CR00842-2022

Marcventures Holdings, Inc.
MARC

PSE Disclosure Form CP TR-1 - Technical Report
Reference: Implementing Rules and Regulations of the Philippine Mineral Reporting Code

TR Form No	1

Description of the Disclosure
We submit attached Competent Person’s Report in compliance with the Philippine Mineral Reporting Code as follows: 1. Marcventures Mining & Development Corporation CP report for the year 2021 2. Brightgreen Resources Corporation CP report for the year 2015 3. Alumina Mining Philippines, Inc. (AMPI) & Bauxite Resources, Inc. (BARI) CP report as of June 2017

Filed on behalf by:

Name	Maila Lourdes De Castro
Designation	VP Legal

Technical Report on the Updated Mineral Resource Estimates of Marcventures Mining and Development Corporation

MPSA No. 016-93-XI

Nickel Laterite Mining Project
As of December 31, 2021

Municipalities of Carrascal and Cantilan,
Province of Surigao del Sur

Prepared by:

JAYVHEL T. GUZMAN
Registered Professional Geologist, PRC Registration No. 0001653
PMRC/GSP Accredited Competent Person in Geology for
Exploration and Mineral Resource Estimation
PMRC Accreditation No. 18-11-01

Prepared for:

MARCVENTURES MINING AND DEVELOPMENT CORPORATION
4th Floor BDO Towers Paseo, Paseo de Roxas
Makati City, Philippines

January 2022

CERTIFICATION AND CONSENT OF THE ACCREDITED COMPETENT PERSON FOR THIS TECHNICAL REPORT

I, **Jayvhel Tria Guzman**, of legal age, with postal address at Block 19 Lot 32 Hacienda St., Sugartowne Subdivision, Batasan Hills, Quezon City, do hereby certify that:

1. I am a graduate of the University of the Philippines with a Bachelor of Science degree in Geology in 2006.
2. I am a registered Professional Geologist (Reg. No. 1653) under the Philippine Professional Regulation Commission (PRC) and a member in good standing of the Geological Society of the Philippines (GSP).
3. I am an Accredited Competent Person under the definition of the Philippine Mineral Reporting Code (PMRC Reg. No. 18-11-01).
4. I have worked as a Geologist in the mining industry for over 14 years and have sufficient relevant experience on mineral resource estimation specifically of nickel laterite, lateritic bauxite, aggregates and limestone deposits.
5. I am currently employed as Assistant Vice President and Head of Geology of Marcventures Mining and Development Corporation (MMDC).
6. I do not hold any shares of the publicly listed Marcventures Holdings, Inc. (MHI) which wholly owns MMDC, and I have no vested interest in any properties or concessions held by MMDC or MHI.
7. I have read the definition of "Competent Person" set out in the PMRC Code 2007 as well as that of "Accredited Competent Person" in the PMRC Code 2020 Edition which is an upgrade of the 2007 Edition; and that by reason of my education and relevant work experience, I fulfill the requirements to be an "Accredited Competent Person" for the purposes of PMRC Technical Reporting.
8. I am the primary author responsible for the compilation and preparation of this technical report – ***"Technical Report on the Updated Mineral Resource Estimates of Marcventures Mining and Development Corporation MPSA 016-93-XI Nickel Laterite Mining Project as of December 31, 2021"***.
9. I supervised and reviewed the estimation of the mineral resources of Marcventures Mining and Development Corporation's Nickel Laterite Mining Project conducted by MMDC Geologists Gisella Jane E. Dida and Ralph Dominique N. Zaballero.
10. This report is based on available data and information as of December 2021 and adheres as close as possible to geological procedures and standards prescribed by the Philippine Mineral Reporting Code (PMRC). The professional opinions, interpretation and conclusions made in this Report were done in accordance with industry standards and practice.
11. I consent to the use of this Technical Report in full by Marcventures Mining and Development Corporation in compliance with the rules and regulations of the Philippine Stock Exchange (PSE) and for any legal purpose it may serve.
12. Contents of this report is valid from the date of signing of the CP. In the event that any new geological information, exploration results and ore deposit models will arise that may have direct or indirect implication on the mineral resource estimates as declared in this Technical Report, the said mineral resource estimates may be rendered inaccurate and should therefore be treated with caution.

SIGNED: January 14, 2022

JAYVHEL T. GUZMAN
Registered Professional Geologist, PRC Registration No. 1653
PMRC/GSP Accredited Competent Person in Geology
Accreditation No. 18-11-01
PTR No. 8854446
Issued on January 4, 2022 at Makati City

EXECUTIVE SUMMARY

The undersigned Accredited Competent Person (ACP), Jayvhel Tria Guzman, has been authorized by the management of Marcventures Mining and Development Corporation (MMDC) to prepare a Technical Report compliant with the Philippine Mineral Reporting Code (PMRC) on its Nickel Laterite Mining Project located in the Municipalities of Carrascal and Cantilan, Province of Surigao del Sur. The project is covered by a Mineral Production Sharing Agreement (MPSA) denominated as MPSA No. 016-93-XI covering an area of 4,799 hectares.

MMDC's MPSA was granted by the Philippine Government through its Secretary of the Department of Environment and Natural Resources (DENR) on July 1, 1993. Valid for a period of 25 years, the MPSA would have expired on July 1, 2018. However, the term of the MPSA was extended for an additional nine (9) years starting from the expiration of its first 25-year term due to force majeure. The MPSA is now valid until July 1, 2027 and renewable for another 25 years.

There are three mine areas within the MMDC MPSA, namely: 1) Cabangahan, 2) Sipangpang, and 3) Pili. It is from the Cabangahan mine area where the first saprolite shipments of the company were extracted in 2010. In 2012, development and production of high iron limonite ore started in the Pili mine area. Extraction from Pili mine area was terminated in 2017 when ore prices went down and the remaining ore in Pili became uneconomical.

Simultaneous to extraction of limonite from Pili mine area, the Sipangpang mine area was developed in 2016 upon approval of the Special Tree Cutting and Earthballing Permit (STCEP) for the area. Production in Sipangpang continued until the mid-2018 when it was temporarily deferred due to depressed ore prices. Mining in Sipangpang resumed in 2021 when prices for limonite ore improved.

Yearly systematic mechanized drilling program is being conducted by to block additional mineral resource and upgrade existing Indicated and Inferred mineral resource to Measured and Indicated categories, respectively.

During the 2021 development drilling campaign, a total of 363 drillholes with an aggregate depth of 4,414.14 meters were drilled by the Drilling Team in Cabangahan Area under the supervision of Geologist Gisella E. Dida. Out of these 363 drill holes, a total of 4,430 samples were collected and submitted to MMDC Assay Laboratory for analysis for Ni, Fe, and Al2O3.

Based on the results of the quality analysis and quality control measures implemented in the MMDC Assay Laboratory, the database of the 2021 development drilling campaign is acceptable and can support inclusion in the MMDC database for updating of its mineral resource estimates.

The resource estimation for Cabangahan and Sipangpang was done by MMDC geologists Gisella Jane Dida and Ralph Dominique Zaballero, respectively, under the supervision of ACP Jayvhel Guzman.

The database used to update the resource estimates ending December 31, 2021 includes old drill holes generated by MMDC as well as new (2021) drill holes from Cabangahan and Sipangpang areas. Database was created in MS Excel in *.csv* format, incorporating all information such as hole ID, northing, easting, collar elevation, total depth, sampling interval, analysis results, etc.

All 4,965 drill holes and 66,554 assays from Cabangahan, Sipangpang and Pili were regularly sanitized: portions of DH which were "mined-out" in Sipangpang and Pili were tagged and removed from the database. For Cabangahan, mined out portions of the drillhole within the active mining area were tagged as "mined-out" but not removed from the database to allow inclusion in statistical studies. Sanitized database is then updated, and the collars were snapped to the actual topo survey which was actively updated by the inhouse surveyors using Real-time Kinematic (RTK) surveying equipment.

The mineral resource estimation methodology used in this report is the Nearest Neighbor interpolation. While statistical estimation methods (e.g. Ordinary Kriging or OK) are the advocated method for estimation nowadays, MMDC decided to use the Nearest Neighbor (NN) method due to the proximity of actual grade to the block model grade as proven through years of its operation.

Bulk density used in the estimation is 1.5 which is based on the average density determined during density determination using core samples. This coincides with the historical values used by previous CPs in their resource estimation which is loose density of 1.16 multiplied by a swell factor of 1.35. This is equivalent to 1.566. Therefore, the 1.5 SG used in this resource estimation is at conservative level.

For the mineral resource estimation as of end of 2021 mining season, the undersigned ACP considered more conservative parameters in assigning the resource category for the saprolite and limonite ores. The resource category as of end of 2020 mining season was assigned based on the search radius used for each interpolation pass such that pass 1 with a search radius of 200 is assigned as measured resource. Pass 2 with a search radius of 300 is assigned as indicated resource and pass 3 with a search radius greater than 300 but up to 500 is assigned as inferred resource.

In comparison, the resource category for the estimates as of end of 2021 mining season utilized a combination of search radius and the digitized measured, indicated and inferred category boundaries which were based on drill hole spacing. The search radius for pass 1 was decreased to 30, for pass 2 to 60 and for pass 3 to 120.

Considering these conservative parameters, the mineral resource as of December 31, 2021 is estimated to be at 61.45 Million WMT Measured and Indicated saprolite and limonite resource with an average grade of 0.95% Ni and 39.09% Fe. The total measured and indicated saprolite resource is estimated to be 7.81 Million WMT at an average grade of 1.35% Ni and 12.80% Fe while the total measured and indicated limonite resource is estimated to be 53.64 Million WMT at 0.87% Ni and 43.90% Fe.

An additional 5.22 Million WMT saprolite with an average grade of 1.23% Ni and 13.19% Fe is categorized under the inferred resource category.

MMDC Mineral Resource as of Dec. 31, 2021.

Measured and Indicated Resource

Area	Material	Cut-off Grade	WMT	DMT	Ni	Fe	Ni Tonnes
CABANGAHAN	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe	1,313,000	893,000	1.79	13.48	16,000
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe	6,497,000	4,418,000	1.26	12.67	55,000
	Sub-total/Ave.		**7,810,000**	**5,311,000**	**1.35**	**12.80**	**71,000**
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	16,727,000	11,374,000	0.79	48.88	90,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	12,287,000	8,355,000	1.12	32.76	93,000
	Sub-total/Ave.		**29,014,000**	**19,729,000**	**0.96**	**43.08**	**183,000**
	TOTAL/AVE.		**36,824,000**	**25,040,000**	**1.04**	**36.66**	**254,000**
SIPANGPANG	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe					
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe					
	Sub-total/Ave.						
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	18,614,000	12,658,000	0.75	49.56	94,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	4,994,000	3,396,000	0.99	33.72	34,000
	Sub-total/Ave.		**23,609,000**	**16,054,000**	**0.80**	**46.21**	**128,000**
	TOTAL/AVE.		**23,609,000**	**16,054,000**	**0.80**	**46.21**	**128,000**
Pili	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe					
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe					
	Sub-total/Ave.						
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	636,000	432,000	0.74	50.10	3,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	378,000	257,000	0.94	31.80	2,000
	Sub-total/Ave.		**1,014,000**	**690,000**	**0.82**	**43.28**	**5,000**
	TOTAL/AVE.		**1,014,000**	**690,000**	**0.82**	**43.28**	**5,000**
TOTAL	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe	1,313,000	893,000	1.79	13.48	16,000
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe	6,497,000	4,418,000	1.26	12.67	55,000
	Sub-total/Ave.		**7,810,000**	**5,311,000**	**1.35**	**12.80**	**71,000**
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	35,977,000	24,465,000	0.77	49.25	187,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	17,659,000	12,008,000	1.08	33.01	129,000
	Sub-total/Ave.		**53,637,000**	**36,473,000**	**0.87**	**43.90**	**316,000**
	TOTAL/AVE.		**61,447,000**	**41,784,000**	**0.95**	**39.09**	**387,000**

Inferred

	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe	373,000	253,000	1.69	13.29	4,000
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe	4,844,000	3,294,000	1.20	13.18	40,000
	Sub-total/Ave.		**5,216,000**	**3,547,000**	**1.23**	**13.19**	**44,000**
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe					
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe					
	Sub-total/Ave.						
	TOTAL/AVE.		**5,216,000**	**3,547,000**	**1.23**	**13.19**	**44,000**

Notes:

1. *The MMDC Mineral Resource statement has been generated by Accredited Competent Person Jayvhel T. Guzman from the resource estimates done by Geologists Gisella Jane E. Dida and Ralph Dominique N. Zaballero for Cabangahan and Sipangpang mine areas, respectively. ACP Guzman has sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity that has been undertaken to qualify as an Accredited Competent Person as defined in the PMRC Code. Ms. Dida and Mr. Zaballero are both licensed geologists trained and supervised by ACP Guzman in the resource estimation activity.*
2. *Mineral Resources are reported in accordance with the PMRC 2007 and, in part, with the PMRC 2020.*
3. *The Mineral Resources reported in the table above represent estimates as of December 31, 2021. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape, continuity of the mineralization and the availability of sampling results. Tonnages in the table have been rounded to the nearest thousands to reflect the relative uncertainty of the estimate.*

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1 INTRODUCTION

1.1 Report Commission

The undersigned Accredited Competent Person (ACP), Jayvhel T. Guzman, was authorized by the management of Marcventures Mining and Development Corporation (MMDC) to prepare a technical report compliant with the Philippine Mineral Reporting Code (PMRC) on its Nickel Laterite Mining Project located in the Municipalities of Carrascal and Cantilan, Province of Surigao del Sur. The project is under a Mineral Production Sharing Agreement denominated as MPSA No. 016-93-XI covering an area of 4,799 hectares.

This report shall be submitted to MMDC and, subsequently, to the Philippine Stock Exchange (PSE) as part of the company's compliance to the rules and regulations of the PSE.

1.2 Purpose of Report

The purpose of this technical report is to disclose the results of the 2021 development drilling campaign and present the updated mineral resource estimates of the MMDC Nickel Laterite Mining Project as of December 31, 2021. The disclosure of the updated mineral resources of the MMDC Nickel Laterite Mining Project requires the preparation and filing of this technical report with the PSE.

1.3 Scope of Work

The scope of work undertaken includes compilation of exploration results, resource modelling and resource estimation based on available information up to December 31, 2021 covering the MMDC Nickel Laterite Mining Project. This technical report includes assessment and comments with regards to compliance to the PMRC Standard for Mineral Resource and Ore Reserve Reporting Check List.

The undersigned ACP, being a full-time employee of MMDC for almost ten years to date, is acquainted with the geologic setting of the project as well as the company's exploration and mining activities which is pertinent in the preparation of this technical report.

1.4 Duration of the Preparation

Resource modelling and estimation started from the end of 2021 mining season by the second week of November. Data used included historical drilling data as well as 2021 drilling results. Similarly, data collation and report writing commenced in December 2021.

1.5 Members of the Technical Report Preparation Team

Members of the technical report preparation team included technical personnel from the Resource Development and Exploration Department of MMDC. This includes the undersigned Accredited Competent Person Jayvhel T. Guzman and Geologists Gisella E. Dida and Ralph N. Zaballero.

Other portions of the technical report such as production history, sample preparation, analytical methodology and quality assurance/quality control were provided by MMDC Mine Site personnel under the supervision of the OIC-Resident Mine Manager Me Ann M. Miñoza. Revenue and taxes paid in Section 3.6 were provided by Assistant Vice President and Certified Public Accountant Elmer O. Purisima.

1.6 Host Company Representative

As the undersigned ACP is a full-time employee of Marcventures Mining and Development Corporation, there is no need for a representative from the host company.

1.7 Compliance of report with PMRC

This technical report complies with the requirements, guidelines and the implementing rules and regulations of the Philippine Mineral Reporting Code (PMRC). The Code was formulated with the intent of setting minimum standards for public reporting that are compatible with global standards. The PMRC is modelled substantially on the wording of the JORC Code (2004) of Australasia and is also compatible with the international codes from Australia, South Africa, European Union and Canada. It is consistent with the International Reporting Template (2006) established by the Committee for Mineral Reserves International Reporting Standard (CRIRSCO).

The PMRC is recognized as the standard for public reporting of mineral resources and ore reserves adopted by the Philippine mining industry and the associated local Accredited Professional Organizations (APOs). This technical report follows the format set in the PMRC 2007 Edition and has partially adapted the PMRC 2020 Edition. At the time of report writing, the PMRC 2020 Edition has not yet been implemented pending the formulation and approval of its implementing rules and regulations.

1.8 Declaration and Qualification

Ms. Jayvhel T. Guzman is a full-time employee of MMDC and is currently its Assistant Vice President for Geology. Ms. Guzman has extensive knowledge of the MMDC Nickel Laterite Mining Project having been involved in the project since October 2012. Ms. Guzman has over 14 years of work experience on implementation of exploration activities and mineral resource estimation and has sufficient relevant experience working on nickel laterite deposits in the Philippines specifically in Surigao and Dinagat Islands. She is a Professional Geologist under the Philippine Professional Regulation Commission (PRC) and a member in good standing of the Geological Society of the Philippines. She is qualified as Accredited Competent Person under the requirements of the PMRC (CP Reg. No. 18-11-01).

Whilst currently employed by MMDC, the undersigned ACP does not hold any shares of the publicly listed Marcventures Holdings, Inc. (MHI) which wholly owns MMDC. She has no vested interested in any properties or concessions held by MMDC or MHI and her sole interest is to provide professional services in terms of public reporting of exploration results and mineral resource estimates.

2 RELIANCE ON OTHER EXPERTS OR CPs

The undersigned Accredited Competent Person relied mainly on her work as employee of MMDC as well as of the company's technical personnel whose experiences over the years working in the company's nickel laterite project, were able to gain invaluable technical knowledge in the nickel laterite style of mineralization. Also used as references are previous technical reports of PMRC Competent Persons Carlo A. Arcilla, Radegundo S. de Luna and Tomas D. Malihan. The reports are listed as references in Section 14.

3 TENEMENT AND MINERAL RIGHTS

3.1 Description

The MMDC Nickel Laterite Mining Project is located in Barangay Panikian in the Municipality of Carrascal, Barangay Cabangahan in the Municipality of Cantilan, and Barangay Bayogo in the Municipality of Madrid, all within the Province of Surigao del Sur.

The project is covered by a Mineral Production Sharing Agreement denominated as MPSA No. 016-93-XI covering an area of 4,799 hectares. Technical description of the tenement corners is presented in Table 3-1. Location map of the MPSA is shown in Figure 3-1.

Table 3-1. *Technical description of MPSA 016-93-XI.*

Corner	Longitude	Latitude
1	125° 52' 30"	9° 20' 00"
2	125° 55' 00"	9° 20' 00"
3	125° 55' 00"	9° 19' 00"
4	125° 54' 00"	9° 19' 00"
5	125° 54' 00"	9° 15' 30"
6	125° 53' 30"	9° 15' 30"
7	125° 53' 30"	9° 14' 00"
8	125° 51' 00"	9° 14' 00"
9	125° 51' 00"	9° 15' 00"
10	125° 51' 30"	9° 15' 00"
11	125° 51' 30"	9° 19' 00"
12	125° 52' 30"	9° 19' 00"

There are three mine areas within the MMDC MPSA, namely: 1) Cabangahan, 2) Sipangpang, and 3) Pili. Cabangahan mine area is located south of Carac-an River, Sipangpang mine area between the Carac-an River and Alamio River, and Pili mine area is located north of Alamio River.

Cabangahan mine area was the first to be developed in 2010 and was the source of the first saprolite shipments of the company. In 2012, development and production of high iron limonite ore started in Pili mine area.

Extraction from Pili mine area was terminated in 2017 when ore prices went down and the remaining ore in Pili became uneconomical. Simultaneous to extraction of limonite from Pili mine area, the Sipangpang mine area was developed in 2016 upon approval of the Special Tree Cutting and Earthballing Permit (STCEP) for the area. Production in Sipangpang continued until the mid-2018 when it was temporarily deferred due to depressed ore prices.

In 2019, production resumed in Sipangpang and Cabangahan mine areas upon improvement of ore prices. Limonite mining in Sipangpang was again suspended in 2020 due to low iron prices but was resumed in 2021 when the prices for limonite ore became favorable.

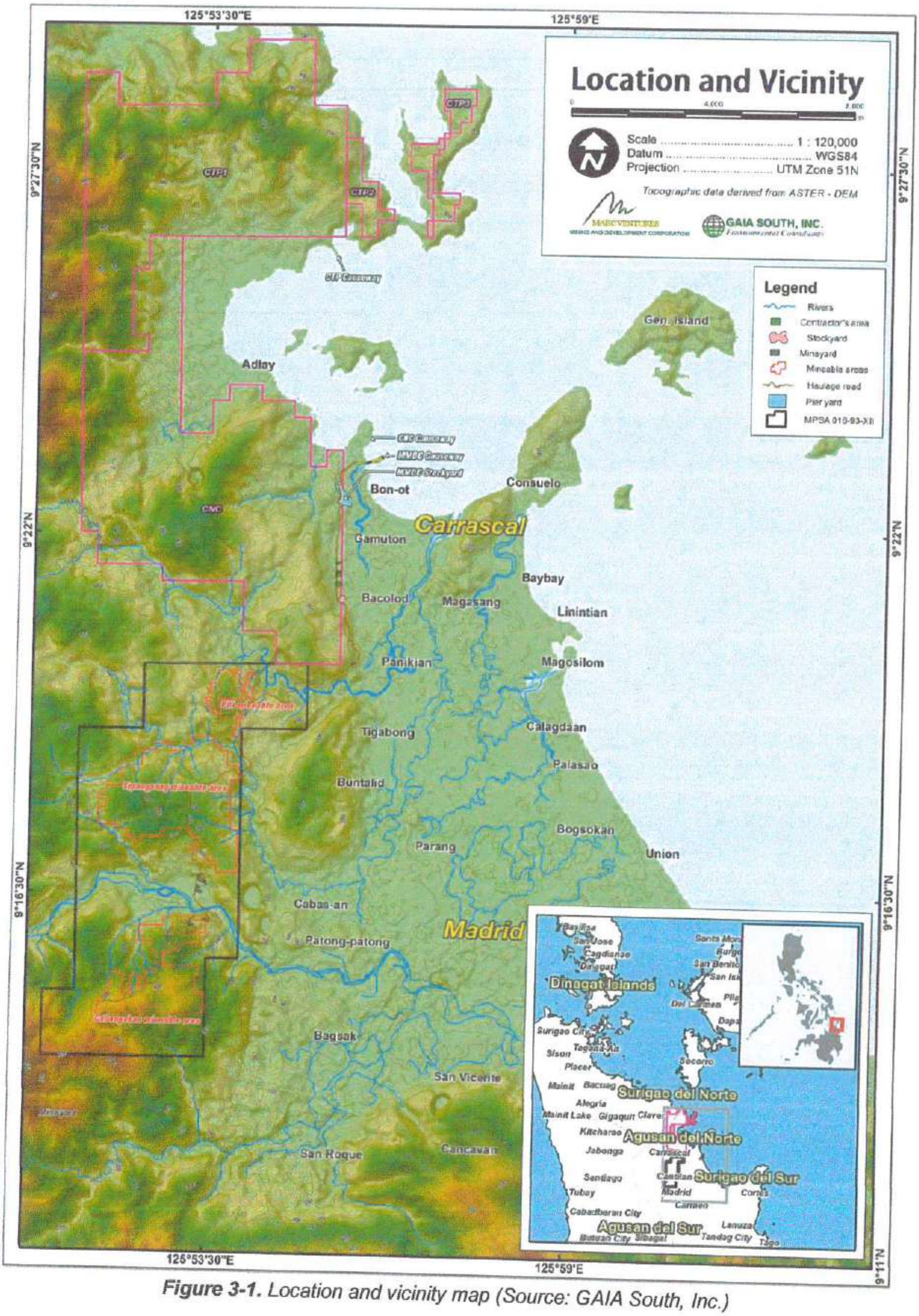


Figure 3-1. Location and vicinity map (Source: GAIA South, Inc.)

3.2 History of mineral rights

On June 19, 1992, the Philippine Government, thru the Department of Environment and Natural Resources (DENR), and Ventura Timber Corporation (VTC) executed Mineral Production Sharing Agreement (MPSA) No. 016-93-XI. The MPSA granted VTC the exclusive right to explore, develop and commercially utilize nickel and other associated mineral deposits that may be discovered in the contract area for a term of 25 years, renewable for another 25 years. The President of the Republic of the Philippines approved the MPSA on July 1, 1993.

On January 19, 1995, a Deed of Assignment (DOA) was executed between VTC and Marcventures Mining and Development Corporation (MMDC) wherein the former assigned to the latter all its rights and interests in MPSA No. 016-93-XI.

From 1995 to 2004, various peace and order problems and civil disturbances were experienced by VTC/MMDC in the pursuit of its exploration and operations in the contract area.

On March 11, 2008, after a lapse of 13 years, the DOA was finally approved by the DENR Secretary. First renewal of exploration period was granted to MMDC on January 24, 2008 and the second renewal on July 14, 2011.

On December 22, 2008, MMDC was granted an Environmental Compliance Certificate (Ref. Code 0807-022-1093) which covers an initial mine area of 120 hectares in Cabangahan. Another ECC (ECC-R13-1101-0006) which covers the causeway, pier yard and haul road was issued by EMB CARAGA on February 11, 2011. On August 2011, MMDC was able to make its first laterite ore shipment abroad under an approved Partial Declaration of Mining Project Feasibility (Partial DMPF).

MMDC applied for amendment of its ECC to cover the whole 4,799 hectares of the MPSA area. The amendment was approved on April 23, 2013 which allowed the company to mine outside the initial 120 hectares and to increase its annual tonnage from 1,500,000 WMT to 3,000,000 WMT. The amendment also superseded MMDC's ECC-R13-1101-0006 for its causeway, pier yard and haul road.

The Declaration for Mining Project Feasibility (DMPF) covering the whole tenement area was approved by the Mines and Geosciences Bureau (MGB) on October 16, 2014.

On September 17, 2015, MMDC filed for another amendment of its ECC which was subsequently approved by the MGB. This allows the company to further increase its annual production capacity to up to 5,000,000 WMT.

MMDC, thru letters dated May 30, 2016 and June 21, 2016, requested for a nine-year extension of the term of MPSA No. 016-93-XI to restore equivalent period of time lost due to force majeure in view of the various problems that it has encountered in the contract area, which have prevented it from fully pursuing its operations therein. On June 24, 2016, the term of MMDC's MPSA was extended for a period of nine years starting from the expiration of its first 25-year term or until July 1, 2027. This is renewable for another 25 years.

3.3 Current owners of mineral rights

MMDC currently holds the mineral rights over MPSA N0. 016-93-XI through a Deed of Assignment (DOA) executed between the company and Ventura Timber Corporation on January 19, 1995. The DOA was approved by the DENR Secretary on March 11, 2008.

3.4 Validity of current mineral rights

An MPSA is valid for 25 years from its approval and renewable for another 25 years upon expiration. Having been granted on July 1, 1993, MMDC's MPSA would have expired on July 1, 2018. However, the term of the MPSA was extended for nine years starting from the expiration of its first 25-year term due to *force majeure*. The MPSA is now valid until July 1, 2027 and renewable for another 25 years.

3.5 Agreements with respect to mineral rights

MMDC has no agreements with other companies or entities with regards to its mineral rights.

3.6 Net revenue derived from the project

Table 3-2 summarizes the taxes and royalties paid by MMDC from 2013 to 2021 which demonstrates the profitability of the project. Since 2013 to 2021, MMDC has paid a total of 2.52 Billion Pesos for national and local taxes and 197.9 Million Pesos for IP royalties.

Table. 3-2. *Summary of taxes and royalties paid from 2013 to 2021.*

Taxes/Fees Paid by MMDC	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
National Taxes										
Income Tax	0.00	0.00	19,199,421.00	7,502,437.42	62,363,612.01	46,396,294.02	12,322,630.00	120,872,125.30	410,145,998.00	678,802,517.75
Annual Registration	500.00	500.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	8,000.00
Excise Tax	51,032,185.00	48,305,264.00	43,974,323.46	44,076,554.00	36,403,809.00	43,058,814.00	57,301,363.80	115,334,888.86	162,872,457.44	602,359,659.56
Input Value Added Tax	98,646,535.00	18,669,204.00	29,720,277.00	17,810,442.31	18,191,435.72	7,571,060.68	1,439,663.89	3,024,803.82	2,553,034.23	197,626,456.65
Capital Gains Tax					0.00	0.00	0.00	0.00	0.00	0.00
Documentary Stamp Tax	1,512,563.00	1,639,527.00	1,111,500.83	638,977.89	580,450.66	2,250,700.42	89,485.50	7,227.00	963,287.00	8,793,719.30
W/T on Payroll	8,347,615.00	16,302,731.00	21,404,262.40	23,491,920.88	24,344,739.33	14,819,332.52	9,627,937.15	13,316,978.09	13,629,220.94	145,284,737.31
W/T Expanded	19,951,975.00	46,162,619.00	47,583,838.48	28,887,223.02	44,893,944.65	37,394,512.43	26,360,302.50	41,138,227.00	43,683,360.73	336,056,002.81
W/T Final	0.00	1,110,192.19	41,135.92	34,773.54	1,114,377.68	5,285.25	3,522,597.89	5,806,449.98	4,181,948.55	15,816,761.00
Fringe Benefits	5,804,983.00	14,247,935.00	11,803,479.27	7,722,004.32	9,768,358.76	10,446,634.99	6,218,968.22	3,723,696.76	2,457,722.19	72,193,782.51
National Taxes	**185,296,356.00**	**146,437,972.19**	**174,839,238.36**	**130,165,333.38**	**197,661,727.81**	**161,943,634.31**	**116,883,948.95**	**303,225,396.81**	**640,488,029.08**	**2,056,941,636.89**
Local Taxes										
Local Business Tax	603,125.00	2,046,905.00	4,037,724.70	27,124,074.50	41,793,328.12	47,239,011.13	19,745,101.28	44,462,970.60	50,601,599.01	237,653,839.34
Real Property Tax	14,665.00	662,835.00	412,972.58	381,929.33	546,168.02	493,304.33	475,806.07	476,873.10	497,686.70	3,962,240.13
Occupational Tax	359,925.00	359,925.00	359,925.00	359,925.00	359,925.00	359,925.00	359,925.00	359,925.00	359,925.00	3,239,325.00
Community Tax	46,491.00	21,000.00	21,000.00	21,000.00	21,500.00	21,500.00	21,000.00	21,000.00	21,000.00	215,491.00
Loading Fees	16,654,531.00	12,619,434.00	20,034,408.00	14,681,117.82	14,729,133.77	16,438,770.40	6,000,000.00	10,393,962.00	20,850,048.00	132,401,404.99
Other Local Taxes	2,400,884.00	1,886,110.00	9,726,292.48	3,401,005.94	2,962,116.18	142,400.00	14,566,726.65	26,328,496.63	23,400,872.04	84,814,903.92
Local Taxes	**20,079,621.00**	**17,596,209.00**	**34,592,322.76**	**45,969,052.59**	**60,412,171.09**	**64,694,910.86**	**41,168,559.00**	**82,043,227.33**	**95,731,130.75**	**462,287,204.38**
Grand Total	**205,375,977.00**	**164,034,181.19**	**209,431,561.12**	**176,134,385.97**	**258,073,898.90**	**226,638,545.17**	**158,052,507.95**	**385,268,624.14**	**736,219,159.83**	**2,519,228,841.27**

IP Royalties	26,791,897.00	25,360,264.00	23,086,520.00	19,107,355.00	20,188,858.00	10,366,177.71	14,857,247.00	29,032,249.90	29,059,754.39	197,850,323.00

4 GEOGRAPHIC FEATURES

4.1 Location and accessibility

The MPSA of MMDC is located within Barangay Panikian in the Municipality of Carrascal, Barangay Cabangahan in the Municipality of Cantilan and Barangay Bayogo in the Municipality of Madrid. It takes about 2.5-hour land travel along the National Highway from Surigao City or about 3.5-hour land travel from Butuan City to the Municipality of Carrascal and another 20 minutes to reach the Municipality of Cantilan (Fig. 4-1).

Figure 4-1. Project accessibility map.

Three routes from the National Highway can be used to access the mine site. Two ways are via the Municipality of Carrascal through MMDC's haulage road in Barangay Bon-ot and the provincial road in Barangay Bacolod. Another route passes through the provincial road in Barangay Parang located in the Municipality of Cantilan.

4.2 Topography, slope and drainage

The tenement area is located at the northeastern fringe of the Diwata Mountain Range (also called the Pacific Cordillera of Mindanao), a 300-km stretch of rugged mountains that extends all the way to the Davao-ComVal provinces. To the west of the Diwata Mountain Range are found the topographic low areas exemplified by the Tubay Valley and Lake Mainit. These areas are bordered to the west by a 70-km long elevated terrain called Malimono Ridge, that runs parallel to the west coast of Surigao del Norte.

Within the tenement area, the terrain is generally gently to moderately sloping and undulating except for some portions in the Cabangahan area which exhibit more rugged features and steeper slopes. The Cabangahan mine area is on a ridge with elevation ranging from 230 to 500 masl. Sipangpang is lower at 180 to 400 masl while Pili is at 180 to 320 masl.

The MMDC MPSA area lies within the catchments of three drainage systems namely: the Carac-an, Alamio and Panikian river systems (Fig. 4-2). Carac-an River is the largest drainage system in the area with headwater originating at the eastern slope of Mount Mabaho in the central portion of northern Mindanao Island. The tributaries flow in a general eastward direction and converge in the Cantilan-Madrid Alluvial Plain, then going northeast passing by Barangay Union in Madrid before emptying into Lanuza Bay in the Pacific Ocean.

Alamio River originates at the rugged mountains northwest of the MPSA area and flows southeastward through its northern section before reaching the Cantilan-Madrid Alluvial Plain where it shifts north-northeastward and meanders along the western edge of the alluvial plain. It merges with the Binoni River before crossing the highway near Carrascal town proper where it is referred to as the Carrascal River. The Carrascal River drains to Carrascal Bay.

The Panikian River is the smallest river system originating at the southern slope of Mount Legaspi located northwest of the MPSA area. The river assumes a southeast direction and upon reaching the Cantilan-Madrid Alluvial Plain, it becomes knows as the Binoni River. The Binoni River then merges with the Alamio River.

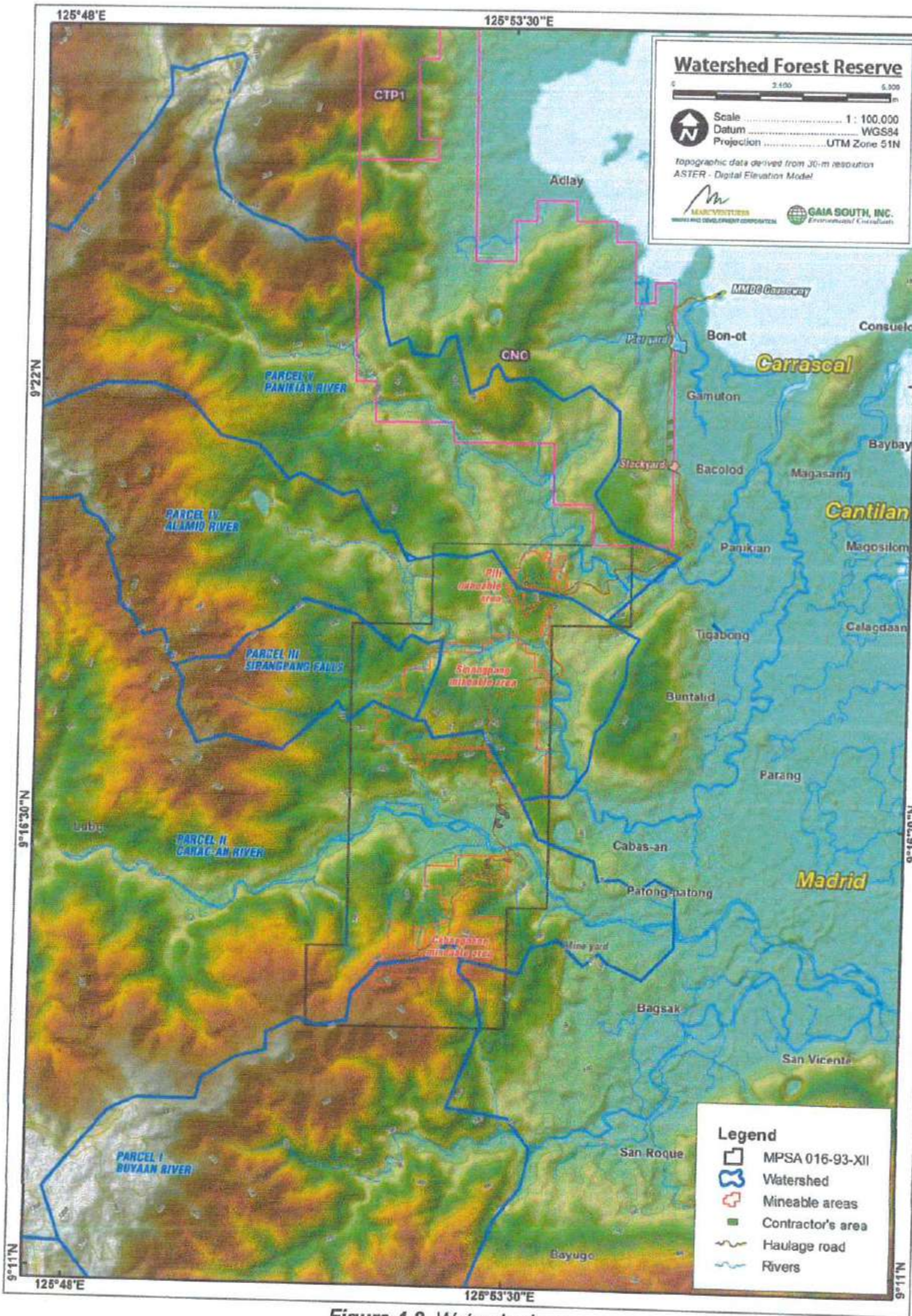


Figure 4-2. Watershed map.

4.3 Climate

In the absence of a weather station within the project site, climatological data were gathered from the PAGASA synoptic weather station located in Hinatuan, Surigao del Sur (8°21'59.53"N, 126°20'16.43"E). Figure 4-3 shows that the climate of Surigao del Sur can be characterized as a Type II based on the Modified Corona's Classification Scheme. Type II can be attributed by the absence of dry season or no single dry month. Maximum rainfall can be experienced from November to January while minimum rainfall is from March to May.

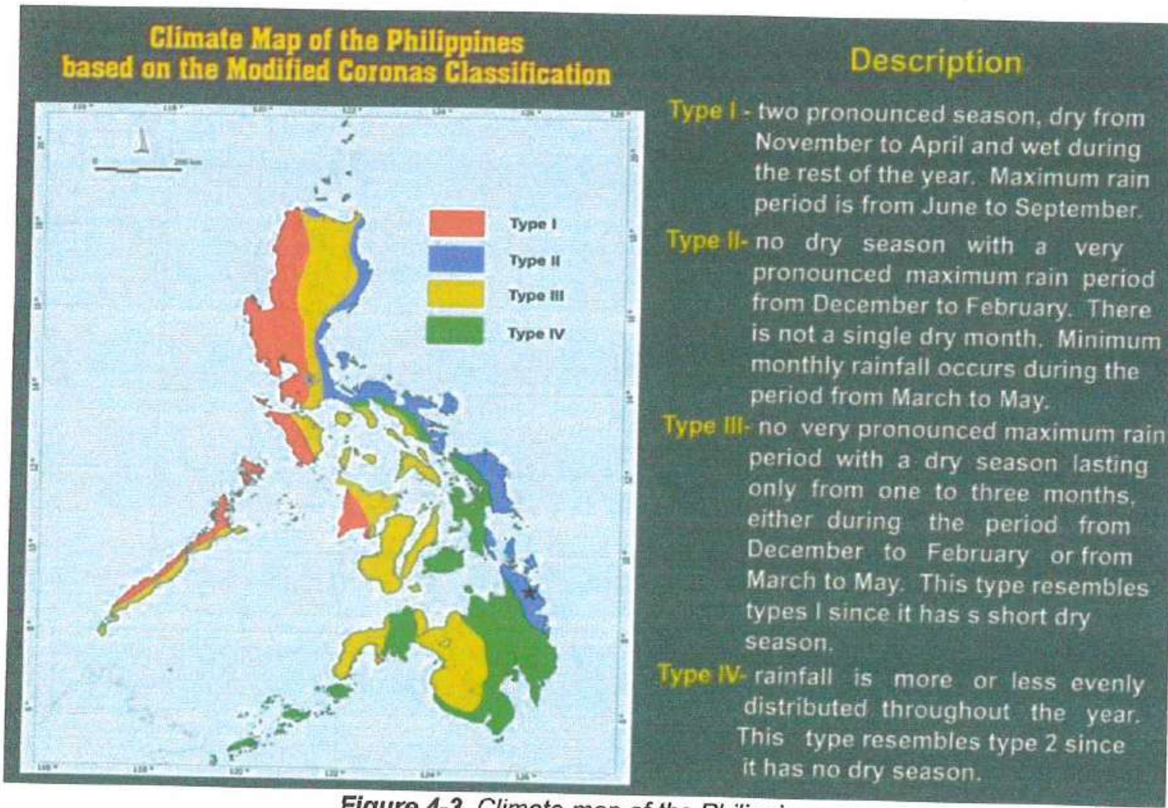


Figure 4-3. *Climate map of the Philippines.*

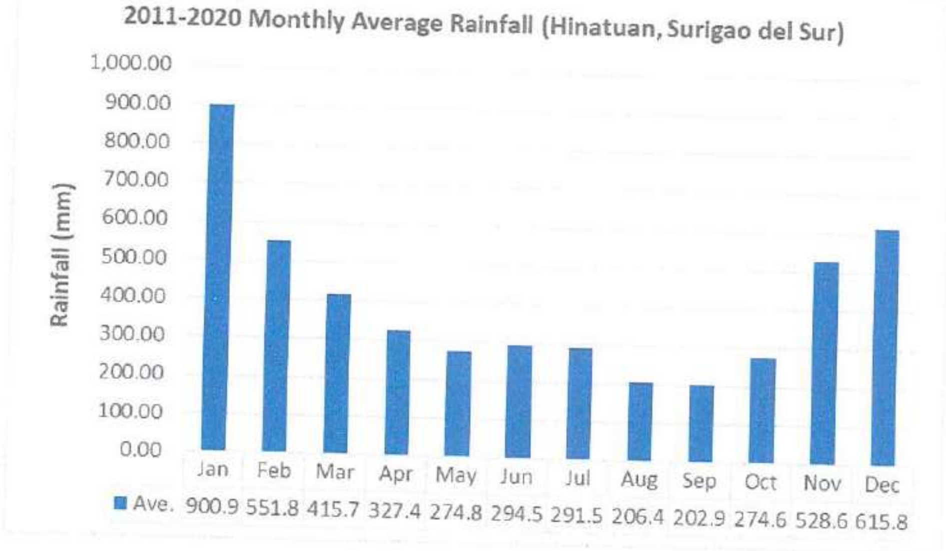
Rainfall

The rainfall pattern in Surigao del Sur (Hinatuan weather station) shows a pronounced wet period from November to February (Figure 4-4), which yields a mean monthly rainfall that exceeds 500 mm and contributes 53.17% to the mean annual rainfall of 4,884.8 mm. The month of January receives the highest amount of rain (900.9 mm) while September receives the least amount of rain (202.9 mm).

Table 4-1. *Monthly rainfall in Surigao del Sur from 2012-2020.*

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
2011	1,596.40	1,126.80	862.60	326.00	448.80	357.80	449.70	436.60	231.40	325.20	735.70	1,197.20	8,094.20
2012	1,056.90	685.50	366.60	732.60	198.10	217.00	378.20	158.30	325.50	378.80	727.40	558.40	5,783.30
2013	1,077.80	666.60	380.40	474.70	266.70	385.90	384.00	393.20	46.80	377.30	528.80	387.90	5,370.10
2014	1,372.10	331.80	534.10	77.70	272.60	117.20	166.80	173.20	189.70	145.10	242.50	1,039.30	4,662.10
2015	715.20	391.80	234.30	156.30	96.20	297.80	157.10	180.50	344.80	155.60	755.00	375.90	3,860.50
2016	263.20	533.60	175.40	264.70	291.50	280.50	260.90	118.50	265.40	529.10	512.60	621.90	4,117.30
2017	936.10	747.90	647.60	243.30	544.80	364.20	340.00	135.40	231.90	182.80	688.30	278.30	5,340.60
2018	669.40	511.20	319.20	373.70	264.50	136.00	306.70	141.80	280.70	122.20	382.80	469.10	3,977.30
2019	945.20	178.20	299.30	238.80	36.80	274.90	156.10	131.20	42.50	179.60	221.90	451.50	3,156.00
2020	376.80	344.50	337.10	386.00	327.50	513.40	315.80	195.20	70.50	350.70	491.00	778.10	4,486.60
Ave.	**900.91**	**551.79**	**415.66**	**327.38**	**274.75**	**294.47**	**291.53**	**206.39**	**202.92**	**274.64**	**528.60**	**615.76**	**4,884.80**

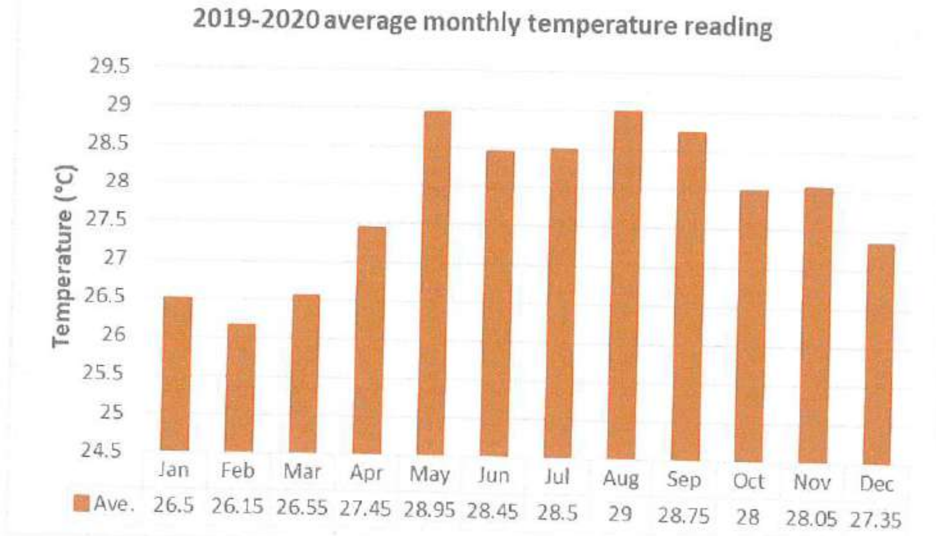
Figure 4-4. *Graph showing monthly average rainfall in Surigao del Sur from 2012-2020.*



Temperature

Based on the 2019 to 2020 temperature reading from Hinatuan synaptic station, Surigao del Sur experiences a mean annual temperature of 27.81°C, annual average high of 29.0°C and annual average low of 26.15°C. The hotter temperatures can be experienced from the months of April to December with temperatures more than 27°C while the cooler temperatures can be experienced from January to March (Figure 4-5).

Figure 4-5. *Graph showing monthly average temperature in Surigao del Sur from 2019-2020.*



Tropical Cyclones

The Philippines experiences an average of 20 cyclones annually. Carrascal and Cantilan as well as most of Surigao de Sur experiences one cyclone in two years. The occurrence of tropical cyclones in the Philippines is shown in Figure 4-6.

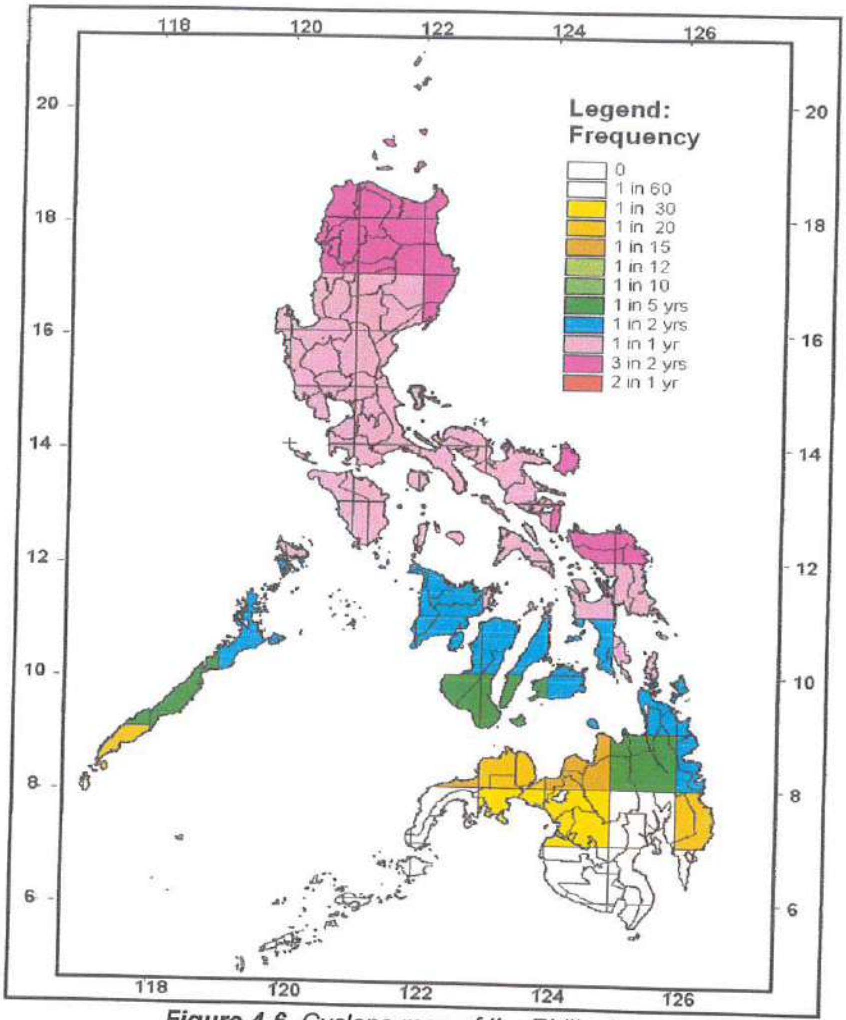


Figure 4-6. Cyclone map of the Philippines.

Wind Pattern

Eastern wind prevails in the area, bringing an annual wind speed of 2.4 m/s. The maximum wind speed of 3 m/s can be recorded in the months of January to March.

4.4 Land Use and Vegetation

Based on the 2014 Environmental Performance Report and Management Plan (EPRMP) prepared by third party consultant, GAIA South, Inc., There were seven land use units that were identified and mapped within the MPSA area, along the haulage road, pier yards and causeway. These are: 1) Forest, 2) Shrubland, 3) Coconut, 4) Cultivated area/ Agriculture (mixed coconut, paddy rice and corn), 5) Paddy rice, irrigated, 6) Mangrove forest, and 7) Bare area/mining area (Figure 4-7).

The Forest is the dominant landuse in the MPSA. It is generally composed of Lauan, Mountain Agoho, Batuan, Tangili, Miyapis, Falcata, Malapapaya, Giant Fern, etc.

Shrubland with Tonkat Ali, Lanipao, Pandan, Suhasuha, Tagum-tagum, Maymagan with Fern as undergrowth exists in the northern part of the MPSA.

The cultivated area or agricultural area exists on the river terraces of Carac-an River in Barangay Cabangahan. Crops are mixture of coconut, paddy rice and corn. and some abandoned areas are being used as pasture for cattle.

Bare areas are found in the mining areas in Pili and Cabangahan. At present, bare areas are also found in Sipangpang mine areas.

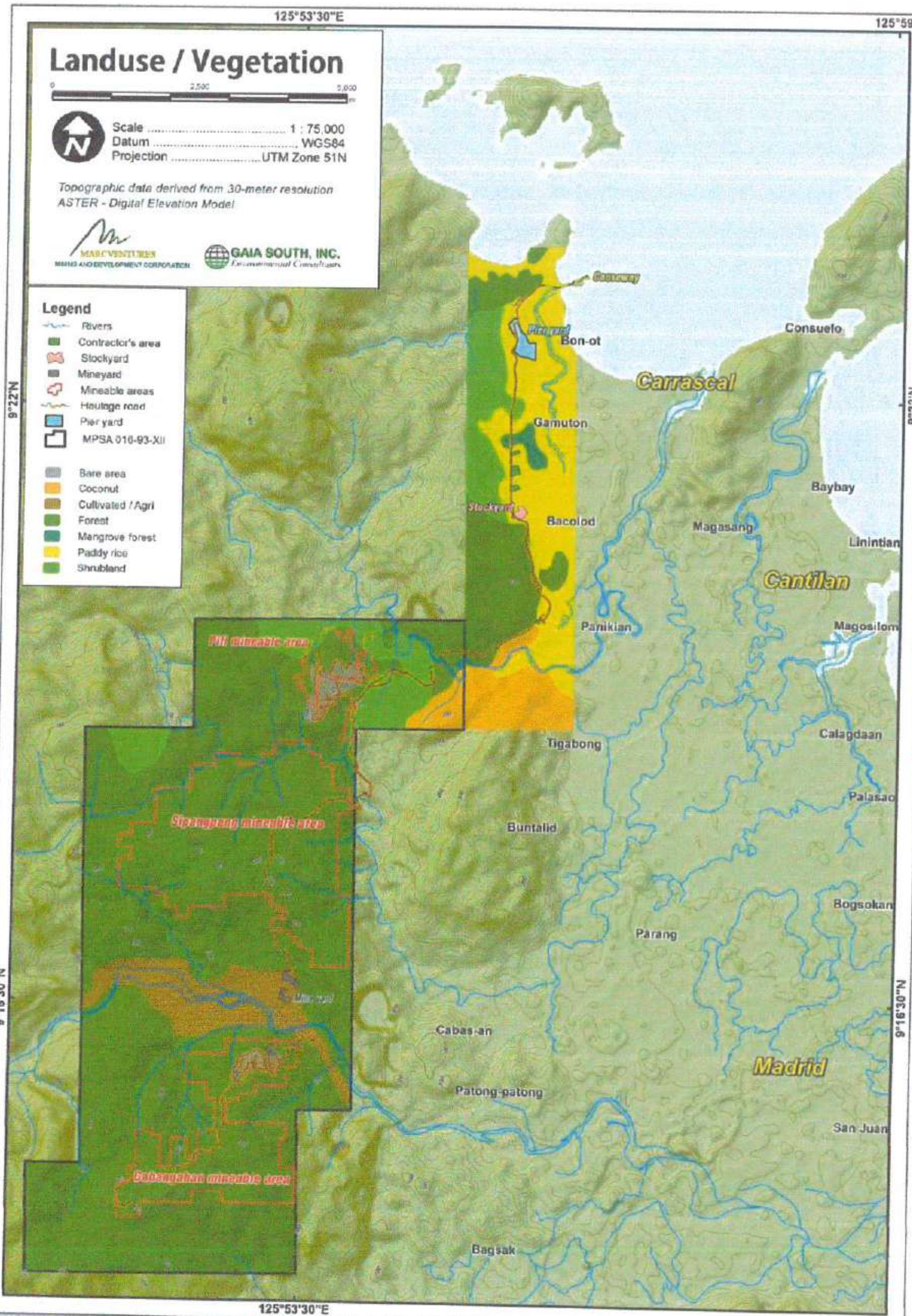


Figure 4-7. *Land use/vegetation map (Source: GAIA South, Inc.)*

4.5 Socio Economic Environment

Surigao del Sur is located in the northeastern coast of Mindanao facing the Pacific Ocean between 125°40'E to 126°20'E longitude and 7°55'N and 9°20'N latitude. It is bounded on the northwest by the Province of Surigao del Norte, Davao Oriental on the southeast, the Pacific Ocean on the east, and the Province of Agusan del Norte and Agusan del Sur on the west and southwest. Surigao del Sur has two cities and 17 municipalities. Most of these LGUs are located in the coastal areas. Tandag is the capital and seat of the provincial government. The municipalities are subdivided into 309 barangays and are covered by two (2) congressional districts.

Based on the 2010 Census of Population and Housing (CPH), the province of Surigao del Sur posted a total population of 561,219 persons as of May 1, 2010. This is larger by 59,411 persons compared to its total population of 501,808 persons counted in the 2000 CPH. The increase in the population count from 2000 to 2010 translated to an average annual population growth rate (PGR) of 1.12%. This is higher than the 1.05% annual PGR of the province between census years 1990 and 2000.

Based on the 2020 Census of Population and Housing (CPH), the province of Surigao del Sur posted a total population of 642,255 persons as of May 1, 2020. This is larger by 81,036 persons compared to its total population of 561,219 persons counted in the 2010 CPH. The increase in the population count from 2010 to 2020 translated to an average annual population growth rate (PGR) of 1.44%. This is higher than the 1.18% annual PGR of the province between census years 2000 and 2010.

The results of the 2000, 2010 and 2020 national census are presented and compared in Table 4-2.

Table 4-2. *Comparison of 2000 and 2010 National Population Census.*

Municipality	2000	2010	2020
Cantilan	**26,553**	**30,321**	**34,060**
Cabangahan	*794*	*1,031*	*1,844*
Carrascal	**13,157**	**16,529**	**24,586**
Babuyan	*443*	*514*	*760*
Panikian	*1,835*	*1,970*	*3,204*
Madrid	**14,066**	**14,888**	**16,653**
Bayogo	*821*	*769*	*1,043*

The population "pull" of the MMDC Nickel Laterite Mining Project is clear in the increase of population in Barangay Cabangahan by almost seventy-nine percent (78.86%) within a 10-year period compared to the Municipality of Cantilan of only 12.33% in the same period. The same can be deduced with Barangay Panikian with a 62.64% increase in population from 1,970 to 3,204 persons and Barangay Babuyan with 47.86% increase in population from 514 to 760. The Municipality of Carrascal saw a 48.74% increase in its population during the 10-year period.

Barangay Cabangahan is where the Cabangahan mine area is located while the Pili and Sipangpang mine areas are covered by Barangays Panikian and Babuyan. The employment and livelihood opportunities being created by the mining project attracts people who were residing outside of these barangays and municipalities to relocate and live near the mine areas.

4.6 Environmental Features

Terrestrial Flora

A total of 156 plant species belonging to 64 families were documented during the 2014 EPRMP baseline studies. Two (2) forest types, namely: Ultramafic forest and Limestone or Molave forest were observed within the MPSA. Ultramafic forests observed are located particularly in Pili and Sipangpang. Fifteen plant species recorded during the study are included in the redlist of the International Union for Conservation of Nature (IUCN). Critically endangered species are *Shorea almon*, *Shorea astylosa*, *Shorea contorta*, *Shorea negronensis*, *Shorea polosapis* and *Shorea polysperma* while *Nepenthes bellii* is considered as endangered based on the 2014 Red List of IUCN.

Terrestrial Fauna

A total of 40 species of birds, six (6) species of mammals, four (4) species of reptiles and five (5) amphibians were observed from three (3) survey sites that were established for the EPRMP baseline studies in 2014. All bird species are in the Least Concern category of IUCN and volant mammals observed have generally stable populations. Species of reptiles and amphibians are common and widespread.

Freshwater Ecology

Two major classifications were observed in the 10 sampling sites, namely: phytoplankton and zooplankton. Phytoplankton species observed belongs to major groups of Cyanophyte, Diatom, Dinoflagellate and Green algae. Benthic macroinvertebrates observed in the area belong to the Anthropoda, Annelida, Vertebrata, and Molluska group.

5 PREVIOUS WORK

The Surigao Mineral District rose to prominence as early as 1914 during the American occupation with the declaration by the US Governor General for the Philippines of a 640 sq.km. tract of land comprising what is now the Surigao provinces, as a mineral reservation. In 1939, the mineral reservation was further expanded by President Manuel L. Quezon by virtue of a presidential proclamation that included the islands of Nonoc, Dinagat and Siargao, designated as Parcels II, III and IV, respectively, with Masapelid Island as part of Parcel II (Fig. 5-1). The original area declared as mineral reservation in 1914 comprising of the northern part of the mainland Mindanao, was designated as Parcel I. The MMDC tenement area is located immediately south and outside of Parcel I.

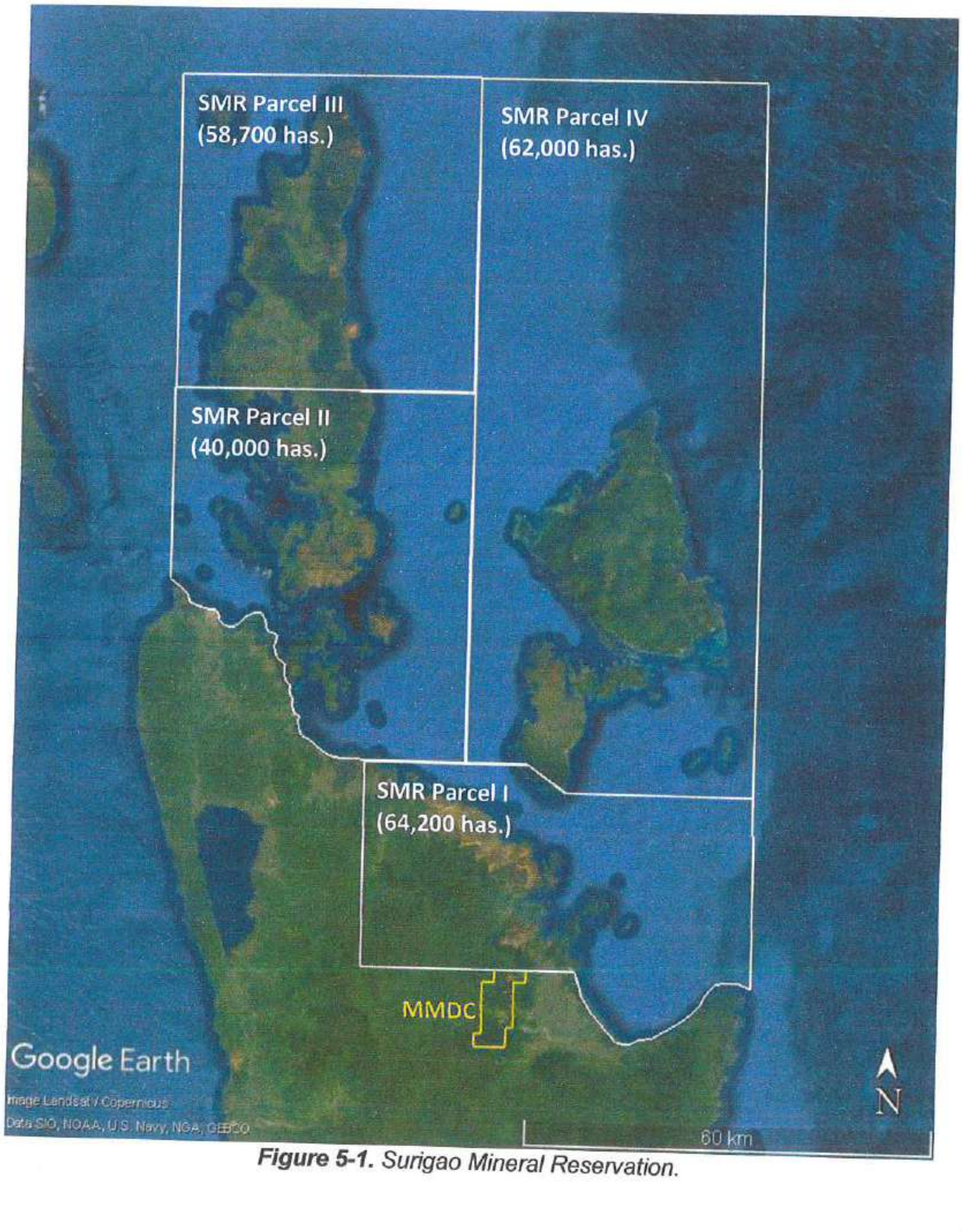


Figure 5-1. *Surigao Mineral Reservation.*

5.1 History of previous work

In the 1950s, the potential of northern Mindanao area for nickeliferous laterite was first recognized when the Bureau of Mines delineated areas with laterite in the Surigao Peninsula. Several companies had taken interest in the property including Surigao Nickel Mining and Industrial Corporation which entered a joint venture with Marcopper Mining Corporation in the 1970s.

In 1991, Ventura Timber Corporation engaged Geomin Management Corporation to explore the area which was followed by Queensland Nickel Incorporated and Hinatuan Mining Corporation in 1992. From 2009 to present, exploration within the tenement area is conducted by in-house drilling team or contracted out to third party drilling companies under the supervision of the in-house exploration group. Table 5-1 summarizes the previous exploration works undertaken in the tenement area.

Table 5-1. *Summary of previous exploration works.*

Period	Company/Group	Activity
1970	Marcopper Mining Corp./ Surigao Nickel Mining and Industrial Corp.	Auger drilling covering 1,300 hectares
1991	Geomin Management Corporation	Auger drilling and test pitting in Sipangpang (Area 1) and Cabangahan (Area 2)
1992	Hinatuan Mining Corporation	Mechanized drilling covering 25 has. in Cabangahan
1994	Ventura Timber Corporation	Auger drilling and test pitting covering approximately 1,500 has.
2000	QNI Philippines	Auger drilling covering 400 has.
2009	CP Carlo A. Arcilla/ Geosciences Foundation, Inc.	Mechanized drilling in Cabangahan area; prepared CP Technical Report on the mineral resource estimates
2009-2012	MMDC	Mechanized drilling in Pili, Sipangpang and Cabangahan
2012	CP Carlo A. Arcilla/ UP NIGS Teaching Staff and Geology students	Prepared a geologic report for MMDC
	CP Radegundo S. de Luna	Prepared the CP Technical Report on updated Mineral Resource as of end of 2012
2013	MMDC	Mechanized drilling in Pili, Sipangpang and Cabangahan
2014	CP Radegundo S. de Luna	Prepared the CP Technical Report on updated Mineral Resource as of end of 2013
	MMDC	Mechanized drilling in Cabangahan and Sipangpang
2015	CP Radegundo S. de Luna	Prepared the CP Technical Report on updated Mineral Resource as of end of 2014
	MMDC	Exploration drilling in Cabangahan; development drilling to upgrade resources
2016	CP Radegundo S. de Luna	Prepared the CP Technical Report on updated Mineral Resource as of end of 2015
	MMDC	Development drilling in Cabangahan to upgrade mineral resources
2017	CP Radegundo S. de Luna	Prepared the CP Technical Report on updated Mineral Resource as of end of 2016
	MMDC	Mechanized drilling in Cabangahan and Sipangpang
2018	CP Tomas D. Malihan	Prepared the CP Technical Report on updated Mineral Resource as of Dec. 31, 2017

	MMDC	In-pit geologic mapping; development drilling in Cabangahan and Sipangpang; confirmatory drillign in Cabangahan
2019	CP Jayvhel T. Guzman	Prepared the CP Technical Report on updated Mineral Resource as of Dec. 31, 2018
	MMDC	In-pit geologic mapping; development drilling in Cabangahan and Sipangpang; confirmatory drilling in Cabangahan
2020	CP Jayvhel T. Guzman and CP Arlene A. Morales	Prepared the CP Technical Report on updated Mineral Resource as of Dec. 31, 2019
	MMDC	Development drilling in Cabangahan
2021	CP Jayvhel T. Guzman and CP Arlene A. Morales	Prepared the CP Technical Report on updated Mineral Resource as of Dec. 31, 2020
		In-pit geologic mapping; development drilling in Cabangahan and Sipangpang; confirmatory drilling in Cabangahan

5.2 Essential work done by previous workers

The primary means of exploration in the tenement area was initially by auger drilling and test pitting. Exploration for saprolite began in 1992 when Hinatuan Mining Corporation used mechanized drill machine to collect samples from several random locations. This saprolite drilling program identified a 120-hectare mineralized area in Cabangahan, which was referred to then as "Area 2". Results of this drilling program became the basis for the PMRC-compliant Technical Report by CP Carlo A. Arcilla in 2009 (revised 2010).

The delineation of Area 2 prompted a systematic drilling program from 2009 to 2012. Simultaneously, mechanized drilling was also conducted in the adjoining areas of Sipangpang and Pili, covering an additional 1,395 hectares. This drilling campaign yielded 892 drill holes and 15,159 samples which constitute the basis for an updated PMRC-compliant Technical Report by CP Carlo A. Arcilla in the early part of 2012.

Yearly systematic mechanized drilling program has been being conducted by MMDC from 2013 to 2020 (Tab. 5-2). The purpose of the annual drilling campaign is to block additional mineral resource and upgrade existing Indicated and Inferred mineral resource to Measured and Indicated.

In 2021, development and confirmatory drilling was conducted to further delineate the mineral resource extents within Cabangahan and Sipangpang area and to upgrade existing indicated and inferred mineral resources to measured and indicated resources, respectively.

During the 2021 drilling campaign, a total of 363 drillholes with an aggregate depth of 4,414,14 meters were drilled by the team in Cabangahan and Sipangpang Area under the supervision of Geologists Gisella E. Dida, Ralph Dominique N. Zaballero and Rowena F. Bansiloy. From the 363 drill holes, a total of 4,430 samples were collected and submitted to MMDC Assay Laboratory for analysis for Ni, Fe, and Al2O3.

***Table 5-2.** MMDC drilling accomplishments.*

Period/ Year	Cabangahan			Sipangpang			Pili			TOTAL		
	DHs	Samples	Depth	DHs	Samples	Depth	DHs	Samples	Depth	DHs	Samples	Depth
2009-2012	1,009	17,080	17,095.88	231	3,088	3,091.30	49	107	1,079.80	1,289	20,275	21,266.98
2013	21	348	347.92	9	94	91.60	265	2,527	2,515.88	295	2,969	2,955.40
2014	147	2,030	2,032.39	120	802	798.84				267	2,832	2,831.23
2015	887	14,102	14,101.16							887	14,102	14,101.16
2016	588	9,801	9,801.12							588	9,801	9,801.12
2017	361	4,313	4,313.34	268	1,889	1,889.89				629	6,202	6,203.23
2018	255	2,034	1,992.03	257	2,615	2,614.51				512	4,649	4,606.54
2019	43	423	422.01							43	423	422.01
2020	92	871	877.15							92	871	877.15
2021	286	3,604	3,565.86	77	826	848.28				363	4,430	4,414.14
Total	**3,689**	**54,606**	**54,548.86**	**962**	**9,314**	**9,334.42**	**314**	**2,634**	**3,595.68**	**4,965**	**66,554**	**67,478.96**

5.3 Previous Resource Estimates

Table 5-3 summarizes the results of resource estimations done by previous Competent Persons consulted by MMDC for its resource reporting.

The first resource estimation for MMDC was done by CP Geologist Carlo A. Arcilla covering the 120-hectare area previously identified by MMDC for its operating area. This became the basis for the Technical Report on Economic Assessment and Ore Reserve Estimation that was prepared by CP Mining Engineer Orlando S. Cruz dated March 31, 2010.

On September 2012, CP Arcilla revised his estimation to cover 304 hectares where drilling has been conducted. This is based on the results of 892 drill holes and 15,159 samples collected during the second phase of drilling campaign in 2009 to 2012. In the same year, MMDC requested CP Geologist Radegundo S. de Luna to update the CP Technical Report of MMDC based on the results of the second phase drilling campaign. Resource estimation used is the manual polygonal method in which the classification guidelines applied are consistent with PMRC and JORC classification standards.

The resource estimates of CP de Luna as of December 2013 saw a huge increase in the estimated Measured and Indicated Resources. Several factors contributed to this rise:

1. Upgrade of Pili and Sipangpang Inferred Mineral Resource to Indicated Mineral Resource due to increase in the level of confidence in the Pili Limonite Resource as demonstrated by the positive result in Pili mine operations
2. Adjusted nickel cut-off grade for High Iron Limonite, from 0.7% Ni to 0.1% Ni, due to recent development in economic factors
3. Adjusted density from 1.11 to 1.16 resulting from studies conducted on Pili limonite resource
4. Additional in-fill drilling at 100-m, 50-m and 25-m interval in Sipangpang, Pili and Cabangahan

CP Geologist Tomas D. Malihan in his resource estimates as of December 2017 used adjusted cut-off grades for limonite and saprolite to include low nickel saprolite due to the newly developed market for low grade saprolite ore. CP Malihan used manual polygonal method in their resource estimation.

The resource estimates as of December 2018 saw an increase in tonnages due to the change in methodology from manual polygonal method to software-aided estimation by way of Nearest Neighbor interpolation. This method selects and assigns values of the nearest assay from the centroid of the block with unknown value.

From 2018 up to present, Nearest Neighbor interpolation is being used for the resource estimation of MMDC. Although a recent review of the parameters being used in the interpolation has caused a minor decrease in the present resource estimates as will be explained thoroughly in Section 11 of this report.

Table 5-3. Summary of previous MMDC mineral resource estimates.

Competent Person, Date of Reporting and Methodology	Area			Total
	Cabangahan	Sipangpang	Pili	
C.A. Arcilla, Sep. 2009; software-aided (GEMS)				15,885,000 DMT Indicated Mineral Resources at 1.54% Ni and 19.5% Fe
C.A. Arcilla, Aug. 2010; software-aided (GEMS) ordinary kriging				3,867,000 DMT Indicated Limonite Resource at 1.3% Ni and 35.9% Fe
				5,635,000 DMT of Indicated Saprolite Resource at 1.4% Ni
C.A. Arcilla, Sep. 2012; software-aided (GEMS) ordinary kriging	8,133,000 MT Measured and Indicated Limonite Resource at 1.17% Ni and 28.07% Fe; 9,710,000 MT Inferred Limonite Resource at 0.82% Ni and 31.97% Fe			8,133,000 MT Measured and Indicated Limonite Resource at 1.17% Ni and 28.07% Fe; 9,710,000 MT Inferred Limonite Resource at 0.82% Ni and 31.97% Fe
	27,953,000 MT Measured and Indicated Saprolite Resource at 1.18% Ni and 15.58% Fe			27,953,000 MT Measured and Indicated Saprolite Resource at 1.18% Ni and 15.58% Fe
R.S. de Luna, Dec. 2012; manual polygonal method	15,146,000 WMT Measured and Indicated Limonite Resource at 1.09% Ni and 44.22% Fe; 4,699,000 WMT Inferred Limonite Resource at 1.08% Ni and 46.64% Fe	7,493,000 WMT Inferred Limonite Resource at 0.95% Ni and 49.18% Fe	839,000 WMT Indicated Limonite Resource at 0.94% Ni and 49.18% Fe; 9,770,000 WMT Inferred Limonite Resource at 1.01% Ni and 47.49% Fe	15,992,000 WMT Measured and Indicated Limonite Resource at 1.08% Ni and 11.81% Fe; 21,446,000 WMT Inferred Limonite Resource at 1.00% Ni and 47.93% Fe
	2,882,000 WMT Measured and Indicated Saprolite Resource at 1.90% Ni and 11.81% Fe; 4,483,000 WMT Inferred Saprolite Resource at 1.73% Ni and 13.08% Fe			2,882,000 WMT Measured and Indicated Saprolite Resource at 1.90% Ni and 11.81% Fe; 4,483,000 WMT Inferred Saprolite Resource at 1.73% Ni and 13.08% Fe
R.S. de Luna, Dec. 2013; manual polygonal method	18,251,152 WMT Measured and Indicated Limonite Resource at 0.99% Ni and 44.50% Fe	23,862,451 WMT Measured and Indicated Limonite Resource at 0.70% Ni and 47.63% Fe	8,895,193 WMT Measured and Indicated Limonite Resource at 0.84% Ni and 49.62% Fe	51,008,799 WMT Measured and Indicated Limonite Resource at 0.83% Ni and 46.85% Fe

	2,927,735 WMT Measured and Indicated Saprolite Resource at 1.90% Ni and 12.05% Fe; 3,304,821 WMT Inferred Saprolite Resource at 1.72% Ni and 13.07% Fe			2,927,735 WMT Measured and Indicated Saprolite Resource at 1.90% Ni and 12.05% Fe; 3,304,821 WMT Inferred Saprolite Resource at 1.72% Ni and 13.07% Fe
R.S. de Luna, Dec. 2014; manual polygonal method	21,617,000 WMT Measured and Indicated Limonite Resource at 0.97% Ni and 42.48% Fe	32,482,000 WMT Measured and Indicated Limonite Resource at 0.69% Ni and 49.83% Fe	8,057,000 WMT Measured and Indicated Limonite Resource at 0.81% Ni and 47.73% Fe	62,157,000 WMT Measured and Indicated Limonite Resource at 0.83% Ni and 46.02% Fe
	3,209,000 WMT Measured and Indicated Saprolite Resource at 1.90% Ni and 11.98% Fe; 2,277,000 WMT Inferred Saprolite Resource at 1.69% Ni and 14.18% Fe			3,209,000 WMT Measured and Indicated Saprolite Resource at 1.90% Ni and 11.98% Fe; 2,277,000 WMT Inferred Saprolite Resource at 1.69% Ni and 14.18% Fe
R.S. de Luna, Dec. 2015; manual polygonal method	21,691,360 WMT Measured and Indicated Limonite Resource at 0.97% Ni and 42.49% Fe	32,482,358 WMT Measured and Indicated Limonite Resource at 0.73% Ni and 47.55% Fe	5,862,095 WMT Measured and Indicated Limonite Resource at 0.87% Ni and 49.08% Fe	60,035,813 WMT Measured and Indicated Limonite Resource at 0.83% Ni and 45.88% Fe
	3,113,735 WMT Measured and Indicated Saprolite Resource at 1.85% Ni and 12.05% Fe; 2,063,030 WMT Inferred Saprolite Resource at 1.69% Ni and 14.69% Fe			3,113,735 WMT Measured and Indicated Saprolite Resource at 1.85% Ni and 12.05% Fe; 2,063,030 WMT Inferred Saprolite Resource at 1.69% Ni and 14.69% Fe
R.S. de Luna, Dec. 2016; manual polygonal method				57,887,353 WMT Measured and Indicated Limonite Resource at 0.86% Ni and 45.27% Fe
				8,457,892 WMT Measured and Indicated Saprolite Resource at 1.50% Ni and 12.85% Fe; 7,466,844 WMT Inferred Saprolite Resource at 1.26% Ni and 20.53% Fe
T.D. Malihan, Dec. 2017; manual polygonal method	23,774,000 WMT Measured and Indicated Limonite Resource at 0.96% Ni and 42.76% Fe	29,791,000 WMT Measured and Indicated Limonite Resource at 0.75% Ni and 47.51% Fe	1,872,000 WMT Measured and Indicated Limonite Resource at 0.91% Ni and 44.04% Fe	55,437,000 WMT Measured and Indicated Limonite Resource at 0.92% Ni and 41.29% Fe

	8,106,000 WMT Measured and Indicated Saprolite Resource at 1.44% Ni and 13.48% Fe; 6,836,000 WMT Inferred Saprolite Resource at 1.26% Ni and 13.47% Fe			8,106,000 WMT Measured and Indicated Saprolite Resource at 1.44% Ni and 13.48% Fe; 6,836,000 WMT Inferred Saprolite Resource at 1.26% Ni and 13.47% Fe
J.T. Guzman, Dec. 2018; software-aided (Surpac) nearest neighbor interpolation	27,582,000 WMT Measured and Indicated Limonite Resource at 0.98% Ni and 41.79% Fe	35,061,000 WMT Measured and Indicated Limonite Resource at 0.80% Ni and 46.18% Fe	1,014,000 WMT Measured and Indicated Limonite Resource at 0.82% Ni and 43.28% Fe	63,657,000 WMT Measured and Indicated Limonite Resource at 0.88% Ni and 44.23% Fe
	11,894,000 WMT Measured and Indicated Saprolite Resource at 1.34% Ni and 12.65% Fe; 4,673,000 WMT Inferred Saprolite Resource at 1.30% Ni and 12.90% Fe			11,894,000 WMT Measured and Indicated Saprolite Resource at 1.34% Ni and 12.65% Fe; 4,673,000 WMT Inferred Saprolite Resource at 1.30% Ni and 12.90% Fe
J.T. Guzman and A.A. Morales, Dec. 2019; software-aided (Surpac) nearest neighbor interpolation	29,350,000 WMT Measured and Indicated Limonite Resource at 0.95% Ni and 42.29% Fe	30,976,000 WMT Measured and Indicated Limonite Resource at 0.80% Ni and 46.05% Fe	1,014,000 WMT Measured and Indicated Limonite Resource at 0.82% Ni and 43.28% Fe	61,339,000 WMT Measured and Indicated Limonite Resource at 0.87% Ni and 44.20% Fe
	11,823,000 WMT Measured and Indicated Saprolite Resource at 1.33% Ni and 12.57% Fe; 4,858,000 WMT Inferred Saprolite Resource at 1.29% Ni and 12.81% Fe			11,823,000 WMT Measured and Indicated Saprolite Resource at 1.33% Ni and 12.57% Fe; 4,858,000 WMT Inferred Saprolite Resource at 1.29% Ni and 12.81% Fe
J.T. Guzman and A.A. Morales, Dec. 2020; software-aided (Surpac) nearest neighbor interpolation	30,806,000 WMT Measured and Indicated Limonite Resource at 0.95% Ni and 42.30% Fe	30,976,000 WMT Measured and Indicated Limonite Resource at 0.80% Ni and 46.05% Fe	1,014,000 WMT Measured and Indicated Limonite Resource at 0.82% Ni and 43.28% Fe	62,796,000 WMT Measured and Indicated Limonite Resource at 0.87% Ni and 44.17% Fe
	11,832,000 WMT Measured and Indicated Saprolite Resource at 1.34% Ni and 12.59% Fe; 5,103,000 WMT Inferred Saprolite Resource at 1.30% Ni and 12.77% Fe			11,832,000 WMT Measured and Indicated Saprolite Resource at 1.34% Ni and 12.59% Fe; 5,103,000 WMT Inferred Saprolite Resource at 1.30% Ni and 12.77% Fe

6 HISTORY OF PRODUCTION

6.1 Production history of district and area, if any

CARAGA Region hosts several mining projects producing various mineral commodities particularly gold, copper, chrome, nickel, iron and limestone for concrete cement production. It is located in the northeastern tip of Mindanao Island and located in the eastern seaboard of the Philippines. With its geographic location facing the Pacific Ocean, CARAGA is prone to various weather conditions and geologic conditions such as typhoons, tsunami, surges and earthquakes.

The nickel resources of the region are in the form of nickeliferous laterite derived from the physical and chemical weathering of ultramafic rocks. Nickel mines in the CARAGA Region are listed in Table 6-1.

Table 6-1. Nickel mines in CARAGA Region.

Nickel Mining Company	Location
AAMPhil Natural Resources Exploration and Development Corporation	Claver, Surigao del Norte
Adnama Mining Resources, Inc.	Urbiztondo, Claver, Surigao del Norte
Agata Mining Ventures, Inc.	Tubay, Cabadbaran, Agusan del Norte
Cagdianao Mining Corporation	Valencia, Cagdianao, Dinagat Islands
Carrascal Nickel Corporation	Carrascal, Surigao del Sur
Century Peak Corporation	Loreto, Dinagat Islands
CTP Construction and Mining Corporation/Adlay Mining Project	Adlay, Carrascal, Surigao del Sur
CTP Construction and Mining Corporation/Dahican Nickel Project	Dahican, Carrascal, Surigao del Sur
Hinatuan Mining Corporation	Talavera, Hinatuan Island, Surigao del Norte
Marcventures Mining and Development Corporatio	Cantilan and Carrascal, Surigao del Sur
Oriental Synergy Mining Corporation	Loreto, Dinagat Islands
Platinum Group Metals Corporation	Cagdianao, Claver, Surigao del Norte
SR Metals Inc.	Tubay, Cabadbaran, Agusan del Norte
Taganito Mining Corporation	Hanyanggabon, Claver, Surigao del Norte
VTP Mining and Construction Inc.	Adlay, Carrascal, Surigao del Sur
Wellex Mining Corporation	Dinagat Islands

MMDC neighboring mining companies include Carrascal Nickel Corporation (CNC), CTP Construction and Mining Corporation (CTP) and Platinum Group Metals Corporation (PGMC). PGMC started its mining operations in 2007 while CNC and CTP started around the same time as MMDC which is around 2009 to 2010.

6.2 Areas mined within the tenement area

In 2010, mine development started in the initial 120-hectare area in Cabangahan covered by a Partial DMPF and an approved ECC for 1.5 million WMT annual tonnage. Mine production commenced in 2011 with the completion of MMDC's first shipment by the third quarter of 2011. Mining started in the northeastern part of the Cabangahan mine area, moving southwestward as mining progressed. MMDC averaged 3 vessels of saprolite ore per year from 2011 to 2012 equivalent to about 1.3 million WMT of limonite and saprolite.

By April 2013, the amendment to MMDC's ECC was approved thereby granting the company permit to operate within the whole 4,799 hectares of the MPSA area. Due to subdued prices in saprolite ore and higher production costs, MMDC ceased its operations in Cabangahan and concentrated its mining activities in Pili area which is located nearer (about 12 km) to the causeway compared to 22 km distance from Cabangahan. For the year 2013, MMDC was able to extract from Pili area around 2.93 million WMT of limonite ore averaging 0.87% Ni and 49.71% Fe. In the same year, the company shipped out 50 vessels of limonite ore equivalent to about 2.8 million WMT averaging 0.84% Ni and 50.61% Fe.

Production in Sipangpang mine area started in 2016 to supplement limonite ore requirement since high iron limonite in Pili mine area started to be depleted. In 2017, Pili mine area was declared as "mined out" considering that the remaining low-grade limonite ore in the area is not economically viable. During mid-2018, mining in Sipangpang was suspended due to global low market price of high iron limonite. About 350,000 WMT limonite ore was extracted from Sipangpang in 2018 before cessation.

During the 2019 mining season, a total of 832,985 WMT of limonite ore at 0.69% Ni and 49.85% Fe was produced from Sipangpang mine area while 454,954 WMT saprolite ore was produced from Cabangahan mine area with an average grade of 1.57% Ni and 18.29% Fe.

In March 2020, a national lockdown was imposed by the government to suppress the spreading of the COVID-19 disease. Despite the slow start of the mining season due to the lockdown, MMDC was able to produce 1.67 Million WMT of saprolite ore at 1.48% Ni and 18.80% Fe. Combined with 2019 inventory, the company was able to ship out 1.73 Million WMT of saprolite ore at 1.43% Ni and 17.31% Fe. There was no limonite extraction and shipment in 2020 due to depressed iron prices.

2021 saw the company at a better condition than the previous years in terms of production rate and ore prices. A total of 1.37 Million WMT of saprolite ore at 1.31% Ni and 19.22% Fe was produced from Cabangahan mine area. The average nickel grade is lower than the previous years but was still economical due to better prices. Limonite ore was also produced and shipped from Sipangpang area amounting to 0.69 Million WMT at an average grade of 0.67% Ni and 49.21% Fe.

Table 6-2. MMDC limonite and saprolite 2010-2021 production.

Year	Limonite			Saprolite			Total		
	WMT	% Ni	% Fe	WMT	% Ni	% Fe	WMT	% Ni	% Fe
2010	37,800	*	*	0	*	*	37,800	*	*
2011	498,181	*	*	189,379	*	*	687,560	*	*
2012	401,181	*	*	157,170	*	*	558,351	*	*
2013	2,945,090	0.87	49.70	13,600	1.58	14.90	2,958,690	0.87	49.54
2014	1,343,797	0.91	49.50	241,870	1.50	15.80	1,585,668	1.00	44.36
2015	2,448,462	0.93	49.60	522,931	1.58	17.70	2,971,393	1.04	43.99
2016	1,793,701	0.88	49.60	774,629	1.55	19.60	2,568,330	1.08	40.55
2017	829,099	0.72	49.30	1,429,013	1.57	18.40	2,258,112	1.26	29.75
2018	359,057	0.69	50.10	678,079	1.62	20.00	1,037,136	1.30	30.42
2019	832,985	0.69	49.85	454,954	1.57	18.29	1,287,939	1.00	38.70
2020	0	0.00	0.00	1,672,031	1.48	18.80	1,672,031	1.48	18.80
2021	685,850	0.67	49.21	1,370,372	1.31	20.63	2,056,222	1.10	30.16
TOTAL	**12,175,203**	**0.85**	**49.60**	**7,504,028**	**1.50**	**19.05**	**19,679,231**	**1.10**	**37.95**

**No data available*

***Weighted average from 2013 to 2019*

Table 6-3. MMDC limonite and saprolite 2011-2021 shipment.

Year	Limonite				Saprolite				Total			
	No. of vessels	WMT	% Ni	% Fe	No. of vessels	WMT	% Ni	% Fe	No. of vessels	WMT	% Ni	% Fe
2011	9	464,112	0.81	50.47	3	163,986	1.83	15.54	12	628,098	1.08	41.35
2012	9	460,227	1.01	49.80	3	157,706	1.81	18.31	12	617,933	1.22	41.76
2013	50	2,775,738	0.84	50.61	-	-	-	-	50	2,775,738	0.84	50.61
2014	35.5	1,914,378	0.92	49.58	3.5	188,861	1.58	18.33	39	2,103,239	0.98	46.77
2015	51	2,797,876	0.92	49.95	10	541,192	1.55	17.52	61	3,339,068	1.02	44.69
2016	35	1,895,112	0.88	49.83	13	701,990	1.50	16.22	48	2,597,101	1.05	40.74
2017	13.5	744,679	0.70	49.84	26.5	916,948	1.48	16.51	40	1,661,627	1.13	31.44
2018	8	428,909	0.66	49.87	12	658,690	1.57	18.81	20	1,087,599	1.21	31.06
2019	15	826,692	0.67	49.74	11	602,710	1.56	18.21	26	1,429,402	1.05	36.45
2020	-	-	-	-	32	1,732,327	1.43	17.30	32	1,732,327	1.43	17.30
2021	13	696,484	0.69	49.28	26	1,389,612	1.31	19.22	39	2,086,096	1.10	29.26
TOTAL	**239**	**13,004,207**	**0.85**	**49.97**	**140**	**7,054,022**	**1.48**	**17.71**	**379**	**20,058,228**	**1.07**	**38.63**

6.3 Mining method

The mining method being used by MMDC is surface mining. The ore deposit is mined at three-meter benches to optimize ore recovery and ensure slope stability of the mined unconsolidated lateritic nickel ore. MMDC mining method is briefly described as follows:

1. **Clearing, grubbing and overburden stripping** – involves cutting of trees, clearing of vegetation, recovery of timber which will then be collected and hauled to DENR designated log yard. Topsoil will be removed and stockpiled in a designated area for future use in rehabilitation. Overburden mined at 3 meters benches are stockpiled separately, and some are mined and directly used for mined out are pit reshaping as part of the mine rehabilitation process.
2. **Ore extraction** – after removal of topsoil/overburden, benches are continuously formed and sampled vertically (face sampling) at an interval of 1 to 3 meters for grade control purposes. Mining of ore, marginal ore, and/or waste in pit benches will be done only once assay results of the face samples are available. The face of the bench where the sample was obtained is labeled with colored ribbons which shall serve as a guide for the backhoe operator during the ore mining process (excavation and segregation). Ore is mined using a backhoe with a bucket capacity of 0.8 to 1.0 cu.m.
3. **Ore Sampling** – the sampler shall take a representative sample using a scoop of every bucket load before loading it into the dump truck. One composite sample shall comprise of five (5) truckloads with a varying number of sampling increments depending on the loading capacity of the dump trucks or about 17 bucket loads which will then be recorded with pre-assigned pile series ID.
4. **Ore transportation** – an 18-tonner dump truck is used for both ore and waste handling. Trucks are loaded with ore on the bench that is being mined by the backhoe excavator sitting on the bench. An average of 17 bucket load passes is required to fill a dump truck.
5. **Ore sorting, sizing and stockpiling** – saprolite ore coming from the mine areas are transported to the stockyard for stockpiling according to its grade for blending and mixing purposes to meet buyer specifications. If the weather is favorable, sun drying is done to reduce moisture content. A backhoe is used to scrape and turn/flip about 0.3 to 0.5 meter thickness of the pile section and doing this multiple times.
6. **Barge and ship loading** – an ore vessel is scheduled for shipment. Ore from stockpiles are sequenced for loading into 18-tonne capacity dump trucks and dumped to Landing Craft Tank (LCT) anchored at the causeway. Ore stockpiles are mixed in the process to meet market specifications. LCT is about 2,000 to 3,500 wmt capacity and once filled up at the causeways navigates to a waiting vessel offshore. The ore vessel's crane is used to unload the nickel ore from the LCT into the ore vessel hatch.
7. **Progressive rehabilitation** – once an area is declared as mined out, previously stockpiled overburden or overburden directly mined from the pit is used to reshape and prepare the area. Seedlings of indigenous are planted and maintained periodically.

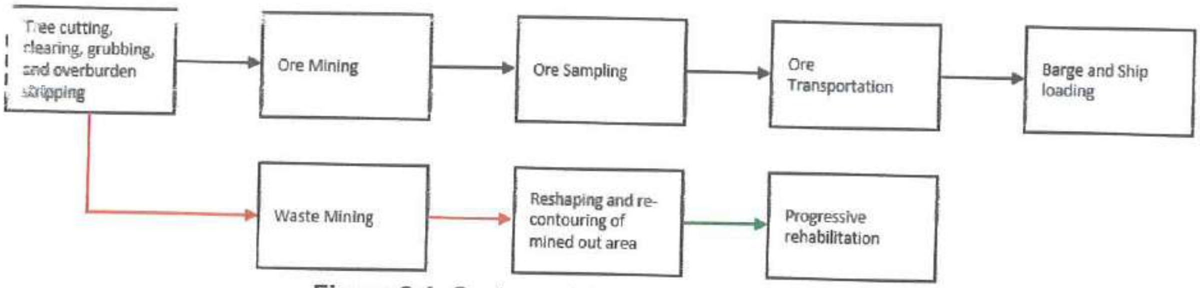


Figure 6-1. Contour mining process flow chart.

Figure 6-2. Backhoe removing and piling the logs after tree cutting activity.

Figure 6-3. Loading of removed topsoil.

Figure 6-4. Backhoe loading the ore into the 18-tonne capacity dump truck to be transported to the stockpile area.

Figure 6-5. Saprolite stockpiling at MMDC Stockyards in Bon-ot, Carrascal.

Figure 6-6. LCT loading at MMDC causeway in Bon-ot, Carrascal.

Figure 6-7. Reforestation of mined-out area (Pili mine area).

Figure 6-8. Maintenance activities on established temporary revegetation areas in Sipangpang.

Figure 6-9. Wedelia and Napier grass plantation in temporary inactive areas in Cabangahan.

7 REGIONAL AND DISTRICT GEOLOGY

7.1 Regional Geology

The basement rocks in the district are basalts and slabs of the Dinagat Ophiolite and metamorphic rocks of the Cretaceous Sohoton Greenschist. The ophiolite consists of amphibolite, peridotite, pyroxenite, gabbro and dunite. They are regionally serpentinized and can be found along the Malimono Ridge and along the Northern Pacific Cordillera. These rocks were dated Cretaceous to Paleocene.

Overlying the basement rocks are calcareous conglomerates of the Upper Eocene Madanlog Formation in Surigao, and its equivalent terrigenous and calcareous sediments of the Nadanog Formation in Agusan. These formations are in turn overlain by the late Oligocene to Early Miocene Bacuag Formation. The Bacuag Formation consists of basaltic flow and breccia, limestone, limestone conglomerate, wackes, siltstone and muddy limestone.

Intruding the Bacuag Formation and other older formations is the Asiga Diorite named after the river where most outcrops of the intrusive are observed. The Early to Late Miocene Alipao Andesite also intrudes the Bacuag Formation in the vicinities of Alipao and in the Siana mine pit. The Bacuag Formation is overlain by the Lower to Middle Miocene Mabuhay Formation. The Middle Miocene coralline Timamana Limestone unconformably overlies the Bacuag and Mabuhay Formations.

Andesitic pyroclastic eruption and lava flows formed the Tugunan Formation during the Pliocene. Associated magmatism brought about the epithermal mineralization of the Surigao District and produced the andesites referred to as the Andesite Group by Santos et.al. (1962) and as the Andesite Series by Santos-Ynigo (1944). These were separated by MGB (2010) into Early to Late Pleistocene Ipil Andesite, Late Pliocene Bad-as Dacite and the Pleistocene Maniayao Andesite. Pleistocene deposits in the region consist of the Mainit Formation, Hinatigan Formation and Placer Conglomerate, all of which are dominated by conglomerates and sandstones.

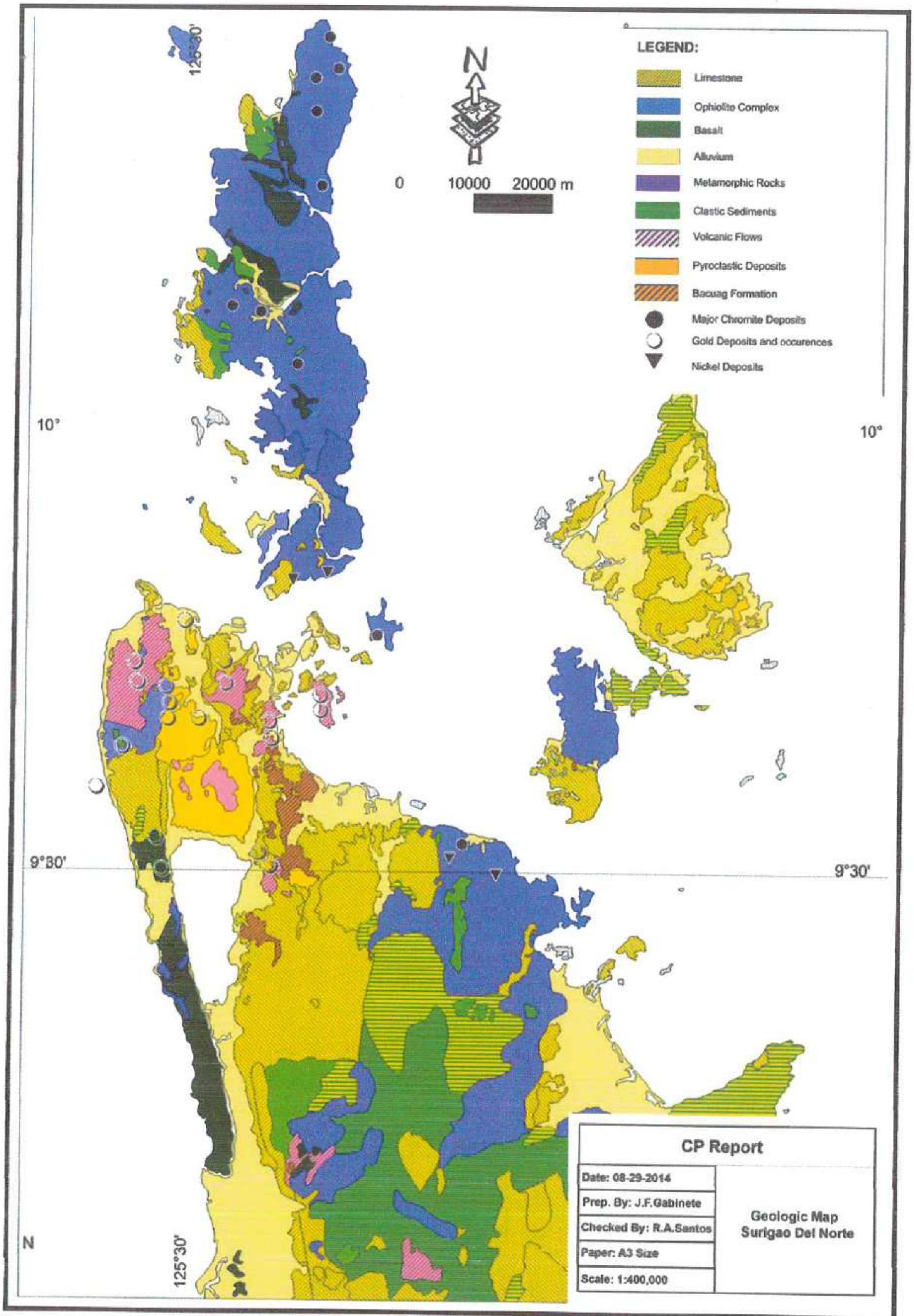


Figure 7-1. Regional geologic map of Surigao (Source: Santos, 2018)

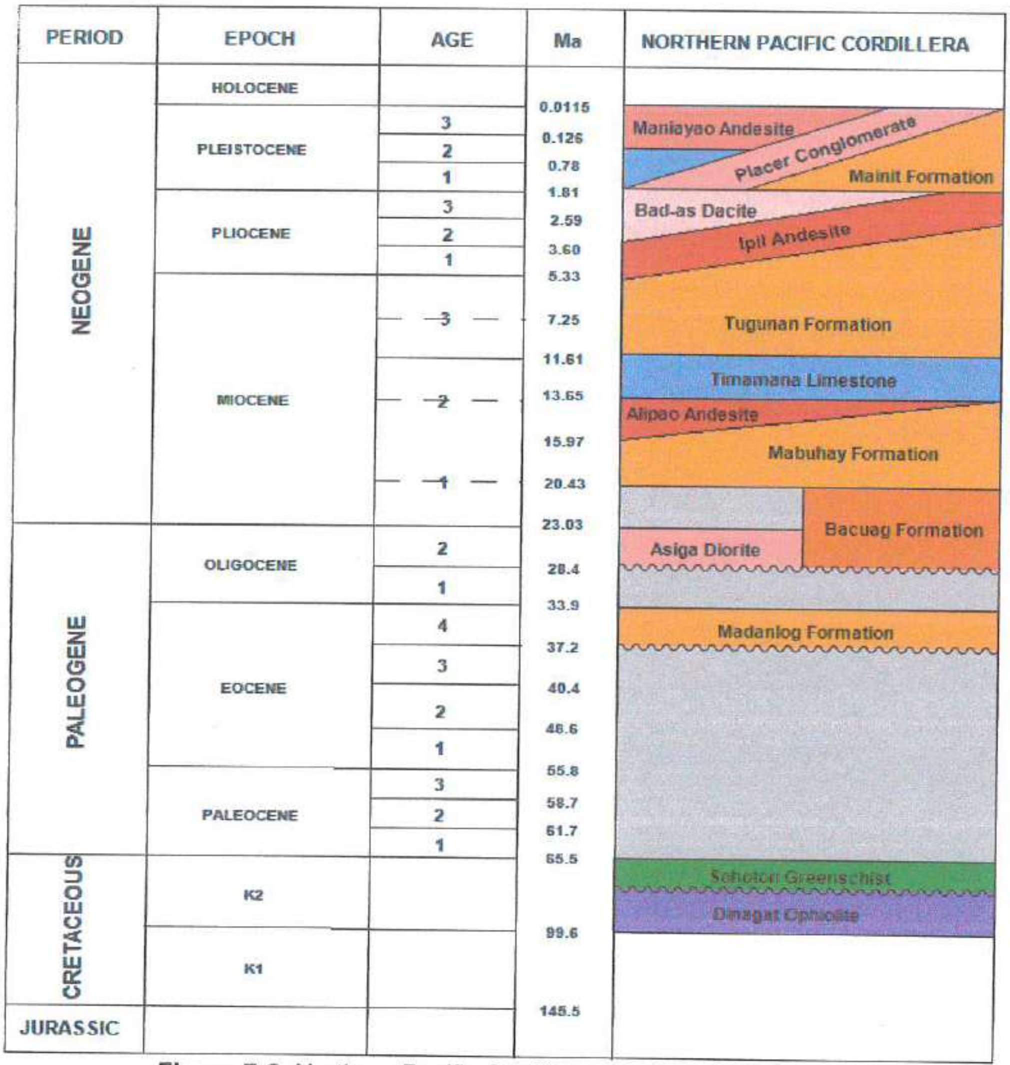


Figure 7-2. Northern Pacific Cordillera stratigraphic column.

7.2 Structural Geology

The principal tectonic element of the Philippine archipelago is the elongate Philippine Mobile Belt which is bound to the east and west by two major subduction zone systems and bisected along its north-south axis by the Philippine Fault.

The Philippine Fault and its associated faults play an important role in the mineralization of the Surigao District. The trace of the Philippine Fault in Surigao is marked by highly rectilinear NNW-SSE-trending Tubay Valley, Lake Mainit and Maniayao Volcano. These structures were formed by pull-apart mechanism associated with left-stepping left-lateral strike slip fault.

There is no indication however if the faults and folds observed in the area have significantly affected the laterite mineralization in the area. Minor effect of faulting would be the formation of cracks and fractures in the host ultramafic rocks that serve as conduit for water to seep through and as weak points for chemical weathering to start.

7.3 Mineralization location and general description

The nickel/iron deposits within the MMDC tenement area are in the form of laterite (limonite and saprolite) derived from the in-situ physical and chemical weathering of the underlying ultramafic rocks belonging to the Dinagat Ophiolite Complex.

Basically, laterites are residual soils that are rich in ferro-magnesian minerals, formed by chemical weathering with special ground-water conditions. Factors required for the development of nickel laterite include the following:

1. Parent rock with iron content – mafic and ultramafic rocks rich in ferromagnesian minerals are suitable for this. Among the ultramafic rocks, dunites and high-olivine peridotites are more likely to yield higher concentrations of nickel than pyroxenites and hornblendites.

2. Temperature – tropical climates where temperatures are generally higher than 20°C are ideal for laterite development. Most laterite deposits in the work occur either in present-day warm tropical environments or where presence of warm temperatures can be deduced during their time of formation.

3. High rainfall – rainfall is required to initiate chemical weathering and to remove dissolved solids in ground water. Varying amount of rainfall results to different types of lateritic soils. Less rainfall will cause poor "flushing" of soils in wet-dry climate wherein magnesia and silica in the form of smectite/nontronite clays are retained. On the other hand, the constant "flushing" of magnesia and silica in humid climate prevents formation of clays.

4. Slightly acidic waters – mineral solubility increases in water with lower pH levels than normal making slightly acidic water suitable in hastening the process of chemical weathering. This type of water is available in wet tropical climate through natural acid rain and through humic acid produced by decaying vegetation on the forest floor.

5. Strongly oxidizing environment – oxygen in the environment allows the conversion of divalent iron and divalent manganese to highly insoluble trivalent iron and trivalent and tetravalent manganese. The insolubility of these elements in this form causes residual concentrations.

6. Gentle topography – for the preservation of recently formed laterite, it is important that the topography must not be very steep nor extremely flat. Very steep land surfaces will lead to constant erosion of lateritic soil while extremely flat topography does not favor development of laterite soil due to poor "flushing". Ideal topography for laterite formation is gently to moderately rolling terrain and plateaus.

7. Adequate time – the estimated duration to produce mature laterite with significant thickness and grade is about a few million years.

Limonite is the accumulation of the residual product of the upper oxidizing zone in the weathering profile. It is essentially made up of clay and other oxide minerals rich in iron. The lower reducing zone directly underlying the limonite is the saprolite, a secondary nickel-enriched zone made up of rocks and clay in silicate form. Laterites are surface and near surface deposits localized by topographic controls and favorable geologic structures.

The MMDC tenement comprises of three (3) laterite-covered areas, namely: Cabangahan, Sipangpang and Pili.

The typical laterite deposit in Cabangahan shows distinct color variation with depth: 1) a pale yellowish and light brown upper to near surface limonite, 2) a middle section of yellowish limonite and saprolite transition, and 3) a multi-colored bottom section of saprolite just before the fresh bedrock. The color described is the gross effect of several colors as viewed in its totality.

However, a closer examination of the laterite would reveal various shades of red, brown, orange, yellow and gray. They appear as alternating bands, streaks, oolites, lenses and mottled colors. Occasional chromite, magnetite and manganese specks are noted.

The laterite profile in Pili area consists mainly of limonite ore surrounded by nearly ubiquitous horizon of ferruginous concretions. Saprolite zone occurs as soft, foliated, earthy aggregates with no marketable ore grade content. Sipangpang has almost the same characteristics as Pili, such that it also lacks underlying high nickel saprolite in its laterite profile.

8 MINERAL PROPERTY GEOLOGY

8.1 Geological work undertaken by the company in the property

Geologic mapping was conducted by geologists from MMDC Exploration Group in 2014. The activity included creek and road mapping. Outcrop sampling was done where necessary and hand specimens were collected for further reference.

Before the 2018 mining season, a more detailed geologic mapping was conducted along creeks surrounding the Cabangahan mine area. Lithologic units were identified, and structure trends were recorded for reference. Grid mapping within the Cabangahan mine area was also conducted to delineate the extent of remaining limonite and saprolite material in the mine area. Results of the grid mapping were utilized in updating the Cabangahan database as well as for the preparation of level plans.

Upon cessation of mining activities in Sipangpang in June 2018, grid mapping was also conducted within its mine area to delineate extent of remaining limonite ore. Results of the grid mapping activity were used as basis in updating the Sipangpang database.

At present, routine grid mapping is done within active mine areas to update the in-pit geologic map which is provided to the Mine Planning Team to serve as guide in the mine production.

8.2 Rock types and their geological relationship

Based on the 2014 mapping, the MMDC tenement is covered by lateritic deposit derived from the in-situ physical and chemical weathering of the underlying ultramafic rocks. The geology of the project area could be described based on the five major rock units found in the area, namely: Quaternary Alluvium, Timamana Limestone, Alipao Andesite, Sohoton Greenschist and Dinagat Ophiolite Complex (Figure 8-1).

Dinagat Ophiolite Complex

The Dinagat Ophiolite Complex is composed of amphibolite, residual peridotite, cumulate peridotite, massive layered gabbro, sheeted dike complex and pillow basalts dated Cretaceous in age.

Serpentinized peridotite, pyroxenite and dunite are exposed along road cuts in Barangay Panikian and Barangay Cabangahan. Fresh rock samples are greenish black to black in color. Dunite is predominantly composed of olive-green grains of olivine. Pyroxene occurs as fine to coarse black crystals in peridotite and pyroxenite. During the creek mapping in Cabangahan, pyroxenite were observed to be intertonguing with dunite in some portion.

Sohoton Greenschist

The Sohoton Greenschist is composed of greenschist, phyllite and low-grade metamorphic sedimentary and volcanic rocks with marble interbeds. Phyllite and low-grade metamorphic rocks are distributed over the northwestern part of the tenement area, majority of which is located west of Pili area.

Alipao Andesite

The Alipao Andesite intrudes all older units and is assigned to a Middle Miocene age by the UNDP (1987). Outcrops were found west of Sipangpang area with some minor outcrop in the northwestern part of Cabangahan area.

Rock samples exhibit gray to greenish color with no observed manifestation of having undergone metamorphism. Texture is aphanitic to porphyritic with long amphibole phenocrysts in fine-grained matrix.

Timamana Limestone

Residual hills at the eastern peripheries of the project area are underlain by the thick Middle Miocene Timamana Limestone. It is composed of massive coralline limestone and may contain oolites, coral and shell fragments. The limestone unit caps the ultramafic unit with outcrops found in Sitio Pili, Barangay Panikian. This is located east of the Pili mine area.

Outcrops are generally cream to gray in color. Hand samples are also cream to gray color and composed of sand- to mud-sized calcareous sediments.

Quaternary Alluvium

This unit is made up of unconsolidated sand and gravel deposited by fluvial system along the valley floors. The alluvial materials consist of a mixture of all rock types eroded where the river system passes through. This unit can be observed along the flood plain of Carac-an River which is located between the Cabangahan and Sipangpang mine areas.

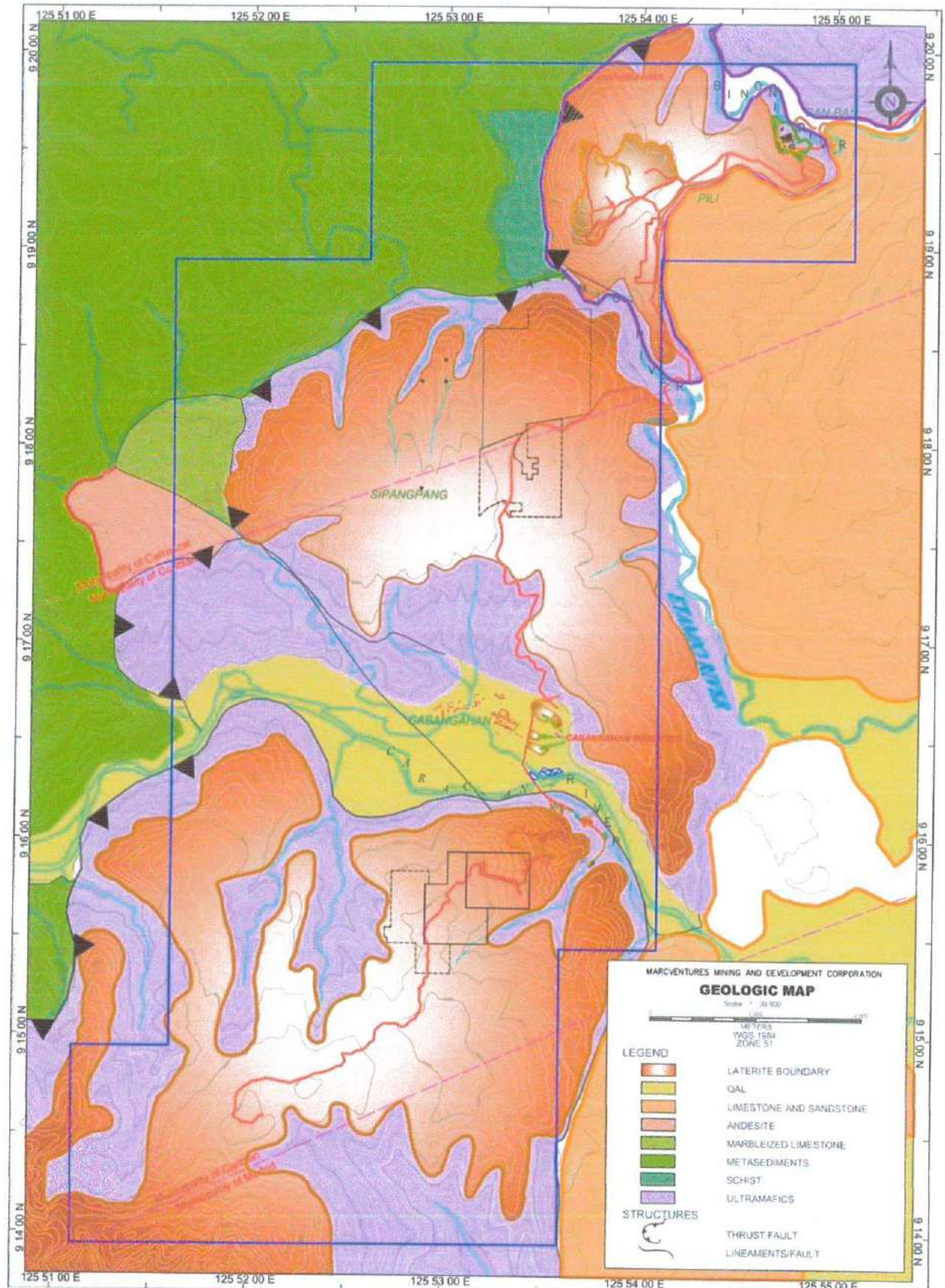


Figure 8-1. Geologic map of MMDC tenement area.

8.3 Description of various geological structures and their trends

The contact between the Dinagat Ophiolite and the Sohoton Greenschist is interpreted as a thrust which trend northeast-southwest. Minor northwest-southeast lineaments were also observed within the tenement. One of these lineaments follow the trend of Alamio River while another one is located within the Sipangpang area where the Alipao Andesite is inferred.

9 MINERALIZATION IN THE PROPERTY

9.1 Overview of the mineralization

Nickel-iron deposits in the MMDC tenement area are in the form of laterite derived from the in-situ physical and chemical weathering of the underlying ultramafic rocks. The laterite profile within MMDC can be divided into limonite and saprolite. The limonite zone is the accumulation of the residual product of the upper oxidizing zone in the weathering profile. It is essentially made up of clay and other oxide minerals rich in iron. The lower reducing zone underlying the limonite is the saprolite, a secondary nickel enriched zone made up of rocks and clay in silicate form. They are surface and near surface deposits localized by topographic controls and, at times, geologic structures.

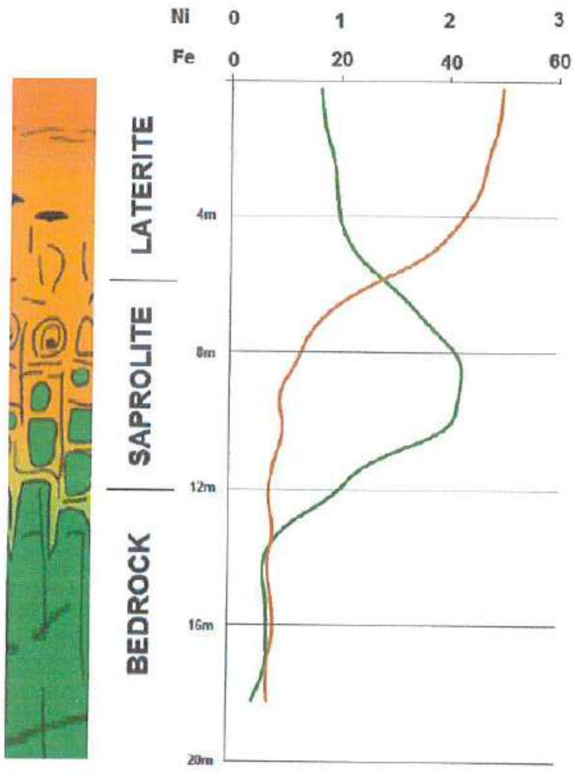


Figure 9-1. Complete laterite profile with graph of nickel (green) and iron (brown) values of a drill hole in Cabangahan mine area.

9.2 Laterite profile

The laterite within MMDC tenement area can be divided geologically into two distinct areas:

1. A Northern Area characterized by well-developed limonite and absence (thin) of economical saprolite. This type of laterite can be observed in the Pili and Sipangpang mine areas (Fig. 9-2).

The Pili laterite is characterized by thick high-iron limonite which contains relatively high nickel. It was usual to encounter limonite in Pili with 0.9 to 1.0% Ni and 49 to 51% Fe. Thickness of ore-grade limonite in Pili ranged from 8 up to 12 m.

The laterite in Sipangpang is similar to that in Pili such that the limonite zone is well-developed but with uneconomical and very thin saprolite. The limonite in Sipangpang has high iron content (usually 49 to 50% Fe) but with lower nickel (0.6 to 0.75% Ni) compared to that in Pili. Sipangpang limonite is also thinner and ranges only from 4 to 8 m.

Figure 9-2. Pili laterite profile.

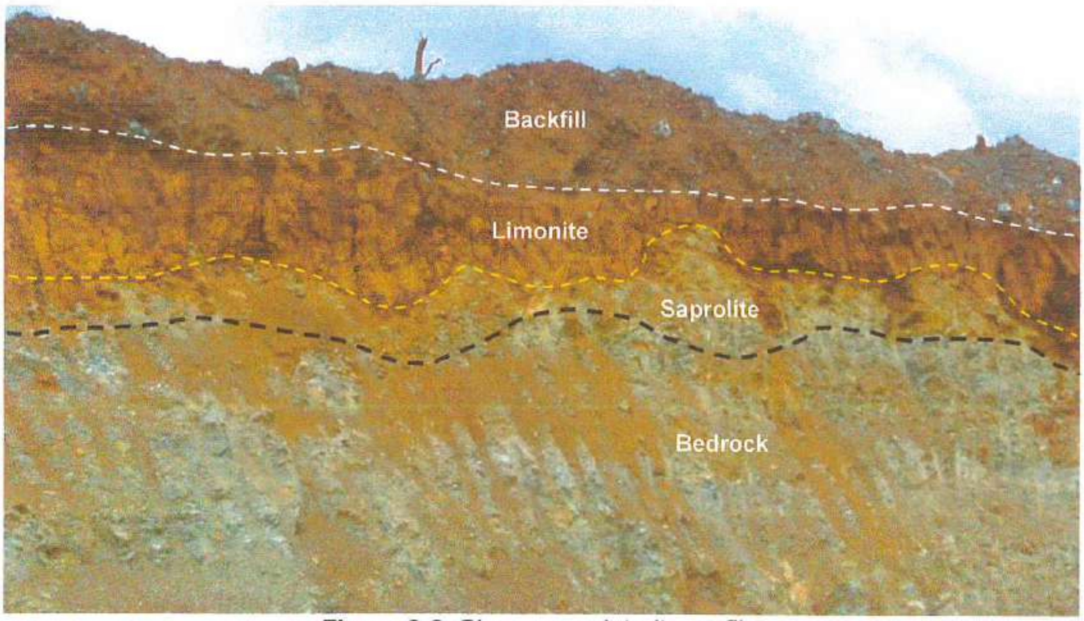


Figure 9-3. Sipangpang laterite profile.

2. A Southern Area characterized by complete laterite profile. This is exhibited in Cabangahan area wherein the laterite has limonite and well-developed saprolite overlying the bedrock (Fig. 9-4). Comparing the Cabangahan limonite to the limonite in the Northern Area, its iron is relatively lower averaging 48% with some highs of up to 49 to 50% but with higher nickel content at 0.8 to 1.0% Ni. Nickel grades of Cabangahan saprolite may range from 1.3 to up to 2.0%. However, majority of the saprolite belongs to the "mid-grade" type containing 1.4 to 1.5% Ni.

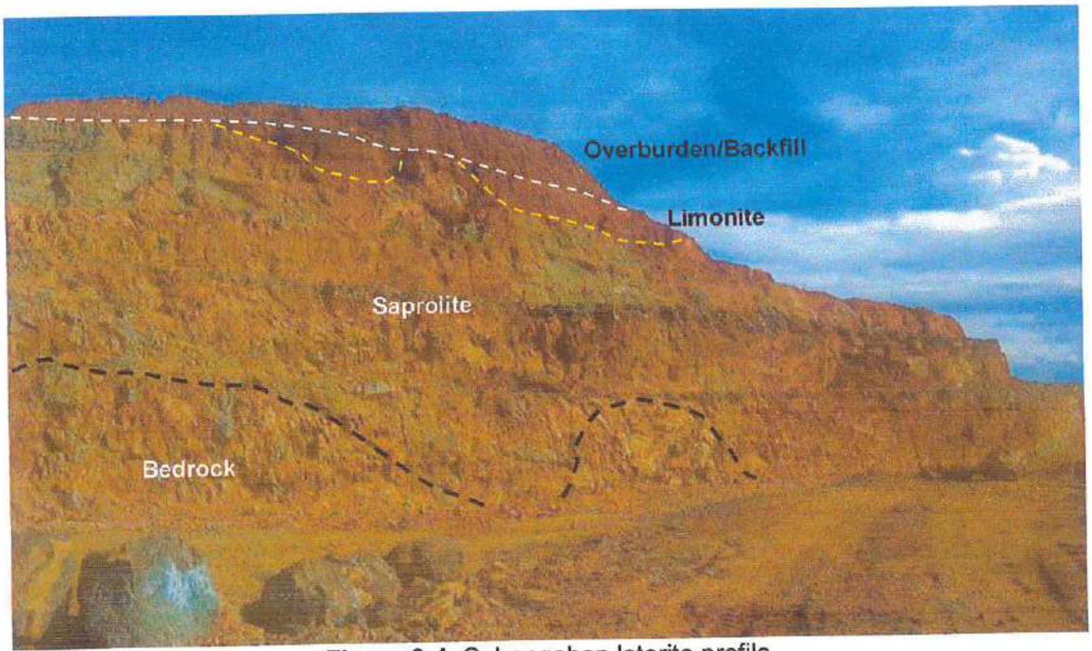


Figure 9-4. Cabangahan laterite profile.

9.3 Laterite mineralogy

CP Arcilla in his 2010 CP Report (revised 2009 CP Report) presented X-ray Diffraction (XRD) analysis results of four samples taken from the tenement area: 1) a sample with highest Ni value during sample collection (KDH61-5-6), 2) a sample recovered from the greatest core depth (B2YDH68-18-19), 3) sample taken from a mixed limonite-saprolite layer (YDH70-1-2), and 4) sample taken from a ferrous overburden (KDH61-0-1). Table 9-1 summarizes the results of the XRD analysis.

As indicated in the XRD results, goethite and serpentine are the primary nickel-carrying minerals. Pimelite, a nickel-bearing smectite, is present in all the samples except for the overburden/limonite sample.

Table 9-1. MMDC laterite mineralogy.

Sample ID	Material type	goethite	halloysite	hematite	magnetite	pimelite	quartz	serpentine
KDH61-5-6	saprolite	√		√	√	√	√	√
B2YDH68-18-19	weathered bedrock	√	√	√	√	√		dominant
YDH70-1-2	Transition/ earthy saprolite	√	√	√	√	√		dominant
KDH61-0-1	overburden/ limonite	√	√	√	√			

In the 2012 CP Technical Report of CP Arcilla, it was mentioned that garnierite veins were noted at several locations within the tenement area, particularly along road cuts. This was also observed by the undersigned during a field work. These materials are easily recognized by their conspicuously bright blue-green color, waxy texture and their tendency to occur as fillings in fractures. Most notable is a garnierite vein located along a road cut going to Pili mine area. The garnierite vein is one-meter thick and when assayed yielded 23% Ni. XRD analysis of the sample showed that it is composed primarily of serpentine (magnesium-phyllosilicate).

9.4 Element grade levels and patterns

Nickel and iron grade distribution in Figure 9-5 shows that Cabangahan Area contains the most saprolite samples among the three areas. This is manifested by higher number of iron values around 5 to 15 percent in the distribution graph than at around 45 to 55 percent. Likewise, abundance of nickel values from 1.5 to 3 percent also denote high number of saprolite samples. The iron grade distribution shows the typical trend observed for most laterite deposits in the country. However, trend of nickel grade distribution observed so far in other laterite deposits in the country show normal or bell-shaped distribution with the peak at around 1 percent. In the Cabangahan Ni distribution graph, there is an unusual peak at low nickel values between 0.2 to 0.5 percent. This does not indicate predominant low grades in the area, but instead indicates an unusually high number of bedrock samples drilled.

The nickel grade distribution of Pili (Figure 9-6) and Sipangpang (Figure 9-7) shows similar trend such that both are skewed to the right or the peaks are at the lower nickel grades. Pili nickel histogram peaks at 0.7 to 0.9 percent while for Sipangpang at 0.6 to 0.8 percent. There is also notable decrease in the number of samples from 1.2 percent nickel which indicates that there is no significant high nickel saprolite in these areas. This is also exhibited in the iron grade distribution of Pili (Figure 9-6) and Sipangpang (Figure 9-7) wherein both has higher peaks at the higher iron grades indicating abundance of limonite material in these areas.

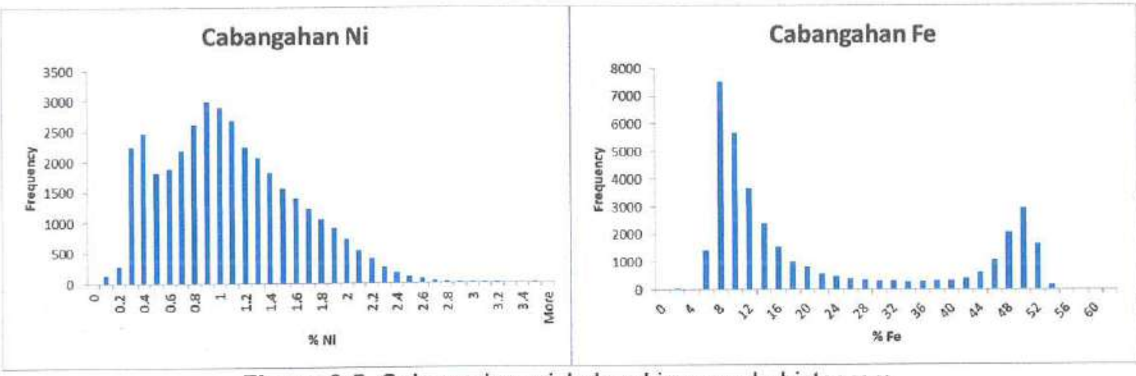


Figure 9-5. Cabangahan nickel and iron grade histogram.

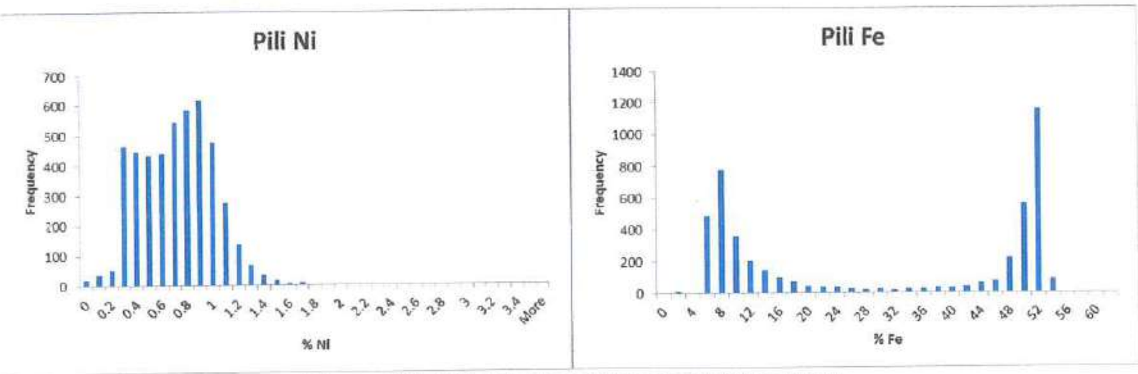


Figure 9-6. Pili nickel and iron grade histogram.

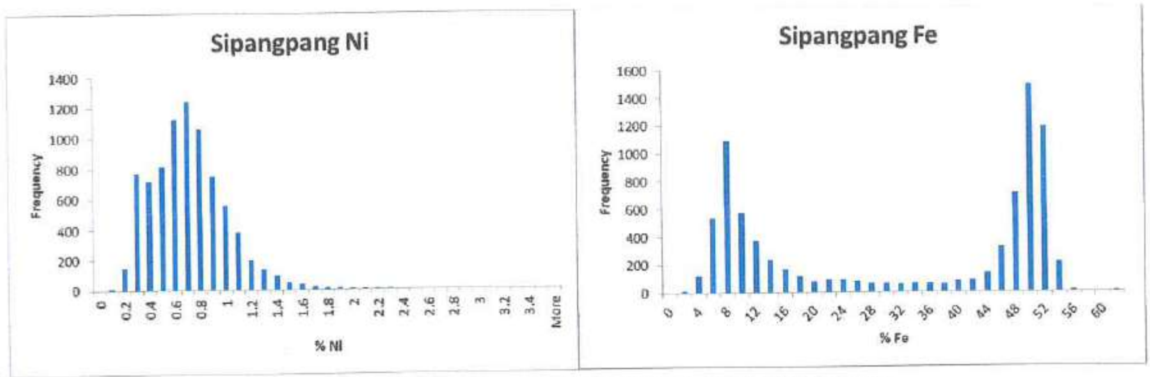


Figure 9-7. Sipangpang nickel and iron grade histogram.

10 EXPLORATION

MMDC Resource Development and Exploration Department follows a set of Standard Operating Procedures (SOPs) which is the guide and go-to manual in implementing the exploration program of the company.

10.1 Geological work

10.1.1 Geologic Mapping

Regional geologic mapping activity was conducted within MMDC and BRC tenement areas by the Exploration Team headed by Sr. Geologist Herbert T. Villano on June 2014. The objective of the activity is to identify the lithology and structures within the area, provide additional geologic information and to produce a district geologic map for MMDC and BRC.

Review of previous geologic reports, interpretation of topographic maps and satellite images, and geobotany were conducted prior to the start of field mapping activity.

Lithology was verified through actual field mapping wherein outcrops and structures were mapped and marked using Global Positioning System (GPS) device. Brunton compass was used to read attitude of structures and beds while hand lens and other field equipment was used for the megascopic identification of minerals in hand specimens.

Based on the result of the geologic mapping, nine (9) lithologic units were observed and delineated along the vicinity of the tenement area: 1) Residual laterite which extensively covers the majority of the tenement area, 2) Quaternary Alluvium covering the flood plains of Carac-an river, 3) Limestone and sandstone mostly concentrated along the northeastern portion of the tenement area, 4) Volcaniclastic andesite (?), 5) Diorite, 6) Marbleized Limestone and 7) Metasediments along the western portion of the tenement area, 8) Schist, of minor occurrence, along the southwest portion of Pili mining area and, 9) Ultramafic rocks composed of serpentinized peridotite and pyroxenite which underlies majority of the tenement area.

10.1.2 Stream Mapping

The MMDC Exploration Team composed of six geologists conducted stream mapping from February 8, 2018 to March 28, 2018 along the major streams that drain the Cabangahan area. It aims to collect a substantial amount of data from outcrops and structures in detail in order to set a standard lithology, especially in relation to the host rock, of the area.

Three (3) streams, namely: the 1) Maitom Creek, 2) Anibongan Creek and 3) Opakon Creek, were simultaneously mapped from February 8-10, 2018 by dividing the fieldwork party into three (3) groups. Subsequently, the remaining creek, 4) Mapula Creek, was mapped on March 28, 2018.

A total of forty-two (42) outcrops were distinguished from the four (4) streams wherein massive outcrops of densely fractured serpentinized peridotite predominates.

Structures such as shear zones were also common, but majority of the outcrops exhibits irregular fracturing with no preferred orientation

Exception to this is the contact noted between massive limestone overlying ultramafic peridotite which was observed downstream of Anibongan Creek.

10.1.3 In-pit Grid Mapping

Grid mapping activity was progressively conducted along the active mining area and disturbed portions of Cabangahan and Sipangpang. This is in order to generate a reliable detailed geologic map of the aforementioned areas which will aide in the updating of the remaining mineral resource.

Topographic base maps in WGS 84 coordinate system was generated wherein base line and equidistant picket lines composed of twenty (20) meter interval observation points were pre-determined. Simultaneously, drone photo of the entire subject area is taken in which the observation points are plotted.

Drone photo analysis was conducted prior to the start of the actual field mapping by means of photo mapping units (PMU) which aides in the interpretation and pre-delineation of rock or material units.

Actual field mapping for each picket line was then carried out by locating pre-entered observation points using a GPS device. Detailed information and photo documentation of the outcrops observed from individual observation points were taken using various field equipment such as brunton compass, fiber tape, laser range finder, etc. and aforementioned data was then recorded in the standard Field Data Sheet (FDS).

10.2 Topographic Survey

Collar survey was conducted by MMDC in-house Survey Team using Topcon Total Station and Real Time Kinematics (RTK) survey equipment with PRS 92 as the reference system. Surveyed proposed drill hole locations were marked with stake and flagging tape and the hole properly identified with Block ID, Drill Hole No., local northing and easting and collar elevation.

10.3 Drilling and Sampling

Figure 10-1 presents the general flow of process being followed by the Resource Development and Exploration Team in conducting drilling and sampling activities.

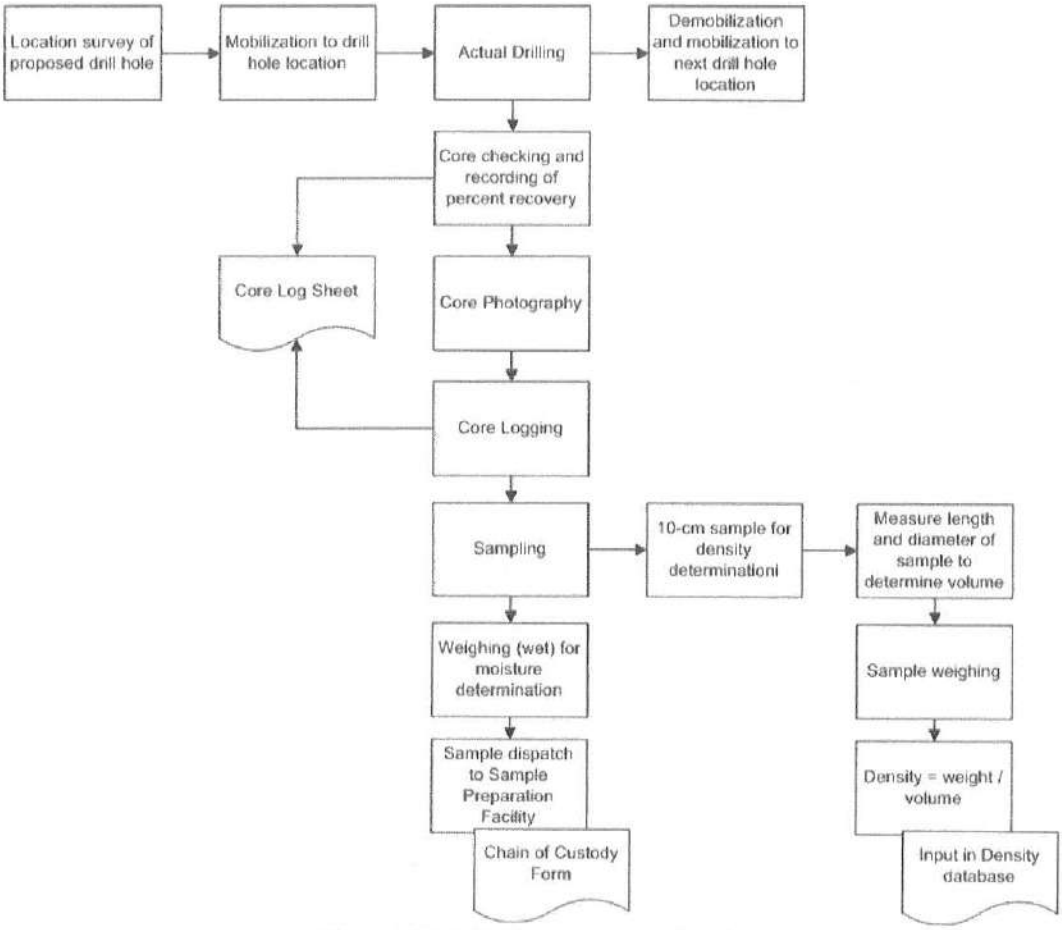


Figure 10-1. Drilling and sampling flow chart.

10.3.1 Type of drilling machine

MMDC owns 17 units of YHP-model drill machines since 2014. For the 2021 drilling campaign, the team utilized seven (7) units of YHP-model drill machines in its in-fill drilling operation in Cabangahan area. The drill rigs are powered by 8HP Robin engines and utilizes NQ size single tube core barrel.

The drilling crew moves its assigned drill rig to a designated surveyed drill hole location and commences drilling (Figure 10-2 and Figure 10-3). The drilling supervisor monitors the drilling activities and records the drill run, core length and percent recoveries which are recorded in the standard Drill Hole Data Sheet.

Figure 10-2. Mobilization of drill unit to drill site.

Figure 10-3. MMDC in-house drilling

10.3.2 Drill site spacing, depth of drilling

For 2021, a total of 498 drill holes was targeted to be drilled with a total of 4,980 meters aggregate depth at 10 meters average depth per drill hole (Tab. 10-1). The objective of which is to upgrade Inferred Resources to Measured Resources. Drilling operations started in April 2021 and was completed on October 31, 2021. Figure 10-4 shows the location of the drill holes completed during the 2021 development drilling campaign as well as drill holes completed prior to 2021.

Table 10-1. 2021 MMDC drilling accomplishment.

	Cabangahan		Sipangpang		TOTAL	
	Target	Actual	Target	Actual	Target	Actual
No. of holes	393	286	105	77	**498**	**363**
Total depth (m.)	3,930.00	3,565.86	1,050.00	848.28	**4,980.00**	**4,414.14**
No. of samples	3,930	3,604	1,050	826	**4,980**	**4,430**
Ave. depth per hole (m.)	10.00	12.47	10.00	11.02	**10.00**	**12.16**

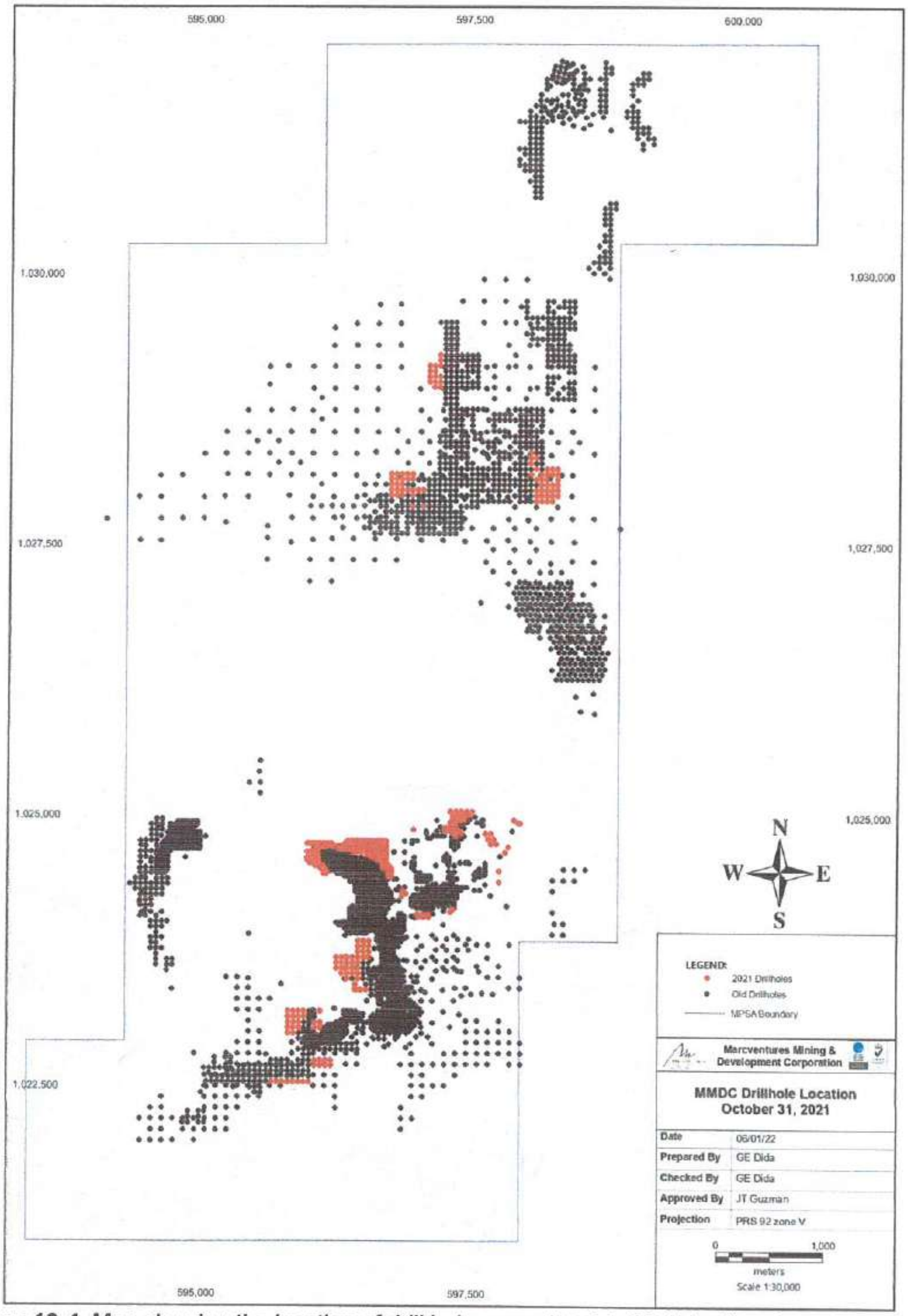


Figure 10-4. Map showing the location of drill holes completed in 2021 (red) and previous years (black).

The development drilling in Cabangahan commenced on April 15, 2021 utilizing seven (7) YBM drill units. This is equivalent to 3,565.86 meters total depth drilled in the area which is 89% of the targeted 3,930.00 meters target depth. The drilling activity was concentrated within Blocks G16, H16, I16, J16, H17, G18, H18, G19, and H19 covering approximately 54.0 hectares.

On July 15, 2021, development drilling in Sipangpang started by using three (3) YBM drill units pulled out from the drilling activity in Cabangahan. A total of 77 drill holes at 848.28 meters were drilled upon the completion of the drilling operation in October 31, 2021. The activity is mostly concentrated within the Blocks H9, H10, I6, I7, I9, K9 and K10, covering approximately 26 hectares.

10.3.3 Core photography

Core photography was done for digital archiving of the drill cores (Figure 10-5). The photos will serve as reference to validate/correlate with results of laboratory analyses when needed in the future.

Figure 10-5. Sample core photograph.

10.3.4 Specific gravity determination

In every drill hole, a 10-cm solid core sample is taken from each lithology: limonite, earthy saprolite, rocky saprolite and bedrock for density determination (Figure 10-6). Samples are wrapped using cling wrap and labeled with the hole id, elevation, drill run, lithology and top and bottom indicators.

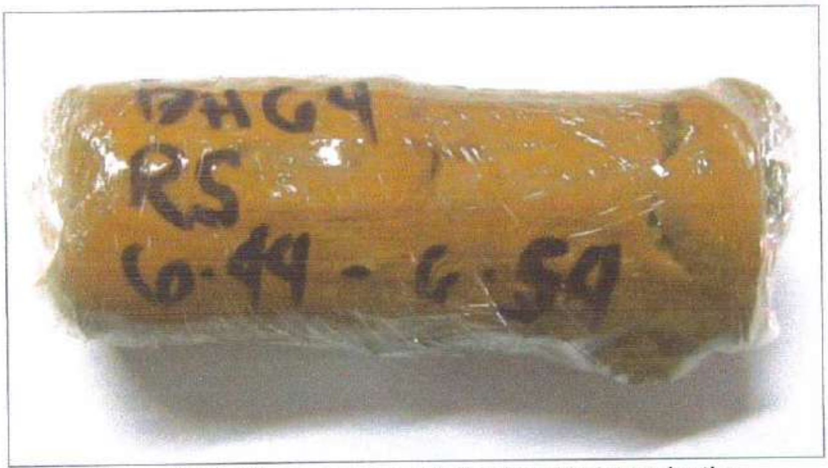


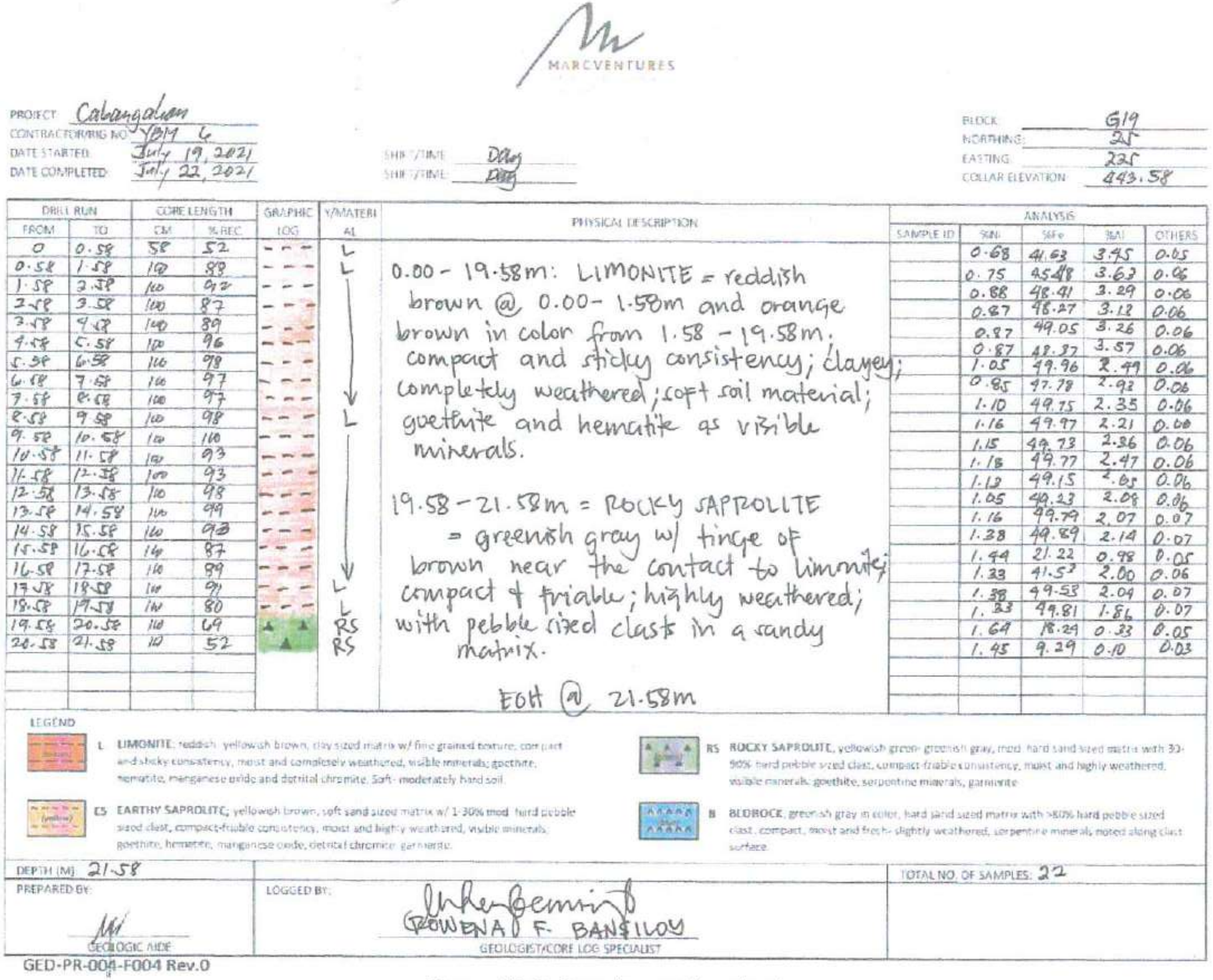
Figure 10-6. 10-cm core sample for density determination.

Average core length and diameter are measured using a caliper to determine the volume of the sample. It is then submitted to the assay laboratory for digital weighing of wet sample. The weight of the wet sample divided by the volume is the wet density of the sample. The sample is then subjected to oven drying before obtaining individual dry weight which is used to compute for the dry density of the sample.

10.3.5 Core logging

Core recovery is re-checked by an experienced geologic aide on site. Percent recovery is recorded in the Core Log Sheet form (Figure 10-8). Core sample will then be graphically logged by the site geologist describing the physical characteristics observed such as but not limited to; color, texture, matrix size, clast to matrix percentage, consistency, weathering, visible minerals present and geotechnical properties.

Figure 10-7. Core checking and logging done in the field.



MARCVENTURES

PROJECT: Cabangalian
CONTRACTOR/RIG NO: YBM 6
DATE STARTED: July 19, 2021
DATE COMPLETED: July 22, 2021
SHIFT/TIME: Day
SHIFT/TIME: Day

BLOCK: G19
NORTHING: 25
EASTING: 225
COLLAR ELEVATION: 443.58

DRILL RUN FROM	TO	CORE LENGTH CM	% REC	GRAPHIC LOG	Y/MATERIAL	SAMPLE ID	%Ni	%Fe	%Al	OTHERS
0	0.58	58	52		L		0.68	41.63	3.45	0.05
0.58	1.58	100	88		L		0.75	45.48	3.63	0.06
1.58	2.58	100	92				0.88	48.41	3.29	0.06
2.58	3.58	100	87				0.87	48.27	3.12	0.06
3.58	4.58	100	89				0.87	49.05	3.26	0.06
4.58	5.58	100	96				0.87	48.87	3.57	0.06
5.58	6.58	100	98				1.05	49.96	2.49	0.06
6.58	7.58	100	97				0.85	47.78	2.92	0.06
7.58	8.58	100	97				1.10	49.75	2.35	0.06
8.58	9.58	100	98		L		1.16	49.97	2.21	0.06
9.58	10.58	100	100				1.15	49.73	2.36	0.06
10.58	11.58	100	93				1.18	49.77	2.47	0.06
11.58	12.58	100	93				1.12	49.15	2.05	0.06
12.58	13.58	100	98				1.05	49.23	2.08	0.06
13.58	14.58	100	99				1.16	49.79	2.07	0.07
14.58	15.58	100	98				1.38	49.89	2.14	0.07
15.58	16.58	100	87				1.44	21.22	0.98	0.05
16.58	17.58	100	89				1.33	41.53	2.00	0.06
17.58	18.58	100	91		L		1.38	49.53	2.04	0.07
18.58	19.58	100	80		L		1.33	49.81	1.86	0.07
19.58	20.58	100	69		RS		1.69	18.29	0.33	0.05
20.58	21.58	100	52		RS		1.45	9.29	0.10	0.03

PHYSICAL DESCRIPTION:

0.00 - 19.58m: LIMONITE = reddish brown @ 0.00 - 1.58m and orange brown in color from 1.58 - 19.58m. compact and sticky consistency; clayey; completely weathered; soft soil material; goethite and hematite as visible minerals.

19.58 - 21.58m = ROCKY SAPROLITE = greenish gray w/ tinge of brown near the contact to limonite; compact & friable; highly weathered; with pebble sized clast in a sandy matrix.

EOH @ 21.58m

LEGEND

L LIMONITE: reddish- yellowish brown, clay sized matrix w/ fine grained texture; compact and sticky consistency, moist and completely weathered, visible minerals; goethite, hematite, manganese oxide and detrital chromite. Soft- moderately hard soil.

ES EARTHY SAPROLITE; yellowish brown, soft sand sized matrix w/ 1-30% mod. hard pebble sized clast, compact-friable consistency, moist and highly weathered, visible minerals; goethite, hematite, manganese oxide, detrital chromite, garnierite.

RS ROCKY SAPROLITE, yellowish green- greenish gray, mod. hard sand sized matrix with 30-90% hard pebble sized clast, compact-friable consistency, moist and highly weathered, visible minerals: goethite, serpentine minerals, garnierite

B BEDROCK, greenish gray in color, hard sand sized matrix with >80% hard pebble sized clast, compact, moist and fresh- slightly weathered, serpentine minerals noted along clast surface.

DEPTH (M): 21.58
TOTAL NO. OF SAMPLES: 22

PREPARED BY: GEOLOGIC AIDE
LOGGED BY: ROWENA F. BANSILOY, GEOLOGIST/CORE LOG SPECIALIST

GED-PR-004-F004 Rev.0

Figure 10-8. Sample core log sheet.

10.3.6 Moisture determination

After logging, core sampling is done at a nominal interval of one (1) meter down the hole regardless of laterite horizon boundaries. Samples are weighed individually using analog weighing scale as part of the moisture analysis procedure before it is placed in a properly labelled plastic sample bag (Figure 10-9).

Figure 10-9. Core sampling.

Samples are collectively placed in an empty sack labeled with the corresponding hole ID before it is delivered at MMDC's Sample Preparation Facility located at Sitio Banban, Barangay Panikian. After drying at the Sample Preparation Facility, sample is weighed to get the dry weight. This is then used to determine the moisture of the sample by using the formula:

$$\% \text{ Moisture} = \frac{\text{Wet Weight} - \text{Dry Weight}}{\text{Wet Weight}} \times 100$$

10.4 Sample Preparation, Analyses and Security

Drill samples together with a Chain of Custody (COC) form are delivered to MMDC's Sample Preparation Facility located at Sitio Banban, Barangay Panikian. This is located adjacent to the in-house Assay Laboratory of the company.

10.4.1 Security and Chain of Custody of Samples

All sample deliveries are covered by a Chain of Custody Form containing the following information:

1. Date/Time submitted
2. Date/Time received
3. Sample description
4. Element(s) for analysis

5. Method of analysis
6. Disposal/storage instructions
7. Name of person submitting the sample
8. Name of person receiving the sample
9. Total number of samples

10.4.2 Sample Preparation Facility

Sample preparation is housed in a separate building from assaying which is located around 10 to 12 m from the assay lab. The distance is considered safe from vibration and potential dust accumulation coming from sample preparation. The facility has the following equipment:

1. Primary Jaw Crusher – 2 units
2. Secondary Jaw Crusher – 2 units
3. Pulverizers (bowl) – 2 units
4. Pulverizers (disk) – 2 units
5. Air compressor (moisture-free) – 1 unit
6. Drying oven (walk-in) – 2 units
7. Drying oven (<1.0 cu.m.) – 5 units
8. Top loading scales – 2 units

Figure 10-10. Electric oven for sample drying.

Figure 10-11. Primary jaw crusher, secondary jaw crusher and pulverizer.

10.4.3 Sample Preparation

In case of discrepancy or lack of information during sample receipt, concerned department is immediately informed and corrective actions are done before any batch is processed. When sample receipt procedures are done and found to be in order, samples are transferred to clean sample pans and arranged for drying. The sequence and arrangement are noted, and this will be followed until processing is completed. Samples are dried in the oven for 18 hours at about 105°C.

Samples are weighed after drying. Weights are also reported to the Exploration Team for moisture determination.

The dried samples undergo stage crushing until all materials pass 10 mm screen. Volume is then reduced to roughly 500 grams using a riffle (Jones) splitter with ½ in opening. For exploration, the remaining sample after the 200 to 250 g split is put back to its original container and returned to the Exploration Department for storage.

Split samples are pulverized to at least 90% passing 200 mesh using the bowl pulverizer as this is sealed and have very small chance of cross-contamination. For samples that have high clay materials, the disk pulverizer is used since clay has tendency to granulate.

Figure 10-12 presents sample preparation flow chart.

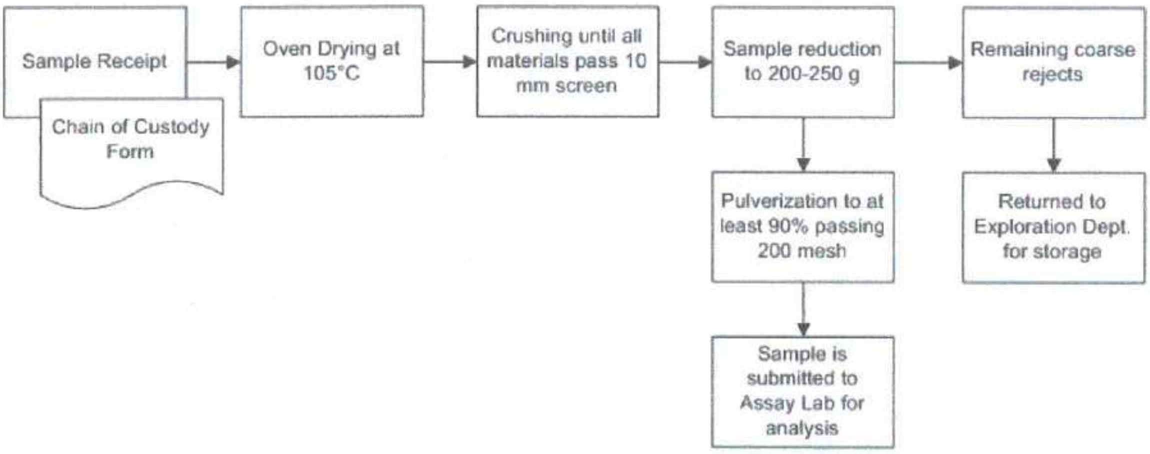


Figure 10-12. Sample preparation flow chart.

10.4.4 Analytical Methods

Marketable metals Ni and Fe are analyzed using pressed pellet followed by XRF scanning. Pulverized samples are are oven-dried for at least 3 hours and allowed to cool at the desiccator to ensure this is free from moisture. Enough weight of the sample are then mixed with a binder (wax) and pressed via in a mould and die at 15 tons pressure. The pellet is cleaned, dried and placed in a desiccator to ensure this is free from moisture. Together with a Certified Reference Material (CRM), the sample is subjected to scanning. If multi-element is required by end-user, then this is included in the scanning.

Figure 10-13. Hydraulic press for sample pelletizing.

The current XRF-ED (Schimadzu brand) has 12 slots feeder. For every batch, two are CRM and 10 are actual samples. The choice of CRMs should be as close as the range of results for each batch.

Figure 10-14. XRF-EDS Shimadzu brand with computer unit.

Results are collated and reviewed by the QA/QC Supervisor before posting in the shared folders for easy access to end-users. Flow chart for sample analysis, from pelletization to XRF analysis is presented in Figure 10-15.

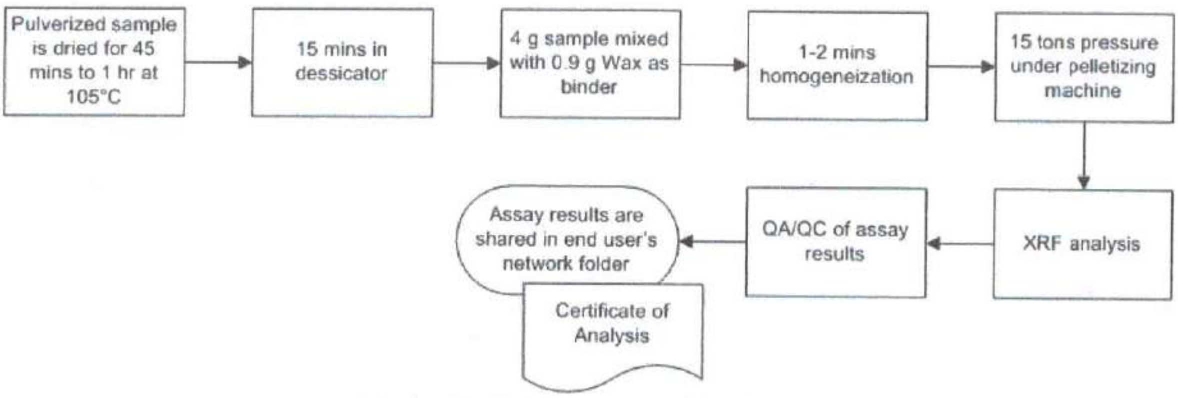


Figure 10-15. XRF analysis flow chart.

10.4.5 Quality Assurance and Quality Control

A Quality Control and Quality Assurance program ensures that data are of high integrity for the purpose of attaining a reliable mineral resource estimate. The program should be able to adhere to standards to ensure that the accuracy and precision of the sampling and analytical process are at an acceptable level.

The QA-QC program described in this portion of the report focuses on the QA-QC program of the Assay Laboratory.

To ensure quality of sample preparation work, each sample pulverized sample is manually checked by pressing the sample between the thumb and middle fingers and if there is a gritty feeling then the sample is further pulverized. This check is further confirmed randomly for every 10 samples by wet screening using 200 mesh sieve screens. The oversize is then collected, dried and weighed. Percentage passing should not be below 90%.

In case test results fails, then 5 samples up and down the list shall be re-pulverized or re-processed. When samples are weighed for analysis, a manual check is again done by rubbing the sample using a spatula to the flap of the kraft envelope.

On the assaying side, every 10th sample is assayed in duplicate trials. If the values of both replicates do not agree or do not have close results, then the 5 up and 5 down the list shall be applied and these samples shall be re-assayed.

Each batch of sample as listed in the covering COC shall have a minimum of 2 standards that will undergo simultaneous analysis with actual samples. The results are included in the Certificate of Analysis (COA). A monthly evaluation of CRM results is plotted in a sensitivity graph for reference for compliance and improvements.

For 3rd party external tests, 10% of number of samples are sent to a local 3rd party laboratory for cross-check. Results are used for reference for further improvements if necessary.

Assay results of each core samples are recorded in the Core Log Sheet upon receipt from the Laboratory through the local network. Results are checked against the material logged to validate if the assay results are within the expected grade range for that material. This is a way to check whether there has been a sample mix up since there is a certain range of nickel and iron grade for limonite and saprolite.

Once drilling activity resumes, the Resource Development and Exploration Team will implement a more comprehensive QA-QC program utilizing insertion of field duplicates, standards and blanks.

Figures 10-16 to 10-22 shows graphical analysis of CRM evaluation for reference of high accuracy results or analysis. Note that all of the CRM analysis results are within the acceptable lower and upper limit Ni and Fe values denoting excellent precision of the analytical procedure.

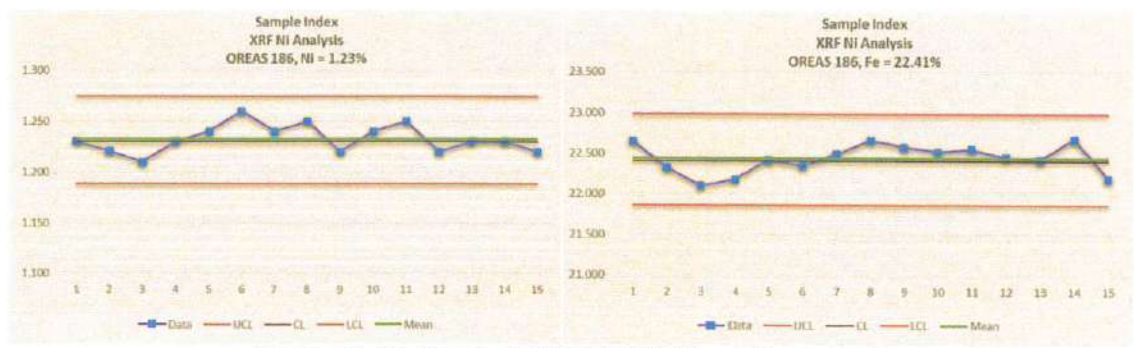


Figure 10-16. Graph of OREAS 186 Ni and Fe analysis.

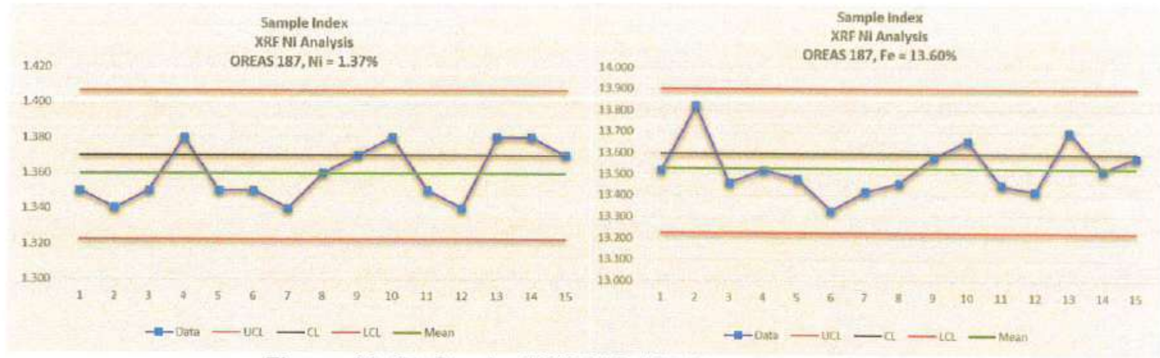


Figure 10-17. Graph of OREAS 187 Ni and Fe analysis.

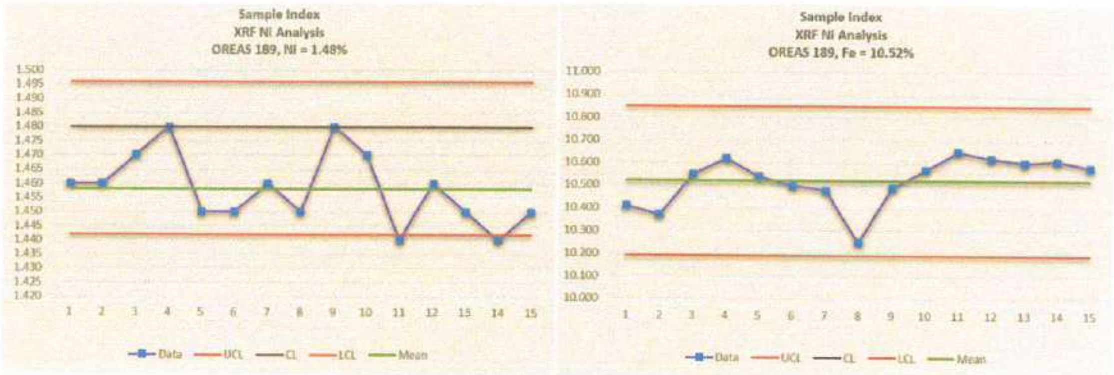


Figure 10-18. Graph of OREAS 189 Ni and Fe analysis.

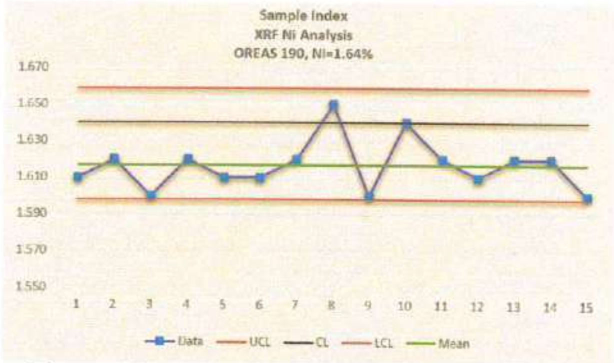


Figure 10-19. Graph of OREAS 190 Ni analysis.

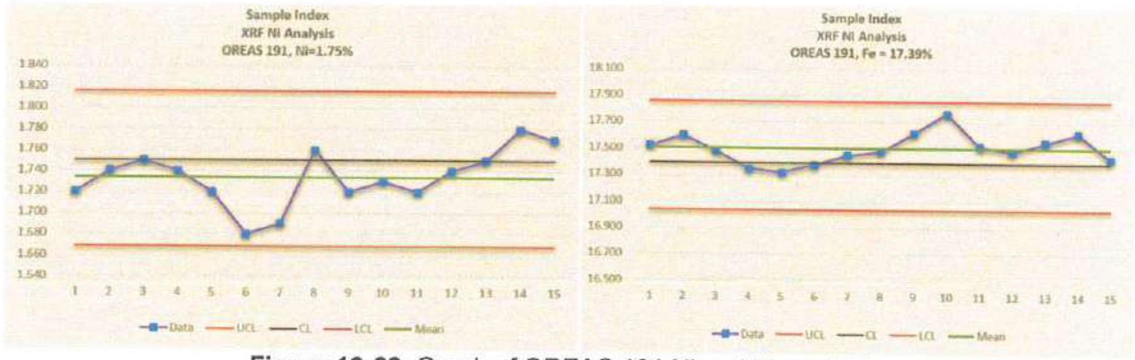


Figure 10-20. Graph of OREAS 191 Ni and Fe analysis.

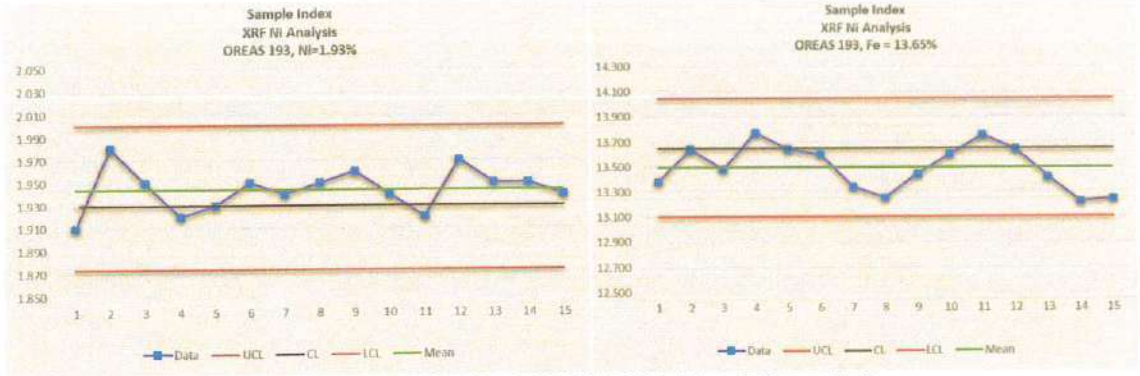


Figure 10-21. Graph of OREAS 193 Ni and Fe analysis.

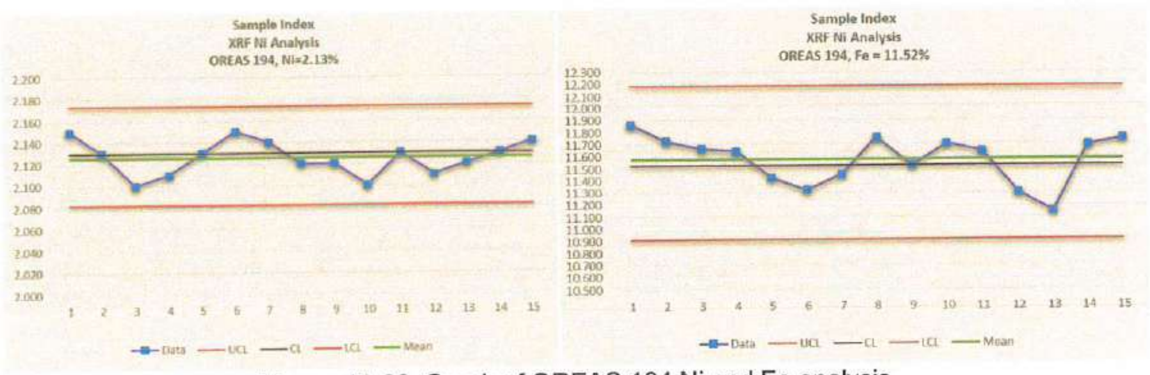


Figure 10-22. Graph of OREAS 194 Ni and Fe analysis.

10.4.6 Statement of CP on the quality of sample security, preparation and analysis

Based on the observed implementation of the exploration program by the undersigned CP as well as review of the process and database, the undersigned finds that there is no significant bias in the samples and assay results of MMDC. As such. the CP deems that the quality of sampling, preparation and analysis, and in effect the resulting database, are sufficient and acceptable for the purpose of the block modelling and resource estimation.

11 MINERAL RESOURCE ESTIMATE

11.1 Mineral Resource Database used in the estimation of resources

The database used to update the resource estimates as of December 2021 is a combination of drillhole database drilled prior to 2021 and additional drillholes from the development drilling campaign conducted from March to October of 2021. The drilling campaign was concentrated in the Sipangpang and Cabangahan areas of MMDC and completed a total of 363 drill holes with an aggregate length of 4,414.14 meters and an average length of 12.16 meters per drill hole. No new data were added to the existing database of Pili area.

The Database was created in MS excel in csv format incorporating drillhole information such as Hole-ID, Collar coordinates (Northing, Easting, Elevation), Maximum drillhole depth, Sampling Interval, Rock units and Assay results. The tabulated descriptive statistics for the three (3) mining areas in MMDC were given in Table 11-1.

Table 11-1. Descriptive statistics of the database used in the resource estimation.

Area	Cabangahan		Sipangpang		Pili	
Variable	**Ni**	**Fe**	**Ni**	**Fe**	**Ni**	**Fe**
Mean	0.92	22.69	0.61	27.66	0.76	25.37
Standard Error	0.00	0.10	0.00	0.19	0.01	0.54
Median	0.88	13.90	0.59	23.34	0.74	16.37
Mode	0.80	48.00	0.23	49.56	0.80	10.12
Standard Deviation	0.45	16.79	0.30	19.76	0.31	18.19
Sample Variance	0.20	281.78	0.09	390.52	0.10	330.78
Kurtosis	(0.06)	(1.32)	0.83	(1.86)	1.55	(1.64)
Skewness	0.52	0.63	0.77	0.05	0.87	0.36
Range	3.45	57.48	2.26	55.27	2.04	48.30
Minimum	0.00	0.00	0.00	0.00	0.25	4.68
Maximum	3.45	57.48	2.26	55.27	2.29	52.98
Count	29,668	29,668	10,796	10,796	1,138	1,138

All 4,602 drill holes and 41,602 assays from Cabangahan, Sipangpang and Pili were regularly sanitized: portions of DH which were "mined-out" in Sipangpang and Pili were tagged and removed from the database. For Cabangahan, mined out portions of the drillhole within the active mining area were tagged as "mined-out" but not removed from the database to allow inclusion in statistical studies. Sanitized database is then updated, and the collars were snapped to the actual topo survey which was actively updated by the inhouse surveyors using Real-time Kinematic (RTK) surveying equipment.

11.2 Integrity of exploration and Mineral Resources database

Assay results are collated and reviewed by the Assay Laboratory's QA/QC Supervisor before transmitting to end-users. Transmittal of assay results is done through posting in shared folders over the company's network. Results which are in excel format are copied into Resource Development's database format which in turn is imported into Surpac. This methodology eliminates human error in the database such as typographical.

New data is appended to the existing historical data in csv format and re-imported into Surpac. MMDC database went through two stages of initial error validation, the first one is by manual checking, and the second one is by computerized checking within Surpac software. Standard checking covers Hole-Id duplicates, missing collars, double coding of assay, duplicate values, missing values, and survey values.

Identified error(s) were then cross-checked and corrected across the database.

11.3 Data Verification and Validation (limitations)

The undersigned ACP Jayvhel Guzman is the Resource Development and Exploration Head of MMDC and is involved in the implementation of the company's exploration and drilling campaign.

Review of the database includes the following procedures:

1. Comparison of digital drill hole data with topography
2. Comparison of digital drill hole data versus core photograph
3. Review of drill hole in cross sections
4. Manual review of database to check typo errors

Geologists Gisella Dida and Ralph Zaballero were trained and supervised by ACP Guzman in the resource estimation for Cabangahan and Sipangpang mine areas, respectively. The results were thoroughly reviewed and scrutinized by ACP Guzman before finalizing the resource tabulation.

11.4 Cut-off Grades used in the estimations

As stated in the PMRC 2007, a Mineral Resource is a concentration of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for *eventual economic extraction*.

Emphasis on the 'eventual economic extraction', the cut-off grades presented in Table 11-2 were set in consideration of what types of ore and grade specifications have been marketable in the past and would be marketable in the future based on market projections. The cut-off grades for limonite and saprolite were adjusted to include low-nickel saprolite and low-iron limonite.

Table 11-2. Mineral resource cut-off grade.

Material	% Ni cut-off	% Fe cut-off
Saprolite High Nickel	≥ 1.6	< 20
Saprolite Low Nickel	1.0 - 1.6	< 20
Limonite High Iron	≥ 0.5	≥ 45
Limonite Low Iron	≥ 0.7	20 - 45

Furthermore, the term 'reasonable prospects for eventual economic extraction' implies a judgment by the ACP with respect to the technical and economic factors likely to influence the prospect of economic extraction, including approximate mining parameters. In other words, a Mineral Resource is not an inventory of all mineralization drilled or sampled, regardless of cut-off grade, likely mining dimensions, location or continuity. It is a realistic inventory of mineralization which, under assumed and justifiable technical and economic conditions, might, in whole or in part, become extractable.

11.5 Mineral Resource estimation method used

Except for the resource estimation of CP Arcilla which is Inverse Distance Weighting (IDW), all other previous resource estimates of MMDC by CP de Luna and CP Malihan are conducted by way of Manual Polygon Method. In this method, each drill hole is assigned a polygon that represents the extent of the area of influence of the drill hole. The assumption is that everywhere within the polygon, the thickness and grade of the resource material is uniform and, more or less, the same to the resource material of the drill hole enclosed by the polygon. The area of influence of each drill hole is based on the *halfway rule*, which states that the influence of a drill hole sample extends halfway to other samples laterally adjacent to it.

The mineral resource estimation methodology used in this report is the Nearest Neighbor interpolation. While statistical estimation methods (e.g. Ordinary Kriging or OK) are the advocated method for estimation nowadays, MMDC decided to use the Nearest Neighbor (NN) method due to the proximity of actual grade to the block model grade as proven through years of its operation.

11.6 Mineral Resource categories used

The Mineral Resource categories used are based on the PMRC Code 2007 and its implementing rules and regulations. Data preparation and collation, interpretation and resource estimation were undertaken by MMDC Geologists Gisella Jane E. Dida and Ralph Dominique N. Zaballero under the direct supervision of ACP and Head of Geology Jayvhel T. Guzman.

Categorization of resources is mainly based on Section VII of the PMRC Code 2007 and Section VIII of the PMRC Code 2020 Edition, to wit:

1. A 'Measured Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

2. An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm

geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

3. An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence, sampling and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and quantity.

The appropriate category of Mineral Resource is determined by the Accredited Competent Person based on the quantity, distribution and quality of data available and the level of confidence on the data. For this resource estimation, mineral resource is classified purely as a function of the drilling density or spacing.

For Cabangahan, the drilling interval for a Measured Mineral Resource for limonite is 50m x 50m and 25m x 25m for saprolite. This is due to the higher variability of grades in saprolite compared to limonite due to the unpredictable occurrence of unmineralized rocks within the enriched saprolite profile. Drilling interval for limonite Indicated Mineral Resource is 100m x 100m and 50m x 50m for saprolite. For Inferred Mineral Resource, drilling interval at 200m x 200m is used for limonite and 100m x 100m for saprolite.

In the case of Sipangpang and Pili which are both limonite areas, the drilling interval considered for Measured Mineral Resource is at 50m x 50m and 100m x 100m. Drilling interval at 200m x 200m is categorized as Indicated Mineral Resource considering the demonstrated lateral homogeneity of the two areas during mine operations. Table 11-3 summarizes the parameters in classifying mineral resources.

Table 11-3. Mineral resource categories used.

Area	Material	Measured	Indicated	Inferred
Cabangahan	Saprolite	25m x 25m	50m x 50m	100m x 100m
	Limonite	25m x 25m 50m x 50m	100m x 100 m	-
Sipangpang Pili	Limonite	50m x 50m 100m x 100m	200m x 200m	-

11.7 Mineral Resource estimates

The resource estimation was done by MMDC Geologists Gisella Jane E. Dida and Ralph Dominique N. Zaballero under the supervision of ACP and Geology Head Jayvhel T. Guzman. ACP Guzman is a licensed geologist who is a member of the Geological Society of the Philippines and a PMRC Accredited Competent Person.

The method employed for recent MMDC resource run is Nearest Neighbor (NN). NN which is also known as the proximal interpolation is a simple multivariate interpolation and is the computerized version of polygon method in Surpac. This method selects and assigns value of the nearest assay from the centroid of the block with unknown value thus the term nearest neighbor.

11.7.1 Block Size

The block size used for MMDC resource run is 25x25x3 patterned after the resource estimation general rule of thumb that the x-y size of the estimation block should not be less than half of the regular drill hole distance. The vertical extent of the blocks is based on the bench height being used in the mine operations.

11.7.2 Compositing

Assay values used in the estimation is composited from collar down to the bottom at 1-meter interval. Compositing is essential to minimize bias of unequal sample lengths. Sample length which has less than 0.50 m were not included in the estimates.

For Cabangahan, about 2.93% of sample length fell below the nominated 0.50 meters acceptable length after composite while 4.26% for Sipangpang and 2.81% for Pili. Details are listed in Table 11-4.

Table 11-4. MMDC composite statistics.

Area	Cabangahan		Sipangpang		Pili	
String 1: Within composite length						
Variable	**Ni**	**Fe**	**Ni**	**Fe**	**Ni**	**Fe**
Mean	0.92	22.67	0.61	27.64	0.76	25.37
Standard Error	0.00	0.10	0.00	0.19	0.01	0.53
Median	0.88	14.17	0.60	24.71	0.74	17.00
Mode	0.26	46.73	0.23	49.56	0.43	50.17
Standard Deviation	0.44	16.52	0.29	19.41	0.30	17.90
Sample Variance	0.19	273.01	0.09	376.64	0.09	320.33
Kurtosis	(0.08)	(1.29)	0.71	(1.83)	1.48	(1.62)
Skewness	0.49	0.63	0.71	0.05	0.84	0.36
Range	3.33	57.48	2.21	55.07	1.95	48.30
Minimum	0.00	0.00	0.01	0.20	0.25	4.68
Maximum	3.33	57.48	2.22	55.27	2.20	52.98
Count	29,671	29,671	10,759	10,759	1,138	1,138
String 2: Less than composite length						
Variable	**Ni**	**Fe**	**Ni**	**Fe**	**Ni**	**Fe**
Mean	0.75	8.41	0.45	7.66	0.62	8.17
Standard Error	0.02	0.19	0.01	0.17	0.05	0.48
Median	0.62	7.22	0.36	6.74	0.51	7.77
Mode	0.33	6.09	0.30	7.20	0.45	
Standard Deviation	0.46	5.62	0.26	3.54	0.29	2.74
Sample Variance	0.22	31.59	0.07	12.54	0.08	7.48
Kurtosis	1.40	40.48	6.82	15.74	0.84	6.57
Skewness	1.15	6.11	2.15	3.37	1.00	2.18
Range	3.31	50.25	1.88	30.07	1.20	13.61
Minimum	0.15	1.24	0.03	2.34	0.27	5.16
Maximum	3.45	51.49	1.91	32.41	1.47	18.77
Count	870	870	458	458	32	32

11.7.3 Domain

MMDC's deposit domains are bounded by the topography in the upper portion and the end of hole DTMs in the lower end. The deposit is sub-domain by material class namely: limonite, saprolite, and bedrock. The amount of iron (Fe%) was used as guide to determine contacts of each sub-domain.

Figure 11-1 shows the distribution of limonite and saprolite blocks within the Cabangahan area while Figure 11-2 shows the distribution of limonite blocks in Sipangpang mine area.

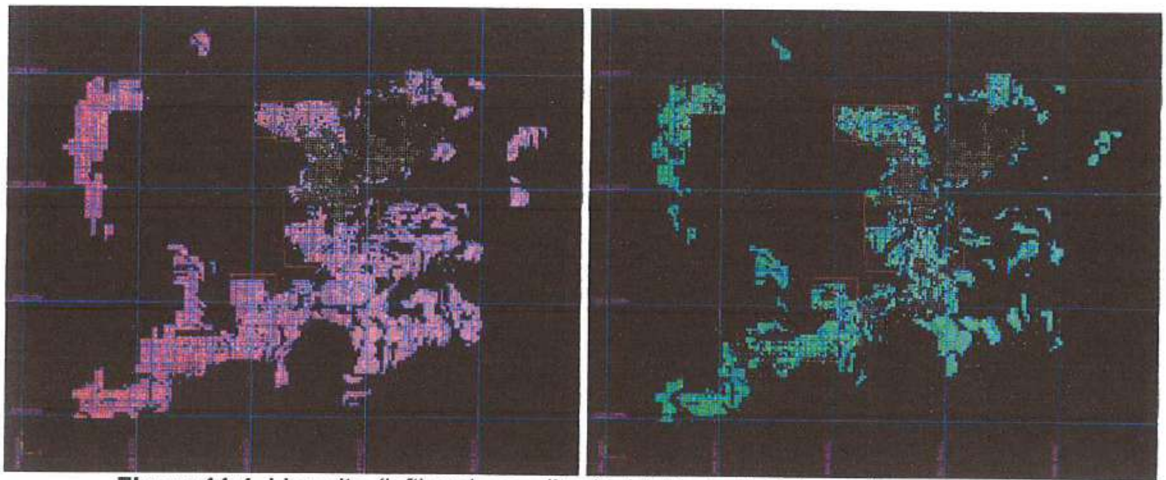


Figure 11-1. Limonite *(left)* and saprolite *(right)* blocks in Cabangahan mine area.

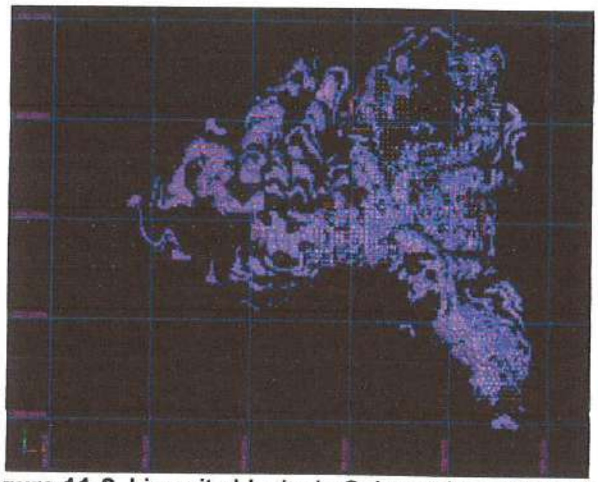


Figure 11-2. Limonite blocks in Cabangahan mine area.

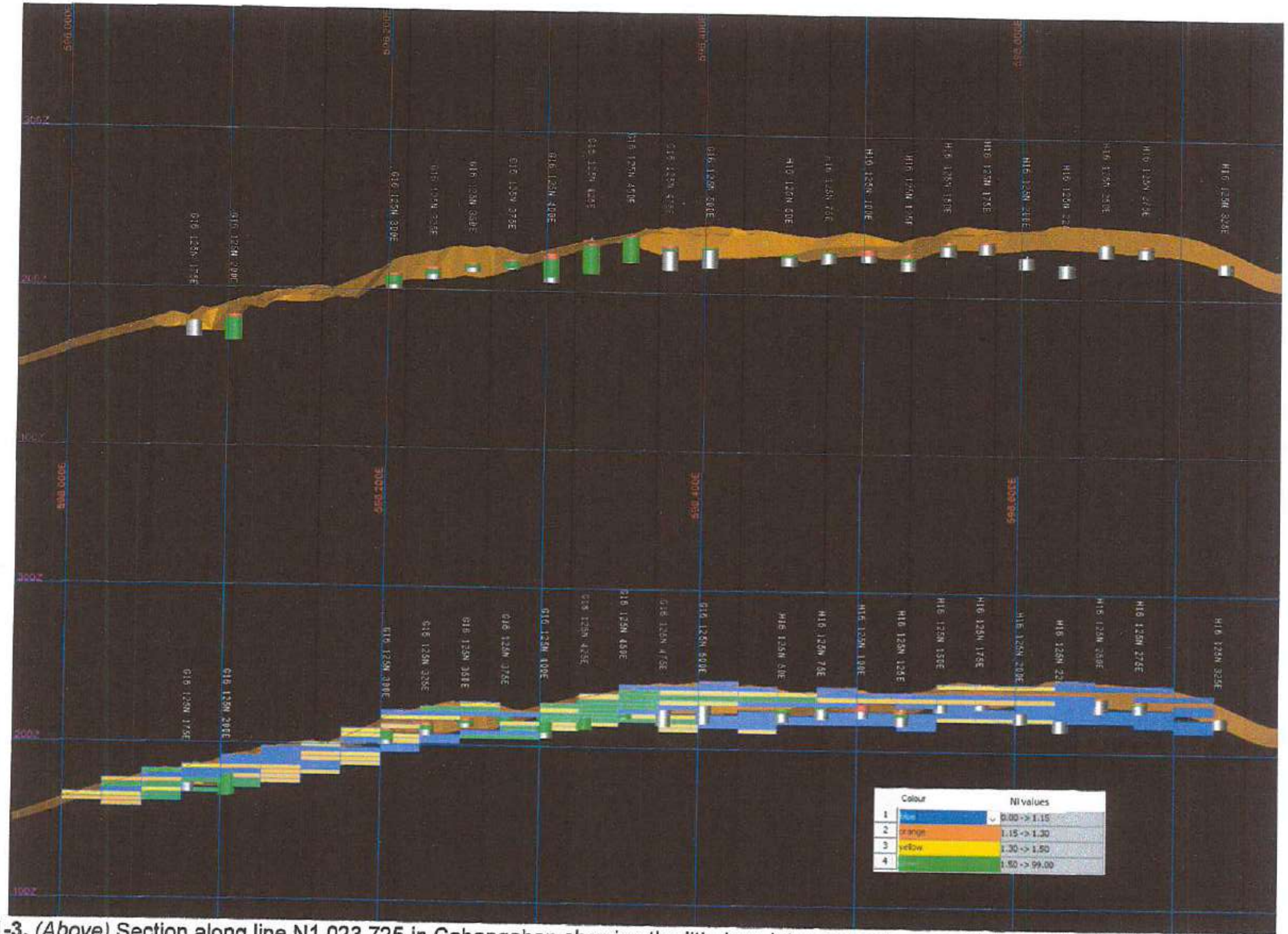


Figure 11-3. *(Above)* Section along line N1,023,725 in Cabangahan showing the lithology intercepted in each drill hole wherein limonite is red, saprolite is green and bedrock is gray. *(Below)* Block grades coincide with the lithological intercept wherein high Ni values occurs in portions with thick saprolite intercept.

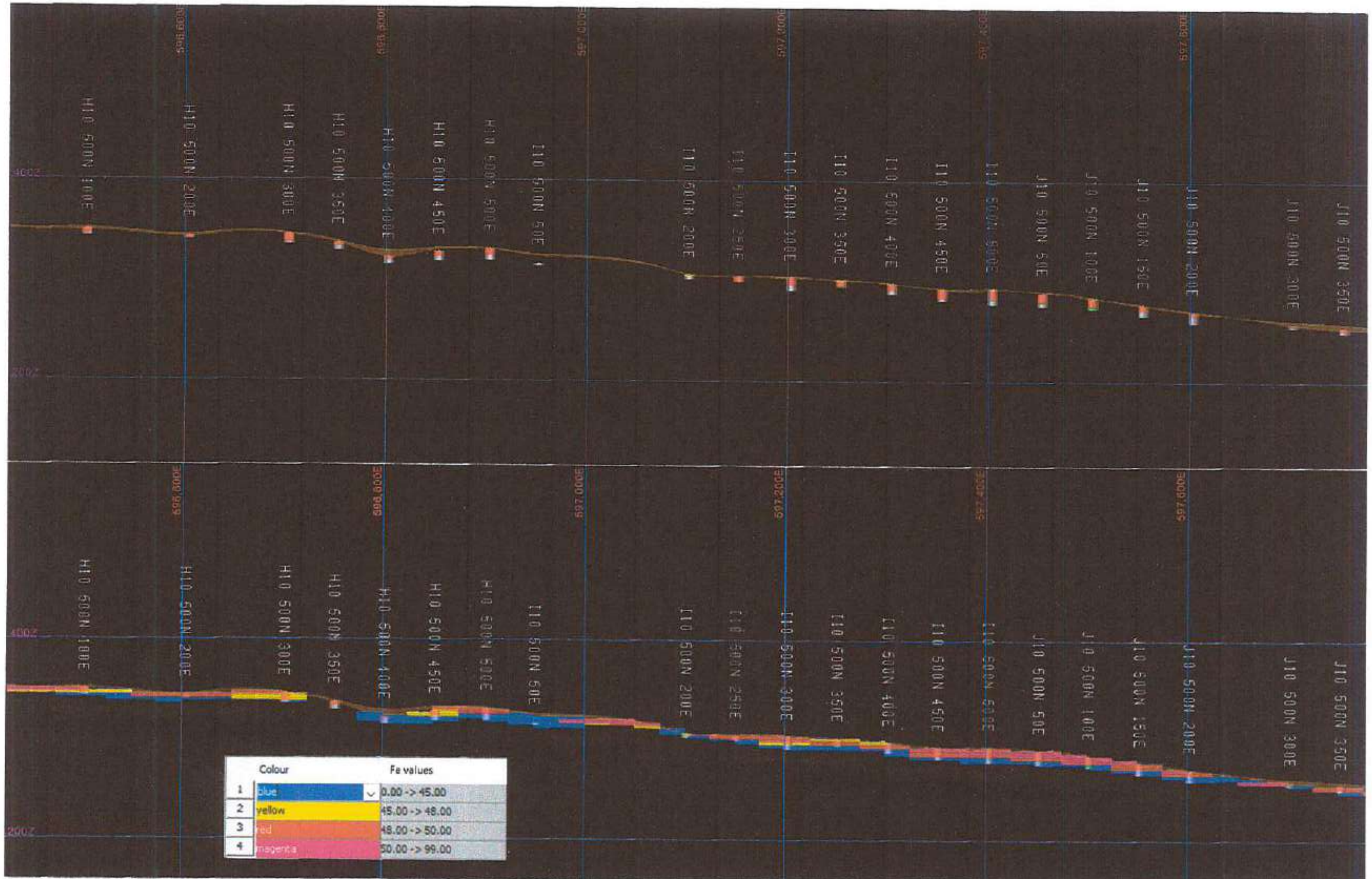


Figure 11-4. *(Above)* Section along line N1,026,825 in Sipangpang showing the lithology intercepted in each drill hole wherein limonite is red, saprolite is green and bedrock is gray. *(Below)* Block grades coincide with the lithological intercept wherein high Fe values occurs in portions with thick saprolite intercept.

Figure 11-3 and 11-4 shows the vertical section along line N1,026,825 in Cabangahan area and line N1,023,725 in Sipangpang where some of the 2021 drill holes were drilled. The lithological intercepts per drill hole is presented in different colors wherein limonite is red, saprolite is green and bedrock or waste is gray. Block grades are also presented in the vertical sections. Note that high Ni and Fe values coincides with the intercepts of saprolite and limonite in the drill holes.

11.7.4 Partial Percentage

For volume adjustments, partial percentage was used to determine how much portion of each block is below topography and should be counted as actual tonnage.

11.7.5 Specific Gravity

Bulk density used in the estimation is 1.5 which is based on the average density determined during density determination using core samples. This coincides with the historical values used by previous CPs in their resource estimation which is loose density of 1.16 multiplied by a swell factor of 1.35. This is equivalent to 1.566. Therefore, the 1.5 SG used in this resource estimation is at conservative level.

11.7.6 Parameters for Assigning Resource Category

For the mineral resource estimation as of end of 2021 mining season, the undersigned ACP considered more conservative parameters in assigning the resource category for the saprolite and limonite ores. The resource category as of end of 2020 mining season was assigned based on the search radius used for each interpolation pass such that pass 1 with a search radius of 200 is assigned as measured resource, pass 2 with a search radius of 300 is assigned as indicated resource, and pass 3 with a search radius greater than 300 but up to 500 is assigned as inferred resource.

In comparison, the resource category for the estimates as of end of 2021 mining season utilized a combination of search radius and the digitized measured, indicated and inferred category boundaries which were based on drill hole spacing. The search radius for pass 1 was decreased to 30, for pass 2 to 60 and for pass 3 to 120.

Table 11-5 compares the parameters used in the resource estimation as of Dec. 31, 2020 and as of Dec. 31, 2021.

Table 11-5. Parameters used in assigning the resource category for the resource estimates as of Dec. 31, 2020 vs. as of Dec. 31, 2021.

Paramaters	as of Dec. 31, 2020	as of Dec. 31, 2021
Interpolation	Nearest Neighbor	Nearest Neighbor
Bottom applied	End of hole dtm extracted eoh points then created a surface out of it	End of hole dtm extracted eoh points then manually digitized the boundary per section; adding points if deemed necessary
Resource category constraint	Res_cat was assigned based on pass number wherein pass 1 = measured, pass 2 = indicated and pass 3 = inferred	Res_cat was assigned based on pass number and measured, indicated and inferred boundaries that were digitized based on drill hole spacing
Search radius for each pass	Pass 1 = 200 Pass 2 = 300 Pass 3 = greater than 300	Pass 1 = 30 Pass 2 = 60 Pass 3 = 120
Resource category distance	**Cabangahan saprolite** Measured = 25x25 Indicated = 50x50 Inferred = 100x100 and up **Cabangahan limonite** Measured = 25x25, 50x50 Indicated = 100x100 **Sipangpang limonite** Measured = 50x50 Indicated = 100x100 and up **Pili limonite** Measured = 50x50 Indicated = 100x100 and up	**Cabangahan saprolite** Measured = 25x25 Indicated = 50x50 Inferred = 100x100 and up **Cabangahan limonite** Measured = 25x25, 50x50 Indicated = 100x100 **Sipangpang limonite** Measured = 50x50 Indicated = 100x100 and up **Pili limonite** Measured = 50x50 Indicated = 100x100 and up

11.7.7 MMDC Mineral Resource as of December 31, 2021

From the mineral resource estimates of 74.63 Million WMT Measured and Indicated saprolite and limonite resource as of Dec. 31, 2020, the mineral resource as of Dec. 31, 2021 is estimated to be at 61.45 Million WMT Measured and Indicated saprolite and limonite resource with an average grade of 0.95% Ni and 39.09% Fe (Table 11-6). The decrease in the mineral resource tonnage is attributed primarily to the conservative parameters applied in assigning the resource category specifically the smaller search radius used in the interpolation.

The total measured and indicated saprolite resource was estimated to be 7.81 Million WMT at 1.35% Ni and 12.80% Fe while the total measured and indicated limonite resource is estimated to be 53.64 Million WMT at 0.87% Ni and 43.90% Fe.

An additional 5.22 Million WMT of saprolite with an average grade of 1.23 Ni% and 13.19 Fe% were categorized under the inferred resource category.

The estimated mineral resource is summarized in Table 11-6. Grade-tonnage data is shown in Figure 11-1 to Figure 11-3.

Table 11-6. MMDC Mineral Resource as of Dec. 31, 2021.

Measured and Indicated Resource

Area	Material	Cut-off Grade	WMT	DMT	Ni	Fe	Ni Tonnes
CABANGAHAN	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe	1,313,000	893,000	1.79	13.48	16,000
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe	6,497,000	4,418,000	1.26	12.67	55,000
	Sub-total/Ave.		**7,810,000**	**5,311,000**	**1.35**	**12.80**	**71,000**
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	16,727,000	11,374,000	0.79	48.88	90,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	12,287,000	8,355,000	1.12	32.76	93,000
	Sub-total/Ave.		**29,014,000**	**19,729,000**	**0.96**	**43.08**	**183,000**
	TOTAL/AVE.		**36,824,000**	**25,040,000**	**1.04**	**36.66**	**254,000**
SIPANGPANG	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe					
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe					
	Sub-total/Ave.						
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	18,614,000	12,658,000	0.75	49.56	94,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	4,994,000	3,396,000	0.99	33.72	34,000
	Sub-total/Ave.		**23,609,000**	**16,054,000**	**0.80**	**46.21**	**128,000**
	TOTAL/AVE.		**23,609,000**	**16,054,000**	**0.80**	**46.21**	**128,000**
Pili	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe					
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe					
	Sub-total/Ave.						
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	636,000	432,000	0.74	50.10	3,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	378,000	257,000	0.94	31.80	2,000
	Sub-total/Ave.		**1,014,000**	**690,000**	**0.82**	**43.28**	**5,000**
	TOTAL/AVE.		**1,014,000**	**690,000**	**0.82**	**43.28**	**5,000**
TOTAL	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe	1,313,000	893,000	1.79	13.48	16,000
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe	6,497,000	4,418,000	1.26	12.67	55,000
	Sub-total/Ave.		**7,810,000**	**5,311,000**	**1.35**	**12.80**	**71,000**
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe	35,977,000	24,465,000	0.77	49.25	187,000
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe	17,659,000	12,008,000	1.08	33.01	129,000
	Sub-total/Ave.		**53,637,000**	**36,473,000**	**0.87**	**43.90**	**316,000**
	TOTAL/AVE.		**61,447,000**	**41,784,000**	**0.95**	**39.09**	**387,000**
Inferred							
	Saprolite High Nickel	≥ 1.6 Ni; ≤ 20 Fe	373,000	253,000	1.69	13.29	4,000
	Saprolite Low Nickel	1.0-1.6 Ni; ≤ 20 Fe	4,844,000	3,294,000	1.20	13.18	40,000
	Sub-total/Ave.		**5,216,000**	**3,547,000**	**1.23**	**13.19**	**44,000**
	Limonite High Iron	≥ 0.5 Ni ;≥ 45 Fe					
	Limonite Low Iron	≥ 0.7 Ni; 20-45 Fe					
	Sub-total/Ave.						
	TOTAL/AVE.		**5,216,000**	**3,547,000**	**1.23**	**13.19**	**44,000**

Notes:

4. *MMDC Mineral Resource statement has been generated by Ms. Arlene A. Morales under the supervision of Ms. Jayvhel T. Guzman, both of which are licensed geologists and accredited Competent Persons under the definition of the Philippine Mineral Reporting Code. Both CPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity that has been undertaken to qualify as a Competent Person as defined in the PMRC Code.*
5. *Mineral Resources are reported in accordance with the PMRC 2007.*
6. *The Mineral Resources reported in the table above represent estimates as of December 31, 2020. Mineral Resource estimates are not precise calculations, being dependent on the interpretation of limited information on the location, shape, continuity of the mineralization and the availability of sampling results. Tonnages in the table have been rounded to the nearest thousands to reflect the relative uncertainty of the estimate.*

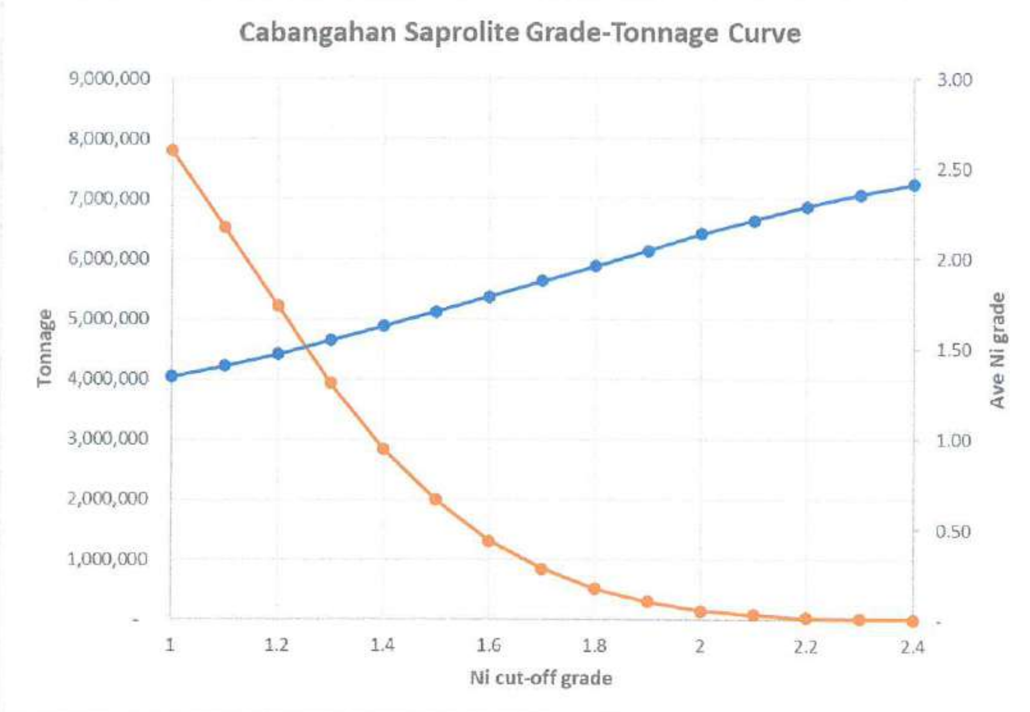


Figure 11-5. Cabangahan Saprolite Grade-Tonnage Bell Curve for Measured and Indicated resource.

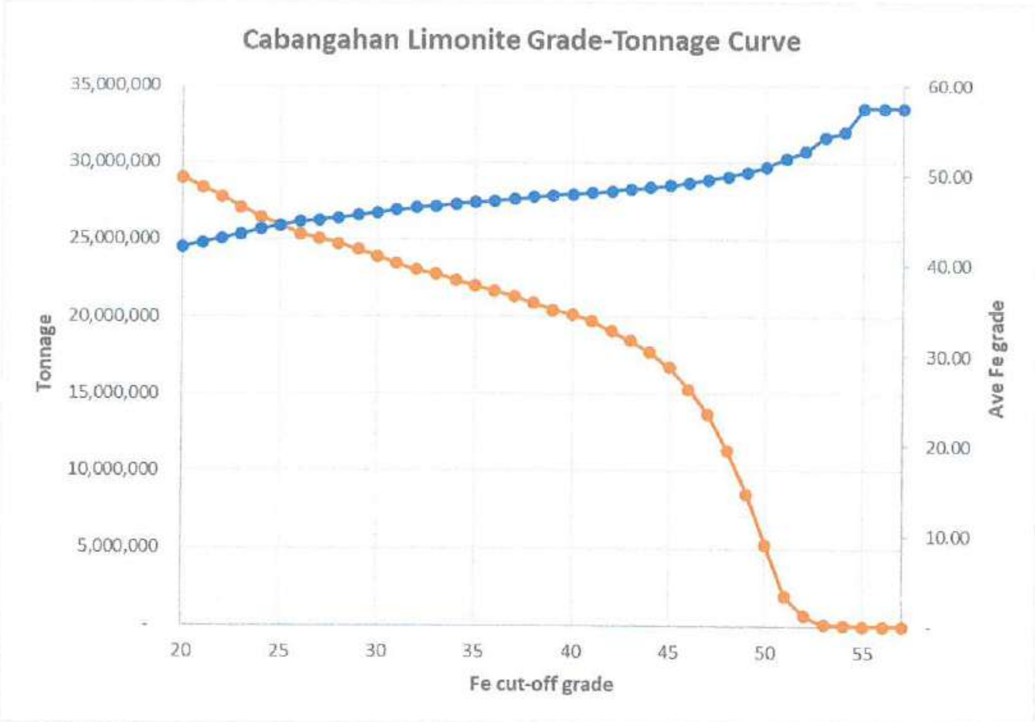


Figure 11-6. Cabangahan Limonite Grade-Tonnage Bell Curve for Measured and Indicated resource.

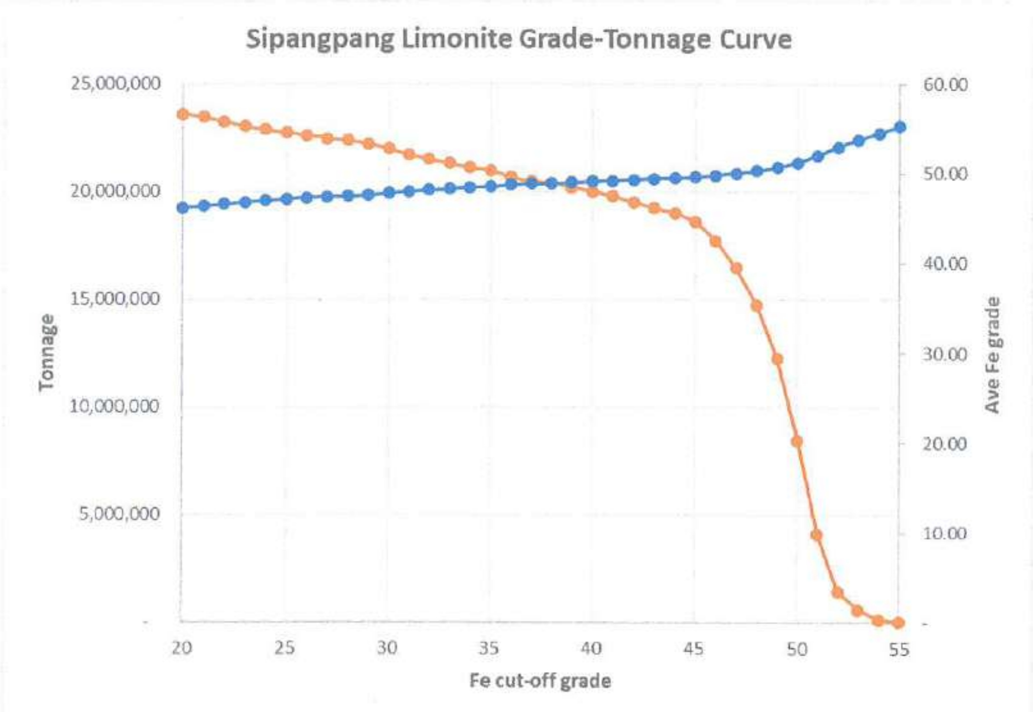


Figure 11-7. Sipangpang Limonite Grade-Tonnage Bell Curve for Measured and Indicated resource.

12 CONCLUSIONS

12.1 Synthesis of all data

The development drilling campaign conducted in 2021 resulted to additional data from Cabangahan and Sipangpang with significant nickel and iron grades. Combined with historical drilling data, the resulting database was used to update the mineral resource estimates of MMDC.

Mineral resource estimation was done in accordance with the criteria defined within the PMRC Guidelines for reporting Exploration Results and Mineral Resources wherein valid and verified data was used. Table 12-1 summarizes the highlights of the resource reporting.

Table 12-1. Resource reporting highlights (PMRC Table 1).

Criteria	*Explanation*
	Sampling Techniques and Data
Sampling techniques	*Sampling is done at a nominal 1-meter interval regardless of the laterite profile boundaries. However, the first interval of the core sampling is based on the drill hole's elevation. Elevations with decimal points greater than 0.5 meter is considered as 1 sample and elevations with decimal points less than 0.5 meter is included in the succeeding 1 meter interval.*
Drilling techniques	*Seven (7) YHP drill units with NQ size drill bits were utilized in the 2021 development drilling campaign in Cabangahan and Sipangpang areas.*
Drill sample recovery	*Core sample recoveries are measured and/or recorded by the geologic field assistant. Percent core recovery is occasionally lower than 100% due to lower horsepower of the drilling machines. However, lower percent core recovery in laterite deposits does not greatly affect the sample grades.*
Core Logging	*Core samples are graphically logged by the site geologist describing physical characteristics such as color, texture, matrix size, clast to matrix percentage, consistency, weathering, visible minerals present.*
Sub-sampling techniques and sample preparation	*Whole 1-meter core is placed in plastic sample bag, labelled with corresponding sample ID, and submitted to Assay Laboratory for sample preparation and analysis. At the Sample Preparation Facility, the whole core sample is homogenized and quartered. Representative sample collected from opposite quarters is then dried, crushed and pulverized for analysis.*
Quality of assay data and laboratory	*Quality of sample preparation is checked manually by way of pressing the sample between the thumb and middle finger. A gritty sample will be re-pulverized. After analysis, a pulp duplicate of the sample is stored in the laboratory for future reference.*
Verification of sampling and assaying	*Confirmatory drilling was conducted from year 2018 to 2021 to verify if areas declared to be mined out have been depleted of ore.*
Location of data points	*Drill hole locations are delineated by the field geologist and were surveyed by MMDC in-house Survey Team using Total Station and Real Time Kinematics (RTK) survey instruments. The coordinate system used is PRS92 Zone V.*
Data spacing and distribution	*Drill holes were spaced initially at 100m interval. Areas with significant nickel and iron values are drilled at closer 50m and eventually 25m interval.*
Orientation of data in relation to geological structure	*The laterite deposits occur along top ridges as thin covering. There is no preferred orientation or horizontal anisotropy identified in the MMDC laterite.*

Criteria	*Explanation*
	Reporting of Exploration Results
Mining rights and land tenure status	*MMDC holds a Mineral Production Sharing Agreement denominated as MPSA 016-93-XI. It was approved on July 1, 1993 and is valid until July 1, 2027 by power of extension due to force majeure. The term is renewable for another 25 years.*
Exploration done by other parties	*All previous Technical Report, database and resource estimates were collated and compiled by the Resource Development and Exploration Department. Previous exploration activities were done using standard Exploration Protocol.*
Geology	*The tenement area is underlain mainly by ultramafic rocks dunite, peridotite and pyroxenite which are part of the Dinagat Ophiolite Complex. Chemical and physical weathering of these ultramafic rocks produces laterite.*
Data aggregation methods	*The drilling data specifically the assay results were composited to an optimized 1m composite to remove potential bias which could result from small or uneven sample intervals.*
Relationship between mineralization widths and intercept lengths	*Laterite deposits are blanket-like deposits that occur as covers along top ridges. Considering that the deposit is basically horizontal, and that drilling was done vertically and within inclination, the actual thickness of the mineralization is reflected by the intercept lengths.*
Balanced reporting	*All drill hole results were used in the resource estimates regardless if it is low grade or uneconomical*
Further work	*Density and moisture determination using core samples were also started during the later part of 2018. This has been incorporated in the Exploration SOP of the Exploration Team. However, implementation was discontinued from 2019 to 2021. This will be resumed during the 2022 drilling campaign.*
	Estimation and Reporting of Mineral Resources
Database integrity	*Minor errors in the drill hole database were corrected. This includes typographical errors during transfer of raw data to the database format.*
Geological interpretation	*Lateral and vertical continuity of the limonite and saprolite deposits were established by core drilling.*
Estimation and modelling techniques	*Resource estimation was done by way of Nearest Neighbor interpolation which is basically computerized manual polygon method. Block size was set at 25x25x3 to conform to the bench height being used in mining and to be consistent with the previous manual polygon method.*
Moisture	*Moisture used is 38% which based on the initial results of the moisture determination done by the Exploration Team.*
Cut-off parameters	*Ni and Fe cut-off grades used are as follows:* • *Saprolite high nickel = ≥1.6 Ni; ≤20 Fe* • *Saprolite low nickel = 1.0-1.6 Ni; ≤20 Fe* • *Limonite high iron = ≥0.5 Ni; ≥45 Fe* • *Limonite low iron = ≥0.7 Ni; 20-45 Fe*
Mining factors or assumptions	*None*
Metallurgical factors or assumptions	*None*
Bulk density	*Bulk density used is 1.5 which is based on the average density determined during density determination using core samples. This coincides to the historical values used by previous ACPs in their resource estimation which is loose density (1.16) multiplied by swell factor (1.35)*
Classification	*Resource classification is based on drilling density or spacing. Closer spaced drilling is necessary for saprolite given its characteristic wherein there is higher variability of grades in saprolite compared to limonite due to the unpredictable occurrence of unmineralized rocks within the enriched saprolite profile.*

12.2 Adequacy of data, overall data integrity and areas of uncertainty

The data used in the resource estimate of MMDC Nickel Laterite Mining Project was verified and validated by the undersigned and has been determined to be sufficiently reliable to support mineral resource estimation.

12.3 Overall conclusions by the CPs

The undersigned ACP and the Resource Development and Exploration Team have ensured that all exploration activities and resource estimation done for the MMDC Nickel Laterite Mining Project is in accordance with the guidelines provided by the PMRC Code. Adherence of the team to the Company's standard operating procedures for exploration activity indicates proper implementation and supervision of the exploration program.

Table 12-1 summarizes the highlights of this Technical Report which support the mineral resource estimates and classification of the mineral resources for release to the public.

In addition, the undersigned ACP is reporting the mineral resource estimates in this Technical Report in accordance to the PMRC Code within the accuracy of the available data.

13 RECOMMENDATIONS

To further improve the Exploration Protocols and increase the mineral resource estimates of MMDC, the following are recommended:

1. Continue implementation of development (in-fill) drilling in areas with Inferred and Indicated resource to increase level of confidence in the database and upgrade these mineral resources into Indicated and Measured, respectively.
2. Continue implementation of development drilling in areas adjacent to previously drilled areas with significant intercept.
3. Conduct geologic mapping to update the laterite extent boundary within the MPSA.
4. Resume the implementation of density and moisture determination of core samples.
5. Improve QA-QC program by inserting field duplicates and blanks as well as implementation of third-party check analysis.
6. Continue compliance to the standard Drilling Procedure.

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2015 MINERAL RESOURCE REPORT
OF BRIGHTGREEN RESOURCES CORPORATION'S
MPSA 015-93-XI
NICKEL LATERITE PROJECT
LOCATED IN THE MUNICIPALITY OF CANTILAN, SURIGAO DEL SUR, PHILIPPINES

FOR

BRIGHTGREEN RESOURCES CORPORATION
Unit E, One Luna Place, E. Luna Street
Butuan City, Philippines

March 2016

Radegundo S. de Luna
Competent Person for Nickel (PMRC No. 071205)
Licensed Geologist (No. 0000218)

CERTIFICATE OF CONSENT

I, Radegundo S. de Luna, of legal age, with postal address at [redacted] o [redacted] do hereby certify that:

a. I am a graduate of the University of the Philippines with a Bachelor of Science degree in Geology in 1962.

b. I am an accredited Competent Person under the definition of the Philippine Mineral Reporting Code (PMRC).

c. I have worked as Geologist for a total of 53 years since my graduation.

d. I am not an employee of BrightGreen Resources Corporation or any of its subsidiaries nor am I a holder of any share of stocks of the said company.

e. I rendered the Mineral Resources evaluation of the BrightGreen Resources Corporation Nickel Laterite Project located in the Municipality of Cantilan, Province of Surigao del Sur.

f. I consent to the use of this Technical Report in full by BrightGreen Resources Corporation in compliance with the rules and regulations of the Philippine Stock Exchange and for any legal purpose it may serve.

g. I take full responsibility for all information contained in this report.

RADEGUNDO S. DE LUNA
Geologist License No. 0000218
Competent Person for Nickel, PMRC No. 07-12-05
PTR No. 4856591
Issued: Jan. 7, 2016 at Antipolo City

2015 MINERAL RESOURCE REPORT

OF BRIGHTGREEN RESOURCES CORPORATION'S

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Butuan City, Philippines

March 2016

Radegundo S. de Luna

Competent Person for Nickel (PMRC No. 071205)

Licensed Geologist (No. 0000218)

EXECUTIVE SUMMARY

1. BrightGreen Resources Corporation has an existing Mineral Production Sharing Agreement denominated as MPSA No. 015-93-XIII located in Barangays Panikian, Adlay and Pantukan, Municipality of Carrascal, Barangay Lubo and Cabangahan, Municipality of Cantilan, Barangay Bayogo, Municipality of Madrid, and Barangay Hinapuyan, Municipality of Carmen, all in the Province of Surigao del Sur. BGRC's MPSA was approved by the President of the Philippines on July 1, 1993.

2. The MPSA was cancelled by the DENR on February 1, 2005 thru the Department Memorandum Order (DMO) No. 2005-03. The cancellation was appealed on May 31, 2005 and it was reinstated in 2007. From then on, the MPSA was explored by various companies initially for copper-gold then for nickel-iron laterite.

3. In 2012, the company contracted the group of Dr. Carlo Arcilla, former Director of the National Institute of Geological Sciences of the University of the Philippines, Diliman, to conduct geological mapping of the MPSA as well as geochemical and geophysical studies and sub-surface sampling in areas where epithermal gold veins and nickel laterite has been observed.

4. Dr. Arcilla's group initially drilled twenty three (23) holes at random locations to check the possibility of nickel laterite in the MPSA. Out of the 23 holes, eight (8) yielded greater than three (3) meters of saprolite, concentrated in the central and northeastern portion of Sitio Mabhas and Sitio Anas, in Barangay Cabangahan.

5. To further verify, a 200-meter drilling program was implemented in the same year within the area of concentration, covering approximately 80 hectares in central Mabhas, and 15 hectares in northeast Mabhas. A total of 62 holes with an aggregate depth of 919.50 meters were drilled in 2012.

6. BGRC Management decided to conduct in-fill drilling at 50-meter interval in 2015 to come up with an estimation of the areas' mineral resources. Drilling was contracted out to JCP Geo-Ex Services, Inc. (JGSI). A total of 324 holes were drilled with an aggregate depth of 4,735.41 meters using four (4) fabricated Koken drill machines with NQ size core tubes.

7. Sampling was conducted at a nominal interval of 1 meter down the hole regardless of laterite horizon boundaries. After logging, samples are placed into plastic bags and delivered to the Sample Preparation Facility of MMDC. Prepared pulp samples are then sent to MMDC laboratory for analysis by way of X-ray Fluorescence Spectrometry (XRF).

8. Data was arranged into excel files containing the collar and assay data of each hole. A total of 4,683 samples from 2012 to 2015 were considered in the estimation of BGRC's Nickel Laterite Project Mineral Resources. This is after filtering out samples without assay results.

9. MMDC implements internal QA/QC and inter-laboratory checking to ensure the precision and accuracy of its assay results. Internal QA/QC includes insertion of in-house reference samples, and coarse and pulp duplicates in samples batches. For inter-laboratory checking, standards and samples are sent to laboratories of other mining companies such as Taganito, CNC, CTP and Biominerals.

10. Polygon method was used in estimating the mineral resources of BGRC as of December 31, 2015. The resources are classified purely as a function of drilling density, to wit:

    - Measured Resources - for limonite, where drilling is at a grid of 50x50m or less
    - Indicated Resources - for limonite, where drilling is at a grid of more than 100m
      -for saprolite, where drilling is at a grid of 50x50m or less
    - Inferred Resources - for saprolite, where drilling is at a grid of more than 100m

11. This report discloses the estimated Measured, Indicated and Inferred Resources of BGRC's Nickel Laterite Project as of end of December 2015. The total Measured and Indicated Resources of BGRC is estimated at **16.03 million WMT** with an average grade of **1.17% Ni and 34.98% Fe**. This is further broken down to **3.06 million WMT saprolite** with an average grade of **1.59% Ni and 14.85% Fe**, and **12.97 million WMT limonite** with an average grade of **1.07% Ni and 39.73% Fe**. Additional Inferred Limonite and Saprolite Resource was estimated 5.03 million WMT with 0.95% Ni and 37.95% Fe.

12. A potential epithermal gold and/or porphyry copper prospect might be underlying the area within the vicinity of Barangay Lubo based on initial geological, geochemical and geophysical studies. Additional exploration activities is recommended to test if the area has economic potential.

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1.0 INTRODUCTION

1.1 Purpose and Compliance with PMRC

The author was commissioned by BrightGreen Resources Corporation (BGRC) to prepare an independent Competent Person's report on the exploration results and mineral resource estimation of its Nickel Laterite Project located within the Municipality of Cantilan, Province of Surigao del Sur.

This report was prepared in compliance to the Philippine Mineral Reporting Code (PMRC) and follows the most recent template for reporting of exploration results and mineral resources of nickel laterite to support the public disclosure of BrightGreen Resources Corporation. This report also complies with the requirements of the Mines and Geosciences Bureau in the development of a mining project.

1.2 Scope of Work

The report provides a summary of the results of the exploration program carried over the nickel project within the tenement area from 2012 to 2015. The resource report prepared by the author considers 4,683 samples from 386 drill holes from that period.

1.3 Data Verification and Field Visits

The author conducted site visits on several occasions (July 2014 and May 2015) in BGRC's project area prior to the preparation of this report.

The database used in this estimation was checked by the author and has been determined to be sufficiently reliable to support mineral resource estimation. Data was arranged into excel files containing the collar and assay data of each hole and transmitted to the author thru USB and hard copies.

1.4 Technical Report Team

The author was provided technical assistance by the BGRC Exploration Team based in Carrascal, Surigao del Sur. Technical assistance given included provision of relevant documents, reports, maps and database. The technical personnel who assisted in the preparation of this report include:

i.	Jegie T. Pereda	- former BGRC and MMDC Vice President
ii.	Gil B. Mozar	- MMDC Geology and Exploration Head
iii.	Jayvhel T. Guzman	- MMDC Chief Geologist
iv.	Herbert T. Villano	- MMDC Senior Geologist for Exploration
v.	Ralph Rey L. Tan	- MMDC Junior Geologist
vi.	Roi Eric V. Saludes	- MMDC Junior Geologist
vii.	Beda Louie G. Cagampang	- MMDC Junior Geologist
viii.	Ronito T. Martinez	- BGRC Mapping Specialist

2.0 TENEMENT AND MINERAL RIGHTS

2.1 Description of mineral rights

BGRC's MPSA No. 015-93-XI is described by the following geographic coordinates (Table 2-1).

Table 2-1. Technical description of MPSA 016-93-XIII in Luzon-Mindanao Datum.

Corner	Longitude	Latitude
1	125° 45' 30"	9° 19' 00"
2	125° 47' 00"	9° 19' 00"
3	125° 47' 00"	9° 15' 30"
4	125° 49' 30"	9° 15' 30"
5	125° 49' 30"	9° 16' 00"
6	125° 51' 30"	9° 16' 00"
7	125° 51' 30"	9° 15' 00"
8	125° 51' 00"	9° 15' 00"
9	125° 51' 00"	9° 13' 30"
10	125° 50' 30"	9° 13' 30"
11	125° 50' 30"	9° 14' 00"
12	125° 45' 30"	9° 14' 00"

2.2 History of mineral rights

On June 19, 1992, the Philippine Government, represented by the Secretary of the Department of Environment and Natural Resources (DENR), and Carac-an Development Corporation (CDC) made and entered into a Mineral Production Sharing Agreement (MPSA) No. 015-93-XI covering an area of 4,860 hectares situated in the Municipalities of Carrascal and Cantilan, Province of Surigao del Sur (Figure 2-1). The MPSA was approved by the President of the Philippines on July 1, 1993, granting CDC an initial mineral exploration permit of the contract area for two (2) years to undertake the required exploration activities pursuant to an approved Two (2)-Year Exploration Work Program.

However, the MPSA was cancelled by the DENR on February 1, 2005 thru the Department Memorandum Order (DMO) NO. 2005-03 entitled "Cancellation of Non-Performing Tenements". The cancellation of the MPSA was appealed by CDC on May 31, 2005, justifying among others that Mr. Eduardo A. Dagondon, President of CDC, filed the company's Motion for Reconsideration stating, among others, that during 1992 up to 1996 CDC has conducted mineral exploration activities in the contract area and spent considerable amount of money for the said activities, in compliance with the approved Exploration Work Program under the MPSA. The MPSA was reinstated by the DENR in 2007.

The first renewal of CDC Exploration Period under the said MPSA was granted on January 5, 2011 and the second renewal on January 7, 2014.

On February 2015, Carac-an Development Corporation changed its corporate name to BrightGreen Resource Corporation due to change in control and management.

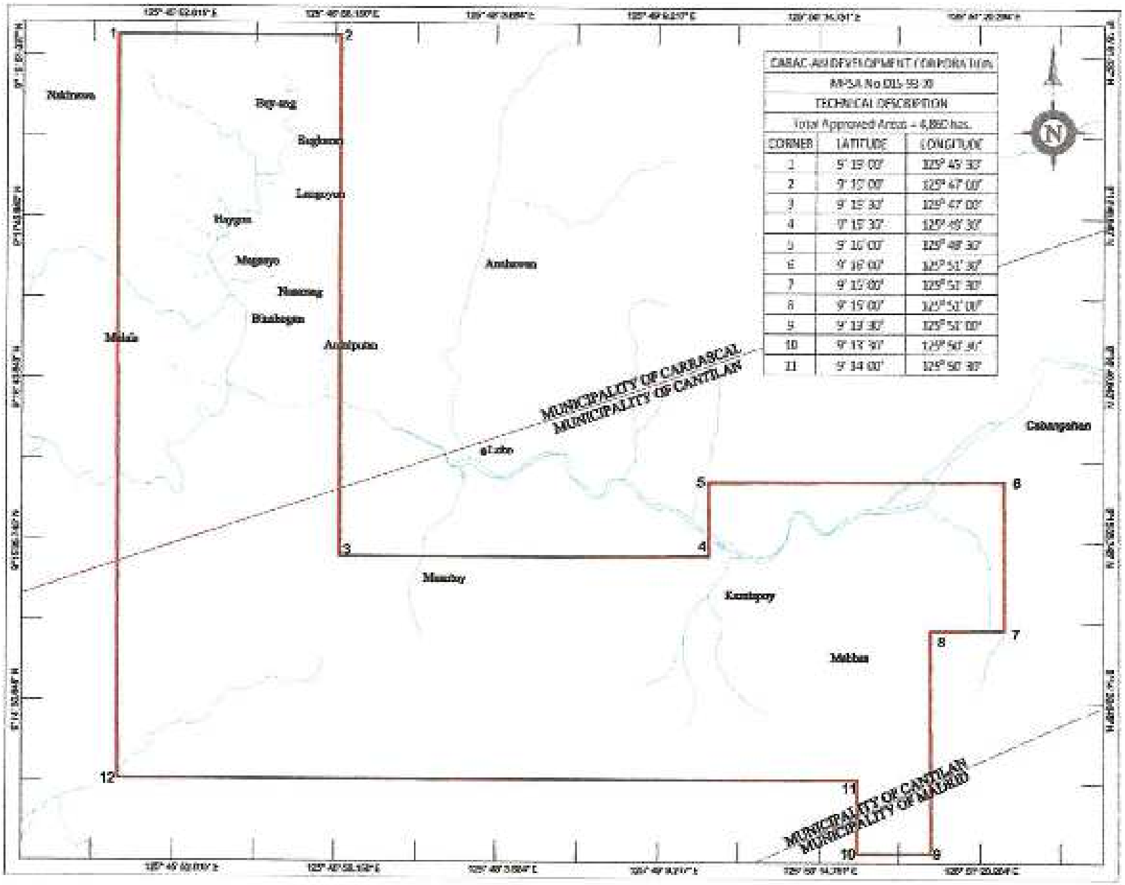

Figure 2-1. Location map showing BGRC tenement with municipal boundaries.

3.0 GEOGRAPHY

3.1 Location and Accessibility

BGRC's 4,860-hectare tenement area is located within Barangays Lubo and Cabangahan in the Municipality of Cantilan, Surigao del Sur. It is generally bounded by the geographic coordinates 125°45'30" to 125°51'30" and 9°13'30" to 9°19' (Luzon-Mindanao datum), which is covered the Madrid Quadrangle map of the National Mapping Resource Information Authority (NAMRIA).

Barangay Lubo is about thirty-two (32) kilometres and Barangay Cabangahan is fourteen (14) kilometres west of Cantilan town proper. It can be reached either by traversing the Caracan River, or by newly improve logging road from Sipangpang to Lubo.

Cantilan is 100 kilometers southeast of Surigao, accessible by two to three (2-3) hours' drive from Surigao along the Surigao City – Tandag National Highway. Cantilan can also be reached from Butuan passing through another national highway that fork at the Municipality of Sison and thereafter merges with the Surigao City – Tandag National Highway. Surigao and Butuan are both accessible from Manila by commercial flights.

Figure 3-1. Map showing BGRC tenement with road network from Surigan City and Butuan City.

3.2 Topography, Physiography and Drainage

The tenement area faces the Philippine Sea to the east. As seen in Figure 3-1, it is located at the northeastern fringe of a north-south trending mountain range that transects Surigao Peninsula. This mountain range is the Diwata Mountain Range (also called the Pacific Cordillera), a 300-kilometer-stretch of rugged mountains that extends all the way to Davao. The Diwata Mountain Range runs parallel to the east coast of Surigao, and effectively separates Surigao del Sur from the rest of Mindanao. The highest elevation in this mountain range is at 6,028 meters at the north end

and 8,207 meters at the south end. In between are two relatively topographic lows, one west of Lianga and Bislig bays, and the other between Lupo and Mati in Davao.

To the west of the Diwata Mountain Range is Tubay Valley and Lake Mainit slightly north. These topographically low areas are bordered to the west by a 70-kilometer-long elevated terrain that runs parallel to the west coast of Surigao del Norte, the Malimono Ridge.

Within the tenement area, the terrain is characterized by gently to moderately sloping and undulating terrain in Mabhas to the west, and by steep slopes and rugged terrain in Lubo to the northwest (Figure 4). In Mabhas, the gently to moderately sloping portion has elevations from 300 to 700 meters. The sides closest to Caracan River are the steepest, with slope angles of up to 80 degrees. Three dominant peaks occur at 470 meters elevation to the northernmost, and 760 and 890 meters elevation further south. From the second peak with 760 meters elevation, several ridges grow outward and downward in a radial manner. No karst topography can be inferred from topography, but along man-trails, limestone occurrences had been noted; likewise along Caracan River, limestone floats were observed. A major north-south trending tributary of Caracan River can be considered to separate Mabhas from the rest of the MPSA area.

West of Mabhas area, the terrain is more rugged and less undulating. Most ridges are thin, and seem to be aligned along a northeast direction. Elevations range from 300 to 800 meters elevation. Three peaks standing at 856 and 650 meters elevation to the west, and at 550 meters elevation further south.

In Lubo , the terrain is very rugged, especially to the north and west. Two dominant peaks stand at 360 and 400 meters elevation to the west of a north-south tributary, and another two at 650 and 750 meters elevation east of the tributary. Northwest of the tenement, the mountains steeply rise to as high as 1,300 meters elevation.

3.3 Climate

Surigao del Sur exhibits TYPE II Climate which has no dry season and with a very pronounced maximum rain period from December to February (Figure 3-2). The mean annual rainfall of the Philippines varies from 965 to 4,064 mm annually. Baguio City, eastern Samar and eastern Surigao receive the greatest amount of rainfall while the southern portion of Cotabato receives the least amount of rain. Maximum rainfall is experienced from November to February and minimum rainfall from May to April with annual rainfall not exceeding 4,500 millimeters (Kintanar, 1984).

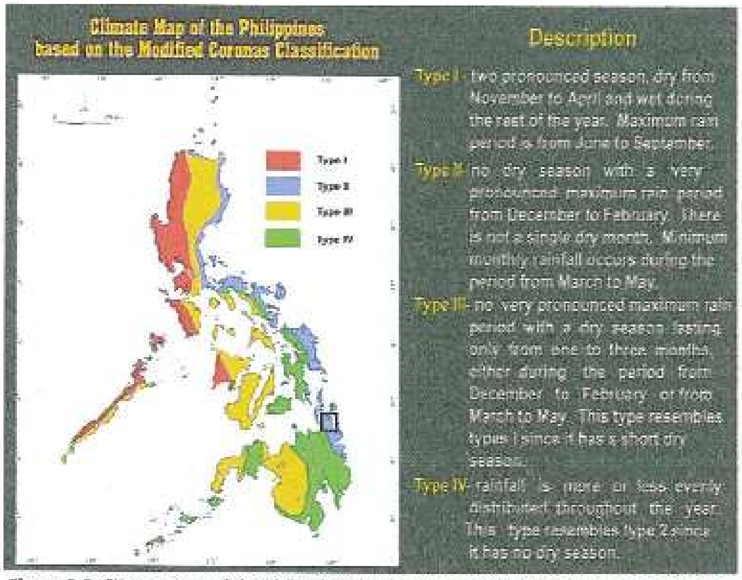

Figure 3-2. Climate map of the Philippines based on the Modified Coronas Classification with relative location of MMDC Tenement area (www.pagasa.dost.gov.ph).

3.4 Vegetation

The eastern to western mountainous section of MPSA are primarily covered by a dense growth of forest trees such as, lawaan, apitong, yakal, tangile and narra. Logged out portions are covered by secondary growth plants, such as vines, shrubs, under bushes, cogon grass and thick crawling ferns (agsam). Picher plants and rattan vines are common in open areas.

4.0 GEOLOGIC SETTING AND MINERALIZATION

4.1 Regional Geology, Tectonic Setting and Stratigraphy

The principal tectonic element of the Philippine archipelago is the elongate Philippine Mobile Belt (Rangin, 1991) which is bound to the east and west by two major subduction zone systems, and bisected along its north-south axis by the Philippine Fault (Figure 4-1).

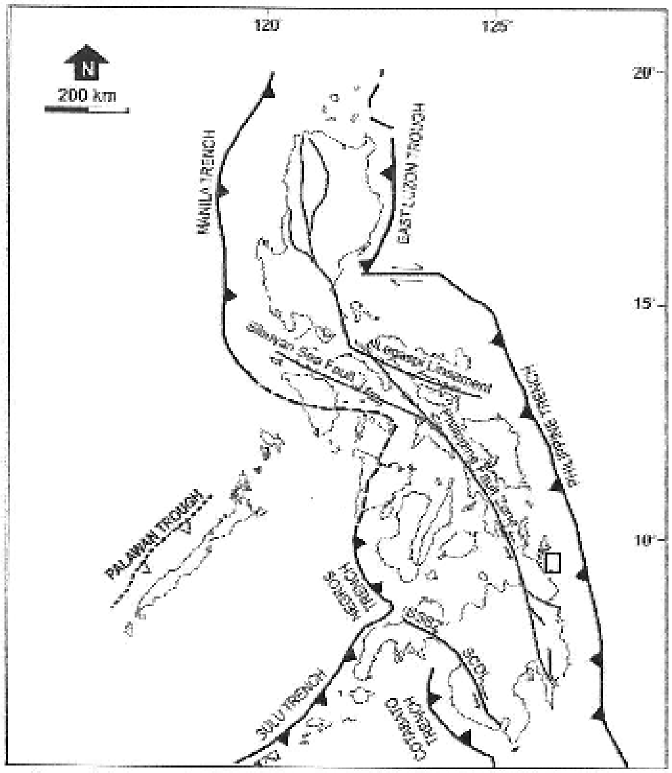

Figure 4-1. General tectonic map of the Philippines with relative location of the tenement area.

The Philippine Fault and its associated faults play an important role in the mineralization of the Surigao District. The trace of the Philippine Fault in Surigao is marked by highly rectilinear NNW-SSE trending Tubay Valley, Lake Mainit and Maniayao Volcano. These structures were formed by pull-apart mechanism associated with left-stepping left-lateral strike slip fault.

Intense physical and chemical weathering of ultramafic rocks believed to form part of ophiolite belts which became exposed to the tropical climatic conditions due to orogenetic processes produces nickel-bearing laterite. The distribution of ophiolite belts in the Philippines is shown in Figure 4-2.

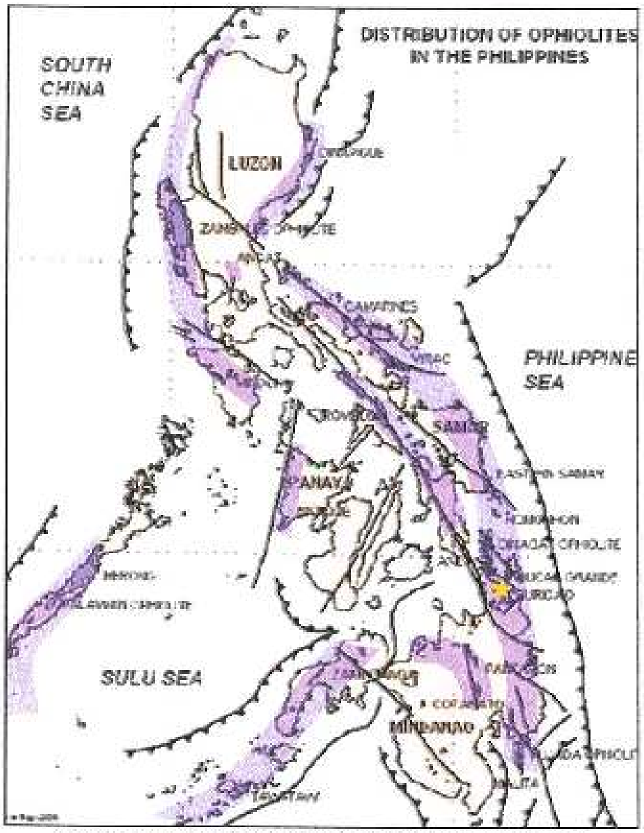

Figure 4-2. Map showing the distribution of ophiolite belts in the Philippines with relative location of MMDC tenement area.

The basement rocks in the district are basalts and slabs of the Dinagat Ophiolite and metamorphic rocks of the Cretaceous Sohoton Greenschist. The ophiolite consists of amphibolite, peridotite, pyroxenite, gabbro and dunite. They are regionally serpentinized and can be found along Malimono Ridge and Northern Pacific Cordillera. These rocks were dated to be Cretaceous to Paleocene (MGB, 2010; Rohrlach, 2005).

Overlying the basement rocks are calcareous conglomerates of the Upper Eocene Madanlog Formation in Surigao, and its equivalent terrigenous and calcareous sediments of the Nabanog Formation in Agusan. These formations are in turn overlain by the Late Oligocene to Early Miocene Bacuag Formation. The Bacuag Formation consists of basaltic flow and breccia, limestone, limestone conglomerate, wackes, siltstone, and muddy limestone.

Intruding the Bacuag Formation and other older formations is the Asiga Diorite named after the river where most outcrops were to be found. The Early to Late Miocene Alipao Andesite also intrudes the Bacuag Formation in the vicinities of Alipao and Siana Mine Pits. The Bacuag Formation is overlain by the Lower to Middle Miocene Mabuhay Formation (Motherlode Turbidite by UNDP, 1987). The Middle Miocene Timamana Limestone unconformably overlies the Bacuag and Mabuhay Formations. This consists of massive coralline limestone (MGB, 2010).

Andesitic pyroclastic eruption and lava flows formed the Tugunan Formation (Mabuhay Clastics by UNDP, 1987) during the Pliocene. Associated magmatism brought about the epithermal mineralization of the Surigao District (Rohrlach, 2005), and produced the andesites reported as the Andesite Group by Santos et.al. (1962) and as the Andesite Series by Santos-Ynigo (1944). These were separated by MGB (2010) into the Early to Late Pleistocene Ipil Andesite, Late Pliocene Bad-as Dacite and the Pleistocene Maniayao Andesite. Pleistocene deposits in the region are the

Mainit Formation, Hinatigan Formation and Placer Conglomerate (MGB, 2010), all of which are dominated by conglomerates and sandstones. Figure 4-3 shows the updated stratigraphic column of the Northern Pacific Cordillera by MGB, 2010.

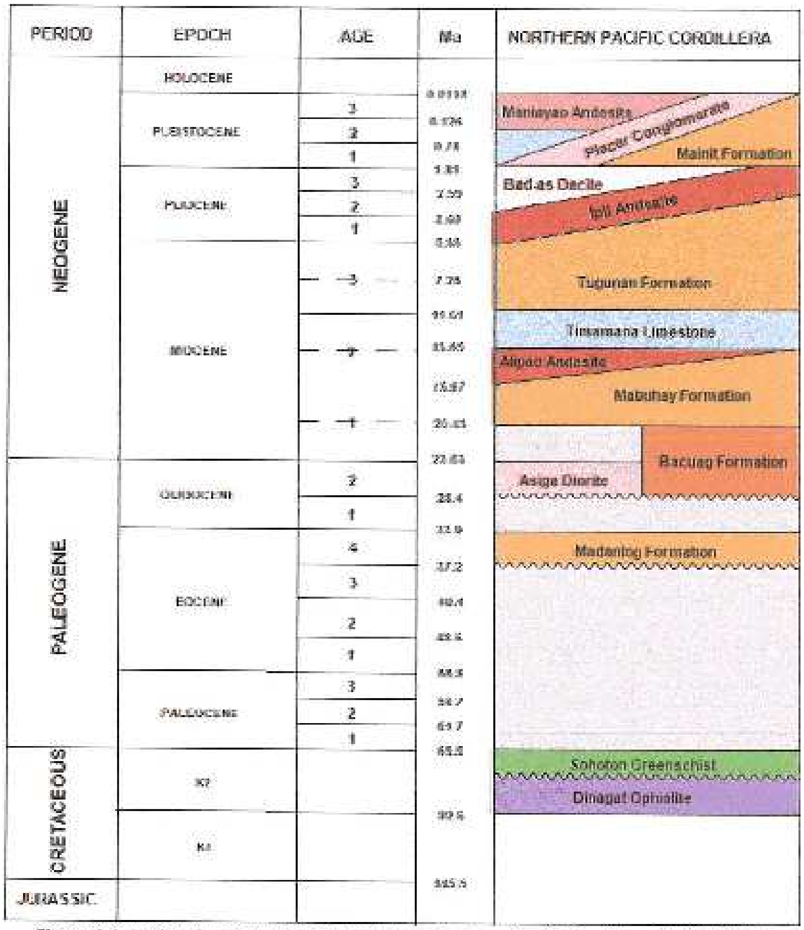

Figure 4-3. Updated stratigraphic column of the Northern Pacific Cordillera (MGB, 2010).

4.2 Local Geology

BGRC tenement is covered by lateritic deposit derived from the physical and chemical weathering in place of the underlying ultramafic rocks. The geology of the project area is characterized by four (4) rock units, namely: Quaternary Alluvium, Late Oligocene Asiga Diorite, Sohoton Greenschist and Dinagat Ophiolite Complex (Figure 4-4).

4.2.1 Quaternary Alluvium

The alluvium is mostly confined in the valleys and associated confluent alluvial fans and plains of the principal rivers. Continued uplift of the western coast of the island resulted in a regressive overlap of the flood-plain debris, so that thin, younger alluvium caps marine sediments. Repeated uplift is evidence by both river and beach terraces.

4.2.2 Asiga Diorite

Alipao andesite was named by UNDP (1987) after the hornblende andesite plugs in Alipao and Siana Mine pit, Surigao del Norte. Intruding all older units, it is assigned to a Middle Miocene age by UNDP (1987).

Outcrops are light to dark colored, moderately weathered, and highly jointed. Quartz veins and stringers and accompanying sulphides were observed in the outcrops. Hand specimens of diorite contain amphibole and plagioclase crystals with sizes ranging from 2mm to 1cm with disseminated crystals of pyrite and other sulphides which sometimes also occur as veinlets. Some xenoliths contain amphibole and plagioclase crystals that are larger than those in the diorite samples, as well as pyroxene.

4.2.3 Sohoton Greenschist

The Sohoton Greenschist is composed of greenschist, phyllite, and low-grade metamorphic sedimentary and volcanic rocks with marble interbeds. It was previously named as Sohoton Formation by Santos-Ynigo (1944) in reference to a metasedimentary and metavolcanic sequence near Sitio Sohoton, Malimono, Surigao del Norte.

4.2.4 Dinagat Ophiolite Complex

The Dinagat Ophiolite, the oldest stratigraphic unit in the area, is equivalent to the Basement Rocks of UNDP (1987) which is composed of serpentinized harzburgite, ophiolite suites, but including low-grade metamorphic rocks, metavolcanics and metasediments. It is previously named as Ultramafic Rocks by Santos-Ynigo (1944) and Santos et. al (1966) and renamed by MGB (2004). Exposures of this formation are located in the Mabhas area in the southeast part of the tenement with some sporadic occurrences of limestone, possibly part of Hinatigan Limestone Formation. Lateritic deposits from the weathering of this formation are present in this area.

Serpentinized peridotite, pyroxenite and dunite are exposed along road cuts in Barangay Panikian and Barangay Cabangahan. Fresh rock samples are greenish black to black. Dunite is predominantly composed of olive green grains of olivine. Pyroxene occurs as fine to coarse black crystals in peridotite and pyroxenite.

4.3 Mineralization

4.3.1 Laterite Mineralization

The Laterite mineralization on the eastern part of MPSA is a typical wet tropical laterite similar to other deposit in the region that occurred in the weathered ultramafic basement rock. The lateritisation process of the parent rocks at BGRC Laterite Deposit involves the dissolution of the original rock mineralogy, the leaching of certain elements, and the eventual deposition of those elements elsewhere. The most soluble of the compounds, such as magnesium oxides, are thus removed, increasing the relative concentration of the remaining minerals, which include iron oxides and any contained nickel and cobalt. The nominal weathering depth is approximately 12 meters.

The weathering profile at the MPSA area is best described from the base upwards. At the base of the weathering profile, the parent bedrock consists of massive to highly jointed ultramafic rocks consisting of harzburgite whose surface can be highly irregular with numerous peaks and troughs. Conversely, preferential weathering within the bedrock along joints and fractures produces narrow weathered zones that extend deep into the bedrock. The narrow weathered zones are generally composed of saprolite and are known to commonly contain high nickel grades. The saprolite of Mabhas and Anas has average thickness of 5 m.

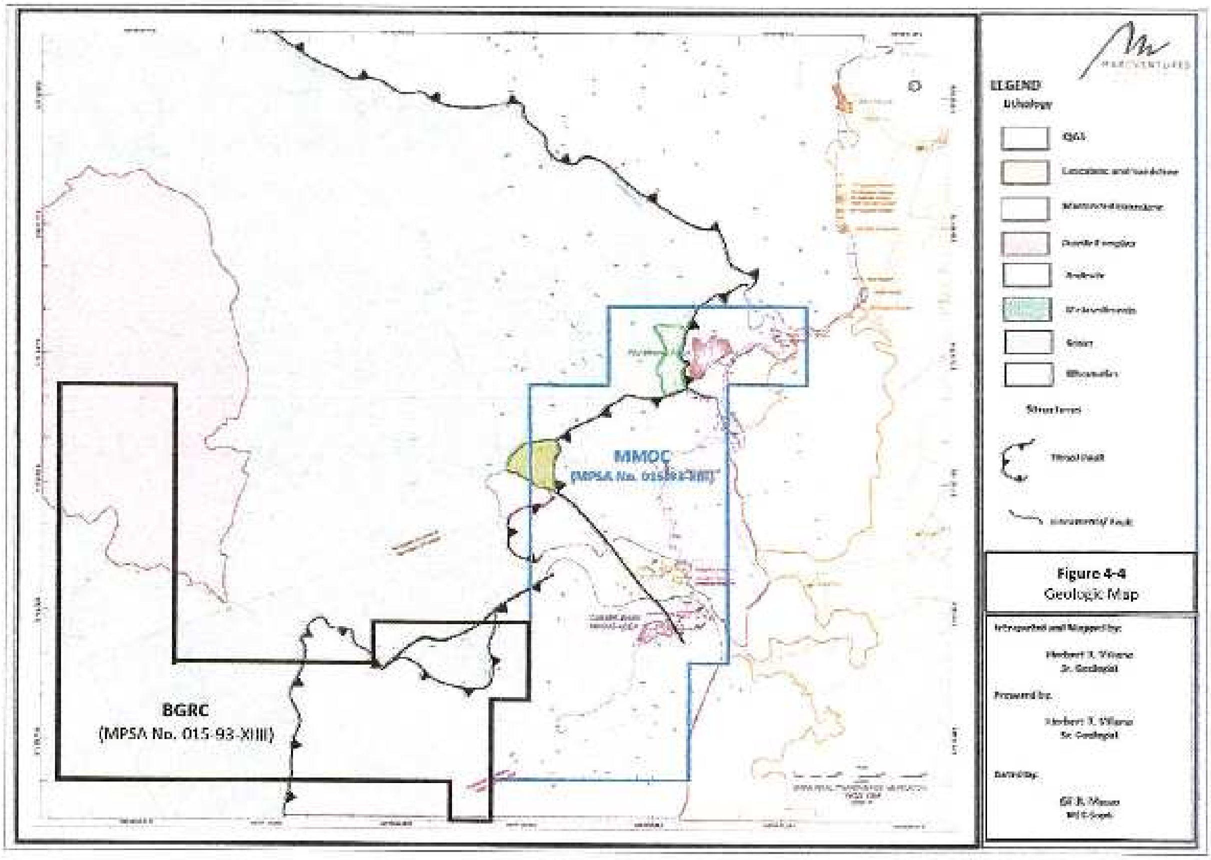

Figure 4-4
Geologic Map

Also, near surface accumulations of limonitic laterite ore containing little or no residual rocky material exist. The limonite zone is generally less than 6.0m thick and often thins on steeper slopes.

Nickel is relatively mobile over a wide range of environment. Its fixation in the limonite zone is in oxide form. Nickel is absorbed and included in the goethite and other oxide form. Its values generally increase in depth and attain maximum values at the saprolite layer. Its concentration in the limonite zone is not high compared to that in the saprolite zone. Iron content is highest in the limonite zone but decreases rapidly from the bottom of the limonite zone to the saprolite zone (Figure 4-5).

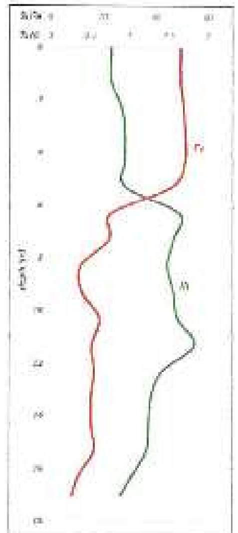

Figure 4-5. Plot of Ni and Fe values of a BGRC drill hole (E6 N250 E350) versus depth in meters. Note the sudden decrease in Fe and sudden increase in Ni marks the transition from the top limonite portion to saprolite below.

Nickel and iron grade histogram shown in Figure 4-6 demonstrates presence of limonite and saprolite within the project area. This is manifested by high count of nickel values with more than 1.2%. The iron grade distribution shows that the typical trend observed for most laterite deposits in the country wherein there is observable clustering of iron values from 7.5 to 12.5% and from 47.5 to 52.5%.

Trend of nickel grade distribution observed so far in other laterite deposits in the country show normal or bell-shaped distribution with the peak at medium grades or around 1%.

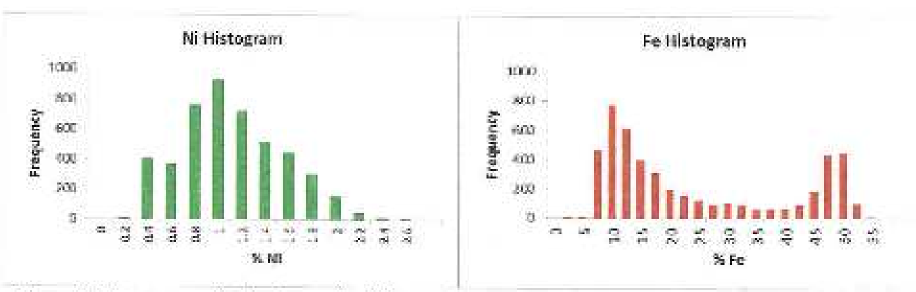

Figure 4-6. Frequency distribution graphs (histogram) of nickel and iron values of samples from Mabhas-Anas Area.

4.3.2 Gold and Copper Mineralization

Indication of gold and copper mineralization is found on the western portion of the MPSA. According to an unpublished report of Mendoza and Ausa (2007), concentrations of alluvial gold are believed to be coming from the Langoyon area and to be deposited along the Binaogan creek and Carac-an River at Lubo. Traces of small scale mining for gold were observed along the Langoyon Creek, northern Sugkaran area, and the southern Nasarsag area. Hydrothermal alterations in Pinohagan Creek were also noted. Assay results from the collected samples yielded generally low values for gold and copper and regional stream sediment samples shows no potential gold and copper drainage anomaly except from those along the Binaogan and Aniniputan Rivers which are both draining from the Langoyon gold workings.

A possible epithermal gold deposit based from structures and features observed, such as irregular or branching fissures, vesicle fillings, stockworks, breccia pipes and sulfide disseminations, along the creeks of Lubo. A 10-meter wide highly silicified zone of parallel or criss-crossing quartz veins or veinlets containing medium to strong pyrite disseminations with copper sulphides, was traced on the surface (extending 1-3 km.) along the Aniniputan River. This km-long quartz vein system is probably the most substantial delineation of economic potential done in the Lobo area. (Adarle, 2010).

Four intrusive phases of diorites (hornblende quartz diorite, quartz diorite, diorite and microdiorite) consisting of plagioclase, hornblende and minor biotite. Quartz diorite is the main host of copper and gold mineralization while the hornblende quartz diorite is the least mineralized. Argillic alteration is common while propylitic alteration, characterized by chlorite, calcite, pyrite and epidote, is rarely observed, though no thorough alteration mapping was done. They speculated that during overprinting in phyllic-argillic alteration, copper must have been introduced. Portions of the potential porphyry copper system are possibly exposed in the surface with a probable significant mineralization at deeper levels, due to the occurrence of a widespread argillic alteration. (Adarle and Barata Jr., 2010).

5.0 EXPLORATION

Semi-detailed geologic mapping of BGRC's MPSA in 2010 and 2012 revealed important economic geological targets within the property. These are the 1) nickel laterite deposit in Barangay Cabangahan and 2) epithermal gold-porphyry copper prospect in Barangay Lubo. This report focuses on the exploration of the nickel laterite deposit. The following sub-sections describes the details of the drilling activities that was done over the nickel laterite deposit to estimate its resources.

5.1 Drilling and Sampling

5.1.1 2012 Exploration Drilling

In 2012, BGRC contracted Dr. Carlo Arcilla, Director of the University of the Philippines National Institute of Geological Sciences to explore the company's tenement area to determine its potential for nickel and gold-copper deposits. By the 3rd quarter of that year, twenty three (23) holes were drilled at 500 to 1,000 meter spacing within approximately 300 hectares area with delineated laterite deposit. Out of the 23 holes, eight (8) yielded greater than 3 meters of saprolite, concentrated in the central and northeastern portion of Mabhas.

To further verify, a 200m x 200m drilling program was implemented in the same year within the area of concentration, covering approximately 80 hectares in central Mabhas, and 15 hectares in northeast Mabhas. Results of the 200m x 200m drill program prompted an infill (100m x 100m) drilling program in areas surrounding the high-nickel, thick saprolite areas. A total of 62 holes were drilled with an aggregate depth of 919.50 meters (Table 5-1). This includes the previous 23 holes that were drilled at 300-meter interval.

Table 5-1. Summary of 2012 exploration drilling accomplishments.

Location	No. of DHs	Meterage	Ave. Depth/Hole
Mabhas-Anas	62	919.50	14.3

5.1.2 2015 Exploration Drilling

After the 2012 drilling campaign, it has been confirmed that Mabhas and Anas Areas have potential for nickel laterite. In 2015, BGRC Management decided to conduct 50m x 50m in-fill drilling within these areas to come up with an estimation of the areas' measured and indicated resources. The in-fill drilling program commenced on April 2015 and was completed by the month of October of the same year.

BGRC Exploration Team implemented the following procedure in conducting the Phase 2 exploration drilling program (Figure 5-1).

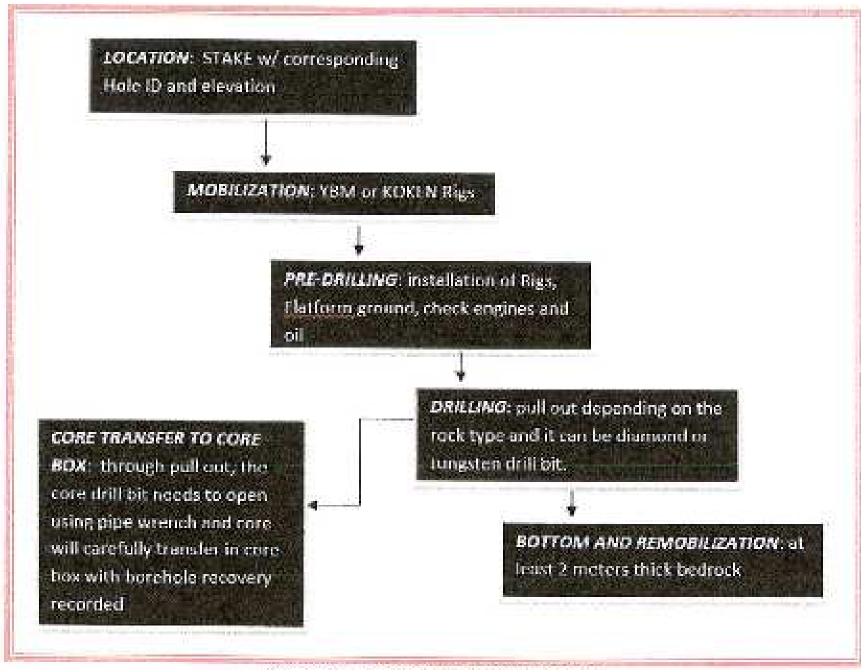

Figure 5-1. Exploration drilling procedure.

The baseline used in laying out the location of the proposed in-fill drill holes was established by traversing from a reference point within MMDC MPSA Area to Mabhas-Anas Area using a TOPCON Total Station. After establishing the baseline, the proposed drill holes were laid out at 50-meter interval and marked with stakes with corresponding northing, easting and elevation. A total of 349 drill holes were laid out, 189 of which are in Anas and 160 are in Mabhas (Table 5-2).

Table 5-2. Summary of 2015 survey activity.

LOCATION (50m x 50m grid)	Actual holes	No. of surveyed	Cycle time	No. of days
ANAS (47.25has)	178	189	8 holes/day	23.62
MABHAS A (40 has)	153	160	8 holes/day	20

Drilling was contracted out to JCP Geo-Ex Services, Inc. (JGSI) owned by Mr. Jesus C. Palma. JGSI used four (4) fabricated Koken drill machines with NQ size core tubes. The activity was supervised by Geologists Ralph Rey L. Tan, Roi Eric V. Saludes and Beda Louie O. Cagampang with Mapping Specialist Ronito T. Martinez. Summary of drilling accomplishment is presented in Table 5-3.

Table 5-3. Summary of 2015 drilling accomplishments.

Location	No. of DHs	Meterage	Ave. Depth/Hole
Anas	171	2,012.25	11.77
Mabhas A	153	1,803.66	11.79
TOTAL	**324**	**3,815.91**	**11.78**

Figure 5-2 shows photograph of actual drilling activity and core samples collected during the 2015 drilling campaign. Location of drill holes from 2012 to 2015 is shown in Figure 5-3.

Figure 5-2. a) JGSI fabricated Koken drill machine, b) core samples placed in core boxes by the core checker, c) sample of core photograph taken once samples of a drill hole is delivered to the field sample house, d) sample of saprolite ore intercepted in one of the drill holes.

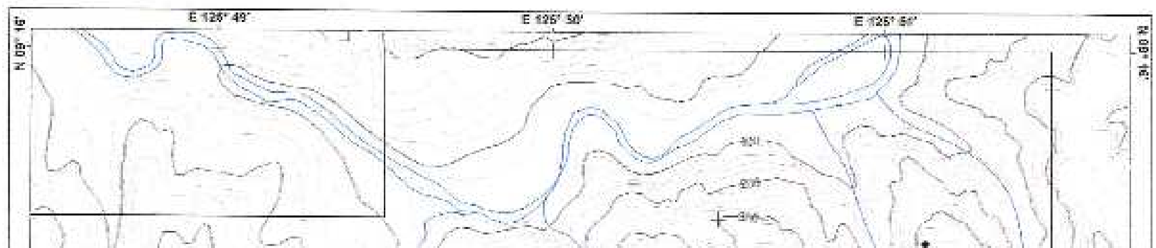

Figure 5-3. Map showing location of drill holes completed on 2012 (black circles) and on 2015 (circle).

5.2 Sample Preparation, Analyses and Security

A Core Checker trained by BGRC Geologist or Mapping Specialist is present during coring operation to record drilling activities such as core recovery, drill run, type of material recovered including problems encountered during drilling. Once a hole is bottomed, the core boxes containing the samples are delivered to the Field Sample House where the Geologist or Mapping Specialist takes photograph of the samples and conducts core logging.

Once core logging is done, sampling is done at a nominal interval of one (1) meter down the hole regardless of laterite horizon boundaries. Samples are placed into pre-labelled plastic samples bags and delivered to MMDC Assay Laboratory for sample preparation and analyses.

The Sample Preparation Lead Man checks the delivered samples against the Sample Despatch and signs the despatch form.

Samples are manually crushed on a steel plate using a sledge hammer then placed on labelled metal trays. To dry the samples, the metal trays containing the samples are placed into the electric oven at 105°C for 8 hours or more if needed. The sample is then passed through a crusher to crush "lumps" that formed while drying the sample. A riffle splitter is used to divide the sample into two (2) parts. One (1) part is retained and stored as coarse reject that can be used for check analysis in the future. The other part is pulverized to 150 mesh where about 1 gram sample is taken to be analysed.

Analyses of core samples by the MMDC Assay Laboratory using Atomic Absorption Spectrometry (AAS) and using X-ray Flouescence (XRF) Spectrometry.

Coarse duplicates are temporarily stored at the MMDC core house located adjacent to the laboratory and sample preparation facility. The pulp duplicates are kept in the sample preparation facility. Maximum holding period of coarse duplicates is one (1) year. Afterwards it will be properly disposed or used as filling material, if applicable.

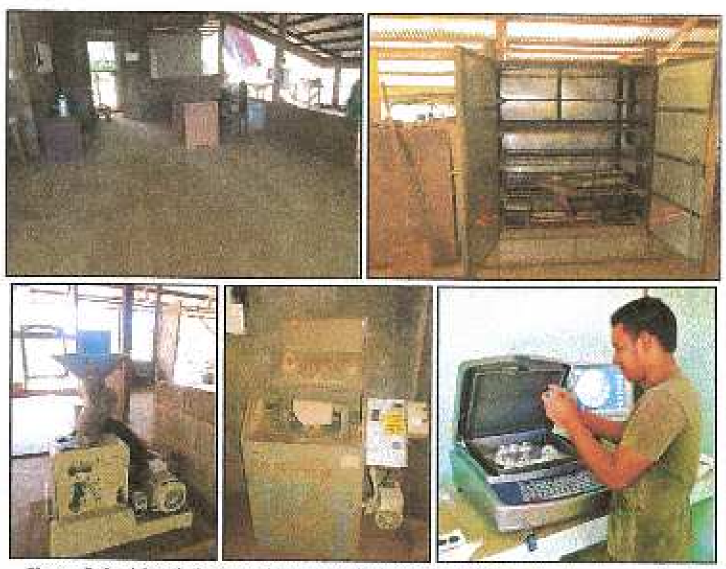

Figure 5-4. a) Steel plate used to manually crush saprolite and bedrock samples, b) Metal trays containing crushed samples are placed into the electric oven to be heated at 105°C for 8 hours, c) crusher used to reduce the size of the sample after drying, d) pulverizer used to further reduce the size of the sample after splitting, e) XRF machine used to analyse the pelletized samples.

6.0 DATA VERIFICATION

6.1 Drilling database

Data was arranged into excel files containing the collar and assay data of each hole. A total of 4,683 samples of 386 drill holes from the 2012 and 2015 exploration drilling activities were considered in the determination of BGRC's mineral resource (Table 6-1).

Table 6-1. Summary of BGRC database record.

	Ni	Fe
N of cases	4,683	4,683
Sum	4,787.11	108,343.52
Minimum	0.03	0.62
Maximum	2.51	54.47
Range	2.48	53.85
Median	0.97	15.75
Mean	1.02	23.14
Standard deviation	0.44	15.80
Mode	0.92	9.71
Variance	0.19	249.51
Coefficient of variation	0.43	0.68

6.2 QA/QC

MMDC in-house laboratory was chosen to analyse the samples due to its proximity to the project area. The laboratory ensures precise and accurate results through internal Quality Assurance/Quality Control (QA/QC) procedure and inter-laboratory checking. The accuracy and precision of MMDC's laboratory is also demonstrated by its capability to conduct its own determination of grade of materials transported in MMDC's shipments which agrees with the values determined by the buyer's laboratory in China.

6.2.1 Internal QA/QC

Internal QA/QC includes the incorporation of in-house reference samples, and coarse and pulp duplicate samples in sample batches. In-house reference samples are prepared from core samples that have good or ore-grade values.

6.2.2 Inter-laboratory checking

Inter-laboratory checking is conducted by sending some of MMDC's standards and samples to laboratories of other mining companies such as Taganito, CNC, CTP and Biominerals.

The accuracy and precision of MMDC's laboratory is also demonstrated by its capability to conduct its own determination of grade of materials transported in each of MMDC's shipment which agrees with the values determined by buyer's laboratory in China.

7.0 RESOURCE ESTIMATION

Polygon method was used to determine BGRC's mineral resource. In this method, each drill hole is assigned a polygon that represents the extent of the area of influence of the drill hole. The assumption is that everywhere within the polygon, the thickness and grade of the resource material is uniform and more or less the same to the resource material of the drill hole enclosed by the polygon.

The area of influence of each drill hole is based on the halfway rule, which states that the influence of a drill hole sample extends halfway to other samples laterally adjacent to it. The resource is classified only as resource potential due to the limited data available for the area.

The volume of each block is the product of the area of influence and the combined thickness of samples that fall within the set cut-off grades of each ore type (Figure 7-1). To determine the equivalent Wet Metric Tonnage (WMT), the total in-situ volume is multiplied to a swell factor of 1.35 and 1.37, and to the bulk density of 1.16 and 1.46 for soft and hard materials, respectively. The soft materials contain about 38% moisture while hard materials contain about 15% moisture.

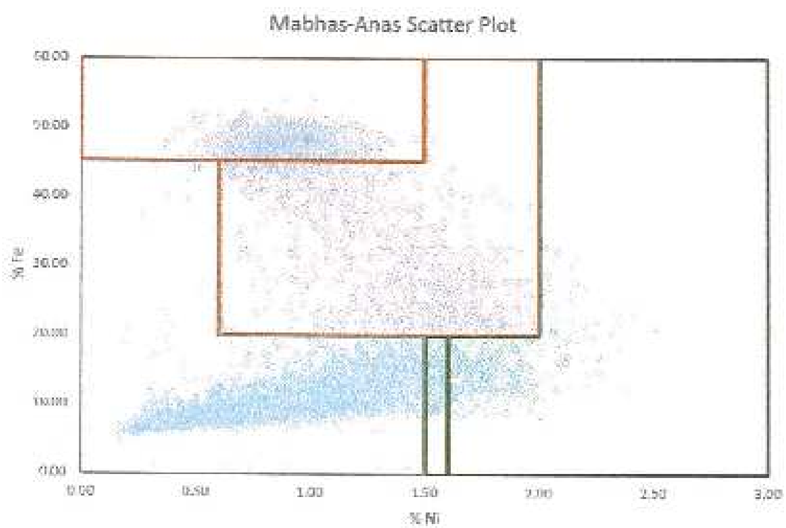

Figure 7-1. Scatter plot of nickel and iron values of core samples collected within Mabhas-Anas Area. Note the clustering of points within 0.6-1.1% Ni and 45-52% Fe which corresponds to the grade of high iron limonite. Saprolite samples are lesser and are more scattered compared to limonite samples.

BGRC's mineral resource estimates is summarized in Table 7-1. The property's total measured and indicated mineral resources was estimated to be about 16.03 million WMT with 1.17% Ni and 34.98% Fe. This is equivalent to about 3.06 million WMT of saprolite with 1.59% Ni and 14.85% Fe, and 12.97 million WMT limonite with 1.07% Ni and 39.73% Fe.

Figure 7-2 shows the grade-tonnage curve of the laterite deposit which demonstrates that as nickel grade increase, tonnage decreases. This denotes that there is more low nickel limonite than high nickel saprolite in the area. The extent of the Indicated and Inferred Resources in the area is presented in Figure 7-3.

Table 7-1. Summary of BGRC mineral resource estimates as of December 31, 2015.

Category	Ore Class	WMT	DMT	%Ni	%Fe	Ni Tonnes
Measured	Sap III	-	-	-	-	-
	Sap IV	-	-	-	-	-
	Sub-total	-	-	-	-	-
	Lim low iron	2,466,000	1,529,000	1.34	32.47	21,000
	Lim high iron	2,088,000	1,294,000	0.89	47.80	12,000
	Sub-total	**4,554,000**	**2,823,000**	**1.13**	**39.49**	**33,000**
	TOTAL	**4,554,000**	**2,823,000**	**1.13**	**39.49**	**33,000**
Indicated	Sap III	1,295,000	803,000	1.82	15.84	15,000
	Sap IV	1,760,000	1,093,000	1.42	14.11	16,000
	Sub-total	**3,055,000**	**1,896,000**	**1.59**	**14.85**	**31,000**
	Lim low iron	4,328,000	2,683,000	1.23	31.66	33,000
	Lim high iron	4,090,000	2,536,000	0.84	48.53	21,000
	Sub-total	**8,418,000**	**5,219,000**	**1.04**	**39.86**	**54,000**
	TOTAL	**11,473,000**	**7,115,000**	**1.19**	**33.19**	**85,000**
Measured and Indicated Total		**16,027,000**	**9,938,000**	**1.17**	**34.98**	**118,000**
Inferred	Sap III	219,000	136,000	1.72	16.86	2,000
	Sap IV	110,000	68,000	1.39	9.05	1,000
	Sub-total	**329,000**	**204,000**	**1.61**	**14.25**	**3,000**
	Lim low iron	2,255,000	1,398,000	1.10	29.68	15,000
	Lim high iron	2,443,000	1,515,000	0.73	48.78	11,000
	Sub-total	**4,698,000**	**2,913,000**	**0.90**	**39.61**	**26,000**
	TOTAL	**5,027,000**	**3,117,000**	**0.95**	**37.95**	**29,000**
MEASURED and INDICATED	Sap III	1,295,000	803,000	1.82	15.84	14,617
	Sap IV	1,760,000	1,093,000	1.42	14.11	15,520
	Sub-total	**3,055,000**	**1,896,000**	**1.59**	**14.85**	**30,137**
	Lim low iron	6,794,000	4,212,000	1.27	31.95	53,380
	Lim high iron	6,178,000	3,830,000	0.86	48.29	32,837
	Sub-total	**12,972,000**	**8,042,000**	**1.07**	**39.73**	**86,218**
	TOTAL	**16,027,000**	**9,938,000**	**1.17**	**34.98**	**116,354**

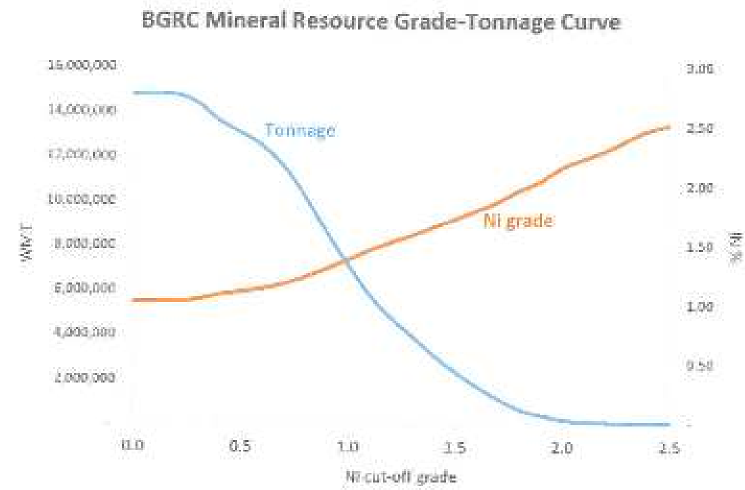

Figure 7-2. Grade-tonnage curve of Mabhas-Anas assay results.

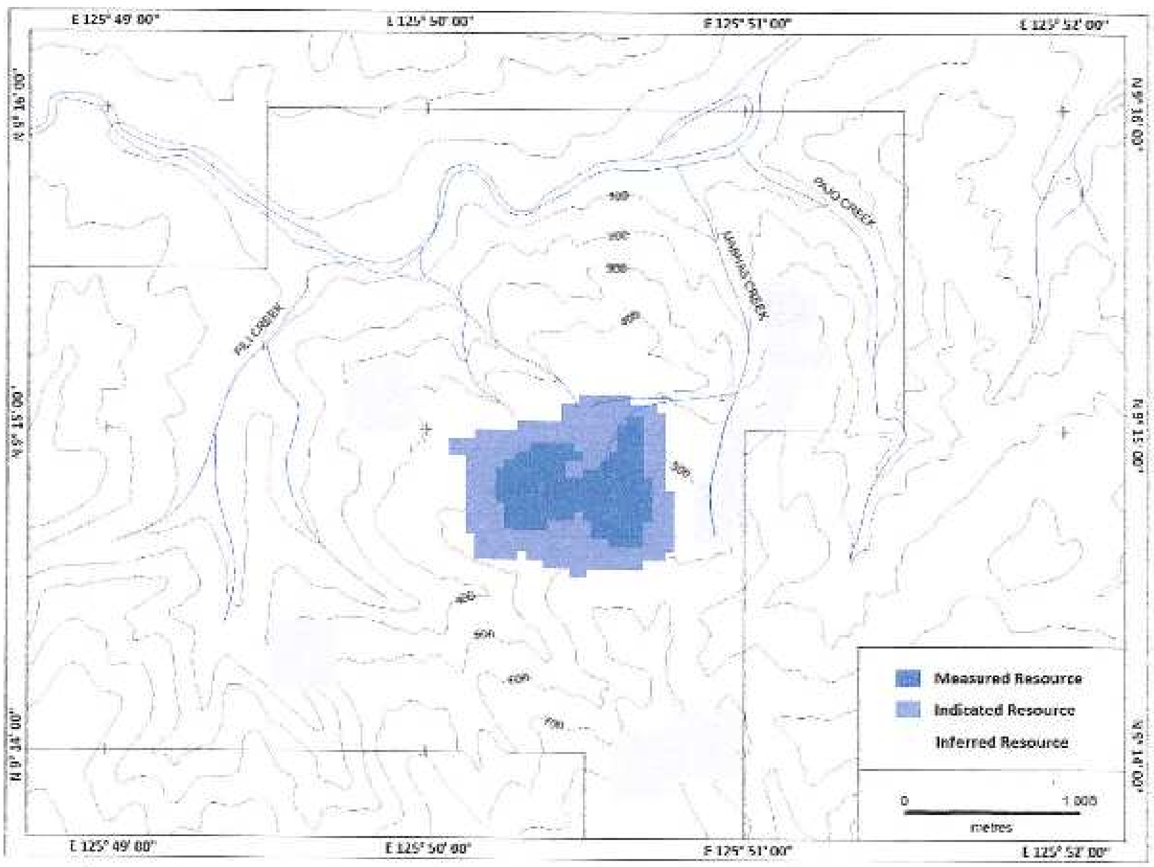

Figure 7-3. Location map showing location of Indicated and Inferred Resources estimated using manual polygon method.

8.0 CONCLUSION AND RECOMMENDATION

The occurrence of high-nickel saprolite and high-iron limonite in MMDC tenement area prompted the exploration for possible nickel laterite within BGRC tenement area, specifically the Mabhas-Anas Area. Results of 62 holes drilled on 2012 revealed areas with high-nickel saprolite and high-iron limonite located at about 400 to 600 masl. These areas are located west of MMDC's Lancuag Area which has also been explored and proven to have potential for saprolite and limonite.

An estimation of the area's resource potential was reported on 2014 by the company's in-house geologist using manual polygon method and based on the results of the 62 drill holes. The project's total nickel laterite resource potential is about 6.39 million WMT with 1.13% Ni and 37.60% Fe. This is equivalent to 1.32 million WMT of saprolite with 1.80% Ni and 16.01% Fe, and 5.07 million WMT limonite with 0.98% Ni and 42.63% Fe.

A more detailed drilling program was conducted within the delineated area in 2015 to come up with an estimates of its mineral resources. A total of 324 holes was drilled at 50 meters interval with a total of 3,815.91 meters depth. Samples were analysed using XRF machine and results were prepared in excel files which were used in the manual polygon method of estimation.

From a resource potential of about 6.39 million WMT, the Measured and Indicated Resource of the project was estimated to be about **16.03 million WMT with average grade of 1.17% Ni and 34.98% Fe.** This is equivalent to about 3.06 million WMT of saprolite with 1.59% Ni and 14.85% Fe, and 12.97 million WMT limonite with 1.07% Ni and 39.73% Fe. Additional Inferred limonite and saprolite resource was estimated at **5.03 million WMT with 0.95% Ni and 37.95% Fe.**

Another potential economic geological target in the vicinity of Barangay Lubo should be explored by the company, which based on geological, geochemical and induced polarization studies suggest that a substantial porphyry copper prospect might underlie the area. Exploratory shallow drilling and a few deep diamond drill holes were recommended by Dr. Arcilla to test if the geochemical and geophysical anomalies delineated constitute significant ore resources.

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Hole	From	To	Ni	Fe
5 N400 E45	0.00	1.40	0.67	12.19
5 N400 E45	1.40	2.40	0.67	20.90
5 N400 E45	2.40	3.40	1.04	11.81
5 N400 E45	3.40	4.40	0.73	12.43
5 N400 E45	4.40	5.40	0.62	12.31
5 N400 E45	5.40	6.40	0.73	11.96
5 N400 E45	6.40	7.00	0.97	12.32
5 N450 E35	0.00	0.69	0.49	50.33
5 N450 E35	0.69	1.69	0.65	50.61
5 N450 E35	1.69	2.69	0.76	50.54
5 N450 E35	2.69	3.69	0.86	49.35
5 N450 E35	3.69	4.69	1.18	34.75
5 N450 E35	4.69	5.69	1.55	28.10
5 N450 E35	5.69	6.69	1.58	18.42
5 N450 E35	6.69	7.69	1.32	16.28
5 N450 E35	7.69	8.69	1.29	15.14
5 N450 E35	8.69	9.69	1.32	16.15
5 N450 E35	9.69	10.69	1.04	12.09
5 N450 E35	10.69	11.69	1.03	13.99
5 N450 E35	11.69	12.69	0.62	8.24
5 N450 E35	12.69	13.69	0.55	8.46
5 N450 E35	13.69	15.00	0.55	7.39
5 N400 E35	0.00	1.30	0.67	49.69
5 N400 E35	1.30	2.30	0.90	49.77
5 N400 E35	2.30	3.30	0.68	50.58
5 N400 E35	3.30	4.30	0.74	49.80
5 N400 E35	4.30	5.30	0.83	50.16
5 N400 E35	5.30	6.30	1.39	37.11
5 N400 E35	6.30	7.30	1.64	27.15
5 N400 E35	7.30	8.30	1.64	23.72
5 N400 E35	8.30	9.30	1.28	19.08
5 N400 E35	9.30	10.30	0.88	13.58
5 N400 E35	10.30	11.30	1.07	20.42
5 N400 E35	11.30	12.30	1.02	17.38
5 N400 E35	12.30	13.00	0.57	10.56
5 N350 E45	0.00	1.70	1.14	29.22
5 N350 E45	1.70	2.70	1.65	29.93
5 N350 E45	2.70	3.70	0.62	46.00
5 N350 E45	3.70	4.70	1.50	22.95
5 N350 E45	4.70	5.70	1.13	13.15
5 N350 E45	5.70	6.70	0.87	11.81
5 N350 E45	6.70	7.70	1.15	11.25
5 N350 E45	7.70	8.70	1.07	13.19
5 N350 E45	8.70	9.70	1.05	12.41
5 N350 E45	9.70	10.70	1.24	14.90
5 N350 E45	10.70	11.70	1.04	10.42
5 N350 E45	11.70	12.70	0.58	7.87
5 N350 E45	12.70	13.00	0.96	11.31
5 N350 E40	0.00	1.27	0.66	49.05
5 N350 E40	1.27	2.27	0.82	50.86
5 N350 E40	2.27	3.27	0.86	50.68
5 N350 E40	3.27	4.27	1.15	36.97
5 N350 E40	4.27	5.27	0.78	7.37
5 N350 E40	5.27	6.27	0.77	13.21
5 N350 E40	6.27	7.27	0.77	12.42
5 N350 E40	7.27	8.27	0.51	8.40
5 N350 E40	8.27	9.00	0.50	8.20
6 N50 E30	0.00	0.82	0.59	47.63
6 N50 E30	0.82	1.82	0.74	51.11
6 N50 E30	1.82	2.82	0.72	50.03
6 N50 E30	2.82	3.82	0.91	50.58
6 N50 E30	3.82	4.82	1.55	35.77
6 N50 E30	4.82	5.82	1.86	23.32
6 N50 E30	5.82	6.82	2.17	19.48
6 N50 E30	6.82	7.82	2.05	20.22
6 N50 E30	7.82	8.82	2.09	16.24
6 N50 E30	8.82	9.82	0.87	9.21
6 N50 E30	9.82	10.82	0.57	7.77
6 N50 E30	10.82	11.82	0.59	7.08
5 N300 E45	0.00	1.26	0.82	48.05
5 N300 E45	1.26	2.26	1.12	46.61
5 N300 E45	2.26	3.26	1.51	32.70
5 N300 E45	3.26	4.26	1.54	29.24
5 N300 E45	4.26	5.26	1.49	16.49
5 N300 E45	5.26	6.26	1.31	10.86
5 N300 E45	6.26	7.26	1.28	10.66
5 N300 E45	7.26	8.26	1.08	10.49
5 N300 E45	8.26	9.26	1.32	17.43
5 N300 E45	9.26	10.26	1.06	10.62
5 N300 E45	10.26	11.26	0.69	6.77
5 N300 E45	11.26	12.00	0.87	7.31
5 N450 E30	0.00	1.49	0.71	49.59
5 N450 E30	1.49	2.49	0.84	50.98
5 N450 E30	2.49	3.49	0.90	50.32
5 N450 E30	3.49	4.49	1.00	49.09
5 N450 E30	4.49	5.49	1.50	13.66
5 N450 E30	5.49	6.49	1.13	9.71
5 N450 E30	6.49	7.49	0.93	9.36
5 N450 E30	7.49	8.00	0.64	7.42
5 N500 E35	0.00	1.20	0.69	49.07
5 N500 E35	1.20	2.20	0.80	49.81
5 N500 E35	2.20	3.20	0.86	49.56
5 N500 E35	3.20	4.20	0.98	49.65
5 N500 E35	4.20	5.20	0.93	49.13
5 N500 E35	5.20	6.20	0.85	48.64
5 N500 E35	6.20	7.20	0.94	50.34
5 N500 E35	7.20	8.20	1.00	49.08
5 N500 E35	8.20	9.20	1.42	38.49
5 N500 E35	9.20	10.20	1.83	21.81
5 N500 E35	10.20	11.20	1.70	35.76
5 N500 E35	11.20	12.20	1.09	14.72
5 N500 E35	12.20	13.20	0.85	12.32
5 N500 E35	13.20	14.20	0.49	7.64
5 N500 E35	14.20	15.00	0.39	6.47
5 N250 E15	0.00	0.71	0.83	48.53
5 N250 E15	0.71	1.71	0.93	47.32
5 N250 E15	1.71	2.71	0.97	49.22
5 N250 E15	2.71	3.71	0.94	19.80
5 N250 E15	3.71	4.71	0.81	17.59
5 N250 E15	4.71	5.71	0.90	14.87
5 N250 E15	5.71	6.71	1.19	15.67
5 N250 E15	6.71	7.71	1.06	13.90
5 N250 E15	7.71	8.71	1.05	15.40
5 N250 E15	8.71	9.71	0.75	11.04
5 N250 E15	9.71	10.71	0.50	10.15
5 N250 E15	10.71	11.80	0.48	9.03
5 N400 E30	0.00	1.07	0.70	45.26
5 N400 E30	1.07	2.07	0.95	49.76
5 N400 E30	2.07	3.07	0.88	49.90
5 N400 E30	3.07	4.07	0.97	49.79
5 N400 E30	4.07	5.07	0.96	50.83
5 N400 E30	5.07	6.07	0.91	49.46
5 N400 E30	6.07	7.07	1.02	45.32
5 N400 E30	7.07	8.07	1.67	32.07
5 N400 E30	8.07	9.07	1.28	24.87
5 N400 E30	9.07	10.07	0.85	8.87
5 N400 E30	10.07	11.07	0.51	8.96
5 N400 E30	11.07	12.07	0.62	9.71
5 N250 E25	0.00	1.25	0.71	46.15
5 N250 E25	1.25	2.25	1.01	46.29
5 N250 E25	2.25	3.25	1.04	46.42
5 N250 E25	3.25	4.25	1.21	48.07
5 N250 E25	4.25	5.25	1.29	42.10
5 N250 E25	5.25	6.25	1.37	38.81
5 N250 E25	6.25	7.25	1.55	16.65
5 N250 E25	7.25	8.25	1.10	11.21
5 N250 E25	8.25	9.00	0.70	7.13
6 N200 E40	0.00	0.95	0.78	48.44
6 N200 E40	0.95	1.95	1.04	23.79
6 N200 E40	1.95	2.95	1.00	27.59
6 N200 E40	2.95	3.95	0.86	18.14
6 N200 E40	3.95	4.95	0.38	7.47
6 N200 E40	4.95	5.95	0.29	7.56
6 N200 E40	5.95	6.95	0.27	7.62
6 N200 E40	6.95	7.95	0.27	7.24
6 N200 E40	7.95	9.00	0.26	6.82
5 N350 E15	0.00	0.77	0.81	44.95
5 N350 E15	0.77	1.77	1.07	51.17
5 N350 E15	1.77	2.77	0.68	48.41
5 N350 E15	2.77	3.77	0.67	50.58
5 N350 E15	3.77	4.77	0.76	49.94
5 N350 E15	4.77	5.77	0.90	50.12
5 N350 E15	5.77	6.77	0.89	47.36
5 N350 E15	6.77	7.77	1.18	47.93
5 N350 E15	7.77	8.77	1.70	15.01
5 N350 E15	8.77	9.77	1.72	20.42
5 N350 E15	9.77	10.77	1.90	20.81
5 N350 E15	10.77	11.77	1.25	24.44
5 N350 E15	11.77	12.77	1.19	11.83

5 N350 E15	12.77	13.77	1.01	13.47
5 N350 E15	13.77	14.77	0.88	13.04
5 N350 E15	14.77	15.77	0.83	13.28
5 N350 E15	15.77	16.77	0.75	11.67
5 N350 E15	16.77	17.77	0.65	9.84
5 N350 E15	17.77	19.00	0.41	8.30
5 N350 E35	0.00	1.08	0.92	46.11
5 N350 E35	1.08	2.08	0.96	46.01
5 N350 E35	2.08	3.08	1.11	46.42
5 N350 E35	3.08	4.08	1.27	45.95
5 N350 E35	4.08	5.08	1.36	35.52
5 N350 E35	5.08	6.08	1.38	29.59
5 N350 E35	6.08	7.08	1.60	28.63
5 N350 E35	7.08	8.08	1.36	21.77
5 N350 E35	8.08	9.08	1.23	17.03
5 N350 E35	9.08	10.08	1.09	15.28
5 N350 E35	10.08	11.08	1.00	15.95
5 N350 E35	11.08	12.08	0.92	16.02
5 N350 E35	12.08	13.08	0.83	12.80
5 N350 E35	13.08	14.08	0.87	17.91
5 N350 E35	14.08	15.08	0.51	10.68
5 N350 E35	15.08	16.08	0.39	7.49
5 N350 E35	16.08	17.08	0.44	8.21
6 N300 E30	0.00	0.50	0.69	43.25
6 N300 E30	0.50	1.50	0.87	47.35
6 N300 E30	1.50	2.50	0.88	48.30
6 N300 E30	2.50	3.50	1.12	35.04
6 N300 E30	3.50	4.50	1.39	11.11
6 N300 E30	4.50	5.50	1.34	18.54
6 N300 E3C	5.50	6.50	1.37	28.16
6 N300 E3C	6.50	7.50	1.03	10.46
6 N300 E3C	7.50	8.50	1.25	28.74
6 N300 E3C	8.50	9.50	0.73	9.23
6 N300 E3C	9.50	11.00	0.40	7.37
5 N250 E4C	0.00	1.29	0.73	44.80
5 N250 E4C	1.29	2.29	0.60	12.05
5 N250 E4C	2.29	3.29	0.70	12.30
5 N250 E4C	3.29	4.29	0.56	8.01
5 N250 E4C	4.29	5.29	0.68	8.76
5 N250 E4C	5.29	6.29	0.40	7.18
5 N250 E4C	6.29	7.29	0.42	8.91
5 N250 E4C	7.29	8.00	0.38	6.98
5 N200 E25	0.00	0.73	0.55	44.62
5 N200 E25	0.73	1.73	0.82	49.14
5 N200 E25	1.73	2.73	1.06	47.39
5 N200 E25	2.73	3.73	1.14	47.52
5 N200 E25	3.73	4.73	1.29	47.13
5 N200 E25	4.73	5.73	1.43	44.10
5 N200 E25	5.73	6.73	1.71	27.85
5 N200 E25	6.73	7.73	1.74	21.84
5 N200 E25	7.73	8.73	1.70	12.31
5 N200 E25	8.73	9.73	1.78	16.44
5 N200 E25	9.73	11.00	1.15	12.78
6 N350 E2C	0.00	1.49	0.73	44.83
6 N350 E2C	1.49	2.49	1.06	31.06
6 N350 E2C	2.49	3.49	0.90	14.78
6 N350 E2C	3.49	4.49	0.94	16.54
6 N350 E2C	4.49	5.49	1.35	22.85
6 N350 E2C	5.49	6.49	1.26	26.05
6 N350 E2C	6.49	7.49	1.24	21.64
6 N350 E2C	7.49	8.49	1.12	16.61
6 N350 E2C	8.49	9.49	1.09	15.17
6 N350 E2C	9.49	10.49	0.70	11.23
6 N350 E2C	10.49	11.49	0.79	9.36
6 N350 E2C	11.49	12.00	0.87	8.22
6 N350 E35	0.00	1.22	0.83	40.17
6 N350 E35	1.22	2.22	0.87	42.89
6 N350 E35	2.22	3.22	1.43	33.73
6 N350 E35	3.22	4.22	1.74	21.83
6 N350 E35	4.22	5.22	1.04	40.75
6 N350 E35	5.22	6.22	1.09	40.13
6 N350 E35	6.22	7.22	1.12	41.29
6 N350 E35	7.22	8.22	1.19	38.57
6 N350 E35	8.22	9.22	1.05	30.54
6 N350 E35	9.22	10.22	1.25	37.38
6 N350 E35	10.22	11.22	1.46	27.71
6 N350 E35	11.22	12.22	1.22	17.56
6 N350 E35	12.22	13.22	1.13	12.66
6 N350 E35	13.22	14.22	1.05	22.52
6 N350 E35	14.22	15.22	0.92	14.07
6 N350 E35	15.22	16.22	0.86	14.93
6 N350 E35	16.22	17.22	1.00	19.76
6 N350 E35	17.22	18.22	1.02	22.95
6 N350 E35	18.22	19.00	0.46	8.09
5 N250 E20	0.00	1.06	0.81	45.47
5 N250 E20	1.06	2.06	1.02	47.21
5 N250 E20	2.06	3.06	1.00	49.13
5 N250 E20	3.06	4.06	1.56	40.26
5 N250 E20	4.06	5.06	1.42	23.19
5 N250 E20	5.06	6.06	1.64	22.37
5 N250 E20	6.06	7.06	1.14	14.27
5 N250 E20	7.06	8.06	0.95	12.22
5 N250 E20	8.06	9.06	1.12	11.94
5 N250 E20	9.06	10.06	1.15	12.68
5 N250 E20	10.06	11.06	0.90	10.88
5 N250 E20	11.06	12.06	0.78	10.48
5 N250 E20	12.06	12.80	0.82	12.59
:6 N50 E45(	0.00	1.35	0.91	36.79
:6 N50 E45(	1.35	2.35	1.77	27.48
:6 N50 E45(	2.35	3.35	1.49	15.31
:6 N50 E45(	3.35	4.35	1.56	15.36
:6 N50 E45(	4.35	5.35	1.59	20.26
:6 N50 E45(	5.35	6.35	1.36	13.98
:6 N50 E45(	6.35	7.35	1.05	9.79
:6 N50 E45(	7.35	8.35	0.95	16.61
:6 N50 E45(	8.35	9.35	0.61	9.93
:6 N50 E45(	9.35	10.20	0.50	8.14
6 N300 E35	0.00	1.27	0.90	49.31
6 N300 E35	1.27	2.27	0.93	50.00
6 N300 E35	2.27	3.27	0.98	50.13
6 N300 E35	3.27	4.27	1.06	49.37
6 N300 E35	4.27	5.27	1.30	40.51
6 N300 E35	5.27	6.27	1.44	44.34
6 N300 E35	6.27	7.27	1.41	18.41
6 N300 E35	7.27	8.27	0.73	9.17
6 N300 E35	8.27	9.27	1.54	11.87
6 N300 E35	9.27	10.27	1.32	13.97
6 N300 E35	10.27	11.27	1.40	15.32
6 N300 E35	11.27	12.27	1.27	16.38
6 N300 E35	12.27	13.27	0.78	8.51
6 N300 E35	13.27	14.00	0.64	8.80
5 N200 E4C	0.00	0.60	0.84	45.77
5 N200 E4C	0.60	1.60	1.07	46.16
5 N200 E4C	1.60	2.60	0.69	9.35
5 N200 E4C	2.60	3.60	0.45	7.70
5 N200 E4C	3.60	4.60	0.37	7.53
5 N200 E4C	4.60	5.60	0.34	7.25
5 N200 E4C	5.60	6.60	0.34	7.67
5 N200 E4C	6.60	8.00	0.32	7.07
5 N250 E10	0.00	0.97	0.82	46.34
5 N250 E10	0.97	1.97	1.06	18.69
5 N250 E10	1.97	2.97	0.86	11.45
5 N250 E10	2.97	3.97	0.83	10.77
5 N250 E10	3.97	4.97	0.49	8.56
5 N250 E10	4.97	5.97	0.37	7.55
5 N250 E10	5.97	6.97	0.35	7.25
5 N250 E10	6.97	8.00	0.34	6.81
D5 N0 E40C	0.00	0.86	0.73	48.17
D5 N0 E40C	0.86	1.86	0.83	48.69
D5 N0 E40C	1.86	2.86	0.77	40.75
D5 N0 E40C	2.86	3.86	1.42	13.54
D5 N0 E40C	3.86	4.86	1.36	12.46
D5 N0 E40C	4.86	5.86	1.30	11.30
D5 N0 E40C	5.86	6.86	0.92	8.66
D5 N0 E40C	6.86	7.86	0.81	10.43
D5 N0 E40C	7.86	8.86	0.51	9.44
D5 N0 E40C	8.86	9.86	0.61	8.23
D5 N0 E40C	9.86	10.86	0.51	7.97
D5 N0 E40C	10.86	12.86	0.28	6.28
6 N150 E15	0.00	0.78	0.74	45.38
6 N150 E15	0.78	1.78	0.97	49.94
6 N150 E15	1.78	2.78	1.12	47.87
6 N150 E15	2.78	3.78	1.14	47.63
6 N150 E15	3.78	4.78	1.70	33.27
6 N150 E15	4.78	5.78	1.47	38.40
6 N150 E15	5.78	6.78	1.32	45.50
6 N150 E15	6.78	7.78	1.77	20.84
6 N150 E15	7.78	8.78	1.73	19.34
6 N150 E15	8.78	9.78	1.46	9.34
6 N150 E15	9.78	10.78	1.70	17.09

6 N150 E15	10.78	11.78	1.58	14.92
6 N150 E15	11.78	12.78	1.73	15.31
6 N150 E15	12.78	13.78	1.69	13.25
6 N150 E15	13.78	14.78	1.56	16.03
6 N150 E15	14.78	15.78	1.17	11.40
6 N150 E15	15.78	17.00	0.61	6.91
6 N200 E45	0.00	1.46	0.96	41.48
6 N200 E45	1.46	2.46	1.00	13.72
6 N200 E45	2.46	3.46	1.09	14.94
6 N200 E45	3.46	4.46	0.37	6.76
6 N200 E45	4.46	5.46	0.34	6.99
6 N200 E45	5.46	6.46	0.46	8.31
6 N200 E45	6.46	7.46	0.56	10.41
6 N200 E45	7.46	8.00	0.34	6.74
6 N300 E40	0.00	1.48	1.16	45.48
6 N300 E40	1.48	2.48	0.86	10.51
6 N300 E40	2.48	3.48	1.37	14.11
6 N300 E40	3.48	4.48	0.91	11.63
6 N300 E40	4.48	5.48	1.28	13.83
6 N300 E40	5.48	6.48	0.53	7.60
6 N300 E40	6.48	8.00	0.55	7.58
6 N100 E35	0.00	1.19	0.73	46.09
6 N100 E35	1.19	2.19	0.92	45.24
6 N100 E35	2.19	3.19	1.26	31.18
6 N100 E35	3.19	4.19	1.45	14.18
6 N100 E35	4.19	5.19	1.03	8.19
6 N100 E35	5.19	6.19	1.12	11.71
6 N100 E35	6.19	7.19	1.38	15.76
6 N100 E35	7.19	8.19	1.19	12.02
6 N100 E35	8.19	9.19	1.07	9.59
6 N100 E35	9.19	10.19	0.94	11.80
6 N100 E35	10.19	11.19	0.40	17.81
6 N100 E35	11.19	12.19	0.37	19.07
6 N100 E35	12.19	13.19	0.31	16.47
5 N400 E15	0.00	0.63	0.98	42.99
5 N400 E15	0.63	1.63	0.90	44.84
5 N400 E15	1.63	2.63	0.84	43.76
5 N400 E15	2.63	3.63	1.05	45.50
5 N400 E15	3.63	4.63	1.76	21.27
5 N400 E15	4.63	5.63	1.77	14.51
5 N400 E15	5.63	6.63	1.61	19.59
5 N400 E15	6.63	7.63	1.66	15.45
5 N400 E15	7.63	8.63	1.98	21.36
5 N400 E15	8.63	9.63	1.92	18.69
5 N400 E15	9.63	10.63	1.75	22.75
5 N400 E15	10.63	11.63	1.26	41.83
5 N400 E15	11.63	12.63	1.93	20.21
5 N400 E15	12.63	13.63	1.35	42.96
5 N400 E15	13.63	14.63	1.79	22.78
5 N400 E15	14.63	16.00	0.47	7.28
5 N200 E40	0.00	0.73	1.16	35.94
5 N200 E40	0.73	1.73	1.27	22.40
5 N200 E40	1.73	2.73	1.07	15.86
5 N200 E40	2.73	3.73	0.62	8.36
5 N200 E40	3.73	4.73	0.33	6.75
5 N200 E40	4.73	5.73	0.27	6.05
5 N200 E40	5.73	6.73	0.25	5.84
5 N200 E40	6.73	7.73	0.29	6.41
5 N200 E40	7.73	8.73	0.26	5.94
5 N200 E40	8.73	10.00	0.29	6.17
6 N300 E10	0.00	1.06	0.52	45.19
6 N300 E10	1.06	2.06	0.69	34.43
6 N300 E10	2.06	3.06	0.34	7.98
6 N300 E10	3.06	4.06	0.46	8.19
6 N300 E10	4.06	5.06	0.29	6.47
6 N300 E10	5.06	6.06	0.32	6.92
6 N300 E10	6.06	7.06	0.35	7.35
6 N300 E10	7.06	8.00	0.27	6.11
6 N250 E25	0.00	0.72	0.77	48.76
6 N250 E25	0.72	1.72	0.88	49.57
6 N250 E25	1.72	2.72	0.92	50.88
6 N250 E25	2.72	3.72	0.84	51.07
6 N250 E25	3.72	4.72	0.87	51.36
6 N250 E25	4.72	5.72	0.96	50.85
6 N250 E25	5.72	6.72	0.93	50.48
6 N250 E25	6.72	7.72	1.08	50.12
6 N250 E25	7.72	8.72	1.05	44.40
6 N250 E25	8.72	9.72	1.16	42.55
6 N250 E25	9.72	10.72	1.06	35.18
6 N250 E25	10.72	11.72	1.10	44.75
6 N250 E25	11.72	12.72	1.07	47.96
6 N250 E25	12.72	13.72	1.42	34.87
6 N250 E25	13.72	14.72	1.59	32.90
6 N250 E25	14.72	15.72	1.60	26.30
6 N250 E25	15.72	17.00	0.54	9.24
TH4	0.00	0.69	0.60	45.98
TH4	0.69	1.69	0.89	47.32
TH4	1.69	2.69	1.07	48.00
TH4	2.69	3.69	1.01	46.41
TH4	3.69	4.69	1.04	47.96
TH4	4.69	5.69	1.18	46.08
TH4	5.69	6.69	1.36	34.28
TH4	6.69	7.69	1.89	21.14
TH4	7.69	8.69	1.80	23.35
TH4	8.69	9.69	1.34	12.78
TH4	9.69	10.69	1.59	23.91
TH4	10.69	11.69	1.63	23.62
TH4	11.69	12.69	1.11	11.37
TH4	12.69	13.69	1.10	12.67
TH4	13.69	14.69	1.41	16.26
TH4	14.69	15.69	1.24	20.66
TH4	15.69	16.69	1.27	24.51
TH4	16.69	17.69	0.97	13.29
TH4	17.69	19.00	0.39	6.39
5 N350 E5	0.00	0.96	1.21	34.98
5 N350 E5	0.96	1.96	0.91	42.95
5 N350 E5	1.96	2.96	1.39	16.57
5 N350 E5	2.96	3.96	1.27	16.38
5 N350 E5	3.96	4.96	0.85	8.33
5 N350 E5	4.96	5.96	0.70	7.14
5 N350 E5	5.96	6.96	0.59	9.43
5 N350 E5	6.96	8.00	0.36	6.62
5 N300 E5	0.00	1.18	0.74	45.76
5 N300 E5	1.18	2.18	0.83	46.23
5 N300 E5	2.18	3.18	1.18	34.37
5 N300 E5	3.18	4.18	1.27	26.60
5 N300 E5	4.18	5.18	1.41	18.41
5 N300 E5	5.18	6.18	1.40	20.32
5 N300 E5	6.18	7.18	1.35	12.71
5 N300 E5	7.18	8.18	1.34	11.23
5 N300 E5	8.18	9.18	1.52	11.68
5 N300 E5	9.18	10.18	1.54	13.47
5 N300 E5	10.18	11.18	1.31	15.43
5 N300 E5	11.18	12.18	1.27	14.56
5 N300 E5	12.18	13.18	0.95	8.47
5 N300 E5	13.18	14.18	0.95	9.49
5 N300 E5	14.18	15.18	0.99	12.45
5 N300 E5	15.18	16.18	0.92	13.39
5 N300 E5	16.18	17.18	0.92	11.64
5 N300 E5	17.18	18.18	0.84	9.98
5 N300 E5	18.18	19.00	0.40	6.32
5 N300 E20	0.00	1.32	0.82	45.76
5 N300 E20	1.32	2.32	1.05	47.93
5 N300 E20	2.32	3.32	0.73	17.71
5 N300 E20	3.32	4.32	1.28	42.00
5 N300 E20	4.32	5.32	1.46	42.28
5 N300 E20	5.32	6.32	1.26	12.83
5 N300 E20	6.32	7.32	1.53	23.78
5 N300 E20	7.32	8.32	1.57	18.90
5 N300 E20	8.32	9.32	1.16	12.40
5 N300 E20	9.32	10.32	1.26	14.15
5 N300 E20	10.32	11.32	0.60	7.60
5 N300 E20	11.32	12.00	0.45	6.57
5 N400 E40	0.00	0.63	0.63	45.19
5 N400 E40	0.63	1.63	0.63	48.03
5 N400 E40	1.63	2.63	0.76	49.52
5 N400 E40	2.63	3.63	0.87	48.09
5 N400 E40	3.63	4.63	1.23	31.35
5 N400 E40	4.63	5.63	1.43	24.75
5 N400 E40	5.63	6.63	1.53	23.92
5 N400 E40	6.63	7.63	1.37	28.49
5 N400 E40	7.63	8.63	1.25	21.57
5 N400 E40	8.63	9.63	1.07	15.80
5 N400 E40	9.63	10.63	1.21	17.45
5 N400 E40	10.63	11.63	1.17	15.31
5 N400 E40	11.63	12.63	1.09	17.28
5 N400 E40	12.63	13.63	0.87	8.31
5 N400 E40	13.63	14.63	0.92	10.72
5 N400 E40	14.63	15.63	0.70	8.85
5 N400 E40	15.63	16.63	0.55	8.43

5 N400 E40	16.63	17.63	0.55	9.00
5 N400 E40	17.63	18.63	0.32	6.49
5 N400 E40	18.63	20.00	0.31	6.62
6 N100 E45	0.00	1.08	0.81	47.90
6 N100 E45	1.08	2.08	0.92	47.23
6 N100 E45	2.08	3.08	0.93	47.39
6 N100 E45	3.08	4.08	1.51	27.82
6 N100 E45	4.08	5.08	1.52	24.47
6 N100 E45	5.08	6.08	1.57	23.94
6 N100 E45	6.08	7.08	1.63	18.40
6 N100 E45	7.08	8.08	1.62	12.17
6 N100 E45	8.08	9.08	1.42	15.59
6 N100 E45	9.08	10.08	1.35	18.20
6 N100 E45	10.08	11.00	0.92	8.48
5 N450 E40	0.00	1.43	0.96	43.46
5 N450 E40	1.43	2.43	1.35	43.14
5 N450 E40	2.43	3.43	1.74	25.16
5 N450 E40	3.43	4.43	1.80	14.68
5 N450 E40	4.43	5.43	1.70	13.42
5 N450 E40	5.43	6.43	1.74	16.94
5 N450 E40	6.43	7.43	1.95	23.80
5 N450 E40	7.43	8.43	2.21	12.59
5 N450 E40	8.43	9.43	1.80	14.95
5 N450 E40	9.43	10.43	1.54	16.40
5 N450 E40	10.43	11.43	1.29	12.97
5 N450 E40	11.43	12.43	1.27	14.91
5 N450 E40	12.43	13.43	1.28	13.31
5 N450 E40	13.43	14.43	1.37	13.81
5 N450 E40	14.43	15.43	1.36	13.52
5 N450 E40	15.43	16.43	1.13	11.55
5 N450 E40	16.43	17.43	1.07	10.92
5 N450 E40	17.43	18.43	1.27	8.36
5 N450 E40	18.43	19.43	0.66	7.47
5 N450 E40	19.43	20.00	0.91	7.31
5 N200 E20	0.00	0.58	0.82	43.42
5 N200 E20	0.58	1.58	0.85	47.75
5 N200 E20	1.58	2.58	0.86	47.15
5 N200 E20	2.58	3.58	1.03	35.36
5 N200 E20	3.58	4.58	1.00	18.99
5 N200 E20	4.58	5.58	0.67	9.30
5 N200 E20	5.58	6.58	0.49	7.58
5 N200 E20	6.58	7.58	0.29	6.43
5 N200 E20	7.58	8.58	0.36	7.77
5 N200 E20	8.58	9.58	0.35	7.46
5 N200 E20	9.58	10.58	0.38	7.83
5 N200 E20	10.58	11.58	0.36	7.33
5 N200 E20	11.58	12.58	0.39	8.69
5 N200 E20	12.58	13.58	0.30	6.60
5 N200 E20	13.58	15.00	0.32	6.78
5 N250 E40	0.00	0.69	0.69	46.00
5 N250 E40	0.69	1.69	0.99	48.89
5 N250 E40	1.69	2.69	1.41	30.08
5 N250 E40	2.69	3.69	1.55	24.59
5 N250 E40	3.69	4.69	1.49	13.71
5 N250 E40	4.69	5.69	1.43	22.96
5 N250 E40	5.69	6.69	1.20	12.13
5 N250 E40	6.69	7.69	0.79	8.34
5 N250 E40	7.69	8.69	0.56	9.00
5 N250 E40	8.69	9.69	0.36	7.42
5 N250 E40	9.69	10.69	0.32	7.00
5 N250 E40	10.69	11.00	0.31	6.77
6 N200 E35	0.00	0.63	0.80	45.22
6 N200 E35	0.63	1.63	1.01	48.53
6 N200 E35	1.63	2.63	1.80	14.30
6 N200 E35	2.63	3.63	1.61	27.49
6 N200 E35	3.63	4.63	1.05	46.28
6 N200 E35	4.63	5.63	1.98	25.96
6 N200 E35	5.63	6.63	1.88	13.56
6 N200 E35	6.63	7.63	1.57	9.36
6 N200 E35	7.63	8.63	1.04	48.41
6 N200 E35	8.63	9.63	2.11	17.15
6 N200 E35	9.63	10.63	1.85	15.27
6 N200 E35	10.63	11.63	1.69	15.35
6 N200 E35	11.63	12.63	1.61	11.26
6 N200 E35	12.63	14.00	0.96	8.72
6 N300 E40	0.00	0.56	0.65	46.11
6 N300 E40	0.56	1.56	0.83	47.12
6 N300 E40	1.56	2.56	0.95	46.12
6 N300 E40	2.56	3.56	1.06	43.87
6 N300 E40	3.56	4.56	1.47	37.02
6 N300 E40	4.56	5.56	1.77	17.62
6 N300 E40	5.56	6.56	1.36	15.73
6 N300 E40	6.56	7.56	1.33	16.95
6 N300 E40	7.56	8.56	1.09	11.97
6 N300 E40	8.56	9.56	1.04	12.96
6 N300 E40	9.56	10.56	0.65	8.51
5 N150 E40	0.00	0.66	0.84	48.14
5 N150 E40	0.66	1.66	1.01	28.79
5 N150 E40	1.66	2.66	1.35	28.60
5 N150 E40	2.66	3.66	1.20	11.86
5 N150 E40	3.66	5.00	0.44	7.29
)6 N50 E45	0.00	0.54	0.79	44.47
)6 N50 E45	0.54	1.54	0.94	22.05
)6 N50 E45	1.54	2.54	1.03	42.56
)6 N50 E45	2.54	3.54	0.88	47.44
)6 N50 E45	3.54	4.54	0.66	9.83
)6 N50 E45	4.54	5.54	0.76	11.39
)6 N50 E45	5.54	6.54	0.82	11.86
)6 N50 E45	6.54	7.54	0.91	13.13
)6 N50 E45	7.54	8.54	0.42	7.57
6 N300 E50	0.00	0.71	0.87	45.90
6 N300 E50	0.71	1.71	1.03	21.00
6 N300 E50	1.71	2.71	1.04	13.13
6 N300 E50	2.71	3.71	0.33	6.76
6 N300 E50	3.71	5.00	0.37	7.06
5 N450 E10	0.00	0.81	0.74	47.32
5 N450 E10	0.81	1.81	0.57	46.29
5 N450 E10	1.81	2.81	0.78	47.89
5 N450 E10	2.81	3.81	0.88	46.13
5 N450 E10	3.81	4.81	0.89	13.83
5 N450 E10	4.81	5.81	0.71	11.59
5 N450 E10	5.81	6.81	0.79	10.64
5 N450 E10	6.81	8.00	0.44	9.72
:6 N250 E5	0.00	0.92	1.17	36.69
:6 N250 E5	0.92	1.92	1.01	14.08
:6 N250 E5	1.92	2.92	1.19	15.58
:6 N250 E5	2.92	3.92	0.42	6.68
:6 N250 E5	3.92	5.00	0.29	6.45
6 N150 E40	0.00	1.10	0.85	47.74
6 N150 E40	1.10	2.10	0.98	44.93
6 N150 E40	2.10	3.10	0.90	47.95
6 N150 E40	3.10	4.10	0.91	49.39
6 N150 E40	4.10	5.10	1.38	41.15
6 N150 E40	5.10	6.10	1.45	32.78
6 N150 E40	6.10	7.10	1.12	12.79
6 N150 E40	7.10	8.10	1.55	9.43
6 N150 E40	8.10	9.10	1.70	13.08
6 N150 E40	9.10	10.10	1.34	11.43
6 N150 E40	10.10	11.00	0.88	7.79
:6 N150 E5	0.00	0.99	0.75	46.08
:6 N150 E5	0.99	1.99	0.90	48.59
:6 N150 E5	1.99	2.99	1.01	50.07
:6 N150 E5	2.99	3.99	1.04	49.15
:6 N150 E5	3.99	4.99	1.11	47.84
:6 N150 E5	4.99	5.99	0.98	27.01
:6 N150 E5	5.99	6.99	0.95	14.11
:6 N150 E5	6.99	7.99	1.10	13.14
:6 N150 E5	7.99	8.99	1.05	10.70
:6 N150 E5	8.99	10.00	0.71	8.02
5 N300 E10	0.00	1.32	0.87	48.36
5 N300 E10	1.32	2.32	1.05	44.95
5 N300 E10	2.32	3.32	1.40	19.91
5 N300 E10	3.32	4.32	1.54	14.25
5 N300 E10	4.32	5.32	1.62	18.17
5 N300 E10	5.32	6.32	1.55	16.56
5 N300 E10	6.32	7.32	1.03	11.63
5 N300 E10	7.32	8.00	0.50	8.57
6 N250 E35	0.00	1.28	0.77	49.49
6 N250 E35	1.28	2.28	0.90	50.69
6 N250 E35	2.28	3.28	0.94	51.93
6 N250 E35	3.28	4.28	0.94	51.93
6 N250 E35	4.28	5.28	0.94	46.40
6 N250 E35	5.28	6.28	1.63	23.24
6 N250 E35	6.28	7.28	1.56	22.43
6 N250 E35	7.28	8.28	1.48	11.52
6 N250 E35	8.28	9.28	1.56	12.03
6 N250 E35	9.28	10.28	1.61	18.74
6 N250 E35	10.28	11.28	1.82	15.76
6 N250 E35	11.28	12.28	1.41	16.61
6 N250 E35	12.28	13.28	1.27	15.45

6 N250 E35	13.28	14.28	1.24	15.51
6 N250 E35	14.28	15.28	1.21	16.47
6 N250 E35	15.28	16.28	1.02	10.56
6 N250 E35	16.28	17.00	0.88	8.21
6 N50 E20	0.00	0.64	0.91	44.94
6 N50 E20	0.64	1.64	1.05	43.78
6 N50 E20	1.64	2.64	1.02	46.56
6 N50 E20	2.64	3.64	0.98	42.82
6 N50 E20	3.64	4.64	1.19	29.80
6 N50 E20	4.64	5.64	1.28	13.86
6 N50 E20	5.64	6.64	1.09	12.58
6 N50 E20	6.64	7.64	0.85	10.14
6 N50 E20	7.64	8.64	1.14	9.58
6 N50 E20	8.64	9.64	0.72	7.01
6 N50 E20	9.64	11.00	0.89	8.80
6 N300 E15	0.00	0.58	0.64	47.00
6 N300 E15	0.58	1.58	0.94	37.71
6 N300 E15	1.58	2.58	1.27	16.18
6 N300 E15	2.58	3.58	0.77	10.56
6 N300 E15	3.58	4.58	0.96	13.47
6 N300 E15	4.58	5.58	0.86	9.87
6 N300 E15	5.58	6.58	0.82	10.12
6 N300 E15	6.58	7.58	0.83	10.68
6 N300 E15	7.58	8.58	0.94	11.68
6 N300 E15	8.58	9.58	0.70	9.26
6 N300 E15	9.58	10.58	0.50	8.08
6 N300 E15	10.58	12.00	0.34	6.71
6 N100 E15	0.00	1.32	0.77	47.53
6 N100 E15	1.32	2.32	0.80	47.60
6 N100 E15	2.32	3.32	0.89	42.64
6 N100 E15	3.32	4.32	1.51	23.59
6 N100 E15	4.32	5.32	1.59	23.91
6 N100 E15	5.32	6.32	1.19	11.75
6 N100 E15	6.32	7.32	1.38	14.96
6 N100 E15	7.32	8.32	1.40	15.75
6 N100 E15	8.32	9.32	1.29	11.96
6 N100 E15	9.32	10.32	1.08	10.44
6 N100 E15	10.32	11.32	0.62	8.10
6 N100 E15	11.32	12.32	0.57	7.06
6 N350 E10	0.00	1.20	0.68	48.36
6 N350 E10	1.20	2.20	0.74	49.00
6 N350 E10	2.20	3.20	0.74	48.55
6 N350 E10	3.20	4.20	0.88	46.95
6 N350 E10	4.20	5.20	1.10	34.03
6 N350 E10	5.20	6.20	1.44	12.37
6 N350 E10	6.20	7.20	1.54	17.37
6 N350 E10	7.20	8.20	1.43	16.35
6 N350 E10	8.20	9.20	1.45	27.72
6 N350 E10	9.20	10.20	1.41	18.70
6 N350 E10	10.20	11.20	1.37	13.76
6 N350 E10	11.20	12.20	0.81	8.88
6 N350 E10	12.20	13.20	0.56	7.97
6 N250 E15	0.00	1.27	0.81	47.20
6 N250 E15	1.27	2.27	0.76	46.08
6 N250 E15	2.27	3.27	0.94	45.69
6 N250 E15	3.27	4.27	0.96	26.26
6 N250 E15	4.27	5.27	0.82	26.49
6 N250 E15	5.27	6.27	1.37	21.48
6 N250 E15	6.27	7.27	0.85	11.44
6 N250 E15	7.27	8.27	1.09	12.07
6 N250 E15	8.27	9.27	0.64	8.60
6 N250 E15	9.27	10.00	0.40	7.51
6 N50 E35	0.00	1.48	0.74	46.78
6 N50 E35	1.48	2.48	0.89	49.47
6 N50 E35	2.48	3.48	0.91	48.62
5 N50 E35	3.48	4.48	1.21	47.81
5 N50 E35	4.48	5.48	0.99	48.53
6 N50 E35	5.48	6.48	1.77	26.68
6 N50 E35	6.48	7.48	2.15	29.80
6 N50 E35	7.48	8.48	2.17	31.17
6 N50 E35	8.48	9.48	1.81	23.01
6 N50 E35	9.48	10.48	1.77	18.51
6 N50 E35	10.48	11.48	1.79	22.83
6 N50 E35	11.48	13.00	0.71	7.26
6 N300 E20	0.00	0.52	0.76	47.45
6 N300 E20	0.52	1.52	0.73	47.76
6 N300 E20	1.52	2.52	0.75	45.68
6 N300 E20	2.52	3.52	1.11	46.43
6 N300 E20	3.52	4.52	1.42	34.11
6 N300 E20	4.52	5.52	1.62	28.28
6 N300 E20	5.52	6.52	1.73	19.98
6 N300 E20	6.52	7.52	1.28	12.53
6 N300 E20	7.52	8.52	1.47	13.46
6 N300 E20	8.52	9.52	1.13	13.77
6 N300 E20	9.52	11.00	0.44	7.84
5 N150 E30	0.00	1.36	0.70	48.80
5 N150 E30	1.36	2.36	0.87	49.20
5 N150 E30	2.36	3.36	0.72	47.13
5 N150 E30	3.36	4.36	1.20	43.41
5 N150 E30	4.36	5.36	1.56	26.93
5 N150 E30	5.36	6.36	1.48	30.63
5 N150 E30	6.36	7.36	1.28	17.88
5 N150 E30	7.36	8.36	1.50	24.32
5 N150 E30	8.36	9.36	1.43	21.28
5 N150 E30	9.36	10.36	1.02	13.28
5 N150 E30	10.36	11.36	1.05	20.61
5 N150 E30	11.36	12.36	0.86	12.20
5 N150 E30	12.36	13.36	0.82	12.34
5 N150 E30	13.36	14.36	0.61	8.83
5 N150 E30	14.36	15.00	0.42	7.33
5 N250 E5	0.00	0.99	0.74	47.01
5 N250 E5	0.99	1.99	0.99	47.17
5 N250 E5	1.99	2.99	1.17	23.32
5 N250 E5	2.99	3.99	0.93	14.40
5 N250 E5	3.99	4.99	1.19	25.25
5 N250 E5	4.99	5.99	1.06	21.03
5 N250 E5	5.99	6.99	1.10	23.39
5 N250 E5	6.99	7.99	0.97	16.19
5 N250 E5	7.99	8.99	0.95	17.11
5 N250 E5	9.99	10.99	0.83	14.54
5 N250 E5	10.99	12.00	0.59	11.41
6 N150 E45	0.00	0.90	0.99	44.88
6 N150 E45	0.90	1.90	0.96	46.75
6 N150 E45	1.90	2.90	1.12	46.44
6 N150 E45	2.90	3.90	0.97	47.22
6 N150 E45	3.90	4.90	0.90	46.46
6 N150 E45	4.90	5.90	0.85	45.53
6 N150 E45	5.90	6.90	0.94	47.09
6 N150 E45	6.90	7.90	0.98	13.74
6 N150 E45	7.90	8.90	0.40	21.72
6 N150 E45	8.90	9.90	0.34	19.80
6 N150 E45	9.90	10.90	0.33	17.27
6 N150 E45	10.90	11.90	0.37	19.97
6 N150 E45	11.90	13.00	0.32	16.71
6 N200 E35	0.00	1.30	0.85	49.04
6 N200 E35	1.30	2.30	0.90	50.50
6 N200 E35	2.30	3.30	1.00	51.58
6 N200 E35	3.30	4.30	1.10	50.54
6 N200 E35	4.30	5.30	0.99	49.29
6 N200 E35	5.30	6.30	1.02	50.07
6 N200 E35	6.30	7.30	1.00	49.00
6 N200 E35	7.30	8.30	1.79	28.61
6 N200 E35	8.30	9.30	1.52	11.48
6 N200 E35	9.30	10.30	1.38	17.79
6 N200 E35	10.30	11.30	0.78	13.07
6 N200 E35	11.30	12.00	0.41	7.22
5 N500 E30	0.00	0.86	0.74	46.50
5 N500 E30	0.86	1.86	0.86	50.16
5 N500 E30	1.86	2.86	0.90	49.96
5 N500 E30	2.86	3.86	0.86	48.90
5 N500 E30	3.86	4.86	1.10	47.04
5 N500 E30	4.86	5.86	1.11	40.69
5 N500 E30	5.86	6.86	0.80	17.25
5 N500 E30	6.86	7.86	0.63	9.46
5 N500 E30	7.86	8.86	0.92	11.44
5 N500 E30	8.86	9.86	1.32	16.37
5 N500 E30	9.86	10.86	1.01	11.48
5 N500 E30	10.86	11.86	1.18	12.47
5 N500 E30	11.86	12.86	0.76	8.30
5 N500 E30	12.86	13.86	0.60	7.86
5 N500 E30	13.86	14.86	0.54	7.04
5 N500 E30	14.86	15.30	0.45	6.84
6 N50 E40	0.00	1.11	0.88	48.09
6 N50 E40	1.11	2.11	1.15	48.13
6 N50 E40	2.11	3.11	1.09	45.69
6 N50 E40	3.11	4.11	0.97	43.96
6 N50 E40	4.11	5.11	2.32	20.40
6 N50 E40	5.11	6.11	2.36	18.26
6 N50 E40	6.11	7.11	1.97	15.08
6 N50 E40	7.11	8.00	0.77	8.08

6 N50 E40	8.00	9.11	1.44	21.50
6 N50 E40	9.11	10.11	1.72	22.62
6 N50 E40	10.11	11.11	1.71	14.65
6 N50 E40	11.11	12.11	1.52	13.96
6 N50 E40	12.11	13.11	1.39	12.74
6 N50 E40	13.11	14.11	1.57	14.45
6 N50 E40	14.11	15.11	1.82	29.57
6 N50 E40	15.11	16.11	1.53	13.27
6 N50 E40	16.11	17.00	0.52	6.75
6 N350 E25	0.00	1.80	0.71	46.00
6 N350 E25	1.80	2.80	0.85	46.72
6 N350 E25	2.80	3.80	1.19	25.39
6 N350 E25	3.80	4.80	1.13	16.77
6 N350 E25	4.80	5.80	1.16	16.80
6 N350 E25	5.80	6.80	0.94	9.63
6 N350 E25	6.80	7.80	0.65	9.56
6 N350 E25	7.80	8.80	0.36	7.43
6 N350 E45	0.00	1.13	0.76	45.48
6 N350 E45	1.13	2.13	0.93	49.86
6 N350 E45	2.13	3.13	1.04	49.90
6 N350 E45	3.13	4.13	1.51	22.22
6 N350 E45	4.13	5.13	1.46	11.78
6 N350 E45	5.13	6.13	1.66	21.37
6 N350 E45	6.13	7.13	1.15	11.96
6 N350 E45	7.13	8.00	0.78	8.60
6 N250 E40	0.00	1.11	0.46	7.38
6 N250 E40	1.11	2.11	0.82	44.42
6 N250 E40	2.11	3.11	1.36	43.60
6 N250 E40	3.11	4.11	1.68	37.81
6 N250 E40	4.11	5.11	1.46	11.23
6 N250 E40	5.11	6.11	1.50	10.66
6 N250 E40	6.11	7.11	1.53	15.80
6 N250 E40	7.11	8.11	1.74	16.64
6 N250 E40	8.11	9.11	1.15	9.57
6 N250 E40	9.11	10.11	1.19	15.26
6 N250 E40	10.11	11.00	0.83	11.32
5 N250 E30	0.00	1.33	0.58	45.55
5 N250 E30	1.33	2.33	0.87	49.05
5 N250 E30	2.33	3.33	0.91	48.37
5 N250 E30	3.33	4.33	1.00	48.33
5 N250 E30	4.33	5.33	1.04	49.80
5 N250 E30	5.33	6.33	1.07	49.39
5 N250 E30	6.33	7.33	1.04	50.50
5 N250 E30	7.33	8.33	1.02	49.49
5 N250 E30	8.33	9.33	0.90	47.65
5 N250 E30	9.33	10.33	0.94	47.21
5 N250 E30	10.33	11.33	0.99	44.79
5 N250 E30	11.33	12.33	1.09	48.24
5 N250 E30	12.33	13.33	1.25	45.85
5 N250 E30	13.33	14.33	1.07	33.30
5 N250 E30	14.33	15.33	1.39	43.01
5 N250 E30	15.33	16.33	1.49	20.83
5 N250 E30	16.33	17.33	1.56	28.28
5 N250 E30	17.33	18.33	1.24	17.50
5 N250 E30	18.33	19.33	1.08	15.17
5 N250 E30	19.33	20.00	0.70	7.69
6 N350 E50	0.00	0.61	0.77	47.23
6 N350 E50	0.61	1.61	1.08	17.98
6 N350 E50	1.61	2.61	0.92	9.14
6 N350 E50	2.61	3.61	0.76	7.48
6 N350 E50	3.61	4.61	0.71	7.31
6 N350 E50	4.61	5.61	0.36	6.31
6 N350 E50	5.61	6.61	0.40	6.83
6 N350 E50	6.61	7.61	0.32	6.17
6 N350 E50	7.61	9.00	0.29	6.36
5 N400 E25	0.00	0.66	0.60	45.65
5 N400 E25	0.66	1.66	0.74	48.83
5 N400 E25	1.66	2.66	0.78	47.48
5 N400 E25	2.66	3.66	0.95	48.73
5 N400 E25	3.66	4.66	0.93	47.00
5 N400 E25	4.66	5.66	0.98	48.35
5 N400 E25	5.66	6.66	1.04	46.64
5 N400 E25	6.66	7.66	2.13	19.48
5 N400 E25	7.66	8.66	1.96	35.39
5 N400 E25	8.66	9.66	1.70	39.83
5 N400 E25	9.66	10.66	1.87	27.94
5 N400 E25	10.66	11.66	2.34	21.67
5 N400 E25	11.66	12.66	2.20	16.89
5 N400 E25	12.66	13.66	2.21	19.91
5 N400 E25	13.66	14.66	1.75	13.13
5 N400 E25	14.66	15.66	1.63	12.86
5 N400 E25	15.66	17.00	1.03	7.56
D5 N300 EC	0.00	0.66	0.88	45.57
D5 N300 EC	0.66	1.66	1.11	42.14
D5 N300 EC	1.66	2.66	0.88	13.42
D5 N300 EC	2.66	3.66	0.58	8.11
D5 N300 EC	3.66	4.66	1.30	23.90
D5 N300 EC	4.66	5.66	0.69	7.48
D5 N300 EC	5.66	6.66	1.41	16.60
D5 N300 EC	6.66	7.66	1.27	14.81
D5 N300 EC	7.66	8.66	0.62	10.55
D5 N300 EC	8.66	9.66	0.92	14.47
D5 N300 EC	9.66	10.66	0.66	11.27
D5 N300 EC	10.66	11.66	0.96	10.94
D5 N300 EC	11.66	12.66	0.81	11.97
D5 N300 EC	12.66	14.00	0.59	7.48
6 N100 E40	0.00	0.78	0.65	46.28
6 N100 E40	0.78	1.78	0.82	49.37
6 N100 E40	1.78	2.78	0.95	47.36
6 N100 E40	2.78	3.78	1.00	43.91
6 N100 E40	3.78	4.78	1.24	12.33
6 N100 E40	4.78	5.78	1.64	14.37
6 N100 E40	5.78	6.78	1.29	13.96
6 N100 E40	6.78	7.78	1.55	21.22
6 N100 E40	7.78	8.78	1.69	22.87
6 N100 E40	8.78	9.78	1.68	22.50
6 N100 E40	9.78	10.78	1.32	16.63
6 N100 E40	10.78	11.78	1.24	16.77
6 N100 E40	11.78	12.78	0.90	9.78
6 N100 E40	12.78	14.00	0.48	7.03
6 N100 E30	0.00	1.20	0.84	44.69
6 N100 E30	1.20	2.20	0.92	46.99
6 N100 E30	2.20	3.20	0.97	48.84
6 N100 E30	3.20	4.20	1.01	48.62
6 N100 E30	4.20	5.20	1.16	44.58
6 N100 E30	5.20	6.20	1.72	27.40
6 N100 E30	6.20	7.20	1.84	22.07
6 N100 E30	7.20	8.20	1.63	24.48
6 N100 E30	8.20	9.20	1.54	17.51
6 N100 E30	9.20	10.20	1.42	15.17
6 N100 E30	10.20	11.20	0.83	8.84
6 N100 E30	11.20	12.00	0.68	8.24
5 N500 E40	0.00	1.01	0.61	45.67
5 N500 E40	1.01	2.01	0.95	46.89
5 N500 E40	2.01	3.01	1.23	45.82
5 N500 E40	3.01	4.01	1.33	41.08
5 N500 E40	4.01	5.01	1.39	22.23
5 N500 E40	5.01	6.01	1.76	29.64
5 N500 E40	6.01	7.01	1.69	21.65
5 N500 E40	7.01	8.01	1.72	15.09
5 N500 E40	8.01	9.01	1.92	20.04
5 N500 E40	9.01	10.01	1.84	21.83
5 N500 E40	10.01	11.01	1.59	13.12
5 N500 E40	11.01	12.01	0.92	9.51
5 N500 E40	12.01	13.01	0.71	9.16
5 N500 E40	13.01	14.01	0.92	10.35
5 N500 E40	14.01	15.00	0.43	7.11
6 N200 E30	0.00	0.51	0.55	47.54
6 N200 E30	0.51	1.51	0.56	48.94
6 N200 E30	1.51	2.51	0.70	48.05
6 N200 E30	2.51	3.51	0.82	48.72
6 N200 E30	3.51	4.51	0.83	50.59
6 N200 E30	4.51	5.51	1.15	31.40
6 N200 E30	5.51	6.51	1.30	16.28
6 N200 E30	6.51	7.51	1.06	12.95
6 N200 E30	7.51	8.51	1.22	13.89
6 N200 E30	8.51	9.51	0.71	9.11
6 N200 E30	9.51	10.40	0.42	7.14
6 N150 E30	0.00	1.06	0.79	44.57
6 N150 E30	1.06	2.06	0.90	48.32
6 N150 E30	2.06	3.06	1.00	48.96
6 N150 E30	3.06	4.06	1.05	48.76
6 N150 E30	4.06	5.06	0.99	48.50
6 N150 E30	5.06	6.06	1.22	49.87
6 N150 E30	6.06	7.06	1.20	50.24
6 N150 E30	7.06	8.06	1.51	45.70
6 N150 E30	8.06	9.06	1.75	22.03
6 N150 E30	9.06	10.06	1.32	11.85
6 N150 E30	10.06	11.06	1.11	7.75
6 N150 E30	11.06	12.00	0.76	7.08

6 N100 E35	0.00	0.57	0.71	46.02
6 N100 E35	0.57	1.57	0.90	49.88
6 N100 E35	1.57	2.57	1.05	49.76
6 N100 E35	2.57	3.57	1.12	48.87
6 N100 E35	3.57	4.57	1.25	47.22
6 N100 E35	4.57	5.57	1.26	49.02
6 N100 E35	5.57	6.57	1.48	41.54
6 N100 E35	6.57	7.57	1.83	32.50
6 N100 E35	7.57	8.57	1.85	30.81
6 N100 E35	8.57	9.57	1.79	27.53
6 N100 E35	9.57	10.57	1.97	22.60
6 N100 E35	10.57	11.57	1.82	31.41
6 N100 E35	11.57	12.57	1.85	21.15
6 N100 E35	12.57	13.57	1.85	27.77
6 N100 E35	13.57	14.57	1.68	35.90
6 N100 E35	14.57	15.57	1.55	32.26
6 N100 E35	15.57	16.57	1.38	15.12
6 N100 E35	16.57	17.57	1.10	11.93
6 N100 E35	17.57	18.57	0.86	9.87
6 N100 E35	18.57	19.57	0.95	9.61
6 N100 E35	19.57	20.57	1.02	10.86
6 N100 E35	20.57	21.57	0.74	10.15
6 N100 E35	21.57	23.00	0.49	8.74
6 N200 E45	0.00	0.78	0.74	47.90
6 N200 E45	0.78	1.78	0.86	47.38
6 N200 E45	1.78	2.78	0.94	46.71
6 N200 E45	2.78	3.78	1.48	35.13
6 N200 E45	3.78	4.78	1.60	19.98
6 N200 E45	4.78	5.78	1.43	18.65
6 N200 E45	5.78	6.78	0.80	11.72
6 N200 E45	6.78	7.78	0.91	12.02
6 N200 E45	7.78	8.78	0.76	11.11
6 N200 E45	8.78	9.78	0.80	10.18
6 N200 E45	9.78	10.78	0.75	9.71
6 N200 E45	10.78	11.78	0.72	9.41
6 N200 E45	11.78	12.78	0.69	9.73
6 N200 E45	12.78	13.78	0.63	9.45
6 N200 E45	13.78	14.78	0.60	8.42
6 N200 E45	14.78	16.00	0.42	7.26
6 N250 E30	0.00	1.10	0.79	45.58
6 N250 E30	1.10	2.10	0.80	46.71
6 N250 E30	2.10	3.10	0.84	47.80
6 N250 E30	3.10	4.10	0.92	48.76
6 N250 E30	4.10	5.10	0.92	48.05
6 N250 E30	5.10	6.10	1.01	49.65
6 N250 E30	6.10	7.10	0.91	43.41
6 N250 E30	7.10	8.10	1.31	48.95
6 N250 E30	8.10	9.10	1.17	49.00
6 N250 E30	9.10	10.10	1.61	41.56
6 N250 E30	10.10	11.10	1.76	40.06
6 N250 E30	11.10	12.10	1.83	39.51
6 N250 E30	12.10	13.10	1.87	32.97
6 N250 E30	13.10	14.10	2.26	17.03
6 N250 E30	14.10	15.10	1.20	10.69
6 N350 E30	0.00	1.03	0.72	40.63
6 N350 E30	1.03	2.03	0.86	45.47
6 N350 E30	2.03	3.03	1.00	37.39
6 N350 E30	3.03	4.03	0.97	13.47
6 N350 E30	4.03	5.03	1.00	11.39
6 N350 E30	5.03	6.03	0.96	13.20
6 N350 E30	6.03	7.03	0.86	14.61
6 N350 E30	7.03	8.00	0.37	7.85
6 N300 E45	0.00	0.84	0.94	48.63
6 N300 E45	0.84	1.84	1.19	45.87
6 N300 E45	1.84	2.84	1.66	25.02
6 N300 E45	2.84	3.84	1.76	27.53
6 N300 E45	3.84	4.84	1.48	19.53
6 N300 E45	4.84	5.84	1.03	11.98
6 N300 E45	5.84	6.84	1.05	11.83
6 N300 E45	6.84	8.00	0.45	7.25
D5 N0 E45C	0.00	1.32	0.64	44.93
D5 N0 E45C	1.32	2.32	0.81	45.37
D5 N0 E45C	2.32	3.32	0.81	13.75
D5 N0 E45C	3.32	4.32	0.53	8.81
D5 N0 E45C	4.32	5.32	0.76	8.97
D5 N0 E45C	5.32	6.32	1.01	17.50
D5 N0 E45C	6.32	7.32	0.79	8.90
D5 N0 E45C	7.32	8.32	0.81	11.16
D5 N0 E45C	8.32	9.32	0.78	11.20
D5 N0 E45C	9.32	10.32	0.73	11.51
D5 N0 E45C	10.32	11.32	0.73	12.98
D5 N0 E45C	11.32	12.32	0.65	10.20
D5 N0 E45C	12.32	13.32	0.40	7.47
D5 N0 E45C	13.32	14.00	0.33	6.92
6 N250 E45	0.00	1.15	0.88	46.31
6 N250 E45	1.15	2.15	1.26	41.30
6 N250 E45	2.15	3.15	1.29	15.37
6 N250 E45	3.15	4.15	0.40	7.64
6 N250 E45	4.15	5.15	1.21	18.57
6 N250 E45	5.15	6.15	0.91	9.67
6 N250 E45	6.15	7.15	0.73	9.91
6 N250 E45	7.15	8.15	0.69	10.94
6 N250 E45	8.15	9.15	0.35	7.07
5 N200 E45	0.00	0.80	0.79	46.19
5 N200 E45	0.80	1.80	0.82	46.55
5 N200 E45	1.80	2.80	1.07	44.96
5 N200 E45	2.80	3.80	1.04	23.10
5 N200 E45	3.80	4.80	0.62	10.13
5 N200 E45	4.80	5.80	0.34	7.34
5 N200 E45	5.80	6.80	0.33	7.06
5 N200 E45	6.80	7.80	0.42	10.42
5 N200 E45	7.80	8.80	0.35	7.39
5 N200 E45	8.80	10.00	0.33	6.50
6 N300 E35	0.00	1.50	0.31	7.59
6 N300 E35	1.50	2.50	0.24	5.76
6 N300 E35	2.50	3.50	0.28	6.39
6 N300 E35	3.50	4.50	0.26	5.88
6 N300 E35	4.50	5.50	0.30	6.20
6 N300 E35	5.50	6.50	0.71	20.04
6 N300 E35	6.50	8.00	0.79	46.02
:6 N200 E5	0.00	0.73	0.59	44.80
:6 N200 E5	0.73	1.73	0.74	48.82
:6 N200 E5	1.73	2.73	0.86	49.82
:6 N200 E5	2.73	3.73	0.88	48.21
:6 N200 E5	3.73	4.73	0.90	48.90
:6 N200 E5	4.73	5.73	1.00	48.71
:6 N200 E5	5.73	6.73	0.98	48.98
:6 N200 E5	6.73	8.00	0.66	18.31
5 N150 E35	0.00	0.81	1.14	43.61
5 N150 E35	0.81	1.81	1.43	28.40
5 N150 E35	1.81	2.81	1.25	15.37
5 N150 E35	2.81	3.81	0.80	10.59
5 N150 E35	3.81	4.81	0.57	9.60
5 N150 E35	4.81	6.00	0.28	6.24
6 N200 E4C	0.00	0.92	0.79	44.22
6 N200 E4C	0.92	1.92	0.67	45.76
6 N200 E4C	1.92	2.92	0.81	46.79
6 N200 E4C	2.92	3.92	0.94	45.93
6 N200 E4C	3.92	4.92	1.22	36.09
6 N200 E4C	4.92	5.92	1.37	15.83
6 N200 E4C	5.92	6.92	1.41	19.15
6 N200 E4C	6.92	8.00	0.69	7.80
5 N300 E45	0.00	1.19	0.84	45.95
5 N300 E45	1.19	2.19	1.01	45.46
5 N300 E45	2.19	3.19	1.21	43.51
5 N300 E45	3.19	4.19	1.44	17.25
5 N300 E45	4.19	5.19	0.78	7.48
5 N300 E45	5.19	6.19	1.24	20.35
5 N300 E45	6.19	7.19	0.44	6.77
5 N300 E45	7.19	8.00	0.39	7.04
6 N100 E25	0.00	1.22	0.72	48.49
6 N100 E25	1.22	2.22	0.75	47.98
6 N100 E25	2.22	3.22	1.03	21.82
6 N100 E25	3.22	4.22	1.39	38.20
6 N100 E25	4.22	5.22	1.47	41.39
6 N100 E25	5.22	6.22	1.58	36.52
6 N100 E25	6.22	7.22	1.35	15.63
6 N100 E25	7.22	8.22	0.85	11.76
6 N100 E25	8.22	9.00	0.46	7.44
5 N500 E25	0.00	0.88	0.95	47.37
5 N500 E25	0.88	1.88	1.06	48.39
5 N500 E25	1.88	2.88	1.03	49.63
5 N500 E25	2.88	3.88	1.17	50.32
5 N500 E25	3.88	4.88	1.09	49.48
5 N500 E25	4.88	5.88	1.10	49.54
5 N500 E25	5.88	6.88	1.10	48.02
5 N500 E25	6.88	7.88	1.27	47.32
5 N500 E25	7.88	8.88	1.47	48.29
5 N500 E25	8.88	9.88	1.87	38.62
5 N500 E25	9.88	10.88	1.50	43.70

5 N500 E25	10.88	11.88	1.32	46.58
5 N500 E25	11.88	12.88	1.26	26.88
5 N500 E25	12.88	14.00	0.88	11.64
5 N500 E20	0.00	1.01	0.62	47.67
5 N500 E20	1.01	2.01	0.87	48.12
5 N500 E20	2.01	3.01	0.92	49.25
5 N500 E20	3.01	4.01	0.92	50.18
5 N500 E20	4.01	5.01	1.07	37.30
5 N500 E20	5.01	6.01	1.12	9.57
5 N500 E20	6.01	7.01	1.52	18.52
5 N500 E20	7.01	8.01	1.33	13.16
5 N500 E20	8.01	9.01	1.16	16.21
5 N500 E20	9.01	10.01	1.13	15.18
5 N500 E20	10.01	11.01	1.51	26.86
5 N500 E20	11.01	12.01	0.74	8.93
5 N500 E20	12.01	13.01	1.50	19.51
5 N500 E20	13.01	14.01	1.09	11.51
5 N500 E20	14.01	15.01	0.58	7.77
6 N100 E10	0.00	1.12	0.72	48.21
6 N100 E10	1.12	2.12	0.74	42.83
6 N100 E10	2.12	3.12	0.72	17.24
6 N100 E10	3.12	4.12	0.41	7.82
6 N100 E10	4.12	5.12	0.28	6.42
6 N100 E10	5.12	6.12	0.27	6.22
6 N100 E10	6.12	7.12	0.43	9.00
6 N100 E10	7.12	8.12	0.38	8.16
6 N100 E10	8.12	9.12	0.51	10.48
6 N100 E10	9.12	10.12	0.47	9.79
6 N100 E10	10.12	11.12	0.47	9.24
6 N100 E10	11.12	12.12	0.63	13.85
6 N100 E10	12.12	13.12	0.73	16.95
6 N100 E10	13.12	14.12	0.60	12.69
6 N100 E10	14.12	15.12	0.32	6.90
5 N500 E45	0.00	0.79	0.75	45.36
5 N500 E45	0.79	1.79	1.03	47.12
5 N500 E45	1.79	2.79	1.16	40.57
5 N500 E45	2.79	3.79	1.31	33.26
5 N500 E45	3.79	4.79	1.49	38.56
5 N500 E45	4.79	5.79	1.79	30.96
5 N500 E45	5.79	6.79	1.92	19.52
5 N500 E45	6.79	7.79	1.77	15.41
5 N500 E45	7.79	8.79	2.00	19.13
5 N500 E45	8.79	9.79	1.78	13.60
5 N500 E45	9.79	10.79	1.40	11.33
5 N500 E45	10.79	11.79	1.10	10.25
5 N500 E45	11.79	12.79	0.74	8.04
5 N500 E45	12.79	13.79	1.13	10.46
5 N500 E45	13.79	14.79	0.77	8.61
5 N500 E45	14.79	16.00	0.56	8.32
6 N100 E20	0.00	1.00	0.72	44.31
6 N100 E20	1.00	2.00	0.95	45.89
6 N100 E20	2.00	3.00	0.84	48.07
6 N100 E20	3.00	4.00	0.87	46.45
6 N100 E20	4.00	5.00	1.13	46.13
6 N100 E20	5.00	6.00	1.21	24.85
6 N100 E20	6.00	7.00	0.35	7.18
6 N100 E20	7.00	8.00	0.29	6.41
06 N50 E40	0.00	1.30	0.84	45.29
06 N50 E40	1.30	2.30	0.84	45.42
06 N50 E40	2.30	3.30	1.03	22.88
06 N50 E40	3.30	4.30	0.92	11.80
06 N50 E40	4.30	5.30	0.29	6.42
06 N50 E40	5.30	6.30	0.29	6.72
06 N50 E40	6.30	7.30	0.25	5.90
06 N50 E40	7.30	8.30	0.24	5.77
D5 N0 E35C	0.00	0.89	0.72	47.11
D5 N0 E35C	0.89	1.89	0.81	48.31
D5 N0 E35C	1.89	2.89	0.90	46.77
D5 N0 E35C	2.89	3.89	1.19	40.25
D5 N0 E35C	3.89	4.89	1.24	35.80
D5 N0 E35C	4.89	5.89	1.32	21.21
D5 N0 E35C	5.89	6.89	0.65	10.97
D5 N0 E35C	6.89	7.89	0.45	7.72
D5 N0 E35C	7.89	8.00	0.38	8.93
5 N350 E20	0.00	0.55	0.50	44.14
5 N350 E20	0.55	1.55	0.47	41.83
5 N350 E20	1.55	2.55	0.38	40.22
5 N350 E20	2.55	3.55	0.60	45.59
5 N350 E20	3.55	4.55	0.60	48.60
5 N350 E20	4.55	5.55	0.74	39.95
5 N350 E20	5.55	6.55	1.21	21.86
5 N350 E20	6.55	7.55	1.15	11.59
5 N350 E20	7.55	8.55	0.99	9.18
5 N350 E20	8.55	9.55	1.14	23.25
5 N350 E20	9.55	10.55	1.02	14.64
5 N350 E20	10.55	11.55	1.07	12.29
5 N350 E20	11.55	12.55	0.94	12.03
5 N350 E20	12.55	13.55	0.90	14.51
5 N350 E20	13.55	14.00	0.46	8.20
6 N150 E35	0.00	1.20	0.84	47.41
6 N150 E35	1.20	2.20	0.97	49.07
6 N150 E35	2.20	3.20	0.90	47.44
6 N150 E35	3.20	4.20	1.02	47.06
6 N150 E35	4.20	5.20	1.05	48.59
6 N150 E35	5.20	6.20	1.75	31.07
6 N150 E35	6.20	7.20	1.68	32.04
6 N150 E35	7.20	8.20	1.63	31.63
6 N150 E35	8.20	9.20	1.46	16.26
6 N150 E35	9.20	10.20	0.90	10.01
6 N150 E35	10.20	11.20	1.16	10.87
6 N150 E35	11.20	12.20	1.09	10.92
6 N150 E35	12.20	13.20	0.98	11.56
6 N150 E35	13.20	14.20	1.10	13.85
6 N150 E35	14.20	16.00	0.65	9.37
5 N200 E30	0.00	1.34	0.51	45.55
5 N200 E30	1.34	2.34	0.85	48.05
5 N200 E30	2.34	3.34	0.89	46.91
5 N200 E30	3.34	4.34	1.11	44.95
5 N200 E30	4.34	5.34	1.01	47.32
5 N200 E30	5.34	6.34	1.96	19.15
5 N200 E30	6.34	7.34	2.38	12.30
5 N200 E30	7.34	8.34	1.90	13.78
5 N200 E30	8.34	9.34	1.64	11.08
5 N200 E30	9.34	10.34	1.11	6.99
5 N200 E30	10.34	11.34	1.47	9.47
5 N200 E30	11.34	12.34	0.61	7.81
5 N200 E30	12.34	13.34	0.48	7.95
5 N200 E30	13.34	14.34	0.46	7.21
5 N200 E30	14.34	15.00	0.33	6.24
5 N450 E45	0.00	0.56	0.68	44.68
5 N450 E45	0.56	1.56	0.82	43.76
5 N450 E45	1.56	2.56	1.15	31.98
5 N450 E45	2.56	3.56	1.32	13.43
5 N450 E45	3.56	4.56	0.48	6.79
5 N450 E45	4.56	5.56	0.53	6.72
5 N450 E45	5.56	6.56	1.15	15.25
5 N450 E45	6.56	7.56	0.98	16.90
5 N450 E45	7.56	8.56	0.89	11.11
5 N450 E45	8.56	10.00	0.55	7.08
TH3	0.00	0.85	0.76	47.52
TH3	0.85	1.85	0.90	49.38
TH3	1.85	2.85	1.08	48.01
TH3	2.85	3.85	1.01	47.19
TH3	3.85	4.85	1.15	49.26
TH3	4.85	5.85	1.21	47.15
TH3	5.85	6.85	2.14	25.89
TH3	6.85	7.85	1.70	15.12
TH3	7.85	8.85	1.20	8.54
TH3	8.85	9.85	1.88	18.19
TH3	9.85	10.85	0.98	9.92
TH3	10.85	11.85	1.08	11.27
TH3	11.85	12.85	1.00	10.41
TH3	12.85	13.85	0.94	12.11
TH3	13.85	14.85	1.05	13.04
TH3	14.85	15.85	0.78	10.83
TH3	15.85	16.85	1.05	10.03
TH3	16.85	17.85	1.07	10.63
TH3	17.85	18.85	0.73	8.33
TH3	18.85	19.85	0.36	7.18
TH3	19.85	20.85	0.34	7.22
TH3	20.85	22.00	0.34	6.31
5 N400 E35	0.00	1.39	0.76	44.39
5 N400 E35	1.39	2.39	0.90	46.38
5 N400 E35	2.39	3.39	1.04	48.14
5 N400 E35	3.39	4.39	1.09	39.19
5 N400 E35	4.39	5.39	1.11	27.64
5 N400 E35	5.39	6.39	1.13	6.41
5 N400 E35	6.39	7.39	0.52	8.32
5 N400 E35	7.39	8.39	0.78	10.80
5 N400 E35	8.39	9.39	1.17	12.90

5 N400 E35	9.39	10.39	1.20	15.46
5 N400 E35	10.39	11.39	1.04	13.38
5 N400 E35	11.39	12.39	1.21	15.39
5 N400 E35	12.39	13.39	1.21	15.04
5 N400 E35	13.39	14.39	1.30	15.82
5 N400 E35	14.39	15.39	1.17	13.47
5 N400 E35	15.39	16.39	0.93	9.70
5 N400 E35	16.39	17.00	0.57	8.05
6 N200 E20	0.00	0.51	0.48	43.78
6 N200 E20	0.51	1.51	0.60	46.54
6 N200 E20	1.51	2.51	0.79	48.13
6 N200 E20	2.51	3.51	1.07	34.10
6 N200 E20	3.51	4.51	1.21	17.74
6 N200 E20	4.51	5.51	0.58	7.05
6 N200 E20	5.51	6.51	0.78	7.56
6 N200 E20	6.51	7.51	0.96	8.45
6 N200 E20	7.51	8.51	1.09	15.86
6 N200 E20	8.51	9.51	1.24	16.08
6 N200 E20	9.51	10.51	1.12	10.65
6 N200 E20	10.51	11.51	1.13	12.43
6 N200 E20	11.51	12.51	0.63	11.45
6 N200 E20	12.51	14.00	0.34	7.06
5 N300 E40	0.00	0.80	0.80	45.15
5 N300 E40	0.80	1.80	0.88	48.21
5 N300 E40	1.80	2.80	1.30	23.85
5 N300 E40	2.80	3.80	1.38	27.55
5 N300 E40	3.80	4.80	1.37	25.21
5 N300 E40	4.80	5.80	0.90	8.76
5 N300 E40	5.80	6.80	0.70	8.60
5 N300 E40	6.80	7.80	0.60	8.37
5 N300 E40	7.80	8.80	0.54	8.63
5 N300 E40	8.80	10.00	0.43	8.07
5 N200 E45	0.00	1.22	0.74	47.13
5 N200 E45	1.22	2.22	0.82	44.94
5 N200 E45	2.22	3.22	1.07	20.09
5 N200 E45	3.22	4.22	0.58	10.27
5 N200 E45	4.22	5.22	0.55	8.98
5 N200 E45	5.22	6.22	0.41	7.72
5 N200 E45	6.22	7.22	0.35	6.97
5 N200 E45	7.22	8.00	0.31	6.61
5 N200 E35	0.00	0.80	0.89	45.82
5 N200 E35	0.80	1.80	0.99	40.68
5 N200 E35	1.80	2.80	0.49	9.02
5 N200 E35	2.80	3.80	0.32	6.84
5 N200 E35	3.80	4.80	0.34	6.87
5 N200 E35	4.80	5.80	0.33	6.75
5 N200 E35	5.80	6.80	0.28	6.30
5 N200 E35	6.80	7.80	0.39	9.24
5 N200 E35	7.80	9.00	0.29	6.45
5 N400 E10	0.00	1.34	0.67	42.62
5 N400 E10	1.34	2.34	0.63	44.14
5 N400 E10	2.34	3.34	0.72	42.49
5 N400 E10	3.34	4.34	0.76	44.62
5 N400 E10	4.34	5.34	0.85	44.06
5 N400 E10	5.34	6.34	0.84	45.66
5 N400 E10	6.34	7.34	0.86	40.33
5 N400 E10	7.34	8.34	1.37	17.07
5 N400 E10	8.34	9.34	1.33	15.79
5 N400 E10	9.34	10.34	1.02	12.09
5 N400 E10	10.34	11.34	1.09	20.58
5 N400 E10	11.34	12.34	0.92	15.12
5 N400 E10	12.34	13.34	0.59	9.88
5 N400 E10	13.34	14.34	0.66	10.66
5 N400 E10	14.34	15.34	0.68	13.45
5 N400 E10	15.34	16.34	0.30	9.71
5 N400 E10	16.34	17.34	0.34	8.66
6 N100 E50	0.00	0.96	0.75	46.87
6 N100 E50	0.96	1.96	0.93	49.48
6 N100 E50	1.96	2.96	0.82	50.40
6 N100 E50	2.96	3.96	0.95	49.76
6 N100 E50	3.96	4.96	1.01	47.97
6 N100 E50	4.96	5.96	1.52	30.23
6 N100 E50	5.96	6.96	1.77	18.58
6 N100 E50	6.96	7.96	1.88	21.81
6 N100 E50	7.96	8.96	1.62	23.89
6 N100 E50	8.96	9.96	1.60	19.89
6 N100 E50	9.96	10.96	1.73	24.73
6 N100 E50	10.96	11.96	1.56	21.03
6 N100 E50	11.96	12.96	1.70	15.02
6 N100 E50	12.96	13.96	1.69	14.30
6 N100 E50	13.96	14.96	1.66	11.71
6 N100 E50	14.96	15.96	1.30	11.00
6 N100 E50	15.96	17.00	0.66	7.03
5 N400 E45	0.00	0.90	0.77	45.50
5 N400 E45	0.90	1.90	0.92	31.81
5 N400 E45	1.90	2.90	1.13	32.42
5 N400 E45	2.90	3.90	1.49	18.13
5 N400 E45	3.90	4.90	1.11	16.31
5 N400 E45	4.90	5.90	1.38	15.79
5 N400 E45	5.90	6.90	1.30	18.68
5 N400 E45	6.90	7.90	1.28	20.54
5 N400 E45	7.90	8.90	1.02	14.72
5 N400 E45	8.90	9.90	0.74	8.94
5 N400 E45	9.90	10.90	1.10	18.09
5 N400 E45	10.90	11.90	0.94	11.08
5 N400 E45	11.90	12.90	0.46	7.40
5 N400 E45	12.90	14.00	0.35	6.22
5 N300 E40	0.00	1.13	0.66	44.48
5 N300 E40	1.13	2.13	0.70	46.92
5 N300 E40	2.13	3.13	0.66	44.60
5 N300 E40	3.13	4.13	1.05	38.28
5 N300 E40	4.13	5.13	1.19	15.09
5 N300 E40	5.13	6.13	1.58	15.24
5 N300 E40	6.13	7.13	1.32	13.97
5 N300 E40	7.13	8.13	1.13	10.71
5 N300 E40	8.13	9.13	0.99	14.39
5 N300 E40	9.13	10.13	0.86	9.44
5 N300 E40	10.13	11.13	1.24	10.45
5 N300 E40	11.13	12.13	1.66	12.63
5 N300 E40	12.13	13.13	1.68	13.78
5 N300 E40	13.13	14.13	1.30	8.63
5 N300 E40	14.13	15.13	1.30	11.45
5 N300 E40	15.13	16.13	1.09	11.53
5 N300 E40	16.13	17.13	0.93	8.69
5 N300 E40	17.13	18.13	0.49	7.02
5 N300 E40	18.13	19.00	0.75	8.06
6 N350 E40	0.00	0.67	0.71	41.14
6 N350 E40	0.67	1.67	0.81	41.13
6 N350 E40	1.67	2.67	0.85	18.86
6 N350 E40	2.67	3.67	0.28	6.26
6 N350 E40	3.67	4.67	0.37	9.00
6 N350 E40	4.67	5.67	0.25	6.00
6 N350 E40	5.67	6.67	0.24	5.76
6 N350 E40	6.67	8.00	0.24	5.70
6 N50 E250	0.00	1.05	0.78	48.02
6 N50 E250	1.05	2.05	0.89	45.84
6 N50 E250	2.05	3.05	0.91	47.11
6 N50 E250	3.05	4.05	0.93	48.89
6 N50 E250	4.05	5.05	0.97	46.39
6 N50 E250	5.05	6.05	0.43	7.04
6 N50 E250	6.05	7.05	0.97	14.44
6 N50 E250	7.05	8.05	0.60	6.47
6 N50 E250	8.05	9.00	0.31	6.29
5 N350 E10	0.00	0.56	0.70	44.63
5 N350 E10	0.56	1.56	0.62	41.28
5 N350 E10	1.56	2.56	0.53	27.00
5 N350 E10	2.56	3.56	0.69	31.19
5 N350 E10	3.56	4.56	0.70	32.43
5 N350 E10	4.56	5.56	0.45	15.92
5 N350 E10	5.56	6.56	0.83	20.47
5 N350 E10	6.56	7.56	0.74	19.81
5 N350 E10	7.56	8.56	0.61	11.49
5 N350 E10	8.56	9.56	0.59	12.37
5 N350 E10	9.56	10.56	1.07	18.39
5 N350 E10	10.56	12.00	0.39	7.46
5 N450 E20	0.00	1.40	0.80	44.92
5 N450 E20	1.40	2.40	0.95	35.44
5 N450 E20	2.40	3.40	1.69	30.74
5 N450 E20	3.40	4.40	1.80	20.97
5 N450 E20	4.40	5.40	1.69	30.20
5 N450 E20	5.40	6.40	1.72	26.61
5 N450 E20	6.40	7.40	1.61	12.47
5 N450 E20	7.40	8.40	1.42	16.39
5 N450 E20	8.40	9.40	1.52	21.20
5 N450 E20	9.40	10.40	0.90	8.45
5 N450 E20	10.40	11.40	1.16	11.91
5 N450 E20	11.40	12.00	0.50	6.72
6 N50 E150	0.00	1.27	0.84	45.55
6 N50 E150	1.27	2.27	0.89	46.01
6 N50 E150	2.27	3.27	1.06	21.57

:6 N50 E15	3.27	4.27	0.68	10.18
:6 N50 E15	4.27	5.27	0.72	9.22
:6 N50 E15	5.27	6.27	0.65	9.48
:6 N50 E15	6.27	7.27	0.27	5.84
:6 N50 E15	7.27	8.27	0.51	7.95
:6 N50 E15	8.27	9.00	0.31	6.59
5 N300 E25	0.00	1.31	0.80	47.16
5 N300 E25	1.31	2.31	0.89	45.14
5 N300 E25	2.31	3.31	1.08	46.37
5 N300 E25	3.31	4.31	1.33	37.24
5 N300 E25	4.31	5.31	1.47	27.24
5 N300 E25	5.31	6.31	1.57	30.05
5 N300 E25	6.31	7.31	1.46	21.67
5 N300 E25	7.31	8.31	1.53	29.81
5 N300 E25	8.31	9.31	1.70	27.90
5 N300 E25	9.31	10.31	1.64	20.05
5 N300 E25	10.31	11.31	1.30	9.72
5 N300 E25	11.31	12.00	0.64	6.88
5 N250 E35	0.00	1.29	0.63	47.41
5 N250 E35	1.29	2.29	0.64	47.62
5 N250 E35	2.29	3.29	0.87	47.73
5 N250 E35	3.29	4.29	1.15	21.85
5 N250 E35	4.29	5.29	1.10	21.49
5 N250 E35	5.29	6.29	1.07	15.09
5 N250 E35	6.29	7.29	1.09	13.17
5 N250 E35	7.29	8.29	0.82	9.82
5 N250 E35	8.29	9.29	0.85	10.49
5 N250 E35	9.29	10.29	0.82	9.71
5 N250 E35	10.29	11.29	0.60	7.91
5 N250 E35	11.29	12.00	0.45	6.25
:6 N300 E5	0.00	1.44	0.75	43.51
:6 N300 E5	1.44	2.44	0.70	47.36
:6 N300 E5	2.44	3.44	0.77	47.63
:6 N300 E5	3.44	4.44	0.96	46.62
:6 N300 E5	4.44	5.44	1.31	16.65
:6 N300 E5	5.44	6.44	0.90	11.74
:6 N300 E5	6.44	7.00	0.40	8.33
6 N100 E4	0.00	1.27	0.80	47.10
6 N100 E4	1.27	2.27	0.95	46.04
6 N100 E4	2.27	3.27	1.10	45.22
6 N100 E4	3.27	4.27	1.46	30.31
6 N100 E4	4.27	5.27	1.26	12.99
6 N100 E4	5.27	6.27	1.29	10.25
6 N100 E4	6.27	7.27	0.72	8.06
6 N100 E4	7.27	8.00	0.67	7.74
5 N250 E45	0.00	0.58	0.67	46.69
5 N250 E45	0.58	1.58	0.85	32.45
5 N250 E45	1.58	2.58	0.44	6.99
5 N250 E45	2.58	3.58	0.68	8.66
5 N250 E45	3.58	4.58	0.86	9.07
5 N250 E45	4.58	5.58	0.67	8.64
5 N250 E45	5.58	6.58	0.71	8.27
5 N250 E45	6.58	7.58	0.61	7.64
5 N250 E45	7.58	9.00	0.47	6.74
:5 N200 E5	0.00	0.96	0.80	23.55
:5 N200 E5	0.96	1.96	0.32	7.07
:5 N200 E5	1.96	2.96	0.27	6.10
:5 N200 E5	2.96	3.96	0.36	8.04
:5 N200 E5	3.96	4.96	0.26	6.07
:5 N200 E5	4.96	5.96	0.26	5.97
:5 N200 E5	5.96	6.96	0.27	5.98
:5 N200 E5	6.96	8.00	0.25	5.73
6 N250 E4	0.00	1.46	0.70	45.85
6 N250 E4	1.46	2.46	0.85	45.45
6 N250 E4	2.46	3.46	1.30	24.08
6 N250 E4	3.46	4.46	0.40	6.76
6 N250 E4	4.46	5.46	0.30	6.62
6 N250 E4	5.46	6.46	0.37	7.73
6 N250 E4	6.46	7.46	0.33	7.11
6 N250 E4	7.46	8.00	0.30	6.78
6 N300 E25	0.00	0.80	0.64	44.98
6 N300 E25	0.80	1.80	0.78	48.89
6 N300 E25	1.80	2.80	0.77	49.08
6 N300 E25	2.80	3.80	0.87	48.31
6 N300 E25	3.80	4.80	0.97	46.39
6 N300 E25	4.80	5.80	1.28	38.00
6 N300 E25	5.80	6.80	1.03	17.18
6 N300 E25	6.80	7.80	1.49	13.61
6 N300 E25	7.80	9.00	0.94	7.80
5 N500 E5	0.00	1.45	0.73	44.31
5 N500 E5	1.45	2.45	0.84	47.51
5 N500 E5	2.45	3.45	1.07	47.79
5 N500 E5	3.45	4.45	0.83	48.97
5 N500 E5	4.45	5.45	1.00	48.03
5 N500 E5	5.45	6.45	1.24	46.17
5 N500 E5	6.45	7.45	1.28	39.96
5 N500 E5	7.45	8.45	1.53	19.17
5 N500 E5	8.45	9.00	0.56	8.39
:6 N100 E5	0.00	1.34	0.57	45.83
:6 N100 E5	1.34	2.34	0.63	46.85
:6 N100 E5	2.34	3.34	1.25	22.56
:6 N100 E5	3.34	4.34	0.70	45.89
:6 N100 E5	4.34	5.34	0.52	9.99
:6 N100 E5	5.34	6.34	0.31	6.53
:6 N100 E5	6.34	7.34	0.33	6.71
:6 N100 E5	7.34	8.34	0.28	6.31
:6 N100 E5	8.34	9.00	0.27	6.16
6 N100 E45	0.00	1.48	0.98	29.37
6 N100 E45	1.48	2.48	1.22	18.72
6 N100 E45	2.48	3.48	1.31	16.72
6 N100 E45	3.48	4.48	0.97	15.34
6 N100 E45	4.48	5.48	0.84	9.84
6 N100 E45	5.48	6.48	0.79	9.82
6 N100 E45	6.48	7.48	0.78	11.04
6 N100 E45	7.48	8.00	0.50	7.58
6 N100 E45	8.00	8.48	0.97	9.30
6 N100 E45	8.48	9.48	1.71	23.48
6 N100 E45	9.48	10.48	1.61	22.44
6 N100 E45	10.48	11.48	1.44	18.29
6 N100 E45	11.48	12.48	0.95	12.31
6 N100 E45	12.48	13.00	0.50	7.98
6 N300 E4	0.00	0.75	1.11	40.69
6 N300 E4	0.75	1.75	0.75	12.44
6 N300 E4	1.75	2.75	1.45	17.23
6 N300 E4	2.75	3.75	1.53	12.78
6 N300 E4	3.75	4.75	1.45	15.77
6 N300 E4	4.75	5.75	1.18	10.71
6 N300 E4	5.75	6.75	1.02	10.03
6 N300 E4	6.75	7.75	0.99	9.53
6 N300 E4	7.75	9.00	0.58	7.30
5 N450 E25	0.00	0.85	0.80	44.89
5 N450 E25	0.85	1.85	0.61	41.94
5 N450 E25	1.85	2.85	0.98	47.79
5 N450 E25	2.85	3.85	0.99	48.70
5 N450 E25	3.85	4.85	1.59	36.25
5 N450 E25	4.85	5.85	1.89	18.89
5 N450 E25	5.85	6.85	1.71	22.16
5 N450 E25	6.85	7.85	1.78	20.89
5 N450 E25	7.85	8.85	1.72	19.70
5 N450 E25	8.85	9.85	1.71	11.80
5 N450 E25	9.85	10.85	1.74	14.33
5 N450 E25	10.85	11.85	1.35	12.29
5 N450 E25	11.85	13.00	1.18	9.62
5 N250 E5	0.00	0.71	0.87	46.19
5 N250 E5	0.71	1.71	0.94	32.58
5 N250 E5	1.71	2.71	0.54	7.94
5 N250 E5	2.71	3.71	0.39	7.26
5 N250 E5	3.71	4.71	0.38	7.65
5 N250 E5	4.71	5.71	0.57	11.93
5 N250 E5	5.71	6.71	0.60	13.19
5 N250 E5	6.71	7.71	0.60	11.28
5 N250 E5	7.71	8.71	0.58	11.76
5 N250 E5	8.71	9.71	0.35	8.00
5 N250 E5	9.71	10.90	0.39	8.69
6 N200 E15	0.00	1.37	0.65	46.11
6 N200 E15	1.37	2.37	0.83	47.12
6 N200 E15	2.37	3.37	0.95	46.12
6 N200 E15	3.37	4.37	1.06	44.87
6 N200 E15	4.37	5.37	1.47	37.02
6 N200 E15	5.37	6.37	1.77	17.62
6 N200 E15	6.37	7.37	1.36	15.73
6 N200 E15	7.37	8.37	1.33	15.95
6 N200 E15	8.37	9.37	1.03	11.97
6 N200 E15	9.37	10.37	1.04	12.96
6 N200 E15	10.37	12.00	0.65	8.51
6 N150 E4	0.00	0.88	0.69	45.75
6 N150 E4	0.88	1.88	1.06	48.27
6 N150 E4	1.88	2.88	1.09	48.06
6 N150 E4	2.88	3.88	1.02	44.43
6 N150 E4	3.88	4.88	0.97	47.14

6 N150 E45	4.88	5.88	0.86	47.78
6 N150 E45	5.88	6.88	1.00	49.58
6 N150 E45	6.88	7.88	1.07	47.76
6 N150 E45	7.88	8.88	1.07	47.86
6 N150 E45	8.88	9.88	1.17	47.71
6 N150 E45	9.88	11.00	0.60	13.14
5 N250 E45	0.00	0.68	0.75	47.89
5 N250 E45	0.68	1.68	0.80	48.05
5 N250 E45	1.68	2.68	0.89	45.27
5 N250 E45	2.68	3.68	1.31	39.81
5 N250 E45	3.68	4.68	1.53	20.50
5 N250 E45	4.68	5.68	1.46	14.12
5 N250 E45	5.68	6.68	1.05	7.82
5 N250 E45	6.68	7.68	1.02	9.78
5 N250 E45	7.68	8.68	1.08	10.75
5 N250 E45	8.68	9.68	0.74	8.30
5 N250 E45	9.68	11.00	0.31	6.45
5 N400 E40	0.00	1.08	0.77	46.26
5 N400 E40	1.08	2.08	0.81	47.73
5 N400 E40	2.08	3.08	0.83	46.74
5 N400 E40	3.08	4.08	1.10	45.88
5 N400 E40	4.08	5.08	1.31	38.82
5 N400 E40	5.08	6.08	1.53	21.97
5 N400 E40	6.08	7.08	1.47	37.34
5 N400 E40	7.08	8.08	0.84	9.46
5 N400 E40	8.08	9.00	0.26	5.95
5 N100 E45	0.00	1.41	0.78	48.12
5 N100 E45	1.41	2.41	1.14	38.31
5 N100 E45	2.41	3.41	1.03	19.85
5 N100 E45	3.41	4.41	0.37	7.12
5 N100 E45	4.41	5.41	0.39	6.93
6 N250 E10	0.00	0.99	0.64	46.96
6 N250 E10	0.99	1.99	0.57	48.84
6 N250 E10	1.99	2.99	0.97	24.43
6 N250 E10	2.99	3.99	0.50	8.98
6 N250 E10	3.99	4.99	0.45	8.48
6 N250 E10	4.99	5.99	0.39	7.36
6 N250 E10	5.99	6.99	0.35	7.26
6 N250 E10	6.99	7.99	0.31	6.81
6 N250 E10	7.99	8.99	0.34	6.80
6 N250 E10	8.99	10.00	0.32	6.45
5 N300 E35	0.00	0.86	0.75	45.29
5 N300 E35	0.86	1.86	0.89	47.46
5 N300 E35	1.86	2.86	1.07	32.26
5 N300 E35	2.86	3.86	1.35	31.65
5 N300 E35	3.86	4.86	1.37	21.20
5 N300 E35	4.86	5.86	1.67	16.52
5 N300 E35	5.86	6.86	1.78	20.80
5 N300 E35	6.86	7.86	1.73	16.02
5 N300 E35	7.86	8.86	1.20	10.20
5 N300 E35	8.86	9.86	1.01	10.97
5 N300 E35	9.86	10.86	0.71	8.47
5 N300 E35	10.86	11.86	0.40	7.21
5 N300 E35	11.86	13.00	0.43	6.71
5 N450E15	0.00	0.55	0.94	44.44
5 N450E15	0.55	1.55	1.09	15.87
5 N450E15	1.55	2.55	1.10	13.60
5 N450E15	2.55	3.55	1.06	12.68
5 N450E15	3.55	4.55	1.08	10.65
5 N450E15	4.55	5.55	0.56	7.62
5 N450E15	5.55	6.55	0.48	8.47
5 N450E15	6.55	7.55	0.40	8.32
5 N450E15	7.55	9.00	0.33	6.79
5 N350 E25	0.00	0.05	1.00	43.83
5 N350 E25	0.05	1.05	0.75	41.86
5 N350 E25	1.05	2.05	0.84	46.05
5 N350 E25	2.05	3.05	1.06	39.68
5 N350 E25	3.05	4.05	0.97	49.11
5 N350 E25	4.05	5.05	0.95	46.16
5 N350 E25	5.05	6.05	0.98	48.52
5 N350 E25	6.05	7.05	0.83	46.36
5 N350 E25	7.05	8.05	0.91	44.11
5 N350 E25	8.05	9.05	0.96	48.93
5 N350 E25	9.05	10.05	1.42	30.29
5 N350 E25	10.05	11.05	0.86	12.12
5 N350 E25	11.05	12.05	0.59	7.70
5 N350 E25	12.05	14.00	0.61	7.79
5 N350 E50	0.00	0.50	0.88	46.60
5 N350 E50	0.50	1.50	1.08	43.34
5 N350 E50	1.50	2.50	1.33	19.04

5 N350 E50	2.50	3.50	0.93	9.42
5 N350 E50	3.50	4.50	1.16	9.24
5 N350 E50	4.50	5.50	0.81	8.98
5 N350 E50	5.50	6.50	0.52	9.14
5 N350 E50	6.50	7.50	0.42	8.57
5 N350 E50	7.50	8.50	0.33	7.30
5 N350 E50	8.50	9.00	0.33	7.12
5 N350 E45	0.00	0.56	0.82	46.46
5 N350 E45	0.56	1.56	0.86	47.94
5 N350 E45	1.56	2.56	0.89	47.07
5 N350 E45	2.56	3.56	1.17	29.82
5 N350 E45	3.56	4.56	1.01	10.87
5 N350 E45	4.56	5.56	0.66	8.05
5 N350 E45	5.56	6.56	0.59	8.05
5 N350 E45	6.56	7.56	0.32	12.57
5 N350 E45	7.56	8.56	0.30	12.36
5 N350 E45	8.56	9.56	0.31	11.14
5 N300 E15	0.00	1.04	0.83	47.69
5 N300 E15	1.04	2.04	0.98	47.98
5 N300 E15	2.04	3.04	1.18	47.12
5 N300 E15	3.04	4.04	1.71	25.95
5 N300 E15	4.04	5.04	1.33	17.06
5 N300 E15	5.04	6.04	0.84	9.19
5 N300 E15	6.04	7.04	0.45	7.46
5 N300 E15	7.04	8.04	0.79	9.90
5 N300 E15	8.04	9.00	0.31	6.29
6 N200 E10	0.00	1.40	0.71	46.74
6 N200 E10	1.40	2.40	0.74	47.71
6 N200 E10	2.40	3.40	0.81	49.25
6 N200 E10	3.40	4.40	0.92	44.09
6 N200 E10	4.40	5.40	1.38	35.60
6 N200 E10	5.40	6.40	1.48	14.36
6 N200 E10	6.40	7.40	1.22	10.07
6 N200 E10	7.40	8.00	0.70	8.31
6 N50 E50	0.00	1.29	0.64	44.47
6 N50 E50	1.29	2.29	0.68	46.47
6 N50 E50	2.29	3.29	0.88	38.59
6 N50 E50	3.29	4.29	1.05	12.84
6 N50 E50	4.29	5.29	0.85	10.01
6 N50 E50	5.29	6.29	0.70	9.41
6 N50 E50	6.29	7.29	0.58	8.38
6 N50 E50	7.29	8.29	0.37	7.25
6 N50 E50	8.29	9.00	0.33	6.82
6 N200 E25	0.00	1.03	0.65	46.94
6 N200 E25	1.03	2.03	0.75	47.39
6 N200 E25	2.03	3.03	0.77	46.62
6 N200 E25	3.03	4.03	1.66	26.57
6 N200 E25	4.03	5.03	0.88	43.17
6 N200 E25	5.03	6.03	1.75	22.28
6 N200 E25	6.03	7.03	1.58	33.46
6 N200 E25	7.03	8.03	1.20	39.35
6 N200 E25	8.03	9.03	1.65	16.23
6 N200 E25	9.03	10.03	1.60	32.37
6 N200 E25	10.03	11.03	1.74	27.82
6 N200 E25	11.03	12.03	1.61	12.05
6 N200 E25	12.03	13.00	0.55	7.84
5 N450 E15	0.00	0.55	0.94	44.44
5 N450 E15	0.55	1.55	1.09	15.87
5 N450 E15	1.55	2.55	1.10	13.60
5 N450 E15	2.55	3.55	1.06	12.68
5 N450 E15	3.55	4.55	1.08	10.65
5 N450 E15	4.55	5.55	0.56	7.62
5 N450 E15	5.55	6.55	0.48	8.47
5 N450 E15	6.55	7.55	0.40	8.32
5 N450 E15	7.55	9.00	0.33	6.79
MBIF 40	0.00	0.76	0.79	45.85
MBIF 40	0.76	1.76	0.85	45.71
MBIF 40	1.76	2.76	0.86	47.85
MBIF 40	2.76	3.76	1.16	45.82
MBIF 40	3.76	4.76	1.64	25.52
MBIF 40	4.76	5.76	1.90	12.71
MBIF 40	5.76	6.76	1.93	17.33
MBIF 40	6.76	7.76	1.63	12.10
MBIF 40	7.76	8.76	1.56	17.86
MBIF 40	8.76	9.76	1.16	12.09
MBIF 40	9.76	11.00	1.19	9.07
MBIF 41	0.00	0.58	0.95	46.08
MBIF 41	0.58	1.58	1.62	26.88
MBIF 41	1.58	2.58	0.84	7.43
MBIF 41	2.58	4.00	0.70	7.09

MBIF 78	0.00	0.55	0.86	43.87
MBIF 78	0.55	1.55	0.96	43.88
MBIF 78	1.55	2.55	1.53	34.59
MBIF 78	2.55	3.55	1.47	19.45
MBIF 78	3.55	4.55	1.69	22.79
MBIF 78	4.55	5.55	1.31	11.39
MBIF 78	5.55	6.55	1.75	12.25
MBIF 78	6.55	7.55	1.25	12.11
MBIF 78	7.55	8.55	1.36	13.22
MBIF 78	8.55	9.55	1.50	16.53
MBIF 78	9.55	10.55	1.29	13.22
MBIF 78	10.55	11.55	1.44	13.29
MBIF 78	11.55	12.55	1.48	18.37
MBIF 78	12.55	13.55	0.76	10.45
MBIF 78	13.55	14.55	0.65	11.14
MBIF 78	14.55	15.55	0.67	10.19
MBIF 78	15.55	17.00	0.56	8.04
MBIF 82	0.00	1.05	0.79	47.56
MBIF 82	1.05	2.05	0.76	48.22
MBIF 82	2.05	3.05	0.98	47.32
MBIF 82	3.05	4.05	0.99	43.89
MBIF 82	4.05	5.05	0.69	12.22
MBIF 82	5.05	6.05	1.08	27.26
MBIF 82	6.05	7.05	1.50	13.55
MBIF 82	7.05	8.05	1.60	11.55
MBIF 82	8.05	9.05	1.37	12.01
MBIF 82	9.05	10.05	1.25	11.48
MBIF 82	10.05	11.05	1.72	15.92
MBIF 82	11.05	12.05	1.34	12.62
MBIF 82	12.05	13.05	1.25	9.71
MBIF 82	13.05	14.05	1.32	14.97
MBIF 82	14.05	15.05	1.38	13.69
MBIF 82	15.05	16.05	1.04	9.21
MBIF 82	16.05	17.00	0.79	7.11
MBIF 107	0.00	0.95	1.04	40.26
MBIF 107	0.95	1.95	1.19	39.95
MBIF 107	1.95	2.95	1.68	13.80
MBIF 107	2.95	3.95	1.14	8.75
MBIF 107	3.95	4.95	1.34	10.44
MBIF 107	4.95	5.95	1.60	19.39
MBIF 107	5.95	6.95	1.11	8.35
MBIF 107	6.95	8.00	0.94	7.18
MBIF 76	0.00	1.19	0.80	49.43
MBIF 76	1.19	2.19	0.79	47.26
MBIF 76	2.19	3.19	1.24	41.86
MBIF 76	3.19	4.19	1.36	32.09
MBIF 76	4.19	5.19	1.27	13.70
MBIF 76	5.19	6.19	1.27	12.30
MBIF 76	6.19	7.19	1.05	9.22
MBIF 76	7.19	8.00	0.63	7.27
MBIF 17	0.00	0.66	0.77	47.40
MBIF 17	0.66	1.66	0.87	46.47
MBIF 17	1.66	2.66	0.84	49.85
MBIF 17	2.66	3.66	1.07	43.30
MBIF 17	3.66	4.66	1.71	18.34
MBIF 17	4.66	5.66	1.71	14.32
MBIF 17	5.66	6.66	1.53	10.20
MBIF 17	6.66	8.00	0.72	7.76
MBIF 65	0.00	0.92	1.01	30.44
MBIF 65	0.92	1.92	1.38	12.70
MBIF 65	1.92	2.92	1.40	15.54
MBIF 65	2.92	3.92	1.15	14.12
MBIF 65	3.92	4.92	1.33	11.70
MBIF 65	4.92	5.92	1.34	11.97
MBIF 65	5.92	6.92	0.95	9.46
MBIF 65	6.92	7.92	0.77	7.75
MBIF 65	7.92	8.50	0.44	6.88
MBIF 110	0.00	1.00	1.03	35.13
MBIF 110	1.00	2.00	1.38	38.14
MBIF 110	2.00	3.00	1.60	18.59
MBIF 110	3.00	4.00	1.98	11.53
MBIF 110	4.00	5.00	1.80	13.78
MBIF 110	5.00	6.00	1.44	9.92
MBIF 110	6.00	7.00	1.82	24.76
MBIF 110	7.00	8.00	1.91	25.09
MBIF 110	8.00	9.00	1.55	8.64
MBIF 110	9.00	10.00	1.27	9.40
MBIF 110	10.00	11.00	1.11	12.32
MBIF 110	11.00	12.00	0.86	7.26
MBIF 39	0.00	0.58	0.96	45.72
MBIF 39	0.58	1.58	1.06	48.34
MBIF 39	1.58	2.58	1.10	44.56
MBIF 39	2.58	3.58	1.42	25.67
MBIF 39	3.58	4.58	1.39	14.79
MBIF 39	4.58	5.58	1.66	17.35
MBIF 39	5.58	6.58	0.94	8.82
MBIF 39	6.58	8.00	0.65	7.58
MBIF 68	0.00	0.65	0.69	48.18
MBIF 68	0.65	1.65	0.86	50.13
MBIF 68	1.65	2.65	0.86	43.82
MBIF 68	2.65	3.65	0.92	50.47
MBIF 68	3.65	4.65	0.91	39.94
MBIF 68	4.65	5.65	1.67	27.60
MBIF 68	5.65	6.65	1.32	48.30
MBIF 68	6.65	7.65	1.60	42.08
MBIF 68	7.65	8.65	2.00	21.16
MBIF 68	8.65	9.65	1.83	17.79
MBIF 68	9.65	10.65	1.60	14.01
MBIF 68	10.65	11.65	1.15	10.09
MBIF 68	11.65	12.65	0.83	8.79
MBIF 68	12.65	13.65	1.24	10.66
MBIF 68	13.65	14.65	0.62	7.34
MBIF 68	14.65	15.30	0.41	6.82
MBIF 12	0.00	1.09	0.76	46.14
MBIF 12	1.09	2.09	0.92	48.46
MBIF 12	2.09	3.09	0.98	47.14
MBIF 12	3.09	4.09	0.99	49.45
MBIF 12	4.09	5.09	0.94	49.49
MBIF 12	5.09	6.09	1.02	49.79
MBIF 12	6.09	7.09	1.00	45.56
MBIF 12	7.09	8.09	1.21	45.61
MBIF 12	8.09	9.09	1.39	33.23
MBIF 12	9.09	10.09	1.58	22.99
MBIF 12	10.09	11.09	1.69	33.34
MBIF 12	11.09	12.09	1.62	40.85
MBIF 12	12.09	13.09	1.97	25.44
MBIF 12	13.09	14.09	1.76	11.75
MBIF 12	14.09	15.09	1.98	19.73
MBIF 12	15.09	16.09	1.54	10.75
MBIF 12	16.09	17.00	1.37	14.99
MBIF 75	0.00	1.04	0.84	45.76
MBIF 75	1.04	2.04	0.38	8.30
MBIF 75	2.04	3.00	0.35	8.70
MBIF 89	0.00	1.16	0.69	44.90
MBIF 89	1.16	2.16	0.73	46.55
MBIF 89	2.16	3.16	0.94	41.40
MBIF 89	3.16	4.16	1.18	45.51
MBIF 89	4.16	5.16	1.25	39.52
MBIF 89	5.16	6.16	0.68	9.61
MBIF 89	6.16	7.16	1.58	32.19
MBIF 89	7.16	8.16	1.62	25.10
MBIF 89	8.16	9.16	1.12	14.17
MBIF 89	9.16	10.16	1.01	10.77
MBIF 89	10.16	11.16	1.08	8.57
MBIF 89	11.16	12.00	0.69	7.42
MBIF 36	0.00	0.80	1.08	35.66
MBIF 36	0.80	1.80	1.37	21.26
MBIF 36	1.80	2.80	0.71	10.56
MBIF 36	2.80	3.80	0.54	9.16
MBIF 36	3.80	4.80	1.15	12.80
MBIF 36	4.80	5.80	1.02	12.36
MBIF 36	5.80	6.80	1.76	17.22
MBIF 36	6.80	7.80	1.64	14.63
MBIF 36	7.80	8.80	1.46	16.21
MBIF 36	8.80	9.80	1.63	14.27
MBIF 36	9.80	10.80	1.61	18.56
MBIF 36	10.80	11.80	1.50	12.59
MBIF 36	11.80	12.80	1.45	12.62
MBIF 36	12.80	13.80	1.79	11.54
MBIF 36	13.80	14.80	1.21	11.73
MBIF 36	14.80	15.80	1.24	9.67
MBIF 36	15.80	16.80	1.18	9.41
MBIF 36	16.80	18.00	0.62	7.44
MBIF 88	0.00	0.71	0.81	36.03
MBIF 88	0.71	1.71	0.93	17.13
MBIF 88	1.71	2.71	1.12	17.20
MBIF 88	2.71	3.71	1.36	9.05
MBIF 88	3.71	4.80	0.49	7.16
MBIF 16	0.00	1.26	0.95	40.98
MBIF 16	1.26	2.26	1.46	30.31

MBIF 16	2.26	3.26	1.52	18.85
MBIF 16	3.26	4.26	1.60	26.11
MBIF 16	4.26	5.26	1.50	17.08
MBIF 16	5.26	6.26	1.15	11.43
MBIF 16	6.26	7.26	0.66	8.95
MBIF 16	7.26	8.26	0.70	8.97
MBIF 16	8.26	9.26	0.66	10.14
MBIF 16	9.26	10.26	0.43	9.10
MBIF 16	10.26	11.26	0.42	8.78
MBIF 16	11.26	12.26	0.34	7.91
MBIF 16	12.26	13.26	0.35	7.91
MBIF 16	13.26	14.26	0.31	7.32
MBIF 16	14.26	15.26	0.43	8.46
MBIF 16	15.26	16.26	0.35	8.08
MBIF 16	16.26	17.30	0.38	7.20
MBIF 85	0.00	1.05	0.75	45.75
MBIF 85	1.05	2.05	0.83	44.84
MBIF 85	2.05	3.05	1.25	40.76
MBIF 85	3.05	4.05	1.76	24.22
MBIF 85	4.05	5.05	1.65	12.76
MBIF 85	5.05	6.05	1.45	19.21
MBIF 85	6.05	7.05	1.17	7.57
MBIF 85	7.05	8.00	0.39	6.62
MBIF 90	0.00	1.42	0.71	43.42
MBIF 90	1.42	2.42	0.93	46.98
MBIF 90	2.42	3.42	1.02	48.24
MBIF 90	3.42	4.42	1.19	45.59
MBIF 90	4.42	5.42	1.58	33.22
MBIF 90	5.42	6.42	1.95	25.47
MBIF 90	6.42	7.42	1.90	13.94
MBIF 90	7.42	8.42	1.79	13.12
MBIF 90	8.42	9.42	1.96	17.88
MBIF 90	9.42	10.42	1.87	14.61
MBIF 90	10.42	11.42	1.89	14.26
MBIF 90	11.42	12.42	1.64	11.20
MBIF 90	12.42	13.42	1.58	10.92
MBIF 90	13.42	14.42	1.57	13.11
MBIF 90	14.42	15.42	1.47	14.71
MBIF 90	15.42	16.42	1.23	11.28
MBIF 90	16.42	17.42	0.86	8.36
MBIF 90	17.42	18.00	0.50	7.43
MBIF 84	0.00	1.30	0.89	48.38
MBIF 84	1.30	2.30	0.88	48.52
MBIF 84	2.30	3.30	0.84	47.96
MBIF 84	3.30	4.30	0.87	48.70
MBIF 84	4.30	5.30	0.89	47.71
MBIF 84	5.30	6.30	0.91	45.05
MBIF 84	6.30	7.30	0.87	46.12
MBIF 84	7.30	8.30	0.92	45.67
MBIF 84	8.30	9.30	1.17	33.96
MBIF 84	9.30	10.30	1.45	33.98
MBIF 84	10.30	11.30	1.75	14.45
MBIF 84	11.30	12.00	1.46	14.09
MBIF 70	0.00	0.84	0.83	47.50
MBIF 70	0.84	1.84	1.47	31.08
MBIF 70	1.84	2.84	1.25	17.11
MBIF 70	2.84	3.84	1.58	26.80
MBIF 70	3.84	4.84	1.72	20.55
MBIF 70	4.84	5.84	1.23	9.74
MBIF 70	5.84	6.84	1.43	12.04
MBIF 70	6.84	7.84	1.29	12.02
MBIF 70	7.84	8.84	0.88	10.74
MBIF 70	8.84	9.84	1.42	20.38
MBIF 70	9.84	10.84	0.92	11.76
MBIF 70	10.84	11.90	0.35	6.92
MB 62	0.00	1.16	0.73	47.01
MB 62	1.16	2.16	1.02	35.92
MB 62	2.16	3.16	1.27	31.35
MB 62	3.16	4.16	1.44	22.43
MB 62	4.16	5.16	1.25	19.27
MB 62	5.16	6.16	1.38	20.28
MB 62	6.16	7.16	1.50	17.56
MB 62	7.16	8.16	1.47	16.18
MB 62	8.16	9.16	0.54	8.30
MB 62	9.16	10.00	0.34	7.02
MB 63	0.00	1.47	0.83	44.53
MB 63	1.47	2.47	1.15	35.23
MB 63	2.47	3.47	0.51	7.47
MB 63	3.47	4.47	1.42	13.20
MB 63	4.47	5.47	1.36	17.57
MB 63	5.47	6.47	1.19	11.81
MB 63	6.47	7.47	0.44	7.47
MB 63	7.47	8.40	0.46	8.41
MBIF 28	0.00	0.76	0.73	41.89
MBIF 28	0.76	1.76	0.84	44.85
MBIF 28	1.76	2.76	1.01	28.18
MBIF 28	2.76	3.76	0.39	8.55
MBIF 28	3.76	4.76	0.41	8.76
MBIF 28	4.76	5.40	0.36	8.22
MB 44	0.00	1.19	0.97	45.45
MB 44	1.19	2.19	1.40	10.65
MB 44	2.19	3.19	1.16	13.75
MB 44	3.19	5.00	0.75	9.29
MB 61	0.00	1.15	1.34	11.37
MB 61	1.15	2.15	1.56	9.85
MB 61	2.15	3.15	1.17	9.57
MB 61	3.15	4.15	0.97	8.87
MB 61	4.15	5.15	0.77	7.44
MB 61	5.15	6.15	0.71	8.12
MB 61	6.15	7.15	0.73	10.12
MB 61	7.15	8.15	0.86	14.82
MB 61	8.15	9.15	0.65	10.61
MB 61	9.15	10.15	0.56	9.95
MB 61	10.15	11.15	0.40	8.44
MB 61	11.15	12.00	0.33	7.41
MBIF 31	0.00	1.76	0.78	40.95
MBIF 31	1.76	2.76	1.40	12.92
MBIF 31	2.76	3.76	1.52	11.04
MBIF 31	3.76	4.76	1.54	9.06
MBIF 31	4.76	5.76	1.82	12.68
MBIF 31	5.76	6.76	1.74	12.19
MBIF 31	6.76	7.76	1.98	10.93
MBIF 31	7.76	8.76	1.81	11.89
MBIF 31	8.76	9.76	1.63	11.27
MBIF 31	9.76	10.76	1.04	9.75
MBIF 31	10.76	11.00	0.71	10.63
MBIF 15	0.00	0.80	0.92	43.67
MBIF 15	0.80	1.80	1.08	40.75
MBIF 15	1.80	2.80	1.20	38.21
MBIF 15	2.80	3.80	1.70	20.06
MBIF 15	3.80	4.80	1.47	18.41
MBIF 15	4.80	5.80	1.52	24.16
MBIF 15	5.80	6.80	1.63	19.99
MBIF 15	6.80	7.80	1.03	8.87
MBIF 15	7.80	8.80	0.86	12.51
MBIF 15	8.80	9.80	0.80	10.65
MBIF 15	9.80	10.80	0.46	7.62
MBIF 15	10.80	11.80	0.41	7.65
MBIF 15	11.80	12.80	0.36	7.47
MBIF 15	12.80	13.80	0.56	10.04
MBIF 15	13.80	14.50	0.63	8.57
MBIF 14	0.00	0.74	0.68	46.44
MBIF 14	0.74	1.74	0.85	43.26
MBIF 14	1.74	2.74	0.80	27.69
MBIF 14	2.74	3.74	0.80	11.96
MBIF 14	3.74	4.74	0.81	15.64
MBIF 14	4.74	5.74	1.31	23.93
MBIF 14	5.74	6.74	1.38	21.87
MBIF 14	6.74	7.74	0.60	8.80
MBIF 14	7.74	8.74	0.83	11.71
MBIF 14	8.74	9.74	0.76	10.36
MBIF 14	9.74	10.74	0.71	9.37
MBIF 14	10.74	12.00	0.44	7.66
MBIF 98	0.00	1.39	0.75	46.79
MBIF 98	1.39	2.39	0.70	44.61
MBIF 98	2.39	3.39	0.85	50.00
MBIF 98	3.39	4.39	0.93	49.18
MBIF 98	4.39	5.39	1.01	47.06
MBIF 98	5.39	6.39	0.88	47.27
MBIF 98	6.39	7.39	1.07	45.13
MBIF 98	7.39	8.39	1.18	13.11
MBIF 98	8.39	9.39	1.47	15.92
MBIF 98	9.39	10.39	1.01	10.85
MBIF 98	10.39	11.39	0.66	9.16
MBIF 98	11.39	12.39	1.21	12.38
MBIF 98	12.39	13.39	1.10	15.55
MBIF 98	13.39	14.39	1.03	19.21
MBIF 98	14.39	15.39	0.79	12.01
MBIF 98	15.39	16.39	1.00	11.14
MBIF 98	16.39	17.00	0.54	7.88

MB 64	0.00	0.97	0.75	45.71
MB 64	0.97	1.97	0.47	13.46
MB 64	1.97	2.97	0.68	10.23
MB 64	2.97	3.97	0.89	15.73
MB 64	3.97	4.97	0.79	38.25
MB 64	4.97	6.20	0.77	48.84
MBIF 106	0.00	1.30	1.24	33.90
MBIF 106	1.30	2.30	1.39	16.74
MBIF 106	2.30	3.30	0.38	7.67
MBIF 106	3.30	4.30	0.57	8.63
MBIF 106	4.30	5.00	0.32	7.00
MBIF 34	0.00	1.35	0.94	43.57
MBIF 34	1.35	2.35	1.17	38.43
MBIF 34	2.35	3.35	1.45	31.93
MBIF 34	3.35	4.35	1.21	16.16
MBIF 34	4.35	5.35	1.18	16.40
MBIF 34	5.35	6.35	1.11	15.61
MBIF 34	6.35	7.35	0.96	10.90
MBIF 34	7.35	8.35	1.35	14.68
MBIF 34	8.35	9.35	1.52	23.72
MBIF 34	9.35	10.35	1.43	17.55
MBIF 34	10.35	11.35	1.38	16.08
MBIF 34	11.35	12.30	0.57	7.81
MBIF 102	0.00	0.58	0.95	48.83
MBIF 102	0.58	1.58	1.00	40.60
MBIF 102	1.58	2.58	0.99	41.10
MBIF 102	2.58	3.58	1.53	27.48
MBIF 102	3.58	4.58	1.92	11.38
MBIF 102	4.58	5.58	1.77	10.36
MBIF 102	5.58	6.58	1.61	12.76
MBIF 102	6.58	7.58	1.41	8.73
MBIF 102	7.58	8.58	1.52	8.51
MBIF 102	8.58	9.58	1.44	9.72
MBIF 102	9.58	10.50	0.54	6.61
MBIF 92	0.00	1.08	0.80	17.35
MBIF 92	1.08	2.08	0.77	11.57
MBIF 92	2.08	3.08	0.69	8.34
MBIF 92	3.08	4.08	0.28	6.29
MBIF 92	4.08	5.00	0.29	6.54
MBIF 20	0.00	1.15	0.63	46.86
MBIF 20	1.15	2.15	0.74	45.38
MBIF 20	2.15	3.15	0.84	45.32
MBIF 20	3.15	4.15	1.04	28.73
MBIF 20	4.15	5.15	0.64	8.48
MBIF 20	5.15	6.15	1.34	12.45
MBIF 20	6.15	7.15	1.17	10.06
MBIF 20	7.15	8.15	1.18	13.50
MBIF 20	8.15	9.15	1.12	11.47
MBIF 20	9.15	10.15	0.91	9.93
MBIF 20	10.15	11.15	0.58	7.81
MBIF 20	11.15	12.00	0.32	6.85
MBIF 30	0.00	0.50	1.68	17.98
MBIF 30	0.50	1.50	1.20	12.32
MBIF 30	1.50	2.50	1.30	12.46
MBIF 30	2.50	3.50	1.33	10.50
MBIF 30	3.50	4.50	0.97	9.69
MBIF 30	4.50	5.50	0.68	8.00
MBIF 30	5.50	7.00	0.67	7.44
MBIF 5	0.00	1.21	0.79	40.41
MBIF 5	1.21	2.21	1.25	13.23
MBIF 5	2.21	3.21	1.47	12.23
MBIF 5	3.21	4.21	1.33	17.90
MBIF 5	4.21	5.21	2.08	20.03
MBIF 5	5.21	6.21	0.89	0.89
MBIF 5	6.21	7.21	1.43	1.43
MBIF 5	7.21	8.21	1.30	1.30
MBIF 5	8.21	9.21	0.73	0.73
MBIF 5	9.21	10.40	0.62	0.62
MBIF 112	0.00	0.76	1.33	34.93
MBIF 112	0.76	1.76	1.60	12.00
MBIF 112	1.76	2.76	1.74	17.62
MBIF 112	2.76	3.76	1.60	12.62
MBIF 112	3.76	4.76	1.85	11.74
MBIF 112	4.76	5.76	1.80	16.14
MBIF 112	5.76	6.76	1.26	8.38
MBIF 112	6.76	7.76	0.96	7.74
MBIF 112	7.76	8.76	1.36	10.43
MBIF 112	8.76	9.76	1.01	7.60
MBIF 112	9.76	10.76	1.62	16.71
MBIF 112	10.76	11.76	1.43	14.31
MBIF 112	11.76	12.76	1.08	9.88
MBIF 112	12.76	13.76	0.73	9.30
MBIF 112	13.76	15.00	0.32	6.80
MB 66	0.00	1.20	0.69	46.92
MB 66	1.20	2.20	0.80	48.79
MB 66	2.20	3.20	0.79	29.52
MB 66	3.20	4.20	1.23	35.14
MB 66	4.20	5.20	0.70	13.79
MB 66	5.20	6.60	0.34	8.56
MB 1	0.00	1.14	1.17	29.97
MB 1	1.14	2.14	0.27	6.75
MB 1	2.14	3.14	0.31	7.23
MB 1	3.14	4.14	0.30	7.45
MB 1	4.14	5.00	0.25	6.62
MB 40	0.00	1.17	0.64	15.53
MB 40	1.17	2.17	0.99	16.77
MB 40	2.17	4.00	0.40	7.13
MB 43	0.00	1.37	0.93	34.06
MB 43	1.37	2.37	0.29	6.78
MB 43	2.37	3.27	0.50	7.76
MB 43	3.27	4.00	0.30	6.96
MBIF 18	0.00	1.04	0.78	44.05
MBIF 18	1.04	2.04	1.04	47.22
MBIF 18	2.04	3.04	1.10	46.05
MBIF 18	3.04	4.04	1.24	43.16
MBIF 18	4.04	5.04	1.57	20.96
MBIF 18	5.04	6.04	1.76	25.75
MBIF 18	6.04	7.04	0.85	9.95
MBIF 18	7.04	8.04	1.46	27.41
MBIF 18	8.04	9.04	1.20	13.72
MBIF 18	9.04	10.04	0.76	9.03
MBIF 18	10.04	11.04	0.49	7.61
MBIF 18	11.04	12.00	0.42	7.37
MBIF 50	0.00	0.77	1.17	33.48
MBIF 50	0.77	1.77	1.36	17.74
MBIF 50	1.77	2.77	1.41	10.82
MBIF 50	2.77	3.77	1.49	12.92
MBIF 50	3.77	4.77	1.62	10.30
MBIF 50	4.77	5.77	1.45	12.80
MBIF 50	5.77	6.77	1.05	13.98
MBIF 50	6.77	7.77	1.20	13.99
MBIF 50	7.77	8.77	0.36	7.37
MBIF 50	8.77	9.77	0.46	7.97
MBIF 50	9.77	10.77	0.89	7.80
MBIF 50	10.77	12.00	0.98	11.43
MBIF 64	0.00	0.72	0.90	41.41
MBIF 64	0.72	1.72	1.20	45.86
MBIF 64	1.72	2.72	0.56	8.22
MBIF 64	2.72	3.72	0.98	10.07
MBIF 64	3.72	4.72	1.29	14.87
MBIF 64	4.72	5.72	0.88	8.87
MBIF 64	5.72	6.72	0.56	8.37
MBIF 64	6.72	7.72	0.50	7.04
MBIF 64	7.72	8.72	0.51	8.17
MBIF 64	8.72	9.72	0.74	8.31
MBIF 64	9.72	10.72	0.75	7.57
MBIF 64	10.72	11.72	0.96	11.10
MBIF 64	11.72	12.80	0.90	8.88
MB 25	1.08	2.08	1.17	16.90
MB 25	2.08	3.08	1.58	33.01
MB 25	3.08	4.08	1.21	11.80
MB 25	4.08	5.08	1.27	11.41
MB 25	5.08	6.08	1.43	15.46
MB 25	7.08	8.00	0.37	7.14
MB 29	0.00	1.07	0.87	33.81
MB 29	1.07	2.07	1.25	23.49
MB 29	2.07	3.07	1.39	22.05
MB 29	3.07	4.07	0.88	11.22
MB 29	4.07	5.07	1.05	15.85
MB 29	5.07	6.07	0.84	10.86
MB 29	6.07	7.07	0.80	9.48
MB 29	7.07	8.00	0.38	6.93
MB 45	0.00	0.60	0.77	47.23
MB 45	0.60	1.60	0.92	47.13
MB 45	1.60	2.60	0.88	49.90
MB 45	2.60	3.60	1.03	43.16
MB 45	3.60	4.60	0.90	49.01
MB 45	4.60	5.60	0.87	46.73
MB 45	5.60	6.60	1.16	41.47
MB 45	6.60	7.60	1.66	25.82

MB 45	7.60	8.60	1.44	16.79
MB 45	8.60	10.00	0.77	13.28
MBIF 104	0.00	0.89	0.66	43.69
MBIF 104	0.89	1.89	0.62	45.29
MBIF 104	1.89	2.89	0.75	45.35
MBIF 104	2.89	3.89	0.89	44.73
MBIF 104	3.89	4.89	0.97	44.59
MBIF 104	4.89	5.89	0.86	45.51
MBIF 104	5.89	6.89	1.09	42.21
MBIF 104	6.89	7.89	0.98	42.33
MBIF 104	7.89	8.89	1.27	30.79
MBIF 104	8.89	9.89	1.08	44.51
MBIF 104	9.89	10.89	1.06	43.43
MBIF 104	10.89	11.89	1.09	44.72
MBIF 104	11.89	12.89	1.14	36.79
MBIF 104	12.89	13.89	0.97	38.36
MBIF 104	13.89	14.89	1.91	21.41
MBIF 104	14.89	15.89	2.01	17.52
MBIF 104	15.89	16.89	2.27	16.28
MBIF 104	16.89	17.89	2.13	16.89
MBIF 104	17.89	18.89	1.67	15.19
MBIF 104	18.89	20.00	0.75	8.16
MB 53	0.00	1.26	0.72	47.79
MB 53	1.26	2.26	0.79	47.25
MB 53	2.26	3.26	1.24	40.81
MB 53	3.26	4.26	1.40	22.41
MB 53	4.26	5.26	0.89	46.90
MB 53	5.26	6.26	0.95	47.61
MB 53	6.26	7.26	1.21	10.21
MB 53	7.26	8.26	1.56	13.79
MB 53	8.26	9.26	1.60	16.94
MB 53	9.26	10.26	1.77	17.06
MB 53	10.26	11.26	1.24	9.52
MB 53	11.26	12.26	1.51	9.51
MB 53	12.26	13.26	1.54	12.66
MB 53	13.26	14.26	1.48	10.52
MB 53	14.26	15.26	0.98	8.44
MB 53	15.26	16.26	1.51	19.41
MB 53	16.26	17.26	1.23	15.04
MB 53	17.26	18.26	1.09	10.53
MB 53	18.26	19.26	1.00	9.65
MB 53	19.26	20.00	0.40	7.25
MBIF 7	0.00	0.61	0.65	45.04
MBIF 7	0.61	1.61	0.66	46.87
MBIF 7	1.61	2.61	0.72	46.17
MBIF 7	2.61	3.61	0.81	45.34
MBIF 7	3.61	4.61	0.75	32.93
MBIF 7	4.61	5.61	0.61	21.51
MBIF 7	5.61	6.61	0.73	31.73
MBIF 7	6.61	7.61	0.94	38.92
MBIF 7	7.61	8.61	0.96	37.25
MBIF 7	8.61	9.61	1.19	15.87
MBIF 7	9.61	10.61	1.61	19.31
MBIF 7	10.61	11.61	1.10	9.08
MBIF 7	11.61	12.61	1.60	20.97
MBIF 7	12.61	13.61	1.30	14.84
MBIF 7	13.61	14.61	0.91	10.01
MBIF 7	14.61	15.61	0.67	8.62
MBIF 7	15.61	16.61	0.62	8.50
MBIF 7	16.61	17.20	0.33	6.88
MBIF 69	0.00	0.74	0.66	47.80
MBIF 69	0.74	1.74	0.81	48.90
MBIF 69	1.74	2.74	0.81	49.75
MBIF 69	2.74	3.74	1.01	50.51
MBIF 69	3.74	4.74	1.03	49.34
MBIF 69	4.74	5.74	1.08	45.78
MBIF 69	5.74	6.74	1.74	28.10
MBIF 69	6.74	7.74	1.92	15.98
MBIF 69	7.74	8.74	1.81	12.32
MBIF 69	8.74	9.74	1.94	15.16
MBIF 69	9.74	10.74	1.86	21.31
MBIF 69	10.74	11.74	1.00	8.21
MBIF 69	11.74	12.74	1.60	15.40
MBIF 69	12.74	13.74	1.31	11.59
MBIF 69	13.74	14.74	1.32	19.88
MBIF 69	14.74	15.74	1.14	14.02
MBIF 69	15.74	16.74	1.01	15.22
MBIF 69	16.74	17.74	0.59	9.71
MBIF 69	17.74	18.74	0.65	9.21
MBIF 69	18.74	20.00	0.59	7.28

MBIF 80	0.00	0.99	0.76	47.05
MBIF 80	0.99	1.99	0.74	49.07
MBIF 80	1.99	2.99	0.85	47.99
MBIF 80	2.99	3.99	0.77	46.70
MBIF 80	3.99	4.99	0.97	47.50
MBIF 80	4.99	5.99	1.11	46.04
MBIF 80	5.99	6.99	1.33	48.38
MBIF 80	6.99	7.99	1.54	20.45
MBIF 80	7.99	8.99	1.78	13.87
MBIF 80	8.99	9.99	1.59	13.88
MBIF 80	9.99	10.99	1.45	25.84
MBIF 80	10.99	11.99	1.34	9.87
MBIF 80	11.99	13.00	0.65	9.87
MBIF 59	0.00	1.06	0.89	45.83
MBIF 59	1.06	2.06	1.15	39.85
MBIF 59	2.06	3.06	1.81	26.17
MBIF 59	3.06	4.06	1.82	23.75
MBIF 59	4.06	5.06	2.00	27.43
MBIF 59	5.06	6.06	1.80	19.48
MBIF 59	6.06	7.06	1.96	19.85
MBIF 59	7.06	8.06	1.63	10.84
MBIF 59	8.06	9.06	1.92	12.91
MBIF 59	9.06	10.06	1.71	9.41
MBIF 59	10.06	11.06	1.91	12.30
MBIF 59	11.06	12.06	1.90	12.94
MBIF 59	12.06	13.06	1.79	19.71
MBIF 59	13.06	14.06	1.85	11.82
MBIF 59	14.06	15.06	1.56	10.57
MBIF 59	15.06	16.06	1.78	12.46
MBIF 59	16.06	17.06	1.66	12.48
MBIF 59	17.06	18.06	1.85	18.90
MBIF 59	18.06	19.06	1.82	15.60
MBIF 59	19.06	20.06	1.28	10.06
MBIF 59	20.06	21.30	0.94	7.07
MB 31	0.00	1.39	0.77	47.16
MB 31	1.39	2.39	1.02	45.06
MB 31	2.39	3.39	1.16	46.46
MB 31	3.39	4.39	1.21	45.21
MB 31	4.39	5.39	1.53	29.49
MB 31	5.39	6.39	1.74	20.69
MB 31	6.39	7.39	1.74	17.70
MB 31	7.39	8.39	1.72	23.64
MB 31	8.39	9.39	1.65	16.04
MB 31	9.39	10.39	1.43	13.85
MB 31	10.39	11.39	1.04	9.53
MB 31	11.39	12.39	1.03	10.09
MB 31	12.39	13.39	1.02	10.55
MB 31	13.39	14.39	1.23	11.54
MB 31	14.39	15.39	1.45	15.18
MB 31	15.39	16.39	1.32	10.19
MB 31	16.39	17.39	1.08	8.49
MB 31	17.39	18.39	1.33	12.69
MB 31	18.39	19.39	1.08	10.10
MB 31	19.39	20.39	1.15	11.56
MB 31	20.39	21.00	0.59	7.54
MB 3	0.00	1.03	0.80	42.76
MB 3	1.03	2.03	0.91	40.30
MB 3	2.03	3.03	1.22	36.61
MB 3	3.03	4.03	1.08	10.28
MB 3	4.03	5.03	0.38	7.71
MB 3	5.03	6.03	0.25	6.55
MBIF 9	0.00	1.34	0.74	44.07
MBIF 9	1.34	2.34	0.84	15.30
MBIF 9	2.34	3.34	0.39	6.93
MBIF 9	3.34	4.34	0.25	6.43
MBIF 9	4.34	5.34	0.37	8.36
MBIF 9	5.34	6.34	0.22	6.11
MBIF 9	6.34	8.00	0.23	6.22
MBIF 42	0.00	0.76	0.99	42.23
MBIF 42	0.76	1.76	1.27	19.59
MBIF 42	1.76	2.76	0.95	9.77
MBIF 42	2.76	3.76	0.74	8.34
MBIF 42	3.76	4.76	1.02	10.56
MBIF 42	4.76	5.76	1.34	12.37
MBIF 42	5.76	6.76	0.84	9.89
MBIF 42	6.76	7.76	1.15	10.66
MBIF 42	7.76	8.76	1.09	12.06
MBIF 42	8.76	10.00	0.32	6.87
MB 47	0.00	0.67	1.29	16.93
MB 47	0.67	1.67	0.86	7.75

MB 47	1.67	2.67	0.96	9.73
MB 47	2.67	3.67	1.20	12.97
MB 47	3.67	4.67	0.92	8.10
MB 47	4.67	5.40	0.36	7.02
MBIF 44	0.00	1.40	1.39	27.65
MBIF 44	1.40	2.40	1.46	24.94
MBIF 44	2.40	3.40	0.91	8.98
MBIF 44	3.40	4.40	0.60	8.93
MBIF 44	4.40	5.40	0.44	7.36
MBIF 44	5.40	6.20	0.35	7.21
MB 60	0.00	1.21	0.71	40.67
MB 60	1.21	2.21	0.74	44.96
MB 60	2.21	3.21	0.95	47.88
MB 60	3.21	4.21	0.96	44.77
MB 60	4.21	5.21	1.09	44.06
MB 60	5.21	6.21	1.18	42.76
MB 60	6.21	7.21	0.68	46.40
MB 60	7.21	8.21	1.39	32.19
MB 60	8.21	9.21	1.70	24.23
MB 60	9.21	10.21	1.02	11.68
MB 60	10.21	11.21	0.87	11.76
MB 60	11.21	12.21	1.10	13.32
MB 60	12.21	13.21	0.91	9.60
MB 60	13.21	14.21	1.24	19.74
MB 60	14.21	15.21	1.38	28.80
MB 60	15.21	16.21	0.55	7.99
MB 60	16.21	17.21	0.36	7.02
MBIF 45	0.00	1.25	1.20	24.00
MBIF 45	1.25	2.25	1.48	8.52
MBIF 45	2.25	3.25	1.72	25.20
MBIF 45	3.25	4.25	1.11	10.09
MBIF 45	4.25	5.25	0.59	7.69
MBIF 45	5.25	6.25	0.68	8.14
MBIF 45	6.25	7.25	0.48	6.71
MBIF 45	7.25	8.00	0.48	6.53
MBIF 58	0.00	0.50	0.75	44.72
MBIF 58	0.50	1.50	0.77	35.98
MBIF 58	1.50	2.50	0.65	12.04
MBIF 58	2.50	3.50	0.60	10.46
MBIF 58	3.50	4.50	0.28	6.97
MBIF 58	4.50	6.00	0.32	6.88
MB 22	0.00	0.89	0.76	40.11
MB 22	0.89	1.89	0.87	41.94
MB 22	1.89	2.89	0.63	8.77
MB 22	2.89	3.89	0.30	6.72
MB 22	3.89	5.00	0.24	6.28
MB 39	0.00	1.13	1.01	43.02
MB 39	1.13	2.13	1.10	46.82
MB 39	2.13	3.13	0.99	45.21
MB 39	3.13	4.13	1.30	23.46
MB 39	4.13	5.13	1.46	17.62
MB 39	5.13	6.13	1.32	18.36
MB 39	6.13	8.00	0.49	7.51
MB 26	0.00	1.09	1.37	34.52
MB 26	1.09	2.09	1.91	27.14
MB 26	2.09	3.09	1.67	40.49
MB 26	3.09	4.09	1.55	41.43
MB 26	4.09	5.09	1.91	27.77
MB 26	5.09	6.09	1.90	18.39
MB 26	6.09	7.09	1.32	8.35
MB 26	7.09	8.09	1.30	10.09
MB 26	8.09	9.09	0.80	7.68
MB 26	9.09	10.09	0.93	8.61
MB 26	10.09	11.09	0.46	7.44
MBIF 54	0.00	0.58	0.84	46.82
MBIF 54	0.58	1.58	0.82	47.64
MBIF 54	1.58	2.58	0.89	50.19
MBIF 54	2.58	3.58	0.93	48.30
MBIF 54	3.58	4.58	0.80	49.55
MBIF 54	4.58	5.58	0.80	49.62
MBIF 54	5.58	6.58	0.97	48.24
MBIF 54	6.58	7.58	1.00	47.83
MBIF 54	7.58	8.58	1.53	27.02
MBIF 54	8.58	9.58	1.51	17.10
MBIF 54	9.58	10.58	1.65	28.91
MBIF 54	10.58	11.58	1.43	14.37
MBIF 54	11.58	12.58	1.50	15.15
MBIF 54	12.58	13.58	1.18	10.32
MBIF 54	13.58	14.58	0.71	8.11
MBIF 54	14.58	15.58	0.91	9.20
MBIF 54	15.58	16.58	1.39	13.81
MBIF 54	16.58	17.58	0.98	9.23
MBIF 54	17.58	18.58	0.60	7.96
MBIF 54	18.58	20.00	0.61	6.95
MBIF 35	0.00	0.51	0.95	37.57
MBIF 35	0.51	1.51	0.93	10.58
MBIF 35	1.51	2.51	1.37	11.95
MBIF 35	2.51	3.51	1.15	9.09
MBIF 35	3.51	4.51	1.29	12.38
MBIF 35	4.51	5.51	1.35	12.05
MBIF 35	5.51	6.51	1.30	11.80
MBIF 35	6.51	7.51	1.08	8.05
MBIF 35	7.51	8.40	0.54	7.08
MBIF 96	0.00	0.60	0.65	46.20
MBIF 96	0.60	1.60	0.62	48.66
MBIF 96	1.60	2.60	0.85	48.18
MBIF 96	2.60	3.60	1.08	37.49
MBIF 96	3.60	4.60	1.02	11.43
MBIF 96	4.60	5.60	1.13	15.68
MBIF 96	5.60	6.60	1.00	15.66
MBIF 96	6.60	7.60	0.56	9.42
MBIF 96	7.60	8.60	0.63	8.62
MB 58	0.00	0.67	0.83	38.21
MB 58	0.67	1.67	1.16	39.05
MB 58	1.67	2.67	1.16	8.11
MB 58	2.67	3.67	1.68	17.57
MB 58	3.67	4.67	1.36	10.65
MB 58	4.67	5.67	1.36	10.04
MB 58	5.67	6.67	0.84	8.19
MB 58	6.67	7.67	1.45	11.24
MB 58	7.67	8.67	1.47	12.34
MB 58	8.67	9.67	1.21	10.54
MB 58	9.67	10.67	0.79	8.22
MB 58	10.67	11.67	0.65	9.80
MB 58	11.67	12.67	0.65	10.71
MB 58	12.67	13.67	0.48	8.36
MB 58	13.67	14.67	0.76	9.44
MB 58	14.67	15.67	0.90	10.85
MB 58	15.67	16.67	0.80	10.27
MB 58	16.67	17.67	0.49	8.16
MB 58	17.67	19.00	0.39	6.44
MBIF 105	0.00	1.13	0.84	45.64
MBIF 105	1.13	2.13	1.25	22.79
MBIF 105	2.13	3.13	1.57	19.64
MBIF 105	3.13	4.13	1.00	10.40
MBIF 105	4.13	5.13	0.66	8.12
MBIF 105	5.13	6.13	0.32	0.73
MBIF 105	6.13	7.00	0.27	6.53
MBIF 114	0.00	0.53	0.64	44.96
MBIF 114	0.53	1.53	0.83	48.03
MBIF 114	1.53	2.53	0.93	47.51
MBIF 114	2.53	3.53	0.98	45.58
MBIF 114	3.53	4.53	1.19	30.97
MBIF 114	4.53	5.53	1.71	14.42
MBIF 114	5.53	6.53	1.70	29.89
MBIF 114	6.53	7.53	1.52	15.84
MBIF 114	7.53	9.60	0.49	7.55
MB 17	0.00	0.58	0.85	45.58
MB 17	0.58	1.58	1.24	38.14
MB 17	1.58	2.58	1.61	21.11
MB 17	2.58	3.58	1.92	15.32
MB 17	3.58	4.58	1.70	16.15
MB 17	4.58	5.58	1.60	12.95
MB 17	5.58	6.58	1.22	11.94
MB 17	6.58	7.58	0.88	9.12
MB 17	7.58	9.00	0.63	7.03
MBIF 91	0.00	0.86	0.74	45.12
MBIF 91	0.86	1.86	0.77	44.39
MBIF 91	1.86	2.86	0.82	45.64
MBIF 91	2.86	3.86	0.89	43.05
MBIF 91	3.86	4.86	1.00	36.17
MBIF 91	4.86	5.86	0.81	10.01
MBIF 91	5.86	6.86	1.51	21.41
MBIF 91	6.86	7.50	0.36	7.11
MB 50	0.00	1.16	1.09	33.16
MB 50	1.16	2.16	1.58	13.08
MB 50	2.16	3.16	0.87	8.27
MB 50	3.16	4.16	1.35	14.87
MB 50	4.16	5.16	0.92	8.80
MB 50	5.16	6.16	0.63	7.74

MB 50	6.16	7.00	0.39	6.62
MBIF 86	0.00	0.75	0.75	43.17
MBIF 86	0.75	1.75	0.87	45.47
MBIF 86	1.75	2.75	0.83	24.79
MBIF 86	2.75	3.75	0.69	11.73
MBIF 86	3.75	4.75	1.29	27.39
MBIF 86	4.75	5.75	1.22	17.99
MBIF 86	5.75	6.75	1.10	14.24
MBIF 86	6.75	7.75	0.76	12.40
MBIF 86	7.75	8.75	0.51	8.75
MBIF 86	8.75	9.75	0.46	8.70
MBIF 86	9.75	10.75	0.91	23.23
MBIF 86	10.75	11.75	0.75	16.84
MBIF 86	11.75	12.60	0.29	6.55
MBIF 113	0.00	0.68	1.46	23.69
MBIF 113	0.68	1.68	1.22	8.69
MBIF 113	1.68	2.68	1.55	9.07
MBIF 113	2.68	3.68	1.03	9.09
MBIF 113	3.68	4.68	0.34	7.19
MBIF 113	4.68	6.00	0.29	7.05
MB 32	0.00	1.16	1.36	23.72
MB 32	1.16	2.16	1.44	10.23
MB 32	2.16	3.16	1.47	8.80
MB 32	3.16	4.16	1.24	7.90
MB 32	4.16	5.16	1.54	8.70
MB 32	5.16	6.16	1.38	8.05
MB 32	6.16	7.16	1.06	8.42
MB 32	7.16	8.16	1.12	9.98
MB 32	8.16	9.30	0.99	9.66
MB 59	0.00	1.13	0.82	45.59
MB 59	1.13	2.13	1.13	47.17
MB 59	2.13	3.13	1.34	27.74
MB 59	3.13	4.13	1.53	13.52
MB 59	4.13	5.13	1.09	11.51
MB 59	5.13	6.13	0.53	7.20
MB 59	6.13	7.13	1.33	16.16
MB 59	7.13	8.13	1.04	11.43
MB 59	8.13	9.13	0.60	8.47
MB 59	9.13	10.13	0.65	9.33
MB 59	10.13	11.40	0.40	7.20
MB 36	0.00	1.05	0.81	44.02
MB 36	1.05	2.05	0.95	31.50
MB 36	2.05	3.05	1.15	28.03
MB 36	3.05	4.05	1.25	12.51
MB 36	4.05	5.05	1.50	17.59
MB 36	5.05	6.05	1.54	17.38
MB 36	6.05	7.05	1.41	17.41
MB 36	7.05	8.05	1.11	10.32
MB 36	8.05	9.05	1.22	18.73
MB 36	9.05	10.05	0.66	8.77
MB 36	10.05	11.00	0.28	6.55
MBIF 23	0.00	1.41	0.92	42.59
MBIF 23	1.41	2.41	1.23	20.20
MBIF 23	2.41	3.41	0.83	8.94
MBIF 23	3.41	4.41	1.45	22.25
MBIF 23	4.41	5.41	0.96	11.12
MBIF 23	5.41	6.41	1.31	17.19
MBIF 23	6.41	7.41	1.02	19.50
MBIF 23	7.41	8.60	0.36	7.02
MBIF 8	0.00	0.66	0.85	46.72
MBIF 8	0.66	1.66	0.82	47.14
MBIF 8	1.66	2.66	0.08	46.08
MBIF 8	2.66	3.66	0.71	47.18
MBIF 8	3.66	4.66	0.85	48.11
MBIF 8	4.66	5.66	1.12	39.65
MBIF 8	5.66	6.66	1.03	12.89
MBIF 8	6.66	7.66	0.54	8.13
MBIF 8	7.66	8.66	0.32	7.24
MBIF 8	8.66	9.30	0.25	6.57
MBIF 48	0.00	0.59	1.16	36.27
MBIF 48	0.59	1.59	1.09	9.68
MBIF 48	1.59	2.59	0.72	8.52
MBIF 48	2.59	3.59	0.75	10.55
MBIF 48	3.59	4.59	0.91	8.89
MBIF 48	4.59	5.59	1.15	12.11
MBIF 48	5.59	6.59	0.64	8.51
MBIF 48	6.59	8.00	0.36	6.85
MBIF 62	0.00	0.73	0.60	46.71
MBIF 62	0.73	1.73	0.93	48.47
MBIF 62	1.73	2.73	1.02	48.00

MBIF 62	2.73	3.73	0.98	49.31
MBIF 62	3.73	4.73	1.16	48.54
MBIF 62	4.73	5.73	1.31	34.36
MBIF 62	5.73	6.73	1.66	16.42
MBIF 62	6.73	7.73	2.07	24.15
MBIF 62	7.73	8.73	1.76	22.62
MBIF 62	8.73	9.73	2.26	14.84
MBIF 62	9.73	10.73	2.01	8.39
MBIF 62	10.73	11.73	1.73	13.01
MBIF 62	11.73	12.73	0.71	7.16
MBIF 62	12.73	13.50	0.46	6.57
MBIF 93	0.00	0.91	0.77	46.36
MBIF 93	0.91	1.91	0.98	47.28
MBIF 93	1.91	2.91	1.37	43.31
MBIF 93	2.91	3.91	1.42	20.67
MBIF 93	3.91	4.91	1.53	33.26
MBIF 93	4.91	5.91	1.43	18.97
MBIF 93	5.91	6.91	1.33	18.27
MBIF 93	6.91	7.91	1.36	22.61
MBIF 93	7.91	8.91	1.14	10.95
MBIF 93	8.91	9.91	1.12	13.54
MBIF 93	9.91	10.91	0.98	11.31
MBIF 93	10.91	11.91	0.81	10.24
MBIF 93	11.91	12.91	0.26	6.59
MBIF 93	12.91	14.20	0.56	7.97
MBIF 52	0.00	0.69	0.78	44.09
MBIF 52	0.69	1.69	0.94	45.18
MBIF 52	1.69	2.69	1.22	13.04
MBIF 52	2.69	3.69	0.97	9.43
MBIF 52	3.69	4.69	1.28	14.04
MBIF 52	4.69	5.69	1.37	14.54
MBIF 52	5.69	6.69	1.22	13.37
MBIF 52	6.69	7.69	1.00	12.05
MBIF 52	7.69	8.69	0.94	10.00
MBIF 52	8.69	9.69	0.86	9.29
MBIF 52	9.69	10.69	1.05	11.84
MBIF 52	10.69	11.69	1.30	12.19
MBIF 52	11.69	12.69	1.17	10.65
MBIF 52	12.69	13.69	0.99	11.81
MBIF 52	13.69	15.00	0.86	8.11
MB 52	0.00	0.54	0.81	47.42
MB 52	0.54	1.54	0.83	49.74
MB 52	1.54	2.54	0.88	49.42
MB 52	2.54	3.54	1.07	35.33
MB 52	3.54	4.54	1.43	31.02
MB 52	4.54	5.54	1.56	27.65
MB 52	5.54	6.54	1.36	26.45
MB 52	6.54	7.54	1.79	17.49
MB 52	7.54	9.00	0.85	7.82
MB 4	0.00	0.68	0.77	44.49
MB 4	0.68	1.68	0.48	10.54
MB 4	1.68	3.00	0.26	6.52
MB 24	0.00	1.48	1.62	11.30
MB 24	1.48	2.48	1.51	19.52
MB 24	2.48	3.48	1.18	23.29
MB 24	3.48	4.48	1.16	17.26
MB 24	4.48	5.48	1.57	28.09
MB 24	5.48	6.48	1.61	23.75
MB 24	6.48	7.48	0.65	6.91
MB 24	7.48	9.00	0.38	6.37
MBIF 24	0.00	1.10	0.83	48.61
MBIF 24	1.10	2.10	0.77	48.25
MBIF 24	2.10	3.10	0.75	48.02
MBIF 24	3.10	4.10	1.16	41.00
MBIF 24	4.10	5.10	1.46	16.72
MBIF 24	5.10	6.10	1.64	20.60
MBIF 24	6.10	7.10	1.39	21.84
MBIF 24	7.10	8.10	1.35	18.21
MBIF 24	8.10	9.10	1.41	17.53
MBIF 24	9.10	10.10	1.34	13.18
MBIF 24	10.10	11.10	1.13	10.94
MBIF 24	11.10	12.10	1.15	13.12
MBIF 24	12.10	13.10	0.90	12.12
MBIF 24	13.10	14.10	0.89	15.03
MBIF 24	14.10	15.10	0.67	7.71
MBIF 24	15.10	16.00	0.45	6.67
MBIF 27	0.00	1.14	0.90	38.86
MBIF 27	1.14	2.14	1.07	39.33
MBIF 27	2.14	3.14	1.38	29.50
MBIF 27	3.14	4.14	1.40	30.06

MBIF 27	4.14	5.14	1.24	23.83
MBIF 27	5.14	6.14	1.09	13.95
MBIF 27	6.14	7.14	0.83	11.74
MBIF 27	7.14	8.14	0.95	12.37
MBIF 27	8.14	9.14	0.91	11.62
MBIF 27	9.14	10.14	0.96	10.84
MBIF 27	10.14	11.14	0.72	9.71
MBIF 27	11.14	12.14	0.66	9.45
MBIF 27	12.14	13.00	0.37	7.08
MBIF 32	0.00	1.25	1.23	45.09
MBIF 32	1.26	2.26	1.32	42.00
MBIF 32	2.26	3.26	1.47	33.20
MBIF 32	3.26	4.26	1.46	35.81
MBIF 32	4.26	5.26	1.45	34.24
MBIF 32	5.26	6.26	1.42	28.18
MBIF 32	6.26	7.26	1.45	14.80
MBIF 32	7.26	8.26	1.33	27.38
MBIF 32	8.26	9.26	1.44	32.76
MBIF 32	9.26	10.26	1.45	23.73
MBIF 32	10.26	11.26	1.35	22.10
MBIF 32	11.26	12.26	1.31	19.54
MBIF 32	12.26	13.26	1.25	16.77
MBIF 32	13.26	14.26	1.01	9.65
MBIF 32	14.26	15.40	0.67	7.16
MBIF 79	0.00	1.24	0.66	44.24
MBIF 79	1.24	2.24	0.88	48.92
MBIF 79	2.24	3.24	0.91	47.75
MBIF 79	3.24	4.24	0.96	46.44
MBIF 79	4.24	5.24	1.29	43.74
MBIF 79	5.24	6.24	0.92	20.59
MBIF 79	6.24	7.24	1.34	16.19
MBIF 79	7.24	8.24	1.39	13.42
MBIF 79	8.24	9.24	1.37	18.56
MBIF 79	9.24	10.24	1.36	24.98
MBIF 79	10.24	11.24	1.09	13.86
MBIF 79	11.24	12.24	1.32	22.49
MBIF 79	12.24	13.24	0.75	8.98
MBIF 79	13.24	14.24	1.06	12.81
MBIF 79	14.24	15.24	0.77	9.11
MBIF 79	15.24	16.00	0.41	6.82
MBIF 67	0.00	0.52	1.49	31.78
MBIF 67	0.52	1.52	1.78	12.38
MBIF 67	1.52	2.52	1.81	16.73
MBIF 67	2.52	3.52	1.90	18.06
MBIF 67	3.52	4.52	1.07	7.15
MBIF 67	4.52	5.52	1.39	11.98
MBIF 67	5.52	6.52	1.46	18.04
MBIF 67	6.52	7.52	1.30	13.31
MBIF 67	7.52	8.52	1.12	10.41
MBIF 67	8.52	9.52	1.06	10.35
MBIF 67	9.52	10.52	0.89	10.00
MBIF 67	10.52	12.00	0.59	7.20
MBIF 37	0.00	0.60	0.87	46.30
MBIF 37	0.60	1.60	1.83	17.99
MBIF 37	1.60	2.60	2.01	28.71
MBIF 37	2.60	3.60	2.51	21.24
MBIF 37	3.60	4.60	1.97	15.03
MBIF 37	4.60	5.60	1.19	9.51
MBIF 37	5.60	6.60	1.04	12.50
MBIF 37	6.60	7.60	1.24	11.84
MBIF 37	7.60	8.60	1.02	9.23
MBIF 37	8.60	9.60	0.85	8.86
MBIF 37	9.60	10.60	0.81	7.70
MBIF 37	10.60	11.60	0.82	7.93
MB 18	0.00	1.24	0.78	45.51
MB 18	1.24	2.24	0.99	38.87
MB 18	2.24	3.24	0.60	8.65
MB 18	3.24	4.24	0.47	7.61
MB 18	4.24	5.24	0.47	7.73
MB 18	5.24	6.60	0.31	7.02
MBIF 21	0.00	0.69	0.64	46.08
MBIF 21	0.69	1.69	0.82	48.24
MBIF 21	1.69	2.69	0.98	49.56
MBIF 21	2.69	3.69	0.90	48.79
MBIF 21	3.69	4.69	1.06	46.64
MBIF 21	4.69	5.69	1.18	13.44
MBIF 21	5.69	6.69	1.41	39.70
MBIF 21	6.69	7.69	1.71	26.40
MBIF 21	7.69	8.69	1.94	19.85
MBIF 21	8.69	9.69	1.90	17.65
MBIF 21	9.69	10.69	1.54	9.76
MBIF 21	10.69	11.69	1.92	16.17
MBIF 21	11.69	12.69	1.09	10.40
MBIF 21	12.69	13.69	1.10	11.08
MBIF 21	13.69	14.69	1.11	13.79
MBIF 21	14.69	15.69	1.27	14.35
MBIF 21	15.69	16.69	1.60	15.58
MBIF 21	16.69	17.69	1.14	43.37
MBIF 21	17.69	19.30	1.04	9.89
MB 15	0.00	1.35	0.84	19.49
MB 15	1.35	2.35	0.80	11.13
MB 15	2.35	3.35	1.06	13.59
MB 15	3.35	4.35	0.68	7.60
MB 15	4.35	5.35	0.85	10.33
MB 15	5.35	6.35	0.92	9.58
MB 15	6.35	7.35	0.81	8.71
MB 15	7.35	8.35	1.00	12.98
MB 15	8.35	9.35	0.69	8.76
MB 15	9.35	10.35	0.85	10.84
MB 15	10.35	11.35	0.81	10.56
MB 15	11.35	12.35	1.04	12.79
MB 15	12.35	13.35	0.85	8.30
MB 15	13.35	14.35	0.98	10.63
MB 15	14.35	15.35	0.96	11.89
MB 15	15.35	16.35	0.91	9.73
MB 15	16.35	17.35	0.95	9.81
MB 15	17.35	18.35	0.79	9.26
MB 15	18.35	19.35	0.52	7.66
MB 15	19.35	20.00	0.26	6.45
MBIF 72	0.00	0.94	0.74	47.32
MBIF 72	0.94	1.94	0.89	48.43
MBIF 72	1.94	2.94	0.88	48.76
MBIF 72	2.94	3.94	0.79	47.64
MBIF 72	3.94	4.94	1.00	48.82
MBIF 72	4.94	5.94	1.15	49.83
MBIF 72	5.94	6.94	1.39	17.46
MBIF 72	6.94	7.94	1.16	9.33
MBIF 72	7.94	8.94	1.72	15.40
MBIF 72	8.94	9.94	1.46	13.57
MBIF 72	9.94	10.94	1.54	22.80
MBIF 72	10.94	11.94	1.57	20.03
MBIF 72	11.94	12.94	1.27	15.86
MBIF 72	12.94	13.94	1.03	12.53
MBIF 72	13.94	14.94	0.80	10.24
MBIF 72	14.94	15.94	0.94	12.19
MBIF 72	15.94	16.94	1.24	14.64
MBIF 72	16.94	17.94	0.92	12.81
MBIF 72	17.94	18.94	0.61	10.33
MBIF 72	18.94	19.60	0.72	6.87
MBIF 38	0.00	0.69	0.94	43.66
MBIF 38	0.69	1.69	1.02	48.10
MBIF 38	1.69	2.69	0.90	46.57
MBIF 38	2.69	3.69	1.02	47.16
MBIF 38	3.69	4.69	1.26	42.93
MBIF 38	4.69	5.69	1.42	38.12
MBIF 38	5.69	6.69	1.71	25.38
MBIF 38	6.69	7.69	1.54	20.90
MBIF 38	7.69	8.69	1.64	22.53
MBIF 38	8.69	9.69	1.61	14.72
MBIF 38	9.69	10.69	1.34	10.83
MBIF 38	10.69	11.69	1.19	11.67
MBIF 38	11.69	12.69	1.42	19.17
MBIF 38	12.69	13.69	1.64	15.15
MBIF 38	13.69	14.69	1.82	12.32
MBIF 38	14.69	15.69	1.51	15.69
MBIF 38	15.69	16.69	1.67	16.09
MBIF 38	16.69	17.69	1.69	15.93
MBIF 38	17.69	18.69	1.27	11.66
MBIF 38	18.69	19.69	1.55	14.05
MBIF 38	19.69	20.69	1.47	9.61
MBIF 38	20.69	21.69	1.08	12.16
MBIF 38	21.69	22.69	0.97	9.19
MBIF 38	22.69	24.00	0.43	7.09
MBIF 60	0.00	0.83	0.67	45.85
MBIF 60	0.83	1.83	0.91	49.14
MBIF 60	1.83	2.83	1.01	49.31
MBIF 60	2.83	3.83	1.05	50.07
MBIF 60	3.83	4.83	1.01	50.44
MBIF 60	4.83	5.83	0.93	45.63
MBIF 60	5.83	6.83	1.09	48.31

MBIF 60	6.83	7.83	1.40	44.06
MBIF 60	7.83	8.83	2.05	26.85
MBIF 60	8.83	9.83	2.11	16.92
MBIF 60	9.83	10.83	1.36	8.76
MBIF 60	10.83	11.83	1.22	9.10
MBIF 60	11.83	12.83	1.20	9.71
MBIF 60	12.83	13.83	1.29	9.93
MBIF 60	13.83	14.83	1.18	9.53
MBIF 60	14.83	15.83	1.81	19.33
MBIF 60	15.83	16.83	1.59	14.69
MBIF 60	16.83	17.83	1.02	8.45
MBIF 60	17.83	18.90	0.28	6.40
MB 30	0.00	0.69	0.76	46.91
MB 30	0.69	1.69	0.90	49.12
MB 30	1.69	2.69	0.99	48.72
MB 30	2.69	3.69	0.98	47.67
MB 30	3.69	4.69	1.30	31.12
MB 30	4.69	5.69	1.66	21.98
MB 30	5.69	6.69	1.97	13.42
MB 30	6.69	7.69	2.14	12.73
MB 30	7.69	8.69	1.15	8.33
MB 30	8.69	9.69	1.66	12.16
MB 30	9.69	10.69	1.59	13.47
MB 30	10.69	11.69	1.39	12.13
MB 30	11.69	12.69	1.41	13.32
MB 30	12.69	13.69	1.28	8.92
MB 30	13.69	14.69	0.89	9.81
MB 30	14.69	15.69	1.03	8.75
MB 30	15.69	16.69	1.04	10.19
MB 30	16.69	17.69	0.97	11.98
MB 30	17.69	19.00	0.62	7.90
MBIF 6	0.00	0.64	0.79	46.87
MBIF 6	0.64	1.64	0.95	48.57
MBIF 6	1.64	2.64	0.75	47.86
MBIF 6	2.64	3.64	0.98	27.26
MBIF 6	3.64	4.64	0.58	8.70
MBIF 6	4.64	6.00	0.33	7.33
MB 54	0.00	1.16	0.69	48.43
MB 54	1.16	2.16	0.81	48.50
MB 54	2.16	3.16	1.17	24.03
MB 54	3.16	4.16	0.77	8.04
MB 54	4.16	5.16	1.52	18.96
MB 54	5.16	6.16	0.99	8.88
MB 54	6.16	7.16	1.03	12.11
MB 54	7.16	8.16	1.10	10.69
MB 54	8.16	9.16	0.91	11.22
MB 54	9.16	10.16	0.92	13.71
MB 54	10.16	11.16	0.86	12.13
MB 54	11.16	12.16	0.57	9.59
MB 54	12.16	13.00	0.36	7.19
MB 16	0.00	1.04	0.81	48.20
MB 16	1.04	2.04	1.01	47.86
MB 16	2.04	3.04	0.76	47.70
MB 16	3.04	4.04	0.85	49.55
MB 16	4.04	5.04	1.57	34.18
MB 16	5.04	6.04	1.72	30.72
MB 16	6.04	7.04	1.74	22.59
MB 16	7.04	8.04	0.84	9.00
MB 16	8.04	9.04	0.68	7.75
MB 16	9.04	10.04	1.01	11.15
MB 16	10.04	11.04	0.88	12.32
MB 16	11.04	12.04	0.71	10.18
MB 16	12.04	13.04	0.59	9.69
MB 16	13.04	14.04	0.62	9.73
MB 16	14.04	15.04	0.29	7.24
MB 11	0.00	1.14	0.76	47.48
MB 11	1.14	2.14	0.83	48.25
MB 11	2.14	3.14	0.81	49.23
MB 11	3.14	4.14	0.75	47.49
MB 11	4.14	5.14	0.98	45.35
MB 11	5.14	6.14	1.08	37.13
MB 11	6.14	7.14	1.98	20.18
MB 11	7.14	8.14	2.20	21.49
MB 11	8.14	9.14	2.03	18.60
MB 11	9.14	10.14	1.87	26.49
MB 11	10.14	11.14	1.75	22.80
MB 11	11.14	12.14	1.69	14.22
MB 11	12.14	13.14	1.38	12.90
MB 11	13.14	14.14	1.74	12.05
MB 11	14.14	15.14	1.52	14.37
MB 11	15.14	16.14	1.07	9.39
MB 11	16.14	17.00	0.73	6.89
MBIF 47	0.00	1.23	0.88	46.56
MBIF 47	1.23	2.23	0.83	49.23
MBIF 47	2.23	3.23	0.74	48.00
MBIF 47	3.23	4.23	0.76	49.70
MBIF 47	4.23	5.23	0.80	48.12
MBIF 47	5.23	6.23	1.09	41.38
MBIF 47	6.23	7.23	0.91	47.93
MBIF 47	7.23	8.23	1.42	25.12
MBIF 47	8.23	9.23	1.21	13.89
MBIF 47	9.23	10.23	1.92	14.78
MBIF 47	10.23	11.23	1.06	10.19
MBIF 47	11.23	12.23	0.98	10.21
MBIF 47	12.23	13.23	1.19	9.98
MBIF 47	13.23	14.23	0.86	9.42
MBIF 47	14.23	15.23	0.76	8.97
MBIF 47	15.23	16.23	0.37	7.00
MBIF 47	16.23	17.80	0.57	7.24
MBIF 51	0.00	1.07	0.87	47.25
MBIF 51	1.07	2.07	0.84	48.22
MBIF 51	2.07	3.07	0.89	48.19
MBIF 51	3.07	4.07	0.73	47.88
MBIF 51	4.07	5.07	1.10	42.88
MBIF 51	5.07	6.07	0.99	47.92
MBIF 51	6.07	7.07	1.02	49.37
MBIF 51	7.07	8.07	1.30	44.26
MBIF 51	8.07	9.07	1.83	20.07
MBIF 51	9.07	10.07	2.22	14.60
MBIF 51	10.07	11.07	2.12	16.13
MBIF 51	11.07	12.07	0.74	7.31
MBIF 51	12.07	13.00	0.36	6.02
MB 33	0.00	1.39	0.78	45.32
MB 33	1.39	2.39	1.02	47.82
MB 33	2.39	3.39	1.05	49.02
MB 33	3.39	4.39	1.06	48.05
MB 33	4.39	5.39	1.16	47.72
MB 33	5.39	6.39	1.72	28.46
MB 33	6.39	7.39	1.68	26.52
MB 33	7.39	8.39	1.62	19.82
MB 33	8.39	9.39	1.57	9.87
MB 33	9.39	10.39	1.23	9.94
MB 33	10.39	11.39	1.79	15.31
MB 33	11.39	12.39	1.59	13.67
MB 33	12.39	13.39	1.41	10.37
MB 33	13.39	14.39	1.14	9.06
MB 33	14.39	15.39	1.15	9.68
MB 33	15.39	16.39	1.18	10.72
MB 33	16.39	17.39	1.06	11.26
MB 33	17.39	18.39	1.11	14.30
MB 33	18.39	19.39	0.89	12.12
MB 33	19.39	20.39	0.57	8.27
MB 33	20.39	21.39	0.92	10.67
MB 33	21.39	22.39	1.21	15.94
MB 33	22.39	23.39	0.87	10.48
MB 33	23.39	24.39	0.79	9.36
MB 33	24.39	25.20	0.61	6.84
MBIF 56	0.00	1.14	0.78	48.45
MBIF 56	1.14	2.14	0.84	48.21
MBIF 56	2.14	3.14	0.91	49.89
MBIF 56	3.14	4.14	0.89	47.64
MBIF 56	4.14	5.14	1.06	49.87
MBIF 56	5.14	6.14	1.21	49.10
MBIF 56	6.14	7.14	2.02	33.08
MBIF 56	7.14	8.14	1.58	42.89
MBIF 56	8.14	9.14	1.45	48.33
MBIF 56	9.14	10.14	1.46	44.12
MBIF 56	10.14	11.14	2.34	23.16
MBIF 56	11.14	12.14	1.99	22.08
MBIF 56	12.14	13.14	1.85	11.89
MBIF 56	13.14	14.00	2.07	20.77
MBIF 46	0.00	0.89	1.05	40.74
MBIF 46	0.89	1.89	1.60	25.84
MBIF 46	1.89	2.89	1.63	14.98
MBIF 46	2.89	3.89	1.49	14.12
MBIF 46	3.89	4.89	2.06	14.39
MBIF 46	4.89	5.89	1.92	9.63
MBIF 46	5.89	6.89	1.90	13.35
MBIF 46	6.89	7.89	1.87	14.79
MBIF 46	7.89	8.89	1.71	12.09

MBIF 46	8.89	9.89	1.62	8.98
MBIF 46	9.89	10.89	1.63	8.44
MBIF 46	10.89	11.89	1.68	8.91
MBIF 46	11.89	12.89	1.73	9.65
MBIF 46	12.89	13.89	1.34	9.14
MBIF 46	13.89	15.00	0.90	6.61
MB 8	0.00	0.52	0.76	46.87
MB 8	0.52	1.52	0.95	44.78
MB 8	1.52	2.52	1.33	32.89
MB 8	2.52	3.52	1.14	14.60
MB 8	3.52	4.52	1.25	13.27
MB 8	4.52	5.52	0.75	9.24
MB 8	5.52	6.52	0.27	6.20
MB 8	6.52	7.52	0.36	6.77
MB 8	7.52	8.52	0.44	6.61
MB 8	8.52	9.52	0.44	6.53
MB 8	9.52	10.52	0.55	7.18
MB 8	10.52	11.52	0.56	6.97
MB 8	11.52	12.52	0.46	6.58
MB 8	12.52	14.00	0.42	6.47
MB 9	0.00	0.66	0.67	44.38
MB 9	0.66	1.66	0.99	48.14
MB 9	1.66	2.66	1.07	49.34
MB 9	2.66	3.66	1.23	48.83
MB 9	3.66	4.66	1.12	22.24
MB 9	4.66	5.66	1.68	23.56
MB 9	5.66	6.66	1.48	14.39
MB 9	6.66	7.66	1.31	12.23
MB 9	7.66	8.66	0.67	7.82
MB 9	8.66	9.66	0.64	7.38
MB 9	9.66	10.66	0.90	8.06
MB 9	10.66	11.66	0.94	8.20
MB 9	11.66	12.66	0.46	6.54
MB 9	12.66	13.66	0.29	6.24
MB 9	13.66	15.00	0.28	6.04
MBIF 101	0.00	1.15	0.73	48.00
MBIF 101	1.15	2.15	0.78	47.32
MBIF 101	3.15	4.15	0.79	43.08
MBIF 101	4.15	5.15	0.75	40.99
MBIF 101	5.15	6.15	0.86	39.10
MBIF 101	6.15	7.15	0.85	37.79
MBIF 101	7.15	8.15	1.42	29.10
MBIF 101	8.15	9.15	0.99	38.91
MBIF 101	9.15	10.15	0.70	8.70
MBIF 101	10.15	11.50	0.33	6.47
MB 46	0.00	0.70	0.66	46.96
MB 46	0.70	1.70	0.73	48.68
MB 46	1.70	2.70	0.87	50.57
MB 46	2.70	3.70	0.92	49.01
MB 46	3.70	4.70	0.96	48.64
MB 46	4.70	5.70	1.05	49.93
MB 46	5.70	6.70	1.16	47.03
MB 46	6.70	7.70	1.12	47.21
MB 46	7.70	8.70	1.48	37.02
MB 46	8.70	9.70	1.10	14.82
MB 46	9.70	10.70	2.25	21.90
MB 46	10.70	11.70	1.51	32.47
MB 46	11.70	12.70	1.12	16.35
MB 46	12.70	13.70	1.48	16.05
MB 46	13.70	14.60	0.03	6.06
MB 23	0.00	1.08	0.75	47.83
MB 23	1.08	2.08	0.83	47.22
MB 23	2.08	3.08	0.93	46.35
MB 23	3.08	4.08	1.23	47.15
MB 23	4.08	5.08	1.61	31.51
MB 23	5.08	6.08	2.00	15.25
MB 23	6.08	7.08	1.82	11.66
MB 23	7.08	8.08	1.73	15.76
MB 23	8.08	9.08	1.64	18.03
MB 23	9.08	10.08	1.70	16.34
MB 23	10.08	11.08	1.27	9.65
MB 23	11.08	12.08	1.33	13.52
MB 23	12.08	13.08	1.67	15.10
MB 23	13.08	14.08	1.41	11.32
MB 23	14.08	14.90	0.29	6.02
MBIF 53	0.00	1.06	0.64	47.57
MBIF 53	1.06	2.06	0.82	48.39
MBIF 53	2.06	3.06	1.08	46.63
MBIF 53	3.06	4.06	1.03	44.44
MBIF 53	4.06	5.06	1.40	26.40
MBIF 53	5.06	6.06	1.72	23.66
MBIF 53	6.06	7.06	1.69	19.80
MBIF 53	7.06	8.06	1.96	19.71
MBIF 53	8.06	9.06	1.85	14.37
MBIF 53	9.06	10.06	1.46	11.39
MBIF 53	10.06	11.06	1.35	9.57
MBIF 53	11.06	12.06	0.91	7.34
MBIF 53	12.06	13.06	0.95	8.56
MBIF 53	13.06	14.06	0.69	7.58
MBIF 53	14.06	15.00	0.59	6.61
MBIF 63	0.00	0.55	0.79	45.47
MBIF 63	0.55	1.55	0.86	47.44
MBIF 63	1.55	2.55	0.82	47.28
MBIF 63	2.55	3.55	0.92	51.00
MBIF 63	3.55	4.55	0.99	45.76
MBIF 63	4.55	5.55	1.31	24.01
MBIF 63	5.55	6.55	1.05	14.78
MBIF 63	6.55	7.55	1.33	11.62
MBIF 63	7.55	8.55	1.44	9.78
MBIF 63	8.55	9.55	1.16	11.04
MBIF 63	9.55	10.55	0.47	6.82
MBIF 63	10.55	11.55	0.43	7.55
MBIF 63	11.55	12.55	0.33	6.69
MBIF 63	12.55	13.55	0.26	6.21
MBIF 63	13.55	15.00	0.44	6.22
MBIF 11	0.00	0.74	0.77	42.23
MBIF 11	3.74	4.74	0.86	46.52
MBIF 11	4.74	5.74	1.02	54.47
MBIF 11	6.74	7.74	1.52	12.87
MBIF 11	7.74	8.74	1.48	12.15
MBIF 11	9.74	10.74	1.08	8.70
MBIF 11	12.74	13.74	1.28	11.65
MBIF 11	15.74	16.74	0.43	7.29
MBIF 11	16.74	17.74	0.79	8.41
MBIF 11	17.74	18.70	0.28	6.07
MBIF 111	0.00	1.08	1.66	17.34
MBIF 111	1.08	2.08	1.43	9.51
MBIF 111	2.08	3.08	1.71	12.41
MBIF 111	3.08	4.08	1.63	17.93
MBIF 111	4.08	5.08	1.97	19.46
MBIF 111	5.08	6.08	1.48	12.75
MBIF 111	6.08	7.08	1.27	8.77
MBIF 111	7.08	8.08	0.86	9.15
MBIF 111	8.08	9.08	1.32	11.83
MBIF 111	9.08	10.08	1.40	13.02
MBIF 111	10.08	11.08	1.50	13.52
MBIF 111	11.08	12.08	1.36	10.89
MBIF 111	12.08	13.08	0.81	8.83
MBIF 111	13.08	14.08	0.48	8.36
MBIF 111	14.08	15.00	0.32	7.19
MBIF 73	0.00	1.26	0.89	40.94
MBIF 73	1.26	2.26	0.67	10.12
MBIF 73	2.26	3.26	1.32	19.19
MBIF 73	3.26	4.26	0.55	8.57
MBIF 73	4.26	5.00	0.27	6.05
MBIF 22	0.00	1.10	0.87	48.71
MBIF 22	1.10	2.10	0.88	49.80
MBIF 22	2.10	3.10	1.12	46.37
MBIF 22	3.10	4.10	1.52	27.11
MBIF 22	4.10	5.10	1.57	28.26
MBIF 22	5.10	6.10	1.34	11.87
MBIF 22	6.10	7.10	1.16	11.89
MBIF 22	7.10	8.10	1.14	12.48
MBIF 22	8.10	9.10	1.31	17.13
MBIF 22	9.10	10.10	1.11	12.23
MBIF 22	10.10	11.20	0.61	7.42
MBIF 77	0.00	0.52	0.71	46.64
MBIF 77	0.52	1.52	0.77	45.87
MBIF 77	1.52	2.52	0.75	44.01
MBIF 77	2.52	3.52	0.82	45.04
MBIF 77	3.52	4.52	1.07	44.29
MBIF 77	4.52	5.52	1.12	7.73
MBIF 77	5.52	6.52	0.66	13.15
MBIF 77	6.52	7.52	1.15	15.73
MBIF 77	7.52	8.52	0.93	12.00
MBIF 77	8.52	9.52	0.96	11.82
MBIF 77	9.52	10.52	1.58	30.04
MBIF 77	10.52	12.00	0.77	10.73
MBIF 13	0.00	0.57	0.66	46.45
MBIF 13	0.57	1.57	0.78	48.45

MBIF 13	1.57	2.57	0.90	50.09
MBIF 13	2.57	3.57	0.79	48.41
MBIF 13	3.57	4.57	1.12	41.39
MBIF 13	4.57	5.57	1.45	25.99
MBIF 13	5.57	6.57	1.15	21.67
MBIF 13	6.57	7.57	1.64	11.26
MBIF 13	7.57	8.57	1.40	16.05
MBIF 13	8.57	9.57	1.83	15.71
MBIF 13	9.57	10.57	1.57	16.74
MBIF 13	10.57	12.00	0.58	7.38
MBIF 3	0.00	1.02	0.95	31.62
MBIF 3	1.02	2.02	1.13	13.11
MBIF 3	2.02	3.02	0.96	9.70
MBIF 3	3.02	4.02	1.12	8.84
MBIF 3	4.02	5.02	0.89	9.37
MBIF 3	5.02	6.30	0.60	6.97
MBIF 26	0.00	0.96	0.90	44.43
MBIF 26	0.96	1.96	1.00	41.71
MBIF 26	1.96	2.96	1.61	28.85
MBIF 26	2.96	3.96	1.21	14.91
MBIF 26	3.96	4.96	1.66	13.37
MBIF 26	4.96	5.96	1.99	13.37
MBIF 26	5.96	6.96	1.41	11.91
MBIF 26	6.96	7.96	0.91	8.34
MBIF 26	7.96	8.96	1.22	8.95
MBIF 26	8.96	9.96	1.26	8.35
MBIF 26	9.96	10.96	1.11	8.56
MBIF 26	10.96	12.00	0.31	6.80
MBIF 103	0.00	0.87	0.79	45.78
MBIF 103	0.87	1.87	0.88	40.24
MBIF 103	1.87	2.87	1.18	31.48
MBIF 103	2.87	3.87	1.45	35.06
MBIF 103	3.87	4.87	1.53	21.29
MBIF 103	4.87	5.87	0.97	9.34
MBIF 103	5.87	6.87	0.76	9.52
MBIF 103	6.87	8.00	0.50	7.54
MBIF 25	0.00	0.57	0.78	45.23
MBIF 25	0.57	1.57	1.08	33.59
MBIF 25	1.57	2.57	1.60	17.63
MBIF 25	2.57	3.57	1.33	16.78
MBIF 25	3.57	4.57	1.96	8.95
MBIF 25	4.57	5.57	0.89	9.47
MBIF 25	5.57	6.57	0.69	9.66
MBIF 25	6.57	7.57	0.36	7.89
MBIF 25	7.57	8.00	0.26	6.59
MBIF 10	0.00	1.00	1.21	26.64
MBIF 10	1.00	2.00	1.47	31.73
MBIF 10	2.00	3.00	1.51	27.83
MBIF 10	3.00	4.00	1.71	23.52
MBIF 10	4.00	5.00	1.13	11.99
MBIF 10	5.00	6.00	1.17	18.10
MBIF 10	6.00	7.00	0.74	11.38
MBIF 10	7.00	8.00	1.08	12.37
MBIF 10	8.00	9.00	0.69	8.26
MBIF 10	9.00	10.00	0.83	9.53
MBIF 10	10.00	11.00	0.92	9.94
MBIF 10	11.00	12.00	1.06	11.81
MBIF 10	12.00	13.60	0.40	7.05
MBIF 33	0.00	1.00	0.78	47.26
MBIF 33	1.00	2.00	0.92	46.83
MBIF 33	2.00	3.00	1.07	34.45
MBIF 33	3.00	4.00	0.85	10.33
MBIF 33	4.00	5.00	0.84	8.53
MBIF 33	5.00	6.00	0.89	12.05
MBIF 33	6.00	7.00	0.83	9.98
MBIF 33	7.00	8.00	0.95	9.24
MBIF 33	8.00	9.00	0.47	8.42
MBIF 33	9.00	10.00	0.68	8.30
MBIF 43	0.00	0.53	0.85	47.26
MBIF 43	0.53	1.53	0.86	44.05
MBIF 43	1.53	2.53	1.01	49.58
MBIF 43	2.53	3.53	1.42	30.25
MBIF 43	3.53	4.53	1.27	18.76
MBIF 43	4.53	5.53	1.16	23.73
MBIF 43	5.53	6.53	0.94	16.50
MBIF 43	6.53	7.53	0.82	9.10
MBIF 43	7.53	8.53	0.88	10.00
MBIF 43	8.53	9.80	0.62	7.45
MBIF 19	0.00	0.89	0.81	44.45
MBIF 19	0.89	1.89	0.84	44.52

MBIF 19	1.89	2.89	0.78	30.80
MBIF 19	2.89	3.89	0.94	18.30
MBIF 19	3.89	4.89	1.45	20.07
MBIF 19	4.89	5.89	1.47	15.79
MBIF 19	5.89	6.89	1.38	14.52
MBIF 19	6.89	7.89	1.36	13.72
MBIF 19	7.89	8.89	1.41	14.72
MBIF 19	8.89	9.89	1.01	10.91
MBIF 19	9.89	10.89	0.48	9.82
MBIF 4	0.00	0.92	0.62	43.48
MBIF 4	0.92	1.92	0.85	47.10
MBIF 4	1.92	2.92	0.98	43.65
MBIF 4	2.92	3.92	0.54	8.14
MBIF 4	3.92	4.92	0.38	6.84
MBIF 4	4.92	5.92	1.00	12.13
MBIF 4	5.92	6.92	0.99	12.22
MBIF 4	6.92	7.92	0.59	7.74
MBIF 4	7.92	9.00	0.39	6.76
MBIF 83	0.00	0.98	0.87	47.24
MBIF 83	0.98	1.98	1.00	47.51
MBIF 83	1.98	2.98	0.82	41.69
MBIF 83	2.98	3.98	0.88	12.42
MBIF 83	3.98	4.98	0.65	8.50
MBIF 83	4.98	5.98	1.62	18.15
MBIF 83	5.98	6.98	1.40	9.52
MBIF 83	6.98	7.98	1.50	12.10
MBIF 83	7.98	8.98	1.54	27.91
MBIF 83	8.98	9.98	1.11	7.54
MBIF 83	9.98	10.98	1.31	23.92
MBIF 83	11.98	12.98	1.10	8.09
MBIF 83	12.98	13.10	0.45	7.00
MBIF 61	0.00	1.14	0.82	46.71
MBIF 61	1.14	2.14	1.29	28.68
MBIF 61	2.14	3.14	0.80	7.17
MBIF 61	3.14	4.14	0.60	9.95
MBIF 61	4.14	5.14	1.22	16.71
MBIF 61	5.14	6.14	1.44	23.08
MBIF 61	6.14	7.14	1.25	40.47
MBIF 61	7.14	8.14	0.96	11.62
MBIF 61	8.14	9.14	0.73	9.50
MBIF 61	9.14	10.14	0.90	12.61
MBIF 61	10.14	11.14	0.96	13.22
MBIF 61	11.14	12.14	0.74	9.30
MBIF 61	12.14	13.00	0.30	6.80
MBIF 95	0.00	0.56	0.82	43.81
MBIF 95	0.56	1.56	1.10	16.85
MBIF 95	1.56	2.56	0.88	12.32
MBIF 95	2.56	4.00	0.37	7.23
MB 57	0.00	0.76	0.64	46.52
MB 57	0.75	1.76	0.72	47.69
MB 57	1.75	2.76	0.95	42.41
MB 57	2.75	3.76	1.17	13.27
MB 57	3.75	4.76	1.41	11.55
MB 57	4.75	5.76	0.70	9.81
MB 57	5.75	7.00	0.28	6.86
MB 2	0.00	1.34	0.89	29.29
MB 2	1.34	2.34	0.65	10.83
MB 2	2.34	3.34	0.37	7.75
MB 2	3.34	4.34	0.31	7.32
MB 2	4.34	5.00	0.29	7.02
MBIF 29	0.00	1.13	1.01	41.80
MBIF 29	1.13	2.13	0.65	8.13
MBIF 29	2.13	3.13	0.66	8.60
MBIF 29	3.13	4.13	0.65	8.47
MBIF 29	4.13	5.13	0.76	11.61
MBIF 29	5.13	6.13	0.92	9.17
MBIF 29	6.13	7.13	0.64	9.98
MBIF 29	7.13	8.00	0.35	6.73
MBIF 109	0.00	0.71	0.93	45.34
MBIF 109	0.71	1.71	1.34	16.77
MBIF 109	1.71	2.71	0.91	11.80
MBIF 109	2.71	3.71	1.27	10.47
MBIF 109	3.71	4.71	1.12	12.15
MBIF 109	4.71	5.71	1.31	13.80
MBIF 109	5.71	6.71	1.37	13.75
MBIF 109	6.71	7.71	1.07	12.95
MBIF 109	7.71	8.71	0.66	8.33
MBIF 109	8.71	10.60	0.59	8.92
MBIF 71	0.00	1.25	0.65	46.67
MBIF 71	1.25	2.25	0.72	46.70

MBIF 71	2.25	3.25	0.92	45.61
MBIF 71	3.25	4.25	0.96	43.90
MBIF 71	4.25	5.25	1.30	13.40
MBIF 71	5.25	6.25	0.70	8.58
MBIF 71	6.25	7.25	0.37	7.61
MBIF 71	7.25	8.25	0.31	6.66
MBIF 71	8.25	9.25	1.05	14.79
MBIF 71	9.25	10.25	0.38	8.71
MBIF 71	10.25	11.20	0.37	10.04
MB 65	0.00	0.92	1.01	30.44
MB 65	0.92	1.92	1.38	12.70
MB 65	1.92	2.92	1.40	15.54
MB 65	2.92	3.92	1.15	14.12
MB 65	3.92	4.92	1.33	11.70
MB 65	4.92	5.92	1.34	11.97
MB 65	5.92	6.92	0.95	9.46
MB 65	6.92	7.92	0.77	7.75
MB 65	7.92	8.50	0.44	6.88
MBIF 55	0.00	1.43	1.55	26.74
MBIF 55	1.43	2.43	1.87	19.20
MBIF 55	2.43	3.43	1.67	16.85
MBIF 55	3.43	4.43	1.64	15.58
MBIF 55	4.43	5.43	1.99	23.10
MBIF 55	5.43	6.43	1.92	27.70
MBIF 55	6.43	7.43	1.95	13.56
MBIF 55	7.43	8.43	1.60	10.38
MBIF 55	8.43	9.43	1.59	13.92
MBIF 55	9.43	10.43	1.47	11.30
MBIF 55	10.43	12.00	0.74	7.68
MBIF 108	0.00	1.03	0.92	43.31
MBIF 108	1.03	2.03	1.20	38.00
MBIF 108	2.03	3.03	2.08	12.83
MBIF 108	3.03	4.03	2.42	22.98
MBIF 108	4.03	5.03	1.85	35.26
MBIF 108	5.03	6.03	2.15	20.67
MBIF 108	6.03	7.03	1.62	40.70
MBIF 108	7.03	8.03	2.24	19.70
MBIF 108	8.03	9.03	2.11	15.19
MBIF 108	9.03	10.03	1.89	14.98
MBIF 108	10.03	11.03	1.70	11.01
MBIF 108	11.03	12.03	1.54	9.52
MBIF 108	12.03	13.03	1.58	11.32
MBIF 108	13.03	14.03	1.79	13.29
MBIF 108	14.03	15.03	1.66	11.74
MBIF 108	15.03	16.03	1.56	10.95
MBIF 108	16.03	17.03	1.32	8.71
MBIF 108	17.03	18.03	1.49	11.58
MBIF 108	18.03	19.03	1.41	13.34
MBIF 108	19.03	20.03	1.10	10.35
MBIF 108	20.03	21.03	1.09	9.78
MBIF 108	21.03	22.03	1.10	9.72
MBIF 108	22.03	23.08	0.72	7.68
MBIF 100	0.00	1.37	1.25	17.50
MBIF 100	1.37	2.37	1.68	18.98
MBIF 100	2.37	3.37	1.53	25.76
MBIF 100	3.37	4.37	1.19	13.79
MBIF 100	4.37	5.37	1.09	11.32
MBIF 100	5.37	6.37	1.17	10.66
MBIF 100	6.37	7.37	1.13	11.76
MBIF 100	7.37	8.37	1.23	11.99
MBIF 100	8.37	9.37	0.86	11.86
MBIF 100	9.37	10.37	0.64	20.53
MBIF 100	10.37	11.37	0.27	6.75
MBIF 100	11.37	12.00	0.37	6.62
MB 38	0.00	0.70	0.74	46.51
MB 38	0.70	1.70	0.90	45.69
MB 38	1.70	2.70	0.80	48.46
MB 38	2.70	3.70	1.21	18.21
MB 38	3.70	4.70	1.49	15.87
MB 38	4.70	5.70	1.60	19.64
MB 38	5.70	6.70	1.33	37.80
MB 38	6.70	7.70	1.28	19.06
MB 38	7.70	8.70	1.35	34.30
MB 38	8.70	9.70	1.63	28.32
MB 38	9.70	10.70	1.42	13.98
MB 38	10.70	11.70	1.36	10.05
MB 38	11.70	12.70	1.29	9.15
MB 38	12.70	13.70	1.06	13.31
MB 38	13.70	14.70	0.76	11.50
MB 38	14.70	16.00	0.49	7.61
MB 19	0.00	0.78	0.94	44.09
MB 19	0.78	1.78	1.26	42.42
MB 19	1.78	2.78	1.32	14.62
MB 19	2.78	3.78	1.76	28.85
MB 19	3.78	4.78	1.85	24.36
MB 19	4.78	5.78	1.60	12.11
MB 19	5.78	6.78	1.76	16.02
MB 19	6.78	7.78	1.81	20.54
MB 19	7.78	8.78	1.52	35.50
MB 19	8.78	9.78	1.60	28.98
MB 19	9.78	10.78	1.73	32.14
MB 19	10.78	11.78	1.79	19.57
MB 19	11.78	12.78	1.43	14.78
MB 19	12.78	13.78	0.78	9.09
MB 19	13.78	14.78	0.66	8.40
MB 19	14.78	15.78	0.78	8.02
MB 19	15.78	16.80	0.38	7.58
MB 37	0.00	1.46	0.77	47.82
MB 37	1.46	2.46	0.81	47.69
MB 37	2.46	3.46	0.86	48.92
MB 37	3.46	4.46	1.13	38.29
MB 37	4.46	5.46	1.70	19.06
MB 37	5.46	6.46	1.38	12.09
MB 37	6.46	7.46	1.48	12.84
MB 37	8.46	9.46	1.79	15.81
MB 37	9.46	10.46	1.19	9.84
MB 37	10.46	11.46	1.01	8.60
MB 37	11.46	12.46	1.16	10.14
MB 37	12.46	13.46	1.16	9.71
MB 37	13.46	14.46	1.36	10.52
MB 37	14.46	15.46	1.07	8.76
MB 37	15.46	16.46	0.89	7.69
MB 37	16.46	17.46	0.67	6.92
MB 37	17.46	18.00	0.55	6.42
MB 12	0.00	0.64	0.64	45.64
MB 12	0.64	1.64	0.69	50.50
MB 12	1.64	2.64	0.88	48.06
MB 12	2.64	3.64	0.84	51.69
MB 12	3.64	4.64	0.99	45.41
MB 12	4.64	5.64	1.46	30.16
MB 12	5.64	6.64	1.55	35.17
MB 12	6.64	7.64	1.64	29.31
MB 12	7.64	8.64	1.89	15.24
MB 12	8.64	9.64	1.86	17.00
MB 12	9.64	10.64	1.59	16.01
MB 12	10.64	11.64	1.08	10.00
MB 12	11.64	12.64	0.92	11.38
MB 12	12.64	13.64	0.50	8.28
MB 12	13.64	15.00	0.36	6.60
MB 10	0.00	1.03	0.75	45.23
MB 10	1.03	2.03	0.85	48.46
MB 10	2.03	3.03	1.00	49.02
MB 10	3.03	4.03	1.16	43.93
MB 10	4.03	5.03	1.08	34.53
MB 10	5.03	6.03	1.07	44.81
MB 10	6.03	7.03	1.55	26.35
MB 10	7.03	8.03	1.95	15.53
MB 10	8.03	9.03	2.08	12.10
MB 10	9.03	10.03	1.76	13.50
MB 10	10.03	11.03	2.12	16.20
MB 10	11.03	12.03	1.19	7.89
MB 10	12.03	13.00	0.47	6.55
MBIF 66	0.00	1.05	0.78	47.56
MBIF 66	1.05	2.05	0.86	50.22
MBIF 66	2.05	3.05	0.93	48.71
MBIF 66	3.05	4.05	1.05	39.56
MBIF 66	4.05	5.05	1.55	16.06
MBIF 66	5.05	6.05	0.88	8.59
MBIF 66	6.05	7.05	0.77	7.21
MBIF 66	7.05	8.05	1.79	22.30
MBIF 66	8.05	9.05	1.95	25.99
MBIF 66	10.05	11.05	1.84	22.25
MBIF 66	11.05	12.05	1.42	10.55
MBIF 66	12.05	13.05	1.32	13.61
MBIF 66	13.05	14.05	0.76	8.04
MBIF 97	0.00	1.30	0.75	47.54
MBIF 97	1.30	2.30	0.93	47.96
MBIF 97	2.30	3.30	0.87	44.28
MBIF 97	3.30	4.30	0.85	45.80
MBIF 97	4.30	5.30	0.81	46.04

MBIF 97	5.30	6.30	0.97	45.90
MBIF 97	6.30	7.30	1.41	31.37
MBIF 97	7.30	8.30	1.17	47.91
MBIF 97	8.30	9.30	1.09	46.96
MBIF 97	9.30	10.30	0.73	9.29
MBIF 97	10.30	11.30	1.52	23.14
MBIF 97	11.30	12.30	0.36	7.77
MBIF 97	12.30	13.00	0.27	6.54
5 N350 E35	0.00	0.83	0.81	45.76
5 N350 E35	0.83	1.83	1.17	43.13
5 N350 E35	1.83	2.83	1.11	10.32
5 N350 E35	2.83	3.83	0.82	8.33
5 N350 E35	3.83	4.83	1.19	13.29
5 N350 E35	4.83	5.83	0.80	8.63
5 N350 E35	5.83	6.83	0.61	8.09
5 N350 E35	6.83	7.83	0.32	6.73
5 N350 E35	7.83	8.83	0.26	5.91
5 N350 E35	8.83	9.83	0.26	5.91
5 N350 E35	9.83	10.83	0.25	5.89
5 N350 E35	10.83	12.00	0.26	5.96
5 N500 E15	0.00	0.85	0.67	46.11
5 N500 E15	0.85	1.85	0.77	47.16
5 N500 E15	1.85	2.85	1.44	21.33
5 N500 E15	2.85	3.85	1.08	10.76
5 N500 E15	3.85	4.85	0.97	37.80
5 N500 E15	4.85	5.85	1.42	15.93
5 N500 E15	5.85	6.85	1.62	22.97
5 N500 E15	6.85	7.85	0.89	9.73
5 N500 E15	7.85	8.85	0.68	6.32
5 N500 E15	8.85	9.00	0.35	7.01
5 N450 E40	0.00	1.01	0.99	42.97
5 N450 E40	1.01	2.01	1.05	13.14
5 N450 E4C	2.01	3.01	0.77	8.53
5 N450 E4C	3.01	4.01	0.58	7.51
5 N450 E4C	4.01	5.01	0.54	8.48
5 N450 E4C	5.01	6.01	0.59	8.74
5 N450 E4C	6.01	7.01	0.62	9.39
5 N450 E4C	7.01	8.01	0.58	8.72
5 N450 E4C	8.01	9.00	0.32	6.53
6 N250 E20	0.00	1.43	0.63	46.33
6 N250 E20	1.43	2.43	0.84	48.96
6 N250 E20	2.43	3.43	1.56	14.44
6 N250 E20	3.43	4.43	1.28	36.47
6 N250 E20	4.43	5.43	1.06	45.56
6 N250 E20	5.43	6.43	0.88	7.16
6 N250 E20	6.43	7.43	1.08	8.54
6 N250 E20	7.43	8.43	1.38	10.23
6 N250 E20	8.43	9.43	1.53	13.60
6 N250 E20	9.43	10.43	1.20	11.63
6 N250 E2C	10.43	11.43	1.20	14.42
6 N250 E2C	11.43	12.43	1.14	14.45
6 N250 E2C	12.43	13.43	1.25	16.36
6 N250 E20	13.43	14.43	1.25	18.64
6 N250 E20	14.43	15.43	1.21	13.78
6 N250 E20	15.43	16.43	1.36	17.42
6 N250 E20	16.43	17.43	1.02	8.58
6 N250 E20	17.43	18.00	0.93	8.37
5 N350 E4C	0.00	1.27	0.69	45.60
5 N350 E4C	2.27	3.27	1.27	31.97
5 N350 E4C	9.27	10.27	0.83	9.79
5 N350 E4C	10.27	11.27	0.52	7.22
5 N350 E4C	11.27	12.27	0.35	6.49
5 N350 E4C	12.27	13.27	0.27	5.98
5 N350 E4C	13.27	14.27	0.26	5.88
6 N350 E40	0.00	1.33	0.75	45.69
6 N350 E40	1.33	2.33	1.30	34.80
6 N350 E40	2.33	3.33	0.92	45.86
6 N350 E40	3.33	4.33	1.05	10.49
6 N350 E40	4.33	5.33	1.00	11.26
6 N350 E40	5.33	6.00	0.47	7.24
6 N250 E5C	0.00	1.03	0.68	44.79
6 N250 E5C	1.03	2.03	0.72	32.17
6 N250 E5C	2.03	3.03	0.70	10.08
6 N250 E5C	3.03	4.03	1.02	31.31
6 N250 E5C	4.03	5.03	0.34	6.21
6 N250 E5C	5.03	6.03	0.48	7.04
6 N250 E5C	6.03	7.03	0.63	8.31
6 N250 E5C	7.03	8.03	0.41	7.68
6 N250 E5C	8.03	9.03	0.37	7.39
6 N250 E5C	9.03	10.00	0.30	6.44

5 N400 E5C	0.00	1.18	0.73	43.81
5 N400 E5C	1.18	2.18	0.66	43.11
5 N400 E5C	2.18	3.18	0.77	45.40
5 N400 E5C	3.18	4.18	0.82	48.71
5 N400 E5C	4.18	5.18	0.97	45.66
5 N400 E5C	5.18	6.18	1.09	30.69
5 N400 E5C	6.18	7.18	1.45	32.35
5 N400 E5C	7.18	8.18	1.13	29.35
5 N400 E5C	8.18	9.18	0.92	11.70
5 N400 E5C	9.18	10.00	0.36	6.50
5 N450 E45	0.00	1.13	0.58	7.07
5 N450 E45	1.13	2.13	0.55	6.82
5 N450 E45	2.13	3.13	0.83	9.42
5 N450 E45	3.13	4.13	0.96	11.44
5 N450 E45	4.13	5.13	1.10	9.76
5 N450 E45	5.13	6.13	1.27	14.03
5 N450 E45	6.13	7.13	1.25	9.19
5 N450 E45	7.13	8.13	0.85	7.45
5 N450 E45	8.13	9.13	0.63	7.30
5 N450 E45	9.13	10.13	0.84	9.76
5 N450 E45	10.13	11.00	1.05	38.82
6 N150 E5C	0.00	1.00	0.77	46.74
6 N150 E5C	1.00	2.00	0.91	49.64
6 N150 E5C	2.00	3.00	0.86	48.18
6 N150 E5C	3.00	4.00	0.85	46.32
6 N150 E5C	4.00	5.00	0.93	49.08
6 N150 E5C	5.00	6.00	1.33	34.27
6 N150 E5C	6.00	7.00	1.75	16.82
6 N150 E5C	7.00	8.00	1.59	12.61
6 N150 E5C	8.00	9.00	0.81	7.53
6 N150 E5C	9.00	10.00	0.52	7.82
6 N150 E5C	10.00	11.00	0.85	13.36
6 N150 E5C	11.00	12.00	0.51	7.29
:6 N50 E10(	0.00	1.14	0.80	44.78
:6 N50 E10(	1.14	2.14	0.74	46.66
:6 N50 E10(	2.14	3.14	0.74	46.85
:6 N50 E10(	3.14	4.14	1.02	44.98
:6 N50 E10(	4.14	5.14	0.92	47.75
:6 N50 E10(	5.14	6.14	1.01	47.17
:6 N50 E10(	6.14	7.14	1.20	47.09
:6 N50 E10(	7.14	8.14	1.55	31.16
:6 N50 E10(	8.14	9.14	1.52	16.74
:6 N50 E10(	9.14	10.14	1.57	18.10
:6 N50 E10(	10.14	11.14	1.31	13.27
:6 N50 E10(	11.14	12.14	1.12	11.26
:6 N50 E10(	12.14	13.00	0.83	7.50
5 N500 E10	0.00	1.15	0.67	46.28
5 N500 E10	1.15	2.15	0.81	47.71
5 N500 E10	2.15	3.15	0.92	40.60
5 N500 E10	3.15	4.15	0.77	9.45
5 N500 E10	4.15	5.15	0.35	7.33
5 N500 E10	5.15	6.15	0.57	9.54
5 N500 E10	6.15	7.15	0.73	11.31
5 N500 E10	7.15	8.15	0.51	7.15
5 N500 E10	8.15	9.15	0.32	6.21
5 N150 E45	0.00	0.89	1.01	41.77
5 N150 E45	0.89	1.89	0.90	16.83
5 N150 E45	1.89	2.89	0.36	8.04
5 N150 E45	2.89	3.89	0.36	7.86
5 N150 E45	3.89	4.89	0.30	6.44
5 N150 E45	4.89	5.89	0.31	7.01
5 N150 E45	5.89	6.89	0.28	6.10
5 N150 E45	6.89	8.00	0.28	6.06
:5 N400 E5I	0.00	1.03	0.65	44.42
:5 N400 E5I	1.03	2.03	0.73	47.78
:5 N400 E5I	2.03	3.03	1.03	48.15
:5 N400 E5I	3.03	4.03	0.94	47.47
:5 N400 E5I	4.03	5.03	0.86	46.57
:5 N400 E5I	8.03	9.03	1.71	29.17
:5 N400 E5I	10.03	11.03	1.62	29.24
:5 N400 E5I	11.03	12.03	1.56	25.22
:5 N400 E5I	12.03	13.03	1.65	17.85
:5 N400 E5I	13.03	14.03	1.29	8.79
:5 N400 E5I	16.03	17.03	0.58	9.96
:5 N400 E5I	17.03	18.03	0.78	14.07
:5 N400 E5I	18.03	19.03	0.73	10.65
:5 N400 E5I	19.03	20.00	0.28	6.99
6 N150 E25	0.00	0.82	0.76	47.40
6 N150 E25	0.82	1.82	0.89	48.07
6 N150 E25	1.82	2.82	0.84	47.74

6 N150 E25	3.82	4.82	1.18	13.76
6 N150 E25	4.82	5.82	1.13	16.44
6 N150 E25	5.82	8.00	0.50	7.44
TH1	0.00	0.90	0.67	47.99
TH1	0.90	1.90	0.79	49.23
TH1	1.90	2.90	0.73	49.68
TH1	2.90	3.90	0.89	48.24
TH1	9.90	10.90	0.34	8.76
TH1	10.90	11.90	0.27	6.96
TH1	11.90	12.90	0.34	8.20
TH1	14.90	15.90	0.29	7.03
5 N300 E30	0.00	0.65	0.47	39.63
5 N300 E30	0.65	1.65	0.76	49.12
5 N300 E30	1.65	2.65	0.80	40.84
5 N300 E30	2.65	3.65	0.92	46.61
5 N300 E30	3.65	4.65	0.80	47.50
5 N300 E30	4.65	5.65	1.04	48.85
5 N300 E30	5.65	6.65	1.59	38.99
5 N300 E30	6.65	7.65	1.32	24.97
5 N300 E30	7.65	8.65	1.53	21.15
5 N300 E30	8.65	9.65	1.58	16.20
5 N300 E30	9.65	10.65	1.58	19.41
5 N300 E30	10.65	11.65	0.59	8.52
5 N300 E30	11.65	13.00	0.90	14.75
:5 N500 E5(	0.00	1.10	0.73	46.82
:5 N500 E5(	1.10	2.10	0.80	49.25
:5 N500 E5(	2.10	3.10	0.89	47.87
:5 N500 E5(	3.10	4.10	1.38	30.15
:5 N500 E5(	4.10	5.10	1.81	9.20
:5 N500 E5(	5.10	6.10	1.85	16.08
:5 N500 E5(	6.10	7.10	1.62	22.42
:5 N500 E5(	7.10	8.10	1.55	31.11
:5 N500 E5(	8.10	9.10	1.74	15.91
:5 N500 E5(	9.10	10.10	1.53	16.39
:5 N500 E5(	10.10	11.10	1.19	10.89
:5 N500 E5(	11.10	12.10	0.97	11.75
:5 N500 E5(	12.10	13.10	0.84	12.48
:5 N500 E5(	13.10	14.10	0.58	8.57
:5 N500 E5(	14.10	15.00	0.38	8.14
5 N200 E5C	0.00	1.09	1.04	40.85
5 N200 E5C	1.09	2.09	1.08	30.87
5 N200 E5C	2.09	3.09	0.51	9.13
5 N200 E5C	3.09	4.09	0.31	6.52
5 N200 E5C	4.09	5.09	0.26	5.95
5 N200 E5C	5.09	6.09	0.24	5.69
5 N200 E5C	6.09	7.09	0.24	5.70
5 N200 E5C	7.09	8.00	0.25	5.77
6 N150 E20	0.00	1.18	0.76	46.76
6 N150 E20	1.18	2.18	0.99	46.70
6 N150 E20	2.18	3.18	1.13	33.91
6 N150 E20	3.18	4.18	1.31	11.91
6 N150 E20	4.18	5.18	1.51	11.74
6 N150 E20	5.18	6.18	1.58	13.89
6 N150 E20	6.18	7.18	1.49	18.54
6 N150 E20	7.18	8.18	0.53	6.51
6 N150 E20	8.18	9.18	1.09	12.77
6 N150 E20	9.18	10.18	0.79	8.95
6 N150 E20	10.18	11.18	0.57	9.18
6 N150 E20	11.18	12.18	0.50	9.98
6 N150 E20	12.18	13.18	0.67	10.27
6 N150 E20	13.18	14.18	1.09	17.98
6 N150 E20	14.18	15.18	1.14	13.73
6 N150 E20	15.18	16.18	0.71	10.94
6 N150 E20	16.18	17.00	0.33	6.35
5 N400 E20	0.00	1.45	0.97	47.46
5 N400 E20	1.45	2.45	1.05	47.66
5 N400 E20	2.45	3.45	1.06	47.27
5 N400 E20	3.45	4.45	1.78	14.17
5 N400 E20	4.45	5.45	1.21	10.58
5 N400 E20	5.45	6.45	1.15	9.90
5 N400 E20	6.45	7.45	1.19	16.21
5 N400 E20	7.45	8.45	1.06	11.17
5 N400 E20	8.45	9.45	1.06	14.17
5 N400 E20	9.45	10.45	0.38	6.86
5 N400 E20	10.45	11.00	0.33	6.42
6 N150 E10	0.00	1.12	0.47	39.98
6 N150 E10	1.12	2.12	0.57	42.92
6 N150 E10	2.12	3.12	0.81	49.96
6 N150 E10	3.12	4.12	0.76	47.98
6 N150 E10	4.12	5.12	0.85	46.40
6 N150 E10	5.12	6.12	0.85	18.91
6 N150 E10	6.12	7.12	0.46	8.64
6 N150 E10	7.12	8.12	0.33	7.26
6 N150 E10	8.12	9.12	0.37	7.86
6 N150 E10	9.12	10.00	0.27	6.09
MAB-01	0.00	1.00	0.89	23.92
MAB-01	1.00	2.00	0.42	8.90
MAB-01	2.00	3.00	0.28	7.24
MAB-01	3.00	4.00	0.23	5.26
MAB-01	4.00	5.00	0.25	5.63
MAB-02	0.00	1.00	0.54	11.76
MAB-02	1.00	2.00	0.30	9.15
MAB-02	2.00	3.00	0.31	7.36
MAB-02	3.00	4.00	0.23	7.02
MAB-02	4.00	5.00	0.25	7.06
MAB-02	5.00	6.00	0.26	7.13
MAB-02	6.00	7.00	0.24	6.01
MAB-02	7.00	8.00	0.25	5.81
MAB-03	0.00	1.00	0.52	51.01
MAB-03	1.00	2.00	0.75	48.16
MAB-03	2.00	3.00	1.26	27.00
MAB-03	3.00	4.00	1.12	13.17
MAB-03	4.00	5.00	0.75	9.72
MAB-04	0.00	1.00	0.52	44.08
MAB-04	1.00	2.00	0.64	43.90
MAB-04	2.00	3.00	0.75	43.82
MAB-04	3.00	4.00	0.84	46.81
MAB-04	4.00	5.00	0.82	46.98
MAB-04	5.00	6.00	0.80	42.88
MAB-04	6.00	7.00	0.82	37.30
MAB-04	7.00	8.00	1.34	22.65
MAB-04	8.00	9.00	1.27	11.56
MAB-04	9.00	10.00	0.59	10.85
MAB-04	10.00	11.00	0.33	9.09
MAB-04	11.00	12.00	0.28	7.82
MAB-05	0.00	1.00	0.78	46.38
MAB-05	1.00	2.00	0.78	46.34
MAB-05	2.00	3.00	0.85	41.13
MAB-05	3.00	4.00	0.80	28.19
MAB-05	4.00	5.00	0.95	7.13
MAB-05	5.00	6.00	0.82	9.08
MAB-05	6.00	7.00	0.70	9.15
MAB-05	7.00	8.00	0.64	9.49
MAB-05	8.00	9.00	0.63	10.97
MAB-05	9.00	10.00	0.69	15.51
MAB-05	10.00	11.00	0.74	8.86
MAB-05	11.00	12.00	1.02	11.83
MAB-05	12.00	13.00	0.89	12.32
MAB-05	13.00	14.00	0.82	16.91
MAB-05	14.00	15.00	0.45	9.03
MAB-05	15.00	16.00	0.31	7.81
MAB-05	16.00	17.00	1.03	45.94
MAB-05	17.00	18.00	0.32	10.11
MAB-05	18.00	19.00	0.34	10.25
MAB-06	0.00	1.00	1.40	26.77
MAB-06	1.00	2.00	1.35	9.56
MAB-06	2.00	3.00	0.99	7.34
MAB-06	3.00	4.00	0.51	7.40
MAB-06	4.00	5.00	0.23	5.99
MAB-06	5.00	6.00	0.24	5.84
MAB-06	6.00	7.00	0.26	6.41
MAB-06	7.00	8.00	0.34	6.98
MAB-06	8.00	9.00	0.24	5.78
MAB-06	9.00	10.00	0.30	7.14
MAB-07	0.00	1.00	0.61	48.51
MAB-07	1.00	2.00	0.64	45.10
MAB-07	2.00	3.00	0.92	49.84
MAB-07	3.00	4.00	0.81	47.36
MAB-07	4.00	5.00	1.24	47.10
MAB-07	5.00	6.00	1.09	48.61
MAB-07	6.00	7.00	0.96	49.99
MAB-07	7.00	8.00	0.92	48.34
MAB-07	8.00	9.00	1.31	47.34
MAB-07	9.00	10.00	1.10	49.14
MAB-07	10.00	11.00	1.34	48.02
MAB-07	11.00	12.00	1.79	33.20
MAB-07	12.00	13.00	1.86	9.79
MAB-07	13.00	14.00	1.85	8.82
MAB-07	14.00	15.00	1.80	17.99
MAB-07	15.00	16.00	1.57	10.93

MAB-07	16.00	17.00	1.49	18.71
MAB-07	17.00	18.00	1.30	29.06
MAB-07	18.00	19.00	1.70	34.24
MAB-07	19.00	20.00	1.68	28.47
MAB-07	20.00	21.00	1.43	27.08
MAB-07	21.00	22.00	1.49	23.08
MAB-07	22.00	23.00	1.34	25.86
MAB-07	23.00	24.00	1.06	16.26
MAB-07	24.00	25.00	1.21	18.52
MAB-07	25.00	26.00	1.14	13.88
MAB-07	26.00	27.00	1.29	13.68
MAB-07	27.00	28.00	1.05	12.46
MAB-07	28.00	29.00	1.04	14.85
MAB-07	29.00	30.00	1.12	14.63
MAB-07	30.00	31.00	0.81	11.74
MAB-07	31.00	32.00	0.73	10.11
MAB-7S-17I	0.00	1.00	0.62	49.50
MAB-7S-17I	1.00	2.00	0.76	48.20
MAB-7S-17I	2.00	3.00	0.66	50.08
MAB-7S-17I	3.00	4.00	0.80	49.61
MAB-7S-17I	4.00	5.00	0.78	41.39
MAB-7S-17I	5.00	6.00	0.36	11.59
MAB-08	0.00	1.00	0.66	49.11
MAB-08	1.00	2.00	0.76	48.73
MAB-08	2.00	3.00	0.92	25.19
MAB-08	3.00	4.00	0.89	18.70
MAB-08	4.00	5.00	0.80	10.06
MAB-08	5.00	6.00	1.24	13.86
MAB-08	6.00	7.00	0.89	9.34
MAB-08	7.00	8.00	0.71	10.20
MAB-08	8.00	9.00	0.65	9.02
MAB-08	9.00	10.00	0.55	7.89
MAB-08	10.00	11.00	0.82	11.10
MAB-08	11.00	12.00	0.69	10.08
MAB-08	12.00	13.00	0.66	10.15
MAB-08	13.00	14.00	0.74	9.77
MAB-08	14.00	15.00	0.67	7.38
MAB-08	15.00	16.00	1.12	20.35
MAB-08	16.00	17.00	1.09	23.60
MAB-08	17.00	18.00	0.66	11.76
MAB-08	18.00	19.00	0.70	13.26
MAB-08	19.00	20.00	0.77	12.79
MAB-08	20.00	21.00	0.61	10.08
MAB-08	21.00	22.00	0.47	7.28
MAB-08	22.00	23.00	0.46	9.47
MAB-08	23.00	24.00	0.39	10.03
MAB-08	24.00	25.00	0.37	6.41
MAB-09	0.00	1.00	0.69	11.90
MAB-09	1.00	2.00	0.57	8.11
MAB-09	2.00	3.00	0.55	7.71
MAB-09	3.00	4.00	0.40	8.22
MAB-09	4.00	5.00	0.27	6.77
MAB-09	5.00	6.00	0.16	5.08
MAB-09	6.00	7.00	0.23	5.59
MAB-09	7.00	8.00	0.18	4.90
MAB-9S-17I	0.00	1.00	0.80	50.16
MAB-9S-17I	1.00	2.00	0.91	49.62
MAB-9S-17I	2.00	3.00	1.23	50.15
MAB-9S-17I	3.00	4.00	1.10	20.34
MAB-9S-17I	4.00	5.00	1.71	15.88
MAB-9S-17I	5.00	6.00	1.71	30.96
MAB-9S-17I	6.00	7.00	1.70	23.01
MAB-9S-17I	7.00	8.00	0.72	18.12
MAB-9S-17I	8.00	9.00	1.12	7.98
MAB-9S-17I	9.00	10.00	1.04	18.54
MAB-9S-17I	10.00	11.00	1.65	19.75
MAB-9S-17I	11.00	12.00	1.43	8.53
MAB-9S-17I	12.00	13.00	1.27	9.94
MAB-9S-17I	13.00	14.00	0.52	6.99
MAB-9S-19I	0.00	1.00	0.90	46.04
MAB-9S-19I	1.00	2.00	0.44	8.45
MAB-9S-19I	2.00	3.00	0.75	11.19
MAB-10	0.00	1.00	0.65	50.45
MAB-10	1.00	2.00	0.94	50.94
MAB-10	2.00	3.00	0.97	50.34
MAB-10	3.00	4.00	1.04	49.32
MAB-10	4.00	5.00	1.12	49.80
MAB-10	5.00	6.00	1.17	50.33
MAB-10	6.00	7.00	1.55	30.08
MAB-10	7.00	8.00	1.57	24.07

MAB-10	8.00	9.00	1.10	16.64
MAB-10	9.00	10.00	1.06	18.84
MAB-10	10.00	11.00	1.15	20.70
MAB-10	11.00	12.00	1.13	28.13
MAB-10	12.00	13.00	1.28	19.04
MAB-10	13.00	14.00	0.81	14.25
MAB-10	14.00	15.00	0.75	12.05
MAB-10	15.00	16.00	0.30	8.21
MAB-10	16.00	17.00	0.38	11.90
MAB-10	17.00	18.00	0.38	8.61
MAB-10	18.00	19.00	0.57	13.22
MAB-10	19.00	20.00	0.39	11.22
MAB-10	20.00	21.00	0.32	11.63
MAB-10	21.00	22.00	0.31	10.13
MAB-19S-3I	0.00	1.00	0.37	47.61
MAB-19S-3I	1.00	2.00	0.77	50.19
MAB-19S-3I	2.00	3.00	0.74	46.49
MAB-19S-3I	3.00	4.00	0.73	50.89
MAB-19S-3I	4.00	5.00	0.68	49.48
MAB-19S-3I	5.00	6.00	0.83	48.96
MAB-19S-3I	6.00	7.00	0.81	46.06
MAB-19S-3I	7.00	8.00	1.62	44.23
MAB-19S-3I	8.00	9.00	1.35	32.99
MAB-19S-3I	9.00	10.00	1.36	17.26
MAB-19S-3I	10.00	11.00	1.28	15.53
MAB-19S-3I	11.00	12.00	1.35	10.34
MAB-19S-3I	12.00	13.00	0.99	9.76
MAB-19S-3I	13.00	14.00	1.12	9.91
MAB-19S-3I	14.00	15.00	0.81	12.69
MAB-19S-3I	15.00	16.00	0.68	13.77
MAB-19S-3I	16.00	17.00	0.71	9.22
MAB-19S-3I	17.00	18.00	0.88	10.75
MAB-19S-3I	18.00	19.00	0.74	11.36
MAB-19S-3I	19.00	20.00	0.52	7.96
MAB-11	0.00	1.00	0.68	48.75
MAB-11	1.00	2.00	0.93	49.06
MAB-11	2.00	3.00	0.86	49.26
MAB-11	3.00	4.00	0.74	47.60
MAB-11	4.00	5.00	1.54	48.37
MAB-11	5.00	6.00	1.24	47.01
MAB-11	6.00	7.00	0.97	46.78
MAB-11	7.00	8.00	0.89	45.44
MAB-11	8.00	9.00	1.67	20.81
MAB-11	9.00	10.00	1.90	16.54
MAB-11	10.00	11.00	1.73	10.28
MAB-11	11.00	12.00	1.66	9.88
MAB-11	12.00	13.00	1.56	17.41
MAB-11	13.00	14.00	1.58	20.87
MAB-11	14.00	15.00	0.87	9.87
MAB-11	15.00	16.00	1.14	8.18
MAB-11	16.00	17.00	1.46	14.20
MAB-11	17.00	18.00	1.43	12.05
MAB-11	18.00	19.00	1.36	17.50
MAB-11	19.00	20.00	1.58	21.82
MAB-11	20.00	21.00	1.44	9.56
MAB-11	21.00	22.00	1.04	7.11
MAB-12	0.00	1.00	1.05	8.41
MAB-12	1.00	2.00	1.58	14.33
MAB-12	2.00	3.00	1.77	21.92
MAB-12	3.00	4.00	1.74	21.74
MAB-12	4.00	5.00	2.07	31.20
MAB-12	5.00	6.00	1.35	28.57
MAB-12	6.00	7.00	1.26	42.49
MAB-12	7.00	8.00	0.78	48.90
MAB-12	8.00	9.00	0.76	50.22
MAB-12	9.00	10.00	0.78	48.27
MAB-12	10.00	11.00	0.56	48.62
MAB-12	11.00	12.00	1.20	13.52
MAB-12	12.00	13.00	1.17	11.80
MAB-12	13.00	14.00	1.03	13.38
MAB-12	14.00	15.00	0.41	7.44
MAB-12	15.00	16.00	0.75	11.38
MAB-12	16.00	17.00	0.59	8.18
MAB-12	17.00	18.00	0.26	6.48
MAB-13	0.00	1.00	0.68	48.04
MAB-13	1.00	2.00	0.68	48.09
MAB-13	2.00	3.00	0.50	49.61
MAB-13	3.00	4.00	0.64	49.40
MAB-13	4.00	5.00	1.20	26.95
MAB-13	5.00	6.00	0.82	43.91

MAB-13	6.00	7.00	0.94	27.81
MAB-13	7.00	8.00	1.30	25.65
MAB-13	8.00	9.00	1.28	16.39
MAB-13	9.00	10.00	1.60	22.21
MAB-13	10.00	11.00	1.30	17.47
MAB-13	11.00	12.00	1.04	18.67
MAB-13	12.00	13.00	0.72	11.19
MAB-13	13.00	14.00	0.85	13.30
MAB-13	14.00	15.00	0.60	11.61
MAB-13	15.00	16.00	0.36	5.74
MAB-13	16.00	17.00	0.25	7.63
MAB-13	17.00	18.00	0.28	9.07
MAB-23S-9I	0.00	1.00	0.76	48.14
MAB-23S-9I	1.00	2.00	0.93	47.93
MAB-23S-9I	2.00	3.00	1.01	48.46
MAB-23S-9I	3.00	4.00	0.93	42.75
MAB-23S-9I	4.00	5.00	0.86	39.62
MAB-23S-9I	5.00	6.00	1.07	37.00
MAB-23S-9I	6.00	7.00	1.51	22.14
MAB-23S-9I	7.00	8.00	1.43	32.76
MAB-23S-9I	8.00	9.00	1.92	23.21
MAB-23S-9I	9.00	10.00	2.03	32.81
MAB-23S-9I	10.00	11.00	1.36	43.17
MAB-23S-9I	11.00	12.00	1.53	45.18
MAB-23S-9I	12.00	13.00	1.92	31.90
MAB-23S-9I	13.00	14.00	1.96	27.74
MAB-23S-9I	14.00	15.00	1.88	20.79
MAB-23S-9I	15.00	16.00	1.80	16.73
MAB-23S-9I	16.00	17.00	1.58	24.71
MAB-23S-9I	17.00	18.00	1.69	20.34
MAB-23S-9I	18.00	19.00	1.33	12.68
MAB-23S-9I	19.00	20.00	1.26	10.73
MAB-23S-9I	20.00	21.00	1.34	18.78
MAB-23S-9I	21.00	22.00	0.91	12.26
MAB-23S-9I	22.00	23.00	0.65	8.35
MAB-13S-17	0.00	1.00	0.44	49.85
MAB-13S-17	1.00	2.00	0.61	51.77
MAB-13S-17	2.00	3.00	0.68	50.71
MAB-13S-17	3.00	4.00	0.76	48.08
MAB-13S-17	4.00	5.00	0.88	47.36
MAB-13S-17	5.00	6.00	1.32	29.19
MAB-13S-17	6.00	7.00	1.22	29.04
MAB-13S-17	7.00	8.00	1.36	31.61
MAB-13S-17	8.00	9.00	0.70	10.85
MAB-13S-17	9.00	10.00	0.67	10.47
MAB-13S-17	10.00	11.00	0.77	13.29
MAB-13S-17	11.00	12.00	1.29	15.02
MAB-13S-17	12.00	13.00	0.64	8.96
MAB-13S-17	13.00	14.00	0.47	8.13
MAB-13S-17	14.00	15.00	0.50	8.73
MAB-13S-17	15.00	16.00	0.37	7.75
MAB-13S-19	0.00	1.00	0.99	42.08
MAB-13S-19	1.00	2.00	0.55	11.39
MAB-13S-19	2.00	3.00	0.34	7.94
MAB-13S-19	3.00	4.00	0.82	13.48
MAB-13S-19	4.00	5.00	1.27	16.32
MAB-13S-19	5.00	6.00	0.41	7.45
MAB-13S-19	6.00	7.00	0.42	7.30
MAB-14	0.00	1.00	0.76	43.96
MAB-14	1.00	2.00	0.78	15.95
MAB-14	2.00	3.00	0.61	12.30
MAB-14	3.00	4.00	0.34	7.83
MAB-14	4.00	5.00	0.27	7.60
MAB-14	5.00	6.00	0.27	6.92
MAB-14	6.00	7.00	0.35	6.83
MAB-14	7.00	8.00	0.34	6.25
MAB-14	8.00	9.00	0.32	7.02
MAB-14	9.00	10.00	0.31	7.82
MAB-14	10.00	11.00	0.27	7.64
MAB-14	11.00	12.00	0.28	7.97
MAB-14	12.00	13.00	0.16	6.07
MAB-14	13.00	14.00	0.22	6.43
MAB-14	14.00	15.00	0.23	7.10
MAB-14	15.00	16.00	0.24	7.67
MAB-14	16.00	17.00	0.21	7.17
MAB-14	17.00	18.00	0.18	5.87
MAB-14	18.00	19.00	0.18	7.24
MAB-14	19.00	20.00	0.17	6.45
MAB-14	20.00	21.00	0.20	5.74
MAB-14	21.00	22.00	0.20	5.76

MAB-15	0.00	1.00	0.60	35.32
MAB-15	1.00	2.00	0.94	14.11
MAB-15	2.00	3.00	0.74	10.36
MAB-15	3.00	4.00	0.76	7.43
MAB-15	4.00	5.00	0.25	6.50
MAB-15	5.00	6.00	0.38	8.19
MAB-15	6.00	7.00	0.65	8.71
MAB-15	7.00	8.00	0.64	7.77
MAB-16	0.00	1.00	1.00	52.85
MAB-16	1.00	2.00	0.97	50.92
MAB-16	2.00	3.00	0.99	50.74
MAB-16	3.00	4.00	0.88	54.06
MAB-16	4.00	5.00	1.25	47.28
MAB-16	5.00	6.00	1.13	51.64
MAB-16	6.00	7.00	1.13	49.69
MAB-16	7.00	8.00	1.03	50.63
MAB-16	8.00	9.00	1.06	9.92
MAB-16	9.00	10.00	0.81	15.66
MAB-16	10.00	11.00	1.57	40.19
MAB-16	11.00	12.00	1.61	29.86
MAB-16	12.00	13.00	0.34	6.96
MAB-16	13.00	14.00	1.24	9.29
MAB-16	14.00	15.00	1.69	14.80
MAB-16	15.00	16.00	1.80	16.98
MAB-16	16.00	17.00	0.67	5.73
MAB-16	17.00	18.00	0.26	6.80
MAB-16	18.00	19.00	0.34	9.93
MAB-16	19.00	20.00	0.32	8.07
MAB-17	0.00	1.00	0.68	50.86
MAB-17	1.00	2.00	0.87	51.36
MAB-17	2.00	3.00	1.12	18.11
MAB-17	3.00	4.00	0.73	15.77
MAB-17	4.00	5.00	1.11	17.80
MAB-17	5.00	6.00	1.02	12.09
MAB-17	6.00	7.00	0.65	10.29
MAB-17	7.00	8.00	0.74	18.53
MAB-17	8.00	9.00	0.76	14.72
MAB-17	9.00	10.00	0.59	8.99
MAB-17	10.00	11.00	0.25	6.80
MAB-17	11.00	12.00	0.24	6.46
MAB-17	12.00	13.00	0.26	7.20
MAB-17	13.00	14.00	0.20	6.20
MAB-17	14.00	15.00	0.22	6.18
MAB-17S-7I	0.00	1.00	0.51	44.44
MAB-17S-7I	1.00	2.00	0.61	47.50
MAB-17S-7I	2.00	3.00	0.84	47.77
MAB-17S-7I	3.00	4.00	0.88	49.11
MAB-17S-7I	4.00	5.00	0.92	32.43
MAB-17S-7I	5.00	6.00	1.48	27.63
MAB-17S-7I	6.00	7.00	0.81	10.55
MAB-17S-7I	7.00	8.00	0.86	10.23
MAB-17S-7I	8.00	9.00	0.53	10.25
MAB-17S-7I	9.00	10.00	0.73	7.94
MAB-17S-7I	10.00	11.00	0.50	9.45
MAB-17S-7I	11.00	12.00	0.97	14.50
MAB-17S-7I	12.00	13.00	1.51	21.33
MAB-17S-7I	13.00	14.00	0.57	11.44
MAB-17S-7I	14.00	15.00	0.55	7.51
MAB-17S-7I	15.00	16.00	0.65	9.81
MAB-17S-7I	16.00	17.00	0.37	9.88
MAB-17S-7I	17.00	18.00	0.28	7.14
MAB-17S-2I	0.00	1.00	0.68	48.00
MAB-17S-2I	1.00	2.00	0.79	48.81
MAB-17S-2I	2.00	3.00	0.90	48.48
MAB-17S-2I	3.00	4.00	1.31	32.45
MAB-17S-2I	4.00	5.00	1.26	13.55
MAB-17S-2I	5.00	6.00	1.02	12.55
MAB-17S-2I	6.00	7.00	0.61	10.76
MAB-17S-2I	7.00	8.00	0.31	8.98
MAB-17S-2I	8.00	9.00	0.28	8.67
MAB-17S-2I	9.00	10.00	0.26	8.01
MAB-17S-3I	0.00	1.00	0.51	43.96
MAB-17S-3I	1.00	2.00	0.76	23.14
MAB-17S-3I	2.00	3.00	0.70	12.13
MAB-17S-3I	3.00	4.00	0.75	11.00
MAB-17S-3I	4.00	5.00	0.36	10.15
MAB-17S-3I	5.00	6.00	0.29	7.36
MAB-18	0.00	1.00	0.71	51.87
MAB-18	1.00	2.00	1.00	15.99
MAB-18	2.00	3.00	0.80	51.18

MAB-18	3.00	4.00	0.91	45.95
MAB-18	4.00	5.00	0.79	12.78
MAB-18	5.00	6.00	0.63	12.40
MAB-18	6.00	7.00	0.51	9.84
MAB-18S-7I	0.00	1.00	0.70	47.68
MAB-18S-7I	1.00	2.00	0.83	47.65
MAB-18S-7I	2.00	3.00	0.76	50.81
MAB-18S-7I	3.00	4.00	1.06	45.53
MAB-18S-7I	4.00	5.00	1.21	10.68
MAB-18S-7I	5.00	6.00	1.40	10.99
MAB-18S-7I	6.00	7.00	1.43	9.19
MAB-18S-7I	7.00	8.00	1.73	23.95
MAB-18S-7I	8.00	9.00	1.11	9.11
MAB-18S-7I	9.00	10.00	1.05	8.78
MAB-18S-7I	10.00	11.00	0.83	7.84
MAB-18S-7I	11.00	12.00	1.06	11.53
MAB-18S-7I	12.00	13.00	1.24	10.52
MAB-18S-7I	13.00	14.00	1.47	13.92
MAB-18S-7I	14.00	15.00	1.28	11.68
MAB-18S-7I	15.00	16.00	1.10	9.78
MAB-18S-7I	16.00	17.00	0.56	8.93
MAB-18S-7I	17.00	18.00	0.37	8.68
MAB-18S-7I	18.00	19.00	0.48	9.61
MAB-18S-7I	19.00	20.00	0.78	11.01
MAB-18S-7I	20.00	21.00	1.15	11.75
MAB-18S-7I	21.00	22.00	0.70	9.74
MAB-18S-7I	22.00	23.00	0.70	6.44
MAB-18S-2I	0.00	1.00	0.33	44.55
MAB-18S-2I	1.00	2.00	0.54	49.39
MAB-18S-2I	2.00	3.00	0.89	46.88
MAB-18S-2I	3.00	4.00	0.80	49.82
MAB-18S-2I	4.00	5.00	1.69	15.22
MAB-18S-2I	5.00	6.00	1.83	16.67
MAB-18S-2I	6.00	7.00	1.58	35.78
MAB-18S-2I	7.00	8.00	0.97	49.41
MAB-18S-2I	8.00	9.00	1.40	11.36
MAB-18S-2I	9.00	10.00	1.31	10.07
MAB-18S-2I	10.00	11.00	1.07	8.44
MAB-18S-2I	11.00	12.00	1.87	10.73
MAB-18S-2I	12.00	13.00	1.51	12.97
MAB-18S-2I	13.00	14.00	1.15	17.45
MAB-18S-2I	14.00	15.00	1.06	10.85
MAB-18S-3I	0.00	1.00	0.64	45.13
MAB-18S-3I	1.00	2.00	0.65	48.20
MAB-18S-3I	2.00	3.00	0.68	47.89
MAB-18S-3I	3.00	4.00	0.93	45.93
MAB-18S-3I	4.00	5.00	0.92	28.04
MAB-18S-3I	5.00	6.00	1.64	15.77
MAB-18S-3I	6.00	7.00	1.46	16.20
MAB-18S-3I	7.00	8.00	1.23	12.59
MAB-18S-3I	8.00	9.00	0.57	8.46
MAB-18S-3I	9.00	10.00	0.79	11.11
MAB-18S-3I	10.00	10.50	0.61	10.19
MAB-18S-8I	0.00	1.00	1.41	14.41
MAB-18S-8I	1.00	2.00	1.66	8.35
MAB-18S-8I	2.00	3.00	1.86	8.65
MAB-18S-8I	3.00	4.00	2.01	10.76
MAB-18S-8I	4.00	5.00	1.89	12.08
MAB-18S-8I	5.00	6.00	1.66	8.37
MAB-18S-8I	6.00	7.00	1.61	10.64
MAB-18S-8I	7.00	8.00	0.93	6.51
MAB-18S-8I	8.00	9.00	1.24	8.14
MAB-18S-8I	9.00	10.00	1.77	8.85
MAB-18S-8I	10.00	11.00	1.06	8.35
MAB-18S-8I	11.00	12.00	0.79	8.01
MAB-18S-8I	12.00	13.00	0.75	8.82
MAB-18S-8I	13.00	14.00	0.74	9.33
MAB-18S-8I	14.00	15.00	0.92	11.05
MAB-18S-8I	15.00	16.00	0.46	6.65
MAB-19	0.00	1.00	0.40	49.28
MAB-19	1.00	2.00	0.60	39.98
MAB-19	2.00	3.00	0.56	14.14
MAB-19	3.00	4.00	0.51	13.30
MAB-19	4.00	5.00	0.57	13.00
MAB-19	5.00	6.00	0.37	10.84
MAB-19	6.00	7.00	0.42	10.33
MAB-19	7.00	8.00	0.39	8.62
MAB-19	8.00	9.00	0.42	7.67
MAB-19S-0I	0.00	1.00	0.70	47.83
MAB-19S-0I	1.00	2.00	0.86	48.40

MAB-19S-0I	2.00	3.00	0.94	49.50
MAB-19S-0I	3.00	4.00	1.56	19.35
MAB-19S-0I	4.00	5.00	1.07	9.74
MAB-19S-0I	5.00	6.00	1.50	17.66
MAB-19S-0I	6.00	7.00	1.18	12.52
MAB-19S-0I	7.00	8.00	0.46	8.92
MAB-19S-0I	8.00	9.00	0.44	9.87
MAB-19S-0I	9.00	10.00	0.50	10.77
MAB-19S-0I	10.00	11.00	0.35	9.69
MAB-19S-0I	11.00	12.00	0.29	8.57
MAB-19S-1I	0.00	1.00	0.75	48.57
MAB-19S-1I	1.00	2.00	1.08	49.90
MAB-19S-1I	2.00	3.00	1.31	45.18
MAB-19S-1I	3.00	4.00	1.57	12.46
MAB-19S-1I	4.00	5.00	1.50	11.73
MAB-19S-1I	5.00	6.00	1.19	12.25
MAB-19S-1I	6.00	7.00	0.90	10.04
MAB-19S-1I	7.00	8.00	0.70	10.76
MAB-19S-1I	8.00	9.00	0.56	9.19
MAB-19S-1I	9.00	10.00	0.61	9.54
MAB-19S-1I	10.00	11.00	0.73	9.71
MAB-19S-1I	11.00	12.00	0.55	7.77
MAB-19S-2I	0.00	1.00	0.52	45.34
MAB-19S-2I	1.00	2.00	0.81	48.83
MAB-19S-2I	2.00	3.00	0.84	48.78
MAB-19S-2I	3.00	4.00	0.99	46.06
MAB-19S-2I	4.00	5.00	1.01	46.57
MAB-19S-2I	5.00	6.00	1.19	41.12
MAB-19S-2I	6.00	7.00	1.39	23.99
MAB-19S-2I	7.00	8.00	1.72	19.69
MAB-19S-2I	8.00	9.00	2.14	15.39
MAB-19S-2I	9.00	10.00	1.92	23.97
MAB-19S-2I	10.00	11.00	1.86	30.99
MAB-19S-2I	11.00	12.00	1.35	38.93
MAB-19S-2I	12.00	13.00	1.64	20.62
MAB-19S-2I	13.00	14.00	1.84	23.15
MAB-19S-2I	14.00	15.00	1.59	26.55
MAB-19S-2I	15.00	16.00	1.79	19.81
MAB-19S-2I	16.00	17.00	1.97	9.70
MAB-19S-2I	17.00	18.00	1.92	15.51
MAB-19S-2I	18.00	19.00	1.79	10.24
MAB-19S-2I	19.00	20.00	1.88	17.51
MAB-19S-2I	20.00	21.00	1.74	13.67
MAB-19S-2I	21.00	22.00	1.47	24.25
MAB-19S-2I	22.00	23.00	1.54	33.00
MAB-19S-2I	23.00	24.00	1.66	12.87
MAB-19S-2I	24.00	25.00	1.24	10.21
MAB-19S-2I	25.00	26.00	0.97	10.49
MAB-19S-4I	0.00	1.00	0.62	43.72
MAB-19S-4I	1.00	2.00	0.76	46.37
MAB-19S-4I	2.00	3.00	0.84	47.31
MAB-19S-4I	3.00	4.00	1.00	48.23
MAB-19S-4I	4.00	5.00	1.15	49.83
MAB-19S-4I	5.00	6.00	1.90	18.08
MAB-19S-4I	6.00	7.00	1.95	19.67
MAB-19S-4I	7.00	8.00	1.95	19.96
MAB-19S-4I	8.00	9.00	1.87	12.78
MAB-19S-4I	9.00	10.00	1.27	10.40
MAB-19S-4I	10.00	11.00	1.35	15.89
MAB-19S-4I	11.00	12.00	1.38	10.22
MAB-19S-4I	12.00	13.00	1.32	6.66
MAB-19S-6I	0.00	1.00	0.60	45.13
MAB-19S-6I	1.00	2.00	0.84	45.83
MAB-19S-6I	2.00	3.00	1.27	44.31
MAB-19S-6I	3.00	4.00	1.61	38.73
MAB-19S-6I	4.00	5.00	2.28	14.40
MAB-19S-6I	5.00	6.00	1.69	11.51
MAB-19S-6I	6.00	7.00	1.78	13.34
MAB-19S-6I	7.00	8.00	1.29	8.70
MAB-19S-6I	8.00	9.00	0.89	8.08
MAB-19S-6I	9.00	10.00	1.40	15.87
MAB-19S-6I	10.00	11.00	1.63	11.44
MAB-19S-6I	11.00	12.00	1.10	9.45
MAB-19S-6I	12.00	13.00	1.89	11.37
MAB-19S-6I	13.00	14.00	1.59	9.50
MAB-19S-6I	14.00	15.00	1.41	13.61
MAB-19S-6I	15.00	16.00	1.34	15.37
MAB-19S-6I	16.00	17.00	1.09	9.33
MAB-19S-6I	17.00	18.00	1.56	26.16
MAB-19S-7I	0.00	1.00	0.48	45.39

MAB-19S-7I	1.00	2.00	0.68	47.53
MAB-19S-7I	2.00	3.00	0.85	48.08
MAB-19S-7I	3.00	4.00	0.74	47.51
MAB-19S-7I	4.00	5.00	0.94	47.07
MAB-19S-7I	5.00	6.00	0.87	46.64
MAB-19S-7I	6.00	7.00	1.48	39.09
MAB-19S-7I	7.00	8.00	1.85	18.26
MAB-19S-7I	8.00	9.00	1.59	16.85
MAB-19S-7I	9.00	10.00	1.52	11.45
MAB-19S-7I	10.00	11.00	1.60	19.13
MAB-19S-7I	11.00	12.00	0.92	7.95
MAB-19S-7I	12.00	13.00	1.44	17.75
MAB-19S-7I	13.00	14.00	0.91	8.57
MAB-19S-7I	14.00	15.00	0.70	7.57
MAB-19S-7I	15.00	16.00	0.43	7.93
MAB-19S-8I	0.00	1.00	0.87	48.04
MAB-19S-8I	1.00	2.00	1.36	47.93
MAB-19S-8I	2.00	3.00	1.30	48.88
MAB-19S-8I	3.00	4.00	1.22	47.38
MAB-19S-8I	4.00	5.00	1.22	44.39
MAB-19S-8I	5.00	6.00	1.28	47.73
MAB-19S-8I	6.00	7.00	1.26	49.64
MAB-19S-8I	7.00	8.00	1.89	32.69
MAB-19S-8I	8.00	9.00	2.02	24.72
MAB-19S-8I	9.00	10.00	2.07	21.23
MAB-19S-8I	10.00	11.00	2.07	22.36
MAB-19S-8I	11.00	12.00	2.15	24.61
MAB-19S-8I	12.00	13.00	2.12	19.06
MAB-19S-8I	13.00	14.00	2.02	26.39
MAB-19S-8I	14.00	15.00	2.21	27.16
MAB-19S-8I	15.00	16.00	2.09	32.18
MAB-19S-8I	16.00	17.00	2.16	27.46
MAB-19S-8I	17.00	18.00	2.15	22.34
MAB-19S-8I	18.00	19.00	1.96	21.59
MAB-19S-8I	19.00	20.00	1.90	24.28
MAB-19S-8I	20.00	21.00	2.03	14.22
MAB-19S-8I	21.00	22.00	1.94	11.70
MAB-19S-8I	22.00	23.00	1.89	12.16
MAB-19S-8I	23.00	24.00	2.00	13.16
MAB-19S-8I	24.00	25.00	1.97	12.01
MAB-19S-8I	25.00	26.00	1.62	10.77
MAB-19S-8I	26.00	27.00	0.76	6.61
MAB-19S-9I	0.00	1.00	0.36	46.69
MAB-19S-9I	1.00	2.00	0.60	48.74
MAB-19S-9I	2.00	3.00	0.48	46.38
MAB-19S-9I	3.00	4.00	1.20	27.21
MAB-19S-9I	4.00	5.00	1.19	35.36
MAB-19S-9I	5.00	6.00	1.44	23.01
MAB-19S-9I	6.00	7.00	1.47	15.84
MAB-19S-9I	7.00	8.00	1.52	15.54
MAB-19S-9I	8.00	9.00	1.35	13.03
MAB-19S-9I	9.00	10.00	1.33	14.94
MAB-19S-9I	10.00	11.00	1.19	14.14
MAB-19S-9I	11.00	12.00	1.04	11.06
MAB-19S-9I	12.00	13.00	1.10	14.22
MAB-19S-9I	13.00	14.00	1.07	9.16
MAB-19S-9I	14.00	15.00	0.96	11.89
MAB-19S-9I	15.00	16.00	0.89	10.29
MAB-19S-9I	16.00	17.00	0.64	8.79
MAB-19S-9I	17.00	18.00	0.50	7.24
MAB-20	0.00	1.00	0.27	37.12
MAB-20	1.00	2.00	0.45	14.08
MAB-20	2.00	3.00	0.21	20.82
MAB-20	3.00	4.00	0.19	19.03
MAB-20	4.00	5.00	0.37	23.18
MAB-20	5.00	6.00	0.33	8.88
MAB-20	6.00	7.00	1.01	17.65
MAB-20	7.00	8.00	1.03	10.77
MAB-20	8.00	9.00	0.82	6.81
MAB-21	0.00	1.00	0.84	45.30
MAB-21	1.00	2.00	1.34	18.22
MAB-21	2.00	3.00	1.47	14.24
MAB-21	3.00	4.00	1.25	8.64
MAB-21	4.00	5.00	1.06	9.83
MAB-21	5.00	6.00	1.59	16.60
MAB-21	6.00	7.00	1.38	15.20
MAB-21	7.00	8.00	1.41	10.85
MAB-21	8.00	9.00	1.93	13.28
MAB-21	9.00	10.00	1.77	13.05
MAB-21	10.00	11.00	1.70	18.34
MAB-21	11.00	12.00	1.23	13.69
MAB-21	12.00	13.00	1.62	9.28
MAB-21	13.00	14.00	1.39	9.74
MAB-21S-3I	0.00	1.00	0.46	45.90
MAB-21S-3I	1.00	2.00	0.80	52.13
MAB-21S-3I	2.00	3.00	0.73	51.91
MAB-21S-3I	3.00	4.00	0.70	50.80
MAB-21S-3I	4.00	5.00	0.88	49.96
MAB-21S-3I	5.00	6.00	1.01	49.59
MAB-21S-3I	6.00	7.00	1.12	45.43
MAB-21S-3I	7.00	8.00	1.65	30.29
MAB-21S-3I	8.00	9.00	1.70	24.61
MAB-21S-3I	9.00	10.00	1.84	13.94
MAB-21S-3I	10.00	11.00	1.78	21.98
MAB-21S-3I	11.00	12.00	1.64	17.57
MAB-21S-3I	12.00	13.00	2.04	28.68
MAB-21S-3I	13.00	14.00	1.33	27.35
MAB-21S-3I	14.00	15.00	1.58	16.69
MAB-21S-3I	15.00	16.00	1.74	21.70
MAB-21S-3I	16.00	17.00	1.95	13.22
MAB-21S-3I	17.00	18.00	1.58	15.18
MAB-21S-3I	18.00	19.00	2.09	18.14
MAB-21S-3I	19.00	20.00	1.56	13.60
MAB-21S-3I	20.00	21.00	1.65	14.92
MAB-21S-3I	21.00	22.00	1.37	10.09
MAB-21S-3I	22.00	23.00	0.95	7.93
MAB-21S-4I	0.00	1.00	0.52	45.49
MAB-21S-4I	1.00	2.00	0.79	48.81
MAB-21S-4I	2.00	3.00	0.95	49.04
MAB-21S-4I	3.00	4.00	1.12	46.17
MAB-21S-4I	4.00	5.00	1.80	41.07
MAB-21S-4I	5.00	6.00	1.81	21.17
MAB-21S-4I	6.00	7.00	1.32	15.33
MAB-21S-4I	7.00	8.00	1.29	35.34
MAB-21S-4I	8.00	9.00	1.82	18.38
MAB-21S-4I	9.00	10.00	1.53	15.59
MAB-21S-4I	10.00	11.00	1.50	16.78
MAB-21S-4I	11.00	12.00	1.39	16.17
MAB-21S-4I	12.00	13.00	1.16	11.77
MAB-21S-4I	13.00	14.00	1.15	11.80
MAB-21S-4I	14.00	15.00	1.05	10.69
MAB-21S-4I	15.00	16.00	0.82	10.09
MAB-21S-4I	16.00	17.00	0.77	11.58
MAB-21S-4I	17.00	18.00	0.57	11.05
MAB-22	0.00	1.00	0.49	51.87
MAB-22	1.00	2.00	0.54	51.96
MAB-22	2.00	3.00	0.74	47.08
MAB-22	3.00	4.00	1.25	8.64
MAB-22	4.00	5.00	0.78	20.21
MAB-22	5.00	6.00	1.71	19.39
MAB-22	6.00	7.00	1.49	14.75
MAB-22	7.00	8.00	0.96	15.43
MAB-22	8.00	9.00	0.81	7.16
MAB-22	9.00	10.00	1.18	12.38
MAB-22	10.00	11.00	0.96	9.66
MAB-22S-2I	0.00	1.00	0.70	47.31
MAB-22S-2I	1.00	2.00	0.97	50.03
MAB-22S-2I	2.00	3.00	0.94	49.38
MAB-22S-2I	3.00	4.00	0.61	50.54
MAB-22S-2I	4.00	5.00	0.67	50.01
MAB-22S-2I	5.00	6.00	0.70	51.98
MAB-22S-2I	6.00	7.00	0.87	51.23
MAB-22S-2I	7.00	8.00	0.71	51.52
MAB-22S-2I	8.00	9.00	0.86	51.07
MAB-22S-2I	9.00	10.00	0.97	49.79
MAB-22S-2I	10.00	11.00	0.74	48.42
MAB-22S-2I	11.00	12.00	1.12	50.36
MAB-22S-2I	12.00	13.00	1.81	27.44
MAB-22S-2I	13.00	14.00	1.97	38.61
MAB-22S-2I	14.00	15.00	2.06	20.64
MAB-22S-2I	15.00	16.00	1.21	9.09
MAB-22S-3I	0.00	1.00	0.58	46.75
MAB-22S-3I	1.00	2.00	0.78	46.03
MAB-22S-3I	2.00	3.00	0.54	47.97
MAB-22S-3I	3.00	4.00	0.67	44.18
MAB-22S-3I	4.00	5.00	0.59	46.15
MAB-22S-3I	5.00	6.00	0.65	44.19
MAB-22S-3I	6.00	7.00	0.82	47.52
MAB-22S-3I	7.00	8.00	0.90	44.04
MAB-22S-3I	8.00	9.00	0.43	41.08

MAB-24S-3I	5.00	6.00	1.18	31.07
MAB-24S-3I	6.00	7.00	1.26	19.79
MAB-24S-3I	7.00	8.00	1.05	13.71
MAB-24S-3I	8.00	9.00	1.09	12.59
MAB-24S-3I	9.00	10.00	1.11	16.07
MAB-24S-3I	10.00	11.00	1.14	13.10
MAB-24S-3I	11.00	12.00	1.01	8.44
MAB-24S-3I	12.00	13.00	0.98	9.99
MAB-24S-3I	13.00	14.00	1.03	9.51
MAB-24S-3I	14.00	15.00	0.92	11.32
MAB-24S-3I	15.00	16.00	0.60	10.02
MAB-24S-3I	16.00	17.00	0.60	9.28
MAB-24S-7I	0.00	1.00	0.69	46.56
MAB-24S-7I	1.00	2.00	1.04	47.16
MAB-24S-7I	2.00	3.00	1.20	41.23
MAB-24S-7I	3.00	4.00	1.15	46.69
MAB-24S-7I	4.00	5.00	0.84	17.36
MAB-24S-7I	5.00	6.00	0.72	15.90
MAB-24S-7I	6.00	7.00	0.82	15.64
MAB-24S-7I	7.00	8.00	0.91	14.49
MAB-24S-7I	8.00	9.00	1.05	12.05
MAB-24S-7I	9.00	10.00	1.01	9.75
MAB-24S-7I	10.00	11.00	0.98	9.27
MAB-24S-7I	11.00	12.00	1.03	9.27
MAB-24S-7I	12.00	13.00	0.97	7.90
MAB-17S-4I	0.00	1.00	0.65	43.04
MAB-17S-4I	1.00	2.00	0.38	17.32
MAB-17S-4I	2.00	3.00	0.56	9.99
MAB-17S-4I	3.00	4.00	1.17	9.68
MAB-17S-4I	4.00	5.00	1.02	9.12
MAB-17S-4I	5.00	6.00	1.27	13.50
MAB-17S-4I	6.00	7.00	0.72	8.04
MAB-21S-2I	0.00	1.00	0.80	45.79
MAB-21S-2I	1.00	2.00	0.84	46.45
MAB-21S-2I	2.00	3.00	0.77	47.72
MAB-21S-2I	3.00	4.00	0.79	47.93
MAB-21S-2I	4.00	5.00	0.86	45.55
MAB-21S-2I	5.00	6.00	1.59	27.80
MAB-21S-2I	6.00	7.00	1.99	20.16
MAB-21S-2I	7.00	8.00	1.42	10.77
MAB-21S-2I	8.00	9.00	1.41	24.03
MAB-21S-2I	9.00	10.00	1.41	26.61
MAB-21S-2I	10.00	11.00	1.37	24.18
MAB-21S-2I	11.00	12.00	1.47	20.43

Technical Report on the Exploration Results and Mineral Resource Estimate of

Alumina Mining Philippines, Inc. (AMPI)
[MPSA 179-2002-VIII-SBMR]

and

Bauxite Resources, Inc. (BARI)
[MPSA 180-2002-VIII-SBMR]

Located in the Municipalities of Paranas, Motiong, San Jose de Buan, Gandara and San Jorge

Province of Samar

Photo showing extent of bauxite mineralization in one of the major depressions in Barangay Lawaan, Municipality of Paranas (Wright).

Prepared by: **J.T. Guzman, H.T. Villano, R.L. Tan, J.M. Mendez**
Geologists, Marcventures Mining and Development Corporation

Reviewed and Certified by:
T. D. Malihan
Registered Professional Geologist, Reg. No. 0387
Competent Person (CP) Accreditation No. 07-08-06
Exploration Results and Mineral Resource Estimation, PMRC/GSP
Porphyry Copper-Gold, Epithermal Gold, Nickel Laterite, Chromite and Iron-Copper-Gold Skarn Deposits Exploration

Prepared for: **Marcventures Holdings, Inc.**
4th Floor Citibank Centre, Paseo de Roxas
Makati City, Philippines

CERTIFICATION AND CONSENT OF CP FOR TECHNICAL REPORT

This Report entitled "**Technical Report on the Exploration Results and Mineral Resource Estimate of Alumina Mining Philippines, Inc. ("AMPI") covered by MPSA 179-2002-VIII (SBMR) and Bauxite Resources, Inc. ("BARI") covered by MPSA 180-2002-VIII (SBMR),** both of which are located within the municipalities of Motiong, San Jose de Buan and Paranas in the Province of Samar**,** a part of Samar Island in Eastern Visayas (Region VIII), was prepared by Jayvhel T. Guzman, Herbert T. Villano, Ralph Rey L. Tan, and Jelan M. Mendez, geologists of Marcventures Mining and Development Corporation ("MMDC") for purposes of making a disclosure to the Philippine Stock Exchange (PSE) and Securities Exchange Commission (SEC) for the acquisition by Marcventures Holdings Inc. ("MHI") of these mineral properties and also to support the company's application for Declaration of Mining Project Feasibility (DMPF) with the Mines and Geosciences Bureau (MGB) that could lead to the development and exploitation of the bauxite deposits delineated within the MPSA areas from past exploration campaigns. MMDC is a wholly-owned subsidiary of MHI.

Earlier operators declared resources estimated from AMPI and BARI. The MMDC Technical Team however, opted to make its own estimates of the resource and embarked in checking and verifying the exploration methodologies used by these operators for purposes of validating the database used in the resource estimation. Using the same exploration database provided by Asia Pilot Mining, the MMDC Team employed Inverse Distance Weighting (IDW) method in the new resource estimation. **For AMPI, the Team came out with some 41.7Mwmt of combined Measured and Indicated resource with grades averaging 40% Al_2O_3 with 14.5% SiO_2. For BARI, the resource came out at 31.5Mwmt averaging 43.8% Al_2O_3 and 7.98% SiO_2.** This is equivalent to a total Measured and Indicated Resource of some 73.2Mwmt with grades averaging 41.66% Al_2O_3 and 11.69% SiO_2.

The resource figures were further checked by conventional Polygon method of resource estimation with AMPI coming out with 47.3Mwmt of resource but limited the classification to Indicated category which came out higher by about 5.6M compared to the IDW-derived figure. The grades however, came very close to each other (40% vs. 40.8% Al_2O_3 and 14.5% vs.13.16% SiO_2.) For BARI, the Polygon method-derived resource was 35.1Mwmt, some 3.6Mwmt higher than the IDW-derived resource but the average grade came out also very close to each other (44.08% vs. 43.8%Al_2o_3 and 7.67% vs 7.98% SiO_2).

Inferred resources of AMPI and BARI were also estimated using IDW wherein some 17.3Mwmt was estimated for AMPI with grades averaging 38.96% Al_2O_3 and 16.59% SiO_2 while about 28.4Mwmt was estimated for BARI at 43.75% Al_2O_3 and 8.09% SiO_2. Additional drilling and test pitting works need to be done to upgrade these Inferred resources to Measured and Indicated resources. Assuming that 25% of these Inferred resources will be upgraded to Measured and Indicated resources once the additional drilling and test pitting works are completed, this will translate to additional Measured and Indicated resources of some 11.4Mwmt at 41.94% Al_2O_3 and 11.30% SiO_2. **The projected total Measured and Indicated resources will now be 84.6Mwmt averaging 41.70% Al_2O_3 and 11.64% SiO_2.**

The undersigned, in his capacity as Competent Person (CP) for Geology, accredited by the Geological Society of the Philippines (GSP) and guided by the Philippine Mineral Reporting Code (PMRC), was engaged by the MMDC Management through its President and CEO, Engr. Arsenio K. Sebial, Jr., to review and if warranted, certify the resource estimates made by the MMDC Technical Team. It is this CP's opinion that the resource verification methodologies, resource estimation methods used along with professional opinions, interpretation and conclusions made by the MMDC exploration Team as documented in this report and reviewed by this CP appears to have been done in accordance with geo-scientific principles and practice and accepted industry standards. The findings, conclusion and recommendations arrived at by the Technical Team are therefore deemed to be valid and in order.

Consequently, the Mineral Resources Inventory stated in this report may be considered accurate and reliable and even conservative by this CP as the database used by the MMDC Team in the resource estimation has been adequately checked, verified and validated.

SIGNED: June 2017

For Marcventures Mining and Development Corporation

Report Prepared by:

Jayvhel T. Guzman
Head - Geological Exploration Division

Herbert T. Villano
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Geologist

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PMRC/GSP –accredited Competent Person in Geology
Accreditation No. 07-08-06
PTR No. 2967424
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EXECUTIVE SUMMARY

Introduction

Aluminum Mining Philippines Inc. ("AMPI") and **Bauxite Resources, Inc. ("BARI")** are two bauxite projects covered by Mineral Production Sharing Agreements denominated as **MPSA 179-2002-VIII (SBMR)** and **MPSA 180-2002-VIII (SBMR)**, respectively, located in Samar Province in the island of Samar in Eastern Visayas, Philippines. The AMPI MPSA covers 6,694.05 hectares while BARI MPSA covers 5,435.00 hectares. The ownership of the two MPSAs is held by **Asia Pilot Mining Philippines Corporation (Asia Pilot Mining)**. The bauxite deposits were developed in a predominantly limestone terrain in broad valley floors flanked by low lying limestone hills with typical karst topographic features. The aluminum mineral deposits are comprised predominantly of aluminum mineral gibbsite ($Al(OH)_3$), with lesser amount of boehmite (AlOOH) and alumogoethite (FeAlOOH). The bauxite deposits appear to have been trapped and concentrated in numerous sinkholes of various shapes and sizes developed in the limestone bedrock through long periods of lateritic tropical weathering and erosions of portions of the limestone and other alumina-rich sedimentary units interbedded with it in the reducing environmental conditions existing in these sink holes.

History of the Discovery of Bauxite Deposits in Samar Island and the Exploration Methodologies Employed by Various Companies that Evaluated the Bauxite Potential of the AMPI and BARI Tenement Areas of Asia Pilot Mining Philippines Corporation

From 1974 to 1976, the Mines and Geosciences Bureau ("MGB") conducted geological surveys on the mineral potential of Samar Island. One of the notable results of this regional mineral survey was the delineation of extensive bauxite deposits in Western Samar Province. In 1977, the island of Samar was declared a Bauxite Mineral Reservation by then President Ferdinand E. Marcos by virtue of Proclamation No. 1615. In 1979, MGB came out with an estimated 132Mmt of bauxite resource with grades ranging from 27 to 43% Al_2O_3.

In the mid-1970s, Alusuisse conducted preliminary auger drilling and test pitting on sinkholes in the BARI property, mainly in the southern half of the tenement. A global estimation of the potential indicated that 38Mt, of which 9Mmt was "Exportable grade", 21Mmt "Refinery Grade" and 8Mmt was "Low Grade" Alusuisse only studied about half of the sinkholes found in BARI. By extension to the other sinkholes on the mineral property, Alusuisse estimated a potential bauxite deposit of about 79Mmt. The estimation methods used was presumed to be possibly polygonal.

In late June to early July 2003, Earthcare Geologist & Affiliates ("Earthcare"), a local geological consulting company based in Tacloban City, undertook a seven days geological reconnaissance in the AMPI and BARI tenement areas. The Earthcare team took samples from test pits in the AMPI project area which were assayed at the commercial SGS laboratory in Manila. Earthcare also chip sampled an outcrop in the BARI project area and also took samples from some of the existing shallow drillholes. Earthcare came out with a 'Potential Ore Estimate' for the BARI property amounting to 100Mmt, and for AMPI area 38Mmt.

Pacific Aluminum Holding, Ltd. (“PAHL”) and China Non-Ferrous Metals Corporation (“CNMC”) conducted exploration in AMPI and BARI areas in 2004. Test pitting and auger drilling were employed by CNMC to verify and assess the resource potential in both project areas. A total of 93 pits and 336 auger holes were completed in 2004 with 31 pits in AMPI and 62 pits in BARI; 258 holes with a total length of 3,502 in AMPI and 108 holes totaling 1,162 m in BARI. A report compiling the results of the geological verification was prepared by CNMC in 2004.

In 2005, Phil Jankowski, a Competent Person from SRK Consulting in Australia, estimated a total of resource of 51.8 Million tonnes of bauxite at 43.9% Al_2O_3 and 2.2% SiO_2 for the AMPI and BARI bauxite project based on the results of CNMC’s exploration activities. Volume of each sinkhole was estimated using Surpac. The bulk density of 1.7 g/cm^3 from the measurements of test pit spoil was applied to calculate the tonnage. Cut-off grade used was not mentioned in the report. The estimated resource is further broken down as follows; Indicated Resource of 39.16 Million tonnes at 43.5% Al_2O_3 and 2.2% SiO_2, and Inferred Resource of 12.64 Million tonnes at 44.9% Al_2O_3 and 1.9% SiO_2.

A May 2007 SRK report prepared also by Mr. Jankowski disclosed a total of 12.1 Million tonnes of Indicated bauxite resources in AMPI at 39.83% Al_2O_3 and 13.76% SiO_2. Additional 1.8 Million tonnes Inferred resource at 35.66% Al_2O_3 and 15.17% SiO_2 was also reported. This is based on data supplied to SRK which, after editing, consisted of records for 2,335 collars and 9,115 assays. Sinkhole outline and topography were also provided for the creation of three-dimensional wireframe models. An average density of 1.6 t/m^3 was applied which is based on the mean of 962 density measurements acquired by PAMPC.

In 2006 – 2008, PAHL conducted a more detailed exploration program on the two projects employing auger drilling at a grid of 100 m × 100 m. This was followed by in-fill holes in selected areas at 50m in between the 100 x 100m grid, locally making the grid at 50 x 50 m.

The PAHL exploration data was further verified by Asia Pilot Mining in 2013-2014 and the data was included in the integrated database.

More recently, in a resource report signed by SRK Principal Consultant Yiefei Jia dated December 2016, SRK Consulting China Ltd. disclosed that it has estimated the JORC Code-compliant Mineral Resources for AMPI and BARI at a cut-off grade of 28% Al_2O_3, with consideration of available alumina and reactive SiO_2. A total of 35 Mwmt, Measured and Indicated Resources, were estimated in AMPI at 41% Al_2O_3 while a total of 82 Mwmt of Measured and Indicated Resources were estimated for BARI at 42% Al_2O_3. It has been also noted that the silica content in BARI is about 6% which is much lower than that in AMPI at about 11%.

Period	Proponent	Area Coverage	Exploration Activity	Results / Resource Estimate
1979	Mines and Geosciences Bureau	Samar	• Geological survey targeting gold, copper and magnesium as well as confirming presence of extensive bauxite deposits	• 131.6M t of bauxite as 'mineable ore reserve' at grades ranging from 27% to 43% Al_2O_3*
Mid '70s	Alusuisse	BARI	• Preliminary auger drilling and test pitting on sinkholes at the southern half of the property	• 38M t 'positive reserve' equivalent to 9M t 'exportable grade', 21M t 'refinery grade' and 8M t as 'low grade'* • projected a total potential reserve of 79M t in BARI*
2003	Earthcare Geologists and Affiliates	AMPI and BARI	• chip sampling and test pitting; samples were submitted to SGS laboratory in Manila	• AMPI = 38.3M t 'potential ore estimate'* • BARI = 100.0M t 'potential ore estimate'*
2004	China Non-Ferrous Metals Corporation	AMPI and BARI	• AMPI = 31 test pits, 259 auger holes equivalent to 3,242.68m • BARI = 62 test pits, 113 auger holes equivalent to 906.26m	• 39.16M t Total AMPI and BARI Indicated resource at 43.5% Al_2O_3 and 2.2% SiO_2 • 12.64M t Total AMPI and BARI Indicated resource at 44.9% Al_2O_3 and 1.9% SiO_2
2005-2008	Pacific Aluminium Holdings Limited	AMPI	• 2,335 drill holes • 9,115 sample analysis • 962 density measurements = 1.6 t/m^3	• 12.1M t Indicated resource at 39.83% Al_2O_3 and 13.76% SiO_2 • 1.8M t Inferred resource at 35.66% Al_2O_3 and 15.17% SiO_2
2013-2015	Asia Pilot Mining Philippines/ SRK China	AMPI	• 306 test pits • 2,863 auger holes	• 35.0M t Measured and Indicated resource at 41.0% Al_2O_3 and 11.3% SiO_2 • 4.5M t Inferred resource at 40.8% Al_2O_3 and 12.9% SiO_2
		BARI	• 535 test pits • 3,295 auger holes	• 82.6M t Measured and Indicated resource at 42.7% Al_2O_3 and 5.6% SiO_2 • 75.1M t Inferred resource at 41.2% Al_2O_3 and 5.5% SiO_2
2017	Marcventures Mining and Development Corp.	AMPI	• 2,862 drill holes and test pits • 16,015.91 meters • 8,616 samples	• 41.7 t Measured and Indicated resource at 40.06% Al_2O_3 and 14.50% SiO_2 • 17.3M t Inferred resource at 38.96% Al_2O_3 and 16.59% SiO_2
		BARI	• 3,295 drill holes and test pits • 13,457.14 meters • 6,971 samples	• 31.5M t Measured and Indicated resource at 43.78% Al_2O_3 and 7.96% SiO_2 • 28.4M t Inferred resource at 43.75% Al_2O_3 and 8.09% SiO_2

**not acceptable to JORC-compliant documents*

MMDC's Verification and Validation Program

Marcventures Mining and Development Corp. (MMDC), as a wholly-owned subsidiary of Marcventures Holings, Inc. (MHI), conducted due diligence over the AMPI contract area from January 9 to February 10, 2017. The activity's objective was to verify the validity of the exploration methodology and integrity of the database as well as the parameters (density and moisture) that was used in the resource estimation done by

SRK as contracted by Asia Pilot. Unfortunately, due diligence in BARI did not push through due to security issues. However, verification of the AMPI dataset can somewhat verify the integrity of the BARI dataset considering that the same exploration work programs were historically conducted in AMPI and BARI.

The MMDC Exploration Team was able to finish 11 cored drill holes with depths ranging from 6.00 to 22.00 meters and combined depth of 151.50 meters. The holes were twinned with holes drilled earlier by Asia Pilot Mining (AMPI holes) which ranged in depth from 7.4 meters to 22.00 meters. The two set of twinned holes (MMDC and AMPI) are not necessarily of the same depths for each twin. Total number of samples collected was 219 which were assayed for Al_2O_3, SiO2, Fe, MgO and Cr_2O_3 using XRF. A total of six (6) test pits were also completed but at depth of exactly four (4) meters each totalling 24 meters. A total of 36 samples were collected from the test pit and also assayed of the same mineral compound as the cored holes. The Team also conducted procedures in the field to determine the specific gravity of bauxite as well as its swell factor as part of QA/QC in the resource estimation.

On correlation between the twinned holes, scatter plots illustrates the close correlation between the twin hole data thereby confirming, more or less, the validity and integrity of the assay data that were used in the resource estimations of AMPI and BARI resources.

MMDC's Resource Estimates for AMPI and BARI

Having been convinced on the integrity of the project's database from the results of its field verification works, MMDC opted to make its own estimates of the AMPI and BARI resources. The mineral resource estimation made use of the database that was provided by Asia Pilot to MMDC from exploration campaigns conducted from 2004 t0 2014. The database consisted of collar, survey, assay and geology data of 8,616 samples from 2,862 drill holes and test pits of AMPI and 6,971 samples from 3,295 drill holes and test pits of BARI from 2004 to 2014.

Two methods were used to estimate the mineral resources, namely: Inverse Distance Weighting (IDW) and Conventional Polygon Method. The polygon method served to double check the resource figures derived from IDW.

Block modelling and resource estimation by way of Inverse Distance Weighting (IDW) was done using a combination of Microlynx and Surpac Version 6.7 software. IDW is a type of deterministic method for multivariate interpolation with a known scattered set of points. The assigned values to unknown points are calculated with a weighted average of the values available at the known points.

Microlynx was used to create the top and bottom surfaces of the resource model as well as the boundaries or resource extent. Construction of geological solids and block model, and interpolation of metal grades were done in Surpac 6.7. Microsoft excel was used to tabulate the resulting mineral resource estimates.

Tabulated below are the summary of Measured and Indicated Mineral Resources of AMPI and BARI project areas estimated using IDW. At a cut-off grade of 28% Al_2O_3, AMPI contains 41.7 Million tonnes of Measured and Indicated Mineral Resource at an average grade of 40.06% Al_2O_3 and 14.50% SiO_2. BARI contains about 31.5 Million tonnes of Measured and Indicated Mineral Resource at an average grade of 43.78% Al_2O_3 and 7.96% SiO_2. This is equivalent to a total Measured and Indicated Resource of some 73.2Mwmt with grades averaging 41.66% Al_2O_3 and 11.69% SiO_2.

Inferred resources of AMPI and BARI were also estimated using IDW wherein some 17.3Mwmt was estimated for AMPI with grades averaging 38.96% Al_2O_3 and 16.59% SiO_2 while about 28.4Mwmt was estimated for BARI at 43.75% Al_2O_3 and 8.09% SiO_2. Additional drilling and test pitting works need to be done to upgrade these Inferred resources to Measured and Indicated resources. Assuming that 25% of these Inferred resources will be upgraded to Measured and Indicated resources once the additional drilling and test pitting works are completed, this will translate to additional Measured and Indicated resources of some 11.4Mwmt at 41.94% Al_2O_3 and 11.30% SiO_2. The projected total Measured and Indicated resources will now be 84.6Mwmt averaging 41.70% Al_2O_3 and 11.64% SiO_2.

Summary of AMPI Mineral Resources estimated by Inverse Distance Weighting.

AMPI_Measured and Indicated Resource							
Cut-off grade	***Volume***	***WMT***	***Al2O3***	***SiO2****	***Al/Si***	***Rx SiO2*****	***Al/RxSi***
> 50% Al2O3	155,000	249,000	50.67	2.29	22.13	1.26	40.21
45-50% Al2O3	3,763,000	6,021,000	47.09	4.29	10.98	2.36	19.95
40-45% Al2O3	10,460,000	16,737,000	42.17	10.6	3.98	5.83	7.23
35-40% Al2O3	7,643,000	12,229,000	37.87	17.21	2.2	9.47	4.00
28-35% Al2O3	4,048,000	6,477,000	31.83	29.44	1.08	16.19	1.97
	26,069,000	**41,713,000**	**40.06**	**14.5**	**2.76**	**7.98**	**5.02**

AMPI_Inferred Resource							
Cut-off grade	***Volume***	***WMT***	***Al2O3***	***SiO2****	***Al/Si***	***Rx SiO2*****	***Al/RxSi***
> 50% Al2O3	17,000	27,000	50.73	2.45	20.71	1.35	37.58
45-50% Al2O3	1,700,000	2,720,000	46.83	4.04	11.59	2.22	21.09
40-45% Al2O3	3,412,000	5,460,000	42.31	10.33	4.1	5.68	7.45
35-40% Al2O3	2,778,000	4,444,000	37.57	18.16	2.07	9.99	3.76
28-35% Al2O3	2,890,000	4,624,000	31.64	29.94	1.06	16.47	1.92
	10,797,000	**17,275,000**	**38.96**	**16.59**	**2.35**	**9.12**	**4.27**

Summary of BARi Mineral Resources estimated by Inverse Distance Weighting.

BARI_Measured and Indicated Resource							
Cut-off grade	***Volume***	***WMT***	***Al2O3***	***SiO2****	***Al/Si***	***Rx SiO2*****	***Al/RxSi***
> 50% Al2O3	1,572,000	2,516,000	51.72	1.45	35.67	0.80	64.65
45-50% Al2O3	7,062,000	11,299,000	47.33	3.11	15.22	1.71	27.68
40-45% Al2O3	6,815,000	10,904,000	42.64	8.92	4.78	4.91	8.68
35-40% Al2O3	3,227,000	5,163,000	37.98	14.91	2.55	8.20	4.63
28-35% Al2O3	992,000	1,587,000	32.69	23.58	1.38	13.68	2.39
	19,668,000	**31,469,000**	**43.78**	**7.96**	**5.5**	**4.38**	**10.0**

			BARI_Inferred Resource				
Cut-off grade	***Volume***	***WMT***	***Al2O3***	***SiO2****	***Al/Si***	***Rx SiO2*****	***Al/RxSi***
> 50% Al2O3	1,341,000	2,145,000	51.9	1.39	37.39	0.76	68.29
45-50% Al2O3	6,711,000	10,738,000	47.28	3.31	14.28	1.82	25.98
40-45% Al2O3	5,822,000	9,315,000	42.76	8.71	4.91	4.81	8.89
35-40% Al2O3	2,754,000	4,407,000	37.87	15.32	2.47	8.43	4.49
28-35% Al2O3	1,145,000	1,831,000	32.69	23.4	1.4	12.87	2.54
	17,773,000	**28,436,000**	**43.75**	**8.09**	**5.41**	**4.45**	**9.83**

Total AMPI and BARI Mineral Resources estimated by Inverse Distance Weighting.

			AMPI and BARI Total Measured and Indicated Resource				
Cut-off grade	***Volume***	***WMT***	***Al2O3***	***SiO2****	***Al/Si***	***Rx SiO2*****	***Al/RxSi***
> 50% Al2O3	1,727,000	2,765,000	51.63	1.53	33.75	0.84	61.46
45-50% Al2O3	10,825,000	17,320,000	47.25	3.52	13.42	1.94	24.36
40-45% Al2O3	17,275,000	27,641,000	42.36	9.94	4.26	5.47	7.74
35-40% Al2O3	10,870,000	17,392,000	37.9	16.53	2.29	9.09	4.17
28-35% Al2O3	5,040,000	8,064,000	32.0	28.29	1.31	15.56	2.06
	45,737,000	**73,182,000**	**41.66**	**11.69**	**3.56**	**6.43**	**6.48**

			AMPI and BARI Total Inferred Resource				
Cut-off grade	***Volume***	***WMT***	***Al2O3***	***SiO2****	***Al/Si***	***Rx SiO2*****	***Al/RxSi***
> 50% Al2O3	1,358,000	2,172,000	51.89	1.4	37.06	0.77	67.39
45-50% Al2O3	8,411,000	13,458,000	47.19	3.46	13.64	1.90	24.84
40-45% Al2O3	9,234,000	14,775,000	42.59	9.31	4.57	5.12	8.32
35-40% Al2O3	5,532,000	8,851,000	37.72	16.75	2.25	9.21	4.10
28-35% Al2O3	4,035,000	6,455,000	31.94	28.08	1.14	15.44	2.07
	28,570,000	**45,711,000**	**41.94**	**11.3**	**3.71**	**6.22**	**6.74**

Total Silica (SiO2) – XRF analysis of random bauxite samples from the properties demonstrated that Reactive Silica is about 55-60% of the Total Silica, therefore Reactive Silica is about 6.42-7.04%

*****Reactive Silica (RxSiO2) – estimated to be from 55 to 60% of the Total Silica, is tabulated in column 7 for the various Al2O3 cut-off grades and the corresponding ration of Alumina/Reactive Silica (Al/RxSi) shown in Column 8. The inclusion of these columns in the Resource table is considered relevant in the Technical Report as the reactive silica to a certain concentration, could affect the economics of the metallurgical treatment of the bauxite ore. The estimated reactive silica percentages used in these estimates which are based on historical data, appear largely favorable in terms of its ratio with Al2O3, however, this might need further checking.***

In the conventional polygon method, each drill hole is assigned a polygon that represents the extent of the area of influence of the drill hole. It is assumed that everywhere within the polygon, the thickness and grade of the resource material is uniform and, more or less, the same as the resource material of the drill hole enclosed by the polygon. Calculations and reporting of the resources were manually done using Microsoft Excel.

Conventional polygon method was done with the assumption that all drill hole and test pit data are regularly spaced at 50-meter interval. The volume of each block is the product of the area of influence, in this case 2,500 sq. m., and the combined thickness of samples that fall within the set cut-off grades. To determine the equivalent Wet Metric Tonnage (WMT), the total in-situ volume is multiplied by the density value of 1.6 g/cm^3. Based on these parameters and assumptions, resource estimates for AMPI and BARI using polygon method yielded the following Indicated Resources.

Summary of AMPI Indicated Resources estimated using conventional polygon method.

AMPI MEASURED + INDICATED MINERAL RESOURCE ESTIMATE								
Ore Class	**Cut-off Grade**	**BCM**	**WMT**	**%Al2O3**	**%SiO2**	**Al/Si**	**%H_2O**	**DMT**
Bx1	> 50 Al2O3	421,000	673,000	50.74	2.01	28.58	30.00	471,100
Bx2	45-50 Al2O3	4,447,000	7,115,000	46.96	4.18	12.70	30.00	4,980,500
Bx3	40-45 Al2O3, ≤ 8 SiO2	13,017,000	20,827,000	42.26	10.33	4.63	30.00	14,578,900
Bx4a	35-40 Al2O3, ≤ 7 SiO2	397,000	635,000	38.57	8.18	5.34	30.00	444,500
Bx4b	35-40 Al2O3, > 7 SiO2	8,210,000	13,137,000	37.79	18.04	2.37	30.00	9,195,900
Bx5a	28-35 Al2O3, ≤ 6 SiO2	67,000	106,000	32.86	10.11	3.68	30.00	74,200
Bx5b	28-35 Al2O4, > 6 SiO2	3,003,000	4,805,000	32.40	27.62	1.33	30.00	3,363,500
Total/Ave.		**29,562,000**	**47,298,000**	**40.78**	**13.16**	**3.51**		**20,475,000**

Summary of BARI Indicated Resources estimated using conventional polygon method.

BARI MEASURED + INDICATED MINERAL RESOURCE ESTIMATE								
Ore Class	**Cut-off Grade**	**BCM**	**WMT**	**%Al2O3**	**%SiO2**	**Al/Si**	**%H_2O**	**DMT**
Bx1	> 50 Al2O3	2,840,000	4,544,000	52.13	1.36	43.25	30.00	3,180,800
Bx2	45-50 Al2O3	8,244,000	13,190,400	47.40	2.89	18.57	30.00	9,233,280
Bx3	40-45 Al2O3	5,629,000	9,006,400	42.57	8.73	5.52	30.00	6,304,480
Bx4a	37-40 Al2O3, ≤ 7 SiO2	506,000	809,600	38.89	6.74	6.54	30.00	566,720
Bx4b	37-40 Al2O3, > 7 SiO2	2,117,000	3,387,200	38.54	15.47	2.82	30.00	2,371,040
Bx5a	28-37 Al2O3, ≤ 6 SiO2	543,000	868,800	34.47	10.53	3.71	30.00	608,160
Bx5b	28-37 Al2O4, > 6 SiO2	2,085,000	3,336,000	33.42	23.95	1.58	30.00	2,335,200
Total/Ave.		**21,964,000**	**35,142,400**	**44.08**	**7.68**	**6.50**		**19,285,280**

It will be noted that although the resources estimated using polygon method is generally higher in tonnage than the resources estimated using IDW, the resulting grades of the two resources are quite close and considered within acceptable range from one another.

The resource estimates of the MMDC Technical Team differs with that of SRK China in the December 2016 report of CP Dr. Yiefei Jia in both tonnages and grades. In MMDC's Report, total resource estimated for AMPI was 41.7M tonnes of Measured and Indicated category with an average grade of 40.06% Al2O3 and 14.50% SiO2, and BARI containing 31.5M tonnes of Measured and Indicated category with an average grade of 43.78% Al2O3 and 7.96% SiO2 or a total Measured and Indicated Resource for the two tenements of some 73.2Mwmt with grades averaging 41.66% Al2O3 and 11.69% SiO2. SRK, in its December 2016 Report, on the other hand came out, at the same cut-off grade of 28% Al2O3, with AMPI containing 35.0M tonnes of Measured and Indicated Resource with an average grade of 41.0% Al2O3 and 4.5M tonnes of Inferred Mineral Resource with an average grade of 40.8% Al2O3. For BARI, a total of 82.6M tonnes of Measured and Indicated Resource with an average grade of 42.7% Al2O3 and 75.1M tonnes of Inferred Resource with an average grade of 41.2% Al2O3 were estimated.

Comparing the various figures, the AMPI Measured and Indicated resource estimated by MMDC would appear larger by 6.7M tonnes compared to SRK China (41.7 vs 35.0 M) while in grade, MMDC is 0.96% Al2O3 lower compared to SRK China (40.06 vs 41.0% Al2O3). For BARI, the tonnage variance is more significant with MMDC coming out with 31.5M tonnes as against SRK China's 82.6M tonnes of Measured and Indicated Resource or a difference of 51.1M tonnes. For the grades, MMDC came out with 43.78% Al2O3 while SRK China declared an average grade of 42.7%Al2O3, a difference of 1.08%.

The variances in the estimates, particularly for the tonnages, may be due to the different methods used in the resource estimation. MMDC used the Inverse Distance Weighing (IDW) complimented by conventional Polygon Method as a check while SRK China employed Leapfrog, CAD and Surpac Version 6.3. The wide variance in tonnage, particularly in BARI may be explained by what we may considered over projection of the test pit and auger assay data influence used. SRK China projected the influence of the hole assays to a maximum of 100 meters while MMDC limited its projection to 50 meters only. In the case of AMPI, where MMDC came out with a slightly bigger tonnage, this could be explained by the use of additional data that SRK did not use in its estimate. Regarding the grade variances, these may be due to the methods of determining the assays employed by the two Teams, i.e., the method of compositing the assays used in the estimation.

It should be noted, however, that in as far as the grades are concerned, the variances are not considered very significant. It will be noted also that both MMDC and SRK China came out with close favorable percent SiO_2 in BARI. Dr. Yiefei Jia, also noted that the estimates for BARI, particularly, needs further refining if additional exploration data becomes available. The MMDC figures in tonnages and grades, could be considered conservative and more reliable.

As an additional upside for the project, the MMDC Team has determined the swell factor of the bauxite materials by actual field testing during the recent verification/validation fieldworks which was 1.25. This translates to 91.5Mwmt or an additional 18.3Mwmt from the 73.2Mwmt resource estimated for AMPI and BARI by the MMDC Technical Team.

1.1 Purpose and Compliance with PMRC

The undersigned Competent Person (CP) was commissioned by Engr. Arsenio K. Sebial, Jr., President and CEO of Marcventures Mining and Development Corporation (MMDC), to review and certify this technical report prepared by MMDC's Geological Exploration Division (GED) Team on the exploration results and mineral resource estimation of Alumina Mining Philippines, Inc. (AMPI) and Bauxite Resources, Inc. (BARI) located within the Municipalities of Paranas (formerly Wright), Motiong, San Jorge, Gandara and San Jose de Buan, Province of Samar. The two properties are owned by Asia Pilot Mining Philippines Corporation. MMDC is a wholly-owned subsidiary of Marcventures Holdings, Inc. (MHI).

This report was prepared in compliance with the Philippine Mineral Reporting Code (PMRC) and follows the most recent template for reporting of exploration results and mineral resources of lateritic mineral deposit to support the public disclosure of exploration activities, particularly, core drilling and test pitting undertaken within the two tenement areas from 2004 to 2014.

This report also complies with the requirements of the Mines and Geosciences Bureau (MGB) in the development of a mining project.

1.2 Scope of Work

The report provides a detailed summary of the results of the exploration activities carried over the AMPI and BARI Bauxite Project (AMPI) from 2004 to 2014. The mineral resource model prepared by the MMDC Exploration Team considers 8,616 samples from 2,862 drill holes and test pits of AMPI from 2004 to 2014 and 6,971 samples from 3,295 drill holes and test pits of BARI from the same period.

1.3 Data Verification and Field Visits

The undersigned CP depended primarily to the information given by the technical personnel of the Exploration Team of MMDC derived from previous technical reports and additional data obtained from earlier exploration works. Included in this report are the consolidated data from geological interpretation and data gathered during MMDC's field verification.

The database provided by Asia Pilot to MMDC for the resource estimation was verified and validated by the MMDC Exploration Team through geologic mapping and sub-surface sampling that was done from January 2017 to February 2017. This Competent Person (CP) in turn conducted a field visit in the area to check the due diligence activity that was done by the MMDC Exploration Team. Based on these activities, the database provided by Asia Pilot has been determined to be sufficiently reliable to support mineral resource estimation.

1.4 Technical Report Preparation Team

The members of the MMDC Exploration Team are Geologists Jayvhel T. Guzman, Head of the Geological Exploration Division (GED), Herbert T. Villano, Chief Geologist and Ralph Rey L. Tan and Jelan M. Mendez, Ms. Guzman, Mr. Villano and Mr. Tan are licensed geologists and are active members of the Geological Society of the Philippines.

Asia Pilot was represented by its Corporate Secretary, Mr. Steven M. Herrera, who provided the historical information, previous reports, maps and assay results to the MMDC Exploration Team.

2. RELIANCE ON OTHER EXPERTS

This Competent Person (CP) relied mainly on this report prepared by Geologists Jayvhel T. Guzman and Herbert T. Villano, who are licensed Geologists but are not CPs. Geologists Guzman and Villano are both employed by MMDC and have provided technical guidance to MMDC Exploration Team since 2013 and 2015, respectively. They are experienced persons in the nickel laterite style of mineralization which is basically the same as lateritic style of bauxite mineralization.

The Exploration Team of MMDC managed the conduct of the field verification activities over the AMPI Bauxite Project from January 2017 to February 2017. This included geologic mapping and test pitting as well as twin hole drilling. Mr. Herbert T. Villano acted as the Team Leader of the MMDC Exploration Team which included Geologists Ralph Rey L. Tan and Jelan M. Mendez as well as Mapping Specialist Ronito T. Martinez.

3. TENEMENT AND MINERAL RIGHTS

3.1 Description of mineral rights

Alumina Mining Philippines, Inc. (AMPI) holds the Mineral Production Sharing Agreement (MPSA) denominated as MPSA No. 179-2002-VIII which covers 6,694.05 hectares in the Municipalities of Paranas (formerly Wright), Motiong and San Jose de Buan, Province of Samar. Bauxite Resources, Inc. (BARI) holds the Mineral Production Sharing Agreement MPSA No. 180-2002-VIII covering 5,435.00 hectares in the Municipalities of Gandara, San Jose de Buan, Matuguinao and San Jorge, Province of Samar. Both MPSAs were approved in December 5, 2002, valid for 25 years and renewable for another 25 years. Technical description of the two MPSAs are presented in Table 3-1.

Table 3-1. Technical description of AMPI and BARI MPSAs.

Alumina Mining Philippines, Inc. (AMPI) MPSA 179-2002-VIII-SBMR Area = 6,694.05 hectares			Bauxite Resources, Inc. (BARI) MPSA 180-2002-VIII-SBMR Area = 5,435 hectares		
corner	**longitude**	**latitude**	**corner**	**longitude**	**latitude**
1	125° 06' 00"	11° 57' 00"	1	124° 59' 00"	12° 08' 00"
2	125° 06' 00"	11° 52' 00"	2	124° 59' 00"	12° 02' 30"
3	125° 02' 00"	11° 52' 00"	3	124° 56' 00"	12° 02' 30"
4	125° 02' 00"	11° 57' 00"	4	124° 56' 00"	12° 08' 00"

Figure 3-1. Location map of Alumina Mining Philippines, Inc. (AMPI) and Bauxite Resources, Inc. (BARI) MPSAs.

3.2 History of mineral rights

Samar Island is known to host bauxite deposits after geologic works made during the early ‘60s and ‘70s by the government and private entities proved the occurrence of these deposits in the island. On February 4, 1977, then President Ferdinand Marcos promulgated Proclamation No. 1615 creating the Samar Island Bauxite Reservation (SBMR). Some of the Samar Island bauxite deposits were earmarked for an aluminium smelter proposed by Reynolds Aluminum Corporation. However, for some reasons, Reynolds later abandoned the project and withdrew from the Philippines.

The mineral reservation covers a total 220,791 hectares consisting of three parcels; from Batag Island off the northeastern coast of Northern Samar down south to Hinabangan in what used to be known as Western Samar (now simply called Samar Province) and extending to Guian in Eastern Samar further south (Figure 3-2). Being the only known significant deposit of aluminium ‘ores’ in the Philippines, these areas are considered strategic and vital for the State. Previous studies made by the Mines and Geosciences Bureau estimated the geologic reserves of SBMR at 242 Million tonnes with an average grade of 40.80% Al_2O_3.

On May 2, 2002, Aluminum Mining Philippines, Inc. (AMPI) and Bauxite Resources Incorporation (BARI) filed mining applications at the Mines and Geosciences Bureau covering portions of the Municipalities of Gandara, San Jorge, San Jose de Buan, Motion and Paranas. The applications were approved on December 5, 2002 as MPSA 179-2002-VIII and MPSA 180-2002-VIII.

On August 13, 2003, Presidential Proclamation No. 442 was declared covering a sizeable portion of Samar Island into the Samar Island Natural Park (SINP) which overlapped some portions of the SBMR. Portions of AMPI and BARI are also covered by the declaration, however, considering the MPSAs were approved before the proclamation, prior rights of AMPI and BARI should be respected.

On June 27, 2005, a Memorandum of Agreement was signed between the AMPI-BARI party and the Hongkong-based holding company, Pacific Aluminum Holding Limited (PAHL) and its affiliates. This announced PAHL’s interest to undertake and invest in the mineral exploration, development and utilization of the bauxite deposits within the contract areas. The succeeding year, detailed exploration work and validation of previous exploratory works were conducted by the exploration group of PAHL, Pacific Aluminum Philippines Corporation (PAMPC).

Since 2014, Asia Pilot Mining Philippines, Corp. (“Asia Pilot Mining”) holds100% interest of AMPI and BARI.

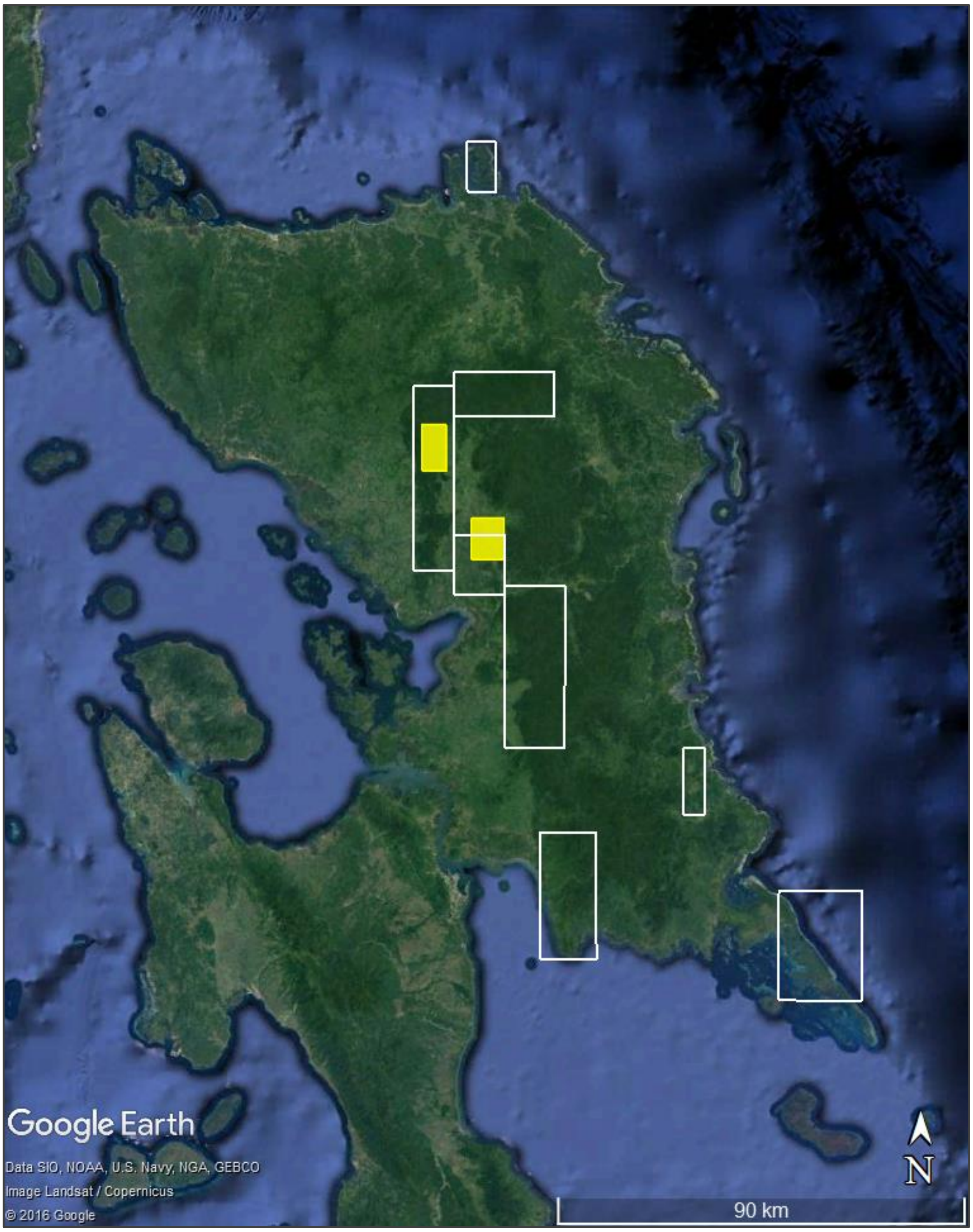

Figure 3-2. Map showing the outline of Samar Bauxite Mineral Reservation (white) with location of AMPI and BARI tenement area (yellow).

4. GEOGRAPHIC FEATURES

4.1 Location and accessibility

The AMPI and BARI project areas are located in the Province of Samar (formerly known as Western Samar) in Eastern Visayas (Region VIII) in the Philippines.

The AMPI contract area which is located within the municipalities of Motiong, San Jose de Buan and Paranas, is approximately 25 kilometers east-northeast of Catbalogan City (Figure 4-1). The BARI contract area on the other hand, is within the municipalities of Gandara, San Jose de Buan and Paranas and is approximately 35 kilometers north-northeast of Catbalogan City, the provincial capital of Samar Province. Catbalogan has major regional infrastructures that include a port and an airport. However, at present, the airport is not operational..

AMPI contract area can be reached from Tacloban City via 1.5-2 hours land travel along Maharlika (AH26) Highway going to the direction of Catbalogan City. From the junction of Buray at the Municipality of Paranas, turn right using the Taft-Paranas Road, then turn left at Loquilocon to the provincial road going to San Jose de Buan. Barangay Concepcion, which holds most of the sinkholes in AMPI, is about 12 kilometers from the junction of Loquilocon.

The BARI contract area which is about 15 kilometers northwest of Barangay Concepcion, can be reached from the town proper of San Jose de Buan. Through a 3-hour walk from the town proper, one can reach Barangay Galutan which is at the southern end of BARI area. From there, access to bauxite-bearing BARI sinkholes is by foot paths and unformed tracks.

4.2 Topography, physiography, drainage and vegetation

Samar Island is described to have moderate relief comprising of alluvial filled basins with higher limestone ridges and hills surrounding them. From coast to coast, the mountain ranges are generally characterized to be low but mostly rugged and steep. The highest mountain peaks follows a curved line that traverses predominantly north-south from the northwest coast bordering Samar Sea and passing through the center portion of the island, going to the south coast of Lauan Bay.

AMPI area has moderate relief with elevation ranging from 100 to 200 masl, the higher limestone ridges and hills surrounding the basins reach maximum height of 464 masl. The alluvial basins are generally arable with rice, corn, banana and coconut crops. The limestone ridges are covered by dense tropical rainforest.

Although having moderate relief, BARI area is higher in elevation than AMPI with elevation ranging from 200 masl in the south to a maximum of 693 masl in the north.

Figure 4-1. Road network from Tacloban City going to AMPI and BARI tenement areas.

4.3 Climate

The project area falls into two types of climate, the Type II and Type IV based on the Modified Coronas Classification climate map of the Philippines (Figure 4-2).

Type II climate indicates no dry season with a very pronounced maximum rain period from December to February or the northeast monsoon (Amihan). Minimum monthly rainfall occurs during the period from March to May and no single dry month. The western part of the project areas are affected by Type IV in which rainfall is more or less evenly distributed throughout the year and resembles with Type II since it has no dry season.

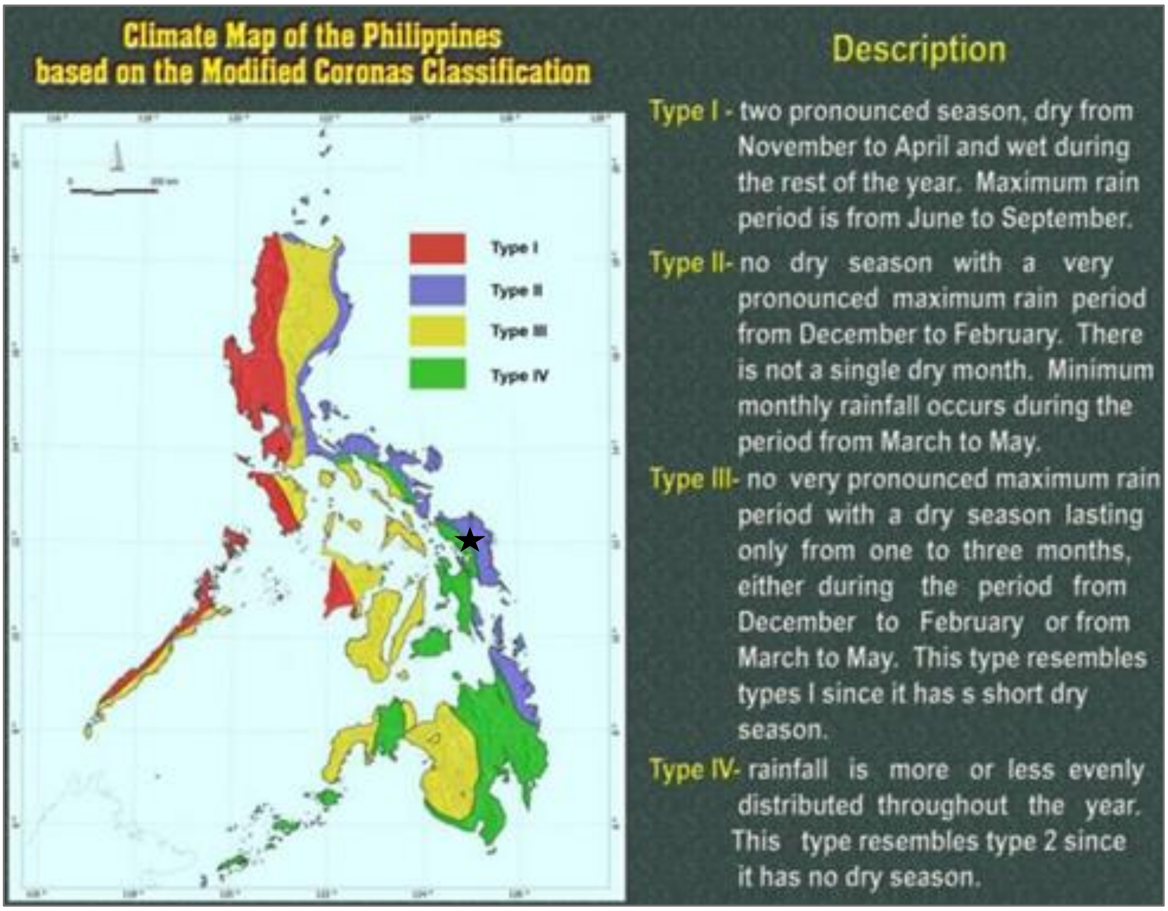

Figure 4-2. Climate map of the Philippines based on Modified Coronas Classification.

4.4 Local Resources

Communities inside the AMPI project area are generally relying on farming for their livelihood, planting crops such as corn, cassava, peanut, rice, ginger and coconut. Some locals engage in producing charcoal briquettes, and manual limestone quarrying for income.

5. PREVIOUS WORK

5.1 Mines and Geosciences Bureau

Between 1974 and 1976, the Mines and Geosciences Bureau (MGB) conducted a geological survey in Samar, targeting gold, copper and magnesium as well as confirming the presence of extensive bauxite deposits.

In 1979, MGB estimated a total of 131.6 Million tonnes of bauxite as 'mineable ore reserve' at grades ranging from 27% to 43% Al_2O_3; of which 544 Thousand tonnes was in the AMPI project area. The estimate is not JORC or PMRC compliant in the manner that it is stated but it can be taken as a guide to future exploration potential in the region.

5.2 Alusuisse

Alusuisse, a Swiss industrial group founded as Aluminium Industrie Aktien in 1898 in Zurich, Switzerland, conducted preliminary auger drilling and test pitting on sinkholes in the southern half of BARI property in the mid ‘70s. The group estimated a ‘positive reserve’ of 38 Million tonnes, of which 9 Million tonnes was ‘exportable grade’, 21 Million as ‘refinery grade’ and 8 Million as ‘low grade’ (Table 3-2). By extension to the other sinkholes in the property, Alusuisse estimated a potential of 79 Million tonnes of bauxite in BARI.

Considering that there are no full record of the data used in the estimates, neither the 38 Million tonnes estimate nor the 79 Million tonnes potential can be reported in JORC or PMRC standard.

5.3 Earthcare Geologists & Affiliates

A Filipino geological consulting company based in Tacloban City, Earthcare Geologist & Affiliates, undertook a seven-day geological reconnaissance of the AMPI and BARI properties in June and July, 2003. Samples were collected from test pits in AMPI and were sent to SGS laboratory in Manila for analysis. Chip samples were also taken from an outcrop in BARI and likewise were submitted for analysis. Maps were produced showing the potential karstic sinkholes in the two project areas.

The group came up with a ‘potential ore estimate’ using the maps produced during geologic mapping. The area of the karstic sinkholes was manually measured on 1:40,000 plan maps. The measured area is then multiplied to an assumed depth of 10 meters and assumed density of 1.3 t/m^3. The ‘potential ore estimate’ for BARI was around 100 Million tonnes, and for AMPI to be around 38 Million tonnes.

Same as the previous resource estimates, the estimation of Earthcare does not meet JORC or PMRC standard and could not be released publicly.

5.4 China Non-Ferrous Metals Corporation

China Non-Ferrous Metals Corporation (CNMC), as engaged by Pacific Aluminium Holdings Limited (PAHL), conducted exploration in AMPI and BARI areas from June to November 2004. Test pitting and auger drilling were employed by the company to verify and assess the resource potential of the two areas.

A total of 93 test pits and 336 auger holes were completed by CNMC during its exploration activity on 2004. This is equivalent to 31 test pits in AMPI and 62 test pits in BARI. A total of 259 auger holes with an aggregate depth of 3,242.68 meters were drilled in AMPI while a total of 113 holes equivalent to 906.26 meters were completed in BARI. Average drilling depth in AMPI is 12.52 meters and 8.02 meters for BARI.

In 2005, Phil Jankowski, a Competent Person from SRK Consulting in Australia, estimated a total of resource of 51.8 Million tonnes of bauxite at 43.9% Al_2O_3 and 2.2% SiO_2 for the AMPI and BARI bauxite project based on the results of CNMC’s exploration activities. Volume of each sinkhole was estimated using Surpac. The bulk density of 1.7 g/cm^3 from the measurements of test pit spoil was applied to calculate the tonnage. Cut-off grade used was not mentioned in the report. The estimated resource is further broken down as follows; Indicated Resource of 39.16 Million tonnes at 43.5% Al_2O_3 and 2.2% SiO_2, and Inferred Resource of 12.64 Million tonnes at 44.9% Al_2O_3 and 1.9% SiO_2.

On a positive note, Mr. Jankowski stated that there could be as much as an extra 80 Million tonnes of bauxite ore in AMPI and BARI, based on the concept of extending the results of their estimation to other parts of the project areas not studied during CNMC's exploration activities.

5.5 Pacific Aluminium Holdings Limited

Bulk of the data that was used by MMDC in its resource estimation of AMPI and BARI is from the exploration work program that was implemented by Pacific Aluminium Holdings Limited (PAHL) from 2005 to 2008. PAHL, a Hongkong-based holding company commenced its exploration activities through its Philippine subsidiary, Pacific Aluminum Mining Philippines Corporation (PAMPC).

On April 2006, another report from SRK's Consultant, Phil Jankowski, inspected the work program and verified its suitability for use in estimating the resources and reserves to the standards required by the JORC Code. Overall, the auger drilling and sampling program of PAHL was deemed well designed and well implemented.

Figure 5-1. a) simple 20-centimeter long auger bit used by CNMC in its auger drilling activities, b) drillers retrieving the auger rods, c) samplers bagging the 2-meter composite sample, d) sample CNMC Checker's Daily Report.

A May 2007 SRK report prepared also by Mr. Jankowski disclosed a total of 12.1 Million tonnes of Indicated bauxite resources in AMPI at 39.83% Al_2O_3 and 13.76% SiO_2. Additional 1.8 Million tonnes Inferred resource at 35.66% Al_2O_3 and 15.17% SiO_2 was also reported. This is based on data supplied to SRK which, after editing, consisted of records for 2,335 collars and 9,115 assays. Sinkhole outline and topography were also provided for the creation of three-dimensional wireframe models. An average density of 1.6 t/m^3 was applied which is based on the mean of 962 density measurements acquired by PAMPC.

However, no similar report for BARI was provided to MMDC during its due diligence.

5.6 Asia Pilot Mining Philippines Corp./SRK China

Since November 2012, Asia Pilot Mining Philippines, Corp. has 100% stake equity of AMPI and BARI tenements and has contracted SRK China to prepare an exploration and resource report for these tenements.

Commissioned by SRK China, Philippine Xinbaoyuan Mining Corporation (Xinbaoyuan) led the bauxite exploration of AMPI and BARI in 2013 and 2014 specifically the 1:10,000 geological sketch survey, control point measurement and validation of sinkholes in the project. Verification and in-fill drilling and sampling was conducted, the results of which were also audited by SRK and found to be sufficiently reliable to interpret and support the mineral resource estimation.

Figure 5-2. In-fill auger drilling and sample drying done by Xinbaoyuan as contracted by Asia Pilot.

In a resource report signed by SRK China Principal Consultant Yiefei Jia effective December 2016, SRK China disclosed that it has estimated the JORC Code-compliant Mineral Resources for AMPI and BARI at a cut-off grade of 28% Al_2O_3, with consideration of available alumina and reactive SiO_2. A total of 35 Million tonnes Measured and Indicated Resources were estimated in AMPI at 41% Al_2O_3 while a total of 82 Million tonnes of Measured and Indicated Resources were estimated for BARI at 42% Al_2O_3. It has been also noted that the silica content in BARI is about 6% which is much lower than that in AMPI at about 11%.

Table 5-1. Summary of previous geologic activities and results in AMPI and BARI.

Period	Proponent	Area Coverage	Exploration Activity	Results / Resource Estimate
1979	Mines and Geosciences Bureau	Samar	• Geological survey targeting gold, copper and magnesium as well as confirming presence of extensive bauxite deposits	• 131.6M t of bauxite as 'mineable ore reserve' at grades ranging from 27% to 43% Al_2O_3*
Mid '70s	Alusuisse	BARI	• Preliminary auger drilling and test pitting on sinkholes at the southern half of the property	• 38M t 'positive reserve' equivalent to 9M t 'exportable grade', 21M t 'refinery grade' and 8M t as 'low grade'* • projected a total potential reserve of 79M t in BARI*

2003	Earthcare Geologists and Affiliates	AMPI and BARI	• chip sampling and test pitting; samples were submitted to SGS laboratory in Manila	• AMPI = 38.3M t 'potential ore estimate'* • BARI = 100.0M t 'potential ore estimate'*
2004	China Non-Ferrous Metals Corporation	AMPI and BARI	• AMPI = 31 test pits, 259 auger holes equivalent to 3,242.68m • BARI = 62 test pits, 113 auger holes equivalent to 906.26m	• 39.16M t Total AMPI and BARI Indicated resource at 43.5% Al_2O_3 and 2.2% SiO_2 • 12.64M t Total AMPI and BARI Indicated resource at 44.9% Al_2O_3 and 1.9% SiO_2
2005-2008	Pacific Aluminium Holdings Limited	AMPI	• 2,335 drill holes • 9,115 sample analysis • 962 density measurements = 1.6 t/m^3	• 12.1M t Indicated resource at 39.83% Al_2O_3 and 13.76% SiO_2 • 1.8M t Inferred resource at 35.66% Al_2O_3 and 15.17% SiO_2
2013-2015	Asia Pilot Mining Philippines/ SRK China	AMPI	• 306 test pits • 2,863 auger holes	• 35.0M t Measured and Indicated resource at 41.0% Al_2O_3 and 11.3% SiO_2 • 4.5M t Inferred resource at 40.8% Al_2O_3 and 12.9% SiO_2
		BARI	• 535 test pits • 3,295 auger holes	• 82.6M t Measured and Indicated resource at 42.7% Al_2O_3 and 5.6% SiO_2 • 75.1M t Inferred resource at 41.2% Al_2O_3 and 5.5% SiO_2
2017	Marcventures Mining and Development Corp.	AMPI	• 2,862 drill holes and test pits • 16,015.91 meters • 8,616 samples	• 41.7 t Measured and Indicated resource at 40.06% Al_2O_3 and 14.50% SiO_2 • 17.3M t Inferred resource at 38.96% Al_2O_3 and 16.59% SiO_2
		BARI	• 3,295 drill holes and test pits • 13,457.14 meters • 6,971 samples	• 31.5M t Measured and Indicated resource at 43.78% Al_2O_3 and 7.96% SiO_2 • 28.4M t Inferred resource at 43.75% Al_2O_3 and 8.09% SiO_2

6. HISTORY OF PRODUCTION

AMPI and BARI properties are still under exploration and development stages. So far, there are no recorded mineral production in the area.

7. REGIONAL GEOLOGY

7.1 Regional Geologic Setting

The Samar basin presents stratigraphic characteristics similar to those of the Visayan Sea Basin. Here, Upper Oligocene to Lower Miocene volcaniclastics unconformably overlies a mixed basement of ophiolites and metamorphic rocks. The Middle Miocene interval is represented by a widespread deformed limestone formation which presently covers almost 25% of Samar Island (Garcia and Mercado, 1981). This limestone body is unconformably overlain by Upper Miocene to Pleistocene shales and carbonates. The basin axis is generally oriented north to south.

7.2 Regional Structures

The Island of Samar lies in the eastern periphery of the Visayas region. It is located together with Leyte, within the immediate vicinity of the Philippine rift zone and the Philippine deep, two major geologic structures greatly influencing the geology of the Philippine Archipelago. The main tectonic line of the Philippine rift zone, a strike-slip fault system, extends through the entire length of the island of Leyte, with its splays and submarine trench where an oceanic plate plunges westward under a sialic block Island and continues downward to the eastern coast of Mindanao.

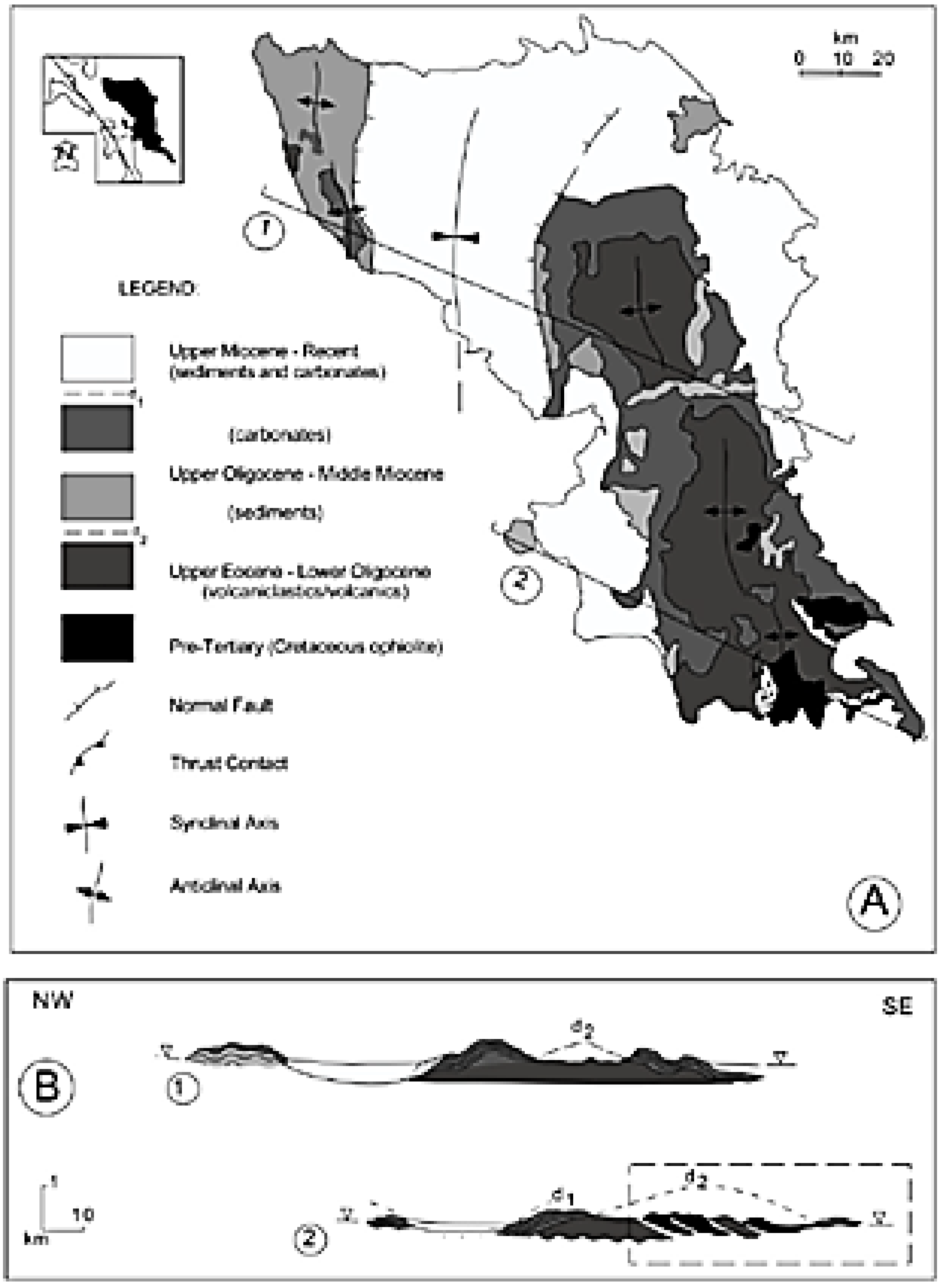

Figure 7-1. Regional geologic map of Samar Island (Aurelio et al.).

8. MINERAL PROPERTY GEOLOGY

Geological Mapping of sinkholes and lithological formations was conducted by walking through the contract area and thru megascopic identification of rock fragments and bedrock encountered during drilling. Interpretation of topographic map and satellite images were also used for identification of sinkholes and structures. Drill cores were logged, and interpreted by the geologist based on megascopic identification and description of color, texture and mineralogical composition. Previous drill holes were also considered especially for identification of sinkhole and depression.

The karstic limestone of the Lower Miocene Daram Formation surrounds and hosts the reddish-brown to yellow-brown bauxite deposit in AMPI and BARI tenement area. Sinkholes and solution channels afforded good accumulation sites of bauxite. The deposit occurs as a discontinuous, surface mantle or lenses invariably on the karsts. Northeast-southwest trending secondary structures were prominently identified inside the AMPI contract area.

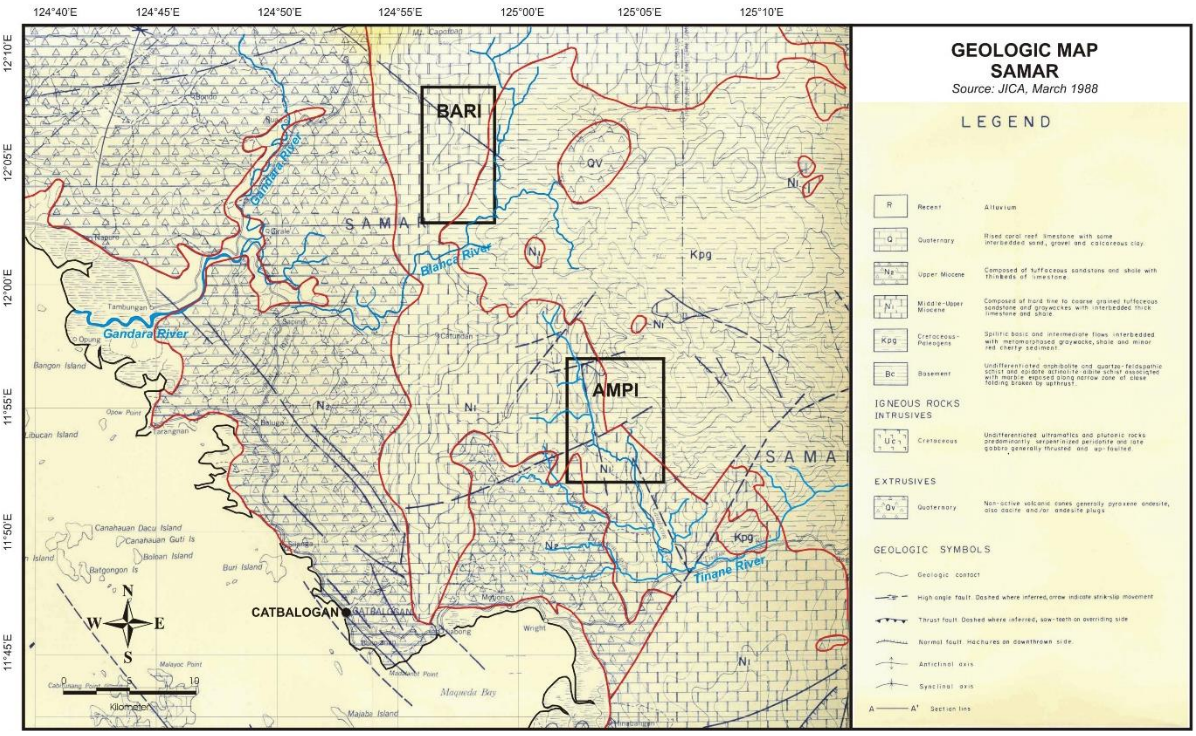

Figure 8-1. Geologic map of AMPI and BARI showing that most of the two project areas are underlain by limestone which provided sinkholes and dissolution channels as good accumulation sites of bauxite.

9. MINERALIZATION IN THE MINERAL PROPERTY

9.1 Overview of mineralization

Bauxite forms from a wide variety of alumina-bearing rocks which has undergone relatively long period of lateritic weathering. It ideally forms in tropical or sub-tropical climatic conditions with abundant rainfall and luxuriant vegetation. Location must be well-drained environment and above the phreatic water table. The bauxite deposits occurring in Samar are derived from the erosion, transportation and sedimentation of pre-existing lateritic soils and weathered alumina-rich rocks, re-deposited in a gradually subsiding basin. Changes from oxidizing-acidic to reducing-alkaline pH probably caused dissolution of silica and precipitation of hydrous aluminum oxides (Garcia et al., 1981).

9.2 Style of mineralization

The bauxite deposits in AMPI and BARI are developed in karstic sinkholes in a predominantly limestone terrain. The topography of the base limestone underneath the alluvial/colluvial/elluvial deposits that include the bauxite can be assumed to be irregular.

The bauxite profile is interpreted as consisting of four (4) layers or zones, namely: Top soil, Nodular Zone, Clay Zone and Bedrock (Figure 7). It has been observed that Al_2O_3 decreases while SiO_2 increases with increasing depth. This is consistent with the previously stated characteristic of bauxite wherein hydrous aluminum oxides are precipitated in a reducing-alkaline pH environment while silica is dissolved and therefore leached by groundwater.

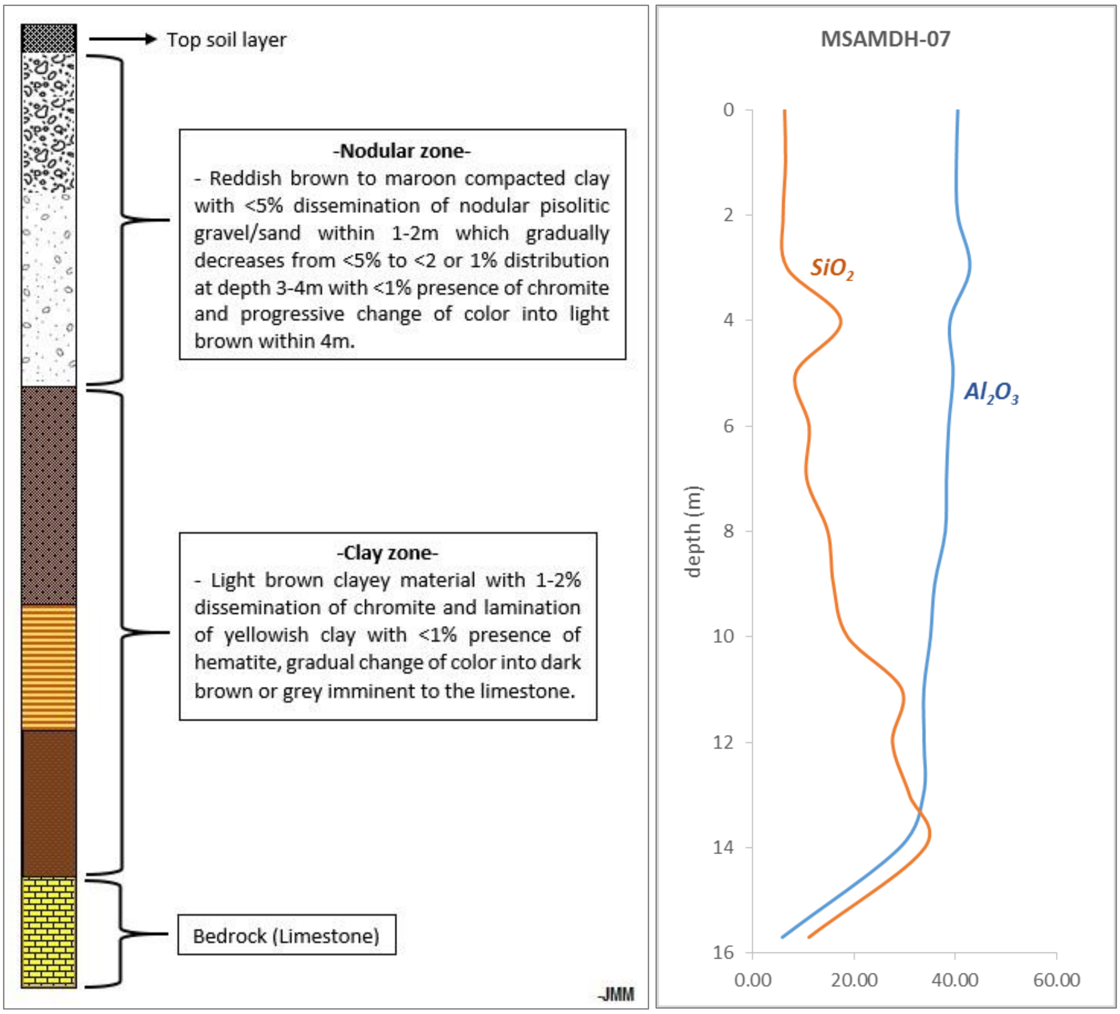

Figure 9-1. (Left) Bauxite laterite profile as interpreted from drill core samples. (Right) Al_2O_3 and SiO_2 assay values of drill core sample (MSAMDH-07) plotted against depth in meters.

Three (3) samples were submitted to the National Institute of Geological Sciences in the University of the Philippines for X-ray Diffraction (XRD) and handheld X-ray Fluorescence (XRF) for mineral identification and semi-quantitative chemical analysis. Table 9-1 shows the summary of bulk element composition of the samples. The semi-quantitative data obtained from handheld XRF analyser provided relative concentration of elements in the samples but does not provide accurate concentration of elements. Figure 9-2 to 9-4 present the XRD pattern of the samples submitted wherein the relative intensity of each identified minerals are indicated. The summary of minerals identified in the submitted samples is shown listed alphabetically in Table 9-2.

Table 9-1. Summary of bulk element composition obtained from handheld XRF.

Analyte	Chemical element	SAM 100 (wt. %)	SAM 316 (wt. %)	SAM 354 (wt. %)
LE	Light elements	46.70	49.20	51.30
Al	Aluminum	27.50	23.70	19.50
Fe	Iron	18.80	17.80	18.60
Mg	Magnesium	3.93	3.61	3.07
Ti	Titanium	1.05	0.93	0.94
P	Phosphorus	1.00	0.61	0.29
Si	Silicon	0.47	3.53	5.91
Mn	Manganese	0.36	0.47	0.13
Sr	Strontium	0.09	0.04	0.02
Cr	Chromium	0.04	0.06	0.06
Zr	Zirconium	0.03	0.02	0.02
V	Vanadium	0.03	0.03	0.04
Zn	Zinc	0.02	0.02	0.01
Y	Yttrium	0.02	0.01	<0.01
Ni	Nickel	0.02	0.03	0.02
Cu	Copper	0.01	0.02	0.01
Ta	Tantalum	0.01	0.01	0.01
Pb	Lead	0.01	<0.01	<0.01
Sn	Tin	0.01		

Table 9-2. Mineral phases identified in the samples with chemical formula.

Mineral	Chemical Formula
Anatase	TiO_2
Boehmite	γ-AlO(OH)
Gibbsite	$Al(OH)_3$
Goethite	α-FeO(OH)
Hematite	Fe_2O_3
Kaolinite Group	$Al_2Si_2O_5(OH)_4$
Magnetite	$Fe^{2+}Fe^{3+}{}_2O_4$
Quartz	SiO_2

Based on these results, the minerals in the bauxite ore are predominantly gibbsite and boehmite, with minor goethite, hematite and magnetite mixed with aluminium mineral referred to as alumogeothite. Accessory anatase, kaolinite and quartz were also identified. Correlating these to the XRF analysis results of these samples, it would seem that the presence of kaolinite and quartz causes the increase of SiO_2 in the bauxite.

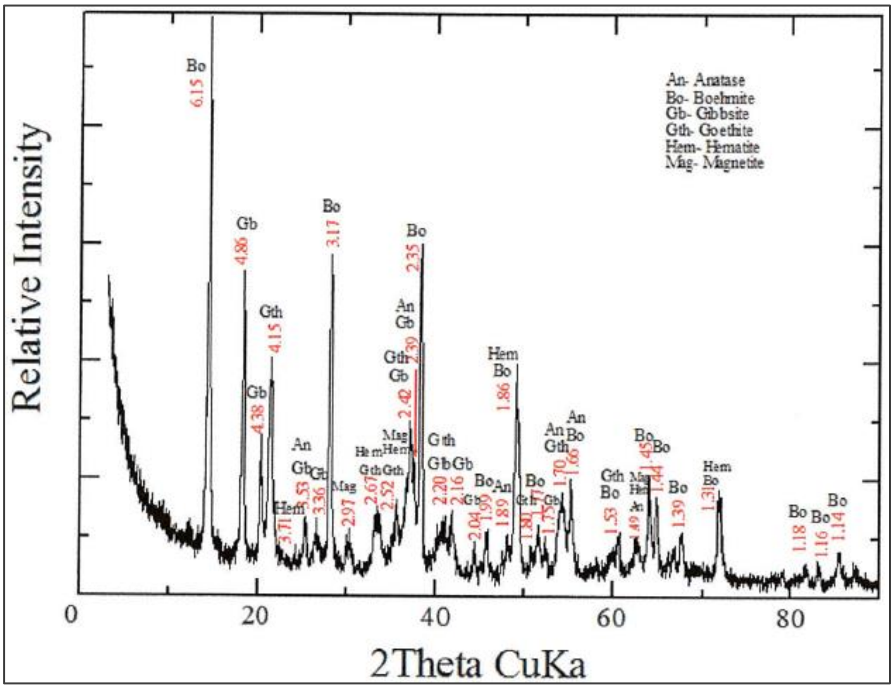

Figure 9-2. XRD pattern of SAM 100 sample. XRF analysis result of this sample is 51.14% Al_2O_3 and 0.01% SiO_2.

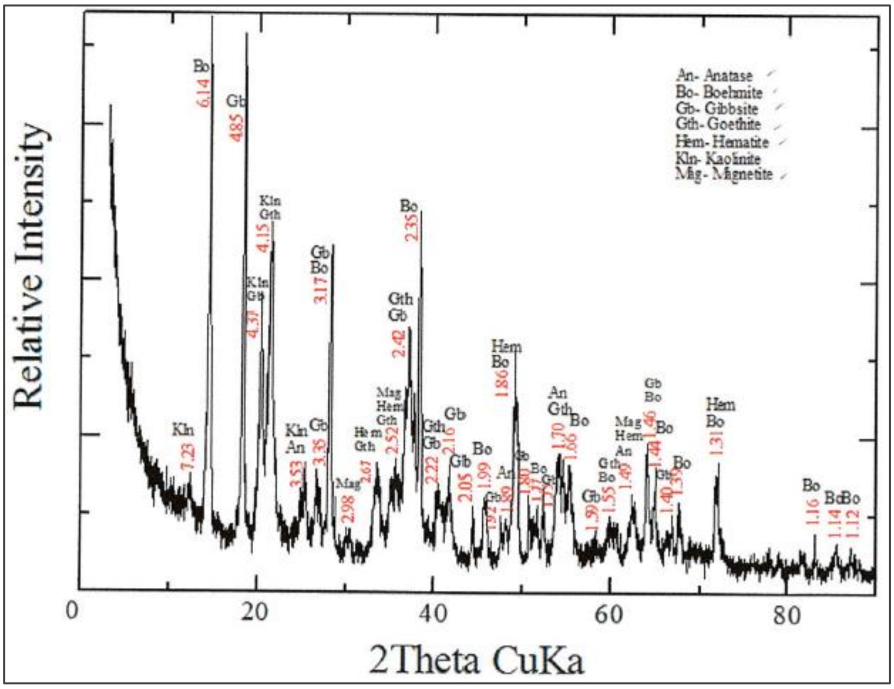

Figure 9-3. XRD pattern of SAM 316 sample. XRF analysis result of this sample is 45.7% Al_2O_3 and 7.34% SiO_2.

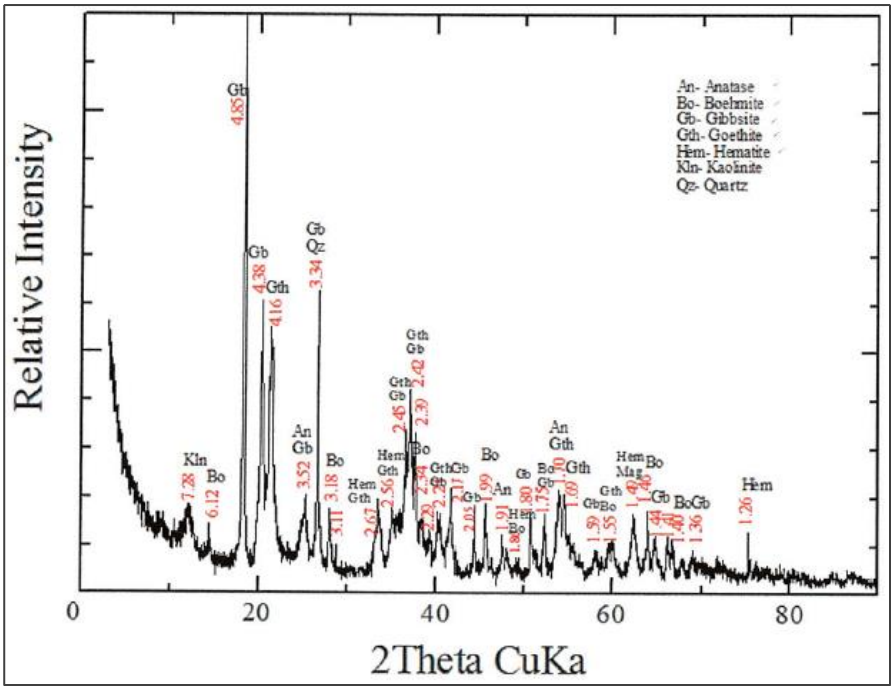

Figure 9-4. XRD pattern of SAM 354 sample. XRF analysis result of this sample is 39.17% Al_2O_3 and 10.82% SiO_2.

10. EXPLORATION

A field validation was conducted by the MMDC Exploration Team over the AMPI contract area from January 9 to February 10, 2017. The activity's objective is to verify the validity of the exploration methodology and integrity of the database as well as the parameters (density and moisture) that was used in the resource estimation done by SRK as contracted by Asia Pilot. Unfortunately, due diligence in BARI did not push through due to security issues. However, verification of the AMPI dataset can somewhat verify the integrity of the BARI dataset considering that the same exploration work programs were historically conducted in AMPI and BARI.

The MMDC Exploration Team was led by Chief Geologist Herbert T. Villano and included Geologists Ralph Rey L. Tan and Jelan M. Mendez and Mapping Specialist Ronito T. Martinez.

10.1 Drilling and Test Pitting

One (1) unit of YBM-YHP (YBM9) man-portable drilling machine with BQ size and tungsten carbide bits was used during the field validation and verification. Twin drill holes were located near location of previous drill holes within identified sinkhole and depression inside four (4) Barangays, namely: Brgy. Paco, Canliguis (Jose Roño), Conception and Lawaan I. Handheld GPS was used for locating proposed twin drill holes. Mobilization of drill machine was through manual hauling or by using carts pulled by carabao.

A total of 11 twin drill holes and 6 test pits were completed during the due diligence activity aggregating to a total of 175.50 meters and 24 meters, respectively (Table 10-1 and 10-2). The twin drill holes basically confirms the depth and vertical extent of the bauxite material within the tenement considering that the mechanized drill unit used in the activity was able to penetrate down to the bedrock material (Table 10-3). It also validates the existence of holes drilled during previous exploration campaigns.

Table 10-1. Summary of drill holes completed during the due diligence activity.

Hole ID	Date Started	Date Finished	Northing	Easting	Elev. (m)	Depth (m)	No. of samples
MSAMDH-01	1/14/2017	1/15/2017	11°53'21.6"	125°03'20.3"	111	10.10	16
MSAMDH-02	1/16/2017	1/17/2017	11°53'25.5"	125°03'15.2"	126	15.35	24
MSAMDH-03	1/18/2017	1/18/2017	11°53'50.6"	125°02'41.8"	177	7.00	11
MSAMDH-04	1/19/2017	1/20/2017	11°54'26.4"	125°02'28.7"	144	12.00	18
MSAMDH-05	1/21/2017	1/23/2017	11°54'24.6"	125°02'46.6"	117	16.95	25
MSAMDH-06	1/24/2017	1/26/2017	11°53'50.1"	125°02'21.5"	195	17.15	26
MSAMDH-07	1/27/2017	1/29/2017	11°55'16.7"	125°02'11.5"	142	15.90	23
MSAMDH-08	1/30/2017	1/31/2017	11°52'20.2"	125°03'17.3"	124	21.35	26
MSAMDH-09	2/1/2017	2/1/2017	11°52'26.7"	125°03'17.4"	132	6.00	6
MSAMDH-10	2/2/2017	2/4/2017	11°53'07.9"	125°03'26.8"	121	22.00	33
MSAMDH-11	2/5/2017	2/5/2017	11°52'14.7"	125°04'16.1"	94	7.70	11
					Total	**151.50**	**219**

Table 10-2. Summary of test pits completed during the due diligence activity.

Test Pit ID	Northing	Easting	Elev. (m)	Depth (m)	No. of samples
MTP-01	11°53'25.6"	125°03'15.2"	126	4.00	6
MTP-02	11°53'50.1"	125°02'41.7"	177	4.00	6
MTP-03	11°54'30.5"	125°02'13.1"		4.00	6
MTP-04	11°54'24.7"	125°02'46.8"	117	4.00	6
MTP-05	11°54'26.2"	125°02'28.9"	144	4.00	6
MTP-06	11°55'16.8"	125°02'11.5"	142	4.00	6
			Total	**24.00**	**36**

Table 10-3. Comparison of MMDC vs AMPI historical drill hole depth.

MMDC		Asia Pilot (AMPI)		
Hole ID	Depth (m)	Hole ID	Depth (m)	Remarks
MSAMDH-01	10.10	A5REC43	7.40	4.9m NW of AMPI DH
MSAMDH-02	15.35	A5REC27	12.20	12.2m SE of AMPI DH
MSAMDH-03	7.00	CANLIG29 A	11.50	22.7m east of AMPI DH
MSAMDH-04	12.00	CANLIG9 G24	17.30	4.4m NE of AMPI DH
MSAMDH-05	16.95	CANLIG13 C	15.80	10.2m SW of AMPI DH
MSAMDH-06	17.15	CANLIG2 G4	17.60	10.6m SW of AMPI DH
MSAMDH-07	16.90	A6REC1 G12	22.00	13.5m NW of AMPI DH
MSAMDH-08	21.35	A5GH25	16.55	0.12m south of AMPI DH
MSAMDH-09	6.00	A5GH21	4.00	0.05m SE of AMPI DH
MSAMDH-10	22.00	A5NE5	14.20	16.2m north of AMPI DH
MSAMDH-11	7.70	LAW32	10.70	0.70m SE of AMPI DH

10.2 Sampling Methodology

After drilling, core samples were retrieved from the core tube using core pusher then placed in a core box for core photography and logging (Figure 10-1). Once the geologist completes core logging, samples are cut into two along its length. One half of the core is transferred to a plastic sample bag as 1-meter samples while the other half is sampled at a nominal 2-meter interval (Figure 10-2). This is to be able to directly make a comparison between the previous drill hole and the twin drill hole, considering that the previous drill holes were also sampled at 2-meter intervals.

Figure 10-1. a) Mobilization of drill machine and accessories by manual hauling and at times using carabaos, b) actual drilling using YBM-YHP drilling machine, c) samples retrieval using core pusher.

Same as the drill holes, 1-meter and 2-meter samples were collected from each test pits. All samples were labelled with serial numbers (Figure 10-3). The equivalent drill hole/test pit ID and sample interval of each were recorded and encoded into a sample database.

Figure 10-2. a) Transfer of sample from PVC pipe to core box, b) core logging of MMDC Geologists at field, c) transfer of samples from core box to plastic sample bags.

Figure 10-3. a) Actual digging of test pit by local, b) sampling along wall of the test pit by MMDC geologist, c) samples collected from the test pit.

Samples were delivered from the field to the MMDC Exploration Base Camp located at Brgy. Concepcion, Municipality of Panaras for field sample preparation. Weather permitting, sun drying was done to reduce the moisture of each sample thereby also reducing its weight (Figure 10-4). After drying, samples were crushed manually then mixed to ensure homogeneity. Coning and quartering method of sample reduction was done to further minimize the amount of samples that will have to be transported from the field to the assay laboratory of MMDC located at Brgy. Panikian, Municipality of Carrascal, Surigao del Sur.

Figure 10-4. a) Sample sun drying, b) manual crushing of samples, c) coning and quartering, d) packing of samples in sacks.

10.3 Specific Gravity, Moisture and Swell Factor Measurement

Specific Gravity (SG) determination was done using samples collected from the test pits. A 20cm x 10cm x 10cm sample was collected every 1-meter interval from the test pit wall (Figure 10-5). Samples were immediately wrapped with plastic cover to prevent escape of moisture and material disintegration during transportation. Weight measurement was done using digital weighing scale of MMDC assay laboratory. SG was computed by dividing the measured weight by the volume of the material (2,000 cm^3).

Figure 10-5. a) Samples were collected along the side of the test at 1 meter interval, b) sample was cut carefully to the desired dimension, c). sample sealed in plastic sample bag was weighed using digital scale at MMDC assay laboratory.

After weighing, the SG samples were oven dried for 16 hours at 105°C, then weighed again after every 2 hours of oven drying until weight becomes constant. Percent moisture content of samples was then computed by dividing the weight of sample after oven drying by the weight of sample before drying, then multiplying by 100.

Swell factor (SF) of bauxite material was also conducted during the due diligence. Material was collected from the cleared ground within 10cm x 10cm hole and transferred to a fabricated wooden box measuring 10cm x 10cm 10cm until full (Figure 10-6). The depth of the hole was then recorded and used to calculate the in-situ volume of the material. To compact the material, the box was lifted 10cm from the ground then dropped. The height from the top lid of the box down to the surface of the compacted material was measured then subtracted from the original height (10cm) to determine the new height of the material. The loose volume was then computed by multiplying the area of the box by the new height of the material. SF is the loose volume of the material divided by the in-situ volume of the material.

The process of lifting and dropping the box was repeated three (3) times. The resulting SF of each trials were then averaged to get the average SF of the material.

Figure 10-6. a) material was collected from a10cm x 10cm hole and transferred to fabricated wooden box measuring 10cm x 10cm x 10cm until full, b) wooden box was lifted 10cm from the ground and dropped for compaction.

The specific gravity of the bauxite deposit inside the contract area as calculated from the results of the SG determination activity is 1.69 while moisture averages 28.74% (Table 10-4). This calculated SG coincides with the 1.6 SG that SRK computed and used in the resource estimation. However, SRK did not provide exact calculated moisture content but instead used about 30% moisture. Swell factor computed is 1.25 (Table 10-5) yet additional swell factor determination needs to be conducted since sample was taken from one location only.

Table 10-4. Results of specific gravity and moisture determination.

TP ID	From	To	Volume (cu.m.)	Weight (kg)	Weight (ton)	Specific Gravity	% Moisture
MTP-02	0.20	2.20	0.002	2.6474	0.0026	1.324	28.57
	1.20	2.20	0.002	3.1907	0.0032	1.595	29.08
	2.20	3.20	0.002	3.566	0.0036	1.783	28.34
	3.20	4.00	0.002	3.8026	0.0038	1.901	28.04
MTP-04	0.20	2.20	0.002	2.8813	0.0029	1.441	30.56
	1.20	2.20	0.002	3.5068	0.0035	1.753	29.42
	2.20	3.20	0.002	3.6287	0.0036	1.814	28.20
	3.20	4.00	0.002	3.8628	0.0039	1.931	27.74
Average						**1.693**	**28.74**

Table 10-5. Results of swell factor determination.

TP_ID		Volume $_{in\text{-}situ}$	Volume $_{loose}$	Swell Factor
MTP-02		680	1000	1.47
	drop 1	680	850	1.25
	drop 2	680	800	1.18
	drop 3	680	750	1.10
Average				**1.25**

10.4 Sample Analysis

A total of 216 split core samples and 36 test pits samples were collected and transported to MMDC assay laboratory in Carrascal, Surigao del Sur for sample preparation and analysis.

At the MMDC assay laboratory, samples are received in the Sample Preparation section to undergo sample preparation. The sample is manually crushed on steel plate using sledge hammer and quartered using wooden ply board. Half of the sample is placed into a metal tray and the other half is returned into the plastic sample bag to be stored as coarse duplicate. To dry the samples, metal trays containing the samples are placed into the oven and heated at 105°C for 8 hours or more if needed (Figure 10-7).

Figure 10-7. a) MMDC Sample Preparation Facility in Carrascal, Surigao del Sur, b) steel plates installed on the floor of the Sample Preparation Facility, c) electric oven used for drying samples.

Sample is then passed through a crush to crush "lumps" that were formed while drying the sample. A riffle splitter is used to divide the sample into two parts. One part is retained and stored as coarse reject that can be used for check analysis in the future. The other part is pulverized to 150 mesh where about 10 gram sample is taken for analysis.

Figure 10-8. a) Crusher used for size reduction, b) pulverizer used to further reduce the size of the sample after splitting, c) X-Ray Flourescence (XRF) Spectrometer at MMDC laboratory.

Pulverized sample or the pulp samples is prepared as raw ore pellet to be analysed for Al_2O_3, SiO_2, Fe, MgO, Cr_2O_3 using X-Ray Flourescence (XRF) Spectrometer (Figure 10-8).

10.5 Data Verification and QAQC

Of the elements that were analysed for, Al_2O_3 and SiO_2 are of most interest primarily because Al_2O_3 bears the aluminum and SiO_2 affects the amount of energy that is needed during processing of bauxite. Higher SiO_2 required higher energy to process the ore thereby diminishing the ore price.

The scatter plot and histogram in Figure 10-9 and 10-10 present the range of Al_2O_3 and SiO_2 assay values yielded from the samples. The scatter plot indicates that both drilling and test pitting activity intercepted high alumina-low silica bauxite material. This is manifested by the clustering of alumina values around 40 to 55 percent Al_2O_3 and less than 10 percent SiO_2. Considering that test pits are only 4-meter deep, Al_2O_3 and SiO_2 assay values of test pit samples were concentrated in the high alumina-low silica range only, and did not intercept lower grade bauxite and bedrock which occurs below 4 meter depth.

Table 10-6. MMDC due diligence drill hole and test pit assay values statistics.

	DH_Al_2O_3	DH_SiO_2	TP_Al_2O_3	TP_SiO_2
N of cases	216	216	36	36
Sum	8,415.50	2,767.87	1,599.63	148.02
Minimum	0.79	0.01	40.63	0.01
Maximum	50.56	50.02	51.14	11.60
Range	49.77	50.01	10.51	11.59
Median	40.42	11.13	44.44	3.34
Arithmetic Mean	38.96	12.81	44.43	4.11
Standard deviation	9.07	8.95	3.27	3.87
Mode	37.50	0.01	#N/A	0.01
Variance	82.22	80.07	10.66	14.95
Coefficient of variation	0.23	0.70	0.07	0.94

The Al_2O_3 histogram of MMDC drill hole samples is bell-shaped distribution skewed to the left which indicates high frequency of samples with high alumina value. The spikes at lower alumina values denote intercepted bedrock (limestone) samples. Al_2O_3 histogram of test pit samples shows peaks at 42 to 54 percent alumina only. This denotes that the test pits were only able to penetrate the shallower high-alumina bauxite material and that no bedrock were intercepted. The SiO_2 histogram of both drill hole and test pit samples show skewness to the right which indicates generally low silica values of the samples.

Figure 10-11 shows the Al_2O_3 vs SiO_2 scatter plot of MMDC vs. AMPI samples which shows similar trend between the two data sets. Both intercepted high alumina-low silica bauxite material. The data sets also conforms to general characteristic of bauxite such that with increasing depth, alumina decreases and silica increases.

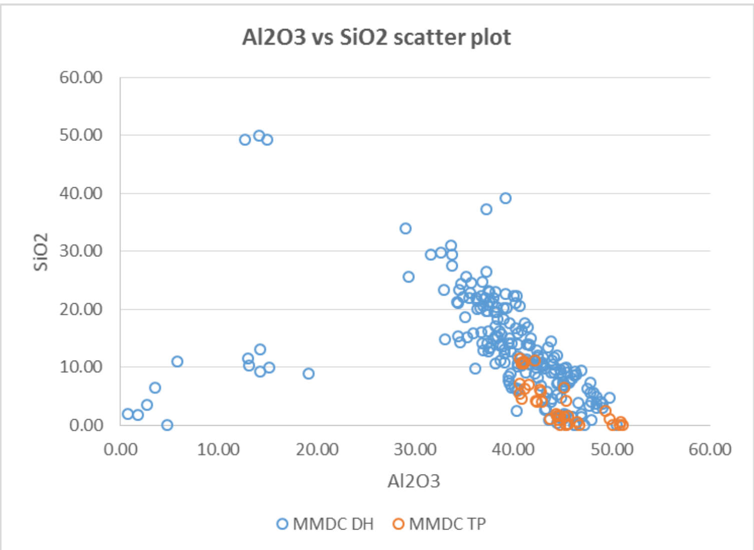

Figure 10-9. Al_2O_3 and SiO_2 scatter plot of MMDC drill hole (DH) and test pit (TP) samples from AMPI.

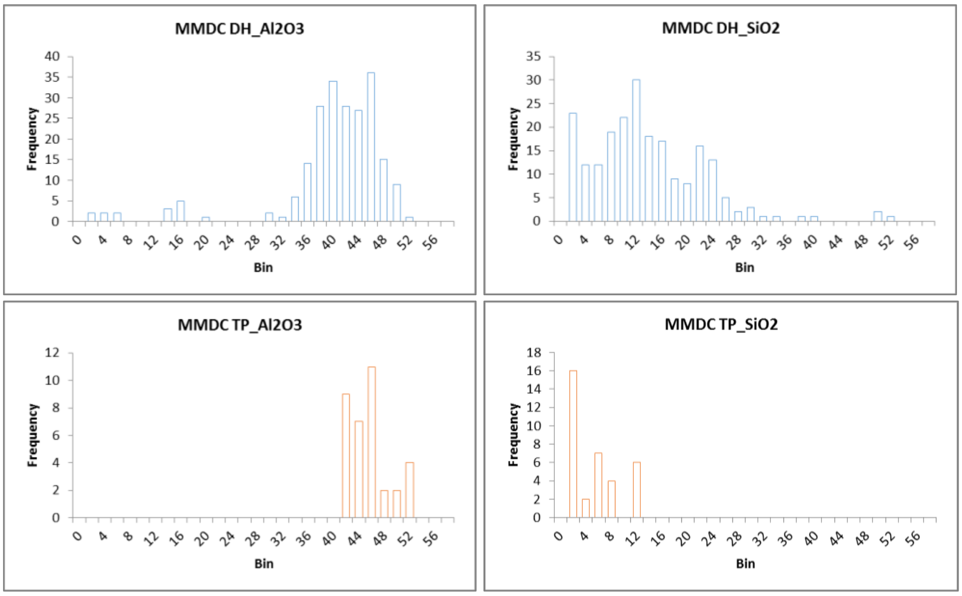

Figure 10-10. *(Top)* Al_2O_3 and SiO_2 histogram of MMDC drill hole (DH) samples. *(Bottom)* Al_2O_3 and SiO_2 histogram of test pit (TP) samples.

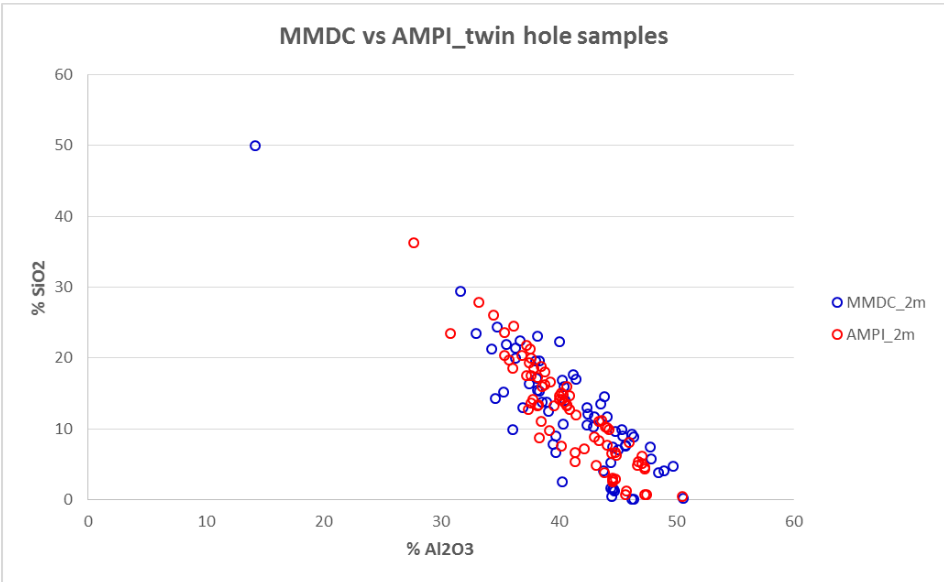

Figure 10-11. Scatter plot of Al_2O_3 vs SiO_2 of MMDC and AMPI samples.

Quality assurance and quality control (QAQC) program was implemented to ensure accuracy and precision of field sampling, sample preparation and analysis of the due diligence samples. Field duplicates and blanks were inserted on a regular interval of 1 every 10 samples. Check samples were also submitted to Intertek for inter-laboratory checking. However, assay results from Intertek are still pending as of time of report writing.

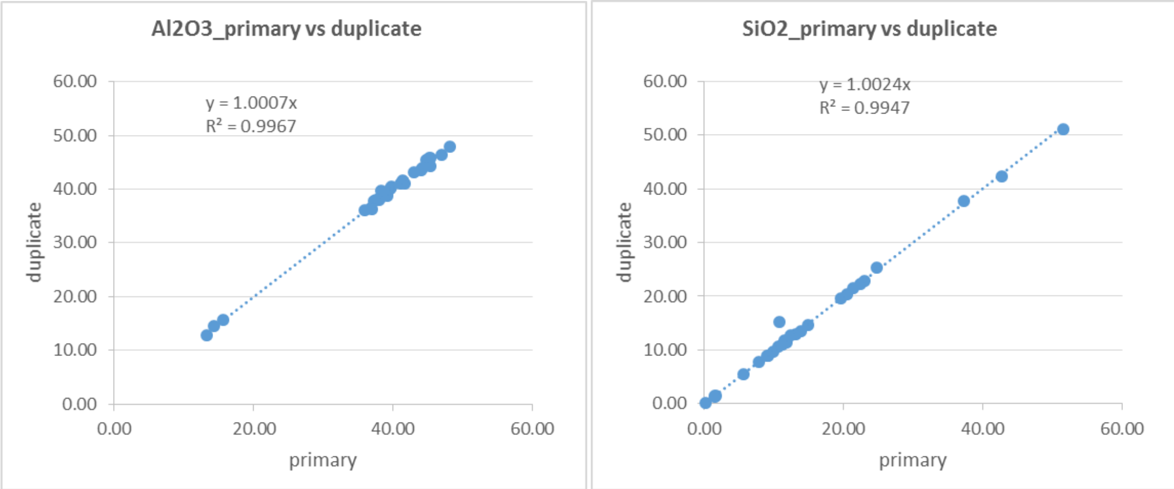

Figure 10-12. Correlation graph of Al_2O_3 and SiO_2 values of MMDC drill holes and test pits.

Based on the correlation coefficient, R2, 0.9967 for Al_2O_3 and 0.9947 for SiO_2 of the primary and duplicate samples, the accuracy and precision of the field sample preparation as well as sampling and analysis methodology can be established (Figure 10-12).

Inter-laboratory checking was also done to check the accuracy and precision of MMDC assay laboratory in terms of bauxite ore analysis. Ten (10) random samples were submitted to Intertek for XRF analysis. The methods used for the comparison of the MMDC and Intertek analysis results are the X/Y scatter plot with regression line and the Mean Percent Relative Difference (MPRD).

Table 10-7. Results of ten (10) samples submitted to Intertek for inter-laboratory checking.

	MMDC		Intertek	
	% Al_2O_3	% SiO_2	Al_2O_3	SiO_2
Samar 110	43.73	1.1	44.49	2.39
Samar 138	50.56	0.14	46.65	1.25
Samar 168	46.97	2.04	45.68	2.89
Samar 192	13.01	11.53	13.89	8.59
Samar 223	44.69	1.44	44.1	2.8
Samar 248	48.5	3.75	46.89	5.02
Samar 274	39.54	7.78	40.82	8.04
Samar 301	38.15	17.1	38.59	16.1
Samar 329	42.97	10.33	44.34	11.04
Samar 355	38.66	16.32	39.12	14.86

In the scatter plot, the MMDC assay is plotted on X-axis and the Intertek assay on Y-axis to look for a correlation between the data sets. The correlation coefficient (R2) gives the measure of the strength of the linear association between the two data sets. A perfectly correlated data will have a correlation coefficient of 1.

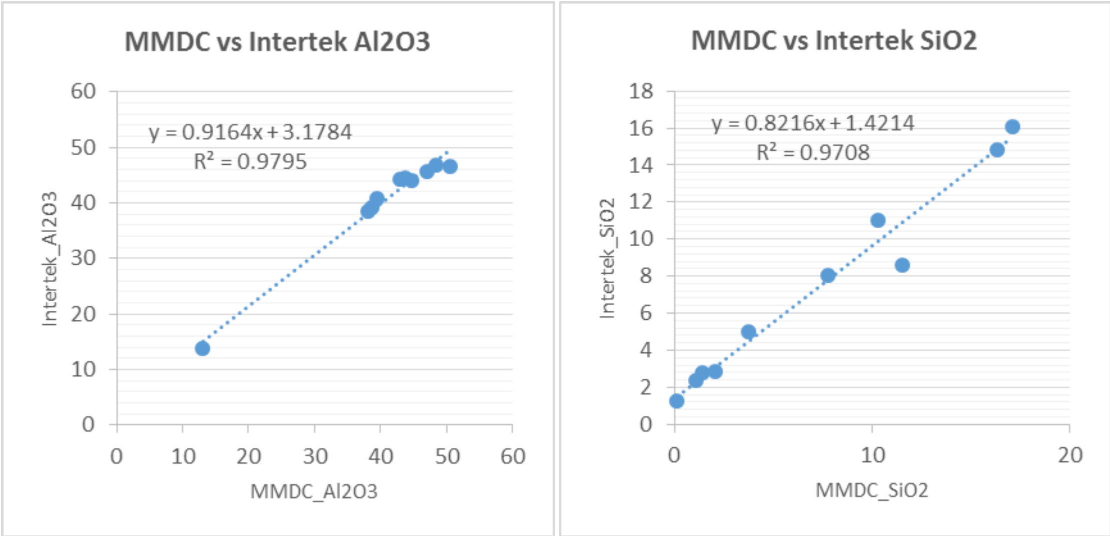

Figure 10-13. MMDC vs Intertek Al_2O_3 and SiO_2 scatter plot.

As shown in Figure 10-13 above, Al_2O_3 and SiO_2 have correlation coefficient nearing 1, thereby denoting very good correlation between the MMDC and Intertek assays.

In MPRD, it is assumed that each analysis run (MMDC and Intertek) has its own errors and that these errors are equally distributed between each analysis. The mean of the assays (or average) is treated as the reference value or "true" value and deviations from the reference value is expressed as a percentage of the mean.

$$MPRD = \frac{(assay_{original} - assay_{duplicate})}{(assay_{original} + assay_{duplicate})/2} \times 100$$

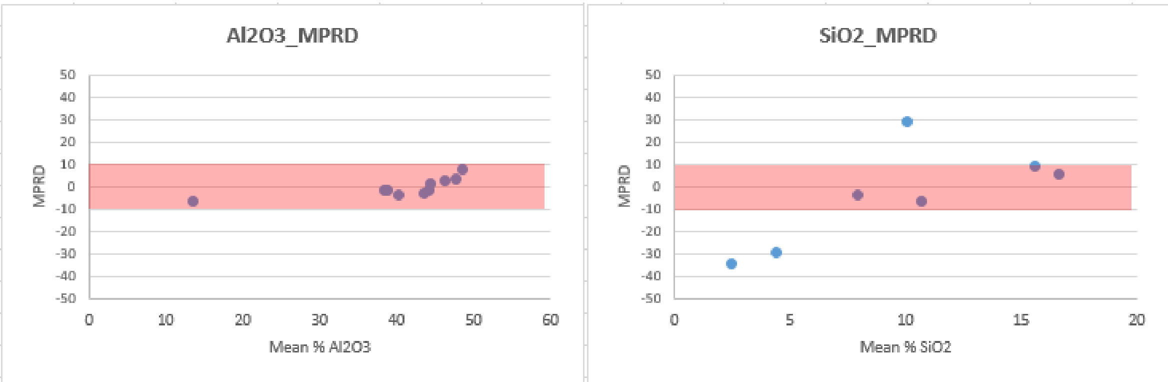

Figure 10-14. MPRD plot of MMDC and Intertek Al_2O_3 and SiO_2 assay results.

A symmetrical pattern around zero MPRD means there is nil bias. If pattern is not symmetrical, this means there might be bias during field sampling, sample preparation or analysis. Note that the Al_2O_3 MPRD plot shown above has poor symmetry for low and high Al_2O_3 values. However, all the samples are within ±10% MPRD and therefore can be concluded to have insignificant bias. In contrast, the SiO_2 MPRD plot shows asymmetrical plot and 3 points outside the ±10% MPRD which indicates that there might be bias with the SiO_2 analysis of MMDC or Intertek. There is more likely to be bias in MMDC's analysis for SiO_2 considering that the assay laboratory of MMDC is calibrated for nickel ore analysis and that there is only limited calibration points for bauxite ore analysis in MMDC.

Considering all of these, it may be concluded that the results of the due diligence done by MMDC is acceptable and it can support the verification and integration of the resource database that was provided by Asia Pilot for the preparation of this resource report.

11. MINERAL RESOURCES ESTIMATE

11.1 General Statement and Resource Summary

The mineral resource estimation for AMPI and BARI utilized the drilling and test pitting database that was provided to MMDC Exploration Team by Asia Pilot through its representative Mr. Steven Herrera. The historical database included exploration results of the PAMPC and Asia Pilot exploration campaign from 2004 to 2014.

Two resource estimation methods were conducted to estimate the mineral resources of AMPI and BARI projects, namely: Inverse Distance Weighting (IDW) and Conventional Polygon Method. The use of polygon method is meant to double check the resulting resources to be calculated through IDW.

Block modelling and resource estimation by way of Inverse Distance Weighting (IDW) was done using a combination of Microlynx and Surpac Version 6.7 software. IDW is a type of deterministic method for multivariate interpolation with a known scattered set of points. The assigned values to unknown points are calculated with a weighted average of the values available at the known points.

Microlynx was used to create the top and bottom surfaces of the resource model as well as the boundaries or resource extent. Construction of geological solids and block model, and interpolation of metal grades were done in Surpac 6.7. Microsoft excel was used to tabulate the resulting mineral resource estimates.

In the conventional polygon method, each drill hole is assigned a polygon that represents the extent of the area of influence of the drill hole. It is assumed that everywhere within the polygon, the thickness and grade of the resource material is uniform and, more or less, the same as the resource material of the drill hole enclosed by the polygon. Calculations and reporting of the resources were manually done using Microsoft Excel.

11.2 Database for Estimation: Validation and Integrity

The mineral resource estimation made use of the database that was provided by Asia Pilot to MMDC. The database consisted of collar, survey, assay and geology data of 8,616 samples from 2,862 drill holes and test pits of AMPI and 6,971 samples from 3,295 drill holes and test pits of BARI from 2004 to 2014 (Figure 11-1). Total meterage from AMPI is 16,015.91 meters and for BARI 13,457.14 meters.

Based on the due diligence activity that was done by the MMDC Exploration Team, the information contained in the database are deemed adequate to support the calculation of the mineral resources of AMPI and BARI. The mineral resources herein are in conformity with the generally accepted guidelines in accordance to the PMRC Code, 2007 edition.

The AMPI and BARI mineral resource presented in this report may need to be refined and updated depending on availability of new data from the two projects. It should also be noted that mineral resources are not mineral reserves and do not have demonstrated economic viability. It is uncertain if all or any part of the mineral resource will be converted into ore reserve without a feasibility study of the project.

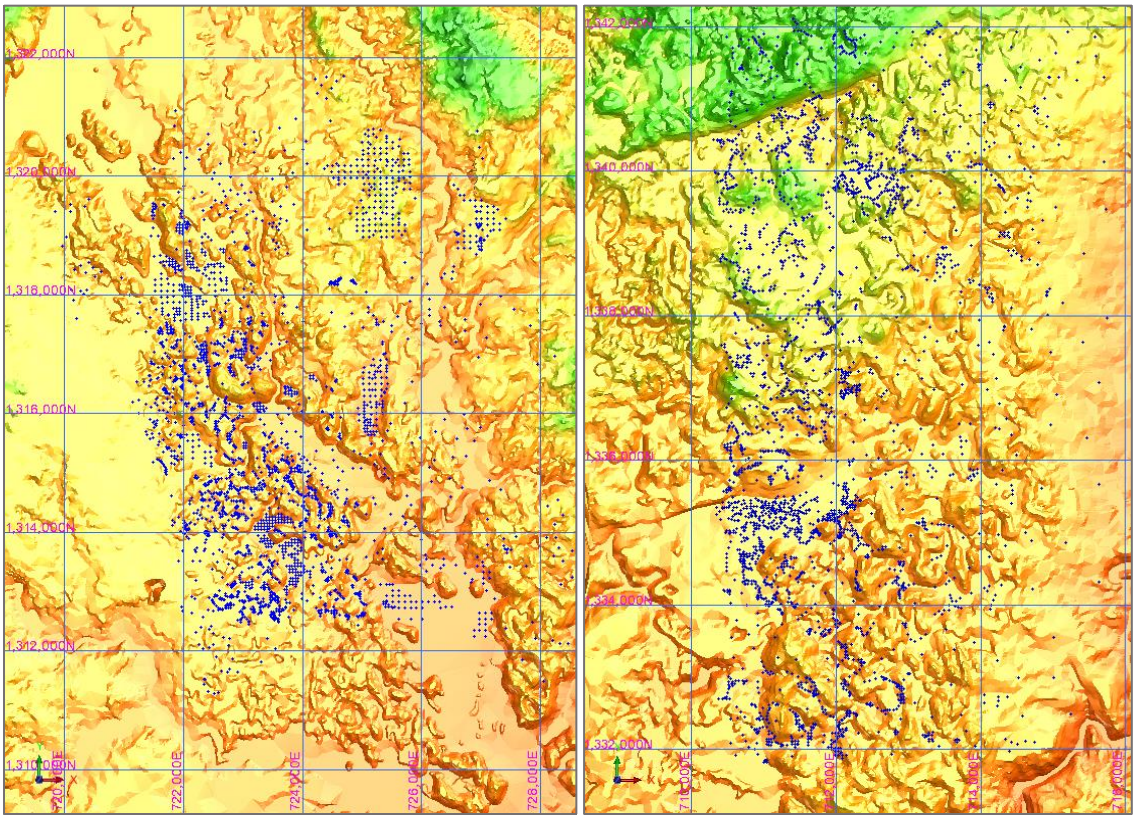

Figure 11-1. *(left)* AMPI and *(right)* BARI drill hole location (blue) with color banded topography (brown = lowest elevation; green = highest elevation)

11.3 Mineral Resource Estimation Method: Inverse Distance Weighting

The resource evaluation for AMPI and BARI by way of Inverse Distance Weighting (IDW) included the following procedures:

- Database compilation and verification
- Creation of resource domains (top and bottom boundaries)
- Sample data extraction
- Block modelling and grade interpolation
- Mineral Resource Statement
- Grade sensitivity analysis (grade-tonnage curve)

11.3.1 Resource Database

All materials intercepted by the drilling and test pitting activities are assumed to be bauxite with varying levels of Al_2O3 and SiO_2.

The resource database provided to MMDC is in Philippine local coordinates (PTM Zone 5), which is a variation of the Universal Transverse Mercator (UTM) coordinate system. The digital topographic data that was acquired from the National Mapping and Resource Information Authority (NAMRIA) is in UTM Luzon Datum. Thus, the northing and easting of the drill holes and test pits were converted to UTM Luzon Datum using Mapinfo Discover 2012.
The database was entered into Microlynx software to search for error such as missing or overlapping intervals, correct lengths, azimuths, dips, duplicated samples, and other minor errors. The dxf file of the NAMRIA digital surface topography was also entered into Microlynx and was used to adjust the collar elevation of the drill holes and test pits.

11.3.2 Compositing

Sample data that were used in the interpolation of the block models were derived by using the Extract/Sample Data function of Surpac 6.7 considering that all the samples that were intercepted are bauxite materials, albeit with different levels of Al_2O_3 and SiO_2.

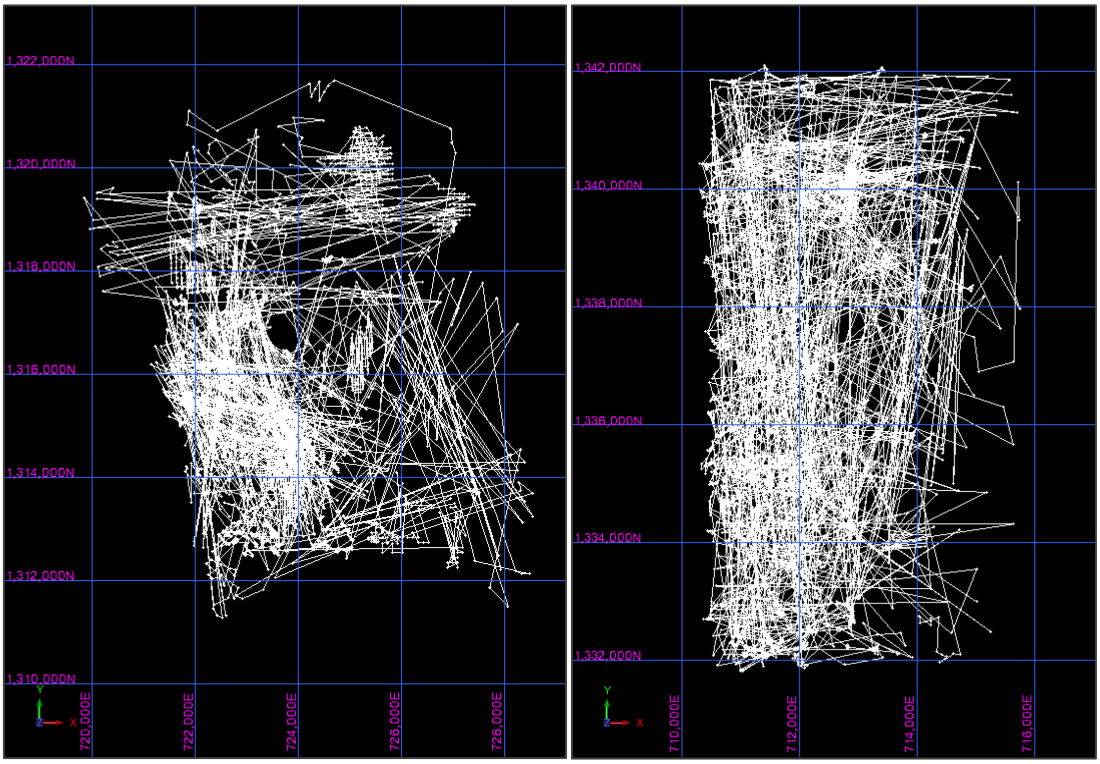

Figure 11-2. *(left)* AMPI and *(right)* BARI trace of extracted sample data.

11.3.3 Specific Gravity

MMDC used the specific gravity/density data derived from the PAMPC exploration between 2004 and 2008 which was further validated by Asia Pilot in 2013. SRK previously reported that a total of 962 density samples were collected by PAMPC and despatched to Intertek Manila for density and moisture measurement. In the mineral resource estimate, the wet density value of 1.6 g/cm3 was applied for AMPI and BARI. This density value is consistent to the density of material that was measured by MMDC Exploration Team during its due diligence.

11.3.4 Basic Statistics

Basic statistics was undertaken to assess extreme grade outliers that may affect the block grades in some parts of the deposit if not omitted. Based on the histogram of sample grades used in the estimation, there were no extreme high grades that need to be eliminated.

Table 11-1. Summary of AMPI basic statistics.

	samples	Al_2O_3	SiO_2	TiO_2
N of cases	8,598	8,598	8,598	8,598
Sum	16,015.91	327,854.48	153,903.53	15,354.60
Minimum	0.04	3.74	0.36	0.19
Maximum	5.50	54.30	88.75	3.21
Range	5.46	50.56	88.39	3.02
Median	2.00	40.00	14.20	1.88
Arithmetic Mean	**1.86**	**38.13**	**17.90**	**1.79**
Standard deviation	**0.66**	**7.62**	**13.63**	**0.34**
Mode	2.00	40.40	12.20	1.94
Variance	0.44	58.05	185.84	0.12
Coefficient of variation	0.36	0.20	0.76	0.19

Table 11-2. Summary of BARI basic statistics.

	samples	Al_2O_3	SiO_2	TiO_2
N of cases	6,971	6,971	6,971	6,971
Sum	13,457.14	295,454.24	70,385.17	16,145.86
Minimum	0.05	0.27	0.06	0.01
Maximum	6.00	62.28	78.83	25.30
Range	5.95	62.01	78.77	25.29
Median	2.00	43.60	7.04	1.95
Arithmetic Mean	**1.93**	**42.38**	**10.10**	**2.32**
Standard deviation	**0.82**	**7.23**	**11.16**	**2.75**
Mode	2.00	48.00	10.50	1.93
Variance	0.68	52.28	124.53	7.55
Coefficient of variation	0.43	0.17	1.11	1.19

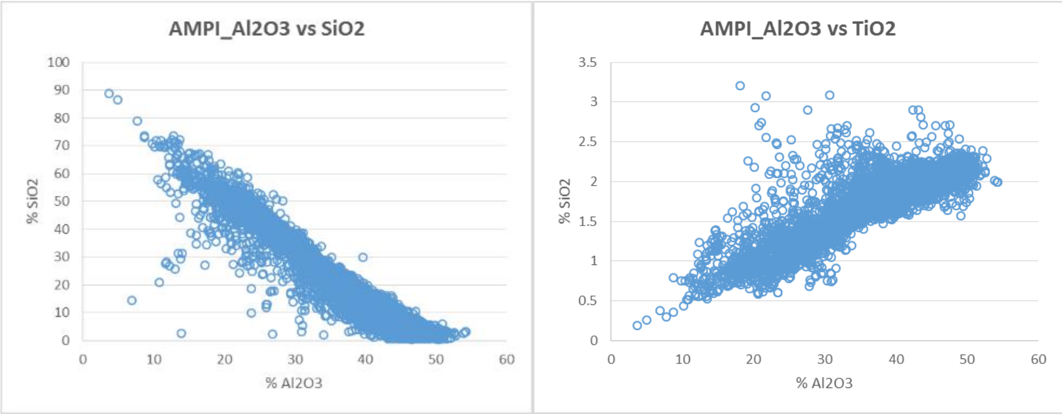

Figure 11-3. AMPI Al_2O_3 vs SiO_2 and Al_2O_3 vs TiO_2 scatter plot.

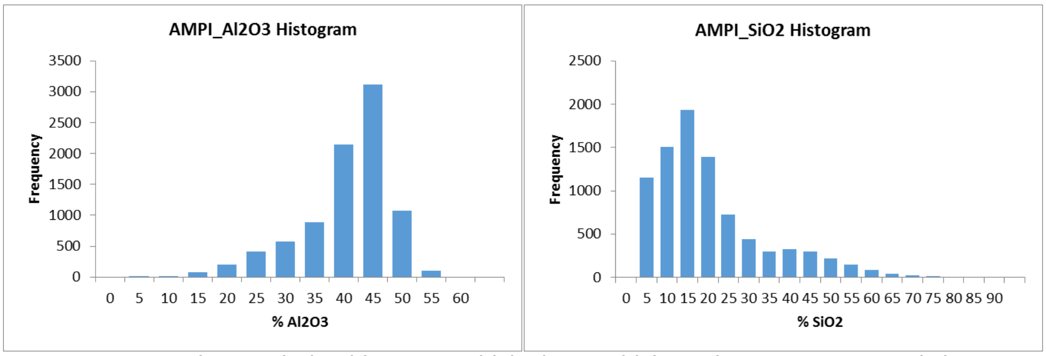

Figure 11-4. AMPI Al_2O_3 and SiO_2 histogram which shows which grade range were mostly intercepted.

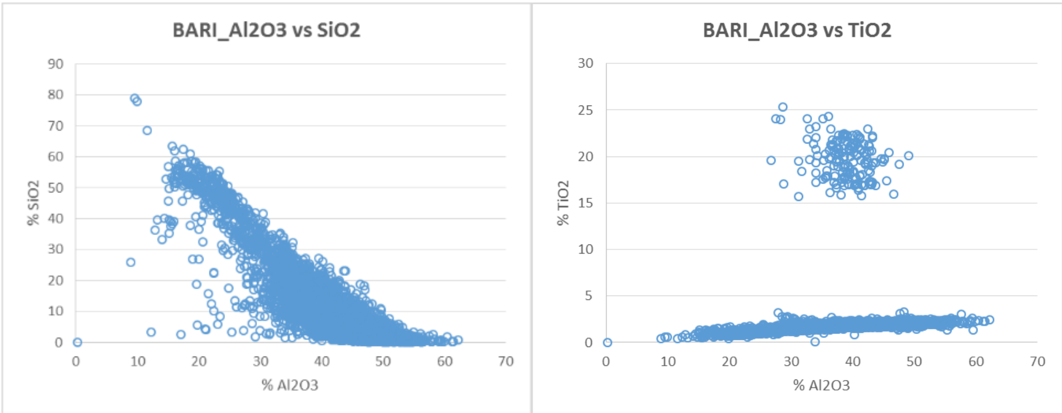

Figure 11-5. BARI Al_2O_3 vs SiO_2 and Al_2O_3 vs TiO_2 scatter plot.

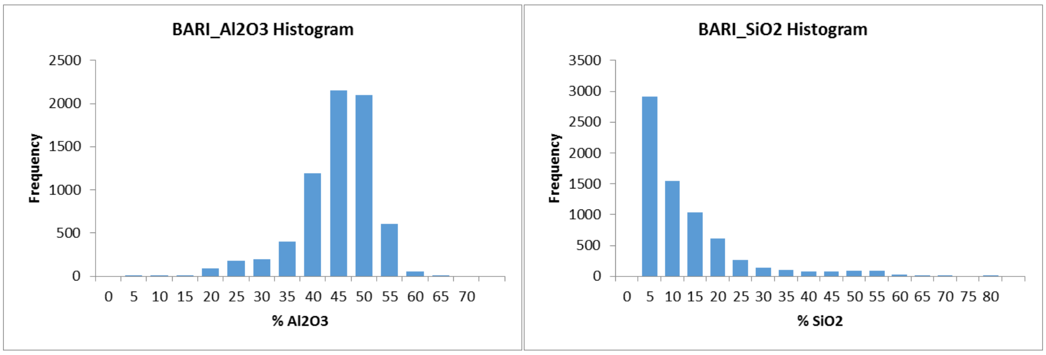

Figure 11-6. BARI Al_2O_3 and SiO_2 histogram which shows which grade range were mostly intercepted.

11.3.5 Block Modelling and Grade Estimation

The wireframe of bauxite mineralization is bound to the sinkholes as outlined by PAMPC in 2007. This information was provided to MMDC in Mapinfo tab file and was revised as deemed necessary by MMDC geologists. The file was exported to dxf and was also inputted into Microlynx to check if the boundaries coincide with the drilling/test pitting data. The surface topography is used as the top boundary of the solid body and the drill hole/test pit bottom as the bottom boundary of the solid body. These data were exported from Microlynx as dxf file and entered to Surpac 6.7 to create surfaces.

Block models were created to encompass all drill hole/test pit data that are within AMPI and BARI MPSA boundary. This is to avoid inclusion of resources outside the MPSAs that were also drilled by the companies. Block model size of 25m x 25m x 3m was used for AMPI and BARI.

Interpolation was constrained within the delineated depression boundaries. Mineralized zones/resource bodies were further constrained by selecting all blocks with Al_2O_3 values greater than zero.

11.3.6 Mineral Resource Classification

Industry best practise in mineral resource classification suggest that resource classification should consider the confidence in the geological continuity of the mineralized structures, the quality and quantity of exploration data supporting the estimate, and the geostatistical confidence in the tonnage and grade estimates.

The CP finds the sampling information acquired primarily by drilling and test pitting as well as the geologic model presented in this report are sufficiently reliable to support resource evaluation. For its resource classification, MMDC followed the guidelines below:

- Measured Mineral Resource is defined by drill holes separated by nearest distance of less than 25 meters, therefore maximum search distance is 35.25 meters.
- Indicated Mineral Resource is defined by drill holes separated by nearest distance of less than 50 meters but more than 25 meters, therefore maximum search distance is 70.5 meters.
- Inferred Mineral Resource is defined by drill holes separated by nearest distance of less than 100 meters but less than 50 meters, therefore maximum search distance is 141 meters.

In this resource estimation, Measured and Indicated Mineral Resource have been interpolated and estimated simultaneously. Blocks of Inferred Mineral Resource was constrained to within the bauxite blocks of AMPI and BARI but outside the blocks of the Measured and Indicated Resources.

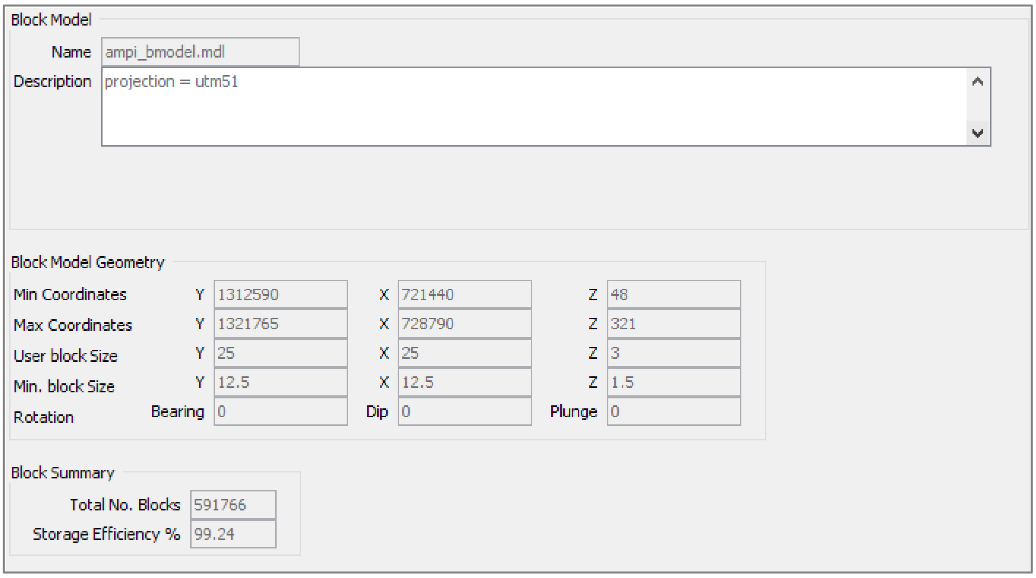

Figure 11-7. AMPI block model summary.

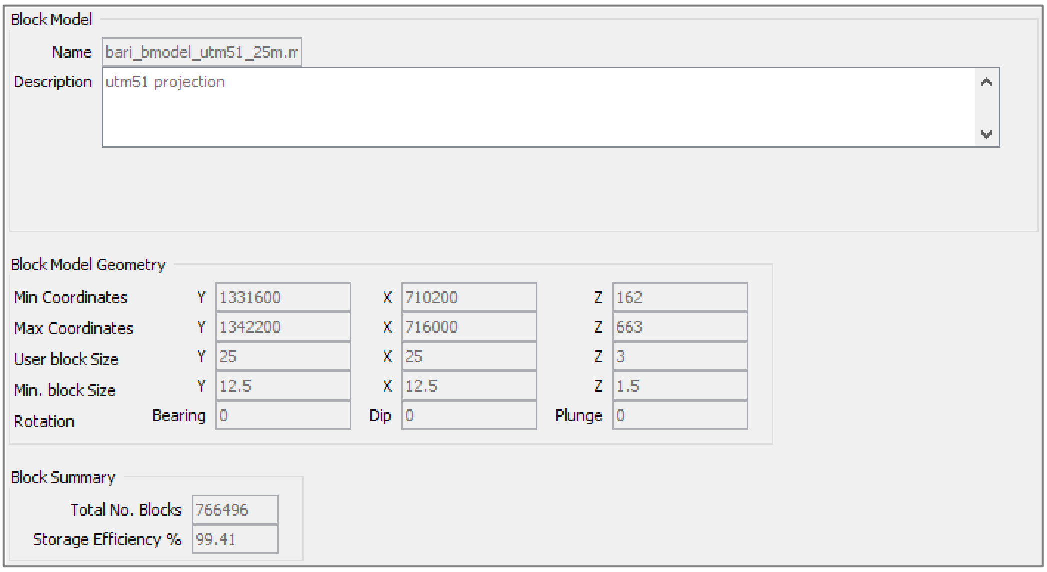

Figure 11-8. BARI block model summary.

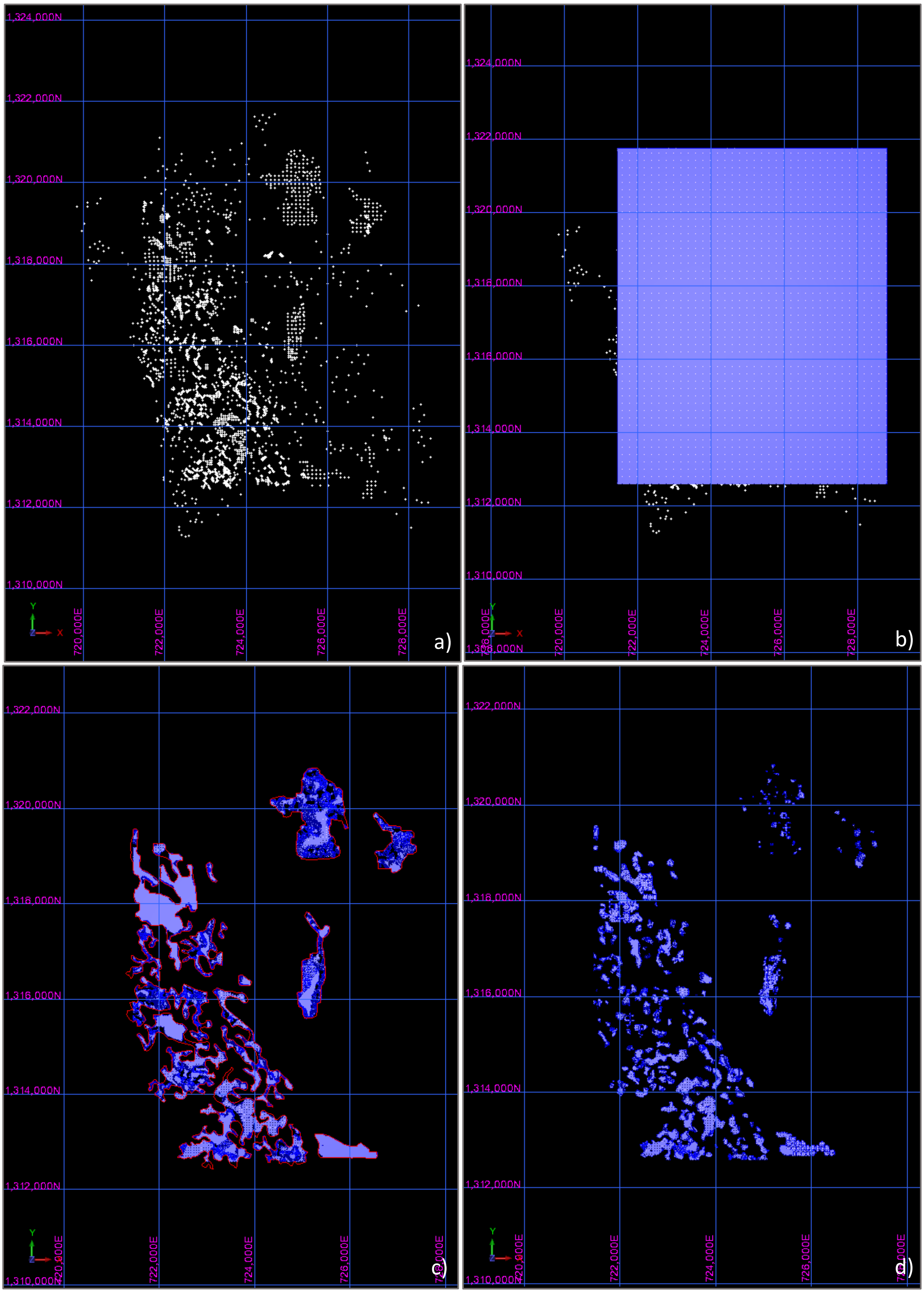

Figure 11-9. a) AMPI drill holes and test pits from 2004-2014, b) AMPI block model with 25m x 25m x 3m size, c) AMPI blocks as constrained using top and bottom surfaces as well as resource extent, d) AMPI resource blocks as constrained by setting Al_2O_3 greater than zero.

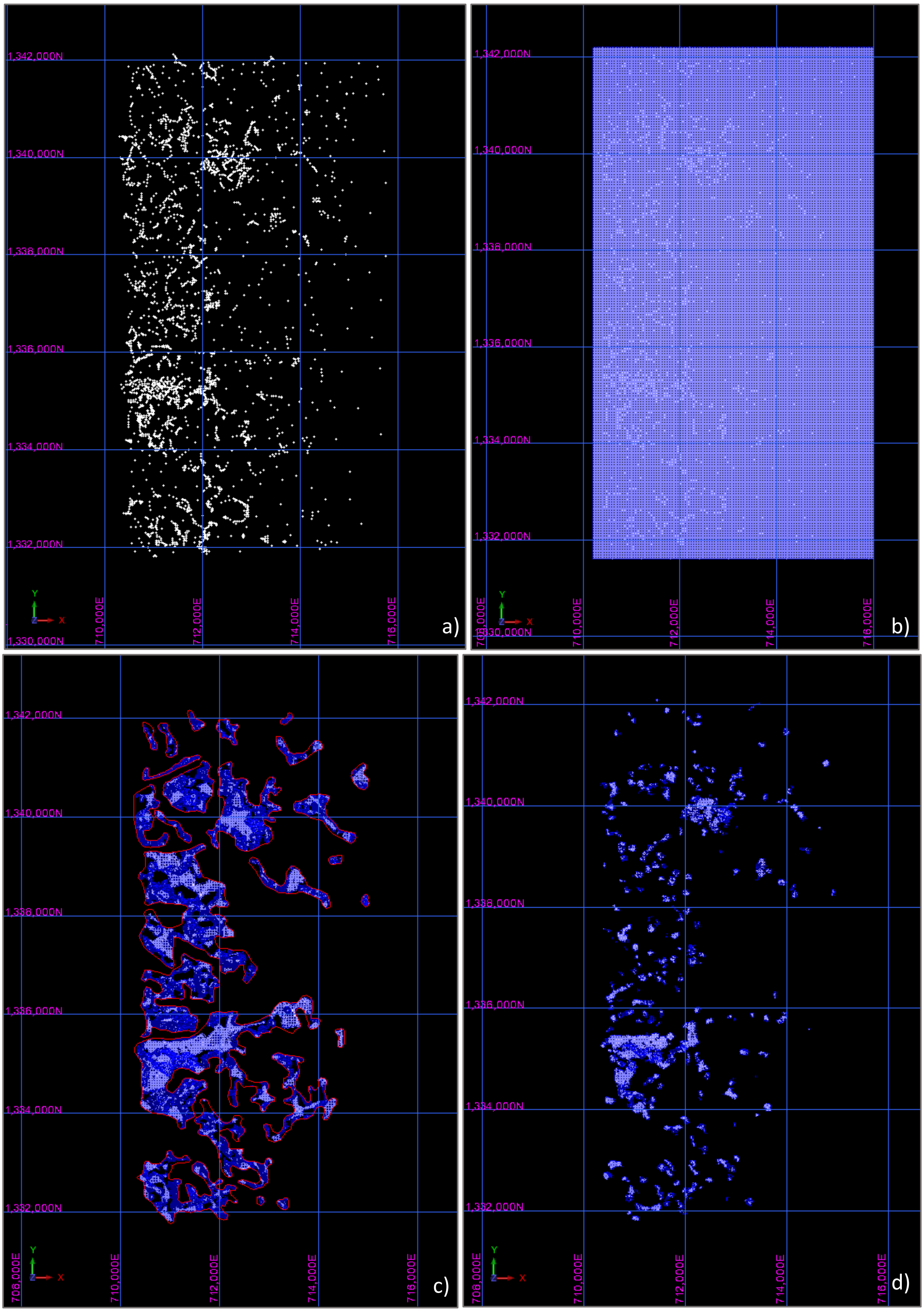

Figure 11-10. a) BARI drill holes and test pits from 2004-2014, b) BARI block model with 25m x 25m x 3m size, c) BARI blocks as constrained using top and bottom surfaces as well as resource extent, d) BARI resource blocks as constrained by setting Al_2O_3 greater than zero.

11.3.7 Mineral Resource Statement

The “reasonable prospects for economic extraction” requirement as stated in PMRC Code (2007 Edition) generally implies that the quantity and grade estimates meet certain thresholds and that the mineral resources are reported at an appropriate cut-off grade, taking into account extraction scenarios and processing recovery rates.

To define the economic portion of the Mineral Resource of AMPI and BARI, SRK’s cut-off grade of 28% Al_2O_3 was used, which is based on the data collected for the project and assumptions of the mining and processing parameters.

Presented in the following tables are the tabulated summary of Measured and Indicated Mineral Resources of AMPI and BARI project areas. At a cut-off grade of 28% Al_2O_3, AMPI contains 41.7 Million tonnes of Measured and Indicated Mineral Resource at an average grade of 40.06% Al_2O_3 and 14.50% SiO_2. BARI contains about 31.5 Million tonnes of Measured and Indicated Mineral Resource at an average grade of 43.78% Al_2O_3 and 7.96% SiO_2.

Table 11-3. Summary of AMPI Mineral Resources estimated by Inverse Distance Weighting.

AMPI_Measured and Indicated Resource							
Cut-off grade	*Volume*	*WMT*	*Al2O3*	*SiO2**	*Al/Si*	*Rx SiO2***	*Al/RxSi*
> 50% Al2O3	155,000	249,000	50.67	2.29	22.13	1.26	40.21
45-50% Al2O3	3,763,000	6,021,000	47.09	4.29	10.98	2.36	19.95
40-45% Al2O3	10,460,000	16,737,000	42.17	10.6	3.98	5.83	7.23
35-40% Al2O3	7,643,000	12,229,000	37.87	17.21	2.2	9.47	4.00
28-35% Al2O3	4,048,000	6,477,000	31.83	29.44	1.08	16.19	1.97
	26,069,000	**41,713,000**	**40.06**	**14.5**	**2.76**	**7.98**	**5.02**

AMPI_Inferred Resource							
Cut-off grade	*Volume*	*WMT*	*Al2O3*	*SiO2**	*Al/Si*	*Rx SiO2***	*Al/RxSi*
> 50% Al2O3	17,000	27,000	50.73	2.45	20.71	1.35	37.58
45-50% Al2O3	1,700,000	2,720,000	46.83	4.04	11.59	2.22	21.09
40-45% Al2O3	3,412,000	5,460,000	42.31	10.33	4.1	5.68	7.45
35-40% Al2O3	2,778,000	4,444,000	37.57	18.16	2.07	9.99	3.76
28-35% Al2O3	2,890,000	4,624,000	31.64	29.94	1.06	16.47	1.92
	10,797,000	**17,275,000**	**38.96**	**16.59**	**2.35**	**9.12**	**4.27**

Table 11-4. Summary of BARi Mineral Resources estimated by Inverse Distance Weighting.

BARI_Measured and Indicated Resource							
Cut-off grade	*Volume*	*WMT*	*Al2O3*	*SiO2**	*Al/Si*	*Rx SiO2***	*Al/RxSi*
> 50% Al2O3	1,572,000	2,516,000	51.72	1.45	35.67	0.80	64.65
45-50% Al2O3	7,062,000	11,299,000	47.33	3.11	15.22	1.71	27.68
40-45% Al2O3	6,815,000	10,904,000	42.64	8.92	4.78	4.91	8.68
35-40% Al2O3	3,227,000	5,163,000	37.98	14.91	2.55	8.20	4.63
28-35% Al2O3	992,000	1,587,000	32.69	23.58	1.38	13.68	2.39
	19,668,000	**31,469,000**	**43.78**	**7.96**	**5.5**	**4.38**	**10.0**

BARI_Inferred Resource							
Cut-off grade	*Volume*	*WMT*	*Al2O3*	*SiO2**	*Al/Si*	*Rx SiO2***	*Al/RxSi*
> 50% Al2O3	1,341,000	2,145,000	51.9	1.39	37.39	0.76	68.29
45-50% Al2O3	6,711,000	10,738,000	47.28	3.31	14.28	1.82	25.98
40-45% Al2O3	5,822,000	9,315,000	42.76	8.71	4.91	4.81	8.89
35-40% Al2O3	2,754,000	4,407,000	37.87	15.32	2.47	8.43	4.49
28-35% Al2O3	1,145,000	1,831,000	32.69	23.4	1.4	12.87	2.54
	17,773,000	**28,436,000**	**43.75**	**8.09**	**5.41**	**4.45**	**9.83**

Table 11-5. Total AMPI and BARi Mineral Resources estimated by Inverse Distance Weighting.

AMPI and BARI Total Measured and Indicated Resource							
Cut-off grade	*Volume*	*WMT*	*Al2O3*	*SiO2**	*Al/Si*	*Rx SiO2***	*Al/RxSi*
> 50% Al2O3	1,727,000	2,765,000	51.63	1.53	33.75	0.84	61.46
45-50% Al2O3	10,825,000	17,320,000	47.25	3.52	13.42	1.94	24.36
40-45% Al2O3	17,275,000	27,641,000	42.36	9.94	4.26	5.47	7.74
35-40% Al2O3	10,870,000	17,392,000	37.9	16.53	2.29	9.09	4.17
28-35% Al2O3	5,040,000	8,064,000	32.0	28.29	1.31	15.56	2.06
	45,737,000	**73,182,000**	**41.66**	**11.69**	**3.56**	**6.43**	**6.48**

AMPI and BARI Total Inferred Resource							
Cut-off grade	*Volume*	*WMT*	*Al2O3*	*SiO2**	*Al/Si*	*Rx SiO2***	*Al/RxSi*
> 50% Al2O3	1,358,000	2,172,000	51.89	1.4	37.06	0.77	67.39
45-50% Al2O3	8,411,000	13,458,000	47.19	3.46	13.64	1.90	24.84
40-45% Al2O3	9,234,000	14,775,000	42.59	9.31	4.57	5.12	8.32
35-40% Al2O3	5,532,000	8,851,000	37.72	16.75	2.25	9.21	4.10
28-35% Al2O3	4,035,000	6,455,000	31.94	28.08	1.14	15.44	2.07
	28,570,000	**45,711,000**	**41.94**	**11.3**	**3.71**	**6.22**	**6.74**

Total Silica (SiO2) – XRF analysis of random bauxite samples from the properties demonstrated that Reactive Silica is about 55-60% of the Total Silica, therefore Reactive Silica is about 6.42-7.04%

*****Reactive Silica (RxSiO2) – estimated to be from 55 to 60% of the Total Silica, is tabulated in column 7 for the various Al2O3 cut-off grades and the corresponding ration of Alumina/Reactive Silica (Al/RxSi) shown in Column 8. The inclusion of these columns in the Resource table is considered relevant in the Technical Report as the reactive silica to a certain concentration, could affect the economics of the metallurgical treatment of the bauxite ore. The estimated reactive silica percentages used in these estimates which are based on historical data, appear largely favorable in terms of its ratio with Al2O3, however, this might need further checking.***

11.3.8 Grade Sensitivity Analysis

Global model quantities and grade estimates at various cut-off grades are presented in Table 11-5 and Figure 11-11 to illustrate the sensitivity of the AMPI and BARI mineral resource tonnage to the selection of the reporting cut-off grade. It should be noted however that these figures are presented to show sensitivity of the block model estimates and should not be misinterpreted at representing a Mineral Resource Statement.

Table 11-6. AMPI and BARi Grade and Tonnage estimates at various cut-off grade.

% Al2O3 Cut-off grade	AMPI			BARI		
	Tonnage	Ave. % Al2O3	Ave. % SiO2	Tonnage	Ave. % Al2O3	Ave. % SiO2
0	45,426,750	38.83	16.69	32,019,375	43.44	8.55
28	41,712,750	40.06	14.50	31,467,750	43.78	7.96
30	40,021,875	40.53	13.61	31,271,250	43.87	7.81
32	38,587,500	40.89	12.94	30,994,500	43.99	7.64
34	36,598,125	41.32	12.20	30,340,125	44.22	7.32
36	33,582,750	41.88	11.29	29,255,250	44.56	6.89
38	29,262,750	42.59	10.22	27,552,375	45.02	6.31
40	23,006,625	43.55	8.86	24,718,125	45.71	5.5
42	14,911,125	44.93	6.90	20,821,875	46.58	4.47
44	8,293,500	46.56	4.94	16,361,250	47.56	3.31
46	4,590,750	47.88	3.66	11,346,000	48.7	2.4
48	2,001,750	49.12	2.83	6,373,500	50.01	1.89
50	248,625	50.67	2.29	2,515,500	51.72	1.45
52	27,375	53.99	2.93	811,500	53.43	1.1
54	18,000	54.10	2.95	169,875	55.82	1.04

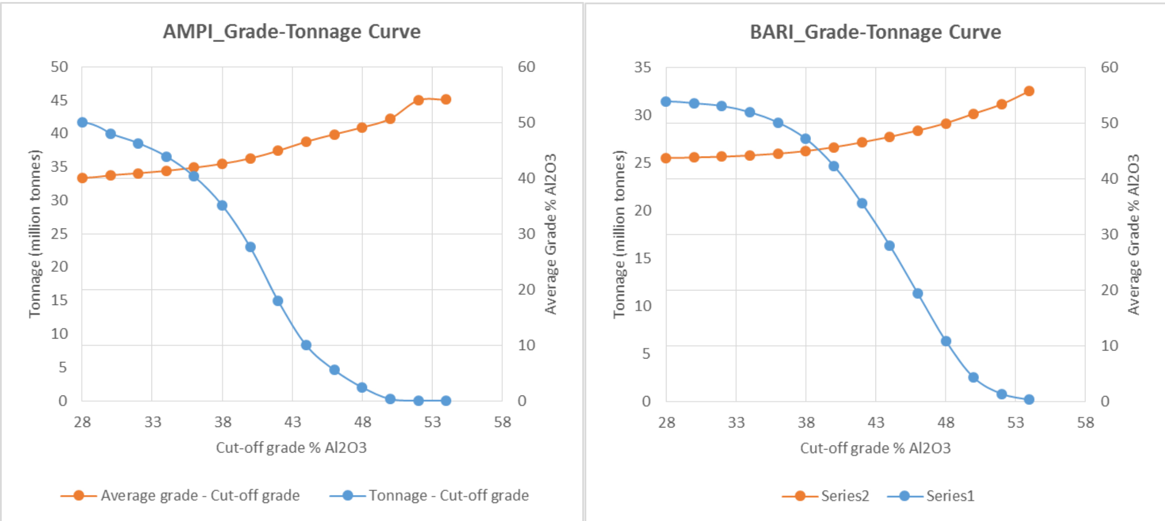

Figure 11-11. AMPI and BARI grade-tonnage curve.

11.4 Mineral Resource Estimation: Polygon Method

To validate the results of the IDW resource estimation, conventional polygon method was also done with the assumption that all drill hole and test pit data are regularly spaced at 50-meter interval. The volume of each block is the product of the area of influence, in this case 2,500 sq. m., and the combined thickness of samples that fall within the set cut-off grades. To determine the equivalent Wet Metric Tonnage (WMT), the total in-situ volume is multiplied by the density value of 1.6 g/cm^3.

Based on these parameters and assumptions, resource estimates for AMPI and BARI using polygon method yielded the following Indicated Resources.

Table 11-7. Summary of AMPI Indicated Resources estimated using conventional polygon method.

AMPI MEASURED + INDICATED MINERAL RESOURCE ESTIMATE								
Ore Class	**Cut-off Grade**	**BCM**	**WMT**	**%Al2O3**	**%SiO2**	**Al/Si**	**%H_2O**	**DMT**
Bx1	> 50 Al2O3	421,000	673,000	50.74	2.01	28.58	30.00	471,100
Bx2	45-50 Al2O3	4,447,000	7,115,000	46.96	4.18	12.70	30.00	4,980,500
Bx3	40-45 Al2O3, ≤ 8 SiO2	13,017,000	20,827,000	42.26	10.33	4.63	30.00	14,578,900
Bx4a	35-40 Al2O3, ≤ 7 SiO2	397,000	635,000	38.57	8.18	5.34	30.00	444,500
Bx4b	35-40 Al2O3, > 7 SiO2	8,210,000	13,137,000	37.79	18.04	2.37	30.00	9,195,900
Bx5a	28-35 Al2O3, ≤ 6 SiO2	67,000	106,000	32.86	10.11	3.68	30.00	74,200
Bx5b	28-35 Al2O4, > 6 SiO2	3,003,000	4,805,000	32.40	27.62	1.33	30.00	3,363,500
Total/Ave.		**29,562,000**	**47,298,000**	**40.78**	**13.16**	**3.51**		**20,475,000**

Table 11-8. Summary of BARI Indicated Resources estimated using conventional polygon method.

BARI MEASURED + INDICATED MINERAL RESOURCE ESTIMATE								
Ore Class	**Cut-off Grade**	**BCM**	**WMT**	**%Al2O3**	**%SiO2**	**Al/Si**	**%H_2O**	**DMT**
Bx1	> 50 Al2O3	2,840,000	4,544,000	52.13	1.36	43.25	30.00	3,180,800
Bx2	45-50 Al2O3	8,244,000	13,190,400	47.40	2.89	18.57	30.00	9,233,280
Bx3	40-45 Al2O3	5,629,000	9,006,400	42.57	8.73	5.52	30.00	6,304,480
Bx4a	37-40 Al2O3, ≤ 7 SiO2	506,000	809,600	38.89	6.74	6.54	30.00	566,720
Bx4b	37-40 Al2O3, > 7 SiO2	2,117,000	3,387,200	38.54	15.47	2.82	30.00	2,371,040
Bx5a	28-37 Al2O3, ≤ 6 SiO2	543,000	868,800	34.47	10.53	3.71	30.00	608,160
Bx5b	28-37 Al2O4, > 6 SiO2	2,085,000	3,336,000	33.42	23.95	1.58	30.00	2,335,200
Total/Ave.		**21,964,000**	**35,142,400**	**44.08**	**7.68**	**6.50**		**19,285,280**

Note that although the resources estimated using polygon method is generally higher in tonnage than the resources estimated using IDW, the resulting grades of the two resources are within acceptable range from one another.

12. CONCLUSIONS and RECOMMENDATIONS

Conclusions

Based on the due diligence activity that was conducted by the MMDC Exploration Team, the information contained in the database are deemed adequate to support the estimate of the mineral resources delimited within the explored portions of the AMPI and BARI tenement areas.

The resource estimates documented in the reports of the various entities who, at one time or another, evaluated the resource potentials of AMPI and BARI employed various methodologies to arrive at the figures presented. Of these estimates, the works of SRK Australia (CP Jankowski) and SRK China (CP Yiefei) are considered JORC Code-compliant. The latest resource estimates done by MMDC's using Inverse Distance Weighing (IDW) with Polygon Method check, may also be considered JORC/PMRC Code-compliant as the mineral resources are in conformity with the generally accepted guidelines of the PMRC Code. The lower tonnage arrived at is an indication that the MMDC Team opted to be on the conservative side.

At a cut-off grade of 28% Al2O3, AMPI contains 41.7 Million tonnes of Measured and Indicated Mineral Resource at an average grade of 40.06% Al2O3 and 14.50% SiO2. BARI contains about 31.5 Million tonnes of Measured and Indicated Mineral Resource at an average grade of 43.78% Al2O3 and 7.96% SiO2. This is equivalent to a total

Measured and Indicated Resource of some 73.2Mwmt with grades averaging 41.66% Al2O3 and 11.69% SiO2.

Inferred resources of AMPI and BARI were also estimated using IDW wherein some 17.3Mwmt was computed for AMPI with grades averaging 38.96% Al2O3 and 16.59% SiO2 while about 28.4Mwmt was estimated for BARI at 43.75% Al2O3 and 8.09% SiO2. Additional drilling and test pitting works need to be done to upgrade these Inferred resources to Measured and Indicated resources. Assuming that 25% of these Inferred resources will be upgraded to Measured and Indicated resources once the additional drilling and test pitting works are completed, this will translate to additional Measured and Indicated resources of some 11.4Mwmt at 41.94% Al2O3 and 11.30% SiO2. The projected total Measured and Indicated resources will now be 84.6Mwmt averaging 41.70% Al2O3 and 11.64% SiO2.

Recommendations

The AMPI and BARI mineral resource presented in this report may need to be further refined and updated should new exploration data become available from the two projects. It should be noted that mineral resources are not mineral reserves and do not have demonstrated economic viability. A definitive feasibility study will be required for the mineral resource to be converted into ore reserve. This should be pursued by the company.

One upside of the project is that the exploration done in AMPI and BARI tenement areas is still partially complete such that the potential to block additional bauxite resources with additional drilling and test pitting works remains wide open. This could be pursued simultaneous with the resource development and exploitation if ever the project will move forward and these prospects become a mine.

13. REFERENCES

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14. ACKNOWLEDGEMENT

We wish to thank the Management of Marcventures Mining and Development Corporation for giving us the opportunity to be involved in this rather unique and quite interesting bauxite project which, we believe, not too many Filipino geologists and mining engineers are familiar with.