Report on

Trenching, Geological Mapping and Petrography on Nipigon Reefs Project Mineral Claims, and core delivery to Conmee Twp MNDM Yard, Thunder Bay Mining Division, Ontario

NTS sheets 52 A/15NW (Greenwich Lake) and 52 H/02SW (Shillabeer Lake),
UTM zone 16U, MNDMF G-plan zones
G-0691 (Anders Lake) and G-0067 (Leckie Lake)

Claims 1163947, 1178189, 1178818, 1216198, 1220498 and 1231877

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INTRODUCTION

Minfocus International Inc., ("Minfocus") the wholly owned subsidiary of Minfocus Exploration Corp., a BC registered company listed on the TSX-V Exchange (symbol "MFX") staked several blocks of claims in the Sigh Lake – Springlet Lake area in 2009. The company subsequently staked more claims in 2010, 2011 and 2012 and optioned an area of contiguous mineral claims north of Thunder Bay, Ontario by agreement dated 22nd February, 2011. The option agreement is with joint owners Black Panther Mining Corp., Rainy Mountain Royalty Corp. and Trillium North Minerals Ltd. Over the years this area of optioned mineral claims has been variously referred to as the "Seagull" or "Wolf Mountain" property (location map: **Figure 1**). For the present the optioned claims are referred to as the "Seagull North" property and the overall constellation of contiguous claims being explored by Minfocus is the "Nipigon Reefs" property. The "Springlet Lake block" claims that were originally staked by Minfocus are contiguous, on the east, southeast and south flanks of the optioned claim blocks. The overall southern boundary of the Nipigon Reefs property is some 15 km north of the December 2006 drill discovery of platinum group elements ("PGE"), nickel and copper by Magma Metals Ltd at Current Lake, which lies 45 km north-northeast of Thunder Bay.

Regional Ontario Geological Survey mapping shows the Current Lake deposit area to be underlain by Archean Quetico gneisses and granites and these rocks to be unconformably overlain by Sibley sediments northwards from an unconformable contact that passes through the southern Nipigon reefs property claims. The Sibley sediments are, in turn, intruded by a Keweenawan age mafic to ultramafic complex of rocks which form a flat lying to gently dipping, basinal feature. This Keweenawan mafic–ultramafic body, the Seagull complex, displays evidence of differentiation and layering with ultramafic rocks dominant towards the base and platinum group elements-rich bands ("PGE") recognized therein. Historic drilling has demonstrated that sulphide-rich bands near the base of the ultramafic complex have anomalous grades of copper, nickel, gold and platinum group elements. Higher up in the succession are additional horizons with anomalous PGE values but a low sulphide tenor.

Between June 13th and June 28th, 2014, the authors travelled to the area and conducted geological mapping and sampling in the southeastern Springlet Lake part of the area, moved Springlet Lake core from a rented storage container to MNDM Conmee Township storage facility and then undertook a trenching program on the Seagull North part of the claim block. The work related to Springlet Lake claims and drilling was reported on in a separate assessment report by Harper and Wilson dated July 29th 2014. This report describes the Seagull North claims mapping, trenching and sampling work, a subsequent petrographic and magnetic susceptibility study of the trench rocks and moving of additional Seagull North core to the MNDM Conmee Township storage facility. The latter core moving was undertaken in a 2 day period during a field work program period from July 28th to August 8th. Time, travelling expenses and other costs have been pro-rated according to the relative proportions of time spent on each project.

LOCATION, ACCESS, INFRASTRUCTURE AND ECOLOGY

The area is located approximately 60 kilometres to the north-northeast of the centre of the city of Thunder Bay and 48 kilometres west-southwest from the small town of Nipigon (straight-line distances). The claims lie east of the Armstrong Highway (Highway 527, formerly Hwy 800) to the north of the Dorion Cut-off Road, an east-west regional access road. This road, and logging roads accessible along it, may not be snow-ploughed in winter unless a logging company is active in the area, but arrangements may be made with contractors in the city of Thunder Bay to plow it. An approximate, abbreviated road log is presented below, commencing at the major highway junction roughly 12 km northeast of downtown Thunder Bay and ending at the site of Trench 7.

Road log	

Feature	*Km*
Junction, highways 527 and 11/17	0.0
Escape Lake Road to E (to Current Lake area)	21.9
Follow Dorion Cut-off Road to E (to Seagull Lake area)	46.3
Turn north off Dorion Cut-off at Anders Lake Road	68.0
Proceed north along Anders Lake road for approximately 14 km on recently reconstructed logging access road	82.0
Turn left and proceed 0.5 km on old logging road then turn right to the north up CAT trail accessing area of intense historic drilling and eventually - after about 3 km - reach the area of trench.	85.5

Note that most local roads are surfaced with gravel derived from the characteristic pink to brick-red sediments of the Sibley Group, as evidenced by the large gravel pit marked on the geological map at approximately 363200E 5423600N (UTM Zone 16, NAD83 reference datum). The presence of such material on and near roads is not automatically indicative of subcrops of Sibley strata.

Electrical grid, natural gas pipelines and microwave transmission systems run near the area. The only primary Pd, Pt mine in Canada and one of only two in North America, is some 35 kilometres to the northwest, exploiting mineralization in late Archean gabbroic rocks, demonstrating the favourable potential of this area. The Lac des Îles Mine of North American Palladium Ltd recently announced a major increase in reserves and re-opened operations based on an underground mine, beneath the former open pit, at a processing rate of 2,700 tonnes per day.

Magma Metals' (now Panoramic Resources) December 2006 drill discovery of the Current Lake Pt- Pd- Au- Cu- Ni deposit (the first of a number of other mineralized zones) is located some 21 km south of the centre of the claims described here, which lie on the southwest margin of the Seagull complex. The Current Lake deposit is still undergoing exploration, with over 145,000 metres of drilling completed as of Q2-2012. On a platinum equivalent (Pt-Eq) basis the resources are currently estimated to be:

* Indicated Mineral Resource: 9.83 million tonnes at 2.34g/t Pt-Eq for 741,000 Pt-Eq ounces Pt and
* Inferred Mineral Resource: 0.53 million tonnes at 2.87g/t Pt-Eq for 49,000 Pt-Eq ounces Pt (see the web site of Panoramic Resources, http://www.panoramicresources.com, the firm which took over Magma Metals, http://www.magmametals.com.au [historic URL], from which the above resource estimates are quoted, as accessed on 16th April 2012).

Fig. 1. General Location of Nipigon Reefs Property and infrastructure.

The area of the claims has subdued relief, on a plateau some 150 – 250 metres above the level of Lake Superior. Relatively recent uplift of this area has resulted in a stagnant drainage system which is only just beginning to be rejuvenated by rivers cutting back through the plateau edge, working back from Lake Superior. Small lakes and swamps scatter the terrain, connected by meandering choked watercourses, none of which seem to have the dimensions to be navigable for long stretches, even by canoe. The larger lakes are big enough to land a floatplane.

Areas not logged comprise typical boreal forest mix of first and second growth trees rarely exceeding 25 metres in height and underlain by thick undergrowth, which obscures visibility. Most of the claims have been logged, ten or more years ago and regrowth, whether planted or natural, provides an extensive coverage. Particularly noticeable around some of the small lakes are fringes of cedar dominated vegetation which also run through the series of lowland areas incorporating several lakes.

The network of old logging roads across the claims was quite extensive and some are still driveable, kept open by hunters and fishermen, though an ATV may be more practical than a truck, and the utility of some trails is reduced by washouts or by flooding associated with beaver dams.

In the generally flat to undulating terrain, that covers most of the claims area, outcrop is very limited. Evidence from the logging road construction activities suggests that the typical depth to bedrock is surprisingly shallow (2 – 5 metres), reflecting the model of a plateau with a thin uniform overburden of glacial till. Road ditches are a rewarding source of outcrop locations.

The principal trees are black spruce, hemlock, white cedar, tamarack, striped maple, jack pine, tamarack, paper birch, poplar (quaking aspen) and occasional white spruce, as well as shrubby understory species, especially tag alder. Red pine is one of the replanted species in the clear-cuts.

Wild flowers include fireweed, asters and goldenrods, pearly everlasting, ox-eye daisy, yarrow, orange and yellow hawkweeds, red clover, white sweet-clover, self-heal, bird vetch, tall buttercup, common evening primrose, Deptford pink, wild strawberry and blueberry. Bunchberry, wintergreen and blue-bead lily (yellow Clintonia) occur on the forest floor, while jewelweed and blue flag iris may be found in wet areas and swamps.

Reindeer moss is common on some outcrops. Wolf's-claw club moss and ground pine are locally common on the forest floor. Fungi are quite numerous, particularly beneath hemlock trees, including the striking purple cort (*Cortinarius violaceus*) and *Agaricus silvicola*. A range of white, brown, red and purple species were noted.

Wildlife observations were limited to the spoor of moose, beaver, and rarely black bear and wolf. Frogs and tadpoles are present. Birds seen or heard include spruce grouse, common loon, raven, birds of prey and black-capped chickadee. Insects, besides the inevitable mosquito and blackfly, include harvester butterflies, blue darner dragonflies and grasshoppers.

The authors established a trailer camp in the optioned portion of the Nipigon Reefs property in order to reduce the amount of time and cost of travelling to the job site each day from Thunder Bay. ATVs were used for site travel almost exclusively due to the very wet cool conditions making old logging roads otherwise impassable. The distance from the camp to the trenching site is approximately 4 km.

HEALTH AND SAFETY

No lost-time accidents occurred during the program, for a total of 22 worker field days without medical issues during the periods of field work.

PROPERTY

Claim status and ownership

The claim blocks addressed here are 1163947, 1178189, 1178818, 1216198, 1220498 and 1231877, aggregating 52 units with nominal area of 832 ha (8.32 km^2). The recorded dates of each of these claim blocks are listed in **Table 1** which follows. Because banked work has been applied to several of these claims, they remain in good standing until at least June 2015 (see also claim map attached to rear of report.) All claims are contiguous (see **Figure 2**).

Fig. 2. Location map showing the Nipigon Reefs area claims and areas of mapping, trenching and drilling for core delivery.

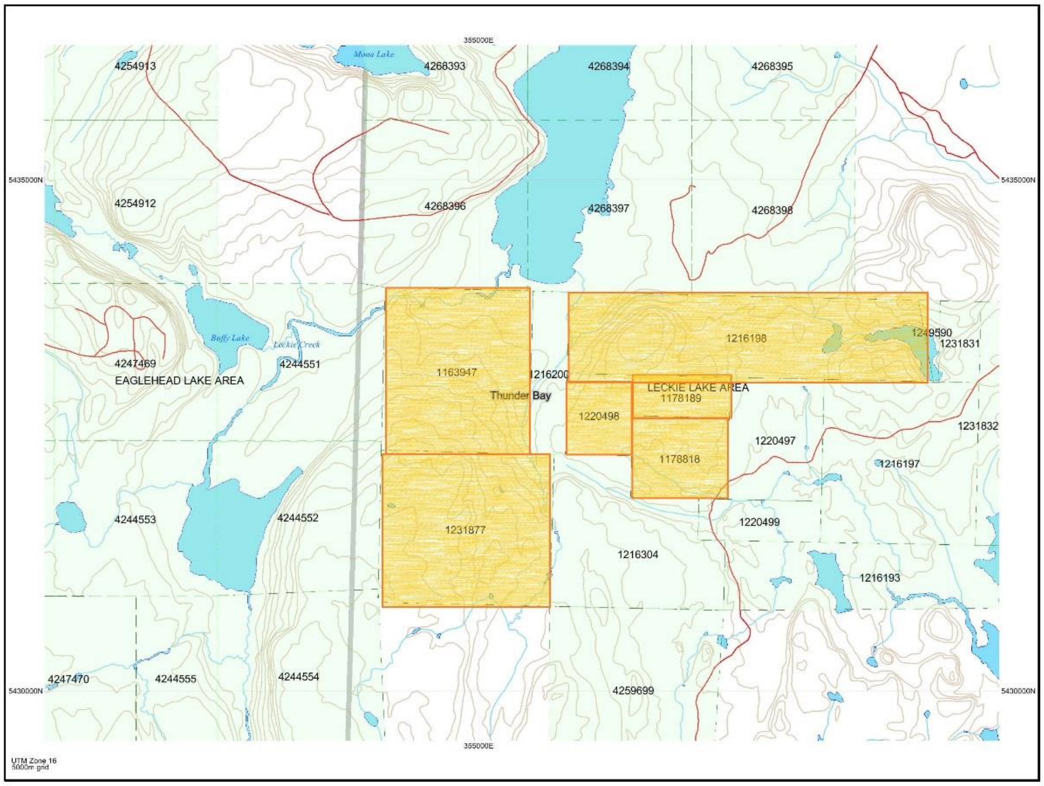


Table 1. Details of mineral claims comprising the Nipigon Reefs property

Claim Block #	No of units	Area (ha)*	Staking Date	Recorded Date
1163947	12	192	11/22/1997	11/26/1997
1178189	2	32	6/24/1997	6/30/1997
1178818	4	64	6/21/1997	6/30/1997
1216198	16	256	9/12/1997	9/16/1997
1220498	2	32	7/13/1997	7/14/1997
1231877	16	256	11/21/1997	11/26/1997
Totals	**52**	**832**		

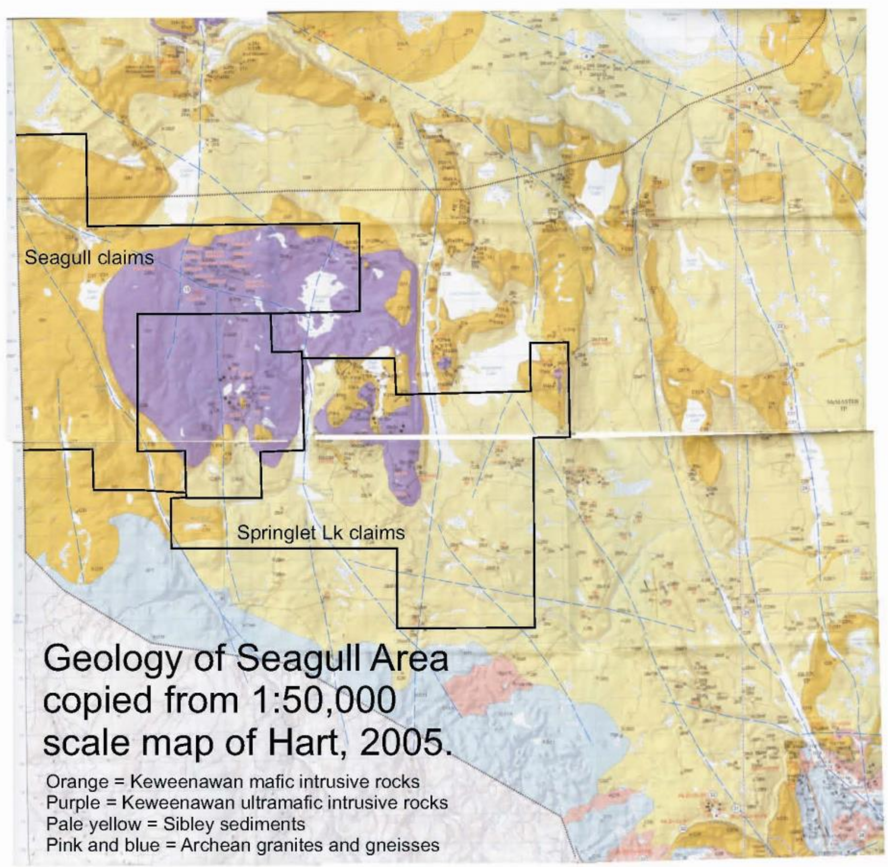
Note * Calculated on the basis of each 16-unit claim block being the theoretical 256 hectares.

REGIONAL GEOLOGY

Thirty years ago the Ontario Geological Survey prepared a series of 1:250,000 scale compilation maps of the regional geology of large quadrangles, including Nipigon – Schreiber (Carter *et al.*, 1973), covering the area of work and interest. Aerial magnetic surveys by the Ontario and Federal Governments of Canada in 1962 (1:63,360 and 1:50,000 scales) and more recent lower level surveys (1:20,000 scale) of selected portions by the Ontario Government in 1991 have provided the basis for much of the regional geologic interpretation.

More recently a lake sediment survey and an airborne geophysical survey, part of a larger initiative dubbed "Operation Treasure Hunt", focused on the Nipigon diabase, while the area was mapped by Hart (2005). While this 1:50,000 scale mapping displays new detail in the areas of Nipigon diabase, the southern fringe of the map just south of the diabase limit was only cursorily mapped by logging road traverses, as demonstrated by the map data points. Hart indicates all but the southern and northern edges of the claim block to be underlain by Sibley sediments. In the north Nipigon sills overlie and intrude through the Sibley sediments. To the south the Sibley sediments are eroded to reveal the underlying Archean rocks. The Sibley sediments are essentially flat lying. (**Figure 3** is a reproduction of the relevant part of Hart's map.)

Figure 3. Geology of claims area reproduced from the relevant part of Hart's map (Hart, 2005)



Dominant in the Archean terrain are east-northeasterly to northeasterly trending paragneisses and migmatites of the late Archean, supracrustal, metasedimentary-dominant Quetico subprovince. These have been intruded by late Archean granites and leucogranites, including muscovite and biotite granite, granodiorite and tonalite. All these >2.5 Ga age rocks have been structurally deformed with the resultant dominant fabric being a foliation oriented ENE – NE with a vertical dip and tight folding of the foliation ranging from drag folds to ptygmatic folds. Pegmatites, quartz veins and aplitic bodies are abundant and provide evidence of multi-generational activity from their cross-cutting relations. Roughly 1 to 1.5 billion years later these rocks were covered by Sibley Group sediments comprising an assortment of conglomerates, sandstones, carbonates and shale and relatively shortly thereafter by mafic intrusive rocks in the form of the Nipigon diabase sills and associated diabase dykes, plus diverse ultramafic, gabbroic, granophyric, intermediate to felsic intrusions.

LOCAL GEOMORPHOLOGY

As described above the area of the claims has subdued relief, on a plateau some 150 – 250 metres above the level of Lake Superior. Relatively recent uplift of this area has resulted in a stagnant drainage system which is only just beginning to be rejuvenated by rivers cutting back through the plateau edge, working back from Lake Superior. Small lakes and swamps scatter the terrain, connected by meandering choked watercourses, many of which are choked due to remains of old beaver dams. **Figure 4** provides a "cartoon" of the erosional state and geologic evolution of the area.

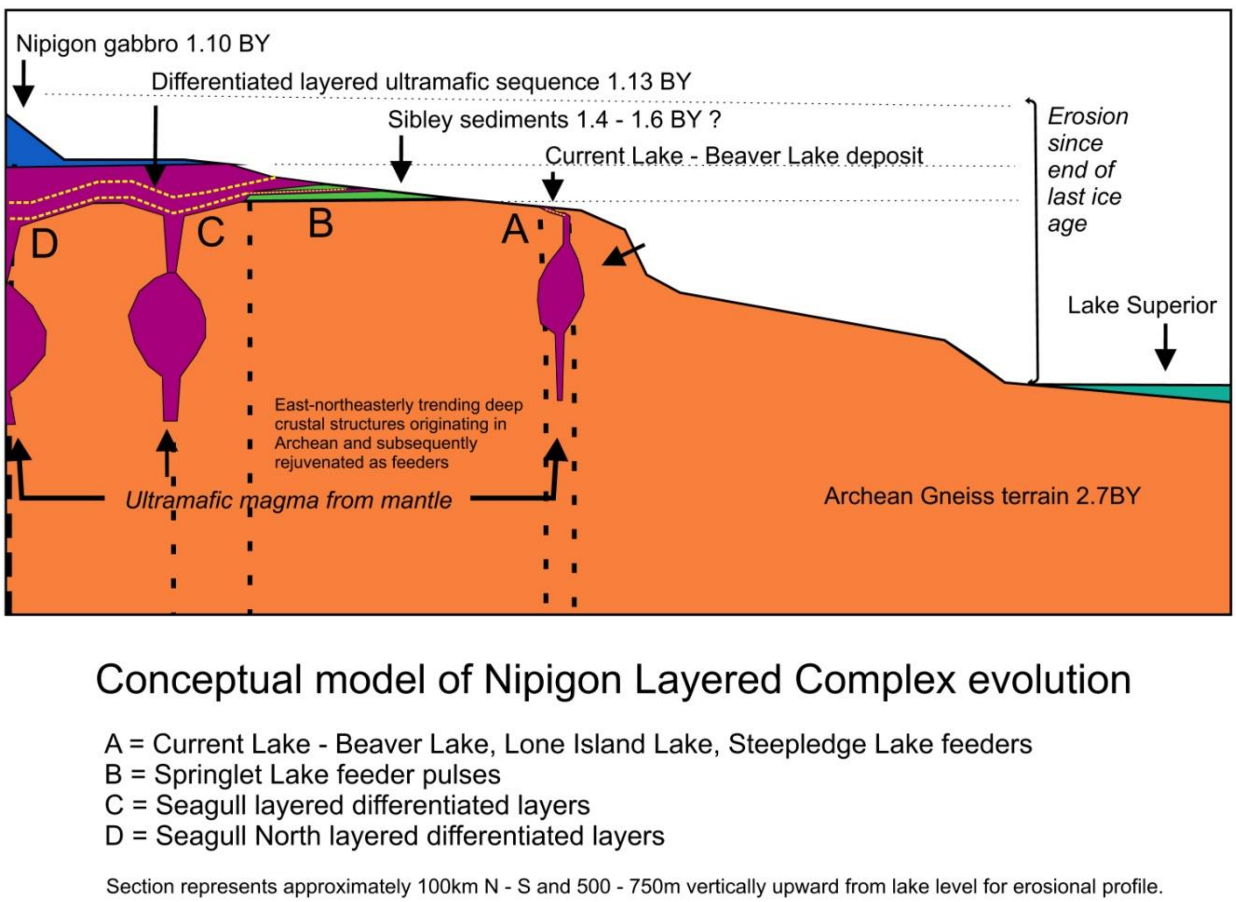


Figure 4. ***Schematic View of the Local Topography.***

The only positive topographic features are cliffs and mesas resulting from the resistance to erosion of the Nipigon diabase / gabbro sills. These form cliffs or steep slopes up to several tens of metres high. One such mesa stands out prominently east of the Upper Wolf Road just south of Wolf Creek.

LOCAL GEOLOGY

The Seagull intrusion is in places moderately well-exposed where mafic in composition, but much of the ultramafic core of the body is totally obscured, overlain by relatively flat-lying topography with thin but persistent overburden a few metres in thickness. Where the ultramafic rocks are exposed they show interesting features of chemical weathering. The area of the complex, as shown in aeromagnetic mapping, is roughly 85 km^2, a crudely ovoid mass with modest east-west elongation. Footwall to the intrusive are either metasediments or anatectic pegmatites of the late Archean Quetico subprovince of the Superior craton, or Mesoproterozoic sediments of the Sibley Formation. A widespread, essentially flat-lying diabase sill roughly 70 m thick cuts the complex over a wide area, and was encountered in all four drill holes in a 2012 drill program on the optioned claims (Harper and Wilson, 2012). Valiant efforts have been made to age date the local intrusions, a challenging task due to the commonly small zircon and baddeleyite grains that may occur in peridotite suite rocks, either as magmatic accessory phases or as xenocrysts from older rocks (see, e.g., Heaman *et al.*, 2007). At the risk of submerging caveats from more critical analysis of the data, it seems that the Seagull complex was emplaced at roughly 1114 Ma, and that the diabase sill cutting it is at most a few million years younger.

The Seagull intrusion, associated with a failed arm of the Midcontinent Rift of Keweenawan (~1100 Ma) age, which extends northward into the Nipigon embayment, contains the largest known volumes of ultramafic rock in the region (Middleton and Heggie, 2005). The local geology and the results of associated programs of drilling have been summarized in several prior assessment reports and publications, including Osmani and Rees (1998); Middleton and Durham (2001), Pettigrew (2002), Wagner (2005), Heggie (2005) and Middleton and Laarman (2009). Seagull was included in a province-wide review of PGE-prospective intrusions by Vaillancourt *et al.* (2003). The regional properties of Minfocus Exploration Corporation, collectively referred to as the Nipigon Reefs property, were reviewed recently in an independent NI43-101 report by Burga (2011) and the geology and mineralogy have been described in a chapter in a field guide (Wilson and Harper, 2013).

The region has been covered by various geochemical surveys, and also lay at the southern margin of the five-year Lake Nipigon Regional Geoscience Initiative (LNRGI) of the Ontario Geological Survey. Work on the Springlet Lake claims of Minfocus has been, in part, guided by the regional geochemical dataset (see, e.g., Dyer and Barnett, 2007). Given the low thresholds of anomalies in lake sediment and hydrogeochemical data sets, it is important to note that the Seagull Lake area is well removed from major highways and smelters. Past work in Canada and Russia, for example, has indicated Pt and Pd contamination around major smelters such as Sudbury and Monchegorsk, while in the U.K., Italy, Germany, Australia and the U.S.A. appreciable levels of both Pt and Pd (each metal in the tens of ppb) are documented in proximity to highways and urban centres. Surveys of surficial media by Barnett and Dyer (2005) suggested that the regionally extensive Keweenawan diabase plateau contributes appreciable Cu and lesser Pt and Pd to local lake sediments, consistent with a modest regional elevation in PGE levels in the abundant diabase of the Midcontinent Rift large igneous province.

The past decade has been very productive of geological documentation in the region and the Seagull complex itself, including the thesis by Heggie (2005), LNRGI mapping (e.g., Hart and Magyarosi, 2004; Hart, 2005) and related studies, such as aspects of petrology and geochronology. The LNRGI mapping represented a timely update on regional compilation maps, such as that of Carter *et al.* (1973). Topics explored include: the Sibley Group sediments and associated intrusions (Rogala *et al.*, 2005); magmatism (Hart and MacDonald, 2007); igneous geochemistry (Hollings *et al.*, 2007); and the timing of magmatism (Heaman *et al.*, 2007). The petrography of samples from the region is presented by Schandl (2005; see also Leitch, 2000a,b; Northcote, 2001; Heggie, 2005).

The PGE mineralization at Seagull is notable in being, for the most part, sulphur-poor. Indeed, the intrusion, and specifically the dunite sections, are noted for a rather reduced mineral assemblage including native Cu (Averill, 2000; Taylor, 2000; Middleton and Durham, 2001; Heggie, 2005). Nickel may occur as bravoite (a Ni-bearing pyrite) interstitial to olivine, while Cu occurs as associated chalcopyrite, but especially as native Cu veinlets cutting the earlier sulphides (Heggie and Hollings, 2004). The sulphide mineralization in the lower levels of the intrusion may display immiscible blebs with so-called parachute texture, wherein the blebs are oriented, with Cu-rich “parachutes” above Ni-rich bases (e.g., Middleton and Heggie, 2005).

MAPPING AND LOCAL GEOLOGY

The geological mapping consisted of old and new logging road traverses, creek bed traverses and foot traverses to investigate specific areas of outcrop and to search for outcrops in the area west of the “black sands” area (see Figures 5 and 6 at rear) on claims 1231877 and 1163947. This work program combined with knowledge from other mapping programs in the area (Harper and Wilson, 2012, 2013a, 2014a,c,d) located sufficient outcrops to enhance the stratigraphic column of the various rocks underlying the area, which is shown below.

The magnetic susceptibility of outcrops and grab-samples, made with an SM-30 unit (50 mm coil diameter), indicates that the various Keweenawan intrusive rocks are distinctly to very strongly magnetic. A basic, preliminary sampling of the bulk magnetic susceptibility data follows for the diversity of rocks encountered by the writers in the district, comprising samples collected during this and prior periods of fieldwork. n=number of outcrops or boulder occurrences that were measured (for more detail, see the tabulations of outcrops, most of which include 10-12 readings plus a mean value in 10^{-3} SI units).

The following stratigraphic column has been constructed and formatted like a drill-hole log so it could be incorporated into the GEOSOFT drill-hole database maintained by Minfocus for the whole of the Nipigon Reefs district.

Stratigraphic Column

Age	Rock code	Rock description	Magnetic Susceptibility
Late Proterozoic		Intrusive vertical mafic dyke	24 (n=1)
	DIA	Intrusive sill-form diabase	23 (16-34, n=19)
		Leucogabbro	
	Bg	Olivine gabbro	33 (26-51, n=6)
	Bz	Monzogabbro	52 (22-70, n=4)
	Upo	Peridotite	)
	Upx	Pyroxenite	) 16 (8-42, n=16)
	Udo	Dunite	)
Mid – late Proterozoic		Sediments of Sibley Formation	0.2 (n=2)
Unconformity			
Early Precambrian	Fgd	Granites, gneisses, schists of Quetico Formation, including:	
		Metasediments	0.3 (n=2)
		Early foliated granites	0.1 (n=1)
		Massive magnetic granites	14 (11-17, n=3)
		Late S-type leucogranites (± garnet)	0.02 (n=1)

Locations for almost all sample sites were positioned as way points by one or both of the authors. Harper used a GARMIN 78s model and Wilson a GARMIN 76 model. Results for the two units were compared and also compared with known points that had been surveyed in 2012 by Barnes Land Survey Company of Thunder Bay as part of an exercise to accurately position many drill holes and other features with differential GPS millimeter accuracy. Both units gave very close results for eastings and northings but Harper's unit yields results which coincided more accurately for surveyed elevations, so his were considered definitive. All information is recorded in UTMs, Map Datum NAD 83, Zone 16.

Brief descriptions of the rock types encountered in the mapping and trenching

Olivine gabbro outcrops have been found at Way Points 477 – 480 in the extreme west of Fig 5, west of a strongly flowing creek that runs north to Leckie Lake. The Keweenawan ultramafic rocks and related mafic suite, represented here by monzogabbro and olivine gabbro, can usually be distinguished from younger diabase sheets by the presence of fine-grained brown mica, and granular rather than ophitic textures, *cf.* the somewhat younger diabase.

Peridotite, pyroxenite and dunite are the principal components of great thicknesses of the Seagull complex, as seen in drill core. Our mapping around the margins of the intrusive has encountered less of these rocks, relative to more evolved magmas such as the monzogabbro. Outcrops were located around Way Point 476 in the creek referred to above (Plate 1). This creek had washed out the old logging road bridge. Outcrops of ultramafic rocks had previously been mapped in the vicinity of Trench 7 on claim 1216198 and were characterized by unusual weathering patterns as shown in Plate 2 in Harper and Wilson (January 22, 2014).

The Keweenawan ultramafic rocks display small flecks of brown mica in hand specimen, and some contain coarse oikocrysts of orthopyroxene which may envelope dark chadacrysts of serpentinized olivine. They also typically contain a deep green chlorite and a corroded rufous-brown, late-magmatic amphibole but these are generally seen only under the petrographic microscope. For the most part the ultramafites are less magnetic than the oxide-rich monzogabbro, particularly if they are fresher and contain less of the secondary magnetite that is formed in serpentinization. Magnetic susceptibility is typically 8-20x10^{-3} SI units, higher in a few instances. The highest values are encountered in the border zones where the ultramafites have been intruded by the slightly later diabase.

Plate 1. Peridotite outcrop forming low cliff in creek side at WP 476. *Above*: note the blocky jointing, well-displayed on the right bank of the stream. *Below*: view upstream showing the relatively extensive outcrop. The rock is a typical Keweenawan feldspathic peridotite with accessory brown mica and a pockmarked surface, strongly magnetic (magnetic susceptibility ~$38x10^{-3}$ SI units).

Sibley Formation sediments - the Mesoproterozoic (pre-Keweenawan) sediments of the Sibley Formation were found in outcrop at several locations in the northern part of the map area near Trench 7. The outcrops immediately north of the trench are most intensely hornfelsed with decreasing intensity northwards as reported in the assessment report by Harper and Wilson, January 22, 2014.

The occurrences of Sibley sediments adjacent to the areas mapped for this report are shown on Figure 5 and the associated Legend in Figure 6 at the rear of this report (**Appendix C**). Supporting field data will be found in **Appendix D**.

TRENCHING

Trench 7 was hand dug and channel-sampled over a period of 4 days between 17 and 25 June 2014. Dug down to bedrock, it provides a continuous sequence of bedrock exposure between outcrop (WP 414) of monzogabbro to the south and outcrop (WP416) of hornfelsed Sibley sediments to the north. As shown in Figure 7, the trench extends between WPs 504 and 505, a distance of 18 metres long and reached depths of up to 0.8 metres. Several metres at the north end, which was very wet, but confirmed as Sibley sediments, were not completely excavated and channel sampled. Plates 2-3 show the trench and the rock-sawn channel cut in its floor for sampling purposes. Samples were 0.5-m long with sample measurements starting from the way point #504 on the outcrop at the south end of the trench. After examination of hand specimens to identify mineralogy, in particular sulphide grains, it was decided not to submit all samples to the assay laboratory.

Plate 2. Trench 7 viewed looking northwards with G. Wilson examining the contact exposure. In the foreground, the Keweenawan monzogabbro surface descends gently from a small outcrop in the trail (at 0.0-2.4 metres along the trench section). The flagging in the distance on the tripod of poles is located beside small outcrops of Sibley siltstone.

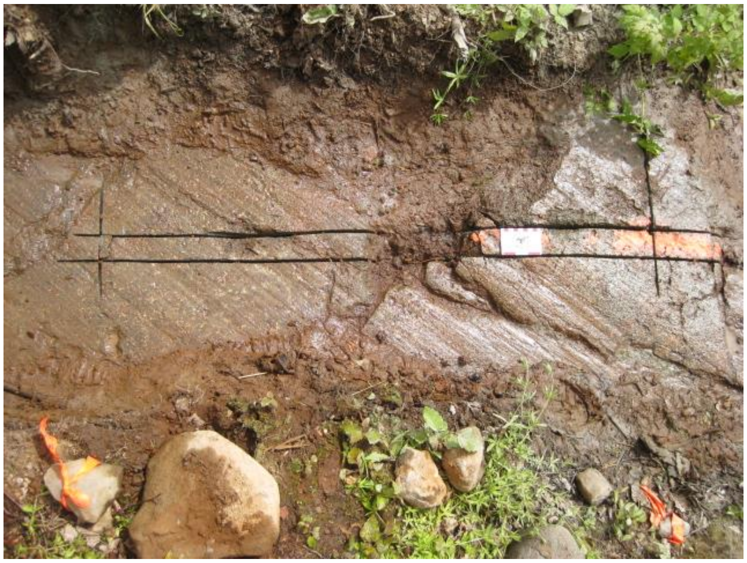


Plate 3. Trench 7 detail of a 0.5-m sawn cut for sampling. Note glacial striations on the rock surface.

Figure 7. Longitudinal section along trench 7 showing geology and sampling.

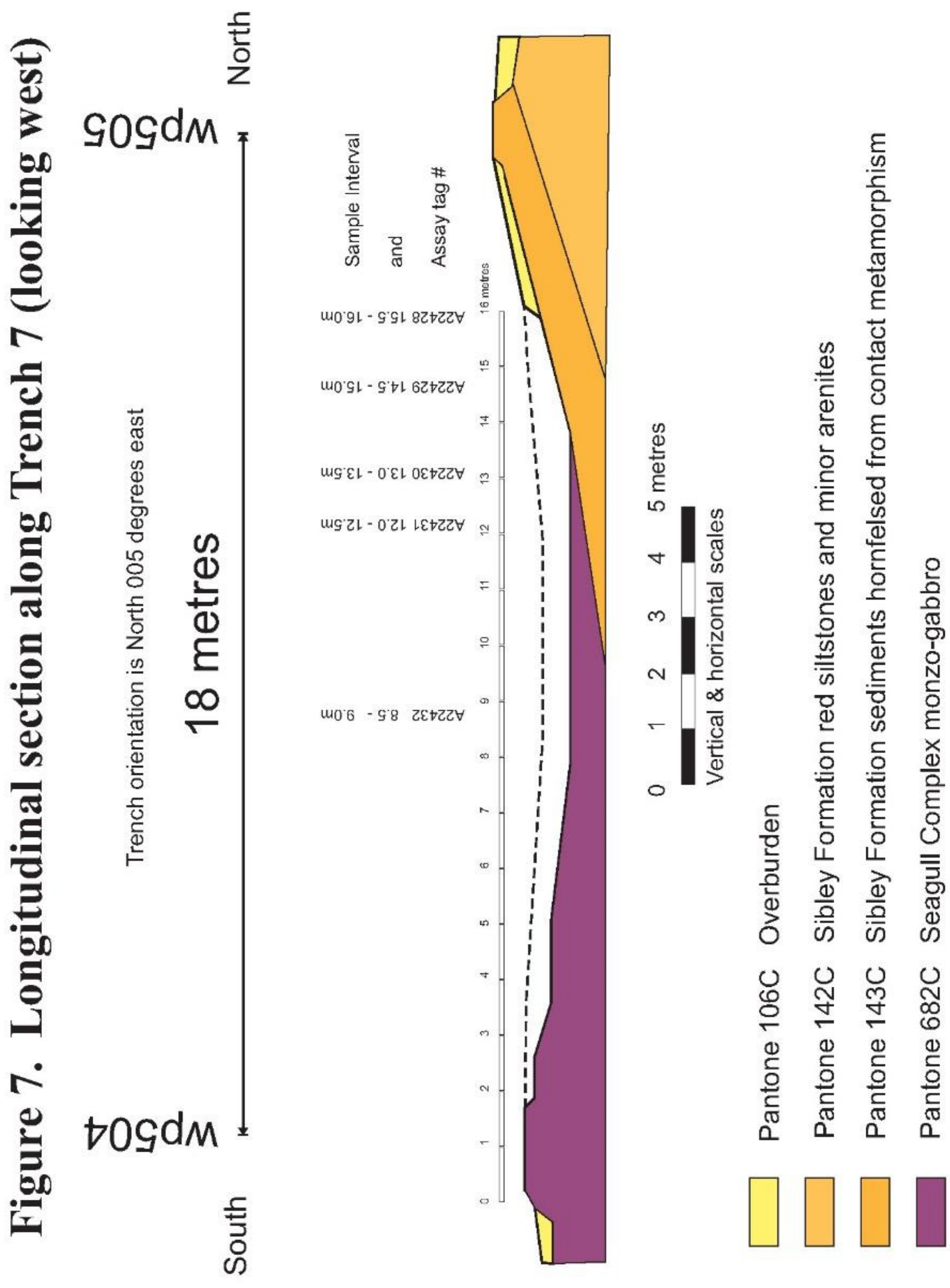
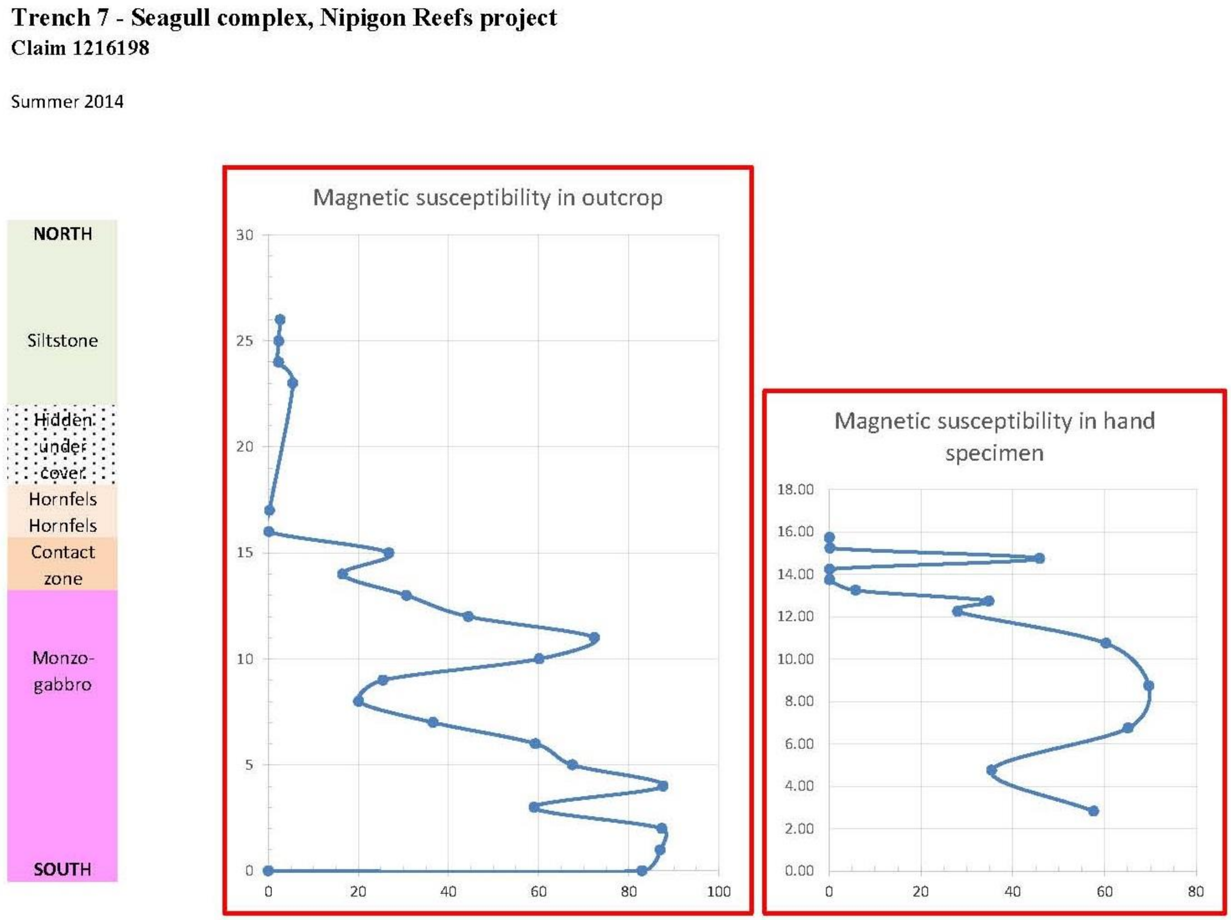


Figure 8. Longitudinal section along trench 7 showing magnetic susceptibility of rocks.



Spl No.	From	To	Length(m)	Pt (ppm)	Pd (ppm)	Cu (ppm)	Ni (ppm)	Mg (%)	S (%)
A22432	8.5	9.0	0.5	0.012	0.010	99.9	95.6	5.31	0.193
A22431	12.0	12.5	0.5	<0.005	0.007	51.6	97.2	4.31	0.481
A22430	13.0	13.5	0.5	0.028	0.021	35.3	102	5.63	0.233
A22429	14.5	15.0	0.5	0.014	0.008	156	116	4.22	0.162
A22428	15.5	16.0	0.5	<0.005	<0.001	24.8	27.4	1.20	0.029

Table 2. Results of Trench Sampling

The rocks found in the trench were identical to those in the outcrops at each end with a contact displayed at the deepest point in the trench which is interpreted as being an unconformable contact between the monzogabbro of the Seagull Complex above and hornfelsed Sibley sediments below. To the north of the trench the decreasing intensity of hornfelsing supports the logic of this relationship. The magnetic susceptibility also supports this interpretation with the monzogabbro being very high but decreasing where its thickness over the Sibley is thinnest, with hornfelsed Sibley being an order of magnitude lower, and then unmetamorphosed Sibley being almost entirely non-magnetic.

The assaying showed that there was not any enrichment of PGE in the Seagull Complex close to the contact, even though an abundance of pyrite noted in mapping the Sibley outcrops had provided encouragement for the theory that a source of sulphur was available to provide a catalyst in precipitating the PGEs. The decision not to assay every sample sawn was justified by the results.

The major element concentrations, such as Mg and Fe confirm the composition of the monzogabbro as being similar to other samplings of this unit and to be very much higher than the Sibley sediments.

Analytical results are shown in Appendix E and sample numbers are shown in Figure 7 and Table 2.

ROCK GEOCHEMISTRY

The samples sawn in Trench 7 and selected to be submitted to AGAT Laboratories in Mississauga were analysed for multiple-element ICP scan and for Pt, Pd and Au. The results of these analyses confirmed the visual and subsequent petrographic identification of the rock units. See Appendix E for results.

SUMMARY OF FEATURES OF GEOLOGICAL INTEREST

The basement to this mapped area is comprised of a sheet of Sibley sediments which are known to be almost flat-lying and 50 – 100 m thick where diamond drilled by Minfocus in 2010 and 2012. Revealed under the Sibley sediments in the drill core, with an unconformable contact, and in places a hint of regolith material, are Archean (Quetico) gneisses, schists, granites and pegmatites.

The outcrops of Sibley sediments are the typical red to brown, fine to medium grained clastic sediments exposed elsewhere throughout the western part of the Sibley basin.

Rocks of the Seagull complex exposed in the mapped area are limited to monzogabbro, olivine gabbro and peridotite with the ultramafic rocks being separated from the gabbros by a north–south trending interpreted fault such that their relationship is not entirely clear. The monzogabbro – olivine gabbro zone is interpreted as being a flattish sill-like intrusion, 20 – 30 m thick where outcrops of other rocks can be interpreted to be above and below it. No contacts were observed but the degree of hornfelsing indicates proximity to several contact zones with the host rocks. Monzogabbro can be particularly magnetic, but magnetic susceptibility values overlap with olivine gabbro, and with diabase. Based on limited data, it seems that some chilled margins and associated hornfelsed host units may be more strongly magnetic than the interior of those same units. A deeper thin sill of ultramafic rocks with intensely hornfelsed margins has been documented in multiple drill holes.

Glacial striations were seen in a few locations, such as Trench 7 (see Plate 3), in both monzogabbro and Sibley sediment. To the south, around Current Lake, typical ice-flow directions are scattered around N208ºE. In the present field area, roughly 25 km to the north, the direction appears to be closer to NE-SW, rather than NNE-SSW, circa N225-229°E.

CORE DELIVERY TO CONMEE TWP. YARD OF MNDM

Two days were spent trucking core from its previous storage in containers on the outskirts of Thunder Bay to the Conmee Township yard, west of Thunder Bay and north of Kakabeka Falls. This core comprised all the core drilled by Minfocus on the Nipigon Reefs optioned area claims in a campaigns in 2012 and reported on in W1240.01447. The drilling comprised holes WM12-34 – WM12-37. Table 3 lists the details of the core delivered to Conmee Twp.

Table 3. Drill Core Delivered to Conmee Twp.

Drill Hole #	Hole length (m)	Bedrock core length (m)	Number of boxes of core	Number of boxes delivered to Conmee Twp. Yard
WM12-34	422.82	416.12	96	96
WM12-35	393.64	384.50	89	89
WM12-36	405.08	398.38	92	92
WM12-37	520.90	514.80	123	123

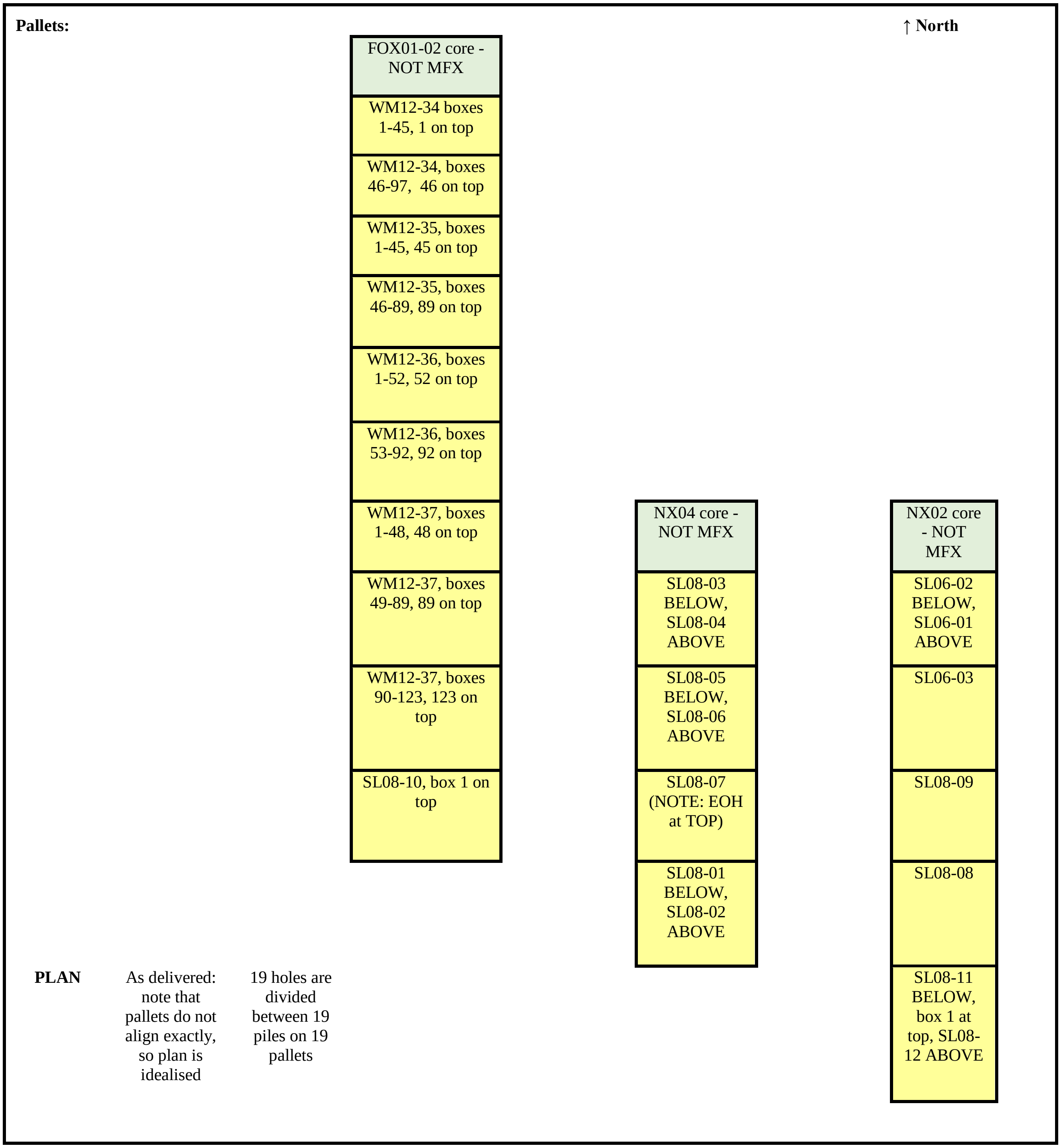
Tables 3 and **4** list the details of the drilling of all the holes as shown in the respective tables in the assessment reports describing the drilling. These drill holes are all registered in the Ontario MNDM drill hole database.

Table 4. Diamond Drilling Progress

Hole No.	**Grid Northing**	**Grid Easting**	**Elevation (m)**	**Collar Azimuth**	**Collar Dip**	**Length (m)**	**Date started**	**Date completed**	**Number of boxes of core**
WM12-34	5432910	356072.4	406.94	0	-90	422.82	12-Feb-2012	17-Feb-2012	96
WM12-35	5432959	356072	406.36	0	-90	393.64	18-Feb-2012	22-Feb-2012	89
WM12-36	5432712	357018.9	408.74	0	-90	405.08	23-Feb-2012	27-Feb-2012	92
WM12-37	5432663	357068.8	409.48	0	-90	520.9	27-Feb-2012	5-Mar-2012	123
					TOTAL	1742.44			

Details of the locations of the piles of core at the Conmee Yard are shown below.

The MINFOCUS drill core is all in the newer (west) half of the core yard, starting one wide double-row west of the prominent north-south "uranium wall" of double-stacked core racks forming the west edge of the original yard, and including the BS series of cores by a third party. The 2014 core donations, comprising 19 holes from the Nipigon Reefs project (Seagull and Springlet properties) are in two north-south rows, immediately south of two other third-party core of the "NX04" and "NX02" series.



PETROGRAPHY

Three polished thin sections were prepared from samples collected in the summer 2014 field work. These were made to illustrate two points of interest in this area of the Seagull complex. The full report is Appendix D.

Trench 7 contact of marginal monzogabbro with Sibley sediments (Plate 4). The monzogabbro facies appears to be a discrete pulse of magma, possibly earlier than the dunite core known as the Leckie stock. It is locally charged with fine-grained chalcopyrite, but does not appear to be greatly PGE-enriched. The contact with hornfelsed siltstone is sharp.

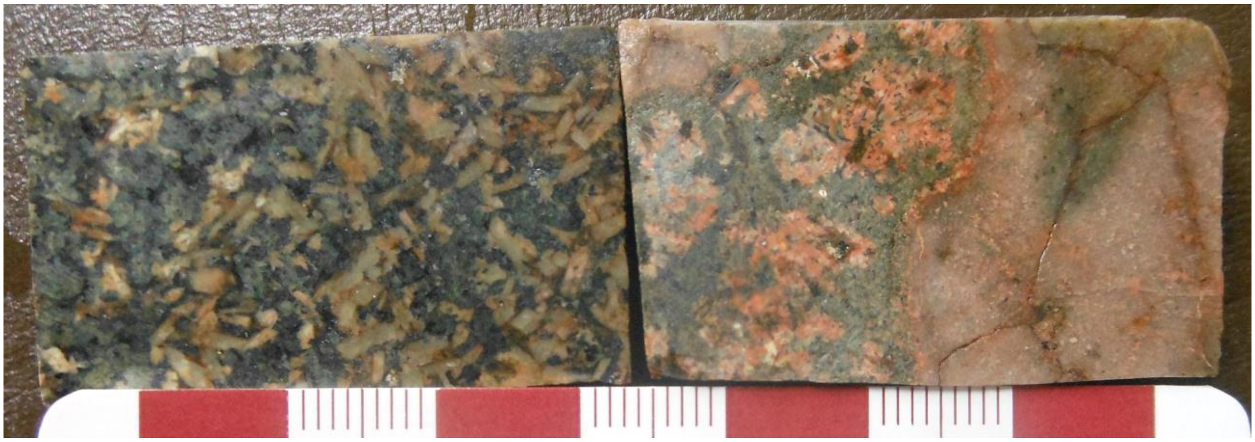


Plate 4. The sawn offcuts of Trench 7 monzogabbro (left) and the contact of monzogabbro and hornfelsed Sibley (right) described in the petrographic report.

Leucocratic rock from Trench 2 (Plate 5). The angular white resistate blocks of feldspathic material, which appear to be leucogabbro or leuconorite to anorthosite, are thought to be late differentiates of the generally olivine-rich, mafic-ultramafic cumulates which dominate the Seagull intrusion down towards its basal contact. The occurrence of relatively coarse and abundant titanite (sphene) suggests that a sample of this rock, preferably collected from drill core, would facilitate an accurate Pb-Pb date for the late stages of magmatism at Seagull.

Plate 5. The sample of leucocratic igneous “float” from the Trench 2 black-sand area.

CONCLUSIONS AND RECOMMENDATIONS

Several areas within the Keweenawan Seagull complex were prospected and mapped and one trench hand dug and channel sampled in the period from 13-28 June 2014. The trench exposed the basal contact zone of the Seagull Complex with the unconformably underlying Sibley sediments. The sediments displayed contact metamorphism due to the extreme temperature differential with the intruding mafic and ultramafic rocks. This contact exposure is updip from and relatively close to drill intersected basal contacts with enrichments of PGE mineralisation in the basal intrusive rocks. Unfortunately no economic mineralization was identified in the rocks exposed in the trench.

Additional mapping was completed further west with several previously unknown exposures of ultramafic rocks being revealed in a fast moving creek.

All the drill core from Minfocus' diamond drilling program in February – March 2012 in the Seagull North area was delivered to the MNDM Conmee Township, core storage yard.

Gerald Harper, Ph.D., P.Geo. (ON)

8th January 2015

G.C. Wilson

Graham Wilson, Ph.D., P.Geo. (ON)

8th January 2015

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RECORD OF EXPENDITURES

Work Program Dates

June 13 – 28, 2014 and two days during the period July 28 – August 8, 2014

Minfocus personnel

Field work: Gerald Harper, Geologist

Graham Wilson, Geologist

Report preparation:

Gerald Harper, Geologist

Graham Wilson, Geologist

Katherine Harper

Expenditures

Accommodation	$ 1038
Field Supplies	$ 95
Food and meals	$ 577
Personnel – field time	$ 12,000
Personnel – report preparation	$ 7,376
Travel – land, truck rentals and operating costs	$ 3,069
TOTAL:	**$ 24,155**

Expenditures allocation

Claim	1163947	$ 5,755
Claim	1178189	$ 1,600
Claim	1178818	$ 3,200
Claim	1216198	$ 6,400
Claim	1220498	$ 800
Claim	1231877	$ 6,400
	Total	$ 24,155

APPENDIX A

Way Points

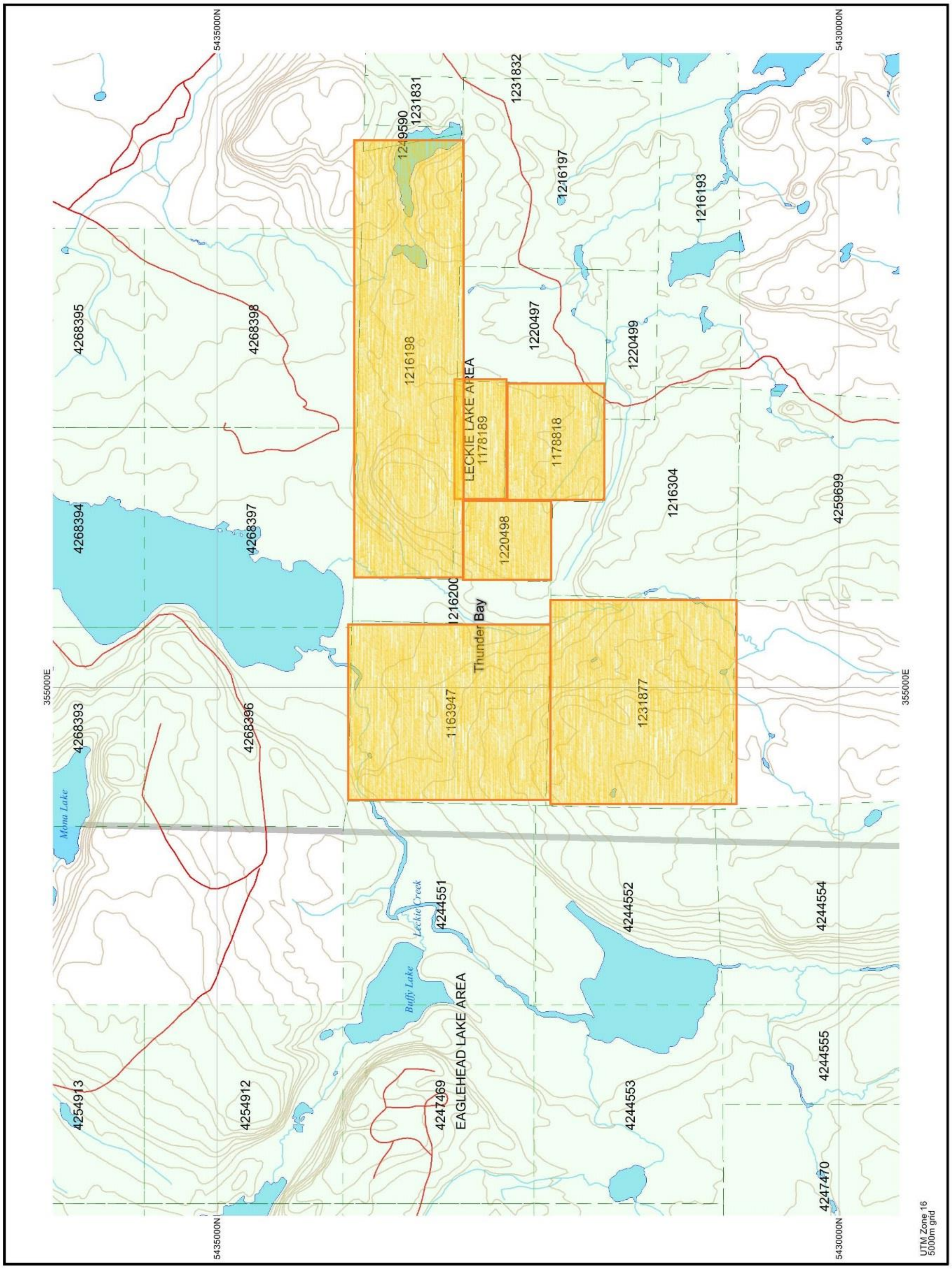
SEAGULL CLAIMS Way Point and Field Data, June 2014

All points in UTM zone 16U. Reference datum NAD83 (WGS84)

Waypoint (GH)	Waypoint (GCW)	Feature	Outcrop Number	UTM location NAD83 Easting	Northing	Elevation m asl	Date Sampled	Field Rock-type	Hand specimen description	Location Description	Sulphide Amount	Age (inferred)	Sample Number	Mean mag-sus 10^{-3} SI units	Mag-sus (E-3 SI units), up to 13 readings A	B	C	D	E	F	G	H	I	J	K	L	M
476	238	Watercourse		355444	5432457	398	16-Jun-2014			Rough crossing of creek on swampy trail																	
	239	Outcrop		355453	5432434	400	16-Jun-2014	Peridotite	A fgr feldspathic peridotite with fgr brown mica. In situ. Mag-sus measured W-E on S bank and in creek bed	Swift-flowing narrow creek crosses rock platform. Stepped, typical peridotite outcrop seen on right (N) bank.		Keweenawan	SEA14-01	30.338	31.3	46.7	46.7	31.3	30	18.6	19.8	20.2	27.3	33.7	33.1	23.4	32.3
477	240	Outcrop		355463	5432396	404	16-Jun-2014	Peridotite	SEA14-02 is a loose flagstone of fgr melagabbro (first thought in situ). SEA14-03 is pockmarked peridotite, feldspathic and micaceous, more plausibly in situ..	A flat ledge of peridotite in creek bed. Samples in S bank. About 15-20 m to S is a dry gully with cobbles of banded Sibley siltstone, mag-sus circa 0.2.		Keweenawan	SEA14-02, SEA14-03	37.900	37.6	37.3	38.8										
478		Watercourse		355514	5432322	406	16-Jun-2014			Beaver dam in creek changes flow above to slow and meandering																	
	241	Float		355401	5432280	412	16-Jun-2014	Peridotite	Feldspathic peridotite	A 1x1x0.3 m angular boulder on E side of trail.		Keweenawan		34.267	29.3	35.6	37.9										
479		Watercourse / road crossing		355414	5432162	414	16-Jun-2014			Old road crosses watercourse which is tributary of the earlier traced watercourse																	
480	242	Outcrop		355416	5432142	424	16-Jun-2014	Melagabbro	A fgr-mgr melagabbro, traces of opx and brown mica. Two similar samples, SEA14-04 1 m S of GPS point, SEA14-05 3 m to S.	A 2-3-m-high rock face, facing E, 15 m N-S. N to S mag-sus traverse of partially cleaned, flagged section of rock step. A few extra readings indicate erratic vertical distribution of mag-sus values		Keweenawan	SEA14-04, SEA14-05	25.615	32.1	26.2	22.4	25.8	28.3	25	29.7	16.6	19.6	33.3	25.3	21.8	26.9
	243	Outcrop		355390	5432131	424	16-Jun-2014	Melagabbro	A fgr-mgr olivine melagabbro with brown mica	Small waterslide in small creek.		Keweenawan		33.000	36.8	27.2	35.1	32.9									
481		Old road		355444	5431946	433	16-Jun-2014			Furthest point along old overgrown road traversed																	
	244	Float		355974	5432496	414	16-Jun-2014	Diabase	Nipigon diabase - photos available.	Largest of bulldozed collection of boulders on E side of drill trail just N of main E-W access. 1.5x0.9x0.9 m rounded boulder with bleached surfaces.		Keweenawan		25.267	23.9	20.7	19.7	27.4	31.8	28.1							
	245	Float		355938	5432723	414	16-Jun-2014	Hornfels	Hornfelsed Sibley siltstone with pink to white (?) recrystallized reduction spots up to 5 mm in size	Just to N on E side of trail, a small (25 cm) rounded cobble of a distinctive Sibley hornfels.		Sibley	SEA14-06	0.116	0.135	0.119	0.130	0.091	0.106								
504		Outcrop		356817	5433389	413	25-Jun-14	Monzogabbro		Outcrop that is at south end of Trench 7		Keweenawan															
505		Outcrop		356819	5433407	420	25-Jun-14	Hornfels		Outcrop that is at north end of Trench 7		Sibley															

APPENDIX B

Claim Map



APPENDIX C

Figures 5 and 6

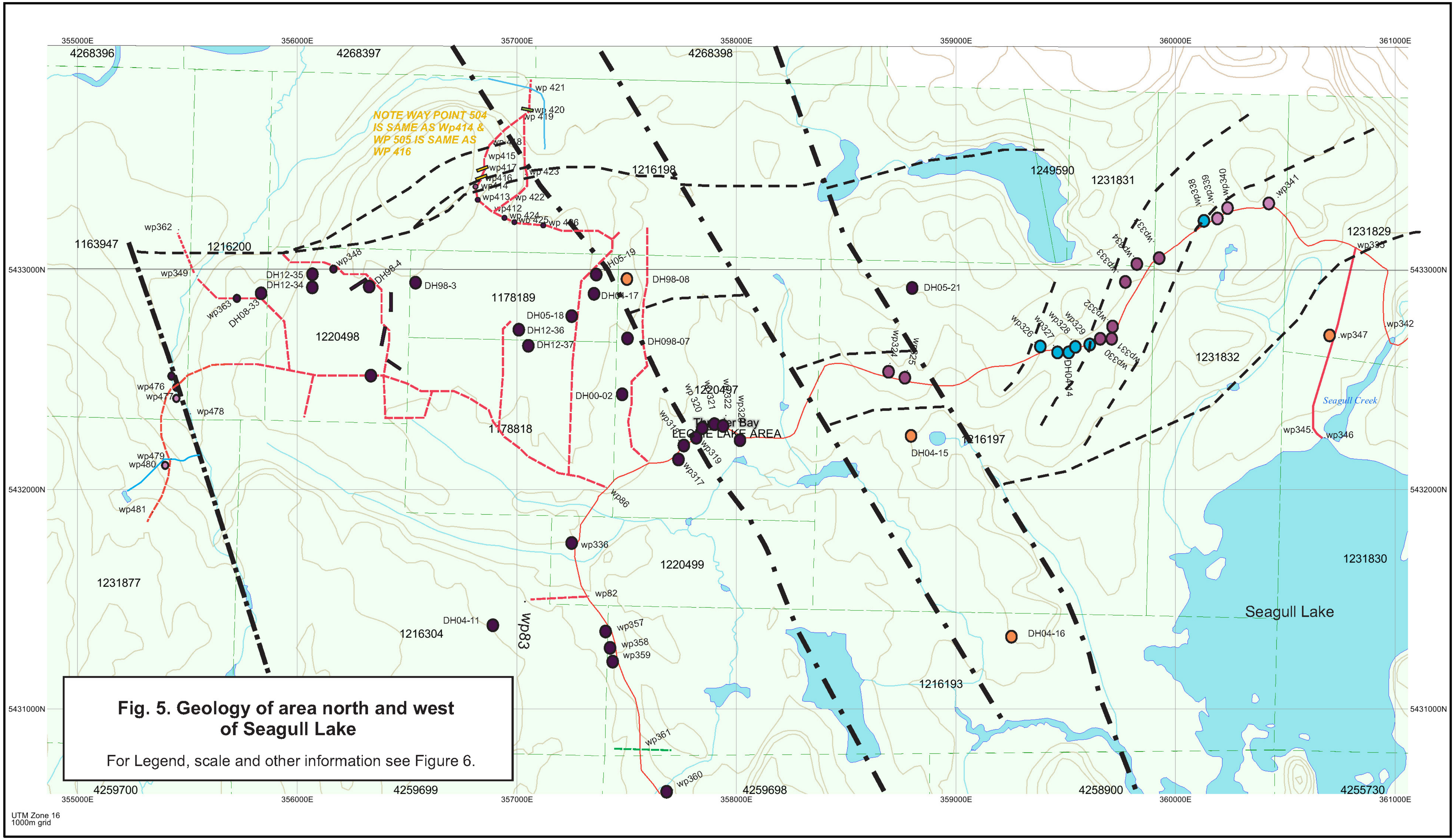


Fig. 5. Geology of area north and west of Seagull Lake

For Legend, scale and other information see Figure 6.

Legend - Geology

Pantone 106C	Overburden	
Pantone 164C	Diabase dykes cutting various rocks inc. diabase sills	DIA
Pantone 164C	Diabase sills	DIA
Pantone 306C	Seagull Complex Leuco gabbro	Bl
Pantone 245C	Seagull Complex Olivine gabbro	Bg
Pantone 682C	Seagull Complex monzo-gabbro	Bz
Pantone 262C	Seagull Complex Udo dunite, Upo peridotite, Upx pyroxenite	Udo Upo Upx
Pantone 143C	Sibley Formation sediments hornfelsed from contact metamorphism	HFL
Pantone 142C	Sibley Formation red siltstones and minor arenites	Ss, Sl
M Pantone 7406C	Quetico magnetic granite	Fgd
Pantone 7406C	Quetico gneiss, granite, schist and metasediments	Fgdm

Contact between rock units interpreted

Fault zone interpreted

Roads (solid red), dozer trails (dashed), cut lines (dotted)

Claim line with claim post where located and traced out w GPS positioning

. wp375 Way point with identification number, readings from GH GPS unless otherwise stated. If text is underlined it identifies a WP position where a sample was collected for assay which will be correlated in Table 2 in the report.

Base maps for geological map sheets downloaded from Ontario M.N.D.M. claims web site

SCALE 1:20,000 (horizontal and vertical unless otherwise indicated)

Index Map to Geology Map Sheets

	Geology of the Seagull Lake Map Sheet	
	Geology of the Anders - Wolf Lakes Area	Geology of the Moraine River North Area
	Geology of the Lower Clearwater Lake Map Sheet	Geology of the Springlet Lake Map Sheet

Outcrop area with infill colour of rock type

Drill hole collar with infill colour of bedrock interface rock type

Trench

Horizontal dipping strata

20 Inclined dipping strata with angle of dip and strike direction

Fig. 6 Legend and Index to Geology Map Sheets

APPENDIX D

Petrography Report

Mineralogy of Selected Grab Samples, northern and northeastern areas of the Seagull intrusive complex, northwest Ontario

Thunder Bay mining division, NTS sheet 52 H/2SW,
UTM zone 16U, southwest quadrant of MNDMF G-plan area G-0067 (Leckie Lake).

On behalf of

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Compiled Wednesday, 10-December-2014
TGSL Project 2014-05P
(vi+16 p*ages, 4 figures, and Descr. 3818-3820*)

Key features of samples are reviewed in the `texture' and `summary' sections of each description.
The details are presented in condensed form: a glossary of terms is appended.

CONTENTS

ABSTRACT

A detailed petrographic examination was made of three samples from the north and northeast region of the Keweenawan-age, mafic-ultramafic Seagull complex, located north of Thunder Bay within the Midcontinent Rift in northwest Ontario.

One sample, from the Trench 2 locality, is a feldspathic lithology relevant to the later evolution of the complex. This rock occurs as angular dm-scale fragments of granular, white igneous-textured material, in the black sands formed from the disaggregation of peridotitic rocks in the complex. The thin section is dominated by turbid feldspar, and contains serpentine (after olivine and orthopyroxene) and other silicates. It is probably representative of pale, evolved, late differentiates seen in drill core, thought to reach the weathered paleosurface as small subvertical features penetrating the variably layered cumulate pile. If this is the case, then the abundant sphene (titanite) in the sample suggests a possible medium with which to date the latest magmatic-hydrothermal activity in the complex.

A pair of samples was examined from the Trench 7 site, a new shallow trench dug over the northern contact of the intrusion against hornfelsed Sibley metasedimentary host rock. The trench, dug through surficial deposits <1 m deep, exposes a 20-m S-N section from the magnetic monzogabbro marginal facies of the complex into a fine-grained siltstone. The contact is inferred to lie at a shallow angle, dipping gently south, consistent with the southward progression of lithologies from siltstone host rock, to a thin hornfelsed contact, to monzogabbro, to the rocks of the peridotitic clan which form the interior of the complex. The contact against the siltstone is sharp. The monzogabbro contains pyrite and subordinate chalcopyrite, but is not strongly mineralized. The siltstone is locally charged with very fine-grained sulphide, mainly pyrite. The magnetite content of the monzogabbro explains the sharp aeromagnetic signature of the margin of the complex. It is quite possible that the intrusion in this area takes the form of a series of sills, rather than a steeply-dipping carapace.

Note: This report is designed in modular fashion: the abstract and main text should provide the bulk of the essential information. Detailed sample descriptions can be scanned for increasingly specific levels of data. Within these, the mineral proportions, textural and summary data may be read first, and individual mineral data found as required.

Conversion Table N.B. Most factors are approximate

Unit	*Times*	*Equals*
Length		
1 inch	25.4	mm
1 foot	0.3048	m
1 mile (statute)	1.6093	km
Area		
1 square mile	2.59	km^2
1 acre	0.4047	ha
Mass		
1 ounce (advp)	28.3495	g
1 ounce (troy)	31.1035	g
1 ton (short)	907.18	kg
1 ton (long)	1016.05	kg
Concentration		
1 troy oz/short ton	34.2857	g/t (ppm)
Volume		
1 Imperial gallon	4.54596	l
1 U.S. gallon	3.78541	l

Turnstone Geological Services Ltd.
http://www.turnstone.ca

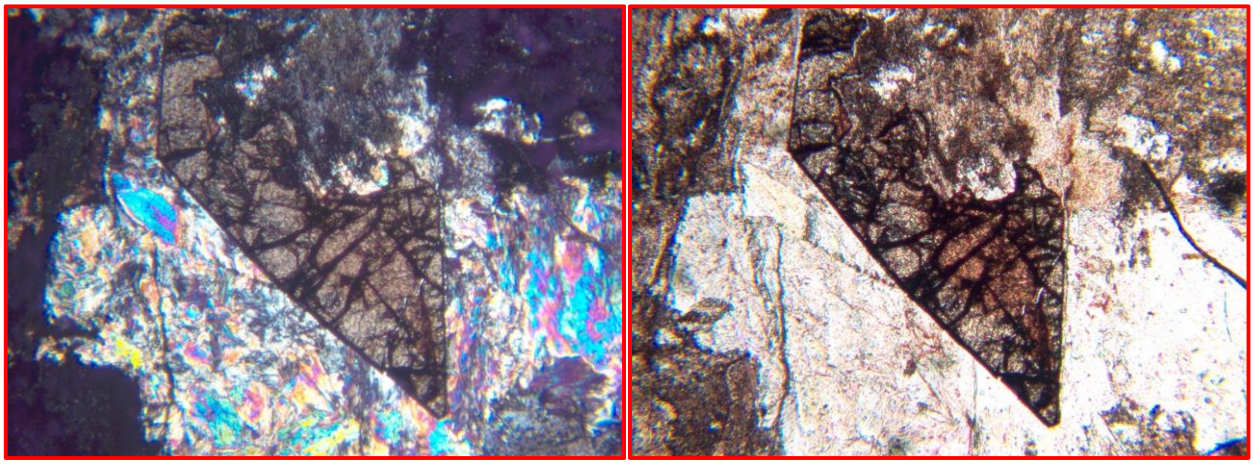
e-mail: minlib@turnstone.ca

In appropriate circumstances, the recommended citation format is as follows;

WILSON,GC (2014) Mineralogy of selected grab samples, northern and northeastern areas of the Seagull intrusive complex, northwestern Ontario. TGSL Report 2014-05P, vi+14pp., for Minfocus Exploration Corp.

Frontispiece **Seagull complex**

Figure 1a. A sample of white rock (see overleaf) from the black sand area of the northern part of the Seagull complex. Two images of a coarse, apparently concentrically-zoned subhedral lozenge-shaped crystal of sphene (titanite). The clear matrix, showing bright interference colours, is a near-colourless mica, phlogopite or muscovite. Two photomicrographs in crossed-polarized and (right) plane-polarized transmitted light, nominal magnification 50X, long-axis field of view 1.7 mm. Sample SEA14-07.



Frontispiece **Seagull complex**

Figure 1b. *Top*: a large, angular block of the white rock found in the black sands on and around the Leckie stock, a portion of the larger Seagull complex. This is one of a number of such blocks found at the Trench 2 locality on the north side of the west-bound spur off the main Seagull Lake road. *Below:* sawn face and offcut of sample SEA14-07.

INTRODUCTION

One polished thin section was prepared for each of 3 samples, and examined in transmitted and reflected light. The wider context will be discussed in a Minfocus report (Harper and Wilson, *in prep.*, 2014). The samples address two issues, namely,

- The nature of the white lithology found in the black sands in the northern Seagull complex, and
- The contact between Seagull marginal facies monzogabbro and the local host metasediments of the Mesoproterozoic Sibley Formation.

PRINCIPAL FINDINGS

1. The white lithology

It seems very likely that these pale rocks are relict fragments, more resistant to weathering than the predominant serpentinized peridotites and dunites, of a relatively feldspathic, olivine-poor lithology. It is speculated that these could be identical to the leucocratic rock type found during the Q1-2012 4-hole drill program on the Leckie stock (Harper and Wilson, 2012; Wilson, 2012). During the drill logging, a relatively coarse, feldspathic white rock would appear at intervals, with sharp contacts against the host ultramafites. The pale rock type(s) appeared to lie subparallel to the nominally vertical holes, suggesting occurrence as subvertical sheets or pipes, rather than xenoliths. It has been suggested that the intrusion of bodies such as the Disraeli and Leckie stocks may be fault-controlled, and the latter somewhat later than the main Seagull complex (Osmani and Rees, 1998). Thus transgressive rise of a late, fairly differentiated and Fe-rich melt may well have been structurally enabled, even if the crystal pile was already solidifying and becoming in bulk less permeable. Heggie and Hollings (2003) noted a distinctive olivine gabbronorite with chilled margins, which might post-date the other lithologies. This late, coarse olivine gabbronorite contains augite [$En_{29\text{-}67}$] and a rather Fe-rich olivine [$Fo_{51\text{-}78}$], consistent with evolved, rather late magma, and bravoite (nickeliferous pyrite) and chalcopyrite but no PGE. Taylor (2000) noted that the Seagull complex shows evidence of a protracted late-magmatic to deuteric-hydrothermal history, the presence of chloride brine, and some replacement of primary magmatic sulphide assemblages by a lower-temperature assemblage including native copper. He also observed that spinel compositions (chromian titanomagnetite) and the presence of graphite are more suggestive of the dunite pipes than of the PGE reefs of the Bushveld complex (see pp.4-6).

2. The northern monzogabbro-siltstone contact

The monzogabbro is distinct in hand specimen, despite variable colour index, due to a consistent appearance of pink feldspar. It is highly magnetic, with a high content of Fe-Ti oxides, including magnetite. It contains minor amounts of quartz, pyrite and chalcopyrite.

The crystal habits of the silicates and oxides are consistent with rapid crystal growth and cooling, within 0.1-1 metres of the clastic sedimentary host rock. The gabbro is chilled in immediate proximity of the siltstone, which appears to have undergone partial melting terminated by the cooling of the underlying, unknown thickness of the monzogabbro.

CONCLUSIONS

1. The angular white resistate blocks of feldspathic material, which appear to be leucogabbro or leuconorite to anorthosite, are though to be late differentiates of the generally olivine-rich, mafic-ultramafic cumulates which dominate the Seagull intrusion down towards its basal contact. Whatever their geometry, pipe- or sheet-like, the appearance of this suite at surface implies that they penetrated up through the layered sequence to a level above the current erosional surface. The occurrence of relatively coarse and abundant titanite (sphene) suggests that a sample of this rock, preferably collected from a future shallow angle hole **, would facilitate an accurate Pb-Pb date for the late stages of magmatism at Seagull. The dating of sphene by U-Pb and Pb-Pb analyses, using *in situ* methods, has been tested over the years on Grenville sphenes from Otter Lake, Quebec, in rocks of roughly the age of the Midcontinent Rift (Frei *et al.*, 1997; Kennedy *et al.*, 2010).

2. The contact between monzogabbro and siltstone appears to be subhorizontal, dipping very gently to the south, the highly-magnetic igneous mass interfingered on a cm scale with a thin hornfelsed contact zone, and normal siltstone (footwall) visible to the north (the trench stops at the bedrock, so the exact details are necessarily conjectural). The monzogabbro facies appears to be a discrete pulse of magma, possibly earlier than the dunite core known as the Leckie stock. It is locally charged with fine-grained chalcopyrite, but does not appear to be greatly PGE-enriched.

** Holes WM12-34 to 37 each intersected intervals of pale, often coarse rocks mostly logged as norite to gabbronorite (the terminology was evolving rapidly in hole 34). In holes 34 and 35 (the western pair) the pale intercepts were found above as well as beneath the extensive subhorizontal sill of Nipigon diabase. In holes 36 and 37 (1.0 km to the east) the rock was located only beneath the diabase sill. Total thicknesses of similar rocks (leucogabbronorite, etc) in the 4 holes were logged as 36.78, 25.65, 3.28 and 3.30 m, an order of magnitude more extensive in the western pair of holes (the holes have 5, 4, 5 and 1 occurrences, respectively). Some mineralization was noted in the deeper parts of holes 34 and 35, well below the diabase, with low sulphide tenor (<0.5% S) but with combined Pt+Pd as high aso 1468 ppb over 40 cm in hole 35, Pt slightly <Pd, as is typical in this intrusion. Hole 34 appears exceptional in that 23.61 m of the pale lithology was at the base of the intrusion, with a thin (20 cm) chilled margin against the basement rocks.

Acknowledgements

The samples were collected with Dr Gerald Harper in the summer of 2014. Anne Hammond prepared the polished thin sections. Hard copy prepared at Perfect Print in Campbellford.

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NOTE ON PIPE-LIKE STRUCTURES

Although the form of the drill-hole occurrences of late leucocratic melt is not fully established, a brief note is in order to show that one possibility, pipe-like bodies on scales of metres to hundreds of metres, are not so uncommon in mafic intrusions (see references for details). Since the Current Lake (Thunder Bay North) discovery, we have been more aware of “chonolith” (feeder, conduit) structures as possible ore traps, but pipe-like features should also be on the explorationist’s “radar”.

Pipe-like structures in mafic-ultramafic intrusions

The 4-hole drill program at the Leckie stock area of the Seagull intrusion, in Q1-2012, encountered layered sequences, but also a number of occurrences of leucocratic melts within a sequence of dunite, peridotite and melagabbro. Within the narrow focus of a drill core, each lithology has a number of possible morphological interpretations, such as: concordant layer or sill; discordant sheet (e.g., a dyke or vein); lens or pod, as in some pegmatoids; and pipe-like structures.

In many layered intrusions (e.g., Stillwater, Bushveld, Rhum) large areas display textbook horizontal or shallow-dipping concordant layers, including the cumulate sequences first described at Skaergaard, Rhum and elsewhere. However, there are a number of cases of transgressive, subvertical, pipe-like features that have been documented in the Bushveld, and in intrusions orders of magnitude smaller. These are worth a brief summary here, since even if such structures are barren, they provide insights into the evolution and dynamics of the host magma chamber.

The layered sequence in the eastern Bushveld is cut by three suites of pipes, namely: 1) Fe-rich ultramafic pegmatites with fayalitic olivine; 2) magnesian dunite pipes, largely forsteritic olivine and minor Cr spinel; and 3) the well-known PGE-bearing dunite pipes, which may contain both the aforementioned lithologies (Scoon and Mitchell, 2004). The three mines on the mineralized pipes (Driekop, Onverwacht and Mooihoek) ceased operation in the early 1960s. Scoon and Mitchell interpret the magnesian dunites as melts *rising* from the lower, olivine-dominated cumulates rising on syntectonic structures, while the Fe-rich pegmatites are seen as contaminated melts *sinking* from the upper realms of the intrusion. The hortonolitic dunite pipes of Mooihoek and Onverwacht contain Pt-Fe alloys sperrylite and a wide range of other PGM phases. The mineralogy has evolved from high-temperature sulphide in equilibrium with an early magmatic high-Fe silicate melt (Rudashevsky *et al.*, 1992). The pipes contain both refractory minerals such as Cr spinels and also volatile-rich phases, including graphite (Stumpfl and Tischler, 1982). Some PGM occur in chromitite xenoliths in the Onverwacht and Tweefontein ultramafic pipes (Zaccarini *et al.*, 2002).

Ultramafic pegmatoids are also present in other pipes, in addition to the three mined pipes, such as Tweefontein (Tegner *et al.*, 1994). Breccia pipes may carry blocks of anorthosite, norite and pyroxenite, apparently carried from lower levels in the intrusion, and be surrounded by radiating ultramafic pegmatitic dykes. The plagioclase feldspar has a more calcic composition (An_{85} versus An_{75}) than host-rock feldspar, and may have formed in response to volatile concentration, fluidization and overpressure (Boorman *et al.*, 2003). Finally, zoned, ultramafic pipes of evident epigenetic, post-Bushveld age contain pyrrhotite-dominant mineralization with remobilized Ni and precious metals derived from the complex, as at Vlakfontein (Vermaak, 1976).

Such pipes are not confined to the Bushveld. Pipes of hornblende gabbro and ultramafic pegmatoid cut cumulate layering in the lower part of the **Fiskenaesset** layered intrusion, Greenland (Myers, 1978). The **Caribou Hill** mafic layered intrusion in Newfoundland contains cyclic layers of gabbronorite and olivine gabbronorite, plus a lowermost pyroxenite unit. The east-dipping sequence is cross-cut by at least three ultramafic pipes, each with a coarse feldspathic peridotite core rimmed by a very coarse-grained pyroxenitic sheath. The pipe width ranges from 10 to >250 m, but these bodies are not appreciably mineralized (Eckstrand and Cogulu, 1993). As a final example, the former **Pacific Nickel** (Giant Mascot, Pride of Emory) mine, 10 km northwest of Hope in southern British Columbia, recovered Ni, Cu and probably precious metals derived from pipe-like orebodies in a small ultramafic body 2.4 km in diameter. The pipes are largely pyroxenite with peridotite `cores', hornblendic replacement phases, and a reaction margin of pegmatitic hornblendite. Pyrrhotite, pentlandite and chalcopyrite occur in fresh olivine, bronzite, augite and hornblende. The actual sulphide bodies are pipelike structures 30 m or more in width (of replacement origin?) or more irregular structures (formed by injection?). Similar features have also been noted in Alaskan zoned complexes (Aho, 1956). Some 28 orebodies were outlined within the host intrusion. Between 1958 and 1974 reserves amounting to 4.7 million tons of ore were mined from 26 orebodies. The average grade of mill heads was about 0.77% Ni and 0.33% Cu (Christopher and Robinson, 1974). A detailed study of the 4600 orebody describes a “reverse-zoned”, pipe-like body with an olivine-barren core and olivine-rich rim, the opposite of other zoned deposits in the mine. This ore body was formed by at least two separate injections of ultramafic crystal mushes, the first olivine-rich (peridotite), the second olivine-poor (hornblende pyroxenite). An hybrid zone of olivine pyroxenite formed at the mixing zone and sulphides were associated with the later injection (Muir, 1971)

What can be said about the sample from Trench 2, and the somewhat similar occurrences in the 2012 drill core? The pipe-like bodies described above beg questions of genesis: what is the form of the pale lithology intercepted in core (?); was the melt lithology emplaced from below or above (?); what is its relationship to the margins of the intrusion (?); and what if any is its relationship to mineralization (?).

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PETROGRAPHIC DESCRIPTIONS

The terminology, abbreviations and methods used in the detailed descriptions can be found in a 6-page glossary which is available at http://www.turnstone.ca/petglo.pdf.

A total of 3 polished thin sections were prepared from 3 grab samples.

Each polished thin section was checked against the corresponding rock offcut to successfully verify its identity.

TURNSTONE **PETROGRAPHIC DESCRIPTION** **Status; OPEN**

Sample ; SEA14-07 **Description ; 3818**
TGSL Project; 2014-05P

Client/job ; Minfocus Exploration Corp.
Locality ; Northwest Ontario, Canada - the Seagull complex, Thunder Bay district. Example of loose dm-scale chunks of white rock in the black sands surrounding Trench 2 locality.

Collection details; HS (PTS, 10.1 cm^2).

Format ; PTS - 30 μm - by A.Hammond, Lakehead University
Hand specimen data; A brownish-flecked white, evidently holocrystalline and massive intrusive rock, gs <2 mm. The brn phase is hard to identify: first thought to be opx (leuconorite to anorthosite), but perhaps Ti oxide minerals (leucogabbro to anorthosite). HS sawn in 2, 2 chips, 1 offcut.

Major Minerals;
* Plagioclase feldspar + alteration products- Tabular plag crystals up to 1.8x0.6 mm or more, may show albite and/or simple twin laws. Very turbid with patchy ser and kaol alteration. 77%.
* Serpentine- Fibrous veins and amygdale fillings. Low 1st-o bir, LS, str ext. Widest veinlet is 1.4 mm wide in plane of PTS. 12%.

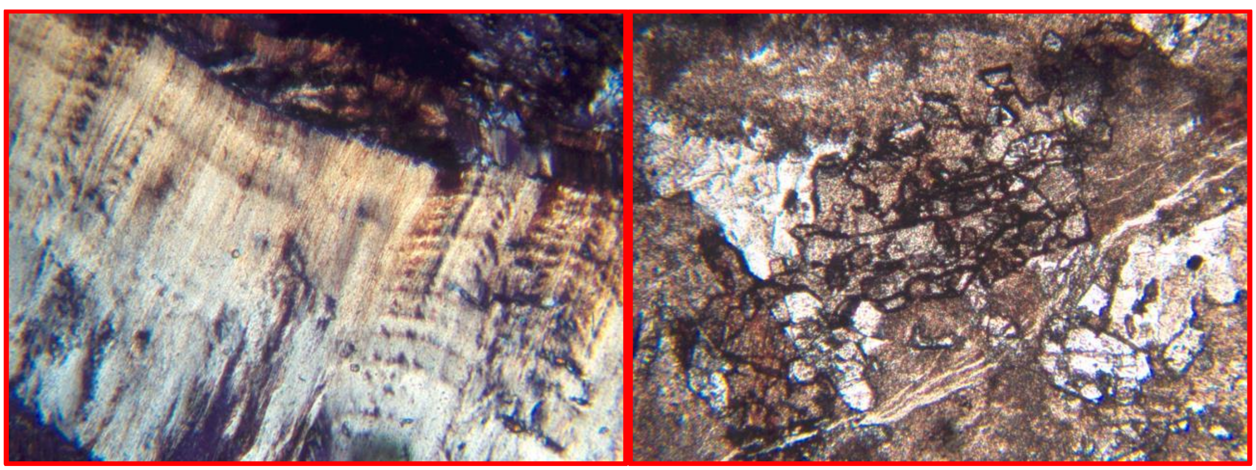
Minor and Accessory Minerals (11%);
* Sphene (titanite)- Strongly pleo, high relief, very high bir, may appear twinned, and/or display a strong parting in one direction. Granular patches to 800x500 μm, and occasional subh-euh lozenge-shaped grains to 1200x500 μm. May show dark cores, pale rims. Moderately refl in RL. One 150x30 μm (?) mica grain shows anomalous internal reflections because it is enclosed and underlain by sphene. 3%.
* Phlogopite- Near-colourless mica with high 1st- and low 2nd-o int colours, LS, str ext, a sheet silicate infilling amygdales. 3%.
* Clinopyroxene- Colourless, 2nd-o int colours, fairly high relief, highly incl ext, may be simple-twinned. Up to 500x500 μm, generally small stubby prisms. Diopside (?). 3%.
* Chlorite- LS, colourless, str ext, a few flakes show the deep bl anomalous 1st-o bir of penninite. Infills amygdales with mica or serp. 2%.
* Rutile- Very high relief, dark brn, very high bir, max gs 70x20 μm, darker than host sphene. Tr.

Texture; A rock dominated by heavily altered, turbid feldspar, evidently largely or entirely plagioclase, with sericite and kaolinite clouding. Some fresh clinopyroxene is present, smaller than the feldspar laths. The interstices between the primary magmatic phases are filled by sheet silicates such as chlorite, and abundant secondary sphene (titanite). The Ti mineralogy, pyroxene and sheet silicates all appear to be of late deuteric-hydrothermal origins, post-dating the turbid magmatic feldspar and possible (unrecognized) primary pyroxene of the rock.

Summary; A feldspathic intrusive rock, evidently a late differentiate of the Seagull complex, estimated colour index 23 percent. Primary oxides are replaced by granular sphene, and primary pyroxene is not evident, thus the rock may best be termed a **Ti-rich leucogabbro** or anorthosite, since the primary modal proportions are not known with any certainty. *The sphene has potential application for geochronology, in dating this late phase of the Seagull intrusion (see Fig. 1a).*

Age; Keweenawan, circa 1107 Ma (?)
Petrography; GCW, Turnstone Geological Services Ltd
Oct 5, 2014

Figure 2. Two photomicrographs in crossed- and (right) plane-polarized transmitted light, nominal magnification 50X, long-axis field of view 1.7 mm. *Left:* a serpentine vein. *Right:* irregular, pleochroic brown sphene (titanite) with two habits of serpentine, clinopyroxene and turbid, altered feldspar. Sample SEA14-07.



TURNSTONE PETROGRAPHIC DESCRIPTION Status; OPEN

Sample ; TR7-10.02 m

Description ; 3819
TGSL Project; 2014-05P

Client/job ; Minfocus Exploration Corp.
Locality ; Northwest Ontario, Canada - the Seagull complex, Thunder Bay district. From the hand-dug Trench 7 locality on the northeast side of the complex.

Collection details; HS (PTS, 9.6 cm^2).

Format ; PTS - 28 μm - by A.Hammond, Lakehead University

Hand specimen data; A mgr monzogabbro with a fgr dark grn matrix crowded with tabular pink feldspar crystals. Scattered flecks of anh shiny pyrite. HS (2 slices) and 1 offcut. Very strongly magnetic.

Major Minerals;
* Feldspars and alteration products- Heavy kaol and ser alteration masks the identity of much of the mm-scale feld that comprises three-quarters of the rock. At least 16% of the mode is made up of tabular, albite-twinned plag, but the remainder of the feld, 60% of the rock, is more cryptic, and much of it is thought to be equant, untwinned K-feldspar. 76%.
* Tremolite- Colourless to very pale brownish secondary amph. Moderately incl ext on prism sections, symm ext on amph basal cleavage. Ragged, moderate relief, high 1st-o int colours. 10%.
* Fe Ti oxides- Very complex textures in abundant mm-scale oxides. ~4% magnetite (equant, isot) and 4% tabular, aniso ilmenite / hematite / alteration products. 8%.

Minor and Accessory Minerals (6%);
* Clinopyroxene- A (?) diopsidic cpx, stubby habit, very pale greenish in PPL TL, bright 2nd-o int colours. Largely uralitized (see trem). 3%.
* Quartz- Low relief, 1st-o grey bir, anh, quite cgr, essentially unstrained, max gs 2.0x1.2 mm, some coarser ser/musc flakes on margins. Secondary silica infilling voids. 3%.
* Pyrite- Some vfgr anh granules in altered feld. Mostly subh-anh crystals assoc with Fe oxides. Max gs 500x300 μm, arrays of ragged grains to 1400x300 μm. Pale yl-white, high refl, isot. Abundant Tr.
* Chlorite- Pale grn fgr chl flakes, deep bl anomalous low 1st-o int colour, variety penninite. Tr.
* Muscovite- Pale bent mica flakes on margins of qz, coarser than the ser alteration in plag. Late sheet silicate, like the chl. Tr.
* Chalcopyrite- Generally attached to py, vfgr, or to max gs 150x80 μm. Yl anh sulphide. Tr.

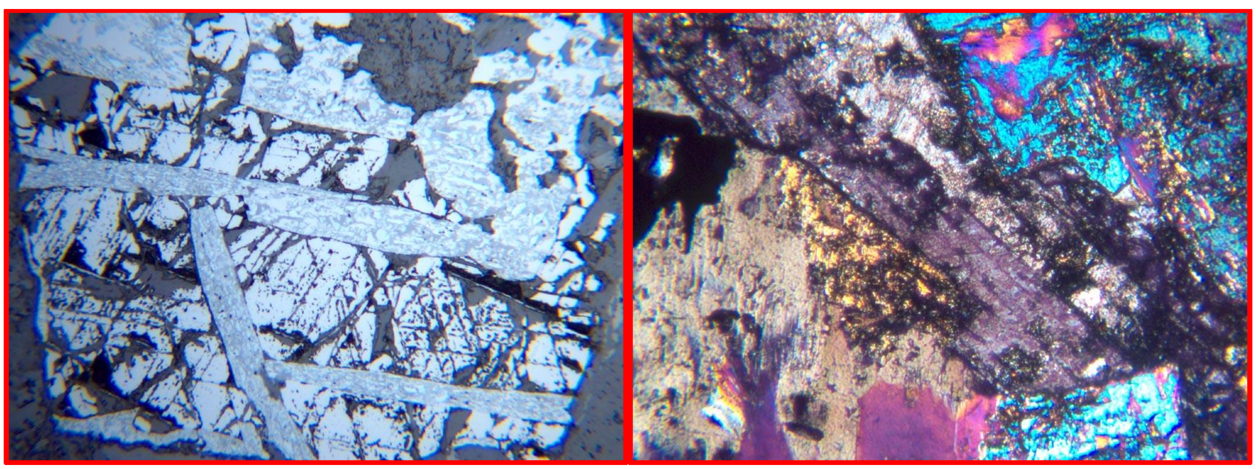
* Epidote- Traces of moderate-relief, granular, high-bir alteration product in feld. Tr.

Texture; Holocrystalline igneous rock with evidence of fairly rapid cooling despite the abundant mm-size feldspars. Possibly the crystals were pressed up to the side of the intrusion, whereon the oxides nucleated and grew rapidly with highly irregular to skeletal habits, and a late silica-rich differentiate (or contaminant from adjacent clastic sediment) infilled space between the feldspars and inosilicates (clinopyroxene and predominant amphibole).

Summary; A medium-grained, oxide-rich monzogabbro with a late deuteric-hydrothermal alteration overprint of quartz, sulphides and sheet silicates.

Age; Keweenawan, circa 1107 Ma (?)
Petrography; GCW, Turnstone Geological Services Ltd
Sep 11, 2014

Figure 3. *Left:* complex Fe-Ti oxides in altered feldspar, showing hematite exsolution in magnetite. *Right:* colourful clinopyroxene, twinned and part-altered plagioclase feldspar, pale amphibole (lower left) and traces of opaque oxides. Two photomicrographs in (left) plane-polarized reflected light, nominal magnification 100X, long-axis field of view 0.9 mm and (right) crossed-polarized transmitted light, 50X, 1.7 mm. Sample TR7-10.02 m.



TURNSTONE **PETROGRAPHIC DESCRIPTION** **Status; OPEN**

Sample ; TR7-15.25 m **Description ; 3820**
TGSL Project; 2014-05P

Client/job ; Minfocus Exploration Corp.
Locality ; Northwest Ontario, Canada - the Seagull complex, Thunder Bay district. From the hand-dug Trench 7 locality on the northeast side of the complex.

Collection details; HS (PTS, 8.8 cm^2).

Format ; PTS - 28 μm - by A.Hammond, Lakehead University
Hand specimen data; Impressive sharp contact between a lobe of monzogabbro chill and its host rock, a pale and vfgr siltstone (roughly 50:50 in section, the host sediment predominates in HS). HS, 1 slice, 1 offcut. Not appreciably magnetic.

Major Minerals;
* Quartz- Rounded, embayed, evidently recrystallized ("sintered") and so only mildly strained grains of qz, with sheet silicates on grain boundaries. 47%.
* Clinopyroxene- Abundant as granular masses of rather small stubby crystals in the monzogabbro, highly incl ext, mostly high 1st-o int colours, max gs 1.2x0.4 mm but commonly 0.2 mm or smaller. Also rare corroded grains in the siltstone. 20%.
* Graphic granite- Substantial intergrowths of K-feld wisps (RI<qz) in a fairly coarse and unstrained qz host. 14%.
* Plagioclase feldspar- The feld is often very turbid: some is clearly albite-twinned plag but this does not exclude some grains being K-feld. 12%.

Minor and Accessory Minerals (7%);
* Fe Ti oxides- Abundant in the monzogabbro, but scarcely magnetic as the often-elongate laths and grains are evidently ilm and hem, not mag. Also goethite, or-red and translucent, often rimming py, and as granules to 70x50 μm. 4%.
* Sheet silicates- Pale fgr mica flakes on qz grain boundaries in the siltstone. 3%.
* Pyrite- Abundant trace in monzogabbro, as euh grains to 450x300 μm, 200x150 μm. High refl, yl-white, isot. Also a lesser trace in siltstone, anh grains of max gs 120x80 μm. Abundant Tr.

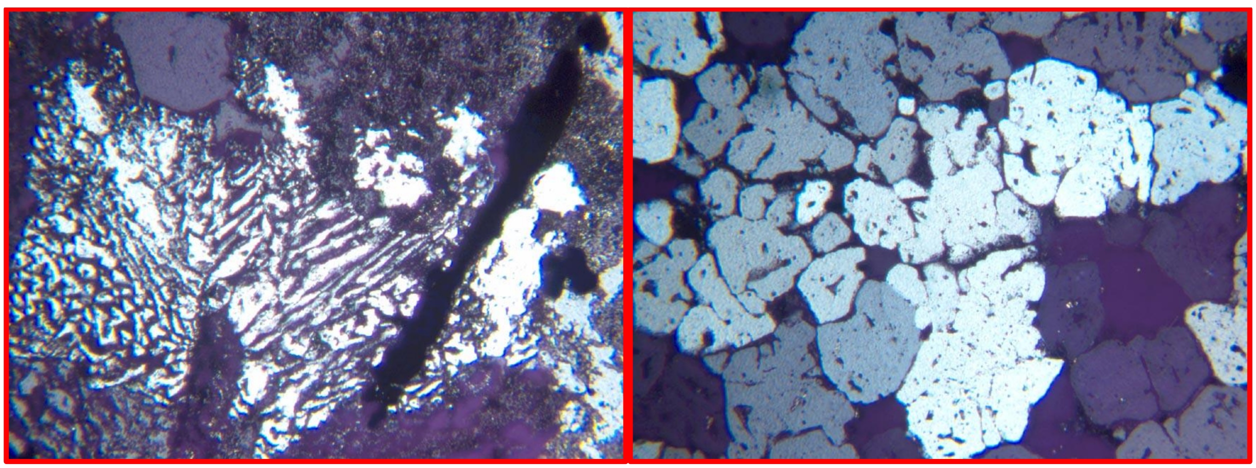
Texture; Even more impressive in thin section! Some remarkable textures at contact of monzogabbro "lobe" with host siltstone. Hornfelsing is quite extreme, with dramatic embayed textures in the "sintered" quartz of the host rock. The section is 50%(+) siltstone and 50%(-) monzogabbro. The modal proportions of the siltstone are about 94% quartz, 6% sheet silicates and traces of corroded pyroxene and fine-grained pyrite.

The monzogabbro mode is roughly 40% fine-grained granular pyroxene, 28% graphic granite (intergrowth of quartz and K-feldspar), 24% feldspar (some clearly plagioclase), 8% Fe-Ti oxides, and an abundant trace of pyrite, plus some iron staining (goethite).

Summary; The sharp contact of chilled monzogabbro melt against hornfelsed siltstone.

Age; Keweenawan, circa 1107 Ma (?)
Petrography; GCW, Turnstone Geological Services Ltd
Sep 12, 2014

Figure 4. Two photomicrographs in crossed-polarized transmitted light, nominal magnification 50X, long-axis field of view 1.7 mm. *Left:* graphic granite and elongate crystal of opaque ilmenite. *Right:* a granular hornfels composed largely of quartz grains which appear to have undergone incipient melting following by recrystallization upon cooling of the intruding magma. Sample TR7-15.25 m.



=== NOTES ===

CERTIFICATE AND CONSENT
To Accompany the Technical Report on
Samples from the Seagull option, Nipigon Reefs project

I, Graham C. Wilson, residing at 47 Pellissier Street South in Campbellford, Ontario, do hereby certify that:

1) I am a self-employed consulting geologist with an office at 47 Pellissier Street South, Campbellford, Ontario, Canada;

2) I am a graduate of the University of Oxford with a B.A.(Hons.) degree (Dept. of Geology and Mineralogy, 1976). I obtained a PhD from the University of Cambridge (Dept. of Mineralogy and Petrology) in 1981. I have practised my profession continuously since 1981;

3) I am a fellow of the Geological Association of Canada (1986), the Geological Society of India (1996), and the Association of Applied Geochemists (1998), and a Professional Geoscientist registered with the Association of Professional Geoscientists of the Province of Ontario (No. 0623);

4) Note that I am not independent of **Minfocus Exploration Corp.**, since I am a director of the corporation and control financial interests, directly and indirectly, in the company;

5) I am not aware of any material fact or material change with respect to the subject matter of the technical report, which is not reflected in the technical report, the omission to disclose which makes the technical report misleading;

6) I have authored all the sections of this report;

7) I have personally conducted mineralogical research on the samples which I helped collect in 2014;

8) I was retained by **Minfocus Exploration Corp.** to undertake this petrographic study. This report, number **2014-05P**, is based on my work, on material from the files of my research company, Turnstone Geological Services Limited, and on discussions with Minfocus personnel;

Campbellford, Ontario, Canada
December 10th , 2014

Graham C. Wilson, PhD, P.Geo.

=== NOTES ===

About the author: *Geologist and mineralogist Graham Wilson holds a B.A. (Hons.) from the Dept. of Geology and Mineralogy, University of Oxford, and a Ph.D. from the Dept. of Mineralogy and Petrology, University of Cambridge. He is a practising professional geoscientist in Ontario (P.Geo, APGO member 0623, 2002) and a fellow of the Geological Association of Canada (1986), the Geological Society of India (1996), and the Association of Applied (Exploration) Geochemists (1998). Member of the Association of Geoscientists for International Development, Meteoritical Society, Mineralogical Association of Canada, Ontario Prospectors Association, Prospectors and Developers Association of Canada, and Society of Economic Geologists. He was for many years a Research Associate of the IsoTrace Laboratory of the University of Toronto. Secretary of the Meteoritics and Impacts Advisory Committee to the Canadian Space Agency (2002-2006). He has developed his own Earth-science databases since 1983, and continues this work via his wholly-owned, federally-incorporated company, Turnstone Geological Services Ltd. (incorp. 1985). Author or co-author of some 750 reports, papers and abstracts, including roughly 500 reports in the Turnstone series and 40 articles in refereed journals.*

See also:
http://www.turnstone.ca/

APPENDIX E

Assay certificates

5623 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
TEL (905)501-9998
FAX (905)501-0589
http://www.agatlabs.com

CLIENT NAME:	MINFOCUS INTERNATIONAL INC 300 NEW TORONTO STREET, UNIT 2 TORONTO, ON M8V3E8 (416) 232-0025
ATTENTION TO:	GERALD HARPER
PROJECT NO:	
AGAT WORK ORDER:	14T863815
SOLID ANALYSIS REVIEWED BY:	Yufei Chen, Lab Co-ordinator
DATE REPORTED:	Jul 30, 2014
PAGES (INCLUDING COVER):	7

Should you require any information regarding this analysis please contact your client services representative at (905) 501-9998

*NOTES

All samples are stored at no charge for 90 days. Please contact the lab if you require additional sample storage time.

AGAT Laboratories

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CLIENT NAME: MINFOCUS INTERNATIONAL INC

ATTENTION TO: GERALD HARPER

(201-070) 4 Acid Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 15, 2014 | DATE RECEIVED: Jul 15, 2014 | DATE REPORTED: Jul 30, 2014 | SAMPLE TYPE: Rock

Analyte:	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cu	Fe	Ga
Unit:	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm
Sample ID (AGAT ID) RDL:	0.5	0.01	1	1	0.5	1	0.01	0.5	1	0.5	0.5	0.5	0.01	5
A22428 (5577321)	<0.5	2.04	7	347	0.5	<1	0.68	<0.5	46	24.1	364	24.8	1.60	<5
A22429 (5577322)	<0.5	3.75	18	746	1.1	<1	5.40	<0.5	46	47.9	308	156	4.51	6
A22430 (5577323)	<0.5	5.22	18	1250	1.4	<1	8.01	<0.5	136	51.0	305	35.3	5.20	10
A22431 (5577324)	<0.5	6.31	<1	840	1.5	<1	5.54	0.6	86	42.0	190	51.6	6.30	14
A22432 (5577325)	<0.5	5.73	22	1100	0.9	<1	7.06	0.7	108	53.9	256	99.9	6.90	13

Analyte:	In	K	La	Li	Mg	Mn	Mo	Na	Ni	P	Pb	Rb	S	Sb
Unit:	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm
Sample ID (AGAT ID) RDL:	1	0.01	2	1	0.01	1	0.5	0.01	0.5	10	1	10	0.005	1
A22428 (5577321)	<1	1.69	23	28	1.20	259	0.7	0.07	27.4	96	<1	58	0.029	<1
A22429 (5577322)	<1	2.18	12	40	4.22	1310	<0.5	0.47	116	572	1	88	0.162	<1
A22430 (5577323)	<1	3.11	37	32	5.63	1640	<0.5	1.17	102	995	1	138	0.233	<1
A22431 (5577324)	2	2.44	21	32	4.31	1630	<0.5	1.95	97.2	1410	<1	123	0.481	<1
A22432 (5577325)	<1	2.70	36	37	5.31	2000	<0.5	1.49	95.6	1140	<1	126	0.193	<1

Analyte:	Sc	Se	Sn	Sr	Ta	Te	Th	Ti	Tl	U	V	W	Y	Zn
Unit:	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
Sample ID (AGAT ID) RDL:	1	10	5	1	10	10	5	0.01	5	5	0.5	1	1	0.5
A22428 (5577321)	2	11	<5	50	<10	<10	<5	0.11	<5	<5	17.7	<1	8	7.7
A22429 (5577322)	21	<10	<5	188	<10	<10	6	0.63	5	<5	140	2	15	30.4
A22430 (5577323)	34	27	<5	363	<10	<10	6	1.12	<5	<5	212	6	28	29.3
A22431 (5577324)	26	22	<5	522	<10	10	6	1.20	7	<5	222	1	22	21.6
A22432 (5577325)	33	19	<5	394	<10	13	7	1.34	<5	<5	271	2	21	32.4

Analyte:	Zr
Unit:	ppm
Sample ID (AGAT ID) RDL:	5
A22428 (5577321)	95
A22429 (5577322)	149
A22430 (5577323)	162
A22431 (5577324)	184
A22432 (5577325)	190

Certified By: Y. Chen.

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Certificate of Analysis

AGAT WORK ORDER: 14T863815
PROJECT NO:

CLIENT NAME: MINFOCUS INTERNATIONAL INC
ATTENTION TO: GERALD HARPER

(201-070) 4 Acid Digest - Metals Package, ICP-OES finish

DATE SAMPLED: Jul 15, 2014 | DATE RECEIVED: Jul 15, 2014 | DATE REPORTED: Jul 30, 2014 | SAMPLE TYPE: Rock

Comments: RDL - Reported Detection Limit
5577321-5577325 As, Sb values may be low due to digestion losses.

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 14T863815

PROJECT NO:

CLIENT NAME: MINFOCUS INTERNATIONAL INC

ATTENTION TO: GERALD HARPER

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

DATE SAMPLED: Jul 15, 2014 | DATE RECEIVED: Jul 15, 2014 | DATE REPORTED: Jul 30, 2014 | SAMPLE TYPE: Rock

	Analyte:	Sample Login Weight	Au	Pd	Pt
	Unit:	kg	ppm	ppm	ppm
Sample ID (AGAT ID)	RDL:	0.01	0.001	0.001	0.005
A22428 (5577321)		2.62	<0.001	<0.001	<0.005
A22429 (5577322)		2.79	0.003	0.008	0.014
A22430 (5577323)		2.63	<0.001	0.021	0.028
A22431 (5577324)		2.79	<0.001	0.007	<0.005
A22432 (5577325)		2.85	0.002	0.010	0.012

Comments: RDL - Reported Detection Limit

Certified By:

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Quality Assurance - Replicate

AGAT WORK ORDER: 14T863815

PROJECT NO:

CLIENT NAME: MINFOCUS INTERNATIONAL INC

ATTENTION TO: GERALD HARPER

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

	REPLICATE #1																
Parameter	Sample ID	Original	Replicate	RPD													
Au	5577321	< 0.001	0.002														
Pd	5577321	< 0.001	0.001														
Pt	5577321	< 0.005	< 0.005	0.0%													

(201-070) 4 Acid Digest - Metals Package, ICP-OES finish

	CRM #1 (ref.GTS-2a)				CRM #2 (ref.1P5K)											
Parameter	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits								
Al	6.96	7.22	104%	90% - 110%												
As	124	134	108%	90% - 110%												
Ba	186	190	102%	90% - 110%												
Ca	4.01	4.1	102%	90% - 110%												
Ce	24	22	91%	90% - 110%												
Co	22.1	21.2	96%	90% - 110%												
Cu	88.6	88.8	100%	90% - 110%												
Fe	7.56	7.75	102%	90% - 110%												
K	2.021	2.093	104%	90% - 110%												
Mg	2.412	2.409	100%	90% - 110%												
Mn	1510	1643	109%	90% - 110%												
Na	0.617	0.647	105%	90% - 110%												
Ni	77.1	71.9	93%	90% - 110%												
P	892	907	102%	90% - 110%												
S	0.348	0.357	103%	90% - 110%												
Sr	92.8	84.4	91%	90% - 110%												
Zn	208	213	102%	90% - 110%												

(202-055) Fire Assay - Au, Pt, Pd Trace Levels, ICP-OES finish

	CRM #1 (PG124)				CRM #2 (ref.1P5K)											
Parameter	Expect	Actual	Recovery	Limits	Expect	Actual	Recovery	Limits								
Au					1.44	1.52	106%	90% - 110%								
Pd	0.037	0.039	106%	90% - 110%												
Pt	0.09	0.08	90%	90% - 110%												

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Method Summary

CLIENT NAME: MINFOCUS INTERNATIONAL INC | AGAT WORK ORDER: 14T863815

PROJECT NO: | ATTENTION TO: GERALD HARPER

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Solid Analysis			
Ag	MIN-200-12002/12020		ICP/OES
Al	MIN-200-12002/12020		ICP/OES
As	MIN-200-12002/12020		ICP/OES
Ba	MIN-200-12002/12020		ICP/OES
Be	MIN-200-12002/12020		ICP/OES
Bi	MIN-200-12002/12020		ICP/OES
Ca	MIN-200-12002/12020		ICP/OES
Cd	MIN-200-12002/12020		ICP/OES
Ce	MIN-200-12002/12020		ICP/OES
Co	MIN-200-12002/12020		ICP/OES
Cr	MIN-200-12002/12020		ICP/OES
Cu	MIN-200-12002/12020		ICP/OES
Fe	MIN-200-12002/12020		ICP/OES
Ga	MIN-200-12002/12020		ICP/OES
In	MIN-200-12002/12020		ICP/OES
K	MIN-200-12002/12020		ICP/OES
La	MIN-200-12002/12020		ICP/OES
Li	MIN-200-12002/12020		ICP/OES
Mg	MIN-200-12002/12020		ICP/OES
Mn	MIN-200-12002/12020		ICP/OES
Mo	MIN-200-12002/12020		ICP/OES
Na	MIN-200-12002/12020		ICP/OES
Ni	MIN-200-12002/12020		ICP/OES
P	MIN-200-12002/12020		ICP/OES
Pb	MIN-200-12002/12020		ICP/OES
Rb	MIN-200-12002/12020		ICP/OES
S	MIN-200-12002/12020		ICP/OES
Sb	MIN-200-12002/12020		ICP/OES
Sc	MIN-200-12002/12020		ICP/OES
Se	MIN-200-12002/12020		ICP/OES
Sn	MIN-200-12002/12020		ICP/OES
Sr	MIN-200-12002/12020		ICP/OES
Ta	MIN-200-12002/12020		ICP/OES
Te	MIN-200-12002/12020		ICP/OES
Th	MIN-200-12002/12020		ICP/OES
Ti	MIN-200-12002/12020		ICP/OES
Tl	MIN-200-12002/12020		ICP/OES
U	MIN-200-12002/12020		ICP/OES
V	MIN-200-12002/12020		ICP/OES
W	MIN-200-12002/12020		ICP/OES
Y	MIN-200-12002/12020		ICP/OES
Zn	MIN-200-12002/12020		ICP/OES
Zr	MIN-200-12002/12020		ICP/OES
Sample Login Weight	MIN-12009		BALANCE
Au	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pd	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES
Pt	MIN-200-12006	BUGBEE, E: A Textbook of Fire Assaying	ICP/OES