1.8			0.011
E055066		3.3	3.2	9	1.0			0.045
E055067		1.5	10.7	37	12.2			0.002
E055068		0.5	2.6	7	11.2			0.002
E055069		30.1	14.5	6	6.6			4.85
E055070		0.9	151.5	2	<0.5			0.021
E055071		15.5	22.6	211	2.4			0.029



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CERTIFICATE OF ANALYSIS TR13162258

CERTIFICATE COMMENTS

ANALYTICAL COMMENTS

Applies to Method:

REE's may not be totally soluble in this method.
 ME-MS61

Applies to Method:

Interference: Samples with Ca > 10% on ICP-MS As. ICP-AES As results reported (5 ppm DL)
 ME-MS61

LABORATORY ADDRESSES

Applies to Method:

Processed at ALS Terrace located at 2912 Molitor Street, Terrace, BC, Canada.
 CRU-31 LOG-22 PUL-31 PUL-QC
 SPL-21 WEI-21

Applies to Method:

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.
 Ag-OG62 Au-ICP21 Cu-OG62 ME-MS61
 ME-OG62

APPENDIX II: LAB METHODOLOGIES

FIRE ASSAY PROCEDURE

Au-ICP21 and Au-ICP22

FIRE ASSAY FUSION ICP-AES FINISH

SAMPLE DECOMPOSITION

Fire Assay Fusion (FA-FUSPG1 & FA-FUSPG2)

ANALYTICAL METHOD

Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES)

A prepared sample is fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquartered with 6 mg of gold-free silver and then cupelled to yield a precious metal bead.

The bead is digested in 0.5 mL dilute nitric acid in the microwave oven. 0.5 mL concentrated hydrochloric acid is then added and the bead is further digested in the microwave at a lower power setting. The digested solution is cooled, diluted to a total volume of 4 mL with de-mineralized water, and analyzed by inductively coupled plasma atomic emission spectrometry against matrix-matched standards.

METHOD CODE	ELEMENT	SYMBOL	UNITS	SAMPLE WEIGHT (G)	LOWER LIMIT	UPPER LIMIT	DEFAULT OVERLIMIT METHOD
Au-ICP21	Gold	Au	ppm	30	0.001	10	Au-AA25
Au-ICP22	Gold	Au	ppm	50	0.001	10	Au-AA26

GEOCHEMICAL PROCEDURE

ME- ICP61

TRACE LEVEL METHODS USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO₃ -HClO₄ -HF-HCl digestion, HCl Leach (GEO-4ACID)

ANALYTICAL METHOD

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)

A prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric and hydrochloric acids. The residue is topped up with dilute hydrochloric acid and the resulting solution is analyzed by inductively coupled plasma-atomic emission spectrometry. Results are corrected for spectral interelement interferences.

NOTE: Four acid digestions are able to dissolve most minerals; however, although the term “near- total” is used, depending on the sample matrix, not all elements are quantitatively extracted.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Silver	Ag	ppm	0.5	100	Ag-OG62
Aluminum	Al	%	0.01	50	
Arsenic	As	ppm	5	10,000	
Barium	Ba	ppm	10	10,000	
Beryllium	Be	ppm	0.5	1,000	
Bismuth	Bi	ppm	2	10,000	
Calcium	Ca	%	0.01	50	
Cadmium	Cd	ppm	0.5	500	
Cobalt	Co	ppm	1	10,000	Co-OG62
Chromium	Cr	ppm	1	10,000	
Copper	Cu	ppm	1	10,000	Cu-OG62
Iron	Fe	%	0.01	50	
Gallium	Ga	ppm	10	10,000	
Potassium	K	%	0.01	10	
Lanthanum	La	ppm	10	10,000	
Magnesium	Mg	%	0.01	50	
Manganese	Mn	ppm	5	10,000	

ASSAY PROCEDURE

ME- OG62

ORE GRADE ELEMENTS BY FOUR ACID DIGESTION USING CONVENTIONAL ICP- AES ANALYSIS

SAMPLE DECOMPOSITION

HNO₃ -HClO₄ -HF-HCl Digestion (ASY-4A01)

ANALYTICAL METHOD

Inductively Coupled Plasma - Atomic Emission Spectroscopy (ICP - AES)*

Assays for the evaluation of ores and high-grade materials are optimized for accuracy and precision at high concentrations. Ultra high concentration samples (> 15 -20%) may require the use of methods such as titrimetric and gravimetric analysis, in order to achieve maximum accuracy.

A prepared sample is digested with nitric, perchloric, hydrofluoric, and hydrochloric acids, and then evaporated to incipient dryness. Hydrochloric acid and de-ionized water is added for further digestion, and the sample is heated for an additional allotted time. The sample is cooled to room temperature and transferred to a volumetric flask (100 mL). The resulting solution is diluted to volume with de-ionized water, homogenized and the solution is analyzed by inductively coupled plasma - atomic emission spectroscopy or by atomic absorption spectrometry.

***NOTE:** ICP-AES is the default finish technique for ME-OG62. However, under some conditions and at the discretion of the laboratory an AA finish may be substituted. The certificate will clearly reflect which instrument finish was used.

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT
Silver	Ag	ppm	1	1,500
Arsenic	As	%	0.01	30
Bismuth	Bi	%	0.01	30
Cadmium	Cd	%	0.0001	10
Cobalt	Co	%	0.001	20
Chromium	Cr	%	0.002	30
Copper	Cu	%	0.001	40
Iron	Fe	%	0.01	100
Manganese	Mn	%	0.01	50
Molybdenum	Mo	%	0.001	10
Nickel	Ni	%	0.001	30
Lead	Pb	%	0.001	20
Zinc	Zn	%	0.001	30

ME-ICP41a

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Molybdenum	Mo	ppm	1	10,000	Mo-OG62
Sodium	Na	%	0.01	10	
Nickel	Ni	ppm	1	10,000	Ni-OG62
Phosphorus	P	ppm	10	10,000	
Lead	Pb	ppm	2	10,000	Pb-OG62
Sulphur	S	%	0.01	10	
Antimony	Sb	ppm	5	10,000	
Scandium	Sc	ppm	1	10,000	
Strontium	Sr	ppm	1	10,000	
Thorium	Th	ppm	20	10,000	
Titanium	Ti	%	0.01	10	
Thallium	Tl	ppm	10	10,000	
Uranium	U	ppm	10	10,000	
Vanadium	V	ppm	1	10,000	
Tungsten	W	ppm	10	10,000	
Zinc	Zn	ppm	2	10,000	Zn-OG62

ELEMENTS LISTED BELOW ARE AVAILABLE UPON REQUEST

ELEMENT	SYMBOL	UNITS	LOWER LIMIT	UPPER LIMIT	DEFAULT OVER-LIMIT METHOD
Lithium	Li	ppm	10	10,000	
Niobium	Nb	ppm	5	2,000	
Rubidium	Rb	ppm	10	10,000	
Selenium	Se	ppm	10	1,000	
Tin	Sn	ppm	10	10,000	
Tantalum	Ta	ppm	10	10,000	
Tellurium	Te	ppm	10	10,000	
Yttrium	Y	ppm	10	10,000	
Zirconium	Zr	ppm	5	500	


APPENDIX III: ROCK SAMPLE PHOTOS



Field Laboratory
Barcode
Date: _____
Time: _____
Location: _____
Sample ID: _____
Collector: _____

055051
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055098
055099
055100

055051



Q55052



H50550

0552053

5002 001
100 2005



056055





055057

190 2005



055057

100 2005



056058




0 55059




035059



055060

A photograph showing two small, reddish-brown rock fragments resting on a piece of white paper. The paper is placed on a surface of larger, layered rock formations. The fragments are irregular in shape and have a somewhat crystalline texture. The background consists of various shades of brown and grey rocks, some with distinct layering.

055061



055062



055063



055064



055065

055066

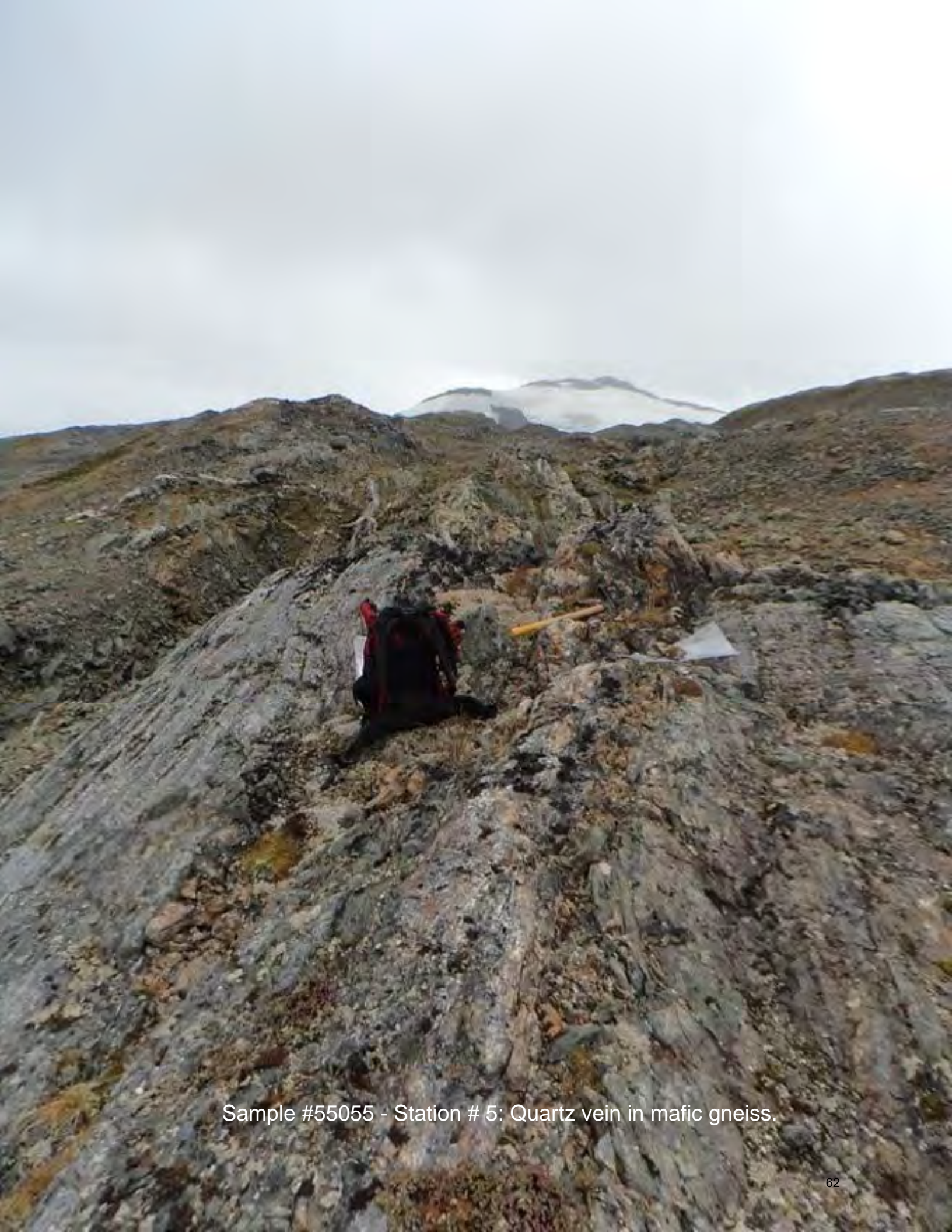


055067



055068

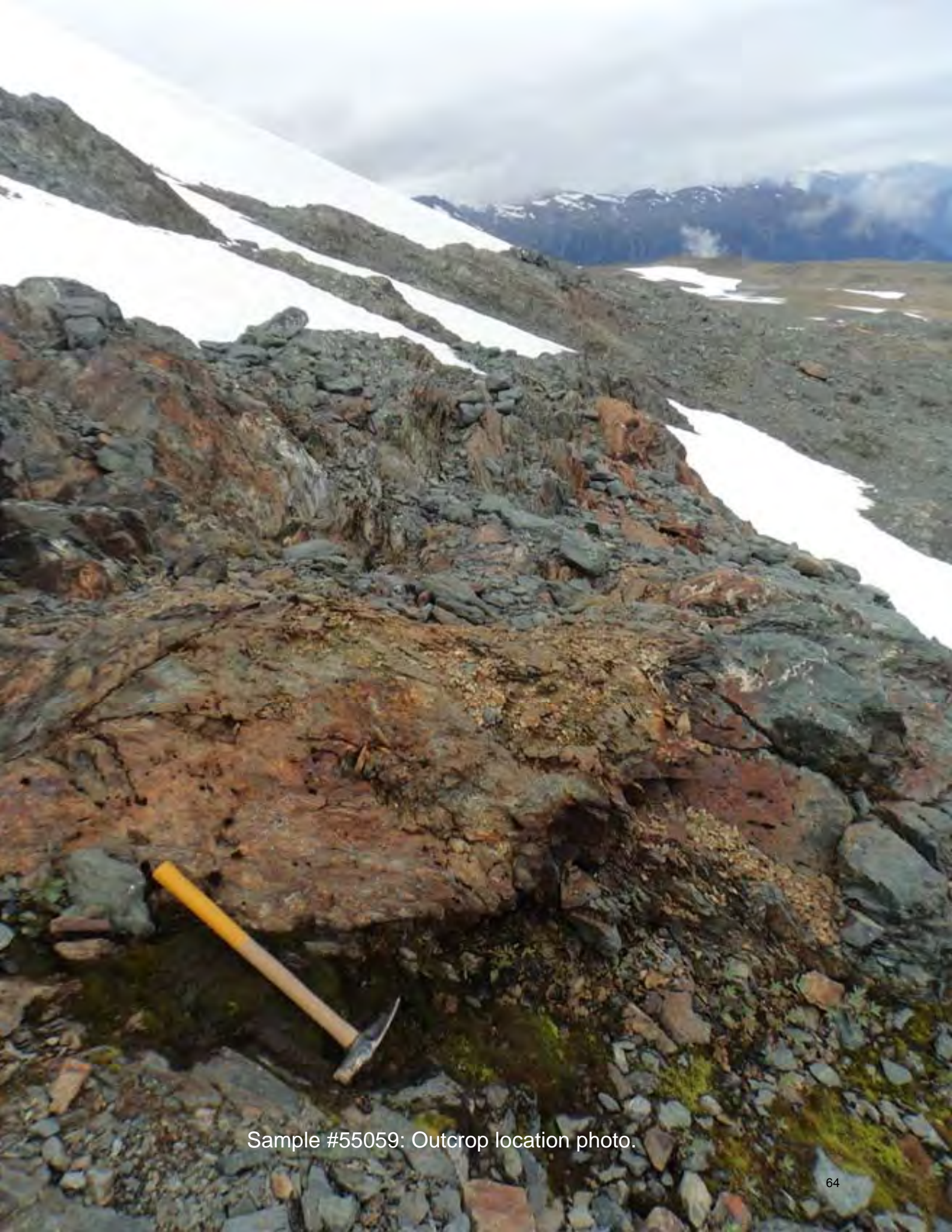
APPENDIX IV: MISCELLANEOUS FIELD PHOTOS



Sample #55055 - Station # 5: Quartz vein in mafic gneiss.



Close-up of Sample #55055.



Sample #55059: Outcrop location photo.



Sample #55059: Close-up photo.



Sample #55061: Outcrop location photo.



Sample #55064 : Close-up.



Sample #55064: Close-up 2.



Sample #55064: Zoom-in showing extensive mineralization.



Sample #55064: Location outcrop photo.



Sample #55066: Location. Milky white quartz vein: Station point #17.



Station #6: Up to 60cm-wide bull quartz vein in volcanic o/c.



Sample 355067: Location. Station #18: Large 30cm quartz vein.



Sample #55068. Station #19: 50cm-wide quartz vein in metaseds.



QV1: Points of interest: Historical sample site (see map).



QV1: Points of interest map: QV1 boulder, strongly mineralized section of vein.



QV2: Points of interest map: Gossanous mineralized vein.



Sample #55056: Station #8: Quartz vein float boulder.



Sample #55057: Station #9: Meta-volcanics with abundant mineralization.



Sample #55057: Station #9: Outcrop Location.



Station #9: Outcrop location.

APPENDIX V: FIELD NOTES

Aug 24, 2013

DOC property

- Foggy at property elevation - couldn't
spot property in Hel. Landed near
western edge.

St. 1 - 409246 E 6244383 N 1373m Elev

Outcrop w minor Qtz < 20%, generally
in blebs, large Qtz bleb ~ 20cm x 5cm
showing Sphem, Sph lim, 10% Py,
Ser + chl alt. within schistose volcanics,
med green, mod chl alt, mod carb alt.

Sample E055051 photo 0331
0332

St 2 409291 E 6244344 N 1385m
Elev

Outcrop showing more Qtz-carb
veining w hem, lim, py, etc. area
rough on NW trend w east station
silica alt, creamy col.

Sample E055052 photo 0333
0334

409396 6244227 talus w Qtz veins
strings, low

highly silica altered.

0365 - vein sampled @
ST9 projected to
continue here in SW
Cliff face

0379 - Semi massive sulphide
spot 2

Aug 27, 2013

9417 410633E 6244377N
317m elev

SM exposure of milky white
qtz vein on the side of a cliff,
qtz vein showing inclusions of
host rock - finely bedded ^{massive} siliceous
qtz vein ~ 70cm thick w sm stringers
coming off it. looks to be striking
~ 100, almost horizontal ~ 6° downward
to left. Trace of Mt visible

Sample 055066

photo 0584
0385

granitic host rock
with approx 200

ST 18 410278 E 6244358N 1354m elev

Log of displaying 30cm thick
milky-white/creamy qtz vein
that contains wall rock breccia.
No visible min. but vugs looking like they
hosted py. striking ~~40°~~ dip 48°
Host rock dark green ^{60°} banded
metab ~~volcanics~~ volcanics

Sample 055067 photo 0386
0387

ST 19 410238 E 6244311N

OC of meta sands - cream orange ^{1325m elev}
displaying 2m ^{long} milky white qtz
vein. ~50cm thick. Vein showing
trace py + spectrum on fracture
Strike - 40° dip 60° photo 0389

Sample 055068 0390

ST3 409488 E 6244262N 1432

OC showing strong hem/lin staining
habitat content, 20% Fe diss pos
Q ~ 15m x 3m wide

ST4 409488 E 6244262N 1432

large OC rock base partially
covered, most mineral interstitial
showing red hem staining, some
to 10cm long lichen-like
stems green

multiple (5-5) - notes - polyphasic

025051 - relatively clean

Photo 0337
0338

ST 4.2

~~same as~~ previous
409699 E 6244145N 1463m
elev

1469 photo 0339
new 0340

ST5 - 409673E 6244062N sample

Bullqtz vein, milky white in fr py
5cm wide x 3m long, within
matrix quartz? Med green-white
layers strike $\approx 170^\circ$

40999E 6244045N 1469 elev

ST6 Another bull qtz vein of varying width
up to 6cm, undulates along
a general strike of $180-190^\circ$. Looks to be
vertically offset by 2m in 1 spot. length
 $\approx 20m$

photo 0341

ST7 409894E 6243818N 1494 elev

Bull qtz vein striking 312° dipping
fr py, milky white 50°

ST8 409898E 6244734N 1318m elev

Bull qtz float, uphill from other
qtz float. Dia out from hill to
see if it was of Inyan boulder

min lim staining etc. to py + sp.
hem

Sample 58056 photo 0350
~~0350~~

Camp co-ord. 410437E 6244857N
1163_m elev

Adit co-ord. 410306E 6244875N
1193_m elev

~~QV1~~ { QV1 SE 410197E 6244696N 1259_m elev
QV1 SE.2 410159E 6244709N 1270_m elev

~~QV1~~ { QV1 NW 410137E 6244714N 1276_m elev
QV1 NW.2 410122E 6244719N 1280_m elev

QV2 410095E 6244728N 1285_m elev

Q282? QV3 SE 410240E 6244531N 1293_m elev

QV3 NW 410227E 6244534N 1296_m elev

Q222? QV4 410289E 6244668N 1249_m elev

QV5 410352E 6244827N 1194_m elev

photo 0347 - picture of QV1 to NW

0348 - ptz vein boulder near QV1

0349 - ptz vein 2

~~0350 - ptz vein 3~~

Aug. 25, 2013

S49 40556E 6242523N 1621m

Qt vein of varying thickness ≤ 30 cm, along
16m length. Showing ~~thin~~ mineralization
5% ^{specimen} ~~hem~~, ^{mag} staining on
fractures, 5% mag in blebs in vein.
Trace mal + zut in vein. Roughly striking
 290° , along trend, but bends horizontally
in sections. Dip $\approx 50^\circ$. Host rock meta
volcanics - dark green to chl, & ep. alt,
hab around vein showing lim stains
of fractures for ≤ 2 m. weak carb
alt, silica alt

Sample 055057

Photo 0352

0353

0354

ST10 410531E 6242448N 166d

Followed Qtz vein down slope,
varies in thickness, ≤ 7 cm,
showing lim staining min red
hem, cpy, mal, p. gal.

may be off prop. boundaries, but continues
to east from here, & can see more
iron staining further off. On trend
with other veins in vicinity. In
same host rock as previous.

Sample 055058 photo 0363
0362
0364

St. 11 410613E 6242703N 1581dew

1.5m wide zone in cc photo 0366
0367
0368
0369
Showing strong hem & lim
staining - pyrite, mod chl alt, 10% py
in fracture S, extends in undulating
manner for 15m. Host rock is
dark green w ep layers, banded,
showing lots of ~~SSF~~ SSF in this area.
Sample 055059

ST 12 410578E 6242846N 1554euv
milky white bullqtz vein less than 1cm
thick, varies in thickness. Shows
lim & pyrite? (weakly mag) along fractures
for 30m. Shows chl, ma, py down
vein

pinches out in the middle. Wall rock
looks banded, dark green, could be
Metasalts. Shows minor py, & weak
hem staining

Sample 055060

Photo 0370

ST 13 410565E

6242868N

1555 elev

Milky white Qtz vein
with mod hem & lim staining fractures
~ 70cm thick, showing sheared
wall rock on edges < 20cm thick
Strike 300° dip 60°. weakly magnetic
in spots - pyrrh?

Sample 055061 | Qtz vein photo 0371-0373

055062 shear wall rock ~~0374~~

Found old flagging here suggesting
historical sampling

ST 14 410559E 6243106N 1507 elev

Qtz vein exposed over photo 0377

5m, 50cm at thickest point.

mod sil all points

Tf py. milky white. Looks to be
sheared & gouged on footwall.
Within matrix, dark green, weak
banding. Directly above matrix looks
like granitic gneiss
Sample 055063 photo 0377

ST 15 410555E 6243117N 0374-0376
Small area over 15m ^{151m elev} photo 0378
Showing sections of stage 0374-0376
them all on fractures, upon closer
inspection, can see large blebs
of semi massive sulph. Mag, py,
cpx. Seems to be within the
granitic gneiss. Can see old flagging
marking hist
Sample 055064 sampling

5116 410352E 6243175N

Same as previous station. 156 elev
Showing goethite, & more mag, less
py. Looks weakly sheared
here

Sample 055065 photo 0380

Semi massive sulphide showing 2

410515E 6243148N 1513m elev

Semi massive sulphide showing 4

410283E 6243221N 1517m elev

photo 0355 - Cliff face facing west,
on western boundary

0356 - Rock on S boundary
did not sample
because off property

0357 - OC at edge of
property I did not
sample

0359 - view of western
property edge facing
N

0360 - mag dyke in ~~S~~
S cliff