P&E MINING CONSULTANTS INC.
Geologists and Mining Engineers

201 County Court Blvd., Suite 401
Brampton, Ontario
L6W 4L2

Tel: 905-595-0575
Fax: 905-595-0578
www.peconsulting.ca

TECHNICAL REPORT AND INITIAL MINERAL RESOURCE ESTIMATE ON THE EAST BULL PLATINUM GROUP METALS PROPERTY GEROW TOWNSHIP, SUDBURY MINING DIVISION, ONTARIO

UTM NAD 83 17T 405,200 m E 5,141,400 m N
Lat 46° 25' 10" N Long 82° 14' 0" W
NTS 41J 08 – Whiskey Lake

FOR
21C METALS INC.

NI 43-101 & 43-101F1
TECHNICAL REPORT

Eugene Puritch, P.Eng., FEC, CET
Antoine Yassa, P.Geo,
Jarita Barry, P.Geo.

P&E Mining Consultants Inc.
Report 352

Effective Date: April 15, 2019
Signing Date: May 23, 2019

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 SUMMARY

The following report was prepared to provide a National Instrument ("NI") 43-101 Technical Report and Initial Resource Estimate for the platinum group metal ("PGM") and base metal mineralization contained in the East Bull PGM Property (the "Property" or "East Bull Property") in Gerow Township, Ontario, Canada. The East Bull PGM Property is located 90 km west of the city of Sudbury in northern Ontario, at UTM NAD 83 Zone 17T 405,200 m E and 5,141,400 m N, Latitude 46° 25' 10" N and Longitude 82° 14' 0" W and is in NTS map sheet 41J 08.

The East Bull PGM Property is comprised of four (4) contiguous staked claims (1227910, 4272475, 4288039, 4288040) covering 62 claim units (992 ha) in central Gerow Township, Sudbury Mining Division. On February 23, 2019, 21C Metals signed an option agreement with Pavey Ark Minerals Inc. to obtain a 100% interest in the East Bull PGM Property through a combination of exploration expenditures, the issuance of shares and cash payments. The claims are 100% registered to Pavey Ark Minerals Inc., a private Ontario company.

The East Bull PGM Property benefits from close proximity to the city of Sudbury and is accessible by route 553/810, all-weather road extending north from Highway 17 at Massey, Ontario. Massey has a population of 3,214 and is located on the Trans-Canada Highway 17 and rail corridor between Sudbury and Sault Ste. Marie on the north shore of Lake Huron. Greater Sudbury, with a population of 161,531 (2016 Census), is the largest city in northern Ontario. Sudbury is home to the fully integrated base and precious metal mining, processing, smelting and refining complexes of Vale Canada Limited and Glencore PLC.

The East Bull PGM Property is located in the Great Lakes watershed. The topography of the area is typical of the Canadian Shield and consists of a peneplained surface with limited local relief consisting of low rocky ridges separated by poorly drained ground. The Property lies within the Boreal Forest vegetation zone. The area is at an elevation of approximately 370 m asl with local relief ranging from 360 m to 400 m asl. The climate of the area is characterized by cold winters and warm summers. The Köppen-Geiger climate classification is Dfb (continental warm summer).

The East Bull PGM Property is underlain by gabbroic rocks of the Paleoproterozoic East Bull Lake Intrusive Suite. The ca. 2.48 Ga East Bull Intrusive Suite consists of several intrusions of dominantly gabbronorite to gabbroic anorthosite that occur in both the Southern and Grenville provinces in the Sudbury area between Elliot Lake and North Bay. The East Bull Lake Intrusive Suite is part of a regional, Paleoproterozoic, bimodal magmatism resulting from a mantle-plume driven, intracontinental rifting event. This event formed a major basin, filled by sedimentary and igneous rocks of the Huronian Supergroup.

The East Bull PGM Property is located on the southern contact of the larger western magma chamber of the East Bull Lake Intrusion. In this area, the igneous stratigraphy of the East Bull Lake Intrusion is divided into the Marginal, Lower, Main, and Upper Series. On 21C Metals' East Bull PGM Property, the PGM and base metal mineralization is primarily hosted in the Inclusion Bearing Zone at the base of the Lower Series.

On the Property, drilling and surface trenching has defined significant precious metal and base metal mineralization in the Inclusion Bearing Zone of the East Bull Intrusion over a strike length of 2.0 km. The Valhalla Zone, named after the original Freewest Resources Canada Inc. ("Freewest") discovery in 1998, is the largest mineralized zone with a strike length of over 1,500 m. The Valhalla Zone, locally up to 60 m wide, strikes at approximately AZ 265°, dips approximately -55° toward north on the eastern portion and dips at -45° at the western end. The Hanging Wall Zone occurs as a 20 to 25 m wide mineralized zone, parallel to the Valhalla Zone, in the eastern part of the Deposit. The Garden Zone is a smaller zone of mineralization defined by trenching and several drill holes in the western part of the Property. Additional drilling may show this to be continuous with the Valhalla Zone.

Opportunities for expanding the PGM-base metal mineralization are present along strike, down-dip, and between the Valhalla and Garden Zones. Additionally, there are several strong untested VTEM™ and borehole EM responses in the footwall of the Valhalla Zone.

Mineralization locally contains up to 10% sulphide, but more typically mineralization consists of 0.1 to 1.0% sulphide and rarely exceeds 2%. The sulphides consist of finely disseminated grains, and coarser blebs up to 5 cm in diameter with chalcopyrite and pyrrhotite that appear to have initially formed as primary magmatic sulphides. The major sulphide phases are pyrrhotite, chalcopyrite, pentlandite and pyrite. PGM minerals have been identified as: froodite ($PdBi_2$); kotulsite (PdTe); merenskyite ($PdTe_2$); michenerite (PdBiTe); unidentified Pd arsenide; sperrylite ($PtAs_2$); platarsite (PtAsS); and hollingsworthite (RhAsS). Note: Pd = palladium, Pt = platinum, Rh = rhodium. Gold grains are also identified. The PGM and gold occur as small inclusions ranging in size from 1 to 30 μm in size included in all of the major sulphide minerals.

The East Bull Intrusion has been sporadically explored for base metals and PGM since 1952. Previous exploration work on the East Bull Property was mainly by Freewest and Mustang Minerals Corp. ("Mustang") in 1999 and 2000. Freewest drilled 27 holes for a total of 2,902 m and carried out extensive surface trenching on present claim 4272475. Work by Mustang on the eastern part of the Property (claim 1227910) included 11 drill holes for a total of 1,766 m. The work by Freewest and Mustang forms the majority of the data for the current Resource Estimate. The Company has copies of Freewest and Mustang logs, sample records and assay certificates for trenches and drill holes. Additionally, Pavey Ark has reviewed and resampled drill core from the 27 BQ and NQ holes from the Freewest drilling program.

Pavey Ark's exploration results in 2017 included hole EB17-01 that intersected 12.0 m at 2.87 g/t PGM+Au, 0.23% Cu and 0.13% Ni and hole EB17-03 that intersected 7.0 m of 3.21 g/t PGM+Au, 0.16% Cu and 0.07% Ni. Note: Au = gold, Cu = copper, and Ni = nickel.

In total, Pavey Ark's 2017 exploration included 77 metres of channel sampling in 6 channels resulting in 79 assay samples, 320 metres of diamond drilling in 3 drill holes for a total of 92 assay samples, cataloguing and resampling of core originally drilled by Freewest in 1999 and 2000 for a total of 217 assays in 7 holes; and a differential GPS ("DGPS") survey of all located historical drill casings and channel samples. Sample submissions included an additional 21 reference samples and 20 blanks.

Pavey Ark's samples were analyzed by Actlabs in Ancaster, Ontario. All samples were transported under the direct supervision of R.H. Sutcliffe and delivered from the Project directly

to the laboratory receiving facilities of Actlabs in Ancaster, Ontario. Samples were analyzed for Pt, Pd, Au by 50 g fire assay with ICP-OES finish and for Ag, cobalt ("Co"), Cu, Ni by total digestion with an ICP finish at Actlabs, in Ancaster, ON. Rh was analyzed separately by 30 g fire assay with ICP-MS finish at Actlabs in Ancaster, ON. Actlabs also determined the specific gravity of 60 samples of sawn ½ core from three drill holes.

The East Bull Property was visited by Mr. Antoine Yassa, P.Geo., of P&E Mining Consultants Inc. on October 31 and November 1, 2017 for the purposes of completing an independent site visit. During the site visit Mr. Yassa viewed access to the Property, geology and topography, as well as taking several GPS readings to confirm the location of several drill hole collars. Pavey Ark had an active drill program on the Property at the time of Mr. Yassa's site visit.

Mr. Yassa independently selected six samples from Pavey Ark drill hole EB17-01 that covered a visually mineralized interval with disseminated chalcopyrite from 31.0 to 37.0 m. In addition, Mr. Yassa independently selected 24 samples from historical Freewest drill hole 321-00-21 that covered the interval from 63.0 to 87.0 m. The historical Freewest sample tags were readily visible in the core boxes and the samples collected by Mr. Yassa matched the historical sample intervals originally assayed by Freewest. All samples were nominally 1 metre in length. The independent samples consisted of ¼ core that was sawn under the supervision of Mr. Yassa. Mr. Yassa bagged and sealed the samples and transported the samples directly to the sample receiving facilities at ALS Canada Ltd.'s laboratory in Rouyn-Noranda, QC, where they were prepared and shipped to the ALS Canada Ltd. Facility in Vancouver, BC for analysis.

The samples were analyzed for Pt, Pd, Au by a 50 g fire assay with ICP-AES finish, for Rh by 30 g fire assay with ICP-MS finish, and for Ag, Co, Cu, Ni by 4-acid digestion with ICP-AES finish at ALS Canada Ltd.'s laboratory in Vancouver, BC. The results for the independent due diligence samples from the Pavey Ark drill hole showed excellent reproducibility with Pavey Ark's results from Actlabs and results from the independent resampling of the historical Freewest drill hole showed excellent reproducibility with Freewest's historical results from XRAL Laboratories. It is P&E's opinion that both the current and historical data are of good quality and appropriate for use in the current Mineral Resource Estimate.

All data for the Mineral Resource Estimate were provided in the form of Excel files and scanned copies of original reports, drill logs and assay certificates. The database as imported by P&E contains results of 41 diamond drill holes and 6 surface channels for a total of 2,864 drill core assays and 79 surface channel assays. 11 holes were drilled by Mustang Minerals in 1999 and 2000, 27 holes were drilled by Freewest Resources in 1999 and 2000, 3 holes were drilled Pavey Ark in 2017, and six channels were cut by Pavey Ark in 2017. Industry standard validation checks were completed on the supplied databases. P&E believes that the supplied database is suitable for Mineral Resource estimation.

Local topography was derived from the Ontario Mining Land tenure map. Domain models were generated by P&E from successive polylines spaced along drill hole sections created every 100 m and oriented perpendicular to the general trend of the mineralization. A total of three mineralized domains were developed:

- Valhalla Zone – the main east west striking mineralized zone with a moderate north dip;

- Hanging Wall ("HW") Zone – a minor zone paralleling the Valhalla Zone in the hanging wall of the eastern part of the Deposit;

- Garden Zone – a minor zone located west of the main Valhalla Zone at the west end of the Deposit.

A compositing length of 1.0 m was selected for Mineral Resource estimation. The presence of high-grade outliers for the composite data was evaluated by a review of composite summary statistics, histograms and probability plots. Based on this analysis, grade capping was deemed to be minimal for Ni, Cu and Pd composites (one each).

An average in-situ bulk density of 2.97 t/m^3 was applied to the mineralized domains based on an average of 60 specific gravity measurements on drill core by Actlabs. The East Bull PGM Deposit Mineral Resource model was divided into a block model framework with blocks extending 5 m in the X direction, 5 m in the Y direction and 5 m in the Z direction. The block model framework contains 460 columns (X), 160 rows (Y) and 40 levels (Z), and was not rotated.

Mineral Resources were estimated and classified in compliance with guidelines established by the Canadian Institute of Mining, Metallurgy and Petroleum. Mineral Resource classification was implemented by generating three-dimensional domains around those parts of the block model for which the drill hole spacing and grade estimates met the required continuity criteria. As a result of the relatively wide drill hole spacing ranging between 50 to 100 m, an Inferred only interpolation pass was utilized to code the Au, Pt, Pd, Rh, Ni, Cu and Co grade blocks. As a result, all of the mineralization was classified an Inferred Mineral Resource. Inverse distance squared ($1/d^2$) grade interpolation was utilized.

The Mineral Resource Estimate was derived by applying the PdEq cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable pit constrained Mineral Resources. In order to evaluate the potentially economic open pit mineralization in the East Bull Deposit, a first pass Whittle pit optimization was carried out to create an optimum pit shell for the East Bull Deposit. Near-surface Mineral Resources are constrained within an optimized conceptual pit-shell that utilized the Inferred Mineral Resources.

The resulting Mineral Resource Estimate for the East Bull PGM Deposit at a 0.8 g/t PdEq cut-off is summarized in table 1.1. The Property has an estimated pit constrained Inferred Mineral Resource of 11.1M tonnes at a grade of 1.46 g/t PdEq for a total of 523 koz of palladium equivalent.

P&E considers that the East Bull PGM Property contains a significant PGM and base metal Mineral Resource that is associated with a well-defined gabbro intrusion and primary layered magmatic system. P&E further considers that Property has potential for delineation of additional Mineral Resources. Further exploration is warranted to increase the size and confidence of the Mineral Resource Estimate, evaluate metallurgical recoveries, and complete a PEA. A two Phase program for a total of CAD$1,500,000 is recommended.

TABLE 1.1
EAST BULL PLATINUM GROUP METAL DEPOSIT PIT CONSTRAINED MINERAL RESOURCE ESTIMATE
AT A 0.8 G/T PDEQ CUT-OFF[1-4]

Classification	Tonnes (M)	Au (g/t)	Pt (g/t)	Pd (g/t)	Rh (g/t)	Cu (%)	Ni (%)	Co (%)	3PGM+Au (g/t)	PdEq (g/t)	PdEq (koz)
Inferred	11.1	0.05	0.26	0.58	0.04	0.14	0.05	0.01	0.93	1.46	523

Note: *Au = gold, Pt = platinum, Pd = palladium, Rh = rhodium, Cu = copper, Ni = nickel, Co = cobalt, PGM = platinum group metals i.e. platinum, palladium, and rhodium, PdEq = palladium equivalent.*

(1) Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues, although 21C Metals Inc. is not aware of any such issues.

(2) The Inferred Mineral Resource in this estimate has a lower level of confidence that that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

(3) The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines.

(4) Values in the table may differ due to rounding.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 TERMS OF REFERENCE

The following report was prepared to provide a National Instrument ("NI") 43-101 Technical Report and Initial Resource Estimate for the platinum group metal ("PGM") mineralization contained in the East Bull PGM Property ("Property"), Gerow Township, Sudbury Mining Division, Ontario. The East Bull PGM Property is 100% owned by 21C Metals Inc. ("21C Metals").

This Technical Report was prepared by P&E Mining Consultants Inc. ("P&E") at the request of Gary Clark, Director of 21C Metals, a British Columbia registered corporation, trading under the symbol of "BULL" on the CSE, "DCR1" on the FRA and "DCNNF" on the OTCQB Exchange, with its head office at:

1620 West 8th Avenue, Suite 302
Vancouver, British Columbia
V6J 1V4
Tel: 604-639-4457

This Technical Report has an effective date of April 15, 2019.

Mr. Antoine Yassa, a Qualified Person under the regulations of NI 43-101, conducted a site visit to the Property on October 31 and November 1, 2017. An independent verification sampling program was conducted by Mr. Yassa at that time.

In addition to the site visit, P&E held discussions with technical personnel from the Company regarding all pertinent aspects of the Project and carried out a review of available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References section of this Technical Report, for further details.

The present Technical Report is prepared in accordance with the requirements of National Instrument 43-101 (NI 43-101) and in compliance with Form NI 43-101F1 of the Ontario Securities Commission ("OSC") and the Canadian Securities Administrators ("CSA"). The Mineral Resources in the estimate are considered compliant with the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM"), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions.

2.2 SOURCES OF INFORMATION

This Technical Report is based, in part, on internal company technical reports, and maps, published government reports, company letters, memoranda, public disclosure and public information as listed in the References at the conclusion of this Technical Report. Sections from reports authored by other consultants have been directly quoted or summarized in this Technical Report, and are so indicated where appropriate.

2.3 UNITS AND CURRENCY

Unless otherwise stated all units used in this report are metric. Precious metal assay values (Au, Pd, Pt, Rh) are reported in grams of metal per tonne ("g/t"), parts per million ("ppm") and in parts per billion ("ppb"). Silver ("Ag") is reported in grams of metal per tonne ("g/t") and parts per million ("ppm"). 1 g/t is equal to 1 ppm or 1,000 ppb. The CAD$ is used throughout this report unless the US$ is specifically stated. At the time of this Technical Report the rate of exchange between the US$ and the CAD$ is 1 US$ = 1.33 CAD$. Geographic coordinates are based on NAD 83, Zone 17T.

The following list shows the meaning of the abbreviations for technical terms used throughout the text of this report.

TABLE 2.1
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
"21C Metals"	21C Metals Inc.
"AECL"	Atomic Energy of Canada Ltd.
"Ag"	silver
"asl"	above sea level
"Au"	gold
"BHEM"	borehole electromagnetic
"°C"	degree Celsius
"CAD$"	Canadian Dollar
"CIM"	Canadian Institute of Mining, Metallurgy, and Petroleum
"Cliffs"	Cliffs Natural Resources Inc.
"cm"	centimetre(s)
"Co"	cobalt
"CRM"	certified reference material
"CSRS"	Canadian Spatial Resolution Service
"CSA"	Canadian Securities Administrators
"Cu"	copper
"DDH"	diamond drill hole
"DGPS"	differential GPS
"$M"	dollars, millions
"EM"	electromagnetic
"FLEM"	fixed loop EM (electromagnetic)
"Freewest"	Freewest Resources Canada Inc.
"Ga"	Giga annum or billions of years
"g/t"	grams per tonne
"GPS"	global positioning system
"ha"	hectare(s)
"HW"	hanging wall
"IBZ"	Inclusion-Bearing Zone
"JV"	joint venture

TABLE 2.1
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
"k"	thousand(s)
"km"	kilometre(s)
"koz"	thousands of ounces
"m"	metre(s)
"m^3"	cubic metre(s)
"Ma"	millions of years
"Mag"	magnetic
"MT"	magnetotellurics
"max."	maximum
"MLEM"	moving loop EM (electromagnetic)
"min."	minimum
"mm"	millimetre
"New Age"	New Age Metals Inc.
"MNDM"	Ontario Ministry of Northern Development and Mines
"Mustang"	Mustang Minerals Corp.
"μm"	micrometre/micron (1 μm = 0.001 mm)
"Noront"	Noront Resources Ltd.
"NAD"	North American Datum
"Ni"	nickel
"NI"	National Instrument
"NSR"	net smelter royalty
"OSC"	Ontario Securities Commission
"OTCQB"	OTCQB Venture Exchange
"oz"	Troy ounce
"P&E"	P&E Mining Consultants Inc.
"PGM"	platinum group metals
"ppb"	part per billion
"ppm"	parts per million
"Property"	East Bull PGM Property
"Pt"	platinum
"P.Eng."	Professional Engineer
"P.Geo."	Professional Geoscientist
"ppm"	parts per million
"QA/QC"	quality assurance/quality control
"QMS"	quality management system
"QP"	Qualified Person
"RC"	Reverse Circulation
"RQD"	rock quality determination
"RTK"	Real-Time Kinematic
"S"	sulphur
"Sagamok"	Sagamok Anishnawbek First Nations

TABLE 2.1
TERMINOLOGY AND ABBREVIATIONS

Abbreviation	Meaning
"SEDAR"	System for Electronic Document Analysis and Retrieval
"Rh"	rhodium
"t"	metric tonne(s)
"TDEM"	Time-Domain EM (electromagnetic)
"UTM"	Universal Transverse Mercator grid system
"VTEM™"	Versatile Time Domain Electromagnetic
"Zn"	zinc
"ZTEM™"	Z-Axis Tipper Electromagnetic

3.0 RELIANCE ON OTHER EXPERTS

P&E has assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Technical Report are accurate and complete in all material aspects. While P&E has carefully reviewed all the available information presented to us, P&E cannot guarantee its accuracy and completeness. P&E reserves the right, but will not be obligated to revise the Technical Report and conclusions if additional information becomes known to us subsequent to the date of this Technical Report.

Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed. Information relating to tenure was reviewed by means of the public information available through the Ontario Ministry of Northern Development and Mines ("MNDM") website at: http://www.mndm.gov.on.ca/en/mines-and-minerals/applications. P&E has relied upon this public information, as well as tenure information from 21C Metals Inc. and has not undertaken an independent detailed legal verification of title and ownership of the East Bull PGM Property ownership. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on, and believes it has a reasonable basis to rely upon 21C Metals Inc. to have conducted the proper legal due diligence.

Select technical data, as noted in the Technical Report, were provided by Pavey Ark and 21C Metals Inc. and P&E has relied on the integrity of such data.

A draft copy of this Technical Report has been reviewed for factual errors by the client and P&E has relied on 21C Metals Inc.'s knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The East Bull PGM Property is located 26 km northwest of the town of Massey, Ontario (Figure 4.1) and 90 km west of the city of Sudbury, Ontario and is located in Gerow Township within the Sudbury Mining Division. The Property is accessed by route 553/810 an all-weather road that extends north from the Trans-Canada Highway 17 at Massey, Ontario.

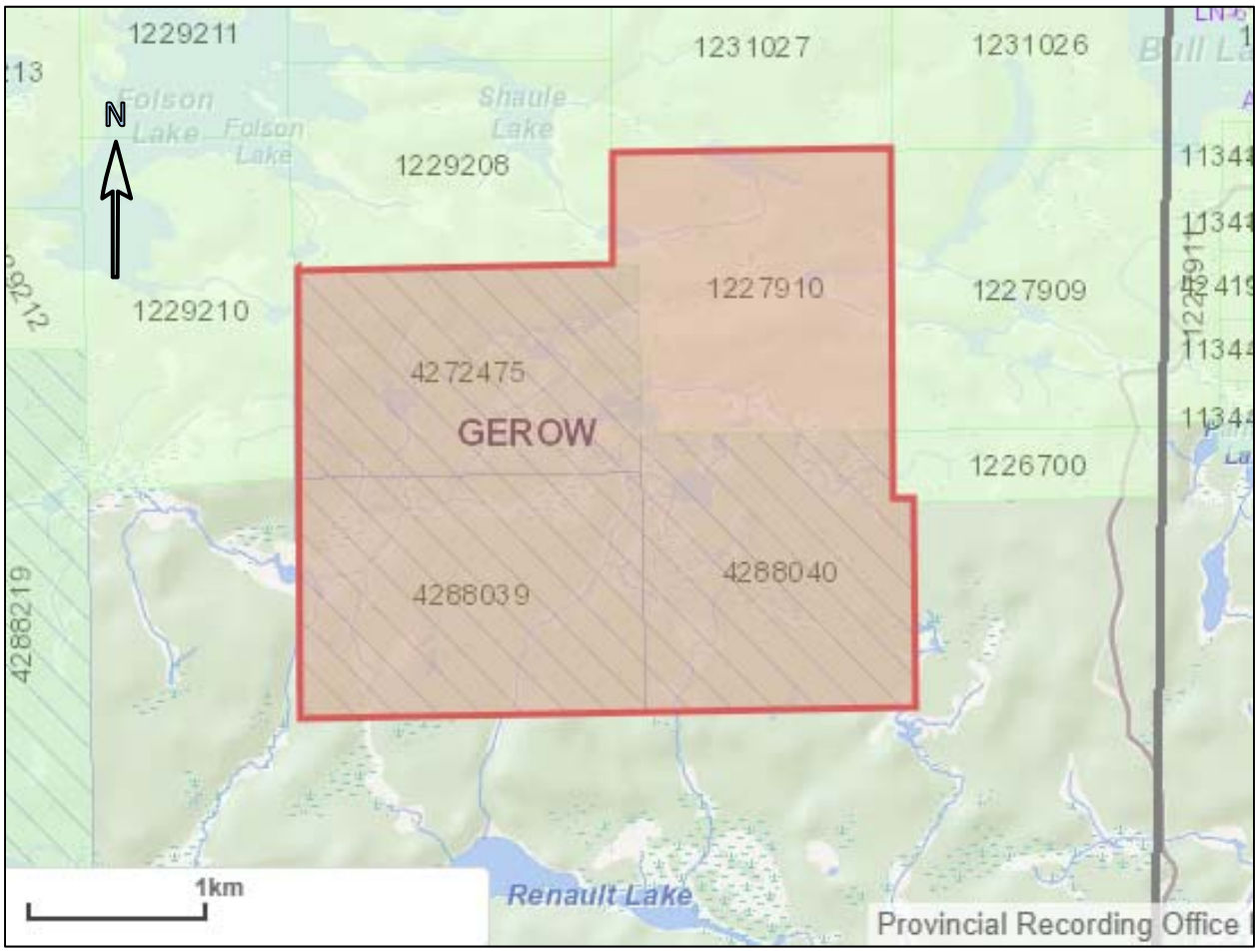
FIGURE 4.1 LOCATION MAP OF THE EAST BULL PGM PROPERTY

Source: *Pavey Ark (2018) and Google Earth (2018)*

4.2 PROPERTY DESCRIPTION AND TENURE

The East Bull PGM Property is comprised of four contiguous staked mining claims (1227910, 4272475, 4288039, 4288040) covering 62 claim units (992 ha) in central Gerow Township, Sudbury Mining Division (Figure 4.2 and Table 4.1).

FIGURE 4.2 EAST BULL PGM PROPERTY CLAIM MAP



Source: *MNDM Claim Maps (2018)*

On February 23, 2019, 21C Metals signed an option agreement with Pavey Ark Minerals Inc. to acquire a 100% interest in the East Bull PGM Property. Under the terms of the option agreement, 21C Metals is obligated to carry out exploration expenditures and to make payments in cash and shares. Exploration expenditures according to the following schedule:

- $250,000 in exploration expenditures on or before March 1, 2020 (the first expenditure amount);
- $500,000 in exploration expenditures on or before March 1, 2021 (the second expenditure amount);
- $500,000 in exploration expenditures on or before March 1, 2022 (the third expenditure amount); and
- $500,000 in exploration expenditures on or before March 1, 2023 (the fourth expenditure amount).

A total 4,500,000 shares of 21C Metals will be issued to Pavey Ark Minerals Inc. according to the following schedule:

- 750,000 shares within five business days of receiving approval for the agreement;
- 750,000 shares on or before March 1, 2020 and upon incurring the first expenditure amount;
- 1,000,000 shares on or before March 1, 2021 and upon incurring the second expenditure amount;
- 1,000,000 shares on or before March 1, 2022 and upon incurring the third expenditure amount; and
- 1,000,000 shares upon incurring the fourth expenditure amount.

Five cash payments, in addition to a $25,000 deposit, will be issued to Pavey Ark Minerals Inc. according to the following schedule:

- $75,000 within five business days of receiving approval for the agreement;
- $150,000 on or before March 1, 2020 and upon incurring the first expenditure amount;
- $200,000 on or before March 1, 2021 and upon incurring the second expenditure amount;
- $250,000 on or before March 1, 2022 and upon incurring the third expenditure amount; and
- $300,000 upon incurring the fourth expenditure.

The claims are registered in the name of Pavey Ark Minerals Inc. Pavey Ark acquired claim 4272475 by staking in 2016, purchased claim 1227910 from Mustang Minerals Corp. in 2017, and staked claims 4288039 and 4288040 in January 2018. Details on claim recording dates, due dates, work requirements, and work credits are shown in Table 4.1.

TABLE 4.1
EAST BULL PGM PROPERTY CLAIMS AND ASSESSMENT REQUIREMENTS

Township / Area	Claim Number	Recording Date	Claim Due Date	Percent Option	Work Required	Total Applied	Total Reserve
GEROW	1227910	1998-Jun-09	2021-Jun-09	100%	$6,400	$128,000	$75,660
GEROW	4272475	2016-Nov-17	2020-Nov-17	100%	$6,000	$12,000	$76,459
GEROW	4288039	2018-Jan-15	2020-Jan-15	100%	$6,000	$0	$0
GEROW	4288040	2018-Jan-15	2020-Jan-15	100%	$6,400	$0	$0
Total 4 claims totalling 62 claim units							

The four claims that form the East Bull PGM Property are all active, in good standing and do not require further assessment credits be applied until at least January 15, 2020. The Property requires total annual assessment of $24,800 to be maintained in good standing, however, the total reserve of $152,119 is sufficient to maintain the Property for several years after the claim due dates in table 4.1.

The claims are 100% held by Pavey Ark. Claim 1227910 was acquired from Mustang Minerals Corp. ("Mustang") and is subject to a 0.5% NSR in favour of Mustang plus a 3.0% NSR in

favour of the original prospector stakers ("Prospector Royalty"). 21C Metals has a right to purchase up to 2% of the Prospector Royalty at a rate of CAD$1.0M for each 1.0% of the NSR.

21C Metrals has provided P&E with the information relating to the unpatented claims. Ownership of the unpatented claims has been independently verified by P&E utilizing public information available through the Ontario Ministry of Energy, Northern Development and Mines ("MENDM") website at: http://www.mndm.gov.on.ca/en/mines-and-minerals/applications. The East Bull PGM Property claims are on Crown Land and comprise mineral rights only.

4.3 ONTARIO MINERAL TENURE

The claims information presented in this section is valid as of the effective date of this Technical Report. Currently, the MENDM is in the process of converting from a system of ground staking to a system of online registration of mining claims. The MENDM implemented the new system on April 10, 2018.

Ontario Crown lands are available to licensed prospectors for the purposes of mineral exploration. A licensed prospector must first stake a mining claim to gain the exclusive right to explore on Crown land. Claim staking is governed by the Ontario Mining Act and is administered through the Provincial Mining Recorder and Mining Lands offices of the MENDM.

Mining claims can be staked either in a single unit or in a block consisting of several single units. In un-surveyed territory, a single unit claim is laid out to form a 16 hectare (40 acre) square with boundary lines running 400 metres (1,320 feet) astronomic north, south, east and west. Multiples of single units, up to a maximum of 16 units (256 hectares), may be staked with only a perimeter boundary as one block claim.

Upon completion of staking, a recording application form is filed with payment to the Provincial Recording Office. All claims are liable for inspection at any time by the Ministry. A claim remains valid as long as the claim holder properly completes and files the assessment work as required by the Mining Act and the Minister approves the assessment work. A claim holder is not required to complete any assessment work within the first year of recording a mining claim. In order to keep an unpatented mining claim current, the mining claim holder must perform $400 worth of approved assessment work per mining claim unit, per year; immediately following the initial staking date, the claim holder has two years to file one year worth of assessment work. Claims are forfeited if the assessment work is not done.

A claimholder may prospect or carry out mineral exploration on the land under the claim. However, the land covered by these claims must be converted to leases before any development work or mining can be performed. Mining leases are issued for twenty-one year terms and may be renewed for further twenty-one year periods. Leases can be issued for surface and mining rights, mining rights only or surface rights only. Once issued, the lessee pays an annual rent to the province. Furthermore, prior to bringing a mine into production, the lessee must comply with all applicable federal and provincial legislation.

4.4 ENVIRONMENTAL AND PERMITTING

21 C Metals currently holds an exploration permit (PR-17-11153) issued by the Ontario Ministry of Energy, Northern Development and Mines for drilling and trenching on the claims 4272475 and 1227910. The permit is valid until August 20, 2020.

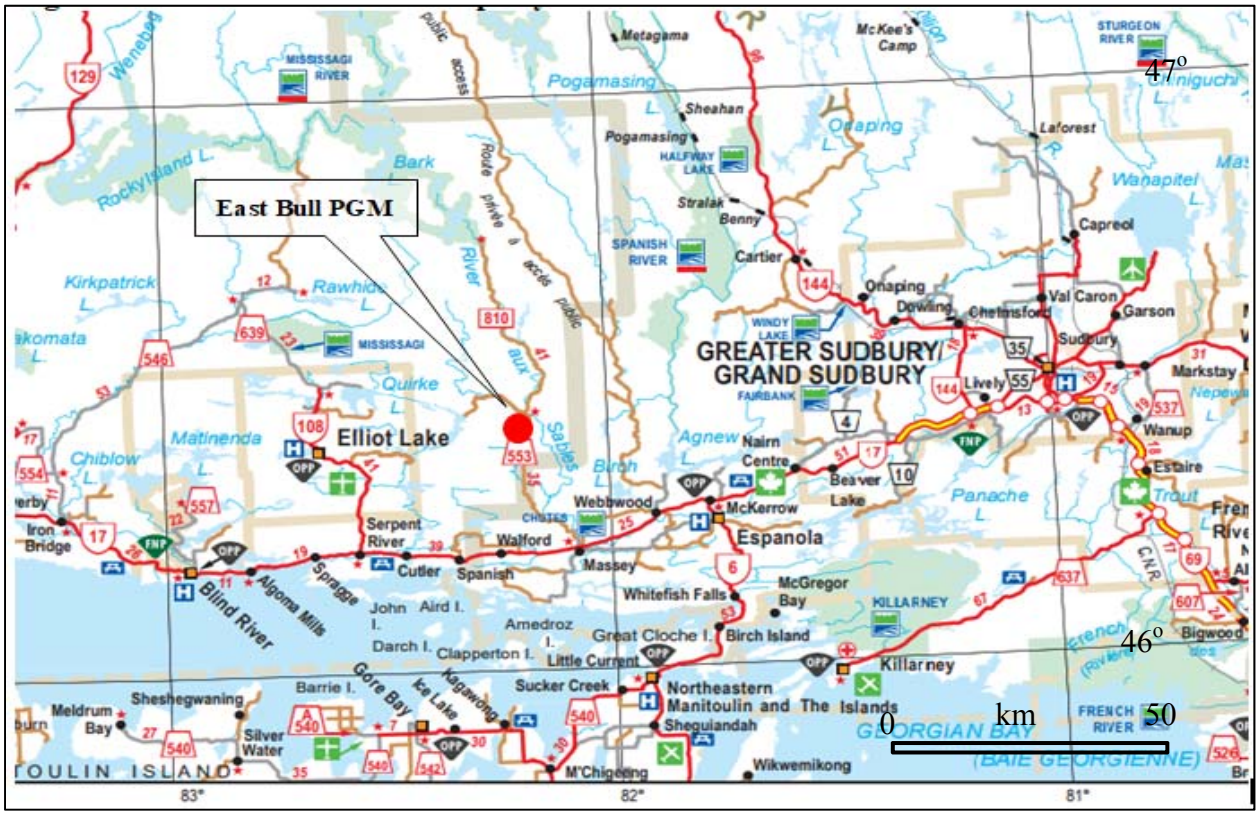
There has been no prior production on the Property and there are no environmental liabilities associated with the 21C Metals claim holdings.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 ACCESS

The East Bull PGM Property is located 26 km northwest of the town of Massey, Ontario and 90 km west of the city of Sudbury, Ontario. The Property is accessed by route 553/810 an all-weather road that extends north of the Trans-Canada Highway 17 at Massey, Ontario (Figure 5.1).

FIGURE 5.1 EAST BULL PGM PROPERTY ACCESS



Source: *Ontario Ministry of Transportation (2018)*

At approximately 31 km north of Massey on route 553, the Project is accessed by turning left onto a gravel bush road known locally as the "AECL Road". The AECL Road extends from route 553 for a total distance of 4 km and terminates in the northwest corner of the Property on claim 1227910. The AECL Road is readily passable by vehicles during the spring through autumn but is not maintained in winter. From the terminus of the AECL Road, an ATV trail continues west through the Property onto claim 4272475.

5.2 CLIMATE

The area has a humid continental climate (Koppen climate classification Dfb) with temperatures averaging about 24°C in summer and -9°C in winter. Extreme temperatures range from greater

than 30°C in summer and less than -40°C in winter. Annual precipitation consists of approximately 60 cm of rain and 240 cm of snow. Exploration and mining can be carried out year-round.

5.3 INFRASTRUCTURE

The Property benefits from close proximity to the city of Sudbury. Greater Sudbury, with a population 161,531 (2016 Census), is the largest city in northern Ontario.

Sudbury is home to the fully integrated base and precious metal mining, mineral processing, smelting and refining complexes of Vale Canada Limited and Glencore PLC. There are numerous companies based in Sudbury that are involved in mining related activities and offer expertise covering all areas of exploration, mining, mineral processing, smelting and environmental rehabilitation. Sudbury is serviced by major highways, rail infrastructure and daily commercial air service to Toronto and other major centres.

Limited food and fuel, as well as lodging are available at the East Bull Lake Wilderness Resort, located approximately 4 km northeast of the Property. Food, fuel, and most supplies required for exploration are available at the town of Massey with a population of 3,214 located 32 km to the south. Espanola is the regional centre with a population of 4,996 (2016 census) and is located 30 km east of Massey. A full range of equipment, supplies and services required for any mining development is available in Sudbury, a distance of 120 km from the Property by road.

Abundant water resources are present in the lakes, rivers, creeks, and beaver ponds on the Property. There is sufficient land on the Property to build and extend mining infrastructure. A major power transmission line is located 4 km south of the Property. Rail line and power infrastructure are located 24 km due south of the Property along the trans-Canada highway.

5.4 PHYSIOGRAPHY

The Property is located in the Canadian Shield in the north shore region of Lake Huron. The area is characterized by hilly terrain comprised of rock ridges with limited glacial overburden and intervening wetlands (Figure 5.2). The area is at an elevation of approximately 370 m asl with local relief ranging from 360 m to 400 m. Higher ground is characterized by extensive outcrop exposure with mixed forest. Between the ridges are areas of wetland comprised of flooded beaver ponds with black spruce and muskeg.

Numerous rivers and lakes drain in overall easterly direction into the River aux Sables that is located immediately east of the Property. The River aux Sables joins the Spanish River at Massey and subsequently flows into the North Channel of Lake Huron.

FIGURE 5.2 EAST BULL PGM PROPERTY, VIEW LOOKING EAST ALONG MINERALIZED ZONE SHOWING OUTCROPPING RIDGE WITH INTERVENING WETLANDS

Source: *Pavey Ark (late October 2017), Dr. Colin Bowdidge establishing DGPS base station.*

6.0 HISTORY

Information on historical exploration discussed in this section is summarized from Pavey Ark's assessment report for work completed in 2017 (Sutcliffe, 2017).

6.1 INTRODUCTION

Moore and Armstrong (1943) completed the initial geological mapping of the East Bull Lake area and recognized the East Bull Lake Intrusion as a Proterozoic gabbroic intrusion. Between 1952 and 1962, a number of mining and exploration companies including Noranda Mines Inc., El Pen Ray Oil and Mines, Silcross Copper Mines Ltd., and Mining Corporation of Canada undertook ground magnetometer and EM surveys, trenching and diamond drilling to explore for Cu-Ni sulfide mineralization in the southeastern part of the East Bull Lake Intrusion (Wood, 2001: Soever, 2001; and Foy 2012). This work identified pyrrhotite-chalcopyrite mineralization in gabbroic rocks and diabase dykes along the southern margin of the intrusion, in what is now recognized as the Parisien Lake deformation zone, and in the area to the east of Moon Lake. Between 1982 and 1989 Atomic Energy of Canada Ltd. ("AECL") completed mapping, outcrop stripping, ground and airborne geophysics, and drilled 4 holes (2,618 m) to assess the East Bull Lake Intrusion as a potential radioactive waste storage/disposal site.

6.2 EXPLORATION HISTORY

The first documentation of PGM mineralization in the East Bull Lake area was by Gallo Exploration in 1989 to 1990. Gallo completed stripping, blasting, mapping and sampling of the sulfide occurrences plus VLF-EM and airborne magnetic surveys. This work identified significant PGM mineralization with assays from trenches of up to 1.3 g/t Pt and 4.2 g/t Pd associated with contact-type mineralization and values up to 0.8 g/t Pt, 3.9 g/t Pd, 0.68 g/t Au, 9.4% Cu, and 5.3% Ni in remobilized semi-massive sulphides in Parisien Lake Deformation Zone. This work was conducted to the east of the East Bull PGM Property.

A summary of exploration history related to PGM mineralization on the East Bull PGM Property is provided in Table 6.1.

The East Bull Lake Intrusion was explored by Inco Exploration between 1991 and 92. Work included mapping and diamond drilling (5 holes for 1,512 m) with assays that included 0.2 g/t Pt, 0.95 g/t Pd, 0.57% Cu, 0.22% Ni and 0.35 g/t Pt, 3.08 g/t Pd, 14.7% Cu, 0.49% Ni. In 1995, WMC International Ltd. completed mapping, rock, soil, and till sampling. The "Neck Zone" (former Peck Grid) was reported to contain a continuous zone of 5% blebby sulphides with a best assay of 0.91 g/t Pt, 4.45 g/t Pd, 0.39 g/t Au, 0.53% Cu, and 0.11% Ni.

TABLE 6.1
SUMMARY OF EXPLORATION ON THE EAST BULL PGM PROPERTY

Date	Performed By	Work Performed	Results
1991-1992	Inco Exploration	Mapping and prospecting covered the western lobe of the East Bull Intrusion including present claim group. Assessment file 41J08NE9720.	Best value on south zone - 589 ppm Cu, 258 ppm Ni, 193 ppb Au, 288 ppb Pt and 205 ppb Pd on present claim 4272475.
1995	WMC International Limited	Mapping and sampling covered the western lobe including the present claim group. Assessment file 41J08NE0022.	Best value on south zone (CR103535) yielded 0.11% Ni, 0.18% Cu, 0.04 g/t Au, 0.23 g/t Pt, and 0.68 g/t Pd on present claim 4272475.
1998	Freewest Resources Canada Inc.	Regional prospecting including area south of Folson Lake and discovery of Valhalla Zone. Assessment file 41J08NE2005.	Best value of 0.22 g/t Au, 1.34 g/t Pt, 3.15 g/t Pd at Valhalla Zone on present claim 4272475.
1998-1999	Freewest Resources Canada Inc.	Blast trenching, additional prospecting, 5-hole 401.8 m BQ drilling program, HEM ground survey, IP survey. Assessment file 41J08NE2005.	DDH 99-01 intersected 50.4 m of 0.62 g/t Pt+Pd including 2.8 m of 1.93 g/t Pt+Pd, similar results in 99-02 and 99-03 on present claim 4272475.
1999-2000	Mustang Minerals Corp.	Drilled 11 NQ holes for 1,766 m. Defined "Bullfrog" Zone over 800 m strike length. Assessment files 41J08NE2007 and 41J08NE2019.	DDH ME00-17 intersected 20 m @ 1.6 g/t PGM, ME00-19 with 12 m @ 2.5 g/t PGM on present claim 1227910.
2000	Freewest Sparton JV	Geological mapping, trenching, 22-hole 2,500 m NQ drilling program. Valhalla and Garden Zones defined over 1.5 km strike length. Never filed for assessment.	DDH 00-21 intersected 1.96 g/t Pt+Pd+Au over 24 m, similar results in other holes on present claim 4272475.
2001	Mustang Minerals Corp.	Geological mapping and sampling on East Bull Intrusion, east extension of "Bullfrog" Zone identified. Assessment file 41J08NE	Best grab sample 35324 with 1.7 g/t PGM from Bullfrog Extension on claim 1227910
2007	Mustang Minerals Corp.	Airborne VTEM and Mag survey, 867 line-km at 100 m spacing over East Bull Intrusion. Assessment file 20003502.	Several VTEM conductors parallel to and south of Valhalla Zone on claims 4272475 and 1227910.
2009	Mustang Minerals Corp./ Western Areas	Geophysical Compilation and Interpretation. Assessment file 20006286.	Priority VTEM conductive targets identified on claim 1227910 and proposed drill holes for follow up.

TABLE 6.1
SUMMARY OF EXPLORATION ON THE EAST BULL PGM PROPERTY

Date	Performed By	Work Performed	Results
2012	Mustang Minerals Corp./ Western Areas	Drilled 6 new holes and extended 2 holes for a total of 3,171 m. Drilling on "Bullfrog" includes a 239 m extension of ME00-19 and a 99 m extension of ME00-21. Assessment file July 20, 2012.	Both ME00-19 ME00-21 have good off hole conductors, but no significant sulphides in hole.
2012	Mustang Minerals Corp.	Quantec Titan-24 MT Survey over East Bull Intrusion. Assessment file 20010302.	Inversion models identify shallow dipping conductive targets.
2012	Mustang Minerals Corp.	Quantec TEM borehole and surface surveys. Borehole surveys include ME00-19 and ME00-21 on "Bullfrog" Zone. Assessment file 20011500.	Conductors identified in both ME00-19 extension, and ME00-21 extension on present claim 1227910.

***** *A Qualified Person has not carried out sufficient work to verify historical results prior to the Mustang and Freewest programs in 1999/2000.*

In parallel with the exploration work, a number of studies of the East Bull Lake Intrusion and associated PGM-Cu-Ni mineralization were completed at Laurentian University in Sudbury. These included an M.Sc thesis by Born (1979) on the Geology of the East Bull Lake Layered Complex, District of Algoma, Ontario, an M.Sc. thesis and geological mapping by Chubb (1994) on the Petrogenesis of the Eastern Portion of the Early Proterozoic East Bull Lake Intrusion, and Ontario Geological Survey sponsored studies of the East Bull Lake Intrusion by Peck and James between 1990 to 1995.

The main exploration effort on the area covering the current 21C Metals East Bull PGM Property was completed by Freewest (on present claim 4272475) and Mustang on claim 1227910 between 1998 and 2000.

The Freewest claim was formerly known as the Folson Lake Property. In 1998 Freewest discovered the Valhalla showing and obtained surface grab samples that assayed up to 1.35 g/t Pt, 3.15 g/t Pd, 0.23 g/t Au and 0.7% Cu. Subsequently, between 1999 and 2000 Freewest completed prospecting, blasting, ground geophysics, and drilled 27 holes for a total of 2,902 m. Most of the holes intersected PGM mineralization and included hole 00-21 with 1.96 g/t Pt+Pd+Au over 24 m. This drilling outlined the Valhalla and Garden Zones mineralization over a strike length of 1.5 km.

Samples from the 2000 Freewest program were analyzed by XRAL Laboratoires, Rouyn-Noranda, Quebec. Au, Pt, Pd were analyzed by fire assay on a 30 g sample with a direct current plasma ("DCP") finish. The lower reporting limits for this method were 1 ppb for Au and Pd and 10 ppb for Pt. Ag, Cu and Ni were reportedly analyzed with a partial digestion with an atomic absorption ("AA") finish. Detection limits are 0.02 ppm for Ag and 2 ppm for Cu and Ni (Lariviere, 2001).

In 1998 Mustang acquired the former Gallo Property and then newly staked claims from a group of Sudbury area prospectors. Mustang re-logged the AECL holes and initiated drilling on the Moon Lake grid east of the current 21C Metals Property.

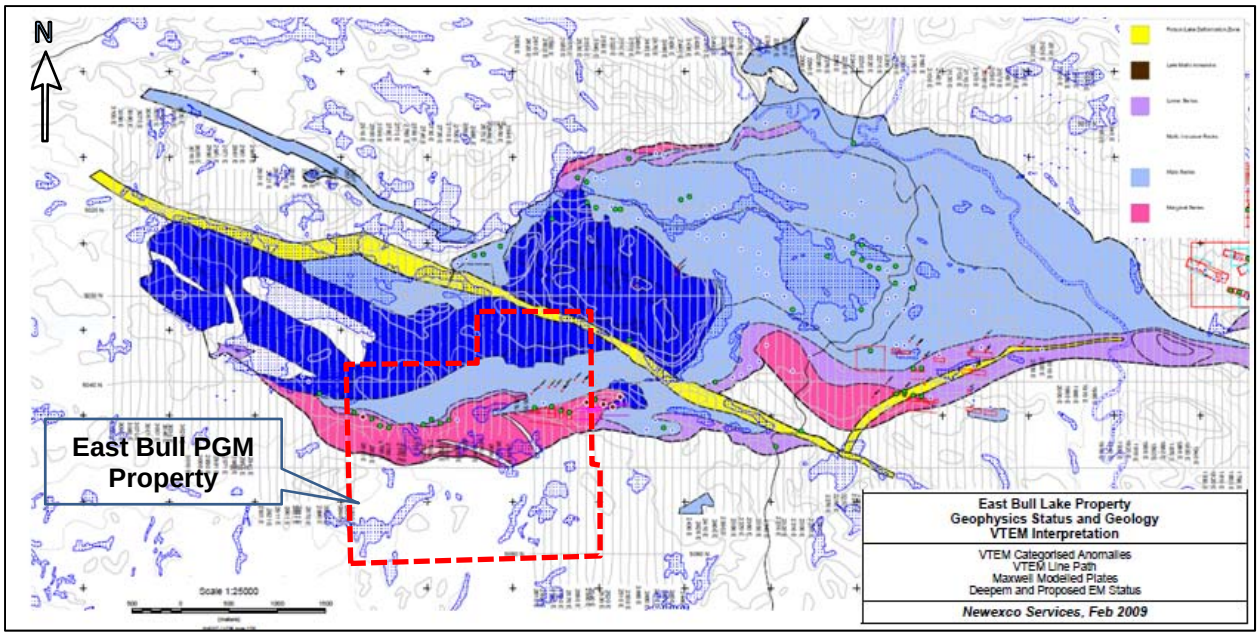
In 1999, Mustang started work on the Bullfrog Grid that is located on claim 1227910. Between 1999 and 2000 Mustang completed mapping, magnetic and IP surveys and drilled 11 holes for a total of 1,766 m on the Bullfrog Grid and outlined the Bullfrog Zone. Mustang intersections included ME00-17 with 20 m at 1.6 g/t Pt+Pd+Au+Rh, ME00-19 with 12 m at 2.5 g/t Pt+Pd+Au+Rh. The exploration results demonstrated the Freewest Valhalla Zone was contiguous with the Mustang Bullfrog zone and the combined Valhalla and Bullfrog mineralization had a strike length totaling over 2.5 km.

Subsequent mapping and prospecting by Mustang in 2001 identified additional surface mineralization to the southeast of the Bullfrog Zone. This area has not been drilled.

In 2001 Falconbridge Limited optioned the Property from Mustang. Between 2001 and 2002, Falconbridge completed prospecting, mapping, trenching, ground and airborne geophysics, and drilled 6 holes for a total of 860 m. Drilling was completed on the Parisien Lake grid, east of the Property, and encountered anomalous PGM values.

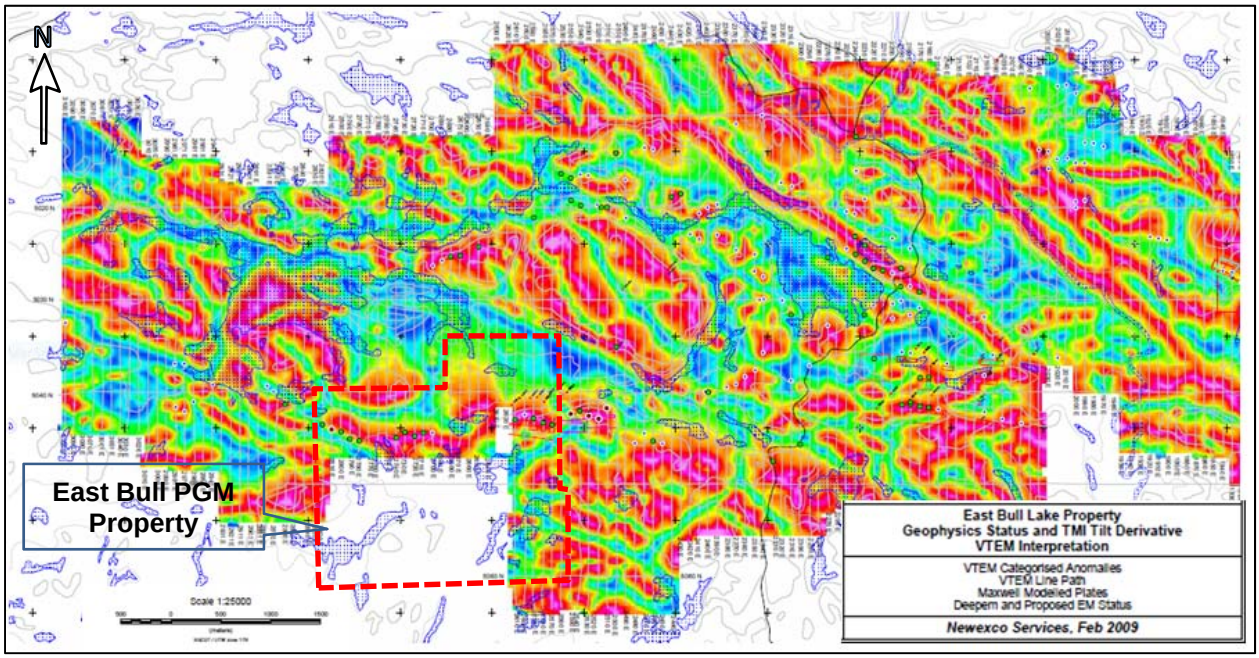
In 2007, Mustang optioned the Property to Western Areas NL, an Australian company. Between 2007 and 2012, Mustang and Western Areas completed geological compilation (Figure 6.1), helicopter Magnetics/VTEM™ survey (Figure 6.2), borehole EM, Moving In-Loop, Fixed Loop EM (MLEM and FLEM) and ground TDEM surveys on the areas covering the Parisien and Bullfrog Grids. A geophysical compilation in 2009 identified a number of priority VTEM™ targets on the Bullfrog Grid and on adjacent Freewest ground. These EM targets were mainly in the footwall of the Bullfrog/Vallhala mineralization. In 2012, at the Bullfrog Grid, three existing Mustang holes (ME00-14, -19, -21) were extended to test TDEM anomalies in the footwall of the Bullfrog trend. Although no significant new sulphide mineralization was intersected, BHEM surveys identified additional off-hole conductors. There has been no follow up on these off-hole conductive targets.

FIGURE 6.1 MUSTANG MINERALS GEOLOGICAL COMPILATION OF EAST BULL LAKE INTRUSION



Source: *Mustang assessment (2009)*

FIGURE 6.2 MUSTANG MINERALS TILT DERIVATIVE OF TOTAL MAGNETIC FIELD WITH VTEM™ RESPONSES



Source: *Mustang assessment (2009)*

For the 1999 and 2000 drill programs, Mustang Minerals used XRAL Laboratories in Rouyn-Noranda, Quebec for analyses. Samples were assayed Au, Pt, Pd, Rh, Cu and Ni. All precious metal concentrations were determined using fire assay (30 g charge) followed by a direct-coupled plasma/mass spectrometer (DCP) finish. The detection limits for a one assay ton (30 g) sample are 1 ppb for Au and Pd, and 10 ppb for Pt. Base metal concentrations were determined by atomic absorption spectrometry (AA) after 0.25 to 0.3 g of the pulp was subjected to a nitric aqua regia digestion (Wood 2001).

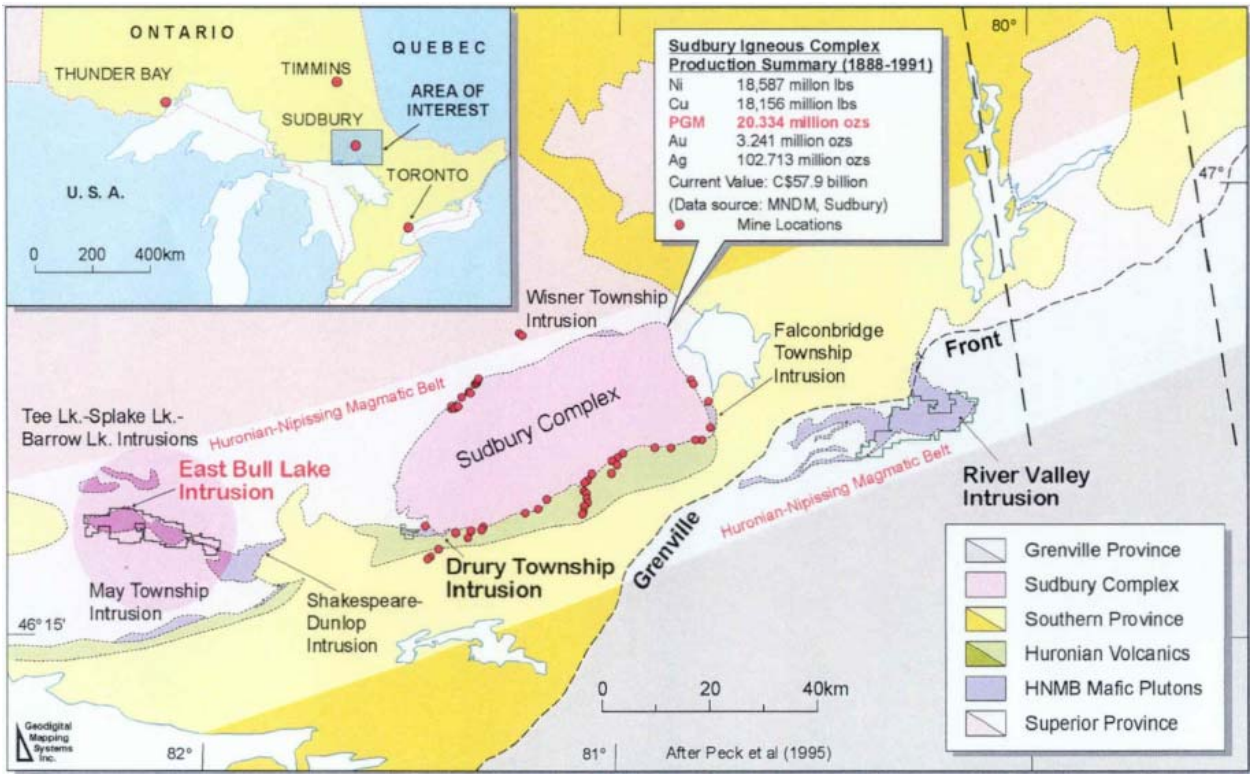
Additionally, in 2012, Western Areas NL tested two deep airborne ZTEM™ magnetic-magnetotellurics ("MT") targets in the central part of the East Bull Gabbro Intrusion. Holes EB12-05 (955 m) and EB12-06 (973 m) targeted coincidental ZTEM™-magnetic and Titan 24 MT anomalies in two separate locations. EB12-05 intersected disseminated chalcopyrite grading 0.44% Cu, 2,602 ppb Pt, and 15,677 ppb Pd but no other sulphides or lithological features to explain the anomalies. A BHEM survey for EB12-06 also detected an anomalous response at the bottom of the hole.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

21C Metals' East Bull PGM Property is underlain by gabbroic rocks of the Paleoproterozoic East Bull Lake Intrusive Suite. The ca. 2.48 Ga East Bull Intrusive Suite (Easton et al. 2010) consists of several intrusions of dominantly gabbronorite to gabbroic anorthosite that occur in both the Southern and Grenville provinces in the Sudbury area between Elliot Lake and North Bay (Figure 7.1). The three largest intrusive bodies of the Suite are the East Bull Lake and Shakespeare Dunlop (or Agnew Lake) Intrusions in the Southern Province and the River Valley Intrusion in the Grenville Province.

FIGURE 7.1 LOCATION OF EARLY PROTEROZOIC GABBROIC ROCKS OF THE EAST BULL INTRUSIVE SUITE



Source: *(Peck et al. 1995; Wood, 2001)*

Easton et al. (2010) consider that the intrusions of the East Bull Lake Intrusive Suite occur as an east-northeast-trending belt along the boundary of the Archean Superior and the Proterozoic Southern provinces in Ontario, Canada. The East Bull Lake Intrusive Suite is part of a regional, Paleoproterozoic, bimodal magmatic event resulting from mantle-plume driven, intracontinental rifting. This event formed a major basin, filled by sedimentary and igneous rocks of the Huronian Supergroup. Intrusions of similar age and composition in Finland and Wyoming were once contiguous with the East Bull Lake Intrusive Suite prior to tectonic dispersion during the Proterozoic. Several younger magmatic events post-date the East Bull Lake Intrusive Suite and

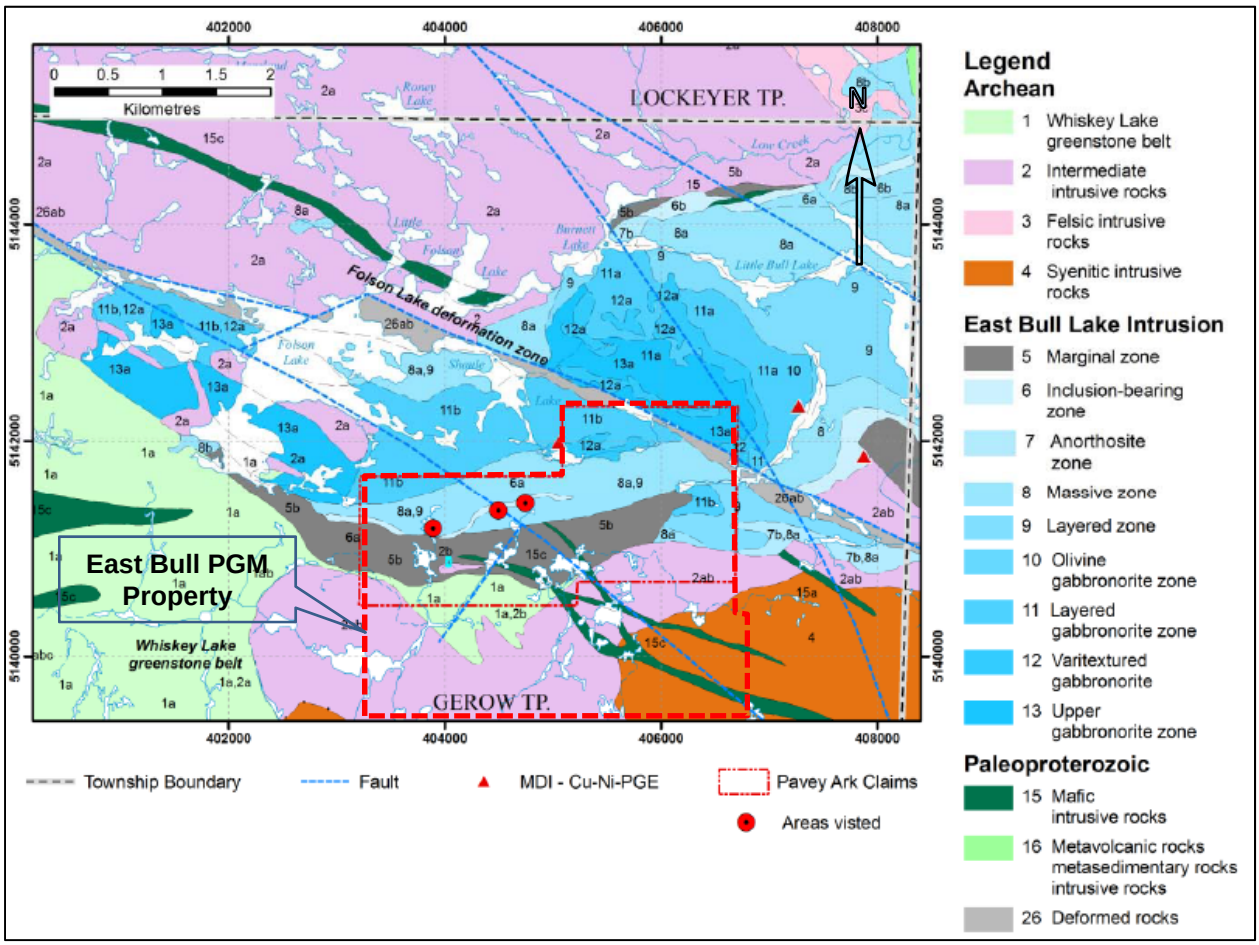
include: the 2.15 Ga Nipissing Magmatic Event; the 1.85 Ga Sudbury Igneous Complex; and 1.25 Ga olivine diabase dykes.

Easton et al. (2011) describe the East Bull Lake Intrusion as consisting of 2 interconnected magma chambers referred to as the Western Lobe and the Eastern Lobe that are connected by a dyke like conduit. The East Bull Lake Intrusion outcrops over an area of about 43 km^2, is 20 km long, and up to 4 km wide. The Intrusion is a layered lopolith with shallow inward dips from the northeast and southwest contacts, and steeper inward dips from the northwest and southeast contacts. The Intrusion was emplaced into Archean meta-volcanic and plutonic rocks of the Superior Province. The East Bull PGM property is on the southern contact of the western lobe.

7.2 PROPERTY GEOLOGY

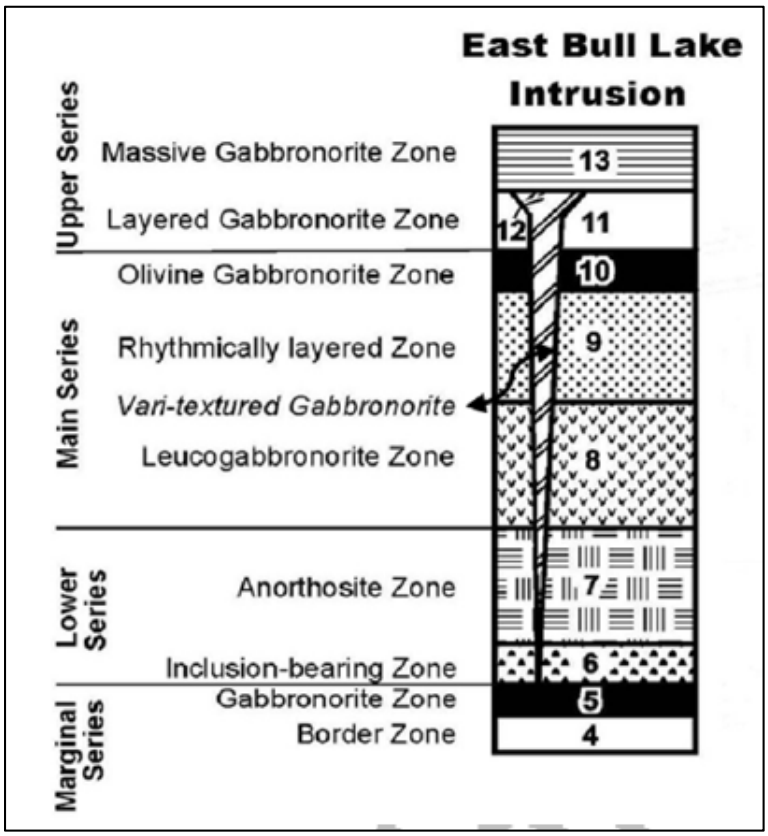
21C Metals East Bull PGM Property is located on the southern contact of the larger western magma chamber of the East Bull Lake Intrusion (Figure 7.2). As documented by Easton et al. (2010), the stratigraphy of the East Bull Lake Intrusion is divided into the Marginal, Lower, Main, and Upper Series (Figure 7.3). On the East Bull PGM Property the PGM and base metal mineralization is primarily hosted in the Inclusion Bearing Zone at the base of the Lower Series. This is the main host rock for PGM in the East Bull Intrusion.

FIGURE 7.2 GEOLOGY OF THE EAST BULL PGM PROPERTY



Source: *Modified from Easton et al. (2011)*

FIGURE 7.3 IGNEOUS STRATIGRAPHY OF THE EAST BULL LAKE INTRUSION



Source: *Easton et al. 2011*

The Marginal Series is transitional from Archean footwall rocks to the Lower Series rocks and may be absent with the Lower Series in direct contact with the footwall.

> *Border Zone* – is developed as a breccia up to tens of metres thick composed of locally derived Archean footwall blocks (granite, tonalite, syenite, basalt) hosted in fine to coarse grained leucogabbro, gabbro, melanogabbro, and anorthosite.
>
> *Gabbronorite Zone* – overlies the Border Zone and is typically only a few metres thick and may have developed as a chill margin to the EBLI or from late injections of mafic magma that were unable to penetrate the overlying Lower Series.

The Lower Series is composed of a lower xenolith and autolith-bearing unit (Inclusion Bearing Zone) and an overlying Anorthositic Gabbro Zone. The Lower Series hosts almost all known contact style PGE sulphide mineralization in the EBLI.

> *Inclusion Bearing Zone (IBZ)* – occurs as either a chaotic, multi-stage breccia, or distinctive blue quartz bearing gabbro or relatively massive leucogabbro or gabbro with rare inclusions. The IBZ is typically more mafic than the overlying anorthositic gabbro.

Anorthositic Gabbro Zone (AGZ) – is a plagioclase-rich unit composed mostly of leucogabbro and anorthositic gabbro.

The Main Series is composed of three units:

Leucogabbro Zone – is composed of massive leucogabbro with poorly developed layering in the upper portion.

Rhythmically Layered Zone – is composed of gabbro and leucogabbro layers (up to tens of metres thick).

Olivine Gabbronorite Zone – comprises the upper portion of the Main Series.

The Upper Series is composed of two units:

Layered Gabbronorite Zone – is characterized by common irregular textural and modal layering.

Massive Gabbronorite Zone – is composed of massive to vari-textured gabbro with grain size textural heterogeneity, pegmatoidal pods, and dendritic pyroxene masses. Similar vari-textured gabbros occur throughout the EBLI as metre-sized pods.

On 21C Metals' East Bull Property, the gabbroic units strike approximately 080^{o} and dip to the north at approximately 45^{o}. From north to south, the main units encountered in the area of trenching and drilling expose the transition from the Lower Series Anorthositic Gabbro and Inclusion Bearing Zones to the Marginal Series Gabbronorite Zone. The main lithologies are characterized as follows:

Anorthositic gabbro – Medium-grained to coarse-grained and pegmatitic leuco-gabbro, locally anorthosite patches, locally with 5 to 10% intercumulus leucoxene, dark green to grey, altered plagioclase and mafics;

Inclusion Bearing Zone (IBZ) – Medium grained, equigranular, dark green melanogabbro, clots of coarse plagioclase, traces to 2% chalcopyrite plus minor pyrrhotite in fine clusters;

Gabbronorite Zone – Medium grained to fine grained gabbro, traces of sulphide, mainly pyrite.

Pink to buff coloured, medium- to fine-grained equigranular to porphyritic syenite is a minor intrusive phase into the IBZ gabbroic rocks in the vicinity of the mineralized zone.

Medium-grained diabase dykes and porphyritic diabase dykes, with plagioclase phenocrysts to 5 cm, intrude the East Bull Gabbro intrusion. The dykes range in width from metre scale to tens of metres, and strike at approximately 060^{o} and 120^{o}. In drill core intersections (e.g. EB17-02), these dykes have aphanitic chilled margins adjacent to medium grained gabbroic rocks of the East Bull Gabbro. Regionally, Easton et al. (2011) interpret the 120^{o} trending dykes as 2.47 to

2.45 Ga dykes of the Matachewan swarm that are approximately contemporaneous with the East Bull Lake Intrusion.

7.3 STRUCTURE

21C Metals' East Bull PGM property is on the southern contact of the western lobe of the East Bull Lake Intrusion. The western lobe has the form of a layered lopolith with inward dipping contacts. Legault et al. (2011) developed 2-D inversions of ZTEM™ data to generate a north south resistivity section through the East Bull Lake Intrusion that show a basal conductive layer at approximately 800 m that is consistent with AECL drill holes that intersected the basement at 770 m. These data indicate that the intrusion is approximately 1 km thick.

On 21C Metals' East Bull Property, the gabbroic units strike at approximately azimuth 078° to 080° and dip to the north at approximately -45°. This igneous layering is defined by the geometry of geological units defined from surface mapping and drill core and also by local macroscopic layering and foliation textures in gabbroic rocks.

In the eastern part of the Property, the gabbroic rocks including the mineralized zone are cut by sub-vertical diabase dykes that trend at approximately azimuth 120°. These dykes are interpreted to be part of the regional Matachewan dyke swarm that has been radiometrically dated at 2.48 Ga and of similar age to the East Bull Lake Intrusive Suite. In the central part of the Property, medium grained diabase dykes with well-defined chill margins against gabbro host rocks are observed in drill core and are interpreted to trend at azimuth 060°. Both the azimuth 060° and 120° trending dykes are characterized by linear magnetic lows against the stronger magnetic response of the East Bull host rocks.

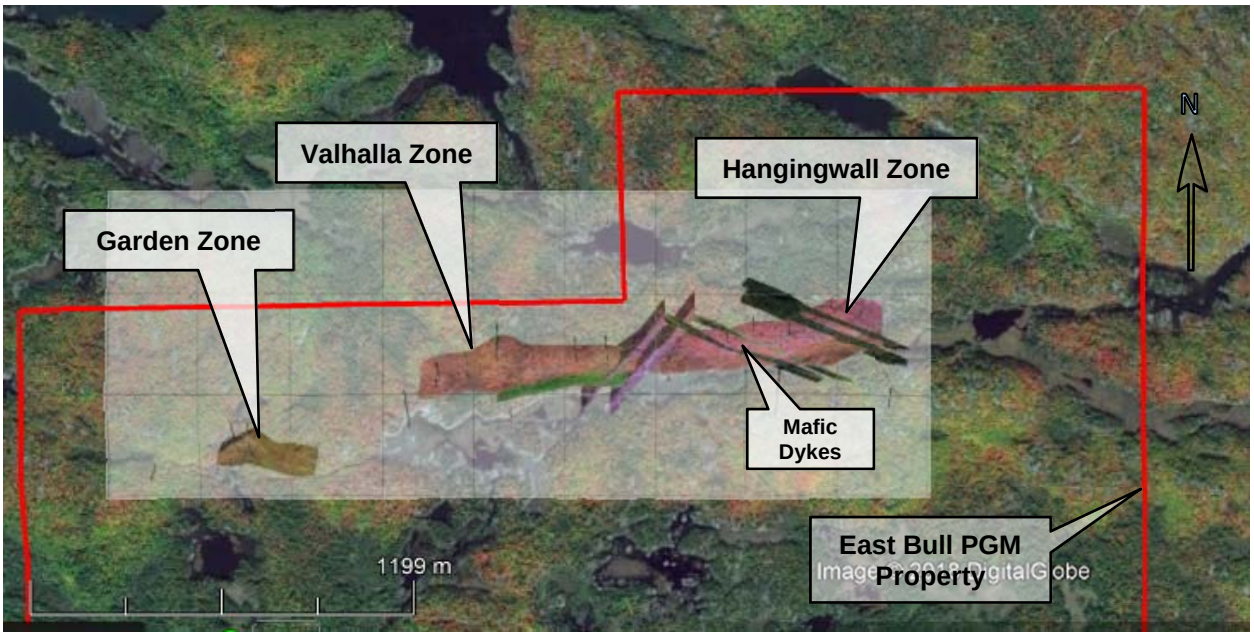
The Folson Lake deformation zone is at azimuth 120° striking, steeply-south dipping, zone of strong deformation and shearing that cuts the East Bull Gabbro intrusion in the northeast corner of the Property. Quartz veins and quartz vein stockworks are a significant component of the deformation zones. The Folson Lake deformation zone is east of East Bull PGM Deposit as currently delineated.

Strongly sheared rocks were also intersected in hole EB17-02 where shear zone foliation displays 25 to 30° core angles and is parallel to the chill margin of diabase dykes that are interpreted to strike at azimuth 060°.

7.4 DEPOSIT GEOLOGY

Sulphide mineralization in the East Bull Intrusion is primarily developed in the Inclusion-Bearing Zone ("IBZ"), within a few tens of metres of the footwall contact of the East Bull Intrusion with host rocks of the Whiskey Lake greenstone belt. Mineralization also locally occurs disseminated throughout the Anorthosite zone and in the overlying Leucogabbronorite Zone at a distance of up to 400 m stratigraphically above the margin of the intrusion (Peck et al., 2000, Wood 2001).

FIGURE 7.4 PLAN VIEW OF EAST BULL PGM DEPOSIT



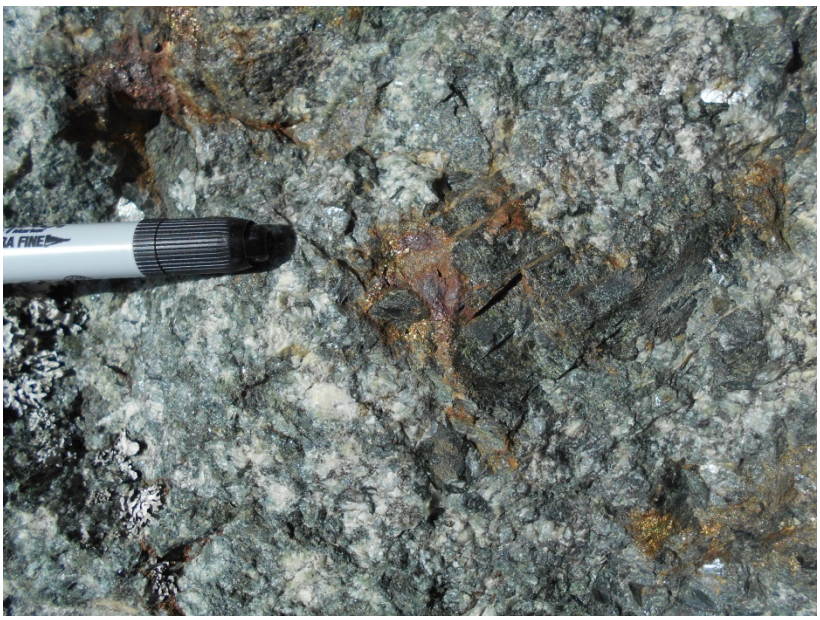
Source: *P&E for Pavey Ark (2018) overlain on Google Earth (2018)*

On the East Bull Property, significant precious metal and base metal mineralization has been defined by drilling and surface trenching in the IBZ over a strike length of 2.0 km. The Valhalla Zone, named after the original Freewest discovery, is the largest mineralized zone with a strike length of over 1,500 m and extends from the former Freewest claim onto the former Mustang claim where it was previously named the Bullfrog zone. The Valhalla Zone strikes at approximately azimuth 078^{o} and dips approximately -45^{o} to the north. The zone is typically 20 to 25 m wide but locally up to 60 m wide and has been drilled down-dip to a maximum vertical depth of approximately 150 m. The Hanging Wall Zone occurs as 20 to 25 m wide mineralized zone, parallel to the Valhalla Zone, in the eastern part of the Deposit. The Hanging Wall Zone has been defined in the eastern part of the Property on the former Mustang property over a strike length of approximately 700 m. The Garden Zone is a small zone of mineralization defined by trenching and several drill holes in the western part of the Property. Additional drilling may show this to be continuous with the Valhalla Zone. Mineralization is open along strike, open down dip and open between the Valhalla and Garden Zones.

7.5 MINERALIZATION

Mineralization locally contains up to 10% sulphide, but more typically mineralization consists of 0.1 to 1.0% sulphide and rarely exceeds 2%. The sulphides consist of finely disseminated grains, and coarser blebs up to 5cm in diameter with chalcopyrite and pyrrhotite and that appear to have initially formed as primary magmatic sulphides (Figure 7.4).

FIGURE 7.5 COARSE SULPHIDE BLEBS IN COARSE GRAINED GABBRO, FREEWEST LINE 7+50W



Source: *Pavey Ark (2017)*

Cabri (2000) completed a mineralogical study of core samples from the East Bull PGM Deposit on the former Freewest claim. Cabri completed reflecting light microscope studies and scanning electron microscope studies to identify the sulphide minerals. The major sulphide phases are pyrrhotite, chalcopyrite, pentlandite and pyrite. Based on energy dispersive spectra, PGM minerals were identified as: froodite ($PdBi_2$); kotulsite (PdTe); merenskyite ($PdTe_2$); michenerite (PdBiTe); unidentified Pd arsenide; sperrylite ($PtAs_2$); platarsite (PtAsS); and hollingsworthite (RhAsS). Gold grains were also identified. The PGM and gold occur as small inclusions ranging in size from 1 to 30 μm in size included in all of the major sulphide minerals.

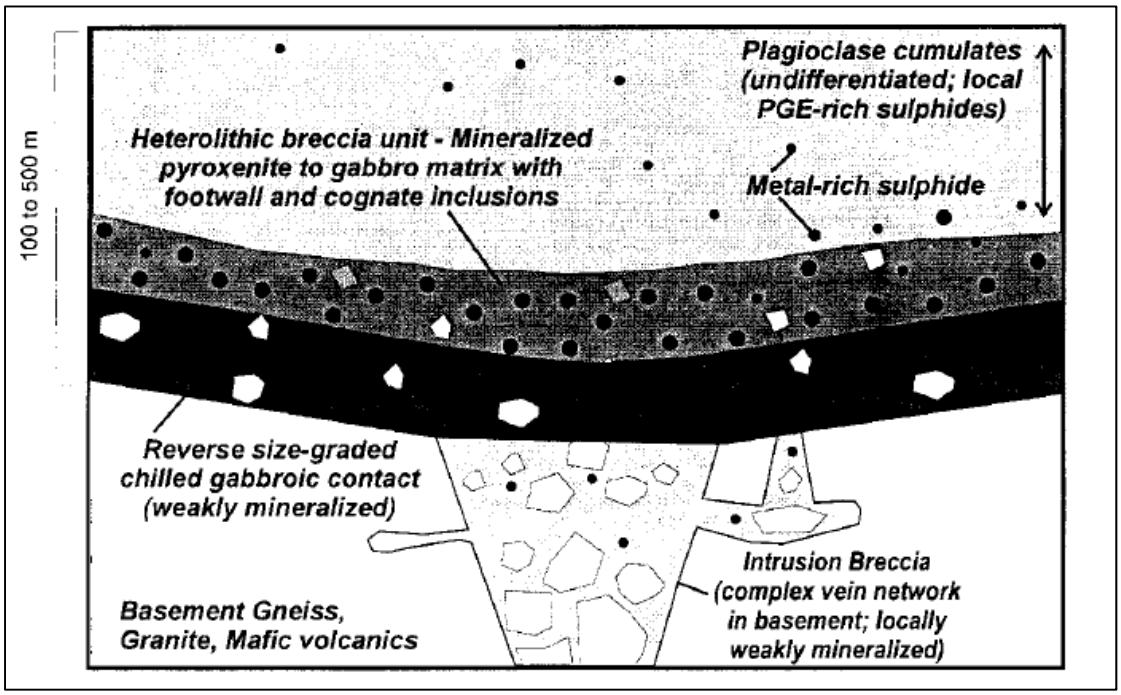
8.0 DEPOSIT TYPES

Based on studies of the distribution, mineralogy and geochemistry of the magmatic sulphides in the East Bull Lake Intrusion Peck et al. (1995, 2001) determined the mineralization to be magmatic "contact-type", with disseminated and blebby PGE-rich sulphides occurring in both the Marginal and Lower series (Figure 8.1). Sulphides are most abundant in the inclusion-bearing zone of the Lower series, and generally within a few tens of metres from a contact. The mineralization in the Lower series is characterized by approximately equal amounts of chalcopyrite and pyrrhotite, whereas in the Marginal series, mineralization is higher in pyrrhotite and pyrite. Where pyrite is a major constituent of the sulphide mineralogy the PGE concentrations tend to be low.

Primary textures observed by Peck et al. (1995) indicate that the PGE-bearing magmatic sulphides formed from a copper-rich immiscible sulphide liquid. Contact-style PGM mineralization develops as the result of sulphur-saturation brought on by the interaction of the fertile parental magma with the surrounding country rock lithologies. The contamination of the initial fertile parental magma by the addition of either silicon dioxide and/or sulphur can directly result in sulphur saturation and separation of a PGE-rich immiscible sulphide. The addition of silicon dioxide and/or sulphur is typically achieved by the assimilation of either local country rock lithologies and/or the assimilation of breccia fragments previously developed along the contact margin.

Examples of other deposits of this type include the mineralization currently being explored by New Age Metals (formerly Pacific North West Capital Corp.) on the River Valley Property, Ontario (McCracken 2012), the Platreef in the Bushveld Complex in South Africa, and the Portimo Complex in Finland (Easton et al. 2010).

FIGURE 8.1 CONTACT-TYPE MAGMATIC PGM-CU-NI MINERALIZATION MODEL



Source: *Peck et al. (2001)*

9.0 EXPLORATION

Information on exploration in this section is summarized from Pavey Ark's assessment report for work completed in 2017 (Sutcliffe, 2017).

9.1 DIFFERENTIAL GPS SURVEY

A differential GPS ("DGPS") survey was carried out under the supervision of Dr. Colin Bowdidge, P.Geo., in October and November 2017 using a TopCon HiPer II differential GPS system, comprising two GPS receivers: a base station and a mobile unit ("rover"). Prior to the DGPS survey, R.H. Sutcliffe completed fieldwork in May and June 2017 to locate and georeference Mustang and Freewest drill casings, Freewest blast trench locations, and various other reference points including pickets, drill foresights, and claim posts from the historical exploration work. This preparatory georeferencing work was done with a hand-held Garmin Etrex GPS. All coordinates were surveyed using the UTM NAD83 grid, Zone 17T.

The GPS differential receivers are capable of centimetre-scale spatial resolution. The base station is mounted on a tripod, and the rover is on a staff equipped with a bubble level to allow the receiver to reflect the point on the ground being surveyed. In survey mode, both receivers take readings at 1-second intervals. The base station broadcasts corrections to the rover by a UHF radio link, enabling the rover to produce corrected locations, which are downloaded to a hand-held controller via a Bluetooth link. The survey protocol is referred to as Real-Time Kinematic ("RTK") surveying.

On the East Bull Project, three base station locations were necessary due to the size of the survey area, which exceeded the range of the UHF radio link. Precise positions of the base stations were established by having the base receiver take continuous autonomous readings for between 12 and 16 hours. The readings were stored on an SD card and then uploaded to the Canadian Spatial Resolution Service ("CSRS"), which maintains a "Precise Point Positioning" (PPP) website at https://webapp.geod.nrcan.gc.ca/geod/tools-outils/ppp.php for correction. CSRS is a federal government service which maintains a network of GPS base stations across the country, in collaboration with the provinces. These enable corrections to be made to each individual reading; after averaging the corrected readings, an absolute position is downloaded to the user, accompanied by information on the estimated accuracy of the data (usually within a few centimetres). The three base station locations were marked by an "X" chiselled in the rock surface.

Mobile locations were determined using 10 consecutive readings. In locations where the UHF signal was strong, this was accomplished in 10 seconds. A weak UHF signal might take up to a minute to register 10 corrections from the base station. In only one location, drill hole ME99-20, communication with the base station was not established, due to the base station battery having expired. Since this was the last location to be surveyed, the rover was used to take 300 consecutive, autonomous readings on an SD card, which were then submitted to CSRS for correction in the same way as base station data.

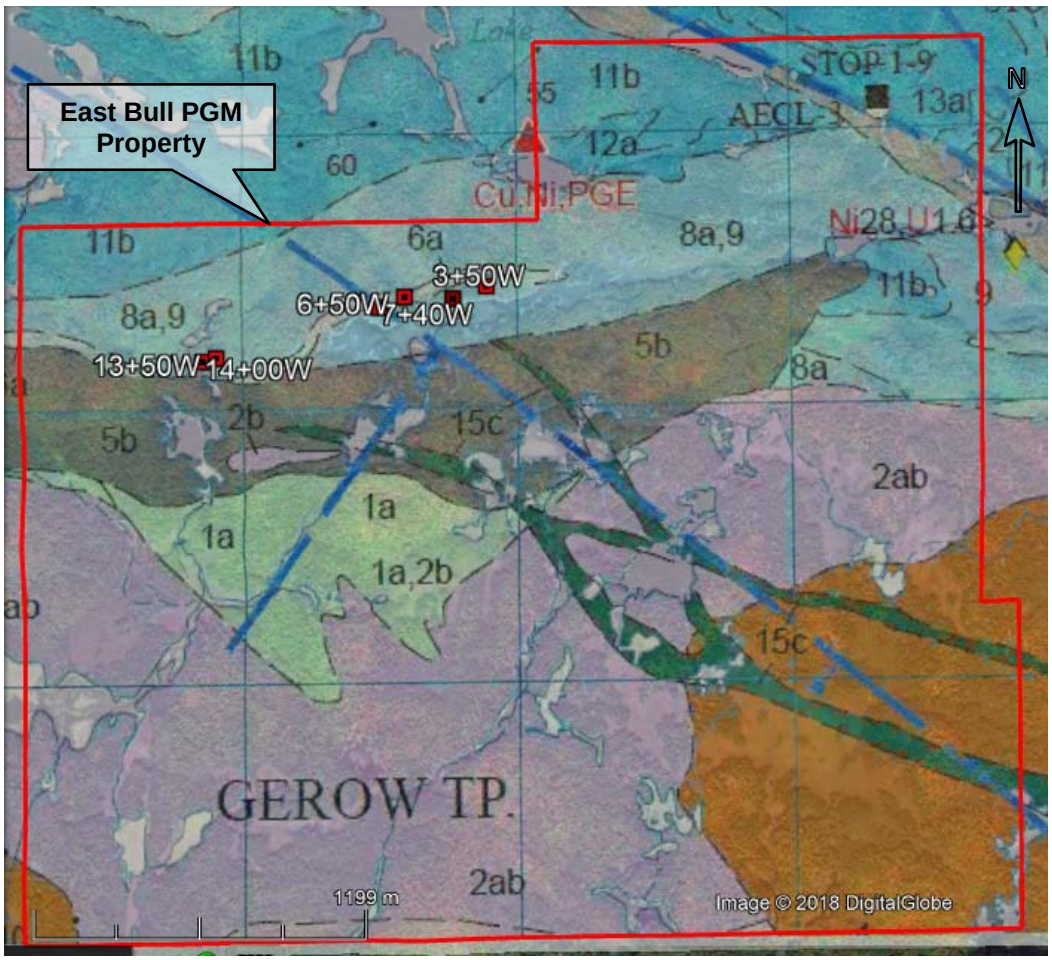
The DGPS survey was used to precisely locate the 6 channels sampled by Pavey Ark, three holes drilled by Pavey Ark, 4 located Freewest casings, 9 of 10 located Mustang casings, and the claim

post that forms the historical Freewest grid origin. These surveyed locations were incorporated into the drill database for the Mineral Resource Estimate. The DGPS survey also enabled all the historical local grid coordinates for all of the Freewest holes to be accurately positioned in UTM coordinates.

9.2 CHANNEL SAMPLING

Mr. Greg Smith of A-Star Prospecting of Thunder Bay completed 77 metres of channel sampling for Pavey Ark on claim 4272475 in July and October, 2017. The work was supervised by R.H. Sutcliffe, P.Geo. and prior to the channel sampling Sutcliffe completed field work in June to mark out and georeference the proposed channel locations. The channels replicate 6 blast trenches sampled by Freewest in 1999/2000 on the former Freewest Folson Property lines 3+50W, 4+70W, 6+40W, 7+40W, 13+50W and 14+00W (Garden Zone). The channels were cut using a diamond blade saw and samples were nominally approximately 3 cm wide, 5 cm deep and 1.0 m in length. A total of 79 channel samples plus an additional 6 blanks and 6 standards were submitted for assay. Location of channel samples relative to the Property boundary is shown in Figure 9.1.

FIGURE 9.1 LOCATION OF PAVEY ARK CHANNEL SAMPLES



Source: *Base map from Easton et al. (2011) overlain on Google Earth (2018)*
Note: *lithological codes correspond to legend in Figure 7.2.*

The channelling was limited by available outcrop exposure; however, all of the channels were successful in defining surface mineralization. The channels were all oriented approximately north-south and crossed the strike of mineralization. Most of the channels were cut in the Inclusion Bearing Zone. Channel 13+50W cuts anorthositic gabbro at the north end of the channel and ends in the Inclusion Bearing Zone at the south end.

Two of the channels terminated in mineralization at both ends of the channel, and three of the channels terminated in mineralization at one end of the channel indicating that the mineralization is wider than the channel sample. The strongest results for PGMs and Cu were obtained from 4+70W to 7+40 W over a strike length of 270 m. The weaker mineralized zone at 13+50 W is probably located north of the main mineralized zone.

The channels were surveyed by DGPS and were incorporated into the drill data base. Table 9.1 summarizes the results for each of the six channels.

TABLE 9.1
SUMMARY OF 2017 CHANNEL SAMPLE RESULTS

Channel	Channel Length (m)	Mineralized Interval (m)	Au (ppb)	Pd (ppb)	Pt (ppb)	Cu (ppm)	Ni (ppm)	Co (ppm)	PGM + Au (ppb)	Comments
3+50W	14.78	14.78	69	587	208	1,569	688	83	864	Open to N & S
4+70W	12.00	11.10	120	833	419	1,868	753	79	1,372	Open to N
6+40W	5.0	5.0	58	962	262	1,952	1073	77	1,282	Open to N & S
7+40W	10.05	9.05	60	1,159	335	1,632	756	79	1,554	Open to N
13+50W	17.0	5.76	40	421	165	935	331	79	625	Weak zone above main zone
14+00W	17.96	6.96	43	922	308	1,115	403	54	1,272	Open to S

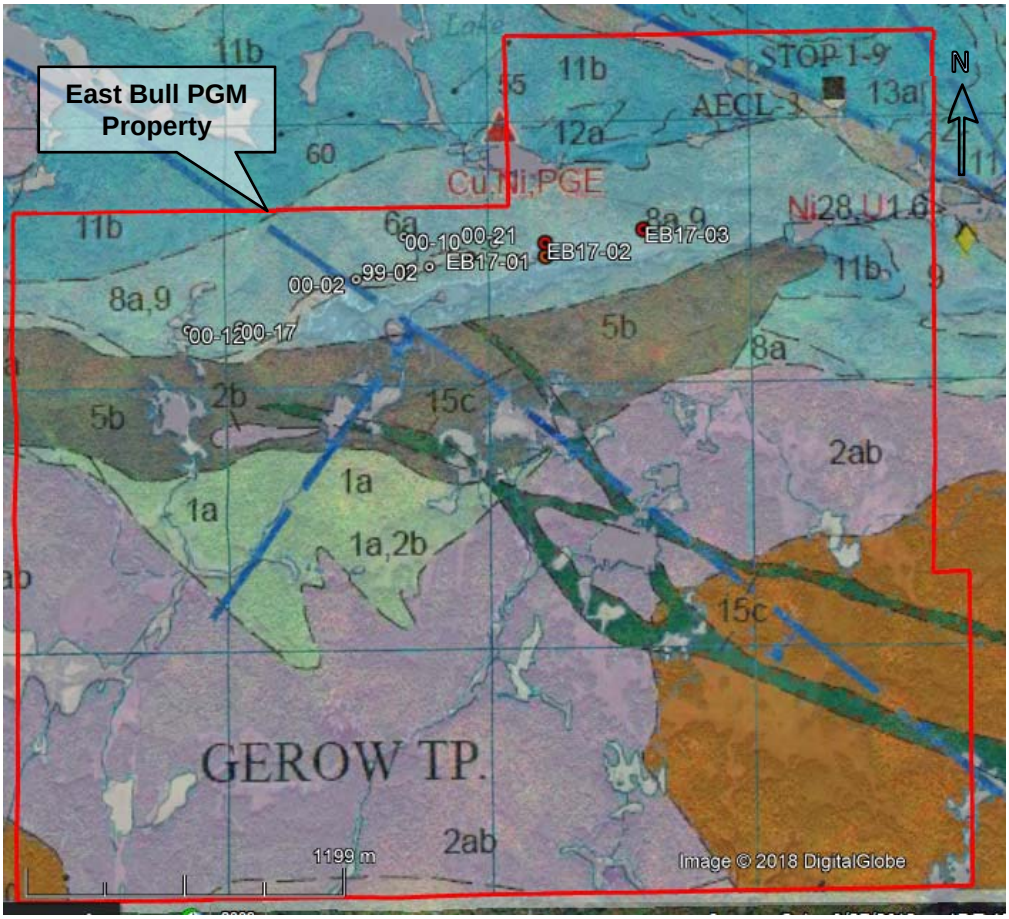
10.0 DRILLING

Information on drilling and drill core resampling in this section is summarized from Pavey Ark's assessment report for work completed in 2017 (Sutcliffe, 2017).

10.1 PAVEY ARK 2017 DRILLING PROGRAM

EDCOR Drilling Services Inc. of Toronto completed 3 BQTK diamond holes for a total of 320 m between October 29 and November 9, 2017 with a D1 Multi-power diamond drill. Holes EB17-01 and EB17-03 twinned Mustang holes ME00-19 and ME99-16 respectively. Hole EB17-02 was an in-fill hole drilled below EB17-01. The holes were drilled toward the south at an inclination of -45° and intersections represent approximate true widths. Down hole surveys were conducted using a Devi-shot tool. Casings were left in the holes. A total of 92 samples of sawn ½ core with a nominal length of 1.0 m plus an additional 4 blanks and 4 standards for QA/QC purposes were submitted for assay. Sampling protocols are described in Section 11. The core is stored at the East Bull Lodge.

FIGURE 10.1 LOCATION OF PAVEY ARK 2017 DRILL HOLES AND RESAMPLED FREEWEST DRILL HOLES



Source: *Base map from Easton et al. (2011) overlain on Google Earth (2018).*
Note: *lithological codes correspond to legend in Figure 7.2.*

Two Mustang drill holes were selected for twinning since none of the core from the Mustang 1999/2000 drill program on claim 1227910 was available. Investigations in 2017 by R.H. Sutcliffe concluded that the Mustang core had been kept at a rented storage site in Sudbury and was disposed in 2008. 21C Metals posses copies of the Mustang drill logs and copies of the assay certificates for all of the Mustang drill holes. This information was previously filed for assessment by Mustang.

A summary of significant intersections is presented in Table 10.1, on the next page.

Hole EB17-01 was drilled at an azimuth of 180^{o} with an inclination of -45^{o} to twin Mustang hole ME00-19 that intersected 12.0 m at 2.51 g/t Pd+Pd+Au+Rh from 29.0 m to 41.0 m. Hole EB17-01 very successfully twinned and improved on the results of the Mustang intersection with EB17-01, returning strong PGM mineralization grading 2.87 g/t Pd+Pt+Rh+Au over the same 12.0 m interval. Hole EB17-01 returned the highest 1.0 m assay interval of the program with the 1.0 m from 36.0 to 37.0 intersecting 8.09 g/t Pd, 1.82 g/t Pt, 0.13 g/t Rh for a total 10.12 g/t Pd+Pt+Rh+Au plus 0.37% Cu and 0.29% Ni.

Hole EB17-02 was an in-fill hole drilled at azimuth 180^{o} with an inclination of -45^{o} that was designed to test the down-dip extension of mineralization in EB17-01/ME00-19. EB17-02 intersected a weak zone of mineralization from 86.0 to 92.0 m, however, the main target was impacted by the intersection of a strong shear zone and parallel diabase dykes in the upper part of the drill hole. Shear fabrics and contacts exhibit 25 to 30^{o} angles to the core axis that are consistent with an interpreted an azimuth 60^{o} strike and steep south dip. This shear structure and dykes appear to have dislocated the mineralized zone and may have resulted in an apparent minor displacement of the mineralized zone near the western boundary of the former Mustang property.

Hole EB17-03 was drilled at an azimuth of 180^{o} with an inclination of -45^{o} to twin Mustang hole ME99-16 that intersected 25.0 m at 1.03 g/t Pd+Pt+Au+Rh from 58.0 to 83.0 m. This broad intersection contained two stronger zones from 58.0 to 69.0 m and 80.0 to 83.0 m grading 1.51 g/t and 3.83 g/t Pd+Pt+Au+Rh respectively. Pavey Ark's hole EB17-03 very successfully twinned the Mustang hole and again improved on both of the Mustang intervals. In EB17-03 the upper intersection from 60.0 to 71.0 graded 1.76 g/t Pd+Pt+Rh+Au and the lower interval from 80.0 87.0 m graded 3.21 g/t Pd+Pt+Rh+Au.

The 60 samples of drill core that were measured for bulk density from holes EB17-01,02,03 had a range of 2.80 to 3.14 t/m^3 and an average bulk density of 2.97 t/m^3. There was no discernable difference in bulk density between mineralized and host rock gabbro.

In addition to the sampling by Pavey Ark, Mr. Antoine Yassa, P.Geo. of P&E Mining Consultants Inc. of Brampton, Ontario, independently selected and sampled an additional six duplicate samples of ¼ core from hole EB17-01. Results are discussed in section 12.

TABLE 10.1
SUMMARY OF SIGNIFICANT 2017 DRILL INTERSECTIONS

Diamond Drill Hole ID	From (m)	To (m)	Width (m)	Au (ppb)	Pd (ppb)	Pt (ppb)	Rh (ppb)	Ag (ppm)	Cu (ppm)	Ni (ppm)	Co (ppm)	PGM + Au (ppb)
EB17-01	29.0	41.0	12.0	71	2,082	665	49	0.91	2,258	1,344	92	2,867
Incl.	36.0	37.0	1.0	75	8,090	1,820	130	1.70	3,660	2,940	168	10,115
EB17-02	86.0	92.0	6.0	37	644	242	16	0.78	1,690	1,008	88	939
EB17-03	60.0	71.0	11.0	78	1,148	501	32	0.51	1,403	576	116	1,759
and	80.0	87.0	7.0	111	2,243	788	72	0.34	1,578	705	89	3,214

Note: *Intersections are approximate true widths.*

10.2 PAVEY ARK RESAMPLING AND ASSAY OF FREEWEST CORE

A total of 241 Freewest assay intervals from 8 Freewest holes drilled in 1999-2000 on present claim 4272475 were resampled during the current program to validate the historical work by Freewest. Seven holes for a total of 217 assay intervals were resampled by Pavey Ark and assayed at ActLabs, Ancaster. An additional 24 samples from one hole (321-00-21) were independently sampled by Mr. Antoine Yassa, P.Geo. of P&E Mining consultants and delivered at ALS Laboratories, Rouyn-Noranda for preparation. Pulps were analyzed at ALS facility in Vancouver, BC. Mr. Yassa's results are discussed in section 12.

The Freewest drill core (27 holes for a total of 2,902 m) had been stored outdoors at the East Bull Lodge since the 1999/2000 drill program. R.H. Sutcliffe reviewed the condition of the core in May 2017. The boxes were in several outdoor racks of which two had collapsed, the boxes were not in order and approximately 20% of the boxes were missing box labels. Despite the condition of the core, a high proportion of the assay tags were still legible. Craig Maitland and Des O'Connor of Clark Exploration, Thunder Bay spent approximately 14 days at the East Bull Lodge in June recovering, reorganizing, and cataloguing the core. At the end of this work approximately 92% of the Freewest core boxes had been catalogued including 4 complete 321-99 series holes and 4 complete 321-00 series holes. (Note that all of the Freewest drill holes are identified by the prefix 321 which is sometimes omitted in the accompanying text, figures and tables.)

Freewest only submitted the 1999 drill logs and assay certificates for assessment and consequently, at the start of the program, only the 1999 data was available. Recovery of the data for the 2000 program proved to be challenging since Freewest was acquired by Cliffs Natural Resources Inc. ("Cliffs") in 2009. Subsequently Cliffs sold its Canadian assets to Noront Resources Ltd. ("Noront"). In August 2017, R.H. Sutcliffe located copies of the Freewest logs and assay certificates for all of the Freewest drill holes.

Based on the complete set of the Freewest drilling records, R.H. Sutcliffe, with guidance from Mr. Yassa at P&E, selected mineralized intervals in 8 Freewest drill holes for resampling (Table 10.2). The selection of holes was based on:

1. obtaining a distribution of mineralization intervals over the strike length of the Property; and

2. the ability to sample complete or near complete mineralization intervals; and

3. have a high confidence of duplicating the original Freewest assay sample intervals.

TABLE 10.2
SUMMARY OF RESAMPLED MINERALIZED INTERVALS IN FREEWEST DRILL HOLES

Diamond Drill Hole ID	UTM Easting	UTM Northing	Azimuth (°)	Dip (°)	From (m)	To (m)	Width (m)	Number of Samples	Comments
99-02	404,788	5,141,451	180	-60	6.7	43.6	36.9	35	Missing 18.8-20.4 m & 24.9-28.5 m
00-02	404,508	5,141,414	188	-47	40.0	56.0	16.0	16	Complete
00-07	404,697	5,141,439	182	-45	3.0	43.0	40.0	36	Missing 27.0-31.0 m
00-10	404,691	5,141,567	180	-55	100.0	151.0	51.0	47	Missing 139.0-144 m
00-12	403,868	5,141,226	180	-45	14.3	31.0	16.7	11	Missing 22.0-28.0 m
00-17	404,070	5,141,235	180	-45	42.0	80.0	38.0	39	Complete
00-18	404,943	5,141,485	180	-45	28.0	62.0	34.0	33	Complete
00-21	405,036	5,141,537	180	-45	63.0	87.0	24.0	24	Complete
Total								**241**	

Note:
Intervals are approximate true widths
UTM coordinates are in NAD 83 Zone 17T

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1 PAVEY ARK 2017 DRILLING PROGRAM

The drill core was logged, sawn and sampled at the East Bull Lodge under the supervision of R.H. Sutcliffe, P.Geo. (Pavey Ark) and Craig Maitland (Core Technician, Clark Exploration, Thunder Bay). R.H. Sutcliffe, logged the core and marked out the sample intervals for assay. Mr. Maitland assigned an identification number to each assay sample using uniquely numbered sample tags. Two of the three tags were marked with the date, project, drill hole number, depth from, depth to, and sample interval. The third tag was left blank for inclusion in the sample bag.

Once marked, Mr. Maitland cut the drill core for each sample interval using a gasoline-powered saw with a diamond-impregnated saw blade. One half of the drill core sample was placed into a plastic bag into which the blank sample tag was placed. The remaining 1/2 drill core portion was placed back into the core box. One of the marked sample tags was placed at the start of the sample interval and stapled to the wooden box. The plastic bag with the sample and unmarked tag was rolled up and taped shut with sturdy packing tape and marked with the sample tag number.

A total of 92 samples of sawn ½ drill core with a nominal length of 1.0 m, plus an additional 4 blanks and four certified reference materials for QA/QC purposes, were submitted for assay.

11.2 PAVEY ARK RESAMPLING OF HISTORICAL FREEWEST DRILL CORE

R.H. Sutcliffe, P.Geo. and Mr. Craig Maitland completed the drill core resampling program at the East Bull Lodge in October and November 2017, in conjunction with the Pavey Ark drilling program.

R.H. Sutcliffe, reviewed the Freewest drill core, confirmed that the Freewest sample intervals were valid, that historical sample tags were present, that the split drill core was intact, and marked out the sample intervals for re-assay. Mr. Maitland assigned an identification number to each re-assay sample using uniquely numbered sample tags. Two of the three tags were marked with the date, project, drill hole number, depth from, depth to, and sample interval. The third tag was left blank for inclusion in the sample bag.

Once marked, Mr. Maitland cut the split drill core for each sample interval using a gasoline-powered saw with a diamond-impregnated saw blade. One half of the resulting ¼ core sample was placed into a plastic bag into which the blank sample tag was placed. The remaining ¼ core was put back into the core box. One of the marked sample tags was placed at the start of the sample interval and stapled to the wooden box. The plastic bag with the sample and unmarked tag was rolled up and taped shut with sturdy packing tape and marked with the sample tag number.

Pavey Ark submitted a total of 217 re-assay samples of ¼ drill core plus 11 certified reference materials and 10 blanks.

Figures 11.1 and 11.2 show comparison of historical Freewest results with Pavey Ark results for Pd and Pt respectively in Freewest drill hole 00-18. These results show excellent reproducibility.

FIGURE 11.1 COMPARISON OF HISTORICAL FREEWEST AND PAVEY ARK PD ASSAYS FOR DDH 00-18

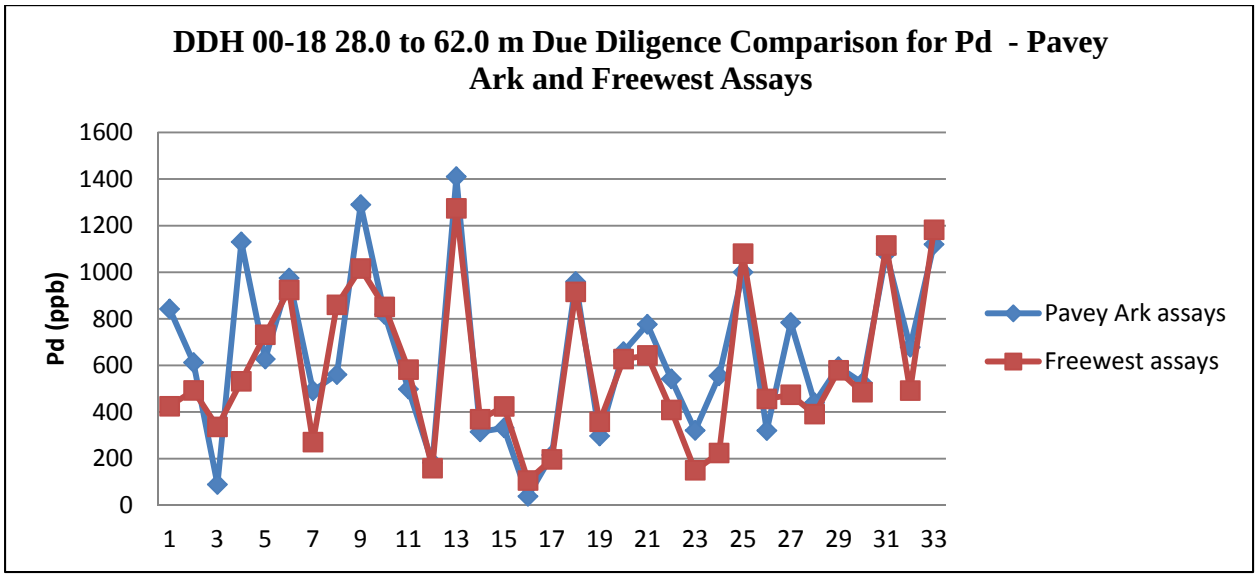
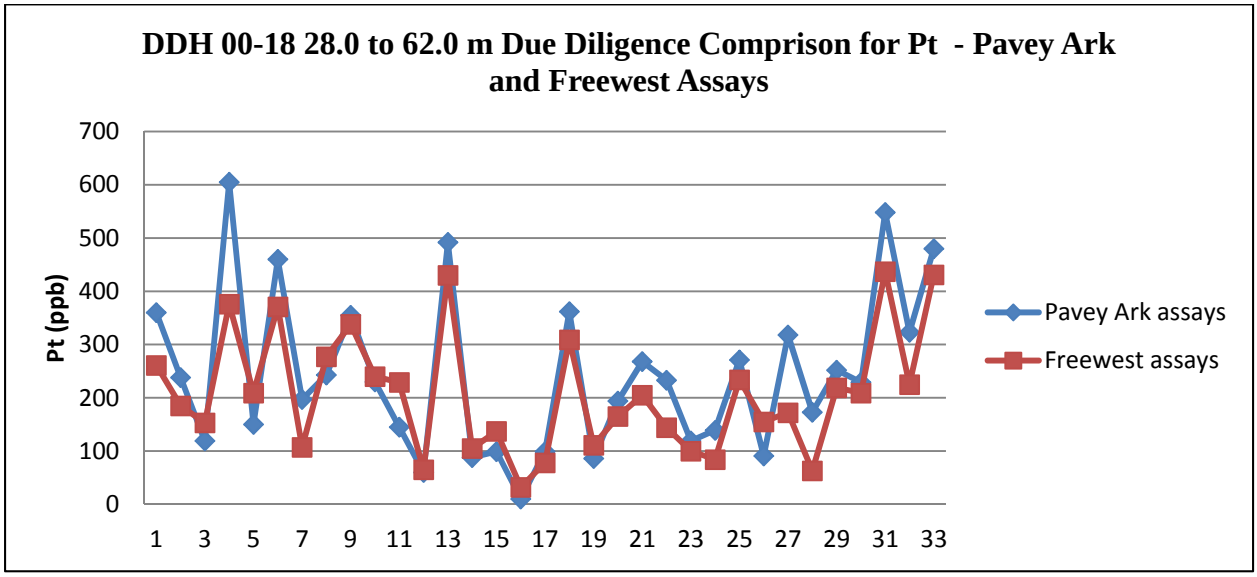


FIGURE 11.2 COMPARISON OF HISTORICAL FREEWEST AND PAVEY ARK PT ASSAYS FOR DDH 00-18



The results of 217 Freewest drill core intervals re-assayed by Pavey Ark resulted in an improvement of overall grade for Au, Pd, Pt, Cu and Ni with good reproducibility. On average, the grade improvement in the 2017 assays over the historical assays for Au, Pd, Pt, Cu, Ni

respectively is 2.8%, 9.3%, 8.1%, 4.1%, and 28.4%. The significant improvement in Ni is probably due to improved sample dissolution using a 4-acid digestion.

11.3 ANALYTICAL METHODS

Pavey Ark's samples were analyzed by Actlabs in Ancaster, Ontario. All samples were transported under the direct supervision of R.H. Sutcliffe and delivered from the Project directly to the laboratory receiving facilities of Actlabs in Ancaster, Ontario. Samples were analyzed for Pt, Pd, Au by 50 g fire assay with ICP-OES finish and for Ag, Co, Cu, Ni by total digestion with an ICP finish at Actlabs, in Ancaster, ON. Rh was analyzed separately by 30 g fire assay with ICP-MS finish at Actlabs in Ancaster, ON.

Actlabs also determined the bulk density (Actlabs method code RX-16) on 60 samples of sawn ½ drill core from holes EB17-01, 02 and 03.

Actlabs is an independent commercial laboratory that is ISO 9001 certified and ISO 17025 accredited. The accreditation program includes ongoing audits to verify the QA system and all applicable registered test methods.

Actlabs has developed and implemented a Quality Management System ("QMS") designed to ensure the production of consistently reliable data at each of its locations including the Ancaster laboratories. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. Actlabs maintains ISO registrations and accreditations. ISO registration and accreditation provide independent verification that a QMS is in operation at the location in question.

11.4 PAVEY ARK QA/QC PROGRAM

11.4.1 Certified Reference Materials Performance

Pavey Ark inserted certified reference materials (standards) and field blanks into the assay sample stream at a rate of approximately 1 standard and 1 blank per 20 analyses. The CDN Resource Laboratories Ltd. CDN-ME-1310 Certified Reference Standard ("CRM" or "standard") was the primary reference standard used. This standard is an altered peridotite from the Wellgreen Complex with similar PGM grades to the East Bull gabbro. ME-1310 is a certified standard for Pd, Pt, Co, Cu, Ni. The ME-1310 value for gold is provisional and silver is indicated. The Ontario Geological Survey LDI-1 reference standard from the Lac des Iles PGM deposit was used as a secondary standard, however, this is considered a provisional standard for all of the elements tabulated.

Table 11.1 provides the recommended values for the CRMs.

TABLE 11.1
RECOMMENDED CRM VALUES +/- STANDARD DEVIATIONS

CRM	Au (ppb)	Pd (ppb)	Pt (ppb)	Ag (ppm)	Co (ppm)	Cu (ppm)	Ni (ppm)
ME-1310	63+/-16	563+/-40	433+/-38	1.0	190+/-20	2760+/-220	3790+/-220
LDI-1	84+/-22	834+/-54	98+/-22		52+/-4	413+/-24	656+/-28

Note:
ME-1310 is certified for Pd, Pt, Co, Cu, Ni.
ME-1310 Au values are provisional.
LDI-1 values are provisional.

Figures 11.3 to 11.6 demonstrate the performance of Pavey Ark's analyses for the CDN-ME-1310 and LDI-1 certified reference materials for Pd and Pt. High biases were noted for both certified reference materials and elements.

Two samples (494017 and 494064) for Pd for the CDN-ME-1310 certified reference material returned with results greater than three standard deviations from the certified mean. Two other standards passed in the same batch as sample 494017 and sample 494064 fell relatively close to three standard deviations from the mean and is not considered to be of significant impact. Sample 494017 for Pt also falls above three standard deviations from the mean, however two other standards pass for Pt in this batch.

There were three failures greater than three standard deviations from the mean for the LDI-1 standard for Pd (677080, 677415 and 677150), whose performance was monitored with provisional values only. All three batches with failing certified reference materials had at least one other standard passing in same batch.

FIGURE 11.3 RESULTS FOR PD ANALYSIS OF ME-1310 CERTIFIED REFERENCE MATERIAL

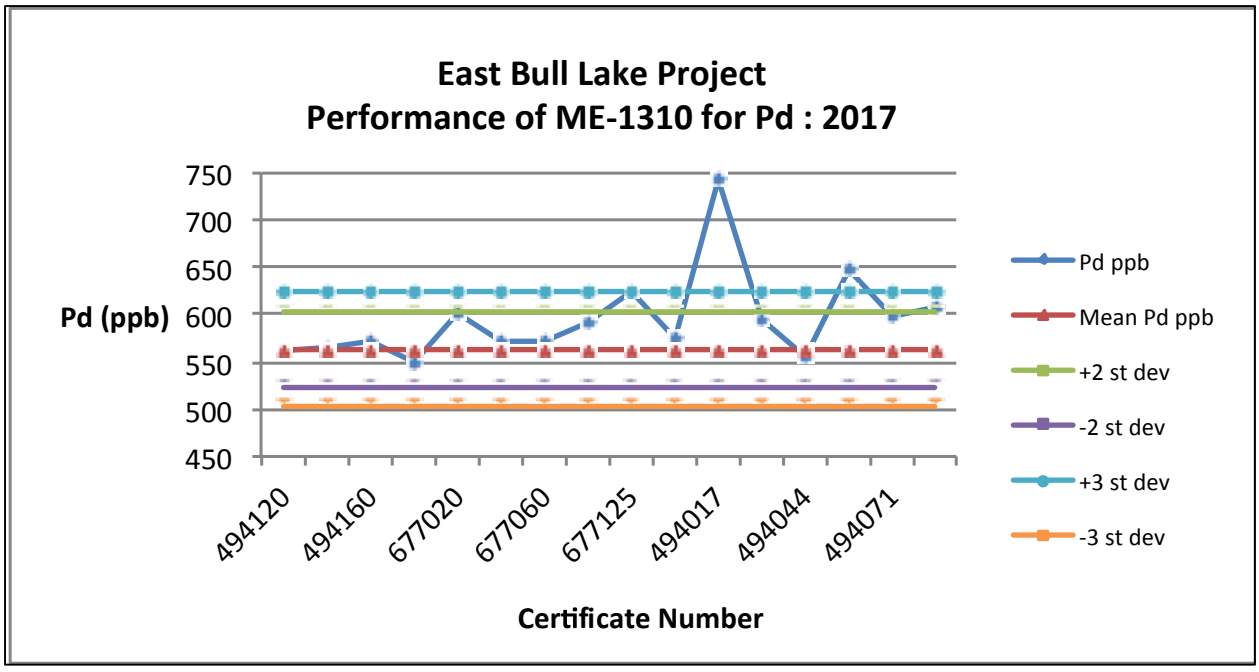


FIGURE 11.4 RESULTS FOR PT ANALYSIS OF ME-1310 CERTIFIED REFERENCE MATERIAL

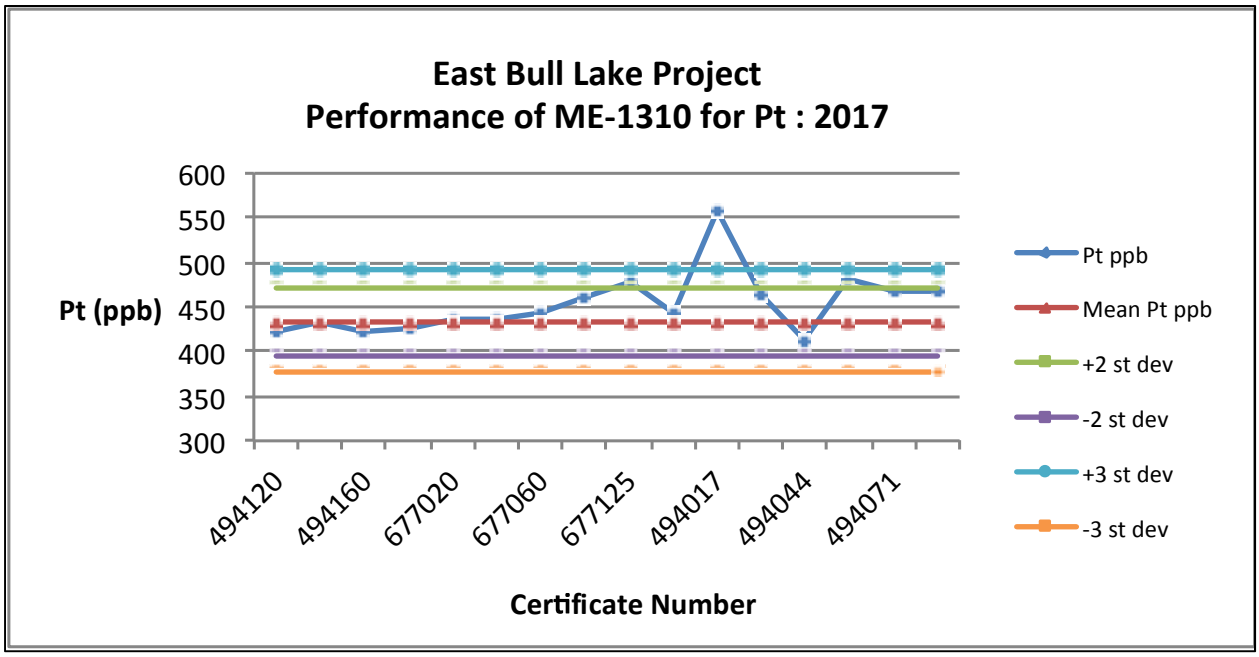


FIGURE 11.5 RESULTS FOR PD ANALYSIS OF LDI-1 CERTIFIED REFERENCE MATERIAL

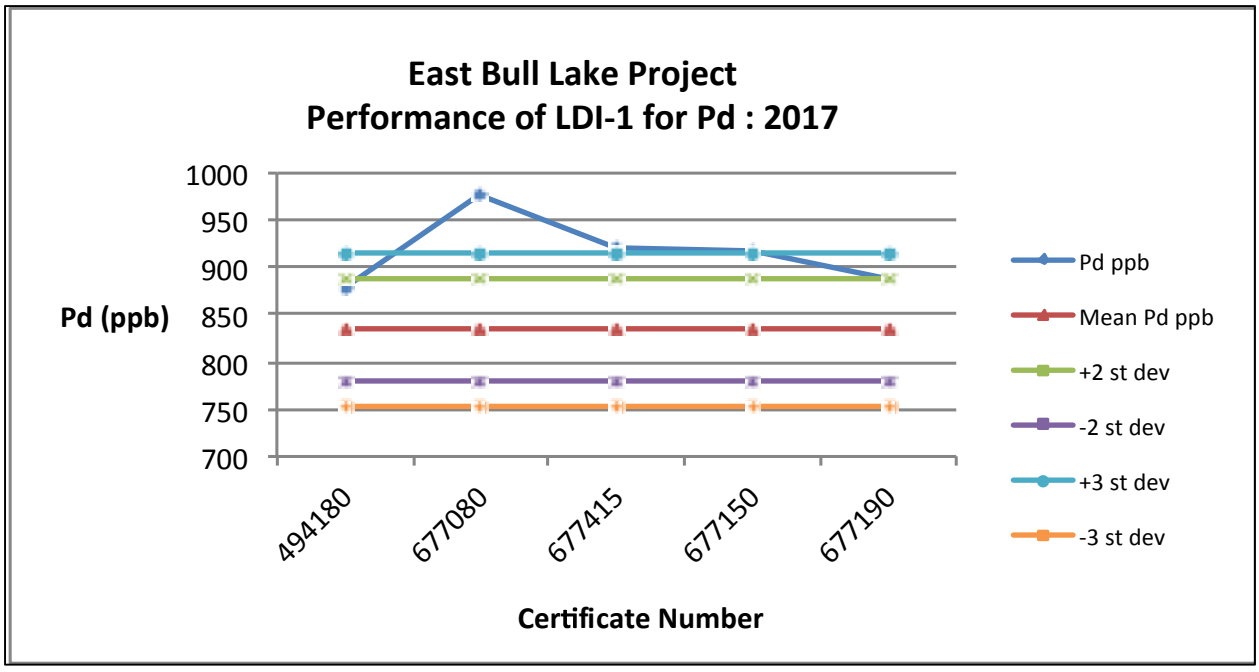
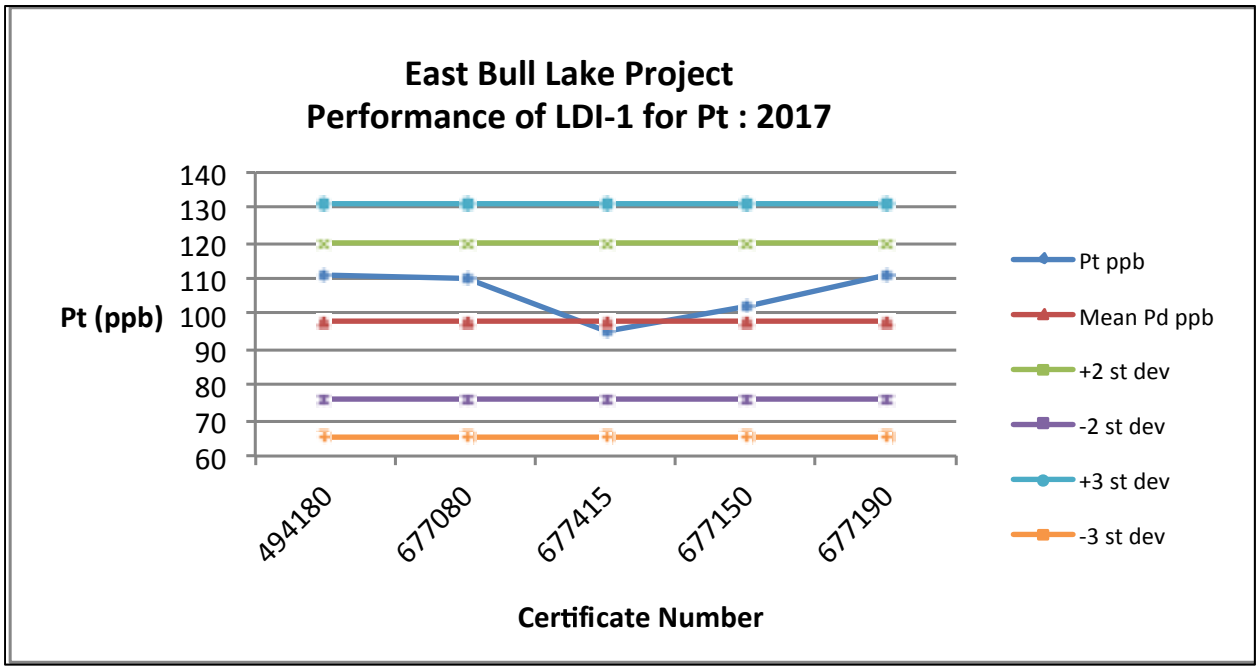


FIGURE 11.6 RESULTS FOR PT ANALYSIS OF LDI-1 CERTIFIED REFERENCE MATERIAL



P&E considers that the certified reference materials demonstrate reasonable accuracy.

11.4.2 Blank Performance

Pavey Ark used syenite from drill core in Freewest hole 00-06 for the 2017 core re-assay and drilling program and channel samples of an anorthositic gabbro from the hanging wall of the Deposit for the channel sample field blanks.

Results for the syenite field blank are shown in Figure 11.7. All Pd results were less than 20 ppb Pd and all Pt results are around the lower detection limit. The results are considered acceptable for the current requirements and the author does not consider contamination to be an issue in the East Bull Project Mineral Resource data.

FIGURE 11.7 RESULTS OF ASSAYS OF SYENITE FIELD BLANKS FOR PD

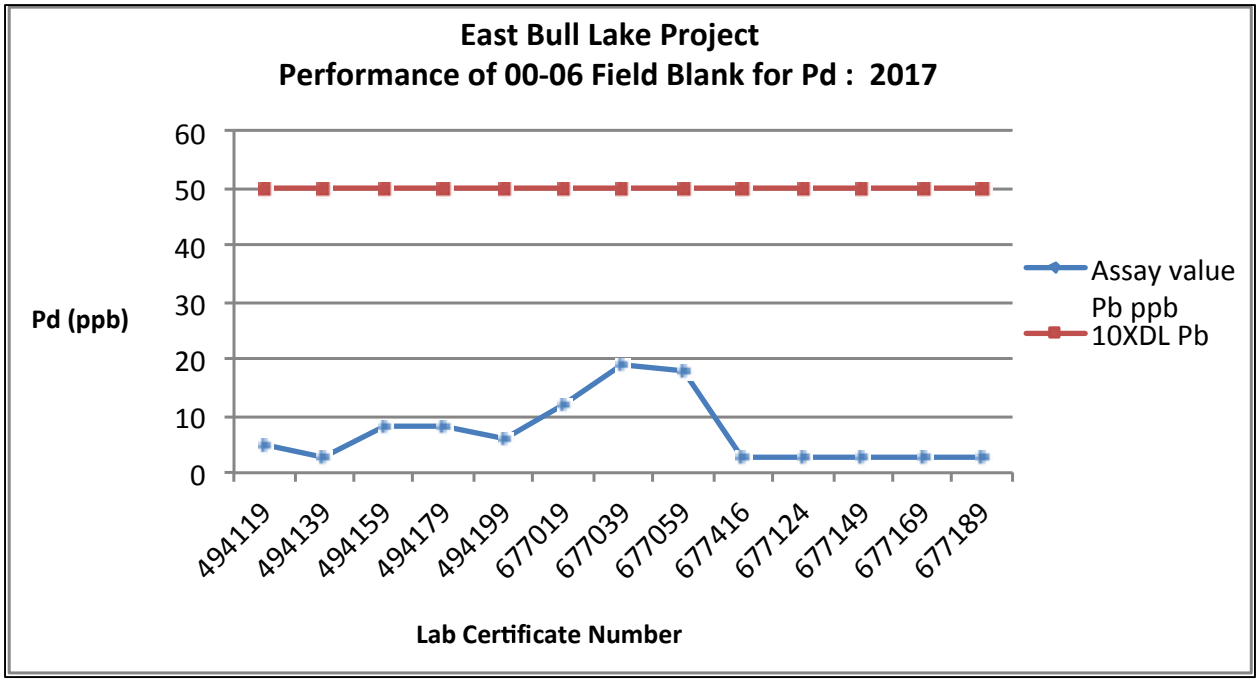
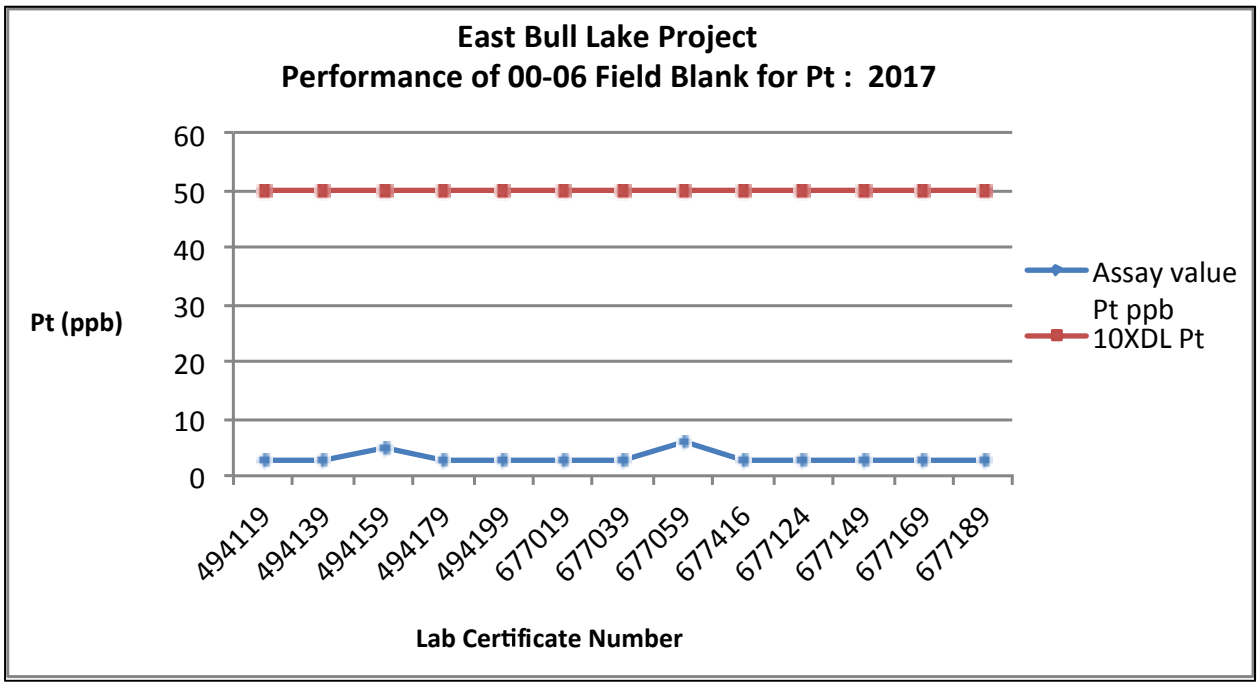


FIGURE 11.8 RESULTS OF ASSAYS OF SYENITE FIELD BLANKS FOR PT



P&E considers there to be good agreement between Pavey Ark's check assays and Freewest's historically reported values. The results of the 2017 re-sampling program verify the presence of significant Au, Pd, Pt, Cu and Ni in the East Bull PGM Deposit drill core and confirm the validity of the historically reported analytical results.

11.5 LABORATORY DUPLICATES

Pavey Ark did not insert any ¼ drill core field duplicates into the 2017 drill core-sampling program, however, Actlabs' internal laboratory duplicates were assessed.

Actlabs reports both laboratory analytical duplicates and a limited number of pulp duplicates. Results for both Pd and Pt are shown in Figures 11.9 and 11.12 and precision is considered acceptable for both elements.

FIGURE 11.9 ACTLABS' ANALYTICAL DUPLICATES FOR PD

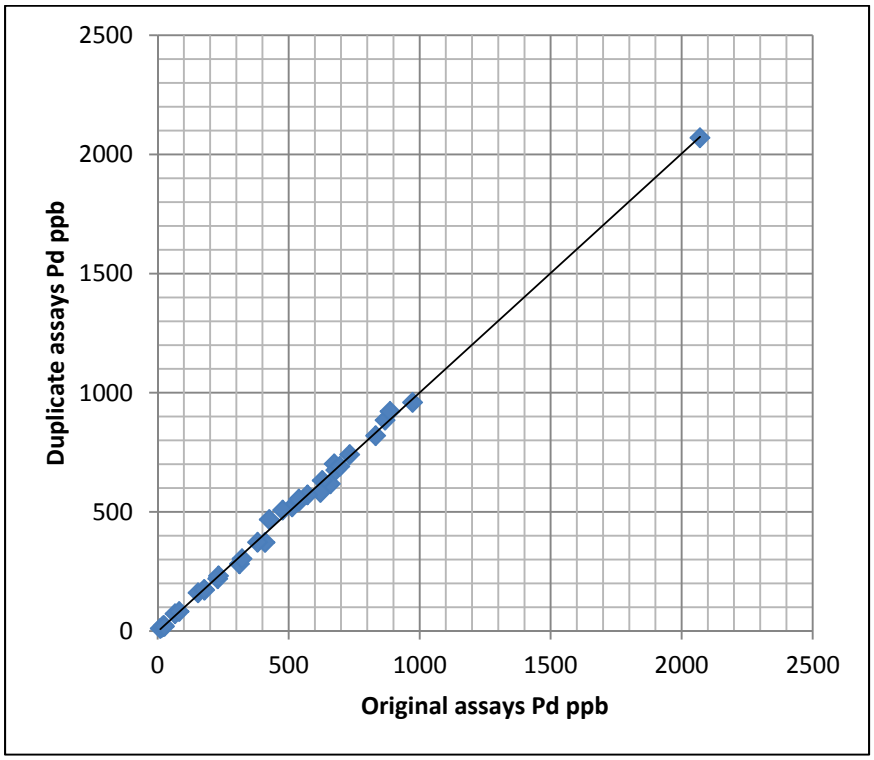


FIGURE 11.10 ACTLABS' PULP DUPLICATES FOR PD

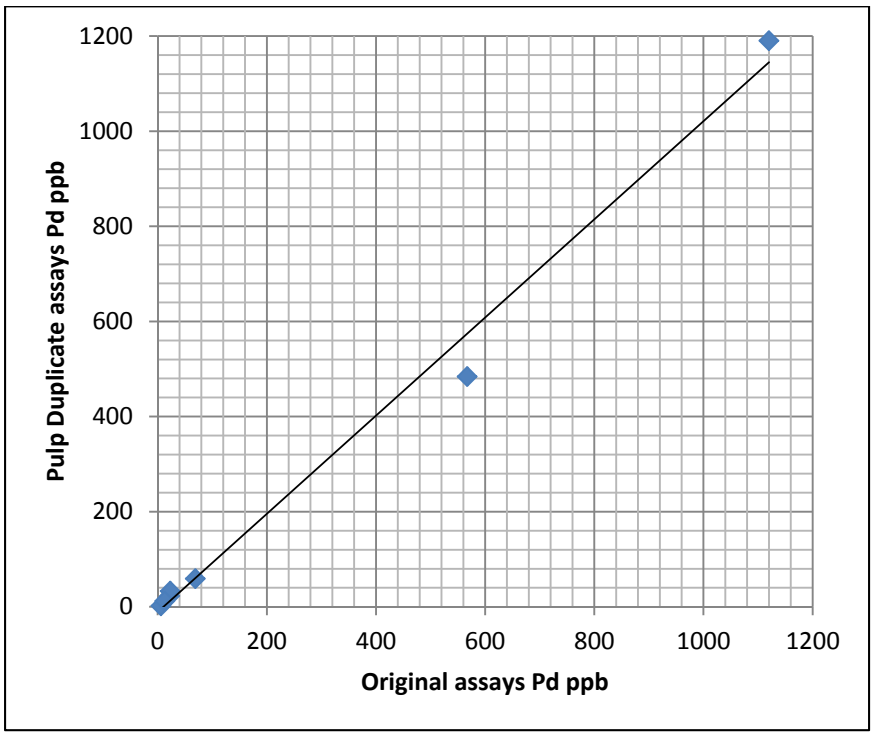


FIGURE 11.11 ACTLABS' ANALYTICAL DUPLICATES FOR PT

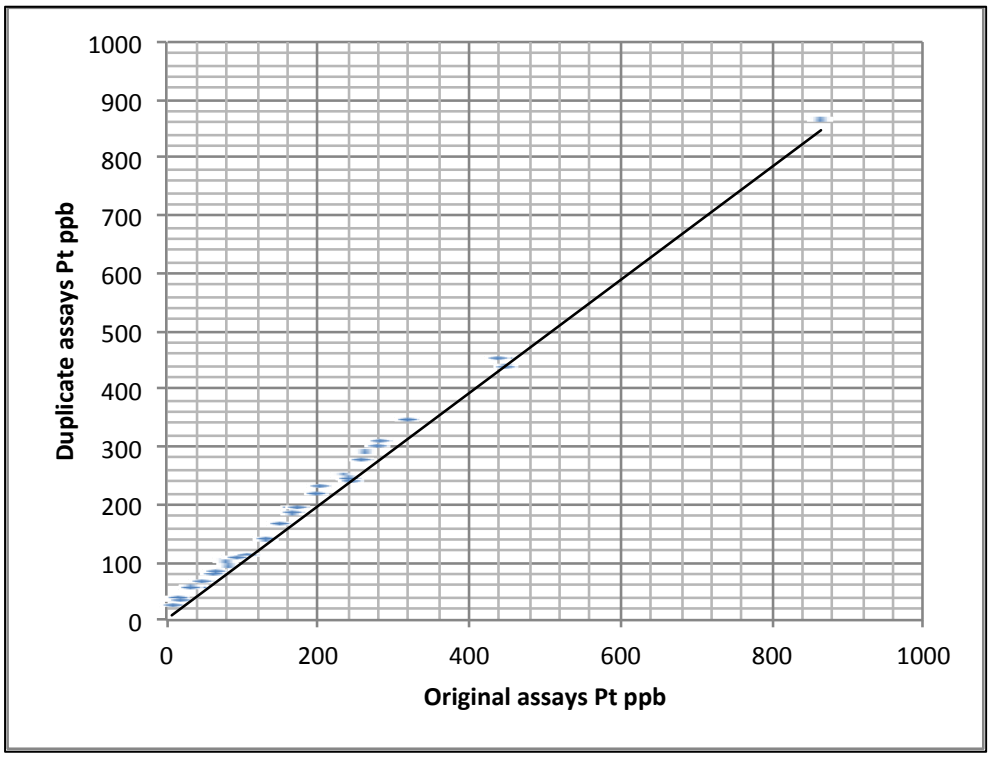
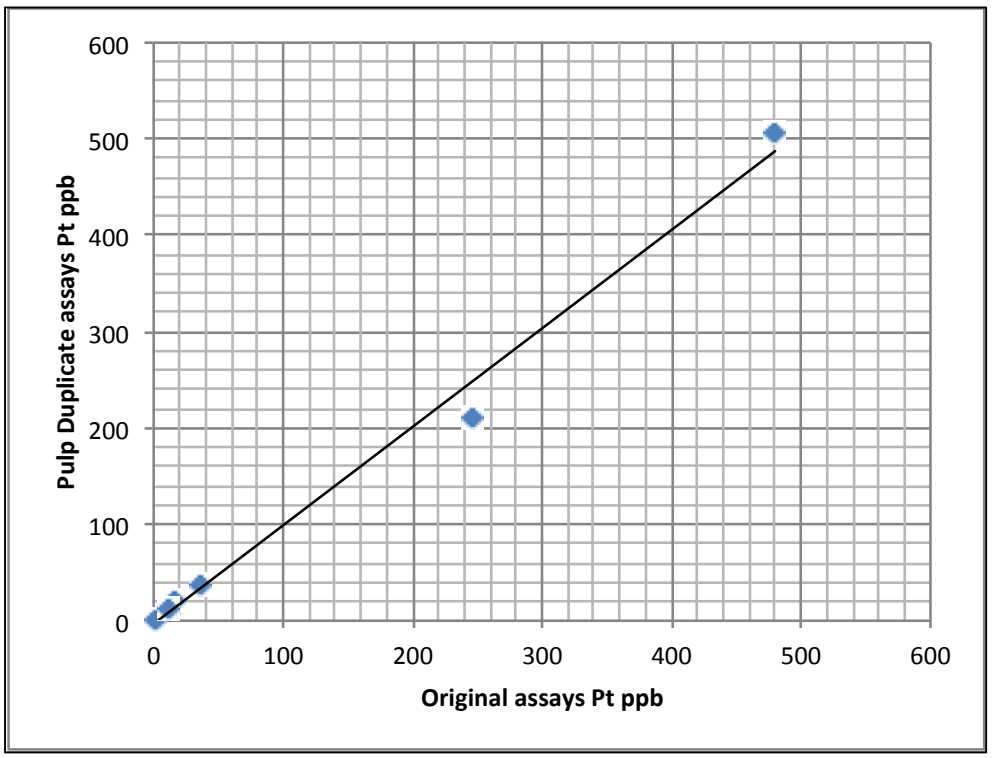


FIGURE 11.12 ACTLABS' PULP DUPLICATES FOR PT



11.6 SAMPLE PREPARATION AND ANALYSIS CONCLUSIONS

It is the author's opinion that the sample preparation, analysis and security procedures undertaken at the East Bull PGM Project in 2017, as well as the check assaying carried out on the historical drill core are satisfactory for use in the current Mineral Resource Estimate.

12.0 DATA VERIFICATION

12.1 DATABASE VERIFICATION

P&E conducted verification of the East Bull Project assay database by comparison of the database entries with the assay certificates, which were provided in digital format from Pavey Ark.

Assay data from 2017 were verified for the Project and 13% (388 out of 2,945) of the assay data were checked for Pd and Pt, against the laboratory certificates, with 29% (317 out of 1,107) of this data being constrained.

One very minor error, of no material impact to the Mineral Resource Estimate data, was identified in the assay database.

12.2 P&E SITE VISIT AND INDEPENDENT SAMPLING

Mr. Yassa, P.Geo, of P&E Mining Consultants Inc. visited the East Bull Lodge drill core facility and the East Bull PGM Property from October 31 to November 1, 2017 for the purpose of reviewing exploration results and independently sampling drill core from the East Bull PGM Property. Pavey Ark had an active drill program on the Property at the time of Mr. Yassa's site visit.

Mr. Yassa independently selected six samples from Pavey Ark drill hole EB17-01 that covered a visually mineralized interval with disseminated chalcopyrite from 31.0 to 37.0 m. In addition, Mr. Yassa independently selected 24 samples from historical Freewest drill hole 321-00-21 that covered the interval from 63.0 to 87.0 m. The historical Freewest sample tags were readily visible in the core boxes and the samples collected by Mr. Yassa matched the historical sample intervals originally assayed by Freewest. All samples were nominally 1 metre in length.

The independent samples consisted of ¼ drill core that was sawn under the supervision of Mr. Yassa. Mr. Yassa bagged and sealed the samples and transported the samples directly to the sample receiving facilities at ALS Canada Ltd.'s laboratory in Rouyn-Noranda, QC. The samples were analyzed for Pt, Pd, Au by a 50 g fire assay with ICP-AES finish, for Rh by 30 g fire assay with ICP-MS finish, and for Ag, Co, Cu, Ni by 4-acid digestion with ICP-AES finish at ALS Canada Ltd.'s laboratory in Vancouver, BC.

ALS Canada Ltd. is an independent lab that has developed and implemented a Quality Management System (QMS) at each of its locations designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. ALS maintains ISO registrations and accreditations, which provide independent verification that a QMS is in operation at the location in question. Most ALS laboratories are registered or are pending registration to ISO 9001:2000.

The results for the independent due diligence samples from Pavey Ark drill hole EB17-01 are shown in Figures 12.1 and 12.2 for Pd and Pt respectively. These results show excellent reproducibility with Pavey Ark's results from Actlabs.

FIGURE 12.1 RESULTS OF VERIFICATION SAMPLING OF DDH EB17-01 FOR PD

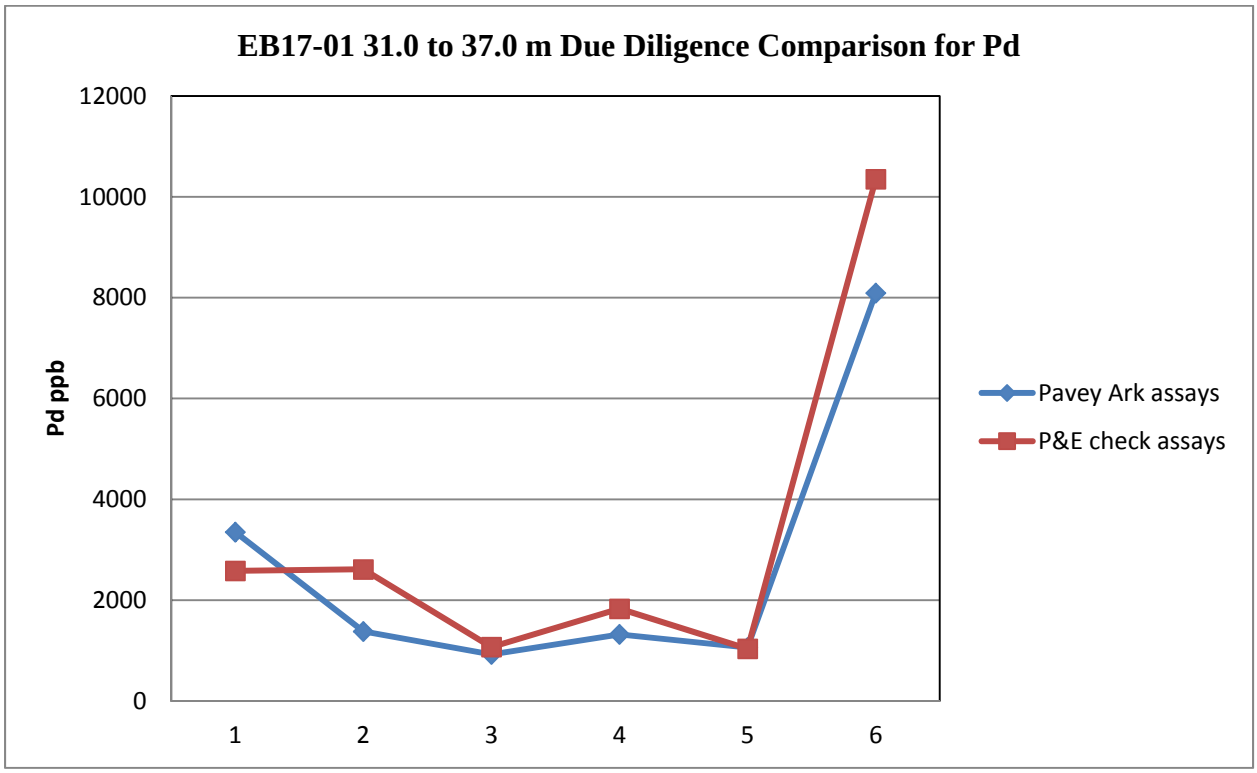
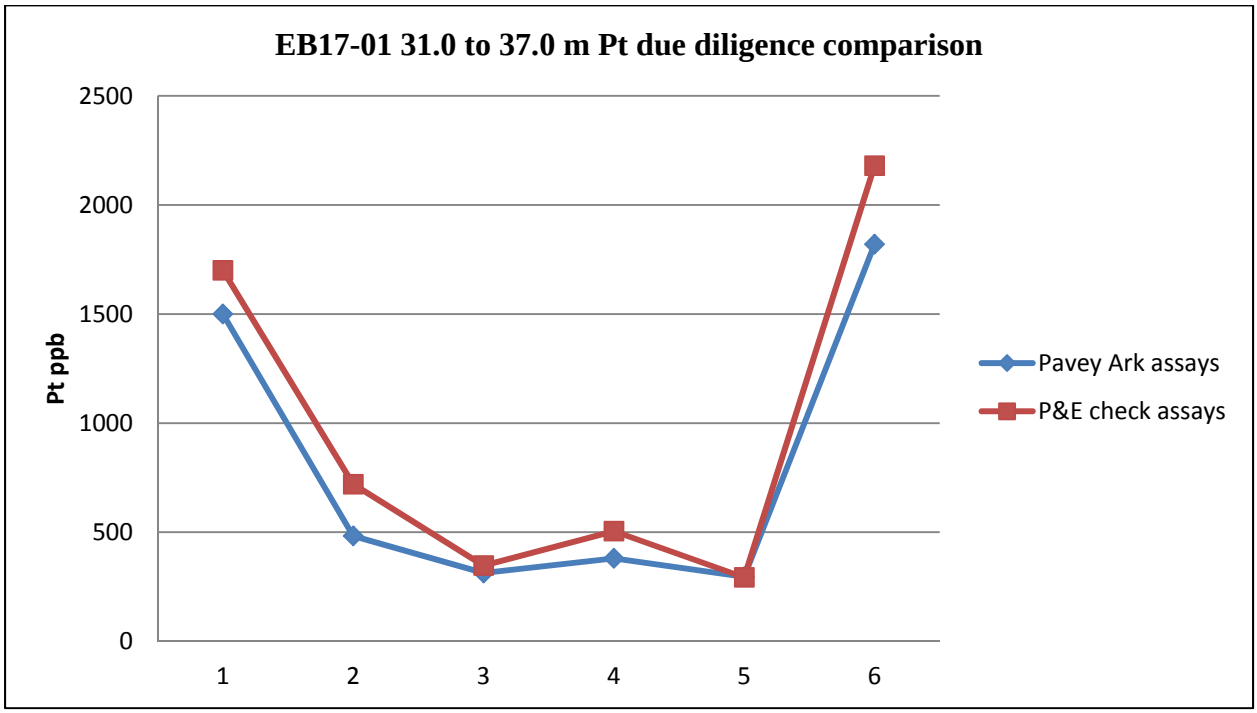


FIGURE 12.2 RESULTS OF VERIFICATION SAMPLING OF DDH EB17-01 FOR PT



The results from Mr. Yassa's independent re-sampling of the historical Freewest drill hole are shown in Figures 12.3 and 12.4 for Pd and Pt respectively and show excellent reproducibility with Freewest's historical results from XRAL Laboratories, in Toronto.

FIGURE 12.3 COMPARISON OF HISTORICAL FREEWEST VERSUS P&E PD ASSAYS FOR DDH 00-21

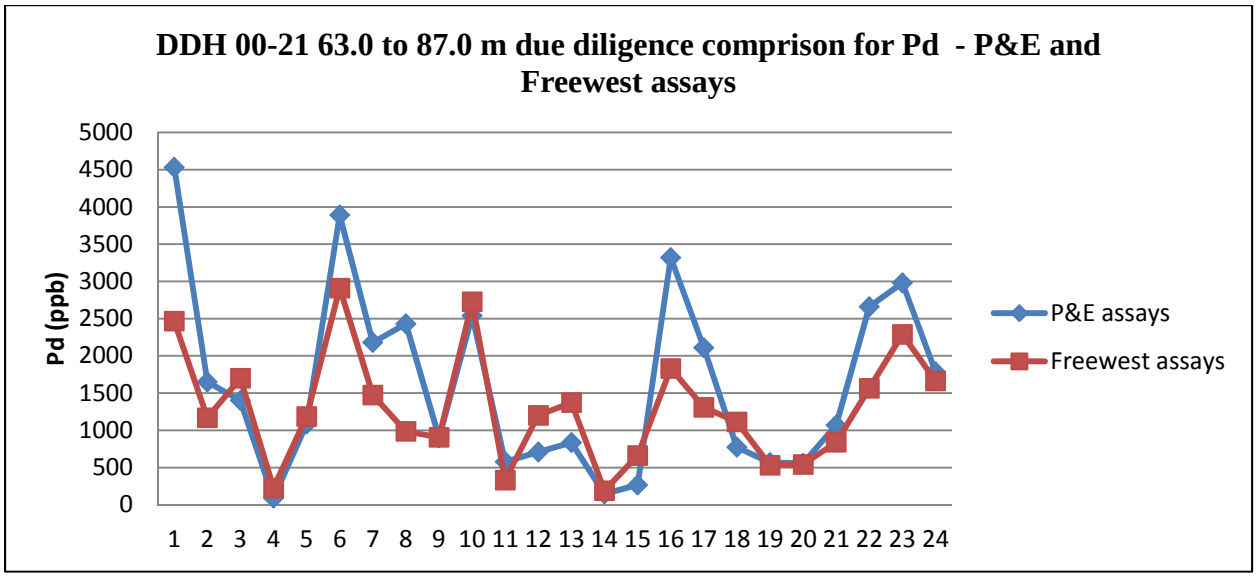
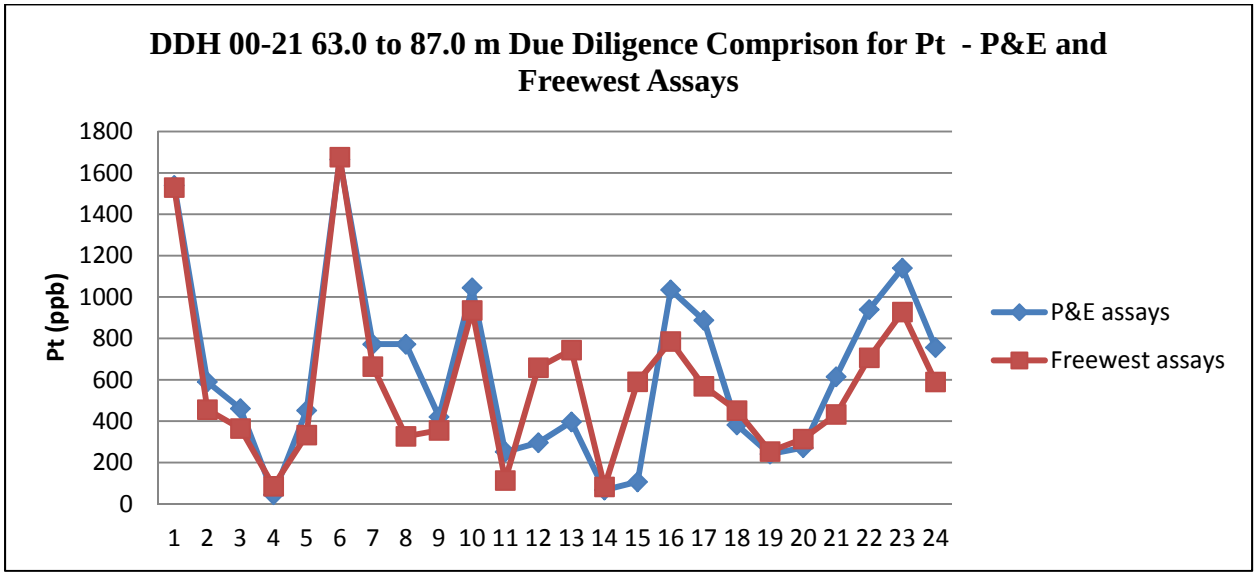


FIGURE 12.4 COMPARISON OF HISTORICAL FREEWEST VERSUS P&E PT ASSAYS FOR DDH 00-21



P&E considers there to be good correlation between the assay values in Pavey Ark's database and the independent verification samples from both the 2017 and historical drilling programs collected by P&E and analyzed at ALS. It is P&E's opinion that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

This section is not applicable to this Technical Report.

14.0 MINERAL RESOURCE ESTIMATES

The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument ("NI") 43-101 and has been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may also be affected by further infill and exploration drilling that may result in changes to subsequent Mineral Resource estimates.

All Mineral Resource estimation work reported herein was carried out by Eugene Puritch, P.Eng., FEC, CET, an independent Qualified Persons in terms of NI 43-101, from information and data supplied by Pavey Ark. Mineral Resource modeling and estimation were carried out using Gemcom modeling software. To the best of P&E's knowledge no previous NI 43-101 Mineral Resource Estimate has been completed for the Property.

At a 0.8 g/t PdEq cut-off, the East Bull PGM Property has estimated pit constrained Inferred Mineral Resource of 11.1 M tonnes at a grade of 1.46 g/t PdEq for a total of 523 koz of palladium equivalent. The effective date of the Mineral Resource Estimate is April 15, 2019.

14.1 DATABASE

All data were provided by Pavey Ark in the form of Excel files and scanned copies of original reports and logs. The database as implemented by P&E contains results of 41 diamond drill holes and six surface channels for a total of 2,864 drill core assays and 79 surface channel assays. Eleven drill holes were drilled by Mustang Minerals in 1999 and 2000, 27 holes were drilled by Freewest Resources in 1999 and 2000, three holes were drilled Pavey Ark in 2017, and six channels were cut by Pavey Ark in 2017. All assays included Au, Pt, Pd, Cu and Ni. Mineralized intervals in Mustang and Pavey Ark drill holes were analyzed for Rh. Mineralized intervals in an additional eight Freewest drill holes were re-assayed for Rh. Freewest and Pavey Ark assays included Ag and Co. Drill hole plans including channels are presented in Appendix I.

Industry standard validation checks were completed on the supplied databases. P&E typically validates a Mineral Resource database by checking for inconsistencies in naming conventions or analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, and missing interval and coordinate fields. P&E noted no significant validation errors. The database was verified for all historical and current assay results using old certificates and digital copies of assay certificates received from the laboratory. P&E believes that the supplied database is suitable for Mineral Resource estimation.

14.2 DOMAIN INTERPRETATION

Local topography was derived from the Ontario Mining Land tenure map. Domain models were generated by P&E from successive polylines spaced along drill hole sections created every 100 m and oriented perpendicular to the general trend of the mineralization. The constraining domain outlines were influenced by the selection of mineralized material above 0.8 g/t PdEq that demonstrated lithological and grade continuity along strike and down dip. Where appropriate lower grade mineralization was included for the purpose of maintaining zonal continuity. On each section polyline interpretations were digitized from drill hole to drill hole but not typically extended more than 50 metres from drilled mineralization. Mineralization was extended deeper when mineralized intersections were encountered in neighbouring sections. All polyline vertices were snapped directly to drill hole assay intervals, in order to generate a true three-dimensional representation of the extent of the mineralization. Domain wireframes were subsequently clipped above the topographic surface. An overburden surface was created using the drill hole lithological descriptions and used to limit the amount of reported volumes. There were a total of 1,053 constrained assay intervals within the constraining domain wireframes.

A total of three constraining domain wireframes were developed:

- Valhalla Zone – the main azimuth 078° striking mineralized zone with a moderate north dip;
- Garden Zone – a zone located west of the main Valhalla Zone at the west end of the Deposit;
- Hanging Wall (HW) Zone – a zone paralleling the Valhalla Zone in the hanging wall of the eastern part of the Deposit.

The three constraining domain wireframes were treated separately for the purpose of rock coding, statistical analysis, compositing limits and definition of the extent of potentially economic mineralization. The 3-D constraining domain wireframe model is shown in Appendix II.

14.3 COMPOSITES

Assay sample lengths within the constraining domain wireframes range from 0.1 m to 1.8 m, with an average sample length of 0.98 m. In order to ensure equal sample support, the choice of a compositing length of 1.0 m was utilized for Mineral Resource estimation.

Length-weighted composites were calculated within the constraining domain wireframes starting at the first point of intersection between the drill hole and the domain intersected, and halting upon exit from the domain wireframe. Assays and composites were then assigned a domain rock code value based on the domain wireframe that the interval midpoint fell within. After compositing, a small number of short-length residual composites were discarded to prevent short sample bias. The remaining composites were subsequently exported to extraction files for statistical analysis, capping and grade estimation.

Composite statistics are summarized in table 14.1.

TABLE 14.1
COMPOSITE STATISTICS

Variable	Au (g/t)	Pt (g/t)	Pd (g/t)	Rh (g/t)	Cu (%)	Ni (%)	Co (%)
Number of Samples	1,016	1,016	1,016	255	981	981	283
Minimum Value	0.001	0.003	0.003	0.002	0.001	0.003	0.001
Maximum Value	0.370	1.805	8.020	0.171	0.700	0.435	0.017
Mean	0.051	0.231	0.554	0.026	0.127	0.051	0.008
Median	0.042	0.158	0.412	0.014	0.116	0.047	0.008
Variance	0.002	0.056	0.368	0.001	0.007	0.001	0.001
Standard Deviation	0.041	0.236	0.606	0.028	0.085	0.034	0.003
Coefficient of Variation	0.800	1.025	1.092	1.218	0.669	0.661	0.310

14.4 GRADE CAPPING

The presence of high-grade outliers for the composite data was evaluated by a review of composite summary statistics and log normal histograms (Appendix III). Based on this analysis only 3 composites were capped, one each for Ni (0.35%), Cu (0.50%) and Pd (5 g/t).

14.5 VARIOGRAPHY

Due to the relatively wide spaced drilling and low sample population, meaningful variograms were not attainable.

14.6 BULK DENSITY

An average in-situ bulk density of 2.97 t/m^3 was applied to the mineralized domains based on an average of 60 bulk density measurements by Actlabs on drill core samples from holes EB17-01, -02 and -03. The samples had a range of bulk density between 2.80 to 3.14 t/m^3. There was no discernable difference between mineralized material and host rock gabbro.

14.7 BLOCK MODELING

The East Bull Mineral Resource model was divided into a block model framework containing blocks extending 5 m in the X direction, 5 m in the Y direction and 5 m in the Z direction. The block model framework contains 460 columns (X), 160 rows (Y) and 40 levels (Z), and was not rotated. Block model grade interpolation was performed for Au, Pt, Pd, Rh, Ni, Cu and Co.

A volume percent block model was established to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domain. As a result,

the domain boundary is properly represented by the percent model ability to measure individual infinitely variable block inclusion percentages within an individual constraining domain wireframe.

All composite values were used for the estimation of block grades. P&E considers this to be a robust methodology appropriate for estimating the East Bull PGM Deposit Mineral Resources. During grade block estimation, between 1 and 20 composites from one or more drill holes were selected, with the search ellipse for sample selection aligned to the geometry and overall orientation of the constraining mineralization domain. Composite data used during estimation were restricted to samples located in their respective constraining domain wireframes.

The resulting PdEq grade blocks can be seen on the block model cross-sections and plans in Appendix-IV.

14.8 RESOURCE CLASSIFICATION

Mineral Resources were estimated and classified in compliance with guidelines established by the Canadian Institute of Mining, Metallurgy and Petroleum:

- **Indicated Mineral Resource:** "An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed."

- **Inferred Mineral Resource:** "An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes."

Mineral Resource classification was implemented by generating three-dimensional envelopes around those parts of the block model for which the drill hole spacing and grade estimates met the required continuity criteria. As a result of the relatively wide drill hole spacing ranging between 50 to 100 m and low sample population, an Inferred only interpolation pass was utilized to code the grade blocks. As a result, all of the mineralization was classified as Inferred Resources. Inverse distance squared ($1/d^2$) grade interpolation was utilized.

14.9 RESOURCE ESTIMATE

The Mineral Resource Estimate was derived by applying the 0.8 g/t PdEq cut-off grade to the block model and reporting the resulting tonnes and grade for potentially extractable constraining domain wireframes Mineral Resources.

The PdEq calculation is based on the assumptions in Table 14.2. Metal prices are based on 24 month trailing averages at January 31, 2018. Concentrate recovery, smelter payables and refining charges are based on comparable projects.

TABLE 14.2
METAL PRICE, CONCENTRATE RECOVERY, SMELTER PAYABLE, AND REFINING CHARGE ASSUMPTIONS FOR PDEQ CALCULATION

Element	Unit of Measure-ment	Metal Price * ($US/lb or oz)	Concentrate Recovery	Smelter Payable	Refining Charge ($US/lb or oz)
Ni	lb	$4.62	30%	90%	$0.50
Cu	lb	$2.55	85%	85%	$0.08
Au	oz	$1,262	75%	85%	$7.50
Pt	oz	$973	80%	90%	$7.50
Pd	oz	$767	82%	90%	$7.50
Rh	oz	$1,000	80%	90%	$7.50
Co	lb	$20	71%	50%	$3.00

** January 31, 2018 two year trailing average prices*

Using these assumptions the PdEq in g/t is calculated as:

PdEq g/t = (Ni % x 1.36) + (Cu % x 2.18) + (Au g/t x 1.43) + (Pt g/t x 1.24) + (Rh g/t x 1.27) + (Co % x 7.38) + Pd g/t

In order to evaluate the potentially economic open pit mineralization in the East Bull PGM Deposit, a first pass pit optimization was carried out to create an optimum pit shell for the East Bull Deposit. Inferred Mineral Resources are constrained within an optimized conceptual pit-shell with pit slopes of $50^{o.}$

The model used the following assumptions:

- Pd price of US$914/oz, (Mar 31/19 three year trailing average);
- exchange rate of US$0.77 = CAD$1.00;
- estimated costs including ($2/t mined), process ($14/t), G&A ($5/t processed);
- process recovery of 80%;
- smelter payable of 90%;
- and a pit slopes of 50^{o}.

The resulting East Bull PGM Deposit potentially economic constraining pit shell and mineralized domain can be seen in Appendix V.

The following calculation demonstrates the rationale supporting the 0.8 g/t PdEq cut-off grade that determines the potentially economic portions of the mineralization.

14.9.1 Mineral Resource Estimate PdEq Cut-Off Grade Calculation CDN$

Pd Price	US$914/oz
$US=$CDN Exchange Rate	$ US$0.77 = CAD$1.00
Pd Recovery	80%
Smelter Payable	90%
Mining Cost	$2.00/t
Overburden Mining	$1.50/t
Process Cost	$18/t
G&A Cost	$4/t

Therefore, the PdEq cut-off grade for the pit constrained Mineral Resource Estimate is calculated as follows:

Operating costs per mineralized tonne = ($18 + $4) = $22/tonne

[($22)/[($914/$0.77 Exchange Rate/ 31.1035 x 80% Recovery x 90% Payable)] = 0.8 g/t Pd

TABLE 14.3
EAST BULL PGM DEPOSIT PIT CONSTRAINED MINERAL RESOURCE ESTIMATE AT 0.8 G/T PDEQ CUT-OFF (1-4)

Classif-ication	Tonnes (M)	Au (g/t)	Pt (g/t)	Pd (g/t)	Rh (g/t)	Cu (%)	Ni (%)	Co (%)	3 PGM + Au (g/t)	PdEq (g/t)	PdEq (koz)
Inferred	11.1	0.05	0.26	0.58	0.04	0.14	0.05	0.01	0.93	1.46	523

(1) Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues, although 21C Metals is not aware of any such issues.

(2) The Inferred Mineral Resource in this estimate has a lower level of confidence that that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

(3) The Mineral Resources were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines.

(4) Values in the table may differ due to rounding.

A PdEq cut-off sensitivity analysis to the pit constrained Mineral Resource Estimate was also completed (Table 14.4). The inclusion of this sensitivity analysis is not meant to supersede or replace the results of the Mineral Resource Estimate and should not be construed as a Mineral Resource Estimate.

TABLE 14.4 SENSITIVITY OF PIT CONSTRAINED INFERRED MINERAL RESOURCE ESTIMATE EAST BULL PGM DEPOSIT			
Cut-Off PdEq (g/t)	**Tonnes (M)**	**PdEq (g/t)**	**PdEq (koz)**
1.0	10.0	1.52	491
0.95	10.4	1.50	504
0.90	10.7	1.49	512
0.85	10.9	1.47	518
0.80	**11.1**	**1.46**	**523**
0.75	11.3	1.45	527
0.70	114	1.45	529
0.65	11.5	1.44	531
0.60	11.5	1.44	533
0.55	11.6	1.43	534
0.50	11.6	1.43	534

The Global Sensitivity is not meant to supersede or replace the results of the Mineral Resource Estimate and should not be construed as a Mineral Resource Estimate.

14.10 CONFIRMATION OF ESTIMATE

As a test of the reasonableness of the Mineral Resource Estimate, the average block model Au, Pt, Pd, Rh, Ni, Cu and Co grades at a zero cut-off were compared to raw constrained assays as well as to the average of the composite data. The block average is the average grade of all blocks within the mineralized domains (see Table 14.5).

TABLE 14.5 COMPARISON OF GRADE AVERAGES FOR RAW ASSAYS, COMPOSITES AND MINERAL RESOURCE MODEL BLOCKS			
Element	**Raw Assays**	**Composites**	**Blocks**
Au g/t	0.05	0.05	0.05
Pt g/t	0.23	0.23	0.24
Pd g/t	0.56	0.55	0.54
Rh g/t	0.03	0.03	0.04
Ni %	0.05	0.05	0.05
Cu %	0.13	0.13	0.13
Co %	0.01	0.01	0.01

The comparison above shows the average grade of all the grade blocks in the constraining domains to be similar to the raw assays and composites. The block model values will be more representative than the assays or composites due to the block model's three-dimensional spatial

distribution characteristics. In addition, a volumetric comparison was performed with the block model volume of the model blocks versus the geometric calculated volume of the domain solids as follows:

- Geometric Volume = 4,645,189 m^3
- Block Volume = 4,643,639 m^3
- Difference = 0.03%.

15.0 MINERAL RESERVE ESTIMATES

This section is not applicable to this Technical Report.

16.0 MINING METHODS

This section is not applicable to this Technical Report.

17.0 RECOVERY METHODS

This section is not applicable to this Technical Report.

18.0 PROJECT INFRASTRUCTURE

This section is not applicable to this Technical Report.

19.0 MARKET STUDIES AND CONTRACTS

This section is not applicable to this Technical Report.

20.0 ENVIRONMENTAL STUDIES, PERMITS, AND SOCIAL OR COMMUNITY IMPACTS

21C Metals has not conducted any environmental studies on the East Bull PGM Property. 21C Metals currently holds an exploration permit (PR-17-11153) issued by the Ontario Ministry of Northern Development and Mines for drilling and trenching on claims 4272475 and 1227910. The permit is valid until August 20, 2020.

Pavey Ark initiated discussions with Sagamok Anishnawbek First Nations ("Sagamok") in Massey, ON to inform the community about the exploration activities at East Bull. Sagamok has provided written correspondence stating that the community is supportive of the exploration program.

21.0 CAPITAL AND OPERATING COSTS

This section is not applicable to this Technical Report.

22.0 ECONOMIC ANALYSIS

This section is not applicable to this Technical Report.

23.0 ADJACENT PROPERTIES

In the following section, the current Mineral Resource Etimates on the adjacent properties are taken from the corporate websites and SEDAR filings. This data has not been verified by P&E and the information is not necessarily indicative of the mineralization on the Property that is the subject of this Technical Report.

23.1 MUSTANG MINERALS CORP.

Mustang Minerals has a significant property position consisting of staked claims that is contiguous with the East Bull PGM Property. The Mustang property covers the East Lobe of the East Bull Lake Intrusion as well as the majority of the West Lobe of the Intrusion. Mustang Minerals has defined significant PGM-Cu-Ni mineralization in several areas of the Intrusion including in the Moon Lake area on the southern contact of the East Bull Gabbro immediately east of the East Bull PGM Deposit. Mustang has completed significant drilling, however, no Mineral Resource Estimate has been completed to date on the Mustang Property.

23.2 RIVER VALLEY PGM DEPOSIT, NEW AGE METALS INC.

The River Valley PGM Deposit owned by New Age Metals Inc. ("New Age") (formerly Pacific Northwest Capital Corporation) is located 150 km east of East Bull and is described here as a geological analogue of the East Bull PGM Deposit. The following is summarized from a N I43-101 Technical Report and Mineral Resource Estimate on the property by Tetra Tech-Wardrop with an effective date of June 13, 2012 (McCracken, 2012).

The River Valley Property is a magmatic, contact-hosted platinum-palladium-gold (platinum group elements ("PGE")) project that is located in northeastern Ontario, approximately 60 km northeast of Sudbury. The River Valley Project is part of the Paleoproterozoic East Bull Lake Intrusive Suite, dated between 2491 and 2475 Ma. The River Valley Intrusion shares a number of features in common with the East Bull Lake Intrusive Suite in addition to lithology, including typically sill-like to lopolithic forms, igneous layering, and anomalous PGE content.

At River Valley mineralization is localized in a mineralized breccia unit occurring at the lower contact of the intrusion and has been identified along most of the 10 km strike length of the contact. Mineralization consists of blebby to disseminated chalcopyrite and pyrrhotite, typically in modal amounts from 0.5 to 2% and occurs in the matrix of the marginal and brecciated rocks and occasionally within the breccia's more mafic fragments. This sulphide mineralization commonly contains between 1 g/t and 5 g/t combined platinum-palladium-gold.

To date a total of 596 drill holes have been completed on the River Valley Property and have defined eight zones of mineralization. The River Valley Mineral Resource has been estimated by McCracken (2012) at a 0.8 g/t PdEq cut off as containing Measured and Indicated Mineral Resources totalling 91,339,550 tonnes at a grade of 1.38 g/t PdEq (Table 23.1).

TABLE 23.1
RIVER VALLEY MINERAL RESOURCE ESTIMATE AT 0.8 G/T PDEQ CUT-OFF

Classificaton	Tonnes (t)	Pd (g/t)	Pt (g/t)	Rh (g/t)	Au (g/t)	Ag (g/t)	Cu (%)	Ni (%)	Co (%)	PdEq (g/t)
Measured	25,584,850	0.63	0.23	0.022	0.04	0.55	0.06	0.02	0.003	1.46
Indicated	65,754,700	0.56	0.21	0.020	0.04	0.26	0.06	0.02	0.003	1.35
Total	**91,339,550**	**0.58**	**0.22**	**0.021**	**0.04**	**0.34**	**0.06**	**0.02**	**0.003**	**1.38**
Inferred	35,911,000	0.36	0.14	0.014	0.03	0.11	0.06	0.03	0.003	1.07

Source: *(McCracken 2012)*

24.0 OTHER RELEVANT DATA AND INFORMATION

To the best of the authors' knowledge there is no other relevant data, additional information or explanation necessary to make this Technical Report understandable and not misleading.

25.0 INTERPRETATION AND CONCLUSIONS

21C Metals' East Bull PGM Property is located in northern Ontario, 90 km west of the city of Sudbury. The Property benefits from the close proximity to the city of Sudbury, well-developed transportation and power infrastructure, and the fully integrated base and precious metal mining, milling, smelting and refining complexes of Vale Canada Limited and Glencore PLC. The Property is accessible by route 553/810, all-weather road, extending north from Trans-Canada Highway 17 at Massey, Ontario.

The East Bull PGM Property is comprised of four contiguous staked claims covering 62 claim units (992 ha) in central Gerow Township. 21C Metals signed an option agreement with Pavy Ark Minerals Inc. to obtain a 100% interest in the East Bull PGM Property through a combination of exploration expenditures, the issuance of shares and cash payments. The claims are 100% registered to Pavey Ark Minerals Inc., a private Ontario company. 21C Metals holds an exploration permit for drilling and trenching issued by the Ontario Ministry of Northern Development and Mines that is valid until August 2020.

The East Bull PGM Property is underlain by gabbroic rocks of the 2.48 Ga East Bull Lake Intrusive Suite, a regional, Paleoproterozoic, bimodal magmatic event resulting from a mantle-plume related rift. The East Bull PGM Property is located on the southern contact of the western magma chamber of the East Bull Lake Intrusion. On the Property, the PGM and base metal mineralization is primarily hosted in the Inclusion Bearing Zone at the base of the Lower Series.

Drilling and surface trenching have defined significant precious metal and base metal mineralization in the Inclusion Bearing Zone of the East Bull Intrusion over a strike length of 2.0 km. The Valhalla Zone, named after the original Freewest discovery in 1998, is the largest mineralized zone with a strike length of over 1,500 m. The Valhalla Zone strikes at approximately azimuth 078^{o}, dips approximately -45^{o} north, and is locally up to 60 m wide. The Hanging Wall Zone occurs as a 20 to 25 m wide mineralized zone, parallel to the Valhalla Zone, in the eastern part of the Deposit and the Garden Zone occurs in the western part of the Property. Mineralization is open along strike, open down dip and open between the Valhalla and Garden Zones.

Mineralization typically consists of 0.1 to 1.0% sulphide. The sulphides consist of finely disseminated grains, and coarser blebs locally up to 5 cm in diameter with chalcopyrite and pyrrhotite that appear to have initially formed as primary magmatic sulphides. The major sulphide phases are pyrrhotite, chalcopyrite, pentlandite and pyrite. PGM minerals have been identified as: froodite ($PdBi_2$); kotulsite (PdTe); merenskyite ($PdTe_2$); michenerite (PdBiTe); unidentified Pd arsenide; sperrylite ($PtAs_2$); platarsite (PtAsS); and hollingsworthite (RhAsS). Gold grains are also identified.

The East Bull Intrusion has been explored for base metals and PGM since 1952. Previous exploration work on the East Bull PGM Property was mainly by Freewest and Mustang in 1999 and 2000. Freewest drilled 27 holes for a total of 2,902 m and carried out extensive surface trenching on present claim 4272475. Work by Mustang on the eastern part of the Property (claim 1227910) included 11 drill holes for a total of 1,766 m. The work by Freewest and Mustang forms the majority of the data for the current Mineral Resource Estimate.

Pavey Ark's 2017 exploration included 77 metres of channel sampling in six channels resulting in 79 assay samples, 320 metres of diamond drilling in three drill holes for a total of 92 assay samples, cataloguing and re-sampling of core originally drilled by Freewest in 1999 and 2000 for a total of 217 assays in seven drill holes; and a differential GPS (DGPS) survey of all located historical drill casings and Pavey Ark channel samples. Pavey Ark's samples were analyzed by Actlabs in Ancaster, Ontario.

The East Bull PGM Property was visited by Mr. Antoine Yassa, P.Geo. on October 31 and November 1, 2017 for the purposes of completing an independent site visit. In addition, Mr. Yassa, independently selected six samples from Pavey Ark drill core and 24 samples from historical Freewest drill core. P&E considers that there is good correlation between assay values in the database and the independent verification samples collected by P&E and analyzed at ALS Laboratories. It is P&E's opinion that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

The database for this Mineral Resource Estimate as implemented by P&E contains results of 41 diamond drill holes and six surface channels for a total of 2,864 drill core assays and 79 surface channel assays. Eleven holes were drilled by Mustang Minerals in 1999 and 2000, 27 holes were drilled by Freewest Resources in 1999 and 2000, 3 holes were drilled in 2017, and 6 channels were cut in 2017. At a 0.8 g/t PdEq cut-off the East Bull PGM Deposit has estimated pit constrained Mineral Inferred Resources of 11.1M tonnes at a grade of 1.46 g/t PdEq for a total of 523 koz of PdEq.

The Mineral Resource in this Technical Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. The Inferred Mineral Resource in this estimate has a lower level of confidence that that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

26.0 RECOMMENDATIONS

26.1 RECOMMENDATIONS AND PROPOSED BUDGET

P&E considers that the East Bull PGM Property contains a significant precious metal and base metal resource that is associated with a well-defined magmatic mineralization environment. P&E considers that the Pproperty has potential for delineation of additional Mineral Resources and that further exploration is warranted.

P&E recommends a two-phase program with a total budget of CAD$1,500,000. The initial Phase 1 drilling program budgeted at $500,000 proposes approximately 15 shallow diamond drill holes for a total of approximately 1,920 m. The focus should be on defining additional mineralization along strike from known resources with the objective of expanding the Mineral Resource. Specific exploration targets include:

- Extend the East Bull Deposit along strike to the east where historic sampling identified surface mineralization in excess of 1 g/t PGM+Au;
- Extend the East Bull Deposit to the west of the Garden Zone, where there are also historic surface indications of mineralization;
- Test the gap between the Valhalla and Garden Zones has not been drilled to date.

The Phase I program should also include surface prospecting and an IP geophysical survey to assist in defining drill targets. The disseminated chalcopyrite-pyrrhotite sulphide mineralization that is associated with PGM mineralization is known to provide an IP chargeability response.

P&E recommends that the Phase I Program include preliminary metallurgical testwork to evaluate recoveries. Phase I should be concluded with an updated Mineral Resource Update.

The Phase II program is budgeted at $1,000,000 and would include approximately 25 holes for a total of 5,620 m. The objective of the drilling program would be to:

- Delineate zones of higher grade PGM mineralization within the East Bull Deposit by initially focusing on expanding higher grade intersections in the Pavey Ark drilling. These include hole EB17-01 that intersected 12.0 m at 2.82 g/t PGM+Au, 0.23% Cu and 0.13% Ni and hole EB17-02 that intersected 7.0 m of 3.14 g/t PGM+Au, 0.16% Cu and 0.07% Ni;
- Extend mineralization down-dip below the current depth of 150 m;
- In-fill drilling to increase confidence level of the Mineral Resource.

The Phase II Program should include borehole EM surveys to evaluate higher grade targets and follow up on VTEM™ targets identified in the footwall of the Valhalla Zone during historical exploration. Continued metallurgical testwork to evaluate potential recoveries and a PEA should complete the Phase II work.

Given the proximity of the Project to Sudbury, an opportunity exists to subsequently develop a test open-pit mining program with haulage of mineralization for processing at Sudbury.

The proposed two-Phase program for CAD$1,500,000 is summarized in Table 26.1.

TABLE 26.1
RECOMMENDED PROGRAM AND BUDGET

Program	Units	Unit Cost ($)	Budget ($)
Phase I Program			
Line Cutting	40 km	$1,000/km	$40,000
Prospecting	40 days	$250/day	$10,000
IP Geophysical Survey	40 km	$1,250/km	$50,000
Drilling including Logging and Assays	15 holes 1,920 m	$125/m	$240,000
Initial Metallurgical Testwork			$30,000
Updated Resource Estimate			$40,000
Management	6 months	$15,000	$90,000
Sub-Total Phase I			**$500,000**
Phase II Program			
Drilling – Infill and Mineral Resource Expansion Down Dip	25 holes 5,600 m	$125/m	$700,000
Bore-hole EM Logging and Interpretation			$30,000
Metallurgical Testwork			$100,000
PEA			$80,000
Management	6 months	$15,000	$90,000
Sub-Total Phase II			**$1,000,000**
Total			**$1,500,000**

27.0 REFERENCES

Born, P., 1979, Geology of the East Bull Lake Layered Complex, District of Algoma, Ontario, Unpublished M.Sc. Thesis, Laurentian University, 147p.

Cabri, Louis, 2000, A Mineralogical Study of the Drill Core from the Folson Lake Project, Confidential Report 2000-011 for Freewest Resources Canada Inc. and Sparton Resources Inc., 18 p.

Chubb. RT., Hannila, K.K. and Peck, D.C., 1994, Precambrian Geology, East Bull Lake Gabbro-Anorthosite Intrusion; Ontario Geological Survey, Preliminary Map P.3274, scale 1:20000.

Easton, R.M., James, R.S. and Jobin-Bevans, L.S. 2010. Geological guidebook to the Paleoproterozoic East Bull Lake Intrusive Suite Plutons at East Bull Lake, Agnew Lake and River Valley: a field trip for the 11th International Platinum Symposium; Ontario Geological Survey, Open File Report 6253, 108p.

Easton, R.M., Josey, S.D., Murphy, E.I. and James, R.S. 2011. Geological compilation, East Bull Lake and Agnew Intrusions; Ontario Geological Survey, Preliminary Map P.3596, scale 1:50 000.

Foy, Robert, 2012, 2012 Drill Report, East Bull Lake Option, Mustang Minerals Corp, Western Areas NL, Boon and Gerow Townships, Sudbury Mining Division, Ontario, Assessment report for Mustang Minerals Corp., July 20, 2012, 185 p.

Lariviere, James, 2001, Report on the Phase One Drill Program, August 2000, Folson Lake Joint Venture Project, Report for Freewest Resources Canada Inc. and Sparton Resources Inc., January 2001, 55 pages plus drill logs.

Legault, J.M., Orta, M., Kumar, H., Zhao, S., 2011, ZTEM™ and VTEM™ Airborne EM Survey Results Over PGM-Cu-Ni Targets At East Bull Lake Anorthositic Complex, Massey, Ontario, Presented at SEG 2011.

McCracken, Todd, 2012, Technical Report and Resource Estimate on the River Valley PGM Project, Northern Ontario, NI43-101 Technical Report for Pacific North West Capital Corp. by Tetra Tech Wardrop, June 13, 2012.

Moore, E.S. and Armstrong, H.S., 1943, Ontario Department of Mines Annual Report 1943, Vol LII, part 6, accompanied by Map No. 52d, East Bull Lake Area, District of Algoma, Ontario, scale 1:63,360 or 1 inch to 1 mile.

Peck, D.C., James, R.S., Chubb, P.T., Prevec, S.A. and Keays, R.R. 1995. Geology, metallogeny and petrogenesis of the East Bull Lake Intrusion, Ontario; Ontario Geological Survey, Open File Report 5923, 124p.

Peck, D.C., Keays, R.R., James, R.S., Chubb, P.T. and Reeves, S.J. 2001. Controls on the formation of contact-type PGE mineralization in the East Bull Lake Intrusion; Economic Geology, v.96, p.559-581.

Soever, Alar, 2001, Report on Properties in the Sudbury Area for Mustang Minerals Corp., NI43-101 Technical Report, Watts Griffis and McOuat Limited, Consulting Geologists and Engineers, Toronto, Effective date April 1, 2001, As amended May 28, 2001, 166 p.

Sutcliffe, R.H., 2017, Assessment Report on the 2017 Channel Sampling, Drilling, and Historical Core Re-Assay Program, East Bull PGM Property, Gerow Township, Sudbury Mining Division, for Pavey Ark Minerals Inc., December 31, 2017, 62 pages plus appendices and maps.

Wood, Peter, 2001, Geological and Geochemical Report, Summer 2000 Mapping Program on the East Bull Lake Project, Assessment report for Mustang Minerals Corp., July 6, 2001, 60 p.

28.0 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

EUGENE PURITCH, P. ENG., FEC, CET

I, Eugene J. Puritch, P. Eng., FEC, CET, residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report and Initial Mineral Resource Estimate on The East Bull Platinum Group Metals Property, Gerow Township, Sudbury Mining Division, Ontario", (The "Technical Report") with an effective date of April 15, 2019.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for Bachelor's Degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

   I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

   I have practiced my profession continuously since 1978. My summarized career experience is as follows:
   - Mining Technologist - H.B.M.& S. and Inco Ltd., 1978-1980
   - Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
   - Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
   - Self-Employed Mining Consultant – Timmins Area, 1987-1988
   - Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
   - Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
   - President – P&E Mining Consultants Inc, 2004-Present
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Sections 2, 3, 14, 15 to 19, 21, 22 and 24, and co-authoring Sections 1, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 15, 2019
Signing Date: May 23, 2019

{SIGNED AND SEALED}
[Eugene Puritch]

_____
Eugene Puritch, P.Eng., FEC, CET

CERTIFICATE OF QUALIFIED PERSON

JARITA BARRY, P.GEO.

I, Jarita Barry, P.Geo., residing at 4 Creek View Close, Mount Clear, Victoria, Australia, 3350, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report and Initial Mineral Resource Estimate on The East Bull Platinum Group Metals Property, Gerow Township, Sudbury Mining Division, Ontario", (The "Technical Report") with an effective date of April 15, 2019.
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have worked as a geologist for a total of 13 years since obtaining my B.Sc. degree. I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (License No. 40875), Professional Engineers and Geoscientists Newfoundland & Labrador (License No. 08399) and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (License No. L3874). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

   I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

   My relevant experience for the purpose of the Technical Report is:

   - Geologist, Foran Mining Corp. 2004
   - Geologist, Aurelian Resources Inc. 2004
   - Geologist, Linear Gold Corp. 2005-2006
   - Geologist, Búscore Consulting 2006-2007
   - Consulting Geologist (AusIMM) 2008-2014
   - Consulting Geologist, P.Geo. (APEGBC/AusIMM) 2014-Present
4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for authoring Section 11 and co-authoring Sections , 12, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 15, 2019
Signed Date: May 23, 2019

{SIGNED AND SEALED}
[Jarita Barry]

_____
Jarita Barry, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

ANTOINE R. YASSA, P.GEO.

I, Antoine R. Yassa, P.Geo. residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, J0Z 1Y2, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled "NI 43-101 Technical Report and Initial Mineral Resource Estimate on The East Bull Platinum Group Metals Property, Gerow Township, Sudbury Mining Division, Ontario", (The "Technical Report") with an effective date of April 15, 2019.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc. (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890);

   I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101.

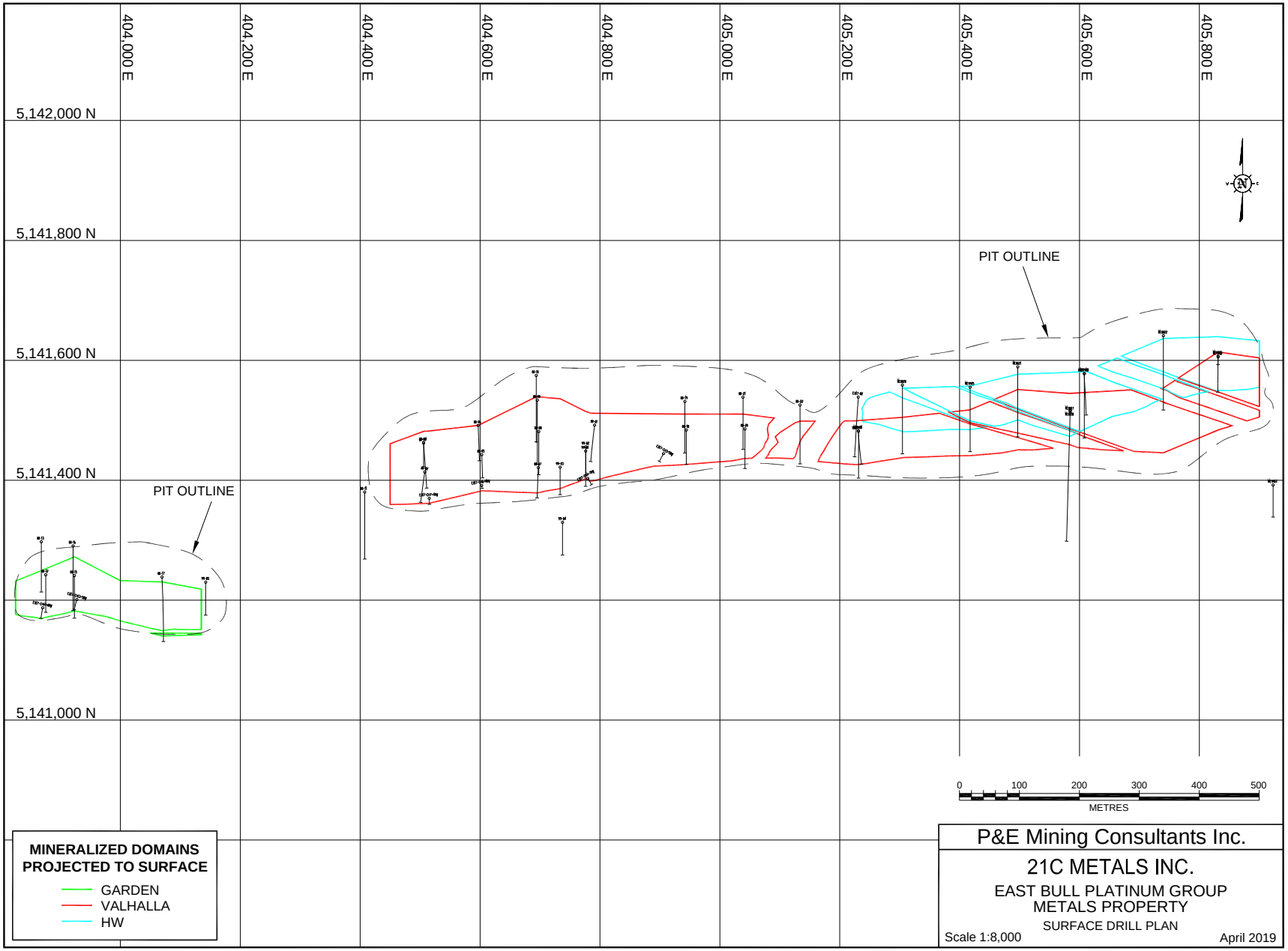
   My relevant experience for the purpose of the Technical Report is:
   - Minex Geologist (Val d'Or), 3- D Modeling (Timmins), Placer Dome 1993-1995
   - Database Manager, Senior Geologist, West Africa, PDX, 1996-1998
   - Senior Geologist, Database Manager, McWatters Mine 1998-2000
   - Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine) 2001-2003
   - Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp. 2003-2006
   - Consulting Geologist 2006-present
4. I have visited the Property that is the subject of this Technical Report on October 31 and November 1, 2017.
5. I am responsible for authoring Sections 4 to 10 & 23 and co-authoring Sections 1, 12, 14, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had no prior involvement with the Project that is the subject of this Technical Report.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: April 15, 2019
Signing Date: May 23, 2019

{SIGNED AND SEALED}
[Antoine R. Yassa]

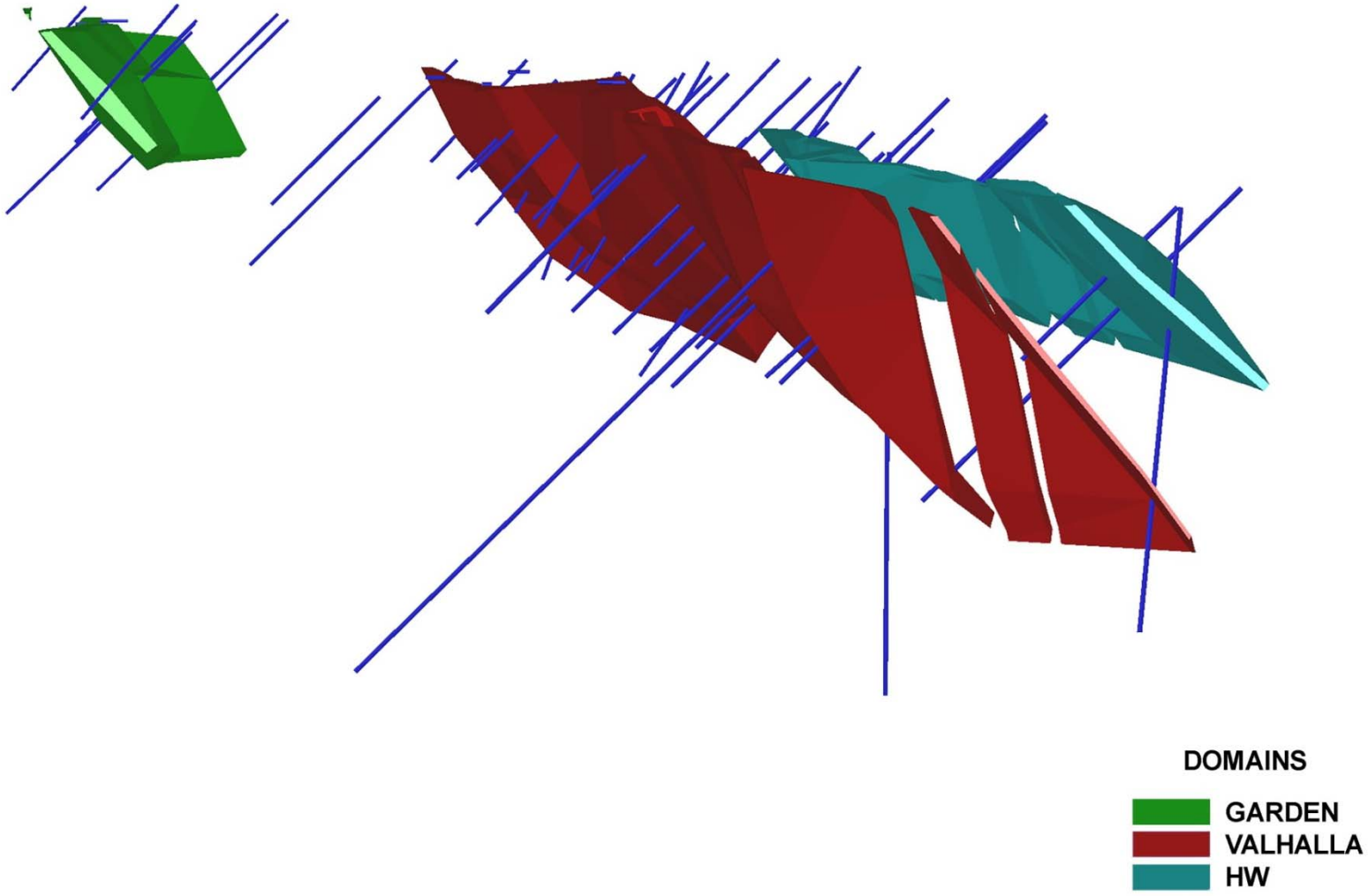
_____
Antoine R. Yassa, P.Geo.

APPENDIX A SURFACE DRILL HOLE PLAN

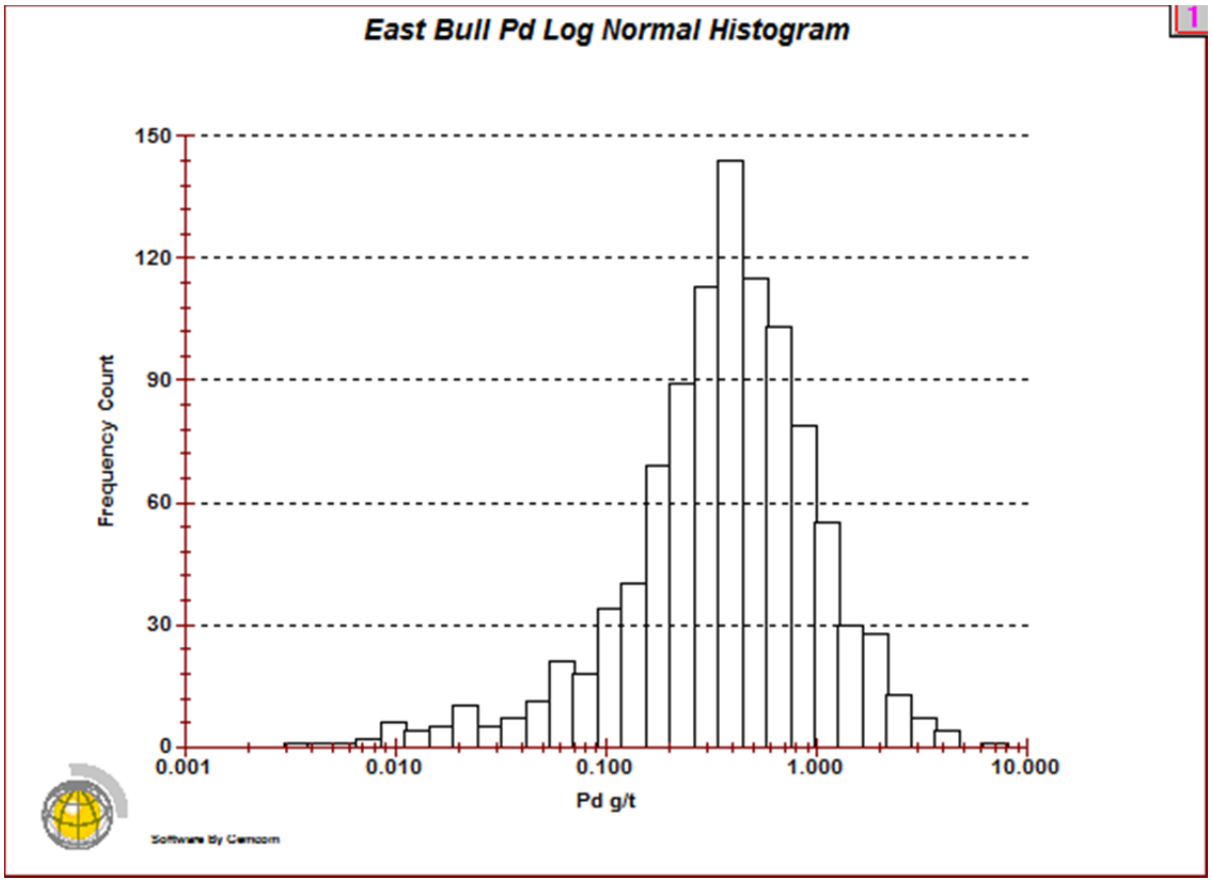

404,000 E
404,200 E
404,400 E
404,600 E
404,800 E
405,000 E
405,200 E
405,400 E
405,600 E
405,800 E
5,142,000 N
5,141,800 N
5,141,600 N
5,141,400 N
5,141,000 N
PIT OUTLINE
PIT OUTLINE
N
0
100
200
300
400
500
METRES
MINERALIZED DOMAINS
PROJECTED TO SURFACE
GARDEN
VALHALLA
HW
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP
METALS PROPERTY
SURFACE DRILL PLAN
Scale 1:8,000
April 2019

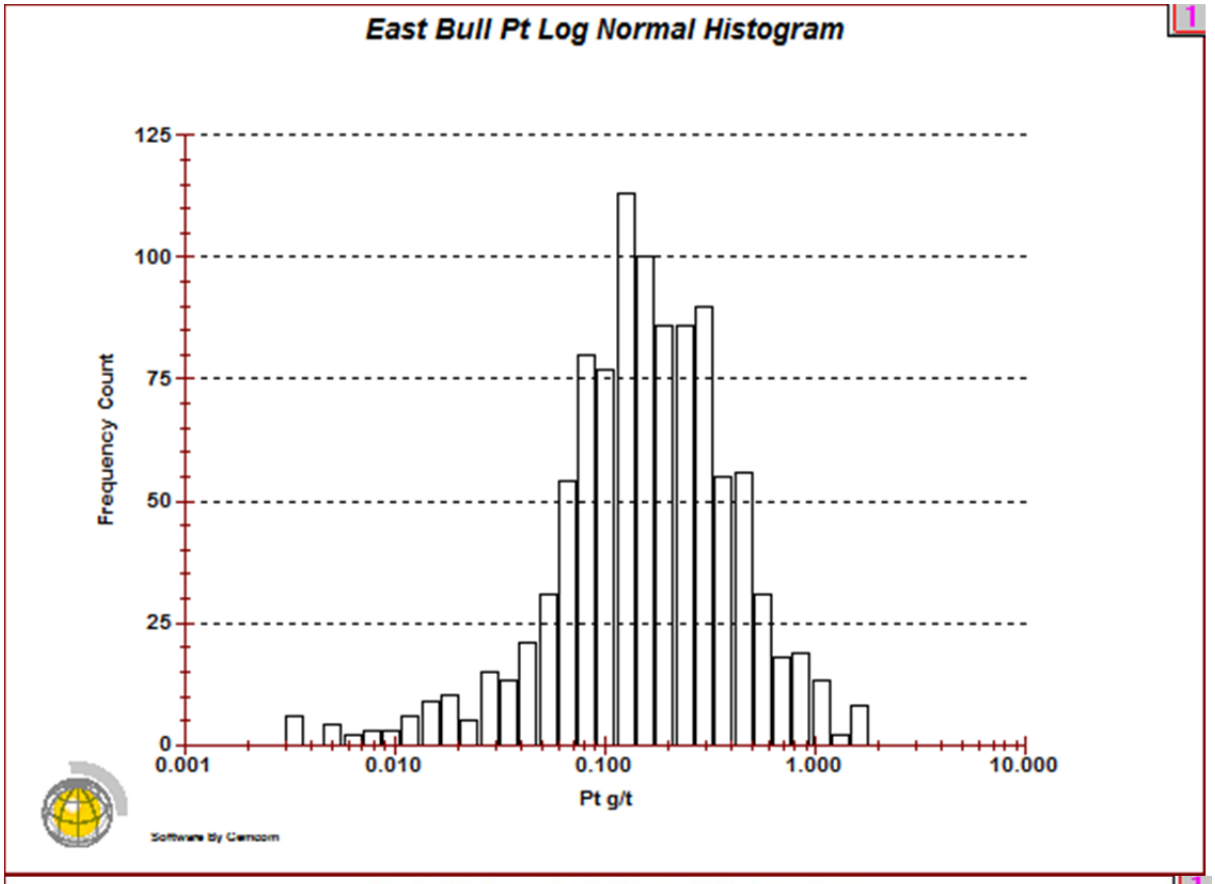
APPENDIX B 3-D DOMAINS

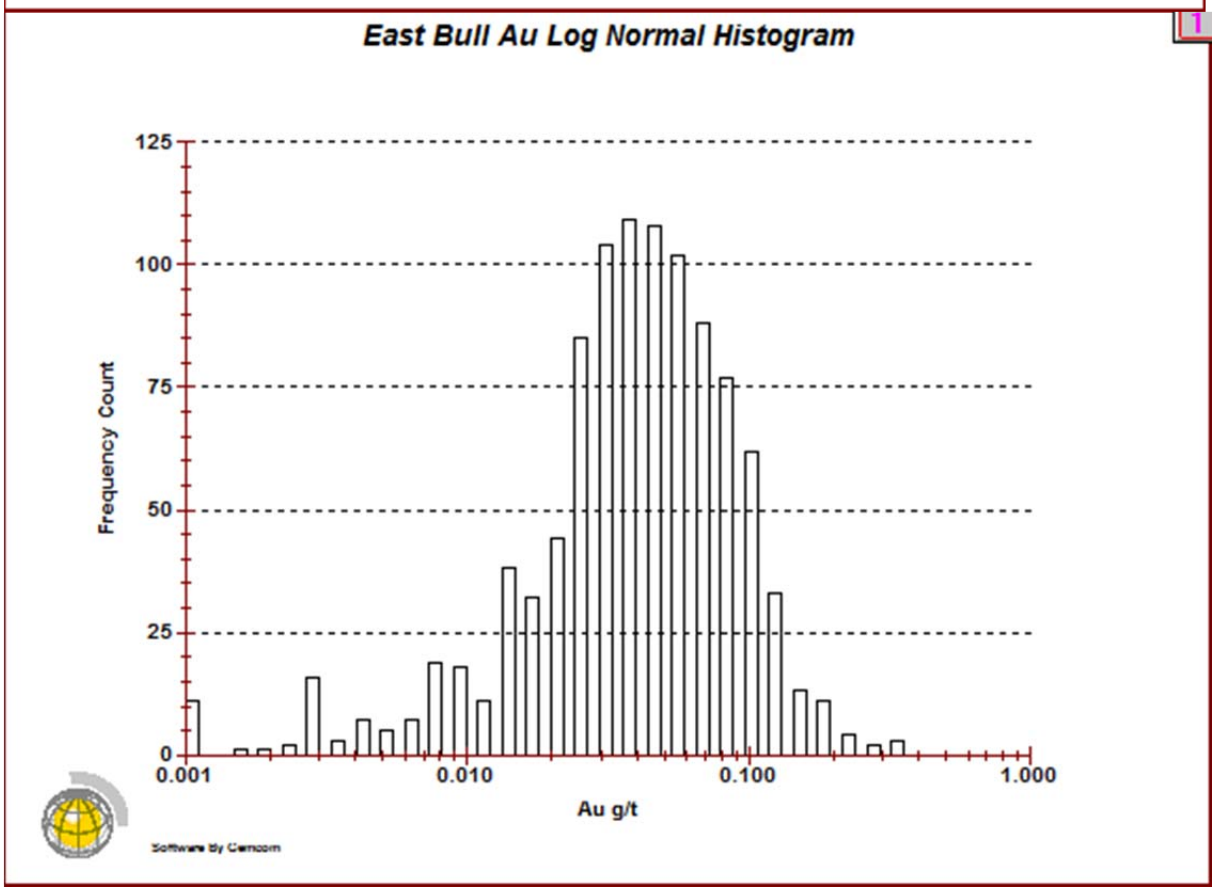
EAST BULL PLATINUM GROUP METALS PROPERTY
3D DOMAINS

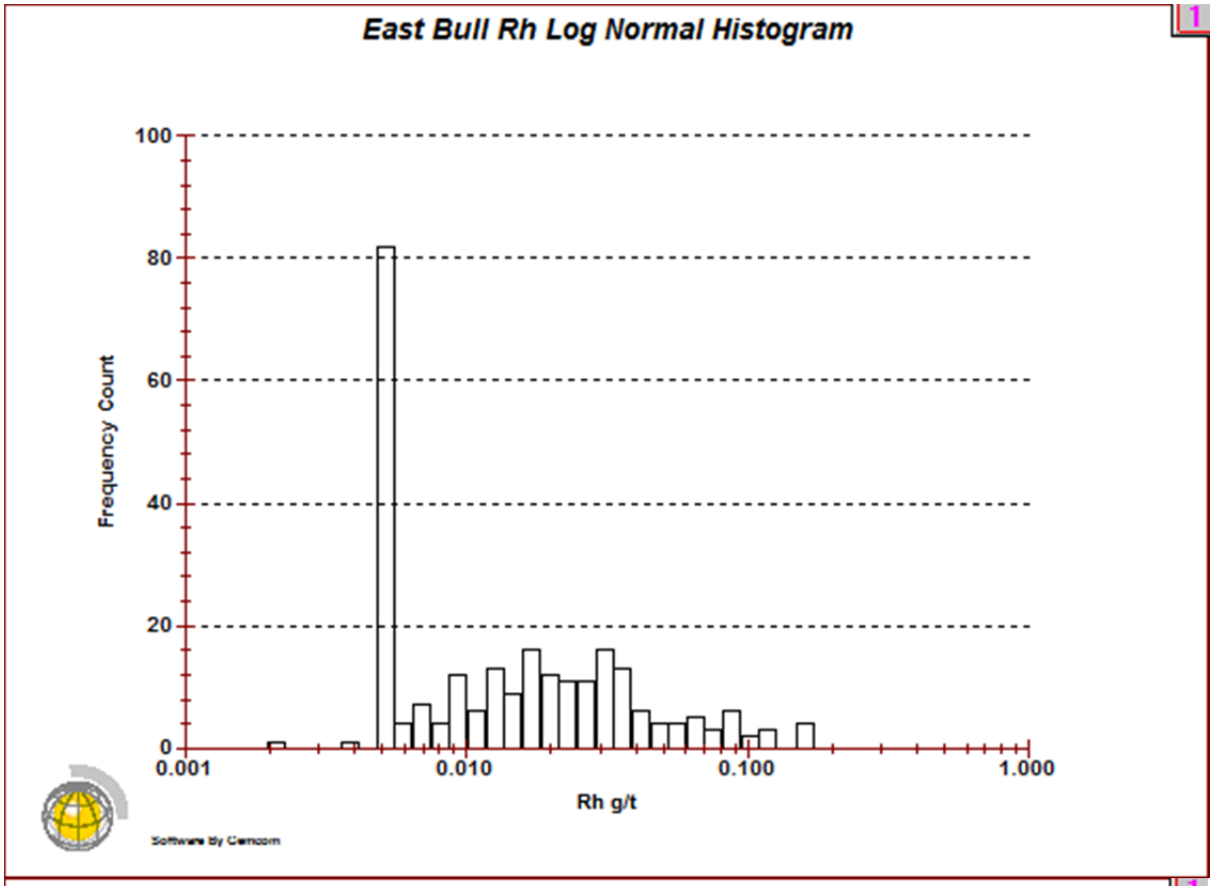


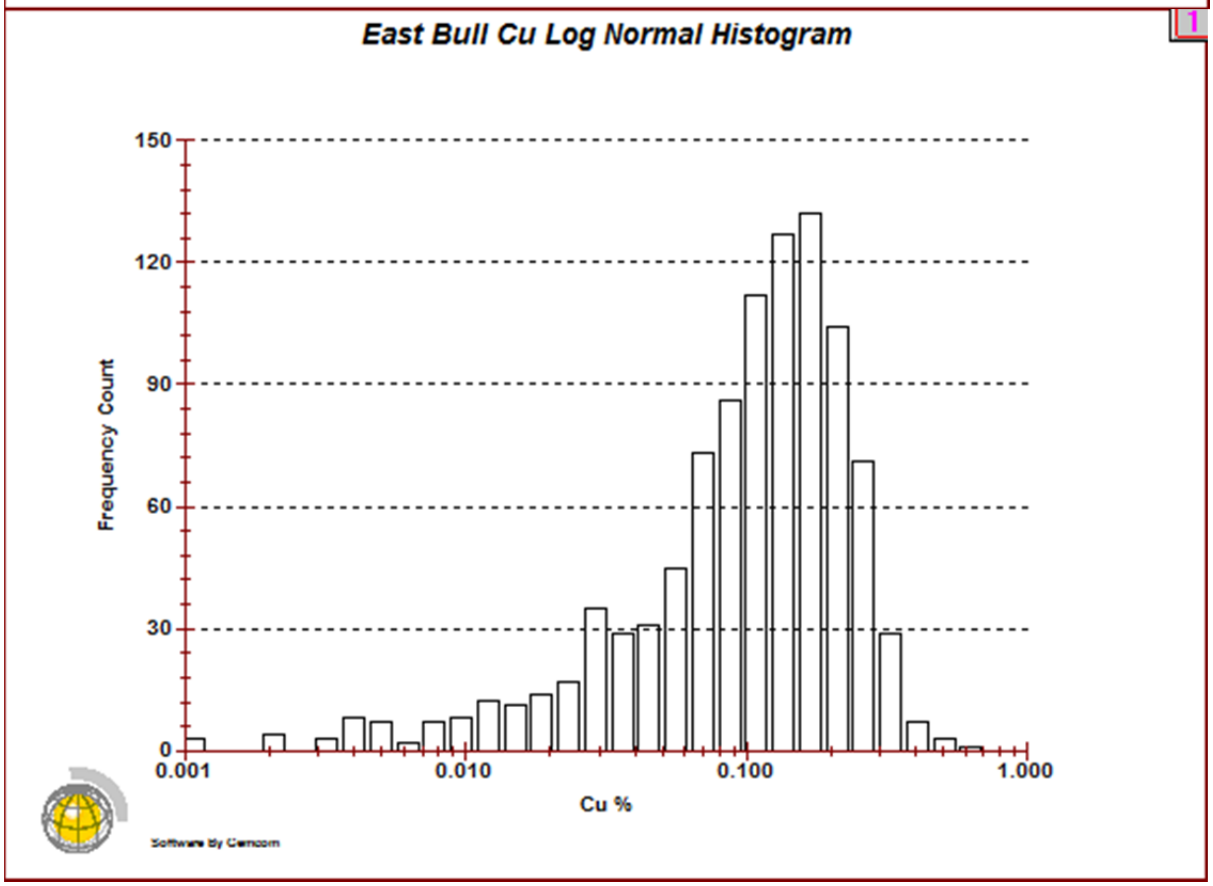
APPENDIX C LOG NORMAL HISTOGRAMS

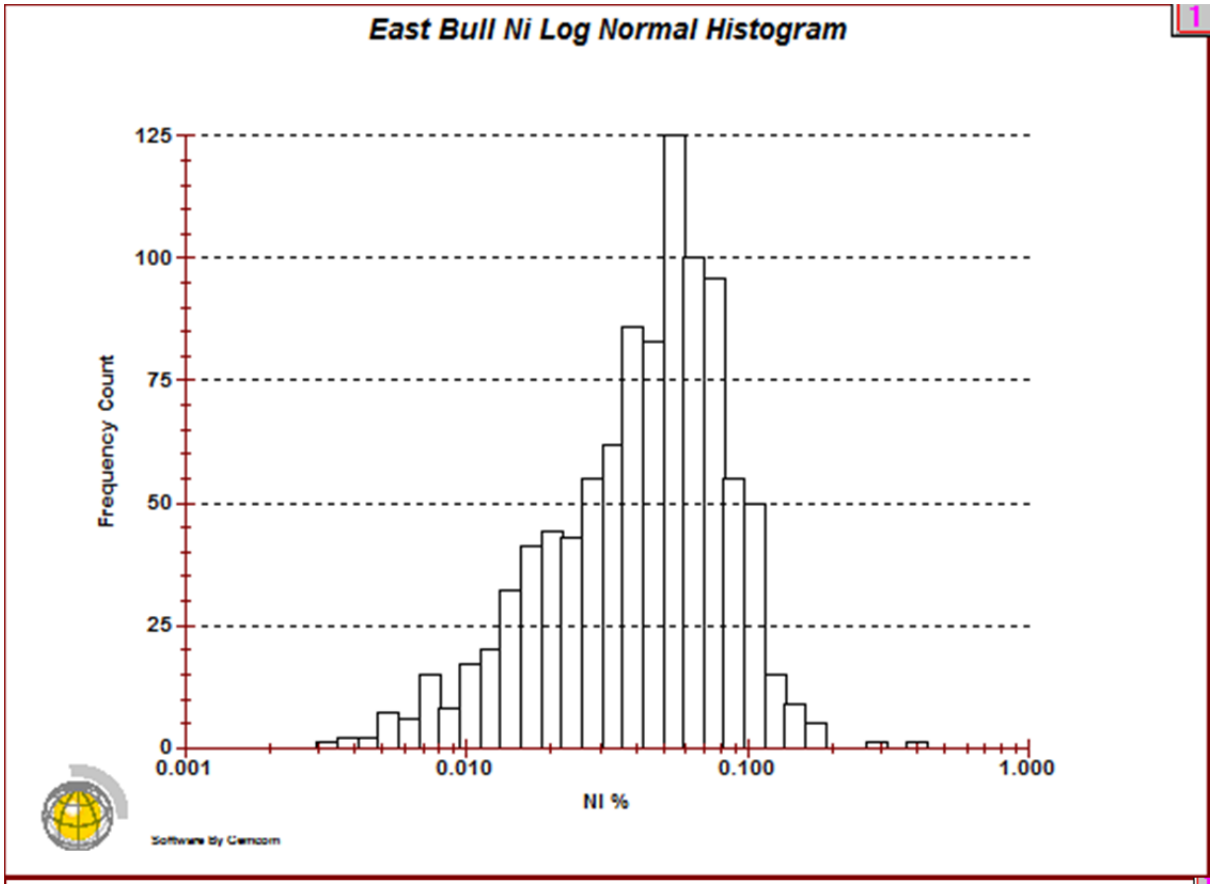


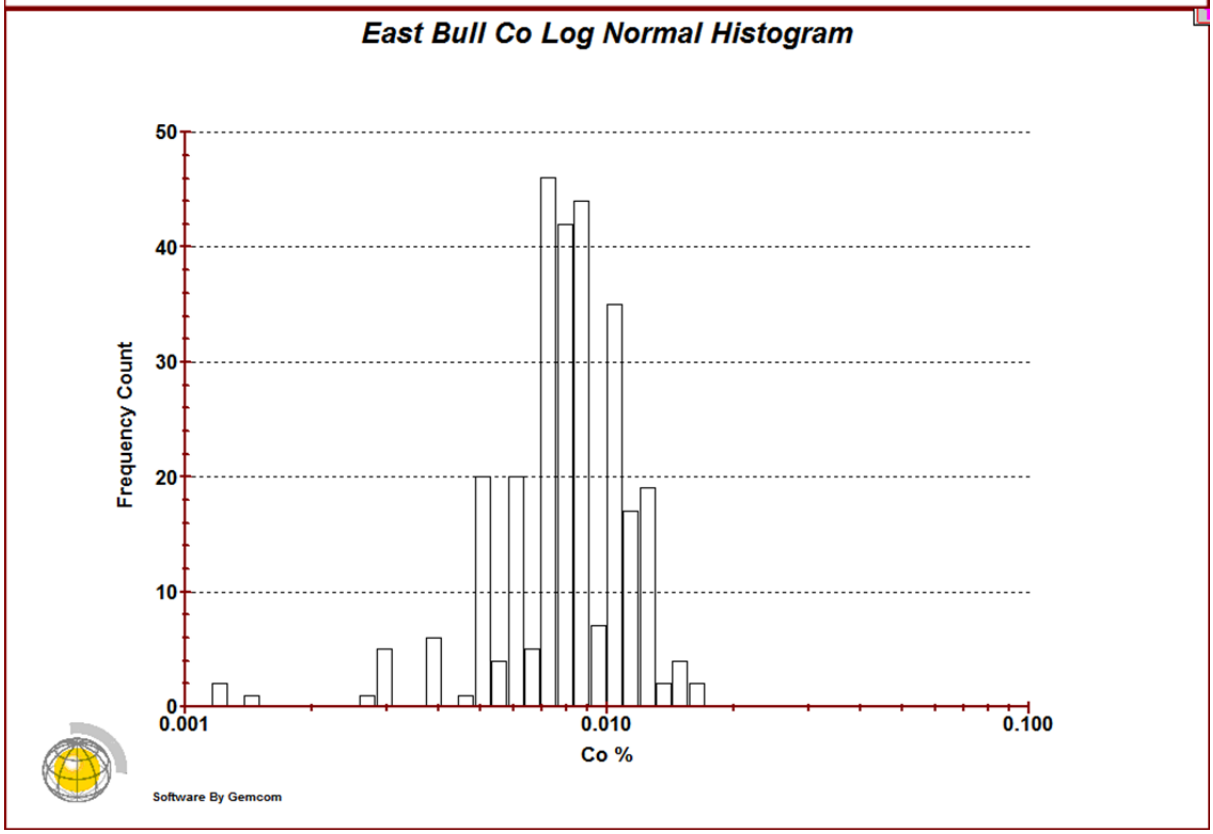

East Bull Pt Log Normal Histogram
1
125
100
75
50
25
0
Frequency Count
0.001
0.010
0.100
1.000
10.000
Pt g/t
Software by Geosoft


East Bull Au Log Normal Histogram
1
125
100
75
50
25
0
Frequency Count
0.001
0.010
0.100
1.000
Au g/t
Software by Geosoft

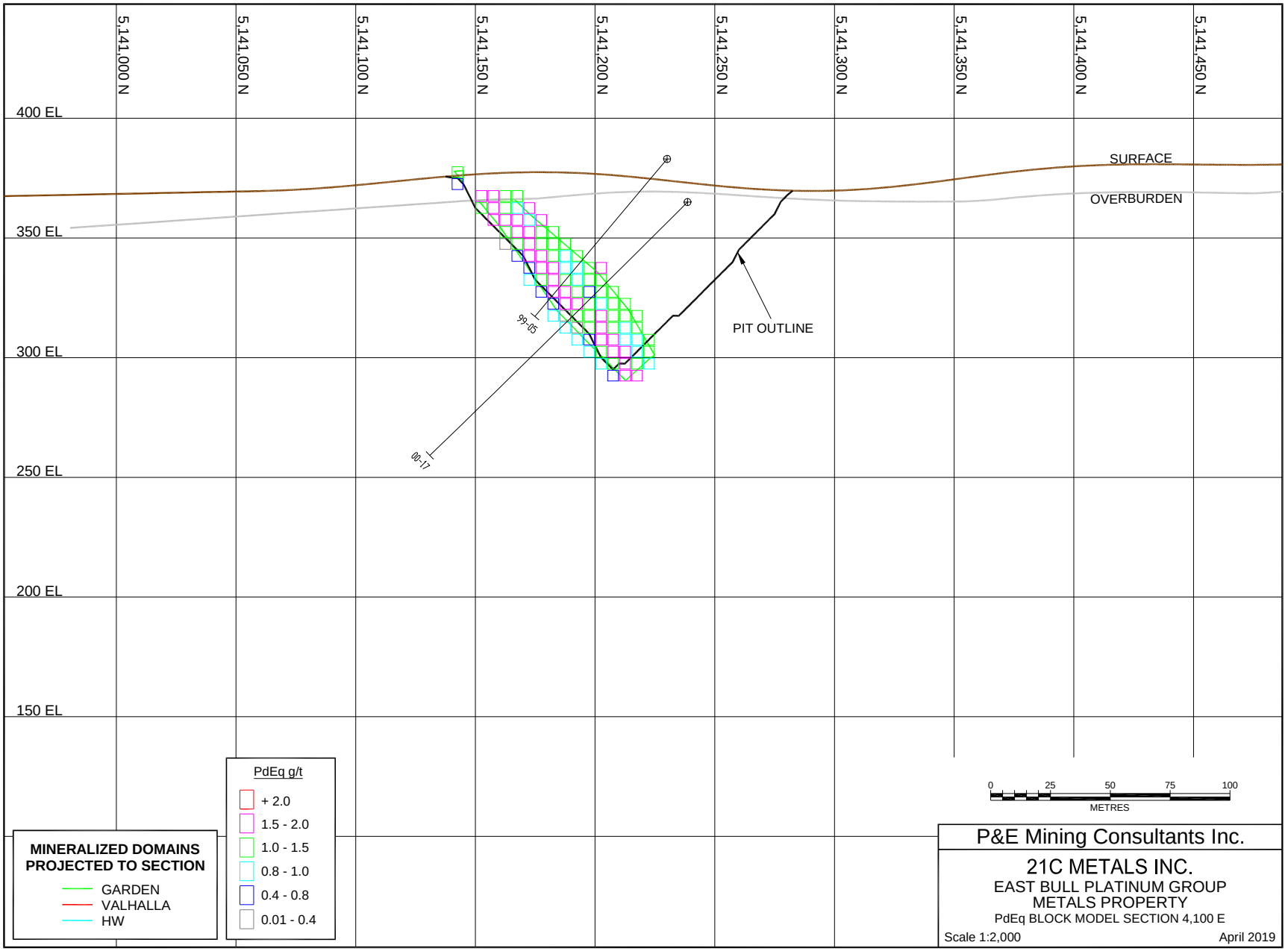

East Bull Rh Log Normal Histogram
1
100
80
60
40
20
0
Frequency Count
0.001
0.010
0.100
1.000
Rh g/t
Software By Geosoft

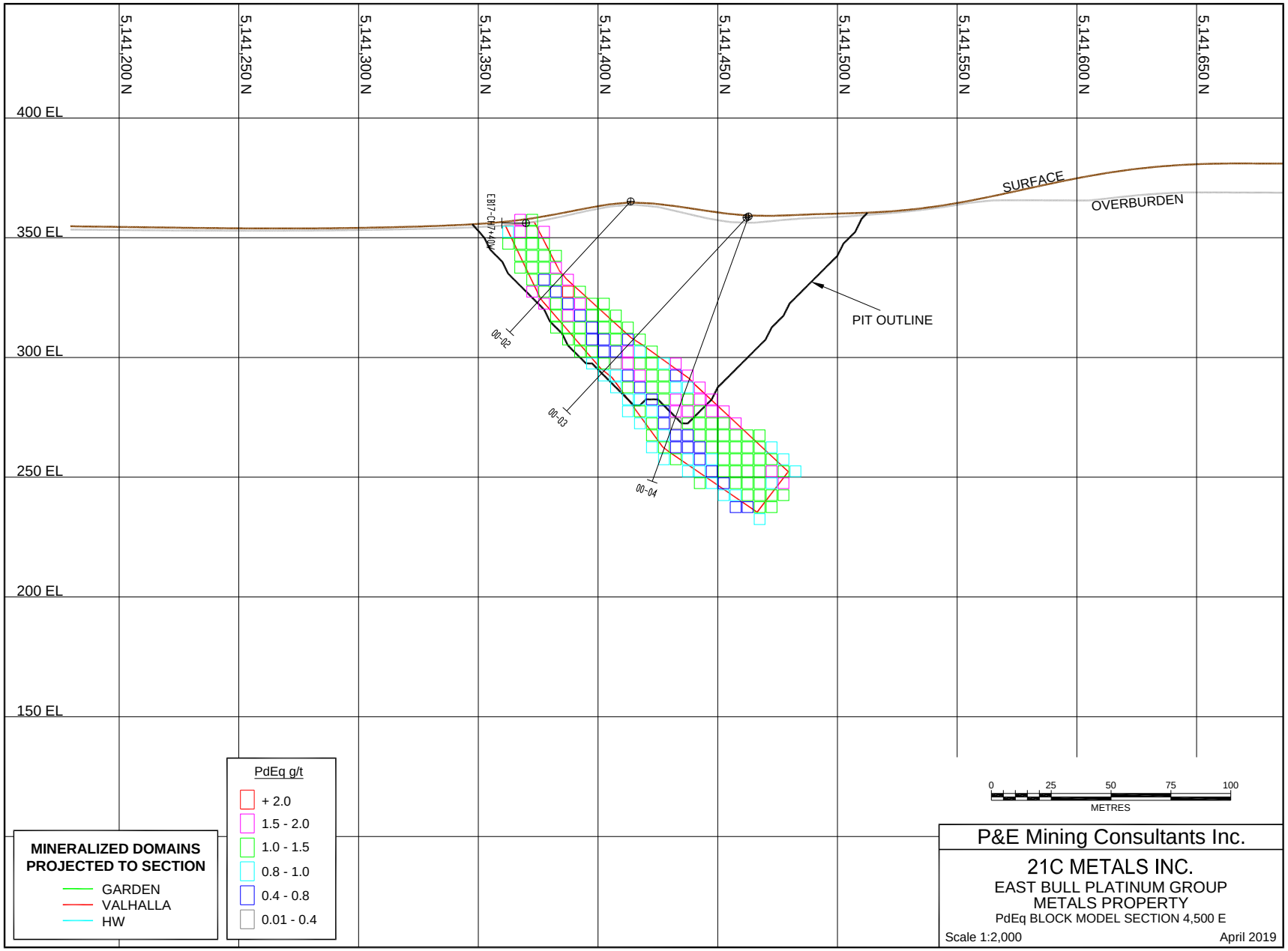

East Bull Cu Log Normal Histogram
1
150
120
90
60
30
0
Frequency Count
0.001
0.010
0.100
1.000
Cu %
Software By Geosoft

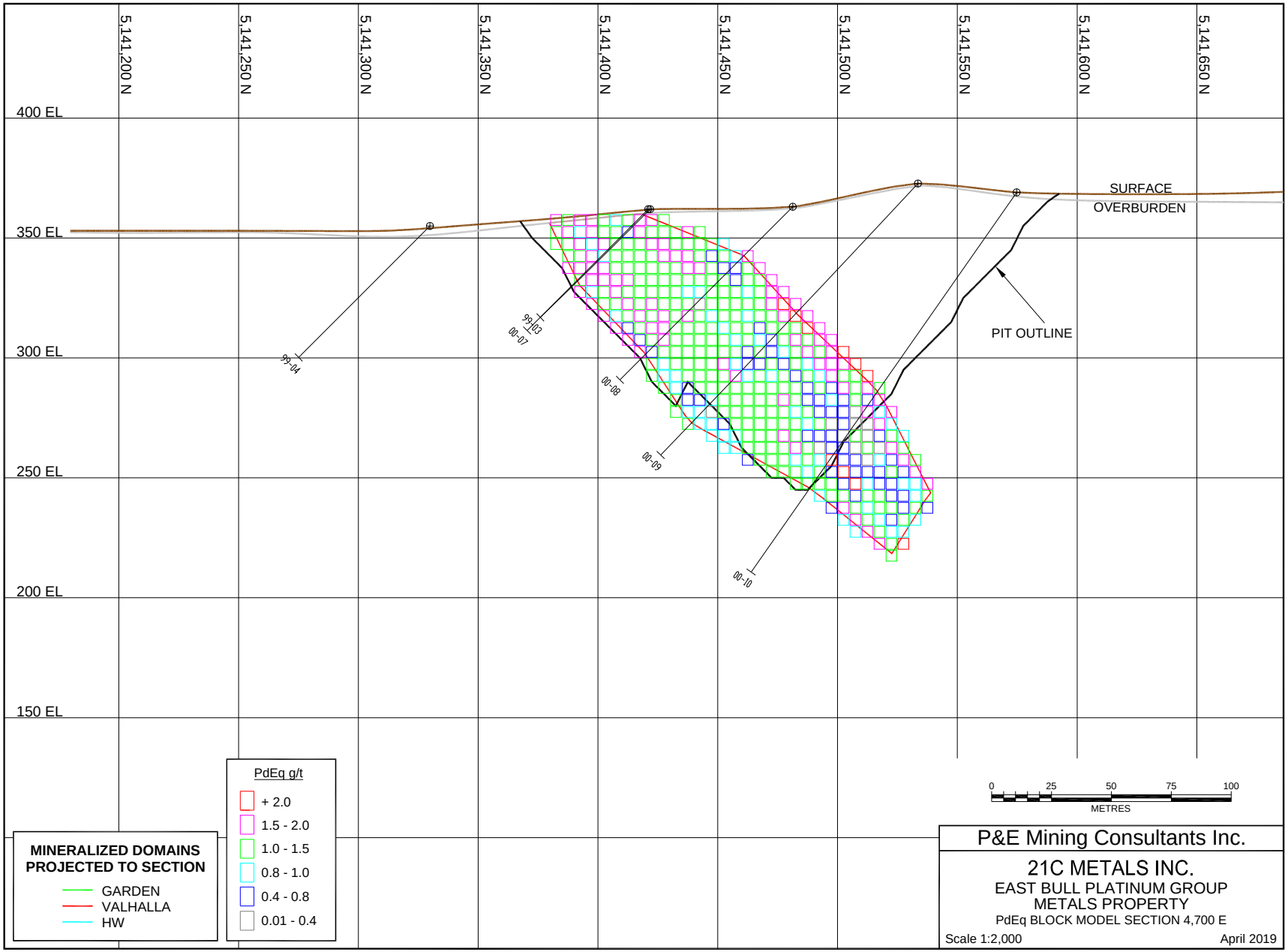

East Bull Ni Log Normal Histogram
125
100
75
50
25
0
Frequency Count
0.001
0.010
0.100
1.000
NI %
Software By Gemcom

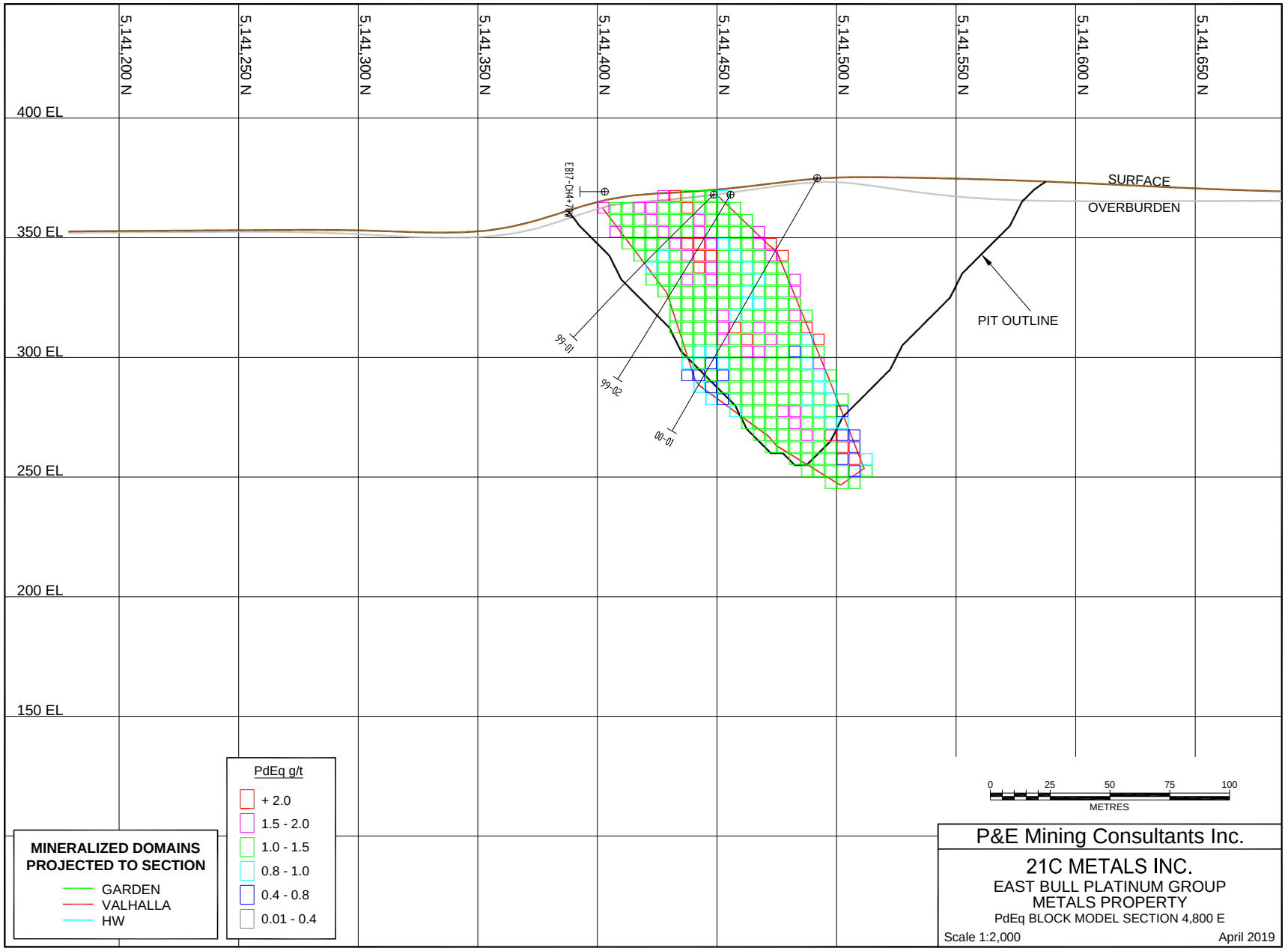

East Bull Co Log Normal Histogram
50
40
30
20
10
0
Frequency Count
0.001
0.010
0.100
Co %
Software By Gemcom

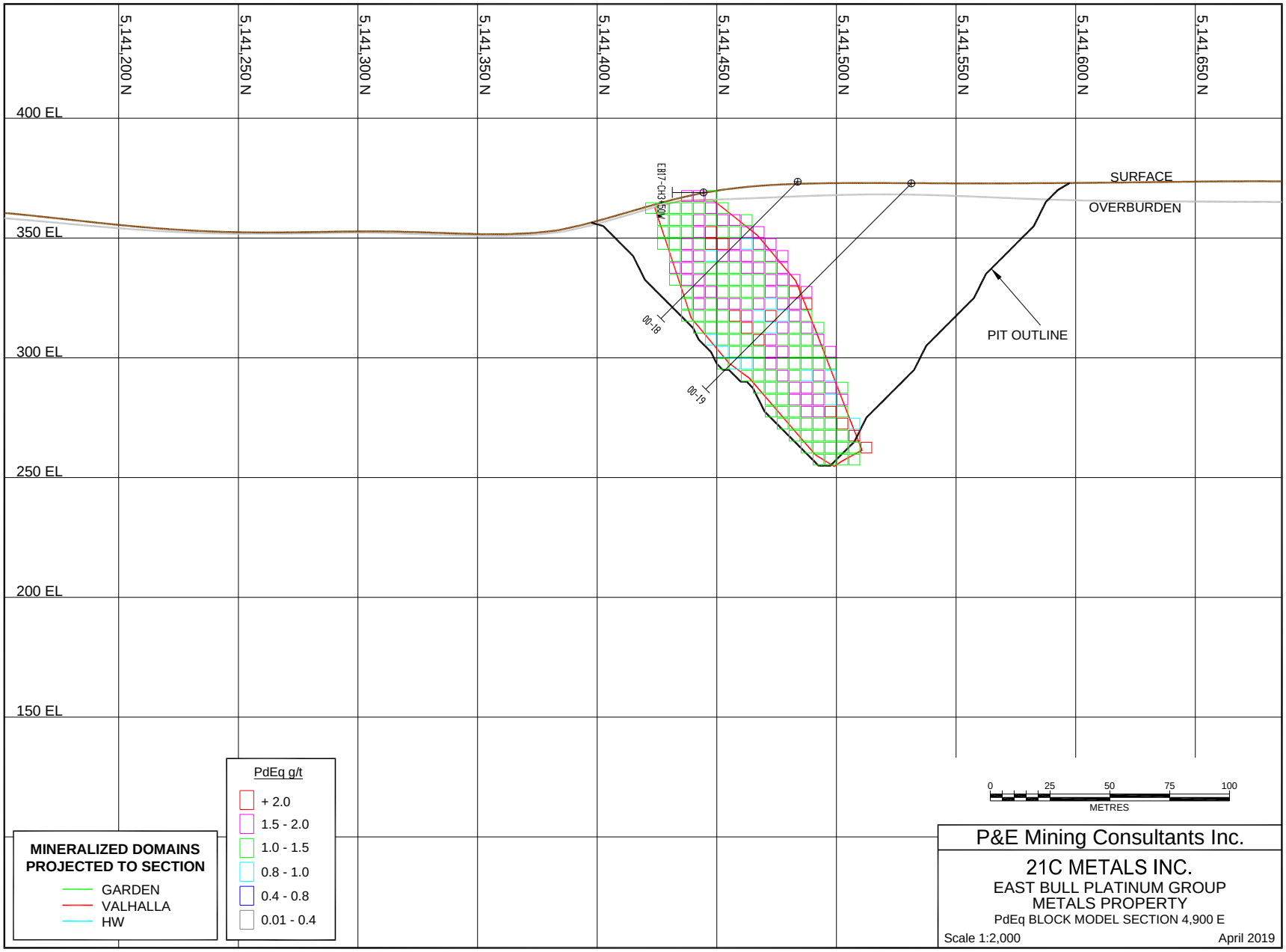
APPENDIX D PDEQ BLOCK MODEL CROSS SECTIONS AND PLANS

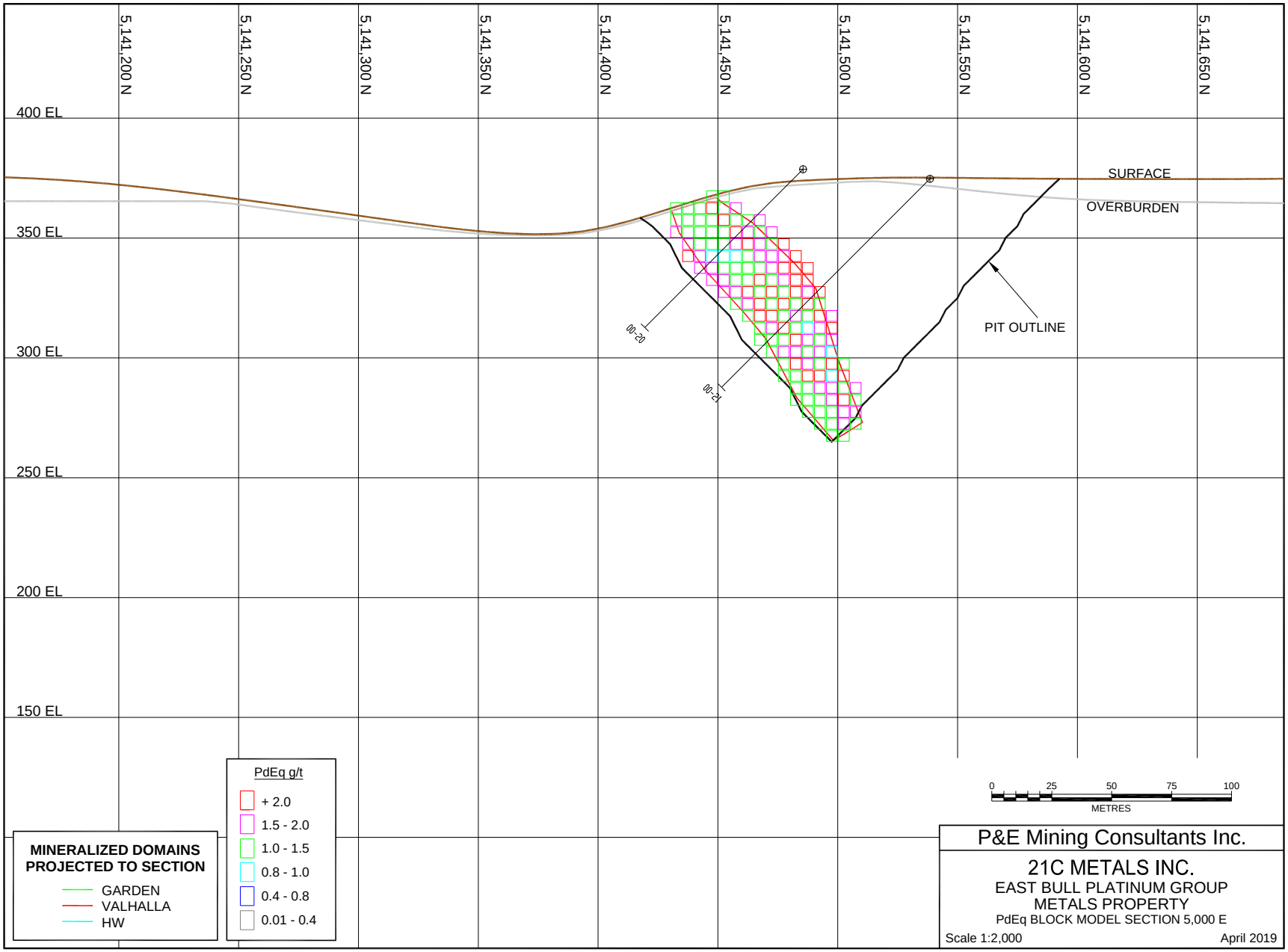

5,141,000 N
5,141,050 N
5,141,100 N
5,141,150 N
5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
99-05
00-17
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0
25
50
75
100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 4,100 E
Scale 1:2,000
April 2019

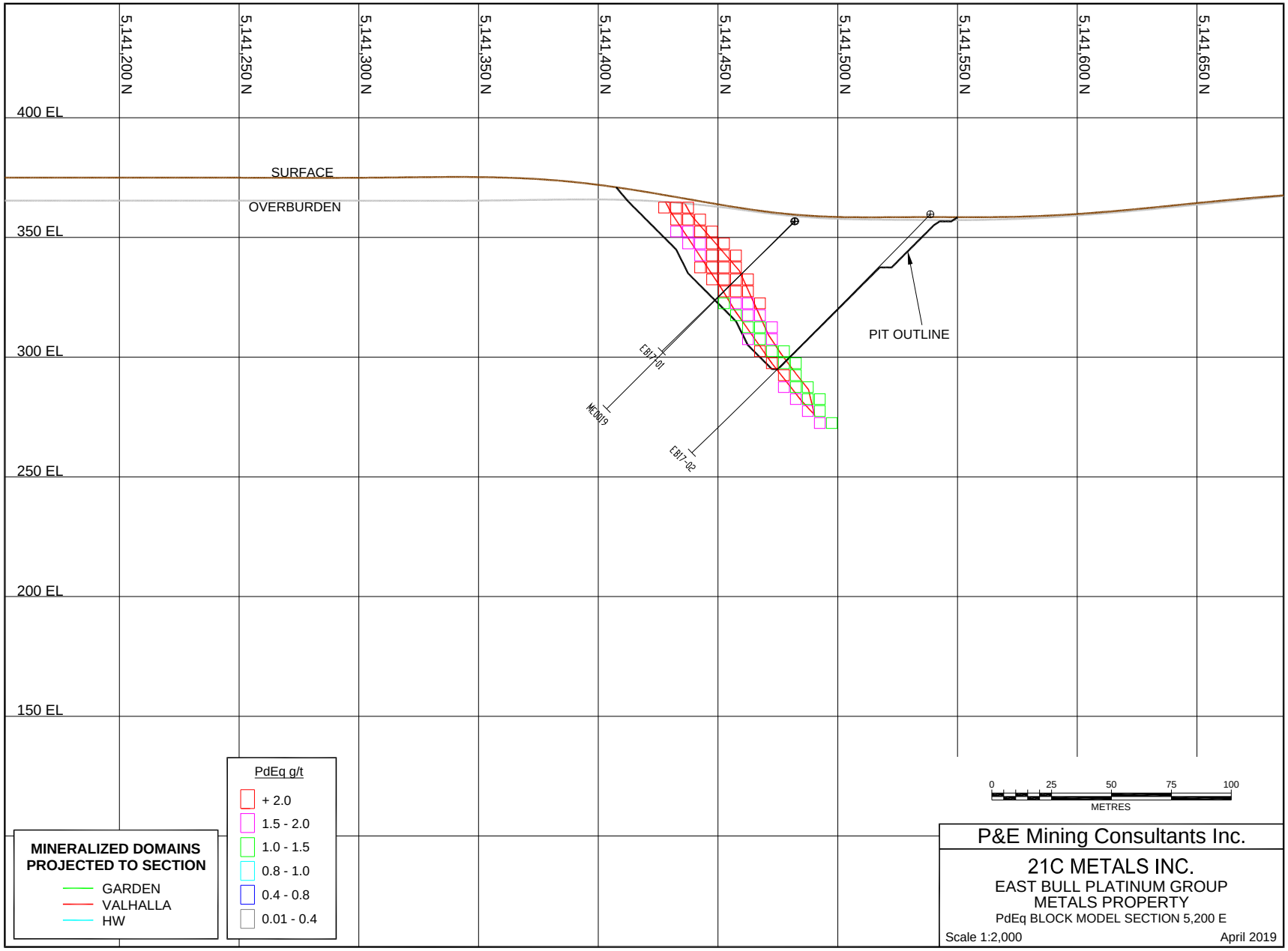

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
EB17-CR7+40W
00-02
00-03
00-04
0
25
50
75
100
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 4,500 E
Scale 1:2,000
April 2019

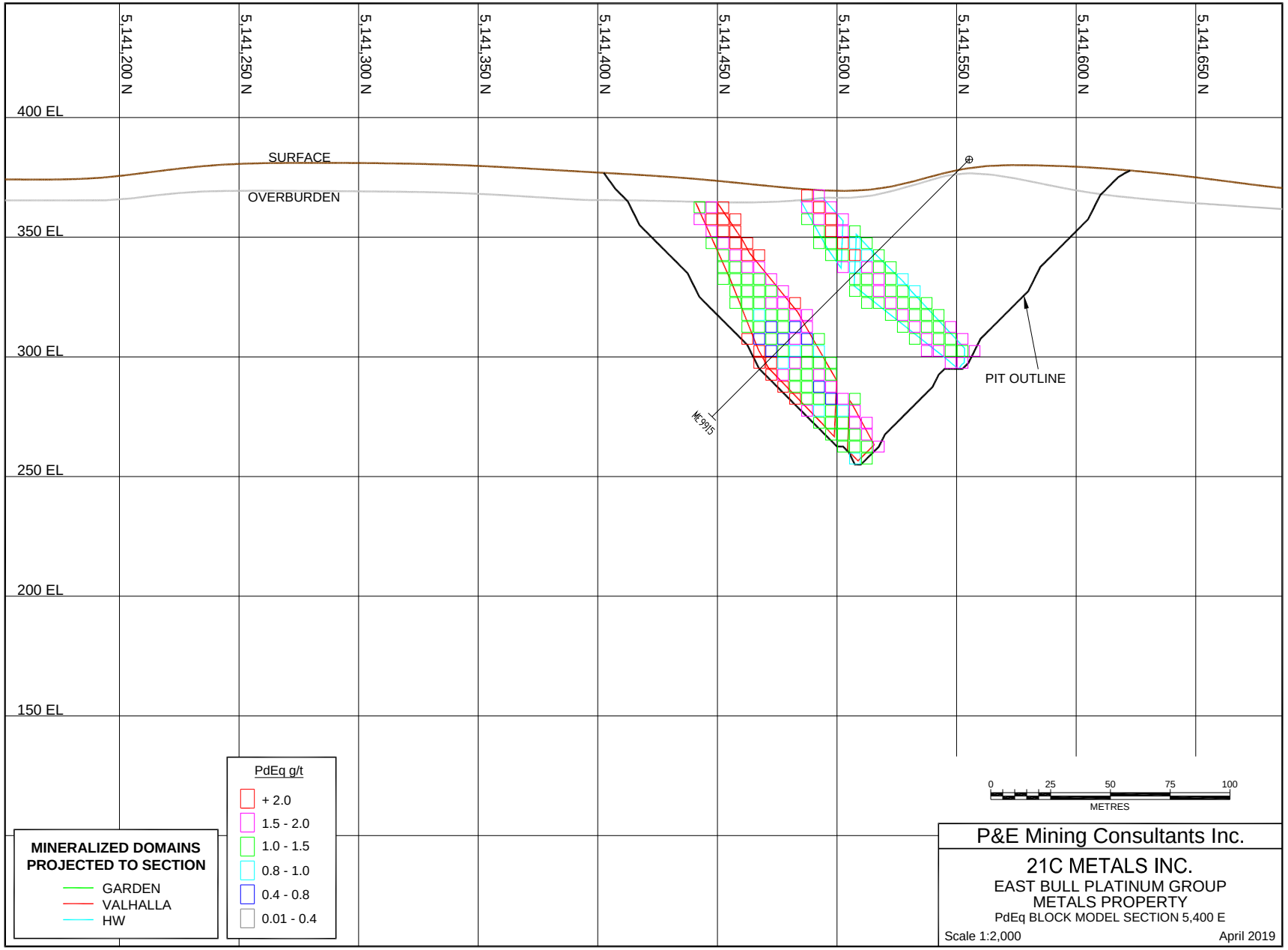

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
99-04
99-03
00-07
00-08
00-09
00-10
MINERALIZED DOMAINS
PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0
25
50
75
100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP
METALS PROPERTY
PdEq BLOCK MODEL SECTION 4,700 E
Scale 1:2,000
April 2019

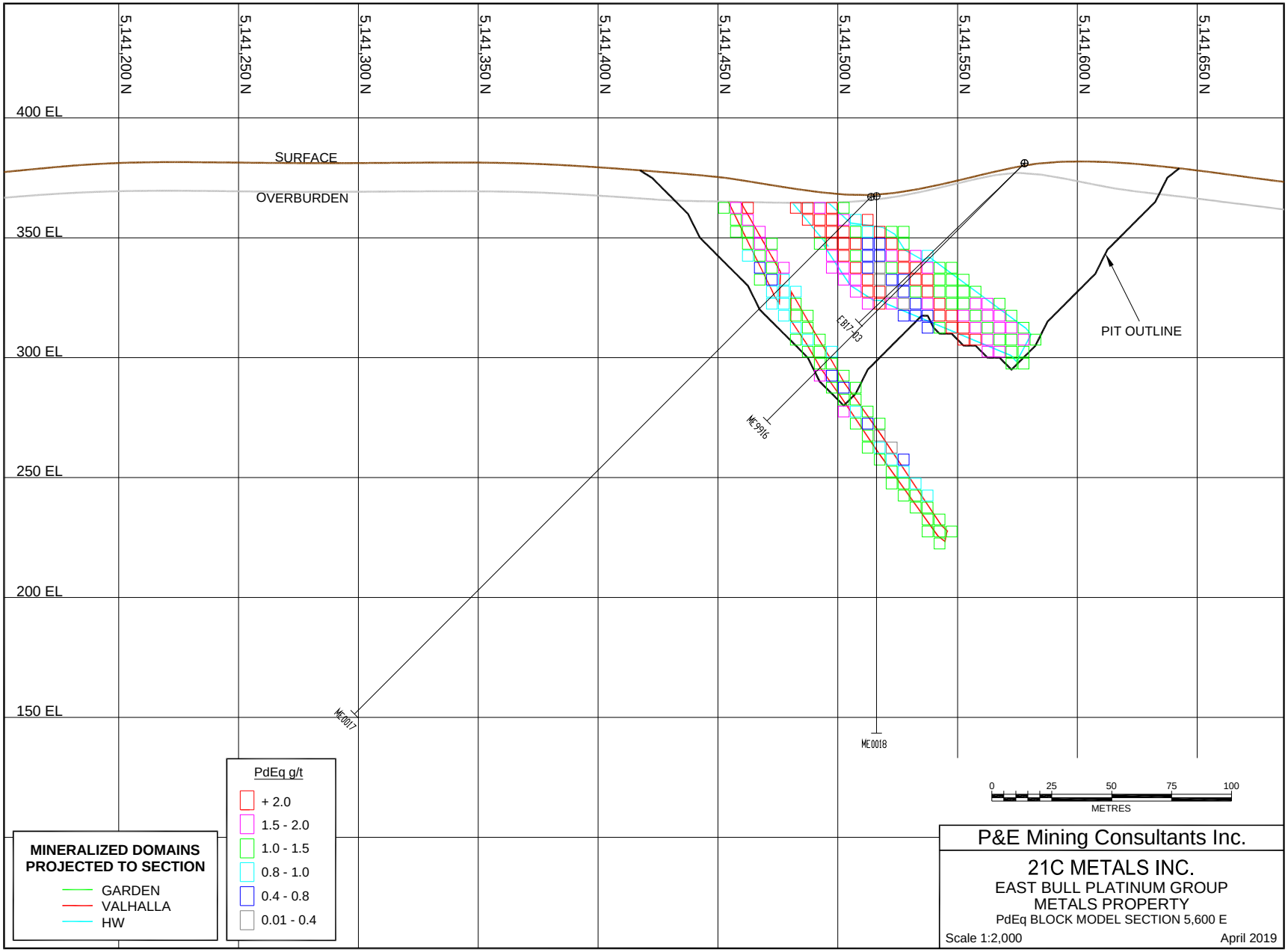

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
EB17-CH4+7W
10-66
20-66
10-00
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0 25 50 75 100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 4,800 E
Scale 1:2,000
April 2019

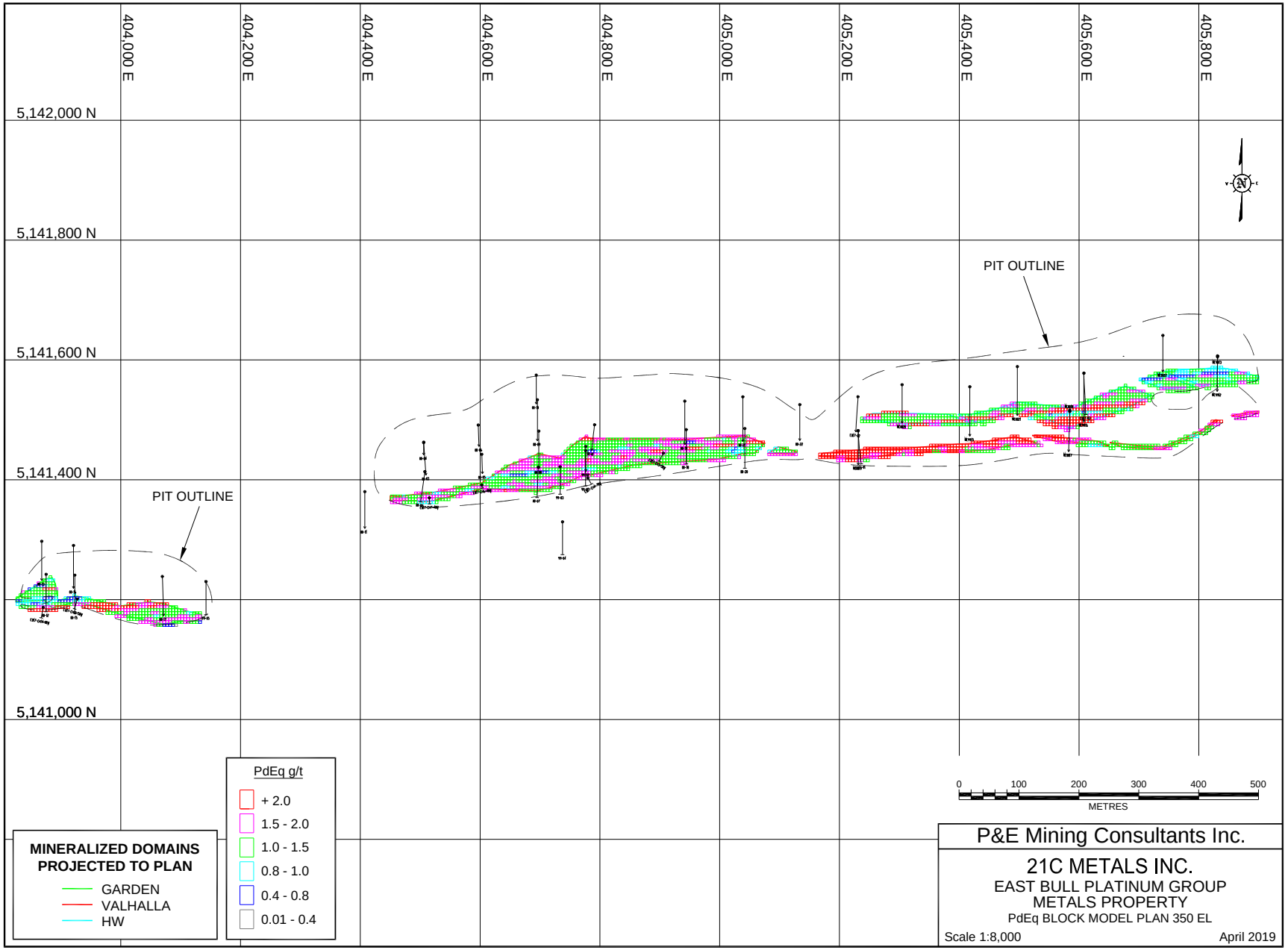

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
EB17-CH3500
EB-18
EB-19
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0 25 50 75 100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 4,900 E
Scale 1:2,000
April 2019

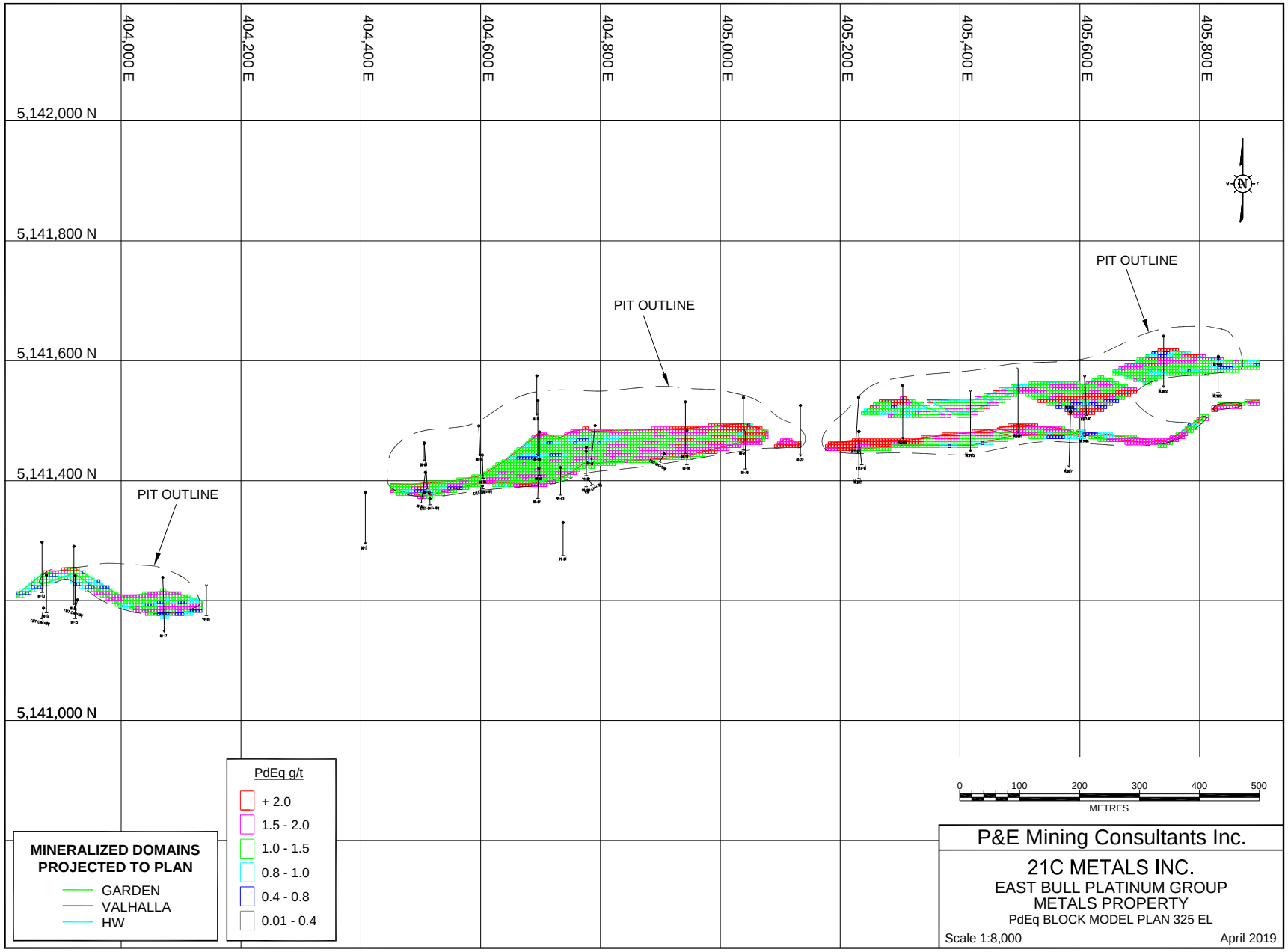

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
02-20
12-00
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0 25 50 75 100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 5,000 E
Scale 1:2,000
April 2019

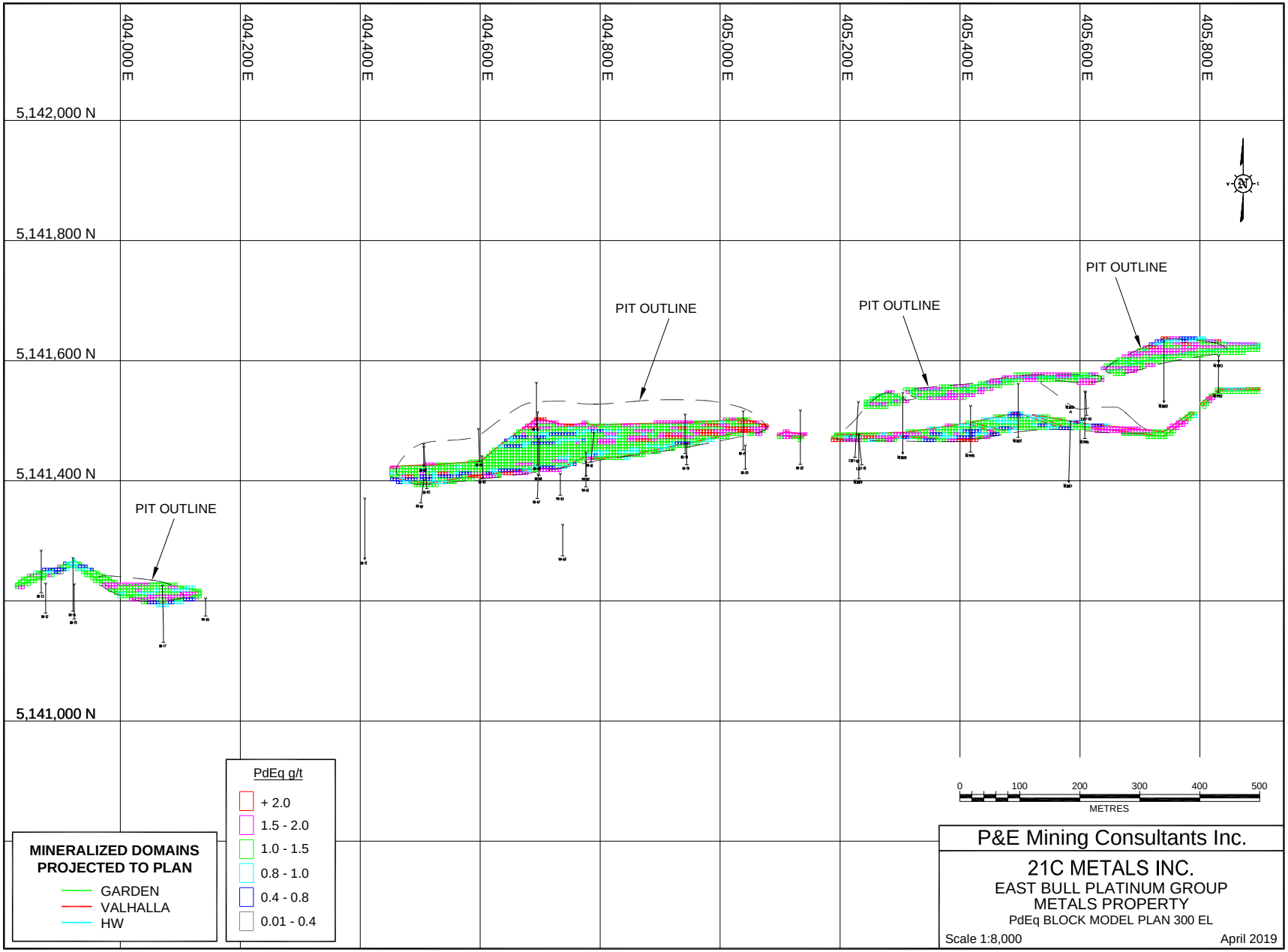

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
E8I7-01
ME0019
E8I7-02
0
25
50
75
100
METRES
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 5,200 E
Scale 1:2,000
April 2019

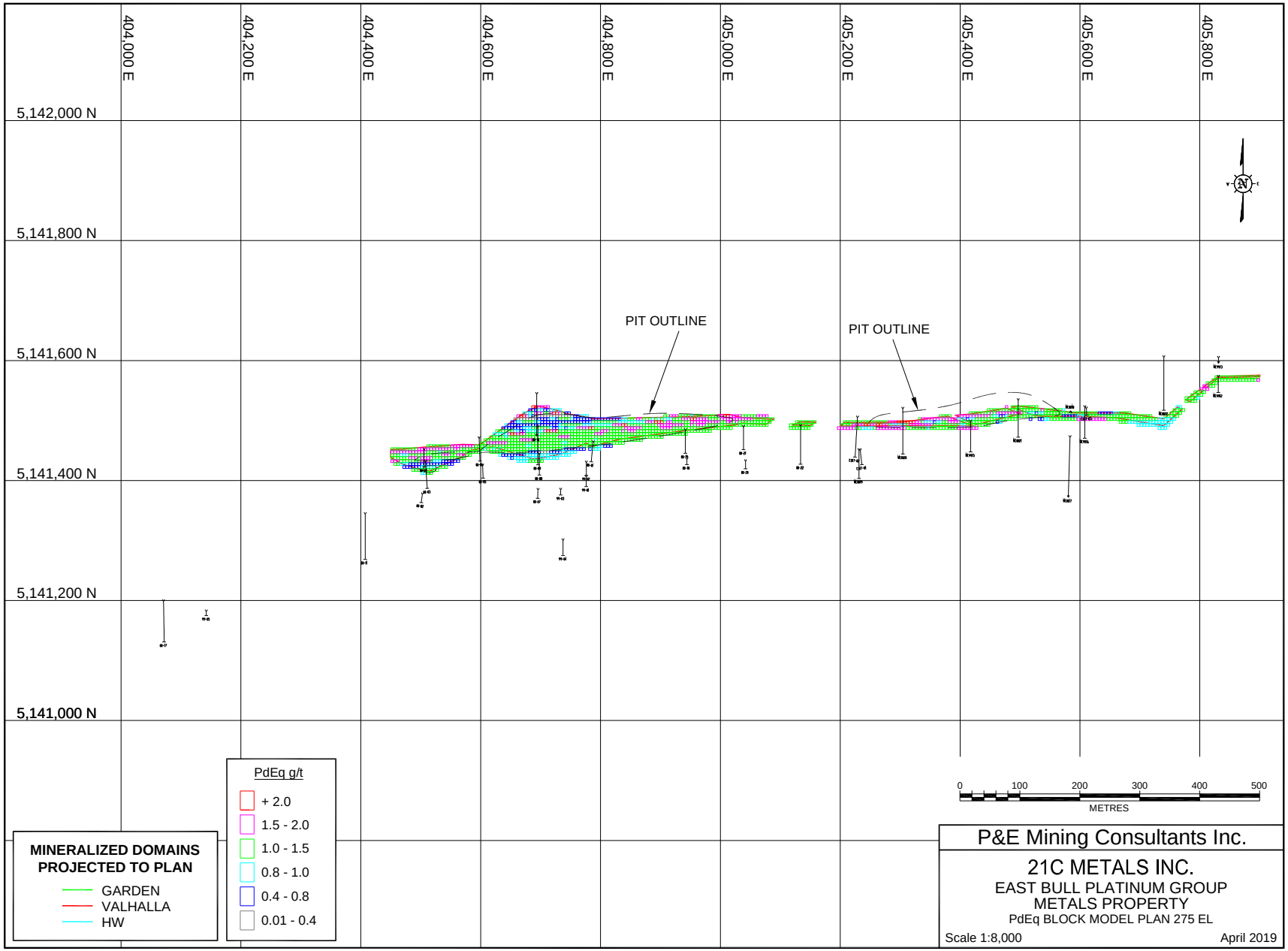

5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
ME9915
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0 25 50 75 100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 5,400 E
Scale 1:2,000
April 2019


5,141,200 N
5,141,250 N
5,141,300 N
5,141,350 N
5,141,400 N
5,141,450 N
5,141,500 N
5,141,550 N
5,141,600 N
5,141,650 N
400 EL
350 EL
300 EL
250 EL
200 EL
150 EL
SURFACE
OVERBURDEN
PIT OUTLINE
ME9916
EB17-03
ME0017
ME0018
MINERALIZED DOMAINS PROJECTED TO SECTION
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0
25
50
75
100
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL SECTION 5,600 E
Scale 1:2,000
April 2019


404,000 E
404,200 E
404,400 E
404,600 E
404,800 E
405,000 E
405,200 E
405,400 E
405,600 E
405,800 E
5,142,000 N
5,141,800 N
5,141,600 N
5,141,400 N
5,141,000 N
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0 100 200 300 400 500
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL PLAN 350 EL
Scale 1:8,000
April 2019


404,000 E
404,200 E
404,400 E
404,600 E
404,800 E
405,000 E
405,200 E
405,400 E
405,600 E
405,800 E
5,142,000 N
5,141,800 N
5,141,600 N
5,141,400 N
5,141,000 N
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
N
0
100
200
300
400
500
METRES
MINERALIZED DOMAINS PROJECTED TO PLAN
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL PLAN 325 EL
Scale 1:8,000
April 2019


404,000 E
404,200 E
404,400 E
404,600 E
404,800 E
405,000 E
405,200 E
405,400 E
405,600 E
405,800 E
5,142,000 N
5,141,800 N
5,141,600 N
5,141,400 N
5,141,000 N
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
PIT OUTLINE
MINERALIZED DOMAINS PROJECTED TO PLAN
GARDEN
VALHALLA
HW
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
0 100 200 300 400 500
METRES
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL PLAN 300 EL
Scale 1:8,000
April 2019


404,000 E
404,200 E
404,400 E
404,600 E
404,800 E
405,000 E
405,200 E
405,400 E
405,600 E
405,800 E
5,142,000 N
5,141,800 N
5,141,600 N
5,141,400 N
5,141,200 N
5,141,000 N
PIT OUTLINE
PIT OUTLINE
N
0
100
200
300
400
500
METRES
PdEq g/t
+ 2.0
1.5 - 2.0
1.0 - 1.5
0.8 - 1.0
0.4 - 0.8
0.01 - 0.4
MINERALIZED DOMAINS PROJECTED TO PLAN
GARDEN
VALHALLA
HW
P&E Mining Consultants Inc.
21C METALS INC.
EAST BULL PLATINUM GROUP METALS PROPERTY
PdEq BLOCK MODEL PLAN 275 EL
Scale 1:8,000
April 2019

APPENDIX E OPTIMIZED PIT SHELL

EAST BULL PLATINUM GROUP METALS PROPERTY
OPTIMIZED PIT SHELL