

CLAIM # 4246324; BEDIVERE LAKE

FINAL REPORT:

Assessment Work Performed on Mining Lands Submission

Submitted by Michael Frymire and Adam Schneider

August 1, 2016

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## INTRODUCTION

Claim number 4246324 was staked on August 4<sup>th</sup>, 2010 by Michael Frymire and James Brown, in the Bedivere Lake area. This site was primarily selected because of the historical gold occurrence values found on the southwestern portion of Bedivere Lake (Mason 2009). In 1989 Fern Elizabeth Gold Exp. Ltd. found .02oz/t, 0.10 oz/t, tr, 0.01 oz/t and 0.01 oz/t (Fern Elizabeth Gold Exp. Ltd., 1989). Trace to 0.06 oz/t was also found in four other trenches (Fern Elizabeth Gold Exp. Ltd., 1989). In the summers of both 2014 and 2015 the property had been further prospected, in detail. A large quartz structure was found as well as mafic volcanic quartz stockwork, assaying from anomalous to 5200ppb (.167opt) au. Dorothy Campbell, Thunder Bay South Resident Geologist, visited the site with another MNDM staff member in 2015 to assess and sample the property.

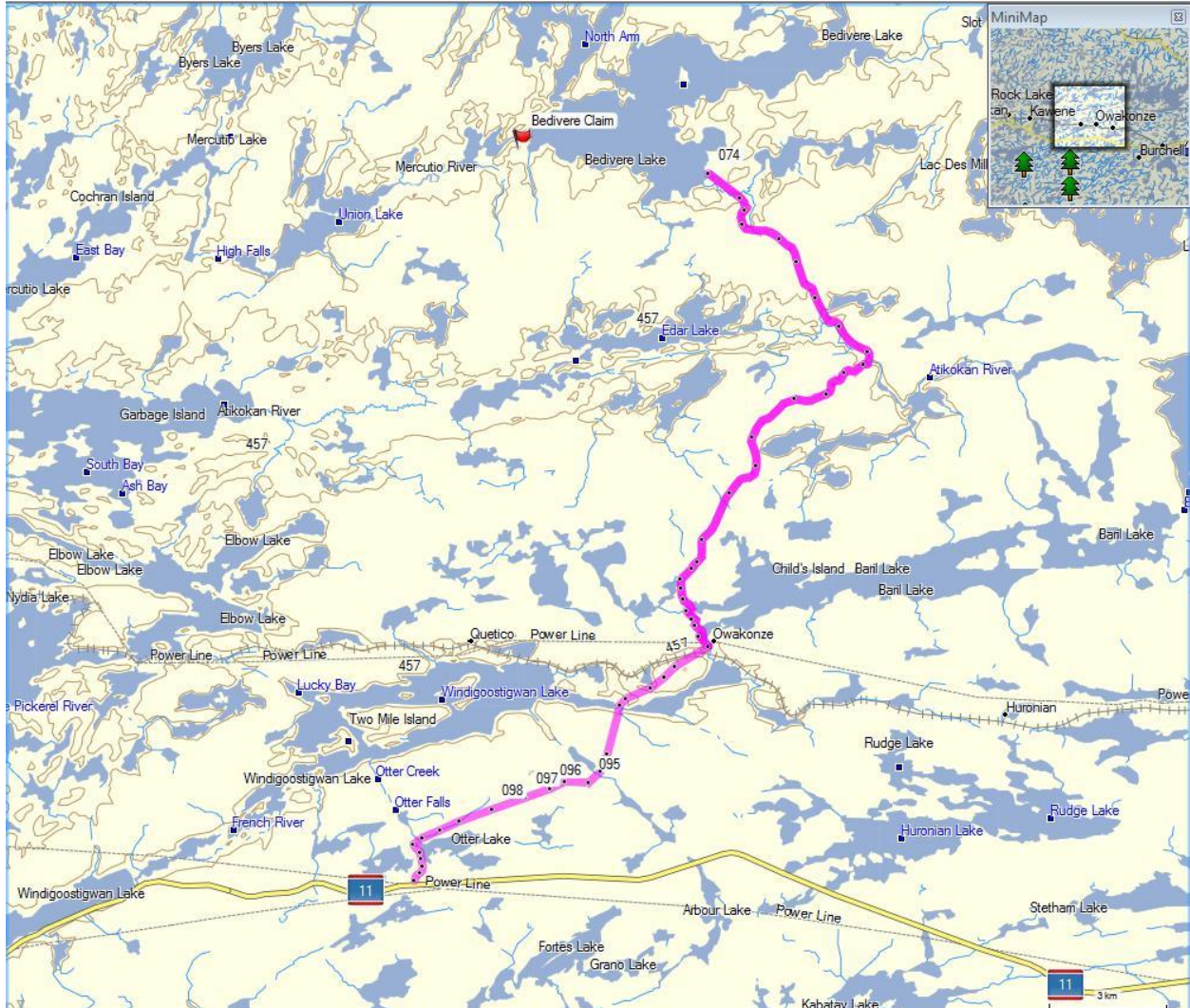
## LOCATION AND ACCESS

The Bedivere Lake property is located approximately 160 kilometres northwest of Thunder Bay via Highway 11 (Figure 1.0). A gold occurrence is situated on the southwestern shore of Bedivere Lake (Figure 2.0). Bedivere Lake is just within the territorial district of Thunder Bay, access to the property is via the Brule Lake road from highway 11 to the eastern portion of Bedivere Lake. The launch into Bedivere Lake is on a sandy beach which seems to be a popular camping spot for Thunder Bay residents. This road can be best traveled with either a 4x4 truck during most of the year or by snow machine in the winter time. The Bedivere occurrence can be accessed by motorized boat 5 kilometers west of the boat launch on Bedivere Lake.

Figure 1.0: General location of Claim 4246324. Bedivere Lake is approximately 160 kilometers west of Thunder Bay.



Figure 2.0; Access location, Brule Creek Road. Turn off to Bedivere Lake is approximately 24 kilometers up Brule. In 2015 there was active logging in area.



## PROPERTY GEOLOGY

The host rocks at the Bedivere Lake occurrence are sheared, meta volcanic rock of felsic and mafic compositions. The felsic meta volcanic units are represented by sericitite schist's, whereas the mafic volcanic units are now chlorite schist (Scott et al. 2008). Granite is also apparent within the claim.

The following is an excerpt from the OGS Report of Activities District Geologist Report (OGS,2016);

The Bedivere Lake property is underlain by biotite tonalite to granodiorite of the Marmion batholith (Stone 2005b). Mafic metavolcanic rocks, probably xenolithic inclusions, were observed to the west and adjacent to a northeast-trending (020 to 025°) quartz vein structure. The vein system was traced intermittently for approximately 250 m, ranging from steeply dipping to 60° southeast. Because of poor bedrock exposure, the width of the vein cannot be precisely determined but is estimated to be approximately 2 to 3 m. At the southwestern exposure, the vein extends into a swamp, and at the northeastern end, it is covered by deep overburden. There is a small exposure at the tip of the peninsula and then the vein presumably continues under the North Arm of Bedivere Lake (*see* Figures 20 and 21). The southwestern exposure of the vein consists of highly fractured white "bull" quartz ( $\pm$  red hematitic? staining). Approximately 100 m northeast of the swamp, the quartz vein varies from glassy white to clear quartz ( $\pm$  carbonate stringers,  $\pm$  pyrite). One hundred and fifty metres northeast of the swamp, the vein appears to develop into a quartz stockwork hosted within a highly foliated, light lime green sericitic rock, with associated intense carbonate alteration. Several overgrown trenches and small pits, most likely from exploration in 1989, were located and sampled along the structural trend.

## HISTORICAL EXPLORATION

The Bedivere Lake occurrence was discovered in 1979 by Fern Elizabeth Gold Exp. Ltd. Fern Elizabeth sampled rock on the property from numerous trenches. No other work on the property has been found. Prospecting and sampling was done on the Bedivere property in 2012 and 2014 by Michael Frymire and James Brown.

## COMPLETED WORK

Prospecting and a large sampling of rocks were completed throughout the Bedivere Lake property (Table 1.0). Observations were made throughout both prospecting trips (Table 2.0).

Table 1. Daily log of activities.

| Date      | Work Performed   |
|-----------|--|
| 18-Jun-15 | Travelled to Bedivere Lake occurrence from Thunder Bay, Ontario. Spent the full day locating the Fern Elizabeth trenches.  |
| 19-Jun-15 | Travelled to the Bedivere occurrence from Thunder Bay, Ontario. Once trenches were discovered, an depth prospecting assignment was started.                                  |
| 20-Jun-15 | Travelled to Bedivere Lake occurrence from Thunder Bay, Ontario. Spent the full day taking samples on the north eastern main quartz structure.                               |
| 12-Aug-15 | Travelled to the Bedivere occurrence from Thunder Bay, Ontario. Spent the full day sampling and stripping overburden for District Geologist visit.                           |
| 13-Aug-15 | Travelled to Bedivere Lake occurrence from Thunder Bay, Ontario. Spent the full day with Dorothy Campbell, Thunder Bay District geologist prospecting and sampling property. |
| 14-Aug-15 | Travelled to the Bedivere occurrence from Thunder Bay, Ontario. Spent the full day prospecting various locations on the Bedivere Lake Property.                              |
| 15-Aug-15 | Travelled to the Bedivere occurrence from Thunder Bay, Ontario. Spent the full day sampling various locations on the Bedivere Lake Property.                                 |

Table 2. Observational notes from prospecting within claim # 4246324.

| <b>Date</b>      | <b>Time</b>       | <b>Location</b>                | <b>Comments</b>   |
|------------------|-------------------|--------------------------------|---|
| <b>18-Jun-15</b> | 8:00am-11:00:am   | From NE point to SW into claim | Started prospecting on the point (15 U 654299,5412707). On the point is a highly sheared mafic volcanic outcrop with small quartz veins and pyrites in small concentration. Ran a transect directly SW to find old fern Elizebeth's trenches.   |
|                  | 11:30am - 2:30pm  | Main Quartz Vein               | While searching for old trenches, a large quartz vein was found (2 meters wide). Some mineralization present. Samples taken at start of vein. Vein runs NE and dip approximately 80 degrees.  |
|                  | 2:30-4:30pm       | Main Quartz Vein               | Continued to prospecting and sampling main vein. Vein material ranges from bull white quartz to dark blue and black quartz. Mineralization in form of finely disseminated to blebby pryites located all along quartz structure. Sampled 4 sections for assay. Included in report. Sample BDV100 assayed 5200ppb au. |
| <b>19-Jun-15</b> | 8:00am-12:00pm    | Main Quartz Vein               | Continued to prospect and sample main quartz structure.   |
|                  | 12:30 pm - 4:30pm | Main Quartz Vein               | Stripping of moss and soil to determine extent of quartz structure.   |
| <b>20-Jun-15</b> | 8:00am-12:00pm    | Main Quartz Vein               | Continued to prospect and sample main quartz structure.   |
|                  | 12:30 pm - 4:30pm | Main Quartz Vein               | Stripping of moss and soil to determine extent of quartz structure.   |



|                  |                   |                  |   |
|------------------|-------------------|------------------|---|
| <b>12-Aug-15</b> | 8:00am-12:00pm    | Main Quartz Vein | Stripped overburden (moss, soil and roots) as much as possible to determine extent of vein and overburden. Vein appears to be 190 meters in length and up to 18 meters wide but not enough overburden was uncovered to determine exact depths at each location. |
|                  | 12:30 pm - 4:30pm | Main Quartz Vein | Sampled sections of main quartz vein (7 samples). Included in report. Sample BDV20M947 assayed 4230 ppb au.   |
| <b>13-Aug-15</b> | 8:00am-12:00pm    | Main Quartz Vein | Dorothy Campbell of the MNM arrives with colleague to assess and sample quartz vein.  |
|                  | 12:30 pm - 4:30pm | Main Quartz Vein | Spent whole day prospecting and sampling quartz structure with D. Campbell.   |
| <b>14-Aug-15</b> | 8:00am-12:00pm    | Main Quartz Vein | Approximately 50 meters south west from start of vein a highly altered and mineralized mafic volcanic bedrock was found.  |
|                  | 12:30 pm - 4:30pm | Main Quartz Vein | Sampling of mafic volcanics found earlier in the morning.   |
| <b>15-Aug-15</b> | 8:00am-12:00pm    | Main Quartz Vein | A rope was tied in the middle of quartz structure that had intervals of 5 meters to see the approximate length and width of vein and to help in sampling efforts.   |
|                  | 12:30 pm - 4:30pm | Main Quartz Vein | Rapped up visit by a final walk through and prospecting of quartz structure.  |

## PROJECT EXPENDITURES

Project expenditures included three day trips in June and four day trips in August 2015 to the Bedivere Lake property. Prospecting, travel costs, food allowance, assay, and report creation were charged and summarized in Table 4.0 .

Table 4.0. A summary of project expenditures charged to the Assessment Work Performed on mining lands.

| Date                | Explanation                            | Amount (\$)      |
|---------------------|--|------------------|
| 18-Jun-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 18-Jun-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 18-Jun-15           | Food allowance (\$25/day)              | 50               |
| 19-Jun-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 19-Jun-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 19-Jun-15           | Food allowance (\$25/day)              | 50               |
| 20-Jun-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 20-Jun-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 20-Jun-15           | Food allowance (\$25/day)              | 50               |
| 12-Aug-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 12-Aug-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 12-Aug-15           | Food allowance (\$25/day)              | 50               |
| 13-Aug-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 13-Aug-15           | Food allowance (\$25/day)              | 50               |
| 13-Aug-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 14-Aug-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 14-Aug-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 14-Aug-15           | Food allowance (\$25/day)              | 50               |
| 15-Aug-15           | Prospecting (8hours @ \$25.00)         | 400              |
| 15-Aug-15           | Travel costs (300km @ \$0.40/km)       | 120              |
| 15-Aug-15           | Food allowance (\$25/day)              | 50               |
| 17-Jul-15           | Assay ; ActLabs 3 samples              | 180.8            |
| 11-Sept-15          | Assay ; ActLabs 7 samples              | 466.13           |
| 31-Jul-16           | Report Creation (4 hours @ 25.00/hour) | 100              |
| <b><u>TOTAL</u></b> |  | <b>\$4736.93</b> |

## RESULTS AND RECOMMENDATIONS

OGS staff sampled along the quartz structure (Figure 3) and results are below (Table 5).

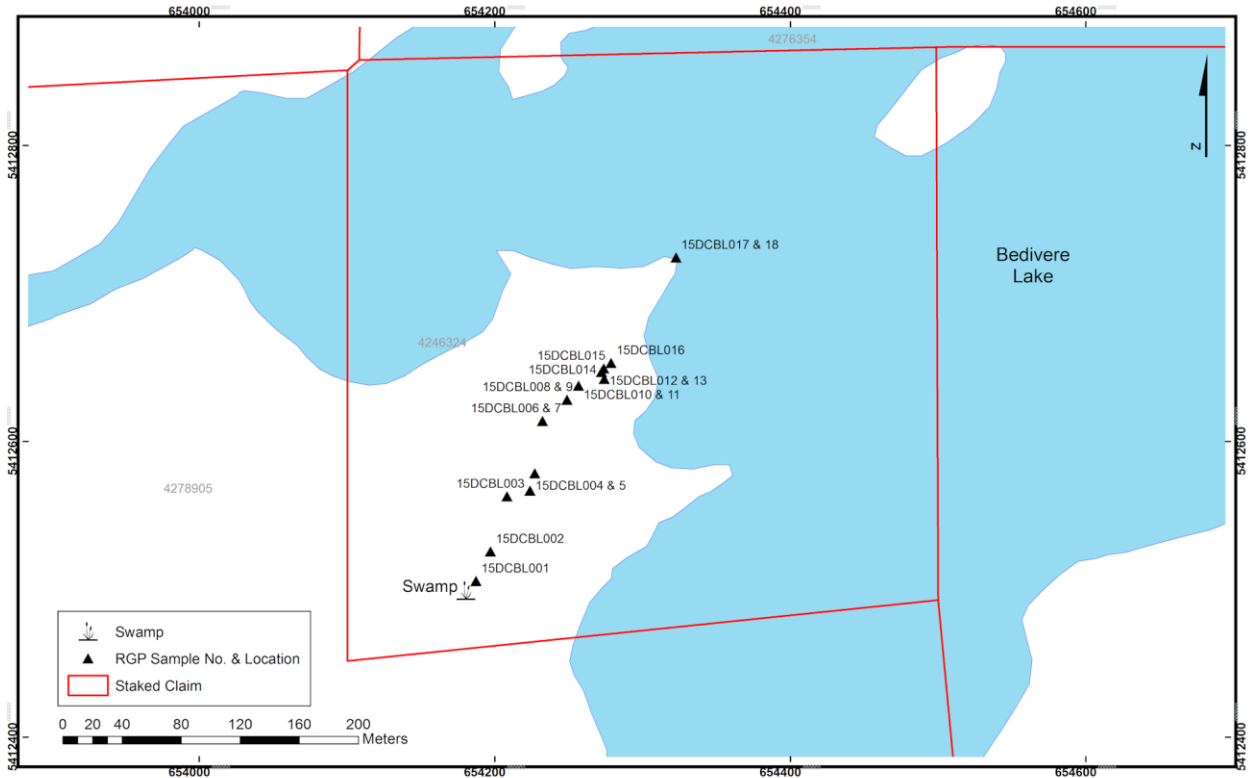
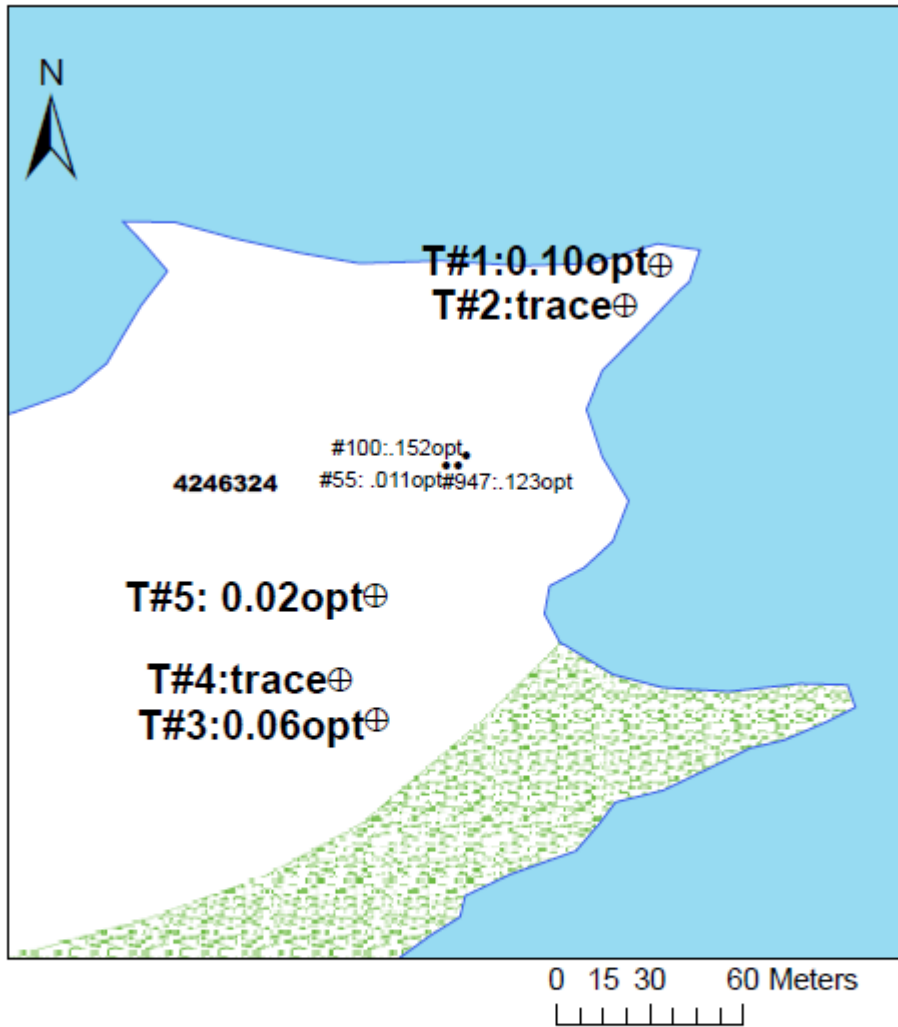


Figure 3. OGS sampling along quartz vein on the Bedivere Property. Note the NE trend in quartz vein.

A report on the Bedivere property was created after the OGS's visit in August 2015 (pages 44-52);

<http://www.gisocoeapp.lrc.gov.on.ca/CLAIMaps/Index.html?site=CLAIMaps&viewer=CLAIMaps&locale=en-US>

## Bedivere Lake Occurrence



### Legend

- AssaysBedivere
- ⊕ Bedivere\_trench
- ▭ Claims
- ▭ Lakes
- Rivers
- ▭ wetlands

Trenches are from 1989 Fern Elizebeth and are exact locations are estimated from paper map.

#100, 55, 947 were taken during the summer of 2015.

Map Composed By: Mike Frymire

1:1,690

Figure 4. Sampling of quartz structure with assays (opt au) and approximate locations of historical trenches.

Table 5. Assay results from OGS sampling in August 2015.

| Sample      | Easting | Northing | Au (ppb) |
|-------------|---------|----------|----------|
| 15DCBL001   | 654187  | 5412505  | ND       |
| 15DCBL002   | 654197  | 5412525  | 42       |
| 15DCBL003*  | 654208  | 5412562  | 89       |
| 15DCBL004*  | 654224  | 5412566  | 17       |
| 15DCBL005*  | 654224  | 5412566  | 197      |
| 15DCBL005*D | 654224  | 5412566  | 200      |
| 15DCBL006*  | 654232  | 5412613  | 22       |
| 15DCBL007*  | 654232  | 5412613  | ND       |
| 15DCBL008   | 654249  | 5412628  | 20       |
| 15DCBL009   | 654249  | 5412628  | 112      |
| 15DCBL010   | 654256  | 5412637  | 119      |
| 15DCBL011   | 654256  | 5412637  | 1044     |
| 15DCBL012   | 654274  | 5412642  | ND       |
| 15DCBL013   | 654274  | 5412642  | ND       |
| 15DCBL014   | 654272  | 5412646  | 36       |
| 15DCBL015   | 654274  | 5412649  | 9        |
| 15DCBL016   | 654278  | 5412653  | 60       |
| 15DCBL017   | 654322  | 5412724  | 8        |
| 15DCBL018   | 654322  | 5412724  | 52       |
| 15DCBL018D  | 654322  | 5412724  | 50       |

\* indicates an old trench or pit; D, duplicate; ND, not detected.

Table 6. Assay results for grab samples collected by prospectors M. Frymire and A. Schneider in 2015; analysed by OGS Geoscience Laboratories (Resident Geologist's Files, Thunder Bay South District, Thunder Bay).

| Sample      | Au (ppb) |
|-------------|----------|
| 15DCBL001a  | 126      |
| 15DCBL001aD | 131      |
| 15DCBL002a  | 91       |
| 15DCBL003a  | 2630     |
| 15DCBL004a  | 83       |

*D indicates duplicate.*

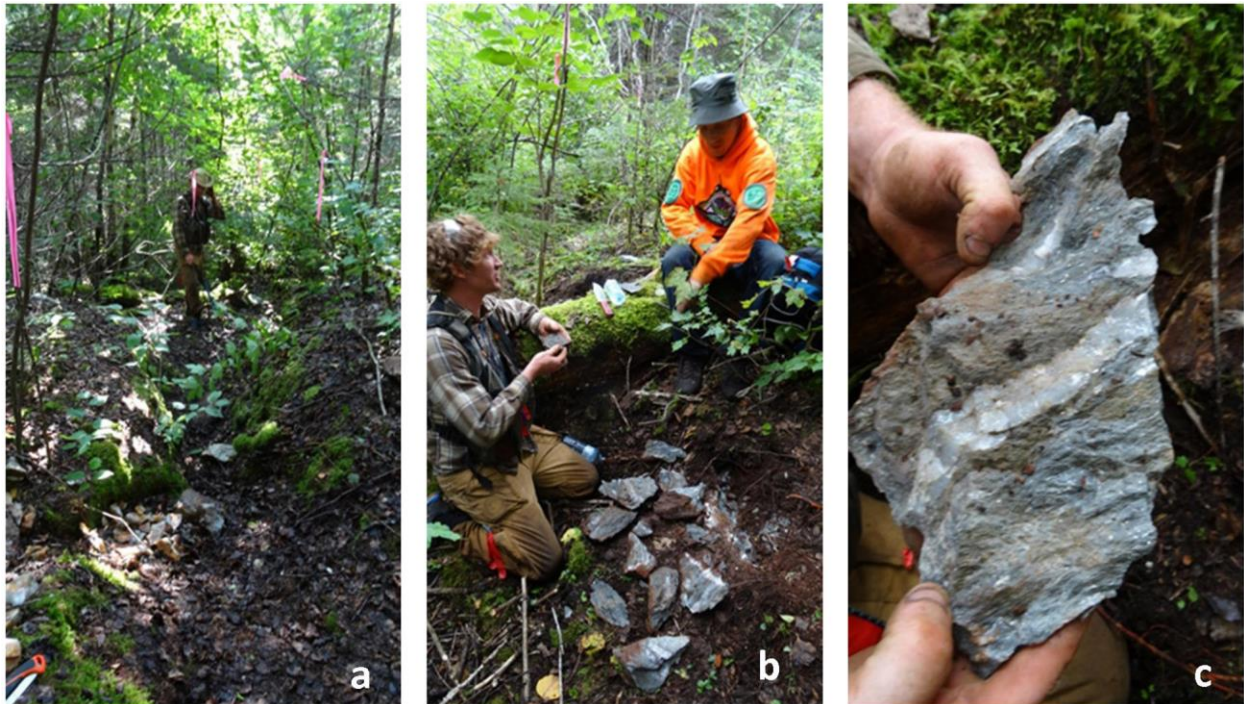


Figure 5. Quartz vein structure north-east of swamp. a) Overgrown trench (1 by 7 m) sampled (15DCBL004) along the structural trend. b) M. Frymire and A. Schneider sampling (15DCBL008) quartz stockwork with carbonate alteration ( $\pm$  pyrite, fuchsite). c) Close up view of quartz veining in a sample from the location shown in photo b. (OGS, 2016).

Table 7. Assay results for samples sent in on June 2015 trip to the Bedivere property.

| Report Number: A15-04859 |      |      |        |       |      |     |       |     |      |      |      |      |      |      |      |       |
|--------------------------|------|------|--------|-------|------|-----|-------|-----|------|------|------|------|------|------|------|-------|
| Report Date: 16/7/2015   |      |      |        |       |      |     |       |     |      |      |      |      |      |      |      |       |
| Analyte Symbol           | Au   | Ag   | Cu     | Cd    | Mo   | Pb  | Ni    | Zn  | S    | Al   | As   | Ba   | Be   | Bi   | Br   | Ca    |
| Unit Symbol              | ppb  | ppm  | ppm    | ppm   | ppm  | ppm | ppm   | ppm | %    | %    | ppm  | ppm  | ppm  | ppm  | ppm  | %     |
| BDV 001                  | 88   | 0.5  | 186    | 0.7   | 1    | 4   | 596   | 75  | 2.34 | 3.12 | 494  | < 50 | < 1  | < 2  | 0.5  | 7.36  |
| BDV 100                  | 5210 | 3.9  | 241    | < 0.3 | 2    | 5   | 20    | 20  | 0.96 | 0.14 | 125  | < 50 | < 1  | < 2  | 5    | 0.12  |
| BDV 150                  | 18   | 0.5  | 48     | < 0.3 | 2    | < 3 | 166   | 47  | 0.79 | 1.19 | 32.8 | < 50 | < 1  | < 2  | 0.5  | 0.21  |
| Analyte Symbol           | Co   | Cr   | Cs     | Eu    | Fe   | Hf  | Hg    | Ir  | K    | Li   | Mg   | Mn   | Na   | P    | Rb   | Sb    |
| Unit Symbol              | ppm  | ppm  | ppm    | ppm   | %    | ppm | ppm   | ppb | %    | ppm  | %    | ppm  | %    | %    | ppm  | ppm   |
| BDV 001                  | 85   | 938  | < 1    | 1     | 9.01 | 2   | < 1   | < 5 | 0.01 | 30   | 6.19 | 1290 | 0.02 | 0.03 | < 15 | 1.7   |
| BDV 100                  | 3    | 38   | < 1    | < 0.2 | 1.83 | < 1 | < 1   | < 5 | 0.02 | < 1  | 0.06 | 154  | 0.02 | 0    | < 15 | 0.2   |
| BDV 150                  | 11   | 134  | < 1    | < 0.2 | 2.6  | < 1 | < 1   | < 5 | 0.03 | 10   | 0.91 | 399  | 0.05 | 0.01 | < 15 | 0.6   |
| Analyte Symbol           | Sc   | Se   | Sr     | Ta    | Ti   | Th  | U     | V   | W    | Y    | La   | Ce   | Nd   | Sm   | Sn   | Tb    |
| Unit Symbol              | ppm  | ppm  | ppm    | ppm   | %    | ppm | ppm   | ppm | ppm  | ppm  | ppm  | ppm  | ppm  | ppm  | %    | ppm   |
| BDV 001                  | 26   | < 3  | 287    | < 0.5 | 0.37 | 0.2 | < 0.5 | 151 | < 1  | 6    | 12.6 | 39   | 9    | 3.6  | 0.01 | < 0.5 |
| BDV 100                  | 0.6  | < 3  | 8      | < 0.5 | 0.01 | 0.2 | 0.5   | 4   | < 1  | < 1  | 0.6  | < 3  | < 5  | 0.1  | 0.01 | < 0.5 |
| BDV 150                  | 8.2  | < 3  | 20     | < 0.5 | 0.07 | 0.2 | 0.5   | 64  | 4    | 2    | 2.1  | 4    | < 5  | 0.5  | 0.01 | < 0.5 |
| Analyte Symbol           | Yb   | Lu   | Mass   |       |      |     |       |     |      |      |      |      |      |      |      |       |
| Unit Symbol              | ppm  | ppm  | g      |       |      |     |       |     |      |      |      |      |      |      |      |       |
| BDV 001                  | 1    | 0.05 | < 32.5 |       |      |     |       |     |      |      |      |      |      |      |      |       |
| BDV 100                  | 0.2  | 0.05 | < 32.7 |       |      |     |       |     |      |      |      |      |      |      |      |       |
| BDV 150                  | 0.2  | 0.05 | < 33.2 |       |      |     |       |     |      |      |      |      |      |      |      |       |

Table 8. Assay results for samples sent in on August 2015 trip to the Bedivere property.

| Report Number: A15-06899 |      |
|--------------------------|------|
| Report Date: 16/9/2015   |      |
| Analyte Symbol           | Au   |
| Unit Symbol              | ppb  |
| Detection Limit          | 2    |
| Analysis Method          | INAA |
| BDVTA                    | <30  |
| BDV15M951                | <30  |
| BDV20M947                | 4230 |
| BDV30M                   | <30  |
| BDV00955M                | <30  |
| BDV55TS                  | 382  |
| BDV45MJU                 | 22   |

NOTE: Samples BDV100 (5200ppb au), BDV29M947 (4230ppb au), 15DCBL003a (2630 ppb au) and 15DCBL011(1044 ppb au) are all from the same vicinity.



Figure 6. Highly fractured quartz with pyrite blebs. Assayed 4230 ppb au.



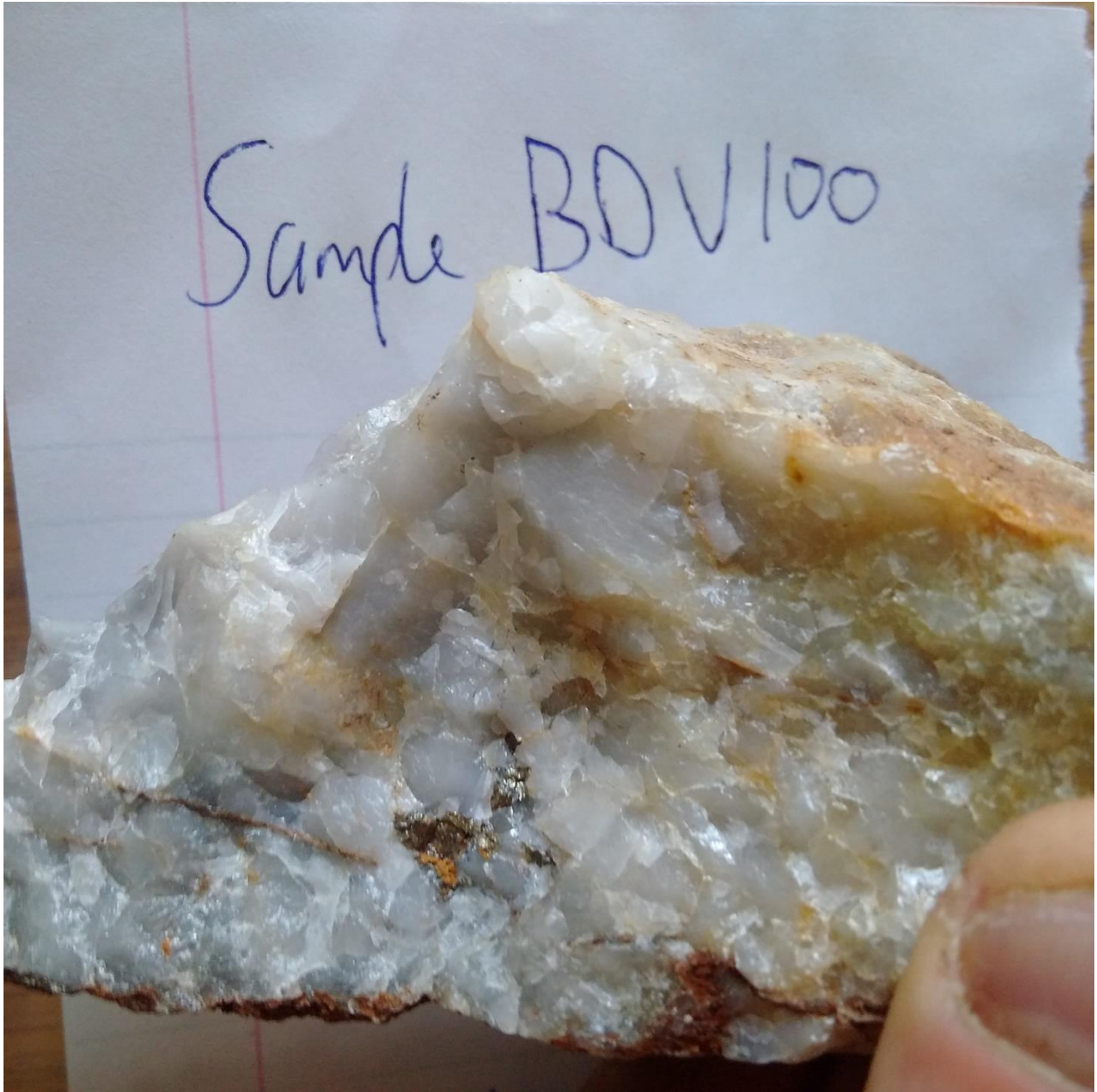


Figure 7. Highly fractured white to smoky quartz with pyrite blebs and yellow staining. Assayed 5200ppb au.



Figure 8. Highly sheared and mineralized mafic volcanic with small quartz veining. Assayed 384ppb au.



Figure 9. Main quartz structure with minor mafic volcanic seams fracturing through quartz approximately 170 meters southwest of the beginning of quartz structure (15 U, 654188, 5412517). No assay's for this particular outcrop.



Figure 10. Main quartz vein, dark smokey quartz approximately 30 meters southwest of beginning of quartz structure (15 U, 654262,5412643).



Figure 11. Main quartz vein, dark smokey quartz approximately 15 meters southwest of beginning of quartz structure (15 U, 654271,5412645).

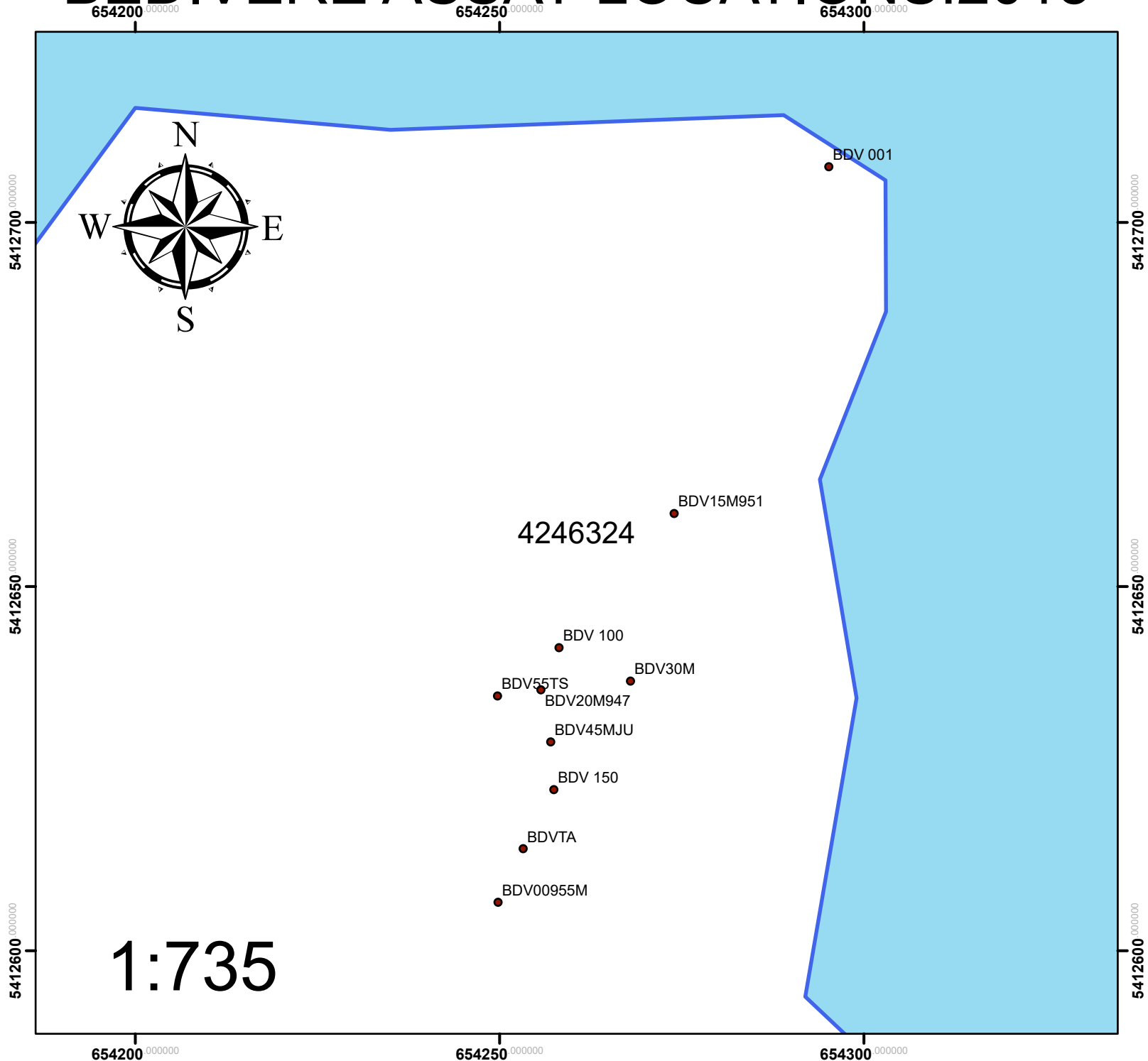
#### CONCLUSION:

More in depth prospecting, especially around the samples that assayed 1.44 – 5.2 g/tonne is warranted on the Bedivere property. Locating the size and orientation of the main quartz vein is an extremely good start for the property and chances for finding larger gold grades have now greatly increased. No diamond drilling has occurred on the property, which should seriously be considered going further with mineral exploration. The properties location along the Quetico Fault Zone, its proximity to other gold occurrences in the Crooked Pine Lake Area, and several unexplained lake sediment geochemical anomalies to the south west suggest good potential for further gold discoveries (Scott et al. 2008).

## LITERATURE CITED

- Scott, J.F., D.A. Campbell, P. Hinz, C.L. Komar, and M.R. Brunelle. 2008. Report of Activities, 2008. Resident Geologist Program. Ontario Geological Survey, Open File Report 6234. Thunder Bay South District, 52p.
- Schnieder B.R. and Dutka, R.J., 1985. Property visits and reports of the Atikokan Economic Geologist, 1979-1983, Atikokan Geological Survey; Ontario Geological Survey, Open File Report OFR5539, 425p.
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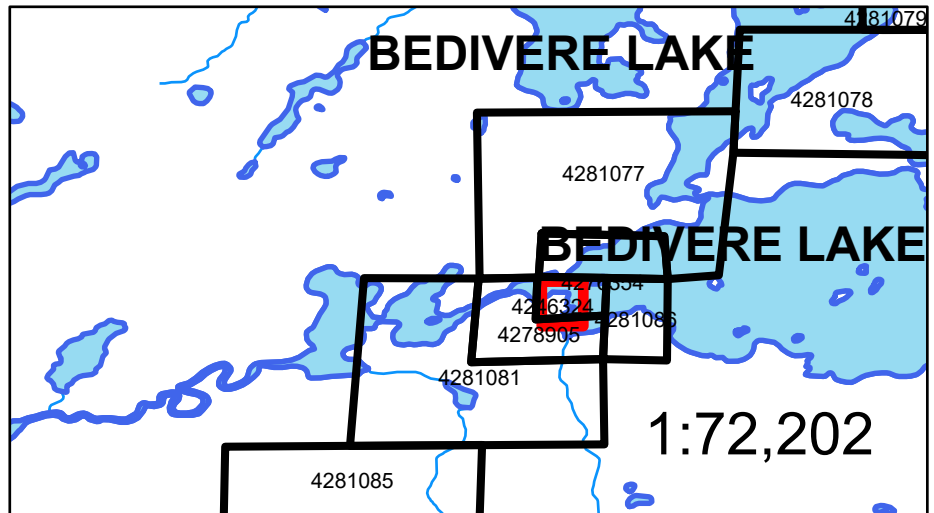
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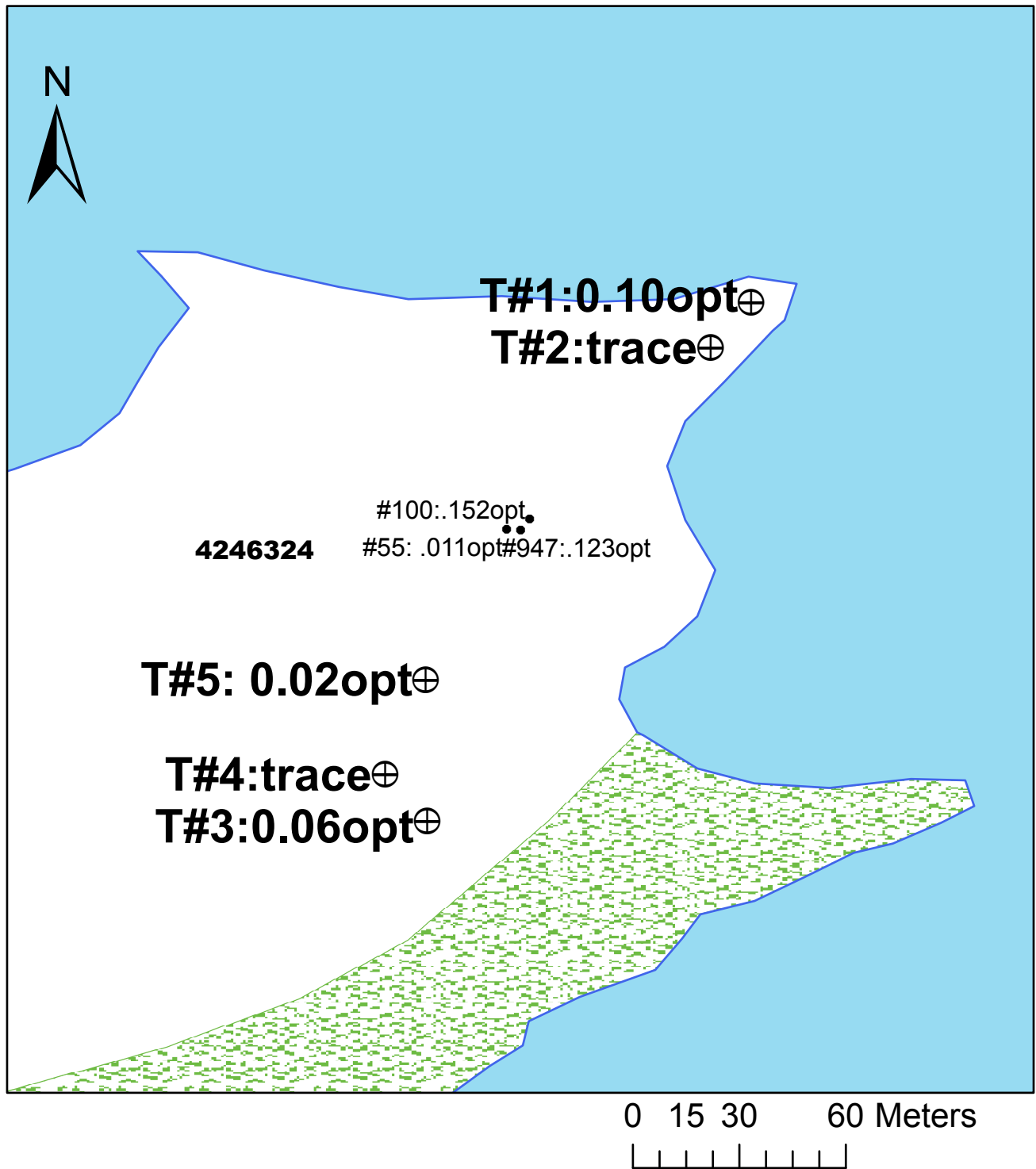
## Legend

- Assay Locations
- Bedivere Lake
- Claims

Map Composed by  
Mike Frymire



# Bedivere Lake Occurrence



## Legend

- AssaysBedivere
- ⊕ Bedivere\_trench
- ▭ Claims
- ▭ Lakes
- Rivers
- ▭ wetlands

Trenches are from 1989 Fern Elizebeth and are exact locations are estimated from paper map.

#100, 55, 947 were taken during the summer of 2015.

Map Composed By: Mike Frymire

1:1,690





**Date Submitted:** 03-Jul-15  
**Invoice No.:** A15-04859  
**Invoice Date:** 16-Jul-15  
**Your Reference:**

Mike Frymire  
377 Albert Street  
Stratford ON N5A 3L1  
Canada

ATTN: Mike Frymire

## CERTIFICATE OF ANALYSIS

4 Rock samples were submitted for analysis.

The following analytical package was requested:

Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)  
Code Weight Report (kg)-Internal Received Weights

REPORT      **A15-04859**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé", is written over a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control



Results

| Analyte Symbol | Au   | Ag                       | Cu     | Cd     | Mo     | Pb     | Ni                       | Zn                       | S      | Al     | As   | Ba   | Be     | Bi     | Br    | Ca     | Co   | Cr   | Cs   | Eu    | Fe   | Hf   | Hg   |
|----------------|------|--------------------------|--------|--------|--------|--------|--------------------------|--------------------------|--------|--------|------|------|--------|--------|-------|--------|------|------|------|-------|------|------|------|
| Unit Symbol    | ppb  | ppm                      | ppm    | ppm    | ppm    | ppm    | ppm                      | ppm                      | %      | %      | ppm  | ppm  | ppm    | ppm    | ppm   | %      | ppm  | ppm  | ppm  | ppm   | %    | ppm  | ppm  |
| Lower Limit    | 2    | 0.3                      | 1      | 0.3    | 1      | 3      | 1                        | 1                        | 0.01   | 0.01   | 0.5  | 50   | 1      | 2      | 0.5   | 0.01   | 1    | 2    | 1    | 0.2   | 0.01 | 1    | 1    |
| Method Code    | INAA | MULT<br>INAA /<br>TD-ICP | TD-ICP | TD-ICP | TD-ICP | TD-ICP | MULT<br>INAA /<br>TD-ICP | MULT<br>INAA /<br>TD-ICP | TD-ICP | TD-ICP | INAA | INAA | TD-ICP | TD-ICP | INAA  | TD-ICP | INAA | INAA | INAA | INAA  | INAA | INAA | INAA |
| BDV 001        | 88   | 0.5                      | 186    | 0.7    | 1      | 4      | 596                      | 75                       | 2.34   | 3.12   | 494  | < 50 | < 1    | < 2    | < 0.5 | 7.36   | 85   | 938  | < 1  | 1.0   | 9.01 | 2    | < 1  |
| BDV 100        | 5210 | 3.9                      | 241    | < 0.3  | 2      | 5      | 20                       | 20                       | 0.96   | 0.14   | 125  | < 50 | < 1    | < 2    | 5.0   | 0.12   | 3    | 38   | < 1  | < 0.2 | 1.83 | < 1  | < 1  |
| BDV 150        | 18   | 0.5                      | 48     | < 0.3  | 2      | < 3    | 166                      | 47                       | 0.79   | 1.19   | 32.8 | < 50 | < 1    | < 2    | < 0.5 | 0.21   | 11   | 134  | < 1  | < 0.2 | 2.60 | < 1  | < 1  |
| BDV 920        | < 2  | < 0.3                    | 9      | < 0.3  | < 1    | < 3    | 21                       | 50                       | 0.13   | 7.98   | 12.5 | < 50 | < 1    | < 2    | < 0.5 | 2.97   | 17   | 12   | < 1  | 1.1   | 4.69 | 3    | < 1  |

Results

| Analyte Symbol | Ir   | K      | Li     | Mg     | Mn     | Na   | P      | Rb   | Sb   | Sc   | Se   | Sr     | Ta    | Ti     | Th    | U     | V      | W    | Y      | La   | Ce   | Nd   | Sm   |
|----------------|------|--------|--------|--------|--------|------|--------|------|------|------|------|--------|-------|--------|-------|-------|--------|------|--------|------|------|------|------|
| Unit Symbol    | ppb  | %      | ppm    | %      | ppm    | %    | %      | ppm  | ppm  | ppm  | ppm  | ppm    | ppm   | %      | ppm   | ppm   | ppm    | ppm  | ppm    | ppm  | ppm  | ppm  | ppm  |
| Lower Limit    | 5    | 0.01   | 1      | 0.01   | 1      | 0.01 | 0.001  | 15   | 0.1  | 0.1  | 3    | 1      | 0.5   | 0.01   | 0.2   | 0.5   | 2      | 1    | 1      | 0.5  | 3    | 5    | 0.1  |
| Method Code    | INAA | TD-ICP | TD-ICP | TD-ICP | TD-ICP | INAA | TD-ICP | INAA | INAA | INAA | INAA | TD-ICP | INAA  | TD-ICP | INAA  | INAA  | TD-ICP | INAA | TD-ICP | INAA | INAA | INAA | INAA |
| BDV 001        | < 5  | 0.01   | 30     | 6.19   | 1290   | 0.02 | 0.034  | < 15 | 1.7  | 25.8 | < 3  | 287    | < 0.5 | 0.37   | < 0.2 | < 0.5 | 151    | < 1  | 6      | 12.6 | 39   | 9    | 3.6  |
| BDV 100        | < 5  | 0.02   | < 1    | 0.06   | 154    | 0.02 | 0.001  | < 15 | 0.2  | 0.6  | < 3  | 8      | < 0.5 | 0.01   | < 0.2 | < 0.5 | 4      | < 1  | < 1    | 0.6  | < 3  | < 5  | 0.1  |
| BDV 150        | < 5  | 0.03   | 10     | 0.91   | 399    | 0.05 | 0.011  | < 15 | 0.6  | 8.2  | < 3  | 20     | < 0.5 | 0.07   | < 0.2 | < 0.5 | 64     | 4    | 2      | 2.1  | 4    | < 5  | 0.5  |
| BDV 920        | < 5  | 1.04   | 24     | 1.37   | 786    | 2.09 | 0.165  | < 15 | 1.5  | 15.7 | < 3  | 128    | < 0.5 | 0.32   | 3.0   | < 0.5 | 75     | < 1  | 8      | 20.8 | 62   | 15   | 4.0  |

**Results**

| Analyte Symbol | Sn     | Tb    | Yb    | Lu     | Mass |
|----------------|--------|-------|-------|--------|------|
| Unit Symbol    | %      | ppm   | ppm   | ppm    | g    |
| Lower Limit    | 0.01   | 0.5   | 0.2   | 0.05   |      |
| Method Code    | INAA   | INAA  | INAA  | INAA   | INAA |
| BDV 001        | < 0.01 | < 0.5 | 1.0   | < 0.05 | 32.5 |
| BDV 100        | < 0.01 | < 0.5 | < 0.2 | < 0.05 | 32.7 |
| BDV 150        | < 0.01 | < 0.5 | 0.2   | < 0.05 | 33.2 |
| BDV 920        | < 0.01 | < 0.5 | 1.6   | < 0.05 | 31.4 |

QC

| Analyte Symbol        | Au   | Ag     | Ag   | Cu       | Cd     | Mo     | Pb     | Ni     | Ni   | Zn     | Zn   | S      | Al     | As    | Ba   | Be     | Bi     | Br   | Ca     | Co   | Cr   | Cs   | Eu    |
|-----------------------|------|--------|------|----------|--------|--------|--------|--------|------|--------|------|--------|--------|-------|------|--------|--------|------|--------|------|------|------|-------|
| Unit Symbol           | ppb  | ppm    | ppm  | ppm      | ppm    | ppm    | ppm    | ppm    | ppm  | ppm    | ppm  | %      | %      | ppm   | ppm  | ppm    | ppm    | ppm  | %      | ppm  | ppm  | ppm  | ppm   |
| Lower Limit           | 2    | 0.3    | 5    | 1        | 0.3    | 1      | 3      | 1      | 20   | 1      | 50   | 0.01   | 0.01   | 0.5   | 50   | 1      | 2      | 0.5  | 0.01   | 1    | 2    | 1    | 0.2   |
| Method Code           | INAA | TD-ICP | INAA | TD-ICP   | TD-ICP | TD-ICP | TD-ICP | TD-ICP | INAA | TD-ICP | INAA | TD-ICP | TD-ICP | INAA  | INAA | TD-ICP | TD-ICP | INAA | TD-ICP | INAA | INAA | INAA | INAA  |
| GXR-1 Meas            |      | 31.4   |      | 1110     | 3.1    | 14     | 719    | 42     |      | 714    |      | 0.24   | 2.34   |       |      | 1      | 1390   |      | 0.90   |      |      |      |       |
| GXR-1 Cert            |      | 31.0   |      | 1110     | 3.30   | 18.0   | 730    | 41.0   |      | 760    |      | 0.257  | 3.52   |       |      | 1.22   | 1380   |      | 0.960  |      |      |      |       |
| GXR-4 Meas            |      | 3.5    |      | 6520     | 0.3    | 309    | 44     | 44     |      | 71     |      | 1.80   | 6.61   |       |      | 2      | 13     |      | 1.11   |      |      |      |       |
| GXR-4 Cert            |      | 4.0    |      | 6520     | 0.860  | 310    | 52.0   | 42.0   |      | 73.0   |      | 1.77   | 7.20   |       |      | 1.90   | 19.0   |      | 1.01   |      |      |      |       |
| SDC-1 Meas            |      |        |      | 27       |        |        | 20     | 35     |      | 94     |      |        | 8.01   |       |      | 3      |        |      | 1.08   |      |      |      |       |
| SDC-1 Cert            |      |        |      | 30.000   |        |        | 25.00  | 38.0   |      | 103.00 |      |        | 8.34   |       |      | 3.00   |        |      | 1.00   |      |      |      |       |
| GXR-6 Meas            |      | < 0.3  |      | 75       | 0.3    | < 1    | 88     | 28     |      | 124    |      | 0.02   | 13.7   |       |      | 1      | < 2    |      | 0.20   |      |      |      |       |
| GXR-6 Cert            |      | 1.30   |      | 66.0     | 1.00   | 2.40   | 101    | 27.0   |      | 118    |      | 0.0160 | 17.7   |       |      | 1.40   | 0.290  |      | 0.180  |      |      |      |       |
| SAR-M (U.S.G.S.) Meas |      | 3.7    |      | 343      | 5.1    | 9      | 1010   | 51     |      | 978    |      |        | 6.26   |       |      | 3      | < 2    |      | 0.63   |      |      |      |       |
| SAR-M (U.S.G.S.) Cert |      | 3.64   |      | 331.0000 | 5.27   | 13.1   | 982    | 41.5   |      | 930.0  |      |        | 6.30   |       |      | 2.20   | 1.94   |      | 0.61   |      |      |      |       |
| DNC-1a Meas           |      |        |      | 87       |        |        | < 3    | 244    |      | 53     |      |        |        |       |      |        |        |      |        |      |      |      |       |
| DNC-1a Cert           |      |        |      | 100.00   |        |        | 6.3    | 247    |      | 70.0   |      |        |        |       |      |        |        |      |        |      |      |      |       |
| DMMAS 118 Meas        | 1680 |        |      |          |        |        |        |        |      |        |      |        |        | 1670  | 1120 |        |        |      |        | 42   | 86   |      |       |
| DMMAS 118 Cert        | 1729 |        |      |          |        |        |        |        |      |        |      |        |        | 1661  | 1264 |        |        |      |        | 45   | 83   |      |       |
| Method Blank          |      | < 0.3  |      | 2        | < 0.3  | < 1    | < 3    | < 1    |      | < 1    |      | < 0.01 | < 0.01 |       |      | < 1    | < 2    |      | < 0.01 |      |      |      |       |
| Method Blank          | < 2  |        | < 5  |          |        |        |        |        | < 20 |        | < 50 |        |        | < 0.5 | < 50 |        |        |      | < 0.5  | < 1  | < 2  | < 1  | < 0.2 |

QC

| Analyte Symbol        | Fe     | Hf   | Hg   | Ir   | K      | Li     | Mg     | Mn     | Na     | P       | Rb   | Sb    | Sc    | Se   | Sr     | Ta    | Ti     | Th    | U     | V      | W    | Y      | La    |
|-----------------------|--------|------|------|------|--------|--------|--------|--------|--------|---------|------|-------|-------|------|--------|-------|--------|-------|-------|--------|------|--------|-------|
| Unit Symbol           | %      | ppm  | ppm  | ppb  | %      | ppm    | %      | ppm    | %      | %       | ppm  | ppm   | ppm   | ppm  | ppm    | ppm   | %      | ppm   | ppm   | ppm    | ppm  | ppm    | ppm   |
| Lower Limit           | 0.01   | 1    | 1    | 5    | 0.01   | 1      | 0.01   | 1      | 0.01   | 0.001   | 15   | 0.1   | 0.1   | 3    | 1      | 0.5   | 0.01   | 0.2   | 0.5   | 2      | 1    | 1      | 0.5   |
| Method Code           | INAA   | INAA | INAA | INAA | TD-ICP | TD-ICP | TD-ICP | TD-ICP | INAA   | TD-ICP  | INAA | INAA  | INAA  | INAA | TD-ICP | INAA  | TD-ICP | INAA  | INAA  | TD-ICP | INAA | TD-ICP | INAA  |
| GXR-1 Meas            |        |      |      |      | 0.05   | 8      | 0.21   | 887    |        | 0.057   |      |       |       |      | 284    |       | 0.03   |       |       | 86     |      | 28     |       |
| GXR-1 Cert            |        |      |      |      | 0.050  | 8.20   | 0.217  | 852    |        | 0.0650  |      |       |       |      | 275    |       | 0.036  |       |       | 80.0   |      | 32.0   |       |
| GXR-4 Meas            |        |      |      |      | 4.05   | 11     | 1.73   | 154    |        | 0.134   |      |       |       |      | 215    |       | 0.29   |       |       | 93     |      | 14     |       |
| GXR-4 Cert            |        |      |      |      | 4.01   | 11.1   | 1.66   | 155    |        | 0.120   |      |       |       |      | 221    |       | 0.29   |       |       | 87.0   |      | 14.0   |       |
| SDC-1 Meas            |        |      |      |      | 2.07   | 33     | 0.95   | 831    |        | 0.053   |      |       |       |      | 168    |       | 0.25   |       |       | 60     |      |        |       |
| SDC-1 Cert            |        |      |      |      | 2.72   | 34.00  | 1.02   | 880.00 |        | 0.0690  |      |       |       |      | 180.00 |       | 0.606  |       |       | 102.00 |      |        |       |
| GXR-6 Meas            |        |      |      |      | 1.86   | 33     | 0.61   | 1010   |        | 0.033   |      |       |       |      | 43     |       |        |       |       | 112    |      | 12     |       |
| GXR-6 Cert            |        |      |      |      | 1.87   | 32.0   | 0.609  | 1010   |        | 0.0350  |      |       |       |      | 35.0   |       |        |       |       | 186    |      | 14.0   |       |
| SAR-M (U.S.G.S.) Meas |        |      |      |      | 2.66   | 29     | 0.48   | 5380   |        | 0.063   |      |       |       |      | 156    |       | 0.34   |       |       | 66     |      | 32     |       |
| SAR-M (U.S.G.S.) Cert |        |      |      |      | 2.94   | 27.4   | 0.50   | 5220   |        | 0.07    |      |       |       |      | 151    |       | 0.38   |       |       | 67.2   |      | 28.00  |       |
| DNC-1a Meas           |        |      |      |      | 4      |        |        |        |        |         |      |       |       |      | 121    |       | 0.28   |       |       | 136    |      | 14     |       |
| DNC-1a Cert           |        |      |      |      | 5.20   |        |        |        |        |         |      |       |       |      | 144.0  |       | 0.29   |       |       | 148.00 |      | 18.0   |       |
| DMMAS 118 Meas        | 3.24   |      |      |      |        |        |        |        | 2.04   |         |      | 7.2   | 6.1   |      |        |       |        |       | 15.1  |        |      |        | 17.0  |
| DMMAS 118 Cert        | 3.25   |      |      |      |        |        |        |        | 2.21   |         |      | 6.6   | 6.1   |      |        |       |        |       | 15.9  |        |      |        | 16.9  |
| Method Blank          |        |      |      |      | < 0.01 | < 1    | < 0.01 |        |        | < 0.001 |      |       |       |      | < 1    |       | < 0.01 |       |       | < 2    |      | < 1    |       |
| Method Blank          | < 0.01 | < 1  | < 1  | < 5  |        |        |        |        | < 0.01 |         | < 15 | < 0.1 | < 0.1 | < 3  |        | < 0.5 |        | < 0.2 | < 0.5 |        | < 1  |        | < 0.5 |

QC

| Analyte Symbol        | Ce   | Nd   | Sm    | Sn     | Tb    | Yb    | Lu     | Mass |
|-----------------------|------|------|-------|--------|-------|-------|--------|------|
| Unit Symbol           | ppm  | ppm  | ppm   | %      | ppm   | ppm   | ppm    | g    |
| Lower Limit           | 3    | 5    | 0.1   | 0.01   | 0.5   | 0.2   | 0.05   |      |
| Method Code           | INAA | INAA | INAA  | INAA   | INAA  | INAA  | INAA   | INAA |
| GXR-1 Meas            |      |      |       |        |       |       |        |      |
| GXR-1 Cert            |      |      |       |        |       |       |        |      |
| GXR-4 Meas            |      |      |       |        |       |       |        |      |
| GXR-4 Cert            |      |      |       |        |       |       |        |      |
| SDC-1 Meas            |      |      |       |        |       |       |        |      |
| SDC-1 Cert            |      |      |       |        |       |       |        |      |
| GXR-6 Meas            |      |      |       |        |       |       |        |      |
| GXR-6 Cert            |      |      |       |        |       |       |        |      |
| SAR-M (U.S.G.S.) Meas |      |      |       |        |       |       |        |      |
| SAR-M (U.S.G.S.) Cert |      |      |       |        |       |       |        |      |
| DNC-1a Meas           |      |      |       |        |       |       |        |      |
| DNC-1a Cert           |      |      |       |        |       |       |        |      |
| DMMAS 118 Meas        | 36   |      | 2.5   |        |       |       |        |      |
| DMMAS 118 Cert        | 30   |      | 2.2   |        |       |       |        |      |
| Method Blank          |      |      |       |        |       |       |        |      |
| Method Blank          | < 3  | < 5  | < 0.1 | < 0.01 | < 0.5 | < 0.2 | < 0.05 | 30.0 |



**Date Submitted:** 21-Aug-15  
**Invoice No.:** A15-06899-BDV Samples  
**Invoice Date:** 16-Sep-15  
**Your Reference:**

Mike Frymire  
377 Albert Street  
Stratford ON N5A 3L1  
Canada

ATTN: Mike Frymire

## CERTIFICATE OF ANALYSIS

10 Rock samples were submitted for analysis.

The following analytical package was requested:

Code 1A3 Au - Fire Assay Gravimetric (QOP AA-Au)  
Code 1H INAA(INAAGEO)/Total Digestion ICP(TOTAL)

REPORT **A15-06899-BDV Samples**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

Notes:

Elements which exceed the upper limits should be analyzed by assay techniques. Some elements are reported by multiple techniques. These are indicated by MULT.

CERTIFIED BY:

A handwritten signature in black ink, appearing to read "Emmanuel Esemé". The signature is written over a horizontal line.

Emmanuel Esemé , Ph.D.  
Quality Control



Results

| Analyte Symbol | Au      | Au   | Ag                       | Cu     | Cd     | Mo     | Pb     | Ni                       | Zn                       | S      | Al     | As   | Ba   | Be     | Bi     | Br    | Ca     | Co   | Cr   | Cs   | Eu   | Fe   | Hf   |
|----------------|---------|------|--------------------------|--------|--------|--------|--------|--------------------------|--------------------------|--------|--------|------|------|--------|--------|-------|--------|------|------|------|------|------|------|
| Unit Symbol    | g/tonne | ppb  | ppm                      | ppm    | ppm    | ppm    | ppm    | ppm                      | ppm                      | %      | %      | ppm  | ppm  | ppm    | ppm    | ppm   | %      | ppm  | ppm  | ppm  | ppm  | %    | ppm  |
| Lower Limit    | 0.03    | 2    | 0.3                      | 1      | 0.3    | 1      | 3      | 1                        | 1                        | 0.01   | 0.01   | 0.5  | 50   | 1      | 2      | 0.5   | 0.01   | 1    | 2    | 1    | 0.2  | 0.01 | 1    |
| Method Code    | FA-GRA  | INAA | MULT<br>INAA /<br>TD-ICP | TD-ICP | TD-ICP | TD-ICP | TD-ICP | MULT<br>INAA /<br>TD-ICP | MULT<br>INAA /<br>TD-ICP | TD-ICP | TD-ICP | INAA | INAA | TD-ICP | TD-ICP | INAA  | TD-ICP | INAA | INAA | INAA | INAA | INAA | INAA |
| BDVTA          | < 0.03  |      |                          |        |        |        |        |                          |                          |        |        |      |      |        |        |       |        |      |      |      |      |      |      |
| BDV15M951      | < 0.03  |      |                          |        |        |        |        |                          |                          |        |        |      |      |        |        |       |        |      |      |      |      |      |      |
| BDV20M947      | 4.23    |      |                          |        |        |        |        |                          |                          |        |        |      |      |        |        |       |        |      |      |      |      |      |      |
| BDV30M         | < 0.03  |      |                          |        |        |        |        |                          |                          |        |        |      |      |        |        |       |        |      |      |      |      |      |      |
| BDV00955M      | < 0.03  |      |                          |        |        |        |        |                          |                          |        |        |      |      |        |        |       |        |      |      |      |      |      |      |
| BDV55TS        |         | 382  | 0.8                      | 105    | < 0.3  | < 1    | < 3    | 703                      | 95                       | 0.58   | 2.53   | 139  | < 50 | < 1    | < 2    | < 0.5 | 6.16   | 74   | 1190 | < 1  | 0.8  | 7.79 | 1    |
| BDV45MJU       |         | 22   | < 0.3                    | 79     | < 0.3  | < 1    | < 3    | 410                      | 44                       | 0.54   | 1.49   | 187  | < 50 | < 1    | < 2    | < 0.5 | 5.21   | 48   | 609  | < 1  | 0.4  | 5.01 | < 1  |



Results

| Analyte Symbol | Hg   | Ir   | K      | Li     | Mg     | Mn     | Na   | P      | Rb   | Sb   | Sc   | Se   | Sr     | Ta    | Ti     | Th    | U     | V      | W    | Y      | La   | Ce   | Nd   |
|----------------|------|------|--------|--------|--------|--------|------|--------|------|------|------|------|--------|-------|--------|-------|-------|--------|------|--------|------|------|------|
| Unit Symbol    | ppm  | ppb  | %      | ppm    | %      | ppm    | %    | %      | ppm  | ppm  | ppm  | ppm  | ppm    | ppm   | %      | ppm   | ppm   | ppm    | ppm  | ppm    | ppm  | ppm  | ppm  |
| Lower Limit    | 1    | 5    | 0.01   | 1      | 0.01   | 1      | 0.01 | 0.001  | 15   | 0.1  | 0.1  | 3    | 1      | 0.5   | 0.01   | 0.2   | 0.5   | 2      | 1    | 1      | 0.5  | 3    | 5    |
| Method Code    | INAA | INAA | TD-ICP | TD-ICP | TD-ICP | TD-ICP | INAA | TD-ICP | INAA | INAA | INAA | INAA | TD-ICP | INAA  | TD-ICP | INAA  | INAA  | TD-ICP | INAA | TD-ICP | INAA | INAA | INAA |
| BDVTA          |      |      |        |        |        |        |      |        |      |      |      |      |        |       |        |       |       |        |      |        |      |      |      |
| BDV15M951      |      |      |        |        |        |        |      |        |      |      |      |      |        |       |        |       |       |        |      |        |      |      |      |
| BDV20M947      |      |      |        |        |        |        |      |        |      |      |      |      |        |       |        |       |       |        |      |        |      |      |      |
| BDV30M         |      |      |        |        |        |        |      |        |      |      |      |      |        |       |        |       |       |        |      |        |      |      |      |
| BDV00955M      |      |      |        |        |        |        |      |        |      |      |      |      |        |       |        |       |       |        |      |        |      |      |      |
| BDV55TS        | < 1  | < 5  | 0.04   | 17     | 4.97   | 1860   | 0.02 | 0.028  | < 15 | 0.7  | 27.5 | < 3  | 196    | < 0.5 | 0.29   | 0.9   | < 0.5 | 176    | < 1  | 9      | 10.3 | 31   | 12   |
| BDV45MJU       | < 1  | < 5  | 0.18   | 17     | 3.00   | 988    | 0.02 | 0.009  | < 15 | 1.1  | 16.0 | < 3  | 128    | < 0.5 | 0.30   | < 0.2 | < 0.5 | 104    | 21   | 7      | 6.0  | 17   | < 5  |

## Results

| Analyte Symbol | Sm   | Sn     | Tb    | Yb   | Lu     | Mass |
|----------------|------|--------|-------|------|--------|------|
| Unit Symbol    | ppm  | %      | ppm   | ppm  | ppm    | g    |
| Lower Limit    | 0.1  | 0.01   | 0.5   | 0.2  | 0.05   |      |
| Method Code    | INAA | INAA   | INAA  | INAA | INAA   | INAA |
| BDVTA          |      |        |       |      |        |      |
| BDV15M951      |      |        |       |      |        |      |
| BDV20M947      |      |        |       |      |        |      |
| BDV30M         |      |        |       |      |        |      |
| BDV00955M      |      |        |       |      |        |      |
| BDV55TS        | 3.1  | < 0.01 | < 0.5 | 1.1  | < 0.05 | 36.6 |
| BDV45MJU       | 2.0  | < 0.01 | < 0.5 | 0.4  | < 0.05 | 36.8 |

QC

| Analyte Symbol          | Au      | Au   | Ag     | Ag   | Cu       | Cd     | Mo     | Pb     | Ni     | Ni   | Zn     | Zn   | S      | Al     | As    | Ba   | Be     | Bi     | Br   | Ca     | Co   | Cr   | Cs   |
|-------------------------|---------|------|--------|------|----------|--------|--------|--------|--------|------|--------|------|--------|--------|-------|------|--------|--------|------|--------|------|------|------|
| Unit Symbol             | g/tonne | ppb  | ppm    | ppm  | ppm      | ppm    | ppm    | ppm    | ppm    | ppm  | ppm    | ppm  | %      | %      | ppm   | ppm  | ppm    | ppm    | ppm  | %      | ppm  | ppm  | ppm  |
| Lower Limit             | 0.03    | 2    | 0.3    | 5    | 1        | 0.3    | 1      | 3      | 1      | 20   | 1      | 50   | 0.01   | 0.01   | 0.5   | 50   | 1      | 2      | 0.5  | 0.01   | 1    | 2    | 1    |
| Method Code             | FA-GRA  | INAA | TD-ICP | INAA | TD-ICP   | TD-ICP | TD-ICP | TD-ICP | TD-ICP | INAA | TD-ICP | INAA | TD-ICP | TD-ICP | INAA  | INAA | TD-ICP | TD-ICP | INAA | TD-ICP | INAA | INAA | INAA |
| GXR-1 Meas              |         |      | 31.3   |      | 1130     | 2.7    | 14     | 732    | 41     |      | 746    |      | 0.25   | 1.98   |       |      | 1      | 1390   |      | 0.90   |      |      |      |
| GXR-1 Cert              |         |      | 31.0   |      | 1110     | 3.30   | 18.0   | 730    | 41.0   |      | 760    |      | 0.257  | 3.52   |       |      | 1.22   | 1380   |      | 0.960  |      |      |      |
| GXR-1 Meas              |         |      | 32.5   |      | 1170     | 2.7    | 15     | 748    | 44     |      | 762    |      | 0.25   | 2.12   |       |      | 1      | 1400   |      | 0.92   |      |      |      |
| GXR-1 Cert              |         |      | 31.0   |      | 1110     | 3.30   | 18.0   | 730    | 41.0   |      | 760    |      | 0.257  | 3.52   |       |      | 1.22   | 1380   |      | 0.960  |      |      |      |
| GXR-4 Meas              |         |      | 3.7    |      | 6500     | < 0.3  | 307    | 47     | 43     |      | 72     |      | 1.79   | 6.36   |       |      | 2      | 14     |      | 1.08   |      |      |      |
| GXR-4 Cert              |         |      | 4.0    |      | 6520     | 0.860  | 310    | 52.0   | 42.0   |      | 73.0   |      | 1.77   | 7.20   |       |      | 1.90   | 19.0   |      | 1.01   |      |      |      |
| GXR-4 Meas              |         |      | 3.5    |      | 6670     | 0.5    | 310    | 43     | 41     |      | 71     |      | 1.80   | 6.40   |       |      | 2      | 12     |      | 1.10   |      |      |      |
| GXR-4 Cert              |         |      | 4.0    |      | 6520     | 0.860  | 310    | 52.0   | 42.0   |      | 73.0   |      | 1.77   | 7.20   |       |      | 1.90   | 19.0   |      | 1.01   |      |      |      |
| SDC-1 Meas              |         |      |        |      | 28       |        |        | 22     | 35     |      | 98     |      |        | 7.88   |       |      | 3      |        |      | 1.07   |      |      |      |
| SDC-1 Cert              |         |      |        |      | 30.000   |        |        | 25.00  | 38.0   |      | 103.00 |      |        | 8.34   |       |      | 3.00   |        |      | 1.00   |      |      |      |
| SDC-1 Meas              |         |      |        |      | 29       |        |        | 22     | 36     |      | 102    |      |        | 8.36   |       |      | 3      |        |      | 1.13   |      |      |      |
| SDC-1 Cert              |         |      |        |      | 30.000   |        |        | 25.00  | 38.0   |      | 103.00 |      |        | 8.34   |       |      | 3.00   |        |      | 1.00   |      |      |      |
| DNC-1a Meas             |         |      |        |      | 92       |        |        | < 3    | 247    |      | 57     |      |        |        |       |      |        |        |      |        |      |      |      |
| DNC-1a Cert             |         |      |        |      | 100.00   |        |        | 6.3    | 247    |      | 70.0   |      |        |        |       |      |        |        |      |        |      |      |      |
| DNC-1a Meas             |         |      |        |      | 99       |        |        | 5      | 253    |      | 60     |      |        |        |       |      |        |        |      |        |      |      |      |
| DNC-1a Cert             |         |      |        |      | 100.00   |        |        | 6.3    | 247    |      | 70.0   |      |        |        |       |      |        |        |      |        |      |      |      |
| SBC-1 Meas              |         |      |        |      | 29       | 0.4    | 2      | 28     | 84     |      | 179    |      |        |        |       |      | 3      | < 2    |      |        |      |      |      |
| SBC-1 Cert              |         |      |        |      | 31.0000  | 0.40   | 2.40   | 35.0   | 82.8   |      | 186.0  |      |        |        |       |      | 3.20   | 0.70   |      |        |      |      |      |
| SBC-1 Meas              |         |      |        |      | 29       | < 0.3  | 2      | 28     | 86     |      | 180    |      |        |        |       |      | 3      | < 2    |      |        |      |      |      |
| SBC-1 Cert              |         |      |        |      | 31.0000  | 0.40   | 2.40   | 35.0   | 82.8   |      | 186.0  |      |        |        |       |      | 3.20   | 0.70   |      |        |      |      |      |
| OxK110 Meas             | 3.62    |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OxK110 Cert             | 3.602   |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OxK110 Meas             | 3.56    |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OxK110 Cert             | 3.602   |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OXN117 Meas             | 7.76    |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OXN117 Cert             | 7.679   |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OXN117 Meas             | 7.66    |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| OXN117 Cert             | 7.679   |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| SdAR-M2 (U.S.G.S.) Meas |         |      |        |      | 241      | 5.4    | 11     | 828    | 52     |      | 783    |      |        |        |       |      | 8      | < 2    |      |        |      |      |      |
| SdAR-M2 (U.S.G.S.) Cert |         |      |        |      | 236.0000 | 5.1    | 13.3   | 808    | 48.8   |      | 760    |      |        |        |       |      | 6.6    | 1.05   |      |        |      |      |      |
| SdAR-M2 (U.S.G.S.) Meas |         |      |        |      | 242      | 5.7    | 10     | 834    | 53     |      | 798    |      |        |        |       |      | 7      | < 2    |      |        |      |      |      |
| SdAR-M2 (U.S.G.S.) Cert |         |      |        |      | 236.0000 | 5.1    | 13.3   | 808    | 48.8   |      | 760    |      |        |        |       |      | 6.6    | 1.05   |      |        |      |      |      |
| DMMAS 118 Meas          |         | 1810 |        |      |          |        |        |        |        |      |        |      |        |        | 1770  | 1010 |        |        |      |        | 45   | 84   |      |
| DMMAS 118 Cert          |         | 1729 |        |      |          |        |        |        |        |      |        |      |        |        | 1661  | 1264 |        |        |      |        | 45   | 83   |      |
| Method Blank            |         |      | < 0.3  |      | < 1      | < 0.3  | < 1    | < 3    | < 1    |      | < 1    |      | < 0.01 | < 0.01 |       |      | < 1    | < 2    |      | < 0.01 |      |      |      |
| Method Blank            |         |      | < 0.3  |      | < 1      | < 0.3  | < 1    | < 3    | < 1    |      | < 1    |      | < 0.01 | 0.01   |       |      | < 1    | < 2    |      | < 0.01 |      |      |      |
| Method Blank            |         |      | < 0.3  |      | < 1      | < 0.3  | < 1    | < 3    | < 1    |      | < 1    |      | < 0.01 | < 0.01 |       |      | < 1    | < 2    |      | < 0.01 |      |      |      |
| Method Blank            |         |      | < 0.3  |      | < 1      | < 0.3  | < 1    | < 3    | < 1    |      | < 1    |      | < 0.01 | < 0.01 |       |      | < 1    | < 2    |      | < 0.01 |      |      |      |
| Method Blank            |         |      | < 0.3  |      | < 1      | < 0.3  | < 1    | < 3    | < 1    |      | < 1    |      | < 0.01 | < 0.01 |       |      | < 1    | < 2    |      | < 0.01 |      |      |      |
| Method Blank            |         | < 2  |        | < 5  |          |        |        |        |        | < 20 |        | < 50 |        |        | < 0.5 | < 50 |        |        |      | < 0.5  | < 1  | < 2  | < 1  |
| Method Blank            | < 0.03  |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |
| Method Blank            | < 0.03  |      |        |      |          |        |        |        |        |      |        |      |        |        |       |      |        |        |      |        |      |      |      |

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| Analyte Symbol          | Eu    | Fe     | Hf   | Hg   | Ir   | K      | Li     | Mg     | Mn     | Na     | P       | Rb   | Sb    | Sc    | Se   | Sr     | Ta    | Ti     | Th    | U     | V      | W    | Y      |
|-------------------------|-------|--------|------|------|------|--------|--------|--------|--------|--------|---------|------|-------|-------|------|--------|-------|--------|-------|-------|--------|------|--------|
| Unit Symbol             | ppm   | %      | ppm  | ppm  | ppb  | %      | ppm    | %      | ppm    | %      | %       | ppm  | ppm   | ppm   | ppm  | ppm    | ppm   | %      | ppm   | ppm   | ppm    | ppm  | ppm    |
| Lower Limit             | 0.2   | 0.01   | 1    | 1    | 5    | 0.01   | 1      | 0.01   | 1      | 0.01   | 0.001   | 15   | 0.1   | 0.1   | 3    | 1      | 0.5   | 0.01   | 0.2   | 0.5   | 2      | 1    | 1      |
| Method Code             | INAA  | INAA   | INAA | INAA | INAA | TD-ICP | TD-ICP | TD-ICP | TD-ICP | INAA   | TD-ICP  | INAA | INAA  | INAA  | INAA | TD-ICP | INAA  | TD-ICP | INAA  | INAA  | TD-ICP | INAA | TD-ICP |
| GXR-1 Meas              |       |        |      |      |      | 0.05   | 8      | 0.20   | 922    |        | 0.059   |      |       |       |      | 288    |       | 0.03   |       |       | 89     |      | 34     |
| GXR-1 Cert              |       |        |      |      |      | 0.050  | 8.20   | 0.217  | 852    |        | 0.0650  |      |       |       |      | 275    |       | 0.036  |       |       | 80.0   |      | 32.0   |
| GXR-1 Meas              |       |        |      |      |      | 0.05   | 8      | 0.21   | 938    |        | 0.060   |      |       |       |      | 293    |       | 0.03   |       |       | 91     |      | 35     |
| GXR-1 Cert              |       |        |      |      |      | 0.050  | 8.20   | 0.217  | 852    |        | 0.0650  |      |       |       |      | 275    |       | 0.036  |       |       | 80.0   |      | 32.0   |
| GXR-4 Meas              |       |        |      |      |      | 3.09   | 11     | 1.71   | 172    |        | 0.134   |      |       |       |      | 213    |       | 0.29   |       |       | 89     |      | 15     |
| GXR-4 Cert              |       |        |      |      |      | 4.01   | 11.1   | 1.66   | 155    |        | 0.120   |      |       |       |      | 221    |       | 0.29   |       |       | 87.0   |      | 14.0   |
| GXR-4 Meas              |       |        |      |      |      | 4.23   | 11     | 1.70   | 168    |        | 0.133   |      |       |       |      | 212    |       | 0.29   |       |       | 89     |      | 15     |
| GXR-4 Cert              |       |        |      |      |      | 4.01   | 11.1   | 1.66   | 155    |        | 0.120   |      |       |       |      | 221    |       | 0.29   |       |       | 87.0   |      | 14.0   |
| SDC-1 Meas              |       |        |      |      |      | 2.25   | 34     | 0.97   | 901    |        | 0.055   |      |       |       |      | 167    |       | 0.22   |       |       | 54     |      |        |
| SDC-1 Cert              |       |        |      |      |      | 2.72   | 34.00  | 1.02   | 880.00 |        | 0.0690  |      |       |       |      | 180.00 |       | 0.606  |       |       | 102.00 |      |        |
| SDC-1 Meas              |       |        |      |      |      | 2.91   | 35     | 1.01   | 937    |        | 0.053   |      |       |       |      | 173    |       | 0.12   |       |       | 38     |      |        |
| SDC-1 Cert              |       |        |      |      |      | 2.72   | 34.00  | 1.02   | 880.00 |        | 0.0690  |      |       |       |      | 180.00 |       | 0.606  |       |       | 102.00 |      |        |
| DNC-1a Meas             |       |        |      |      |      |        | 4      |        |        |        |         |      |       |       |      | 121    |       | 0.28   |       |       | 137    |      | 14     |
| DNC-1a Cert             |       |        |      |      |      |        | 5.20   |        |        |        |         |      |       |       |      | 144.0  |       | 0.29   |       |       | 148.00 |      | 18.0   |
| DNC-1a Meas             |       |        |      |      |      |        | 5      |        |        |        |         |      |       |       |      | 127    |       | 0.28   |       |       | 142    |      | 16     |
| DNC-1a Cert             |       |        |      |      |      |        | 5.20   |        |        |        |         |      |       |       |      | 144.0  |       | 0.29   |       |       | 148.00 |      | 18.0   |
| SBC-1 Meas              |       |        |      |      |      |        | 152    |        |        |        |         |      |       |       |      | 171    |       | 0.44   |       |       | 210    |      | 32     |
| SBC-1 Cert              |       |        |      |      |      |        | 163.0  |        |        |        |         |      |       |       |      | 178.0  |       | 0.51   |       |       | 220.0  |      | 36.5   |
| SBC-1 Meas              |       |        |      |      |      |        | 154    |        |        |        |         |      |       |       |      | 174    |       | 0.51   |       |       | 214    |      | 31     |
| SBC-1 Cert              |       |        |      |      |      |        | 163.0  |        |        |        |         |      |       |       |      | 178.0  |       | 0.51   |       |       | 220.0  |      | 36.5   |
| OxK110 Meas             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OxK110 Cert             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OxK110 Meas             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OxK110 Cert             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OXN117 Meas             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OXN117 Cert             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OXN117 Meas             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| OXN117 Cert             |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| SdAR-M2 (U.S.G.S.) Meas |       |        |      |      |      |        | 18     |        |        |        |         |      |       |       |      | 144    |       |        |       |       | 26     |      | 29     |
| SdAR-M2 (U.S.G.S.) Cert |       |        |      |      |      |        | 17.9   |        |        |        |         |      |       |       |      | 144    |       |        |       |       | 25.2   |      | 32.7   |
| SdAR-M2 (U.S.G.S.) Meas |       |        |      |      |      |        | 18     |        |        |        |         |      |       |       |      | 142    |       |        |       |       | 25     |      | 29     |
| SdAR-M2 (U.S.G.S.) Cert |       |        |      |      |      |        | 17.9   |        |        |        |         |      |       |       |      | 144    |       |        |       |       | 25.2   |      | 32.7   |
| DMMAS 118 Meas          |       | 3.39   |      |      |      |        |        |        |        | 2.16   |         |      | 6.0   | 6.3   |      |        |       |        |       |       | 15.8   |      |        |
| DMMAS 118 Cert          |       | 3.25   |      |      |      |        |        |        |        | 2.21   |         |      | 6.6   | 6.1   |      |        |       |        |       |       | 15.9   |      |        |
| Method Blank            |       |        |      |      |      | < 0.01 | < 1    | < 0.01 |        |        | < 0.001 |      |       |       |      | < 1    |       | < 0.01 |       |       | < 2    |      | < 1    |
| Method Blank            |       |        |      |      |      | < 0.01 | < 1    | < 0.01 |        |        | < 0.001 |      |       |       |      | < 1    |       | < 0.01 |       |       | < 2    |      | < 1    |
| Method Blank            |       |        |      |      |      | < 0.01 | < 1    | < 0.01 |        |        | < 0.001 |      |       |       |      | < 1    |       | < 0.01 |       |       | < 2    |      | < 1    |
| Method Blank            |       |        |      |      |      | < 0.01 | < 1    | < 0.01 |        |        | < 0.001 |      |       |       |      | < 1    |       | < 0.01 |       |       | < 2    |      | < 1    |
| Method Blank            |       |        |      |      |      | < 0.01 | < 1    | < 0.01 |        |        | < 0.001 |      |       |       |      | < 1    |       | < 0.01 |       |       | < 2    |      | < 1    |
| Method Blank            | < 0.2 | < 0.01 | < 1  | < 1  | < 5  |        |        |        |        | < 0.01 |         | < 15 | < 0.1 | < 0.1 | < 3  |        | < 0.5 |        | < 0.2 | < 0.5 |        | < 1  |        |
| Method Blank            |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |
| Method Blank            |       |        |      |      |      |        |        |        |        |        |         |      |       |       |      |        |       |        |       |       |        |      |        |

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| Analyte Symbol          | La    | Ce   | Nd   | Sm    | Sn     | Tb    | Yb    | Lu     | Mass |
|-------------------------|-------|------|------|-------|--------|-------|-------|--------|------|
| Unit Symbol             | ppm   | ppm  | ppm  | ppm   | %      | ppm   | ppm   | ppm    | g    |
| Lower Limit             | 0.5   | 3    | 5    | 0.1   | 0.01   | 0.5   | 0.2   | 0.05   |      |
| Method Code             | INAA  | INAA | INAA | INAA  | INAA   | INAA  | INAA  | INAA   | INAA |
| GXR-1 Meas              |       |      |      |       |        |       |       |        |      |
| GXR-1 Cert              |       |      |      |       |        |       |       |        |      |
| GXR-1 Meas              |       |      |      |       |        |       |       |        |      |
| GXR-1 Cert              |       |      |      |       |        |       |       |        |      |
| GXR-4 Meas              |       |      |      |       |        |       |       |        |      |
| GXR-4 Cert              |       |      |      |       |        |       |       |        |      |
| GXR-4 Meas              |       |      |      |       |        |       |       |        |      |
| GXR-4 Cert              |       |      |      |       |        |       |       |        |      |
| SDC-1 Meas              |       |      |      |       |        |       |       |        |      |
| SDC-1 Cert              |       |      |      |       |        |       |       |        |      |
| SDC-1 Meas              |       |      |      |       |        |       |       |        |      |
| SDC-1 Cert              |       |      |      |       |        |       |       |        |      |
| DNC-1a Meas             |       |      |      |       |        |       |       |        |      |
| DNC-1a Cert             |       |      |      |       |        |       |       |        |      |
| DNC-1a Meas             |       |      |      |       |        |       |       |        |      |
| DNC-1a Cert             |       |      |      |       |        |       |       |        |      |
| SBC-1 Meas              |       |      |      |       |        |       |       |        |      |
| SBC-1 Cert              |       |      |      |       |        |       |       |        |      |
| SBC-1 Meas              |       |      |      |       |        |       |       |        |      |
| SBC-1 Cert              |       |      |      |       |        |       |       |        |      |
| OxK110 Meas             |       |      |      |       |        |       |       |        |      |
| OxK110 Cert             |       |      |      |       |        |       |       |        |      |
| OxK110 Meas             |       |      |      |       |        |       |       |        |      |
| OxK110 Cert             |       |      |      |       |        |       |       |        |      |
| OXN117 Meas             |       |      |      |       |        |       |       |        |      |
| OXN117 Cert             |       |      |      |       |        |       |       |        |      |
| OXN117 Meas             |       |      |      |       |        |       |       |        |      |
| OXN117 Cert             |       |      |      |       |        |       |       |        |      |
| SdAR-M2 (U.S.G.S.) Meas |       |      |      |       |        |       |       |        |      |
| SdAR-M2 (U.S.G.S.) Cert |       |      |      |       |        |       |       |        |      |
| SdAR-M2 (U.S.G.S.) Meas |       |      |      |       |        |       |       |        |      |
| SdAR-M2 (U.S.G.S.) Cert |       |      |      |       |        |       |       |        |      |
| DMMAS 118 Meas          | 16.2  | 31   |      | 2.4   |        |       |       |        |      |
| DMMAS 118 Cert          | 16.9  | 30   |      | 2.2   |        |       |       |        |      |
| Method Blank            |       |      |      |       |        |       |       |        |      |
| Method Blank            |       |      |      |       |        |       |       |        |      |
| Method Blank            |       |      |      |       |        |       |       |        |      |
| Method Blank            |       |      |      |       |        |       |       |        |      |
| Method Blank            | < 0.5 | < 3  | < 5  | < 0.1 | < 0.01 | < 0.5 | < 0.2 | < 0.05 | 30.0 |
| Method Blank            |       |      |      |       |        |       |       |        |      |
| Method Blank            |       |      |      |       |        |       |       |        |      |