golden energy and resources

GOLDEN ENERGY AND RESOURCES LIMITED

Incorporated in the Republic of Singapore
(Company Registration No: 199508589E)

Summary Independent Qualified Person's Reports from Salva Mining Pty Ltd.

PT Borneo Indobara ("BIB") Concession

PT Kuansing Inti Makmur ("KIM") Concession

PT Bara Sentosa Lestari ("BSL") South Block Project

PT Trisula Kencana Sakti ("TKS") Concession

PT Trisula Kencana Sakti Ampah ("TKS Ampah") Concession

PT Wahana Rimba Lestari ("WRL") Concession

28 January 2020

TABLE OF CONTENTS

SALVA
Mining Consultants

Golden Energy and Resources Limited

Borneo Indobara Concession

Summary Independent Qualified Person's Report

28 January 2020

Golden Energy and Resources Limited

Borneo Indobara Concession

Summary Independent Qualified Person's Report

Salva Mining Pty Limited
300 Adelaide Street, Brisbane, QLD 4000, Australia
Email: info@salvamining.com.au
Website: www.salvamining.com.au
Phone: +61 (0) 407 771 528

28 January 2020

Effective Date: 31 December 2019

Independent Qualified Person:

Mr Manish Garg
Director
Salva Mining Pty Limited

Subject Specialists:

Mr. Sonik Suri
Principal Consultant – Geology
Salva Mining- Brisbane Office

Dr. Ross Halatchev
Principal Consultant – Mining
Salva Mining - Brisbane Office

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Table of Contents

List of Figures

List of Tables

Key abbreviations

$ or USD	United States Dollar
adb	Air-dried basis, a basis on which coal quality is measured
AMSL	Above Mean Sea Level
AMDAL	Analisis Mengenai Dampak Lingkungan Hidup- Environmental Impact Assessment (EIA), which contains three sections, the ANDAL, the RKL and the RPL
ANDAL	Analisis Dampak Lingkungan Hidup, a component of the AMDAL that reports the significant environmental impacts of the proposed mining activity
arb	As received basis
AS	Australian Standards
ASR	Average stripping ratio
AusIMM	Australasian Institute of Mining and Metallurgy
Batter	Slope of Advancing Mine Strip
bcm	bank cubic meter
BD	Bulk density
CCoW	Coal Contract of Work
CHPP	Coal Handling and Processing Plant
CV	Calorific value
Capex	Capital Expenditure
Coal Resource	A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, quality, continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories**.**
Coal Reserve	A 'Coal Reserve' is the economically mineable part of a Measured and/or Indicated Coal Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually, the point where the Coal is delivered to the processing plant, must be stated. It is important

	that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
DGMC	Directorate General of Minerals and Coal within the Ministry of Energy and Mineral Resources
FC	Fixed Carbon
gar	gross as received, a basis on which coal quality is measured
GEAR	Golden Energy and Resource Limited
GEM	PT Golden Energy Mines Tbk
gm	Gram
h	Hour
ha	Hectare(s)
HDR	HDR Pty Limited
IM	Inherent Moisture
IPPKH	'Izin Pinjam Pakai Kawasan Hutan' which translates to borrow to use permit in a production forest
IUP	'Izin Usaha Pertambangan' which translates to 'Mining Business Licence'
JORC	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia
k	Thousand
kcal/kg	Unit of energy (kilocalorie) per kilogram
kg	kilogram
km	Kilometres (s)
km2	Square kilometre(s)
kt	kilo tonne (one thousand tonnes)
L	Litre
m	Meter
lcm	loose cubic metre
LOM	Life of Mine
lcm	lcm loose cubic metre
M	Million
Mbcm	Million bank cubic metres
Mbcmpa	Million bank cubic metres per annum
MEMR	Ministry of Energy and Mineral Resources within the central government
m RL	metres reduced level
m^3	cubic metre
m/s	metres per second
Mt	Millions of tonnes
Mtpa	Millions of tonnes per annum
MW	Megawatt
NAR	Net as received

Opex	operating expenditure
PKP2B	'Perjanjian Kerjasama Pengusahaan Pertambangan Batubara' – same as CCoW
RD	Relative density
RKL	'Rencana Pengelolaan Lingkungan' - environmental management plan
ROM	Run of Mine
RKL	Relative Level - survey reference for the height of landforms above a datum level
RPL	'Rencana Pemantauan Lingkungan' - environmental monitoring plan
Salva Mining	Salva Mining Pty Limited
SE	Specific Energy
SMGC	PT SMGC Consultants
SR	Strip ratio (of waste to ROM coal) expressed as bcm per tonne
t	Tonne
tkm	Tonne kilometre
tpa	Tonnes per annum
TM	Total Moisture (%)
TS	Total Sulphur (%)
VALMIN	2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports
VM	VM Volatile Matter (%)

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Executive Summary

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare an update to the Summary Independent Qualified Person's Report ("Report") which includes Open Cut Coal Resources and Reserves for the Borneo Indobara ("BIB") coal deposit ("BIB Mine" or "BIB Project") located in South Kalimantan, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders as a part of continuous disclosure requirements of the company. The Coal Resources and Reserves estimates contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The effective date of this Report is 31 December 2019.

Borneo Indobara (BIB) Project in Indonesia

The BIB Project covers an area of 24,100 ha and is located in the Tanah Bumbu district of the South Kalimantan Province, Indonesia. The concession tenure is held under a Perjanjian Kerjasama Pengusahaan Pertambangan Batubara (PKP2B), granted on 17th February 2006 and is valid for 30 years. The current concession area has been divided into five mining blocks: Kusan Girimulya (KG), Batulaki South (BS), Sebamban South (SS), Sebamban North (SN) and Pasopati (PP). Mining has been carried out in four blocks – Kusan (KG), Batulaki South (BS), Sebamban South (SS) and Sebamban North (SN).

KG Block still remains as the main operating block to support BIB's enhanced production. GEAR is proposing to recommence production at SS and SN Block in 2021. Production at BS Block was recommenced during 2018 with small scale operation. Mining is planned to commence at PP Block during 2022.

Geology

The BIB coal concession area has a general inverted U shape which follows both limbs of a synclinal structure with an approximate north-northeast trending synclinal axis. The coal seams generally display shallow dips of around 10-20 degrees towards this synclinal axis. The PP Block area, which is adjacent to obducted basement volcanic and ophiolites, exhibits dips of around 60 degrees. The increased dip in the PP Block is associated with increased coal rank, as seen from the fact that coals in the PP Block area have in general higher calorific values compared to coals in the rest of the concession.

There have been a number of phases of exploration completed in the BIB coal concession over the past 12 years. The first phase involved generally shallow drilling and field mapping. In-fill drilling and deeper stratigraphic drilling followed in phase two, in order to allow for more accurate definition of the structural geology and coal quality characteristics of the deposit.

A total of 3,070 drill holes were used by Salva to construct five geological models in the BIB coal concession area comprising KG Block – 1,701 drill holes, BS Block - 552 drill holes, SS Block – 212 drill holes, SN Block - 432 drill holes and PP Block - 173 drill holes.

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Coal Resources

Salva Mining has estimated total Coal Resources of 1,816 million tonnes (Mt) on an in situ air-dried moisture basis (adb), to a maximum depth of 250 m. The total tonnes are comprised of 935 Mt of Measured, 355 Mt of Indicated and 526 Mt of Inferred Resources.

Coal Resources Estimate as of 31 December 2019

Coal Resources (Mt)										
Area	Measured	Ash% (adb)	CV adb Kcal/kg	Indicated	Ash% (adb)	CV adb Kcal/kg	Inferred	Ash% adb	CV adb Kcal/kg	Total
KG	873	5.35	5,289	298	6.19	5,212	298	6.56	5,194	1,470
BS	21	4.71	5,567	27	5.61	5,560	155	5.94	5,563	203
SS	18	6.22	5,510	10	6.29	5,559	15	5.59	5,570	43
SN	13	4.74	5,357	10	6.29	5,245	48	7.0128	5,077	71
PP	10	8.58	6,716	10	9.32	6,593	10	8.48	6,615	30
Total	935	5.38	5,316	355	6.24	5,288	526	6.43	5329.80	1,816

Mineral Resources are reported inclusive of the Mineral Reserves

(*Note: individual totals may differ due to rounding)*

Mining Operations

Mining operation commenced in 2005 in the SS and BS Blocks. Mining in Kusan pit (KG Block) was started in 2011 while the SN Pit was commissioned in 2015. The mining operation uses a standard truck and excavator methods which are a common practice in Indonesia. Waste material is mined using hydraulic excavators and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. For the purpose of this reserve estimate, it is proposed that contractors will continue to be used for mining and haulage operations over the life of mine, and the unit costs used for the reserve estimate reflect this style of mining.

Mining Modification factors – Resource to Reserve

This Coal Reserve estimate uses the most recent geological model and the Coal Resources estimate prepared by Salva Mining as of 31 December 2019. Potential open-cut reserves inside different blocks of the Project area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. The optimiser was run across a wide range of coal prices using a set of site-specific costs (waste removal, land compensation, coal removal, haulage costs, etc.). These costs were adjusted to suit the conditions for this project.

An economic model was prepared for the mining operation from each of the BIB coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

The mining schedule targeted production of 30 Mt in 2020, 36 Mt in year 2021 and ramping up to a target of 45 Mt from year 2023 onwards.

The coal price estimate was based on the consensus forecast by leading banks/analyst. Capital and operating costs were derived by Salva Mining for the BIB project based on a combination of existing contracts and Salva Mining in-house knowledge database about Indonesian operations. These are considered to be reasonable and suitable for the purpose of this study.

The BIB mine has been operating since 2005. It has produced over 28.7 Mt of coal during 2019 and forecast to produce over 30 Mt during 2020.

Pre-feasibility studies were completed prior to the commencement of mining operations. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval.

Where an entity has an operating mine for an Ore Reserve, its Life of Mine Plan would generally be expected to contain information at better than pre-feasibility or feasibility level for the whole range of inputs normally required for a pre-Feasibility or feasibility study and this would meet the requirement in Clause 29 for the Ore Reserve to continue that classification. Salva Mining has used actual modifying factors based on current operations at the BIB Mine which were independently verified by the subject specialist during the site visit. In Salva Mining's opinion, the modifying factors at BIB Mine are better defined based on actual mining practices compared to a greenfield project at the pre-feasibility stage.

Optimised Pit Shell

The optimised pit shells for BIB blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the BIB concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. In-situ quantities and mine scheduled tonnes within an optimized pit shell along with Reserves are shown in the table below.

Insitu & Scheduled Quantities & Reserves, BIB Concession

Concession	Insitu			Mine Scheduled Tonnes within Optimized Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
KG Block	2,889	798	3.6	2,923	672	4.35	614.5
BS Block	198	48	4.1	187	41	4.60	20.1
SS Block	69	22	3.1	66	19	3.50	15.9
SN Block	50	11	4.7	50	9	5.40	8.2
PP Block	94	8	11.2	90	7	12.50	4.2
Total, BIB	**3,299**	**886**	**3.7**	**3,316**	**748**	**4.43**	**662.8**

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Coal Reserves

Coal Reserves were estimated by applying appropriate modifying factors and exclusion criteria to the Coal Resources. Existing infrastructure and the location of the IUP boundary were considered when determining the surface constraints for the mining operation. Coal Reserves were estimated by applying appropriate density adjustment and mining loss and dilution parameters to the Measured and Indicated Coal Resources inside the final pit design. All the final pits used for the Reserve estimate were designed following the existing geotechnical recommendations and operating practices.

Coal Reserves have been reported in Proved and Probable categories to reflect the reliability of the estimate. No Inferred Coal Resources are included in the reported Coal Reserves. The total Coal Reserve for the BIB Mine as of 31 December 2019 is 662.8 Mt comprising of 576.4 Mt Proved and 86.4 Mt Probable categories. No beneficiation of coal product is planned other than crushing to a nominal top size of 50mm. Run of mine (ROM) Coal Reserves for BIB coal concession along with the estimated quality are presented in the table below.

Coal Reserves Estimate as of 31 December 2019

Block	Reserve (Mt)			RD	TM arb %	IM adb %	Ash adb %	CV arb Kcal/kg	TS adb %
	Proved	Probable	Total	adb t/m3					
KG	542.8	71.6	614.5	1.39	35.2	15.7	6.2	4,041	0.21
BS	13.4	6.6	20.1	1.37	33.5	13.2	6.3	4,207	0.17
SS	11.4	4.5	15.9	1.47	38.6	12.5	5.8	3,866	0.21
SN	5.8	2.4	8.3	1.38	38.4	16.7	5.4	3,923	0.14
PP	3.0	1.2	4.2	1.33	8.7	6.1	12.5	6,528	1.39
Total	**576.4**	**86.4**	**662.8**	**1.39**	**35.1**	**15.5**	**6.2**	**4,056**	**0.22**

**This table must be presented with the entire JORC Reserve Statement of PT Borneo Indobara*

The coal will be sold as a ROM product; hence Marketable Reserves is same as ROM Coal Reserves.

This Report may only be presented in its entirety. Parties wishing to publish or edit selected parts of the text, or use this Report for public reporting, must obtain prior written approval from Salva Mining and the signatories of this Report.

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1 Introduction

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare an update to the Summary Independent Qualified Person's Report ("Report") which includes Open Cut Coal Resources and Reserves for the Borneo Indobara ("BIB") coal deposit ("BIB Mine" or "BIB Project") located in South Kalimantan, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders as a part of continuous disclosure requirements of the company. The Coal Resources and Reserves estimates contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The effective date of this Report is 31 December 2019.

1.1 Data sources

The principal data used in the preparation of this Report includes:

- Updated mined out surface DTM, provided by GEAR, showing the extent of mine face positions as of the end of 31 December 2019;
- JORC Resource and Reserve report titled "Independent Resource & Reserve Report, PT Borneo Indobara", 31 December 2018, Prepared for GEAR by Salva Mining;
- Collar, downhole logging, seam pick and coal quality information, provided by GEAR;
- JORC Resource report titled "JORC Resource Statement", PT Borneo Indobara, 21st October 2013, Prepared for GEMS by PT SMG Consultants;
- PT Ground Risk management (GRM), "Engineering Report for Geotechnical and Surface Water Study on Kusan Coal Mine"; 11 July 2011;
- Capex and Opex data supplied by GEAR and also derived from Salva Mining's cost database of typical Indonesian operations; and
- A Life of Mine Plan report titled "Life of Mine Plan", PT Borneo Indobara, 21st October 2013, Prepared for GEMS.

This Report is based on the information provided by GEAR, the technical reports of consultants and previous explorers, as well as other published and unpublished data relevant to the area. Salva Mining has carried out, to a limited extent, its own independent assessment of the quality of the geological data. The status of agreements, royalties or concession standing pertaining to the assets was provided by the company.

In developing our assumptions for this Report, Salva Mining has relied upon information provided by the company and information available in the public domain. Key sources are outlined in this Report and all data included in the preparation of this Report has been detailed in the references section of this Report. Salva Mining has accepted all information supplied to it in good faith as being true, accurate and complete, after having made due enquiry as of 31 December 2019.

1.2 Limitations

After due enquiry in accordance with the scope of work and subject to the limitations of the Report hereunder, Salva Mining confirms that:

- The input, handling, computation and output of the geological data and Coal Resources and Reserves information has been conducted in a professional and accurate manner, to the high standards commonly expected within the mining professions;
- The interpretation, estimation and reporting of the Coal Resources and Reserves has been conducted in a professional and competent manner, to the high standards commonly expected within the Geosciences and mining professions, and in accordance with the principles and definitions of the JORC Code (2012);
- In conducting this assessment, Salva Mining has addressed and assessed all activities and technical matters that might reasonably be considered relevant and material to such an assessment conducted to internationally accepted standards. Based on observations and a review of available documentation, Salva Mining has, after reasonable enquiry, been satisfied that there are no other relevant material issues outstanding;
- The conclusions presented in this Report are professional opinions based solely upon Salva Mining's interpretations of the documentation received and other available information, as referenced in this Report. These conclusions are intended exclusively for the purposes stated herein;
- For these reasons, prospective investors must make their own assumptions and their own assessments of the subject matter of this Report.

Opinions presented in this Report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this Report, about which Salva Mining have had no prior knowledge nor had the opportunity to evaluate.

1.3 Disclaimer and warranty

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of the Report or the success or failure for the purpose for which the Report was prepared.

A draft version of this Report was provided to the directors of GEAR for comment in respect of omissions and factual accuracy. As recommended in Section 39 of the VALMIN Code, GEAR has provided Salva Mining with an indemnity under which Salva Mining is to be compensated for any liability and/or any additional work or expenditure, which:

- Results from Salva Mining's reliance on information provided by GEAR and/or Independent consultants that are materially inaccurate or incomplete, or
- Relates to any consequential extension of workload through queries, questions or public hearings arising from this Report.

The conclusions expressed in this Report are appropriate as of 31 December 2019. The Report is only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values outlined in this Report are expressed in United States dollars ($) unless otherwise stated. Salva Mining services exclude any commentary on the fairness or reasonableness of any consideration in relation to this acquisition.

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2 Independent Competent Person's Statement

This Report has been prepared following the guidelines contained within the 2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Experts Reports ("the VALMIN Code") and the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code"). It has been prepared under the supervision of Mr Manish Garg (Director – Consulting / Partner, Salva Mining) who takes overall responsibility for the Report and is an Independent Expert as defined by the VALMIN Code.

Sections of the Report which pertain to Coal Resources have been prepared by Mr Sonik Suri (Principal Consultant, Geology) who is a subject specialist and a Competent Person as defined by the JORC Code. Sections of the Report which pertain to Coal Reserves have been prepared by Dr Ross Halatchev (Principal Consultant, Mining) who is a subject specialist and a Competent Person as defined by the JORC Code.

This Report was prepared on behalf of Salva Mining by the signatory to this Report, assisted by the subject specialists' competent persons whose qualifications and experience are set out in Appendix A of this Report.

Mr Manish Garg
Independent Qualified Person
Director
Salva Mining Pty Limited

2.1 Statement of Independence

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report. The above-mentioned person(s) have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Report.

Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

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3 Project Description

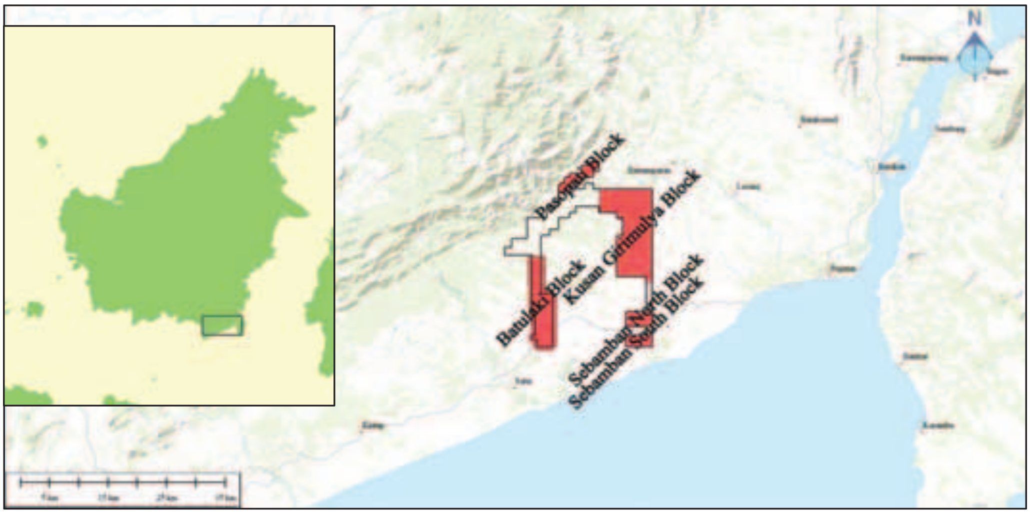
3.1 Property Description and Access

The BIB Project is located in the Tanah Bumbu Regency of the South Kalimantan Province of Indonesia. The BIB concession is a second-generation Perjanjian Kerjasama Pengusahaan Pertambangan Batubara (PKP2B) coal concession ("CCoW") covering a total area of 24,100 ha. The BIB concession is located within the coal mining hub of South Kalimantan province and consists of following 5 coal blocks:

- Kusan Girimulya Block ("KG Block");
- Sebamban North Block ("SN Block");
- Sebamban South Block ("SS Block");
- Batulaki South Block ("BS Block"); and
- Pasopati Block ("PP Block").

Conventional open-pit coal mining operations were commenced in the SS and BS blocks in 2005 KG block in 2011 and SN Block in 2012. At the time of writing of this Report, the mining operations are continuing at the BIB project. Various mining blocks are located between 6 km to 30 km to the South Kalimantan coastline (Figure 3:1).

Figure 3:1 General Location Plan



Locations of individual coal blocks and CCOW boundary is shown below in Figure 3:2.

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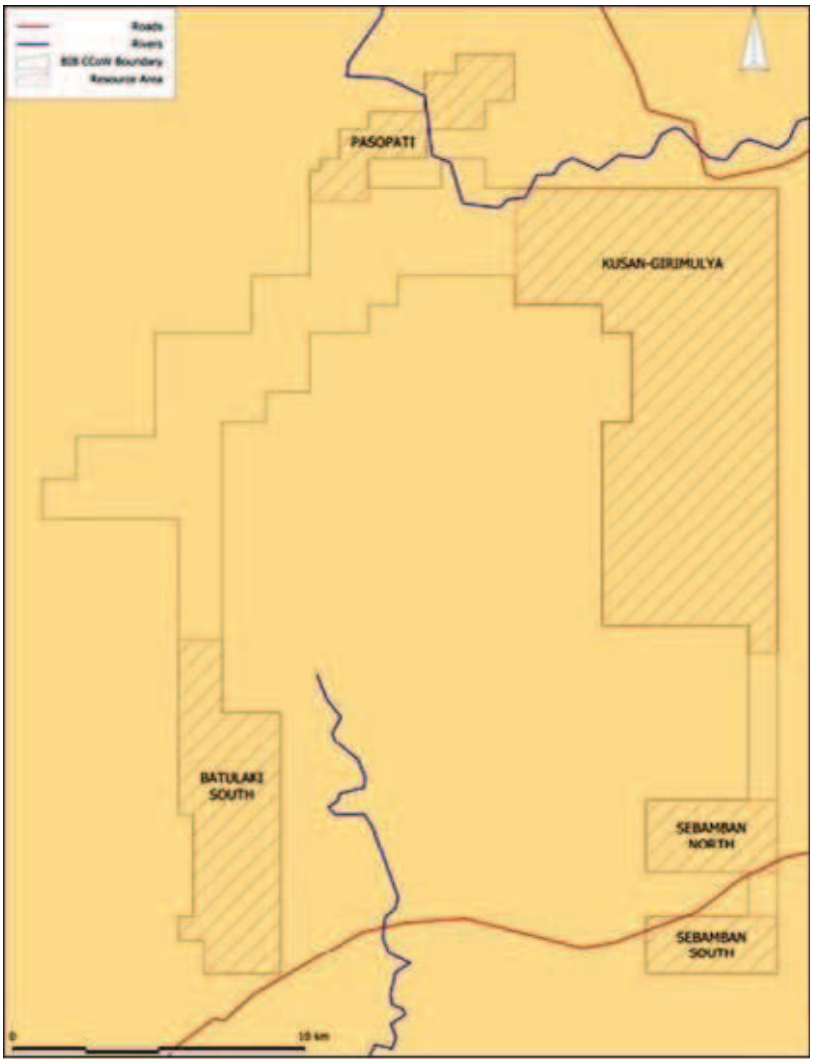
Figure 3:2 CCoW Boundary and Location of Individual Coal Blocks



3.2 Ownership

GEAR holds the mining rights to the BIB concession through its subsidiary PT Roundhill Capital Indonesia (Net 65.7235%). Tenure at the BIB concession is held under the second generation PKP2B. The PKP2B was originally executed on 15 August 1994 between PT Borneo Indobara ("") and PT Tambang Batubara Bukit Asam ("PTBA"), a government-owned company for an area of 93,164 ha. Approval to commence production was granted on 17 February 2006 for a period of 30 years for a reduced area of 24,100 ha. The detail of the coal concession is given in Table 3.1.

Table 3.1 BIB Concession Details

No.	Concession Type	Area (ha)	Status	Granted	Expiry
10.K/40.00/ DJB/2006	(CCoW)	24,100 ha	Granted	17 Feb 2006	17 Feb 2036

4 Geology

4.1.1 Regional Geology

The coal deposits found within the BIB coal concession area are located within the Asem Asem Basin of South-eastern Kalimantan. The Asem Asem Basin has been previously termed the Pasir or Asem Asem sub-basin to the larger Barito Basin.

4.2 Local Geology

The BIB coal concession area has a general inverted U shape which follows both limbs of a synclinal structure with an approximate north-northeast trending synclinal axis (Figure 4:1). The seams generally display shallow dips of around 20 degrees but dips can increase locally up to around 60 degrees. The entire Pasopati resource area, which is adjacent to obducted basement volcanic and ophiolites (labelled Source Rock in Figure 4:1), exhibits dips of around 60 degrees. The increased dip in the Pasopati resource area is associated with increased coal rank, as seen from the fact that coals in the Pasopati area have in general higher calorific values compared to coals in the rest of the concession.

Structure within the area is relatively benign, with most of the significant faults in the area consisting of the north-east trending thrust faults that follow the general trend of the fold axes. Normal and block faulting is seen mainly in the basement (Pre-Tertiary) rocks (Panggabean, 1991). However, localised increase in seam dips have been observed in the coal models constructed for resource estimation purposes and this may be due to as yet un-mapped faults.

In general, the stratigraphic sequence within the BIB concession, from the youngest to oldest is as follows:

Alluvium

The Alluvium is comprised of gravels, sand, silt, clay and mud, found as alluvial, swamp and coastal deposits.

Dahor Formation

This unit consists of friable quartzitic sandstones, locally interbedded with clays, lignites and basalt gravels.

Warukin Formation

This formation is a mainly deltaic sequence comprised of alternating quartzitic sandstones and claystone, intercalated with shales, coal seams, limestones and carbonaceous claystone. This formation contains the majority of the coal resources in the BIB concession area.

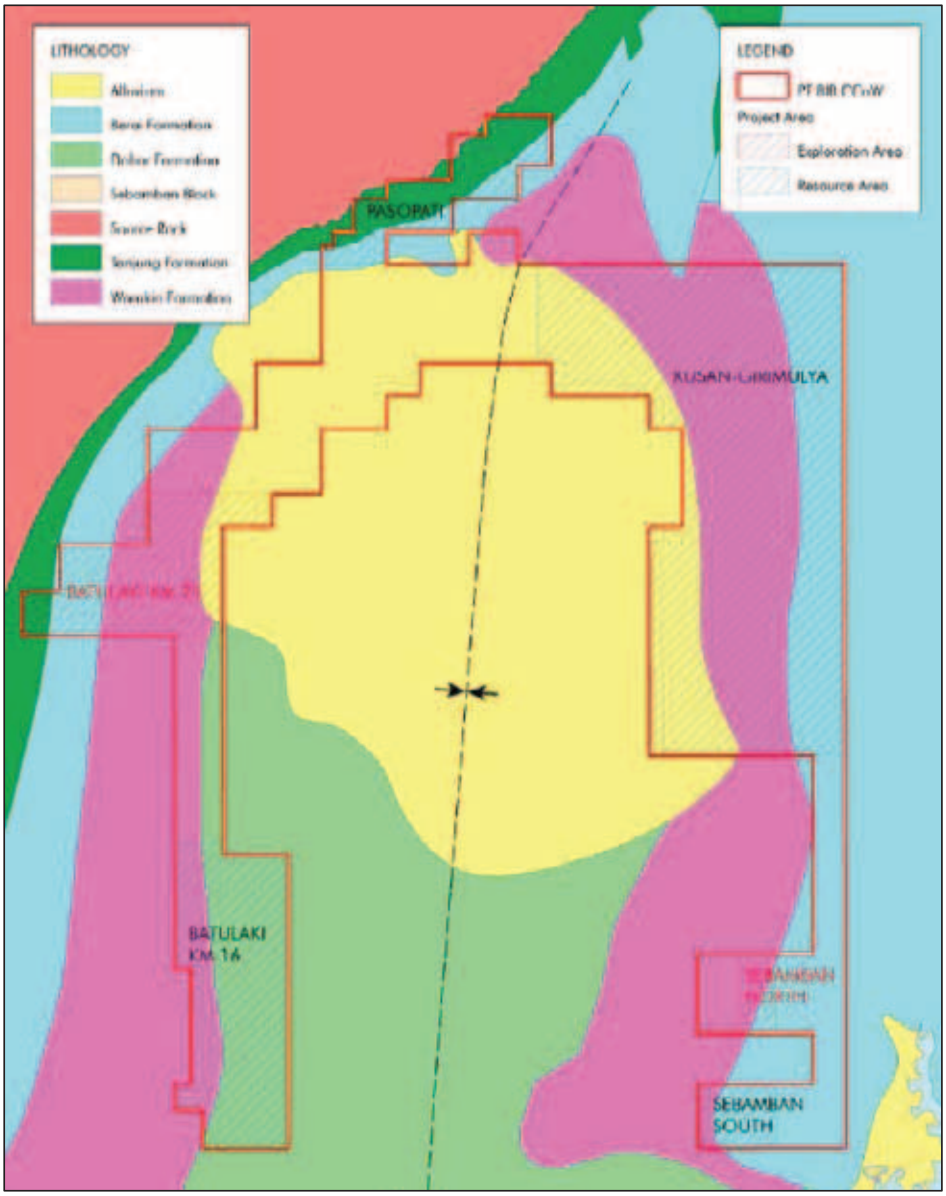
Berai Formation

The Berai Formation is shallow marine-derived sediment which is comprised of limestones alternating locally with marl and sandstone.

Tanjung Formation

This is a fluvial-deltaic sequence found at the base of the coal-bearing sedimentary basin sequence, deposited on an unconformable contact with underlying basement rocks. The formation consists of alternating conglomerate, sandstone and claystone, intercalated with shale, coal and limestone. The lower part consists of conglomerate and sandstone, with claystone, shale and coal, whereas the upper part consists of sandstone and claystone intercalated with limestone. The coals within the Pasopati resource area form part of this formation.

Figure 4:1 Local geological map of the BIB concession area



4.3 Coal Seams

4.3.1 Kusan Girimulya (KG Block)

The deposit at KG Block contains approximately 52 modelled coal seams (Table 4:1) of which 20 have been split into upper and lower plies. Some seams are less continuous than others and have been modelled to pinch out were not present in a particular drill hole. In particular the D1 seam has a limited extent through the deposit due to the fact that has not been correlated in the majority of holes drilled. In contrast, the BL2U seam is one of the most continuous seams and is present throughout the deposit. This resource area covers the eastern outcrop of the Warukin formation coals and seams dip shallowly to the west. The coal quality is low rank with high inherent moisture and low ash and sulphur contents. This area is currently being mined.

4.3.2 Batulaki South (BS Block)

This resource area is situated on the western flank of the syncline and seams consequently dip to the east. Seams in this area also form part of the Warukin Formation with coal quality characteristics that are very similar to KG, SS Block and SN Block areas. There are 40 named and correlated seams in this area. No correlation between the Warukin coals across the western and eastern limbs of the syncline has been undertaken. This area has been mined in the past and the operation was recommenced during 2018.

4.3.3 Sebamban South (SS Block)

Warukin Formation coal seams occur in this resource area, dipping shallowly to the west. There are 20 named and correlated seams including splits that have been identified in this area. The coal quality is similar to the KG, BS Block and SN Block areas but no correlation of seams between these areas has been made to date. This area has been mined in the past and the operation is planned to recommenced during 2021.

4.3.4 Sebamban North (SN Block)

This resource area is found immediately north of the SS Block and has many characteristics in common with SS Block coals. Warukin Formation coal seams dip shallowly to the west and 22 seams have been named and correlated across the area. The coal quality is similar to the KG, BS Block and SS Block areas. Mining commenced in this area in 2015.

4.3.5 Pasopati (PP Block)

The coal seams in this resource area belong to the Tanjung Formation and are therefore older than the Warukin Formation coals found in the rest of the concession. The coal is steeply dipping (60 degrees) to the east and exhibits higher rank and resultant higher energy. There are 13 named and correlated seams in this area. The area has not been officially mined to date but has been extensively worked by artisanal miners in the past due to the prized high quality of the coal in this area. This area has not been mined yet, however it is planned to be mined from 2022 onwards.

Table 4:1 KG Block Seam Splitting Relationships

Master Seam	1st Phase Splitting	2nd Phase Splitting	3rd Phase Splitting
H	H2		
	H1		
G	G2	G2U	
		G2L	
	G1		
F	F2		
	F1		
FL	FL2		
	FL1		
E	E2	E2U	
		E2L	E2L2
			E2L1
	E1	E1U	E1U2
			E1U1
		E1L	E1L2
			E1L1
EL	EL2	EL2U	
		EL2L	
	EL1	EL1U	
		EL1L	
D	D1	D1U	D1U2
			D1U1
		D1L	D1L2
			D1L1
	DU	DU2	DU2U
			DU2L
		DU1	DU1U
			DU1L
	DL	DL2	DL2U
			DL2L
		DL1	DL1U
			DL1L
CR	CR2	CR2U	
		CR2L	
	CR1	CR1U	
		CR1L	
CU	CU2		
	CU1		
CL	CL2	CL2U	

Master Seam	1st Phase Splitting	2nd Phase Splitting	3rd Phase Splitting
		CL2L	
	CL1	CL1U	
		CL1L	
B	BU	BU2	BU2U
			BU2L
		BU1	BU1U
			BU1L
	BL	BL2	BL2U
			BL2L
		BL1	BL1U
			BL1L
A	AU		
	AL	AL2	

Table 4:2 BS Block Seam Splitting Relationships

Master Seam	1st Phase Splitting	2nd Phase Splitting
D		
C	CU	
	CL	
B	BU	
	BL	BL2
		BL1
A5		
A4U	A4U2	A4U2B
		A4U2A
	A4U1	
A4L		
A3U	A3U2	
	A3U1	
A3L		
A2U	A2U2	
	A2U1	
A2L		
A1U	A1U2	
	A1U1	
A1L	A1L2	
	A1L1	
AL2		
AL1		
S1		

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<table>
<tr><th>Master Seam</th><th>1st Phase Splitting</th><th>2nd Phase Splitting</th></tr>
<tr><td rowspan="2">S2</td><td>S2U</td><td></td></tr>
<tr><td>S2L</td><td></td></tr>
<tr><td>S3</td><td></td><td></td></tr>
<tr><td rowspan="2">S4</td><td>S4U</td><td></td></tr>
<tr><td>S4L</td><td></td></tr>
<tr><td>S5</td><td></td><td></td></tr>
<tr><td>S6</td><td></td><td></td></tr>
<tr><td>S7U</td><td></td><td></td></tr>
<tr><td>S7L</td><td></td><td></td></tr>
<tr><td>S8U</td><td></td><td></td></tr>
<tr><td>S8L</td><td></td><td></td></tr>
<tr><td>S9</td><td></td><td></td></tr>
<tr><td rowspan="2">S10</td><td>S10U</td><td></td></tr>
<tr><td>S10L</td><td></td></tr>
<tr><td>S11</td><td></td><td></td></tr>
<tr><td>S12</td><td></td><td></td></tr>
</table>

Table 4:3 SS Block Seam Splitting Relationships

<table>
<tr><th>Master Seam</th><th>1st Phase Splitting</th><th>2nd Phase Splitting</th><th>3rd Phase Splitting</th></tr>
<tr><td rowspan="2">F</td><td>F2</td><td></td><td></td></tr>
<tr><td>F1</td><td></td><td></td></tr>
<tr><td rowspan="4">E</td><td rowspan="2">E2</td><td>E2U</td><td></td></tr>
<tr><td>E2L</td><td></td></tr>
<tr><td rowspan="2">E1</td><td>E1U</td><td></td></tr>
<tr><td>E1L</td><td></td></tr>
<tr><td rowspan="2">D1</td><td>D1U</td><td></td><td></td></tr>
<tr><td>D1L</td><td></td><td></td></tr>
<tr><td rowspan="5">D</td><td rowspan="2">DU</td><td>DU2</td><td></td></tr>
<tr><td>DU1</td><td></td></tr>
<tr><td rowspan="3">DL</td><td rowspan="2">DL2</td><td>DL2U</td></tr>
<tr><td>DL2L</td></tr>
<tr><td>DL1</td><td></td></tr>
<tr><td>C</td><td></td><td></td><td></td></tr>
<tr><td>B1</td><td></td><td></td><td></td></tr>
<tr><td rowspan="4">B</td><td rowspan="2">BU</td><td>BU2</td><td></td></tr>
<tr><td>BU1</td><td></td></tr>
<tr><td rowspan="2">BL</td><td>BL2</td><td></td></tr>
<tr><td>BL1</td><td></td></tr>
<tr><td>A2</td><td></td><td></td><td></td></tr>
</table>

Table 4:4 SN Block Seam Splitting Relationships

Master Seam	1st Phase Splitting	2nd Phase Splitting	3rd Phase Splitting
G			
F	F2		
	F1		
FL			
E	E2	E2U	
		E2L	
	E1	E1U	E1U2
			E1U1
		E1L	E1L2
			E1L1
D3			
D2	D2U		
	D2L		
D1			
D	DU		
	DL	DL2	
		DL1	
C	CU		
	CL		
BU			
BL	BL2		
	BL1		
A	A2		
	A1		
AL			

Table 4:5 PP Block Seam Splitting Relationships

Master Seam	1st Phase Splitting
SU1	SU1U
	SU1L
SU2	
SM1	
SM2	SM2U
	SM2L
SL1	SL1U
	SL1L
SL2	SL2U
	SL2L
SL3	SL3U
	SL3L
SB	

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5 Exploration

5.1 Exploration History

There have been a number of phases of exploration completed in the BIB coal concession area over the past 12 years by PT Golden Energy Mines Tbk (GEMS) and GEAR. The first phase involved generally shallow drilling and field mapping. In-fill drilling and deeper stratigraphic drilling followed in phase two, in order to allow for more accurate definition of the structural geology and coal quality characteristics of the deposit.

Successive phases of exploration drilling in the BIB concession have involved the following:

- Resource expansion drilling
- Resource upgrade drilling
- In-fill pre-production drilling
- Dump and infrastructure sterilization drilling
- Production drilling

The results of the various phases of drilling have been assessed and geological models have been updated on a regular basis previously by GEMS staff and by PT SMG Consultants. The last phase of exploration drilling was completed in early 2013 and PT SMG Consultants produced updated geological models and an updated coal resource estimate as of 28 July 2013, which details a total coal resource of 1.8 Bt, considered by PT SMG Consultants to have been reported in accordance with JORC Code (2004).

Subsequently, resource delineation was further refined with production and infill drilling on a regular basis. HDR Pty Limited (HDR) prepared a Coal Resources and Reserves estimates as of 30 June 2014 reported in accordance with JORC Code (2012), which was subsequently updated in February 2015 and February 2016.

Salva Mining prepared a Coal Resources and Reserves estimate as of August 2016 which was subsequently updated annually. These were reported in accordance with JORC Code (2012) after incorporating information from the additional holes drilled during the corresponding period. This Coal Resources and Reserves estimate was updated as of 31 December 2019 to account for mining and exploration drilling that occurred during the year.

6 Geological Data and QAQC

6.1 Data Supplied

The geological data provided by GEAR for the BIB concession was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources.

This data, used by Salva Mining for the purpose of resource estimation, includes but is not limited to:

- Drill hole collar information inclusive of total depth drilled per hole;
- Drill hole lithological data inclusive of seam picks identified and correlated on the basis of down-hole geophysics;
- Coal sample table and associated raw coal qualities per sample;
- Drill hole completion reports for most of the holes drilled containing details of core recoveries achieved;
- Down-hole geophysical data in the form of both LAS files and Minex drill hole databases;
- Latest Minesape geological models for the KG Block, BS Block, PP Block, SN Block and SS Block areas constructed by Salva Mining, which contains a complete drill hole database as well as grids of seam roofs, floors, the topographic surface and the base of the weathered horizon surface.

6.2 Lithological Data

A total of 3,070 drill holes were used to construct five geological models in the BIB coal concession area comprising:

- KG Block 1,701 drill holes;
- BS Block 552 drill holes;
- SS Block 212 drill holes;
- SN Block 432 drill holes; and
- PP Block 173 drill holes.

Of these holes, a small percentage are barren, i.e. no coal intersected; this is due to drill-rig limitations (maximum 60 m depth in earlier campaigns). Barren holes are never the less useful for geological modelling purposes as they prevent coal from being modelled where it is not present.

Approximately 98% of the holes have been logged using down-hole geophysics. Down-hole geophysical data acquired by GEAR is predominantly comprised of gamma, density and calliper logs and has allowed for accurate identification of coal seams in each hole (seam picks) and the correlation of coal seams between holes.

6.3 Topographic Survey and base of weathering (BOW)

Topography data used in the five BIB geological models have been derived from Light Detecting and Ranging (LiDAR) remote sensing surveys conducted by PT Surtech Utama in 2012. During this survey GPS ground control points were combined with flight trajectories and LiDAR scanning equipment to produce an accurate dataset of XYZ topographic coordinate points for the entire concession area.

The topography is regularly updated by GEAR for production reporting basis. This is done by conducting a topographic survey in mining area on a periodic basis by the mine site surveyors. The topographic survey of the active mining area is switched with the virgin area to develop the topographic contours.

A 'non-conformable' base of weathering (BOW) surface was generated for the geological models by translating the topographic surface down by 3 m in the Z direction. This is based on the observation that the average weathered horizon thickness, where it has been logged, is approximately 3 m.

6.4 Data Quality Assurance and Quality Control (QAQC) Measures

6.4.1 Core Sampling

At the completion of each run, core lengths were checked in the splits for recovery to ensure coal seams have been recovered as required. A target core recovery of 90% has been applied throughout all drilling phases. If core recovery was found to be less than 90% within the coal seam, the hole was re-drilled to collect a sample with ≥ 90% recovery. The core was also photographed routinely and logged in the splits by a geologist before being sampled. For open holes, chip samples were collected at 1 m intervals for lithological logging purposes.

All the drill rigs used during each phase of exploration were operated by experienced personnel and drilling was supervised by fully qualified geologists working in shifts.

A sampling of the coal seams was conducted by the rig geologist on duty and was conducted in accordance with the following sampling procedure supplied to rig geologists;

- Open core barrel inner split tube and remove the sample from the barrel;
- Transfer the core to the PVC split or core box;
- Determine the core depth ("From" and "To") from the drill depth; and
- Reconstruct the core in the split to allow for any gaps;
- Determine the core recovery;
- Wash down using water and a cloth and/or brush prior to logging if covered by mud or oil;
- Complete geological logging and photograph structure or any abnormal features. The photograph should show information of drill hole number and from and to depths;
- The division of samples follows the simple scheme of sample all coal, sample separately any contained bands (plies) and take 10 cm roof and floor non-coal samples;
- Place samples into plastic bags which should be doubled to minimise moisture loss. Insert one bag inside another so that they are doubled;

- Label the sample by ID card, the label should give information about the sample number, hole number, from/to depth, and Project Code. Place the label ID card inside the small re-sealable plastic bag before putting it into the sample bag;
- Seal the sample bag with tape and write the sample number on the plastic bag;
- Dispatch sample to an accredited laboratory

The coal quality sampling technique detailed above is considered by Salva Mining to adequately address the QAQC requirements of coal sampling. As a further coal quality validation step prior to importing coal quality sample results for coal quality modelling purposes, Salva Mining constructed spreadsheets which compare the sampled intervals against the logged seam intervals in order to ensure that sampled intervals match the seam pick intervals.

6.4.2 Down-hole Geophysics and Seam Picks

Down-hole geophysical logs were completed during each drilling program by PT Surtech International and by PT Recsalog. Geophysical logging was conducted following the completion of a drill hole. After drilling is complete the logging unit deploys down-hole geophysical sondes, including gamma-ray, calliper and density tools to assist with characterising the down-hole formation and its geological properties. Stratigraphic information, intercepted along the entire length of the drill hole (collar to total depth), is recorded and plotted in acrobat pdf format. A digital copy of the data is stored in LAS file format.

Logging was performed on the majority of drill holes (including cored and open holes) and approximately 98% of all holes have geophysical data. Seam picks and lithologies have all been corrected for geophysics.

Geophysical logging provides information on the coal seams intersected and aids in the definition of horizon boundaries and marker horizons, used to correlate the subsurface geology. The presence or absence of geophysical logging is one of the criteria used in the determination of points of observation for resource classification purposes. Under normal conditions, coal-bearing sections of each drill hole were geophysically logged at the completion of drilling. In some instances, poor ground conditions restricted the ability to geophysically log the entire hole upon completion. In these cases, collapsed portions of holes were re-drilled in order to allow for density and gamma logging to be accomplished by lowering the geophysical probe through the drill string.

6.4.3 Coal Quality

Coal quality sampling was undertaken by GEMS and contract geologists, with the analysis testing completed by PT Geoservices Coal Laboratories in Asam Asam or Banjarbaru. PT Geoservices laboratories are accredited to ISO 17025 standards and quality control is maintained by daily analysis of standard samples and by participation in regular "round-robin" testing programs.

International Standards Organisation (ISO) methods have been used for Moisture Holding Capacity tests; Australian Standards (AS) have been used for Relative Density and American Society for Testing and Materials (ASTM) methods have been used for all other quality variables.

The following tests were undertaken as standard on all coal samples:

- Inherent Moisture (IM);
- Ash Content (Ash);

- Volatile Matter (VM);
- Fixed Carbon (FC);
- Total Sulphur (TS);
- Calorific Value-air dried basis (CV adb);
- Relative Density (RD).

6.4.4 Data validation by Salva Mining prior to geological model construction

Prior to using the lithological (seam pick) and coal quality data for geological model construction purposes, Salva performed the following data validation and verification checks on the data;

- Checking of seam picks against the down-hole geophysics in selected instances in order to validate seam pinch outs or correlations during structural model construction.
- Validation of coal quality sample intervals against seam pick intervals
- Scatter plots of raw coal quality data pairs were constructed in order to determine outliers. In a few cases, spurious data values were identified and removed from the quality data set prior to importing the data into Minescape.
- In cases where RD (adb) data was not determined for a sample, linear regression equations determined from the RD-ash scatter plot constructed from the rest of the raw coal quality data set were used to determine the RD value for the sample concerned from the ash value for that sample.
- Core recovery percentages per core run were compiled and merged with the coal quality sample data set in order to determine if any samples in the coal quality data set are from coal seam intersections with less than 90% core recovery over the seam width. Core recovery was observed to be satisfactory with over 90% recovery within the coal horizon although less than 90% recovery is often seen in the immediate roof or floor to the coal seam (coal samples with less than 90% core recovery were previously rejected by GEAR staff prior to being forwarded data to Salva Mining).
- During the importation of coal quality samples and associated raw coal quality data into the geological modelling software, a few instances of overlapping samples were identified and these were corrected and the samples re-imported.
- After compositing the coal quality samples over the seam width on a seam by seam basis, histograms were constructed of the composited raw coal quality for each seam, in each of the five resource areas. Analysis of these histograms shows that in a few instances, raw ash% outliers are present as a result of the excessive overlap of the coal quality sample into the seam roof or floor. In the majority of such instances, the proportion of outlier composite samples is very small compared to the total number of samples per seam and hence the presence of these outliers has no material impact on the modelled raw coal quality for affected seams. In very few instances, in the case of some minor seams with small total numbers of coal quality composites per seam, one or two overlapping samples do result in a material change to the raw coal quality of that seam. However in all such cases (F1, D1L1, D1L2, D1U1, D1U2 at KG Block, A3U at BS Block and SL1L at PP Block) the total tonnage represented by theses seams is less than 1% of the total tonnage of the

block concerned and hence there is no material impact on the coal quality of the resource area as a whole.

6.5 Coal Density

No information on in situ moisture was obtained from the laboratory, resulting in the fact that the Preston and Sanders equation could not be applied to obtain in situ relative densities. As a result, all resource tonnages are quoted on an in situ air-dried density basis, as volumes are calculated on an in-situ basis and density on an air-dried basis. However the density of in situ coal is in reality not at an air-dried basis but at higher moisture in situ moisture basis. The estimate of resources on an air-dried basis will, therefore, result in a higher tonnage as compared to the equivalent in situ moisture basis calculation. This effect has been accounted to a large extent in the reserving process, where the total moisture has been used as proxy for the in-situ moisture and a Preston Sanders calculation has been made on this basis. However, given the unknown accuracy of this approximation, this calculation was not done at the resource stage, preferring rather use the more accurately known air-dried density and state the moisture basis used in the resource.

6.6 Coal Quality Data

Within the BIB concession, Warukin Formation coals are classified as a low energy sub-bituminous class B coal (ASTM – Guidebook of Thermal Coal page 35). The Tanjung Formation coals in the PP Block are classified as Bituminous class A coal.

Raw coal quality composite sample statistics for all seams in each resource area were discussed in detail in previously reported detailed Independent Qualified Person's Reports.

7 Resource Model Construction

7.1 Structural Model

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the MineScape software to generate both structural and quality models for each of the five resource areas.

The topographic model for each of the deposit was constructed by importing the Minescape topography grid models. These topography models describe both virgin topography and mined voids within the concession as of 31 December 2019.

The lithological data was then modelled to create structural grids. The schema, stored within the Stratmodel module of the MineScape software controls the modelling of seam elements and their structural relationships, grid model cell size, interpolators and other parameters. The details of these parameters stored in the applied schemas used in the structural modelling process are listed in Table 7:1.

Within the modelling schema, all of the stratigraphic intervals were modelled with pinched continuity. This is applied in areas where intervals are missing in a drill hole. In this situation, the modelling algorithm stops the interpolation of the missing interval halfway between the two drill holes between which it ceases to be present.

7.1.1 Structural Model Validation

Structural and thickness contours were generated and inspected to identify any irregularities, bulls-eyes, unexpected discontinuities etc. Cross-sections were also generated to identify any further structures such as faulting and any areas where seams were modelled as being discontinuous due to short drilling.

Table 7:1 Model Schema Settings and Parameters

Model Component	Details
Modelling Software	Ventyx MineScape - Stratmodel module
Schema	kg, pp, km, sbs, sbn
Topography Model	TopoKG, TopsPP, TopsSS, TopsBL, TopoSN
Topography Model Cell Size	25 m
Structural Model Cell Size	25 m
Interpolator (thickness)/order	Finite Element Method (FEM)/0
Interpolator (surface)/order	Finite Element Method (FEM)/1
Interpolator (trend)/order	Finite Element Method (FEM)/0
Extrapolation Distance	5500 m (PP), 4000 m (KG), 2500 m (BS, SS, SN)
Parting Modelled	No
Minimum Ply Thickness	10 cm
Minimum Coal Parting	30 cm (PP) otherwise not defined
Conformable Sequences	Weathered, Fresh

Model Component	Details
Upper Limit for Seams	Base of Weathering (BOW)
Control Points	Yes
Constraint File	No
Penetration File	Yes
Model Faults	No
Maximum Strip Ratio	1:15 (PP)
Maximum Resource Depth	250 m
Tonnage Calculations	Based on volumes using relative density on an air-dried basis

7.2 Coal Quality Model

Coal quality data has been composited on a seam basis. The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for most coal quality attributes and it is also less likely to introduce spurious trends into the data. Testing indicated that a power value of two and a search radius of 2500 metres are the most suitable inverse distance interpolation parameters for modelling of the BIB coal deposits. Parameters used for quality modelling are summarized in Table 7:2.

Table 7:2 Quality Model Parameters

Model Component	Details
Coal Quality Data Type	Raw
Model Type	MineScape Table
Interpolator	Inverse distance
Power	2
Search Radius	2500 metres

7.3 Quality Model Validation

After the completion of quality model gridding, selected qualities for selected seams were contoured and contours inspected to ensure that quality models had been gridded correctly. As a second validation measure, average qualities reported during resource reporting for all seams were compared against the average qualities of the input data to ensure consistency between input and output data sets.

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8 Coal Resources

8.1 Prospects for Eventual Economic Extraction and Resource Classification

Coal Resources present in the BIB concession have been reported in accordance with the JORC Code, 2012. The JORC Code identifies three levels of confidence in the reporting of resource categories. These categories are briefly explained below.

Measured – "...*That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors to support detailed mine planning and financial evaluation*";

Indicated – *"…That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors in sufficient detail to support mine planning and evaluation"; and*

Inferred – *"…That part of a Mineral Resources for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling.".*

For the purpose of coal resource classification according to JORC Code (2012) Code, Salva Mining has considered a drill hole with a coal quality sample intersection and core recovery above 90% over the sampled interval as a valid point of observation.

In terms of Coal Resource classification, Salva is also guided by the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) (The Coal Guidelines) specifically referred to under clause 37 of the JORC Code (2012).

Based on due consideration of the continuity of the coal seams as observed in the geological models for each of the five resource areas, the relative lack of evidence for significant faulting and the population statistics of the coal quality composites per seam, Salva has sub-divided Coal Resources within the BIB concession into resource classification categories based on the following spacing's (expressed as a radius of influence around points of observation which is half of the spacing between points of observation):

- Measured 250m or 375m;
- Indicated 500m or 650m; and
- Inferred 2000 m radius of influence.

Larger spacings for the Measured and Indicated Resource categories were used for KG Block only and is based on geostatistical analysis of raw ash variation in one of the main seams in this block (BL2U).

In general, structural point-data is more variable however this is considered to be adequately modelled by the much greater amount of structural data points. Hence classification is based on the more sparsely distributed coal quality data points as the quality estimate is considered to have the lower confidence in continuity. The resultant classification adequately reflects the CP's view of the deposit.

It is furthermore a requirement of the JORC Code (2012) that the likelihood of eventual economic extraction is considered prior to the classification of coal resources.

The average coal quality attributes of the coal seams considered are sufficient to be marketed as a mid CV thermal coal for power generation purposes. Therefore, Salva Mining considers that it is reasonable to define all coal seams within the classification distances discussed above, to a depth of 250 m below the topographic surface, as potential open-cut coal resources or to a maximum vertical stripping ratio of 15:1 in the case of the more steeply dipping PP Block (where a depth of 250 m below surface would result in overall stripping ratios that are unlikely to be economic due to the steep dips).

8.2 Coal Resources

The estimated Coal Resources have been classified and reported according to the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) as of 31 December 2019 are detailed in Table 8:1 below.

Table 8:1 Coal Resource Estimate as of 31 December 2019

Coal Resources (Mt)										
Area	Measured	Ash% (adb)	CV adb Kcal/kg	Indicated	Ash% (adb)	CV adb Kcal/kg	Inferred	Ash% adb	CV adb Kcal/kg	Total
KG	873	5.35	5,289	298	6.19	5,212	298	6.56	5,194	1,470
BS	21	4.71	5,567	27	5.61	5,560	155	5.94	5,563	203
SS	18	6.22	5,510	10	6.29	5,559	15	5.59	5,570	43
SN	13	4.74	5,357	10	6.29	5,245	48	7.0128	5,077	71
PP	10	8.58	6,716	10	9.32	6,593	10	8.48	6,615	30
Total	935	5.38	5,316	355	6.24	5,288	526	6.43	5329.80	1,816

Mineral Resources are reported inclusive of the Mineral Reserves
(*Note: individual totals may differ due to rounding*)
Final Inferred Resource rounded to nearest 1 Mt.

8.3 Comparison with Previous Estimates

The current (December 2019) BIB resource estimate incorporates an additional 11 drill holes for KG Block offset by additional mine production from KG and BS block. The other resource blocks have had no additional information since the last estimate and hence remain unchanged from the previous estimate.

In the case of KG Block, the additional drilling information from 11 drill holes has resulted in an increase in total Mineral Resource largely offset by the actual production during the period.

In the case of BS Block, revised mined out topography has resulted in a minor drop in the Measured Resources category compared to the previous estimate. Table 8:2 below shows a breakdown of the difference in resource tonnes for the entire BIB concession between current and the previous estimates.

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Table 8:2 Coal Resources - Comparison with the Previous Estimate

Resource Category	Salva Mining Dec 2019 (Mt)	Salva Mining Dec 2018 (Mt)	Salva Mining Dec 2017 (Mt)	Salva Mining Dec 2016 (Mt)	HDR Dec 2015 (Mt)	HDR Dec 2014 (Mt)
Measured	935	977	992	916	869	857
Indicated	355	333	333	335	334	353
Total M&I	1,290	1,310	1,325	1,251	1,203	1,210
Inferred	526	507	505	565	580	530
Total	**1,816**	**1,817**	**1,830**	**1,816**	**1,782**	**1,740**

9 Reserves Estimation

9.1 Estimation Methodology

Salva Mining prepared the Coal Resource estimate for BIB Concession coal deposit as of 31 December 2019 which is used as a basis for the Coal Reserve estimate.

The Coal Reserves estimates presented in this Report are based on the outcome of pit optimisation results and the Techno-economic study carried out by Salva Mining. The mining schedule for the BIB concession blocks includes 4 existing open-cut mines, Kusan Girimulya (KG), Batulaki South (BS), Sebamban North (SN) and Sebamban South (SS) and a proposed open-cut mine at Pasopati (PP) with a targets combined total coal production of 45 Mtpa from all the pits from the year 2023 onwards.

The subject specialist for Coal Reserves considers the mine to be techno-economically viable. This has been done by reviewing all the modifying factors, estimating reserves in the pit shell and preparing an economic model which confirms a positive cash margin using the cost and revenue factors as described below in this Report.

9.2 Modifying Factors

The BIB mine has been operating since 2005 (Kusan-Girimulya Pit started from 2011). It has produced 13.3 Mt in 2017, 20.3 Mt during 2018 and 28.7 Mt during 2019.

Pre-feasibility studies were completed prior to the commencement of mining operations. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval (CCoW).

Where an entity has an operating mine for an Ore Reserve, its Life of Mine Plan would generally be expected to contain information at better than Pre-Feasibility or Feasibility level for the whole range of inputs normally required for a Pre-Feasibility or Feasibility study and this would meet the requirement in Clause 29 for the Ore Reserve to continue that classification. Salva Mining has used actual modifying factors based on current operations at the BIB Mine which were independently verified by the Salva Mining's subject specialist during the site visit. In Salva Mining's opinion, the Modifying Factors at BIB Mine are better defined based on actual mining practices compared to a greenfield project at the Pre-Feasibility stage.

Table 9:1 outlines the factors used to run the mine optimisation and estimate the Coal Reserve Tonnage.

Table 9:1 Modifying & Mine Optimisation Factors

Factor	Chosen Criteria
Seam roof & floor coal loss	0.05m to 0.15m
Seam roof & floor dilution	0.015m to 0.04m
Geological & Mining loss including the loss in transportation and handling at port	2% to 5%
Minimum mining thickness minable coal seam	0.3m

Factor	Chosen Criteria
Dilution default density	2.2bcm/t
Dilution default calorific value	500 to 800 Kcal/kg
Dilution default ash	75%
Overall Highwall and Endwall slope (varies in different blocks)	20 deg to 42 deg
Maximum Pit depth	Varies (200m max.)
Minimum Mining width at Pit bottom	50m
Exclusion of Mining lease (CCOW) and offset from Pit crest	50m
Offset from the river edge	300m
Mining, Coal handling and Transport Cost	Available and Used
Long Term Coal Selling Price used for Break-even Stripping Ratio calculation	US$ 35.0/t (except Pasopati), Pasopati US$ 71.5/t
Government Documents/approvals	Available and Used
Environment Report	Available and Used
Geotechnical Report	Available and Used
Hydrogeology Report	Available & Used

9.3 Notes on Modifying Factors

9.3.1 Mining Factors

General

The mining limits are determined by considering physical limitations, mining parameters, economic factors and general modifying factors as above (See Table 9:1). The mining factors applied to the Coal Resource model for deriving mining quantities were selected based on the use of suitably sized excavators and trucks.

The mining factors (such as recovery and dilution) were defined based on the continued open cut mining method and the coal seam characteristics. The exclusion criteria included the lease boundary, Kusan River (for Girimulya Pit & Pasopati pit) and a minimum working section thickness.

Determination of Open Cut Limits

The geological models that were used as the basis for the estimation of the Reserves are the Minescape geological models prepared by Salva Mining to compute the Resources.

Potential open-cut reserves inside different blocks of the Project Area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. By generating the financial value (positive or negative) for each mining block within a deposit and then applying the physical relationship between the blocks, the optimal economic pit can be determined.

This method is widely accepted in the mining industry and is a suitable method for determining economic mining limits in this type of deposit. The optimiser was run across a wide range of coal prices using a standard set of costs that was developed by Salva Mining and based on typical industry costs in similar operations. These costs were adjusted to suit the conditions for this project.

Unit Costs

The Contractor and Owner unit costs used in the Lerchs Grossman optimiser for various blocks are detailed in Table 9:2 and Table 9:3. These costs were used to create a series of waste and coal cost grids which were used to generate the optimiser nested pit shells.

Table 9:2 Contractor Unit Rates (Real Terms)

Cost Item	Unit	Rate
Land Clearing	$/ha	1,700
Topsoil Removal	$/bcm	1.85
Waste Mining	$/bcm	1.85
Waste Haulage	$/bcm/km	0.30
Coal Mining	$/t	0.75
Haul to ROM Stockpile	$/t km	0.12
Haul to Port Stockpile – Road	$/t km	0.10
Barging	$/t km	0.045
Transhipment	$/t	1.30

Note: All quoted cost in local currency is adjusted for fuel price and exchange rate

Table 9:3 Variable Owner Unit Costs (Real Terms)

Cost Item	Unit	Rate
ROM Coal Handling	$/t	0.30
Crushing, Stockpile and Barge Loading	$/bcm	1.00
Mine Closure	$/ha	8,500
Environmental and Rehabilitation	$/t	0.10
Land Use Payment	$/t	0.25
Water Management	$/t	0.05
Salary and Wages	$/t	0.25
Camp and Accommodation	$/t	0.05
Medical & Community Development	$/t	0.05
Corporate Overheads	$/t	0.50
Local Government Fees	$/t	0.25

Royalty was estimated at 13.5% based on the respective sale prices of the coal for each block. A 10% VAT has been applied to all services purchased.

Apart from the unit costs described in the above section, land compensation cost per Ha was also considered during optimisation. These land compensation costs were obtained from the GEAR technical team and verified by Salva Mining.

Base Pit for Optimiser

In addition to the mining and economic constraints, the optimisers were mostly limited by a 3-dimensional shell which was built for each block following either a surface constraint or geological model extent. These constraints are detailed in Table 9:4. This pit shell effectively represented the maximum pit possible in the deposit that was reasonable for the estimation of Coal Reserves.

Table 9:4 Block wise Optimiser Base Pit limits

Block Name	North	South	East	West
Kusan Girimulya	IUP and River	Geomodel	Sub-Crop	IUP and Geomodel
Batulaki South	Geomodel	Geomodel	Geomodel	IUP and River
Sebamban South	IUP	IUP	Sub-Crop	IUP
Sebamban North	IUP	IUP	Sub-Crop	IUP
Pasopati	Geomodel	Geomodel	Geomodel	Geomodel

In Pasopati the base pit was divided into two separate pits – North and South – as a river runs almost through middle of the block. A 300 m offset was taken from the river on both sides.

Artisanal Mining in Pasopati

Artisanal mining was prevalent in the Pasopati block after the LiDAR topography was surveyed in 2009. No accurate survey was available for the current mined out situation in this block. A polygon delineating the extent of this mining in both north and south was surveyed. This surface was used in optimisation for this block to exclude any possible mined out tonnage from the current reserve estimate.

9.3.2 Optimisation Result

The optimiser produced a series of nested pit shells using the same cost parameters with varying sale price of coal. The method starts with a very low discounted sale price following a high discount factor and moves toward higher sale prices by decreasing the discount on sale price. It estimates the net margin by subtracting the total cost from the revenue within a particular shell at a particular discount factor using the cost-revenue parameters and the physical quantities within the pit shell. As the method progresses, the incremental margin per tonne of coal slowly drops down to zero at "zero" discount factor and then goes negative as the pit shells go deeper following higher sale prices. As a result, the cumulative margin slowly rises up to a maximum level at "zero" discount factor and then starts dropping off. Thus, the pit shell (OPT000) which represents the "zero" discount factor is called the optimum pit shell as any smaller or bigger shell will have a lower cumulative margin ("value"). The goal in this process is intended to have economic pit sensitivity.

9.3.3 Selection of Pit Shell

GEAR is proposing to mine 45 Mtpa of coal from BIB coal concession blocks from 2023 onwards and as such would need around 600-700 Mt of mineable ROM coal to achieve this target.

An economic model was prepared for the mining operation from each of the BIB coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio.

Break Even Stripping Ratio

Table 9:5 summarises the calculation of the Break-Even Stripping Ratio for BIB Blocks. The methodology adopted involves taking the cost to mine a tonne of coal and adding all the costs associated with getting the coal to the point of sale.

Table 9:5 Break-even Stripping Ratio (BESR)

	KG / BS / SS & SN Blocks	PP Block
Coal Price, US$ /t, FOB	$35.03	$71.48
Royalty, US $/t, FOB barge	$4.34	$9.10
Overheads, US $/t	$5.71	$5.92
Offsite Cost, US $/t	$5.75	$8.64
Coal Mining, US $/t	$0.75	$0.75
Waste mining including waste overhaul (US$/bcm)	$1.85	$1.85
Break-Even Strip Ratio	10.0	25.4

For the purpose of reserve estimation, total moisture was considered to be equal to in-situ moisture for determination of in-situ relative density as in-situ moisture values were not available. The in-situ density of the coal has been estimated using the Preston-Sanders method to account for the difference between air-dried density and in-situ density. The formula and inputs were as follows:

$$RD2 = RD1 \times (100 - M1) / (100 + RD1 \times (M2 - M1) - M2)$$

Where

- RD2 = In-situ Relative Density (arb)
- RD1 = Relative density (adb)
- M1 = Inherent Moisture (adb)
- M2 = Total Moisture (arb)

It should be noted that while the total moisture from laboratory measurements may not necessarily equal the in-situ moisture, this is considered to be the best estimate given the limited amount of data. Salva Mining has assumed that no moisture reduction takes place for the determination of product quality.

9.3.4 Geotechnical Factors

All pits except for Pasopati block have been designed such that low walls commenced at the sub-crops and followed the coal floors. In Pasopati block, low-wall does not follow the seam floor due to block's steeply dipping stratigraphy. Hence a geo-technically stable batter angle was selected for this block and used for the pit design. As a consequence, the low wall batter has to lie below the seam floor of the bottommost seam. It is important to understand that any undercut of bedding on the low wall (or up-dip mining) creates a high risk of failure.

The current geotechnical studies deal with KG block and have recommended the slope parameters up-to 200m depth. Geotechnical parameters used in this Report were based on either actual operations or previous geotechnical studies.

9.3.5 Surface Water Management

Pit water management is of critical importance to the effective operation of the mine. Dewatering operations observed during the site visit were considered to be of a high standard with well-constructed pit sumps and efficient drainage from operating areas into the sump. The overall strategy for water management over the life of mine will be to:

1. Minimise surface water entering the pit by:
    a. Building dams and drains to divert water from external catchments away from pits; and
    b. Profiling dumps so that water is diverted away from the pits.
2. Removing water from excavations by:
    a. Constructing the main sump at the deepest point of each pit and draining all in-pit water to that sump; and
    b. Installing sufficient pumps and pipes of a suitable size to pump water from the pit. Two-stage pumping will be required in deeper areas in the later years of the mine life.

9.3.6 Mining Method & Operations

Mining operation commenced in 2005 in Sebamban South Pit (SB) and Batulaki South Pit (BS) Blocks. The Kusan Pit (KG) was started in 2011 while the Sebamban North Pit (SN) was started in 2015.

The mining operation in BIB is an open-pit mine using standard truck and excavator methods which are a common practice in Indonesia. Waste material is mined using hydraulic excavators and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. For the purpose of this Report, it is proposed that contractors will continue to be used for mining and haulage operations over the life of mine, and the unit costs used for the Reserve estimate reflect this style of mining.

Contractors are currently using truck and excavator combinations of 200-tonne excavator with 100-tonne trucks & 110-tonne excavator with 60-tonne trucks for waste removal whereas coal mining is being carried out by smaller size excavators (PC200-PC400 Komatsu excavators) with 30 tonne trucks. Coal from Kusan Pit is being hauled (about 20 km) to Port Bunati (Seaport owned by GEAR) for export to customers. The mining method can be described as a multi seam, moderate dip, open-cut coal mine using truck and shovel equipment in a combination of strip and haul back operations. Figure 9:1 and Figure 9:2 shows the current mining operations at KG and SN pit respectively.

Figure 9:1 Mining Operations at KG Pit

Figure 9:2 Current Mining at SN Pit

Coal mining operations at the BS Pit was re-started again in 2018 by another contractor deploying smaller size equipment. Coal from BS Pit is hauled 16 km to the Port Abidin. Port Abidin is a river-based port where all the coal handling arrangements are being rented including loading onto the barges (7500-8000 tonne barges).

9.3.7 Processing Factors

The coal is to be sold unwashed so no processing factors have been applied. Other than crushing to a 50 mm top size no other beneficiation will be applied.

9.3.8 Mine Logistics Factors

Based on assessment of available information and data gathered from site visit, two logistic chains for coal blocks comprising BIB projects exist and need to be strengthened.

Presently at KG block, coal handling and infrastructure is already in place as coal mining activities are underway since 2011. The existing infrastructure at KG includes a run of mine (ROM) stockpile, a primary crushing and screening plant at the mine site. A weighbridge, port stockpile, secondary crushing circuit at the Bunati port. Bunati Port also has jetty and barge loading conveyor (recently expanded to 36 mtpa capacity). Offices, camps, workshops and other associated facilities are currently in place both at mine site and at the port.

At present, current operations use both the coal crushing plants located at ROM stockpile and at the port. Coal mined from the KG Block is currently hauled by using a recently completed expanded dedicated haul road (Figure 9:3). This haul road has the capacity to haul up to 40 Mtpa of coal from KG Block area. Sebamban North and Sebamban South pit also uses the same haul road to transport coal from the pit head to the Bunati port.

Furthermore, to accommodate additional tonnes from 2021 onwards, GEAR has laid out plans to install another crushing and screening system at the Bunati Port.

GEAR has engaged major local contractors for the coal haulage operations - PT Koperasi Sebamban Baru Mandiri (KSBM), and CV Mega Karya Sahabat (CVMKB).

GEAR has recently completed studies to evaluate the option of using road trains (double trailer) to augment its hauling capacity to above 40 Mtpa. Moving forward, with the increases in mining rate, increase in the truck fleet size/capacity will be required. To accommodate the incremental volume, double trailer trucks (170 mt) is planned to be deployed for ramping up coal haulage capacity to 45 Mtpa. GEAR is in discussions with some of the large hauling contractors who have shown interest to deploy 170 tonne double trailers. These contractors are using 170 t trailers at other sites including Adaro and Kideco Jaya Agung.

Similar coal handling arrangement exists for the coal mined from Batulaki South pit which is hauled to the Abidin port located at Satui River. Abidin Port is a third party owned port where infrastructures required for crushing and coal loading are being rented for coal export. Pasopati coal is also proposed to utilize the services of Port Abidin. BIB's existing coal logistics, proposed infrastructure and new haul roads are shown in Figure 9:3 and Figure 9:4 while barge loading facilities at the port has been shown in Figure 9:5.

Figure 9:3 BIB Road Logistics

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Figure 9:4 BIB OffShore Loading Anchorage

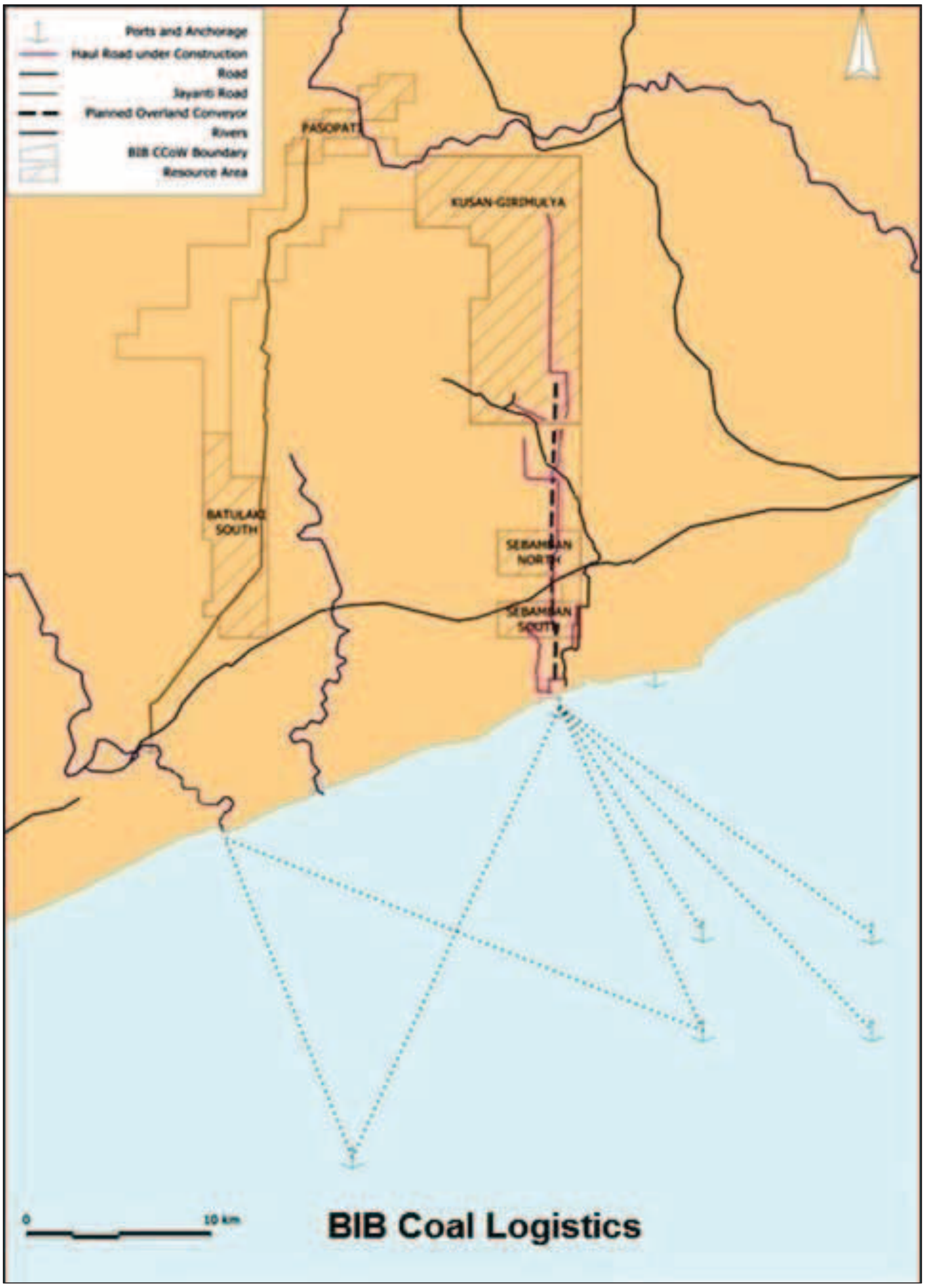

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Figure 9:5 Coal Loading Facilities at Port

9.3.9 Permits and Approvals

Salva Mining understands that the permits and approvals with regard to further mining activities in the BIB Coal Concession deposits are in good standing.

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9.3.10 Cost and Revenue Factors

General

GEAR provided a "data sheet" of indicative unit costs and revenues relevant for this project. Salva Mining did an independent coal marketing study to review the coal prices forecast for reasonableness. Salva Mining also reviewed the costs for reasonableness against known current mining costs for similar mining conditions within Indonesia. These unit rates were then used to estimate the cost to deliver coal to a ship (FOB vessel). This allowed a break-even strip ratio to be estimated and the rates were also used to calibrate the Optimiser software.

The following points summarise the cost and revenue factors used for the estimate:

- All costs are in US dollars;
- Long term coal price of US$35.0 per tonne (all except Pasopati), Pasopati - US$71.5;
- Royalties of 13.5% of revenue less marketing, costs have been allowed along with VAT of 10%;
- Allowances were made for hauling, crushing, quality control, stockpiling, barge loading, barging and ship loading which totalled approximately $5.0/t (all except Pasopati) to $6.5 (Pasopati) per tonne;
- Coal mining cost of US$0.75 per tonne; and
- Waste mining rate (excluding waste overhaul) has been taken as US$1.80 per bank cubic metre.

Operating Cost

GEAR provided the operating costs for mining and other activities including coal hauling, barging and port handling charges, which Salva Mining checked for reasonableness. Total operating costs per tonne of coal product including royalty for the BIB Project has been estimated as US$24.79 per tonne over the life of the mine. The updated operating cost for the BIB projects has been summarised below in Table 9:6.

Table 9:6 Average Unit Operating Cost (Real Terms) over Life of Mine

Operating Cost Elements	US $/t
Land Clearing	0.01
Topsoil Removal	0.04
Waste Mining	8.20
Waste Haulage	2.66
Coal Mining	0.75
Haul to ROM Stockpile	0.69
ROM Coal Handling	0.30
Haul to Port Stockpile – Road	2.12
Crushing, Port Stockpile and Barge Loading	1.00
Barging	0.78
Transhipment	0.87
Mine Closure	0.03
Environmental and Rehabilitation	0.10

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Operating Cost Elements	US $/t
Land Access fees	0.25
Water Management	0.05
Salary and Wages	0.25
Camp and Accommodation	0.05
Medical & Community Development	0.05
Corporate Overheads	0.42
Local Government Fees	0.21
VAT	1.65
Operating Cost Excl. Royalty	20.42
Royalty	4.37
Operating Cost incl. Royalty	**24.79**

Capital Cost

As GEAR is engaging contractors for mining operations at BIB concession blocks, it is envisaged that no major capital expenditure shall be incurred towards the mining equipment. But major capital will be required for infrastructure upgrades for ramp-up facilities at the BIB projects including mining and logistics infrastructure both at the mine site and at the port.

Salva Mining estimates the total capital expenditure of US$ 49.9M which includes a contingency of US$ 6.5M. These estimates are considered to have an accuracy of ± 15%.

In addition to the expansion capital, Salva Mining has factored 2% of the invested capital as sustaining capital per annum for asset maintenance over the life of mine. While preparing these estimates, Salva Mining has relied on industry benchmarks, its internal database and expertise and internal studies on the BIB concessions. The cost estimate was prepared in Q4 2019 in US$($).

Table 9:7 Capital Cost (Real Terms, Q4 2019)

Particulars	Direct Cost ($M)	Contingency ($M)	Total Cost ($M)
Land Compensation	17.4	2.6	20.0
Land Compensation	17.4	2.6	20.0
Miscellaneous Roads	1.0	0.2	1.2
Contractor Mobilisation	3.0	0.5	3.5
Mine Infrastructure	4.0	0.6	4.6
Road Upgrade for B Doubles	5.0	0.8	5.8
Hauling to Jetty	5.0	0.8	5.8
Crushing and Screening	7.0	1.1	8.1
Port Stockpile and Jetty	10.0	1.5	11.5
Port Facilities	17.0	2.6	19.6
Total Project Capital	**43.4**	**6.5**	**49.9**

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Salva Mining has compared these against the industry benchmarks and estimated these to be reasonable.

9.3.11 Marketing Factors

To estimate the long-term price for different types of project coals, Salva Mining has adopted the latest brokers forecast for the Newcastle thermal coal prices ex Australia (USD/t, FOB) as a benchmark price. These data which was collected by KPMG in November 2019 include forecasts of future prices for coal of CV 6,322 kcal/kg (gar) over a long-term horizon from each expert.

Table 9:8 Newcastle Coal Index Forecast

	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real, 2019)
Analyst 1	14-Oct-19	$68.0	$75.0	$82.0	$82.0	$75.0
Analyst 2	11-Oct-19	$70.0	$70.0			$65.0
Analyst 3	9-Oct-19	$70.0	$67.5			
Analyst 4	4-Oct-19	$66.0	$69.0	$75.0	$76.0	$75.0
Analyst 5	4-Oct-19	$63.0	$62.0	$62.0		$68.0
Analyst 6	4-Oct-19	$70.0	$66.0	$66.0	$66.0	$57.0
Analyst 7	4-Oct-19	$66.5				
Analyst 8	2-Oct-19	$75.0	$80.0	$80.0	$76.7	$70.0
Analyst 9	2-Oct-19	$69.0	$75.0	$75.0	$76.0	$73.3
Analyst 10	1-Oct-19	$85.0	$85.0			$80.0
Analyst 11	26-Sep-19	$70.0	$70.0	$75.0	$75.0	$70.0
Analyst 12	25-Sep-19	$82.2	$73.5	$70.5	$68.5	$57.5
Analyst 13	24-Sep-19	$72.8				
Analyst 14	23-Sep-19	$75.0	$85.0	$90.0		$90.0
Analyst 15	23-Sep-19	$65.0	$65.0			
Analyst 16	12-Sep-19	$76.0	$80.0			$77.0
Average		**$71.5**	**$73.1**	**$75.1**	**$74.3**	**$71.48**

Source: KPMG Coal Price & FX consensus forecast, November 2019

Salva Mining has adopted the average of the long-term price forecast ($71.48/t) as a reasonable benchmark price for Newcastle Index.

The Indonesian Government, set by the Ministry of Energy and Mineral Resources (Menteri Energi dan Sumber Daya Mineral), publish a monthly coal price report – the 'Harga Batubara Acuan' (HBA) or the Indonesian Coal Price Reference. HBA is an average price of four specific Indonesian and Australian coals, which is derived from the Argus Indonesia Coal Index 1 (ICI1), Platts Kalimantan 5900 gar, Newcastle Export Index (NEX), and the Global Coal Newcastle Index (GCNC) using the indices from the previous month, with the quality of CV = 6,322 kcal/kg gar, Total Moisture = 8%, Total Sulfur = 0.8% and Ash=15%.

Given that the Indonesian HBA price oscillates close to the Newcastle Index, Salva Mining has used forecast price for Newcastle Index as a proxy to HBA coal price forecast. The 'Harga Patokan Batubara' (HPB) – Coal Bench Mark Price is the method used for price assessment for royalty purposes by the Indonesian Government for coal of any specification using the following formula:

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HPB = (HBA x K x A) – (B + U) [US$/tonne]

Where:

HPB = The coal price reference calculated by adjusting the quality parameter
K = Calorific values of the coal / 6322 (gar)
A = (100 – Total Moisture)/ (100 – 8)
B = (Sulphur – 0.8) * 4 [US$/t]
U = (Ash - 15) * 0.4 [US$/t]

The long-term forecast price of the BIB coal was calculated as $37.89/t for Mid CV coal (KG, SN, BS and SS Blocks) and $71.48/t for High CV coal (PP Block) using the HPB conversation formula. The equates to 53.24% of the Newcastle Index for the KG, SN, BS and SS coal and 100.57% of the Newcastle Index for the PP coal.

Salva Mining has reviewed these prices against the ICI4 Coal Index, which is close to the current product coal quality. After considering the ICI4 prices and its historical discount to the Newcastle Index, Salva Mining has further applied an 8% discount to the HPB calculated price for the Mid CV Coal. The following Table 9:9 summarises long term price forecast taken to estimate reserves.

Table 9:9 Long Term Price Estimate

Mining Blocks	HPB Calculated Price		Salva Mining Estimate after discounting	
	Coal Price (USD/t)	% of Newcastle Index	Coal Price (USD/t)	% of Newcastle Index
KG, BS, SS and SN	38.06	53.24%	**35.03**	49.0%
PP	71.89	100.57%	**71.48**	100.0%

9.3.12 Product Quality

As previously stated, Salva Mining has assumed no moisture change in the product coal chain. Therefore, it is assumed that the final product will have the same quality of ROM coal which is summarised in Table 9:10.

Table 9:10 Product Coal Quality

Block	RD adb t/m3	TM arb %	IM adb %	Ash adb %	CV (GAR) Kcal/Kg	TS adb %
KG	1.39	35.2	15.7	6.2	4,041	0.21
BS	1.37	33.5	13.2	6.3	4,207	0.17
SS	1.47	38.6	12.5	5.8	3,866	0.21
SN	1.38	38.4	16.7	5.4	3,923	0.14
PP	1.33	8.7	6.1	12.5	6,528	1.39
Total	**1.39**	**35.1**	**15.5**	**6.2**	**4,056**	**0.22**

9.3.13 Other Relevant Factors

Limitations to Drilling

Approximately 3,070 boreholes are located within the BIB Project Area. 98% of boreholes have been logged using down-hole geophysics. Geophysical data is predominantly comprised of gamma, density and calliper logs and has allowed for accurate seam definition. The Resource is limited to 250 m depth below topography in all the BIB concession coal blocks except Pasopati block where it is limited to cut off stripping ratio of 15:1.

Surface Constraints

Mining operations are constrained physically by the concession boundary and seam outcrops. Other constraints that were used to define the project were limits of exploration drilling, constraints due to river and variable land compensation rates. No significant surface features exist that would further constrain mining activities.

Continuation of work will be required to support a future update of Reserve Estimates and Mine Plans. These include:

- detailed geotechnical studies to confirm the overall slope angles and other parameters in deeper pit area;
- detailed hydrogeological studies to know the water flow gradient and dewatering arrangement;
- more quality data as well as detailed drilling and updates to the geological model;
- land compensation issues; and
- changes in the life of mine schedule, infrastructure constraints, coal transportation issues and due to changes in marketing and costing during the mining operation.

These items may cause the pit shell and mining quantities to change in future Coal Reserve estimates.

Salva Mining is not aware of any other environmental, legal, marketing, social or government factors which may hinder the economic extraction of the Coal Reserves other than those disclosed in this Report.

In the opinion of Salva Mining, the uncertainties in areas discussed in the Report are not sufficiently material to prevent the classification of areas deemed Measured Resources to be areas of Proved Reserves for the purpose of this Report. Salva Mining also believes that the uncertainties in each of these areas also not sufficiently material to prevent the classification of areas deemed Indicated Resources to be areas of Probable Reserve.

Key project risk for the BIB Project emanates from the following factors in order of importance.

- Lower long term coal prices or domestic coal demand;
- Higher life of mine operating costs and logistics issues;
- Higher levels of capital costs.

Any downside to these factors will likely have a significant impact on the economic feasibility of this project. However, the projected cash flows in the financial analysis currently show a healthy margin.

9.4 Final Pit Design

For the purposes of this Report, Salva Mining has limited the pit depth to the limit of exploration drilling within the limit applied to the Resource estimates. Other factors considered in the final optimum pit designs included:

- The location and proximity of coal to exploration data;
- Proximity to the concession boundary;
- Out of pit dumping room;

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- Geotechnical parameters; and
- Surface water management considerations.

The final pit designs closely followed the selected pit shell in most locations (Figure 9:6 to Figure 9:10).

9.4.1 Cut-off Parameters and Pit Limit

Overall low-wall slopes as per the basal seam dip, endwall slopes and highwall slopes for the final pit design were considered as per table is given below. The slope parameters are based on the geotechnical study carried out for Kusan block.

Table 9:11 Pit Design Parameters for BIB blocks

Pit Design Parameters	Kusan Girimulya (KG)	Batulaki South (BS)	Sebamban South (SS)	Sebamban North (SN)	Pasopati (PP)
Overall Highwall Slope	30 deg up to 100m depth, 20 deg for depth up to 200m depth	35 deg up to 100m depth, 20 deg up to 200 m depth	35 deg up to 100m depth, 20 deg up to 200 m depth	35 deg up to 100m depth, 20 deg up to 200 m depth	42 deg up to 100m depth
Bench Slope	45 deg	45 deg	45 deg	45 deg	60 deg
Bench Height	10 m	10 m	10 m	10 m	10 m
Highwall berm	10 m	5 m	5 m	5 m	5 m
Low wall slope	3-4 deg (Kusan), 5-7 deg (Girimulya)	12-14 deg	8-10 deg	8-10 deg	8-10 deg
Ramp Width	30 m	30 m	30 m	30 m	30 m
Maximum Ramp Grade	8%	8%	8%	8%	8%

9.4.2 Pit Designs

The coal seam distribution within the BIB Concession deposits resulted in the Optimiser identifying several pits with the different basal seams. The pits were subjected to adjustments to form a practical pit design, which lead to the exclusion of the minor narrow pit shells and the resultant formation of Mineable Pit Shells, which formed the basis of the subsequent reserves estimate (Figure 9:6 to Figure 9:10).

Pits for various blocks have been designed within the limits as defined by the pit optimisation analysis. These limits are rationalised to ensure access between floor benches and walls were straightened to generate mineable pits.

Figure 9:6 Pit shell selection & Final Pit Design – KG Block

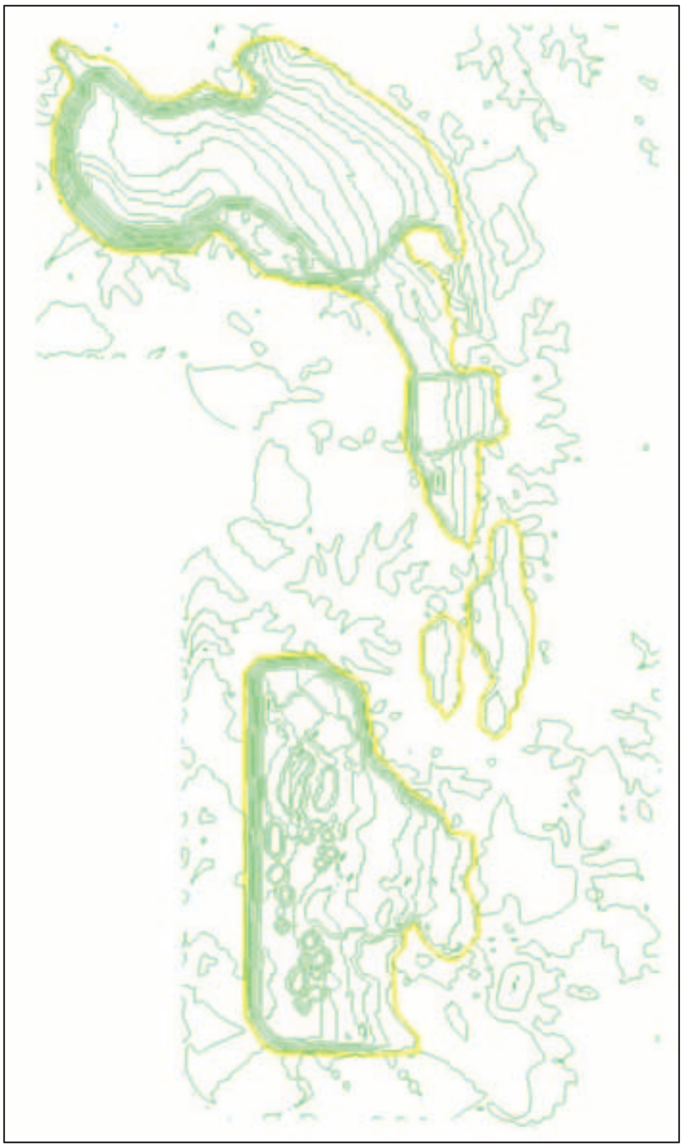

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Figure 9:7 Pit shell selection & Final Pit Design – BS Block

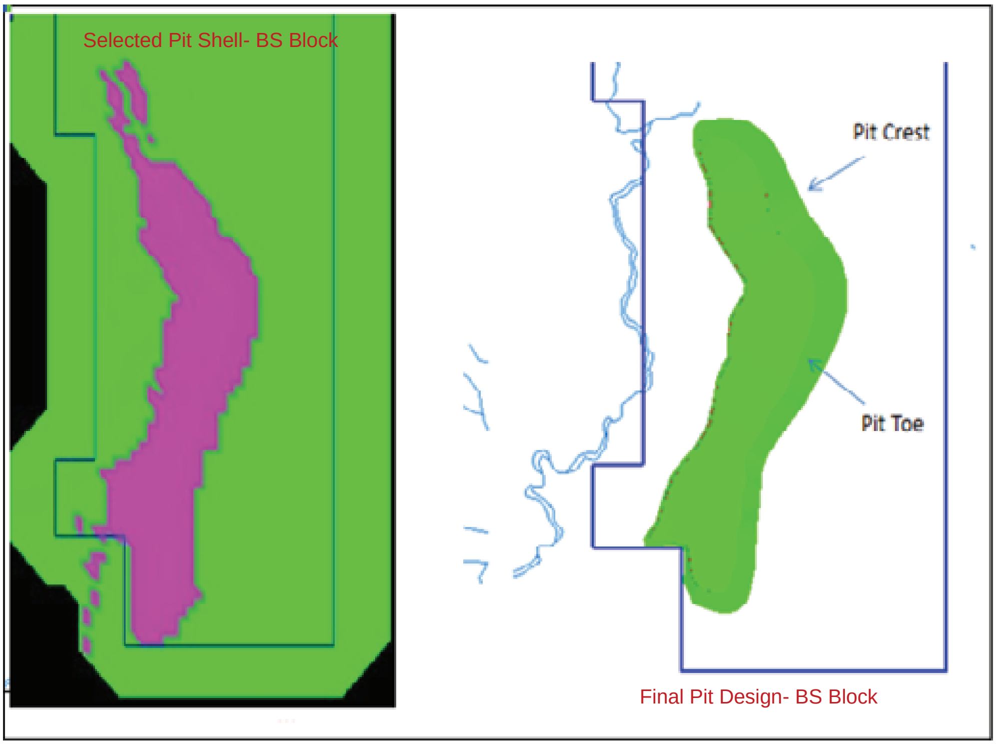


Figure 9:8 Pit shell selection & Final Pit Design – SS Block

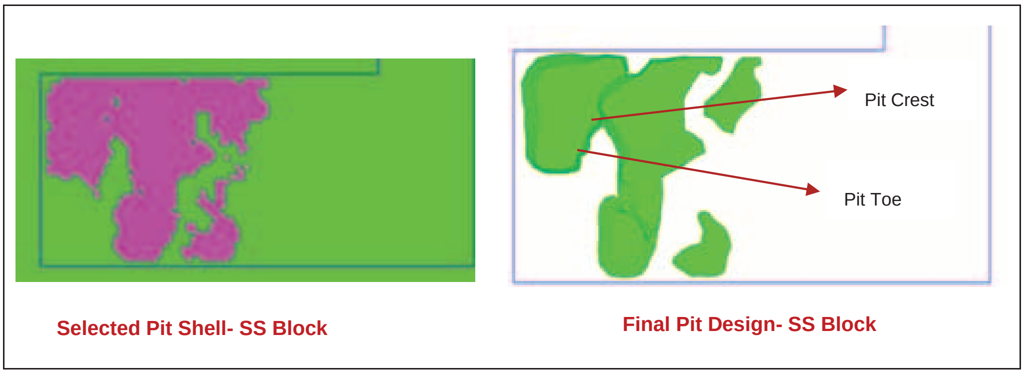
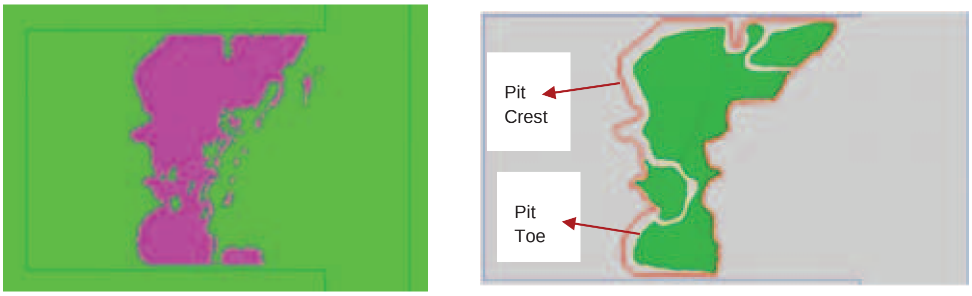


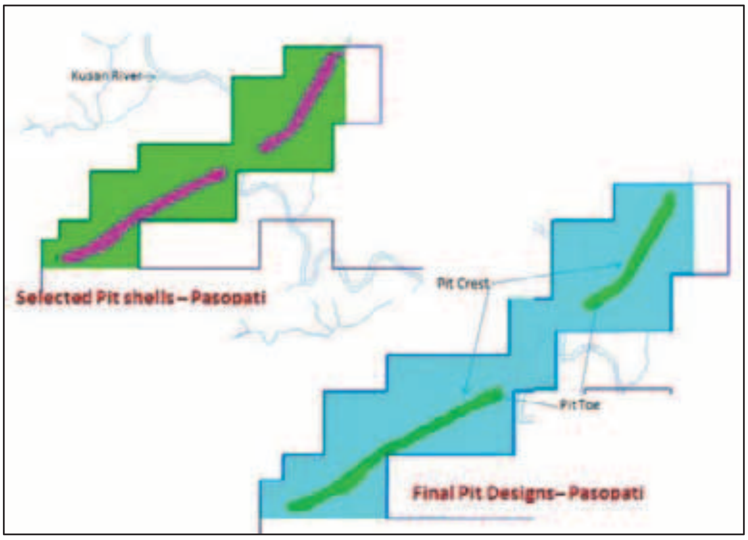
Figure 9:9 Pit shell selection & Final Pit Design – SN Block



Selected Pit Shell- SN Block

Final Pit Design- SN Block

Figure 9:10 Pit shell selection & Final Pit Design – PP Block



All pits except for Pasopati block have been designed such that low walls commenced at the sub crops and followed the coal floors. The overall highwall batter angle approximately varies from 20 to 35 degrees as the ultimate pit depth ranges from a little more than 80 m to 200 m. This was done in accordance with the geotechnical study done on the KG Block.

In Pasopati, it was not possible to follow any seam floor at the lowwall side because of the block's steeply dipping stratigraphy. Hence a geotechnically stable batter angle was selected for this block and used for the pit design. As a consequence, this pit includes a significant amount of under-burden material below the bottommost seam.

The ROM coal quantities within the Mineable Pit Shells were then tested so that only Measured and Indicated Coal Resources were classified as Coal Reserves. Coal Reserves within the seams having Measured Resources are reported as Proved Reserves whereas seams having Indicated Resources are reported as Probable Reserves. The final pit designs and associated cross-sections for estimating Coal Reserves for BIB Coal concession deposits are shown in Figure 9:11 to Figure 9:22.

9.4.3 Mining Production

The forecast production is 30 Mt in 2020, 36 Mt for 2021 and ramping up to 45 Mt from 2023 onwards. Historical production from BIB mines is shown below in Table 9.12.

Table 9:12 Historical Production – BIB Mine (Mt, Coal)

Pit	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Kusan Girimulya		0.6	2.1	2.2	3.2	5.5	6.7	12.8	20.0	28.5
Batulaki South	0.8	0.9	1.2	1.1	1.1				0.1	0.2
Sebamban North	0.3	1.2	0.5	0.7	0.3	0.7	0.8	0.5	0.2	0.1
BIB Mine (Total)	**1.1**	**2.8**	**3.8**	**4.1**	**4.6**	**6.3**	**7.5**	**13.3**	**20.3**	**28.7**

The final pit designs and representative cross-section of mining blocks at BIB concessions have been shown from Figure 9:11 to Figure 9:22.

Figure 9:11 Final Pit Design – Kusan Girimulya Pits

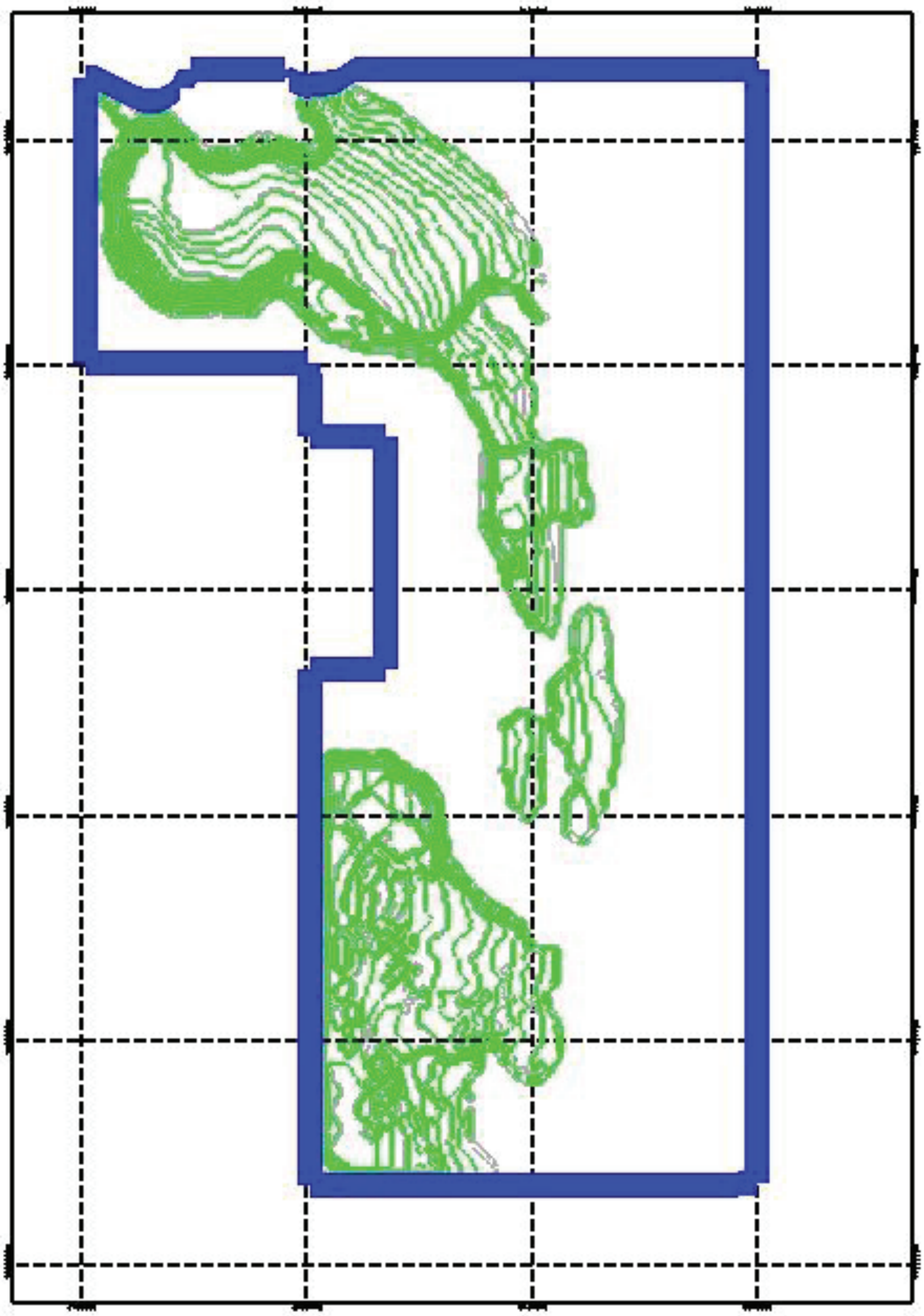


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Figure 9:12 KG Pit with E1U2 & BL2U Indicated Polygons

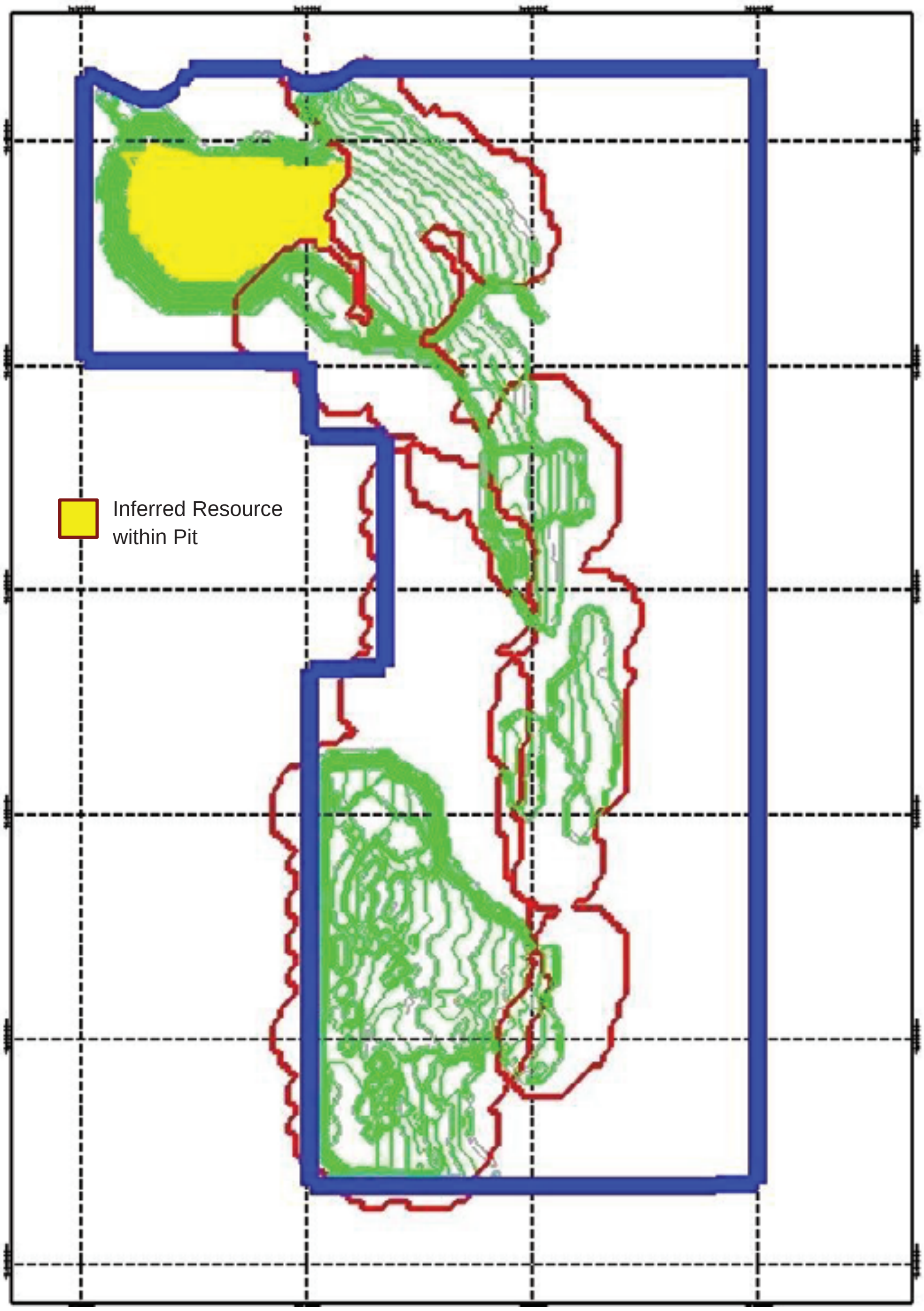

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Figure 9:13 Representative Cross Sections – Girimulya Pit (KG Block)

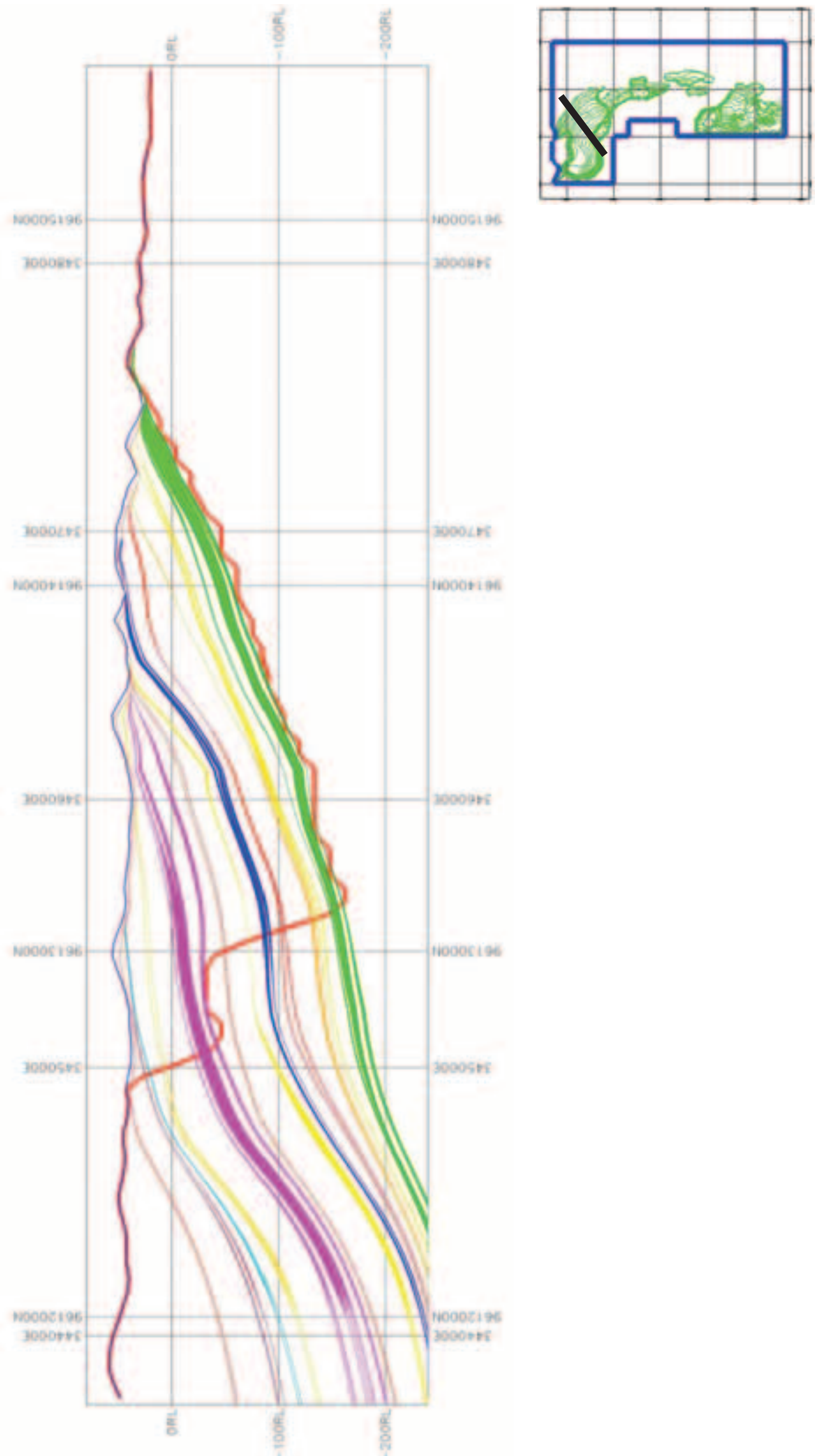

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Figure 9:14 Final Pit Design – Batulaki South Pit (BS Pit)

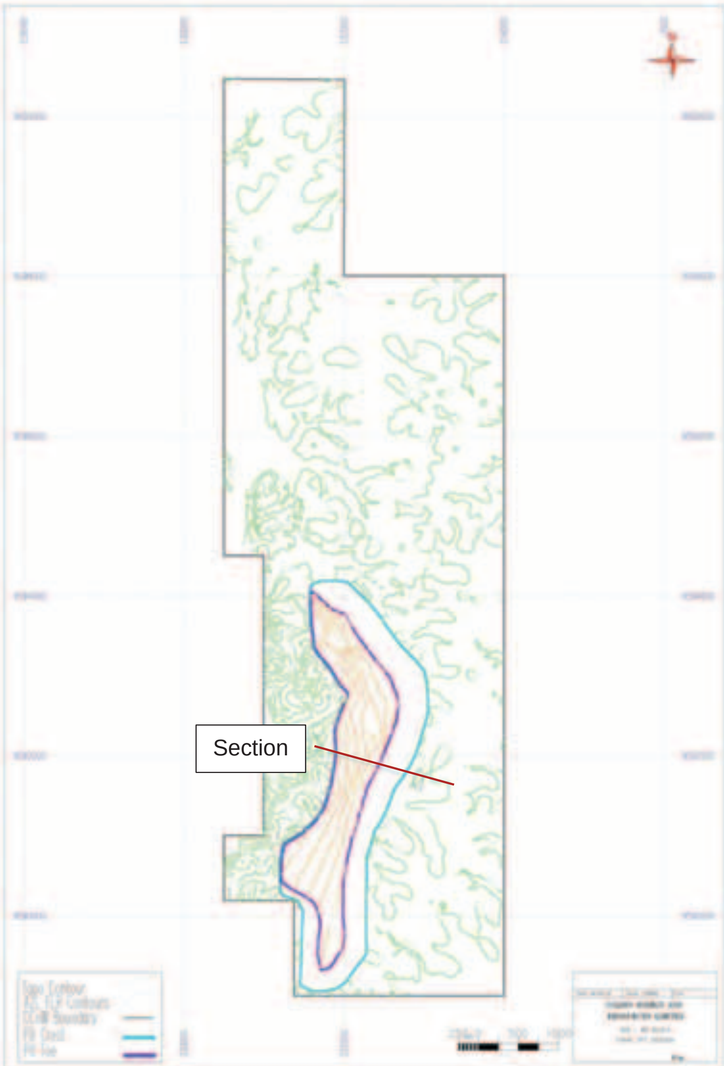

Figure 9:15 Representative Cross Section – Batulaki South Pit

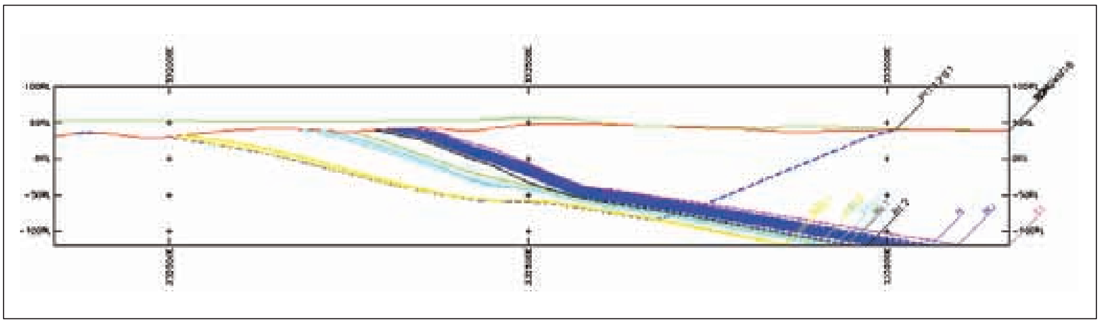

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Figure 9:16 Final Pit Design – Sebamban South (SS Pit)

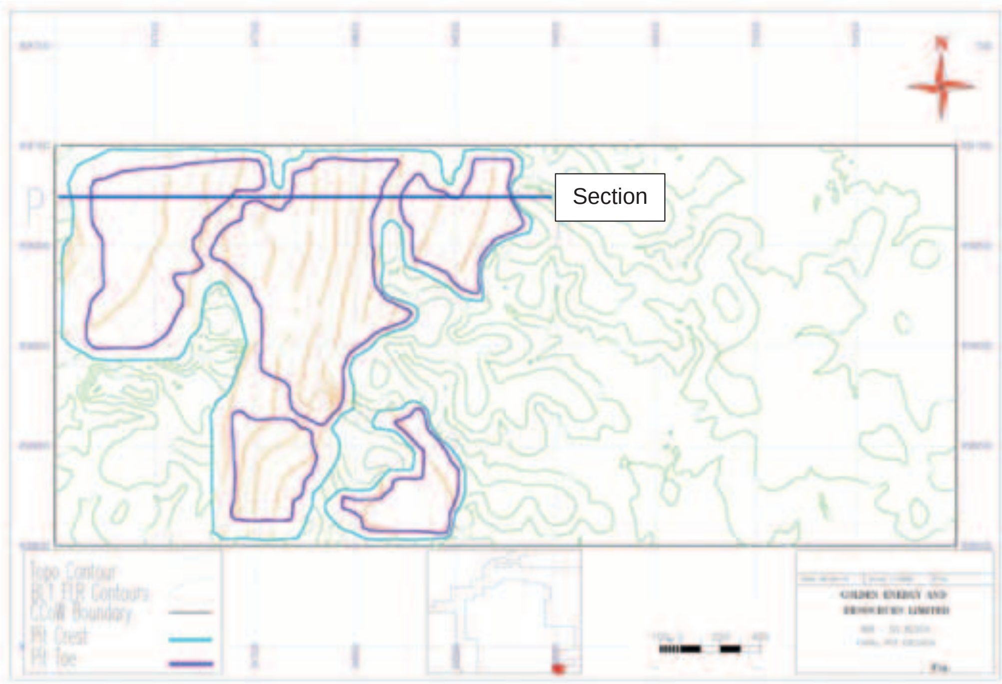


Figure 9:17 Representative Cross Section – Sebamban South Pit

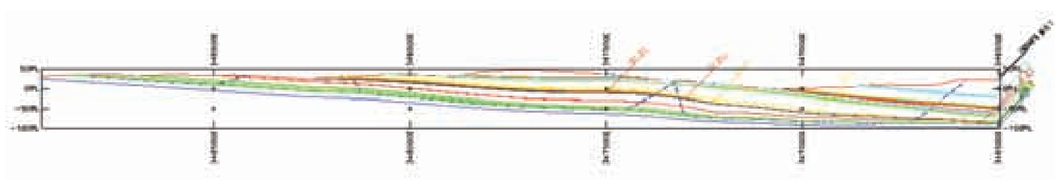


Figure 9:18 Final Pit Design – Sebamban North (SN Pit)

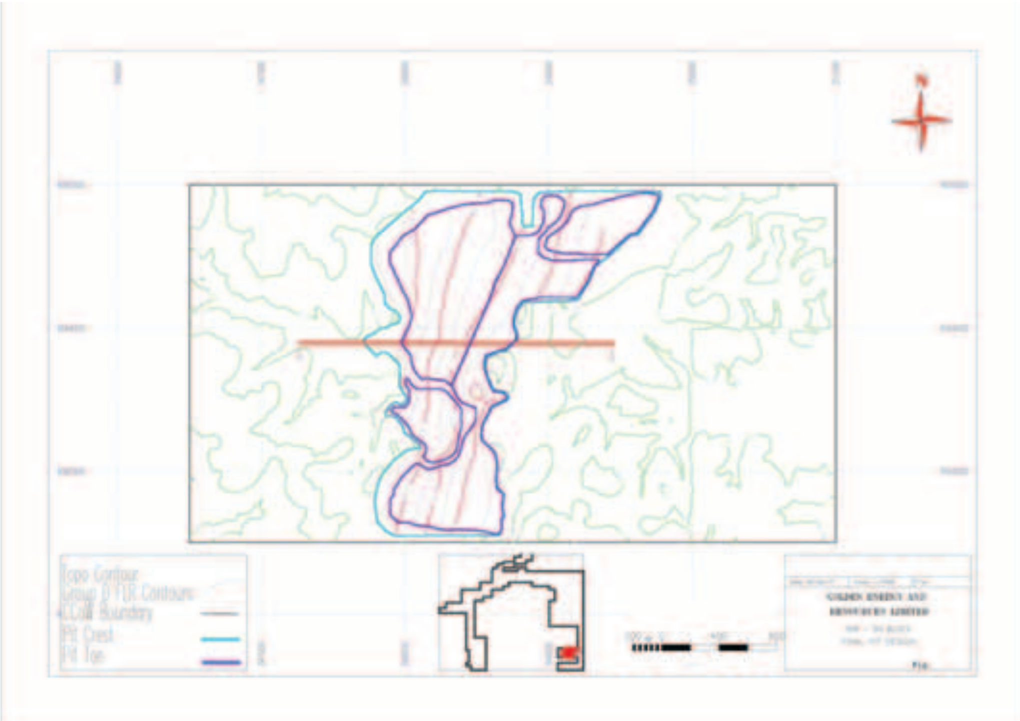


Figure 9:19 Representative Cross Section – Sebamban North Pit

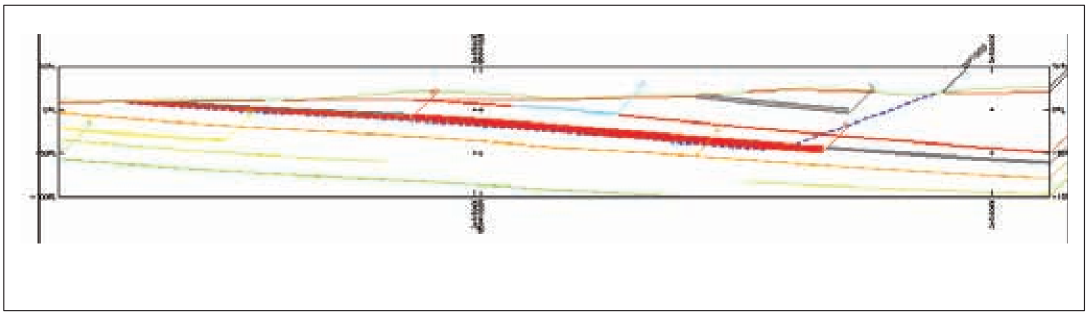


Figure 9:20 Final Pit Design – Pasopati Pits (PP Pits)

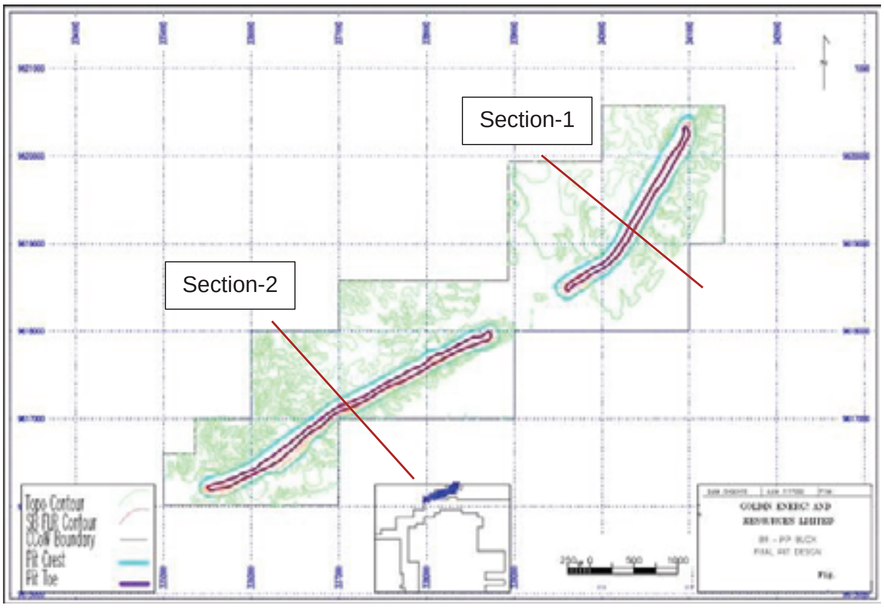


Figure 9:21 Representative Cross Section (Upper Pit) – Pasopati Pit

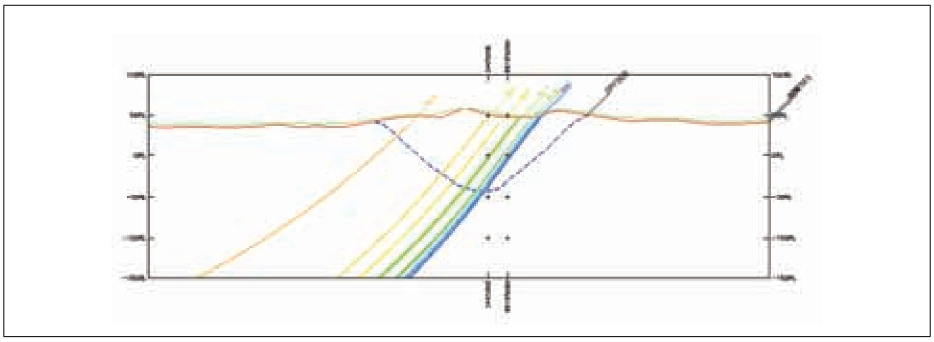
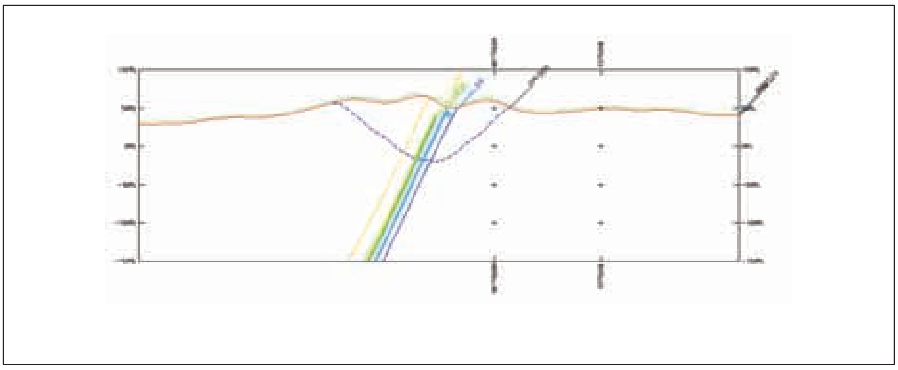


Figure 9:22 Representative Cross Section (Lower Pit) – Pasopati Pit



9.5 Reserves Classification

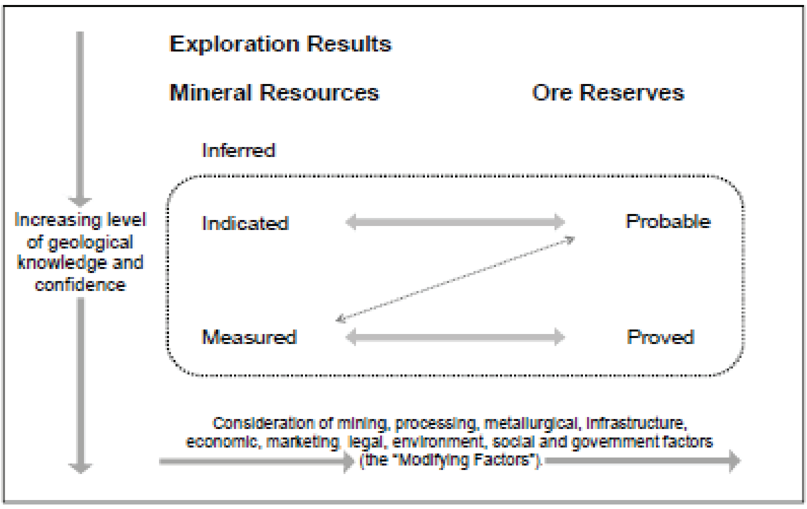
Under the JORC Code as shown below only Measured and Indicated Coal Resources can be considered for conversion to Coal Reserves after consideration of the "Modifying Factors" including mining, processing, economic, environmental, and social and governance factors.

To convert Resources to Reserves it must be demonstrated that extraction could be justified after applying reasonable investment assumptions. The highest confidence level establishes Proved Reserves from Measured Resources and a lesser confidence level establishes Probable Reserves from Indicated Resources. A level of uncertainty in any one or more of the Modifying Factors may result in Measured Resources converting to Probable Reserves depending on materiality. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resources to Reserves.

This classification is also consistent with the level of detail in the mine planning completed for BIB Coal concession deposits. Inferred Coal Resources in the mineable pit shell have been excluded from the Coal Reserves estimates.

In the opinion of Salva Mining, the uncertainties in most of these are not sufficiently material to prevent the classifications of areas deemed Measured Resources to be areas of Proved Reserves and areas deemed Indicated Resources to be the areas of Probable Reserves.

Table 9:13 General relationships between Mineral Resources & Ore Reserves



Source: JORC Code 2012

9.6 Statement of Coal Reserves

The Coal Reserves estimates has been prepared in accordance with the 2012 Edition of the JORC Code. Total ROM coal Reserves for PT Borneo Indobara coal deposit ("BIB") are summarised in Table 9:14 as of 31 December 2019. Total ROM coal reserves are same as total marketable coal reserves.

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Table 9:14 Coal Reserves for BIB Coal Concession as of 31 December 2019

Block	Reserve (Mt)			RD	TM arb %	IM adb %	Ash adb %	CV arb Kcal/kg	TS adb %
	Proved	Probable	Total	adb t/m3					
KG	542.8	71.6	614.5	1.39	35.2	15.7	6.2	4,041	0.21
BS	13.4	6.6	20.1	1.37	33.5	13.2	6.3	4,207	0.17
SS	11.4	4.5	15.9	1.47	38.6	12.5	5.8	3,866	0.21
SN	5.8	2.4	8.2	1.38	38.4	16.7	5.4	3,923	0.14
PP	3.0	1.2	4.2	1.33	8.7	6.1	12.5	6,528	1.39
Total	**576.4**	**86.4**	**662.8**	**1.39**	**35.1**	**15.5**	**6.2**	**4,056**	**0.22**

(*Note: individual totals may differ due to rounding*)

9.7 Seam by Seam Coal Reserve

Total ROM Coal Reserves for each of BIB coal concessions are reported by seam and are presented in Table 9:15 to Table 9:19.

Table 9:15 Coal Reserves for Kusan–Girimulya (KG) as of 31 December 2019

Seams	Proved Reserves, Mt	Probable Reserves, Mt	Total Reserves, Mt	RD, adb	ASH, %	IM, %	TM, %	CV (Gar), Kcal/kg	TS, %
B1	0.0	0.0	0.0	1.41	8.05	14.36	36.29	4000	2.13
BL1L	4.5	1.5	6.0	1.41	7.93	15.02	36.15	3941	0.73
BL1U	4.0	1.3	5.3	1.41	8.83	14.91	35.83	3913	0.70
BL2L	30.8	7.2	38.0	1.39	5.22	15.96	35.69	4035	0.35
BL2U	38.6	11.8	50.4	1.38	4.55	16.00	35.42	4087	0.35
BU1L1	0.3	0.0	0.3	1.64	25.88	15.00	36.33	3122	0.34
BU1L2	0.3	1.4	1.7	1.45	9.83	14.71	36.54	3806	0.40
BU1U	2.4	0.6	3.0	1.43	8.01	14.71	36.46	3892	0.43
BU2L	1.1	0.5	1.6	1.46	11.91	14.48	35.73	3738	0.48
BU2U	2.1	0.7	2.8	1.46	11.05	14.48	36.06	3762	0.49
CL1L	3.1	1.5	4.6	1.42	9.23	15.82	34.74	3951	0.33
CL1U	2.7	1.2	4.0	1.43	10.56	15.69	34.61	3885	0.34
CL2L	3.7	1.0	4.8	1.43	8.65	15.50	34.86	3948	0.32
CL2U	14.5	2.2	16.7	1.40	6.56	15.51	35.27	4008	0.28
CR1L	0.3	0.0	0.4	1.48	14.70	14.60	35.14	3833	0.19
CR1U	0.8	0.1	0.9	1.43	10.54	14.46	35.01	4047	0.20
CR2L	0.8	0.0	0.9	1.43	9.83	14.44	35.32	4027	0.18
CR2U	1.4	0.1	1.4	1.42	8.56	14.44	35.30	4088	0.18
CU1	0.7	0.4	1.1	1.45	13.02	14.67	34.57	3802	0.68
CU2	0.9	0.4	1.2	1.44	13.21	15.29	33.98	3821	0.41
D1L1	0.8	0.9	1.7	1.43	11.30	14.38	34.80	3829	0.26
D1L2	2.3	0.0	2.3	1.39	8.63	14.94	34.85	3972	0.20
D1U1	0.6	0.8	1.4	1.43	12.83	14.47	35.28	3724	0.24
D1U2	0.3	0.8	1.1	1.49	17.31	14.13	33.95	3604	0.20
DL1L	12.2	1.0	13.2	1.42	7.74	15.66	34.61	3978	0.22

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Seams	Proved Reserves, Mt	Probable Reserves, Mt	Total Reserves, Mt	RD, adb	ASH, %	IM, %	TM, %	CV (Gar), Kcal/kg	TS, %
DL1U	20.4	2.3	22.7	1.40	6.41	15.66	34.98	4020	0.18
DL2L	18.3	2.4	20.7	1.40	6.09	15.50	35.75	4005	0.16
DL2U	19.6	3.4	23.1	1.39	5.72	16.03	35.78	4024	0.19
DU1L	12.1	1.7	13.8	1.39	6.50	15.17	34.80	4044	0.19
DU1U	12.0	1.4	13.4	1.39	6.30	15.22	34.81	4047	0.19
DU2L	10.9	1.0	11.9	1.40	7.43	15.20	34.77	3984	0.21
DU2U	11.4	1.9	13.3	1.40	7.37	15.15	34.89	3987	0.20
E1L1	48.0	0.6	48.6	1.38	5.06	15.25	34.91	4134	0.15
E1L2	40.8	0.9	41.7	1.38	5.10	14.96	35.18	4075	0.13
E1U1	36.0	0.7	36.7	1.38	4.57	15.54	35.28	4122	0.13
E1U2	53.4	2.6	56.1	1.38	5.42	15.39	35.07	4051	0.13
E2L1	4.3	0.6	4.9	1.41	9.92	15.28	34.68	3890	0.14
E2L2	10.5	1.6	12.1	1.38	7.10	15.36	34.82	4011	0.14
E2U	13.4	1.4	14.8	1.38	6.58	15.41	34.83	4037	0.14
EL1L	2.8	0.3	3.1	1.45	13.17	16.08	33.56	3889	0.16
EL1U	16.9	1.2	18.1	1.39	6.91	15.42	34.23	4131	0.15
EL2L	24.2	1.1	25.3	1.38	6.20	16.34	34.89	4101	0.16
EL2U	32.3	1.5	33.8	1.38	5.87	16.19	34.92	4110	0.18
F1	5.5	2.5	8.0	1.38	8.28	18.87	35.74	3948	0.19
F2	9.2	2.2	11.4	1.36	6.04	20.44	36.22	4017	0.18
FL1	2.8	0.5	3.3	1.38	8.59	15.44	35.03	3909	0.17
FL2	5.1	3.2	8.2	1.37	7.22	17.01	35.63	3898	0.16
G1	1.5	0.3	1.8	1.40	9.90	16.22	35.88	3815	0.18
G2L	1.3	0.5	1.8	1.42	10.70	18.18	35.45	3834	0.19
G2U	0.6	0.1	0.7	1.42	11.30	18.99	35.15	3772	0.17
H1	0.4	0.0	0.4	1.26	5.45	13.49	38.07	3923	0.09
Total	**542.9**	**71.6**	**614.5**	**1.39**	**6.22**	**15.71**	**35.17**	**4042**	**0.21**

(*Note: individual totals may differ due to rounding*)

Table 9:16 Coal Reserves for Sebamban North (SN) as of 31 December 2019

Seams	Proved Reserve, Mt	Probable Reserves, Mt	Total Reserves, Mt	RD, adb	ASH, %	IM, %	TM, %	CV (Gar), Kcal/kg	TS, %
E	1.3	0.0	1.3	1.39	5.48	15.98	38.56	3,877	0.16
D2U	0.0	0.1	0.1	1.42	7.63	16.25	39.64	3,786	0.20
D2	0.5	0.3	0.7	1.39	7.87	16.37	38.53	3,863	0.21
DU	0.0	0.3	0.4	1.41	10.70	17.81	37.30	3,788	0.20
D	3.0	0.3	3.3	1.37	4.03	16.45	37.91	4,018	0.10
DL	1.0	1.4	2.3	1.38	5.56	17.37	38.93	3,861	0.14
Total	**5.8**	**2.4**	**8.2**	**1.38**	**5.40**	**16.69**	**38.35**	**3,923**	**0.14**

(*Note: individual totals may differ due to rounding*)

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Table 9:17 Coal Reserves for Sebamban South (SS) as of 31 December 2019

Seams	Proved Reserves, Mt	Probable Reserves, Mt	Total Reserves, Mt	RD, adb	ASH, %	IM, %	TM, %	CV (Gar), Kcal/kg	TS, %
F2	0.4	0.0	0.4	1.43	6.44	13.93	38.09	3,813	0.14
F1	0.2	0.0	0.2	1.49	14.65	12.06	35.89	3,525	0.14
E2U	1.4	0.2	1.7	1.45	5.30	13.41	37.46	3,988	0.14
E2L	1.4	0.1	1.5	1.44	6.51	13.70	37.45	3,909	0.12
E1U	0.4	0.1	0.5	1.49	5.43	13.47	37.66	3,983	0.15
E1L	0.4	0.1	0.4	1.54	9.76	13.08	37.09	3,770	0.13
EL	0.9	0.1	0.9	1.51	8.80	13.18	37.24	3,826	0.18
D1U	0.3	0.0	0.4	1.37	2.90	10.68	38.19	4,151	0.27
D1L	0.2	0.0	0.2	1.55	3.26	10.72	38.23	4,064	0.22
DU2	1.7	1.1	2.8	1.45	4.63	11.52	39.29	3,864	0.18
DU1	0.6	0.4	1.0	1.47	3.22	11.62	39.95	3,846	0.14
DL2	1.0	0.5	1.5	1.51	4.27	11.74	39.54	3,854	0.15
DL1	1.7	0.8	2.5	1.46	5.33	11.56	39.51	3,856	0.19
C	0.1	0.3	0.4	1.50	17.04	11.06	36.66	3,536	2.41
BL2	0.4	0.5	0.8	1.52	4.86	12.29	40.52	3,806	0.45
BL1	0.3	0.4	0.6	1.52	5.23	12.94	40.74	3,773	0.39
Total	**11.4**	**4.5**	**15.9**	**1.47**	**5.84**	**12.49**	**38.63**	**3,866**	**0.21**

(*Note: individual totals may differ due to rounding*)

Table 9:18 Coal Reserves for Batulaki South (BS) as of 31 December 2019

Seams	Proved Reserves, Mt	Probable Reserves, Mt	Total Reserves, Mt	RD, adb	ASH, %	IM, %	TM, %	CV (Gar), Kcal/kg	TS, %
CU	0.2	0.0	0.2	1.39	-	-	-	-	-
CL	0.1	0.1	0.2	1.42	11.91	11.55	34.65	4,103	0.17
BU	0.1	0.1	0.2	1.39	9.68	15.61	32.82	4,204	0.15
B	9.2	0.6	9.9	1.37	3.54	13.90	33.75	4,342	0.15
BL2	0.0	0.6	0.6	1.38	3.25	7.99	35.33	4,346	0.20
BL1	0.0	0.4	0.4	1.40	4.03	7.37	36.93	4,619	0.20
A4U2B	0.3	0.1	0.4	1.39	-	13.00	33.00	-	-
A4U2A	0.5	0.3	0.8	1.39	-	13.00	33.00	-	-
A4U1	0.6	0.2	0.8	1.35	5.15	13.97	32.08	4,499	0.17
A4L	0.1	0.1	0.2	1.41	12.22	11.74	31.37	4,230	0.18
A3U2	0.5	1.4	1.9	1.39	-	-	-	-	-
A3U1	1.0	1.8	2.8	1.39	-	-	-	-	-
A2U2	0.3	0.2	0.5	1.34	10.26	16.19	30.68	4,045	0.16
A2U1	0.2	0.4	0.6	1.34	8.08	14.79	32.11	4,172	0.19
A2L	0.3	0.3	0.6	1.45	15.30	11.15	31.71	3,836	0.19
Total	**13.4**	**6.6**	**20.1**	**1.37**	**6.31**	**13.18**	**33.54**	**4,207**	**0.17**

(*Note: individual totals may differ due to rounding*)

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Table 9:19 Coal Reserves for Pasopati (PP) as of 31 December 2019

Seams	Proved Reserves, Mt	Probable Reserves, Mt	Total Reserves, Mt	RD, adb	ASH, %	IM, %	TM, %	CV (arb), Kcal/kg	TS, %
SU1	0.0	0.0	0.0	1.33	-	-	-	-	-
SU2	0.0	0.0	0.0	1.35	7.23	5.96	16.98	6,709	1.52
SM1	0.0	0.0	0.0	1.31	7.55	6.24	12.44	6,609	0.75
SM2U	0.0	0.0	0.0	1.33	9.35	6.01	19.02	6,421	2.75
SM2	0.4	0.2	0.6	1.36	10.13	6.42	11.15	6,351	1.09
SM2L	0.0	0.0	0.0	1.29	10.80	4.82	17.90	6,444	2.60
SL1U	0.1	0.0	0.1	1.33	9.20	6.31	12.52	6,428	1.14
SL1	0.6	0.1	0.7	1.32	6.13	6.47	12.55	6,675	1.14
SL1L	0.1	0.0	0.1	1.42	18.83	4.39	10.12	6,308	3.63
SL2U	0.2	0.0	0.2	1.32	7.09	5.35	14.26	6,865	0.76
SL2	0.1	0.5	0.5	1.30	6.13	6.96	12.48	6,640	1.48
SL2L	0.2	0.0	0.2	1.35	12.76	4.31	11.04	6,471	1.68
SL3U	0.2	0.0	0.2	1.33	-	-	-	-	-
SL3	0.9	0.1	1.0	1.33	8.77	5.97	12.56	6,508	1.72
SL3L	0.1	0.0	0.1	1.33	-	-	-	-	-
SB	0.2	0.2	0.4	1.34	10.85	6.32	14.05	6,297	0.95
Total	**3.0**	**1.2**	**4.2**	**1.33**	**8.65**	**6.14**	**12.48**	**6,528**	**1.39**

(*Note: individual totals may differ due to rounding*)

9.8 JORC Table 1

This Report has been carried out in recognition of the 2012 JORC Code published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, the AIG and the Minerals Council of Australia in 2012. Under the report guidelines, all geological and other relevant factors for this deposit are considered in sufficient detail to serve as a guide to on-going development and mining.

In the context of complying with the Principles of the Code, Table 1 of the JORC Code (Appendix C) has been used as a checklist by Salva Mining in the preparation of this Report and any comments made on the relevant sections of Table 1 have been provided on an 'if not, why not' basis. This has been done to ensure that it is clear to an investor whether items have been considered and deemed of low consequence or have yet to be addressed or resolved.

References

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Appendix A: CVs

Person	Role
Manish Garg (Director - Consulting)	
Qualification	B. Eng. (Hons), MAppFin
Prof. Membership	MAusIMM; MAICD
Contribution	Overall Supervision, Economic Assessment (VALMIN 2005)
Experience	Manish has more than 25 years' experience in the Mining Industry. Manish has worked for mining majors including Vedanta, Pasminco, WMC Resources, Oceanagold, BHP Billiton - Illawarra Coal and Rio Tinto Coal. Manish has been in consulting roles for past 10 years predominately focusing on feasibility studies, due diligence, valuations and M&A area. A trusted advisor, Manish has qualifications and wide experience in delivering due diligence, feasibility studies and project evaluations for banks, financial investors and mining companies on global projects, some of these deals are valued at over US$5 billion.
Sonik Suri (Principal Consultant - Geology)	
Qualification	B. Sc. (Hons), M.Sc. (Geology)
Prof. Membership	MAusIMM
Contribution	Geology, Resource (JORC 2012)
Experience	Sonik has more than 25 years of experience in most aspects of geology including exploration, geological modelling, resource estimation and mine geology. He has worked for coal mining majors like Anglo American and consulting to major mining companies for both exploration management and geological modelling. As a consultant, he has worked on audits and due diligence for companies within Australia and overseas. He has strong expertise in data management, QA/QC and interpretation; reviews/audits of geological data sets; resource models and resource estimates.
Dr Ross Halatchev (Principal Consultant - Mining)	
Qualification	B. Sc. (Mining), M.Sc., PhD (Qld)
Prof. Membership	MAusIMM
Contribution	Mine Scheduling, Reserve (JORC 2012)
Experience	Ross is a mining engineer with 30 years' experience in the mining industry across operations and consulting. His career spans working in mining operations and as a mining consultant primarily in the mine planning & design role which included estimation of coal reserves, DFS/FS, due diligence studies, techno-commercial evaluations and technical inputs for mining contracts. Prior to joining Salva Mining, Ross was working as Principal Mining Engineer at Vale. To date, Ross has worked on over 20 coal projects around the world, inclusive of coal projects in Australia, as well as in major coalfields in Indonesia, Mongolia and CIS.

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Appendix B: SGX Mainboard Appendix 7.5

Cross-referenced from Rules 705(7), 1207(21) and Practice Note 6.3

Summary of Mineral Reserves and Resources

Name of Asset / Country: Borneo Indobara / Indonesia

Category	Mineral Type	Gross (100% Project)		Net Attributable to GEAR		Remarks
		Tonnes (millions)	Grade	Tonnes (millions)	Grade	
Reserves						
Proved	Coal	576	Bituminous A / Subbituminous B	379	Bituminous A / Subbituminous B	
Probable	Coal	86	Bituminous A / Subbituminous B	57	Bituminous A / Subbituminous B	
Total	Coal	663	Bituminous A / Subbituminous B	436	Bituminous A / Subbituminous B	
Resources*						
Measured	Coal	935	Bituminous A / Subbituminous B	614	Bituminous A / Subbituminous B	
Indicated	Coal	355	Bituminous A / Subbituminous B	233	Bituminous A / Subbituminous B	
Inferred	Coal	526	Bituminous A / Subbituminous B	346	Bituminous A / Subbituminous B	
Total	Coal	1,816	Bituminous A / Subbituminous B	1,193	Bituminous A / Subbituminous B	

* Mineral Resources are reported inclusive of the Mineral Reserves.
GEAR holds 65.7235% of asset indirectly.

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Appendix C: JORC Table 1

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Chip samples were collected at every 1m for lithology logging. Sampled all cored coal, sampled separately any bands and taken 10cm of roof and floor for non-coal samples.
Drilling techniques	Drill type (e.g.. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g.. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Drilled pilot hole to ascertain coal seams and then drilled a cored drill hole.
Drill sample recovery	Whether core and chip sample recoveries have been properly recorded and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	After the completion of each core run, core loss is determined by the on-site geologist and recorded in the drill hole completion sheet. If recovery is found to be less than 90% within a coal seam intersection, the hole is re-drilled in order to re-sample this seam with greater than 90% core recovery. All samples with less than 90% core recovery over the width of the seam intersection were excluded from the coal quality database. Followed drilling SOP's for loose and carbonaceous formations to achieve full sample recovery.
Logging	Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography. The total length and percentage of the relevant intersections logged.	Detailed logging of chips and core. Core photographs were taken.

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Criteria	Explanation	Comment
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected. Whether sample sizes are appropriate to the grainsize of the material being sampled.	No sub-sampling of the core
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	PT Geoservices laboratories are accredited to ISO 17025 standards. Coal quality laboratory adheres to internal QAQC and inter-laboratory QAQC checks. ISO methods have been used for MHC tests. Australian Standards have been used for RD and American Society for testing and materials (ASTM) methods have been used for all other quality variables. Geophysical traces were observed to be generally of good quality.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Coal quality sampling was undertaken by GEAR and is in-line with the coal quality being achieved during the actual mining operations. Twinned holes checked for the agreement of seam intersection depths and in most of the cases there was good agreement.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	Borehole collars have been surveyed using standard total station techniques employed by the survey contractors. Surveys have been validated by GEAR survey staff. The surveyed borehole locations for BIB match well with topographic data. The topography was generated by PT Surtech Utama across BIB project area using LIDAR remote sensing data.
Data spacing and Distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Data spacing sufficient to establish continuity in both thickness and coal quality. Data sets include topography and base of weathering as well as seam structure and coal quality. Ply sampling methodology use. Sample compositing has been applied.
Orientation of data in relation to	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Ply by Ply sampling used therefore the orientation of sampling not seen to introduce bias as all drilling is vertical.

Criteria	Explanation	Comment
geological structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample Security	The measures taken to ensure sample security.	Proper measures for sample security was taken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	PTSMGC conducted a review of the drill hole database in 2013 for the historical data set and found it to be satisfactory. Standard database checks also performed by Salva Mining as outlined in Section 5.4.4 prior to resource modelling and found it to be satisfactory.
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All tenure is secured and currently available. .
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No exploration by other parties.
Geology	Deposit type, geological setting and style of mineralisation.	See Section 4 of the Resource and Reserve Report.
Drill hole	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	This Report pertains to resource estimation, not exploration results. As such the details of the drill holes used in the estimate are too numerous to list in this Table.

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Criteria	Explanation	Comment
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations and cut-off grades are usually material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All samples have been composited over full seam thickness and reported using Minescape modelling software. No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Ply sampling methodology prevents samples from crossing ply boundaries. Therefore orientation of sampling not seen to introduce bias as all drilling is vertical and seams mostly gently dipping except in the case of the PP deposit
Diagrams	Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.	See figures in the Report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.	No reporting of exploration results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Geophysical survey results are available for 98% of the holes.
Further work	The nature and scale of planned further work (e.g.. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will be necessary to improve the confidence levels of the deposits further and understanding of the full seam stratigraphy as part of on-going mining activity. No proposed exploration plan has been proposed in this Report.
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	The database for all blocks is considered an acceptable standard to report a Coal Resource. Drill hole data used to construct Minescape model. Checks against original downhole geophysics (las) files used to verify data during modelling.
Site Visits	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	Frequent site visit by QP and Principal Mining Engineer (CP for Reserving) during 2014, 2015, 2016 and 2017 (last visit Oct 2017).

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Criteria	Explanation	Comment
		Geological site visit not conducted due to the fact that the geology had been well documented by previous consultants. Salva Mining's geologist has reviewed and discussed the available geological data in the companies office in Jakarta.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	A high degree of confidence in seam picks made using downhole geophysical data. The BIB geological models created by Salva Mining are considered to accurately represent the deposits. No major faults have been reported within the tenements concerned although major faulting exists outside the tenements. Current Minescape model tonnes agree with the previous model by developed by HDR to within 5% error margin range.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	See figures in the Report.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	FEM interpolator used for surface elevation, thickness and trend. Inverse distance squared used for coal quality throughout. Based on experienced gained in the modelling of over 40 coal deposits around the world, the FEM interpolator is considered to be the most appropriate for the structure and inverse distance the most appropriate for coal quality. The grid cell size of 25 m for the topographic model, 25 m for the structural model. Table 7:1 contains additional model construction parameters. Visual validation of all model grids performed. Sulphur is below 1% on average for most seams (apart from the C and BU seams in some instances) for all deposits except for the PP deposit where Sulphur is on average mainly above 1%.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages estimated on the air-dried basis.

Criteria	Explanation	Comment
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The coal resources contained in this Report are confined within the concession boundary. The resources were limited to 250m below topography except in the case of PP Block where a 15:1 strip ratio limit was used. A minimum ply thickness of 10cm and maximum thickness of 30cm was used for coal partings.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	The KG and SN blocks are currently being mined as open-pit excavations by truck and shovel method. SS and BS block has been mined till 2014 and is now under care and maintenance.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	N/A in situ air dried tonnes quoted
Environmental	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Portions of the deposit are currently being mined with dedicated waste dumps and water management system. The company is progressively rehabilitating waste dumps. Salva Mining is not aware of any environmental factors that may impact on eventual economic extraction.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	See discussion on density with regard to moisture basis.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors i.e. relative confidence in tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	Classification distances based on an assessment of the variability of critical variables through statistical analysis and by an assessment of the degree of geological complexity. Classification radii for the three resource categories are: Measured: 250m apart from KG (375m) Indicated: 500m apart from KG (650m) Inferred: 2000m
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Reconciliation exercises between planned and actual mining are occurring on an ongoing basis.

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Criteria	Explanation	Comment
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Spacing ranges for the three resource categories are considered to adequately reflect the degree of confidence in the underlying estimate on a global basis. Local variation to estimated values may arise and will be addressed by adequate grade control procedures during mining operations. Reconciliation of estimated vs actually mined tonnes for mining since 2013 is within 10% difference.
Mineral Resource Estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Basis of the estimates is as of 31 December 2019. Coal resources are inclusive of Coal reserves
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Frequent site visit by QP and Principal Mining Engineer during 2014, 2015, 2016 and late 2017. No site visits were undertaken since 2018 as the mining operations are now mature and activities are similar to previously sighted.
Study Status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	Three pits (KG, SN and BS) within BIB Coal concession blocks are being currently mined. It is proposed to recommence mining in SS Pit in 2019. PP is expected to be mined from 2021 onwards.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied	Refer to Break-even Stripping Ratio analysis.

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Criteria	Explanation	Comment
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods.	Refer Table 9:1 Modifying Factors and Pit Optimisation Parameters and Section 9:3 on Notes on Modifying Factors. The BIB mine has been operating since 2005 (Kusan-Girimulya Pit started from 2011). It has produced 7.5 Mt in 2016 and 12Mt in 2016 with a forecast of 16 Mt during 2018. Pre-feasibility studies were completed prior to the commencement of mining operations. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval (CCoW). Where an entity has an operating mine for an Ore Reserve, its Life of Mine Plan would generally be expected to contain information at better than Pre-Feasibility or Feasibility level for the whole range of inputs normally required for a Pre-Feasibility or Feasibility study and this would meet the requirement in Clause 29 for the Ore Reserve to continue that classification. Salva Mining has used actual modifying factors based on current operations at the BIB Mine which were independently verified by the Salva Mining's subject specialist during the site visit. In Salva Mining's opinion, the Modifying Factors at BIB Mine are better defined based on actual mining practices compared to a greenfield project at the Pre-Feasibility stage.
Metallurgical Factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications.	The coal is to be sold unwashed so no processing factors have been applied. Other than crushing to a 50 mm top size no other beneficiation will be applied.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Refer Section 9.3.9, Permits and approvals

Criteria	Explanation	Comment
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Discussed in Section 9.3.8 Mine Logistic Factors
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	Discussed in Section 9.3.10 Cost and Revenue factors.
Revenue Factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products	Discussed in Section 9.3.10 Cost and Revenue factors
Market Assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Discussed in Section 9.3.11Marketing Factors
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs	Economic analysis (NPV) done based on long term price outlook and the cost estimates (Contractor mining operation)
Social	The status of agreements with key stakeholders and matters leading to social licence to operate	Refer Section 9.3.9, Permits and approvals

Criteria	Explanation	Comment
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingency.	Discussed under Section 9.3.13, Other Factors
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Discussed under Section 9.7, Reserve Classification
Audit & Reviews	The results of any audits or reviews of Ore Reserve estimates.	Discussed under Section 9.5, Audits & Reviews.
Discussion of Relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Discussed under Section 9.6, Relative Accuracy and confidence.

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Golden Energy and Resources Limited

Kuansing Inti Makmur Concession

Summary Independent Qualified Person's Report

28 January 2020

Golden Energy and Resources Limited

Kuansing Inti Makmur Concession

Summary Independent Qualified Person's Report

Salva Mining Pty Limited
300 Adelaide Street, Brisbane, QLD 4000, Australia
Email: info@salvamining.com.au
Website: www.salvamining.com.au
Phone: +61 (0) 7 3258 6000

28 January 2020

Effective Date: 31 December 2019

Independent Expert Person:

Mr. Manish Garg
Director - Consulting / Partner
Salva Mining Pty Limited

Subject Specialists:

Mr. Sonik Suri
Principal Consultant – Geology
Salva Mining - Brisbane Office

Dr. Ross Halatchev
Principal Consultant – Mining
Salva Mining - Brisbane Office

SALVA Mining Consultants

Table of Contents

List of Figures

List of Tables

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Key Abbreviations

$ or USD	United States Dollar
adb	Air-dried basis, a basis on which coal quality is measured
AMSL	Above Mean Sea Level
AMDAL	Analisis Mengenai Dampak Lingkungan Hidup- Environmental Impact Assessment (EIA), which contains three sections, the ANDAL, the RKL and the RPL
ANDAL	Analisis Dampak Lingkungan Hidup, a component of the AMDAL that reports the significant environmental impacts of the proposed mining activity
arb	As received basis
AS	Australian Standards
ASR	Average stripping ratio
AusIMM	Australasian Institute of Mining and Metallurgy
Batter	The slope of Advancing Mine Strip
bcm	bank cubic meter
BD	Bulk density
bbl	Barrels
CCoW	Coal Contract of Work
CHPP	Coal Handling and Processing Plant
CV	Calorific value
Capex	Capital Expenditure
Coal Resource	A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, quality, continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories**.**
Coal Reserve	A 'Coal Reserve' is the economically mineable part of a Measured and/or Indicated Coal Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually, the point where the Coal is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
DGMC	Directorate General of Minerals and Coal within the Ministry of Energy and Mineral Resources
FC	Fixed Carbon
GEAR or Client	Golden Energy and Resources Limited
GEMS	PT Golden Energy and Mines Tbk.
gar	gross as received, a basis on which coal quality is measured

gm	Gram
h	Hour
ha	Hectare(s)
IM	Inherent Moisture
IPPKH	'Izin Pinjam Pakai Kawasan Hutan' which translates to borrow to use permit in a production forest
IUP	'Izin Usaha Pertambangan' which translates to 'Mining Business License'
JORC	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia
k	Thousand
kcal/kg	Unit of energy (kilocalorie) per kilogram
kg	Kilogram
KIM	PT Kuansing Inti Makmur Concession
km	Kilometres(s)
km^2	Square kilometre(s)
kt	kilo tonne (one thousand tonnes)
L	Litre
m	Meter
lcm	loose cubic metre
LOM	Life of Mine
M	Million
Mbcm	Million bank cubic metres
Mbcmpa	Million bank cubic metres per annum
MEMR	Ministry of Energy and Mineral Resources within the central government
m RL	metres reduced level
m^3	cubic metre
m/s	metres per second
Mt	Millions of tonnes
Mtpa	Millions of tonnes per annum
MW	Megawatt
NAR	Net as received
Opex	operating expenditure
PKP2B	'Perjanjian Kerjasama Pengusahaan Pertambangan Batubara' – same as CCoW
RD	Relative density
RKL	'Rencana Pengelolaan Lingkungan' - environmental management plan
ROM	Run of Mine
RKL	Relative Level - survey reference for the height of landforms above a datum level
RPL	'Rencana Pemantauan Lingkungan' - environmental monitoring plan

Salva Mining	Salva Mining Pty Limited
SE	Specific Energy
SMGC	PT SMGC Consultants
SR	Strip ratio (of waste to ROM coal) expressed as bcm per tonne
t	Tonne
tkm	Tonne kilometre
tpa	Tonnes per annum
TM	Total Moisture (%)
TS	Total Sulphur (%)
VALMIN	2005 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports
VM	VM Volatile Matter (%)

Executive Summary

Golden Energy and Resources Limited ("GEAR") commissioned Salva Mining Pty Limited ("Salva Mining") to update a Summary Independent Qualified Person's Report ("Report") which includes the Coal Resources and Reserves estimates for the Kuansing Inti Makmur coal concession ("KIM") located in the Bungo Regency of Jambi Province, Indonesia.

The estimate of Coal Resources and Reserves as of the 31 December 2019 contained within this Report has been reported in accordance to the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

Kuansing Inti Makmur (KIM) Project in Indonesia

The KIM Project is located in the Bungo Regency of Jambi Province on Sumatra Island, Indonesia. KIM concession is located nearly equidistant from the Padang coast on the west (250 km) and the Jambi coast on the east (300 km). The KIM Project consists of 2 coal pits namely, KIM East Pit ("KIM East") and KIM West Pit ("KIM West"). Conventional open-pit coal mining operations were commenced in the KIM East pit in 2007, which was followed by the opening of the KIM West pit in 2010. Approximately 20 Mt of coal has already been mined from these pits until 31 December 2019.

Geology

The KIM concession area is found on the northern edge of the South Sumatra Basin. This basin was formed by back-arc extension and is filled with Eocene to Pliocene aged terrestrial and marine sediments. Two phases of coal seam accumulation are found within this sequence, the first is an older Oligocene phase related to fluvial-deltaic sedimentation (Talang Akar Formation) during initial rifting and deposition of a transgressive sedimentary sequence. After the mid-Miocene plate collision and commencement of subduction off the west Sumatra coast, a regressive sedimentary sequence commenced from mid-Miocene to Pliocene times. This resulted in a return to a fluvial-deltaic environment, from the previously dominant deep marine sedimentation. This gave rise to the Muara Enim Formation, the dominant coal-bearing unit within the South Sumatra Basin.

Coals found within the KIM concession are however of Oligocene age and hence form part of the older phase of coal accumulation within the South Sumatra Basin. Seams within the concession are generally shallow to moderate dipping (less than 10 degrees in most of the area) to the north-northeast. The Oligocene coal-bearing unit is unconformably overlain by ignimbrites of Miocene age, related to vulcanism within the basin, associated with the onset of subduction.

Resource

Coal Resources have been estimated, classified and reported according to the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) as of 31 December 2019 and are detailed in the table below. The topographic surface is valid as of 31 December 2019 and was used in both resource models.

Salva Mining has estimated total Coal Resources of 261 million tonnes ("Mt") on an in situ air-dried moisture ("adb") basis, to a maximum depth of 250 m. The total tonnes are comprised of 112 Mt of Measured, 56 Mt of Indicated and 92 Mt of Inferred Resources category.

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Coal Resource Estimate for KIM Coal concession as of 31 December 2019

Pit	Measured Resource			Indicated Resource			Inferred Resource			Total Mt
	Mass Mt	Ash adb %	CV adb kcal/kg	Mass Mt	Ash adb %	CV adb kcal/kg	Mass Mt	Ash adb %	CV adb kcal/kg	
KIM East	54	18.1	5,279	33	18.8	5,185	82	18.4	5,227	169
KIM West	58	16.7	5,445	23	17.5	5,340	10	15.7	5,228	91
Total	**112**	17.4	5,365	**56**	18.3	5,249	**92**	18.1	5227	**260**

Mineral Resources are reported inclusive of the Mineral Reserves
Final Inferred Resource rounded to nearest 1 Mt

Mining Method

Mining operation commenced in the KIM East Pit during 2007 while the operations commenced during 2010 in the KIM West Pit. Currently, the mining operations are concentrated in KIM East. The mining operation in KIM Pits is an open-pit mine using a standard truck and excavator methods which are common practice in Indonesia. The mining method can be described as a multi seam, moderate dip, open-cut coal mine using truck and shovel equipment in a combination of strip and haul back operations. Waste material is mined using hydraulic excavators and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. For the purpose of the Coal Reserves estimates, it is proposed that contractors will continue to be used for mining and haulage operations over the life of mine, and the unit costs used for the Reserve estimate reflect this style of mining.

Mining Modification factors – Resource to Reserve

This Coal Reserve estimate uses the most recent geological model and Coal Resources estimate prepared by Salva Mining as of 31 December 2019.

Potential open-cut reserves inside different blocks of the Project Area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. By generating the financial value (positive or negative) for each mining block within a deposit and then applying the physical relationship between the blocks, the optimal economic pit can be determined. The optimiser was run across a wide range of coal prices using a set of site-specific costs (waste removal, land compensation, coal removal, haulage costs, etc.). These costs were adjusted to suit the conditions for this project.

An economic model was prepared for the mining operation from each of the KIM coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

Life of mine plan was prepared based on the final pit design. This was developed to ensure that the proposed mining method would be practical and achievable and that the proposed dumping strategy would be able to contain the waste mined in the final pit design. The mining schedule targets production of 2.2 Mt in the year 2020 and ramping up to 3.0 Mt by the year 2025 onwards.

The coal price estimate was based on the outlook for global thermal coal fundamentals adjusted for the domestic landed cost and including the demand and supply outlook for the sector. Capital and operating costs were estimated by Salva Mining for the KIM project based on the existing contracts and Salva Mining in house knowledge database about Indonesian operations. These are considered to be reasonable and suitable for the purpose of this study.

The KIM Mine is an operating mine since 2007 (KIM East pit commenced production in 2007 while the KIM West pit started in 2010). The KIM Mine is operated as a single mining operation; even though the production from the Kim West pit has been temporarily suspended as part of normal operation control.

Salva Mining considers the modifying factors to be valid for both pits. The modifying factors used are based on actual operations at the KIM Mine which were independently verified by the Salva Mining's subject specialist during the site visit. Therefore, it is considered valid to use modifying factors from the operating KIM mine to satisfy clause 29 of the JORC Code. While JORC 2012 is not explicit with reference to operating mines, the guidance is given in ASX FAQ no. 9 is considered relevant in this regard.

Optimised Pit Shell

The optimised pit shells for KIM blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the KIM IUPs. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. Insitu quantities and mine scheduled tonnes within the optimised pit shell along with Reserves are shown in the table below.

Insitu & Scheduled Quantities & Reserves

IUPs	In-situ			Mine Scheduled Tonnes within the Optimised Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
KIM East	601	64	9.4	601	56.6	10.61	27.4
KIM West	266	41	6.5	252	33.0	7.60	32.2
Total, KIM	867	105	8.3	853	89.6	9.51	59.6

Coal Reserves

Coal Reserves were calculated by applying appropriate modifying factors and exclusion criteria to the Coal Resources. Surface water management, infrastructure and the location of the concession boundary were considered when determining the surface constraints for the mining operation. Coal Reserves were calculated by applying appropriate density adjustment and mining loss and dilution parameters to the Measured and Indicated Coal Resources inside the final pit design. All the final pits used for the Reserve estimate were designed following the existing geotechnical recommendations for the KIM Mine. In the opinion of Salva Mining, the current geotechnical study for KIM Pits adequately covers for the type of lithology and hydrogeological issues.

Coal Reserves have been reported in Proved and Probable categories to reflect the reliability of the estimate. The Total Coal Reserve for the KIM Mine as of 31 December 2019 is 59.6 Mt comprising of 46.5 Mt Proved Reserve and 13.1 Mt Probable Reserve. No beneficiation of coal product is planned other than crushing to a nominal top size of 50 mm.

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Coal Reserves Estimate for KIM Coal concession as of 31 December 2019

Pit	Reserve (Mt)			RD adb t/m3	TM arb %	IM adb %	Ash adb %	CV arb Kcal/kg	TS adb %
	Proved	Probable	Total						
KIM East	21.9	5.5	27.4	1.38	24.4	11.8	16.8	4,717	1.19
KIM West	24.6	7.6	32.2	1.40	22.6	11.9	16.6	4,980	1.14
Total	**46.5**	**13.1**	**59.6**	**1.39**	**23.4**	**11.9**	**16.7**	**4,859**	**1.16**

**This table must be presented with the entire JORC Reserve Statement of PT Kuansing Inti Makmur*

Coal Resources are reported inclusive of Coal Reserves. The coal will be sold as a run of mine (ROM) product; hence Marketable Reserves will be equal to ROM Reserves.

Salva Mining is not aware of any other environmental, legal, marketing, social or government factors which may hinder the economic extraction of the Coal Reserves other than those disclosed in this Report.

This Report may only be presented in its entirety. Parties wishing to publish or edit selected parts of the text, or use this Report for public reporting, must obtain prior written approval from Salva Mining.

1 Introduction

Golden Energy and Resources Limited ("GEAR") commissioned Salva Mining Pty Limited ("Salva Mining") to prepare an update to the Summary Qualified Person's Report ("Report") which includes the Coal Resources and Reserves estimate for the Kuansing Inti Makmur coal deposit ("KIM") located in the Bungo Regency of Jambi Province, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders as a part of continuous disclosure requirements of the company. The estimate of Coal Resources and Reserves as of the 31 December 2019 contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

1.1 Data sources

This review is based on the information provided by PT Kuansing Inti Makmur (PT KIM), GEAR, the technical reports of consultants and previous explorers, as well as other published and unpublished data relevant to the area. Salva has carried out, to a limited extent, its own independent assessment of the quality of the geological data. The status of agreements, royalties or concession standing pertaining to the assets was provided by GEAR.

In developing our assumptions for this Report, Salva Mining has relied upon information provided by the company and information available in the public domain. Key sources are outlined in this Report and all data included in the preparation of this Report has been detailed in the references section of this Report. Salva Mining has accepted all information supplied to it in good faith as being true, accurate and complete, after having made due enquiry as of 31 December 2019.

The principal data sources used in the preparation of this Report included:

- Updated mined out surface DTM, provided by GEAR, showing the extent of mine face positions as of the end of December 2019;
- JORC Resource and Reserve Report (JORC 2012 code) titled "Independent Qualified Persons Report", 31 December 2018 prepared for GEAR by Salva Mining;
- Collar, downhole logging, seam pick and coal quality information, provided by GEAR;
- PT Ground Risk management (GRM), "Engineering Report for KIM Mine Geotechnical Work East and West Expansion areas, Sumatera, Indonesia"; 28 February 2011;
- Historical production from KIM East and KIM West pit as provided by GEAR;
- Capex and Opex data supplied by GEAR and also derived from Salva Mining 's cost database of typical Indonesian operations;
- Coal price outlook by Salva Mining's in-house study on Indonesian thermal coal;

1.2 Limitations

After due enquiry in accordance with the scope of work and subject to the limitations of the Report hereunder, Salva Mining confirms that:

- The input, handling, computation and output of the geological data and Coal Resource and Reserve information has been conducted in a professional and accurate manner, to the high standards commonly expected within the mining professions;

- The interpretation, estimation and reporting of the Coal Resources and Reserves estimates has been conducted in a professional and competent manner, to the high standards commonly expected within the Geosciences and mining professions, and in accordance with the principles and definitions of the JORC Code (2012);
- In conducting this assessment, Salva Mining has addressed and assessed all activities and technical matters that might reasonably be considered relevant and material to such an assessment conducted to internationally accepted standards. Based on observations and a review of available documentation, Salva Mining has, after reasonable enquiry, been satisfied that there are no other relevant material issues outstanding;
- The conclusions presented in this Report are professional opinions based solely upon Salva Mining's interpretations of the documentation received and other available information, as referenced in this Report. These conclusions are intended exclusively for the purposes stated herein;
- For these reasons, prospective investors must make their own assumptions and their own assessments of the subject matter of this Report.

Opinions presented in this Report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this Report, about which Salva Mining have had no prior knowledge nor had the opportunity to evaluate.

1.3 Disclaimer and warranty

A draft version of this Report was provided to the directors of GEAR for comment in respect of omissions and factual accuracy. As recommended in Section 39 of the VALMIN Code, GEAR has provided Salva Mining with an indemnity under which Salva Mining is to be compensated for any liability and/or any additional work or expenditure, which:

- Results from Salva Mining 's reliance on information provided by GEAR and/or Independent consultants that are materially inaccurate or incomplete, or
- Relates to any consequential extension of workload through queries, questions or public hearings arising from this Report.

The conclusions expressed in this Report are appropriate as of 31 December 2019. The Report is only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values outlined in this Report are expressed in United States dollars ("$") unless otherwise stated. Salva Mining services exclude any commentary on the fairness or reasonableness of any consideration in relation to this acquisition.

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2 Independent Qualified Person's Statement

This Report has been written following the guidelines contained within the 2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Experts Reports ("the VALMIN Code") and the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code"). It has been prepared under the supervision of Mr Manish Garg (Director – Consulting / Partner, Salva Mining) who takes overall responsibility for the Report and is an Independent Expert as defined by the VALMIN Code.

Sections of the Report which pertain to Coal Resources have been prepared by Mr Sonik Suri (Principal Consultant, Geology) who is a subject specialist and a Competent Person as defined by the JORC Code. Sections of the Report which pertain to Coal Reserves have been prepared by Dr Ross Halatchev (Principal Consultant, Mining) who is a subject specialist and a Competent Person as defined by the JORC Code.

This Report was prepared on behalf of Salva Mining by the signatory to this Report, assisted by the subject specialists' competent persons whose qualifications and experience are set out in Appendix A of this Report.

Mr Manish Garg
Independent Qualified Person
Director
Salva Mining Pty Limited

2.1 Statement of Independence

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report. The above-mentioned person(s) have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Report.

Mr Sonik Suri, Dr Ross Halatchev, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

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3 Project Description

3.1 Property Description and Access

The KIM Project is located in the Bungo Regency of Jambi Province on Sumatra Island, Indonesia (Figure 3:1, Figure 3:2 and Figure 3:3). KIM concession is located nearly equidistant from the Padang coast on the west (250 km) and the Jambi coast on the east (300 km).

Access to the site is via a 2-hour plane flight from Jakarta to Padang followed by either a 6-hour car journey or via a 1.5-hour plane flight from Jakarta to Jambi followed by a 7-hour car trip.

The tenure for the KIM Project is covered by 8 Izin Usaha Pertambangan Produksi ("IUP Production") and covers a 2,610 ha area of coal concession. The KIM project consists of the following 2 coal Pits:

- KIM East Pit ("KIM East Pit" or "KIM East Block");
- KIM West Pit ("KIM West Pit" or KIM West Block").

The conventional open-pit coal mining operation was commenced in the KIM East pit in 2007, which was followed by the opening of the KIM West pit in 2010. Approximately 14 Mt of coal has already been mined from these pits until 31 December 2019. Only KIM East is being mined currently.

Figure 3:1 General Location Plan

Figure 3:2 General Location Plan – Satellite Image

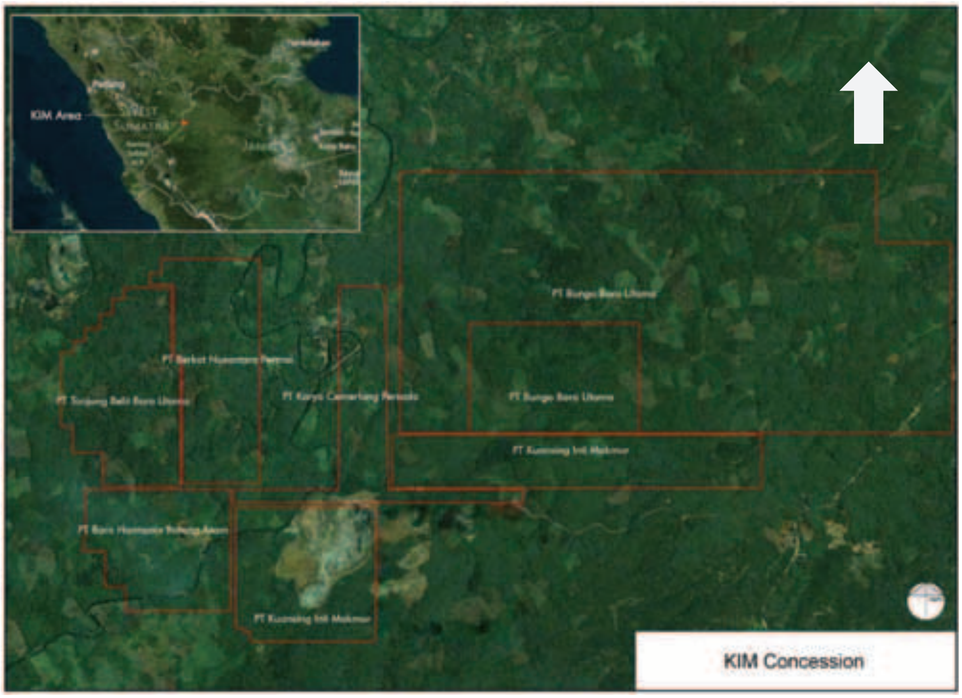
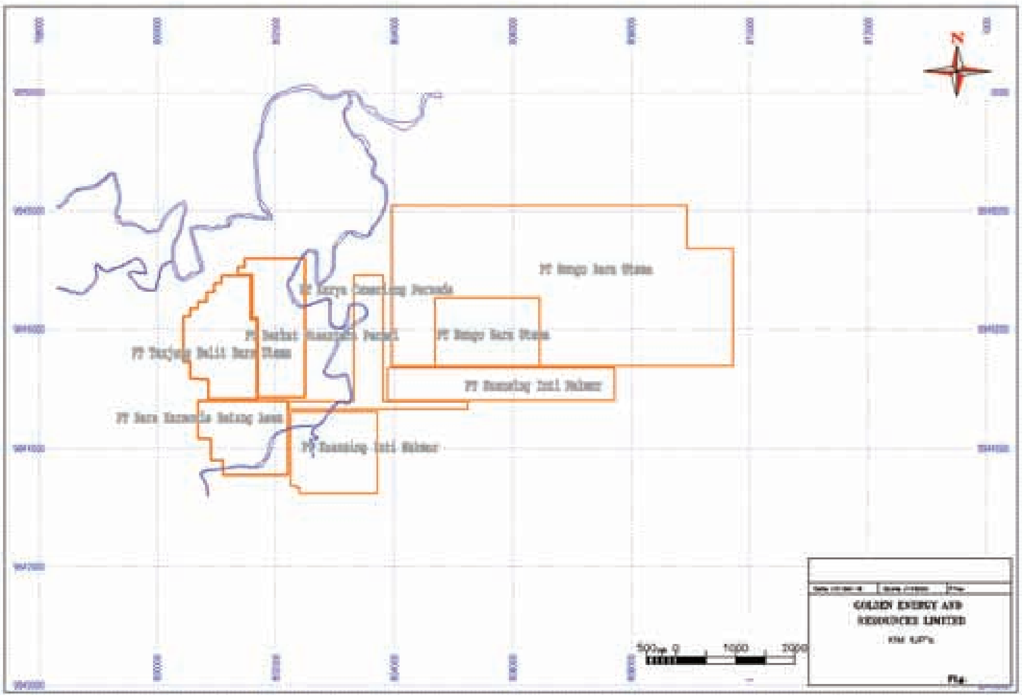


Figure 3:3 IUP Boundary and Location of Individual Coal Blocks



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3.2 Ownership and Concession

GEAR holds the mining rights to the KIM concession indirectly through PT KIM. Eight (8) IUPs with a total area of 2,610 ha are owned indirectly by GEAR.

Tenure at the KIM concession is held under the 'Izin Usaha Pertambangan' which translates to 'Mining Business License' (IUP) system of ownership. The ownership details of these IUPs are given in Table 3:1 below.

Table 3:1 KIM Concession Details

Company	IUP Number	Area (ha)	Granted	Expiry
PT Bungo Bara Utama	341/DESDM TAHUN 2009	1,301	9-Jul-09	8-JUL-29
PT Bungo Bara Makmur	250/DESDM TAHUN 2010	199	23-Apr-10	2-Oct-27
PT Bara Harmonis Batang Asam	576/DESDM TAHUN 2014	172	18-Dec-14	18-Dec-24
PT Karya Cemerlang Persada	350/DESDM TAHUN 2009	143	22-Jul-09	24-Oct-28
PT Tanjung Belit Bara Utama	249/DESDM TAHUN 2010	198	23-Apr-10	2-Oct-27
PT Kuansing Inti Makmur	252/DESDM TAHUN 2010	199	23-Apr-10	2-Oct-27
PT Kuansing Inti Sejahtera	251/DESDM Tahun 2010	199	5-Apr-12	2-Oct-27
PT Berkat Nusantara Permai	545/DESDM TAHUN 2010	199	15-Dec-10	30-Dec-29

All IUP's have a provision for 2 x 10 years extensions.

A possible issue with tenure for the project is that there are a number of gaps between the IUPs that cover the project area. The gaps are for a maximum of 150 m in width (Figure 3:3). Salva Mining has been informed that no other party holds tenure over the land in these gaps. This type of issue is not uncommon in Indonesia and there is no known reason why it could not be resolved. Salva Mining is not aware of any disruptions to operations at the KIM project that have occurred due to this issue. All of the land areas within the KIM project area is designated 'Area Pengunaan Lain' (Other Purpose) by the Forestry Department, and thus no borrow to use permit (Izin Pinjam Pakai Kawasan Hutan) is required for mining operations in this area. GEAR informed Salva Mining that permits are in place for the current operation. These permits will need to be maintained in order to continue mining operations within the KIM project. Salva Mining is not aware of any reason why it will not be possible to maintain these permits.

Salva Mining makes no warranty or representation to GEAR or third parties (express or implied) in regard to the validity of the IUPs.

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4 Geology

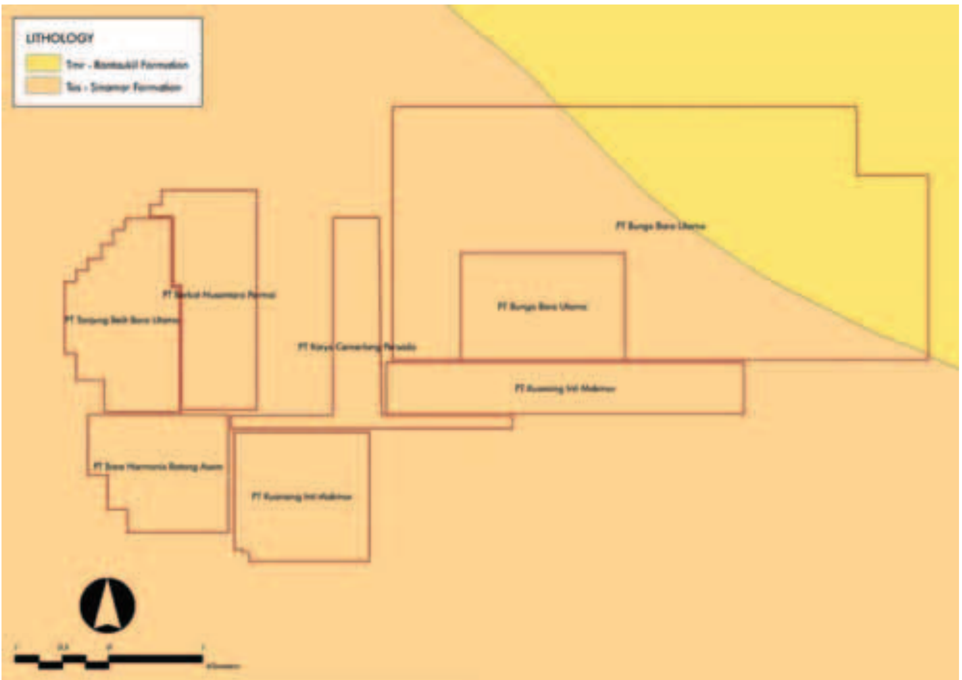
4.1 Regional Geology

The KIM concession area is found on the northern edge of the South Sumatra Basin. The South Sumatra Basin was formed due to back-arc extension which began in the late Palaeocene. This extension resulted in an approximately north-trending graben structure which is filled with an Eocene to mid-Miocene age transgressive sedimentary sequence culminating in the deepwater sediments of the Gumai Shales in the mid-Miocene. This was followed by the mid- Miocene orogenic event, resulting from the collision of the Sunda Shelf plate with the Indo-Australian plate, which resulted in a subduction zone forming off the west coast of Sumatra and gave rise to the orogenic uplift of older pre-tertiary rocks to form the Barisan Mountains during the late Miocene time. This mid-Miocene plate collision marked the transition from extension tectonics and a transgressive sedimentary sequence to compression tectonics and a transition back to shallow water terrestrial sedimentation (regressive sequence). The onset of the regressive phase of sedimentation is marked by the Air Benekat Formation.

4.2 Local Geology

The local geology of the area is comprised of a Miocene aged ignimbrite unit (Tmr) which unconformably overlies the Oligocene aged coal-bearing sediments belonging to the Sinamar Formation (Tos) (Figure 4:1). The Sinamar Formation is of an equivalent age and sedimentary setting to the Oligocene Talang Akar Formation, seen elsewhere in the basin. The ignimbrite unit varies in thickness between 50 m and 60 m and appears to have been deposited on an erosive paleo-surface which has been incised into the coal-bearing sediments of the Sinamar Formation.

Figure 4:1 Local geological map of the KIM concession area



4.2.1 Coal Seams

The coal-bearing sediments dip gently (less than 10 degrees) to the north-northeast. The area appears to be structurally relatively benign, with no evidence of significant displacement of the coal seams in the area. The splitting relationships for the coal seams identified within the concession are shown below in Table 4:1 and Table 4:2.

Table 4:1 KIM East - Seam Splitting Relationships

Master Seam	1st phase Splitting
S100	S100U
	S100L
S200	S200U
	S200L
S300	S300U
	S300L

Table 4:2 KIM West - Seam Splitting Relationships

Master Seam	1st phase Splitting
S100	S100U
	S100L
S200	S200U
	S200L
S300	S300U
	S300L

4.3 Exploration

4.3.1 Exploration History

The geology of South Sumatra has been studied by various authors, particularly deep stratigraphic profiles in the search for oil reservoirs. In the local area, there are no documented records of the previous exploration for coal. There are previously unpublished reports that have been viewed. This area was previously reviewed by PT SMG Consultants in October 2010 - October 2012 and by HDR from January 2013 – December 2015 to determine what Resources may be contained in the area and what additional drilling was necessary to raise the Resource confidence.

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5 Geological Data and QAQC

5.1 Data Supplied

The geological data provided by GEAR for the KIM concession area was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources. This data, used by Salva Mining for the purpose of resource estimation, includes but is not limited to:

- Drill hole collar information inclusive of total depth drilled per hole;
- Drill hole lithological data inclusive of seam picks identified and correlated on the basis of down-hole geophysics;
- Coal sample table and associated raw coal qualities per sample;
- Drill hole completion reports for most of the holes drilled containing details of core recoveries achieved;
- Scanned copies of original laboratory analysis reports of coal quality for samples analysed;
- Down-hole geophysical data in the form of both LAS files and Minex drill hole databases;
- Previous geological models for the KIM EAST, and KIM WEST areas, which contains a complete drill hole database as well as grids of seam roofs, floors, the topographic surface and the base of the weathered horizon surface.

5.2 Lithological Data

A total of 400 drill holes were used to construct geological models in the KIM East and KIM West coal concession area comprising:

• KIM East 305 drill holes;

• KIM West 95 drill holes.

Of these holes, a small percentage are barren, i.e. no coal intersected; this is due to drill-rig limitations (maximum 60 m depth). Barren holes are never the less useful for geological modelling purposes as they prevent coal from being modelled where it is not present. In other cases, no seam picks were supplied for a number of holes. In these instances the hole is marked as 'not logged' and the model is allowed to project seams through these holes if warranted by surrounding holes.

Approximately 80% of the drill holes used in the structural model have been logged using down-hole geophysics. Down-hole geophysical data acquired by GEAR is predominantly comprised of gamma, density and calliper logs and has allowed for accurate identification of coal seams in each hole (seam picks) and the correlation of coal seams between holes.

5.3 Topographic Survey and base of weathering (BOW)

Topography data used in the two KIM geological models have been derived from Light Detecting and Ranging (LiDAR) remote sensing surveys conducted. During this survey GPS, ground control points were combined with flight trajectories and LiDAR scanning equipment to produce an accurate dataset of XYZ topographic coordinate points for the KIM East and KIM West area. The topography within the mining area is surveyed on a daily basis by the mine site surveyors and "as mined" and "as dumped" surfaces are updated regularly.

For the purpose of resource estimation, the LiDAR DTM's have been merged with surveyed current pit voids for the areas mined to date. Mined out areas reflect mined out voids up to 31 December 2019.

A 'non-conformable' base of weathering (BOW) surface was generated for the geological models by translating the topographic surface down by 4 m in the Z direction. This is based on the observation that the average weathered horizon thickness, where it has been logged, is approximately 4 m.

5.4 Data Quality Assurance and Quality Control (QAQC) Measures

5.4.1 Core Sampling

At the completion of each run, core lengths were checked in the splits for recovery to ensure coal seams have been recovered as required. A target core recovery of 90% has been applied throughout all drilling phases. If core recovery was found to be less than 90% within the coal seam, the hole was re-drilled to collect a sample with ≥ 90% recovery. The core was also photographed routinely and logged in the splits by a geologist before being sampled. For open holes, chip samples were collected at 1 m intervals for lithological logging purposes.

A sampling of the coal seams was conducted by the rig geologist on duty and was conducted in accordance with the following sampling procedure supplied to rig geologists:

- Open core barrel inner split tube and remove the sample from the barrel;
- Transfer the core to the PVC split or core box;
- Determine the core depth ("From" and "To") from the drill depth;
- Reconstruct the core in the split to allow for any gaps;
- Determine the core recovery;
- Wash down using water and a cloth and/or brush prior to logging if covered by mud or oil;
- Complete geological logging and photograph structure or any abnormal features. The photograph should show information of drill hole number and from and to depths;
- The division of samples follows the simple scheme of sample all coal, sample separately any contained bands (plies) and take 10 cm roof and floor non-coal samples;
- Place samples into plastic bags which should be doubled to minimise moisture loss. Insert one bag inside another so that they are doubled;
- Label the sample by ID card, the label should give information about the sample number, hole number, from/to depth, and Project Code. Place the label ID card inside the small re-sealable plastic bag before putting it into the sample bag;
- Seal the sample bag with tape and write the sample number on the plastic bag; and
- Dispatch sample to an accredited laboratory.

The coal quality sampling technique detailed above is considered by Salva Mining to adequately address the QAQC requirements of coal sampling. As a further coal quality validation step prior to importing coal quality sample results for coal quality modelling purposes, Salva Mining constructed spreadsheets which compare the sampled intervals against the logged seam intervals in order to ensure that sampled intervals match the seam pick intervals.

5.4.2 Down-hole Geophysics and Seam Picks

Down-hole geophysical logs were completed during each drilling program by PT Surtech Indonesia. Geophysical logging was conducted following the completion of a drill hole. After drilling is complete the logging unit deploys down-hole geophysical sondes, including gamma-ray, calliper and density tools to assist with characterising the down-hole formation and its geological properties. Stratigraphic information, intercepted along the entire length of the drill hole (collar to total depth), is recorded and plotted in acrobat pdf format. A digital copy of the data is stored in the LAS file format.

Logging was performed on the majority of drill holes (including cored and open holes) and all these holes have geophysical data. Seam picks and lithologies have all been corrected for geophysics.

Geophysical logging provides information on the coal seams intersected and aids in the definition of horizon boundaries and marker horizons, used to correlate the subsurface geology. The presence or absence of geophysical logging is one of the criteria used in the determination of points of observation for resource classification purposes. Under normal conditions, coal-bearing sections of each drill hole were geophysically logged at the completion of drilling. In some instances, poor ground conditions restricted the ability to geophysically log the entire hole upon completion. In these cases, collapsed portions of holes were re-drilled in order to allow for density and gamma logging to be accomplished by lowering the geophysical probe through the drill string.

5.4.3 Coal Quality

Coal quality sampling was undertaken by GEAR and contract geologists, with the analysis testing being completed by PT Geoservices Coal Laboratories in Padang. PT Geoservices laboratories are accredited to ISO 17025 standards and quality control is maintained by daily analysis of standard samples and by participation in regular "round-robin" testing programs.

American Society for Testing and Materials (ASTM) methods have been used for all quality variables. Reporting was done on an air-dried and as-received basis. The following tests were undertaken as standard on all coal samples:

- Total Moisture (as received basis only);
- Inherent Moisture (IM);
- Ash Content (Ash);
- Volatile Matter (VM);
- Fixed Carbon (FC);
- Total Sulphur (TS);
- Calorific Value-air dried basis (CV adb); and
- Relative Density (RD).

5.4.4 Data validation by Salva Mining prior to geological model construction

Prior to using the lithological (seam pick) and coal quality data for geological model construction purposes, Salva Mining performed the following data validation and verification checks on the data.

5.5 Coal Density

No information on in situ moisture was requested or obtained from the laboratory, resulting in the Preston and Sanders equation not being applied to obtain in situ relative densities. As a result, all resource tonnages are quoted on an air-dried density basis as volumes are

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calculated on an in situ basis and density on an air-dried basis. However, the density of in situ coal is in reality not on an air-dried basis but at a higher in situ moisture basis.

The estimate of resources on an air-dried basis will, therefore, result in a higher tonnage as compared to the equivalent in situ moisture basis calculation. This effect has been accounted for to a large extent in the reserving process, where the total moisture has been used as a proxy for the in-situ moisture and a Preston Sanders calculation has been made on this basis.

5.6 Coal Quality Data

The coal quality in the KIM concession area can be summarised as sub-bituminous coal with moderate total moisture and moderate ash.

5.7 Resource Model Construction

5.7.1 Structural Model

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the MineScape software to generate both a structural model and a coal quality model for each of the two resource areas.

The lithological data was then modelled to create structural grids. The schema, stored within the Stratmodel module of the MineScape software controls the modelling of seam elements and their structural relationships, grid model cell size, interpolators and other parameters. The details of these parameters stored in the applied schemas used in the structural modelling process are listed in Table 5:1.

Within the modelling schema, all of the stratigraphic intervals were modelled with pinched continuity. This is applied in areas where intervals are missing in a drill hole. In this situation, the modelling algorithm stops the interpolation of the missing interval halfway between the two drill holes between which it ceases to be present.

5.7.2 Structural Model Validation

Structural and thickness contours were generated and inspected to identify any irregularities, bulls-eyes, unexpected discontinuities etc. Cross-sections were also generated to identify any further structures such as faulting and any areas where seams were modelled as being discontinuous due to short drilling.

Table 5:1 Model Schema Settings and Parameters

Model Component	Details
Modelling Software	Ventyx MineScape - Stratmodel module
Schema	Kime, Kimw
Topography Model	TOPE(KIM East), TOPW (KIM West)
Topography Model Cell Size	20 m
Structural Model Cell Size	20 m
Interpolator (thickness)/order	Finite Element Method (FEM)/0
Interpolator (surface)/order	Finite Element Method (FEM)/1
Interpolator (trend)/order	Finite Element Method (FEM)/0
Extrapolation Distance	2500 m

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Model Component	Details
Parting Modelled	No
Minimum Ply Thickness	10 cm
Maximum Coal Parting	30 cm
Conformable Sequences	Weathered, Fresh
Upper Limit for Seams	Base of Weathering (BOW)
Control Points	Yes
Constraint File	No
Penetration File	Yes
Model Faults	No
Maximum Strip Ratio	-
Maximum Resource Depth	250 m
Tonnage Calculations	Based on volumes using relative density on an air-dried basis

5.7.3 Coal Quality Model

Coal quality data has been composited on a seam basis. The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for most coal quality attributes and it is also less likely to introduce spurious trends into the data. Testing indicated that a power value of two and a search radius of 2500 metres are the most suitable inverse distance interpolation parameters for modelling of the KIM coal deposits. Parameters used for quality modelling are summarized in Table 5:2.

Table 5:2 Quality Model Parameters

Model Component	Details
Coal Quality Data Type	Raw
Model Type	MineScape Table
Interpolator	Inverse distance
Power	2
Search Radius	2500 metres

5.7.4 Quality Model Validation

After the completion of quality model gridding, selected qualities for selected seams were contoured and contours inspected to ensure that quality models had been gridded correctly. As a second validation measure, average qualities reported during resource reporting for all seams were compared against the average qualities of the input data to ensure consistency between input and output data sets.

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6 Coal Resources

6.1 Prospects for Eventual Economic Extraction and Resource Classification

Coal Resources present in the KIM concession have been reported in accordance with the JORC Code, 2012. The JORC Code identifies three levels of confidence in the reporting of resource categories. These categories are briefly explained below.

Measured – "…*That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors to support detailed mine planning and financial evaluation*";

Indicated – *"…That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors in sufficient detail to support mine planning and evaluation"; and*

Inferred – *"…That part of a Mineral Resources for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling.".*

For the purpose of coal resource classification according to JORC Code (2012), Salva Mining has considered a drill hole with a coal quality sample intersection and core recovery above 90% over the sampled interval as a valid point of observation.

In terms of Coal Resource classification, Salva Mining is also guided by the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) (The Coal Guidelines) specifically referred to under clause 37 of the JORC Code (2012).

Based on due consideration of the continuity of the coal seams as observed in the geological models for each of the two resource areas, the relative lack of evidence for significant faulting and the population statistics of the coal quality composites per seam, Salva Mining has sub-divided Coal Resources within the KIM concession into resource classification categories based on the following spacing's (expressed as a radius of influence around points of observation which is half of the spacing between points of observation):

- Measured 250m radius of influence;
- Indicated 500m radius of influence; and
- Inferred 2000m radius of influence.

It is furthermore a requirement of the JORC Code (2012) that the likelihood of eventual economic extraction is considered prior to the classification of coal resources. The average coal quality attributes of the coal seams considered are sufficient to be marketed as a mid CV thermal coal for power generation purposes. Therefore, Salva Mining considers that it is reasonable to define all coal seams within the classification distances discussed above, to a depth of 250m below the topographic surface, as potential open-cut coal resources.

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6.2 Coal Resource Statement

Coal Resources have been estimated, classified and reported according to the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) as of 31 December 2019 and are detailed in Table 6:1.

Table 6:1 Coal Resource Estimate for KIM as of 31 December 2019

Pit	Measured Resource			Indicated Resource			Inferred Resource			Total Mt
	Mass Mt	Ash adb %	CV adb kcal/kg	Mass Mt	Ash adb %	CV adb kcal/kg	Mass Mt	Ash adb %	CV adb kcal/kg	
KIM East	54	18.1	5,279	33	18.8	5,185	82	18.4	5,227	169
KIM West	58	16.7	5,445	23	17.5	5,340	10	15.7	5,228	91
Total	**112**	17.4	5,365	**56**	18.3	5,249	**92**	18.1	5227	**260**

Mineral Resources are reported inclusive of the Mineral Reserves

(Note: Final Inferred Resource rounded to nearest 1 Mt. Individual totals may differ due to rounding)

6.3 Comparison with Previous Estimates

The previous Resource was reported at the end of December 2018. The difference between the current and previous models is the use of the new topographic surface which takes into account actual mining at KIM East during 2019.

The December 2017 KIM resource estimate incorporates an additional 32 drill holes including 8 drill holes with coal quality for KIM East resource model. KIM West has had no additional information since the last estimate and hence remain unchanged from the previous estimate of this block.

Table 6:2 Coal Resources - Comparison with the Previous Estimate

Resource Category	Salva Mining Dec 2019 (Mt)	Salva Mining Dec 2018 (Mt)	Salva Mining Dec 2017 (Mt)	Salva Mining Dec 2016 (Mt)	HDR Jan 2016 (Mt)	HDR 2014 (Mt)
Measured	112	113	116	113	112	115
Indicated	56	56	56	59	60	60
Total (Measured & Indicated)	**168**	**169**	**173**	**172**	**172**	**175**
Inferred	92	92	92	85	85	85
Total	**260**	**261**	**264**	**257**	**256**	**260**

Note: Individual totals may differ due to rounding

7 Reserve Estimation

7.1 Estimation Methodology

Salva Mining prepared the Coal Resource estimate for KIM Concession coal deposit as of 31 December 2019 which is used as a basis for the Coal Reserve estimate.

The Coal reserves estimates presented in this Report are based on the outcome of pit optimisation results and the Techno-economic study carried out by Salva Mining. The mining schedule for the KIM concession blocks includes two operating open-cut mines (KIM East and KIM West) which target total coal production of 2.2 Mtpa in 2020 ramping up to 3.0 Mtpa from both the pits from 2025 onwards.

The subject specialist for Coal Reserves considers the proposed mine plan is techno-economically viable and achievable. This has been done by reviewing all the modifying factors, estimating reserves in the pit shell and doing a strategic production schedule and economic model which confirms a positive cash margin using the cost and revenue factors as described below in this Report.

The KIM Mine is an operating mine since 2007 (KIM East pit commenced production in 2007 while the KIM West pit started in 2010). The KIM Mine is operated as a single mining operation; even though the production from the Kim West pit has been temporarily suspended as part of normal operation control. It is planned to resume production from the KIM West pit by 2025.

Salva Mining considers the Modifying Factors to be valid for both pits. The Modifying Factors used are based on actual operations at the KIM Mine which were independently verified by the Salva Mining's subject specialist during the site visit. Therefore, it is considered valid to use Modifying Factors from the operating KIM mine to satisfy clause 29 of the JORC Code. Further, Salva Mining has carried out an independent life of Mine (LOM) Study to develop the mining schedule and its economic evaluation of the Mine.

7.2 Modifying Factors

Table 7:1 outlines the factors used to run the mine optimisation and estimate the Coal Reserve Tonnage.

Table 7:1 Modifying & Mine Optimisation Factors

Factor	Chosen Criteria
Seam roof & floor coal loss of 0.05 m each	0.10m to 0.15m
Seam roof & floor dilution 0.02 m each	0.00m to 0.04m
Geological & Mining loss including the loss in transportation and handling at the port	2% to 5%
Minimum mining thickness minable coal seam	0.3m
Dilution default density	2.2bcm/t
Dilution default calorific value	1,000Kcal/kg
Dilution default ash	75%
Overall Highwall and Endwall slope	25 deg to 40 deg
Maximum Pit depth	Varies from 90 -150m max.
Minimum Mining width at Pit bottom	50m
Exclusion of Mining lease (IUP) and offset from Pit crest	50m

Factor	Chosen Criteria
Mining, Coal handling and Transport Cost – supplied by the client and validated by Salva Mining	Available & Used
Long term Coal Selling Price for Break-even Stripping Ratio calculation	US$ 48.50/t
Government Documents / approvals - supplied by client	Available & Used
Environment Report	Available & Used
Geotechnical Report	Available& Used
Hydrogeology Report	Available & Used

Notes on the modifying factors discussed below include mining, geotechnical, hydrogeological, environmental, mine logistics, safety, cost and revenue, marketing and other relevant factors for estimating the Coal Reserves within the KIM mine.

7.3 Notes on Modifying Factors

7.3.1 Mining Factors

General

The mining limits are determined by considering physical limitations, mining parameters, economic factors and general modifying factors as above (Table 7:1). The mining factors applied to the Coal Resource model for deriving mining quantities were selected based on the use of suitably sized excavators and trucks. The assumptions are that due to the shallow to the moderate dip of the coal, mining will need to occur in benches.

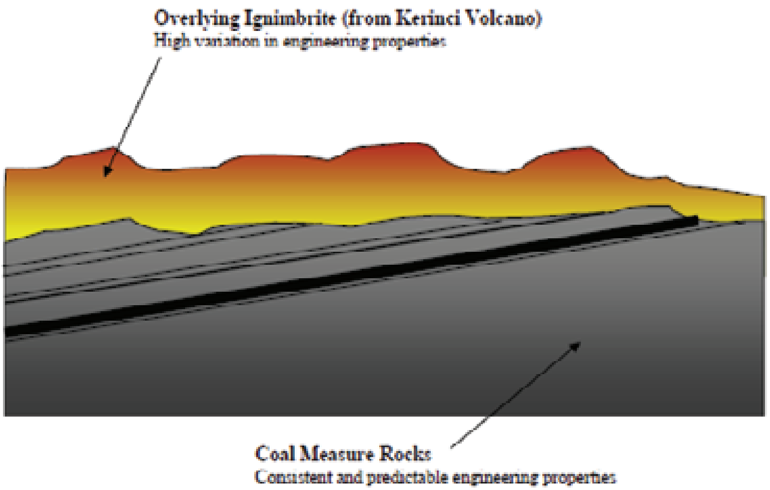
The mining factors (such as recovery and dilution) were defined based on the proposed open cut mining method and the coal seam characteristics. The exclusion criteria included the lease boundary and a minimum working section thickness.

7.3.2 Geotechnical Factors

The KIM East and KIM West Pits occupy areas that comprise relatively flat-topped plateaus at around RL 150 m that have been dissected to depths of 20 to 30 m by mainly south to north aligned creeks. The Batang Asam river runs from south to north in a highly meandering path between the two existing mine areas.

In general, the mining areas are being developed into coal measure rocks that are overlain by ignimbrite, as shown below in Figure 7:1.

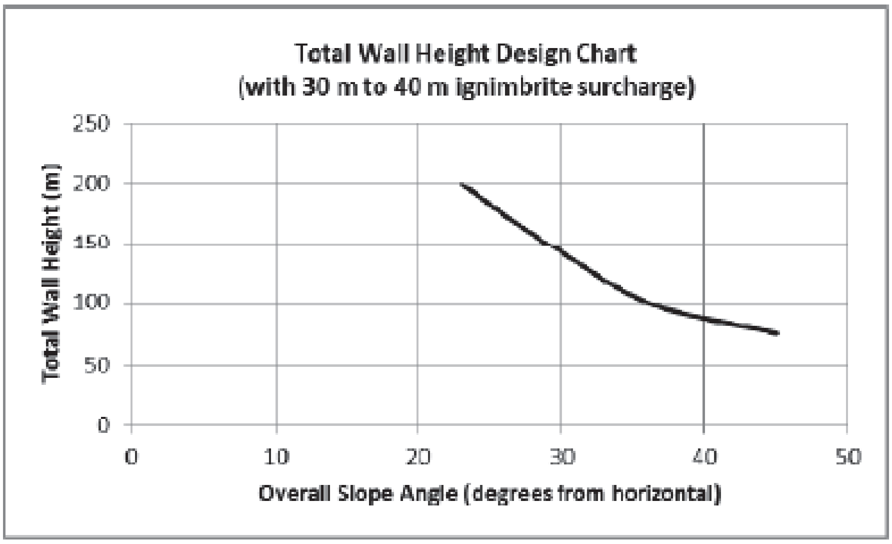
Figure 7:1 Soil & Rock lithology – KIM Project



The thickness of the ignimbrite has quite a big variation in KIM East Pit varying from 5 m in the SW corner of the pit but it goes up to 55 m on the western side, 40 m on the eastern side and approximately 22 m in the central north side.

There have been the previous wall and in-pit dump failures reported due to excessive tuff, undercut bedding and structure and internal dump developments in the existing mining areas in KIM pits. The current geotechnical study for the KIM area recommends a high wall slope which is depicted in Figure 7:2.

Figure 7:2 Geo-tech Recommendations



7.3.3 Surface Water Management

Pit water management is of critical importance for the effective operation of the mine. Dewatering operations observed during the site visit were considered to be of a high standard with well-constructed pit sumps and efficient drainage from operating areas into the sump. The overall strategy for water management over the life of mine will be to:

- Minimise surface water entering the pit by:
  - Building dams and drains to divert water from external catchments away from pits; an
  - Profiling dumps so that water is diverted away from the pits.
- Removing water from excavations by:
  - Constructing the main sump at the deepest point of each pit and draining all in-pit water to that sump; and
  - Installing sufficient pumps and pipes of a suitable size to pump water from the pit. Two stages pumping will be required in deeper areas in the later years of the mine life.

7.3.4 Mining Method and Operations

Mining operation commenced in 2007 in KIM East and in 2010 in KIM West Pits. The KIM Mine is an open-pit mine using a standard truck and excavator methods which are a common practice in Indonesia.

The mining method can be described as a multi seam, moderate dip, open-cut coal mine using truck and shovel equipment in a combination of strip and haul back operations.

Waste material is mined using hydraulic excavators and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. For the purpose of this Report, it is proposed that contractors will continue to be used for mining and haulage operations over the life of mine, and the unit costs used for the Reserve estimate reflect this style of mining.

Figure 7:3 shows the existing mining condition at the KIM West Pit where no mining operations are being carried out currently. Mining activities are being carried out at the KIM East Pit which is shown in Figure 7:4.

Figure 7:3 KIM West Pit

Figure 7:4 KIM East Pit

7.3.5 Processing Factors & Product Quality

The coal is to be sold unwashed so no processing factors have been applied. Other than crushing to a 50 mm top size no other beneficiation will be applied.

7.3.6 Mine Logistics Factors

Salva Mining has carried out a high-level review of logistic options to access the KIM Project economics. Based on the assessment of available information, data gathered during the site visit and at GEAR office in Jakarta, following logistic chain for coal blocks comprising the KIM project is considered appropriate.

Coal Logistics

The mined-out coal from KIM project is currently being sold to domestic customers. The mine to end-user plant supply chain involves hauling of coal to the ROM stockpile, followed by transportation using the public road to the domestic customers. In the recent past, coal from the KIM project had been sold to export customers as well. At present, domestic sales have better margin compared to exporting the product. However, an option to export coal to overseas customers still exists if margin improves in the future.

Mined out coal is hauled to the ROM stockpile, located at an approximate distance of 10 km from the KIM pits, using rigid body coal haulage trucks. Although facilities for crushing and screening exist at the ROM stockpile area, crushing is not required for sales to most domestic customers. Coal from the ROM stockpile is hauled (262km) along public roads to customers. It is anticipated that most of the coal will be sold to the Lontar Papyrus pulp and paper plant in the near term. However, in the medium term, some of the coal produced from the KIM Project may go to nearby power plants under construction including one at Jambi and Teluk Sirih.

Haulage on Public Roads

The Jambi provincial government in conjunction with regency governments from Jambi's major coal-producing regions have agreed on a suspension of coal trucks using public roads, starting from 31 December 2012 (Jambi Province Regulation No 13 of the Year 2012). The provincial government is planning to construct an alternative route for coal trucks, in order to avoid resistance from local public and minimise the loss of royalty from coal producers in the area.

GEAR has developed contingency plans to build a new haul road which will connect the KIM Pits to the existing special road leading to Port Nilau (owned by GEAR) via Lontar Pypras Pulp and Paper Plant if the coal haulage on public roads is stopped. The current and potential logistic plan for KIM project if the ban is implemented is shown in Figure 7:5.

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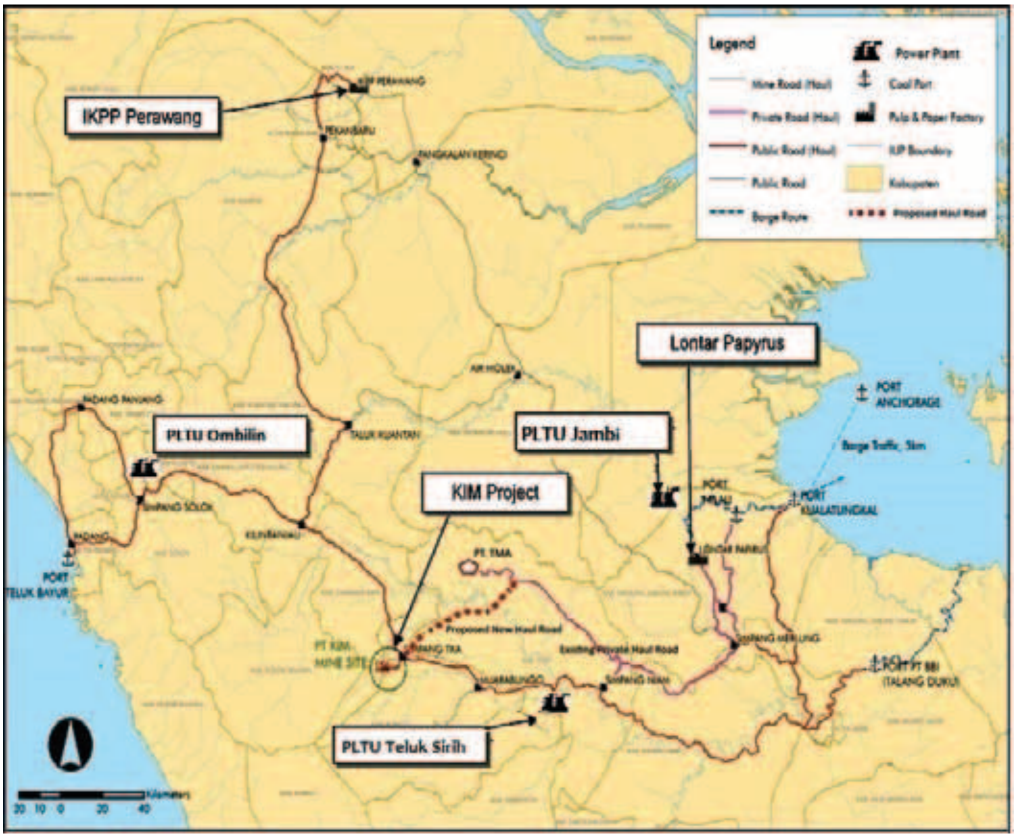
Figure 7:5 Current and Proposed Coal Logistics, KIM Project



Although the interpretation of this regulation is somewhat ambiguous, Salva Mining considers this as a moderate risk. Salva Mining is in the opinion that the practice of coal haulage on a public road can potentially continue given that the status quo of haulage on the public road had continued for the past seven years.

7.3.7 Permits and Approvals

Salva Mining understands that the permits and approvals with regard to further mining activities in the KIM Coal Concession deposits are in good standing.

The KIM concession area is located in the "Other Use area" which requires no permit from the forestry department. There are no known significant environmental factors that influence the estimation of Reserves within the KIM project area as environmental management includes the development of waste management facilities and monitoring activities ongoing.

The western IUPs of KIM are located adjacent to the border of the Jambi province and West Sumatra province of which some are cultural land. As a positive note, till recently cultural landowners have requested to get overburden materials from KIM to fill their land as they are less productive areas in the steep hills for cultivation. A small road crossing the coal haul road from west area to Batang Asam river has also been provided as a shortcut for few local residents.

7.3.8 Environment and Community Relations

A preliminary assessment of potential issues pertaining to environment and community relations who may impact the Reserves estimation was carried out by Salva Mining. These included the following activities:

- Review of environment management procedure at the site;
- Visit the GEAR Jakarta office and inspection of environmental management plans;
- Review of the Analisis Mengenai Dampak Lingkungan Hidup (AMDAL) - environment impact assessment and management plans; and
- Review of Corporate Social Responsibility Reports.

Salva Mining's preliminary assessment did not reveal any issues related to environment and community relations that will adversely impact project valuation. However, it should be noted that Salva Mining's assessment was only preliminary in nature and Salva Mining cannot provide any guarantee or warranty that significant environmental or community issues will not affect the operation. Key environmental and community relations issues are discussed below.

Environmental Aspects

Key issues which can have a potential impact on project valuations are Water Run-off, noise, dust and rehabilitation.

Water Run-off from site

If sediment loads are high or if the water is acidic, water run-off from dumps, stockpiles, roads and water pumped from pits has the potential to pollute local rivers, creeks and vegetation. This is managed through the use of bunds, drains and sediment ponds of sufficient size to allow small particles to settle out of the water. Regular monitoring of water discharge points is required under government regulations.

Noise and Dust

Noise and Dust originating from mine operations haulage and coal handling have the potential to impact the local environment, particularly if villages and local communities are located within close proximity to mining and coal handling operations. Dust is generally managed by using water trucks on haul roads, and by spraying water or dust suppressant chemicals to minimise dust being airborne and suppressing it.

Rehabilitation

A large area of land will be cleared as part of the KIM mining operation, although much of this area is not covered by any forest land. The disturbed area is generally rehabilitated by removing the topsoil prior to mining, storing the topsoil onsite during mining and covering the final landform with topsoil at the completion of mining. The area to be rehabilitated is then panted with suitable vegetation.

Management at the KIM Project has established procedures and a nursery in place to prepare for revegetation to take place. To prevent the dust hazard, the company is currently using dust suppressant and water sprinkling system. Salva Mining notes that the current approved AMDAL for the KIM concessions allows the company to mine in excess of the proposed throughput.

Mine closure plans for the updated mine plan have yet to be completed; however, Salva Mining does not foresee any significant issues with this aspect of the operation. A reasonable allowance has been made in for environmental management, rehabilitation and mine closure.

7.3.9 Social Aspects

Maintaining a good relationship with local communities is a key requirement for the success of the KIM operation. Efforts must be made to continue the ongoing community development programs in coordination with the local government. Salva Mining reviewed KIM's Corporate Social Responsibility programs which include the following aspects:

Economy

The economic development of the local community is set to include activities to assist with the economic development of the community by providing employment and business opportunities once mining operations have finished.

Current programs include training in sewing skills and establishing aquaculture infrastructure.

Health

It includes programs to improve health in the local communities and to increase people's knowledge through education in health issues.

7.3.10 Cost Factors

General

GEAR provided a "data sheet" of indicative unit costs and revenues relevant for this project which was subject to review and agreement with Salva Mining.

Salva Mining did an independent coal marketing study to review the coal prices forecast for reasonableness. Salva Mining also reviewed the costs for reasonableness against known current mining costs for similar mining conditions within Indonesia. Salva Mining developed an NPV based economic model to show that the project and reserves are "economic". The model produced a positive NPV. These unit rates were then used to estimate the cost to deliver coal to domestic consumers. This allowed a break-even strip ratio to be estimated and the rates were also used to calibrate the optimiser software.

The following points summarise the cost and revenue factors used for the estimate:

- All costs are in US dollars;
- Long term coal price of $48.5 per tonne;
- Royalties of 5% of revenue less marketing costs have been allowed along with VAT of 10% and Contingency of 5%;
- Coal mining rate considered is $0.75 per tonne; and
- Waste mining rate considered is $1.60 per bank cubic metre.

Unit Costs

The Contractor and Owner unit costs used in the Lerchs Grossman optimiser for both Pits are detailed in Table 7:2 and Table 7:3.

Table 7:2 Contractor Unit Rates (Real Terms)

Cost Item	Unit	Rate
Land Clearing	$/ha	1400
Topsoil Removal	$/bcm	1.60
Waste Mining	$/bcm	1.60
Waste Haulage	$/bcm/km	0.30
Coal Mining	$/t	0.75
Haul to ROM Stockpile	$/t km	0.10
Haul to Customer – Road	$/t km	0.06

All quoted cost in local currency is adjusted for fuel price and exchange rate.

Table 7:3 Owner Unit Costs (Real Terms)

Cost Item	Unit	Rate
ROM Coal Handling	$/t	0.30
Mine Closure	$/ha	4,200
Environmental and Rehabilitation	$/t	0.05
Salary and Wages	$/t	0.25
Medical & Community Development	$/t	0.05
Local Govt Fee	$/t	0.25
Corporate Overheads	$/t	0.25

Royalty was estimated 5% based on the respective sale prices of the coal. A 10% VAT was also considered. These costs were used to create a series of waste and coal cost grids which were used to generate the optimiser nested pit shells.

Operating Cost

Total operating costs per tonne of coal product including royalty for the KIM Project has been estimated as $41.10 per tonne over the life of the mine (Table 7:4).

Table 7:4 Average Unit Operating Cost (Real Terms) over Life of Mine

Cost Item	$/t
Land Clearing & Topsoil Removal	$0.03
Waste Mining	$14.37
Waste Overhaul	$2.16
Coal Mining	$0.75
Haul to ROM Stockpile	$0.36
ROM Coal Handling	$0.30
Haul to Customer	$16.43
Mine Closure	$0.01
Environmental and Rehabilitation	$0.05
Salary and Wages	$0.25
Medical & Community Development	$0.05
Corporate Overheads	$0.25

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Cost Item	$/t
Local Government Fees	$0.25
VAT	$3.41
Operating Cost Excl. Royalty	**$38.7**
Royalty	$2.43
Operating Cost incl. Royalty	**$41.10**

Capital Cost

Salva Mining estimates the total capital expenditure of $ 31.6 M which includes a contingency of $ 4.1M. A contingency of 15% has been applied to the capital cost estimate. These estimates are considered to have an accuracy of ± 15%. In addition to the expansion capital of $ 30M, Salva Mining has factored 2% of the invested capital as sustaining capital per annum for asset maintenance over the life of mine. While preparing these estimates, Salva Mining has relied on industry benchmarks, its internal database and expertise and internal studies on the KIM concessions. The Capital Cost estimates and the basis of its estimation are shown in Table 7:5. The cost estimate was prepared in US dollars ($).

Table 7:5 Capital Cost (Q4, 2019 Real Terms)

Particulars	Direct Cost ($M)	Contingency ($M)	Total Cost ($M)
Land Compensation	6.0	0.9	6.9
Mine Site Infrastructure	2.0	0.3	2.3
Contingency for Haul Road Construction	19.5	2.9	22.4
Total Project Capital	**27.5**	**4.1**	**31.6**

Salva Mining has compared these against the industry benchmarks and estimated these to be reasonable.

7.3.11 Marketing and Pricing Factors

The KIM Project produces coal which is sold in the domestic market. The sales price assumptions used in this study are based on domestic coal prices received for coal sold from the KIM project in the current market.

The current domestic coal price for KIM Coal is linked with the Indonesian fuel Index (a proxy for diesel prices). Price forecast is based on the actual contracts which are being realized by the company at present.

Salva Mining has reviewed the latest actual purchase orders and sales contracts for coal sales. These sales' contracts are linked with the fuel index in Indonesia (which is a proxy for petrol and diesel prices in Indonesia).

After weighting by contract volumes, adjusting for actual CV produced and adjustment for the prevailing exchange rates, the historical contract rates and volume, the following base rates for sales prices of the KIM coal was determined as per Table 7:6.

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Table 7:6 Contracted Price - KIM Coal

Year	Price (IDR)	Price (USD)*
2012	600,650	64.10
2013	631,088	60.51
2014	667,588	56.34
2015	673,004	50.22
2016	625,000	46.96
2017	645,374	48.24
2018	684,997	48.11
2019	719,930	50.81

** based on the average FX rate for the year*

The KIM Mine has been supplying the domestic users for since project was commissioned. Salva Mining does not see any difficulties marketing the coal from the KIM project as domestic thermal coal. At Present, the primary markets for this coal are paper and pulp mills located in Sumatra. But in future, some of the coal produced from the KIM Project may go into nearby power plants which are currently under construction.

Salva Mining also reviewed the economics for export sales from the concession. It was found that with the current mining costs for the operation, the margins for export sales were lower than domestic sales for current and forecast coal prices. In future, this situation may change with the increase in coal prices.

Salva Mining has opted to use domestic prices to be on the conservative side. After reviewing the actual prices achieved in the past, Salva Mining has opted to use the average of the actual price achieved of $48.53/t during the past 4 years (2016 – 2019) period as the long-term forecast price.

7.3.12 Product Quality

As previously stated, Salva Mining has assumed no moisture change in the product coal chain. Therefore, it is assumed that the final product will have the same quality of ROM coal which is summarised in Table 7:7.

Table 7:7 Product Coal Quality

Pits	RD (adb t/m^3)	TM (arb %)	IM (adb)	Ash (adb %)	CV arb,(kcal/kg)	TS (adb %)
KIM East	1.38	24.4	11.8	16.8	4,717	1.19
KIM West	1.40	22.6	11.9	16.6	4,980	1.14
KIM	**1.39**	**23.4**	**11.9**	**16.7**	**4,859**	**1.16**

7.3.13 Other Relevant Factors

Surface constraints to the mining operations at KIM projects are limited to the concession boundary and seam sub crops. Other constraints that were used to define the project were limits of exploration drilling, constraints due to river and variable land compensation rates. No significant surface features exist that would further constrain mining activities.

There are a number of planning issues which can impact on the future mining reserves. These include:

- updated geotechnical studies to confirm the overall slope angles and other parameters;
- ongoing coal quality data as well as detailed infill drilling and updates to the geological model;
- any land compensation issues; and
- any changes in the life of mine schedule, infrastructure constraints, coal transportation issues and due to changes in marketing and costing during the mining operation.

These issues can cause the pit shell and mining quantities to change in future Coal Reserve estimates.

Salva Mining is not aware of any other environmental, legal, marketing, social or government factors which may hinder the economic extraction of the Coal Reserves other than those disclosed in this Report. In the opinion of Salva Mining, the uncertainties in areas discussed in the report such as in structural and geotechnical area, use of public haul road for coal hauling etc. are not sufficiently material to prevent the classification of areas deemed Measured Resources to be areas of Proved Reserves for the purpose of this Report. Salva Mining also believes that the uncertainties in each of these areas also not sufficiently material to prevent the classification of areas deemed Indicated Resources to be areas of Probable Reserve.

Key project risk for the KIM Project emanates from the following factors in order of importance:

- Lower long-term coal prices or domestic coal demand;
- Higher life of mine operating costs and logistics issues: and
- Higher Capital costs

Any downside to these factors will likely have a significant impact on the economic feasibility of this project.

7.3.14 Optimisation Result

Determination of Open Cut Limits

The geological models that were used as the basis for the estimation of the Coal Reserves are the MineScape geological models prepared by Salva Mining to compute the Coal Resources.

Potential open-cut reserves inside different blocks of the Project Area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. By generating the financial value (positive or negative) for each mining block within a deposit and then applying the physical relationship between the blocks, the optimal economic pit can be determined.

This method is widely accepted in the mining industry and is a suitable method for determining economic mining limits in this type of deposit. The optimiser was run across a wide range of coal prices using a standard set of costs that was developed by Salva Mining and based on typical industry costs in similar operations. These costs were adjusted to suit the conditions for this project.

Mined Out area in KIM East and KIM West

Mining is being carried out in KIM East at present. The last surveyed topography as of 31 December 2019 for has been used as the surface for the optimisation for these Pits to exclude mined out tonnage from the current reserve estimate.

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The optimiser produced a series of nested pit shells using the same cost parameters with a varying sale price of coal. The method starts with a very low discounted sale price following a high discount factor and moves toward higher sale prices by decreasing the discount on sale price. It estimates the net margin by subtracting the total cost from the revenue within a particular shell at a particular discount factor using the cost-revenue parameters and the physical quantities within the pit shell. As the method progresses, the incremental margin per ton of coal slowly drops down to zero at "zero" discount factor. Salva mining has selected optimised pits at 38% discount to the zero margins.

7.3.15 Selection of Pit Shell

GEAR is proposing to mine 2.2 Mtpa of coal from KIM coal concession blocks in 2020 and targeted to increase to 3.0 Mtpa from 2025 onwards. An economic model was prepared for the mining operation from each of the KIM coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

Base Pit for Optimiser

In addition to these constraints, the optimisers were mostly limited by a 3-dimensional shell which was built for each block following either a surface constraint or geological model extent. These constraints are detailed in Table 7:8. This pit shell effectively represented the maximum pit possible in the deposit that was reasonable for the estimation of Coal Reserves.

Table 7:8 Block wise Optimiser Base Pit limits

Pit	North	South	East	West
KIM West	IUP & Geomodel	Subcrop & River	IUP & Geomodel	IUP, Geomodel & River
KIM East	Geomodel	IUP, Subcrop & Mined out area	IUP and Geomodel	IUP, River & Mined out area

Break Even Stripping Ratio

Table 7:9 summarises the calculation of the Break-Even Stripping Ratio. The methodology adopted involves taking the cost to mine a tonne of coal to the point of sale.

Table 7:9 Break-even Stripping Ratio (BESR)

Estimation of Break Even Stripping Ratio	KIM West & KIM East
Coal Price, US$/t	48.53
Total of Road haulage & Royalty, US$/t	18.86
Price at Mine Head, US$/t	29.67
Other mine related cost, US$/t	7.12
Price ex mine, US$/t	22.55
Cost of Coal Mining, US$/t	0.75
Cost of Waste Mining, US$/bcm	1.60
Break-even stripping ratio bcm/t	13.6

Total mineable quantities have been estimated based on the in-situ density of coal. The in-situ density of the coal has been estimated using the Preston-Sanders method to account for the difference between air-dried density and in-situ density. The formula and inputs were as follows:

$$RD2 = RD1 \times (100 - M1) / (100 + RD1 \times (M2 - M1) - M2)$$

Where

- RD2 = In-situ Relative Density (arb);
- RD1 = Relative density (adb);
- M1 = Inherent Moisture (adb); and
- M2 = Total Moisture (arb).

It should be noted that while the total moisture from laboratory measurements may not necessarily equal the in-situ moisture, this is considered to be the best estimate given the limited amount of data. Salva Mining has assumed that no moisture reduction takes place for the determination of product quality.

7.4 Final Pit Design

7.4.1 Pit Design Criteria

For the purposes of this Report, Salva Mining has limited the pit depth to the limit of exploration drilling within the limit applied to the Resource estimates. Other factors considered in the final optimum pit designs included:

- The location and proximity of coal to exploration data;
- Proximity to the concession boundary;
- Out of pit dumping room;
- Geotechnical parameters; and
- Surface water management considerations.

The final pit designs closely followed the selected pit shell in most locations.

7.4.2 Cut-off Parameters and Pit Limit

Overall low-wall slopes as per the basal seam dip, end-wall slopes and high-wall slopes for the final pit design were considered as per Table 7:10 below. The slope parameters are based on the geotechnical study carried out for KIM project.

Table 7:10 Pit Design Parameters for KIM Project

Pit Design Parameters	KIM Pits
Overall Highwall Slope	40 deg up to 90 m depth, 20 deg for depth up-to 200m depth
Bench Slope	60 deg
Bench Height	10 m
Highwall berm	10 m
Low wall slope	12 deg
Ramp Width	30 m
Maximum Ramp Grade	8%

7.4.3 Final Pit Design

The coal seam distribution within the KIM Concession deposits resulted in the Optimiser identifying pits with the 300L basal seam. The pits were subjected to adjustments to form a practical pit design, which lead to the exclusion of the minor narrow pit shells and the resultant formation of Mineable Pit Shells, which formed the basis of the subsequent reserves estimate. The final pit design along with representative cross-sections for KIM west and KIM East are shown in Figures 7:6 to 7:12.

Optimised Pits for various blocks have been designed within the limits as defined by the pit optimisation analysis. These limits are rationalised to ensure access between floor benches and walls were straightened to generate mineable pits.

The overall high-wall batter angle approximately varies from 20 to 40 degrees as the ultimate pit depth ranges from a little more than 80 m to 150 m. This was done in accordance with the geotechnical study done on KIM projects.

Figure 7:6 Final Pit Design - KIM West

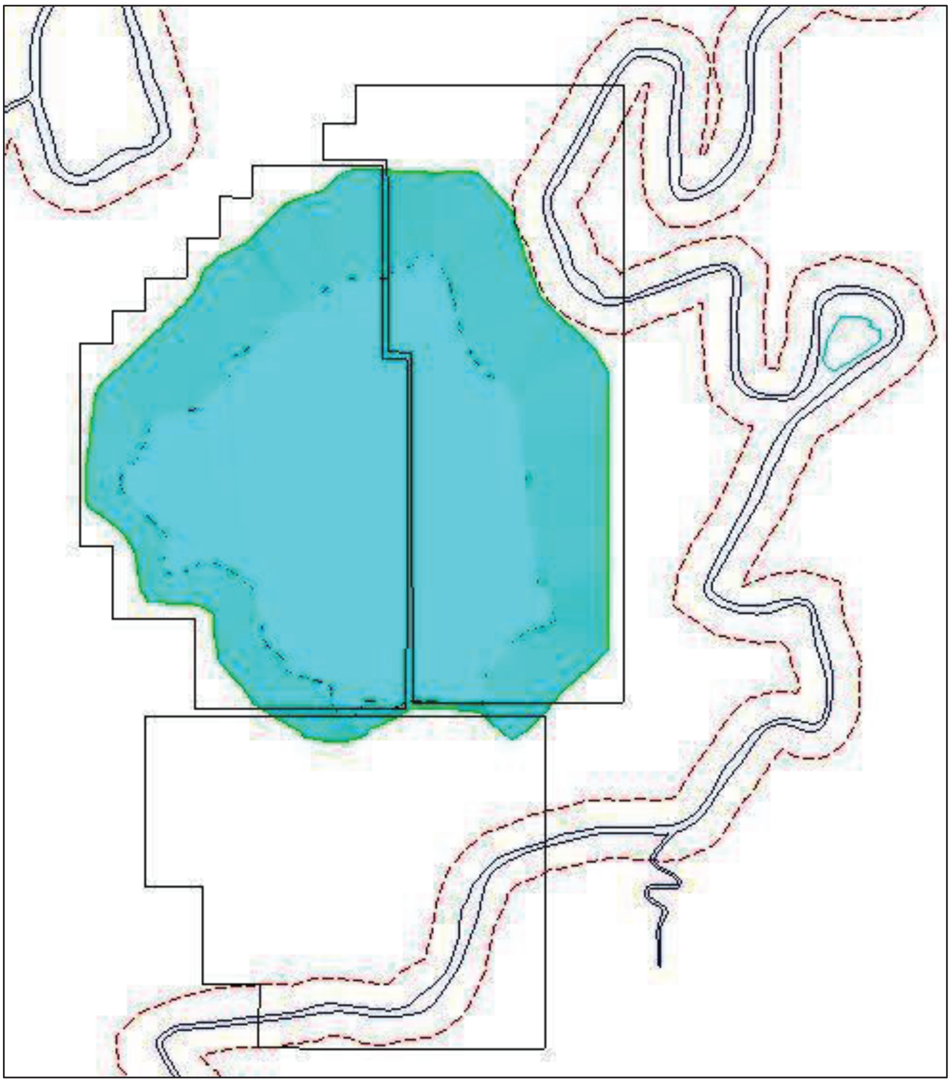

Figure 7:7 Final Pit Design with Resource Polygons - KIM West

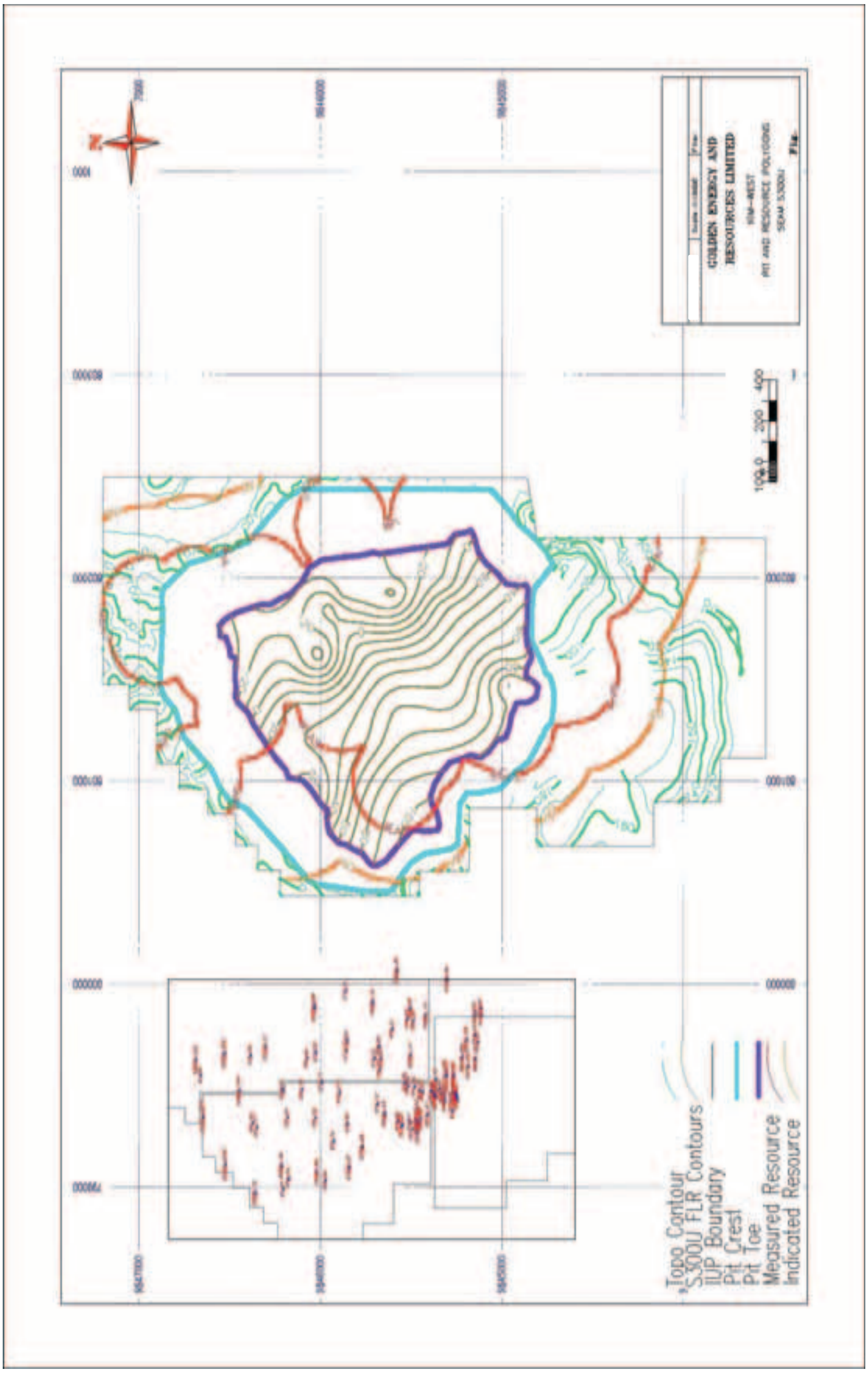

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Figure 7:8 Representative Cross Section- KIM West

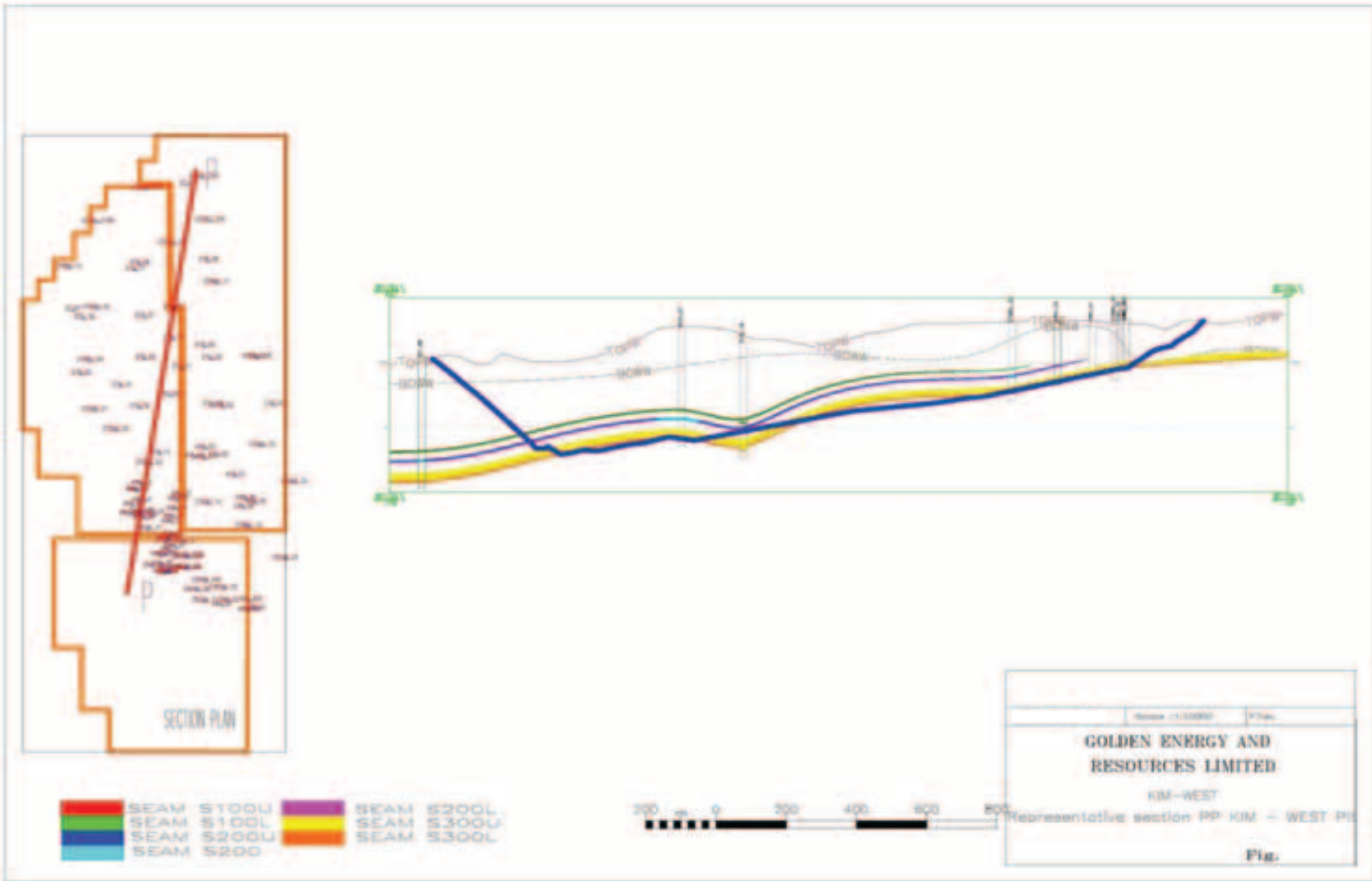

Figure 7:9 Selected Optimiser Pit shell - KIM East

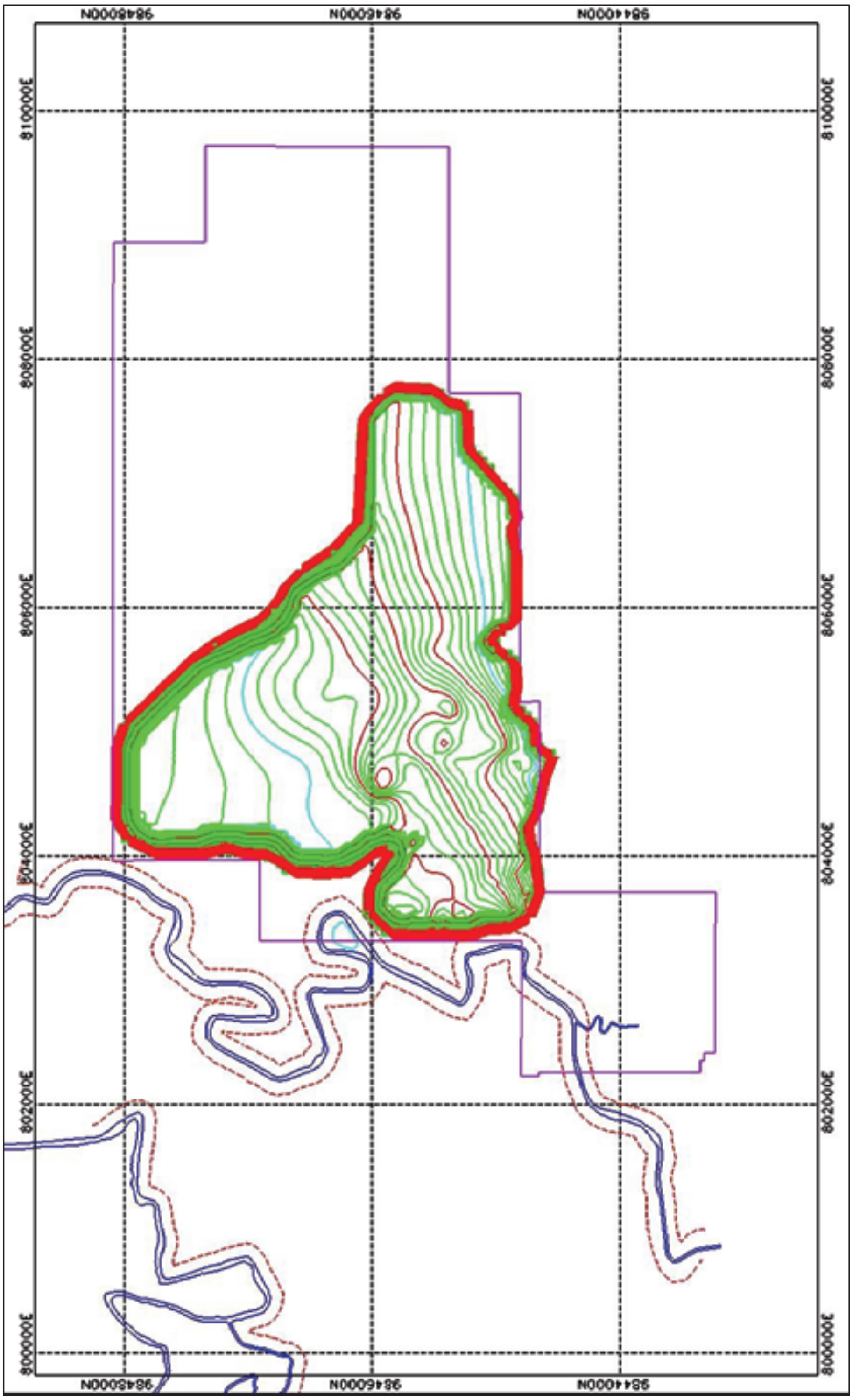

Figure 7:10 KIM East Pit with 300U Measured & Indicated Resource Polygons

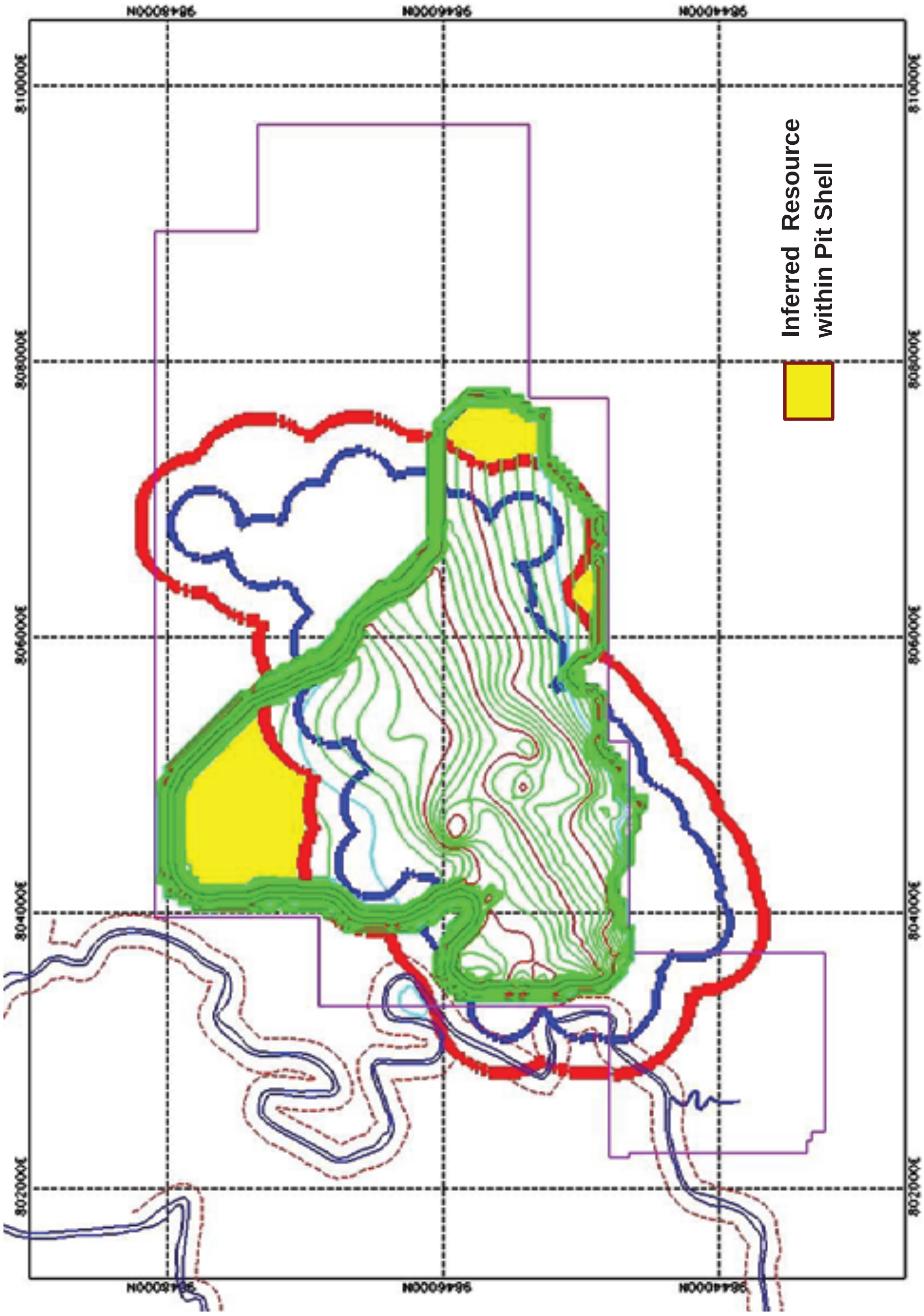

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Figure 7:11 Representative Cross Section 1 - KIM East

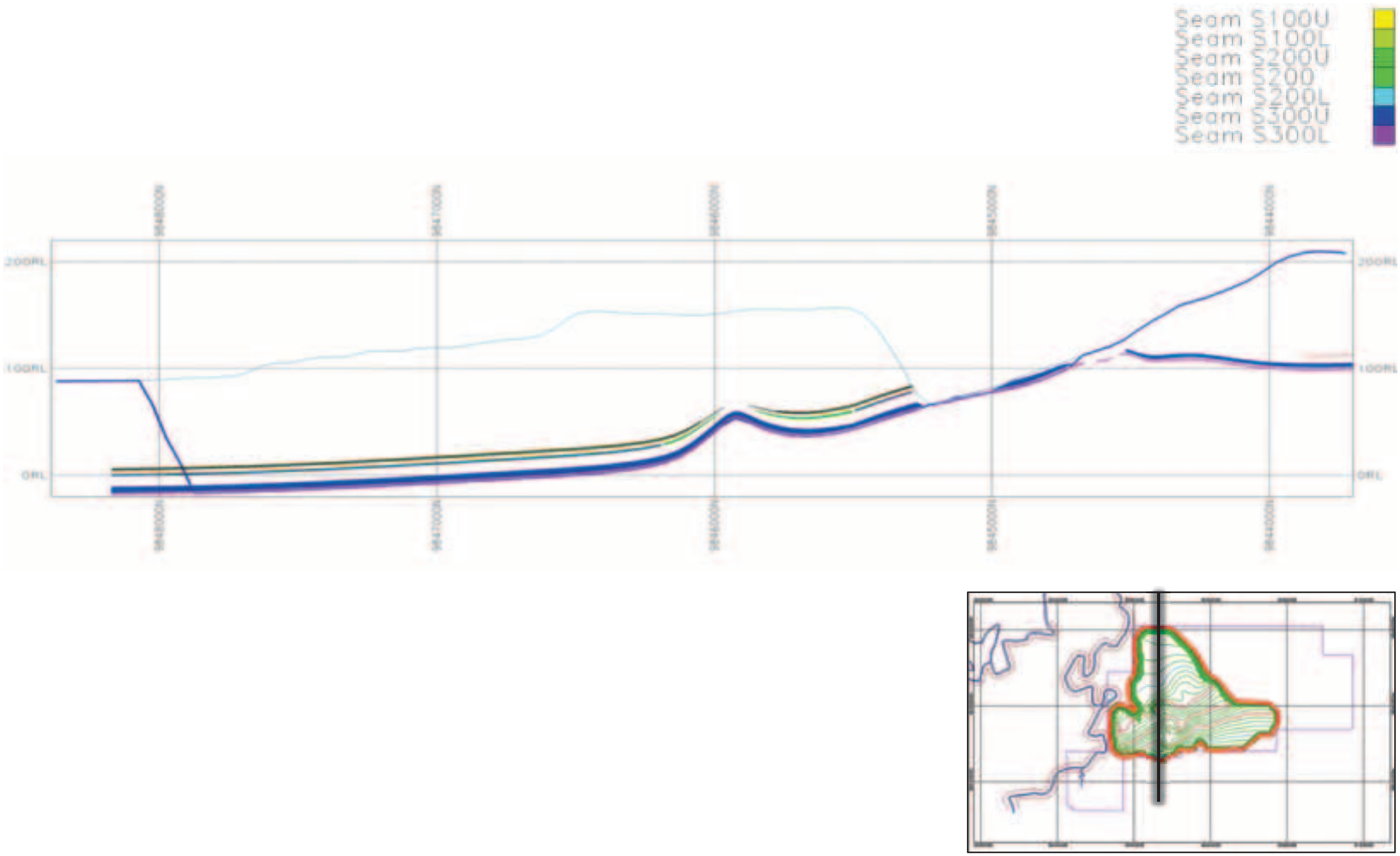

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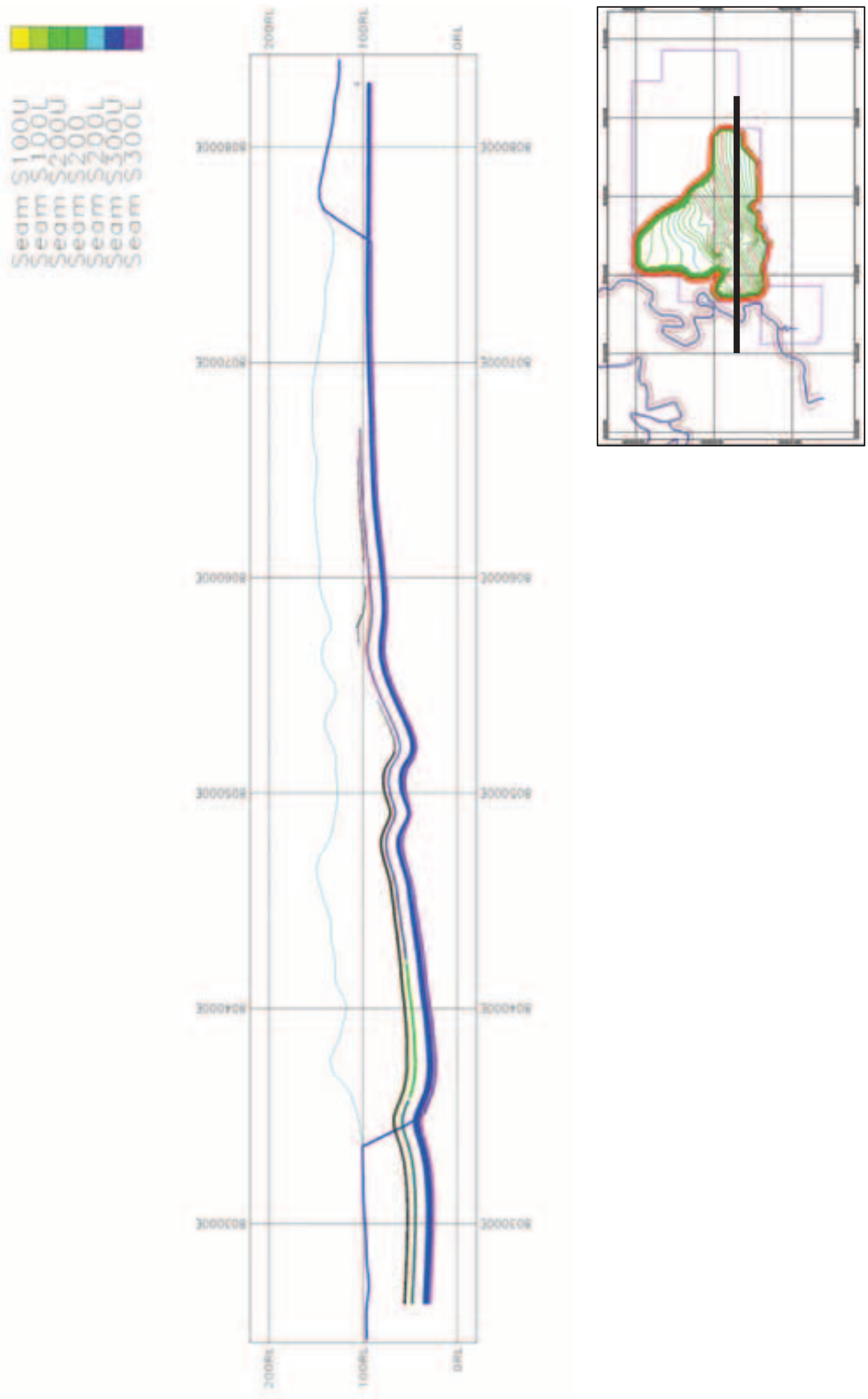
Figure 7:12 Representative Cross Section 2 - KIM East



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7.4.4 Mine Production

The actual production for 2019 was 1.2 Mt while the schedule targets production is 2.2 Mt for the year 2020 with a ramp-up to 3.0 Mtpa by the Year 2025 with recommissioning of KIM West Pit. There is no coal being produced from KIM West since 2014. The production history from KIM mines as shown in Table 7:11.

Table 7:11 Historical Production from KIM Mines

Pits	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
KIM East	0.5	0.9	0.6	0.9	1.3	0.7	0.8	2.3	2.3	2.1	2.3	2.2	1.2
KIM West	0.0	0.0	0.0	0.3	1.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total	**0.5**	**0.9**	**0.6**	**1.1**	**2.2**	**1.7**	**1.1**	**2.3**	**2.3**	**2.1**	**2.3**	**2.2**	**1.2**

7.5 Optimised Pit Shell

The optimised pit shells for KIM blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the KIM IUPs. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables.

Insitu quantities and mine scheduled tonnes within an optimised pit shell along with Reserves are shown in Table 7:12.

Table 7:12 In-situ & Scheduled Quantities & Reserves

IUPs	In-situ			Mine Scheduled Tonnes within the Optimised Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
KIM East	601	64	9.4	601	56.6	10.61	27.4
KIM West	266	41	6.5	252	33.0	7.60	32.2
Total, KIM	867	105	8.3	853	89.6	9.51	59.6

In the process of Reserve Estimation, Salva Mining has followed the process which aimed to minimize the quantity of Inferred Resources within the selected optimized pit shell included in the final pit designs. However, under certain circumstances, it was considered necessary to include this coal in mine plan as the exclusion of it would result in an impractical pit design. Typical situations where inclusions of Inferred Resources within the optimized pit shell were:

- Inferred Resources within an optimised pit shell located at the sub-crop but with Measured and Indicated coal located down-dip;
- Small areas of Inferred Resources within an optimised pit shell located close to the high-wall where exclusion would result in unrealistic high-wall shapes; and
- Thin seams in the stratigraphy where it is difficult to achieve sufficient core recovery or sufficient core for analysis to classify the coal as Measured or Indicated, but which are underlain or overlain by thicker seams with Measured and Indicated Resources.

Table 7:13 exhibits the percentage of Inferred Resource included in the optimized pit shell.

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Table 7:13 Inferred Resource within Optimised Pit Shell

IUPs	Scheduled Tonnes within Optimised Pit shell, Mt	Coal Reserves, Mt	Inferred Resource within Optimised Pit shell, Mt
KIM West	33	32.2	1
KIM East	57	27.4	29
Total, KIM	90	59.6	30

7.6 Audits and Reviews

Checks were done to validate the Minex Coal Resources to Coal Reserves estimation by repeating it manually in an Excel spreadsheet. Other validation work included estimating the total volume of coal and waste in the pit shells using the separate industry-standard computer programs MineScape. As MineScape structure and quality grids were imported into Minex for optimisation work, volume and area checks were also carried out in Minex within the pit shells.

7.7 Coal Reserves Classification

The mineable coal quantities within the final pit designs of the Mineable Pit Shells were then tested so that only Measured and Indicated Coal Resources were classified as Coal Reserves. Coal Reserves within the seams having Measured Resources are reported as Proved Reserves whereas seams having Indicated Resources are reported as Probable Reserves.

In the opinion of Salva Mining, the uncertainties in areas discussed in the Report are not sufficiently material to prevent the classification of areas deemed Measured Resources to be areas of Proved Reserves for the purpose of this Report. Salva Mining also believes that the uncertainties in each of these areas discussed under modifying factors also not sufficiently material to prevent the classification of areas deemed Indicated Resources to be areas of Probable Reserve.

The difference between the Proved and Probable Reserves with respect to Measured and Indicated Resources respectively is explained by the following:

- The Measured and Indicated Resource polygons extend beyond the Mineable Pit Shells;
- There are some Inferred tonnes in the pit shell which cannot be counted as Coal Reserves; and
- There are geological and mining losses and dilution gains in the coal reserve estimation.

7.8 Reserves Classification

Under the JORC Code as shown below only Measured and Indicated Coal Resources can be considered for conversion to Coal Reserves after consideration of the "Modifying Factors" including mining, processing, infrastructure, economic, marketing, legal, environmental, and social and government factors. (Figure 7:13).

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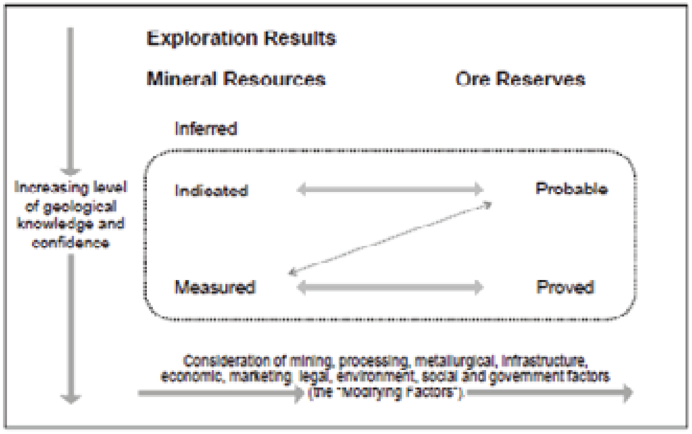
Figure 7:13 Relationship between Mineral Resources & Ore Reserves



Source: JORC Code 2012

To convert Resources to Reserves it must be demonstrated that extraction could be justified after applying reasonable investment assumptions. The highest confidence level establishes Proved Reserves from Measured Resources and a lesser confidence level establishes Probable Reserves from Indicated Resources. A level of uncertainty in any one or more of the Modifying Factors may result in Measured Resources converting to Probable Reserves depending on materiality. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resources to Reserves.

This classification is also consistent with the level of detail in the mine planning completed for KIM Coal concession deposits. Inferred Coal Resources in the mineable pit shell have been excluded from the Coal Reserves estimate.

In the opinion of Salva Mining, the uncertainties in most of these are not sufficiently material to prevent the classifications of areas deemed Measured Resources to be areas of Proved Reserves and areas deemed Indicated Resources to be the areas of Probable Reserves.

7.9 Statement of Coal Reserves

The Statement of Coal Reserves has been prepared in accordance with the 2012 Edition of the JORC Code. Total ROM Coal Reserves for PT Kuansing Inti Makmur coal deposit ("KIM") are summarised in Table 7:14 as of 31 December 2019. ROM coal reserves are the same as Marketable coal reserves.

Table 7:14 ROM Coal Reserves for KIM as of 31 December 2019

Pit	Reserve (Mt)			RD adb t/m3	TM arb %	IM adb %	Ash adb %	CV arb Kcal/kg	TS adb %
	Proved	Probable	Total						
KIM East	21.9	5.5	27.4	1.38	24.4	11.8	16.8	4,717	1.19
KIM West	24.6	7.6	32.2	1.40	22.6	11.9	16.6	4,980	1.14
Total	**46.5**	**13.1**	**59.6**	**1.39**	**23.4**	**11.9**	**16.7**	**4,859**	**1.16**

7.10 JORC Table 1

This Report has been carried out in recognition of the 2012 JORC Code published by the Joint Ore Reserves Committee ("JORC") in 2012. Under the report guidelines, all geological and other relevant factors for this deposit are considered in sufficient detail to serve as a guide to on-going development and mining.

In the context of complying with the Principles of the Code, Table 1 of the JORC Code (Appendix C) has been used as a checklist by Salva Mining in the preparation of this Report and any comments made on the relevant sections of Table 1 have been provided on an 'if not, why not' basis. This has been done to ensure that it is clear to an investor whether items have been considered and deemed of low consequence or have yet to be addressed or resolved.

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Appendix A: CVs

Person	Role
Manish Garg (Director - Consulting)	
Qualification	B. Eng. (Hons), MAppFin
Prof. Membership	MAusIMM; MAICD
Contribution	Overall Supervision, Economic Assessment (VALMIN 2005)
Experience	Manish has more than 25 years' experience in the Mining Industry. Manish has worked for mining majors including Vedanta, Pasminco, WMC Resources, Oceanagold, BHP Billiton - Illawarra Coal and Rio Tinto Coal. Manish has been in consulting roles for past 10 years predominately focusing on feasibility studies, due diligence, valuations and M&A area. A trusted advisor, Manish has qualifications and wide experience in delivering due diligence, feasibility studies and project evaluations for banks, financial investors and mining companies on global projects, some of these deals are valued at over US$5 billion.
Sonik Suri (Principal Consultant - Geology)	
Qualification	B. Sc. (Hons), M.Sc. (Geology)
Prof. Membership	MAusIMM
Contribution	Geology, Resource (JORC 2012)
Experience	Sonik has more than 25 years of experience in most aspects of geology including exploration, geological modelling, resource estimation and mine geology. He has worked for coal mining majors like Anglo American and consulting to major mining companies for both exploration management and geological modelling. As a consultant, he has worked on audits and due diligence for companies within Australia and overseas. He has strong expertise in data management, QA/QC and interpretation; reviews/audits of geological data sets; resource models and resource estimates.
Dr Ross Halatchev (Principal Consultant - Mining)	
Qualification	B. Sc. (Mining), M.Sc., PhD (Qld)
Prof. Membership	MAusIMM
Contribution	Mine Scheduling, Reserve (JORC 2012)
Experience	Ross is a mining engineer with 30 years' experience in the mining industry across operations and consulting. His career spans working in mining operations and as a mining consultant primarily in the mine planning & design role which included estimation of coal reserves, DFS/FS, due diligence studies, techno-commercial evaluations and technical inputs for mining contracts. Prior to joining Salva Mining, Ross was working as Principal Mining Engineer at Vale. To date, Ross has worked on over 20 coal projects around the world, inclusive of coal projects in Australia, as well as in major coalfields in Indonesia, Mongolia and CIS.

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Appendix B: SGX Mainboard Appendix 7.5

Cross-referenced from Rules 705(7), 1207(21) and Practice Note 6.3

Summary of Mineral Reserves and Resources

Name of Asset / Country: Kuansing Inti Makmur / Indonesia

Category	Mineral Type	Gross (100% Project)		Net Attributable to GEAR		Remarks
		Tonnes (millions)	Grade	Tonnes (millions)	Grade	
Reserves						
Proved	Coal	47	Subbituminous B	31	Subbituminous B	
Probable	Coal	13	Subbituminous B	9	Subbituminous B	
Total	Coal	60	Subbituminous B	40	Subbituminous B	
Resources*						
Measured	Coal	112	Subbituminous B	75	Subbituminous B	
Indicated	Coal	56	Subbituminous B	37	Subbituminous B	
Inferred	Coal	92	Subbituminous B	62	Subbituminous B	
Total	Coal	260	Subbituminous B	174	Subbituminous B	

** Mineral Resources are reported inclusive of the Mineral Reserves.*

GEAR holds 66.9997% of asset indirectly.

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Appendix C: JORC Table 1

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Chip samples were collected at every 1m for lithology logging. Sampled all cored coal, sampled separately any bands and taken 10cm of roof and floor for non-coal samples.
Drilling techniques	Drill type (e.g.. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g.. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Man-portable top drive hydraulic rigs, capable of HQ3 coring used for all coal quality. Open hole pilot hole drilled to ascertain coal seams and then drilled a cored drill hole for coal quality (coal quality point of observation). Geophysically logged open holes (percussion drilling) used for non-coal quality structural data points (structural points of observation).
Drill sample recovery	Whether core and chip sample recoveries have been properly recorded and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	After the completion of each core run, core loss is determined by the on-site geologist and recorded in the drill hole completion sheet. If recovery is found to be less than 90% within a coal seam intersection, the hole is re-drilled in order to re-sample this seam with greater than 90% core recovery. All samples with less than 90% core recovery over the width of the seam intersection were excluded from the coal quality database. Followed drilling SOP's for loose and carbonaceous formations to achieve full sample recovery.
Logging	Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	Detailed logging of chips and core. Core photographs were taken.

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Criteria	Explanation	Comment
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected. Whether sample sizes are appropriate to the grainsize of the material being sampled.	No sub-sampling of the core.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	PT Geoservices laboratories are accredited to ISO 17025 standards. Coal quality laboratory adheres to internal QAQC and inter-laboratory QAQC checks. ISO methods have been used for MHC tests. Australian Standards have been used for RD and American Society for testing and materials (ASTM) methods have been used for all other quality variables. Geophysical traces were observed to be generally of good quality.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Coal quality sampling was undertaken by GEAR and is in-line with the coal quality being achieved during the actual mining operations. Twinned holes checked for the agreement of seam intersection depths and in most of the cases there was good agreement.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	Borehole collars have been surveyed using standard total station techniques employed by the survey contractors. Surveys have been validated by GEAR survey staff. The surveyed borehole locations for KIM match well with topographic data. The topography was generated by PT Surtech Utama across KIM project area using LIDAR remote sensing data.

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Criteria	Explanation	Comment
Data spacing and Distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Data spacing sufficient to establish continuity in both thickness and coal quality. Data sets include topography and base of weathering as well as seam structure and coal quality. Ply sampling methodology use. Sample compositing has been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Ply by Ply sampling used therefore the orientation of sampling not seen to introduce bias as all drilling is vertical.
Sample Security	The measures taken to ensure sample security.	Proper measures for sample security were taken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	PTSMGC conducted a review of the drill hole database in 2013 for the historical data set and found it to be satisfactory. Standard database checks also performed by Salva Mining as outlined in Section 4.4 prior to resource modelling and found it to be satisfactory.
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All tenure is secured and currently available. .
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No exploration by other parties.
Geology	Deposit type, geological setting and style of mineralisation.	See Section 4 of the Report.

Criteria	Explanation	Comment
Drill hole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	This Report pertains to resource estimation, not exploration results. As such the details of the drill holes used in the estimate are too numerous to list in this Table.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations and cut-off grades are usually material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All samples have been composited over full seam thickness and reported using Minescape modelling software. No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Ply sampling methodology prevents samples from crossing ply boundaries. Therefore orientation of sampling not seen to introduce bias as all drilling is vertical and seams mostly gently dipping.
Diagrams	Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.	See figures in the Report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.	No reporting of exploration results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical	Geophysical survey results were available for majority of the holes.

Criteria	Explanation	Comment
	and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (e.g.. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will be necessary to improve the confidence levels of the deposits and understanding of the full seam stratigraphy. No exploration plan has been proposed in this Report.
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	The database for all blocks is considered an acceptable standard to report a Coal Resource. Drill hole data used to construct Minescape model. Checks against original downhole geophysics (LAS) files used to verify data during modelling.
Site Visits	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	Regular site visit by Qualified Person and also Mining Engineer and geologist.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	A high degree of confidence in seam picks made using downhole geophysical data. The KIM geological models created by Salva Mining are considered to accurately represent the deposits. No major faults have been reported. Current Minescape model tonnes agree with the previous model by developed by HDR to within 5% error margin range.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	See figures in the Report.

Criteria	Explanation	Comment
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and a maximum distance of extrapolation from data points. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding the recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about the correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of the basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	FEM interpolator used for surface elevation, thickness and trend. Inverse distance squared used for coal quality throughout. Based on experience gained in the modelling of over 40 coal deposits around the world, the FEM interpolator is considered to be the most appropriate for the structure and inverse distance the most appropriate for coal quality. The grid cell size of 25m for the topographic model, 25m for the structural model. Visual validation of all model grids performed. Sulphur is below 1% on average for most seams. Reconciliation of mine production against the initial 2014 estimate shows agreement to within 10%. Geological control based on the correlation of seams, this is considered to be accurate as it is based on downhole geophysical logging. No cutting or capping used Visual validation of modelled grids against input points as well as comparison of reported qualities against input composites per seam.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages estimated on the air-dried basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The coal resources contained in this Report are confined within the concession boundary. The resources were limited to 250m below topography. A minimum ply thickness of 10cm and maximum thickness of 30cm was used for coal partings.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	The KIM East area is currently being mined as open-pit excavations by truck and shovel method.

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Criteria	Explanation	Comment
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	N/A in situ air dried tonnes quoted
Environmental Factors	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Portions of deposit are currently being mined with dedicated waste dumps and water management system. The company is progressively rehabilitating waste dumps. Salva Mining is not aware of any environmental factors that may impact on eventual economic extraction.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	N/A as in situ air dried tonnes quoted.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors i.e. relative confidence in tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	Classification distances based on an assessment of the variability of critical variables through statistical analysis and by an assessment of the degree of geological complexity. Classification radii for the three resource categories are: Measured:250m Indicated:500m Inferred:2000m
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	None
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation.	Spacing ranges for the three resource categories are considered to adequately reflect the degree of confidence in the underlying estimate on a global basis. Local variation to estimated values may arise and will be addressed by adequate grade control procedures during mining operations. Reconciliation of estimated vs actually mined tonnes for mining is within 6% difference.

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Criteria	Explanation	Comment
	Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	
Mineral Resource Estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Basis of the estimates as of 31 December 2019. Coal resources are inclusive of Coal reserves.
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Regular site visit by Qualified Person and also Mining Engineer and geologist between 2014 and 2019 on a regular basis.
Study Status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The Kim Mine is an operating mine. KIM East Pit is being currently mined. KIM West Pit was mined till the end of 2013 and is proposed to be recommissioned in 2025.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied	Refer Section 8:6:1, Break even Stripping Ratio analysis
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.	Refer Table 8:1 Modifying Factors and Pit Optimisation Parameters and Section 8:3 on Notes on Modifying Factors. The KIM Mine is an operating mine since 2007 (KIM East pit commenced production in 2007 while the KIM West pit started in 2010). The KIM Mine is operated as single mining operation; even though the production from the Kim West pit has been temporarily suspended as part of normal operation control. It is planned to resume production from the KIM West pit by 2025. Salva Mining considers the Modifying Factors to be valid for both pits. The Modifying Factors used are based on actual operations at the KIM Mine which were independently verified by the Salva Mining's subject specialist during the site visit. Therefore it is considered valid to use Modifying Factors from the operating KIM mine to satisfy clause 29 of the JORC Code. While JORC 2012 in not

Criteria	Explanation	Comment
	The infrastructure requirements of the selected mining methods.	explicit with reference to operating mines, the guidance given in ASX FAQ no. 9 is considered relevant in this regard. Further, Salva Mining has carried out independent life of Mine (LOM) Study to develop the mining schedule and its economic evaluation of the Mine.
Metallurgical Factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications.	The coal is to be sold unwashed so no processing factors have been applied. Other than crushing to a 50mm top size no other beneficiation will be applied.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Refer Section 8.11, Permits and approvals & 8.12 Environmental Factors
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Discussed in Section 8.10Mine Logistic Factors
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. The source of exchange rates used in the study. Derivation of transportation charges.	Discussed in Section 8.14 Cost and Revenue factors.

Criteria	Explanation	Comment
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	
Revenue Factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products	Discussed in Section 8.15 Cost and Revenue factors & Appendix B
Market Assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Discussed in Section 8.16 Marketing Factors & Appendix B
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs	Economic analysis (NPV) done based on long term price outlook and the cost estimates (Contractor mining operation)
Social	The status of agreements with key stakeholders and matters leading to social licence to operate	Refer to Section 8:12 of this Report
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingency.	Discussed under Section 8:17, Other Factors

Criteria	Explanation	Comment
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Discussed under Section 10.1, Reserve Classification
Audit & Reviews	The results of any audits or reviews of Ore Reserve estimates.	Discussed under Section 10.2, Audits & Reviews
Discussion of Relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Discussed under Section 10.3, Relative Accuracy and confidence

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Golden Energy and Resources Limited

Bara Sentosa Lestari South Block Project

Summary Independent Qualified Person's Report

28 January 2020

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Golden Energy and Resources Limited

Bara Sentosa Lestari South Block Project ("BSL")

Summary Independent Qualified Person's Report

Salva Mining Pty Limited
300 Adelaide Street, Brisbane, QLD 4000, Australia
Email: inf@salvamining.com.au
Website: www.salvamining.com.au
Phone: +61 (0) 407 771 528

Effective Date: 31 December 2019

28 January 2020

Independent Qualified Person:

Manish Garg
BEng (Hons), Master of Applied Finance
MAusIMM
Director, Salva Mining Pty Limited

Subject Specialists:

Mr. Sonik Suri
Principal Consultant – Geology
Salva Mining- Brisbane Office

Dr. Ross Halatchev
Principal Consultant – Mining
Salva Mining - Brisbane Office

Table of contents

List of Figures

SALVA Mining Consultants

List of Tables

SALVA Mining Consultants

Key abbreviations

⁰	degrees
adb	Air-dried basis
AMSL	above mean sea level
ar	As received basis
ASR	Average stripping ratio
AusIMM	Australasian Institute of Mining and Metallurgy
Batter	The slope of Advancing Mine Strip
bcm	bank cubic metre
BD	bulk density
°C	degrees Celsius
CAPEX	capital expenditure
Coal Resource	A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Coal Reserve	A 'Coal Reserve' is the economically mineable part of a Measured and/or Indicated Coal Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually the point where the Coal is delivered to the processing plant must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
GEAR	Golden Energy and Resources Limited
JORC Code	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code' or 'the Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves.
JORC Committee	Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia
k	thousand
kg	kilogram
kt	thousand tonne
km	Kilometre(s)
km2	Square kilometre
m	metre

M	million
m RL	metres reduced level
m^3	cubic metre
mm	millimetre(s)
Mt	million tonnes
Mtpa	million tonnes per annum
NPV	net present value
OPEX	operating expenditure
OS	oversize
RD	Relative Density
ROM	run of mine
Salva Mining	Salva Mining Pty Limited
Stripping Ratio SR	Cubic Meters of waste/tonne of coal
t	tonne
tpa	tonnes per annum

Executive Summary

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare an update to the Summary Independent Qualified Person's Report ("Report") which includes Open Cut Coal Resources and Reserves for the South Block of Bara Sentosa Lestari Project ("BSL Mine" or "BSL Project") located in South Sumatra, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders as a part of continuous disclosure requirements of the company. The Coal Resources and Reserves estimates contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The effective date of this Report is 31 December 2019.

BSL Project in Indonesia

The BSL Project is located in the Musi Rawas Utara and Musi Rawas Regencies, South Sumatra, Indonesia. The project area is approximately equidistant (200-250 km by road) from the major cities of Palembang and Bengkulu.

The BSL Concession is held through the Generation II Coal Contract of Work (CCoW) by PT Bara Sentosa Lestari ("PT BSL"). GEAR has indirect interest in PT BSL. Salva Mining understands that PT BSL has received all exploitation and operations permits from the government.

The BSL Concession consists of two sub-blocks, namely North and South Blocks, covering a total area of 23,300Ha. North Block hasn't been drilled extensively as such no Coal Resources or Reserves was delineated at the North Block.

4 key prospective areas were identified in the South Block. These sub-blocks are:

- Muara Lakitan ("ML");
- Belani ("BL"),
- Batukucing ("BK") and
- Ampalau coal deposits.

There is no resource drilling and coal resource estimate for the Ampalau coal deposit. This Report covers the Coal Resource and Reserves estimates for the ML, BL and BK sub-blocks in BSL South Block only.

Geology

The late Miocene to Pliocene Muara Enim Formation ("Muara Enim Fm") is the main coal-bearing formation present in the South Sumatra Basin. The thickness of this formation, in the area around Muara Enim and Lahat, is around 500-700m.The thickness of individual coal seams varies with the thickness of the formation, typically varying between 10 m to 30 m in thickness, with shallow marine clays at the base, and shoreline and delta plain facies (sand, clay, coal) at the top. The coal present in most of the basin is of low rank.

The coal seams within the ML deposit occur in Lower Muara Enim Formation of Miocene age. The deposit has multiple coal seams with up to ten seams identified (Seams 200 to 1050 in descending stratigraphic order) with multiple sub-seams and seam splits. The main seams are 800 and 900 with an average thickness of 6 m and 9 m respectively.

The Belani deposit has multiple coal seams with eleven different coal seams and their sub seams identified. These seams have a combined strike length of over 4km. The main seams out of the total package have been named as E420, E410, E720, E710, E600, E820, E810, E920, E910, E1000 and E1100 (in descending stratigraphic order). Out of these coal seams, the two thickest seams, Seam 420 and Seam 910, have an average thickness of 5.27m and 12.05m respectively.

The Batukucing coal deposit is believed to be of Miocene age. A total of 10 seams have been identified with a number of plies (seam splits) identified. 9 of these plies have been identified as viable, within the Batukucing tenement, occurring over a strike length of over 4km.These coal plies have been named: E420, E410, E500, E600, E700, E820, E810, E920 and E910 (in descending stratigraphic order). Out of these, B600, B700, B810, and B910 average 2.7m, 2.4m, 2.7m, and 3.6m in thickness respectively, whilst other target seams typically range from 1.0m to 2.5m.

Coal Resource

Salva Mining has estimated total Coal Resources of 418 million tonnes (Mt) on an in-situ air-dried moisture basis. The total tonnes are comprised of 198 Mt of Measured, 133 Mt of Indicated and 87 Mt of Inferred Resources.

BSL Coal Resources as of 31 December 2019

Resource Classification	Mass Mt	TM (adb) (%)	IM (adb) (%)	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	198	34.5	19.0	5.0	39.2	0.3	5,162	1.37
Indicated	133	33.7	17.5	5.6	39.6	0.4	5,277	1.38
Inferred	87	34.1	17.4	6.6	39.0	0.4	5,193	1.39
TOTAL	**418**	**34.1**	**18.2**	**5.5**	**39.3**	**0.4**	**5,210**	**1.38**

(*Note: individual totals may differ due to rounding*)

Mining Modification factors – Resource to Reserve

Coal Reserves were estimated by applying modifying factors including mining parameters and exclusion criteria to the Coal Resources. The mining factors (such as recovery and dilution) were defined based on the proposed open cut mining method and the coal seam characteristics. The exclusion criteria included the lease boundary and a minimum working section thickness. Minex "Optimiser" software was used to generate a series of incremental pit shells which reflect different economic scenarios and changes in the breakeven strip ratio.

An economic model was prepared for the mining operation to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

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Mining Method

The mining method can be described as "multi seam, moderate dip, open-cut coal mining using truck and shovel equipment in a haul back operation".

Muara Lakitan deposit

The coal seam distribution within the Muara Lakitan deposit resulted in the Optimiser identifying two main pits where the main bottom seam is 970. Seams 800 group and 900 groups are well developed in both the northern and southern pits. The pits were subject to adjustments to form a practical pit design, which lead to the exclusion of the minor narrow pit shells and the resultant formation of two separate pit shells (Mineable Pit Shells), which formed the basis of the subsequent reserves estimate. The coal quantities within the Mineable Pit Shells through the application of mining factors converted to a total of 158.9 Mt of ROM coal.

Batukucing deposit

The coal seam distribution within the Batukucing deposit resulted in the Optimiser identifying the main pit where the main basal seam is B910 well developed in the pit. The pit was subjected to adjustments to form a practical pit design, which led to the exclusion of the minor narrow pit shells and the resultant formation of the main pit shell, (Mineable Pit Shell), which formed the basis of the subsequent reserves estimate. The coal quantities within the Mineable Pit Shell through the application of mining factors converted to a total of 18.9 Mt of ROM coal.

Belani deposit

The coal seam distribution within the Belani deposit resulted in the Optimiser identifying the main pit bottom seam as E1100. Seams E810 and E910 are well developed in the pit. The pit was subjected to adjustments to form a practical pit design, which led to the exclusion of the minor narrow pit shells and the resultant formation of the main pit shell, (Mineable Pit Shell), which formed the basis of the subsequent reserves estimate. The coal quantities within the Mineable Pit Shell through the application of mining factors converted to a total of 60.8 Mt of ROM coal.

Scheduled tonnes over the Life of Mine

The optimised pit-shells for BSL blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the BSL concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality. In-situ quantities and mine scheduled tonnes are shown below.

In-situ & ROM Scheduled Quantities & Reserves, BSL Concession

BSL Pits	Insitu			ROM			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	ISR, bcm/t	Waste, Mbcm	Coal, Mt	ASR, bcm/t	
Muara Lakitan	1,023	161.3	6.34	1,034	158.9	6.50	141.1
Batukucing	137	19.5	7.00	139	18.9	7.36	13.1
Belani	288	65.8	4.39	289	60.2	4.79	55.9
TOTAL, BSL	**1,448**	**246.6**	**5.87**	**1,461**	**238.0**	**6.14**	**210.1**

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Coal Reserves

The Measured and Indicated confidence limits were overlaid on these pit shells and Inferred tonnes were excluded from the estimate. The Coal Reserves were then categorised into Proved and Probable based on the Coal Resources confidence and the level of detail in the mine planning. Based on this approach, a total of 210.1 Mt of Open Cut Coal Reserves were estimated at BSL coal deposit by Salva Mining of which 149.6 Mt of Coal Reserves are considered to be of Proved category and balance 61.0 Mt of Coal Reserves to be of Probable category.

The estimate of Coal Reserves for BSL Project in Proved and Probable category is shown in the table below:

Coal Reserves for BSL Coal Concession as of 31 December 2019

Concession	Coal Reserve (Mt)			RD, adb t/m3	TM, arb %	IM adb %	Ash, adb %	CV, arb Kcal/kg	TS, adb %
	Proved	Probable	Total						
Muara Lakitan	109.8	31.3	141.1	1.38	36.8	20.9	5.0	3,977	0.30
Batukucing	1.7	11.5	13.1	1.42	33.6	9.9	5.4	4,369	0.45
Belani	37.7	18.2	55.9	1.34	27.9	16.1	6.1	4,640	0.37
Total	**149.2**	**61.0**	**210.1**	**1.37**	**34.2**	**18.9**	**5.3**	**4,178**	**0.33**

(*Note: individual totals may differ due to rounding*)

Coal Resources are reported inclusive of Coal Reserves. The coal will be sold as a run of mine (ROM) product; hence Marketable Reserves will equal Coal Reserves. The average estimated product coal quality based on the total Coal Reserves is Total Moisture TM (ar) 34.2%, Ash (adb) 5.3%, CV (gar), 4,178 Kcal/Kg and sulphur content 0.33%.

This Report may only be presented in its entirety. Parties wishing to publish or edit selected parts of the text, or use the Report for public reporting, must obtain prior written approval from Salva Mining and the signatories of this Report.

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1 Introduction

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare an update to the Summary Independent Qualified Person's Report ("Report") which includes Open Cut Coal Resources and Reserves for the South Block of Bara Sentosa Lestari Project ("BSL Mine" or "BSL Project") located in South Sumatra, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders as a part of continuous disclosure requirements of the company. The Coal Resources and Reserves estimates contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The effective date of this Report is 31 December 2019.

1.1 Data sources

This Report is based on the information provided by PT Bara Sentosa Lestari ("PT BSL"), GEAR, previous reports and technical reports of previous consultants.

Salva Mining has carried out its own independent assessment of the quality of the geological and mining data. Salva Mining has relied on GEAR's advice regarding the status of agreements, royalties or concession standing pertaining to these assets.

In developing our assumptions for this Report, Salva Mining has relied upon information provided by the company and information available in the public domain. Key sources are outlined in this Report and all data included in the preparation of this Report has been detailed in the references section of this Report. Salva Mining has accepted all information supplied to it in good faith.

1.2 Limitations

After due enquiry in accordance with the scope of work and subject to the limitations of the Report hereunder, Salva Mining confirms that:

- The input, handling, computation and output of the geological data and Coal Resources and Reserves information has been conducted in a professional and accurate manner, to the high standards commonly expected within the mining professions.
- The interpretation, estimation and reporting of the Coal Resources and Reserves estimates have been conducted in a professional and competent manner, to the high standards commonly expected within the Geosciences and mining professions, and in accordance with the principles and definitions of the JORC Code (2012).
- In conducting this assessment, Salva Mining has addressed and assessed all activities and technical matters that might reasonably be considered relevant and material to such an assessment conducted to internationally accepted standards. Based on observations and a review of available documentation, Salva Mining has, after reasonable enquiry, been satisfied that there are no other relevant material issues outstanding.
- The conclusions presented in this Report are professional opinions based solely upon Salva Mining's interpretations of the documentation received and other available

information, as referenced in this Report. These conclusions are intended exclusively for the purposes stated herein.

- For these reasons, prospective investors must make their own assumptions and their own assessments of the subject matter of this Report.

Opinions presented in this Report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this Report, about which Salva Mining have had no prior knowledge nor had the opportunity to evaluate.

1.3 Disclaimer and warranty

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of its valuation or the success or failure for the transaction for which the Report was prepared. None of Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates have (or had) a pecuniary or beneficial interest in/or association with any of the GEAR, or their directors, substantial shareholders, subsidiaries, associated companies, advisors and their associates prior to or during the preparation of this Report.

A draft version of this Report was provided to the directors of GEAR for comment in respect of omissions and factual accuracy. As recommended in Section 39 of the VALMIN Code, GEAR has provided Salva Mining with an indemnity under which Salva Mining is to be compensated for any liability and/or any additional work or expenditure, which:

- Results from Salva Mining's reliance on information provided by GEAR and/or their Independent consultants that is materially inaccurate or incomplete, or
- Relates to any consequential extension of workload through queries, questions or public hearings arising from this Report.

The conclusions expressed in this Report are as on the 31 December 2019, the date on which the Coal Resources and Reserves were estimated. The estimates are only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values outlined in this Report are expressed in US dollars ($) unless otherwise stated. Salva Mining services exclude any commentary on the fairness or reasonableness of any consideration in relation to these assets.

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2 Independent Qualified Person's Statement

This Report has been written following the guidelines contained within the 2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Experts Reports ("the VALMIN Code") and the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code"). It has been prepared under the supervision of Mr Manish Garg (Director – Consulting / Partner, Salva Mining) who takes overall responsibility for the Report and is an Independent Expert as defined by the VALMIN Code.

Sections of the Report which pertain to Coal Resources have been prepared by Mr Sonik Suri (Principal Consultant, Geology) who is a subject specialist and a Competent Person as defined by the JORC Code. Sections of the Report which pertain to Coal Reserves have been prepared by Dr Ross Halatchev (Principal Consultant, Mining) who is a subject specialist and a Competent Person as defined by the JORC Code.

This Report was prepared on behalf of Salva Mining by the signatory to this Report, assisted by the subject specialists' competent persons whose qualifications and experience are set out in Appendix A of this Report.

Mr Manish Garg
Director
Salva Mining Pty Limited

2.1 Statement of Independence

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report. The above-mentioned person(s) have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this techno-commercial assessment.

Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

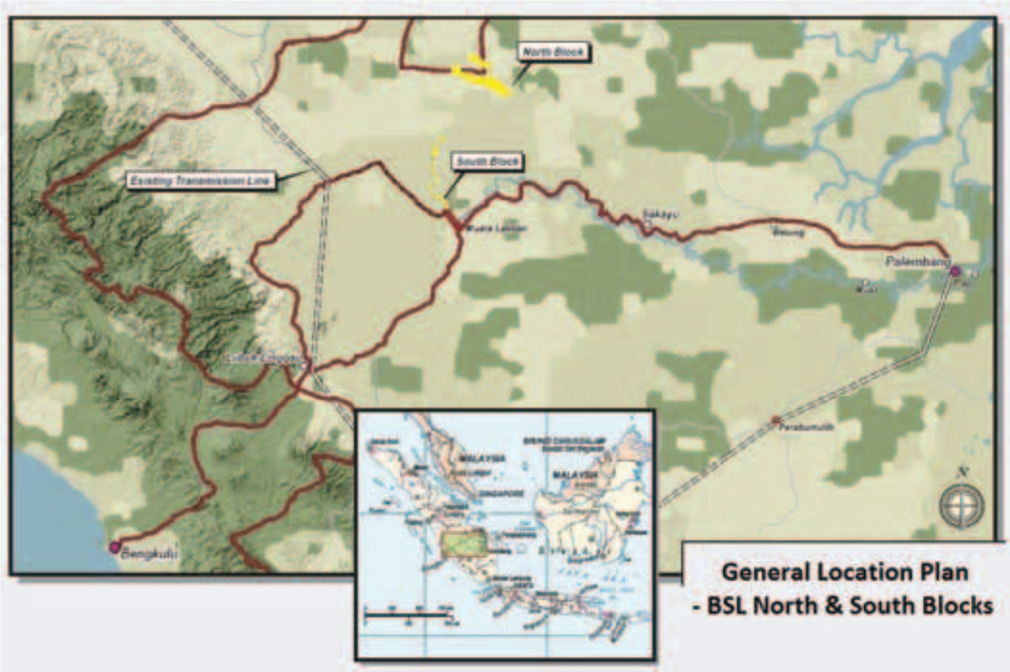
Neither Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev nor any of the Salva Mining's partners (including Mr. Garg), directors, substantial shareholders and their associates have (or had) a pecuniary or beneficial interest in/or association with any of the GEAR, or their directors, substantial shareholders, subsidiaries, associated companies, advisors and their associates prior to or during the preparation of this Report.

3 Project Description

3.1 Property Description and Access

The BSL Project is located in the Musi Rawas Utara and Musi Rawas Regencies, South Sumatra, Indonesia (Figure 3:1). The BSL Project area is located almost equidistant (200 - 250 km by road) from the major cities of Sumatra Island, namely Palembang and Bengkulu.

Figure 3:1 General Location Plan



The BSL coal deposit is a part of the coal deposits held through Generation II Coal Contract of Work (PKP2P: 015/PK/PTBA-BL/1994) and is currently in the advanced development stage. These coal deposits were previously held by PT. Duta Sarana Internusa and PT Banpu Public Company Limited.

The BSL Project consists of two sub-blocks, namely north and south blocks, covering a total area of 23,300Ha.

Exploration to date has concentrated on the South Block (~ 3200 Ha) where four sub-blocks prospective for coal (Figure 3:2) have been identified:

- Muara Lakitan (ML);
- Batukucing (BK);
- Belani (BL); and
- Ampalau.

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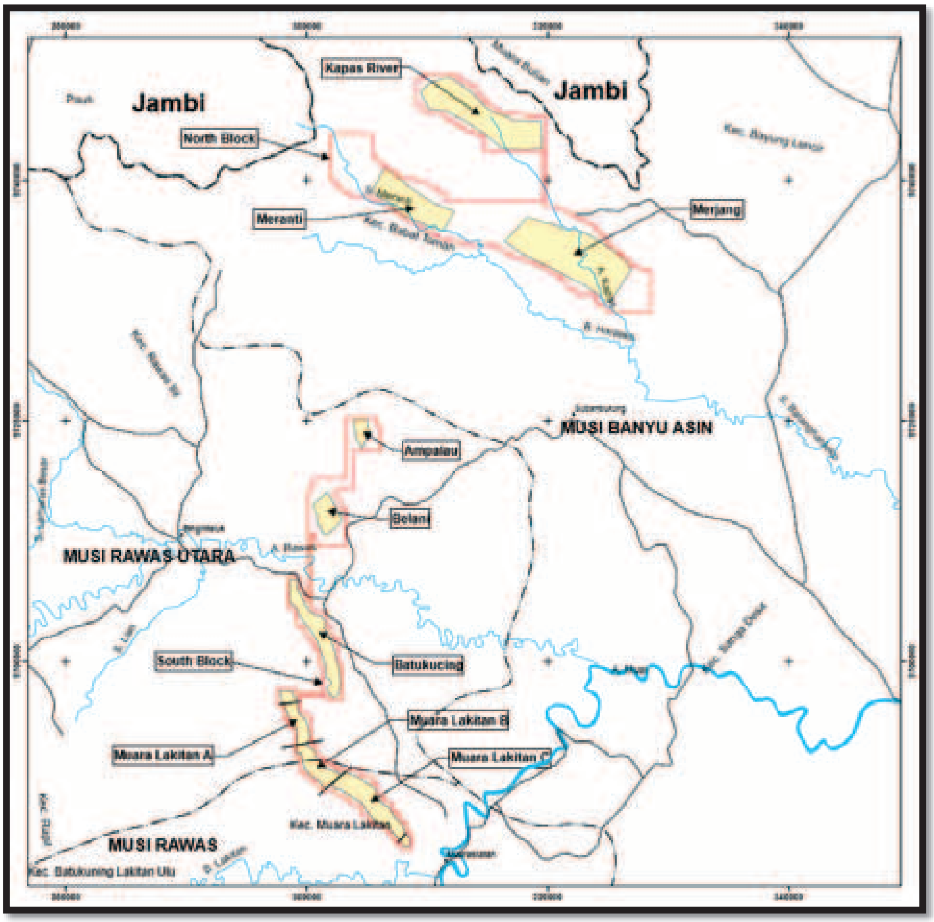
Figure 3:2 Project Location



Muara Lakitan (ML Block) is approximately 5 km north of the Musi River at its closest point and is approximately 400 km upstream from the offshore transhipment port at the mouth of the Musi River. Muara Lakitan covers an area of approximately 3,200 Ha. Most of the exploration drilling had been carried out on Muara Lakitan during 2004-09.

Batukucing Block (BK Block) covers an area of approximately 1,793 Ha. Batukucing is approximately 24 km north of the Musi River at its closest point and is approximately 400 km upstream from the offshore transhipment port at the mouth of the Musi River. Most of the exploration drilling had been carried out on BK Block during 2008-09.

Belani (BL Block) which covers an area of approximately 1,574 Ha is approximately 3 km north of the Rawas River at its closest point and is approximately 400 km upstream from the offshore transhipment port at the mouth of the Musi River. Detailed exploration drilling was completed in 2009 at Belani North Block, and in 2010 at Belani South with infill drilling in 2018.

This Report only deals with the Coal Resources and Reserves estimates within the ML, BK and BL coal deposit within the BSL South Block Concession.

4 Geology

4.1 Regional Geology

The late Miocene to Pliocene Muara Enim Formation ("Muara Enim Fm") is the main coal-bearing formation present in the South Sumatra Basin. The thickness of this formation, in the area around Muara Enim and Lahat, is around 500-700m.The thickness of individual coal seams varies with the thickness of the formation, typically varying between 10 m to 30 m in thickness, with shallow marine clays at the base, and shoreline and delta plain facies (sand, clay, coal) at the top. The coal present in most of the basin is of low rank.

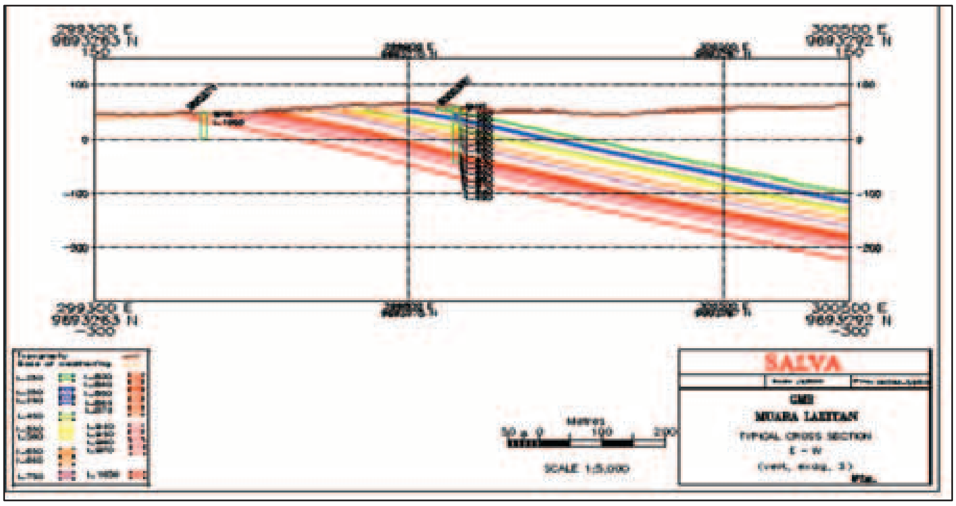
4.2 Local Geology - Muara Lakitan (ML Block)

The coal resources occur in the Miocene age, Lower Muara Enim Formation. The deposit has multiple coal seams with up to ten seams identified from Seam 200 to Seam 1050, in descending stratigraphic order (denoted l_200 to l_1050 respectively for modelling purposes) with multiple sub-seams and seam splits. For modelling purposes, individual elements were modelled without the need for compound intervals.

The in-situ coal is of lignite rank, with high Total Moisture (average TM 36.2%), low Calorific Value (CV 5,015 kcal/kg air-dried basis), low ash (average 5.3%) and low sulphur (average 0.3%).

Seam dips are relatively consistent in Muara Lakitan and are typically of the order of 15 to 20 degrees to the northeast. The Muara Lakitan is bounded to the north and south by major northwest-trending transverse faults and is sub-divided into a number of sub-blocks by smaller-scale sub-parallel faults. A Typical EW cross-section across the deposit is shown in Figure 4:1.

Figure 4:1 ML Block - Typical E-W Cross Section



A generalised stratigraphic column is shown in Figure 4:2.

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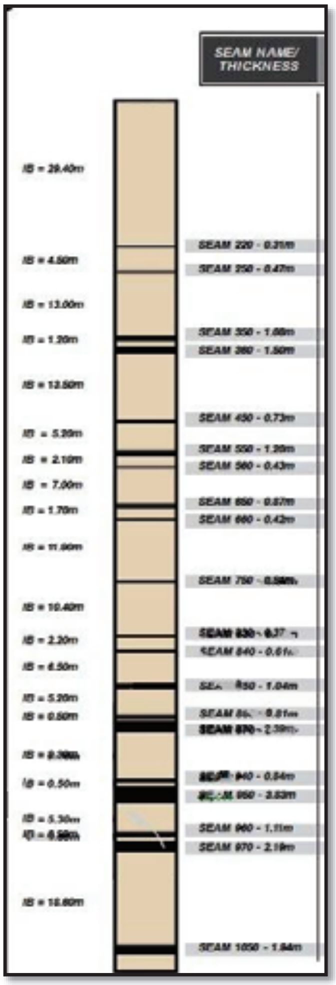
Figure 4:2 ML Block - Generalised Stratigraphic Column



4.3 Local Geology – Belani (BL) Sub-block

The deposit has multiple coal seams with eleven different coal seams and their sub seams identified at Belani. These seams have a combined strike length of over 4km.The main seams out of the total package have been named as E420, E410, E660, E720, E710, E820, E810, E920, E910, E1000 & E1100 (in descending stratigraphic order). Out of these coal seams, the two thickest seams, Seam 420 and Seam 910, have an average thickness of 5.28m and 12.05m respectively. Seams E400, E800 and E900 show consistency in terms of seam thickness and splitting.

The in-situ coal is of the sub-bituminous rank of estimated product quality with high Total Moisture (average TM 28.5%), moderate Calorific Value (CV 5,485 kcal/kg air-dried basis, adb), low ash (average 5.7%) and low sulphur (average 0.2%).

The Belani deposit is bounded to the north and south by major northwest trending transverse faults. Seams generally dip to the east at approximately 23 degrees. A typical cross-section across the deposit is shown in Figure 4:3.

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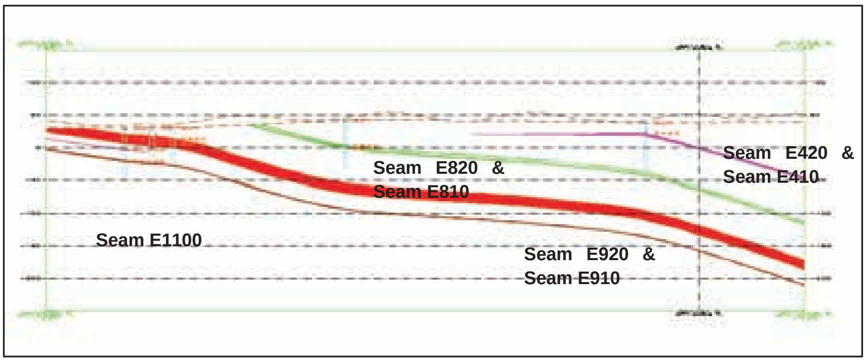
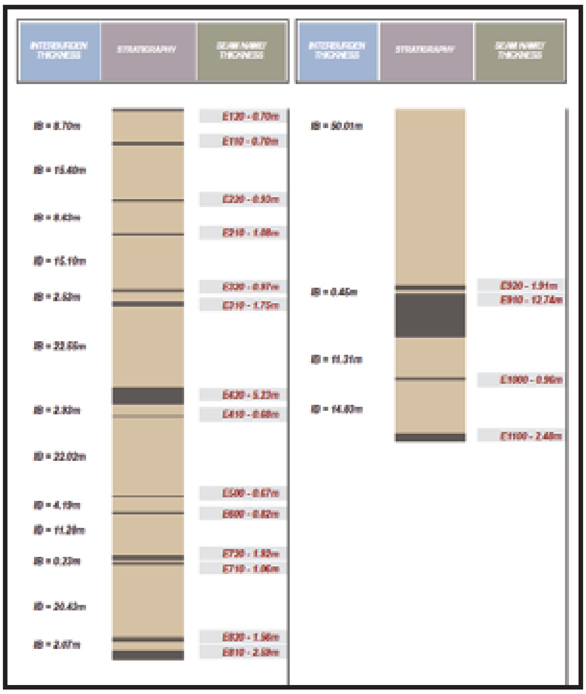
Figure 4:3 BL Block - Typical Cross Section



A generalised stratigraphic column is shown in Figure 4:4.

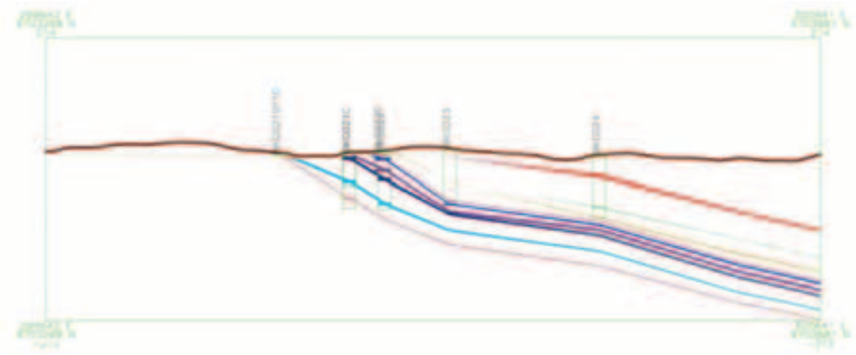
Figure 4:4 BL Block - Generalised Stratigraphic Column



4.4 Local Geology – Batukucing (BK) Sub Block

The Batukucing coal deposit is believed to be of Miocene age. The coal exists within the Maura Enim Formation. A total of 10 seams have been identified with a number of plies (seam splits) identified. 9 of these plies have been identified as viable, within the Batukucing tenement, occurring over a strike length of over 4km.These coal plies have been named: E420, E410, E500, E600, E700, E820, E810, E920 and E910 (in descending stratigraphic order). Out of these, B600, B700, B810, and B910 average 2.7m, 2.4m, 2.7m, and 3.6m in thickness respectively, whilst other target seams typically range from 1.0m to 2.5m. A typical cross-section across the deposit is shown in Figure 4:5.

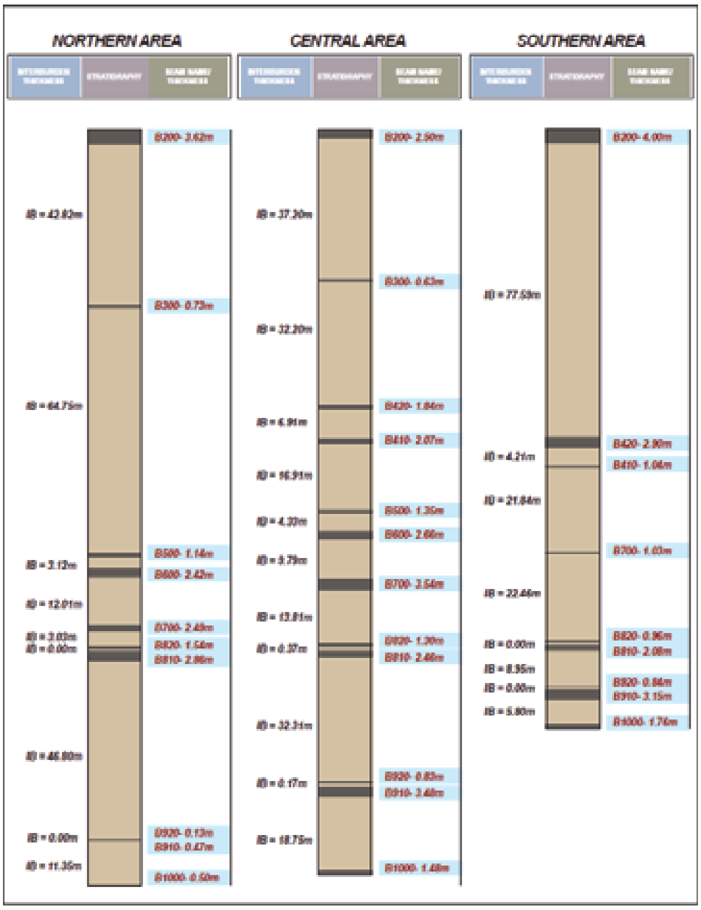
Figure 4:5 BK Block - Typical NE-SW Cross Section



The in-situ coal is of sub-bituminous rank, with average in situ coal quality as follows: Total Moisture (TM) as received is 33.7% (ar), Calorific Value (CV) gross as received is 5,797 kcal/kg (adb), Ash is 6.6% (adb) and Total Sulphur (TS) is 0.6% (adb).

A generalised stratigraphic column is shown in Figure 4:6.

Figure 4:6 BK Block - Generalised Stratigraphic Column



5 Geological Database and Modelling

5.1 Muara Lakitan (ML)

5.1.1 Geological Data

The geological data used in resource modelling was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources. Salva Mining conducted a detailed review of the geological data supplied, including geophysical log interpretation and verification of seam correlations.

The key outcomes from the data review are as follows

- a total of 452 drill holes were drilled;
- 164 drill holes (11,700 m) were drilled in 2004-2005 at Muara Lakitan by Banpu;
- holes were drilled on drill lines at 250 m spacing in Block B and at 500m drill spacing at Block C;
- out of 164, a total of 103 holes were" touch" cored;
- in addition to 164 drill holes, another 78 holes (16,100 m) were drilled by DSI in 2007;
- holes were drilled on infill drill lines at 250 m spacing in Block C and at 500m drill spacing at Block A;
- out of these additional 78 holes, a total of 6 holes were partly cored to obtain check samples for analyses;
- after 2008, additional 210 drill holes were drilled in which 129 were quality drill holes;
- coal samples were typically analysed for the following suite of analyses - Total Moisture, proximate Analysis, Total Sulphur, Calorific Value and RD,

Table 5:1 ML Block – Summary of Drilling Data

BH Series	No. of Holes	Type	Geophysical Logging	Quality
B	164	Old	152	103
ML	60	New	60	0
MLC	18	BKA	0	0
PI	67	After 2008	49	63
PS	132	After 2008	85	62
TW	5	After 2008	0	4
GT	6	After 2008	3	0
Total	452		349	232

Out of the total 452 drill holes, a total of 349 holes have been geophysically logged for Gamma, Density and Calliper. Recent drilling by DSI included open-hole drilling and geophysically logging of all holes. Selected holes were twinned and partly cored. Drilling depths for most of the drill holes are down to 120m depth. Previously drilled Banpu drill holes involved open hole drilling, geophysical logging and coring of intersected seams. In Salva Mining's opinion, the data is overall of a high standard, as all drill holes at Muara Lakitan were geophysically logged, the interpretation of the geophysical logs is good and detailed seam correlations have been carried out on the basis of this geophysical data.

Salva Mining has verified seam picks against the geophysical logs provided. It should be noted that only a portion of the geophysical logs was supplied to Salva Mining, i.e. Salva Mining does not possess a complete set of geophysical logs for all holes which were in fact geophysically logged. This is not considered material to the validity of the estimate as the geophysical logs supplied were sufficient to check seam correlations, given the relatively consistent seam correlations between holes exhibited by the deposit.

5.1.2 Survey

A detailed topographic survey has been conducted over the entire study area by aerial LiDAR survey. All drill holes have surveyed collar positions. An accurate topographic DTM model for the area was constructed by Salva Mining, from the topography uncut grid supplied by client. The drill hole collar file, seam pick and coal quality data files supplied by client were imported into Minescape Stratmodel to build the structural coal quality models.

5.1.3 Coal Density

The coal quality data supplied by the client was used by Salva Mining to construct the coal quality model. The air-dried density contained within the composited raw coal quality for each seam was used to determine in situ tonnages per seam.

5.1.4 Data Validation

All holes with geophysical data were reviewed for seam pick validation. Out of 242 holes, a total of 7 drill holes could not be used in the model due to the fact that seam pick information was not available for these holes.

A total of 496 samples were provided with raw coal quality information, namely: TM, IM, ASH, VM, FC, SU, CV and RD.

5.1.5 Coal Quality

A minimum of two coal quality data points with relatively consistent quality is considered minimum criteria for resource classification. The coal quality is consistent between Block A in the north and Block C in the south.

A total of 452 drill holes were drilled including 164 previous holes by Banpu. A total of 102 Banpu drill holes were touch cored and detailed ply by ply sampling was conducted. All samples were analysed for Total Moisture (TM), Inherent Moisture (IM), Ash Content (Ash), TS, CV and Relative Density (RD) and a significant number of samples were tested for Ash Fusion Temperature (AFT), Ash Analysis (AA) and Ultimate Analysis (UA). Sample preparation and sampling were done in accordance with the appropriate ASTM standards by PT Geoservices laboratories in Bandung, Indonesia.

DSI completed drilling of 6 partly cored holes to confirm the reliability of drill data by Banpu. The previous drill data was determined to be consistent with the recent results.

5.2 Belani (BL)

During 2018, an additional 33 drill holes were drilled. All these touch-cored drill holes were geological and geo-physically logged and coal seams picked were analysed for coal quality.

5.2.1 Geological Data

The geological data used in resource modelling was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources. A total of 131 drill holes were available for model construction. The data was reviewed by Salva Mining, validating seam picks and correlations based on geophysical logs. During model construction, as part of the QAQC requirements set out by the JORC Code (2012), data pertaining to some drill holes was rejected as not being suitable for resource modelling purposes (Table 5:2).

Most of the holes drilled were geophysically logged. However, three drill holes could not be geophysically logged because of hole collapse. Holes drilled during the 2008 - 2009 drilling programs have been geophysically logged for Gamma, Density and Calliper. Lithological logged depths have been corrected to geophysically logged depths to ensure consistency and perform correlations.

It should be noted that only a portion of the geophysical logs was supplied to Salva Mining, i.e. Salva Mining does not possess a complete set of geophysical logs for all holes which were in fact geophysically logged. This is not considered material to the validity of the estimate as the geophysical logs supplied were sufficient to check seam correlations, given the relatively consistent seam correlations between holes exhibited by the deposit.

The data were reviewed for accuracy and consistency. The highlights from the data review are as below:

- a total of 33 holes were drilled with a total of 2,372 m during 2018;
- an additional 11 partly cored holes were drilled during 2010 in Belani South;
- a total of 67 holes were drilled with a total of 4,500 m from December 2008 to February 2009;
- coal exploration within the Belani Block has been carried out initially on drill lines spaced at 500m apart. There has been further infill drilling during 2018;
- the exploration programme involved mainly open-hole drilling with twinned holes for the purpose of coring to obtain coal quality data;
- all holes were geophysically logged, with the exception of three which had collapsed and detailed seam correlations and seam picks were carried;
- an additional nine "twin" holes (457 m) were partly cored for coal quality sampling of the main seams;
- the drilling was conducted on 7 parallel lines 500m apart, with an infill drill lines at 250 m spacing to confirm coal continuity;
- drill cores were sampled on a "ply-by-ply" basis based on geophysical logs and physical inspection of the cores;
- coal sample depths and thicknesses were reconciled against geophysical logs;
- Geophysical logging of most of the holes gives confidence in seam picks and correlations which are a preliminary step for coal resource estimation;
- Coring of twinned holes validated seam correlations done for open holes using geophysical data.

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5.2.2 Survey

A detailed topographic survey has been conducted over the entire study area by aerial LiDAR survey instrument. All drill holes used have surveyed collar positions. An accurate topographic DTM model for the area was constructed by Salva Mining, from the topography uncut grid supplied by client. The drill hole collar file, seam pick file and coal quality data files supplied by client were imported into Minescape Stratmodel to build the structure and coal quality models.

5.2.3 Coal Density

The coal quality data supplied by the client was used by Salva Mining to construct the coal quality model. The air-dried density contained within the composited raw coal quality for each seam was used to determine in situ tonnages per seam.

5.2.4 Data Validation

All holes with downhole geophysical data were reviewed for seam picks. Out of 131 holes a total of 22 drill holes could not be used in the model (Table 5:2). The elevation values for CKBL series holes were calculated from the topography DTM, as obtained from Minex grid, as the collar RL values supplied did not match the topography model.

Table 5:2 BL Block – Summary of Drilling Data

Drill holes used in the structural model	Drill holes used in the structure model	Drill holes not used in the structure model	Total Drill holes with CQ data	Drill holes used in CQ model	Drill holes not used in CQ model
131	109	22	42	41	1

Coal quality results could not be used for hole CKBL5 as this hole does not have correct seam correlations when compared with the surrounding holes. Most of the coal quality data contain samples representing compound seams instead of the elemental seams. The coal quality samples from CKBL5 were discarded due to correlation issues. The remainder of the samples representing compound seams were split proportionately to represent elemental seams. This resulted in a total of 41 drill holes in CQ model.

5.2.5 Coal Quality

A total of nine "twin" cored drill-holes were drilled and detailed ply by ply sampling was conducted. Some seam outcrop coal quality data was used in the quality model. The CQ data from the outcrops were assigned a dummy hole status to be used in the structural model and thus contributing to the data for reporting the total resources. All samples were analysed for Total Moisture (TM), Inherent Moisture (IM), Ash Content (Ash), TS, CV and Relative Density (RD). Sample preparation and sampling were done in accordance with the appropriate ASTM standards by PT Geoservices laboratories in Bandung, Indonesia.

There are no significant quality variations from the north to the south within the deposit, although there is some quality variation between seams.

5.3 Batukucing Block (BK)

The Batukucing block has been subject to drilling in two stages, initially on drill lines at 500 m spacing with infill on 250 m drill lines across the main target seams. Drilling was predominately open-hole drilling (136 holes, including 14 core holes and remaining chip holes) with all holes geophysically logged, with limited drilling of holes for coal quality sampling.

5.3.1 Geological Data

The geological data used in modelling was independently reviewed by Salva Mining and is considered appropriate and reasonable for the purpose of estimating Coal Resources. The data reviewed by Salva Mining includes validating seam picks and correlations based on geophysical logs. During model construction, as part of the QAQC requirements set out by the JORC Code (2012), data pertaining to some drill holes was rejected as not being suitable for resource modelling purposes (Table 5:3).

All open holes drilled were geophysically logged. However, it should be noted that only a portion of the geophysical logs was supplied to Salva Mining, i.e. Salva Mining does not possess a complete set of geophysical logs for all holes which were in fact geophysically logged. This is not considered material to the validity of the estimate as the geophysical logs supplied were sufficient to check seam correlations, given the relatively consistent seam correlations between holes exhibited by the deposit.

The key outcomes from the database review are as follows:

- A total of 122 chip holes (were drilled at Batukucing by PT Rekasindo Guriang Tandang (RGT) on behalf of DSI;
- 14 Quality holes (906 m) were partly cored for coal quality sampling of the main seams;
- all open holes were geophysically logged and detailed seam correlations were carried out on the basis of the geophysical logs;
- drill-holes were typically drilled to a depth of >60 m with a maximum drill depth of 72.5 m;
- holes were drilled on a total of 30 lines at 250 m spacing, except in a limited number of cases where local issues prevented drill access in which case drill line spacing is at 500 m;
- drill cores were sampled on a "ply-by-ply" basis based on geophysical logs and physical inspection of the cores; and
- coal sample depths and thicknesses were reconciled against geophysical logs.

Overall the data used in the model is of a high standard, with the following observations:

- open-hole drilling supplemented by geophysical logging gives a sufficient order of accuracy for Coal Resource estimation,
- open hole and geophysical log data were supplemented by coring a number of representative coal quality holes for the main seams.
- geophysical logging was not conducted on all cored holes and in such instances, the geophysical log of an adjacent chip hole was used for coal sample reconciliation,
- some holes were removed from the model due to:
    - inability to reconcile survey with topography
    - poor quality or no geophysics available
    - large differences between core and pilot chip hole depths

5.3.2 Survey

A detailed topographic survey has been conducted over the entire study area by an aerial LiDAR survey instrument. All drill holes used have surveyed collar positions. An accurate topographic DTM model for the area was constructed by Salva Mining from the topography uncut grid supplied by the client.

5.3.3 Coal Density

The coal quality data supplied by the client was used by Salva Mining to construct the coal quality model. The air-dried density contained within the composited raw coal quality for each seam was used to determine in situ tonnages per seam.

5.3.4 Data Validation

All holes with downhole geophysical data were reviewed for seam picks. Out of 136 holes a total of 75 drill holes could not be used in the model (Table 5:3). Holes that were not used in the structural model were discarded for a number of reasons:

- 53 holes were removed due to lack of necessary geophysics;
- 1 hole was removed due to poor LAS quality;
- 2 chip holes were removed in preference of their twinned core holes due to differences between them;
- 1 hole was removed due to a survey error;
- 1 borehole was removed for a lack of lithology.

Holes were excluded from the Coal Quality Model because they were either originally excluded from the structural model or the coal quality provided was a copy of another hole, i.e., default values were used. Note that 66 holes had coal quality information provided, though only 14 holes had actually been individually tested.

Table 5:3 Batukucing Block - Summary of Drilling Data

Total Drill holes available	Drill holes used in the structure model	Drill holes not used in the structure model	Total Drill holes with CQ data	Drill holes used in CQ model	Drill holes not used in CQ model
136	75	61	66 (170 samples)	13 (31 samples)	53

5.3.5 Coal Quality

A total of fourteen cored drill holes were drilled and detailed ply by ply sampling was conducted. Seams sampled included Seams E400, E700, E800 and E900. All samples were analysed for TM, Inherent Moisture (IM), Ash Content (Ash), TS, CV and Relative Density (RD). Sample preparation and sampling were done in accordance with the appropriate ASTM standards by PT Geoservices laboratories in Bandung, Indonesia.). There are no significant quality variations from the north to the south within the deposit, although there is significant quality variation between the upper seams (seams down to E410) and the lower series of seams (seam E500 down).

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6 Resource Modelling

6.1 Muara Lakitan (ML) Block

Data was loaded into Minescape Stratmodel ("Stratmodel") to generate a structural model and coal quality model. The process involved the following steps:

- The structural model has been built using reliable drill holes, namely those which have verified seam pick information. A total of 235 holes are included in the model;
- Seam intersection data on a hole by hole basis was prepared as a lithology file. Collar and lithology files were imported into Stratmodel. The base of weathering was assumed to be 5 m below the topographic surface in all cases;
- An accurate topographic DTM model for the area was constructed by Salva Mining, from the topography uncut grid as supplied by the client. The drill hole collar file, seam pick file and coal quality data files were imported into Minescape Stratmodel to build the structural coal quality models.

Schema modelled elements and modelling parameters used are shown in Table 6:1.

Table 6:1 ML Block - Model Parameters

Model Component	Value
Schema	ML
Topography model	Topo_Model
Topo model cell size	20
Geology model cell size	20
Interpolator – thickness	FEM
Interpolator – surface	FEM
Interpolator – trend	FEM
Parting modelled	YES
Conformable sequences	Weathered
Upper limit for seams	BHWE
Control points	-
Constraint file	CON1
Penetration File	Pen
Model Faults	F1, F2, F3, F4, F5, F6, F7, F8

Quality data loaded into Stratmodel has been composited on a ply basis. All samples in the data were provided on a ply basis, with one sample per ply, which allowed the quality model to run on the same basis as the structural model elements. Modelling parameters for quality are:

- Model – ml_1305_raw
- Model type – Minescape Table and Grid
- Interpolator – Inverse distance, Power 2

The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for all but the most variable coal quality attributes and it is also well suited to smaller data sets.

6.2 Belani (BL) Block

The current resource model for the Belani Block includes the recently completed in-filling drilling of 33 drill holes during 2018 in which coal was intersected in 29 drill-holes.

Data was loaded into Minescape Stratmodel ("Stratmodel") to generate a structural model and coal quality model. The process involved the following steps:

- The structural model has been built using only a selected suite of reliable drill holes, namely those which have verified seam pick information. A total of 109 holes are included in the model;
- Seam intersection data on a hole by hole basis was prepared as a lithology file. Collar and lithology files were imported into Stratmodel. The base of weathering was assumed to be 5 m below the topographic surface in all cases based on previous work;
- An accurate topographic DTM model for the area was constructed by Salva Mining, from the uncut topography grid obtained from the previous Minex model supplied to the client. The drill hole collar file, seam pick file and coal quality data files were imported into Minescape Stratmodel to build the structure and coal quality models;
- A standard maximum search radius distance for all coal seams was set at 5000m;

Table 6:2 shows the parameters used to construct the stratigraphic model using Minescape.

Table 6:2 BL Block - Model Parameters

Model Component	Value
Schema	Belani
Topography model	Topo
Topo model cell size	20
Geology model cell size	20
Interpolator – thickness	FEM
Interpolator – surface	FEM
Interpolator – trend	FEM
Parting modelled	No
Conformable sequences	Weathered
Upper limit for seams	BHWE
Control points	_-
Constraint file	CON1
Penetration File	Pen5
Model Faults	-

Quality data loaded into Stratmodel has been composited on a seam basis. Since some of the samples were analysed on a parent seam rather than split seam basis, the data has been further processed to assign the parent seam quality to each of its splits, in order to create a quality model on the same basis as the structural model elements. Modelling parameters for quality are:

- Model – belani_raw
- Model type – MineScape Table and Grid
- Interpolator – Inverse distance, Power 2

The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for all but the most variable coal quality attributes and it is also well suited to smaller data sets.

6.3 Batukucing (BK) Block

Data was loaded into Minescape Stratmodel ("Stratmodel") to generate a structural model and coal quality model. The process involved the following steps:

- The structural model has been built using only a selected suite of reliable drill holes, namely those which have verified seam pick information. A total of 81 holes are included in the model.
- Seam intersection data on a hole by hole basis was prepared as a lithology file with the base of weathering. Collar and lithology files were imported into Stratmodel. The base of weathering was assumed to be 5 m below the topographic surface in all cases.
- An accurate topographic DTM model for the area was constructed by Salva Mining, from the uncut topography grid obtained from the Minex model produced by Minarco, supplied to GMR.

Table 6:3 shows the parameters used to construct the stratigraphic model using Minescape.

Table 6:3 BK Block – Model Parameters

Model Component	Value
Schema	Bt
Topography model	Topography
Topo model cell size	20
Geology model cell size	20
Interpolator - thickness	FEM
Interpolator - surface	FEM
Interpolator – trend	Planar
Parting modelled	No
Conformable sequences	Weathered, Fresh
Upper limit for seams	BOW
Control points	B700
Constraint file	Constraints.dat
Penetration File	Penetration.dat
Model Faults	None

Quality data loaded into Stratmodel has been composited on a ply basis. All samples in the data were provided on a ply basis, with one sample per ply, which allowed the quality model to run on the same basis as the structural model elements. Modelling parameters for quality are:

- Model – bt_raw
- Model type – Minescape Table and Grid
- Interpolator – Inverse Distance, Power 2, radius 7,000 metres.

The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for all but the most variable coal quality attributes and it is also well suited to smaller data sets.

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7 Coal Resources

7.1 Geological Confidence and Resource Classification

Coal Resources present in the BSL coal deposit have been estimated in accordance with the JORC Code, 2012. The JORC Code identifies three levels of confidence in the reporting of resource categories. These categories are briefly explained below.

- **Measured** – "*. That part of a Mineral Resources of which the tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence*"
- **Indicated** – *"…That part of a Mineral Resources of which the tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence".*
- **Inferred** – *"…That part of a Mineral Resources of which the tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a low level of confidence".*

For the purpose of coal resource classification according to JORC Code (2012) Code, Salva Mining has considered a drill hole with a coal quality sample intersection and core recovery above 90% over the sampled interval as a valid point of observation.

In terms of Coal Resource classification, Salva Mining is also guided by the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) (The Coal Guidelines) specifically referred to under clause 37 of the JORC Code (2012). Based on due consideration of the continuity of the coal seams as observed in the geological models for each of the three resource areas, the relative lack of evidence for significant faulting and the population statistics of the coal quality composites per seam, Salva Mining has sub-divided Coal Resources within the BSL concession into resource classification categories based on the following spacing's (expressed as a radius of influence around points of observation which is half of the spacing between points of observation):

Table 7:1 Radius of Influence for Resource Classification

	The radius of Influence (meters)		
Resource Classification	Belani	Muara Lakitan	Batukucing
Measured	350	500	500
Indicated	700	1,000	1,000
Inferred	1,000	2,000	2,000

It is furthermore a requirement of the JORC Code (2012) that the likelihood of eventual economic extraction is considered prior to the classification of coal resources. Therefore, given the average coal quality attributes of the coal, which makes it amenable to be marketed as a thermal coal for both domestic and export power generation purposes, Salva Mining considers that it is reasonable to define all coal seams within the classification distances discussed above, to a depth of 150 m below the topographic surface, as potential open-cut coal resources.

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7.2 Coal Resource Statement

Coal resources have been estimated, classified and reported according to the guidelines of the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014). Coal Resources are presented below in Table 7:2 to Table 7:5.

Table 7:2 BSL South Block Project - Coal Resources as of 31 December 2019

Resource Classification	Mass Mt	TM (adb) (%)	IM (adb) (%)	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	198	34.5	19.0	5.0	39.2	0.3	5,162	1.37
Indicated	133	33.7	17.5	5.6	39.6	0.4	5,277	1.38
Inferred	87	34.1	17.4	6.6	39.0	0.4	5,193	1.39
TOTAL	**418**	**34.1**	**18.2**	**5.5**	**39.3**	**0.4**	**5,210**	**1.38**

(*Note: Inferred Resource rounded to nearest 1 Mt*
Individual totals may differ due to rounding)

Table 7:3 Belani Coal Resources as of 31 December 2019

Resource Classification	Mass Mt	TM (adb) (%)	IM (adb) (%)	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	42	28.4	15.9	5.1	40.8	0.4	5516	1.34
Indicated	35	28.4	15.8	6.1	40.5	0.4	5468	1.35
Inferred	21	29.1	15.8	6.1	40.5	0.5	5450	1.35
TOTAL	**98**	**28.5**	**15.8**	**5.7**	**40.6**	**0.4**	**5,485**	**1.35**

(Note: Inferred Resource rounded to nearest 1 Mt
Individual totals may differ due to rounding)

Table 7:4 Muara Lakitan Coal Resources as of 31 December 2019

Resource Classification	Mass Mt	TM (adb) (%)	IM (adb) (%)	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	149	36.3	20.3	4.9	38.6	0.3	5,028	1.38
Indicated	78	36.2	20.2	5.4	38.3	0.3	5,023	1.39
Inferred	51	36.1	20.1	6.2	37.9	0.3	4,967	1.39
TOTAL	**278**	**36.2**	**20.2**	**5.3**	**38.4**	**0.3**	**5,015**	**1.38**

(Note: Inferred Resource rounded to nearest 1 Mt
Individual totals may differ due to rounding)

Table 7:5 Batukucing Coal Resources as of 31 December 2019

Resource Classification	Mass Mt	TM (adb) (%)	IM (adb) (%)	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	7	33.2	11.3	5.5	42.2	0.5	5840	1.37
Indicated	20	33.4	9.8	5.4	43.3	0.5	5934	1.41
Inferred	15	34.3	10.8	8.7	40.8	0.8	5594	1.43
TOTAL	**42**	**33.7**	**10.4**	**6.6**	**42.2**	**0.6**	**5,797**	**1.41**

(*Note: Inferred Resource rounded to nearest 1 Mt*
Individual totals may differ due to rounding)

Coal Resources subdivided on a sub-seam basis (compound seams have been modelled as individual elements or sub-seams) are presented below in Table 7:6 to Table 7:8.

Table 7:6 Belani Coal Resources (Seam by Seam) as of 31 December 2019

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
E420	5.2	6.5	7.1	19
E410	0.2	0.2	0.2	1
E600	0.0	0.0	0.0	0
E720	1.4	0.2	0.1	2
E720U	0.1	0.0	0.0	0
E720L	0.1	0.0	0.0	0
E710	0.2	0.0	0.0	0
E820	2.8	2.2	1.6	7
E810	3.4	2.9	2.2	9
E810U	0.2	0.0	0.0	0
E810L	0.1	0.0	0.0	0
E920	4.0	2.6	1.5	8
E910	24.4	14.6	6.8	46
E1000	0.0	1.4	0.4	2
E1100	0.0	3.8	1.4	5
Total	**42**	**35**	**21**	**98**

(Note: Inferred Resource rounded to nearest 1 Mt
Individual totals may differ due to rounding)

Table 7:7 ML Coal Resources (Seam by Seam) as of 31 December 2019

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
350	4.6	4.5	3.9	13
360	9.5	6.0	0.6	16
450	4.3	3.1	2.1	10
550	6.9	4.6	2.4	14
560	1.8	1.5	0.7	4
650	4.7	2.7	0.5	8
660	1.1	0.6	0.7	2
750	1.3	2.8	1.4	5
830	0.2	0.2	2.7	3
840	4.0	1.6	0.7	6
850	6.3	2.3	1.3	10
860	4.1	1.6	3.0	9
870	17.8	12.2	9.8	40
940	4.2	1.9	2.5	9
950	43.0	19.3	9.7	72
960	6.8	2.6	1.2	11

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
970	15.7	5.2	4.8	26
1050	12.5	5.8	3.5	22
Total	**149**	**78**	**51**	**279**

(*Note: Inferred Resource rounded to nearest 1 Mt*
Individual totals may differ due to rounding)

Table 7:8 Batukucing Coal Resources (Seam by Seam) as of 31 December 2019

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
B420			9	9
B500	0.8	2.3	1	4
B600	2.4	4.6	2	10
B700	2.5	5.7	2	10
B820	0.3	0.6	0	1
B810	0.9	1.8	0	3
B920		1.1	0	1
B910		3.9	1	4
Total	**7**	**20**	**15**	**42**

Note: Inferred Resource rounded to nearest 1 Mt
Individual totals may differ due to rounding)

7.3 Comparison with Previous Estimates

The initial Coal Resources Estimate was prepared in 2008. These were subsequently revised by HDR in 2013 and Salva Mining in December 2017, December 2018 and December 2019. Table 7:9 compares the Coal Resource with previous estimates.

Table 7:9 Coal Resource - Comparison with the Previous Estimate

Resource Category	Salva Mining Dec 2019	Salva Mining Dec 2018	Salva Mining Dec 2017	Salva Mining Apr 2017	HDR 2013	Minarco 2008
Measured	198	199	175	175	174	72
Indicated	133	133	144	144	145	178
Inferred	87	87	74	74	74	132
Total	**418**	**419**	**393**	**393**	**393**	**382**

Total Resource has decreased marginally as compared to the previous Resource due to coal production at Belani Pit.

The total estimated resource tonnes along with Measured plus Indicated Resource category for the BSL Project in the 2018 report has increased as compared to the one completed by Salva Mining in December 2017 principally as the result of the additional infill drilling at Belani with additional coal quality sampling. Drill hole data, most notably a significant increase in the amount of coal quality sampling data which allowed resources to be estimated for seams which previously had no resources estimated due to a lack of coal quality sampling data.

8 Reserve Estimate

8.1 Estimation Methodology

Salva Mining prepared the Coal Resource estimate for the BSL South Block deposit which was used as a basis for the Coal Reserves estimate. Coal Reserves quoted in this Report are inclusive of Coal Resources.

The Coal Reserves were prepared in this Report are based on the outcome of pit optimisation results and the Techno-economic study carried out by Salva Mining based at the current long-term coal prices and the existing contract costs and validated against the previous feasibility studies and actual mining operations data.

The Competent Person for Reserves considers the proposed mine plan and mining schedule is techno-economically viable and achievable. This has been done by reviewing all the modifying factors; estimating reserves in the pit shell and doing a strategic production schedule and economic model which confirms a positive cash margin using the cost and revenue factors as described below in this Report.

8.2 Modifying Factors

The following table outlines the factors used to run the mine optimisation and estimate the Coal Reserves Tonnage.

Table 8:1 Modifying & Mine Optimisation Factors

Factor	Chosen Criteria
Seam roof & floor coal loss of 0.025 m each	0.05m
Seam roof & floor dilution 0.025 m each	0.05m
Geological & Mining losses	2%
Minimum mining thickness minable coal seam	0.3m
Dilution default density	2.2bcm/t
Dilution default calorific value	1000 Kcal/kg
Dilution default ash	75%
Overall Highwall and Endwall slope	40º
Maximum Pit depth	150m (for Belani COSR 10:1)
Minimum Mining width at Pit bottom	25m
Mining, Coal handling and Transport Cost	Available & Used
Coal Selling Price for Break-even Stripping Ratio calculation	Muara Lakitan-US$ 32.89/tonne Batukucing - US$ 36.89/tonne Belani - US$ 42.39/tonne
Government Documents/approvals Supplied by Client	√
Environment Report supplied by the client	√
Geotechnical Report supplied by the client	√
Hydrogeology Report supplied by the client	√

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8.3 Notes on Modifying Factors

8.3.1 Mining Factors

General

The mining limits are determined by considering physical limitations, mining parameters, economic factors and general modifying factors as above (See Table 8:1 above)

The mining factors applied to the Coal Resource model for deriving mining quantities were selected based on the use of suitably sized excavators and trucks. The assumptions are that due to the moderate to steep dip (15 -20 degree) of the coal, mining will need to occur in benches.

Cut-off Parameters and Pit Limit

Coal Resources are reported to a maximum depth of 150m for ML & BK block and for BL block, it is reported at cut off stripping ratio of 10:1 (waste: coal).

The mining factors (such as recovery and dilution) were defined based on the open cut mining method and the coal seam characteristics (Table 8:1). The exclusion criteria included the lease boundary and a minimum working section thickness. Through the application of mining factors, the coal resource model was converted to a ROM coal model. The Industry standard Minex Optimiser software was used based on optimisation factors (Table 8:1) to generate a series of incremental pit shells on the long-term coal selling price at different discount rates. This is a three-dimensional approach which generates a series of pit shells where each increment reflects different economic scenarios such as changes to the depth, mining cost or coal price. It uses Lerch-Grossman algorithm which reviews the economic viability of the blocks.

An economic model was prepared for the mining operation to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

Muara Lakitan deposit

The coal seam distribution within the Muara Lakitan deposit resulted in the Optimiser identifying two main pits where the main bottom seam is 970. Seams 800 group and 900 groups are well developed in both the northern and southern pits. The pits were subject to adjustments to form a practical pit design, which lead to the exclusion of the minor narrow pit shells and the resultant formation of two separate pit shells (Mineable Pit Shells), which formed the basis of the subsequent reserves estimate.

The coal quantities within the Mineable Pit Shells through the application of mining factors converted to a total of 158.9 Mt of ROM coal.

Batukucing deposit

The coal seam distribution within the Batukucing deposit resulted in the Optimiser identifying the main pit where the main basal seam is B910 well developed in the pit. The pit was subjected to adjustments to form a practical pit design, which led to the exclusion of the minor narrow pit shells and the resultant formation of the main pit shell, (Mineable Pit Shell), which formed the basis of the subsequent reserves estimate.

The coal quantities within the Mineable Pit Shell through the application of mining factors converted to a total of 18.9 Mt of ROM coal.

Belani deposit

The coal seam distribution within the Belani deposit resulted in the Optimiser identifying the main pit bottom seam is E1100. Seams E810 and E910 are well developed in the pit. The pit was subjected to adjustments to form a practical pit design, which led to the exclusion of the minor narrow pit shells and the resultant formation of the main pit shell (Mineable Pit Shell), which formed the basis of the subsequent reserves estimate.

The coal quantities within the Mineable Pit Shell through the application of mining factors converted to a total of 60.8 Mt of ROM coal.

Figure 8:1 Belani Pit

8.3.2 Geotechnical Factors

The high wall batters (slope of advancing Highwall) adopted were those recommended by the Geotechnical Investigation for Muara Lakitan deposit in 2009. The main objective of this study was to assess the stability of the highwall at 35 degrees. The key findings of the study reasonably agree with the geo-technical test work done to conclude the consideration of the adequate factor of safety (FOS) for highwall at the overall slope of 35 degrees. Further, six number of Geotechnical boreholes have been drilled in the block to establish the geotechnical properties.

The current geotechnical study rules out the option of conventional strike advance strip mining with up-dip spoil dumping due to instability risk issues due to weak ground and adverse geological setting associated with in-pit spoil dumping due to the relatively higher strata dips. It advises for further mine planning/option studies to give due consideration of in-pit dump stability risks which can be resolved and managed through either ex-pit dumping or use of suitable mining methods.

8.3.3 Hydrogeological Factors

The client provided the report "Preliminary study on groundwater assessment for Muara Lakitan coal project" which was carried out by Australasian Groundwater and Environmental Consultants Pty PT BSL (AGE) in 2009.

This report addresses the groundwater regime of the site and provides an assessment of potential groundwater inflow to the pits for various stages of pit development. It has advised to come out with the most likely mining method in the scenario of current groundwater flow (hydraulic gradient) which is north to the south of the deposit. The volume of water that will need to be disposed of will depend on the length of the highwall exposed at any one time and the length of the base of the pit that needs to remain dry to maintain traffic-ability.

8.3.4 Processing Factors

The coal is to be sold unwashed so no processing factors have been applied.

8.3.5 Mine Logistics Factors

The company has previously engaged specialist logistics consultants, Royal Haskoning DHV in 2013 to review and prepare detailed logistics options studies for transporting coal from Muara Lakitan, Batukucing and Belani deposits by the river (barges). Further work to assess road haulage was assessed in 2016. The Northern route was developed and commissioned during 2017.

Two viable logistic routes were identified:

- Southern Barging Route; and
- Northern Road and Barge Route.

The brief summary for both the options of coal transport study has been discussed below.

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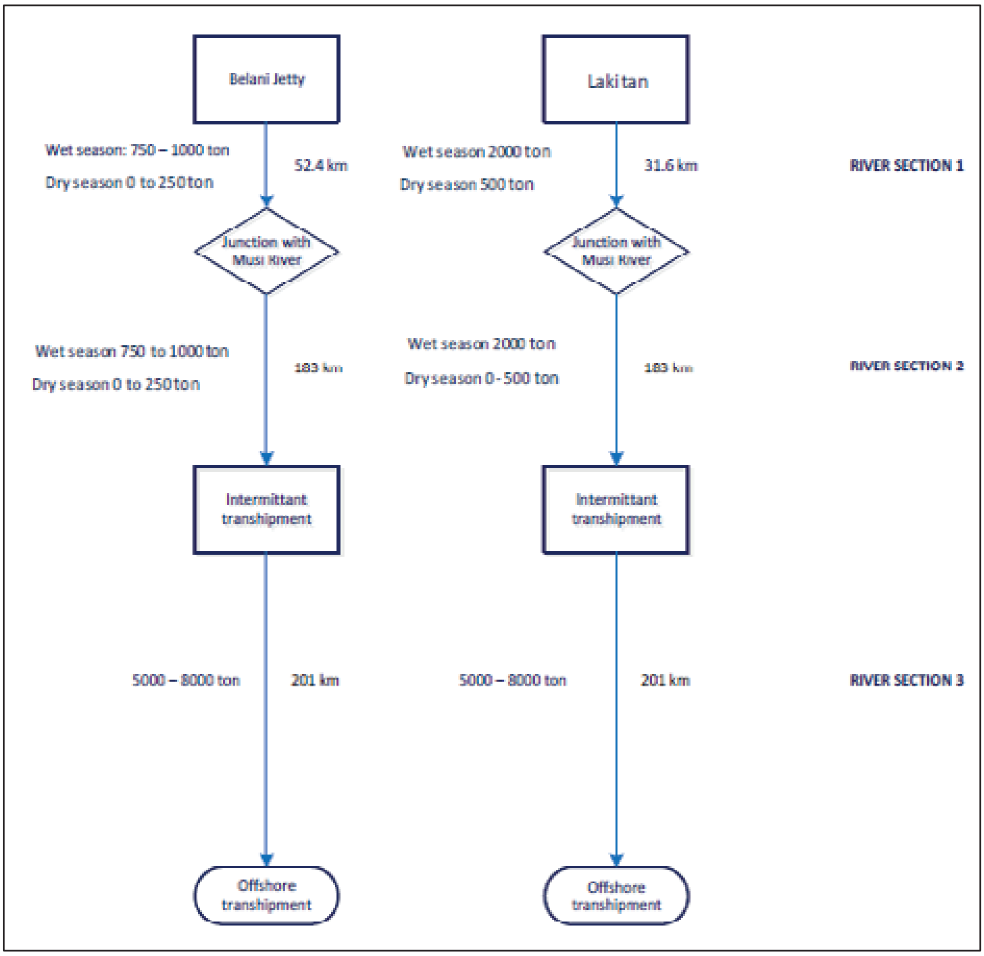
Southern Connection – Coal transport by River

In this option, it is planned that the coal from predominately Muara Lakitan (ML) Pit along with some coal output from Batukucing Pit will be transported through the Musi River (Figure 8:2).

Figure 8:2 Overview - Coal Transport by River

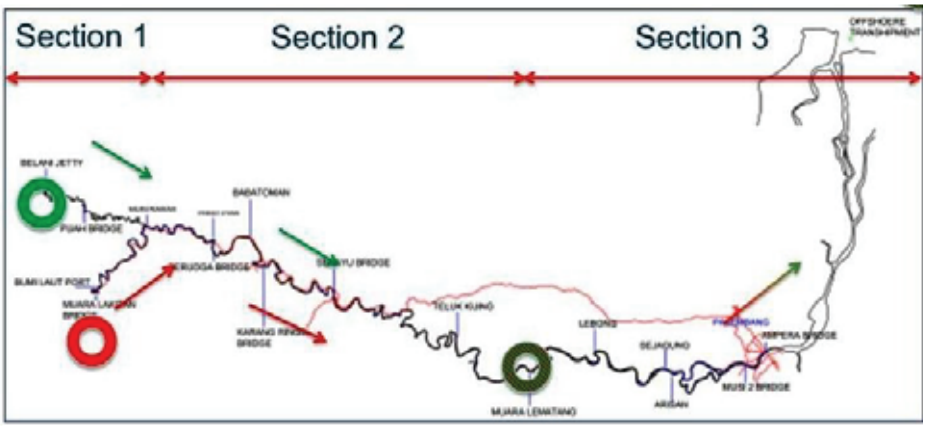


(Source: Royal Haskoning DHV, 2013)

Coal from the Muara Lakitan Jetty (ML Jetty) is planned to be barged through Musi River by barges up to 2000t capacity to the intermittent stockpile at Muara Lematang located downstream on the Musi River. A barge loading terminal is currently under construction at Muara Lakitan, including a 700tph barge loading conveyor.

Coal from the Batukucing Pit (and potentially Belani Pit) will be barged on the Rawas River via the confluence with Musi River to the intermittent stockpile at Muara Lematang located along the Musi River (Figure 8:3 and Figure 8:4).

Figure 8:3 Coal Transport by River



(Source: Royal Haskoning DHV, 2013)

The water level of the Musi River downstream of Muara Lematang does not vary much over the seasons, due to the relative proximity of the sea and the influence of tides; this results in river depths being much larger throughout the year.

A key issue is the size of barges suited to the upper reaches of the Musi River, including the impact of seasonal conditions on barge traffic-ability. The capacity of barges up-to-the intermittent stockpile at Muara Lematang will be dependent upon draft of the river due to seasonal flow of the river in the upper reaches. Depending on the draft, it is anticipated that barges of 1,000t to 2,000t will be able to work on the upper segment to the intermediate port at Maura Lamatang.

Coal from the intermittent stockpile at Muara Lamatang will be transported by the larger barges of 7500 t to the offshore trans-shipment port at the mouth of the Musi River (see section 3 of Fig 8:3) if required, however, PT BSL is planning to sell the coal at the river port for domestic power plant usage. Coal transport through barges has also considered the existing limitations (bridges over Musi River) for its capacity assessment (Fig 8:4).

Figure 8:4 Location of Ports and Bridges on Musi River

(Source: Royal Haskoning DHV, 2013)

The maximum volume of coal that can be transported on the Musi and Rawas River is mainly governed by the navigation constraints on the upper sections of the rivers and the loading capacity of barge loading terminals. The upper section of the Musi and Rawas River is subject to the lowest drafts during the dry season. The river is also narrower in the upstream part and bends are much sharper due to higher current velocities. The capacity assessment is therefore made upon;

The river logistic study determined that the Maximum barging capacity is governed on both upstream sections of the narrow bends, sharp bends and narrow sections, which limits the export capacity of both mines to about 3 million m^3 which is approximately 4.2 Mt assuming the density of 1.4 t/m^3.

For the purpose of this Report, Salva Mining has opted to be conservative and assumed maximum capacity of 4 Mtpa only.

Northern Connection – Coal transport by Road

In another option, it was proposed to transport coal from Belani and Batukucing pits by road to the Gorby Port which is located northeast of BSL concession. There will be total coal transport of ~130km from the Belani pit and ~170km from Muara Lakitan pits by road to the Gorby Port. Table 8:2 exhibits the various road sections and distances. This route was developed and commissioned in 2017.

Coal from Gorby port will be further transported by the 7,500t barges to the offshore trans-shipment port for coal export for a distance of ~120 km if required for export purpose, however, GEAR is planning to continue selling coal at river port for domestic power plant use.

Table 8:2 Road Logistics

Section		Distance (km)
From	To	
Belani	Gorby road	9.8
Muara Lakitan	Gorby Road	53.5
Gorby Road	Government Road Junction	13.0
Government Road Junction	Macang Sakti Junction	7.6
Macang Sakti Junction	PT Bumi Persada Road	36.5
PT Bumi Persada Road	Pulia Gading Village	55.0
Pulia Gading Village	Gorby Port	6.1
Distance (km)		128 -171

The existing and proposed road network to the Gorby Port from Belani pit is presented in Fig 8:5 and from Muara Lakitan pit in Fig 8:6.

Summary of Logistics Options

BSL has proposed to use both Northern Connection (road to Gorby Port) and Southern Connection (small barge to Muara Lematang). Projected tonnage is shown in Table 8:3.

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Table 8:3 Logistics – Tonnage (Mt) over Life of Mine

Item	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Road - BL	1.8	2.0	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.8	2.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.5	2.1	0.6
Road - BK	-	-	-	0.6	1.2	1.2	1.3	1.3	1.0	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.1
Road - ML	-	-	-	2.0	3.1	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0
Total - Road	1.8	2.0	2.3	5.1	6.8	7.7	7.8	7.8	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.0	6.6	1.7
Barge - ML	-	-	-	2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0
Total - Barge	0.0	0.0	0.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.0

Figure 8:5 BSL – Road Logistics

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Figure 8:6 Coal Transport by Road from Belani Pit to Gorby Port

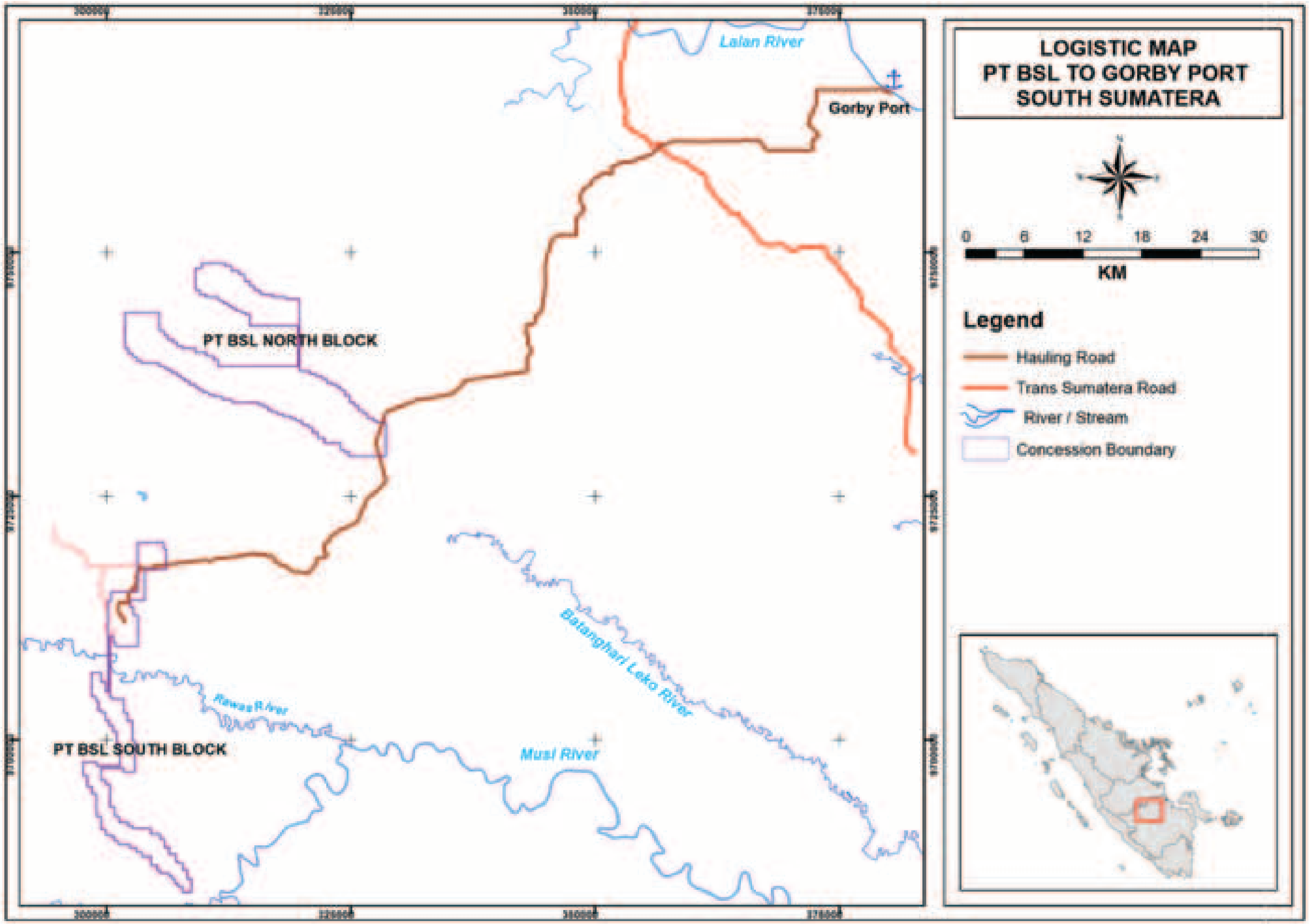

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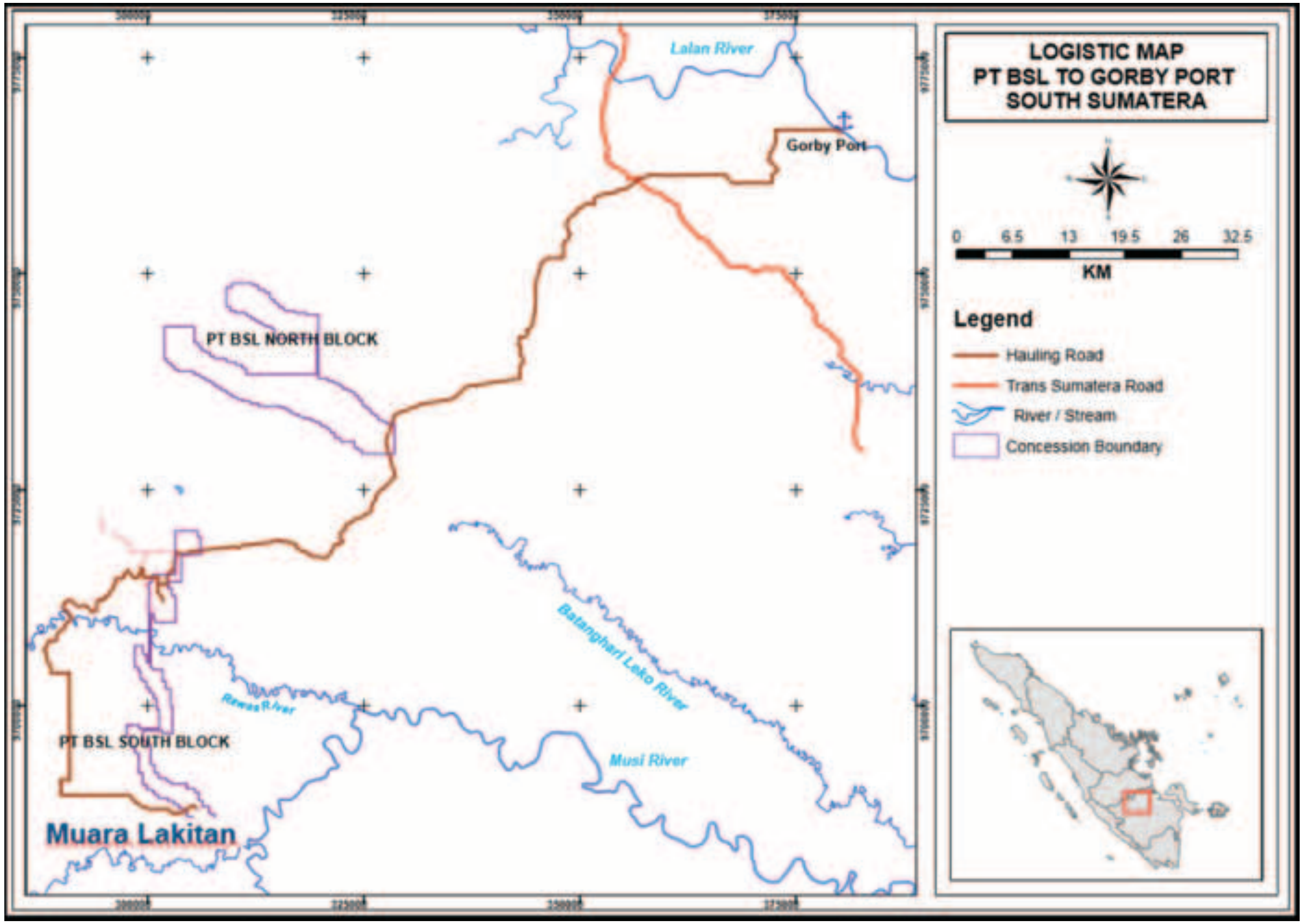
Figure 8:7 Coal Transport by Road from Muara Lakitan to Gorby Port



8.3.6 Permits and Approvals

From discussions with GEARS, Salva Mining understands that most permits and approvals with regard to further activities in Muara Lakitan, Batukucing and Belani coal deposit have been obtained.

8.3.7 Cost and Revenue Factors

The client provided a "data sheet" of indicative and actual unit costs and revenues relevant for this project which was subject to review. Salva Mining also reviewed the costs for reasonableness against known current mining costs for similar mining conditions within Indonesia. An in-house NPV based economic model was developed to show that the project and reserves are "economic". These unit rates were then used to estimate the cost to deliver coal to a ship (FOB vessel). This allowed a break-even strip ratio to be estimated and the rates were also used to calibrate the Optimiser software. The following points summarise the cost and revenue factors used for the estimate (All costs are in US dollars).

- Long term coal price of US$ 32.89 to US$42.39 per tonne (depending on coal quality)
- Royalties of 13.5% of revenue less marketing, barge and port costs have been allowed.
- Allowances were made for hauling, crushing, stockpiling, barge loading, barging and ship loading and royalty.
- Coal mining rate considered is US$ 0.75 per tonne provided by the client.
- Waste mining rate considered is US$ 1.70 per bank cubic metre provided by the client.

Capital Cost

As the client is planning to continue using local mining contractors, it is envisaged that no major capital expenditure shall be incurred at the mine site apart from land acquisition. Majority of the capital is associated with land acquisition and road upgrade. Table 8:4 shows the capital breakdown of US$ 24.7 M.

Table 8:4 Estimation of Capital Cost

Particulars	Direct Cost ($M)	Contingency ($M)	Total Cost ($M)
Land Compensation	6.5	1.0	7.5
Land Compensation	6.5	1.0	7.5
Workshop, Office and Laboratory	1.0	0.2	1.2
Backup Power Generation	0.5	0.1	0.6
Coal Handling Equipment	1.0	0.2	1.2
Accommodation Camp	0.5	0.1	0.6
Fuel Storage	0.3	0.0	0.3
Water Supply and Sewage System	0.3	0.0	0.3
Communications	0.4	0.1	0.5
Mine Infrastructure	4.0	0.6	4.6
Road Upgrade Mine to Port	6.0	0.9	6.9
Port Stockpile and Jetty	5.0	0.8	5.8
Road & Port Facilities	11.0	1.7	12.7
Total Project Cost	**21.5**	**3.2**	**24.7**

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Operating Cost

Salva Mining prepared the operating costs for mining and other activities including coal hauling, barging and port handling charges, which was checked and validated against the actual operating cost. Salva Mining has further benchmarked the cost against other operations for reasonableness.

Total operating costs per tonne of coal product including royalty for the BSL Project has been estimated as US$30.66 per tonne over the life of the mine. The operating cost for the BSL project has been summarised in Table 8:5.

Table 8:5 Average Unit Operating Cost (Real Terms) over Life of Mine

Cost Item	$/t
Land Clearing	$0.01
Waste Mining	$10.37
Waste Overhaul	$0.18
Coal Mining	$0.75
Haul to Stockpile – Road	$7.32
Haul to Stockpile – Barging & Unloading	$3.86
ROM Coal Handling	$0.30
Environmental and Rehabilitation	$0.20
Salary and Wages	$0.20
Corporate Overheads	$0.25
Local Government Fees	$0.25
VAT	$2.16
Operating Cost Excl. Royalty	**$25.85**
Royalty	$4.81
Operating Cost incl. Royalty	**$30.66**

8.3.8 Marketing and Product Specifications

To estimate the long-term price for WRL coal, Salva Mining has adopted the latest brokers forecast (Nov 2019) for Newcastle Thermal Coal Index prices (USD/t, FOB) as a benchmark price. These data which was collected by KPMG include forecasts of future prices for coal of CV 6,322 kcal/kg (gar) over a long-term horizon from each expert.

Table 8:6 Newcastle Coal Index Forecast

	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real, Q4 2019)
Analyst 1	14-Oct-19	$68.0	$75.0	$82.0	$82.0	$75.0
Analyst 2	11-Oct-19	$70.0	$70.0			$65.0
Analyst 3	9-Oct-19	$70.0	$67.5			
Analyst 4	4-Oct-19	$66.0	$69.0	$75.0	$76.0	$75.0
Analyst 5	4-Oct-19	$63.0	$62.0	$62.0		$68.0
Analyst 6	4-Oct-19	$70.0	$66.0	$66.0	$66.0	$57.0

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	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real, Q4 2019)
Analyst 7	4-Oct-19	$66.5				
Analyst 8	2-Oct-19	$75.0	$80.0	$80.0	$76.7	$70.0
Analyst 9	2-Oct-19	$69.0	$75.0	$75.0	$76.0	$73.3
Analyst 10	1-Oct-19	$85.0	$85.0			$80.0
Analyst 11	26-Sep-19	$70.0	$70.0	$75.0	$75.0	$70.0
Analyst 12	25-Sep-19	$82.2	$73.5	$70.5	$68.5	$57.5
Analyst 13	24-Sep-19	$72.8				
Analyst 14	23-Sep-19	$75.0	$85.0	$90.0		$90.0
Analyst 15	23-Sep-19	$65.0	$65.0			
Analyst 16	12-Sep-19	$76.0	$80.0			$77.0
Average		**$71.5**	**$73.1**	**$75.1**	**$74.3**	**$71.48**

Source: KPMG Coal Price & FX consensus forecasts, November 2019

Salva Mining has adopted the average of the long-term price forecast ($71.48/t) as a reasonable benchmark price for Newcastle Index.

The Indonesian Government, set by the Ministry of Energy and Mineral Resources (Menteri Energi dan Sumber Daya Mineral), publish a monthly coal price report – the 'Harga Batubara Acuan' (HBA) or the Indonesian Coal Price Reference. HBA is an average price of four specific Indonesian and Australian coals, which is derived from the Argus Indonesia Coal Index 1 (ICI1), Platts Kalimantan 5900 gar, Newcastle Export Index (NEX), and the Global Coal Newcastle Index (GCNC) using the indices from the previous month, with the quality of CV = 6,322 kcal/kg gar, Total Moisture = 8%, Total Sulfur = 0.8% and Ash=15%.

Given that the Indonesian HBA price oscillates close to the Newcastle Index, Salva Mining has used forecast price for Newcastle Index as a proxy to HBA coal price forecast.

The 'Harga Patokan Batubara' (HPB) – Coal Bench Mark Price is the method used for price assessment for royalty purposes by the Indonesian Government for coal of any specification using the following formula:

HPB = (HBA x K x A) – (B + U) [US$/tonne]

Where:

HPB = The coal price reference calculated by adjusting the quality parameter
K = Calorific values of the coal / 6322 (gar)
A = (100 – Total Moisture)/ (100 – 8)
B = (Sulphur – 0.8) * 4 [US$/t]
U = (Ash - 15) * 0.4 [US$/t]

The long-term forecast price of the BSL coal was calculated using the HPB conversation formula. Salva Mining has further discounted this coal price forecast by $4.00/t to account for Ex-Port sales location rather than FOB shipping location which is typically used for the purpose of benchmark coal sales. Table 8.7 summarises long term price forecast used to estimate reserves.

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Table 8:7 Long Term Price Estimate

Year	GCV, kcal/kg (gar)	Long term Price at Point of Sale (US $/t)
Muara Lakitan	3,977	32.89
Batukucing	4,369	36.89
Belani	4,640	42.39

8.3.9 Other Relevant Factors

There are a number of planning issues which may impact on the stated mining reserves. These include:

- detailed geotechnical studies to confirm the overall slope angles and other parameters;
- detailed hydrogeological studies to know the water flow gradient and dewatering arrangement;
- more quality data as well as detailed drilling and updates to the geological model;
- an environmental study conducted and approval (AMDAL) granted;
- land acquisition and approval from the local landowners; and
- detailed mine planning, infrastructure design, transportation, marketing and costing studies before the project execution.

These issues may cause the pit shell and mining quantities to change in future JORC code compliant Coal Reserves. estimates

8.4 Break Even Stripping Ratio

Table 8:8 summarises the calculation of the Break-Even Stripping Ratio. The methodology adopted involves taking the cost to mine a tonne of coal and adding all the costs associated with getting the coal to the point of sale.

Table 8:8 Estimation of Break-even Stripping Ratio

Estimation of Break-even Strip Ratio for BSL Blocks	ML	BK	BL
Coal Price, US$/t	$33.39	$37.39	$42.39
Total of Haul, Barging, Port & Royalty, US$/t	$16.22	$17.11	$16.24
Price at Mine Head, US$/t	$17.17	$20.28	$26.15
Other mine related cost, US$/t	$3.35	$3.58	$2.96
Price ex mine, US$/t	$13.82	$16.70	$23.19
Cost of mining (Coal), US$/t	$0.75	$0.75	$0.75
Cost of Mining (Waste), US$/bcm	$1.70	$1.70	$1.70
Break-even stripping ratio, bcm/t	7.7	9.4	13.2

8.5 Optimised Pit Shell

The optimised pit-shells for BSL blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the BSL concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. In-situ quantities and mine scheduled tonnes within optimized pit-shell along with Reserves are shown in Table 8:9.

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Table 8:9 In-situ & ROM Scheduled Quantities & Reserves, BSL Concession

BSL Pits	Insitu			ROM			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	ISR, bcm/t	Waste, Mbcm	Coal, Mt	ASR, bcm/t	
Muara Lakitan	1,023	161.3	6.3	1,034	158.9	6.50	141.1
Batukucing	137	19.5	7.0	139	18.9	7.36	13.1
Belani	288	65.8	4.4	289	60.2	4.79	55.9
TOTAL, BSL	**1,448**	**246.6**	**5.9**	**1,461**	**238.0**	**6.14**	**210.1**

The ROM coal quantities within the Mineable Pit Shells were then tested so that only Measured and Indicated Coal Resources were classified as Coal Reserves. Coal Reserves within the seams having Measured Resources are reported as Proved Reserves whereas seams having Indicated Resources are reported as Probable Reserves.

The selected pit shells and associated cross-sections for estimating Coal Reserves for Muara Lakitan, Batukucing and Belani coal deposit are shown on Figures 8:8 to 8:14.

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Figure 8:8 Final Pit Design, Muara Lakitan

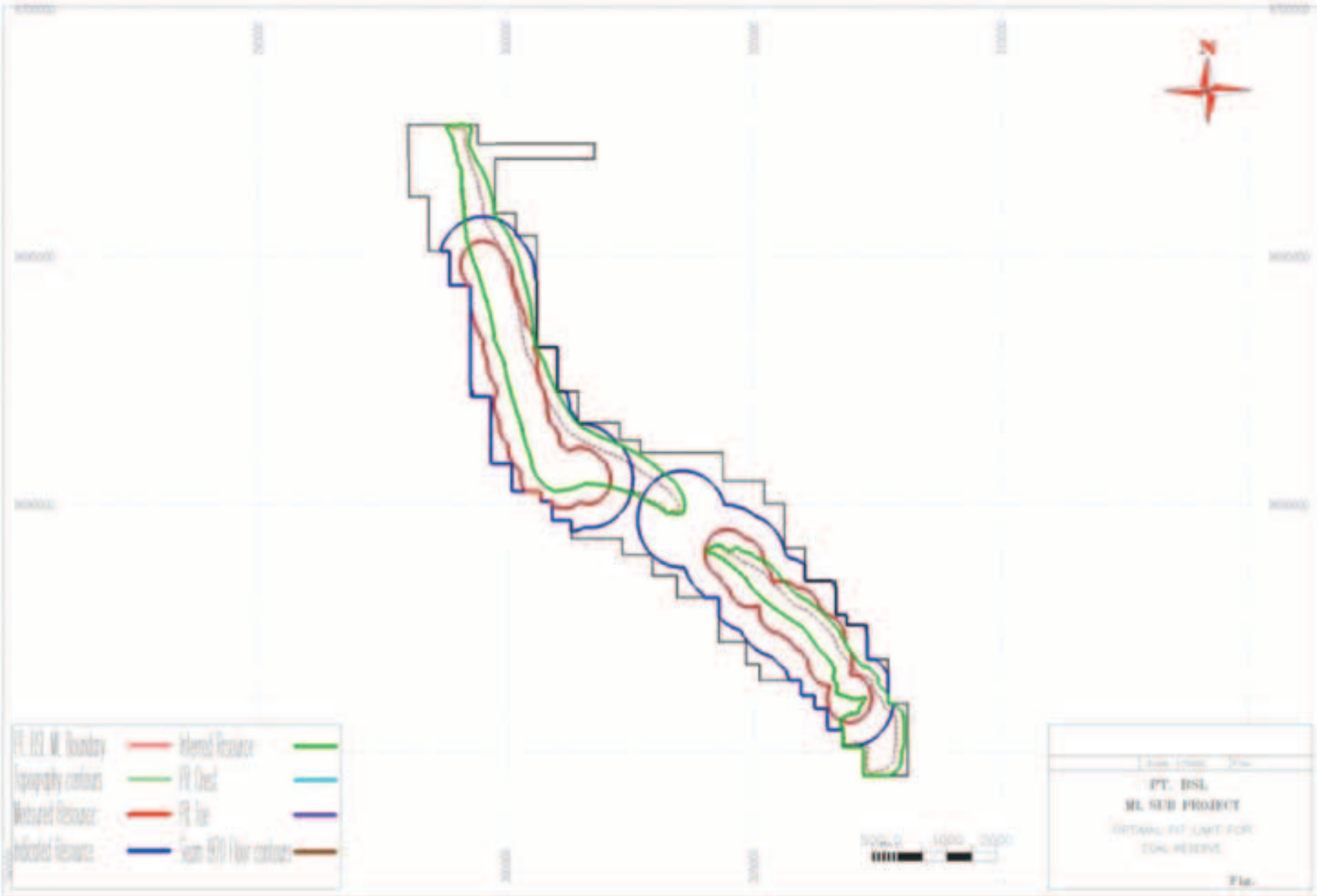

Figure 8:9 Cross Section ‘E-E’, Muara Lakitan

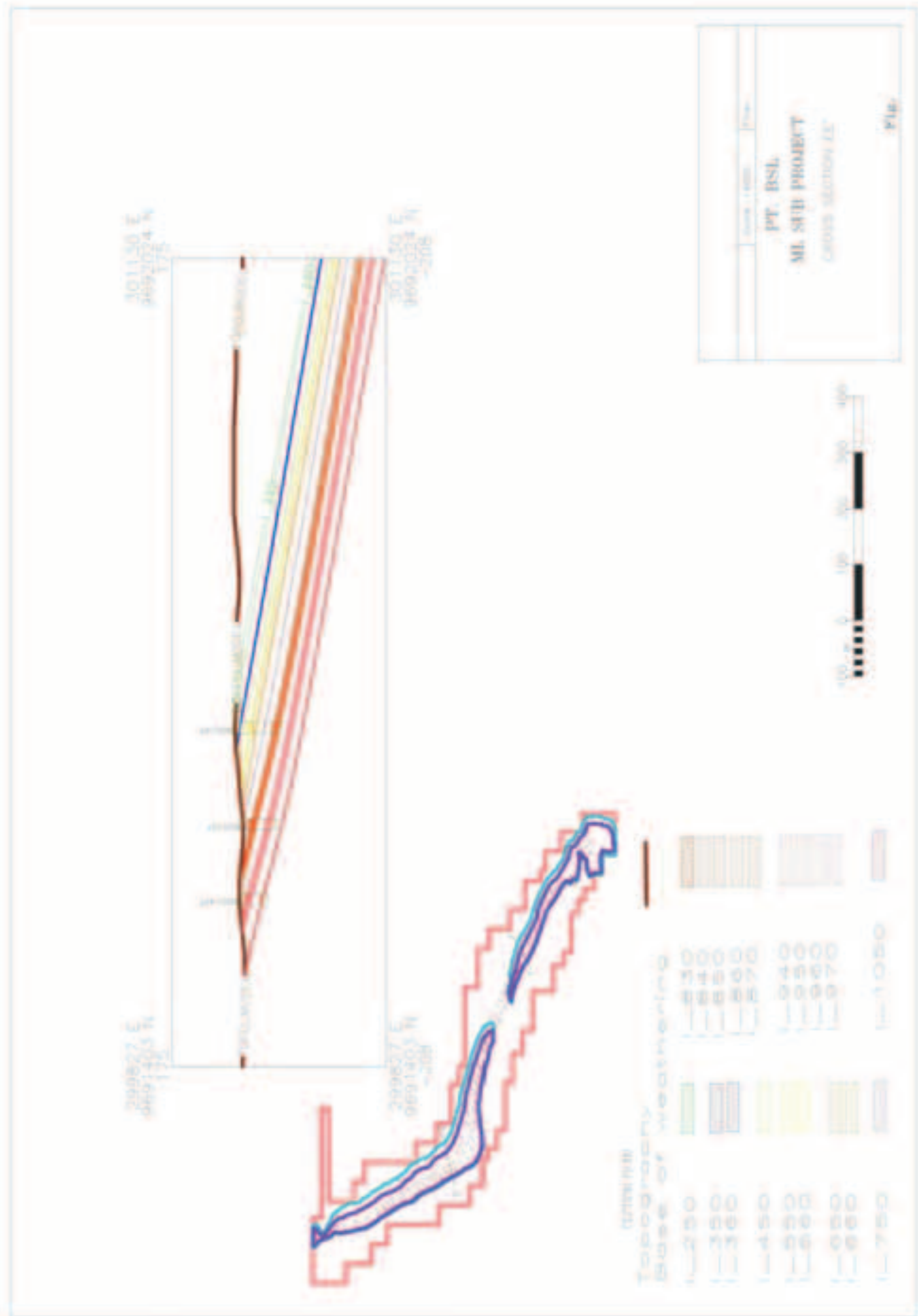

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Figure 8:10 Cross Section 'F-F', Muara Lakitan

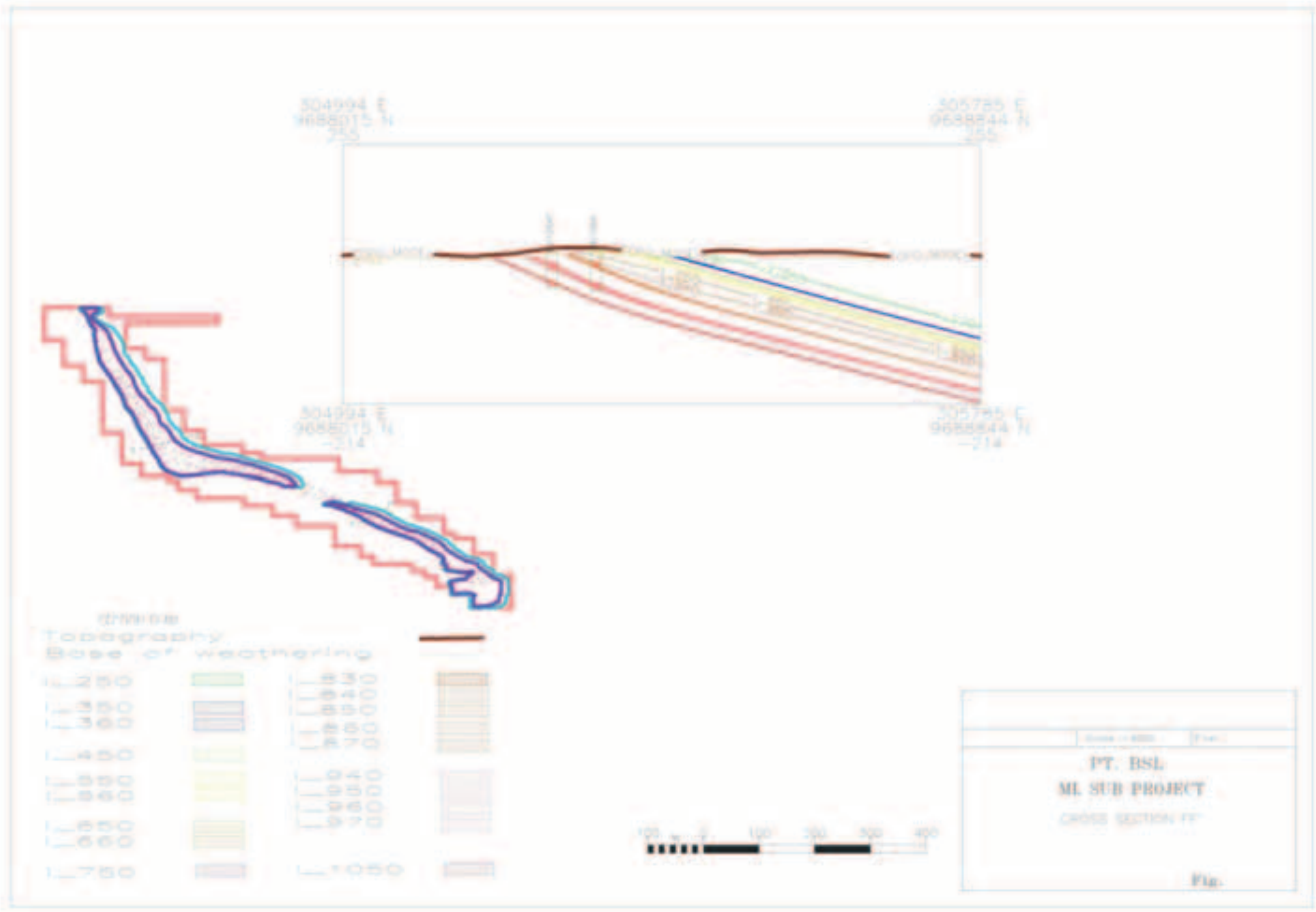

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Figure 8:11 Final Pit Design, Batukucing

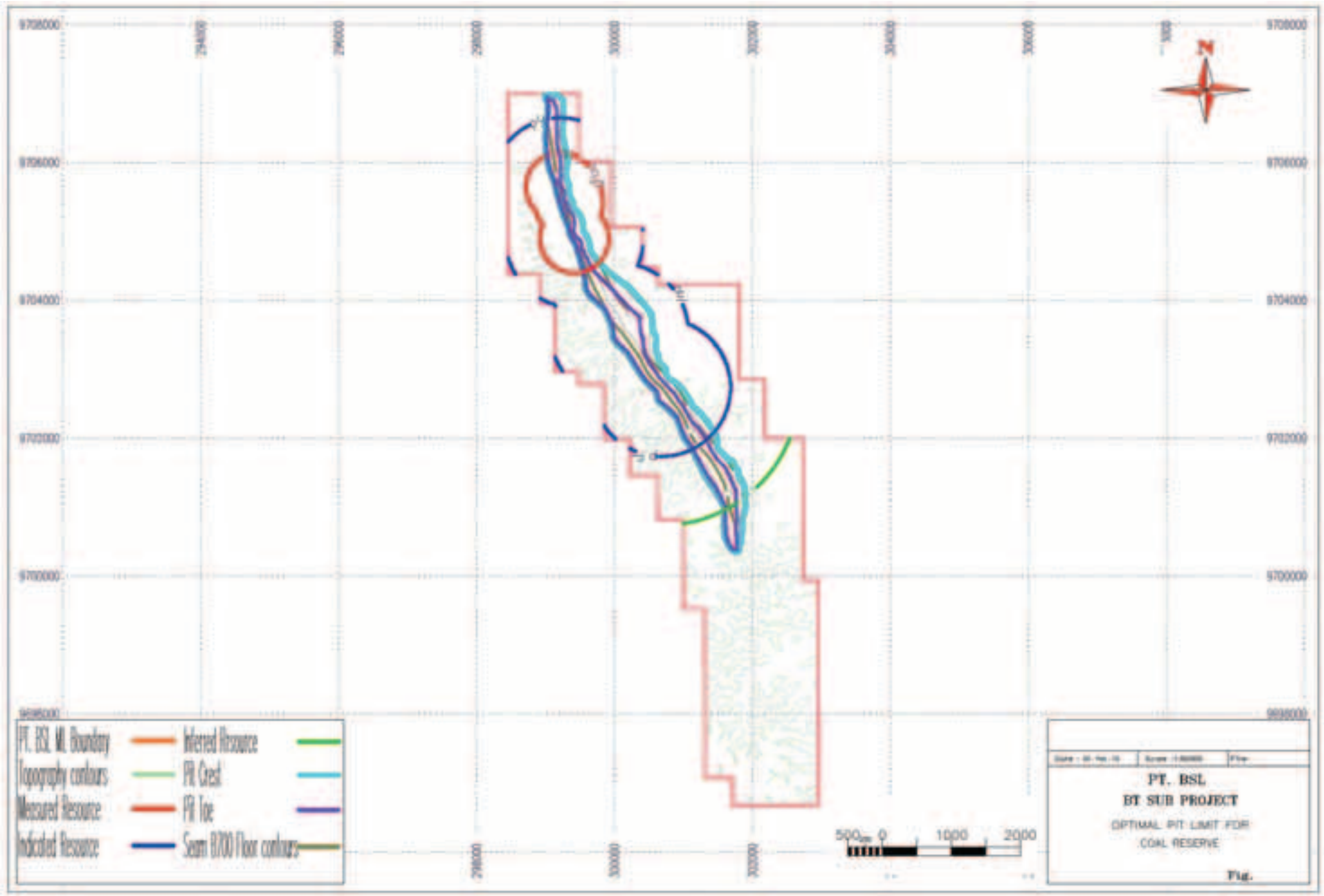

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Figure 8:12 Cross Section 'A-A', Batukucing

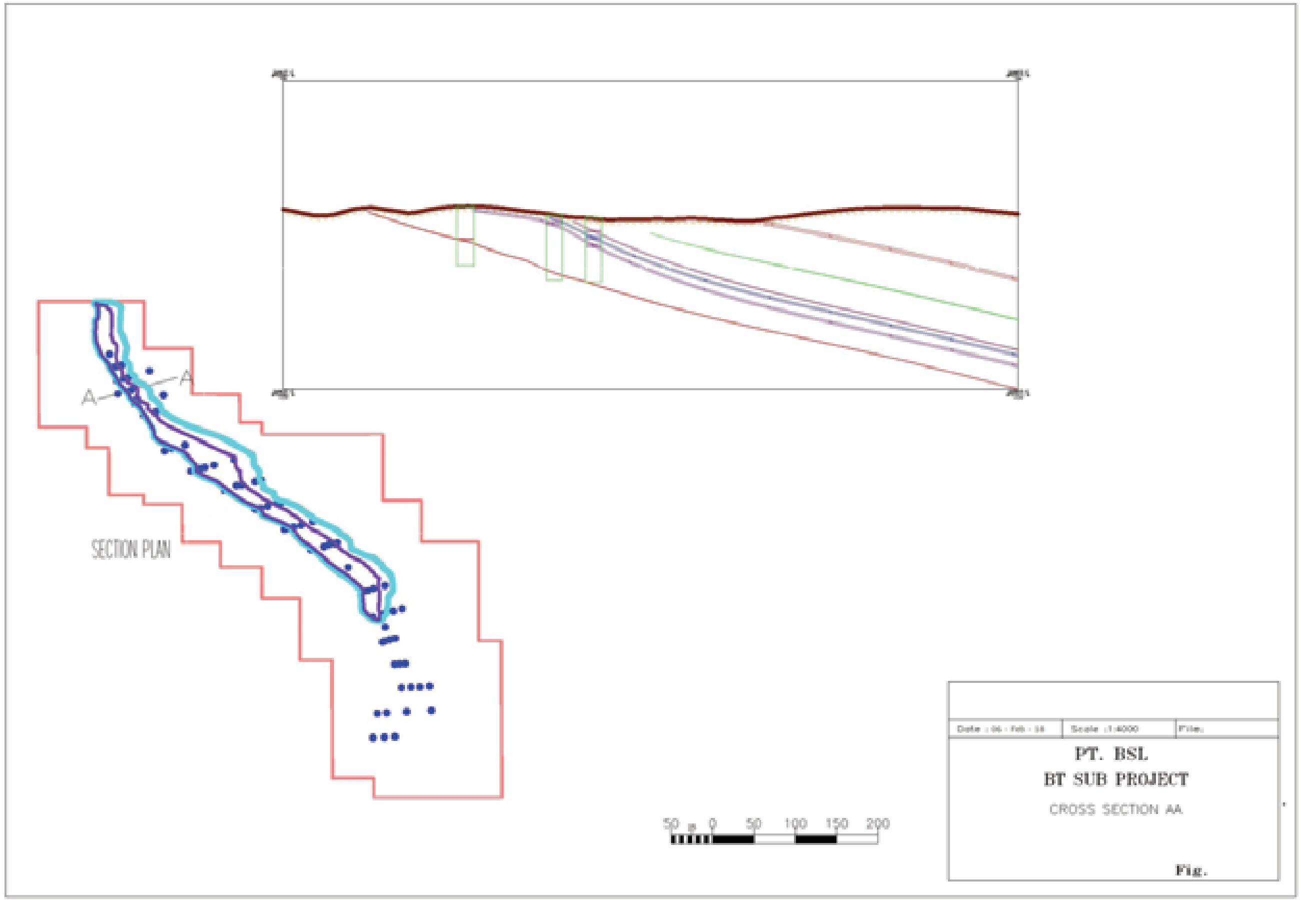


Figure 8:13 Final Pit Design, Belani

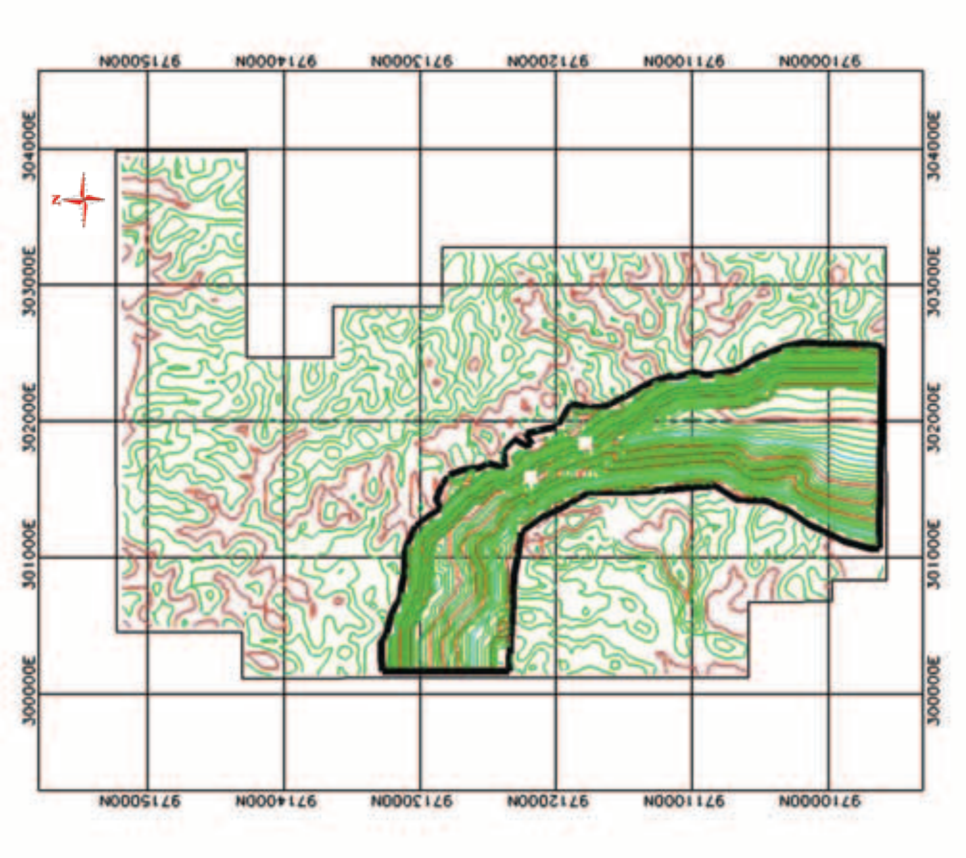
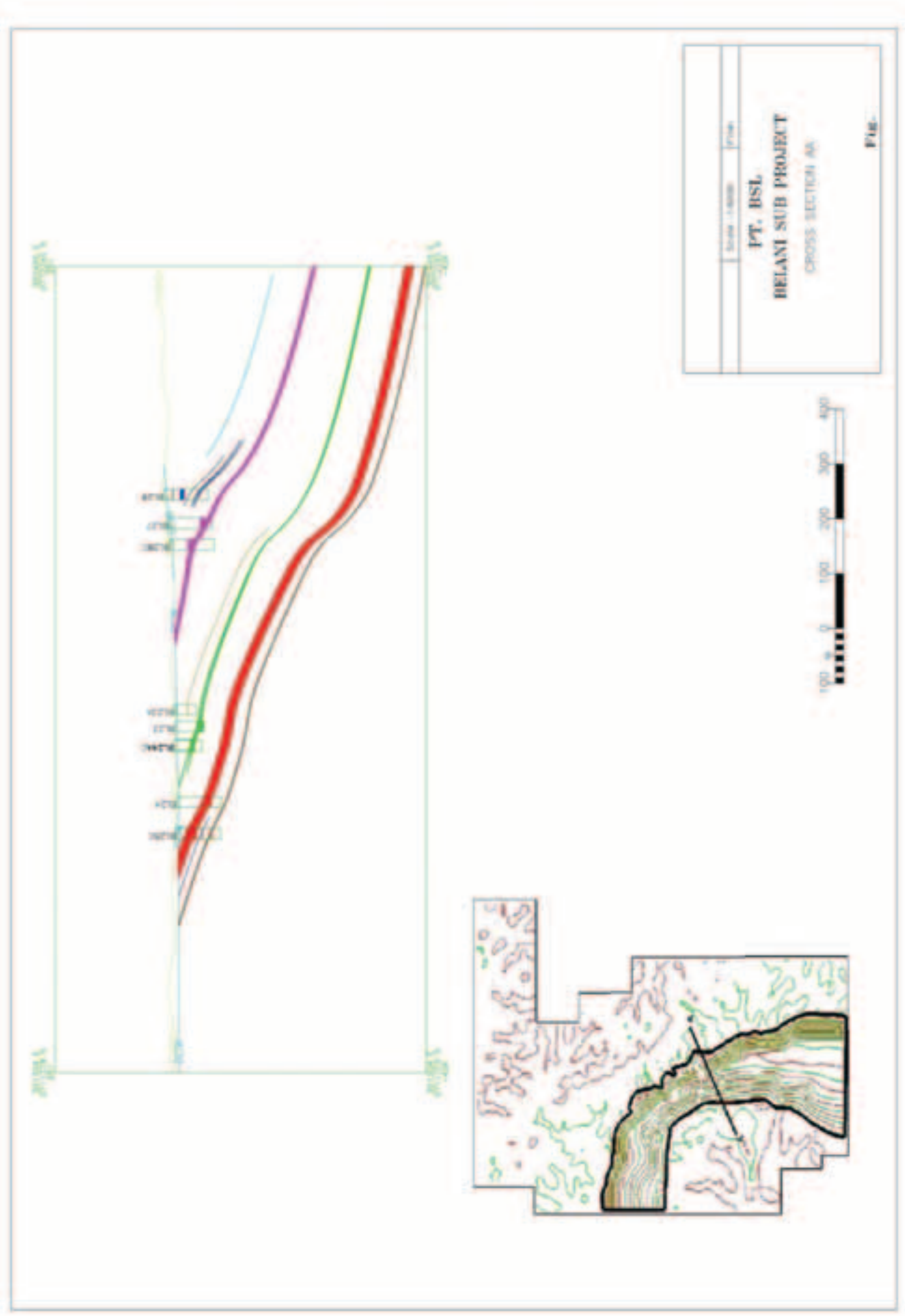


Figure 8:14 Cross Section A-A'', Belani



Open-cut mining by mining contractors, using suitably sized truck and excavator is proposed. The mining method can be described as a "multi seam, moderate to steep dip, open-cut coal mine using truck and shovel equipment in a combination of strip and haul back operations".

8.6 Audits and Reviews

Checks were done to validate the Minex Coal Resources to Coal Reserves estimation by repeating it manually in an Excel spreadsheet. Other validation work included estimating the total volume of coal and waste in the pit shells using the separate industry-standard computer programs Minescape. As Minescape structure and quality grids were imported into Minex for optimisation work, volume and area checks were also carried out in Minex within the pit shells.

The difference between the Proved and Probable Reserves with respect to Measured and Indicated Resources respectively is explained by the following:

- the Measured and Indicated Resource polygons extend beyond the Mineable Pit Shells;
- there are some Inferred tonnes in the pit shell which cannot be counted as Coal Reserves; and
- there are geological and mining losses and dilution gains in the coal reserve estimation.

8.7 Discussion of Relative Accuracy and Confidence

The mine is not yet producing so there is no history to check against. There is a need for more detailed mine planning, transport, marketing and costing studies before the project execution.

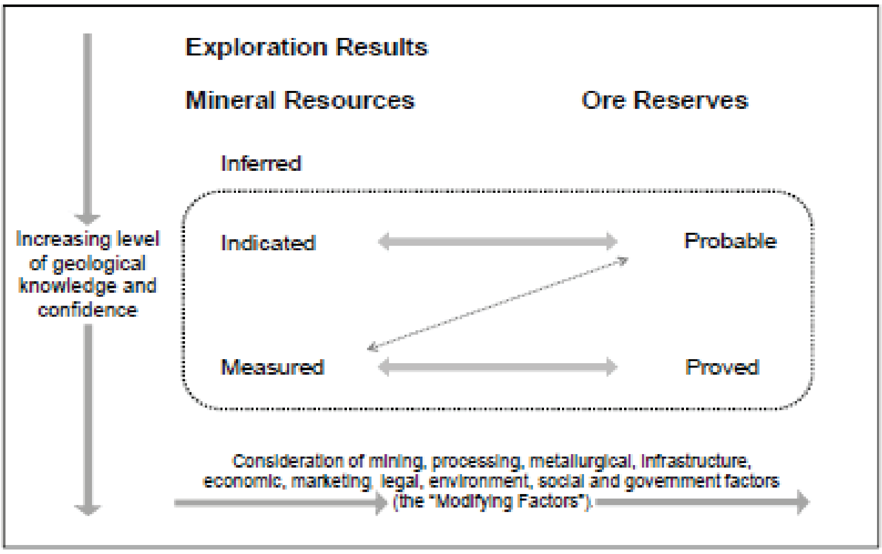
8.8 Reserves Classification

Under the JORC Code as shown below only Measured and Indicated Coal Resources can be considered for conversion to Coal Reserves after consideration of the "Modifying Factors" including mining, processing, economic, environmental, and social and governance factors.

To convert Resources to Reserves it must be demonstrated that extraction could be justified after applying reasonable investment assumptions. The highest confidence level establishes Proved Reserves from Measured Resources and a lesser confidence level establishes Probable Reserves from Indicated Resources. A level of uncertainty in any one or more of the Modifying Factors may result in Measured Resources converting to Probable Reserves depending on materiality. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resources to Reserves.

This classification is also consistent with the level of detail in the mine planning completed for Muara Lakitan coal deposit. Inferred Coal Resources in the mineable pit shell have been excluded from the Coal Reserves estimate.

Figure 8:15 General relationships between Mineral Resources & Ore Reserves



Source: JORC Code 2012

8.9 Coal Reserve Statement

The Statement of Coal Reserves has been prepared in accordance with the 2012 Edition of the JORC Code. Total ROM coal Reserves for PT Bara Sentosa Lestari coal deposit ("BSL") are summarised in Table 8:10 as of 31 December 2019, Total ROM coal reserves are same as total marketable coal reserves.

Table 8:10 Coal Reserves for BSL Coal Concession as of 31 December 2019

Concession	Coal Reserve (Mt)			RD, adb t/m3	TM, arb %	IM adb %	Ash, adb %	CV, arb Kcal/kg	TS, adb %
	Proved	Probable	Total						
Muara Lakitan	109.8	31.3	141.1	1.38	36.8	20.9	5.0	3,977	0.30
Batukucing	1.7	11.5	13.1	1.42	33.6	9.9	5.4	4,369	0.45
Belani	37.7	18.2	55.9	1.34	27.9	16.1	6.1	4,640	0.37
Total	**149.2**	**61.0**	**210.1**	**1.37**	**34.2**	**18.9**	**5.3**	**4,178**	**0.33**

(*Note: individual totals may differ due to rounding*)

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8.10 Seam by Seam Coal Reserve

Total ROM Coal Reserves for each of BSL coal concessions are reported by seam and are presented in Table 8:11 to Table 8:13.

Table 8:11 Seam by Seam Coal Reserves for Muara Lakitan at 31 December 2019

Seams	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD adb	Ash %	IM %	TM %	CV, GAR (Kcal/kg)	TS %
350	4.1	0.9	5.1	1.39	4.6	20.6	35.2	4,083	0.30
360	6.6	1.3	8.0	1.42	9.9	21.0	35.8	3,725	0.29
450	2.7	0.7	3.5	1.38	7.4	21.5	35.2	3,854	0.37
550	4.4	1.5	5.9	1.37	4.2	21.8	36.1	4,056	0.29
560	1.2	0.5	1.7	1.38	4.8	20.8	35.4	4,072	0.30
650	4.1	0.8	4.9	1.40	5.9	21.5	34.0	4,123	0.37
660	0.9	0.3	1.1	1.40	10.8	19.6	38.0	3,546	0.91
750	0.9	1.7	2.6	1.49	16.2	18.8	36.5	3,335	0.73
830	0.0	0.0	0.0	1.42	12.8	20.1	36.6	3,476	0.42
840	3.7	0.7	4.4	1.38	4.7	22.5	38.2	3,890	0.29
850	6.1	1.1	7.2	1.38	4.6	21.8	38.7	3,842	0.28
860	4.0	0.8	4.8	1.37	4.3	21.5	38.5	3,875	0.26
870	14.9	6.4	21.3	1.38	3.8	20.9	37.5	3,980	0.26
940	3.8	1.2	5.0	1.34	2.2	20.9	37.0	4,156	0.24
950	32.0	8.8	40.9	1.36	3.2	20.9	36.6	4,096	0.25
960	6.1	1.4	7.5	1.42	7.4	19.4	36.3	3,876	0.30
970	14.2	3.0	17.2	1.37	5.1	20.4	37.0	4,008	0.32
Total	**109.8**	**31.3**	**141.1**	**1.38**	**5.0**	**20.9**	**36.8**	**3,977**	**0.30**

(Note: individual totals may differ due to rounding)

Table 8:12 Seam by Seam Coal Reserves for Batukucing at 31 December 2019

Seams	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD adb	Ash %	IM %	TM %	CV, GAR (Kcal/kg)	TS %
B500	0.1	1.0	1.1	1.39	5.9	8.6	32.1	4,506	2.86
B600	0.4	2.3	2.7	1.35	4.4	10.0	33.6	4,420	0.26
B700	0.5	3.1	3.6	1.57	6.6	9.8	34.9	4,184	0.20
B820	0.1	0.4	0.5	1.38	3.1	10.7	33.9	4,452	0.17
B810	0.4	1.4	1.8	1.38	5.3	9.8	32.9	4,368	0.14
B920	-	0.7	0.7	1.36	7.2	9.6	31.8	4,467	0.28
B910	-	2.6	2.6	1.36	4.5	10.3	33.2	4,479	0.25
Total	**1.7**	**11.5**	**13.1**	**1.42**	**5.4**	**9.9**	**33.6**	**4,369**	**0.45**

(Note: individual totals may differ due to rounding)

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Table 8:13 Seam by Seam Coal Reserves for Belani as of 31 December 2019

Seam	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD, adb	Ash %	IM %	TM, %	CV, GAR (Kcal/kg)	TS, %
E410	0.1	0.0	0.1	1.59	25.1	15.4	33.0	3,384	1.86
E420	3.4	0.2	3.6	1.39	6.6	15.0	32.0	4,417	0.48
E600	0.0	0.0	0.0	1.40	8.5	15.9	29.9	4,483	0.25
E710	0.1	0.0	0.1	1.51	14.0	15.8	29.2	4,239	0.69
E720	1.3	0.1	1.3	1.37	5.4	16.7	30.7	4,555	0.46
E720U	0.0	0.0	0.0	1.40	11.0	12.6	28.9	4,357	0.53
E720L	0.0	0.0	0.0	1.40	10.2	13.3	30.3	4,322	0.29
E810	3.3	1.7	5.0	1.39	10.9	15.7	28.5	4,313	0.4
E810U	0.1	-	0.1	1.40	8.2	14.1	31.1	4,479	0.51
E810L	0.0	-	0.0	1.66	36.2	12.3	23.1	2,921	3.89
E820	2.3	1.1	3.4	1.45	15.1	14.5	28.4	4,047	2.17
E910	23.3	10.4	33.7	1.31	3.4	16.5	27.5	4,804	0.18
E920	3.8	1.7	5.5	1.36	7.8	16.8	27.5	4,574	0.18
E1000		1.7	1.7	1.42	19.3	14.6	22.1	4,245	0.61
E1100		1.4	1.4	1.37	7.9	13.8	27.5	4,694	0.4
Total	**37.7**	**18.2**	**55.9**	**1.34**	**6.1**	**16.1**	**27.9**	**4,640**	**0.37**

(Note: individual totals may differ due to rounding)

8.11 Comparison with Previous Estimates

Current Coal Reserves was slightly lower than previous Coal Reserves (Dec 2018) due to coal production.

Coal Reserves in December 2018 was higher than the previous estimate (December 2017) due to additional in-fill drilling and additional measured and indicated coal resource at Belani.

Table 8:14 Coal Reserve - Comparison with Previous Estimates, ML block

	Salva Mining Dec 2019	Salva Mining Dec 2018	Salva Mining Apr 2017	HDR 2015	HDR 2013	Minarco 2008
ML	141.1	141.1	141.1	93.9	108.5	104.0
BL	55.9	57.1	40.4		32.6	16.8
BK	13.1	13.1	13.1		11.1	8.7
Total	**210.1**	**211.3**	**194.6**	**93.9**	**152.2**	**129.5**

8.12 JORC Table 1

This Report has been carried out in recognition of the 2012 JORC Code published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, the AIG and the Minerals Council of Australia in 2012. Under the report guidelines, all geological and other relevant factors for this deposit are considered in sufficient detail to serve as a guide to on-going development and mining.

In the context of complying with the Principles of the Code, Table 1 of the JORC Code (Appendix A) has been used as a checklist by Salva Mining in the preparation of this Report and any comments made on the relevant sections of Table 1 have been provided on an 'if not, why not' basis.

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9 References

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Preliminary Report on Groundwater Assessment, Muara Lakitan Coal Project Bankable Feasibility Study by Australian Groundwater & Environmental Consultants Pty Ltd (AGE), July 2009

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HDR - Statement of open-cut coal resources and reserves, 2013.

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Appendix A: CVs

Person	Role
Manish Garg (Director - Consulting)	
Qualification	B. Eng. (Hons), MAppFin
Prof. Membership	MAusIMM; MAICD
Contribution	Overall Supervision, Economic Assessment (VALMIN 2005)
Experience	Manish has more than 25 years' experience in the Mining Industry. Manish has worked for mining majors including Vedanta, Pasminco, WMC Resources, Oceanagold, BHP Billiton - Illawarra Coal and Rio Tinto Coal. Manish has been in consulting roles for past 10 years predominately focusing on feasibility studies, due diligence, valuations and M&A area. A trusted advisor, Manish has qualifications and wide experience in delivering due diligence, feasibility studies and project evaluations for banks, financial investors and mining companies on global projects, some of these deals are valued at over US$5 billion.
Sonik Suri (Principal Consultant - Geology)	
Qualification	B. Sc. (Hons), M.Sc. (Geology)
Prof. Membership	MAusIMM
Contribution	Geology, Resource (JORC 2012)
Experience	Sonik has more than 25 years of experience in most aspects of geology including exploration, geological modelling, resource estimation and mine geology. He has worked for coal mining majors like Anglo American and consulting to major mining companies for both exploration management and geological modelling. As a consultant, he has worked on audits and due diligence for companies within Australia and overseas. He has strong expertise in data management, QA/QC and interpretation; reviews/audits of geological data sets; resource models and resource estimates.
Dr Ross Halatchev (Principal Consultant - Mining)	
Qualification	B. Sc. (Mining), M.Sc., PhD (Qld)
Prof. Membership	MAusIMM
Contribution	Mine Scheduling, Reserve (JORC 2012)
Experience	Ross is a mining engineer with 30 years' experience in the mining industry across operations and consulting. His career spans working in mining operations and as a mining consultant primarily in the mine planning & design role which included estimation of coal reserves, DFS/FS, due diligence studies, techno-commercial evaluations and technical inputs for mining contracts. Prior to joining Salva Mining, Ross was working as Principal Mining Engineer at Vale. To date, Ross has worked on over 20 coal projects around the world, inclusive of coal projects in Australia, as well as in major coalfields in Indonesia, Mongolia and CIS.

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Appendix B: SGX Mainboard Appendix 7.5

Cross-referenced from Rules 705(7), 1207(21) and Practice Note 6.3

Summary of Mineral Reserves and Resources

Name of Asset / Country: BSL / Indonesia

Category	Mineral Type	Gross (100% Project)		Net Attributable to GEAR		Remarks
		Tonnes (millions)	Grade	Tonnes (millions)	Grade	
Reserves						
Proved	Coal	149.2	Subbituminous B	100.0	Subbituminous B	
Probable	Coal	61.0	Subbituminous B	40.9	Subbituminous B	
Total	Coal	210.1	Subbituminous B	140.8	Subbituminous B	
Resources*						
Measured	Coal	198	Subbituminous B	133	Subbituminous B	
Indicated	Coal	133	Subbituminous B	89	Subbituminous B	
Inferred	Coal	87	Subbituminous B	58	Subbituminous B	
Total	Coal	418	Subbituminous B	280	Subbituminous B	

** Mineral Resources are reported inclusive of the Mineral Reserves.*

GEAR holds 66.9998% of asset indirectly.

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Appendix B: JORC Table 1

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures are taken to ensure sample representivity.	Across all blocks (Muara Lakitan, Batukucing and Belani), Chip samples were collected at every 1m for lithology logging. Sampled all cored coal, sampled separately any bands and taken 10cm of roof and floor for non-coal samples. Drill cores were sampled on a "ply-by-ply" basis based on geophysical logs and physical inspection of the cores;
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Used man-portable top drive hydraulic rigs, capable of HQ3 coring for all sub-blocks.
Drill sample recovery	Whether core and chip sample recoveries have been properly recorded and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	After the completion of each core run, core loss is determined by the on-site geologist and recorded in the drill hole completion sheet. If recovery is found to be less than 90% within a coal seam intersection, the hole is re-drilled in order to re-sample this seam with greater than 90% core recovery. All samples with less than 90% core recovery over the width of the seam intersection were excluded from the coal quality database. Followed drilling, SOP's for loose and carbonaceous formations to achieve full sample recovery.
Logging	Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography.	Across all blocks, detailed logging of chips and core was done for almost all samples. This was supplemented with the photographs for the drill cores. At Belani, three drill holes could not be geophysical logged because of hole collapse which results in only 98 drill holes were available for the Resource Model construction.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry.	

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Criteria	Explanation	Comment
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No sub-sampling of the core in any of the coal block.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected. Whether sample sizes are appropriate to the grainsize of the material being sampled.	
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Assay for the coal samples obtained at Muara Lakitan block was done at PT Geoservices (DSI & Banpu period 2004-2007) and PT Intertek Utama Services (GMR period 2009) are accredited laboratories to ISO 17025 standards. Assay for the coal samples obtained at Batukucing and Belani blocks was done in accordance with the appropriate ISO 17025 standards by PT Geoservices laboratories in Bandung. PT. Geoservices laboratories are accredited to ISO 17025 standards. Coal quality laboratory adheres to internal QAQC and inter-laboratory QAQC checks. ISO methods have been used for MHC tests. Australian Standards have been used for RD and American Society for testing and materials (ASTM) methods have been used for all other quality variables. Geophysical traces were observed to be generally of good quality.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes.	Coal quality sampling was undertaken by GMR Energy. Visual inspection on-site was carried out by site geologists. Twinned holes drilled in order to improve core recovery show good agreement in terms of intersection depths.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Borehole collars have been surveyed using standard total station techniques employed by the survey contractors. For all three blocks (Muara Lakitan, Batukucing and Belani), a survey have been validated by GEAR survey staff. The surveyed borehole locations match well with topographic data.

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Criteria	Explanation	Comment
	Quality and adequacy of topographic control.	The topography was generated for each of the project areas using LiDAR remote sensing data. All drill holes used for the Resources Models have surveyed collar positions
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Data spacing sufficient to establish continuity in both thickness and coal quality for all three blocks (Muara Lakitan, Batukucing and Belani), These data sets include topography and base of weathering as well as seam structure and coal quality. Ply sampling methodology used. Sample compositing has been applied at all three blocks.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Ply by Ply sampling used therefore the orientation of sampling not seen to introduce bias as all drilling is vertical.
Sample Security	The measures are taken to ensure sample security	Proper measures for sample security were taken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits of sampling etc. done however comprehensive set of internal company procedures exist and are adhered to by all GMR Staff.
Mineral tenement and Land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All tenure is secured and currently available.

Criteria	Explanation	Comment
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	At Muara Lakitan, exploration was done in 2004-2005 by Banpu, in 2007 by DSI and in 2009 by GMR. At Batukucing, PT Rekasindo Guriang Tandang carried out exploration on behalf of DSI in 2007. At Belani, most of the exploration drilling was carried out by GMR in 2009 and by GEAR in 2018.
Geology	Deposit type, geological setting and style of mineralisation.	The geology of individual blocks has been discussed in detail within the Report.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All samples have been composited over full seam thickness and reported using Minescape modelling software. No Metal equivalent used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Ply sampling methodology prevents samples from crossing ply boundaries. Therefore, the orientation of sampling not seen to introduce bias as all drilling is vertical and seams mostly gently dipping.
Diagrams	Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.	See figures and Appendices of this Report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be	No reporting of exploration results.

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Criteria	Explanation	Comment
	practised to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	At Muara Lakitan, out of the total 452 drill-holes, a total of 349 holes have been geo-physically logged. At Batukucing, out of 136 holes, 83 drill holes were geo-physically logged. At Belani, out of 131 holes, 109 drill holes used were geo-physically logged.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will be necessary at all three blocks (Muara Lakitan, Batukucing and Belani), to improve the confidence levels of the coal quality estimate if inferred resources are present in areas planned for mining. No exploration plan has been proposed in this Report.
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	The database for all blocks is considered an acceptable standard to report a JORC Resource. Drillhole data used to construct Minescape model. Checks against original downhole geophysics (las) files used to verify data during modelling.
Site Visits	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	Frequent site visit by QP and Principal Mining Engineer during 2014, 2015, 2016 and 2017 (last visit Oct 2017). The geological site visit was previously conducted in October 2017. Geology had been well documented by CP during previous reports. Salva Mining has reviewed and discussed the available geological data in companies office in Jakarta.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation.	A high degree of confidence in seam picks made using downhole geophysical data. The geological models created for all of the blocks considered to accurately represent the deposits.
	The factors affecting continuity both of grade and geology.	No major faults have been reported.

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Criteria	Explanation	Comment
		Current Minescape model tonnes agree with the previous model by HDR model to within 10% error margin, excluding the effect of different classification distances.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	See figures and Appendices in the Report.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, maximum distance of extrapolation from data points. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	FEM interpolator used for surface elevation, thickness and trend. Inverse distance squared used for coal quality throughout. Based on experienced gained in the modelling of over 40 coal deposits around the world, the FEM interpolator is considered to be the most appropriate for the structure and inverse distance the most appropriate for coal quality. The grid cell size of 20 m for the topographic model, 20 m for the structural model. Additional model construction parameters in relevant sections of this Report.
	The assumptions made regarding recovery of by-products.	Visual validation of all model grids performed. Current Minescape model tonnes agree with the previous model by Minarco Minex model to within 10% error margin, excluding the effect of different classification distances.
	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	N. A
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units.	N. A
	Any assumptions about correlation between variables. The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All tonnages estimated on air-dried basis as no MHC to do Preston Sanders. This results in around 15% overestimation as opposed to using in-situ moisture basis

Criteria	Explanation	Comment
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The coal resources contained in this Report are confined within the concession boundary. The resources were limited to 150m below topography. A minimum ply thickness of 10cm and maximum thickness of 30cm was used for coal partings.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	Mining has commenced at Belnai. It is proposed to mine the Muara Lakitan pit as open-pit excavations by truck and excavator method.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	N/A in situ air dried tonnes quoted.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Environmental approvals including AMDEL in place.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	N/A in situ air dried tonnes quoted.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories.	Classification distances based on an assessment of the variability of critical variables through statistical analysis and by an assessment of the

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Criteria	Explanation	Comment
	Whether appropriate account has been taken of all relevant factors. i.e. relative confidence in tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	degree of geological complexity. Classification radii for the three resource categories are: Measured: 350 or 500m Indicated: 700 or 1000m Inferred: 1000 or 2000m
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Reconciliation exercises between planned and actual mining is planned on an ongoing basis.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Spacing ranges for the three resource categories are considered to adequately reflect the degree of confidence in the underlying estimate on a global basis. Significant local variation to estimated values may arise which should be addressed by adequate grade control procedures.
Mineral Resource Estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Basis of the estimates is JORC Coal Resources as of 31 December 2019. Coal resources is inclusive of Coal reserves.
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Frequent site visit by QP and Principal Mining Engineer during 2014, 2015, 2016 and 2017 (last visit Oct 2017).

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Criteria	Explanation	Comment
Study Status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.	Mining has commenced at BL Pit. It is proposed to mine all the pits as open-pit excavations by truck and excavator method.
	The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The mine has prepared a detailed Life of Mine (LOM) plan for the mining operations.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	Refer Table 8:1 – Modifying factors for pit optimisation and Table 8:2, Break-even Stripping Ratio analysis
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods.	Refer Table 8:1 Modifying Factors and Pit Optimisation Parameters and Section 8.3 on Notes on Modifying Factors. Salva Mining has used the modifying factors based on the life of mine study carried out for the Muara Lakitan block which was independently verified by the Salva Mining's subject specialist. In Salva Mining's opinion, the Modifying Factors for the BSL concessions are appropriately defined for the greenfield project at Muara Lakitan, Batukucing and Belani.

Criteria	Explanation	Comment
Metallurgical Factors or assumptions	Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	The coal is to be sold unwashed so no processing factors have been applied. Other than crushing to a 50-mm top size no other beneficiation will be applied.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Refer Section 8.3.6, Permits and Approvals & Section 8.3.9 Other Relevant Factors
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	Discussed in Section 8.3.5 Mine Logistic Factors
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products. The source of exchange rates used in the study. Derivation of transportation charges.	Discussed in Section 8.3.7 Cost and Revenue factors

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Criteria	Explanation	Comment
	The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	
Revenue Factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	Discussed in Section 8.3.7 Cost and Revenue factors and Section 8.3.8 Marketing & Product Specifications
Market Assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals, the customer specification, testing and acceptance requirements prior to a supply contract.	Discussed in Section 8.3.8 Marketing Factors
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	Economic analysis (NPV) done based on long term price outlook and the cost estimates (Contractor mining operation)
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Refer Section 8.3.6, Permits and approvals
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements.	Discussed under Section 8.3.9, Other Factors

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Criteria	Explanation	Comment
	The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Discussed under Section 8.6, Reserve Classification
Audit & Reviews	The results of any audits or reviews of Ore Reserve estimates.	Discussed under Section 8.4, Audits & Reviews
Discussion of Relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances.	Discussed under Section 8.5, Relative Accuracy and confidence

Criteria	Explanation	Comment
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

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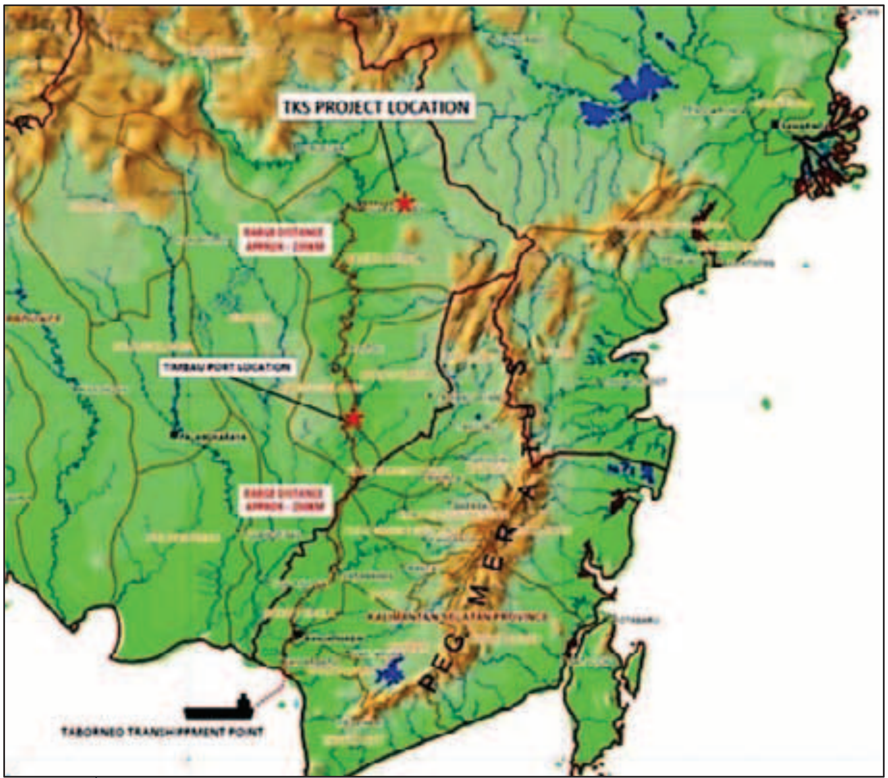

Golden Energy and Resources Limited

Trisula Kencana Sakti Concession

Summary Independent Qualified Person's Report

28 January 2020

SALVA
Mining Consultants

Golden Energy and Resources Ltd

Trisula Kencana Sakti Concession

Summary Independent Qualified Person's Report

Salva Mining Pty Ltd
300 Adelaide Street, Brisbane, QLD 4000, Australia
Email: info@salvamining.com.au
Website: www.salvamining.com.au
Phone: +61 (0) 407 771 528

28 January 2020

Effective Date: 31 December 2019

Independent Qualified Person:

Mr. Manish Garg
Director
Salva Mining Pty Ltd.

Subject Specialist:

Mr. Sonik suri
Principal Consultant – Geology
Salva Mining Pty Ltd.

SALVA Mining Consultants

Table of Contents

List of Figures

List of Tables

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Key Abbreviations

$ or USD	United States Dollar
adb	Air-dried basis, a basis on which coal quality is measured
AMSL	Above Mean Sea Level
AMDAL	Analisis Mengenai Dampak Lingkungan Hidup- Environmental Impact Assessment (EIA), which contains three sections, the ANDAL, the RKL and the RPL
ANDAL	Analisis Dampak Lingkungan Hidup, a component of the AMDAL that reports the significant environmental impacts of the proposed mining activity
arb	As received basis
AS	Australian Standards
ASR	Average stripping ratio
AusIMM	Australasian Institute of Mining and Metallurgy
bcm	bank cubic meter
BD	Bulk density
CCoW	Coal Contract of Work
CV	Calorific value
Coal Resource	A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, quality, continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories**.**
DGMC	Directorate General of Minerals and Coal within the Ministry of Energy and Mineral Resources
Danmar	PT Danmar Exploroindo
FC	Fixed Carbon
gar	gross as received, a basis on which coal quality is measured
GEAR	Golden Energy and Resource Ltd
gm	Gram
h	Hour
ha	Hectare(s)
IM	Inherent Moisture
IPPKH	'Izin Pinjam Pakai Kawasan Hutan' which translates to borrow to use permit in a production forest
IUP or IUPOP	'Izin Usaha Pertambangan' which translates to 'Mining Business Licence'
JORC	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia
k	Thousand
kcal/kg	Unit of energy (kilocalorie) per kilogram

kg	Kilogram
km	Kilometres (s)
km2	Square kilometre(s)
kt	kilo tonne (one thousand tonnes)
L	Litre
m	Meter
lcm	loose cubic metre
lcm	lcm loose cubic metre
M	Million
Mbcm	Million bank cubic metres
Mbcmpa	Million bank cubic metres per annum
MEMR	Ministry of Energy and Mineral Resources within the central government
m RL	metres reduced level
m^3	cubic metre
m/s	metres per second
Mt	Millions of tonnes
NAR	Net as received
Opex	operating expenditure
PKP2B	'Perjanjian Kerjasama Pengusahaan Pertambangan Batubara' – same as CCoW
RD	Relative density
RKL	'Rencana Pengelolaan Lingkungan' - environmental management plan
ROM	Run of Mine
RKL	Relative Level - survey reference for the height of landforms above a datum level
RPL	'Rencana Pemantauan Lingkungan' - environmental monitoring plan
Salva Mining	Salva Mining Pty Ltd
SE	Specific Energy
SR	Strip ratio (of waste to ROM coal) expressed as bcm per tonne
t	Tonne
tkm	Tonne kilometre
tpa	Tonnes per annum
TKS	PT Trisula Kencana Sakti
TM	Total Moisture (%)
TS	Total Sulphur (%)
VALMIN	2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports
VM	VM Volatile Matter (%)

Executive Summary

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Ltd ("Salva Mining") to prepare a Summary Independent Qualified Person's Report ("Report") to estimate Open Cut Coal Resources for the Trisula Kencana Sakti coal concession ("TKS" or "TKS Mine" or "TKS Concession") located in the North Barito Regency of the Central Kalimantan Province, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders a part of continuous disclosure requirements of the company. The estimate of Coal Resources as of the 31 December 2019 contained within this Report has been reported in accordance to the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

Trisula Kencana Sakti (TKS) Concession in Indonesia

The TKS Concession is comprised of two contiguous IUPs. These IUPs are located at 58 km east of the town of Muara Teweh in the Central Kalimantan province of Indonesia. The nearest villages close to the TKS Concession are Malateken, Gandring and Panaendan Liang Buah.

Access to the concession from the city of Muara Teweh is mainly via public regency roads, heading east and then via a private logging road owned by PT Austral Byna, and is of 1.5 hrs to 2 hours' drive.

The nearest town, Muara Teweh is serviced by light commercial aircraft both from Balikpapan and from Banjarmasin (the capital city of East and South Kalimantan, respectively). A sealed provincial road connects Muara Teweh with the city of Banjarmasin, a 220km road journey of approximately eight hours. Banjarmasin has regular commercial flights to Jakarta and other Indonesian centres.

GEAR holds the mining rights of the TKS Concession through its subsidiary PT Trisula Kencana Sakti ("PT TKS"). GEAR has 46.8999% holding in the concession through PT TKS. PT TKS is the beneficial holder of three Operation and Production IUPs, two of which are the subject of this Report (IUP 188.45/207/2010 and 188.45/208/2010).

The concession tenure is held under an IUP-Operation and Production granted on 26 April 2010 and valid until 26 April 2026.

Geology

The TKS Concession lies in the Barito Basin of Central Kalimantan, one of the largest coal-producing regions of Indonesia. According to the published geology, the lease is within an anticlinal structure containing the Tanjung and Montelat formations and Warukin Formations. These rocks are Eocene to Middle Miocene in age and are well known to contain extensive seams of thermal coal. Based on the work to date, a more likely interpretation of the regional geology is that the deposit area is in a syncline where relatively thick seams of Warukin age coal, are surrounded by hills containing older coal seams of the Montelat Formation. This would better explain why the coal in the central part of the deposit is relatively lower grade and these coal seams are surrounded by higher grade coal, around the edges of the basin.

The main features in the concession is a syncline structure over the main deposit area with relatively flat dips and younger sediments in the central part of the deposit and steeper dips in relatively older sediments, around the outer edges.

Previous Exploration

The TKS Concession has been subject to detailed exploration since 2005 onwards. In total, 605 vertical drill hole has been drilled within the concession. Other exploration activities conducted on TKS concession include topographic mapping (2010 and 2011), core and outcrop sampling (2010 and 2011) and geological mapping (March 2011).

Resource Model Construction

Out of 605 drill holes, 111 holes from the historical exploration programs were excluded as there was insufficient information to validate these drill holes. Remaining, 494 holes have been validated and information from 492 holes was used (2 holes rejected due to insufficient data) to prepare the geological model. Total cumulative depth of the drilling (494 validated drill-holes) is 40,168m with an average depth of 80m for each hole.

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the geological software to generate structural model and coal quality models for each of the resource areas.

Coal quality data has been composited on a seam basis. The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for most coal quality attributes.

Coal Resource

Salva Mining has estimated total Coal Resources of 75 million tonnes (Mt) on an in-situ air-dried moisture basis (adb), to a maximum depth of 100 m. The total tonnes are comprised of 25 Mt of Measured, 26 Mt of Indicated and 24 Mt of Inferred Resources.

Coal Resources Estimate as of 31 December 2019

Resource Classification	Mass (Mt)	TM (arb) (%)	IM (adb) %	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	24.7	21.9	13.7	11.0	38.4	2.0	5,726	1.38
Indicated	26.0	20.4	13.1	12.4	38.5	1.8	5,714	1.39
Inferred	24.0	21.9	13.7	11.0	38.4	2.0	5,726	1.38
TOTAL	**74.7**	**21.4**	**13.5**	**11.5**	**38.4**	**2.0**	**5,726**	**1.39**

(*Note: individual totals may differ due to rounding, final Inferred Resource rounded to nearest 1 Mt*)

1 Introduction

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare a Summary Independent Qualified Person's Report ("Report") to estimate Open Cut Coal Resources for the Trisula Kencana Sakti coal concession ("TKS" or "TKS Mine" or "TKS Concession") located in the North Barito Regency of the Central Kalimantan Province, Indonesia.

The estimate of Coal Resources as of the 31 December 2019 contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The TKS Concession is beneficially owned and controlled by GEAR. The effective date of this Report is 31 December 2019, the date on which the Resource was estimated.

1.1 Approach

The principal data used in the preparation of this Report included:

- Previous geological report prepared by the qualified person;
- A JORC Resource Report titled "Qualified Person's Report of Coal Resources, "dated 15 January 2015, Prepared by PT Denmar Exloroindo;
- Collar, downhole logging, seam pick and coal quality information, provided by GEAR; and
- Latest Topographic data including any mined-out area.

The following approach was undertaken by Salva Mining to estimate Coal Resources.

- Salva Mining has reviewed the geological data set provided by GEAR for the coal block covered under the scope of the report;
- Using the existing borehole information provided to Salva Mining by GEAR, a geological model was created using stratigraphic modelling software. While creating the model, a thickness cut off limit of 0.1m was applied and is termed as an "in situ" model;
- This model and the underlying raw data such as Drill hole logs, coal quality reports and geophysical logs were reviewed by Salva Mining's team of geologists headed by Mr Davies.
- On the basis of confidence limits (as described in the Resource Classification Section), the in-situ geological model was then categorised into Measured, Indicated and Inferred categories according to the JORC Code (2012). Once these categories were ascertained, coal volume, tonnage and qualities were estimated;

1.2 Data sources

This review is based on the information provided by GEAR, the technical reports of consultants and previous explorers, as well as other published and unpublished data relevant to the area. Salva Mining has carried out, to a limited extent, its own independent assessment of the quality of the geological data. The status of agreements, royalties or concession standing pertaining to the assets was advised by GEAR to be in good standing and was relied upon by Salva Mining.

In developing our assumptions for this Report, Salva Mining has relied upon information provided by the company and information available in the public domain. Key sources are outlined in this Report and all data included in the preparation of this Report has been detailed in the references section of this Report. Salva Mining has accepted all information supplied to it in good faith as being true, accurate and complete, after having made due enquiry as of 31 December 2019.

1.3 Limitations

Opinions presented in this Report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this Report, about which Salva Mining have had no prior knowledge nor had the opportunity to evaluate.

1.4 Disclaimer and warranty

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of its Report or the success or failure for the purpose for which the Report was prepared.

A draft version of this Report was provided to the directors of GEAR for comment in respect of omissions and factual accuracy. As recommended in Section 39 of the VALMIN Code, GEAR has provided Salva Mining with an indemnity under which Salva Mining is to be compensated for any liability and/or any additional work or expenditure, which:

- Results from Salva Mining's reliance on information provided by GEAR and/or Independent consultants that are materially inaccurate or incomplete, or
- Relates to any consequential extension of workload through queries, questions or public hearings arising from this Report.

The conclusions expressed in this Report are appropriate as of 31 December 2019. The Report is only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values outlined in this Report are expressed in United States dollars ($) unless otherwise stated. Salva Mining services exclude any commentary on the fairness or reasonableness of any consideration in relation to this concession.

1.5 Independent Qualified Persons Statement

The Coal Resources within this Report has been reported following the guidelines contained within the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code") and the 2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Experts Reports ("the VALMIN Code"). It has been prepared under the supervision of Mr Manish Garg (Director – Consulting / Partner, Salva Mining) who takes overall responsibility for the Report and is an Independent Expert as defined by the VALMIN Code.

Sections of the Report which pertain to Coal Resources have been prepared by Mr Sonik Suri (Principal Consultant, Geology) who is a subject specialist and a Competent Person as defined by the JORC Code.

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This Report was prepared on behalf of Salva Mining by the signatory to this Report, assisted by the subject specialists' competent persons whose qualifications and experience are set out in Appendix A of this Report.

Mr. Manish Garg
Director
Salva Mining Pty Limited

Mr. Sonik Suri
Principal Consultant – Geology
Salva Mining Pty Limited

1.6 Statement of Independence

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report. The above-mentioned person(s) have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Report.

Mr Manish Garg, Mr Sonik Suri, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

Neither Mr Manish Garg, Mr Sonik Suri nor any of the Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates have (or had) a pecuniary or beneficial interest in/or association with any of the GEAR, or their directors, substantial shareholders, subsidiaries, associated companies, advisors and their associates prior to or during the preparation of this Report.

2 Project Description

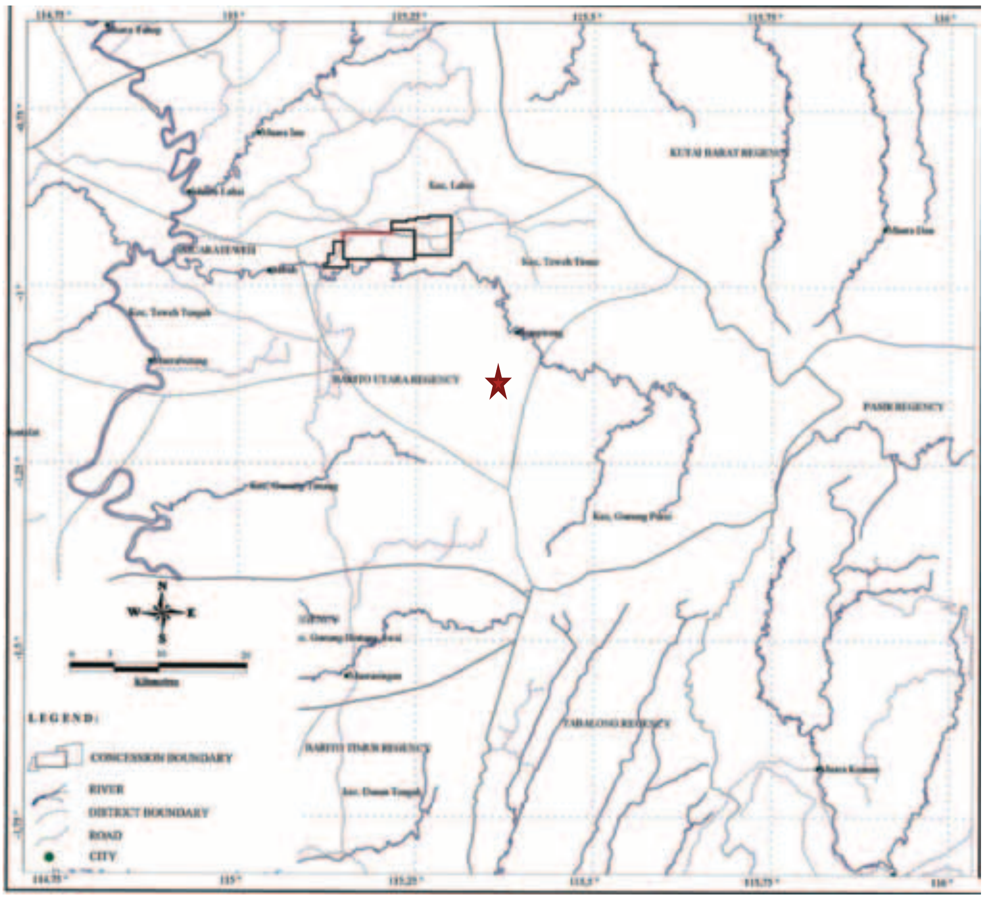
2.1 Location and Access

The TKS project is comprised of two contiguous IUPs. These IUPs are located at 58 km east of the town of Muara Teweh in the Central Kalimantan province of Indonesia. The nearest villages close to the project are Malateken, Gandring and Panaendan Liang Buah.

Access to the project area from the city of Muara Teweh is mainly via public regency roads, heading east and then via a private logging road owned by PT Austral Byna, and is of 1.5 hours to 2 hours' drive.

The nearest town Muara Teweh is serviced by light commercial aircraft both form Balikpapan and from Banjarmasin (the capital city of East and South Kalimantan, respectively). A sealed provincial road connects Muara Teweh with the city of Banjarmasin, a 220km road journey of approximately eight hours. Banjarmasin has regular commercial flights to Jakarta and other Indonesian centres. The project location and concession plan have been shown in Figure 2:1.

Figure 2:1 Location of TKS Project



Source: Modified after PT Danmar Explorindo, January 2015

2.2 Ownership and Tenure

Golden Energy and Resources Limited (GEAR) holds the mining rights to the TKS Concession through its subsidiary PT Trisula Kencana Sakti (PT TKS). The detail of the coal Concessions is given in Table 2:1.

Table 2:1 TKS Concession Details

Concession Number	Concession Type	Area (ha)	Status	Granted	Expiry Date	GEAR Net Holding*
TKS Coal Indonesia – 188.45/207/2010	IUP- Operation and Production	4,748	Granted	26 April 2010	26 April 2026	46.8999%
TKS Coal Indonesia – 188.45/208/2010	IUP- Operation and Production	4,959	Granted	26 April 2010	26 April 2028	46.8999%

*GEMS have 70% shares in TKS and GEAR has 66.9998% shares in GEMS

Both IUP's were granted "Clean and Clear" status by the General Director of Mineral and Coal on the 28 February 2012.

2.3 Clean and Clear - Forestry Status

The IUPs for the TKS Concessions are within a designated Production Forest, and therefore a Forestry Borrow and Use Permit (IPPKH) is required for a mining operation. As per the information provided by GEAR to Salva Mining, following Borrow and Use Permit is in place which is of relevance to this Report:

SK.319/MENHUT-II/2010 *tentang Izin Pinjam Pakai Kawasan Hutan untuk Eksploitasi Batu Bara dan Sarana Penunjangnya pada Kawasan Hutan Produksi Terbatas dan Kawasan Hutan Produksi yang dapat Dikonversi a/n PT Trisula Kencana Sakti seluas 698.58 Ha* / concerning borrow and use permit for Coal Exploitation and its Infrastructure in Limited Production Forest Area and Production Forest which can be converted to PT Trisula Kencana Sakti with an Area of 698.58 Ha. Issued by the Minister of Forestry and valid from 19 May 2010 until 19 May 2020. Table 2:2 details the IPPKH permits held by TKS and same has been depicted in Figure 2:2.

Table 2:2 Details of Forestry Area Borrow and Use Permit

Concession Number	Permit Type	Area (ha)	Granted	Expiry	Period
TKS Coal Indonesia – 188.45/207/2010	IPPKH (Forestry Area Borrow and Use Permit)	699	19 May 2010	19 May 2020	10 years

As per the regulatory requirement, the mining activities can only be carried out within this IPPKH permit however, in line with the industry practice, the IPPKH area can be progressively adjusted as mining operation progresses.

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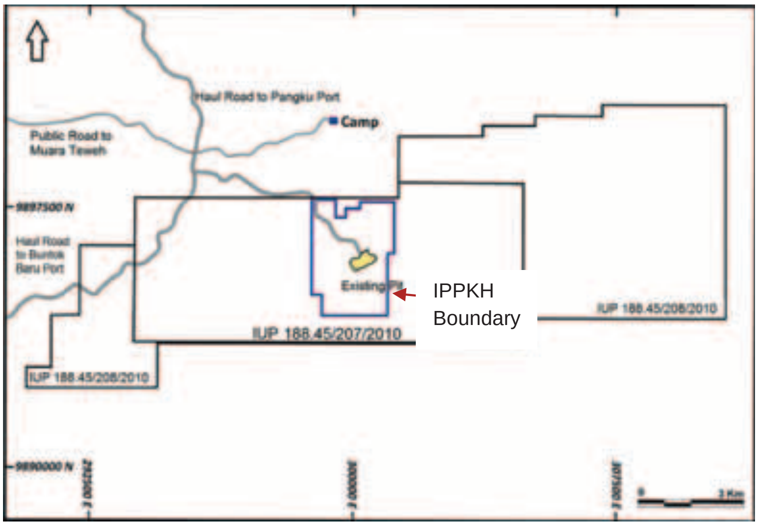
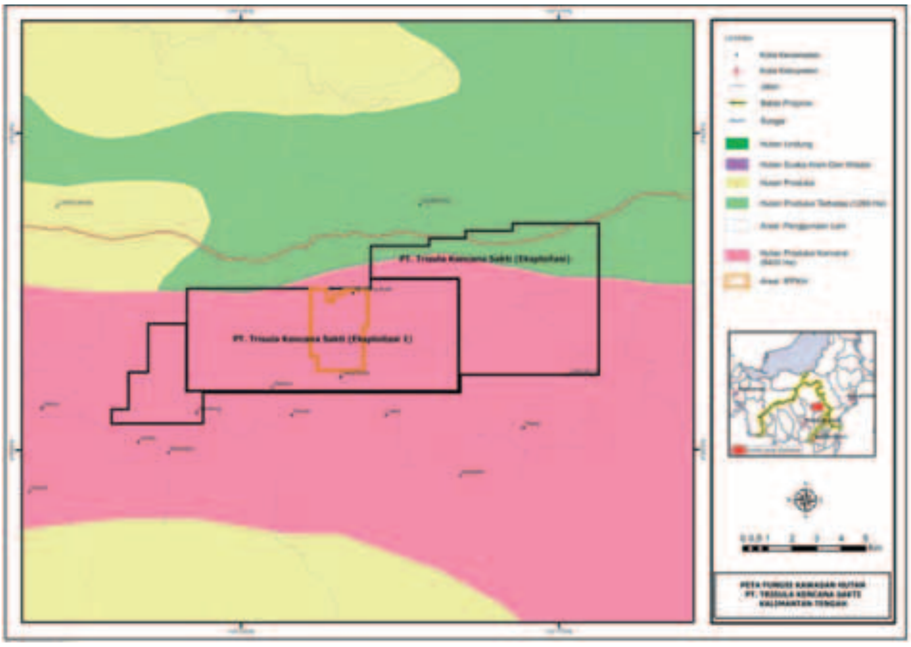
Figure 2:2 TKS concessions with IPPKH Boundary



Source: Modified after CSA Global, January 2015

Figure 2:3 Forestry Status, TKS Concession

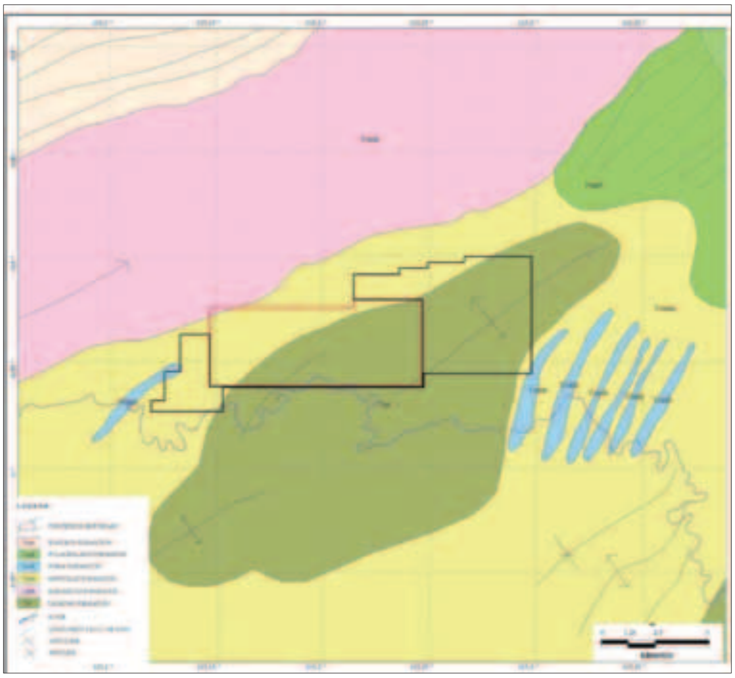


3 Geology and Exploration

3.1 Regional Geology

The concessions lie in the Barito Basin of Central Kalimantan. The Barito Basin is defined by the Meratus Mountains to the east and separated from the Kutai Basin to the north by a flexure parallel to the WNW-ESE orientated Adang Fault. The Barito Basin began to develop in the Late Cretaceous following a micro-continental collision between the Paternoster and the SW Borneo microcontinents (Darman and Sidi, 2000). Early Tertiary extensional deformation occurred as a tectonic consequence of that oblique convergence, producing a series of NW-SE trending rifts.

Figure 3:1 Regional Geology- TKS Concessions



Source: Modified after PT Danmar Explorindo, January 2015

3.2 Local Geology

Field Exploration identified lower quality Warukin coal seams in the core of a syncline, grading to higher quality Montalat coal seams toward the outer edges of the structure. The Tanjung Formation geology within the TKS Concessions is less well understood because exploration has been limited to coal outcrop mapping. It is expected that coal seams discovered in the older Tanjung Formation will have a higher calorific value and generally better quality characteristics than the younger Warukin and Montalat coal seams.

The main features in the concessions are a syncline structure over the main deposit area with relatively flat dips and younger sediments in the central part of the deposit and steeper dips in relatively older sediments, around the outer edges. Major faults are interpreted surrounding the deposit and controlling the boundaries of the coal to the north, south and east.

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3.3 Previous Exploration

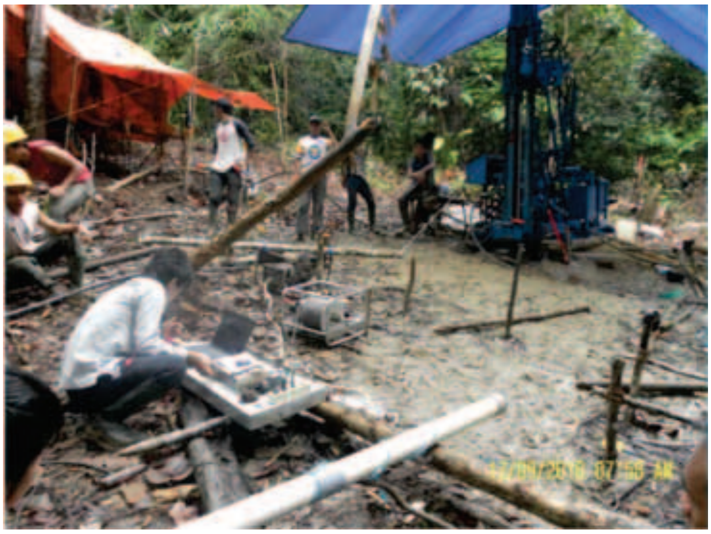
The TKS Concession has been subject to detailed exploration since 2005 onwards. The exploration activities were targeted to confirm the occurrences of coal seams found by initial exploration campaigns. Following sections detail the previous exploration activities conducted on the concessions.

3.3.1 Exploration Drilling (2005 and 2010)

In total, 605 vertical drill hole has been drilled within the concession. Out of 605 drill holes, 111 holes from the historical exploration programs were excluded as there was insufficient information to validate the holes. Remaining, 494 holes have been validated and information from 492 holes was used (2 holes rejected due to insufficient data) to prepare the geological model.

Total cumulative depth of the drilling (494 validated drill-holes) is 40,168m with an average depth of 80m for each hole. To ensure the most accurate and reliable results from the drilling downhole geophysical logging was used. The tool measures gamma-ray and density and produces an electronic signature of the geology intersected in each drill hole (Figure 3:2).

Figure 3:2 Exploration drilling and down the hole geophysical logging



Source: PT Danmar Explorindo, January 2015

3.3.2 Topographic Mapping (2010 and 2011)

Detailed topographic mapping using airborne LiDAR survey method to a 1:1000 scale was carried out over the entire 9,711 Ha which completely covers the area of coal potential delineated in the initial drilling area.

All drill hole collars were also picked up by ground survey using total station survey equipment. To tie the survey into the Indonesian national, grid a geodetic survey including 21 permanent benchmarks were established for survey reference. The overall topography in the main coal deposit area is characterized by relatively low relief.

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3.3.3 Core and Outcrop Sampling (2010 and 2011)

709 samples from drill holes were analysed to determine the coal quality at the TKS Concession. In addition, 30 outcrop samples were also tested during the mapping program. The drill hole and coal outcrop locations have been shown in Figure 3:4.

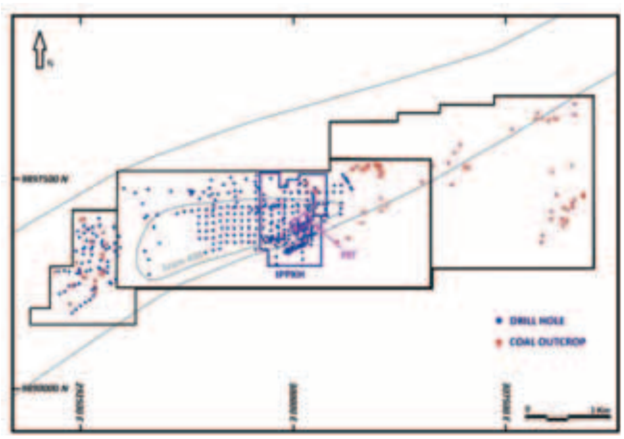
3.3.4 Geological Mapping (March 2011)

Geological mapping within the concession was carried out targeting areas where there was no previous exploration work done. The mapping work was used to determine the overall geological structure of the concession and to optimise the positioning of potential future drill holes. The coal outcrop mapping included 200 observations and analysis of 30 samples (Figure 3:3).

Figure 3:3 Geological Mapping

Source: PT Danmar Explorindo, January 2015

Figure 3:4 Drill hole and coal outcrop locations



Source: Modified after CSA Global, January 2015

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3.4 Coal Seam Occurrences

Drilling has confirmed that there are twenty-three (23) coal seams within the Warukin and Montalat Formations within the TKS IUPs. Seam S400 is the basal seam of the Warukin Formation and S1200 the basal seam of the Montalat Formation. The S100, S200, S300 and S400 seams are the most significant economic grouping with an average of 5m of combined coal thickness. The main seam is S200 with an average thickness of 1.80m. Interburden sediments are generally mudstone. A massive 37m thick sandstone unit marks the end of Montalat sedimentation period.

The deposit at TKS Concession contains approximately 19 modelled coal seams (Table 3:1) of which 4 have been split into upper and lower plies. The cumulative coal average thickness is 14.85 m in 19 seams.

The coal seams dip shallowly in the centre of the syncline to 5 degrees and up to 20 degrees around the edges. Steeper old sediments, containing higher-grade coal seams occur around the edges of the deposit where the geological structure is complicated by possible faulting.

Table 3:1 Seam Splitting Relationships

Master Seam	1st Phase Splitting
S10	
S20	
S30	
S40	
S50	
S100	S100U
	S100L
S200	S200U
	S200L
S300	
S400	
S500	
S550	
S600	S600U
	S600L
S700	S700U
	S700L
S800	
S850	
S900	
S1000	
S1100	
S1200	

4 Geological Data, QAQC and Resource Modelling

4.1 Data Supplied

The geological data provided by GEAR for the TKS Concession was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources. This data, used by Salva Mining for the purpose of resource estimation, includes but is not limited to:

- Drill hole collar information inclusive of total depth drilled per hole;
- Drill hole lithological data inclusive of seam picks identified and correlated on the basis of down-hole geophysics;
- Coal sample table and associated raw coal qualities per sample;
- Drill hole completion reports for most of the holes drilled containing details of core recoveries achieved;
- Down-hole geophysical data in the form of both LAS files and drill hole databases;
- Complete drill hole database including grids of seam roofs, floors, the topographic surface and the base of the weathered horizon surface.

4.2 Lithological Data

In total, 494 holes have been validated but 492 drill holes were used in this Report after rejecting 2 drill holes due to lack of complete information. Total cumulative depth of the validated drilling for these 494 drill holes is 40,168m with an average depth of 80m.

230 holes were interpreted from softcopy geophysical logs (LAS) while 241 holes were interpreted manually from a hardcopy of the geophysics. 21 holes had no geophysical logs and these holes were only used as reference points for coal in the model but no thickness or other dimensions were used from these holes.

96% of the holes have been logged using down-hole geophysics. Down-hole geophysical data is predominantly comprised of gamma, density and calliper logs and has allowed for accurate identification of coal seams in each hole (seam picks) and the correlation of coal seams between holes.

4.3 Topographic Survey and base of weathering (BOW)

A topographic survey was carried out using both Total Station and Airborne Lidar. The overall topography in the main coal deposit area is characterised by relatively low relief. some low-lying areas in the central part of the lease, and a series of linear ridges (interpreted as bedding lineaments) surrounding the outer edges of the main deposit. Relatively higher grade coal occurs in this area.

The resulting topographic map, which was mainly done by airborne laser scanning from 21 benchmark locations covers approximately 9,711 Ha and is of sufficient detail and accuracy for estimating coal Resources.

A 'non-conformable' base of weathering (W_S) surface was supplied by GEAR along with the drill hole data. This surface was imported into a structural model and incorporated into the tks_2017 schema and thus used in the resource model.

4.4 Core Sampling

At the completion of each run, core lengths were checked in the splits for recovery to ensure coal seams have been recovered as required. A target core recovery of 90% has been applied throughout all drilling phases. The core was also photographed routinely and logged in the splits by a geologist before being sampled. For open holes, chip samples were collected at 1 m intervals for lithological logging purposes.

All the drill rigs used during each phase of exploration were operated by experienced personnel and drilling was supervised by fully qualified geologists working in shifts. A sampling of the coal seams was conducted by the rig geologist in accordance with the specific sampling procedure.

The coal quality sampling technique used is considered by Salva Mining to adequately address the QAQC requirements of coal sampling. As a further coal quality validation step prior to importing coal quality sample results for coal quality modelling purposes, Salva Mining constructed spreadsheets which compare the sampled intervals against the logged seam intervals in order to ensure that sampled intervals match the seam pick intervals.

4.5 Down-hole Geophysics and Seam Picks

Down-hole geophysical logs were completed during each drilling program by PT Surtec Indonesia.

4.6 Coal Quality

Coal quality sampling was undertaken by PT TKS and contract geologists, with the analysis testing being completed by PT Geoservices laboratories in Banjarbaru near Banjarmasin. PT Geoservices laboratories are accredited to ISO 17025 standards.

4.7 Coal Density

No information on in situ moisture was obtained from the laboratory, resulting in the fact that the Preston and Sanders equation could not be applied to obtain in situ relative densities. As a result, all resource tonnages are quoted on an in-situ air-dried density basis, as volumes are calculated on an in-situ basis and density on an air-dried basis.

4.8 Resource Structural Model

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the geological software to generate structural and coal quality models for each of the five resource areas.

5 Coal Resources

5.1 Prospects for Eventual Economic Extraction and Resource Classification

Coal Resources present in the TKS concession have been reported in accordance with the JORC Code, 2012. The JORC Code identifies three levels of confidence in the reporting of resource categories. These categories are briefly explained below.

Measured – "...*That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors to support detailed mine planning and financial evaluation*";

Indicated – *"…That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors in sufficient detail to support mine planning and evaluation"; and*

Inferred – *"…That part of a Mineral Resources for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling.".*

In terms of Coal Resource classification, Salva Mining is also guided by the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) (The Coal Guidelines) specifically referred to under clause 37 of the JORC Code (2012).

Resource classification is based on an assessment of the variability of critical variables (raw ash% and seam thickness) through statistical analysis and by an assessment of the geological continuity and input data quality.

Consequently, Salva Mining has sub-divided Coal Resources within the TKS Concession into resource classification categories based on the following spacing's (expressed as a radius of influence around points of observation which is half of the spacing between points of observation):

- The measured radius of influence of 250 m;
- The indicated radius of influence of 450 m;
- The inferred radius of influence of 850 m.

5.1.1 Assessing Confidence

Several factors outlined in Section 5 of the Coal Guidelines (2014), were considered when assessing confidence in the estimate and classifying the Coal Resource in accordance with the JORC Code (2012). A summary of factors considered is shown below in Table 5:1.

A qualitative review of modelled seam floor elevation and thickness contours, statistical analysis of thickness and coal quality attributes, domaining and general geological setting all show that the seams within the TKS deposit appear to display a relatively high degree of continuity, allowing for a lower level of drilling density for the same level of confidence as compared to a more complex/less continuous coal deposits. The main risk factor in terms of confidence in the resource estimate is considered to be coal quality. There is an estimated 15% overestimation of tonnes due to the use of an air-dried density instead of an in-situ density as discussed in section 6.5.

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Table 5:1 Criteria considered to assess confidence in the Resource Estimates

Assessing Confidence	Comment	Assessment Summary	Risk Rating (H, M, L)
Critical assessment of local, geographical and geological settings	*In general, the coal seams within the TKS deposit are characterised by a high degree of lateral continuity, allowing for confidence in the correlation between holes. There is no evidence of major faulting in the tenement.*	High continuity, benign structure.	L
Identifying critical data	*Seam thickness and raw ash are seen as critical data, the thickness is the main factor determining coal volume and raw ash being directly related to both relative density and product coal yield.*	Raw ash was seen as more variable than the thickness and hence determining factor for classification.	M
Data Analysis, error and verification	*Internal standards and procedures used for drilling logging and sampling. Lab uses internal QAQC standards and is ISO 17025 accredited.*	Salva Mining used internal checks to data (histograms, global statistics, scatter plots) during modelling to verify data. Apart from some low core recoveries which were evaluated and found to be a true reflection of the input data and no evidence of coal quality bias resulting from poor core recovery was observed.	L
Domaining	*Raw ash% histograms, floor and thickness contours used to investigate domaining*	Domains adequately addressed by modelling parent and daughter seams were present and assigning coal quality accordingly.	L
Statistical Analysis	*Global statistics for thickness and all raw coal quality attributes generated as well as raw ash histograms*	Global statistics were prepared and reviewed. It shows values in expected normal ranges. Classification spacings used for this estimate are in line with those used previously by Salva Mining for other coal deposits elsewhere in the Central Kalimantan basin.	L

Assessing Confidence	Comment	Assessment Summary	Risk Rating (H, M, L)
Geological Modelling	*3D geological model constructed using dedicated stratigraphic modelling software.*	The geological model appears to be a good representation of the input drill hole intercept data.	L

5.1.2 Eventual Economic Extraction

It is furthermore a requirement of the JORC Code (2012) that the likelihood of eventual economic extraction is considered prior to the classification of coal resources.

The average coal quality attributes of the coal seams considered are sufficient to be marketed as a medium CV thermal coal for domestic power generation purposes. Therefore, Salva Mining considers that it is reasonable to define all coal seams within the classification distances discussed above, to a depth of 100m below the topographic surface, as potential open-cut coal resources.

5.2 Coal Resource Statement

The Coal Resources which have been estimated, have been classified and reported according to the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal Resources as of 31 December 2019 are detailed in Table 5:2 and Table 5:3.

Table 5:2 Coal Resources as of 31 December 2019

Resource Classification	Mass (Mt)	TM (arb) (%)	IM (adb) %	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	24.7	21.9	13.7	11.0	38.4	2.0	5,726	1.38
Indicated	26.0	20.4	13.1	12.4	38.5	1.8	5,714	1.39
Inferred	24.0	21.9	13.7	11.0	38.4	2.0	5,726	1.38
TOTAL	**74.7**	**21.4**	**13.5**	**11.5**	**38.4**	**2.0**	**5,726**	**1.39**

(*Note: individual totals may differ due to rounding*)
Final Inferred Resource rounded to nearest 1 Mt.

Table 5:3 Coal Resource by Seam as of 31 December 2019

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
S20	0.1	0.5	0.6	1.2
S30	0.6	0.7	0.6	1.9
S40	0.2	0.7	1.4	2.2
S50	0.0	0.8	0.7	1.5
S100U	0.8	0.3	0.0	1.2
S100	5.6	5.5	4.6	15.8
S100L	0.7	0.3	0.0	1.0
S200U	1.3	1.3	1.1	3.7
S200	6.5	3.8	1.9	12.1
S200L	1.2	1.3	1.2	3.6

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
S300	3.8	3.2	2.7	9.8
S400	1.3	2.2	3.3	6.9
S600U	0.1	0.2	0.4	0.7
S600L	0.1	0.2	0.5	0.8
S700U	1.2	2.0	2.1	5.3
S700	0.0	0.0	0.0	0.0
S700L	1.0	1.6	1.9	4.4
S900	0.0	0.8	0.5	1.3
S1000	0.0	0.5	0.3	0.8
S1100	0.2	0.1	0.2	0.6
TOTAL	**24.7**	**26.0**	**24.0**	**74.7**

(*Note: individual totals may differ due to rounding*)
Final Inferred Resource rounded to nearest 1 Mt.

5.3 Comparison with Previous Estimates

The total estimated resource tonnes for the TKS Concession in the current Report is similar to the one completed previously by Salva Mining and also by PT Danmar in 2015.

The amount of Measured plus Indicated Resource is similar to the previously reported number. However, the amount of Measured Resource is less than previously reported by PT Danmar – Salva Mining has adopted the guidelines from both JORC 2012 and Coal Guidelines 2014 and the point of observation for each seam is defined to have both structure and coal quality associated with that point of observation.

Table 5:4 below shows a breakdown of the difference in resource tonnes against previous estimates.

Table 5:4 Coal Resources - Comparison with the Previous Estimates

Resource Category	Salva Mining Dec 2019 (Mt)	PT Danmar Explained Jan 2015 (Mt)
Measured	25	40
Indicated	26	12
Total M&I	**51**	**52**
Inferred	24	25
Total	**75**	**77**

5.4 JORC Table 1

In the context of complying with the Principles of the Code, Table 1 of the JORC Code (Appendix C) has been used as a checklist by Salva Mining in the preparation of this Report and any comments made on the relevant sections of Table 1 have been provided on an 'if not, why not' basis.

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References

JORC, 2012. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – The JORC Code – 2012 Edition [online], The Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia.

Panggabean, Hermes, (1991) Tertiary source rocks, coals and reservoir potential in the Asem Asem and Barito Basins, South-eastern Kalimantan, Indonesia, Doctor of Philosophy thesis, Department of Geology – Faculty of Science, University of Wollongong, http://ro.uow.edu.au/theses/2113.

Salva Mining, "Qualified Person's Report", December 2018, December 2017 and Decemebr 2016.

PT. Danmar Explorindo, "Qualified Person's Report of Coal Resources", 15 January 2015.

CSA Global, "Qualified Person's Report", 15 January 2015.

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Appendix A: CVs

Person	Manish Garg (Director)
Qualification	B. Eng. (Hons), MAppFin
Prof. Membership	MAusIMM
Contribution	Overall Supervision, Economic Assessment (VALMIN 2015)
Experience	Manish has more than 25 years' experience in the Mining Industry. Manish has worked for mining majors including Vedanta, Pasminco, WMC Resources, Oceanagold, BHP Billiton - Illawarra Coal and Rio Tinto Coal. Manish has been in consulting roles for past 10 years predominately focusing on due diligence, valuations and M&A area. A trusted advisor, Manish has qualifications and wide experience in delivering due diligence, feasibility studies and project evaluations for banks, financial investors and mining companies on global projects, some of these deals are valued at over US$5 billion.
Sonik Suri (Principal Consultant - Geology)	
Qualification	B. Sc. (Geology), M.Sc. (Geology)
Prof. Membership	MAusIMM
Contribution	Geology, Resource (JORC 2012)
Experience	Sonik has more than 25 years of experience in most aspects of geology; including exploration, geological modelling, resource estimation and open cut mine geology. He has worked on several coal projects including mining majors like Anglo American and Hancock. As a consultant, he has worked on resource estimation, audits and due diligence for companies within Australia, Indonesia, Mongolia, Mozambique and Colombia. He has strong expertise in data management, QA/QC and interpretation; reviews/audits of data sets, models and resource estimates.

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Appendix B: SGX Mainboard Appendix 7.5

Cross-referenced from Rules 705(7), 1207(21) and Practice Note 6.3

Summary of Mineral Reserves and Resources

Name of Asset / Country: TKS Concession / Indonesia

Category	Mineral Type	Gross (100% Project)		Net Attributable to GEAR**		Remarks
		Tonnes (millions)	Grade	Tonnes (millions)	Grade	
Reserves						
Proved	Coal	0	Subbituminous B	0	Subbituminous B	
Probable	Coal	0	Subbituminous B	0	Subbituminous B	
Total	Coal	0	Subbituminous B	0	Subbituminous B	
Resources						
Measured	Coal	24.7	Subbituminous B	11.6	Subbituminous B	
Indicated	Coal	26.0	Subbituminous B	12.2	Subbituminous B	
Inferred	Coal	24.0	Subbituminous B	11.3	Subbituminous B	
Total	Coal	74.7	Subbituminous B	35.0	Subbituminous B	

*** GEAR holds 46.8999% of PT TKS Indirectly.*
(Note: individual totals may differ due to rounding)

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Appendix C: JORC Table 1

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• Wire-line touch core drilling, in a systematic drill grid and coring of coal seams with geophysical logging • Properly calibrated downhole logging tools • Seam thickness was determined by geophysical logs and coal quality assets by the certified lab using ASTM methods • Process of sampling included a sample from roof sediments, main seam body, roof coal, floor coal and floor sediment for very detailed coverage of coal quality within each seam • Samples collected were sealed in a plastic bag and stored appropriately before sending to the lab.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• Drilled pilot hole to ascertain coal seams and then drilled a cored drill hole.
Drill sample recovery	Whether core and chip sample recoveries have been properly recorded and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• After the completion of each core run, core loss is determined by the on-site geologist and recorded in the drill hole completion sheet. If recovery is found to be less than 90% within a coal seam intersection, the hole is re-drilled in order to re-sample this seam with greater than 90% core recovery. All samples with less than 90% core recovery over the width of the seam intersection were excluded from the coal quality database. • Followed drilling SOP's for loose and carbonaceous formations to achieve full sample recovery.
Logging	Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography. The total length and percentage of the relevant intersections logged.	• Logging by geologists is appropriate for resource estimation • The geotechnical report documented for 5 holes (GT) by Soilens and analysed approx. 25 other drill holes • Graphic logs are recorded after reconciliation with geophysical logs • Logging was adequately recorded but lacking detail indicating quantitative work by good site geologists, adequate for coal work • Cores were apparently photographed but not seen by the CP as they have not yet been provided by the client • 40,168m drilled and 96% of relevant intersections were logged by geologists & down-hole geophysics.

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Criteria	Explanation	Comment
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected. Whether sample sizes are appropriate to the grainsize of the material being sampled.	• No sub-sampling of Core was done
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• PT Geoservices laboratories are accredited to ISO 17025 standards. Coal quality laboratory adheres to internal QAQC and inter-laboratory QAQC checks. ISO methods have been used for MHC tests. Australian Standards have been used for RD and American Society for testing and materials (ASTM) methods have been used for all other quality variables. • Geophysical traces were observed to be generally of good quality.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	• Coal quality sampling was undertaken by PT TKS and is in-line with the coal quality being achieved during the actual trial mining operations. • No twin holes drilled
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	• Borehole collars have been surveyed using standard total station techniques employed by the survey contractors. • Surveys have been validated by GEAR survey staff. The surveyed borehole locations for TKS match well with topographic data. (+/- 1m between survey & LiDAR considered acceptable) • The topography was generated by PT Surtech Utama across TKS Concession area using LiDAR remote sensing data. •
Data spacing and Distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution are sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	• 250 x250 m grid for exploration results at most of the places. • Data spacing sufficient to establish continuity in both thickness and coal quality. Data sets include topography and base of weathering as well as seam structure and coal quality. Ply sampling methodology use. • Sample compositing has been applied. Composite samples were taken for each

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Criteria	Explanation	Comment
		coal seam from roof, floor and body coal samples.
The orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Ply by Ply sampling used therefore the orientation of sampling not seen to introduce bias as all drilling is vertical. • Drill line was oriented perpendicular to the strike of coal
Sample Security	The measures are taken to ensure sample security.	• Proper measures for sample security was taken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• Salva Mining conducted a review of the drill hole database and found it to be satisfactory. • Standard database checks also performed by Salva Mining as outlined in Section 5.4.4 prior to resource modelling and found it to be satisfactory.
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• All tenure is secured and currently available. • Two mining licenses (IUP's) for operation and production valid till 2026 & 2028. .
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• 5 contractors for drilling, exploration, Geotech & 5 previous studies including JORC 2012 Resources Estimates.
Geology	Deposit type, geological setting and style of mineralisation.	• The main features in the concession is a syncline structure over the main deposit area with relatively flat dips and younger sediments in the central part of the deposit and steeper dips in relatively older sediments, around the outer edges. Major faults are interpreted surrounding the deposit and controlling the boundaries of the coal to the north, south and east. • Sub-bituminous Coal
Drill hole	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	• Relatively good drill database • This Report pertains to resource estimation, not exploration results. As such the details of the drill holes used in the estimate are too numerous to list in this Table.

Criteria	Explanation	Comment
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations and cut-off grades are usually material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	• All samples have been composited over full seam thickness and reported using geological modelling software. • No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	• Ply sampling methodology prevents samples from crossing ply boundaries. Therefore, the orientation of sampling not seen to introduce bias as all drilling is vertical and seams mostly gently dipping. • Coal thickness intercepts in the data appear to support this and consistent coal seam thickness is normal in this area. Steeper dips (up to 20degrees) are assumed to occur near the edge of the basin and dummy points in the model have used the true thickness of the coal in this area
Diagrams	Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.	• See the figures in the Report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.	• No reporting of exploration results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• 471 drill holes were geophysically logged. • Other data is listed in the Report, the data where appropriate has been used but often the older data was less well recorded and not complete and for this reason was not used in the geological model.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	• Further work will be necessary to improve the confidence levels of the deposits further and understanding of the full seam stratigraphy as part of on-going mining activity.

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Criteria	Explanation	Comment
		• No proposed exploration plan has been proposed in this Report.
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	• The database for all blocks is considered an acceptable standard to report a Coal Resource. • Checks against original downhole geophysics (las) files used to verify data during modelling.
Site Visits	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	• No Geological site visit not conducted due to the fact that the geology had been well documented by previous consultants. • Salva Mining's geologist is well aware of the geological setting of the area and has reviewed and discussed the available geological data with the company in their Jakarta office.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	• A high degree of confidence in seam picks made using downhole geophysical data. • The TKS geological models created by Salva Mining are considered to accurately represent the deposits. No major faults have been reported within the tenements concerned • Mass (tonnage) from the current resource estimate agrees with the previous model by developed by Danmar to within 5% error margin range.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• See the figures in the Report.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables.	• FEM interpolator used for surface elevation, thickness and trend. Inverse distance squared used for coal quality throughout. • Based on experienced gained in the modelling of over 40 coal deposits around the world, the FEM interpolator is considered to be the most appropriate for the structure and inverse distance the most appropriate for coal quality. • The grid cell size of 50m for the topographic model, 50 m for the structural model. • Table 5:1 contains additional model construction parameters. Visual validation of all model grids performed.

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Criteria	Explanation	Comment
	Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• TKS has some high sulphur seams (>2%) coal product quality will have to be managed to maintain saleable products.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• All tonnages estimated on the air-dried basis, Total moisture has been measured by weight under laboratory conditions
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• The coal resources contained in this Report are confined within the concession boundary. The resources were limited to 100m below topography • A minimum ply thickness of 10cm and maximum parting thickness of 30cm was used.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	• The TKS Concession is proposed to be mined as open-pit excavations by truck and shovel method by contractors.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	• N/A in situ air dried tonnes quoted
Environmental	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• Salva Mining is not aware of any environmental factors that may impact on eventual economic extraction.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	• See discussion on density with regard to moisture basis.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether the appropriate account has been taken of all relevant factors i.e. relative confidence in	• Classification distances based on an assessment of the variability of critical variables through statistical analysis and by an assessment of the degree of geological complexity. Classification

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Criteria	Explanation	Comment
	tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	radii for the three resource categories are: Measured: 225m Indicated: 450m Inferred: 850m
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	• Check between the current geological model and the previous model shows high agreement.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Spacing ranges for the three resource categories are considered to adequately reflect the degree of confidence in the underlying estimate on a global basis. • Local variation to estimated values may arise and will be addressed by adequate grade control procedures during mining operations.

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Golden Energy and Resources Limited

Trisula Kencana Sakti Ampah Concession

Summary Independent Qualified Person's Report

28 January 2020

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Golden Energy and Resources Limited

Trisula Kencana Sakti Ampah Concession

Summary Independent Qualified Person's Report

Salva Mining Pty Limited
109 Delaney Cct, Carindale, Brisbane, QLD 4000, Australia
Email: info@salvamining.com.au
Phone: +61 (0) 407 771 528

28 January 2020

Effective Date: 31 December 2019

Independent Qualified Person:

Mr. Manish Garg
Director
Salva Mining Pty Limited

Subject Specialists:

Mr. Sonik Suri
Principal Consultant – Geology
Salva Mining- Brisbane Office

Dr. Ross Halatchev
Principal Consultant – Mining
Salva Mining - Brisbane Office

Table of Contents

List of Figures

List of Tables

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Key Abbreviations

$ or USD	United States Dollar
adb	Air-dried basis, a basis on which coal quality is measured
AMSL	Above Mean Sea Level
AMDAL	Analisis Mengenai Dampak Lingkungan Hidup- Environmental Impact Assessment (EIA), which contains three sections, the ANDAL, the RKL and the RPL
ANDAL	Analisis Dampak Lingkungan Hidup, a component of the AMDAL that reports the significant environmental impacts of the proposed mining activity
arb	As received basis
AS	Australian Standards
ASR	Average stripping ratio
AusIMM	Australasian Institute of Mining and Metallurgy
bcm	bank cubic meter
BD	Bulk density
CCoW	Coal Contract of Work
CV	Calorific value
Capex	Capital Expenditure
Coal Resource	A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, quality, continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
DGMC	Directorate General of Minerals and Coal within the Ministry of Energy and Mineral Resources
FC	Fixed Carbon
gar	gross as received, a basis on which coal quality is measured
GEAR	Golden Energy and Resource Limited
gm	Gram
h	Hour
ha	Hectare(s)
IM	Inherent Moisture
IPPKH	'Izin Pinjam Pakai Kawasan Hutan' which translates to borrow to use permit in a production forest
IUP or IUPOP	'Izin Usaha Pertambangan' which translates to 'Mining Business Licence'
JORC	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia
k	Thousand
kcal/kg	Unit of energy (kilocalorie) per kilogram

kg	Kilogram
km	Kilometres (s)
km2	Square kilometre(s)
kt	kilo tonne (one thousand tonnes)
L	Litre
m	Meter
lcm	loose cubic metre
lcm	lcm loose cubic metre
M	Million
Mbcm	Million bank cubic metres
Mbcmpa	Million bank cubic metres per annum
MEMR	Ministry of Energy and Mineral Resources within the central government
m RL	metres reduced level
m^3	cubic metre
m/s	metres per second
Mt	Millions of tonnes
NAR	Net as received
Opex	operating expenditure
RD	Relative density
RKL	'Rencana Pengelolaan Lingkungan' - environmental management plan
ROM	Run of Mine
RKL	Relative Level - survey reference for the height of landforms above a datum level
RPL	'Rencana Pemantauan Lingkungan' - environmental monitoring plan
Salva Mining	Salva Mining Pty Limited
SE	Specific Energy
SR	Strip ratio (of waste to ROM coal) expressed as bcm per tonne
t	Tonne
tkm	Tonne kilometre
tpa	Tonnes per annum
TKS	PT Trisula Kencana Sakti
TM	Total Moisture (%)
TS	Total Sulphur (%)
VALMIN	2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports
VM	VM Volatile Matter (%)

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Executive Summary

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare a Summary Independent Qualified Person's Report ("Report") to estimate Open Cut Coal Resources and Reserves for the Trisula Kencana Sakti Ampah Coal Concession ("TKS Ampah Mine" or "TKS Ampah Concession") located in the East Barito Regency of the Central Kalimantan Province, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders a part of continuous disclosure requirements of the company. The Coal Resources and Reserves estimates as of the 31 December 2019 contained within this Report has been reported in accordance to the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

Trisula Kencana Sakti (TKS) Project in Indonesia

The TKS Ampah project is located in the East Barito District, Central Kalimantan Province. The project can be accessed by four-wheeled and two-wheeled vehicles with travel time, approximately 4 hours from Ampah city.

GEAR holds the mining rights of the TKS concession through its subsidiary PT Trisula Kencana Sakti (PT TKS). PT TKS is the beneficial holder of an Operation and Production IUP (IUPOP). The IUPOP was originally executed on 13 August 2009 for 10 years. PT TKS has applied for a 10-year extension.

Geology

The TKS coal concession area lies in the Barito Basin of Central Kalimantan, one of the largest coal-producing regions of Indonesia. According to the published geology, the lease is within an anticlinal structure containing the Tanjung and Montelat formations and Warukin Formations. These rocks are Eocene to Middle Miocene in age and are well known to contain extensive seams of thermal coal. Based on the work to date, a more likely interpretation of the regional geology is that the deposit area is in a syncline where relatively thick seams of Warukin age coal, are surrounded by hills containing older coal seams of the Montelat Formation.

Published geological maps identify coal outcrops of the Montelat Formation and Berai Formation within the TKS Ampah concession. The main features in the concession is a syncline structure over the main deposit area with relatively flat dips and younger sediments in the southern part of the deposit and steeper dips in relatively older sediments in the northern part of the deposit.

Previous Exploration

The TKS Ampah concession has been subject to detailed exploration since 2010 onwards. The exploration activities were targeted to confirm the occurrences of coal seams found by initial exploration campaigns. In total, 222 vertical drill holes has been drilled within the concession. Other exploration activities conducted on TKS concession include topographic mapping, core and outcrop sampling and geological mapping.

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Resource Model Construction

Out of 222 drill holes, 151 holes from the historical exploration programs were excluded as there was insufficient information to validate these drill holes. Remaining, 71 holes have been validated and information used to prepare the geological model. Total cumulative depth of the drilling (validated drill-holes) is 7,163m with an average depth of 100m for each hole.

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the geological software to generate the structural model and coal quality models for each of the resource areas (TKS Ampah North and TKS Ampah South).

Coal quality data has been composited on a seam basis. The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for most coal quality attributes.

Coal Resource

Salva Mining has estimated total Coal Resources of 6.56 million tonnes (Mt) on an in-situ air-dried moisture basis (adb), to a maximum depth of 70 m. The total tonnes are comprised of 1.7 Mt of Measured, 3.0 Mt of Indicated and 1.9 Mt of Inferred Resources.

TKS Ampah North - Coal Resources as of 31 December 2019

Resource	Mass (Mt)	Ash adb%	CVR ar kcal/kg	IM adb%	RD ad	TM ar%	TS adb%	VM adb%
Measured	1.11	10.32	6,852	3.27	1.34	5.57	1.43	41.44
Indicated	2.44	9.17	6,964	3.23	1.33	5.58	1.50	42.56
Inferred	1.22	16.60	6,570	2.02	1.37	3.39	1.76	41.09
Total	**4.77**	**11.34**	**6,837**	**2.93**	**1.34**	**5.02**	**1.55**	**41.92**

(*Note: individual totals may differ due to rounding*)

TKS Ampah South - Coal Resources as of 31 December 2019

Resource	Mass (Mt)	Ash adb%	CVR ar kcal/kg	IM adb%	RD ad	TM ar%	TS adb%	VM adb%
Measured	0.50	2.89	6,871	7.32	1.38	10.61	2.00	42.15
Indicated	0.56	2.90	6,869	7.31	1.38	10.62	2.02	42.15
Inferred	0.67	2.90	6,867	7.29	1.38	10.65	2.03	42.16
Total	**1.72**	**2.90**	**6,869**	**7.31**	**1.38**	**10.63**	**2.02**	**42.15**

(*Note: individual totals may differ due to rounding*)

Mining Operations

The mining operation at TKS Ampah commenced during 2018 and uses standard truck and excavator method which is a common practice in Indonesia. Waste material is mined using hydraulic excavators and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. For the purpose of the Reserve Statement, it is proposed that contractors will be used for mining and haulage operations over the life of mine, and the unit costs used for the Reserve estimate reflect this style of mining.

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Mining Modification factors – Resource to Reserve

This Coal Reserve estimate uses the most recent geological model and the Coal Resources estimate prepared by Salva Mining as of 31 December 2019. Potential open-cut reserves inside different blocks of the project area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. The optimiser was run across a wide range of coal prices using a set of site-specific costs (waste removal, land compensation, coal removal, haulage costs, etc.). These costs were adjusted to suit the conditions for this project.

An economic model was prepared for the mining operation from the TKS Ampah North Block to determine the project breakeven or incremental stripping ratio. No mine plans were developed for the TKS Ampah South Block due to the limited size of Coal Resource.

The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal. Life of mine plan was completed based on the final pit design. This was done to ensure that the proposed mining method would be practical and achievable and that the proposed dumping strategy would be able to contain the waste mined in the final pit design. The mining schedule targeted production of 0.2 Mt in year from the TKS Ampah North Pit.

Pre-feasibility studies were completed prior to applying for the mining operations permit. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being granted mining operations approval (CCoW). This study was further updated in early 2018. Salva Mining has used modifying factors based on the latest feasibility study which were independently validated for reasonableness by Salva Mining's subject specialist.

The coal price estimate was based on Salva Mining's view on the outlook for global thermal coal fundamentals and including the demand and supply outlook for the sector.

Optimised Pit Shell

The optimised pit shells for TKS Ampah North Block as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the TKS Ampah concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. Insitu quantities and mine scheduled tonnes within an optimized pit shell along with Coal Reserves are shown in the table below.

Insitu & Scheduled Quantities & Reserves, TKS Ampah North

Area	Insitu			Mine Scheduled Tonnes within the Optimized Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
TKS Ampah North	22	1.5	14.5	22	1.4	15.6	0.6
TKS Ampah	22	1.5	14.5	22	1.4	15.6	0.6

Coal Reserves

Coal Reserves were estimated by applying appropriate modifying factors and exclusion criteria to the Coal Resources. Surface water management, infrastructure and the location of the IUP boundary were considered when determining the surface constraints for the mining operation. Coal

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Reserves were estimated by applying appropriate density adjustment and mining loss and dilution parameters to the Measured and Indicated Coal Resources inside the final pit design. All the final pits used for the Reserve estimate were designed following the existing geotechnical recommendations and operating practices.

Coal Reserves have been reported in Proved and Probable categories to reflect the reliability of the estimate. The total Coal Reserve for the TKS Ampah North Block as of 31 December 2019 is estimated as 0.6 Mt comprising of 0.2 Mt Proved and 0.4 Mt Probable categories. ROM Coal Reserves for TKS Ampah coal concession along with the estimated quality is presented in table below.

TKS Ampah Coal Concession - Coal Reserves as of 31 December 2019

TKS Ampah Pits	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar) Kcal/kg	TS adb%
North Pit	0.2	0.4	0.6	1.34	8.8	3.9	6.9	6,829	1.31
TKS Ampah	**0.2**	**0.4**	**0.6**	**1.34**	**8.8**	**3.9**	**6.9**	**6,829**	**1.31**

Note: individual totals may differ due to rounding
This table must be presented with the entire JORC Reserve Statement

No beneficiation of coal product is planned as such marketable coal is the same as the Run of Mine (ROM) coal.

This Report may only be presented in its entirety. Parties wishing to publish or edit selected parts of the text, or use the Report for public reporting, must obtain prior written approval from Salva Mining and the signatories of this Report.

1 Introduction

Golden Energy and Resources Limited ("GEAR" or "Client") has engaged Salva Mining Pty Limited ("Salva Mining") to prepare a Summary Independent Qualified Person's Report ("Report") to estimate Open Cut Coal Resources and Reserves for the Trisula Kencana Sakti Ampah Coal Concession ("TKS Ampah Mine" or "TKS Ampah Concession") located in the East Barito Regency of the Central Kalimantan Province, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders a part of continuous disclosure requirements of the company. The estimate of Coal Resources and Reserves as of the 31 December 2019 contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

The TKS Ampah concession is beneficially owned and controlled by GEAR. The effective date of this Report is 31 December 2019, the date on which the Resource was estimated.

1.1 Data sources

This review is based on the information provided by GEAR and PT TKS, the technical reports of consultants and previous explorers, as well as other published and unpublished data relevant to the area. Salva Mining has carried out, to a limited extent, its own independent assessment of the quality of the geological data. The status of agreements, royalties or concession standing pertaining to the assets was advised by GEAR to be in good standing and was relied on by Salva Mining.

In developing our assumptions for this Report, Salva Mining has relied upon information provided by the company and information available in the public domain. Key sources are outlined in this Report and all data included in the preparation of this Report has been detailed in the references section of this Report. Salva Mining has accepted all information supplied to it in good faith as being true, accurate and complete, after having made due enquiry as of 31 December 2019.

1.2 Limitations

After due enquiry in accordance with the scope of work and subject to the limitations of the Report hereunder, Salva Mining confirms that:

- The input, handling, computation and output of the geological data and Coal Resource information has been conducted in a professional and accurate manner, to the high standards commonly expected within the mining professions;
- The interpretation, estimation and reporting of the Coal Resource Statement has been conducted in a professional and competent manner, to the high standards commonly expected within the Geosciences and mining professions, and in accordance with the principles and definitions of the JORC Code (2012);
- In conducting this assessment, Salva Mining has addressed and assessed all activities and technical matters that might reasonably be considered relevant and material to such an assessment conducted to internationally accepted standards. Based on observations and a review of available documentation, Salva Mining has, after reasonable enquiry, been satisfied that there are no other relevant material issues outstanding;

- The conclusions presented in this Report are professional opinions based solely upon Salva Mining's interpretations of the documentation received and other available information, as referenced in this Report. These conclusions are intended exclusively for the purposes stated herein;
- For these reasons, prospective investors must make their own assumptions and their own assessments of the subject matter of this Report.

Opinions presented in this Report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this Report, about which Salva Mining have had no prior knowledge nor had the opportunity to evaluate.

1.3 Disclaimer and warranty

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report or the success or failure for the purpose for which the Report was prepared. Neither Mr Manish Garg, nor any of the Salva Mining's partners (including Mr. Garg), directors, substantial shareholders and their associates have (or had) a pecuniary or beneficial interest in/or association with any of the GEAR or their directors, substantial shareholders, subsidiaries, associated companies, advisors and their associates prior to or during the preparation of this Report.

Mr Manish Garg, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

A draft version of this Report was provided to the directors of GEAR for comment in respect of omissions and factual accuracy. As recommended in Section 39 of the VALMIN Code, GEAR has provided Salva Mining with an indemnity under which Salva Mining is to be compensated for any liability and/or any additional work or expenditure, which:

- Results from Salva Mining's reliance on information provided by GEAR and/or Independent consultants that are materially inaccurate or incomplete, or
- Relates to any consequential extension of workload through queries, questions or public hearings arising from this Report.

The conclusions expressed in this Report are appropriate as of 31 December 2019. The Report is only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values outlined in this Report are expressed in United States dollars ($) unless otherwise stated. Salva Mining services exclude any commentary on the fairness or reasonableness of any consideration in relation to this acquisition.

1.4 Independent Qualified Persons Statement

This Summary Independent Qualified Persons Report including reporting of Coal Resources and Reserves has been written following the guidelines contained within the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code") and the 2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Experts Reports ("the VALMIN Code"). It has been prepared under the supervision of Mr Manish Garg (Director – Consulting /

Partner, Salva Mining) who takes overall responsibility for the Report and is an Independent Expert as defined by the VALMIN Code.

Sections of the Report which pertain to Coal Resources have been prepared by Mr Sonik Suri (Principal Consultant, Geology) who is a subject specialist and a Competent Person as defined by the JORC Code. Sections of the Report which pertain to Coal Reserves have been prepared by Dr Ross Halatchev (Principal Consultant, Mining) who is a subject specialist and a Competent Person as defined by the JORC Code.

This Report was prepared on behalf of Salva Mining by the signatory to this Report, assisted by the subject specialists' competent persons whose qualifications and experience are set out in Appendix A of this Report.

Mr Manish Garg
Director
Salva Mining Pty Limited

1.5 Statement of Independence

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report. The above-mentioned person(s) have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Report.

Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

Neither Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev nor any of the Salva Mining's partners (including Mr. Garg), directors, substantial shareholders and their associates have (or had) a pecuniary or beneficial interest in/or association with any of the GEAR, or their directors, substantial shareholders, subsidiaries, associated companies, advisors and their associates prior to or during the preparation of this Report.

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2 Project Description

2.1 Location and Access

The TKS Ampah project is located in the East Barito District, Central Kalimantan Province. The project can be accessed by four-wheeled and two-wheeled vehicles with travel time, approximately 4 hours from Ampah city.

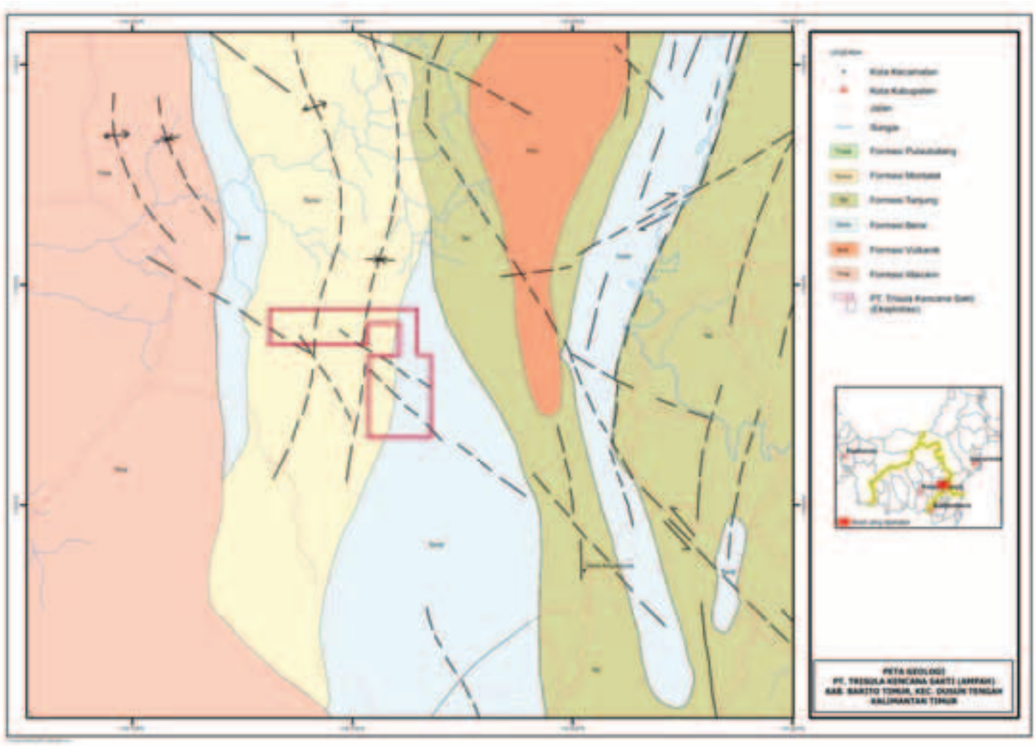
Figure 2:1 Location of TKS Project

The TKS Ampah Project is located between 115 ° 13 '07 "- 115 ° 16' 27.80" East Longitude and -01 ° 50 '33 "- -01 ° 53' 28.3" South Latitude. Concession co-ordinates are shown in Table 2:1.

Table 2:1 TKS Concession Co-ordinates

Point No.	Longitude (BT)			Latitude (LS)		
	Degree	Minute	Seconds	Degree	Minute	Seconds
1	115	13	7	1	50	33
2	115	17	18	1	50	33
3	115	17	18	1	52	9
4	115	18	55	1	52	9
5	115	18	55	1	54	0
6	115	14	55	1	54	0
7	115	14	55	1	51	21.25
8	115	13	7	1	51	21.25

Figure 2:2 TKS Ampah Concession



2.2 Ownership and Tenure

GEAR holds the mining rights to the TKS Ampah concession through its subsidiary PT Trisula Kencana Sakti (PT TKS).

Tenure at the TKS Ampah concession is held under the Izin Usaha Pertambangan Operation and Production (IUPOP) license. The IUPOP was originally executed on 13 August 2009 for 10 years. PT TKS has applied for a 10-year extension. The detail of the coal concession is given in Table 2:2.

Table 2:2 TKS Concession Details

Concession Number	Concession Type	Area (ha)	Status	Expiry Date	GEAR Holding*
TKS Coal Indonesia – 570/2009	IUP- Operation and Production	1,748	Granted 1st Extension	13 August 2019 14 August 2026	46.8999%

*GEMS have 70% shares in TKS and GEAR has 66.9998% shares in GEMS

GEAR has advised that TKS Ampah has complied with all applicable environmental regulations and there are no pending investigations by government agencies on environmental issues.

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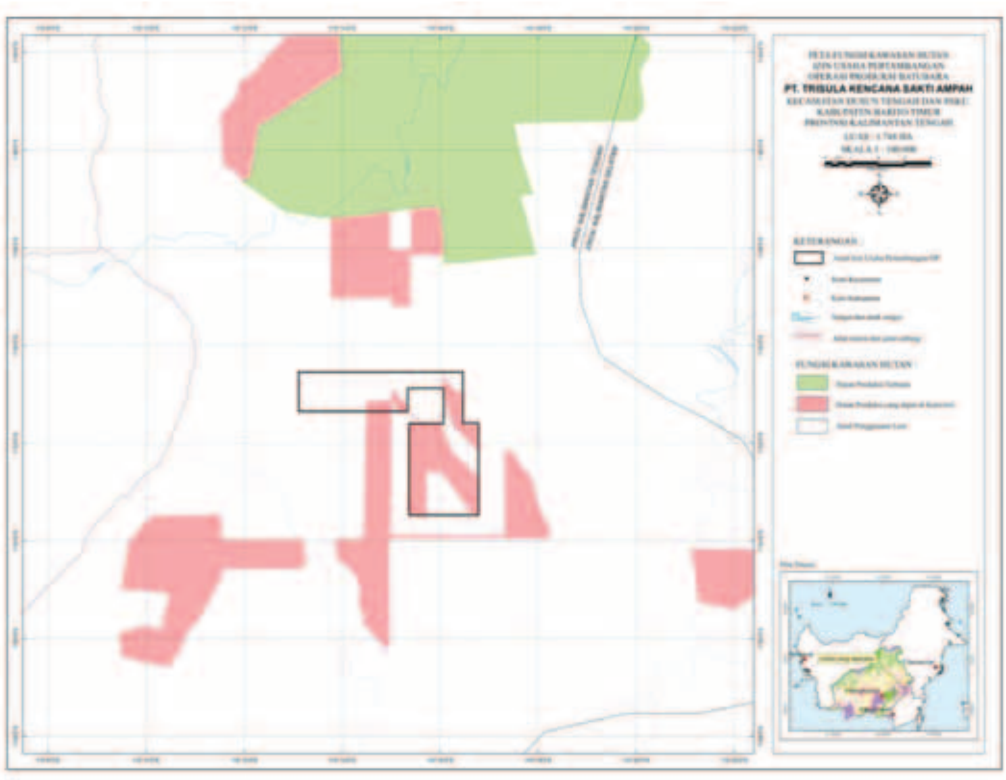
2.3 Forestry Status

Parts of the TKS Ampah concession are within a designated Production Forest (Figure 2:3) that can be converted, and therefore a Forestry Borrow and Use Permit (IPPKH) is required for mining operations. GEAR has advised that these permits are in place for areas surrounding immediate production areas.

Figure 2:3 Forestry Status, TKS Ampah Concession



3 Geology

3.1 Regional Geology

The concession lie in the Barito Basin of Central Kalimantan. The Barito Basin is a Tertiary-aged basin located in the southeastern part of Schwaner Shield in South Kalimantan. The Barito Basin is defined by the Meratus Mountains to the east and separated from the Kutai Basin to the north by a flexure parallel to the WNW-ESE orientated Adang Fault. The Barito Basin began to develop in the Late Cretaceous following a micro-continental collision between the Paternoster and the SW Borneo microcontinents (Darman and Sidi, 2000). Early Tertiary extensional deformation occurred as a tectonic consequence of that oblique convergence, producing a series of NW-SE trending rifts.

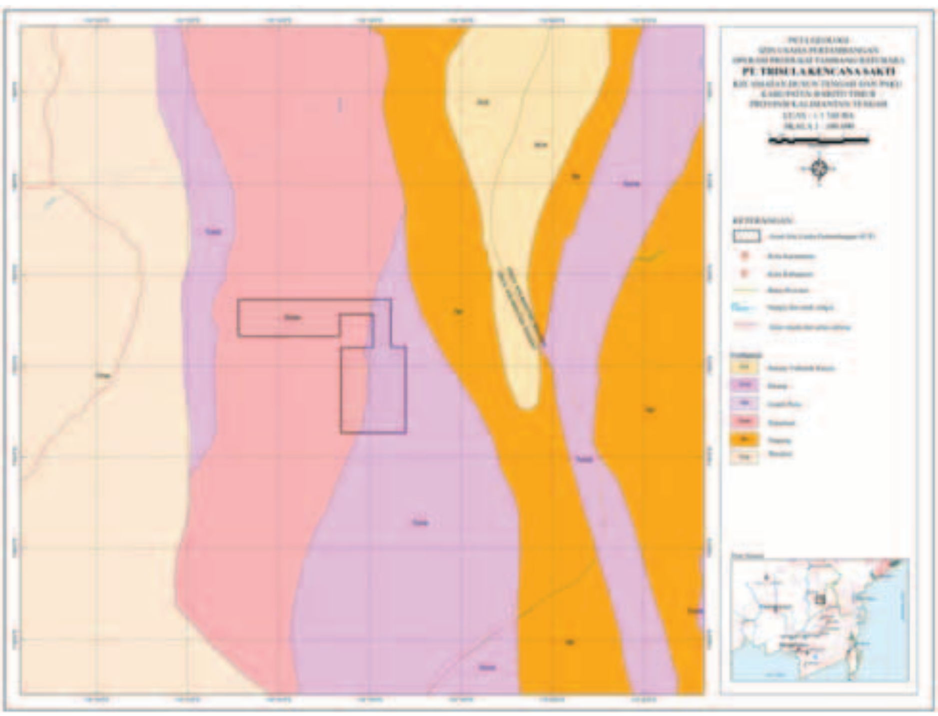
In general, the stratigraphy of the Barito Basin from young to old in the sequence is the Dahor Formation, the Warukin Formation, the Berai Formation, the Montalat Formation, and the Tanjung Formation.

3.2 Local Geology

Published 1:250,000 scale geological maps identify coal outcrops of the Montalat Formation and Berai Formation within the TKS Ampah concession (Figure 3:1).

The main features in the concession is a syncline structure over the main deposit area with relatively flat dips and younger sediments in the southern part of the deposit and steeper dips in relatively older sediments in the northern part of the deposit.

Figure 3:1 TKS Ampah - Local Geology



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4 Exploration

In investigating the potential of minerals, the concession was divided into two blocks, namely:

- TKS Ampah North Block; and
- TKS Ampah South Block.

4.1 Previous Exploration

The TKS Ampah concession has been subject to detailed exploration since 2010 onwards. The exploration activities were targeted to confirm the occurrences of coal seams found by initial exploration campaigns. Following sections detail the previous exploration activities conducted on the concessions.

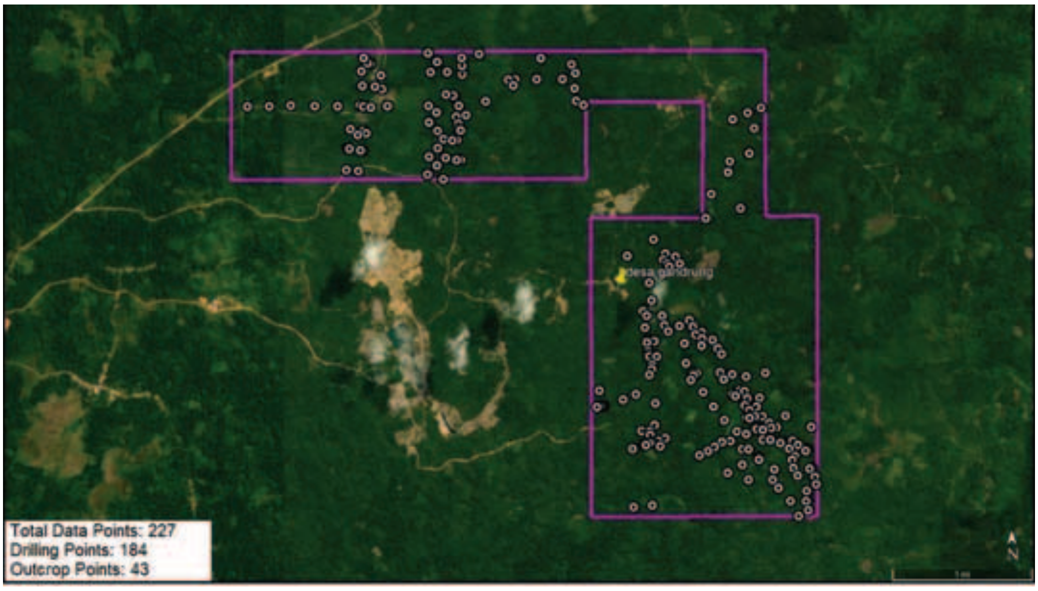
4.1.1 Geological Mapping

Geological mapping within the concession was carried out targeting areas where there was no previous exploration work done. The mapping work was used to determine the overall geological structure of the concession and to optimise the positioning of potential future drill holes.

4.1.2 Early Exploration Drilling

Prior to 2012, a total of 184 vertical drill hole have been drilled within the concession (144 in TKS Ampah South area and 40 in TKS Ampah North area) (Figure 4:1).

Figure 4:1 TKS Ampah – Historical Drilling Location



Out of 184 drill holes, 151 holes (144 in TKS Ampah South and 7 in TKS Ampah North) from the historical exploration programs were excluded from this resource estimation as there was insufficient information to validate the holes.

4.2 Recent Exploration Drilling

A total of 38 vertical drill hole have been drilled within the concession during 2017 (7 in TKS Ampah South area and 31 in TKS Ampah North area). To ensure the most accurate and reliable results from the drilling downhole geophysical logging was used to validate coal seam pick.

Figure 4:2 TKS Ampah – Recent Drilling

4.2.1 Topographic Mapping

Detailed topographic mapping using airborne LiDAR survey method to a 1:1000 scale was carried out. All drill hole collars were also picked up by ground survey using total station survey equipment.

4.3 TKS Ampah Sub Blocks – North & South

TKS Ampah North Block is located in the northern part of the TKS concession, the coal layer is a fold of anticline and syncline with a slope of 15 ° - 30 °. The number of coal seams in this block is 17 layers with thicknesses ranging from 0.25 - 1.5 meters.

TKS Ampah South Block is located in the southern part of the TKS concession, the coal layer is an enlarged subduction syncline fold. In this block, there are 5 layers of coal with 1 layer namely seam 3 separated into 2 layers on the outcrop side.

4.3.1 Coal Seam Occurrences – TKS Ampah North

The deposit at TKS Ampah North contains 17 modelled coal seams (Table 4:1) of which 4 have been split into upper and lower plies. The coal layer is a fold of anticline and syncline with a slope of 15 ° - 30 °. The S100, S200 and S250 seams are the most significant economic grouping with an average of 2.5 m of combined coal thickness.

Table 4:1 TKS Ampah North - Seam Splitting Relationships

Master Seam	1st Phase Splitting	2nd Phase Splitting
Seam 40		
Seam 50	50U	
	50L	
Seam 100	100U	
	100L	
Seam 120		
Seam 130		
Seam 140		
Seam 150		
Seam 200	200U	200UU
		200UL
	200L	
Seam 240		
Seam 250		
Seam 300	300U	
	300L	
Seam 400		

4.3.2 Coal Seam Occurrences – TKS Ampah South

The deposit at TKS Ampah South contains 5 modelled coal seams (Table 4:2) of which 1 have been split into upper and lower plies. The S3 and S4 seams are the most significant economic grouping with an average of 1.2-1.3 m of combined seam thickness.

Table 4:2 TKS Ampah South - Seam Splitting Relationships

Master Seam	1st Phase Splitting
Seam 1	
Seam 2	
Seam 3	Seam 3U
	Seam 3L
Seam 4	
Seam 5	

Figure 4:3 shows the diagrammatic cross-sections to demonstrate the geological structure.

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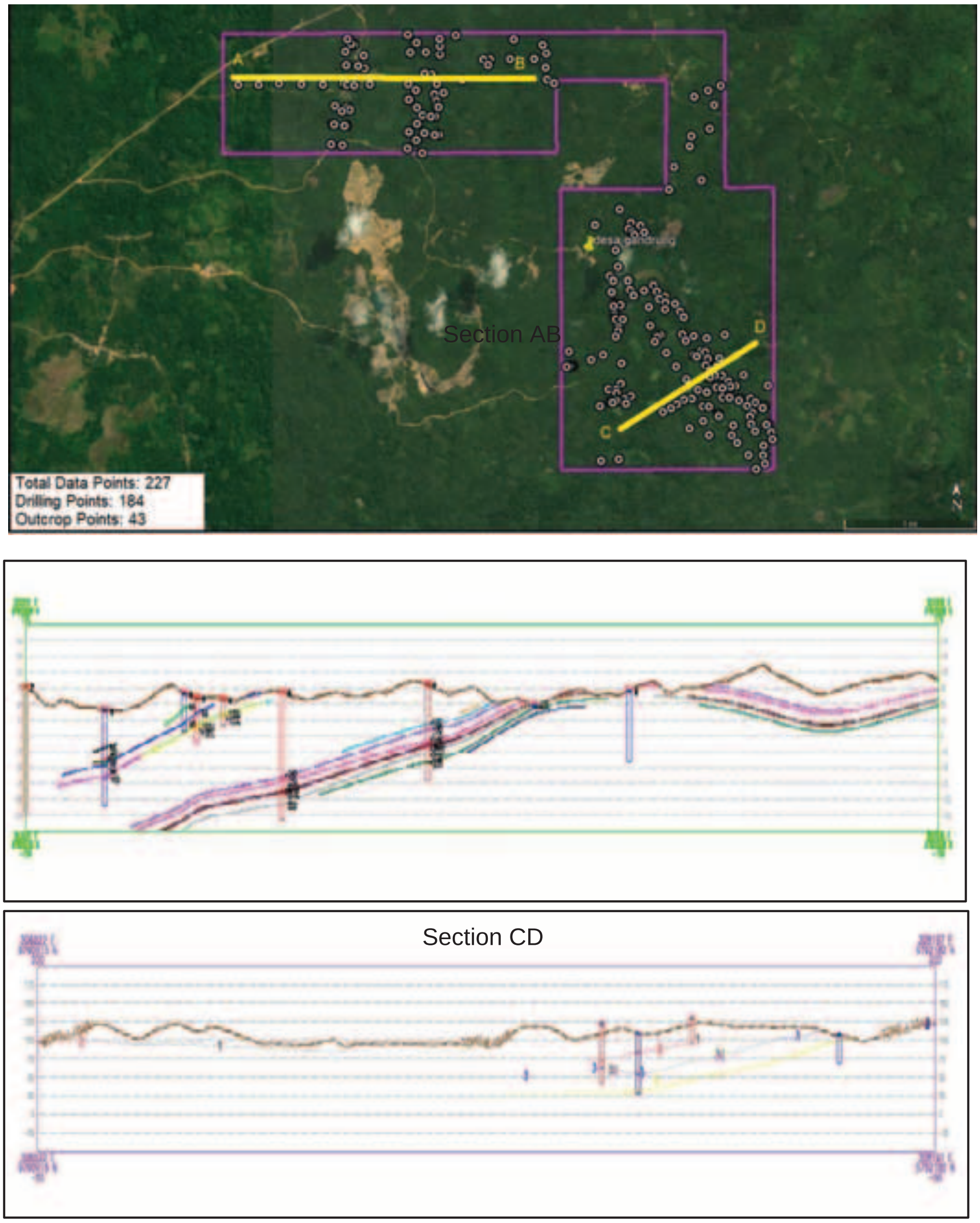
Figure 4:3 TKS Ampah – Coal Seam Cross Section



5 Resource Modelling

The geological data provided by PT TKS for the TKS Ampah concession was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources.

5.1 Lithological Data

In total, 222 holes have been validated but only 71 drill holes were used in this Report after rejecting 151 drill holes due to lack of complete information. Total cumulative depth of the validated drilling for these 71 drill holes is 7,163 m (Table 5:1).

Table 5:1 TKS Ampah – Drilling

	Drilling - Pre-2012	Drilling - New	Drill holes - Total	Drill holes - Rejected	Drill holes - Used	Drilling (Mts)
North	40	31	71	7	64	6641.6
South	144	7	151	144	7	521.1
Total	**184**	**38**	**222**	**151**	**71**	**7162.7**

Drill holes were interpreted from softcopy geophysical logs (LAS). 100% of the holes used have been logged using down-hole geophysics. Down-hole geophysical data acquired by PT TKS is predominantly comprised of gamma, density and calliper logs and has allowed for accurate identification of coal seams in each hole (seam picks) and the correlation of coal seams between holes.

5.2 Topographic Survey

A topographic survey was carried out using both Total Station and Airborne Lidar. The drill collar survey and the LiDAR showed some difference which was adjusted to match the LiDAR which meant an overall average adjustment of approximately +1m in elevation.

5.3 Data Quality Assurance and Quality Control (QAQC) Measures

5.3.1 Core Sampling

At the completion of each run, core lengths were checked in the splits for recovery to ensure coal seams have been recovered as required. A target core recovery of 90% has been applied throughout all drilling phases. The core was also photographed routinely and logged in the splits by a geologist before being sampled. For open holes, chip samples were collected at 1 m intervals for lithological logging purposes.

The coal quality sampling technique detailed above is considered by Salva Mining to adequately address the QAQC requirements of coal sampling. As a further coal quality validation step prior to importing coal quality sample results for coal quality modelling purposes, Salva Mining constructed spreadsheets which compare the sampled intervals against the logged seam intervals in order to ensure that sampled intervals match the seam pick intervals.

5.3.2 Down-hole Geophysics and Seam Picks

Down-hole geophysical logs were completed during each drilling program by PT Surtech Indonesia. Logging was performed on the drill holes (including cored and open holes) used in the development of the current resource model and 100% of drill holes have geophysical data. Seam picks and lithologies have all been corrected for geophysics.

5.3.3 Coal Quality

Coal quality sampling was undertaken by PT TKS and contract geologists, with the analysis testing being completed by PT Geoservices laboratories in Banjarbaru near Banjarmasin. PT Geoservices laboratories are accredited to ISO 17025 standards.

5.3.4 Data validation by Salva Mining prior to geological model construction

Prior to using the lithological (seam pick) and coal quality data for geological model construction purposes, Salva Mining performed the following data validation and verification checks on the data;

- Checking of seam picks against the down-hole geophysics in selected instances in order to validate seam pinch outs or correlations during structural model construction.
- Validation of coal quality sample intervals against seam pick intervals
- Scatter plots of raw coal quality data pairs were constructed in order to determine outliers. In a few cases, spurious data values were identified and removed from the quality data set prior to importing the data.
- In cases where RD (adb) data was not determined for a sample, linear regression equations determined from the RD-ash scatter plot constructed from the rest of the raw coal quality data set were used to determine the RD value for the sample concerned from the ash value for that sample.
- Core recovery percentages per core run were compiled and merged with the coal quality sample data set in order to determine if any samples in the coal quality data set are from coal seam intersections with less than 90% core recovery over the seam width. Core recovery was observed to be satisfactory with over 90% recovery within the coal horizon although less than 90% recovery is often seen in the immediate roof or floor to the coal seam.
- During the importation of coal quality samples and associated raw coal quality data into the geological modelling software, a few instances of overlapping samples were identified and these were corrected and the samples re-imported
- After compositing the coal quality samples over the seam width on a seam by seam basis, histograms were constructed of the composited raw coal quality for each seam. Analysis of these histograms shows that in a few instances, raw ash% outliers are present as a result of the excessive overlap of the coal quality sample into the seam roof or floor. In the majority of such instances, the proportion of outlier composite samples is very small compared to the total number of samples per seam and hence the presence of these outliers has no material impact on the modelled raw coal quality for affected seams.

5.4 Coal Density

No information on in situ moisture was obtained from the laboratory, resulting in the fact that the Preston and Sanders equation could not be applied to obtain in situ relative densities. As a result, all resource tonnages are quoted on an in-situ air-dried density basis, as volumes are calculated on an in-situ basis and density on an air-dried basis. However, the density of in situ coal is in reality not at an air-dried basis but at higher moisture in situ moisture basis. The estimate of resources on an air-dried basis will, therefore, result in a higher tonnage as compared to the equivalent in situ moisture basis calculation. This effect has been accounted for to a large extent in the reserving process, where the total moisture has been used as proxy for the in-situ moisture and a Preston Sanders calculation has been made on this basis. However, given the unknown accuracy of this approximation, this calculation was not done at the resource stage, preferring rather use the more accurately known air-dried density and state the moisture basis used in the resource.

5.5 Coal Quality Data

Within the TKS concession, Warukin and Montelat Formation coals are classified as a high energy bituminous class A coal (ASTM – Guidebook of Thermal Coal page 35).

5.6 Resource Modelling

5.7 Structural Model

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the geological software to generate structural and coal quality models for each of the five resource areas.

The topographic model for each block was constructed by importing the cap topography grid models for each area. These topography models describe both virgin topography.

The lithological data was then modelled to create structural grids. The schema, stored within the Stratmodel module of the geological software controls the modelling of seam elements and their structural relationships, grid model cell size, interpolators and other parameters. The details of these parameters stored in the applied schemas used in the structural modelling process are listed in Table 5:2.

Within the modelling schema, all of the stratigraphic intervals were modelled with pinched continuity. This is applied in areas where intervals are missing in a drill hole. In this situation, the modelling algorithm stops the interpolation of the missing interval halfway between the two drill holes between which it ceases to be present.

5.7.1 Structural Model Validation

Structural and thickness contours were generated and inspected to identify any irregularities, bulls-eyes, unexpected discontinuities etc. Cross-sections were also generated to identify any further structures such as faulting and any areas where seams were modelled as being discontinuous due to short drilling.

Table 5:2 Model Schema Settings and Parameters

Model Component	Details
Schema	AmpahN, AmpahS
Topography Model	Topo_N, Topo_S
Topography Model Cell Size	50 m
Structural Model Cell Size	50 m
Interpolator (thickness)/order	Finite Element Method (FEM)/0
Interpolator (surface)/order	Finite Element Method (FEM)/1
Interpolator (trend)/order	Finite Element Method (FEM)/0

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Model Component	Details
Seam Continuity	Continuous
Extrapolation Distance	5000 m
Parting Modelled	No
Minimum Ply Thickness	10 cm
Minimum Coal Parting	30 cm or otherwise not defined
Conformable Sequences	Weathered, Fresh
Upper Limit for Seams	Base of Weathering (BOW)
Control Points	Yes
Constraint File	No
Penetration File	Yes
Model Faults	No
Maximum Strip Ratio	-
Maximum Resource Depth	100 m
Tonnage Calculations	Based on volumes using relative density on an air-dried basis

5.8 Coal Quality Model

Coal quality data has been composited on a seam basis. The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for most coal quality attributes and it is also less likely to introduce spurious trends into the data. Testing indicated that a power value of two and a search radius of 2500 metres are the most suitable inverse distance interpolation parameters for modelling of the TKS coal deposits. Parameters used for quality modelling are summarized in Table 5:3.

Table 5:3 Quality Model Parameters

Model Component	Details
Coal Quality Data Type	Raw
Interpolator	Inverse distance
Power	2
Search Radius	2500 metres

5.9 Quality Model Validation

After the completion of quality model gridding, selected qualities for selected seams were contoured and inspected to ensure that quality models had been gridded correctly. As a second validation measure, average qualities reported during resource reporting for all seams were compared against the average qualities of the input data to ensure consistency between input and output data sets.

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6 Coal Resources

6.1 Resource Classification and Prospects for Eventual Economic Extraction

Coal Resources present in the TKS Ampah concession have been reported in accordance with the JORC Code, 2012. The JORC Code identifies three levels of confidence in the reporting of resource categories. These categories are briefly explained below.

Measured – "...*That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors to support detailed mine planning and financial evaluation*";

Indicated – *"…That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors in sufficient detail to support mine planning and evaluation"; and*

Inferred – *"…That part of a Mineral Resources for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling.".*

In terms of Coal Resource classification, Salva Mining is also guided by the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) (The Coal Guidelines) specifically referred to under clause 37 of the JORC Code (2012). Resource classification is based on an assessment of the variability of critical variables (raw ash% and seam thickness) through statistical analysis and by an assessment of the geological continuity and input data quality.

Consequently, Salva Mining has sub-divided Coal Resources within the TKS Ampah concession into resource classification categories based on the following spacing's (expressed as a radius of influence around points of observation which is half of the spacing between points of observation):

- The measured radius of influence of 250 m;
- The indicated radius of influence of 500 m;
- The inferred radius of influence of 750 m.

6.1.1 Assessing Confidence

Several factors outlined in Section 5 of the Coal Guidelines (2014), were considered when assessing confidence in the estimate and classifying the Coal Resource in accordance with the JORC Code (2012). A summary of factors considered is shown below in Table 6:1.

A qualitative review of modelled seam floor elevation and thickness contours, statistical analysis of thickness and coal quality attributes, domaining and general geological setting all show that the seams within the TKS Ampah concession appear to display a relatively moderate degree of continuity, allowing for a moderate level of drilling density for the same level of confidence as compared to a more complex/less continuous coal deposits. The main risk factor in terms of confidence in the resource estimate is considered to be coal quality. There is an estimated 15% overestimation of tonnes due to the use of an air-dried density instead of an in-situ density as discussed in section 5.5.

Table 6:1 Criteria considered to assess confidence in the Resource Estimate

Assessing Confidence	Comment	Assessment Summary	Risk Rating (H, M,L)
Critical assessment of local, geographical and geological settings	*In general the coal seams within the TKS Ampah deposit are characterised by a high degree of lateral continuity, allowing for confidence in correlation between holes. There is no evidence of major faulting in the tenement.*	Moderate continuity, benign structure.	M
Identifying critical data	*Seam thickness and raw ash are seen as critical data, thickness being the main factor determining coal volume and raw ash being directly related to both relative density and product coal yield.*	Raw ash was seen as more variable than thickness and hence determining factor for classification.	L
Data Analysis, error and verification	*Internal standards and procedures used for drilling logging and sampling. Lab uses internal QAQC standards and is ISO 17025 accredited.*	Salva Mining used internal checks to data (histograms, global statistics, scatter plots) during modelling to verify data. Apart from some low core recoveries which were evaluated and found to be a true reflection of the input data and no evidence of coal quality bias resulting from poor core recovery was observed.	L
Domaining	*Raw ash% histograms, floor and thickness contours used to investigate domaining*	Domains adequately addressed by modelling parent and daughter seams were present and assigning coal quality accordingly.	L
Statistical Analysis	*Global statistics for thickness and all raw coal quality attributes generated as well as raw ash histograms*	Global statistics were prepared and reviewed. It shows values in expected normal ranges. Classification spacings used for this estimate are in line with those used previously by Salva Mining for other coal deposits elsewhere in the Central Kalimantan basin.	L

Assessing Confidence	Comment	Assessment Summary	Risk Rating (H, M,L)
Geological Modelling	*3D geological model constructed using dedicated stratigraphic modelling software.*	The geological model appears to be a good representation of the input drill hole intercept data.	L

6.1.2 Eventual Economic Extraction

It is furthermore a requirement of the JORC Code (2012) that the likelihood of eventual economic extraction is considered prior to the classification of coal resources.

TKS Ampah is an operating mine where coal production commenced in 2018. The average coal quality attributes of the coal seams considered are sufficient to be marketed as a premium high CV thermal coal (but with high Sulphur) for power generation and cement industry usage purposes. Therefore, Salva Mining considers that it is reasonable to define all coal seams within the classification distances discussed above, to a depth of 70m below the topographic surface, as potential open-cut coal resources.

6.2 Coal Resources

The Coal Resources which have been estimated, have been classified and reported according to the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal Resources as of 31 December 2019 are detailed in Table 6:2 and Table 6:3.

Table 6:2 TKS Ampah North - Coal Resources as of 31 December 2019

Resource	Mass (Mt)	Ash adb%	CVR ar kcal/kg	IM adb%	RD ad	TM ar%	TS adb%	VM adb%
Measured	1.11	10.32	6,852	3.27	1.34	5.57	1.43	41.44
Indicated	2.44	9.17	6,964	3.23	1.33	5.58	1.50	42.56
Inferred	1.22	16.60	6,570	2.02	1.37	3.39	1.76	41.09
Total	**4.77**	**11.34**	**6,837**	**2.93**	**1.34**	**5.02**	**1.55**	**41.92**

(*Note: individual totals may differ due to rounding*)

Table 6:3 TKS Ampah South - Coal Resources as of 31 December 2019

Resource	Mass (Mt)	Ash adb%	CVR ar kcal/kg	IM adb%	RD ad	TM ar%	TS adb%	VM adb%
Measured	0.50	2.89	6,871	7.32	1.38	10.61	2.00	42.15
Indicated	0.56	2.90	6,869	7.31	1.38	10.62	2.02	42.15
Inferred	0.67	2.90	6,867	7.29	1.38	10.65	2.03	42.16
Total	**1.72**	**2.90**	**6,869**	**7.31**	**1.38**	**10.63**	**2.02**	**42.15**

(*Note: individual totals may differ due to rounding*)

6.3 Comparison with Previous Estimates

Table 6:4 shows a breakdown of the difference in resource tonnes for the TKS Ampah concession between the latest and the previous estimates. The decrease in Resource between December 2018 and December 2019 is due to the mine production.

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Table 6:4 Coal Resources - Comparison with the Previous Estimate

Resource Category	Salva Mining Dec 2019 (Mt)	Salva Mining Dec 2018 (Mt)
Measured	1.61	1.67
Indicated	3.00	3.00
Total M&I	**4.61**	**4.67**
Inferred	1.89	1.89
Total	**6.50**	**6.56**

7 Reserves Estimation

7.1 Estimation Methodology

Salva Mining prepared the Coal Resource estimate for TKS Ampah Concession coal deposit as of 31 December 2019 which is used as a basis for the Coal Reserve estimate.

The Coal Reserves estimates presented in this Report are based on the outcome of pit optimisation results and the Techno-economic study carried out by Salva Mining (based on previously completed feasibility studies) and the current operating practices. The mining schedule for the TKS Ampah concession blocks includes an open-cut mine with a target coal production of 0.2 Mtpa.

Salva Mining considers the mine plan and mining schedule is techno-economically viable and achievable. This has been done by reviewing all the modifying factors, estimating reserves in the pit shell and developing a strategic production schedule and economic model which confirms a positive cash margin using the cost and revenue factors as described below in this Report.

7.2 Mine Operations

The TKS Ampah Project is designed as a source for supplying coal to power and cement plants. TKS Ampah Mine was commissioned in 2018 and is planned to have a peak capacity of 0.2 Mtpa.

The purpose of the mine plan was to create a mining sequence that ensures reliable delivery of the coal product to the ROM stockpile from road haulage to the barging point. The mine plan scenario has targeted ramping up production rates for 5 years of mining operation based on the direct input from TKS Ampah. The annual coal supply was optimised based on the minimum required energy of 6,322 kcal/kg (gar) within the mined Coal Reserve tonnage. This plan had to be accounting for the practical mining constraints to ensure the sufficient working room and the dump capacity to accommodate all waste material mined at each stage plan. Monthly and quarterly fluctuations in waste removal, coal exposure and inventory levels will need to be managed through short term planning process.

Coal is proposed to be sold to international coal traders on the River Jetty stockpile basis.

7.3 Mining Method

Based on the observations made on the characteristic of the TKS Ampah coal deposit in the previous section, it is assumed that an "open cut, multi seams and low degree dips with a standard truck and excavator in a haul back operational system" will be most appropriate and selected for TKS Ampah coal project. This method is well proven and has become a common mining practice in Indonesia.

Initial box-cut will be developed by mining the waste material using relatively small-sized (50t operating weight) hydraulic excavators, loaded onto standard rear tipping off-highway trucks then hauled to ex-pit dumps in close proximity to the pits. After sufficient mined out space created, the mined waste will be subsequently dumped in-pit using haul back methodology and the ex-pit dump area is then rehabilitated. Coal mining will be undertaken by small-sized (34 – 40t) excavators with flat-bladed buckets to ensure the minimum dilution and greater mining recovery.

Given the shallow nature of the deposit, the underground mining method is not considered for the purpose of this study, hence the term "Open Cut" Coal Reserve Statement. The contractor is

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proposed to be used for carrying out the mining operations over the life of mine. The unit costs assumption used for the Reserve estimate reflect this style of mining.

Figure 7:1 TKS Ampah – South Pit

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7.4 Mine Production

The actual production for 2019 was 0.07 Mt from the TKS Ampah South Pit. The production from the TKS Ampah Mine is shown in Table 7:1.

Table 7:1 Production from TKS Ampah Mine (Mtpa)

Pits	2018	2019
South Pit	0.05	0.07
Total	**0.05**	**0.07**

7.5 Previous Studies

Various studies have been completed at the TKS Ampah project including a detailed feasibility study. Table 7:2 outlines the previous studies completed.

Table 7:2 Previous Studies

Studies / Factors	Year
Study for the award of IUPOP	2005
Environmental Impact Study (ANDAL)	2005
Pre-Feasibility Study	2010
Topographical Survey Study	2017
Geotechnical Study for Pit Design	2018
Hydrology & Hydro-geological Study	2018
Feasibility Studies	2018

7.5.1 Hydrological Studies and Surface Water Management

A detailed Hydrological and geohydrological studies for the deposit was completed to address water coming from rainwater, runoff and groundwater as part of the feasibility studies.

In that study, rainfall data was analysed on a monthly and seasonal basis and wet season at the site was identified to occur between November and April.

Pit water management is of critical importance to the effective operation of the mine. Dewatering will require well-constructed pit sumps and efficient drainage from operating areas into the sump. The overall strategy for water management over the life of mine will be to:

1. Minimise surface water entering the pit by:

- Building dams and drains to divert water from external catchments away from pits; and
- Profiling dumps so that water is diverted away from the pits.

2. Removing water from excavations by:

- Constructing the main sump at the deepest point of each pit and draining all in-pit water to that sump; and
- Installing sufficient pumps and pipes of a suitable size to pump water from the pit. Two-stage pumping will be required in deeper areas in the later years of the mine life.

It is planned that the dewatering pumps will be designed to handle the peak dewatering requirements. Two centrifugal pumps of 230 kW power capacity were recommended as part of this hydrological study.

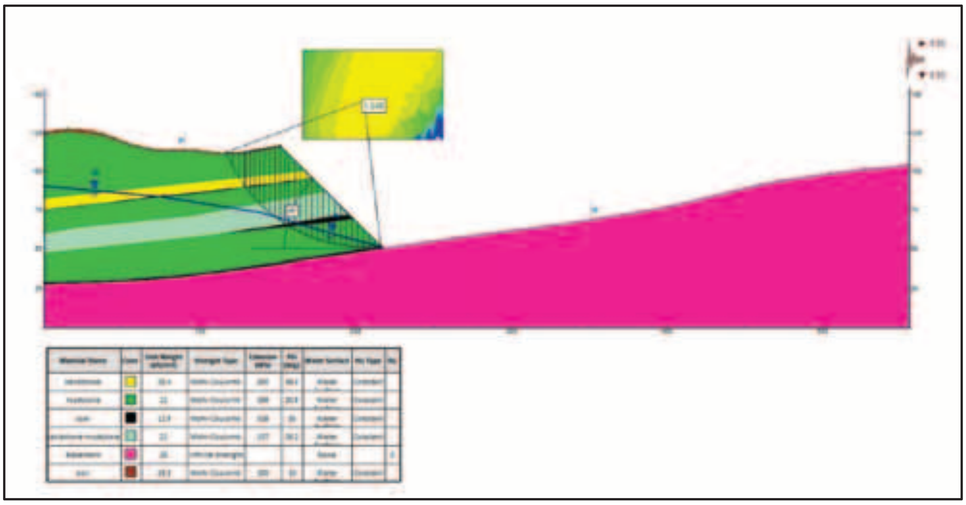
7.5.2 Geotechnical Studies

Highwall

A detailed geotechnical study for the deposit was completed as part of feasibility studies. The geotechnical testing produced data on material properties to be used for mine planning, especially in determining the safe dimensions of slopes (angles, heights, and widths) for coal extraction (both highwall and low-wall) and overburden slopes.

Figure 7:2 below describes the summary of the pit and disposal geometry study result, and for more detailed information.

Figure 7:2 Geotechnical simulation for the slope of 45°, a Safety factor of 1.54



Based on this study, Salva Mining has designed practical pits with overall slope angle less than the slope of 40° using benches of 10 m height, 6m berm width and individual bench slope of maximum 60°.

Low wall

The constituent rocks under the coal layer are mudstone layers that line with siltstone and sandstone with a tilt of 10° - 17°. The slope condition of the rock layer is categorised as a slope, so the potential for landslide occurs. However, the potential for landslides to occur is low. Geotechnical simulation results produce a safety factor number of 2.6.

7.5.3 Feasibility Study – Mining Fleet, Site Infrastructure & Logistics

A feasibility study was completed in 2018. Proposed site infrastructure was studied in detail in that report. The mining operation is planned to be contractual in nature for the life of the mine and thus most of the mine infrastructure is established by the mining contractor. Following is the general description of the major infrastructures and facilities during the mining operations.

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Mining Fleet

An experienced mining contractor is employed to carry out the removal of topsoil, overburden and coal. Labour can be sourced locally including some skilled labour for heavy equipment operation.

The mining is a 'free dig' with D8 or equivalent size dozers supporting an excavator fleet by ripping the overburden and preparing it for removal. 40 t class excavators are used for overburden removal and 20 t excavators are used for coal mining. Matching articulated dump trucks are used to remove the overburden. Waste, which is mainly claystone, sandstone and siltstone, is currently stored in out of pit dumps until sufficient space is available for in-pit dumping to back-filling the pits.

Coal is hauled to ROM stockpile using 6x4 rigid trucks with 20 t capacity. Haul distances will vary from less than 1 km to a few kilometres as the pit is a laterally extensive strip mine. The mining sequence will consider drainage in its design so that working faces can be free draining where ever possible and the need for pumping can be minimised.

Office, Accommodation and Associated Facilities

The facilities are located near the ROM area to accommodate all employees working on site. The facilities comprise of a dining mess, office buildings, training facilities and a dedicated emergency or first-aid room.

Workshops and Stores

These facilities are also located near the ROM area. The workshop is required for regular maintenance of heavy equipment. Appropriate storage is maintained for spare parts and materials on site.

Waste Facilities

A building for the storage of hazardous waste ("Limbah B3"), as well as oil products, is constructed to handle potentially hazardous material on site.

Water Supply

The water is sourced from the river nearby or from local water supply dam that exists in the North Block of the TKS Ampah concession under mutual agreement with local provider.

Blasting

Some of the overburden waste at the TKS Ampah Project has a high hardness which may warrant use of explosive in the future.

Design of In-pit Ramp Access

Waste and coal haul roads at the mine would be designed and constructed to be three times wider of the largest size haul truck planned to be used on site. It is proposed to use HD465 (Komatsu Brand) or equivalent for this project. This truck has an overall width of 5.4 m and typically requires 30 m haul road width (including the ditches and safety berms on each side of the road) for operating safely. The in-pit ramp would be constructed to a maximum gradient of 8%, although 10% is reasonably acceptable for short term ramps or short sections of the ramp.

- Width of pit ramp operating 22 m
- 8% ramp gradient

- 1 m sewer width

Waste Dump

The waste dump is planned to be constructed at the low-wall end (eastern side) for the North Pit. The waste dump is designed to handle waste for the first 6 years of operations. As the pit progresses, significant portion of waste will be dumped within the mined area itself (in-pit dumping).

- Dump stopes
  - The overall slope of 30^o
  - 3 m high
  - 3 m berm width
  - Slope of 30^o

Pit to ROM Coal Haulage Road

Coal haulage road is constructed from pit to the ROM stockpile. The road length is estimated to be 4 km from the TKS Ampah North Pit to the ROM stockpile location. The construction is undertaken to the appropriate grades, a radius of curvature and formation camber appropriate to the haulage equipment and haulage velocities selected.

The biggest truck proposed to be used for coal hauling operation is P124CB (Scania Brand) tipper trucks. This truck typically requires a haul road of 11 m width in total for operating safely.

- Mine roads
  - Total width of 24 m
  - The width of the road surface is 22 m
  - 1 m sewer width
  - The maximum gradient of 8%
  - Super-elevation of 4%
  - Turning radius of 25 m

ROM Area

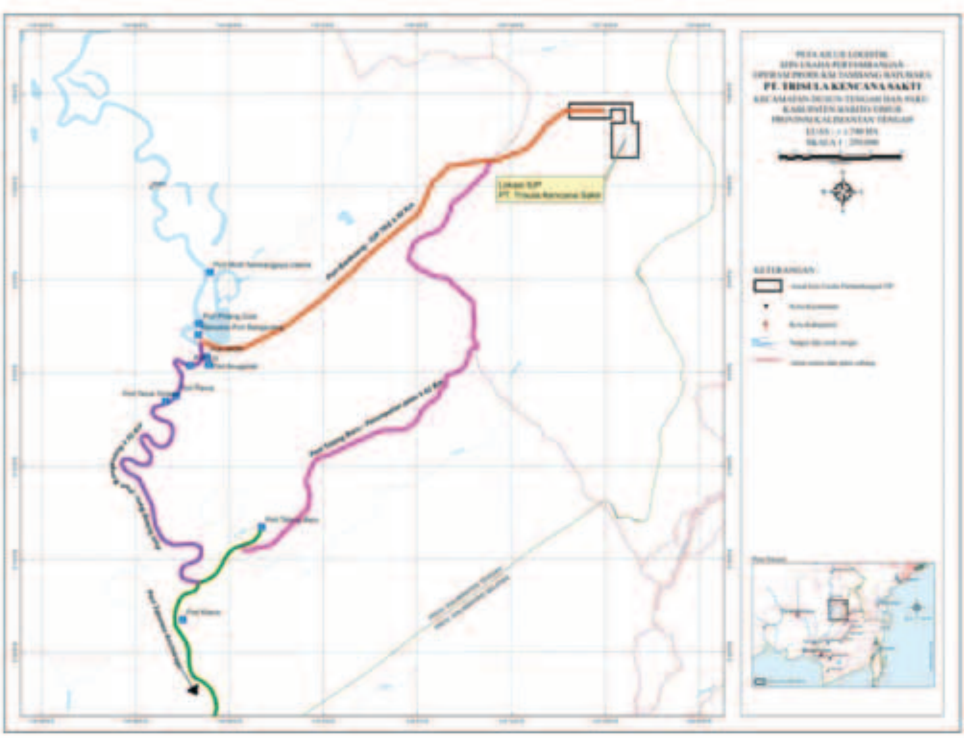
The ROM area for this project includes coal stockpile, office and accommodation, workshop and stores, waste facilities, water supply and other related facilities. This area is estimated to occupy around 20 ha and is located in the eastern corner of the Northern Pit.

Coal Logistics

PT TKS Ampah project has very simple coal production chain where coal is cleaned and mined at the pit using small-sized excavators (combination of PC200 or equivalent) and hauled by combination of P124CB and CWB520 classes or equivalent (rigid body off-highway) coal trucks to ROM stockpiles. The average haul distance from the coal face to the ROM is approximately 4 km over the mine life.

Coal will be hauled on-highway trucks for approximately 50 km to the river jetty located at the Port Bankuang on the Barito River (Figure 7:3).

Figure 7:3 Mine to River Port Logistics



GEAR has also identified Port Telang Baru at a distance of approximately 62 km as an alternative river jetty port and point of sale. Road haulage track for this route has been identified.

River Jetty Stockpile

A coal stockpile has been constructed with maximum capacity of 20 kt or equates to 5.2 weeks of coal supply, accounting for the production level of TKS Ampah (0.2 Mtpa). The stockpiles area is planned to be covered in the future to optimize the moisture levels in the coal and maintain the product quality.

Coal will be sold from the stockpile area in an uncrushed form (as mined), hence no crushing facilities are planned to be constructed at River Jetty for TKS Ampah project. The stockpiles will be the coal selling point where the ownership of the coal transfers from TKS Ampah to customer.

7.6 Modifying Factors

Feasibility studies have been completed prior to the commencement of mining operations. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval (IUPOP).

TKS Ampah concession is a relatively new project (commissioned in 2018) to support the coal supply for the power and cement plants. A pre-feasibility study has been carried out for TKS Ampah block detailing its mining method, mining strategy, logistic requirement along with the financial modelling. Where an entity is a greenfield project, its Pre-Feasibility or Feasibility level study is required for the whole range of inputs to meet the requirement in Clause 29 for the Ore Reserve to continue that classification. Salva Mining has used modifying factors based on actual operating practices or Pre-feasibility study carried out for TKS Ampah concession. In Salva's opinion, the modifying factors discussed in detail for TKS Ampah block are better than that at Pre-Feasibility stage.

Table 7:3 outlines the factors used to run the mine optimisation and estimate the Coal Reserve Tonnage.

Table 7:3 Modifying & Mine Optimisation Factors

Factor	Chosen Criteria
Seam roof & floor coal loss	0.10 m
Seam roof & floor dilution	0.02 m
Geological & Mining loss including the loss in transportation and handling at port	2%
Minimum mining thickness minable coal seam	0.2 m
Dilution default density	2.2 bcm/t
Dilution default calorific value	1500 Kcal/kg
Dilution default ash	70%
Overall Highwall and Endwall slope	40 deg
Maximum Pit depth	70m
Minimum Mining width at Pit bottom	30m
Exclusion of Mining lease (CCOW) and offset from Pit crest	50m
Offset from the village/road	150m
Mining, Coal handling and Transport Cost	Available and Used
Coal Selling Price for Break-even Stripping Ratio calculation	US$ 65.1/t
Government Documents/approvals	Available and Used
Environment Report	Available and Used
Geotechnical Report	Available and Used
Hydrogeology Report	Available & Used

7.7 Notes on Modifying Factors

7.7.1 Mining Factors

General

The mining limits are determined by considering physical limitations, mining parameters, economic factors and general modifying factors as above (Table 7:3). The mining factors applied to the Coal Resource model for deriving mining quantities were selected based on the use of suitably sized excavators and trucks. The assumptions are that due to the shallow to the moderate dip of the coal, mining will need to occur in strips and benches.

The mining factors (such as recovery and dilution) were defined based on the proposed open cut mining method and the coal seam characteristics. The exclusion criteria included the lease boundary, a safe buffer zone from the village and road and a minimum working section thickness.

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- The geometry of Final Pit Stope
  - Overall slope height (overall slope) 30 - 70 m
  - Overall slope (overall slope) 5º - 45º

Determination of Open Cut Limits

The geological models that were used as the basis for the estimation of the Reserves are the MineScape geological models prepared by Salva Mining to compute the Resources.

Potential open-cut reserves inside different blocks of the Project Area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. By generating the financial value (positive or negative) for each mining block within a deposit and then applying the physical relationship between the blocks, the optimal economic pit can be determined.

This method is widely accepted in the mining industry and is a suitable method for determining economic mining limits in this type of deposit. The optimiser was run across a wide range of coal prices using a standard set of costs that was developed by Salva Mining and based on typical industry costs in similar operations. These costs were adjusted to suit the conditions for this project.

Physical Limits for Optimiser

In addition to the mining and economic constraints, the optimisers were mostly limited by a 3-dimensional shell which was built for each block following either a surface constraint or geological model extent. These constraints are detailed in Table 7:4. This pit shell effectively represented the maximum pit possible in the deposit that was reasonable for the estimation of Coal Reserves.

Table 7:4 Block wise Optimiser Base Pit limits

Block Name	North	South	East	West
North Pit	IUP Lease	IUP Lease	Sub-crop	Optimised Pit Shell

7.7.2 Permits and Approvals

Salva Mining understands that the permits and approvals with regard to further mining activities in the TKS Ampah Coal Concession deposits are in good standing.

7.7.3 Cost and Revenue Factors

General

PT TKS Ampah provided a "data sheet" of indicative unit costs and revenues relevant for this project. Salva Mining also reviewed the costs for reasonableness against known current mining costs for similar mining conditions within Indonesia. An in-house NPV based economic model was developed to show that the project and reserves are "economic". These unit rates were then used to estimate the cost to deliver coal to ROM Stockpile. This allowed a break-even strip ratio to be estimated and the rates were also used to calibrate the Optimiser software.

The following points summarise the cost and revenue factors used for the estimate:

- All costs are in US dollars;
- Long term coal price of US$65.1 per tonne (ex. Riverport jetty);
- Royalties of 5% of revenue less any barging and marketing cost;
- Drilling and blasting cost of US$0.15 per bank cubic metre;
- Waste mining cost (excluding waste overhaul) of US$1.75 per bank cubic metre;

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- Coal mining cost of US$0.75 per tonne;
- Allowances were made for coal hauling, quality control, stockpile and environmental and rehabilitation cost which totalled approximately $7.82 per tonne;
- A contingency of 5% on all cost items;
- Costs have been allowed along with VAT of 10%;

Unit Costs

The Contractor and Owner unit costs used in the Lerchs Grossman optimiser are detailed in Table 7:5 and Table 7:6. These costs were used to create a series of waste and coal cost grids which were used to generate the optimiser nested pit shells.

Table 7:5 Contractor Unit Rates (Real Terms)

Cost Item	Unit	Rate
Land Clearing	$/ha	1,700
Mine Rehabilitation	$/ha	8,500
Drill & Blast	$/bcm	0.15
Waste Mining	$/bcm	1.75
Waste Haulage (above 1 km)	$/bcm/km	0.30
Coal Mining	$/t	0.75
Coal Haul to ROM Stockpile	$/t km	0.15
Road Haulage to Jetty	$/t km	0.10

Note: All quoted cost in local currency is adjusted for fuel price and exchange rate

Table 7:6 Variable Owner Unit Costs (Real Terms)

Cost Item	Unit	Rate
Stockpile Management	$/t	0.30
Environmental Management	$/t	0.10
Salary and Wages	$/t	0.10
Local Government Fees	$/t	0.25
Corporate Overheads	$/t	0.25

Royalty was estimated 5% based on the respective sale prices of the coal. A 10% VAT has been applied to all services purchased.

7.7.4 Operating Cost & Capital Expenditure

PT TKS Ampah and the previous Feasibility study provided the operating costs estimates for mining and other activities including coal hauling, barging and port handling charges, which Salva Mining has checked for reasonableness and compared with actual operating conditions and comparable other operations.

Total operating costs per tonne of coal product including royalty for the TKS Ampah – North Pit has been estimated as US$47.45 per tonne over the life of the mine. The updated operating cost for the TKS Ampah projects have been summarised in Table 7:7.

Table 7:7 North Pit - Average Unit Operating Cost over Life of Mine

Operating Cost Elements	US $/t
Land Clearing	0.06

Topsoil Removal	0.18
Drill & Blast	2.35
Waste Mining	27.38
Waste Haulage	0.94
Coal Mining	0.75
Haul to ROM Stockpile	0.60
ROM Coal Handling	0.30
Haul to Port Stockpile – Road	5.00
Mine Closure	0.28
Environmental and Rehabilitation	0.10
Salary and Wages	0.10
Corporate Overheads	0.25
Local Government Fees	0.25
VAT	3.49
Contingency	2.10
Operating Cost Excl. Royalty	**44.12**
Royalty	3.19
Operating Cost incl. Royalty	**47.31**

Capital Cost

PT TKS Ampah has engaged contractors for mining operations at TKS Ampah concession pits. it is envisaged that no major capital expenditure shall be incurred towards the mining equipment but major capital will be required for land acquisition and future infrastructure upgrades.

Salva Mining estimates the total capital expenditure of US$2.0M which includes a contingency of US$0.3M to commence North Pit. A contingency of 15% has been applied to the capital cost estimate. These estimated are considered to have an accuracy of ± 15%.

In addition to the expansion capital of US$2.0M, Salva Mining has factored 2% of the invested capital as sustaining capital per annum for asset maintenance over the life of mine. While preparing these estimates, Salva Mining has relied on industry benchmarks, its internal database and expertise and internal studies on the TKS Ampah concessions.

The Capital Cost estimates and the basis of its estimation are shown in Table 7:8. The cost estimate was prepared at the end of Q4 2019 in US dollars ($).

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Table 7:8 Northern Pit - Capital Cost (Real Terms)

Particulars	Direct Cost ($M)	Contingency ($M)	Total Cost ($M)
Land Compensation	0.7	0.1	0.8
Land Compensation	0.7	0.1	0.8
Road from Pit to ROM Stockpile	0.8	0.1	0.9
Explosive Storage	0.3	0.0	0.3
Mine Infrastructure	1.1	0.2	1.3
Total Project Capital	**1.8**	**0.3**	**2.0**

Salva Mining has compared these against the industry benchmarks and estimated these to be reasonable.

7.7.5 Processing Factors

The coal is to be sold unwashed so no processing factors have been applied.

7.7.6 Marketing & Pricing Factors

It is proposed that PT TKS Ampah will sell coal from the concession to coal traders on the Barito River-jetty stockpile basis for blending and onward sales to Power and Cement plants (both international and domestic).

To estimate the long-term price for TKS Ampah coal, Salva Mining has adopted the latest brokers forecast (Nov 2019) for Newcastle Thermal Coal Index prices (USD/t, FOB) as a benchmark price. These data which was collected by KPMG include forecasts of future prices for coal of CV 6,322 kcal/kg (gar) over a long-term horizon from each expert.

Table 7:9 Newcastle Coal Index Forecast

	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real,2019)
Analyst 1	14-Oct-19	$68.0	$75.0	$82.0	$82.0	$75.0
Analyst 2	11-Oct-19	$70.0	$70.0			$65.0
Analyst 3	9-Oct-19	$70.0	$67.5			
Analyst 4	4-Oct-19	$66.0	$69.0	$75.0	$76.0	$75.0
Analyst 5	4-Oct-19	$63.0	$62.0	$62.0		$68.0
Analyst 6	4-Oct-19	$70.0	$66.0	$66.0	$66.0	$57.0
Analyst 7	4-Oct-19	$66.5				
Analyst 8	2-Oct-19	$75.0	$80.0	$80.0	$76.7	$70.0
Analyst 9	2-Oct-19	$69.0	$75.0	$75.0	$76.0	$73.3
Analyst 10	1-Oct-19	$85.0	$85.0			$80.0
Analyst 11	26-Sep-19	$70.0	$70.0	$75.0	$75.0	$70.0
Analyst 12	25-Sep-19	$82.2	$73.5	$70.5	$68.5	$57.5
Analyst 13	24-Sep-19	$72.8				
Analyst 14	23-Sep-19	$75.0	$85.0	$90.0		$90.0
Analyst 15	23-Sep-19	$65.0	$65.0			
Analyst 16	12-Sep-19	$76.0	$80.0			$77.0

	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real,2019)
Average		**$71.5**	**$73.1**	**$75.1**	**$74.3**	**$71.5**

Source: KPMG Coal Price & FX consensus forecasts, Nov 2019

Salva Mining has adopted the average of the long-term price forecast ($71.5/t) as a reasonable benchmark price for Newcastle Index.

The Indonesian Government, set by the Ministry of Energy and Mineral Resources (Menteri Energi dan Sumber Daya Mineral), publish a monthly coal price report – the 'Harga Batubara Acuan' (HBA) or the Indonesian Coal Price Reference. HBA is an average price of four specific Indonesian and Australian coals, which is derived from the Argus Indonesia Coal Index 1 (ICI1), Platts Kalimantan 5900 gar, Newcastle Export Index (NEX), and the Global Coal Newcastle Index (GCNC) using the indices from the previous month, with the quality of CV = 6,322 kcal/kg gar, Total Moisture = 8%, Total Sulfur = 0.8% and Ash=15%.

Given that the Indonesian HBA price oscillates close to the Newcastle Index, Salva Mining has used forecast price for Newcastle Index as a proxy to HBA coal price forecast. The 'Harga Patokan Batubara' (HPB) – Coal Bench Mark Price is the method used for price assessment for royalty purposes by the Indonesian Government for coal of any specification using the following formula:

HPB = (HBA x K x A) – (B + U) [US$/tonne]

Where:

HPB = The coal price reference calculated by adjusting quality parameter
K = Calorific values of the coal / 6322 (gar)
A = (100 – Total Moisture)/ (100 – 8)
B = (Sulphur – 0.8) * 4 [US$/t]
U = (Ash - 15) * 0.4 [US$/t]

The long term forecast price of the TKS Ampah coal was calculated as $78.58/t (9.9% premium) using the HPB conversation formula for coal of average quality of CV = 6,829 kal/kg gar, Total Moisture = 6.9%, Total Sulfur = 1.31% and Ash = 8.8%.

Salva Mining has further discounted this coal price forecast by $13.50/t to account for Ex-River Jetty sales location rather than FOB shipping location which is typically used for purpose of benchmark coal sales, resulting in the long term price forecast of $66.62/t for the TKS Ampah coal, Ex-river jetty stockpile. The following Table 7:10 summarises long term price forecast taken to estimate reserves.

Table 7:10 Long Term Price Estimate

Mining Blocks	GCV, kcal/kg (gar)	Long term Price Ex River Jetty Stockpile (US $/t)
TKS Ampah – North Pit	6,829	65.08

7.7.7 Other Relevant Factors

Limitations to Drilling

The Resource is limited to 70 m depth below topography in all the TKS Ampah concession coal blocks.

7.8 Optimisation Result

The optimiser produced a series of nested pit shells using the same cost parameters with varying sale price of coal. The method starts with a very low discounted sale price following a high discount factor and moves toward higher sale prices by decreasing the discount on sale price. It estimates the net margin by subtracting the total cost from the revenue within a particular shell at a particular discount factor using the cost-revenue parameters and the physical quantities within the pit shell. As the method progresses, the incremental margin per tonne of coal slowly drops down to zero at "zero" discount factor and then goes negative as the pit shells go deeper following higher sale prices. As a result the cumulative margin slowly rises up to a maximum level at "zero" discount factor and then starts dropping off. Thus the pit shell (OPT000) which represents the "zero" discount factor is called the optimum pit shell as any smaller or bigger shell will have a lower cumulative margin ("value"). The goal in this process is intended to have economic pit sensitivity.

7.8.1 Selection of Pit Shell

PT TKS Ampah is proposing to mine 0.2 Mtpa of coal from TKS Ampah Project. An economic model was prepared for the mining operation the TKS Ampah coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

Break Even Stripping Ratio

Table 7:11 summarises the calculation of the Break Even Stripping Ratio for TKS Ampah – North Block. The methodology adopted involves taking the cost to mine a tonne of coal and adding all the costs associated with getting the coal to the point of sale.

Table 7:11 Break-even Stripping Ratio (BESR)

	TKS Ampah - North PIt
Coal Price, US$/t, Ex River Jetty Stockpile	$65.08
Royalty, US $/t	$3.19
Overheads, US $/t	$10.09
Offsite Cost, US $/t	$5.90
Coal Mining, US $/t	$0.75
Waste Mining (US$/bcm)	$1.75
Break-Even Strip Ratio	25.8

For the purpose of reserve estimation, total moisture was considered to be equal to in-situ moisture for determination of in-situ relative density as in-situ moisture values were not available. The in-situ density of the coal has been estimated using the Preston-Sanders method to account for the difference between air-dried density and in-situ density. The formula and inputs were as follows:

$$RD2 = RD1 \times (100 - M1) / (100 + RD1 \times (M2 - M1) - M2)$$

Where

- RD2 = In-situ Relative Density (arb)
- RD1 = Relative density (adb)

- M1 = Inherent Moisture (adb)
- M2 = Total Moisture (arb)

It should be noted that while the total moisture from laboratory measurements may not necessarily equal the in-situ moisture, this is considered to be the best estimate given the limited amount of data. Salva Mining has assumed that no moisture reduction takes place for the determination of product quality.

7.8.2 Coal Product Quality

It is assumed that the final product will have the same quality of ROM coal which is summarised in Table 7:12 below.

Table 7:12 Product Coal Quality

Block	RD insitu t/m3	TM arb %	IM adb %	Ash adb %	CV (GAR) Kcal/Kg	TS adb %
North Pit	1.34	6.9	3.9	8.8	6,829	1.31
Total	**1.34**	**6.9**	**3.9**	**8.8**	**6,829**	**1.31**

7.9 Final Pit Design

For the purposes of this Report, Salva Mining has limited the pit depth to the limit of exploration drilling within the limit applied to the Resource estimates. Other factors considered in the final optimum pit designs included:

- The location and proximity of coal to exploration data;
- Proximity to the concession boundary;
- Out of pit dumping room;
- Geotechnical parameters; and
- Surface water management considerations.

The final pit designs closely followed the selected pit shell in most locations.

7.9.1 Cut-off Parameters and Pit Limit

Overall low-wall slopes as per the basal seam dip, endwall slopes and highwall slopes for the final pit design were considered as per Table 7:13.

Table 7:13 Pit Design Parameters for TKS Ampah blocks

Pit Design Parameters	North
Overall Highwall Slope	40 deg up to 70m depth
Bench Slope	60 deg
Bench Height	10 m
Highwall berm	5 m
Low wall slope	5-7 deg
Ramp Width	24 m
Maximum Ramp Grade	8-10%

7.9.2 Pit Designs

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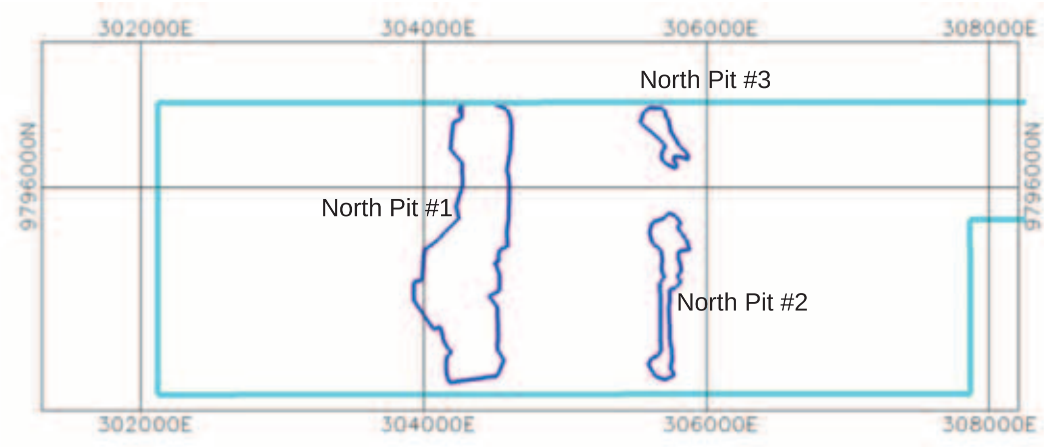
The coal seam distribution within the TKS Ampah – Northern Section resulted in the Optimiser identifying several pits with the different basal seams. The pits were subjected to adjustments to form a practical pit design, which lead to the exclusion of the minor narrow pit shells and the resultant formation of Mineable Pit Shells, which formed the basis of the subsequent reserves estimate (Figure 7:4).

Pits have been designed within the limits as defined by the pit optimisation analysis. These limits are rationalised to ensure access between floor benches and walls were straightened to generate mineable pits.

Figure 7:4 Pit Selection – TKS Ampah North Section



Pits have been designed such that low walls commenced at the sub-crops and followed the coal floors. The overall highwall batter angle is 40 degrees as the ultimate pit depth ranges from a little more than 60 m. This was done in accordance with the geotechnical study which was completed in 2018.

Optimised Pit Shell

The optimised pit shells for TKS Ampah North Block as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the TKS Ampah concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. Insitu quantities and mine scheduled tonnes within an optimized pit shell along with Reserves are shown in Table 7:14.

Table 7:14 Insitu & Scheduled Quantities & Reserves, TKS Ampah

Area	Insitu			Mine Scheduled Tonnes within Optimized Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
TKS Ampah North	22	1.5	14.5	22	1.4	15.6	0.6
TKS Ampah	22	1.5	14.5	22	1.4	15.6	0.6

The ROM coal quantities within the Mineable Pit Shells were then tested so that only Measured and Indicated Coal Resources were classified as Coal Reserves. Coal Reserves within the seams having Measured Resources are reported as Proved Reserves whereas seams having Indicated Resources are reported as Probable Reserves.

The final pit designs and representative cross-section of mining blocks at TKS Ampah concessions have been shown from Figure 7:5 to 7:6.

Figure 7:5 TKS Ampah North Pits

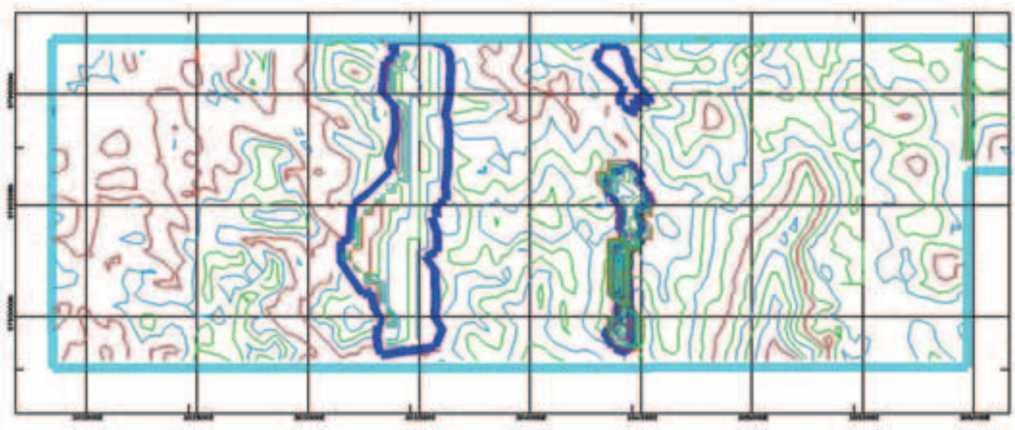
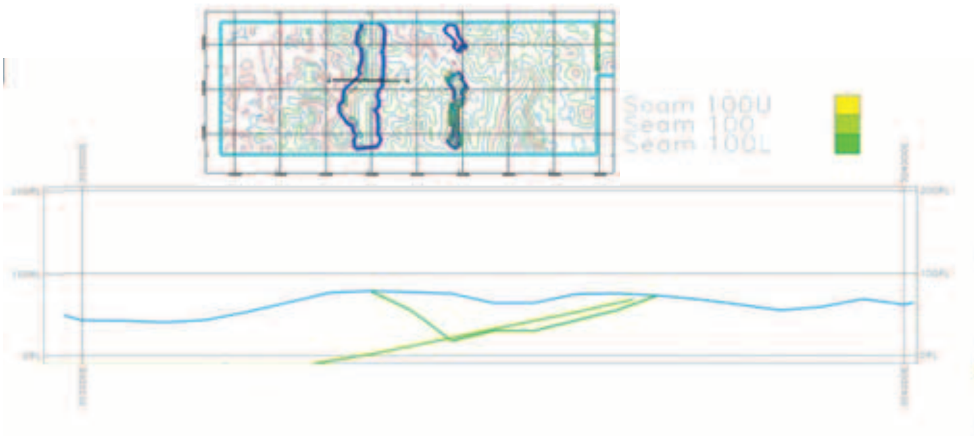


Figure 7:6 Representative Cross Section TKS Ampah North - West Pit



7.10 Audits and Reviews

Checks were done to validate the Minex Coal Resources to Coal Reserves estimation by repeating it manually in an Excel spreadsheet. Other validation work included estimating the total volume of coal and waste in the pit shells using the separate industry-standard computer programs MineScape. As MineScape structure and quality grids were imported into Minex for optimisation work, volume and area checks were also carried out in Minex within the pit shells.

The difference between the Proved and Probable Reserves with respect to Measured and Indicated Resources respectively is explained by the following:

- The Measured and Indicated Resource polygons extend beyond the Mineable Pit Shells;
- There are some Inferred tonnes in the pit shell which cannot be counted as Coal Reserves; and
- There are geological and mining losses and dilution gains in the coal reserve estimation.

7.11 Reserves Classification

Under the JORC Code as shown below only Measured and Indicated Coal Resources can be considered for conversion to Coal Reserves after consideration of the "Modifying Factors" including mining, processing, economic, environmental, and social and governance factors. In the opinion of Salva Mining, the uncertainties in most of these are not sufficiently material to prevent the classifications of areas deemed Measured Resources to be areas of Proved Reserves and areas deemed Indicated Resources to be the areas of Probable Reserves.

7.12 Coal Reserves

The Statement of Coal Reserves has been prepared in accordance with the 2012 Edition of the JORC Code. Total ROM Coal are summarised in Table 7:15 as of 31 December 2019. ROM Coal Reserves are same as total Marketable Coal Reserves.

Table 7:15 TKS Ampah - Coal Reserves as of 31 December 2019

TKS Ampah Pits	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar) Kcal/kg	TS adb%
North Pit	0.2	0.4	0.6	1.34	8.8	3.9	6.9	6,829	1.31
TKS Ampah	**0.2**	**0.4**	**0.6**	**1.34**	**8.8**	**3.9**	**6.9**	**6,829**	**1.31**

(*Note: individual totals may differ due to rounding*)

7.13 Seam by Seam Coal Reserve

Total ROM Coal Reserves for the TKS Ampah North coal concession is reported by seam and is presented in Table 7:16.

Table 7:16 Coal Reserves – North Pit (Seam by Seam) as of 31 December 2019

Seams	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD, adb	Ash %	IM %	TM %	CV, GAR (Kcal/kg)	TS %
100U	0.0	0.1	0.1	1.32	5.0	4.8	8.4	6,998	1.05
100	0.1	0.1	0.2	1.30	3.3	4.6	8.0	7,186	1.13
100L	0.0	0.1	0.1	1.32	4.9	4.8	8.4	7,005	1.04
200UU	0.0	0.0	0.1	1.41	20.6	1.8	3.0	6,237	1.31
200UL	0.0	0.0	0.0	1.46	25.8	1.8	3.1	5,771	1.05
200L	0.0	0.0	0.0	1.43	18.9	1.7	2.6	6,342	4.03
Total	**0.2**	**0.4**	**0.6**	**1.34**	**8.8**	**3.9**	**6.9**	**6,829**	**1.31**

(*Note: individual totals may differ due to rounding*)

7.14 JORC Table 1

The reported in this Report has been carried out in recognition of the 2012 JORC Code published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, the AIG and the Minerals Council of Australia in 2012.

Under the report guidelines, all geological and other relevant factors for this deposit are considered in sufficient detail to serve as a guide to on-going development and mining. In the context of complying with the Principles of the Code, Table 1 of the JORC Code (Appendix C) has been used as a checklist by Salva Mining in the preparation of this Report and any comments made on the relevant sections of Table 1 have been provided on an 'if not, why not' basis.

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Appendix A: CVs

Person	Role
Manish Garg (Director - Consulting)	
Qualification	B. Eng. (Hons), MAppFin
Prof. Membership	MAusIMM; MAICD
Contribution	Overall Supervision, Economic Assessment (VALMIN 2015)
Experience	Manish has more than 25 years' experience in the Mining Industry. Manish has worked for mining majors including Vedanta, Pasminco, WMC Resources, Oceanagold, BHP Billiton - Illawarra Coal and Rio Tinto Coal. Manish has been in consulting roles for past 10 years predominately focusing on feasibility studies, due diligence, valuations and M&A area. A trusted advisor, Manish has qualifications and wide experience in delivering due diligence, feasibility studies and project evaluations for banks, financial investors and mining companies on global projects, some of these deals are valued at over US$5 billion.
Sonik Suri (Principal Consultant - Geology)	
Qualification	B. Sc. (Hons), M.Sc. (Geology)
Prof. Membership	MAusIMM
Contribution	Geology, Resource (JORC 2012)
Experience	Sonik has more than 25 years of experience in most aspects of geology including exploration, geological modelling, resource estimation and mine geology. He has worked for coal mining majors like Anglo American and consulting to major mining companies for both exploration management and geological modelling. As a consultant, he has worked on audits and due diligence for companies within Australia and overseas. He has strong expertise in data management, QA/QC and interpretation; reviews/audits of geological data sets; resource models and resource estimates.
Dr Ross Halatchev (Principal Consultant - Mining)	
Qualification	B. Sc. (Mining), M.Sc., PhD (Qld)
Prof. Membership	MAusIMM
Contribution	Mine Scheduling, Reserve (JORC 2012)
Experience	Ross is a mining engineer with 30 years' experience in the mining industry across operations and consulting. His career spans working in mining operations and as a mining consultant primarily in the mine planning & design role which included estimation of coal reserves, DFS/FS, due diligence studies, techno-commercial evaluations and technical inputs for mining contracts. Prior to joining Salva Mining, Ross was working as Principal Mining Engineer at Vale. To date, Ross has worked on over 20 coal projects around the world, inclusive of coal projects in Australia, as well as in major coalfields in Indonesia, Mongolia and CIS.

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Appendix B: SGX Mainboard Appendix 7.5

Cross-referenced from Rules 705(7), 1207(21) and Practice Note 6.3

Summary of Mineral Reserves and Resources

Name of Asset / Country: PT TKS Ampah/ Indonesia

Category	Mineral Type	Gross (100% Project)		Net Attributable to GEAR**		Remarks
		Tonnes (millions)	Grade	Tonnes (millions)	Grade	
Reserves						
Proved	Coal	0.2	Bituminous A	0.1	Bituminous A	
Probable	Coal	0.4	Bituminous A	0.2	Bituminous A	
Total	Coal	0.6	Bituminous A	0.3	Bituminous A	
Resources						
Measured	Coal	1.6	Bituminous A	0.8	Bituminous A	
Indicated	Coal	3.0	Bituminous A	1.4	Bituminous A	
Inferred	Coal	1.9	Bituminous A	0.9	Bituminous A	
Total	Coal	6.5	Bituminous A	3.0	Bituminous A	

*** GEAR holds 46.8999% of PT TKS Ampah Indirectly.*

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Appendix C: JORC Table 1

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	• Wire-line touch core drilling, in a systematic drill grid and coring of coal seams with geophysical logging. • Properly calibrated downhole logging tools. • Seam thickness was determined by geophysical logs and coal quality assets by certified lab using ASTM methods. • Process of sampling included a sample from roof sediments, main seam body, roof coal, floor coal and floor sediment for very detailed coverage of coal quality within each seam. • Samples collected were sealed in a plastic bag and stored appropriately before sending to lab.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	• Drilled pilot hole to ascertain coal seams and then drilled a touched cored drill hole.
Drill sample recovery	Whether core and chip sample recoveries have been properly recorded and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• After the completion of each core run, core loss is determined by the on-site geologist and recorded in the drill hole completion sheet. If recovery is found to be less than 90% within a coal seam intersection, the hole is re-drilled in order to re-sample this seam with greater than 90% core recovery. All samples with less than 90% core recovery over the width of the seam intersection were excluded from the coal quality database. • Followed drilling SOP's for loose and carbonaceous formations to achieve full sample recovery.
Logging	Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography. The total length and percentage of the relevant intersections logged.	• Logging by geologists is appropriate for resource estimation. • The geotechnical report documented for 5 holes (GT) and analysed. • Graphic logs are recorded after reconciliation with geophysical logs (All 71-drill hole used has geophysical LAS log files). • Logging was adequately recorded but lacking detail indicating quantitative work by good site geologists, adequate for coal work. • Cores were apparently photographed but not seen by the CP as they have not yet been provided by the client.

Criteria	Explanation	Comment
		• 7,173m drilled and relevant intersections were logged by geologists & down-hole geophysics.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected. Whether sample sizes are appropriate to the grainsize of the material being sampled.	• No sub-sampling of Core was done
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• PT Geoservices laboratories are accredited to ISO 17025 standards. Coal quality laboratory adheres to internal QAQC and inter-laboratory QAQC checks. ISO methods have been used for MHC tests. Australian Standards have been used for RD and American Society for testing and materials (ASTM) methods have been used for all other quality variables. • Geophysical traces were observed to be generally of good quality.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	• Coal quality sampling was undertaken by GEAR and is in-line with the coal quality being achieved during the actual trial mining operations. • No twin hole sampling was used, only pilot holes with partial coring zones where coal seam depth was predicted. Checked for agreement of seam intersection depths and in most of the cases there was good agreement.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	• Borehole collars have been surveyed using standard total station techniques employed by the survey contractors. • Surveys have been validated by GEAR survey staff. The surveyed borehole locations for TKS match well with topographic data. (+/- 1m mis-close between survey & LiDAR considered acceptable) • The topography was generated by PT Surtech Utama across TKS Ampah project area using LiDAR remote sensing data.
Data spacing and Distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade	• Data spacing sufficient to establish continuity in both thickness and coal quality. Data sets include topography

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Criteria	Explanation	Comment
	continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	and base of weathering as well as seam structure and coal quality. Ply sampling methodology use. • Sample compositing has been applied. Composite samples were taken for each coal seam from roof, floor and body coal samples.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• Ply by Ply sampling used therefore the orientation of sampling not seen to introduce bias as all drilling is vertical. • Drill line was oriented perpendicular to the strike of coal
Sample Security	The measures taken to ensure sample security.	• Proper measures for sample security was taken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• Salva Mining conducted a review of the drill hole database and found it to be satisfactory. • Standard database checks also performed by Salva Mining as outlined in Chapter 5 prior to resource modelling and found it to be satisfactory.
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	• All tenure is secured and currently available. • Mining licenses (IUP's) for operation and production already approved. .
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Contractors used for drilling, exploration, Geotech & previous studies including feasibility studies.
Geology	Deposit type, geological setting and style of mineralisation.	• The main features in the concession is a syncline structure over the main deposit area with relatively flat dips and younger sediments in the central part of the deposit and steeper dips in relatively older sediments, around the outer edges. • Bituminous Coal.
Drill hole	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	• Relatively good drill database. • This Report pertains to resource estimation, not exploration results. As such the details of the drill holes used in the estimate are too numerous to list in this Table.

Criteria	Explanation	Comment
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations and cut-off grades are usually material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	• All samples have been composited over full seam thickness and reported using geological modelling software. • No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	• Ply sampling methodology prevents samples from crossing ply boundaries. Therefore, the orientation of sampling not seen to introduce bias as all drilling is vertical and seams mostly gently dipping. • Coal thickness intercepts in the data appear to support this and consistent coal seam thickness is normal in this area.
Diagrams	Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.	• See figures in the Report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.	• No reporting of exploration results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• 71 drill holes were geophysically logged by PT Surtech Indonesia. • Other data is listed in the Report, the data where appropriate has been used but often the older data was less well recorded and not complete and for this reason was not used in the geological model.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	• Further work will be necessary to improve the confidence levels of the deposits further and understanding of the full seam stratigraphy as part of on-going mining activity. • No proposed exploration plan has been proposed in this Report.

Criteria	Explanation	Comment
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	• The database for both blocks is considered an acceptable standard to report a Coal Resource. • Checks against original downhole geophysics (las) files used to verify data during modelling.
Site Visits	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	• Site visit was last completed in October 2019 by Independent Qualified person. • The geology had been well documented by previous consultants. Salva Mining's staff has reviewed and discussed the available geological data in the company's office in Jakarta.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	• A high degree of confidence in seam picks made using downhole geophysical data. • The TKS Ampah geological models created by Salva Mining are considered to accurately represent the deposits. No major faults have been reported within the tenements concerned • Mass (tonnage) from the current resource estimate agrees with the previous model by developed internally by GEAR to within 5% error margin range.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	• See figures in the Report.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates.	• Planar interpolator used for thickness and trend. FEM interpolator used for surface elevation, thickness and trend. Inverse distance squared used for coal quality throughout. • Based on experienced gained in the modelling of over 40 coal deposits around the world, the FEM interpolator is considered to be the most appropriate for the structure and inverse distance the most appropriate for coal quality. • The grid cell size of 50m for the topographic model, 50 m for the structural model. • Table 5:1 contains additional model construction parameters. Visual validation of all model grids performed.

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Criteria	Explanation	Comment
	Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	• TKS has high sulphur seams (>1%) coal product quality will have to be managed to maintain saleable products.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	• All tonnages estimated on the air-dried basis, Total moisture has been measured by weight under laboratory conditions
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• The coal resources contained in this Report are confined within the concession boundary. The resources were limited to 70m below topography. • A minimum ply thickness of 20cm and maximum parting thickness of 30cm was used.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	• The TKS Ampah block is proposed to be mined as open-pit excavations by truck and shovel method by contractors.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	• N/A in situ air dried tonnes quoted
Environmental	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	• Salva Mining is not aware of any environmental factors that may impact on eventual economic extraction.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	• See discussion on density with regard to moisture basis.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors i.e. relative confidence in tonnage/grade computations, confidence in continuity	• Classification distances based on an assessment of the variability of critical variables through statistical analysis and by an assessment of the degree of geological complexity. Classification

Criteria	Explanation	Comment
	of geology and metal values, quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	radii for the three resource categories are: Measured: 250m Indicated: 500m Inferred: 750m
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	• Check between the current geological model and previous internal model shows high agreement.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Spacing ranges for the three resource categories are considered to adequately reflect the degree of confidence in the underlying estimate on a global basis. • Local variation to estimated values may arise and will be addressed by adequate grade control procedures during mining operations.
Mineral Resource Estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• Basis of the estimates is "TKS Ampah JORC Resource Statement" as of 31 December 2019. • Coal resources are inclusive of Coal reserves.
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	• Site visit was last completed in October 2019 by Independent Qualified person. • Salva Mining's consultants are well versed in the localised mining settings and have reviewed and discussed the available data in company's office in Jakarta.
Study Status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Feasibility Study for TKS Ampah was completed in early 2018. The FS study has dealt in detail with mining method, geotechnical investigations, hydrology & hydro-geological, logistics and economic issues for the TKS Ampah pits. • Environmental Study (AMDAL) has been completed in 2005.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied	• Refer Table 7:1 – Modifying factors for pit optimisation; and • Table 7:12, Break-even Stripping Ratio analysis.

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Criteria	Explanation	Comment
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods.	• Refer Table 7:1 Modifying Factors and Pit Optimisation Parameters and Section 7:3 on Notes on Modifying Factors. • Feasibility studies have been completed for TKS Ampah concession in 2018 while the pre-feasibility study was completed in 2010. • These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval (IUPOP). For the greenfield project like TKS Ampah block, modifying factors at Pre-Feasibility study level is expected to contain information appropriate for the whole range of inputs to meet the requirement in Clause 29 for the Ore Reserve to continue that classification. • Salva Mining has used the modifying factors based on the Feasibility study level for TKS Ampah which were independently verified by the Salva Mining's subject specialist. • In Salva Mining's opinion, the Modifying Factors at the concession are appropriately defined.
Metallurgical Factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications.	• The coal is to be sold unwashed so no processing factors have been applied.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Amdal (EIS) in place with a rehabilitation program and environmental monitoring program in place. • Mining operations and production approval are in place (IUPOP). • Progressive staged land acquisition covering the pit, dump and other mine infrastructure in place.

Criteria	Explanation	Comment
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• The area is very accessible from the regional road. • Water is available in abundance. • Labour can be sourced locally including some skilled labour for machine operation.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	• Discussed in Section 7:6:3 Cost and Revenue factors.
Revenue Factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products	• Discussed in Section 7:6:3 Cost and Revenue factors
Market Assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Discussed in Section 7.6:6 Marketing & Pricing Factors
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs	• Economic analysis (NPV) done based on long term price outlook and the cost estimates (Contractor mining operation).

Criteria	Explanation	Comment
Social	The status of agreements with key stakeholders and matters leading to social licence to operate	• Progressive staged land acquisition covering the pit, dump and other mine infrastructure in place. • The total area required would be approx 90Ha. Most of this land is covered by small local rubber and palm oil farmers which will require compensation (which has been factored in capital cost).
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingency.	• Discussed under Section 9:6:7 Other Factors.
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• Discussed under Section 9:10, Reserve Classification
Audit & Reviews	The results of any audits or reviews of Ore Reserve estimates.	• Discussed under Section 9:9, Audits & Reviews.
Discussion of Relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	• Sufficient points of observation and sampling distribution to assess coal resource and reserves with a high level of confidence. • Statistical analysis was carried out for observations, sampling, core recovery & survey accuracy were assessed including geostatistical assessment over the deposit which further increased the confidence level of the estimate.

Criteria	Explanation	Comment
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	

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Golden Energy and Resources Limited

Wahana Rimba Lestari Concession ("WRL")

Summary Independent Qualified Person's Report

28 January 2020

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Golden Energy and Resources Limited

Wahana Rimba Lestari Concession

Summary Independent Qualified Person's Report

Salva Mining Pty Limited
300 Adelaide Street, Brisbane, QLD 4000, Australia
Email: info@salvamining.com.au
Website: salvamining.com.au
Phone: +61 (0) 407 771 528

28 January 2020

Effective Date: 31 December 2019

Independent Qualified Person:

Mr. Manish Garg
Director
Salva Mining Pty Limited

Subject Specialists:

Mr. Sonik Suri
Principal Consultant – Geology
Salva Mining- Brisbane Office

Dr. Ross Halatchev
Principal Consultant – Mining
Salva Mining - Brisbane Office

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Table of Contents

List of Figures

List of Tables

Key Abbreviations

$ or USD	United States Dollar
adb	Air-dried basis, a basis on which coal quality is measured
AMSL	Above Mean Sea Level
AMDAL	Analisis Mengenai Dampak Lingkungan Hidup- Environmental Impact Assessment (EIA), which contains three sections, the ANDAL, the RKL and the RPL
ANDAL	Analisis Dampak Lingkungan Hidup, a component of the AMDAL that reports the significant environmental impacts of the proposed mining activity
arb	As received basis
AS	Australian Standards
ASR	Average stripping ratio
AusIMM	Australasian Institute of Mining and Metallurgy
Batter	The slope of Advancing Mine Strip
bcm	bank cubic meter
BD	Bulk density
CCoW	Coal Contract of Work
CHPP	Coal Handling and Processing Plant
CV	Calorific value
Capex	Capital Expenditure
Coal Resource	A 'Coal Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, quality, and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, quality, continuity and other geological characteristics of a Coal Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Coal Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Coal Reserve	A 'Coal Reserve' is the economically mineable part of a Measured and/or Indicated Coal Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually, the point where the Coal is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable

	product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
DGMC	Directorate General of Minerals and Coal within the Ministry of Energy and Mineral Resources
FC	Fixed Carbon
gar	gross as received, a basis on which coal quality is measured
GEAR	Golden Energy and Resource Limited
GEMS	PT. Golden Energy Mines Tbk
gm	Gram
h	Hour
ha	Hectare(s)
HDR	HDR Pty Limited
IM	Inherent Moisture
IPPKH	'Izin Pinjam Pakai Kawasan Hutan' which translates to borrow to use permit in a production forest
IUP or IUPOP	'Izin Usaha Pertambangan' which translates to 'Mining Business Licence'
JORC	2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia
k	Thousand
kcal/kg	Unit of energy (kilocalorie) per kilogram
kg	kilogram
km	Kilometres (s)
km2	Square kilometre(s)
kt	kilo tonne (one thousand tonnes)
L	Litre
m	Meter
lcm	loose cubic metre
LOM	Life of Mine
lcm	lcm loose cubic metre
M	Million
Mbcm	Million bank cubic metres
Mbcmpa	Million bank cubic metres per annum
MEMR	Ministry of Energy and Mineral Resources within the central government
m RL	metres reduced level
m^3	cubic metre
m/s	metres per second
Mt	Millions of tonnes
Mtpa	Millions of tonnes per annum
MW	Megawatt
NAR	Net as received
Opex	operating expenditure

PKP2B	'Perjanjian Kerjasama Pengusahaan Pertambangan Batubara' – same as CCoW
RD	Relative density
RKL	'Rencana Pengelolaan Lingkungan' - environmental management plan
ROM	Run of Mine
RKL	Relative Level - survey reference for the height of landforms above a datum level
RPL	'Rencana Pemantauan Lingkungan' - environmental monitoring plan
Salva Mining	Salva Mining Pty Limited
SE	Specific Energy
SR	Strip ratio (of waste to ROM coal) expressed as bcm per tonne
t	Tonne
tkm	Tonne kilometre
tpa	Tonnes per annum
TM	Total Moisture (%)
TS	Total Sulphur (%)
VALMIN	2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports
VM	VM Volatile Matter (%)

Executive Summary

Golden Energy and Resources Limited ("GEAR" or "Client") commissioned Salva Mining Pty Limited (Salva Mining) to prepare a Summary Qualified Person's Report ("Report") covering an estimate of Coal Resources and Reserves for the Wahana Rimba Lestari ("WRL") coal concession area located in Sumatra, Indonesia.

The estimate of Coal Resources and Reserves as of the 31 December 2019 contained within this Report has been reported in accordance to the guidelines to the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

Wahana Rimba Lestari (WRL) Project in Indonesia

The WRL concession is located in the Regency of Musi Banyuasin, in the Province of South Sumatra, Indonesia.

Mining rights for the concession are held under an Izin Usaha Pertambangan Operation and Production ("IUPOP") license covering a total area of 4,739 ha.

The concession is listed in the official list of clean and clear concessions. The "Clean and Clear" Certificate is listed in the official list with recommendation letter no. 540/543/DISPERTAMBEN/2014 from the provincial government of South Sumatra. There are no protected forests or nature reserves within the project area boundaries that prohibit surface mining. The area is classified as non-forest and available for other uses.

Geology

The WRL concession area is found within the South Sumatra Basin. The WRL concession area is found in the Sumatra back-arc basin located along the island of Sumatra. This basin was formed by back-arc extension and is filled with Eocene to Pliocene aged terrestrial and marine sediments. Two phases of coal seam accumulation are found within this sequence, the first is an older Oligocene phase related to fluvial-deltaic sedimentation (Talang Akar Formation) during initial rifting and deposition of a transgressive sedimentary sequence. After the mid-Miocene plate collision and commencement of subduction off the west Sumatra coast, a regressive sedimentary sequence commenced from mid-Miocene to Pliocene times. This resulted in a return to a fluvial-deltaic environment, from the previously dominant deep marine sedimentation. This gave rise to the Muara Enim Formation, the dominant coal-bearing unit within the South Sumatra Basin.

Coals found within the WRL concession occur in the Miocene age Muara Enim Formation. The late Miocene to Pliocene Muara Enim Formation ("Muara Enim Fm") is the main coal-bearing formation present in the South Sumatra Basin. Seams within the WRL concession area are generally fairly shallow dipping (less than 10 degrees) to the northeast.

There have been a number of phases of exploration completed in the WRL coal concession area over the past 10 years. The first phase involved generally shallow drilling and field mapping. In-fill drilling and deeper stratigraphic drilling to depths of up to 150 m followed in phase two, in order to allow for more accurate definition of the structural geology and coal quality characteristics of the deposit. A total of 54 drill holes were used by Salva Mining to construct a geological model for an estimate of Coal Resource within the WRL concession area.

Coal Resource

Salva Mining has estimated total Coal Resources of 316 million tonnes (Mt) on an in situ air-dried moisture basis (adb), to a maximum depth of 100 m. The total tonnes are comprised of 55 Mt of Measured, 100 Mt of Indicated and 161 Mt of Inferred Resources.

Coal Resources Estimate as of 31 December 2019

Resource Classification	Mass (Mt)	TM (arb) (%)	IM (adb) %	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	54.5	53.8	16.0	5.7	42.3	0.22	5,218	1.39
Indicated	100.2	53.5	15.7	5.4	41.9	0.22	5,265	1.39
Inferred	161.2	53.3	16.0	6.0	42.1	0.23	5,190	1.40
TOTAL	**315.9**	**53.4**	**15.9**	**5.7**	**42.1**	**0.22**	**5,219**	**1.39**

Mineral Resources are reported inclusive of the Mineral Reserves

(*Note: individual totals may differ due to rounding)*

Mining Operations

The mining operation at WRL will use a standard truck and excavator methods which are a common practice in Indonesia. Waste material is mined using hydraulic excavators and loaded into standard rear tipping off-highway trucks and hauled to dumps in close proximity to the pits or to in-pit dumps where possible. For the purpose of this Reserve Statement, it is proposed that contractors will be used for mining and haulage operations over the life of mine, and the unit costs used for the Reserve estimate reflect this style of mining.

Mining Modification factors – Resource to Reserve

This Coal Reserve estimate uses the most recent geological model and the Coal Resources estimate prepared by Salva Mining as of 31 December 2019. Potential open-cut reserves inside different blocks of the project area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. The optimiser was run across a wide range of coal prices using a set of site-specific costs (waste removal, land compensation, coal removal, haulage costs, etc.). These costs were adjusted to suit the conditions for this project.

An economic model was prepared for the mining operation from each of the WRL coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

Life of mine plan was completed based on the final pit design. This was done to ensure that the proposed mining method would be practical and achievable and that the proposed dumping strategy would be able to contain the waste mined in the final pit design. The mining schedule targeted production of 3 Mt in year 3 and ramping up to target production of 5.5 Mt from year 8 onwards.

Pre-feasibility studies were completed prior to applying for the mining operations permit. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being granted mining operations approval (CCoW). This study was further updated in May 2016. Salva Mining has used modifying factors based on the latest pre-feasibility study which were independently validated for reasonableness by Salva Mining's subject specialist.

The coal price estimate was based on an average of the various Brokers/Analyst view on the outlook for thermal coal.

Optimised Pit Shell

The optimised pit shells for WRL blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the WRL concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. Insitu quantities and mine scheduled tonnes within an optimized pit shell along with Coal Reserves are shown in the table below.

Insitu & Scheduled Quantities & Reserves, WRL Concession

Pit	Insitu			Mine Scheduled Tonnes within Optimised Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
North Pit	277	148	1.87	284	116	2.44	51.7
South Pit	81	50	1.62	82	40	2.08	35.5
Total	358	198	1.81	366	156	2.35	87.2

Coal Reserves

Coal Reserves were estimated by applying appropriate modifying factors and exclusion criteria to the Coal Resources. Surface water management, infrastructure and the location of the IUP boundary were considered when determining the surface constraints for the mining operation. Coal Reserves were estimated by applying appropriate density adjustment and mining loss and dilution parameters to the Measured and Indicated Coal Resources inside the final pit design. All the final pits used for the Reserve estimate were designed following the existing geotechnical recommendations and operating practices.

Coal Reserves have been reported in Proved and Probable categories to reflect the reliability of the estimate. The total Coal Reserve for WRL coal deposit as of 31 December 2019 is estimated as 87.2 Mt comprising of 33.8 Mt Proved and 53.4 Mt Probable categories. No beneficiation of coal product is planned as such marketable coal is the same as the Runoff Mine (ROM) coal. ROM Coal Reserves for WRL coal concession along with the estimated quality is presented in table below.

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Coal Reserves Estimate as of 31 December 2019

WRL Pits	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar) Kcal/kg	TS adb%
North Pit	18.2	33.5	51.7	1.19	6.5	15.8	52.5	2,939	0.19
South Pit	15.6	19.9	35.5	1.20	6.4	16.4	52.9	2,835	0.23
WRL	**33.8**	**53.4**	**87.2**	**1.19**	**6.5**	**16.0**	**52.7**	**2,897**	**0.21**

Note: individual total may differ due to rounding
This table must be presented with the entire JORC Reserve Statement

The coal will be sold as a ROM product; hence Marketable Reserves will equal ROM Coal Reserves.

This Report may only be presented in its entirety. Parties wishing to publish or edit selected parts of the text, or use the Statement for public reporting, must obtain prior written approval from Salva Mining and the signatories of this Report.

1 Introduction

Golden Energy and Resources Limited ("GEAR" or "Client") commissioned Salva Mining Pty Limited (Salva Mining) to prepare an update to the Summary Qualified Person's Report ("Report") covering an estimate of Coal Resources and Reserves for the Wahana Rimba Lestari (WRL) coal concession area located in Sumatra, Indonesia.

Salva Mining understands that this Report will be shared with the GEAR's shareholders as a part of continuous disclosure requirements of the company. The estimate of Coal Resources and Reserves as of the 31 December 2019 contained within this Report has been reported in compliance with the requirements of the reporting guidelines of the 2012 Edition of the Australasian Code for the Reporting of exploration results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia ("The JORC Code").

1.1 Data Sources

This review is based on the information provided by PT Wahana Rimba Lestari (PT WRL), GEAR, the technical reports of other consultants and previous explorers, as well as other published and unpublished data relevant to the area. Salva Mining has carried out, to a limited extent, its own independent assessment of the quality of the geological data. The status of agreements, royalties or concession standing pertaining to the assets was provided by the company.

In developing our assumptions for this Statement, Salva Mining has relied upon information provided by the company and information available in the public domain. Key sources are outlined in this Report and all data included in the preparation of this Report has been detailed in the references section of this Report. Salva Mining has accepted all information supplied to it in good faith as being true, accurate and complete, after having made due enquiry as of 31 December 2019.

The principal data used in the preparation of this Report included:

- JORC Resource and Reserve Report titled "Independent Resource & Reserve Report, PT Wahana Rimba Lestari", 31 December 2018, Prepared by Salva Mining;
- Collar, downhole logging, seam pick and coal quality information, provided by PT. WRL;
- Latest Topographic data including any mined-out area;
- PT Prasetya Abdi Persada, "Geotechnical and Hydrology-Hydrogeology Study Final Report of PT Wahana Rimba Lestari", May 2016;
- PT Wahana Rimba Lestari, "Studi Kelayakan Eksplorasi Batubara Plakat Tinggi dan Sundai Keruh, Kabupaten Musi Banyuasin Sumatra Selatan", September 2007;
- PT Wahana Rimba Lestari, "Analisa Dampak Lingkungan Hidup (ANDAL) Pertambangan Batubara PT Wahana Rimba Lestari di Kabupaten Musi Banyuasin Provinsi Sumatera Selatan", January 2010;
- PT Airborne Informatics, "Final Report – South Sumatra Aerial Mapping by Lidar Survey Systems", May 2013;
- PT Prasetya Abdi Persada, "Mining Preliminary Feasibility study of Pt Wahana Rimba Lestari Coal Project final report", May 2016; and
- Capex and Opex data supplied by PT WRL and also derived from Salva Mining's cost database of typical Indonesian operations.

1.2 Limitations

After due enquiry in accordance with the scope of work and subject to the limitations of the Report hereunder, Salva Mining confirms that:

- The input, handling, computation and output of the geological data and Coal Resource and Reserve information has been conducted in a professional and accurate manner, to the high standards commonly expected within the mining professions;
- The interpretation, estimation and reporting of the Coal Reserve Statement has been conducted in a professional and competent manner, to the high standards commonly expected within the Geosciences and mining professions, and in accordance with the principles and definitions of the JORC Code (2012);
- In conducting this assessment, Salva Mining has addressed and assessed all activities and technical matters that might reasonably be considered relevant and material to such an assessment conducted to internationally accepted standards. Based on observations and a review of available documentation, Salva Mining has, after reasonable enquiry, been satisfied that there are no other relevant material issues outstanding;
- The conclusions presented in this Report are professional opinions based solely upon Salva Mining's interpretations of the documentation received and other available information, as referenced in this Report. These conclusions are intended exclusively for the purposes stated herein;
- For these reasons, prospective investors must make their own assumptions and their own assessments of the subject matter of this Report.

Opinions presented in this Report apply to the conditions and features as noted in the documentation, and those reasonably foreseeable. These opinions cannot necessarily apply to conditions and features that may arise after the date of this Report, about which Salva Mining have had no prior knowledge nor had the opportunity to evaluate.

1.3 Disclaimer and warranty

A draft version of this Report was provided to the directors of GEAR for comment in respect of omissions and factual accuracy. As recommended in Section 39 of the VALMIN Code, GEAR has provided Salva Mining with an indemnity under which Salva Mining is to be compensated for any liability and/or any additional work or expenditure, which:

- Results from Salva Mining's reliance on information provided by GEAR and/or Independent consultants that are materially inaccurate or incomplete, or
- Relates to any consequential extension of workload through queries, questions or public hearings arising from this Report.

The conclusions expressed in this Report are appropriate as of 31 December 2019. The Report is only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values outlined in this Report are expressed in United States dollars ($) unless otherwise stated. Salva Mining services exclude any commentary on the fairness or reasonableness of any consideration in relation to this acquisition.

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2 Independent Competent Persons Statement

This Report has been written following the guidelines contained within the 2015 Edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Experts Reports ("the VALMIN Code") and the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code"). It has been prepared under the supervision of Mr Manish Garg (Director – Consulting / Partner, Salva Mining) who takes overall responsibility for the Report and is an Independent Expert as defined by the VALMIN Code.

Sections of the Report which pertain to Coal Resources have been prepared by Mr Sonik Suri (Principal Consultant, Geology) who is a subject specialist and a Competent Person as defined by the JORC Code. Sections of the Report which pertain to Coal Reserves have been prepared by Dr Ross Halatchev (Principal Consultant, Mining) who is a subject specialist and a Competent Person as defined by the JORC Code.

This Report was prepared on behalf of Salva Mining by the signatory to this Report, assisted by the subject specialists' competent persons whose qualifications and experience are set out in Appendix A of this Report.

Mr Manish Garg
Director
Salva Mining Pty Limited

2.1 Statement of Independence

This Report was commissioned by GEAR on a fee-for-service basis according to Salva Mining's schedule of rates. Salva Mining's fee is not contingent on the outcome of this Report. The above-mentioned person(s) have no interest whatsoever in the mining assets reviewed and will gain no reward for the provision of this Report.

Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev, Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates are independent of GEAR, its directors, substantial shareholders, advisers and their associates.

Neither Mr Manish Garg, Mr Sonik Suri, Dr Ross Halatchev nor any of the Salva Mining's partners (including Mr Garg), directors, substantial shareholders and their associates have (or had) a pecuniary or beneficial interest in/or association with any of the GEAR, or their directors, substantial shareholders, subsidiaries, associated companies, advisors and their associates prior to or during the preparation of this Report.

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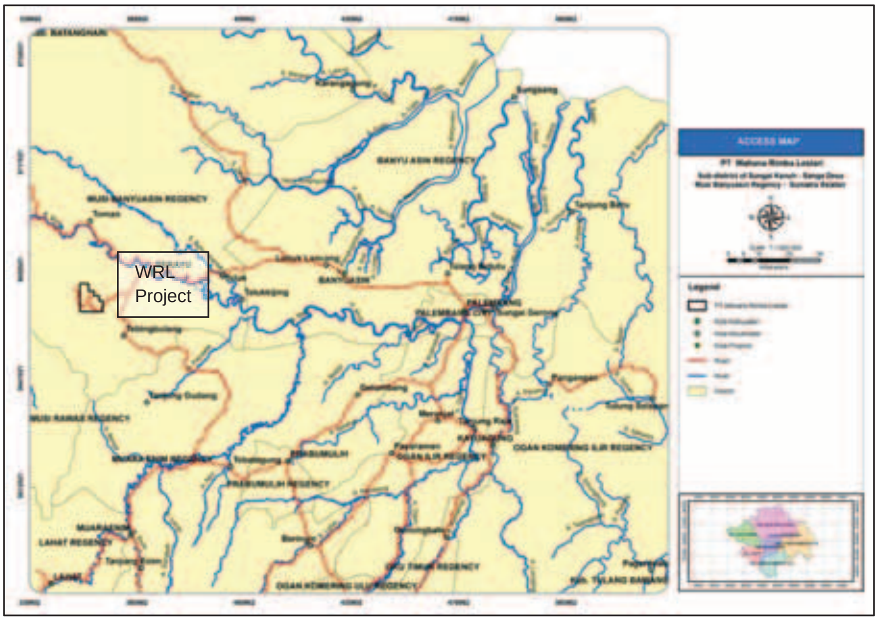
3 Project Description

3.1 Property Description and Access

The WRL concession is located in the Kecamatan (Sub District) of Sungai Keruh in the Regency (Kabupaten) of Musi Banyuasin, in the Province of South Sumatra, Indonesia.

The WRL concession can be approached from the regional city of Palembang, via Sekayu on Trans-Sumatra Highway and then driving on the Regency road from Sekayu to Lestari. Figure 3:1 shows the location of the project area.

Figure 3:1 Concession Boundary and Regional Location



(After PT. Geo Search, 2016).

3.2 Ownership

Tenure at the WRL concession is held by PT WRL under the Izin Usaha Pertambangan Operation and Production (IUPOP) license covering a total area of 4,739 ha with area location number 24 Pemb 12.

The IUPOP was originally executed on 21 November 2008 and the extension was granted in 2016. The detail of the coal concession is given in Table 3.1.

Table 3.1 WRL Concession Details

License Holder	Concession	Area (ha)	Status	Granted	Duration
PT Wahana Rimba Lestari	IUPOP	4,739	Granted	21-Nov-2008	10 Yr
			1st Extension	31-Mar-2016	10 Yr

The "Clean and Clear" Certificate is listed in the official list of Clean & Clear concessions with recommendation letter no. 540/543/DISPERTAMBEN/2014 from the provincial government of South Sumatra.

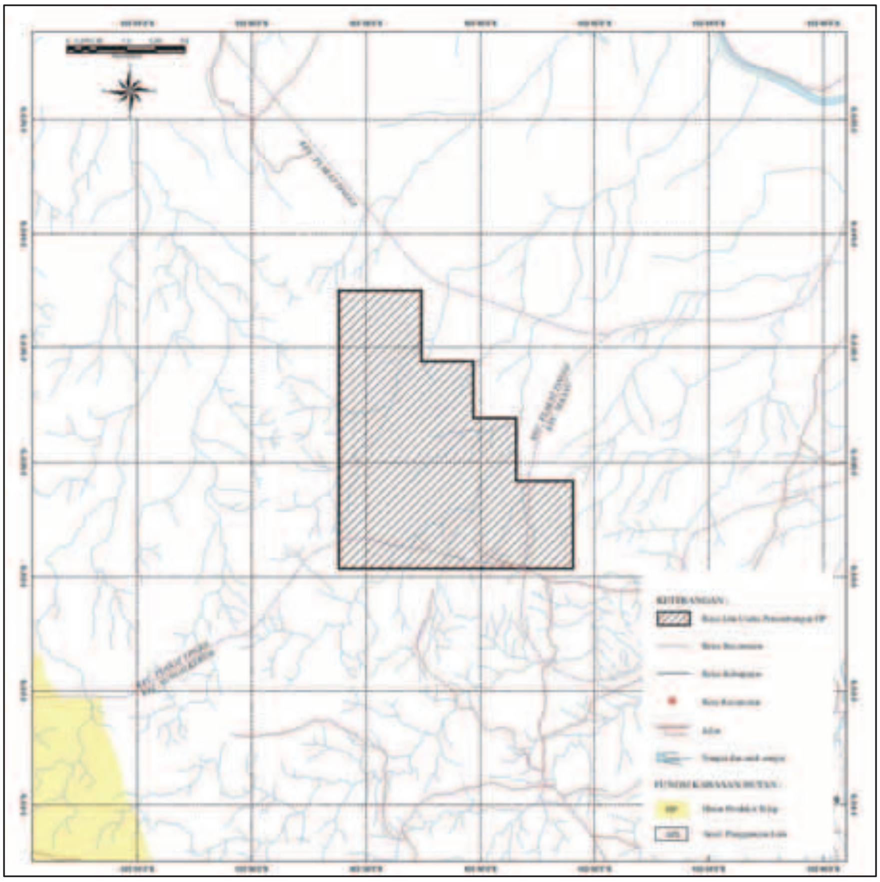
GEAR has 66.9998% ownership of WRL indirectly.

3.3 Forestry & 'Clear and Clear'

The concession is listed in the official list of clean and clear concessions. The "Clean and Clear" Certificate is listed in the official list with recommendation letter no. 540/543/DISPERTAMBEN/2014 from the provincial government of South Sumatra.

There are no protected forests or nature reserves within the project area boundaries that prohibit surface mining. The map shows that the area is classified as non-forest and available for other uses (Figure 3:2).

Figure 3:2 Land Usage and Forest Clearance



No major commercial plantations occur within the project area. Six small villages occur within the IUP and approximately 50% of the area cultivated with mostly small ageing rubber & palm oil farms while the remaining area is covered in secondary re-growth.

4 Geology

4.1 Regional Geology

The WRL concession area is found within the South Sumatra Basin. The following is a general description of the main Eocene to Pliocene age sedimentary units recognised across the South Sumatra Basin, from oldest to youngest;

The **Lahat Formation** is comprised of brown to grey shales interbedded with tuffaceous shales and siltstones. These sediments rest unconformably on the pre-tertiary basement. The thickness of this formation is strongly controlled by the basement topography and this formation is not developed around some pre-tertiary basement highs.

The Oligocene age **Talang Akar Formation** is comprised of thickly bedded sandstones alternating with thin shale bands and coal seams in places. This sedimentary unit is of terrestrial fluviatile origin, grading into a deltaic environment.

The **Baturaja Formation** is only locally developed and consists of a lower bedded unit and an upper massive unit. The bedded unit consists of lime mudstones and lime wackstones, intercalated with marls, whilst the massive unit consists of mudstones, wackstones/packstones and boundstnes.

The **Gumai Formation** is one of the most widely occurring units seen in the basin and is comprised of deepwater marine shales with minor interbeds of limestone and sandstone.

The transition from deepwater marine sedimentation to a regressive sequence is marked by the **Air Benekat Formation** which consists of shales and glauconitic sandstones.

The middle to late Miocene aged **Muara Enim Formation** conformably overlies the Gumai Formation, the transition marked by the top of the last marine shale layer. The Muara Enim Formation consists of interbedded sandstones, claystones and coal seams. The majority of the coal mined from the South Sumatra Basin, including within the NIP concession area, is derived from this unit.

The **Kasai Formation** conformably overlies the Muara Enim Formation and consists of bedded tuffaceous sands and gravels, occasionally interbedded with minor coal seams.

4.2 Local Geology

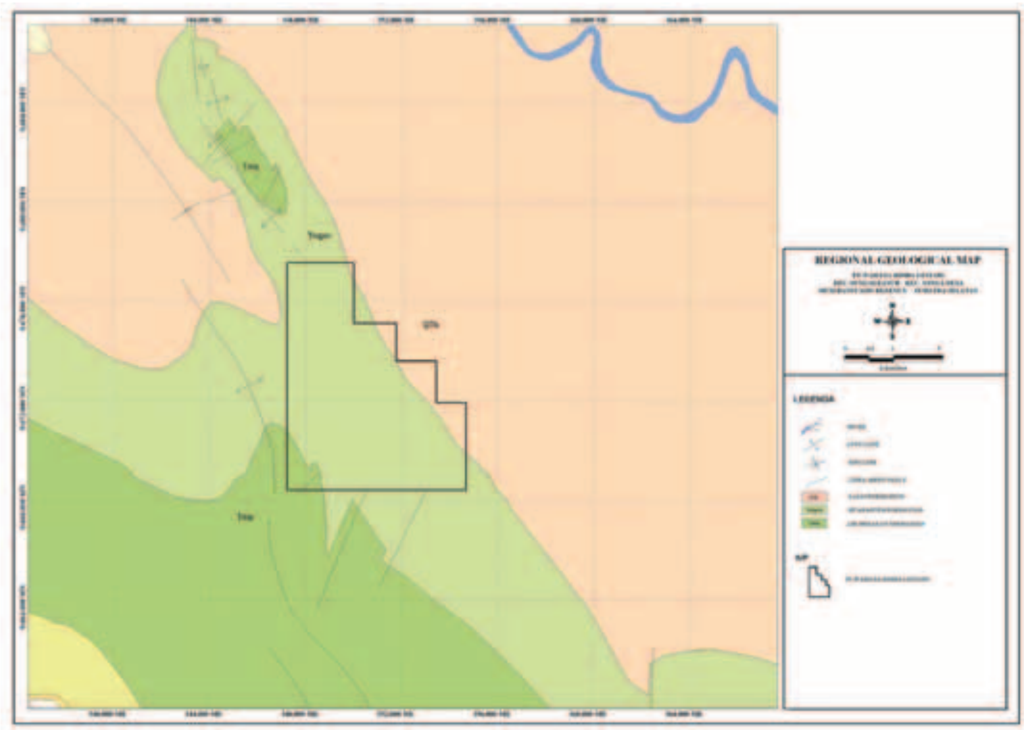
The local geology of the concession is comprised mainly of the late Miocene to Pliocene age Muara Enim Formation which is conformably overlain by the Kasai Formation to the south (Figure 4:1).

The Muara Enim Formation is the major coal-bearing formation within the South Sumatra region. The top and bottom of the Muara Enim Formation are defined by the upper and lower occurrence of laterally continuous coal beds. The formation itself is comprised of several stacked parasequences which vary from 0 m to 30 m in thickness, with shallow marine or bay clays at the base and shoreline and delta plain facies (sand, clay, coal) at the top. The Muara Enim Formation has been divided into 4 sub-formations (M-1 to M-4) and contains up to12 different coal seams, which can reach a maximum total thickness of around 30- 35 metres.

The Kasai Formation is often marked by a distinct pumice or lapilli horizon containing rounded pumice fragments of about 1 cm in diameter. This formation is generally dominated by light coloured, poorly bedded tuffaceous sands and gravels. Often the Kasai formation also contains thin coal seams.

The concession is located in an area of relatively simple geology with undulating coal seams with low dip angles and no major structural features recognized. The coal dips at less than 10 degrees. Figure 4:1 shows the naming and correlation of rock units in the South Sumatra Basin.

Figure 4:1 Local geological map of the WRL concession area



(After PT. Geo Search, 2016).

4.3 Coal Seams

WRL Coal Block lies in the Muara Enim formation coals and seams dip shallowly approximately 10 degrees to the north east. The coal quality is low rank with high inherent moisture and low ash and sulphur contents.

The deposit at WRL coal block contains 11 modelled coal seams (Figure 4:2) of which 5 have been split into upper and lower plies. Some seams are less continuous than others and have been modelled to pinch out were not present in a particular drill hole. The Seam P14 seam is one of the most continuous seams contributing towards the coal resource and is present along the eastern part of the tenement. It sub crops in the middle of the tenement running from NW to SE throughout the deposit.

Figure 4:2 WRL Block Seam Splitting Relationships

Master Seam	1st Phase Splitting	2nd Phase Splitting
P18		
P17	P17U P17L	
P16		
P16A		
P15	P15U P15L	
P14	P14U P14L	P14U1 P14U2 P14L1 P14L2
P13	P13U P13L	
P12		
P11		
P10		
P9	P9U P9L	

4.4 Exploration History

There have been a number of phases of exploration completed in the WRL coal concession area over the past 11 years. The first phase involved generally shallow drilling and field mapping. In-fill drilling and deeper stratigraphic drilling to depths of up to 150 m followed in phase two, in order to allow for more accurate definition of the structural geology and coal quality characteristics of the deposit.

Successive phases of exploration drilling in the WRL concession have involved the following:

- Resource expansion drilling;
- Resource upgrade drilling;
- Infill pre-production drilling; and
- Dump and infrastructure sterilization drilling.

The results of the various phases of drilling have been assessed and geological models have been reported in details in the previous resource report by PT Geo Search in May 2016.

4.4.1 Drilling

In 2006, WRL began exploration by stratigraphic drilling of the concession. The main objective of the work was to confirm the occurrence of coal and determine the areas of potential Coal Resource. Open Hole and Touch Coring method were used during this program.

During 2016, WRL commenced detailed drilling program using Jarco 175/200 drilling machines. The core was of size HQ and was partially cored. Subsequently, further drilling was completed in 2017. Data from only the 2016 & 2017 drilling program has been used in preparation of this resource estimate. Figure 4:3 exhibits the recent drilling operations using Jakro 175 & 200 machines.

Figure 4:3 WRL Drilling Operations

(Source: GEAR)

4.4.2 Downhole Geophysical Logging

All drill holes during the 2016 and 2017 drilling program were geophysically logged using gamma-ray and density to ensure the accuracy and reliability of results (Figure 4:4).

Figure 4:4 WRL Down-hole Geophysical Logging Operations

4.4.3 Topographic Survey

Surface topography was measured by an aerial LiDAR survey. A geodetic survey was also completed and 2 permanent survey station, benchmarks tied into the Indonesian national grid were established. Drill collars were surveyed using total stations (Figure 4:5).

Figure 4:5 WRL Down-hole Geophysical Logging Operations

4.4.4 Geotechnical and Hydrological Survey

In 2016, 3 fully cored, HQ size holes were drilled as part of a Geotechnical Survey of the WRL concession by geotechnical consultant Mr Hendrawan Agni Wicaksono. The following tests were performed;

- Physical properties – including wet density, natural density & dry density
- Uniaxial compressive strength
- Direct shear test
- Excavatability analysis
- Geo-mechanical tests – including point load, ultrasonic velocity
- Hydrological & geo-hydrological analysis

4.4.5 Outcrop Mapping

Mapping of the coal and other rock occurrences was undertaken throughout the concession area by WRL. A total of 6 coal outcrops were observed within the WRL concession. Due to the relatively flat topography and low dip, most of the outcrops of coal were heavily weathered and/or eroded to a certain extent (Figure 4:6).

Figure 4:6 Typical Outcrop

4.4.6 Coal Sampling

Coal cores were sampled on a ply by ply basis. If non-coal partings more than 10cm thick were encountered the parting was excluded and the sample was divided into 2 parts. Partings 10cm thick or less were included in the analysis sample. Roof and floor samples were taken and analysed separately in many instances (Figure 4:7).

Figure 4:7 Coal Box Samples, WRL

Coal samples from the core drilling were analysed at international accredited laboratory PT Geoservices laboratories.

5 Resource Modelling

5.1 Data Supplied

The geological data provided by PT WRL for its concession was independently reviewed by Salva Mining's geologists and is considered appropriate and reasonable for the purpose of estimating Coal Resources. This data, used by Salva Mining for the purpose of resource estimation, includes but is not limited to:

- Drill hole collar information inclusive of total depth drilled per hole;
- Drill hole lithological data inclusive of seam picks identified and correlated on the basis of down-hole geophysics;
- Coal sample table and associated raw coal qualities per sample;
- Drill hole completion reports for most of the holes drilled containing details of core recoveries achieved;
- Down-hole geophysical data in the form of both LAS files and drill hole databases;
- Surpac geological models by PT Geo Search in May 2016, which contains a complete drill hole database as well have grids of seam roofs, floors, the topographic surface and the base of the weathered horizon surface;

5.2 Lithological Data

A total of 55 drill holes were used to construct the geological model in the WRL coal concession area. Of these holes, 7 drill holes were barren, i.e. no coal intersected; this is due to drill-rig limitations (maximum 60 m depth in earlier campaigns). Barren holes are never the less useful for geological modelling purposes as they prevent coal from being modelled where it is not present. In other cases, no seam picks were supplied for a number of holes. In these instances the hole is marked as 'not logged' and the model is allowed to project seams though these holes if warranted by surrounding holes.

100% of the holes have been logged using down-hole geophysics. Down-hole geophysical data acquired by PT WRL is predominantly comprised of gamma, density and calliper logs and has allowed for accurate identification of coal seams in each hole (seam picks) and the correlation of coal seams between holes.

5.3 Topographic Survey and base of weathering (BOW)

Topography data used in the WRL geological models have been derived from Light Detecting and Ranging (LIDAR) remote sensing surveys conducted by PT Airbourne Infomatics. During this survey GPS ground control points were combined with flight trajectories and LIDAR scanning equipment to produce an accurate dataset of XYZ topographic coordinate points for the entire concession area.

A 'non-conformable' base of weathering (BOW) surface was generated for the geological models by translating the topographic surface down by 3 m in the Z direction. This is based on the observation that the average weathered horizon thickness, where it has been logged, is approximately 3 m.

5.4 Data Quality Assurance and Quality Control (QAQC) Measures

5.4.1 Core Sampling

At the completion of each run, core lengths were checked in the splits for recovery to ensure coal seams have been recovered as required. A target core recovery of 90% has been applied throughout all drilling phases. If core recovery was found to be less than 90% within the coal seam, the hole was re-drilled to collect a sample with ≥ 90% recovery. The core was also photographed routinely and logged in the splits by a geologist before being sampled. For open holes, chip samples were collected at 1 m intervals for lithological logging purposes.

All the drill rigs used during each phase of exploration were operated by experienced personnel and drilling was supervised by fully qualified geologists working in shifts.

The sampling of the coal seams was conducted by the rig geologist on duty and was conducted in accordance with the following sampling procedure supplied to rig geologists;

- Open core barrel inner split tube and remove the sample from the barrel;
- Transfer the core to the PVC split or core box;
- Determine the core depth ("From" and "To") from the drill depth; and
- Reconstruct the core in the split to allow for any gaps;
- Determine the core recovery;
- Wash down using water and a cloth and/or brush prior to logging if covered by mud or oil;
- Complete geological logging and photograph structure or any abnormal features. The photograph should show information of drill hole number and from and to depths;
- The division of samples follows the simple scheme of sample all coal, sample separately any contained bands (plies) and take 10 cm roof and floor non-coal samples;
- Place samples into plastic bags which should be doubled to minimise moisture loss. Insert one bag inside another so that they are doubled;
- Label the sample by ID card, the label should give information about the sample number, hole number, from/to depth, and Project Code. Place the label ID card inside the small re-sealable plastic bag before putting it into the sample bag;
- Seal the sample bag with tape and write the sample number on the plastic bag;
- Dispatch sample to an accredited laboratory.

The coal quality sampling technique detailed above is considered by Salva Mining to adequately address the QAQC requirements of coal sampling. As a further coal quality validation step prior to importing coal quality sample results for coal quality modelling purposes, Salva Mining constructed spreadsheets which compare the sampled intervals against the logged seam intervals in order to ensure that sampled intervals match the seam pick intervals.

5.4.2 Down-hole Geophysics and Seam Picks

Down-hole geophysical logs were completed during each drilling program by PT Surtec Indonesia. Geophysical logging was conducted following the completion of a drill hole. After drilling is complete the logging unit deploys down-hole geophysical sondes, including gamma-ray, calliper and density tools to assist with characterising the down-hole formation and its geological properties. Stratigraphic information, intercepted along the entire length of the drill hole (collar to total depth), is recorded and plotted in acrobat pdf format. A digital copy of the data is stored in LAS file format.

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Logging was performed on all of the drill holes (including cored and open holes) and all of the holes were geophysically logged. Seam picks and lithologies have all been corrected for geophysics.

Geophysical logging provides information on the coal seams intersected and aids in the definition of horizon boundaries and marker horizons, used to correlate the subsurface geology. The presence or absence of geophysical logging is one of the criteria used in the determination of points of observation for resource classification purposes. Under normal conditions, coal-bearing sections of each drill hole were geophysically logged at the completion of drilling. In some instances, poor ground conditions restricted the ability to geophysically log the entire hole upon completion. In these cases, collapsed portions of holes were re-drilled in order to allow for density and gamma logging to be accomplished by lowering the geophysical probe through the drill string.

5.4.3 Coal Quality

Coal quality sampling was undertaken by PT WRL and contract geologists, with the analysis testing being completed by PT Geoservices Coal Laboratories at Padang. PT Geoservices laboratories are accredited to ISO 17025 standards and quality control is maintained by daily analysis of standard samples and by participation in regular "round-robin" testing programs.

International Standards Organisation (ISO) methods have been used for Moisture Holding Capacity tests; Australian Standards (AS) have been used for Relative Density and American Society for Testing and Materials (ASTM) methods have been used for all other quality variables.

The following tests were undertaken as standard on all coal samples:

- Total Moisture (TM);
- Inherent Moisture (IM);
- Ash Content (Ash);
- Volatile Matter (VM);
- Fixed Carbon (FC);
- Total Sulphur (TS);
- Calorific Value-air dried basis (CV adb) – selected samples only;
- Relative Density (RD);
- HGI – Selected samples only.

5.4.4 Data validation by Salva Mining prior to geological model construction

Prior to using the lithological (seam pick) and coal quality data for geological model construction purposes, Salva performed the following data validation and verification checks on the data;

- Checking of seam picks against the down-hole geophysics in selected instances in order to validate seam pinch outs or correlations during structural model construction;
- Validation of coal quality sample intervals against seam pick intervals;
- Scatter plots of raw coal quality data pairs were constructed in order to determine outliers. In a few cases spurious data values were identified and removed from the quality data set prior to importing the data into Minescape;
- In cases where RD (adb) data was not determined for a sample, linear regression equations determined from the RD-ash scatter plot constructed from the rest of the raw coal quality data set were used to determine the RD value for the sample concerned from the ash value for that sample;

- Core recovery percentages per core run were compiled and merged with the coal quality sample data set in order to determine if any samples in the coal quality data set are from coal seam intersections with less than 90% core recovery over the seam width. Core recovery was observed to be satisfactory with over 90% recovery within the coal horizon although less than 90% recovery is often seen in the immediate roof or floor to the coal seam (coal samples with less than 90% core recovery were previously rejected by PT WRL staff prior to being forwarded data to Salva Mining);
- During the importation of coal quality samples and associated raw coal quality data into the geological modelling software, a few instances of overlapping samples were identified and these were corrected and the samples re-imported;
- After compositing the coal quality samples over the seam width on a seam by seam basis, histograms were constructed of the composited raw coal quality for each seam. Analysis of these histograms shows that in a few instances, raw ash% outliers are present as a result of the excessive overlap of the coal quality sample into the seam roof or floor. In the majority of such instances, the proportion of outlier composite samples is very small compared to the total number of samples per seam and hence the presence of these outliers has no material impact on the modelled raw coal quality for affected seams.

5.5 Coal Density

No information on in situ moisture was obtained from the laboratory, resulting in the fact that the Preston and Sanders equation could not be applied to obtain in situ relative densities. As a result, all resource tonnages are quoted on an in situ air-dried density basis, as volumes are calculated on an in situ basis and density on an air-dried basis.

The estimate of resources on an air-dried basis will, therefore, result in a higher tonnage as compared to the equivalent in situ moisture basis calculation. This effect has been accounted for to a large extent in the reserving process, where the total moisture as been used as proxy for the in-situ moisture and a Preston Sanders calculation has been made on this basis.

5.6 Coal Quality Data

Within the WRL concession, Muara Enim Formation coals are classified as a low energy sub-bituminous class B coal (ASTM – Guidebook of Thermal Coal page 35).

5.7 Resource Modelling

5.7.1 Structural Model

After completion of the previously detailed QA/QC processes, the available valid lithological and coal quality data was then imported into the MineScape software (Version 5.15) to generate both a structural model and a coal quality models for each of the five resource areas.

The topographic model for each deposit was constructed by importing the Minescape topography grid models for each area. These topography models describe both virgin topography.

The lithological data was then modelled to create structural grids. The schema, stored within the Stratmodel module of the MineScape software controls the modelling of seam elements and their structural relationships, grid model cell size, interpolators and other parameters. The details of these parameters stored in the applied schemas used in the structural modelling process are listed in Table 5:1.

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Within the modelling schema, all of the stratigraphic intervals were modelled with pinched continuity. This is applied in areas where intervals are missing in a drill hole. In this situation, the modelling algorithm stops the interpolation of the missing interval halfway between the two drill holes between which it ceases to be present.

5.7.2 Structural Model Validation

Structural and thickness contours were generated and inspected to identify any irregularities, bulls-eyes, unexpected discontinuities etc. Cross-sections were also generated to identify any further structures such as faulting and any areas where seams were modelled as being discontinuous due to short drilling.

Table 5:1 Model Schema Settings and Parameters

Model Component	Details
Modelling Software	Ventyx MineScape - Stratmodel module
Schema	Wrl_1
Topography Model	Topo_rigv
Topography Model Cell Size	50 m
Structural Model Cell Size	50 m
Interpolator (thickness)/order	Planar 0
Interpolator (surface)/order	Finite Element Method (FEM)/1
Interpolator (trend)/order	Planar 0
Extrapolation Distance	2500m
Parting Modelled	No
Minimum Ply Thickness	10 cm
Minimum Coal Parting	30 cm (PP) otherwise not defined
Conformable Sequences	Weathered, Fresh
Upper Limit for Seams	Base of Weathering (W)
Control Points	No
Constraint File	No
Penetration File	Yes
Model Faults	No
Maximum Strip Ratio	-
Maximum Resource Depth	100 m
Tonnage Calculations	Based on volumes using relative density on an air-dried basis

5.7.3 Coal Quality Model

Coal quality data has been composited on a seam basis. The Inverse distance interpolator was selected for modelling coal quality as it has been shown to perform adequately for most coal quality attributes and it is also less likely to introduce spurious trends into the data. Testing indicated that a power value of two and a search radius of 2500 metres are the most suitable inverse distance interpolation parameters for modelling of the WRL coal deposits. Parameters used for quality modelling are summarized in Table 5:2.

Table 5:2 Quality Model Parameters

Model Component	Details
Coal Quality Data Type	Raw
Model Type	MineScape Table
Interpolator	Inverse distance
Power	2
Search Radius	2500 metres

5.7.4 Quality Model Validation

After the completion of quality model gridding, selected qualities for selected seams were contoured and contours inspected to ensure that quality models had been gridded correctly. As a second validation measure, average qualities reported during resource reporting for all seams were compared against the average qualities of the input data to ensure consistency between input and output data sets.

6 Coal Resources

6.1 Resource Classification and Prospects for Eventual Economic Extraction

Coal Resources present in the WRL concession have been reported in accordance with the JORC Code, 2012. The JORC Code identifies three levels of confidence in the reporting of resource categories. These categories are briefly explained below.

Measured – "...*That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors to support detailed mine planning and financial evaluation*";

Indicated – *"…That part of a Mineral Resources for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow for the application of Modifying Factors in sufficient detail to support mine planning and evaluation"; and*

Inferred – *"…That part of a Mineral Resources for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling.".*

For the purpose of coal resource classification according to JORC Code (2012) Code, Salva Mining has considered a drill hole with a coal quality sample intersection and core recovery above 90% over the sampled interval as a valid point of observation.

In terms of Coal Resource classification, Salva Mining is also guided by the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) (The Coal Guidelines) specifically referred to under clause 37 of the JORC Code (2012).

Resource classification is based on an assessment of the variability of critical variables (raw ash% and seam thickness) through statistical analysis and by an assessment of the geological continuity and input data quality.

Consequently, Salva Mining has sub-divided Coal Resources within the WRL concession into resource classification categories based on the following spacing's (expressed as a radius of influence around points of observation which is half of the spacing between points of observation):

- The measured radius of influence of 350m;
- The indicated radius of influence of 700m;
- The inferred radius of influence of 1500m.

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6.1.1 Assessing Confidence

Several factors outlined in Section 5 of the Coal Guidelines (2014), were considered when assessing confidence in the estimate and classifying the Coal Resource in accordance with the JORC Code (2012). A summary of factors considered is shown below in Table 6:1.

A qualitative review of modelled seam floor elevation and thickness contours, statistical analysis of thickness and coal quality attributes, domaining and general geological setting all show that the seams within the WRL deposit appear to display a relatively high degree of continuity, allowing for a lower level of drilling density for the same level of confidence as compared to a more complex/less continuous coal deposits. The main risk factor in terms of confidence in the resource estimate is considered to be coal quality. There is an estimated 15% overestimation of tonnes due to the use of an air-dried density instead of an in-situ density as discussed in section 5.5 of this Report.

Table 6:1 Criteria considered to assess confidence in the Resource Estimate

Assessing Confidence	Comment	Assessment Summary	Risk Rating (H, M,L)
A critical assessment of local, geographical and geological settings	*In general, the coal seams within the WRL deposit are characterised by a high degree of lateral continuity, allowing for confidence in correlation between holes. There is no evidence of major faulting in the tenement.*	High continuity, benign structure.	L
Identifying critical data	*Seam thickness and raw ash are seen as critical data, thickness being the main factor determining coal volume and raw ash being directly related to both relative density and product coal yield.*	Raw ash was seen as more variable than thickness and hence determining factor for classification.	M
Data Analysis, error and verification	*Internal standards and procedures used for drilling logging and sampling. Lab uses internal QAQC standards and is ISO 17025 accredited.*	Salva Mining used internal checks to data (histograms, global statistics, scatter plots) during modelling to verify data. Apart from some low core recoveries which were evaluated and found to be a true reflection of the input data and no evidence of coal quality bias resulting from poor core recovery was observed.	L
Domaining	*Raw ash% histograms, floor and thickness contours used to investigate domaining*	Domains adequately addressed by modelling parent and daughter seams were present and	L

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Assessing Confidence	Comment	Assessment Summary	Risk Rating (H, M,L)
		assigning coal quality accordingly.	
Statistical Analysis	*Global statistics for thickness and all raw coal quality attributes generated as well as raw ash histograms*	Global statistics were prepared and reviewed. It shows values in expected normal ranges. Classification spacings used for this estimate are in line with those used previously by Salva Mining for other Muara Enim coal deposits elsewhere in the South Sumatra Coal basin.	L
Geological Modelling	*3D geological model constructed using Minescape dedicated stratigraphic modelling software*	The geological model appears to be a good representation of the input drill hole intercept data.	L

6.1.2 Eventual Economic Extraction

It is furthermore a requirement of the JORC Code (2012) that the likelihood of eventual economic extraction is considered prior to the classification of coal resources.

The average coal quality attributes of the coal seams considered are sufficient to be marketed as a low CV thermal coal for domestic power generation purposes. Therefore, Salva Mining considers that it is reasonable to define all coal seams within the classification distances discussed above, to a depth of 100m below the topographic surface, as potential open-cut coal resources.

6.2 Coal Resource Statement

The Coal Resources which have been estimated, have been classified and reported according to the JORC Code (2012) and the Australian Guidelines for Estimating and Reporting of Inventory Coal, Coal Resources and Coal Reserves (2014) as of 31 December 2019 are detailed in Table 6:2.

Table 6:2 Coal Resource Estimate as of 31 December 2019

Resource Classification	Mass (Mt)	TM (arb) (%)	IM (adb) %	Ash (adb) (%)	Volatile Matter (adb) %	Total Sulphur (adb) %	GCV (adb) kcal/kg	Relative Density (adb)
Measured	54.5	53.8	16.0	5.7	42.3	0.22	5,218	1.39
Indicated	100.2	53.5	15.7	5.4	41.9	0.22	5,265	1.39
Inferred	161.2	53.3	16.0	6.0	42.1	0.23	5,190	1.40
TOTAL	**315.9**	**53.4**	**15.9**	**5.7**	**42.1**	**0.22**	**5,219**	**1.39**

Mineral Resources are reported inclusive of the Mineral Reserves
(Note: individual totals may differ due to rounding)

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Coal Resource on seam by seam basis is shown in Table 6:3.

Table 6:3 Coal Resource Estimate as of 31 December 2019

Seam	Resource (Mt)			
	Measured	Indicated	Inferred	Total
P17U	-	-	4.1	4.1
P16	0.8	0.6	1.8	3.2
P15U	-	0.9	2.6	3.5
P15	2.7	5.0	1.1	8.8
P15L	-	4.0	5.1	9.1
P14U1	7.9	10.3	7.4	25.6
P14U	14.5	44.9	61.4	120.9
P14U2	8.3	9.0	7.3	24.6
P14L1	-	-	22.9	22.9
P14L	15.9	20.1	22.1	58.2
P14L2	-	-	24.1	24.1
P10	0.7	0.2	0.0	0.9
P9U	0.1	0.0	-	0.1
P9L	3.4	5.2	1.3	9.9
TOTAL	**54.5**	**100.2**	**161.2**	**315.9**

Coal Resources are reported inclusive of the Coal Reserves

(*Note: individual totals may differ due to rounding*)

6.3 Comparison with Previous Estimates

The total Coal Resource in the current estimate (September 2019) of 316 Mt including 155Mt in Measured and Indicated Resource category which is similar to the previously reported estimate of December 2017.

The increase in Resource between December 2017 and December 2016 across various classification categories is due to additional drilling during 2017. Table 6:4 below shows a breakdown of the difference in resource tonnes for the WRL concession between the latest and the previous estimates.

Table 6:4 Coal Resources - Comparison with the Previous Estimate

Resource Category	Salva Mining Dec 2019 (Mt)	Salva Mining Dec 2017 (Mt)	Salva Mining Dec 2016 (Mt)	PT Geo Search May 2016 (Mt)
Measured	55	55	40	35
Indicated	100	100	58	60
Total M&I	**155**	**155**	**98**	**95**
Inferred	161	161	85	89
Total	**316**	**316**	**183**	**183**

7 Reserves Estimation

7.1 Estimation Methodology

Salva Mining prepared the Coal Resource estimate for WRL Concession coal deposit as of 31 December 2019 which is used as a basis for the Coal Reserve estimate.

The Coal Reserves estimates presented in this Report are based on the outcome of pit optimisation results and the Techno-economic study carried out by Salva Mining. The mining schedule for the WRL concession blocks includes a proposed open-cut mine with a target coal production of 3 Mtpa from all the pits from the year 3 onwards and expanding to 5.5 Mtpa from year 8 onwards.

The subject specialist for Coal Reserves considers the proposed mine plan and mining schedule as techno-economically viable and achievable. This has been done by reviewing all the modifying factors, estimating reserves in the pit shell and doing a strategic production schedule and economic model which confirms a positive cash margin using the cost and revenue factors as described below in this Report.

7.2 Proposed Mine

The WRL Project is designed as a source for supplying coal to domestic power plants. Mine is planned to be initially a 3Mtpa operations with 3 yrs ramp-up period.

The purpose of the mine plan was to create a mining sequence that ensures reliable delivery of the coal product to the ROM stockpile. The mine plan scenario has targeted ramping up production rates for 20 years of mining operation based on the direct input from WRL. This plan had to be accounting for the practical mining constraints to ensure the sufficient working room and the dump capacity to accommodate all waste material mined at each stage plan.

Mine is proposed to be expanded to 5.5 Mtpa operation from Year 8 onwards. Coal is proposed to be sold to the Power Plant on the ROM stockpile uncrushed.

7.3 Proposed Mining Method

Based on the observations made on the characteristic of the WRL coal deposit in the previous section, it is assumed that an "open cut, multi seams and low degree dips with a standard truck and excavator in a haul back operational system" will be most appropriate and selected for WRL coal project. This method is well proven and has become a common mining practice in Indonesia.

Initial box-cut will be developed by mining the waste material using relatively small to medium-sized (100t operating weight) hydraulic excavators, loaded onto standard rear tipping off-highway trucks then hauled to ex-pit dumps in close proximity to the pits. After sufficient mined out space created, the mined waste will be subsequently dumped in-pit using haul back methodology and the ex-pit dump area is then rehabilitated. Coal mining will be undertaken by small-sized (34 – 40t) excavators with flat-bladed buckets to ensure the minimum dilution and greater mining recovery.

Given the shallow nature of the deposit, the underground mining method is not considered for the purpose of this study, hence the term "Open Cut" Coal Reserve Statement. The contractor is proposed to be used for carrying out the mining operations over the life of mine. The unit costs assumption used for the Reserve estimate reflect this style of mining.

Alternative mining methods such as continuous miner and in-pit crushing and conveyor systems may have potential application in this project. However, for the purpose of this study, the conservative approach of using conventional truck and excavator system has been proposed.

7.4 Previous Studies

Various studies have been completed at the WRL project including a Pre-feasibility study and a previous Coal Reserve Statement. Table 7:1 outlines the major previous studies completed.

Table 7:1 Previous Studies

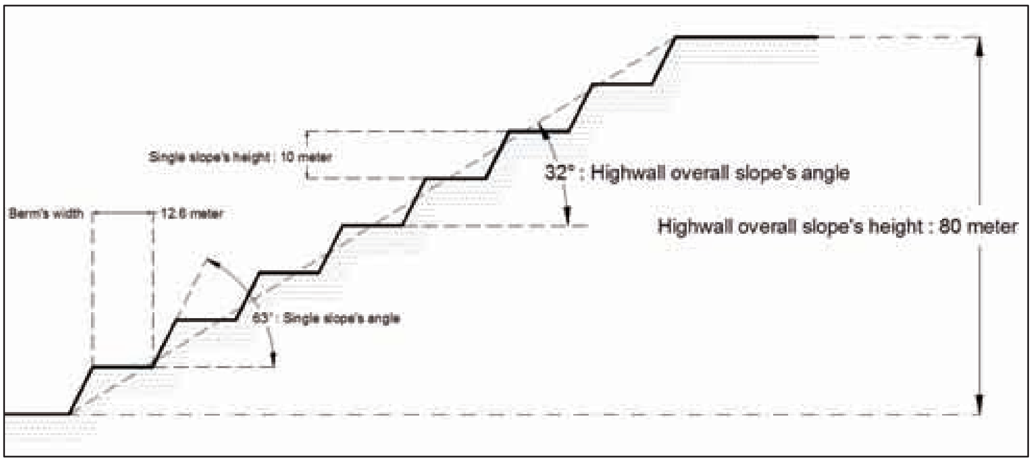
Studies / Factors	Year
Feasibility Study for the award of IUPOP	2006
Environmental Impact Study	2010
Topographical Survey Study	2013
Geotechnical Study for Pit Design	2016
Hydrology & Hydro-geological Study	2016
Updated Pre-feasibility Studies	2016
Reserve Estimate	2016

7.4.1 Geotechnical Studies

Hendrawan Agni Wicaksono of PT. Prasetya Abdi Persada (PAP) completed the detailed geotechnical studies for the deposit.

Figure 7:1 and Table 7:2 below describes the summary of the pit and disposal geometry recommendation based on the geotechnical study result, and for more detailed information.

Figure 7:1 Pit Geometry Recommendation, Geotechnical Study



(Hendrawan Agni Wicaksono 2016)

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Table 7:2 Disposal Design Parameters

No	Slope's height	Recommended Angle (Degrees)	Safety Factor	Probability of Failure
1	5m	63.4	3.75	0%
2	10 m	63.4	1.87	0%
3	20 m	34.0	1.50	6.5%
4	30 m	20.0	1.52	2.6%

An adjustment to the original single slope and berm width was made during the Pre-feasibility Study by PAP for anticipating the operational constraints. Table 7:3 summarises the geotechnical parameters that have been used to generate the practical pit design.

Table 7:3 Practical Design Parameters

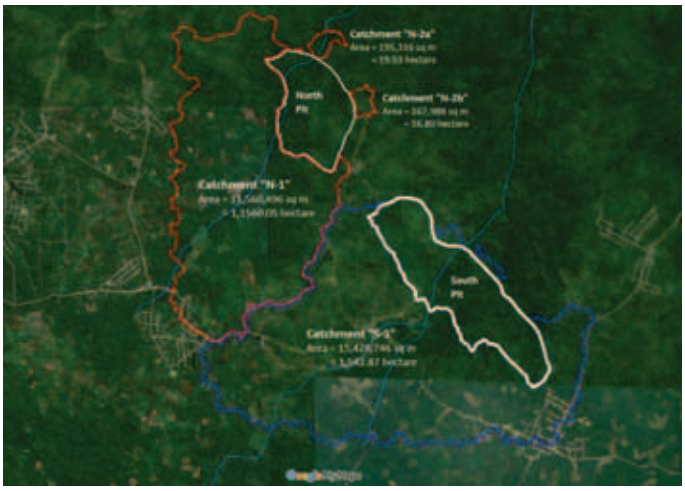
Design Parameters	WRL North & South Pits
Pit Overall High Wall Slope	30 degrees
Pit Single bench Slope	40 degrees
Bench Height	10 m
Pit High Wall Berm	5 m
Dump Overall Slope Angle	14 degrees
Spoil Swell Factor	20%

7.4.2 Hydrological Studies and Surface Water Management

Mr Hendrawan Agni Wicaksono of PT. Prasetya Abdi Persada completed the detailed Hydrological and geohydrological studies for the deposit.

In that study, rainfall data was analysed on a monthly and seasonal basis and wet season at the site was identified to occur between November and April with Medium Intensity (100 mm – 300 mm per month). Catchment areas were identified across the concession including North and South Pits (Figure 7:2).

Figure 7:2 Catchment Area from Hydrology Study



(Hendrawan Agni Wicaksono 2016)

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Based on the hydrological modelling, the total discharge of 300,059 m3/day was identified in the study (Table 7:4).

Table 7:4 Storm Water Modelling

Design Parameters	Runoff Coefficient	Rainfall Intensity (mm/day)	Area (Km2)	Total Discharge (m3/day)
N-1	0.2	27	11.56	63,051
N-2a	0.14	27	0.19	738
N-2b	0.14	27	0.17	635
North Pit	0.75	27	2.16	43,726
Entire North Pit			**14.08**	**108,150**
S-1	0.28	27	15.43	116,225
S-2a	0.18	27	0.13	638
S-2b	0.18	27	0.11	537
South Pit	0.75	27	3.68	84,443
Entire South Pit			**19.35**	**191,909**

Based on the groundwater modelling and geo-hydrological studies, Mr Hendrawan Agni Wicaksono of PT. Prasetya Abdi Persada identified that the maximum discharge of 552,709 m3/day is the maximum during the flood event.

Pit water management is of critical importance to the effective operation of the mine. Dewatering will require well-constructed pit sumps and efficient drainage from operating areas into the sump. The overall strategy for water management over the life of mine will be to:

1. Minimise surface water entering the pit by:

- Building dams and drains to divert water from external catchments away from pits; and
- Profiling dumps so that water is diverted away from the pits.

2. Removing water from excavations by:

- Constructing the main sump at the deepest point of each pit and draining all in-pit water to that sump; and
- Installing sufficient pumps and pipes of a suitable size to pump water from the pit. Two-stage pumping will be required in deeper areas in the later years of the mine life.

It is planned that the dewatering pumps will be designed to handle the peak dewatering requirements.

7.4.3 Pre-feasibility Study – Mining Fleet, Site Infrastructure & Logistics

A pre-feasibility study was completed by Mr Dwi Prasetya, president Director of PT Prasetya Abdi Persada. Proposed site infrastructure was studied in detail in that report.

The mining operation is planned to be contractual and thus most of the mine infrastructure would be established by the mining contractor. Figure 7:3 describes the mining layout, including the relative location of the mining infrastructure and facilities to one another.

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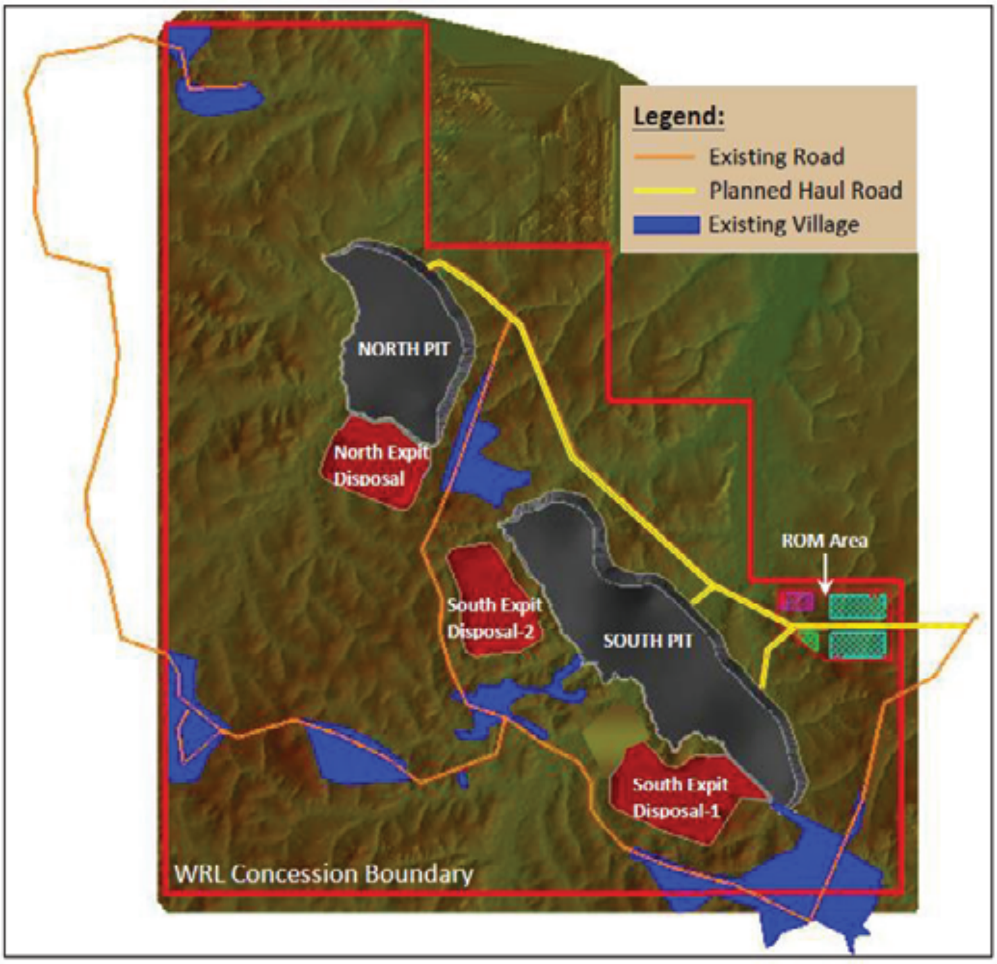
Figure 7:3 Proposed Mining Infrastructure and Facilities



(Dwi Prasetya 2016)

Following is the general description of the major infrastructures and facilities required to be constructed prior to and during the mining operations.

Mining Fleet

It is proposed to employ an experienced mining contractor to carry out the removal of topsoil, overburden and coal. Labour can be sourced locally including some skilled labour for heavy equipment operation.

The mining will be 'free dig' with D8 or equivalent size dozers supporting an excavator fleet by ripping the overburden and preparing it for removal. It is proposed that 80 t class excavators be used for overburden removal and 20-40 t excavators are used for coal mining. 40 t load articulated dump trucks should be used to remove the overburden. Waste, which is mainly claystone, sandstone and siltstone, will initially be stored in out of pit dumps until sufficient space is available for in-pit dumping to back-filling the pits.

It is proposed that coal is hauled to ROM stockpile using 6x4 rigid trucks with 20 t capacity. Haul distances will vary from less than 1 km to a few kilometres as the pit is a laterally extensive strip mine.

Overall batter slope angles used in the design are less than 30º and individual bench slopes up to 40º. Bench heights of 10 m and berm widths of 5 m but can also be varied to coincide with maximizing coal seam recovery and maintaining safe overall batter slope angle. The mining sequence will consider drainage in its design so that working faces can be free draining where ever possible and the need for pumping can be minimised. Table 7:5 exhibits proposed mining fleet.

Table 7:5 Proposed Mining Fleet

Machine Type	Capacity	Potential Item	No. of Units
Excavator	80 t	EC700	3
Excavator	40 t	SK480/ DX500	1
Excavator	20 t	PC200/DX225	2
Bulldozer		D8R	2
Bulldozer		D8E	4
Grader		GD705	1
Compactor		BW216	1
Dump Trucks	20 t	Fuso / Hino	5
Articulated Truck	40 t	A40E	12
Dewatering Pump		CF48	2
Fuel Truck			1
Water Truck			1
Lub truck			1
Lighting Tower			8
Genset	60 KVA		2

Office, Accommodation and Associated Facilities

The facilities are planned to be built in the ROM area and are required to accommodate all employees working on site. The facilities would comprise 5 main zones; a recreation facility, a dining mess, office buildings, a dedicated building for training exercises and a dedicated emergency or first-aid building with supporting ambulance.

Workshops and Stores

These facilities are also proposed to built in the ROM area. A workshop would need to be built and operated by PT. WRL together with the mining contractor. The workshop is required for major maintenance of heavy equipment. Appropriate storage would need to be maintained for spare parts and materials on site.

Waste Facilities

These facilities would also be part of the ROM area. A building for the storage of hazardous waste ("Limbah B3"), as well as oil products, would need to be constructed to handle potentially hazardous material on site.

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Water Supply

Water supply pipelines would need to be built to supply water to the camp, stockpiles and other infrastructure facilities. The water will be sourced from the river nearby or from local water supply dam that exists in the North Block of the WRL concession under mutual agreement with local provider. The water might need to be treated in the water treatment facility that also needs to be built on-site before being supplied to the mine site.

Design of In-pit Ramp Access

Waste and coal haul roads at the mine would be designed and constructed to be three times wider of the largest size haul truck planned to be used on site. It is proposed to use HD465 (Komatsu Brand) or equivalent for this project. This truck has an overall width of 5.4 m and typically requires 30 m haul road width (including the ditches and safety berms on each side of the road) for operating safely. The in-pit ramp would be constructed to a maximum gradient of 8%, although 10% is reasonably acceptable for short term ramps or short sections of the ramp.

Pit to ROM Coal Haulage Road

Coal haulage roads would be constructed from pit to the ROM stockpile. The maximum road length is estimated to be 6.9 km from the North Pit to the ROM stockpile location. The construction will be undertaken to the appropriate grades, the radius of curvature and formation camber appropriate to the haulage equipment and haulage velocities selected.

The biggest truck proposed to be used for coal hauling operation is P124CB (Scania Brand) tipper trucks. This truck typically requires a haul road of 12 m width in total for operating safely.

ROM Area and Stockpile

The ROM area proposed to be constructed for this project will include coal stockpile, office and accommodation, workshop and stores, waste facilities, water supply and other related facilities. This area is estimated to occupy around 76.3 ha and is located in the eastern corner of southern mining concession. Figure 7:4 exhibits the detailed ROM area proposed for WRL coal project.

Figure 7:4 Proposed ROM Layout

(Dwi Prasetya 2016)

The two coal stockpiles have been designed with a maximum capacity of 700 kt or equate to 6.5 weeks of coal supply, accounting for the top production level of WRL (5.6 Mtpa). The stockpiles area are planned to be covered to optimize the moisture levels in the coal and maintain the product quality.

Coal will be sold from the stockpile area in an uncrushed form (as mined), hence no crushing facilities planned to be constructed for WRL project. The stockpiles will be the coal selling point where the ownership of the coal transfers from WRL to customer.

Weighbridges are planned to be installed at the entrance to ROM stockpiles to weigh coal trucks coming from the pit and at the exit point of the ROM area. These weighbridge readings will be reconciled and used as the basis for contractor payments calculation and for invoicing the customer.

Coal Logistics

PT WRL project has very simple coal production chain where coal is cleaned and mined at the pit using small-sized excavators (combination of PC300 and PC400 classes or equivalent) and hauled by combination of P124CB and CWB520 classes or equivalent (rigid body off-highway) coal trucks to ROM stockpiles. The average haul distance from the coal face to the ROM is approximately 6 km over the mine life.

7.5 Modifying Factors

Pre-feasibility studies have been completed to commence mining operations. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval (IUPOP).

WRL concession is a greenfield project which is proposed to support the coal supply for the power plant. A pre-feasibility study has been carried out for WRL block detailing its mining method, mining strategy, logistic requirement along with the financial modelling. Where an entity is a greenfield project, its Pre-Feasibility or Feasibility level study is required for the whole range of inputs to meet the requirement in Clause 29 for the Ore Reserve to continue that classification. Salva Mining has used modifying factors based on Pre-feasibility study carried out for WRL concession. In Salva's opinion, the modifying factors discussed in detail for WRL block at Pre-Feasibility stage.

Table 7:6 outlines the modifying factors used to run the mine optimisation and estimation of the Coal Reserves.

Table 7:6 Modifying & Mine Optimisation Factors

Factor	Chosen Criteria
Seam roof & floor coal loss	0.15 m
Seam roof & floor dilution	0.01 m
Geological & Mining loss including a loss in transportation and handling	2%
Minimum mining thickness minable coal seam	0.3 m
Dilution default density	2.2 bcm/t
Dilution default calorific value	750 Kcal/kg
Dilution default ash	75%

Factor	Chosen Criteria
Overall Highwall and Endwall slope	30 deg
Maximum Pit depth	100m
Minimum Mining width at Pit bottom	50m
Exclusion of Mining lease (CCOW) and offset from Pit crest	50m
Offset from the village/road	150m
Mining, Coal handling and Transport Cost	Available and Used
Coal Selling Price	US$ 12.93/t ex ROM Stockpile
Government Documents/approvals	Available and Used
Environment Report	Available and Used
Geotechnical Report	Available and Used
Hydrogeology Report	Available & Used

7.6 Notes on Modifying Factors

7.6.1 Mining Factors

General

The mining limits are determined by considering physical limitations, mining parameters, economic factors and general modifying factors as above (See Table 7:6). The mining factors applied to the Coal Resource model for deriving mining quantities were selected based on the use of suitably sized excavators and trucks. The assumptions are that due to the shallow to a moderate dip of the coal, mining will need to occur in strips and benches.

The mining factors (such as recovery and dilution) were defined based on the proposed open cut mining method and the coal seam characteristics. The exclusion criteria included the lease boundary, a safe buffer zone from the village and road and a minimum working section thickness.

Determination of Open Cut Limits

The geological models that were used as the basis for the estimation of the Reserves are the MineScape geological models prepared by Salva Mining to compute the Resources.

Potential open-cut reserves inside different blocks of the Project Area were identified with pit optimisation software utilising the Lerchs Grossman algorithm. By generating the financial value (positive or negative) for each mining block within a deposit and then applying the physical relationship between the blocks, the optimal economic pit can be determined.

This method is widely accepted in the mining industry and is a suitable method for determining economic mining limits in this type of deposit. The optimiser was run across a wide range of coal prices using a standard set of costs that was developed by Salva Mining and based on typical industry costs in similar operations. These costs were adjusted to suit the conditions for this project.

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Physical Limits for Optimiser

In addition to the mining and economic constraints, the optimisers were mostly limited by a 3-dimensional shell which was built for each block following either a surface constraint or geological model extent. These constraints are detailed in Table 7:7. This pit shell effectively represented the maximum pit possible in the deposit that was reasonable for the estimation of Coal Reserves.

Table 7:7 Block wise Optimiser Base Pit limits

Block Name	North	South	East	West
North Pit	Indicated Resource Boundary	Village/Road	IUP Lease	Sub-crop
South Pit	Village/Road	Village/Road	Optimised Pit shell	Sub-crop

7.6.2 Permits and Approvals

Salva Mining understands that the permits and approvals with regard to further mining activities in the WRL Coal Concession deposits are in good standing.

7.6.3 Cost and Revenue Factors

General

PT WRL provided a "data sheet" of indicative unit costs and revenues relevant for this project. Salva Mining also reviewed the costs for reasonableness against known current mining costs for similar mining conditions within Indonesia. An in-house NPV based economic model was developed to show that the project and reserves are "economic". These unit rates were then used to estimate the cost to deliver coal to ROM Stockpile. This allowed a break-even strip ratio to be estimated and the rates were also used to calibrate the Optimiser software.

The following points summarise the cost and revenue factors used for the estimate:

- All costs are in US dollars;
- Long term coal price of US$12.93 per tonne (ex mine ROM stockpile for domestic power plant);
- Royalties of 5% of revenue less any barging and marketing cost;
- Coal mining cost of US$0.75 per tonne;
- Waste mining cost (excluding waste overhaul) of US$1.75 per bank cubic metre;
- Allowances were made for coal hauling, quality control, stockpile and environmental and rehabilitation cost which totalled approximately $3.03 per tonne;
- Costs have been allowed along with VAT of 10%;

Unit Costs

The Contractor and Owner unit costs used in the Lerchs Grossman optimiser are detailed in Table 7:8 and Table 7:9. These costs were used to create a series of waste and coal cost grids which were used to generate the optimiser nested pit shells.

Table 7:8 Contractor Unit Rates (Real Terms)

Cost Item	Unit	Rate
Land Clearing	$/ha	1,700
Waste Mining	$/bcm	1.75

Waste Haulage (above 1 km)	$/bcm/km	0.30
Coal Mining	$/t	0.75
Coal Haul to ROM Stockpile	$/t km	0.11

Note: All quoted cost in local currency is adjusted for fuel price and exchange rate

Table 7:9 Variable Owner Unit Costs (Real Terms)

Cost Item	Unit	Rate
Stockpile Management	$/t	0.30
Environmental and Rehabilitation	$/t	0.20
Salary and Wages	$/t	0.10
Local Government Fees	$/t	0.25
Corporate Overheads	$/t	0.25

Royalty was estimated 5% based on the respective sale prices of the coal. A 10% VAT has been applied to all services purchased.

7.6.4 Operating Cost & Capital Expenditure

PT WRL and the previous pre-feasibility study provided the operating costs estimates for mining and other activities including coal hauling, barging and port handling charges, which Salva Mining checked for reasonableness.

Total operating costs per tonne of coal product including royalty for the WRL Project has been estimated as US$8.55 per tonne over the life of the mine. The updated operating cost for the WRL projects has been summarised in Table 7:10.

Table 7:10 Average Unit Operating Cost (Real Terms) over Life of Mine

Cost Item	$/t
Land Clearing	$0.02
Topsoil Removal	$0.16
Waste Mining	$4.12
Waste Overhaul	$0.14
Coal Mining	$0.75
Haul to ROM Stockpile	$0.66
ROM Coal Handling	$0.30
Environmental and Rehabilitation	$0.20
Salary and Wages	$0.10
Corporate Overheads	$0.25
Local Government Fees	$0.25
VAT	$0.58
Contingency	$0.38
Operating Cost Excl. Royalty	**$7.91**
Royalty	$0.63
Operating Cost incl. Royalty	**$8.54**

Capital Cost

As PT WRL is engaging contractors for mining operations at WRL concession blocks, it is envisaged that no major capital expenditure shall be incurred towards the mining equipment. But major capital will be required for infrastructure upgrades for initial development.

Salva Mining estimates the total capital expenditure of US$10.9M which includes a contingency of US$1.4M. A contingency of 15% has been applied to the capital cost estimate. These estimates are considered to have an accuracy of ± 15%.

In addition to the expansion capital of US$10.9M, Salva Mining has factored 2% of the invested capital as sustaining capital per annum for asset maintenance over the life of mine. While preparing these estimates, Salva Mining has relied on industry benchmarks, its internal database and expertise and internal studies on the WRL concessions. The Capital Cost estimates and the basis of its estimation are shown in Table 7:11.

Table 7:11 Capital Cost (Real Terms)

Sr. No.	Particulars	Direct Cost ($M)	Contingency ($M)	Total Cost ($M)
1.1	Land Compensation	3.1	0.5	3.6
1	Land Compensation	3.1	0.5	3.6
2.1	Road From Pit to ROM Stockpile	1.4	0.2	1.6
2.2	Workshop, Office and Laboratory	0.8	0.1	0.9
2.3	Backup Power Generation	0.3	0.0	0.3
2.4	Accommodation Camp	0.5	0.1	0.6
2.5	Fuel Storage	0.3	0.0	0.3
2.6	Water supply and Sewage System	0.1	0.0	0.1
2.7	Communications	0.1	0.0	0.1
2	Mine Infrastructure	3.4	0.5	3.9
3.1	ROM Stockpile	3.0	0.5	3.5
3	ROM Stockpile	3.0	0.5	3.5
	Total Project Capital	**9.5**	**1.4**	**10.9**

Salva Mining has compared these against the industry benchmarks and estimated these to be reasonable.

7.6.5 Processing Factors

The coal is to be sold unwashed so no processing factors have been applied.

7.6.6 Marketing & Pricing Factors

Marketing

It is proposed that PT WRL will sell coal from the concession to the power plant on ROM Basis. Potential for eventual economic extraction of this Coal Resource has been significantly enhanced by the proposed point of sale of the coal from the mine ROM stockpile and the opportunity to sell this coal into the South Sumatra power industry. Figure 7:5 shows the location of the WRL project in relation to the planned coal-fired power stations and high voltage transmission lines.

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Figure 7:5 Planned Electricity Network, South Sumatra

(Source: PLN 2015)

Pricing

To estimate the long-term price for WRL coal, Salva Mining has adopted the latest brokers forecast (Nov 2019) for Newcastle Thermal Coal Index prices (USD/t, FOB) as a benchmark price. These data which was collected by KPMG include forecasts of future prices for coal of CV 6,322 kcal/kg (gar) over a long-term horizon from each expert.

Table 7:12 Newcastle Coal Index Forecast

	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real, 2019)
Analyst 1	14-Oct-19	$68.0	$75.0	$82.0	$82.0	$75.0
Analyst 2	11-Oct-19	$70.0	$70.0			$65.0
Analyst 3	9-Oct-19	$70.0	$67.5			
Analyst 4	4-Oct-19	$66.0	$69.0	$75.0	$76.0	$75.0
Analyst 5	4-Oct-19	$63.0	$62.0	$62.0		$68.0
Analyst 6	4-Oct-19	$70.0	$66.0	$66.0	$66.0	$57.0
Analyst 7	4-Oct-19	$66.5				
Analyst 8	2-Oct-19	$75.0	$80.0	$80.0	$76.7	$70.0
Analyst 9	2-Oct-19	$69.0	$75.0	$75.0	$76.0	$73.3
Analyst 10	1-Oct-19	$85.0	$85.0			$80.0

	Date of Forecast	2020 (nom.)	2021 (nom.)	2022 (nom.)	2023 (nom.)	Long Term (Real, 2019)
Analyst 11	26-Sep-19	$70.0	$70.0	$75.0	$75.0	$70.0
Analyst 12	25-Sep-19	$82.2	$73.5	$70.5	$68.5	$57.5
Analyst 13	24-Sep-19	$72.8				
Analyst 14	23-Sep-19	$75.0	$85.0	$90.0		$90.0
Analyst 15	23-Sep-19	$65.0	$65.0			
Analyst 16	12-Sep-19	$76.0	$80.0			$77.0
Average		**$71.5**	**$73.1**	**$75.1**	**$74.3**	**$71.5**

Source: KPMG Coal Price & FX consensus forecasts, November 2019

Salva Mining has adopted the average of the long-term price forecast ($71.5/t) as a reasonable benchmark price for Newcastle Index.

The Indonesian Government, set by the Ministry of Energy and Mineral Resources (Menteri Energi dan Sumber Daya Mineral), publish a monthly coal price report – the 'Harga Batubara Acuan' (HBA) or the Indonesian Coal Price Reference. HBA is an average price of four specific Indonesian and Australian coals, which is derived from the Argus Indonesia Coal Index 1 (ICI1), Platts Kalimantan 5900 gar, Newcastle Export Index (NEX), and the Global Coal Newcastle Index (GCNC) using the indices from the previous month, with the quality of CV = 6,322 kcal/kg gar, Total Moisture = 8%, Total Sulfur = 0.8% and Ash=15%.

Given that the Indonesian HBA price oscillates close to the Newcastle Index, Salva Mining has used forecast price for Newcastle Index as a proxy to HBA coal price forecast.

The 'Harga Patokan Batubara' (HPB) – Coal Bench Mark Price is the method used for price assessment for royalty purposes by the Indonesian Government for coal of any specification using the following formula:

HPB = (HBA x K x A) – (B + U) [US$/tonne]

Where:

HPB = The coal price reference calculated by adjusting the quality parameter
K = Calorific values of the coal / 6322 (gar)
A = (100 – Total Moisture)/ (100 – 8)
B = (Sulphur – 0.8) * 4 [US$/t]
U = (Ash - 15) * 0.4 [US$/t]

The long-term forecast price was calculated as $22.60/t using the HPB conversation formula for the WRL coal (CV of 2,897 kcal/kg GAR, Total Moisture 52.7%, Sulphur 0.21% and Ash 6.5%). Salva Mining has further discounted this coal price forecast by $10.00/t to account for Ex-Pit sales location rather than FOB shipping location which is typically used for purpose of benchmark coal sales, resulting in the long term price forecast of $12.60/t for the WRL coal, Ex-ROM stockpile.

The following Table 7:13 summarises long term price forecast taken to estimate reserves.

Table 7:13 Long Term Price Estimate

Mining Blocks	GCV, kcal/kg (gar)	Long term Price Ex ROM Stockpile (US $/t)
WRL	2,897	12.60

7.6.7 Other Relevant Factors

Limitations to Drilling

54 boreholes located and drilled in 2016 and 2017 within the WRL Project Area have been used for Resource modelling. 100% of boreholes have been logged using down-hole geophysics. Geophysical data is predominantly comprised of gamma, density and calliper logs and has allowed for accurate seam definition. The Resource is limited to 100 m depth below topography in all the WRL concession coal blocks.

Risks to Future Coal Reserves

Continuation of work will be required to support a future update of Reserve Estimates and Mine Plans. These include:

- detailed geotechnical studies to confirm the overall slope angles and other parameters in deeper pit area;
- detailed hydrogeological studies to know the water flow gradient and dewatering arrangement;
- more quality data as well as detailed drilling and updates to the geological model;
- land compensation issues; and
- changes in the life of mine schedule, infrastructure constraints, coal transportation issues and due to changes in marketing and costing during the mining operation.

These items may cause the pit shell and mining quantities to change in future Reserve Statements. Salva Mining is not aware of any other environmental, legal, marketing, social or government factors which may hinder the economic extraction of the Coal Reserves other than those disclosed in this Report.

In the opinion of Salva Mining, the uncertainties in areas discussed in the Report are not sufficiently material to prevent the classification of areas deemed Measured Resources to be areas of Proved Reserves for the purpose of this Report. Salva Mining also believes that the uncertainties in each of these areas also not sufficiently material to prevent the classification of areas deemed Indicated Resources to be areas of Probable Reserve.

Key project risk for the WRL Project emanates from the following factors in order of importance.

- Lower long-term coal prices or domestic coal demand;
- Higher life of mine capital, operating costs and logistics issues.

Any downside to these factors will likely have a significant impact on the economic feasibility of this project. However, the projected cash flows in the financial analysis currently show a healthy margin.

7.7 Optimisation Result

The optimiser produced a series of nested pit shells using the same cost parameters with varying sale price of coal. The method starts with a very low discounted sale price following a high discount factor and moves toward higher sale prices by decreasing the discount on sale price. It estimates the net margin by subtracting the total cost from the revenue within a particular shell at a particular discount factor using the cost-revenue parameters and the physical quantities within the pit shell. As the method progresses, the incremental margin per tonne of coal slowly drops down to zero at "zero" discount factor and then goes negative as the pit shells go deeper following higher sale prices. As a result, the cumulative margin slowly rises up to a maximum level at "zero" discount factor and then starts dropping off. Thus, the pit shell (OPT000) which represents the "zero" discount factor is called the optimum pit shell as any smaller or bigger shell will have a lower cumulative margin ("value"). The goal in this process is intended to have economic pit sensitivity.

7.7.1 Selection of Pit Shell

PT WRL is proposing to mine 3 Mtpa of coal from WRL coal concession blocks expanding to 5.5 Mtpa from Yr 8 onwards. An economic model was prepared for the mining operation the WRL coal concessions to determine the project breakeven or incremental stripping ratio. The pit optimisation results were examined and pit shells selected where the incremental stripping ratios were less than or equal to break even strip ratio determined at a point where the costs for mining and handling the coal equalled the revenue generated by the coal.

Break Even Stripping Ratio

Table 7:14 summarises the calculation of the Break-Even Stripping Ratio for WRL Blocks. The methodology adopted involves taking the cost to mine a tonne of coal and adding all the costs associated with getting the coal to the point of sale.

Table 7:14 Break-even Stripping Ratio (BESR)

	WPL
Coal Price, US$/t, Ex Mine ROM Stockpile	$12.60
Royalty, US $/t	$0.63
Overheads, US $/t	$2.37
Coal Haulage to Stockpile Cost, US $/t	$0.66
Coal Mining, US $/t	$0.75
Waste Mining (US$/bcm)	$1.75
Break-Even Strip Ratio	4.68

For the purpose of reserve estimation, total moisture was considered to be equal to in-situ moisture for determination of in-situ relative density as in-situ moisture values were not available. The in-situ density of the coal has been estimated using the Preston-Sanders method to account for the difference between air-dried density and in-situ density. The formula and inputs were as follows:

$$RD2 = RD1 \times (100 - M1) / (100 + RD1 \times (M2 - M1) - M2)$$

Where

- RD2 = In-situ Relative Density (arb)
- RD1 = Relative density (adb)
- M1 = Inherent Moisture (adb)
- M2 = Total Moisture (arb)

It should be noted that while the total moisture from laboratory measurements may not necessarily equal the in-situ moisture, this is considered to be the best estimate given the limited amount of data. Salva Mining has assumed that no moisture reduction takes place for the determination of product quality.

7.7.2 Coal Product Quality

It is assumed that the final product will have the same quality of ROM coal which is summarised in Table 7:15.

Table 7:15 Product Coal Quality

Block	RD insitu t/m3	TM arb %	IM adb %	Ash adb %	CV (GAR) Kcal/Kg	TS adb %
North	1.19	52.5	15.8	6.5	2,939	0.19
South	1.20	52.9	16.4	6.4	2,835	0.22
Total	**1.19**	**52.7**	**16.0**	**6.5**	**2,897**	**0.21**

7.8 Final Pit Design

For the purposes of this Report, Salva Mining has limited the pit depth to the limit of exploration drilling within the limit applied to the Resource estimates. Other factors considered in the final optimum pit designs included:

- The location and proximity of coal to exploration data;
- Proximity to the concession boundary;
- Out of pit dumping room;
- Geotechnical parameters; and
- Surface water management considerations.

The final pit designs closely followed the selected pit shell in most locations.

7.8.1 Cut-off Parameters and Pit Limit

Overall low-wall slopes as per the basal seam dip, endwall slopes and highwall slopes for the final pit design were considered as per Table 7:16.

Table 7:16 Pit Design Parameters for WRL blocks

Pit Design Parameters	North	South
Overall Highwall Slope	30 deg up to 100m depth	30 deg up to 100m depth
Bench Slope	40 deg	40 deg
Bench Height	10 m	10 m
Highwall berm	5 m	5 m
Low wall slope	5-7 deg	5-10 deg
Ramp Width	30 m	30 m
Maximum Ramp Grade	8-10%	8-10%

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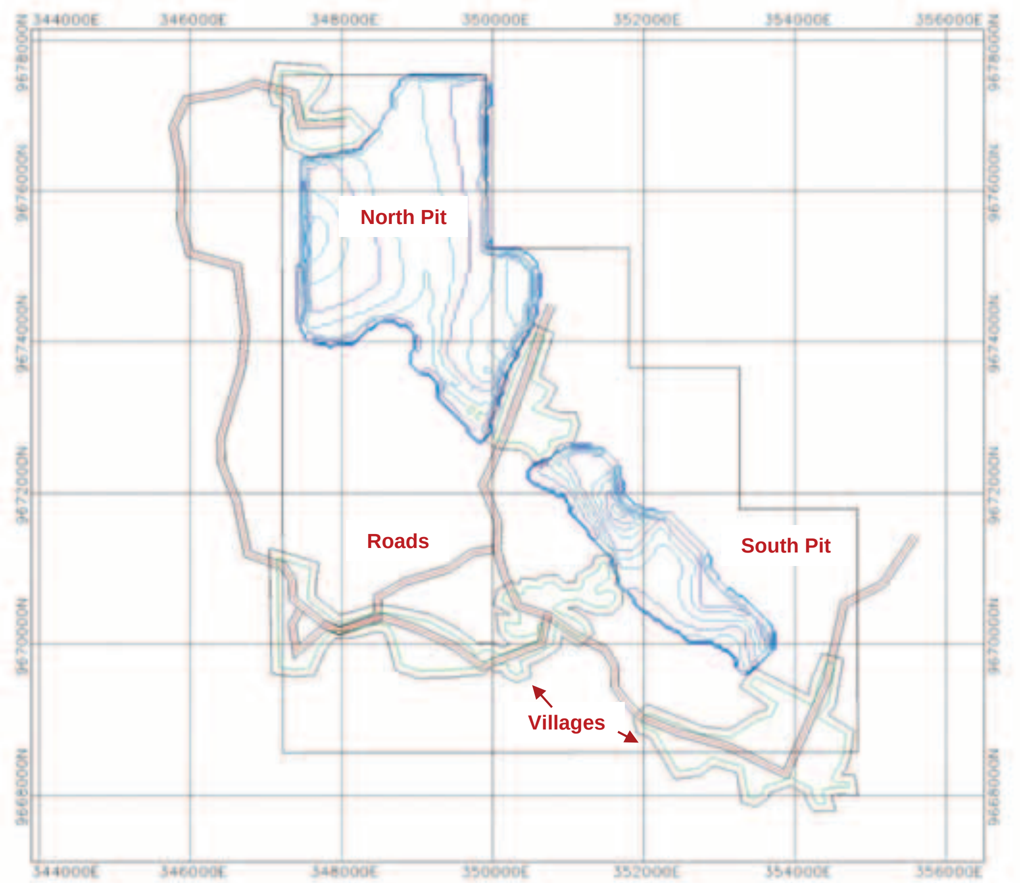
7.8.2 Pit Designs

The coal seam distribution within the WRL Concession deposits resulted in the Optimiser identifying several pits with the different basal seams. The pits were subjected to adjustments to form a practical pit design, which lead to the exclusion of the minor narrow pit shells and the resultant formation of Mineable Pit Shells, which formed the basis of the subsequent reserves estimate (Figure 7:6).

Pits for various blocks have been designed within the limits as defined by the pit optimisation analysis. These limits are rationalised to ensure access between floor benches and walls were straightened to generate mineable pits.

Figure 7:6 Pit Selection – WRL Block



Both pits have been designed such that low walls commenced at the sub-crops and followed the coal floors. The overall highwall batter angle is 30 degrees as the ultimate pit depth ranges from a little more than 60 m to 100 m. This was done in accordance with the geotechnical study which was completed in May 2016.

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Optimised Pit Shell

The optimised pit shells for WRL blocks as delineated in the final pit design do contain Inferred Resources which are excluded from the Coal Reserves reported for the WRL concession. Under the JORC Code, Inferred Resources cannot be converted to Reserves due to poor confidence in structural continuity and quality variables. Insitu quantities and mine scheduled tonnes within an optimized pit shell along with Reserves are shown in Table 7:17.

Table 7:17 Insitu & Scheduled Quantities & Reserves, WRL Concession

Pit	Insitu			Mine Scheduled Tonnes within the Optimised Pit shell			Coal Reserves, Mt
	Waste, Mbcm	Coal, Mt	SR, bcm/t	Waste, Mbcm	Coal, Mt	SR, bcm/t	
North Pit	277	148	1.87	284	116	2.44	51.7
South Pit	81	50	1.62	82	40	2.08	35.5
Total	358	198	1.81	366	156	2.35	87.2

The ROM coal quantities within the Mineable Pit Shells were then tested so that only Measured and Indicated Coal Resources were classified as Coal Reserves. Coal Reserves within the seams having Measured Resources are reported as Proved Reserves whereas seams having Indicated Resources are reported as Probable Reserves.

7.8.3 Mining Pit Design

The final pit designs and representative cross-section of mining blocks at WRL concessions have been shown from Figure 7:7 to 7:9.

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Figure 7:7 WRL Pit with P14U Indicated Resource Polygon

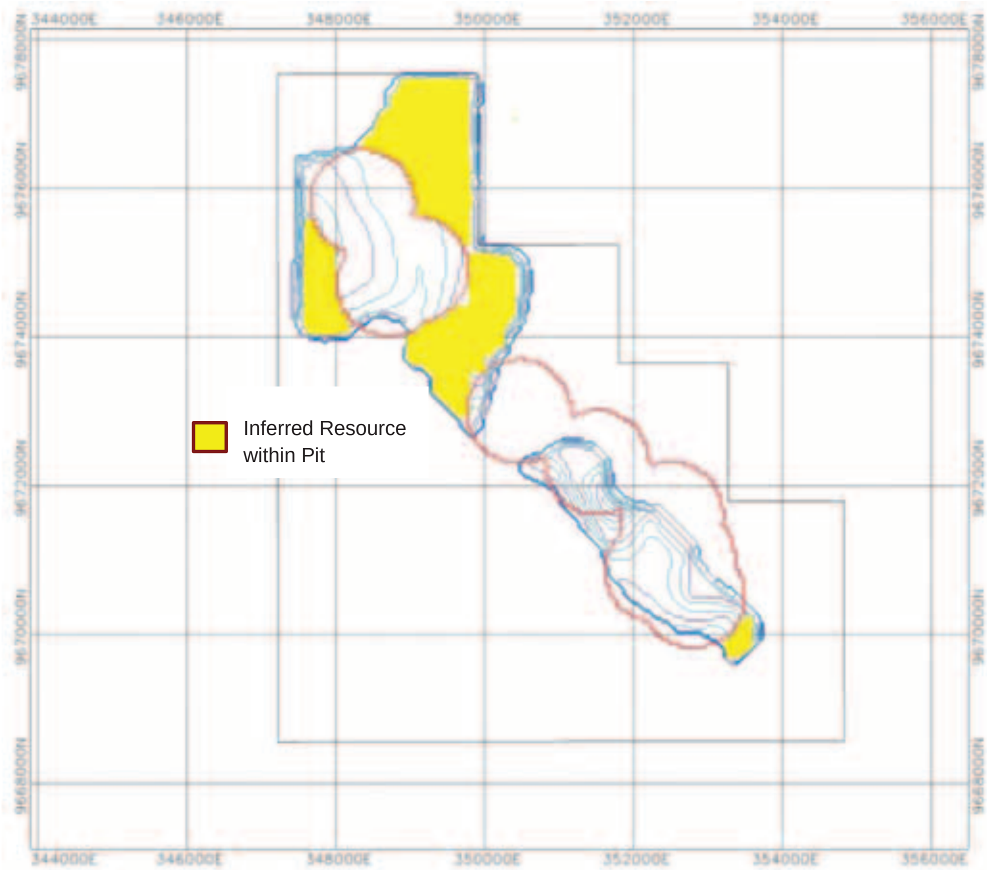

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Figure 7:8 Representative Cross Section North Pit

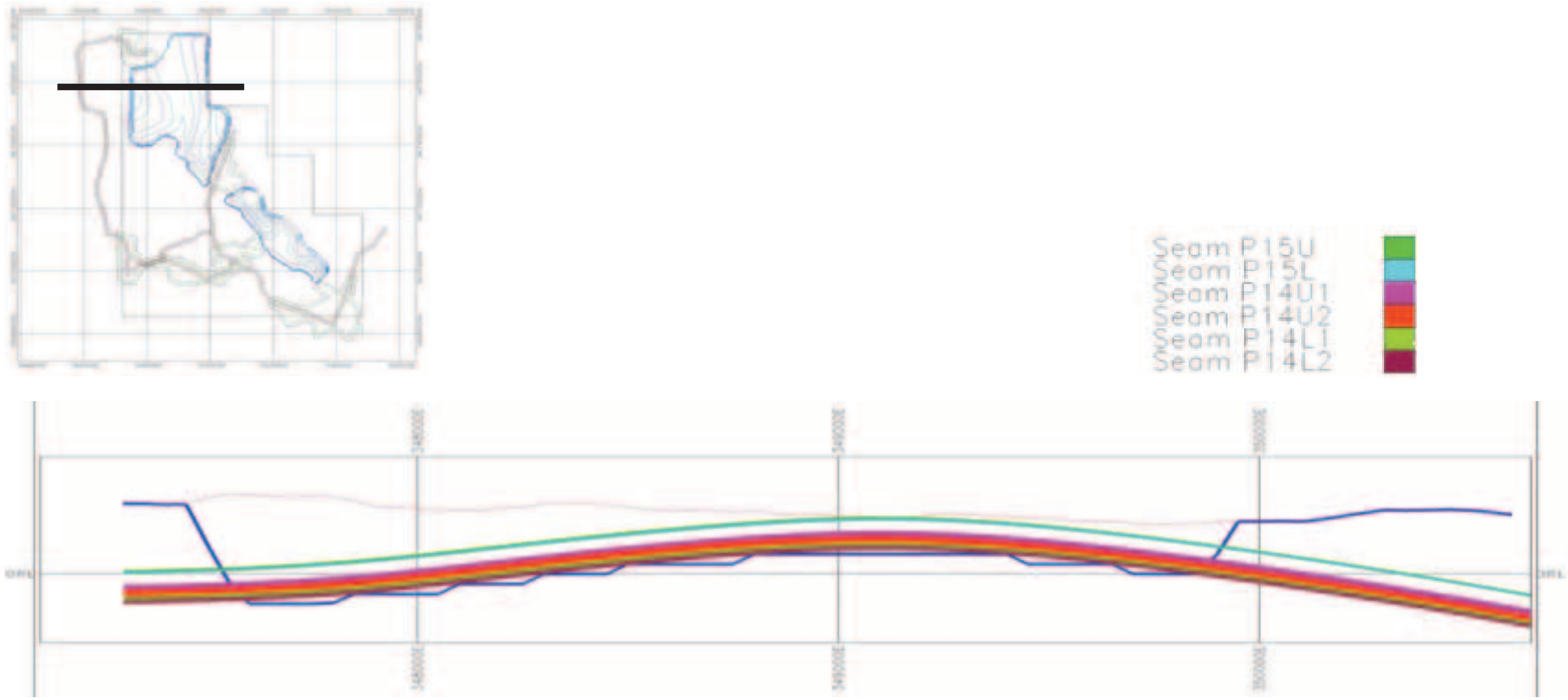

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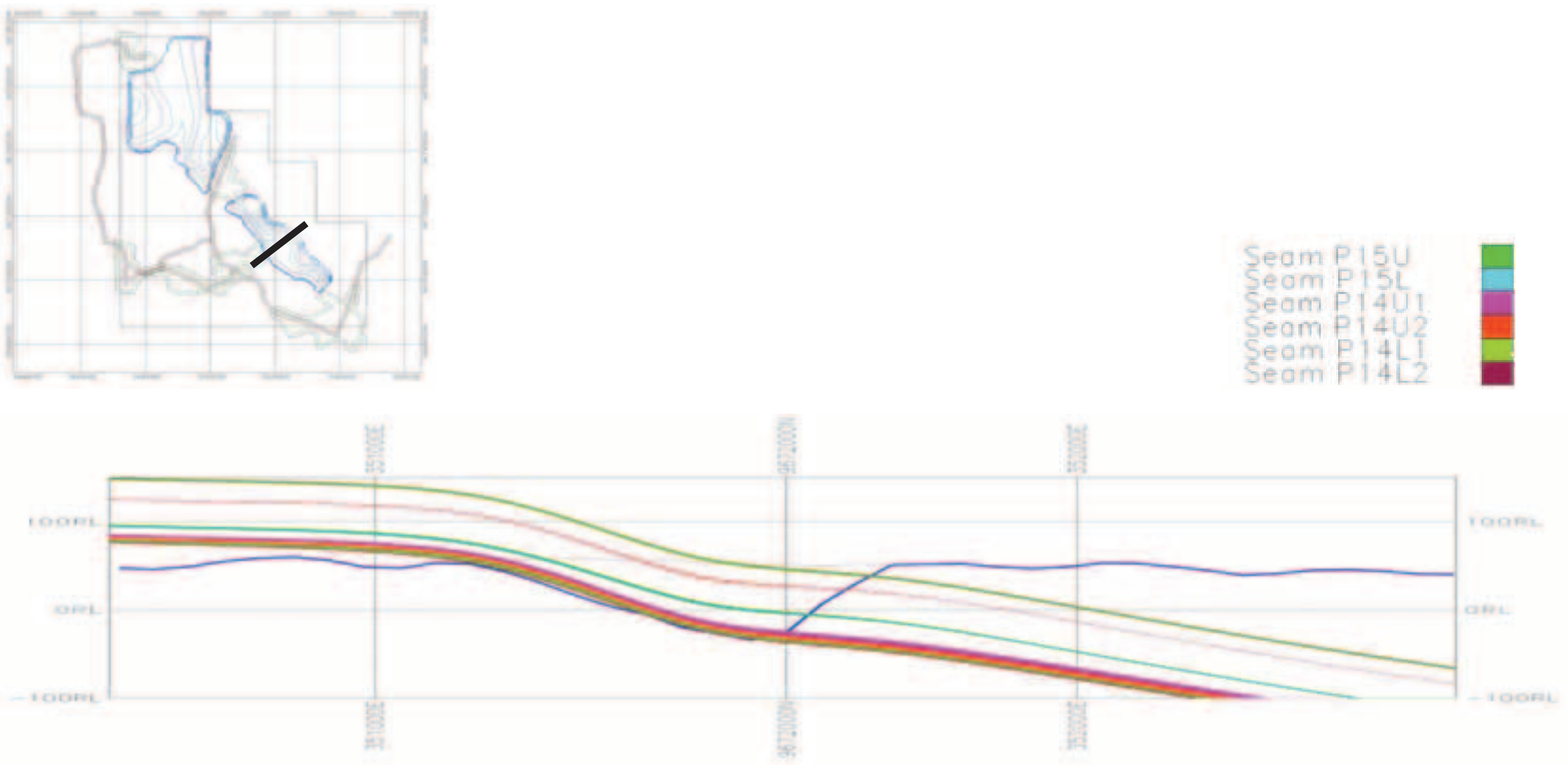
Figure 7:9 Representative Cross Section South Pit



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7.9 Audits and Reviews

Checks were done to validate the Minex Coal Resources to Coal Reserves estimation by repeating it manually in an Excel spreadsheet. Other validation work included estimating the total volume of coal and waste in the pit shells using the separate industry-standard computer programs MineScape. As MineScape structure and quality grids were imported into Minex for optimisation work, volume and area checks were also carried out in Minex within the pit shells.

The difference between the Proved and Probable Reserves with respect to Measured and Indicated Resources respectively is explained by the following:

- The Measured and Indicated Resource polygons extend beyond the Mineable Pit Shells;
- There are some Inferred tonnes in the pit shell which cannot be counted as Coal Reserves; and
- There are geological and mining losses and dilution gains in the coal reserve estimation.

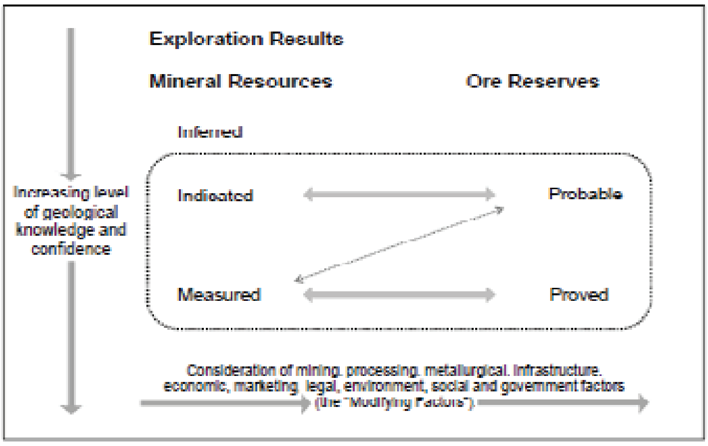
7.10 Reserves Classification

Under the JORC Code, only Measured and Indicated Coal Resources can be considered for conversion to Coal Reserves after consideration of the "Modifying Factors" including mining, processing, economic, environmental, and social and governance factors.

To convert Resources to Reserves, it must be demonstrated that extraction could be justified after applying reasonable investment assumptions. A level of uncertainty in any one or more of the Modifying Factors may result in Measured Resources converting to Probable Reserves depending on materiality. A high level of uncertainty in any one or more of the Modifying Factors may preclude the conversion of the affected Resources to Reserves. This classification is also consistent with the level of detail in the mine planning completed for WRL Coal concession deposits. Inferred Coal Resources in the mineable pit shell have been excluded from the Reserve Statement.

In the opinion of Salva Mining, the uncertainties in most of these are not sufficiently material to prevent the classifications of areas deemed Measured Resources to be areas of Proved Reserves and areas deemed Indicated Resources to be the areas of Probable Reserves.

Figure 7:10 General relationships between Mineral Resources & Ore Reserves



Source: JORC Code 2012

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7.11 Statement of Coal Reserves

The Statement of Coal Reserves has been prepared in accordance with the 2012 Edition of the JORC Code. Total ROM Coal Reserves for PT Wahana Rimba Lestari coal deposit ("WRL") are summarised in Table 7:18 as of 31 December 2019. ROM Coal Reserves are same as total Marketable Coal Reserves.

Table 7:18 WRL Coal Concession - Coal Reserves as of 31 December 2019

WRL Pits	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar) Kcal/kg	TS adb%
North Pit	18.2	33.5	51.7	1.19	6.5	15.8	52.5	2,939	0.19
South Pit	15.6	19.9	35.5	1.20	6.4	16.4	52.9	2,835	0.23
WRL	**33.8**	**53.4**	**87.2**	**1.19**	**6.5**	**16.0**	**52.7**	**2,897**	**0.21**

(*Note: individual totals may differ due to rounding*)

7.12 Seam by Seam Coal Reserve

Total ROM Coal Reserves for each of WRL coal concession is reported by seam and is presented in Table 7:19 to 7:20.

Table 7:19 Coal Reserves – North Pit (Seam by Seam) as of 31 December 2019

Seams	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar) Kcal/kg	TS adb%
P9L	0.5	2.3	2.8	1.19	4.1%	14.4%	51.7%	3,143	0.29%
P10	0.1	0.1	0.1	1.19	7.2%	13.7%	52.4%	2,963	0.25%
P14L1	3.4	6.6	10.0	1.19	6.8%	16.2%	53.6%	2,836	0.16%
P14L2	5.9	11.5	17.5	1.19	6.7%	16.0%	53.8%	2,844	0.20%
P14U1	3.7	4.4	8.1	1.19	6.3%	15.5%	51.1%	3,057	0.18%
P14U2	3.9	5.7	9.6	1.20	7.2%	15.8%	51.8%	2,960	0.18%
P15L	0.0	2.3	2.3	1.21	6.1%	15.4%	48.8%	3,163	0.21%
P15U	0.0	0.3	0.3	1.21	5.1%	15.7%	48.7%	3,225	0.18%
P16	0.6	0.3	0.9	1.19	3.5%	15.2%	48.8%	3,299	0.31%
Total	**18.2**	**33.5**	**51.7**	**1.19**	**6.5%**	**15.8%**	**52.5%**	**2,939**	**0.19%**

(*Note: individual totals may differ due to rounding*)

Table 7:20 Coal Reserves – South Pit (Seam by Seam) as of 31 December 2019

Seams	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar), Kcal/kg	TS adb%
P10	0.1	0.1	0.1	1.19	7.2%	13.7%	52.4%	2,963	0.25%
P9L	0.5	1.5	2.0	1.19	3.8%	14.9%	52.1%	3,124	0.29%
P14U1	3.7	5.5	9.2	1.21	6.5%	15.8%	52.5%	2,705	0.26%
P14U2	3.6	4.9	8.5	1.18	6.5%	17.0%	54.4%	2,781	0.22%
P14L1	2.4	4.4	6.8	1.19	5.9%	17.1%	53.5%	2,884	0.21%
P14L2	2.4	2.1	4.6	1.20	8.1%	17.4%	53.6%	2,764	0.21%

Seams	Proved Reserves Mt	Probable Reserves Mt	Total Reserves Mt	RD Insitu	Ash adb%	IM adb%	TM ar%	CV (gar), Kcal/kg	TS adb%
P15L	1.4	0.6	2.0	1.22	8.4%	15.4%	49.0%	3,016	0.26%
P15U	1.4	0.5	1.9	1.20	4.8%	15.4%	48.8%	3,182	0.24%
P17U	0.0	0.1	0.1	1.17	4.3%	16.2%	54.8%	2,881	0.22%
P17L	0.0	0.2	0.2	1.17	4.3%	16.2%	54.8%	2,881	0.22%
Total	**15.6**	**19.9**	**35.5**	**1.20**	**6.4%**	**16.4%**	**52.9%**	**2,835**	**0.23%**

(*Note: individual totals may differ due to rounding*)

7.13 JORC Table 1

This Report has been carried out in recognition of the 2012 JORC Code published by the Joint Ore Reserves Committee ("JORC") of the Australasian Institute of Mining and Metallurgy, the AIG and the Minerals Council of Australia in 2012. Under the reporting guidelines, all geological and other relevant factors for this deposit are considered in sufficient detail to serve as a guide to on-going development and mining.

In the context of complying with the Principles of the Code, Table 1 of the JORC Code (Appendix C) has been used as a checklist by Salva Mining in the preparation of this Report and any comments made on the relevant sections of Table 1 have been provided on an 'if not, why not' basis. This has been done to ensure that it is clear to an investor whether items have been considered and deemed of low consequence or have yet to be addressed or resolved.

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PT Prasetya Abdi Persada, "Mining Preliminary Feasibility study of Pt Wahana Rimba Lestari Coal Project final report", May 2016; and

PT. Geo Search, "Independent Resource & Reserve Report, PT Wahana Rimba Lestari", 16 May 2016.

Salva Mining, "Independent Resource & Reserve Report, PT Wahana Rimba Lestari", 31 December 2017.

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Appendix A: CVs

Person	Role
Manish Garg (Director - Consulting)	
Qualification	B. Eng. (Hons), MAppFin
Prof. Membership	MAusIMM; MAICD
Contribution	Overall Supervision, Economic Assessment (VALMIN 2015)
Experience	Manish has more than 25 years' experience in the Mining Industry. Manish has worked for mining majors including Vedanta, Pasminco, WMC Resources, Oceanagold, BHP Billiton - Illawarra Coal and Rio Tinto Coal. Manish has been in consulting roles for past 10 years predominately focusing on feasibility studies, due diligence, valuations and M&A area. A trusted advisor, Manish has qualifications and wide experience in delivering due diligence, feasibility studies and project evaluations for banks, financial investors and mining companies on global projects, some of these deals are valued at over US$5 billion.
Sonik Suri (Principal Consultant - Geology)	
Qualification	B. Sc. (Hons), M.Sc. (Geology)
Prof. Membership	MAusIMM
Contribution	Geology, Resource (JORC 2012)
Experience	Sonik has more than 25 years of experience in most aspects of geology including exploration, geological modelling, resource estimation and mine geology. He has worked for coal mining majors like Anglo American and consulting to major mining companies for both exploration management and geological modelling. As a consultant, he has worked on audits and due diligence for companies within Australia and overseas. He has strong expertise in data management, QA/QC and interpretation; reviews/audits of geological data sets; resource models and resource estimates.
Dr Ross Halatchev (Principal Consultant - Mining)	
Qualification	B. Sc. (Mining), M.Sc., PhD (Qld)
Prof. Membership	MAusIMM
Contribution	Mine Scheduling, Reserve (JORC 2012)
Experience	Ross is a mining engineer with 30 years' experience in the mining industry across operations and consulting. His career spans working in mining operations and as a mining consultant primarily in the mine planning & design role which included estimation of coal reserves, DFS/FS, due diligence studies, techno-commercial evaluations and technical inputs for mining contracts. Prior to joining Salva Mining, Ross was working as Principal Mining Engineer at Vale. To date, Ross has worked on over 20 coal projects around the world, inclusive of coal projects in Australia, as well as in major coalfields in Indonesia, Mongolia and CIS.

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Appendix B: SGX Mainboard Appendix 7.5

Cross-referenced from Rules 705(7), 1207(21) and Practice Note 6.3

Summary of Mineral Reserves and Resources

Name of Asset / Country: PT WRL / Indonesia

Category	Mineral Type	Gross (100% Project)		Net AttribuFigure to GEAR**		Remarks
		Tonnes (millions)	Grade	Tonnes (millions)	Grade	
Reserves						
Proved	Coal	34	Subbituminous B	23	Subbituminous B	
Probable	Coal	53	Subbituminous B	36	Subbituminous B	
Total	Coal	87	Subbituminous B	58	Subbituminous B	
Resources*						
Measured	Coal	55	Subbituminous B	37	Subbituminous B	
Indicated	Coal	100	Subbituminous B	67	Subbituminous B	
Inferred	Coal	161	Subbituminous B	108	Subbituminous B	
Total	Coal	316	Subbituminous B	212	Subbituminous B	

** Mineral Resources are reported inclusive of the Mineral Reserves.*

*** GEAR holds 66.9998% of PT WRL Indirectly.*

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Appendix C: JORC Table 1

Criteria	Explanation	Comment
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips etc.) and measures taken to ensure sample representivity. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Chip samples were collected at every 1m for lithology logging. Sampled all cored coal, sampled separately any bands, and taken 10cm of roof and floor for non-coal samples.
Drilling techniques	Drill type (e.g.. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka etc.) and details (e.g.. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	Drilled pilot hole to ascertain coal seams and then drilled a cored drill hole.
Drill sample recovery	Whether core and chip sample recoveries have been properly recorded and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	After the completion of each core run, core loss is determined by the on-site geologist and recorded in the drill hole completion sheet. If recovery is found to be less than 90% within a coal seam intersection, the hole is re-drilled in order to re-sample this seam with greater than 90% core recovery. All samples with less than 90% core recovery over the width of the seam intersection were excluded from the coal quality database. Followed drilling SOP's for loose and carbonaceous formations to achieve full sample recovery.
Logging	Whether core and chip samples have been logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel etc.) photography. The total length and percentage of the relevant intersections logged.	Detailed logging of chips and core. Core photographs were taken.

Criteria	Explanation	Comment
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected. Whether sample sizes are appropriate to the grainsize of the material being sampled.	No sub-sampling of the core
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	PT Geoservices laboratories are accredited to ISO 17025 standards. Coal quality laboratory adheres to internal QAQC and inter-laboratory QAQC checks. Australian Standards have been used for RD and American Society for testing and materials (ASTM) methods have been used for all other quality variables. Geophysical traces were observed to be generally of good quality.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	Coal quality sampling was undertaken by PT. WRL No twin hole sampling was used, only pilot holes with partial coring zones where coal seam depth was predicted. Checked for agreement of seam intersection depths and in most of the cases there was good agreement.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control.	Borehole collars have been surveyed using standard total station techniques employed by the survey contractors. PT. WRL survey staff has validated surveys. The surveyed borehole locations for WRL match well with topographic data. The topography was generated by PT Airborne informatics across the WRL project area using LIDAR remote sensing data.
Data spacing and Distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	Data spacing sufficient to establish continuity in both thickness and coal quality. Data sets include topography and base of weathering as well as seam structure and coal quality. Ply sampling methodology use. Sample compositing has been applied.
Orientation of data in relation to	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Ply by Ply sampling used therefore the orientation of sampling not seen to introduce bias as all drilling is vertical.

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Criteria	Explanation	Comment
geological structure	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample Security	The measures taken to ensure sample security.	Proper measures for sample security was taken.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	PT Geo Search conducted a review of the drill hole database in 2016 for the historical data set and found it to be satisfactory. Standard database checks also performed by Salva Mining as outlined in Chapter 4 prior to resource modelling and found it to be satisfactory.
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	All tenure are secured and currently available.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No exploration by other parties.
Geology	Deposit type, geological setting and style of mineralisation.	See Section 4 of this Report.
Drill hole	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	This Report pertains to resource estimation, not exploration results. As such the details of the drill holes used in the estimate are too numerous to list in this Table.

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Criteria	Explanation	Comment
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations and cut-off grades are usually material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated.	All samples have been composited over full seam thickness and reported using Minescape modelling software. No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down-hole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Ply sampling methodology prevents samples from crossing ply boundaries. Therefore, the orientation of sampling not seen to introduce bias as all drilling is vertical and seams mostly gently dipping.
Diagrams	Where possible, maps and sections (with scales) and tabulations of intercepts should be included for any material discovery being reported if such diagrams significantly clarify the report.	See the figures in the Report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.	No reporting of exploration results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Geotechnical and Hydrogeological aspects to the IUP area will help find the best mine plan and design options.
Further work	The nature and scale of planned further work (e.g.. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will be necessary to improve the confidence in the continuity of both seam thickness and key coal quality attributes. In addition to this information, the in-situ moisture content of the seams needs to be collected in order to allow for a Preston Sanders conversion of air-dried density to in-situ density. Further work will be necessary to improve the confidence in the coal quality estimate if Indicated and Inferred resources are present in areas planned for mining. No proposed exploration plan has been proposed in this Report.

Criteria	Explanation	Comment
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	The database for WRL block is considered an acceptable standard to report a Coal Resource. Drill hole data used to construct Minescape model. Checks against original downhole geophysics (las) files used to verify data during modelling.
Site Visits	Site Visits undertaken by the Competent Person and the outcome of these visits. If no site visits have been undertaken, indicate why this is the case	Salva Mining consultants has frequently visited the site between 2015 to 2017. Last site visit was conducted at end of 2017. No material groundwork activity has been completed since 2017.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	A high degree of confidence in seam picks made using downhole geophysical data. The WRL geological model created by Salva Mining is considered to accurately represent the deposits. No major faults have been reported within the tenement concerned. Current Minescape model tonnes agree with the previous model developed by PT. Geo Search to within 5% error margin range.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	See the figures in the Report.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping.	Planar interpolator used for thickness and trend. FEM interpolator used for surface elevation. Inverse distance squared used for coal quality throughout. Based on experienced gained in the modelling of over 40 coal deposits around the world, inverse distance is the most appropriate for coal quality. The grid cell size of 50 m for the topographic model and for the structural model. Table 5:1 contains additional model construction parameters. Visual validation of all model grids performed. Sulphur is below 1% on average for all seams.

Criteria	Explanation	Comment
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	All Resource tonnages estimated on air-dried basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	The coal resources contained in this report are confined within the concession boundary. The resources were limited to 100m below topography. A minimum ply thickness of 30cm and maximum thickness of 30cm was used for coal partings.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.	The WRL block is proposed to be mined as open-pit excavations by truck and shovel method by contractors.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	N/A in situ air dried tonnes quoted.
Environmental	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfield project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Salva Mining is not aware of any environmental factors that may impact on eventual economic extraction.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	See discussion on density with regard to moisture basis.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors i.e. relative confidence in tonnage/grade computations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. Whether the result appropriately reflects the Competent Person(s)' view of the deposit.	Classification distances based on an assessment of the variability of critical variables through statistical analysis and by an assessment of the degree of geological complexity. Classification radii for the three resource categories are: Measured: 350m Indicated: 700m Inferred: 1500m

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Criteria	Explanation	Comment
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Check between Minescape and surpac model shows high agreement.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and/or confidence in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages or volumes, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Spacing ranges for the three resource categories are considered to adequately reflect the degree of confidence in the underlying estimate on a global basis. Local variation to estimated values may arise and will be addressed by adequate grade control procedures during mining operations.
Mineral Resource Estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	Basis of the estimates is "WRL JORC Resource Statement" as of 31 December 2019. Coal resources are inclusive of Coal reserves.
Site Visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	Salva Mining consultants has frequently visited the site between 2015 to 2017. Last site visit was conducted at end of 2017. No material groundwork has been completed after 2017. Salva Mining's consultants are well versed in the localised mining settings and have reviewed and discussed the available data in company's offices in October 2019.
Study Status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	Pre-Feasibility Study for WRL has been carried out by Pt Prasetya Abdi Persada (PAP) in May 2016. The PFS study has dealt in detail with mining method, geotechnical investigations, hydrology & hydro-geological, logistics and economic issues for the WRL pits. Environmental Study (AMDAL) has been completed in 2010.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied	Refer Table 7:1 – Modifying factors for pit optimisation and Table 7:12, Break-even Stripping Ratio analysis.

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Criteria	Explanation	Comment
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). The mining dilution factors used. The mining recovery factors used. Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods.	Refer Table 7:1 Modifying Factors and Pit Optimisation Parameters and Section 7:3 on Notes on Modifying Factors. Pre-feasibility studies have been completed for WRL concession in May 2016. These studies were accepted as part of the AMDAL approval process from the Govt. of Indonesia prior to being given mining operations approval (IUPOP). For the greenfield project like WRL block, modifying factors at Pre-Feasibility study level is expected to contain information appropriate for the whole range of inputs to meet the requirement in Clause 29 for the Ore Reserve to continue that classification. Salva Mining has used the modifying factors based on the Pre-Feasibility study level for the WRL Mine which were independently verified by the Salva Mining's subject specialist. In Salva Mining's opinion, the Modifying Factors at WRL concession are appropriately defined at WRL.
Metallurgical Factors or assumptions	The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the ore body as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications.	The coal is to be sold unwashed so no processing factors have been applied. Other than crushing to a 50 mm top size no other beneficiation will be applied.
Environmental	The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Amdal (EIS) in place with a rehabilitation program and environmental monitoring program in place -Mining approval is in place -The land acquisition not yet finalized covering the pit, dump and other mine infrastructure,
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities),	The area is very accessible from the provincial highway from Palembang and the nearby Musi River

Criteria	Explanation	Comment
	labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	-Water is available in abundance -Labour can be sourced locally including some skilled labour for machine operation
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private.	Discussed in Cost and Revenue factors.
Revenue Factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products	Discussed in Section 9:6:3 Cost and Revenue factors
Market Assessment	The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	Discussed in Marketing & Pricing Factors
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs	Economic analysis (NPV) done based on long term price outlook and the cost estimates (Contractor mining operation)
Social	The status of agreements with key stakeholders and matters leading to social licence to operate	Land acquisition has not yet commenced covering the pit, dump and other mine infrastructure. The total area required would be approx 900Ha. Most of this land is covered by small local rubber and palm oil farmers which will require compensation.

Criteria	Explanation	Comment
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingency.	Discussed under Section 7:6:Other Factors
Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	Discussed under Reserve Classification
Audit & Reviews	The results of any audits or reviews of Ore Reserve estimates.	Discussed under Section 7:9, Audits & Reviews.
Discussion of Relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	Sufficient points of observation and sampling distribution to assess coal resource and reserves with a high level of confidence. Statistical analysis was carried out for observations, sampling, core recovery & survey accuracy were assessed including geostatistical assessment over the deposit which further increased the confidence level of the estimate.

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