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## Prospecting Report on the

New Delhi Mine Property<br>Delhi Township, Sudbury Mining Division



Figure 1: New Delhi Mine Adit in 1954. Lahay Vein can be seen above the adit. (Lawton 1955)

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### 1.0 Summary

Prospecting surveys were carried out on the New Delhi Mine property by David Lefort, Jacques Robert, and Andrew McLellan. The surveys were completed in two phases. The first phase was from May $21^{\text {st }}-$ $24^{\text {th }}, 2018$, and the second phase was from June $3^{\text {rd }}-8^{\text {th }}, 2019$. Twenty grab samples were taken. The sampling was successful at confirming the previously reported grades of $\mathrm{Au}, \mathrm{Ag}$, and Pb . The results also showed there is an appreciable grade of Cu in the veins not previously reported in the 1950s. The geochemistry results were as high as $11.0 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 176.0 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 26.5 \%, 4.2 \% \mathrm{Cu}, 967 \mathrm{ppm} \mathrm{Zn}, 593 \mathrm{ppm}$ Co, and 178 ppm Ni. At the New Delhi Mine there was a corridor 100 metres wide x 300 metres long containing quartz-carbonate veins with galena, chalcopyrite, pyrite, pyrrhotite and gold mineralization. The shear structure at the New Delhi Mine may be a pre-Huronian fault rooted in the Archean basement acting as a conduit for precious and base metal rich fluid. The polymetallic veins at the New Delhi Mine may represent a peripheral element of previously unrecognized unconformity-associated mineralization at depth. Unconformity-associated mineralization at Gowganda and Cobalt, located 60 kilometres northwest and 60 kilometres northeast of the New Delhi Mine was mined for Ag and Co. A total of 460 million ounces of Ag was mined between these two mining camps

### 2.0 Location and Access

The New Delhi Mine property is located in the northern part of Delhi Township and southern part of Shelburne Township; approximately forty kilometres west of Temagami (see Figure 2 below). Accessing the property can be done by boat by traveling from the south end of Obabika Lake to the north end then canoeing through Wakimika River to Wakimika Lake. The property can also be accessed by air transportation from Lakeland Airways's base in Temagami. It is a forty-two kilometre flight to Wakimika Lake from Lakeland's base. Lakeland's base in Temagami can be accessed via Hwy 11 by car from the north or south. Louisa Whitehead from Ontario Parks gave the prospectors written permission to land a float plane on Wakimika Lake.


Figure 2: Location Map

### 3.0 Property Description

The New Delhi Mine property is comprised of 49 single cell mining claims in Delhi and Shelburne Township, Sudbury Mining Division (see Figure 3 below). Four of the mining claims over the New Delhi Mine showing is jointly held by Jacques Robert (33\%), David Lefort (34\%) and 9640355 Canada Corp. (33\%). The remaining 45 mining claims ownership is $100 \%$ held by 9640355 Canada Corp. Table 1 below provides a description of the mining claims.


Figure 3: Property Map

Table 1: Mining Claim Descriptions

| Tenure Number | Title Type | Township | Ownership |
| :---: | :---: | :---: | :---: |
| 199324 | Single Cell Mining Claim | DELHI | (33) JACQUES ROBERT, (34) DAVID MICHAEL LEFORT, (33) 9640355 CANADA CORP. |
| 320519 | Single Cell Mining Claim | DELHI | (33) JACQUES ROBERT, (34) DAVID MICHAEL LEFORT, (33) 9640355 CANADA CORP. |
| 273325 | Single Cell Mining Claim | DELHI | (33) JACQUES ROBERT, (34) DAVID MICHAEL LEFORT, (33) 9640355 CANADA CORP. |
| 236424 | Single Cell Mining Claim | DELHI | (33) JACQUES ROBERT, (34) DAVID MICHAEL LEFORT, (33) 9640355 CANADA CORP. |
| 501619 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501620 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501621 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501622 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501623 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501624 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501625 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501626 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501627 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501628 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501629 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501630 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501634 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501635 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501636 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501637 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501638 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501639 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501640 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501641 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501642 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501643 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501644 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501645 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501646 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501647 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501648 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501649 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501650 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501651 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |
| 501652 | Single Cell Mining Claim | DELHI | (100) 9640355 CANADA CORP. |


| Tenure <br> Number | Title Type | Township | Ownership |
| :---: | :---: | :---: | :--- |
| 501653 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501654 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501655 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501656 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501657 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501658 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501659 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501660 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 513204 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 513205 | Single Cell Mining Claim | DELHI | $(100) 9640355$ CANADA CORP. |
| 501631 | Single Cell Mining Claim | DELHI, <br> SHELBURNE | $(100) 9640355$ CANADA CORP. |
| 501632 | Single Cell Mining Claim | DELHI, <br> SHELBURNE | $(100) 9640355$ CANADA CORP. |
| 501633 | Single Cell Mining Claim | DELHI, <br> SHELBURNE | $(100) 9640355$ CANADA CORP. |
| 510688 | Single Cell Mining Claim | DELHI, <br> SHELBURNE | $(100) 9640355$ CANADA CORP. |

### 4.0 Historical Work

1907 - In 1907, a tunnel was driven 240 feet and surface work included sinking ten test pits and roughly 200 feet of trenching. (Kindle 1936)

1908-1933 - An adit 50 feet in length was developed and a shaft 30 feet deep was sunk at the New Delhi prospect sometime between 1908 and 1933. (Caldbick 2003)

1945 - A letter to shareholders of Delhi (Temagami) Gold Mines Ltd. stated that the Lahay Vein was discovered 200 feet northwest of Zone 1 with visible gold in three test pits. Six more pits and trenches were blasted on the Lahay Vein, all exhibiting visible gold as well. Numerous high assays were obtained from small drag folds located in the trenches. Samples from the trenches returned as high as $123.43 \mathrm{~g} / \mathrm{t}$ $\mathrm{Au}, 257.49 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$, and $20.31 \% \mathrm{~Pb}$. In addition, seven drill holes were completed by the end of year. One of the drill holes on the Lahay Vein returned $7.89 \mathrm{~g} / \mathrm{t}$ Au and $8.57 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$ over 1.37 metres. (Lahay 1946)

1947 - From May $31^{\text {st }}$ to June $27^{\text {th }}, 1947$ geological mapping of the Delhi (Temagami) Gold Mines property was completed by R. I. Benner and his 5 crewmembers. Beener mapped the southwest shore of Wakimika Lake as Keewatin lavas with well-defined pillows and steeply dipping slates, but subsequently the Ontario Geological Survey has it mapped as Gowganda sediments. One Benner's samples from the Lahay Vein returned $14.06 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 329.14 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$, and $19.60 \% \mathrm{~Pb}$ over 13". (Benner 1947)

1949 - In 1949, geological mapping in the vicinity of the New Delhi prospect was completed in July and August. Seven drill holes were also completed. (Lawton 1955)

1950 - From March $14^{\text {th }}$ to April $7^{\text {th }}, 1950$ Delhi (Temagami) Gold Mines Ltd. took a 21,692 lbs. bulk sample of the Lahay vein. The surface bulk sample consisted of seven cuts across the vein lying immediately east of the main New Delhi Mine adit. The total length of the bulk sample was 80 feet. The results of the bulk sample are displayed in the table below. (Lawton 1955)

Table 2: Lahay Vein Bulk Sample - 21,692 lbs. (Lawton 1955)

| Commodity | Result |
| :---: | :--- |
| Au | $8.57 \mathrm{~g} / \mathrm{t}$ |
| Ag | $191 \mathrm{~g} / \mathrm{t}$ |
| Pb | $7.13 \%$ |

With the bulk sample returning favorable results underground operations commenced in November, 1950. An adit was driven on the Lahay vein for 217 feet. Total drifting completed by the end of year was 282 feet. In addition to the underground operations, 80 feet of trenching and one diamond drill hole was completed in 1950. (Rickaby 1953)

Also in 1950 geological mapping and prospecting of the Shannon property was carried out. The Shannon property was located contiguously south of the New Delhi Mine property. For geological mapping and geophysical surveys a picket line grid was established over the property. A quartz vein zone 700 feet wide and 3400 feet long was discovered. The zone consisted of 20 steeply dipping quartz veins in close proximity to the Nipissing Diabase and greywacke contact. Some of the veins were mineralized with pyrite, chalcopyrite, and galena. It was noted that this zone merits further investigation and may be related to the same structural setting as the New Delhi Mine. (Simard 1950)

1951 - New Delhi Mines Ltd. (changed name from Delhi (Temagami) Gold Mines Ltd.) continued the underground operations until the end of May 1951. A total of 1132 feet of drifting, 144 feet of crosscutting, and 18 feet of raising was completed on five veins at the New Delhi Mine, see the Figure 4 below. (Rickaby 1953 and Lawton 1955). In total four high grade ore shoots with a combined length of 381 feet were found. Three of the development faces were in ore when underground work ceased in 1951. (Lawton 1955)


Figure 3 - Geological plan of the main adit level, New Delhi Mines, Limited. Diagrammatic cross-sections A-B and C-D accompany the surface plan in the pocket at the back of this report.

Figure 4: Geological Plan of the New Delhi Mine (Lawton 1955)


SECTION THROUGH DIAMOND DRILL HOLE 14 ALONG LINE C-D
Figure 5: Figure 5: Cross-section of DH 14 intersecting the veins 200 feet below the adit (Lawton 1955)

A total of ten drill holes totaling 2599 feet were completed in 1951. (Rickaby 1953). Four of these holes targeted below the adit and all encountered the persistence of the veins to at least 200 feet below the surface, see Figure 5 above. (Lawton 1955)

Also in 1951 L. R. Simard, a consulting geologist for New Delhi Mines Ltd. reported a resource estimate of 54,000 tons of ore from surface to 200 feet below the adit horizon. The recoverable net value of the ore was estimated at $\$ 20.25$ per ton (1951 prices). The dimensions and grade of the high grade ore shoots developed on the adit level are summarized in the table below. (Lawton 1955)

Table 3: High Grade Ore Zones at New Delhi Mine (Lawton 1955)

| Vein | Length (feet) | Average Width <br> (feet) | Au | Ag | Pb |
| :--- | :---: | :---: | :--- | :--- | :--- |
| Lahay Vein | 102 | 2.87 | $2.88 \mathrm{~g} / \mathrm{t}$ | $125.14 \mathrm{~g} / \mathrm{t}$ | $7.29 \%$ |
| No. 1, south, A | 74 | 4.20 | $1.37 \mathrm{~g} / \mathrm{t}$ | $71.31 \mathrm{~g} / \mathrm{t}$ | $6.35 \%$ |
| No. 1, south, B | 21 | 3.92 | $0.24 \mathrm{~g} / \mathrm{t}$ | $56.57 \mathrm{~g} / \mathrm{t}$ | $12.17 \%$ |
| No. 4, south | 184 | 4.52 | $8.98 \mathrm{~g} / \mathrm{t}$ | $94.63 \mathrm{~g} / \mathrm{t}$ | $8.69 \%$ |
| Total | 381 |  |  |  |  |

1952 - During the summer of 1952, F. C. Knight conducted a magnetic survey of the Shannon property. He used a Share model D1-M type magnetometer for the survey. Two strong magnetic anomalies were discovered. The first anomaly located southeast of the New Delhi Mine is thought to be eastern extension of the ore bearing diabase dyke. The second anomaly located southwest of the New Delhi

Mine is oval in shape and is thought to represent the more magnetic portion of the diabase. Four drill holes were recommended to be carried out on the first anomaly. The first anomaly has similar structure to the ones observed at the New Delhi Mine and may possibly host the same style of mineralization. (Knight 1952)

1973-1995 - Due to a moratorium on mineral exploration in the 1970s, 80s, and 90s very little exploration has occurred in the central portion of the Cobalt Embayment where the New Delhi Mine property is located. The moratorium was lifted in 1995 as a result of a court order by the Supreme Court of Canada. The moratorium lasted for over twenty years and prevented any mining claim staking the mineral exploration.

2001 - On June 17, 2001, Peter Caldbick and one consultant hired by Explorers Alliance Corp. visited the New Delhi Mine property. Peter and his field partner were unable to locate the New Delhi Mine showing due to a great deal of time spent on reconnaissance and orientation. Ten grab samples were taken mostly of greywacke. All the samples had whole rock analysis completed and four samples were analyzed for $\mathrm{Au}, \mathrm{Ag}, \mathrm{Co}, \mathrm{Ni}, \mathrm{Pt}$, and Pd . One grab sample of aphanitic, pelitic argillite yielded an anomalous result of 1.57 \% Ni. (Caldbick 2002)

2003 - Two years later Peter Caldbick and two consultants for Explorers Alliance Corp. located the New Delhi Mine on June 24, 2003. Eight grab samples in total were taken. Five of these samples were taken from the Lahay Vein adit and trenches. The other three samples were taken as a follow up to the anomalous Ni sample previously taken in 2001. All of the samples were analyzed for a combination of $\mathrm{Au}, \mathrm{Ag}, \mathrm{Co}, \mathrm{Cu}, \mathrm{Ni}, \mathrm{Pb}, \mathrm{Zn}, \mathrm{Pt}$, and Pd. Caldbick's most anomalous sample taken was from 35 feet in the adit on the Lahay vein drift. This sample's assay results were $3.02 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 143 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 488 \mathrm{ppm} \mathrm{Co}, 2.65 \%$ $\mathrm{Cu}, 164 \mathrm{ppm} \mathrm{Ni}, 5.03 \% \mathrm{~Pb}, 618 \mathrm{ppm} \mathrm{Zn}$. The three samples taken as follow up for the Ni anomaly failed to yield the same Ni result as in 2001. (Caldbick 2003)

Also in 2003, Eva Schandl, PhD conducted a petrographic study of two polished thin sections (PTS). The two PTS were made from the anomalous sample taken by Peter Caldbick in June 24, 2003. In the PTS Eva identified galena, chalcopyrite, marcasite, quartz, carbonate, and Fe-oxide minerals. She also encountered an abundance of fluid inclusions in the quartz, see Figure 6 below. (Schandl 2006)


Figure 6: Fluid inclusions (Schandl 2006)

2006 - In 2006, Explorers Alliance Corp. hired Lunik Explorer and Hussy Geophysical Inc. to conduct ground geophysical surveys over the central portion of the New Delhi Mine property. During June 2006 the line cutting and geophysical surveys were completed. The geophysical program consisted of total field magnetic surveys and Max Min horizontal loop electromagnetic surveying. The total length of the grid was 5.6 kilometres. The tie lines were $475-800$ metres long and line spacing was 100 metres. A GEM GSM-19 magnetometer and an Apex Parametric Max Min II instrument were used. No significant bedrock conductors were identified due to noisy data. The magnetic survey outlined two linear magnetic highs trending southeast-northwest. The magnetic highs are suggested to be diabase or mafic dykes. There is also a weak-moderate strength anomalous magnetic pattern directly south of the New Delhi. This area is suggested to be a structural complex area with magnetic highs represented as mafic to ultramafic lithology.

2007-2009 - E. Potter's PhD thesis research fieldwork consisted of collecting 7 grab samples at the New Delhi Mine site. Three in situ grab samples were collected from within the adit along the Lahay Vein drift. An additional three grab samples were collected from the New Delhi Mine waste pile and one Nipissing Diabase host rock sample was taken. One of the grab samples collected from the New Delhi Mine waste pile returned anomalous results of $36.62 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 258 \mathrm{~g} / \mathrm{t} \mathrm{Ag}, 28.95 \% \mathrm{~Pb}, 2.23 \% \mathrm{Cu}$, and 285 ppm Co. (Potter 2009)

### 5.0 Regional Geology

The New Delhi Mine property is located in the centre of the Precambrian aged ( $2450-2220 \mathrm{Ma}$ ) Cobalt Embayment (see Figure 7 below). The Cobalt Embayment is a $\sim 60,000 \mathrm{~km} 2$, irregular domain of Huronian-age siliciclastic sedimentary rocks that unconformably overlies the Archean basement rocks of the Abitibi Greenstone Belt. The lower Huronian sedimentary rocks were likely deposited in a rift setting, whereas the upper formations represent a passive margin succession dominated by siliciclastic sediments. The Huronian and Archean rocks are intruded by Early Proterozoic sills and dykes of Nipissing Diabase with an age of 2220 Ma . Nipissing Diabase unit has a composition of olivine tholeiitic and are interpreted as the intrusive portion of an eroded continental flood basalt sequence. Regionalscale fault systems cross-cut both the Archean and Huronian rocks. (Potter 2009)

The Huronian sedimentary rocks were subjected to subgreenschist-facies metamorphism producing chlorite and muscovite porphyroblasts in the eastern region of the embayment and pyrophyllite in the central part of the embayment. The timing of the subgreenschist-facies metamorphism is sometime between 2220 Ma and 1747 Ma . (Potter 2009)

The younger olivine-diabase of the Sudbury dyke swam intruded the Precambrian rocks. The age of the Sudbury dyke swarm is $1238+/-4 \mathrm{Ma}$. (Potter 2009)


Figure 7: Location of the Cobalt Embayment (Potter 2009)

### 6.0 Property Geology

A Nipissing Diabase sill/dyke trends northeast from the southwest corner to north end of the property. The New Delhi Mine is located on the northern tip of this sill/dyke. The sill/dyke has intruded into thinbedded greywacke of the Gowganda Formation of the Huronian Supergroup. Approximately 300 metres south of the New Delhi Mine, a 75 metre wide olivine-diabase dyke of the Sudbury dyke swarm crosscuts the Archean rocks. The olivine-diabase dyke strikes 285 degrees and dips steeply to the north. A large regional fault zone has been mapped along the southwest shoreline of Wakimika Lake, striking 330 degrees and nearly vertical. A geology map of the property is below, Figure 8. (Potter 2009)


## LEGEND



PRECAMBRIAN ${ }^{b}$
PROTEROZOIC
MAFIC INTRUSIONS
LATE DIABASE INTRUSIONS


15
$15 a$
Diabase
Olivine diabase.
intrusive contact NIPISSING DIABASE INTRUSIONS ${ }^{c}$ $14 \quad \begin{aligned} & 14 \text { Unsubdivided.d } \\ & \text { 14a Pyroxene gabbro.d } \\ & \text { 14 }\end{aligned}$

intrusive contact
HURONIAN SUPERGROUP COBALT GROUP BAR RIVER FORMATION $\dagger$
$\begin{array}{ll}11 & 13 \\ 13 \mathrm{a} \\ 13 & \text { Unsubdivided. } \\ & \\ \end{array}$


Figure 8: Property Geology Map

The Huronian Supergroup sediments found on New Delhi property are the Lorrain Formation and Gowganda Formation. Both these formations are part of the Cobalt Group and are located at the near top of the stratigraphic column, see Figure 9 below. Greywacke, laminated greywacke, and impure quartzite lithology of the Gowganda Formation are found on the property. The greywacke is a darkgreen, massive, fine-grained rock that has a presence of chlorite and epidote. The laminated greywacke consists of $1 / 4-3 / 8^{\prime \prime}$ thin beds composed of two layers, upper layer is darker and fine-grained while the lower layer is bleached and coarser. At the New Delhi Mine the laminated greywacke has abundant interbeds of pink, fine-grained quartzite that reach a maximum thickness of 18". The Lorrain Formation quartzite found in the northwest corner of the property overlies the Gowganda Formation. (Lawton 1955)


Archean Basement
Figure 9: Huronian Supergroup Stratigraphic Column (Potter 2009)

The Nipissing Diabase rock unit is an intrusive quartz gabbro of Keweenawan age. The Nipissing Diabase sill on the property is estimated to be at least 60 metres thick and have a westerly dip of 30 degrees. While the diabase found at the New Delhi Mine is thought to be a dyke. Generally, the diabase is a darkgrey to dark-green, coarse-grained rock exhibiting widespread alteration. The original diabase texture has been obscured through alteration of plagioclase and pyroxene into a mass of uralitic hornblende, epidote, clinozoisite, and chlorite. The table below compares the modal abundances of the minerals found in the Nipissing Diabase from the freshest sample to altered rocks found at New Delhi Mine. The freshest sample found was taken southeast of Lahay Lake. The "Red Rock" sample was taken from the granophyre phase of the Nipissing Diabase displayed in red dots in Figure 8. The "Red Rock" is a dull red, coarse-grained rock with a granite/syenite appearance. The altered sample in the table is representative of the average Nipissing Diabase. The New Delhi Mine sample was more highly altered from shearing and vein deposition than the other samples. In the sample taken from New Delhi Mine hornblende was observed to be altered to chlorite and feldspars were replaced by epidote, sericite, and carbonate. Epidote intermixed with hornblende as veinlets was abundant in this sample as well. (Lawton 1955)

Table 4: Petrology of the Nipissing Diabase (\% modal abundance) (Lawton 1955)

| Mineral | Fresh Sample | Red Rock | Altered Sample | New Delhi Mine |
| :--- | :---: | :---: | :---: | :---: |
| Hornblende | $30 \%$ | $2-15 \%$ | $55 \%$ | $40-60 \%$ |
| Epidote | $10 \%$ | $5 \%$ | $30 \%$ | $20-30 \%$ |
| Chlorite | $2 \%$ | $5 \%$ | $5 \%$ | $5-30 \%$ |
| Sericite | $<1 \%$ | $<1 \%$ |  | $1-10 \%$ |
| Apatite, magnetite | $<1 \%$ | $<1 \%$ | $<2 \%$ | $<1 \%$ |
| Qtz intergrown with Ab | $2 \%$ | Granophyre rock | $8 \%$ | $0-5 \%$ |
| Albite (Ab) |  | $25-50 \%$ |  | $5-15 \%$ |
| Carbonate |  | $<1 \%$ |  | $0-45 \%$ |
| Leucoxene |  |  | $<2 \%$ | $1-3 \%$ |
| Pyrite | $5 \%$ | $0-5 \%$ | $<1 \%$ |  |
| Microcline |  |  |  |  |
| Quartz (Qtz) | $50-50 \%$ |  |  |  |
| Calcic andesine |  |  |  |  |
| Clinopyroxene |  |  |  |  |

In the Gowganda and Lorrain Formations Sudbury breccia bands have been observed with a northerly trend west and north of the Nipissing Diabase sill. The breccia bands consist of sub-angular to round fragments in a fine grained matrix with flow banding around the fragments. The historical meteor impact in Sudbury, 70 kilometres south of the property is thought to have caused the breccia bands.
(Lawton 1955)

### 6.0 Vein and Mineralization Description

The mineralized vein system at the New Delhi Mine is associated with a near-vertical shear zone trending roughly 300 degrees. The zone consists of a series of parallel shears. The individual shears within the zone are dipping 40 degrees to the north. Some of the shears are even dipping south. The shear zone cross-cuts both the Nipissing Diabase and Gowganda Formation. Massive-to-vuggy calcitequartz veins fill fractures within and adjacent to the shear zone. These veins are hosted in Nipissing Diabase and occasionally in the Gowganda greywacke. They strike variably northeast to east and dip 35 to 60 degrees northwest ( $225 / 35$ to 270/60). Five parallel northeast striking veins were developed at the New Delhi Mine. Four of the veins dip at 35 to 40 degrees with the exception of the No. 4 shear vein that has a dip of 60 degrees. The mineralization in the veins consists of argentiferous galena, chalcopyrite, pyrite, and native gold. Wallrock, mostly of Nipissing Diabase are variably found as inclusions in the veins. (Potter 2009, Lawton 1955, and Caldbick 2003)

Peter Caldbick's 2003 Prospecting Report describes the Lahay Vein as an irregular coalescing vein system with quartz infilling tension gashes cavities. The quartz exhibited fractures, styolites and pods of chlorite often with massive patches of galena, accessory chalcopyrite and minor pyrite. The vein contact with the wallrock was sharp and somewhat fractured. In some places the contact was slightly sheared as well. Massive galena occurred along the vein/wallrock contact. The wallrock was light green, mediumgrained, and strongly carbonatized with minor hematite and sericitic alteration. The pervasively altered wallrock contained disseminated chalcopyrite and pyrite with minor bornite. (Caldbick 2003)

The mineralized vein system at the New Delhi Mine is thought to be Proterozoic. Proterozoic vein systems typically occur in proximity to the pre-Huronian faults that were reactivated during emplacement of the Nipissing Diabase. Precious and base metal rich calcite-quartz vein systems in the Cobalt Embayment are petrogenetically interrelated and formed as part of a large-scale, regional hydrothermal event during the Early Proterozoic. (Potter 2009)

### 7.0 Prospecting Surveys

The prospecting surveys were carried out in two phases. The first phase was completed from May $21^{\text {st }}-$ $24^{\text {th }}, 2018$, and the second phase was completed from June $3^{\text {rd }}-8^{\text {th }}, 2019$. During the first phase Jacques Robert, David Lefort and Andrew McLellan prospected mining claims 236424, 320519, 501633, and 510688 for one day. The other three days were spent on mobilizing and demobilizing from the New Delhi Mine property. Five grab samples were collect in mining claim 236424 during the first phase. The second phase took place over three days by Jacques Robert, David Lefort and Andrew McLellan. Mining claims 199324, $236424,320519,501633,510688$, and 501630 were prospected. Fifteen grab samples from were collected from mining claims 236424, 199324, and 320519. Two days were spent mobilizing and demobilizing to the property.

The map below (Figure 10) has the prospecting traverses and grab samples plotted. The grab sample Au results are represented by graduated circles of varying size and colour. The large red circles represent samples with a result great than $1.00 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and the small black dots represent samples with an Au result less than $0.01 \mathrm{~g} / \mathrm{t}$ Au.


Figure 10: Prospecting Map

Twenty grab samples were collected in total from the prospecting surveys. Of the twenty samples, fourteen were taken from outcrops. The outcrop samples were collected from rock exposures along the side of hills or from historical pits and trenches. The other six samples were rubble samples from trenches and outside the New Delhi Mine adit. The majority of the samples collected were mineralized vein material. The other samples were mineralized host rock or material from the hanging wall or footwall. The mineralization observed in the veins was consistent with what was historically reported: galena, chalcopyrite, pyrite, and pyrrhotite. The individual grab sample descriptions can be found in Appendix F.

During the first phase of prospecting the New Delhi Mine was located and prospected. One outcrop sample was taken outside the east adit entrance to the mine and four rubble samples were taken outside the main entrance to the mine. There was a waste pile by the main entrance 25 metres wide and 70 metres long.

During phase two structural measurements were taken along with grab sample collection. The measurements were taken with a Suunto MC-2 compass. The strike and dip of veins and bedding were measured along with trend and plunge of the fold axes. The structural measurements and grabs samples were plotted on the field map in Appendix D. On a side of a hill an anticlinal fold was observed 300 metres east of the New Delhi Mine adit. Two photos of this fold can be viewed below (Figure 11 and 12).


Figure 11: Anticlinal Fold - Greywacke 300 m east of New Delhi Mine


Figure 12 : Anticlinal Fold - Greywacke 300 m east of New Delhi Mine

The fold axis was plunging at 20 degrees trending 296 degrees. It was observed that between the competent bedding layers there was silt layer exhibiting a foliation.

Also during the second phase the historical 50 foot and 240 foot adits were located. The adits were also plotted on the field map see Appendix D. Both of the adits had waste dumps approximately $10 \times 15$ metres in size. The 240 foot adit was least promising of the two. It was driven into greywacke and no quartz or mineralized rocks were observed in the waste dump, see Figure 13.


Figure 13: $\mathbf{2 4 0} \mathbf{f t}$ adit entrance in greywacke

The more promising 50 foot adit was driven into a steeply dipping, 25 cm wide quartz vein cutting into the Nipissing Diabase, see Figure 14 below. The vein was striking 290 degrees and dipping 64 degrees to the north. There was a second vein above the adit striking 220 degrees and dipping 10 degrees to the north. This vein system exhibited massive sulphide, galena, chalcopyrite, and pyrite mineralization. A waste rock sample found exhibited tension gashes indicating shearing. Piles of jack leg steel were at the adit entrance and there was a historical rail cart left on the waste dump, see Figure 16 below. No samples were taken from either of the adits.


Figure 14: 50 ft adit entrance - quartz vein 290/64


Figure 16: Historical rail cart left on waste dump

### 7.0 Geochemistry Results

The twenty collected grabs samples were sent in for Au fire assay and Aqua Regia ICP-OES geochemical analysis. Over limit Au results were reanalyzed with a gravimetric finish and over limit $\mathrm{Ag}, \mathrm{Cu}, \mathrm{and} \mathrm{Pb}$ samples were rerun with ore grade ICP-OES. The phase one samples were sent to the ActLabs in Timmins and phase two samples were analyzed by ALS in Sudbury. The ICP-OES geochemical analysis included 38 elements (Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, $\mathrm{Pb}, \mathrm{S}, \mathrm{Sb}, \mathrm{Sc}, \mathrm{Sr}, \mathrm{Th}, \mathrm{Ti}, \mathrm{Tl}, \mathrm{U}, \mathrm{V}, \mathrm{W}, \mathrm{Zn}, \mathrm{Te}, \mathrm{Y}, \mathrm{Zr})$.

The following paragraph describes the methodology used for creating the geochemical profile of the vein material (Figure 17). All the results in percent (\%) units were converted to parts per million (ppm). The samples containing host rock were removed. Only vein material samples remain. Sample S898102 was removed because the sample results were extremely low for the grab sample description. The following elements were removed because all the samples results were below detection limit or very close to it: $\mathrm{B}, \mathrm{Hg}, \mathrm{Ga}, \mathrm{Be}, \mathrm{La}, \mathrm{Th}, \mathrm{Tl}, \mathrm{U}$, and W . All of the below detection limit results were given a value half of their detection limit. For each element the maximum, minimum, and mean were calculated. The remaining thirty elements were ordered from the highest mean to the lowest mean. In this order the element means were plotted in the chart below (Figure 17). The data table of the vein material can be viewed in Appendix H. Red cells represent maximum values and dark green cells represent low values.


Figure 17: Geochemical Profile of the New Delhi Mine Veins

Overall, the geochemical results were similar to what was historically and recently reported, anomalous in $\mathrm{Au}, \mathrm{Ag}, \mathrm{Pb}, \mathrm{Cu}, \mathrm{Zn}, \mathrm{Co}$, and Ni. The grab sample results were as high as $11.0 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 176.0 \mathrm{~g} / \mathrm{t} \mathrm{Ag}$, $26.5 \%, 4.2 \% \mathrm{Cu}, 967 \mathrm{ppm} \mathrm{Zn}, 593 \mathrm{ppm} \mathrm{Co}$, and 178 ppm Ni . The historical bulk sample results and assaying by New Delhi Mines Ltd. did not report the $\mathrm{Cu}, \mathrm{Zn}$, and Co values. For these three elements the results from the prospecting program showed that the average vein material had $0.81 \% \mathrm{Cu}, 223 \mathrm{ppm} \mathrm{Zn}$, and 64 ppm Ni . The copper grades especially are appreciable and could add value to the ore composite with $\mathrm{Au}, \mathrm{Ag}$, and Pb .

The major ore elements found in the Cobalt-Gowganda mining camps ( $\mathrm{Co}, \mathrm{Bi}, \mathrm{As}, \mathrm{Ni}, \mathrm{Ag}$ ) showed a weak to moderate geochemical signature. The hydrothermal fluids were carrying these elements, suggesting there may be high grade cobalt arsenide mineralization at the sediment/Archean basement unconformity. Unconformity related cobalt arsenide mineralization found in the Cobalt-Gowganda mining camps produced 460 million ounces of Ag. At the New Delhi Mine the hydrothermal fluids may have been stripped of their elevated $\mathrm{Co}, \mathrm{Bi}, \mathrm{Ni}, \mathrm{Ag}$ concentrations by As forming arsenide minerals at depth. Potter's PhD thesis identified pyrite phases at the New Delhi Mine having Co and Ni substituted into their crystal structure. This may indicate that there wasn't enough As in the system so pyrite took the Co and Ni . The fluids at depth may have had higher As concentration before being stripped away by the arsenide mineral crystallization. (Potter 2009)

Table 5 below highlights the visual correlation of $\mathrm{Pb}, \mathrm{Bi}$, and Ag results. This correlation suggests that $\mathrm{Bi} 3+$ and $\mathrm{Ag}+$ are substituting for $\mathrm{Pb} 2+$ in the galena crystal lattice. $\mathrm{Ag}+$ and $\mathrm{Bi} 3+$ have similar radii to $\mathrm{Pb} 2+$ and their ionic charges do not differ by more than 1 allowing for the substitution. At the Nick-otime trench the cleavage of the galena crystals were kinked, see Figure 18 below. This kink or curve may be caused by Bi and Ag substituting into the galena crystal structure.

Table 5: $\mathrm{Pb}, \mathrm{Bi}, \mathrm{Ag}$ Result Comparison

| Sample No. | $\mathbf{P b}$ | $\mathbf{B i}$ | $\mathbf{A g}$ |
| :--- | ---: | ---: | ---: |
|  | ppm | ppm | $\mathbf{p p m}$ |
| M596434 | 239000 | 329 | 176 |
| M596437 | 265000 | 300 | 161 |
| S898103 | 104000 | 299 | 155 |
| M596435 | 95400 | 152 | 87.3 |
| S898107 | 39300 | 75 | 49.9 |
| S898110 | 54500 | 49 | 40.1 |
| S898203 | 4880 | 2 | 34 |
| M596436 | 11000 | 2 | 22.2 |
| S898112 | 10500 | 14 | 21.7 |
| S898108 | 4040 | 5 | 11.9 |
| S898104 | 2860 | 10 | 6.8 |
| S898111 | 3000 | 4 | 4.1 |
| S898101 | 3390 | 5 | 3.1 |
| M596433 | 1560 | 2 | 2.1 |
| S898106 | 24 | 2 | 0.2 |



Figure 18: Galena mineralization at Nick-o-time Trench

### 8.0 Conclusion and Recommendations

The prospecting program at the New Delhi Mine was successful at confirming the previously reported grades of $\mathrm{Au}, \mathrm{Ag}$, and Pb . In addition, the program's results showed there is an appreciable grade of Cu in the veins not previously reported in the 1950s. The grab sample results were as high as $11.0 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, $176.0 \mathrm{~g} / \mathrm{t}$ Ag, $26.5 \%, 4.2 \% \mathrm{Cu}, 967 \mathrm{ppm} \mathrm{Zn}, 593 \mathrm{ppm}$ Co, and 178 ppm Ni. At the New Delhi Mine showing there was a corridor 100 m wide $\times 300 \mathrm{~m}$ long of veins with galena, chalcopyrite, pyrite, and gold mineralization. This corridor includes the promising historical 50 foot adit. Field map of this corridor can be viewed in Appendix D. In this corridor an anticlinal fold was found plunging 20 degrees and trending 296 degrees. The fold axis trend has the same strike as the vein south of the fold (296), and a similar strike to the 50 foot adit vein (290) and the Nick-o-time trench vein (280). These veins may be related the structural event that caused the fold in the greywacke.


Figure 20: Exploration Model for Mineralization in the Cobalt Embament (Potter 2010)
The mineralized vein system at the New Delhi Mine is thought to be Proterozoic. Proterozoic vein systems typically occur in proximity to the pre-Huronian faults that were reactivated during emplacement of the Nipissing Diabase. Precious and base metal rich calcite-quartz vein systems in the Cobalt Embayment are petrogenetically interrelated and formed as part of a large-scale, regional hydrothermal event during the Early Proterozoic. The shear structure at New Delhi Mine may have been a reactivated pre-Huronian fault acting as a conduit for precious and base metal rich fluids. The geochemistry of the vein material sampled showed weak-moderate geochemical signature for cobalt arsenide mineral elements ( $\mathrm{Co}, \mathrm{Bi}, \mathrm{As}, \mathrm{Ni}, \mathrm{Ag}$ ). At depth these elements may have been stripped by As forming cobalt arsenide minerals at the sediment/Archean basement unconformity. Unconformityassociated mineralization was mined at the Gowganda mining camp located 60 kilometers northwest of the property. This mineralization style was also mined at the Cobalt mining camp, 60 kilometers northeast of the property. Between the two mining camps 460 million ounces of Ag was produced. At
depth along the shear structure there may be unconformity-associated and/or Archean mineralization, see Figure 20 above. Potter's exploration model for polymetallic vein mineralization suggest that "oxidized basin fluids reacted with localized reductants along regional fault systems were reactivated both during the and post-intrusion of the Nipissing Diabase. These features are suggestive of a largerscale hydrothermal system in which the polymetallic veins may represent a peripheral element of previously unrecognized unconformity-associated mineralization at depth." The geochemistry, mineralization, and rock types found at the New Delhi Mine fits into the Au-rich Polymetallic veins exploration model created by E. Potter in 2010, see Figure 20 above.

The following are recommendations for future exploration

1. Prospecting and sampling of the 700 foot $x 3400$ foot quartz vein corridor found by New Delhi Mines Ltd. in 1950. The zone is roughly one kilometre south of the New Delhi Mine. Benner's 1950 geology report states this zone merits further investigation. A geochemical profile of the vein material found in this corridor could be compared to the geochemical profile at the New Delhi Mine. The quartz veins may be related to the same structural setting as the veins found at the New Delhi Mine
2. Prospecting and sampling of the southwest shoreline of Wakimika Lake. Benner's 1947 geological map has the shoreline mapped as Keewatin lavas with well-defined pillows and steeply dipping slates. Subsequently the Ontario Geological Survey has it mapped as Gowganda sediments. The rock type of this shoreline needs to be confirmed. If Archean basement rocks are found if may indicate that the unconformity is relatively shallow.
3. More prospecting and sampling around the New Delhi Mine showing. The historical maps highlight several trenches not yet located and sampled. Also, the additional showings listed in Lawton 1955 should be located and sampled.
4. If additional prospecting yields favorable results ground magnetic and IP surveys could be completed over the north end of the property covering the veins at Nipissing Diabase/sediment contact. The magnetic survey will help map out structures and the different rock units. The IP surveys will help locate mineralized zones.

Sincerely,


## Appendix A: Daily Log

| Date | Daily Activities |
| :---: | :---: |
| May 21, 2018 | - Mobilized to Lake Obabika from Timmins and Sudbury <br> (J. Robert, D. Lefort, A. McLellan) |
| May 22, 2018 | - Mobilized to New Delhi Property by motor boating to the north end of Obabika Lake and canoeing up the river to Wakimika Lake. Set up camp at the old camp site from 1951. <br> (J. Robert, D. Lefort, A. McLellan) |
| May 23, 2018 | - Prospecting surveys in mining claims 236424, 320519, 501633, 510688 <br> - Took five grab samples in claim 236424 at the New Delhi Mine showing <br> (J. Robert, D. Lefort, A. McLellan) |
| May 24, 2018 | - Demobilized back Timmins and Sudbury <br> (J. Robert, D. Lefort, A. McLellan) |
| June 3, 2019 | - Mobilized to Lakeland Airways, Temagami from Timmins and Sudbury <br> - DH-2 Beaver from Lakeland Airways dropped us off on the southwest shores of Wakimika Lake. Set up camp at the old camp site from 1951. <br> (J. Robert, D. Lefort, A. McLellan) |
| June 4, 2019 | - Prospecting surveys in mining claims 199324, 236424, 320519, 501633, 510688 <br> - Took five grab samples in claim 236424, 199324 at the New Delhi Mine showing (S898101-104, S898201-202) <br> (J. Robert, D. Lefort, A. McLellan) |
| June 5, 2019 | - Prospecting surveys in mining claims 199324, 236424, 320519, 501633, 510688 <br> - Took ten grab samples in claim 236424, 199324, and 199324 at the New Delhi Mine showing <br> (J. Robert, D. Lefort, A. McLellan) |
| June 6, 2019 | - Prospecting surveys in mining claims 236424, 320519, 501633, 510688, 501630 <br> - No grab samples were taken <br> (J. Robert, D. Lefort, A. McLellan) |
| June 8, 2019 | - DH-2 Beaver flight back to Temagami <br> - Demobilized back Timmins and Sudbury <br> (J. Robert, D. Lefort, A. McLellan) |

## Appendix B: Expense Summary



Appendix C: Field Map with Grab Samples and Structural Measurements (2019)


## Appendix D: New Delhi Mine Plan (Lawton 1955 Map Insert)



SURFACE PLAN OF GEOLOGY ALONG MAIN SHOWING, NEW DELHI MINES, LIMITED


Appendix E: Grab Sample Descriptions

| Sample No. | Date | $\begin{gathered} \text { UTM E } \\ \text { NAD83 Z17 } \end{gathered}$ | $\begin{gathered} \text { UTM N } \\ \text { NAD83 Z17 } \end{gathered}$ | Grab Sample Description |
| :---: | :---: | :---: | :---: | :---: |
| M596433 | 23-May-18 | 548725 | 5221220 | Outside east Lahay Vein adit - quartz and chalcopyrite |
| M596434 | 23-May-18 | 548765 | 5221170 | Rubble outside the New Delhi Mine Adit - quartz, galena, and chalcopyrite |
| M596435 | 23-May-18 | 548765 | 5221170 | Rubble outside the New Delhi Mine Adit - quartz, 1-2mm galena cubes, 2.5 cm massive sulphide layer, chalcopyrite |
| M596436 | 23-May-18 | 548765 | 5221170 | Rubble outside the New Delhi Mine Adit - quartz, chalcopyrite 20\%, malachite |
| M596437 | 23-May-18 | 548765 | 5221170 | Rubble outside the New Delhi Mine Adit - foliated 3.5 cm fine-grained sulphide mix of galena, chalcopyrite pyrite, pyrrhotite (2 magnetic spots), quartz |
| S898101 | 4-Jun-19 | 548742 | 5221141 | No. 4 Vein 50 m trench with $3 \times 5 \mathrm{~m}, 7.5 \mathrm{~m}$ deep shaft with drill rods, QV 260/58, sheared folded argillite - trench rubble, red quartz, pyrite $1-5 \mathrm{~mm}$ cubes and blebs, galena, chalcopyrite |
| S898102 | 4-Jun-19 | 548742 | 5221141 | No. 4 Vein 50 m trench with $3 \times 5 \mathrm{~m}$, 7.5 m deep shaft with drill rods, QV 260/58, sheared folded argillite - outcrop quartz vein, white quartz, chalcopyrite, galena, massive sulphide bleb $1.5 \times 2.0 \mathrm{~cm}$, chlorite |
| S898103 | 4-Jun-19 | 548742 | 5221141 | No. 4 Vein 50 m trench with $3 \times 5 \mathrm{~m}$, 7.5 m deep shaft with drill rods, QV 260/58, sheared folded argillite - trench rubble, massive sulphides 2 cm band, galena cubes and massive |
| S898104 | 4-Jun-19 | 548719 | 5221214 | Lahay Vein Pit 1m x 1m-outcrop, rusty QV, Nipissing Diabase, chalcopyrite splash 5mm. |
| S898105 | 5-Jun-19 | 548965 | 5221137 | Quartz Vein on side of hill, argillite bedding observed - combo sample of HW, FW and QV material, chalcopyrite, chlorite, white quartz, malachite |
| S898106 | 5-Jun-19 | 548965 | 5221137 | Quartz Vein on side of hill, QV 296/20, argillite bedding observed - QV material, black chlorite swarms with pyrite, malachite |
| S898107 | 5-Jun-19 | 548832 | 5221145 | No. 4 Vein Pit $2 m \times 2 m \times 3 m$ deep, shear 300/82, QV - $22 \%$ sulphides pyrite, galena and chalcopyrite |
| S898108 | 5-Jun-19 | 548826 | 5221140 | No. 4 Vein Pit 2m $\times 3 \mathrm{~m} \times 1 \mathrm{~m}$ deep, QV-10\% sulphides chalcopyrite, pyrite, galena, chlorite |
| S898109 | 5-Jun-19 | 548826 | 5221140 | No. 4 Vein Pit $2 \mathrm{~m} \times 3 \mathrm{~m} \times 1 \mathrm{~m}$ deep, host HW of S898108-argillite, $1 \%$ pyrite |
| S898110 | 5-Jun-19 | 548793 | 5221135 | No. 4 Vein Pit 2m $\times 3 \mathrm{~m} \times 1 \mathrm{~m}$ deep, QV - 15\% galena, $2 \%$ chalcopyrite |
| S898111 | 5-Jun-19 | 548926 | 5221010 | Nick-o-time trench $25 \mathrm{~m} \times 2 \mathrm{~m}$ - rubble sample, QV 280/? 1.5 m wide, galena, chalcopyrite, chlorite |
| S898112 | 5-Jun-19 | 548924 | 5221011 | Nick-o-time trench $25 \mathrm{~m} \times 2 \mathrm{~m}$ - quartz rubble sample, chalcopyrite, galena, pyrite |
| S898201 | 5-Jun-19 | 548966 | 5221143 | Quartz Vein on side of hill, argillite bedding observed, host HW - greywacke, $1 \%$ pyrite 1 mm cubes |
| S898202 | 4-Jun-19 | 548849 | 5221101 | South of No. 4 Vein Pits, rusty outcrop surface - greywacke, 3\% pyrite 1mm cubes |
| S898203 | 5-Jun-19 | 548811 | 5221145 | No. 4 Vein Pit 3m x 1m - host and vein - chalcopyrite, chlorite, pyrite |

## Appendix F: Geochemical Results - Elements in Alphabetical Order

| Sample No. | Au | Au | Ag | Ag | Al | As | B | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Cu | Fe | Ga | Hg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | \% | \% | ppm | ppm |
|  | Au-AA23 | FAGRA | ICP-OES | $\begin{array}{\|c} \hline \text { ICP-OES } \\ \text { (ore) } \end{array}$ | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | $\begin{array}{\|c\|c\|} \hline \text { ICP-OES } \\ \text { (ore) } \\ \hline \end{array}$ | ICP-OES | ICP-OES | ICP-OES |
| M596433 | 0.092 |  | 2.1 |  | 0.69 | 474 | < 10 | 16 | < 0.5 | <2 | 1 | 6.3 | 580 | 41 | 1090 |  | 4.44 | < 10 | <1 |
| M596434 | 0.411 |  | > 100 | 176 | 0.01 | 2 | < 10 | < 10 | < 0.5 | 329 | 0.15 | 15.2 | 3 | 15 | 461 |  | 1.24 | < 10 | $<1$ |
| M596435 | 5 | 5.44 | 87.3 |  | 0.15 | 16 | < 10 | < 10 | < 0.5 | 152 | 0.62 | 5.2 | 123 | 19 | > 10000 | 1.11 | 4.65 | <10 | <1 |
| M596436 | 0.121 |  | 22.2 |  | 0.71 | 19 | < 10 | 18 | < 0.5 | <2 | 2.36 | 3.5 | 96 | 30 | > 10000 | 4.21 | 8.72 | < 10 | <1 |
| M596437 | 5 | 11 | > 100 | 161 | 0.1 | 15 | $<10$ | $<10$ | < 0.5 | 300 | 1.16 | 11.5 | 593 | 18 | 933 |  | 7.59 | < 10 | <1 |
| S898101 | 0.104 |  | 3.1 |  | 0.02 | 9 | <10 | 50 | <0.5 | 5 | 0.02 | <0.5 | 8 | 14 | 1010 |  | 0.79 | <10 | <1 |
| S898102 | 0.005 |  | 0.2 |  | 0.02 | <2 | <10 | 20 | <0.5 | <2 | 0.02 | <0.5 | $<1$ | 16 | 13 |  | 0.29 | <10 | <1 |
| S898103 | 0.016 |  | >100 | 155 | 1.34 | 141 | <10 | 30 | <0.5 | 299 | 0.09 | 6.4 | 76 | 55 | 132 |  | 2.62 | 10 | <1 |
| S898104 | 3.99 |  | 6.8 |  | 2.06 | 226 | <10 | 20 | <0.5 | 10 | 0.44 | 0.5 | 213 | 45 | 7890 |  | 5.98 | 10 | <1 |
| S898105 | 0.425 |  | 0.4 |  | 3.06 | 13 | <10 | 20 | <0.5 | 3 | 0.73 | <0.5 | 28 | 33 | 2730 |  | 6.72 | 10 | 1 |
| S898106 | 0.061 |  | 0.2 |  | 0.68 | <2 | <10 | 10 | <0.5 | <2 | 0.88 | <0.5 | 7 | 19 | 547 |  | 1.62 | <10 | <1 |
| S898107 | 1.525 |  | 49.9 |  | 0.18 | 70 | <10 | 10 | <0.5 | 75 | 0.02 | 3.4 | 448 | 11 | 3730 |  | 11.2 | <10 | 1 |
| S898108 | 2.29 |  | 11.9 |  | 0.57 | 11 | <10 | 20 | <0.5 | 5 | 0.04 | 0.5 | 17 | 24 | 4810 |  | 3.53 | <10 | <1 |
| S898109 | 0.009 |  | 0.7 |  | 6.69 | 33 | <10 | 50 | <0.5 | 4 | 0.26 | <0.5 | 107 | 110 | 87 |  | 14.65 | 20 | 1 |
| S898110 | 0.07 |  | 40.1 |  | 0.57 | 16 | <10 | 20 | <0.5 | 49 | 0.17 | 5.9 | 11 | 40 | 5760 |  | 2.13 | <10 | $<1$ |
| S898111 | 0.009 |  | 4.1 |  | 0.68 | 10 | <10 | 10 | <0.5 | 4 | 0.16 | 1.8 | 9 | 25 | 1430 |  | 1.92 | <10 | <1 |
| S898112 | 0.052 |  | 21.7 |  | 0.26 | 35 | <10 | 10 | <0.5 | 14 | 0.2 | 7.1 | 54 | 22 | >10000 | 1.06 | 3.14 | <10 | <1 |
| S898201 | 0.015 |  | 0.3 |  | 5.14 | 5 | <10 | 30 | <0.5 | <2 | 1.95 | <0.5 | 46 | 79 | 74 |  | 9.97 | 10 | <1 |
| S898202 | 0.007 |  | 0.2 |  | 0.95 | <2 | <10 | 10 | <0.5 | <2 | 0.5 | <0.5 | 20 | 53 | 53 |  | 3.62 | 10 | <1 |
| S898203 | 0.301 |  | 34 |  | 1.2 | 18 | <10 | 10 | <0.5 | <2 | 0.17 | 6.7 | 62 | 47 | >10000 | 3.06 | 5.99 | <10 | 1 |

[^0]| Sample No. | K | La | Mg | Mn | Mo | Na | Ni | P | Pb | Pb | S | Sb | Sc | Sr | Th | Ti | TI | U | V | W | Zn | Te | Y | Zr |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | ppm | \% | ppm | ppm | \% | ppm | ppm | ppm | \% | \% | ppm | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
|  | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | $\begin{gathered} \text { ICP-OES } \\ \text { (ore) } \\ \hline \end{gathered}$ | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES | ICP-OES |
| M596433 | 0.03 | < 10 | 0.55 | 369 | 1 | 0.042 | 115 | 240 | 1560 |  | 2.28 | 3 | 9 | 12 | <20 | 0.2 | <2 | < 10 | 43 | < 10 | 967 | 6 | 8 | 19 |
| M596434 | < 0.01 | < 10 | 0.01 | 148 | 1 | 0.02 | < 1 | < 10 | > 5000 | 23.9 | 3.35 | 19 | <1 | 6 | <20 | < 0.01 | <2 | < 10 | <1 | < 10 | 13 | 10 | <1 | $<1$ |
| M596435 | < 0.01 | < 10 | 0.32 | 241 | 1 | 0.019 | 50 | 40 | > 5000 | 9.54 | 4.49 | 10 | <1 | 5 | <20 | < 0.01 | <2 | < 10 | 6 | < 10 | 88 | 3 | 1 | 1 |
| M596436 | 0.07 | <10 | 1.31 | 587 | <1 | 0.024 | 131 | 110 | > 5000 | 1.1 | 5.56 | 5 | 3 | 14 | <20 | < 0.01 | 7 | < 10 | 47 | < 10 | 189 | < 1 | 4 | 2 |
| M596437 | < 0.01 | < 10 | 0.24 | 307 | < 1 | 0.015 | 178 | 20 | > 5000 | 26.5 | 9.46 | 22 | < 1 | 7 | <20 | < 0.01 | <2 | < 10 | 5 | < 10 | 124 | 7 | 2 | 2 |
| S898101 | <0.01 | <10 | 0.01 | 32 | 2 | 0.02 | 3 | 10 | 3390 |  | 0.42 | 2 | <1 | 6 | <20 | <0.01 | <10 | <10 | 1 | <10 | 22 |  |  |  |
| S898102 | <0.01 | <10 | 0.01 | 33 | 2 | 0.01 | 2 | <10 | 247 |  | 0.02 | <2 | <1 | 4 | <20 | <0.01 | <10 | <10 | 1 | <10 | 7 |  |  |  |
| S898103 | 0.07 | 10 | 0.8 | 353 | 1 | 0.04 | 29 | 150 | >10000 | 10.4 | 1.63 | 2 | 3 | 3 | <20 | 0.04 | <10 | <10 | 31 | <10 | 48 |  |  |  |
| S898104 | 0.04 | <10 | 1.35 | 679 | 1 | 0.02 | 45 | 270 | 2860 |  | 0.67 | <2 | 6 | 5 | <20 | <0.01 | <10 | <10 | 66 | <10 | 56 |  |  |  |
| S898105 | 0.03 | <10 | 2.17 | 1040 | 1 | 0.01 | 82 | 80 | 144 |  | 0.33 | <2 | 7 | 7 | <20 | 0.05 | <10 | <10 | 93 | <10 | 105 |  |  |  |
| S898106 | <0.01 | <10 | 0.45 | 312 | 2 | 0.01 | 26 | 20 | 24 |  | 0.04 | <2 | 1 | 9 | <20 | <0.01 | <10 | <10 | 18 | $<10$ | 28 |  |  |  |
| S898107 | 0.01 | <10 | 0.09 | 76 | 5 | 0.01 | 103 | 20 | >10000 | 3.93 | 9.11 | 3 | 1 | 2 | <20 | <0.01 | $<10$ | <10 | 7 | <10 | 253 |  |  |  |
| S898108 | 0.01 | <10 | 0.34 | 219 | 2 | 0.01 | 34 | 110 | 4040 |  | 0.59 | <2 | 2 | 4 | <20 | 0.02 | <10 | <10 | 25 | $<10$ | 49 |  |  |  |
| S898109 | 0.07 | <10 | 4.63 | 1990 | 1 | 0.01 | 134 | 300 | 247 |  | 1.4 | <2 | 20 | 2 | <20 | 0.14 | $<10$ | <10 | 205 | <10 | 211 |  |  |  |
| S898110 | 0.03 | 10 | 0.34 | 193 | 1 | 0.03 | 21 | 190 | >10000 | 5.45 | 1.65 | 6 | 1 | 3 | <20 | 0.04 | $<10$ | $<10$ | 16 | <10 | 228 |  |  |  |
| S898111 | 0.01 | <10 | 0.5 | 271 | 2 | 0.02 | 18 | 100 | 3000 |  | 0.31 | $<2$ | 2 | 4 | <20 | 0.02 | <10 | <10 | 23 | <10 | 194 |  |  |  |
| S898112 | 0.01 | <10 | 0.22 | 139 | 2 | 0.02 | 137 | 120 | >10000 | 1.05 | 2.41 | 3 | 1 | 5 | <20 | 0.01 | <10 | <10 | 10 | 20 | 604 |  |  |  |
| S898201 | 0.02 | <10 | 4 | 1620 | 1 | 0.02 | 112 | 290 | 115 |  | 0.41 | <2 | 16 | 31 | <20 | 0.23 | $<10$ | $<10$ | 175 | $<10$ | 169 |  |  |  |
| S898202 | 0.03 | 20 | 0.61 | 311 | 1 | 0.06 | 26 | 140 | 63 |  | 1.57 | <2 | 4 | 10 | <20 | 0.1 | <10 | <10 | 28 | <10 | 34 |  |  |  |
| S898203 | 0.02 | 10 | 0.79 | 387 | 2 | 0.02 | 69 | 150 | 4880 |  | 2.96 | 3 | 3 | 4 | <20 | 0.03 | <10 | <10 | 29 | <10 | 484 |  |  |  |

[^1]
## Appendix G: Vein Material - Elements Ordered from Highest to Lowest Average

| Sample No. | Pb | Fe | s | Cu | Al | Ca | Mg | Mn | ti | Zn | K | Na | Co | P | Bi | As | Ni | Ag | Cr | v | Ba | Sr | Sb | Te | Cd | Zr | Y | Sc | Au | Mo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm |
| M596433 | 1560 | 44400 | 22800 | 1090 | 6900 | 10000 | 5500 | 369 | 2000 | 967 | 300 | 420 | 580 | 240 | 1 | 474 | 115 | 2.1 | 41 | 43 | 16 | 12 | 3 | 6 | 6.3 | 19 | 8 | 9 | 0.092 | 1 |
| M596434 | 239000 | 12400 | 33500 | 461 | 100 | 1500 | 100 | 148 | 50 | 13 | 50 | 200 | 3 | 5 | 329 | 2 | 0.5 | 176 | 15 | 0.5 | 5 | 6 | 19 | 10 | 15.2 | 0.5 | 0.5 | 0.5 | 0.411 | 1 |
| M596435 | 95400 | 46500 | 44900 | 11100 | 1500 | 6200 | 3200 | 241 | 50 | 88 | 50 | 190 | 123 | 40 | 152 | 16 | 50 | 87.3 | 19 | 6 | 5 | 5 | 10 | 3 | 5.2 | 1 | 1 | 0.5 | 5.44 | 1 |
| M596436 | 11000 | 87200 | 55600 | 42100 | 7100 | 23600 | 13100 | 587 | 50 | 189 | 700 | 240 | 96 | 110 | 1 | 19 | 131 | 22.2 | 30 | 47 | 18 | 14 | 5 | 0.5 | 3.5 | 2 | 4 | 3 | 0.121 | 0.5 |
| M596437 | 265000 | 75900 | 94600 | 933 | 1000 | 11600 | 2400 | 307 | 50 | 124 | 50 | 150 | 593 | 20 | 300 | 15 | 178 | 161 | 18 | 5 | 5 | 7 | 22 | 7 | 11.5 | 2 | 2 | 0.5 | 11 | 0.5 |
| S898101 | 3390 | 7900 | 4200 | 1010 | 200 | 200 | 100 | 32 | 50 | 22 | 50 | 200 | 8 | 10 | 5 | 9 | 3 | 3.1 | 14 | 1 | 50 | 6 | 2 |  | 0.25 |  |  | 0.5 | 0.104 | 2 |
| S898103 | 104000 | 26200 | 16300 | 132 | 13400 | 900 | 8000 | 353 | 400 | 48 | 700 | 400 | 76 | 150 | 299 | 141 | 29 | 155 | 55 | 31 | 30 | 3 | 2 |  | 6.4 |  |  | 3 | 0.016 | 1 |
| S898104 | 2860 | 59800 | 6700 | 7890 | 20600 | 4400 | 13500 | 679 | 50 | 56 | 400 | 200 | 213 | 270 | 10 | 226 | 45 | 6.8 | 45 | 66 | 20 | 5 | 1 |  | 0.5 |  |  | 6 | 3.99 | 1 |
| S898106 | 24 | 16200 | 400 | 547 | 6800 | 8800 | 4500 | 312 | 50 | 28 | 50 | 100 | 7 | 20 | 1 | 1 | 26 | 0.2 | 19 | 18 | 10 | 9 | 1 |  | 0.25 |  |  | 1 | 0.061 | 2 |
| S898107 | 39300 | 112000 | 91100 | 3730 | 1800 | 200 | 900 | 76 | 50 | 253 | 100 | 100 | 448 | 20 | 75 | 70 | 103 | 49.9 | 11 | 7 | 10 | 2 | 3 |  | 3.4 |  |  | 1 | 1.525 | 5 |
| S898108 | 4040 | 35300 | 5900 | 4810 | 5700 | 400 | 3400 | 219 | 200 | 49 | 100 | 100 | 17 | 110 | 5 | 11 | 34 | 11.9 | 24 | 25 | 20 | 4 | 1 |  | 0.5 |  |  | 2 | 2.29 | 2 |
| S898110 | 54500 | 21300 | 16500 | 5760 | 5700 | 1700 | 3400 | 193 | 400 | 228 | 300 | 300 | 11 | 190 | 49 | 16 | 21 | 40.1 | 40 | 16 | 20 | 3 | 6 |  | 5.9 |  |  | 1 | 0.07 | 1 |
| S898111 | 3000 | 19200 | 3100 | 1430 | 6800 | 1600 | 5000 | 271 | 200 | 194 | 100 | 200 | 9 | 100 | 4 | 10 | 18 | 4.1 | 25 | 23 | 10 | 4 | 1 |  | 1.8 |  |  | 2 | 0.009 | 2 |
| S898112 | 10500 | 31400 | 24100 | 10600 | 2600 | 2000 | 2200 | 139 | 100 | 604 | 100 | 200 | 54 | 120 | 14 | 35 | 137 | 21.7 | 22 | 10 | 10 | 5 | 3 |  | 7.1 |  |  | 1 | 0.052 | 2 |
| S898203 | 4880 | 59900 | 29600 | 30600 | 12000 | 1700 | 7900 | 387 | 300 | 484 | 200 | 200 | 62 | 150 | 1 | 18 | 69 | 34 | 47 | 29 | 10 | 4 | 3 |  | 6.7 |  |  | 3 | 0.301 |  |




## Appendix H: References

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## Appendix I: Statement of Qualifications

## Statement of Qualifications

I, Andrew Douglas McKillop McLellan of 22 Indian Road, Sudbury, Ontario, do hereby certify that I:

- am currently a Master of Science in Applied Mineral Exploration student at Laurentian University
- am a graduate of Laurentian University with a Bachelor of Science with a Concentration in Earth Science (2019).
- am a graduate of University of Western Ontario with a Bachelor of Science degree with a Honours Specialization in Geography (2008).
- have been involved and working in mineral exploration for more than 8 years in Ontario, Nova Scotia and Nunavut.
- have included in this report all relevant data derived from both private and public sources.
- have been physically on the property and have expressed personal opinions in this report.
- hold an interest in the property that is subject to this report.

Sincerely disclosed,


I, David Lefort of 573 Spooner Street, Timmins, Ontario, do hereby certify that I:

- have 20 years of underground mining experience
- have been prospecting for the past 14 years
- have successfully completed the Ontario Prospectors Association (OPA) Introduction to Prospecting course in 2006

I, Jacques Robert of 321 Haileybury Crescent, Porcupine, Ontario, certify that I:

- have been prospecting for the past 36 years
- was awarded the Ontario Prospector of the Year in 2013 for the discovery of the Borden Lake Gold Deposit


## Appendix J: Assay Certificates

## Quality Analysis ...

Innovative Technologies

|  | Date Submitted: <br> Invoice No.: | 25-May-18 <br> A18-06913 |
| :--- | :--- | :--- |
| Invoice Date: | 30-Jul-18 |  |
| Your Reference: |  |  |

## CERTIFICATE OF ANALYSIS

11 Rock samples were submitted for analysis.
The following analytical package(s) were requested:

REPORT A18-06913
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:
If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3.
Values which exceed the upper limit should be assayed for accurate numbers.






|  |  |  | QC |  |  |  | Activation Laboratories Ltd. |  |  |  |  |  |  | Report: A18-06913 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte Symbol | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | w | Y | Zr | Au | Ag | Cu | Pb |
| Unit Symbol | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | g/tonne | ppm | \% | \% |
| Lower Limit | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | 0.03 | 3 | 0.001 | 0.003 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | $\begin{aligned} & \text { FA- } \\ & \text { GRA } \end{aligned}$ | $\begin{aligned} & \text { ICP- } \\ & \text { OS } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { ICP- } \\ \text { OES } \end{array}$ | $\begin{aligned} & \hline \text { ICP- } \\ & \text { OES } \end{aligned}$ |
| GXR-1 Meas | 0.13 | 0.050 | 0.039 | 0.20 | 92 | 1 | 168 | <0.01 | <20 | 14 | 3 | 35 | 79 | 109 | 24 | 14 |  |  |  |  |
| GXR-1 Cert | 0.217 | 0.0520 | 0.0650 | 0.257 | 122 | 1.58 | 275 | 0.036 | 2.44 | 13.0 | 0.390 | 34.9 | 80.0 | 164 | 32.0 | 38.0 |  |  |  |  |
| GXR-1 Meas | 0.14 | 0.051 | 0.041 | 0.21 | 90 | - 1 | 166 | <0.01 | <20 | 12 | 3 | 36 | 80 | 107 | 25 | 15 |  |  |  |  |
| GXR-1 Cert | 0.217 | 0.0520 | 0.0650 | 0.257 | 122 | 1.58 | 275 | 0.036 | 2.44 | 13.0 | 0.390 | 34.9 | 80.0 | 164 | 32.0 | 38.0 |  |  |  |  |
| GXR-6 Meas | 0.38 | 0.084 | 0.034 | 0.02 | - 2 | 22 | 33 |  | <20 | <1 | 2 | <10 | 162 | <10 | 5 | 14 |  |  |  |  |
| GXR-6 Cert | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 |  | 5.30 | 0.0180 | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |  |  |  |  |
| GXR-6 Meas | 0.41 | 0.089 | 0.037 | 0.02 | 5 | 23 | 37 |  | <20 | $<1$ | $<2$ | <10 | 171 | <10 | 6 | 15 |  |  |  |  |
| GXR-6 Cert | 0.609 | 0.104 | 0.0350 | 0.0160 | 3.60 | 27.6 | 35.0 |  | 5.30 | 0.0180 | 2.20 | 1.54 | 186 | 1.90 | 14.0 | 110 |  |  |  |  |
| OREAS 134b (AQUA REGIA) Meas |  |  |  | 14.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 134b <br> (AQUA REGIA) <br> Cert |  |  |  | 19.31 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MP-1b Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 50 | 3.09 | 2.08 |
| MP-1b Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 47 | 3.07 | 2.09 |
| CPB-2 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.128 | 63.5 |
| CPB-2 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 0.1213 | 63.52 |
| CZN-4 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 51 | 0.403 | 0.190 |
| CZN-4 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 51 | 0.403 | 0.1861 |
| CCU-1e Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 206 | 22.9 | 0.689 |
| CCU-1e Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 205 | 22.9 | 0.703 |
| SN75 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8.64 |  |  |  |
| SN75 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8.67 |  |  |  |
| SN75 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8.59 |  |  |  |
| SN75 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 8.67 |  |  |  |
| $\begin{aligned} & \hline \text { OREAS } 220 \text { (Fire } \\ & \text { Assay) Meas } \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{array}{\|l} \hline \text { OREAS } 220 \text { (Fire } \\ \text { Assay) Cert } \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 224 Meas |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| OREAS 224 Cert |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M596435 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.13 | 9.72 |
| M596435 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.09 | 9.36 |
| M596440 Orig |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| M596440 Dup |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <0.03 |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <0.03 |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <0.03 |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <0.03 |  |  |  |
| Method Blank | <0.01 | 0.011 | <0.001 | < 0.01 | <2 | <1 | $<1$ | <0.01 | <20 | <1 | <2 | <10 | <1 | < 10 | <1 | $<1$ |  |  |  |  |


|  |  |  | QC |  |  |  | Activation Laboratories Ltd. |  |  |  |  |  | Report: A18-06913 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Analyte Symbol | Mg | Na | P | S | Sb | Sc | Sr | Ti | Th | Te | TI | U | V | w | Y | Zr | Au | Ag | Cu | Pb |
| Unit Symbol | \% | \% | \% | \% | ppm | ppm | ppm | \% | ppm | ppm | ppm | ppm | ppm | ppm | ppm | ppm | g/tonne | ppm | \% | \% |
| Lower Limit | 0.01 | 0.001 | 0.001 | 0.01 | 2 | 1 | 1 | 0.01 | 20 | 1 | 2 | 10 | 1 | 10 | 1 | 1 | 0.03 | 3 | 0.001 | 0.003 |
| Method Code | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | AR-ICP | $\begin{array}{\|l\|} \hline \text { FA- } \\ \text { GRA } \end{array}$ | $\begin{aligned} & \text { ICP- } \\ & \text { OES } \end{aligned}$ | $\begin{array}{\|l} \hline \text { ICP- } \\ \text { OES } \\ \hline \end{array}$ | $\begin{aligned} & \text { ICP- } \\ & \text { OES } \end{aligned}$ |
| Method Blank | <0.01 | 0.010 | < 0.001 | < 0.01 | <2 | <1 | $<1$ | <0.01 | <20 | <1 | <2 | < 10 | <1 | < 10 | <1 | <1 |  |  |  |  |
| Method Blank | <0.01 | 0.011 | < 0.001 | < 0.01 | <2 | <1 | <1 | <0.01 | <20 | <1 | <2 | < 10 | < 1 | < 10 | < 1 | <1 |  |  |  |  |
| Method Blank | <0.01 | 0.010 | < 0.001 | < 0.01 | <2 | <1 | <1 | <0.01 | <20 | - 2 | <2 | <10 | <1 | <10 | <1 | <1 |  |  |  |  |
| Method Blank |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <3 | <0.001 | <0.003 |

ALS Canada Ltd.
2103 Dollarton Hwy
Noth Vancouver BC V7H OA $\qquad$
Total \# Pages: 2 Page: Plus Appendix Pages Finalized Date: 21-JUN-2019 Account: AMCBMNDN

## CERTIFICATE SD19140635

## Project: Delhi

This report is for 15 Rock samples submitted to our lab in Sudbury, ON, Canada on 10-JUN-2019
The following have access to data associated with this certificate:
$\qquad$

| SAMPLE PREPARATION |  |  |  |
| :--- | :--- | :--- | :---: |
| ALS CODE | DESCRIPTION |  |  |
| WEI-21 | Received Sample Weight |  |  |
| LOG-22 | Sample login - Rcd w/o BarCode |  |  |
| CRU-31 | Fine crushing $-70 \%$ <2mm |  |  |
| SPL-21 | Split sample - riffle splitter |  |  |
| PUL-31 | Pulverize split to 85\% < 75 um |  |  |
| CRU-QC | Crushing QC Test |  |  |
| PUL-QC | Pulverizing QC Test |  |  |
| ANALYTICAL PROCEDURES   <br> ALS CODE DESCRIPTION INSTRUMENT <br> ME-ICP41 35 Element Aqua Regia ICP-AES  <br> Ag-OG46 Ore Grade Ag - Aqua Regia ICP-AES <br> ME-OG46 Ore Grade Elements - AquaRegia ICP-AES <br> Cu-OG46 Ore Grade Cu - Aqua Regia  <br> Pb-OG46 Ore Grade Pb - Aqua Regia AAS <br> Au-AA23 Au 30g FA-AA finish  |  |  |  |

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

Signature
Colin Ramshaw, Vancouver Laboratory Manager

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

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[^2]



[^0]:    Note: Au analysis method was fire assay - AA. Over limit Au results were rerun with gravimetric finish. All other elements analysis methods were Aqua Regia ICP-OES.
    Over limit Ag, Cu, and Pb samples were reanalyized with ore grade ICP-OES
    Samples S898101-12, S898201-03 were analyzed at ALS - Sudbury (Report Number: SD19140635). Samples M596433-37 were analyzed at ActLabs - Timmins (Report Number: A18-06913).

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