RioTinto

Rio Tinto Exploration Canada Inc.

Assessment Report on the 2015 Drilling Program.

Thunder Bay North PGE Project

NTS 52A/10, 52A/11, 52A/14, 52A/15 Thunder Bay Mining Division Ontario, Canada

> Tony Freeman Principal Geologist January 15th 2016

Table of Contents

Summary	
Introduction	3
Location and Access	4
Property Status	5
Previous Work	
Regional Geology	
Diamond Drilling	14
Core Data Correction	10
Sampling Method and Approach	17
Sample Droparation Applycos, and Socurity	17
	۲۵ مد
15TR0001	20 20
15TB0007	20
15TB0003	20
15TB0004	
15TB0005	
15TB0006	22
15TB0007	22
15TB0008	22
15TB0009	23
15TB0010	23
15TB0011	24
Drill Site Reclamation	24
Re-assaying Historic Drill Core	25
Geophysics	27
Description of Survey: Downhole Crone Pulse-EM	27
Survey Method	27
Interpretation of the Crone DHEM survey	
Interpretation of the Crone RAD survey	29
Recommendation for further exploration work	30
Geophysical Data	30
Interpretation and recommendation of further work	31
References	32
Appendix 1 - Drill Hole Location Maps	
Appendix 2 - Drill Hole Cross Sections	
Appendix 2 - Assav Certificates for Holes 15TB0011 - 15TB0011	
Appendix 4 - Sample Intervals for Holes 15TB0011 - 15TB0011	
Appendix 5 - Lithology logs for Holes 15TB0011 - 15TB0011	

Appendix 6 - Sample Intervals and Major Assays for Re-assayed Historic Holes. Appendix 7 - Assay Certificates for Re-assayed Historic Holes. Appendix 8 - Geophysical Survey and Logistic Report.

Table of Figures

Figure 1- Project Area Map	5
Figure 2 - Property Overview Map	10
Figure 3 - Regional Geology Map	14
Figure 4 - Drill Core Flowchart	17
Figure 5 - Table of Analytical Methods Used and Limitations From ALS 2015 Fee Sche	dule19

Table of Tables

Table 1 - List of TBN Project Claims.	5
Table 2 - Summary of 2015 Drill Holes	15
Table 3 - Summary of 2015 Significant Intersections	16
Table 4 - Completion Status of 2015 Drill Holes	24
Table 5 - Location and Sample Details for Re-assayed Historic Core	25
Table 6 - Summary of current (2015) and historic (pre-2015) holes surveyed by DHEM a	nd
RAD on the TBN Project	28
Table 7 - Summary of DHEM Anomalies	29

Summary

In the summer of 2015 Rio Tinto Exploration Canada Inc. drilled 11 holes and completed associated DHEM survey, geologic logging and assaying on these and a selection of historic holes on the Thunder Bay North property near Thunder Bay, Ontario. The objective of the drilling was to identify PGE-Cu-Ni mineralization in ultramafic intrusions known, or suspected, to be present on the property. Ten of the eleven holes intersected mafic and ultramafic lithologies in varying widths and orientations. Several holes intersected significant mineralization over varying widths in the Steepledge Lake Intrusive complex. These mineralized intersections and the, newly identified, 025 peridotite intrusion are worthy of follow up drilling to fully characterize their geometry and extent.

Introduction

In 2014, Rio Tinto Exploration Canada Inc. (RTECI) entered into an earn-in joint venture agreement with Panoramic PGMs (Canada) Limited (PAN) over the Thunder Bay North (TBN) Property in the Thunder Bay mining division of North-Western Ontario. The agreement combines the Thunder Bay North claims held by Panoramic and their option partners with the, 100% RTECI held, Escape Lake property. Rio Tinto Exploration Canada Inc. will be the operator over the earn-in period which began at the start of 2015. RTECI intends to explore the combined claim group for PGE-Cu-Ni mineralisation.

This combined property contains several ultramafic intrusive complexes known to contain PGE-Cu-Ni mineralisation including an established resource delineated by Panoramic and previous owners on the Current Lake Intrusive Complex. RTECI is investigating areas with potential to contain significant extensions to known mineralisation or new mineralisation of a similar type in previously unrecognised ultramafic intrusive occurrences.

Work included in this assessment report includes drilling of eleven diamond drill holes with associated logging, assays and down hole geophysics, select DHEM survey on historic holes and select re-assaying of historic core with a complete chemistry package for lithogeochemical interpretation. The work reported herein was conducted between July and November, 2015.

The work was completed by RTECI staff and contractors listed below.

Name	Position	Residence
David Simpson	Exploration Manager	Salt Lake City, UT
Dean Rossell	Principal III Geologist	Duluth, MN
Steve Hovis	Principal II Geologist	Duluth, MN
Brian Goldner	Senior Project Geologist	Salt Lake City, UT
Tony Freeman	Principal I Geoscientist	Vancouver, BC
Robert Rush	Project Geologist	Duluth, MN
Dan Foley	Project Geologist	Duluth, MN
Rachelle Boulanger	Project Geologist	Saskatoon, SK
Holly Keyes	HSEC Coordinator	Vancouver, BC
Christophe Hyde	Principal I Geoscientist	Vancouver, BC
Pat Farah	Project Coordinator	Tamarack, MN
Robert Varrin	Project Coordinator	Thunder Bay, ON
Alex Steiner	Contract Geologist	Duluth, MN
Steve Crowell	Contract Geologist	Nova Scotia
Jesse Koroscil	Contract Geologist	Thunder Bay, ON
Monica Karman	Core Technician	Thunder Bay, ON

Location and Access

The Thunder Bay North property is located approximately 50km northeast of the city of Thunder Bay (see Figure 1). The project is accessible by proceeding east on the Trans-Canada Highway 17, then turning north on Highway 527 (the Armstrong Highway), then turning east onto the Escape Lake Road which is located approximately 23km north of the intersection of the Trans Canada with Highway 527. At kilometre two of the Escape Lake Road turn north onto the Finn Road and proceed to kilometre 16.5 where pre-existing drill trails branch off to the east to access the drilling area.

Drill holes 15TB0001-15TB0004 can be accessed via the Shallow Nest West Road which lies east of Highway 527, approximately 13km north of the Escape Lake road intersection. At kilometre 9.5 on the Shallow Nest West Road take a turn south onto a drill trail to access these holes between 700m and 1.5km from the road.



Figure 1- Project Area Map

Trucks were used to transport crews and supplies from Thunder Bay to the staging areas on the Finn Road (16.5km) and Shallow Nest West Road (9.5km). UTV's and tracked utility vehicles were used to access the drill holes from the staging areas.

Property Status

The Thunder Bay North Project consists of 160 claims made of 1856 claim units totalling 29696 Ha. These claims are listed in the table below and shown in Figure 2.

Claim Number	Parties	Grant Date	Claim Units	Claim Area in Hectares
842186	Panoramic PGMS (Canada) Limited (100%)	30-Jul-01	9	144
842189	Panoramic PGMS (Canada) Limited (100%)	30-Jul-01	12	192
1246796	Casimir Zimowski, Ronald Pizzolato (100%)	19-Oct-06	12	192
1248239	Panoramic PGMS (Canada) Limited (100%)	14-Dec-01	11	176
1248240	Panoramic PGMS (Canada) Limited (100%)	14-Dec-01	9	144
1248241	1248241 Panoramic PGMS (Canada) Limited (100%)		15	240
1248244 Panoramic PGMS (Canada) Limited (100%)		14-Dec-01	6	96
3005105	3005105 Panoramic PGMS (Canada) Limited (100%)		12	192
3005106	Panoramic PGMS (Canada) Limited (100%)	23-Oct-07	3	48
3018014	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256

3018015	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018016	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018017	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018018	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	15	240
3018019	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018028	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018055	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018056	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018057	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
3018058	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	15	240
3018059	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	8	128
4205378	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	4	64
4205432	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	3	48
4208485	Panoramic PGMS (Canada) Limited (100%)	7-Feb-07	16	256
4208965	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208966	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208967	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208968	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208969	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208970	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208971	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	8	128
4208972	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208973	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208974	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	16	256
4208975	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	1	16
4208976	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	4	64
4208977	Panoramic PGMS (Canada) Limited (100%)	26-Oct-05	13	208
4208978	Panoramic PGMS (Canada) Limited (100%)	26-Oct-05	15	240
4208979	Panoramic PGMS (Canada) Limited (100%)	26-Oct-05	15	240
4208980	Panoramic PGMS (Canada) Limited (100%)	26-Oct-05	15	240
4208981	Panoramic PGMS (Canada) Limited (100%)	26-Oct-05	15	240
4208984	Panoramic PGMS (Canada) Limited (100%)	27-Oct-05	15	240
4210157	Panoramic PGMS (Canada) Limited (100%)	10-May-06	12	192
4211163	Panoramic PGMS (Canada) Limited (100%)	31-Jan-07	12	192
4211637	Casimir Zimowski, Ronald Pizzolato (100%)	22-Feb-07	3	48
4211638	Casimir Zimowski, Ronald Pizzolato (100%)	10-Nov-06	3	48
4214075	Panoramic PGMS (Canada) Limited (100%)	31-Jan-07	15	240
4214076	Panoramic PGMS (Canada) Limited (100%)	31-Jan-07	15	240
4214077	Panoramic PGMS (Canada) Limited (100%)	31-Jan-07	9	144
4214273	Panoramic PGMS (Canada) Limited (100%)	12-Mar-07	16	256
4215436	Panoramic PGMS (Canada) Limited (100%)	7-Feb-07	8	128
4216374	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	6	96
4218927	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	12	192
4221361	Panoramic PGMS (Canada) Limited (100%)	5-May-08	12	192
4221362	Panoramic PGMS (Canada) Limited (100%)	5-May-08	16	256

4221363	Panoramic PGMS (Canada) Limited (100%)	5-May-08	16	256
4221364	Panoramic PGMS (Canada) Limited (100%)	5-May-08	16	256
4221365	Panoramic PGMS (Canada) Limited (100%)	5-May-08	16	256
4221366	Panoramic PGMS (Canada) Limited (100%)	5-May-08	5	80
4221367	Panoramic PGMS (Canada) Limited (100%)	5-May-08	4	64
4221368	Panoramic PGMS (Canada) Limited (100%)	5-May-08	12	192
4221369	Panoramic PGMS (Canada) Limited (100%)	5-May-08	12	192
4221370	Panoramic PGMS (Canada) Limited (100%)	5-May-08	15	240
4222468	Panoramic PGMS (Canada) Limited (100%)	10-Nov-14	1	16
4222469	Panoramic PGMS (Canada) Limited (100%)	1-Dec-14	1	16
4222631	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	12	192
4222632	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	8	128
4222633	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	16	256
4222634	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	16	256
4222635	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	8	128
4222636	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	12	192
4222637	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	8	128
4222638	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	8	128
4222639	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	12	192
4222640	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	16	256
4222650	Panoramic PGMS (Canada) Limited (100%)	5-Jul-07	3	48
4225211	Panoramic PGMS (Canada) Limited (100%)	13-Nov-07	16	256
4225212	Panoramic PGMS (Canada) Limited (100%)	13-Nov-07	12	192
4225213	Panoramic PGMS (Canada) Limited (100%)	13-Nov-07	12	192
4225214	Panoramic PGMS (Canada) Limited (100%)	13-Nov-07	4	64
4225215	Panoramic PGMS (Canada) Limited (100%)	13-Nov-07	5	80
4225216	Panoramic PGMS (Canada) Limited (100%)	13-Nov-07	9	144
4225972	Panoramic PGMS (Canada) Limited (100%)	23-Oct-07	10	160
4225973	Panoramic PGMS (Canada) Limited (100%)	23-Oct-07	9	144
4225974	Panoramic PGMS (Canada) Limited (100%)	26-Oct-07	9	144
4225975	Panoramic PGMS (Canada) Limited (100%)	26-Oct-07	6	96
4228025	Panoramic PGMS (Canada) Limited (100%)	26-Nov-07	16	256
4229972	Panoramic PGMS (Canada) Limited (100%)	23-May-08	8	128
4229975	Panoramic PGMS (Canada) Limited (100%)	23-May-08	8	128
4240095	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4240097	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4240536	Panoramic PGMS (Canada) Limited (100%)	3-Apr-08	15	240
4240537	Panoramic PGMS (Canada) Limited (100%)	3-Apr-08	15	240
4240538	Panoramic PGMS (Canada) Limited (100%)	3-Apr-08	12	192
4240539	Panoramic PGMS (Canada) Limited (100%)	3-Apr-08	12	192
4240540	Panoramic PGMS (Canada) Limited (100%)	3-Apr-08	4	64
4240541	Panoramic PGMS (Canada) Limited (100%)	3-Apr-08	4	64
4241533	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4241534	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4241535	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	8	128

4241536	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	8	128
4241537	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4241716	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	8	128
4241717	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4241718	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	8	128
4241719	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	8	128
4241720	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4241727	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	16	256
4242141	Panoramic PGMS (Canada) Limited (100%)	12-May-08	16	256
4242142	Panoramic PGMS (Canada) Limited (100%)	12-May-08	12	192
4242143	Panoramic PGMS (Canada) Limited (100%)	12-May-08	7	112
4242144	Panoramic PGMS (Canada) Limited (100%)	12-May-08	12	192
4242145	Panoramic PGMS (Canada) Limited (100%)	12-May-08	8	128
4242146	Panoramic PGMS (Canada) Limited (100%)	12-May-08	15	240
4242147	Panoramic PGMS (Canada) Limited (100%)	12-May-08	11	176
4242148	Panoramic PGMS (Canada) Limited (100%)	12-May-08	16	256
4242149	Panoramic PGMS (Canada) Limited (100%)	12-Jun-12	1	16
4242150	Panoramic PGMS (Canada) Limited (100%)	18-Apr-11	1	16
4242773	Panoramic PGMS (Canada) Limited (100%)	23-May-08	6	96
4242774	Panoramic PGMS (Canada) Limited (100%)	23-May-08	16	256
4242775	Panoramic PGMS (Canada) Limited (100%)	23-May-08	12	192
4242801	Panoramic PGMS (Canada) Limited (100%)	22-May-08	16	256
4242803	Panoramic PGMS (Canada) Limited (100%)	22-May-08	16	256
4242805	Panoramic PGMS (Canada) Limited (100%)	22-May-08	16	256
4242806	Panoramic PGMS (Canada) Limited (100%)	22-May-08	16	256
4242808	Panoramic PGMS (Canada) Limited (100%)	22-May-08	6	96
4242809	Panoramic PGMS (Canada) Limited (100%)	22-May-08	6	96
4242811	Panoramic PGMS (Canada) Limited (100%)	22-May-08	14	224
4242812	Panoramic PGMS (Canada) Limited (100%)	22-May-08	14	224
4243631	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4243632	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4243635	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4243637	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4243638	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4243639	Panoramic PGMS (Canada) Limited (100%)	28-May-08	12	192
4243640	Panoramic PGMS (Canada) Limited (100%)	28-May-08	9	144
4243641	Panoramic PGMS (Canada) Limited (100%)	28-May-08	6	96
4243642	Panoramic PGMS (Canada) Limited (100%)	28-May-08	6	96
4243643	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4243644	Panoramic PGMS (Canada) Limited (100%)	28-May-08	6	96
4243645	Panoramic PGMS (Canada) Limited (100%)	28-May-08	6	96
4243646	Panoramic PGMS (Canada) Limited (100%)	28-May-08	4	64
4243647	Panoramic PGMS (Canada) Limited (100%)	28-May-08	14	224
4243648	Panoramic PGMS (Canada) Limited (100%)	28-May-08	9	144
4243649	Panoramic PGMS (Canada) Limited (100%)	28-May-08	12	192

4243650	Panoramic PGMS (Canada) Limited (100%)	28-May-08	1	16
4243651	Panoramic PGMS (Canada) Limited (100%)	28-May-08	4	64
4243652	Panoramic PGMS (Canada) Limited (100%)	28-May-08	15	240
4243653	Panoramic PGMS (Canada) Limited (100%)	28-May-08	15	240
4243654	Panoramic PGMS (Canada) Limited (100%)	28-May-08	15	240
4243776	Panoramic PGMS (Canada) Limited (100%)	28-May-08	16	256
4245129	Panoramic PGMS (Canada) Limited (100%)	7-Oct-08	12	192
4272719	Panoramic PGMS (Canada) Limited (100%)	31-Oct-14	1	16
4210862	Rio Tinto Canada Exploration Inc. (100%)	18-Aug-06	15	240
4277681	Rio Tinto Canada Exploration Inc. (100%)	20-Feb-15	16	256
4277682	Rio Tinto Canada Exploration Inc. (100%)	20-Feb-15	16	256
4277683	277683 Rio Tinto Canada Exploration Inc. (100%)		16	256
4277684	Rio Tinto Canada Exploration Inc. (100%)	20-Feb-15	16	256
4277685	Rio Tinto Canada Exploration Inc. (100%)	20-Feb-15	16	256
4277686	Rio Tinto Canada Exploration Inc. (100%)	20-Feb-15	16	256



Figure 2 - Property Overview Map

Previous Work

Pre-1993: Early exploration within the area concentered on uranium, specifically the Christianson (1949) showing located east of Current Lake, near the western shore of Greenwich Lake. Rio Tinto optioned the Christianson showing from MW Resources Ltd. In January 1976 and staked additional claim units that extended west from Greenwich Lake over northern Current Lake towards Steepledge and Ray Lakes (Benkis, 1977). Rio Tinto completed a program of field mapping and diamond drilling (Benkis, 1977).

1993-2000: G. Harper and G. Wilson, conducted soil sampling, prospecting, geochemical sampling, soil sampling and ground magnetic surveys (Harper and Wilson, 2000; Wilson and Harper, 2000).

2001-2002: Pacific North West Capital Corporation of Vancouver optioned the TBN Property in 2001. They completed work including ground magnetic and electromagnetic surveys over the ice on Current Lake and a small pond (Beaver Lake) located east of the south end of Current Lake. A six hole diamond drill program, totaling 813.5m, was conducted from three locations along the west shore

of Current Lake in September and October of 2002 (Kleinboeck and Jobin-Bevans, 2002). The drilling encountered only weak mineralization with minimal metal values.

In 2005 Magma Metals (Canada) Limited optioned the Thunder Bay North property and performed ground and airborne geophysical surveys, petrographical work, mapping, and drilling up to 2010. They drilled more than 500 holes in this period. This work resulted in AMEC Americas Limited independently completing a 2010 JORC and NI 43-101 compliant Mineral Resource estimate of 9.06 million tonnes at 2.43 g/t Pt-equivalent ounces for 708,000 Pt-equivalent ounces and 0.27 million Inferred tonnes at 2.81 g/t for 24,000 Pt-equivalent ounces.

2007-2008: Magma Metals drilled in the Lone Island Lake area in 2007 with a single drill hole to test an isolated magnetic anomaly as identified in an airborne magnetometer survey. Archean Quetico sedimentary rocks and granitic intrusions were documented and the magnetic feature was unresolved (Johnson, 2008). Two additional holes were completed in 2008 to further test the identified magnetic anomaly as part of a regional targeting program. The two drill holes intersected a series of mafic to ultramafic intrusions cross-cutting and intruding into the Archean basement lithologies.

2008-2010: Additional work was done on Magma Metal's Steepledge Lake Property located to the west of the Thunder Bay North and Beaver Lake Properties. Steepledge Lake was drilled in four separate programs from 2008 to 2010. An intrusive ultramafic conduit with moderate mineralization has been delineated underneath the lake (Weston and Johnson, 2009a, 2009c).

During this time Kennecott Exploration Canada (now Rio Tinto Exploration Canada Inc.) began working on their Escape Lake claim in which they had previously staked the reversely polarized bulls-eye portion of the Steepledge Lake anomaly to the west of Escape Lake. Work began on this target in winter 2008 with the drilling a single 500m vertical hole intersecting 234m of mafic/ultramafic intrusive rock below 170m depth. Significant mineralization reported in the hole included 10.9m of 2.35g/t Pt+Pd+Au, 0.46% Cu and 0.24% Ni from 362.5m depth with disseminated pyrrhotite-chalcopyrite (Rossell, 2008). Further drilling was undertaken by RTECI in 2010, 2011 and 2012 on this property.

Also in 2010, Magma Metals Inc. continued drilling on the Lone Island Lake Project with six diamond drill holes to test a large circular magnetic feature underlying the lake. The previous drilling had identified mafic to ultramafic lithologies hosting variable orthomagmatic mineralization and drilling in 2010 was to further test the systems for additional mineralization. All drill holes intersected mafic to ultramafic lithologies hosted within Archean metasediments and granites. Orthomagmatic mineralization was identified in all of the drill holes, with highest abundances being associated with the basal ultramafic units in each drill hole.

Magma Metals also conducted drilling on the East West Connector (EWC) Project in 2010 to test an east-west trending linear magnetic anomaly occurring to the south of mineralized systems at Current Lake, Steepledge Lake and Lone Island Lake. The EWC Project consisted of six holes (EWC10-01, 02, 03, 04, 05 and 06: Heggie and Dumas 2010) totaling 1,761m. Drilling identified a number of thin magnetic mafic intrusions hosted within Archean sediments and granites and successfully characterized the linear magnetic anomaly. The mafic intrusive units appear to be closely associated with, and hosted within, fault and shear zones in the Archean basement.

2011: Magma Metals drilled three diamond drill holes from ice based drill pads, EL11-01 thru EL11-03, totaling 601.25 meters on the Escape Lake Project. The drill targets were based on airborne and ground geophysical anomalies. No previous drilling had been undertaken within this area. All three holes intersected mafic intrusive units. No significant mineralization was noted within the intrusions, and the intrusions identified are considered narrow, thus limiting their prospectively to host orthomagmatic mineralization (Dumas and Johnson, 2011). Further drilling was also completed on the Steepledge Lake, Beaver Lake and South East Anomaly targets by Magma during 2011.

2012: In June 2012 Panoramic Resources Ltd, an Australian based mining and exploration company announced completion of a successful off-market takeover of Magma Metals Ltd (Magma) and the subsequent delisting of Magma from the Australian and Canadian stock exchanges. With the integration of Magma into Panoramic, control of the Thunder Bay North Property was transferred to Panoramic PGMs Canada Limited – a wholly owned subsidiary of Panoramic Resources Ltd.

Panoramic continued exploration activities on the Thunder Bay North Project in 2012 by conducting the, August to December, Beaver Lake – South East Anomaly "step-out" diamond drill program which comprised 15 holes (BL12-443 to 457) totaling 12,220m and associated down-hole electromagnetic (DHEM) surveys. This drilling successfully intersected new mineralization similar that seen in previous drilling in the Current Lake Intrusive Complex and extended the known mineralization to the Southeast (Panoramic Quarterly Report – March 2013).

2014: In July 2014 Panoramic PGMs Canada Inc signed an "Earn-in with Option to Joint Venture Agreement" with Rio Tinto Exploration Canada Inc. to consolidate their respective properties in the Thunder Bay North Project.

Regional Geology

The Thunder Bay North property is underlain by Archean Metasediments of the Quetico Basin and Granitic Gneisses of the Superior Province of the Canadian Precambrian Shield. The Quetico Basin is described by Williams (1991) as a roughly 70 km wide, linear strip of primarily strongly metamorphosed and deformed clastic metasedimentary rocks and their migmatitic and anatectic derivatives. The

identifiable metasedimentary rocks comprising the sub-province (or basin) consist mainly of turbiditic wacke and siltstone with rare iron formation, pelite, and conglomerate. Williams (1991) also states that igneous rocks include I-type biotite hornblende-magnetite granitoid bodies of mixed felsic and mafic composition with volumetrically minor ultramafic units and metaluminous to peraluminous, often S-type, one- and two-mica, granitoids.

Mesoproterozoic rocks of the region include: intrusive and volcanic igneous rocks of the ~1.59 Ga Badwater intrusion and ~1.54 Ga English Bay complex located northwest of Lake Nipigon, chemical and clastic sedimentary rocks of the ~1.5-1.3 Ga Sibley Group, various ultramafic to mafic intrusions of the Nipigon embayment ~1.112 Ga, and slightly younger ~1.109 Ga sedimentary, volcanic and mafic intrusive rocks of the Midcontinent Rift along the north shore of Lake Superior (Heaman et al. 2007). The un-deformed nature of the mafic to ultramafic intrusions identified on the Thunder Bay North Property are consistent with them being sill or chonolith like, Midcontinent Rift related, intrusions (Rossell, 2008).

Previously four distinct ultramafic intrusive bodies have been identified within the huge volume of diabase sills comprising the Nipigon Embayment. These are the Seagull, Disraeli, Hele and Kitto intrusions respectively. Poorly outlined mafic to ultramafic sills termed the Jackfish and Shillabeer sills have also been identified (e.g. Hart and MacDonald, 2007). Hart and MacDonald (2007) describe the ultramafic intrusive bodies as consisting of "pyroxene peridotite, wehrlite, Iherzolite, and olivine websterite to minor dunite, and olivine gabbro to olivine melagabbro, with irregular patches of monzogabbro along the margins, and ubiquitous phlogopite. The intrusions appear to be primarily sill-like with the exception of the Seagull Intrusion which, based on significant drilling, has a distinct lopolithic form. Emplacement of the intrusions appears to have been fault controlled (Hart and MacDonald 2007) but no distinct magma feeder zone has been identified. Ni-Cu-PGE mineralization has been previously identified from the ultramafic bodies with the most significant present in the Seagull intrusion (e.g. Heggie, 2005).



Figure 3 - Regional Geology Map

(Data from Digital Geology of Ontario 1991 - Map Source: MacTavish, Heggie & Johnston – Panoramic Resources Limited - Thunder Bay North Project Presentation, 2012).

Diamond Drilling

A total of 4955m from eleven diamond drill holes was drilled by George Downing Estate Drilling Ltd. between July 23rd and October 27th 2015. Three of these holes targeted a newly identified, outcropping, mineralised peridotite that it is coincident with a small circular magnetic anomaly north of the Steepledge Lake Intrusive Complex known as the 025 Target. One hole tested a broad, diffuse, positive magnetic anomaly to the south of the 025 target that was interpreted as a potentially related, flat lying, sill or magma chamber. The remaining seven drill holes were targeted on airborne magnetic or downhole EM responses in sparsely

drilled areas within, or adjacent to, the Steepledge Lake Intrusive Complex. All of the drill core was NQ in size and was transported to the core shed in Thunder Bay each morning for logging, processing, and storage.

Hole ID	Easting	Northing	Elevation (m)	Azimuth	Dip	Depth (m)
15TB0001	355789.2	5407106.5	477.7	180	-85	270
15TB0002	355783.3	5407146.3	478.2	000	-70	60
15TB0003	355757.8	5407075.2	477.7	180	-75	318
15TB0004	355895.7	5406355.9	472.2	115	-60	456
15TB0005	354176.0	5402620.9	515.0	087	-88	591
15TB0006	355468.8	5401459.4	475.0	210	-85	783
15TB0007	354456.0	5402109.0	482.8	250	-85	525
15TB0008	355735.5	5402381.0	481.0	180	-85	522
15TB0009	354437.0	5402066.0	480.0	265	-78	423
15TB0010	354589.0	5402106.0	478.0	275	-85	518
15TB0011	354589.0	5402106.0	478.0	073	-85	489

Table 2 - Summary of 2015 Drill Holes

Due to the remote nature of this work RTECI required a medic to be on site with the drill crew 24 hours a day. In addition, RTECI operates drills with three man crews instead of the traditional two person crews to ensure our safety standards are met.

Hole ID	From	То	Width	Lithology	Ni	Cu	Au	Pt	Pd	Pt+Pd
			(m)		(%)	(%)	(ppm)	(ppm)	(ppm)	(ppm)
15TB0005	202.60	205.70	3.64	Peridotite	0.12	0.28	0.05	0.57	0.73	1.30
and	218.30	218.80	0.50	Peridotite	0.10	0.19	0.04	0.40	0.45	0.85
and	241.00	245.14	4.14	Peridotite	0.16	0.30	0.06	0.62	0.77	1.38
15TB0007	154.50	175.70	21.20	Peridotite	0.09	0.09	0.02	0.21	0.25	0.46
and	199.50	277.00	77.50	Peridotite	0.11	0.08	0.02	0.20	0.21	0.41
including	269.64	277.00	7.36	Peridotite	0.19	0.17	0.04	0.41	0.46	0.87
15TB0009	165.00	189.00	24.00	Peridotite	0.09	0.10	0.02	0.24	0.27	0.51
including	168.00	172.50	4.50	Peridotite	0.12	0.11	0.03	0.29	0.33	0.62
and	199.00	213.00	14.00	Peridotite	0.09	0.08	0.02	0.18	0.21	0.39
including	199.00	202.00	3.00	Peridotite	0.12	0.14	0.03	0.33	0.40	0.73
15TB0010	179.10	253.40	74.40	Peridotite	0.15	0.21	0.04	0.50	0.56	1.06
including	192.00	244.50	52.50	Peridotite	0.16	0.23	0.05	0.56	0.63	1.19
or	186.50	198.00	11.50	Peridotite	0.18	0.33	0.07	0.77	0.89	1.66
or	192.00	195.00	3.00	Peridotite	0.27	0.62	0.13	1.44	1.63	3.07
and	240.00	244.50	4.50	Peridotite	0.24	0.51	0.10	1.25	1.33	2.58
15TB0011	206.00	256.60	50.50	Peridotite	0.15	0.22	0.05	0.52	0.62	1.15
including	206.00	217.10	11.10	Peridotite	0.27	0.47	0.08	1.09	1.38	2.47
and	229.00	236.50	7.50	Peridotite	0.16	0.32	0.07	0.88	1.04	1.92
and	250.70	256.50	5.80	Peridotite	0.17	0.29	0.06	0.60	0.67	1.27
or	194.00	244.00	50.00	Peridotite	0.15	0.20	0.04	0.50	0.61	1.11

Table 3 - Summary of 2015	Significant Intersections
---------------------------	---------------------------

Core Data Collection

NQ drill core was placed in 0.75m long wooden boxes and transported from the drill site to the staging area by UTV or tracked vehicle. From there it was loaded into a pickup truck and driven to the core shed for processing and storage. Figure 4 illustrates the process that the drill core followed from drilling through data collection and sampling.

Extensive geotechnical, geological, and geophysical data is collected from each drill core. This includes

- Geotechnical- Total Core Recovery, Solid Core Recovery, and Longest Piece
- Geophysical- Magnetic Susceptibility
- Geological- Lithology, Structures, Mineralization
- Physical- Density

All data was entered directly into an acQuire database at the time of collection.

Where?	Who?	What?
Drill Site	Drilling Crew	Retrieve core tube Box marking, front (Hole ID, box #) Transfer core from tube to core box Mark driller's breaks Insert depth blocks Stack core boxes in UTV and secure with lids
	Project Coordinator/ Geologists	Drive core to pickup truck at staging area Drive pickup truck to core shed Transfer core to logging tables
Core Shed	Geologists	Box marking (Hole ID, From, To) Core restoration and cleaning Orient core using ACT tool marks Run recovery logging geology "quick log"
	Geologists	Detailed geology logging Density measurements Mag Sus logging Sample interval marking Core Photography
Core Shed	Core Technicians	Transfer core to sawing area Lengthwise cutting of core and subsequent sampling of core.
Core Shed	Geologists	Samples packaged for shipment Samples shipped to lab

Figure 4 - Drill Core Flowchart

Sampling Method and Approach

When sampling drill core for analysis lithology breaks were honoured when possible and sample sizes were capped at 6m for barren sediment, 3m for un-mineralized intrusive, and 1.5m intervals for mineralized core. Samples were cut in half longitudinally with the use of a core saw and a representative half of the drill core was dried and submitted to the laboratory for geochemical analysis.

Quality Control

Quality control samples consisting of blanks, duplicates, and standards were inserted into the sampling sequence approximately 1 in every 10 samples. Matrix matched, mafic, rocks were used as blank material and professionally prepared sample material of high, medium, and low Cu, Ni, S, and PGE grades were used as Standards. Duplicates samples were collected by quartering the core sample being sent to the laboratory. Finally, all individual samples were weighed, with each

weight recorded in the database. The weights provide a simple way to verify if a given sample has been inadvertently switched with another during the assaying process.

Each batch of assay data received from the laboratory under goes Quality Control/Quality Assurance checks. Results from the sample standards are plotted to determine if the values reported by the lab are within acceptable tolerance of the know values. Blank samples are checked to monitor for carry-over contamination. The lab is notified of any values that are outside of tolerance and may be asked to re-run specific samples. Once an assay batch has passed QA/QC the data is loaded into the AcQuire database.

Sample Preparation, Analyses, and Security

Each sample was placed in a sealed plastic sample bag with a sample number and securely stapled shut. For shipping to the laboratory, individual samples were placed in collapsible shipping totes each of which was assigned a number. The tote number, total number of totes, and list of samples included in the shipment were recorded on a sample tracking sheet, a copy of which was sent to the assay laboratory. Totes were then loaded into the back of a pickup truck and transported to the ALS laboratory in Thunder Bay Ontario. Upon receipt, the lab inventoried the sample shipment against the provided sample list to be sure that all samples were accounted for.

Once the samples arrived at the laboratory they were scanned, dried and weighed before going through the preparation facility. In the preparation facility the samples were crushed to 70% passing 2mm fraction size and then a representative 1kg split was taken from the crushed allotment. This subsample was then pulverized to 85% passing 75 microns in size. After the preparation was completed the sample was submitted for assay. All intrusive samples, whether mineralized or barren, were submitted for ALS's Complete Characterization package (CCP-PKG03) with the PGM-MS24 add-on as shown in the chart below (figure 5). Sediment samples were submitted for assay method ME-MS61 with the PGE-ICP24 add-on to save on assaying cost.

When over limit values were triggered the samples were automatically run for high grade PGE's using PGM-ICP27 and high grade Cu-Ni using OG-62.

ANALYTE	RANGE (ppm)	DESCRIPTION		PRICE PER SAMPLE (5)
Trace Level	l			
Pt Pd Au	0.0001-1 0.0001-1 0.001-1	Super trace PL, Fd and Au by fire assay and ICP-MS finish. 30g nominal sample weight	PGM-MS23L	23.10
Pt Pd Au	0.0005-1 0.001-1 0.001-1	Pt, Pd and Au by fire assay and iCP-MS finish. 30g nominal sample weight 50g nominal sample weight	PGM-MS23 PGM-MS24	20.10 23.15
Rh	0.001-1	Rh by fire assay, gold collection and ICP-M5 30g nominal sample weight	Rh-MS25	22.10
Intermedia	ate Level			
Pt Pd Au	0.005-10 0.001-10 0.001-10	Pt, Pc and Au by fire assay and ICP-AES finish. 30g nominal sample weight 50g nominal sample weight	PGM-ICP23 PGM-ICP24	18.90 22.05
Pt Pd Ir Os Rh Ru Au	0.02-10 0.02-10 0.001-10 0.015-10 0.055-10 0.05-10 0.05-10	Pt, Pd, Ir, Os, Rb, Ru and Au by fire assay with nickel suffide collection and neutron activation analysis. 30g nominal sample weight Note: Au is not quantilative by this method.	PGM-NAA26	By Quotation
Ore Grade				
Pt Pd Au	0.03-100 0.03-100 0.03-100	Pt, Pd and Au by fire assay and ICP-AES finish. 30g nominal sample weight	PGM-ICP27	22.90

ANAL	YTES AND RAN	IGES (pp	m)					CODE	PRICE PER SAMPLE (\$)
5:0,	0.01-100%	Mg0	0.01-100%	Tio,	0.01-100%	BaO	0.01-100%		
Al,O	0.01-100%	Na ₂ 0	0.01-100%	MnO	0.01-100%	LOI	0.01-100%	HE KENNE	
Fe,0,	0.01-100%	K,0	0.01-100%	P205	0.01-100%			ME-ICP06	
CaO	0.01-100%	Cr,0,	0.01-100%	SrD	0.01-100%				
Ba	0.5-10,000	Gđ	0.05-1,000	Sm	0.03-1,000	W	1-10,000		
Ce	0.5-10,000	HŤ	0.2-10,000	Sn	1-10,000	Y	0.5-10,000		
Çî.	10-10,000	Ho	0.01-1,000	Sr	0.1-10,000	Yb	0.03-1,000		call shows
Cs	0.01-10,000	La	0.5-10,000	Ta	0.1-2,500	Zr	2-10,000		CCP-PKG01 73.10 CCP-PKG03 Includes ME-XRF26 instead of
Dy	0.05-1,000	Lu	0.01-1,000	Tb	0.01-1,000			ME-MS81	
Er	0.03-1,000	Nb	0.2-2,500	Th	0.65-1,000				
Eú	0.03-1,000	Nd	0.1-10.000	Tm	0.01-1,000				
Ga	0.1-1,000	Pr	0.03-1,000	U	0.05-1,000				
Ge	5-1,000	Rb	0.2-10,000	V.	5-10,000				ME-ICP06.
Ag	0.5-100	Cu	1-10,000	Ni	1-10,000	Zn	2-10,000		88.10
Cđ	0.5-1,000	Li	10-10,000	Pb	2-10,000			ME-4ACD81	
Co	1-10,000	Mo	1-10,000	Sc	1-10,000				
As	0.1-250	In	0.005-250	Se	0.2-250			ME-MS42	
Bi	0.01-250	Re	0.001-250	Te	0.01-250				
Hg	0.005-25	Sb	0.05-250	TI	0.02-250				
C	0.01-50%	5	0.01-50%					ME-1R08	

AN	ALYTES & RANGE	S (ppm)						CODE	PRICE PER SAMPLE (\$)
Ag	0.01-100	Cu	0.2-10,000	Na	0.01%-10%	Sr	0.2-10,000	2	
Al	0.01%-50%	Fe	0.01%-50%	Nb	0.1-500	Ta	0.05-100		
As	0.2-10,000	Ga	0.05-10,000	Ni	0.2-10,000	Te	0.05-500		
ва	10-10,000	Ge	0.05-500	Ρ	10-10,000	Th	0.2-10.000		27.04
Be	0.05-1,000	Hf	0.1 500	Pb	0.5-10,000	Ti	0.005%-10%	WE-MS61	21.90
Bi	0.01-10,000	In	0.005-500	Rb	0.1-10,000	11	0.02-10,000		
Ca	0.01%-50%	к	0.01%-10%	Re	0.002-50	U	0.1-10,000		
Cd	0.02-1,000	La	0.5-10,000	5	0.01%-10%	٧	1-10,000	115 115 (1m)	37.75
Ce	0.01-500	tī	0.2-10,000	Sb	0.05-10,000	w	0.1-10,000	ME-MS0IM	37,75
Co	0.1-10,000	Mg	0.01%-50%	Sc	0.1-10,000	Y	0.1-500		
Cr	1-10,000	Mn	5-100,000	Se	1-1,000	Zn	2-10,000		
Cs	0.05-500	Mo	0.05-10,000	Sn	0.2-500	Zr	0.5-500		
Note	To include Hg by a	separate p	rocedure in the suit	te of elemi	ents above, please r	equest ME	MS61m instead of M	E-M\$61.	

Figure 5 - Table of Analytical Methods Used and Limitations From ALS 2015 Fee Schedule

After QAQC had passed on all batches the master pulps were shipped to RTECI storage and the coarse rejects were kept in paid storage until they are no longer being used, at which time, they will be destroyed.

Drill Holes

15TB0001

Drill hole 15TB0001 was drilled at an orientation of 180/-85 on lease 4208965 between July 24th and July 29th of 2015. It was collared in the centre of an outcropping, mineralised, peridotite that had been discovered by surface mapping, known as the 025 Target. The drill hole was centred on a small, circular, strongly positive airborne magnetic anomaly that is coincident with the outcropping ultramafic rocks. The drill hole intersected weakly mineralised, ultramafic intrusive lithologies to 49.1m. The remainder of the hole to 270m intersected Archean schist and granite with occasional thin, dyke and sill like, ultramafic intrusive intervals. A total of 98 samples were collected from the full length of this NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0002

Drill hole 15TB0002 was drilled at an orientation of 000/-70 on lease 4208965 between July 30th and July 31st, 2015. This hole was collared in the magnetic low on the north side of the magnetic high anomaly associated with the 025 outcrop. The hole collared in Archean migmatite and continued in this unit to 60m where the hole ended after demonstrating that the peridotite intrusion is not dipping to the north and the magnetic low is not associated with reversely polarized ultramafic intrusive at this location.

A total of 10 samples were collected from the full length of this NQ hole, all of which were sent for complete characterization lithogeochemistry without the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0003

Drill hole 15TB0003 was drilled at an orientation of 180/-75 on lease 4208965 between August 1st and August 7th, 2015. This hole was collared into the peridotite outcrop ~45m to the south west of 15TB0001 and was testing for a southerly or subvertical dip to the intrusive package intersected in that hole. The hole intersected very weakly mineralised peridotite to 23m before transitioning sharply into Archean schist and granite country rock as seen in the earlier holes. This hole also intersected

a significant thickness (~63m) of fine grained, moderately magnetic, gabbro at low angles to the core axis that has been interpreted as a "Nipigon Like" sill and unrelated to the weakly mineralised ultramafic intrusive above.

A total of 90 samples were collected from this 318m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0004

Drill hole 15TB0004 was drilled at an orientation of 115/-60 on lease 4208966 between August 8th and August 17th, 2015. This hole was testing a broad, but diffuse positive magnetic response with interspersed small diameter magnetic lows occurring in a large topographic low. The regional airborne magnetics suggest this anomaly might be related to the mineralized, outcropping, 025 intrusion as a conduit/magma chamber pair. The hole intersected un-mineralised, thin, magnetic, mafic intrusions that appear to be flat lying sills in country rock of migmatitic Archean sediments.

A total of 99 samples were collected from this 456m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0005

Drill hole 15TB0005 was drilled at an orientation of 087/-88 on lease 4225975 between August 18^{th} and September 1^{st} , 2015. This hole targeted a DHEM Maxwell Plate at ~240m depth within the Steepledge intrusions that had been modelled from review of existing DHEM surveys. Elevated concentrations of sulphide minerals were found corresponding to the target plate. The mineralized zone is ~4 meters thick with Pt + Pd values up to 2.5 gpt over 90cm. Existing drilling and DHEM run in this hole suggest that this zone does not extend a significant distance into untested ground.

A total of 172 samples were collected from this 591m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0006

Drill hole 15TB0006 was drilled at an orientation of 210/-85 on lease 4210862 between September 2nd and September 18th, 2015. This hole targeted a significant step out along the south east extension of the known mineralized intrusion on the RTECI Escape Lake property targeting a down dip extension of high grade mineralization in peridotite drilled by RTECI in 2011. The hole intersected a 123m thick intersection of strongly magnetic, hematite-stained oxide gabbro with a thin 1.5m interval of weakly mineralised peridotite at its base. The hole also intersected another 20.3m feldspathic peridotite intrusion with ~0.1% disseminated pyrrhotite and pyrite +/- rare chalcopyrite at 684.7 m. This intrusion transitioned into a 37.6 m thick olivine gabbro with 0.1% disseminated pyrrhotite. The lower intrusive intersection is thought to be a north-south trending mafic dyke that is spatially related to, but separate from, the Steepledge Intrusive Complex.

A total of 215 samples were collected from this 783m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0007

Drill hole 15TB0007 was drilled at an orientation of 250/-85 on lease 4210862 between September 19th and September 26th, 2015. This hole targeted an undrilled area of the Steepledge Intrusive Complex near the interpreted contact between granites and metasedimentary schist country rocks. An analogous zone in the neighbouring Current Lake Intrusive Complex hosts a small underground resource known as the "Beaver Lake Zone". This hole intersected Mafic and Ultramafic lithologies between 131m and 420m thought to represent up to four separate intrusive pulses. The hole intersected variable strength, disseminated, pyrrhotite and chalcopyrite mineralization over a total (non-continuous) length of 98m with the best intercepts shown in Table 3.

A total of 250 samples were collected from this 525m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0008

Drill hole 15TB0008 was drilled at an orientation of 180/-85 on lease 4225974 between September 27^{th} and October 5^{th} , 2015. This hole targeted a broad

magnetic low in the middle ground between the Steepledge and Current Lake Intrusive Complexes for a potential flat-lying magma chamber with an ambiguous magnetic signature. The only intrusive lithology intersected was a 1.3 meter thick diabase intrusion at 90 meters depth of no significance. At 260m depth the core transitioned from Granitic country rock to metasedimentary quartz-chlorite schist. This is the regional contact interpreted as the Quetico Fault in the area.

A total of 95 samples were collected from this 522m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0009

Drill hole 15TB0009 was drilled at an orientation of 265/-78 on lease 4210862 between October 6th and 12th, 2015. This hole targeted a DHEM maxwell plate within the Steepledge intrusion that had been detected from hole 15TB0007. This hole intersected 168m of mafic and ultramafic lithology's from 58m and a further 18m of ultramafic intrusive at 285m depth. The upper intrusive section was mineralised with variable strength, disseminated, pyrrhotite and chalcopyrite with the best intercepts as shown in Table 3. The maximum concentrations of sulphide minerals, by visual estimation, correspond to the depth of the target plate.

A total of 175 samples were collected from this 423m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0010

Drill hole 15TB0005 was drilled at an orientation of 275/-85 on lease 4210862 between October 13th and October 20th, 2015. This hole was centred between mineralised intercepts in holes 15TB0007 and an historic hole, 10CL0003. The hole was testing continuity of the, interpreted flat lying, mineralisation intersected in holes 15TB0007 and 15TB0009. This hole intersected a similar package of mafic and ultramafic lithologies as seen in those holes between 145m and 414m. A sliver of country rock was intersected separating the lowermost intrusive unit between 351-384m. This hole contained 75m of significant, variable strength, disseminated, pyrrhotite and chalcopyrite mineralisation with the best intercepts as shown in Table 3.

A total of 238 samples were collected from this 518m NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

15TB0011

Drill hole 15TB0011 was drilled at an orientation of 073/-85 on lease 4210862 between October 21st and October 26th, 2015. This hole targeted a DHEM maxwell plate that had been detected from hole 15TB0010. This hole intersected 304m of mafic and ultramafic lithology's from 131m. The upper intrusive section was mineralised with variable strength, disseminated, pyrrhotite and chalcopyrite with the best intercepts as shown in Table 3. The maximum concentrations of sulphide minerals, up to 20% by visual estimation, correspond to the depth of the target plate.

A total of 250 samples were collected from this 489 NQ hole, all of which were sent for complete characterization lithogeochemistry with the PGE add on.

The drill hole location map, cross sections, assay certificates, sample intervals, and drill logs are presented in appendix 1-5.

Drill Site Reclamation

Basic site remediation was completed at the end of each hole upon demobilisation of the drill rig and included the backfilling of sumps, drill pad levelling and smoothing (back blading). This work was supervised by RTECI and photo documented. RTECI also re-seeded all sites and trails with MTO #3.

Any holes that produced artesian water or gas were cemented from top to bottom and had the steel casing removed. Only 15TB0006 intersected gas during the 2015 program which was detected on a meter maintained on the rig. Some holes that did not intersect mineralisation and were not of interest for further surveying or drilling were also permanently abandoned in the same manner. Holes that were not cemented were left with 1-200cm of steel casing protruding, capped, labelled and wound with reflective tape to make them visible across all seasons. Table 4 showing the current status of the 2015 drill holes is included below.

Hole ID	Easting	Northing	Elevation (m)	Depth (m)	Status
15TB0001	355789.2	5407106.5	477.7	270	Cemented
15TB0002	355783.3	5407146.3	478.2	60	Cemented
15TB0003	355757.8	5407075.2	477.7	318	Cemented

Table 4 - Completion	Status of	of 2015	Drill Holes
----------------------	-----------	---------	--------------------

15TB0004	355895.7	5406355.9	472.2	456	Capped
15TB0005	354176.0	5402620.9	515.0	591	Capped
15TB0006	355468.8	5401459.4	475.0	783	Cemented
15TB0007	354456.0	5402109.0	482.8	525	Capped
15TB0008	355735.5	5402381.0	481.0	522	Cemented
15TB0009	354437.0	5402066.0	480.0	423	Capped
15TB0010	354589.0	5402106.0	478.0	518	Capped
15TB0011	354589.0	5402106.0	478.0	489	Capped

Note: "Cemented" means the hole was filled with grout cement from bottom to top and the casing removed completely. "Capped" means 1-2m of steel casing is protruding from the ground with a labelled, screw-on, cap and wrapped with reflective tape.

Re-assaying Historic Drill Core

In order to fill gaps in the existing whole rock geochemical data set, Select historic drill cores without a complete set of minor element lithochemistry were sampled for assay. This data is being used to assist the interpretation of the multiple intrusive phases within the Steepledge Lake and Current Lake Intrusive Complexes. No new major element or metal assays were obtained for which there were not previously records. The purpose of the re-assaying was to collect minor element geochemistry which was not collected by previous workers. The holes and intervals that were analysed are listed in Table 5.

All of these selected intervals had previously been sampled. The remaining NQ sized, half-cores were cut in half again using the core saw and one quarter-core was sent for assay with the remaining quarter kept in the box for reference. The core was sampled and prepared in the same manner as the 2015 drill core and sent to the same laboratory. All samples were submitted for ALS's Complete Characterization Package (CCP-PKG03) with the PGM-MS24 add-on as shown in figure 5.

When over limit values were triggered the samples were automatically run for high grade PGE's using PGM-ICP27 and high grade Cu-Ni using OG-62.

Drill hole locations and cross sections are shown in appendix 1-2. Assay certificates and sample intervals are found in the appendix 6-7.

Hole ID	Easting	Northing	Depth (m)	Sampled From (m)	Sampled To (m)	Interval (m)	Claim Number
BL10-212	358250.77	5402498.51	270	125	235	110	4210157
BL09-117	357916.78	5402477.83	219	135	200	65	842186
BL10-232	357784.67	5402546.49	174	100	170	70	842186
TBND171	357183.9	5403300.24	72	0	72	72	842189

Table 5 - Location and Sample Details for Re-assayed Historic Core

					23	4	
SL12-64 354624.	354624.539	5402539.328	405	79	82	3	4225975
				348	365	17	
TBND-213 357539	E404202	160	14	19	5	12/22/1	
	337337	5404505	100	46	48	2	1240241
LIL12-09	349274.27	5400979.56	168	0	88	88	4225212
SL09-34	354190.906	5403637.916	234	50	210	160	4240536
TBND214	357239.754	5403254.605	93	45.9	50.1	4.2	842189

Geophysics

Description of Survey: Downhole Crone Pulse-EM

A Crone downhole time-domain electromagnetic (DHEM) survey was completed on the Thunder Bay North (TBN) property from July to October 2015. The equipment used consists of the Pulse-EM CDR2 Receiver, the Pulse-EM transmitter and the Pulse-EM Induction Coil Probes. Two probes are employed, one with a Zcomponent coil measuring the field in the direction of the borehole and a second with an X-component and a Y-component oriented perpendicular to the borehole. The equipment is described in greater detail in Appendix 8. The measurement units are in nano-Teslas per second (nT/s). Typically, noise levels at late time are considered to be around 1 nT/s although may vary depending upon hole and site conditions.

In addition to DHEM surveys, Crone completed RAD (downhole 3 component fluxgate magnetometer) surveys using their RAD tool which measures the magnetic field in nano-Teslas (nT) in three orthogonal directions. The orientation of the sensors is determined employing 3 on-board accelerometers and hole orientation information. Noise levels vary considerably but are estimated to range from 1-10 nT.

Survey Method

Twenty-three holes (11 new holes drilled in 2015 and 12 historic holes) were surveyed from twelve different transmitter loops. In addition to pulse EM surveys, RAD surveys were completed on all holes (see Table 1). Holes were DHEM surveyed using an 8.33 ms time-base. The conductors of interest are relatively low-conductance in comparison to other Ni-mineralization conductors. As such, the response of the conductors has almost completely dissipated by the end of the 8.33 ms time base. In addition, background conductivity is also relatively low, except for moderately conductive overburden. The time-base was extended to 16.66ms for surveying one hole where a slightly higher conductance mineralization was observed. Station spacing was selected at 20m stations with 10m detailed stations within zones of interest or on shorter holes.

HOLE_ID	Surveyed Depth	Loops Used	Time Base	Number of Surveys
	(m)		(ms)	(# loops x # probe x # of
				time base) – distance
				(m)
15TB0001	260	15_TB_01	8.33	780
15TB0002	55	15_TB_01	8.33	165
15TB0003	310	15_TB_01	8.33	930
15TB0004	450	15_TB_04	8.33	1350
15TB0005	580	15_TB_05	8.33	1740
15TB0006	780	15_TB_06	8.33	2340
15TB0007		15_TB_07,	8.33	2600
	520	15_TB_10		
15TB0008	520	15_TB_08	8.33	1560
15TB0009		15_TB_07,	8.33	2100
	420	15_TB_10		
15TB0010		15_TB_07,	8.33	2575
	515	15_TB_10		
15TB0011		15_TB_07,	8.33, 16.66	3360
	480	15_TB_10		
BL08-69	420	15_BL_258	8.33	1260
BL08-81	420	15_BL_410	8.33	1260
BL09-142	340	15_BL_258	8.33	1020
BL10-258	300	15_BL_258	8.33	900
BL10-341	300	15_BL_258	8.33	900
BL11-386	420	15_BL_410	8.33	1260
BL11-399	470	15_BL_410	8.33	1410
BL11-400	440	15_BL_410	8.33	1320
SL09-37	290	15_TB_05	8.33	870
SL10-54	300	15_TB_54	8.33	900
SL11-57	390	15_TB_58	8.33	1170
SL12-64	390	15_TB_65	8.33	1170
Total Mete	rs Surveyed:		·	32.94 km

Table 6 - Summary of current (2015) and historic (pre-2015) holes surveyed by DHEMand RAD on the TBN Project

The total length of surveyed boreholes is 32.94 km. However, since the holes were surveyed several times by varying probe (XY, Z or RAD), loop and/or time base, the total cumulative survey distance along the boreholes was 9.37 km.

All geophysical data contained in this report was collected by Crone Geophysics from July to October 2015. Data are shown in detail in Appendix 8.

Interpretation of the Crone DHEM survey

The objective of the Crone DHEM surveys is to identify anomalous zones associated with mineralization which may indicate further accumulation of massive or semi-

massive sulphides. At the Thunder Bay North project, anomalous DHEM responses are due to conductive overburden and mineralization. The host rocks are generally electrically resistive with very little EM response.

Hole_ID		Depth of		Anomalous response (Yes/No)
		Anomaly		
15TB0001			•	No anomalous response
15TB0002			•	No anomalous response
15TB0003			•	No anomalous response
15TB0004			•	No anomalous response
15TB0005	•	245-250m	•	Yes - Edge-style response associated with PGE-Ni mineralization.
15TB0006			•	No anomalous response
15TB0007	•	210m	•	Yes - Off-hole conductor observed on collar (15_TB_07)
15TB0008			•	No anomalous response
15TB0009	•	220m	•	Yes - Off-hole conductor observed
15TB0010	•	210m	•	Yes - Off-hole conductor observed in both the collar and off-collar loop.
15TB0011	•	220m	•	Yes - In-hole conductor associated with PGE-Ni-Cu mineralization.
BL08-69	•	380m	•	Yes - Edge-style response: in-hole at early-time, off-hole at late-time.
BL08-81	•	270-280m	•	Yes - Clear off-hole anomaly associated with mineralization.
BL09-142	•	270-290m	•	Yes - Broad off-hole or possibly growing towards in-hole anomaly.
	•	250-260m	•	Yes - Edge-style anomaly. In-hole response at early time, off-hole response at late
BL10-258				time.
BL10-341	•	270m	•	Yes - Mostly in-hole anomaly.
BL11-386		360m	•	Yes - Late-time off-hole response.
BL11-399		470m	•	Yes - In-hole response related to known mineralization.
BL11-400		370-380m	•	Yes - Edge-style response, in-hole at early time, off-hole at late time.
SL09-37			•	No anomalous response
SL10-54				No anomalous response
SL11-57				No anomalous response
SL12-64				No anomalous response

Table 7 - Summary of DHEM Anomalies

Interpretation of the Crone RAD survey

The objective of the Crone RAD surveys is to identify anomalous magnetic zones that may be associated with mafic or ultramafic intrusions. In general, at the TBN project, the gabbro and the peridotite intrusions are magnetic while the sedimentary units. To the north, granitic Archean units are moderately magnetic and may have a similar response to mafic/ultramafic intrusions.

All anomalous RAD responses may be explained by the local geology of the hole. In other words, no off-hole magnetic body was identified.

Recommendation for further exploration work

Several off-hole conductors were identified in the Beaver Lake area. It is recommended that all these anomalies by modelled and the location of the conductor be compared to known mineralization. Conductors located in zones with no drilling should be considered to be high priority targets.

In the areas of holes 15TB0007-15TB0009 and 15TB0010-15TB0011, small off-hole conductors have been identified. Small step-offs from these two pairs of holes are recommended to further increase the size of the identified mineralization.

Geophysical Data

All geophysical – downhole electromagnetic data – is shown in Appendix 8.

Interpretation and recommendation of further work

The results of the 2015 drill program on the Thunder Bay North property are encouraging and have further confirmed the presence of potentially economic grades and volumes of PGE mineralisation in the Steepledge Lake Igneous Complex. Further drilling and routine use of DHEM survey is warranted in the vicinity of holes 15TB0007-15TB0011 (excluding 15TB0008) to delineate the extent of the mineralisation encountered in this area. Further support in drilling this area is provided by its geologic location on the fault transition between metasedimentary rocks to the south and Archean granitoids to the north which is analogous to the Beaver Lake Zone of the Current Lake Intrusive Complex that has a small, published, underground resource within it. Further compilation of detailed lithogeochemistry from drilling in this area is also recommended to help determine the intrusive history of the complex and help target the most prospective intrusive units within the stacked package.

Although no significant mineralisation was encountered in the 025 area, some further drilling on this newly identified intrusion is warranted to confirm the orientation and geometry of the intrusion that may assist the location of basal accumulations of massive sulphides that could be associated with this possible magma conduit. Furthermore the identification of the 025 Intrusion shows that field mapping and prospecting, guided by high resolution geophysical surveys (particularly magnetics), is effective in locating smaller intrusions within the, magnetically noisy, granitic country rocks in the northern portion of the property and this technique may yet uncover new intrusive bodies that have only small surface exposure but may be connected to larger accumulations at depth.

References

N.B. Unpublished items marked *** should be available in the MNDM assessment files, Thunder Bay office.

- Benkis,RA (1977) NTS 52-A-15 MW option, Greenwich Lake area, Ontario. Geological Report. MNDM Thunder Bay office, Assessment File 2.2295, NTS 52A15/SW, Mineral Exploration File 014. RioTinto Canadian Exploration Ltd, v+25pp. plus map and drill plan, report plus larger folder of 5 maps,2 sections and 39 profiles. ***
- Goldner, B. (2015) Rio Tinto Exploration Canada Inc. Assessment Report on the Crystal Lake Project. Pardee, Devon and Crooks Lake Townships. Thunder Bay Mining Division. Northwestern Ontario. 2015. ***
- Harper,G and Wilson,GC (2000) Prospecting for Cu-Ni-PGE mineralization in the Thunder Bay district, Northwestern Ontario. Report for OPAP Program, Mines Group, MNDM, Sudbury, Ontario, 66pp. plus assay sheets and 16 maps. ***
- Hart, T.R and MacDonald, C.A. (2007) Proterozoic and Archean geology of the Nipigon Embayment: implications for emplacement of the Mesoproterozoic Nipigon diabase sills and mafic to ultramafic intrusions. Canadian Journal of Earth Science, Vol.44: pp.1021-1040.
- Heaman, L.M, Easton, R.M., Hart, T.R., MacDonald, C.A., Hollings, P., and Smyk, M. (2007) Further refinement to the timing of Mesoproterozoic magmatism, Lake Nipigon Region, Ontario. Lake Nipigon Region Geoscience Initiative, Canadian Journal of Earth Science, Vol. 44: pp. 1055-1086.
- Heggie, G.J (2005). Whole rock geochemistry, mineral chemistry, petrology and Pt, Pd mineralization of the Seagull intrusion, northwestern Ontario, Unpublished M.Sc. thesis, Lakehead University, Thunder Bay, Ontario, 156p.
- Heggie, G.J., and Dumas J.Y., (2010). Diamond Drilling Program Report. Lone Island Lake and East West Connector Project. Thunder Bay Mining Division. Northwestern Ontario. 2010.
- Johnson, J.R. (2008) Phase One Diamond Drilling Program Report Beaver Lake Project Greenwich Lake Area. Thunder Bay Mining Division. Northwestern Ontario. 2007. ***

- Johnson, J.R. and Dumas, J. (2012) Diamond Drilling Program Report Steepledge Lake Project Greenwich Lake Area. Thunder Bay Mining Division. Northwestern Ontario. 2010. ***
- Kleinboeck,JM and Jobin-Bevans,S (2002) Final report: phase 1 diamond drilling, Current Lake property. Pacific North West Capital Corp., report on drill and assay work of 25 September- 23 October 2002. ***
- Kulla, G., Thomas, D.G., Gormely, L, Eggleston, T., and Searston, S., 2010: Magma Metals Limited, Thunder Bay North Polymetallic Project, Ontario, Canada, NI 43-101 Technical Report: unpublished technical report prepared by AMEC Americas Ltd for Magma Metals Ltd, effective date 6 October 2010.
- Panoramic Resources Limited, Quarterly Report for the Period Ending 31 March 2013 – Unpublished internal company report. April 2013. <u>http://panoramicresources.com/wp-content/uploads/2014/11/Quarterly-</u> <u>Report-Mar-2013.pdf</u>
- Rossell, D., 2008. Assessment report on 2008 diamond drilling, Current Lake Project. Greenwich Lake Area, NTS 52A/15, Thunder Bay Mining Division, Ontario, Canada. MNDMF assessment files 2.38816. 42p.
- Weston, R.J., and Johnson, J.R., 2009a. Phase one diamond drilling program report. Steepledge Lake Project, Greenwich Lake Area. Thunder Bay Mining Division, Northwestern Ontario, 2009, v.1.
- Weston, R.J., and Johnson, J.R., 2009b. Phase two diamond drilling program report (SL09-03 to SL09-34). Steepledge Lake Project, Greenwich Lake Area. Thunder Bay Mining Division, Northwestern Ontario, 2009, v.1.
- Weston, R.J., and Johnson, J.R., 2009c. Phase three diamond drilling program report (SL09-35 to SL09-41). Steepledge Lake Project, Greenwich Lake Area. Thunder Bay Mining Division, Northwestern Ontario, 2009, v.1.
- Williams, H.R. (1991). Quetico Subprovince. In Geology of Ontario. Edited by P.C. Thurston, H.R.Williams, R.H. Sutcliffe, and G.M. Stott. Ontario Geological Survey, Special Vol. 4, Part1, pp. 383-403.