## Ontario 8

We are committed to providing accessible customer service.
If you need accessible formats or communications supports, please contact us.

Nous tenons à améliorer l'accessibilité des services à la clientèle.
Si vous avez besoin de formats accessibles ou d'aide à la communication, veuillez nous contacter.

# 2019 VLF SURVEY REPORT K7 SOUTH GRID SUGAR ZONE PROPERTY DAYOHESSARAH LAKE AREA WHITE RIVER, ONTARIO 

$$
\text { NTS 42C/ 10, 11, } 14 \text { and } 15
$$

Latitude $48^{\circ} 36^{\prime}$ N, Longitude $85^{\circ} 06^{\prime} \mathbf{W}$

Work Completed
January 15, 2019 to September 13, 2019
for
Harte Gold Corporation
8 King Street East
Suite 1700
Toronto, Ontario M5C 1B5

## TABLE OF CONTENTS

1.0 Introduction ..... 1
2.0 Property Location and Description ..... 2
2.1 Location and Access ..... 2
2.2 Description of Mining Claims ..... 2
2.3 Physiography and Vegetation ..... 4
3.0 Historical Work ..... 5
4.0 Geological Setting ..... 12
4.1 Regional Geology ..... 12
4.2 Property Geology ..... 13
5.0 Mineralization ..... 16
5.1 Sugar Zone ..... 16
5.2 Wolf Zone ..... 16
6.0 Summary of Work ..... 17
7.0 Results ..... 17
8.0 Conclusions and Recommendations ..... 18
9.0 Costs ..... 18
10.0 References ..... 20
11.0 Statement of Qualifications ..... 21

## LIST OF FIGURES

Figure 1 - Property Location. ..... 3
Figure 2 - Claim Position and Showings. ..... 4
Figure 3 - Regional Geology ..... 12
Figure 4 - Property Geology ..... 15
Figure 5 -K7 South Grid and Mining Claim ID's ..... 18
LIST OF TABLES
Table 1 - Summary of Costs ..... 19
Table 2 - Cost per claim ..... 19

## APPENDICES

Appendix A - Property Claims List
Appendix B - Superior Exploration, Adventure \& Climbing Co. Ltd., Report titled "VLF EM-16 Survey / Interpretation Report Over the K7 South Area, White River, Ontario, Canada. Shaun Parent P.Geo. dated April 1, 2019"

Appendix C - Superior Exploration, Adventure \& Climbing Co. Ltd. - Invoice
Appendix D - Superior Exploration, Adventure \& Climbing Co. Ltd. - Harte Gold - K7 South Area - Raw VLF Data

## Executive Summary

Between January 15-March 17, 2019 a ground VLF survey was conducted on the K7 South Grid located on the Dayohessarah Lake property. The Dayohessarah Lake property ("the Property") is located in the Dayohessarah Lake area, north of White River, Ontario.

The work was performed by Shaun Parent of Superior Exploration, Adventure \& Climbing Co. Ltd. on behalf of Harte Gold Corporation. The objective of the survey was to delineate geophysical anomalies potentially containing precious or base metal mineralization and/or identify significant geological structures in the area.

The total cost of the K7 South Grid VLF survey amounted to $\$ 39,490$ and spanned across four grouped mining claims. The survey consisted of 15.18 kilometers along 11 reconnaissance grid lines spaced 200 m apart. A total of 771 station readings were taken spaced at 20 m intervals.

A VLF EM-16 unit and a Garmin GPS 60CSX was utilized during the survey to collect the VLF readings and note the GPS location of each reading. Two transmitters were read at each station: NAA 24.0 KHz - Cutler, Maine and NML 25.2 KHz- La Moure, North Dakota.

Plan view Fraser-Filter, and Resistivity contour maps as well as cross sections were produced of the area (modelled up to 144 meters in depth). The survey outlined several strong VLF bedrock conductors, as well as several highly resistive bedrock units. Superior Exploration, Adventure \& Climbing Ltd recommends adding additional infill lines to the grid to obtain a higher resolution of VLF trends as well as some ground follow up. Several potential drill targets are also recommended.

The Property is in the Dayohessarah Greenstone Belt ("DGB"). This greenstone belt is part of the larger, east trending Schreiber-White River Belt of the Wawa Subprovince of the Superior Craton. The DGB is situated between two larger greenstone belts; the Hemlo Greenstone Belt to the west and the Kabinakagami Greenstone Belt to the east. The DGB has an active history of exploration dating back to 1969 when Canex Aerial Exploration Ltd. drilled three holes on the Property. Exploration ramped up after the discovery of Hemlo, when Pezamerica Resources commenced geophysics and drilling.

In 1998, Harte Gold Corp. entered into an option agreement on most of the unpatented mining claims comprising the Dayohessarah Lake Property, including the Sugar Zone. Harte subsequently entered into a Joint Venture agreement with Corona Gold Corporation.

### 1.0 Introduction

Between January 15-March 17, 2019 a ground VLF survey was conducted by Superior Exploration, Adventure \& Climbing Co. Ltd. on behalf of Harte Gold Corporation. A total of 15.18 line-kilometers were completed. The survey was conducted along the K7 South Grid (Figure 5) which consists of a total of 11 lines. The K7 South Grid is located 13 km south-southeast of the Sugar Zone mine site (Figure 2) on the Dayohessarah Lake Property and is accessed via Highway 631 from White River, ON (NTS 042C11).

This report is being written to introduce the VLF interpretive report written by Shaun Parent of Superior Exploration, Adventure \& Climbing Co. Ltd. and is attached to this report as Appendix B. Please refer to this report for a detailed discussion of the results. This introductory report was written from September 10-13, 2019.

All UTM coordinates are in NAD 83, Zone 16N projection.
Although a work permit is not required for a VLF survey, the K7 South VLF survey occurs within Exploration Permit PR-18-000291.

### 2.0 Property Location and Description

### 2.1 Location and Access

The Dayohessarah Lake Property is situated approximately 25 km northeast of the Town of White River (Trans-Canada Highway No. 17) and 60 km east of the Hemlo gold camp. The Property is approximately equidistant from Sault Ste. Marie to the south-east and Thunder Bay to the west (Figure 1). The overall Property encompasses NTS zones 42C/ 10, 11, 14 and 15 and the gold mineralized occurrences are exposed at Latitude $48^{\circ} 48^{\prime}$ north, Longitude $85^{\circ} 10^{\prime}$ west. The property covers parts of the Odlum, Strickland, Gourlay, Tedder, Hambleton, Cooper, Nameigos, Abraham and Bayfield Townships, and falls within the Sault Ste. Marie Mining Division.

The Property can be accessed via a series of logging roads and drill trails extending north from the community of White River. Access is also available by way of float plane, based in White River via Dayohessarah Lake or Hambleton Lake, and by helicopter based in Wawa or Marathon.

The western and southern portions of the Property are accessible via a series of logging roads controlled by White River Forest Products Limited. Road No. 100 extends north from the western end of White River. Road No. 200 intersects Road No. 100 approximately 20 km from Highway 17 and provides access to the western and southern portions of the property. Road No. 300 intersects Road No. 100 approximately 36 km from Highway 17 and provides access to the very northern portion of the Property. Road No. 305 intersects Road No. 300 approximately 6 km from Road No. 100 and provides access to northern and eastern parts of the Property. Road access to within 400 m of the Sugar Zone is available via a small road heading south and southwest from Road No. 305 for 8.8 km . From there, access to the Sugar Zone is available via all-terrain or tracked vehicles in the summer, and snowmobiles, tracked vehicles and trucks in the winter. The distance from White River to the Sugar Zone is approximately 60 km by road.

Areas surrounding Dayohessarah, Hambleton, Strickland and Pike Lakes are designated by the Ontario Ministry of Natural Resources as 'Restricted Access'. Locked gates on Road No. 200 and Road No. 305 control vehicular access in order to prevent access to remote lodge operations on two lakes. Permits are required for road access to most of the Sugar Zone property for mineral exploration purposes.

### 2.2 Description of Mining Claims

The Dayohessarah Lake Property consists of four mining leases comprising 1467.26 hectares, including 69 boundary cell claims, 43 single cell claims, 197 multi-cell claims. Harte Gold also


Figure 1 - Property Location
has an option to earn a $100 \%$ interest in the Halverson Property subject to certain terms and conditions. The Halverson Property consist of 12 boundary cell claims and 4 single cell claims. (Appendix A). All claims of the Dayohessarah Lake Property are held in the name of Harte Gold Corp., except for those of the Halverson Property which are held in the name of Lloyd Joseph Halverson and are subject to an option agreement. The Property boundaries are marked by claim lines but have not been surveyed (Figure 2).

There are two mining alienations which border parts of Harte's current claim block. The largest (W-LL-C1521) lies to the east of the current claim area, and shortly borders claim 4260617 on the east, and Hwy 631 on the west. The second alienation (No. 2847) lies entirely within Harte's current claim block, west of Dayohessarah Lake. Surface rights are held by the Crown and timber cutting rights are held by White River Forest Products Ltd.

In 1998, Harte Gold Corp. (Harte) entered into an option agreement on most of the unpatented mining claims comprising the Dayohessarah Lake Property, including the Sugar Zone. Harte Subsequently entered into a Joint Venture agreement with Corona Gold Corp.

The original claims are subject to a $3.5 \%$ net smelter royalty ("NSR"). The Joint Venture participants, namely Corona (51\%) and Harte (49\%), have the option of acquiring $1.5 \%$ of the $3.5 \%$ NSR for $\$ 1.5$ million, in proportion to their respective interest and have, in addition, the right of first refusal on the remaining $2.0 \%$ NSR.


Figure 2-Claim Position and Showings
Harte and Corona entered into an Option Agreement (the "Corona Option") dated May 28, 2010, entitling Harte to acquire Corona's 51\% interest in the Sugar Zone Joint Venture upon completion of certain conditions. Effective March 10, 2010, Harte became the Operator of the Sugar Zone Joint Venture for as long as the Corona Option remained in good standing. Harte completed all required conditions and as of May 23, 2012 acquired Corona's $51 \%$ interest to become the 100\% owner and operator of all the claims which were previously part of the Sugar Zone Joint Venture.

### 2.3 Physiography and Vegetation

The climate is northern boreal, with short hot summers and cold, snowy winters. Some field operations, such as drilling, can be carried out year-round while other operations, such as prospecting and mapping, can only be carried out during the late spring, summer and early autumn months.

The temperatures can range from $-35^{\circ} \mathrm{C}$ in the winter to $+30^{\circ} \mathrm{C}$ in the summer; though the mean temperatures are around $-20^{\circ} \mathrm{C}$ to $+20^{\circ} \mathrm{C}$. Rainfall is about 727 mm annual average, with the wettest month being September ( 120 mm average). Snow is abundant, often reaching several
metres with December and January having the heaviest snowfall (about 80 cm ). Snow is on the ground by late October and the ice begins to thaw on the lakes by April.

The topography on the Property varies from moderate to rugged, with lake levels generally at 390 m above sea level, and occasional hills up to 480 m elevation. The overburden is generally between 0 to 20 m deep on the Property, with occasional boulderer terrain, and normally approximately 2 to 3 m overlying the Sugar Zone. Vegetation is boreal, with jack pine, fir, poplar and birch occupying dry uplands and cedar, tamarack and spruce growth on more poorly drained terrain.

### 3.0 Historical Work

Exploration for gold and base metals has been conducted on the Dayohessarah property since 1969. After over 10 years of very little work, exploration started to pick up on the property again in 1983, after the discovery of the Hemlo Gold camp. A complete timeline of mineral exploration on the DGB is presented below.

1969 Canex Aerial Exploration Ltd. drilled three diamond drill holes in the vicinity of the mafic/ultramafic intrusives and flows near the north end of Dayohessarah Lake. Results include an intersection of $0.326 \% \mathrm{Ni}$ and $0.08 \% \mathrm{Cu}$ over 5 ft . in metagabbroic rocks.

1983-1986 Pezamerica Resources Limited conducted an exploration program which included an airborne Mag and EM survey that outlined thirty-one (31) geophysical anomalies in the area. Twenty-four (24) of these anomalies were investigated by Teck Exploration on behalf of Pezamerica. Teck Exploration drilled nine airborne geophysical targets based on coincidental soil gold anomaly trends. In all cases, the airborne anomalies were explained by pyrite/pyrrhotite rich horizons within felsic volcanics. Hole PZ-6 returned appreciable amounts of sphalerite mineralization ( $0.47 \% \mathrm{Zn}$ over 2.8 feet). None of the assayed core returned significant gold values.

1990 Most of the DGB is staked by a prospecting syndicate.
1991 The Property is optioned from the prospectors by Hemlo Gold Mines Inc. Initial prospecting uncovered the gold-bearing Sugar Zone deposit. Based on bedrock exposure and trenching, the Sugar Zone was traced for 750 m , and a ground IP survey outlined the Sugar Zone structure extending for $1,500 \mathrm{~m}$.

1993 Hemlo Gold conducted a preliminary diamond drill program to test the Sugar Zone for economic gold mineralization. A grid was cut with a $6-\mathrm{km}$ baseline and tie-lines ranging in spacing between 100 m and $1,000 \mathrm{~m}$. Six diamond drill holes were completed totaling 800 m . All drill holes intersected significant gold mineralization in the Sugar Zone. A small trenching program is initiated on the Sugar Zone.

1994 Hemlo Gold proceeds with initial geological mapping, prospecting and a follow-up drill program. Fifteen diamond drill holes are completed on the Property, totaling 2,416 m. Eight of the drill holes intersected the Sugar Zone. An I.P. survey is completed over the southern portion of the Property, and a Mag survey is completed over the entire grid. After the exploration program, the Property was returned to the prospecting syndicate who initially staked the ground, due to legal reasons.

1998-1999 Most of the Property is optioned from the prospector's syndicate. The mining claims were subject to a Joint Venture agreement between Corona Gold Corporation (51\%) and Harte Gold Corp. (49\%). Corona was the operator. The initial 313 claims are subject to a $3.5 \%$ net smelter royalty ("NSR"), and the Joint Venture participants have the option to acquire $1.5 \%$ of the $3.5 \%$ NSR for $\$ 1.5$ million and have the right of first refusal on the remaining $2.0 \%$ NSR.

Corona carries out an extensive exploration program. The existing grid was rehabilitated, and new grid lines established east of Dayohessarah Lake. In total, 96.1 km of grid lines with 100 m spacing oriented at $320^{\circ}$ azimuth are cut over the Sugar Zone area. An oriented soil sampling program is carried out on the grid, as well as mapping and sampling. Prospecting was limited to the Sugar Zone and extensions of the Sugar Zone to the south and to the north. A surface power trenching program is conducted on parts of the Sugar Zone and six trenches were excavated, washed, channel sampled and mapped in detail. A detailed Mag-VLF and reconnaissance gradient I.P. survey is performed on the Property.
A diamond drilling program totaling $9,937 \mathrm{~m}$ of NQ core in 53 holes is completed, mostly into and around the Sugar Zone. The drill holes cover 3 km of strike length and intersect the zone at approximately 50 m spacing at shallow depths. A secondary purpose of the program was to follow-up low grade mineralization encountered in previous drilling by Hemlo Gold and to test previously untested/poorly tested I.P. anomalies west of the Sugar Zone and east of Dayohessarah Lake.

Preliminary Mineral Resource estimates of the Sugar Zone mineralization in the 12000 N to 13100 N area were prepared, based on the drilling program noted above. Another estimate was made, using revised and refined criteria and polygonal methods, in the spring 1999, following additional data evaluation (Drost et AI, 1998).

2003-2004 Corona conducts a diamond drilling program totaling $7,100 \mathrm{~m}$ in 26 holes. The drill program mostly intersects the Sugar Zone and is successful in its purpose of expanding the strike and dip extent of the zone, as well as increasing the level of confidence in the continuity of mineralization by in-fill drilling.

2004 Corona conducts another diamond drilling program totaling $3,588 \mathrm{~m}$ in 11 holes. The program is successful in increasing the mineralization extent of the Sugar Zone, as well as increasing the defined Sugar Zone depth to a vertical depth of 300 m . A new Mineral Resource estimate was completed.

2008 A helicopter airborne geophysical survey was flown over the Property by Fugro Airborne Surveys Corp., under contract from Corona. The survey used a DIGHEM multi-coil, multifrequency electromagnetic system along with a high sensitivity cesium magnetometer. A total of 1,917 line-km was flown. It was recommended by Dave Hunt P.Geo. that compilation of historic exploration data on the remainder of the property be followed by a program of reconnaissance mapping and prospecting to evaluate the Fugro airborne conductor axes on the ground, as well as to identify additional target areas extending both north and south of existing Sugar Zone mineralization and elsewhere on the property.
2009 During March, Corona undertook a drilling program totaling $2,020 \mathrm{~m}$ in 10 holes. The purpose of the program was to test airborne electromagnetic conductors, magnetic anomalies, induced polarization chargeability anomalies and geologically defined possible extensions to the north and the south of the known Sugar Zone mineralization.

During July to September, a prospecting, reconnaissance geological mapping and channel sampling program was undertaken on geophysical targets outlined by the Fugro airborne geophysical anomalies. Highlights included sampling of a float rock (Peacock Boulders) returning a value of $87.80 \mathrm{~g} / \mathrm{t} \mathrm{Au}$, as well as grab samples from quartz veining east of the Sugar Zone returning values of 30.40 and $9.04 \mathrm{~g} / \mathrm{t} \mathrm{Au}$.
2010 Harte Gold Corp. initiated it first drilling program. During March, a diamond drill program totaling 2,097.31 m in 12 holes, two of which were aborted before reaching the Sugar Zone. The program was successful in locating a high-grade area of the Sugar Zone located near surface and directly under a series of surface trenches. The drill program was also successful in determining that the Sugar Zone has significant mineralization below 300 m depth.

Ground IP is completed over a grid totaling 20,475 meters. Chargeability from the survey outlines a potential zone north of the Peacock Boulder discovery of 2009. 5 Trenches totaling 1,850 square meters were completed over and around the newly discovered Wolf Zone.

A total of $5,387.94 \mathrm{~m}$ of diamond drilling totaling 33 drill holes was completed on the newly discovered Wolf Zone. Results outlined a small, high grade zone with a strike length up to 600 m and a depth up to 250 meters.

2011 Between May and June 2011 two more grids totaling 60,800 meters were completed over the fold nose near the north end of the of the Dayohessarah Lake Property, on the west side of Hambleton Lake. Follow up ground IP was completed on the grids by JVX Geophysical Surveys. A small 5,200-meter grid was also cut, and ground IP completed on the west side of Dayohessarah Lake, to outline a Gossan Zone.

A Bore Hole survey was completed In August 2011 on eleven deep drill holes in the Sugar Zone. The Bore Hole survey outlined several conductors in the area. An airborne VTEM survey was completed at the end of August by Geotech Ltd. The survey covered the entire property and outlined 5 large moderate to strong conductive areas of interest. The most exciting result of the survey was a potential copper-nickel ore body below the surface, under the komatiite volcanics at the northern end of Dayohessarah Lake.

There were two main drill programs in 2011. The first was on the Sugar Zone, between February 11 to April 13, and again between July 17 and November 24, 2011, and totaled $7,885.74$ meters of diamond drilling in 27 drill holes. The drilling was designed to expand the resource estimate both at depth, and to upgrade inferred resource to indicated resource. The second drill program targeted IP anomalies on the Fold Nose grid. A total of $3,430.93$ meters were drilled in 15 diamond drill holes. Most IP anomalies were explained by sedimentary layers, and no significant intercepts were observed.

2012 In April 2012, Geotech Ltd. carried out a helicopter borne geophysical survey over the Dayohessarah Lake Property. The program was completed as an extension of the airborne VTEM survey conducted in 2011 which totaled 302 line-km of data over the northern parts of Dayohessarah Lake and western parts of Hambleton Lake and the shore line. The 2012 program totaled 1,153 line-km of data essentially covering the rest of the Dayohessarah Greenstone Belt.

To understand the source of the Peacock boulders, thin sections of three Peacock boulder samples were sent to Pleason Geoscience for analysis. The boulders returned assay values of
$87.30 \mathrm{~g} / \mathrm{t} \mathrm{Au}, 52.80 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ and $37.20 \mathrm{~g} / \mathrm{t}$ Au. It was noted that the mineralogy and micro-textures of the samples were similar to gold-bearing zones at the Hemlo and Musselwhite gold camps.

Between October 30, 2012 and November 2, 2012 four mechanical trenches were made along the surface exposure of the Sugar Zone. The purpose of the trenches was to expose enough high-grade material from the Lower Zone of the Sugar Zone for a reasonably representative blasting program. The total area of the trenches is 1,799 square meters.

During the period January 21, 2012 to July 29, 2012 a total of 6,283.92 meters were drilled in 12 diamond drill holes targeting the Sugar Zone. The drilling was carried out by Major Drilling Group International Inc. The purpose of the diamond drilling program was to expand the current Mineral Resource Estimate of the Sugar Zone at vertical depths below 400 m , and to test the continuity, grade and width of the zone at $1,000 \mathrm{~m}$ vertical depth. The program was successful in defining Au mineralization in both the Upper and Lower Zones with significant assay results ranging from $0.56 \mathrm{~g} / \mathrm{t}$ Au to $162 \mathrm{~g} / \mathrm{t} \mathrm{Au}$.

An additional 2 drill holes targeted an IP north-east of Dayohessarah Lake. These exploration holes totaled 375 meters and did not return any significant gold values.

Two holes totaling 333 meters were drilled targeting an extension of the Wolf Zone. No significant assays were returned.

2013 Exploration in the 2013 season included a short prospecting program, where 46 samples were taken and analyzed for Au using fire assay. Two samples returned Au values of $10.2 \mathrm{~g} / \mathrm{t}$ and $0.73 \mathrm{~g} / \mathrm{t}$.

Four holes were drilled on the Halverson Zone, totaling 1103.28m These holes targeted Cu-Ni mineralization discovered in 2011 by a VTEM survey.

An additional 17 diamond drill holes totaling 1356m were drilled to decrease the spacing between holes in a high-grade portion of the Sugar Zone Lower Zone (called Jewelry Box). Significant intervals from this program ran from $2.77 \mathrm{~g} / \mathrm{t} \mathrm{Au}$ to $28.5 \mathrm{~g} / \mathrm{t}$ Au over widths from 0.35 m to 8.27 m .

Harte Gold continued moving forward with the permitting and optimization of the advance exploration 70,000 tonne bulk sample at the Sugar Zone. Confirmation drilling at the Jewelry Box Zone (JBZ) returned significant high-grade gold assays and enabled Harte Gold to re-design the bulk sample target areas in order to test this high-grade portion of the Sugar Zone deposit. The JBZ lies close to surface and can be developed quicker and more cost effectively.

Harte Gold also completed road construction to provide highway access to the property and survey work associated with taking certain of the Sugar Zone property mining claims to lease. Harte Gold is also in the process of negotiating contract mining and off-site milling agreements.

Harte Gold completed a regional exploration program and Induced Polarization (IP) survey with the objective of finding the source of the high-grade Peacock Boulders which returned gold values up to $87 \mathrm{~g} / \mathrm{t}$. Drill targets have been identified and are scheduled to be drilled during the summer of 2014.

2014 Harte Gold continued to advance the Sugar Zone "Advanced Exploration and Bulk Sample Project" during 2014. Efforts focused on completing the permitting associated with the amended closure plan, completing the road to the portal site and overall optimization of the mining plan developed in the 2012 Preliminary Economic Assessment.

Additional confirmation drilling at the Jewelry Box Zone (JBZ), the target area for the bulk sample, returned significant high-grade gold assays providing additional confirmation to mining contractors developing bids for the project.

2014 was a busy year of exploration, Induced Polarization and magnetometer surveys were conducted over a majority of the core mining claims and generated numerous drill targets. Follow up ground proofing and drill programs identified the Wolf Zone as the source of the high-grade Peacock Boulders and lead to the discovery of the Contact Zone, where a sericite schist was found to have Hemlo-style geochemistry and anomalous gold as well as a third mineralized zone known as the Footwall Zone and located 50 meters east of the Sugar Zone deposit.

During 2015 Harte Gold completed additional exploration drilling that extended the Sugar Zone deposit 300 meters south of its previously defined boundary.

Harte Gold completed additional construction work on the site access road linking the Sugar Zone deposit to Highway 631 and completed the lease application process for certain mining claims that comprise the Sugar Zone property. The leases cover the Sugar Zone deposit and immediately surrounding area and are a requirement for commercial production.

2015 This was a pivotal year for Harte Gold as efforts to move the project ahead during a challenging mining market finally culminated in October with the first portal blast at the Sugar Zone. Since October the ramp was advanced to over 850 meters in length and begun shipping ore to Barrick Gold for custom milling from ore developed on the 375 level.

With production under our bulk sampling program well underway, the commercial permitting process has begun. This process is expected to take 12-18 months which may coincide well with completion of the bulk sample program. During the intervening period, the plan is to continue with underground development which would include the ramp, underground infrastructure including ventilation and setting up stopes to be ready for mining.

The commercial production target is 600 tonnes/day. Milling options are currently being studied and a tailings facility will form part of our permit application so that an on-site milling facility can eventually be built.

Harte gold initiated a significant geophysical program between the Sugar Zone and the Wolf Zone. The Contact Zone where Hemlo-style mineralization has been found in sericite schists up to 45-meter-wide and the Gossan Zone located on the west side of Dayohessarah Lake will be a focus for future exploration.

2016 This was a very busy year for Harte Gold as mining was in full swing with ore being delivered to Barrick Gold Corporation's Hemlo mill throughout the year.

Exploration efforts both near-mine and regionally are progressing at an aggressive pace with 6 drill rigs now working at the Sugar Zone and the newly discovered Middle Zone and the Wolf Zone. It is expected that the next resource update will include resources at the Middle Zone which could be incorporated into an updated mine plan and Technical Report.

2017 During the year the Company raised an aggregate of $\$ 50$ million under bought deal private placements and received $\$ 5,063,163$ from the exercise of investor and finders warrants and stock options. Funds were used to complete the Company's 70,000 tonne Advanced

Exploration Bulk Sample, underground development work associated with the Company's 30,000 Phase I Commercial Permit, mill construction and general corporate purposes.

Harte Gold completed the 70,000 tonne Advanced Exploration Bulk Sample in March 2017 under which it shipped a total of 67,425 dry tonnes at an average grade of 8.28 grams / tonne to Barrick Inc.'s nearby Hemlo Mill for processing. Harte Gold realized approximately $\$ 27$ million from the advanced exploration bulk sample, which funds were re-invested in the Sugar Zone project.

Harte Gold received a Phase I-30,000 tonne commercial permit in January 2017. The Phase I program is situated towards the south end of the Sugar Zone Deposit and required the development of a ramp from the Advanced Exploration Bulk Sample at the north end of the Deposit to provide access. Harte Gold established five mining levels and excavated 30,000 tonnes of development ore. The development ore is stockpiled on surface and will serve as the initial feed for the on-site Mill under Phase II Commercial Permits anticipated in June 2018.

In February 2017 Harte Gold submitted a Notice of Material Change ("NOMC") and subsequently received approval to build the Mill Building and install the crusher, ball mill, gravity concentrator, float concentrate circuit, paste back-fill plant, effluent treatment plant and other ancillary items associated with on-site milling process. As of the date hereof construction is well advanced and on schedule for completion in June 2018.

Harte Gold received location approval for its tailing's management facility ("TMF") and commenced preconstruction clearing completed the installation of the west dam. Harte Gold sought and received confirmation from the Canadian Environmental Assessment Agency that no federal environmental assessment is applicable to the project.

Harte Gold submitted a Draft Closure Plan Amendment ("CPA") to the MNDM which CPA provides for full commercial production, on-site milling and the operation of the TMF. Harte Gold is working with the MNDM and MOECC to finalize all outstanding permits in order to begin commissioning the mill in June and production in July.

Harte Gold was also very active with its exploration programs; Harte Gold completed approximately 80,000 meters of drilling during the year. Drill programs focused on:

Moving that portion of the Sugar Zone Deposit between surface and 500 m from the inferred resource category to the indicated category. Increasing the number of contained ounces within the newly discovered Middle Zone. Testing for Wolf Zone extensions at depth and other targets along strike.

A regional airborne geophysical survey was also undertaken which resulted in the definition of new exploration targets within and outside the Sugar Zone Property. As a result of this survey Harte Gold staked an additional ground to cover a greenstone belt and other targets, to bring the total property package to 79,335 hectares.

2018 A Mineral Resource Estimate dated February 15, 2018 contains an Indicated Mineral Resource Estimate of $2,607,000$ tonnes grading $8.52 \mathrm{~g} / \mathrm{t}$ for 714,200 ounces of contained gold and an Inferred Mineral Resource Estimate of 3,590,000 tonnes, grading $6.59 \mathrm{~g} / \mathrm{t}$ for 760,800 ounces of contained gold, using a $3.0 \mathrm{~g} / \mathrm{t}$ Au cut-off. The Company also completed a Preliminary Economic Assessment with an effective date of March 31, 2018, outlining 80,700 ounces of annual average gold production at an All-In Sustaining Cash Cost ("AISC") of US\$708/oz Au over an 11 year mine life.

All commercial production permits were issued in September. Process plant construction and transition to grid power were completed in September. First gold production was announced in mid-October. Gold doré bars are being produced through the gravity circuit and a high-grade concentrate is being produced through the flotation recovery circuit for offsite processing.

Official Mine Opening which was attended by the Premier of Ontario and Minister of Energy, Northern Development and Mines occurred October $24^{\text {th }}$, 2018. The Company bought down the royalty on the Sugar Zone property from 3.5\% to 2.0\% effective October 31, 2018.

Process plant commissioning was completed in early November. Since that time the Company has increased throughput to achieve the initial targeted rate of 575 tpd .

Sill development is on-going and long-hole stoping between the 140 and 155 levels off the Sugar Zone South ramp has begun. Results of the first production stope blast achieved expectations.

Underground development continues at the Sugar Zone North and South ramps. During September, the average advance rate of 8 meters per day was ahead of plan. The installation of critical underground infrastructure to support ventilation, power and pumping has been completed. In addition, the mine return air ventilation fan was successful installed and the transition to grid power for the majority of site power requirements substantially completed. Redpath is ramping up its underground mine personnel to achieve targeted ore sill development rates. Harte Gold's current permits allow for underground mining and mill processing rates of 550 tpd and 575 tpd respectively. Harte Gold will submit an application to increase both categories to 800 tpd in Q1 2019.

The Company expects to declare commercial production at the end of December 2018.
Near Mine Exploration infill drilling at the Sugar and Middle Zones for 2018 has concluded. Approximately 62,000 meters was drilled with a focus on the upgrade of Inferred Mineral Resources to the Indicated category. The drill program was successful and is expected to improve overall modelled grade of the Resources. Results will be factored into an updated $\mathrm{NI} 43-$ 101 Mineral Resource Estimate targeted for early 2019. Step-out drilling underway will continue to mid-December. Approximately 30,000 meters has been drilled to-date, targeting extension of known mineralization at the Sugar, Middle and Wolf Zones, as well as discovery of new potential zones of mineralization like the Fox Zone. Information provided from the Company's downhole IP program completed in August has been successful identifying a number of drill targets, including a chargeability anomaly currently being drilled to test the convergence of the Middle and Wolf Zones. Downhole geophysics has been a highly successful tool used in the past, earlier work led to the deep Sugar Zone discovery at a depth of 1,000 meters. The Company has also started deep drilling at the Sugar Zone, approximately 1,500 meters below surface and 500 meters below the current extent of Inferred Mineral Resources, illustrated below. The intent of deep drilling is to test continuity of mineralization down dip and to potentially follow up with further downhole IP to develop deep drilling targets.

### 4.0 Geological Setting

### 4.1 Regional Geology

The DGB is situated between two larger greenstone belts; the Hemlo Greenstone Belt to the west and the Kabinakagami Greenstone Belt to the east. These greenstone belts are part of the larger, east trending Schreiber-White River Belt of the Wawa Subprovince of the Superior Craton (Figure 3). The Late Archean DGB trends northwest and forms a narrow, eastward concave crescent. The belt is approximately 36 km in length and varies in width from 1.5 to 5.5 km . Principal lithologies in the belt are moderately to highly deformed metamorphosed volcanics, volcaniclastics and sediments that have been enclosed and intruded by tonalitic to granodioritic quartz-porphyry plutons.

The greenstone belt is bordered to the east by the Strickland Pluton and to the west by the Black Pic Batholith. The Danny Lake Stock borders the south-western edge of the DGB. The Strickland Pluton is characterized by a granodioritic composition, quartz phenocrysts, fine grained titanite, and hematitic fractures. The Black Pic Batholith is like the Strickland Pluton, but locally more potassic. The Black Pic Batholith also contains interlayers of monzogranite. The Danny Lake Stock is characterized by hornblende porphyritic quartz monzonite to quartz monzodiorite (G. M. Stott, 1999).


Figure 3-Regional Geology

The DGB has been metamorphosed to upper greenschist to amphibolite facies. The Strickland Pluton seems to have squeezed the greenstone belt and imposed upon it a thermal metamorphism. Most of the mafic volcanics are composed primarily of plagioclase and hornblende. Almandine garnets are widely observed in the clastic metasediments and locally, along with pyrope garnets, in the mafic volcanics (G.M. Stott, 1996a,b,c).

Alteration throughout the belt consists of diopsidation, albitization, weak magnesium biotitization, weak carbonatization and moderate to strong silicification which accompanied the emplacement of the porphyry dykes/sills and quartz veining.

The belt has been strongly foliated, flattened and strained. Deformation seen in the supracrustal rocks has been interpreted to be related to the emplacement of the Strickland Pluton. Strongly developed metamorphic mineral lineations in the supracrustal rocks closely compare with the orientations of the quartz phenocryst lineations seen in the Strickland Pluton. This probably reflects a constant strain aureole imposed by the pluton upon the belt (G.M. Stott, 1996a,b,c). The strain fabric is best observed a few hundred meters from the Strickland Pluton in the Sugar Zone, which has been characterized as the most severely strained part of the belt. The Sugar Zone is defined by sets of parallel mineralized quartz veining, quartz flooding of strongly altered wall-rock, thin intermediate porphyry lenses and dykes/sills parallel to stratigraphy and foliation, and gold mineralization.

Foliations and numerous top indicators define a synclinal fold in the central portion of the belt. The synclinal fold has been strongly flattened and stands upright with the fold hinge open to the south and centered along Dayohessarah Lake.

### 4.2 Property Geology

Near Dayohessarah Lake, the belt is dominated by a basal sequence of massive to pillowed mafic volcanics, commonly with ellipsoidal, bleached alteration pods, overlain by intermediate tuff and lapilli tuff. The tuffaceous units rapidly grade upwards to a sedimentary sequence consisting of greywacke and conglomerates derived from volcanics, sediments and felsic intrusive sources (G. M. Stott, 1996a,b,c). Several thin, continuous cherty sulphide facies iron formations are found in the mafic volcanic sequence. Spinifex textured komatiitic flows stratigraphically underlie the main sedimentary sequence and can be traced around the north end of Dayohessarah Lake. Also, at the north end of Dayohessarah Lake, mafic and ultramafic sills and stocks underlie the komatiites (Figure 4).

Several fine to medium grained, intermediate feldspar porphyry dykes/sills have intruded and swarmed the belt. Swarming of the intermediate porphyry dykes is more intense east of Dayohessarah Lake. Stott has interpreted the porphyry sills and associated porphyry bodies to be related to the Strickland Pluton. A smaller granitic quartz porphyry body containing some sulphide mineralization is located northwest of Dayohessarah Lake. The porphyritic texture of the dykes/sills is often nearly, or completely, obliterated by the degree of foliation in the greenstone belt, or by the degree of shear in the Sugar Zone. These intermediate dykes/sills vary in abundance across the Property, but increase in regularity within, and around, the Sugar Zone. There is also a consistent, weak pervasive silicic alteration in the intermediate intrusives, as well as consistently trace amounts of very fine-grained disseminated pyrite.

The major linear structure recognized on the Property is the Sugar Deformation Zone ("SDZ"), which trends northwest-southeast for approximately 3.5 km and dips southwest between $65^{\circ}$ and
$75^{\circ}$. The SDZ appears to be spatially related to the Strickland Pluton and is a complex system with strain intensities varying from strongly deformed-pillow mafic volcanics to undeformed massive mafic flows to anastomosing linear areas. Stratigraphically-conformable porphyritic intermediate intrusions swarm through the SDZ. Both the mafic volcanics and the intermediate intrusives exhibit moderate linear fabrics along with hydrothermal alteration (i.e., silicification).

In general, the north-westerly striking, south-westerly dipping stratigraphy hosting the gold mineralized portions of the Sugar Zone can be subdivided into the following units:

- Hanging Wall Volcanics;
- Upper Zone (Sugar Zone mineralization);
- Interzone Volcanics;
- Lower Zone (Sugar Zone mineralization);
- Footwall Volcanics

The Hanging Wall, Interzone and Footwall volcanic horizons consist predominantly of massive and pillowed basalt flows generally striking northwest and dipping at an average angle of $64^{\circ}$ to the southwest. Coarse to very coarse grained, locally gabbroic-textured phases form a significant component of the Hanging Wall mafic volcanic package. It is believed that these phases represent thick, slowly-cooled portions of the massive mafic flows, as they commonly grade into finer grained, more recognizable basaltic flows, and eventually even pillow flows. In much of the area which drilling on the Sugar Zone was carried out, a distinctive, very coarse grained mafic volcanic flow was observed consistently about 15 m stratigraphically above the Upper Zone. Other than this unit, specific mafic flows, as well as intermediate porphyry units, are nearly impossible to interpret/distinguish between holes.

The Upper and Lower zones range in thickness from 1.5 to 10 m , strike at $140^{\circ}$ and dip between $65^{\circ}$ and $75^{\circ}$ with minor undulations.

The auriferous Wolf Zone lies in the northern extent of the SDZ but drilling between the two zones indicates that the zones are complexly separate from each other. Like the Sugar Zone, the Wolf Zone is north-north-westerly striking and south-westerly dipping. Unlike the Sugar Zone, there is only one gold mineralized zone, and not two or more parallel zones.

A northerly-striking, sub-vertically dipping, dark grey-black, diabase dyke intrudes the older rock types in the greenstone belt and crosscuts the SDZ. The diabase obliterates the SDZ when it is encountered. The diabase dyke is aphanitic around the edges and, where thick enough to do so, grades to a coarse-grained euhedral rock in the middle of the dyke. The dyke exhibits very coarse-grained greenish quartz-epidote phenocrysts up to 3 cm across throughout. The dyke is weakly pervasively magnetic. A very small amount of lateral movement of the zones has been interpreted locally on either side of the dyke, suggesting that very minor dyke-related faulting has occurred. There are at least two more diabase dykes on the property. They strike at 35 degrees across the northern portion of the belt. These dykes are up to 40 m across and are similar in appearance and mineralogy to the dyke that cuts through the Sugar Zone.


Figure 4 - Property Geology
Other than the diabase, the youngest intrusive rocks observed on the Property are white to pale grey, fine grained to medium grained and occasionally pegmatitic felsite dykes. The dykes generally consist of varying amounts of plagioclase, quartz and muscovite. These generally thin dykes strike northeast and where they intersect the SDZ, they completely wipe out the zone. These dykes are undeformed and clearly postdate the mineralization and deformation events.

### 5.0 Mineralization

### 5.1 Sugar Zone

The auriferous Upper and Lower zones of the Sugar Zone lie within the SDZ. They are defined as highly strained packages consisting of variously altered mafic volcanic flows, intermediate porphyritic intrusions and boudinaged auriferous quartz veins. The two zones range in true thickness from about 1.5 to 10 m and are separated by 20 to 30 m of barren mafic volcanics. A high-grade section of the Lower zone between lines $13+000 \mathrm{~N}$ and $12+900 \mathrm{~N}$ has been the focus of a bulk sample study and is referred to as the Jewelry Box.

Each zone is made up of one or more porphyritic intrusions, flanked by altered basalt and hosting stratigraphically conformable quartz veins. Alteration within the mafic volcanic potions of the zones consists primarily of silicification (both pervasive and as quartz veining), diopsidation and biotitization. The porphyry units of the zones exhibit biotite and silica alteration as well, but no diopside alteration.

The Upper and Lower zones appear geologically consistent both down dip and along strike. The Lower Zone has consistently larger widths, as well as mostly consistently higher grades of gold mineralization, however both the width and the gold grade within each zone seem to follow the same trends across the zone. That is to say, that where the Upper Zone exhibits larger widths and higher gold grades, the Lower Zone also exhibits larger widths and higher gold grades. The zones are observed on surface to pinch and swell over distances of 50 m or more.

Gold mineralization mostly occurs in quartz veins, stringers and quartz flooded zones predominantly associated with porphyry zones, porphyry contact zones, hydrothermally altered basalts and, rarely, weakly altered or unaltered basalt within the Upper and Lower zones.

Fine to coarse grained specks and blebs of visible gold are common in the Sugar Zone quartz veins, usually occurring within marginal, laminated or refractured portions of the veins. The visible gold itself is often observed to be concentrated within thin fractures, indicating some degree of remobilization. Quartz veins and floods also contain varying amounts of pyrrhotite, pyrite, chalcopyrite, galena, sphalerite, molybdenite and arsenopyrite. The presence of galena, sphalerite and/or arsenopyrite is a strong indicator of the presence of visible gold. Pyrite, chalcopyrite and, rarely, molybdenite form a minor component of total sulphides and do not appear to be directly related to the presence of gold mineralization.

Other mineralized zones have been observed between, above and below the Sugar Zone Upper and Lower zones, in diamond drilling. Most of these intercepts are believed to be quartz veining originating in either the Upper or Lower zone, that have been diverted from the sheared part of the zone, up to 30 m from the main bodies of mineralization. One of these zones is the historically discovered Zoe Zone, which has been recently renamed the Lynx Zone, which lies east of the southern end of the Sugar Zone.

### 5.2 Wolf Zone

The auriferous Wolf Zone lies along strike of the Sugar Zone and may represent the northern extension of the SDZ. It is defined as highly strained packages consisting of variously altered mafic volcanic flows and gabbro. The zone ranges in true thickness from 0.5 to 8 m .

The zone is made up of highly sheared mafic volcanics, and a network of intrusive, intermediate quartz-feldspar porphyry dykes/sills. Alteration in the mafic volcanic and gabbro units consists mainly of silicification (both pervasive and quartz veining), diopside alteration and magnesiumrich brown biotite alteration. Alteration within the intermediate porphyry units consist of mostly silicification, with small amounts of magnesium-rich brown biotite, and no diopside. The zone is observed in trenches to pinch and swell over 30 m .

Gold mineralization mostly occurs in quartz veins, stringers and quartz flooded zones predominantly associated with porphyry zones, and hydrothermally altered basalts and gabbro.

Fine grained specks of visible gold are occasionally observed in the Wolf Zone quartz veins. The visible gold itself is often observed to be concentrated within thin fractures, indicating some degree of remobilization. Quartz veins and floods also contain varying amounts of pyrrhotite, pyrite and occasional galena. The presence of galena is a strong indicator of the presence of visible gold. Pyrite and pyrrhotite form most of the total sulphides, but do not appear to be directly related to the presence of gold mineralization.

### 6.0 Summary of Work

Between January 15-March 17 2019, Superior Exploration, Adventure \& Climbing Ltd. completed a VLF EM-16 survey on the K7 South Grid, on Harte Gold's Dayohessarah Lake property. The K7 South Grid is located 13km south-southeast of the Sugar Zone mine site and is accessed via Highway 631 and then Road 200 from White River, Ontario. The grid (Figure 5) is comprised of a total of 15.18 kilometers along 11 lines and a total of 771 survey points. Readings were taken every 20 m on lines spaced 200 m apart. Surveying on the grid was completed from January 1516, February $6-10$, February 27-28, March 7-17, 2019. The main objective of the survey was to delineate geophysical anomalies and/or identify significant geological structures in the area. This introductory report was written from September 10-13, 2019.

Please refer to the interpretive report submitted by Superior Exploration, Adventure \& Climbing Ltd. for further details on all technical and logistical aspects of the completed survey. (Appendix $B)$.

Invoices from Superior Exploration, Adventure \& Climbing Ltd. for the survey is included in Appendix C.

### 7.0 Results

Plan view Fraser-Filter, and resistivity contour maps as well as cross sections were produced of the area (modelled up to 144 meters in depth). The survey outlined several strong VLF bedrock conductors, as well as several highly resistive bedrock units.

For a more detailed discussion of the results and maps please see the Superior Exploration, Adventure \& Climbing Ltd. interpretation report attached in Appendix B.


Figure 5-K7 South Grid and Mining Claim ID's

### 8.0 Conclusions and Recommendations

The VLF EM-16 survey was successful in identifying several strong bedrock conductors as well as several highly resistive rock units. Superior Exploration, Adventure \& Climbing Ltd recommends adding additional 100m infill lines to the grid to obtain a higher resolution of VLF trends and adding additional filters as well as some follow-up ground work.

Please refer to the Superior Exploration, Adventure \& Climbing Ltd. interpretation report attached in Appendix B for a detailed list of conclusions and recommendations.

### 9.0 Costs

The total cost of the VLF survey conducted on the K7 South Grid amounted to \$39,490. A total of 15.18 km of VLF survey was completed with a total of 771 survey points along 11 lines. The survey area intersected a total of four grouped mining claims; 531157, 531165, 531167, and 531170 (Figure 5).

Program costs and cost per claim are summarized in Tables 1 and 2.

Table 1 - Summary of Costs

| Activity | Units |  | Cost per Unit |  | Total | \% |  |
| :--- | ---: | :--- | ---: | ---: | :--- | ---: | :---: |
| Fieldwork, Interpretation and Modelling | 14.72 | km | $@$ | $\$ 1,300.00$ | per km | $\$ 19,136$ | $48.5 \%$ |
| Geophysical Report | 15.18 | km | $@$ | $\$ 300.00$ | per km | $\$ 4,554$ | $11.5 \%$ |
| Mobilization \& Demobilization | 2 | trips | $@$ | $\$ 400.00$ | per day | $\$ 800$ | $2.0 \%$ |
| Truck Rental | 17 | days | $@$ | $\$ 125.00$ | per day | $\$ 2,125$ | $5.4 \%$ |
| Snow Machine Rental | 17 | days | $@$ | $\$ 75.00$ | per day | $\$ 1,275$ | $3.2 \%$ |
| Per Diem | 24 | days | $@$ | $\$ 75.00$ | per day | $\$ 1,800$ | $4.6 \%$ |
| Room \& Board - Shaun Parent | 24 | days | $@$ | $\$ 300.00$ | per day | $\$ 7,200$ | $18.2 \%$ |
| Report Writing | 4 | days | $@$ | $\$ 650.00$ | per day | $\$ 2,600$ | $6.6 \%$ |
| Total Cost |  |  |  |  |  | $\$ 39,490$ | $100.0 \%$ |

Table 2 - Cost Per Claim

| CLAIM \# |  |  |  |  |  |  |  | Total Meters |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 531157 |  | 531165 |  | 531167 |  | 531170 |  |  |
| Line \# | Meters | Line \# | Meters | Line \# | Meters | Line \# | Meters |  |
| L2000N, OE-1270E | 1270 |  |  |  |  | L2000N, 1270E-1540E | 270 | 1540 |
| L1800N, OE-1490E | 1490 |  |  |  |  | L1800N, 1490E-1520E | 30 | 1520 |
| L1600N, 500E-1560E | 1060 |  |  |  |  |  |  | 1060 |
| L1400N, 500E-1340E | 840 |  |  |  |  | L1400N, 1340E-1500E | 160 | 1000 |
| L1200N, OE-1220E | 1220 |  |  |  |  | L1200N, 1220E-1540E | 320 | 1540 |
| L1200NA, OE-460E | 480 |  |  |  |  |  |  | 480 |
| L1000N, OE-1070E | 1070 |  |  | L1000N, 1660E-1700E | 40 | L1000N, 1070E-1660E | 590 | 1700 |
| L800N, OE-920E | 920 | L800N, 920E-1290E | 370 | L800N, 1490E-1620E | 130 | L800N, 1290-1490E | 200 | 1620 |
| L600N, OE-770E | 770 | L600N, 770E-1350E | 580 | L600N, 1350E-1620E | 270 |  |  | 1620 |
| L400N, 500E-550E | 50 | L400N, 550E-1130E | 580 | L400N, 1130E-1540E | 410 |  |  | 1040 |
|  |  | L200N, 500E-980E | 480 | L200N, 980E-1540E | 560 |  |  | 1040 |
|  |  | LO, 520E-840E | 320 | L0, 840E-1540E | 700 |  |  | 1020 |
| Total Meters/Claim | 9170 | 2330 |  | 2110 |  | 1570 |  | 15180 |
|  |  |  |  |  |  |  |  |  |
| \% of Total VLF Meters | 60\% | 15\% |  | 14\% |  |  | 10\% | 100\% |
|  |  |  |  |  |  |  |  |  |
| Total Cost/Claim | \$23,855 | \$6,061 |  |  | \$5,489 |  | \$4,084 | \$39,490 |

### 10.0 References

Hunt, D.S., 2009. Report on the Summer 2009 exploration program on the Sugar Zone project. Internal report prepared for Corona Gold Corporation and Harte Gold Corp.

Laarman, J.E., 2014. Report on the Summer 2014 Geologic Mapping. Internal report prepared for Harte Gold Corp.

Middleton, R.S., Forslund, N.R., Laarman, J., 2015. 2014 Report on Diamond Drilling at the Sugar Zone Property, Dayohessarah Lake Area, White River, Ontario - Part 2. Internal Report for Harte Gold Corp., January 2015.

Ramsay, J. G. 1980. The crack-seal mechanism of rock deformation. Nature 284, 135-139.
Shegelski, R.J., 2014. Depositional history, structural geology and timing of gold mineralization of the Sugar Zone gold property, Dayohessarah Lake area, White River, Ontario. Internal Report for Harte Gold, September 2014, 21p.

Stein, H.J, Markey, R.J. and Morgan, J.W., 2000. Robust Re-Os Molybdenite Ages for the Hemlo Au Deposit, Superior Province, Canada. Journal of Conference Abstracts, v.5, p955.

Stott, G.M., 1996a. Precambrian Geology of Dayohessarah Lake Area (North half), Ontario Geological Survey, Preliminary map no. 3309.

Stott, G.M., 1996b. Precambrian Geology of Dayohessarah Lake Area (Central area), Ontario Geological Survey, Preliminary map no. 3310.

Stott, G.M., 1996c. Precambrian Geology of Dayohessarah Lake Area (South half), Ontario Geological Survey, Preliminary map no. 3311.

### 11.0 Statement of Qualifications

I, David B. Stevenson, of 2217 Lacewood Drive, Thunder Bay, Ontario, P7K 1C4 hereby certify that:

I am presently employed by Harte Gold Corporation as their Chief Exploration Geologist.
I am a graduate of the University of New Brunswick, B.Sc. (Hons. Geology), 1981 and a graduate of Queen's University, M.Sc. (Minex), 1998.

I have practiced my profession as a geologist for over 35 years in various provinces and territories across Canada as well as Norway.

I am a member in good standing of the Association Professional Geoscientists of Ontario.
I have personal knowledge of the work carried out on the property as described in this report, I have no personal interest in the property.

Dated this $13^{\text {th }}$ day of September, 2019 at Thunder Bay, Ontario.


[^0]Appendix A - Claims List

Schedule "A"
Sugar Zone Mining Leases


## Schedule "B"

 Sugar Zone - Claims

| ABRAHAM, TEDDER | 531048 | Multi-cell Mining Claim | 2020-02-22 | \$9,000 | \$0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ABRAHAM, TEDDER | 531080 | Multi-cell Mining Claim | 2020-02-22 | \$9,600 | \$0 |
| BAYFIELD | 531235 | Multi-cell Mining Claim | 2019-12-22 | \$8,000 | \$74 |
| BAYFIELD | '531236 | Multi-cell Mining Claim | 2019-12-22 | \$8,000 | \$0 |
| BAYFIELD | 531237 | Multi-cell Mining Claim | 2019-12-22 | \$8,000 | \$0 |
| BAYFIELD | 531238 | Multi-cell Mining Claim | 2019-12-22 | \$9,200 | \$0 |
| BAYFIELD | 531239 | Multi-cell Mining Claim | 2019-12-22 | \$1,600 | \$0 |
| BAYFIELD,GOURLAY | 531233 | Multi-cell Mining Claim | 2019-12-22 | \$10,000 | \$0 |
| BAYFIELD,GOURLAY | '531234 | Multi-cell Mining Claim | 2019-12-22 | \$8,000 | \$0 |
| BAYFIELD,GOURLAY,HAMBLET' | '531240 | Multi-cell Mining Claim | 2019-12-22 | \$9,600 | \$0 |
| BAYFIELD,HAMBLETON,MATTY' | +531242 | Multi-cell Mining Claim | 2019-12-17 | \$8,000 | \$0 |
| COOPER | 531139 | Multi-cell Mining Claim | 2020-01-09 | \$9,200 | \$0 |
| COOPER | 531112 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| COOPER | '531163 | Multi-cell Mining Claim | 2020-01-09 | \$6,000 | \$0 |
| COOPER | 531115 | Multi-cell Mining Claim | 2020-01-10 | \$9,200 | \$0 |
| COOPER | 531116 | Multi-cell Mining Claim | 2020-01-10 | \$9,600 | \$0 |
| COOPER | 531117 | Multi-cell Mining Claim | 2020-01-10 | \$10,000 | \$2,829 |
| COOPER | 531118 | Multi-cell Mining Claim | 2020-01-10 | \$10,000 | \$0 |
| COOPER | '531085 | Multi-cell Mining Claim | 2020-03-10 | \$9,600 | \$0 |
| COOPER | 531088 | Multi-cell Mining Claim | 2020-03-10 | \$9,600 | \$0 |
| COOPER | 531089 | Multi-cell Mining Claim | 2020-03-10 | \$8,000 | \$0 |
| COOPER | 531090 | Multi-cell Mining Claim | 2020-03-10 | \$9,600 | \$2,410 |
| COOPER | 531091 | Multi-cell Mining Claim | 2020-03-10 | \$9,600 | \$0 |
| COOPER | 531092 | Multi-cell Mining Claim | 2020-03-10 | \$9,600 | \$8 |
| COOPER | 531093 | Multi-cell Mining Claim | 2020-03-10 | \$10,000 | \$0 |
| COOPER | 531113 | Multi-cell Mining Claim | 2020-03-10 | \$10,000 | \$0 |
| COOPER | 531114 | Multi-cell Mining Claim | 2020-03-10 | \$10,000 | \$2,309 |
| COOPER,STRICKLAND | 531166 | Multi-cell Mining Claim | 2020-01-09 | \$800 | \$0 |
| COOPER,STRICKLAND | 531119 | Multi-cell Mining Claim | 2020-01-10 | \$8,000 | \$0 |
| COOPER,STRICKLAND | 531120 | Multi-cell Mining Claim | 2020-01-10 | \$6,000 | \$0 |
| COOPER,STRICKLAND | 531121 | Multi-cell Mining Claim | 2020-01-10 | \$6,400 | \$0 |
| COOPER,STRICKLAND | 531164 | Multi-cell Mining Claim | 2020-01-10 | \$7,200 | \$0 |
| COOPER,STRICKLAND | 531165 | Multi-cell Mining Claim | 2020-04-21 | \$5,200 | \$0 |
| COOPER,STRICKLAND,TEDDER | 531152 | Multi-cell Mining Claim | 2020-01-09 | \$6,800 | \$0 |
| COOPER,TEDDER | 531151 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| COOPER,TEDDER | 531111 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| COOPER,TEDDER | 531097 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| COOPER,TEDDER | 531100 | Multi-cell Mining Claim | 2020-01-09 | \$9,600 | \$0 |
| GOURLAY | 531220 | Multi-cell Mining Claim | 2019-12-03 | \$9,600 | \$2,964 |
| gourlay | 531225 | Multi-cell Mining Claim | 2019-12-03 | \$9,600 | \$891 |
| GOURLAY | 531229 | Multi-cell Mining Claim | 2019-12-03 | \$10,000 | \$4,154 |
| GOURLAY | 531231 | Multi-cell Mining Claim | 2019-12-03 | \$10,000 | \$7,260 |
| GOURLAY | 531232 | Multi-cell Mining Claim | 2019-12-22 | \$9,600 | \$0 |
| GOURLAY,HAMBLETON | 531219 | Multi-cell Mining Claim | 2019-11-20 | \$9,200 | \$2,615 |
| GOURLAY,HAMBLETON | 531224 | Multi-cell Mining Claim | 2019-12-03 | \$9,600 | \$1,774 |
| GOURLAY,HAMBLETON | 531226 | Multi-cell Mining Claim | 2019-12-03 | \$10,000 | \$2,337 |
| GOURLAY,HAMBLETON | 531230 | Multi-cell Mining Claim | 2019-12-03 | \$8,800 | \$4,898 |
| GOURLAY,HAMBLETON | 531243 | Multi-cell Mining Claim | 2019-12-03 | \$10,000 | \$2,913 |
| GOURLAY,HAMBLETON | 531241 | Multi-cell Mining Claim | 2019-12-17 | \$9,600 | \$6,343 |
| GOURLAY,HAMBLETON,STRICY | + 531222 | Multi-cell Mining Claim | 2019-12-03 | \$6,200 | \$0 |
| GOURLAY,STRICKLAND | 531221 | Multi-cell Mining Claim | 2019-12-03 | \$10,000 | \$0 |
| HAMBLETON | 531254 | Multi-cell Mining Claim | 2019-06-13 | \$9,600 | \$6,152 |
| HAMBLETON | 531255 | Multi-cell Mining Claim | 2019-06-13 | \$10,000 | \$6,288 |
| HAMBLETON | 531256 | Multi-cell Mining Claim | 2019-06-13 | \$10,000 | \$8,118 |
| HAMBLETON | 531258 | Multi-cell Mining Claim | 2019-06-13 | \$4,800 | \$3,900 |
| HAMBLETON | 531269 | Multi-cell Mining Claim | 2019-06-13 | \$1,200 | \$0 |
| HAMBLETON | 531214 | Multi-cell Mining Claim | 2019-07-20 | \$2,400 | \$243,686 |
| HAMBLETON | 531228 | Multi-cell Mining Claim | 2019-12-03 | \$6,000 | \$1,879 |
| HAMBLETON | 531264 | Multi-cell Mining Claim | 2019-12-17 | \$9,600 | \$850 |
| HAMBLETON | 531244 | Multi-cell Mining Claim | 2019-12-17 | \$10,000 | \$0 |
| HAMBLETON | 531245 | Multi-cell Mining Claim | 2019-12-17 | \$9,600 | \$0 |
| HAMBLETON | 531246 | Multi-cell Mining Claim | 2019-12-17 | \$9,600 | \$0 |
| HAMBLETON | 531247 | Multi-cell Mining Claim | 2019-12-17 | \$9,600 | \$0 |
| HAMBLETON | 531210 | Multi-cell Mining Claim | 2019-12-23 | \$6,800 | \$4,399 |
| HAMBLETON | 531249 | Multi-cell Mining Claim | 2019-12-23 | \$1,200 | \$0 |
| HAMBLETON | 531257 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| HAMBLETON | 531268 | Multi-cell Mining Claim | 2019-12-23 | \$4,000 | \$0 |
| HAMBLETON | 531212 | Multi-cell Mining Claim | 2019-12-31 | \$7,200 | \$58,751 |
| HAMBLETON | 531215 | Multi-cell Mining Claim | 2019-12-31 | \$3,600 | \$213,133 |
| HAMBLETON | 531216 | Multi-cell Mining Claim | 2019-12-31 | \$1,000 | \$546,949 |
| HAMBLETON | 531217 | Multi-cell Mining Claim | 2019-12-31 | \$2,200 | \$471,385 |
| HAMBLETON | 531218 | Multi-cell Mining Claim | 2019-12-31 | \$1,800 | \$110,673 |
| HAMBLETON | 531227 | Multi-cell Mining Claim | 2020-04-21 | \$5,600 | \$1,553 |
| HAMBLETON | 531248 | Multi-cell Mining Claim | 2020-04-21 | \$10,000 | \$0 |
| HAMBLETON | 531265 | Multi-cell Mining Claim | 2020-04-21 | \$10,000 | \$0 |
| HAMBLETON | 531266 | Multi-cell Mining Claim | 2020-04-21 | \$5,600 | \$0 |
| HAMBLETON | 531267 | Multi-cell Mining Claim | 2020-04-21 | \$5,600 | \$0 |
| HAMBLETON | 531211 | Multi-cell Mining Claim | 2021-12-23 | \$3,200 | \$2,381 |
| HAMBLETON | 531259 | Multi-cell Mining Claim | 2022-12-23 | \$1,200 | \$851 |


| HAMBLETON,ODLUM | 531209 | Multi-cell Mining Claim | 2019-12-23 | \$2,400 | \$3,007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HAMBLETON,ODLUM | 531208 | Multi-cell Mining Claim | 2019-12-31 | \$5,200 | \$578 |
| HAMBLETON,ODLUM | 531206 | Multi-cell Mining Claim | 2020-04-26 | \$8,200 | \$419,784 |
| JOHNS | 530313 | Multi-cell Mining Claim | 2019-06-20 | \$6,400 | \$4,084 |
| JOHNS | 530314 | Multi-cell Mining Claim | 2019-06-20 | \$6,400 | \$3,989 |
| JOHNS | 530315 | Multi-cell Mining Claim | 2019-06-20 | \$7,200 | \$8,147 |
| JOHNS | 530316 | Multi-cell Mining Claim | 2019-06-20 | \$10,000 | \$7,432 |
| JOHNS | 530317 | Multi-cell Mining Claim | 2019-06-20 | \$7,200 | \$1,858 |
| JOHNS | 531017 | Multi-cell Mining Claim | 2019-06-20 | \$9,600 | \$10,643 |
| JOHNS | 531018 | Multi-cell Mining Claim | 2019-06-20 | \$10,000 | \$1,750 |
| JOHNS,ODLUM | 530318 | Multi-cell Mining Claim | 2019-06-20 | \$7,200 | \$3,955 |
| JOHNS,ODLUM | 531019 | Multi-cell Mining Claim | 2019-06-20 | \$9,600 | \$3,654 |
| JOHNS,ODLUM | 531020 | Multi-cell Mining Claim | 2019-06-20 | \$10,000 | \$1,750 |
| MOSAMBIK | 531287 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| MOSAMBIK | 531348 | Multi-cell Mining Claim | 2020-01-09 | \$8,800 | \$0 |
| MOSAMBIK | 532869 | Multi-cell Mining Claim | 2020-04-10 | \$8,000 | \$0 |
| MOSAMBIK,NAMEIGOS | 531286 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| MOSAMBIK,NAMEIGOS | 531288 | Multi-cell Mining Claim | 2020-01-09 | \$8,400 | \$0 |
| MOSAMBIK,NAMEIGOS | 531347 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| MOSAMBIK,NAMEIGOS | 531349 | Multi-cell Mining Claim | 2020-01-09 | \$6,400 | \$0 |
| MOSAMBIK,NAMEIGOS | 531350 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| NAMEIGOS | 531340 | Multi-cell Mining Claim | 2019-06-13 | \$6,800 | \$6,473 |
| NAMEIGOS | 531335 | Multi-cell Mining Claim | 2019-06-13 | \$10,000 | \$2,377 |
| NAMEIGOS | 531342 | Multi-cell Mining Claim | 2019-06-13 | \$8,000 | \$4,097 |
| NAMEIGOS | 531343 | Multi-cell Mining Claim | 2019-06-13 | \$8,000 | \$5,623 |
| NAMEIGOS | 531344 | Multi-cell Mining Claim | 2019-06-13 | \$7,200 | \$8,195 |
| NAMEIGOS | 531283 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| NAMEIGOS | 531284 | Multi-cell Mining Claim | 2020-01-09 | \$9,200 | \$0 |
| NAMEIGOS | 531285 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| NAMEIGOS | 531351 | Multi-cell Mining Claim | 2020-01-09 | \$9,600 | \$0 |
| NAMEIGOS | 531352 | Multi-cell Mining Claim | 2020-01-09 | \$10,000 | \$0 |
| NAMEIGOS | 531332 | Multi-cell Mining Claim | 2020-02-16 | \$9,600 | \$0 |
| NAMEIGOS | 531333 | Multi-cell Mining Claim | 2020-02-16 | \$4,800 | \$0 |
| NAMEIGOS | 531334 | Multi-cell Mining Claim | 2020-02-16 | \$10,000 | \$0 |
| NAMEIGOS | 531336 | Multi-cell Mining Claim | 2020-02-16 | \$9,200 | \$0 |
| NAMEIGOS | 531337 | Multi-cell Mining Claim | 2020-02-16 | \$9,200 | \$0 |
| NAMEIGOS | 531338 | Multi-cell Mining Claim | 2020-02-16 | \$9,600 | \$0 |
| NAMEIGOS | 531341 | Multi-cell Mining Claim | 2020-02-16 | \$800 | \$0 |
| NAMEIGOS | 531345 | Multi-cell Mining Claim | 2020-02-16 | \$800 | \$0 |
| NAMEIGOS | 531346 | Multi-cell Mining Claim | 2020-02-16 | \$1,600 | \$2,096 |
| NAMEIGOS | 531331 | Multi-cell Mining Claim | 2020-04-11 | \$7,600 | \$0 |
| NAMEIGOS | 531281 | Multi-cell Mining Claim | 2020-04-11 | \$10,000 | \$0 |
| NAMEIGOS | 531282 | Multi-cell Mining Claim | 2020-04-11 | \$9,600 | \$0 |
| NAMEIGOS | 531289 | Multi-cell Mining Claim | 2020-04-11 | \$5,600 | \$0 |
| NAMEIGOS,STRICKLAND | 531276 | Multi-cell Mining Claim | 2020-02-22 | \$10,000 | \$0 |
| NAMEIGOS,STRICKLAND | 531279 | Multi-cell Mining Claim | 2020-02-22 | \$4,000 | \$0 |
| NAMEIGOS,STRICKLAND | 531280 | Multi-cell Mining Claim | 2020-04-11 | \$9,600 | \$0 |
| ODLUM | 531016 | Multi-cell Mining Claim | 2019-06-20 | \$10,000 | \$2,167 |
| ODLUM | 531021 | Multi-cell Mining Claim | 2019-06-20 | \$10,000 | \$7,963 |
| ODLUM | 531024 | Multi-cell Mining Claim | 2019-06-20 | \$10,000 | \$6,270 |
| ODLUM | 531025 | Multi-cell Mining Claim | 2019-06-20 | \$9,600 | \$4,018 |
| ODLUM | 531207 | Multi-cell Mining Claim | 2019-07-02 | \$1,600 | \$38,911 |
| ODLUM | 531201 | Multi-cell Mining Claim | 2019-10-29 | \$2,000 | \$1,713 |
| ODLUM | 531026 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$151 |
| ODLUM | 531182 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| ODLUM | 531199 | Multi-cell Mining Claim | 2019-12-23 | \$800 | \$0 |
| ODLUM | 531200 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| ODLUM | 531202 | Multi-cell Mining Claim | 2019-12-23 | \$9,200 | \$416 |
| ODLUM | 531203 | Multi-cell Mining Claim | 2019-12-31 | \$7,000 | \$1,479 |
| ODLUM | 531204 | Multi-cell Mining Claim | 2019-12-31 | \$3,800 | \$0 |
| ODLUM | 531205 | Multi-cell Mining Claim | 2020-03-27 | \$4,800 | \$66,972 |
| ODLUM | 531183 | Multi-cell Mining Claim | 2020-04-21 | \$9,600 | \$0 |
| ODLUM | 531198 | Multi-cell Mining Claim | 2020-04-21 | \$7,600 | \$0 |
| ODLUM,STRICKLAND | 531270 | Multi-cell Mining Claim | 2019-12-03 | \$5,000 | \$4,323 |
| ODLUM,STRICKLAND | 531184 | Multi-cell Mining Claim | 2020-04-21 | \$9,600 | \$0 |
| ODLUM,STRICKLAND | 531197 | Multi-cell Mining Claim | 2020-04-21 | \$9,600 | \$0 |
| ODLUM,STRICKLAND,TEDDER | 531175 | Multi-cell Mining Claim | 2020-04-21 | \$10,000 | \$0 |
| ODLUM, TEDDER | 531022 | Multi-cell Mining Claim | 2019-06-20 | \$8,800 | \$8,157 |
| ODLUM, TEDDER | 531023 | Multi-cell Mining Claim | 2019-06-20 | \$9,600 | \$5,911 |
| ODLUM, TEDDER | 531027 | Multi-cell Mining Claim | 2019-12-23 | \$9,600 | \$0 |
| ODLUM,TEDDER | 531154 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| ODLUM, TEDDER | 531173 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| ODLUM, TEDDER | 531174 | Multi-cell Mining Claim | 2019-12-23 | \$9,600 | \$0 |
| STRICKLAND | 531162 | Multi-cell Mining Claim | 2019-11-16 | \$9,600 | \$0 |
| STRICKLAND | 531168 | Multi-cell Mining Claim | 2019-11-16 | \$10,000 | \$0 |
| STRICKLAND | 531177 | Multi-cell Mining Claim | 2019-11-16 | \$9,600 | \$0 |
| STRICKLAND | 531178 | Multi-cell Mining Claim | 2019-11-16 | \$10,000 | \$0 |
| STRICKLAND | 531180 | Multi-cell Mining Claim | 2019-11-16 | \$9,200 | \$0 |
| STRICKLAND | 531271 | Multi-cell Mining Claim | 2019-11-16 | \$8,000 | \$0 |


| STRICKLAND | 531273 | Multi-cell Mining Claim | 2019-11-16 | \$10,000 | \$0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| STRICKLAND | "531274 | Multi-cell Mining Claim | 2019-11-16 | \$10,000 | \$0 |
| STRICKLAND | 531275 | Multi-cell Mining Claim | 2019-11-16 | \$8,400 | \$0 |
| STRICKLAND | 531278 | Multi-cell Mining Claim | 2019-11-16 | \$800 | \$0 |
| STRICKLAND | 531195 | Multi-cell Mining Claim | 2019-12-03 | \$8,800 | \$3,651 |
| STRICKLAND | 531167 | Multi-cell Mining Claim | 2019-12-03 | \$8,400 | \$6,945 |
| STRICKLAND | 531170 | Multi-cell Mining Claim | 2019-12-03 | \$9,200 | \$1,763 |
| STRICKLAND | 531176 | Multi-cell Mining Claim | 2019-12-03 | \$10,000 | \$4,122 |
| STRICKLAND | 531179 | Multi-cell Mining Claim | 2019-12-03 | \$8,400 | \$0 |
| STRICKLAND | 531181 | Multi-cell Mining Claim | 2019-12-03 | \$9,600 | \$0 |
| STRICKLAND | 531185 | Multi-cell Mining Claim | 2019-12-03 | \$9,600 | \$5,886 |
| STRICKLAND | 531196 | Multi-cell Mining Claim | 2019-12-03 | \$8,800 | \$0 |
| STRICKLAND | 531223 | Multi-cell Mining Claim | 2019-12-03 | \$7,400 | \$3,197 |
| STRICKLAND | 531272 | Multi-cell Mining Claim | 2019-12-03 | \$1,200 | \$0 |
| STRICKLAND | 531160 | Multi-cell Mining Claim | 2020-02-22 | \$8,400 | \$0 |
| STRICKLAND | 531161 | Multi-cell Mining Claim | 2020-02-22 | \$8,400 | \$0 |
| STRICKLAND | 531277 | Multi-cell Mining Claim | 2020-02-22 | \$7,200 | \$0 |
| STRICKLAND | "531157 | Multi-cell Mining Claim | 2020-04-21 | \$10,000 | \$0 |
| STRICKLAND,TEDDER | 531156 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| STRICKLAND,TEDDER | 531169 | Multi-cell Mining Claim | 2020-04-21 | \$8,800 | \$200 |
| STRICKLAND,TEDDER | 531171 | Multi-cell Mining Claim | 2020-04-21 | \$8,800 | \$0 |
| TEDDER | 531031 | Multi-cell Mining Claim | 2019-12-23 | \$9,600 | \$0 |
| tedder | 531153 | Multi-cell Mining Claim | 2019-12-23 | \$8,800 | \$0 |
| TEDDER | 531155 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| TEDDER | 531172 | Multi-cell Mining Claim | 2019-12-23 | \$10,000 | \$0 |
| TEDDER | 531079 | Multi-cell Mining Claim | 2020-01-09 | \$9,200 | \$0 |
| TEDDER | 531046 | Multi-cell Mining Claim | 2020-01-09 | \$8,800 | \$346 |
| TEDDER | 531047 | Multi-cell Mining Claim | 2020-01-09 | \$9,600 | \$0 |
| TEDDER | 531098 | Multi-cell Mining Claim | 2020-01-09 | \$9,600 | \$0 |
| TEDDER | 531099 | Multi-cell Mining Claim | 2020-01-09 | \$9,600 | \$0 |
| COOPER | 531126 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| MOSAMBIK | 273604 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| MOSAMBIK | 188477 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| MOSAMBIK,NAMEIGOS | 265657 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| MOSAMBIK,NAMEIGOS | 344618 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 335993 | Single Cell Mining Claim | 2020-01-08 | \$400 | \$0 |
| NAMEIGOS | 208958 | Single Cell Mining Claim | 2020-01-08 | \$400 | \$0 |
| NAMEIGOS | 220373 | Single Cell Mining Claim | 2020-01-08 | \$400 | \$0 |
| NAMEIGOS | 102261 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 127131 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 229063 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 154316 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 103256 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 118285 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 219164 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 276303 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 125852 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 170953 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 286410 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 189211 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531316 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531309 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 118287 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531304 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 170954 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531290 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531291 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531292 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531293 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531294 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531295 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531296 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531297 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531298 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531299 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531300 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531301 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531302 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531305 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531306 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 531317 | Single Cell Mining Claim | 2020-01-09 | \$400 | \$0 |
| NAMEIGOS | 514033 | Single Cell Mining Claim | 2020-04-11 | \$400 | \$0 |
| NAMEIGOS | 514035 | Single Cell Mining Claim | 2020-04-11 | \$400 | \$0 |
| STRICKLAND | 110507 | Single Cell Mining Claim | 2019-12-03 | \$200 | \$0 |

## Schedule "C"

 Halverson Property| Legacy Claim Id | Township / Area | Tenure ID | Tenure Type | Anniversary Date | Work Required | Total Reserve |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4281896 | ODLUM | 136581 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 334503 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 255919 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 237877 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 220822 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 220821 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 209284 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 209282 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 201257 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 171296 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 142560 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 136582 | Boundary Cell Mining Claim | 2021-02-06 | \$200 | \$0 |
| 4281896 | ODLUM | 324599 | Single Cell Mining Claim | 2021-02-06 | \$400 | \$0 |
| 4281896 | ODLUM | 255918 | Single Cell Mining Claim | 2021-02-06 | \$400 | \$0 |
| 4281896 | ODLUM | 255917 | Single Cell Mining Claim | 2021-02-06 | \$400 | \$223 |
| 4281896 | ODLUM | 209283 | Single Cell Mining Claim | 2021-02-06 | \$400 | \$0 |

Appendix B - Superior Exploration, Adventure \& Climbing Co. Ltd. Report titled "VLF EM-16 Survey / Interpretation Report Over the K7 South Area, White River, Ontario, Canada.
Shaun Parent P.Geo. dated April 1, 2019"


# VLF EM-16 Survey / Interpretation Report 

## Over the

K7 South Area

## White River, Ontario

Prepared For

Harte Gold Corporation
By

Shaun Parent
Superior Exploration, Adventure \& Climbing Co. Ltd.

April 1, 2019

## Table Of Contents

List of Tables, Maps \& Appendix ..... 2
Table List ..... 2
Map List ..... 2
Appendix List ..... 3
NAA Figures ..... 3
NML Figures ..... 4
Preamble ..... 5
Executive Summary: ..... 6
Property Access ..... 6
Introduction ..... 6
Personnel ..... 6
Work Performed ..... 9
Fieldwork ..... 9
VLF Data Collection Process ..... 9
Interpretation \& Modelling ..... 10
VLF2DMF Data Processing ..... 10
Discussion of Results ..... 12
VLF Anomalies ..... 13
TX NAA (13 Trends) ..... 13
Map 7 NAA Google Image of Fraser Picks \& Trends ..... 17
TX NML (13 Trends) ..... 18
Conclusions ..... 23
Recommendations ..... 23
List of References ..... 24
Certificate of Qualifications ..... 25

## List of Tables, Maps \& Appendix

Table List
Table 1 Example of VLF Data Collection ..... 9
Map List
Map 1 General Location Map ..... 7
Map 2 K7 South VLF Grid ..... 8
Map 3 Elevation Map ..... 12
Map 4 NAA Fraser In-Phase Contours with Picks \& Trends ..... 14
Map 5 NAA Fraser Quadrature Contours with Picks \& Trends ..... 15
Map 6 NAA Resistivity 4000 Ohm Contours with Picks \& Trends ..... 16
Map 7 NAA Google Image of Fraser Picks \& Trends ..... 17
Map 8 NML Fraser In-Phase Contours with Picks \& Trends ..... 19
Map 9 NML Fraser Quadrature Contours with Picks \& Trends ..... 20
Map 10 NML Resistivity 4000 Ohm Contours with Picks \& Trends ..... 21
Map 11 NML Google Image of Picks \& Trends ..... 22

## Appendix List

## NAA Figures

NAA Figure 1 Line 00 Raw Data Profile ..... 27
NAA Figure 2 Line 00 Model 4000 Ohms with Fraser Picks ..... 27
NAA Figure 3 Line 2N Raw Data Profile ..... 28
NAA Figure 4 Line 2N Model 4000 Ohms with Fraser Picks ..... 28
NAA Figure 5 Line 4N Raw Data Profile ..... 29
NAA Figure 6 Line 4N Model 4000 Ohms with Fraser Picks ..... 29
NAA Figure 7 Line 6N Raw Data Profile ..... 30
NAA Figure 8 Line 6N Model 4000 Ohms with Fraser Picks ..... 30
NAA Figure 9 Line 8N Raw Data Profile ..... 31
NAA Figure 10 Line 8N Model 4000 Ohms with Fraser Picks ..... 31
NAA Figure 11 Line 10N Raw Data Profile ..... 32
NAA Figure 12 Line 10N Model 4000 Ohms with Fraser Picks ..... 32
NAA Figure 13 Line 12A Raw Data Profile ..... 33
NAA Figure 14 Line 12A Model 4000 Ohms with Fraser Picks ..... 33
NAA Figure 15 Line 12N Raw Data Profile ..... 34
NAA Figure 16 Line 12N Model 4000 Ohms with Fraser Picks ..... 34
NAA Figure 17 Line 14N Raw Data Profile ..... 35
NAA Figure 18 Line 14N Model 4000 Ohms with Fraser Picks ..... 35
NAA Figure 19 Line 16N Raw Data Profile ..... 36
NAA Figure 20 Line 16N Model 4000 Ohms with Fraser Picks ..... 36
NAA Figure 21 Line 18N Raw Data Profile ..... 37
NAA Figure 22 Line 18N Model 4000 Ohms with Fraser Picks ..... 37
NAA Figure 23 Line 20N Raw Data Profile ..... 38
NAA Figure 24 Line 20N Model 4000 Ohms with Fraser Picks ..... 38
NML Figure 1 Line 00 Raw Data Profile ..... 40
NML Figure 2 Line 00 Model 4000 Ohms with Fraser Picks ..... 40
NML Figure 3 Line 2N Raw Data Profile ..... 41
NML Figure 4 Line 2N Model 4000 Ohms with Fraser Picks ..... 41
NML Figure 5 Line 4N Raw Data Profile ..... 42
NML Figure 6 Line 4N Model 4000 Ohms with Fraser Picks ..... 42
NML Figure 7 Line 6N Raw Data Profile ..... 43
NML Figure 8 Line 6N Model 4000 Ohms with Fraser Picks ..... 43
NML Figure 9 Line 8N Raw Data Profile ..... 44
NML Figure 10 Line 8N Model 4000 Ohms with Fraser Picks ..... 44
NML Figure 11 Line 10N Raw Data Profile ..... 45
NML Figure 12 Line 10N Model 4000 Ohms with Fraser Picks ..... 45
NML Figure 13 Line 12A Raw Data Profile ..... 46
NML Figure 14 Line 12A Model 4000 Ohms with Fraser Picks ..... 46
NML Figure 15 Line 12N Raw Data Profile ..... 47
NML Figure 16 Line 12N Model 4000 Ohms with Fraser Picks ..... 47
NML Figure 17 Line 14N Raw Data Profile ..... 48
NML Figure 18 Line 14N Model 4000 Ohms with Fraser Picks ..... 48
NML Figure 19 Line 16N Raw Data Profile ..... 49
NML Figure 20 Line 16N Model 4000 Ohms with Fraser Picks ..... 49
NML Figure 21 Line 18N Raw Data Profile ..... 50
NML Figure 22 Line 18N Model 4000 Ohms with Fraser Picks ..... 50
NML Figure 23 Line 20N Raw Data Profile ..... 51
NML Figure 24 Line 20N Model 4000 Ohms with Fraser Picks ..... 51

## Preamble

Superior Exploration, Adventure \& Climbing Co. Ltd. is an Incorporated Company specializing in Mining Exploration and Geophysics as well as Professional climbing.

Our VLF surveys (YVLF) are a non-invasive way to complete first pass ground geophysics. No cut lines are needed and an exploration permit is not generally required.

We have worked in many countries and have experience working in a wide variety of environments such as VMS, Breccia Pipes, Epithermal Veins and Shear Hosted Gold Deposits.

Shaun Parent, BSc. P. Geo is a member of the Association of Professional Geoscientists of Ontario as well as the Prospectors \& Developers Association of Canada. He has over 30 years' experience working in the Geological and Geophysical Field. Although he specializes in Ground VLF, he is also experienced working with I.P., Max Min, Surface \& Borehole Pulse EM, Airborne Magnetics and Ground Magnetometer.

Sandra Slater is a member of the Prospectors \& Developers Association of Canada. She has been working in the Geological/Geophysical field for over 10 years and specializes in data analysis and VLF2DMF software, as well as assisting in the field.

Shaun began working with the developer of the VLF2DMF software since its inception in 2008 and he and Sandra continue to do so. Superior Exploration has completed many successful "blind" case history test VLF surveys over various ore bodies and mineralized zones.

## Executive Summary:

This Ground VLF survey was completed in the K7 South area. The property is located approximately 40 kilometers Northeast of White River, Ontario.

The survey was carried out between January 2019 and March 2019, using a VLF EM-16 unit and a handheld Garmin GPS-60CSX. Two transmitters were read at each station: NAA 24.0 KHz Cutler, Maine and NML 25.2 KHz- La Moure, North Dakota. A total of 15.18 Km of VLF was carried out over 11 reconnaissance grid lines. An additional short line (12A) was carried out along a snow machine trail south of $5+00 \mathrm{E}$ on line 12 N .

The main objective of the survey was to determine if the VLF Survey could delineate zones carrying mineralization and or structures that extended south from the K7 VLF grid, located 2.3 kilometers north of line 20N on the K7 South Grid. No geological information was known at the time of the VLF survey.

## Property Access

Access is by the following:

- Follow highway 631 for 45 kilometers to the junction of Road 200
- Take Road 200 to the west until Km 2.3
- Park in clearing at Km 2.3 and walk east along logging road for 1000 meters
- Line 6 N is aligned with this logging road from station $0+00 \mathrm{E}$ to $5+00 \mathrm{E}$. There are road loops that cross the VLF grid between lines 6 N and 14 N .


## Introduction

A VLF-EM16 survey is a relatively simple and economic geophysical survey that is used to better understand shallow, vertical and sub vertical bedrock conductors.

This report describes the findings and results of the VLF EM-16 survey utilizing the VLF2DMF processing software of which the author of this report has assisted in its development since 2007. It enables the processing and inversion of electromagnetic (EM) induction data acquired along a survey area using a Very Low Frequency (VLF) (Santos 2013)

The software generates profiles of Raw Data, Fraser Filtered Data, Fraser Filter Pseudo Sections, KH Filtered Data, Resistivity, JY Inversions, and (2-D) Modelled Inversions.

VLF data collected in the surveyed area was also compiled onto plan maps of contoured Fraser Filter data and contours of Resistivity data.

## Personnel

The VLF EM-16 operator and GPS field navigator responsible for the collection of all raw data was Shaun Parent.
Processing and Interpretation of the VLF data using the VLF2DMF Software was completed by Sandra Slater and Shaun Parent.

Map 1 General Location Map



## Work Performed

## Fieldwork

The VLF EM-16 survey consisted of running 11 Reconnaissance lines, 200 meters apart. Basic prospecting was attempted during the survey and any pertinent findings such as outcrops and historical sample sites were mapped, however, ground snow cover hampered this.

The following parameters were used throughout the survey

Equipment Used: VLF EM-16 unit and a handheld Garmin 60-CSX PS

VLF Transmitters Used: NAA - 24.0 KHz . Cutler, Maine (East) @ Azimuth 109 degrees 1422 Km
NML - 25.2 KHz. La Moure, North Dakota (West) @ Azimuth 255 degrees 1040 Km.

VLF survey direction: The VLF Em-16 receiver faced a direction of 52 degrees true azimuth for each reading taken.

VLF survey stations: VLF readings began at the south/west end of each line and were taken approximately 20 meters apart along each survey line.
Lines $00,2 \mathrm{~N}, 4 \mathrm{~N}, 14 \mathrm{~N} \& 16 \mathrm{~N}$ began with station number $5+00 \mathrm{E}$
Lines $6 \mathrm{~N}, 8 \mathrm{~N}, 10 \mathrm{~N}, 12 \mathrm{~N}, 12 \mathrm{~A}, 18 \mathrm{~N} \& 20 \mathrm{~N}$ began with station $0+00$

Parameters of Measurement: In-phase and Quad-phase components of a vertical magnetic field is measured as a percentage of horizontal primary fields. (Tangent of tilt angle and ellipticity). VLF transmitter NAA was to the east while transmitter NML was to the west. The transmitters are chosen so that the direction to the transmitting station is as close to the orientation of the bedrock strike.

## VLF Data Collection Process

Field data was collected as follows on each surveyed line.

- Each station was saved onto the Handheld Garmin 60CSX GPS Unit (including any local features such as power lines, fences and geological structures)
- VLF readings for each station were recorded on the GPS as In-Phase and Quadrature corresponding to the line number and station number. (See example in Table 1)
- Garmin and VLF data were compiled and processed. All UTM Values are NAD 83.

Table 1 Example of VLF Data Collection

| Line 2N | NAA <br> In phase | NAA <br> Quadrature | NML <br> In phase | NML <br> Quadrature | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $0+00$ | 10 | 6 | 4 | 5 | swamp |
| $0+20 \mathrm{E}$ | 8 | 4 | 2 | 4 | oc |

## Interpretation \& Modelling

## VLF2DMF Data Processing

All VLF data collected was processed and interpreted separately for TX NAA and TX NML. The following filters, inversions, profiling and modelling were completed and used in the interpretation process, however, only the Raw Data and 2D Modelled Inversions are included in the appendix at the end of this report.

## Raw Data Profiles

The raw data for each frequency was plotted for each line surveyed. No filtering or smoothing of the raw data was done. (NAA-Appendix A) \& (NML Appendix B)

## Fraser Filter Profile with Fraser Peaks

Raw data was run through the Fraser filter. This filter transforms In-Phase cross overs and inflections into positive peak anomalies. (Fraser 1969) In-Phase inflections and cross overs are usually plus to minus, while Quadrature responses are negative to positive giving a negative peak anomaly when the Fraser Filter is applied. Fraser filter data from the 11 lines was compiled to produce Plan Maps. (NAA Maps 4, 5) \& (NML Maps 8, 9)

## Fraser Pseudo Section

Fraser Filter pseudo section is built by applying the Fraser Filter of various lengths along the survey line.

## K-H Profiles

Raw Data was run through the Karous-Hjelt (K-H) filter. The filter is applied to obtain a section of current density. The higher values are generally associated with conductive structures. (Karous, Hjelt 1983)

## Resistivity Profiles: 2000 \& 4000 Ohm's

The apparent resistivity was calculated. The resistivity can be calculated if the mean environmental resistivity is known at the beginning of the VLF profile. A mean resistivity of 2000 ohm's and 4000 ohm's was used for all lines. Resistivity data from each profile was combined to produce plans maps. This report contains the Resistivity results at 4000 Ohm's only. (NAA Map 6) (NML Map 10)

## JY Section Model:

A 2D inversion that looks for the best distribution of the density of current (JY). The output is the apparent current density with positive values associated with conductors and negative values associated to resistors.

## 2D Inversion Resistivity Models 2000 Ohm's \& 4000 Ohm's

A resistivity of 2000 Ohm's and 4000 Ohm's was used to build initial models used in the inversion to obtain a realistic cross section of the line surveyed.
Conductive zones are red/yellow while resistive zones are blue. A depth scale is found on the left side of model profiles. Surface conductive zones show little depth extent, have a horizontal display and are limited in depth.

The maximum depth slice with a bedrock resistivity of 2000 Ohms is 144.3 meters for transmitter NAA ( 24.0 KHz .) and 140.9 meters for TX NML ( 25.2 KHz .).

The maximum depth slice with a bedrock resistivity of 4000 Ohms is 204.1 meters for transmitter NAA ( 24.0 KHz .) and 192.2 meters for TX NML ( 25.2 KHz .).

All Inversion models have the same color scaling using a minimum resistivity of 10 and a maximum of 10000 . The vertical exaggeration of all models is 1.0.
Fraser Filter anomaly picks are found across the top of all models. Models with a resistivity of 4000 Ohm's are included in this report. (NAA-Appendix A) \& (NML Appendix B)

## Discussion of Results

Lines 00, 2N, 4N, 6N, 8N, 10N, 12N, 12A, 14N, 16N, 18N, 20N
The K7 South VLF grid was carried out over 11 Virtual VLF lines (+12A). Map-3 shows the layout of the VLF lines on an elevation contour map.

The stronger anomalies were interpreted into main trends, however, there are more, weaker ones that could not be followed due to the 200 meter spacing between lines as well as a lack of knowledge of the geological strike prior to interpretation. A more detailed result could be achieved with additional fill in lines being completed in order to verify the 200 meter responses.

Map 3 Elevation Map



## VLF Anomalies

VLF Trends were identified for TX NAA ( 13 trends) and TX NML ( 13 trends). Several of the VLF trends follow an area of low resistivity on the west and east sides of the VLF grid. Trends are signified as the following example: 8N-C, 12A-A, 12N-C (Line 8N VLF Pick C to Line 12A VLF Pick A to Line 12 N VLF Pick C)

TX NAA (13 Trends)
Maps 4 \& 5 Fraser Filters Contours of In Phase and Quadrature Values
Map 6 Resistivity Contours:

- occur in a resistivity low (1N-E, 3N-D, 5N-C, 7N-C) (1N-F, 3N-E) (1N-N, 3N-N),
- follow the edge of the resistivity low (5N-F, 7N-F, 9N-F), (3N-M, $5 N-M)(3 N-L, 5 N-M, 7 N-N, 9 N-M),(9 N-A, 11 N-A)$
Map $7 \quad$ NAA Picks and Trends on a google Image.

TX NAA Trends with those suggested for ground follow up in Red

1. $8 \mathrm{~N}-\mathrm{C}, 12 \mathrm{~A}-\mathrm{A}, 12 \mathrm{~N}-\mathrm{C}$
2. $12 \mathrm{~A}-\mathrm{B}, 12 \mathrm{~A}-\mathrm{C}, 12 \mathrm{~N}-\mathrm{D}$
3. $6 \mathrm{~N}-\mathrm{E}, 8 \mathrm{~N}-\mathrm{F}$
4. $00 \mathrm{~N}-\mathrm{B}, 2 \mathrm{~N}-\mathrm{A}, 4 \mathrm{~N}-\mathrm{A}, 6 \mathrm{~N}-\mathrm{G}, 8 \mathrm{~N}-\mathrm{H}, 10 \mathrm{~N}-\mathrm{D}$
5. $4 \mathrm{~N}-\mathrm{A}, 6 \mathrm{~N}-\mathrm{H}, 6 \mathrm{~N}-\mathrm{I}$
6. $2 \mathrm{~N}-\mathrm{B}, 4 \mathrm{~N}-\mathrm{B}, 6 \mathrm{NI}$
7. $00 \mathrm{~N}-\mathrm{E}, 2 \mathrm{~N}-\mathrm{D}, 4 \mathrm{~N}-\mathrm{D}, 6 \mathrm{~N}-\mathrm{N}, 8 \mathrm{~N}-\mathrm{Q}$
8. $00 \mathrm{~N}-\mathrm{H}, 2 \mathrm{~N}-\mathrm{G}, 4 \mathrm{~N}-\mathrm{F}$
9. $6 \mathrm{~N}-\mathrm{Q}, 8 \mathrm{~N}-\mathrm{T}$
10. $18 \mathrm{~N}-\mathrm{A}, 20 \mathrm{~N}-\mathrm{B}$
11. $12 \mathrm{~N}-\mathrm{I}, 14 \mathrm{~N}-\mathrm{C}, 16 \mathrm{~N}-\mathrm{C}, 18 \mathrm{~N}-\mathrm{I}, 20 \mathrm{~N}-\mathrm{G}$
12. $16 \mathrm{~N}-\mathrm{B}, 18 \mathrm{~N}-\mathrm{G}, 20 \mathrm{~N}-\mathrm{G}$
13. 10N-K, 12N-D, 14N-F, 16N-E, 18N-I, 20N-G




Map 7 NAA Google Image of Fraser Picks \& Trends


Maps 8 \& 9 Fraser Filters Contours of In Phase and Quadrature values
Map 10 Resistivity contours:

- occur in a resistivity low (6N-D, 8N-D), (8N-B, 10N-B, 12A-B, 12N-C), (16N-B, 18N-G, 20N-H)
- occur on the edge of a resistivity low ( $6 \mathrm{~N}-\mathrm{G}, 8 \mathrm{~N}-\mathrm{G}$ ), (10N-E, 18N-A, 20N-B)
- occur in a resistivity high (6N-P, 8N-Q), (8N-M, 10N-K), (00-F, 2N-D, 4N-E, 6N-M, 8N-O)
Map 11
NML Picks and Trends on a google image

TX NML Trends with those suggested for ground follow up highlighted in Blue

1. $8 \mathrm{~N}-\mathrm{B}, 10 \mathrm{~N}-\mathrm{B}, 12 \mathrm{~A}-\mathrm{B}, 12 \mathrm{~N}-\mathrm{C}$
2. $6 \mathrm{~N}-\mathrm{D}, 8 \mathrm{~N}-\mathrm{D}$
3. $00-\mathrm{C}, 2 \mathrm{~N}-\mathrm{A}, 4 \mathrm{~N}-\mathrm{A}, 6 \mathrm{~N}-\mathrm{E}$
4. $6 \mathrm{~N}-\mathrm{G}, 8 \mathrm{~N}-\mathrm{G}, 10 \mathrm{~N}-\mathrm{E}$
5. $2 \mathrm{~N}-\mathrm{B}, 4 \mathrm{~N}-\mathrm{C}, 10 \mathrm{~N}-\mathrm{E}$
6. $00-\mathrm{F}, 2 \mathrm{~N}-\mathrm{D}, 4 \mathrm{~N}-\mathrm{E}, 6 \mathrm{~N}-\mathrm{M}, 8 \mathrm{~N}-\mathrm{O}$
7. $2 \mathrm{~N}-\mathrm{G}, 4 \mathrm{~N}-\mathrm{H}$
8. 6N-P, 8N-Q
9. $18 \mathrm{~N}-\mathrm{A}, 20 \mathrm{~N}-\mathrm{B}$
10. $12 \mathrm{~N}-\mathrm{J}, 14 \mathrm{~N}-\mathrm{D}, 16 \mathrm{~N}-\mathrm{D}, 18 \mathrm{~N}-\mathrm{H}, 20 \mathrm{~N}-\mathrm{H}$
11. $16 \mathrm{~N}-\mathrm{B}, 18 \mathrm{~N}-\mathrm{G} .20 \mathrm{~N}-\mathrm{H}$
12. $10 \mathrm{~N}-\mathrm{M}, 12 \mathrm{~N}-\mathrm{O}, 14 \mathrm{~N}-\mathrm{F}, 16 \mathrm{~N}-\mathrm{F}, 18 \mathrm{~N}-\mathrm{H}, 20 \mathrm{~N}-\mathrm{H}$
13. $8 \mathrm{~N}-\mathrm{M}, 10 \mathrm{~N}-\mathrm{K}$



Map 10 NML Resistivity 4000 Ohm Contours with Picks \& Trends


Map 11 NML Google Image of Picks \& Trends


## Conclusions

This Ground VLF EM-16 survey over the K7 South area was successful in:

- Defining Several VLF bedrock conductors that follow a resistivity low.
- Using a bedrock background resistivity of 4000 ohms gave us modelled sections to 204 meters in depth and outlined several highly resistive and minimally resistive rock units
- Without geological information or geological strike information, it is difficult to match the VLF Picks and Trends with geology.


## Recommendations

- Run additional fill in 100 meter lines at $2 \mathrm{~N}, 4 \mathrm{~N}, 6 \mathrm{~N}, 8 \mathrm{~N}$ \& 10 N in order to obtain additional VLF Picks and trends. This would enable a more detailed interpretation of trends across the surveyed area.
- Extend Lines $00,2 \mathrm{~N}, 4 \mathrm{~N}, 14 \mathrm{~N} \& 16 \mathrm{~N}$ to the south/west (stations $0+00$ to $4+80 \mathrm{~N}$ ) in order to fill in the missing data on these shorter lines. There are some VLF anomaly trends that may continue further within these areas.
$>$ VLF anomaly pick ( $6 \mathrm{~N}-\mathrm{D}$ ) might extend to line 00.
> VLF anomaly picks (12N-C, 12N-D) might extend to VLF anomaly pick (20N-B, 20N-C, 20N-D)
- Overlay the TX NAA and NML picks and trends on Google earth images as well as geology maps and airborne magnetic maps in order to identify surface lineaments and geological contacts.
- Run depth slices of both the KH data and the Inversion model at minus 25 meter depths. This will eliminate shallow conductors and isolate deeper bedrock conductors to a depth of 204 meters. This will also determine if the bedrock conductor has a dip or plunge.
- Overlay TX NAA and TX NML VLF Picks and Trends with airborne magnetic survey data in order to find a matching VLF Magnetic anomaly.
- Ground follow-up of the VLF Picks and Trends outlined in this report in order to ground proof the targets.
- Proposed drill holes should be projected on both the inversion models and the JY models using a vertical exaggeration of 1.0 to determine if the proposed hole will intersect the VLF Bedrock conductor.
- Possible Drill Targets based on NAA Picks are:
- (2N-A), (4N-A), (6N-D), (6N-G), (6N-H), (6N-N), (8N-H), (10N-D), (12N-C), (12N-D), (16N-E), (18N-I), (20N-C)
- Possible Drill Targets based on NML Picks are:
( $00-C),(2 N-A),(4 N-A),(6 N-D),(6 N-F),(6 N-G),(6 N-M ?),(8 N-F),(8 N-G),(12 N-B),(12 N-C)$, (12N-J), (14N-D), (14N-F), (16N-D), (16N-F), (18N-A), (18N-F), (18N-H), (2ON-C), (20N-H)


## List of References

Baker, H.A,. and J.O. Myers, 1979, VLF-EM model studies and some simple quantitative applications to field results: Geoexploration 17, 55-63

Fraser, D.C., 1969. Contouring of VLF-EM data. Geophysics, 34 958-967

Geonics Ltd., 1997: Operating Manual for VLF Em-16

Karous, M and Hjelt, S.E., 1983: Linear filtering of VLF dip-angle measurements, Geophysical Prospecting 31, 782-794

McNeil, J.D. and Labson; 1991: Geological Mapping using VLF radio fields. In Nabghian, M.N Ed, Electrical Methods in Applied Geophysics 11. Soc. Expl. Geoph, 521-640

Sayden, A.S, Boniwell, J.B; 1989: VLF Electromagnetic Method, Canadian Institute of Mining and Metalurgy, Special Volume 41, 111-125 of VLF-EM Data

Monteiro Santos, F.A; 2013: VLF 2D V1.3 A program for 2D inversion

## Certificate of Qualifications

I, Shaun Parent, P. Geo . Residing at 282 B Whispering Pines Road, Batchawana Bay, Ontario do certify that:

1. I am a consulting Geoscientist with Superior Exploration, Adventure \& Climbing Co. Ltd.
2. I graduated with a Geological Technician Diploma from Sir Sandford Fleming College in 1986.
3. I graduated with a BSc. from the University of Toronto in 1986
4. I am a member in good standing with the Association of Professional Geoscientists of Ontario \#1955 and a member of the Prospectors and Developers Association of Canada.
5. I have been employed continuously as a Geoscientist for the past 27 years since my graduation from University.
6. The nature of my involvement with this project was to carry out the interpretation of the VLF data using the EMTOMO VLF2D Software of which I have been developing with Dr. Fernando Santos of Lisbon, Portugal.

Dated this $1^{\text {st }}$ day of April 2019


Shaun Parent, Diploma-Geo, BSc. P. Geo

# APPENDIX A 

## NAA Figures



NAA Figure 2 Line 00 Model 4000 Ohms with Fraser Picks


NAA Figure 3 Line 2N Raw Data Profile


NAA Figure 4 Line 2N Model 4000 Ohms with Fraser Picks


NAA Figure 5 Line 4N Raw Data Profile


NAA Figure 6 Line 4N Model 4000 Ohms with Fraser Picks


Transmitter: NAA

NAA Figure 7 Line 6N Raw Data Profile

VLF-EM raw data
Line: Harte Gold $\mathrm{K}-7$ South Area Line 6 N
Azimuth:
48.4

NAA Figure 8 Line 6N Model 4000 Ohms with Fraser Picks


NAA Figure 9 Line 8N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 8N
Azimuth: 51.1


NAA Figure 10 Line 8N Model 4000 Ohms with Fraser Picks

Line: Harte Gold K-7 South Area Line 8N


Transmitter: NAA
Vertical Exaggeration: 1.0

NAA Figure 11 Line 10N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 10 N Azimuth: 51.0


NAA Figure 12 Line 10N Model 4000 Ohms with Fraser Picks

Line: Harte Gold K-7 South Area Line 10N


NAA Figure 13 Line 12A Raw Data Profile


NAA Figure 14 Line 12A Model 4000 Ohms with Fraser Picks


NAA Figure 15 Line 12N Raw Data Profile

VLF-EM rawr data
Line: Harte Gold $\mathrm{K}-7$ South Area Line 12N
Azimuth:
50.5

NAA Figure 16 Line 12N Model 4000 Ohms with Fraser Picks


Transmitter: NAA
Vertical Exaggeration: 1.0

NAA Figure 17 Line 14N Raw Data Profile


NAA Figure 18 Line 14N Model 4000 Ohms with Fraser Picks


## NAA Figure 19 Line 16N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line $16 \mathrm{~N} \quad$ stations Azimuth: 50.1


NAA Figure 20 Line 16N Model 4000 Ohms with Fraser Picks


NAA Figure 21 Line 18N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 18 N
Azimuth: 50.9



NAA Figure 22 Line 18N Model 4000 Ohms with Fraser Picks


Transmitter: NAA
Vertical Exaggeration: 1.0

NAA Figure 23 Line 20N Raw Data Profile

VLF-EM raw data
Line: Harte Gold $\mathrm{K}-7$ South Area Line 20 N
Azimuth:
49.2

NAA Figure 24 Line 20N Model 4000 Ohms with Fraser Picks


Transmitter: NAA
Vertical Exaggeration:

# APPENDIX B 

NML Figures

NML Figure 1 Line 00 Raw Data Profile


NML Figure 2 Line 00 Model 4000 Ohms with Fraser Picks


Transmitter: NML

NML Figure 3 Line 2N Raw Data Profile


NML Figure 4 Line 2N Model 4000 Ohms with Fraser Picks


NML Figure 5 Line 4N Raw Data Profile


NML Figure 6 Line 4N Model 4000 Ohms with Fraser Picks


Transmitter: NML
Vertical Exaggeration: 1.0

NML Figure 7 Line 6N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 6N
Azimuth: 48.4


NML Figure 8 Line 6N Model 4000 Ohms with Fraser Picks


NML Figure 9 Line 8N Raw Data Profile

VLF-EM raw data
Line: Harte Gold $\mathrm{K}-7$ South Area Line 8 N
Azimuth:
51.1

NML Figure 10 Line 8N Model 4000 Ohms with Fraser Picks


Transmitter: NML
Vertical Exaggeration: 1.0

## NML Figure 11 Line 10N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 10 N
Azimuth: 51.0



NML Figure 12 Line 10 N Model 4000 Ohms with Fraser Picks

LIne: Harte Gold K-7 South Area Line 10N


Transmitter: NML

NML Figure 13 Line 12A Raw Data Profile


NML Figure 14 Line 12A Model 4000 Ohms with Fraser Picks


NML Figure 15 Line 12N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 12N
Azimuth: 50.5



NML Figure 16 Line 12N Model 4000 Ohms with Fraser Picks


Transmitter: NML
Vertical Exaggeration: 1.0

NML Figure 17 Line 14N Raw Data Profile


NML Figure 18 Line 14N Model 4000 Ohms with Fraser Picks


Transmitter: NML
Vertical Exaggeration: 1.0

NML Figure 19 Line 16N Raw Data Profile


NML Figure 20 Line 16N Model 4000 Ohms with Fraser Picks


Transmitter: NML
Vertical Exaggeration: 1.0

NML Figure 21 Line 18N Raw Data Profile

VLF-EM raw data
Line: Harte Gold K-7 South Area Line 18 N
Azimuth: 50.9



NML Figure 22 Line 18N Model 4000 Ohms with Fraser Picks


Transmitter: NML
Vertical Exaggeration: 1.0

NML Figure 23 Line 20N Raw Data Profile


NML Figure 24 Line 20N Model 4000 Ohms with Fraser Picks

Line: Harte Gold K-7 South Area Line 20N


Transmitter: NML
Vertical Exaggeration: 1.0

Appendix C - Superior Exploration, Adventure \& Climbing Co. Ltd. - Invoice

Appendix D - Superior Exploration, Adventure \& Climbing Co. Ltd. Harte Gold - K7 South Area - Raw VLF Data

|  |  | Harte Gold - K7 South Area - Raw VLF Data |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lines 00,2N, $4 \mathrm{~N}, 6 \mathrm{~N}, 8 \mathrm{~N}, 10 \mathrm{~N}, 12 \mathrm{~A}, 12 \mathrm{~N}, 14 \mathrm{~N}, 16 \mathrm{~N}, 18 \mathrm{~N}, 20 \mathrm{~N}$ |  |  |  |  |  |  |
|  |  | Ground VLF Survey conducted by Superior Exploration |  |  |  |  |  |  |
|  |  | Fieldwork from January 15 to March 21, 2019 |  |  |  |  |  |  |
|  |  |  |  |  | NAA |  | NML |  |
| Line Number | StationID | X | Y | Z | In-Phase | OutPhase | In-Phase | OutPhase |
| OON | 5+00E | 651135 | 5392734 | 420 | -12 | 10 | -12 | 12 |
| OON | 5+20E | 651147 | 5392749 | 422 | -10 | 12 | -12 | 12 |
| OON | 5+40E | 651157 | 5392764 | 422 | -10 | 10 | -14 | 12 |
| OON | 5+60E | 651173 | 5392775 | 423 | -12 | 12 | -16 | 12 |
| OON | 5+80E | 651190 | 5392785 | 422 | -20 | 12 | -20 | 12 |
| OON | $6+00 \mathrm{E}$ | 651207 | 5392796 | 422 | -20 | 14 | -20 | 10 |
| OON | $6+20 \mathrm{E}$ | 651218 | 5392810 | 421 | -20 | 12 | -22 | 10 |
| OON | $6+40 \mathrm{E}$ | 651238 | 5392825 | 419 | -20 | 18 | -22 | 16 |
| OON | 6+60E | 651253 | 5392834 | 418 | -20 | 20 | -26 | 18 |
| OON | 6+80E | 651272 | 5392848 | 417 | -26 | 20 | -36 | 12 |
| OON | 7+00E | 651287 | 5392862 | 417 | -30 | 16 | -26 | 12 |
| OON | 7+20E | 651304 | 5392875 | 416 | -40 | 14 | -40 | 12 |
| OON | $7+40 \mathrm{E}$ | 651320 | 5392890 | 416 | -46 | 16 | -36 | 14 |
| OON | 7+60E | 651334 | 5392901 | 416 | -42 | 16 | -36 | 12 |
| OON | 7+80E | 651348 | 5392912 | 415 | -44 | 18 | -46 | 10 |
| OON | 8+00E | 651360 | 5392921 | 416 | -40 | 26 | -48 | 18 |
| OON | 8+20E | 651374 | 5392935 | 418 | -100 | 40 | -100 | 42 |
| OON | $8+40 \mathrm{E}$ | 651391 | 5392950 | 416 | -80 | 36 | -94 | 30 |
| OON | 8+60E | 651411 | 5392959 | 417 | -30 | 26 | -40 | 24 |
| OON | 8+80E | 651429 | 5392973 | 419 | -30 | 20 | -28 | 18 |
| OON | 9+00E | 651439 | 5392982 | 422 | -30 | 10 | -30 | 12 |
| OON | 9+20E | 651455 | 5392997 | 424 | -30 | 16 | -26 | 16 |
| OON | 9+40E | 651470 | 5393009 | 430 | -30 | 18 | -32 | 18 |
| OON | 9+60E | 651487 | 5393022 | 432 | -28 | 18 | -24 | 16 |
| OON | 9+80E | 651503 | 5393032 | 435 | -24 | 16 | -24 | 14 |
| OON | 10+00E | 651516 | 5393047 | 437 | -20 | 20 | -10 | 20 |
| OON | 10+20E | 651528 | 5393064 | 441 | -10 | 16 | -10 | 14 |
| OON | 10+40E | 651542 | 5393078 | 447 | -12 | 16 | -12 | 16 |
| OON | 10+60E | 651559 | 5393089 | 448 | -14 | 18 | -16 | 20 |
| OON | 10+80E | 651573 | 5393102 | 451 | -16 | 16 | -18 | 20 |
| OON | 11+00E | 651588 | 5393117 | 453 | -24 | 14 | -28 | 16 |
| OON | 11+20E | 651604 | 5393126 | 456 | -30 | 42 | -42 | 44 |
| OON | 11+40E | 651625 | 5393135 | 460 | -24 | 16 | -32 | 20 |
| OON | 11+60E | 651638 | 5393147 | 462 | -20 | 18 | -22 | 20 |
| OON | 11+80E | 651654 | 5393163 | 465 | -20 | 18 | -26 | 20 |
| OON | 12+00E | 651671 | 5393176 | 466 | -20 | 18 | -22 | 20 |


| OON | 12+20E | 651687 | 5393189 | 468 | -14 | 16 | -14 | 18 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OON | 12+40E | 651704 | 5393198 | 468 | -10 | 14 | -12 | 16 |
| OON | 12+60E | 651716 | 5393212 | 470 | -12 | 12 | -14 | 18 |
| OON | 12+80E | 651731 | 5393224 | 473 | -10 | 18 | -10 | 20 |
| OON | 13+00E | 651750 | 5393235 | 477 | -8 | 16 | -10 | 14 |
| OON | 13+20E | 651764 | 5393249 | 483 | -6 | 12 | -8 | 12 |
| OON | 13+40E | 651778 | 5393261 | 485 | -14 | 12 | -16 | 20 |
| OON | 13+60E | 651795 | 5393272 | 484 | -14 | 12 | -30 | 20 |
| OON | 13+80E | 651810 | 5393281 | 478 | -20 | 10 | -30 | 20 |
| OON | 14+00E | 651829 | 5393298 | 469 | -20 | 10 | -40 | 22 |
| OON | 14+20E | 651846 | 5393308 | 464 | -10 | 8 | -12 | 10 |
| OON | 14+40E | 651861 | 5393318 | 461 | -8 | 8 | -12 | 10 |
| OON | 14+60E | 651877 | 5393331 | 457 | -8 | 4 | -12 | 8 |
| OON | 14+80E | 651890 | 5393347 | 456 | -12 | 4 | -12 | 10 |
| OON | 15+00E | 651907 | 5393359 | 457 | -8 | 4 | -14 | 10 |
| OON | 15+20E | 651920 | 5393373 | 457 | -2 | 4 | -6 | 6 |
| OON | 15+40E | 651937 | 5393385 | 456 | -4 | 6 | -4 | 4 |
| 2N | 5+00E | 651020 | 5392889 | 422 | -8 | 12 | 6 | 12 |
| 2N | 5+20E | 651028 | 5392900 | 423 | -10 | 12 | 10 | 12 |
| 2N | 5+40E | 651041 | 5392911 | 423 | -4 | 12 | 12 | 12 |
| 2N | 5+60E | 651058 | 5392922 | 426 | 4 | 14 | 16 | 14 |
| 2 N | $5+80 \mathrm{E}$ | 651076 | 5392931 | 422 | 10 | 16 | 20 | 16 |
| 2 N | 6+00E | 651095 | 5392944 | 421 | 26 | 12 | 30 | 16 |
| 2 N | 6+20E | 651107 | 5392957 | 421 | 20 | 12 | 26 | 12 |
| 2 N | 6+40E | 651129 | 5392973 | 419 | 4 | 12 | 10 | 12 |
| 2N | 6+60E | 651143 | 5392988 | 419 | -20 | 12 | -10 | 10 |
| 2N | 6+80E | 651154 | 5392998 | 420 | -30 | 12 | -28 | 14 |
| 2N | 7+00E | 651166 | 5393012 | 420 | -34 | 14 | -30 | 14 |
| 2N | 7+20E | 651183 | 5393025 | 419 | -34 | 18 | -18 | 18 |
| 2N | 7+40E | 651197 | 5393032 | 422 | -24 | 18 | -6 | 18 |
| 2N | 7+60E | 651212 | 5393046 | 424 | -18 | 20 | 4 | 18 |
| 2N | 7+80E | 651226 | 5393063 | 427 | -12 | 20 | 8 | 22 |
| 2N | 8+00E | 651243 | 5393075 | 428 | -10 | 20 | 8 | 22 |
| 2N | 8+20E | 651262 | 5393089 | 428 | -8 | 22 | 10 | 20 |
| 2N | $8+40 \mathrm{E}$ | 651273 | 5393103 | 432 | -8 | 20 | 6 | 20 |
| 2N | 8+60E | 651286 | 5393111 | 434 | -10 | 20 | 0 | 14 |
| 2N | 8+80E | 651301 | 5393126 | 436 | -16 | 20 | -6 | 12 |
| 2N | 9+00E | 651322 | 5393140 | 437 | -20 | 20 | -14 | 22 |
| 2 N | 9+20E | 651338 | 5393150 | 438 | -14 | 20 | -6 | 18 |
| 2 N | 9+40E | 651351 | 5393165 | 441 | -10 | 20 | -2 | 16 |
| 2 N | 9+60E | 651367 | 5393178 | 447 | -10 | 20 | -8 | 24 |
| 2 N | 9+80E | 651382 | 5393190 | 450 | -10 | 20 | -8 | 22 |
| 2 N | 10+00E | 651399 | 5393198 | 451 | -14 | 20 | -16 | 20 |
| 2 N | 10+20E | 651416 | 5393217 | 454 | -6 | 16 | 6 | 16 |
| 2N | 10+40E | 651433 | 5393229 | 458 | -4 | 12 | 8 | 10 |


| 2N | 10+60E | 651449 | 5393245 | 460 | -12 | 16 | -6 | 20 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2N | 10+80E | 651463 | 5393257 | 462 | -16 | 20 | -14 | 18 |
| 2N | 11+00E | 651475 | 5393270 | 462 | -10 | 18 | -12 | 12 |
| 2N | 11+20E | 651491 | 5393282 | 464 | -10 | 12 | -8 | 12 |
| 2N | 11+40E | 651506 | 5393292 | 465 | -10 | 12 | -2 | 12 |
| 2N | 11+60E | 651522 | 5393304 | 466 | -10 | 12 | -4 | 14 |
| 2N | 11+80E | 651540 | 5393319 | 470 | -8 | 12 | -4 | 14 |
| 2N | $12+00 \mathrm{E}$ | 651553 | 5393331 | 472 | -8 | 14 | -8 | 14 |
| 2N | $12+20 \mathrm{E}$ | 651568 | 5393346 | 477 | -2 | 12 | -10 | 14 |
| 2N | $12+40 \mathrm{E}$ | 651579 | 5393357 | 481 | -12 | 10 | -14 | 14 |
| 2N | 12+60E | 651598 | 5393372 | 485 | -10 | 10 | -14 | 14 |
| 2N | $12+80 \mathrm{E}$ | 651616 | 5393387 | 492 | -8 | 10 | -6 | 12 |
| 2N | 13+00E | 651633 | 5393402 | 494 | -4 | 8 | -2 | 8 |
| 2N | 13+20E | 651648 | 5393413 | 494 | -2 | 6 | -4 | 6 |
| 2N | 13+40E | 651663 | 5393424 | 496 | -2 | 4 | -6 | 6 |
| 2N | 13+60E | 651675 | 5393433 | 483 | -4 | 2 | -8 | 6 |
| 2N | 13+80E | 651689 | 5393451 | 479 | -4 | 4 | -6 | 6 |
| 2N | 14+00E | 651707 | 5393465 | 473 | -4 | 6 | -4 | 8 |
| 2N | 14+20E | 651723 | 5393476 | 472 | -4 | 2 | -8 | 8 |
| 2N | 14+40E | 651736 | 5393490 | 470 | -4 | 2 | -14 | 8 |
| 2N | 14+60E | 651752 | 5393502 | 470 | -16 | 6 | -22 | 18 |
| 2N | 14+80E | 651769 | 5393513 | 469 | -22 | 10 | -24 | 12 |
| 2N | 15+00E | 651785 | 5393527 | 467 | -6 | 4 | -8 | 6 |
| 2N | 15+20E | 651802 | 5393538 | 465 | 0 | 4 | 2 | 4 |
| 2N | 15+40E | 651817 | 5393551 | 464 | 4 | 6 | 2 | 8 |
| 4N | 5+00E | 650898 | 5393055 | 419 | -14 | 12 | -14 | 14 |
| 4N | 5+20E | 650913 | 5393067 | 419 | -20 | 18 | -22 | 24 |
| 4N | $5+40 \mathrm{E}$ | 650928 | 5393080 | 418 | -12 | 16 | -14 | 20 |
| 4N | 5+60E | 650947 | 5393092 | 419 | -10 | 16 | -12 | 18 |
| 4N | $5+80 \mathrm{E}$ | 650959 | 5393101 | 419 | -24 | 16 | -20 | 20 |
| 4 N | 6+00E | 650972 | 5393119 | 423 | -32 | 32 | -24 | 20 |
| 4 N | 6+20E | 650985 | 5393131 | 421 | -48 | 20 | -48 | 22 |
| 4N | 6+40E | 651004 | 5393142 | 419 | -60 | 20 | -50 | 22 |
| 4N | 6+60E | 651018 | 5393155 | 420 | -56 | 20 | -52 | 22 |
| 4N | 6+80E | 651038 | 5393164 | 421 | -50 | 20 | -52 | 18 |
| 4 N | 7+00E | 651055 | 5393178 | 421 | -46 | 12 | -42 | 14 |
| 4N | 7+20E | 651073 | 5393188 | 421 | -30 | 16 | -26 | 14 |
| 4 N | 7+40E | 651087 | 5393197 | 421 | -28 | 18 | -34 | 18 |
| 4N | 7+60E | 651102 | 5393210 | 421 | -26 | 20 | -22 | 18 |
| 4N | 7+80E | 651113 | 5393225 | 424 | -20 | 22 | -20 | 20 |
| 4N | 8+00E | 651125 | 5393248 | 427 | -30 | 20 | -30 | 12 |
| 4N | 8+20E | 651131 | 5393265 | 427 | -30 | 20 | -34 | 12 |
| 4N | $8+40 \mathrm{E}$ | 651149 | 5393276 | 427 | -30 | 16 | -40 | 6 |
| 4 N | 8+60E | 651167 | 5393284 | 427 | -32 | 14 | -50 | 0 |
| 4 N | 8+80E | 651184 | 5393295 | 428 | -26 | 12 | -30 | 4 |


| 4 N | 9+00E | 651201 | 5393307 | 432 | -16 | 16 | -22 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4N | 9+20E | 651216 | 5393316 | 436 | -10 | 18 | -6 | 18 |
| 4N | 9+40E | 651237 | 5393323 | 437 | 0 | 28 | 16 | 30 |
| 4N | 9+60E | 651260 | 5393335 | 441 | 2 | 22 | 22 | 28 |
| 4N | 9+80E | 651273 | 5393349 | 441 | 2 | 18 | 12 | 20 |
| 4N | 10+00E | 651289 | 5393368 | 439 | 0 | 18 | 10 | 20 |
| 4N | 10+20E | 651303 | 5393380 | 440 | -2 | 18 | 10 | 20 |
| 4N | 10+40E | 651314 | 5393397 | 442 | -4 | 18 | 10 | 22 |
| 4N | 10+60E | 651323 | 5393408 | 442 | 2 | 10 | 10 | 10 |
| 4 N | 10+80E | 651334 | 5393420 | 443 | 4 | 8 | 10 | 10 |
| 4 N | 11+00E | 651345 | 5393435 | 442 | -4 | 8 | 10 | 8 |
| 4N | 11+20E | 651364 | 5393449 | 443 | -4 | 6 | 10 | 8 |
| 4N | 11+40E | 651380 | 5393459 | 448 | -4 | 6 | 8 | 6 |
| 4N | 11+60E | 651396 | 5393473 | 454 | -6 | 6 | 8 | 6 |
| 4N | 11+80E | 651415 | 5393487 | 458 | -2 | 6 | 6 | 6 |
| 4N | 12+00E | 651432 | 5393501 | 462 | -2 | 6 | 6 | 4 |
| 4N | 12+20E | 651446 | 5393514 | 463 | 2 | 4 | 10 | 4 |
| 4N | 12+40E | 651463 | 5393525 | 467 | 4 | 4 | 12 | 4 |
| 4N | 12+60E | 651474 | 5393539 | 468 | 4 | 2 | 10 | 2 |
| 4N | $12+80 \mathrm{E}$ | 651489 | 5393552 | 469 | 4 | 0 | 10 | 2 |
| 4N | 13+00E | 651509 | 5393560 | 471 | 6 | 0 | 10 | 0 |
| 4N | $13+20 \mathrm{E}$ | 651528 | 5393578 | 472 | 0 | 0 | 10 | 0 |
| 4N | 13+40E | 651543 | 5393592 | 468 | -4 | 0 | -2 | 0 |
| 4N | $13+60 \mathrm{E}$ | 651555 | 5393602 | 463 | -4 | -2 | -2 | -2 |
| 4N | $13+80 \mathrm{E}$ | 651565 | 5393616 | 459 | 4 | 0 | 8 | -2 |
| 4 N | 14+00E | 651580 | 5393629 | 457 | 8 | 0 | 10 | -2 |
| 4 N | $14+20 \mathrm{E}$ | 651594 | 5393641 | 456 | 6 | 0 | 10 | -2 |
| 4 N | 14+40E | 651611 | 5393654 | 456 | 4 | 0 | 10 | 0 |
| 4 N | 14+60E | 651627 | 5393666 | 456 | 6 | 2 | 12 | 0 |
| 4 N | 14+80E | 651641 | 5393678 | 456 | 6 | 2 | 14 | 0 |
| 4 N | 15+00E | 651658 | 5393688 | 453 | 6 | 0 | 14 | 0 |
| 4 N | 15+20E | 651673 | 5393698 | 453 | 8 | 0 | 14 | 0 |
| 4 N | 15+40E | 651685 | 5393710 | 453 | 8 | 0 | 14 | 2 |
| 6 N | 0+00 | 650308 | 5392778 | 429 | 12 | 2 | 20 | 2 |
| 6 N | 0+20E | 650325 | 5392789 | 429 | 14 | 0 | 18 | -2 |
| 6 N | 0+40E | 650339 | 5392801 | 432 | 22 | 0 | 20 | 0 |
| 6 N | 0+60E | 650355 | 5392817 | 431 | 30 | 2 | 30 | 0 |
| 6 N | 0+80E | 650371 | 5392830 | 430 | 26 | 4 | 28 | 0 |
| 6 N | 1+00E | 650384 | 5392844 | 430 | 24 | 0 | 30 | -2 |
| 6N | 1+20E | 650399 | 5392858 | 429 | 24 | -4 | 20 | -2 |
| 6 N | 1+40E | 650413 | 5392871 | 430 | 26 | -6 | 24 | -4 |
| 6N | 1+60E | 650427 | 5392887 | 429 | 30 | -4 | 30 | -2 |
| 6 N | 1+80E | 650441 | 5392902 | 430 | 30 | -6 | 30 | -2 |
| 6 N | 2+00E | 650456 | 5392916 | 430 | 36 | -8 | 34 | -2 |
| 6N | 2+20E | 650469 | 5392929 | 430 | 40 | -8 | 32 | -2 |


| 6N | 2+40E | 650484 | 5392944 | 432 | 46 | -8 | 40 | -2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6N | 2+60E | 650497 | 5392956 | 434 | 40 | -12 | 40 | -4 |
| 6N | 2+80E | 650510 | 5392971 | 435 | 50 | -8 | 46 | -2 |
| 6N | 3+00E | 650523 | 5392986 | 436 | 56 | -8 | 50 | -2 |
| 6N | 3+20E | 650540 | 5393000 | 436 | 60 | -8 | 40 | -2 |
| 6N | 3+40E | 650552 | 5393012 | 436 | 56 | -10 | 42 | -2 |
| 6N | 3+60E | 650569 | 5393023 | 439 | 42 | -10 | 32 | 0 |
| 6N | 3+80E | 650583 | 5393038 | 439 | 34 | -8 | 28 | 0 |
| 6N | 4+00E | 650596 | 5393056 | 439 | 28 | -6 | 22 | -2 |
| 6N | 4+20E | 650608 | 5393073 | 439 | 18 | -4 | 12 | 2 |
| 6N | 4+40E | 650618 | 5393087 | 438 | 12 | 0 | 6 | 2 |
| 6N | 4+60E | 650634 | 5393105 | 438 | 6 | 2 | 8 | 2 |
| 6N | 4+80E | 650647 | 5393119 | 437 | 2 | 2 | 2 | 2 |
| 6N | 5+00E | 650669 | 5393140 | 434 | -4 | 8 | 6 | 0 |
| 6N | 5+20E | 650684 | 5393150 | 434 | -4 | 8 | 10 | 2 |
| 6N | 5+40E | 650700 | 5393165 | 433 | -12 | 16 | 12 | 4 |
| 6N | 5+60E | 650715 | 5393184 | 433 | -12 | 16 | 4 | 4 |
| 6N | 5+80E | 650732 | 5393197 | 432 | -20 | 20 | 10 | 10 |
| 6N | 6+00E | 650750 | 5393201 | 440 | 20 | 4 | 22 | 6 |
| 6N | 6+20E | 650768 | 5393210 | 440 | 30 | 0 | 36 | 4 |
| 6N | 6+40E | 650783 | 5393222 | 440 | 34 | -6 | 36 | 0 |
| 6N | 6+60E | 650800 | 5393233 | 438 | -20 | 10 | -18 | 6 |
| 6N | 6+80E | 650815 | 5393249 | 439 | -22 | 18 | -20 | 14 |
| 6N | 7+00E | 650828 | 5393264 | 438 | -20 | 20 | -18 | 8 |
| 6N | 7+20E | 650842 | 5393278 | 438 | -24 | 20 | -16 | 16 |
| 6N | 7+40E | 650853 | 5393291 | 439 | -10 | 30 | -4 | 14 |
| 6N | 7+60E | 650869 | 5393305 | 440 | -60 | 30 | 10 | 4 |
| 6N | 7+80E | 650888 | 5393316 | 442 | -50 | 20 | 4 | 0 |
| 6N | 8+00E | 650906 | 5393323 | 442 | -90 | 30 | -10 | 10 |
| 6N | 8+20E | 650928 | 5393334 | 440 | -70 | 28 | -40 | 20 |
| 6N | 8+40E | 650940 | 5393347 | 442 | -60 | 20 | -50 | 22 |
| 6N | 8+60E | 650954 | 5393360 | 441 | -30 | 18 | -26 | 14 |
| 6N | 8+80E | 650967 | 5393374 | 443 | -30 | 12 | -20 | 10 |
| 6N | 9+00E | 650980 | 5393390 | 443 | -30 | 12 | -22 | 10 |
| 6N | 9+20E | 650995 | 5393403 | 444 | -50 | 22 | -48 | 20 |
| 6N | 9+40E | 651014 | 5393414 | 445 | -42 | 30 | -28 | 20 |
| 6N | 9+60E | 651034 | 5393423 | 445 | -50 | 30 | -30 | 24 |
| 6N | 9+80E | 651050 | 5393432 | 450 | -42 | 12 | -30 | 10 |
| 6N | 10+00E | 651069 | 5393443 | 453 | -42 | 40 | -38 | 22 |
| 6N | 10+20E | 651086 | 5393453 | 459 | -60 | 40 | -44 | 24 |
| 6N | 10+40E | 651101 | 5393465 | 462 | -60 | 38 | -40 | 26 |
| 6N | 10+60E | 651120 | 5393474 | 463 | -30 | 22 | -20 | 20 |
| 6N | 10+80E | 651135 | 5393490 | 463 | -18 | 14 | -12 | 12 |
| 6N | 11+00E | 651149 | 5393506 | 467 | -12 | 18 | -8 | 12 |
| 6N | 11+20E | 651160 | 5393523 | 467 | -20 | 12 | -10 | 8 |


| 6 N | 11+40E | 651174 | 5393536 | 466 | -12 | 16 | -8 | 14 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 N | $11+60 \mathrm{E}$ | 651184 | 5393549 | 464 | -12 | 16 | -8 | 12 |
| 6N | 11+80E | 651200 | 5393565 | 465 | -10 | 12 | -8 | 10 |
| 6N | 12+00E | 651212 | 5393583 | 468 | -10 | 10 | -8 | 8 |
| 6N | 12+20E | 651221 | 5393602 | 470 | -8 | 10 | -6 | 10 |
| 6N | 12+40E | 651234 | 5393620 | 471 | -10 | 12 | -8 | 10 |
| 6N | 12+60E | 651248 | 5393634 | 465 | -10 | 10 | -8 | 8 |
| 6N | 12+80E | 651265 | 5393645 | 460 | -10 | 10 | -6 | 4 |
| 6N | 13+00E | 651283 | 5393654 | 459 | -20 | 14 | -10 | 8 |
| 6N | 13+20E | 651303 | 5393660 | 457 | -24 | 10 | -20 | 8 |
| 6N | 13+40E | 651327 | 5393672 | 447 | -30 | 12 | -20 | 8 |
| 6N | 13+60E | 651340 | 5393683 | 451 | -20 | 4 | -14 | 2 |
| 6N | 13+80E | 651357 | 5393694 | 442 | -30 | 10 | -28 | 8 |
| 6N | 14+00E | 651369 | 5393701 | 432 | -26 | 12 | -20 | 8 |
| 6N | $14+20 \mathrm{E}$ | 651391 | 5393715 | 430 | -30 | 8 | -20 | 6 |
| 6N | $14+40 \mathrm{E}$ | 651407 | 5393727 | 430 | -34 | 2 | -28 | 2 |
| 6N | 14+60E | 651421 | 5393740 | 430 | -10 | 4 | -8 | 2 |
| 6N | 14+80E | 651441 | 5393752 | 430 | 14 | 2 | 10 | 2 |
| 6N | 15+00E | 651452 | 5393766 | 435 | 20 | 6 | 16 | 4 |
| 6N | 15+20E | 651462 | 5393783 | 431 | 30 | 8 | 20 | 6 |
| 6N | 15+40E | 651474 | 5393798 | 434 | 30 | 8 | 20 | 4 |
| 6N | 15+60E | 651488 | 5393812 | 431 | 26 | 8 | 20 | 6 |
| 6N | 15+80E | 651502 | 5393826 | 432 | 20 | 4 | 10 | 6 |
| 6N | 16+00E | 651516 | 5393848 | 432 | 16 | 0 | 12 | 2 |
| 6N | 16+20E | 651525 | 5393861 | 423 | 10 | 4 | 8 | 2 |
| 8 N | 0+00 | 650144 | 5392969 | 438 | 22 | 4 | 22 | 2 |
| 8 N | 0+20E | 650164 | 5392983 | 434 | 20 | 6 | 20 | 6 |
| 8 N | 0+40E | 650176 | 5392997 | 435 | 14 | 2 | 12 | 4 |
| 8 N | 0+60E | 650190 | 5393012 | 436 | 12 | 4 | 4 | 4 |
| 8 N | 0+80E | 650208 | 5393024 | 438 | 8 | 6 | -6 | 6 |
| 8 N | 1+00E | 650225 | 5393037 | 438 | 4 | 6 | -20 | 6 |
| 8 N | 1+20E | 650239 | 5393044 | 439 | 8 | 6 | -10 | 6 |
| 8 N | 1+40E | 650250 | 5393061 | 440 | 14 | 2 | -4 | 4 |
| 8 N | 1+60E | 650264 | 5393071 | 442 | 10 | 2 | -4 | 6 |
| 8 N | 1+80E | 650286 | 5393084 | 441 | 12 | 2 | -4 | 4 |
| 8 N | 2+00E | 650297 | 5393099 | 441 | 6 | 2 | -4 | 6 |
| 8 N | 2+20E | 650308 | 5393112 | 442 | 4 | 2 | -6 | 6 |
| 8 N | 2+40E | 650327 | 5393121 | 439 | 2 | 0 | -10 | 10 |
| 8 N | 2+60E | 650346 | 5393132 | 438 | -2 | 4 | -8 | 6 |
| 8 N | 2+80E | 650361 | 5393145 | 438 | -4 | 4 | -10 | 4 |
| 8 N | 3+00E | 650377 | 5393162 | 438 | -6 | 8 | -8 | 8 |
| 8 N | 3+20E | 650392 | 5393178 | 439 | -10 | 8 | -4 | 2 |
| 8 N | 3+40E | 650403 | 5393190 | 439 | -8 | 8 | -14 | 10 |
| 8 N | 3+60E | 650425 | 5393199 | 439 | -6 | 8 | 2 | -4 |
| 8 N | 3+80E | 650439 | 5393209 | 439 | -8 | 8 | 4 | -2 |


| 8 N | 4+00E | 650458 | 5393218 | 439 | -10 | 10 | -4 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 N | 4+20E | 650471 | 5393232 | 440 | -6 | 18 | -8 | 14 |
| 8 N | 4+40E | 650491 | 5393242 | 438 | -20 | 12 | -20 | 8 |
| 8N | 4+60E | 650506 | 5393259 | 443 | -20 | 20 | 10 | -10 |
| 8N | 4+80E | 650514 | 5393270 | 441 | -12 | 20 | 10 | 0 |
| 8N | 5+00E | 650533 | 5393282 | 441 | -14 | 16 | 10 | 0 |
| 8 N | 5+20E | 650547 | 5393298 | 441 | -2 | 12 | 8 | 2 |
| 8N | 5+40E | 650567 | 5393310 | 440 | 4 | 10 | 20 | 0 |
| 8N | 5+60E | 650578 | 5393323 | 441 | 4 | 12 | 20 | 4 |
| 8 N | 5+80E | 650596 | 5393336 | 442 | -6 | 20 | 4 | 0 |
| 8 N | 6+00E | 650612 | 5393348 | 441 | -4 | 18 | -6 | 4 |
| 8 N | 6+20E | 650630 | 5393357 | 440 | -10 | 18 | -8 | 6 |
| 8 N | 6+40E | 650643 | 5393370 | 439 | -8 | 20 | -10 | 2 |
| 8 N | 6+60E | 650657 | 5393383 | 440 | -14 | 20 | -6 | 8 |
| 8 N | 6+80E | 650675 | 5393399 | 440 | -20 | 20 | -4 | 4 |
| 8 N | 7+00E | 650691 | 5393409 | 440 | -30 | 10 | -4 | 2 |
| 8 N | 7+20E | 650707 | 5393423 | 441 | -30 | 10 | -10 | 4 |
| 8 N | 7+40E | 650719 | 5393441 | 440 | -30 | 10 | -16 | 0 |
| 8 N | 7+60E | 650732 | 5393454 | 441 | -40 | 10 | -30 | 4 |
| 8 N | 7+80E | 650753 | 5393465 | 441 | -40 | 8 | -36 | 4 |
| 8 N | 8+00E | 650770 | 5393475 | 440 | -38 | 10 | -28 | 8 |
| 8 N | 8+20E | 650781 | 5393487 | 442 | -30 | 12 | -20 | 6 |
| 8 N | 8+40E | 650800 | 5393498 | 446 | -26 | 10 | -14 | 4 |
| 8 N | 8+60E | 650815 | 5393513 | 449 | -26 | 12 | -16 | 6 |
| 8 N | 8+80E | 650827 | 5393526 | 454 | -20 | 10 | -10 | 6 |
| 8 N | 9+00E | 650839 | 5393543 | 458 | -16 | 12 | -10 | 2 |
| 8 N | 9+20E | 650855 | 5393555 | 460 | -20 | 16 | -10 | 8 |
| 8 N | 9+40E | 650877 | 5393563 | 460 | -16 | 20 | -10 | 18 |
| 8 N | 9+60E | 650895 | 5393568 | 463 | -10 | 12 | -8 | 10 |
| 8 N | 9+80E | 650913 | 5393580 | 469 | -10 | 10 | -8 | 8 |
| 8 N | 10+00E | 650925 | 5393596 | 467 | -8 | 20 | -10 | 2 |
| 8 N | 10+20E | 650936 | 5393616 | 470 | -4 | 18 | 0 | 0 |
| 8 N | 10+40E | 650947 | 5393636 | 474 | -4 | 18 | 6 | 2 |
| 8 N | 10+60E | 650960 | 5393647 | 477 | -2 | 18 | 16 | 2 |
| 8N | 10+80E | 650982 | 5393655 | 479 | -4 | 16 | 30 | 4 |
| 8 N | $11+00 \mathrm{E}$ | 651001 | 5393664 | 481 | -6 | 20 | 4 | 6 |
| 8 N | 11+20E | 651017 | 5393674 | 485 | -4 | 16 | 6 | 2 |
| 8 N | 11+40E | 651034 | 5393683 | 490 | 4 | 12 | 8 | 2 |
| 8 N | 11+60E | 651053 | 5393694 | 492 | 2 | 12 | 6 | 8 |
| 8 N | 11+80E | 651064 | 5393711 | 496 | 2 | 16 | 8 | 0 |
| 8 N | $12+00 \mathrm{E}$ | 651073 | 5393729 | 497 | 6 | 10 | 10 | 4 |
| 8 N | 12+20E | 651088 | 5393745 | 499 | 2 | 10 | 6 | 2 |
| 8 N | 12+40E | 651102 | 5393758 | 498 | 4 | 10 | 6 | 2 |
| 8N | 12+60E | 651120 | 5393771 | 496 | 2 | 10 | 4 | 2 |
| 8 N | $12+80 \mathrm{E}$ | 651137 | 5393785 | 491 | 4 | 8 | 6 | 2 |


| 8 N | 13+00E | 651154 | 5393791 | 485 | 4 | 8 | 4 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8N | 13+20E | 651170 | 5393802 | 479 | 6 | 8 | 2 | 2 |
| 8N | 13+40E | 651185 | 5393815 | 478 | 4 | 8 | 4 | 0 |
| 8N | 13+60E | 651203 | 5393827 | 480 | 12 | 6 | 10 | 2 |
| 8 N | 13+80E | 651219 | 5393839 | 477 | 4 | 6 | 10 | 0 |
| 8 N | 14+00E | 651238 | 5393848 | 473 | 4 | 6 | 10 | 2 |
| 8 N | 14+20E | 651251 | 5393864 | 471 | 8 | 8 | 6 | 2 |
| 8 N | 14+40E | 651258 | 5393883 | 470 | 6 | 4 | 8 | 0 |
| 8 N | 14+60E | 651269 | 5393903 | 469 | 10 | 6 | 8 | 2 |
| 8 N | 14+80E | 651279 | 5393918 | 464 | 12 | 6 | 10 | 2 |
| 8 N | 15+00E | 651293 | 5393934 | 460 | 12 | 8 | 10 | 2 |
| 8 N | 15+20E | 651307 | 5393948 | 457 | 20 | 12 | 10 | 8 |
| 8 N | 15+40E | 651321 | 5393956 | 455 | 10 | 4 | 14 | 0 |
| 8 N | 15+60E | 651343 | 5393965 | 452 | 12 | 8 | 10 | 0 |
| 8 N | 15+80E | 651366 | 5393972 | 449 | 10 | 4 | 10 | 0 |
| 8 N | 16+00E | 651386 | 5393977 | 443 | 8 | 2 | 6 | 2 |
| 8N | 16+20E | 651401 | 5393986 | 443 | 8 | 0 | 6 | 2 |
| 10N | 0+00 | 650020 | 5393135 | 451 | -16 | 10 | -14 | 2 |
| 10N | 0+20E | 650037 | 5393145 | 454 | -14 | 10 | -10 | 2 |
| 10N | 0+40E | 650053 | 5393157 | 455 | -10 | 10 | -6 | 0 |
| 10N | 0+60E | 650066 | 5393172 | 459 | -4 | 10 | -4 | -2 |
| 10N | 0+80E | 650087 | 5393183 | 457 | 4 | 12 | 14 | 0 |
| 10N | 1+00E | 650101 | 5393195 | 457 | 10 | 12 | 20 | 0 |
| 10N | 1+20E | 650117 | 5393203 | 457 | 14 | 16 | 14 | -2 |
| 10N | 1+40E | 650132 | 5393217 | 455 | 20 | 16 | 18 | 0 |
| 10N | 1+60E | 650149 | 5393229 | 453 | 20 | 10 | 18 | -4 |
| 10N | 1+80E | 650165 | 5393243 | 451 | 20 | 8 | 20 | -4 |
| 10N | 2+00E | 650178 | 5393260 | 451 | 20 | 8 | 20 | 2 |
| 10N | 2+20E | 650190 | 5393274 | 449 | 18 | 8 | 16 | 2 |
| 10N | 2+40E | 650204 | 5393289 | 450 | 16 | 8 | 14 | 2 |
| 10N | 2+60E | 650218 | 5393302 | 447 | 10 | 2 | 10 | 0 |
| 10N | 2+80E | 650233 | 5393312 | 444 | 4 | 8 | -2 | 0 |
| 10N | 3+00E | 650252 | 5393323 | 443 | -2 | 6 | -4 | 4 |
| 10N | 3+20E | 650267 | 5393337 | 442 | -10 | 4 | -10 | 4 |
| 10N | 3+40E | 650285 | 5393351 | 442 | -10 | 12 | -12 | 12 |
| 10N | 3+60E | 650297 | 5393364 | 443 | -20 | 10 | -20 | 12 |
| 10N | 3+80E | 650314 | 5393377 | 444 | -24 | 10 | -22 | 4 |
| 10N | 4+00E | 650329 | 5393388 | 444 | -26 | 12 | -32 | 4 |
| 10N | 4+20E | 650347 | 5393401 | 444 | -30 | 8 | -32 | 0 |
| 10N | 4+40E | 650358 | 5393417 | 442 | -20 | 10 | -32 | 2 |
| 10N | 4+60E | 650377 | 5393426 | 442 | -26 | 12 | -32 | 4 |
| 10N | 4+80E | 650396 | 5393436 | 442 | -30 | 8 | -40 | -4 |
| 10N | 5+00E | 650410 | 5393449 | 441 | -36 | 8 | -34 | 6 |
| 10N | 5+20E | 650425 | 5393460 | 442 | -30 | 10 | -36 | 8 |
| 10N | 5+40E | 650440 | 5393478 | 441 | -24 | 10 | -22 | 12 |


| 10N | 5+60E | 650454 | 5393492 | 442 | -32 | 8 | -34 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10N | 5+80E | 650470 | 5393505 | 442 | -44 | 8 | -60 | 2 |
| 10N | 6+00E | 650483 | 5393516 | 441 | -58 | 4 | -70 | -2 |
| 10N | 6+20E | 650503 | 5393524 | 441 | -60 | 0 | -82 | -4 |
| 10N | 6+40E | 650518 | 5393537 | 440 | -66 | -6 | -88 | -8 |
| 10N | 6+60E | 650535 | 5393550 | 442 | -66 | -4 | -74 | -10 |
| 10N | 6+80E | 650547 | 5393562 | 442 | -56 | -4 | -78 | -6 |
| 10N | 7+00E | 650567 | 5393572 | 442 | -44 | 2 | -56 | 2 |
| 10N | 7+20E | 650582 | 5393584 | 445 | -34 | 6 | -50 | -4 |
| 10N | 7+40E | 650596 | 5393600 | 449 | -30 | 10 | -40 | -8 |
| 10N | 7+60E | 650613 | 5393610 | 451 | -24 | 8 | -40 | -6 |
| 10N | 7+80E | 650627 | 5393624 | 454 | -20 | 10 | -30 | 2 |
| 10N | 8+00E | 650645 | 5393634 | 455 | -24 | 8 | -30 | 0 |
| 10N | 8+20E | 650660 | 5393647 | 456 | -24 | 10 | -46 | 4 |
| 10N | 8+40E | 650675 | 5393664 | 458 | -30 | 12 | -56 | -4 |
| 10N | 8+60E | 650690 | 5393676 | 460 | -34 | 18 | -72 | 6 |
| 10N | 8+80E | 650706 | 5393689 | 462 | -20 | 12 | -30 | 6 |
| 10N | 9+00E | 650725 | 5393701 | 464 | -16 | 12 | -18 | 10 |
| 10N | 9+20E | 650737 | 5393715 | 466 | -12 | 10 | -14 | 8 |
| 10N | 9+40E | 650751 | 5393723 | 469 | -16 | 10 | -22 | 4 |
| 10N | 9+60E | 650766 | 5393742 | 476 | -12 | 12 | -14 | 6 |
| 10N | 9+80E | 650776 | 5393754 | 475 | -16 | 10 | -18 | 8 |
| 10N | 10+00E | 650792 | 5393772 | 479 | -8 | 10 | -8 | 6 |
| 10N | 10+20E | 650805 | 5393780 | 484 | -8 | 10 | -8 | 6 |
| 10N | 10+40E | 650825 | 5393791 | 488 | -20 | 12 | -30 | 12 |
| 10N | 10+60E | 650842 | 5393802 | 492 | -24 | 12 | -54 | 8 |
| 10N | 10+80E | 650858 | 5393815 | 496 | -14 | 12 | -16 | 10 |
| 10N | 11+00E | 650874 | 5393826 | 501 | -10 | 10 | -12 | 8 |
| 10N | 11+20E | 650888 | 5393838 | 503 | -10 | 10 | -12 | 10 |
| 10N | 11+40E | 650906 | 5393853 | 505 | -10 | 10 | -18 | 10 |
| 10N | 11+60E | 650922 | 5393860 | 507 | -8 | 12 | -10 | 10 |
| 10N | 11+80E | 650941 | 5393877 | 508 | -10 | 8 | -12 | 8 |
| 10N | 12+00E | 650960 | 5393891 | 510 | -14 | 8 | -18 | 10 |
| 10N | 12+20E | 650974 | 5393908 | 510 | -14 | 4 | -10 | 2 |
| 10N | 12+40E | 650988 | 5393919 | 512 | -14 | 0 | -8 | 2 |
| 10N | 12+60E | 651004 | 5393931 | 512 | -10 | 8 | -8 | 2 |
| 10N | 12+80E | 651019 | 5393942 | 510 | -8 | 6 | -12 | 4 |
| 10N | 13+00E | 651036 | 5393959 | 510 | -10 | 6 | -10 | 2 |
| 10N | 13+20E | 651051 | 5393970 | 508 | -10 | 6 | -10 | 2 |
| 10N | 13+40E | 651066 | 5393981 | 508 | -10 | 2 | -10 | 0 |
| 10N | 13+60E | 651080 | 5393993 | 506 | -10 | 4 | -6 | 0 |
| 10N | 13+80E | 651092 | 5394002 | 504 | -10 | 4 | -6 | 4 |
| 10N | 14+00E | 651109 | 5394020 | 502 | -12 | 2 | -10 | 0 |
| 10N | 14+20E | 651118 | 5394037 | 502 | -12 | 2 | -6 | 0 |
| 10N | 14+40E | 651133 | 5394051 | 500 | -10 | 0 | 8 | 0 |


| 10N | 14+60E | 651149 | 5394065 | 495 | -10 | 2 | 4 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10N | 14+80E | 651165 | 5394076 | 491 | -10 | 4 | -8 | 2 |
| 10N | 15+00E | 651181 | 5394087 | 486 | -10 | 2 | -8 | 4 |
| 10N | 15+20E | 651197 | 5394098 | 484 | -8 | 2 | 4 | 2 |
| 10N | 15+40E | 651215 | 5394110 | 481 | -10 | 2 | -6 | 2 |
| 10N | 15+60E | 651229 | 5394123 | 478 | 4 | 0 | 6 | 2 |
| 10N | 15+80E | 651247 | 5394138 | 476 | -4 | 2 | 4 | 0 |
| 10N | 16+00E | 651263 | 5394151 | 475 | -4 | -2 | 4 | 2 |
| 10N | 16+20E | 651283 | 5394160 | 471 | 4 | 2 | 4 | 0 |
| 10N | 16+40E | 651301 | 5394171 | 467 | -2 | 2 | -6 | 4 |
| 10N | 16+60E | 651314 | 5394184 | 466 | 2 | 0 | 4 | 4 |
| 10N | 16+80E | 651330 | 5394197 | 463 | 4 | 2 | 6 | 2 |
| 10N | 17+00E | 651345 | 5394209 | 462 | 4 | -2 | 8 | 0 |
| 12A | 0+00 | 650168 | 5393198 | 448 | 20 | 12 | 22 | 10 |
| 12A | 0+20E | 650171 | 5393213 | 449 | 24 | 12 | -4 | 10 |
| 12A | 0+40E | 650179 | 5393234 | 449 | 18 | 6 | -4 | 10 |
| 12A | 0+60E | 650184 | 5393255 | 449 | 18 | 6 | 4 | 8 |
| 12A | 0+80E | 650189 | 5393272 | 450 | 20 | 6 | 24 | 8 |
| 12A | 1+00E | 650196 | 5393289 | 448 | 20 | 6 | 10 | 10 |
| 12A | 1+20E | 650204 | 5393313 | 447 | 14 | 6 | 12 | 10 |
| 12A | 1+40E | 650214 | 5393329 | 444 | 8 | 6 | 8 | 8 |
| 12A | 1+60E | 650222 | 5393349 | 443 | 4 | 4 | 4 | 10 |
| 12A | 1+80E | 650230 | 5393368 | 441 | -4 | 6 | -4 | 8 |
| 12A | 2+00E | 650235 | 5393387 | 443 | -10 | 10 | -8 | 10 |
| 12A | 2+20E | 650245 | 5393405 | 442 | -16 | 8 | -14 | 12 |
| 12A | 2+40E | 650253 | 5393423 | 441 | -18 | 8 | -14 | 12 |
| 12A | 2+60E | 650260 | 5393440 | 441 | -22 | 10 | -20 | 12 |
| 12A | 2+80E | 650268 | 5393460 | 442 | -26 | 8 | -24 | 12 |
| 12A | 3+00E | 650276 | 5393481 | 441 | -34 | 8 | -36 | 10 |
| 12A | 3+20E | 650283 | 5393497 | 443 | -36 | 10 | -34 | 8 |
| 12A | 3+40E | 650292 | 5393516 | 444 | -40 | 8 | -40 | 10 |
| 12A | 3+60E | 650297 | 5393536 | 444 | -50 | 4 | -56 | 4 |
| 12A | 3+80E | 650300 | 5393549 | 443 | -50 | 2 | -46 | 5 |
| 12A | 4+00E | 650305 | 5393570 | 441 | -58 | -4 | -52 | -6 |
| 12A | 4+20E | 650310 | 5393587 | 441 | -50 | -2 | -48 | -4 |
| 12A | 4+40E | 650319 | 5393602 | 443 | -40 | -6 | -42 | -8 |
| 12A | 4+60E | 650331 | 5393619 | 443 | -40 | -4 | -46 | -6 |
| 12N | 0+00 | 649962 | 5393322 | 437 | -8 | 8 | -4 | 2 |
| 12N | 0+20E | 649978 | 5393328 | 436 | -6 | 10 | -8 | 4 |
| 12N | 0+40E | 649990 | 5393350 | 436 | 4 | 10 | -12 | 4 |
| 12N | 0+60E | 650003 | 5393363 | 436 | 4 | 8 | -14 | 6 |
| 12N | 0+80E | 650023 | 5393372 | 434 | -4 | 4 | -22 | 2 |
| 12N | 1+00E | 650035 | 5393390 | 432 | -4 | 4 | -18 | 2 |
| 12N | 1+20E | 650050 | 5393406 | 433 | -6 | 4 | -24 | 4 |
| 12N | $1+40 \mathrm{E}$ | 650063 | 5393418 | 433 | -8 | 4 | -36 | 2 |


| 12N | 1+60E | 650079 | 5393431 | 435 | -20 | 4 | -60 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12N | 1+80E | 650094 | 5393441 | 436 | -20 | 4 | -50 | 6 |
| 12N | 2+00E | 650112 | 5393452 | 436 | -10 | 6 | -24 | 4 |
| 12N | 2+20E | 650128 | 5393463 | 436 | 6 | 8 | -12 | 2 |
| 12N | 2+40E | 650142 | 5393474 | 436 | 4 | 8 | -18 | 4 |
| 12N | 2+60E | 650160 | 5393487 | 442 | -10 | 6 | -20 | 8 |
| 12N | 2+80E | 650181 | 5393499 | 443 | -26 | 8 | -28 | 8 |
| 12N | 3+00E | 650200 | 5393504 | 444 | -30 | 6 | -34 | 8 |
| 12N | 3+20E | 650215 | 5393516 | 445 | -30 | 8 | -34 | 6 |
| 12N | 3+40E | 650228 | 5393531 | 444 | -40 | 6 | -44 | 8 |
| 12N | 3+60E | 650245 | 5393543 | 446 | -50 | 4 | -60 | 4 |
| 12N | 3+80E | 650257 | 5393556 | 445 | -54 | -4 | -60 | -4 |
| 12N | 4+00E | 650269 | 5393576 | 441 | -60 | -8 | -60 | -6 |
| 12N | 4+20E | 650279 | 5393585 | 440 | -60 | -10 | -60 | -10 |
| 12N | 4+40E | 650298 | 5393599 | 443 | -50 | -6 | -50 | -4 |
| 12N | 4+60E | 650317 | 5393616 | 443 | -40 | -2 | -42 | -4 |
| 12N | 4+80E | 650330 | 5393628 | 444 | -30 | -4 | -32 | -4 |
| 12N | 5+00E | 650344 | 5393636 | 443 | -30 | 0 | -34 | 0 |
| 12N | 5+20E | 650357 | 5393652 | 444 | -32 | -2 | -30 | -2 |
| 12N | $5+40 \mathrm{E}$ | 650367 | 5393668 | 445 | -24 | 0 | -26 | 0 |
| 12 N | 5+60E | 650379 | 5393683 | 445 | -20 | 6 | -26 | 4 |
| 12N | 5+80E | 650393 | 5393701 | 448 | -20 | 6 | -20 | 4 |
| 12N | 6+00E | 650408 | 5393715 | 448 | -20 | 6 | -18 | 6 |
| 12N | 6+20E | 650428 | 5393725 | 451 | -20 | 8 | -18 | 8 |
| 12N | 6+40E | 650448 | 5393729 | 453 | -12 | 8 | -16 | 6 |
| 12 N | 6+60E | 650471 | 5393734 | 453 | -10 | 12 | -16 | 8 |
| 12N | 6+80E | 650496 | 5393734 | 455 | -8 | 10 | -12 | 6 |
| 12N | 7+00E | 650517 | 5393741 | 459 | -8 | 10 | -12 | 6 |
| 12N | 7+20E | 650535 | 5393750 | 461 | -12 | 14 | -14 | 12 |
| 12N | 7+40E | 650550 | 5393763 | 463 | -4 | 12 | -8 | 10 |
| 12 N | 7+60E | 650567 | 5393774 | 467 | -4 | 16 | -6 | 12 |
| 12 N | 7+80E | 650581 | 5393790 | 467 | -8 | 10 | -10 | 12 |
| 12 N | 8+00E | 650598 | 5393802 | 468 | -6 | 12 | -6 | 10 |
| 12 N | 8+20E | 650611 | 5393816 | 470 | -6 | 10 | -8 | 12 |
| 12 N | 8+40E | 650625 | 5393828 | 470 | -6 | 12 | -6 | 10 |
| 12 N | 8+60E | 650641 | 5393842 | 472 | -12 | 14 | -14 | 16 |
| 12N | 8+80E | 650656 | 5393855 | 472 | -16 | 10 | -18 | 14 |
| 12N | 9+00E | 650673 | 5393866 | 474 | -12 | 10 | -16 | 12 |
| 12 N | 9+20E | 650688 | 5393878 | 477 | -12 | 10 | -14 | 12 |
| 12 N | 9+40E | 650705 | 5393888 | 481 | -14 | 10 | -16 | 10 |
| 12 N | 9+60E | 650721 | 5393901 | 482 | -12 | 8 | -10 | 10 |
| 12 N | 9+80E | 650736 | 5393915 | 483 | -10 | 8 | -12 | 8 |
| 12N | 10+00E | 650750 | 5393927 | 485 | -10 | 10 | -12 | 10 |
| 12 N | 10+20E | 650766 | 5393941 | 487 | -12 | 8 | -10 | 8 |
| 12 N | 10+40E | 650778 | 5393958 | 490 | -10 | 10 | -8 | 8 |


| 12N | 10+60E | 650791 | 5393972 | 494 | -8 | 8 | -4 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12N | 10+80E | 650802 | 5393991 | 499 | -6 | 8 | -6 | 8 |
| 12N | 11+00E | 650806 | 5394015 | 503 | -8 | 6 | -6 | 6 |
| 12N | 11+20E | 650814 | 5394037 | 505 | -4 | 6 | -6 | 6 |
| 12N | 11+40E | 650828 | 5394051 | 506 | -6 | 4 | -8 | 4 |
| 12N | 11+60E | 650851 | 5394064 | 504 | -8 | 6 | -10 | 2 |
| 12N | 11+80E | 650867 | 5394073 | 504 | -4 | 6 | -4 | 2 |
| 12N | 12+00E | 650878 | 5394093 | 503 | -6 | 6 | -8 | 2 |
| 12N | 12+20E | 650894 | 5394114 | 502 | -8 | 4 | -6 | 2 |
| 12N | 12+40E | 650908 | 5394124 | 502 | -6 | 0 | -4 | 2 |
| 12N | 12+60E | 650922 | 5394136 | 502 | -10 | 0 | -4 | 0 |
| 12N | 12+80E | 650938 | 5394147 | 500 | -6 | 2 | -4 | 0 |
| 12N | 13+00E | 650949 | 5394162 | 501 | -8 | 0 | -6 | -2 |
| 12N | 13+20E | 650963 | 5394174 | 500 | -10 | 2 | -10 | 0 |
| 12N | 13+40E | 650984 | 5394186 | 498 | -10 | 2 | -10 | 0 |
| 12N | 13+60E | 650997 | 5394197 | 496 | -6 | 2 | -4 | 0 |
| 12N | 13+80E | 651013 | 5394209 | 495 | -10 | 2 | -8 | 0 |
| 12N | 14+00E | 651026 | 5394222 | 494 | -8 | 0 | -6 | -2 |
| 12N | 14+20E | 651049 | 5394229 | 492 | -4 | -4 | -6 | -2 |
| 12N | 14+40E | 651072 | 5394236 | 490 | -6 | -2 | -6 | -4 |
| 12 N | 14+60E | 651090 | 5394246 | 487 | -4 | -2 | -4 | -2 |
| 12N | 14+80E | 651104 | 5394259 | 486 | 0 | -2 | -2 | 0 |
| 12N | 15+00E | 651114 | 5394268 | 485 | -2 | 0 | 0 | 0 |
| 12N | 15+20E | 651129 | 5394281 | 483 | -2 | 0 | -2 | -2 |
| 12N | 15+40E | 651137 | 5394291 | 481 | -2 | 0 | -2 | -2 |
| 14 N | 5+00E | 650231 | 5393823 | 447 | -2 | 6 | -4 | 6 |
| 14 N | 5+20E | 650246 | 5393835 | 447 | -4 | 8 | -6 | 6 |
| 14 N | 5+40E | 650256 | 5393844 | 446 | -4 | 8 | -6 | 8 |
| 14 N | 5+60E | 650271 | 5393856 | 448 | -4 | 6 | -4 | 6 |
| 14 N | 5+80E | 650286 | 5393869 | 449 | -4 | 6 | -4 | 6 |
| 14 N | 6+00E | 650298 | 5393883 | 454 | -4 | 8 | -2 | 6 |
| 14 N | 6+20E | 650317 | 5393895 | 462 | -6 | 8 | -6 | 10 |
| 14 N | 6+40E | 650338 | 5393904 | 472 | -8 | 12 | -10 | 12 |
| 14 N | 6+60E | 650353 | 5393924 | 474 | 4 | 12 | -4 | 10 |
| 14 N | 6+80E | 650372 | 5393940 | 476 | 6 | 14 | 2 | 8 |
| 14 N | 7+00E | 650387 | 5393953 | 478 | 6 | 16 | 6 | 8 |
| 14 N | 7+20E | 650403 | 5393961 | 480 | 10 | 20 | 6 | 10 |
| 14 N | 7+40E | 650417 | 5393971 | 479 | 6 | 8 | 4 | 6 |
| 14 N | 7+60E | 650426 | 5393983 | 480 | 6 | 8 | 4 | 6 |
| 14 N | 7+80E | 650442 | 5393993 | 478 | 6 | 10 | 4 | 8 |
| 14 N | 8+00E | 650457 | 5394011 | 478 | 4 | 10 | 2 | 10 |
| 14 N | 8+20E | 650475 | 5394022 | 476 | 6 | 10 | 2 | 10 |
| 14 N | 8+40E | 650489 | 5394035 | 474 | 2 | 10 | 0 | 8 |
| 14 N | 8+60E | 650502 | 5394047 | 472 | -2 | 8 | 0 | 8 |
| 14 N | 8+80E | 650517 | 5394060 | 470 | -8 | 8 | -6 | 6 |


| 14N | 9+00E | 650533 | 5394073 | 470 | -6 | 6 | -6 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14N | 9+20E | 650553 | 5394081 | 468 | -6 | 6 | -6 | 6 |
| 14N | 9+40E | 650566 | 5394097 | 468 | -2 | 4 | -8 | 8 |
| 14N | 9+60E | 650579 | 5394116 | 466 | -10 | 4 | -10 | 6 |
| 14N | 9+80E | 650595 | 5394124 | 465 | -12 | 8 | -10 | 6 |
| 14N | 10+00E | 650605 | 5394139 | 466 | -10 | 8 | -6 | 8 |
| 14N | 10+20E | 650623 | 5394154 | 473 | -10 | 8 | -2 | 10 |
| 14N | 10+40E | 650637 | 5394168 | 476 | -6 | 4 | 0 | 8 |
| 14N | 10+60E | 650658 | 5394176 | 480 | -2 | 4 | 0 | 6 |
| 14N | 10+80E | 650670 | 5394189 | 485 | -6 | 8 | -4 | 10 |
| 14N | 11+00E | 650685 | 5394199 | 488 | -8 | 8 | -10 | 10 |
| 14 N | 11+20E | 650702 | 5394213 | 497 | -8 | 12 | -10 | 10 |
| 14 N | 11+40E | 650724 | 5394223 | 506 | -10 | 12 | -10 | 14 |
| 14 N | 11+60E | 650739 | 5394233 | 508 | -10 | 8 | -8 | 8 |
| 14 N | 11+80E | 650757 | 5394252 | 510 | -8 | 4 | -8 | 6 |
| 14 N | 12+00E | 650774 | 5394269 | 513 | -8 | 2 | -8 | 4 |
| 14 N | 12+20E | 650790 | 5394281 | 508 | -6 | 2 | -6 | 0 |
| 14 N | 12+40E | 650802 | 5394297 | 502 | -6 | 0 | -4 | -2 |
| 14 N | 12+60E | 650812 | 5394307 | 500 | -4 | 0 | -4 | -2 |
| 14 N | 12+80E | 650825 | 5394315 | 498 | -2 | 0 | -4 | 0 |
| 14 N | 13+00E | 650835 | 5394325 | 496 | -4 | 0 | -2 | 0 |
| 14 N | 13+20E | 650848 | 5394339 | 494 | -4 | 0 | -2 | -2 |
| 14 N | 13+40E | 650862 | 5394357 | 495 | -2 | 0 | -2 | -2 |
| 14 N | 13+60E | 650880 | 5394367 | 495 | -2 | -2 | -2 | 0 |
| 14 N | 13+80E | 650898 | 5394378 | 495 | -4 | -2 | -2 | 0 |
| 14 N | 14+00E | 650919 | 5394392 | 493 | -4 | -2 | -2 | 2 |
| 14 N | 14+20E | 650933 | 5394404 | 490 | -4 | -2 | -2 | -2 |
| 14 N | 14+40E | 650947 | 5394417 | 488 | -2 | -2 | 0 | -2 |
| 14 N | 14+60E | 650962 | 5394430 | 486 | -2 | 0 | 0 | -2 |
| 14 N | 14+80E | 650975 | 5394442 | 482 | -2 | 0 | 0 | 0 |
| 14 N | 15+00E | 650986 | 5394457 | 479 | -2 | 0 | 0 | 0 |
| 16 N | 5+00E | 650109 | 5393975 | 441 | 4 | 2 | 2 | 2 |
| 16 N | 5+20E | 650122 | 5393989 | 443 | 8 | 4 | 8 | 4 |
| 16 N | 5+40E | 650136 | 5394000 | 445 | 6 | 6 | 4 | 6 |
| 16 N | 5+60E | 650153 | 5394018 | 445 | 4 | 8 | 4 | 6 |
| 16 N | 5+80E | 650163 | 5394035 | 446 | 4 | 8 | 10 | 8 |
| 16 N | 6+00E | 650180 | 5394047 | 449 | 8 | 10 | 12 | 10 |
| 16 N | 6+20E | 650196 | 5394057 | 450 | 10 | 10 | 8 | 8 |
| 16 N | 6+40E | 650211 | 5394069 | 458 | 10 | 8 | 8 | 8 |
| 16 N | 6+60E | 650226 | 5394079 | 467 | 10 | 8 | 12 | 8 |
| 16 N | 6+80E | 650245 | 5394088 | 476 | 10 | 8 | 12 | 8 |
| 16 N | 7+00E | 650262 | 5394096 | 490 | 10 | 8 | 12 | 10 |
| 16 N | 7+20E | 650277 | 5394113 | 491 | 10 | 6 | 12 | 10 |
| 16 N | 7+40E | 650294 | 5394128 | 490 | 10 | 6 | 12 | 10 |
| 16 N | 7+60E | 650306 | 5394142 | 488 | 10 | 6 | 12 | 10 |


| 16N | 7+80E | 650322 | 5394152 | 480 | 10 | 8 | 14 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 N | $8+00 \mathrm{E}$ | 650337 | 5394163 | 475 | 10 | 8 | 16 | 6 |
| 16 N | 8+20E | 650362 | 5394176 | 474 | 6 | 6 | 12 | 4 |
| 16 N | 8+40E | 650375 | 5394183 | 469 | 6 | 4 | 10 | 4 |
| 16 N | 8+60E | 650391 | 5394191 | 465 | 6 | 4 | 12 | 4 |
| 16 N | 8+80E | 650408 | 5394207 | 456 | 8 | 8 | 16 | 4 |
| 16 N | 9+00E | 650424 | 5394218 | 451 | 10 | 6 | 20 | 4 |
| 16 N | 9+20E | 650439 | 5394234 | 448 | 10 | 4 | 20 | 4 |
| 16 N | 9+40E | 650453 | 5394247 | 445 | 8 | 4 | 16 | 6 |
| 16N | 9+60E | 650467 | 5394261 | 441 | 8 | 2 | 14 | 6 |
| 16N | 9+80E | 650478 | 5394275 | 437 | 6 | 0 | 12 | 10 |
| 16N | 10+00E | 650496 | 5394282 | 435 | -4 | 2 | -2 | 10 |
| 16N | 10+20E | 650518 | 5394296 | 434 | -12 | 4 | -10 | 8 |
| 16N | 10+40E | 650534 | 5394305 | 439 | -10 | 6 | -2 | 6 |
| 16N | 10+60E | 650549 | 5394320 | 446 | -12 | 6 | -2 | 6 |
| 16N | 10+80E | 650561 | 5394331 | 449 | -12 | 6 | -12 | 6 |
| 16 N | 11+00E | 650578 | 5394348 | 455 | -12 | 6 | -12 | 6 |
| 16 N | 11+20E | 650594 | 5394363 | 460 | -12 | 8 | -10 | 6 |
| 16 N | 11+40E | 650607 | 5394377 | 463 | -10 | 4 | -10 | 6 |
| 16 N | 11+60E | 650622 | 5394388 | 463 | -12 | 2 | -14 | 0 |
| 16N | 11+80E | 650637 | 5394398 | 468 | -14 | 0 | -16 | -8 |
| 16N | 12+00E | 650652 | 5394409 | 469 | -14 | -2 | -16 | -12 |
| 16N | 12+20E | 650668 | 5394421 | 470 | -12 | -2 | -16 | -10 |
| 16N | 12+40E | 650685 | 5394434 | 472 | -12 | -2 | -18 | -10 |
| 16N | 12+60E | 650700 | 5394450 | 473 | -10 | -4 | -14 | -8 |
| 16N | 12+80E | 650719 | 5394463 | 475 | -6 | -6 | -10 | -8 |
| 16N | 13+00E | 650732 | 5394474 | 476 | -10 | -6 | -10 | -10 |
| 16N | 13+20E | 650748 | 5394490 | 477 | -10 | 0 | -16 | -10 |
| 16N | 13+40E | 650758 | 5394510 | 478 | -8 | 0 | -14 | -8 |
| 16N | 13+60E | 650777 | 5394527 | 480 | -8 | -2 | -14 | -6 |
| 16N | 13+80E | 650788 | 5394537 | 480 | -4 | -2 | -10 | -6 |
| 16N | 14+00E | 650800 | 5394550 | 477 | -4 | -4 | -10 | -8 |
| 16N | 14+20E | 650813 | 5394563 | 473 | -2 | -4 | -10 | -10 |
| 16N | $14+40 \mathrm{E}$ | 650829 | 5394580 | 471 | -4 | -4 | -8 | -12 |
| 16N | 14+60E | 650845 | 5394590 | 468 | -4 | -6 | -2 | -10 |
| 16N | 14+80E | 650857 | 5394605 | 466 | 4 | -10 | 0 | -6 |
| 16N | 15+00E | 650877 | 5394617 | 466 | 4 | -4 | 20 | -8 |
| 16N | 15+20E | 650894 | 5394632 | 466 | -10 | -4 | -30 | -10 |
| 16N | 15+40E | 650911 | 5394646 | 464 | -8 | -6 | -40 | -10 |
| 16 N | 15+60E | 650926 | 5394659 | 464 | 2 | -8 | 30 | -20 |
| 18 N | 0+00 | 649572 | 5393792 | 432 | 16 | 10 | 40 | 4 |
| 18 N | 0+20E | 649592 | 5393808 | 433 | 18 | 8 | 44 | 6 |
| 18 N | 0+40E | 649611 | 5393824 | 434 | 20 | 6 | 48 | 8 |
| 18 N | 0+60E | 649632 | 5393842 | 432 | 24 | 4 | 54 | 8 |
| 18N | 0+80E | 649648 | 5393857 | 434 | 28 | 6 | 56 | 6 |


| 18 N | 1+00E | 649665 | 5393868 | 437 | 40 | 8 | 52 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 N | 1+20E | 649684 | 5393880 | 440 | 16 | 8 | 40 | 6 |
| 18N | 1+40E | 649699 | 5393892 | 442 | 16 | 4 | 40 | 4 |
| 18N | 1+60E | 649720 | 5393907 | 439 | 14 | 4 | 36 | 4 |
| 18N | 1+80E | 649735 | 5393917 | 438 | 24 | 4 | 26 | 4 |
| 18N | 2+00E | 649751 | 5393934 | 439 | 18 | 4 | 26 | 6 |
| 18N | 2+20E | 649766 | 5393945 | 437 | 26 | 4 | 28 | 8 |
| 18 N | 2+40E | 649782 | 5393955 | 435 | 24 | 4 | 34 | 6 |
| 18N | 2+60E | 649797 | 5393968 | 432 | 22 | 4 | 26 | 4 |
| 18 N | 2+80E | 649812 | 5393983 | 432 | 20 | 4 | 30 | 6 |
| 18N | 3+00E | 649827 | 5393997 | 430 | 28 | 6 | 60 | 8 |
| 18N | 3+20E | 649843 | 5394012 | 430 | 26 | 6 | 34 | 6 |
| 18 N | 3+40E | 649857 | 5394024 | 427 | 24 | 6 | 34 | 6 |
| 18 N | 3+60E | 649871 | 5394040 | 423 | 24 | 6 | 42 | 6 |
| 18 N | 3+80E | 649882 | 5394055 | 425 | 30 | 6 | 42 | 6 |
| 18 N | 4+00E | 649903 | 5394070 | 426 | 30 | 6 | 40 | 8 |
| 18N | 4+20E | 649911 | 5394081 | 424 | 30 | 6 | 40 | 8 |
| 18N | 4+40E | 649925 | 5394094 | 424 | 30 | 6 | 40 | 8 |
| 18N | 4+60E | 649946 | 5394109 | 422 | 34 | 12 | 42 | 8 |
| 18N | 4+80E | 649958 | 5394117 | 424 | 40 | 12 | 60 | 12 |
| 18N | 5+00E | 649980 | 5394128 | 424 | 36 | 10 | 50 | 8 |
| 18N | 5+20E | 649995 | 5394143 | 424 | 20 | 6 | 34 | 2 |
| 18 N | 5+40E | 650012 | 5394149 | 423 | 16 | 4 | 10 | 2 |
| 18 N | 5+60E | 650030 | 5394160 | 426 | 10 | 10 | 20 | 8 |
| 18 N | 5+80E | 650050 | 5394173 | 426 | 20 | 10 | 26 | 8 |
| 18 N | 6+00E | 650060 | 5394182 | 426 | 20 | 10 | 30 | 10 |
| 18 N | 6+20E | 650073 | 5394190 | 426 | 20 | 10 | 26 | 12 |
| 18 N | 6+40E | 650093 | 5394206 | 429 | 20 | 10 | 24 | 8 |
| 18 N | 6+60E | 650106 | 5394226 | 430 | 16 | 10 | 20 | 8 |
| 18 N | 6+80E | 650121 | 5394233 | 432 | 10 | 12 | 12 | 8 |
| 18 N | 7+00E | 650137 | 5394241 | 434 | 6 | 8 | 10 | 6 |
| 18 N | 7+20E | 650153 | 5394253 | 434 | 4 | 6 | 6 | 6 |
| 18 N | 7+40E | 650172 | 5394268 | 436 | 10 | 6 | 12 | 6 |
| 18N | 7+60E | 650192 | 5394277 | 438 | 10 | 6 | 12 | 6 |
| 18N | 7+80E | 650205 | 5394285 | 435 | 10 | 8 | 16 | 6 |
| 18N | 8+00E | 650223 | 5394300 | 436 | 14 | 10 | 20 | 10 |
| 18N | 8+20E | 650236 | 5394315 | 434 | 14 | 10 | 18 | 8 |
| 18N | $8+40 \mathrm{E}$ | 650253 | 5394329 | 435 | 10 | 6 | 12 | 4 |
| 18 N | 8+60E | 650271 | 5394351 | 433 | -20 | 0 | -22 | -4 |
| 18 N | 8+80E | 650278 | 5394360 | 434 | -36 | -2 | -50 | -8 |
| 18 N | 9+00E | 650296 | 5394374 | 433 | -60 | -8 | -74 | -8 |
| 18 N | 9+20E | 650304 | 5394391 | 434 | -54 | -8 | -66 | -10 |
| 18 N | 9+40E | 650315 | 5394405 | 436 | -44 | -6 | -56 | -8 |
| 18 N | 9+60E | 650330 | 5394423 | 438 | -28 | 0 | -46 | -8 |
| 18 N | 9+80E | 650348 | 5394434 | 441 | -26 | 0 | -30 | -10 |


| 18N | 10+00E | 650366 | 5394448 | 439 | -32 | -2 | -32 | -10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 N | 10+20E | 650382 | 5394459 | 441 | -26 | -2 | -32 | -8 |
| 18 N | 10+40E | 650398 | 5394469 | 442 | -26 | -4 | -32 | -6 |
| 18 N | 10+60E | 650411 | 5394483 | 444 | -22 | -4 | -24 | -6 |
| 18N | 10+80E | 650428 | 5394496 | 448 | -18 | 0 | -24 | -2 |
| 18 N | 11+00E | 650445 | 5394508 | 451 | -22 | 0 | -30 | -4 |
| 18N | 11+20E | 650459 | 5394523 | 451 | -20 | 0 | -30 | -4 |
| 18 N | 11+40E | 650474 | 5394535 | 450 | -20 | -2 | -30 | -4 |
| 18N | 11+60E | 650493 | 5394550 | 448 | -20 | -4 | -30 | -6 |
| 18 N | 11+80E | 650509 | 5394561 | 448 | -20 | -4 | -26 | -6 |
| 18 N | 12+00E | 650521 | 5394573 | 457 | -16 | 0 | -20 | -4 |
| 18N | 12+20E | 650536 | 5394587 | 463 | -14 | 0 | -22 | -2 |
| 18N | 12+40E | 650549 | 5394601 | 463 | -16 | -2 | -24 | -4 |
| 18 N | 12+60E | 650561 | 5394616 | 461 | -18 | -2 | -22 | -4 |
| 18N | 12+80E | 650578 | 5394631 | 462 | -16 | -2 | -22 | -4 |
| 18 N | 13+00E | 650592 | 5394640 | 464 | -12 | 0 | -20 | -4 |
| 18N | 13+20E | 650610 | 5394653 | 466 | -10 | 0 | -12 | -2 |
| 18 N | 13+40E | 650628 | 5394668 | 467 | -10 | 0 | -14 | -2 |
| 18 N | 13+60E | 650646 | 5394683 | 470 | -8 | 0 | -16 | -2 |
| 18 N | 13+80E | 650661 | 5394696 | 468 | -6 | 0 | -12 | 0 |
| 18 N | 14+00E | 650677 | 5394709 | 472 | -6 | -2 | -12 | 0 |
| 18N | 14+20E | 650691 | 5394720 | 470 | -6 | 0 | -12 | 0 |
| 18N | 14+40E | 650702 | 5394731 | 469 | -6 | 0 | -10 | -2 |
| 18 N | 14+60E | 650715 | 5394743 | 466 | -6 | 0 | -16 | -2 |
| 18N | 14+80E | 650727 | 5394751 | 464 | -6 | 2 | -20 | 2 |
| 18 N | 15+00E | 650737 | 5394760 | 461 | -10 | 2 | -20 | 2 |
| 18N | 15+20E | 650749 | 5394770 | 458 | -12 | 4 | -18 | 2 |
| 20N | 0+00 | 649466 | 5393940 | 426 | 20 | -2 | 50 | -12 |
| 20N | 0+20E | 649483 | 5393951 | 424 | 22 | -2 | 48 | -10 |
| 20N | 0+40E | 649499 | 5393962 | 424 | 24 | 2 | 46 | -8 |
| 20N | 0+60E | 649516 | 5393975 | 422 | 28 | 0 | 44 | -6 |
| 20N | 0+80E | 649533 | 5393988 | 424 | 30 | 0 | 40 | -4 |
| 20N | 1+00E | 649550 | 5394003 | 424 | 26 | 0 | 36 | -8 |
| 20N | 1+20E | 649567 | 5394019 | 422 | 22 | 0 | 30 | -4 |
| 20 N | 1+40E | 649583 | 5394034 | 421 | 22 | -2 | 32 | -2 |
| 20 N | 1+60E | 649597 | 5394047 | 422 | 18 | 2 | 26 | -4 |
| 20N | 1+80E | 649610 | 5394065 | 420 | 4 | 2 | 10 | 0 |
| 20N | 2+00E | 649626 | 5394080 | 421 | 0 | 2 | 4 | 0 |
| 20 N | 2+20E | 649639 | 5394097 | 421 | 6 | 4 | 8 | 2 |
| 20N | 2+40E | 649653 | 5394113 | 420 | 4 | 4 | 4 | 6 |
| 20 N | 2+60E | 649666 | 5394126 | 421 | 4 | 4 | 4 | 4 |
| 20N | 2+80E | 649678 | 5394141 | 420 | -4 | 8 | -4 | 6 |
| 20N | 3+00E | 649693 | 5394156 | 421 | -16 | 8 | -20 | 8 |
| 20N | 3+20E | 649707 | 5394172 | 420 | -20 | 6 | -22 | 6 |
| 20 N | 3+40E | 649720 | 5394188 | 421 | -20 | 6 | -22 | 4 |


| 20N | 3+60E | 649731 | 5394195 | 421 | -42 | 6 | -54 | 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20N | 3+80E | 649749 | 5394212 | 422 | -54 | 8 | -64 | 4 |
| 20 N | 4+00E | 649764 | 5394231 | 416 | -70 | 10 | -90 | 6 |
| 20 N | 4+20E | 649776 | 5394246 | 416 | -60 | 10 | -80 | 4 |
| 20 N | 4+40E | 649791 | 5394260 | 417 | -60 | 12 | -80 | 2 |
| 20 N | 4+60E | 649808 | 5394271 | 416 | -60 | 16 | -80 | 10 |
| 20 N | 4+80E | 649826 | 5394278 | 415 | -40 | 20 | -70 | 10 |
| 20N | 5+00E | 649843 | 5394293 | 415 | -20 | 14 | -36 | 12 |
| 20 N | 5+20E | 649858 | 5394305 | 415 | -6 | -2 | -8 | -10 |
| 20 N | 5+40E | 649873 | 5394320 | 416 | 0 | 0 | 2 | -10 |
| 20N | 5+60E | 649888 | 5394331 | 417 | 2 | -4 | 6 | -10 |
| 20N | 5+80E | 649905 | 5394341 | 417 | 6 | -2 | 10 | -10 |
| 20N | 6+00E | 649924 | 5394352 | 417 | 10 | 4 | 20 | -6 |
| 20N | 6+20E | 649939 | 5394367 | 419 | 18 | 6 | 20 | 2 |
| 20N | 6+40E | 649953 | 5394380 | 420 | 14 | 6 | 12 | 8 |
| 20N | 6+60E | 649967 | 5394396 | 420 | 10 | 6 | 18 | 6 |
| 20 N | 6+80E | 649978 | 5394409 | 420 | 10 | 6 | 20 | 4 |
| 20 N | 7+00E | 649996 | 5394425 | 420 | 10 | 8 | 20 | 6 |
| 20 N | 7+20E | 650010 | 5394432 | 421 | 10 | 8 | 26 | 10 |
| 20 N | 7+40E | 650029 | 5394448 | 422 | 0 | 6 | 6 | 6 |
| 20 N | 7+60E | 650044 | 5394457 | 424 | -2 | 4 | 2 | 4 |
| 20N | 7+80E | 650061 | 5394469 | 424 | -6 | 2 | 2 | 2 |
| 20N | 8+00E | 650076 | 5394484 | 423 | -4 | 6 | 6 | 6 |
| 20N | 8+20E | 650086 | 5394501 | 422 | -6 | 8 | 10 | 0 |
| 20N | 8+40E | 650097 | 5394517 | 422 | -6 | 4 | 10 | 10 |
| 20 N | 8+60E | 650110 | 5394536 | 424 | -6 | 8 | 4 | 8 |
| 20 N | 8+80E | 650123 | 5394553 | 425 | -6 | 6 | 10 | 10 |
| 20 N | 9+00E | 650141 | 5394567 | 426 | -6 | 8 | 10 | 12 |
| 20 N | 9+20E | 650156 | 5394577 | 430 | -10 | 8 | -6 | 8 |
| 20N | 9+40E | 650171 | 5394590 | 433 | -10 | 8 | -8 | 6 |
| 20N | 9+60E | 650182 | 5394600 | 433 | -10 | 6 | -10 | 8 |
| 20N | 9+80E | 650198 | 5394617 | 435 | -6 | 6 | -8 | 6 |
| 20N | 10+00E | 650211 | 5394627 | 442 | -8 | 6 | -6 | 6 |
| 20N | 10+20E | 650229 | 5394636 | 447 | -10 | 10 | -2 | 6 |
| 20N | 10+40E | 650248 | 5394644 | 451 | -10 | 6 | -12 | 6 |
| 20N | 10+60E | 650269 | 5394653 | 457 | -10 | 6 | -14 | 4 |
| 20N | 10+80E | 650286 | 5394663 | 459 | -10 | 4 | -12 | 2 |
| 20N | 11+00E | 650305 | 5394678 | 460 | -16 | 6 | -14 | 4 |
| 20N | 11+20E | 650320 | 5394687 | 460 | -10 | 4 | -12 | 6 |
| 20N | 11+40E | 650335 | 5394701 | 460 | -10 | 2 | -10 | 4 |
| 20 N | 11+60E | 650351 | 5394711 | 457 | -10 | 2 | -10 | 0 |
| 20N | 11+80E | 650366 | 5394722 | 456 | -14 | 2 | -10 | 2 |
| 20 N | 12+00E | 650383 | 5394738 | 448 | -8 | 2 | -8 | 2 |
| 20 N | 12+20E | 650397 | 5394749 | 444 | -8 | 2 | -8 | 2 |
| 20 N | 12+40E | 650415 | 5394763 | 442 | -6 | 0 | -8 | -2 |


| 20 N | $12+60 \mathrm{E}$ | 650430 | 5394779 | 440 | -6 | 4 | -6 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 N | $12+80 \mathrm{E}$ | 650441 | 5394793 | 438 | -6 | 0 | -6 | 0 |
| 20 N | $13+00 \mathrm{E}$ | 650455 | 5394805 | 442 | -8 | 0 | -8 | 0 |
| 20 N | $13+20 \mathrm{E}$ | 650471 | 5394816 | 446 | -6 | 2 | -8 | 2 |
| 20 N | $13+40 \mathrm{E}$ | 650486 | 5394830 | 450 | -8 | 4 | -6 | 4 |
| 20 N | $13+60 \mathrm{E}$ | 650502 | 5394836 | 450 | -8 | 4 | -6 | 4 |
| 20 N | $13+80 \mathrm{E}$ | 650516 | 5394842 | 453 | -10 | 6 | -8 | 6 |
| 20 N | $14+00 \mathrm{E}$ | 650537 | 5394855 | 459 | -2 | 8 | -4 | 6 |
| 20 N | $14+20 \mathrm{E}$ | 650556 | 5394873 | 463 | -4 | 6 | -4 | 4 |
| 20 N | $14+40 \mathrm{E}$ | 650572 | 5394886 | 456 | 6 | 6 | 4 | 4 |
| 20 N | $14+60 \mathrm{E}$ | 650588 | 5394903 | 449 | 10 | 10 | 14 | 6 |
| 20 N | $14+80 \mathrm{E}$ | 650601 | 5394917 | 445 | 20 | 12 | 16 | 10 |
| 20 N | $15+00 \mathrm{E}$ | 650616 | 5394930 | 443 | 22 | 10 | 20 | 12 |
| 20 N | $15+20 \mathrm{E}$ | 650631 | 5394943 | 442 | 14 | 2 | 14 | 4 |
| 20 N | $15+40 \mathrm{E}$ | 650642 | 5394955 | 443 | 0 | -2 | 0 | -2 |




[^0]:    David B. Stevenson, M.Sc., P.Geo.

