# FRONTIER DIAMONDS LTD ACN 616 232 556



# **REPLACEMENT PROSPECTUS**

For an offer of 20,000,000 Shares at an issue price of AU\$0.20 per Share to raise AU\$4,000,000. Oversubscriptions of up to a further 10,000,000 Shares at an issue price of \$0.20 per Share to raise up to a further AU\$2,000,000 may be accepted (**Public Offer**).

The Prospectus also contains an offer of 1 Share at an issue price of AU\$0.20 (**Cleansing Offer**) for the purpose of section 708A(11) of the Corporations Act to remove any trading restrictions on the sale of Shares issued by Frontier without disclosure under Chapter 6D of the Corporations Act prior to the Cleansing Offer Closing Date.

Lead Manager to the Public Offer



Novus Capital Limited ACN 006 711 995 AFSL 238168

# IMPORTANT INFORMATION

This is an important document that should be read in its entirety. If you do not understand it you should consult your professional advisers without delay. **The Shares offered by this Prospectus should be considered highly speculative**.



Sedibeng Gemstones recovered in June 2017

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# CORPORATE DIRECTORY

### Directors

Mr Johan van Reenen Non-executive Chairman

Mr Jan Louw Managing Director

Mr Frank Petruzzelli Executive Director

Mr Michael Addison Non-executive Director

### **Company Secretary**

Mr Chris Ritchie

### Proposed ASX Code – FDX

### **Australian Solicitors**

Steinepreis Paganin Level 4, The Read Buildings 16 Milligan Street Perth WA 6000

### **Investigating Accountant**

BDO Corporate Finance (WA) Pty Ltd 38 Station Street Subiaco WA 6008

### Lead Manager

Novus Capital Limited Level 24, 56 Pitt Street Sydney NSW 2000

### South African Auditor

BDO South Africa Incorporated 22 Wellington Road, Parktown Johannesburg 2193, South Africa

\*\* This entity is included for information purposes only. It has not been involved in the preparation of this Prospectus.

### **Registered Office**

Level 1, 566 Elizabeth Street Melbourne VIC 3000

Telephone: + 61 3 9347 2409 Facsimile: +61 3 9349 1186

Email: investorrelations@frontierdiamonds.com Website: www.frontierdiamonds.com

### Share Registry\*\*

Computershare Investor Services Pty Ltd Yarra Falls, 452 Johnston Street, Abbottsford, Victoria 3067

Telephone: 1300 110 252 Facsimile: +61 3 9415 4002

### South African Solicitors

Duncan & Rothman Attorneys Office 19, Suite 1, First Floor, North Cape Mall, 31 Jacobus Street, Kimberley, 8301 South Africa

# Independent Geologist

Stephen Henry le Roux 73 Viljoen Street, 9 Houwberg, 7280 South Africa

# **Consulting Mining Engineer**

ABGM Pty Ltd 66 Orsino Boulevard North Coogee, WA 6163

### **Australian Auditor**

BDO Audit (WA) Pty Ltd 38 Station Street Subiaco WA 6008

# **KEY OFFER INFORMATION**

# Indicative timetable\*

Lodgement of Original Prospectus with the ASIC	13 October 2017
Lodgement of this Prospectus with the ASIC	1 November 2017
Opening Date	1 November 2017
Closing Date of the Public Offer	17 November 2017
Issue of Shares under the Public Offer	21 November 2017
Closing Date of the Cleansing Offer	21 November 2017
Despatch of holding statements	23 November 2017
Expected date for quotation of Shares on ASX	27 November 2017

\* The above dates are indicative only and may change without notice. Frontier reserves the right to extend the Closing Date or close the Offers early without notice. Frontier also reserves the right not to proceed with the Offers at any time before the issue of Shares to applicants.

# Key Offer Details

	Minimum Subscription	Maximum Subscription*
Current Shares on issue	25,436,134	25,436,134
Additional Shares to be issued separate to the Offers	153,861,579	154,194,579
Public Offer price per Share	AU\$0.20	AU\$0.20
Shares to be issued under the Public Offer	20,000,000	30,000,000
Shares to be issued under the Cleansing Offer	1	1
Total number of Shares on issue following the Offers	199,297,714	209,630,714
Gross proceeds of the Public Offer	AU\$4,000,000	AU\$6,000,000

\* Maximum subscription assumes all oversubscriptions are accepted.

# 1. IMPORTANT NOTICE

This Prospectus is dated 1 November 2017 and was lodged with the ASIC on that date. This Prospectus replaces the prospectus lodged by the Company on 13 October 2017 (**Original Prospectus**). The ASIC, the ASX and their respective officers take no responsibility for the contents of this Prospectus or the merits of the investment to which this Prospectus relates.

No Shares may be issued on the basis of this Prospectus later than 13 months after the date of the Original Prospectus.

No person is authorised to give information or to make any representation in connection with this Prospectus, which is not contained in the Prospectus. Any information or representation not so contained may not be relied on as having been authorised by Frontier in connection with this Prospectus.

It is important that you read this Prospectus in its entirety and seek professional advice where necessary. The Shares on offer in this Prospectus should be considered highly speculative.

# 1.1 Replacement Prospectus

The main difference between this Prospectus and the Original Prospectus is the inclusion of additional information on BEE laws in South Africa and its relevance to Frontier, including an updated Investigating Accountant's Report and relocating the Independent Geologist's Report, the Independent Technical Report and the Solicitor's Report on Mining Licences to annexures to this Prospectus.

### 1.2 Conditional Offers

The Offers are conditional on the Acquisition Agreement becoming unconditional which will require the Minimum Subscription to be obtained (**Condition**). Refer to Section 11.1 for a list of the outstanding conditions precedent to completion under the Acquisition Agreement.

In the event that the Condition is not satisfied, the Offers will not proceed and no Shares will be issued pursuant to this Prospectus. If this occurs, Applicants will be refunded their application monies (without interest) and in accordance with the Corporations Act.

# 1.3 Foreign currency and exchange rate

Frontier's presentation currency is US Dollars. Unless otherwise disclosed, Australian Dollar figures that have been restated in US Dollars in this Prospectus have been converted at the AUD/USD rate of 0.7692, being the exchange rate published by the Reserve Bank of Australia on 30 June 2017.

Unless otherwise disclosed, South African Rand figures that have been restated in US Dollars in this Prospectus have been converted at the ZAR/USD rate of 12.97.

### 1.4 No offering where offering would be illegal

The distribution of this Prospectus in jurisdictions outside Australia may be restricted by law and persons who come into possession of this Prospectus should seek advice on and observe any of these restrictions. Failure to comply with these restrictions may violate securities laws. Applicants who are resident in countries other than Australia should consult their professional advisers as to whether any governmental or other consents are required or whether any other formalities need to be considered and followed.

This Prospectus does not constitute an offer in any place in which, or to any person to whom, it would not be lawful to make such an offer. It is important that investors read this Prospectus in its entirety and seek professional advice where necessary.

No action has been taken to register or qualify the Shares or the Offers, or to otherwise permit a public offering of the Shares in any jurisdiction outside Australia. This Prospectus has been prepared for publication in Australia and may not be released or distributed in the United States of America.

### 1.5 Electronic Prospectus

A copy of this Prospectus can be downloaded from the website of Frontier at <u>www.frontierdiamonds.com</u>. If you are accessing the electronic version of this Prospectus for the purpose of making an investment in Frontier, you must be an Australian resident and must only access this Prospectus from within Australia.

The Corporations Act prohibits any person passing onto another person an Application Form unless it is attached to a hard copy of this Prospectus or it accompanies the complete and unaltered version of this Prospectus. You may obtain a hard copy of this Prospectus free of charge by contacting Frontier.

Frontier reserves the right not to accept an Application Form from a person if it has reason to believe that when that person was given access to the electronic Application Form, it was not provided together with the electronic Prospectus and any relevant supplementary or replacement prospectus or any of those documents were incomplete or altered.

### 1.6 Investment Advice

This Prospectus does not provide investment advice and has been prepared without taking account of your financial objectives, financial situation or particular needs (including financial or taxation issues). You should seek professional investment advice before subscribing for Shares under this Prospectus.

### 1.7 Risks

You should read this document in its entirety and, if in any doubt, consult your professional advisers before deciding whether to apply for Shares. There are risks associated with an investment in Frontier. The Shares offered under this Prospectus carry no guarantee with respect to return on capital investment, payment of dividends or the future value of the Shares. Refer to Section C of Section 3 as well as Section 6 for details relating to some of the key risk factors that should be considered by prospective investors. There may be risk factors in addition to these that should be considered in light of your personal circumstances.

### 1.8 Website

No document or information included on our website is incorporated by reference into this Prospectus.

# 1.9 Forward-looking statements

This Prospectus contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties.

These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this Prospectus, are expected to take place.

Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of Frontier, the Directors and management.

Frontier cannot and does not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this Prospectus will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.

The Directors have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this Prospectus, except where required by law.

These forward looking statements are subject to various risk factors that could cause our actual results to differ materially from the results expressed or anticipated in these statements. These risk factors are set out in Section 6.

# 1.10 Photographs and Diagrams

Photographs used in this Prospectus which do not have descriptions are for illustration only and should not be interpreted to mean that any person shown endorses the Prospectus or its contents or that the assets shown in them are owned by Frontier. Diagrams used in this Prospectus are illustrative only and may not be drawn to scale.

# 1.11 Competent Persons statements

The information in the Investment Overview (Section 3), Frontier and Project Overview (Section 5), the Independent Geologist's Report (Annexure A) and the Independent Technical Report (Annexure B), which relate to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Stephen le Roux, a Competent Person, who is a Professional Natural Scientist Member of the South African Council for Natural Scientific Professions which is a 'Recognised Overseas Professional Organisation' (ROPO) included in a list promulgated by the ASX from time to time. The Competent Person is not a fulltime employee of Frontier but is self-employed and who has been engaged by Frontier as a consultant to prepare the Independent Geologist's Report. Mr Stephen le Roux has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Stephen le Roux consents to the inclusion of the information in these sections of the Prospectus in the form and context in which it appears.

The Independent Technical Report (Annexure B) was prepared by Mr Anton von Wielligh (Principal Mining Engineer), and Mr Rob Mallinson (Principal Consultant), of ABGM Pty Ltd and ABGM Ltd (UK), respectively who have sufficient experience relevant to the Technical Assessment and Valuation of the Mineral Assets under consideration and to the activity which they are undertaking to qualify as a Practitioner as defined in the 2015 edition of the 'Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets'. They each consent to the inclusion in the Independent Technical Report of the matters based on their respective information in the form and context in which it appears. The information in the Independent Technical Report that relates to Technical Assessment and Valuation of Mineral Assets reflects information compiled and conclusions derived from by Mr Wielligh and Mr Mallinson, who are members of a Recognised Professional Organisation included in a list promulgated from time to time.

# 1.12 Enquiries

If you are in any doubt as to how to deal with any of the matters raised in this Prospectus, you should consult with your broker or legal, financial or other professional adviser without delay. Should you have any questions about the Public Offer or how to accept the Public Offer please call Frontier's Secretary on + 61 3 9347 2409.

### 1.13 Definitions

Terms used in this Prospectus are defined in the Glossary in Section 14.



Sedibeng winder and headgear

# 2. CHAIRMAN'S LETTER

Dear Investor,

On behalf of the Directors of Frontier Diamonds Limited (**Frontier**), it gives me great pleasure to invite you to become a Shareholder of Frontier.

Frontier has an agreement to acquire a 74% interest in a group of companies operating diamond mines in the globally renowned Kimberley region of South Africa through the acquisition of 100% of Sedi Star Diamonds Pty Ltd. The Directors believe that the mines produce diamonds of excellent quality and value per carat that are well regarded and keenly sought after by major diamond buyers around the world.

Frontier will also investigate potential diamond project acquisitions across the broader Kimberley region. Sedi South Africa's extensive underground operating experience and in-house engineering expertise is expected to provide a significant competitive advantage in the potential pursuit of such opportunities.

The Directors believe that Sedi South Africa is well placed to manage the volatility and pursue long term success via its portfolio of high quality diamond assets and its strong management team.

Please refer to Section 5 for details of the proposed activities of Frontier following completion of the Offers and the Independent Geologist's Report, Independent Technical Report and Solicitor's Report on Mining Licences in Annexure A, Annexure B and Annexure C respectively for further details of Frontier's proposed mining assets. Also refer to Section C of Section 3 as well as Section 6 for details relating to some of the key risk factors that should be considered by prospective investors. There may also be risk factors in addition to these that should be considered in light of your personal circumstances.

This Prospectus is seeking to raise a minimum of AU\$4 million (US\$3,076,800) and a maximum of AU\$6 million (US\$4,615,200) via the issue of Shares at an issue price of AU\$0.20 per Share under the Public Offer. The purpose of the Public Offer is to provide funds to implement Frontier's business strategies (explained in Section 5).

Frontier's Board has significant expertise and experience in the mining industry and will aim to ensure that funds raised through the Public Offer will be utilised in a costeffective manner to advance Frontier's business.

This Prospectus is issued for the purpose of supporting an application to list Frontier on the ASX. This Prospectus contains detailed information about Frontier, its business and the Offers, as well as the risks of investing in Frontier, and I encourage you to read it carefully. The Shares offered by this Prospectus should be considered highly speculative.

I look forward to you joining us as a Shareholder and sharing in what we believe are exciting and prospective times ahead for Frontier. Before you make your investment decision, I urge you to read this Prospectus in its entirety and seek professional advice if required.

Yours sincerely

MrJohan van Reenen Non-executive Chairman

# 3. INVESTMENT OVERVIEW

This section is a summary only and not intended to provide full information for investors intending to apply for Shares offered pursuant to this Prospectus. This Prospectus should be read and considered in its entirety.

ltem	Summary	Further information
A. Comp	any	
Who is the issuer of this Prospectus?	Frontier Diamonds Ltd (ACN 616 232 556) (Frontier).	Section 5.1
Who is Frontier?	Frontier was incorporated as an unlisted public company limited by shares on 1 December 2016. Frontier has entered into a binding agreement with Sedi Star Diamonds Pty Ltd (ACN 616 205 004) (Sedi Australia), under which Frontier has agreed to acquire 100% of the issued capital of Sedi Australia from the holders of shares in Sedi Australia (Sedi Australia Shareholders) (Acquisition). Sedi Australia has an agreement to acquire a 74% interest in a group of companies operating diamond mines in the globally renowned Kimberley region of South Africa.	Sections 5.1, 5.2, 5.3 and 11.1
What are the key terms of the Acquisition?	<ul> <li>The material terms of the Acquisition are as follows:</li> <li>(a) Acquisition: <ul> <li>(i) Each Sedi Australia Shareholder has agreed to sell and Frontier has agreed to acquire all of the Sedi Australia Shareholders' rights, title and interests in all of their shares in the capital of Sedi Australia (representing 100% of the issued capital of Sedi Australia) (Sedi Australia Shares).</li> <li>(ii) At completion of the Acquisition, Frontier will be the beneficial owner of a 74% shareholding in Sedi Diamonds (Pty) Ltd (Sedi South Africa), an entity incorporated in South Africa and the holding entity of a further 5 entities also incorporated in South Africa (South African Group Entities), 3 of which are the registered licence holders of mining licences for the Star Diamond Mine, Dancarl Mine and Messina Mine jointly operating as the Sedibeng JV Mine.</li> </ul> </li> <li>(b) Conditions Precedent: settlement of the Acquisition (Settlement) is conditional upon the satisfaction (or waiver) of the following</li> </ul>	Section 11.1

Item	Summary	Further information
	outstanding conditions precedent:	
	<ul> <li>(i) completion of the acquisition by Sedi Australia from the Sedi Australia Shareholders of all of their respective rights, title and interests in all of their shares in the capital of Sedi South Africa, representing 74% of the issued capital of Sedi South Africa (Underlying Transaction), to the absolute satisfaction of Frontier;</li> <li>(ii) Frontier obtaining all necessary regulatory, Shareholder and third party approvals, consents and authorisations pursuant to the ASX Listing Rules, Corporations Act or any other law, including in South Africa, to allow Frontier to lawfully complete the matters set out in this Acquisition Agreement; and</li> <li>(iii) Frontier obtaining conditional approval from ASX for Frontier to be admitted to the Official List of ASX and its Shares admitted to Official Quotation on ASX, on conditions acceptable to Frontier and the Sedi Australia Shareholders, each acting reasonably.</li> <li>(c) Consideration: Frontier will issue a total of 105,244,450 Shares to the Sedi Australia Shareholders (or their nominees) at</li> </ul>	
	Settlement ( <b>Consideration Shares</b> . Other key terms are summarised in Section 11.1.	
What is Frontier's interest in the Projects?	Following completion of the Acquisition, Frontier will hold 100% of the issued capital of Sedi Australia, which through its 74% owned subsidiary Sedi South Africa, will control the Star Diamond Mine and Sedibeng JV Mine ( <b>Projects</b> ). The Star Diamond Mine project consists of one granted mining licence and the Sedibeng JV Mine consists of two granted mining licences.	Sections 5.1, 5.2, 5.3 and 11.1
B. Busine	ss Model	
What is Frontier's business model?	The overall objective of Frontier is to unlock the potential of the existing producing mines, the Star Diamond Mine and the Sedibeng JV Mine. In addition, Frontier will also look to exploit the Bellsbank Pipe pursuant to its contractual right. Sedi South Africa aims to achieve this by committing capital expenditure to increase the production capacity and throughput at the existing mines. A substantial percentage of Sedi	Section 5.4

Item	Summary	Further information
	South Africa's operating costs are fixed costs, therefore an increase in throughput should have a direct effect on the bottom line result. Sedi South Africa will also commit capital in developing the existing fissures to enable mining to proceed into what is projected to be better quality areas of the mines. Sedi South Africa will also bring on-line a tailings plant during the 2018 financial year to reprocess the historical tailings dumps at the Sedibeng JV Mine. In addition, Frontier proposes to implement a growth strategy evaluating complementary projects for acquisition or joint venture opportunities, providing a pipeline of projects at various stages of development, hence maximising opportunities for Shareholder value creation. A detailed explanation of Frontier's business model is provided at Section 5.4.	
What are the key business objectives of Frontier?	<ul> <li>Frontier's management strategy and purpose of the Public Offer is to provide Frontier with funding to:</li> <li>(a) continue to operate and develop Frontier's key Projects, being the Star Diamond Mine and Sedibeng JV Mine;</li> <li>(b) implement a growth strategy to seek out further exploration, mining, acquisition and joint venture opportunities in Southern Africa;</li> <li>(c) facilitate a listing on ASX; and</li> <li>(d) provide working capital for Frontier.</li> </ul>	Section 5
C. Key A	dvantages and Key Risks	
What are the key advantages of an investment in Frontier?	<ul> <li>The Directors are of the view that an investment in Frontier provides the following non-exclusive list of advantages:</li> <li>(a) at listing, Frontier will have sufficient funds to implement its strategy;</li> <li>(b) the principal assets are already in production and upon completion of the transaction, will be 74% owned by Frontier; and</li> <li>(c) Sedi South Africa has a highly credible and experienced team in South Africa to progress exploration and accelerate potential development of the principal assets and evaluate potential accurity.</li> </ul>	Section 5

Item	Summary	Further information
What are the key risks of an investment in Frontier?	Frontier is exposed to various risk factors that have the potential to influence the operating and financial performance of Frontier. These risks can impact on the value of an investment in the Shares of Frontier. These risks are summarised in detail in Section 6. The Board aims to manage and mitigate these risks by carefully planning its activities and implementing risk control measures. Some of the risks are, however, highly unpredictable and the extent to which the Board can effectively manage them is limited. Based on the information available, a non- exhaustive list of the key risk factors affecting	Section 6
	<ul> <li>Frontier are as follows:</li> <li>(a) Prospective financial information for the financial years ending 30 June 2018 and 30 June 2019 is included in Section 7 in order to provide investors with a guide to the potential financial performance of Frontier. The assumptions on which the prospective financial information is based relate to future events or actions that the Directors expect to occur or carry out, however, those assumptions are also subject to uncertainties which are outside the control of the Company. The prospective financial information includes a sensitivity analysis to demonstrate the impact of changes to certain assumptions. Prospective financial information, by its nature, is predictive in character, may be affected by inaccurate assumptions or by known or unknown risks and uncertainties and may differ materially from results ultimately achieved and need to be considered in that context.</li> <li>(b) Renewal: The Star Diamond Mine</li> </ul>	
	converted mining license is set to expire on 10 February 2025. However, the current life of mine plan ( <b>Plan</b> ) is 12 years. This results in a scenario of the mining license expiring before the Plan is completed. Until a renewal is granted there remains a risk that the Plan may not be fully realised. The Directors are unaware of any reason why an extension would not be granted, but this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the Plan. The Sedibeng JV Mine old order mining rights do not have an expiry date	

ltem	Summary	Further information
	until a decision is made on their conversion to new order rights. The conversion to new order rights and any resulting term of grant is not yet known and there remains a risk that the Plan for the Sedibeng JV Mine may also not be fully realised.	
	(c) Limited History: Frontier was only recently incorporated on 1 December 2016 and has no operating history and limited historical financial performance. No assurance can be given that Frontier will achieve commercial viability through the successful operation and development of the Projects.	
	(d) Completion under the Acquisition Agreement: The Acquisition is subject to the achievement or waiver of all the conditions precedent in the Acquisition Agreement. The Offers are conditional on the Acquisition Agreement becoming unconditional. In the event this does not occur no Shares will be issued under this Prospectus.	
	(e) <b>Exploration and Development</b> : Mineral exploration and development is a speculative and high-risk undertaking that may be impeded by circumstances and factors beyond the control of Frontier.	
	(f) International Operations: Sedi South Africa's assets are in South Africa. International operations are subject to a number of risks, including:	
	<ul> <li>(i) potential difficulties in enforcing agreements or other legal rights and collecting receivables through foreign systems; and</li> </ul>	
	<ul> <li>(ii) restrictive governmental actions, such as imposition of trade quotas, tariffs, other taxes and a regulative banking structure designed to manage cross border transactions.</li> </ul>	
	On 15 June 2017 the South African government published the Reviewed Broad-Based Black Economic Empowerment Charter for the South	
	Atrican Mining and Minerals Industry (Mining Charter). The proposed Mining Charter proposes (amongst other changes) to increase the BEE Partner shareholding to 30% (up from 26%), a 1% revenue tax to BEE	
	Partners prior to any other shareholder distributions, 70% of goods to be procured from black-owned companies in South	

Item	Summary	Further information
	Africa and new employment targets. There is substantial opposition to the proposed changes and potential legal action to prevent the Charter becoming law. Given the uncertainties surrounding the new legislation the Directors are unable to quantify the financial effect of such changes other than the change to a 30% shareholding which is disclosed in Section 7.13. Should the Charter become law, Sedi South Africa would, on the current drafting of the proposed laws, be given 12 months to comply with the new legislation.	
	Any of these factors could materially and adversely affect Sedi South Africa's business, results of operations and financial condition.	
	(g) Liquidity Risk: On completion of the Acquisition, Frontier proposes to issue Shares to the Sedi Australia Shareholders in consideration for a 74% interest in the South African Group Entities. Frontier also proposes to issue Shares to a creditor of the Sedi South African Group Entities in satisfaction of amounts owing. Frontier understands that ASX will treat these securities as restricted securities in accordance with Chapter 9 of the ASX Listing Rules. In addition, other existing securities of Frontier will also be treated by ASX as restricted securities in accordance with Chapter 9 of the ASX Listing Rules. This could be considered an increased	
	liquidity risk as a large portion of issued capital may not be able to be traded freely for a period of time.	
	<ul> <li>(h) Contractual dependence risk: Sedi South Africa is reliant on the Service Contract Agreement with Frontier Mining Projects (Pty) Ltd (FMP) (refer to the summary of the material terms set out in Section 11.4) who provides personnel, contract mining, operations management and maintenance of the Projects. The Group is dependent on the continuation of this contract. The loss of the services provided by FMP would be difficult to replace and until a replacement service provider was engaged there could be a material adverse effect on the Group's operations.</li> </ul>	
	responsibility of overseeing the day-to-day	

Item	Summary	Further information
	operations and the strategic management of Frontier depends substantially on its senior management and its key personnel. There can be no assurance given that there will be no detrimental impact on Frontier if one or more of these personnel cease their employment or contract.	
	<ul> <li>(j) Commodity and exchange rate fluctuation: Frontier operates in multiple currencies and exchange rates which are constantly fluctuating. International prices of various commodities are denominated in the United States Dollar, exploration and mining expenditure is denominated in South African rand and corporate overheads are denominated in Australian Dollars. Frontier's presentation currency is United States Dollars.</li> </ul>	
	(k) Licences - Conversion of Old Order Rights to New Order Rights: Conversion orders are required to convert mining licences from Old Order Rights to New Order Rights. The signing of grant letters can only be signed by the Director-General as the authorised delegate of the Minister of Mineral Resources. In certain instances conversion orders have been signed by the Deputy Director-General of the Department of Mineral Resources and are therefore invalid.	
	Where this has occurred, the licence holder is required to re-submit the grant approval to the Director-General. The rectification process is expected to take at least six months. In the interim, the old order rights continue to remain in force provided the licence holder lodged the conversion application before the applicable deadline. The applications for conversion of the Old Order Rights held by Sedi South Africa were submitted by the applicable deadline.	
D Diroct	Additional key risks are disclosed at Section 6.	
Who are the	The current Board is comprised of	Section 0.1
Directors of Frontier?	(a) Mr Johan van Reenen – Non-executive Chairman	
	<ul> <li>(b) Mr Jan Louw - Managing Director;</li> <li>(c) Mr Frank Petruzzelli - Executive Director;</li> <li>(d) Mr Michael Addison - Non-executive Director.</li> </ul>	

Item	Summary	Further information
Who are the key	Mr Marco Möller is engaged as Frontier's Chief Financial Officer.	Section 9.2
management personnel of Frontier?	Mr Jacques Cilliers is engaged as Sedi South Africa's Commercial & Marketing Manager. Mr Martin van Zyl is engaged as Sedi South Africa's Legal and Compliance Manager – South Africa. Mr Chris Ritchie is engaged as Frontier's Company Secretary.	
What are the Directors' interests in Frontier?	Each Director's interest in Frontier is set out in Section 9.3.	Section 9.3
E. Financ	cial Information	
How has Frontier performed over the past 12 months?	Frontier was only recently incorporated on 1 December 2016 and has no operating history and limited historical financial performance. The audited financial information for Frontier from incorporation to 30 June 2017 is included in	Section 7
	Section 7. The audited historical financial information of Sedi South Africa for the financial years ended 30 Jun 2014, 30 June 2015, 30 June 2016 and 30 June 2017 is set out in Section 7.	
What is the financial outlook for Frontier?	Forecast financial information for Frontier for the financial years ending 30 June 2018 and 30 June 2019 is included in Section 7. The forecast financial information should be read in conjunction with the risk factors set out in Section 6, the Investigating Accountant's Report at Section 8 and the Independent Technical Report at Annexure B.	Sections 6, 7 8 and Annexure B
F. Offers		
What is being offered under and what is the purpose of the Public Offer?	Frontier invites applications for up to 20,000,000 Shares at an issue price of AU\$0.20 per Share to raise up to AU\$4,000,000. The minimum amount to be raised under the Public Offer is AU\$4,000,000 (Minimum Subscription). Frontier may accept oversubscriptions for up to a further 10,000,000 Shares at an issue price of AU\$0.20 per Share to raise a further AU\$2,000,000, being AU\$6,000,000 in total. The purpose of the Public Offer is to: (a) implement the business model and objectives of Frontier as stated in Part B	Section 4
	(b) meet the requirements of the ASX and satisfy Chapters 1 and 2 of the ASX Listing	

Item	Summary	Further information
	Rules. The satisfaction of Chapters 1 and 2 of the ASX Listing Rules is sought for the purpose of seeking ASX's approval for Frontier's admission to the Official List of ASX. The Board believes that on completion of the Public Offer, Frontier will have sufficient working capital to achieve its objectives.	
ls the Public Offer underwritten?	The Public Offer is not underwritten.	Section 4.4
Who is the lead manager to the Public Offer?	Frontier has appointed Novus Capital (Lead Manager) as lead manager to the Public Offer. The Lead Manager will receive a brokerage fee of 5% and a management fee of 1% (excluding GST) of the total amount raised under the Public Offer. In addition, Frontier has paid, or will pay, a sponsoring broker and lead manager fee of AU\$30,000 (plus GST) and an advisory fee of AU\$18,000 (plus GST). Further, Frontier will issue the Lead Manager 667,000 Shares on completion of the listing of Frontier on the basis the Minimum Subscription is raised, and up to 1,000,000 Shares (on a pro rata basis) in the event the Maximum Subscription is raised under the Public Offer. Some or all of the fees payable to the Lead Manager under the mandate may be required to be passed on to other brokers or advisers who assist with the Public Offer. Further details of the mandate entered with the Lead Manager are set out in Section 4.5.	Section 4.5
What will Frontier's capital structure look like after completion of the Offers?	Frontier's capital structure on a post-Offers basis is set out in Section 5.6.	Section 5.6
What are the terms of the Shares offered under the Offers?	A summary of the material rights and liabilities attaching to the Shares offered under the Offers is set out in Section 12.2.	Section 12.2

Item	Summary	Further information
Will any of the Shares issued under the Public Offer be subject to escrow? Will the Shares issued	None of the Shares issued under the Public Offer will be subject to escrow. However, certain other Securities on issue may be classified by ASX as restricted securities and will be required to be held in escrow for up to 24 months from the date of Official Quotation. During the period in which these Securities are prohibited from being transferred, trading in Shares may be less liquid which may impact on the ability of a Shareholder to dispose of his or her Shares in a timely manner. On 18 October 2017, Frontier made an application to ASX for quotation of all Shares to he investigation of the offere	Section 5.8 Section 4.9
Public Offer be quoted?	be issued under the Offers.	
What are the key dates of the Offers?	The key dates of the Offers are set out in the indicative timetable in the Key Offer Information section of this Prospectus.	Key Offer Information Section
What is the minimum investment size under the Public Offer?	Applications under the Public Offer must be for a minimum of AU\$2,000 worth of Shares (10,000 Shares) and thereafter, in multiples of AU\$500 worth of Shares (2,500 Shares).	Section 4.8
Are there any conditions to the Offers?	The Offers are conditional on the Acquisition Agreement becoming unconditional. (Condition). Refer to Section 11.1 for a list of the outstanding conditions precedent to completion under the Acquisition Agreement. In the event the Condition is not satisfied, the Offers will not proceed and no Shares will be issued pursuant to this Prospectus. If this occurs, Applicants will be refunded their application monies (without interest) and in accordance with the Corporations Act.	Sections 1.2 and 11.1
G. Use of	proceeds	
How will the proceeds of the Public Offer be used?	<ul> <li>The Public Offer proceeds and Frontier's existing cash reserves will be used for:</li> <li>(a) expenses of the Offers;</li> <li>(b) operate and further develop the current projects;</li> <li>(c) further project generation;</li> <li>(d) administration and corporate costs; and</li> <li>(e) general working capital.</li> </ul>	Section 4.7

Item	Summary	Further information
Will Frontier be adequately funded after completion of the Public Offer?	The Board believes that on completion of the Offer, Frontier will have sufficient working capital to achieve its objectives (whether the minimum or full amount is raised under the Public Offer).	Section 4.7
H. Additio	onal information	
Is there any brokerage, commission or stamp duty payable by applicants?	No brokerage, commission or duty is payable by applicants on the acquisition of Shares under the Offers. However, Frontier will pay an aggregate fee of 6% (ex GST) of the total amount raised under the Prospectus to the Lead Manager.	Section 4.14
What are the tax implications of investing in Shares?	Shares may be subject to Australian tax on dividends and possibly capital gains tax on a future disposal of Shares issued under this Prospectus. The tax consequences of any investment in Shares will depend upon an investor's particular circumstances. Applicants should obtain their own tax advice prior to deciding whether to subscribe for Shares offered under this Prospectus.	Section 4.13
What are the corporate governance principles and policies of Frontier?	To the extent applicable, in light of Frontier's size and nature, Frontier has adopted <i>The Corporate</i> <i>Governance Principles and Recommendations</i> (3 <sup>rd</sup> Edition) as published by ASX Corporate Governance Council ( <b>Recommendations</b> ). Frontier's main corporate governance policies and practices and Frontier's departures from the Recommendations as at the date of this Prospectus are outlined in Section 10. In addition, Frontier's full Corporate Governance Plan is available from its website <u>www.frontierdiamonds.com</u> .	Section 10
Where can I find more information?	<ul> <li>(a) By speaking to your sharebroker, solicitor, accountant or other independent professional adviser.</li> <li>(b) By contacting Frontier's Company Secretary on +61 3 9347 2409.</li> <li>(c) By contacting the Share Registry on 1300 110 252 within Australia and +61 3 9415 4002 from overseas during the Offer Period.</li> </ul>	

# 4. DETAILS OF THE OFFERS

# 4.1 The Public Offer

Pursuant to this Prospectus, Frontier invites applications for 20,000,000 Shares at an issue price of AU\$0.20 per Share to raise AU\$4,000,000 (US\$3,076,800). Frontier may accept oversubscriptions of up to a further 10,000,000 Shares at an issue price of AU\$0.20 per Share to raise up to a further AU\$2,000,000 (US\$1,538,400) under the Public Offer. The maximum amount which may be raised under the Public Offer is therefore AU\$6,000,000 (US\$4,615,200) (Maximum Subscription).

The Shares offered under the Public Offer will rank equally with the existing Shares on issue. A summary of the material rights and liabilities attaching to the Shares is set out in Section 12.2.

# 4.2 Conditions to Offers

The Offers are conditional on the Acquisition Agreement becoming unconditional which will require the Minimum Subscription to be obtained (**Condition**). Refer to Section 11.1 for a list of the outstanding conditions precedent to completion under the Acquisition Agreement.

In the event the Condition is not satisfied, the Offers will not proceed and no Shares will be issued pursuant to this Prospectus. If this occurs, Applicants will be refunded their application monies (without interest) and in accordance with the Corporations Act.

# 4.3 Minimum Subscription

The minimum amount which must be raised under the Public Offer is AU\$4,000,000 (US\$3,076,800) (Minimum Subscription). If the Minimum has not been raised within 4 months after the date of the Original Prospectus, Frontier will not issue any Shares and will repay all application monies for the Shares within the time prescribed under the Corporations Act, without interest.

# 4.4 Underwritten

The Public Offer is not underwritten.

# 4.5 Lead Manager

Frontier has entered into a mandate with Novus Capital Limited (ABN 32 006 711 995) (AFSL No. 238168) (**Novus** or **Lead Manager**), pursuant to which Novus is appointed as corporate adviser, sponsoring broker and lead manager to the Public Offer on an exclusive and best endeavours basis and on the following terms.

- (a) **Sponsoring Broker and Lead Manager Fee:** a sponsoring broker and lead manager fee of AU\$30,000 (plus GST) is payable in advance by Frontier to Novus upon lodgement of the Prospectus with ASIC;
- (b) Advisory Fee: a monthly retainer of AU\$6,000 (plus GST) is payable in advance by Frontier to Novus for a period of three months commencing on 20 June 2016;
- (c) **Brokerage Fee:** Novus is entitled to receive a fee of 5.0% (plus GST) of the total amount raised under the Public Offer. Novus will determine

with Frontier, and will pay brokerage rebates and handling fees to third party brokers, institutions and other AFSL holders in respect of their participation in the Public Offer;

- (d) **Management Fee:** a management fee of 1.0% (plus GST) of the total amount raised under the Public Offer is payable by Frontier to Novus;
- (e) **Success Fee on Listing:** Frontier will issue Novus 667,000 Shares on completion of the listing of Frontier on the basis the Minimum Subscription is raised, and up to 1,000,000 Shares (on a pro rata basis) in the event the Maximum Subscription is raised under the Public Offer;
- (f) **Expenses**: Novus is entitled to be reimbursed for all reasonable out of pocket expenses incurred in connection with the Public Offer and the provision of services to Frontier, subject to Frontier's prior approval of any expenditure in excess of AU\$2,000 (US\$1,538); and
- (g) **Termination**: both parties may terminate the mandate as follows:
  - (i) Frontier reserves the right to terminate the mandate and commercial arrangements with Novus at any time during the term of the mandate by issuing a notice of termination in which event, Novus will be entitled to be paid:
    - (A) all outstanding fees and expenses which have accrued to the date of termination; and
    - (B) a break fee of AU\$25,000 (US\$19,230) (plus GST); and
  - (ii) Novus reserves the right to terminate the mandate and commercial arrangements with Frontier on the occurrence of a termination event (as set out in the mandate) which include, without limitation:
    - (A) a stop order is issued by ASIC which would cause a substantial delay in the admission of Frontier to the Official List;
    - (B) ASIC issues any requirements that may be unable to be met or complied with by Frontier within a reasonable period of time;
    - (C) ASX compliance issues and listing requirements that may be unable to be met or complied with by Frontier within a reasonable period of time;
    - (D) a supplementary or replacement prospectus is issued by Frontier containing a material change to the Prospectus;
    - (E) there is a material adverse change in the assets, liabilities, financial position or prospects of Frontier, other than for costs incurred by Frontier in relation to the Public Offer;
    - (F) there is a materially false or materially misleading statement or misrepresentation in the material or

information supplied to Novus or included in the presentation materials and Prospectus;

- (G) any material or adverse change or disruption occurs in the existing financial markets, political or economic conditions of Australia, China, Japan, the United Kingdom, the United States of America, North Korea or the international financial markets, or ant material adverse change occurs in national or international political, financial or economic conditions, in each case, the effect of which is that, it is impracticable to market the new issue or enforce any contract to issue new Shares or that the success or the issue of Shares is likely to be adversely affected;
- (H) introduced. there there is or is а public announcement of a proposal to introduce, into the parliament of Australia or any state of Australia, a new law, or the Reserve Bank of Australia, any federal or state authority of Australia adopts or announces a proposal to adopt a new policy (other than a law or policy which has been announced before the date of the mandate), ASX, any of which does or is likely to prohibit or regulate the financial institutions or credit providers, capital issues or stock markets;
- (I) default by Frontier under any term of the mandate;
- (J) any of the warranties or representations of Frontier in the mandate becoming materially untrue;
- a Director or proposed director of Frontier is charged with an indictable offence or is disqualified from managing a corporation under the Corporations Act, or the Chairman or Chief Executive Officer of Frontier vacates office;
- (L) ASIC issues or threatens to issue a proceeding, hearing or investigation in relation to the Public Offer; and
- (M) any government agency (including ASIC) commences any public action hearing or investigation against Frontier or any of its Directors in their capacity as a Director of Frontier or announces that it intends to take such action.

Novus will be entitled to be paid all outstanding fees and expenses that have accrued to the date of termination.

Novus has waived its right to terminate the mandate and commercial arrangements with Frontier in relation to the lodgement of this Prospectus.

The mandate also contains other terms such covenants, warranties, representations and indemnities that are customary for an agreement of its nature.

# 4.6 The Cleansing Offer

The Cleansing Offer is an offer of 1 Share at an issue price of AU\$0.20.

The Share offered under the Cleansing Offer will rank equally with the existing Shares on issue. A summary of the material rights and liabilities attaching to the Shares is set out in Section 12.2.

The purpose of the Cleansing Offer is to remove the need for an additional disclosure document to be issued upon the sale of any Shares that are issued by Frontier without disclosure under Chapter 6D of the Corporations Act prior to the Cleansing Offer Closing Date.

Application for the Share under the Cleansing Offer must be made using the Cleansing Offer Application Form. You should not complete a Cleansing Offer Application Form unless specifically directed to do so by Frontier.

Application for quotation of the Share issued under the Cleansing Offer was made to ASX on 18 October 2017. See Section 4.9 for further details.

# 4.7 Use of Funds

Frontier intends to apply funds raised from the Public Offer, together with existing cash reserves, over the first two years following admission of Frontier to the Official List of ASX as follows:

Funds available	Minimum Subscription (US\$) <sup>6</sup>	Percentage of Funds (%)	Maximum Subscription (US\$)6	Percentage of Funds (%)
Existing cash reserves	327,376	10%	327,376	7%
Funds raised from the Public Offer	3,076,800	90%	4,615,200	93%
Total <sup>1</sup>	3,404,176	100%	4,942,576	100%
Allocation of funds				
Expenses of the Offers <sup>2</sup>	471,658	14%	565,710	11%
Acquisition of Boytjies Pit <sup>3</sup>	76,924	2%	76,924	2%
Purchase of tailings plant <sup>3</sup>	379,482	11%	379,482	8%
Expansion of infrastructure <sup>3</sup>	500,000	14.5%	500,000	10%
Fissure development <sup>3</sup>	500,000	14.5%	900,000	18%
Purchase of plant & machinery <sup>3</sup>	100,000	3%	200,000	4%
Administration costs <sup>4</sup>	874,740	26%	874,740	18%
Project Generation/ Acquisition Target preliminary costs <sup>5</sup>	200,000	6%	1,000,000	20%
Working capital	301,372	9%	445,720	9%
Total	3,404,176	100%	4,942,576	100%

#### Notes:

- <sup>1</sup> Refer to Sections 7.4.1 (minimum subscription) and 7.5.1 (maximum subscription) for further details.
- <sup>2</sup> Refer to Section 12.6 for further details.
- <sup>3</sup> Refer to the Independent Geologist's Report in Annexure A for further information on the planned activities for the Projects. Refer to Section 11.14 for a summary of the material terms of the Plant Acquisition Agreement.
- <sup>4</sup> These costs comprise primarily of Director and key management remuneration, public company operating costs.
- <sup>5</sup> Provision for generating new projects and preliminary costs for investigating potential acquisition targets.
- <sup>6</sup> These figures have been converted from Australian Dollars at the AUD/USD rate of 0.7692.

In the event Frontier accepts over-subscriptions and raises more than the Minimum Subscription of AU\$4,000,000 (US\$3,076,800), the additional funds raised (after first deducting the costs of the Offers, which will vary depending on the amount raised) will first be applied to fissure development followed by purchase of plant and machinery and then on a pro-rata basis towards increasing working capital and funds allocated to generating new project opportunities and preliminary costs associated with potential acquisitions.

Working capital will increase relative to amount raised over and above the budgeted capital and infrastructure expenditure. Further details of Frontier's proposed capital and infrastructure program and budgets are outlined in Sections 5 and 7.

It should be noted that Frontier's budgets will be subject to modification on an ongoing basis depending on the results obtained from work carried out. This will involve an ongoing assessment of Sedi South Africa's mineral interests. The results obtained from initial work programs may lead to increased or decreased levels of expenditure on certain projects reflecting a change in emphasis.

The above table is a statement of current intentions as of the date of this Prospectus. As with any budget, intervening events (including mining success or failure) and new circumstances have the potential to affect the manner in which the funds are ultimately applied. The Board reserves the right to alter the way funds are applied on this basis.

On completion of the Public Offer, the Board believes Frontier will have sufficient working capital to achieve its objectives (whether the minimum or full amount is raised under the Public Offer). It should however be noted that an investment in Frontier is speculative and investors are encouraged to read the risk factors outlined in Section 6.

### 4.8 Applications

Applications for Shares under the Public Offer must be made using the Application Form or  $BPAY^{\ensuremath{\mathbb{R}}}$ .

By completing an Application Form, each applicant under the Public Offer will be taken to have declared that all details and statements made by you are complete and accurate and that you have personally received the Application Form together with a complete unaltered copy of the Prospectus. Applications for Shares must be for a minimum of 10,000 Shares, and thereafter in multiples of 2,500 Shares, and payment for the Shares must be made in full at the issue price of AU\$0.20 per Share.

Completed Application Forms and accompanying cheques, made payable to "Frontier Diamonds Ltd – IPO Account" and crossed "Not Negotiable", must be mailed to reach the address set out on the Application Form by no later than 5.00pm (AEST) on the Public Offer Closing Date.

If an Application Form is not completed correctly or if the accompanying payment is the wrong amount, Frontier may, in its discretion, still treat the Application Form to be valid. Frontier's decision to treat an application as valid, or how to construe, amend or complete it, will be final.

If paying by BPAY®, please follow the instructions on the Application Form. A unique reference number will be quoted upon completion of the online application. Your BPAY® reference number will process your payment to your application electronically and you will be deemed to have applied for such securities for which you have paid.

Applicants using Your BPAY® should be aware of their financial institutions cutoff time (the time payment must be made to be processed overnight) and ensure payment is process by their financial institution on or before the day prior to the Public Offer Closing Date. You do not need to return any documents if you have made payment via BPAY®.

Participation in the Cleansing Offer is personal and a personalized Cleansing Offer Application Form will be issued to the relevant participant together with a copy of this Prospectus.

Frontier reserves the right to close the Offers early.

# 4.9 ASX listing

Application for Official Quotation by ASX of the Shares offered pursuant to this Prospectus was made on 18 October 2017.

If the Shares are not admitted to Official Quotation by ASX before the expiration of 3 months after the date of issue of the Original Prospectus, or such period as varied by the ASIC, Frontier will not issue any Shares and will repay all application monies for the Shares within the time prescribed under the Corporations Act, without interest.

The fact that ASX may grant Official Quotation to the Shares is not to be taken in any way as an indication of the merits of Frontier or the Shares now offered for subscription.

### 4.10 Issue

Subject to the Minimum Subscription to the Public Offer being reached and ASX granting conditional approval for Frontier to be admitted to the Official List, the issue of Shares offered by this Prospectus will take place as soon as practicable after the Public Offer Closing Date.

Pending the issue of the Shares or payment of refunds pursuant to this Prospectus, all application monies will be held by Frontier in trust for the applicants in a separate bank account as required by the Corporations Act.

Frontier, however, will be entitled to retain all interest that accrues on the bank account and each applicant waives the right to claim interest.

The Directors will determine the recipients of the Shares issued under the Public Offer in their sole discretion. The Directors reserve the right to reject any application or to allocate any applicant fewer Shares than the number applied for. Where the number of Shares issued is less than the number applied for, or where no issue is made, surplus application monies will be refunded without any interest to the applicant as soon as practicable after the Public Offer Closing Date.

Frontier's decision on the number of Shares to be allocated to an Applicant will be final.

Holding statements for Shares issued to the issuer sponsored subregister and confirmation of issue for Clearing House Electronic Subregister System (CHESS) holders will be mailed to Applicants being issued Shares pursuant to the Public Offer as soon as practicable after their issue.

### 4.11 Applicants outside Australia

This Prospectus does not, and is not intended to, constitute an offer in any place or jurisdiction, or to any person to whom, it would not be lawful to make such an offer or to issue this Prospectus. The distribution of this Prospectus in jurisdictions outside Australia may be restricted by law and persons who come into possession of this Prospectus should seek advice on and observe any of these restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

No action has been taken to register or qualify the Shares or otherwise permit a public offering of the Shares the subject of this Prospectus in any jurisdiction outside Australia. Applicants who are resident in countries other than Australia should consult their professional advisers as to whether any governmental or other consents are required or whether any other formalities need to be considered and followed.

If you are outside Australia it is your responsibility to obtain all necessary approvals for the issue of the Shares pursuant to this Prospectus. The return of a completed Application Form will be taken by Frontier to constitute a representation and warranty by you that all relevant approvals have been obtained.

### 4.12 Clearing House Electronic Sub-Register System (CHESS) and Issuer Sponsorship

Frontier will apply to participate in CHESS, for those investors who have, or wish to have, a sponsoring stockbroker. Investors who do not wish to participate through CHESS will be issuer sponsored by Frontier.

Electronic sub-registers mean that Frontier will not be issuing certificates to investors. Instead, investors will be provided with statements (similar to a bank account statement) that set out the number of Shares issued to them under this Prospectus. The notice will also advise holders of their Holder Identification Number or Security Holder Reference Number and explain, for future reference, the sale and purchase procedures under CHESS and issuer sponsorship.

Electronic sub-registers also mean ownership of securities can be transferred without having to rely upon paper documentation. Further monthly statements

will be provided to holders if there have been any changes in their security holding in Frontier during the preceding month.

### 4.13 Taxation

The acquisition and disposal of Shares will have tax consequences, which will differ depending on the individual financial affairs of each investor. It is not possible to provide a comprehensive summary of the possible taxation positions of all potential applicants. As such, all potential investors in Frontier are urged to obtain independent financial advice about the consequences of acquiring Shares from a taxation viewpoint and generally.

To the maximum extent permitted by law, Frontier, its officers and each of their respective advisors accept no liability and responsibility with respect to the taxation consequences of subscribing for Shares under this Prospectus.

No brokerage, commission or duty is payable by applicants on the acquisition of Shares under the Public Offer.

### 4.14 Commissions payable

Frontier reserves the right to pay a commission of up to 6% (exclusive of goods and services tax) of amounts subscribed through any licensed securities dealers or Australian financial services licensee in respect of any valid applications lodged and accepted by Frontier and bearing the stamp of the licensed securities dealer or Australian financial services licensee. Payments will be subject to the receipt of a proper tax invoice from the licensed securities dealer or Australian financial services licensee. The Lead Manager will be responsible for paying all commissions that they and Frontier agree with any other licensed securities dealers or Australian financial services licensee out of the fees paid by Frontier to the Lead Manager under the Lead Manager Mandate.

### 4.15 Withdrawal of Offers

The Offers may be withdrawn at any time. In this event, Frontier will return all application monies (without interest) in accordance with applicable laws.



Engineering works and commissioning of a process plant at the Kimberley workshop.

# 5. COMPANY AND PROJECT OVERVIEW

# 5.1 Background

Frontier was incorporated as an unlisted public company domiciled in Australia on 1 December 2016 to:

- (a) acquire 100% of the issued capital of Sedi Australia, which has an agreement to purchase 74% of Sedi South Africa, which is the holding company of the Star Diamond Mine and Sedibeng JV Mine; and
- (b) raise funds to seek a listing on the ASX, further develop the existing Licences and generate new projects and/or consider acquisitions.



Sedibena DMS processina plant

Kimberly engineering & storage yard



# 5.2 Acquisition of Sedi Australia

On 23 August 2017, Frontier entered into a binding agreement with Sedi Australia, under which Frontier has agreed to acquire 100% of the issued capital of Sedi Australia (Acquisition) from the holders of shares in Sedi Australia (being, Lutzville Engineering (Pty) Ltd (an entity incorporated in South Africa) (Lutzville) and Reddoor Resources (Pty) Ltd (an entity incorporated in South Africa) (Reddoor)) (Sedi Australia Shareholders) (Acquisition Agreement).

The material terms of the Acquisition Agreement are set out in Section 11.1.



Sedibeng gemstones: 31.2 crts sold for US\$15,942 per crt, 11.38crts sold for US\$8,602 per crt and a 7.47crt stone sold for US\$2,405 per crt



Sedibeng 31.2 crt gemstone sold for US\$497,413



Diamonds recovered from Star Mine

# 5.3 Corporate Structure

Following completion of the Acquisition and closure of the Offers, the corporate structure will be as shown below:



Entity	Country of Incorporation	
Frontier Diamonds Limited	Australia	
Sedi Star Diamonds Pty Ltd	Australia	
Sedi Diamonds (Pty) Ltd	South Africa	
Messina Investments (Pty) Ltd	South Africa	
Star Diamonds (Pty) Ltd	South Africa	
Autumn Star Investments (Pty) Ltd	South Africa	
Dancarl Diamonds (Pty) Ltd	South Africa	
Messina Diamonds (Pty) Ltd	South Africa	

# (a) Existing producing mines

A full description of the Star Diamond Mine and the Sedibeng JV Mine, including their history of mining operations, is included in the Independent Geologists' Report in Annexure A, the Independent Technical Report in Annexure B and the Solicitors Report on Mining Licences in Annexure C.

# (b) Bellsbank Pipe (Boytjies Pit)

The Bellsbank Pipe is an existing mining licence owned by A A Van Wyk Diamante CC (a South African incorporated entity) (Van Wyk Diamonds).

Messina Diamonds (Pty) Ltd (**Messina**) has been appointed as the exclusive mining contractor by Van Wyk Diamonds to mine the Bellsbank Pipe for its own benefit and cost.

Messina is currently stripping the pipe for bulk sampling purposes, with the material to be treated through the Sedibeng JV Mine plant.

Messina has also been granted a conditional right by the shareholder of Van Wyk Diamonds to acquire this licence. Messina requires "Section 11" regulatory approval from the Department of Mineral Resources before it can complete the acquisition.

This licence has been excluded from the Reserve report calculations as it is not owned by Messina, however, Messina has the right to acquire.

The purchase consideration is ZAR 2,000,000 (US\$154,202) of which as at the date of this Prospectus ZAR 1,002,296 (US\$77,277) has been paid.

Full details of the agreements relating to the Bellsbank Pipe are set out in Section 11.11 and 11.12.

# (c) Bellsbank Mine Prospecting Rights

Messina Diamonds (Pty) Ltd has applied for the prospecting rights over the historical Bellsbank Mine, located a few kilometres to the west of the Sedibeng JV Mine. This is separate to the Bellsbank Pipe. This application has been accepted by the Department of Mineral Resources, the required rehabilitation provision together with the other study documents have been submitted and Sedi South Africa but a licence has not yet been granted by the Department of Mineral Resources.

The Bellsbank Mine operated until the 1990's and was mined to a depth of 600 metres. The mine includes two blows and a fissure and Frontier is of the opinion that the headframe and shaft could be refurbished and that the material could be treated at the Sedibeng JV Mine plant.

These prospecting rights have been excluded from the reserve report calculations until such time as the ownership is registered by the Department of Mineral Resources.

# (d) Future projects

At the date of this Prospectus no project or acquisition has advanced sufficiently to warrant disclosure, however should Frontier raise the maximum subscription under this Prospectus an amount of US\$1,000,000 has been allocated to project development and/or preliminary works on acquisitions. If the minimum subscription is raised then US\$200,000 has been allocated.

# 5.4 Business Model

Frontier's aim is to unlock the potential of Sedi South Africa's existing producing mines, the Star Diamond Mine and the Sedibeng JV Mine. Additionally, Frontier will actively investigate ways to grow its Projects and investigate growth opportunities through joint ventures and acquisitions.

Frontier aims to achieve this in regard to Sedi South Africa's existing mines by increasing throughput whilst maintaining low operating costs and low capital investments. The existing mines have long strike length kimberlitic fissures that are supported by the Resource Statement in the Independent Geologist Report. Ongoing development work at the lower sections of the mines is hoped to add to the existing Resource Statement.

Sedi South Africa's contracted mining team has a proven track record in underground and surface mining operations and both mines comply with South African regulative control with regular government surveying done in terms of health, safety and environmental control.

The mines produce high quality diamonds and Sedi South Africa has access to established marketing platforms and tender house facilities. Sedi South Africa aims to achieve a long term predictable revenue stream supported by a consistent historical production profile of operations.

Sedi South Africa has access to underutilised infrastructure to complement expansion and recently acquired a tailings processing plant to reprocess significant tailings dumps at the Sedibeng JV Mine, and potentially, surrounding mines.

Sedi South Africa has recently purchased a treatment plant that was being used to treat tailings. The treatment plant has been removed from the vendor's site and transported to the Sedibeng JV Mine site where it is currently being reassembled.

Sedi South Africa has access to significant project engineering through a service agreement with Frontier Mining Projects (Pty) Ltd (FMP), an entity associated with Mr Jan Louw, Frontier's Managing Director. FMP has the capability of building and installing plant and refurbishing and maintaining equipment and has an established engineering facility and workshop in Kimberley.

Through FMP, Sedi South Africa can actively source used equipment which can then be refurbished for use on Sedi South Africa's mining operations. This equipment can range from small scale equipment through to major items such as trucks, loaders and hoisting equipment.

Sedi South Africa's site workforce is also contracted through FMP.

A summary of the material terms of Sedi South Africa's agreement with FMP is set out in Section 11.4.

The primary objective of Sedi South Africa has been to focus on re-establishing and re-equipping the existing mine assets and on mineral exploration of resource opportunities that have the potential to deliver growth for Shareholders. To achieve this objective following completion of the Offers, Sedi South Africa proposes to undertake the production and acquisition programs highlighted above. The results of the exploration program above will determine the economic viability and possible timing for the commencement of further testing including pre-feasibility studies and commencement of other mining operations on the Projects.

### 5.5 Black Economic Empowerment Laws

Black Economic Empowerment (**BEE**) is a programme implemented by the South African Government after the end of Apartheid seeking to alleviate certain economic disparities in South Africa.

BEE has been enshrined in laws relating to mining and exploration in South Africa through the Mineral and Petroleum Resources Development Act, 2002 of South Africa (MPRD Act), which makes provision in terms of the BEE Charter to meaningfully expand opportunities for historically disadvantaged persons (HDI) to enter the mineral and petroleum industries and to benefit from the exploitation of South Africa's mineral resources. HDI's by definition of the Mining Charter, refers to Black demographic or with respect to companies, companies which are owned or controlled by Black persons.

As a result of the BEE laws in South Africa, Frontier is unable to acquire a 100% interest in the Projects. Frontier, through Sedi Australia, is acquiring 74% of the issued capital of Sedi South Africa. The remaining 26% equity is owned by the local BEE Partner Mr Martin van Zyl in accordance with BEE laws.

The BEE Partner is not liable under existing South African law to contribute to the expenditure of Sedi South Africa or the underlying entities in the South African Group Entities unless otherwise contractually agreed. As at the date of this Prospectus no contractual arrangement is in place. However, the BEE Partner is entitled to its proportionate share (26%) in dividends when and if distributed by Sedi South Africa.

Further details of the South African Group Entities compliance with the BEE requirements is set out in the Solicitor's Report on Mining Licences in Annexure C.

### 5.6 Capital Structure

The capital structure of Frontier following completion of the Offers is summarised below<sup>1</sup>:

### Shares<sup>2</sup>

	Number (Minimum Subscription)	Number (Maximum Subscription)
Shares currently on issue <sup>3</sup>	25,436,134	25,436,134
Shares to be issued on completion of Acquisition <sup>4</sup>	105,244,450	105,244,450
Shares to be issued on capitalisation of loans owed by the South African Group Entities <sup>5</sup>	23,502,629	23,502,629
Shares to be issued to management and promoters <sup>6</sup>	2,500,000	2,500,000
Shares to be issued to the Lead broker <sup>7</sup>	667,000	1,000,000
Shares to be issued on conversion of Series 1 Convertible Notes <sup>8</sup>	6,250,000	6,250,000
Shares to be issued on conversion of Series 2 Convertible Notes <sup>8</sup>	15,625,000	15,625,000
Shares to be issued to consultants <sup>9</sup>	72,500	72,500
Shares to be issued pursuant to the Public Offer	20,000,000	30,000,000
Share to be issued pursuant to the Cleansing Offer	1	1
Total Shares on completion of the Offers	199,297,714	209,630,714

#### Notes:

- <sup>1</sup> Refer to the Investigating Accountant's Report set out in Section 8 for further details.
- <sup>2</sup> The rights attaching to the Shares are summarised in Section 12.2.
- <sup>3</sup> 300 Shares were issued at AU\$1.00 each at incorporation. 25,435,834 Shares were issued on 2 May 2017 at an issue price of AU\$0.12 each to seed capital investors to fund acquisition costs and initial working capital requirements of Frontier. These Shares were issued at a discount to the issue price of the Shares offered pursuant to the Public Offer to reflect the increased risk associated with an investment in Frontier at the time of issue of the seed capital. Of these Shares, 15,261,500 are expected to be freely tradeable upon the commencement of trading in Frontier's securities on ASX, 10,174,334 Shares are expected to be escrowed for a period of 12 months from the date of issue and 2,505,001 Shares are expected to be escrowed for a period of 24 months from the date of Frontier's admission to the Official List of ASX.
- <sup>4</sup> Refer to Section 11.1 for a summary of the material terms of the Acquisition Agreement including the consideration payable on completion of the Acquisition.
- <sup>5</sup> Frontier has agreed with FMP to extinguish loans owing to it by Sedi South Africa, by Frontier issuing shares to FMP at a deemed issue price of AU\$0.20 per Share as part of the completion of the Acquisition. The above table reflects the extinguishment of the debt as at 31 December 2016 as recorded in the audited accounts of Sedi South Africa.
- <sup>6</sup> Frontier has agreed to issue Mr Jan Louw, Mr Frank Petruzzelli, (Directors), Mr Marco Möller (Company's CFO), Mr Chris Ritchie (Company Secretary) and Mr Tom Booth (authorised representative of Novus Capital Limited ARN 268287) 500,000 Shares each at no cost as remuneration for a successful ASX listing. These Shares are expected to be escrowed for a period of 24 months from the date of Frontier's admission to the Official List of ASX.
- <sup>7</sup> Frontier has agreed to issue between 667,000 to 1,000,000 Shares at no cost to the Lead Manager on a pro rata basis, based on achieving the Minimum Subscription level scaling up to the Maximum Subscription level. These Shares are expected to be escrowed for a period of 24 months from the date of Frontier's admission to the Official List of ASX.
- <sup>8</sup> Frontier has Series 1 Convertible Notes on issue with a face value of AU\$1,000,000 (US\$769,200) which automatically convert on completion of the Public Offer at a conversion price of AU\$0.16 per Share, issuing 6,250,000 Shares. 100,000 Shares are expected to be escrowed for a period of 24 months from the date of Frontier's admission to the Official List of ASX; the balance is expected to be freely tradeable from the commencement of trading in Frontier's securities.

Frontier has Series 2 Convertible Notes on issue with a face value of AU\$2,500,000 (US\$1,923,000) which automatically convert on completion of the Public Offer at a conversion price of AU\$0.16 per Share, issuing 15,625,000 Shares. 197,500 Shares are expected to be escrowed for a period of 24 months from the date of Frontier's admission to the Official List of ASX. The balance is expected to be freely tradeable from the commencement of trading in Frontier's securities.

<sup>9.</sup> These Shares are expected to be escrowed for a period of 24 months from the date of Frontier's admission to the Official List of ASX.

#### 5.7 Substantial Shareholders

Those Shareholders holding 5% or more of the Shares on issue both as at the date of this Prospectus and on completion of the Offers (on a Minimum Subscription and full subscription basis) are set out in the respective tables below.

Shareholder	Shares	%
Elba Investments Pty Ltdi <sup>1</sup>	4,279,167	16.82%
Superb Merino Pty Ltd	2,500,000	9.83%
JP Morgan Nominees Pty Ltd (Terra Capital Natural Resources Pty Ltd)	2,500,000	9.83%
P G Howarth Pty Ltd	2,500,000	9.83%
Alimold Pty Ltd <sup>2</sup>	1,983,334	7.80%

#### Substantial shareholdings as at the date of Prospectus

#### Notes:

- <sup>1</sup> Mr Petruzzelli (a director) who is associated with Elba Investments Pty Ltd also directly holds 100 Shares.
- <sup>2</sup> This entity is controlled by Mr Tom Booth, an authorised representative of Novus Capital Limited ARN 268287.

## Substantial shareholdings on completion of the Offers if Minimum Subscription is achieved<sup>1</sup>

Shareholder	Shares	%
Lutzville Engineering (Pty) Ltd <sup>2</sup>	73,118,670	36.69%
Reddoor Resources (Pty) Ltd <sup>3</sup>	32,625,780	16.37%
Frontier Mining Projects (Pty)Ltd <sup>4</sup>	23,502,629	11.79%

## Substantial shareholdings on completion of the Offers if fully subscribed<sup>1</sup>

Shareholder	Shares	% (undiluted)
Lutzville Engineering (Pty) Ltd <sup>2</sup>	73,118,670	34.88%
Reddoor Resources (Pty) Ltd <sup>3</sup>	32,625,780	15.56%
Frontier Mining Projects (Pty) Ltd <sup>4</sup>	23,502,629	11.21%

Notes:

- <sup>1</sup> Assuming no existing substantial Shareholder subscribes for and receives additional Shares pursuant to the Offers.
- <sup>2</sup> Mr Louw controls Lutzville Engineering (Pty) Ltd, which will hold 73,118,670 Shares and is a 51% shareholder in Frontier Mining Projects (Pty) Ltd which will hold 23,502,629 Shares.
- <sup>3</sup> Mr Cilliers controls Reddoor Resources (Pty) Ltd which will hold 32,625,780 Shares and is a 23% shareholder in Frontier Mining Projects (Pty) Ltd which will hold 23,502,629 Shares.
- <sup>4</sup> This entity is controlled by Mr Jan Louw, a Director (51%), Mr Jacque Cilliers (23%) and Mr Martin van Zyl (26%), all of whom are members of the senior management team.

Frontier will announce to the ASX details of its top-20 Shareholders (following completion of the Offers) prior to the Shares commencing trading on ASX.

#### 5.8 Restricted securities

Subject to Frontier being admitted to the Official List, certain Shares on issue prior to the Offers will be classified by ASX as restricted securities and will be required to be held in escrow for up to 24 months from the date of Official Quotation. During the period in which these securities are prohibited from being transferred, trading in Shares may be less liquid which may impact on the ability of a Shareholder to dispose of his or her Shares in a timely manner.

It is estimated that 142,791,413 Shares will be subject to escrow as follows if the maximum subscription is received:

- (a) 135,122,080 Shares for 24 months from the date of Official Quotation (primarily held by Directors, substantial Shareholders or their related entities); and
- (b) 7,669,333 Shares for 12 months from the date of issue of those Shares (held by seed capital Shareholders).

Frontier will announce to the ASX full details (quantity and duration) of the Shares required to be held in escrow prior to the Shares commencing trading on ASX.

Given the restricted securities the free float of Frontier's Shares if the Minimum Subscription is raised is 28.52% and 31.88% if the Maximum Subscription is raised.

## 5.9 Dividend Policy

The Board anticipates that significant expenditure will be incurred in the evaluation and development of Frontier's Projects. These activities, together with the possible acquisition of interests in other projects, are expected to dominate the two year period following the date of this Prospectus. Accordingly, Frontier does not expect to declare any dividends during that period.

Any future determination as to the payment of dividends by Frontier will be at the discretion of the Directors and will depend on the availability of distributable earnings and operating results and financial condition of Frontier, future capital requirements and general business and other factors considered relevant by the Directors. No assurance in relation to the payment of dividends or franking credits attaching to dividends can be given by Frontier.

## 5.10 Additional information

Investors are also referred to and encouraged to read in their entirety both the:

- (a) Independent Geologist's Report in Annexure A for further details about the geology, location and mineral potential of the Projects;
- (b) Independent Technical Report in Annexure B for further details about the operations and mineral potential of the Projects;
- (c) The historical and forecast financial information of Frontier and Sedi South Africa in Section 7; and
- (d) The Solicitors Report on Mining Licences in Annexure C for further details in respect of Sedi South Africa's interests in the Licences.

#### 6. RISK FACTORS

## 6.1 Introduction

The Shares offered under this Prospectus are considered highly speculative. An investment in Frontier is not risk free and the Directors strongly recommend potential investors consider the risk factors described below, together with information contained elsewhere in this Prospectus, before deciding whether to apply for Shares and to consult their professional advisers before deciding whether to this Prospectus.

There are specific risks which relate directly to our business. In addition, there are other general risks, many of which are largely beyond the control of Frontier and the Directors. The risks identified in this section, or other risk factors, may have a material impact on the financial performance of Frontier and/or Sedi South Africa and the market price of the Shares.

The following is not intended to be an exhaustive list of the risk factors to which Frontier is exposed.

## 6.2 Company specific

## (a) **Prospective financial information**

Prospective financial information for the financial years ending 30 June 2018 and 30 June 2019 is included in Section 7 in order to provide investors with a guide to the potential financial performance of Frontier. The assumptions on which the prospective financial information is based relate to future events or actions that the Directors expect to occur or carry out, however, those assumptions are also subject to uncertainties which are outside the control of the Company. The prospective financial information includes a sensitivity analysis to demonstrate the impact of changes to certain assumptions. Prospective financial information, by its nature, is predictive in character, may be affected by inaccurate assumptions or by known or unknown risks and uncertainties and may differ materially from results ultimately achieved and need to be considered in that context.

## (b) Renewal

The Star Diamond Mine converted mining license is set to expire on 10 February 2025. However, the life of mine plan (**Plan**) is 12 years. This results in a scenario of the mining license expiring before the Plan is completed. Until a renewal is granted there remains a risk that the Plan may not be fully realised. The Directors are unaware of any reason why an extension would not be granted, but this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the Plan. The Sedibeng JV Mine old order mining rights do not have an expiry date until a decision is made on their conversion to new order rights. The conversion to new order rights and any resulting term of grant is not yet known and there remains a risk that the Plan for the Sedibeng JV Mine may also not be fully realised.

## (c) Limited history

Frontier was only recently incorporated, on 1 December 2016 and has no operating history and limited historical financial performance. Exploration and mining has previously been conducted on the Projects being acquired by Sedi South Africa pursuant to the Acquisition Agreement, however, Frontier is yet to conduct its own activities and under the terms of the Acquisition Agreement will not commence these activities until Frontier has been admitted to the Official List. No assurance can be given that Frontier will achieve commercial viability through the successful exploration and/or mining of the Projects.

## (d) Liquidity risk

On completion of the Acquisition, Frontier proposes to issue Shares to the Sedi Australia Shareholders in consideration for a 74% interest in the South African Group Entities. Frontier also proposes to issue Shares to a creditor of the Sedi South African Group Entities in satisfaction of amounts owing. Frontier understands that ASX will treat these securities as restricted securities in accordance with Chapter 9 of the ASX Listing Rules. In addition, other existing securities of Frontier will also be treated by ASX as restricted securities in accordance with Chapter 9 of the ASX Listing Rules.

This could be considered an increased liquidity risk as a large portion of issued capital may not be able to be traded freely for a period of time.

## (e) Contractual dependence risk

Sedi South Africa is reliant on the Service Contract Agreement with Frontier Mining Projects (Pty) Ltd (FMP) (refer to the summary of the material terms set out in Section 11.4) who provides personnel, contract mining, operations management and maintenance of the Projects.

The Group is dependent on the continuation of this contract. The loss of the services provided by FMP would be difficult to replace and until a replacement service provider was engaged there could be a material adverse effect on the Group's operations.

## (f) Completion under the Acquisition Agreement

The Acquisition is subject to the achievement or waiver of all the conditions precedent in the Acquisition Agreement. The Offers are conditional on the Acquisition Agreement becoming unconditional. In the event this does not occur no Shares will be issued under this Prospectus.

## (g) International operations

The assets proposed to be acquired by Frontier are in South Africa. International operations are subject to a number of risks, including:

- (i) potential difficulties in enforcing agreements or other legal rights and collecting receivables through foreign systems; and
- (ii) restrictive governmental actions, such as imposition of trade quotas, tariffs, other taxes and cross border transactions.

The mining, processing, development and mineral exploration of Sedi South Africa are subject to various South African laws governing prospecting, development, production, taxes, labour standards and occupational health, mine safety, toxic substances, land use and water use.

Although the exploration and development activities of Sedi South Africa are currently carried out in accordance with all applicable rules and regulations, no assurance can be given that new rules and regulations will not be enacted or that existing rules and regulations will not be applied in a manner which could limit or curtail production or development. Amendments to current laws and regulations governing operations and activities of mining or more stringent implementation thereof could have a substantial adverse impact on Sedi South Africa.

Sedi South Africa entities ownership structures currently meet the South African laws mandating various levels of local ownership. The ability of Sedi South Africa to conduct its activities in South Africa will be in part dependent on maintaining the interests of persons or entities which meet the applicable criteria.

Frontier, through Sedi Australia, is acquiring 74% of the issued capital of Sedi South Africa. The remaining equity is owned by the local BEE Partner Mr Martin van Zyl.

The current Mineral and Petroleum Resources Development Act, 2002 of South Africa (MPRD Act) makes provision in terms of the Black Economic Empowerment Charter (BEE) to meaningfully expand opportunities for historically disadvantaged persons (HDI) to enter the mineral and petroleum industries and to benefit from the exploitation of South Africa's mineral resources. HDI's by definition of the Mining Charter, refers to Black demographic or with respect to companies, companies which are owned or controlled by Black persons.

On 15 June 2017 the South African government published the Reviewed Broad-Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry 2016 (the **Mining Charter**). The proposed Mining Charter proposes (amongst other changes) to increase the BEE Partner shareholding to 30% (up from 26%), a 1% revenue tax to BEE Partners prior to any other shareholder distributions, 70% of goods to be procured from black-owned companies in South Africa and new employment targets.

There is substantial opposition to the proposed changes and potential legal action to prevent the Mining Charter becoming law. Given the uncertainties surrounding the new legislation the Directors are unable to quantify the financial effect of such changes other than the change to a 30% shareholding which is disclosed in Section 7.13.

Should the Mining Charter become law, Sedi South Africa would, on the current drafting of the proposed laws, be given 12 months to comply with the new legislation.

Any of these factors could materially and adversely affect Sedi South Africa's business, results of operations and financial condition.

#### (h) Additional external funding

Sedibeng JV Mine, Dancarl Diamonds (Pty) Ltd and Messina Diamonds (Pty) Ltd have jointly applied to the Industrial Development Corporation of South Africa Limited (**IDC**), a 100% owned South African

government entity for a medium term loan of ZAR 40,000,000 (US\$3,084,040) to provide additional working capital to further develop the Sedibeng JV Mine.

Frontier and Sedi South Africa cannot guarantee the application's success, and have considerable doubt as to any funds being granted by the IDC. Accordingly, Frontier will rely on the funds raised under this Prospectus to fund its operations and growth strategy.

#### (i) Licences – Conversion of Old Order Rights to New Order Rights

Conversion orders are required to convert mining licences from Old Order Rights to New Order Rights. The signing of grant letters can only be signed by the Director-General as the authorised delegate of the Minister of Mineral Resources. In certain instances conversion orders have been signed by the Deputy Director-General of the Department of Mineral Resources and are therefore invalid.

Where this has occurred, the licence holder is required to re-submit the grant approval to the Director-General. The rectification process is expected to take at least six months. In the interim, the old order rights continue to remain in force provided the licence holder lodged the conversion application before the applicable deadline. The applications for conversion of the Old Order Rights held by Sedi South Africa were submitted by the applicable deadline.

## 6.3 Industry specific

#### (a) **Exploration and development**

The mining licences that the Sedi South African Group Entities own or have the rights to exploit are at various stages of development. There can be no assurance that development of these Projects, or any other projects that may be acquired in the future, can be economically exploited.

Refer to the Independent Geologist Report in Annexure A for the reserve estimate of the Sedibeng JV Mine and the Star Diamond Mine.

The future exploration and development activities of the Sedi South African Group Entities may be affected by a range of factors including geological conditions, limitations on activities due to seasonal weather patterns or adverse weather conditions, unanticipated operational and technical difficulties, difficulties in commissioning and operating plant and equipment, mechanical failure or plant breakdown, unanticipated metallurgical problems which may affect extraction costs, industrial and environmental accidents, industrial disputes, unexpected shortages and increases in the costs of consumables, spare parts, plant, equipment and staff, native title process, changing government regulations and many other factors beyond the control of Frontier.

#### (b) Mine development

The ability to sustain or increase the proposed levels of production at the Licences is dependent upon the successful development of new producing mines and/or identification of additional reserves at existing mining operations. If new ore bodies are unable to be developed, the Licence holders will not be able to sustain the proposed production levels. Reduced production could have a material adverse effect on future cash flows, results of operations and financial condition.

Possible future development of a mining operation at any of the Projects is dependent on a number of factors including, but not limited to, the acquisition and/or delineation of economically recoverable mineralisation, favourable geological conditions, receiving the necessary approvals from all relevant authorities and parties, seasonal weather patterns, unanticipated technical and operational difficulties encountered in extraction and production activities, mechanical failure of operating plant and equipment, shortages or increases in the price of consumables, spare parts and plant and equipment, cost overruns, access to the required level of funding and contracting risk from third parties providing essential services. Each of these factors involves uncertainties and as a result, Frontier cannot give any assurance that its development or exploration projects will become operating mines.

No assurance can be given that Frontier will achieve commercial viability through the development or mining of its Projects.

## (c) **Operations**

The operations of Frontier may be affected by various factors, including failure to locate or identify gemstone deposits, failure to achieve predicted grades in exploration and mining, operational and technical difficulties encountered in mining, difficulties in commissioning and operating plant and equipment, mechanical failure or plant breakdown, unanticipated metallurgical problems which may affect extraction costs, adverse weather conditions, industrial and environmental accidents, industrial disputes and unexpected shortages or increases in the costs of consumables, spare parts, plant and equipment.

No assurances can be given that Frontier will achieve commercial viability through the successful exploration and/or mining of the Licences.

## (d) Exploration and development costs

The exploration and development costs of Frontier are based on certain assumptions with respect to the method and timing of those activities. By their nature, these estimates and assumptions are subject to significant uncertainties and, accordingly, the actual costs may materially differ from these estimates and assumptions. Accordingly, no assurance can be given that the cost estimates and the underlying assumptions will be realised in practice, which may materially and adversely affect Frontier's viability.

## (e) Exploration target, resource and reserve estimates

Estimates of ore reserves and mineral resources on the Licences are based on information compiled by Competent Persons as defined in accordance with the JORC Code.

Ore reserves and mineral resources, determined in this way are used in the calculation of depreciation, amortisation and impairment charges and for the forecasting the timing of close-down and restoration costs and the recovery of deferred tax assets.

Resource and reserve estimates are expressions of judgement based on knowledge, experience and industry practice. Estimates which were valid when initially calculated may alter significantly when new information or techniques become available. In addition, by their very nature Resource and reserve estimates are imprecise and depend to some extent on interpretations which may prove to be inaccurate.

Sedi South Africa has also identified a number of development opportunities based on geological interpretations and limited geophysical data, geochemical sampling and historical drilling. Insufficient data however, exists to provide certainty over the extent of the mineralisation at those targets. Whilst Frontier intends to undertake additional exploratory work on those targets with the aim of defining a resource and/or reserve, no assurances can be given that additional exploration will result in the determination of a resource and/or reserve on any of the exploration targets identified or when this work is likely to commence.

No assurance can be provided that the existing Mineral Resource and Ore Reserve defined on the Projects or any other Mineral Resource or Ore Reserve identified in the future can be economically extracted.

#### (f) Grant and maintenance

Frontier's activities following completion of the Offers are dependent upon the grant, or as the case may be, the maintenance of appropriate licences, concessions, leases, permits and regulatory consents which may be withdrawn or made subject to limitations. The maintaining of licences, obtaining renewals, or getting licences granted, depends on the Licence holders being successful in obtaining the required statutory approvals for its proposed activities and that the licences, concessions, leases, permits or consents it holds will be renewed as and when required.

There is no assurance that such renewals will be given as a matter of course and there is no assurance that new conditions will not be imposed in connection therewith.

#### (g) Environmental

The operations and proposed activities of the Group are subject to environmental laws and regulations. As with most exploration projects and mining operations, the Group's activities are expected to have an impact on the environment. Frontier will attempt to conduct its activities to the highest standard of environmental obligation, including compliance with all environmental laws.

Mining operations have inherent risks and liabilities associated with safety and damage to the environment and the disposal of waste products occurring as a result of mineral exploration and production. The occurrence of any such safety or environmental incident could delay production or increase production costs. Events, such as unpredictable rainfall or bushfires may impact on the Group's ongoing compliance with environmental legislation, regulations and licences. Significant liabilities could be imposed on the Group for damages, clean-up costs or penalties in the event of certain discharges into the environment, environmental damage caused by previous operations or non-compliance with environmental laws or regulations.

The disposal of mining and process waste and mine water discharge are under constant legislative scrutiny and regulation. There is a risk that environmental laws and regulations become more onerous making the Group's operations more expensive.

Approvals are required for land clearing and for ground disturbing activities. Delays in obtaining such approvals can result in the delay to anticipated exploration programmes or mining activities.

## (h) Commodity and exchange rate fluctuation

Frontier operates in multiple currencies and exchange rates that are constantly fluctuating. International prices of various commodities are denominated in the United States Dollar, exploration and mining expenditure is denominated in South African rand and corporate overheads are denominated in Australian Dollar.

Frontier's presentation currency will be United States Dollar.

To the extent the Group is involved in production the revenue derived through the sale of commodities exposes the income of the Group to commodity price and exchange rate risks. Commodity prices fluctuate and are affected by many factors beyond the control of the Group. Such factors include supply and demand fluctuations for diamonds, technological advancements, forward selling activities and other macro-economic factors.

## (i) Competition

The industry in which the Group is involved is subject to domestic and global competition. Although the Group will undertake all reasonable due diligence in its business decisions and operations, the Group will have no influence or control over the activities or actions of its competitors, which activities or actions may, positively or negatively, affect the operating and financial performance of the Group's projects and business.

## (j) Insurance

Sedi South African Group Entities insure their operations in accordance with industry practice. However, in certain circumstances, this insurance may not be of a nature or level to provide adequate insurance cover. The occurrence of an event that is not covered or fully covered by insurance could have a material adverse effect on the business, financial condition and results of the Group.

## (k) Potential acquisitions

As part of its business strategy, the Group may make acquisitions of or significant investments in companies, products, technologies or resource projects. Any such future transactions would be accompanied by the risks commonly encountered in making acquisitions or companies, products, technologies or resource projects.

## (I) Joint venture parties, agents and contractors

The Directors are unable to predict the risk of financial failure or default by a participant in any joint venture to which a member of the Group may become a party or the insolvency or managerial failure by any of the contractors used by a member of the Group in any of its activities or the insolvency or other managerial failure by any of the other service providers used by a member of the Group for any activity.

Members of the Group are a party to various contracts. Whilst the Group will have various contractual rights in the event of noncompliance by a contracting party, no assurance can be given that all contracts to which a member of the Group is a party will be fully performed by all contracting parties. Additionally, no assurance can be given that if a contracting party does not comply with any contractual provision, a member of the Group will be successful in enforcing compliance.

## 6.4 General risks

## (a) Market conditions

Share market conditions may affect the value of Frontier's quoted securities regardless of Frontier's operating performance. Share market conditions are affected by many factors such as:

- (i) general economic outlook;
- (ii) introduction of tax reform or other new legislation;
- (iii) interest rates and inflation rates;
- (iv) changes in investor sentiment toward particular market sectors;
- (v) the demand for, and supply of, capital; and
- (vi) terrorism or other hostilities.

The market price of securities can fall as well as rise and may be subject to varied and unpredictable influences on the market for equities in general and resource exploration stocks in particular. Neither Frontier nor the Directors warrant the future performance of Frontier or any return on an investment in Frontier.

## (b) Economic and government risks

The future viability of Frontier is also dependent on a number of other factors affecting performance of all industries and not just the resources industry including, but not limited to, the following:

- (i) general economic conditions in jurisdictions in which Frontier operates;
- (ii) changes in government policies, taxation and other laws in jurisdictions in which Frontier operates;

- (iii) the strength of the equity markets in Australia and throughout the world, and in particular investor sentiment towards the resources sector;
- (iv) movement in, or outlook on, interest rates and inflation rates in jurisdictions in which Frontier operates; and
- (v) natural disasters, social upheaval or war in jurisdictions in which Frontier operates.

## (c) Additional requirements for capital

The funds to be raised under the Public Offer are considered sufficient to meet the immediate objectives of Frontier and implementation of the strategy detailed in Section 5.

Depending on Sedi South Africa's ability to generate income from its operations, or in the event costs exceed Sedi South Africa's estimates Frontier may require further financing in addition to amounts raised under the Public Offer to effectively implement its business and operational plans in the future to take advantage of opportunities for acquisitions, joint ventures or other business opportunities, and to meet any unanticipated liabilities or expenses which the Group may incur.

Any additional equity financing will dilute shareholdings, and debt financing, if available, may involve restrictions on financing and operating activities. If Frontier is unable to obtain additional financing as needed, it may be required to reduce the scope of its operations and scale back its work programmes as the case may be. There is however no guarantee that Frontier will be able to secure any additional funding or be able to secure funding on terms favourable to Frontier.

## (d) Reliance on key personnel

Frontier's future depends, in part, on its ability to attract and retain senior management and key personnel which are responsible for overseeing the day-to-day operations of the Group. Frontier may not be able to hire and retain such personnel at compensation levels consistent with its existing compensation and salary structure. Frontier's future also depends on the continued contributions of its executive management team and other key management and technical personnel, the loss of whose services would be difficult to replace. In addition, the inability to continue to attract appropriately qualified personnel could have a material adverse effect on Frontier's business.

#### 6.5 Investment speculative

The above list of risk factors ought not to be taken as exhaustive of the risks faced by Frontier or by investors in Frontier. The above factors, and others not specifically referred to above, may in the future materially affect the financial performance of Frontier and the value of the Shares offered under this Prospectus.

Therefore, the Shares to be issued pursuant to this Prospectus carry no guarantee with respect to the payment of dividends, returns of capital or the market value of those Shares.

Potential investors should consider that the investment in Frontier is highly speculative and should consult their professional advisers before deciding whether to apply for Shares pursuant to this Prospectus.

## 7. FINANCIAL INFORMATION

## 7.1 Introduction

Frontier was incorporated on 1 December 2016 with AU\$300 (US\$231) in issued capital (300 shares issued at AU\$1.00 per share). Frontier has agreed, on the terms and conditions as set out in the Acquisition Agreement to acquire 100% of the issued capital of Sedi Australia which has an agreement to acquire 74% of the issued capital of Sedi South Africa, which owns (through its wholly owned subsidiaries) the Star Diamond Mine and the Sedibeng JV Mine.

The historical financial information includes:

- the audited historical statements of financial performance for:
  - Frontier for the period from incorporation, 1 December 2016 to 30 June 2017 (Section 7.3.1);
  - Sedi South Africa for the financial years ended 30 June 2014, 2015, 2016 and 2017 (Section 7.15);
- the audited historical statements of cash flows for:
  - Frontier for the period from incorporation, 1 December 2016 to 30 June 2017 (Section 7.3.2);
  - Sedi South Africa for the financial years ended 30 June 2014, 2015, 2016 and 2017 (Section 7.15);
- the audited historical statements of financial position for:
  - o Frontier as at 30 June 2017 (Section 7.4);
  - o Sedi South Africa as at 30 June 2014, 2015, 2016 and 2017 (Section 7.15); and
- for the Consolidated Group (being Frontier including Sedi Australia and Sedi South Africa) (Section 7.15) the following information extracted from audited accounts:
  - the historical statements of financial performance for the financial year ended 30 June 2017
  - o the historical statements of cash flows for the financial year ended 30 June 2017
  - o the historical statements of financial position as at 30 June 2017,

(together, the Historical Financial Information).

Historical financial information for Sedi Australia has not been included separately as it has had no operations from the date of incorporation (30 November 2016) to 30 June 2017.

The pro forma historical consolidated statement of financial position for Frontier as at 30 June 2017 (**Pro Forma Historical Statement of financial position**) which includes the acquisition of Sedi Australia & Sedi South Africa encompassing its 30 June 2017 financial position is included at Sections 7.4 and 7.5.

The forecast financial information for Frontier relates to the periods 1 July 2017 to 30 June 2018 and 1 July 2018 to 30 June 2019 and is set out in Section 7.6 (collectively, the **Forecast Financial Information**).

Together the Historical Financial Information, the Pro Forma Historical Statement of financial position and Forecast Financial Information is referred to as the **Financial Information**.

The Financial Information presented in this Section 7 should be read in conjunction with the risk factors set out in Section 6 and other information contained in this Prospectus.

The Financial Information has been prepared by Frontier in connection with the Offers. The Financial Information as defined above has been reviewed by BDO Corporate Finance (WA) Pty Ltd in accordance with the Australian Standard on Assurance Engagements ASAE 3450 Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information as stated in the Investigating Accountants Report. Investors should note the scope and limitations of the Investigating Accountants Report.

## 7.2 Basis of preparation and presentation of the Financial Information

The Directors of Frontier are responsible for the preparation and presentation of the Financial Information. The Financial Information included in this Prospectus is intended to present potential investors with the information to assist them in understanding the historical financial performance, cash flows and financial position of Frontier and the South African Group Entities together with the Pro-Forma Historical Statement of financial position for Frontier as at 30 June 2017, the historical consolidated financial information for Frontier for the period ended 30 June 2017 and forecast financials for the periods ending 30 June 2018 and 30 June 2019.

The Financial Information is presented in an abbreviated form and does not include all of the presentation, disclosures, statements and comparative information as required by Australian Accounting Standards applicable to general purpose financial reports prepared in accordance with the Corporations Act.

## 7.2.1 Preparation of the Historical Financial Information

The Historical Financial Information has been prepared in accordance with the recognition and measurement principles prescribed in Australian Accounting Standards (AAS) issued by the Australian Accounting Standards Board (AASB) or their South African equivalent, which are consistent with International Financial Reporting Standards (IFRS) and interpretations issued by the International Accounting Standards Board (IASB).

In preparing the Historical Financial Information, the accounting policies of Frontier have been applied consistently throughout the period presented. Significant accounting policies of Sedi South Africa and Frontier relevant to the Financial Information are detailed in Section 7.14(b).

## 7.2.2 Preparation of the Forecast Financial information

The Directors have prepared the Forecast Financial information solely for inclusion in the Prospectus. The Forecast Financial Information is presented in a pro-forma basis for FY2018 and FY2019.

No acquisitions, other than those already identified in this Prospectus, are assumed to occur in the period covered by the Forecast Financial Information.

The basis of preparation of the Forecast Financial information is consistent with the basis of preparation and presentation of the Historical Financial Information. The Forecast Financial Information the Directors have prepared is based on an assessment of current economic and operating conditions and on the general and specific assumption regarding future events and actions set out in Section 7.6. The Forecast Financial Information is subject to the risk factors as set out in Section 6. The disclosure of these assumptions is intended to assist investors in assessing the reasonableness and likelihood of the assumptions occurring and the effect on the Forecast Financial Information if they do not occur, and is not intended to be a representation that the assumptions will occur.

The Directors believe the general and specific assumptions, when taken as a whole, to be reasonable at the time of preparing the Prospectus. However, the information is not fact and investors are cautioned not to place undue reliance on the Forecast Financial Information. While the Company believes it has a reasonable basis for presenting the Forecast Financial Information, investors should be aware that the timing of actual events and the magnitude of their impact might differ from that assumed in preparing the Forecast Financial Information and that this may have a material positive or negative effect on our actual financial performance, cash flows or financial position.

In addition, the assumptions upon which the Forecast Financial Information is based are by their very nature subject to significant uncertainties and contingencies, many of which will be outside the control of Frontier, the Directors and management, and are not reliably predictable. Accordingly, none of Frontier, its management or any other person can give investors any assurance that the outcomes disclosed in the Forecast Financial Information will arise. Events and outcomes might differ in amount and timing from the assumptions, with a material consequential impact on the Forecast Financial Information and the Forecast Financial Information should be read in this context.

## 7.2.3 Financial information on the target entity – Sedi South Africa

Contained at Section 7.15 is the historical financial information of Sedi South Africa as at and for the year ended 30 June 2014, 30 June 2015, 30 June 2016 and 30 June 2017.

BDO South Africa Inc. issued an unmodified audit opinion on the 30 June 2016 and 2017 financial statements.

## 7.2.4 Preparation of Pro forma historical statement of financial position

In preparation for listing on ASX an internal restructure will take place resulting in Frontier acquiring Sedi Australia under the Acquisition Agreement in consideration for the issue of 105,244,450 Shares to the Sedi Australia Shareholders. For the purpose of this Prospectus, the restructure has been accounted for as a capital re-organisation rather than a business combination. The pro-forma historical statement of financial position for Frontier has been prepared solely for inclusion in this Prospectus.

The pro-forma historical statement of financial position for Frontier has been derived from the historical financial position for Frontier as at 30 June 2017 and includes adjustments for the effects of the following group of pro-forma transactions:

- (a) the acquisition by Frontier of Sedi Australia and Sedi South Africa, being pro-forma transaction (i) below;
- (b) the Public Offer to raise gross proceeds of AU\$4,000,000 (US\$3,076,800) and AU\$6,000,000 (US\$4,615,200) and incurring certain costs related to the Public Offer being pro-forma transactions (ii) and (iii) outlined below;
- (c) the conversion of AU\$1m (US\$0.77m) Convertible Notes into shares at the same time that shares from the Public Offer are allotted, being proforma transaction (iv) outlined below;
- (d) the issue of AU\$2.5m (US\$1.92m) in Convertible Notes which convert into shares at the same time that shares from the Public Offer are allotted, being pro-forma transaction (v) outlined below;
- (e) the conversion of vendor loans of ZAR 42,358,663 into 23,502,629 fully paid ordinary shares in Frontier, being pro-forma transaction (vi) outlined below; and
- (f) Ordinary operating activities of the Sedi South African Group Entities in regard to the development of fissures from 1 July 2017 to 30 September 2017 of US\$1.6 million financed from the Convertible Note Series 2, being pro-forma transaction (vii) outlined below.

The pro-forma historical statement of financial position for Frontier has been prepared in accordance with the recognition and measurement requirements of AAS other than its includes adjustments which have been prepared in a manner consistent with AAS that reflect the impact of certain transactions as they occurred as at 30 June 2017.

Details of the individual pro-forma transactions that have been applied to the historical statement of financial position as at 30 June 2017 of Frontier are as follows:

- (i) Frontier's acquisition of all the shares (100 shares) in Sedi Australia from Lutzville Engineering (Pty) Ltd and Reddoor Resources (Pty) Ltd for the consideration of 105,244,450 shares in Frontier immediately prior to Public Offer at an agreed value of AU\$0.12 per Share in accordance with the Acquisition Agreement.
- (ii) the issue of 20,000,000 or 30,000,000 Shares in Frontier in accordance with the Public Offer to raise gross proceeds of AU\$4,000,000 (U\$\$3,076,800) or AU\$6,000,000 (U\$\$4,615,200).
- (iii) the costs associated with the Public Offer and the listing of the Shares issued by Frontier estimated to be between AU\$1,572,392 (US\$1,209,484) and AU\$1,761,331 (US\$1,354,816). Of the total, between AU\$240,000 (US\$184,608) and AU\$360,000 (US\$276,912) has been deducted from contributed equity as these costs are directly

attributable to the Public Offer. The remaining balance of between AU\$1,332,392 (US\$1,024,876) and AU\$1,401,331 (US\$1,077,904) have been expensed. These totals include both the cash costs of the offer of between AU\$1,124,559 (US\$865,011) and AU\$1,246,831 (US\$959,062) and the share based payment costs of AU\$447,833 (US\$344,473) and AU\$514,500 (US\$395,753). As at 30 June 2017 a total of AU\$511,379 (US\$393,353) had been paid.

- (iv) the previous issue of Convertible Notes to the cash value of AU\$1,000,000 (US\$796,200), with a fair value carrying amount as at 30 June 2017 of AU\$1,090,220 (US\$831,792) which convert into 6,250,000 shares at the time that the Public Offer shares are allotted.
- (v) the previous issue of Convertible Notes to the cash value of AU\$2,500,000 which convert into 15,625,000 shares at the time that the Public Offer shares are allotted less a 5% brokerage and 1% management fee on successful raising.
- (vi) the conversion of vendor loans of ZAR 42,358,663 (US\$3,300,514 based on a ZAR/USD exchange rate of 12.83 due to a specific transaction date) into 23,502,629 fully paid ordinary shares in Frontier.
- (vii) Ordinary operative activities of the Sedi South African Group Entities in regard to the development of fissures financed from the Series 2 Convertible Notes over the period 1 July 2017 to 30 September 2017 of US\$1,566,341.

## 7.3 Historical Financial Information

#### 7.3.1 Historical statements of profit or loss and other comprehensive income

The table below sets out the historical statement of profit or loss and other comprehensive income for Frontier for the period from incorporation, 1 December 2016 to 30 June 2017.

	US\$
Revenue	-
Administration expenses	2,040
Listing and IPO expenses	407,842
Finance costs	483,288
Loss before income tax	(893,170)
Income tax benefit / (expense)	-
Loss for the period	(893,170)
Other comprehensive income / (loss)	22,930
Total comprehensive income / (loss)	(870,240)

This statement should be read in conjunction with the notes to the Financial Information. AUD/ USD average rate for the period 1 December 2016 to 30 June 2017, \$0.7519 (RBA rate).

## 7.3.2 Historical statement of cash flows

The table below sets out the historical statement of cash flows of Frontier for the period from incorporation, 1 December 2016 to 30 June 2017.

	US\$
Cash flows from operating activities	
Payments to suppliers and employees	(257,329)
Net cash outflow used in operating activities	(257,329)
Cash flows from financing activities	
Proceeds from issue of shares	2,282,647
Proceeds from Convertible Notes	709,574
Share issue costs	(55,581)
Loans to other entities	(2,519,010)
Net cash inflow from financing activities	417,630
Net increase (decrease) in cash and cash equivalents	160,301
Cash and cash equivalents at the beginning of the period	-
Effect of exchange rate changes on cash and cash equivalents	3,686
Cash and cash equivalents at the end of the financial year	163,987

This statement should be read in conjunction with the notes to the Financial Information. AUD/USD average rate for1 December 2016 to 30 June 2017, \$0.7519, other than the cash at the end of the period, \$0.7692 (RBA rate).

# 7.4 Historical and pro-forma historical statement of financial position assuming minimum subscription of AU\$4,000,000 is raised.

The table below sets out the historical statement of financial position of Frontier as at 30 June 2017 and the pro-forma historical statement of financial position for Frontier as at 30 June 2017.

	Notes	Audited historical statement of financial position @ 30 June 2017	Audited pro- forma adjustment acquisition of Sedi Star	Other pro- forma adjustments	Reviewed Pro-forma historical statement of financial position
		US\$	US\$	US\$	US\$
Current assets					
Cash & cash equivalents	а	163,987	5,819	2,846,420	3,016,226
Accounts receivables		25,865	3,641,392	-	3,667,256
Prepayments		4,232	-	-	4,232
Inventories		-	219,765	-	219,765
Total current assets		194,084	3,866,976	2,846,420	6,907,479
Non-current assets					
Property, plant & equipment		-	13,117,107	1,566,341	14,683,448
Loans receivable		2,145,070	(2,145,070)	-	-
Other financial assets		-	1,107,695	-	1,107,695
Deferred tax assets		-	278	-	278
Total non-current assets		2,145,070	12,080,010	1,566,341	15,791,421
Total assets		2,339,154	15,946,985	4,412,761	22,698,900
Current liabilities					
Trade & other payables	bс	(217,219)	(8,039,003)	3,500,514	(4,755,708)
Convertible Notes		(831,729)	-	831,729	-
Other financial liabilities		-	(601,388)		(601,388)
Total current liabilities		(1,048,948)	(8,640,391)	4,332,243	(5,357,096)
Non-current liabilities					
Trade & other payables	С	-	(2,388,576)	-	(2,388,576)
Provisions		-	(1,705,873)	-	(1,705,873)
Total non-current liabilities		-	(4,094,449)	-	(4,094,449)
Total liabilities		(1,048,948)	(12,734,840)	4,332,243	(9,451,545)
Net assets		1,290,206	3,212,146	8,745,004	13,247,356
Equity					
Contributed equity		2,160,446	153	9,376,528	11,537,127
Reserves		22,930	(3)	-	22,927
Accumulated profits (losses)		(893,170)	3,211,996	(631,524)	1,687,302
Total equity		1,290,206	3,212,146	8,745,004	13,247,356

This statement should be read in conjunction with the notes to the Financial Information.

# 7.4.1 Management Discussion and Analysis on the Historical Statement of Financial Position

(a) Cash and cash equivalents is expected to increase by US\$2.8 million as a result of the net proceeds from the US\$2.9 million Public Offer, a net US\$1.8 million from the Convertible Notes, less ordinary operating activities of the entity of US\$1.6 million and other costs of the Public Offer payable in cash of US\$0.3 million.

The reviewed total pro forma cash and cash equivalents can be reconciled to the total funds available in Section 4.7 as follows:

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3,016,226
471,659
(83,709)
3,404,176

- (b) Loans owed to vendor related companies are to be capitalised on completion to the value of US\$3.5 million (ZAR 42,358,663).
- (c) US\$2.4 million (ZAR 30,979,835) loan owed to a vendor related company is to be reclassified as long term debt at completion of the transaction.

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# 7.5 Historical and pro-forma historical statement of financial position assuming maximum subscription of AU\$6,000,000 is raised

The table below sets out the historical statement of financial position of Frontier as at 30 June 2017 and the pro-forma historical statement of financial position for Frontier as at 1 June 2017.

	Notes	Audited historical statement of financial position @ 30 June 2017	Audited Pro- forma Adjustment acquisition of Sedi Star	Other pro- forma adjustments	Reviewed Pro-forma historical statement of financial position
		US\$	US\$	US\$	US\$
Current assets					
Cash & cash equivalents	а	163,987	5,819	4,290,769	4,460,575
Accounts Receivable		25,865	3,641,392	-	3,667,256
Prepayments		4,232	-	-	4,232
Inventories		-	219,765	-	219,765
Total Current Assets		194,084	3,866,976	4,290,769	8,351,829
Non-current assets					
Loan receivable		2,145,070	(2,145,070)	-	-
Property, plant & equipment		-	13,117,107	1,566,341	14,683,448
Other financial assets		-	1,107,695	-	1,107,695
Deferred tax assets		-	278	-	278
Total non-current assets		2,145,070	12,080,010	1,566,341	15,791,421
Total assets		2,339,154	15,946,986	5,857,110	24,143,250
Current liabilities					
Trade & other payables	b, c	(217,219)	(8,039,003)	3,500,514	(4,755,708)
Convertible Notes		(831,729)	-	831,729	-
Other financial liabilities	d	-	(601,388)	-	(601,388)
Total current liabilities		(1,048,948)	(8,640,391)	4,332,243	(5,357,096)
Non-current liabilities					
Trade & other payables	С	-	(2,388,576)	-	(2,388,576)
Provisions		-	(1,705,873)	-	(1,705,873)
Total non-current liabilities		-	(4,094,449)	-	(4,094,449)
Total liabilities		(1,048,948)	(12,734,840)	8,622,281	(9,451,544)
Net assets		1,290,206	3,212,146	10,189,353	14,691,705
Equity					
Contributed Equity		2,160,446	153	10,822,624	12,983,223
Reserves		22,930	(3)	-	22,927
Accumulated profits (losses)		(893,170)	3,211,996	(633,271)	1,685,555
Total Equity		1,290,206	3,212,146	10,189,353	14,691,705

This statement should be read in conjunction with the notes to the Financial Information.

# 7.5.1 Management Discussion and Analysis on the Historical Statements of Financial Position

(a) Cash and cash equivalents is expected to increase by US\$4.3 million as a result of the net proceeds from the US\$4.4 million Public Offer, a net US\$1.8 million from the Convertible Notes, ordinary operating costs of the entity of US\$1.6 million and other costs of the Public Offer payable in cash of US\$0.3 million.

The reviewed total pro forma cash and cash equivalents can be reconciled to the total funds available in Section 4.7 as follows:

Cash and cash equivalents	4,460,575
Add back total cash Expenses of the Offers	
remaining at 30 June 2017	565,710
Less cash Expenses of the Offers paid after 30 June 2017	(83,709)
Total Cash	4,942,576

- (b) Loans owed to vendor related companies are to be capitalised on completion of the transaction to the value of US\$3.5 million (ZAR 45,358,663).
- (c) US\$2.4 million (ZAR 30,979,835) loan owed to a vendor related company is to be reclassified as long term debt at completion.

#### 7.6 Forecast Financial Information

#### 7.6.1 Specific Assumptions

The Forecast Financial Information is based on various best estimate assumptions, including those set out below. In preparing the Forecast Financial Information, the Directors have analysed historical performance including the current rates of revenue and expenses and applied assumptions, where appropriate across the business. The assumptions set out below should be read in conjunction with the sensitivity analysis set out in Section 7.13, the risk factors set out in Section 6, the Investigating Accountant's Report set out in Section 8, the Independent Technical Report set out in Annexure B and other information contained in this Prospectus.

Past performance is not a guide to future performance.

## 7.6.2 Group Assumptions

The Forecast Financial information is based on the following group assumptions:

- no business acquisitions, disposals, restructuring or significant investments occur over the forecast period, other than already disclosed in this Prospectus;
- exchange rates 13.69 (FY2018) and 13.88 (FY2019) South African Rand to the United States Dollar and 0.7555 United States Dollar to the Australian Dollar for each period.
- The BEE partner in South Africa is entitled to 26% of the net profit after tax of Sedi South Africa. The total comprehensive income line reflects full ownership. After deducting the non-controlling interest, the total

US\$

comprehensive income attributable to the parent reflects the net profit to Frontier's shareholders.

#### 7.6.3 Revenue and expense assumptions

The Forecast Financial Information is based on the following key revenue and expense assumptions (also refer to the table at section 5.3 of the Independent Technical Report at Annexure B):

Assumption	Measure	Sedibeng JV Mine	Star Diamond Mine
Mined reserve	Mt	0.711	0.917
Reserve carats	MCt	0.154	0.390
Recovered reserve grade	Cpht	21.6	42.6
Pricing	USD/Ct	US\$385	US\$295
Real price growth	USD/Ct	2.5%	2.5%
CPI Inflation (South Africa)	% YoY	5.5%	5.5%
Mining & production cost	ZAR/ton	ZAR751	ZAR1,008
Marketing cost	% of sales	3.5%	3.5%
Government royalties & levies	% of sales	0.5%	0.5%

## 7.6.4 Summary

Sedi South Africa's activities over the previous few years have been to refurbish and re-establish both the Sedibeng JV Mine and Star Diamond Mine from a situation of care and maintenance to return to production. Sedi South Africa's level of activity and expenditure during the period were influenced by the availability of working capital and the time spent gathering, analysing and reporting on geological data.

During the twelve months to 30 June 2017, Sedi South Africa achieved revenue of US\$5.7 million resulting in a gross operating profit of US\$2.8 million. Included in this figure is revenue of US\$2.2 million from the rental of fixed assets to another project operated by Frontier Mining Projects (Pty) Ltd. This contract is not part of the acquisition by Frontier.

Additionally, an amount of US\$2.0 million from the waiving of an outstanding loan as part of a commercial negotiation for an ongoing marketing agreement with Sedi South Africa. Deducting these amounts and Sedi South Africa incurred an operating loss of US\$1.4 million.

During the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of FY2017 and the first quarter of FY2018, the operating results were budgeted to be lower due to the ongoing development activities using the existing hoisting capacity required to extract primary ore to the surface. The mine plan also had been limited to extracting lower grade areas during this period.

During FY2018 Sedi South Africa will be installing a skip loading system at Star Diamond Mine and the development of the higher grade Bobbejaan Fissure at Sedibeng which will allow mining throughput in FY2018 to increase to 132,002 tons per annum. Revenue of US\$12.9 million is forecast for the twelve months ending 30 June 2018, which will result in an operating profit of US\$0.3 million (FY2017 US\$1.4 million loss, after deducting non-recurring incomes) as a result of higher tonnage and optimised production capacity at the mines.

Optimisation of the mines production capacity and access to higher grade development areas in FY2019 will allow the mine to reach a production capacity of 215,500 tons of primary ore per annum. Revenue of US\$23.0 million from the mining activities for the twelve months ended 30 June 2019 is forecast to generate an operating profit of US\$7.6 million.

Corporate overheads will increase from FY2018 commencing at a forecast of US\$0.8 million with the addition of a corporate office in Australia, public company expenses and investor relations costs. These costs are forecast to increase with the level of inflation in Australia.

Revenue from the Tailing Dump Project at the Sedibeng JV mine has been excluded from these forecasts as this contains an inferred resource only which is insufficient to enable a reasonable basis of forecast results. It is unlikely that a forecast of the Tailings Dump Project will be possible given the nature of tailings dumps.

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	Forecast	Forecast
Consolidated statement of financial performance	FY2018 – 12 months to 30 June 2018	FY2019 – 12 months to 30 June 2019
	US\$	US\$
Summary of Operational Activities		
Primary tons processed	132,002	215,500
Product recovered	34,529	61,668
Statement of Financial Performance		
Revenue	12,917,788	22,789,877
Cost of sale	(10,750,526)	(13,002,634)
Gross profit (loss)	2,167,262	9,787,243
Other income	-	-
Operating expenses	(835,335)	(1,206,537)
Corporate overheads	(984,115)	(991,782)
Operating profit (loss)	347,812	7,588,924
Investment income	-	_
Fair value adjustments	-	-
Finance costs	-	-
Profit (loss) before taxation	347,812	7,588,924
Taxation	-	-
Profit (loss) after tax	347,812	7,588,924
Other comprehensive income	-	-
Total comprehensive income	347,812	7,588,924
Non-controlling interest	90,431	1,973,120
Total comprehensive income to the parent	257,381	5,615,804

#### Notes:

Profit after tax is forecast to improve from a negative US\$1.4 million in FY2017 to US\$7.6 million in FY2019 due to the increase in throughput capacity at the Star Diamond Mine and the mining of the higher grade ore in the Bobbejaan fissure at Sedibeng.

	Forecast	Forecast
Consolidated statement of financial position for the period ended	FY2018 – 30 June 2018	FY2019 – 30 June 2019
	US\$	US\$
Current assets		
Cash & cash equivalents	2,104,934	7,809,232
Accounts receivable	201,196	226,219
Inventory	1,016,274	1,792,187
Total current assets	3,322,404	9,827,638
Non-current assets		
Property, plant & equipment	15,660,746	16,826,454
Other financial assets	1,157,945	1,210,475
Deferred tax assets	274	270
Total non-current assets	16,818,965	18,037,199
Total assets	20,141,369	27,864,837
Current liabilities		
Trade & other payables	(1,611,078)	(1,653,749)
Other financial liabilities	(1,207,558)	(1,184,428)
Total current liabilities	(2,818,636)	(2,838,177)
Non-current liabilities		
Trade & other payables	(2,388,577)	(2,388,577)
Provisions	(1,916,719)	(2,031,722)
Total non-current liabilities	(4,305,296)	(4,420,299)
Total liabilities	(7,123,932)	(7,258,476)
Net assets	13,017,437	20,606,361
Contributed equity	10,350,799	10,350,799
Accumulated profits (losses)	2,576,207	8,192,011
	12,927,006	18,542,810
Non-controlling interest	90,431	2,063,551
Total equity	13,017,437	20,606,361

## 7.8 Assuming minimum Public Offer of AU\$4m

#### Notes:

Total cash and cash equivalents are forecast to increase from US\$0.2 million in FY2017 to US\$7.7 million at the end of FY2019. This increase is due to the AU\$4.0 million capital raise from this Public Offer assuming the minimum subscription is achieved and cash surplus generated from operations through to the end of in FY2019.

Inventory is expected to increase from US\$0.2 million in FY2017 to US\$1.8 million at the end of FY2019 as a result of the increased level of production from both mines.

Property, plant and equipment are forecast to increase by a net US\$3.7 million from the end of FY2017 to the end of FY2019 due to additional capital expenditure on equipment and mine development.

	Forecast	Forecast
Consolidated cash flow statement for the period	FY2018 – 12 months to 30 June 2018	FY2019 – 12 months to 30 June 2019
	US\$	US\$
Cash flow from operating activities		
Cash generated from operations	348,100	6,868,862
Interest income	-	-
Finance costs	-	-
Net cash from operating activities	348,100	6,868,862
Cash flow from investing activities		
Investment into property, plant & equipment	(2,543,639)	(1,165,707)
Sale of property, plant & equipment	-	-
Net cash from investing activities	(2,543,639)	(1,165,707)
Cash from financing activities		
Proceeds from issue of shares	3,022,000	_
Proceeds from Convertible Notes	1,888,500	-
Cost of capital raising	(779,926)	_
Net cash from financing activities	4,130,824	-
Total cash movement	1,935,285	5,703,155
Cash at the beginning of the period	169,806	2,104,934
Foreign exchange variation	(157)	1,143
Total cash at the end of the period	2,104,934	7,809,232

## 7.9 Assuming minimum Public Offer raise of AU\$4m

#### Notes:

Cash from operations is forecast to increase from US\$6.7 million in FY2017 to US\$6.9 million in FY2019. Recoveries from cash generated from operations in FY2018 of US\$0.3 million due to the implementation of new infrastructure at the Star Diamond Mine and the fixed costs of the mines being in excess of mining revenue for the initial stages of the financial period.

Cash on hand at the end of each financial year will be a combination of USD, ZAR and AUD.

## 7.10 Assuming maximum Public Offer raise of AU\$6m

	Forecast	Forecast
Consolidated statement of financial Performance	FY2018 – 12 months to 30 June 2018	FY2019 – 12 months to 30 June 2019
	US\$	US\$
Summary of Operational Activities		
Primary tons processed	132,002	215,500
Product recovered	34,529	61,668
Statement of Financial Performance		
Revenue	12,917,788	22,789,877
Cost of sale	(10,750,526)	(13,002,633)
Gross profit (loss)	2,167,262	9,787,244
Other income	-	-
Operating expenses	(835,335)	(1,206,537)
Corporate overheads	(984,115)	(991,783)
Operating profit (loss)	347,812	7,588,924
Profit before taxation	347,812	7,588,924
Taxation	-	-
Profit after tax	347,812	7,588,924
Non-controlling interest	90,431	1,973,120
Total comprehensive income attributable to the parent	257,381	5,615,804

#### Notes:

Profit after tax is forecast to improve from negative US\$1.4 million (after deducting non-recurring income) in FY2017 to a profit of US\$7.6 million in FY2019 due to the increase in throughput capacity at the Star Diamond Mine and the mining of the higher grade ore in the Bobbejaan fissure at Sedibeng.

7.11	Assuming maximum Public Offer of AU\$6	m

	Forecast	Forecast
Consolidated statement of financial position for the period ended	FY2018 – 30 June 2018	FY2019 - 30 June 2019
	US\$	US\$
Current assets		
Cash & cash equivalents	3,202,424	8,906,722
Accounts receivable	201,196	226,219
Inventory	1,016,274	1,792,187
Total current assets	4,419,894	10,925,128
Non-current assets		
Property, plant & equipment	15,660,746	16,826,454
Other financial assets	1,157,945	1,210,475
Deferred tax assets	274	270
Total non-current assets	16,818,965	18,037,199
Total assets	21,238,859	28,962,327
Current liabilities		
Trade & other payables	(1,611,078)	(1,653,749)
Other liabilities	(1,078,708)	(1,055,578)
Total current liabilities	(2,689,786)	(2,709,327)
Non-current liabilities		
Trade & other payables	(2,388,577)	(2,388,577)
Provisions	(1,916,719)	(2,031,722)
Total non-current liabilities	(4,305,296)	(4,420,299)
Total liabilities	(6,995,082)	(7,129,626)
Net assets	14,243,777	21,832,701
	11,577,139	11,577,139
Accumulated profits (IOSSES)	2,576,207	8,192,011
Non controlling interest	14,153,346	19,709,150 2,042 EF1
	90,431	2,003,551
iolai equily	14,243,777	21,032,101

#### Notes:

Total cash and cash equivalents are forecast to increase from US\$0.2 million at the end of FY2017 to US\$8.9 million at the end of FY2019. This increase is due to the AU\$6.0 million (US\$4.6 million) capital raise from this Public Offer net of expenses, the AU\$2,500,000 Convertible Notes and the cash surplus generated from operations through to FY2019.

Inventory is expected to increase from US\$0.6 million in FY2017 to US\$2.6 million in FY2019 as a result of the increased level of production from both mines.

Property, plant and equipment are forecast to increase by a net US\$6.7 million due to additional capital expenditure on equipment and mine development.

## 7.12 Assuming maximum Public Offer raise of AU\$6m

	Forecast	Forecast
Consolidated cash flow statement for the period	FY2018 – 12 months to 30 June 2018	FY2019 – 12 months to 30 June 2019
	US\$	US\$
Cash flow from operating activities		
Cash generated from operations	348,100	6,868,862
Interest income	-	-
Finance costs	-	-
Net cash from operating activities	348,100	6,868,862
Cash flow from investing activities		
Investment into property, plant & equipment	(2,543,639)	(1,165,707)
Net cash from investing activities	(2,543,639)	(1,165,707)
Cash from financing activities		
Proceeds from issue of shares	4,533,000	-
Proceeds (repayments) of loans	(192,650)	-
Proceeds from Convertible Notes	1,888,750	-
Cost of capital raising	(1,000,787)	-
Net cash from financing activities	5,228,313	-
Total cash movement	3,032,775	5,703,155
Cash at the beginning of the period	169,806	3,202,424
Foreign exchange variation	(156)	1,143
Total cash at the end of the period	3,202,424	8,906,722

#### Notes:

Cash from operations is forecast to increase from US\$6.7 million in FY2017 to US\$6.9 million in FY2019. Recoveries from cash generated from operations figure in FY2018 of US\$0.3 million due to the implementation of new infrastructure at the Star Diamond Mine and the fixed costs of the mines being in excess of mining revenue for the initial stages of the financial period.

It is forecast that Frontier would spend US\$2.5 million on capital expenditure in FY2018 and US\$1.2 million in FY2019.

Cash on hand at the end of each financial year will be a combination of USD, ZAR and AUD.

## 7.13 Sensitivity Analysis

The table below illustrates the change on Frontier's forecast profit after tax given an assumed change in forecast assumptions for the FY2018.

		AU\$4m Capital Raise US\$	AU\$6m Capital Raise US\$
Profit(loss)after tax		347,812	347,812
Diamond Price	+10%	1,291,779	1,291,779
	-10%	(1,174,345)	(1,174,345)
ZAR / USD	+10%	(121,165)	(121,165)
	-10%	132,658	132,658
BEE Partner interest increases to 30%		(13,913)	(13,913)

The table below illustrates the change on Frontier's forecast profit after tax given an assumed change in forecast assumptions for the FY2019.

		AU\$4m Capital Raise	AU\$6m Capital Raise
Profit(loss)after tay		7 588 924	7 588 924
	. 100/	2,000,924	2,007,924
Diamond Price	+10%	2,278,987	2,276,987
	-10%	(2,071,807)	(2,071,807)
ZAR / USD	+10%	780,582	780,582
	-10%	(854,625)	(854,625)
BEE Partner interest increases to 30%		(338,530)	(338,530)

## 7.14 Notes to the Financial Information

The significant accounting policies adopted by Frontier in the preparation of the Historical financial information and the Pro-forma historical statement of financial position. These accounting policies have been consistently applied to periods presented unless otherwise stated.

## (a) Basis of preparation

## (i) Going concern

The financial information has been prepared on a going concern basis which assumes the continuity of the Group's normal business activities and the realisation of assets and liabilities in the ordinary course of business.

The Directors believe that the ability of Frontier to complete the acquisition of Sedi Australia and for the Group to undertake its planned development program and to meet its working capital requirements so as to settle its liabilities as and when they fall due is dependent upon the completion of the capital raising under the Prospectus. The Directors expect that the proposed capital raising will be sufficient to allow for the planned development program to be undertaken and to provide necessary working capital for period in excess of 12 months from the date of this Prospectus.

Should Frontier be unable to complete the capital raising under this Prospectus, as set out above, there is significant uncertainty whether Frontier will be able to continue as a going concern and therefore, whether it will be able to pay its debts as and when they become due and payable and realise its assets and extinguish its liabilities in the normal course of business and at the amounts stated in the Pro-forma historical statement of financial positions. The financial information does not include adjustments relating to the recoverability and classification of recorded asset amounts, or the amounts and classification of liabilities that might be necessary should Frontier not continue as a going concern.

## (ii) Reporting basis and conventions

The financial information has been prepared on an accruals basis and is based on historical costs, except for certain assets measured at fair value.

## (iii) Capital restructure

In preparation for listing on the ASX, an internal restructure will take place resulting in Frontier becoming the legal parent of the group subject to the completion of the Acquisition. For the purposes of this Prospectus, the restructure has been accounted for as a capital re-organisation rather than a business combination. In the Director's judgement, the continuation of the existing accounting values is consistent with the accounting that would have occurred if the assets and liabilities had already been in a structure suitable to the initial public offering of Shares in Frontier and most appropriately reflects the substance of the internal restructure.

## (b) Accounting policies

## (i) Cash and cash equivalents

Cash and cash equivalents includes cash on hand and in the bank's short term deposits with an original maturity not exceeding three months and if greater than three months, principal amounts can be redeemed in full with interest payable at the same cash rate from inception as the agreement with each bank, net of bank overdrafts.

## (ii) Property, plant and equipment

Property, plant and equipment are depreciated on the straight line basis / units of production method over their expected useful lives to their estimated residual value.

Property, plant and equipment are carried at cost less accumulated depreciation and any impairment losses.

The useful lives of items of property, plant and equipment have been assessed as follows:

Item	Method
Land & buildings	Life of mine / units of production
Mineral properties	Life of mine / units of production
Mining claims	Life of mine / units of production
Mine development	Life of mine / units of production
Item	Method
Motor vehicles	5 years / 20% straight line
Office equipment	10 years / 10% straight line
Computer equipment	4 years / 25% straight line

The residual value, useful life and depreciation method of each asset are reviewed at the end of each reporting period. If the expectations differ from previous estimates, the change is accounted for as a change in accounting estimates.

Depreciation of mineral properties is based on the current life of mine plan.

Mine development costs incurred to maintain current production are included in the operating costs. Mine development costs incurred to expand the capacity of operating mines, to develop new ore bodies or to develop mine areas in advance of current production are capitalised and charged to operations over the remaining life of the mine.

If it is determined that an investment in capitalised mine development is not recoverable over the productive life of the mine, the unrecoverable portion is charged to earnings in the year such determination is made.

Mineral properties are reflected at cost. Mineral properties are amortised using the units of production method. Where the mineral property has diminished below carrying value, a writedown is reflected through profit or loss in the year in which it occurs.

Depreciation and amortisation of mine development costs, mine plant facilities and mineral properties are computed principally by the units of production method based on estimated quantities of proven and probable ore reserves. Proven and probable ore reserves reflect quantities of economically recoverable reserves which can be recovered in the future from known mineral deposits. Such estimates are based on current and projected costs and prices. Where the ore reserves are not well defined because the bearing structures are open at depth or open laterally, the straight-line method is applied.

#### (iii) Trade and other payables

Trade and other payables are initially recognised at fair value and subsequently measured at amortised cost when the Group becomes obliged to make payments resulting from the purchase of goods and services. The amounts are noninterest-bearing, unsecured and are usually paid within 30 days of recognition.

#### (iv) Contributed equity

Ordinary share are classified as equity. Incremental costs directly attributable to the issue of new shares are shown as a deduction from the equity proceeds.

#### (v) Share based payments

Equity-settled share-based compensation benefits are provided to Directors, employees and consultants. Equitysettled transactions are awards of shares that are provided to recipients in exchange for the rendering of services.

The cost of equity-settled transactions is recognised as an expense with a corresponding increase in equity over the vesting period. The cumulative charge to profit or loss is calculated based on the grant date fair value of the award, and the best estimate of the number of awards that are likely to vest and the expired portion of the vesting period.

The amount recognised in profit or loss for the period is the cumulative amount calculated at each reporting date less amounts already recognised in previous periods.

## (vi) Goods & services tax (GST) and Value added Tax (VAT)

Revenues, expenses and assets are recognised net of the amount of GST / VAT, unless the GST/VAT is not recoverable from the taxation authority. In this case it is recognised as part of the cost of acquisition of the asset or as part of an item of the expense.

Receivables and payable are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included with other receivables or payables in the consolidated statement of financial position.

#### (vii) Income tax

Current tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted at the Statement of financial position date. Deferred income tax is provided on all temporary differenced at the Statement of financial position date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax liabilities are recognised for all taxable temporary differences:

- (A) except where the deferred income tax liability arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- (B) in respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, except where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred income tax assets are recognised for all deductible temporary differences, carry forward of unused tax assets and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carry-forward of unused tax assets and unused tax losses can be utilised; and

- except where the deferred income tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and. At the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, associates and interest in joint ventures, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred income tax assets is reviewed at each Statement of financial position date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred income tax asset to be utilised.

Unrecognised deferred tax assets and liabilities are reassess at each Statement of financial position date and reduced to the extent that it is no longer probable that future taxable profit will allow the deferred tax asset to be utilised.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realised or the liability is settled, based on tax rates
(and tax laws) that have been enacted or substantively enacted at the Statement of financial position date.

Income taxes relating to items recognised directly in equity are recognised in equity and not in profit or loss.

Deferred tax assets and deferred tax liabilities are offset only if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred tax assets and liabilities relate to the same taxable entity and the same taxation authority.

# (viii) Decommissioning, mine closure and environmental rehabilitation

The obligation to restore environmental damage caused through mining is raised as the relevant mining takes place. Assumptions have been made as to the remaining life of existing operations based on studies conducted by independent technical advisers.

The estimated cost of recommissioning and rehabilitation will generally occur on or after the closure of the mines, based on current legal requirements and existing technology. A provision is raised on the present value of the estimated costs. These costs are included in the cost of the related asset. The capitalised assets are depreciated in accordance with eth accounting policy for property, plant and equipment. Increases in the provision, as a result of the unwinding of discounting are charged to profit or loss within finance expense.

The cost of the ongoing programs to prevent and control pollution, and ongoing rehabilitation costs of the Group's operations is charged against income as incurred.

Changes to the present value of the obligation due to changes in assumptions are recognised as adjustments to the provision together with an associated increase/(decrease) in the related decommissioning asset to the extent that a decommissioning asset exists. In circumstances where the decommissioning asset has been fully amortised the adjustment is recognised within other direct income.

#### (ix) Critical accounting estimates and judgements

The Directors evaluate estimates and judgements incorporated into the financial information based on historical knowledge and best available current information. Estimates assume a reasonable expectation of future events and are based on current trends and economic date, obtained internally and externally.

Frontier assesses impairment of all assets of each reporting date by evaluating conditions specific to Frontier and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable of the asset is determined. The future recoverability of capitalised exploration and evaluation expenditure is dependent on a number of factors, including whether Frontier decides to exploit the related lease itself or, if not, whether it successfully recovers the related exploration and evaluation asset through sale.

Factors which could impact the future recoverability include the level of provide and probable reserves and mineral resources, future technological changes which could impact the cost of mining, future legal changes (including changes to environmental restoration obligation) and changes to commodity prices.

To the extent that capitalised exploration and evaluation is determined not to be recoverable in the future, this will reduce profits and net assets in the period in which this determination is made.

In addition, exploration and evaluation expenditure is capitalised if activities in the area of interest have not yet reached a stage which permits a reasonable assessment of the existence of otherwise of economically recoverable reserves. To the extent that it is determined in the future that this capitalised expenditure should be written off, this will reduce profits and net assets in the period in which this determination is made.

#### (c) Subsequent events

The Directors are not aware of any other significant changes in the state of affairs of Frontier or events subsequent to 30 June 2017 that would have a material impact on the Financial Information.

## 7.15 Historical Financial Information – Sedi South Africa and Consolidated Group

#### 7.15.1 Historical Statements of Profit or Loss and Other Comprehensive Income

The table below sets out the audited Historical Statements of Profit or Loss and Other Comprehensive Income of Sedi South Africa for the FY2014, FY2015, FY2016 and FY2017 and the historical statement of profit and loss and other comprehensive income for the Consolidated Group for FY2017 as extracted from the audited accounts.

	FY2014 – 12 months to 30 June 2014	FY2015 – 12 months to 30 June 2015	FY2016 – 12 months to 30 June 2016	FY2017 – 12 months to 30 June 2017	Consol FY2017 30 June 2017 US\$
	US\$	US\$	US\$	US\$	
Revenue	826,388	6,774,190	8,690,554	5,794,535	5,794,535
Cost of sale	(4,849,855)	(9,057,936)	(6,626,585)	(6,710,679)	(6,710,679)
Gross profit (loss)	(4,023,467)	(2,283,746)	2,063,969	(916,144)	(916,144)
Other income	26,905	2,550,329	2,345,083	4,266,087	3,843,948
Operating expenses	(350,173)	(288,569)	(226,029)	(568,410)	(568,410)
Corporate overheads	-	-	-	-	(410,085)
Operating profit (loss)	(4,346,735)	(21,986)	4,183,023	2,781,263	1,949,309
Investment income	13,553	8,677	20,260	1,279	-
Fair value adjustments	-	-	-	81,907	-
Finance costs	(222,206)	(275,488)	(96,244)	(53,456)	(31,399)
Profit (loss) before taxation	(4,555,388)	(288,797)	4,107,039	2,811,533	1,917,910
Taxation	-	-	(2,509)	-	-
Profit (loss) after tax	(4,555,388)	(288,797)	4,104,530	2,811,263	-
Other comprehensive income	-	1,486,971	(7,061,929)	-	-
Total comprehensive income	(4,555,388)	1,198,174	(2,957,399)	2,811,263	1,917,910

## 7.15.2 Historical Statements of Cash flow

The table below set out the audited Historical Statements of Cash flow of Sedi South Africa for the year's ended 30 June 2014, 2015, 2016 and 2017 and the historical statement of cash flow for the Consolidated Group for FY2017 as extracted from the audited accounts.

	FY2014 – 12 months to 30 June 2014	FY2015 – 12 months to 30 June 2015	FY2016 – 12 months 30 June 2016	FY2017 – 12 months to 30 June 2017	Consol 30 June 2017
	US\$	US\$	US\$	US\$	\$US
Cash flow from operating activities					
Cash generated from operations	(5,609,986)	517,717	1,408,835	6,665,772	6,665,772
Interest income	13,553	8,677	20,263	1,279	1,279
Finance costs	(222,206)	(275,488)	(107,088)	(26,088)	(26,088)
Net cash from operating activities	(5,818,639)	250,906	1,322,010	6,640,963	6,640,963
Cash flow from investing activities					
Purchase of property, plant & equipment					
	-	-	(4,566,865)	(7,175,537)	(7,175,537)
Sale of property, plant & equipment	153,972	-	3,810	608	608
Net cash from investing activities	153,972		(4,563,055)	(7,174,929)	(7,174,929)
Cash from financing activities					
Proceeds from the issue of shares	-	-	-	-	2,282,647
Proceeds from convertible notes	-	-	-	-	709,574
Costs of capital raising	-	-	-	-	(56,581)
Proceeds (repayments) of loans	5,560,000	700,000	2,926,760	488,747	(2,246,733)
Net cash from financing activities	5,560,000	700,000	2,926,760	488,747	688,907
Total cash movement	(104,667)	950,906	(314,285)	(45,219)	154,941
Cash at the beginning of the period	185,450	80,783	1,021,567	45,660	11,178
Foreign exchange variation	-	(10,122)	(661,622)	5,386	3,687
Total Cash at the end of the period	80,783	1,021,567	45,660	5,827	169,806

## 7.15.3 Historical Statements of financial position

The table below set out the audited Historical Statements of financial position of Sedi South Africa as at 30 June 2014, 30 June 2015, 30 June 2016 and 30 June 2017 and the historical statement of financial position for the Consolidated Group as at 30 June 2017 as extracted from the audited accounts.

	30 June 2014 US\$	30 June 2015 US\$	30 June 2016 US\$	30 June 2017 US\$	Consol 30 June 2017 US\$
Current assets					
Cash and cash equivalents	80,783	1,021,567	11,178	5,827	169,806
Trade & other receivables	186,661	994,881	2,200,875	3,641,391	3,667,256
Prepayments	-	-	-	-	4,232
Inventories	397,943	535,787	731,079	219,765	219,765
Total current assets	665,387	2,552,235	2,943,132	3,866,983	4,061,059
Non-current assets					
Property, plant & equipment	2,105,809	1,788,153	5,563,178	13,117,107	13,117,107
Other financial assets	1,230,869	1,144,870	920,795	1,107,695	1,107,695
Deferred tax	3,755	3,492	249	278	278
Total non-current assets	3,340,433	2,936,515	6,484,222	14,225,080	14,225,080
Total assets	4,005,820	5,488,750	9,427,354	18,092,063	18,286,139
Current liabilities					
Trade & other payables	(541)	(141,707)	(5,555,726)	(12,572,546)	(8,256,221)
Other financial liabilities	-	-	(2,027,812)	(601,388)	(601,388)
Convertible notes	-	-	-	-	(831,729)
Total current liabilities	(541)	(141,707)	(7,583,538)	(13,173,934)	(9,689,338)
Non-current liabilities					
Long term borrowing	-	-	-	-	(2,388,576)
Provisions	(1,884,442)	(2,028,032)	(1,482,204)	(1,705,873)	(1,705,873)
Total non-current liabilities	(1,884,442)	(2,028,032)	(1,482,204)	(1,705,873)	(4,094,449)
Total liabilities	(1,884,983)	(2,169,739)	(9,065,742)	(14,879,808)	(13,783,787)
Net assets	2,120,837	3,319,011	361,612	3,212,256	4,502,352
Equity					
Share capital	94	94	94	77	2,160,599
Reserves	32,653,557	34,140,528	27,078,599	-	22,927
Accumulated profits (losses)	(30,532,814)	(30,821,611)	(26,717,081)	3,212,179	2,318,826
Total equity	2,120,837	3,319,011	361,612	3,212,256	4,502,352

8. INVESTIGATING ACCOUNTANT'S REPORT

# FRONTIER DIAMONDS LTD Investigating Accountant's Report

1 November 2017









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1 November 2017

The Directors Frontier Diamonds Ltd Level 1, 566 Elizabeth St MELBOURNE VIC 3000

**Dear Directors** 

# **INVESTIGATING ACCOUNTANT'S REPORT**

# 1. Introduction

BDO Corporate Finance (WA) Pty Ltd ('**BDO'**) has been engaged by Frontier Diamonds Ltd ('**Frontier'** or '**the Company'**) to prepare this Investigating Accountant's Report ('**Report'**) in relation to certain financial information of Frontier, for the Initial Public Offering of shares in Frontier, for inclusion in the Prospectus. Broadly, the Prospectus will offer up to 30 million Shares at an issue price of \$0.20 each to raise up to \$6 million before costs ('**the Offer'**). The Offer is subject to a minimum subscription level of 20 million Shares to raise \$4 million before costs.

Expressions defined in the Prospectus have the same meaning in this Report. BDO Corporate Finance (WA) Pty Ltd ('BDO') holds an Australian Financial Services Licence (AFS Licence Number 316158).

This Report has been prepared for inclusion in the Prospectus. We disclaim any assumption of responsibility for any reliance on this Report or on the Financial Information to which it relates for any purpose other than that for which it was prepared.

# 2. Scope

You have requested BDO to perform a review engagement in relation to the historical and pro forma historical financial information described below and disclosed in the Prospectus.

The historical and pro forma historical financial information is presented in the Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the Corporations Act 2001.

You have requested BDO to review the following historical financial information (together the **'Historical Financial Information'**) of Frontier included in the Prospectus:

- the audited historical Statements of Profit or Loss and Other Comprehensive Income and Statement of Cash flows for the years ended 30 June 2014, 2015, 2016 and 2017; and
- the audited historical Statement of Financial Position as at 30 June 2017.

The Historical Financial Information has been prepared in accordance with the stated basis of preparation, being the recognition and measurement principles contained in Australian Accounting Standards and the company's adopted accounting policies. The Historical Financial Information has been extracted from the financial report of Frontier for the year ended 30 June 2017, which was audited by BDO Audit (WA) Pty Ltd in accordance with the Australian Auditing Standards. BDO Audit issued an unmodified audit opinion on the financial report but noted an emphasis of matter in relation to the entity's ability to continue as a going concern. The Historical Financial Information has been extracted from the financial reports of the subsidiaries to be acquired by Frontier for the years ended 30 June 2014, 2015, 2016 and 2017, which was audited by BDO South Africa Incorporated in accordance with International Auditing Standards. BDO South Africa issued unmodified audit opinions on the financial reports but noted an emphasis of matter in relation to the entity's ability to continue as a going concern of the years and 2017, which was audited by BDO South Africa Incorporated in accordance with International Auditing Standards. BDO South Africa issued unmodified audit opinions on the financial reports but noted an emphasis of matter in relation to the entity's ability to continue as a going concern in respect of the years ended 30 June 2014, 2015, 2016 and 2017, which was audited by BDO South Africa Incorporated in accordance with International Auditing Standards.

### Pro Forma Historical Financial Information

You have requested BDO to review the following pro forma historical financial information (the **'Pro Forma Historical Financial Information'**) of Frontier included in the Prospectus:

• the pro forma historical Statement of Financial Position as at 30 June 2017.

The Pro Forma Historical Financial Information has been derived from the historical financial information of Frontier, after adjusting for the effects of the pro forma adjustments described in Section 7.2 of the Prospectus. The stated basis of preparation is the recognition and measurement principles contained in Australian Accounting Standards applied to the historical financial information and the event(s) or transaction(s) to which the pro forma adjustments relate, as described in Section 7.2.4 of the Prospectus, as if those event(s) or transaction(s) had occurred as at the date of the historical financial information. Due to its nature, the Pro Forma Historical Financial Information does not represent the company's actual or prospective financial position or financial performance.

The Pro Forma Historical Financial Information has been compiled by Frontier to illustrate the impact of the event(s) or transaction(s) described in Section 7.2.4 of the Prospectus on Frontier's financial position as at 30 June 2017. As part of this process, information about Frontier's financial position has been extracted by Frontier from Frontier and it's subsidiaries financial statements for the year ended 30 June 2017.

#### Forecast Financial Information

You have requested BDO to review the following forecast financial information (collectively the **'Forecast Financial Information'**) of Frontier included in the Prospectus:

• the pro forma forecast financial information of Frontier comprising the pro forma forecast Statement(s) of Financial Performance, Pro forma Statement of Financial Position and Pro forma Statement of Cash Flows for the years ending 30 June 2018 and 2019 (together the **'Pro Forma Forecast Financial Information'**). The Pro Forma Forecast has been derived from Frontier's Statutory Forecast Financial Information, after adjusting for the effects of the pro forma adjustments described in Section 7.2.4 of the Prospectus. The stated basis of preparation of the Pro Forma Forecast is set out in Section 7.2.2 of the Prospectus. Due to its nature, the Pro Forma Forecast does not

represent the company's actual prospective financial performance for the periods ending 30 June 2018 and 2019.

# 3. Directors' responsibility

The directors of Frontier are responsible for the preparation and presentation of the Historical Financial Information and Pro Forma Historical Financial Information, including the selection and determination of pro forma adjustments made to the Historical Financial Information and included in the Pro Forma Historical Financial Information. The directors of Frontier are also responsible for the preparation and presentation of the Pro Forma Forecast Financial Information, including the best-estimate assumptions underlying the Forecast Financial Information. This includes responsibility for such internal controls as the directors determine are necessary to enable the preparation of Historical Financial Information, Pro Forma Historical Financial Information and Forecast Financial Information that are free from material misstatement, whether due to fraud or error.

# 4. Our responsibility

Our responsibility is to express limited assurance conclusions on the Historical Financial Information, Pro Forma Historical Financial Information and Pro Forma Forecast Financial Information, the best-estimate assumptions underlying the Pro Forma Forecast Financial Information, and the reasonableness of the Pro Forma Forecast Financial Information, based on our review. We have conducted our engagement in accordance with the Standard on Assurance Engagement ASAE 3450 Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information.

Our limited assurance procedures consisted of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A limited assurance engagement is substantially less in scope than an audit conducted in accordance with Australian Auditing Standards and consequently does not enable us to obtain reasonable assurance that we would become aware of all significant matters that might be identified in a reasonable assurance engagement. Accordingly, we do not express an audit opinion.

Our engagement did not involve updating or re-issuing any previously issued audit or review reports on any financial information used as a source of the financial information.

# 5. Conclusion

## Historical Financial Information

Based on our review engagement, which is not an audit, nothing has come to our attention that causes us to believe that the Historical Financial Information, as described in the Appendices to this Report, and comprising:

- the Statement of Profit or Loss and Other Comprehensive Income of Frontier for the periods ended 30 June 2014, 2015, 2016 and 2017; and
- the Statement of Financial Position of Frontier as at 30 June 2017,

is not presented fairly, in all material respects, in accordance with the stated basis of preparation, as described in Section 2 of this Report.

Based on our review engagement, which is not an audit, nothing has come to our attention that causes us to believe that the Pro Forma Historical Financial Information as described in the Appendices to this Report, and comprising:

• the pro forma historical Statement of Financial Position of Frontier as at 30 Jun 2017,

is not presented fairly, in all material respects, in accordance with the stated basis of preparation, as described in Section 2 of this Report.

#### Pro Forma Forecast Financial Information

Based on our review engagement, which is not an audit, nothing has come to our attention that causes us to believe that:

- the directors' best-estimate assumptions used in the preparation of the pro forma forecast Statement(s) of Financial Performance of Frontier for the years ended 30 June 2018 and 2019 do not provide reasonable grounds for the Pro Forma Forecast Financial Information; and
- in all material respects, the Pro Forma Forecast Financial Information:
  - is not prepared on the basis of the directors' best-estimate assumptions, as described in Section 7.6 of the Prospectus; and
  - is not presented fairly in accordance with the stated basis of preparation, being the recognition and measurement principles contained in Australian Accounting Standards and the entity's adopted accounting policies, and the pro forma adjustments as if those adjustments had occurred as at the date of the forecast; and
  - the pro forma forecast itself is unreasonable.

#### Forecast Financial Information

The Forecast Financial Information has been prepared by management and adopted by the directors in order to provide prospective investors with a guide to the potential financial performance of Frontier years ending 30 June 2018 and 2019. There is a considerable degree of subjective judgement involved in preparing forecasts since they relate to events and transactions that have not yet occurred and may not occur. Actual results are likely to be different from the Forecast Financial Information since anticipated events or transactions frequently do not occur as expected and the variation may be material. The directors' best-estimate assumptions on which the Forecast Financial Information is based relate to future events and/or transactions that management expect to occur and actions that management expect to take and are also subject to uncertainties and contingencies, which are often outside the control of Frontier. Evidence may be available to support the directors' best-estimate assumptions on which the Forecast Financial Information is based however such evidence is generally future-oriented and therefore speculative in nature. We are therefore not in a position to express a reasonable assurance conclusion on those best-estimate assumptions, and accordingly, provide a lesser level of assurance on the reasonableness of the directors' best-estimate assumptions. The limited assurance conclusion expressed in this report has been formed on the above basis.

Prospective investors should be aware of the material risks and uncertainties in relation to an investment in Frontier, which are detailed in the Prospectus, and the inherent uncertainty relating to the Forecast Financial Information. Accordingly, prospective investors should have regard to the investment risks and sensitivities as described in Section 6 of the Prospectus. The sensitivity analysis described in Section 7.11 of the Prospectus demonstrates the impact on the Forecast Financial Information of changes in key best-estimate assumptions. We express no opinion as to whether the Forecast Financial Information will be achieved.

The Forecast Financial Information has been prepared by the directors for the purpose of inclusion in the Prospectus. We disclaim any assumption of responsibility for any reliance on this report, or on the Forecast Financial Information to which it relates, for any purpose other than that for which it was prepared. We have assumed, and relied on representations from certain members of management of Frontier, that all material information concerning the prospects and proposed operations of Frontier has been disclosed to us and that the information provided to us for the purpose of our work is true, complete and accurate in all respects. We have no reason to believe that those representations are false.

# 6. Independence

BDO is a member of BDO International Ltd. BDO does not have any interest in the outcome of the proposed IPO other than in connection with the preparation of this Report and participation in due diligence procedures, for which professional fees will be received. BDO is the auditor of Frontier and for which normal professional fees are received.

# 7. Disclosures

This Report has been prepared, and included in the Prospectus, to provide investors with general information only and does not take into account the objectives, financial situation or needs of any specific investor. It is not intended to be a substitute for professional advice and potential investors should not make specific investment decisions in reliance on the information contained in this Report. Before acting or relying on any information, potential investors should consider whether it is appropriate for their objectives, financial situation or needs.

Without modifying our conclusions, we draw attention to Section 2 of this Report, which describes the purpose of the financial information, being for inclusion in the Prospectus. As a result, the financial information may not be suitable for use for another purpose.

BDO has consented to the inclusion of this Report in the Prospectus in the form and context in which it is included. At the date of this Report this consent has not been withdrawn. However, BDO has not authorised the issue of the Prospectus. Accordingly, BDO makes no representation regarding, and takes no responsibility for, any other statements or material in or omissions from the Prospectus.

# 8. Financial Services Guide

Our Financial Services Guide follows this Report. This guide is designed to assist retail clients in their use of any general financial product advice in our Report.

Yours faithfully BDO Corporate Finance (WA) Pty Ltd

Aller Alger

Adam Myers Director

#### APPENDIX 1 – FINANCIAL SERVICES GUIDE

**BDO Corporate Finance (WA) Pty Ltd** ABN 27 124 031 045 ('we' or 'us' or 'ours' as appropriate) has been engaged by Frontier Diamonds Ltd ('Frontier') to provide an Investigating Accountant's Report for inclusion in the Prospectus.

#### Financial Services Guide

In the above circumstances we are required to issue to you, as a retail client, a Financial Services Guide ('FSG'). This FSG is designed to help retail clients make a decision as to their use of the general financial product advice and to ensure that we comply with our obligations as financial services licensees.

This FSG includes information about:

- who we are and how we can be contacted;
- the services we are authorised to provide under our Australian Financial Services Licence, Licence No. 316158;
- remuneration that we and/or our staff and any associates receive in connection with the general financial product advice;
- any relevant associations or relationships we have; and
- our internal and external complaints handling procedures and how you may access them.

#### Information about us

BDO Corporate Finance (WA) Pty Ltd is a member firm of the BDO network in Australia, a national association of separate entities (each of which has appointed BDO (Australia) Limited ACN 050 110 275 to represent it in BDO International). The financial product advice in our Report is provided by BDO Corporate Finance (WA) Pty Ltd and not by BDO or its related entities. BDO and its related entities provide services primarily in the areas of audit, tax, consulting and financial advisory services.

We do not have any formal associations or relationships with any entities that are issuers of financial products. However, you should note that we and BDO (and its related entities) might from time to time provide professional services to financial product issuers in the ordinary course of business.

#### Financial services we are licensed to provide

We hold an Australian Financial Services Licence that authorises us to provide general financial product advice for securities to retail and wholesale clients.

When we provide the authorised financial services we are engaged to provide expert reports in connection with the financial product of another person. Our reports indicate who has engaged us and the nature of the report we have been engaged to provide. When we provide the authorised services we are not acting for you.

#### General Financial Product Advice

We only provide general financial product advice, not personal financial product advice. Our Report does not take into account your personal objectives, financial situation or needs. You should consider the appropriateness of this general advice having regard to your own objectives, financial situation and needs before you act on the advice.

#### Fees, commissions and other benefits that we may receive

We charge fees for providing reports, including this Report. These fees are negotiated and agreed with the person who engages us to provide the report. Fees are agreed on an hourly basis or as a fixed amount depending on the terms of the agreement. The fee payable to BDO Corporate Finance (WA) Pty Ltd for this engagement is approximately \$25,000.

BDO Audit (WA) Pty Ltd has acted as the auditor for Frontier in respect of the year ended 2017 and has charted fees of approximately \$20,400.

Except for the fees referred to above, neither BDO, nor any of its directors, employees or related entities, receive any pecuniary benefit or other benefit, directly or indirectly, for or in connection with the provision of the Report.

#### Remuneration or other benefits received by our employees

All our employees receive a salary. Our employees are eligible for bonuses based on overall productivity but not directly in connection with any engagement for the provision of a report. We have received a fee from Proteomics for our professional services in providing this Report. That fee is not linked in any way with our opinion as expressed in this Report.

#### Referrals

We do not pay commissions or provide any other benefits to any person for referring customers to us in connection with the reports that we are licensed to provide.

#### **Complaints resolution**

#### Internal complaints resolution process

As the holder of an Australian Financial Services Licence, we are required to have a system for handling complaints from persons to whom we provide financial product advice. All complaints must be in writing addressed to The Complaints Officer, BDO Corporate Finance (WA) Pty Ltd, PO Box 700, West Perth WA 6872.

When we receive a written complaint we will record the complaint, acknowledge receipt of the complaint within 15 days and investigate the issues raised. As soon as practical, and not more than **45 days** after receiving the written complaint, we will advise the complainant in writing of our determination.

#### **Referral to External Dispute Resolution Scheme**

A complainant not satisfied with the outcome of the above process, or our determination, has the right to refer the matter to the Financial Ombudsman Service (**'FOS'**). FOS is an independent organisation that has been established to provide free advice and assistance to consumers to help in resolving complaints relating to the financial service industry. FOS will be able to advise you as to whether or not they can be of assistance in this matter. Our FOS Membership Number is 12561.

Further details about FOS are available at the FOS website <u>www.fos.org.au</u> or by contacting them directly via the details set out below.

Financial Ombudsman Service GPO Box 3 Melbourne VIC 3001 Toll free: 1300 78 08 08 Facsimile: (03) 9613 6399 Email: info@fos.org.au

#### **Contact details**

You may contact us using the details set out on page 1 of our Report.

#### 9. BOARD AND MANAGEMENT

#### 9.1 Directors and key management personnel

#### Mr Johan van Reenen, B.Sc (Hons), MBA Non-executive Chairman (Independent)

Mr van Reenen, is a co-founder and Executive Director of Imalivest Asset Management, a project finance and asset management company. He has served as a Non-executive director on the Board of Metropolitan Holdings since 2001 and following the merger with Momentum Holdings, he was appointed to the Board of MMI Holdings Limited (JSE: MMI) in 2010.

He is a member of the risk, remuneration and investment sub-committees of the MMI Board. He has a wealth of experience in investment banking, corporate finance and asset management, both in South Africa and internationally.

He is a past Chairman of the University of the Free State Foundation and Trustee of the World Wild Life Foundation. Mr van Reenen has spent the latter part of his corporate career as Executive Director of Gensec Limited and Managing Director of Gensec Asset Management. Prior to becoming a wholly owned subsidiary of Saniam Ltd in 2000, Gensec was one of the top 40 companies listed on the Johannesburg Stock Exchange. Gensec has approximately AU\$18 billion of assets under management.

Mr van Reenen holds a B.Sc (Hons) (Geochemistry) degree from the University of the Free State and a MBA from the University of Stellenbosch.

Mr van Reenen is free from any business or other relationships that could materially interfere with, or reasonably be perceived to interfere with, the independent exercise of his judgement. Mr van Reenen has no shareholding in Frontier.

Frontier considers that Mr van Reenen is an independent director.

#### Mr Jan Louw, B. Eng. Managing Director

Mr Louw was appointed Managing Director of Frontier on 29 June 2017. He previously served as the Chief Executive Officer of Frontier Mining Group. Prior to that was the director of Operations at Firestone Diamonds Plc. (AIM: FDI) with responsibility of managing all aspects of mining operations in South Africa and Botswana. Mr Louw has extensive experience in planning, developing and managing large scale open cast and underground mining operations, having working in senior management positions for Anglo American for 16 years in South Africa and Namibia. Mr Louw served as Mine Manager at Anglo American's Namakwa Sands mining operation in South Africa. Mr Louw is a graduate in Mechanical Engineering from Stellenbosch University, South Africa.

Mr Louw is not considered by Frontier to be an independent director due to being a substantial Shareholder and a member of the senior management team.

#### Mr Frank Petruzzelli, B.Bus (Acc), FNIA, FIPA Executive Director

Mr Petruzzelli is a principal of MDB Taxation & Business Pty Ltd, an Australian accounting firm. He is an accounting and management services specialist and advises ASX listed companies and large private organisations. Mr Petruzzelli has significant director experience in the resource industry, having previously been a director of ASX listed Orchard Petroleum Limited, Solimar Energy Limited and Mustang Resources Limited (ASX: MUS). Mr Petruzzelli holds a Bachelor of Business (Accounting) and is a Fellow of the National Institute of Accountants and a Fellow of the Institute of Public Accountants.

Mr Petruzzelli is not considered to be an independent director due to the level of his shareholding in Frontier and that he is a member of the senior management team.

#### Mr Michael Addison, B.Sc. (Eng.), MPhil (Oxon). MAICD, FAIM Non-executive Director (Independent)

Mr Addison is an engineer with significant experience in large infrastructure systems design. He also has considerable international corporate finance experience, having spent many years as an investment banker with three globally recognised investment banks. Subsequent to transitioning into mainstream corporate management in the early nineties, Mr Addison held a number of senior executive positions on the Boards of publicly listed companies on each of the London, Johannesburg and Australian securities exchanges.

In these roles, Mr Addison developed extensive expertise in the management and running of listed companies and an intimate working knowledge of the regulatory, legal and governance environments in which listed companies operate.

Mr Addison is a former Rhodes Scholar, has an Oxford University postgraduate degree in Management Studies, is a Fellow of the Australian Institute of Management and a member of the Australian Institute of Company Directors.

Mr Addison is currently the managing director of Genex Power Limited (ASX: GNX) and has previously been a director of Intra Energy Corporation Limited (ASX: IEC), Carabella Resources Limited and Stratum Metals Limited.

Mr Addison is free from any business or other relationships that could materially interfere with, or reasonable be perceived to interfere with, the independent exercise of his judgement. Mr Addison has no shareholding in Frontier.

Frontier considers that Mr Addison is an independent director.

#### 9.2 Key Management Personnel

### Mr Marco Möller, MBA Chief Financial Officer

Mr Möller is the Chief Financial Officer of the Group. Previously he served as the CFO for Frontier Mining Group, of which Sedi Diamonds (Pty) Ltd was part of. His role covers the strategic, operational and corporate matters of the group. Mr Möller has over 15 years' experience in diamond mining, mineral exploration and development projects, as well as export and cross border transaction in the energy sector.

He has served on various executive Boards that include as CEO and director of Tango Mining Ltd (TSX: TGV), CEO of African Star Minerals and Group Finance Manager to Firestone Diamonds plc. (AIM: FDL). Mr Möller holds an MBA from University of Cape Town, and has completed the SAICA training with PWC.

#### Mr Jacques Cilliers Commercial & Marketing Manager

Mr Jacques Cilliers is the Commercial & Marketing Manager of Frontier. Previously he served a similar role for Frontier Mining Group, of which Sedi Diamonds (Pty) Ltd was part. His role covers the oversight and management of the gem diamonds trade, State Diamond Trader regulatory compliance, and route to market and cross border transactions. Mr Cilliers held senior management positions with various South African banking institutions for more than 8 years before venturing out into the retail and wholesale sector as a Director and owner for 10 years. Mr Cilliers holds various executive positions and business interests in diamond mining and engineering concerns and has a comprehensive understanding of the diamond trade environment.

#### Mr Martin van Zyl, MPH, B. Admin (Hons) Legal and Compliance Manager – South Africa

Mr van Zyl is the Legal and Compliance Officer of Frontier. Previously he served in a similar position for Frontier Mining Group, of which Sedi Diamonds (Pty) Ltd was a part. Mr van Zyl has previously held various executive positions with South African regulatory agencies that include advisor to the Minister of Minerals and Energy and the Premier of the Northern Cape, Director-General of the Northern Cape Provincial Government and Head of Public Health at the Cape Town University of Technology. He also served as a director to various mining companies and trustee of trusts that served more than 27 rural communities.

Mr van Zyl holds a Masters degree of Public Health from the Boston University (USA) and an Hons B Admin (cum Laude) degree from Stellenbosch University.

## Other appointments

Frontier is aware of the need to have sufficient management to properly supervise the activities undertaken on the projects in which Frontier has, or will in the future have, an interest and the Board will continually monitor the management roles in Frontier. As the Projects require an increased level of involvement the Board will look to appoint additional management and/or consultants when and where appropriate to ensure proper management of the Projects.

#### 9.3 Disclosure of Interests

Frontier has paid no remuneration to its Board since incorporation to the date of this Prospectus and no remuneration will be paid or will accrue until such time as Frontier is admitted to the Official List.

For each of the Directors, the proposed annual remuneration for the financial year following Frontier being admitted to the Official List together with the relevant interest of each of the Directors in the securities of Frontier as at the date of this Prospectus is set out in the table below.

Director	Remuneration (AU\$)	Shares and % voting power	
Mr Jan Louw	237,600 (US\$182,762)	Nil	
Mr Frank Petruzzelli <sup>1</sup>	150,000 (US\$115,380)	4,269,267 Shares (16.78%)	
Mr Johan van Reenen <sup>2</sup>	75,000 (US\$57,690)	Nil³	
Mr Michael Addison	50,000 (US\$38,460)	Nil	

Notes:

- <sup>1</sup> Mr Petruzzelli' s Director fees will be paid to MDB Corporate Advisors Pty Ltd. Mr Petruzzelli is the controller of MDB Corporate Advisors Pty Ltd which has been paid or accrued a fee of AU\$25,000 (US\$19,230) (exclusive of GST) per month by Frontier for services related to Frontier's listing on ASX since December 2016. Mr Petruzzelli holds 100 Shares directly and 4,269,167 Shares indirectly through Elba Investments Pty Ltd.
- <sup>2</sup> Mr van Reenen holds series 2 Convertible Notes to the value of AU\$64,000 (US\$49,229) which will convert to fully paid ordinary Shares on the date that the Shares are issued from the Public Offer. Mr van Reenen would then hold 400,000 Shares.

### 9.4 Agreements with Directors or Related Parties

Frontier's policy in respect of related party arrangements is:

- (a) a Director with a material personal interest in a matter is required to give notice to the other Directors before such a matter is considered by the Board; and
- (b) for the Board to consider such a matter, the Director who has a material personal interest is not present while the matter is being considered at the meeting and does not vote on the matter.

Currently Frontier has the following agreements with related parties:

- (a) The Service Contract Agreement with Frontier Mining Projects (Pty) Ltd which is an entity controlled by Mr Jan Louw. A summary of the material terms of this agreement is set out in Section 11.4.
- (b) The Corporate Advisory Services Agreement with MDB Corporate Advisors Pty Ltd which terminates upon Frontier listing on ASX. MDB Corporate Advisors Pty Ltd is an entity controlled by Mr Frank Petruzzelli. A summary of the material terms of this agreement is set out in Section 11.7.

Frontier will report all payments made to related parties in its annual report for each year.

#### 9.4.1 Consulting Agreement – Mr Jan Louw

Frontier and Lutzville Engineering (Pty) Ltd have entered into a consulting agreement pursuant to which Mr Louw is appointed as Managing Director of Frontier for a five-year term commencing on the date that Frontier is admitted to the Official List.

Frontier can terminate the agreement by giving six month's written notice. Mr Louw can terminate the agreement by giving three month's written notice.

Lutzville Engineering (Pty) Ltd is entitled to a fee of AU\$237,600 (US\$182,762) per annum on and from the date Frontier is admitted to the Official List, which is to be reviewed annually. Lutzville Engineering (Pty) Ltd may also be entitled to (subject to the satisfaction of specified milestones) a performance-based cash or non-cash bonus above the salary. In addition, Lutzville Engineering (Pty) Ltd may be entitled to long-term equity based incentives subject to the satisfaction of certain performance criteria to be determined by the Board.

Upon successful listing of Frontier, Lutzville Engineering (Pty) Ltd will be entitled to receive 500,000 Shares in Frontier. These Shares will be escrowed for a period of 24 months commencing on the date on which the quotation of Frontier's securities on ASX commences.

The consulting agreement also contains various other terms and conditions that are considered standard for an agreement of this nature, including those relating to termination of service.

### 9.4.2 Consulting Agreement – Mr Frank Petruzzelli

Frontier and MDB Corporate Advisors Pty Ltd have entered into a consulting agreement pursuant to which Mr Petruzzelli was appointed as an Executive Director of Frontier for a five-year term commencing on the date that Frontier is admitted to the Official List.

Frontier can terminate the agreement by giving three month's written notice. Mr Petruzzelli can terminate the consulting agreement by giving one month's written notice.

Mr Petruzzelli is also subject to Frontier's constitution in regard to the election of Directors, and if not re-elected by Shareholders at any general meeting is required to resign as a Director of Frontier with immediate effect.

MDB Corporate Advisors Pty Ltd is entitled to a fee of AU\$150,000 (US\$115,380) per annum on and from the date Frontier is admitted to the Official List, to be reviewed annually. MDB Corporate Advisors Pty Ltd may also be entitled to (subject to the satisfaction of specified milestones) a performance based cash bonus above the salary. In addition, MDB Corporate Advisors Pty Ltd may be entitled to long-term equity based incentives subject to the satisfaction of certain performance criteria to be determined by the Board.

Upon successful listing of Frontier, Mr Petruzzelli (or his nominee) is entitled to receive 500,000 Shares in Frontier at no cost. These Shares will be escrowed for a period of 24 months commencing on the date on which the quotation of Frontier's securities commences on ASX.

The consulting agreement also contains various other terms and conditions that are considered standard for an agreement of this nature, including those relating to termination of service.

## 9.4.3 Directors - Non-Executive Appointment Letters

Frontier has entered into a Non-executive letter of appointment with each of the Non-executive Directors, Mr Johan van Reenen and Mr Michael Addison. Frontier has appointed Mr van Reenen as Non-executive Chairman and Mr Addison as a Non-executive Director until Frontier's first annual general meeting at which point they must retire and stand for re-election pursuant to Frontier's Constitution.

Mr van Reenen will be remunerated AU\$75,000 (US\$57,690) per annum plus statutory superannuation, if applicable. Mr van Reenen is entitled to additional payments for devoting special attention to the business outside the scope or ordinary duties and is entitled to reasonable expenses properly incurred whilst undertaking his duties as well as equity or other incentive based remuneration.

Mr van Reenen is entitled to be reimbursed reasonable expenses incurred in performing their duties, including the cost of attending Board meetings, travel, accommodation and entertainment expenses where agreed to by the Board.

The Non-executive appointment letter also contains various other terms and conditions that are considered standard for an agreement of this nature, including those relating to termination and vacation of office.

Mr van Reenen will be subject to election by Frontier by rotation as required under Frontier's Constitution.

Mr van Reenen will be considered an independent director of Frontier on appointment to the Board.

Mr Addison will be remunerated AU\$50,000 (US\$38,460) per annum plus statutory superannuation, if applicable. Mr Addison is entitled to additional payments for devoting special attention to the business outside the scope or ordinary duties and is entitled to reasonable expenses properly incurred in performing his duties, including the cost of attending Board meetings, travel, accommodation and entertainment expenses where agreed by the Board.

The Non-executive appointment letter also contains various other terms and conditions that are considered standard for an agreement of this nature, including those relating to the termination and vacation of office.

Mr Addison will be subject to election by Frontier by rotation as required under Frontier's Constitution.

Mr Addison will be considered an independent director of Frontier on appointment to the Board.

#### 9.4.4 Deeds of indemnity, insurance and access

Frontier has entered into a deed of indemnity, insurance and Access with each of its Directors. Under these deeds, Frontier agrees to indemnify each officer to the extent permitted by the Corporations Act against any liability arising as a result of the officer acting as an officer of Frontier. Frontier is also required to maintain insurance policies for the benefit of the relevant officer and must also allow the officers to inspect Board papers in certain circumstances.

#### 10. CORPORATE GOVERNANCE

#### 10.1 ASX Corporate Governance Council Principles and Recommendations

Frontier has adopted comprehensive systems of control and accountability as the basis for the administration of corporate governance. The Board is committed to administering the policies and procedures with openness and integrity, pursuing the true spirit of corporate governance commensurate with Frontier's needs.

To the extent applicable, Frontier has adopted The Corporate Governance Principles and Recommendations (3rd Edition) as published by ASX Corporate Governance Council (**Recommendations**).

In light of Frontier's size and nature, the Board considers that the current Board is a cost effective and practical method of directing and managing Frontier. As Frontier's activities develop in size, nature and scope, the size of the Board and the implementation of additional corporate governance policies and structures will be reviewed.

Frontier's main corporate governance policies and practices as at the date of this Prospectus are outlined below and Frontier's full Corporate Governance Plan is available in a dedicated corporate governance information section of Frontier's website, www.frontierdiamonds.com.

#### 10.2 Board of Directors

The Board is responsible for corporate governance of Frontier. The Board develops strategies for Frontier, reviews strategic objectives and monitors performance against those objectives. The goals of the corporate governance processes are to:

- (a) maintain and increase Shareholder value;
- (b) ensure a prudential and ethical basis for Frontier's conduct and activities; and
- (c) ensure compliance with Frontier's legal and regulatory objectives.

Consistent with these goals, the Board assumes the following responsibilities:

- (a) leading and setting the strategic direction and objectives of Frontier;
- (b) appointing the Chairman of the Board, Managing Director or Chief Executive Officer and approving the appointment of Executives and Frontier Secretary and the determination of their terms and conditions including remuneration and termination;
- (c) overseeing the Executive's implementation of Frontier's strategic objectives and performance generally;
- (d) approving operating budgets, major capital expenditure and significant acquisitions and divestitures;
- (e) overseeing the integrity of Frontier's accounting and corporate reporting systems, including the external audit (satisfying itself financial statements released to the market fairly and accurately reflect Frontier's financial position and performance);

- (f) overseeing Frontier's procedures and processes for making timely and balanced disclosure of all material information that a reasonable person would expect to have a material effect on the price or value of Frontier's securities;
- (g) reviewing, ratifying and monitoring the effectiveness of Frontier's risk management framework, corporate governance policies and systems designed to ensure legal compliance; and
- (h) approving Frontier's remuneration framework.

Frontier is committed to the circulation of relevant materials to Directors in a timely manner to facilitate Directors' participation in the Board discussions on a fully-informed basis.

### 10.3 Composition of the Board

Election of Board members is substantially the province of the Shareholders in general meeting. However, subject thereto:

- (a) membership of the Board of Directors will be reviewed regularly to ensure the mix of skills and expertise is appropriate; and
- (b) the composition of the Board has been structured so as to provide Frontier with an adequate mix of Directors with industry knowledge, technical, commercial and financial skills together with integrity and judgment considered necessary to represent shareholders and fulfil the business objectives of Frontier.

As at the date of this Prospectus, the Board will consist of four Directors of whom two are considered independent. The Board considers the current balance of skills and expertise is appropriate for Frontier for its current planned level of activity.

To assist the Board in evaluating the appropriateness of the Board's mix of qualifications, experience and expertise, the Board will maintain a Board Skills Matrix.

The Board undertakes appropriate checks before appointing a person as a Director or putting forward to Shareholders a candidate for election as a Director.

The Board ensures that Shareholders are provided with all material information in the Board's possession relevant to a decision on whether or not to elect or reelect a Director.

Frontier shall develop and implement a formal induction program for Directors which allows new Directors to participate fully and actively in Board decisionmaking at the earliest opportunity, and enable new Directors to gain an understanding of Frontier's policies and procedures.

#### 10.4 Identification and management of risk

The Board's collective experience will enable accurate identification of the principal risks that may affect Frontier's business. Key operational risks and their management will be recurring items for deliberation at Board meetings.

#### 10.5 Ethical standards

The Board is committed to the establishment and maintenance of appropriate ethical standards.

#### 10.6 Independent professional advice

Subject to the Chairman's approval (not to be unreasonably withheld), the Directors, at Frontier's expense, may obtain independent professional advice on issues arising in the course of their duties.

#### 10.7 Remuneration arrangements

The remuneration of an executive Director will be decided by the Board, without the affected executive Director participating in that decision-making process.

The total maximum remuneration of Non-executive Directors is initially set by the Constitution and subsequent variation is by ordinary resolution of Shareholders in general meeting in accordance with the Constitution, the Corporations Act and the ASX Listing Rules, as applicable. The determination of non-executive directors' remuneration within that maximum will be made by the Board having regard to the inputs and value to Frontier of the respective contributions by each non-executive director. The current amount has been set at an amount not to exceed AU\$500,000 per annum.

In addition, a Director may be paid fees or other amounts (i.e.) subject to any necessary Shareholder approval, non-cash performance incentives such as Options) as the directors determine where a Director performs special duties or otherwise performs services outside the scope of the ordinary duties of a Director.

Directors are also entitled to be paid reasonable travelling, hotel and other expenses incurred by them respectively in or about the performance of their duties as directors.

The Board reviews and approves the remuneration policy to enable Frontier to attract and retain executives and directors who will create value for Shareholders having consideration to the amount considered to be commensurate for a company of its size and level of activity as well as the relevant directors' time, commitment and responsibility. The Board is also responsible for reviewing any employee incentive and equity-based plans including the appropriateness of performance hurdles and total payments proposed.

#### 10.8 Trading policy

The Board has adopted a policy that sets out the guidelines on the sale and purchase of securities in Frontier by its directors, officers, employees and contractors. The policy generally provides that for directors, the written acknowledgement of the Chairman (or the Board in the case of the Chairman) must be obtained prior to trading.

#### 10.9 External audit

Frontier in general meetings is responsible for the appointment of the external auditors of Frontier, and the Board from time to time will review the scope, performance and fees of those external auditors.

#### 10.10 Audit committee

Frontier will have a separate audit and risk committee. The committee will operate under an audit and risk committee charter, including but not limited to, monitoring and reviewing any matters of significance affecting financial reporting and compliance, the integrity of the financial reporting of Frontier, Frontier's internal financial control system and risk management systems and the external audit function.

### 10.11 Diversity policy

The Board has adopted a diversity policy which provides a framework for Frontier to achieve, amongst other things, a diverse and skilled workforce, a workplace culture characterised by inclusive practices and behaviours for the benefit of all staff, improved employment and career development opportunities for women and a work environment that values and utilises the contributions of employees with diverse backgrounds, experiences and perspectives.

#### 10.12 Departures from Recommendations

Under the ASX Listing Rules Frontier will be required to provide a statement in its annual financial report or on its website disclosing the extent to which it has followed the Recommendations during each reporting period. Where Frontier has not followed a Recommendation, it must identify the Recommendation that has not been followed and give reasons for not following it.

Set out below is disclosure of the extent to which Frontier does not intend, as at the date Frontier's securities are admitted to Official Quotation on the ASX following completion of the Public Offer, to follow the Recommendations with reasons provided for not following them along with what (if any) alternative governance practices Frontier intends to adopt in lieu of the Recommendation.

#### Recommendation 2.1

Frontier will have a Nomination & Remuneration Committee of two Directors, one independent and one executive director, chaired by the Independent director.

The recommendation is for three Directors a majority of which should be independent. Due to Frontier's size, it is considered appropriate for a two director committee.

#### Recommendation 2.4

Frontier will have a Board of two Non-executive independent Directors and two executive Directors.

The recommendation is that the majority of the Board of a listed entity should be independent Directors. Due to Frontier's size it is considered the Board's current structure appropriate. In addition, the Non-executive independent Chairman has a casting vote, unless the quorum of Directors for a meeting is only two.

#### Recommendation 7.1

Frontier will have an Audit & Risk Committee of two Directors, one independent and one executive director, chaired by the Independent director.

The recommendation is for at least three Directors a majority of which should be independent. Due to Frontier's size it is considered appropriate for a two director committee.

#### 11. MATERIAL CONTRACTS

Set out below is a brief summary of contracts between Frontier and third parties which the Directors have identified as being material to Frontier or are of such a nature that an investor may wish to have details of particulars of them when making an assessment of whether to apply for Shares.

To fully understand all rights and obligations of a material contract it would be necessary to review it in full and these summaries should be read with this in mind.

#### 11.1 Acquisition Agreement

On 23 August 2017, Frontier entered into a binding terms sheet with Sedi Australia, under which Frontier has agreed to acquire 100% of the issued capital of Sedi Australia (**Acquisition**) from the holders of shares in Sedi Australia (being, Lutzville Engineering (Pty) Ltd (an entity incorporated in South Africa) (Lutzville) and Reddoor Resources (Pty) Ltd (an entity incorporated in South Africa) (Reddoor)) (Sedi Australia Shareholders) (Acquisition Agreement).

The material terms of the Acquisition Agreement are as follows.

#### (a) **Acquisition**:

- (i) Each Sedi Australia Shareholder has agreed to sell and Frontier has agreed to acquire all of the Sedi Australia Shareholders' rights, title and interests in all of their shares in the capital of Sedi Australia (representing 100% of the issued capital of Sedi Australia) (Sedi Australia Shares) on the terms and conditions set out in the Acquisition Agreement.
- (ii) At completion of the Acquisition, Frontier will be the legal and beneficial owner of a 74% shareholding in Sedi South Africa, an entity incorporated in South Africa and the holding entity of a further 5 entities also incorporated in South Africa (South African Group Entities), 3 of which are the registered licence holders of mining licences for the Star Diamond Mine, Dancarl Mine and Messina Mine.
- (b) **Conditions Precedent:** settlement of the Acquisition (**Settlement**) is conditional upon the satisfaction (or waiver) of the following outstanding conditions precedent:
  - (i) completion of the acquisition by Sedi Australia from the Sedi Australia Shareholders of all of their respective rights, title and interests in all of their shares in the capital of Sedi South Africa, representing 74% of the issued capital of Sedi South Africa (Underlying Transaction), to the absolute satisfaction of Frontier;
  - (ii) Frontier obtaining all necessary regulatory, Shareholder and third party approvals, consents and authorisations pursuant to the ASX Listing Rules, Corporations Act or any other law, including in South Africa, to allow Frontier to lawfully complete the matters set out in this Acquisition Agreement; and
  - (iii) Frontier obtaining conditional approval from ASX for Frontier to be admitted to the Official List of ASX and its Shares admitted to

Official Quotation on ASX, on conditions acceptable to Frontier and the Sedi Australia Shareholders, each acting reasonably,

(together, the **Conditions**).

The parties will use their best efforts to ensure that the Conditions are met as quickly as possible, however, if the Conditions set out above are not satisfied (or waived) on or before the date specified in the Conditions, or in the absence of a date, on or before 5:00pm (Melbourne time) on 31 December 2017, a party who is entitled to waive the Condition that has not been satisfied (or waived) may give notice to the other parties that the agreement constituted by the Acquisition Agreement will be at an end and the parties will be released from their future obligations under the Acquisition Agreement, unless otherwise mutually agreed in writing by the parties.

- (c) **Consideration:** Frontier will issue a total of 105,244,450 Shares to the Sedi Australia Shareholders (or their nominees) at Settlement (**Consideration Shares**) in the proportions set out in the Acquisition Agreement.
- (d) **Board Composition:** The parties agree that by no later than Settlement, the Board of Frontier will be comprised of Messrs Jan Louw, Frank Petruzzelli, Johan van Reenen and Michael Addison.
- (e) **Effective Date:** The parties agree that at the Settlement Date, the transfer of the shares in Sedi Australia to Frontier and the issue of Shares to the Sedi Australia Shareholders will be deemed to have been completed on 1 July 2017 the "Effective Date" so that Frontier is entitled to all rights and interests accruing to the Sedi Australia shares acquired, and the Sedi Australia Shareholders are each entitled to all rights and interests accruing to their respective shares in Frontier as if those Sedi Australia shares were transferred and those Shares issued on the Effective Date.

The Acquisition Agreement also contains provisions considered standard for an agreement of its nature (including exclusivity, maintenance of assets, warranties, indemnities and confidentiality).

#### 11.2 Underlying Transaction Agreement

On 25 August 2017, Sedi Australia entered into a binding agreement to acquire 74% of the issued capital of Sedi South Africa (**Underlying Transaction**) from Lutzville, and Mr Jacques Cilliers (**Cilliers**).

On the date that is 5 days after satisfaction of the conditions precedent to the Underlying Transaction (or such later date as is agreed between the parties) (**Implementation Date**), but with effect from 1 July 2017 (**Effective Date**), Lutzville and Cilliers will transfer to Sedi Australia, their entire shareholdings in Sedi South Africa so that the shareholding in Sedi South Africa will be held:

- (a) Van Zyl, 26%; and
- (b) Sedi Australia, 74%.

The material terms of the Underlying Transaction are as follows.

(a) **Conditions Precedent:** the agreement constituting the Underlying Transaction and its implementation is subject to satisfaction of the

following outstanding condition precedent on or before 31 December 2017 (or such later date as the parties may agree in writing):

(i) Frontier obtaining conditional approval from ASX for Frontier to be admitted to the Official List of ASX and its Shares admitted to Official Quotation on ASX on conditions acceptable to Frontier and the Sedi Australia Shareholders acting reasonably.

If the condition precedent is not satisfied (or waived) within the prescribed time period and, in the absence of the period for their satisfaction having been extended by all of the parties (except for Van Zyl whose consent will not be required), the agreement shall be null and void, save for the surviving provisions.

- (b) Intercompany Loan: subject to Frontier completing the acquisition of Sedi Australia, Frontier agrees to extinguish a total of ZAR 43,358,663 (Intercompany Loan) value of intercompany accounts due to Frontier Mining Projects (Pty) Ltd from Sedi South Africa by issuing 23,502,629 Shares to Frontier Mining Projects (Pty) Ltd on Settlement of the Acquisition.
- (c) **Consideration:** Lutzville and Cilliers will transfer all of their shares in Sedi South Africa to Sedi Australia and in consideration for the transfer of shares, Sedi Australia will issue 511 Sedi Australia Shares to Lutzville and 229 Sedi Australia Shares to Reddoor (as Cilliers nominee).
- (d) **Effective Date:** The parties agree that at the Implementation Date, the transfer of the shares in Sedi South Africa to Sedi Australia and the issue of Sedi Australia Shares to Lutzville and Reddoor will be deemed to have been completed on the Effective Date so that Sedi Australia is entitled to all rights and interests accruing to the Sedi South Africa shares acquired, and Lutzville and Reddoor are each entitled to all rights and interests accruing to their respective shares in Sedi Australia as if those Sedi South Africa shares were transferred and those Sedi Australia Shares issued on the Effective Date.

#### 11.3 Lead Manager Mandate

A summary of the material terms of the Lead Manager Mandate with Novus Capital is set out in Section 4.5.

#### 11.4 Service Contract Agreement – Frontier Mining Projects (Pty) Ltd

On 25 July 2017, Sedi South Africa, entered into a service contract with Frontier Mining Projects (Pty) Ltd (FMP), pursuant to which FMP is engaged as independent contractor for the contract mining, operations management and maintenance of certain mining assets of Sedi South Africa (being, Sedibeng JV Mine, Star Diamond Mine and Bellsbank Pit Prospecting Work Program).

- (a) **Purpose**: the primary purpose of the service contract is to develop, mine and process various diamond primary resource material and market gem diamonds received from the mining assets of Sedi South Africa;
- (b) Term: the service contract is effective from 1 January 2017 for a period of 5 years ending 31 December 2021. The term of the service contract may be extended by mutual agreement of the parties on the giving of written notice, provided the notice is given to FMP by Sedi South Africa at least 90 days prior to the expiry date of the service contract.

- (c) **Scope of Work:** the services to be performed by FMP under the service contract include (without limitation):
  - (i) managing and supervising the mining operations as per the agreed mining and treatment plan (Mining Plan);
  - (ii) developing mining areas, excavating, loaning and hauling resource material from various resources to Sedi South Africa s processing plants;
  - (iii) supplying and maintaining adequate equipment with operators to execute the mining as per the agreed Mining Plan;
  - (iv) preparing and implementing long term equipment maintenance planning;
  - (v) construction and maintenance from all loading points to delivery points which shall include the cleaning and sweeping of all loading and delivery pads;
  - (vi) performing stockpile management and to remove all types of tailings generated by the operations;
  - (vii) supplying staff and equipment to manage, operate and maintain the plant as per the agreed Mining Plan. Optimise plant throughput, recovery and operating cost, and operate the plant to achieve the specific recovery efficiencies;
  - (viii) maintaining water pumps and reticulation systems and clarified water dam, including water supply pipelines;
  - (ix) providing a back-up maintenance crew with tools and equipment to be kept on standby to assist with major breakdowns and/or regular plant shutdowns and maintenance;
  - (x) providing accommodation to its personnel including back-up maintenance crews; and
  - (xi) providing effective and reliable transport for its personnel and support teams to site and to-and-from hometowns.
- (d) **Responsibilities of Sedi South Africa**: Sedi South Africa's responsibilities in relation to the scope of work include (without limitation):
  - (i) providing a full term service bay for the servicing of equipment;
  - (ii) suppling fuel, lubricants and coolants as required;
  - (iii) supplying water for roads;
  - (iv) providing a detailed Mining Plan and survey assistance for road construction and layout;
  - (v) providing swift security and compliance clearance of all machines, parts and employees;
  - (vi) providing compulsory training for all FMP employees;

- (vii) providing all metallurgical services to monitor recovery efficiency;
- (viii) providing services including water and electricity; and
- (ix) bearing the cost of accommodation and transport for FMP's employees.
- (e) **Fees:** FMP will be paid the following by Sedi South Africa:
  - (i) Management Fee: a management fee of ZAR 500,000 (US\$38,550) per month for engineering, design, procurement management services and mineral resource management and geotechnical services;
  - (ii) **Corporate Overheads Fee**: a corporate overhead fee of ZAR 350,000 (US\$26,985) per month for finance and administrative, audit, legal and compliance and corporate overheads;
  - (iii) Labour Contractor Fee: labour contractor fees based on the actual monthly cost accrued and due on-site management, mining and plant operations, plus an accrual provision for termination costs equal to one (1) week per calendar year employed, and accrued holiday leave provision accrued per month;
  - (iv) **Transport Costs**: transport costs based on agreed wet and dry rates as applicable and the operating lease costs based on dry rates exclusive of fuel, maintenance and operating costs; and
  - (v) Rates: rates are subject to annual escalation applicable in each January to accommodate for labour indices which are published at the end of the previous August.
- (f) **Sub-contractor:** FMP shall not sub-contract to, nor engage a subcontractor to perform any part of the work without the prior written authorisation of the manager of Sedi South Africa;
- (g) Non-compete and solicitation: neither party shall employ, or seek to employee or entice (directly or indirectly) any employee of the other, for the duration of services, plus a period of 12 months thereafter, without the written consent of the other party.
- (h) Termination: Upon the occurrence of an event of default, and if at any time thereafter the party in default (Default Party) fails to remedy such breach within seven (7) days of receipt of written notice from the aggrieved party (Aggrieved Party), the Aggrieved Party shall be entitled to without notice, in addition to any other remedy available to it at law or under the terms of the service contract:
  - (i) claim immediate and specific performance of all of the obligations;
  - (ii) acquire the work from a third party, in which event the Aggrieved Party shall be entitled to recover from the Defaulting Party any amount by which the price paid exceeds the purchase price for the work and any cost and expenses associated with acquiring the work from such third party;

- (iii) execute the work itself and, provided that the default is not attributable to force majeure, recover from the Defaulting Party any amount by which the price paid exceeds the purchase price for the work plus any direct damages; or
- (iv) terminate the purchase order for the work without prejudice to the Aggrieved Party's right to claim damages arising from such event of default.
- (i) Termination by Sedi South Africa: a notice of termination based on performance or non-conformance matters relating to the services contract may only be given once an investigation with both parties involved has taken place.

FMP shall be notified in writing of Sedi South Africa's dissatisfaction with regards to performance or non-conformance and shall be provided with the opportunity to respond in writing and take corrective action within an agreed time after being issued with the notice.

## (j) Termination by FMP:

- (i) FMP may at its option, terminate the services contract in whole or in part provided a reasonable cause for termination exists;
- In the event of termination, Sedi South Africa shall waive any claims for loss of anticipated profits and shall be held liable for incurred de-establishment costs;
- (iii) In the event that FMP provides notice to Sedi South Africa, FMP shall only be permitted to cease activities and vacate the site after ninety (90) days following receipt of the termination notice by Sedi South Africa:
  - (A) FMP's employees may only be notified after thirty (30) days after providing Sedi South Africa with the ninety (90) days' notice;
  - (B) Sedi South Africa shall have the option to employ any of FMP's site personnel and FMP shall assist Sedi South Africa by releasing such willing personnel without notice and without incurring liability relating to such employment that may become payable to FMP; and
  - (C) FMP shall facilitate during the notice period a skills transfer to Sedi South Africa or the replacement contractor to ensure continuity of operations and to ensure that the replacement contractor is trained to provide the same level of service as is reasonably expected under the contract.
- (k) Breach: In the event that either party commits a breach of the terms of the service contract and fails to remedy such breach within fourteen (14) days (or such longer period as is provided in the service contract) after receipt of a written notice from the Aggrieved Party calling upon the Defaulting Party to remedy the breach, the Aggrieved Party shall be entitled at its sole discretion (and without prejudice to any of its other rights in law) to either claim specific performance or suspend or cancel

the service contract without further notice, and in either case to claim and recover damages from the Defaulting Party.

(I) **Governing law**: the service contract is governed by the laws of the Republic of South Africa.

The service contract contains other provisions considered standard for an agreement of its nature including quality management, compliance with legal obligations and standards (including local labour, health and safety and environmental compliance), insurance, indemnities and confidentiality.

#### 11.5 Marketing Agreement – Petra Diamonds Plc.

On 5 May 2017, FMP, Star Diamonds (Pty) Ltd (**Star**), Dancarl Diamonds (Pty) Ltd (**Dancarl**) and Messina Diamonds (Pty) Ltd (**Messina**), entered into a marketing production agreement with Tarorite (Pty) Ltd (**Tarorite**) (a subsidiary of Petra Diamonds Plc.) on the following terms.

- (a) **Marketing:** Tarorite will exclusively market Frontier's diamond production from the Sedibeng JV Mine and the Star Diamond Mine.
- (b) **Term**: the term of the agreement commences on 5 May 2017 and continues until 1 May 2019. After 1 May 2019, the marketing arrangement will continue provided that either party will be entitled to terminate the agreement upon the giving of three months' written notice to the other party.
- (c) Fee: in consideration for providing marketing services, Tarorite will be entitled to a marketing fee of 3.5% of the gross sale proceeds from the Sedibeng JV Mine, Star Diamond Mine and any further mine referred to above (with such fee to be renewed annually) (Marketing Fee).
- (d) **Security**: as security for the payment of the Marketing Fee, Tarorite will hold a lien, mortgage and right to possess as security over all diamonds from the Sedibeng JV Mine, Star Diamond Mine and any further mine referred to above, which Tarorite will be entitled to retain and if necessary, dispose of, until such time that all amounts due to Tarorite have been settled.
- (e) Licence: the sales arrangement is subject to Tarorite holding the necessary diamond dealer's licence to enable Tarorite to buy and sell diamonds.

#### 11.6 Services Mandate - Fivemark Capital Pty Ltd

On 25 May 2017, Frontier entered into a non-exclusive services mandate with Fivemark Capital Pty Ltd (ABN 39 616 232 556) (**Fivemark**), pursuant to which Fivemark was engaged to provide strategic equity market and investor and media relations advisory services to Frontier on the following terms.

(a) Term: the mandate commenced on 25 May 2017 (Commencement Date) and shall be in effect for an initial period ending six months following the date Frontier is admitted to the Official List of ASX (or such longer period as the parties may agree in writing).

- (b) **Fees**: the following fees are payable by Frontier to Fivemark:
  - (i) **Preparation Fee**: a monthly fee of AU\$395 (plus GST) per hour is payable by Frontier to Fivemark in respect pre-IPO services provided by Fivemark to Frontier;
  - (ii) Success Fee: a one-off success fee of AU\$14,500 (plus GST) (to be paid in Shares) is payable by Frontier to Fivemark in the event that Frontier is admitted to the Official List of the ASX within six months from the Commencement Date; and
  - (iii) **Base Fee**: a monthly fee of AU\$395 (plus GST) per hour is payable by Frontier to Fivemark in respect of services provided by Fivemark following the date that Frontier is admitted to the Official List of the ASX.
- (c) **Expenses**: Frontier has agreed to reimburse Fivemark for all reasonable out-of-pocket expenses incurred in providing services to Frontier, provided those expenses have been approved in advance by Frontier and are supported by receipts, invoices or other supporting documentation.
- (d) **Termination**: the mandate can be terminated by Frontier or Fivemark by the giving of written notice to the other party at any time following the Commencement Date.

The mandate also contains other terms such that are considered standard for an agreement of its nature (including confidentiality).

## 11.7 Corporate Advisory Services Agreement – MDB Corporate Advisors Pty Ltd

On 1 December 2016, Frontier entered into services agreement with MDB Corporate Advisors Pty Ltd (ACN 126 606 942) (**MDB**) pursuant to which MDB will provide corporate advisory services to Frontier, including (without limitation) in relation to pre-IPO matters, the IPO and listing of Frontier on the ASX, on following terms.

- (a) **Term**: the corporate advisory services agreement commenced on 1 December 2016 and will continue until the listing of Frontier on ASX unless terminated earlier.
- (b) **Fees**: the following fees are payable by Frontier to MDB:
  - (i) **Corporate Advisory Fee**: for each month during the term of the agreement, Frontier shall pay a corporate advisory fee of AU\$25,000 (US\$19,230) (plus GST) to MDB within seven (7) days of receipt (and approval) of an invoice from MDB; and
  - (ii) Success Shares: each of Mr Petruzzelli and Mr Ritchie (or their nominees) are entitled to receive 500,000 Shares at no cost upon the successful closing of the Offer and the admittance of Frontier to the Official List of ASX.
- (c) **Expenses**: MDB is entitled to be reimbursed all reasonable out-of-pocket expenses incurred in the performance of its services under the agreement.

- (d) **Termination**: the agreement with MDB may be terminated as follows:
  - (i) Termination due to serious breach: either party may terminate the agreement at any time by the giving of three months' written notice to the other party;
  - (ii) Termination due to unsatisfactory provision of services: Frontier may terminate the agreement by giving one months' written notice to MDB (or payment in lieu of notice) where it believes that MDB has provided unsatisfactory services and on receipt of notice of the issue, MDB has not resolved the issue within a reasonable time; and
  - (iii) **Termination because services no longer required**: if Frontier reasonably believes that MDB's services are no longer required, Frontier may terminate the agreement by:
    - (A) giving three months' written notice; or
    - (B) by paying an amount representing three months' written notice (being, AU\$75,000 (US\$57,690)) in lieu of notice.

The mandate also contains other terms such that are considered standard for an agreement of its nature (including confidentiality).

### 11.8 Service Agreements – Directors

Refer to Section 9.4 for summaries of service agreements entered into with the executive Directors.

#### 11.9 Joint Venture Agreement

On 1 January 2005, Dancarl Diamonds (Pty) Ltd (**Dancarl**) and Messina Diamonds (Pty) Ltd (**Messina**) entered in a joint venture agreement, under which the parties agreed to conduct certain mining operations on the mining areas of Dancarl and Messina.

- (a) **Term**: the joint venture commenced on 1 January 2005 and shall continue for an indefinite period until terminated in accordance with the provisions of the joint venture agreement.
- (b) **Property**: the joint venture relates to the Sedibeng JV Mine.
- (c) **Interests**: the parties hold the following interests in the joint venture and its assets, liabilities, profits and losses:
  - (i) Messina: 57.5%; and
  - (ii) Dancarl: 42.5%.
- (d) **Termination**: the joint venture will terminate on the occurrence of any or all the following:
  - (i) upon unanimous decision of the parties;
  - (ii) automatically, if either party is sequestrated or placed in liquidation, whether professionally or finally;

- (iii) on notice given by either party if the other party is deemed to be unable to pay its debts or shall enter into or attempt to enter into a compromise with any or all of its creditors; or
- (iv) on notice given by a party (Aggrieved Party) to the other party (Defaulting Party) in the event that the Defaulting Party shall have committed a material breach of the joint venture agreement, or continuously breaches any of the provisions of the joint venture agreement and fails to remedy such material breach or fails to cease continuous breaching within 14 days of the Aggrieved Party having given written notice to the Defaulting Party, calling upon the Defaulting Party to do so.
- (e) **Governing law:** the joint venture agreement and the operations of the joint venture are governed and construed in accordance with the Law of the Republic of South Africa.

### 11.10 Royalty – Tailings Dump

The funds raised by Frontier from the issue of Convertible Notes was used to acquire certain tailings dump processing equipment.

Frontier has agreed with the holders of the Convertible Notes to pay them a royalty equal to the amount of their respective Convertible Notes divided by AU\$3,500,000 (US\$2,692,000) (being the aggregate principal raised from all Convertible Notes) multiplied by 14.7% of the gross diamond proceeds received by Sedi Diamonds (Pty) Ltd from the tailings plant at the Sedibeng JV Mine up to a maximum of the first 2,000,000 tons.

Royalty payments will be accrued and paid quarterly in arrears on 31 December, 31 March, 30 June and 30 September of each year. All royalty payments will be made in Australian Dollars based upon the spot rate on the date of payment.

The royalty payment obligation continues even where the Convertible Notes are converted.

#### 11.11 Bellsbank Pipe – Contract Mining Agreement

Messina Diamonds (Pty) Ltd (**Messina**) has entered into a binding agreement with AA Van Wyk Diamante CC (an entity incorporated in South Africa) (**Van Wyk Diamonds**), under which Van Wyk Diamonds has agreed to appoint Messina as its exclusive contractor to conduct prospecting and mining operations on the designated area of 3,2400 hectares on the Farm Bellsbank No. 85, District Barkly West, Province Northern Cape (**Contract Area**) (**Contract Mining Agreement**).

The material terms of the Contract Mining Agreement are as follows.

- (a) **Term**: These rights endure for as long as Van Wyk Diamonds is the holder of a valid mining right over the Contract Area including such periods of time for which the mining right is renewed and extended.
- (b) Messina Obligations: Messina is obliged:
  - to fully comply with all the terms and conditions relating to Van Wyk Diamond's converted mining right and any renewal thereof;

- (ii) to rehabilitate all surface disturbances caused as a result of Messina's mining operations on the relevant property;
- (iii) to comply with all environmental requirements; and
- (iv) to fully comply with all related legislation including the Mine, Health and Safety Act No. 29 of 1996.
- (c) Messina Entitlements: Messina shall be entitled to receive 99.99% of the selling price of diamonds recovered from the Contract Area as consideration for providing prospecting and mining services to Van Wyk Diamonds, with Van Wyk Diamonds entitled to the balance.
- (d) **Termination**: Messina has the right to terminate the Contract Mining Agreement by giving 30 days prior written notice to Van Wyk Diamonds.

#### 11.12 Bellsbank Pipe – Purchase Agreement

Messina Diamonds (Pty) Ltd (**Messina**) has entered into a binding agreement with AA Van Wyk Diamante CC (an entity incorporated in South Africa) (**Van Wyk Diamonds**) and Mr Andries Adriaan Van Wyk (**Van Wyk**), under which Van Wyk has agreed to sell his entire interest and loan account in Van Wyk Diamonds to Messina (**Bellsbank Purchase Agreement**).

The material terms of the Bellsbank Purchase Agreement are as follows.

- (a) Acquisition: Subject to compliance with the conditions, Van Wyk sells his entire interest and loan account in Van Wyk Diamonds (subject to its conversion to Van Wyk Diamante (Pty) Ltd to Messina.
- (b) **Conditions**: The Acquisition is conditional on:
  - (i) The approval by the Department of Mineral Resources of Van Wyk Diamond's application to renew the converted mining right related to the Contract Area; and
  - (ii) The Minister of Mineral Resources consenting in terms of section 11 of the MPRD Act to the sale by Van Wyk of his shareholding interest in Van Wyk Diamonds to Messina.
- (c) **Consideration**: Messina must pay to Van Wyk ZAR 2,000,000 (US\$154,202) payable in 20 equal monthly instalments commencing on the date of satisfaction of the Conditions.
- (d) Messina Obligations: Messina is obliged to apply to the Department of Mineral Resources in terms of section 102 of the MPRD Act in order to amend the Broad Based Black Economic Empowerment requirements of Van Wyk Diamonds pursuant to the transaction envisaged by the Bellsbank Purchase Agreement.

#### 11.13 Loan Agreements

Frontier has entered into an unsecured interest free loan agreement with Sedi Australia pursuant to which it has advanced AU\$5,470,190 (US\$4,207,670) as at the date of this Prospectus under a facility which permits a maximum of AU\$7,000,000 (US\$5,384,400) to be advanced. The loan is repayable by 6 December 2018 (or earlier if an event of default occurs).
Sedi Australia has entered into an unsecured interest free loan agreement with Sedi South Africa pursuant to which it has advanced AU\$5,470,190 (US\$4,207,670) as at the date of this Prospectus under a facility which permits a maximum of \$7,000,000 (US\$5,384,400) to be advanced. The loan is repayable by 6 December 2018 (or earlier if an event of default occurs).

## 11.14 Plant Acquisition Agreement

On 17 March 2017, Sedi Diamonds (Pty) Ltd entered into a sale agreement with Superkolong (Pty) Ltd (an entity incorporated in South Africa), under which Sedi Diamonds (Pty) Ltd agreed to acquire plant and machinery from Superkolong (Pty) Ltd (**Plant Acquisition Agreement**).

The material terms of the Plant Acquisition Agreement are as follows:

- (a) **Assets:** Plant and machinery.
- (b) **Consideration:** Sedi Diamonds (Pty) Ltd will pay Superkolong (Pty) Ltd ZAR 7,000,000 (excluding VAT) (US\$539,707) (**Purchase Price**), in the following instalments:
  - (i) ZAR 700,000 (US\$53,970) on or before 30 March 2017; and
  - (ii) twelve instalments of ZAR 525,000 (US\$40,478), to be paid on the first day of each month from 1 July 2017 to 1 June 2018.
- (c) Interest: interest will accrue at a rate of 10% per annum from 1 July 2017, compounded monthly in arrears, and payable simultaneously with each instalment referred to in clause (b)(ii), with penalty interest accruing on overdue amounts at the applicable prime overdraft lending rate as charged by Absa Bank Limited plus 2%, from the due date to the actual date of payment.
- (d) **Ownership:** ownership of the Assets shall remain vested in Superkolong (Pty) Ltd until such time as Sedi Diamonds (Pty) Ltd has paid the Purchase Price in full.
- (e) **Undertakings**: Sedi Diamonds undertakes that, pending the payment of the Purchase Price in full, it shall:
  - (i) not make any distributions or dispose of any assets, including the Sale Assets; or
  - (ii) incur any further liabilities other than the payment of items in the ordinary course of its business.
- (f) **Breach**: if Sedi Diamonds is in breach of the Sale Agreement or is in default, Superkolong (Pty) Ltd may:
  - (i) claim immediate payment of the full balance of the Purchase Price then outstanding, irrespective of whether such amounts are due; and/or
  - (ii) claim damages which may include immediate payment of all arrear amounts.

## 12. ADDITIONAL INFORMATION

## 12.1 Litigation

As at the date of this Prospectus, Frontier is not involved in any legal proceedings and the Directors are not aware of any legal proceedings pending or threatened against Frontier.

## 12.2 Rights attaching to Shares

The following is a summary of the more significant rights attaching to Shares. This summary is not exhaustive and does not constitute a definitive statement of the rights and liabilities of Shareholders. To obtain such a statement, persons should seek independent legal advice.

Full details of the rights attaching to Shares are set out in the Constitution, a copy of which is available for inspection at Frontier's registered office during normal business hours.

## (a) Precedence of ASX Listing Rules/Amendment to ASX Listing Rules

Despite anything in the Constitution, once Frontier is admitted to the Official List of the ASX, if there is any inconsistency between the Constitution and the ASX Listing Rules, the ASX Listing Rules will prevail. In addition, if any amendment is made to the ASX Listing Rules, that amendment automatically becomes part of the Constitution without the need for any Shareholder resolution.

## (b) General meetings

Shareholders are entitled to be present in person, or by proxy, attorney or representative to attend and vote at general meetings of Frontier. Shareholders may requisition meetings in accordance with section 249D of the Corporations Act and the Constitution.

# (c) Voting rights

Subject to any rights or restrictions for the time being attached to any class or classes of Shares, at general meetings of Shareholders or classes of Shareholders:

- (i) each Shareholder entitled to vote may vote in person or by proxy, attorney or representative;
- (ii) on a show of hands, every person present who is a Shareholder or a proxy, attorney or representative of a Shareholder has one vote; and
- (iii) on a poll, every person present who is a Shareholder or a proxy, attorney or representative of a Shareholder shall, in respect of each fully paid Share held by him, or in respect of which he is appointed a proxy, attorney or representative, have one vote for the Share, but in respect of partly paid Shares shall have such number of votes as bears the same proportion to the total of such Shares registered in the Shareholder's name as the amount paid (not credited) bears to the total amounts paid and payable (excluding amounts credited).

# (d) Dividend rights

Subject to the rights of any preference Shareholders and to the rights of the holders of any shares created or raised under any special arrangement as to dividend, the Directors may from time to time declare a dividend to be paid to the Shareholders entitled to the dividend which shall be payable on all Shares according to the proportion that the amount paid (not credited) is of the total amounts paid and payable (excluding amounts credited) in respect of such Shares.

The Directors may from time to time pay to the Shareholders any interim dividends as they may determine. No dividend shall carry interest as against Frontier. The Directors may set aside out of the profits of Frontier any amounts that they may determine as reserves, to be applied at the discretion of the Directors, for any purpose for which the profits of Frontier may be properly applied.

Subject to the ASX Listing Rules and the Corporations Act, Frontier may by resolution of the Directors, implement a dividend reinvestment plan on such terms and conditions as the Directors think fit and which provides for any dividend which the Directors may declare from time to time payable on Shares which are participating Shares in the dividend reinvestment plan, less any amount which Frontier shall either pursuant to the Constitution or any law be entitled or obliged to retain, be applied by Frontier to the payment of the subscription price of Shares.

## (e) Winding-up

If Frontier is wound up, the liquidator may, with the authority of a special resolution of Frontier, divide among the shareholders in kind the whole or any part of the property of Frontier, and may for that purpose set such value as he considers fair upon any property to be so divided, and may determine how the division is to be carried out as between the Shareholders or different classes of Shareholders.

The liquidator may, with the authority of a special resolution of Frontier, vest the whole or any part of any such property in trustees upon such trusts for the benefit of the contributories as the liquidator thinks fit, but so that no Shareholder is compelled to accept any Shares or other securities in respect of which there is any liability.

## (f) Shareholder liability

As the Shares under the Prospectus are fully paid shares, they are not subject to any calls for money by the Directors and will therefore not become liable for forfeiture.

## (g) Transfer of Shares

Generally, Shares are freely transferable, subject to formal requirements, the registration of the transfer not resulting in a contravention of or failure to observe the provisions of a law of Australia and the transfer not being in breach of the Corporations Act or the ASX Listing Rules.

# (h) Variation of rights

Pursuant to section 246B of the Corporations Act, Frontier may, with the sanction of a special resolution passed at a meeting of Shareholders vary or abrogate the rights attaching to Shares.

If at any time the share capital is divided into different classes of Shares, the rights attached to any class (unless otherwise provided by the terms of issue of the shares of that class), whether or not Frontier is being wound up, may be varied or abrogated with the consent in writing of the holders of three-quarters of the issued shares of that class, or if authorised by a special resolution passed at a separate meeting of the holders of the shares of that class.

## (i) Alteration of Constitution

The Constitution can only be amended by a special resolution passed by at least three quarters of Shareholders present and voting at the general meeting. In addition, at least 28 days written notice specifying the intention to propose the resolution as a special resolution must be given.

## 12.3 Interests of Directors

Other than as set out in this Prospectus, no Director holds, or has held within the 2 years preceding lodgement of this Prospectus with the ASIC, any interest in:

- (a) the formation or promotion of Frontier;
- (b) any property acquired or proposed to be acquired by Frontier in connection with:
  - (i) its formation or promotion; or
  - (ii) the Offers; or
- (c) the Offers,

and no amounts have been paid or agreed to be paid and no benefits have been given or agreed to be given to a Director:

- (d) as an inducement to become, or to qualify as, a Director; or
- (e) for services provided in connection with:
  - (i) the formation or promotion of Frontier; or
  - (ii) the Offers.

## 12.4 Interests of Experts and Advisers

Other than as set out below or elsewhere in this Prospectus, no:

- (a) person named in this Prospectus as performing a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus;
- (b) promoter of Frontier; or

(c) underwriter (but not a sub-underwriter) to the issue or a financial services licensee named in this Prospectus as a financial services licensee involved in the issue,

holds, or has held within the 2 years preceding lodgement of this Prospectus with the ASIC, any interest in:

- (d) the formation or promotion of Frontier;
- (e) any property acquired or proposed to be acquired by Frontier in connection with:
  - (i) its formation or promotion; or
  - (ii) the Offers; or
- (f) the Offers,

and no amounts have been paid or agreed to be paid and no benefits have been given or agreed to be given to any of these persons for services provided in connection with:

- (g) the formation or promotion of Frontier; or
- (h) the Offers.

Stephen Henry Le Roux has acted as Independent Geologist and has prepared the Independent Geologist's Report which is included in Annexure A. Frontier estimates it will pay Stephen Henry Le Roux a total of US\$19,230 (excluding GST) for these services. During the 24 months preceding lodgement of this Prospectus with the ASIC, Stephen Henry Le Roux has not received fees from Frontier for any other services.

ABGM Pty Ltd has acted as Consulting Mining Engineer and has prepared the Independent Technical Report which is included in Annexure B. Frontier estimates it will pay ABGM Pty Ltd a total of US\$19,230 (excluding GST) for these services. During the 24 months preceding lodgement of this Prospectus with the ASIC, ABGM Pty Ltd has not received fees from Frontier for any other services.

BDO Corporate Finance (WA) Pty Ltd has acted as Investigating Accountant and has prepared the Investigating Accountant's Report which is included in Section 8. Frontier estimates it will pay BDO Corporate Finance (WA) Pty Ltd a total of AU\$15,000 (US\$11,538) (excluding GST) for these services. During the 24 months preceding lodgement of this Prospectus with the ASIC, BDO Corporate Finance (WA) Pty Ltd has not received any fees from Frontier for any other services.

Duncan & Rothman Attorneys has acted as the South African solicitors to Frontier and has prepared the Solicitor's Report on Mining Licences which is included in Annexure C. Frontier estimates it will pay Duncan & Rothman Attorneys US\$11,000 (excluding GST) for these services. During the 24 months preceding lodgement of this Prospectus with the ASIC, Duncan & Rothman Attorneys has not received fees from Frontier for any other services.

Steinepreis Paganin has acted as the Australian solicitors to Frontier in relation to the Offers. The Company estimates it will pay Steinepreis Paganin AU\$120,000 (US\$92,304) (excluding GST) for these services. Subsequently, fees will be charged in accordance with normal charge out rates. During the 24 months

preceding lodgement of this Prospectus with the ASIC, Steinepreis Paganin has not received fees for any other legal services provided to Frontier.

Novus Capital will act as Lead Manager to the Public Offer. Frontier has agreed to issue Novus Capital between 667,000 and 1,000,000 Shares and pay Novus Capital an aggregate fee of 6% (excluding GST) of the total amount raised under the Prospectus following the successful completion of the Public Offer. In addition, Frontier is paying Novus Capital AU\$6,000 (US\$4,615) (excluding GST) per month for corporate advisory fees for a maximum period of three months and a Lead Manager fee of AU\$30,000 (US\$23,076) (excluding GST). Further details in respect to the Lead Manager Mandate with Novus Capital are summarised in Section 4.5. During the 24 months preceding lodgement of this Prospectus with the ASIC, Novus Capital has received AU\$211,920 (US\$163,009) (excluding GST) in fees for brokerage on the Pre-IPO capital raised for Frontier.

## 12.5 Consents

Chapter 6D of the Corporations Act imposes a liability regime on Frontier (as the offeror of the Shares), the Directors, any persons named in the Prospectus with their consent as proposed directors, any underwriters, persons named in the Prospectus with their consent having made a statement in the Prospectus and persons involved in a contravention in relation to the Prospectus, with regard to misleading and deceptive statements made in the Prospectus, Although Frontier bears primary responsibility for the Prospectus, the other parties involved in the preparation of the Prospectus can also be responsible for certain statements made in it.

Each of the parties referred to in this section:

- (a) does not make, or purport to make, any statement in this Prospectus other than those referred to in this section; and
- (b) in light of the above, and only to the maximum extent permitted by law, expressly disclaim and take no responsibility for any part of this Prospectus other than a reference to its name and a statement included in this Prospectus with the consent of that party as specified in this section.

Stephen Henry Le Roux has given his written consent to being named as Independent Geologist in this Prospectus, the inclusion of the Independent Geologist's Report in Annexure A in the form and context in which the report is included and the inclusion of statements contained in the Investment Overview in Section 1.11, Section 3 and Section 5 in the form and context in which those statements are included. Mr Le Roux has not withdrawn its consent prior to lodgement of this Prospectus with the ASIC.

ABGM Pty Ltd has given their written consent to being named as the Consulting Mining Engineer in this Prospectus, the inclusion of the Independent Technical Report in Annexure B in the form and context in which the report is included. AGBM Pty Ltd has not withdrawn its consent prior to lodgement of this Prospectus with ASIC.

BDO Corporate Finance (WA) Pty Ltd has given its written consent to being named as Investigating Accountant in this Prospectus and to the inclusion of the Investigating Accountant's Report in Section 8 in the form and context in which the information and report is included. BDO Corporate Finance (WA) Pty Ltd has not withdrawn its consent prior to lodgement of this Prospectus with the ASIC.

BDO Audit (WA) Pty Ltd has given its written consent to being named as the auditor to Frontier in this Prospectus and to the inclusion of the audited historical financial information in Section 7 in the form and context in which it is included. BDO Audit (WA) Pty Ltd has not withdrawn its consent prior to the lodgement of this Prospectus with the ASIC.

BDO South Africa Inc. has given its written consent to being named as the auditor to the South African Group Entities in this Prospectus and to the inclusion of the audited historical financial information in Section 7 in the form and context in which it is included. BDO South Africa Inc. has not withdrawn its consent prior to the lodgement of this Prospectus with the ASIC.

Duncan & Rothman Attorneys has given its written consent to being named as the solicitors to Frontier in this Prospectus and to the inclusion of the Solicitor's Report on Mining Licences in Annexure C in the form and context in which the report is included. Duncan & Rothman Attorneys has not withdrawn its consent prior to the lodgement of this Prospectus with the ASIC.

Steinepreis Paganin has given its written consent to being named as the solicitors to Frontier in this Prospectus. Steinepreis Paganin has not withdrawn its consent prior to the lodgement of this Prospectus with the ASIC.

Novus Capital Limited has given its written consent to being named as the Lead Manager to Frontier in this Prospectus. Novus Capital Limited has not withdrawn its consent prior to the lodgement of this Prospectus with the ASIC.

Computershare Investor Services Pty Ltd has given its written consent to being named as the share registry to Frontier in this Prospectus. Computershare Investor Services Pty Ltd has not withdrawn its consent prior to the lodgement of this Prospectus with the ASIC.

## 12.6 Expenses of the Offers

The total expenses of the Offers (excluding GST) are estimated to be approximately US\$865,011 (AU\$1,124,559) for Minimum Subscription or US\$959,062 (AU\$1,246,830) for full subscription and are expected to be applied towards the items set out in the table below:

Item of Expenditure	Minimum Subscription	Maximum Subscription
	(US\$)	(US\$)
ASIC fees	1,846	1,846
ASX fees	76,812	78,401
Broker Commissions <sup>(1)</sup>	184,608	276,912
Legal Fees <sup>(2)</sup>	146,148	146,148
Lead Manager Fees	23,076	23,076
Corporate Advisory Fees <sup>(2)</sup>	217,684	217,684
Independent Geologist's and Consulting Mining Engineer's Fees	38,460	38,460
Investigating Accountant's Fees	11,538	11,538
Investor Roadshow costs <sup>(2)</sup>	130,764	130,764
Miscellaneous	10,999	11,157
Printing and Distribution	23,076	23,076
TOTAL <sup>(3)</sup>	865,011	959,062

- (1) Broker commissions will only be paid on applications made through a licensed securities dealers or Australian financial services licensee and accepted by Frontier (refer to Section 4.14 for further information). The amount calculated is based on 100% of applications being made in this manner. For those applications made directly to and accepted by Frontier no broker commissions will be payable and the expenses of the Offers will be reduced and the additional funds will be put towards working capital.
- <sup>(2)</sup> These cost estimates are inclusive of work performed during the Pre-IPO period as well as in the preparation of the Public Offer.
- <sup>(3)</sup> A total of US\$393,353 of the expenses has been paid leaving a balance of US\$471,658 based on the minimum subscription and US\$565,710 based on the maximum subscription.

## 12.7 Continuous disclosure obligations

Following admission of Frontier to the Official List, Frontier will be a "disclosing entity" (as defined in section 111AC of the Corporations Act) and, as such, will be subject to regular reporting and disclosure obligations. Specifically, like all listed companies, Frontier will be required to continuously disclose any information it has to the market which a reasonable person would expect to have a material effect on the price or the value of Frontier's securities.

Price sensitive information will be publicly released through ASX before it is disclosed to Shareholders and market participants. Distribution of other information to Shareholders and market participants will also be managed through disclosure to the ASX. In addition, Frontier will post this information on its website after the ASX confirms an announcement has been made, with the aim of making the information readily accessible to the widest audience.

## 12.8 Electronic Prospectus

If you have received this Prospectus as an electronic Prospectus, please ensure that you have received the entire Prospectus accompanied by the Application Form. If you have not, please contact Frontier and Frontier will send you, free of charge, either a hard copy or a further electronic copy of this Prospectus or both. Alternatively, you may obtain a copy of this Prospectus from the website of Frontier at www.frontierdiamonds.com.

Frontier reserves the right not to accept an Application Form from a person if it has reason to believe that when that person was given access to the electronic Application Form, it was not provided together with the electronic Prospectus and any relevant supplementary or replacement prospectus or any of those documents were incomplete or altered.

## 12.9 Privacy statement

If you complete an Application Form, you will be providing personal information to Frontier. Frontier collects, holds and will use that information to assess your application, service your needs as a Shareholder and to facilitate distribution payments and corporate communications to you as a Shareholder.

The information may also be used from time to time and disclosed to persons inspecting the register, including bidders for your securities in the context of takeovers, regulatory bodies including the Australian Taxation Office, authorised securities brokers, print service providers, mail houses and Frontier's share registry.

You can access, correct and update the personal information that Frontier holds on you. If you wish to do so, please contact Frontier's share registry at the relevant contact number set out in the corporate directory of this Prospectus.

Collection, maintenance and disclosure of certain personal information is governed by legislation including the *Privacy Act 1988* (as amended), the Corporations Act and certain rules such as the ASX Settlement Operating Rules. You should note that if you do not provide the information required on the application for Shares, Frontier may not be able to accept or process your application.

# 13. DIRECTORS' AUTHORISATION

This Prospectus is issued by Frontier Diamonds Limited and its issue has been authorised by a resolution of the Directors.

In accordance with section 720 of the Corporations Act, each Director has consented to the lodgement of this Prospectus with the ASIC.

Mr Frank Petruzzelli Director For and on behalf of Frontier Diamonds Ltd

## 14. GLOSSARY

Where the following terms are used in this Prospectus they have the following meanings:

**Acquisition** means the acquisition by Frontier of 100% of the issued capital of Sedi Australia, as contemplated by the Acquisition Agreement.

Acquisition Agreement means the agreement between Frontier, Sedi Australia and the Sedi Australia Shareholders pursuant to which Frontier has agreed to acquire 100% of the issued capital of Sedi Australia as further described in Section 11.1.

AU\$ means an Australian Dollar.

**Application Form** means the application form attached to or accompanying this Prospectus relating to the Public Offer.

ASIC means Australian Securities and Investments Commission.

**ASX** means ASX Limited (ACN 008 624 691) or the financial market operated by it as the context requires.

ASX Listing Rules means the official listing rules of ASX.

**BEE Partner** means a person qualified under the Mineral and Petroleum Resources Development Act of 2002 (South Africa) as a Black Economic Empowerment Partner.

**Board** means the Board of Directors as constituted from time to time.

Cleansing Offer means the offer of 1 Share as set out in Section 4.6.

**Cleansing Offer Application Form** means the application form attached to or accompanying this Prospectus relating to the Cleansing Offer.

**Cleansing Offer Closing Date** means the closing date of the Cleansing Offer as set out in the indicative timetable in the Key Offer Information Section of this Prospectus (subject to Frontier reserving the right to extend the Cleansing Offer Closing Date or close the Cleansing Offer early).

Company means Frontier Diamonds Ltd (ACN 616 232 556).

**Constitution** means the constitution of Frontier.

Corporations Act means the Corporations Act 2001 (Cth).

Directors mean the Directors of Frontier at the date of this Prospectus.

EDST means Eastern Daylight Savings Time as observed in Melbourne, Australia.

FMP means Frontier Mining Projects (Pty) Ltd (an entity incorporated in South Africa).

FY means financial year.

**Group** means Frontier and its subsidiaries, including the South African Group Entities.

**JORC Code** means the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

**Lead Manager** or **Novus Capital** means Novus Capital Limited (ACN 006 711 995) (AFSL No: 238168).

**Lead Manager Mandate** means the mandate between Frontier and Novus Capital as summarised at Section 4.5.

**Licences** means the mining licences in which Sedi South Africa has an interest as further described in the Solicitor's Report on Mining Licences set out in Annexure C or any one of them as the context requires.

Lutzville means Lutzville Engineering (Pty) Limited (an entity incorporated in South Africa).

**Maximum Subscription** means the maximum amount to be raised under the Public Offer, being AU\$6,000,000.

**Minimum Subscription** means the minimum amount to be raised under the Public Offer, being AU\$4,000,000.

**Offers** means the Cleansing Offer and the Public Offer or either one of them as the context requires.

Official List means the official list of ASX.

**Official Quotation** means official quotation by ASX in accordance with the ASX Listing Rules.

Original Prospectus means the Company's prospectus dated 13 October 2017.

**Projects** means the current projects of Frontier, being the Star Diamond Mine and the Sedibeng JV Mine, described in further detail in the Independent Geologist's Report set out in Annexure A or any one of them as the context requires.

Prospectus means this prospectus.

**Public Offer** means the offer of Shares pursuant to this Prospectus as set out in Section 4.1.

**Public Offer Closing Date** means the closing date of the Public Offer as set out in the indicative timetable in the Key Offer Information Section of this Prospectus (subject to Frontier reserving the right to extend the Public Offer Closing Date or close the Public Offer early).

**RBA** means Reserve Bank of Australia.

**Recommendations** means The Corporate Governance Principles and Recommendations (3rd Edition) as published by ASX Corporate Governance Council.

**Reddoor** means Reddoor Resources (Pty) Limited (an entity incorporated in South Africa).

Sedi Australia means Sedi Star Diamonds Pty Ltd (ACN 616 205 004).

Sedi South Africa means Sedi Diamonds (Pty) Limited (an entity incorporated in South Africa).

Section means a section of this Prospectus.

Share means a fully paid ordinary share in the capital of Frontier.

Share Registry means Computershare Investor Services Pty Ltd

Shareholder means a holder of Shares.

## South African Group Entities means

- (a) Sedi South Africa;
- (b) Messina Investments (Pty) Ltd;
- (c) Star Diamonds (Pty) Ltd;
- (d) Autumn Investments (Pty) Ltd;
- (e) Dancarl Diamonds (Pty) Ltd; and
- (f) Messina Diamonds (Pty) Ltd.

Sedi Australia Shareholders means the shareholders of Sedi Australia at the time of entering the Acquisition Agreement as further described in Section 11.1.

**Underlying Transaction** means the transaction pursuant to which Sedi Australia will acquire 74% of the issued capital in Sedi South Africa as further described in Section 11.2.

**US\$** means a United States Dollar.

ZAR means South African Rand.

ANNEXURE A - INDEPENDENT GEOLOGIST'S REPORT

# **Independent Geologist's Report**

# Statement of Diamond Resources and Ore Reserves of Star and Sedibeng Diamond Mines, South Africa prepared for

# **Frontier Diamonds Limited**

**Frontier Diamonds Limited** 

(A.C.N. 616 232 556) 556 Elizabeth Street Melbourne, Victoria Australia

## **Stephen Henry le Roux**

B.Sc. (Hons) Geol, Dip. Prod. Man., GSSA, Pr.Sci.Nat. Professional Geological Scientist

Reference No:SLR310806bEffective Date:28 February 2017Final Report Date:30 March 2017

# Independent Geologist's Report Statement of Diamond Resources and Ore Reserves of Star and Sedibeng Diamond Mines, South Africa, prepared for Frontier Diamonds Limited

# Synopsis

### INTRODUCTION

The Competent Person has been commissioned by Frontier Diamonds Limited to conduct an Independent Review of the Star and Sedibeng Diamond Mines affiliated Diamond Resources and Ore Reserves declaration of July 2013 that was made in accordance with the SAMREC Code.

Frontier Diamonds Limited is an Australian public company specifically incorporated to acquire Sedi Star Diamonds Pty Ltd, who has an agreement to acquire 74% of the issued capital of Sedi Diamonds (Pty) Ltd, the holding company for a group of companies that own and operate the Star Mine and Sedibeng Diamond Mines in South Africa. In order to achieve a revised estimate of Diamond Resources and Ore Reserves the Competent Person has undertaken a thorough review of:

the Diamond Resources and Ore Reserves of the Star And Sedibeng Mines to assess the compliance of the exploration and production data and estimation methodologies with the "Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012) prepared by the Joint Ore Reserves Committee (JORC) of the Australian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG) and Minerals Council of Australia (MCA).

Above component has been incorporated into this Independent Statement of Diamond Resources and Ore Reserves Report, based on an engagement with Frontier Diamonds Limited in February 2017. The engagement agreement includes the scope and purpose of the report, the timing and cost of the engagement and enshrines the independence of the Competent Person.

Sedi Diamonds is based in Cape Town South Africa as a diamond Exploration and Mining Company with projects in the Free State Province (Star Mine) and Northern Cape Province (Sedibeng Mine). The Star and Sedibeng Mines are held by Sedi Diamonds through their wholly owned, subsidiaries Messina Investments (Pty) Ltd and Autumn Star Investment (Pty) Ltd.

Both Star and Sedibeng are well-established underground mines which have been in operation for more than sixty years. Each mine exploits narrow diamondiferous kimberlite fissures using labour intensive mining methods. This Independent Report is solely focused on the Star and Sedibeng Mines.

Given the scope of the valuation and timeframes for completion, this Report does not cover an independent mineral asset valuation of Sedi Diamond's asset as per the requirements of the VALMIN Code 2015; however, an in-house preliminary feasibility study has already been completed for both Star and Sedibeng with seemingly positive results. This information independently verified.

### **PROJECT HISTORY**

The Star and Sedibeng fissure mines are both established underground mining operations wholly owned by Sedi Diamonds. The Sedibeng Operation is an amalgamation of two adjacent mines, Messina and Dancarl.

The Star and Sedibeng fissure complexes were not conventionally sampled in the past, as in the case of a normal kimberlite pipe, but have been extensively mined over many decades. The production history at Star and Sedibeng are summarised below.

star production instory since 1999 diffi 2010 bradily 2017					
Year - Star	Tonnes treated	Carats recovered	Estimated grade (cpht)		
Jul 1959 – Jun 1960	119,699	36,820	30.76		
1970	90,686	43,994	48.51		
1971	121,639	56,721	46.63		
1972	119,890	67,168	56.02		
1973	97,973	52,589	53.68		
1974	101,121	47,743	47.21		
1975	98,442	45,716	46.44		
1976-1992	No records available				
1993	27,036	9,140	33.81		
1994	60,220	27,467	45.61		
1995	69,173	25,987	37.57		

#### Star production history since 1959 until 28 February 2017

Year - Star	Tonnes treated	Carats recovered	Estimated grade (cpht)	
1996	28,279	7,931	28.05	
1997	48,045	12,796	26.63	
1998-1999		No records available		
2000	38,270	12,728	33.26	
2001	35,066	15,415	43.96	
2002	29,102	14,232	48.90	
2003	36,313	16,085	44.30	
2004	33,599	15,819	47.09	
2005	No records available			
2006	34,351	15,110	43.99	
2007	38,791	16,638	42.89	
2008	28,251	16,870	59.71	
2009	26,302	14,823	56.36	
2010	16,422	8,781	53.47	
2011	19,026	7,059	37.10	
2012	14,088	6,886	48.88	
2013	20,441	8,299	40.60	
2014 (5 months)	9,740	3,572	36.67	
2015	26,990	8,997	33.33	
2016/2017 (14 months)	22,709	9,704	42.73	
TOTAL	1,411,664	625,090	44.28	

#### Sedibeng production history since 1930 until 28 February 2017

Year - Sedibeng	Tonnes treated		Carats recovered		Treated grade (cpht)		
	Messina	Dancarl	Messina	Dancarl	Messina	Dancarl	
1930-1996	2,700,000	n/a	n/a	n/a	n/a	n/a	
1994-1997	n/a	26 950	n/a	9 635	38	36	
1998	n/a	78,500	n/a	26,430	n/a	34	
1999	n/a	60,016	n/a	17,651	n/a	29	
2000	n/a	47,947	n/a	17,482	35	36	
2001	n/a	n/a	n/a	n/a	26	n/a	
2002	n/a	n/a	n/a	n/a	24	n/a	
2003	n/a	n/a	n/a	n/a	39	n/a	
2004	99,0	99,074		24,970		25	
2005	n/a		n/a		n/a		
2006	132,	164	32,	32,023		24	
2007	152,	151	40,711		27		
2008	186,	608	35,	710	19	)	
2009	120,	457	27,	298	23		
2010	105,	919	21,873		21		
2011	82,6	579	19,169		23		
2012	79,6	542	15,558		20		
2013	62,9	959	11,	977	19	)	
2014 (6 months)	28,2	282	3,7	770	13	3	
2015	66,3	322	11,	609	18	3	
2016/2017 (14 months)	90,4	438	12,	133	13		
TOTAL	1,420	),108	327	,999	23.	.0	

#### **GEOLOGICAL SETTING**

Kimberlitic fissure deposits are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust. The fissures are actually dyke systems of en echelon interwoven lenses which pinch and swell along strike. In the simplest case, one lens pinches out, and the next is located to the side of the first, offset from it by several metres. Dips in general are near-vertical. These fissures are characterised by high diamond grades and narrow widths, although they may have a strike extent of several kilometres and continue down-dip for hundreds of metres.

#### MINING EXPLORATION

Previous mining activities completed at Star and Sedibeng have been undertaken in a series of phases by the previous owners of the project. Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information has provided very effective and almost continuous sampling of the deposit, and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the kimberlite fissures at the mines.

Based on historic mining data at Star and Sedibeng, it would be realistic to expect to mine an average fissure width of 58cm and 60cm, with corresponding average stoping widths of 110cm and 130cm respectively.

#### DIAMOND RESOURCES

In February 2017 the Competent Person completed an Independent Review of the Star and Sedibeng Diamond Mines affiliated Diamond Resources, which has resulted in an upgrade from the previous 1 July 2013 Mineral Resource estimate.

The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002 - 2004) which has since been updated and refined with the most up-to-date development and production data gathered during Petra (2005 - 2013) and Sedi Diamond's (2014 - 2016/2017) mining phases.

Stope and development outlines, as well as survey and production data at depth of the fissures, have been reviewed based on information acquired during the Crown, Petra and Sedi Diamonds periods.

The Competent Person has not undertaken a detailed review of the underlying geological models, which have remained mostly similar since the previous Mineral Resource Estimate in July 2013 (due to both mines that were on care and maintenance until July 2014, after which small scale development was done by Sedi Diamonds to date).

All critical average fissure and stoping widths have been recalculated after obtaining the most recent survey data to match the updated fissure outlines in strike and depth.

At Star and Sedibeng, a 20% and 15% geological loss have been applied respectively to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the en echelon fissures may not fully overlap.

Cut-off limits for the Mineral Resources are based on discrete cut-off elevations as determined for the base of the Measured, Indicated and Inferred categories.

The following definitions have been developed and implemented to reflect a reduction in confidence in the estimate down-dip from the lowest current working levels as follows:

- Measured Resource: one level (40m) below the base of the current working levels;
- Indicated Resource: two levels (80m) below the base of the Measured Resource; and
- Inferred Resource: three levels (120m) below the Indicated Resource.

In the Competent Person's opinion the strike, dip, width and diamond grade continuity of the kimberlite fissures at Star and Sedibeng are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. However, since there is no sample information below these levels, continuity cannot be confirmed with absolute certainty.

The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Star and Sedibeng were based on a back calculation from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Resource, which includes the practical diamond recovery characteristics of the existing operation, by taking into account the effective bottom screen size of 1.00mm, diamond losses and plant recovery efficiency.

The historical Star and Sedibeng tailings, located within the mine lease area, have been assigned an average grade of 5.0 cpht based on the treating of 178,653t at Star and 233,043t at Sedibeng by Petra, recovering 13,887ct and 14,917 ct respectively.

The Competent Person is satisfied that the Diamond Resource estimation approaches are appropriate to the Star and Sedibeng fissure Mines and representative of the diamond mineralisation contained within the kimberlite fissures and various stockpiles at each mine.

The 28 February 2017 Mineral Resource estimate is presented in the table below.

Star Mine - 28 February 2017					
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Micaceous		0.057	79.7	0.046	295
Burns	Massurad	0.065	79.7	0.052	295
East Star	Measured	0.000	79.7	0.000	295
Wynandsfontein		0.044	79.7	0.035	295
	Star Measured Resource	0.167	79.7	0.133	295
Micaceous		0.115	79.7	0.091	295
Burns	Indicated	0.113	79.7	0.090	295
East Star	Indicated	0.000	79.7	0.000	295
Wynandsfontein		0.088	79.7	0.070	295
	Star Indicated Resource	0.317	79.7	0.252	295
Micaceous		0.172	79.7	0.137	295
Burns		0.245	79.7	0.195	295
East Star	Inferred	0.000	79.7	0.000	295
Wynandsfontein		0.133	79.7	0.106	295
Tailings stockpiles		0.307	5.0	0.015	150
	Star Inferred Resource	0.856	52.9	0.453	291
	1.340	62.6	0.838	293	
S	Sedibeng Mine - 28 Februa	ary 2017			
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Messina		0.083	47.7	0.040	385
Dancarl	Measured	0.100	47.7	0.048	385
	Sedibeng Measured Resource	0.183	47.7	0.087	385
Messina	Indiante d	0.146	47.7	0.070	385
Dancarl	Indicated	0.035	47.7	0.017	385
	Sedibeng Indicated Resource	0.181	47.7	0.086	385
Messina		0.208	47.7	0.099	385
Dancarl	Inferred	0.150	47.7	0.072	385
Tailings stockpiles		2.488	5.0	0.124	150
	Sedibeng Inferred Resource	2.847	10.4	0.295	286
	Sedibeng Resource	3.212	14.6	0.469	323
Total	Measured	0.350	62.9	0.220	331
Total	Indicated	0.498	68.0	0.339	318
Total	Inferred	3.703	20.2	0.749	289
Total Re	source Star and Sedibeng	4.551	28.7	1.307	304

#### Star and Sedibeng Mineral Resource estimate 28 February 2017

#### **ORE RESERVE ESTIMATES**

The Ore Reserves for Star and Sedibeng were independently reviewed and verified in February 2017 and are based on Sedi Diamonds (Pty) Ltd Resource Revision for Star and Sedibeng as at 28 February 2017. It comprises Proved and Probable ore categories based on mining the Measured and Indicated Resources respectively, with appropriate allowances made for mining dilution and recovery based on current and expected mining practices. Resources are reported inclusive of Reserves.

The Ore Reserves at Star and Sedibeng are based on assumptions about the ore, its characteristics and how it will be mined and, importantly, on a range of significant infrastructural enhancements that the management of Star and Sedibeng have advised the Competent Person, are either being implemented or plans are already being developed. Without the infrastructure improvements it will not be possible to recover the stated Ore Reserves.

The Competent Person considers that the history of production tonnages, production grades and fissure width characteristics demonstrates sufficient confidence in the fissure continuity to define Measured, Indicated and Inferred Resource categories.

The table below shows the Diamond Ore Reserves declared as at 28 February 2017.

Star Mine - 28 February 2017						
Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	
Micaceous		0.109	42.6	0.046	295	
Burns	Brovon	0.124	42.6	0.053	295	
East Star	FIOVEII				295	
Wynandsfontein		0.084	42.6	0.036	295	
	Star Proven Reserve	0.316	42.6	0.135	295	
Micaceous		0.218	42.6	0.093	295	
Burns	Probable	0.215	42.6	0.092	295	
East Star	FIODADIe				295	
Wynandsfontein		0.168	42.6	0.071	295	
	Star Probable Reserve	tar Probable Reserve 0.601 42.6		0.256	295	
Star Ore Reserve 0.917 42.6 0.390 295					295	
Se	dibeng Mine - 28 February	/ 2017				
Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	
	_					
Messina	Proven	0.162	21.6	0.035	385	
Dancarl		0.195	21.6	0.042	385	
	Sedibeng Proven Reserve	0.357	21.6	0.077	385	
					385	
Messina	Probable	0.285	21.6	0.062	385	
Dancarl	O d'Iterre Deckelde Decener	0.069	21.6	0.015	385	
	Sedibeng Probable Reserve	0.354	21.6	0.076	385	
	Sedibeng Ore Reserve	0.711	21.6	0.154	385	
Total	Proven	0.674	31.4	0.212	328	
Total	Probable	0.954	34.8	0.332	316	
Total R	Total Reserves Star and Sedibeng         1.628         33.4         0.544         320					

#### Declared Ore Reserves for Star and Sedibeng Mines as at 28 February 2017

#### MINING METHODS

Due to the complexities of kimberlite dyke systems the ore bodies at Star and Sedibeng do not lend themselves readily to bulk mining methods, and over the years two stoping techniques as demonstrated in the figure below, have proved themselves to be most successful for this type of deposit.

These orebodies are generally accessed via vertical shaft systems, while production levels are established by means of an access crosscut developed to the kimberlite. From this access crosscut, drives are established parallel to the orebody in each direction along strike, with access to the orebody for stoping provided by crosscuts spaced at regular intervals along the length of the drives. Inter-level distances, crosscut spacings and drive to orebody distance, are dependent on the stoping method employed and the depth of mining below surface.

Current management have considerable experience with mining deeper Fissure Diamond mines. This expertise is and intends to be applied at both Star and Sedibeng Mines.

#### MINERAL PROCESSING AND METALLURGICAL TESTING

Star and Sedibeng both operate a Dense Media Separation (DMS) and Final Recovery Plant capable of treating the Ore Reserve at a head feed rate of 30tph and 50tph or at an average annualised rate of 110,000tpa and 180,000tph respectively. The process uses well proven diamond recovery technology for kimberlite ore.

#### **DIAMOND VALUATIONS**

At Star and Sedibeng, revenue estimates have been generated from 11,008.93 carats and 13,955.48 carats sold between October 2015 and September 2016, at an average price of USD295.71/ct and USD385.29/ct respectively.

Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Star to Petra at a cost of 1% of the selling price of the product.

#### Mining methods at Star and Sedibeng showing access to the orebody and different stoping methods employed



#### CONCLUSION AND RECOMMENDATIONS

- Star's converted mining license ML 11/1996 is set to expire on 10 February 2025. However the LOM plan (which is not included in this document) is more than 9 years. This results in a scenario of the mining license expiring 11 years before the mine plan is completed. Until a renewal is granted there remains a risk that the LOM Plan may not be fully realised. The Competent Person is unaware of any reason why an extension would not be granted, but this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the LOM Plan;
- At Sedibeng, new order rights for Dancarl and Messina have been granted by the DMR but still need to be executed and signed. Until a renewal is granted there remains a risk that the LOM Plan may not be fully realised. The Competent Person is unaware of any reason why an execution of the new order right would not be granted, but this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the LOM Plan;
- A dedicated specific gravity (SG) determination campaign is recommended for each of the fissures at Star and Sedibeng. Whilst a change in the SG is anticipated, it is likely not to be significantly different to the SG used in the geological models and as such shouldn't have a material effect in the reported tonnage calculations.
- At Star and Sedibeng, mining production data provides substantially more consistent information necessary for estimation of the geology and grade behaviour of the deposit, however, it is recommended that a sub-surface, directional and vertical core drilling campaign is to be developed for Star and Sedibeng, backed by downhole geophysical surveys to locate the fissures at depth, with the aim to increase the confidence of the resource base and to assist with much needed development planning, as will be required with ongoing increases in depth.
- Limited metallurgical test work has underpinned the Star and Sedibeng plant designs in the past and no quantitative assessment has been made of the plant's recovery efficiency lately. Modifications and adjustments to both plants were made

by experienced operators who have treated ore at production scale over many decades, however, it is recommended that metallurgical test work is to be undertaken at both DMS plants to verify and refine plant efficiencies and recovery factors.

- From an operational standpoint, the greatest risk to Star and Sedibeng will be failure to achieve the budgeted average stoping width resulting in excessive dilution and therefore a reduction in recovered diamond grade. Historically Sedibeng has been producing from a number of stopes that are highly susceptible to self-mining. Preliminary indications are that the ground conditions in the deeper Ventersdorp lava at Sedibeng Mine are favourable due to the competency of the host rock.
- Whilst development and stoping conditions will improve at Star Mine due to the more competent host rocks at deeper levels, new difficulties will be encountered – eg. water and methane control in Witwatersrand lithologies. This needs to be closely monitored and managed.
- Given the scope of the valuation and timeframes for completion, the Independent Geologist's Report for Frontier Diamonds Limited does not cover an independent mineral asset valuation of Sedi Diamond's asset as per the requirements of the VALMIN Code 2015; however, an in-house preliminary feasibility study has already been completed for both Star and Sedibeng with seemingly positive results. This information needs to be independently verified.
- Further detail is provided in the JORC 2012 Table 1 for Star and Sedibeng that accompanies this report.

# **Reliance on Other Experts**

Duplicates or portions of the original core drill and production data collected and processed to obtain a geological and historical estimate of tonnages and diamond grades are not available for check analysis and since the author was not involved in the collection and interpretation of the data he cannot vouch for the integrity of any of the historic data available, however, the author is able to confirm consistency in the reports of the historical work.

The author has assumed that all of the information and technical documents reviewed and listed in the References section of this Report are accurate and complete in all material aspects. While due care has been taken in the use of this information, the author has not concluded any extensive independent investigation to verify their source data for accuracy and completeness.

The information and conclusions contained in this Report are based on data and information available to the Competent Person at the time of preparation of this Report and are subject to the assumptions, conditions and qualifications set forth in this Report.

Frontier Diamonds Limited and Sedi Diamonds (Pty) Ltd has reviewed draft copies of the Report for factual errors. Any changes made as a result of these reviews did not involve any alteration to the conclusions made; hence, the statements and opinions expressed in this Report are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of the Report.

The Competent Person reserves the right but is not obligated to revise this Report and conclusions therein if additional information becomes known subsequent to the date of this Report.

The Competent Person is not qualified to provide extensive comment on legal issues, including status of tenure associated with the Property referred to in this report. A description of the Property and ownership is provided for general information purpose only. Assessment of these aspects has relied on information provided by Sedi Diamonds (Pty) Ltd, which has not been independently verified by the Competent Person although he has had access to and has read the various licence and sale contracts.

# Independent Geologist's Report Statement of Diamond Resources and Ore Reserves of Star and Sedibeng Diamond Mines, South Africa, prepared for Frontier Diamonds Limited

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# **1. INTRODUCTION**

The Competent Person has been commissioned by Frontier Diamonds Limited to conduct an Independent Review of the Star and Sedibeng Diamond Mines affiliated Diamond Resources and Ore Reserves declaration of July 2013 that was made in accordance with the SAMREC Code. The Component Person understands that this Independent Review will be used publicly for inclusion in a prospectus for public offer of securities.

Frontier Diamonds Limited is an Australian public company specifically incorporated to acquire Sedi Star Diamonds Pty Ltd, which has an agreement to acquire 74% of the issued capital of Sedi Diamonds (Pty) Ltd, the holding company for a group of companies that own and operate the Star Mine and Sedibeng Diamond Mines in South Africa. In order to achieve a revised estimate of Diamond Resources and Ore Reserves the Competent Person has undertaken a thorough review of:

the Diamond Resources and Ore Reserves of the Star And Sedibeng Mines to assess the compliance of the exploration and production data and estimation methodologies with the "Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code 2012) prepared by the Joint Ore Reserves Committee (JORC) of the Australian Institute of Mining and Metallurgy (AusIMM), Australian Institute of Geoscientists (AIG) and Minerals Council of Australia (MCA).

Above component has been incorporated into this Independent Statement of Diamond Resources and Ore Reserves Report, based on an engagement with Frontier Diamonds Limited in February 2017. The engagement agreement includes the scope and purpose of the report, the timing and cost of the engagement and enshrines the independence of the Competent Person.

Sedi Diamonds is based in Cape Town South Africa as a diamond Exploration and Mining Company with projects in the Free State Province (Star Mine) and Northern Cape Province (Sedibeng Mine). The Star and Sedibeng Mines are held by Sedi Diamonds through their wholly owned, subsidiaries Messina Investments (Pty) Ltd and Autumn Star Investment (Pty) Ltd (Figures 1A and Figure 1B).

Both Star and Sedibeng are well-established underground mines which have been in operation for more than sixty years. Each mine exploits narrow diamondiferous kimberlite fissures using labour intensive mining methods. This Independent Report is solely focused on the Star and Sedibeng Mines.

## 1.1 Scope of the Opinion and Independence

The Competent Person's primary obligation in preparing the Diamond Resources and Ore Reserves Report is to describe mineral projects in compliance with the reporting codes applicable under the jurisdiction in which the company operates. In this case, the JORC code as discussed in Section 1.

The Independent Statement of Diamond Resources and Ore Reserves Report for Frontier Diamonds Limited were prepared on the principle of reviewing both the work of Sedi Diamonds and individual specialist experts who have contributed to the technical database. This review forms part of the assurance process to confirm that, in the opinion of a competent and independent person, the statement provides an accurate estimate of the mineral resources and reserves assets available to Sedi Diamonds. This Review Report for Frontier Diamonds Limited is not a full technical report but should be regarded as:

A review of the technical data and Diamond Resource and Reserve estimates in the context of compliance with the JORC code.

Given the scope of the valuation and timeframes for completion, this Report does not cover an independent mineral asset valuation of Sedi Diamond's asset as per the requirements of the VALMIN Code 2015; however, an in-house preliminary feasibility study has already been completed for both Star and Sedibeng with seemingly positive results. This information needs to be independently verified. The current updated Ore Reserve estimation will provide for further refinement of the results of that study and there is sufficient confidence in both projects to proceed with operations and underground development.

The Competent Person has no interest in Frontier Diamonds Limited and Sedi Diamonds projects which could affect his ability to give an unbiased opinion, and the Competent Person has not, and will not, receive any pecuniary or other benefits associated with this assignment, other than normal consulting fees.

### **1.2 Sources of Information**

In the preparation of this Review Report, the Competent Person reviewed the following categories of information of Star and Sedibeng Mines, largely supplied by Sedi Diamonds and Petra Diamonds, all of which has been reviewed at a high level. Given the scope of the valuation and timeframes for completion, only the documents upon which the Competent Person heavily relied have been listed in the reference list:

- legal documents pertaining to the mining right, registration of the operating company and registration of change of name;
- geological reports on the fissure deposits as found at Star and Sedibeng Mines;
- technical reports on historical production and historical Diamond Resource estimates;
- technical reports on recent production, Diamond Resource and Ore Reserve estimates and Modifying factors;
- independent Valuation reports of the Mineral Assets of both mines;
- AIM admission documents;
- journals of the South African Institute of Mining and Metallurgy;
- reports from department of Geological Sciences, South Africa;
- annual reports of previous operators;
- detail survey records and updated mine plans;
- mining work programmes; and
- environmental management program reports.

## 1.3 Site Visit

The Competent Person visited the Star and Sedibeng Mines in September 2016 and in January 2017.

### Figure 1A: Corporate structure and Regional Locality – Star Mine





#### Figure 1B: Corporate structure and Regional Locality – Sedibeng Mine

# 2. PROPERTY DESCRIPTION, TENURE AND INFRASTRUCTURE

### 2.1 Star Mine

Star Diamonds is located some 12 km North East from the town Theunissen in the Free State Province of South Africa. It forms part of a prominent east-west fissure system that stretches approximately 15km from the old Saital mine in the west to Lovedale in the east. Virginia is situated approximately 25 km north-north-east of the Mine. The property comprises a single mining licence (ML 11/1996) that is 246.29 hectares in extent, held by Star Diamond Mines (Pty) Limited (Figure 1A).

Star Mine has been in operation for more than 60 years and all necessary mine infrastructure already exists (JORC table 1). The mine is serviced largely by un-tarred roads from the R30 Welkom to Theunissen, with the R30 being the major provincial route servicing the mine.

The closest railway station to the mine is situated at Theunissen, some 12 km Southeast of Star Diamonds. An 88 KV Eskom power line services the mine. In addition, a managed substation is situated on the mining property. Ground water from the mine is used for processing purposes and has a consumptive potential as well. A private (grass) airstrip exists on mine property.

Access to the mine and the physiography are not considered risk factors in mining the underground kimberlite fissures. The climate is average and permits exploration and mining operations to continue all year. The local area has a medium to high population density and labour is sourced from the surrounding towns of Theunissen, Winburg and Virginia. Fuel and basic supplies can be obtained at Theunissen and the property has land and mobile telephone connectivity. Both potable and process water can be obtained in sufficient quantities from underground sources to adequately supply the Star Mining Operation.

## 2.2 Sedibeng Mine

Sedibeng is located approximately 40 km north of the town Delportshoop and 80 km west of the town of Warrenton in the Northern Cape Province of South Africa. Driving to the mine is via tar and gravel roads, which are suitable for two wheel drive vehicles. The property comprises two mining licences (ML 12/94 and ML 1/1995) that is 89.62 hectares in extent, held by Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) Ltd (Sedibeng Diamond Mine JV) respectively (Figure 1B).

There are no schools, hospitals or sports and recreation facilities close to Sedibeng Mine. The Mine employs a registered Medical Practitioner in terms of the Mine Health and Safety Act with fully equipped consultation facilities in Warrenton. A Provincial Hospital is located in Barkley-West. A contractual relationship exists with ER24 for any emergency service support should it be required.

Sedibeng Mine has been in operation for more than 60 years and all necessary mine infrastructure already exists (JORC table 1). The mine is serviced largely by un-tarred roads from the R370 Jan Kempdorp to Delportshoop and R371 from Windsorton. The main Cape Town–Kimberley–Johannesburg railway line passes through Warrenton, and the line to Mafikeng and Botswana branches off at Fourteen Streams, on the north bank of the Vaal opposite Warrenton.

A single 11Kv Eskom power line services the mine. A borehole situated on the adjacent farm supplies drinking water to the mine and underground water from the mine is used for processing purposes and has a consumptive potential as well. There is no airstrip on the mine property but a private airstrip exists on the adjacent farm (Farm 84).

Access to the mine and the physiography are not considered risk factors in mining the underground kimberlite fissures. The climate is average to hot and permits exploration and mining operations to continue all year. The local area has a medium to low population density and labour is sourced from the surrounding towns of Delportshoop, Windsorton, Jan Kempdorp and Warrenton.

Fuel and basic provisions are available at any of the surrounding towns and the property has land and mobile telephone connectivity. Both potable and process water can be obtained in sufficient quantities from underground sources to adequately supply the Sedibeng Mining Operation.

## 2.3 Legal Tenure, Star Mine

The Star Diamond Mine is held by Star Diamonds (Pty) Limited (Registration No 1946/022941/07) under old order mining license no ML 11/1996 and converted to a new order mining right in terms of item 7(2) of Schedule II of the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA), issued by the Department of Minerals and Energy (DMR) on the 16<sup>th</sup> day of April 2009, for a period of 15 years ending on 10<sup>th</sup> of February 2025. The Competent Person has seen the converted new order mining right awarded to Star Diamonds.

Petra Diamonds Southern Africa (Pty) Ltd (Petra) acquired Star Diamonds in 2005 from Crown Diamonds. Sedi Diamonds acquired the project from Petra through the acquisition of Star Diamonds (Pty) Ltd in 2014. Sedi Diamonds appointed Frontier Mining Projects (Pty) Ltd (Frontier) as the main contractor to operate its diamond operations in South Africa.

### 2.4 Legal Tenure, Sedibeng Mine

The Sedibeng Diamond Mine is held by Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) Ltd (Sedibeng Diamond Mine JV) under old order mining licenses no ML 12/94 and ML 1/1995 respectively. New order rights for Dancarl and Messina have been granted by the DMR in terms of item 7(2) of Schedule II of the Act (ref MRC 228 and MRC 229) during June 2013, but still needs to be executed and signed. The period of the grant is not known yet. Both rights straddle a single and continuous ore body, the so-called 'Bobbejaan' Fissure which is mined, treated and recovered through central and shared infrastructure for the benefit of the JV entity.

Petra Diamonds Southern Africa (Pty) Ltd (Petra) acquired Sedibeng Diamond Mine JV in 2005 from Crown Diamonds. Sedi Diamonds acquired the project from Petra through the acquisition of Star Diamonds (Pty) Ltd in 2014.

Sedi Diamonds appointed Frontier Mining Projects (Pty) Ltd (Frontier) as the main contractor to operate its diamond operations in South Africa.



Figure 2A: Surface plan and longitudinal section of the Star Mine showing areas of historical and recent production to February 2017





## 2.5 Legal Tenure Comment

The Competent Person is not qualified to conclusively comment on Sedi Diamonds' right to mine but is satisfied that the legal tenure is apparently secure. It should be noted that the new order mining rights of Dancarl and Messina (Sedibeng Mine) have been granted by the DMR but still need to be executed and signed. The period of the grant is not known as yet which could be a potential project risk. The Competent Person has assumed that execution and signage of the new order mining right will be concluded as this is only a formality.

According to the Competent Person's knowledge the properties have no legal encumbrances apart from the environmental liabilities normal to mining endeavours. It should further be noted that the current life of mine (LOM) plan of Star Mine extends beyond the legal tenure period (it is probable that the same will apply to Sedibeng Mine after execution and signage of the Dancarl and Messina new order rights).

# **3. PROJECT HISTORY**

The Star and Sedibeng fissure mines are both established underground mining operations wholly owned by Sedi Diamonds. The Sedibeng Operation is an amalgamation of two adjacent mines, Messina and Dancarl.

A brief history of the ownership of the Star and Sedibeng Mines are presented in Table 1.

#### Table 1: Historical Ownership and Development of the Star and Sedibeng Mines

STAR MINE					
PERIOD	OWNER	TONNES MINED	GRADE	TOTAL CARATS	
1926 - 1947	Unknown	n/a	n/a	n/a	
1948 - 1980	Gold Fields	2.0 Mt	40 cpht – 50 cpht	1.0 Mct	
1980 - 1984	Ochta Diamonds				
1984 - 1992	Golden Dumps	<u>(1975 – 2003)</u>	<u>(1975 – 2003)</u>	<u>(1975 – 2003)</u>	
1992 - 1999	Minvest	469,946 ton	40 cpht	187,497 ct	
1999 - 2003	Messina Diamonds				
2003 - 2005	Crown Diamonds	33,599 (only 2004 )	47 cpht (only 2004)	15,819 ct (only 2004)	
2005 - 2014	Petra Diamonds	197,672 ton	47 cpht	94,466 ct	
2014 until Feb 2017	Sedi Diamonds	59,439 ton	37 cpht	22,273 ct	
		SEDIBENG JV			
MESSINA					
PERIOD	OWNER	TONNES MINED	GRADE	TOTAL CARATS	
PERIOD 1930 - 1981	OWNER Small-scale miners	TONNES MINED	GRADE	TOTAL CARATS	
PERIOD 1930 - 1981 1981 - 1996	OWNER Small-scale miners Minvest	TONNES MINED	GRADE	TOTAL CARATS	
PERIOD 1930 - 1981 1981 - 1996 1996 - 1999	OWNER Small-scale miners Minvest Messina Diamond Corp.	TONNES MINED       Records incomplete	GRADE 32 cpht (estimation)	TOTAL CARATS Records incomplete	
PERIOD 1930 - 1981 1981 - 1996 1996 - 1999 1999 - 2003	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds	TONNES MINED	GRADE 32 cpht (estimation)	TOTAL CARATS Records incomplete	
PERIOD 1930 - 1981 1981 - 1996 1996 - 1999 1999 - 2003 2003 - 2005	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds	TONNES MINED         Records incomplete         99,074 (only 2004)	GRADE 32 cpht (estimation) 25 cpht (only 2004)	TOTAL CARATS         Records incomplete         24,970 ct (only 2004)	
PERIOD 1930 - 1981 1981 - 1996 1996 - 1999 1999 - 2003 2003 - 2005 2005 - 2014	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds Petra Diamonds	TONNES MINED           Records incomplete           99,074 (only 2004)           922,579	GRADE 32 cpht (estimation) 25 cpht (only 2004) 22 cpht	TOTAL CARATSRecords incomplete24,970 ct (only 2004)204,319 ct	
PERIOD           1930 - 1981           1981 - 1996           1996 - 1999           1999 - 2003           2003 - 2005           2005 - 2014           2014 until Feb 2017	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds Petra Diamonds Sedi Diamonds	TONNES MINED           Records incomplete           99,074 (only 2004)           922,579           185,042	GRADE 32 cpht (estimation) 25 cpht (only 2004) 22 cpht 15 cpht	TOTAL CARATSRecords incomplete24,970 ct (only 2004)204,319 ct27,512ct	
PERIOD 1930 - 1981 1981 - 1996 1996 - 1999 1999 - 2003 2003 - 2005 2005 - 2014 2014 until Feb 2017	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds Petra Diamonds Sedi Diamonds	TONNES MINED           Records incomplete           99,074 (only 2004)           922,579           185,042           DANCARL	GRADE 32 cpht (estimation) 25 cpht (only 2004) 22 cpht 15 cpht	TOTAL CARATSRecords incomplete24,970 ct (only 2004)204,319 ct27,512ct	
PERIOD           1930 - 1981           1981 - 1996           1996 - 1999           1999 - 2003           2003 - 2005           2005 - 2014           2014 until Feb 2017           1967 - 2004	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds Petra Diamonds Sedi Diamonds De Beers (DBCM)	TONNES MINED           Records incomplete           99,074 (only 2004)           922,579           185,042           DANCARL	GRADE 32 cpht (estimation) 25 cpht (only 2004) 22 cpht 15 cpht	TOTAL CARATSRecords incomplete24,970 ct (only 2004)204,319 ct27,512ct	
PERIOD 1930 - 1981 1981 - 1996 1996 - 1999 1999 - 2003 2003 - 2005 2005 - 2014 2014 until Feb 2017 1967 - 2004 2004 - 2005	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds Petra Diamonds Sedi Diamonds De Beers (DBCM) Crown Diamonds Cons.	TONNES MINED         Records incomplete         99,074 (only 2004)         922,579         185,042         DANCARL         Records included	GRADE 32 cpht (estimation) 25 cpht (only 2004) 22 cpht 15 cpht Records included	TOTAL CARATS         Records incomplete         24,970 ct (only 2004)         204,319 ct         27,512ct         Records included with	
PERIOD           1930 - 1981           1981 - 1996           1996 - 1999           1999 - 2003           2003 - 2005           2005 - 2014           2014 until Feb 2017           1967 - 2004           2004 - 2005           2005 - 2014	OWNER Small-scale miners Minvest Messina Diamond Corp. Messina Diamonds Crown Diamonds Petra Diamonds Sedi Diamonds De Beers (DBCM) Crown Diamonds Cons. Petra Diamonds	TONNES MINED         Records incomplete         99,074 (only 2004)         922,579         185,042         DANCARL         Records included         with Messina's	GRADE 32 cpht (estimation) 25 cpht (only 2004) 22 cpht 15 cpht Records included with Messina's	TOTAL CARATS         Records incomplete         24,970 ct (only 2004)         204,319 ct         27,512ct         Records included with Messina's	

### 3.1 Historical Exploration and Mining

The Star and Sedibeng fissure complexes were not conventionally sampled in the past, as in the case of a normal kimberlite pipe, but have been extensively mined over many decades.

Mining production data provides substantially more consistent information necessary for estimation of the geology and grade behaviour of the deposit, as will be verified in the forthcoming sections of this document.

## 3.1.1 Star Mine

Star Mine was established in 1948 and has operated continuously since that date exploiting a series of kimberlitic fissures over an east-west trending strike length of 4.5 km. Star is currently operating at depths of between 580 and 620 metres below surface. The individual fissures range in width from 5 to 80 centimetres, with an average width of 58cm.

In the years between 1976 and 1992, underground mining was sporadic and none of the deep levels were accessed. Mining was restricted to previously developed levels with extensions to the east. During this period additional mining also took place from a low-grade blow situated on the far-west of the mining lease, known as the Phoenix pipe.

The production history at Star since 1959 is summarised in Table 2.

Year	Tonnes	Carats recovered	Estimated grade
	treated	26.020	
Jul 1959 – Jun 1960	119,699	36,820	30.76
1970	90,686	43,994	48.51
1971	121,639	56,721	46.63
1972	119,890	67,168	56.02
1973	97,973	52,589	53.68
1974	101,121	47,743	47.21
1975	98,442	45,716	46.44
1976-1992		No records available	
1993	27,036	9,140	33.81
1994	60,220	27,467	45.61
1995	69,173	25,987	37.57
1996	28,279	7,931	28.05
1997	48,045	48,045 12,796	
1998-1999			
2000	38,270	38,270 12,728	
2001	35,066	15,415	43.96
2002	29,102	14,232	48.90
2003	36,313	16,085	44.30
2004	33,599	15,819	47.09
2005		No records available	
2006	34,351	15,110	43.99
2007	38,791	16,638	42.89
2008	28,251	16,870	59.71
2009	26,302	14,823	56.36
2010	16,422	8,781	53.47
2011	19,026	7,059	37.10
2012	14,088	6,886	48.88
2013	20,441	8,299	40.60
2014 (5 months)	9,740	3,572	36.67
2015	26,990	8,997	33.33
2016/2017 (14 months)	22,709	9,704	42.73
TOTAL	1,411,664	625,090	44.28

 Table 2: Star production history since 1959 until 28 February 2017

## 3.1.2 Sedibeng Mine

The Sedibeng Operation is an amalgamation of two adjacent mines: Messina and Dancarl which are currently operating at depths of between 620 and 750 metres below surface. Currently, the Dancarl shaft system is connected to the existing production levels developed from Messina.

The Messina Mine extends over the northern 1,700 metres of the 2,430 metre-long so called 'Bobbejaan' Fissure. Immediately to the south of Messina, and covering the southern 730 metres of the fissure, is the contiguous Dancarl Mine. The individual fissures at Messina and Dancarl range in width from 5 to 80 centimetres, with an average width of 58cm.

The production history at Sedibeng since 1930 is summarised in Table 3 (earlier records are incomplete).

Year	Tonnes treated		Carats recovered		Treated grade (cpht)	
	Messina	Dancarl	Messina	Dancarl	Messina	Dancarl
1930-1996	2,700,00	n/a	n/a	n/a	n/a	n/a
1994-1997	n/a	26 950	n/a	9 635	38	36
1998	n/a	78,500	n/a	26,430	n/a	34
1999	n/a	60,016	n/a	17,651	n/a	29
2000	n/a	47,947	n/a	17,482	35	36
2001	n/a	n/a	n/a	n/a	26	n/a
2002	n/a	n/a	n/a	n/a	24	n/a
2003	n/a	n/a	n/a	n/a	39	n/a
2004	99,074		24,970		25	
2005	n/a		n/a		n/a	
2006	132,164		32,023		24	
2007	152,151		40,711		27	
2008	186,608		35,710		19	
2009	120,457		27,298		23	
2010	105,919		21,873		21	
2011	82,679		19,169		23	
2012	79,642		15,558		20	
2013	62,959		11,977		19	
2014 (6 months)	28,282		3,770		13	
2015	66,322		11,609		18	
2016/2017 (14 months)	90,438		12,133		13	
TOTAL	1,420,108		327,999		23.0	

Table 3: Sedibeng production history since 1930 until 28 February 2017

## 3.2 Recent Exploration and Mining – Sedi Diamonds (Pty) Ltd

The Star and Sedibeng Mines were officially placed on care-and-maintenance by Petra in 2013, stating that the mines had become "non-core contributors" to the Group and commenced a sales process on 31 July 2012.

Sedi Diamonds recommenced mining operations in 2014 after appointing Frontier Mining Projects (Pty) Ltd as the main operator on both fissure mines. Limited exploration on both properties has been undertaken by Sedi Diamonds, except for the recommencement of mining which started in July 2014, since acquisition from Petra Diamonds in April 2014.

A review of existing mining and exploration data is planned, with a view to identifying further exploration opportunities within the mining licence, together with sub-surface core drilling to extend the current mineral resources at depth on Star and Sedibeng Mines.

Messina Diamonds (Pty) Ltd recently applied to the Department of Mineral Resources for a prospecting right in respect of diamonds covering certain portions on adjacent farms (Figure 3). The Prospecting Right application was accepted by the Department but still needs to be granted, executed and signed by the respective parties.

Preliminary surface investigations by the Competent Person during his September 2016 visit to Sedibeng indicate that there is a strong possibility that the fissure may continue towards the south west, and that a second fissure might have developed parallel to the main fissure at Sedibeng.

Recently Sedi Diamonds purchased a diamond core rig to explore for possible additional fissures located alongside the main fissure at Sedibeng. During the Competent Person's visit to the mine in September 2016, the rig was commissioned and drilling in progress at 16 Level to locate the so called "Magasyn Fissure" at the Dancarl section of Sedibeng Mine.





## 3.3 Exploration and Mining Conclusions

The Star and Sedibeng fissure complexes are not conventionally sampled and drilled as in the case of a normal kimberlite pipe, but have been extensively mined over a period of more than 60 years. Detailed mining production data provides the information necessary for estimating the geology and grade behaviour of the deposit.

At both mines the nature of the fissures, their steep dip and the mining method employed hinders the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the fissures at Star and Sedibeng are known with a high degree of confidence, from where a strategy has been developed to define the resources in such a way that it allows the Competent Person to accurately predict planned production and diamond grades.

Except for the possibility that neighbouring dykes might be found at Sedibeng, the main area of potential at Star and Sedibeng Mines is the depth potential of the fissures into the more competent formations where fissure development is expected to be more consistent (refer Section 4, Geological Setting).

A diagonal, subsurface, directional core drilling campaign is recommended for Star and Sedibeng, backed up by downhole geophysical surveys to locate the fissures at depth and increase the confidence of the resource base.

A dedicated specific gravity (SG) determination campaign is recommended for each of the fissures at Star and Sedibeng. Whilst a change in the SG is anticipated, it is likely not to be significantly different to the SG used in the geological models and as such shouldn't have a material effect in the reported tonnage calculations.

The Competent Person is satisfied that the detailed, historic production data available at both mines is appropriate to the target commodity, in this case diamondiferous kimberlite fissures. In addition the adopted production techniques, procedures and protocols and security measures applied are deemed appropriate and have resulted in a highly accurate and representative production dataset.

Views of the Star and Sedibeng fissure systems with associated historic development are shown in Figures 4A and 4B.





Figure 4B: View of the Sedibeng mine fissure geology with associated historic development up to 22 Level (Petra 2013)



# 4. GEOLOGICAL SETTING

## 4.1 Geological Setting

The known occurrences of diamondiferous kimberlites in South Africa are concentrated within the boundaries of the Kaapvaal Craton and occur as small volcanic diatremes (pipes), dykes (fissures) and sills. The kimberlite intrusions were emplaced along several parallel north-northeast and east-west trending structures and typically occur in swarms or clusters.

Kimberlitic fissure deposits are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust. The fissures are actually dyke systems of en echelon interwoven lenses which pinch and swell along strike. In the simplest case, one lens pinches out, and the next is located to the side of the first, offset from it by several metres. Dips in general are near-vertical. These fissures are characterised by high diamond grades and narrow widths, although they may have a strike extent of several kilometres and continue down-dip for hundreds of metres.

The Star and Sedibeng fissure systems fall into the Group II Kimberlite category intruded ca. 120 million years ago. They persist to depths greater than current mining levels showing no evidence of grade depletion. Typically the fissures are influenced by the country rock through which they have been emplaced. Differences in fissure thicknesses, dip and strike directions are attributed to different host rock lithologies during time of emplacement, ie., more competent lava in contrast to highly fractured shales.

Only South Africa have kimberlite dykes been mined underground with the deepest workings more than 700 metres below the surface. Since the Star and Sedibeng dykes in South Africa average 50 - 80 centimetres in width, they are relatively small volume intrusions, despite the fact that they may have strike lengths in excess of 4 km at some locations. Their potential should not be underestimated, however. Dykes maintain their size and grade width depth in contrast to diatremes.

## 4.2 Local Geology – Star Mine

The Star Mine property is underlain by a 520 metre thick sequence of flat-lying Karoo rocks which overlie rocks of the 2,700 million year old Witwatersrand Supergroup. A 30 metre thick succession of Permian-age Dwyka group tillites forms the basal unit to the Karoo sequence. These tillites are overlain by rocks of the Ecca group comprising a 135 metre thick unit of argillaceous sandstone overlain by a 200 metre thick sequence of carbonaceous mudstones and shales. The Ecca sediments are further overlain by a 150 metre thick package of Beaufort group shales and mudstones (Figure 4A).

The Star mine extends over a 4.5 km strike length of the east west trending Star kimberlite fissure system, which can be traced over a total distance of some 15 km. Individual fissure units are separated in an N-S direction by distances of up to 150m. Smaller N-S lateral steps of up to 40m occur within individual fissure units. The individual kimberlite fissures generally range in width from 5cm to 80cm with an average width of 58m.

The Star fissure system incorporates five distinct fissure units. From west to east these are the Clever, Micaceous, Burns, East Star and Wynandsfontein fissure units. In addition to the aforementioned fissure units there is a blow situated on the far-west of the mining lease known as the Phoenix pipe. All these areas have been mined in the past, with the most intensive mining having occurred on the Micaceous, Burns, East Star and Wynandsfontein fissure units (Figures 2A, 4A and 5).

At the Star Mine, the Karoo sequence has been intruded by a thick dolerite sill. There is no immediate change in fissure thicknesses when passing from shale into dolerite. The contacts in both types of country rock are sharp and smooth and the fissure is more regular in the dolerite than in the shale. Shale country rock is often very fissile in nature; causing short, discontinuous kimberlite lenses and more difficult mining conditions (development excavations usually require secondary support to stay open).

Karoo shale and sandstone host rocks are generally considered responsible for the unpredictable behaviour of the Star dykes; however the dykes are reportedly more sinuous when they traverse dolerite sills in the stratigraphic section. The stronger dolerite and sandstone host larger, more continuous fissure lenses with easier mining conditions (development excavations are generally self-supporting).

The fissure at Star consists of typical kimberlite "blue ground", a serpentinized olivine-pyroxene-phlogopite peridotite, often with a marked brecciated appearance and with both occidental and cognate inclusions. In places, however, the rock is highly micaceous, this variety evidently having being produced either by a process of local segregation or by contamination with country rock as it occurs characteristically both near the contacts of the dyke and around the larger impounded fragments.

Below the Karoo Supergroup lie quartzites of the Witwatersrand Supergroup. Exploration drilling has shown the kimberlite fissure system is continuous downwards into the underlying Witwatersrand lithologies. While development and stoping conditions will improve due to the more competent host rocks at deeper levels, new difficulties will be encountered – eg.
water and methane control in Witwatersrand lithologies, and potential changes in rock mechanics at deeper levels due to greater in situ stresses.

To date, the Star Fissure has been mined to a depth of approximately 620m below surface. The available geological information indicates that it displays remarkable down-dip continuity as reflected in Figure 4A. At the current deepest production level of the mine (16 Level), the fissure is reported to be no different to that encountered in the upper sections of the mine.

Star has recently established 16 Level (at 620 mbs) and 17 Level (at 660 mbs) respectively with fissure development commencing in early 2014 by Sedi Diamonds. Figure 5 shows a view of the en echelon Star Mine fissure system with historic development up to 15 Level.

Figure 5: View of the en echelon Star Mine fissure system with historic development up to 15 Level (viewed from an east-southeasterly direction.)



## 4.3 Local Geology – Sedibeng Mine

The kimberlite fissure at Sedibeng is hosted by flat-lying, layered sediments belonging to the Transvaal Supergroup. The upper part of the stratigraphic sequence consists of a 400m interval of banded dolomite which is increasingly interbedded with shales in the lower portions. These carbonate rocks overlie about 130m of the Black Reef Quartzite which grades from fine-grained quartz arenite at the top to shaly quartz arenites at a depth of about 550m. Below 550m, the quartzites are in unconformable contact with volcanic rocks of the Ventersdorp Supergroup.

The upper 50m of the volcanic rocks, between 16 Level and 17 Level at the Messina Mine, have been affected by palaeosurface weathering. Below a depth of some 580m these volcanic units are fresh and highly competent (Figure 4B).

The Messina Mine extends over the northern 1,700m of the 2,430 metre-long Bobbejaan Fissure. Immediately to the south of the Messina Mine and covering the southern 730m of the fissure is the Dancarl Mine.

Like all known kimberlite dykes in South Africa, the Bobbejaan Fissure is a compound structure comprising an en echelon arrangement of vertically orientated, discus-shaped kimberlite lenses, which generally range in thickness between 45cm and 80cm in width but rarely exceed 100cm. Each lens tapers in all directions from 100cm at the centre to less than 20cm at its margins, where it breaks into a number of dykelets or "horsetails" which splay over a distance of 2 to 3m. Typically dyke lenses are disk-like in shape, tapering off in all directions, with 60cm average widths, 70-80m strike lengths, and approximately 40m vertical extents.

The wall rocks of the fissure are reported to be quite fractured in areas of lens "horse-tailing" and also where the fissure is particularly wide. The en echelon arranged lenses overlap and are off-set from each other by between 1m and 20m along strike, but normally less than 10m. The units sometimes overlap in a vertical longitudinal section, although there are areas

where this is not the case and an effective 'loss of ground' occurs. Given a less complicated structure compared to the Star fissure system with fewer displacements and relative continuity in longitudinal section, the Bobbejaan Fissure may be considered as a single fissure with variable widths along strike and at depth.

To date, the Bobbejaan Fissure has been mined to a depth of approximately 760 mbs. The available geological information indicates that it displays remarkable down-dip continuity as reflected in Figure 4B. At the current deepest production level of the mine (23 Level), the fissure is reported to be no different to that encountered in the upper sections of the mine. Messina and Dancarl has recently established 23 Level (at 760 mbs) and 24 Level (at 800 mbs) respectively with fissure development commencing in early 2014 by Sedi Diamonds.

The northern limit of mine development and stoping at Messina has been defined by the Water Fissure fault. The Water Fissure strikes northwest-southeast and dips moderately to the south. Mine development through the Water Fissure at Messina on Levels 16, 18 and 19 (500 - 640 mbs) demonstrates that the kimberlitic Bobbejaan Fissure continues northward of the Water Fissure and has not been laterally off-set. The kimberlite fissure is, however, reported to thin out in proximity to the fault.

At a depth of approximately 300m in the Messina Mine, interlayered host rock argillites and dolomites give way to underlying quartzites and Ventersdorp lavas. The dyke splits at this change in host rock lithology, with one branch dying out both along strike and at depth, whereas the main branch continues.

## 5. MINING EXPLORATION

Previous mining activities completed at Star and Sedibeng have been undertaken in a series of phases by the previous owners of the project (Table 1). Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information has provided very effective and almost continuous sampling of the deposit, and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the kimberlite fissures at the mine.

Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. This concept is also supported by previous qualified persons and institutions who conducted Independent Valuations and Reviews of the Star and Sedibeng resources respectively.

#### 5.1 Drilling

Limited diamond exploration drilling completed at Star and Sedibeng has been undertaken by Snowden during their Independent Valuation of the Mineral Assets of Crown Diamonds NL (2002-2004).

Compressed air percussion and pneumatic cover drilling are used on both mines for short term planning, stoping and development purposes to locate the fissure and do not support mineral resource estimation, mining studies or metallurgical studies.

Recently Sedi Diamonds purchased a diamond core rig capable of drilling long, horizontal or inclined core holes to explore for potential additional fissures located alongside the main fissure at Sedibeng. This sub-surface diamond core rig can be employed to explore, and possibly extend the current mineral resources at depth on both Star and Sedibeng Mines. During the Competent Person's visit to the mine in September 2016, the rig was commissioned and drilling commenced at 16 Level to locate the so called "Magasyn Fissure" at the Dancarl section.

#### 5.1.1 Drilling – Star Mine

In late 2002, Snowden completed two diamond drill holes at Burns and Wynandsfontein of Star Mine to test the down-dip continuity of the fissure. A drill cross-cut was established on 12 and 14 Levels of the Wynandsfontein and Burns fissure respectively and two holes designed to intersect the kimberlite fissure at depth. Both holes were successfully completed having intersected kimberlite fissure at desired depths.

The Burns diamond hole was oriented due North and drilled from 14 Level directly beneath the Main shaft at an inclination of -58°. Two fissure intersections were recorded (Figure 6A):

- 30cm (15 cm true width) at 110m down the hole representing a vertical depth of 95m below Level 14 and;
- 90cm (45 cm true width) at 139m down the hole, representing a vertical depth of 12m below Level 14.

The 45cm true thickness of the second intersection represents a mineable thickness, based on the current practice of mining areas where a fissure exceeds 30cm thickness.

The Wynandsfontein diamond hole intersected a zone of kimberlite stringers at a vertical depth of 140m below 12 Level. Four Kimberlite stringers with a total thickness of 32cm were encountered (Figure 6B).



Figures 6A (left) and 6B (right): Burns and Wynandsfontein Fissure core drilling showing borehole 1 and 2 locations and fissure intersections – Star Mine

## 5.1.2 Drilling – Sedibeng Mine

In 2003, Snowden completed two diamond core holes at the Messina section of Sedibeng Mine to test the downdip continuity of the fissure. A drill cross-cut was established on 21 Level and two holes were drilled to intersect the kimberlite fissure at depth. Both holes drilled from 21 Level, MES 01 and MES 02, intersected significant thicknesses (up to 3m down-hole width) of the kimberlite fissure at depths to the projected 24 Level (Figure 7).

Figure 7: Sedibeng (Messina) core drilling showing borehole MES01 and MES02 locations and modelled kimberlite fissure widths to 20 Level – Star diamonds (Snowden 2004)



## 5.2 Bulk Sampling, Geophysical and Geochemical Data

No geophysical exploration or geochemical soil sampling data is available at Star or Sedibeng Mine.

No bulk samples were taken to obtain representative kimberlite material to assist in grade determination of the different fissures located at each mine.

Mining production data provides substantially more consistent information necessary for estimation of the geology and grade behaviour of the deposit, however, it is recommended that a directional core drilling campaign is to be developed for Star and Sedibeng, backed by downhole geophysical surveys to locate the fissures at depth, and increase the confidence of the resource base.

#### 5.3 Logging and Sampling

Diamond core retrieved from cover drilling to locate the fissures on Star and Sedibeng is only logged in order to identify the fissure at short and intermediate depths for further development purposes, and not for gaining detailed geotechnical, structural and geological information of the kimberlite fissures.

Core samples obtained during cover drilling to locate the fissure are often discarded after logging and no sampling was undertaken on any of the cover drillhole cores.

#### 5.4 Fissure and Stopping Widths

Based on the previous mining history at Star and Sedibeng, which extended to depths in excess of 620m and 700m respectively, there is a great deal known about the general geology of the fissures and their diamond content.

The fissure widths at Star and Sedibeng can range from narrow stringers or complete loss of ground (often due to steps or off-sets in the fissure continuity) to as much as 100cm or more, although this is rare. Generally, fissure widths of less than 30cm are not mined to minimise dilution.

## 5.4.1 Historic and Revised Fissure and Stoping Widths - Star Mine

Statistical analysis of data collected by Snowden from along the entire strike length of the Star Mine and individually from the Burns, East Star and Wynandsfontein fissures (Table 4) demonstrates that there is very little variation in the width of the fissures either along strike (Figure 8) or down dip (Figure 9).

Actual fissure and stope widths, measured at Star mine for the period from January 2002 to October 2004, are shown in Figure 10.

Table 4:	Summary	v statistics f	or fissure	width r	ooint data –	- Star Mine	(Snowden	2004)
							10	

Parameter	All data	Burns	East star	Wynandsfontein
Number of samples	1,403	603	503	693
Minimum	0.31	2.0	2.0	3.0
Maximum	173	173	173	127
Mean	47.59	41.41	41.90	52.27
Variance	450.8	367.8	341.6	457.7
<b>Coefficient of Variation</b>	0.44	0.46	0.43	0.40





#### Figure 9: Fissure width variation with depth – Star Mine (Snowden 2004)





#### Figure 10: Comparison of fissure and stope widths since January 2002 – Star Mine (Snowden 2004)

#### **Revised Fissure and Stoping Widths for Star Mine**

- Mine data sourced from the Petra and Sedi Diamonds era, over a production period of 119 months (Jan 2005 to Aug 2016, Figure 11A), shows an average width of 58cm for the Star fissure, with a corresponding average stoping width of 100cm, representing an increase in fissure width of 22% (47.5cm to 58.0cm).
- ➢ For the period January 2012 until August 2016, the average surveyed fissure width is 67cm, which is a 41% increase in fissure width (47.5cm to 67cm) compared to Snowden's 2004 average.

Figures 11A and 11B show actual fissure and stope widths measured at Star and Sedibeng mines for the period 2005 to 2016.

At Star, based on historic mining data, it would be realistic to expect to mine an average fissure width of 58cm (conservative estimate), with a corresponding average stoping width of 110cm (includes 10cm wall rock dilution).

#### 5.4.2 Historic and Revised Fissure and Stoping Widths - Sedibeng Mine

Statistical analysis of data sourced over seven production levels, a vertical distance of some 300m above the current base of mining (between 14 and 20 Levels) and a strike length of 1,400m, demonstrates that there is very little variation in the width of the fissures either along strike or down dip (Table 5 and Figure 7).

The strike length and the resultant estimated average widths for each level are summarised in Table 5 and Figure 7. These average widths include the full length of the total fissure, assuming no ground loss or overlap between the three main off-set fissure units.

Level	Total strike length (m)	Average fissure width (cm)
14	1065	58
15	1030	64
16	1462	56
17	1427	52
18	1400	56
19	1360	56
20	503	57
Total	average	57

Table 5:	Average fissure	width by leve	l for Sedibeng	(Messina)	Mine	Snowden 20	04)
10010 01	/ Weitinge mooure	with a grid to the	The beam cing	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		011011001120	• • • •



## Figure 11A: Average monthly fissure width – Star Mine (2005 – Aug 2016 mine survey data)

Figure 11B: Average monthly fissure width – Sedibeng Mine (2005 – Aug 2016 mine survey data)



The reason for the recent (Apr 2015 – Aug 2016) decrease in the average fissure width (Figure 11B) and grade (Table 3) at Sedibeng, was due to trial mining efforts by Sedi Diamonds which focused on the central and southern portion of the Dancarl section, where lower than average fissure widths were encountered, with a corresponding increase in overall dilution.

Previous reports indicate that the Bobbejaan Fissure at Dancarl section has an overall average fissure width of 55cm, compared to a total revised average of 60cm for the entire Sedibeng Mine (Figure 11B).

The fissure reportedly narrows along the strike to the south, being widest at the boundary with Messina. Previous stoping has been relatively continuous from the Messina boundary to No. 7 Shaft, however limited development has advanced further south (Figures 2B and 4B). This suggests that the southern extent of the Bobbejaan Fissure at Dancarl could potentially be less than the minimum mineable width of 30cm.

Actual fissure and stope widths measured at Sedibeng, Messina Mine for the period from January 2002 to October 2004 are shown in Figure 12.





#### **Revised Fissure and Stoping Widths for Sedibeng Mine**

- Mine data sourced from the Petra and Sedi Diamonds era, over a production period of 119 months (Jan 2005 to Aug 2016, Figure 11B), shows an average width of 65cm for the Sedibeng fissure, with a corresponding average stoping width of 119cm, representing an increase in fissure width of 14% (57cm to 65cm).
- For the period January 2012 until August 2016, the average surveyed fissure width is 62cm which is a 9% increase in fissure width (57cm to 62cm) compared to Snowden's average as obtained in 2004.

Figures 11A and 11B show actual fissure and stope widths measured at Star and Sedibeng Mines for the period 2005 to August 2016.

At Sedibeng, based on historic mining data, it would be realistic to expect to mine an average fissure width of 60cm (conservative estimate), with a corresponding average stoping width of 130cm (includes 10cm wall rock dilution).

#### 5.5 Wall Rock Dilution and Specific Gravity

Excessive dilution at Star and Sedibeng is caused by over stoping and scaling of the host rock. Generally, fissure widths less than 30cm are not mined since the level of dilution makes it uneconomic to extract.

At Star and Sedibeng, the average stoping width is 110cm and 130cm respectively and includes 10cm wall rock dilution. The kimberlite in the ROM ore is therefore diluted on average with 52cm and 70cm of waste rock respectively (i.e. 47% and 54% of ROM ore is waste).

The extent to which mining dilution can be minimised will have a significant impact on the economic performance of the operation. Reductions in mining dilution significantly improve the hoisted grade, while reducing the hoisted tonnage and reduce the requirement for hand sorting of waste rock.

From an operational standpoint, the greatest risk to Star and Sedibeng would be failure to achieve the budgeted average stoping width, which would result in excessive dilution and therefore a reduction in recovered diamond grade.

At Star and Sedibeng, densities of 2.75 and 2.65 tonne per cubic metre (t/m<sup>3</sup>) respectively have been applied historically, to both the kimberlite and waste rock. This average bulk density is considered reasonable for estimation of kimberlite and waste tonnages.

A dedicated SG determination campaign is recommended for each of the fissures at Star and Sedibeng. Whilst a change in the SG is anticipated, it is likely not to be significantly different to the SG used in the geological models and as such shouldn't have a material effect in the reported tonnage calculations. It will however provide greater assurance in the classification criteria of the Diamond Resources of the Mines.

## **6. DIAMOND RESOURCES**

Following the discovery of the diamondiferous fissures of Star and Sedibeng, there have been a few iterations of Diamond Resource estimates being announced by the different owners at that time. A combined summary of the historic Diamond Resources that have been declared for Star and Sedibeng are summarised in Table 6.

COMPANY	DATE	TONNAGE (Mt)	GRADE (cpht)	TOTAL CARATS (Mcts)	COMMENTS
Snowden	2004	1.62	73.3	1.18	The undiluted kimberlite grade has not been directly determined by sampling. Star fissure width: 47cm. Sedibeng Fissure width: 57cm.
Petra Diamonds	2010	0.86	75.6	0.65	The undiluted kimberlite grade has not been directly determined by sampling.
Petra Diamonds	2011	0.89	74.6	0.67	The undiluted kimberlite grade has not been directly determined by sampling.
Petra Diamonds	2012	1.59	74.0	1.18	The undiluted kimberlite grade has not been directly determined by sampling. Star fissure width: 50cm. Sedibeng Fissure width: 57cm.
Petra Diamonds	2013	1.63	74.1	1.21	The undiluted kimberlite grade has not been directly determined by sampling. Star fissure width: 54cm. Sedibeng Fissure width: 55cm.

 Table 6: Historic Diamond Resource Statements for Star and Sedibeng Mines (combined)

In February 2017 the Competent Person completed an Independent Review of the Star and Sedibeng Diamond Mines affiliated Diamond Resources, which has resulted in an upgrade from the previous 1 July 2013 Mineral Resource estimate, which is discussed in more detail in the sections that follow.

A comparison of the 1 July 2013 Mineral Resource estimate with that of the 28 February 2017 Mineral Resource estimate is presented in Table 7 below.

## 6.1 Geological Modelling and Modifying Factors

The geological interpretation for the Star and Sedibeng fissure systems are based on a standardised model of kimberlite fissure emplacement. The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which has since been updated and refined with the most up-to-date development and production data gathered during Petra (2005 – 2013) and Sedi Diamond's (2014 – 2016/2017) mining phases.

Stoping and fissure width data, along with geological outlines for each level supplied by Star and Sedibeng, were used originally by Snowden and later by Petra, to create a wireframe model for each of the fissures located at the mine. This permitted the fissure and stope widths to be estimated into the block model cells.

Stope and development outlines, as well as survey and production data at depth of the fissures, have been reviewed based on information acquired during the Crown, Petra and Sedi Diamonds periods. The Competent Person has not undertaken a detailed review of the underlying geological models, which have remained mostly similar since the previous Mineral Resource Estimate in July 2013 (due to both mines that were on care and maintenance until July 2014, after which small scale development was done by Sedi Diamonds to date).

All critical average fissure and stoping widths have been recalculated after obtaining the most recent survey data to match the updated fissure outlines in strike and depth.

At Star and Sedibeng, a 20% and 15% geological loss have been applied respectively to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the en echelon fissures may not fully overlap.

Based on observations made during underground visits at Star and Sedibeng Mines and experience with similar deposits, this was considered by previous qualified persons reports that are publicly available to be an appropriate geological loss factor.

Star Mine - 28 February 2017						01 Ju	lv 2013		
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Micaceous		0.057	79.7	0.046	295	0.039	77.0	0.030	n/a
Burns	Mossurod	0.065	79.7	0.052	295	0.071	77.0	0.054	n/a
East Star	Weasured	0.000	79.7	0.000	295	0.000	77.0	0.000	n/a
Wynandsfontein		0.044	79.7	0.035	295	0.033	77.0	0.025	n/a
	Star Measured Resource	0.167	79.7	0.133	295	0.104	77.0	0.080	n/a
Micaceous		0.115	79.7	0.091	295	0.089	77.0	0.069	n/a
Burns	Indicated	0.113	79.7	0.090	295	0.125	77.0	0.096	n/a
East Star	indicated	0.000	79.7	0.000	295	0.000	77.0	0.000	n/a
Wynandsfontein		0.088	79.7	0.070	295	0.071	77.0	0.055	n/a
	Star Indicated Resource	0.317	79.7	0.252	295	0.196	77.0	0.151	n/a
Micaceous		0.172	79.7	0.137	295	0.163	77.0	0.126	n/a
Burns		0.245	79.7	0.195	295	0.261	77.0	0.201	n/a
East Star	Inferred	0.000	79.7	0.000	295	0.000	77.0	0.000	n/a
Wynandsfontein		0.133	79.7	0.106	295	0.115	77.0	0.089	n/a
Tailings stockpiles	1	0.307	5.0	0.015	150				
	Star Inferred Resource	0.856	52.9	0.453	291	0.667	77.0	0.514	n/a
	Star Resource	1.340	62.6	0.838	293	0.967	77.0	0.745	n/a
	Sedibeng Mine - 28 Februa	ary 2017	2	2	2		01 Ju	ly 2013	
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Messina	Maaaamad	0.083	47.7	0.040	385	0.079	70.0	0.055	n/a
Dancarl	Measured	0.100	47.7	0.048	385	0.114	70.0	0.080	n/a
	Sedibeng Measured Resource	0.183	47.7	0.087	385	0.193	70.0	0.135	n/a
Messina	Indiaatad	0.146	47.7	0.070	385	0.139	70.0	0.097	n/a
Dancarl	indicated	0.035	47.7	0.017	385	0.027	70.0	0.019	n/a
	Sedibeng Indicated Resource	0.181	47.7	0.086	385	0.166	70.0	0.116	n/a
Messina		0.208	47.7	0.099	385	0.198	70.0	0.139	n/a
Dancarl	Inferred	0.150	47.7	0.072	385	0.109	70.0	0.076	n/a
Tailings stockpiles		2.488	5.0	0.124	150				
	Sedibeng Inferred Resource	2.847	10.4	0.295	286	0.307	70.0	0.215	n/a
	Sedibeng Resource	3.212	14.6	0.469	323	0.666	70.0	0.466	n/a
Total	Measured	0.350	62.9	0.220	331	0.297	72.4	0.215	n/a
Total	Indicated	0.498	68.0	0.339	318	0.362	73.8	0.267	n/a
Total	Inferred	3.703	20.2	0.749	289	0.974	74.8	0.729	n/a
	a source Stor and Sadihana	4 551	28.7	1 307	304	1 633	74.2	1 211	n/a

#### Table 7: Star and Sedibeng Mineral Resource estimate comparison, 28 February 2017 and 01 July 2013

The Diamond Mineral Resources of Sedi Diamonds as at 28 February 2017 were estimated as 4.551 million tonnes (Mt) at 28.7 carats per hundred tonnes (cpht) containing 1.307 million carats (Mct).

The new estimate represents an increase of 2.918 Mt and 0.096 million carats over the Mineral Resource estimate at 1 July 2013 of 1.633 Mt at 74.2 cpht for 1.211 million carats. The main reasons for the increase in the total resource base are due to:

- an increase in the average fissure widths at Star (7%) and Sedibeng (9%);
- the addition of the tailing dumps to the inferred resources at Star and Sedibeng;
- the addition of the Micaceous section, Measured Resource, which was excluded in the 1 July 2013 total of the Star measured resource;
- the addition of the Micaceous section, Indicated Resource, which was excluded in the 1 July 2013 total of the Star indicated resource;

## 6.2 Diamond Resources Estimation

At Star and Sedibeng, the nature of the fissures, their steep dip and the mining method employed, hinders the use of exploration and grade control drilling to evaluate each of these fissures ahead of mining in any practical way. Detailed historical and recent survey and mine production information has provided very effective and almost continuous sampling of the deposit, and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures, than could be achieved with downhole core exploration drilling.

Volume, ore type, density and diamond grade on the mines are predicted on the basis of the continuity of the fissure, the geology of the fissure, the mining method employed and past production. The logic developed on the mines has been reviewed and documented by previous qualified persons reports that are publicly available, and serves as a good basis to estimate the resources and reserves available in these fissure mines to plan production and future mining operations at a level of confidence commensurate with the provisions of the JORC Code, albeit not in accordance with JORC criteria.

It is therefore considered reasonable to extrapolate the expected average width and grade data a limited distance into deeper, undeveloped and unsampled areas and in these areas, define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines.

No optimised fissure models, using projected financial forecasts, were used in the estimation of Mineral Resources. Cut-off limits for the Mineral Resources are based on discrete cut-off elevations as determined for the base of the Measured, Indicated and Inferred categories.

The following definitions have been developed and implemented to reflect a reduction in confidence in the estimate downdip from the lowest current working levels as follows (Figures 13A and 13B):

- Measured Resource: one level (40m) below the base of the current working levels;
- Indicated Resource: two levels (80m) below the base of the Measured Resource; and
- Inferred Resource: three levels (120m) below the Indicated Resource.

In the Competent Person's opinion the strike, dip, width and diamond grade continuity of the kimberlite fissures at Star and Sedibeng are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. However, since there is no sample information below these levels, continuity cannot be confirmed with absolute certainty.

An exploration target zone below the inferred zone was not demarcated and has therefore not been included in the resource.

### 6.2.1 Star and Sedibeng Fissures

Figures 13A and 13B show an oblique view through the Resource model for Star and Sedibeng created by Petra as at 1 July 2013. Shortly afterwards production ceased at Star and the Mine was put on care and maintenance until October 2014 when Sedi Diamonds resumed production at the mine.

## 6.2.2 Star and Sedibeng Tailings

The tailing dumps at Star and Sedibeng Mine consist of DMS tailings derived from the Crown, Petra and Sedi Diamond's mining eras. The dumps on both mines have been classified as an Inferred Diamond Resource due to the uncertainty in the mining volumes and diamond value of this low grade resource.

## 6.3 Diamond Grade Estimation

The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Star and Sedibeng were based on a back calculation from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Resource, which includes the practical diamond recovery characteristics of the existing operation, by taking into account the effective bottom screen size of 1.00mm, diamond losses and plant recovery efficiency.

Both mines have sufficient and detailed production records like hoisted ROM, treated tonnage and recovered carat data that allow back calculation of the average in situ fissure grades (Tables 2 and 3).

The treated tonnage was sourced from the diluted hoisted tonnage, from which waste rock has been removed by waste/fissure hand-sorting (Tables 2 and 3).

## 6.3.1 Star and Sedibeng Fissures

Discrete monthly treated grades, as determined, were combined in a total average (arithmetic mean) across the fissures and will be used for resource estimation purposes.

At Star Mine, excessively high production grades achieved during 1972, 2008 and 2009 were excluded from the calculation of the total average treated grade (Table 2).

No cut-off grades were determined at Sedibeng, as in the case of Star.

The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Resources at Star and Sedibeng.

The estimated average fissure grades, excluding any dilution for Star and Sedibeng, were calculated at 79.7 cpht and 47.5 cpht respectively.

#### 6.3.2 Star and Sedibeng Tailings

The historical Star and Sedibeng tailings, located within the mine lease area, have been assigned an average grade of 5.0 cpht based on the treating of 178,653t at Star and 233,043t at Sedibeng by Petra, recovering 13,887 ct and 14,917 ct respectively.



Figures 13A and 13B: Oblique view of Star (top) and Sedibeng (bottom) block layouts showing the Mineral Resource categorisation logic as at 1 July 2013

#### 6.4 Star and Sedibeng Mine Diamond Resources (28 February 2017)

The Competent Person is satisfied that the Diamond Resource estimation approaches are appropriate to the Star and Sedibeng fissure Mines and representative of the diamond mineralisation contained within the kimberlite fissures and various stockpiles at each mine.

Taking all of the above updated modelling techniques and Diamond Resource classification criteria into consideration, Sedi Diamonds updated the Star and Sedibeng Mines Diamond Resources accordingly, as presented below in Table 8.

	Star Mine				
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Micaceous		0.057	79.7	0.046	295
Burns	Mossurad	0.065	79.7	0.052	295
East Star	Measureu	0.000	79.7	0.000	295
Wynandsfontein		0.044	79.7	0.035	295
	Star Measured Resource	0.167	79.7	0.133	295
Micaceous		0.115	79.7	0.091	295
Burns	Indicated	0.113	79.7	0.090	295
East Star	Indicated	0.000	79.7	0.000	295
Wynandsfontein		0.088	79.7	0.070	295
	Star Indicated Resource	0.317	79.7	0.252	295
Micaceous		0.172	79.7	0.137	295
Burns		0.245	79.7	0.195	295
East Star	Inferred	0.000	79.7	0.000	295
Wynandsfontein		0.133	79.7	0.106	295
Tailings stockpiles		0.307	5.0	0.015	150
Star Inferred Resource		0.856	52.9	0.453	291
°	Star Resource	1.340	62.6	0.838	293
	Sedibeng Mine				
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Messina	Magaurad	0.083	47.7	0.040	385
Dancarl	Measured	0.100	47.7	0.048	385
	Sedibeng Measured Resource	0.183	47.7	0.087	385
Messina	Indiaatad	0.146	47.7	0.070	385
Dancarl	muicateu	0.035	47.7	0.017	385
	Sedibeng Indicated Resource	0.181	47.7	0.086	385
Messina		0.208	47.7	0.099	385
Dancarl	Inferred	0.150	47.7	0.072	385
Tailings stockpiles		2.488	5.0	0.124	150
	Sedibeng Inferred Resource	2.847	10.4	0.295	286
	Sedibeng Resource	3.212	14.6	0.469	323
Total	Measured	0.350	62.9	0.220	331
Total	Indicated	0.498	68.0	0.339	318
Total	Inferred	3.703	20.2	0.749	289
Total Re	esource Star and Sedibeng	4.551	28.7	1.307	304

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Table of Stal allu	Securelly Diamond	i Resource Statement a	15 al 20 repludiv 2	LUT1

General notes on reporting criteria:

1. Resource and Reserve bottom cut-off is at 1.00mm;

- 2. Measured resources are classified as one level (40m) below the base of the current working levels, Indicated Resource two levels (80m) below the base of the Measured Resource and Inferred Resource three levels (120m) below the Indicated Resource;
- 3. Resources are reported inclusive of Reserves;
- 4. Tonnes are reported as millions; contained diamonds are reported as per million carats;
- 5. Tonnes are metric tonnes and are rounded to the nearest 100,000 tonnes; carats are rounded to the nearest 10,000 carats; rounding off of numbers may result in minor computational discrepancies;
- 6. Resource tonnages and grades are reported exclusive of external waste, unless where otherwise stated;
- 7. All Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

# 7. ORE RESERVE ESTIMATES

The Ore Reserves for Star and Sedibeng were independently reviewed and verified in February 2017 and are based on Sedi Diamonds (Pty) Ltd Resource Revision for Star as at 28 February 2017. It comprises Proved and Probable ore categories based on mining the Measured and Indicated Resources respectively, with appropriate allowances made for mining dilution and recovery based on current and expected mining practices. Resources are reported inclusive of Reserves.

The Ore Reserves at Star and Sedibeng are based on assumptions about the ore, its characteristics and how it will be mined and, importantly, on a range of significant infrastructural enhancements that the management of Star and Sedibeng have advised the Competent Person, are either being implemented or plans are already being developed. Without the infrastructure improvements it will not be possible to recover the stated Ore Reserves.

Since the kimberlite fissures at Star and Sedibeng are expected to average 58cm and 60cm true widths respectively, and it is not possible to practice any meaningful grade control, it is the mining operation's intention to extract 100% of the fissure material, provided it exceeds an economic minimum true width cut-off (currently about 30cm) and safety is not compromised.

It should be noted that allowances of 20% and 15% geological losses respectively, are accounted for in the Mineral Resource inventory of Star and Sedibeng due to narrowing of fissure to widths that are uneconomic to mine, loss of ground through offsets in the fissures, unmined ground left due to poor ground conditions and sill pillars left between levels to avoid holing into unstable ground in open stopes above.

Additional allowances made for dilution at Star and Sedibeng include:

- appropriate allowance for wall rock dilution during mining underground;
- an adjustment for any loss of kimberlite fissure material during the course of the mining, tramming and hoisting process (ie. mining recovery);
- an adjustment for kimberlite fissure that has to be left behind in sill pillars required for stability control (historically this has amounted to 8-10% of fissure volume); and
- an appropriate allowance for kimberlite fissure that is too narrow to meet the mine's economic mining width and hence will be left unmined.

## 7.1 Diamond Ore Reserve Statement

The Diamond Ore Reserves were independently reviewed and verified by Mr Stephen le Roux, a competent person with 20 years' relevant experience in the diamond mining industry and a registered Professional Geological Scientist (Reg. No. 400206/15) with the South African Council for Natural Scientific Professions (SACNASP) subject to a Code of Conduct administered by SACNASP to ensure professional conduct.

The Competent Person considers that the history of production tonnages, production grades and fissure width characteristics demonstrates sufficient confidence in the fissure continuity to define Measured, Indicated and Inferred Resource categories.

## 7.1.1 Modifying Factors – Star and Sedibeng

The mining related modifying factors that were applied by Sedi Diamonds to the Star and Sedibeng Diamond Ore Reserves are as follows:-

- the mineable Diamond Ore Reserves exclude any Inferred Resources within the Star and Sedibeng mining areas;
- mining recovery of the fissure at Star is assumed to be 100% (0% in stope losses);
- a mining recovery factor of 90% was applied for the recovery of the kimberlite fissure at Sedibeng (i.e. 10% will remain principally as sill pillars for stability and in-stope losses);
- the average bulk densities attributed to the kimberlite fissure and waste at Star and Sedibeng are 2.75 t/m<sup>3</sup> and 2.65t/m<sup>3</sup> respectively;
- an allowance for 20% and 15% geological losses is accounted for in the Mineral Resource inventory at Star and Sedibeng due to narrowing of the fissures to widths that are uneconomic to mine;
- At Star and Sedibeng, mining dilution is allowed for in allowing an additional 10cm unplanned external dilution to the average stoping widths of 100cm and 120cm respectively;

- based on historic mining data, it is realistic to expect to mine an average fissure width of 58cm (conservative estimate) at Star with a corresponding average stoping width of 110cm (includes 10cm wall rock dilution). The kimberlite in the ROM ore is therefore diluted on average with 52cm of waste rock (i.e. 47% of ROM ore is waste).
- based on historic mining data, it is realistic to expect to mine an average fissure width of 60cm (conservative estimate) at Sedibeng with a corresponding average stoping width of 130cm (includes 10cm wall rock dilution). The kimberlite in the ROM ore is therefore diluted on average with 70cm of waste rock (i.e. 54% of ROM ore is waste).
- At Star, the average reserve grade of 42 cpht is based on an in situ grade of 79 cpht which includes 47% dilution (110cm actual stoping width, 58cm fissure width). The resource grade is based on a back calculation from actual diamond production at Star;
- At Sedibeng the average reserve grade of 22 cpht is based on an in situ grade of 48 cpht which includes 54% dilution (130cm actual stoping width, 60cm fissure width). The resource grade is based on a back calculation from actual diamond production at Sedibeng;
- No quantitative assessment has been made of the plant's recovery efficiency at Star and Sedibeng. A
  plant recovery factor of 95% was applied to both Reserves;
- Diamond Resource cut-offs were applied as per the Diamond Resource statement for both mines; and
- The diamond bottom cut-off size is 1.00mm.

The modifying factors used are considered appropriate and reasonable, resulting in the Star and Sedibeng Mines Diamond Ore Reserves as tabulated in Table 9 below. The table also shows a comparison of the Diamond Ore Reserves declared as at 1 July 2013 and 28 February 2017.

The declared Diamond Ore Reserve grades for Star and Sedibeng are fully diluted and reported as head feed grades.

## 7.2 Diamond Ore Reserve Estimation Methodology

No optimised Whittle – optimisation process using project financial forecasts, was used to determine cut-off limits for the Resources or the Reserves at Star and Sedibeng, or to derive an Ore Reserve for both mines. Instead, cut-off limits for the Diamond Resources have been based on discrete cut-off elevations as determined for the Indicated and Inferred Resource categories (Figures 13A and 13B).

The Ore Reserve estimates at Star and Sedibeng are derived from the Mineral Resource, with allowances made for dilution and mining recovery, based on current and expected mining practices and, importantly, on a range of significant infrastructural enhancements that the management of Star and Sedibeng have advised the Competent Person are either being implemented or plans are already being developed. Without the improvements to the infrastructure it will not be possible to recover the stated Ore Reserves.

## 7.3 Conclusion Ore Reserves

The assumptions and methodology used in converting the Diamond Resources to Diamond Ore Reserves at Star and Sedibeng are considered to be reasonable and appropriate.

During the site visit, the Competent Person made a visual inspection of the distribution of country rock in the ROM feed to the plant at Sedibeng. Strict grade control measures and adherence to minimum stoping widths may be required during mining to minimise dilution, since this will lead to a reduction in the recovered diamond grade which will have a significant impact on the performance of both operations if not properly managed.

The continuity of the average grade and width of the fissures cannot be demonstrated with absolute certainty, however, in the Competent Person's view the strike, dip, width and diamond grade continuity of the kimberlite fissures at Star and Sedibeng are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. There is a high level of confidence from historical information to support the extrapolation of the fissure widths and grades with depth.

The main reason for the increase in the total Ore Reserve for Star Mine is due to the addition of the Proven and Probable Reserve of the Micaceous section which was excluded in the 1 July 2013 Ore Reserve of Star Mine (Table 9).

Star Mine - 28 February 2017						01 July 2013			
Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Micaceous		0.109	42.6	0.046	295				
Burns	Brovon	0.124	42.6	0.053	295	0.127	43.0	0.054	n/a
East Star	FIOVEII				295				n/a
Wynandsfontein		0.084	42.6	0.036	295	0.065	39.0	0.025	n/a
	Star Proven Reserve	0.316	42.6	0.135	295	0.192	41.0	0.079	n/a
Micaceous		0.218	42.6	0.093	295				n/a
Burns	Probable	0.215	42.6	0.092	295	0.224	43.0	0.096	n/a
East Star	FIODADIe				295				n/a
Wynandsfontein		0.168	42.6	0.071	295	0.142	39.0	0.055	n/a
	Star Probable Reserve	0.601	42.6	0.256	295	0.366	41.0	0.150	n/a
	0.917	42.6	0.390	295	0.558	41.0	0.230	n/a	
Se	edibeng Mine - 28 February	y 2017					01 Jul	y 2013	
Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)
Maaaina	Drover	0.400	04.0	0.025	205	0.400	05.0	0.050	7/2
Nessina	Proven	0.162	21.0	0.035	205	0.199	25.0	0.050	n/a
Dancan	Sodibong Proyon Posonyo	0.195	21.0	0.042	300	0.207	25.0	0.072	n/a
	Sealbeing Proven Reserve	0.357	21.0	0.077	385	0.400	25.0	0.122	n/a
Messina	Probable	0 285	21.6	0.062	385	0.350	25.0	0.087	n/a
Dancarl	1 TOBUDIO	0.069	21.6	0.015	385	0.069	25.0	0.017	n/a
	Sedibeng Probable Reserve	0.354	21.6	0.076	385	0.419	25.0	0.104	n/a
	Sedibeng Ore Reserve	0.711	21.6	0.154	385	0.905	25.0	0.226	n/a
Total	Proven	0.674	31.4	0.212	328	0.678	29.5	0.200	n/a
Total	Probable	0.954	34.8	0.332	316	0.785	32.5	0.255	n/a
Total Reserves Star and Sedibeng		1.628	33.4	0.544	320	1.463	31.1	0.455	n/a

#### Table 9: Declared Ore Reserves for Star and Sedibeng Mines as at 28 February 2017 and 01 July 2013

General notes on reporting criteria:

1. Resource and Reserve bottom cut-off is at 1.00mm;

- Measured resources are classified as one level (40m) below the base of the current working levels, Indicated Resource two levels (80m) below the base of the Measured Resource and Inferred Resource three levels (120m) below the Indicated Resource;
   Resources are reported inclusive of Resource;
- 3. Resources are reported inclusive of Reserves;
- 4. Tonnes are reported as millions; contained diamonds are reported as per million carats;
- 5. Tonnes are metric tonnes and are rounded to the nearest 100,000 tonnes; carats are rounded to the nearest 10,000 carats; rounding off of numbers may result in minor computational discrepancies;
- 6. Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors;
- 7. All Reserves have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

## 8. MINING METHODS

Due to the complexities of kimberlite dyke systems, the ore bodies at Star and Sedibeng do not lend themselves readily to bulk mining methods, and over the years two stoping techniques have proved themselves to be most successful for this type of deposit.

These orebodies are generally accessed via vertical shaft systems, while production levels are established by means of an access crosscut developed to the kimberlite. From this access crosscut, drives are established parallel to the orebody in each direction along strike, with access to the orebody for stoping provided by crosscuts spaced at regular intervals along the length of the drives (Figures 14A and 14B). Inter-level distances, crosscut spacings and drive to orebody distance, are dependent on the stoping method employed and the depth of mining below surface.

Current management have considerable experience with mining deeper Fissure Diamond mines. This expertise is and intends to be applied at both Star and Sedibeng Mines.

## 8.1 Mining Method, Access and Design - Star Mine

Star has 4 vertical shafts of which the following are still operational (Figure 2A):

- Main shaft down to 17 Level at Burns fissure (situated in the central portion of the property and used for all hoisting of men, material and ROM. Serves also as air intake for mine ventilation;
- No 7 shaft at Wynandsfontein fissure (used for ventilation and a second escape route from underground workings); and
- two sub-vertical shafts below 10 Level, one each at Wynandsfontein and Burns.

Star currently employs an underhand open stope mining method to extract the narrow kimberlite fissures (Figure 14A). Whilst both shrinkage and open stoping are suitable mining methods, open stoping is the preferred method as it allows for continued access and ability to clean all fissure from the stopes; while the ore is not locked up for a period of time in a shrinkage pile that will become diluted as ore is drawn and the unsupported stope span increases.

Competent host rocks have allowed stopes to remain open with a controllable amount of in-stope support. Even the less competent, horizontally laminated shales that host the upper 550m of kimberlite fissure stand up well within the near vertical stopes. Sidewall support is provided by timber packs and poles installed across the stope.

Production levels are currently established on 40m vertical intervals. Hence, 10 Level is situated at approximately 400m below surface. The footwall of the entire raise becomes the production face, which is drilled and blasted.

Drilling, blasting and cleaning in the stopes are carried out manually, and the broken ore is extracted from the stope after each blast by means of draw points on the lower level. Overhead loaders then clean rock from the draw points. If the fissure begins to pinch out or become stringer-like to the point where it is considered uneconomical to mine, the face length is shortened around this area.

At the time of the Competent Person's site visit in September 2016, mining operations were conducted at levels 15 (westward) and 16 (east and westerly direction) of the Burns Fissure (Figure 2A).



Figures 14A and 14B: Mining methods at Star and Sedibeng showing access to the orebody and different stoping methods employed

#### 8.2 Mining Method, Access and Design - Sedibeng Mine

Sedibeng has 10 vertical shafts of which the following are still operational: Albertse shaft (Messina Diamonds section), Halliday shaft (Messina Diamonds section), Main Shaft (Dancarl Diamonds Section), No7 Shaft (Dancarl Diamonds section) and two sub vertical shafts (Figure 4B).

Sedibeng currently mines the narrow Bobbejaan Fissure using the shrinkage overhand stoping method (Figure 14B).

The mine is currently operating on levels established on 40m vertical intervals with access from vertical shafts located either side of the vertical fissure. With shrinkage stoping, stope faces are developed by establishing interconnected drawpoint raises at 45° on kimberlite between adjacent crosscuts.

The stope face is advanced by drilling and blasting into the hanging wall, with the face lifted by each successive blast until a full face is established between levels at an angle of 35° - 40° (Figure 14B). Broken ore is used as a drilling platform, therefore only enough is drawn off via the draw points after each blast to allow re-entry into the stope (approx. 40%).

Once a stope face has advanced past a crosscut, it can be completely emptied and this part of the stope is abandoned. Temporary support of the face is used during drilling, and stope sidewalls are supported by the stockpile inside the stope.

At the time of the Competent Person's site inspection in September 2016, Sedibeng was actively developing and stoping in the Dancarl section at levels 17, 18, 19, 20, 21, and 22. (Figure 2B).

## 8.3 Advantages and Disadvantages of Stoping Methods

**Overhand stoping** as carried out at Sedibeng is best suited to dyke systems with a pervasive fracture cleavage, where stope sidewalls become impossible to support. It is significantly cheaper than underhand stoping, as it requires less labour and uses less support material. However, pulling of the stockpile from crosscuts must be closely monitored, as the longer the broken ore sits underground in stopes the more waste is added due to sidewall spalling. Stopes can become self-mining where fissure widths become excessive (generally >1 m), or where sidewall conditions are extremely poor. Shaft hoisting capacities must be able to handle the extra waste in the ROM ore under these conditions, and reconciliation between ROM ore mined and processed becomes difficult due to limited access to stopes for survey measurements.

**Underhand stoping** allows for better quality ROM ore and better grade control as ore is removed from the stopes and sent to the plant immediately after every blast, allowing survey measurements to be directly correlated with plant throughput. However it is significantly more costly than underhand mining due to its labour intensive nature and support costs and the contained revenue in the orebody must be sufficient to support the increased mining costs.

**Underhand stoping** is a better mining method for more erratic fissure systems as found at Star, as stopes can be "rolled" from one kimberlite lens to the next, and re-established by means of re-raising more easily than overhand stopes if the offsets between adjacent lenses become too large. However, it can only be practiced on fissure systems where the fracture cleavage is not well developed as the support of sidewalls in open stopes above working faces is only viable if those sidewalls are relatively competent initially.

The following table highlights the main advantages and disadvantages of each stoping method:

#### Table 10: Comparison of Overhand and Underhand Stoping Methods employed at Star and Sedibeng Mines

Underhand – Star Fissure	Overhand – Sedibeng Fissure
Less cost effective	More cost effective
Permanent support needed in stopes	Reduced support needed in stopes
Very Labour intensive	Less labour intensive than Underhand
Produces much cleaner R.O.M. ore (higher grade)	More dilution of kimberlite in R.O.M. ore (lower Produces much cleaner ROM ore (higher grade)
Needs good sidewall conditions (minimal fracture cleavage next to dyke)	Can be used for poorer sidewall conditions
Better for more erratic lenses of kimberlite	Better for more continuous lenses of kimberlite.
Ore is sent to plant immediately after blast.	±60% of ore locked up until stope has matured Ore is sent to plant immediately after blast. (large lead time).
Clean survey measurement.	"Dirty" survey measurement
Less problematic in grade control.	More problematic in grade control.

# 9. MINERAL PROCESSING AND METALLURGICAL TESTING

Star and Sedibeng both operate a Dense Media Separation (DMS) and Final Recovery Plant capable of treating the Ore Reserve at a head feed rate of 30tph and 50tph or at an average annualised rate of 110,000tpa and 180,000tph respectively. The process uses well proven diamond recovery technology for kimberlite ore.

At both mines, ore is fed to the treatment plants through a load and haul system which operates from the Main production shaft. Coarse waste rock is separated from diamond bearing ore by hand picking and is then stepwise crushed through a three crusher system. Material from the DMS cyclone overflow of which the size is between +6mm and -30mm, remains in closed circuit through the washing, screening, and DMS sections until it is reduced to -6mm and discarded as tailings. The bottom cut-off sieve sizes at Star and Sedibeng is fixed at 1.00mm.

Diamond bearing concentrate is separated from non-diamond bearing material through the DMS plant and then super concentrated through X-ray sorting machines, followed by grease recovery, and then by hand sorting of the product for safekeeping.

No metallurgical test work has been undertaken by Sedi Diamonds for the purposes of generating the Ore Reserve at Star and Sedibeng. Modifications and adjustments to the plant were made by experienced operators who have treated ore at production scale over many decades.

## **10. DIAMOND VALUATIONS**

At Star and Sedibeng, the diamond prices have been generated from 11,008.93 carats and 13,955.48 carats sold between October 2015 and September 2016, at an average price of USD295.71/ct and USD385.29/ct respectively.

Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Star to Petra at a cost of 1% of the selling price of the product.

# **11. ENVIRONMENTAL, MINE CLOSURE AND REHABILITATION COST**

The mining license and EMPr at Star and Sedibeng makes provision for the adequate storage of tailings. There is potential for the reprocessing of surface tailings and surrounding dumps on both mines through the implementation of a small-scale treatment facility. This will clear most of the surface dump material and thus allow areas to be available for rehabilitation purposes.

Existing waste management facilities are adequate to accommodate the waste generated in the foreseeable future at Star and Sedibeng mines. No new waste management facilities are proposed, however, the existing waste management strategy needs to be revised to promote increased recycling and on-site management of waste.

## 11.1 Mine Closure and Rehabilitation Cost – Star and Sedibeng

South African mining law dictates that mine owners should pay to remediate the damage which they cause to the environment. Section 41 of the MPRDA incorporates "The Polluter Pays"- principle, and requires an applicant of mining rights to make financial provision for the rehabilitation or management of negative environmental impacts, either in the form of a cash deposit, guarantee, insurance, or an approved trust fund.

Shortly after the acquisition of Star and Sedibeng mines all Petra's rehabilitation guarantees held by Guardrisk Insurance Company Limited (Reg. no. 1992/001639/06), were transferred to Sedi Diamonds, thereby releasing Petra Diamonds from the rehabilitation obligations and ensuring that the mine's guarantees remained in place. A statement from the Insurers (Policy no. 20845) for the period ended 31 October 2016 reflects a total amount of R15.5 million available for rehabilitation obligations for Sedi Diamonds, Dancarl, Messina and Star.

The latest premature closure cost calculations, that were done for Star and Sedibeng mine during 2015/2016, amount to R11,378,483.45 and R6,229,199.02 respectively, or collectively a total of R17,607,682.47 for both mines, excluding VAT.

The amount provided for will be adjusted after the approval of the closure cost Quantum by the Department of Mineral Resources as the current calculation indicates a marginal shortfall of R 2,060,005.47 (excl. VAT).

# **12. CONCLUSION AND RECOMMENDATIONS**

- Star's converted mining license ML 11/1996 is set to expire on 10 February 2025. However the LOM plan (which is not included in this document) is more than 9 years. This results in a scenario of the mining license expiring 11 years before the mine plan is completed. Until a renewal is granted there remains a risk that the LOM Plan may not be fully realised. The Competent Person is unaware of any reason why an extension would not be granted, but this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the LOM Plan;
- At Sedibeng, new order rights for Dancarl and Messina have been granted by the DMR but still need to be executed and signed. The period of the grant is currently unknown and may be similar as in the case of Star Mine. The Competent Person is unaware of any reason why the execution would not be granted, but this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the LOM Plan;
- A dedicated specific gravity (SG) determination campaign is recommended for each of the fissures at Star and Sedibeng. Whilst a change in the SG is anticipated, it is likely not to be significantly different to the SG used in the geological models and as such shouldn't have a material effect in the reported tonnage calculations.
- At Star and Sedibeng, mining production data provides substantially more consistent information necessary for
  estimation of the geology and grade behaviour of the deposit, however, it is recommended that a sub-surface,
  directional and vertical core drilling campaign is to be developed for Star and Sedibeng, backed by downhole
  geophysical surveys to locate the fissures at depth, with the aim to increase the confidence of the resource base and
  to assist with much needed development planning, as will be required with ongoing increases in depth.
- Limited metallurgical test work has underpinned the Star and Sedibeng plant designs in the past and no quantitative assessment has been made of the plant's recovery efficiency lately. Modifications and adjustments to both plants were made by experienced operators who have treated ore at production scale over many decades, however, it is recommended that metallurgical test work is to be undertaken at both DMS plants to verify and refine plant efficiencies and recovery factors.
- From an operational standpoint, the greatest risk to Star and Sedibeng will be failure to achieve the budgeted average stoping width resulting in excessive dilution and therefore a reduction in recovered diamond grade. Historically Sedibeng has been producing from a number of stopes that are highly susceptible to self-mining. Preliminary indications are that the ground conditions in the deeper Ventersdorp lava are favourable due to the competency of the host rock.
- Whilst development and stoping conditions will improve at Star Mine due to the more competent host rocks at deeper levels, new difficulties will be encountered eg. water and methane control in Witwatersrand lithologies. This needs to be closely monitored and managed.
- Given the scope of the valuation and timeframes for completion, the Independent Statement of Diamond Resources and Ore Reserves Report for Sedi Diamonds does not cover an independent mineral asset valuation of Sedi Diamond's asset as per the requirements of the VALMIN Code 2005; however, an in-house preliminary feasibility study has already been completed for both Star and Sedibeng with seemingly positive results. This information needs to be independently verified.
- Further detail is provided in the JORC 2012 Table 1 for Star and Sedibeng that accompanies this report.

# **13. STATEMENTS OF COMPLIANCE – MINERAL RESOURCES AND ORE RESERVES**

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves, quoted in this Independent Statement of Diamond Resources and Ore Reserves Report at Star and Sedibeng Diamond Mines, are based upon, and fairly represents information and supporting documentation compiled or reviewed by Mr Stephen le Roux. Mr le Roux is an Independent geological consultant, self-employed and contracted for this work by Frontier Diamonds Limited.

Mr le Roux is a Member of the South African Council for Natural Scientific Professions and has a minimum of five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr le Roux consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr le Roux has no interest in any of Frontier Diamonds Limited, its associated parties, or in any of the mineral properties which are the subject of this report, capable of affecting his ability to give an unbiased opinion and have not, and will not, receive any pecuniary or other benefits in connection with this assignment, other than normal consulting fees.

# **14. EFFECTIVE DATE AND SIGNATURES**

**STEPHEN HENRY LE ROUX** 

B.Sc. (Hons) Geol, Dip. Prod. Man., GSSA (4.1.60129), Pr.Sci.Nat. (400206/15)

Effective Date: 28 February 2017 Final Report Date: 30 March 2017

# **15. REFERENCES**

AUTHOR	CONSULTANCY OR COMPANY	DATE	TITLE	SOURCE
Retter P.C, McKibben J, Kullmann D, Snowden P	Snowden Mining Industry Consultants	2004	Independent Valuation of the Mineral Assets of Crown Diamonds NL	Petra Diamonds
Bartlett P.J	Petra Diamonds	2011	Review of Petra Diamonds Resource and Reserve Statement for 2011	Petra Diamonds announcement
Kilham J.L	Kgalagadi Geoservices cc	2012	Review of Petra Diamonds Resource and Reserve Statement for 2012	Petra Diamonds announcement
Kilham J.L	Kgalagadi Geoservices cc	2013	Review of Petra Diamonds Resource and Reserve Statement for 2013	Petra Diamonds announcement
Gurney, J.J and Kirkley, M.B.,	University of Cape Town	1996	Kimberlite dyke mining in South Africa.	Online
Allan H.F	Journal of the South African Institute of Mining and Metallurgy	1960	Mining a Vertical Kimberlite Fissure at Star Diamonds (Pty)Ltd	Online
Rogers A.J, Davidson J	Petra Diamonds	2006- 2013	The fissure Mining Aspect of Diamond Mining	Petra Diamonds
Petra Diamonds	Petra Diamonds	2006- 2013	Petra Annual Report	Online
Petra Diamonds	Petra Diamonds	2011	Prospectus 15 December 2011	Online
Petra Diamonds	Petra Diamonds	2012	Interim results for the six months to 31 December 2012	Online

• legal documents pertaining to the mining right, registration of the operating company and registration of change of name;

• geological reports on the fissure deposits as found at Star and Sedibeng Mine;

- technical reports on historical production and historical Diamond Resource estimates;
- technical reports on recent production, Diamond Resource and Ore Reserve estimates and Modifying factors;
- independent Valuation reports of the Mineral Assets of both mines;
- AIM admission documents;
- detail survey records and updated mine plans;
- mining work programmes; and
- environmental management program reports.

# **16. ABBREVIATIONS**

Abbreviation/	Explanation
Glossary	
AUD	Australian Dollars
AUD/ct	Australian Dollars per carat
3D	3 Dimensional
BSS	Bottom Screen Size
Bobbejaan Fissure	2,430 metre-long kimberlitic fissure system at the Sedibeng mine
cpht	Carats per hundred tonnes
Crown	Crown Diamonds (Pty) Limited (formerly named Crown Diamonds N.L)
Ct	Carat
Dancarl	the Dancarl mine is part of the Sedibeng Diamond Mine JV Operations
DBCM	De Beers Consolidated Mines (Pty) Ltd
DMS	Dense Media Separation
DMR	the Department of Mineral Resources of South Africa
EMPr	Environmental Management Program
Fissure Mines	Sedibeng Diamond Mine JV and Star Diamonds (Pty) Ltd
Frontier	Frontier Mining Projects (Pty) Ltd (main contractor appointed by Sedi Diamonds (Pty) Ltd to operate its diamond operations in South Africa)
На	Hectares
Kgalagadi	Kgalagadi Geoservices cc, Kimberley ,South Africa
Messina	the Messina mine is part of the Sedibeng operation
MPRDA	the Mineral and Petroleum Resources Development Act 28 of 2002 (South Africa)
mbs	metres below surface
Petra	Petra Diamonds Southern Africa (Pty) Ltd
ROM	Run-of-Mine
Sedi Diamonds	Sedi Diamonds (Pty) Ltd
SG	Specific Gravity
Snowden	Snowden Mining Industry Consultants Pty Ltd
Sedibeng	the Sedibeng Mining Operation is an amalgamation of two mines (Messina and Dancarl) in the Northern Cape Province, RSA
Sedibeng JV	Sedibeng Diamond Mine JV - a JV between Dancarl Diamonds (Pty) Ltd& Messina Diamonds (Pty) Ltd
Star	Star Diamond Mine in the Free State Province, RSA
Star Diamonds	Star Diamonds (Pty) Limited
SAMREC Code	the South African Code for Reporting of Mineral Resources and Mineral Reserves, as published by the South African Mineral Committee under the auspices of the South African Institute of Mining and Metallurgy
UTM–WGS84	Universal Transverse Mercator coordinate system using WGS 84 Datum.
VAT	value added tax

# **Star Diamond Mine** Mineral Resource and Ore Reserve Statement as at 28<sup>th</sup> February 2017 JORC Code, 2012 Edition – Table 1

# **Section 1 Sampling Techniques and Data**

(Criteria in this section applies to all succeeding sections.)

Criteria	Commentary			
Abbreviations and				
Definitions				
	Abbreviation	Explanation		
	3D	3 Dimensional		
	BSS	Bottom Screen Size		
	Bobbejaan Fissure	2,430 metre-long kimberlitic fissure system at the Sedibeng mine		
	cpht	Carats per hundred tonnes		
	Crown	Crown Diamonds (Pty) Limited (formerly named Crown Diamonds N.L)		
	Ct	Carat		
	Dancarl	the Dancarl mine is part of the Sedibeng Diamond Mine JV operations		
	DBCM	De Beers Consolidated Mines (Pty) Ltd		
	DMS	Dense Media Separation		
	DMR	the Department of Mineral Resources of South Africa		
	Fissure Mines	Sedibeng Diamond Mine JV and Star Diamonds (Pty) Ltd		
	Frontier	Frontier Mining Projects (Pty) Ltd (main contractor appointed by Sedi Diamonds (Pty) Ltd to operate its diamond operations in South Africa)		
	На	Hectares		
	Kgalagadi	Kgalagadi Geoservices cc		
	Messina	the Messina mine is part of the Sedibeng operation		
	MPRDA	the Mineral and Petroleum Resources Development Act 28 of 2002 (South Africa)		
	mbs	metres below surface		
	Petra	Petra Diamonds Southern Africa (Pty) Ltd		
	ROM	Run-of-Mine		
	Sedi Diamonds	Sedi Diamonds (Pty) Ltd		
	SG	Specific Gravity		
	Snowden	Snowden Mining Industry Consultants Pty Ltd		
	Sedibeng	the Sedibeng mining operation is an amalgamation of two mines (Messina and Dancarl) in the Northern Cape Province, RSA		
	Sedibeng Mining	Sedibeng Mining (Pty) Limited		
	Sedibeng JV	Sedibeng Diamond Mine JV - a JV between Dancarl Diamonds (Pty) Ltd& Messina Diamonds (Pty) Ltd		
	Star	Star Diamond Mine in the Free State Province, RSA		
	Star Diamonds	Star Diamonds (Pty) Limited		
		the South African Code for Reporting of Mineral Resources and Mineral Reserves, as published by the South African Mineral Committee under the auspices of the		
	SAMREC Code	South African Institute of Mining and Metallurgy		
	UTM-WGS84	Universal Transverse Mercator coordinate system using WGS 84 Datum.		

Criteria	Commentary
Sampling techniques	The Star fissure complex is not conventionally sampled as in the case of a normal kimberlite pipe, but has been extensively mined over a period of more than 60 years. Mining production data provides the information necessary for estimating the geology and grade behaviour of the deposit.
	At Star mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Star fissure complex are known with a high degree of confidence. For the Star fissure mine a strategy has been developed to define the resource in such a way that it allows the Competent Person to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years at Star mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. This concept is also supported by previous qualified persons and institutions like Snowden and Kgalagadi who did Independent Valuations for Crown (2002 – 2005) and Petra Diamonds (2012/2013) respectively.
	It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report, relating to the kimberlite fissure, a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
	In the past and presently Star mine excavated the fissure using the underhand open stope mining method as discussed in detail in sections 2 and 3 of this table.
Drilling techniques	Compressed air percussion and pneumatic rock drills are mainly used for stoping and development and to perform cover drilling to locate the fissure. The en échelon arranged lenses overlap and are slightly off-set from each other along strike and depth by between 1 and 20 m, but normally less than 10 m.
	Limited diamond exploration drilling has been undertaken at Star. In late 2002, Snowden completed two diamond drill holes at Burns and Wynandsfontein of Star mine to test the down-dip continuity of the fissure. A drill cross-cut was established on 12 and 14 Level of the Wynandsfontein and Burns fissure respectively and two holes designed to intersect the kimberlite fissure at depth. Both holes were successfully completed having intersected kimberlite fissure at depths.
Drill sample recovery	The Burns diamond hole was oriented due North and drilled from 14 Level directly beneath the Main shaft at an inclination of -58°. Two fissure intersections were recorded:
	<ul> <li>30 cm (15 cm true width) at 110m down the hole representing a vertical depth of 95m below Level 14 and;</li> <li>90 cm (45 cm true width) at 139m down the hole, representing a vertical depth of 12m below Level 14.</li> </ul>
	The Wynandsfontein diamond hole intersected a zone of kimberlite stringers at a vertical depth of 140m below 12 Level. Four Kimberlite stringers with a total thickness of 32cm were encountered. Core samples obtained during cover drilling to locate the fissure are often discarded after logging. Core chips are not being used to determine in stope grade.
Logging	Core samples are being logged for basic lithological parameters during cover drilling to locate the fissure. Cover drilling does not support Mineral Resource estimation, mining studies or metallurgical studies. No geotechnical diamond drilling data is available at Star.
Sub-sampling techniques and sample preparation	No sub sampling was undertaken.
Quality of assay data and laboratory tests	Core samples obtained during cover drilling to locate the fissure are often discarded after logging. Average in situ grades (cpht) for the fissure are obtained by back calculating from the recovered grades after various Mining factors have being taken into account.
Verification of sampling and	The mine itself does not have a resident, full-time geologist or geotechnical engineer and services are contracted as and when required. Cover drilling to locate the fissure is done by trained staff and rock drillers with years of experience particularly in fissure mining techniques.
assaying	There is a survey office on the premises where mine plans are kept. Monthly stope and other developments are surveyed, plotted and then compared to the original plan. This method is considered adequate for monthly planning and verification purposes. All the monthly survey data is currently stored electronically.
Location of data points	All cover drillholes at Star are positioned in order to intersect the fissure for future development purposes. Accurate point surveys (stope dip, fissure width and stope width) of the fissure are taken 5 meters apart on a monthly basis and plotted on the surveyor's mine plans. This data is being used for mine planning and modelling purposes. All surface and sub surface survey coordinates, models etc. are in LO 27, WGS-84 format. Stope developments are surveyed by making use of LEICA survey equipment.
	LIDAR topography data is used, and all subsurface elevations tie back to that.
Data spacing and distribution	The spacing of the underground survey data used for mine planning and geological modelling is deemed suitable for the determining of geological continuity for this type of kimberlite body. No sample compositing has been applied to the grade data. Average in situ grades (cpht) for the fissure are obtained by back calculating from the recovered grades after various Mining factors have been taken into account.

Criteria	Commentary	
Orientation of data in relation to geological structure	The Star fissure complex is not conventionally sampled as in the case of a normal kimberlite pipe. Core samples recovered during cover drilling to locate the fissure do not support Mineral Resource estimation, grade determination, mining studies or metallurgical studies. No sub sampling has been carried out.	
	Due to the absence of any previous or ongoing core, chip or bulk sampling activity, bias of sampling is not likely.	
Sample security	No samples or sub samples were taken at Star. Basic on site security measures are in place for the stockpiling and processing of ROM ore.	
Audits or reviews	Survey, mining and production data available at Star was externally or internally reviewed by;	
	Snowden Independent Valuation for Crown Diamonds, 2002 – 2005	
	Petra Diamonds internal reviews, 2005 - 2011	
	Competent Person of Kgalagadi Independent reviews for Petra Diamonds, 2012/2013	
	Competent Person Independent review for Sedi Diamonds, September 2016	
	Competent Person Independent review for Frontier Mining Limited, February 2017	

# **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	Mineral tenement and land tenure status The Star Diamond Mine situated in Theunissen Magisterial District Free State, measuring 246.29 hectares in extent, is held by Star Diamonds (Pty) Limited (Registration No 1946/022941/07) under old order mining license no ML 11/1996 and converted to a new order mining right in terms of item 7(7) of Schedule II to the MPRDA, issued by the Department of Minerals and Energy on the 16 <sup>th</sup> day of April 2009 for a period of 15 years ending on 10 <sup>th</sup> of February 2025. Petra acquired the project in 2005 from Crown Diamonds. Sedi Diamonds (Registration no 2014/068898/07) acquired the project from Petra through the acquisition of Star Diamonds (Pty) Ltd in 2014. Sedi Diamonds appointed Frontier Mining Projects (Pty) Ltd (Frontier) as the main contractor to operate its diamond operations in the Country. The corporate structure of Sedi Diamonds is shown below:

	CORPORATE STRUCTURE HOLDING COMPANY
	STAR DIAMOND MINE MINE LICENSE OWNER
	SEDI DIAMONDS (PTY) LTD CO REG: 2014/068898/07
	100%
	MESSINA INVESTMENTS (PTY) LTD CO REG: 1968/011414/06
	74% 26%
	STAR DIAMONDS (PTY) LTD
	CO REG: 1946/022941/07
	Owner of mineral rights
	STAR DIAMOND MINE
	DMR MINE CODE: 0613
Evaluation does by other	The Clay diamond miss is an astablished underground mising expension whelly surred by Cadi Diamonds. The miss is leasted expression table 220 km south of Jahannashurg and 40 km south of the
Exploration done by other parties	town of Welkom in the Free State Province of South Africa (Figure 1). The mine was established in 1948 and has operated continuously since that date exploiting a series of kimberlitic fissures over an east-west trending strike length of 4.5 km. The individual fissures range in width from 5 to 80 centimetres, with an average width of 58cm. The following is a brief summary of the history of Star mine:
	Diamonds were first discovered in the area in 1911;
	first mining company on the 15 km long kimberlite fissure system established in 1926;
	initial Star trial mine workings were limited to the weathered surface kimberlite followed by adits into the side of a hill on the western side of the property;
	<ul> <li>In 1948, Gold Fields purchased the mine and Star Diamonds (Pty) Ltd was registered. The first shaft was established in early 1950's, with No. 3 and 4 (Main) Shafts subsequently sunk to 10 Level providing access to 445 m. During the Cold Fields' are more than 2 Mt was mined producing party 1 million corrects.</li> </ul>
	<ul> <li>in 1976. Gold Fields sold the mine to a private company called New Star Diamonds:</li> </ul>
	<ul> <li>in the early 1980s, the mine was purchased by Octha Diamonds who sold it in 1984 to Golden Dumps;</li> </ul>
	in 1992, Minvest acquired Star (Minvest acquired Messina in 1990);
	in March 1999, Messina Diamonds Pty Ltd purchased Star;
	Crown Diamonds acquired Star Mine in July 2003;     Petra Diamonds acquired the mine in 2005 from Crown Diamonde:
	Sedi Diamonds acquired the mine in 2003 non Clown Diamonds,     Sedi Diamonds acquired the mine from Petra in 2014.
	Sedi Diamonds appointed Frontier as the main contractor to operate its diamond operations in the Country.



Table 1           Star production history since 1959 until 28 February 2017				
Year	Tonnes treated	Carats recovered	Estimated grade (cpht)	
Jul 1959 – Jun 1960	119,699	36,820	30.76	
1970	90,686	43,994	48.51	
1971	121,639	56,721	46.63	
1972	119,890	67,168	56.02	
1973	97,973	52,589	53.68	
1974	101,121	47,743	47.21	
1975	98,442	45,716	46.44	
1976-1992		No records available		
1993	27,036	9,140	33.81	
1994	60,220	27,467	45.61	
1995	69,173	25,987	37.57	
1996	28,279	7,931	28.05	
1997	48,045	12,796	26.63	
1998-1999		No records available		
2000	38,270	12,728	33.26	
2001	35,066	15,415	43.96	
2002	29,102	14,232	48.90	
2003	36,313	16,085	44.30	
2004	33,599	15,819	47.09	
2005		No records available		
2006	34,351	15,110	43.99	
2007	38,791	16,638	42.89	
2008	28,251	16,870	59.71	
2009	26,302	14,823	56.36	
2010	16,422	8,781	53.47	
2011	19,026	7,059	37.10	
2012	14,088	6,886	48.88	
2013	20,441	8,299	40.60	
2014 (5 months)	9,740	3,572	36.67	
2015	26,990	8,997	33.33	
2016/2017 (14 months)	22,709	9,704	42.73	
TOTAL	1,411,664	625,090	44.28	

In February 2017 the Competent Person completed a review of Star mine based on a detailed examination of the survey and production data available at Star. This data has been assembled during the recent history of these operations as Sedi Diamonds has expanded its portfolio of diamond assets.

Data is collected at the individual mining operations and collated and compiled for interpretation using a series of spreadsheets. All data available is analysed and interpreted before it is used by the Sedi Diamonds personnel to compile and update the geological models for the mine. These updated models are then used by the mining engineers to plan both the long term mining strategies as well as the short term production scenarios for implementation by the operational personnel on the mines. This is an important an ongoing process in the life cycle of Star mine. The original geological interpretation for the Star fissure mine is based on work undertaken by Snowden and Petra during the years ranging from 2002 until 2012.

#### Mining method and layout

Star currently employs an underhand open stope mining method to extract the narrow kimberlite fissures. Whilst both shrinkage and open stoping are suitable mining methods, open stoping is the preferred method because it allows for continued access and ability to clean all fissure from the stopes while the ore is not locked up for a period of time in a shrinkage pile that will become diluted as

ore is drawn and the unsupported stope span increases.

Competent host rocks have allowed stopes to remain open with a controllable amount of in-stope support. Even the less competent, horizontally laminated Ecca and Dwyka shales (Geology section) that host the upper 550 m of kimberlite fissure stand up well within the near vertical stopes. Sidewall support is provided by timber packs and poles installed across the stope.

Crosscuts are driven from the haulages to intersect and fully expose the fissure. From these intersections, inclined raises are developed on fissure at 40° to 45° between levels, establishing production faces with suitable ventilation. Production levels are currently established on 40m vertical intervals. Hence, 10 Level is situated at approximately 400m below surface. Some variations exist in the upper levels at the extremities of the mine where access is gained through raise and decline development. The footwall of the entire raise becomes the production face, which is drilled and blasted. Drilling, blasting and cleaning in the stopes are carried out manually, and the broken ore is extracted from the stope after each blast by means of draw points on the lower level. Overhead loaders then clean rock from the draw points.



Figure 2. Schematic illustrating underhand open stoping as practised on the Star fissure mine

As the face advances, the stope opens up and support in the form of timber poles and solid packs are installed in order to stabilise the sidewalls as the spans increase. If the fissure begins to pinch out or become stringer-like to the point where it is considered uneconomical to mine, the face length is shortened around this area. If necessary, a new raise is developed to replace areas of geological and mining loss.

The fissure width can range from narrow stringers or complete loss of ground (often due to steps or off-sets in the fissure continuity to as much as 100 cm or more, although this is rare. Generally, fissure widths of less than 30 cm are not mined to minimise dilution. Five separate fissures have been identified and mined within the Star lease (Figures 3 and 4). From east to west the fissures are Wynandsfontein, East Star, Burns, Micaceous and Clewer (Figures 3, 4 and 5).

Haulages are generally positioned approximately 10m to the south of the fissure and are developed at a shallow incline away from the shaft to facilitate drainage. Crosscuts access the fissure at 10m intervals where draw points are established. The basic development dimensions are as follows:

- Haulages: 1.8m wide by 2.3m high
- Crosscuts: 1.8m wide by 2.3m high
- Ventilation raises: 1.5m wide by 1.8m high
- Travelling ways: 1.5m wide by 2.0m high
- Shaft sink all other shafts: 3.6m by 2.2m

Star has 4 vertical shafts of which the following are still operational:

- Main shaft down to 17 Level at Burns fissure (Situated in central portion of the property and used for all hoisting of men, material and rock. Serves also as air intake for mine ventilation;
- No 7 shaft at Wynandsfontein fissure (Ventilation and second escape route from underground workings); and
- Two sub-vertical shafts below 10 Level, one each at Wynandsfontein and Burns. Stoping is currently taking place at Burns fissure between 580 and 620m below surface.



Figures 3 and 4. Plan of Star mine showing historic surface infrastructure and longitudinal section showing old trial mining and production areas (Acknowledgement, Snowden 2004)



Geology	Geological background
	The known occurrences of diamondiferous kimberlites in South Africa are concentrated within the boundaries of the Kaapvaal Craton and occur as small volcanic diatremes (pipes), dykes (fissures) and sills. The kimberlite intrusions were emplaced along several parallel north-northeast and east-west trending structures and typically occur in swarms or clusters. The distribution of kimberlite occurrences in southern Africa, and kimberlite fissures in particular, are shown in Figure 1.
	Kimberlitic fissure deposits are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust. A few kilometres from surface, the confining pressure of the overlying rocks is insufficient to contain the explosive gases within the kimberlite magma and a volcanic eruption results. The resulting 'diamond pipe' consists of three broadly distinct vertical zones; the crater, diatreme, and root zones. Diamond-bearing fissure systems are found at surface when the effects of erosion have worn away the upper levels of the overlying diamond pipe.
	These fissures are characterised by high diamond grades and narrow widths, although they may have a strike extent of several kilometres and continue down-dip for hundreds of metres. The Star fissure system falls into the Group II Kimberlite category intruded ca. 120 million years ago. The kimberlite fissures show some similarities, but are more variable geologically than the kimberlite pipes. Typically the fissures are influenced by the country rock through which they have been emplaced. As with the kimberlite pipes, the fissures show considerable differences in terms of grades and quality of diamonds.
	The nature of the fissures, their steep dip and the mining method employed at each mine effectively preclude the use of exploration and grade control drilling to evaluate each of these fissures ahead of mining in any practical way. Instead the geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years at the mine, has provided effective and continuous sampling of the deposit and affords a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures.
	Star
	The Star mine property is underlain by a 520 metre thick sequence of flat-lying Karoo rocks which overlie rocks of the 2,700 million year old Witwatersrand Supergroup. A 30 metre thick succession of Permian-age Dwyka group tillites forms the basal unit to the Karoo sequence (Figure 4). These tillites are overlain by rocks of the Ecca group comprising a 135 metre thick unit of argillaceous sandstone overlain by a 200 metre thick sequence of carbonaceous mudstones and shales. The Ecca sediments are further overlain by a 150 metre thick package of Beaufort group shales and mudstones.
	The Star mine extends over a 4.5 km strike length of the east west trending Star kimberlite fissure system, which can be traced over a total distance of some 15 km. The fissure is a vertical compound structure comprising several fissures with an <i>en echelon</i> to anastomosing, interwoven arrangement that pinch and swell along strike as well as occasional kimberlite pipes (or "blows").
	At the Star mine, the Karoo sequence has been intruded by a thick dolerite sill and is cut by an east-west trending kimberlite fissure system (Star fissure system). The individual kimberlite fissures generally range in width from 5 cm to 80 cm with an average width of 58cm. There is no immediate change in fissure thicknesses when passing from shale into dolerite. The contacts in both types of country rock are sharp and smooth and the fissure is even more regular in the dolerite than in the shale.
	The Star fissure system incorporates five distinct fissure units. From west to east these are the Clever, Micaceous, Burns, East Star and Wynandsfontein fissure units (Figure 5). In addition to the aforementioned fissure units there is a blow situated on the far-west of the mining lease known as the Phoenix pipe.
	The fissure at Star consists of typical kimberlite "blue ground", a serpentinized olivine-pyroxene-phlogopite peridotite, often with a marked brecciated appearance and with both occidental and cognate inclusions. In places, however, the rock is highly micaceous, this variety evidently having being produced either by a process of local segregation or by contamination with country rock as it occurs characteristically both near the contacts of the dyke and around the larger impounded fragments.
	Individual fissure units are separated in an N-S direction by distances of up to 150m. Smaller N-S lateral steps of up to 40m occur within individual fissure units. Al these areas have been mined in the past, with the most intensive mining having occurred on the Micaceous, Burns, East Star and Wynandsfontein fissure units (Figure 5).
	Shale country rock is often very fissile in nature, causing short, discontinuous kimberlite lenses and more difficult mining conditions (development excavations usually require significant secondary support to stay open). The stronger dolerite and sandstone host larger, more continuous fissure lenses with easier mining conditions (development excavations are generally self-supporting). Below the Karoo Supergroup lie quartzites of the Central and West Rand Groups of the Witwatersrand Supergroup. Exploration drilling has shown the kimberlite fissure system is continuous downwards into the underlying Witwatersrand lithologies.
	While development and stoping conditions will improve due to the more competent host rocks at deeper levels, new difficulties will be encountered – eg. water and methane control in Witwatersrand lithologies, and potential changes in rock mechanics at deeper levels due to greater in situ stresses. Currently development is only performed if an area is sufficiently covered by cover drilling in the direction of mining, while airflow and the possible occurrence of methane are frequently being monitored.
	Current management have considerable experience with mining deeper Fissure Diamond mines. This expertise is and intends to be applied at Star Diamonds.
	Figures 4 (2004) and 5 (2012) show historic sections of the Star fissure system.



Figure 5. View of the Star mine fissure system with associated historic development up to 15 Level (viewed from an east-south-easterly direction, Snowden 2004)

#### **Regional Stability**

Regional support is not planned on a systematic basis. However, the ground being left in situ as a result of geological and mining losses is providing the function of regional support. The ground is left for the following reasons:

- Narrowing of fissure to widths that are uneconomic to mine;
- Loss of ground through off-sets in the fissures;
- Unmined ground left due to poor ground conditions; and
- Sill pillars left between levels to avoid holing into unstable ground in open stopes above.

As mining progresses to deeper levels ground conditions may change in the older geological formations hosting the fissures and a detailed investigation into the long-term regional support requirements will be required. This will also involve an investigation into the regional stress regime as input into numerical analysis which may lead to alternate positioning of rock drives, spacing of crosscuts and support requirements.

Development support consists of fully grouted 12 mm shepherd crooks (generally 1.5 m lengths) and is sufficient to stabilise ground in the more competent host rocks. For development in very weak shale, an intensive support system is required. The mine has a dedicated secondary support crew, which moves across the mine as the need arises. This crew specialises in the installation of long anchors, mesh and lace and shotcrete. In-stope support is provided by means of timber poles and solid timber packs installed across the sidewalls of the stope.

At the time of the Competent Person's site visit in September 2016, mining operations were conducted at levels 15 (westward) and 16 (east and westerly direction) of the Burns Fissure (Figure 5A).





Figure 6. Burns Fissure showing borehole 1 location and fissure intersections

The first fissure intersection in the Burns hole coincides with the vertical projection of the fissure from 13 and 14 Levels. Lateral offsets and overlaps of fissures are common at the Star mine, and the presence of a second intersection is not unusual. The 45cm true thickness of the second intersection represents a mineable thickness based on the current practice of mining areas where fissure exceeds 30cm thickness.

The West Rand Group meta sediments form the host rocks both of the kimberlite fissure intersections. According to Snowden it is evident from the drill core adjacent to the kimberlite fissure, that it presents as competent ground and anticipates that the current mining method could continue to be employed at least to the depth of this intersection, or 120m below 14 Level up to 17 Level.
### Wynandsfontein drilling

The Wynandsfontein diamond core hole was drilled from a cubby in a haulage heading towards the East Star fissure on the 12 Level 485m below surface. The hole is orientated at N7°E with an inclination of -60°. It intersected a dolerite sill and passed through weakly laminated shales to a depth of 74m below 12 Level before intersecting sandstone.

The Wynandsfontein hole intersected a zone of kimberlite stringers at a vertical depth of 140m below 12 Level. Four kimberlite stringers, for a total true thickness of 32 cm were logged. The hole was stopped at a down-hole depth of 180m.



Figure 7. Wynandsfontein Fissure showing borehole 2 location and fissure intersections.

Data aggregation methods	Background
	Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years at Star mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. Average <i>in situ</i> grades (cpht) for the fissure are obtained by back calculating from the recovered grades after various Mining factors have being taken into account.
	Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. This concept is also
	supported by previous qualified persons and institutions like Snowden and Kgalagadi who did Independent Valuations for Crown (2002 – 2005) and Petra Diamonds (2012/2013) respectively. It is

therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.

Based on diamond sales data, Snowden was able to determine an average recovered diamond grade of 40 cpht for the period from January 2002 to October 2004 (Figure 8). This data represents a diluted grade blended from a number of underground and surface stockpile sources. As such, the information is only meaningful on a broad-scale basis but is adequate for the study of expected long-term grade behaviour. In 2004, Snowden calculated a fissure content of 52% based on the average stope and fissure width supplied by the mine. An average *in situ* grade of 81 cpht was thus back calculated by Snowden from the recovered grade.



Figure 8. Consistency of hoisted grade at Star from Jan 2002 till Oct 2004 (Snowden 2004)

#### Star mine

The historic grade estimation at Star was based on a back calculation from actual diamond production data. The same technique will be applied by the Competent Person when estimating the grade of the Resource and will include the practical diamond recovery characteristics of the existing operation by taking into account the effective bottom screen size of 1.00 mm, diamond losses and plant recovery efficiency. The mine has sufficiently detailed production records like hoisted (ROM), treated tonnage and recovered carat data that allow back calculation of the average in situ fissure grade.

The treated tonnage was sourced from the diluted hoisted tonnage, from which waste rock has been removed by waste/fissure hand-sorting. Between 20 and 40% waste rock has been removed historically.

Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure and will be used for geological modelling and resource estimation purposes (Refer Grade Estimation and Modelling techniques). Excessively high yearly production grades achieved during 1972, 2008 and 2009 were excluded from the calculation of the total average treated grade for Star mine.

The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Resource at Star.

### Relationship between mineralisation widths and intercept lengths

See also section: "Drill hole Information", Burns and Wynandsfontein drilling regarding down-hole lengths and true drill hole widths.

### Fissure width and continuity

Based on the previous mining history at Star, which extended to depths in excess of 620m, there is a great deal known about the general geology of the fissures and their diamond content. Statistical analysis of data sourced from along the entire strike length of the Star mine and individually from the Burns, East Star and Wynandsfontein fissures (Table 2) demonstrates that there is very little variation in the width of the fissures either along strike (Figure 9) or down dip (Figure 10). Actual fissure and stope widths, measured at Star mine for the period from January 2002 to October 2004, are shown in Figure 11.

Due to the nature of the deposit, all fissure widths are effectively true widths.

Sun	nmary statistics for f	Table 2 issure width point da	ata – Star mine (Snowden 2	004)
Parameter	All data	Burns	East star	Wynandsfontein
Number of samples	1,403	603	503	693
Minimum	0.31	2.0	2.0	3.0
Maximum	173	173	173	127
Mean	47.59	41.41	41.90	52.27
Variance	450.8	367.8	341.6	457.7
Coefficient of Variation	0.44	0.46	0.43	0.40



Figure 9. Fissure width variation from west to east – Star mine (Snowden 2004)



Figure 10. Fissure width variation with depth – Star mine (Snowden 2004)



Figure 11. Comparison of fissure and stope widths since January 2002 - Star mine (Snowden 2004)

Over a period of 119 production months (Jan 2005 - Aug 2016) mine survey data sourced from the Petra and Sedi Diamonds era shows an average width of 58cm for the Star fissure with a corresponding average stoping width of 100cm (Figure 12).

From 2004 to August 2016 there was a 22% increase (47.5cm to 58.0cm) in the average surveyed width of the fissure at Star mine (Figures 11 and 12).

The average surveyed fissure width, for the period Jan 2012 until August 2016, is 67cm (stoping width of 110cm) which is a 41% increase (47.5cm to 67cm) compared to Snowden's average in 2004 (Figures 11 and 12).



Diagrams

Further work

# Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	All the survey, stoping and development data has been imported into an Excel database for interpretation and analysis.
	All historic survey and mine production data has been checked by Snowden, Kgalagadi and Petra during a previous resource estimate process.
	The database provided by Sedi Diamonds and Petra and used during the estimation process has been checked against the Snowden data and found to be consistent.
Site visits	Numerous site visits were done by Snowden and sub-consultants during the period 2002 untill November 2004 as part of a technical audit and valuation of the Star mine. These audits involved detailed scrutiny of the technical information provided on the mine.
	Since the property was acquired by Petra Diamonds in 2005 the site has been visited by Kgalagadi, Petra and Sedi Diamonds personnel from 2005 to date.
	The Competent Person is an independent registered Professional Natural Scientist (Reg. No. 400206/15) with the South African Council for Natural Scientific Professions (SACNASP) and certified as a practicing Geological Scientist subject to a Code of Conduct administered by SACNASP to ensure professional conduct. The Competent Person visited the site during September 2016 and in January 2017.
Geological interpretation	The geological interpretation for the Star fissure system is based on a standardised model of kimberlite fissure emplacement. The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which has since been refined with the development and production data gathered during Petra and Sedi Diamonds mining phases (2005 – 2016/2017).
	Historical and recent survey and mine production information, spanning over more than 60 years at Star mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine than could be achieved with downhole core exploration drilling. This concept is also supported by previous qualified persons and institutions like Snowden and Kgalagadi who did Independent Valuations for Crown (2002 – 2005) and Petra Diamonds (2012/2013) respectively.
	It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines.
	<ul> <li>A 20% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the <i>en echelon</i> fissures may not fully overlap. Based on observations made during underground visits at Star mine and experience with similar deposits, Snowden considers this to be an appropriate geological loss factor.</li> <li>No direct measurements of the kimberlite and host rock bulk densities were available for the estimate. The density of 2.75 tonne per cubic metre (t/m3) has been applied historically to both the kimberlite and waste rock. This average bulk density is considered reasonable by Snowden to use for estimating kimberlite and waste tonnages (Independent Valuation of the Mineral Assets of Crown Diamonds NL Doc Ref: 050114. Crown Valuation.</li> </ul>
	<ul> <li>Stope and development outlines at depth of the fissures have been reviewed based on information acquired during the Crown, Petra and Sedi Diamonds periods.</li> </ul>
	• Fissure and stoping widths gathered across the most recent mining stopes have been reviewed and new averages calculated and incorporated in the Resource model.
	Factors that can affect the average grade of the fissure at Star mine include:
	the geological continuity of the fissure with depth and along strike;
	the amount of offset of the fissure along strike and at depth;
	fissure and stoping widths and the percentage fissure recovery;
	excessive dilution caused by over stoping and scaling of the host rock;     water in underground workings:
	geotechnical characteristics of the host rock.
	The tailings stockpiles at Star mine consists of tailings from the Crown, Petra and Sedi Diamonds mining eras. It consists of 300,000 tonnes of material at an average estimated grade of 5.0 cpht.
Dimensions	The Star mine extends over a 4.5 km strike length of the east west trending Star fissure system and possibly to depths of hundreds of meters beyond the current underground mine workings which are presently 620m below surface. The fissure is a vertical compound structure comprising several fissures with an <i>en echelon</i> to anastomosing, interwoven arrangement that pinch and swell along strike as well as occasional kimberlite pipes (or "blows"). The individual kimberlite fissures generally range in width from 5cm to 80cm with an average width which varies between 47cm and 58cm.
	It incorporates five distinct fissure units. From west to east these are the Clever, Micaceous, Burns, East Star and Wynandsfontein fissure units (Figure 5). Individual fissure units are separated in a N-S direction by distances of up to 150m. Smaller N-S lateral steps of up to 40m occur within individual fissure units.

Criteria	Commentary						
Estimation and modelling	Modelling						
tecnniques	The geological interpretation for the Star fissure system is based on a standardised model of kimberlite fissure emplacement.						
	The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which were further revised and refined by Petra and Sedi Diamonds with the acquisition of additional development -and production data gathered from 2005 till 2016/2017 mining phases. Based on assessment of the kimberlite fissure dip, width, depth and diamond grade continuity, the mineral resource has been estimated and classified by Snowden to reflect a reduction in confidence in the estimate down-dip from the lowest current working level as follows:						
	<ul> <li>Measured Resource: one level (40m) below the base of the current working levels;</li> <li>Indicated Resource: two levels (80m) below the base of the Measured Resource; and</li> <li>Inferred Resource: three levels (120m) below the Indicated Resource.</li> </ul>						
	The Snowden classification reflects the increased uncertainty in geological conditions with regard to the depth from the exposed kimberlite fissure and this approach was also used by Petra and Kgalagadi in their respective Mineral Resource estimations of Star Diamonds during 2012/2013.						
	A 20% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the en echelon fissures may not fully overlap.						
	A density of 2.75 t/m3 has been applied historically to all ROM ore from the fissures mined and is considered reasonable for estimating kimberlite fissure tonnages at Star.						
	Stoping and fissure width data along with geological outlines for each level supplied by Star were used by Snowden and Petra to create a wireframe model for each of the three fissures. This permitted the fissure and stope widths to be estimated into the block model cells. Subsequent validation of the fissure width block model was carried out by comparing the mean fissure width for each of the block models against the declustered mean of the point data.						
	Historic as well as recent survey and production data has since been reviewed by the Competent Person based on information acquired during the Petra and Sedi Diamonds eras. All critical average fissure and stoping widths have been recalculated after obtaining the most recent survey data to match the updated fissure outlines in strike and depth (Figure 12).						
	Figure 13 shows the Resource model created by Petra as at 1 July 2013. Shortly afterwards production ceased at Star and the mine was put on care and maintenance until October 2014 when Sedi Diamonds resumed production at the mine.						
	The Petra 1 July 2013 Resource Statement is based on information compiled internally within the Group under the guidance and supervision of Jim Davidson, Pr. Sci. Nat. (reg. No.400031/06). Jim Davidson has over 30 years' relevant experience in the diamond industry and is a full-time employee of Petra.						
	All Reserves and Resources have been independently reviewed and verified by John Kilham, Pr. Sci. Nat. (reg. No. 400018/07) during 2012 and 2013, a competent person with 33 years' relevant experience in the diamond mining industry, who was appointed as an independent consultant by Petra for this purpose.						
	All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017, a competent person with 20 years' relevant experience in the diamond mining industry, who was appointed as an independent consultant by Frontier Mining Limited for this purpose.						
	The Mineral Resource for Star mine as at 28 February 2017 is summarised for the four separate fissures, Micaceous, Burns, East Star and Wynandsfontein in Table 4.						
	In the Competent Person's opinion the strike, dip, width and diamond grade continuity of the kimberlite fissures at Star are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. However, since there is no sample information below the deepest current working levels continuity cannot be demonstrated with absolute certainty.						
	The drilling of a diamond core hole initiated by Snowden has, however, gone a significant way towards confirming down dip persistence of the fissures.						



Figure 13. Oblique view of the Star mine block layout showing the Mineral Resource as at 1 July 2013

### Grade Estimation

The Star mine has been mined for more than 60 years and they have developed a logical approach to defining the resources on these mines that allows them to accurately predict planned production and diamond grades. Production history on these operations has proved the accuracy of the calculations.

At Star, the nature of the fissures, their steep dip and the mining method employed at each mine effectively preclude the use of exploration and grade control drilling to evaluate each of these fissures ahead of mining in any practical way. Instead the geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years, has provided effective and continuous sampling of the deposit and affords a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at Star (Table 1).

Criteria	Commentary						
		Sta	Ta ar production history s	able 1 <sub>(repeat)</sub> since 1959 until 28 Februa	ry 2017		
		~					
		Year	Tonnes treated	Carats recovered	Estimated grade (cpht)		
		Jul 1959 – Jun 1960	119,699	36,820	30.76		
		1970	90,686	43,994	48.51		
		1971	121,639	56,721	46.63		
		1972	119,890	67,168	56.02		
		1973	97,973	52,589	53.68		
		1974	101,121	47,743	47.21		
		1975	98,442	45,716	46.44		
		1976-1992		No records available			
		1993	27,036	9,140	33.81		
		1994	60,220	27,467	45.61		
		1995	69,173	25,987	37.57		
		1996	28,279	7,931	28.05		
		1997	48,045	12,796	26.63		
		1998-1999		No records available			
		2000	38,270	12,728	33.26		
		2001	35,066	15,415	43.96		
		2002	29,102	14,232	48.90		
		2003	36,313	16,085	44.30		
		2004	33,599	15,819	47.09		
		2005		No records available			
		2006	34,351	15,110	43.99		
		2007	38,791	16,638	42.89		
		2008	28,251	16,870	59.71		
		2009	26,302	14,823	56.36		
		2010	16,422	8,781	53.47		
		2011	19,026	7,059	37.10		
		2012	14,088	6,886	48.88		
		2013	20,441	8,299	40.60		
		2014 (5 months)	9,740	3,572	36.67		
		2015	26,990	8,997	33.33		
		2016/2017 (14 months)	22,709	9,704	42.73		
		TOTAL	1,411,664	625,090	44.28		

The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Star were based on a back calculation from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Resource which includes the practical diamond recovery characteristics of the existing operation by taking into account the effective bottom screen size of 1.00mm, diamond losses and plant recovery efficiency. The mine has sufficiently detailed production records like hoisted (ROM), treated tonnage and recovered carat data that allow back calculation of the average in situ fissure grade. The treated tonnage was sourced from the diluted hoisted tonnage, from which waste rock has been removed by waste/fissure hand-sorting. Historic recovered diamond grades indicate that the fissure has a consistent grade over the mined extent of the deposit (Table 1).

Highest recorded grades at Star are 300 cpht, but the average recovered grade is approximately 42 cpht. The East Star segment has a historic grade of 150 cpht, whereas the Wynandsfontein and Burns segments each average 40 cpht (Gurney and Kirkley, 1996).

Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure and will be used for resource estimation purposes. Excessively high yearly production grades achieved during 1972, 2008 and 2009 were excluded from the calculation of the total average treated grade for Star mine.

The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Resource at Star.

Criteria	Commentary
	Revenue Estimation
	During 2004, Snowden based its revenue estimations for Star on a value of US\$250 per carat (Snowden 2004).
	During the period 2010 until mid-2011, 19 stones weighing 201.49 carats were recovered at Star and sold for an average price of \$4,252.65/ct.
	The latest revenue estimate for Star mine has been generated from 11,008.93 carats sold between October 2015 and September 2016 for a total of USD\$3,255,488.54 at an average price of \$295.71/ct. It would be advisable to base financial modelling on an average estimated value of \$295/ct. Average quality of the diamonds is very high and similar to the Bobbejaan dyke at Sedibeng.
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Star to Petra at a cost of 1% of the selling price of the product.

### Table 4: Star Mineral Resource

Mineral Resource for Star as at 28 February 2017								Mineral Resource for Star as at 1 July 2013							
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t	Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t
Micaceous		0.057	79.7	0.046	295		234.97	Micaceous		0.039	77.0	0.030	n/a	1.00mm	n/a
Burns	Measured	0.065	79.7	0.052	295		234.97	Burns	Measured	0.071	77.0	0.054	n/a		n/a
East Star	incusureu	0.000	79.7	0.000	295	1.00mm	234.97	East Star	medodred	0.000	77.0	0.000	n/a		n/a
Wynandsfontein		0.044	79.7	0.035	295		234.97	Wynandsfontein		0.033	77.0	0.025	n/a		n/a
	Star Measured Resource	0.167	79.7	0.133	295		234.97		Star Measured Resource	0.104	77.0	0.080	n/a		n/a
Micaceous		0.115	79.7	0.091	295	1.00mm	234.97	Micaceous	Indicated	0.089	77.0	0.069	n/a	1.00mm	n/a
Burns	Indicated	0.113	79.7	0.090	295		234.97	Burns		0.125	77.0	0.096	n/a		n/a
East Star	indicated	0.000	79.7	0.000	295		234.97	East Star		0.000	77.0	0.000	n/a		n/a
Wynandsfontein		0.088	79.7	0.070	295		234.97	Wynandsfontein		0.071	77.0	0.055	n/a		n/a
	Star Indicated Resource		79.7	0.252	295		234.97		Star Indicated Resource	0.196	77.0	0.151	n/a	1 [	n/a
Micaceous		0.172	79.7	0.137	295		234.97	Micaceous		0.163	77.0	0.126	n/a		n/a
Burns		0.245	79.7	0.195	295		234.97	Burns	Inferred	0.261	77.0	0.201	n/a	- 1.00mm -	n/a
East Star	Inferred	0.000	79.7	0.000	295	1.00mm	234.97	East Star		0.000	77.0	0.000	n/a		n/a
Wynandsfontein		0.133	79.7	0.106	295	1.00mm	234.97	Wynandsfontein		0.115	77.0	0.089	n/a		n/a
Tailings stockpiles		0.307	5.0	0.015	150		7.50								
	Star Inferred Resource	0.856	52.9	0.453	291		154.00		Star Inferred Resource	0.667	77.0	0.514	n/a		n/a
Star Resource			62.6	0.838	293	1.00mm	183.22		Star Resource	0.967	77.0	0.745	n/a	1.00mm	n/a

General notes on reporting criteria

1. Resource and Reserve bottom cut-off is at 1mm;

2. Measured resources are classified as one level (40m) below the base of the current working levels, Indicated Resource two levels (80m) below the base of the Measured Resource and Inferred Resource three levels (120m) below the Indicated Resource.

- 3. Resources are reported inclusive of Reserves.
- 4. Tonnes are reported as millions; contained diamonds are reported as per million carats;
- 5. Tonnes are metric tonnes and are rounded to the nearest 100,000 tonnes; carats are rounded to the nearest 10,000 carats; rounding off of numbers may result in minor computational discrepancies;
- 6. Resource tonnages and grades are reported exclusive of external waste, unless where otherwise stated;
- 7. Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors;
- 8. All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

Criteria	Commentary
Moisture	Tonnages are estimated with natural moisture. Moisture contents of samples have not been separately measured.
Cut-off parameters	Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure and will be used for geological modelling and resource estimation purposes. Excessively high yearly production grades achieved during 1972, 2008 and 2009 were excluded from the calculation of the total average treated grade for Star mine (Refer Grade Estimation and Modelling techniques).
	The resource grades are estimated at a 1.00mm bottom size cut-off. Generally, fissure widths of less than 30cm are not mined to minimise dilution.
	A 20% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the <i>en echelon</i> fissures may not fully overlap. No optimised fissure models, using projected financial forecasts, were used in the estimation of Mineral Resources. Cut-off limits for the Mineral Resources are based on discrete cut-off elevations as determined for the base of the Measured, Indicated and Inferred categories. The Measured Resource accounts for one level (40m) below the base of the current working levels and the Indicated Resource accounts for two levels (80m) below the base of the Measured Resource whereas the Inferred Resource is extrapolated to a maximum depth of three levels (120m) below the Indicated Resource.
Mining factors or	It is assumed that an underhand open stope mining method to extract the narrow kimberlite fissures will be used at Star.
assumptions	A 20% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine. Based on observations made during underground visits at Star and experience with similar deposits, Snowden considers this to be an appropriate geological loss factor. The continuity of the fissures at Star has been proven by extensive mining over more than 4,000 m in strike length and 600m depth. However, future mining will take place in a significantly older geological formation and little information is available on the fissure in this horizon. There is no reason to believe that the fissure is not continuous into the new formation.
Metallurgical factors or assumptions	The resource grades are estimated at a 1.00mm bottom size cut-off.
Environmental factors or assumptions	The surface plan of the Mine includes a number of waste rock dumps, slimes dams, number of tailings dumps, ranging in size and footprint area, an airfield, an explosives magazine, mine offices, 7 shafts, village, single quarters accommodation, water reservoirs, compressor rooms, DMS plant, fissure stockpiles and water tanks / reservoirs (Figure 14)
	<image/> <figure></figure>

implementation of a small-scale treatment facility. This will clear most of the surface dump material and thus allow areas to be available for rehabilitation purposes. Tailings have been retreated in the past at an average grade ranging between 4.5 cpht and 15.0 cpht.

Criteria	Commentary
	No environmental factors have been assigned to the resource estimate as no environmental issues are expected to impact on the project.
	During 2010, Department of Mineral Resources (DMR) requested that Star Diamonds (Pty) Ltd amend their approved EMP Report to meet the requirements of the Mineral and Petroleum Resources Development Act (MPRDA) (No 28 of 2002). The updated EMPr Report was submitted to the DMR during April 2010.
	<ul> <li>Tailings are being consolidated together with waste in one central area between the plant and the current slimes dams. The area will eventually serve to consolidate most dispersed waste and tailings into one high-level area stretching between No4 (west) shaft and the plant (east) as the southernmost boundary and the current slimes dams to the north;</li> <li>The surface area of the dumps can be decreased by initiating the retreatment of the existing coarse tailings. The smaller the footprint, the less side slope length and therefore less outer side slope rehabilitation would be required, resulting in more favourable environmental and reclamation effects;</li> <li>The waste rock dump, consisting out of dolerite, sandstone, quartzite and shale fines will merge with the tailings dump to form one high level area. The dump has a life of 40 years, although it is planned to back fill worked out stopes in the future with waste rock. In an attempt to minimise the impact of the waste rock dump, some material is sold to neighbours as backfill material;</li> <li>The slimes and fine gravel from the plant are pumped to the slimes dam north of the plant. The slimes dam is being consolidated into one unit which will provide better control, management and pollution prevention;</li> </ul>
	• Phoenix Pit will be kept as is as numerous animals have established themselves in and around the pit. A low enviro-berm will be constructed around the pit for safety reasons as the pit is in close proximity of the residential area. Storm-water management facilities will be constructed around the pit to allow for free-drainage off site.
	Existing waste management facilities are adequate to accommodate the waste generated in the foreseeable future at Star mine. No new waste management facilities are proposed. However, the existing waste management strategy will be revised to promote increased recycling and on-site management of waste. Old scrap sites within the mining area are presently being cleaned up and rehabilitated.
Bulk density	Due to limited drilling campaigns, reliable density data is sparse. A density of 2.75 t/m3 has been applied historically to all ROM ore from the fissures mined at Star and is considered reasonable by Snowden for estimating kimberlite fissure tonnages at Star.
Classification	At Star mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Star fissure complex are known with a high degree of confidence. For the Star fissure mine a strategy has been developed to define the resource in such a way that it allows them to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Historical information, spanning over more than 60 years at Star mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
	The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which was further revised and refined by Petra and Sedi Diamonds with the acquisition of additional development -and production data gathered during 2005 until February 2017. Based on assessment of the kimberlite fissure dip, width, depth and diamond grade continuity, the mineral resource has been estimated and classified by Snowden to reflect a reduction in confidence in the estimate down-dip from the lowest current working level as follows:
	• Measured Resource: one level (40m) below the base of the current working levels;
	Indicated Resource: two levels (80m) below the base of the Measured Resource; and
Audits or reviews	Snowden conducted detailed technical audits together with an Independent Valuation of Star mine during 2002 until 2004 and a comprehensive report was prepared by Mr Philip Retter (Manager Corporate Services), Mr J McKibben (Consultant Geologist) and Mr Dag Kullmann (Principal Mining Engineer) and was reviewed by Dr Philip Snowden (Principal Consultant and Executive General Manager) of Snowden's Perth and Johannesburg offices in accordance with the Australasian Institute of Mining and Metallurgy's (AusIMM) Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Experts Reports (the VALMIN Code) and Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code).
	Since Petra's acquisition of the Star mine, Petra's Competent Persons as well as Independent Consultants have conducted a number of audits and reviews of the survey and mine production data as well as of the geological model. All Reserves and Resources have been independently reviewed and verified by John Kilham, Pr. Sci. Nat. (reg. No. 400018/07) during 2012 and 2013, a competent person with 33 years' relevant experience in the diamond mining industry, who was appointed as an independent consultant by Petra for this purpose.
	All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017, a competent person with 20 years' relevant experience in the diamond mining industry, who was appointed as an Independent Consultant by Frontier Diamonds Limited for this purpose.
Discussion of relative accuracy/ confidence	There is sufficient evidence to support the extrapolation of the fissure tonnage with depth. However, future mining will take place in a significantly older geological formation and little information is available on the fissure in this horizon. There is no reason to believe that the fissure is not continuous into the new, more competent formation.

Criteria

#### Commentary

Historical information, spanning over more than 60 years at Star mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling.

Historic core drill information combined with constant and, even increasing fissure widths at Star, demonstrates and confirms the down-dip continuity of the kimberlite fissures to vertical depths exceeding 620 mbs (Figure 15).



Figure 15. Average monthly fissure width showing linear trend - Star mine (2005 - Aug 2016 mine survey data)

"Star mine have sustained more than 40 (currently 60) years of mining activity and have not recorded a reduction of grade with depth and are still currently active with no evidence that the dykes will cut out at depth. Successful mine operation depends on having adequate funds to put in extensive development tunnels along strike to access ore and to always maintain development and sampling ahead of mining. Where this has been done on well mineralised dykes, the operations have been consistently profitable" (Gurney and Kirkley, 1996).

The Competent Person has a high level of confidence that the fissure will continue for at least another 240m and beyond below current working depths.

The undiluted kimberlite grade has not been directly determined by sampling. However, recovered diamond grades indicate that the fissure has a consistent grade over the mined extent of the deposit. The measured and indicated resource has been compared to the recoveries from the extended periods of mining and shows good correlation with recovered grades. Therefore the confidence in the grade model is high.

The latest revenue estimate for Star mine has been generated from 11,008.93 carats sold between October 2015 and September 2016 for a total of USD\$3,255,488.54 at an average price of \$295.71/ct. It would be advisable to base financial modelling on an average estimated value of \$295/ct. The confidence in the revenue model is high and reflects the real selling prices of the goods.

### Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	The Ore Reserve for Star was independently reviewed and verified in February 2017 and is based on Sedi Diamonds (Pty) Ltd Resource Revision for Star as at 28 February 2017. It comprises Proved and Probable ore categories based on mining the Measured and Indicated Resources respectively with appropriate allowances made for mining dilution and recovery based on current and expected mining practices. Resources are reported inclusive of Reserves.
Site visits	Numerous site visits were done by Snowden and sub-consultants during the period 2002 until November 2004 as part of a technical audit and valuation of the Star mine. These audits involved detailed
	scrutiny of the technical information provided on the mine. Since the property was acquired by Petra Diamonds in 2005 the site has been visited by Kgalagadi, Petra and Sedi Diamonds personnel from 2005 to date.
	The Competent Person is an independent registered Professional Natural Scientist (Reg. No. 400206/15) with the South African Council for Natural Scientific Professions (SACNASP) and certified as a practicing Geological Scientist subject to a Code of Conduct administered by SACNASP to ensure professional conduct. The Competent Person visited the site during September 2016 and in January 2017.
Study status	The fissures at Star has been extensively mined over a period of more than 60 years during which mining production data provides quality information necessary for estimating the geology, grade, and modifying factors as required. The Competent Person considers that the history of production tonnages, production grades and fissure width characteristics demonstrates sufficient confidence in the fissure continuity to define Measured, Indicated and Inferred Resource categories.
	The study, from which the Ore Reserves as at 28 February 2017 were estimated, has been done at Pre-Feasibility study level with sufficient confidence to develop the project.
	A mine plan that is technically achievable and economically viable has been generated and material modifying factors have been considered.
	Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors.
Cut-off parameters	The Ore Reserve at Star is based on assumptions about the ore, its characteristics and how it will be mined and, importantly, on a range of significant infrastructural enhancements that the management of Star has advised the Competent Person are either being implemented or plans are already being developed. Without the infrastructure improvements it will not be possible to recover the stated Ore Reserve.
	Since the kimberlite fissure at Star is expected to average 58cm true width and it is not possible to practice any meaningful grade control, it is the mining operation's intention to extract 100% of the fissure material provided it exceeds an economic minimum true width cut-off (currently about 30 cm) and safety is not compromised.
	It should be noted that the allowance for 20% geological loss is accounted for in the Mineral Resource inventory due to narrowing of fissure to widths that are uneconomic to mine, loss of ground through off-sets in the fissures, unmined ground left due to poor ground conditions and sill pillars left between levels to avoid holing into unstable ground in open stopes above.
Mining factors or assumptions	The Ore Reserve at Star is based on Sedi Diamonds (Pty) Ltd Resource Revision for Star as at 28 February 2017 and includes the following allowances made for dilution and mining recovery, based on current and expected mining practices. These include an appropriate allowance for wall rock dilution during mining underground, an adjustment for any loss of kimberlite fissure material during the course of the mining, tramming and hoisting process (ie. mining recovery), an adjustment for kimberlite fissure that has to be left behind in sill pillars required for stability control (historically this has amounted to 8-10% of fissure volume) and an appropriate allowance for kimberlite fissure that is too narrow to meet the mine's economic mining width and hence will be left unmined.
	The mining method utilized at Star is underhand open-stoping, in which the stope face connects one level to the next at an angle of 45°-50° in the plan of the orebody. Drilling, blasting and cleaning in the stopes are carried out manually, and the broken ore is extracted from the stope after each blast by means of draw points on the lower level.
	For the Pre-feasibility study, the same mining factors and assumptions have been retained as used by the previous owners and are considered to be reasonable.
	• mining recovery of the fissure at Star is assumed to be 100% (0% in stope losses);
	<ul> <li>the average bulk density attributed to the kimberlite fissure and waste is 2.75 t/m3;</li> </ul>
	<ul> <li>the Mineral Resource includes an allowance for 20% loss (geological) of kimberlite fissure due to fissure thinning (uneconomic to mine) or fissure loss at the edges of fissure lenses.</li> </ul>
	<ul> <li>generally fissure, which is less than such wide, is not mined since the level of dilution makes it uneconomic to extract;</li> <li>based on historic stoping widths at Star mine, the Ore Reserve relies upon achieving an average mining width of 100cm (aveluding upplaneed external dilution of 10cm);</li> </ul>
	<ul> <li>based on historic mining widths at Star mine, the Ore Reserve relies upon achieving an average mining width of 100cm (excluding unpranned extending unpra</li></ul>
	wall rock dilution). The kimberite in the ROM ore is therefore diluted on average with 52cm of waste rock (i.e. 47% of ROM ore is waste). The extent to which mining dilution can be minimised will have a significant impact on the economic performance of the operation. Reductions in mining dilution significantly improve the hoisted grade, while reducing the hoisted tonnage and reduce the
	<ul> <li>mining dilution is allowed for in allowing an additional 10cm unplanned external dilution to the average stoping width of 100cm; and</li> </ul>

Criteria	Commentary						
	<ul> <li>the average reserve grade of 42 cpht is based on an in situ grade of 79 cpht which includes 47% dilution (110cm actual stoping width, 58cm fissure width);</li> <li>The diamond grade dilution factor is 1.9 (i.e. from 79 cpht in kimberlite fissure to 42 cpht recovered);</li> </ul>						
	No quantitative assessment has been made of the plant's recovery efficiency. A plant recovery factor of 95% was applied to the Reserve.						
	Stope design parameters are constantly being monitored and revised if necessary and are considered practical and safe for the Star wall rock conditions. While development and stoping conditions will improve due to the more competent host rocks at deeper levels, new difficulties will be encountered – e.g. water and methane control in Witwatersrand lithologies, and potential changes in rock mechanics at deeper levels due to greater in situ stresses. Current management have considerable experience with mining deeper Fissure Diamond mines. This expertise is and intends to be applied at Star Diamonds.						
	Grade control will be managed by utilising mapping, face mark ups and visual control of loading and waste sorting operations. In addition technicians will monitor stoping operations in order to minimise mining dilution which have a significant impact on the performance of the operation if not properly managed.						
	The Ore Reserve at Star is based on assumptions about the ore, its characteristics and how it will be mined and, importantly, on a range of significant infrastructural enhancements that the management of Star has advised the Competent Person are either being implemented or plans are already being developed. Without the infrastructure improvements it will not be possible to recover the stated Ore Reserve.						
Metallurgical factors or	Star Diamonds operate a Dense Media Separation (DMS) and final recovery Plant capable of treating the Ore Reserve at a head feed rate of 30tph or at an average annualised rate of 110,000tpa.						
assumptions	Ore is fed to the treatment plant through a load and haul system which operates from the Main production shaft. Coarse waste rock is separated from diamond bearing ore by hand picking and is then stepwise crushed through a three crusher system. Diamond bearing concentrate is separated from non-diamond bearing material through the DMS plant. Diamond bearing concentrate is super concentrated through an x-ray sorting machine followed by hand sorting of the product for safekeeping. The process uses well proven diamond recovery technology for kimberlite ore.						
	No metallurgical test work has been undertaken by Sedi Diamonds for the purposes of generating the Ore Reserve at Star. Modifications and adjustments to the plant were made by experienced operators who treated ore at production scale over many decades.						
	No allowances are made for deleterious elements as there are none that are relevant to the operation;						
	A plant recovery factor of 95% was applied to the Resource; and						
	The diamond bottom cut-off size is 1.00 mm.						
Environmental	During 2010, Department of Mineral Resources (DMR) requested that Star Diamonds (Pty) Ltd amend their approved EMP Report to meet the requirements of the Mineral and Petroleum Resources Development Act (MPRDA) (No 28 of 2002). The updated EMPr Report was submitted to the DMR during April 2010.						
	South African mining law dictates that mine owners should pay to remediate the damage which they cause to the environment. Section 41 of the MPRDA incorporates "The Polluter Pays"- principle, and requires an applicant of mining rights to make financial provision for the rehabilitation or management of negative environmental impacts, either in the form of a cash deposit, guarantee, insurance, or an approved trust fund. Shortly after the acquisition of Star and Sedibeng mines all Petra's rehabilitation guarantees held by Guardrisk Insurance Company Limited (Reg. no. 1992/001639/06), were transferred to Sedi Diamonds, thereby releasing Petra Diamonds from the rehabilitation obligations and ensuring that the Mine's guarantees remained in place. A statement from the Insurers (Policy no. 20845) for the period ended 31 October 2016 reflects a total amount of R15.5 million available for rehabilitation obligations for Sedi Diamonds, Dancarl, Messina and Star.						
	The latest premature closure cost calculations, that were done for Star and Sedibeng mine during 2015/2016, amount to R11,378,483.45 and R6,229,199.02 respectively, or collectively a total of R17,607,682.47 for both mines, excluding VAT. The amount provided for will be adjusted after the approval of the closure cost Quantum by the Department of Mineral Resources as the current calculation indicates a marginal shortfall of R 2,060,005.47 (excl. VAT).						
	Post mining use of the land is mainly for grazing while structure such as the residences, single quarters, workshops, offices and stores can be used by the future owners / farmers for their activities.						
	The surface plan of the Mine includes the following: the Phoenix opencast pit, number of waste rock dumps, 4 slimes dams, number of tailings dumps, ranging in size and footprint area, an airfield, an explosives magazine, mine offices, 7 shafts, village, single quarters accommodation, water reservoirs, compressor rooms, DMS plant, fissure stockpiles, water tanks / reservoirs (Figure 14).						
	The current approved EMPR has broad closure objectives that relate to the following:						
	Provide public health and safety on all Star Diamonds property.						
	Return the land impacted on by mining activities to a predetermined state as agreed by Stakeholders and Interested and Affected Parties.						
	Mitigate and reduce pollution to the soil, water and atmosphere by employing appropriate technology as well as clean-up campaigns where practicable.						
	Promoting ecological and biodiversity integrity in areas that support natural ecological systems.						
	<ul> <li>Maintaining open and transparent relations with stakeholders on issues of mutual concern.</li> <li>To maintain underground water quality throughout the remainder of the life of the operation.</li> </ul>						
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Criteria	Commentary
	To rehabilitate all dangerous excavations or subsidence on surface by means of backfilling or securely fencing of the affected area.
	Star Diamonds also commits to the objectives for decommissioning as stipulated below:
	<ul> <li>Monitor and rehabilitate negative impacts to Geology where possible;</li> <li>Limit and mitigate negative impacts to topography;</li> <li>Prevent and limit soil pollution and erosion and ensure that grassland areas are stabilized in the short term to create natural grassland in the long term;</li> <li>Provide adequate soil depth and nutrients to restore land capability to the appropriate land capability classification for the area;</li> <li>Maintain and protect the current land use classifications;</li> <li>Protect flora on site and prevent/limit negative impacts on flora;</li> <li>Protect fauna on site and prevent/limit negative impacts on fauna;</li> <li>Drevent and livitar to aufface under and impacts and finite particle impacts on fauna;</li> </ul>
	<ul> <li>Monitoring and mitigation of groundwater pollution and reducing the loss of groundwater surrounding the Mine:</li> </ul>
	<ul> <li>Prevent air pollution and ensure that dust fallout levels are within the guideline levels;</li> </ul>
	Limit the amount of vibration and noise and the negative impacts related to noise and vibration;
	Protect and limit negative impacts to the archaeological and cultural resources;      Protect and limit negative impacts to constitue landscapes; and
	<ul> <li>Ensure that the mine, infrastructure, and tailings dams are not visually intrusive and mitigate impacts where possible</li> </ul>
	The mining license and EMPr makes provision for the adequate storage of tailings. There is potential for the reprocessing of surface tailings and surrounding dumps on the mine property through the implementation of a small-scale treatment facility. This will clear most of the surface dump material and thus allow areas to be available for rehabilitation purposes. Tailings have been retreated in the past at an average grade ranging between 4.5 cpht and 15.0 cpht.
	Tailings are being consolidated together with waste in one central area between the plant and the current slimes dams. The area will eventually serve to consolidate most dispersed waste and tailings into one high-level area stretching between No4 (west) shaft and the plant (east) as the southernmost boundary and the current slimes dams to the north;
	The waste rock dump, consists out of dolerite, sandstone, quartzite and shale fines will merge with the tailings dump to form one high level area. The dump has a life of 40 years, although it is planned to back fill worked out stopes in the future with waste rock. In an attempt to minimise the impact of the waste rock dump, some material is sold to neighbours as backfill material;
	Mine solid waste is handled via a salvage yard where it is divided into recyclable items and non-salvageable scrap. Scrap metal is sold and removed from site. All scrap must be stored at the salvage yard until removed from site. The salvage facility has undergone major modifications and improvements optimising the harvesting of usable material as well as maximising pollution prevention.
	Phoenix Pit will be kept as is as numerous animals have established themselves in and around the pit e.g. rock hyraxes, rock pigeons and lizards. A low enviro-berm will be constructed around the pit for safety reasons as the pit is in close proximity of the residential area. Storm-water management facilities will be constructed around the pit to allow for free-drainage off site.
	Existing waste management facilities are adequate to accommodate the waste generated in the foreseeable future at Star mine. No new waste management facilities are proposed. However, the existing waste management strategy will be revised to promote increased recycling and on-site management of waste. Old scrap sites within the mining area are presently being cleaned up and rehabilitated.
Infrastructure	Star Diamonds is situated on the farms Wynandsfontein 53 and Clewer 104 in the Theunissen District of the Free State Province of South Africa. It forms part of a prominent east-west fissure system that stretches approximately 15km from the old Saital mine in the west to Lovedale in the east. The mine is located some 12 km North East of Theunissen. Virginia is situated approximately 25km North-north-east of the Mine (Figure 16).
	The mine has been in operation for more than 60 years and all necessary infrastructure already exists. There is servitude over the mining area belonging to Eskom with a demarcated buffer zone of 10m.
	Surface infrastructure includes the following: <ul> <li>Roads: The mine is serviced largely by un-tarred roads from the R30 Welkom to Theunissen, with the R30 being the major provincial route servicing the Mine;</li> </ul>
	• Railways: The Kroonstad-Bloemfontein railroad passes through on land adjacent to the Mine and is the nearest rail connection to the Mine. The closest station to the mine is situated at Theunissen,
	some 12 km Southeast of Star Diamonds;
	• Power: An 88 KV Eskom power line services the mine. In addition, a managed substation is situated on the mining property. Consequently, Eskom servitudes are registered on both Clewer and
	Wynandsfontein. Vodacom and Telkom also utilises the Eskom servitude;



Criteria	Commentary
	<ul> <li>pumping purposes;</li> <li>No.7 Shaft: In the east the shaft is established to 2 Level and is used for ventilation purposes and as a second escape route from underground workings. Ground water from this area is collected, pumped to surface and discharged away from the shaft;</li> <li>Main shaft (No 4): Situated in the central portion of the property and is currently used for all hoisting of men, material and rock to and from 16 Level. This also serves as the air intake for mine ventilation; and</li> <li>No 3 Shaft: Also of significance as it is was developed to 10 Level and was an integral part of the infrastructure until the 1980's when mining adjacent and through the shaft resulted in its collapse. Consideration has been given to possible rehabilitation of the shaft.</li> </ul>
	The following is a summary of main installations and equipment used on mine:
	<ul> <li>Underground: Positive displacement and various smaller vertical spindle pumps keep the mine dewatered. Sufficient fans to support proper ventilation flow underground are operational. HT electrical reticulation supports the main underground installations. Two electrical locomotives are operational underground and seven Eimco 11B loaders operate in the mine workings to help load the draw points and clean stopes;</li> <li>Compressors: Sufficient compressors are operational to supply the underground and surface workings with compressed air;</li> <li>Surface Winding Shafts: A licensed operational direct current double drum surface winding shaft, recently upgraded and modernized. The winder operates from surface to 16 Level at 640 meters below datum. The winder transports both man and material. Ore is hoisted to surface into boxes after which it is trucked away to the reduction plant for processing;</li> <li>Reduction Plant: A 3 crusher reduction system followed by a Dense Media Separation plant is currently operational;</li> <li>Workshops: Two operational workshops support the underground operations with the required engineering support; and</li> <li>Other surface Infrastructure: This includes: Eskom and local substations, a mine village with 31 houses, mine office buildings, operational slimes dams, surface extraction fans, power and water reticulation, stores and an all-weather road access to the mine.</li> </ul>
Costs	The cost of Level establishment and Shaft sinking and commissioning (Project Capital) makes up the majority of the capital estimate for year 1 and is based on a Class 3 capital estimate from Sedi Diamonds, who are well experienced in such work on diamond mines. For the remaining LOM, development capital is required each year for repairing and developing of the Star mine. The methodology used to estimate operating cost is as follows:
	• mining operating costs have been estimated based on actual and historical cost provided by Petra and Sedi Diamonds;
	• treatment operating costs estimates have been based on in-house experience with recent Southern African diamond projects together with actual costs from Star where available;
	almost 50% of the total operating costs are comprised of labour costs;
	current exchange rates for the US\$ and South African Rand at the time were used in the study;
	A 5% royalty on revenue is payable to the State under the terms of the Mining Licence. No private royalties are payable; and
	A 2% marketing and diamond handling cost is payable to Petra under the terms of the agreement.
Revenue factors	During 2004, Snowden based its revenue estimations for Star on a value of US\$250 per carat (Snowden 2004). During the period 2010 until mid-2011, 19 stones weighing 201.49 carats were recovered at Star and sold for an average price of \$4,252.65/ct.
	The latest revenue estimate for Star mine has been generated from 11,008.93 carats sold between October 2015 and September 2016 for a total of USD\$3,255,488.54 at an average price of \$295.71/ct. It would be advisable to base financial modelling on an average estimated value of \$295/ct. Average quality of the diamonds is very high and similar to the Bobbejaan dyke at Sedibeng.
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Star to Petra at a cost of 1% of the selling price of the product.
Market assessment	The latest diamond trade data show that diamond trade via Antwerp is bottoming out. Exports of polished diamonds to other main centres including the US (the largest consumer of diamonds) also show this improvement. Trade data from the two other main trading centres UAE and Israel provide a mixed picture. Diamond trade to and from the UAE appears to be stabilising while that of Israel remains very weak and there is no bottom in sight yet.
	India is the main cutting, polishing and manufacturing centre (90%) of diamonds worldwide. They also point into the direction of a bottoming out. If we take all the above into account, there are some signs that diamond trade is slightly improving but this improvement is very fragile.
	Due to the lack of new major mines being discovered and coming on line and the overall gradual decline in production of existing mines, combined with growth in Asian markets, the medium and long term outlook for diamonds is perceived as positive. The recovery of the US economy, the largest market for diamond jewellery, would also be a positive factor during which US household net worth will likely increase further and this will result in somewhat higher jewellery consumption leading to slightly higher demand for gem diamonds.

Criteria	Commentary							
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Star to Petra at a cost of 1% of the selling price of the product.							
Economic	Given the scope of the valuation and timeframes for completion, the Independent Statement of Diamond Resources and Ore Reserves Report for Frontier Diamonds Limited does not cover an independent mineral asset valuation of Sedi Diamond's asset as per the requirements of the VALMIN Code 2005; however, an in-house preliminary feasibility study has already been completed for Star with seemingly positive results. This information needs to be independently verified.							
	The following key inputs as per cost and revenue factors were used in the in-house, economic analysis to produce the net present value (NPV) of Star mine:							
	<ul> <li>discount rate of 12%;</li> <li>Star has considered a real prize growth factor of 3% in financial modelling together with a US CPI inflation factor of 4% realizing a total price percentage increase of 7% per year;</li> <li>Average price of US\$385/ct;</li> <li>Marketing cost of 2% per year;</li> <li>Reserve grade of 42.6 cpht;</li> <li>labour inflation factor of 8%;</li> <li>Power inflation factor of 8%;</li> <li>SA CPI inflation factor of 5.5%; and</li> <li>ZAR/US\$ exchange rate of R14.50.</li> </ul> The NPV of Star mine is positive. The sensitivity of the preferred case option NPV at a 12% required rate of return used as a discount rate in terms of the capital asset pricing model to measure changes in the reserve grade, pricing, capital cost, throughput, foreign exchange, percentage waste development and operating cost is summarised in Figure 16.							
	SENSITIVITY							
	CAPITAL ASSET PRICING MODEL							
	41.00							
	39.00							
	37.00 36.73 34.54 36.88							
	35.00 34.61 34.47							
	33.00 32.19 32.34							
	\$ 31.00 E 29.00 28.96							
	27.00							
	25.00 -10% 0% 10%							
	Image: Standard Deviation Provide Provi							
	Figure 16. NPV sensitivity graph for the Preferred Case option – Star mine							
	Star mine is highly sensitive to changes in revenue (grade or US\$/ct values), foreign exchange and throughput and less sensitive in changes in percentage waste development, capital and operating							

Criteria	Commentary															
	cost. A standard deviation of 10% from the mean on revenue input parameters are equal to USD 5.58 million in value.															
Social	The Star Diamond Mine is held by Star Diamond Mines (Pty) Limited (Registration No 1946/022941/07) under old order mining license no ML 11/1996 and converted to a new order mining right in terms of item 7(7) of Schedule II to the MPRDA, issued by the Department of Minerals and Energy on the 16 <sup>th</sup> day of April 2009 for a period of 15 years ending on 10 <sup>th</sup> of February 2025.															
	During 2010, De Development Ac	epartment of Mineral Re ct (MPRDA) (No 28 of 20	sources ( 02). The	(DMR) ha	as request d EMPr Rep	ed that S port was	Star Diamono submitted to	ds (Pty) L the DMF	td amend their an R in April 2010 but	proved Report to meet th has not been approved as	e require yet by th	ments of e DMR.	f the Miner	ral and P	etroleum R	lesources
Other	Star is a fully op	erational diamond mine.	No mate	erial natu	rally occur	ring risks	s have been i	identified								
	Since there is no with absolute ce recovered diamo	o sample information be rtainty. From an operati ond grade.	low the d ional stan	eepest c dpoint, tl	current worl he greatest	king leve t risk to \$	els at Star, th Star will be fa	ne continu ailure to a	ity of the fissures chieve the budget	and especially the averag ed average stoping width r	e grade a resulting	and width in excess	n of the fiss sive dilution	sure can n and the	not be dem refore a re	onstrated duction in
	General mine ve to greater in situ	entilation and methane of stresses.	control in	the lowe	er Witwaters	srand lith	nologies need	ds to be o	closely monitored a	and controlled, as well as p	ootential	changes	in rock me	echanics	at deeper le	evels due
Classification	The Ore Reserv allowances mad	ves at Star were revised e for mining dilution and	l in Febru recovery	ary 2017 based o	7. It comp on current a	orises Pro and expe	oved and Precedence	obable or practices	e categories base	ed on mining the Measure	d and Ind	dicated F	Resources	respectiv	vely with ap	opropriate
	The result is an	appropriate reflection of	f the Com	petent P	ersons vie	w of the	deposit.									
	Table 5: Star	Ore Reserve														
	Ore Reserve	e for Star as at 28 F	ebruar	y 2017					Ore Reserve	for Star as at 1 July	2013					
	Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t	Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t
	Micaceous		0.109	42.6	0.046	295		125.58	Micaceous	– Proven						
	Burns East Star	Proven	0.124	42.6	0.053	295 295	1.00mm	125.58	Burns Fast Star		0.127	43.0	0.054	n/a n/a	1.00mm	n/a
	Wynandsfontein	-	0.084	42.6	0.036	295		125.58	Wynandsfontein		0.065	39.0	0.025	n/a		n/a
		Star Proven Reserve	0.316	42.6	0.135	295		125.58		Star Proven Reserve	0.192	41.0	0.079	n/a		n/a
	Micaceous	4	0.218	42.6	0.093	295	_	125.58	Micaceous	-		10.0		n/a	-	n/a
	Burns	Probable	0.215	42.6	0.092	295	1.00mm	125.58	Burns	Probable	0.224	43.0	0.096	n/a	1.00mm	n/a
	East Star	-	0.169	12.6	0.071	295	1.00mm	125.59	East Star		0.142	20.0	0.055	n/a	1.0011111	n/a
	wynandsiontein	Star Probable Reserve	0.601	42.6	0.256	295		125.58	wynandsiontein	Star Proven Reserve	0.366	41.0	0.150	n/a		n/a
		Star Ore Reserve	0.917	42.6	0.390	295	1.00mm	125.58		Star Ore Reserve	0.558	41.0	0.230	n/a	1.00mm	n/a
	General notes of 1. Resource 2. Measured Resource 3. Resources 4. Tonnes ar 5. Tonnes a discrepane 6. Resource 7. Reserve the 7. Reserve the	n reporting criteria and Reserve bottom cut resources are classified three levels (120m) belo s are reported inclusive re reported as millions; c re metric tonnes and a cies; tonnages and grades are	t-off is at d as one I bow the Inc of Reserv contained are round re reported	1mm; level (40 dicated R res. diamond ed to th d exclusive	m) below ti Resource. ds are repo e nearest ive of exter	he base rted as p 100,000 rnal waste	of the currer per million ca tonnes; car te, unless wh	nt working rats; rats are r nere other	g levels, Indicated ounded to the ne wise stated;	Resource two levels (80m earest 10,000 carats; rour	) below t	he base of numl	of the Mea	asured Ro result in	esource and	d Inferred putational

Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors,
 All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

Criteria	Commentary
Audits or reviews	The current reserve estimated at 28 February 2017 has not been externally audited, but was reviewed by the Competent person in February 2017.
Discussion of relative accuracy/ confidence	<ul> <li>Factors which could affect the relative accuracy and confidence of the global reserve estimate include:</li> <li>The continuity of the average grade and width of the fissure cannot be demonstrated with absolute certainty, however, in the Competent Person's view the strike, dip, width and diamond grade continuity of the kimberlite fissures at Star are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. There is a high level of confidence from historical information to support the extrapolation of the fissure width and grade with depth.</li> <li>Failure to achieve the estimated average fissure and stoping widths could result in excessive dilution and will lead to a reduction in recovered diamond grade.</li> </ul>

# Section 5 Estimation and Reporting of Diamonds and Other Gemstones

Criteria	Commentary
Indicator minerals	No indicator mineral sampling has been undertaken at Star in recent times.
Source of diamonds	Diamonds at Star are sourced from primary kimberlite fissure deposits which are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust.
Sample collection	The Star fissure complex is not conventionally sampled as in the case of a normal kimberlite pipe, but has been extensively mined over a period of more than 60 years. Mining production data provides the information necessary for estimating the geology and grade behaviour of the deposit.
	At Star mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Star fissure complex are known with a high degree of confidence. For the Star fissure mine a strategy has been developed to define the resource in such a way that it allows them to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
Sample treatment	The Competent Person is unaware that any samples were tested in the past at Star.
	Production data provides quality information necessary for estimating the geology and grade behaviour of the deposit. Star Diamonds operate a Dense Media Separation (DMS) and final recovery Plant capable of treating the Ore Reserve at a head feed rate of 30tph or at an average annualised rate of 110,000tpa.
	The Star Diamond Dense Media Separation (DMS) plant consists of the following main components and process flows:
	• Plant head feed is dumped into a receiving bin through a load and haul arrangement. Plant head feed can operate at 30 tons per hour. Primary crushing takes place through a jaw crusher for plus 50mm material which is not discarded as waste rock by the waste pickers. Any minus 32mm material bypasses the picking station and feeds straight to the silo. The plus 32mm material is then washed and minus 1mm material is discarded as slimes. All other material reports to the classifying screen and split into underflow (reports to silo) and overflow which are conveyed to the single pass rolls crusher. Minus 32mm material is stored in the silo for further processing through the DMS circuit and anything bigger than plus 32mm goes to secondary crushing for reduction.
	• Material entering the DMS circuit is pumped into a cyclone which separates dense media from other lighter material. The plant operates one 420mm cyclone with a head feed of 30tph. All material with a specific gravity of 3.1 and more is washed, to remove the ferrosilicon for reuse, and fed into a diamond concentrate bin, before it is conveyed to the Final recovery system.
	• Material exiting the cyclone reports to a classifying screen from where the minus 6mm material is screened out as tailings. Material between 6mm and 32mm is fed to the tertiary crusher system which consists of one Hazemac crusher. Cyclone overflow which is between +6mm and -32mm remains in closed circuit through the washing, screening and DMS sections until it is reduced to minus 6mm and discarded as tailings.
	• The Final Recovery Plant includes one X-ray machine for separating diamonds, and two grease tables for back up recovery. Concentrate is classified in three different size fractions before passing through the Flowsort X-ray (wet) machine. The fine fraction is only processed through a grease recovery system. All final concentrate is hand sorted for final diamond recovery.

Criteria	Commentary
Carat	One fifth (0.2) of a gram (often defined as a metric carat or MC).
Sample grade	All resource and sample grades are expressed as carats per hundred tonnes (cpht).
	No adjustment is made for moisture content within the samples.
	All results are quoted to a 1.00mm bottom cut-off unless otherwise stated.
Reporting of Exploration Results	Recent exploration has not been undertaken at Star.
Grade estimation for reporting Mineral Resources and Ore	Geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years, has provided effective and continuous sampling of the deposit and affords a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at Star.
Reserves	The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Star were based on a back calculation from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Resource which includes the practical diamond recovery characteristics of the existing operation by taking into account the effective bottom screen size of 1.00mm, diamond losses and plant recovery efficiency. The mine has sufficiently detailed production records like hoisted (ROM), treated tonnage and recovered carat data that allow back calculation of the average in situ fissure grade.
	The treated tonnage was sourced from the diluted hoisted tonnage, from which waste rock has been removed by waste/fissure hand-sorting. Historic recovered diamond grades indicate that the fissure has a consistent grade over the mined extent of the deposit.
	Cut-off grades have not been used in the resource estimation on the basis that a bulk mining method will be used which will result in the extraction of all the ore within the fissure. Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure for geological modelling and resource estimation purposes (Refer Grade Estimation and Modelling techniques). The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Resource at Star.
Value estimation	The latest revenue estimate for Star mine has been generated from 11,008.93 carats sold between October 2015 and September 2016 for a total of USD\$3,255,488.54 at an average price of \$295.71/ct. It would be advisable to base financial modelling on an average estimated value of \$295/ct. Average quality of the diamonds is very high and similar to the Bobbejaan dyke at Sedibeng.
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Star to Petra at a cost of 1% of the selling price of the product.
Security and integrity	The security measures taken for the production of ore at Star mine were not recorded in detail; however, it is reasonable to assume the samples were subject to the normal rigorous security measures reported as present at Star Diamonds (Pty) Ltd. All processing and valuation of diamonds is carried out in secure areas.
	there has been no accredited process audit;
	• Star employs a small security staff to attend to normal risks such as theft, damage to property, policing of hostels, entry/exit controls at the entrance to the mine and diamond security in and
	around the plant and general mine area. Perimeter-fencing controls exist around the mine and security policies are in place. CCTV cameras are used in the plant area.
	<ul> <li>microdiamonds were not processed:</li> </ul>
	<ul> <li>no audit samples were collected because of the size of the production samples;</li> </ul>
	tailings from production have not been checked;
	• tracer tests are conducted on a regular basis and the target is a tracer recovery in all tested size fractions >95% for tracers of density 3.5 g/cc;
	geophysical densities were not determined;
	<ul> <li>valuation, acidisation, final sieving and weighing of the diamonds are carried out at Harry Oppenheimer House in Kimberley; and</li> </ul>
	<ul> <li>by making use of the Petra platform, diamonds are sold and marketed in Johannesburg in conjunction with the regulator.</li> </ul>

Criteria	Commentary
Classification	At Star mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Star fissure complex are known with a high degree of confidence. For the Star fissure mine a strategy has been developed to define the resource in such a way that it allows them to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Historical information, spanning over more than 60 years at Star mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
	The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which were further revised and refined by Petra and Sedi Diamonds with the acquisition of additional development and production data gathered during 2005 until February 2017. Based on assessment of the kimberlite fissure dip, width, depth and diamond grade continuity, the mineral resource has been estimated and classified by Snowden to reflect a reduction in confidence in the estimate down-dip from the lowest current working level as follows:
	Measured Resource: one level (40m) below the base of the current working levels;
	Indicated Resource: two levels (80m) below the base of the Measured Resource; and
	Inferred Resource: three levels (120m) below the Indicated Resource.
	An exploration target zone below the inferred zone has therefore not been included in the resource.

# **Sedibeng Diamond Mine** Mineral Resource and Ore Reserve Statement as at 28<sup>th</sup> February 2017 JORC Code, 2012 Edition – Table 1

### **Section 1 Sampling Techniques and Data**

(Criteria in this section applies to all succeeding sections.)

Criteria	Commentary		
Abbreviations and			
Demmuons	Abbreviation	Explanation	
	3D	3 Dimensional	
	BSS	Bottom Screen Size	
	Bobbejaan Fissure	name of the 2,430 metre-long kimberlitic fissure system at the Sedibeng mine	
	cpht	Carats per hundred tonnes	
	Crown	Crown Diamonds (Pty) Limited (formerly named Crown Diamonds N.L)	
	Ct	Carat	
	Dancarl	the Dancarl mine is part of the Sedibeng operation	
	DBCM	De Beers Consolidated Mines (Pty) Ltd	
	DMS	Dense Media Separation	
	DMR	the Department of Mineral Resources of South Africa	
	Fissure Mines	Sedibeng and Star	
	Frontier	Frontier Mining Projects (Pty) Ltd Ltd. Main contractor appointed by Sedi Diamonds (Pty) Ltd to operate its diamond operations in South Africa.	
	На	Hectares	
	Kgalagadi	Kgalagadi Geoservices cc	
	Messina	the Messina mine is part of the Sedibeng operation	
	MPRDA	the Mineral and Petroleum Resources Development Act 28 of 2002 (South Africa)	
	mbs	metres below surface	
	Petra	Petra Diamonds Southern Africa (Pty) Ltd	
	ROM	Run-of-Mine	
	Sedi Diamonds	Sedi Diamonds (Pty) Ltd	
	SG	Specific Gravity	
	Snowden	Snowden Mining Industry Consultants Pty Ltd	
	Sedibeng	the Sedibeng mining operation is an amalgamation of two mines (Messina and Dancarl) in the Northern Cape Province, RSA	
	Sedibeng JV	Sedibeng Diamond Mine JV - a JV between Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) Ltd	
	Star	Star Diamond Mine in the Free State Province, RSA	
	Star Diamonds	Star Diamonds (Pty) Limited	
	SAMREC Code	the South African Code for Reporting of Mineral Resources and Mineral Reserves, as published by the South African Mineral Committee under the auspices of the	
		South African Institute of Mining and Metallurgy	
	UTM–WGS84	Universal Transverse Mercator coordinate system using WGS 84 Datum.	

Criteria	Commentary
Sampling techniques	The Sedibeng fissure complex is not conventionally sampled as in the case of a normal kimberlite pipe, but has been extensively mined over a period of more than 60 years. Mining production data provides the information necessary for estimating the geology and grade behaviour of the deposit.
	At Sedibeng mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Sedibeng Fissure complex are known with a high degree of confidence. For the Sedibeng fissure mine a strategy has been developed to define the resource in such a way that it allows the Competent Person to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years at Sedibeng mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the kimberlite fissures at the mine. Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. This concept is also supported by previous qualified persons and institutions like Snowden and Kgalagadi who did Independent Valuations for Crown (2002 – 2005) and Petra Diamonds (2012/2013) respectively.
	It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
	In the past and presently Sedibeng excavated the narrow 'Bobbejaan' Fissure using the full shrinkage stoping method as discussed in detail in section 2 and 3 of this table.
Drilling techniques	Compressed air percussion and pneumatic rock drills are mainly used for stoping and development and to perform cover drilling to locate the fissure. The <i>en échelon</i> arranged lenses overlap and are slightly off-set from each other along strike and depth by between 1 and 20m, but normally less than 10m.
	Limited diamond exploration drilling has been undertaken at Sedibeng. In 2003, Snowden completed two diamond drill holes at the Messina section of Sedibeng mine to test the down-dip continuity of the fissure. A drill cross-cut was established on 21 Level and two holes were drilled to intersect the kimberlite fissure at depth. Both holes drilled from 21 Level, MES 01 and MES 02, intersected significant thicknesses (up to 3 m down-hole width) of the kimberlite fissure at depths to the projected 24 Level.
Drill sample recovery	Core samples obtained during cover drilling to locate the fissure are often discarded after logging. Core chips are not being used to determine in stope grade.
Logging	Core samples are being logged for basic lithological parameters during cover drilling to locate the fissure. Cover drilling to locate the fissure does not support Mineral Resource estimation, mining studies or metallurgical studies. No geotechnical diamond drilling data is available at Sedibeng.
Sub-sampling techniques and sample preparation	No sub sampling was undertaken.
Quality of assay data and laboratory tests	Core samples obtained during cover drilling to locate the fissure are often discarded after logging. Average in situ grades (cpht) for the fissure are obtained by back calculating from the recovered grades after various Mining factors have being taken into account.
Verification of sampling and	The limited core drilling done at Sedibeng during 2003 was observed by Snowden, an independent consultancy. The mine has a full-time geologist but not a full-time geotechnical engineer and services are contracted as and when required. Cover drilling to locate the fissure is done by trained staff and rock drillers with years of experience particularly in fissure mining techniques.
assaying	There is a survey office on the premises where mine plans are kept. Monthly stope and other development are surveyed, plotted and then compared to the original plan. This method is considered adequate for monthly planning and verification purposes. All the monthly survey data is currently stored electronically.
Location of data points	All cover drillholes at Sedibeng are positioned in order to intersect the fissure for future development purposes. Accurate point surveys (stope dip, fissure width and stope width) of the fissure are taken 5 meters apart on a monthly basis in each stope and plotted on the surveyor's mine plans. This data is being used for mine planning and modelling purposes. All surface and sub surface survey coordinates, models etc. are in LO 25, WGS-84 format. Stope developments are surveyed by making use of LEICA survey equipment.
	LIDAR topography data is used, and all subsurface elevations tie back to that.
Data spacing and distribution	The spacing of the underground survey data used for mine planning and geological modelling is deemed suitable for the determining of geological continuity for this type of kimberlite body.
	No sample compositing has been applied to the grade data. Average in situ grades (cpht) for the fissure are obtained by back calculating from the recovered grades after various mining factors have been taken into account.

Criteria	Commentary
Orientation of data in relation to geological	The Sedibeng fissure complex is not conventionally sampled as in the case of a normal kimberlite pipe. Core samples recovered during cover drilling to locate the fissure do not support Mineral Resource estimation, grade determination, mining studies or metallurgical studies. No sub sampling has been carried out.
structure	Due to the absence of any previous or ongoing core, chip or bulk sampling activity, bias of sampling is not likely.
Sample security	No samples or sub samples were taken at Sedibeng. Basic on site security measures are in place for the stockpiling and processing of ROM ore.
Audits or reviews	The limited core drilling done at Sedibeng during 2003 was undertaken under the observance of Snowden personnel. All other survey, mining and production data available at Sedibeng was externally or internally reviewed by;
	Snowden Independent Valuation for Crown Diamonds, 2002 – 2005
	Petra Diamonds internal reviews, 2005 - 2011
	Competent Person of Kgalagadi Independent reviews for Petra Diamonds, 2012/2013
	Competent Person Independent review for Sedi Diamonds, September 2016
	Competent Person Independent review for Frontier Mining Limited, February 2017

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	Mineral tenement and land tenure status The Sedibeng Diamond Mine situated in Magisterial District Barkley West, Region Northern Cape, measuring 89.62 hectares (80.2ha – Dancarl and 9.42ha – Messina) in extent, is held by Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) Ltd (Sedibeng Diamond Mine JV) under old order mining licenses no ML 12/94 and ML 1/1995 respectively. New order rights for Dancarl and Messina have been granted by the DMR in terms of item 7(3) of Schedule II of the Act (ref MRC 228 and MRC 229) during June 2013, but still need to be executed and signed. The period of the grant is not known yet. Both rights straddle a single and continuous ore body, the so-called 'Bobbejaan' Fissure which is mined, treated and recovered through central and shared infrastructure for the benefit of the JV entity. Petra Diamonds acquired these mines in 2005 from Crown Diamonds. Sedi Diamonds (Registration no 2014/068898/07) acquired the mine from Petra through the acquisition of Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) in 2014. Sedi Diamonds appointed Frontier Mining Projects (Pty) Ltd (Frontier) as the main contractor to operate its diamond operations in the Country. The corporate structure of Sedi Diamonds is shown below:





- By 1981 small-scale miners had mined the Bobbejaan Fissure via five vertical shafts as deep as the 9 Level (275 mbs), although extensive extraction was only to the 7 Level (or 210 mbs);
- Minvest acquired the northern portion of the Messina Mine property in 1981. Between 1981 and 1997, mining extended from the 7 Level to the 19 Level (630 mbs). In 1991 Minvest acquired an additional 200m of strike length of the Bobbejaan Fissure to the south. Production records during this period are incomplete; however, it is estimated that approximately 2.7 million tonnes of ore was mined out of the fissure system over the sixty years to June 1996;
- Messina Diamond Corporation acquired Minvest in December 1996 and conducted an extensive review of the operations prior to developing a five year mining and development plan designed to open up additional working faces and expand production;
- Messina Diamonds (Pty) Ltd acquired the property in March 1999 and mined some 270,000 t of ore through to January 2002. The average hoisted grade over this period was 20 cpht, down from a grade of 28 cpht at the start of 1999. This lower grade reflects the fact that no new faces were established due to a lack of capital for development and as a result an increasing amount of ore was sourced from old, highly-diluted old mining areas;
- Crown Diamonds NL acquired the Messina Mine in July 2003;
- Petra Diamonds acquired the project in 2005 from Crown Diamonds;
- Sedi Diamonds (Pty) Ltd acquired the mine from Petra in 2014 and appointed Frontier as the main contractor to operate its diamond operations in the Country.
- Currently, the Messina shaft system is connected to the existing production levels developed from Dancarl.

### Dancarl

- Whilst small-scale trial mining of the Bobbejaan Fissure commenced at the Messina Mine in the 1950s, the Dancarl orebody was not discovered until 1967. The mine was subsequently developed in 1969 by HLG Ltd and De Beers Consolidated Mines (Pty) Ltd, before eventually being ceded to Dancarl Diamonds (Pty) Ltd on the basis that Dancarl was to sell all diamonds produced to DBCM;
- In 1989, DBCM bought all the shares in Dancarl Diamonds (Pty) Ltd and installed a mining contractor to mine Dancarl. This contract was ended in 2000 and the underground mine placed on care and maintenance;
- In late 2002, dump mining and treatment commenced initially on a trial basis, but was scaled up in September 2003. In June 2004, the operation closed due to the contractor failing to meet its contractual obligations.
- In September 2004, a consortium consisting of Crown, Sedibeng Mining (Pty) Ltd and Women in Mining acquired the Dancarl mine from DBCM.
- Petra Diamonds acquired these mines in 2005 from Crown Diamonds;
- Sedi Diamonds (Pty) Ltd acquired the mine from Petra in 2014 and appointed Frontier as the main contractor to operate its diamond operations in the Country.
- Currently, the Dancarl shaft system is connected to the existing production levels developed from Messina.

The production history at Sedibeng is summarised in Table 1 (earlier records are incomplete).

Table 1. Sedibeng production history since 1994 until 28 February 2017											
Year	Tonnes treated		Carats recovered		Treated grade (cpht)						
	Messina	Dancarl	Messina	Dancarl	Messina	Dancarl					
1930-1996	2,700,000	Not available	Not available	Not available	Not available	Not available					
1994-1997	Not available	26 950	Not available	9 635	38	36					
1998	Not available	78,500	Not available	26,430	Not available	34					
1999	Not available	60,016	Not available	17,651	Not available	29					
2000	Not available	47,947	Not available	17,482	35	36					
2001	Not available	Not available	Not available	Not available	26	Not available					
2002	Not available	Not available	Not available	Not available	24	Not available					
2003	Not available	Not available	Not available	Not available	39	Not available					
2004	99,0	074	24,970		25						
2005	No data available		No data available		No data available						
2006	132,164		32,023		24						
2007	152,	,151	40,7	711	2	7					
2008	186,608		35,710		19						
2009	120,457		27,298		23						
2010	105,919		21,873		21						
2011	82,679		19,169		23						
2012	79,642		15,558		20						
2013	62,959		11,977		19						
2014 (6 months)	28,282		3,770		13						
2015	66,322		11,609		18						
2016/2017 (14 months)	90,4	438	12,1	12,133		13					
TOTAL	1,420	),108	327,	999	23	.0					

The Bobbejaan Fissure at Sedibeng is not conventionally sampled and explored as in the case of a normal kimberlite pipe. The fissure has been extensively mined over a period of more than 60 years during which mining production data provides quality information necessary for estimating the geology and grade behaviour of the deposit.

In February 2017 the Competent Person completed a review of Sedibeng mine based on a detailed examination of the survey and production data available at Sedibeng. This data has been assembled during the recent history of these operations as Sedi Diamonds Mining has expanded its portfolio of diamond assets.

Data is collected at the individual mining operations and collated and compiled for interpretation using a series of spreadsheets. All data available is analysed and interpreted before it is used by the Sedi Diamonds personnel to compile and update the geological models for the mine. These updated models are then used by the mining engineers to plan both the long term mining strategies as well as

the short term production scenarios for implementation by the operational personnel on the mines. This is an important an ongoing process in the life cycle of Sedibeng mine. The original geological interpretation for the Messina and Dancarl mines is based on work undertaken by Snowden and Petra during the years ranging from 2002 until 2012.

### Mining method and layout

Sedibeng (Messina and Dancarl) currently mines the narrow Bobbejaan Fissure using the shrinkage overhand stoping method (Figure 2). From a cost benefit standpoint open stoping would be the preferred method but it is impractical due to the fractured nature of the sidewalls to the kimberlite fissure.



Figure 2. Schematic illustrating the shrinkage overhand stoping method as practised on the Sedibeng fissure mine

The mine is currently operating on levels established on 40m vertical intervals with access from vertical shafts located either side of the vertical fissure. Strike haulages are positioned in the footwall approximately 8m from the fissure with cross-cuts to the haulage developed at 12m intervals. The fissure width can range from narrow stringers or complete loss of ground (often due to steps or off-sets in the fissure continuity) to as much as 100cm or more, although this is rare. Generally, fissure widths of less than 30cm are not mined to minimise dilution. The haulages are developed at a slight upward gradient to facilitate drainage.

The basic development dimensions are as follows:

- Rock drives: 2.0m wide by 2.2m high
- Crosscuts: 2.0m wide by 2.2m high
- Ore passes: 1.5m by 1.8m
- Raises: 1.2m wide by 1.5m high
- Station crosscuts: 4.0m wide by 2.5m high for 20m

Sedibeng has 10 vertical shafts of which the following are still operational: Albertse shaft (Messina Diamonds section), Halliday shaft (Messina Diamonds section), Main Shaft (Dancarl Diamonds Section), No7 Shaft (Dancarl Diamonds section) and two sub vertical shafts.



Figure 3 (above) and 4 (below). Plan of Sedibeng (Messina) mine showing historic surface infrastructure and longitudinal section illustrating the extent of previous trial mining and mining of the Bobbejaan Fissure at Messina and Dancarl (Acknowledgement, Snowden 2004)



Geology	Geological background
	The known occurrences of diamondiferous kimberlites in South Africa are concentrated within the boundaries of the Kaapvaal Craton and occur as small volcanic diatremes (pipes), dykes (fissures) and sills. The kimberlite intrusions were emplaced along several parallel north-northeast and east-west trending structures and typically occur in swarms or clusters. The distribution of kimberlite occurrences in southern Africa, and kimberlite fissures in particular, are shown in Figure 1.
	Kimberlitic fissure deposits are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust. A few kilometres from surface, the confining pressure of the overlying rocks is insufficient to contain the explosive gases within the kimberlite magma and a volcanic eruption results. The resulting 'diamond pipe' consists of three broadly distinct vertical zones; the crater, diatreme, and root zones. Diamond-bearing fissure systems are found at surface when the effects of erosion have worn away the upper levels of the overlying diamond pipe. These fissures are characterised by high diamond grades and narrow widths, although they may have a strike extent of several kilometres and continue down-dip for hundreds of metres. The Sedibeng fissure system falls into the Group II Kimberlite category intruded ca. 120 million years ago. The kimberlite fissures show some similarities, but are more variable geologically than the kimberlite pipes. Typically the fissures are influenced by the country rock through which they have been emplaced. As with the kimberlite pipes, the fissures show considerable differences in terms of grades and quality of diamonds.
	The nature of the fissures, their steep dip and the mining method employed at each mine effectively preclude the use of exploration and grade control drilling to evaluate each of these fissures ahead of mining in any practical way. Instead the geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years at each mine, has provided effective and continuous sampling of the deposit and affords a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures.
	Sedibeng (Messina and Dancarl)
	The kimberlite fissure at Sedibeng is hosted by flat-lying, layered sediments belonging to the Campbell-Rand Series of the Transvaal Supergroup. The upper part of the stratigraphic sequence consists of a 400m interval of banded dolomite which is increasingly interbedded with shales in the lower portions. These carbonate rocks overlie about 130m of the Black Reef Quartzite which grades from fine-grained quartz arenite at the top to shaly quartz arenites at a depth of about 550m.
	Below 550m, the quartzites are in unconformable contact with volcanic rocks of the Ventersdorp Supergroup. The upper 50m of the volcanic rocks, between 16 Level and 17 Level at the Messina Mine, have been affected by palaeo-surface weathering. Below a depth of some 580m these volcanic units are fresh and highly competent.
	The Messina mine extends over the northern 1,700 metres of the 2,430 metre-long Bobbejaan Fissure. Immediately to the south of the Messina Mine and covering the southern 730 m of the fissure is the Dancarl Mine.
	The Bobbejaan Fissure system consists of three main vertical kimberlitic units at Messina, namely: the Albertse, the Halliday, and the Bobbejaan Fissure units (Figure 5). Like all known kimberlite dykes in South Africa, the Bobbejaan Fissure is a compound structure comprising an <i>en échelon</i> arrangement of vertically orientated, discus-shaped kimberlite lenses, which generally range in thickness between 45cm and 80cm in width but rarely exceed 100cm. Each lens tapers in all directions from 100cm at the centre to less than 20cm at its margins, where it breaks into a number of dykelets or "horsetails" which splay over a distance of 2 to 3m. Typically dyke lenses are disk-like in shape, tapering off in all directions, with 60cm average widths, 70-80m strike lengths, and approximately 40m vertical extents.
	At a more local level, the wall rocks of the fissure are reported to be quite fractured in areas of lens "horse-tailing" and also where the fissure is particularly wide. In plan, each lens is offset to the west by approximately 5m from other fissure lenses. The <i>en échelon</i> arranged lenses overlap and are off-set from each other by between 1 and 20m along strike, but normally less than 10m. The units sometimes overlap in vertical longitudinal section, although there are areas where this is not the case and an effective 'loss of ground' occurs. The loss of ground at Sedibeng is estimated at about 15% on average. Given this relative continuity in longitudinal section, the Bobbejaan Fissure system may, on a broad scale, be considered as a single fissure with variable widths along strike and at depth.
	To date, the Bobbejaan Fissure has been mined to a depth of approximately 760 mbs. The available geological information indicates that it displays remarkable down-dip continuity as reflected in Figure 5. At the current deepest production level of the mine (23 Level) the fissure is reported to be no different to that encountered in the upper sections of the mine. Messina and Dancarl has recently established 23 Level (at 760 mbs) and 24 Level (at 800 mbs) respectively with fissure development commencing in early 2014.
	The northern limit of mine development and stoping at Messina has been defined by the Water Fissure fault. The Water Fissure strikes northwest-southeast and dips moderately to the south. Mine development through the Water Fissure at Messina on Levels 16, 18 and 19 (500 - 640 mbs) demonstrates that the kimberlitic Bobbejaan Fissure continues northward of the Water Fissure and has not been laterally off-set. The kimberlite fissure is, however, reported to thin out in proximity to the fault.
	Figures 4 (2004) and 5 (2012) shows historic sections of Dancarl and Messina Diamonds, which forms part of the Sedibeng JV.



Figure 5. View of the Sedibeng mine fissure system with associated historic development up to 23 Level (Petra 2013).

### Regional Stability

Regional support is not planned on a systematic basis. However, the ground being left in situ as a result of geological and mining losses is providing the function of regional support. The ground is left for the following reasons:

- Narrowing of fissure to widths that are uneconomic to mine;
- · Loss of ground through off-sets in the fissures;
- Unmined ground left due to poor ground conditions; and
- Sill pillars left between levels to avoid holing into unstable ground in open stopes above.

As mining progresses to deeper levels ground conditions may change in the older geological formations hosting the fissures and a detailed investigation into the long-term regional support requirements will be required. This will also involve an investigation into the regional stress regime as input into numerical analysis which may lead to alternate positioning of rock drives, spacing of crosscuts and support requirements. Preliminary indications are that the ground conditions in the Venterdorp lava are favourable due to the competency of the host rock.

Development support consists of fully grouted 12 mm shepherd crooks (generally 1.5 m lengths) and is sufficient to stabilise ground in the more competent host rocks. For development in very weak rock, an intensive support system is required. The mine has a dedicated secondary support crew, which moves across the mine as the need arises. This crew specialises in the installation of long anchors, mesh and lace and shotcrete. A 3m wide sill pillar between stopes is designed for short term stability control, providing overhead support from the level above and preventing waste rock from entering the stope. Discontinuities in the kimberlite fissure have been encountered in the central and southern portions of the Dancarl mine which has reduced the amount of kimberlite available for mining (Figure 5A).

At the time of the Competent Person's site inspection in September 2016, Sedibeng was actively developing and stoping in the Dancarl section at levels 17, 18, 19, 20, 21, and 22. (Figure 5A).





			Table 2. Historic treated gra	de at Sedibeng		
			(Snowden 2004) Year	Messina section Treated grade		
		-	1930-1996	Not available		
			1994-1997	38		
			1998	Not available		
		F	1999	Not available		
			2000	35		
			2001	26		
			2002	24		
			2003	39		
			2004 (10 months)	42		
	Sedibeng mine					
Relationship between mineralisation widths and intercept lengths	The treated tonnage was sourced fr historically. Currently it seems that the Discrete monthly treated grades as d Grade Estimation and Modelling tech the available mine data was sufficient <b>Fissure width and down-dip contin</b> Due to the nature of the deposit, all fis	om the diluted hoisted tonnage, e amount of fissure that is been r etermined were combined in a to niques). If present, high and low to permit an average fissure grad uity ssure widths are effectively true w	, from which waste rock has been rem removed by hand sorting is around 40 to btal average (arithmetic mean) across th v daily treated grades were included in de to be estimated for the Resource at s vidths.	noved by waste/fissure 5 50%. The fissure and will be us the total average and no Sedibeng.	hand-sorting. Between 20 and ed for geological modelling and o cut-off grades were used. Th	d 40% waste rock has been remov d resource estimation purposes (Re he Competent Person determined t
	Based on the previous mining histor Statistical analysis of data sourced o length of 1,400m, demonstrates that The strike length and the resultant es loss or overlap between the three mai	y at Sedibeng, which extended ver seven production levels (Tab there is very little variation in the timated average widths for each in off-set fissure units. There is no	width of the fissures either along strike level are summarised in Table 3 and Fi o evidence of significant overlap of the I Table 3	a great deal known ab ee of some 300m above or down dip. gure 7. These average enses in the longitudinal	widths include the full length of section data.	e fissures and their diamond conte etween 14 and 20 Levels) and a str f the total fissure, assuming no grou
	Based on the previous mining histor Statistical analysis of data sourced o length of 1,400m, demonstrates that The strike length and the resultant es loss or overlap between the three ma	y at Sedibeng, which extended ver seven production levels (Tab there is very little variation in the timated average widths for each in off-set fissure units. There is no	ble 3, Snowden 2004), a vertical distance width of the fissures either along strike level are summarised in Table 3 and Fi o evidence of significant overlap of the I Table 3	a great deal known ad se of some 300m above or down dip. gure 7. These average enses in the longitudinal	widths include the full length of section data.	e fissures and their diamond conte etween 14 and 20 Levels) and a str f the total fissure, assuming no grou
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	Based on the previous mining histor Statistical analysis of data sourced o length of 1,400m, demonstrates that The strike length and the resultant es loss or overlap between the three ma	y at Sedibeng, which extended ver seven production levels (Tab there is very little variation in the timated average widths for each in off-set fissure units. There is no Average Level	to depris in excess of room, there is ble 3, Snowden 2004), a vertical distance width of the fissures either along strike level are summarised in Table 3 and Fi o evidence of significant overlap of the I Table 3 fissure width by level – Sediben Total strike length	g (Messina) mine (sn Average	widths include the full length of section data.	e fissures and their diamond conte etween 14 and 20 Levels) and a str f the total fissure, assuming no grou
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Fissure width data collected by Snowden has been essentially consistent over at least nine mining levels, a vertical extent 350m, above the current deepest level (23 Level) at Messina. This conclusion is also supported by the previously estimated average fissure widths (Table 3), with an average overall width of 60cm (Figure 9). Previous reports indicate that the Bobbejaan Fissure at Dancarl section has an overall average fissure width of 55cm, compared to a total average of 60cm for the entire Sedibeng mine.

The fissure reportedly narrows along strike to the south, being widest at the boundary with Messina. Previous stoping has been relatively continuous from the Messina boundary to No. 7 Shaft, however limited development advanced further south (Figure 5 and 5A). This suggests that the southern extent of the Bobbejaan Fissure at Dancarl is less than the minimum mineable width of 30cm.

Discontinuities in the kimberlite fissure have been encountered in the central and southern portions of the Dancarl mine which has reduced the amount of kimberlite available for mining (Figure 5A).



Figure 7. Longitudinal section illustrating modelled kimberlite fissure width to Level 20 and the location of the Water Fissure fault Snowden

Actual fissure and stope widths measured at Sedibeng, Messina mine for the period from January 2002 to October 2004 are shown Figure 8. Actual measured fissure width was 66cm while average stope width was about 1.49m.



Figure 8. Comparison of fissure and stope widths since January 2002 – Sedibeng (Messina) mine (Snowden 2004)

Over a period of 119 production months (Jan 2005 – Aug 2016) measured mine survey data sourced from the Petra and Sedi Diamonds eras shows an average width of 65cm for the Sedibeng fissure with a corresponding average stoping width of 119cm (Figure 9). From 2004 to August 2016 there was a **14% increase** (57cm – 65cm) in the average surveyed width of the fissure at Sedibeng mine.

The average surveyed fissure width, for the period Jan 2012 until August 2016, is 62cm (stoping width of 110cm) which is a **9% increase** (57cm to 62cm) compared to Snowden's average in 2004 (Figure 8 and 9). A slight decrease in the average fissure width was encountered at Sedibeng over the last 13 months (Aug 2015 – Aug 2016) in comparison to Snowden's 2004 average. (55cm vs 57cm, Figure 8 and 9).



Figure 9. Average monthly fissure width - Sedibeng mine (2005 - Aug 2016 mine survey data).

	The reason for the decrease in the average fissure width (Figure 9) and grade (Table 1) during the aforementioned period was due to trial mining efforts by Sedi Diamonds which was focused on the central and southern portion of the Dancarl section where lower than average fissure widths were encountered with a corresponding increase in overall dilution. It has been reported that this area produces a larger portion of bigger, high value stones compared to the Messina section with a positive effect on the average revenue of the mine.					
	Historic core drill information combined with constant fissure widths at Sedibeng, demonstrated and confirmed the down-dip continuity of the kimberlite fissures to vertical depths exceeding 700 mbs (Figure 7, 8 and 9). It is therefore considered likely that these conditions continue below the existing workings, providing that no as yet undetermined geological discontinuities are encountered.					
Diagrams	See Geology and Drill hole information sections.					
Balanced reporting	Exploration, trial mining and mining results have been reported in sufficient detail to avoid presenting an unfairly biased view of the results.					
	Detail geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years at Sedibeng mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine.					
Other substantive exploration data	No recent exploration has taken place within the tenements by Sedi Diamonds.					
Further work	A review of existing mining and exploration data is planned with a view to identifying further exploration opportunities within the mining licence together with sub-surface core drilling to extend the current mineral resources at depth. The main area of potential at Sedibeng is the depth potential of the Bobbejaan Fissure into the Ventersdorp lavas where fissure development is expected to be more consistent and along strike to the north of the Water Fissure fault.					
	Messina Diamonds (Pty) Ltd recently applied to the Department of Mineral Resources for a prospecting right in respect of diamonds covering certain portions on the adjacent farms 84 and 393 (Figure 10). Detailed surface investigations by the Competent Person during his September 2016 visit to Sedibeng indicate that there is a strong possibility that the fissure may continue towards the south west and that a second fissure might have developed parallel to the main fissure at Sedibeng. The Prospecting Right application was accepted by the Department of Mineral Resources but still needs to be granted, executed and signed by the respective parties.					
	Recently the mine purchased a diamond core rig to explore for possible additional fissures located alongside the main fissure at Sedibeng. During the Competent Person's visit to the mine in September 2016, the rig was commissioned and drilling at 16 Level to locate the so called "Magasyn Fissure" at the Dancarl section.					
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# Section 3 Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	All the survey, stoping and development data has been imported into an Excel database for interpretation and analysis. All historic survey and mine production data has been checked by Snowden, Kgalagadi and Petra during a previous resource estimate process.
	The database provided by Sedi Diamonds and Petra and used during the estimation process has been checked against the Snowden and Petra data and found to be consistent.
Site visits	Numerous site visits were done by Snowden and sub-consultants during the period 2002 till November 2004 as part of a technical audit and valuation of the Sedibeng (Messina) mine. These audits involved detailed scrutiny of the technical information provided on the mine.
	Since the property was acquired by Petra Diamonds in 2005 the site has been visited by Petra personnel and by Sedi Damonds personnel from 2005 to date.
	The Competent Person is an independent registered Professional Natural Scientist (Reg. No. 400206/15) with the South African Council for Natural Scientific Professions (SACNASP) and certified as a practicing Geological Scientist subject to a Code of Conduct administered by SACNASP to ensure professional conduct. The Competent Person visited the site during September 2016 and in January 2017.
Geological interpretation	The geological interpretation for the Sedibeng fissure system is based on a standardised model of kimberlite fissure emplacement. The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which has since been refined with the development and production data gathered during Petra and Sedi Diamonds mining phases (2005 – 2016/2017).
	Historical and recent survey and mine production information, spanning over more than 60 years at Sedibeng mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine than could be achieved with downhole core exploration drilling. It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines.
	<ul> <li>A 15% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the <i>en echelon</i> fissures may not fully overlap. Based on observations made during underground visits at Sedibeng mine and experience with similar deposits, Snowden considers this to be an appropriate geological loss factor.</li> <li>No direct measurements of the kimberlite and host rock bulk densities were available for the estimate. The density of 2.65 tonne per cubic metre (t/m3) has been applied historically to both the kimberlite and waste rock, which is currently predominantly Venterdorp lava. This average bulk density is considered reasonable by Snowden to use for estimating kimberlite and waste tonnages (Independent Valuation of the Mineral Assets of Crown Diamonds NL Doc Ref: 050114_Crown) Valuation_Final Draft_4887.doc.</li> <li>Stope and development outlines at depth of the fissures have been reviewed based on information acquired during the Crown, Petra and Sedi Diamonds periods.</li> </ul>
	<ul> <li>Fissure and stoping widths gathered across the most recent mining stopes have been reviewed and new averages calculated and incorporated in the Resource model.</li> </ul>
	Factors that can affect the average grade of the fissure at Sedibeng mine include:
	the geological continuity of the fissure with depth and along strike;
	the amount of offset of the fissure along strike and at depth;
	fissure and stoping widths and the percentage fissure recovery;
	excessive dilution caused by over stoping and scaling of the host rock;
	<ul> <li>water in underground workings,</li> <li>geotechnical characteristics of the host rock.</li> </ul>
	The combined tailings stockpiles at Sedibeng mine (Messina and Dancarl), consists of tailings from the Crown, Petra and Sedi Diamonds mining eras. It consists of approximately 2.4 million tonnes of material at an average estimated grade of 5.0 cpht.
Dimensions	The Messina mine extends over the northern 1,700 metres of the 2,430 metre-long Bobbejaan Fissure. Immediately to the south of the Messina Mine and covering the southern 730 m of the fissure is the Dancarl Mine. The Bobbejaan Fissure extends to possible depths of hundreds of metres beyond the underground mine workings which are presently 800m (24 Level) below surface.
	Like all known kimberlite dykes in South Africa, the Bobbejaan Fissure is a compound structure comprising an <i>en échelon</i> arrangement of vertically orientated, discus-shaped kimberlite lenses, generally ranging in thickness between 45cm and 80cm with an average width which varies between 57cm and 65cm. Each lens tapers in all directions from 100cm at the centre to less than 20cm at its margins, where it breaks into a number of dykelets or "horsetails" which splay over a distance of 2 to 3m.
	The Bobbejaan Fissure system consists of three main vertical kimberlitic units at Messina, namely: the Albertse, Haliday and the Bobbejaan Fissure units of which the latter continues into the Dancarl property (Figure 5 and 5A).

## (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	Commentary
Estimation and modelling	Modelling
tecnniques	The geological interpretation for the Sedibeng fissure system is based on a standardised model of kimberlite fissure emplacement.
	The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which were further revised and refined by Petra and Sedi Diamonds with the acquisition of additional development and production data gathered from 2005 till 2016/2017 mining phases. Based on assessment of the kimberlite fissure dip, width, depth and diamond grade continuity, the mineral resource has been estimated and classified by Snowden to reflect a reduction in confidence in the estimate down-dip from the lowest current working level as follows:
	Measured Resource: one level (40 m) below the base of the current working levels;
	Indicated Resource: two levels (80 m) below the base of the Measured Resource; and
	Inferred Resource: three levels (120 m) below the Indicated Resource.
	The Snowden classification reflects the increased uncertainty in geological conditions with regard to the depth from the exposed kimberlite fissure and this approach was also used by Petra and Kgalagadi in their respective Mineral Resource estimations of Sedibeng during 2012/2013.
	A 15% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the en echelon fissures may not fully overlap.
	A density of 2.65 t/m3 has been applied historically to all ROM ore from the fissures mined and is considered reasonable for estimating kimberlite fissure tonnages at Sedibeng.
	Stoping and fissure width data, along with geological outlines for each level supplied by Sedibeng, were used by Snowden and Petra to create a wireframe model for each of the three fissures (Figure 11). This permitted the fissure and stope widths to be estimated into the block model cells.
	Historic as well as recent survey and production data has since been reviewed by the Competent Person based on information acquired during the Petra and Sedi Diamonds eras. All critical average fissure and stoping widths have been recalculated after obtaining the most recent survey data to match the updated fissure outlines in strike and depth (Figure 9).



Figure 11. Longitudinal section illustrating the Measured, Indicated and Inferred Resource areas at Sedibeng, Messina mine as at November 2004 (Acknowledgement, Snowden 2004)

Figure 12 shows the Resource model created by Petra as at 1 July 2013. Shortly afterwards production ceased at Sedibeng and the mine was put on care and maintenance until October 2014 when Sedi Diamonds resumed production at the mine. The Petra 1 July 2013 Resource Statement is based on information compiled internally within the Group under the guidance and supervision of Jim Davidson, Pr. Sci. Nat. (reg. No.400031/06). Jim Davidson has over 30 years' relevant experience in the diamond industry and is a full-time employee of Petra.

All Reserves and Resources have been independently reviewed and verified by John Kilham, Pr. Sci. Nat. (reg. No. 400018/07) during 2012 and 2013, a competent person with 33 years' relevant experience in the diamond mining industry, who was appointed as an independent consultant by Petra for this purpose.

All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017, a competent person with 20 years' relevant experience in the diamond mining industry, who was appointed as an independent consultant by Frontier Diamonds Limited for this purpose.

The Mineral Resource for Sedibeng mine as at 28 February 2017 is summarised for the Messina and Dancarl sections in Table 4.

In the Competent Person's opinion the strike, dip, width and diamond grade continuity of the kimberlite fissures at Sedibeng are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. However, since there is no sample information below the deepest current working levels continuity cannot be demonstrated with absolute certainty.

The drilling programme of two diamond core holes initiated by Snowden has, however, gone a significant way towards confirming down dip persistence of the fissures.



Figure 12. Oblique view of the Sedibeng mine block layout showing the Mineral Resource as at 1 July 2013

#### Grade Estimation

The Sedibeng mine has been mined for more than 60 years and they have developed a logical approach to defining the resources on these mines that allows them to accurately predict planned production and diamond grades. Production history on these operations has proved the accuracy of the calculations. At Sedibeng, the nature of the fissures, their steep dip and the mining method employed at each mine effectively preclude the use of exploration and grade control drilling to evaluate each of these fissures ahead of mining in any practical way. Instead the geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years, has provide effective and continuous sampling of the deposit and affords a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at Sedibeng (Table 1).

The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Sedibeng were based on a back calculation from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Resource which includes the practical diamond recovery characteristics of the existing operation by taking into account the effective bottom screen size of 1.0mm, diamond losses and plant recovery efficiency.

The mine has sufficiently detailed production records like hoisted (ROM), treated tonnage and recovered carat data that allow back calculation of the average in situ fissure grade. The treated tonnage was sourced from the diluted hoisted tonnage, from which waste rock has been removed by waste/fissure hand-sorting. Historic recovered diamond grades indicate that the fissure has a reasonably consistent grade over the mined extent of the deposit (Table 1).

#### Commentary

Criteria

Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure and will be used for resource estimation purposes. If present, high and low daily treated grades were included in the total average and no cut-off grades were used. The average recovered grade for Sedibeng was calculated as 22cpht. The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Resource at Sedibeng.

Table 1. Sedibeng production history since 1994 until 28 February 2017								
Year	Tonnes	treated	Carats re	ecovered	Treated grade (cpht)			
	Messina	Dancarl	Messina	Dancarl	Messina	Dancarl		
1930-1996	2,700,000	Not available	Not available	Not available	Not available	Not available		
1994-1997	Not available	26 950	Not available	9 635	38	36		
1998	Not available	78,500	Not available	26,430	Not available	34		
1999	Not available	60,016	Not available	17,651	Not available	29		
2000	Not available	47,947	Not available	17,482	35	36		
2001	Not available	Not available	Not available	Not available	26	Not available		
2002	Not available	Not available	Not available	Not available	24	Not available		
2003	Not available	Not available	Not available	Not available	39	Not available		
2004	99,074		24,970		25			
2005	No data	No data available		No data available		No data available		
2006	132	,164	32,023		24	4		
2007	152	,151	40,	711	2	7		
2008	186	,608	35,	35,710		9		
2009	120	,457	27,298		23			
2010	105	,919	21,873		21			
2011	82,	679	19,169		23			
2012	79,642		15,558		20			
2013	62,959		11,977		19			
2014 (6 months)	28,282		3,770		13			
2015	66,	322	11,6	11,609		18		
2016/2017 (14 months)	90,	438	12,	12,133		3		
TOTAL	1,420	0,108	327,	,999	23	.0		

#### **Revenue Estimation**

During 2004, Sedibeng realized an average revenue of USD\$270 per carat of which a portion of this can be attributed to a number of large, high value stones (Snowden 2004).

During the period 2010 till 2012, 41 stones weighing 801.06 carats were recovered at Sedibeng and sold for an average price of USD\$7,815.21ct.

The latest revenue estimate for Sedibeng mine has been generated from 13,955.48 carats sold between October 2015 and September 2016 for a total of USD\$5,376,892.85 at an average price of USD\$385.29/ct. It would be advisable to base financial modelling on an average estimated value of \$385/ct.

Most of the diamonds are colourless and 90% are gem quality. The average recovered stone size at the Messina mine on the Bobbejaan Fissure is 0.16ct/stone, with the largest diamond found to date being 56ct (Gurney and Kirkley, 1996).

Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Sedibeng to Petra at a cost of 1% of the selling price of the product.

#### Criteria

#### Commentary

#### Table 4: Sedibeng Mineral Resource

Mineral Resource for Sedibeng as at 28 February 2017						Mineral Resource for Sedibeng as at 1 July 2013									
Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t	Source	Resource Classification	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t
Messina	Measured	0.083	47.7	0.040	385		183.49	Messina	Measured	0.079	70.0	0.055	n/a		n/a
Dancarl	Weasured	0.100	47.7	0.048	385	1.00mm	183.49	Dancarl	Weasured	0.114	70.0	0.080	n/a	1.00mm	n/a
	Sedibeng Measured Resource	0.183	47.7	0.087	385	18	183.49		Sedibeng Measured Resource	0.193	70.0	0.135	n/a		n/a
Messina	Indiantad	0.146	47.7	0.070	385		183.49	Messina	Indicated	0.139	70.0	0.097	n/a	1.00mm	n/a
Dancarl	Indicated	0.035	47.7	0.017	385	1.00mm	183.49	Dancarl		0.027	70.0	0.019	n/a		n/a
	Sedibeng Indicated Resource	0.181	47.7	0.086	385	1	183.49		Sedibeng Indicated Resource	0.166	70.0	0.116	n/a		n/a
Messina		0.208	47.7	0.099	385		183.49	Messina		0.198	70.0	0.139	n/a		n/a
Dancarl	Inferred	0.150	47.7	0.072	385	1.00	183.49	Dancarl	Inferred	0.109	70.0	0.076	n/a	1.00	n/a
Tailings stockpiles		2.488	5.0	0.124	150	1.00mm	7.50							1.00mm	
	Sedibeng Inferred Resource		10.4	0.295	286		29.67		Sedibeng Inferred Resource	0.307	70.0	0.215	n/a		n/a
Sedibeng Resource		3.212	14.6	0.469	323	1.00mm	47.13		Sedibeng Resource	0.666	70.0	0.466	n/a	1.00mm	n/a

General notes on reporting criteria

- 1. Resource and Reserve bottom cut-off is at 1mm;
- 2. Measured resources are classified as one level (40m) below the base of the current working levels, Indicated Resource two levels (80m) below the base of the Measured Resource and Inferred Resource three levels (120m) below the Indicated Resource.
- 3. Resources are reported inclusive of Reserves.
- 4. Tonnes are reported as millions; contained diamonds are reported as per million carats;
- 5. Tonnes are metric tonnes and are rounded to the nearest 100,000 tonnes; carats are rounded to the nearest 10,000 carats; rounding off of numbers may result in minor computational discrepancies;
- 6. Resource tonnages and grades are reported exclusive of external waste, unless where otherwise stated;
- 7. Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors;
- 8. All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

Moisture	Tonnages are estimated with natural moisture. Moisture contents of samples have not been separately measured.
Cut-off parameters	Cut off grades have not been used in the resource estimation on the basis that a bulk mining method will be used which will result in the extraction of all the ore within the fissure. Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure and will be used for geological modelling and resource estimation purposes (Refer Grade Estimation and Modelling techniques).
	The resource grades are estimated at a 1.0mm bottom size cut-off.
	Generally, fissure widths of less than 30 cm are not mined to minimise dilution. A 15% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine and/or areas where the <i>en echelon</i> fissures may not fully overlap. No optimised fissure models, using projected financial forecasts, were used in the estimation of Mineral Resources. Cut off limits for the Mineral Resources are based on discrete cut off elevations as determined for the base of the Measured, Indicated and Inferred categories.
	The Measured Resource accounts for one level (40m) below the base of the current working levels and the Indicated Resource accounts for two levels (80m) below the base of the Measured Resource whereas the Inferred Resource is extrapolated to a maximum depth of three levels (120m) below the Indicated Resource.
Mining factors or	It is assumed that a shrinkage overhand stoping mining method to extract the narrow kimberlite fissures will be used at Sedibeng.
assumptions	A 15% geological loss has been applied to account for the non-recovery of kimberlite fissure from areas where it is too thin to mine. Based on observations made during underground visits at Sedibeng and experience with similar deposits, Snowden considers this to be an appropriate geological loss factor.
	The continuity of the fissures at Sedibeng has been proven by extensive mining over more than 2,400m in strike length and 760m depth. However, future mining will take place in a significantly older

Criteria	Commentary
	geological formation and little information is available on the fissure in this horizon. There is no reason to believe that the fissure is not continuous into the new formation.
Metallurgical factors or assumptions	The resource grades are estimated at a 1.0mm bottom size cut-off.
Environmental factors or	No environmental factors have been assigned to the resource estimate as no environmental issues are expected to impact on the project.
assumptions	During 2007, Department of Mineral Resources (DMR) requested that Messina and Dancarl amend their approved EMP Reports to meet the requirements of the Mineral and Petroleum Resources Development Act (MPRDA) (No 28 of 2002). The updated EMPr Report was submitted to the DMR during June 2008.
	The mining license and EMPr makes provision for the adequate storage of tailings. There is potential for the reprocessing of surface tailings and surrounding dumps on the mine property through the implementation of a small-scale treatment facility. This will clear most of the surface dump material and thus allow areas to be available for rehabilitation purposes. It consists of approximately 2.4 million tonnes of material at an average estimated grade of 5.0 cpht (Figure 13).
	The surface plan of the mine includes the following: number of waste rock dumps, slimes dams, number of tailings dumps ranging in size and footprint area, an explosives magazine, mine offices, 4 shafts, single quarters accommodation, houses, church, soccer field, water reservoirs, compressor rooms, DMS plant, fissure stockpiles, water tanks / reservoirs (Figure 13).
	Simes dam Tailings dump (189,706 m3) Tailings dump Office Office Tailings dump Tailings du

Figure 13. Surface plan of Sedibeng showing the main tailings and waste dumps on the property – Google earth 2016

- Mine solid waste is handled via a salvage yard where it is divided into recyclable items and non-salvageable scrap. Scrap metal is sold and removed from site;
- Domestic waste, generated from the hostel and the houses located on the mining area, is disposed of at a borrow pit. Burning takes place in a controlled manner;
- The mine generates and disposes of three types of residue namely, waste rock, mine tailings and slimes;
- On average, 30% of hoisted tonnage is waste rock. The current waste rock dump at Messina covers an area slightly larger than 2.4ha;
- At least 60% of the hoisted material at Sedibeng is tailings. It is anticipated that selected waste rock and tailings from the Messina mine will be utilized in the bulk construction of the new slimes disposal facility impoundment wall. The area covered by tailing dumps at Dancarl covers an area slightly larger than 3.3ha and forms part of the resource to be processed. The surface area of the dumps can be decreased by initiating the retreatment of the existing coarse tailings. The smaller the footprint, the less side slope length and therefore less outer side slope rehabilitation would be required, resulting in more favourable environmental and reclamation effects;

Criteria	Commentary
	One large slimes dam currently serves Messina mine with an adjoining component intended to extend the dam to accommodate life of Mine storage requirements;
	Sewage is treated within concrete sump tanks. The sewage network has been upgraded to include greater pollution control measures.
	Existing waste management facilities are adequate to accommodate the waste generated in the foreseeable future at Sedibeng mine. No new waste management facilities are proposed. However, the existing waste management strategy will be revised to promote increased recycling and on-site management of waste. Old scrap sites within the mining area are presently being cleaned up and rehabilitated.
Bulk density	Due to limited drilling campaigns, reliable density data is sparse. A density of 2.65 t/m3 has been applied historically to all ROM ore from the fissures mined at Sedibeng and is considered reasonable by Snowden for estimating kimberlite fissure tonnages at Sedibeng.
Classification	At Sedibeng mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Sedibeng fissure complex are known with a high degree of confidence. For the Sedibeng fissure mine a strategy has been developed to define the resource in such a way that it allows them to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Historical information, spanning over more than 60 years at Sedibeng mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
	The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which was further revised and refined by Petra and Sedi Diamonds with the acquisition of additional development -and production data gathered during 2005 until February 2017. Based on assessment of the kimberlite fissure dip, width, depth and diamond grade continuity, the mineral resource has been estimated and classified by Snowden to reflect a reduction in confidence in the estimate down-dip from the lowest current working level as follows:
	Measured Resource: one level (40 m) below the base of the current working levels;
	Indicated Resource: two levels (80 m) below the base of the Measured Resource; and
	Inferred Resource: three levels (120 m) below the Indicated Resource.
Audits or reviews	Snowden conducted detailed technical audits together with an Independent Valuation of Sedibeng mine during 2002 until 2004 and a comprehensive report was prepared by Mr Philip Retter (Manager Corporate Services), Mr J McKibben (Consultant Geologist) and Mr Dag Kullmann (Principal Mining Engineer) and was reviewed by Dr Philip Snowden (Principal Consultant and Executive General Manager) of Snowden's Perth and Johannesburg offices in accordance with the Australasian Institute of Mining and Metallurgy's (AusIMM) Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Experts Reports (the VALMIN Code) and Code for Reporting of Mineral Resources and Ore Reserves (the JORC Code).
	Since Petra's acquisition of the Sedibeng mine, Petra's Competent Persons as well as Independent Consultants have conducted a number of audits and reviews of the survey and mine production data as well as of the geological model. All Reserves and Resources have been independently reviewed and verified by John Kilham, Pr. Sci. Nat. (reg. No. 400018/07) during 2012 and 2013, a competent person with 33 years' relevant experience in the diamond mining industry, who was appointed as an independent consultant by Petra for this purpose.
	All Reserves and Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017, a competent person with 20 years' relevant experience in the diamond mining industry, who was appointed as an Independent Consultant by Frontier Diamonds Limited for this purpose.
Discussion of relative accuracy/ confidence	There is sufficient evidence to support the extrapolation of the fissure tonnage with depth. However, future mining will take place in a significantly older geological formation and little information is available on the fissure in this horizon. There is no reason to believe that the fissure is not continuous into the new, more competent formation.
	Historical information, spanning over more than 60 years at Sedibeng mine, has provided very effective and continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine.
	Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. Historic core drill information combined with constant fissure widths at Sedibeng, demonstrates and confirms the down-dip continuity of the kimberlite fissures to vertical depths exceeding 700 mbs (Figure 14).



# Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	The Ore Reserve for Sedibeng was independently reviewed and verified in February 2017 and is based on Sedi Diamonds (Pty) Ltd Resource Revision for Sedibeng as at 28 February 2017. It comprises Proved and Probable ore categories based on mining the Measured and Indicated Resources respectively with appropriate allowances made for mining dilution and recovery based on current and expected mining practices.
	Resources are reported inclusive of Reserves.
Site visits	Numerous site visits were done by Snowden and sub-consultants during the period 2002 till November 2004 as part of a technical audit and valuation of the Sedibeng (Messina) mine. These audits involved detailed scrutiny of the technical information provided on the mine.
	Since the property was acquired by Petra Diamonds in 2005 the site has been visited by Kgalagadi, Petra and Sedi Diamonds personnel from 2005 to date.
	The Competent Person is an independent registered Professional Natural Scientist (Reg. No. 400206/15) with the South African Council for Natural Scientific Professions (SACNASP) and certified as a practicing Geological Scientist subject to a Code of Conduct administered by SACNASP to ensure professional conduct. The Competent Person visited the site during September 2016 and in January 2017.
Study status	The fissures at Sedibeng has been extensively mined over a period of more than 60 years during which mining production data provides quality information necessary for estimating the geology, grade, and modifying factors as required. The Competent Person considers that the history of production tonnages, production grades and fissure width characteristics demonstrates sufficient confidence in the fissure continuity to define Measured, Indicated and Inferred Resource categories.
	The study, from which the Ore Reserves as at 28 February 2017 were estimated, has been done at Pre-Feasibility study level with sufficient confidence to develop the mine.
	A mine plan that is technically achievable and economically viable has been generated and material Modifying factors have been considered.
	Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors.
Cut-off parameters	The Ore Reserve at Sedibeng is based on assumptions about the ore, its characteristics and how it will be mined and, importantly, on a range of significant infrastructural enhancements that the management of Sedibeng has advised the Competent Person are either being implemented or plans are already being developed. Without the infrastructure improvements it will not be possible to recover the stated Ore Reserve.
	Since the kimberlite fissure at Sedibeng is expected to average 60cm true width and it is not possible to practice any meaningful grade control, it is the mining operation's intention to extract 100% of the fissure material provided it exceeds an economic minimum true width cut-off (currently about 30 cm) and safety is not compromised.
	It should be noted that the allowance for 15% geological loss is accounted for in the Mineral Resource inventory due to narrowing of fissure to widths that are uneconomic to mine, loss of ground through off-sets in the fissures, unmined ground left due to poor ground conditions and sill pillars left between levels to avoid holing into unstable ground in open stopes above.
Mining factors or assumptions	The Ore Reserve at Sedibeng is based on Sedi Diamonds (Pty) Ltd Resource Revision for Sedibeng as at 28 February 2017 and includes the following allowances made for dilution and mining recovery, based on current and expected mining practices. These include an appropriate allowance for wall rock dilution during mining underground, an adjustment for any loss of kimberlite fissure material during the course of the mining, tramming and hoisting process (ie. mining recovery), an adjustment for kimberlite fissure that has to be left behind in sill pillars required for stability control (historically this has amounted to 8-10% of fissure volume) and an appropriate allowance for kimberlite fissure that is too narrow to meet the mine's economic mining width and hence will be left unmined.
	Sedibeng currently mines the narrow Bobbejaan Fissure using the shrinkage overhand stoping method. Production levels are established on 40m vertical intervals. With the face inclination of 30 degrees, this creates a mineable face length of 50m. Rock drives are blasted 8 meters away parallel to the fissure. Crosscuts are 8m apart and connected to the rock drive with the fissure. Blasting is done once a day. After the blasting, approximately 40% of the blasted rock is extracted from the shrinkage pile in order to gain access for the next blast. The broken ore is loaded with a mechanical loader. Cocopans are transported to the shaft by means of a battery operated locomotive and tipped into the shaft ore pass system. Once on the belt level, the ore is hoisted and tipped into a shaft bin from where it is fed to the plant.
	For the Pre-feasibility study, the same mining factors and assumptions have been retained as used by the previous owners and are considered to be reasonable.
	• a mining recovery factor of 90% was applied for the recovery of the kimberlite fissure at Sedibeng (i.e. 10% will remain principally as sill pillars for stability and in-stope losses);
	• the average bulk density attributed to the kimberlite fissure and waste is 2.65 t/m3;
	<ul> <li>the Mineral Resource includes an allowance for 15% loss (geological) of kimberlite fissure due to fissure thinning (uneconomic to mine) or fissure loss at the edges of fissure lenses.</li> <li>depending fissure, which is less than 30cm wide, is not mined since the level of dilution makes it uneconomic to extract;</li> </ul>
	- generally issues, which is loss than booth wide, is not thinked since the level of undufort makes it difeculturine to extract,

Criteria	Commentary
	<ul> <li>based on historic stoping widths at Sedibeng mine, the Ore Reserve relies upon achieving an average mining width of 120cm (excluding unplanned external dilution of 10cm);</li> <li>based on historic mining data it is realistic to expect to mine an average fissure width of 60cm (conservative estimate) at Sedibeng with a corresponding average stoping width of 130cm (includes 10cm wall rock dilution). The kimberlite in the ROM ore is therefore diluted on average with 70cm of waste rock (i.e. 54% of ROM ore is waste). The extent to which mining dilution can be minimised will have a significant impact on the economic performance of the operation. Reductions in mining dilution significantly improve the hoisted grade, while reducing the hoisted tonnage and reduce the requirement for hand sorting of waste rock;</li> <li>mining dilution is allowed for in allowing an additional 10cm unplanned external dilution to the average stoping width of 120cm;</li> <li>the average reserve grade of 22 cpht is based on an in situ grade of 48 cpht which includes 54% dilution (130cm actual stoping width, 60cm fissure width);</li> <li>the diamond grade dilution factor is 2.2 (i.e. from 48 cpht in kimberlite fissure to 22 cpht recovered);</li> <li>No quantitative assessment has been made of the plant's recovery efficiency. A plant recovery factor of 95% was applied to the Reserve.</li> </ul>
	Grade control will be managed by utilising mapping, face mark ups and visual control of loading and waste sorting operations. In addition technicians will monitor stoping operations in order to minimise mining dilution which have a significant impact on the performance of the operation if not properly managed.
	The Ore Reserve at Sedibeng is based on assumptions about the ore, its characteristics and how it will be mined and, importantly, on a range of significant infrastructural enhancements that the management of Sedibeng has advised the Competent Person are either being implemented or plans are already being developed. Without the infrastructure improvements it will not be possible to recover the stated Ore Reserve.
Metallurgical factors or	Sedibeng operate a Dense Media Separation (DMS) and final recovery Plant capable of treating the Ore Reserve at a head feed rate of 50tph or at an average annualised rate of 180,000tpa.
assumptions	Ore is fed to the treatment plant through a load and haul system which operates from the two production shafts. Coarse waste rock is separated from diamond bearing ore by hand picking and is then stepwise crushed through a three crusher system. Diamond bearing concentrate is separated from non-diamond bearing material through the DMS plant. Diamond bearing concentrate is super concentrated through an x-ray sorting machine followed by hand sorting of the product for safekeeping. The process uses well proven diamond recovery technology for kimberlite ore.
	<ul> <li>No metallurgical test work has been undertaken by Sedi Diamonds for the purposes of generating the Ore Reserve at Sedibeng. Modifications and adjustments to the plant were made by experienced operators who treated ore at production scale over many decades.</li> <li>No allowances are made for deleterious elements as there are none that are relevant to the operation;</li> <li>A plant recovery factor of 95% was applied to the Reserve;</li> <li>The diamond bottom cut off size is 1.0 mm.</li> </ul>
Environmental	During 2007, Department of Mineral Resources (DMR) requested that Messina and Dancarl amend their approved EMP Reports to meet the requirements of the Mineral and Petroleum Resources Development Act (MPRDA) (No 28 of 2002). The updated EMPr Report was submitted to the DMR during June 2008.
	The surface plan of the mine includes the following: number of waste rock dumps, slimes dams, number of tailings dumps ranging in size and footprint area, an explosives magazine, mine offices, 4 shafts, single quarters accommodation, houses, church, soccer field, water reservoirs, compressor rooms, DMS plant, fissure stockpiles, water tanks / reservoirs (Figure 13).
	South African mining law dictates that mine owners should pay to remediate the damage which they cause to the environment. Section 41 of the MPRDA incorporates "The Polluter Pays"- principle, and requires an applicant of mining rights to make financial provision for the rehabilitation or management of negative environmental impacts, either in the form of a cash deposit, guarantee, insurance, or an approved trust fund. Shortly after the acquisition of Star and Sedibeng mines all Petra's rehabilitation guarantees held by Guardrisk Insurance Company Limited (Reg. no. 1992/001639/06), were transferred to Sedi Diamonds, thereby releasing Petra Diamonds from the rehabilitation obligations and ensuring that the Mine's guarantees remained in place. A statement from the Insurers (Policy no. 20845) for the period ended 31 October 2016 reflects a total amount of R15.5 million available for rehabilitation obligations for Sedi Diamonds, Dancarl, Messina and Star.
	The latest premature closure cost calculations, that were done for Star and Sedibeng mine during 2015/2016, amount to R11,378,483.45 and R6,229,199.02 respectively, or collectively a total of R17,607,682.47 for both mines, excluding VAT. The amount provided for will be adjusted after the approval of the closure cost Quantum by the Department of Mineral Resources as the current calculation indicates a marginal shortfall of R 2,060,005.47 (excl. VAT).
	Post mining use of the land is mainly for grazing while structure such as the workshops, offices and stores can be used by the future owners / local authority for their activities or they will be salvaged, demolished and the foundations be covered. This area will then be incorporated into the land use for the greater mining area as either Game Farm or cattle grazing.
	The current EMPR has broad closure objectives that relate to the following:
	Provide public health and safety on all Sedibeng Diamonds property.
	Return the land impacted on by mining activities to a predetermined state as agreed by Stakeholders and Interested and Affected Parties.
	<ul> <li>Mitigate and reduce pollution to the soil, water and atmosphere by employing appropriate technology as well as clean-up campaigns where practicable.</li> </ul>

Criteria	Commentary
	<ul> <li>Promoting ecological and biodiversity integrity in areas that support natural ecological systems.</li> <li>Maintaining open and transparent relations with stakeholders on issues of mutual concern.</li> <li>To maintain underground water quality throughout the remainder of the life of the operation.</li> <li>To rehabilitate all dangerous excavations or subsidence on surface by means of backfilling or securely fencing of the affected area.</li> </ul>
	Sedibeng Diamonds also commits to the objectives for decommissioning as stipulated below:
	<ul> <li>Monitor and rehabilitate negative impacts to Geology where possible;</li> <li>Limit and mitigate negative impacts to topography;</li> <li>Prevent and limit soil pollution and erosion and ensure that grassland areas are stabilized in the short term to create natural grassland in the long term;</li> <li>Provide adequate soil depth and nutrients to restore land capability to the appropriate land capability classification for the area;</li> <li>Maintain and protect the current land use classifications;</li> <li>Protect flora on site and prevent/limit negative impacts on flora;</li> <li>Prevent pollution to surface water and limit negative impacts to surface water and the catchment;</li> <li>Monitoring and mitigation of groundwater pollution and reducing the loss of groundwater surrounding the Mine;</li> </ul>
	Prevent air pollution and ensure that dust fallout levels are within the guideline levels;     I within the guideline levels and without a state of a
	<ul> <li>Einit the amount of vibration and holse and the negative impacts related to holse and vibration,</li> <li>Protect and limit negative impacts to the archaeological and cultural resources;</li> <li>Protect and limit negative impacts to sensitive landscapes; and</li> <li>Ensure that the mine, infrastructure, and tailings dams are not visually intrusive and mitigate impacts where possible.</li> </ul>
	The mining license and EMPr makes provision for the adequate storage of tailings. There is potential for the reprocessing of surface tailings and surrounding dumps on the mine property through the implementation of a small-scale treatment facility. This will clear most of the surface dump material and thus allow areas to be available for rehabilitation purposes. Tailings have been retreated in the past at an average grade ranging between 4.5 cpht and 9.0 cpht.
	Mine solid waste is handled via a salvage yard where it is divided into recyclable items and non-salvageable scrap. Scrap metal is sold and removed from site;
	The mine generates and disposes of three types of residue namely, waste rock, mine tailings and slimes. On average, 30% of hoisted tonnage is waste rock. The current waste rock dump at Messina covers an area slightly larger than 2.4ha;
	At least 60% of the hoisted material at Sedibeng is tailings. It is anticipated that selected waste rock and tailings from the Messina mine will be utilized in the bulk construction of the new slimes disposal facility impoundment wall. The area covered by tailing dumps at Dancarl covers an area slightly larger than 3.3ha and forms part of the resource to be processed. The surface area of the dumps can be decreased by initiating the retreatment of the existing coarse tailings. The smaller the footprint, the less side slope length and therefore less outer side slope rehabilitation would be required, resulting in more favourable environmental and reclamation effects.
	One large slimes dam currently serves Messina mine with an adjoining component intended to extend the dam to accommodate life of Mine storage requirements.
	Existing waste management facilities are adequate to accommodate the waste generated in the foreseeable future at Sedibeng mine. No new waste management facilities are proposed. However, the existing waste management strategy will be revised to promote increased recycling and on-site management of waste. Old scrap sites within the mining area are presently being cleaned up and rehabilitated.
Infrastructure	Messina Diamonds (Pty) Ltd forms part of a Joint Venture (JV) together with Dancarl Diamonds (Pty) Ltd to form Sedibeng Diamond Mine JV (SDMJV) and operate as a single entity under the Mine Health and Safety Act 29 of 1996. Messina Diamonds and Dancarl Diamonds have separate old order mining rights but both these rights straddle on the same ore body. The ore body is mined, treated and recovered through a central and shared infrastructure for the benefit of the JV entity.
	Sedibeng is located approximately 40km north of Delportshoop and 80km west of Warrenton. The mine is situated in the Northern Cape Province. Driving to the mine will be through tar roads and gravel roads, which are suitable for two wheel drive vehicles (Figure 15).
	There are no schools, hospitals or sports and recreation facilities close to Sedibeng mine. There are no servitude's over the mining area. The Eskom servitude running in a northerly direction demarcates a 10m buffer zone.
	The Mine employs a registered Medical Practitioner in terms of the Mine Health and Safety Act with fully equipped consultation facilities in Warrenton. A Provincial Hospital is located in Barkley-West. Discussions are currently underway with the Northern Cape Provincial Government to deliver Primary and Community Health Services to the surrounding areas in collaboration with the Mine. A contractual relationship exist with ER24 for any emergency service support should it be required.

Criteria C	Commentary
A fc	A primary school for surrounding farm workers is located about 14 kms from the Mine. It has two classrooms accommodating three grades per room with only two teachers. A pre-primary room exists for nursery school children with one teacher.
А	A fully fledged Police Station is located in Boetsap and supports the Mine for additional security services. Regular interaction exists with the mine management.
B	Both Dancarl and Messina are registered with the South African Police Services as explosives users, handlers, dealers and an approved magazine is on site under supervision of the relevant appointed officials by law.
	The mine has been in operation for more than 60 years and all necessary infrastructure already exists. Surface infrastructure includes the following:
•	<ul> <li>Roads: The mine is serviced largely by un-tarred roads from the R370 Jan Kempdorp to Delportshoop and R371 from Windsorton, with the R370 being the major provincial route servicing the Mine;</li> <li>Railways: The main Cape Town–Kimberley–Johannesburg railway line passes through Warrenton, and the line to Mafikeng and Botswana branches off at Fourteen Streams, on the north bank of the Vaal opposite Warrenton;</li> <li>Power: A single 11Kv Eskom power line services the mine;</li> </ul>
•	<ul> <li>Water: A borehole situated on the adjacent farmland (2.5km away on Farm 84) supplies drinking water to the mine. Ground water from the mine is used for processing purposes and has a consumptive potential as well. Slimes is pumped to the slimes dams where it settles out and return water is reused for the plant treatment system. Return water is fed via a gravitational flow system back to the treatment plant; and</li> <li>Airstrip: There is no airstrip on the mine property. A private airstrip exists on the adjacent farm (Farm 84).</li> </ul>



Figure 15. Map of the regional location of Sedibeng Diamond Mine which form part of SDMJV

Messina and Dancarl currently operate shared and joint infrastructure which amongst others include:

- single (joint) 50 Ton/Hour diamond treatment plant and final recovery (including two diamond recovery Flow Sort X-ray machines) situated on the Dancarl section;
- single (Joint) slimes dams situated on the Messina section;
- joint central tailings dumping facility straddles the border between Messina and Dancarl sections;
  a joint mining and engineering operations staffing;
- single Eskom incoming power source/ lines and on the mining power transformers;
- water reticulation and pumping arrangement from underground. This includes shared underground water storage and surge facilities;
- integrated underground ventilation system;

Criteria	Commentary
	<ul> <li>joint workshops and administration facility – this includes shared Human Resource, Security, Finance, Surveying, Safety and Training.</li> <li>4 Mine headgears and winders (double drum);</li> <li>on mine accommodation facilities;</li> <li>registered explosives magazine;</li> <li>a compressor house and standby power generators;</li> <li>two front end loaders and two dump and haul trucks;</li> <li>Various light delivery vehicles.</li> </ul>
	Each production level can be serviced at any moment in time with the correct tools. A narrow gauge rail system is in place with standard size equipment being used throughout the mine. Mechanisation includes track bound mechanical loader sand electrical locos.
	Sumps/dams collecting drain water from all ends are situated near the sub shafts on each level (all haulage development is on an upward gradient from the shaft) and pumped first to the upper levels and then out the mine. Communication system to surface is in place at each level. Sedibeng has 10 vertical shafts of which the following are still operational:
	<ul> <li>Albertse shaft, Messina section;</li> <li>Halliday shaft, Diamonds section;</li> <li>Main Shaft, Dancarl section. Mine employees, material and ore are transported to and from the surface via the main shaft;</li> <li>No7 Shaft, Dancarl section. No 7 shaft is used as a second escape way and ore is also transported through the shaft; and</li> <li>Two sub vertical shafts</li> </ul>
Costs	The cost of Level establishment and Shaft sinking and commissioning (Project Capital) makes up the majority of the capital estimate for year 1 and is based on a Class 3 capital estimate from Sedi Diamonds, who are well experienced in such work on diamond mines. The capital also include provision for sustainability and replacement capital on the existing Plant and Equipment equal to 2,5% of the annual turnover. For the remaining LOM, development capital is required each year for repairing and developing of the Sedibeng mine. The methodology used to estimate operating cost is as follows:
	<ul> <li>mining operating costs have been estimated based on actual and historical cost provided by Petra and Sedi Diamonds;</li> <li>treatment operating costs estimates have been based on in-house experience with recent Southern African diamond projects together with actual costs from Sedibeng;</li> <li>50% of the total operating costs are comprised of labour costs and are based on actual recorded expenditure;;</li> <li>current exchange rates for the US\$ and South African Rand at the time were used in the study;</li> <li>A maximum of 5% royalty on revenue is payable to the State under the terms of the Mining License and are calculated based on profitability of the mine. No private royalties are payable; and</li> <li>A provision of 2% marketing and diamond handling cost are included to utilise Petra's diamond sales platform.</li> </ul>
Revenue factors	During 2004, Sedibeng realized an average revenue of USD\$270 per carat of which a portion of this can be attributed to a number of large, high value stones (Snowden 2004).
	During the period 2010 until 2012, 41 stones weighing 801.06 carats were recovered at Sedibeng and sold for an average price of USD\$7,815.21ct.
	The latest revenue estimate for Sedibeng mine has been generated from 13,955.48 carats sold between October 2015 and September 2016 for a total of USD\$3,376,892.85 at an average price of USD\$385.29/ct. It would be advisable to base financial modelling on an average estimated value of \$385/ct. Most of the diamonds are colourless and 90% are gem quality. The average recovered stone size at the Messina mine on the Bobbejaan dyke is 0.16ct/stone, with the largest diamond found to date being 56ct (Gurney and Kirkley, 1996).
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Sedibeng to Petra at a cost of 1% of the selling price of the product.
Market assessment	The latest diamond trade data shows that diamond trade via Antwerp is bottoming out. Exports of polished diamonds to other main centres including the US (the largest consumer of diamonds) also show this improvement. Trade data from the two other main trading centres UAE and Israel provide a mixed picture. Diamond trade to and from the UAE appears to be stabilising while that of Israel remains very weak and there is no bottom in sight yet.
	India is the main cutting, polishing and manufacturing centre (90%) of diamonds worldwide. They also point into the direction of a bottoming out. If we take all the above into account, there are some signs that diamond trade is slightly improving but this improvement is very fragile.
	Due to the lack of new major mines being discovered and coming on line and the overall gradual decline in production of existing mines, combined with growth in Asian markets, the medium and long term outlook for diamonds is perceived as positive. The recovery of the US economy, the largest market for diamond jewellery, would also be a positive factor during which US household net worth will likely increase further and this will result in somewhat higher jewellery consumption leading to slightly higher demand for gem diamonds.
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Sedibeng to Petra at a cost of 1% of the selling price of the product.

Criteria	Commentary
Economic	Given the scope of the valuation and timeframes for completion, the Independent Statement of Diamond Resources and Ore Reserves Report for Frontier Diamonds Limited does not cover an independent mineral asset valuation of Sedi Diamond's asset as per the requirements of the VALMIN Code 2005; however, an in-house preliminary feasibility study has already been completed for Sedibeng with seemingly positive results. This information needs to be independently verified.
	The following key inputs as per cost and revenue factors were used in the in-house, economic analysis to produce the net present value (NPV) of Sedibeng mine:
	<ul> <li>discount rate of 12%;</li> <li>Sedibeng has considered a real prize growth factor of 3% in financial modelling together with a US CPI inflation factor of 4% realizing a total price percentage increase of 7% per year;</li> <li>Average price of US\$385/ct;</li> <li>Marketing cost of 2% per year;</li> <li>Reserve grade of 21.6 cpht;</li> <li>labour inflation factor of 8%;</li> <li>Power inflation factor of 8%;</li> <li>SA CPI inflation factor of 8%;</li> </ul>
	<ul> <li>ZAR/US\$ exchange rate of R14.50.</li> </ul>

The NPV of Sedibeng mine is positive. The sensitivity of the preferred case option NPV at a 12% required rate of return used as a discount rate in terms of the capital asset pricing model to measure changes in the reserve grade, pricing, capital cost, throughput, foreign exchange, percentage waste development and operating cost is summarised in Figure 16.



Figure 16. NPV sensitivity graph for all of the modelled parameters at 12% preferred rate of return - Sedibeng mine

Sedibeng mine is highly sensitive to changes in revenue (grade or US\$/ct values), foreign exchange and throughput and less sensitive in changes in percentage waste development, capital and operating cost. A standard deviation of 10% from the mean on revenue input parameters are equal to USD 14, 76 million in value.

Criteria	Comme	entary														
Social	The Sediber order rights signed. The	ng Diamond Mine is held by for Dancarl and Messina ha period of the grant is not kn	v Dancarl ve been lown yet.	I Diamono granted b	ds (Pty) Lt by the DM	d & Mess R in term	sina Diamon s of item 7(3	ds (Pty) L 3) of Sche	td (Sedibeng dule II of the	JV) under old order mining I Act (ref MRC 228 and MRC	icenses i 229) duri	no ML 1 ng June 2	2/94 and 2013, but s	ML 1/199 still needs	95 respecti to be exe	vely. New cuted and
	During 2007, Department of Mineral Resources (DMR) has requested that Messina and Dancarl amend their approved EMP Reports to meet the requirements of the Mineral and Petroleum Resources Development Act (MPRDA) (No 28 of 2002). The updated EMPr Reports were submitted to the DMR in June 2008 but have not been approved as yet by the DMR.															
Other	Sedibeng diamond mine is a fully operational diamond mine. No material naturally occurring risks have been identified.															
	From an operational standpoint, the greatest risk to Sedibeng will be failure to achieve the budgeted average stoping width resulting in excessive dilution and therefore a reduction in recovered diamond grade.															
	Historically Sedibeng has been producing from a number of stopes that are highly susceptible to self-mining. This is where the kimberlite fissure and stope sidewalls are unstable across the stoping width being mined, resulting in continued in-stope scaling. No quantitative data is available to establish if the frequency of self-mining is increasing with depth. If the frequency of self-mining is increasing with depth then actual dilution will be higher than budgeted resulting in a lower recovered diamond grade.															
	General min	e ventilation needs to be clo	sely mor	nitored an	d controlle	ed, as wel	l as potentia	l changes	in rock mech	anics at deeper levels due to	greater i	n situ stre	esses.			
Classification	The Ore Res allowances r	serves at Sedibeng were rev made for mining dilution and	vised in F recovery	ebruary 2 y based o	2017. It co n current a	omprises I and expec	Proved and cted mining p	Probable oractices.	ore categories The result is	s based on mining the Measu an appropriate reflection of th	red and I te Compe	ndicated etent Pers	Resources sons view	s respectiv of the dep	vely with a posit.	ppropriate
	Table 5: S	edibeng Ore Reserve														
	Ore Rese	erve for Sedibeng as	at 28 F	ebruar	y 2017	1			Ore Rese	erve for Sedibeng as a	t 1 July	2013			Bottom	
	Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Bottom Screen Size Cut-Off (mm)	\$/t	Source	Reserve Class	Tonnes Mt	Grade CPHT	Carats Mct	VALUE (USD/ct)	Screen Size Cut-Off (mm)	\$/t
	Messina	Proven	0.162	21.6	0.035	385	-	- 83.16	Messina	Proven	0.199	25.0	0.050	n/a		n/a
	Dancarl		0.195	21.6	0.042	385	1.00mm	83.16	Dancarl		0.287	25.0	0.072	n/a	1.00mm	n/a
		Sedibeng Proven Reserve	0.357	21.6	0.077	385		83.16		Sedibeng Proven Reserve	0.486	25.0	0.122	n/a		n/a
	Messina	Probable	0.285	21.6	0.062	385		83.16	Messina	Probable	0.350	25.0	0.087	n/a		n/a
	Dancarl	-	0.069	21.6	0.015	385	1.00mm	83.16	Dancarl		0.069	25.0	0.017	n/a	1.00mm	n/a
		Sedibeng Probable Reserve	0.354	21.6	0.076	385		83.16		Sedibeng Probable Reserve	0.419	25.0	0.104	n/a		n/a
		Sedibeng Ore Reserve	0.711	21.6	0.154	385	1.00mm	83.16		Sedibeng Ore Reserve	0.905	25.0	0.226	n/a	1.00mm	n/a
	General note	es on reporting criteria	t off is at	1												
	2. Measu	ured resources are classified	d as one	level (40	m) below t	the base	of the currer	nt working	levels, Indica	ited Resource two levels (80 r	n) below	the base	of the Me	asured Re	esource an	nd Inferred
	Resou	urce three levels (120 m) bel	ow the Ir	ndicated F	Resource.											
	3. Resou	irces are reported inclusive	of Reserv	ves.												
	4. Ionne	es are reported as millions; c	contained	I diamond	ls are repo	rted as p	er million cai	rats;	unded to the	a pagraat 10.000 garata; rai	unding of	f of num	horo mov	rooult in	minor oom	nutational
	5. Tonne discre	nancies:	are round		e nearest	100,000	tonnes; can	als are ro		e nearest 10,000 carats; rot	inding of	i oi num	bers may	result in	minor com	iputational
	6. Resou	irce tonnages and grades ar	re reporte	ed exclusi	ive of exte	rnal waste	e, unless wh	ere otherv	vise stated;							
	7. Reser	ve tonnages and grades are	reported	d inclusive	e of extern	al waste,	mining and	geological	losses and p	plant modifying factors;						
	8. All Re	serves and Resources have	been ind	dependen	ntly reviewe	ed and ve	rified by Ste	phen H le	Roux, Pr. Sc	i. Nat. (reg. No. 400206/15) d	uring Fel	oruary 20	17.			
Audits or reviews	The current	reserve estimated at 28 Feb	ruary 20	17 has no	ot been ext	ernally au	udited, but w	as review	ed by the Co	mpetent person in February 2	017.					

Criteria	Commentary
Discussion of relative accuracy/ confidence	Factors which could affect the relative accuracy and confidence of the global reserve estimate include:
	• The continuity of the average grade and width of the fissure cannot be demonstrated with absolute certainty, however, in the Competent Person's view the strike, dip, width and diamond grade continuity of the kimberlite fissures at Sedibeng are likely to persist without any significant overall change for at least the next 240m vertically below the current working levels. There is a medium to high level of confidence from historical information to support the extrapolation of the fissure width and grade with depth.
	Failure to achieve the estimated average fissure and stoping widths could result in excessive dilution and will lead to a reduction in recovered diamond grade.

# Section 5 Estimation and Reporting of Diamonds and Other Gemstones

Criteria	Commentary
Indicator minerals	No indicator mineral sampling has been undertaken at Sedibeng in recent times.
Source of diamonds	Diamonds at Sedibeng are sourced from primary kimberlite fissure deposits which are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust.
Sample collection	The Sedibeng fissure complex is not conventionally sampled as in the case of a normal kimberlite pipe, but has been extensively mined over a period of more than 60 years. Mining production data provides the information necessary for estimating the geology and grade behaviour of the deposit.
	At Sedibeng mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Sedibeng fissure complex are known with a high degree of confidence. For the Sedibeng fissure mine a strategy has been developed to define the resource in such a way that it allows them to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Detail geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
Sample treatment	The Competent Person is unaware that any samples were tested in the past at Sedibeng. Production data provides quality information necessary for estimating the geology and grade behaviour of the deposit. Sedibeng Diamonds operate a Dense Media Separation (DMS) and final recovery Plant capable of treating the Ore Reserve at a head feed rate of 50tph or at an average annualised rate of 180,000tpa.
	The Sedibeng Dense Media Separation (DMS) plant consists of the following main components and process flows:
	<ul> <li>Plant head feed is dumped into a receiving bin through a load and haul arrangement. Plant head feed can operate at 50 tons per hour. Primary crushing takes place through a jaw crusher for plus 35mm material which is not discarded as waste rock by the waste pickers. Any minus 35mm material bypasses the picking station and feeds straight to the preparation screen where it is washed and minus 0.8mm material is discarded as slimes. After classifying, all material smaller than 30mm is fed into the DMS circuit and anything bigger than 30mm goes to secondary crushing for reduction. After reduction material is washed again on the preparation screen and fed back to the classifying screen.</li> </ul>
	• All material entering the DMS circuit is pumped into a cyclone which separates dense media from other lighter material. The plant operates two 420mm cyclones with a head feed of 30 t/h each. All material with a specific gravity of 3.1 and more is washed, to remove the ferrosilicon for reuse, and fed into a diamond concentrate bin before it is conveyed to the Final recovery system.
	• Material exiting the cyclone is screened for plus 15mm size which is fed into a secondary cone crusher with a 19mm gap setting. The minus 15mm material reports to a classifying screen from where the minus 6mm size is screened out as tailings. Material between 6mm and 15mm is fed to the tertiary crusher system which includes two Hazemac crushers. Cyclone overflow which is between +6mm and -30mm remains in closed circuit through the washing, screening and DMS sections until it is reduced to minus 6mm and discarded as tailings.
	•
Carat	One fifth (0.2) of a gram (often defined as a metric carat or MC).
Sample grade	All resource and sample grades are expressed as carats per hundred tonnes (cpht).

Criteria	Commentary
	No adjustment is made for moisture content within the samples.
	All results are quoted to a 1.00mm bottom cut-off unless otherwise stated.
Reporting of Exploration Results	Recent exploration has not been undertaken at Sedibeng.
Grade estimation for reporting Mineral	Geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information, spanning over more than 60 years, has provided effective and continuous sampling of the deposit and affords a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at Sedibeng.
Resources and Ore Reserves	The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Sedibeng were based on a back calculation from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Resource which includes the practical diamond recovery characteristics of the existing operation by taking into account the effective bottom screen size of 1.0mm, diamond losses and plant recovery efficiency. The mine has sufficiently detailed production records like hoisted (ROM), treated tonnage and recovered carat data that allow back calculation of the average in situ fissure grade.
	The treated tonnage was sourced from the diluted hoisted tonnage, from which waste rock has been removed by waste/fissure hand-sorting. Historic recovered diamond grades indicate that the fissure has a consistent grade over the mined extent of the deposit.
	Cut off grades have not been used in the resource estimation on the basis that a bulk mining method will be used which will result in the extraction of all the ore within the fissure. Discrete monthly treated grades as determined were combined in a total average (arithmetic mean) across the fissure for geological modelling and resource estimation purposes (Refer Grade Estimation and Modelling techniques). The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Resource at Sedibeng.
Value estimation	The latest revenue estimate for Sedibeng mine has been generated from 13,955.48 carats sold between October 2015 and September 2016 for a total of USD\$5,376,892.85 at an average price of USD\$385.29/ct. It would be advisable to base financial modelling on an average estimated value of \$385/ct. Most of the diamonds are colourless and 90% are gem quality. The average recovered stone size at the Messina mine on the Bobbejaan dyke is 0.16ct/stone, with the largest diamond found to date being 56ct (Gurney and Kirkley, 1996).
	Currently Sedi Diamonds is making use of the sales and marketing platform of Petra to sell all diamonds produced from Sedibeng to Petra at a cost of 1% of the selling price of the product.
Security and integrity	The security measures taken for the production of ore at Sedibeng mine were not recorded in detail; however, it is reasonable to assume the samples were subject to the normal rigorous security measures reported as present at Sedibeng Diamonds (Pty) Ltd. All processing and valuation of diamonds is carried out in secure areas.
	There has been no accredited process audit;
	• Sedibeng employs a small security staff to attend to normal risks such as theft, damage to property, policing of hostels, entry/exit controls at the entrance to the mine and diamond security
	in and around the plant and general mine area. Perimeter-fencing controls exist around the mine and security policies are in place. CCTV cameras are used in the plant area.
	Microdiamonds were not processed:
	<ul> <li>No audit samples were collected because of the size of the production samples;</li> </ul>
	Tailings from production have not been checked;
	<ul> <li>Tracer tests are conducted on a regular basis and the target is a tracer recovery in all tested size fractions &gt;95% for tracers of density 3.5 g/cc;</li> <li>Geophysical densities were not determined;</li> </ul>
	<ul> <li>valuation, acidisation, final sieving and weighing of the diamonds are carried out at Harry Oppenheimer House in Kimberley; and</li> </ul>
	• by making use of the Petra platform, diamonds are sold and marketed in Johannesburg in conjunction with the regulator.

Criteria	Commentary
Classification	At Sedibeng mine, the nature of the fissures, their steep dip and the mining method employed, prevent the use of exploration and grade control drilling to evaluate these fissures ahead of mining in any practical way. The characteristics of the Sedibeng fissure complex are known with a high degree of confidence. For the Sedibeng fissure mine a strategy has been developed to define the resource in such a way that it allows them to accurately predict planned production and diamond grades, even though it is impractical to apply several criteria laid down by the JORC Code in arriving at a statement of resources and reserves.
	Historical information, spanning over more than 60 years at Sedibeng mine, has provided very effective and almost continuous sampling of the deposit and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures at the mine. It is therefore considered reasonable to extrapolate the expected average width and grade data as depicted in this report relating to the kimberlite fissure a limited distance into deeper, undeveloped and unsampled areas, and in these areas define mineral resources that in the Competent Person's opinion would meet the JORC classification guidelines. The consistency of this approach is validated by long production histories on all fissure operations and applied by previous independent, respected and qualified persons and institutions.
	The initial geological interpretation for the kimberlite fissures is based on work undertaken by Snowden (2002-2004) which were further revised and refined by Petra and Sedi Diamonds with the acquisition of additional development -and production data gathered during 2005 until February 2017. Based on assessment of the kimberlite fissure dip, width, depth and diamond grade continuity, the mineral resource has been estimated and classified by Snowden to reflect a reduction in confidence in the estimate down-dip from the lowest current working level as follows:
	• Measured Resource: one rever (40 m) below the base of the current working revers;
	Indicated Resource: two levels (80 m) below the base or the Measured Resource; and
	Interred Resource: three levels (120 m) below the Indicated Resource.



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# Summary Technical Report

Technical Review of the Sedibeng Joint Venture (JV) and Star Diamond Mines Underground Operations

For

**Frontier Diamonds Limited** 

Document version: Customer name: Date: Prepared by:

Final Frontier Diamonds Ltd 28 September 2017 AF von Wielligh & RI Mallinson

Technical Review – Sedibeng JV & Star Diamond Mines

ABGM PTY LTD

DIRECTOR: A F von Wielligh

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This report was prepared by Mr Anton von Wielligh (Principal Mining Engineer), and Mr Rob Mallinson (Principal Consultant), of ABGM Pty Ltd and ABGM Ltd (UK), respectively who have sufficient experience relevant to the Technical Assessment and Valuation of the Mineral Assets under consideration and to the activity which they are undertaking to qualify as a Practitioner as defined in the 2015 edition of the 'Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets. They each consent to the inclusion in the report of the matters based on their respective information in the form and context in which it appears. The information in this report that relates to Technical Assessment and Valuation of Mineral Assets reflects information compiled and conclusions derived from by Mr Wielligh and Mr Mallinson, who are members of a Recognised Professional Organisation included in a list promulgated from time to time. The report was developed in accordance with the Joint Ore Reserve Committee (JORC) guidelines for reporting Mineral Resources and Ore Reserves and the VALMIN Code 2015.

Neither ABGM Pty Ltd nor those involved in the preparation of this report have any material interest in the companies or mineral assets considered in this report. ABGM Pty Ltd is remunerated for this report by way of a professional fee determined per a standard schedule of rates which is not contingent on the outcome of this report.

Duplicates or portions of the original core drill and production data collected and processed to obtain a geological and historical estimate of tonnages and diamond grades are not available for check analysis and since the Competent Person(s) was not involved in the collection and interpretation of the data he/they cannot vouch for the integrity of any of the historic data available, however, the Competent Person(s) can confirm consistency in the reports of the historical work.

The Competent Person(s) has/have assumed that all the information and technical documents reviewed and listed in the References section of this report are accurate and complete in all material aspects. While due care has been taken in the use of this information, the Competent Person(s) has/have not concluded any extensive independent investigation to verify their source data for accuracy and completeness.

The information and conclusions contained in this report are based on data and information available to the Competent Person(s) at the time of preparation of this report and are subject to the assumptions, conditions and qualifications set forth in this report.

Frontier Diamonds Ltd has reviewed draft copies of the report for factual errors. Any changes made because of these reviews did not involve any alteration to the conclusions made; hence, the statements and opinions expressed in this report are given in good faith and in the belief, that such statements and opinions are not false and misleading at the date of the report.

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## **1 EXECUTIVE SUMMARY**

## 1.1 GENERAL

This report has been compiled by ABGM Pty Ltd (ABGM) from various sources to provide a combined key technical and operating information document for the Sedibeng JV Mine (Sedibeng) and Star Diamond Mine (Star).

The Sedibeng and Star fissure mines are both established underground mining operations wholly owned by Sedi Diamonds Pty Ltd. The Sedibeng operation is an amalgamation of two adjacent and adjoining mines, Messina and Dancarl. The Sedibeng and Star mine fissure complexes have not been conventionally sampled in the past, as in the case of a normal kimberlite pipe, yet have been extensively mined over many decades, providing a wealth of historic data records regarding operating characteristics and performance.

## **1.2 MINERAL RESOURCES**

The following tables summarise the Sedibeng and Star diamond mines Mineral Resource:

Sedibeng -	Mineral	Resource
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Sedibeng JV Diamond Mine					
Source	Resource Classification	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Messina	Manaurad	0.083	47.7	0.040	385
Dancarl	Measured	0.100	47.7	0.048	385
	Sedibeng JV Measured Resource	0.183	47.7	0.087	385
Messina	Indicated	0.146	47.7	0.070	385
Dancarl	Indicated	0.035	47.7	0.017	385
	Sedibeng JV Indicated Resource	0.181	47.7	0.086	385
Messina		0.208	47.7	0.099	385
Dancarl	Inferred	0.150	47.7	0.072	385
Tailings Stockpile		2.488	5.0	0.124	150
	Sedibeng JV Inferred Resource	2.847	10.4	0.295	286
	Sedibeng JV Mineral Resource	3.212	14.6	0.469	323

Star Diamond Mine					
Source	Resource Classification	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Micaceous		0.057	79.7	0.046	295
Burns		0.065	79.7	0.052	295
East Star	ivieasured	0.000	79.7	0.000	295
Wynandsfontein		0.044	79.7	0.035	295
	Star Measured Resource	0.167	79.7	0.133	295
Micaceous		0.115	79.7	0.091	295
Burns	Indicated	0.113	79.7	0.090	295
East Star	Indicated	0.000	79.7	0.000	295
Wynandsfontein		0.088	79.7	0.070	295
	Star Indicated Resource	0.317	79.7	0.252	295
Micaceous		0.172	79.7	0.137	295
Burns		0.245	79.7	0.195	295
East Star	Inferred	0.000	79.7	0.000	295
Wynandsfontein		0.133	79.7	0.106	295
Tailings Stockpile		0.307	5.0	0.015	150
	Star Inferred Resource	0.856	52.9	0.453	291
	Star Mineral Resource	1.340	62.6	0.838	293

#### **Star - Mineral Resource**

General notes on the Mineral Resource reporting criteria:

- Resource (and Reserve) bottom cut-off is at 1.00mm stone size.
- Measured Resources are classified as one level (40m vertical) below the base of the current working levels, Indicated Resource - two levels (80m vertical) below the base of the Measured Resource, and Inferred Resource - three levels (120m vertical) below the base of the Indicated Resource.
- Mineral Resources are reported inclusive of Ore Reserves.
- Tonnes are reported as millions, contained diamonds are reported as per million carats.
- Tonnes are metric tonnes and are rounded to the nearest 1,000 tonnes, carats are rounded to the nearest 1,000 carats, (rounding of numbers may result in minor computational discrepancies).
- Mineral Resource tonnages and grades are reported exclusive of external waste, unless where otherwise documented.
- All Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (Reg. No. 400206/15) during February 2017.
- All tonnages quoted are dry tonnes.
- The Competent Person on Mineral Resources- Mr Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15)

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## **1.3 ORE RESERVES**

The following section is a summary of the key Ore Reserve calculations for Sedibeng and Star diamond mines.

#### 1.3.1 Modifying Factors for Ore Reserves

The mining related modifying factors that were applied by Sedi Diamonds Pty Ltd to the Sedibeng and Star Ore Reserves are as follows:

- The Ore Reserves exclude any Inferred Resources.
- Mining recovery of the fissure tonnes for the Star deposit is assumed to be 100% for the Ore Reserve calculations (0% stope losses applied during the planning stage). This assumption is justified through the facts that an already high geological loss is applied in combination with relatively high dilution estimates for an underground operation that has reasonably good ground conditions. The historic excavations and production results furthermore confirm that 100% of the diamondiferous fissure at Star is extracted from within developed stopes.
- A mining recovery factor of 90% was applied for the recovery of the kimberlite fissure at Sedibeng (i.e. 10% will remain primarily as sill pillars for stability, and stope losses). The naturally occurring thinner fissure zones will be left in-situ due to economic reasons and these unmined areas will generally be considered as stability pillar zones. It is therefore believed unnecessary to modify ore tonnes and revenue for both geological losses and pillar losses as the geological loss areas will also be the mining loss areas. As most of the sill pillars eventually fall into the drawn void, most of the sill pillars could be recovered, assuming dilution remains within the economic and design limits.
- The average bulk densities attributed to the kimberlite fissure and waste at Sedibeng and Star are 2.65 t/m<sup>3</sup> and 2.75t/m<sup>3</sup> respectively.
- An allowance of 15% and 20% geological losses is accounted for in the Mineral Resource inventory at Sedibeng and Star, respectively, and is attributed to narrow sections of the fissures widths that are uneconomic to mine.
- At Sedibeng and Star, mining dilution is accounted for by allowing for additional unplanned dilution that would yield average stoping widths of 130cm and 110cm respectively.
- Based on historic mining data, it is realistic to expect to mine an average fissure width of 60cm (conservative estimate) at Sedibeng with a corresponding average stoping width of 130cm, (the historic and recent ore extraction records, within operating stopes, indicated that the mining method and prevailing rock conditions allows for stope widths to be managed within a range of 120cm and 140cm with a reasonable and practical average of 130cm). The planning process therefore considers kimberlite in the run-of-mine (ROM) ore to be fully extracted whilst an additional (planned & unplanned) dilution allowance of 70cm of waste rock is allowed (i.e. 54% of ROM ore is waste).
- Based on historic mining data, it is realistic to expect to mine an average fissure width of 58cm (conservative estimate) at Star with a corresponding average stoping width of 110cm, (the historic and recent ore extraction records, within operating stopes, indicated that the mining method and prevailing rock conditions allows for stope widths to be managed within a range of 105cm and 115cm with a reasonable and practical average of 110cm at Star). The planning process therefore considers kimberlite

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in the ROM ore to be fully extracted whilst an additional (planned & unplanned) dilution allowance of 50cm to 55cm of waste rock is allowed (i.e. 47% of ROM ore is waste).

- At Sedibeng, the average reserve grade of 21.6 cpht is based on an in-situ grade of 47.7 cpht which includes 54% dilution (130cm actual stoping width, 60cm fissure width). The resource grade is based on a back calculation from actual diamond production at Sedibeng.
- At Star, the average reserve grade of 42.6 cpht is based on an in-situ grade of 79.7 cpht which includes 47% dilution (110cm actual stoping width, 58cm fissure width). The resource grade is based on a back calculation from actual diamond production at Star.
- No quantitative assessment has been made of the process plant's recovery efficiency at Sedibeng and Star. A plant recovery factor of 95% was applied to both Reserves as the typical overall diamond recovery ranges between 90% and 97% dependent upon the recovery strategies and sorting technology used (Sedibeng and Star should be able to ensure higher diamond recoveries during the ore processing and sorting stages).
- Mineral Resource cut-offs were applied as per the Mineral Resource Statement for both mines (minimum 30cm fissure width at the modelled average diamond grades).
- The diamond (stone) minimum size is 1.00mm.

## 1.3.2 Ore Reserve Summary

The modifying factors used are considered appropriate and reasonable, resulting in the Sedibeng and Star Mines Ore Reserves as tabulated below. The declared Diamond Ore Reserve grades for Sedibeng and Star are fully diluted and reported as head feed grades.

Sedibeng JV Diamond Mine					
Source	Reserve Class	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Messina	Proven	0.162	21.6	0.035	385
Dancarl		0.195	21.6	0.042	385
	Sedibeng JV Proven Reserve	0.357	21.6	0.077	385
Messina	Probable	0.285	21.6	0.062	385
Dancarl		0.069	21.6	0.015	385
	Sedibeng JV Probable Reserve	0.354	21.6	0.076	385
	Sedibeng JV Ore Reserve	0.711	21.6	0.154	385

## Sedibeng Ore Reserves (2017) - (excerpt from The Independent Geologist Report 28 February 2017)
Star Diamond Mine					
Source	<b>Resource Classification</b>	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Micaceous		0.109	42.6	0.046	295
Burns	Brovon	0.124	42.6	0.053	295
East Star	Proven				
Wynandsfontein		0.084	42.6	0.036	295
	Star Measured Resource	0.316	42.6	0.135	295
Micaceous		0.218	42.6	0.093	295
Burns	Drobable	0.215	42.6	0.092	295
East Star	Probable				
Wynandsfontein		0.168	42.6	0.071	295
	Star Indicated Resource	0.601	42.6	0.256	295
	Star Ore Reserve	0.917	42.6	0.390	295

## Star Ore Reserves (2017) - (excerpt from The Independent Geologist Report 28 February 2017)

General notes on reporting criteria:

- Resource and Reserve bottom cut-off is at 1.00mm stone size.
- Measured resources are classified as one level (40m vertical) below the base of the current working levels, Indicated Resource two levels (80m vertical) below the base of the Measured Resource, and, Inferred Resource three levels (120m vertical) below the Indicated Resource.
- Resources are reported inclusive of Reserves.
- Tonnes are reported as millions; contained diamonds are reported as per million carats.
- Tonnes are metric tonnes and are rounded to the nearest 100,000 tonnes; carats are rounded to the nearest 10,000 carats; (rounded numbers may result in minor computational discrepancies).
- Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors.
- All Reserves have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

The Mineral Resources and Ore Reserves for Sedibeng JV Diamond Mine and Star Diamond Mine have been calculated and documented (within the "Independent Geologist's Report" – 28February 2017, document reference "SLR310806b").

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# **1** INTRODUCTION

#### 1.1 GENERAL

ABGM Pty Ltd (ABGM) has been requested to conclude a technical review of the Sedibeng JV and Star Diamond Mine operations (referred to as 'Sedibeng' and 'Star' hereon in where applicable) for Frontier Diamonds Ltd (Frontier). This report combines other source documents referred to and considered in the technical review, compiled by other independent industry experts, and referenced where applicable.

The technical review included the development of the necessary data and mine designs (included in the Sedibeng and Star data room folders) to simulate the likely production schedules and subsequent cost and economic models for each of the underground operations, within the defined respective Mineral Resource blocks, and as part of a comparison between the Mineral Resource and Reserve statements tabled in other Competent Person reports.

#### 1.2 BACKGROUND

Frontier Diamonds Ltd (Frontier) is an Australian public company intending to list on the Australian Securities Exchange (ASX), specifically incorporated to acquire Sedi Star Diamonds Pty Ltd, who has an agreement to acquire 74% of the issued capital of Sedi Diamonds (Pty) Ltd, the holding company for a group of companies that own and operate the Sedibeng JV and Star diamond mines in South Africa.

The corporate structure for Sedibeng and Star, and their locations, are shown in Figures 1 and 2 respectively.

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Figure 1: Sedibeng Corporate Structure & Location Map

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Figure 2: Star Corporate Structure & Location Map

# **1.3 PROJECT HISTORY**

The Sedibeng and Star fissure mines are both established underground mining operations wholly owned by Sedi Diamonds Pty Ltd. The Sedibeng operation is an amalgamation of two adjacent and adjoining mines, Messina and Dancarl.

The Sedibeng and Star fissure complexes were not conventionally sampled in the past, as in the case of a normal kimberlite pipe, yet have been extensively mined over many decades. The production history at Sedibeng and Star are summarised in Table 1-1 and Table 1-2.

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Year - Sedibeng	Tonnes treated		Carats re	Carats recovered		ide (cpht)
	Messina	Dancarl	Messina	Dancarl	Messina	Dancarl
1930-1996	2,700,000	n/a	n/a	n/a	n/a	n/a
1994-1997	n/a	26 950	n/a	9 635	38	36
1998	n/a	78,500	n/a	26,430	n/a	34
1999	n/a	60,016	n/a	17,651	n/a	29
2000	n/a	47,947	n/a	17,482	35	36
2001	n/a	n/a	n/a	n/a	26	n/a
2002	n/a	n/a	n/a	n/a	24	n/a
2003	n/a	n/a	n/a	n/a	39	n/a
2004	99,0	)74	24,	970	25	
2005	n/	a	n,	/a	n/:	3
2006	132,	164	32,	023	24	ł
2007	152,	151	40,	711	27	,
2008	186,	608	35,	710	19	1
2009	120,	457	27,	298	23	
2010	105,	919	21,	873	21	
2011	82,6	579	19,169		23	
2012	79,642		15,558		20	
2013	62,959		11,977		19	
2014 (6 months)	28,2	282	3,7	70	13	
2015	66,3	322	11,	609	18	
2016/2017 (14 months)	90,4	138	12,	133	13	
TOTAL	1,420	,108	327,	,999	23.	0

Table 1-1: Sedibeng production history since 1959 until 28 February 2017 (Reference 1.)

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Year - Star	Tonnes treated	Carats recovered	Estimated grade (cpht)		
1995	69,173	25,987	37.57		
1996	28,279	7,931	28.05		
1997	48,045	12,796	26.63		
1998-1999		No records available			
2000	38,270	12,728	33.26		
2001	35,066	15,415	43.96		
2002	29,102	14,232	48.90		
2003	36,313	16,085	44.30		
2004	33,599	15,819	47.09		
2005	No records available				
2006	34,351	15,110	43.99		
2007	38,791	16,638	42.89		
2008	28,251	16,870	59.71		
2009	26,302	14,823	56.36		
2010	16,422	8,781	53.47		
2011	19,026	7,059	37.10		
2012	14,088	6,886	48.88		
2013	20,441	8,299	40.60		
2014 (5 months)	9,740	3,572	36.67		
2015	26,990	8,997	33.33		
2016/2017 (14 months)	22,709	9,704	42.73		
TOTAL	1,411,664	625,090	44.28		

Table 1-2: Star production history since 1959 until 28 February 2017 (Reference 1.)

The ownership histories for Sedibeng and Star are shown in Table 1-3 and Table 1-4, respectively.

SEDIBENG JV						
MESSINA						
PERIOD	OWNER	TONNES MINED	GRADE	TOTAL CARATS		
1930 - 1981	Small-scale miners					
1981 - 1996	Minvest	Pecords incomplete	22 cpht (actimation)	Pecords in complete		
1996 - 1999	Messina Diamond Corp.	Records incomplete	52 cpric (esumation)	Records incomplete		
1999 - 2003	Messina Diamonds					
2003 - 2005	Crown Diamonds	99,074 (only 2004)	25 cpht (only 2004)	24,970 ct (only 2004)		
2005 - 2014	Petra Diamonds	922,579	22 cpht	204,319 ct		
2014 until Feb 2017	Sedi Diamonds	185,042	15 cpht	27,512ct		
		DANCARL				
1967 - 2004	De Beers (DBCM)					
2004 - 2005	Crown Diamonds Cons.	Records included	Records included	Records included with		
2005 - 2014	Petra Diamonds	with Messina's	with Messina's	Messina's		
2014 until Feb 2017	Sedi Diamonds					

Table 1-3: Sedibeng Ownership History (Reference 1.)

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STAR MINE					
PERIOD	OWNER	TONNES MINED	GRADE	TOTAL CARATS	
1926 - 1947	Unknown	n/a	n/a	n/a	
1948 - 1980	Gold Fields	2.0 Mt	40 cpht – 50 cpht	1.0 Mct	
1980 - 1984	Ochta Diamonds				
1984 - 1992	Golden Dumps	<u>(1975 – 2003)</u>	(1975 - 2003)	<u>(1975 – 2003)</u>	
1992 - 1999	Minvest	469,946 ton	40 cpht	187,497 ct	
1999 - 2003	Messina Diamonds				
2003 - 2005	Crown Diamonds	33,599 (only 2004)	47 cpht (only 2004)	15,819 ct (only 2004 )	
2005 - 2014	Petra Diamonds	197,672 ton	47 cpht	94,466 ct	
2014 until Feb 2017	Sedi Diamonds	59,439 ton	37 cpht	22,273 ct	

Table 1-4: Star Ownership History (Reference 1.)

## 1.3.1 Sedibeng Mine

Sedibeng is located approximately 40 km north of the town Delportshoop and 80 km west of the town of Warrenton in the Northern Cape Province of South Africa. Driving to the mine is via tar and gravel roads, which are suitable for two-wheel drive vehicles. The property comprises two mining licences (ML 12/94 and ML 1/1995) that covers 89.62 hectares in extent, held by Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) Ltd (Sedibeng Diamond Mine JV) respectively. Figure 3 below depicts the Sedibeng operations.



Figure 3: Sedibeng - Surface and Underground Cross Section Views

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The Sedibeng operation is an amalgamation of two adjacent and adjoined mines: Messina and Dancarl which are currently operating at depths of between 620m and 750m below surface.

Currently, the Dancarl shaft system is connected to the existing production levels developed from Messina. The Messina underground mine extends northward for approximately 1,700 metres along the 2,430-meter diamondiferous fissure, known as the 'Bobbejaan' Fissure. Immediately to the south of Messina, and covering the southern 730m extent of the fissure, is the adjoining and contiguous Dancarl underground mine. The individual fissures at Messina and Dancarl range in widths between 5cm to 80cm, with an average width of 58cm.

The earliest reported mining of the Bobbejaan Fissure at Messina was in the 1930s with small-scale systematic mining commencing in the 1950s. Since that time the mine has operated continuously and eight vertical surface shafts have been sunk to depths ranging from 50m to 590m.

By 1981 small-scale miners had mined the Bobbejaan Fissure via five vertical shafts as deep as the 9 level (275 metres below surface (mbs), although extensive extraction was only to the 7 level (or 210 mbs). Minvest acquired the northern portion of the Messina Mine property in 1981. Between 1981 and 1997, mining extended from the 7 level to the 19 level (630 mbs). In 1991 Minvest acquired an additional 200 m of strike length of the Bobbejaan Fissure to the south.

Production records during this period are incomplete, however, it is estimated that approximately 2.7 million tonnes of ore were extracted from the fissure system from the commencement date to June 1996 (approximately 60 years).

Messina Diamond Corporation acquired Minvest in December 1996 and conducted an extensive review of the operations prior to developing a five-year mining and development plan designed to open additional working faces and expand production.

Messina Diamonds (Pty) Ltd acquired the property in March 1999 and extracted some 270kt of ore (March 1999 to January 2002). The average hoisted grade within this period was approximately 20 carats of diamonds per hundred tonnes of ore (cpht), which was lower than the early production grades achieved (28 cpht) in late 1999. The simple explanations for the reduction in hoisted diamond grades are directly attributed to a lack of prevailing new mining levels and mining areas. A lack of funds and development capital resulted in an increasing amount of ore being sourced from old and highly-diluted loading areas (old mining areas). Crown Diamonds NL acquired the Messina Mine in July 2003.

Petra Diamonds Southern Africa (Pty) Ltd (Petra) acquired Sedibeng Diamond Mine JV in 2005 from Crown Diamonds. Sedi Diamonds Pty Ltd acquired the project from Petra through the acquisition of Star Diamonds (Pty) Ltd in 2014. Sedi Diamonds Pty Ltd is wholly owned by Frontier Diamonds Limited.

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## 1.3.2 Star Mine

Star Diamonds is located some 12 km north east from the town of Theunissen in the Free State Province of South Africa. It forms part of a prominent east-west diamondiferous fissure system that stretches approximately 15km from the old Saital Mine in the west to Lovedale in the east. Virginia is situated approximately 25km NNE of the mine. The property comprises a single mining licence (ML 11/1996) that is 246.29 hectares in extent, held by Star Diamond Mines (Pty) Limited (see Figure 4).



Figure 4: Star - Surface and Underground Cross Section Views

The following is a summary of the history of Star Diamond Mine:

- Diamonds were first discovered in the area in 1911.
- The first mining company along the 15-km diamondiferous fissure system was established in 1926.
- The initial Star workings were limited to the weathered surface kimberlite followed by underground access adits which were developed into the side of the hill on the western side of the property.
- Gold Fields purchased the mine and Star Diamonds (Pty) Ltd was registered in 1948. The first shaft was established in the early 1950s, with No. 3 and 4 (Main) Shafts subsequently sunk.
- During the Gold Fields' era, more than 2 Mt of ore were mined which produced nearly 1 million carats.
- Gold Fields sold the mine to a private company named New Star Diamonds in 1976.
- The now-known Star mine was subsequently purchased by Octha Diamonds in the early 1980s.

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- Golden Dumps purchased the mine in 1984.
- Minvest acquired Star in 1992.
- Messina Diamonds (Pty) Ltd purchased Star in March 1999.
- Crown acquired Star in July 2003.
- Petra Diamonds acquired Star in 2005.
- Sedi Diamonds Pty Ltd acquired Star in 2014.
- Sedi Diamonds Pty Ltd is wholly owned by Frontier Diamonds Limited.

From approximately 1976 to 1992 the underground mine depletion could be described as sporadic and none of the deeper levels were accessed. Mining operations were concentrated along the already developed mining levels extending toward the eastern side of the target fissures. During this period, mining also took place from the nearby low-grade Phoenix open pit.

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# 2 Mineral Resources

## 2.1 GEOLOGICAL SETTING

The known occurrences of diamondiferous kimberlites in South Africa are concentrated within the boundaries of the Kaapvaal Craton and occur as small volcanic diatremes (pipes), dykes (fissures) and sills. The kimberlite intrusions were emplaced along several parallel north-northeast and east-west trending structures and typically occur in swarms or clusters.

Kimberlitic fissure deposits are formed when diamond bearing kimberlite is intruded along deep-seated fractures in the earth's crust. The fissures are dyke systems of en-echelon interwoven lenses which pinch and swell along strike. In the simplest case, one lens pinches out, and the next lens is located to the side of the first, offset from it by several metres. Dips in general are near-vertical. These fissures are characterised by high diamond grades and narrow widths, although they may have a strike extent of several kilometres and continue down-dip for hundreds of metres.

The Star and Sedibeng fissure systems fall into the Group II Kimberlite category intruded circa 120 million years ago. They persist to depths greater than current mining levels showing no evidence of grade depletion. Typically, the fissures are influenced by the country rock through which they have been emplaced. Differences in fissure thicknesses, dip and strike directions are attributed to different host rock lithologies during time of emplacement, i.e., more competent lavas in contrast to highly fractured shales.

Only in South Africa have kimberlite dykes been mined underground with the deepest workings more than 700m below the surface. Since the Sedibeng and Star dykes in South Africa average 50cm – 80cm in width, they are relatively small volume intrusions, even though they may have strike lengths more than 4km at some locations.

#### 2.1.1 Local Geology – Sedibeng Mine

The kimberlite fissure at Sedibeng is hosted by flat-lying, layered sediments belonging to the Transvaal Supergroup. The upper part of the stratigraphic sequence consists of a 400m interval of banded dolomite which is increasingly interbedded with shales in the lower portions. These carbonate rocks overlie about 130m of the Black Reef Quartzite which grades from fine-grained quartz arenite at the top to shaley quartz arenites at a depth of about 550m. Below 550m, the quartzites are in unconformable contact with volcanic rocks of the Ventersdorp Supergroup.

The upper 50m of the volcanic rocks, between 16 level and 17 level at the Messina Mine, have been affected by palaeosurface weathering. Below a depth of some 580m these volcanic units are fresh and highly competent.

The Messina Mine extends over the northern 1,700m of the 2,430m long Bobbejaan Fissure. Immediately to the south of the Messina Mine and covering the southern 730m of the fissure is the Dancarl Mine.

Like all known kimberlite dykes in South Africa, the Bobbejaan Fissure is a compound structure comprising an en echelon arrangement of vertically orientated, discus-shaped kimberlite lenses, which generally range in thickness

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between 45cm and 80cm in width but rarely exceed 100cm. Each lens tapers in all directions from 100cm at the centre to less than 20cm at its margins, where it breaks into several dykelets or "horsetails" which splay over a distance of 2m-3m. Typically dyke lenses are disk-like in shape, tapering off in all directions, with 60cm average widths, 70m-80m strike lengths, and approximately 40m vertical extents.

The wall rocks of the fissure are reported to be quite fractured in areas of lens "horse-tailing" and where the fissure is particularly wide. The en echelon arranged lenses overlap and are off-set from each other by between 1m and 20m along strike, but normally less than 10m. The units sometimes overlap in a vertical longitudinal section, although there are areas where this is not the case and an effective 'loss of ground' occurs. Given a less complicated structure (compared to the Star fissure system) with fewer displacements and relative continuity in longitudinal section, the Bobbejaan Fissure may be considered as a single fissure with variable widths along strike and at depth.

To date, the Bobbejaan Fissure has been mined to a depth of approximately 760 mbs. The available geological information indicates that it displays remarkable down-dip continuity as reflected in Figure 5. At the current deepest production level of the mine (23 level), the fissure is reported to be no different to that encountered in the upper sections of the mine. Messina and Dancarl has recently established the 23 and 24 levels (at 760 mbs and 800 mbs), respectively, with fissure development that started in early 2014 by Sedi Diamonds Pty Ltd.



Figure 5: Sedibeng Cross Section Showing Fissure Continuity

The northern limit of mine development and stoping at Messina has been defined by the Water Fissure fault. The Water Fissure strikes northwest-southeast and dips moderately to the south. Mine development through the Water Fissure at Messina on levels 16, 18 and 19 (500 mbs to 640 mbs) demonstrates that the kimberlitic Bobbejaan Fissure continues northward of the Water Fissure and has not been laterally off-set. The kimberlite fissure is, however, reported to thin out in proximity to the fault.

At a depth of approximately 300m in the Messina Mine, interlayered host rock argillites and dolomites give way to underlying quartzites and Ventersdorp lavas. The dyke splits at this change in host rock lithology, with one branch dying out both along strike and at depth, whereas the main branch continues.

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## 2.1.1.1 Mining Exploration

Previous mining activities completed at Sedibeng (and Star) have been undertaken in a series of phases by the previous owners of the projects.

Detailed geological and grade continuity characteristics of the fissures are derived from historical and current mining information. This historical information has provided very effective and almost continuous sampling of the deposit, and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the kimberlite fissures at the mine.

Detailed mining production data provides substantially more reliable information about the overall fissure geometry than could be achieved with downhole core exploration drilling. This concept is also supported by previous qualified persons reports that are publicly available and institutions who conducted independent valuations and reviews of the Sedibeng JV and Star Diamond Mines.

## 2.1.1.2 Drilling

Limited diamond exploration drilling completed at Sedibeng (and Star) has been undertaken by representatives of Snowden during their independent valuation of the mineral assets of Crown Diamonds NL (2002-2004). Compressed air percussion and pneumatic cover drilling are used on both mines for short term planning, stoping and development purposes to locate the fissure, and do not support mineral resource estimation, mining studies or metallurgical studies.

Recently Sedi Diamonds Pty Ltd purchased a diamond core rig capable of drilling long, horizontal or inclined core holes to explore for potential additional fissures located alongside the main fissure at Sedibeng. This sub-surface diamond core rig can be employed to explore, and possibly extend, the current mineral resources at depth at both Sedibeng and Star. During the Competent Person' visit to Sedibeng in September 2016, the rig was commissioned and drilling commenced at 16 level to locate the so called "Magasyn Fissure" at the Dancarl section.

In 2003, two diamond core holes were completed at the Messina section of Sedibeng to test the downdip continuity of the fissure. A drill cross-cut was established on 21 level and two holes were drilled to intersect the kimberlite fissure at depth. Both holes drilled from 21 level, named MES 01 and MES 02, intersected significant thicknesses (up to 3m down-hole width) of the kimberlite fissure at depths to the projected 24 level (Figure 6).

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Figure 6: Sedibeng Cross Section Showing Previous Drilling

# 2.1.1.3 Bulk Sampling, Geophysical and Geochemical Data

No geophysical exploration or geochemical soil sampling data is available at Sedibeng.

No bulk samples were taken to obtain representative kimberlite material to assist in grade determination of the different fissures located at Sedibeng.

Mining production data provides substantially more consistent information necessary for estimation of the geology and grade behaviour of the deposit, however, it is recommended that a directional core drilling campaign be developed for Sedibeng, backed by downhole geophysical surveys to locate the fissures at depth, and increase the confidence of the resource base.

# 2.1.1.4 Logging and Sampling

Diamond core retrieved from cover drilling to locate the fissures at Sedibeng is only logged to identify the fissure at short and intermediate depths for further development purposes, and not for gaining detailed geotechnical, structural, and geological information of the kimberlite fissures. Core samples obtained during cover drilling to locate the fissure have been often discarded after logging and no sampling was undertaken on any of the cover drillhole cores.

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## 2.1.2 Local Geology – Star Mine

The Star mine property is underlain by a 520m thick sequence of flat-lying Karoo rocks which overlie rocks of the 2,700 million-year-old Witwatersrand Supergroup. A 30m thick succession of Permian-age Dwyka group tillites forms the basal unit to the Karoo sequence. These tillites are overlain by rocks of the Ecca group comprising a 135m thick unit of argillaceous sandstone overlain by a 200m thick sequence of carbonaceous mudstones and shales. The Ecca sediments are further overlain by a 150m thick package of Beaufort group shales and mudstones.

The Star mine extends over a 4.5km strike length of the east-west trending Star kimberlite fissure system, which can be traced over a total distance of some 15km. Individual fissure units are separated in a north-south direction by distances of up to 150m. Smaller north-south lateral steps of up to 40m occur within individual fissure units. The individual kimberlite fissures generally range in width from 5cm to 80cm with an average width of 58m.

The Star fissure system incorporates five distinct fissure units. From west to east, these are the Clever, Micaceous, Burns, East Star and Wynandsfontein fissure units. In addition to the fissure units there is a blow situated on the far west of the mining lease known as the Phoenix pipe. All these areas have been mined in the past, with the most intensive mining having occurred on the Micaceous, Burns, East Star and Wynandsfontein fissure units (see Figure 7).



Figure 7: Star Cross Section Showing Fissure Continuity

At the Star, the Karoo sequence has been intruded by a thick dolerite sill. There is no immediate change in fissure thicknesses when passing from shale into dolerite. The contacts in both types of country rock are sharp and smooth and the fissure is more regular in the dolerite than in the shale. Shale country rock is often very fissile in nature; causing short, discontinuous kimberlite lenses and more challenging mining conditions (e.g. development excavations usually require secondary support).

Karoo shale and sandstone host rocks are generally considered responsible for the variable rock conditions encountered with the Star dykes; however, the dykes are reportedly more sinuous when they traverse dolerite sills in the stratigraphic section. The stronger dolerite and sandstone host larger, more continuous fissure lenses with relatively less challenging mining conditions (e.g. development excavations are generally self-supporting).

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The fissure at Star consists of typical kimberlite "blue ground", a serpentinized olivine-pyroxene-phlogopite peridotite, often with a marked brecciated appearance and with both occidental and cognate inclusions. In places, however, the rock is highly micaceous, this variety evidently having been produced either by a process of local segregation or by contamination with country rock as it occurs characteristically both near the contacts of the dyke and around the larger impounded fragments.

Below the Karoo Supergroup lie quartzites of the Witwatersrand Supergroup. Exploration drilling has shown the kimberlite fissure system is continuous downwards into the underlying Witwatersrand lithologies.

While development and stoping conditions will improve due to the more competent host rock conditions at depth other potential challenges such as water and methane may be encountered.

To date, the Star Fissure has been mined to a depth of approximately 620m below surface. The available geological information indicates that it displays remarkable down-dip continuity, as reflected in Figure 7. The deeper mining sections reportedly bare similar structure, thickness and grades to those of the historic/upper mining levels.

# 2.1.2.1 Drilling – Star Mine

In late 2002, two diamond drill holes were completed in the Burns and Wynandsfontein sections at Star to test the down-dip continuity of the fissure. A drill cross-cut was established on 12 and 14 levels of the Wynandsfontein and Burns fissure, respectively, and two holes designed to intersect the kimberlite fissure at depth. Both holes were successfully completed having intersected kimberlite fissure at the planned depths.

The Burns diamond hole was oriented due north and drilled from 14 level directly beneath the main shaft at an inclination of -58°. Two fissure intersections were recorded:

- 30cm (15cm true width) at 110m down the hole representing a vertical depth of 95m below level 14.
- 90cm (45cm true width) at 139m down the hole, representing a vertical depth of 12m below level 14.

The 45cm true thickness of the second intersection represents a mineable thickness, based on the current practice of mining areas where a fissure exceeds 30cm thickness. The Wynandsfontein diamond hole intersected a zone of kimberlite stringers at a vertical depth of 140m below 12 level. Four kimberlite stringers with a total thickness of 32cm were encountered.

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## 2.1.2.2 Bulk Sampling, Geophysical and Geochemical Data

No geophysical exploration or geochemical soil sampling data is available at Star.

No bulk samples were taken to obtain representative kimberlite material to assist in grade determination of the different fissures located at Star.

Mining production data provides substantially more consistent information necessary for estimation of the geology and grade behaviour of the deposit, however, it is recommended that a directional core drilling campaign is to be developed for Star, backed by downhole geophysical surveys to locate the fissures at depth, and increase the confidence of the resource base.

## 2.1.2.3 Logging and Sampling

Diamond core retrieved from cover drilling to locate the fissures on Star (and Sedibeng) is only logged to identify the fissure at short and intermediate depths for further development purposes, and not for gaining detailed geotechnical, structural, and geological information of the kimberlite fissures. Core samples obtained during cover drilling to locate the fissure have been often discarded after logging and no sampling was undertaken on any of the cover drillhole cores.

#### 2.2 DIAMOND RESOURCES

## 2.2.1 Geological resource estimation History

Following the discovery of the diamondiferous fissures of Sedibeng and Star, there have been several reiterations of diamond resource estimates being announced by the various owners over time. A combined summary of the historic diamond Mineral Resources that have been declared for Sedibeng and Star are summarised in Table 2-1.

COMPANY	DATE	TONNAGE (Mt)	GRADE (cpht)	TOTAL CARATS (Mcts)	COMMENTS
Snowden	2004	1.62	73.3	1.18	The undiluted kimberlite grade has not been directly determined by sampling. Star fissure width: 47cm. Sedibeng Fissure width: 57cm.
Petra Diamonds	2010	0.86	75.6	0.65	The undiluted kimberlite grade has not been directly determined by sampling.
Petra Diamonds	2011	0.89	74.6	0.67	The undiluted kimberlite grade has not been directly determined by sampling.
Petra Diamonds	2012	1.59	74.0	1.18	The undiluted kimberlite grade has not been directly determined by sampling. Star fissure width: 50cm. Sedibeng Fissure width: 57cm.
Petra Diamonds	2013	1.63	74.1	1.21	The undiluted kimberlite grade has not been directly determined by sampling. Star fissure width: 54cm. Sedibeng Fissure width: 55cm.

Table 2-1 Historic Diamond Mineral Resource Table for Sedibeng & Star Combined (Reference 1.)

During February 2017, the Competent Person completed an independent review of the Sedibeng and Star Diamond Mines Affiliated Diamond Mineral Resources, which has resulted in an upgrade from the previous (1 July 2013 Mineral Resource estimate), which is discussed in more detail in the sections that follow.

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#### 2.2.2 Geological Modelling and Modifying Factors

The geological interpretation for the Sedibeng and Star fissure systems are based on a standardised model of kimberlite fissure emplacement. The initial geological interpretation for the kimberlite fissures is based on work undertaken by representatives of Snowden (2002-2004) which has since been updated and refined with up-to-date development and production data gathered during Petra (2005 – 2013) and Sedi Diamond Pty Ltd.'s (2014 – 2016/2017) eras.

Stoping and fissure width data, along with geological outlines for each level supplied by Sedibeng and Star, were originally used to create a wireframe model for each of the fissures located at the mine. This permitted the fissure and stope widths to be estimated into the block model cells.

Stope and development outlines, as well as survey and production data at depth of the fissures, have been reviewed based on information acquired during the Crown, Petra and Sedi Diamond Pty Ltd periods. The Competent Person has not undertaken a detailed review of the underlying geological models, which have remained mostly similar since the previous review/estimation in July 2013 (due to both mines that were on care and maintenance until July 2014, after which small scale development was undertaken by Sedi Diamonds Pty Ltd).

All critical average fissure and stoping widths have been recalculated after obtaining the most recent survey data to match the updated fissure outlines in strike and depth.

At Sedibeng and Star, a 15% and 20% geological loss factor have been applied respectively to account for the non-recoverable portions of the kimberlite fissures from areas where it is deemed too thin to extract economically and/or areas where the en echelon fissures may not fully overlap resulting in a strike geology loss. Based on observations made during underground visits at Sedibeng and Star mines, experience with similar deposits, and similar views taken by previous qualified persons in other public reports these are considered to be appropriate geological loss factors.

The combined Mineral Resources of Sedi Diamonds Pty Ltd as at 28 February 2017 were estimated as 4.551 million tonnes (Mt) at 28.7 carats per hundred tonnes (cpht) containing 1.307 million carats (Mct).

#### 2.2.3 Diamond Mineral Resources Estimation

At Sedibeng and Star, the nature of the fissures, their steep dip and the mining method employed, hinders the use of exploration and grade control drilling to evaluate each of these fissures ahead of mining in any practical way. Detailed historical and recent survey and mine production information has provided very effective and almost continuous sampling of the deposit, and gives a high degree of confidence and general knowledge about the geology and grade characteristics of each of the fissures than could be achieved with downhole core exploration drilling.

Volume, ore type, density and diamond grade on the mines are predicted based on the continuity of the fissure, the geology of the fissure, the mining method employed and past production. The logic developed on these mines has been reviewed and documented by various other experts and competent persons and serves as a reasonable

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basis for estimating the resources available in these fissure mines and to plan production and future mining operations at a level of confidence commensurate with the provisions of the JORC guidelines.

It is therefore considered reasonable to extrapolate the expected average width and grade data a limited distance into deeper, undeveloped and unsampled areas ultimately defining and calculating Mineral Resource Estimates which, in the Competent Person's opinion, would satisfy JORC classification guidelines.

No optimised fissure models, using projected financial forecasts, were used in the estimation of Mineral Resources. Cut-off limits for the Mineral Resources are based on discrete cut-off elevations as determined for the base of the Measured, Indicated and Inferred categories.

The following definitions have been developed and implemented to reflect a reduction in confidence in the estimate downdip from the lowest current working levels as follows (Figures 10 and 11):

- Measured Resource: one level (40m vertical) below the base of the current working levels.
- Indicated Resource: two levels (80m vertical) below the base of the Measured Resource.
- Inferred Resource: three levels (120m vertical) below the base of the Indicated Resource.

In the Competent Person's opinion, the strike, dip, width and diamond grade continuity of the kimberlite fissures at Sedibeng and Star are likely to continue, without any significant overall changes expected, for at least the next 240m vertically below the current working levels. However, since there is no sample information below these levels, continuity cannot be confirmed with absolute certainty.

An exploration target zone below the inferred zone was not demarcated and has therefore not been included in the resource.

## 2.2.4 Sedibeng and Star Fissures

Figure 8 and Figure 9 depict isometric views of the Sedibeng and Star geological models developed by Petra in 2013 illustrating mined, Measured, Indicated, and Inferred Resource outlines. Shortly afterwards, production ceased at Star and the mine was put on care and maintenance until October 2014 when Sedi Diamonds Pty Ltd resumed production at the mine.

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Figure 8: Sedibeng Geological Model

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Figure 9: Star Geological Model

## 2.2.5 Sedibeng and Star Tailings

The tailing dumps at Sedibeng and Star consist of DMS tailings derived from the Crown, Petra and Sedi Diamond's Pty Ltd mining eras. The dumps on both mines have been classified as an Inferred Mineral Resource due to the uncertainty in the mining volumes and diamond value of these low-grade sources.

## 2.2.6 Diamond Grade Estimation

The undiluted kimberlite grade has not been directly determined by sampling. Historic grade estimations at Sedibeng and Star were based on back-calculations from actual diamond production data. The same technique was used by the Competent Person in estimating the grade of the Mineral Resources, which includes the practical diamond recovery characteristics of the existing operation, by considering the effective bottom screen size of 1.00mm, diamond losses, and plant recovery efficiency.

Both mines have sufficient and detailed production records such as hoisted ROM, treated tonnage, and recovered carat data that allow the back-calculation methodology of the average in-situ fissure grades (Table 1-1 and Table 1-2).

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#### 2.2.7 Sedibeng and Star Grades

Discrete monthly treated grades, as determined, were combined in a total average grade (arithmetic mean grade) across the fissures and were used during Mineral Resource estimations with no cut-off grades determined at Sedibeng, as in the case of Star.

At Star Mine, excessively high production grades achieved during 1972, 2008 and 2009 were excluded from the calculation of the total average treated grade.

The Competent Person determined that the available mine data was sufficient to permit an average fissure grade to be estimated for the Mineral Resources at Sedibeng JV and Star.

The estimated average fissure grades, excluding any dilution for Sedibeng and Star, were calculated at 47.5 cpht and 79.7 cpht, respectively.

#### 2.2.8 Sedibeng and Star Tailings Grade

The historical Sedibeng and Star tailings, located within the mine lease area, have been assigned an average grade of 5.0 cpht based upon the treatment of 233,043t at Sedibeng and 178,653t at Star (by Petra), and recovering 14,917ct and 13,887ct, respectively.

#### 2.2.9 Sedibeng and Star Diamond Mineral Resources (28 February 2017)

The Competent Person is satisfied that the Mineral Resource estimation approach is appropriate for the Sedibeng and Star deposits and is representative of the diamond mineralisation contained within the kimberlite fissures and various stockpiles at each mine. Taking all the above updated modelling techniques and Mineral Resource classification criteria into consideration, Sedi Diamonds Pty Ltd updated the Sedibeng and Star Mineral Resources as presented in Tables 2-2 and 2-3.

Sedibeng JV Diamond Mine					
Source	Resource Classification	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Messina	Massured	0.083	47.7	0.040	385
Dancarl	wieasured	0.100	47.7	0.048	385
	Sedibeng JV Measured Resource	0.183	47.7	0.087	385
Messina	Indianted	0.146	47.7	0.070	385
Dancarl	Indicated	0.035	47.7	0.017	385
	Sedibeng JV Indicated Resource	0.181	47.7	0.086	385
Messina		0.208	47.7	0.099	385
Dancarl	Inferred	0.150	47.7	0.072	385
Tailings Stockpile		2.488	5.0	0.124	150
	Sedibeng JV Inferred Resource	2.847	10.4	0.295	286
	Sedibeng JV Mineral Resource	3.212	14.6	0.469	323

Table 2-2: Sedibeng Mineral Resource Estimate (2017) - (Reference 1.)

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	Star Diamond Mine				
Source	Resource Classification	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Micaceous		0.057	79.7	0.046	295
Burns	Massured	0.065	79.7	0.052	295
East Star	weasured	0.000	79.7	0.000	295
Wynandsfontein		0.044	79.7	0.035	295
	Star Measured Resource	0.167	79.7	0.133	295
Micaceous		0.115	79.7	0.091	295
Burns	Indicated	0.113	79.7	0.090	295
East Star	indicated	0.000	79.7	0.000	295
Wynandsfontein		0.088	79.7	0.070	295
	Star Indicated Resource	0.317	79.7	0.252	295
Micaceous		0.172	79.7	0.137	295
Burns		0.245	79.7	0.195	295
East Star	Inferred	0.000	79.7	0.000	295
Wynandsfontein		0.133	79.7	0.106	295
Tailings Stockpile		0.307	5.0	0.015	150
	Star Inferred Resource	0.856	52.9	0.453	291
	Star Mineral Resource	1.340	62.6	0.838	293

 Table 2-3: Star Mineral Resource Estimate (2017) - (Reference 1.)

General notes on the Mineral Resource reporting criteria:

- Resource (and Reserve) bottom cut-off is at 1.00mm stone size.
- Measured Resources are classified as one level (40m vertical) below the base of the current working levels, Indicated Resource - two levels (80m vertical) below the base of the Measured Resource, and Inferred Resource - three levels (120m vertical) below the base of the Indicated Resource.
- Mineral Resources are reported inclusive of Ore Reserves.
- Tonnes are reported as millions, contained diamonds are reported as per million carats.
- Tonnes are metric tonnes and are rounded to the nearest 1,000 tonnes, carats are rounded to the nearest 1,000 carats, and (rounded numbers may result in minor computational discrepancies).
- Mineral Resource tonnages and grades are reported exclusive of external waste, unless where otherwise documented.
- All Resources have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (Reg. No. 400206/15) during February 2017.
- All tonnages quoted are dry tonnes.
- The Competent Person on Mineral Resources- Mr Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15)

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# **3** Geotechnical Considerations

Codes of Practice (COP) for the Combat of Rock falls and Rock burst Accidents are in place and understood at both Sedibeng and Star.

The COP is mandatory in terms of Sections 9(2) and 9(3) of the Mine Health and Safety Act (Act 29 of 1996). The COP is drawn up in accordance with the guideline GME 16/3/2/1-A3 issued by the Chief Inspector of Mines. The COP is specifically concerned with geotechnical hazards and associated risks on the mine when developing underground excavations as well as during ore extraction. The COP identifies geotechnical risks for each identified geological domain of the mine and sets out management control plans and strategies for:

- Hydrogeological issues (ground water and service water).
- Ground control districts (rock type, discontinuities, jointing, weathering, strength, bedding and foliation, etc.).
- Seismological issues (natural seismology).
- Mine Rockfill incident analysis.
- Rock related risk management methodology (hazard identification and risk assessment).
- Strategies to reduce rock related hazards in relation to:
  - Inspection frequency (supervisory staff).
  - o Mining method, sequence and overall mine stability (stress redistribution).
  - Protection of mine accesses/exits such as shafts.
  - Stability of tunnels and service excavations (development support standards).
  - Declaration of special areas.
  - Stability of stopes (stope support standards)
  - Rock breaking blast design & practice (standard drilling & blasting practice).
  - Impact of mining on neighboring mines.
  - Monitoring of rock related hazards.
  - Mine process design and planning.
  - Support design methodology.
  - Rock engineering support services (frequency of competent geotechnical oversight).
- Training.
- Implementation plan.

COPs must be reviewed regularly and specifically when unanticipated rock/stress conditions are encountered and after any failure of ground support and/or serious injury involving rock falls.

In general, at Sedibeng and Star:

• A 3m wide sill and crown pillar between stopes is designed for short term stability control, providing overhead support from the level above and preventing waste rock from entering the stope. However, the long-term stability of these pillars is uncertain.

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- At Sedibeng stope face support is provided by means of timber poles, which are installed to support the fractured sidewalls exposed in the stope. Additional medium-term stope support is provided by blasted rock within the shrinkage zone.
- At Star stope support is provided by means of timber poles and solid timber packs installed across the sidewalls of the stope.
- Development support consists of fully grouted 12 mm shepherd crooks (generally 1.5 m lengths) and is sufficient to stabilise ground in the more competent host rocks. For development in very weak shale, an intensive support system is required. The mine has a dedicated secondary support crew, which moves across the mine as the need arises. This crew specialises in the installation of long anchors, mesh and lace and shotcrete, and timber sets where required.
- Regional support is not planned on a systematic basis. However, the ground left in situ because of mining around sub- economic ore or poor ground conditions, is performing the function of regional support.

## 3.1 GEOTECHNICAL RECOMMENDATIONS

Summary conclusions/recommendations for Sedibeng and Star mines:

- Independent external competent geotechnical oversight is frequently undertaken at a rate commensurate with the prevailing geotechnical risks. Inspection and audit observations are recommended and implemented by Sedibeng and Star management. Furthermore, independent inspections and advice are called upon, in the event of unanticipated ground conditions or ground support behaviour, in an ad hoc manner when and where required by mine management.
- Mine standards are in place for stoping and development ground support requirements and specifications and are competently derived.
- Mine standards are in place for drilling and blasting in stoping and development and are empirically derived.
- The use of timber underground at both Sedibeng and Star poses a fire risk and leaves the mine vulnerable to potential sabotage and underground fires. It is highly recommended that once the sets are installed, the timber is treated with a fireproofing agent to reduce this risk.
- Historical reports have noted the acidic nature of the ground water and the deleterious effects on shaft infrastructure and ground support integrity. It is recommended that a formal management plan be affected to monitor this proactively.
- Even though more competent rock types are expected as mining progresses deeper at both Sedibeng and Star, it is recommended that the effects of stress redistribution and potential mining induced seismicity be investigated further by competent service providers to proactively plan future optimised mining layouts and regional support e.g. regional and local pillar dimensions, dynamic ground support, siting of sub-vertical shafts, etc.
- It is recommended that further hydrological studies be initiated to understand future expected ground water inflows, and the presence of deleterious gases, and the influence therein on future pumping and ventilation control requirements, as the mines progress deeper.

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# 4 Ore Reserves

#### 4.1 ORE RESERVE PROCESS

Sedibeng and Star mines are operating underground mines exploiting diamondiferous fissures for which Mineral Resource estimates have been calculated. This section summarises the Ore Reserves calculations for these mines.

A Mineral Resource is any part of a deposit that has a reasonable prospect of economic extraction by mining methods commensurate to the style of mineralisation. The Mineral Resources for both Sedibeng and Star is inclusive of the Ore Reserve with the appropriate conversion and modification factors applied.

The history and existing underground mining operations enables the Competent Person to apply the appropriate and proven modifying factors to the designed areas. All the Mineral Resource areas for both Sedibeng and Star have been considered during a recent Life-of-Mine (LOM) design and production schedule study, yet only the Measured and Indicated Mineral Resources have been considered for conversion to Ore Reserves.

The mine designs were developed to calculate and report the Ore Reserves and to develop the necessary long term strategies for the deeper sections (Inferred Mineral Resource portions). Further design work is currently being commissioned to develop a higher definition LOM plan for Sedibeng and Star.

The estimation and reporting of Mineral Resources and Ore Reserves must be aligned in accordance with the JORC Code and must satisfy the following key requirements i.e. responsible reporting standards:

- Any estimation, calculation and document dealing with a Mineral Resource and/or Ore Reserve must be clear, transparent, and shall in no way cause or attempt to cause the reader to misunderstand the report. A Public Report is to provide sufficient information, the presentation of which is clear and unambiguous, to understand the report and not be misled by the information or by omission of material information that is known to the Competent Person.
- Materiality requires that a Public Report contains all the relevant information that investors and their
  professional advisers would reasonably require, and reasonably expect to find in the report, for making a
  reasoned and balanced judgement regarding the Exploration Results, Mineral Resources, or Ore Reserves
  being reported. Where relevant information is not supplied, an explanation must be provided to justify its
  exclusion.
- Competence requires that the Public Report be based on work that is the responsibility of suitably qualified and experienced persons who are subject to an enforceable professional code of ethics (the Competent Person).

The following Mineral Resource to Ore Reserve conversion process (Figure 10) was followed during the LOM design process and Ore Reserve calculations for Sedibeng and Star mines:

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Figure 10: Mineral Resource to Ore Reserve Planning Process used at Sedibeng and Star mines

The Ore Reserves at Sedibeng and Star utilise realistic and historically proven modifying factors and have been calculated and verified through Life of Mine designs and production schedules developed for each of the mines. The designs, production schedules and cost estimations accounted for the necessary access, infrastructure and ventilation designs that should ensure the save and economical extraction of the fissures modelled. The modifying factors will be updated frequently and Plan VS. Actual assessments will be concluded on an ongoing basis.

## 4.2 MINING METHOD

Due to the complexities of kimberlite dyke systems the ore bodies at Star and Sedibeng do not lend themselves readily to bulk mining methods, and over the years two stoping techniques, open stoping and shrinkage stoping, as illustrated in the figure below, have proven themselves to be most successful for this type of deposit and prevailing host rock conditions.

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Figure 11: Mining Method -explained

These orebodies are generally accessed via vertical shaft systems, while production levels are established by means of an access crosscut developed to the kimberlite fissure. From this access crosscut, drives are established parallel to the orebody in each direction along strike, with access to the orebody for stoping provided by crosscuts spaced at regular intervals along the length of the strike drives. Inter-level distances, crosscut spacing and development drive to orebody distances, are dependent on the stoping/mining method employed and the depth of mining below surface.

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#### 4.2.1 Sedibeng Mine Development



Figure 12: Sedibeng Mine Design

The access method selected for the deeper sections of Sedibeng's future operations is a steep decline system with an electric winder and track bound rock carriages, and a travelling way for workers located within the same decline. Second escape ways are located within 80m to 100m of any stoping area and consist of a small travelling way with a chain ladder installed linking each of the operating levels back to the main entry/exit levels of the mine. These travelling ways will also be used as ventilation raises where required.

Sedibeng management will ensure, always, that they comply with the RSA Mine Health and Safety Act, 1996 (Act No 29 of 1996), and have all the appropriate Codes of Practice in place.

#### 4.2.2 Sedibeng Mining Method

Sedibeng operations currently exploits the narrow Bobbejaan Fissure using the shrinkage stoping method due to the strongly fractured nature of the sidewall rock surrounding the kimberlite fissure (the fracturing was probably generated during the high-pressure emplacement of the fissure). Experience through proven mining techniques identified that limiting the span of the exposed sidewalls improves the stability of the stopes, resulting in a safer working environment and the opportunity to control the dilution.

#### 4.2.3 Sedibeng Fissure and Stoping Width

Statistical analysis of data sourced over seven production levels, a vertical distance of some 300m above the current base of mining (between 14 and 20 levels), and a strike length of 1,400m, demonstrates that there is very little variation in the width of the fissures either along strike or down dip.

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The strike length and the resultant estimated average widths for each level are summarised in Table 4-1 and Graph 1 below. These average widths include the full length of the total fissure, assuming no ground loss or overlap between the three main off-set fissure units.

Level	Total strike length (m)	Average fissure width (cm)
14	1065	58
15	1030	64
16	1462	56
17	1427	52
18	1400	56
19	1360	56
20	503	57
Total	average	57

Table 4-1: Sedibeng (Messina): Recorded Fissure Width Measurements (Reference 1.)



Graph 1: Sedibeng: Fissure and Stope Width Measurements (Reference 1.)

Mine data sourced from the Petra and Sedi Diamonds Pty Ltd era, over a production period of 119 months (Jan 2005 to Aug 2016) depict an average width of 65cm for the Sedibeng fissure, with a corresponding average stoping width of 119cm.

Excessive dilution at Sedibeng is caused by over-mining/stoping and scaling of the host rock. Generally, fissure widths less than 30cm are not mined since the level of dilution makes it sub-economic to extract.

Sedibeng mine is planning on stoping widths of 130cm which is inclusive of 70cm wall rock dilution. The planned kimberlite width of approximately 60cm, together with the planned waste rock dilution of 70cm (54% of ROM is waste) is deemed appropriate, and possibly conservative, particularly in the deeper Sedibeng mine sections where the host rocks are expected to increase in competence.

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The extent to which mining dilution can be minimised will have a significant impact on the economic performance of the operation. Reductions in mining dilution significantly improve the hoisted grade, while reducing the hoisted tonnage and reduce the requirement for hand sorting of waste rock.

From an operational standpoint, the greatest risk to Sedibeng and Star would be failure to achieve the budgeted average stoping width, which would result in excessive dilution and therefore a reduction in recovered diamond grade.

At Sedibeng, a density of 2.65 tonne per cubic metre (t/m<sup>3</sup>) has been applied historically, to both the kimberlite and waste rock. This average bulk density is considered reasonable for estimation of kimberlite and waste tonnages (Le Roux 2017).

A dedicated Specific Gravity (SG) determination campaign is recommended for each of the fissures at Sedibeng and Star. Whilst a change in the SG is anticipated, it is likely not to be significantly different to the SG used in the geological models and as such shouldn't have a material effect in the reported tonnage calculations.

## 4.2.4 Sedibeng Mining Layout

Sedibeng mine is currently operating on levels established at vertical intervals of 40m with access from vertical shafts, and in future, a decline system. Strike haulages are positioned in the footwall approximately 10m from the fissure with cross-cut drives spaced approximately 15m apart along strike. The development drives are all developed at a gradient of 1:100 which assists with natural water drainage toward strategically located underground water sumps.

The waste development drive dimensions are:

•	Footwall or Hangingwall drives	:	2.2m wide by 2.3m high
•	Crosscut drives	:	1.8m wide by 2.2m high
•	Raise development	:	1.2m wide by 1.5m high
•	Shaft	:	4.7m wide by 3.5m high
•	Decline	:	3.8m wide by 2.8m high

Sedibeng Mine is actively developing and stoping in the following areas:

- 18 level (established south side, Dancarl, loading from completed stopes)
- 19 level (recently completed on both north and south sides, Dancarl, loading from completed stopes)
- 20 level (south, Dancarl, loading from completed stope and Messina self-mining areas)
- 21 level (south, Dancarl, loading from completed stope and Messina self-mining areas)
- 22 level (south, Dancarl, loading from completed stope and Messina self-mining areas)
- 23 level (south, Messina, clean and re-equip stope, begin to load self-mining areas)
- 24 level (New decline shaft sinking to commence in late 2017 from Dancarl shaft position)

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The mine's principal water dams and pump stations are situated on 13, 17 and 21 levels at Messina, and 6, 12 and 18 levels at Dancarl. Dewatering of the underground operations (to surface) occurs from these pump stations.

All active mining levels are equipped with appropriate rail and other necessary infrastructure. A battery bay is located near the main shafts on each level, which services all locomotives on that specific level.

Telephone communications to surface are located on each level. Refuge chambers are constructed in proximity to both ends of each working level, as this is where the underground labour force is concentrated. Sumps are situated near all shafts on each level, collecting drain water from all ends (all haulage development is on an upward gradient from the shaft) and pumped to the upper level pump stations.

Underground equipment at Messina includes locomotives, batteries, chargers, 1.5t hoppers, compressed-air loaders, rock drills, jack hammers, stope and development airlegs.

Current management have considerable experience with mining deeper fissure diamond mines. This expertise is, and intends to be, applied at both Sedibeng and Star.

## 4.2.5 Sedibeng Underground Rock Handling Systems

Run-of-mine (ROM) ore from the stope faces is loaded into hoppers by means of a mechanical air-loader. The ore is then transported by locomotive to the shaft and tipped into a rock steel grid (grizzly) for loading into the shaft skips and hoisted to surface.

On surface, ore and waste are tipped into separate rock bins. Waste rock is then hauled by truck to the waste dump, and hoisted ore is hauled to the process plant or stored in the ROM bin at the plant.

Sufficient surge capacity exists in the mine layout (approximately twice the current daily average production), which enables Sedibeng operations to transport and store rock on the individual mining levels thereby allowing rock hoisting to be scheduled outside of production hours, when required.

## 4.2.6 Sedibeng Mining Schedule

Stoping widths are kept as narrow as possible but remain dependent upon ground conditions. Production (and associated development) at Sedibeng is divided into six mining sectors, generally sequenced with two sections on each level mining in advance to the north and the south of the shafts. The establishment of the new production level (24 level) with the commencement of the new decline system designed below Dancarl Shaft will become the main access shaft for both Dancarl and Messina areas.

Sedibeng intend to continue with the proposed decline shaft below 24 level, while 24 level is being established. It is necessary to develop additional mining levels in advance of stoping, as part of the schedule, for the creation of mining flexibility, and to establish more 'mining-ready' stoping areas, considering that Sedibeng is planning to ramp up their monthly fissure production to 13ktpm.

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ABGM has completed a LOM plan (3D Datamine Designs and EPS Schedules) for Sedibeng and Star with a dynamic mine sequence and production schedule simulating the ramp-up and development requirements to achieve the intended production rates. The mine plan further supported the proposal to develop below the 24 level, while the 24 level is being established. The decline will advance to the next mining level to open sufficient future stoping areas, and, as soon as stoping commences on the 24 level, the decline will advance down another production level.

Mine planning at Messina is undertaken at a functional level with an emphasis on short-term planning. Detailed planning meetings are held (monthly) where engineering, plant and mining (development and stope production) issues are discussed. Long-term planning undertaken by the mine has become more formalised than in past years and is exclusively production target based.

Monthly stope and development planning is conducted on photocopies of 1:200 mine plans with monthly production targets agreed up front with each mining team. Production targets are defined by the processing capacity for Sedibeng JV Diamond Mine. Progress is plotted and compared to the original plan, and individual teams rewarded for their production performance at month end.

It is recommended to update the newly developed LOM plan and continue with a fully integrated three dimensional (3D) short, medium and long term mine planning process to actively simulate the impacts of: variable fissure width; geological and mining losses; ground conditions and ground water; and their effects on the economic risks of the operation. Such will also improve capital forecasts and infrastructure scheduling.

The following Graphs depict the simulated production schedules developed for Sedibeng. Sedibeng JV Diamond mine's target production (based on processing capacity and the mine production sinking rates) is approximately 145kt of ore per annum producing an estimated 31k carats of diamonds.

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Although there are production schedule profiles for Ore Reserves only defined, the above profiles include inferred material and there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised per the graph above.





The complete mine design and mining sequence covered all the Mineral Resources at Sedibeng JV Diamond Mine. During the mine planning process, two separate production schedules were simulated, one was for all the resources and the second was only considering Measured and Indicated Mineral Resources which was adequately modified to allow for the reporting and scheduling of Ore Reserves. The scheduled Ore Reserves and the Ore Reserve production profile was ultimately used for the OPEX, CAPEX and estimated NPV calculations.

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## 4.2.7 Sedibeng Mine Access

The Messina mine is currently serviced by two vertical shafts from surface and one underground sub-shaft. These shafts are known as:

- The Haliday Shaft which is a two-compartment men and material shaft with single deck cages, operating from surface to 18 level (550 mbs), and is currently being used solely as an emergency escapeway.
- The Albertse Shaft which is a two-compartment dedicated rock-winding shaft operating from surface to 18 level? There are no plans to deepen this shaft. The Albertse Shaft has a hoist of nearly 600m and is equipped with two 2.2 tonne skips.
- The WSV Shaft which is the main production shaft extending from 17 level to 23 level (550 766 mbs) with the shaft bottom being currently deepened to 24 level? The shaft is divided into four compartments, two for rock hoisting, one for a man cage and one for a ladder way. Material from the WSV Shaft is hoisted to surface via the Albertse Shaft.
- The Muller Shaft which is positioned between Dancarl and the WSV shaft and currently operates between 22 and 23 levels, hoisting material from 23 level.
   In addition:
- A proposed new sub-level decline shaft from 23 level to 24 level, below the WSV Shaft. Development is to commence late 2017. Rock from the 24 level stopes and below, will be hoisted via the decline shaft to 23 level where the rock is then transported to the WSV Shaft loading station, or Muller Shaft.

The Dancarl mine has two surface shafts, and a proposed decline shaft, from which the underground workings are to be accessed. These are:

- The Main Shaft (No. 1Shaft) which is a two-compartment shaft with 2.5 tonne skips operating from surface to the current 19.5 level, (700 mbs), with a hoisting capacity of 13ktpm from this level. The head gear and winder at this shaft has been replaced and upgraded by Petra Diamonds in 2012 and has the capacity to operate up to depths of 900 mbs. This shaft has been deepened on an on-going basis and it is planned to bottom out on 23 level from where it will be fed by the new sub-level decline shaft. Access to the shaft position has been established at 20, 21, 22 and 23 levels and this will allow concurrent sinking of this shaft on all levels. A closure survey, with a probe, through the current raise-bore hole, connecting Dancarl and Messina, has been completed and shaft centre lines are in place at all levels. Sinking has commenced on 20 level.
- A proposed new decline shaft (3.5m x 2.8m at a 35 degree slope) will become the main deep access shaft. The decline will have a single 5t rock bin on rails, hoisting material to 22 level from where rock can be temporarily stored and ultimately loaded into Dancarl's Main Shaft for hoisting to surface.
- The No. 7 Shaft is currently in operation and being used as a second escape shaft for Dancarl. Sedibeng do not intend to consider this shaft for production anytime soon, if ever.

# 4.2.8 Star Mine Development

Figures 13 and 14 depict the Star underground mine layout:

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Figure 13 : Star - Underground Mine Layout



Figure 14: Star - LOM Mine Design

The access method selected for the deeper sections of Star's future operations is also a steep decline system with an electric winder and track bound rock carriages, and a travelling way for workers located within the same decline. Second escape ways are located within 80m to 100m of any stoping area and consist of a small travelling Technical Review – Sedibeng JV & Star Diamond Mines Page **47**
way with a chain ladder installed linking each of the operating levels back to the main entry/exit levels of the mine. These travelling ways will also be used as ventilation raises where needed.

Star management will ensure, always, that they comply with the RSA Mine Health and Safety Act, 1996 (Act No 29 of 1996), and have all the appropriate Codes of Practice in place.

## 4.2.9 Star Mining Method

Star currently employs an underhand open stope mining method to extract the narrow kimberlite fissures. Both shrinkage and open stoping are suitable mining methods, however, open stoping is the preferred method at Star for the following reasons:

- The blasted ore is not locked up for a period, in a shrinkage pile;
- A shrinkage pile will become diluted as ore is drawn and the unsupported stope span increases; and
- A supported stope allows for continued access and ability to clean all fissure material from the stopes.

Competent host rock allows stopes at Star to remain open with a manageable amount of stope support. Even the comparatively weak, horizontally laminated Ecca and Dwyka shales that host the upper 550m of the kimberlite fissure is stable and competent within the near vertical stope voids. Sidewall support is provided by timber packs and poles installed across the stope.

The fissure width can range from narrow stringers, or complete loss of ground (often due to steps or off-sets in the fissure continuity) to as much as 100cm or more, although the 100cm thicknesses are rare. Generally, fissure widths of less than 30cm are not mined to minimise dilution.

As mining at Star progresses to deeper levels, ground conditions may change in the older geological formations hosting the fissures. If intense sidewall fracturing is encountered it may be necessary to implement a shrinkage stoping method like Sedibeng.

### 4.2.10 Star Fissure and Stoping Width

Statistical analysis of data collected along the entire strike length of the Star mine, and individually from the Burns, East Star, and Wynandsfontein fissures demonstrated little variation in the width of the fissures, either along strike or down dip (Table 4-2, Graph 2).

Parameter	All data	Burns	East star	Wynandsfontein
Number of samples	1,403	603	503	693
Minimum	0.31	2.0	2.0	3.0
Maximum	173	173	173	127
Mean	47.59	41.41	41.90	52.27
Variance	450.8	367.8	341.6	457.7
<b>Coefficient of Variation</b>	0.44	0.46	0.43	0.40

Table 4-2: Star - Recorded Fissure Width Measurements (Reference 1.)

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Graph 2: Star - Fissure and Stope Width Measurements (Reference 1.)

Mine data sourced from the Petra and Sedi Diamonds Pty Ltd era, over a production period of 119 months (Jan 2005 to Aug 2016), shows an average width of 58cm for the Star fissure, with a corresponding average stoping width of 100cm, representing an increase in fissure width of 22% (47.5cm to 58.0cm).

For the period January 2012 until August 2016, the average surveyed fissure width is 67cm, which is a 41% increase in fissure width (47.5cm to 67cm), compared to the 2005 estimation average.

Excessive dilution at Star is caused by over-mining/stoping and scaling of the host rock. Generally, fissure widths less than 30cm are not mined since the level of dilution makes it sub-economic to extract.

Star is planning on stoping widths of 110cm which is inclusive of 50cm to 55cm wall rock dilution. The planned kimberlite of approximately 55cm to 60cm together with the planned waste rock dilution of 50cm (46% of ROM is waste) is deemed appropriate for Star particularly with better wall rock conditions.

At Star, a density of 2.75 tonne per cubic metre (t/m<sup>3</sup>) has been applied historically, to both the kimberlite and waste rock. This average bulk density is considered reasonable for estimation of kimberlite and waste tonnages (Le Roux 2017).

## 4.2.11 Star Mining Layout

The primary development levels at Star are 16 and 17 levels. Recent mining operations took place in the following areas:

- Burns:
  - o 15 level (development as top holing for 16 level stopes as well as future stopes).
  - o 16 level (two stopes were developed).
  - 17 level (station just developed from shaft, with two future stopes planned on the north and south of the shaft as soon as development intersects the fissure).

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- Micaceous:
  - o 15 level: (further development to the west).
  - 14 level (development top holing for 15 level future stopes).
- Wynandsfontein:
  - o 16 level (development for bottom holing for 14 and 15 level stopes).
  - o 14 level (scheduling to start re-equipping stope on the east, and one on the west).

Groundwater is currently collected and distributed to surface from beneath the Phoenix open pit, 2 level at Wynandsfontein, 13 and 16 level main pump stations and at the current workings.

The compressor house is situated adjacent to the Main Shaft with distribution via the Main Shaft. All areas underground are equipped with telephone communications, linked to surface and at the main shafts. Four refuge chambers are located on 15 and 16 levels east and west.

Underground equipment at Star comprises battery locomotives, 1.2t hoppers, air-loaders, percussion and pneumatic rock drills, air legs and drilling accessories required for stoping and development.

It is the Competent Person's opinion that the basic layout of the Star mine is sound and appropriate for the current conditions and those that are likely to be encountered as the mine development progresses.

#### 4.2.12 Star Underground Rock Handling Systems

ROM ore from the stope faces is manually cleaned and loaded into hoppers by means of a mechanical air loader. The ROM ore is then transported by locomotive to the Main Shaft and hoisted to surface.

Star does not have a shaft ore pass system or skip loading arrangement. Rock is therefore hoisted out of the mine within the hoppers that were loaded underground. Once the hoppers exit the shaft on surface, they are hand tipped into the rock bins at the Main Shaft entrance. Two rock tips are present at the shaft bank (one for ore and the other for waste) with the rock either hauled to the plant or waste dump.

The future plan for Star (planning in progress) considers the use of water jet cleaning, loading with air loaders into hoppers, and the hoppers transported to a shaft ore pass system from 14 to 17 level. Each level will have an ore and waste rock pass each able to hold 100t of rock. This will allow more effective mining and development with the opportunity to hoist additional rock during weekends. This proposed and planned ore handling system will be operational once the new conveyor belt (with loading flasks at 17.5 level), as well the change from cages to skips, are commissioned (late 2018). With skips installed, the Main Shaft hoisting capacity should exceed 9ktpm.

#### 4.2.13 Star Mining Schedule

Star diamond mine is currently in a production ramp-up phase, opening new production stopes on 14, 15, 16 and 17 levels. The mine has developed 16 level through a major contact zone between the Karoo and Witwatersrand formations accessing the fissure on the western side of this older formation.

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Star also commenced with the re-equipping of the access drives to Wynandsfontein on 14 level with the aim to re-establish stoping operations on both the 14 and 13 levels.

These mining areas are the focus for the new stoping areas which are essential to the successful expansion and replacement of the underground production plan.

Primary development (waste drives and crosscuts) is essential to access and establish new reserves - a key requirement to generate sufficient working areas which then improves flexibility, productivity and higher production rates. Star Diamond mine's target production (based on processing capacity and the mine production sinking rates) is approximately 86kt of ore and producing an estimated 36k carats of diamonds per annum.

Detailed planning meetings are held monthly, where engineering, plant and mining (development and stope production) issues and plans are discussed. Long term planning at Star is not currently a formal planning process. The mine operates on the assumption that the fissure is present, and, if a set number of horizontal development drives are advanced sufficiently, monthly, the required face length will be developed and ready for stoping. Shaft or access planning is carried out in a similar manner. Production targets are defined by the processing plant capacity at Star Diamond Mine.

ABGM has recently developed LOM plans for Sedibeng and Star (using Datamine Studio 5D Planner and EPS mine planning software). These LOM plans were developed to a sufficient level of detail to allow the development of Ore Reserves (JORC requirement is that mine designs are developed for any Mineral Resource or part thereof that is converted and stated as Ore Reserves with the consideration of reasonable modifying factors). It is, however, recommended to update these LOM plans frequently to facilitate the necessary evolution of the designs to accurately reflect depletions, new mining areas, water conditions, rock conditions or changes to support and stability criteria and for any additional geological information that becomes available. ABGM have advised Frontier that a well-structured long-term, medium-term and short-term planning process with a managed database, with all the necessary quality assurances, be developed within industry standard mine planning software systems. The annual reporting requirements for listed companies rely on the improvement and refinements of geological models and mine plans for all their assets and the updating thereof, annually, which will facilitate more accurate planning and improve auditability.

Short term planning (monthly stope and development planning) is conducted on photocopies of the 1:200 mine plans. Weekly and monthly production progress is plotted on these 1:200 copies and compared to the original mine plan. The Competent Person considers that this method is adequate for short term planning purposes, yet recommends that the short-term mine planning be undertaken using industry accepted mine planning software, where the LOM designs and schedules are used as the basis for the short-term plan development. This is not necessary in the short term, yet there is value in converting the paper based short term plans to 3D mine plans to measure and compare planned modifying factors to the assumed actual modifying factors realised in practice.

The following Graphs depicts the LOM schedules concluded for Star Diamond Mine.

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Graph 4: Star – Scheduled Production Profile

Although there are production schedule profiles for Ore Reserves only defined, the above profiles include inferred material and there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised per the graph above.



Graph 5: Production Profile developed for Star Diamond Mine (Ore Reserves Only)

The complete mine design and mining sequence covered all the Mineral Resources at Star Diamond Mine. During the mine planning process, two separate production schedules were simulated, one was for all the resources and the second was only considering Measured and Indicated Mineral Resources which was adequately modified to allow for the reporting and scheduling of Ore Reserves. The scheduled Ore Reserves and the Ore Reserve production profile was ultimately used for the OPEX, CAPEX and estimated NPV calculations.

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#### 4.2.14 Star Mine Access

Star has three operational vertical shafts. These shafts are:

- The Main Shaft (No. 4 shaft) is a rectangular, two-compartment, vertical shaft from surface down to below 17.5 level (674 mbs), situated in the central portion of the property. In addition to hoisting ore and waste rock, the Main Shaft is used to hoist personnel, material and supplies to and from all levels.
- The No. 7 Shaft is a rectangular, two-compartment, up-cast vertical shaft with a ladder way from surface to 2 level and serves as the second outlet from the mine. It is used for the raising and lowering of material.
- The Phoenix Shaft is an incline shaft from surface to 2 level which is used to pump water to surface during the rainy season.

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#### 4.3 ORE RESERVE ESTIMATES – SEDIBENG & STAR

#### 4.3.1 Economic Cut-Off Calculation

The Mineral Resources and Ore Reserve economic cut-off definition for Sedibeng and Star has been estimated to be a minimum fissure width of 30cm.**Table 4-3** and **Table 4-4** depict the calculation which arrives at the 30cm fissure width economic cut-off, using the average fissure grades stated for Sedibeng and Star, respectively.

Economic Cut-off calculations - Sedibeng Mine				
Break-Even Cut-off				
Stoping & Development Mining cost	ZAR 739.61	Simulated Mining Unit Cost		
Capital Cost - sustaining	ZAR 36.40	Simulated - for Sedibeng		
Other Fixed Costs	n/a			
Processing Cost	ZAR 55.24	Estimate for Sedibeng		
Average fissure Diamond Price USD/ct	USD 385	Average Diamond Price for Sedibeng		
Exchange Rate ZAR:USD	ZAR 14.50	Long term - Frontier		
Process Recovery	95%	Assumption		
Break-even Mining Grade (cpht)	16	Break-even cpht (diluted and recovered)		
Stope width - average cm	100	If still allowing a 70cm overbreak and minimum 1m stope width		
Ave Resource Grade cpht	47.7	Ave Resource Grade for Sedibeng		
Fissure width - (achieving Ave 18cpht mine grade) cm	33	Break-even thickness for Sedibeng		

Table 4-3: Sedibeng - Fissure Width: Economic Cut-Off Calculation

Economic Cut-off calculations - Star Diamond Mine				
Break-Even Cut-off				
Stoping & Development Mining cost	ZAR 1,050.90	Simulated Mining Unit Cost		
Capital Cost - sustaining	ZAR 10.46	Simulated - for Star		
Other Fixed Costs	n/a			
Processing Cost	ZAR 12.00	Estimate for Star		
Average fissure Diamond Price USD/ct	USD 295	Average Diamond Price for Star		
Exchange Rate ZAR:USD	ZAR 14.50	Long term - Frontier		
Process Recovery	95%	Assumption		
Break-even Mining Grade (cpht)	26.3	Break-even cpht (diluted and recovered)		
Stope width - average cm	100	If still allowing a 70cm overbreak and minimum 1m stope width		
Ave Resource Grade cpht	79.7	Ave Resource Grade for Star		
Fissure width - (achieving Ave 26.8 cpht mine grade) cm	32	Break-even thickness for Star		

Table 4-4: Star - Fissure Width: Economic Cut-Off Calculation

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The assumption of a minimum fissure width of approximately 30cm for Mineral Resource definition is proven to be reasonable based on the 2017 diamond price and exchange rate forecasts in conjunction with the anticipated and actual sustaining capital and operating expenditures for both Sedibeng and Star.

## 4.3.2 Ore Reserve Statement

The Ore Reserves for Sedibeng and Star were independently reviewed and verified in February 2017 (Le Roux) and are based on Sedi Diamonds Pty Ltd Resource revision for Sedibeng and Star as at 28 February 2017. It comprises Proved and Probable ore categories based on mining the Measured and Indicated Resources respectively, with appropriate allowances made for mining dilution and recovery, based on current and expected mining practices. Resources are reported inclusive of Reserves.

The Ore Reserves at Sedibeng and Star are based on LoM mine designs and schedules completed using Datamine's Studio 5D Planner and EPS software and include a range of significant infrastructural enhancements that is either being implemented or implementation plans are currently being developed. The LoM mine plans for Sedibeng JV-and Star Diamond Mine adequately accounts for the design and schedule of all necessary underground infrastructure and access requirements whilst the calculated costs thereof have been included in the economic assessments.

Since the kimberlite fissures at Sedibeng and Star are expected to average 58cm and 60cm (true widths), respectively, and it is not possible to practice any meaningful grade control, it is the mining operation's intention to extract 100% of the fissure material, provided it exceeds an economic minimum true width cut-off (currently calculated to be 30cm) and safety is not compromised.

It should be noted that allowances of 15% and 20% geological losses respectively, are accounted for in the Mineral Resource inventory of Sedibeng and Star due to narrowing of fissure to widths that are uneconomic to mine, loss of ground through off-sets in the fissures, unmined ground left due to poor ground conditions and sill pillars left between levels to avoid holing into unstable ground in open stopes above.

Additional allowances made for dilution at Sedibeng and Star includes:

- Appropriate allowance for wall rock dilution during mining underground.
- An adjustment for any loss of kimberlite fissure material during the mining, tramming and hoisting process (i.e. mining recovery).
- An adjustment for kimberlite fissure that must be left behind in the form of sill pillars, required for stability control (historically this has amounted to 8% of fissure volume).
- An appropriate allowance for kimberlite fissures that are too narrow to meet the mine's economic mining width and hence will be left unmined.

The Diamond Ore Reserves were independently reviewed and verified by Mr Stephen le Roux, a Competent Person with 20 years' relevant experience in the diamond mining industry and a registered Professional Geological Scientist (Reg. No. 400206/15) with the South African Council for Natural Scientific Professions (SACNASP) subject to a Code of Conduct administered by SACNASP to ensure professional conduct.

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The Competent Person considers that the history of production tonnages, production grades and fissure width characteristics, demonstrates sufficient confidence in the fissure continuity to define Measured, Indicated and Inferred Resource categories.

### 4.3.3 Modifying Factors

The mining related modifying factors that were applied by Sedi Diamonds Pty Ltd to the Sedibeng and Star Ore Reserves are as follows:

- The Ore Reserves exclude any Inferred Resources.
- Mining recovery of the fissure tonnes for the Star deposit is assumed to be 100% for the Ore Reserve calculations (0% stope losses applied during the planning stage). This assumption is justified through the facts that an already high geological loss is applied in combination with relatively high dilution estimates for an underground operation that has reasonably good ground conditions. The historic excavations and production results furthermore confirm that 100% of the diamondiferous fissure at Star is extracted from within developed stopes.
- A mining recovery factor of 90% was applied for the recovery of the kimberlite fissure at Sedibeng (i.e. 10% will remain principally as sill pillars for stability and stope losses). The naturally occurring thinner fissure zones will be left in-situ due to economic reasons already stated and these unmined areas will generally be considered as stability pillar zones. It is therefore believed unnecessary to modify ore tonnes and revenue for both geological losses and pillar losses as the geological loss areas will also be the mining loss areas. As most of the sill pillars eventually fall into the drawn void, most of the sill pillars could be recovered barring dilution remains within the economic and design limits.
- The average bulk densities attributed to the kimberlite fissure and waste at Sedibeng and Star are 2.65 t/m<sup>3</sup> and 2.75t/m<sup>3</sup> respectively.
- An allowance of 15% and 20% geological losses is accounted for in the Mineral Resource inventory at Sedibeng and Star attributed to narrow sections of the fissures to widths that are uneconomic to mine.
- At Sedibeng and Star, mining dilution is accounted for by allowing for additional unplanned dilution that would yield average stoping widths of 130cm and 110cm respectively.
- Based on historic mining data, it is realistic to expect to mine an average fissure width of 60cm (conservative estimate) at Sedibeng with a corresponding average stoping width of 130cm, (the historic and recent ore extraction records, within operating stopes, indicated that the mining method and prevailing rock conditions allows for stope widths to be managed within a range of 120cm and 140cm with a reasonable and practical average of 130cm). The planning process therefore considers kimberlite in the run-of-mine (ROM) ore to be fully extracted whilst an additional (planned & unplanned) dilution allowance of 70cm of waste rock is allowed (i.e. 54% of ROM ore is waste).
- Based on historic mining data, it is realistic to expect to mine an average fissure width of 58cm (conservative estimate) at Star with a corresponding average stoping width of 110cm, (the historic and recent ore extraction records, within operating stopes, indicated that the mining method and prevailing rock conditions allows for stope widths to be managed within a range of 105cm and 115cm with a reasonable and practical

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average of 110cm at Star). The planning process therefore considers kimberlite in the ROM ore to be fully extracted whilst an additional (planned & unplanned) dilution allowance of 50cm to 55cm of waste rock is allowed (i.e. 47% of ROM ore is waste).

- At Sedibeng, the average reserve grade of 21.6 cpht is based on an in-situ grade of 47.7 cpht which includes 54% dilution (130cm actual stoping width, 60cm fissure width). The resource grade is based on a back calculation from actual diamond production at Sedibeng.
- At Star, the average reserve grade of 42.6 cpht is based on an in-situ grade of 79.7 cpht which includes 47% dilution (110cm actual stoping width, 58cm fissure width). The resource grade is based on a back calculation from actual diamond production at Star.
- No quantitative assessment has been made of the plant's recovery efficiency at Sedibeng and Star. A plant
  recovery factor of 95% was applied to both Reserves as the typical overall diamond recovery ranges between
  90% and 97% dependent on the recovery strategies and sorting technology used (Sedibeng and Star should
  be able to ensure higher diamond recoveries during the ore processing and sorting stages).
- Mineral Resource cut-offs were applied as per the Mineral Resource Statement for both mines.
- The diamond (stone) minimum size is 1.00mm.

The modifying factors used are considered appropriate and reasonable, resulting in the Sedibeng and Star Mines Ore Reserves as tabulated (Tables 4-5 and 4-6) below. The declared Diamond Ore Reserve grades for Sedibeng and Star are fully diluted and reported as head feed grades.

	Sedibeng JV Diamond Mine				
Source	Reserve Class	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Messina	Broven	0.162	21.6	0.035	385
Dancarl	Proven	0.195	21.6	0.042	385
	Sedibeng JV Proven Reserve	0.357	21.6	0.077	385
Messina	Droboble	0.285	21.6	0.062	385
Dancarl	Probable	0.069	21.6	0.015	385
	Sedibeng JV Probable Reserve	0.354	21.6	0.076	385
	Sedibeng JV Ore Reserve	0.711	21.6	0.154	385

Table 4-5: Sedibeng Ore Reserves (2017) - (Reference 1.)

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Star Diamond Mine					
Source	Resource Classification	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Value (USD/ct)
Micaceous		0.109	42.6	0.046	295
Burns	Drovon	0.124	42.6	0.053	295
East Star	Proven				
Wynandsfontein		0.084	42.6	0.036	295
	Star Measured Resource	0.316	42.6	0.135	295
Micaceous		0.218	42.6	0.093	295
Burns	Droboblo	0.215	42.6	0.092	295
East Star	Probable				
Wynandsfontein		0.168	42.6	0.071	295
	Star Indicated Resource	0.601	42.6	0.256	295
	Star Ore Reserve	0.917	42.6	0.390	295

Table 4-6: Star Ore Reserves (2017) - (Reference 1.)

General notes on reporting criteria:

- Resource and Reserve bottom cut-off is at 1.00mm.
- Measured resources are classified as one level (40m vertical) below the base of the current working levels, Indicated Resource two levels (80m vertical) below the base of the Measured Resource, and, Inferred Resource three levels (120m vertical) below the base of the Indicated Resource.
- Resources are reported inclusive of Reserves.
- Tonnes are reported as millions; contained diamonds are reported as per million carats.
- Tonnes are metric tonnes and are rounded to the nearest 100,000 tonnes; carats are rounded to the nearest 10,000 carats, (rounded numbers may result in minor computational discrepancies).
- Reserve tonnages and grades are reported inclusive of external waste, mining and geological losses and plant modifying factors.
- All Reserves have been independently reviewed and verified by Stephen H le Roux, Pr. Sci. Nat. (reg. No. 400206/15) during February 2017.

# 5 CAPEX & OPEX

### 5.1 GENERAL

Sedibeng JV Diamond Mine and Star Diamond Mine are operating underground fissure mines. Extensive production and operating cost records exist.

Detailed discounted cash flow (DCF) models were developed for both Sedibeng and Star.

The following key aspects were addressed, which are necessary requirements for the calculation of an Ore Reserve:

- The Mineral Resources were calculated and classified by a Competent Person,
- A Mine plan and production schedule (schedule of the mine depletion) has been prepared, to a sufficient level of detail, which allows the application of suitable and reasonable modifying factors,
- The Measured and Indicated Classified Mineral Resources were considered (Inferred resources excluded) from the Ore Reserves calculated,
- The Ore Reserves (which exclude Inferred resources) were used to develop a cost, income and discounted cash flow model for the purposes of carrying out the necessary Valuation,
- The Valuation method used for Sedibeng and Star is an Income-based Valuation, which is based on the notion of cashflow generation. In this Valuation Approach the anticipated benefits of the potential income or cash flow of a Mineral Asset was analysed.
- The potential Asset economic performances were tested through a range of income and cost sensitivity calculations. The ranges of the economic sensitivity analyses were deemed appropriate to adequately outline the potential Value at Risk (VaR) range.

## 5.2 DCF VALUATION METHODOLOGY

The net free operating cash flows, calculated on a project basis from the Sedibeng and Star LOM cashflow models generated by ABGM, assume 100% equity financing, and calculate available project free cash flow as:

- Revenue
- Mining & Production Costs
- Capital Costs, and
- Tax

Using the Discounted Cash Flow method (DCF), a net present value (NPV) of the pre-finance, after-tax, free operating cash flow, in constant money terms, were calculated using varying discount rates for each of the Sedibeng JV- and Star diamond mines.

The project values for each mine has been considered for the stated Ore Reserves.

The Ore Reserve calculated project values and the future potential (indicative) values are clearly separated in this report and the report tables and should not be confused.

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A Project or Asset value can only be determined from sources that is clearly defined and modified as Ore Reserves (and this generally include material from Measured and Indicated ore sources only, as classified by a Competent Person).

The table below summarises the techno-economic assumptions that were used in the financial model, including the production assumptions, diamond pricing, operating costs, inflationary adjustments and capital expenditure considered for both mines.

Class	Deveneters	Linite	Sedibeng	Star Diamond
Class	Parameters	Units	Diamond Mine	Mine
Economic Input	USD Exchange Rate	ZAR	14.50	14.50
Parameters	Corporate Tax Rate	%	28%	28%
	Min Royalty Rate	%	0.5%	0.5%
	Max Royalty Rate	%	4.9%	6.6%
	US Inflation Rate	%	4%	4%
	RSA Inflation Rate	%	5.5%	5.5%
	Real Discount Rate	%	10%	10%
Commodity Price &	Diamond Price – Primary Run-of-	USD/ct	\$ 385	\$ 295
Production Inputs	Mine (ROM)			
	Diamond Price – Tailings Reclamation	USD/ct	\$ 120	-
	Price inflation	YoY Real %	2.5 %	2.5%
	Mine Reserve	Million Carats	0.154	0.390
	Resource (Inferred excluded)	Million Carats	0.174	0.385
	Resource Grade (cpht)	ct/100t or cpht	47.7	79.7
	Reserve Grade (cpht)	ct/100t or cpht	21.6	42.6
	Recovered Grade (cpht)	ct/100t or cpht	21.6	42.6
Operating Costs	Fixed mining & production costs	ZAR pa	R 72.213 million	R 43.377 million
	Variable mining & production costs	ZAR/ton	R 313 / ton	R 507 / ton
	over the life-of-mine (LOM)			
	General & administration costs	ZAR pa	R 4.945 million	R 2.810 million
	Safety, health & environmental (SHE) costs	ZAR pa	R 3.006 million	R 2.023 million
	Sales & marketing fees	% of sales	3.5%	3.5%
Capital Costs	Infrastructure expansion	ZAR	R 18.333 million	R 24.094 million
	Sustainability costs (SIB)	Av. ZAR pa	R 3.450 million	R 2.070 million

#### 5.3 MODEL ASSUMPTIONS

Table 5-1: Techno-economic financial model Parameters

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## 5.4 OPERATING CASH FLOW

## 5.4.1 Sedibeng Diamond Mine Projected Cash Flow Generated Over the Ore Reserve

		Total -LOM	al -LOM Projected Cash Flow for the First 5 Years				
Activity Summary		YEAR	2018	2019	2020	2021	2022
Units	Units	Life-of-Mine (LOM) – 6 Years	1	2	3	4	5
Diamond price (Real)	USD/ct.	410	385	395	404	415	425
Diamond price - Primary ore	ZAR/ct	6 162	5 583	5 805	6 036	6 276	6 525
R/\$ exchange rate	ZAR /USD	15,03	14,50	14,71	14,92	15,14	15,35
ZAR Inflation Rate	%	5,50%	5,50%	5,50%	5,50%	5,50%	5,50%
US Inflation Rate	%	4,00%	4,00%	4,00%	4,00%	4,00%	4,00%
Ore Tonnes	Tonnes	708 331	103 350	143 500	145 992	145 992	131 393
Tailings Tonnes	Tonnes						
Total Tonnes	Tonnes	708 331	103 350	143 500	145 992	145 992	131 393
Grade Mined – Primary Ore	ct/t	0,477	0,477	0,477	0,477	0,477	0,477
Tonnes delivered to plant	tpa	708 331	103 350	143 500	145 992	145 992	131 393
Recovered Grade – Primary Ore	ct/t	0,22	0,22	0,22	0,22	0,22	0,22
<b>Financial Results</b>		1					
Diamond (Real) – Primary Ore	carats	152,999	22,324	30,996	31,534	31,534	28,381
Revenue	ZAR	933,800,340	124,621,497	179,919,141	190,325,734	197,897,587	185,193,608
Mining & production Cost	ZAR	(562,057,550)	(98,165,109)	(109,204,618)	(110,847,362)	(111,874,321)	(102,080,360)
Other Costs	ZAR	(50,722,612)	(7,368,352)	(9,303,770)	(9,668,001)	(9,933,016)	(9,488,376)
Royalties	ZAR	(29,139,525)	(623,107)	(1,745,615)	(7,850,961)	(8,583,731)	(8,273,486)
Total Production Cost	ZAR	(641,919,687)	(106,156,568)	(120,254,003)	(128,366,323)	(130,391,068)	(119,842,222)
Total Capex	ZAR	(31,637,628)	(15,287,461)	(8,230,115)	(2,771,184)	(2,796,858)	(2,552,009)
Тах	ZAR	(39,557,247)	0	0	(2,707,369)	(16,734,049)	(16,199,170)
Annual Cash Flow	ZAR	191,014,579	(1,767,732)	46,489,823	51,535,658	43,030,412	41,655,007
Cumulative Cash Flow	ZAR	191,014,579	(1,767,731)	44,722,091	96,257,749	139,288,161	180,943,168

Table 5-2: Sedibeng JV Diamond Mine - Projected Cash Flow (Ore Reserves)

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		Total over LOM	Projected Cash Flow for the First 5 Years				
		YFAR	2018	2019	2020	2021	2022
Activity Summary	Units	Life-of-Mine (LOM) 12 Years	1	2	3	4	5
Diamond price (Real)	USD/ct.	339	295	302	310	318	326
Diamond price – Primary Ore	ZAR/ct	5 327	4 278	4 448	4 625	4 809	5 000
R/\$ exchange rate	ZAR /USD	15,71	14,50	14,71	14,92	15,14	15,35
ZAR Inflation Rate	%	5,50%	5,50%	5,50%	5,50%	5,50%	5,50%
US Inflation Rate - Mid	%	4,00%	4,00%	4,00%	4,00%	4,00%	4,00%
Ore Tonnes	Tonnes	917 840	28 652	72 000	86 400	86 400	86 400
Total Tonnes	Tonnes	917 840	28 652	72 000	86 400	86 400	86 400
Grade Mined – Primary Ore	ct/t	0,426	0,797	0,797	0,797	0,797	0,797
Tonnes delivered to mill	tpa	917 840	28 652	72 000	86 400	86 400	86 400
Recovered Grade – Primary Ore	ct/t	0,426	0,426	0,426	0,426	0,426	0,426
Financial Result							
Diamond (Real) – Primary Ore	carats	391 000	12 206	30 672	36 806	36 806	36 806
Revenue	ZAR	2,099,190,125	52 210 104	136 419 075	170 215 589	176 987 387	184 028 592
Mining Cost	ZAR	(974,866,067)	(56 528 752)	(76 502 124)	(83 746 217)	(84 375 129)	(85 013 840)
Plant Costs	ZAR	(18 938 330)	(1 004 178)	(1 524 354)	(1 697 154)	(1 697 154)	(1 697 154)
Other Costs	ZAR	(105,070,755)	(4 066 554)	(7 443 750)	(8 626 628)	(8 863 640)	(9 110 083)
Royalties	ZAR	(105,036,259)	(261 051)	(682 095)	(2 280 689)	(9 450 410)	(10 167 847)
Fully Allocated Cost	ZAR	(1,286,575,403)	(84,203,341)	(96,913,384)	(101,297,171)	(109,348,541)	(110,967,099)
Total Capex	ZAR	(48,939,193)	(19 532 407)	(7 950 662)	(2 136 084)	(2 151 807)	(2 167 775)
Тах	ZAR	(177,299,320)	0	0	0	0	(10 563 937)
Annual Cash Flow	ZAR	635,315,401	(31,993,237)	39,505,690	68,918,417	67,638,846	62,497,556
Cumulative Cash Flow	ZAR	636 358 345	(31,993,236)	7,512,454	76,430,872	144,069,718	206,567,274

#### 5.4.2 Star Diamond Mine Projected Cash Flow Generated Over the Mineable Reserve

Table 5-3: Star Diamond Mine - Projected Cash Flow (Ore Reserves)

### 5.5 FINANCIAL MODEL RESULTS

#### 5.5.1 Sedibeng JV Diamond Mine

The free cash generated from operations at Sedibeng Diamond Mine supports a post-tax Net Present Value (NPV) of R 150 million (@ 10% discount rate) limited to the Ore Reserves of 153,000 carats (Measured + Indicated Mineral Resources modified to Proven and Probable Category Ore Reserves).

The reader is therefore cautioned that the values calculated for Sedibeng Diamond Mine should only be based on Ore Reserves (to comply with JORC).

Parameters	Unit	Ore Reserve Estimate
Carats – Fissure Mine	ct	153 000
Carats – Tailings	ct	0
Life of mine	years	6
Post-Tax	Unit	
NPV @ 0%	ZAR million	191
NPV @ 5%	ZAR million	165
NPV @ 10%	ZAR million	150
NPV @ 15%	ZAR million	126
NPV @ 20%	ZAR million	111
IRR	%	N/A
All-in Cost Margin	%	25%
Peak Funding Requirement	ZAR million	-
Incentive Diamond Price to break even	USD/ct.	306
Pre-Tax	Unit	
EBITDA	ZAR million	230

Table 5-4: Summary of Valuation results

Notes about the tables:
Tabled values were rounded
Ore Reserves are not inclusive of any inferred material (per JORC definitions)
Although tailings ore are being treated at present, they were not considered for inclusion in the financial models as they are
still of Inferred Mineral Resource category.
The tailings material classification can be upgraded through more detailed surveys; bulk sample analyses, density analyses and
recovery analyses representative of the entire tailings dump footprints.

The project valuation results considered in terms of different discount rates are presented in the table below:

Real Discount Rate	Unit	DCF NPV Post-Tax Valuation
NPV @ 0%	ZARm	191
NPV @ 5%	ZARm	165
NPV @ 10%	ZARm	150
NPV @ 15%	ZARm	126
NPV @ 20%	ZARm	111

Table 5-5: NPV Results for various discount factors (based on Ore Reserves)

#### 5.5.2 Star Diamond Mine

The free cash generated from operations at Star Diamond Mine supports a Net Present Value (NPV) of R 343 million (@ 10% discount rate) limited over the Ore Reserve of 391,000 carats (JORC Guidelines followed for Ore Reserves).

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Parameters	Unit	Reserve Estimate
Carats	ct	391 000
Life-of-Mine (LOM)	years	12
Post-Tax	Unit	
NPV @ 0%	ZAR million	635
NPV @ 5%	ZAR million	460
NPV @ 10%	ZAR million	343
NPV @ 15%	ZAR million	263
NPV @ 20%	ZAR million	206
IRR	%	157,4%
All-in Cost Margin	%	39%
Peak Funding Requirement	ZAR million	-32
Incentive Diamond Price to break even	USD/ct.	209
Pre-Tax	Unit	
NPV @ 10%	ZAR million	447
IRR (Pre-tax)	%	159,9%

Table 5-6: Summary of Valuation results

Tabled values were rounded

Ore Reserves are not inclusive of any inferred material (per JORC definitions)

Although tailings ore are available for processing, they were not considered for inclusion in the financial models as the tailings material is still of Inferred Mineral Resource category.

The tailings material classification can be upgraded through more detailed surveys; bulk sample analyses, density analyses and recovery analyses representative of the entire tailings dump footprints.

The project valuation results considered in terms of varying discount rates are presented in the table below:

Real Discount Rate	Unit	DCF NPV Post-Tax Valuation
NPV @ 0%	ZARm	635
NPV @ 5%	ZARm	460
NPV @ 10%	ZARm	343
NPV @ 15%	ZARm	263
NPV @ 20%	ZARm	206

Table 5-7: NPV Results for various discount factors

### 5.6 SENSITIVITIES

### 5.6.1 Sedibeng JV Diamond Mine

Sedibeng is more sensitive to changes in revenue (grade or US\$/ct values), foreign exchange and throughput, and less sensitive to changes in mining, development capital and operating costs.

The highest project sensitivity recorded is based on the available resource that limits the life of project to 6 years over an estimated 153,000 carats Ore Reserve. Notwithstanding the limitations imposed by the JORC Code on the model, it is our opinion that the Inferred Resource can be brought into account in the LOM production plan and cash flow analysis for the project, since we believe it reasonable to expect that the Inferred Resource will eventually convert to an Ore Reserve, based on the mining and resources and reserves history at Sedibeng JV Diamond Mine.

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Nevertheless, it should be noted that both the model and the sensitivities have been limited to the Ore Reserves as a geological limit. There is a high likelihood that the kimberlite fissure at Sedibeng will persist beyond the lowest indicated level.



The following table depicts the Sedibeng economic sensitivities:

Graph 6: Financial Sensitivity Analysis - Sedibeng JV Diamond Mine

### 5.6.2 Star Diamond Mine

Star Diamond Mine is more sensitive to changes in revenue (grade or US\$/ct values), foreign exchange and throughput, and less sensitive to changes in mining, development capital and operating costs.

The highest project sensitivity recorded is in terms of the available resource mined that influences the life of the project.

Economic modelling and the sensitivity analyses were limited to the Ore Reserves (defined as a geological limit). There is a high likelihood that the kimberlite fissure at Star will persist for hundreds of metres down dip beyond the lowest indicated level.

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Graph 7: Financial Sensitivity Analysis - Sedibeng JV Diamond Mine

# 6 Infrastructure

### 6.1 SURFACE INFRASTRUCTURE

### 6.1.1 Sedibeng Mine Surface Infrastructure

Sedibeng is located approximately 40 km north of the town Delportshoop and 80 km west of the town of Warrenton in the Northern Cape Province of South Africa. Driving to the mine is via tar and gravel roads, which are suitable for two-wheel drive vehicles. The property comprises two mining licences (ML 12/94 and ML 1/1995) that is 89.62 hectares in extent, held by Dancarl Diamonds (Pty) Ltd & Messina Diamonds (Pty) Ltd (Sedibeng Diamond Mine JV) respectively (Figure 1B).

There are no schools, hospitals or sports and recreation facilities close to Sedibeng. The mine employs a registered Medical Practitioner in terms of the Mine Health and Safety Act (1996) with fully equipped consultation facilities in Warrenton. A provincial hospital is in Barkley-West. A contractual relationship exists with ER24 for any emergency service support should it be required.

The Sedibeng Mine has been in operation for more than 60 years and all necessary mine infrastructure already exists.

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The mine is serviced largely by un-tarred roads from the R370 Jan Kempdorp to Delportshoop and the R371 from Windsorton.

The main Cape Town–Kimberley–Johannesburg railway line passes through Warrenton, and the line to Mafikeng and Botswana branches off at Fourteen Streams, on the north bank of the Vaal opposite Warrenton. A borehole situated on the adjacent farm supplies drinking water to the mine and underground water from the mine is used for processing purposes and has a consumptive potential as well.

There is no airstrip on the mine property but a private airstrip exists on the adjacent farm (Farm 84). Access to the mine and the physiography are not considered risk factors in mining the underground kimberlite fissures. The climate is average to hot and permits exploration and mining operations to continue all year around.

The local area has a medium to low population density and labour is sourced from the surrounding towns of Delportshoop, Windsorton, Jan Kempdorp and Warrenton.

Fuel and basic provisions are available at any of the surrounding towns and the property has land and mobile telephone connectivity. Both potable and process water can be obtained in sufficient quantities from underground sources to adequately supply the Sedibeng operations.

Sedibeng has a dedicated ESKOM substation (with an 11kV supply line) on the mine property, with the mine being the sole client fed from this station. Figure 15 depicts the power distribution at Sedibeng mine.

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Figure 15: Sedibeng - Power Distribution

### 6.1.2 Star Mine Surface Infrastructure

Star has been in operation for more than 60 years and all necessary mine infrastructure already exists. The mine is serviced largely by un-tarred roads from the R30 Welkom to Theunissen, with the R30 being the major provincial route servicing the mine. The closest railway station to the mine is situated at Theunissen, some 12 km Southeast of Star Diamonds. In addition, a managed substation is situated on the mining property. Ground water from the mine is used for processing purposes and has a consumptive potential as well. A private (grass) airstrip exists on mine property.

Access to the mine and the physiography are not considered risk factors in mining the underground kimberlite fissures. The climate is average and permits exploration and mining operations to continue all year around. The local area has a medium to high population density and labour is sourced from the surrounding towns of Theunissen, Winburg and Virginia. Fuel and basic supplies can be obtained at Theunissen and the property has land and mobile telephone connectivity. Both potable and process water can be obtained in sufficient quantities from underground sources to adequately supply the operation.

Sedibeng and Star both operate a Dense Media Separation (DMS) and Final Recovery Plant capable of treating the Ore Reserve at a head feed rate of 30tph and 50tph, or at an average annualised rate of 180,000tph and 110,000tpa, respectively. The process uses well proven diamond recovery technology for kimberlite ore.

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At both mines, ore is fed to the treatment plants through a load and haul system which operates from the main production shafts. Coarse waste rock is separated from diamond bearing ore by hand picking and is then stepwise crushed through a three-crusher system. Material from the DMS cyclone overflow, of which the size is between +6mm and -30mm, remains in closed circuit through the washing, screening, and DMS sections until it is reduced to -6mm and discarded as tailings. The bottom cut-off sieve sizes at Sedibeng and Star is fixed at 1.00mm.

Diamond bearing concentrate is separated from non-diamond bearing material through the DMS plant and then super concentrated through X-ray sorting machines, followed by grease recovery, and then by hand sorting of the product for safekeeping.

No metallurgical test work has been undertaken by Sedi Diamonds Pty Ltd for the purposes of generating the Ore Reserve at Sedibeng and Star. Modifications and adjustments to the plant were made by experienced operators who have treated ore at production levels over many decades.

Both mines have dedicated ESKOM substations on the mine property, with the mines being the sole client fed from these stations. The following bullets summarise the main power supply to the mines:

- Sedibeng: A single 11Kv Eskom power line services the mine.
- Star: 88 KV Eskom power line services the mine.

Figure 16 depicts the typical power distribution at Star.

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## 7 Processing

Limited metallurgical test work has underpinned the Sedibeng and Star plant designs in the past and no quantitative assessment has been made of the plant's recovery efficiency lately. Modifications and adjustments to both plants were made by experienced operators who have treated ore at production levels over many decades, however, it is recommended that metallurgical test work be undertaken at both DMS plants to verify and refine plant efficiencies and recovery factors.

### 7.1 SEDIBENG ORE PROCESSING

This section contains a description of the process equipment and configuration as well as an indication of the process capabilities of the treatment plant at Sedibeng.

## 7.1.1 Sedibeng Crushing Circuit

There is ample crushing ability in the plant resulting in good liberation of diamonds. The fact that the daily throughput target is achieved indicates that the reduction effectiveness of the crushers is sufficient.

The crushing system consists of:

- Primary Jaw Crusher crushing the primary trommel screen oversize material.
- Secondary Cone Crusher crushing the DMS preparation screen oversize material in a closed-circuit configuration. The closed side gap was measured at 20mm. This is within the limits for secondary crushing.
- Secondary Jaw Crusher receives overflow material from the secondary cone crusher.
- Two Tertiary Horizontal Impact Crushers (HIC) The float material from the cyclone is sized into three fractions. The HICs crush the middle fraction of the float material. The product is recycled to the primary preparation screen.
- Tertiary Barmag Vertical Impact Crusher (VIC) The VIC crushes the coarse fraction of the float material in a closed-circuit configuration.

## 7.1.2 Sedibeng Re-Crush Size (Mid-Cut)

The bottom cut of the process is 0.8mm. Per best practice guidelines a 0.8mm diamond will be locked-up in a 6.4mm particle. To screen out a 6.4mm particle an 8mm screen panel (square high-flow) is required.

Currently there is a mixture of 8mm and 6mm panels. A 6mm panel will result in a particle smaller than 8mm that will contain a diamond smaller than 0.8mm which will be screened out by the 0.8mm bottom cut screen panels. The 6mm panels create unnecessary (zero value) load on the recycle circuit.

The Barmag product screen has two 16mm panels at the back of the screen. The purpose of these two panels is to prevent any large diamond from being liberated in the Barmag unit preventing a diamond from remaining in circulation and eventually getting crushed. A 16mm panel will cut at a size of 12.8mm. From the DMS top size (24mm from the 30mm panels) a diamond as large as 12mm can float if not liberated from a 24mm particle. The 16mm panels are hence the correct size.

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#### 7.1.3 Sedibeng Slimes Circuit

- Slimes are screened out on the primary preparation screens after the primary trommel. These screens are fitted with 1mm slotted panels screening at 1mm.
- The -1mm material is pumped to the Barmag product screen top deck where it is used as wash water.
- The Barmag product screen has 0.8mm slotted panels on the bottom deck, screening at 0.8mm. The -0.8mm material is pumped to the de-grit cyclones (slimes).
- The +0.8mm material on the bottom deck is recirculated to the primary preparation screens. The +0.8mm -1mm material stays in circulation and does not exit the system anywhere. A build-up of the material occurs in the system.
- It is recommended to change/ensure that all the bottom panels cut to 0.8mm, viz:
  - Primary preparation screen panels.
  - Float screen bottom deck panels.
  - o Sink screen panels.
  - Barmag product screen bottom deck.

#### 7.1.4 Sedibeng Cyclone Specifications

Two (420mm) cyclones are used to treat the calculated 66tph. A single 420mm size cyclone can treat 50tph; hence two cyclones can adequately treat 66tph.

#### 7.1.5 Sedibeng Flowsort X-Ray

Flowsort machines are used to treat the mid and the coarse size fractions. Flowsort x-ray machines are commonly used in the industry. These machines are adequate to treat the required throughput at high efficiencies.

#### 7.1.6 Sedibeng Grease Tables

The grease tables are in a good condition. There is some plastic waste on the coarse grease table. This will likely cause the grease to be covered, making the area of the table that is covered less effective. Sedibeng management are currently addressing this issue by installing blowers prior to the grease tables.

#### 7.1.7 Sedibeng Mass Balance Diagram

Using assumed ROM size distributions for kimberlite fissures and product size distributions for jaw, cone and Hazemag crushers, the requirement per process phase is indicated in the diagram below. This mass balance includes the fresh feed as well as all the recirculating feed from the various crushing sections. Figure 17 illustrates this.

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Figure 17: Sedibeng - Mass Balance Diagram

## 7.1.8 Sedibeng Equipment Requirements

Table 7-1 indicates the throughput requirement for each equipment/section as extracted from the mass balance diagram. It also indicates that the equipment currently in the plant is sufficient in size to treat material efficiently at the required throughput.

Item		Requirement (tph)	Sufficient
Scrubber		70	Yes
Trommel Screen		70	Yes
Jaw Crusher		21	Yes
2 x Prep Screens		123	Yes
Classifying Screen		79	Yes
Slimes		24	Yes
Cone Crusher		10	Yes
DMS (2 x 420mm Cyclones)		67	Yes
Ore Master Crusher		21	Yes
HM Classifying Screen		46	Yes
2 x Hazemag Crushers		23	Yes
Recovery		2	Yes
	2 x Flowsort X-Ray Machines		Yes
	1 x Grease Table		Yes
Tailings	23		Yes

Table 7-1: Sedibeng - Process Equipment Requirements

#### 7.1.9 Sedibeng: Summary of Process

The overall process flow is deemed appropriate with the material from the various sections reporting to the correct processes. The crushing circuits are sufficient and ensure efficient liberation of the diamonds. The feed preparation is deemed sufficient as the material, reporting to the DMS, is reasonable and of correct size fraction.

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The equipment at Sedibeng, as well as the configuration of the equipment, is sufficient to treat the diamondiferous kimberlite fissure material efficiently, and, based on the installed equipment, the Sedibeng processing plant has the capacity to operate at feed rates of 70tph.

#### 7.2 STAR ORE PROCESSING

This section describes the processing equipment and configuration as well as an indication of the process capabilities of the treatment plant at Star.

#### 7.2.1 Star Processing Plant

The processing plant at Star was newly refurbished in 2004. The plant flow diagram is presented in Figure 18.

The plant can be divided into five main areas, namely:

- ROM handling (where ROM ore is either stockpiled or directed to the plant for treatment).
- Screening and waste picking circuit where ROM material is wet screened and oversize waste rock is removed to provide feed material suitable for treatment in the plant. The sized ore reports either as oversize to the primary crusher circuit or as feed to the double deck sizing screen.
- DMS plant where the sized and washed material is separated in the DMS cyclone, based on density, into a diamond bearing concentrate and a barren tailings product.
- Recovery plant where DMS concentrates are sized and processed to recover diamonds using wet X-ray machines and grease tables with routine tracer testing performed.
- Sort-house where diamond-bearing concentrates are hand sorted.

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Figure 18: Star - Process Flow Diagram

## 7.2.2 Star Mass Balance Diagram

Using assumed ROM size distributions for kimberlite fissures and product size distributions for jaw, rolls and Hazemag crushers, the requirement per process phase is indicated in Figure 19. This mass balance includes the fresh feed as well as all the recirculating feed from the various crushing sections.



Figure 19: Star - Mass Balance Diagram

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## 7.2.3 Star Equipment Requirements

Table 7-2 indicates the throughput requirement for each equipment/section as extracted from the mass balance diagram. It also indicates that the equipment currently in the plant is sufficient in size to treat material efficiently at the required throughput.

ltem		Requirement (tph)	Sufficient
Scrubber		35	Yes
Trommel Screen		35	Yes
Jaw Crusher		10.5	Yes
2 x Prep Screens		68.4	Yes
Classifying Screen		49.6	Yes
Slimes		16.6	Yes
Prim Rolls Crusher		4.1	Yes
DMS (420mm Cyclone)		43.3	Yes
HM Classifying Screen		47.7	Yes
Hazemag Crushers		29.3	Yes
Recovery		1.42	Yes
	2 x Flowsort X-Ray		
	Machines		Yes
	1 x Grease Table		Yes
Tailings		18.4	Yes

Table 7-2: Star - Processing Equipment Requirements

### 7.2.4 Star: Summary of Process

The overall Star process flow is deemed appropriate with the material from the various sections reporting to the correct processes. The crushing circuits are sufficient and ensure efficient liberation of diamonds. Feed preparation is also deemed appropriate with material reporting to the DMS being of the correct size fraction.

# 8 Environment, Mine Closure and Rehabilitation

### 8.1 GENERAL

The mining license and the Environmental Management Plan Report (EMPR) at Sedibeng and Star make provision for the adequate storage of tailings. There is potential for the reprocessing of surface tailings and surrounding dumps on both mines through the implementation of a small-scale treatment facility. This will clear most of the surface dump material and thus allow areas to be available for rehabilitation purposes.

Existing waste management facilities are adequate to accommodate the waste generated in the foreseeable future at Sedibeng and Star mines. No new waste management facilities are proposed; however, the existing waste management strategy needs to be revised to promote increased recycling and on-site management of waste.

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#### 8.2 MINE CLOSURE AND REHABILITATION COST – STAR AND SEDIBENG

South African mining law dictates that mine owners should bear the costs required to remediate the damage which their mine may cause to the environment. Section 41 of the Mineral & Petroleum Resources Development Act (MPRDA) incorporates "The Polluter Pays" principle, and requires an applicant of mining rights to make financial provision for the rehabilitation or management of negative environmental impacts, either in the form of a cash deposit, guarantee, insurance, or an approved trust fund.

Shortly after the acquisition of Sedibeng and Star mines all Petra's rehabilitation guarantees held by Guardrisk Insurance Company Limited (Reg. no. 1992/001639/06), were transferred to Sedi Diamonds Pty Ltd, thereby releasing Petra Diamonds from their rehabilitation obligations and ensuring that the mine's guarantees remained in place. A statement from the Insurers (Policy no. 20845) for the period ended 31 October 2016 reflects a total amount of ZAR 15.5 million available for rehabilitation obligations for Sedi Diamonds Pty Itd/Frontier Diamonds Ltd for Dancarl, Messina and Star mines.

The latest premature closure cost calculations, that were completed for Sedibeng and Star during 2015/2016, amount to R 6.23m and ZAR 11.38m, respectively, or collectively a total of ZAR 17.61m for both mines, excluding VAT.

The amount provided for will be adjusted after the approval of the closure cost quantum by the Department of Mineral Resources, as the current calculation indicates a shortfall of ZAR 2.11m, excluding VAT.

### 9 Conclusions and Recommendations

- At Sedibeng, new order rights for Dancarl and Messina have been granted by the DMR yet still need to be executed and signed. The period of the grant is currently unknown, and may be a similar case at Star. Until the new order right is executed and signed, together with a fixed period of grant, there remains a risk that the LOM Plan may not be fully realised.
- Star's converted mining license ML 11/1996 is set to expire on 10 February 2025. However, the LOM plan (which is not included in this document) is more than 9 years. This results in a scenario of the mining license expiring several years before the LOM mine plan is fully executed. Until a renewal is granted there remains a risk that the LOM Plan may not be fully realised. The Competent Person(s) is unaware of any reason why an extension would not be granted, yet this can never be guaranteed. Any tenure uncertainty could impact future funding requirements, which could in turn affect the LOM Plan.
- A dedicated specific gravity (SG) determination campaign is recommended for each of the fissures at Sedibeng and Star. Whilst a change in the SG is anticipated, it is not likely to be significantly different to the SG used in the geological models and as such shouldn't have a material effect on the reported tonnage calculations.
- At Sedibeng and Star, mining production data provides substantially more consistent information necessary for estimation of the geology and grade behaviour of the deposit, however, it is recommended that a sub-surface, directional and vertical core drilling campaign is to be developed for Sedibeng and Star, backed by downhole geophysical surveys to locate the fissures at depth, with the aim to increase the confidence of

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the resource base and to assist with much needed development planning, as will be required with ongoing increases in depth.

- Limited metallurgical test work has underpinned the Sedibeng and Star plant designs in the past and no
  recent quantitative assessment has been made of the respective plant's recovery efficiency. Modifications
  and adjustments to both plants were made by experienced operators who have treated ore at production
  levels over many decades, however, it is recommended that metallurgical test work be undertaken at both
  DMS plants to verify and refine plant efficiencies and recovery factors.
- It is recommended to update the newly developed LOM plan and continue with a fully integrated three dimensional (3D) short, medium, and long term mine planning process to actively simulate the impacts of: variable fissure width; geological and mining losses; ground conditions and ground water; and their effects on the economic risks of the operation. Such will also improve capital forecasts and infrastructure scheduling.
- It is recommended to update these LOM plans frequently to facilitate the necessary evolution of the designs
  to accurately reflect depletions, new mining areas, water conditions, rock conditions or changes to support
  and stability criteria and for any additional geological information that becomes available. ABGM have
  advised Frontier that a well-structured long-term, medium-term and short-term planning process with a
  managed database, with all the necessary quality assurances, be developed within industry standard mine
  planning software systems. The annual reporting requirements for listed companies rely on the improvement
  and refinements of geological models and mine plans for all their assets and the updating thereof, annually,
  which will facilitate more accurate planning and improve auditability.
- From an operational standpoint, the greatest risk to Sedibeng and Star will be the failure to achieve the budgeted average stoping width resulting in excessive dilution and therefore a reduction in recovered diamond grade. Historically Sedibeng has been producing from several stopes that are highly susceptible to self-mining. Preliminary indications are that the ground conditions in the deeper Ventersdorp lava at Sedibeng are favourable due to the increased competency of the host rock.
- Whilst development and stoping conditions will improve at Star, due to the more competent host rocks at deeper levels, new challenges will be encountered such as water and methane control within the Witwatersrand lithologies.
- The use of timber underground at both Sedibeng and Star poses a fire risk and leaves the mine vulnerable to potential sabotage and underground fires. It is highly recommended that once the sets are installed, the timber is treated with a fireproofing agent to reduce this risk.
- Historical reports have noted the acidic nature of the ground water and the deleterious effects on shaft infrastructure and ground support integrity. It is recommended that a formal management plan be affected to monitor this proactively.
- Even though more competent rock types are expected as mining progresses deeper at both Sedibeng and Star, it is recommended that the effects of stress redistribution and potential mining induced seismicity be investigated further by competent service providers to proactively plan future optimised mining layouts and regional support e.g. regional and local pillar dimensions, dynamic ground support, siting of sub-vertical shafts, etc.
- It is recommended that further hydrological studies be initiated to understand future expected ground water inflows, and the presence of deleterious gases, and the influence therein on future pumping and ventilation control requirements, as the mines progress deeper.

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# **10 Reliance on Other Experts**

- Duplicates or portions of the original core drill and production data collected and processed to obtain a
  geological and historical estimate of tonnages and diamond grades are not available for check analysis and
  since the Competent Person(s) was not involved in the collection and interpretation of the data the
  Competent Person(s) cannot vouch for the integrity of any of the historic data available, however, the
  Competent Person(s) is able to confirm consistency in the reports of the historical work.
- The Competent Person(s) has assumed that all the information and technical documents reviewed and listed in the References section of this Report are accurate and complete in all material aspects. While due care has been taken in the use of this information, the author has not concluded any extensive independent investigation to verify their source data for accuracy and completeness.
- The information and conclusions contained in this Report are based on data and information available to the Competent Person(s) at the time of preparation of this report and are subject to the assumptions, conditions and qualifications set forth in this report.
- Frontier Diamonds Ltd and Sedi Diamonds (Pty) Ltd has reviewed draft copies of the report for factual errors. Any changes, made because of these reviews, did not involve any alteration to the conclusions made; hence, the statements and opinions expressed in this report are given in good faith and in the belief, that such statements and opinions are not false or misleading at the date of the report.
- The Competent Person(s) reserves the right yet is not obligated to revise this report and conclusions therein, if additional information becomes known after the date of this report.
- The Competent Person(s) is not qualified to provide extensive comment on legal issues, including status of tenure associated with the properties referred to in this report. A description of the properties and ownership is provided for general information purpose only.

# **11 References**

- 1. Independent Geologist's Report Statement of Diamond Resources and Ore Reserves of Star and Sedibeng Diamond Mines as at 28 February 2017 (S Le Roux)
- 2. Internal documents provided by Frontier Diamonds Ltd
- 3. Frontier Diamonds Ltd Prospectus
- 4. SEDIBENG JV DIAMONDS MINE: MANDATORY CODE OF PRACTICE TO COMBAT ROCKFALL AND ROCKBURST ACCIDENTS (Frontier June 2017)
- 5. STAR DIAMONDS MINE (PTY) LTD: MANDATORY CODE OF PRACTICE TO COMBAT ROCKFALL AND ROCKBURST ACCIDENTS (Frontier June 2017)

# ANNEXURE C - SOLICITOR'S REPORT ON MINING LICENCES



DUNCAN & ROTHMAN ATTORNEYS

Our ref: MR POTGIETER/pf/FRO6/0001

Your ref:

8 October 2017

# SOLICITOR'S REPORT ON MINING LICENCES

# 1. INTRODUCTION

- 1.1 We have acted as South African legal counsel to Frontier Diamonds Ltd (ACN 616 232 556) (Frontier) in relation to reporting on the mining tenements in South Africa in which Frontier is proposing to acquire an interest via the acquisition of 100% of the issued capital of Sedi Star Diamonds Pty Ltd (an entity incorporated in Australia), which is proposing to acquire 74% of Sedi Diamonds Proprietary Limited (an entity incorporated in South Africa) which in turn has a 100% interest in each of the following entities incorporated in South Africa as well as the licences comprising the Sedibeng Joint Venture:
  - Messina Investments Proprietary Limited
  - Autumn Star Investment Holdings Proprietary Limited
  - Star Diamonds Proprietary Limited
    - Holder of Converted Mining Right MPT 6 of 2016
  - Dancarl Diamonds Proprietary Limited
    - Holder of Old Order Mining License MK12 of 1994
  - Messina Diamonds Proprietary Limited

OFFICE 69 SUITE 1, FIRST FLOOR NORTH CAPE MALL, 31 JACOBUS SMIT STREET, KIMBERLEY, 8301,PO BOX 64, KIMBERLEY, 8300: DOCEX 5, KIMBERLEY EMAIL: pam@duncan-rothman.co.za; TELEPHONE: 053 838 4700; FAX: 086 618 9747 Duncan & Rothman Incorporated – Reg No 2002/012630/21 Directors:HPA Venter, B.Proc.; IC Potgieter, B.Proc; JG Steyn, BA., LL.B; L Azevedo, LL.B.; A Botha, LL.B.; BL MotIhamme,LLB.; SS Lawrence,LL.B. Consultant: GJ Terblanche,B.Comm.,LL.B. Financial Manager: C Wiid, B.Compt. The holders of the mining licences are referred to in this report as the South African Targets.

- 1.2 Subject to the **qualification** recorded in clause 2.2 below, this mining title tenure report on mining tenements constitutes a title opinion verifying that as at the date of this tenure report, the 3 (three) South African Targets have the right to carry out mining operations (as defined in clause 4.1.7) for diamonds in the mining areas (as defined in clause 4.1.6).
- 1.3 This opinion has been prepared for inclusion in a prospectus to be issued by Frontier on a date unknown to us for the offer of up to 30,000,000 shares at an issue price of AU\$0.20 each per share to raise up to AU\$6,000,000 (Six Million Australian Dollars).
- 1.4 We have examined such documents as we have considered necessary for the purposes of giving this opinion, including executed copies of the mining rights (where applicable) and mining licenses granted to the 3 (three) South African Targets.
- 1.5 We have also examined such other documents, conducted such searches and made such investigations and enquiries as we have considered necessary or relevant in order for us to provide this opinion.
- 1.6 Prior to the MPRD Act taking effect on 1 May 2004, mineral rights were privately held and in some instances, the State itself, qualified as such a private mineral right holder. Since the MPRD Act took effect, the State is now the custodian of all mineral resources within South Africa

and with specific reference to mining rights to carry out mining operations, mining rights are granted by the Minister to applicants.

- 1.7 The MPRD Act created old order rights.
- 1.9 Old Order Rights are provided for in Schedule II [Transitional Arrangements] to the MPRD Act whereby a mechanism is provided for whereby certain mineral rights granted under legislation which predates the MPRD Act, can, subject to compliance with the provisions of Schedule II, be converted to the new form of mineral rights introduced by the MPRD Act.
- 1.10 **Item 1** of Schedule II [Transitional Arrangements] defines an old order right as follows:
  - "Old Order Right" means an Old Order Mining Right, Old Order Prospecting Right or unused Old Order Right, as the case may be."
- 1.11 Item 1 of Schedule II [Transitional Arrangements] defines an "Old Order Mining Right" as follows:
  - "Any mining lease, mynpachteng (meaning the pledge of a mineral resource for mining), consent to mine, permission to mine, claim licence, mining authorisation or right listed in Table 2 to the Schedule in force immediately before the date on which this act took effect and in respect of which mining operations are being conducted."
- 1.12 **Item 2** of Schedule II [Transitional Arrangements] records the objects of the Schedule as follow:
- "2. Objects of Schedule: the objects of this Schedule are in addition to the objects contemplated in Section 2 of the Act and are to:
  - ensure that security of tenure is protected in respect of prospecting, exploration, mining and production operations which are being undertaken;
  - (b) gives the holder of an Old Order Right, and an OP26 right an opportunity to comply with this Act;
  - (c) promote equitable access to the nation's mineral and petroleum resources."
- 1.13 **Item 7(1)** of Schedule II [Transitional Arrangements] provides that:
  - "(1) Subject to subitems 2 and 8, any Old Order Mining Right in force immediately before this Act took effect continues in force for a period not exceeding 5 (five) years from the date on which this Act took effect or the period for which it was granted, whichever period is the shortest, subject to the terms and conditions under which it was granted or issued or was deemed to have been granted or issued.
- 1.14 The 5 year transitional period referred to in Item 7(1) of Schedule II [Transitional Arrangements] commenced on 1 May 2004 and terminated on 30 April 2009.
- 1.15 **Item 7(2)** of Schedule II [Transitional Arrangements] provides for the following:

- "(2) A holder of an Old Order Mining Right must lodge the right for conversion within the period referred to in sub item (1) (see 1.13 above) at the office of the Regional Manager in whose region the land in question is situated together with: …"
- 1.16 **Item 7(3)** of Schedule II [Transitional Arrangements] provides for the following:
  - "(3) The Minister must convert the old order mining right into a mining right if the holder of the old order mining right
    - (a) complies with the requirements of the right in question;
    - (b) has conducted mining operations in respect of the right in question;
    - indicates that he or she will continue to conduct such mining operations upon conversion of such right;
    - (d) has an approved environmental programme; and
    - (e) has paid the prescribed conversion fee."
- 1.17 **Item 7(5)** of Schedule II [Transitional Arrangements] provides for the following:
  - "(5) The holder must lodge the right converted under sub item (3) (see 1.16 above) within 90 (ninety) days from the date on which he or she received notice of conversion at the Mineral and Petroleum Titles Registration Office for registration and simultaneously at the Deeds Office or the Mineral and

Petroleum Titles Registration Office for de-registration of the Old Order Mining Right, as the case may be."

- 1.18 **Item 7(7)** of Schedule II [Transitional Arrangements] provides for the following:
  - "(7) upon the conversion of the Old Order Mining Right and the registration of the mining right into which it was converted the Old Order Mining Right ceases to exist".
- 1.19 **Item 7(8)** of Schedule II [Transitional Arrangements] provides for the following:

"If the holder fails to lodge the old order mining right for conversion before expiry of the period referred to in sub item (1), the old order mining right ceases to exist."

# 2. QUALIFICATIONS AND ASSUMPTIONS

- 2.1 The opinion recorded herein by us will at all times be subject to the following limitations that:
  - 2.1.1 Duncan & Rothman Inc. as represented by its Board of Directors practicing as attorneys, are only qualified to practice law in the Republic of South Africa and do not express any opinions in this option concerning any laws other than the current laws of the Republic of South Africa;
  - 2.1.2 We have assumed that all agreements and other documents submitted to us have been properly executed and that the signatories thereto have the necessary legal capacity to execute all such agreements and other documents; and

- 2.1.3 We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us and the conformity to authentic original documents of all documents submitted to us as certified, confirmed, or photocopies of such original documents.
- 2.2 We are necessitated to **qualify** this report due to the following reasons:
  - 2.2.1 In so far as Star Diamonds Proprietary Limited is concerned, the Department of Mineral Resources through its Regional Manager: Free State Region has failed to respond to our letter addressed to the Regional Manager: Free State Region requesting confirmation of the matters raised in clauses 5.1.1 to 5.1.3 below in order to enable us to be comfortable with the said matters to positively base our opinion thereon; and
  - 2.2.2 The incorrect granting of the Dancarl converted mining right in that the Letter of Grant was incorrectly signed by the Deputy Director – General instead of the Director-General; and
  - 2.2.3 The qualification recorded under the heading in paragraph 8 below relating to the authorised lawful use of water.

### 3. OPINION

3.1 We are of the opinion that:

# A. STAR DIAMONDS PROPRIETARY LIMITED

3.1.1 As a result of Star Diamonds Proprietary Limited holding a valid Converted Mining Right which was validly converted in terms of Item 7(3) of Schedule II [Transitional Arrangements] to the Mineral and Petroleum Resources Development Act 28 of 2002 (as amended) (*"the MPRD ACT"*) in respect of the area covered by this Converted Mining Right, as specifically identified and described in paragraph 3.1.2 below (*"the Star Diamonds Converted Mining Right"*), Star Diamonds is entitled to lawfully mine for diamonds.

- 3.1.2 In so far as the Star Diamonds Converted Mining Right is concerned, we wish to advise as follows:
  - 3.1.2.1 the reference of the Department: Mineral Resources is FS30/5/1/2/2/0005MR.
  - 3.1.2.2 the Star Diamonds Converted Mining Right was lodged and registered at the Mineral and Petroleum Titles Registration Office under registration number MPT 06/2016 in accordance with the provisions of Item 7(5) of Schedule II [Transitional Arrangement] to the MPRD Act.
  - 3.1.2.3 The Commencement Date of the Star Diamonds Converted Mining Right is 11 February 2010.
  - 3.1.2.4 The Termination Date of the Star Diamonds Converted Mining Right is 10 February 2025.
  - 3.1.2.5 The Star Diamonds Converted Mining Right has been granted for 15 (fifteen) years calculated from the Commencement Date.

- 3.1.2.6 By virtue of the terms and conditions of the Star Diamonds Converted Mining Right, Star Diamonds Proprietary Limited has the right to renew the Star Diamonds Converted Mining Right not later than 60 (sixty) working days prior to the termination date. At the time of applying for the renewal, Star Diamonds Proprietary Limited would *inter alia* be guided by the life of mine at the stage of renewal in order to determine the period of time for which the rights would be renewed.
- 3.1.2.7 The area which is the subject matter of the Converted Mining Right is described in the Star Diamonds Converted Mining Right to be:
  - Remainder of the Farm Clewer No. 104, Portions 2, 4, 5, 6, 7 and the Remainder of the Farm Wynandsfontein No. 53 and the Farm Missing Link No. 102, Theunissen Magisterial District [Free State Region] measuring 246.29 (Two Four Six decimal Two Nine) hectares in extent.
- 3.1.3 The Star Diamonds Converted Mining Right provides for the renewal thereof and stipulates that any application for renewal must be submitted to the Regional Manager [in this instance the Regional Manager: Free State Region of the Department: Mineral Resources] not later than 60 (sixty) working days prior to the date of expiry of the Converted Mining Right.

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- 3.1.4 Section 25(1) of the MPRD ACT grants the exclusive right to the holder of a mining right to apply for and be granted a renewal of a mining right in respect of the mineral and mining area in question.
- 3.1.5 The exclusive right is subject to compliance by Star Diamonds Proprietary Limited with the provisions of Section 24 of the MPRD Act and with the terms and conditions of the Star Diamonds Converted Mining Right, the Mining Work Program, the conditions of the Environmental Authorisation and the requirements of the approved Environmental Management Program and subject further to Star Diamonds Proprietary Limited not being in contravention of any relevant provision of the MPRD Act or any other law in which event the Minister of Mineral Resources must grant the renewal of the Star Diamonds Converted Mining Right to Star Diamonds Proprietary Limited. In this regard we do not, as at the date of this opinion, see any reason why Star Diamonds Proprietary Limited should, subject to such compliance, not be granted such renewal.
- 3.1.6 The Star Diamonds Converted Mining Right held by Star Diamonds Proprietary Limited is at the date hereof in full force and effect.
- 3.1.7 Star Diamonds Proprietary Limited has good, marketable, unchallenged and unencumbered title to the Star Diamonds Converted Mining Right.

# 3.1.8 The Star Diamonds Converted Mining Right is unencumbered.

#### 3.2 LAND TENURE – STAR DIAMONDS PROPRIETARY LIMITED

- 3.2.1 Star Diamonds Proprietary Limited is the lawful registered owner of the following immovable properties (accordingly Star Diamonds Proprietary Limited does not need to negotiate with third party land owners to conduct its mining operations):
  - 3.2.1.1 under Deed of Transfer number T2567/1947:
    - Remaining Extent of Portion 2 of the Farm Wynandsfontein No. 53
       District Theunissen, Province Free State Measuring 47.96 hectares
    - This immovable property is unencumbered
    - By virtue of Notarial Deed Number K45/1960S, K207/1963S, and K312/1984S the right has been granted to Eskom Holdings SOC Limited (previously Eskom) to convey electricity over the property together with ancillary rights and subject to conditions.
      - This immovable property is entitled to a right of way over the Remainder of the Farm Wynandsfontein No. 53, District Theunissen

by virtue of Notarial Deed of Servitude of Right of Way number 108S/1963

- 3.2.1.2 under Deed of Transfer number T7049/1955:
  - Portion 5 of the Farm Wynandsfontein No.
    53
    District Theunissen, Province Free State
    Measuring 16.05 hectares
  - This immovable property is unencumbered.
  - That portion of the property marked NGCJKI on Diagram LG number 602/1951 attached to Deed of Transfer number T2567/1947 is subject to the following condition:
    - condition "1(a) The that should the transferee, its successors in title or assigns, fail to prospect or mine for diamonds on the above named property for 2 (two) consecutive years after it has been in its possession for 9 (nine) years, then the said property shall revert to the transferors as owners of the Remaining Extent of the said farm "WYANDSFONTEIN" No. 53, District Theunissen, formerly No. 653. District Winburg, their successors

titles or assigns, and shall be transferred to them at their expense, but the transferees shall have the right to remove all improvements excepting fences."

- That portion marked DGN on Diagram number 602/1951 attached to Deed of Transfer number T2993/1954 is subject to the following condition:
  - "(a) The condition that should the transferee, its successors in title or assigns, fail to prospect or mine for diamonds on the above named property for 2 (two) consecutive years after it has been in its possession for 9 (nine) years, then the said property shall revert to the transferors as owners of the Remaining Extent of the said farm "WYNANDSFONTEIN" No. 53. District Theunissen, formerly No. 653. District Winburg, their successors titles or assigns, and shall be transferred to them at their expense, but the transferees shall the right all have to move improvements excepting fences."

- Portion 5 of the Farm Wynandsfontein No.
  53 is entitled to a right of way over the Remainder of the Farm Wynandsfontein No.
   53, District Theunissen by virtue of Notarial Deed of Servitude of Right of Way number 108S/1963.
- By virtue of Notarial Deed number K198/1978S, the right has been granted to Eskom Holdings SOC Limited to convey electricity over the property together with ancillary rights and subject to conditions.

#### 3.2.1.3 under Deed of Transfer number T5419/1963:

- Portion 7 of the Farm Wynandsfontein No.
  53
  District Theunissen, Province Free State measuring 16.58 hectares
- This property is unencumbered
- 3.2.1.4 under Deed of Transfer number T7048/1955:
  - Remaining Extent of the Farm Clewer No. 104
     District Theunissen, Province Free State measuring 116.07 hectares
  - subject to Mortgage Bond B1600/1980 in favour of ABSA Bank Limited for an amount

of R150 000.00 (One Hundred and Fifty Thousand Rand).

- By virtue of Notarial Deed number K198/1978S the right has been granted to Eskom Holdings SOC Limited (previously Eskom) to convey electricity over the property together with ancillary rights and subject to conditions.
- Remaining extent of the Farm Clewer No. 104 is entitled to a right of way over the Remainder of the Farm Wynandsfontein No. 53, District Theunissen by virtue of Notarial Deed of Servitude of Right of Way number 108S/1963
- 3.2.1.5 under Deed of Transfer number T7048/1955:
  - The Farm the Missing Link No. 102
    District Theunissen, Province Free State measuring 2.56 hectares
  - Subject to Mortgage Bond B1600/1980 in favour of ABSA Bank Limited for an amount of R150 000.00 (One Hundred and Fifty Thousand Rand).

#### B. DANCARL DIAMONDS PROPRIETARY LIMITED

Ref:

- 3.3 Dancarl Diamonds Proprietary Limited is the holder of an Old Order Mining Right comprising of Mining Licence MK12/94 issued in terms of Section 9(1) read with Section 9(3) of the now repealed Minerals Act No. 50 of 1991 ("the Dancarl Old Order Mining Right") thus authorising Dancarl Diamonds Proprietary Limited to lawfully mine for diamonds
- 3.4 The Dancarl Old Order Mining Right:
  - 3.4.1 authorises Dancarl Diamonds Proprietary Limited to mine for diamonds on a portion of Farm No. 84, Magisterial District Barkly West, Northern Cape Region, which portion measures 79.83 (seventy nine decimal eight three) hectares; and
  - 3.4.2 was granted for an indefinite period in terms of the old order mining licence issued at the time in terms of the now repealed Minerals Act Number 50 of 1991.
- 3.5 On 27 June 2017 the Regional Manager advised that:
  - 3.5.1 The Grant Letter approving the conversion of the Old Order Right held by Dancarl Diamonds (Pty) Ltd was signed by the Deputy Director–General of the Department of Mineral Resources.
  - 3.5.2 The signing of Grant Letter by the Deputy Director– General was wrong since the Grant Letter had to be signed by the Director–General as the authorised delegate of the Minister of Mineral Resources.

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- 3.5.3 In 2004 the then Minister of Mineral Resources delegated her powers by way of a Delegation Notice dated 12 May 2004. By virtue of this Delegation Notice the powers vested in the Minister of Mineral Resources in terms of the Mineral and Petroleum Resources Development Act 28 of 2002, are delegated to the officers holding posts as are reflected therein. Accordingly, the right to grant the conversion of an old order right into a mining right was delegated to only the Director–General and not the Deputy Director–General.
- 3.5.4 The conversion granted to Dancarl Diamonds Proprietary Limited is accordingly invalid and needs to be rectified. The rectification will take 6 months and longer. The rectification entails the re-submission of the grant approval to the Director-General. It is uncertain as to how the Department of Mineral Resources will respond to the re-submission of the application to convert for approval by the Director-General.
- 3.6 It is clear from a reading of Item 7(1) of Schedule II [Transitional Arrangements] that the Dancarl Old Order Mining Right remained in force for the 5 (five) year period referred to in Item 7(1) of Schedule II [Transitional Arrangements] and that in accordance with the objects of Schedule II [Transitional Arrangements] the security of tenure which Dancarl Diamonds Proprietary Limited enjoyed is protected in respect of its mining operations and that Dancarl Diamonds Proprietary Limited enjoyed is protected in respect of its mining operations and that Dancarl Diamonds Proprietary Limited enjoyed is protected.

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- 3.7 It is clear from a reading of Item 7(2) of Schedule II [Transitional Arrangements] that Dancarl Diamonds Proprietary Limited was entitled to lodge the Dancarl Old Order Mining Right for conversion.
- 3.8 We are of the opinion that:
  - 3.8.1 Dancarl Diamonds Proprietary Limited lodged its Old Order Mining Right for conversion before expiry of the 5 (five) year period referred to in Item 7(1) of Schedule II [Transitional Arrangements]. The expiry date for the 5 (five) year period referred to in Item 7(1) of Schedule II [Transitional Arrangements] was 30 April 2009.
    - 3.8.1.2 The Regional Manager: Northern Cape Region on 21 August 2009 confirmed that Dancarl Diamonds Proprietary Limited's application for conversion of the Dancarl Old Order Mining Right had been accepted.
  - 3.8.2 It is clear from the reading of Item 7(7) of Schedule II [Transitional Arrangements] that the Dancarl Old Order Mining Right continues to remain in force until such time as it is converted and registered as such at the Mineral and Petroleum Titles Registration Office.
  - 3.8.3 Once the Minister of Mineral Resources grants the conversion of the Dancarl Old Order Mining Right, it is to be recorded in a notarial deed which is to be executed by a Notary Public and signed by both Dancarl Diamonds

Proprietary Limited and the Regional Manager acting as the delegate of the Minister of Mineral Resources.

- 3.8.4 Once the converted mining right has been signed by Dancarl Diamonds Proprietary Limited and the Minister Mineral Resources or the said Minister's authorised delegate in the presence of a Notary Public and simultaneously notarially executed by a Notary Public and then registered at the Mineral and Petroleum Titles Registration Office, the Dancarl Old Order Mining Right will cease to exist in terms of Item 7(7) of Schedule II [Transitional Arrangement].
- 3.8.5 Pending the notarial execution of the converted mining right and the lodgement thereof for registration at the Mineral and Petroleum Titles Registration Office, it is clear from the reading of Item 7(7) of Schedule II [Transitional Arrangements] that the Dancarl Old Order Mining Right continues to be operative and entitles Dancarl Diamonds Proprietary Limited to conduct its diamond mining operations.

# 3.9 LAND TENURE – DANCARL DIAMONDS PROPRIETARY LIMITED

3.9.1 Dancarl Diamonds Proprietary Limited is by virtue of Certificate of Consolidated Title number T490/2009 the co-registered owner of a one half undivided share together with Messina Diamonds Proprietary Limited in respect of the following property (accordingly Dancarl Diamonds Proprietary Limited does not need to

- Farm No 393, District Barkly West, Province Northern Cape, Measuring 2,725.27 Hectares
- 3.9.2 The consolidated property described in 3.10.1 above comprised of the following portions prior to consolidation:
  - Portion 1 of Farm No 84
    District Barkly West, Province Northern Cape
  - Portion 1 of Farm No 85
    District Barkly West, Province Northern Cape
  - Portion 1 of Farm No 87
    District Barkly West, Province Northern Cape
  - Portion 2 of Farm No 88
    District Barkly West, Province Northern Cape
- 3.9.3 The Remaining Extent of Farm No 84, District Barkly West, Province Northern Cape is registered in the name of The National Government of the Republic of South Africa under Deed of Transfer number T2783/2011. This property together with Portion 1 of Farm No 84, District Barky West, Province Northern Cape [which is a portion of the consolidated property described in 3.10.1 above is registered in the joint name of Dancarl Diamonds Proprietary Limited and Messina Diamonds Proprietary Limited] is the subject area of the Dancarl Converted

Ref:

Mining Right and accordingly affords Dancarl Diamonds Proprietary Limited the fullest rights of access to the area which is the subject matter of the said Right.

#### C. MESSINA DIAMONDS PROPRIETARY LIMITED

- 3.9.4 Messina Diamonds Proprietary Limited is the holder of an Old Order Mining Right comprising of Mining Licence ML1/1995 issued in terms of Section 9(1) read with Section 9(3) of the now repealed Minerals Act No. 50 of 1991 ("the Messina Old Order Mining Right") thus authorising Messina Diamonds Proprietary Limited to lawfully mine for diamonds.
- 3.9.5 The Messina Old Order Mining Right:
  - 3.9.5.1 authorises Messina Diamonds Proprietary Limited to mine for diamonds on a portion of Farm No. 84, Magisterial District Barkly West, Northern Cape Region, which portion measures 7.44 (seven decimal four four) hectares; and
  - 3.9.5.2 was granted for an indefinite period.
- 3.9.6 It is clear from a reading of Item 7(1) of Schedule II [Transitional Arrangements] that the Messina Old Order Mining Right remained in force for the 5 (five) year period referred to in Item 7(1) of Schedule II [Transitional Arrangements] and that in accordance with the objects of Schedule II [Transitional Arrangements] the security of tenure which Messina Diamonds

Proprietary Limited enjoyed is protected in respect of its mining operations and that Messina Diamonds Proprietary Limited is granted the opportunity to comply with the MPRD Act.

- 3.9.7 It is clear from a reading of Item 7(2) of Schedule II [Transitional Arrangements] that Messina Diamonds Proprietary Limited was entitled to lodge the Messina Old Order Mining Right for conversion.
- 3.9.8 We are of the opinion that:
  - 3.9.8.1 Messina Diamonds Proprietary Limited lodged its Old Order Mining Right for conversion before expiry of the 5 (five) year period referred to in Item 7(1) of Schedule II [Transitional Arrangements] the expiry date for the 5 (five) year period referred to in Item 7(1) of Schedule II [Transitional Arrangements] was 30 April 2009.
  - 3.9.8.2 The Old Order Mining Right held by Messina Diamonds Proprietary Limited has been converted in accordance with Item 7(2) of Schedule II [Transitional Arrangements] since:
    - 3.9.8.2.1 the Regional Manager: Northern Cape Region on 24 August 2009 confirmed that Messina Diamonds Proprietary Limited's application for conversion of the Messina Old Order Mining Right had been accepted; and

- 3.9.8.2.2 the Director General of the Department Mineral Resources on 27 June 2013 informed Messina Diamonds Proprietary Limited that its "right" has been converted in terms of Item 7(3) of Schedule II (Transitional Arrangements) of the Act."
- 3.9.8.3 It is clear from the reading of Item 7(7) of Schedule II [Transitional Arrangements] that the Messina Old Order Mining Right continues to remain in force until such time as registration of the converted mining right is registered at the Mineral and Petroleum Titles Registration Office.
- 3.9.8.4 The granted Messina Converted Mining Right is to be recorded in a notarial deed which is to be executed by a Notary Public and signed by both Messina Diamonds Proprietary Limited and the Regional Manager acting as the delegate of the Minister Mineral Resources. We understand that the notarial execution of the converted mining right is eminent and dependent on the Department Mineral Resources making appropriate arrangements for the notarial execution of the converted mining right.
- 3.9.8.5 Once the converted mining right has been signed by Messina Diamonds Proprietary Limited and the Minister Mineral Resources in the presence of a Notary Public and simultaneously notarially executed by a Notary Public and then registered at the Mineral and Petroleum Titles Registration Office, the Messina Old Order Mining Right will cease to exist in terms of Item 7(7) of Schedule II [Transitional Arrangement].

3.9.8.6 Pending the notarial execution of the converted mining right and the lodgement thereof for registration at the Mineral and Petroleum Titles Registration Office, it is clear from the reading of Item 7(7) of Schedule II [Transitional Arrangements] that the Messina Old Order Mining Right continues to be operative and entitles Messina Diamonds Proprietary Limited to conduct its diamond mining operations.

#### 3.10 LAND TENURE – MESSINA DIAMONDS PROPRIETARY LIMITED

- 3.10.1 Messina Diamonds Proprietary Limited is by virtue of Certificate of Consolidated Title number T490/2009 the coregistered owner of a one half undivided share together with Dancarl Diamonds Proprietary Limited in respect of the following property (accordingly Messina Diamonds Proprietary Limited does not need to negotiate with third party land owners to conduct its mining operations)::
  - Farm No 393, District Barkly West, Province Northern Cape Measuring 2725,27 Hectares
- 3.10.2 The consolidated property described in 3.10.1 above comprised of the following portions prior to consolidation:
  - Portion 1 of Farm No 84
    District Barkly West, Province Northern Cape
  - Portion 1 of Farm No 85

- Portion 1 of Farm No 87
  District Barkly West, Province Northern Cape
- Portion 2 of Farm No 88
  District Barkly West, Province Northern Cape
- 3.10.3 The Remaining Extent of Farm No 84, District Barkly West, Province Northern Cape is registered in the name of The National Government of the Republic of South Africa under Deed of Transfer number T2783/2011. This property together with Portion 1 of Farm No 84, District Barky West, Province Northern Cape [which is a portion of the consolidated property described in 3.10.1 above is registered in the joint name of Diamonds Proprietary Limited Messina and Dancarl Diamonds Proprietary Limited] is the subject area of the Messina Converted Mining Right and accordingly affords Messina Diamonds Proprietary Limited the fullest rights of access to the area which is the subject matter of the said Right.

#### 4. BACKGROUND TO OPINION

#### 4.1 **Definitions:**

In this opinion, the following expressions shall bear the meanings assigned to them below and cognate expressions bear corresponding meanings:

- 4.1.1 "DMR" the State Department of Mineral Resources of the RSA;
- 4.1.2 "HDSA" shall bear the meaning ascribed to the term "Historically Disadvantage South African" in the Mining Charter, being Black persons or with respect to companies, companies which are owned or controlled by Black persons;
- 4.1.3 "holder" shall bear the meaning ascribed to that term in Section 1 of the MPRD Act and with specific reference to a mining right, shall be "the person to whom such [right] … has been granted or such person's successor in title";
- 4.1.4 *"mine"* shall bear the meaning ascribed to that term in Section 1 of the MPRD Act, namely when:
  - (a) Used as a "noun":
    - Any excavation in the earth, including any portion under the sea or under other water or in any residuary deposit, as well as any borehole, whether being worked or not, made for the purpose of searching or winning a mineral;
    - (ii) Any other place where a mineral resource is being extracted, including the mining area and all buildings, structures, machinery, residuary stockpiles, access roads or objects situated on such area and which are used or intended to be used in connection with such searching, winning or

extraction or processing of such mineral resource; and

- (b) Used as verb, in the mining of any mineral, in or under the earth, water or any residue deposit, whether by underground or open working or otherwise and includes any operation or activity incidental thereto, in, on or under the relevant mining area;"
- 4.1.5 "*mineral*" shall bear the meaning ascribed to that term in Section 1 of the MPRD Act, namely any substance, whether in solid, liquid or gaseous form, occurring naturally in or on the earth or in or under water and which was formed by or subjected to a geological process, and includes sand, stone, rock, gravel, clay, soil and any mineral occurring in residues stockpiles or in residue deposits, but excludes:
  - Water, other than water taken from land or sea for the extraction of any mineral from such water;
  - (b) Petroleum; or
  - (c) Peat;
- 4.1.6 *"mining area"* shall bear the meaning ascribed to that term in Section 1 of the MPRD Act, namely:
  - In relation to a mining right or a mining permit, means the area on which the extraction of any mineral has been authorised and for which that right or permit is granted;

- (b) In relation to any environmental, health, social and labour matter and any residual, latent or other impact thereto, including:
  - Any land or surface adjacent or non-adjacent to the area as contemplated in sub section (i) but upon which related or incidental operations are being undertaken;
  - (ii) Any surface of land on which such road, railway line, power line, pipeline, cableway or conveyor belt is located, under the control of the holder of such a mining right or a mining permit and which such holder is entitled to use in connection with the operations performed or to be performed under such right or permit; and
  - (iii) All buildings, structures, machinery, residuary stockpiles, or objects situated on or in the area as contemplated in sub sections (ii)(a) and (ii)(b);
- 4.1.7 *"mining operation"* means any operations relating to the act of mining and matters directly incidental thereto;
- 4.1.8 *"mining right"* means a right to mine granted in terms of Section 23(1) of the MPRD Act;
- 4.1.9 *"Mineral and Petroleum Titles Registration Office"* means the Mineral and Petroleum Titles Registration Office contemplated in Section 2 of the Mining Titles Registration Act

No. 16 of 1967, being the central registry in the RSA where, *inter alia*, mining rights are registered;

- 4.1.10 "owner" shall bear the meaning ascribed to that term in Section 1 of the MPRD Act, namely in relation to land means the person in whose name the land is registered;
- 4.2 Relevant provisions of the MPRD Act relating to the grant of the Converted Mining Right and the conduct of mining operations in the RSA:
  - 4.2.1 The MPRD Act became effective on 1 May 2004 and is the current legislation which governs prospecting, mining and exploration and production of petroleum, within the RSA.
  - 4.2.2 The State is now the custodian of all mineral resources within South Africa and with specific reference to diamonds, mining rights to carry out mining operations are granted by the Minister to applicants under Section 23 and 24 of the MPRD Act.
  - 4.2.3 Schedule II [Transitional Arrangement] to the MPRD Act regulates the mechanism whereby certain mineral rights granted under legislation which pre-dates the MPRD Act, can, subject to compliance with the provisions of Schedule II be converted to the new form of mineral rights introduced by the MPRD Act.

#### 5. GENERAL

5.1 It is our opinion that:

Ref:

- 5.1.1 no action has been taken by the Minister or the DMR with regard to the breach of any of the terms of the mining rights held by the South African Targets;
- 5.1.2 the DMR has not at the date of this opinion, imposed any additional conditions in relation to the mining rights held by the South African Targets other than in terms of the MPRD Act and the terms and conditions of the mining rights;
- 5.1.3 there are no disputes with any third parties with respect to ownership of the converted mining rights held by the South African Targets;
- 5.1.4 there are no consents required by the Minister or the DMR to implement the acquisition by Frontier and Sedi Australia of an indirect interest in the mining licences held by the South African Targets (Transaction) and the Transaction does not require any consent under Section 11 of the MPRD Act from the Minister or any other South African laws and regulations prior to its implementation.
- 5.2 Star Diamonds Proprietary Limited has together with Dancarl Diamonds Proprietary Limited, Messina Diamonds Proprietary Limited and Sedi Diamonds Proprietary Limited caused to be issued an insurance policy under Policy Number 20845 by GuardRisk Insurance Company Limited for the period ended 31 December 2016 in compliance with its obligation, to provide security for the rehabilitation of land disturbed by mining (execution of Environmental Management Program/Plan), which is an insurance policy accepted by the DMR and which guarantees in favour of the State, that;

- 5.2.1 the amount of R1 436 041.00 (One Million Four Hundred and Thirty Six Thousand and Forty One Rand) for the rehabilitation of the mining area that is subject to the Star Diamonds Mining Right;
- 5.2.2 the amount of R7 437 436.00 (Seven Million Four Hundred Thousand Four Hundred and Thirty Six Rand) for the rehabilitation of the mining area that is subject to the Dancarl Diamonds Mining Right
- 5.2.3 the amount of R2 301 169.00 (Two Million Three Hundred and One Thousand One Hundred and Sixty Nine Rand) for the rehabilitation of the mining area subject to the Messina Diamonds Mining Right.
- 5.3 The issue of the insurance policy by GuardRisk Insurance Company, comprises a discharge by the three South African Targets of their respective obligations under the MPRD Act, to make financial provision for the rehabilitation of the mining areas that are subject to the respective mining rights held by the South African Targets.
- 5.4 In so far as the South African Targets are concerned, we understand that the South African Targets:
  - 5.4.1 are up to date with the payment of all royalties levied in terms of the Mineral and Petroleum Resources Royalty Act 28 of 2008 for the 01 period of 2017;
  - 5.4.2 have furthermore submitted all the required monthly returns in accordance with Regulation 15 of the Regulations to the MPRD Act; and

- 5.4.3 have lodged the prescribed annual reports on the compliance with their respective Social and Labour Plans in accordance with Regulation 45 of the Regulations to the MPRD Act.
- 5.5 Other than normal taxation laws pplicable in South Africa, there is no third party beneficiation applicable to the mining rights other than taxation payments to the State.
- 5.6 Pursuant to the ownership of the immovable properties more fully described in above and the Servitude Right of Way in favour of Star Diamonds Proprietary Limited over the Remainder of the Farm Wynandsfontein No. 53, the South African Targets have the fullest rights of access to enter upon the properties and to carry out their diamond mining operations. In any event, in terms of Section 5(3) of the MPRD Act, the South African Targets have the right to enter upon the properties to carry out their diamond mining operations.
- 5.7 We are further of the opinion that the implementation of the transaction will not affect the current BEE status of the South African Targets and the South African Targets can accordingly continue to qualify as the holder of the Mining Rights, notwithstanding the implementation of the transaction.
- 5.8 The South African Targets have complied with their respective obligations in terms of the applicable Environmental Laws in that their respective environmental reports have been filed and are up to date.
- 5.9 The South African Targets have made the prescribed appointments in compliance with the requirements of the Mine, Health and Safety Act 29 of 1996 (as amended).

# 6. BROAD-BASED BLACK ECONOMIC EMPOWERMENT CHARTER FOR THE SOUTH AFRICAN MINING AND MINERALS INDUSTRY

- 6.1 Section 100(2)(a) of the MPRD Act provides for the development of the Broad-Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry as an instrument to implement transformation with specific targets.
- 6.2 At the time of enactment of the MPRD Act on 1 May 2004, the Mining Charter of 2002 applied to the South African Mining and Minerals Industry.
- 6.3 The Mining Charter of 2002 was assessed in 2009 by the Department of Mineral Resources in order to ascertain the progress of transformation of the Mining and Minerals Industry against the objectives of the Mining Charter of 2002.
- 6.4 The findings of the assessment identified a number of shortcomings in the manner in which the Mining and Minerals Industry has implemented the various elements of the Mining Charter of 2002.
- 6.5 As a result of the assessment of the Mining Charter of 2002 and the shortcomings identified, the Mining Charter of 2002 was amended by the Mining Charter of 2010 in order to streamline and expedite the attainment of its objectives and to introduce the sustainable development element, which sought to ensure sustainable transformation and growth of the Mining and Minerals Industry.

- 6.6 In 2014 a second assessment of the levels of compliance by mining companies with the Mining Charter of 2002 was conducted, which assessment again revealed a number of shortcomings.
- 6.7 In 2015 the Government of the Republic of South Africa initiated another comprehensive review process aimed at strengthening the efficacy of the Mining Charter as one of the tools for effecting broad based and meaningful transformation of the Mining and Minerals Industry.
- 6.8 On 15 June 2017 the Minister of Mineral Resources, Mosebenzi Zwane, published the Reviewed Broad-Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry, 2016 (*"the 2017 Mining Charter"*) which is also the date on which it came into effect.
- 6.9 The Chamber of Mines has approached the High Court for an urgent interdict to suspend its implementation, pending the launch of judicial review proceedings and this court action is currently pending.
- 6.10 The following new obligations have been imposed on the South African Targets by the 2017 Mining Charter:
  - 6.10.1 Ownership existing prospecting right and mining right holders
    - Existing holders (Section 1 of the Mineral and Petroleum Resources Development Act, 2002 defines "Holder" as "in relation to a prospecting right, mining right, mining permit, retention permit, exploration right, production right, reconnaissance permit or technical co-operation permit,

means the person to whom such right or permit has been granted or such person's successor in title") must top up their Black Person shareholding to 30% within 12 (twelve) months whether the current shareholding is at or below 26% Black Person shareholding. The 12 (twelve) month period is to be calculated as from 15 June 2017.

- Existing holders already at 30% are not required to comply with the Black Economic Empowerment Allocation Thresholds and top-up shares must be issued proportionally to the existing Black Economic Empowerment partners, unless the Black Economic Empowerment has already exited the structure, in which case the top-up shares should be held by a Black Economic Entrepreneur.
- Existing holders who have maintained more than 30% Black Person shareholding may retain their existing structures until the Black Economic Empowerment partners exit the structure or upon the renewal of the right. A holder is not required to restructure its Black Person shareholding (in terms of the new mining right requirements) for the purposes of the top-up requirement in the event where a Historical BEE Transaction is recognised.
- 6.11 Black Person shareholders must directly and actively control their equity interest in an empowering entity, including the transportation, trading and marketing of their proportionate share of mining production.

- A holder who sells its mining assets must give Black Owned Companies a preferential option to purchase such assets.
- Procurement
- Mining Goods:
  - A minimum of 70% of mining goods procurement spend must be spent on South African manufactured goods, of which at least:
    - 21% must be sourced from Black Owned Companies;
    - 5% must be sourced from Black Owned Companies which are a minimum of 50% plus 1 (one) controlled and/or owned by female or youth Black Persons; and
    - 44% must be sourced from BEE Compliance Manufacturing Companies.

# • Services:

• A minimum of 80% of services spend must be sourced from South African Based Companies, of which at least:

- 65% of services must be sourced from Black Owned Companies;
- 10% of services must be sourced from Black Owned Companies which are a minimum of 50% plus 1 (one) controlled and owned by female black persons; and
- 5% of services must be sourced from Black Owned Companies which are a minimum of 50% plus 1 (one) controlled and owned by youth black persons.

#### • Employment Equity:

- Board: a minimum of 50% of black persons, 25% of which must be female.
- Executive Management: a minimum of 50% of black persons, 25% of which must be female.
- Senior Management: a minimum of 60% black persons, 30% of which must be female.
- Middle Management: a minimum of 75% black persons, 38% of which must be female.
- Junior Management: a minimum of 88% black persons, 44% of which must be female.

- Employees with disabilities: a minimum of 3% of all employees.
- Social Contributions

#### • Human Resources

5% of the levelable amount (as defined in the Skills Development Levies Act, 1999) must be spent by a holder on essential skills development as follows:

- 2% on essential skills development activities;
- 1% to South African historically black academic institutions for research and development initiatives; and
- 2% to the Mining Transformation and Development Agency [to be established in terms of the 2017 Charter].

### Community Development

A holder must contribute to Mine Community development by identifying priority projects in accordance with the Municipality's approved Integrated Development Plans, in terms of which:

 The holder's contribution must be proportionate to the size of its investment and in accordance with its Social and Labour Plan which must be published in English and other languages used by the community; and  All project management and consultation fees incurred shall be capped at 8% of the total budget.

#### • Housing and Living Conditions

A holder is required to submit a housing and living conditions plan which must be approved by the Department of Mineral Resources after consultation with the Department of Housing and Organized Labour and the Department of Human Settlements.

### Sustainable Development

Holders must implement elements included in the "Stakeholders Declaration on Strategy for the Sustainable Growth and Meaningful Transformation of South African Mining Industry" of 30 June 2010, including:

- Improvement of the industry's environmental management;
- Improvement of the industry's health and safety performance; and
- Research and development spend.

# 7. COMPLIANCE WITH BEE REQUIREMENTS

7.1 By virtue of Section 2(b) of the MPRD Act, one of the objects of the MPRD Act is to substantially and meaningfully expand opportunities for historically disadvantages persons to enter the mineral and petroleum
industries and to benefit from the exploitation of the nation's mineral resources.

- 7.2 This objective is given effect to in terms of Section 100 of the MPRD Act by the promulgation by the Minister of the Mining Charters (referred to above):
  - 7.2.1 Mining Charter of 2002;
  - 7.2.2 Mining Charter of 2010; and
  - 7.2.3 Mining Charter of 2017
- 7.3 We are of the opinion that the South African Targets have complied with the BEE requirements up to and including the Mining Charter of 2010 on the basis that:
  - 7.3.1 Martin Van Zyl as a HDSA owns 26% of the issued share capital in Sedi Diamonds Proprietary Limited; and
  - 7.3.2 Sedi Diamonds Proprietary Limited in turn holds 100% of the issued share capital in Star Diamonds Proprietary Limited, Dancarl Diamonds Proprietary Limited and Messina Diamonds Proprietary Limited.
- 7.4 In view of the Mining Charter of 2017 taking effect on 15 June 2017, it is our view that cognisance would have to be taken to the elements highlighted in paragraph 6 above once the High Court of South Africa has decided on the matter, which is currently pending for adjudication.

### 8. WATER USE

In the event that the South African Targets require water for the conduct of their mining operations, the South African Targets would have to apply for a Water Use Licence for such water under the National Water Act 36 of 1998. As at the date of this opinion the three South African Targets have pending water use license applications with the Department of Water and Sanitation.

# DUNCAN & ROTHMAN INCORPORATED Registration Number 2002/012630/21

Per: IC POTGIETER

HOLDER	LICENCE	EXPIRY DATE	MINING AREA	COMMODITY	ROYLATIES	STATUS	3 <sup>RD</sup> PARTY RIGHTS
STAR DIAMONDS	MPT 6 of 2016	10.02.2025	246,2900 ha	Diamonds	State	Active	None
MESSINA DIAMONDS	ML1/1995	Unknown	7,4403 ha	Diamonds	State	Active	None
DANCARL	MK12 of 1994	Unknown	79,8312 ha	Diamonds	State	Active	None

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Make your cheque, bank draft or money order payable to Frontier Diamonds Ltd - IPO Account and cross it 'Not Negotiable".

#### By submitting this Application Form:

- I/we declare that this Application is complete and lodged according to the Prospectus, and any relevant Supplementary Prospectus, and the declarations/statements on the reverse
  of this Application Form,
- · I/we declare that all details and statements made by me/us (including the declaration on the reverse of this Application Form) are complete and accurate, and
- I/we agree to be bound by the Constitution of Frontier Diamonds Ltd.

**A**\$

# How to complete this Application Form

# A Number of Shares applied for

Enter the number of Shares you wish to apply for. The Application must be for a minimum of 10,000 Shares (A\$2,000). Applications for greater than 10,000 Shares must be in multiples of 2,500 Shares (A\$500).

#### Application Monies

Enter the amount of Application Monies. To calculate the amount, multiply the number of Shares applied for in Step A by the Issue Price of A\$ 0.20.

### C Applicant Name(s)

Enter the full name you wish to appear on the statement of shareholding. This must be either your own name or the name of a company. Up to 3 joint Applicants may register. You should refer to the table below for the correct forms of registrable title. Applications using the wrong form of names may be rejected. Clearing House Electronic Subregister System (CHESS) participants should complete their name identically to that presently registered in the CHESS system.

# D Postal Address

Enter your postal address for all correspondence. All communications to you from the Registry will be mailed to the person(s) and address as shown. For joint Applicants, only one address can be entered.

#### E Contact Details

Enter your contact details. These are not compulsory but will assist us if we need to contact you regarding this Application.

# F CHESS

Frontier Diamonds Ltd will apply to the ASX to participate in CHESS, operated by ASX Settlement Pty Limited, a wholly owned subsidiary of ASX Limited. If you are a CHESS participant (or are sponsored by a CHESS participant) and you wish to hold Shares issued to you under this Application on the CHESS Subregister, enter your CHESS HIN. Otherwise, leave this section blank and on issue, you will be sponsored by Frontier Diamonds Ltd and allocated a Securityholder Reference Number (SRN).

### G Payment

Make your cheque, bank draft or money order payable in Australian dollars to **Frontier Diamonds Ltd - IPO Account** and cross it '**Not Negotiable**'. Cheques must be drawn from an Australian bank. Cash will not be accepted. The total payment amount must agree with the amount shown in Step B. Complete the cheque details in the boxes provided. Cheques will be processed on the day of receipt and as such, sufficient cleared funds must be held in your account as dishonoured cheques may not be

represented and may result in your Application being rejected. Paperclip (do not staple) your cheque to the Application Form. Receipts will not be forwarded. Funds cannot be directly debited from your bank account.

Before completing the Application Form the Applicant(s) should read the Prospectus to which this Application relates. By lodging the Application Form, the Applicant agrees that this Application for Shares in Frontier Diamonds Ltd is upon and subject to the terms of the Prospectus and the Constitution of Frontier Diamonds Ltd, agrees to take any number of Shares that may be issued to the Applicant(s) pursuant to the Prospectus and declares that all details and statements made are complete and accurate. It is not necessary to sign the Application Form.

Application Forms must be received by Computershare Investor Services Pty Limited (CIS) by no later than 5.00pm (AEDT) on 17 November 2017. You should allow sufficient time for this to occur. Return the Application Form with cheque, bank draft or money order attached to:

#### **Computershare Investor Services Pty Limited**

### GPO Box 52

### MELBOURNE VIC 3001

Neither CIS nor Frontier Diamonds Ltd accepts any responsibility if you lodge the Application Form at any other address or by any other means.

#### **Privacy Notice**

The personal information you provide on this form is collected by CIS, as registrar for the securities issuer (the issuer), for the purpose of maintaining registers of securityholders, facilitating distribution payments and other corporate actions and communications. In addition, the issuer may authorise us on their behalf to send you marketing material or include such material in a corporate communication. You may elect not to receive marketing material by contacting CIS using the details provided overleaf or emailing <u>privacy@computershare.com.au</u>. We may be required to collect your personal information under the Corporations Act 2001 (Cth) and ASX Settlement Operating Rules. We may disclose your personal information to our related bodies corporate and to other individuals or companies who assist us in supplying our services or who perform functions on our behalf, to the issuer for whom we maintain securities registers or to third parties upon direction by the issuer where related to the issuer's administration of your securityholding, or as otherwise required or authorised by law. Some of these recipients may be located outside Australia, including in the following countries: Canada, India, New Zealand, the Philippines, the United Kingdom and the United States of America. For further details, including how to access and correct your personal information, and information on our privacy complaints handling procedure, please contact our Privacy Officer at <u>privacy@computershare.com.au</u> or see our Privacy Policy at <u>http://www.computershare.com/au</u>.

#### Correct forms of registrable title(s)

Note that ONLY legal entities are allowed to hold Shares. Application Forms must be in the name(s) of a natural person(s), companies or other legal entities acceptable toFrontier Diamonds Ltd. At least one full given name and the surname is required for each natural person. Application Forms cannot be completed by persons less than 18 years of age. Examples of the correct form of registrable title are set out below.

Type of Investor	Correct Form of Registration	Incorrect Form of Registration				
Individual: use given names in full, not initials	Mr John Alfred Smith	JA Smith				
Company: use the company's full title, not abbreviations	ABC Pty Ltd	ABC P/L or ABC Co				
Joint Holdings: use full and complete names	Mr Peter Robert Williams & Ms Louise Susan Williams	Peter Robert & Louise S Williams				
Trusts: use the trustee(s) personal name(s)	Mrs Susan Jane Smith <sue a="" c="" family="" smith=""></sue>	Sue Smith Family Trust				
Deceased Estates: use the executor(s) personal name(s)	Ms Jane Mary Smith & Mr Frank William Smith <est a="" c="" john="" smith=""></est>	Estate of late John Smith or John Smith Deceased				
Minor (a person under the age of 18): use the name of a responsible adult with an appropriate designation	Mr John Alfred Smith <peter a="" c="" smith=""></peter>	Master Peter Smith				
Partnerships: use the partners personal names	Mr John Robert Smith & Mr Michael John Smith <john a="" and="" c="" smith="" son=""></john>	John Smith and Son				
Long Names	Mr John William Alexander Robertson-Smith	Mr John W A Robertson-Smith				
Clubs/Unincorporated Bodies/Business Names: use office bearer(s) personal name(s)	Mr Michael Peter Smith <abc a="" association="" c="" tennis=""></abc>	ABC Tennis Association				
Superannuation Funds: use the name of the trustee of the fund	Jane Smith Pty Ltd <super a="" c="" fund=""></super>	Jane Smith Pty Ltd Superannuation Fund				