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REPORT ON EXPLORATION ACTIVITIES

JULY 2020 – JULY 2022

STRALAK PROJECT

GEOGRAPHIC TOWNSHIPS OF MONCRIEFF, ULSTER, CRAIG & STRALAK
SUDBURY MINING DIVISION
TERRITORIAL DISTRICT OF SUDBURY
PROVINCE OF ONTARIO

BRYAN C. DORLAND
July 1, 2022

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EXECUTIVE SUMMARY

The Stralak Project covers rocks of the central portion of the under explored Benny Greenstone Belt located in northern Ontario. The 949.44 hectare property was acquired by the author via map staking to evaluate the potential for base and precious metal deposits. Previous work on the property is indicative of favorable geology and conditions that host economic concentrations of base metals. To date, a limited exploration program consisting of historical data compilation, prospecting, sampling and geo referencing has been carried out and forms the basis of this report.

1.0 PROJECT INFORMATION

1.1 LOCATION AND ACCESS

The Stralak Project is located in the unsubdivided or annulled Geographic Townships of Moncrieff, Ulster, Criag and Stralak in the Territorial District of Sudbury (Sudbury Mining Division) in the Province of Ontario. 1:50 000 scale NTS map sheet 041I43 encompasses the entirety of the project. The property is located in a remote area approximately 60 kilometres north west of the City of Greater Sudbury downtown core. Travel time to the property is approximately 1.25 hours from the Sudbury area depending on road conditions.

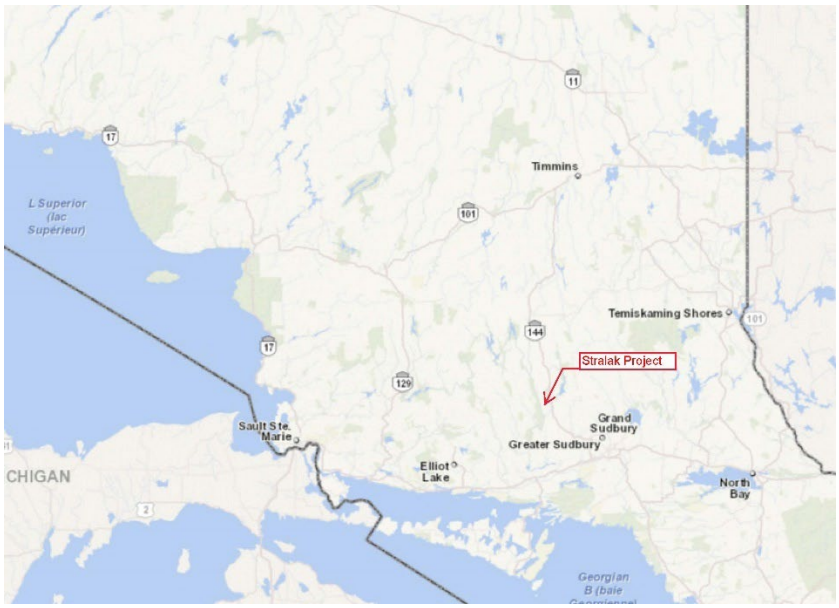

Figure 1 – Project Location

Access to the Stralak North Project is excellent. Provincial highway No. 144 is located approximately 3km from the easterly boundary of the claim group. A network of former logging roads originating from Highway 144 and the village of Benny provide good access across the majority of the property. Recent logging activities have taken place in the southerly part of the property which provide additional logging trail networks. A publicly maintained gravel access road provides year round access to the village of Benny. The Canadian Pacific Railway trans-continental mainline traverse the property. An active rail siding (Stralak) is located within the boundaries of the project.

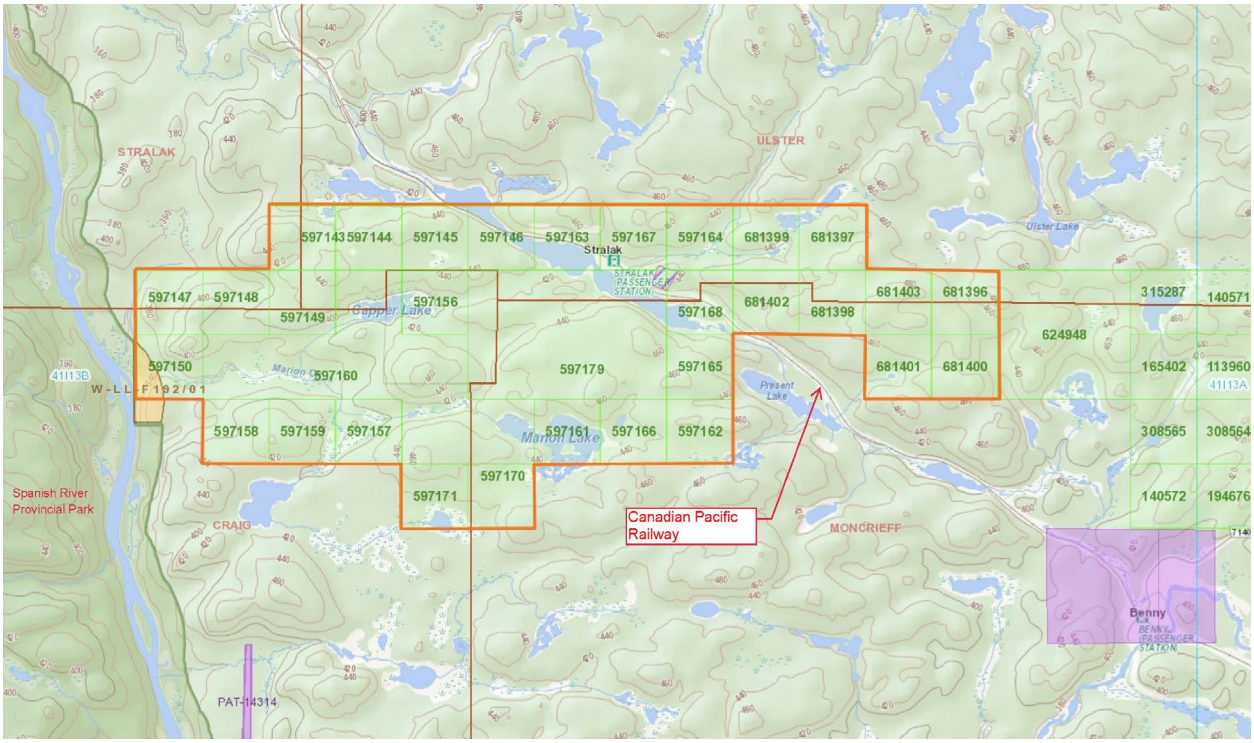

Figure 2 – Claim Map

1.2 TOPOGRAPHY AND VEGETATION

The Stralak Project is located in the boreal forest of northern Ontario in the Canadian shield. Topography generally consists of rugged and rolling bedrock hills with little to no overburden interlaced with lowland swamps and lakes as well as valleys filled with glacial debris. The average elevation in and around the project area is approximately 420 metres and relief about 30 metres.

Fault systems are commonly expressed by prominent topographic lineaments and scarps. The major north west trending faults strongly control the drainage patterns. Major lake and stream systems such as Bluewater Lake, Kennedy Lake, Straight Lake and the Spanish River occupy fault valleys (Card/Innes 1981). The project area lies within the Great Lakes drainage basin and is subsequently drained south by the Spanish River and its tributaries.

The Project area has seen several generations of logging campaigns. Timber generally consists of stands of red and jack pine, the result of re-forestation, with some old growth white and red pine interlaced with stands of white birch, poplar, spruce and black spruce in the low lying, poorly drained areas.

1.3 TENURE DETAILS

The Stralak Project consists of 30 single and 2 multi-unit, unpatented mining claims with a total area of approximately 949.44 hectares (43 units). The property was acquired by online map staking in 2020 and 2021.

The claims are registered in the name of the author and require $17,200 of annual assessment work to keep in good standing. See Table 1 for specific claim numbers and details.

Table 1 – Mining Claim details

PROJECT:	Stralak			CLAIM DETAILS				
CLAIM No.	HOLDER	UNITS	AREA (ha)	EMCUMBERED	WORK REQD.	DUE DATE	WORK APPLIED	RESERVE
597143	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597144	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597145	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597146	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597147	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597148	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597149	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597150	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597156	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597157	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597158	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597159	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597160	(100) BRYAN DORLAND	7	154.56	no	$2,800.00	July 2, 2022	$0.00	$0.00
597161	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597162	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597163	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597164	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597165	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597166	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597167	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597168	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597170	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597171	(100) BRYAN DORLAND	1	22.08	no	$400.00	July 2, 2022	$0.00	$0.00
597179	(100) BRYAN DORLAND	6	132.48	no	$2,400.00	July 3, 2022	$0.00	$0.00
681396	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681397	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681398	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681399	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681400	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681401	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681402	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
681403	(100) BRYAN DORLAND	1	22.08	no	$400.00	October 14, 2023	$0.00	$0.00
Total		**43**	**949.44**		**$17,200.00**		**$0.00**	**$0.00**

2.0 PREVIOUS WORK

Below is a summary of previous assessment work or other work carried out over the Stralak Project and surrounding area currently on file at the Geoscience Assessment Office and AFRI database.

1929 – Sudbury Concentrating and Mining Company – Diamond Core Drilling – 6 holes totalling 310.26 metres (AFRI 41I3SE0090)
1949 – Bankfield Consolidated Mines Ltd. – Diamond Core Drilling – 9 holes totalling 566.70 metres (AFRI 41I3SE0090)

1952 – Preston East Dome Mines Ltd. - Diamond Core Drilling – 18 holes totalling 1567.57 metres (AFRI 41I3SE0090)
1952 – Oakridge Mining Corp. Ltd. - Diamond Core Drilling – 8 holes totalling 635.97 metres (AFRI 41I3SE0096) – not on current Stralak Project claims
1959 – Consolidated Bellekeno Mines Ltd. - Diamond Core Drilling – 10 holes totalling 900 metres (AFRI 41I3SE0081) – not on current Stralak Project claims
1964 – Mining Corp. of Canada Ltd. – Geological mapping, ground Electromagnetic and Magnetic survey, Diamond Core Drilling – 11 holes totalling 664.81 metres (does not include unknown hole depths due to missing logs) (AFRI 41I3SE0043 & 41I3SE0095)
1972 – Tex-Sol Exploration Ltd. – Airborne Electromagnetic Survey and interpretation (survey by Questor Surveys Limited) (AFRI No. 41I13SE0014)
1973 – Jean Descarreaux & Associates – Airborne Electromagnetic Survey map compilation and interpretation (using 1792 Questor Surveys) (AFRI No. 41I13SE0083)
1973 – Tex Sol Explorations Ltd. – Ground Electromagnetic and Magnetic survey (survey by Prospecting Geophysics Lts.) (AFRI 41I13SE0045)
1974 – Arthur Theriault – ground Magnetometer survey (survey by Prospecting Geophysics Ltd. In 1973 – (AFRI 41I13SE0085)
1975 – Chevron Standard – ground Magnetometer survey – see claim "Group D" (AFRI 41I13SE9625)
1980 – Stralak Resources Inc. – line cutting and ground VLF survey (AFRI 41I13SE0038)
1981 – Stralak Resources Inc. – Diamond Core Drilling – 7 holes totalling 479 metres (AFRI 41I13SE0091 & 41I13SE9534)
1981 – Rio Tinto Exploration Ltd. – Airborne Electromagnetic and Magnetometer survey (AFRI 41I14SW0018)
1981 – Ontario Geological Survey (Card, K.D. and Innes, D.G.)– Report 206 and accompanying maps (see map 2434)
1984 – Federal Kirkland – Diamond Core Drilling – 7 holes totalling 479 metres (AFRI 41I13SE0091 & 41I13SE9534)
1985 – Noranda Exploration Co. Ltd – airborne Magnetometer and VLF survey (AFRI 41I13SE0005)
1986 – Noranda Exploration Co. Ltd – ground Magnetometer survey (AFRI 41I13SE0066)
1988 – Imperial Metals Corp. – line cutting, ground magnetic survey, airborne magnetic and VLF survey (AFRI 41I13SE0031 & 41I13SE0033)
1989 – Falconbridge Limited – airborne magnetic, electromagnetic and VLF survey (AFRI 41I13SE0019)
1991 (published in 2003) - Ontario Geological Survey – Airborne Total Intensity Magnetic Survey and Electromagnetic Survey (Geophysical Data Set 1017) (see map 81541)
1996 – John Brady – mechanised pitting, trenching (AFRI 41I13SE0024)
1997– Mining Technologies International – line cutting, ground magnetic and vertical loop electromagnetic survey, manual trenching, mapping (AFRI 41I13SE2001 & 41I13SE2003)
1999 – Stralak Resources Inc. – mechanised trenching, pitting, bulk sampling (AFRI 41I13SE2007)
2001 – John Brady – manual pitting, trenching (AFRI 41I13SE2008)
2012 – Energold Minerals Inc. – line cutting, ground magnetic survey (AFRI 20000007369)
2013 – Energold Minerals Inc. – airborne magnetic and electromagnetic survey (AFRI 20000008507)
2016 – Energold Minerals Inc. – soil/till geochemistry survey (AFRI 20000015406)
2019 – Ontario Geological Survey – Ramsey – Algoma Airborne Magnetic Gradiometer and Gamma-Ray Spectrometer Survey (Geophysical Data Set 1086a and 1086b) (see maps 82958, 82973 and 82988)

3.0 GEOLOGY

3.1 REGIONAL GEOLOGY

The Stralak Project is located in the Benny Greenstone Belt which lies in the southern part of the Superior Province of the Canadian shield north of the main contact between the Early Precambrian rocks of the Superior Province and the Middle Precambrian rocks of the Southern Province (Card/Innes, 1981).

The Benny Greenstone Belt is considered to be a preserved remnant of a formerly much larger supracrustal sequence of metavolcanics and metasediments. The Belt strikes east west and dips strongly to the south with an average width of approximately 2 km, a maximum width of approximately 4.8 km and is over 38 km long.

The Benny Greenstone Belt is bordered on the north and south by early Precambrian granitic rocks, older foliated magmatic gneissic and plutonic rocks and younger massive quartz monzonite plutons. The younger granitic plutons clearly intrude the metavolcanics and metasediments (Card/Innes, 1981).

The rocks of the Belt and surrounding area record a series of igneous, intrusive, deformational and metamorphic events ranging in age from Early to Late Precambrian. After deposition of the Early Precambrian Metavolcanics and metasediments, probably on a basement of older sialic rocks, there was deformation, regional metamorphism and emplacement of granitic plutons during the Kenoran Orogeny some 2500 million years or so ago (Stockwell et al., 1970). This was followed, in the latter part of the Early Precambrian and the early part of the Middle Precambrian, by a period of tensional tectonics with emplacement of mafic dike swarms, faulting and foundering of Early Precambrian crustal blocks and deposition of Huronian clastic sedimentary rocks in a series of shallow epicratonic basins (Card/Innes, 1981).

Rocks of the Benny Belt have been metamorphosed under conditions corresponding to the greenschist and amphibolite facies.

3.2 PROPERTY GEOLOGY

The Stralak Project is located in the central portion of the Benny Greenstone Belt. The property is centered on a sequence of east west striking mafic, intermediate and felsic metavolcanics flows and associated metasediments. Numerous narrow felsic intrusive granitic dykes as well as early and late mafic intrusive dykes and sills cut the metavolcanics/metasedimentary sequence.

The mafic metavolcanics generally consist fine grained grey, greenish black and black basalt, deformed pillow basalt, andesite and mafic tuff. Felsic volcanic rocks are commonly interstratified throughout.

Intermediate metavolcanics rocks include tuff breccia, lapilli tuff and andesitic tuff. The tuffs are commonly layered, thinly bedded and range in color from grey to white. The tuff variations are sometimes difficult to distinguish from the metasediments.

Photo 1 – Mafic Metavolcanic

Photo 2 – Intermediate metavolcanic

Felsic metavolcanic rock assemblages include rhyolite, dacite and their porphyritic equivalents. The majority of the felsic metavolcanics rocks found throughout the property are intercalated with the mafic and intermediate volcanic rocks and were rarely observed forming large outcrops.

Metasedimentary rocks are common throughout the project and include metamorphosed wacke, ash or tuff, schistose micaceous sediments, graphitic siltstones and schists, cherty siliceous sediments and sulphide bearing siliceous metasediments. The metasedimentary units are generally narrow, often folded vertically and often contain stratiform disseminations and sulphide staining.

The metavolcanic/metasedimentary sequences are often cut by narrow (5 to 25 meres), northwest trending, fine grained, metagabbro dikes.

Middle-Precambrian mafic intrusive rocks (Nipissing Diabase) occur as north east trending dikes, with a few northwest trending dikes joining larger dike sets. The Nipissing intrusions occur as medium to coarse grained metagabbro and granophyric metagabbro. Occurrence of this unit is limited to the very eaterly portion of the property lying east of the Canadian Pacific Railway.

Photo 3 – Typical Felsic Metavolcanic

3.3 EXPLORATION TARGETS

The primary exploration target for the Stralak project is base metal VMS style mineralization containing copper, lead, zinc with gold and silver. Two significant base metal occurrences, being the former producing Geneva Lake Mines and the Stralak deposits, occur within the Benny Greenstone Belt.

The Geneva Lake Mine (MDI 41I13SE00002), located in north central Hess Township and approximately 23 km east of the Benny West project, was discovered in 1924 by John Collins. The mine was in production between 1941 and 1944. During this period, 80,588 tons of zinc-lead-silver ore was mined at an average grade of 3.34% Pb, 9.21% Zn with appreciable amounts of silver. The deposit is a sheet like

body some 210 metres long and 0.6 to 6 metres thick. The mineralization occurs in a thin unit of siliceous, micaceous metasediments and felsic tuffs at the contact between the mafic and felsic metavolcanics. The deposit is said to be of volcanic origin formed primarily by volcanic exhalative processes (Card/Innes, 1981). A 1989 report by Geneva Lake Minerals Corp (AFRI No. 41I13SE0051) indicated underground reserves of 114,000 tons grading 10% Zn and 3% Pb across an average width of 5.3 feet plus 24,000 tons with 8% combined Pb-Zn content across 4 feet and 32,000 tons with a 6% combined Pb-Zn content across 3 feet. This is a historical non NI 43-101 compliant resource.

The Stralak deposits, consisting of the Stralak West showing (MDI 41I13SW00004) and Stralak East showing (MDI 41I13SE00044), are located within the subject claims. The deposit was originally discovered shortly after the construction of the Canadian Pacific Railway in and around 1886. Over the years, exploration work and drilling have outlined two zones of significant mineralization. The zones are reported to be approximately 150 to 200 metres in length and 0.2 to 3 metres thick with mineralization containing 0.5 to 22% Zn, 0.05 to 1.3% Pb, 0 to 2.3% Cu and 1.8 to 4.94 oz/ton Ag. A non NI 43-101 compliant reserve was calculated in 1992 by Stralak Resources Inc. for the West, East and "New East" Zones using the drilling and work to date for a total of 825,138 tons grading 4.51% Zn, 0.33% Cu, 0.61% Pb and 1.99%(*?-likely oz./ton*) Ag (Bullock, 1992). The sulphide mineralization occurs in a thin stratigraphic unit of chloritic, micaceous and quartz rich schistose rocks which probably represent sheared, metamorphosed tuffs and sedimentary rocks (Card/Innes, 1981).

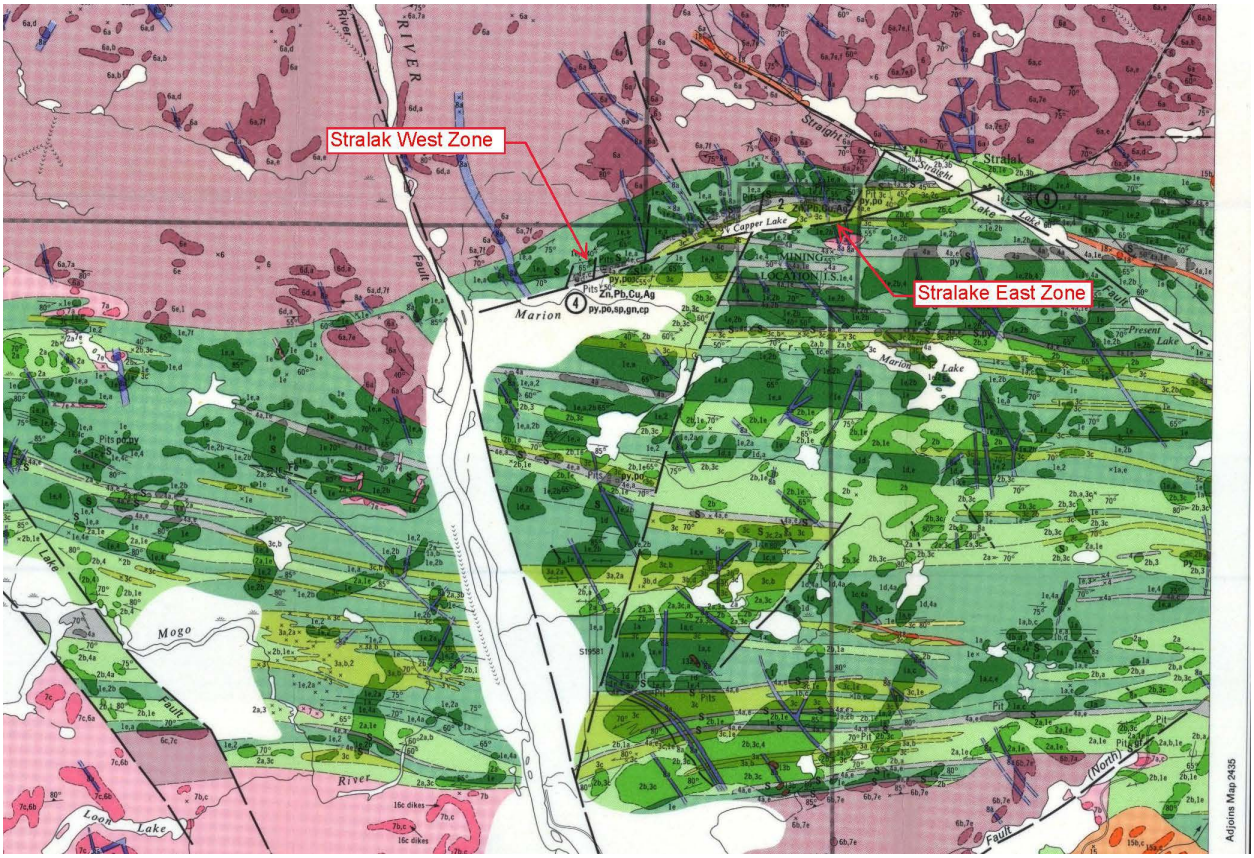

Figure 3 – Local Geology from OGS Map 2434

4.0 ADJACENT PROPERTIES

A 20 unit claim group held by Greener North Inc. abuts the east limit of the Stralak Project. A large claim group covering the past producing Geneva Lake mine as described in section 4.0 are currently held by CBLT Inc. A long, narrow block of claims, which appear to be used as a land bridge to connect two separate projects, is currently held by the Australian junior exploration outfit Battery Mineral Resources. Several other smaller claim groups or claims are held by various individuals in the general area.

5.0 CURRENT EXPLORATION ACTIVITES COVERED BY REPORT

5.1 DETAILS

Exploration activities carried out between July 2020 and July 2022 form the basis of this report. These activities include research and compilation of all previous exploration activities carried out on or in the immediate project area, prospecting, rock sampling and geo-referencing/surveying of historic mine workings and diamond drill hole collars. The work was carried out by the author.

Research and data compilation was carried out in order to assess the potential for economic mineralization and to generate targets to focus the preliminary field activities. All currently available geological maps and reports, aerial photography and topo maps, geophysical surveys, diamond drill logs and assessment files were reviewed in detail. A detailed review of previous diamond drilling campaigns was also completed.

A total of 12 days were spent in the field. Fieldwork included reconnaissance of road access, access trail maintenance, inspection of previous exploration works and pits/trenches where the east and west zones are exposed, prospecting and locating/surveying of previous drill hole collars and trenches.

As the property is new to the author, 2 days were spent assessing the project access and reviewing the historic showings and the geology/mineralization exposed in the east and west zone trenches and blast pits. Several select grab samples were taken confirm previously reported grades.

A total of 4 days were spent prospecting in the area to the south west of the west zone as well as the south east part of the property near Marion Lake. An Instrumentation GDD BM4 “Beep Mat”, was dragged through the bush whilst prospecting, bedrock sampling and examining the various rocks and lithologies in order to potentially identify any slightly buried magnetic or electromagnetic conductors. A total of 7 grab samples were taken in while prospecting these areas.

All grab samples were described in the field with geodetic positions noted then bagged and shipped to SGS Laboratories in Sudbury for further analysis. A total of 9 samples were submitted for geochemical assays and analysed using a Sodium Peroxide Fusion/ICP-AES package and Standard 30g Fire Assay for Gold and PGE’s. See Appendix 1 for sample details and Appendix 2 for assay results.

Photo 4 – West Zone mineralization exposure

The majority of the time spent in the field was focused on locating as many old drill hole collars and historic features as possible. There currently exists records in the Ontario assessment file database for approximately 75 diamond drill holes that were put down between 1929 and 1990 on the current Stralak property by various groups. Virtually all previous drilling was targeted at outlining the mineralisation in the east and west zones and potential extensions thereof.

All historic drill holes were tied to a local grid of sorts that the operators at the time had established. It is estimated that a total of 6 different local grids were laid out over the years to control the positions of mapping, drilling, geophysics etc. The grids would all appear to cover the same ground however, each was laid out in a slightly different location. There have been a few compilation maps produced over the years showing the drill holes and features to date however, in the authors opinion, these maps are not very accurate and were produced prior to the use of GPS technology. The maps frequently showed the same drill holes in different locations. Numbering variations are also common.

In order to create an accurate drill hole and feature compilation that could potentially be used to confidently model the mineralization defined in the historic drilling, a survey was carried of the drill hole collars that were located as well as the historic pits and trench outlines using survey grade dual frequency differential GPS equipment in Real Time Kinematic (RTK) Base-Rover configuration.

The GPS equipment utilised for the survey consisted of a Leica Geosystems GS15 receiver as a rover and a GS10 receiver and AS10 antenna as the base station setup. Real Time Kinematic corrections between the base and rover GPS receivers was achieved using a Satel EasyPro 35 watt UHF radio modem. Data was recorded in a Leica CS15 data collector. A survey control network consisting of x2 permanent points was established in order to facilitate the current GPS survey and any future survey work required on the project. See Appendix 3 for Leica GPS equipment specifications.

Photo 5 – GPS Base Station setup over Control Point No.1

Drill hole collars were located by calculating their approximate positions then scanning and searching through the bush with a Schonstedt magnetic locator. This proved to be very time consuming as the rough locations of the drill holes as calculated were often very different than the actual found location requiring extensive searching. Thick underbrush and vegetation made visually locating the collars difficult. In many cases, after an exhaustive search, no evidence of the drill hole casings could be found.

If a drill hole casing or collar was found, the brush and trees around the collar were cleared and the collars painted orange and flagged up to allow for better GPS satellite acquisition and to facilitate locating in the future. The GPS observation was taken where the top of the drill casing intersected the ground. A picture was taken of the collar and the casing diameter was noted in order to try and match up with hole sizes noted in the drilling logs or to differentiate the holes that were drilled at very similar locations by different organisations at different times, often decades later.

In some instances, a drill hole collar could not be located in the purported location however, clear evidence of drilling was found such as piles of core, old core bits and reaming shells, old pop cans, grease tubes, oil barrels, strands of braided wire etc. These metallic items, often slightly buried under years of organic material, would set off the magnetic locator being used. These items were often dug up with a shovel to confirm that they were not in fact a slightly buried drill casing.

When searching for drill collars for the holes drilled in 1984 or recent, it was noted that the drill pad and drill trails were still very faintly visible as obvious changes in tree cover and vegetation. If a collar was not located in these instances, a coordinate was measure at the likely centre of the old drill pad. It is the authors opinion that this would represent the best available evidence of the historic drill hole location given the distance/position errors encountered when comparing relative hole locations on the historic compilation maps.

Photo 6 – Sample S00435024 from East Zone
<u>10.55% Zn, 0.36% Cu, 0.17% Pb, 0.57oz/t Ag, 0.02 g/t Au</u>

Photo 7 – Sample S00435026 from West Zone
<u>16.53% Zn, 0.03% Cu, 4.29% Pb, 10.48 oz/t Ag, 0.13 g/t Au</u>

In addition to the drill holes, the outlines of historic pits and trenches of the East and West Zones were located and surveyed in order to add to the compilation map. The "Discovery Pit" located at the very easterly extremity of the East Zone has often been referred to in previous reports. This position was utilised as a starting point to overlay the previous mapping and drill hole compilations in order generate approximate locations to search for the historic drill collars. It should be noted that this position is erroneously described in the 2012 – 2016 Energold Minerals reports by approximately 340 metres (too far south and east).

A total of 8 days were spent prospecting, searching for and surveying of the old drill collars and historic pits/trenches.

A separate statement of costs for assessment credits detailing daily activities and associated costs is being submitted concurrently with this assessment report.

5.2 RESULTS

A detailed compilation of previous exploration work has been assembled and organised into a digital database which will greatly assist exploration work moving forward.

Site visits and sampling of the known mineralisation in the Stralak East and West zones has provided the author with a better understanding on the mineralisation setting and controls. Select grab samples taken of the high grade occurrences and assay analysis has confirmed previously reported Zinc, Copper, Lead, Silver and Gold values. A total of 5 samples were taken from these areas. Assays remain outstanding for 3 of the 5 samples.

Prospecting and Beep Map traverses to the south west of the West Zone were targeted at coincident soil Geochem, magnetic and airborne magnetic anomalies. This work failed to locate the source of the anomalies in bedrock exposure.

Prospecting and Beep Map traverses at the southerly part of the property near Marion Lake located several sulphide exposures in metasedimentary rocks. A total of 4 samples were taken in this general area. Assays remain outstanding for all 4 samples.

See Appendix 1 for sample details and Appendix 2 for available assay results and Appendix 8 for prospecting and sample location details.

Two permanent survey control points have been established on the Stralak Project. Control Point 1, being a 1" square iron bar drilled in bedrock, is located near the West Zone. Control Point 2, being a 5/8" square iron bar drill in bedrock, is located in proximity to the East Zone. Final coordinate values for these points were obtained by processing the static Rinex data using Natural Resource Canada's Precise Point Positioning (PPP) services. Data for days where the longest duration of observations were utilised. See Appendix 5 for more information.

The relative RTK GPS observations measured while occupying each individual control point were adjusted accordingly in MicroSurvey CAD. Final coordinate values are expressed in the NAD83 (CSRS) (Ver.6/epoch 2010.0) system using the UTM 17 (north) mapping projection. Elevations are expressed as orthometric heights in the CGVD2013 datum. NAD83 CSRS (Canadian Spatial Reference System) is the most current nationally recognized reference frame for relating geospatial information. CGVD2013

Photo 8 – Drill Collar for original Drill Hole #2 in East Zone from 1929

(Canadian Geodetic Vertical Datum of 2013) is the most current orthometric elevation datum recognised in Canada.

Approximately 35 historic overburden trenches and blasted rock pit/trench locations were found and their general outlines accurately surveyed using the RTK GPS.

A diligent search was carried out for 74 of the reported 75 diamond drill hole collars. A total of 16 actual drill collars were located and surveyed using RTK GPS. Another probable 20 drill hole locations were surveyed base on other evidence found as previously discussed.

A detailed drill hole compilation spreadsheet has been prepared which contains information on every hole that has been reported in assessment files as well as a few others that were discovered which cannot be sourced with the current data. See Appendix 6. A map showing the survey control, drill hole locations and historic workings has also been prepared. See Appendix 7.

The coordinate values for the holes where no evidence was found was calculated using the reported relative positions from the nearest feature that could be accurately and confidently identified.

It is highly probable that the drill hole casings for a good portion of the drill holes were removed and re used along the way. It was noted in previous reports that little evidence of historic drilling was found. It is also very possible that a good portion of the historic holes were drilled right from the main access trail which runs parallel to the mineralised zones. Note the clustering of holes near the main trail on Appendix 7. Evidence of the collars may have been obliterated by heavy equipment when the subsequent drill campaigns took place in the years that followed.

I also strongly suspect that there has been several drilling campaigns that were not filed for assessment credits. The claims covering the Stralak Project were being brought to lease in 1992 by Stralak Resources Inc. (Bullock, 1992) and were held under leasehold status until approximately 2006 when the leases were forfeited or allowed to lapse (Batson, 2016). No filing of assessment work was required during this 14 year period.

It was also noted in Bullock, 1992 that prior to 1984, 51 diamond drill holes were put down (this is correct) and *"…from 1984 to present (1992), a total of 133 diamond drill holes totalling 52,870 feet (16,114.78 metres) were drilled…".* Records exist for only 19 drill holes put down on the Stralak Project between 1984 and 1992 in the Ontario Assessment File Database. This leaves 114 diamond drill holes unaccounted for during this time period alone assuming the statements in contained in Bullock, 1992 are accurate.

6.0 CONCLUSIONS

The work carried out to date will greatly assist further exploration efforts moving forward. Additional prospecting, trenching and potential drilling are planned for 2022 and 2023. Additional time will be spent in an attempt to locate historic drill hole collars and information.

7.0 REFERENCES

Batson, 2016: assessment report titled "Soil Geochemistry Program at the Stralak Zinc-Silver Property in Moncreiff, Craig and Ulster Townships, Ontario" dated April 30, 2016 by Benjamin Batson, P.Geo. Available online in the Geoscience Assessment Office files as assessment file 20000015406

Bullock, 1992: OMIP Report filed as "CraigSP002", available from the Geoscience Assessment Office (Library only) by Kevin Bullock, B.Eng., dated May 29, 1992

Card, K.D., & Innes, D.G., 1981: Geology of the Benny Area, District of Sudbury; Ontario Geological Survey Report 206, 117p Accompanied by Maps 2434 & 2435, scale 1:31 680 and 4 Charts

Guilbert, J.M., 1986: The Geology of Ore Deposits, p. 579-589

Sangster, D.F., 1972: Precambrian Volcanogenic Massive Sulphides Deposits in Canada, a Review; Geological Survey of Canada Paper 72-22, 44p.

8.0 CERTIFICATE

I, Bryan C. Dorland certify that:

I graduated with a Mining Engineering Technician diploma from Cambrian College in 2008.

I have held a valid Ontario Prospector's License since 2006 (License No. 1012035)

I have been actively participating in the mining and exploration industry since 2006.

I personally completed the work described in this report.

I hold a 100% interest in the property described in this report.

Bryan C. Dorland

Dated July 1, 2022

Sudbury, Ontario

PROJECT: STRALAK

ROCK SAMPLES

utm17, NAD83

SAMPLE No.	TYPE	POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION/NOTES	SAMPLE DATE	ASSAYED	ASSAY DATE	NOTABLE ASSAYS
S00435024	Grab	66	5183514	447126		high grade grab from blasted pit in East Zone, massive Sphal, Cpy, Py, buckshot textures	04.18.2021	yes	10.29.2021	
S00435025	Grab	72	5183516	447123		high grade grab from blasted pit in East Zone, massive Sphal, Cpy, Py, buckshot texture but more Sphal than prev.	04.18.2021	yes	10.29.2021	
S00435026	Grab	67	5183115	445560		high grade grab from blasted pit in WestZone, massive Sphal, Cpy, Py	04.18.2021	yes	10.29.2021	
S00435032	Grab	119	5182608	448307		grab from o/c on east side of road, thin unit of rusty metaseds w/ diss sulp +/-1%	11-17-2021	yes	pending	
S00435033	Grab	120	5183052	448093		grab from o/c, fine grained, highly silicified metased, diss sulph throughout +/-2%	11-18-2021	yes	pending	
S00435034	Grab	122	5182650	447638		grab from side of sulphide showing at north end of Marion Lake, diss sulph in metaseds	11-18-2021	yes	pending	
S00435035	Grab	123	5182717	447588		high grade grab from blasted pit, likely the "Marion Lake" showing, 2" wide veins of mass sulph in metaseds	11-18-2021	yes	pending	
S00435036	Grab	128	5183180	445809		high grade grab from blasted pit, metased with diss sulph	11-19-2021	yes	pending	
S00435037	Grab	129	5183145	445695		high grade grab from stripped o/c, mass buckshot textured sulph (Sphal, Cpy, Pyrr)	11-19-2021	yes	pending	
S00435038	Grab	228	5183551	446599		high grade grab from stripped o/c, metased with diss sulph	06-18-2022	yes	pending	

ANALYSIS REPORT BBM21-11339

To COD SGS MINERALS - GEOCHEM VANCOUVER
BRYAN DORLAND
SGS CANADA INC
WEST WING 5825 EXPLORER DRIVE
MISSISSAUGA L4W 5P6
ON
CANADA

Submission Number	*SD* Bryan Dorland / Stralak / 3 Rocks	Date Received	19-Jul-2021
Number of Samples	3	Date Analysed	29-Jul-2021 - 22-Oct-2021
		Date Completed	22-Oct-2021
		SGS Order Number	BBM21-11339

Methods Summary

Number of Sample	Method Code	Description
3	G_WGH_KG	Weight of samples received
3	G_PRP	Combined Sample Preparation
3	GE_ICP91A50	Na2O2/NaOH Fusion, 500°C, HNO3, ICPAES, 0.1g-50ml, Glassy Carbon cruci
3	GE_IMS91A50	Na2O2/NaOH Fusion, ICP-MS, Glassy Carbon crucibles
3	GE_FUS91A50	Na2O2/NaOH Fusion, 500°C, HNO3, ICPAES, 0.1g-50ml, Glassy Carbon cruci
3	GE_FAI30V5	Au, Pt, Pd, FAS, exploration grade, ICP-AES, 30g-5mL
3	GO_XRF70V	Pyrosulphate Fusion, XRF, Ore Grade
2	GO_FUZ90Q100	Ore grade Na2O2 Fusion, HNO3, ICPAES, 0.2g-100ml
2	GO_ICP90Q100	Ore grade Na2O2 Fusion, HNO3, ICPAES, 0.2g-100ml
1	GO_FAG37V	Ag, Au, FAS, Gravimetric Ag; AAS Au, 30g

Authorised Signatory

John Chiang
Laboratory Operations Manager

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Element	WTKG	@Al	@Ba	@Be	@Ca	@Cr
Method	G_WGH_KG	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50
Lower Limit	0.01	0.01	10	5	0.1	10
Upper Limit	--	25	10,000	2,500	25	50,000
Unit	kg	%	ppm m / m	ppm m / m	%	ppm m / m
S 00435024	1.07	2.88	186	<5	0.8	<10
S 00435025	2.53	3.75	143	<5	0.3	<10
S 00435026	1.61	3.64	111	<5	0.9	31
*Std OREAS 681	-	7.75	431	<5	6.0	2154
*Blk BLANK	-	<0.01	<10	<5	<0.1	<10
*Std OREAS 70b	-	3.65	199	<5	3.0	1208
*Blk BLANK	-	<0.01	<10	<5	<0.1	<10
*Std OREAS 682	-	8.63	384	<5	6.4	3436

Element	@Cu	@Fe	@K	@Li	@Mg	@Mn
Method	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50
Lower Limit	10	0.01	0.1	10	0.01	10
Upper Limit	10,000	25	25	50,000	25	100,000
Unit	ppm m / m	%	%	ppm m / m	%	ppm m / m
S 00435024	3592	>25.00	0.8	24	0.37	414
S 00435025	1182	>25.00	0.7	40	0.96	756
S 00435026	327	14.58	1.3	13	0.71	592
*Std OREAS 681	253	7.43	1.3	13	5.01	1282
*Blk BLANK	<10	<0.01	<0.1	<10	<0.01	<10
*Std OREAS 70b	39	5.49	0.6	31	13.21	1095
*Blk BLANK	<10	<0.01	<0.1	<10	<0.01	<10
*Std OREAS 682	252	6.79	1.1	<10	4.84	1136

Element	@Ni	@P	@Sc	@Si	@Sr	@Ti
Method	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50
Lower Limit	5	0.01	5	0.1	10	0.01
Upper Limit	10,000	25	50,000	30	5,000	25
Unit	ppm m / m	%	ppm m / m	%	ppm m / m	%
S 00435024	17	<0.01	<5	4.8	102	0.04
S 00435025	19	<0.01	<5	5.3	47	0.04

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Element	@Ni	@P	@Sc	@Si	@Sr	@Ti
Method	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50	GE_ICP91A50
Lower Limit	5	0.01	5	0.1	10	0.01
Upper Limit	10,000	25	50,000	30	5,000	25
Unit	ppm m / m	%	ppm m / m	%	ppm m / m	%
S 00435026	10	0.02	7	12.0	54	0.16
*Std OREAS 681	509	0.14	27	23.5	458	0.55
*Blk BLANK	<5	<0.01	<5	<0.1	<10	<0.01
*Std OREAS 70b	2290	0.01	12	22.4	71	0.16
*Blk BLANK	<5	<0.01	<5	<0.1	<10	<0.01
*Std OREAS 682	582	0.12	22	23.4	443	0.47

Element	@V	@Zn	@Ag	@As	@Bi	@Cd
Method	GE_ICP91A50	GE_ICP91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	5	5	1	5	0.1	0.2
Upper Limit	10,000	10,000	200	10,000	1,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
S 00435024	<5	>10000	18	158	24.1	485
S 00435025	<5	>10000	141	155	279	262
S 00435026	49	>10000	>200	57	172	683
*Std OREAS 681	254	95	<1	<5	0.1	<0.2
*Blk BLANK	<5	<5	<1	<5	<0.1	<0.2
*Std OREAS 70b	67	120	<1	141	0.8	0.3
*Blk BLANK	<5	<5	<1	<5	<0.1	<0.2
*Std OREAS 682	221	95	<1	<5	0.1	<0.2

Element	@Ce	@Co	@Cs	@Dy	@Er	@Eu
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	0.1	0.5	0.1	0.05	0.05	0.05
Upper Limit	10,000	10,000	10,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
S 00435024	23.1	285	1.4	1.70	0.88	0.22
S 00435025	28.8	240	1.4	1.71	0.83	0.23
S 00435026	23.8	121	1.3	2.64	1.51	0.45
*Std OREAS 681	40.6	53.9	4.0	3.60	1.94	1.30

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Element	@Ce	@Co	@Cs	@Dy	@Er	@Eu
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	0.1	0.5	0.1	0.05	0.05	0.05
Upper Limit	10,000	10,000	10,000	1,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Blk BLANK	<0.1	0.8	<0.1	<0.05	<0.05	<0.05
*Std OREAS 70b	24.6	81.4	3.2	1.79	1.01	0.46
*Blk BLANK	<0.1	<0.5	<0.1	<0.05	<0.05	<0.05
*Std OREAS 682	35.2	51.6	3.4	2.95	1.56	1.14

Element	@Ga	@Gd	@Ge	@Hf	@Ho	@In
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	1	0.05	1	1	0.05	0.2
Upper Limit	1,000	1,000	1,000	10,000	1,000	1,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
S 00435024	15	1.81	1	4	0.32	20.8
S 00435025	15	2.00	1	3	0.32	12.3
S 00435026	22	2.74	4	3	0.52	15.4
*Std OREAS 681	17	4.39	2	2	0.67	<0.2
*Blk BLANK	<1	<0.05	<1	<1	<0.05	<0.2
*Std OREAS 70b	9	1.82	1	2	0.37	<0.2
*Blk BLANK	<1	<0.05	<1	<1	<0.05	<0.2
*Std OREAS 682	17	3.71	1	2	0.56	<0.2

Element	@La	@Lu	@Mo	@Nb	@Nd	@Pb
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	0.1	0.05	2	1	0.1	5
Upper Limit	10,000	1,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
S 00435024	9.8	0.16	3	7	9.1	1737
S 00435025	12.8	0.15	4	5	11.1	>10000
S 00435026	10.0	0.23	<2	5	11.6	>10000
*Std OREAS 681	18.7	0.27	<2	5	22.7	10
*Blk BLANK	<0.1	<0.05	<2	<1	<0.1	<5
*Std OREAS 70b	13.3	0.15	5	3	10.2	12

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Element	@La	@Lu	@Mo	@Nb	@Nd	@Pb
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	0.1	0.05	2	1	0.1	5
Upper Limit	10,000	1,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
*Blk BLANK	<0.1	<0.05	<2	<1	<0.1	<5
*Std OREAS 682	16.4	0.21	<2	5	19.5	10

Element	@Pr	@Rb	@Sb	@Sm	@Sn	@Ta
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	0.05	0.2	0.1	0.1	1	0.5
Upper Limit	1,000	10,000	10,000	1,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
S 00435024	2.90	62.2	0.2	1.6	21	0.6
S 00435025	3.60	46.1	0.2	1.8	22	<0.5
S 00435026	3.24	75.5	103	2.2	88	<0.5
*Std OREAS 681	5.57	79.6	0.2	4.4	2	<0.5
*Blk BLANK	<0.05	<0.2	<0.1	<0.1	<1	<0.5
*Std OREAS 70b	2.81	30.9	0.4	1.7	1	<0.5
*Blk BLANK	<0.05	<0.2	<0.1	<0.1	<1	<0.5
*Std OREAS 682	4.78	67.0	0.2	3.8	1	<0.5

Element	@Tb	@Th	@Tl	@Tm	@U	@W
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50
Lower Limit	0.05	0.1	0.5	0.05	0.05	1
Upper Limit	1,000	1,000	1,000	1,000	1,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m	ppm m / m
S 00435024	0.27	3.7	1.5	0.13	1.13	<1
S 00435025	0.29	5.1	4.7	0.13	1.14	<1
S 00435026	0.42	3.0	3.8	0.23	0.93	<1
*Std OREAS 681	0.60	6.1	<0.5	0.28	1.52	1
*Blk BLANK	<0.05	<0.1	<0.5	<0.05	<0.05	<1
*Std OREAS 70b	0.28	5.6	<0.5	0.15	1.65	4
*Blk BLANK	<0.05	<0.1	<0.5	<0.05	<0.05	<1
*Std OREAS 682	0.50	6.2	<0.5	0.22	1.39	<1

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Element	@Y	@Yb	@Zr	@Au	@Pt	@Pd
Method	GE_IMS91A50	GE_IMS91A50	GE_IMS91A50	GE_FAI30V5	GE_FAI30V5	GE_FAI30V5
Lower Limit	0.5	0.1	0.5	1	10	1
Upper Limit	1,000	1,000	10,000	10,000	10,000	10,000
Unit	ppm m / m	ppm m / m	ppm m / m	ppb	ppb	ppb
S 00435024	7.7	0.9	127	20	<10	<1
S 00435025	7.5	0.9	110	18	<10	<1
S 00435026	15.0	1.5	106	130	<10	4
*Blk BLANK	-	-	-	<1	<10	<1
*Std OREAS 680	-	-	-	154	400	221
*Blk BLANK	-	-	-	<1	<10	<1
*Std OREAS 680	-	-	-	153	390	216
*Std OREAS 681	17.7	1.8	77.9	-	-	-
*Blk BLANK	<0.5	<0.1	<0.5	-	-	-
*Std OREAS 70b	9.9	1.0	67.2	-	-	-
*Blk BLANK	<0.5	<0.1	0.8	-	-	-
*Std OREAS 682	14.7	1.5	66.7	-	-	-

Element	Zn	@Pb	Ag
Method	GO_XRF70V	GO_ICP90Q100	GO_FAG37V
Lower Limit	0.01	0.01	10
Upper Limit	100	30	10,000
Unit	%	%	g / t
S 00435024	10.55	-	-
S 00435025	5.45	2.29	-
S 00435026	16.53	4.29	326
*Rep S 00435026	-	-	322
*Blk BLANK	-	-	<10
*Std OREAS 604	-	-	495
*Rep S 00435025	5.42	-	-
*Std OREAS 134a	17.28	-	-
*Blk BLANK	0.02	-	-

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Submission Number	*SD* Bryan Dorland / Stralak / 3
Rocks	
Number of Samples	3

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SGS Canada Minerals Burnaby conforms to the requirements of ISO/IEC17025 for specific tests as listed on their scope of accreditation found at https://www.scc.ca/en/search/laboratories/sgs
Tests and Elements marked with an "@" symbol in the report denote ISO/IEC17025 accreditation.

- not analysed | -- element not determined | I.S. insufficient sample | L.N.R. listed not received

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Leica Viva GS15
Data sheet

Engaging software

The Leica Viva GS15 GNSS smart antenna is accompanied with the revolutionary Captivate software, turning complex data into the most realistic and workable 3D models. With easy-to-use apps and familiar touch technology, all forms of measured and design data can be viewed in all dimensions. Leica Captivate spans industries and applications with little more than a simple swipe, regardless of whether you work with GNSS, total stations or both.

Infinitely bridging the field to the office

Leica Infinity imports and combines data from your GNSS, total station and level instruments for one final and accurate result. Processing has never been made easier when all your instruments work in tandem to produce precise and actionable information.

ACC»

Customer care only a click away

Through Active Customer Care (ACC), a global network of experienced professionals is only a click away to expertly guide you through any problem. Eliminate delays with superior technical service, finish jobs faster with excellent consultancy support, and avoid costly site revisits with online service to send and receive data directly from the field. Control your costs with a tailored Customer Care Package, giving you peace of mind you're covered anywhere, anytime.

Leica Viva GS15

GNSS TECHNOLOGY		
Self-learning GNSS	Leica RTKplus SmartLink (worldwide correction service) SmartLink fill (worldwide correction service)	Adaptive on-the-fly satellite selection Remote precise point positioning (3 cm 2D)[1] Initial convergance to full accuracy 20 - 40 min, Re-convergance < 1 min Bridging of RTK outages up to 10 min (3 cm 2D)[1]
Leica SmartCheck	Continuous check of RTK solution	Reliability 99.99%
Signal tracking		GPS (L1, L2, L2C, L5), Glonass (L1, L2, L3[2]), BeiDou (B1, B2, B3[2]), Galileo (E1, E5a, E5b, Alt-BOC, E6[2]), QZSS[3], NavIC L5[3], SBAS (WAAS, EGNOS, MSAS, GAGAN), L-band
Number of channels		555 (more signals, fast acquisition, high sensitivity)
MEASUREMENT PERFORMANCE & ACCURACY[1]		
Time for initialization		Typically 4 s
Real-time kinematic (Compliant to ISO17123-8 standard)	Single baseline Network RTK	Hz 8 mm + 1 ppm / V 15 mm + 1 ppm Hz 8 mm + 0.5 ppm / V 15 mm + 0.5 ppm
Post processing	Static (phase) with long observations Static and rapid static (phase)	Hz 3 mm + 0.1 ppm / V 3.5 mm + 0.4 ppm Hz 3 mm + 0.5 ppm / V 5 mm + 0.5 ppm
Code differential	DGPS / RTCM	Typically 25 cm
COMMUNICATIONS		
Communication ports	Lemo Bluetooth®	USB and RS232 serial Bluetooth® v2.00 + EDR, class 2
Communication protocols	RTK data protocols NMEA output Network RTK	Leica, Leica 4G, CMR, CMR+, RTCM 2.2, 2.3, 3.0, 3.1, 3.2 MSM NMEA 0183 V 4.00 and Leica proprietary VRS, FKP, iMAX, MAC (RTCM SC 104)
Built-in data links	3.5G phone modem Radio modem	Fully integrated, internal or external antenna Fully integrated, receive and transmit, internal or external antenna 403 - 470 MHz, 1 W output power, up to 28800 bps over air
External data links		GSM / GPRS / UMTS / CDMA and UHF / VHF modem
GENERAL		
Field controller and software	Leica Captivate software Leica SmartWorx Viva software	Leica CS20 field controller, Leica CS35 tablet Leica CS10 and CS15 field controller
User interface	Buttons and LEDs Web server	On / Off and Function button, 8 status LEDs Full status information and configuration options
Data recording	Storage Data type and recording rate	Removable SD card, 8 GB Leica GNSS raw data and RINEX data up to 20 Hz
Power management	Internal power supply External power supply Operation time[4]	2 exchangeable Li-Ion batteries (2.6 Ah / 7.4 V) Nominal 12 V DC, range 10.5 - 28 V DC 10 h receiving (Rx) data with internal radio, 9 h transmitting (Tx) data with internal radio, 7.5 h Rx / Tx data with internal phone modem
Weight and Dimensions	Weight Diameter x Height	1.34 kg (GS15) / 3.30 kg standard RTK rover setup on pole 196 mm x 198 mm
Environmental	Temperature Drop Proof against water, sand and dust Vibration Humidity Functional shock	-40 to 65°C operating, -40 to 80°C storage Withstands topple over from a 2 m survey pole onto hard surfaces IP68 (IEC60529 / MIL STD 810G 506.5 I / MIL STD 810G 510.5 I / MIL STD 810G 512.5 I) Withstands strong vibration (ISO9022-36-08 / MIL STD 810G 514.6 Cat.24) 100% (ISO9022-13-06 / ISO9022-12-04 / MIL STD 810G 507.5 I) 40 g / 15 to 23 msec (MIL STD 810G 516.6 I)

LEICA VIVA GS15 - GNSS SMART ANTENNA	Basic	Performance	Unlimited
SUPPORTED GNSS SYSTEMS			
Multi-frequency	•	✔	✔
GPS / GLONASS / Galileo / BeiDou	✔ / • / • / •	✔ / • / •/ •	✔ / ✔ / ✔ / ✔
RTK PERFORMANCE			
DGPS / RTCM, RTK Unlimited, Network RTK	•	✔	✔
SmartLink fill / SmartLink	• / •	• / •	✔ / •
POSITION UPDATE & DATA RECORDING			
5 Hz / 20 Hz positioning	✔ / •	✔ / ✔	✔ / ✔
Raw data / RINEX data logging / NMEA out	✔ / • / •	✔ / • / •	✔ / ✔ / ✔
ADDITIONAL FEATURES			
RTK reference station functionality	•	✔	✔

✔ Standard • Optional

[1] Measurement precision, accuracy, reliability and time for initialization are dependent upon various factors including number of satellites, observation time, atmospheric conditions, multipath etc. Figures quoted assume normal to favorable conditions. A full BeiDou and Galileo constellation will further increase measurement performance and accuracy.

[2] Believe to comply, but subject to availability of BeiDou ICD and Galileo commercial service definition. Glonass L3, BeiDou B3 and Galileo E6 will be provided through future firmware upgrade.

[3] Support of QZSS / NavIC L5 is incorporated and will be provided through future firmware upgrade.

[4] Might vary with temperature, age of battery, transmit power of data link device.

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Leica Viva GS10
Data sheet

Engaging software

The Leica Viva GNSS GS10 receiver is accompanied with the revolutionary Captivate software, turning complex data into the most realistic and workable 3D models. With easy-to-use apps and familiar touch technology, all forms of measured and design data can be viewed in all dimensions. Leica Captivate spans industries and applications with little more than a simple swipe, regardless of whether you work with GNSS, total stations or both.

Infinitely bridging the field to the office

Leica Infinity imports and combines data from your GNSS, total station and level instruments for one final and accurate result. Processing has never been made easier when all your instruments work in tandem to produce precise and actionable information.

ACC»

Customer care only a click away

Through Active Customer Care (ACC), a global network of experienced professionals is only a click away to expertly guide you through any problem. Eliminate delays with superior technical service, finish jobs faster with excellent consultancy support, and avoid costly site revisits with online service to send and receive data directly from the field. Control your costs with a tailored Customer Care Package, giving you peace of mind you're covered anywhere, anytime.

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Leica Viva GS10

GNSS TECHNOLOGY		
Self-learning GNSS	Leica RTKplus SmartLink (worldwide correction service) SmartLink fill (worldwide correction service)	Adaptive on-the-fly satellite selection Remote precise point positioning (3 cm 2D)[1] Initial convergance to full accuracy 20 - 40 min, Re-convergance < 1 min Bridging of RTK outages up to 10 min (3 cm 2D)[1]
Leica SmartCheck	Continuous check of RTK solution	Reliability 99.99%
Signal tracking		GPS (L1, L2, L2C, L5), Glonass (L1, L2, L3[2]), BeiDou (B1, B2, B3[2]), Galileo (E1, E5a, E5b, Alt-BOC, E6[2]), QZSS[3], NavIC L5[3], SBAS (WAAS, EGNOS, MSAS, GAGAN), L-band
Number of channels		555 (more signals, fast acquisition, high sensitivity)
GNSS antenna	Standard or Choke-ring	Leica AS10 / AS05 or Leica AR10 / AR20 / AR25
MEASUREMENT PERFORMANCE & ACCURACY[1]		
Time for initialization		Typically 4 s
Real-time kinematic (Compliant to ISO17123-8 standard)	Single baseline Network RTK	Hz 8 mm + 1 ppm / V 15 mm + 1 ppm Hz 8 mm + 0.5 ppm / V 15 mm + 0.5 ppm
Post processing	Static (phase) with long observations Static and rapid static (phase)	Hz 3 mm + 0.1 ppm / V 3.5 mm + 0.4 ppm Hz 3 mm + 0.5 ppm / V 5 mm + 0.5 ppm
Code differential	DGPS / RTCM	Typically 25 cm
COMMUNICATIONS		
Communication ports	Lemo Bluetooth®	1 x USB and 2 x RS232 serial and Power Bluetooth® v2.00 + EDR, class 2
Communication protocols	RTK data protocols NMEA output Network RTK	Leica, Leica 4G, CMR, CMR+, RTCM 2.2, 2.3, 3.0, 3.1, 3.2 MSM NMEA 0183 V 4.00 and Leica proprietary VRS, FKP, iMAX, MAC (RTCM SC 104)
External data links	Up to 3 simultaneously	GSM / GPRS / UMTS / CDMA / VHF / UHF (up to 28800 bps over air) modem Phone / Radio modem in Leica GFU housing (IP67)
GENERAL		
Field controller and software	Leica Captivate software Leica SmartWorx Viva software	Leica CS20 field controller, Leica CS35 tablet Leica CS10 and CS15 field controller
User interface	Buttons and LEDs Web server	On / Off and Function button, 8 status LEDs Full status information and configuration options
Data recording	Storage Data type and recording rate	Removable SD card, 8 GB Leica GNSS raw data and RINEX data up to 20 Hz
Power management	Internal power supply External power supply Operation time[4]	2 exchangeable Li-Ion batteries (6 Ah / 7.4 V) Nominal 12 V DC, range 10.5 - 28 V DC 15h receiving (Rx) data with UHF radio, 13 h transmitting data with UHF radio (1W), 14 h Rx / Tx data with phone modem
Weight and Dimensions	Weight Dimensions	1.20 kg (GS10) / 5.40 kg standard RTK rover setup using pole and backpack 212 mm x 166 mm x 79 mm
Environmental	Temperature Drop Proof against water, sand and dust Vibration Humidity Functional shock	-40 to 65°C operating, -40 to 80°C storage Withstands topple over from a 2 m survey pole onto hard surfaces IP68 (IEC60529 / MIL STD 810G 506.5 I / MIL STD 810G 510.5 I / MIL STD 810G 512.5 I) Withstands strong vibration (ISO9022-36-08 / MIL STD 810G 514.6 Cat.24) 100% (ISO9022-13-06 / ISO9022-12-04 / MIL STD 810G 507.5 I) 40 g / 15 to 23 msec (MIL STD 810G 516.6 I)

LEICA VIVA GS10 - GNSS RECEIVER	Basic	Performance	Unlimited
SUPPORTED GNSS SYSTEMS			
Multi-frequency	•	✔	✔
GPS / GLONASS / Galileo / BeiDou	✔ / • / • / •	✔ / • / • / •	✔ / ✔ / ✔ / ✔
RTK PERFORMANCE			
DGPS / RTCM, RTK Unlimited, Network RTK	•	✔	✔
SmartLink fill / SmartLink	• / •	• / •	✔ / •
POSITION UPDATE & DATA RECORDING			
5 Hz / 20 Hz positioning	✔ / •	✔ / ✔	✔ / ✔
Raw data / RINEX data logging / NMEA out	✔ / • / •	✔ / • / •	✔ / ✔ / ✔
ADDITIONAL FEATURES			
RTK reference station functionality	•	✔	✔

✔ Standard • Optional

[1] Measurement precision, accuracy, reliability and time for initialization are dependent upon various factors including number of satellites, observation time, atmospheric conditions, multipath etc. Figures quoted assume normal to favorable conditions. A full BeiDou and Galileo constellation will further increase measurement performance and accuracy.

[2] Believe to comply, but subject to availability of BeiDou ICD and Galileo commercial service definition. Glonass L3, BeiDou B3 and Galileo E6 will be provided through future firmware upgrade.

[3] Support of QZSS / NavIC L5 is incorporated and will be provided through future firmware upgrade.

[4] Might vary with temperature, age of battery, transmit power of data link device.

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Leica Viva CS10 & CS15
Data sheet

Easy-to-use software

The CS10 and CS15 controllers are perfectly designed to be used with SmartWorx Viva surveying software. With clear graphics, practical menu structures, understandable terminology and simplified workflows, save time and effort on any site. SmartWorx Viva is incredibly easy to learn and use. You and your field crew will be up to speed in no time.

Flexible communication & data handling

Stay connected with a wide range of communication and data storage options. With fully integrated wireless Intenna technology (Bluetooth®, GSM/UMTS 3.5G), a choice of two connector modules and data storage using an SD card or USB memory stick, your CS10 and CS15 are ready for all challenges on site and in the office.

ACC»

Customer care only a click away

Through Active Customer Care (ACC), a global network of experienced professionals is only a click away to expertly guide you through any challenge. Eliminate delays with superior technical service, finish jobs faster and avoid costly site revisits with excellent consultancy support. Control your costs with a tailored Customer Care Package (CCP), giving you peace of mind you are covered anywhere, anytime.

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Leica Viva CS10 & CS15

CS15 AND CS10 HARDWARE SPECIFICATIONS		CS10	CS15
Ergonomic and cable-free handheld			
Operating System	Windows CE 6.0	✓	✓
Display	8.9 cm (3.5 in) 640 x 480 pixel (VGA) colour TFT, touch screen, sunlight-readable, LED backlight	Portrait	Landscape
I/O	SD slot (SDIO), 5-pin custom connector (USB) RS232 module: RS232, USB A Host, USB Mini AB OTG, 7-pin connector, Power Lemo module: Lemo (USB and serial), USB A Host, 7-pin connector, Power	✓ ○ ○	✓ ○ ○
Interface	Touch screen, Ergonomic cable-free Handheld with numeric/ alphanumeric keyboard, virtual keyboard	Numeric 26 keys	QWERTY 65 keys
Processor	Freescale i.MX31 533 MHz ARM Core	✓	✓
Memory	512 MB DDR SDRAM	✓	✓
Storage	1 GB (non-volatile NAND Flash)	✓	✓
Audio	Integrated sealed speaker and microphone Bluetooth® audio headset support	✓ ✓	✓ ✓
LEDs	Battery and Bluetooth® status LED	✓	✓
Wireless connectivity	Bluetooth® 2.0 Class 2 2.4 GHz total station radio Integrated GSM/UMTS 3.5G module with fully integrated internal antenna Wireless LAN 802.11b/g	✓ ✓ 	✓ ○ ✓ □
SOFTWARE			
Application Software	Viva Controller runs Leica SmartWorx Viva. In addition, a number of regional solutions are available. For more information on the field software that's best for you, contact your local Leica Geosystems authorised distribution partner.	✓	✓
Standard Software	Internet Explorer Mobile, File Explorer, Word Mobile, Microsoft Windows Media™ Player, Online Help	✓	✓
POWER MANAGEMENT			
Removable Battery	GEB212 (7.4 V / 2600 mAh Li-Ion rechargeable)	✓	✓
Battery Charging Time	2 hours	✓	✓
Power	Nominal 12 V DC Range 10.5 – 28 V DC	✓	✓
Operating Time	10 hours (depending on use of embedded devices)	✓	✓
DIMENSIONS AND WEIGHT			
Size	CS10: 200 mm / 102 mm / 45 mm (7.87 in / 4.01 in / 1.77 in) CS15: 245 mm / 125 mm / 45 mm (9.65 in / 4.92 in / 1.77 in)	✓	 ✓
Weight[1]	CS10: 0.54 kg (1.20 lbs) CS15: 0.68 kg (1.50 lbs)	✓	 ✓
ENVIRONMENTAL SPECIFICATIONS			
Operating / Storage temperature range	Operation: –30 to 60° C (–22 to 140° F), Storage: –40 to 80° C (–40 to 176° F)	✓	✓
Dust and Water / Humidity	IP67 (IEC 60529) / 100% non-condensing (MIL-STD-810F, Method 507.4-1)	✓	✓
Drop / Vibration	1.2 m (4 ft)[2] / MIL-STD-810F, Method 514.5 – Cat24	✓	✓
ACCESSORIES			
100 – 240 V AC power supply for all regions		✓	✓
Stylus		✓	✓
2 x anti-glare display foils		✓	✓
Documentation USB card		✓	✓
Docking station		○	○
12 V DC vehicle charger		○	○
Additional cables		○	○
Hand strap		○	○
Pole holder set		○	○
Soft bag		○	○

[1] Without battery 110 g
[2] Onto plywood over concrete

✓ = Standard
○ = Optional
□ = Country specific

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SATELLINE-EASy Pro

SATELLINE-EASy Pro is an IP67 (NEMA 6) classified UHF radio modem with a high power (up to 25 or 35 W) transmitter and wide 70 MHz tuning range. It is designed for easy mobile use in demanding field conditions. According to the IP67 standard, the casing and connectors of the SATELLINE-EASy Pro are waterproof and secured against dust.

In addition to the high output power and wide tuning range, the channel spacing is also selectable to be 12.5, 20 or 25 kHz. The SATELLINE-EASy Pro is equipped with a Liquid Crystal Display (LCD) and a keypad, used to indicate the current operating status, as well as for changing the operating channel and power level of the radio modem.

Setting up a local data transfer network is quick and cost effective with SATEL radio modems. The wireless network is independent and free of operator services. The cost of operation is either free of charge or fixed, depending on the frequency used. SATEL radio modems are type-approved in over 50 countries.

SATEL radio modems are always on line and provide reliable, real-time data communications over distances ranging from tens or hundreds of metres up to around 80 kilometres. Thanks to a store and forward function, any radio modem in a network can be used as a master station, substation and / or repeater.

SATEL radio modem networks are flexible, easy to expand and can cover a wide variety of solutions from simple point-to-point connections to large networks comprising hundreds of modems. Even for expanded networks, only one operating frequency is required.

SATEL, Meriniitynkatu 17 P.O.Box 142,
FI-24101 Salo, FINLAND
Tel. +358 2 777 7800
info@satel.com

SATEL

Mission-Critical Connectivity

Heavy-duty tool for outdoor use

SATELLINE-EASy Pro is an IP67 classified UHF radio modem with a high power (up to 25 or 35 W) transmitter, wide 70 MHz tuning range (403 ... 473 MHz) in one hardware and selectable channel spacing.

SATELLINE-EASy Pro is particularly well suited for mobile field applications (land surveying, for instance) under varying weather conditions. Due to the high transmitting power, connection distances more than 80 kilometres can be covered in favourable conditions.

With the Liquid Crystal Display (LCD) the user can monitor the current operating status (frequency, channel number) as well as condition (power level, voltage level, field strength) of the radio modem.

SATELLINE-EASy Pro is compatible with SATELLINE-EASy family products too.

Dependable data transfer
In the SATELLINE-EASy Pro the error rate is minimized by means of advance checking and correction of the data packets. In Forward Error Correction (FEC), the data packets are split in several blocks. The radio modem adds correction information inside the blocks during transmission.

In a SATELLINE-EASy Pro network, any substation can function as a repeater. In this operating mode (store and forward), the radio modem receives a message, buffers the received data, and transmits it further to another substation, using the same radio channel as in reception.

SATELLINE-EASy Pro features embedded Message Routing software, which takes care of routing messages across a radio modem network automatically after proper settings have been made. Communication is completely transparent, which makes Message Routing directly compatible with most user protocols.

Technical specifications SATELLINE-EASy Pro
SATELLINE-EASy Pro complies with the EN 300 113, EN 301 489-1, -5, EN 60950-1 and FCC Part 90 specifications.

SATELLINE-EASy Pro		
TRANSCEIVER		
Frequency	403…473 MHz	
Tuning Range	70 MHz	
Channel Width	12.5 / 20 / 25 kHz (Software selectable)	
Frequency Error Tolerance	< 1 kHz	
Type of Emission	F1D	
Communication Mode	Half-Duplex	
TRANSMITTER		
Carrier Power	10, 20, 25 or 35 W / 50 ohm (Default) 5, 10, 20 or 25 W / 50 ohm (Option *)	
Carrier Power Stability	(+ 2 dB / - 3 dB)	
TX Duty Cycle ** 35 W 10 W	100 % (22 °C / 35 °C) 40 % 20 min / 13 min no limit no limit / 50 min no limit	
RECEIVER		
Sensitivity	< -114 dBm (BER < 10 E-3) ***	
Co-channel Rejection	> -12 dB	
Adjacent Channel Selectivity	> 47 dB @ 12.5 kHz / > 52 dB @ 25 kHz	
Intermodulation Attenuation	> 60 dB	
Spurious Radiation	< 2 nW	
DATA MODEM		
Interface	RS-232	
Interface Connector	Waterproof IP67, 8-pin ODU	
Data Speed of Serial Interface	300 – 38400 bps	
Data Speed of Radio Interface	19200 bps (25 kHz)	9600 bps (12.5 / 20 kHz)
Data Format	Asynchronous RS-232	

GENERAL	
Input Voltage ****	+9 ... +16 Vdc
Operating voltage feeding	4-pin ODU MINI-Snap Size 1
Power Consumption (average)	1.8 W typical (Receive)
	120 W typical (Transmit 35W output power)
	100 W typical (Transmit 25W output power)
Temperature Range - Operating	-25 oC … +55 oC
	-40 oC … +75 oC (absolute minimum / maximum)
Temperature Range - Storage	-40 oC … +85 oC
Antenna Connector	TNC, 50 ohm, female
Construction	Aluminium Enclosure
Size H x W x D	189 x 138 x 71 mm (w. connectors)
Weight	1420 g
IP Classification	IP67 (NEMA 6)

* Limited output power is available as on order option.
** If high output power is used continuously or with a high duty cycle, the equipment generates excess heat. The output power is automatically decreased when necessary to prevent overheating. Typical operating times are shown in the chart with different output powers and duty cycles @ 22°C and 35°C.
*** Depends on receiver settings.
**** ≥ +12 Vdc @ 35 W output power

Values are subject to change without notice.

Distributor:

SATEL

Mission-Critical Connectivity

Canadian Manufacturer of Geophysical Instruments since 1976


IP Transmitters


IP Receivers


SCIP Tester


EM-IP Tx Controller


NordicEM24 EM Receiver


MPP Probe


Beep Mat


SSW System

Gallery

Beep Mat

Detect magnetic susceptibility and relative EM conductivity

One of the first innovative instruments developed and manufactured by Instrumentation GDD Inc. in 1976-80 and still use widely for prospecting and mineral exploration.

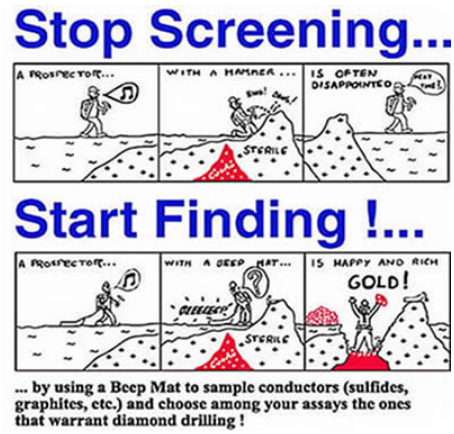
Buy or rent this Instrument

USING BM8 AS AN USB STICK TO SPEED UP THE DATA TRANSFER

Some of BM8 modules have an integrated USB stick. That USB stick doesn't replace the internal CF memory card, it serves to keep the same data and allows the instant access to the data file to improve the data transfer.

The Beep Mat is an efficient, user friendly, inexpensive electromagnetic survey. With the Beep mat, you can sample as many conductive outcrops and floats in one season as a mining company drills in many years of standard operation. With the standard approach, less than 1% of all drilled targets will warrant additional drilling. Thus, the use of the Beep Mat saves the cost of hundreds of sterile drill and is used to [illegible] targets that really deserve attention.

Identifying the position of the conductive and magnetic targets allow t[illegible] Subsequently, laboratory tests can determine whether the showings are [illegible] or whether they are sterile conductors such as gr[illegible]



Features

- EM/MAG ground survey
- Detect the magnetic susceptibility and relative EM conductivity along with GPS position (BM8 model nd BM8(Li-Ion))
- Detect conductive and magnetic outcrops or boulders hidden under up to 10 feet (3 meters) of overburden
- Map the geological potential of a promising horizon without having to remove the overburden (BM8 model and BM8(Li-Ion))
- Get fast result
- Shock resistant, portable and weatherproof
- Provide real time feedback
- Can be pulled by a man, a snowmobile or an ATV up to 25 km/h (BM8 model and BM8(Li-Ion))
- Applications: mining exploration, geological mapping, archeology, geotechnical investigation and other related fields

	Model BM4+	Model BM8	Model BM8 (Li-Ion)
SPECIFICATIONS – BEEP MAT			
Total weight	9 kg	10 kg	10 kg
Reading unit weight	1.9 kg	2.4 kg	1.6 kg
Daily autonomy		Up to 10 hours	
Total dimension		90 x 30 x 30 cm	
Operating temperature range		-50° C to +70° C (-58° F to +158° F)	
Battery	Two Panasonic 6V	4 Panasonic 6V	One internal Lithium-Ion
Sampling rate		Up to 10 times per second	
Memory	N/A	Enable to store up to 100 hours of field survey	
Data Transfer	N/A	Transfer from reading unit d… to draw maps	
GPS compatibility	N/A	Garmin, etc. RS-232 port on … once every second	

Buy or rent

- Buy | Rent this Instrument

Videos

- Beep Mat
- Beep Mat Probe Unit
- Prospecting with the Beep Mat

TEST

Testimonials

- Virginia Gold Mines
- Finland Case
- Peru Case
- Prospecting Turkey
- Noranda Letter
- Soquem, Canada

Manual

- Manual BM8 Lithium
- Manual BM4+

Flyers

- Flyer Beep Mat

Articles

- Is Prospecting Dead?
- Why Prospect with the Beep Mat
- Who Will Find the Next Voisey's ?
- How to Find a Mine Fast
- Stop Screening - Start Drilling!

Continuous improvement

A new version of the user interface is now available. With its increased memory and its new software, the BM8 model allows the storage of up to 100 hours of field survey.

In addition, in 2013, GDD introduced a new lithium-ion battery to lighten the unit.

Buy or rent this Instrument

Contact Us

@ Email Us

Marketing: gdd@gdd.ca

Support: support@gdd.ca

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Skype Us Toll Free* (International)

> Skype Direct to GDD Phone

Monday thru Friday. 9 AM to 5 PM.
(Eastern Time (EST)/New York)

Phone: +1(418) 877-4249

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Address

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Quebec (Qc) CANADA
G1X 4B7

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Appendix 5

CSRS-PPP 3.50.3 (2022-03-04)

1___1550.22o
1

Control Point 1 Final

Data Start	Data End	Duration of Observations
2022-06-04 15:33:00.00	2022-06-04 21:31:00.00	5:58:00
Processing Time		**Product Type**
14:33:45 UTC 2022/06/29		NRCan/IGS Final
Observations	**Frequency**	**Mode**
Phase and Code	Double	Static

Elevation Cut-Off	Rejected Epochs	Fixed Ambiguities	Estimation Steps
7.5 degrees	0.00 %	82.02 %	30.00 sec

Antenna Model	APC to ARP	ARP to Marker
LEIAS10	L1 = 0.058 m L2 = 0.056 m	H:1.115m / E:0.000m / N:0.000m

(APC = antenna phase center; ARP = antenna reference point)

Estimated Position for 1___1550.22o

	Latitude (+n)	Longitude (+e)	Ell. Height
NAD83(CSRS) (2010.0)†	46° 48' 5.19002"	-81° 42' 15.33963"	364.544 m
SIG_PPP(95%)‡	0.007 m	0.006 m	0.025 m
SIG_TOT(95%)‡	0.024 m	0.018 m	0.029 m
A priori*	46° 48' 5.22872"	-81° 42' 15.36340"	361.488 m
Estimated – A priori	-1.195 m	0.504 m	3.056 m

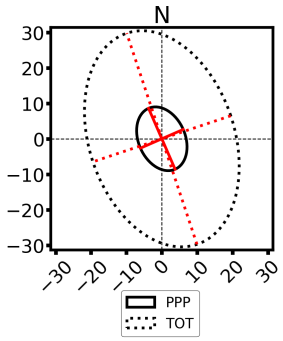
Orthometric Height
CGVD2013
(CGG2013a)
(2010.0)

400.118 m

(click for height reference information)

95% PPP Error Ellipse (mm)
semi-major: 9 mm
semi-minor: 7 mm
semi-major azimuth: -23° 25' 57.7"

95% TOT Error Ellipse (mm)
semi-major: 31 mm
semi-minor: 21 mm
semi-major azimuth: -18° 33' 35.12"



UTM (North)
Zone 17

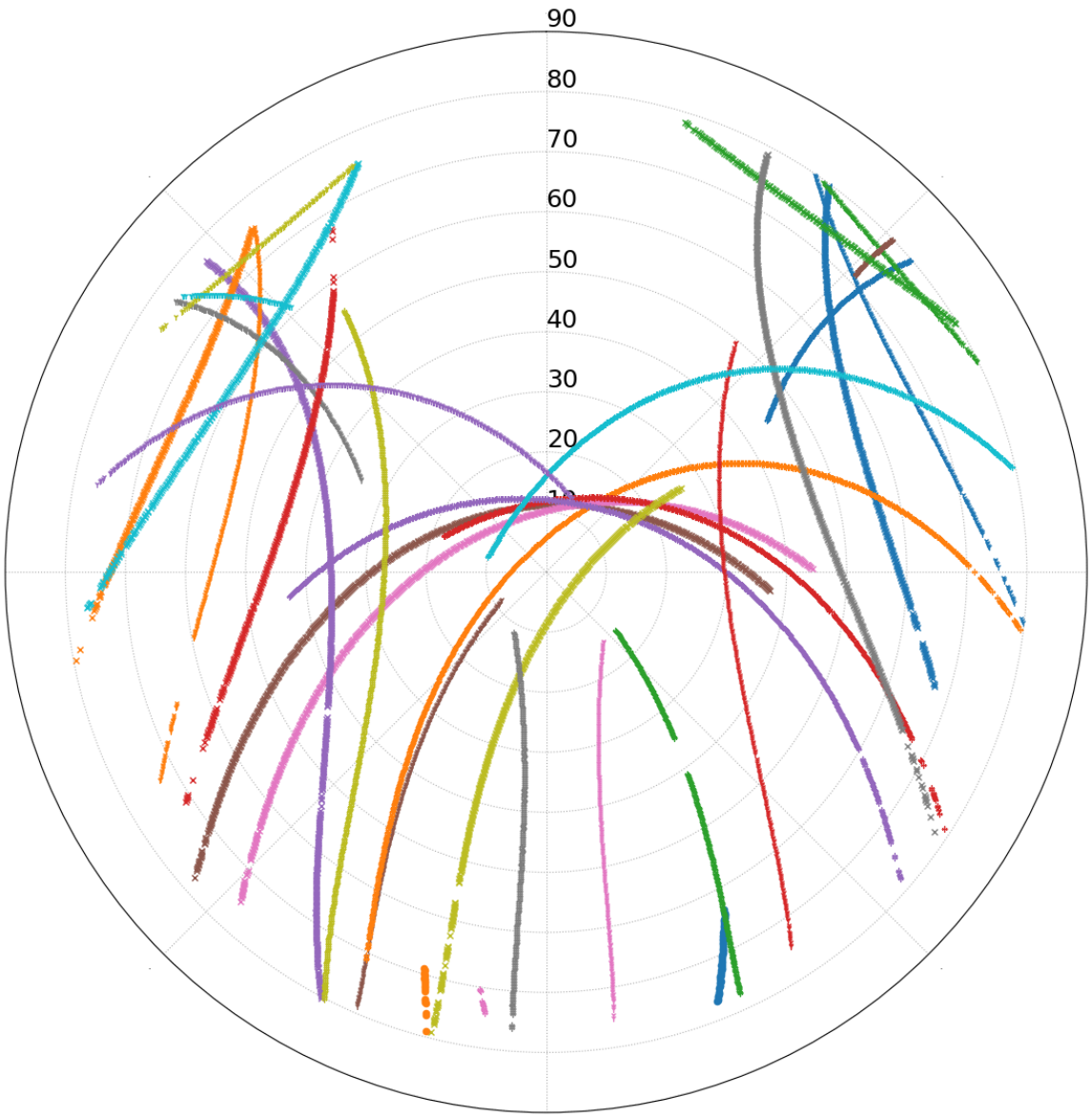
5183340.200 m (N)
446260.203 m (E)

Scale Factors
0.99963550 (point)
0.99957838 (combined)

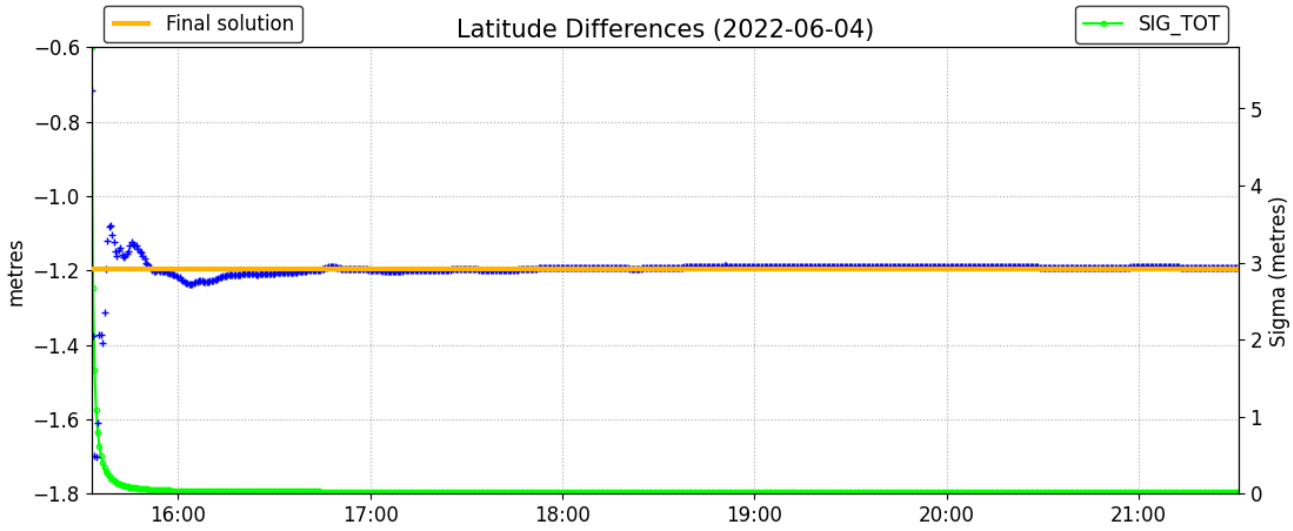
*(Coordinates from RINEX header used as a priori position)

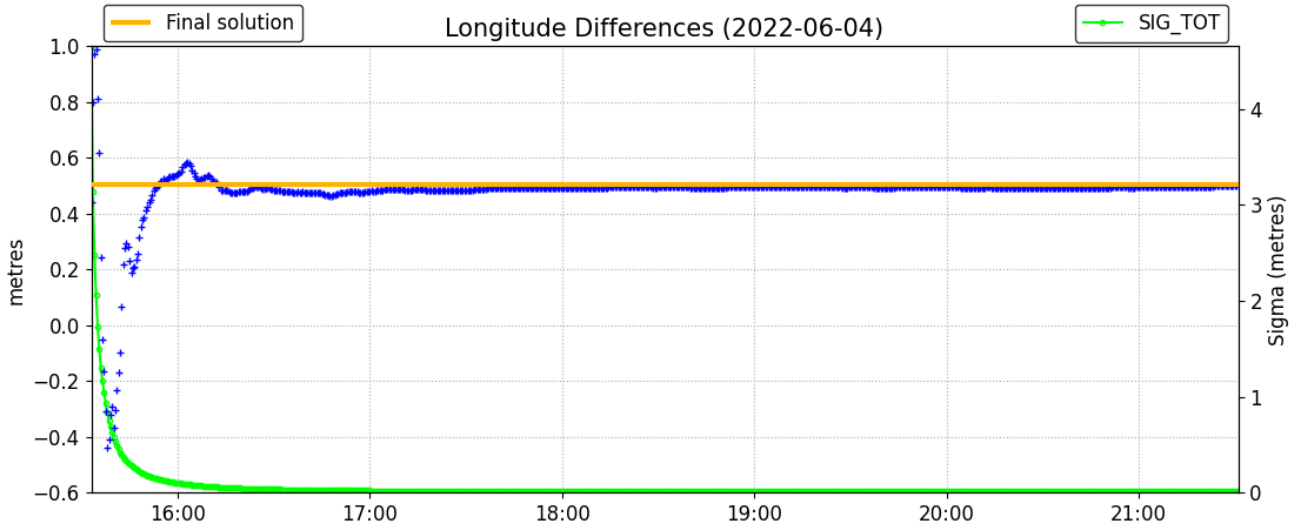
†(Epoch transformation using velocity grid NAD83v70VG (click for documentation))

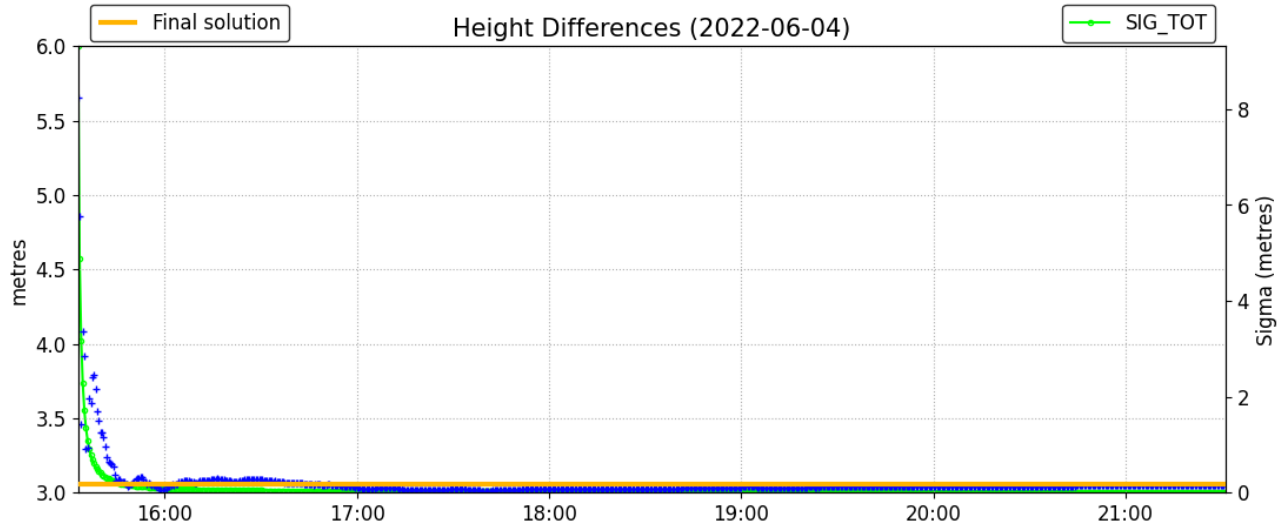
Satellite Sky Distribution

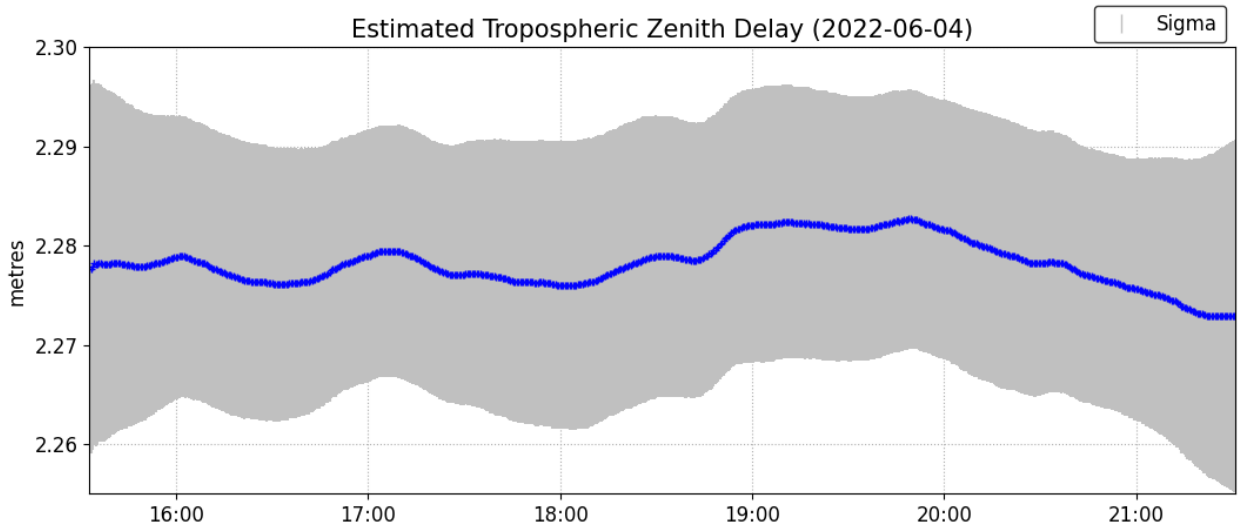


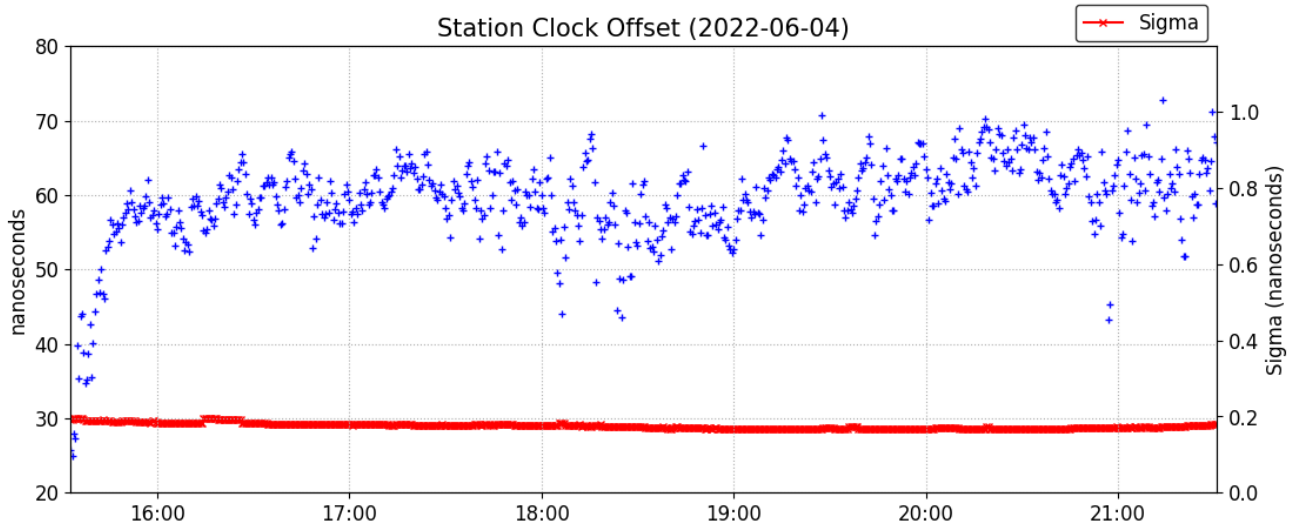
G01	G09	G19	G29	R07	R14
G02	G11	G20	G30	R08	R15
G03	G12	G21	R01	R11	R17
G04	G13	G24	R02	R12	R21
G05	G14	G25	R05	R13	R24
G06	G17				

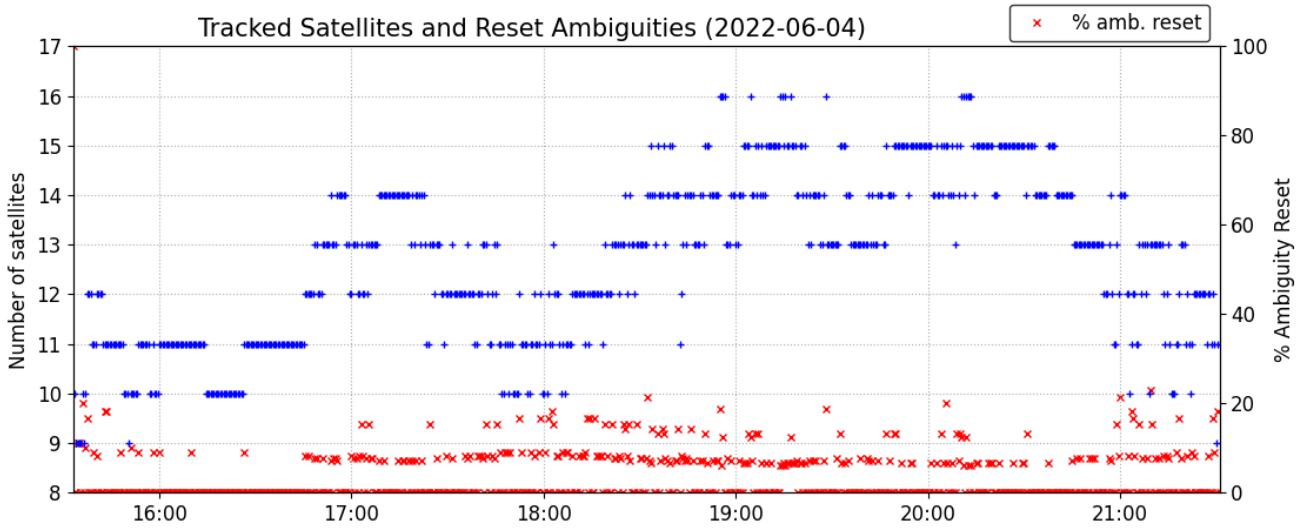

Final solution
Latitude Differences (2022-06-04)
SIG_TOT
metres
Sigma (metres)
−0.6
−0.8
−1.0
−1.2
−1.4
−1.6
−1.8
5
4
3
2
1
0
16:00
17:00
18:00
19:00
20:00
21:00

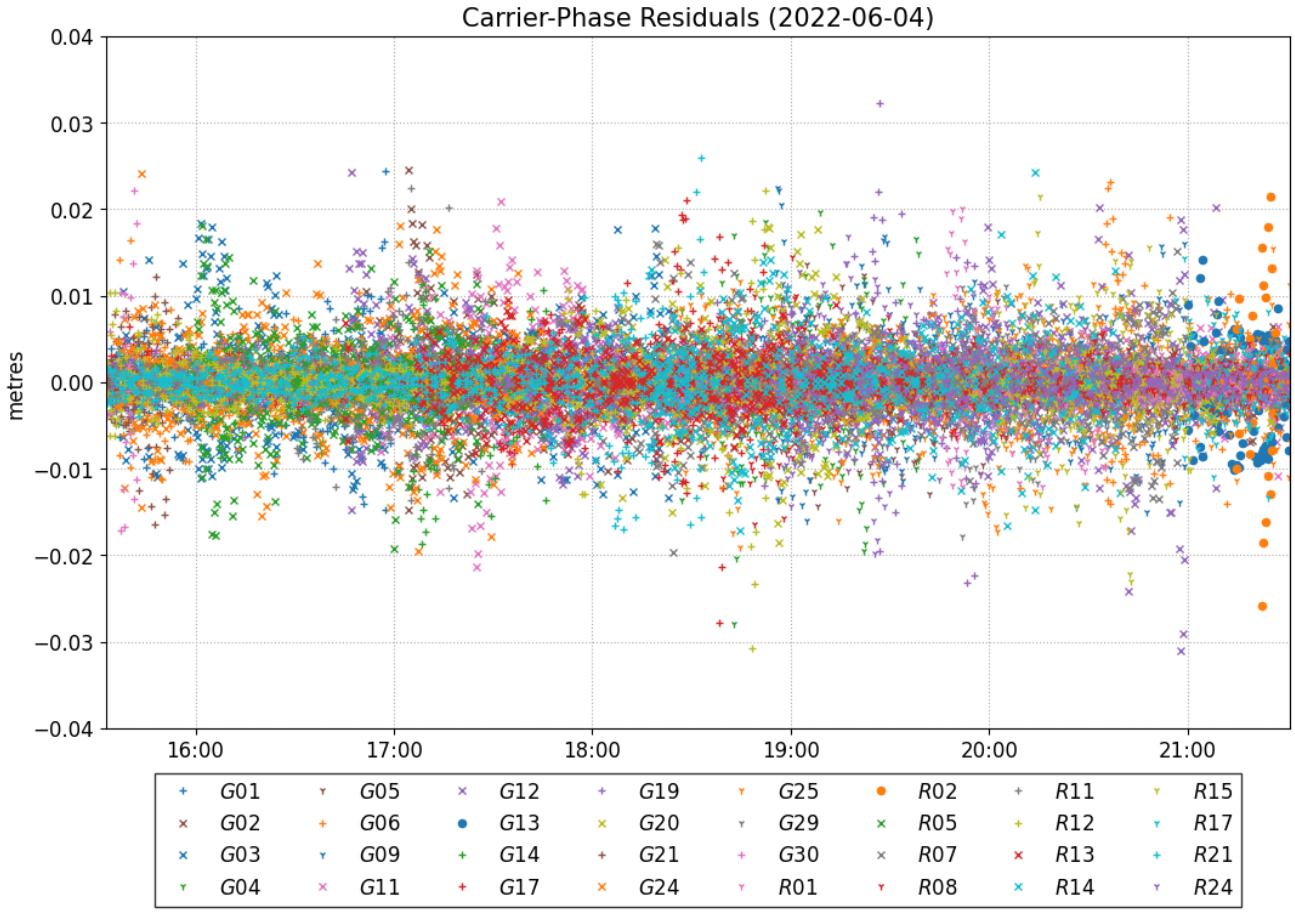

Final solution
Longitude Differences (2022-06-04)
SIG_TOT
metres
Sigma (metres)
1.0
0.8
0.6
0.4
0.2
0.0
−0.2
−0.4
−0.6
4
3
2
1
0
16:00
17:00
18:00
19:00
20:00
21:00

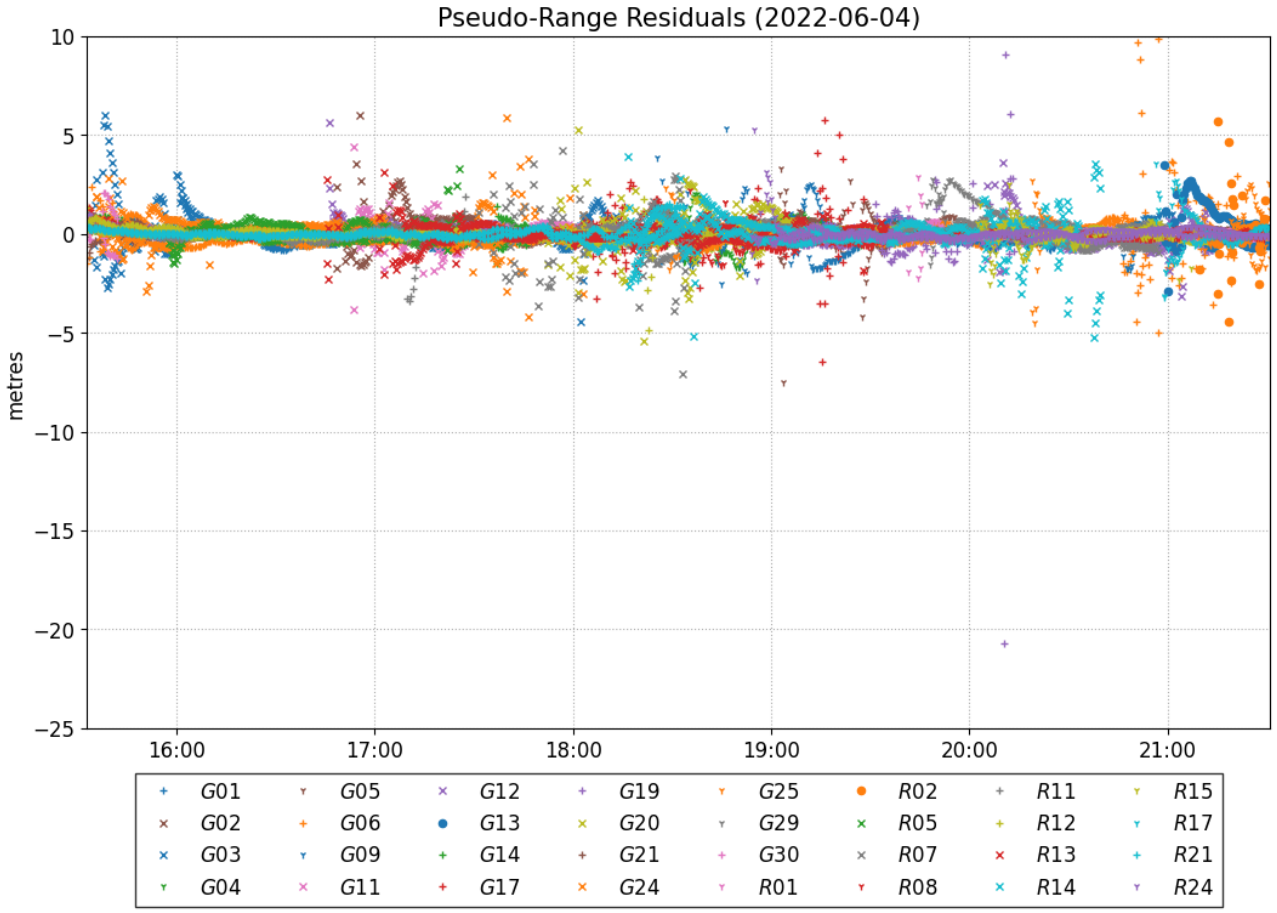

Final solution
Height Differences (2022-06-04)
SIG_TOT
metres
Sigma (metres)
6.0
5.5
5.0
4.5
4.0
3.5
3.0
8
6
4
2
0
16:00
17:00
18:00
19:00
20:00
21:00

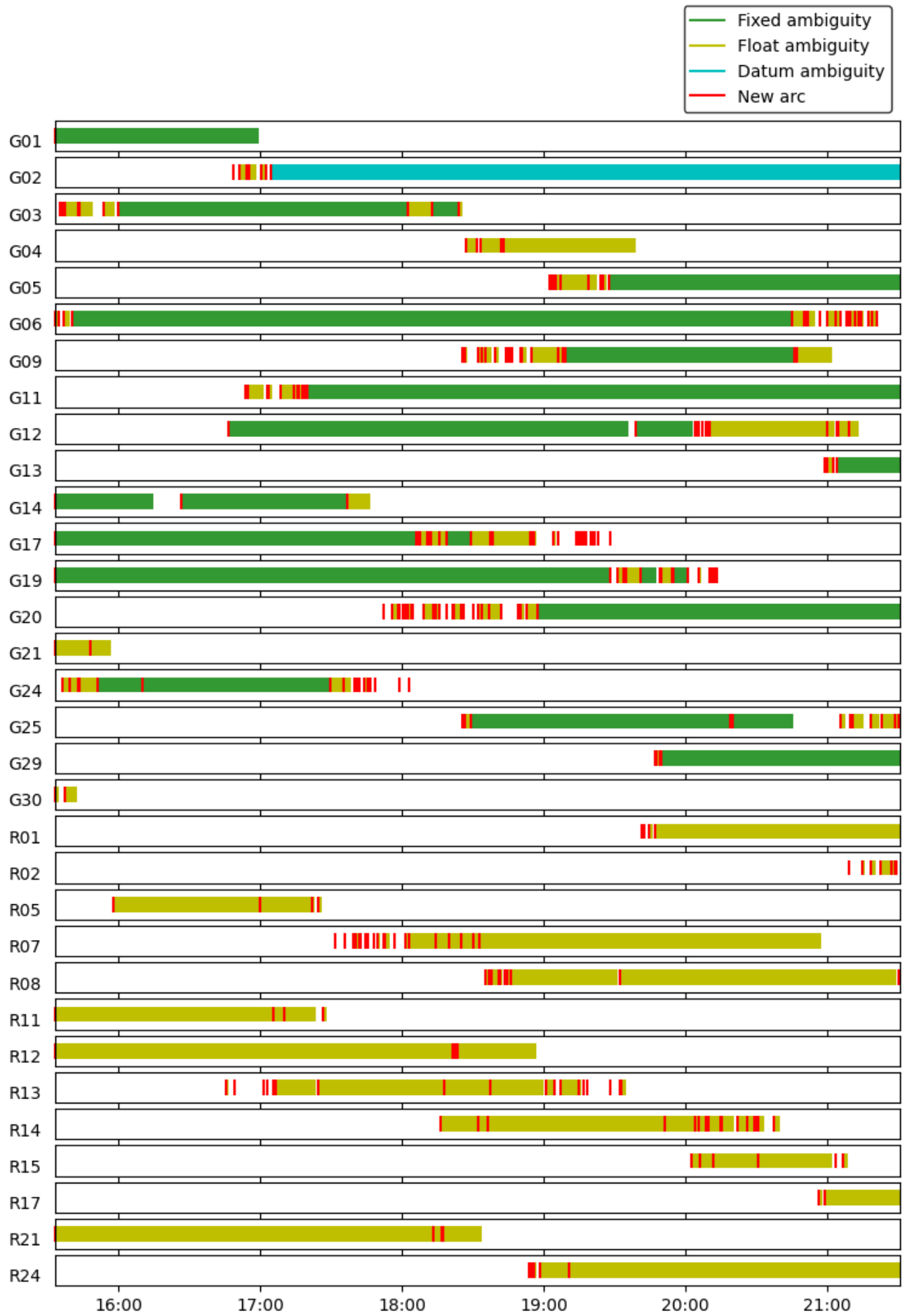

Estimated Tropospheric Zenith Delay (2022-06-04)
Sigma
metres
2.30
2.29
2.28
2.27
2.26
16:00
17:00
18:00
19:00
20:00
21:00


Station Clock Offset (2022-06-04)
Sigma
nanoseconds
Sigma (nanoseconds)
80
70
60
50
40
30
20
1.0
0.8
0.6
0.4
0.2
0.0
16:00
17:00
18:00
19:00
20:00
21:00


Tracked Satellites and Reset Ambiguities (2022-06-04)
% amb. reset
Number of satellites
% Ambiguity Reset
17
16
15
14
13
12
11
10
9
8
100
80
60
40
20
0
16:00
17:00
18:00
19:00
20:00
21:00


Carrier-Phase Residuals (2022-06-04)
metres
0.04
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−0.04
16:00
17:00
18:00
19:00
20:00
21:00
G01 G02 G03 G04 G05 G06 G09 G11 G12 G13 G14 G17 G19 G20 G21 G24 G25 G29 G30 R01 R02 R05 R07 R08 R11 R12 R13 R14 R15 R17 R21 R24


Pseudo-Range Residuals (2022-06-04)
metres
10
5
0
−5
−10
−15
−20
−25
16:00
17:00
18:00
19:00
20:00
21:00
G01 G02 G03 G04 G05 G06 G09 G11 G12 G13 G14 G17 G19 G20 G21 G24 G25 G29 G30 R01 R02 R05 R07 R08 R11 R12 R13 R14 R15 R17 R21 R24


Phase Ambiguity Status (2022-06-04)
Fixed ambiguity
Float ambiguity
Datum ambiguity
New arc
G01
G02
G03
G04
G05
G06
G09
G11
G12
G13
G14
G17
G19
G20
G21
G24
G25
G29
G30
R01
R02
R05
R07
R08
R11
R12
R13
R14
R15
R17
R21
R24
16:00
17:00
18:00
19:00
20:00
21:00

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Ottawa, Ontario K1A 0Y7
Phone: 343-292-6617
Email: geodeticinformation-informationgeodesique@nrcan-rncan.gc.ca

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Canada

CSRS-PPP 3.50.3 (2022-03-04)

2___1770.22o
2

Control Point 2 final

Data Start	Data End	Duration of Observations
2022-06-26 14:54:00.00	2022-06-26 23:25:00.00	8:31:00
Processing Time		**Product Type**
14:40:03 UTC 2022/06/29		NRCan Rapid
Observations	**Frequency**	**Mode**
Phase and Code	Double	Static

Elevation Cut-Off	Rejected Epochs	Fixed Ambiguities	Estimation Steps
7.5 degrees	0.20 %	79.30 %	30.00 sec

Antenna Model	APC to ARP	ARP to Marker
LEIAS10	L1 = 0.058 m L2 = 0.056 m	H:1.337m / E:0.000m / N:0.000m

(APC = antenna phase center; ARP = antenna reference point)

Estimated Position for 2___1770.22o

	Latitude (+n)	Longitude (+e)	Ell. Height
NAD83(CSRS) (2010.0)†	46° 48' 15.66057"	-81° 41' 13.72386"	383.584 m
SIG_PPP(95%)‡	0.007 m	0.005 m	0.026 m
SIG_TOT(95%)‡	0.024 m	0.017 m	0.031 m
A priori*	46° 48' 15.71071"	-81° 41' 13.74682"	382.829 m
Estimated – A priori	-1.548 m	0.487 m	0.756 m

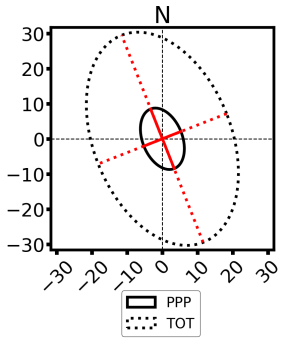
Orthometric Height
CGVD2013
(CGG2013a)
(2010.0)

419.150 m

(click for height reference information)

95% PPP Error Ellipse (mm)
semi-major: 9 mm
semi-minor: 6 mm
semi-major azimuth: -21° 25' 46.29"

95% TOT Error Ellipse (mm)
semi-major: 32 mm
semi-minor: 20 mm
semi-major azimuth: -21° 34' 26.95"



UTM (North)
Zone 17

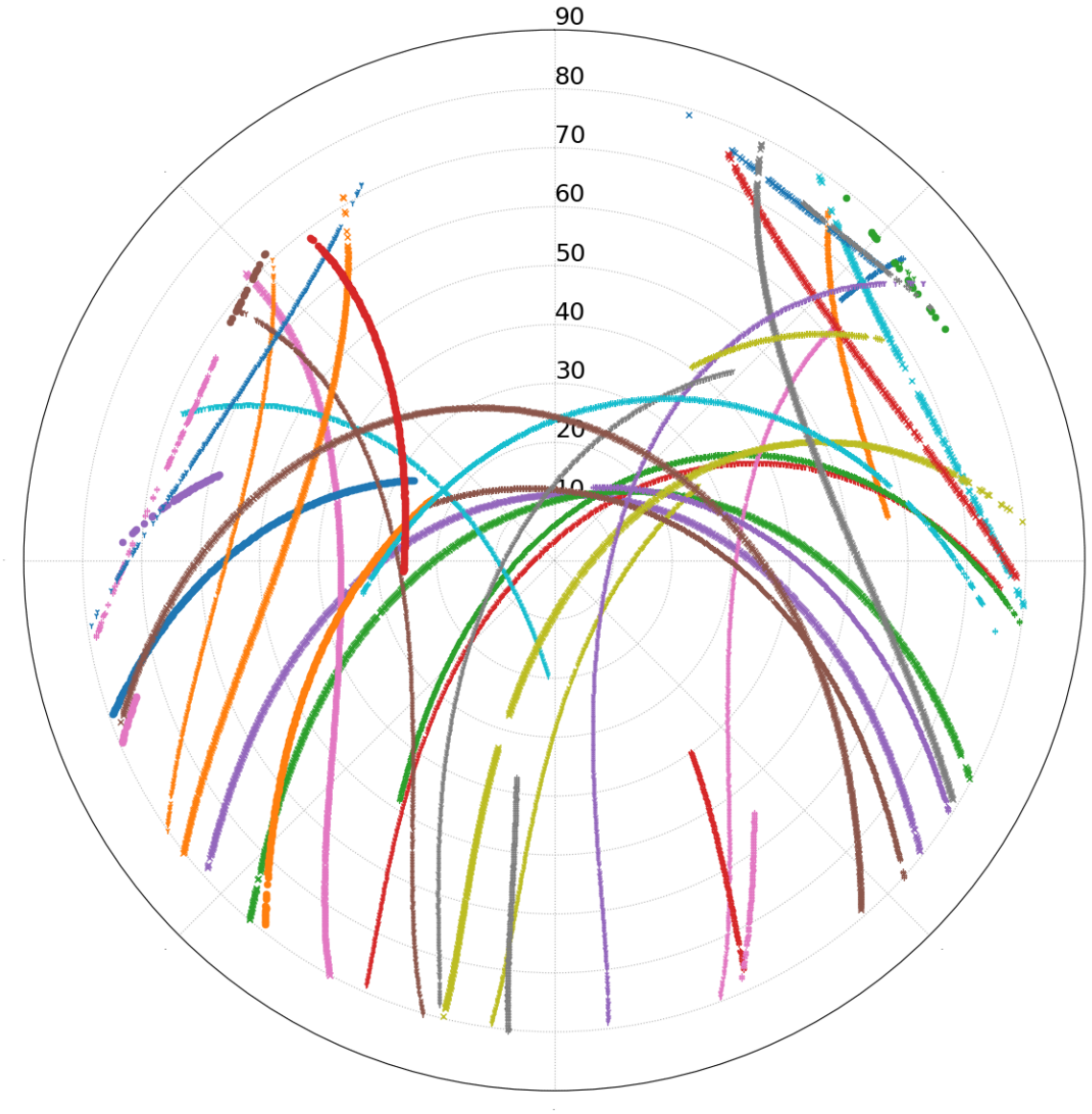
5183651.836 m (N)
447569.051 m (E)

Scale Factors
0.99963379 (point)
0.99957368 (combined)

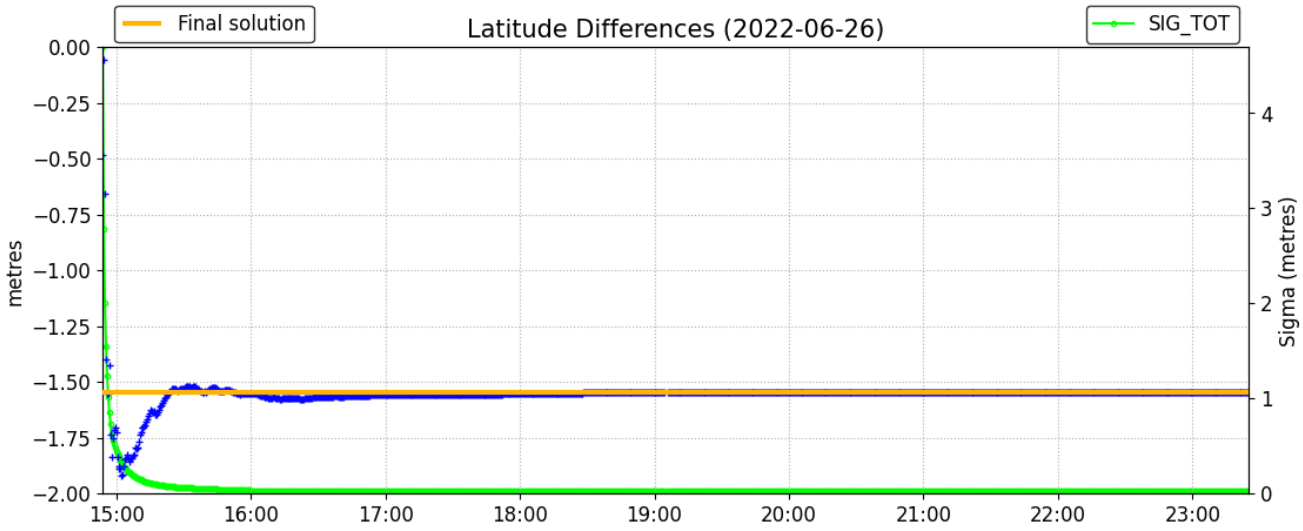
*(Coordinates from RINEX header used as a priori position)

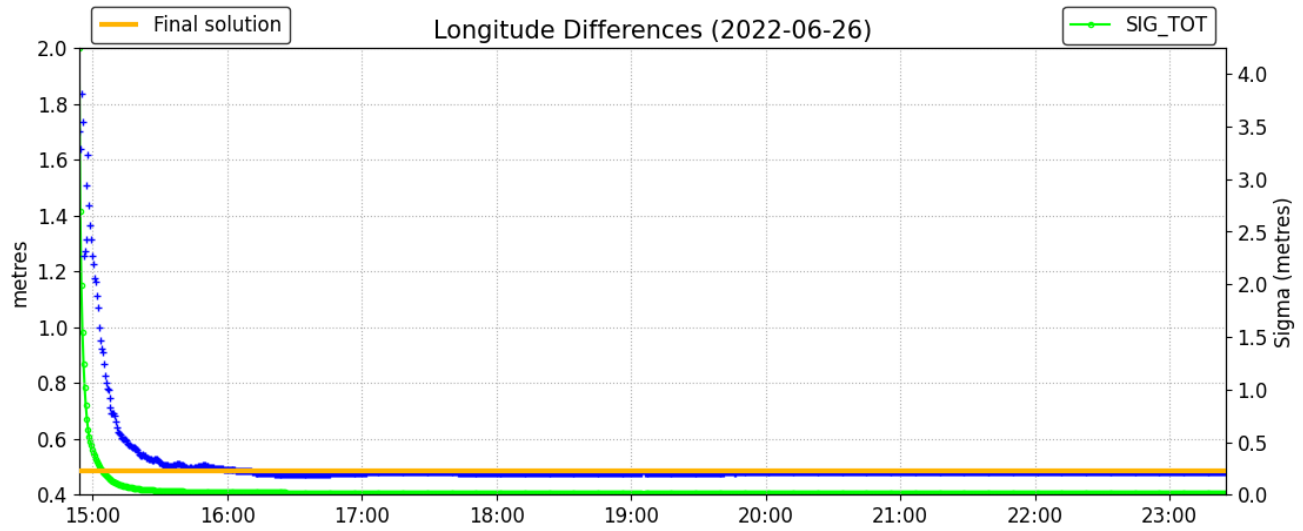
†(Epoch transformation using velocity grid NAD83v70VG (click for documentation))

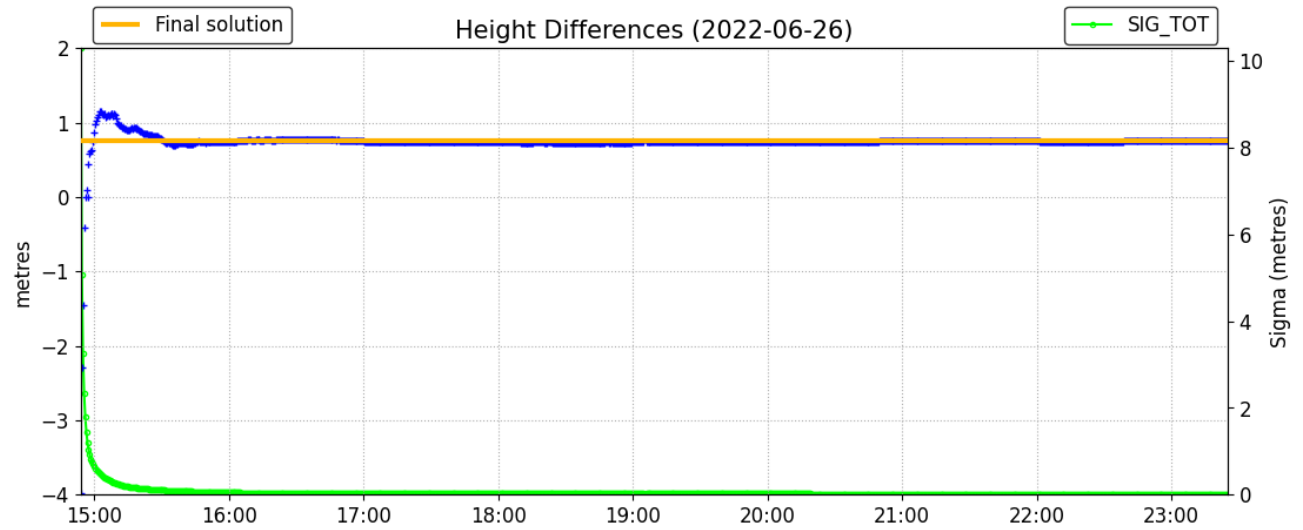
Satellite Sky Distribution

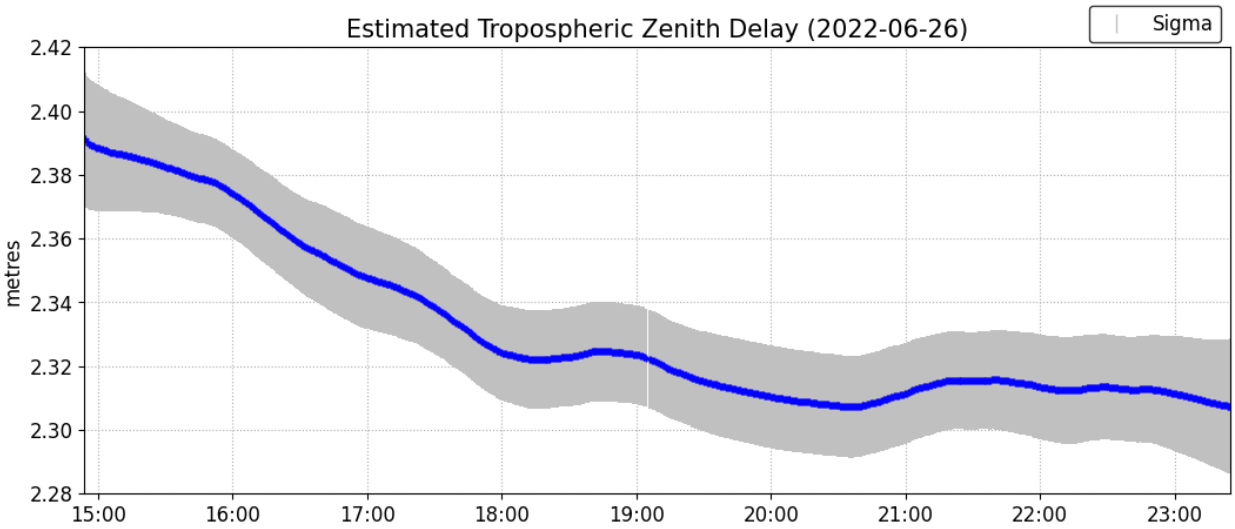


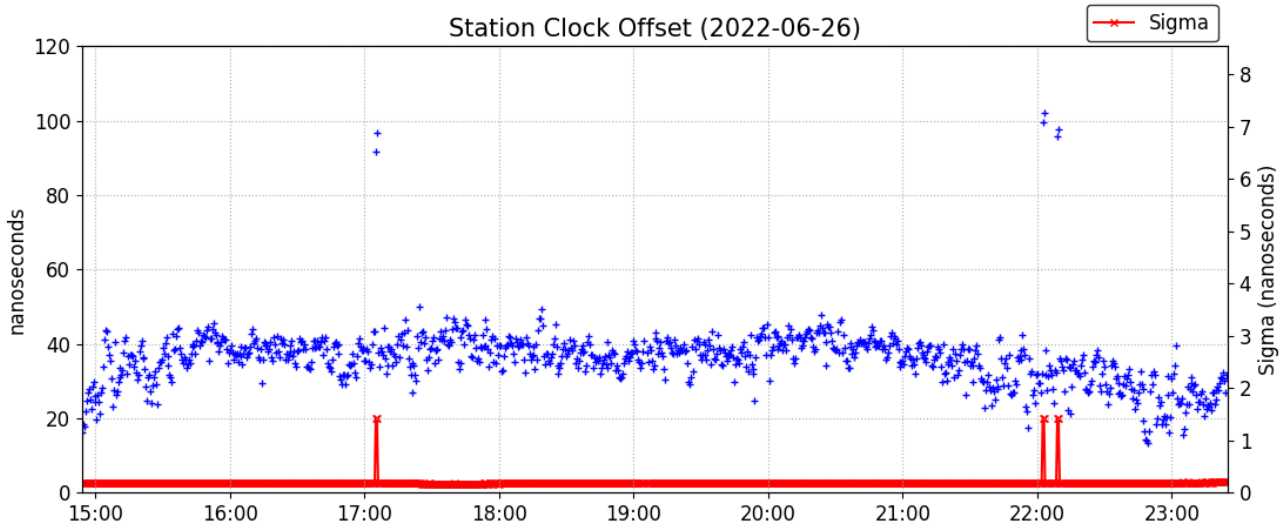
G01	G10	G17	G25	R03	R11
G02	G11	G18	G27	R04	R12
G03	G12	G19	G29	R05	R19
G04	G13	G20	G30	R07	R20
G05	G14	G23	R01	R08	R21
G06	G15	G24	R02	R09	R24
G09					

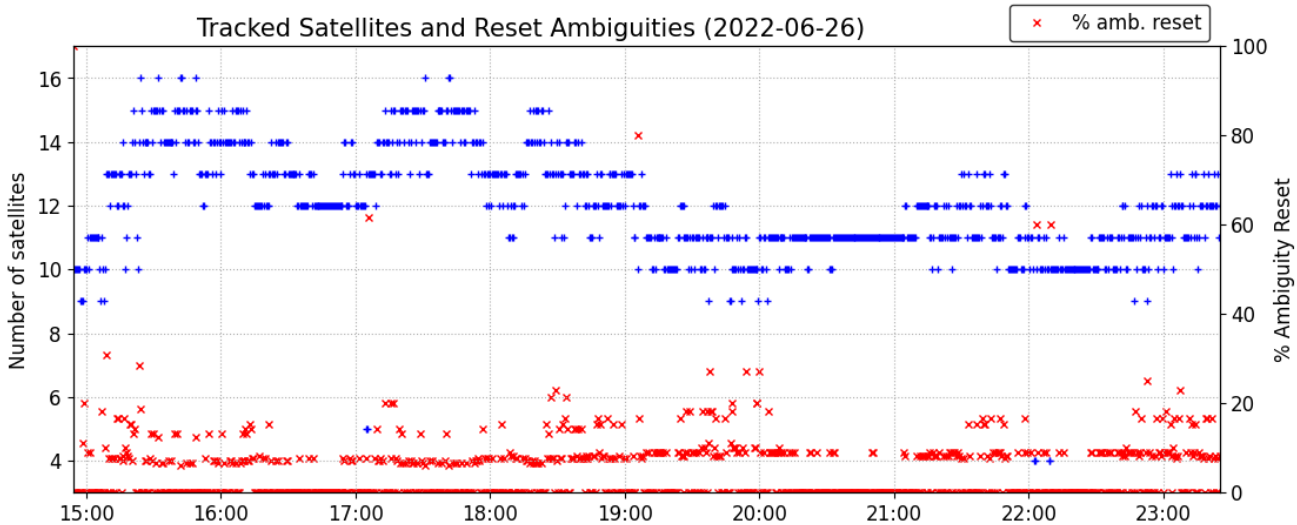

Final solution
Latitude Differences (2022-06-26)
SIG_TOT
metres
Sigma (metres)
0.00
−0.25
−0.50
−0.75
−1.00
−1.25
−1.50
−1.75
−2.00
4
3
2
1
0
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00

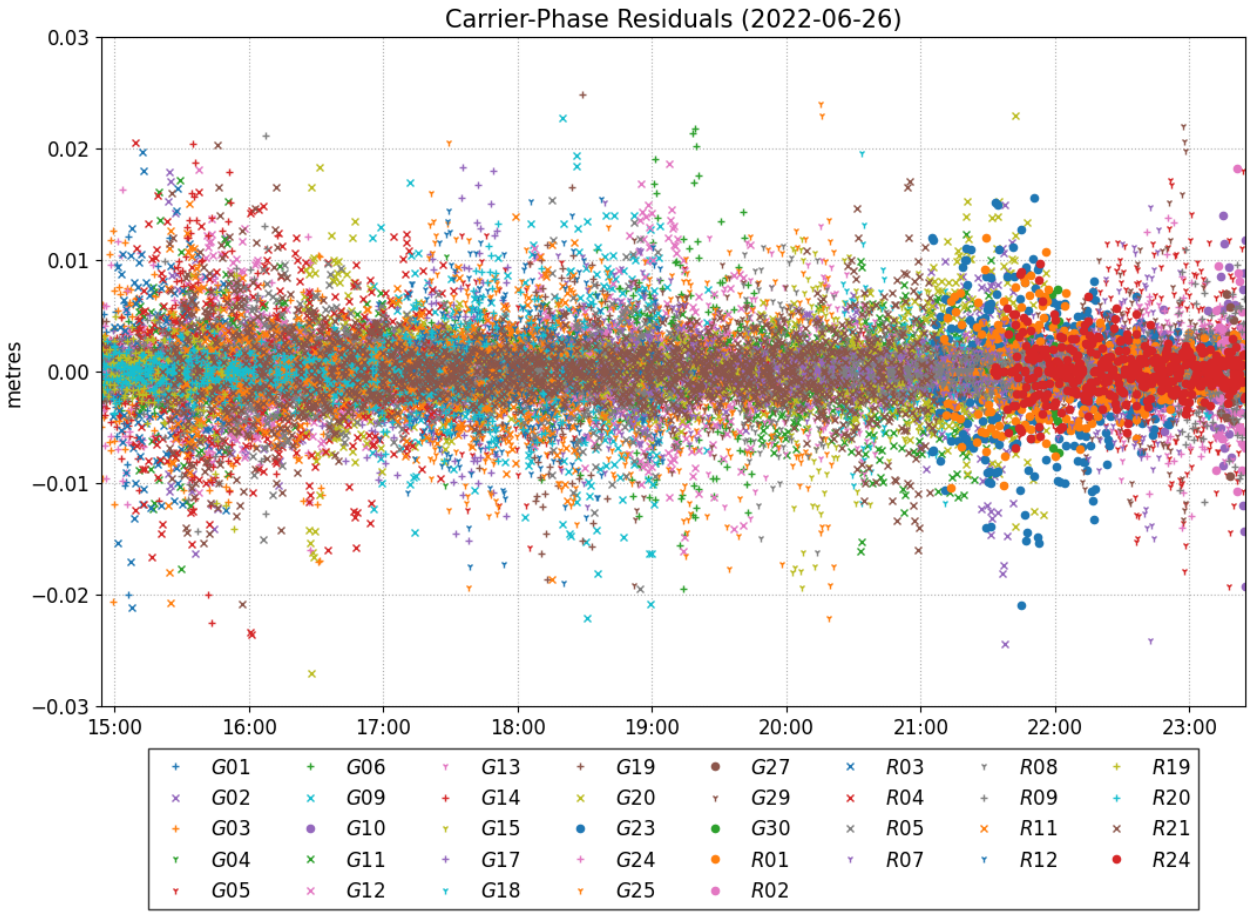

Final solution
Longitude Differences (2022-06-26)
SIG_TOT
metres
Sigma (metres)
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00

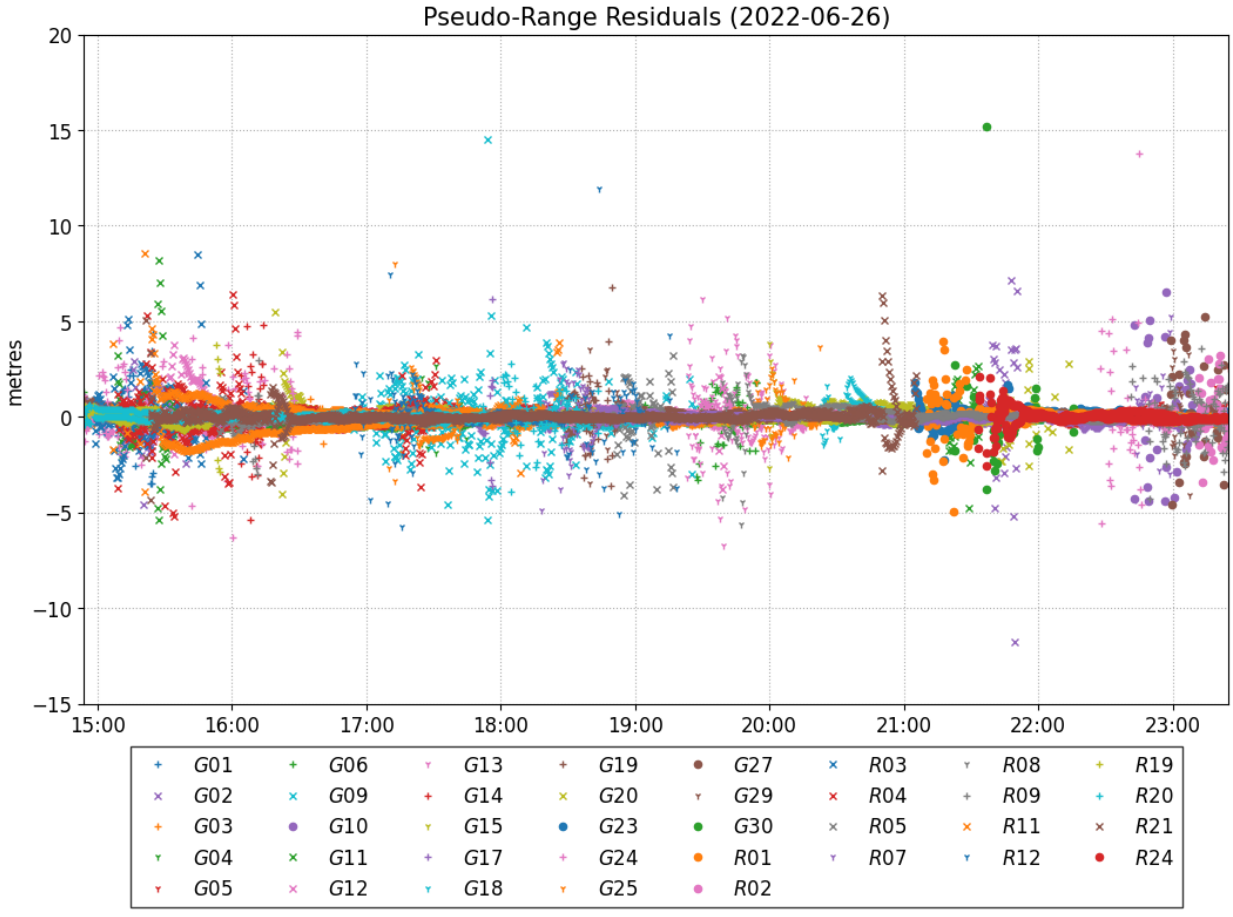

Final solution
Height Differences (2022-06-26)
SIG_TOT
metres
Sigma (metres)
2
1
0
−1
−2
−3
−4
10
8
6
4
2
0
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00

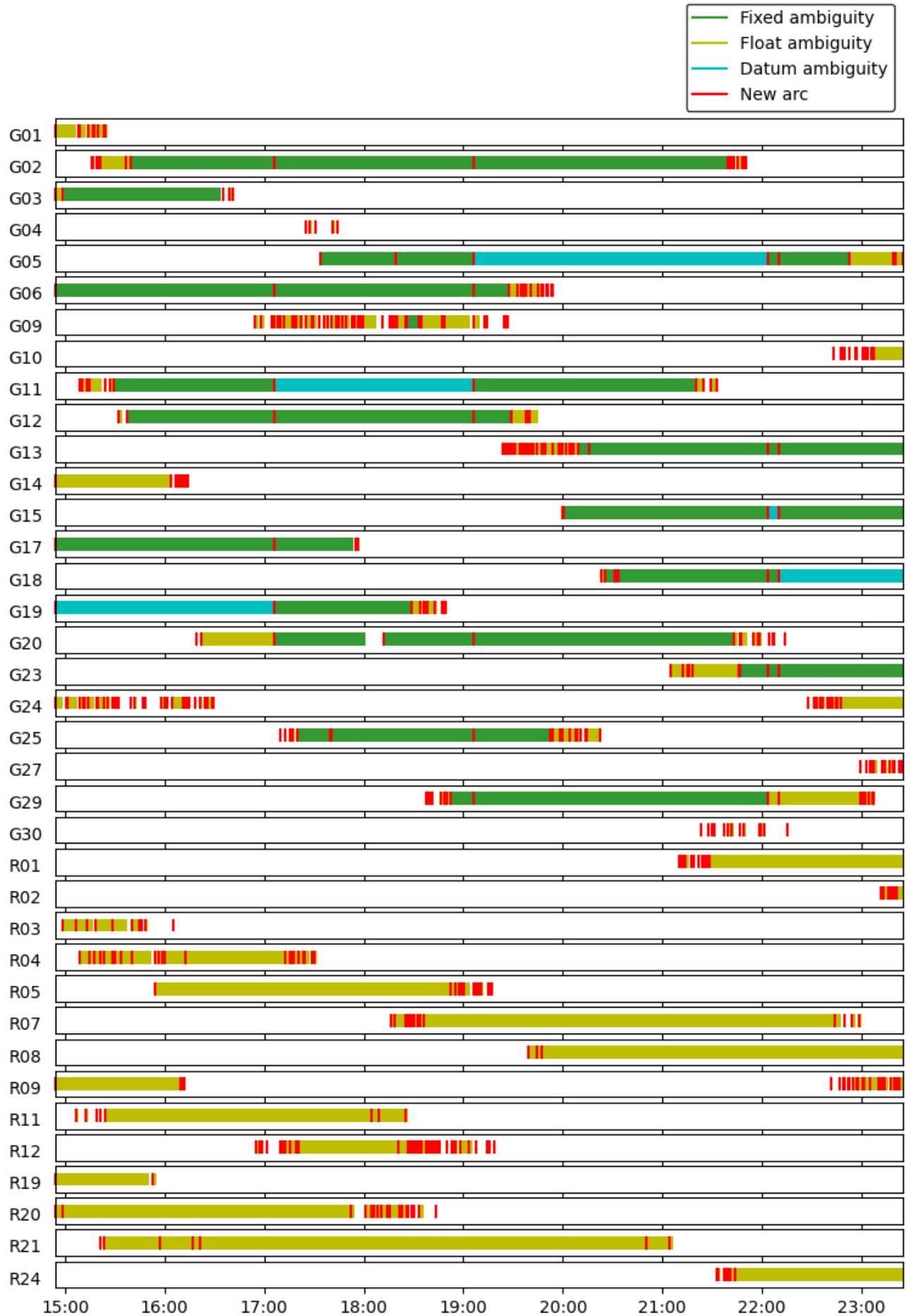

Estimated Tropospheric Zenith Delay (2022-06-26)
Sigma
metres
2.42
2.40
2.38
2.36
2.34
2.32
2.30
2.28
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00


Station Clock Offset (2022-06-26)
Sigma
nanoseconds
Sigma (nanoseconds)
120
100
80
60
40
20
0
8
7
6
5
4
3
2
1
0
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00


Tracked Satellites and Reset Ambiguities (2022-06-26)
% amb. reset
Number of satellites
% Ambiguity Reset
16
14
12
10
8
6
4
100
80
60
40
20
0
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00


Carrier-Phase Residuals (2022-06-26)
metres
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
G01 G02 G03 G04 G05 G06 G09 G10 G11 G12 G13 G14 G15 G17 G18 G19 G20 G23 G24 G25 G27 G29 G30 R01 R02 R03 R04 R05 R07 R08 R09 R11 R12 R19 R20 R21 R24


Pseudo-Range Residuals (2022-06-26)
metres
20
15
10
5
0
−5
−10
−15
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
G01 G02 G03 G04 G05 G06 G09 G10 G11 G12 G13 G14 G15 G17 G18 G19 G20 G23 G24 G25 G27 G29 G30 R01 R02 R03 R04 R05 R07 R08 R09 R11 R12 R19 R20 R21 R24


Phase Ambiguity Status (2022-06-26)
Fixed ambiguity
Float ambiguity
Datum ambiguity
New arc
G01
G02
G03
G04
G05
G06
G09
G10
G11
G12
G13
G14
G15
G17
G18
G19
G20
G23
G24
G25
G27
G29
G30
R01
R02
R03
R04
R05
R07
R08
R09
R11
R12
R19
R20
R21
R24
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00

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Ottawa, Ontario K1A 0Y7
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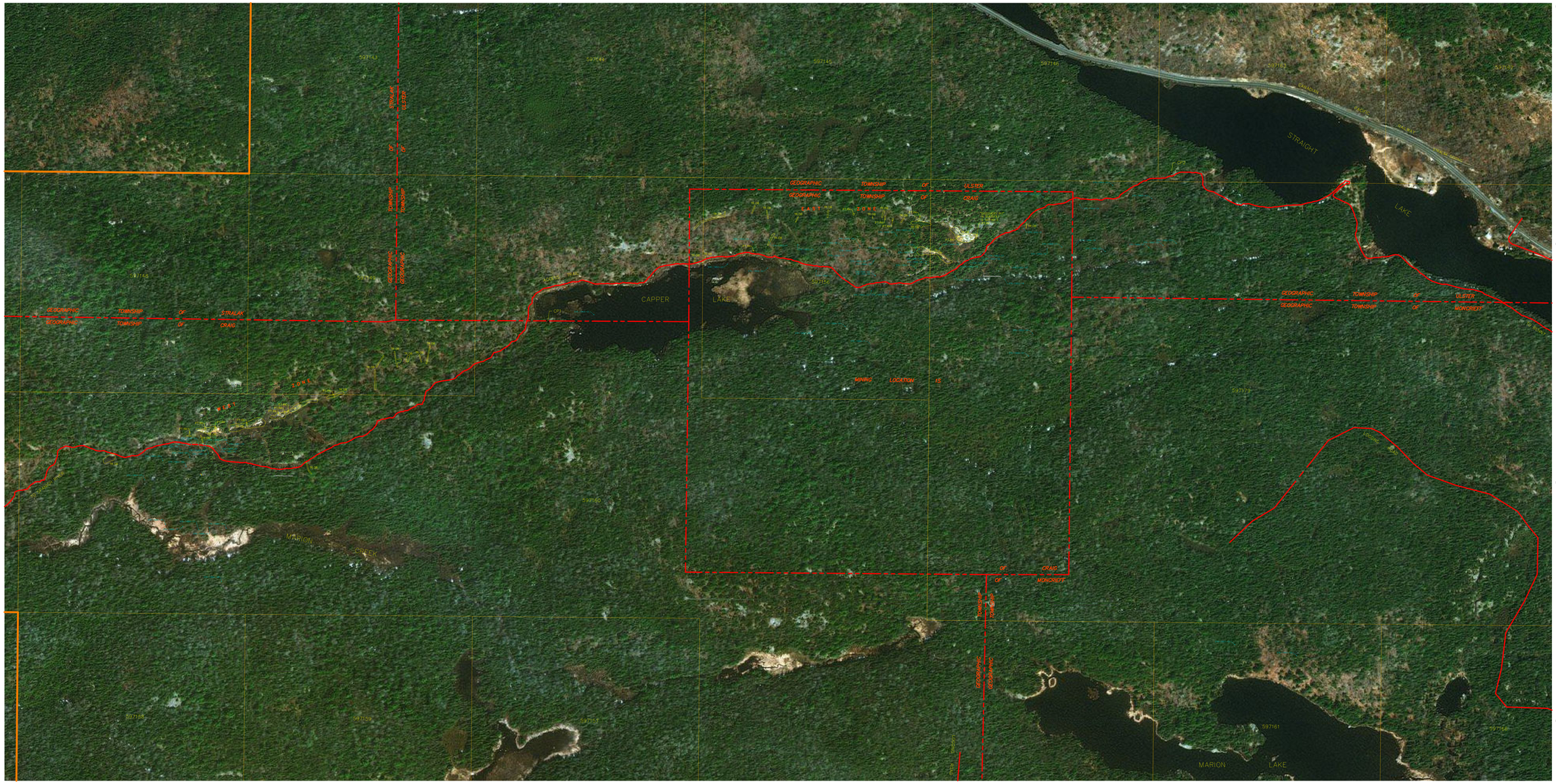
STRALAK PROJECT

Diamond Drill Hole Compilation | July 1, 2022 | B. Dorland | UTM z17 N NAD83 (CSRS-ver.6/2010) | UTM z17 N NAD83 (CSRS-ver.6/2010) | CGVD2013

Hole Type	Date (M-D-Y) Completed	Company Name	Company Hole ID	New Hole ID	AFRI ID	Area	Map Source	Claim No.	Hole Size	Azimuth	Dip	Length (m)	Overburden(m)	Northing	Easting	Elevation	Collar Location Notes	Waypoint ID	Notable assays	Comments	Core Storage Location
1 Diamond Core Drill	03-01-1929	Sudbury Concentrating And Mining Co. Ltd	1	STK-1929-01	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	18	-60	44.51	1.52	5183522.01	447030.21	428.0	no collar found, estimated position from map in 41I13SE0047 using closest available found collar	7034	3.88% Zn, 0.82 % Cu over 1.83m	Logs available. Azimuth estimated from map	unknown
2 Diamond Core Drill	1929	Sudbury Concentrating And Mining Co. Ltd	2	STK-1929-02	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	10	-60	39.63	2.44	5183517.82	446993.31	432.9	collar found in place	275	8.3% Zn , 1.04% Cu over 0.86m, 16%Zn, 0.94% Cu over 0.56m	Logs available. Azimuth estimated from map	unknown
3 Diamond Core Drill	03-21-1929	Sudbury Concentrating And Mining Co. Ltd	3	STK-1929-03	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	20	-60	67.68	0.91	5183491.31	447033.89	428.5	no collar found, estimated position from map in 41I13SE0047 using closest available found collar	7038	no assays taken	Logs available. Azimuth estimated from map	unknown
4 Diamond Core Drill	1929	Sudbury Concentrating And Mining Co. Ltd	4	STK-1929-04	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	5	-60	59.15	1.83	5183483.80	446973.71	422.0	no collar found, estimated position from map in 41I13SE0047 using closest available found collar	7019	7.60% Zn, 0.46% Cu over 1.37m	Logs available. Azimuth estimated from map	unknown
5 Diamond Core Drill	04-17-1929	Sudbury Concentrating And Mining Co. Ltd	5	STK-1929-05	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	10	-45	59.76	2.13	5183495.99	446916.07	420.0	no collar found, estimated position from map in 41I13SE0047 using closest available found collar	7021	6.38 %Zn, 0.08% Cu over 0.53m, 10.64% Zn, 2.34% Cu over 0.38m	Logs available. Azimuth estimated from map	unknown
6 Diamond Core Drill	04-30-1929	Sudbury Concentrating And Mining Co. Ltd	6	STK-1929-06	41I13SE0090	Stralak West Zone	Sketch Map	?	?	358	-53	39.63	4.57	5183078.76	445538.44	365.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7044	8.12% Zn, 0.43% Cu over 1.58m	Logs available. Azimuth estimated from map	unknown
7 Diamond Core Drill	02-08-1949	Bankfield Consolidated Mines Ltd	1	STK-1949-01	41I13SE0090	Stralak West Zone	Sketch Map	?	?	360	-45	73.48	4.27	5183078.26	445543.99	365.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7045	9.36% Zn, 0.22% Cu over 1.16m	Logs available	unknown
8 Diamond Core Drill	02-13-1949	Bankfield Consolidated Mines Ltd	2	STK-1949-02	41I13SE0090	Stralak West Zone	Sketch Map	?	?	360	-45	41.4	4.57	5183078.73	445528.00	365.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7043	3.50% Zn, 0.34% Cu over 0.82m	Logs available. Azimuth estimated from map	unknown
9 Diamond Core Drill	02-16-1949	Bankfield Consolidated Mines Ltd	3	STK-1949-03	41I13SE0090	Stralak West Zone	Sketch Map	?	?	360	-45	42.07	4.57	5183078.66	445513.09	365.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7042	4.01% Zn, 0.30% Cu over 1.10m	Logs available. Azimuth estimated from map	unknown
10 Diamond Core Drill	02-24-1949	Bankfield Consolidated Mines Ltd	4	STK-1949-04	41I13SE0090	Stralak West Zone	Sketch Map	?	?	360	-45	57.62	3.96	5183077.77	445572.51	365.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7046	minor sulphides noted, no assays	Logs available	unknown
11 Diamond Core Drill	03-04-1949	Bankfield Consolidated Mines Ltd	5-B	STK-1949-05	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	11	-60	76.22	2.13	5183464.96	446945.10	415.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7020	10.37% Zn, Tr. Cu over 1.40m	Logs available	unknown
12 Diamond Core Drill	02-11-1949	Bankfield Consolidated Mines Ltd	6	STK-1949-06	41I13SE0090	Stralak West Zone	Sketch Map	?	?	360	-65	68.9	3.66	5183078.26	445543.99	365.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7045	3.85% Zn, 0.37% Cu over 0.37m	Logs available. This hole is below hole #1 (1949)	unknown
13 Diamond Core Drill	03-01-1949	Bankfield Consolidated Mines Ltd	7-B	STK-1949-07	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	360	-45	90.85	2.74	5183489.02	446913.45	420.0	no collar found, falls in current road location, position estimated from map in 41I13SE0088	7022	5.55% Zn, 0.10% Cu over 0.61m	Logs available	unknown
14 Diamond Core Drill	03-07-1949	Bankfield Consolidated Mines Ltd	8-B	STK-1949-08	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	14	-60	69.21	2.13	5183458.96	447055.08	416.0	no collar found, falls in current road location, position estimated from map in 41I13SE0047	7013	6.37% Zn, 0.21% Cu over 1.00m	Logs available	unknown
15 Diamond Core Drill	03-10-1949	Bankfield Consolidated Mines Ltd	9-B	STK-1949-09	41I13SE0090	Stralak East Zone	Detail Co Map	?	?	10	-45	46.95	2.13	5183491.12	447083.88	422.6	no collar found, falls in current road location, position estimated from map in 41I13SE0088	7037	1.64% Zn, 0.48% Cu over 1.98m, 22.59% Zn, Tr Cu over 0.52m	Logs available	unknown
16 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-7	STK-1952-07	41I13SE0090	Stralak East Zone	Detail Co Map	?	5	-45	0	0	5183459.35	447228.08	414.0	no collar found, estimated position from map using nearest available evidence	7008		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
17 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-8	STK-1952-08	41I13SE0090	Stralak East Zone	Detail Co Map	?	18	-55	0	0	5183468.88	447144.35	413.0	no collar found, falls in current road location, estimated position from map using nearest available evidence	7011		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
18 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-9	STK-1952-09	41I13SE0090	Stralak East Zone	Detail Co Map	?	358	-55	0	0	5183477.58	447169.51	413.5	no collar found, estimated position from map using nearest available evidence	7010		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
19 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-10	STK-1952-10	41I13SE0090	Stralak East Zone	Detail Co Map	?	15	-55	0	0	5183499.18	446785.39	410.2	found collar	238		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
20 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-11	STK-1952-11	41I13SE0090	Stralak East Zone	Detail Co Map	?	12	-55	0	0	5183508.61	446725.39	414.3	no collar found, location centered on propable drill pad setup next to pile of core	242		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
21 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-12	STK-1952-12	41I13SE0090	Stralak East Zone	Detail Co Map	?	348	-55	0	0	5183504.58	446692.10	412.0	no collar found, estimate position from map using nearest available evidence	7029		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
22 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-13	STK-1952-13	41I13SE0090	Stralak East Zone	Detail Co Map	?	15	-44	0	0	5183486.28	446849.55	420.6	no collar found, location centered on propable drill pad setup next to pile of old drill rods	244		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
23 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-14	STK-1952-14	41I13SE0090	Stralak East Zone	Detail Co Map	?	15	-55	0	0	5183465.03	447121.41	414.0	no collar found, estimate position from map using nearest available evidence	7035		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
24 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-15	STK-1952-15	41I13SE0090	Stralak East Zone	Detail Co Map	?	360	-50	0	0	5183481.98	447038.66	427.0	no collar found, estimate position from map using nearest available evidence	7017		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
25 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-16	STK-1952-16	41I13SE0090	Stralak East Zone	Detail Co Map	?	355	-50	0	0	5183496.66	446878.09	421.7	no collar found, location centered on propable drill pad setup next to pile of old drill rods and core	245		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
26 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-17	STK-1952-17	41I13SE0090	Stralak East Zone	Detail Co Map	?	360	-55	0	0	5183449.75	447033.00	415.0	no collar found, estimate position from map using nearest available evidence	7016		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
27 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-18	STK-1952-18	41I13SE0090	Stralak East Zone	Detail Co Map	?	353	-65	0	0	5183426.81	447220.14	416.0	no collar found, estimate position from map using nearest available evidence	7009		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
28 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-19	STK-1952-19	41I13SE0090	Stralak East Zone	Detail Co Map	?	15	-70	0	0	5183433.47	447115.57	410.5	no collar found, estimate position from map using nearest available evidence	7012		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
29 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-20	STK-1952-20	41I13SE0090	Stralak East Zone	Detail Co Map	?	360	-70	0	0	5183467.66	446937.40	415.0	no collar found, estimate position from map using nearest available evidence	7023		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
30 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-21	STK-1952-21	41I13SE0090	Stralak East Zone	Detail Co Map	?	360	-65	0	0	5183444.13	446824.36	398.2	found collar, south side of road	45		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
31 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-22	STK-1952-22	41I13SE0090	Stralak East Zone	Detail Co Map	?	360	-70	0	0	5183449.96	446722.29	396.0	no collar found, estimate position from map using nearest available evidence, falls in lake currently (flooded)	7027		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
32 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-23	STK-1952-23	41I13SE0090	Stralak East Zone	Detail Co Map	?	360	-50	0	0	5183458.35	446637.94	396.0	no collar found, estimate position from map using nearest available evidence, falls in lake currently (flooded)	7030		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
33 Diamond Core Drill	?	Preston East Dome Mines Ltd		S-24	STK-1952-24	41I13SE0090	Stralak East Zone	Detail Co Map	?	352	-45	0	0	5183319.53	446820.44	401.8	no collar found, location centered on propable drill pad setup next to pile of old drill rods	258		Logs not available. Data obtained from maps. Report by Hart, 1952 indicated the total drilling by PEDM totaled 4,288m	unknown
34 Diamond Core Drill	05-10-1957	P Christman	1	STK-1957-01	41I13SE0076	area north of Marion Lake	Sketch Map	S 96571	7/8" core	20	-45	11.59	0	5182659.16	447702.69	430.0	no assay data available	7047	no assays taken	Logs available. No overburden. Hole on bedrock	core at "camp" on claim S 99352
35 Diamond Core Drill	05-10-1957	P Christman	1	STK-1957-02	41I13SE0076	area north of Marion Lake	Sketch Map	S 97066	7/8" core	20	-45	8.53	0	5182635.92	447832.26	430.0	no collar found, location very roughly calculated from map in assessment file	7048	no assay data available. Logs indicated mineralization "all the way"	Logs available. No overburden. Hole on bedrock.	core at "camp" on claim S 99352
36 Diamond Core Drill	05-18-1957	P Christman	1	STK-1957-03	41I13SE0044	north side of Straight Lake	Sketch Map	S 99352	7/8" core	15	-45	9.14	0	5183566.21	448448.25	430.0	no collar found, location very roughly calculated from map in assessment file	7138	no assay data available	Logs available. No overburden. Hole on bedrock	core at "camp" on claim S 99352
37 Diamond Core Drill	10-20-1964	Mining Corp Of Canada (1964) Ltd	1-64	STK-1964-01	41I13SE0043	new East Zone	Detail Co Map	S 122116	AXT	2	-60	63.1	2.13	5183623.77	447446.42	420.0	no collar found, estimate position from map using nearest available evidence	7005	minor low grade Zn, Cu, Ag intervals	logs available	unknown
38 Diamond Core Drill	10-23-1964	Mining Corp Of Canada (1964) Ltd	2-64	STK-1964-02	41I13SE0043	new East Zone	Detail Co Map	S 122116	AXT	360	-50	62.5	7.62	5183583.50	447377.57	415.0	no collar found, estimate position from map using nearest available evidence	7006	minor low grade Zn, Cu, Ag intervals	logs available	unknown
39 Diamond Core Drill	10-26-1964	Mining Corp Of Canada (1964) Ltd	3-64	STK-1964-03	41I13SE0043	new East Zone	Detail Co Map	S 122116	AXT	60	-50	69.82	10.67	5183595.90	447528.73	415.0	no collar found, estimate position from map using nearest available evidence	7004	minor low grade Zn, Cu, Ag intervals	logs available	unknown
40 Diamond Core Drill	10-30-1964	Mining Corp Of Canada (1964) Ltd	4-64	STK-1964-04	41I13SE0043	new East Zone	Detail Co Map	S 122116	AXT	360	-50	63.72	1.83	5183599.07	447300.76	418.0	no collar found, estimate position from map using nearest available evidence	7007	0.93% Zn, 0.26%Cu over 1.10m starting at 31m	logs available	unknown
41 Diamond Core Drill	11-05-1964	Mining Corp Of Canada (1964) Ltd	5-64	STK-1964-05	41I13SE0095	Stralak West Zone	Sketch Map	S 122142	AXT	330	-50	79.1	7.62	5183045.30	445452.86	359.5	found collar lying down	89	0.36%Zn, 0.32%Cu over 1.64m starting at 64.2m	logs available	unknown
42 Diamond Core Drill	11-10-1964	Mining Corp Of Canada (1964) Ltd	6-64	STK-1964-06	41I13SE0095	Stralak West Zone	Sketch Map	S 122142	AXT	0	-60	81.47	7.62	5183052.22	445509.76	363.4	found collar	88	3.65%Zn, 031%Cu, 3.96oz/t Ag, 0.04oz/t Au over 3.23m starting at 72.02m	logs available, higher grade interval with elevated Au values in between, hole targeting under blast pit	unknown
43 Diamond Core Drill	11-14-1964	Mining Corp Of Canada (1964) Ltd	7-64	STK-1964-07	41I13SE0095	Stralak West Zone	Sketch Map	S 122142	AXT	330	-50	117.4	10.67	5183005.25	445414.40	360.0	found collar lying down	90	no assays taken	logs available	unknown
44 Diamond Core Drill	11-25-1964	Mining Corp Of Canada (1964) Ltd	8-64	STK-1964-08	41I13SE0095	Stralak West Zone	Sketch Map	S 122142	AXT	330	0	127.7	10.98	5183033.26	445501.91	362.6	found collar	41	2.46%Zn, 0.34%Cu over 0.73m starting at 88.9m	logs available, no dip indicated for hole	unknown
45 Diamond Core Drill	?	Mining Corp Of Canada (1964) Ltd	9-64	STK-1964-09	41I13SE0043	Stralak East Zone	Detail Co Map	P 5043	?	360	-65	0	0	5183402.62	446977.52	406.4	no collar found, location centred on probable drill pad	253		Logs not available. Data obtained from map of East Zone attached to AFRI file 41I13SE0043	unknown
46 Diamond Core Drill	?	Mining Corp Of Canada (1964) Ltd	10-64	STK-1964-10	41I13SE0043	Stralak East Zone	Detail Co Map	P 5043	?	360	-65	0	0	5183402.33	446940.16	410.9	no collar found, location centred on probable drill pad	252		Logs not available. Data obtained from map of East Zone attached to AFRI file 41I13SE0043	unknown
47 Diamond Core Drill	?	Mining Corp Of Canada (1964) Ltd	11-64	STK-1964-11	41I13SE0043	Stralak East Zone	Detail Co Map	P 5043	?	355	-75	0	0	5183398.20	447028.34	408.1	collar found in swampy area	254		Logs not available. Data obtained from map of East Zone attached to AFRI file 41I13SE0043	unknown
48 Diamond Core Drill	03-18-1981	Stralak Resources Inc	81-1	STK-1981-01	41I13SE0091	Stralak West Zone	Detail Co Map	S 539304	1.25" core	343	-55	65.84	5.79	445542.08	5183071.08	365.7	no collar found, estimated position from map using closest available found collar	7051	8.77% Zn, 0.30% Cu, 5.940pt Ag over 1.89m starting at 46.48m	Logs available. Azimuth estimated from map	unknown
49 Diamond Core Drill	03-20-1981	Stralak Resources Inc	81-2	STK-1981-02	41I13SE0091	Stralak West Zone	Detail Co Map	S 539304	1.25" core	343	-55	58.83	4.88	5183081.16	445563.33	365.4	no collar found, estimated position from map using closest available found collar	42	minor low grade Zn, Cu, Ag intervals	Logs available. Azimuth estimated from map. Assays difficult to read	unknown
50 Diamond Core Drill	03-23-1981	Stralak Resources Inc	81-3	STK-1981-03	41I13SE0091	Stralak West Zone	Detail Co Map	S 539304	1.25" core	340	-55	49.7	3.05	5183083.43	445587.49	365.0	no collar found, estimated position from map using closest available found collar	7049	4.34% Zn, 0.07% Cu, 1.03 opt Ag over 0.61m starting at 45.42m	Logs available. Azimuth estimated from map	unknown
51 Diamond Core Drill	03-26-1981	Stralak Resources Inc	81-4	STK-1981-04	41I13SE0091	Stralak West Zone	Detail Co Map	S 539304	1.25" core	343	-55	61.57	4.88	5183073.07	445510.06	365.0	no collar found, estimated position from map using closest available found collar	7052	2.43% Zn, 0.15% Cu, 2.24 opt Ag over 3.72m starting at 46.33m	Logs available. Azimuth estimated from map. Assays difficult to read	unknown
52 Diamond Core Drill	03-29-1981	Stralak Resources Inc	81-5	STK-1981-05	41I13SE0091	Stralak West Zone	Detail Co Map	S 539305	1.25" core	343	-55	54.86	7.62	5183068.01	445489.28	365.0	no collar found, estimated position from map using closest available found collar	7053	0.82% Zn, 0.72 opt Ag over 3.87m starting at 47.85m	Logs available. Azimuth estimated from map	unknown
53 Diamond Core Drill	04-02-1981	Stralak Resources Inc	81-6	STK-1981-06	41I13SE9534	Stralak East Zone	Detail Co Map	S 539301	1.25" core	345	-45	121.92	1.52	5183463.33	447055.19	420.9	no collar found, location centred on probable drill pad	276	no assays taken	Azimuth estimated from map. Location maps from AFRI file: 41I13SE0088	unknown
54 Diamond Core Drill	04-04-1981	Stralak Resources Inc	81-7	STK-1981-07	41I13SE9534	Stralak East Zone	Detail Co Map	S 539300	1.25" core	360	-60	65.84	0.91	5183484.25	447177.60	414.2	found collar buried in side of trail	260	no assays taken	Azimuth estimated from map. Location maps from AFRI file: 41I13SE0088	unknown
55 Diamond Core Drill	03-31-1984	Federal Kirkland Mines Ltd	STK-84-8	STK-1984-08	41I13SE0089	Stralak West Zone	Detail Co Map	S 539307	BQ core	343	-45	246.04	4.27	5182791.35	445576.17	361.0	no collar found, estimated positions from map using closest available evidence	7059	minor low grade Zn, Cu, Ag intervals	Logs available. Azimuth given as grid north 243 degrees but grid north was 343 degrees for the Stralak Resc. Grid	unknown
56 Diamond Core Drill	02-23-1984	Federal Kirkland Mines Ltd	STK-84-9	STK-1984-09	41I13SE0089	Stralak East Zone	Detail Co Map	S 539300	BQ core	175	-45	106.74	2.44	5183576.48	447082.60	441.0	no collar found, estimated position from map using nearest available evidence	7062	no assays taken	Logs available.	unknown
57 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-10	STK-1984-10	41I13SE0088	Stralak East Zone	Detail Co Map			360	0	0	0	5183327.352	446937.76	411.2	found collar	257		Logs not available. Data obtained from maps	unknown
58 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-11	STK-1984-11	41I13SE0088	Stralak East Zone	Detail Co Map			360	0	0	0	5183290.29	411.97765	412.0	found collar	255		Logs not available. Data obtained from maps	unknown
59 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-12	STK-1984-12	41I13SE0088	Stralak West Zone	Detail Co Map			343	0	0	0	5182904.96	445551.04	361.0	no collar found, location centered on old drill pad	94		Logs not available. Data obtained from maps	unknown
60 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-13	STK-1984-13	41I13SE0088	Stralak West Zone	Detail Co Map			343	0	0	0	5182900.64	445528.28	364.0	no collar found, location centered on old drill pad	93		Logs not available. Data obtained from maps	unknown
61 Diamond Core Drill	06-05-1984	Federal Kirkland Mines Ltd	STK-84-14	STK-1984-14	41I13SE0088	Stralak West Zone	Detail Co Map	S 539307	BQ core	343	-60	284.25	8.84	5182903.23	445586.11	361.0	no collar found, location centered on old drill pad	95	minor low grade Zn, Cu, Ag intervals	Logs available	unknown
62 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-15	STK-1984-15	41I13SE0088	Stralak West Zone	Detail Co Map			343	0	0	0	5182907.50	445494.90	361.0	no collar found, location centered on old drill pad	91		Logs not available. Data obtained from maps	unknown
63 Diamond Core Drill	07-18-1984	Federal Kirkland Mines Ltd	STK-84-16	STK-1984-16	41I13SE0088	Stralak West Zone	Detail Co Map	S 539306	BQ core	343	-60	270.66	12.19	5182911.62	445458.60	361.0	no collar found, estimated position from map using nearest available evidence	7058	4.24% Zn, 0.04% Cu, 12.80opt Ag over 0.52m starting at 263.74m	Logs available	unknown
64 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-17	STK-1984-17	41I13SE0088	Stralak new East Zone	Detail Co Map			343	0	0	0	5183494.37	447339.74	410.0	no collar found, estimated position from map using nearest available evidence	7066		Logs not available. Data obtained from maps	unknown
65 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-18	STK-1984-18	41I13SE0088	Stralak East Zone	Detail Co Map			343	0	0	0	5183497.82	447369.66	410.0	no collar found, estimated position from map using nearest available evidence	7067		Logs not available. Data obtained from maps	unknown
66 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-19	STK-1984-19	41I13SE0088	Stralak new East Zone	Detail Co Map			343	0	0	0	5183490.32	447308.91	410.0	no collar found, estimated position from map using nearest available evidence	7065		Logs not available. Data obtained from maps	unknown
67 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-20	STK-1984-20	41I13SE0088	Stralak new East Zone	Detail Co Map			343	-50	0	0	5183484.77	447431.04	410.0	no collar found, estimated position from map using nearest available evidence	7068		Logs not available. Data obtained from maps	unknown
68 Diamond Core Drill	?	Federal Kirkland Mines Ltd	STK-84-21	STK-1984-21	41I13SE0088	Stralak new East Zone	Detail Co Map			343	0	0	0	5183493.13	447522.37	410.0	no collar found, estimated position from map using nearest available evidence	7069		Logs not available. Data obtained from maps	unknown
69 Diamond Core Drill	01-30-1990	Stralak Resources Inc		STR-90-57	STK-1990-57	41I13SE0020	between Stralak East and West Zones	Detail Co Map	S 1043259	?	350	-50	93.57	2.5	5183352.08	446357.71	399.0	hole falls in Capper Lake, drilled from ice in winter, estimated position from grid chainage in drill logs	7137	2.14% Zn, 0.28% Cu, 1.94opt Ag over 1.19m starting at 83.88m	Logs available	unknown
72 Diamond Core Drill	02-07-1992	Stralak Resources Inc		STK-92-1	STK-1992-01	OMIP-92-005	new east zone	Co map	734697	?	350	-74	297.79	0.91	5183265.37	447269.93	418.0	no collar found, position estimated using grid chainage in drill logs.	7000	no assays available. Logs indiacate good Zn, Cu sulph. Starting around 274.3m	Logs available but no assays. No collar locations in report	
73 Diamond Core Drill	02-11-1992	Stralak Resources Inc		STK-92-2	STK-1992-02	OMIP-92-005	new east zone	Co map	539299	?	350	-45	121.9	0.61	5183497.49	447552.55	418.0	no collar found, position estimated using grid chainage in drill logs.	7001	no assays available. Logs indiacate Zn sulph from 93.88 to 97.54m	Logs available but no assays. No collar locations in report, Hole ended in serecite alteration	
74 Diamond Core Drill	02-12-1992	Stralak Resources Inc		STK-92-3	STK-1992-03	OMIP-92-005	new east zone	Co map	539299	?	350	-45	106.7	1.5	5183502.12	447579.88	418.0	no collar found, position estimated using grid chainage in drill logs.	7002	no assays available. Logs indiacate minor Zn-Pb sulph.	Logs available but no assays. No collar locations in report	
75 Diamond Core Drill	02-17-1992	Stralak Resources Inc		STK-92-4	STK-1992-04	OMIP-92-005	new east zone	Co map	734697	?	350	-70	300.5	3	5183313.18	447278.38	418.0	no collar found, position estimated using grid chainage in drill logs.	7003	no assays available. Logs indiacate 40% Zn, Pb sulph. With cpy	Logs available but no assays. No collar locations in report	
76 Diamond Core Drill	?	?		?	STK-XXXX-01	not available	Stralak East Zone			?	344	-45	0	0	5183533.44	447260.29	416.3	found collar		no logs available, hole not shown in any assessment report		unknown
76 Diamond Core Drill	?	?		?	STK-XXXX-02	not available	Stralak East Zone			?	0	-90	0	0	5183433.67	446948.49	407.3	found collar vertical hole, next to STK-XXXX-03		250	no logs available, hole not shown in any assessment report		unknown
76 Diamond Core Drill	?	?		?	STK-XXXX-03	not available	Stralak East Zone			?	346	-60	0	0	5183434.64	446948.29	407.3	found collar, next to STK-XXXX-02		249	no logs available, hole not shown in any assessment report		unknown



PLAN OF

STRALAK PROJECT
DRILL HOLE COMPILATION

GEOGRAPHIC TOWNSHIPS OF
MONCRIEFF, ULSTER, CRAIG & STRALAK
SUDBURY MINING DIVISION
DISTRICT OF SUDBURY

SCALE 1:2000

METRES
0 10 20 30 40 50 100

LEGEND

- DENOTES SURVEY CONTROL MONUMENT
- DENOTES PIT OR TRENCH OUTLINE
- PT DENOTES PIT BLASTED IN ROCK
- TR DENOTES TRENCH
- OB DENOTES OVERBURDEN
- RK DENOTES ROCK
- 0 DENOTES DRILL HOLE LOCATION

NOTE

COORDINATES NOTED ARE EXPRESSED IN THE FOLLOWING:

PROJECTION: UTM Zone 17 N
DATUM: NAD83 CSRS (1997) (Ver.6/2010)
ELEVATIONS: CGVD2013

CONTROL MONUMENTS:

CPO
0.025m SQUARE IRON BAR IN ROCK AT WEST END OF CAPPER LAKE.

N 5183340.200m
E 446280.203m
ELEV 400.118m

CPO
0.019m SQUARE IRON BAR DRILLED IN ROCK ON HIGH OUTCROP ON SOUTH SIDE OF ACCESS TRAIL APPROX. 100m WEST OF STRAIGHT LAKE.

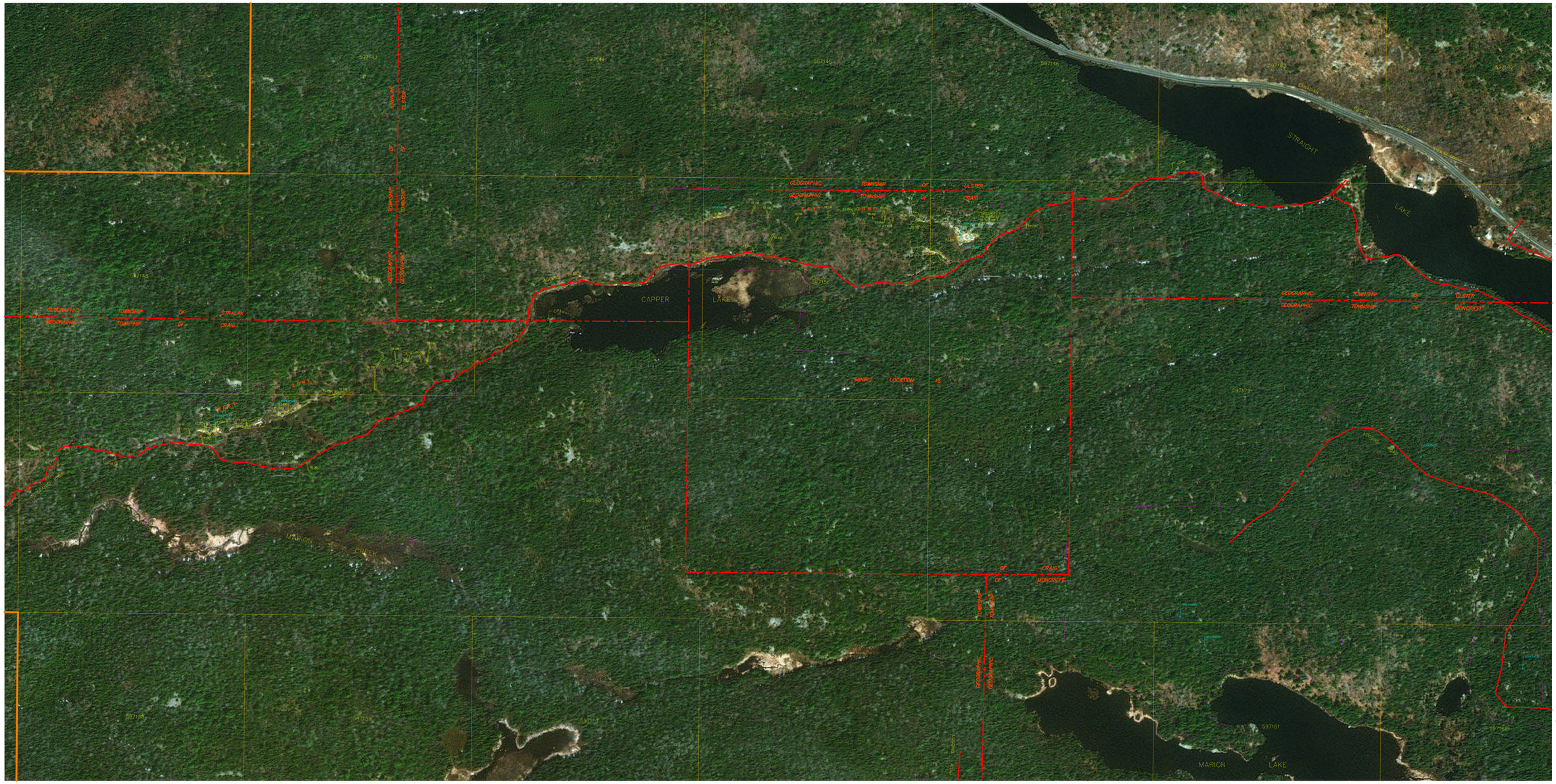
N 5183651.836m
E 447269.051m
ELEV 419.150m

REFER TO ACCOMPANYING REPORT AND DRILL HOLE COMPILATION SHEET FOR ADDITIONAL INFORMATION.

STRALAK PROJECT

PREPARED BY BJD	SCALE 1:2000 METRES
CHECKED BJD	CAD FILE STRALAK_MASTER.mxd
DATE JULY 1, 2020	TAB 3 - 4 - DRILL HOLE COMPILATION

LW/11"x17" PAPER SIZE



PLAN OF

STRALAK PROJECT
2020 – 2022 PROSPECTING

GEOGRAPHIC TOWNSHIPS OF
MONCRIEFF, ULSTER, CRAIG & STRALAK
SUDBURY MINING DIVISION
DISTRICT OF SUDBURY

SCALE 1:2000

METRES
0 10 20 30 40 50 100

LEGEND

- DENOTES SURVEY CONTROL MONUMENT
- DENOTES PIT OR TRENCH OUTLINE
- PT DENOTES PIT BLASTED IN ROCK
- TR DENOTES TRENCH
- OB DENOTES OVERBURDEN
- RK DENOTES ROCK
- D DENOTES DRILL HOLE LOCATION
- 5### DENOTES SAMPLE LOCATION AND NUMBER
- DENOTES GENERAL OUTLINE OF AREAS PROSPECTED

NOTE

COORDINATES NOTED ARE EXPRESSED IN THE FOLLOWING:

PROJECTION: UTM Zone 17 N
DATUM: North American 1983 CSRS (realization 2010)
ELEVATIONS: CGVD2013

CONTROL MONUMENTS:

CP1
0.30m SQUARE IRON BAR IN ROCK AT WEST END OF CAPPER LAKE

N 5183340.200m
E 446280.203m
ELEV 400.118m

CP2
0.30m SQUARE IRON BAR DRILLED IN ROCK ON HIGH OUTCROP AT NORTH END OF ACCESS TRAIL APPROX. 100m WEST OF STRAIGHT LAKE

N 5183651.836m
E 447069.051m
ELEV 419.150m

REFER TO ACCOMPANYING REPORT AND DRILL HOLE COMPILATION SHEET FOR ADDITIONAL INFORMATION.

STRALAK PROJECT

PREPARED BY: BJD	SCALE: 1:2000 METRES
CHECKED: BJD	CAD FILE: STRALAK_MASTER.mxd
DATE: JULY 1, 2020	TAB: 2 – 2020-2022 Prospecting

LW/11"x17" PAPER SIZE

STATEMENT OF COSTS FOR ASSESSMENT CREDITS

July 2020 – July 2022

STRALAK PROJECT

GEOGRAPHIC TOWNSHIPS OF MONCRIEFF, ULSTER, CRAIG & STRALAK
SUDBURY MINING DIVISION
TERRITORIAL DISTRICT OF SUDBURY
PROVINCE OF ONTARIO

BRYAN C. DORLAND
July 1, 2022

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SUMMARY

Time and expenses claimed for assessment credits for the accompanying Report on Exploration Activities – July 2020 to July 2022 are detailed in the attached daily log and cost breakdown.

Dollar values for time and expenses noted in the cost breakdown are based on industry standards. All equipment used to carry out the work is personally owned by the author unless noted otherwise and has been charged at standard industry rates. Assays costs claim claimed are as incurred, exclusive of applicable taxes and rounded to the nearest dollar, as noted on the attached receipts.

The work was carried out entirely by the author

Bryan Dorland
252 Old Skead Road,
Garson, Ontario, Canada
P3L 1N3
Cell: 705-662-3909

CERTIFICATE

I, Bryan Dorland certify that:

I graduated with a Mining Engineering Technician diploma from Cambrian College in 2008.

I have held a valid Ontario Prospector's License since 2006 (License No. 1012035, Client No. 411680)

I have been actively participating in the mining and exploration industry since 2006.

I personally supervised and carried out the work described in this report.

I hold a 100% interest the property described in this report.

Bryan Dorland

Dated July 1, 2022 at Sudbury, Ontario

DAILY ACTIVITY LOG

PROJECT: **STRALAK**

DATE	PERSONEL	TIME ($45/hour)	ACTIVITY	VEHICULE MILEAGE (km) ($0.75/km)	ATV $100/day	SNOWMOBILE $100/day	UTV $150/day	BOAT $100/day	CHAINSAW $30/day	ACCOMODATIONS Camper $50/day Trailer $75/day Others as incur.	FOOD $40/day	CHANNEL SAW $30/day	DGPS $300/day	Beep Mat $110/day	ASSAYS (as incur.)	MISC. (field supplies, printing,etc)	ASSESSMENT VALUE
July 3, 2020	B.Dorland	8	download files, review & compile data														$360.00
July 3, 2020	B.Dorland	8	download files, review & compile data														$360.00
April 16, 2020	B.Dorland	12	Prospecting, check access, cut trees from trails	140			1		1							$ 15.00	$840.00
April 17, 2021	B.Dorland	10	Prospecting	140			1									$ 10.00	$715.00
April 18, 2021	B.Dorland	10	Prospecting	140			1									$ 10.00	$715.00
July 17, 2021	B.Dorland	4	data entry, sample prep, submission												$297.00		$477.00
November 14, 2021	B. Dorland	4	fieldwork prep., compile data, review, make field maps													$ 10.00	$190.00
November 16, 2021	B. Dorland	10	prospecting	140			1							1		$ 10.00	$825.00
November 17, 2021	B. Dorland	10	prospecting	140			1							1			$815.00
November 18, 2021	B. Dorland	10	prospecting	140			1							1			$815.00
November 19, 2021	B. Dorland	10	prospecting	140			1							1		$ 10.00	$825.00
November 20, 2021	B.Dorland	6	data entry, sample prep														$270.00
May 28, 2022	B. Dorland	8	calculate rough drill hole & grid locations, fieldwork prep														$360.00
June 3, 2022	B.Dorland	8	calculate rough drill hole locations, fieldwork prep													$ 10.00	$370.00
June 4, 2022	B. Dorland	12	prospecting, locate drill hole/feature, DGPS survey	140			1						1			$ 15.00	$1,110.00
June 5, 2022	B. Dorland	12	prospecting, locate drill hole/feature,	140			1									$ 15.00	$810.00
June 17, 2022	B. Dorland	4	data entry & review fieldwork prep														$180.00
June 11, 2022	B. Dorland	12	prospecting, locate drill hole/feature, DGPS survey	140			1						1			$ 15.00	$1,110.00
June 12, 2022	B. Dorland	12	prospecting, locate drill hole/features	140			1									$ 15.00	$810.00
June 17, 2022	B. Dorland	4	data entry & review, fieldwork prep														$180.00
June 18, 2022	B. Dorland	12	prospecting, locate drill hole/feature, DGPS survey	140			1						1			$ 15.00	$1,110.00
June 19, 2022	B. Dorland	12	prospecting, locate drill hole/features	140			1									$ 15.00	$810.00
June 24, 2022	B. Dorland	8	start report, field prep														$360.00
June 25, 2022	B. Dorland	12	prospecting, locate drill hole/features	140			1									$ 15.00	$810.00
June 26, 2022	B. Dorland	12	prospecting, locate drill hole/feature, DGPS survey	140			1						1			$ 15.00	$1,110.00
June 27, 2022	B.Dorland	8	data entry, report, map prep														$360.00
June 28, 2022	B.Dorland	12	report, map prep														$540.00
June 29, 2022	B. Dorland	12	report, map prep														$540.00
June 30, 2022	B. Dorland	12	report, map prep														$540.00
July 1, 2022	B. Dorland	12	report, map prep														$540.00
TOTALS		286		2,100	0	0	15	0	1	$0.00	0	0	4	4	$297.00	$195.00	$18,317.00