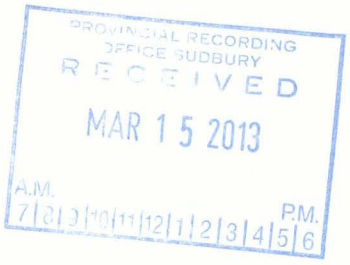
REPORT OF WORK PERFORMED
ON
MINING CLAIM 961831

February 2, 2013



Prepared by:

Michael D. Grieve
License #E33314

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INTRODUCTION

This report covers work performed on mining claim 961831, in the Thunder Bay Mining Division, over the course of the 2012 field season. In an effort to expose more bedrock and thereby gain a better understanding of the geology involved in the formation of the deposit's amethyst mineralization, extensive manual stripping, washing and mapping was undertaken.

Manual stripping and trenching was performed over an area covering approximately 40m long by up to 20m wide. Overburden and rubble was removed from the trench using hand tools, buckets, and a Suzuki Quad runner with trailer. A high pressure Ultra-Striker gasoline powered water pump was used to wash off overburden and grubbed muck.

The mining claim is held 100% by Michael Grieve of Thunder Bay, Ontario. In addition to the recorded holder, work was performed by Sandra Grieve, Ben Grieve and the author of this report, Michael D. Grieve.

LOCATION AND ACCESS

Access to mining claim 961831 (Tartan Lake sheet, G-2706) is gained by traveling north of Thunder Bay, Ontario, via Highway 527, to the Magone Road. Magone Road is followed easterly for approximately 13km, at which point a branch road leads toward the claim group.

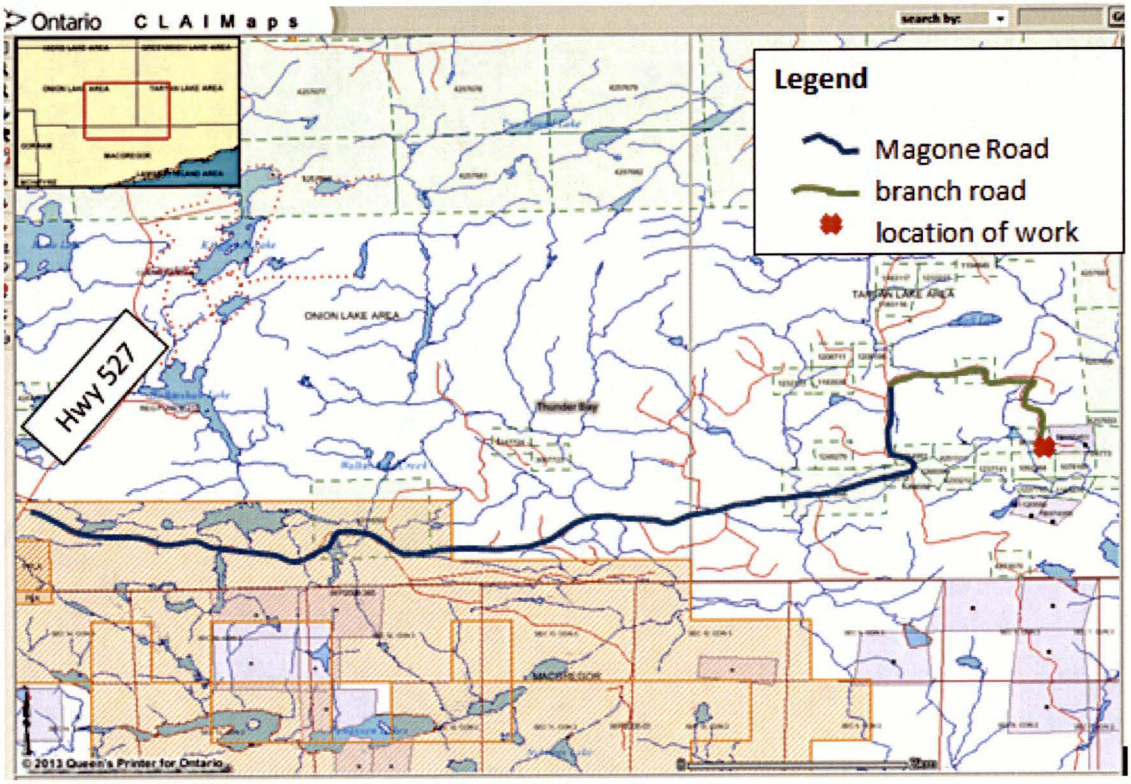


***Figure 1**: Property Location and Access.*
From http://www.geologyontario.mndmf.gov.on.ca/website/claimaps

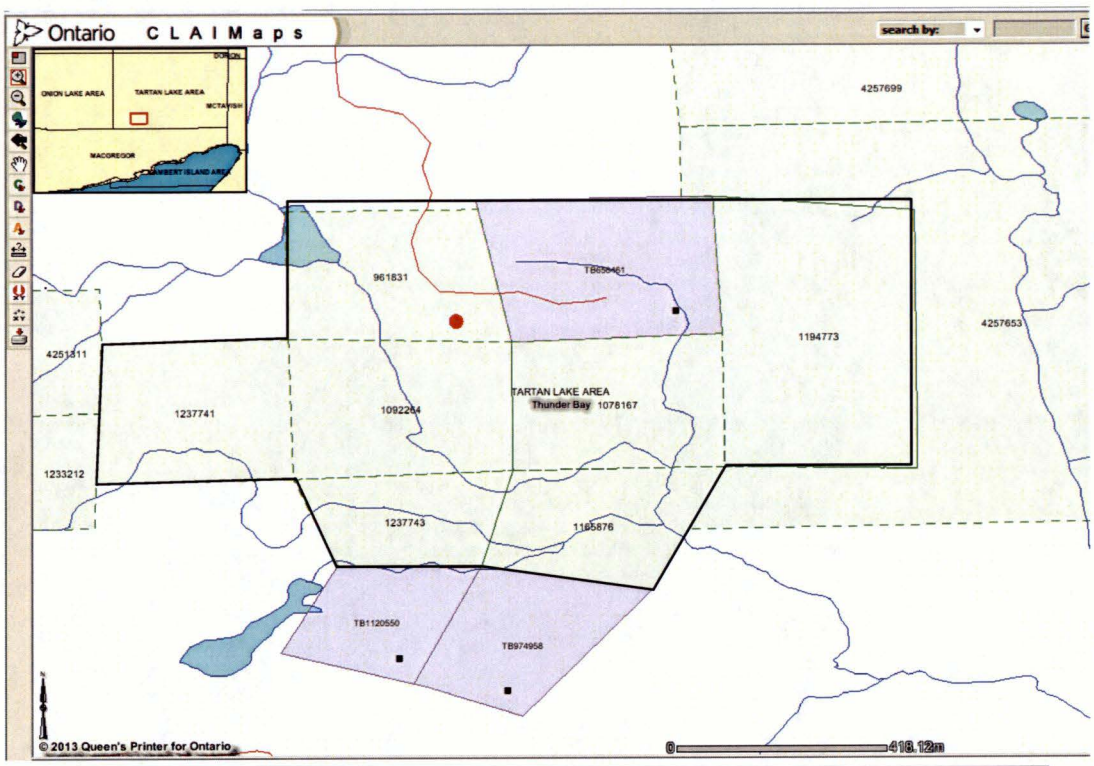


***Figure 2**: Detailed location of work performed, claim 961831.*
Work location indicated by red dot; contiguity of claim group outlined in bold black line.
From http://www.geologyontario.mndmf.gov.on.ca/website/claimaps

REGIONAL GEOLOGY

The claim group is located northeast of Thunder Bay within the Tartan Lake map sheet (G2706). This area is in the Superior geological province, probably within the dominantly metasedimentary Quetico sub province near its southern boundary with the dominantly metavolcanic Wawa sub province. Large areas of these sub provinces have been intruded by Archean felsic bodies. OGS Map M2232 (*Carter, M.W., W.H. McIlwaine and P.A. Wisbey, 1970-71. OGS Map M2232; Ontario Geological Survey, Nipigon-Schreiber Geological Compilation Series)* shows the immediate area surrounding the property to be underlain by Archean felsic igneous and metamorphic rocks. The Tartan Lake map sheet has not been mapped in detail but Scott mapped and described the geology of MacGregor Township just to the south. He reports that the boundary between the Quetico sub province and the Wawa sub province probably crosses the central portion of the MacGregor map area in an East-West direction. The Penassen Lakes Stock is one of two large granitoid intrusions on the MacGregor township map sheet and is centred on the Penassen Lakes to the WSW of the claim group. Scott reports that "The Penassen Lakes Stock is very coarse grained, generally porphyritic and ranges in composition from granite to quartz monzonite with hornblende syenite phases." (*Scott, J. 1990. Geology of MacGregor Township; Ontario Geological Survey, Open File Report 5719*).

PROPERTY GEOLOGY

Overburden in the area consists of coarse glacial till with bouldery and gravelly areas hosted in coarse sandy matrix. Material stripped from the outcrop described in this report varied from a light moss covering of several centimeters thickness to rubbly glacial till of up to 1m deep. As the stripping progressed to the north, increasingly deeper overburden cover was encountered to the point of being impractical for manual work. Approximately 5m further north of the eastern-most end of the stripped boundary, topography drops off rather sharply for several meters.

Surficial float boulders and rubble in the general area are comprised of medium-grained pink granite. Often, these float boulders and rubble contain traces of amethystine quartz. In some cases, larger boulders closer to the main amethyst trend contain small vugs lined with weathered amethyst crystals of varying shades of purple.

The amethyst mineralization occurs in silicified, brecciated zones associated with east-west trending faults and contacts within granite. In the author's earlier assessment report filing titled "*Report of Work Performed on Mining Lease TB656461, revised,*" dated February 12, 2007, it was noted that the richest amethyst breccia and vein system exposed on that claim unit occurred along the south margin of a large body of barren granite. It would appear that the contact described in the above noted report has also been exposed in the course of the work performed on claim 961831, some 200 meters roughly west-south-west along strike. The eastern-most end of the claim 961831 outcrop exposes a well-defined contact between amethyst breccia and massive, pink granite. Minor surface exposures of granite observed beyond the northern extent of the stripping appear to contain no evidence of amethyst mineralization.

VEGETATION

Vegetation in the area is comprised of a mix of poplar, birch and balsam, with lesser white and black spruce. A dense undergrowth of alder is predominant throughout most of the claim group. Small portions of the mining claim to the north and south east of the work area were logged by Shuniah Forest Products in 1991-1992, then replanted with a mix of spruce and jack pine. The stripped area covered in this report was not part of the logging operation, as the predominantly balsam forest immediately surrounding it had been devastated by budworm infestation, rendering it unsuitable for harvest. It is in the process of regenerating naturally.

LOCAL GEOLOGY

Though the claim units comprising this amethyst property have seen significant work over the years, stripping of this outcrop has provided the first real opportunity to conduct mapping on a more detailed level over a significant surface area. Historically, areas of major amethyst mineralization are typically so heavily weathered and fractured that obtaining anything more than isolated structural measurements has been difficult.

***Photo1**: Overview of western extent of the work area. View is along strike, looking to the southwest.*

***Photo1a**: Overview of work area, looking along strike to the northeast.*

Mapping of the outcrop has identified several main lithologies/domains, each of which is described below.

Massive Granite.

Comprised of pink, medium-grained, equigranular granite, with a buff weathering. This granite may be part of the Penassen Lake granite stock. Granite exposed in the northwest corner of the stripped area contains local quartz stringers less than 1cm in width, generally trending approximately 070 degrees. A 3cm wide white quartz vein follows the boundary between the massive granite and the main amethyst/granite breccia zone.

In "Structural Area A" (***Appendix A, Bedrock Geology Map***), the granite is marked by parallel, conjugate fracture sets spaced approximately 0.5m to 0.8m apart. The first set trends approximately 046/226 degrees and dips -080 degrees to the north; the second set trends 080/260 degrees, dipping -072 degrees to the north.

***Photo 2**: Conjugate fracture sets evident in granite at east end of exposure. Looking east along strike.*

Granite in the southwest corner of the exposure is crossed by two main sets of late-stage, white quartz stringers to 1cm wide. The first vein set strikes approximately 070/250 degrees, and dips to the south east; the second, cross-cutting vein set strikes approximately 146/326 degrees and dips steeply to the southwest. No vugs are present in these veins.

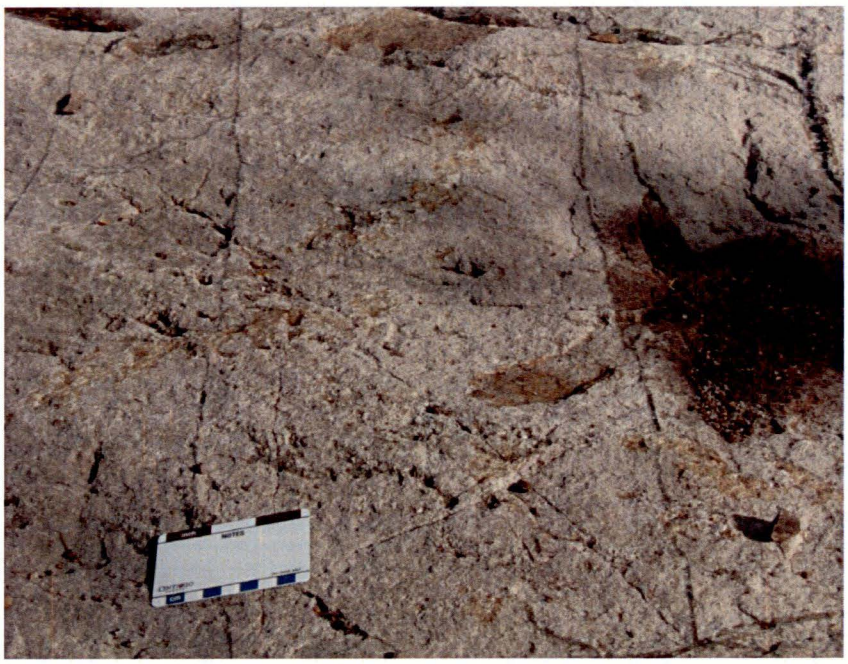


Photo 3:
Cross-cutting sets of late-stage quartz stringers in granite, southwest corner of outcrop. View looking north-northwest.

Breccia Vein.

A prominent example can be found in the southwest corner of the exposure, just beyond the area containing the cross-cutting, late-stage quartz veins described in the previous section.

This linear feature is approximately 1m wide and trends approximately 070/250 degrees. Boundaries with the massive granite are sharp, and delineated by white 2 to 4cm wide white quartz veins on both margins. Granite clasts within the breccia vein are angular, and range from between one to 20 centimeters in diameter.

Photo 4
Wide-view of breccia vein. Bounding quartz veins can be seen on the left and rights sides of the photo.

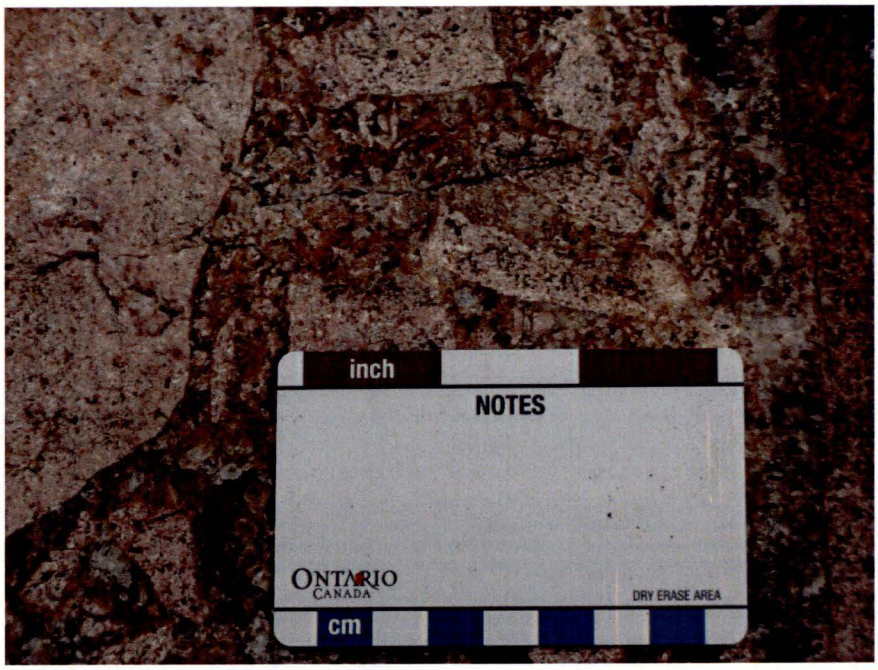
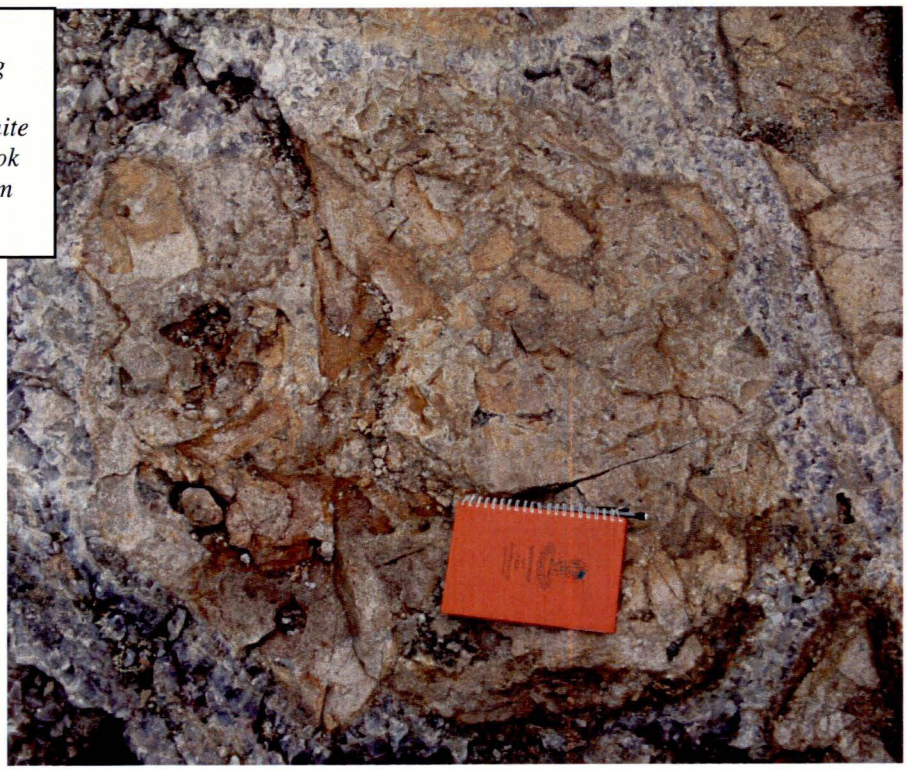


Photo 4a
Close up view of a portion of the breccia vein.
The white quartz vein following the contact between the breccia vein and massive, pink granite can be seen to the right of the scale card.

Vein-Dominant Regions

In these domains, amethyst veins are the most prominent feature. Veins vary in width from less than 10cm to 1m or more in width, the most notable example located approximately 4m east of a large vug situated near the center of the exposure. In this area, rich purple amethyst vein material encompasses clasts of up to 75cm in diameter, themselves comprised of earlier brecciated material.

Photo 5
Amethyst surrounding large clast of earlier stage brecciated granite and quartz. Field book is approximately 20cm wide.



Beyond the west end of the same vug, the vein-dominant region indicates a "quieter" phase of formation. The growth banding within the large amethyst veins is very distinct, with terminations of earlier generations of crystal growth still recognizable. In this area, the largest vein pod is 1m wide. Color ranges from bleached white to deep purple.

Photo 6:
Relict crystal terminations visible in massive amethyst in vein-dominant breccia, central portion of outcrop. Field book is approximately 20cm wide.

Breccia-Dominant Regions

In these domains, brecciation is very prominent. In can be either matrix supported, or clast supported.

In the northwest corner of the outcrop, matrix supported brecciation is intense. Diameters of the sub-angular clasts are mostly less than 10cm; however, they do range from less than 1cm up to 30cm. The quartz matrix is mostly white, but patches and clods of purple amethyst are also evident. Small vugs (to 20cm) located within the breccia region contain dark purple amethyst crystals to a maximum of 2cm in diameter. Within this region, steeply dipping, parallel, late stage 2cm wide white quartz veins strike 060 to 080 degrees. Vein spacing ranges from 40cm to 1m.

To the south, contacts between the breccia and quartz veining becomes indistinct. Brecciation is far less intense than to the west, and is less well-defined than within the same unit to the north. Clasts reach 50cm in diameter.

A clast-supported breccia zone is noted toward the east end of the outcrop. Up to 75% of the region is comprised of angular to sub-angular granite clasts up to 60cm in diameter—generally larger than those found in the intensely brecciated regions of the outcrop. Also noted here are several isolated, up to 12cm diameter, clasts of dark black, fine-grained, silicified sedimentary rock.

***Photo 7**: Intense brecciation in southwest corner of outcrop. Clasts are angular and of variable size.*

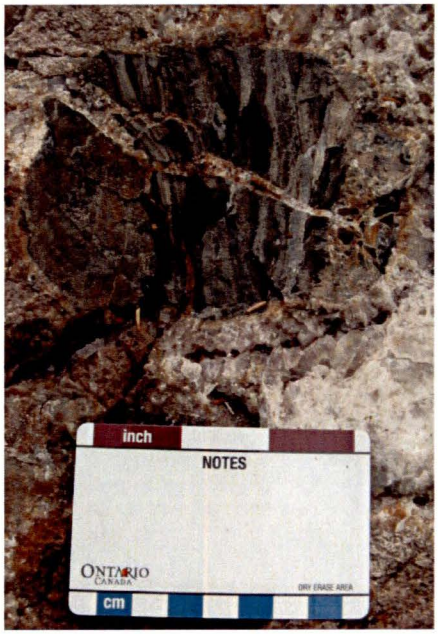


***Photo 8**: Sedimentary clast, approximately 12cm long.*

***Photo 9**: Sub-angular clasts to 50cm, surrounded by amethyst matrix. In clast-dominant breccia region.*

Massive Amethyst Pods

Isolated areas of the breccia zone contain large pods (up to 1.5m long) of massive purple and white banded amethyst, evidence of flooding by the silica-rich solutions.

The most prominent example can be found at the east end of a large vug located near the center of the outcrop. Here, strikingly banded amethyst can be found, with color ranging from white to greenish-white to light and dark purple. Variety in color, along with the thickness of the 'growth bands' indicate that formation of the amethyst deposit was a result of many phases of fluid, each one variable in terms of volume and trace mineralization.

***Photo10**:*
Massive amethyst pod. Note growth banding and relict crystal terminations from earlier fluid phases.

Vugs

Several significant vugs were exposed by stripping the outcrop. They are identified on the map that accompanies this report as "V1" through "V7", and are described below.

V1

The vug is approximately 40cm by 40cm, and is located in a breccia-dominant area at the east end of the stripped outcrop. The pocket contains glossy, red, hematite coated amethyst crystals to 2cm in diameter.

V2

Measuring approximately 40cm by 100cm, this vug is located at the east end of a vein-dominant area at the east end of the stripped outcrop. The pocket collapsed eons ago; subsequent weathering has made determination of crystal size and color impossible.

V3

The vug is approximately 20cm by 20cm, and is located in the same breccia-dominant area that hosts V1. It contains smoky-lavender colored amethyst crystals to 2cm in diameter. Trapped within the outer layers of the amethyst prisms are black, 1 to 2mm long acicular needles—possibly goethite.

V4

The vug is approximately 40cm by 40cm, and is located in the same vein-dominant area that hosts V2. It contains glossy, lavender colored amethyst crystals to 2cm in diameter.

V5

The vug measures approximately 1.5m by 4.0m, and is located in the center of the stripped area. The two main vein-dominant regions described earlier in this report extend east and west from this pocket. Given the amount of massive amethyst also bordering this vug, it may have been the conduit for much of the amethyst mineralization in this immediate area.

Photo 11:
Vug 5. Surface expression measures approximately 1.5m by 4.0m. Depth is unknown.

The pocket was extremely difficult to excavate, having been filled with rubble that turned to hard pan. Several heavily weathered, hematite coated amethyst crystals to 10cm in diameter were extracted. The depth of the vug is not yet known.

V6

This scoured vug measures approximately 50cm by 50cm. Located in the breccia domain at the northwest end of the exposure, the pocket is surrounded by a wide rim of bleached white-purple amethyst. The few crystals that survived weathering average 1.5cm in diameter, and show some of the best purple coloration noted on the outcrop.

V7

Located approximately 5m south west of V6, this 40cm by 30cm pocket contains glossy, red, hematite coated amethyst crystals to 2.5cm diameter

Photo12:
Vug 6. Opening measures approximately 50cm by 50cm. Note the massive, bleached amethyst rimming the pocket.

RECOMMENDATIONS FOR FUTURE WORK

The amount and quality of amethyst veins, combined with the number of surface-exposed vugs, shows great promise for the area. Two phases of work are warranted:

1). Larger scale stripping is needed. This would serve to connect the area with, as well as expand on, amethyst mineralization indicated by historic work performed along strike to both the east and west. A better idea of the width of the mineralization would be gained by widening the exposure along both the south and north edges to the point of completely delineating the contact between the amethyst vein/breccia system and the barren granite country rock. Excavation of the large vug should be undertaken to determine its significance—did it collapse and crystals fell to the bottom, or despite the amount of amethyst surrounding it, is the pocket basically devoid of major crystallization?

2). Trenching by drilling and blasting should be done to expose amethyst mineralization unaffected by weathering. Although the vugs exposed on surface are promising, locating fresh, undamaged ones will confirm the specimen and perhaps gem producing possibilities for this area.

REFERENCES

Carter, M.W., W.H. McIlwaine and P.A. Wisbey, 1970-71. OGS Map M2232; Ontario Geological Survey, Nipigon-Schreiber Geological Compilation Series.

Grieve, Michael D. 2007. Report of Work Performed on Mining Lease TB656461, Revised, February 12, 2007.

Http://www.geologyontario.mndmf.gov.on.ca/website/claimaps.

Scott, J. 1990. Geology of MacGregor Township; Ontario Geological Survey, Open File Report 5719, 82p.

Scott, J. 1990. Map P.2984 Precambrian Geology MacGregor Township, West Half; Ontario Geological Survey.

Scott, J. 1990. Map P.2985 (revised) Precambrian Geology MacGregor Township, East Half; Ontario Geological Survey.

APPENDIX A - BEDROCK GEOLOGY MAP

SCALE: 1CM = 1M

0 1M 2M 3M

N

O.B.

LOCAL WHITE QTZ STRINGERS <1CM WIDE

O.B.

mgr

3CM WIDE WHITE Q.V. AT CONTACT

065°

bxd (INTENSE)

5CM Q.V.

ALTERNATING WHITE QTZ / PURPLE AMETHYST BANDING. XLS TO 4CM.

bxd

V7

O.B.

alternating White qtz. and purple amethyst. Occasional vugs to 10cm WITH crystals 3 to 4 CM.

mgr

- LOCALIZED, STRUCTURALLY CONTROLLED BY VEINLETS.
- OCCASIONAL PODS OF DARK PURPLE AMETHYST TO 10CM

O.B.

- EDGES OF BRECCIA VEIN BORDERED BY 2 TO 3CM WIDE WHITE Q.V.
- GRANITE CLASTS TO 20CM

mgr

O.B.

O.B.

V6

bxd

2.V. 3-4CM WIDE LIGHT TO MEDIUM PURPLE 110°

VNd

bxd

V5

m.amy

O.B.

ISOLATED SEDIMENTARY CLASTS TO 12cm

bxd

V4

vnd

mgr

STRUCTURAL AREA 'A' - SEE REPORT

070°

080°

050°

046°

mgr

V3

V1

V2

2M HIGH CLIFF FACE.

O.B.

LEGEND

- —•— QUARTZ VEIN. (Q.V.)
- V1 VUG (REFERENCED IN REPORT)
- BRECCIA VEIN
- bxd BRECCIA-DOMINANT AREA
- vnd VEIN - DOMINANT AREA
- mgr MASSIVE GRANITE
- mamy MASSIVE AMETHYST
- O.B. OVERBURDEN
- ⟶ SLOPE DIRECTION OF SURROUNDING TOPOGRAPHY
- ✦ BENCHMARK. 356247E, 5387438N UTMZN16 NAD 83

MAPPED BY: M. D. GRIEVE, JANUARY, 2013

APPENDIX B

DAILY WORK LOG

DATE	WORKERS	UNIT OF TIME	Labour Rate	NATURE OF WORK PERFORMED	EQUIPMENT UTILIZED	EQUIPMENT RATES				
						4x4 Truck	Chain Saw	ATV and trailer	Water Pump	Fire Hose
May 19, 2012	Michael Grieve Michael D. Grieve	1day 1day	$425/d $425/d	Travelled to and from Thunder Bay. Cut access trail to amethyst showing, cut trail to water source for pump.	4x4 truck, Husqvarna chain saw	88km@$0.40/km	$40/d			
June 15, 2012	Michael Grieve Sandra Grieve	1day 1day	$425/d $425/d	Travelled to and from Thunder Bay. Cut brush, small trees in area to be stripped. Manually removed moss and overburden to expose bedrock.	4x4 truck, Husqvarna chain saw, Suzuki ATV and trailer, shovels, grub hoes	88km@$0.40/km	$40/d	$100/d		
August 25, 2012	Michael Grieve Sandra Grieve Michael D. Grieve	1day 1day 1day	$425/d $425/d $425/d	Travelled to and from Thunder Bay. Cut brush, small trees in area to be stripped. Manually stripped moss and overburden to expose bedrock. Used high pressure water to remove overburden.	2-4x4 trucks, Husqvarna chain saw, Suzuki ATV and trailer, Wildfire Ultra Striker pump, 10 lengths of fire hose, shovels, grub hoes	88km@$0.40/km 88km@$0.40/km	$40/d	$100/d	$75/d	$160
August 26, 2012	Michael Grieve Sandra Grieve Michael D. Grieve	1day 1day 1day	$425/d $425/d $425/d	Travelled to and from Thunder Bay. Manually removed moss and overburden to expose bedrock. Used high pressure water to remove overburden.	4x4 truck, Husqvarna chain saw, Suzuki ATV and trailer, Wildfire Ultra Striker pump, 10 lengths of fire hose, shovels, grub hoes	88km@$0.40/km	$40/d	$100/d	$75/d	$160
September 1, 2012	Michael Grieve Sandra Grieve Michael D. Grieve Ben Grieve	1day 1day 1day 1day	$425/d $425/d $425/d $425/d	Travelled to and from Thunder Bay. Manually removed moss and overburden to expose bedrock. Used high pressure water to remove overburden.	2- 4x4 trucks, Husqvarna chain saw, Suzuki ATV and trailer, Wildfire Ultra Striker pump, 10 lengths of fire hose, shovels, grub hoes	88km@$0.40/km 88km@$0.40/km	$40/d	$100/d	$75/d	$160
October 6, 2012	Michael Grieve	1day	$425/d	Travelled to and from Thunder Bay. Field mapped exposed bedrock, photographed key features.	4x4 truck	88km@$0.40/km				
January 25, 2013	Michael Grieve	1day	$425/d	Prepared geology map for report						
January 23, 2013	Michael Grieve	1day	$425/d	Report writing						
February 2, 2013	Michael Grieve	1day	$425/d	Report writing						

APPENDIX C

SIGNATURE PAGE

This report was prepared by:

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Date:

February 2, 2013.