

COMPETENT PERSON'S REPORT (CPR) SUMMARY

Executive Summary

Introduction

This Competent Person's Report (CPR) has been prepared by Wardell Armstrong International ("WAI") for Eurasia Mining PLC ("Eurasia") on their Monchegorsk Nickel, Copper and PGE (Platinum Group Elements) Asset comprising the Nittis-Kumuzhya-Travyanaya (NKT) Deposit located in the Monchegorsk Region, Kola Peninsula, Russia.

The CPR has been prepared to support the reporting of a Mineral Resource Estimate (MRE) in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code, 2012 Edition.

Dr Phil Newall, BSc, PhD, CEng, FIMMM, Director at Wardell Armstrong International and Che Osmond, BSc (Hons), MSc, CGeol, FGS, EurGeol, Technical Director at Wardell Armstrong International have reviewed the CPR and consent to the inclusion of the exploration information in the form and context in which it appears here. They are Competent Persons for the purposes of the reporting of these results.

The CPR is predominantly based on Norilsk Nickel report of 2001, other Norilsk Nickel documents and a report prepared by JSC Rosgeo ("Rosgeo") and submitted to the Russian Federation Ministry of Natural Resources and Environment in 2017. The contents have been taken in good faith, with comments provided by WAI where appropriate.

General

The NKT Deposit is a low-sulphide Nickel, Copper and PGE deposit containing mineralisation within a layered intrusive complex. Exploration has identified a sizeable resource which is being considered for an open pit and underground mining operation. Note that the Financial Analysis considers an underground operation only.

The ore is expected to be processed using conventional flotation methods.

Geology & Mineralisation

The Monchegorsk ore cluster is confined to a junction of three large geological structures of the Kola region - the Kola block, the Belomorsky mobile belt, and the Imandra-Varzug rift structure. The geological structure is the result of repeated intrusions of large volumes of igneous rocks of various compositions combined with multistage structural-tectonic and metamorphic transformations.



Two Early Proterozoic complexes of layered mafic-ultramafic intrusions are present: the Monchegorsk (or Monchepluton), with an area of about 65km² and the Monchetundra Intrusion with a total area of about 100km². The Monchetundra Intrusion overlies the Monchepluton. Ore deposits and ore occurrences of low-sulfide platinum-metal, platinum-nickel-copper and chromium are associated with the Monchepluton which is arch shaped and consists of two branches (chambers):

- In the northwest it is represented by the Nittis-Kumuzhya-Travyanaya (NKT) massif (more than 7km long) and includes the deposits of Loipishnune and West Nittis, and
- In the southeast, the Sopcha-Nyud-Poaz massifs and Vuruchuayvench (located between NKT and Poaz areas) and is about 11km long.

Both have the shape of a symmetrical trough with dips at the flanks of around 20-30° (NKT) and 45-20° (Sopcha-Nyud-Poaz) before shallowing to around 10-15° in the axial parts. Both branches dip to the southeast.

Exploration

Systematic geological survey of the NKT area and adjacent areas commenced in the mid-1930s. Mineralisation was first intersected by drilling in 1935 with follow-up drilling completed in later years. During the 1950's, further prospecting works were carried out at a scale of 1:50,000.

Recent exploration within the NKT area was undertaken by Rosgeo in 2015 – 2017 and included geological mapping, geochemical sampling, geophysics, trenching, drilling (diamond core) and mineralogy/petrography studies.

QA/QC samples were submitted into the sample stream and included internal duplicates, external duplicates (analysed by FSUE "TsNIGRI" laboratory), and blank samples. The results of the QA/QC analysis are considered to be generally acceptable with no evidence of systematic bias, significant contamination, or significant issues with precision.

Mineral Resources

Prior to Mineral Resource estimation, the geological interpretation was reviewed by WAI which considered deposit structure, mineralisation, lithology, and alteration. The Mineral Resource Estimate was carried out using 3D block modelling in Datamine Studio RM software. Drillhole data were imported and used to review the mineralisation envelopes (based on a cut-off grade of 0.8g/t Pd equivalent).

The drillhole data located within the mineralised zone wireframe were selected and assessed for outliers prior to compositing. The composites were then used as the basis for geostatistical study,



continuity analysis and variography. A volumetric block model was constructed based on the mineralised zone wireframe.

Grade estimation was undertaken using inverse distance weighting as the principal estimation methodology. Dynamic anisotropy was used to reflect local variations in the strike and dip of the mineralised zone during grade estimation. The resultant estimated grades were validated against the input composite data.

It should be noted that the database contains a significant amount of historical drillhole data where assay analysis was carried out only for Ni and Cu. The data for Pd, Pt, Co, S and Au was obtained using regression formulas derived from recent drilling data where assay was carried out for all metals. WAI believes that there is a lower level of confidence for approximation of Pd, Pt, Co, S and Au values from this approach and use of regression. Notwithstanding, certain parts of the deposit have been drilled and trenched (24 trenches) and defined as reserves under Russian classification as B category by Norilsk Nickel, however the drill core and the trenches have not been analysed for PGE, and after the PGE assays are complete this data will be used to re-estimate the Mineral Resource.

The Mineral Resource Estimate for the NKT Deposit is prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, the JORC Code (2012). WAI considers the data available for the NKT Deposit to be sufficient for the deposit to be classified as Inferred Mineral Resources as defined by the JORC Code (2012).

The NKT Deposit is considered as an open pit and underground mining operation. To assess for reasonable prospects for eventual economic extraction, an open pit optimisation was undertaken and open pit Mineral Resources were limited by an optimal pit shell. Underground Mineral Resources were evaluated using a block cut-off value of US\$46/t based on an estimated breakeven cost for underground mining and processing.

	Inferred Resources for NKT, Donnaya Zone										
Ore	Ore Pd Pt Au Ag Cu Ni Pd Pt Au Ag Cu Ni										
(Kt)	(g/t)	(g/t) (g/t) (g/t) (%) (%) (kg) (kg) (kg) (t) (t)									(t)
107,135	107,135 0.43 0.09 0.01 0.37 0.13 0.28 45,583 10,021 1,466 39,591 142,760 304,468										

The Mineral Resource Estimate for the NKT Deposit is summarised in the table below.

Metallurgical Testwork

To verify the metallurgical testwork done by Norilsk Nickel, one metallurgical sample (sample ID '2017/1') from NKT was taken by Rosgeo of drill core from the mineralised zone during the 2015 – 2017 drilling campaign by Rosgeo. Samples consisted of the coarse duplicates (1mm fraction) produced during core sample preparation. Samples were composited to produce a 50kg sample which was submitted to JSC "Institute Gipronickel" for analysis and testwork.



Metallurgical testwork included crushing, screening, grinding, sieve analysis, and flotation. Flotation studies were conducted in a closed cycle according to four schemes involving a combination of 1 or 2 stage grinding and cleaner stages.

Mining

Given the geometry of the mineralisation, WAI considers that a step or modified room and pillar mining method will need to be considered for the underground operation.

Environmental & Social

The Project area is located in Monchegorsk district, Murmansk oblast, which is an economically developed district near to the mining town of Monchegorsk (pop. 41 thousand). The core enterprise is Severonickel Metallurgical Combine of Kola Mining and Metallurgical Company located to the north of the license area. Murmansk oblast has multiple mining and processing enterprises causing widespread pollution of the environment. The Project is located on the Kola Peninsula, to the north of the Arctic Circle, and has particular climatic conditions with high air humidity and low evaporation.

A comprehensive ecological report was completed by CKE in October 2021.

Financial Analysis

The target mining and processing production rate is assumed at 10Mtpa, achieved by underground mining and bulk sulphide flotation plant, with a gradual ramp up, over 11 years of operation.

The financial model was based on two price scenarios with WAI Forecast as Base Case. The WAI Forecast Scenario is consistent with the prices used in the Mineral Resource Estimate.

The viability of the estimated resources, being mined by Room and Pillar method for 11 years including ramp up resulted in a positive NPV of US\$1.19Bn under the WAI Forecast scenario and \$1.69Bn under the spot prices scenario.

NPV Summary									
		WAI	Spot Prices						
		Forecast	(Nov 2021)						
NPV @ Discount Rate of 8.33%	US\$ M	1,188	1,692						
IRR	%	37%	47%						
Payback period of capital (FCF)*	Years	3	3						

Note: Payback period represents time required for cumulative Project cashflow to pay back for the initial capital investments.

Most of the revenue of the Project is generated from the production of Ni (50%) and Pd (33%), followed by Cu (13%) value.



1 TERMS OF REFERENCE

1.1 Project Description

The NKT Project is located in the Kola Peninsula, Russia, adjacent to the mining town of Monchegorsk. The geographical location of the Project is shown in Figure 1.1 and again in Figure 1.2.

The NKT Deposit is a low-sulphide Nickel, Copper and PGE deposit containing mineralisation within a layered intrusive complex. Exploration has identified a sizeable resource which is being considered as an open pit and underground mine. The Project will utilise the processing plant to be constructed for the Monchetundra Project and ore is proposed to be processed using flotation methods.



Figure 1.1: Project Location, Kola Peninsula, Russian Federation





Figure 1.2: Location of the NKT Project in the West (adjacent projects also shown)

1.2 Independent Consultants

WAI has provided the mineral industry with specialised geological, mining, and processing expertise since 1987, initially as an independent company, but from 1999 as part of the Wardell Armstrong Group. WAI's experience is worldwide and has been developed in the metalliferous and industrial mineral sectors. WAI currently operates from our main offices in Truro, Cornwall, and international offices in Almaty, Kazakhstan, and Moscow, Russia.

Our parent company is an engineering/environmental consultancy operating from twelve regional offices in the UK.

Total worldwide staff complement is now in excess of 500.

WAI, its directors, employees and associates neither has nor holds:

- Any rights to subscribe for shares in Eurasia Mining either now or in the future;
- Any vested interests in any concessions held by Eurasia Mining;
- Any rights to subscribe to any interests in any of the concessions held by Eurasia Mining either now or in the future;
- Any vested interests in either any concessions held by Eurasia Mining or any adjacent concessions; or



• Any right to subscribe to any interests or concessions adjacent to those held by Eurasia Mining, either now or in the future.

WAI's only financial interest is the right to charge professional fees at normal commercial rates, plus normal overhead costs, for work carried out in connection with the investigations reported here. Payment of professional fees is not dependent on the success of the Transaction or linked to the value of the Company.

1.3 Data Reviewed

The CPR is based on a review of Norilsk Nickel documents and a report prepared by JSC Rosgeo and submitted to the Russian Federation Ministry of Natural Resources and Environment, in 2017.

WAI takes no responsibility for the content of the Norilsk Nickel documents and Rosgeo reports, and has relied on the content in good faith, but after review has provided suitable commentary where required.

1.4 Units and Currency

All units of measurement used in this report are metric unless otherwise stated. Tonnages are reported as metric tonnes ("t"), precious metal values in grams per tonne ("g/t") or parts per million ("ppm"), base metal values are reported in weight percentage ("%") or parts per million ("ppm"). Other references to geochemical analysis are in parts per million ("ppm") or parts per billion ("ppb") as reported by the originating laboratories.

Unless otherwise stated, all references to currency or "\$" are to United States Dollars (US\$).

2 PROJECT BACKGROUND

2.1 Location, Access and Infrastructure

The NKT area lies directly south of the city of Monchegorsk which has a population of 41 thousand and the railway station of the same name. It is located in the centre of the Kola Peninsula, beyond the Arctic Circle in the foothills of the Monchetundra mountain range; in the southeast it adjoins the waters of Lake Bolshaya Imandra. The distance to the regional centre of Murmansk is 146km (Figure 2.1).





Figure 2.1: Location of Monchegorsk, Kola Peninsula

Monchegorsk was established in the 1930s to serve the growing nickel and copper mining in the Monchetundra Massif. The area is well served by infrastructure with the main St. Petersburg to Murmansk Road (E105) passing a few kilometres to the east of the site along with two high voltage (330kV) power lines (Figure 2.2) and related sub-stations to the east of the site.

The dominant industrial complex of the area is the Severonickel metallurgical plant which lies 1km to the west of the Project, operated by Kola Mining Metallurgical Combine (KMMC) with a staff of about 8,000. The plant is engaged in the production of nickel, copper, cobalt, PGM and other useful components from the sulphide nickel and copper deposits of Pechenga and Norilsk ore regions.

It is believed that the plant has become the world's largest nickel refining facility, producing approximately 165,000t of nickel per year.





Figure 2.2: The Main E105 St. Petersburg to Murmansk Road



Figure 2.3: NKT brownfield and its infrastructure





Figure 2.4: NKT Geographic Setting



2.2 Tenure Information

The Exploration License for Nittis-Kumuzhya-Travyanaya (NKT) No. MUR 00950 BP was registered on 20.08.2020 (Figure 2.5). The area of the exploration license is 7.95km².

The exploration and mining licenses have been obtained in accordance with existing regulations. Terms and conditions of the license are duly respected.

The license co-ordinates are presented in Table 2.1 whilst an outline of the license area is shown in Figure 2.5.

		Table 2.1: NKT L	icense Coo	ordinates	
Point	Northings	Eastings	Point	Northings	Eastings
1	67° 55′ 48.14″	32° 48′ 18.64″	12	67° 52′ 36.00′′	32° 45' 06.00''
2	67° 55′ 07.46′′	32° 46′ 56.64″	13	67° 54′ 17.29′′	32° 43′ 32.67″
3	67° 54′ 21.38′′	32° 46′ 19.05″	14	67° 54′ 35.40′′	32° 44' 03.72''
4	67° 53′ 58.18″	32° 45′ 47.30″	15	67° 54' 28.96''	32° 44′ 11.84′′
5	67° 54′ 00.83′′	32° 45′ 19.26″	16	67° 54' 22.87"	32° 44′ 27.85″
6	67° 53′ 54.94″	32° 44′ 56.14″	17	67° 54′ 15.92″	32° 44′ 51.28″
7	67° 53′ 28.57″	32° 45′ 51.14″	18	67° 54′ 56.12″	32° 44′ 47.72″
8	67° 53′ 15.59″	32° 46′ 04.53″	19	67° 55′ 46.53″	32° 46' 00.27''
9	67° 52′ 22.57″	32° 46′ 38.49″	20	67° 56' 08.29''	32° 47' 0.95''
10	67° 52′ 54.41″	32° 45′ 06.00''	21	67° 56′ 00.67′′	32° 47′ 40.54′′
11	67° 52′ 52.35″	32° 45′ 00.33″	22	67° 56′ 00.15′′	32° 48′ 21.90′′



Figure 2.5: Location of NKT License (Red) – Nyud (Green) and Poaz (Orange)



3 GEOLOGY & MINERALISATION

3.1 Geology of the Monchegorsk Ore District

The area is part of the Monchegorsk nickel-copper-PGM *ore* cluster of the Monchegorsk-Panskaya metallogenic zone.

The Monchegorsk ore cluster is confined to a junction of three large geological structures of the Kola region - the Kola block, the Belomorsky mobile belt and the Imandra-Varzug rift structure. The geological structure is the result of repeated intrusions of large volumes of igneous rocks of various compositions combined with multistage structural-tectonic and metamorphic transformations.

The main feature of the geological structure, which determines the presence of PGM, chromium, nickel and copper deposits, is the presence of two large complexes of layered mafic-ultramafic intrusions: the Monchegorsk (or Monchepluton), with an area of about 65km² and the Monchetundra Intrusion with a total area of about 100km², which is part of the Chuna-Monche-Volchiy tundra (intrusion of the Main Ridge).

Both intrusions are considered as parts of the Monchegorsk layered complex, where the upper part is composed of gabbroids of the Monchetundra Intrusion, and the basic and ultrabasic rocks of Monchepluton are attributed to the lower part of the section. The timing of the intrusions is attributed to the Early Proterozoic. Based on the analysis of the results of drilling a deep borehole (M-1), drilled in the contact zone of the intrusions, it was established that the Monchetundra Intrusion of gabbronorites was formed somewhat later than Monchepluton and had an impact on it in the form of intrusion of dike-like bodies of gabbroids exposed by wells in the Loipishnyun areas and the Dunite Block.

Monchepluton is arch shaped and consists of two branches (chambers): in the northwest it is represented by the Nittis-Kumuzhya-Travyanaya (NKT) massif (more than 7km long), and in the southeast, the Sopcha-Nyud-Poaz massifs and Vuruchuayvench (located between NKT and Poaz areas) and is about 11km long. Both have the shape of a symmetrical trough with dips at the flanks of around 20-30° (NKT) and 45-20° (Sopcha-Nyud-Poaz) before shallowing to around 10-15° in the axial parts. Both branches dip to the southeast.

The northeastern limb of the trough is upturned and has a steeper dip than the gently sloping southwestern limb. The northwestern and northeastern parts of the layered complex contact with Paleo-Neoarchean rocks of the Kola Block: alumina gneiss, basic granulite, and diorite.

In the southwest, the layered complex is bordered by rocks of the Neoarchean Tersky–Allarechensky greenstone belt. In the southeast, the layered complex is partly overlain by felsic metavolcanic rocks of the Arvarench Formation pertaining to the Paleoproterozoic Imandra-Varzugarift structure 2,429Ma (\pm 6.6) in age. Part of the northeastern boundary of the layered complex extends along the contact with the Monchetundra Fault.



Ore deposits and ore occurrences of low-sulphide nickel-copper-PGM and chromium ores are confined to the Monchepluton massifs. The host rocks of the Monchepluton comprise peridotite-pyroxenite-gabbronorite formations and are intersected by numerous diorite, dolerite and lamprophyre dykes.



The geology of the Monchegorsk ore district is shown in Figure 3.1.

Figure 3.1: Geology of the Monchegorsk Ore District including location of NKT and Sopcha-Nyud-Poaz Massifs



3.2 NKT Deposit Geology

NKT Massif occupies part of Monchepluton intrusion which has a strike from south to north. The total length of NKT structure is approximately 7km with width varies from 2.2km in south-western flank and down to 800m in the north-eastern part of NKT. On the surface, NKT is marked by mountains namely Nittis, Kumuzhya and Travyanaya. From the surface the NKT depth of mineralisation varies from 1,000m at south-west to 200m at north-east.

Generally, the NKT geological section includes (from top to bottom):

- 1. Endo-contact gabbro-norite (10-50m);
- 2. Marginal Zone near-bottom olivine norite and plagio-pyroxenite (50-100m);
- 3. Ultrabasic Zone peridotite (100-250m); and
- 4. Layered Zone mixing of peridotite and pyroxenite (250 400m).

4 EXPLORATION

4.1 Recent Exploration (2015 – 2017)

4.1.1 Introduction

Exploration was undertaken by Rosgeo in 2015 – 2017 which included geological mapping, geochemical sampling, geophysics, trenching, drilling and mineralogy/petrography studies. A description of these is given in the following sections. Metallurgical testwork was also undertaken by Gipronickel and is presented in Section 7.

4.1.2 Geological Mapping

Geological mapping of the NKT and NKT areas was carried out on a scale of 1:10,000 to:

- Identify the features of the internal structure of intrusive formations including the nature of layering and magmatic stratification;
- Mapping and sampling of ore-promising zones for PGM mineralisation; and
- Identify the nature of geophysical (magnetic and electrical prospecting) anomalies.

The mapping routes were carried out along 100 x 20m profiles with a specific reference to the profile and picket, and at inter-profile sections in order to prevent missing outcrops. Each outcrop and observation points were recorded by GPS. During the routes, the bedrock outcrops and eluvial deposits were described in detail and samples taken for analysis and petrographic studies.



4.1.3 Geochemical Sampling

Geochemical sampling was carried out at the area located in the central part of the license. Areas unsuitable for geochemical sampling (existing waste dumps of the quartzite quarry, villages, and roads) were excluded from sampling. A total of 8,961m (linear) were covered during the sampling programme based on a sampling grid of 100 x 10m. A total of 1,617 samples were taken and comprised both bedrock material and sandy-clay fractions of glacial and eluvial-deluvial sediments from depths of 0.6m to 12.5m (average of 5.6m) with sample weights of 250 - 350g. Logging of the samples was carried out and included sample location (GPS) and depth and nature of the material. Pd and Pt were analysed by fire assay with AAS finish, with ICP analysis for 36 elements.

4.1.4 Geophysical Exploration

Geophysical exploration was carried out by AO "Severo-Zapadnoe PGO" and included ground magnetic survey, electro profiling using Induced Polarisation (IP), and Middle Gradient (MG) methods and Magneto-Telluric method (MT).

Surface magnetic surveys were undertaken to:

- Identify locations of geological boundaries and metasomatic changes in rocks;
- Identify structural and tectonic features of the area (ore-controlling factors); and
- Tracing of faults.

In the northern and southern parts of the license area, ground magnetic surveys were carried out on a scale of 1:5,000, along a network of 50 x 10m, over an area of 11.94 km². In the central part of the area, magnetic prospecting works were carried out on a scale of 1:2,000, along a network of 20 x 5m, over an area of 4.12 and 0.49 km². Survey was carried out using 'Minimag-M' equipment.

Induced polarisation using the VP-SG method was carried out to trace the zones of metasomatic alteration and to identify zones of sulphidisation and silicification. The surveys were carried out in the central part of the area on a scale of 1:10,000, over two areas of 4.08 and 0.95 km². The contours of the survey generally coincided with the magnetic exploration work on a scale of 1:2,000. Profiles were set at a spacing of 100 m across the strike of the main geological structures.

Magneto-telluric method was carried out in three profiles in the southern part with reading points of every 25m using SSMT-2000 equipment produced by Phoenix Geophysics Ltd, Canada.

4.1.5 Trenching

A total of 24 trenches at NKT were cut down to bedrock at depths of 0.7 - 2.5m (average of 1.6m) and a width of 0.6m at the base of the trench. The length of the trenches ranged from 5.0 m to 75.0m (average of 14.3m). Sampling was completed at the base of the trench and sample points were recorded using GPS-GLONASS Garmin Etrex 20 and Etrex 30 satellite receivers.



4.1.6 Sample Preparation

Logging and sampling of drill core was completed by JSC Central Kola Expedition ("CKE"). Logging included lithological, alteration and mineralisation descriptions and samples were selected based on boundaries defined by the lithological logging.

Samples were cut using a core saw to produce two half core samples. One half was then dispatched for further sample preparation and analysis and the remaining half was retained for storage in the AO "Severo-Zapadnoe PGO" core storage facility located in Krasnoe Selo.

Further sample preparation was undertaken at the facilities of OAO TsKE (Monchegorsk) and AO Severo-Zapadnoye PGO (Krasnoe Selo). The half core sample (sample weight of 0.4 - 3.0kg depending on sample length) was crushed to 1mm. The sample was then split to provide a sample of 0.3 - 1.0kg which was then submitted for grinding to a grain size of 0.074mm. The sample was then split again to provide a 300 - 500g portion which was dispatched to CTL of Irgiredmet JSC, for chemical analysis for Ni, Cu, Co, S and assay analysis on Pt, Pd, Au. The coarse duplicate sample produced following splitting of the 1mm fraction was retained for storage. A summary of the sample preparation procedure is shown in Figure 4.1.



Figure 4.1: Sample Preparation Flowsheet



4.1.7 Laboratory Analysis

4.1.7.1 Introduction

Chemical analysis was undertaken by JSC "IRGIREDMET" in Irkutsk. Analysis of Pt, Pd, Rh, Au and Ag was by inductively coupled plasma (ICP) method with assay tolerances of 0.005 - 50g/t. Analysis of Ni, Cu and Co was by atomic absorption spectrometry (AAS) method with assay tolerances of 0.0005 - 20.0% for Ni and Co and 0.0005 - 50.0% for Cu. Analysis of S was by the gravimetric method.

4.1.7.2 Quality Assurance and Quality Control (QA/QC)

The QA/QC results were reviewed by WAI using the following statistical methods:

- <u>Summary Statistics</u> showing the mean, mode, standard error, range and standard deviation can be indictors if the data sets agree.
- <u>Rank HARD Plot</u> which is the ranked half absolute relative difference, ranks all assay pairs in terms of precision levels measured as half of the absolute relative difference from the mean of the assay pairs (HARD), used to visualise relative precision levels (typically 90%) and to determine the percentage of the assay pairs population occurring at a certain precision level (20%). It should be noted that as the HARD statistic uses an absolute difference, a ranked HARD plot does not revel bias in duplicate data, only the relative magnitude of differences (i.e. precision). The HARD values are sorted from lowest to highest and ranked accordingly, with the rank expressed as a percentage. The ranked HARD plot is then generated by plotting the percent rank on the X-axis against the HARD value on the Y-axis. A rank HARD plot is constructed that enables quick identification of the percentage of the sample pairs with a HARD value less than 20%.
- <u>Correlation Plot</u> is a simple plot of the value of the duplicate samples, assay 1 against assay 2. This plot allows an overall visualisation of precision and bias over selected grade ranges. Correlation coefficients are also good indicators to quantify the agreement between data sets. A correlation greater than 0.9 is generally described as strong, whereas a correlation less than 0.6 is generally described as weak.
- <u>Thompson and Howarth Plot</u> showing the mean relative percentage error of grouped assay pairs across the entire grade range, used to visualise precision levels by comparing against given control lines.
- <u>Mean vs. HARD Plot</u> used as another way of illustrating relative precision levels by showing the range of HARD over the grade range.
- <u>Mean vs. HRD Plot</u> is similar to the above, but the sign is retained, thus allowing negative or
 positive differences to be computed. This plot gives an overall impression of precision and
 shows whether there is significant bias between the assay pairs by illustrating the mean
 percent half relative difference between the assay pairs (mean HRD).



Shewhart X (average) and R (range) charts are constructed for each element standard. The control charts plot process variability, with metal content on the Y-axis and sample number on the X-axis. The plotting of data on charts of this type allows for the easy recognition of samples that fall outside of the action limits applicable for each standard used. Typically, for SRM samples, warning and control limits are established at mean ±2 and ±3 standard deviation limits respectively. Any analysis beyond the ±3 standard deviation limit is considered as a failure.

Internal Control (Internal Pulp Duplicates)

The exploration campaign in 2015 - 2017 was carried out at two deposits – NKT and Nyud, therefore QA/QC analysis was carried out for samples from both deposits. Internal control was carried out to determine the level of precision of the analysis by JSC "IRGIREDMET". Internal control of analytical work included determination of Ni, Cu, Co, S with atomic absorption termination, determination of sulphur by gravimetric method and assay analysis for Au, Pt, Pd with atomic emission termination.

Table 4.1: Sample No. for Individual Metals Used for Internal/External Co						
Metal	Sample No.					
Ni	31					
Cu	36					
Со	36					
Pd	82					
Pt	42					
Au	40					

The following QA/QC data were provided (Table 4.1).

WAI has reviewed the internal control sample pairs. All QA/QC plots produced by WAI are contained in Appendix the CPR and a summary of HARD and correlation coefficient values is shown in Table 4.2.

Table 4.2: Summary of Internal Control Analysis, Core Samples, Igriredmet, 2015-2017								
Metal	Number of Sample Pairs	% of Samples with HARD Value <10%	Coefficient of Correlation					
Pd	82	97.9	0.99					
Pt	42	87.8	0.98					
Au	40	95	0.98					
Cu	36	100	1					
Ni	31	100	1					

Overall, generally good levels of precision between the original and duplicate assays are observed with HARD values of less than 10% attained for almost 90% of the sample pairs for all metals. WAI therefore considers the internal control assay results to be acceptable.



External Control (External Pulp Duplicates)

External control for Ni, Cu, Co, S, Pt, Pd, Au, was carried out in the laboratory of FSUE "TsNIGRI". Samples that had passed the internal geological control (i.e. analysed by the main laboratory twice) were then submitted for external control. For each grade, the systematic discrepancy values were calculated for each component. WAI has reviewed the external control sample pairs. All QA/QC plots produced by WAI are contained in Appendix to the CPR and a summary of HARD and correlation coefficient values is shown in Table 4.3.

Table 4.3 : 5	Table 4.3 : Summary of External Control Analysis, Core Samples, FSUE "TsNIGRI", 2015-2017								
Metal	Number of Sample Pairs	% of Samples with HARD Value <10%	Coefficient of Correlation						
Pd	32	100	1.00						
Pt	27	88.9	0.99						
Au	30	73.3	0.96						
Cu	40	97.5	1.00						
Ni	75	84	1.00						

Overall, good levels of precision were attained for Cu and Ni with HARD values of >97.5%. Slightly lower HARD values were attained for Pt and Ni (88.9% and 84.0%, respectively), however good correlation values (0.96 and 0.99, respectively) were attained for these elements, suggesting no systematic bias. Similarly to the internal duplicates, a low HARD value was attained for Au, however Au grades are particularly low. WAI considers the results of external duplicate analysis to be generally acceptable.

Blank Material

Blank material consisted of a locally sourced quartz vein and samples were submitted at the crushing stage. Every 20th sample submitted for analysis consisted of a blank. Samples were prepared and analysed according to the same procedures as for the main samples.

A total of 20 blank samples were analysed and the results for Pd, Pt, Au, Ni and Cu are contained in Appendix to the CPR. Overall, the blank analysis showed no significant elevated results for Pd, Pt or Au.

QA/QC Summary

QA/QC samples were submitted into the sample stream and included internal duplicates, external duplicates (analysed by FSUE "TsNIGRI" laboratory), and blank samples. The results of the QA/QC analysis were reviewed by WAI and considered to be generally acceptable with no evidence of systematic bias, significant contamination, or significant issues with precision. However, WAI recommends that the current exploration campaign also includes submission of field duplicates, coarse duplicates, certified reference material ("CRM") and certified blank material.



4.1.8 Mineralogy and Petrographic Analysis

A total of 1,331 thin sections and 72 polished sections were produced. Analysis of thin sections was carried out at the KSC RAS (Apatity).

5 MINERAL RESOURCE ESTIMATION

5.1 General Methodology

The following sections describes the process of Mineral Resource estimation for the NKT Deposit. The Mineral Resource Estimate (MRE) is prepared in accordance with the guidelines of the JORC Code (2012).

The MRE was carried out using a 3D block modelling approach using Datamine Studio 3 software (Datamine). Drillhole (diamond core) data were imported and verified before wireframe modelling. Sample data were selected using the geological and mineralisation wireframes and selected samples were assessed for outliers. The wireframe envelopes were used as the basis for a volumetric block model based on a parent cell size of 10m x 10m x 10m. Variogram models were constructed based on composite data and used for grade estimation by ordinary kriging and inverse distance weighting methods. The resultant estimated grades in the block model were validated against the input sample and composite data. Resource classification was undertaken in accordance with the guidelines of the JORC Code (2012) and incorporated an assessment of the geological continuity and complexity, data quality, spatial grade continuity and overall quality of the resource estimation.

Mineral Resources were limited based on an expectation of eventual economic extraction by being constrained within an optimised open pit shell generated using Datamine's NPV Scheduler software and appropriate economic and technical parameters. The mineralisation below the open pit resource was then constrained using an estimated US\$46/t threshold for underground mining and processing.

5.2 Software

The MRE has relied on several software packages for the various stages of the process. However, the main data preparation and validation, wireframe modelling, statistical and geostatistical analysis, block modelling, estimation and validation were performed in Datamine Studio 3 version 3.22.84.0.

5.3 Data Transformations

All data are stored using the local coordinate system based on UTM (WGS 840) - Zone 36W. No transformations of drillhole or other data were applied.



5.4 Topographic Survey

A topographical survey (DTM) of the NKT area was supplied in AutoCAD format. No adjustment to collar positions was undertaken by WAI based on the supplied topographical survey.

5.5 Drillhole Database

The drillhole database was provided by the Client in Microsoft[®] Excel format and consisted of the files shown in Table 5.1. The historical drilling data roughly can be split on two exploration campaigns – of 1934-1941 and 1949-1969. The recent drilling was carried out in 1996-2003 and 2015-2017.

	Table 5.1: Drillhole Database Files									
	Collar File	Assay File								
Column	Explanation	Column	Explanation							
BHID	Hole Number	BHID	Hole Number							
YEAR	Year of Drilling	SAMPLE	Sample number							
DEPTH	Hole Depth	FROM	Interval from							
XCOLLAR	Collar easting	то	Interval to							
YCOLLAR	Collar northing	LENGTH	Sample length							
ZCOLLAR	Collar elevation	NI	Ni Grade, %							
BRG	Drilling Azimuth	CU	Cu Grade, %							
DIP	Drilling Dip	CO	Co Grade, %							
MOR	Depth of Moraine	S	S Grade, %							
	Survey File	PT	Pt Grade, g/t							
BHID	Hole Number	PD	Pd Grade, g/t							
AT	AT interval	AU	Au Grade, g/t							
BRG	Bearing measurement	AG	Ag Grade, g/t							
DIP	Dip Measurement	Nieqv	Ni Equivalent, %							

5.5.1 Database Review

A summary of the exploration database, used for the MRE and divided into exploration campaigns, is shown in Table 5.2.

Table 5.2: NKT Drillhole Database Summary									
Type	Voor	No. of Sa		ample	Total Longth (m)*				
Type	real	Drillholes	Number	Av. Length, m	rotai Lengtii (iii)				
Drillhole	1934-1941	57	1,152	1.44	12,978.72				
Drillhole	1949-1969	124	3,662	3.25	35,515.04				
Drillhole	1996-2003	40	773	0.73	19,679.50				
Drillhole	2015-2017	30	3,424 0.81		7,450.00				
Total		251	9,011		75,623.26				

*Total drilled length including unsampled intervals



5.5.2 Database Import

The database was imported by WAI into Datamine software and desurveyed using the HOLES3D process. Where minor validation errors were discovered in terms of overlapping intervals these were subsequently corrected by WAI. The location of the imported drillholes is shown in Figure 5.1.



Figure 5.1: Isometric View Showing Location of Drillholes at NKT (Mineralisation Wireframe also shown)

5.5.3 Database Verification

Database verification was undertaken by WAI following import of the database. A summary of the database verification procedures is detailed below:

- Comparison of historical drillhole logs with the drillhole database;
- Comparison of geological cross sections with the drillhole database;
- Verification that collar coordinates coincide with topographical surfaces;
- Verification that downhole survey azimuth and inclination values display consistency;
- Evaluation of minimum and maximum grade values;
- Evaluation of minimum and maximum sample lengths;
- Assessing for inconsistencies in spelling or coding (typographic and case sensitive errors);
- Ensuring full data entry and that a specific data type (collar, survey, and assay) is not missing and assessing for sample gaps or overlaps; and
- Zero assay values were replaced with half detection limit values.



5.5.4 Database Comment

WAI is aware that certain parts of the deposit have been drilled and trenched (24 trenches) and defined as *reserves* under Russian classification as B category by Norilsk Nickel, however the drill core and the trenches have not been analysed for PGE, and after the PGE assays are complete this data will be used to re-estimate the Mineral Resource.

5.6 Wireframe Modelling

Wireframe modelling was undertaken by EM and reviewed by WAI. The NKT Deposit comprises multielement mineralisation including Nickel-Copper-PGM as the principal metals. To define the outline of mineralisation, wireframes were developed based on a palladium metal equivalent grade of 0.8g/t as a cut-off grade to define the mineralisation. Mineralised zones were modelled to honour the main fault structures. Areas of the modelled mineralisation located either above the topographical surface or outside of the licence boundary were subsequently excluded by WAI from the MRE.

In general, the proportion of recovered value for individual metals is comparable and mineralisation wireframes are considered acceptable for the MRE.

5.7 Drillhole Data Processing

5.7.1 General

Drillhole samples from the verified database were selected within the mineralised zone wireframe and formed the basis of the MRE. A summary of the sample data contained within the mineralised zone is shown in Table 5.3.

Table 5.3: Summary for Drillhole Data inside Mineralisation Wireframe								
Туре	Type BH No Sample No Composite No Total, m Ave. Length, m							
Drillhole	115	1,450	1,330	1,298.95	0.90			

The average length of the samples is 0.90m, therefore, a composite length of 1.0m was selected to standardise the sample lengths. Summary statistics of the composites is shown Table 5.4.

	Table 5.4: Summary Statistics of Composites											
Metal	Number of Composites	Min	Max	Average Grade	Variance	St.Deviation	cv					
Pd	1,330	0.00	16.00	0.41	0.34	0.58	0.83					
Pt	1,330	0.00	4.44	0.10	0.02	0.15	0.24					
Au	284	0.00	0.30	0.03	0.00	0.04	0.05					
Ag	283	0.00	5.25	0.79	0.68	0.82	0.86					
Cu	1,330	0.01	17.59	0.17	0.31	0.56	1.82					
Ni	1,330	0.01	4.00	0.28	0.05	0.22	0.18					



5.7.2 Top Cutting

To identify the need for top cutting, and to establish the top-cut levels, the composite samples within the wireframes were analysed by zone with decile grade analysis and log probability graphs.

Decile analysis is a recognised and practical technique for analysing outlier data and determining what top-cut levels may be appropriate. In decile analysis, samples are rank-ordered by grade and then the grade levels corresponding to the first 10% samples are determined followed by 20%, 30% etc. The very top "decile" is also examined in "percentiles", as this is often where most detailed analysis is required. By examining the increase in amount and proportion of sampled metal within each decile and percentile step, it is often possible to gain a clearer understanding of where grades become noticeably anomalous. Generally speaking, if the top 2 or 3 percentiles each contain greater than 10% of the total metal content, then the cutting or isolation of these erratic high-grade outliers in a separate high-grade zone is advisable.

Table 5.5 presents example for decile analysis for Cu for Donnay Zone. In this example the last percentile accumulates almost 18% of the total Cu content whereas the last decile (90-100%) contains 36.02% of this metal. WAI checked this outstanding value and find out that there is one composite from drillhole 930, interval 425.55 - 426.55m. However, the full intersection of drillhole 930 here has length of 31m with average Cu grade of about 0.5%. As such the influence of high-grade interval during grade interpolation will be deemed by surrounded relatively low-grade composites and no top cut is required.

		Table 5.5	: Decile /	Analysis for	Cu, NKT		
Q%_FROM	Q%_TO	NSAMPLES	MEAN	MINIMUM	MAXIMUM	METAL	METAL%
0	10	133	0.04	0.01	0.06	5.47	2.38
10	20	133	0.07	0.06	0.08	9.57	4.17
20	30	133	0.09	0.08	0.10	11.91	5.19
30	40	133	0.10	0.10	0.11	13.89	6.05
40	50	133	0.12	0.11	0.12	15.53	6.77
50	60	133	0.13	0.12	0.14	17.45	7.61
60	70	133	0.15	0.14	0.16	20.10	8.76
70	80	133	0.18	0.16	0.20	23.64	10.30
80	90	133	0.22	0.20	0.25	29.24	12.74
90	100	133	0.62	0.25	17.59	82.64	36.02
90	91	13	0.25	0.25	0.26	3.27	1.42
91	92	13	0.26	0.26	0.27	3.41	1.49
92	93	13	0.28	0.27	0.28	3.58	1.56
93	94	14	0.29	0.28	0.30	4.07	1.77
94	95	13	0.31	0.30	0.32	4.01	1.75
95	96	13	0.34	0.32	0.36	4.37	1.90
96	97	14	0.38	0.36	0.41	5.27	2.30
97	98	13	0.45	0.41	0.50	5.84	2.55
98	99	13	0.58	0.50	0.69	7.56	3.29
99	100	14	2.95	0.70	17.59	41.25	17.98
0	100	1330	0.17	0.01	17.59	229.44	100



5.8 Variography

The composites were used for modelling of experimental semi-variograms. Good shape variogram models were produced for Pd, Pt, Cu and Ni for Donnay Zone. Examples of the modelled variograms for Pd are shown in Figure 5.2. Along strike ranges for Pd, Pt, Cu and Ni varies from 13m to 25m, the down dip ranges have similar values of about 5-9m. The general orientation of ellipsoids is in the northwest direction. The nugget covariance is relatively low with values from 0.011 to almost 0.221. Parameters of modelled variogram are presented in Table 5.6.







Figure 5.2: Pd Modelled Variograms, a) Along Strike, b) Down Dip and c) Across Strike



		Та	able 5.6:	Parame	eters of I	Modelle	d Variog	gram, Nk	(T Donn	aya		
	Strike Pd (Y)	Strike Pt (Y)	Strike Cu (Y)	Strike Ni (Y)	X-strike Pd (X)	X-strike Pt (X)	X-strike Cu (X)	X-strike Ni (X)	Ddip Pd (Z)	Ddip Pt (Z)	Ddip Cu (Z)	Ddip Ni (Z)
Me	PD	PT	CU	NI	PD	PT	CU	NI	PD	PT	CU	NI
File	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on	zcomp_d on
Lag	10	10	10	10	10	10	10	10	1	1	1	1
Nlag	5	5	5	5	5	5	5	5	10	10	10	10
HorAn g	60	60	60	60	60	60	60	60	60	60	60	60
VerAng	60	60	60	60	60	60	60	60	60	60	60	60
CylRad	100	100	100	100	100	100	100	100	100	100	100	100
Ang1	205	205	205	205	105	105	105	105	285	285	285	285
Ax1	3	3	3	3	3	3	3	3	3	3	3	3
Ang2	7	7	7	7	25	25	25	25	65	65	65	65
Ax2	1	1	1	1	1	1	1	1	1	1	1	1
VarTyp e	RV	RV	RV	RV	RV	RV	RV	RV	RV	RV	RV	RV
MoRef No	1	4	12	7	2	5	11	8	3	6	10	9
Nugget	0.011	0.019	0.011	0.012	0.157	0.144	0.191	0.129	0.08	0.065	0.091	0.0049
R1	13	12.1	11.5	12.1	10	10	11	10	2.9	3.1	3	2.2
C1	0.32	0.311	0.257	0.31	0.043	0.031	0.069	0.045	0.117	0.107	0.12	0.0222
S1	0.331	0.33	0.268	0.322	0.2	0.175	0.26	0.175	0.197	0.172	0.211	0.0272
R2	24.9	24.9	13.4	24.9	16.2	14	34.4	22.1	9	9	9	5.2
C2	0.153	0.78	0.234	0.032	0.052	0.057	0.102	0.047	0.079	0.066	0.086	0.0263
S2	0.484	0.408	0.502	0.354	0.252	0.232	0.362	0.222	0.276	0.238	0.297	0.0535

5.9 Block Model

The block model was developed using Datamine with a parent cell size of $10m \times 10m \times 10m$. Sub-celling was allowed down to $5.0m \times 5.0m \times 5.0m$. The block model was developed within the mineralisation wireframe. No rotation was applied to the model. A summary of the parameters used in the model prototype is shown in Table 5.7.



Table 5.7: Block Model Prototype							
Parame	Direction	Size					
		Х	488,399.64				
Model C	Y	7,534,094.9					
	Z	-318.3					
		10	10				
	Parent Cell Size	10	10				
Model Parameters		10	10				
woder Parameters		555	350				
	Block Number	790	550				
		945	70				

Parameters of dynamic anisotropy showing the true dip angle and azimuth were interpolated into the blocks of mineralisation. In order to produce the points with true dip angle and azimuth WAI modelled wireframes corresponding with the axial surfaces of mineralized zones. Points with true dip angles and azimuth corresponded with the centres of triangles of these wireframes.

5.10 Density

Density values were obtained from the report of Bayanova et. al "Monchetundrovskiy Basic Massive of Kola Region: New Geological and Isotopic Age Data", 2010, in which densities of disseminated low sulphide mineralisation, were derived as shown in Table 5.8.

Table 5.8: Density of Disseminated Mineralisation of Monchegorskiy Pluton											
Item Terrasa Deposit NKT Deposit Plast 330 Depos											
Number of Measurements	44	19	97								
Av. Density	3.24	3.23	3.21								
St Deviation	0.108	0.073	0.145								
Variation Coefficient	3.33	2.26	4.51								

Density measurement was also carried out during exploration campaign of 1996-2003, performed by Norilsk Nickel (Table 5.9).

Table 5.9: Density Measurment for NKT, Donnay Zone, 1996-2003									
Deposit	Sample No	Mea	sured Dens	sity, t/m3					
Deposit	Sample No	From	То	Average					
NKT	15	3.02	4.33	3.23					

Based on this, WAI elected to use a density of 3.2t/m³ for estimation of resources at NKT.



5.11 Grade Estimation

5.11.1 General

Grade estimation was performed only on mineralised material defined within the mineralised wireframe. Ordinary kriging (OK) and inverse distance weighting to power 2 (IDW²) estimations were undertaken.

5.11.2 Grade Estimation Plan

Grade estimation was undertaken for Pd, Pt, Au, Ag, Cu and Ni. Variogram parameters derived for Pd were used for Au and Ag grades interpolation. The estimates were run in a nine-pass plan, with each consecutive pass using progressively larger search radii to enable the estimation of blocks unestimated on the previous pass. The search parameters were derived from the variography. The first search distances corresponded to the distance of full range of the variogram(s), the second search corresponded to the distance of 2 ranges of the variogram(s) with the third search distance of 3 range of variogram. The remaining searches were used to ensure that all blocks contained within the domains were estimated.

The IDW² method was used as the principal estimation method for all zones. The initial search ellipsoid dimensions used in the estimation are shown in Table 5.10. The OK method was used for all domains as a secondary (check) estimation method.

	Table 5.10: Initial Search Ellipsoid Dimensions									
Range, m										
Wetai	Along Strike Down Dip Across Strike									
Pd	24.9	9	16.2							
Pt	24.9	9	14							
Au	24.9	9	16.2							
Ag	24.9	9	16.2							
Cu	13.4	9	34.4							
Ni	24.9	5.2	22.1							

Grade estimation was carried out using a parent block size of 10m x 10m x 10m. Sub-cells received the same grade as the parent cell. Block discretisation was set to 3 x 3 x 3 to estimate block grades. Search ellipse orientations were controlled by dynamic anisotropy. A summary of the grade estimation plan is shown in Table 5.11.



Table 5.11: Grade Estimation Plan								
Run 1 (strike x downdip x cross-strike)	1 x 1 x 1 radii							
Run 2 (strike x downdip x cross-strike)	2 x 2 x 2 radii							
Run 3 (strike x downdip x cross-strike)	3 x 3 x 3 radii							
Run 4 (strike x downdip x cross-strike)	4 x 4 x 4 radii							
Run 5 (strike x downdip x cross-strike)	6 x 6 x 6 radii							
Run 6 (strike x downdip x cross-strike)	8 x 8 x 8 radii							
Run 7 (strike x downdip x cross-strike)	9 x 9 x 9 radii							
Run 8 (strike x downdip x cross-strike)	13.5 x 13.5 x 13.5 radii							
Run 9 (strike x downdip x cross-strike)	18 x 18 x 18 radii							
Min comp no (run 1/2/3/4/5/6/7/8/9)	1/1/1/1/1/1/1/1/1							
Max comp no (run 1/2/3/4/5/6/7/8/9)	8/8/8/8/15/15/8/15/15							
Min Octan no (run 1/2/3/4/5/6/7/8/9)	1/1/1/1/1/1/1/1/1							
Max comp no from 1 development	4/4/4/4/4/4/4/4							

Note: Dynamic Anisotropy used for search ellipsoid orientation

5.11.3 Validation of Grade Estimate

5.11.3.1 Introduction

Following grade estimation, a statistical and visual assessment of the block model was undertaken to:

- 1. Assess successful application of the estimation passes;
- 2. Ensure that as far as the data allowed, all blocks within mineralisation domains were estimated; and
- 3. Assess whether the model estimates performed as expected.

The model validation methods carried out included on-screen visual assessment of composite and block model grades and mean grade check.

5.11.3.2 On-Screen Check

An on-screen visual assessment of drill hole, composite and block model grades was carried out. Visually the model was considered to spatially reflect the composite grades.

5.11.3.3 Mean Grade Check

Statistical analysis of the block model was carried out for comparison against the composited drillhole data. This analysis provides a check on the reproduction of the mean grades of the composite data against the model over the global domain. Typically, the mean grade of each domain should not be significantly greater or less than the composites from which it has been derived. A comparison of the mean block model grades and mean composite grades for all domains is shown in Table 5.12.



Table 5.12: Global Comparison of Metal Grade in Block Model and Composites										
Metal	BM	Composite								
Pd, g/t	0.42	0.40								
Pt, g/t	0.09	0.10								
Au, g/t	0.01	0.01								
Ag, g/t	0.37	0.17								
Cu, %	0.13	0.17								
Ni, %	0.28	0.28								

Where discrepancies between the composite mean grades and block model mean grades were observed, these were checked by WAI and seen to result from the spatial distribution of the data rather than errors in the grade estimation. Overall, WAI considers the composite grades and block model grades to be sufficiently comparable.

5.11.3.4 Validation Summary

Globally no indications of significant over or under estimation were apparent in the model nor were any obvious interpolation issues identified. From the perspective of conformance of the average model grade to the input data, WAI considers the model to be a satisfactory representation of the sample data used and an indication that the grade interpolation performed as expected. The Mineral Resource Estimate was based upon the IDW² grade estimation.

5.12 Mineral Resource Classification

The Mineral Resource classification for the NKT deposit was undertaken by WAI in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves [JORC Code (2012)]. The principles governing the operation and application of the JORC Code are Transparency, Materiality and Competence:

- **Transparency** requires that the reader of a Public Report is provided with sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by this information;
- **Materiality** requires that a Public Report contains all the relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in the report, for the purpose of making a reasoned and balanced judgement regarding the Exploration Results, Mineral Resources or Ore Reserves being reported;
- **Competence** requires that the Public Report be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics.

WAI considers exploration undertaken at the NKT Deposit to be sufficient for parts of the deposit to be classified as Inferred Mineral Resources as defined by JORC Code (2012).





A plan view of the block model Mineral Resource classification is shown in Figure 5.3.

Figure 5.3: Plan View showing Mineral Resource Classification for NKT

5.13 Reasonable Prospects for Economic Extraction

5.13.1 Introduction

For a deposit, or portion of a deposit, to be classified as a Mineral Resource, reasonable prospects for eventual economic extraction ("RPEEE") (the JORC Code [2012]) need to be demonstrated. The NKT Deposit is considered as a potential open pit and underground mining operation. Mineralisation within the northern zone of the license is considered amenable to open pit mining while the southern zone is considered as an underground operation. To assess RPEEE the following steps (detailed in the sections below) were undertaken by WAI.

5.13.2 Open Pit Mineral Resources

An open pit optimisation using Datamine's NPV Scheduler software was undertaken by WAI using the technical and economic parameters. The optimisation was undertaken on Inferred Mineral Resources below the surface topography and within the licence boundary. An optimal pit shell (shell 8) was selected. Mineral Resources located within this pit shell were then evaluated using a block cut-off value of US\$10.6/t based on an estimated breakeven cost for mining and processing. Block values



were calculated based on the estimated grades and a US\$ value (contained metal) for each block was assigned using the metal prices and metallurgical recoveries used in the open pit optimisation.



Figure 5.4: Extent of Open Pit Optimisation

5.13.3 Underground Mineral Resources

Inferred Mineral Resources below the open pit resource shell were evaluated using a block cut-off value of US\$46/t based on an estimated breakeven cost for mining and processing. Block values were calculated based on the estimated grades and a US\$ value (contained metal) for each block was assigned using the same metal prices and recoveries as for open pit optimisation parameters.

5.14 Mineral Resource Statement

The Mineral Resource Estimate for the NKT Deposit is prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves [JORC Code (2012)].

The stated Mineral Resources are not materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues, to the best knowledge of the author. There are no known mining, metallurgical, infrastructure, or other factors that materially affect this Mineral Resource Estimate, at this time. A summary of the Mineral Resource statement is shown in Table 5.13.



	Table 5.13: Inferred Resources for NKT, Donnaya Zone											
Ore Pd Pt Au Ag Cu Ni Pd Pt Au Ag Cu Ni												
(Kt)	(g/t)	(g/t)	(g/t)	(g/t)	(%)	(%)	(kg)	(kg)	(kg)	(kg)	(t)	(t)
107,135	0.43	0.09	0.01	0.37	0.13	0.28	45,583	10,021	1,466	39,591	142,760	304,468

6 METALLURGICAL TESTWORK SUMMARY

To verify the metallurgical testwork done by Norilsk Nickel, one metallurgical sample (sample ID '2017/1') from NKT was taken by Rosgeo of drill core from the mineralised zone during the 2015 - 2017 drilling campaign by Rosgeo. Samples consisted of the coarse duplicates (1mm fraction) produced during core sample preparation. Samples were composited to produce a 50kg sample which was submitted to JSC "Institute Gipronickel" for analysis and testwork.

Metallurgical testwork included crushing, screening, grinding, sieve analysis, and flotation. Flotation studies were conducted in a closed cycle according to four schemes involving a combination of 1 or 2 stage grinding and cleaner stages.

The tests were undertaken at the Gipronickel Institute in 2017. Processing studies included the following:

- Chemical and mineralogical composition of the sample;
- Grindability tests;
- Processing testwork including two flotation flowsheets developed previously for processing low sulphide platinum-metal ores from the Monchegorsk region;
- Magnetic separation of flotation tailings; and
- Chemical analysis of the flotation concentrates.
- The two-stage flowsheet increased the recoveries of copper, gold, platinum and silver by 1-2% and gave concentrates 1.5 times higher in grade;
- Two-stage grinding was recommended; and
- The processing risks were considered to be low by Gipronickel Institute (engineering arm of Norilsk Nickel).

The recommended flowsheet is given in Figure 6.1.





Figure 6.1: Recommended Flowsheet for the treatment of Sample NKT-2017/1

The metallurgical balance for processing sample NKT-2017/1, when producing a concentrate with a nickel grade of 6.5% Ni, is given in Table 6.1.

	Table 6.1: Metallurgical Balance for Sample NKT-2017/1																		
Droduct	Mass Grade (%)							Distri	butio	n (%)		Grade (g/t) Distributi				tion (ion (%)		
Product	(%)	Νίτοτ	Ni _{sul}	Cu	Со	S	Nitot	Ni _{sul}	Cu	Со	S	Pt	Pd	Au	Ag	Pt	Pd	Au	Ag
Conc.	4.61	6.50	6.30	4.05	0.23	24.27	81	88	89	58	67	2.06	8.34	0.47	16.25	66	87	78	70
Tailings	95.39	0.07	0.04	0.02	0.01	0.58	19	12	11	42	33	0.05	0.06	0.01	0.34	34	13	22	30
Ore	100	0.37	0.33	0.21	0.02	1.67	100	100	100	100	100	0.14	0.4	0.03	1.07	100	100	100	100



7 PROPOSED MINING METHODS

For the purpose of the CPR, the NKT Project is considered as a potential underground operation. Given the geometry of the mineralisation, WAI considers that a step or modified room and pillar mining method will need to be considered for the underground operation, particularly in areas where the dip of the mineralisation reduces.

The step room and pillar mining method adapts the inclined orebody footwall for efficient use of trackless equipment in tabular deposits. Stopes and haulage-ways cross the dip of the orebody at angles that can be easily travelled by trackless vehicles. Parallel transport routes cross the orebody, to establish roadway access to stopes and for trucking blasted material to surface or underground stockpiles.

Stopes are mined along strike at pre-determined step out angles where a minimal percentage of the ore is left behind. The stope drive is developed until breakthrough occurs to the next transport drive. The next step is to excavate a similar stope drive one step down dip. A portion of the remaining pillars can be recovered on retreat. Stope spans, pillar dimensions and the level of ground support required will be dependent on the results of rock mechanics testing prior to mining and ultimately the conditions experienced during actual mining. The step room and pillar method is shown in Figure 7.1.



Figure 7.1: Schematic of Step Room and Pillar Method



8 FINANCIAL SUMMARY

The economic model horizon captures 11 years of operation. The target mining and processing production rate is assumed at 10Mtpa, achieved by underground mining and bulk sulphide flotation plant, with a gradual ramp up.

Table 8.1: Technical and Economic Assumptions Total Mineral Resource (after Dilution & Losses) 93,422 kt Metals UG Grade Content Pd g/t 0.39 36.466 kg Ρt 0.09 g/t 8,017 kg Au g/t 0.01 kg 1,173 Cu % 0.12 t 114,208 Ni % 0.26 t 243,574 **Processing / Smelting Processing Recovery Payable Content Refining Charges** Pd 98% 93% 0.70 US\$/oz Ρt 76% 93% 1.48 US\$/oz 91% 92% 1.47 US\$/oz Au 94% 93% Cu Ni 86% 94% US\$/t conc. Smelter and Transportation Cost 145 **Operating Costs Summary** UG Ore Mining Cost US\$/t ore 13.40 US\$'000 1,251,853 Processing Cost US\$/t ore 7.70 US\$'000 719.348 G&A US\$ pa 10,000 US\$'000 110,000 Fees to Closure and Reclamation US\$/t ore 0.25 US\$'000 23,355 Royalty (Mineral Extraction Tax) US\$'000 241,158 **Total Opex** US\$/t ore 25.11 US\$'000 2,345,714 **Capital Costs Summary UG Mining Capex** US\$'000 257,672 US\$/t ore 2.76 **Processing Capex** US\$'000 220,000 US\$/t ore 2.35 General Infrastructure Initial Capex US\$'000 0.16 15,000 US\$/t ore **EPCM** US\$'000 22,000 US\$/t ore 0.24 Contingency US\$'000 98,534 US\$/t ore 1.05 **Total Initial Capital Requirements** US\$'000 613,206 US\$/t ore 6.56 Mining UG Sustaining Capex US\$'000 154,603 US\$/t ore 1.65 0.33 **Processing Sustaining Capex** US\$'000 30,800 US\$/t ore US\$'000 Infrastructure Sustaining Capex 2,100 US\$/t ore 0.02 **Total Project Capital Expenditure** US\$'000 800,709 US\$/t ore 8.57

The technical and economic assumptions are presented in Table 8.1.



The pie chart below (Figure 8.1) provides a visual summary of the Project operating cost components. As expected, the majority of the operating costs is formed by UG mining costs followed by processing opex.



Figure 8.1: NKT Project Operating Cost Components

A summary of the NPV at base case price option is outlined in the chart below (Figure 8.2). As can be seen, the NKT Project's Revenue is mainly generated by Nickel, followed closely by Palladium and then Copper.



Figure 8.2: Net Smelter Return Contribution

NPV Summary											
WAI Spot Price											
Forecast (Nov 2											
NPV @ Discount Rate of 8.33%	US\$ M	1,188	1,692								
IRR	%	37%	47%								
Payback period of capital (FCF)*	Years	3	3								

Note: Payback period represents time required for cumulative Project cashflow to pay back for the initial capital investments.