Trans Hex Group Limited

Valuation of Mineral Assets

Project Number JB009790

September 2016

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Greg van Heerden
General Manager – Corporate Affairs
Trans Hex Group Limited
Sidvale Street, Parow, 7500
Cape Town, South Africa

Dear Greg

Valuation of Trans Hex Mineral Assets in South Africa and Angola

T1.0, T1.1, T1.3, T1.4, T1.12, T1.13, T1.15

Trans Hex Group Limited (Trans Hex, the Company or the Group) requires Snowden Mining Industry Consultants (Pty) Limited (Snowden) to undertake a fair and reasonable valuation of its Mineral Assets, following a mandatory offer to shareholders as per regulations 106 and 90 of the Companies Act.

The Mineral Assets (or Trans Hex operations) comprise three alluvial diamond mining concessions, Trans Hex head office (Cape Town) and the diamond polishing factory (Johannesburg). Two of the mining concessions are situated in the Northern Cape Province (South Africa), namely: West Coast Resources (Pty) Limited (WCR or West Coast Resources) operations, with 40% Trans Hex ownership; and the Lower Orange River (LOR) operations (100% Trans Hex ownership). Trans Hex also holds a 33% interest in the Somiluana Joint Venture or JV (Angola). The Somiluana JV owns the Somiluana Mine, which is located approximately 1,000 kilometres (km) from Luanda in Lunda Norte Province in northeast Angola; the LOR operations (including Baken, Bloeddrif and Shallow Water operation) are situated in an area near Alexander Bay, on the border between South Africa and Namibia. WCR operations are located in the vicinity of the town of Kleinsee, approximately 615 km north of Cape Town.

The Mineral Asset Valuation (Valuation) has been prepared by Snowden in accordance with the South African Code for the Reporting of Mineral Asset Valuation, 2016 Edition, as amended July 2015 (SAMVAL Code) and Johannesburg Stock Exchange (JSE) Listing Requirements. The Competent Valuator (CV) is Mr VN Agnello. The Valuation has been undertaken on unaudited financials as at the Valuation date; Snowden has undertaken a high level review of key inputs and considers these to be in alignment with audited financials.

Snowden has prepared this Valuation and fulfilled the role of collator of the Diamond Resources and Reserves sections of this report. Relevant documentation and information was reviewed and verified for accuracy by Trans Hex and Z Star Diamond Resource Consultants (Pty) Limited (Z Star).

The compilation of this Valuation is based on technical and financial data gathering undertaken between 1 December 2015 and 31 August 2016. The Report Date is 12 September 2016; and the Valuation Date is 31 July 2016. The Diamond Resource estimation for this Valuation has been prepared in accordance with the South African Code for the Reporting of Exploration Results, Diamond Resources and Diamond Reserves, 2016 Edition (SAMREC Code). Mr LM Cilliers of Trans Hex is the Competent Person (CP) for the Diamond Resources at Somiluana JV and LOR operations. Dr JA Grills (Z Star) is the CP: Diamond Resources for WCR.

The Diamond Reserve estimation for this Valuation has been prepared in accordance with the SAMREC Code and the JSE Listings Requirements. The Trans Hex Ore Reserve committee,

under the auspices of Mr LM Cilliers has signed off on Diamond Reserves for the South African operations and Angolan operations. Mr LM Cilliers is overall CP for this Valuation.

The CV has endeavoured to ensure that all material information in the possession of Trans Hex has been fully disclosed to Snowden. Snowden has not carried out a comprehensive audit of the records of Trans Hex operations to verify that all material documentation has been provided for the Valuation.

Trans Hex has agreed to indemnify Snowden from any liability arising from Snowden's reliance upon information provided or not provided to it by Trans Hex. A draft version of this Valuation Report was provided to the executive directors of Trans Hex, along with a request to confirm that there are no material errors or any omissions in the Valuation and that the information in the Valuation is factually accurate. Confirmation in those terms has been provided in writing to Snowden and is relied upon as such by Snowden.

This report is provided subject to the following qualifications and assumptions:

a) Trans Hex has made available to Snowden all material information in its possession or known to Trans Hex in relation but not limited to the legal, geological, mining, process, environmental, financial and marketing aspects of Trans Hex operations and that Trans Hex has not withheld any material information and that information is accurate and up to date in all material respects.

b) All geological reports, Diamond Resource estimations and other technical documents provided by Trans Hex correctly and accurately record the results of all geological and other technical activities conducted to date in relation to the relevant mining titles and accurately record any advice from relevant technical experts.

c) Trans Hex has good and valid title to all mining titles or other land tenure required to explore, develop, mine and operate in the manner proposed, including tenure required for access, transport and infrastructure needs for current and planned Trans Hex operations advancement.

d) All necessary governmental and other consents and approvals (including environmental aspects) required to operate and the associated activities under the relative legislation have been obtained or will be forthcoming without any material delay and on terms which will not cause any material change to any exploration, mining, processing or other activities proposed and which will not cause any material change to the costs of such activities.

e) Trans Hex will have access to sufficient working capital or other sources of finance to conduct the proposed activities of Trans Hex operations.

f) Macro or other economic conditions will not cause any material change to the prices expected to be obtained for the alluvial diamonds expected to be produced and marketed from the Trans Hex operations.

g) All factual information provided by Trans Hex as to its history or future intentions, financial forecasting or the effect of relevant agreements is correct and accurate in all material respects.

In relation to the above qualifications and assumptions, Snowden has not undertaken comprehensive enquiries or audits to verify that the assumptions are correct and gives no representation that the assumptions are correct.

Snowden has prepared this Valuation on the assurance that all mineral rights relating to the revised acquisition are currently in good standing. Snowden has reviewed the Trans Hex mineral rights but has not attempted to establish the legal status of the mineral rights and relies on opinions provided by Trans Hex's legal counsel (internal) in this respect.

Snowden has reviewed, where applicable, exploration expenditure and supporting documentation provided by Trans Hex as at 31 December 2015, as well as information on diamond transactions in the public domain over the last six years.

The lead CP for this Valuation is Mr LM Cilliers. Mr VN Agnello is the collator and CV, with the assistance of several other employees from Snowden, Trans Hex and Z Star that have contributed to the compilation of this Valuation. Prior to distribution, the Valuation was reviewed by Mr WF McKechnie.

Snowden is independent of and does not have any material interest in Trans Hex, or the Mineral Assets. Snowden is remunerated for its work by way of a professional fee determined according to a standard schedule of rates which is not contingent on the outcome of the Valuation.

The undersigned states that this Letter, Executive Summary and detailed Valuation are a true reflection of Mineral Assets held by Trans Hex.

Yours faithfully,

Original signed

WF McKechnie
BSc Geo (Hons), Pr.Sci.Nat, FGSSA, MSAIMM
General Manager – Europe, Middle East and Africa
Snowden Mining Industry Consultants (Pty) Limited
Duties: Oversight of Valuation collation

Original signed

VN Agnello
BSc Geo (Hons), M.Eng (Min Econo), MGSSA, MSAIMM, Pr.Sci.Nat.
Senior Consultant – Corporate Services
Snowden Mining Industry Consultants (Pty) Limited
Duties: Competent Valuator and collator

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1 EXECUTIVE SUMMARY

1.1 Introduction and scope

T1.3, T1.4, T1.13

Trans Hex Group Limited (Trans Hex or the Company or the Group) requires Snowden Mining Industry Consultants (Pty) Limited (Snowden) to undertake a fair and reasonable valuation of its Mineral Assets, following a mandatory offer to shareholders as per regulations 106 and 90 of the Companies Act.

The Mineral Assets (or Trans Hex operations) comprise three alluvial diamond mining concessions, Trans Hex head office (Cape Town) and the diamond polishing factory (Johannesburg). Two of the mining concessions are situated in the Northern Cape Province (South Africa), namely: West Coast Resources (Pty) Limited (West Coast Resources or WCR) operations, with 40% Trans Hex ownership; and the Lower Orange River Operations or LOR (100% Trans Hex ownership). Trans Hex holds a 33% interest in the Somiluana Joint Venture or JV (Angola). The Somiluana JV owns the Somiluana Mine, which is located approximately 1,000 kilometres (km) from Luanda in the Lunda Norte Province in northeast Angola; the LOR operations (including Baken, Bloeddrif and Shallow Water operation) are situated in an area near Alexander Bay, on the border between South Africa and Namibia. WCR operations are located in the vicinity of the town of Kleinsee, approximately 615 km north of Cape Town.

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In addition, Snowden has fulfilled the role of collator of the Diamond Resources and Diamond Reserves sections of this report. Relevant documentation and information was reviewed and verified for accuracy by Snowden, Trans Hex and Z Star Diamond Resource Consultants (Pty) Limited (Z Star). The Diamond Resource estimation for this Valuation has been prepared in accordance with the South African Code for the Reporting of Exploration Results, Diamond Resources and Diamond Reserves, 2016 Edition (SAMREC Code). Mr LM Cilliers of Trans Hex is the Competent Person (CP) for the Diamond Resources at Somiluana JV and at LOR operations. Dr JA Grills (Z Star) is the CP: Diamond Resources for WCR.

The Diamond Reserve estimation for this Valuation has been prepared in accordance with the SAMREC Code and the JSE Listings Requirements. The Trans Hex Ore Reserve committee, under the auspices of Mr LM Cilliers has signed off on Diamond Reserves for the South African operations and Angolan operations. Mr LM Cilliers is overall CP for this Valuation.

Snowden has also undertaken the role of peer reviewer, and has placed reliance on several third parties, including Trans Hex personnel, that have completed work for each discipline – these parties are noted in Section 2.1 of the Valuation.

The compilation of this Valuation is based on technical and financial data gathering undertaken between 1 December 2015 and 31 August 2016. The Report Date is 12 September 2016; and the Valuation Date is 31 July 2016.

A Stock Exchange News Service (SENS) announcement was released on 8 August 2016, advising Trans Hex shareholders (the shareholders) that Cream Magenta 140 (Pty) Limited (Cream Magenta) and Metcap 14 (Pty) Limited (Metcap), collectively acquired issued ordinary shares in the Company totalling 49,762,778 or 47.08% of the issued ordinary shares of Trans Hex, excluding treasury shares. Furthermore, the shareholders were advised that Cream Magenta, Metcap and RAC Investment Holdings (Pty) Limited (RAC), acting in concert, (collectively, the Offerors), have extended a mandatory cash offer, in terms of Section 123 of the Companies Act, No 71 of 2008, as amended, (Companies Act), to shareholders to acquire the entire issued ordinary share capital of Trans Hex, other than the issued ordinary shares already held by the Offerors and the issued ordinary shares held as treasury shares (Offer Shares) (the Offer).

The Offerors shall offer to acquire all the Offer Shares in exchange for a cash offer consideration of ZAR3.94 per Offer Share (Offer Consideration). The Offerors will in accordance with regulations 111(4) and 111(5) of the Companies Regulations, 2011, provide the Takeover Regulation Panel to its satisfaction, with an irrevocable unconditional guarantee, in favour of the Offer Shareholders for the sole purpose of fully satisfying the Offer Consideration, pursuant to the Offer. The implementation of the Offer is both subject to and conditional on the fulfilment of conditions precedent customary for a transaction of this nature.

The United States dollar (US$) and South African Rand (ZAR) are the principal currencies used in this report.

Sections of the Valuation will be published on the Trans Hex website (www.transhex.co.za) and/or a Trans Hex Circular.

The Diamond Resource and Diamond Reserve description within this Valuation is a true reflection of the full Trans Hex Diamond Resource and Reserve Report, 31 July 2016 and associated documentation (Trans Hex, 2016b). The Valuation in Section 1.9 of the Executive Summary is a true reflection of the overall Valuation discussed in Section 10.

‘T’ annotations in the Valuation headers reference Table 1 (Appendix A) of the South African Code for the SAMVAL Code and are cross-referenced in Appendix B (SAMVAL Code Checklist), e.g. T1.7 relates to Item 1.7 in the SAMVAL Code checklist.

In this report, shares refer to ordinary shares less treasury shares for Snowden calculations.

1.2 Validation, legal reliance and disclaimers

Verification, validation and legal reliance, as well as warranties, limitations, declarations, consent and disclaimers are discussed in Section 2.1 and Section 2.3.

1.3 Identity and tenure

Mining Rights for all mining operations are in good standing with the national authorities in South Africa and Angola. A list of all mining rights, the duration of their validity and expiry dates, are shown in Appendix A. All surface rights and servitudes are in place at the various Trans Hex operations. Right of access arrangements have been formalised for the WCR, Marine and Shallow Water concessions. Snowden understands that there is no impediment to mining

Snowden has been informed that the documents in respect of the Mining Rights in Appendix A have been viewed and examined by the Trans Hex Group Manager: Legal and Stakeholder Relations. DMR has not advised Trans Hex of a breach of or non-compliance with any term or condition of its Mining Rights granted under the MPRDA for South Africa. Similarly, Trans Hex

(Angola) has not been informed of any a breach of or non-compliance with any term or condition of its Mining Rights granted, should such exist.

1.4 Diamond Resources

The total Indicated Resources for all operations are shown in Table 1.1 and Inferred Resources are shown in Table 1.2.

Table 1.1 Total Indicated Resources, all operations, as at 31 July 2016

Operation	Indicated Resource				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ $100m^3$)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	46,123,293	21,477,410	1.29	277,452	920
LOR – Bloeddrif	34,869,897	30,849,125	0.51	156,491	1,191
LOR – Richtersveld	3,862,366	6,362,420	0.57	36,361	1,008
West Coast Resources	84,359,307	6,859,045	23.71	1,626,373	174
Angola					
Somiluana Mine	103,464,336	7,612,051	31.85	2,424,371	302
Totals	**272,679,199**	**73,160,051**	**6.18**	**4,521,048**	**330**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River, Reported inclusive of Diamond Reserves; Totals may not add up due to rounding

Table 1.2 Total Inferred Resources, all operations, as at 31 July 2016

Operation	Inferred Resource				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ $100m^3$)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	36,071,347	64,325,517	0.68	438,581	767
LOR – Bloeddrif	20,873,798	19,828,978	0.48	94,824	1,120
LOR – Richtersveld	20,748,545	28,692,017	0.51	146,441	1,050
West Coast Resources	694,846,685	41,663,821	9.80	4,083,078	174
Angola					
Somiluana Mine	141,410,865	26,071,688	10.14	2,642,567	272
Totals	**913,951,240**	**180,582,021**	**4.10**	**7,405,491**	**274**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River, Reported inclusive of Diamond Reserves; Totals may not add up due to rounding

The marine resources remained unchanged from Financial Year 2015 or FY2015. No marine resources are stated for the shallow water areas (less than 25 metre (m) water depth). In these areas the mineralisation is generally erratic and the lack of a suitable technology to sample this zone has prevented definitive resource delineation.

Table 1.3 Marine Diamond Resources, as at 31 July 2016

Concession	Indicated Resource			Inferred Resource		
	Area (m^3)	Grade (ct/m^2)	Carats (ct)	Area (m^3)	Grade (ct/m^2)	Carats (ct)
2b	515,210	0.21	108,194	1,043,000	0,11	114,730
3b	550,000	0.07	38,500	460,000	0,05	20,700
6b	-	-	-	5,838,711	0,02	99,258
11b	83,000	0.04	3,320	-	-	-
13b	72,169	0.05	3,608	-	-	-
Totals	**1,220,379**	**0.13**	**153,622**	**7,341,711**	**0,03**	**234,688**

Source: Trans Hex, 2016

Note: Totals may not add up due to rounding

1.5 Diamond Reserves

The Diamond Reserve estimation for this Valuation has been prepared in accordance with the SAMREC Code and the JSE Listings Requirements. The Trans Hex Ore Reserve committee, under the auspices of Mr LM Cilliers has signed off on Diamond Reserves for the South African and Angolan operations. Mr LM Cilliers is overall CP for this Valuation. The Diamond Reserves are listed in Table 1.4.

Additional information regarding the Diamond Reserves is available in Section 7.3 and Section 10.6 of this report.

Table 1.4 Total Probable Reserves, all operations, as at 31 July 2016

Operation	Probable Reserves				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade ($ct/ 100m^3$)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	5,510,282	1,669,310	2.51	41,917	1,079
LOR – Bloeddrif	4,742,897	1,817,000	1.39	25,267	1,403
LOR – Richtersveld	-	-	-	-	
West Coast Resources	14,560,462	1,457,365	54.85	799,385	178
Angola					
Somiluana Mine	63,464,285	5,836,264	26.66	1,556,116	481
Totals	**88,277,926**	**10,779,940**	**22.47**	**2,422,685**	**401**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange Rivers; Totals may not add up due to rounding

The results of the reserve calculation demonstrate that based on the current modifying factors, 15% of the gravel tonnage of the Indicated Resource has been converted to Probable Diamond Reserves and 54% of the carats from the Indicated Resource has been converted to Probable Diamond Reserves.

Clause 26 of the SAMREC Code allows a certain percentage of Inferred Resources to be included in the Life of Mine (LoM) plan. Accordingly, the Payable Inferred Resource for each operation has been determined and is presented in Table 1.5 and discussed in Section 10.6.

Table 1.5 WCR Payable Inferred Resources, as at 31 July 2016

Operation	Payable Inferred Resources				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
West Coast Resources	24,373,559	2,414,497	43.12	1,041,063	168

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off of 1.0 mm for West Coast Resources

Totals may not add up due to rounding

1.6 Development and operations

Trans Hex mining operations comprise three alluvial diamond mining concessions, of which two are in the Northern Cape Province, South Africa – WCR operations and the LOR operations; and Somiluana JV in Angola.

The Company is known for consistently producing the highest quality diamonds available in the South African market. Rough production is sold into the open market, to the South African State Diamond Trader, to Trans Hex's joint venture beneficiation Black Economic Empowered (BEE) polishing factory based in Johannesburg and to Sociedade de Comercializacoa de Diamantes de Angola (Sodiam), the Angolan State-run marketing company. Trans Hex has a vast amount of experience in low cost mining and diamond recovery from alluvial diamond deposits and has applied this experience/philosophy to its current and planned diamond recovery operations in South Africa and Angola.

1.6.1 LOR operations

The LOR operations comprise the Baken Mine, Bloeddrif Mine, the Reuning Mine (currently on care and maintenance), and the Shallow Water operations.

Baken Mine

Baken Mine is situated on the banks of the LOR, approximately 60 km east from Alexander Bay. This operation mines the Baken paleo-channel, an ancient riverbed containing alluvial diamonds washed downstream from kimberlite (diamond-bearing volcanic rock) pipes in the hinterland millions of years ago. The site also contains lower grade meso-terraces which could be viably mined at lower unit operating costs. Baken Mine is nearing end of life in its current form as remaining reserves either lie too deep or are of too low a grade to mine profitably. Future operations will therefore be heavily dependent on the profitable mining of lower grade deposits. The operation currently has a staff count of 327.

Bloeddrif Mine

Bloeddrif Mine is situated in the Richtersveld region along the banks of the LOR, approximately 30 km upstream from Baken Mine. Although Bloeddrif Mine traditionally produces fewer diamonds than Baken Mine, these stones are generally larger and attract higher prices per carat. The staff complement at Bloeddrif Mine currently totals 108.

Shallow Water Operations

Trans Hex's Shallow Water operations are situated on the West Coast of the Western Cape, approximately 60 km west of Vredendal, as well as on the West Coast of the Namaqualand region of Northern Cape. Contract agreements are in place with third parties who mine these marine concessions; three Trans Hex permanent employees are stationed at the Shallow Water operations. Some of the marine concessions in the Northern Cape lie adjacent to the WCR mining areas.

1.6.2 WCR

WCR is located in Little Namaqualand in the Northern Cape Province. Two towns have been established in this region, namely Kleinsee and Koingnaas; both developed as access controlled towns to support the mining operations under the original mining operator of these concessions, De Beers Consolidated Mines Limited (DBCM). The primary operations are Koingnaas (KNC), the Dikgat Complex (DGC) and the tailings diamond resource retreatment (TMR).

WCR operations started production in FY2016.

1.6.3 Mines under care and maintenance

Reuning Mine

Reuning Mine is situated in the vicinity of Sendelingsdrift on the banks of the LOR in the Richtersveld Transfrontier National Park and operations include the Nxodap plant and mining area, the Suidhek plant and the Jakkalsberg mining area. All mining operations at Reuning Mine ceased during FY2015. All staff were relocated within the surrounding operations and the Reuning Mine is currently under care and maintenance.

Hondeklip Bay Mine

The Hondeklip Bay Mine is situated on the West Coast of the Northern Cape, approximately 80 km south of Kleinsee in Namaqualand. Its mining areas are adjacent to those of WCR. Operations ceased during FY2004 and the Hondeklip Bay Mine was placed under care and maintenance.

1.6.4 Somiluana Mine

The Somiluana Mine is situated approximately 70 km, by road, northeast of the town of Lucapa, in the Lunda Norte Province of Angola. The LoM is based on Probable Reserves of ten years. Generally speaking, Somiluana Mine produces high value and desirable gem quality alluvial diamonds.

1.7 Mining

Ore is mined using open pit mining methods from numerous small, localised alluvial gravel resources. Mining is carried out with open pit truck and shovel operations from the diamondiferous gravels after removal of overburden. The general method employed is strip

mining. The paleo-channels and terraces which host the diamondiferous gravels vary in width and overburden depth and, as such are subject to varying degrees of continuity for active mining faces. Mining also encompasses rehandling and reprocessing of remnant tailings and stockpiled material. The mining fleet is consistent across these operations, with the exception of the dredging operations undertaken at Shallow Water.

Waste rock generated from the mining activities is placed on individual waste rock dumps at the mined areas or at centralised waste rock dumps. Modular process plants are located centrally, or near the largest orebodies.

The Diamond Reserves are owner mined, with more than 95% of the required fleet owned and operated by Trans Hex. Trade-offs and benchmarking studies are carried out on a regular basis to ensure mining costs are in line with the most efficient practices.

Salient features of the Trans Hex operations include planned treating of some 35 million cubic metres (Mm^3) of gravels and 109 Mm^3 of overburden over a 12 year period for all the operations combined; equating to, on average, 14 Mm^3 of material moved per annum. Planned recoveries of some 380,000 ct per annum are reported for the combined operations.

A low cost mining approach is also being followed on the Somiluana Mine in Angola and current mine plans are based on a feasibility study founded on analysis of historical Diamang data and six years of exploration and pilot production results to which appropriate planning, scheduling, and reserving methodologies have been applied that are typical for large scale alluvial mining operations in Angola.

1.8 Processing

Baken and Bloeddrif are fixed process plant operations. The Somiluana Mine and WCR operations all have modular plants that can be moved as the production centres change.

1.8.1 LOR operations

LOR processing operations comprise two washing and concentration plants; the Baken Central Plant (BCP), coupled to the Baken Central Recovery Plant (BCRP) at Baken Mine and a single plant treating fresh gravel and tailings at Bloeddrif.

The BCP was commissioned in 2001 and has a nominal 1,350 tonnes per hour (tph) capacity, also producing a final DMS concentrate. Screened fractions report to the DMS plants, from where DMS sinks report to the BCRP, split into three size fractions before being fed through separate X-Ray sorting machines, with the X-Ray concentrates gravitating to a secure hand-sorting facility.

Small mobile and fixed plants exist at the Shallow Water operations.

1.8.2 WCR

Of the treatment plants previously in operation at WCR, only the Michell's Bay dense media separation (DMS) plant and the Kleinsee Final Recovery (KFR) will be used in the new overall treatment process. The other old plants were not included in the WCR NM purchase agreement.

Trans Hex commissioned a new 200 tph scrubbing and screening plant at Koingnaas/Michell's Bay in FY2016. An additional 200 tph plant will be commissioned at the Dikgat / Mannelsvley deposits in FY2018. In FY2019 an additional 450 tph jig plant will be brought on-line when treatment of the Langhoogte TMR commences. Once processing of the Langhoogte TMR is completed this plant will move to the KNC TMR.

Concentrate produced from the DMS modules at the various mining areas will be transported in a secure manner to the central recovery facility at Kleinsee. The KFR comprises production streams a prospecting laboratory and a sort-house.

1.8.3 Somiluana Mine

The processing of gravels at the Somiluana Mine is currently undertaken in three separate movable wash plants. Following screening, the -1.6 mm material is discarded to a slimes dam, whilst the -18+1.6 mm fraction forms the feed to the downstream DMS plant. The current DMS facility is centralised with a capacity of 10 tph, and is limited to a topsize of 18 mm. The final product, an X-ray concentrate, is stored in locked containers and forwarded to the hand sorting facility where the diamonds are hand-picked in a high security environment.

1.8.4 Sub-let areas and Other Assets

Trans Hex Diamond Cutting Works (Pty) Limited has been treated as a cash flow neutral operation and excluded from the Mineral Asset Valuation. The closing balance of stock from this operation has been included in the LOR operations cash flow.

1.8.5 Care and maintenance

A combination of factors necessitated a major portfolio review by Trans Hex, which commenced in 2015. The key recommendation of the portfolio review was the plan to reduce production targets to more closely align output with expected future demand and stop production associated with loss-making operations. Important outcomes of the review included placement of Reuning and Hondeklip on long-term care and maintenance (C&M).

1.9 Market outlook

In terms of current projects, the world's biggest diamond companies are believed to have sufficient proven reserves to enable them to maintain the current level of diamond production for at least 10 years, without any deterioration in quality of product. Primary production will remain centred in Russia, Botswana and Canada. However, growth in rough diamond carat production is expected to slow in the medium and longer term as many on the world's largest diamond mines are aging and production is expected to decrease as open pit mines are extended to increasing depths or move to underground operations. In the absence of large new discoveries, not yet identified, planned new production is expected to mainly replace depleted production.

1.9.1 Supply-demand balance through 2030

The 2014 Bain Diamond Market analysis (Bain) considers that one of the major short-term challenges in the diamond industry is unsustainable profitability erosion in the mid-market segment. Deteriorating profitability in the segment is symptomatic of its persistent problems and may eventually force structural changes. In light of the recent situation, cutters and polishers will be forced to improve operational efficiency, optimize business processes and redefine their overall business model. This may eventually result in the exit of the least efficient players and overall consolidation.

Slowdown of consumer demand in 2014 and 2015 highlights a long-standing challenge for the industry to sustain long-term demand for diamonds. The industry may face changing consumer attitudes in Europe, Japan and the US, which account for about 50% of diamond jewellery sales. Bain studies show that luxury items are forfeiting their aspirational and status appeal in developed

markets. In this respect little is known of the diamond consumption patterns of a new generation of consumers.

In the long term, Chinese market growth is expected to slow down because of weaker economic growth and slowing expansion of the middle and upper classes. However, Bain expects the Chinese market to stay flat in 2016 with recovery starting in 2017 and a gradual return to the historical trajectory expected to lead to 4.5% to 5.5% annual growth until 2030 (down from about 7% in previous forecasts).

- India is considered to be transitioning from an emerging diamond market to a more mature market. Nevertheless, increasing urbanization, middle-class expansion and engagement ring penetration are expected to boost diamond demand by 8% to 9% per year in mid-term and then decelerate to 4% to 5% average annual growth (down from previous projections of about 13%).
- Bain's forecast of the rough-diamond supply is based on the analysis of existing mines, publicly announced plans and anticipated production at every expected new mine. The global supply of rough is likely to decline on average by 1% to 2% per year from 2015 to 2030 because of the aging and depletion of existing mines and relatively little new supply coming online.
- Risk factors, not included in the forecast, could affect the long-term diamond supply and demand balance: global macroeconomic shocks, geopolitical risks, changes in consumer preferences away from diamond jewellery, new sources of demand (such as investment demand), technical disruptions in supply and the impact of commodity prices on major producing countries and potential new sources of supply.
- A potential additional challenge for the industry is the penetration of undisclosed synthetics that can undermine consumer confidence in the entire diamond category, particularly for smaller stones. Industry participants are actively addressing these concerns by tightening certification requirements; diffusing and adopting synthetic-diamond detection technologies; and tightening the legal and regulatory framework definitions of synthetic diamonds.

The full market assessment is reported in Section 9.

1.10 Valuation

The Mineral Assets (or Trans Hex operations) have been discussed in Section 5.

A SENS announcement was released on 8 August 2016 regarding a mandatory offer to minority shareholders, and is discussed in Section 10.9.2

The scope of work for this valuation comprises an independent Valuation of the Diamond Reserves, Diamond Resources and exploration results of the Mineral Assets. Each cash flow for the LOR, WCR and Somiluana Mine operations was constructed on a 100% ownership basis, with loan repayments/obligations to Trans Hex addressed first and thereafter dividends split proportionally, in accordance with the corporate structure outlined in Section 3.2.

Snowden has fulfilled the role of Valuator, report collator and peer reviewer, and has placed reliance on several third parties that have undertaken work for different parts of this report – these parties are noted in Section 2.1 of the Valuation. Trans Hex commissioned Snowden to undertake the Valuation and collation in August 2016. Mr VN Agnello (Snowden) is responsible for the Valuation of the Mineral Assets. The Valuation has been undertaken on unaudited financials as at the Valuation date; Snowden has undertaken a high level review of key inputs and considers these to be in alignment with the audited financials as at the Financial Year (FY) end of 31 March 2016.

The compilation of this Valuation is based on technical and financial data gathering undertaken between 1 December 2015 and 31 August 2016. The Report Date is 12 September 2016; and the Valuation Date is 31 July 2016.

The Discounted Cash Flow (DCF) valuation has been applied for a Life of Mine (LoM) forecast period from 31 July 2016 to FY2028 (end-March 2028). Currently inaccessible (strategic) Resources outside the LoM have been valued using the Market Comparable approach.

Unless otherwise stated, all tables and figures in Section 1.10 of the report are derived from the Cash Flow Model.

The United States dollar (US$) and South African Rand (ZAR) are the principal currencies used in this Valuation.

1.10.1 Valuation approach and methods

The SAMVAL Code requires that a Competent Valuator must apply at least two valuation approaches in determining a mineral asset valuation. The three generally accepted mineral asset valuation approaches are:

- Cash Flow or DCF Approach:
  - The Cash Flow Approach relies on the "value-in-use" principle and requires determination of the net present value (NPV) of future cash flows over the useful life of a mineral asset. This approach is used in the valuation of the Mineral Assets.
- Market Approach:
  - The Market Approach relies on the principle of "willing buyer, willing seller" and requires that the amount obtainable from the sale of the mineral asset is determined as if in an arm's-length transaction. The Market Approach followed applies a rand value per *in-situ* resource tonne determined by analysis of the transactional value of recently traded similar mineral assets. This approach is used in the valuation of the Mineral Assets.
- Cost Approach:
  - The Cost Approach relies on historical and/or future amounts spent on the mineral asset. This approach is usually applied to early exploration assets and has not been used in the valuation of the Mineral Assets considered in this report.

1.10.2 Cash Flow or DCF Approach

Fiscal and economic assumptions

The Cash Flow Model is based on the following forecasts:

- carat production, diamond stone size and diamond price
- operating costs
- capital costs
- working capital requirements
- consensus diamond price increases
- exchange rate and economic parameters
- current State royalty and income tax rates
- discount rates for financing and non-financing scenarios.

The six Trans Hex models have been transposed into a single model, referred to as the Cash Flow Model in this section and referenced as Snowden, 2016, where applicable. All cost information has been provided in mid-2016 money terms and the original production and cost schedule commenced on 1 April 2016. The Cash Flow Model start date is 31 July 2016, with discounting from the same date. The NPV is determined from the post-tax and post-finance cash flow projections from the various Trans Hex mining operations (excluding LOR operations, which are reported as pre-tax cash flows).

The Valuation of the Mineral Asset is based on Probable Diamond Reserves. However, Inferred Resources are included in the Cash Flow Model scenario for WCR. Snowden has shown the proportion of Inferred Resources in the initial mine extraction strategy (MES) for the WCR in Section 10.6. An increase in the discount rate and WACC has mitigated material resource risk.

The Trans Hex Balance Sheet summary and Net Asset Value (NAV) has been reported in Table 10.18. By applying the 'adjusted NAV' scenario, Snowden's Valuation of the Mineral Asset is reported for the consolidated cash flows of LOR, WCR and Somiluana Mine and added to the NAV per share. This is reported in Snowden's Valuation results (Section 1.10.4) and Valuation summary and conclusions (Section 1.10.5).

LoM production projections

The Cash Flow Model is based on physical projections for mining and processing production provided by Trans Hex for the LOR operations, WCR and Somiluana Mine. The production and necessary development has been scheduled using excel spreadsheets. The mining production schedule has been developed from first principles.

The processing schedule reflects RoM production, with minimal stockpiling undertaken for each modular and fixed processing plant.

All recovered diamond content is assumed equivalent to diamonds sold for revenue purposes. The diamond sales methodology is discussed in Section 7.1.2 and Section 9.

Production projections commence from 31 July 2016, in line with the Valuation base date.

Key assumptions, exchange rates and diamond prices

The ZAR/US$ exchange rate have been taken from the Reuters institutional consensus forecast as at 31 July 2016. The median consensus price forecast of ZAR15.10:US$1 has been inputted into the Cash Flow Model. No escalation has been applied to the diamond prices in the Cash Flow Model.

The spot price on the Valuation date was ZAR13.88:US$1. Snowden notes that applied long term exchange rate of ZAR15.10:US$1 is materially higher than the Valuation date spot price. A sensitivity analysis has been undertaken on revenue, and indirectly exchange rates to show the sensitivity to revenue.

The sales methodology for South African diamonds is discussed in Section 7.1.2 and Section 9.8. Diamond values are attributed to each population within each parcel. The forecast diamond price in the Cash Flow Model is based on the three last parcel sales, with sightholder viewing and sales undertaken every second month.

Key assumptions relating to primary cash flow inputs are shown for the LOR, WCR and Somiluana Mine in Table 10.7 to Table 10.10.

Operating expenditure (opex)

Estimates of operating costs have been developed and provided by Trans Hex management, according to the LoM schedule, and is aligned with the Trans Hex financial year. The operating costs estimates have been developed in mid-2016 money terms.

The operating costs used in the Cash Flow Model are FY2017 actuals and/or budgets; with FY2015 values escalated to FY2017 using CPI indices. No real escalations have been applied to any FY2017 opex values.

A summary of the Cash Flow Model operating costs is given in terms of area costing (Table 1.6). Unit opex per operation is shown in Table 1.7.

Mining, process and administration opex comprises variable and fixed opex. Variable mining costs relate to diesel, lubricants, spares, tyres, equipment rental and sub-contractors. Variable process costs include ferrosilicon, diesel, lubricants, spares, tyres and equipment rental. Variable administration costs comprise opex associated with day-to-day local or regional office operation, including logistics and customs. Fixed costs for mining, plant and administration relate specifically to labour.

Overhead costs in the Cash Flow Model include group centralised costs, shared services and other indirect costs. Shared services include IT, accounting and employee services, audit fees, and guarantee charges.

For the purposes of comparison, overheads in the opex tables below (Table 1.6 and Table 1.7) include depreciation, exploration, contractor fees, start-up costs, and other administration opex. Head office opex is excluded from the opex in Table 1.7; and has not been split per operation. The opex average of FY2023 to FY2028 is provided for references purposes in Table 1.6, although Table 10.11 is considered the most authoritative.

Excluded in the opex tables are environmental liabilities, financing costs, mining rights depreciation and select WCR overheads.

The LoM average unit cost is ZAR304/m^3. Somiluana Mine LoM average unit is ZAR1,039/m^3. Mining at the LOR Baken Mine and Bloeddrif Mine ceases in FY2018/FY2019, with Shallow Marine operations continuing to FY2026. High LOR unit values for FY2020 to FY2026 relate to the Shallow Water operations, whereby low gravel volumes and high overhead fees are noted; Shallow Water contractors are paid a percentage for diamond content and gravel volumes extracted.

Table 1.6 Summary of opex for all Trans Hex operations

Component	Unit	LoM total	FY2017*	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023-FY2028
LOR									
Total mining	ZAR M	316	149	141	26	-	-	-	-
Total processing	ZAR M	300	108	111	28	8	8	8	8
Total overheads	ZAR M	642	128	142	61	44	44	44	44
Total LOR opex	**ZAR M**	**1,258**	**385**	**394**	**115**	**52**	**52**	**52**	**52**
WCR									
Total mining	ZAR M	1,173	67	123	255	266	219	143	17
Total processing	ZAR M	945	34	64	137	147	147	147	45
Total overheads	ZAR M	661	47	73	82	87	88	85	33
Total WCR opex	**ZAR M**	**2,779**	**148**	**260**	**474**	**500**	**454**	**375**	**94**
Somiluana Mine									
Total mining	ZAR M	2,536	139	231	280	307	315	315	190
Total processing	ZAR M	1,290	70	119	143	157	158	158	97
Total overheads	ZAR M	2,223	144	236	249	262	262	262	162
Total Somiluana Mine opex	**ZAR M**	**6,049**	**353**	**586**	**671**	**726**	**735**	**735**	**449**
Trans Hex Head office	ZAR M	446	76	80	72	53	42	38	18
Total opex	**ZAR M**	**10,532**	**961**	**1,320**	**1,332**	**1,332**	**1,283**	**1,200**	**641**

Source: Snowden, 2016

*Note: * FY2017 – partial year, August 2016 to March 2017; LOR – Lower Orange River; WCR – West Coast Resources; Exchange rate of ZAR15.10:US$1 used to convert Somiluana Mine costs to ZAR.*

Totals may not add up due to rounding

Table 1.7 Summary of unit opex for all Trans Hex operations

Component	Unit	LoM unit total	FY2017*	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023-FY2028
LOR									
Gravels mined	Mm^3	19.87	10.72	8.34	0.78	<0.01	<0.01	<0.01	<0.01
Total mining	ZAR/m^3	16	14	17	34	-	-	-	-
Total processing	ZAR/m^3	15	10	13	35	1,891	1,891	1,891	1,891
Total overheads	ZAR/m^3	32	12	17	78	10,854	10,854	10,854	10,854
Total LOR unit opex	**ZAR/m^3**	**63**	**36**	**47**	**147**	**12,745**	**12,745**	**12,745**	**12,745**
WCR									
Gravels mined	Mm^3	9.00	0.12	0.25	0.87	1.21	1.21	1.21	0.69
Total mining	ZAR/m^3	130	555	490	293	220	181	119	44
Total processing	ZAR/m^3	105	285	257	157	122	122	122	57
Total overheads	ZAR/m^3	73	390	293	94	72	73	70	46
Total WCR unit opex	**ZAR/m^3**	**309**	**1,230**	**1,041**	**545**	**414**	**376**	**310**	**118**
Somiluana Mine									
Gravels mined	Mm^3	5.82	0.31	0.52	0.61	0.72	0.72	0.72	0.56
Total mining	ZAR/m^3	436	448	444	458	426	438	438	331
Total processing	ZAR/m^3	222	226	229	234	217	219	219	174
Total overheads	ZAR/m^3	382	464	453	408	364	364	364	290
Total Somiluana Mine unit opex	**ZAR/m^3**	**1,039**	**1,138**	**1,127**	**1,100**	**1,008**	**1,021**	**1,021**	**794**
Total unit opex	**ZAR/m^3**	**304**	**86**	**145**	**589**	**688**	**664**	**621**	**434**

Source: Snowden, 2016

*Note: * FY2017 – partial year, August 2016 to March 2017*

Totals may not add up due to rounding

Capital expenditure (capex)

Capex estimates have been provided by Trans Hex management for each operation, relating to mining, process and infrastructure. Snowden considers the capex timing and allocations reasonable for the design capacities and planned mine schedules. SIB capital includes capital required for business continuity, i.e. maintaining planned capacities. A summary of the capital costs included in the Cash Flow Model is shown in Table 1.8. The capex average of FY2023 to FY2028 is provided for references purposes in Table 1.8, although Table 10.13 is considered the most authoritative.

Some ZAR1,255 M of the ZAR1,505 M total LoM capex will be spent at Somiluana Mine, with WCR allocated ZAR180 M for additional production expansions. Project capital is scheduled each year until FY2026 with over 68% expended in the first four years.

Capex for Trans Hex operations are based on a combination of quotations and estimates based on past experience. At the LOR operations, no provision for contingencies has been made in any of the capex estimates. Snowden considers this fair, as Baken and Bloeddrif are approaching the end of life.

At WCR, the Dikgat capex provides for screening and recovery plants with related infrastructure. The capital expenditure is based on estimates received from project engineering companies in

March 2016, with contingencies of 10% applied to all estimates. Michell's Bay capex requirements are based on quotations and estimates. The majority of the Michell's Bay capex will be completed in the current financial year (FY2017). TMR KNC capex is based on quotations and adjusted with CPI.

At Somiluana Mine, earth moving equipment (EME), trucks, light duty vehicles (LDVs), plants and select component replacement is based on quotations from suppliers from H2 2015. Engineering tools improvements/uplifts and geology general capex estimates have been based on Trans Hex operational experience. No provision was made for capex contingencies at Somiluana Mine. Snowden considers this fair, as the US$ quoted prices have not changed materially over the 2016 calendar period.

The bulk of planned stay in business (SIB) capex occurs over the period FY2020 to FY2025. SIB capex is low compared to industry benchmarks – this is addressed in day-to-day opex for WCR and Somiluana Mine.

The level of contingency contained in overall capex is marginal, and considered fair, as the Company has extensive experience operating in Angola and the West Coast of South Africa.

Table 1.8 Summary of capex for all Trans Hex operations, FY2017 to FY2028

Component	Unit	LoM capex total	FY2017*	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023-FY2028
LOR	**ZAR M**	**70**	**38**	**26**	**5**				
Baken Mine	ZAR M	**49**	31.46	17.50	-				
Bloeddrif Mine	ZAR M	**19**	6.02	8.45	4.93				
Shallow Waters	ZAR M	**1**	0.45	0.48	0.28				
WCR	**ZAR M**	**180**	**17**	**105**	**38**	**16**	**4**	**-**	**-**
DGC	ZAR M	**91**	-	79	4	4	4	-	-
KNC	ZAR M	**61**	17	19	12	12	-	-	-
TMR	ZAR M	**28**	-	7	22	-	-	-	-
Somiluana Mine	**ZAR M**	**1,255**	**167**	**245**	**201**	**172**	**93**	**93**	**57**
Trans Hex Head office	ZAR M	**-**							
Total capex	**ZAR M**	**1,505**	**223**	**376**	**243**	**188**	**97**	**93**	**57**

Source: Snowden, 2016

*Note: * FY2017 – partial year, August 2016 to March 2017*

LOR – Lower Orange River; WCR – West Coast Resources; DGC – Dikgat Complex, KNC – Koingnaas Complex; TMR – Tailings diamond resource retreatment

Totals may not add up due to rounding

Mineral royalties and taxes

South African royalties have been determined according to the requirements of the Mineral and Petroleum Resources Royalty Act, 2010 (the Royalty Act). The Royalty Act includes different rates for unrefined and refined metals according to the following formula:

- Royalty rate (Unrefined) = 0.5 + [EBIT/(Gross sales x 9)] x 100 with a maximum of 7%

The average mineral royalty percentage reflected in the Cash Flow Model for LOR operations is 1.8% and WCR is 4.6% of gross revenue.

An export levy of 5% is applied to WCR sales. No export levy is applied to LOR operations, as a beneficiation plant has been established for these sales; however from FY2019 onwards, a 5% levy is modelled for LOR, as the beneficiation plant will then be decommissioned.

The corporate tax rate in South Africa is 28% and all capex is deducted for tax purposes in the year that it is incurred. Unredeemed capital balances are allowed to be carried forward. Unredeemed capital balances are discussed in Table 10.7 to Table 10.10 for the Trans Hex operations. The revenues and all costs reflected in the Cash Flow Model are stated to be excluding value added tax (VAT).

The following Angolan sales taxes are reported for Somiluana Mine:

- Discount on gross sale (5%)
- Royalties (5%) on gross sales
- Withholding tax (2.5%) on gross sales
- Stamp tax duty of 1% on the net revenue after deductions.

The Angolan corporate tax rate is 25%.

In Angola, capex cannot be deducted for tax purposes; straight line depreciation has been applied to capex, and subtracted from net cash flows before dividends. Withholding tax of 10% payable on dividends directed to non-Angolan companies.

Working capital

Working capital calculations were undertaken in the Cash Flow Model and have no nominal component. Debtors, creditors and inventory methodologies are discussed in Table 10.7 to Table 10.10.

Discount rate

A weighted average cost of capital (WACC) and capital asset pricing model (CAPM) approach has been used to determine a discount rate for financial year end purposes in March 2016 (Table 1.9). The CV has reviewed these discount rates and considers these to reflect the inherent mine/ operational/ country risks appropriately; the discount rates in Table 1.9 have been applied to the Cash Flow Model. There is no additional debt required for the LOR operations.

Somiluana Mine specific risk premium relates to political risk (1.25%); Diamond Resource and Reserve confidence (4.0%); and 5.0% risk associated with a potential shortage of dollars, inflation containment, further devaluation of the kwanza (national currency) and non-payment of loans/investment covenants.

A small share premium of 3.8% has been assigned by an independent auditing group to Trans Hex; this premium relates to small market capitalisation; and high, variable returns for such companies. Snowden has retained the small share premium in the discount rate.

Snowden has calculated its own WACC for the consolidated cash flows. A specific risk premium of 8% has been included, which incorporates WCR Payable Inferred Resource and production risk, minority shareholder risk in Angola and current economic considerations, earlier closure of LOR operations, and unplanned mitigation that may be required with LOR closure.

Table 1.9 Discount rates and WACC applied

Component	CAPM and WACC components	Discount rate before financing (%)	Weight average cost of capital (%)
Lower Orange River and Head Office	R186 long-term bond (8.9%) Beta of 1.15 Market risk premium (6.0%) Equity 100% Inflation (6.0%)	9.2	9.2
West Coast Resources	R186 long-term bond (8.9%) Beta of 1.15 Tax rate 28% Market risk premium (6.0%) Equity (70.7%) Inflation (6.0%) Cost of debt (10.9%) Small share premium (3.8%) Specific risk premium (4.0%)	18.7	12.2
Somiluana Mine	AKZ Gov bond (7.0%) Beta of 1.15 Tax rate 25% Market risk premium (6.0%) Equity (64.9%) Inflation (2.0%) Cost of debt (10.0%) Small share premium (3.8%) Specific risk premium (10.3%)	28.0	18.4
Trans Hex consolidated operations	R186 long-term bond (8.9%) Beta of 1.15 Tax rate 28% Market risk premium (6.0%) Equity (75%) Inflation (6.0%) Cost of debt (10.9%) Small share premium (3.8%) Specific risk premium (8.0%)	22.5	16.0

Source: Trans Hex, 2016 and Snowden, 2015

Note: LOR pre-tax discount rate is 15.0% using the CAPM methodology

Environmental considerations

Mining companies are required to make a financial provision for environmental closure and rehabilitation. Closure costs, rehabilitation provisions and rehabilitation repayments have been applied in the Cash Flow Model. Closure cost liabilities for LOR and WCR operations are discussed in Section 7.6. The outstanding balances are funded from current and forecasted cash flows, rehabilitation insurance products and residual trust fund values.

A rehabilitation liability quantum is estimated at ZAR83.9 M (excluding VAT) for the LOR operations in May 2016. Snowden has used the ZAR83.9 M rehabilitation quantum in the Cash Flow Model. This liability is funded via cash contributions to a rehabilitation trust (trust value of ZAR51.6 M as at 31 July 2016). During June 2016, a financial provision quantum update, amounting to ZAR68.5 M (exclusive of VAT and contingencies) was submitted to the DMR.

The Hondeklip Bay liability is funded via cash contributions into a rehabilitation trust (trust value as at 31 July 2016 was ZAR8.3 M). As at 31 July 2016 the required rehabilitation provision, adjusted for inflation, amounted to ZAR5.9 M.

The Shallow Water operations liability was calculated at ZAR2.7 M (exclusive of VAT and contingencies). As at 31 July 2016 the provision, adjusted for inflation, amounted to ZAR3.7 M. This liability is funded via monthly payments of ZAR25,000 to a rehabilitation trust (trust value is ZAR2.4 M as at 31 July 2016) and cash secured guarantees issued by an insurance company to the value of ZAR5.2 M.

As at 31 July 2016, WCR book value for its rehabilitation liability was ZAR155 M (excluding VAT). To date, cash backed guarantees to the value of ZAR169 M (including VAT) have been requested by the DMR and issued as security for the liability. As at 31 July 2016 these guarantees have been funded to the value of ZAR108 M and funding is further increased with monthly payments of ZAR670,000. In October 2015, an updated rehabilitation quantum was estimated, totalling ZAR99.3 M (excluding VAT) and submitted to DMR. Snowden has used the ZAR99.3 M value for the Cash Flow Model.

Net present value (NPV)

NPV, internal rate of return (IRR) and payback time are typically used as indicators of project performance and for valuation using the Cash Flow Approach. As the Trans Hex operations are all operating mines, NPV is considered the most appropriate indicator of economic performance for the Mineral Assets. The discounted free cash flow in the consolidated Cash Flow Model (Table 10.16), and as summarised, reflects a NPV of ZAR685 M for Trans Hex's attributable share of the Mineral Assets, using a discount rate of 16.0% (Real). Cash flow summaries for the other three models (LOR, WCR and Somiluana Mine) are shown in Appendix B.

For completeness, NPVs were calculated on the individual operations and shown in Table 1.10, on a 100% basis before dividends and Trans Hex loan repayments.

Table 1.10 NPVs of individual operations

NPV of each operation (100% attributable basis)	Value in ZAR M
Orange River Operations, net cash flow to pre-tax level	219
West Coast Resources, net cash flow before dividends and TSX loan repayment	635
Somiluana JV, net cash flow before dividends and TSX loan repayment	779

Source: Snowden, 2016

Note: WACC rate of 12.2% applied to WCR; 15.0% to LOR operations; and 18.4% for Somiluana Mine; WCR includes Payable Inferred Resources; TSX – Trans Hex

Primary differences: Snowden and Trans Hex models

The primary differences between the Snowden and Trans Hex cash flow models are noted below:

LOR

- Royalty payments are approximately 39% more in the Snowden model (ZAR29 M versus ZAR18 M), relating primarily to royalty inputs and royalty permissible costs.

WCR

- Sales revenue reduced by 10% for FY2017 to incorporate current difficult mining conditions at WCR.
- Royalty payments are approximately 7% more in the Snowden model, relating primarily to royalty inputs and royalty permissible costs.
- Net cash flows from WCR to Trans Hex are some 10% less in the Snowden models, and are attributed to the cumulative effects of the points above.

Somiluana Mine

- Snowden has increased processing opex by 10% to include SIB capex and potentially higher than planned processing opex
- Snowden has reported higher income tax payable – Trans Hex monthly model values incorporate small changes in monthly income tax payable, which cannot be accommodated in the Snowden Cash Flow Model.
- Net cash flows from Trans Hex (Angola) to Trans Hex are some 10% less in the Snowden models, and are attributed to the cumulative effects of the points above.

Sensitivity analysis

The Cash Flow Model is most sensitive to revenue (comprising grade, diamond prices and exchange rates) and secondly to operating costs. The Cash Flow Model is least sensitive to capital cost changes, as LoM capital costs are less than 15% of LoM opex and the Mineral Asset is an ongoing operation. The results of the sensitivity analysis at the base discount rate of 16.0% (real) are shown in Table 10.17.

Balance Sheet items and Net Asset Value (NAV)

The Trans Hex Balance Sheet summary and NAV per share has been reported in Table 10.18 – the following scenarios are noted:

- Adjusted scenario. Balance Sheet excluding full book values for LOR, WCR and Somiluana Mine as at 31 July 2016 (unaudited). By applying this scenario, Snowden's Valuation of the Mineral Asset is reported for the consolidated cash flows of LOR, WCR and Somiluana Mine and added to the NAV per share. This is reported in Snowden's Valuation results (Section 1.10.4) and Valuation summary and conclusions (Section 1.10.5).
- Actual scenario. Actual Balance Sheet incorporating LOR, WCR and Somiluana Mine book values as at 31 July 2016 (unaudited).
- Audited scenario. Audited Balance Sheet incorporating LOR, WCR and Somiluana Mine book values as at 31 March 2016.

1.10.3 Market Approach Valuation

The second valuation method for Trans Hex operations is based on the Market Approach using comparable transactions. The Market Approach relies on the principle of "willing buyer, willing seller" and assumes that the amount received from the sale of the asset is determined on an arm's length basis. The methodology follows comparison of the asset under consideration to relatively recent asset transactions with similar characteristics. This approach is generally based upon a monetary value per unit of Diamond Resource, or where available, Diamond Reserve.

As no two mineral assets are the same, the CV must be cognisant of the quality of the assets in the comparable transactions, with specific reference to:

- grade of the Diamond Resource
- metallurgical qualities of the Diamond Resource
- proximity to infrastructure such as an existing process plant, roads, power, water, skilled work force, equipment, etcetera.
- likely operating and capital costs
- amount of pre-strip (for open pits) or development (for underground mines) necessary
- likely ore to waste ratio
- overall confidence in the Diamond Resource.

The relative infrequency of alluvial diamond transactions, specifically relating to operating mines has been observed in the Snowden transaction database for the period January 2010 to August 2016. Snowden has used the following considerations:

- Effective transaction value greater than ZAR50 M
- Active alluvial diamond mine on the coast of Southern Africa.

No comparable, historic transactions were noted in 144 transactions reviewed.

The following transactions, relating to Trans Hex, are noted over the same database period of review. The Diamond Resource, as reported at 31 March 2016 has been used for imputed value calculations. A total Indicated Resource of 4.44 million carats (Mct) and Inferred Resource of 7.64 Mct was estimated. The Marine concession of 0.15 Mct (Indicated Resource) and 0.23 Mct (Inferred Resource) has been included in the total WCR Resource estimated.

Namaqualand Mines transaction, August 2012 (NM transaction)

In August 2012, Trans Hex reported that it had signed an agreement, on behalf of its associate company, to purchase a 100% interest in DBCM's NMs mineral assets (excluding the BMC) for ZAR166 million (M). The historic Mineral Resource estimate (2012) comprised 118.2 million tonnes (Mt) or ore containing 1.92 Mct, equivalent to 1.62 ct per 100 tonne (t). The imputed value for this mineral asset is ZAR1.40/t or ZAR25/ct; and a value of ZAR100/ct for the Indicated Resource exclusively.

Business Venture Investments transaction, May 2016 (BVI transaction)

In May 2016, Trans Hex reported that Business Venture Investments No 1952 (Pty) Limited had acquired a 20.3% interest in Trans Hex Group Limited from Johannesburg-based Northam Platinum Limited (Northam). The transaction realised a total cash consideration of ZAR81.8 M for Northam.

Cream Magenta, RAC and Metcap transaction, August 2016 (CM, RAC & Metcap transaction)

A SENS announcement was released on 8 August 2016 and is discussed in Section 1.1.

Market Approach Valuation summary

Implied value for the Trans Hex operations

The implied valued for Trans Hex operations is noted in Table 1.11.

The range of implied values is between ZAR25/ct and ZAR33/ct for all Trans Hex Diamond Resources (including the Marine concessions); and ZAR88/ct and ZAR100/ct for all Trans Hex Diamond Resources in the Indicated Resource category.

Table 1.11 Implied and preferred value ranges for Trans Hex operations

Component	Unit	Total Resource	Transaction value (ZAR M)	Implied value, Total Resource	Implied value, Indicated Resource
Indicated Resource	Mct	4.60			
Inferred Resource	Mct	7.97			
Total Resource	**Mct**	**12.57**			
Reported transaction value					
NM	ZAR M		166.0		
BVI	ZAR M		81.8		
CM, RAC & Metcap	ZAR M		417.8		
Implied unit value, per transaction					
NM	ZAR/ct			25.00	100.00
BVI	ZAR/ct			32.06	87.60
CM, RAC & Metcap	ZAR/ct			33.14	90.53
Implied value of Trans Hex, per transaction					
NM	ZAR M			314.2	460.0
BVI	ZAR M			403.0	403.0
CM, RAC & Metcap	ZAR M			416.5	416.5
Implied value for Trans Hex					
Low value	ZAR M			314.2	403.0
High value	ZAR M			416.5	460.0

Source: Snowden, 2016

Market Approach Valuation summary

The NM transaction implied value of ZAR460 M is considered by Snowden to be the preferred Market Comparable value of the Trans Hex Mineral Assets, with an upper threshold of ZAR460 M and a lower threshold of ZAR314 M, based on the transactional values shown in Table 1.11. Due to the relatively large Diamond Resource base, favourable long-term alluvial mining history and strong production outlook associated with the Trans Hex Mineral Assets, Snowden does not consider the Diamond Resource implied and imputed values to accurately reflect a true value for the Trans Hex Mineral Assets.

The Market Approach preferred value of ZAR460 M is noted (in comparison to the DCF base value of or ZAR685 M or ZAR54/ct for the total Resource); and using a 31 July 2016 consensus forecast exchange rate of ZAR15.10:US$1.

1.10.4 Valuation results

T1.14

The discount rate(s) for the Cash Flow Approach has been determined using a WACC and CAPM methodology. As discussed above, the average performance of similar companies has been used to determine a beta of 1.15 that supports the real discount rates of 16.0%. A minimum and maximum beta value of 0.70 and 1.30 has been determined, considering current discount rates and small risk premiums applied. Application of these upper and lower beta values results in a lower and upper real discount rate of 14.1% and 16.6% respectively. Applying these discounts to the Cash Flow Model results in a lower NPV of ZAR671 M and an upper NPV of ZAR729 M. In addition, exchange rates were adjusted by 20%, which resulted in a lower and upper NPV of ZAR205 M and ZAR1,197 M respectively. This consolidated NPV excludes a valuation of the WCR Surf Zone deposit, which is reported in Section 1.10.5.

The Market Approach results in a lower and upper Mineral Asset value of ZAR314 M and ZAR460 M respectively. The Cash Flow Approach and Market Approach lower and upper values are shown in Table 1.12. The Market Approach preferred value of ZAR460 M (in comparison to the DCF base value of or ZAR685 M) is noted, using a 31 July 2016 consensus forecast exchange rate of ZAR15.10:US$1.

Table 1.12 Range of values and Concluding Opinion of Value

Valuation approach	Value in ZAR M		
	Lower	**Preferred value**	**Upper**
Cash Flow Approach	205	685	1,197
Market Approach	314	460	460
Valuator's Concluding Opinion of Value, excluding Balance Sheet NAV*	**205**	**685**	**1,197**

Source: Snowden, 2016

*Note:*And excludes WCR Surf Zone deposit valuation; NAV – Net Asset Value;*

Rounding applied to ZAR values

1.10.5 Valuation summary and conclusions

T1.15

The preferred valuation method is a Cash Flow Approach, considering the detailed planning that has been undertaken to generate projections that reflect the technical and economic parameters and assumptions existing at the date of this report; and is supported by extensive operating experience. The Cash Flow Model is most sensitive to revenue (diamond prices, US$:ZAR exchange rate, and grade) and secondly to operating costs.

The Competent Valuator's Concluding Opinion of Value is presented in Table 1.13 for the combined Mineral Asset, using the attributable ownership shareholding, and including the Surf Zone deposit valuation, with a preferred overall value of ZAR691 M and an applied discount rate of 16.0% (real) for the Mineral Assets. This value includes financing and shareholder dividends, but excludes the NAV per share, estimated by Trans Hex (Table 10.18). A non-financed scenario

was undertaken and showed an immaterial difference to NPV; delays in capex cash purchases were not factored into the non-financed option.

As at 31 July 2016, there were 105.70 million shares registered to Trans Hex. By including the WCR Surf Zone deposit and the Trans Hex adjusted NAV per share, Snowden considers the fair and reasonable value of Trans Hex to be 800 cents per share, with a lower threshold value of 345 cents per share and an upper threshold value of 1,287 cents per share (Table 1.13).

Table 1.13 Valuation of the Mineral Assets, including Payable Inferred and financing

Valuation approach	Unit	Value in ZAR M		
		Lower	Preferred value	Upper
Cash Flow Approach	ZAR M	205	685	1,197
Surf Zone deposit (Section 1.10.6)	ZAR M	5	6	9
Valuator's Concluding Opinion of Value, excluding Balance Sheet NAV per share	ZAR M	210	691	1,206
Net Asset Value p/share equivalent	**Cents**	**199**	**654**	**1,141**
Balance Sheet NAV p/share from Table 10.18	**Cents**	**146**	**146**	**146**
Total NAV per share	**Cents**	**345**	**800**	**1,287**

Source: Snowden, 2016

The Offerors cash consideration of ZAR3.94 per share is less than Snowden's preferred value of ZAR8.00 per share.

Key risks associated with the Mineral Assets are discussed in Section 11.

1.10.6 Diamond Resource potential

In Snowden's opinion significant potential exists in the following West Coast Resource areas:

- Megalodon channel
- KNC Target Blocks
- Surf Zone.

The surf zone Inferred Resource estimate is a non-spatial estimate in that it is not located in blocks.As a result accurate planning and mining will prove difficult. A decision was taken to only include 10% of the documented carats (0.11 Mct) in the SBC and KNC areas as an indication of what could be reasonably mined by surf zone contractors currently.

Snowden has included value for the remaining Diamond Resource potential of 0.89 Mct of the Surf Zone; but has excluded extensions within the Megalodon channel and KNC Target Blocks due to the paucity of information.

The current mineral rights allow WCR exclusive access to these surf zones which are considered an extension of the planned WCR operations. However, there is a possibility that these deposits may never be mined by WCR due to depth of deposition, the possibility of lower grades, and/or other opex and capex considerations. Exploration potential for the Surf Zone has been estimated at 0.89 Mct by Z Star.

Snowden considers the proximal location and mineral right tenure sufficient justification for an implied value of between ZAR12 M and ZAR23 M for the Surf Zone deposit, based on historical Namaqualand Mines transaction of 2012 and after applying a 50% discount for grade variability to the Surf Zone deposit. Snowden's preferred value is ZAR15 M. Trans Hex's 40% interest translates to a preferred value of ZAR6 M, with an upper value of ZAR9 M, and a lower value of ZAR5 M.

1.10.7 Identifiable Component Asset (ICA) values

T1.11, T1.16

The following valuations have been reported to Snowden in Table 1.14, all exclude VAT. The values are shown in Table 1.14 for comparative purposes. Recent property valuations have been incorporated in Trans Hex's (unaudited) estimation of NAV and are discussed in the notes of Table 10.18. Previous Mineral Asset valuations are also shown in Table 1.14.

Table 1.14 Identifiable Component Asset values of Trans Hex operations

Component	Value (ZAR M)	Comment
LOR (April 2016)	1,545.2	Total insurance value as at 1 April 2016. LOR buildings (ZAR514 M), fixed plant and equipment (ZAR578 M) and earth moving equipment or EME (ZAR359 M) and other (ZAR95 M). Includes head office (buildings and content), estimated at ZAR57 M
LOR (July 2016)	79.8	Total book value as at 31 July 2016. LOR buildings (ZAR3 M), fixed plant and equipment (ZAR9 M) and EME (ZAR63 M) and other (ZAR4 M). Includes head office (buildings and content), estimated at ZAR4 M
LOR– Shallow Water operations (August 2016)	15.5	Independent, internal valuation undertaken by a registered property valuator in August 2016 of the Shallow Water immovable properties. Some 26 title deeds, each individually valued, covering an area of 1,776 hectares.
WCR (April 2016)	343.1	Total insurance value as at 1 April 2016. WCR buildings (ZAR71 M), fixed plant and equipment (ZAR167 M) and EME (ZAR93 M) and other (ZAR13 M).
WCR (April 2016)	705.2	Total book value as at 1 April 2016. WCR buildings (ZAR2 M), fixed plant and equipment (ZAR107 M) and EME (ZAR37 M), mining rights (ZAR512 M), land (ZAR39 M) and other (ZAR9 M).
WCR (May 2016)	67.6	Independent, internal valuation undertaken by a registered property valuator on 26 May 2016 of the WCR immovable properties. Some 40 title deeds, each individually valued, covering an area of 121,101 hectares.
WCR (June 2014)	208.0	Snowden CPR valuation, June 2014 on NM Mineral Asset (now WCR), including Probable Reserves only, offshore deposits, sale of property (ZAR39 M), less environmental obligations (ZAR166 M); and using a LoM exchange rate of ZAR10.58:US$1, and a real discount rate of 12%. Valuation date of 1 April 2014; 100% attributable basis.
WCR (June 2014)	705.0	Snowden CPR valuation, June 2014 on NM Mineral Asset (now WCR), including Payable Inferred Resources, offshore deposits, sale of property (ZAR39 M), less environmental obligations (ZAR166 M); and using a LoM exchange rate of ZAR10.58:US$1, and a real discount rate of 12%. Valuation date of 1 April 2014; 100% attributable basis.
Head Office (June 2016)	20.2	Independent, internal valuation undertaken by a registered property valuator on 1 June 2016 of the immovable property: Head Office, Parow, Cape Town.
Trans Hex (July 2016)	327.1	Consolidated statement of financial position. Total Asset Value based on Trans Hex Balance Sheet – Adjusted scenario, as at 31 July 2016 (unaudited). See Table 10.18.
Trans Hex (July 2016)	857.2	Consolidated statement of financial position. Total Asset Value based on Trans Hex Balance Sheet – Actual as at 31 July 2016 (unaudited). See Table 10.18.
Trans Hex (July 2016)	890.9	Consolidated statement of financial position. Total Asset Value based on Trans Hex Balance Sheet – Actual as at 31 March 2016 (audited). See Table 10.18.

Source: Modified from Trans Hex, 2016; Snowden, 2016

Note: LOR – Lower Orange River; WCR – West Coast Resources

1.10.8 Forward looking statements

Certain sections of this Valuation, other than statements of historical fact, contain forward-looking statements regarding the Mineral Assets held by Trans Hex.

Although Snowden considers the expectations reflected in such forward-looking statements to be reasonable, no assurance can be given that such expectations will prove to be correct.

Accordingly, results may differ materially from those set out in the forward-looking statements as a result of, among other factors, namely:

- Changes in economic and market conditions
- Changes in the regulatory environment and other State actions
- Success of business and operating initiatives
- Fluctuations in commodity prices and exchange rates
- Business and operational risk management
- Changes in the actual orebody composition versus the plan.

The CP and CV are not obliged to update or release any revisions to these forward-looking statements to reflect events or circumstances after the dates of this report or to reflect the occurrence of unanticipated events.

1.10.9 Independence

T1.0

At the date of this Valuation of 12 September 2016, Snowden had no association with Trans Hex, or its individual employees, or any interest in the securities of Trans Hex or it's Mineral Assets which could be regarded as affecting the ability to give an independent unbiased valuation. Snowden will be paid a fee for its study based on a standard schedule of rates for professional services, plus any expenses incurred. The fee is not contingent on the results of the study or valuation.

1.10.10 Historic verification

T1.17

Snowden has undertaken a historic verification of actual versus budgeted values relating to production, operating expenditure, capital expenditure and equivalent opex unit costs for the period FY2014 to FY2016 (Section 10.14). Snowden has found that opex, capex and unit cost actuals are in alignment or below budget; indicating that a prudent, cost thrifting methodology has been followed at the Trans Hex operations. However, actual mining and process efficiencies could not be attained for any of the operations (versus budget); as a result of the lower throughput.

1.11 Conclusions

1.11.1 Geology and Resources

The data collection processes, data validation and quality assurance and quality control (QA/QC) as well as interpretation and estimation methods used to arrive at the Diamond Resource statements for alluvial mining operations discussed in this report are undertaken by Trans Hex personnel.

A number of detailed Diamond Resource and Diamond Reserve estimate audits have been undertaken by third parties over the period 2010 to 2016. It is the CP's opinion that the evaluation and reporting of the Diamond Resources and Diamond Reserves has been completed to appropriate standards. No material errors have been identified with the Diamond Resource and Diamond Reserve estimate; and recommended that Trans Hex can confidently rely on the

Diamond Resource and Diamond Reserve estimates for alluvial mining operations' LoM scheduled and public reporting.

The Diamond Resources of Trans Hex are classified, verified, and reported in accordance with the JSE Listings Requirements, industry and professional guidelines. The classifications are based on the SAMREC Code.

Reporting is undertaken by professionals with appropriate experience in the estimation, economic evaluation, exploitation, and reporting of Diamond Resources relevant to the various styles of mineralisation under consideration. Trans Hex's experience with the various alluvial mining operations that it is evaluating and mining spans decades. The result of this is that Trans Hex personnel have a thorough understanding of the factors important to the assessment of their economic potential of the resources being exploited.

1.11.2 Mining

LoM for the WCR and Somiluana Mine operations are relatively long, with significant production scalability; well-developed infrastructure, which supports integrated and stand-alone operations; extension and optionality in the Mineral Asset base; an experienced management team and labour workforce. A skilled and semi-skilled workforce is readily available in adjacent communities and the greater Kleinsee, Alexander Bay and Somiluana areas.

Infrastructure is considered to be well maintained at all three mining operations, with sufficient water and power for planned mining expansions. Surface infrastructure from mine to plant is in good condition. Current and planned maintenance costs and schedules are considered to be appropriate for the planned LoM schedules.

Modifying Factors for the planned LoM and Diamond Resource to Diamond Reserve conversion are considered to be reasonable. The current and planned expansions/associated production schedules are considered to be fair.

1.11.3 Process and tailings

The equipment in all plants is in good operating condition and well maintained by experienced staff in accordance with Trans Hex maintenance procedures. Standard approved Trans Hex maintenance procedures and standards for all major unit operations and equipment are in place, and comply with all approved regulations. Mass balances, utilising appropriate operation data have been undertaken by Trans Hex staff and are considered adequate.

The marginal increases in unit operating costs during FY2016 indicate stable operating conditions and fair management of the process plants. Forecasted operating costs are in alignment with historical unit opex rates. Step-up or initial capital will be spent at both Somiluana Mine and WCR over the LoM on process infrastructure, with SIB covering partial plant process replacements/ modifications.

The Trans Hex approach to alluvial diamond processing carries low risk in that well established proven technology is being used in all flowsheets and Trans Hex personnel have considerable experience in this method of operation.

Tailings site facilities (TSFs)

Snowden understands that all TSFs are in good operating condition and well maintained by experienced staff. The TSF facility conditions are continually monitored as part of the mining contractor's operational responsibilities. Approved professional engineers for the facilities are

retained for the ongoing monitoring and Department of Mineral Resources (DMR) annual reporting. The costs to cover ongoing maintenance are sufficiently allowed for in the operating and SIB cost estimates. Records of maintenance performed are readily available.

The TSFs also conform to the statutory freeboard requirements. Annual audits are performed by independent consultants to ensure compliance with respect to operating procedures and all legal requirements.

Closure cost and rehabilitation short-falls have been provided for either through cash on hand or insurance products. All water management and ongoing monitoring and maintenance are included elsewhere in the closure estimates.

1.11.4 Environmental and social considerations

The existing site environmental risks are associated with proposed rehabilitation processes and financial provision, applicable to the Closure Plan for South African operations. Other key risks are safety related, and would be indicated by the impact on production, and hence revenue, associated with safety incidents, Regulation 55 Performance Assessments (compliance audits) conducted in terms of the MPRDA, and by the annual Integrated Water use Licence (IWUL) audits required in terms of the National Water Act (Act 36 of 1998) or NWA, none of which have been reviewed (or made available) for this report.

Based on discussions with relevant personnel, and a review of all relevant documentation, environmental considerations are managed well for the scale and age of the assets and only a few medium to high risk issues were identified, with the various sites having developed or commenced with the implementation of plans for the majority of the issues identified.

1.11.5 Engineering

All engineering and infrastructural aspects are in place for the current operations. On-site engineering facilities satisfactorily sustain the various activities. Additional supporting infrastructure includes emergency services, clinics and communications and recreational areas.

The operating mining areas, both on surface and underground, and including materials handling, are deemed to be in a good operating condition. The maintenance system in place is appropriate for the equipment used and the conditions encountered.

The modular process plants are deemed to be in a good condition with no areas of concern emphasised. The use of experienced staff and the established maintenance procedures ensure that the plants have a high availability for operation.

The replacement and refurbishment of engineering equipment as per equipment lifespan has been highlighted and costing for capital equipment and SIB equipment has been quantified.

1.11.6 Valuation

The Cash Flow Model runs from 31 July 2016 to FY2028.

The Cash Flow Model is based on physical projections for mining production and processing production provided by Trans Hex that are comparable to that historically achieved at the various alluvial mining operations under review.

Revenue is based on validated polynomial formulae for diamonds and consensus forecast exchange rates.

Opex has been estimated from first principles, mining contractor quotes and/or annual escalations. These have been broken down into established cost categories per operation, with accuracy to at least feasibility or pre-production level.

The capex requirements and phasing of capex is considered reasonable per mining operation, and supports global production profile of Trans Hex.

The CV considers the calculation of mineral royalties and taxes, working capital, discount rate and inclusion of closure liability assessments to be reasonable for the South African and Angolan mining operations. The discount rates have been determined using a WACC and CAPM approach.

The preferred valuation method is a Cash Flow Approach, considering the detailed planning that has been undertaken to generate projections that reflect the technical and economic parameters and assumptions existing at the date of this report; and is supported by extensive operating experience. The Cash Flow Model is most sensitive to diamond prices including the US$:ZAR exchange rate and secondly to operating costs.

The application of upper and lower discount rate results in a lower and upper real discount rate of 14.1% and 16.6% respectively; in addition an upper and lower exchange rate has also been applied. Applying these discounts to the Cash Flow Model results in a lower NPV of ZAR671 M and an upper NPV of ZAR729 M. In addition, exchange rates were adjusted by 20%, which resulted in a lower and upper NPV of ZAR205 M and ZAR1,197 M respectively. This consolidated NPV excludes a valuation of the WCR Surf Zone deposit and the Trans Hex adjusted NAV per share.

As at 31 July 2016, there were 105.70 million shares registered to Trans Hex. By including the WCR Surf Zone and the Trans Hex adjusted NAV per share, Snowden considers the fair and reasonable value of Trans Hex to be 800 cents per share, with a lower threshold value of 345 cents per share and an upper threshold value of 1,287 cents per share. The Offerors cash consideration of ZAR3.94 per share is less than Snowden’s preferred value of ZAR8.00 per share.

2 INTRODUCTION AND SCOPE

Trans Hex Group Limited (Trans Hex, the Company or the Group) requires Snowden Mining Industry Consultants (Pty) Limited (Snowden) to undertake a fair and reasonable valuation of its Mineral Assets, following a mandatory offer to shareholders as per regulations 106 and 90 of the Companies Act.

The Mineral Assets (or Trans Hex operations) comprise three alluvial diamond mining concessions, Trans Hex head office (Cape Town) and the diamond polishing factory (Johannesburg).

The reader is referred to the Snowden Letter and Section 1.1 for further details.

2.1 Competent Persons/ Experts responsibility matrix

A list of Competent Persons (CPs) and third parties that have contributed or signed off various disciplines for this Valuation are listed in Table 2.1.

Table 2.1 Responsibility matrix

Discipline	Competent Person (CP)/Competent Valuator (CV)
Legal	Trans Hex (internal) legal counsel: V Madlela
Regional and local geology	CP: LM Cilliers (Trans Hex)
Exploration, history and sampling: All operations	CP: LM Cilliers (Trans Hex)
Diamond Resources:	
Somiluana Mine	CP: LM Cilliers (Trans Hex)
Lower Orange River Operations	CP: LM Cilliers (Trans Hex)
West Coast Resources	CP: A Grills (Z Star Diamond Resource Consultants (Pty) Ltd)
Diamond Reserves: All operations	Joint Committee, Chairman and CP: LM Cilliers (Trans Hex)
Mining, processing, tailings, environmental considerations, tailings and closure costing inputs	Joint Committee, Chairman and overall CP: LM Cilliers (Trans Hex)
Valuation	CV: VN Agnello (Snowden)
Report collation and peer review	CV: VN Agnello (Snowden)
Overall peer review	WF McKechnie (Snowden)

2.2 Verification, validation and legal reliance

2.2.1 Verification and validation

Snowden has conducted an assessment of all material technical aspects likely to influence the Mineral Asset Valuation (Valuation), including inspection, discussion and enquiry, examination of historical information, review of and, where considered appropriate, has recommended modification of cost estimates, production forecasts, and macro-economic parameters and commodity price forecasts.

2.2.2 Technical and financial reliance

Snowden places reliance on undertakings that all technical, financial and legal information provided to Snowden as at 31 July 2016, is valid and accurate for the purpose of compiling this Valuation. Snowden has satisfied itself that such information is both appropriate and valid for the valuation as reported herein.

Snowden has adjusted select cost information provided, where appropriate, to reflect Snowden's opinion on the Valuation.

2.2.3 Legal reliance

Snowden has prepared this report on the assurance that all Mineral Rights relating to the Mineral Assets are currently in good standing. Snowden has reviewed documentation relating to the Mineral Rights being acquired and those subject to the put, call and pre-emptive arrangement but has not attempted to establish the legal status of the Mineral Rights and has relied on the legal opinion provided by Trans Hex.

2.2.4 Documentation reviewed

Documentation reviewed in compiling the Valuation comprises, contracts, agreements, approvals, historical technical and financial records and future forecasts and other relevant documentation and statements.

2.3 Warranties, limitations, declarations, consent and disclaimers

The scheduled Diamond Reserves contained within forecasts are comparable to the current Diamond Reserve estimates for the Mineral Assets. These Diamond Reserves have been reconciled with Diamond Reserve depletions. Snowden has peer reviewed the Mine Plans, budgets and estimates and considers these to be reasonable within the context of past performance of Trans Hex's alluvial diamond operations, and in line with the recorded historic performance of these Mineral Assets.

The achievement of Mine Plans, budgets and estimates are neither warranted nor guaranteed. The estimates, as presented and discussed herein, cannot be assured and are based on economic assumptions, some of which are beyond the control of Trans Hex. Future cash flows and profits derived from such forecasts are inherently uncertain and actual results may be materially more or less favourable.

2.3.1 Declarations

Snowden will receive a fee for the preparation of this report in accordance with normal professional consulting practice. Snowden does not have, at the date of this report, any financial interest in Trans Hex or the Mineral Assets. Snowden considers itself to be independent in terms of 4.28(a), 12.8 (b), 12.9(c) and 12.10(a)(ii) of the JSE Listing Requirements.

2.3.2 Disclaimers

Diamond Reserves are based on the modifying factors and assumptions currently applied; future Diamond Reserve estimates may need to be revised should these factors or assumptions change.Mine Plans, technical economic parameters and the financial model include forward-looking statements, which are, by necessity estimates and involve a number of risks and uncertainties that could cause actual results to differ materially.

This report includes technical information, which requires subsequent calculations to derive subtotals, totals and weighted averages. Such calculations may involve a degree of rounding and consequently introduce minor errors. Where such errors occur, Snowden does not consider these to be material.

2.4 Cautionary statements for United States investors

The United States (US) Securities and Exchange Commission (SEC) permits mining companies in their filings with the SEC, to disclose only those mineral deposits that a company can economically and legally extract or produce from. Certain terms are used in this report, such as “resources”, that the SEC guidelines strictly prohibit companies from including in filings.

3 TRANS HEX BUSINESS MODEL AND OPERATIONAL OVERVIEW

T1.2, T1.6

The Mineral Assets (or Trans Hex operations) comprise three alluvial diamond mining concessions, Trans Hex head office (Cape Town) and the diamond polishing factory (Johannesburg). Two of the mining concessions are situated in the Northern Cape Province (South Africa), namely: WCR Operations, with 40% Trans Hex ownership; and the LOR operations (100% Trans Hex ownership). The LOR operations (including Baken, Bloeddrif and Shallow Water operation) are situated in an area near Alexander Bay, on the border between South Africa and Namibia. West Coast Resource operations are located in the vicinity of the town of Kleinsee, approximately 615 km north of Cape Town. Trans Hex holds a 33% interest in the Somiluana Joint Venture or JV (Angola). The Somiluana JV owns the Somiluana Mine, which is located approximately 1,000 km from Luanda in the Lunda Norte Province in northeast Angola.

The Company is known for consistently producing the highest quality diamonds available in the South African market. Rough production is sold into the open market, to the South African State Diamond Trader, to Trans Hex's joint venture beneficiation BEE polishing factory based in Johannesburg and to Sociedade de Comercializacoa de Diamantes de Angola (Sodiam), the Angolan State-run marketing company.

Trans Hex seeks to identify and acquire greenfield or brownfield diamond assets locally or elsewhere in Africa, either as a full or partial shareholder.

3.1 Company history

Trans Hex's head office is situated in Cape Town, South Africa.

Trans Hex has been active in the diamond mining industry for 50 years. The Company was originally incorporated in South Africa as Buffelsbank Diamante in 1963 and subsequently appointed as a contractor to the then Small Business Development Corporation of South Africa to prospect for diamonds on the state-owned Komaggas farm in Namaqualand (Northern Cape Province).

In 1972, Buffelsbank Diamante acquired Baken Diamante (Pty) Limited from Allied Minerals Limited and in 1973, Buffelsbank Diamante was acquired by the newly established company, Trans Hex Beleggings. In 1980, the Rembrandt Group (Remgro) acquired 50% of Trans Hex Beleggings and Trans Hex was established as the holding company.

Trans Hex listed on the JSE in 1981 and in 1999 a dual listing on the Namibia Stock Exchange was obtained.

During the last decade, Trans Hex expanded into Africa and acquired a stake in three diamond projects in the Lunda Norte province of Angola.

In 2010, Remgro unbundled its stake in Trans Hex. As at 23 August 2016, the Company's largest shareholders are Regarding Capital Management Limited or RECM (25.1%), Metcap 14 (Pty) Limited (23.5%), Cream Magenta 140 (Pty) Limited (23.5%) and Investec (7.0%).

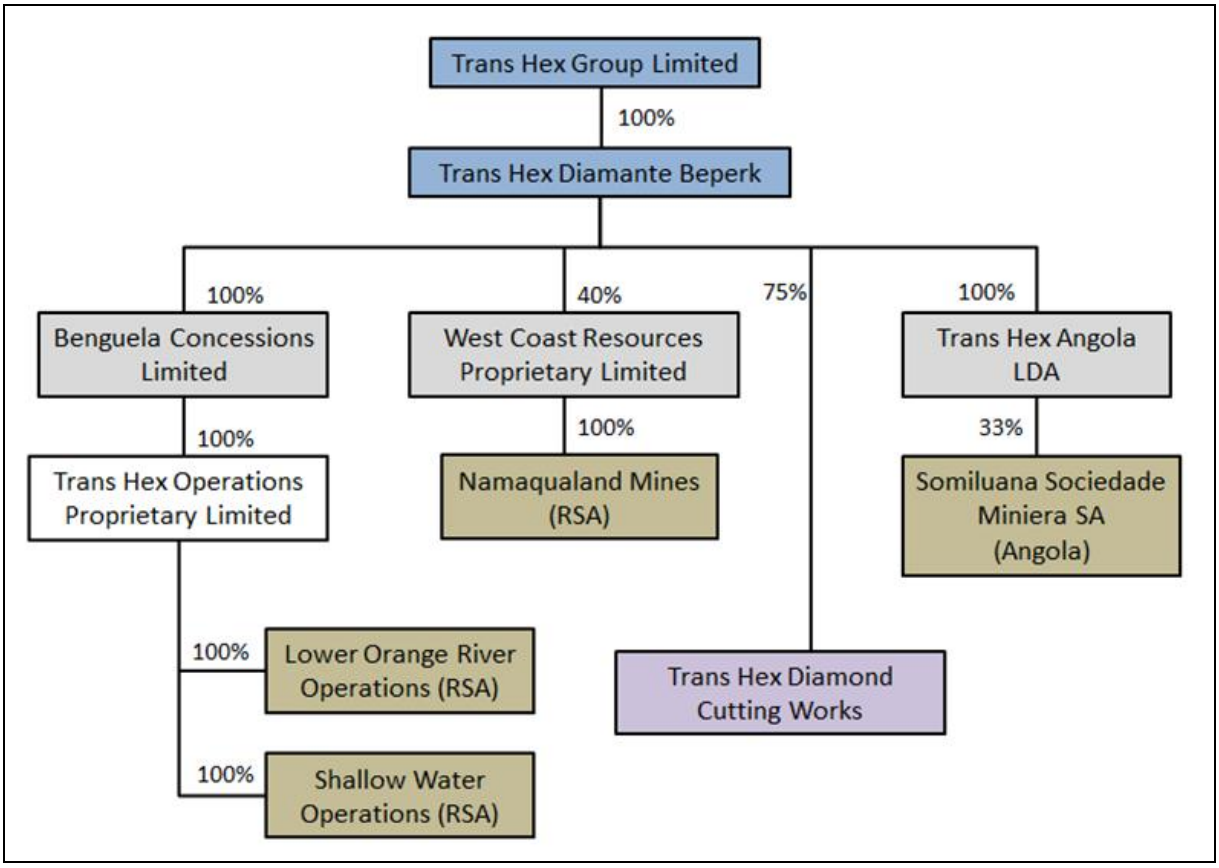
As part of its local beneficiation strategy, in 2008, Trans Hex established a joint venture company, Trans Hex Diamond Cutting Works (Pty) Limited. This is a small-scale BEE polishing factory located in Johannesburg.

Trans Hex is well known for the quality of its alluvial diamonds, with 95% used for jewellery and high-end consumer goods.

3.2 Company shareholding

Trans Hex shareholding for primary assets is shown in Figure 3.1. The Company has more than 35 entities registered, most of which are marketing subsidiaries.

Figure 3.1 Trans Hex shareholding for primary assets



Source: Trans Hex, 2016

Note: Brown cells denote alluvial mining operations

3.3 Trans Hex operational summary

The Trans Hex performance summary for Financial Year 2015 (FY2015) and FY2016 is shown in Table 3.1 and has been sourced from the Trans Hex Annual Report FY2016.

Table 3.1 Trans Hex performance summary, FY2015 and FY2016

Component	Average grade (ct/100 m^3)	Carats produced (ct)	Average carats per stone (ct/st)	Average price per carat achieved (US$/ct)	Value of carats produced (US$ M)
2016 Financial Year statistics					
Lower Orange River (LOR) operations					
Baken	1.28	37,603	1.42	986	37.1
Bloeddrif	0.80	3,538	2.19	1,472	5.2
Reuning	-	-	-	-	-
Remhoogte	-	-	-	-	-
Shallow Water	-	7,294	0.34	520	3.8
Total LOR	**1.22**	**48,435**	**0.97**	**981**	**46.1**
West Coast Resources (WCR)					
Total WCR	**53.34**	**24,930**	**0.30**	**208**	**5.2**
Angola					
Somiluana JV	**31.96**	**99,572**	**0.57**	**351**	**34.9**
Group total FY2016		**172,937**		**499**	**86.2**
2015 Financial Year statistics					
LOR operations					
Baken	1.34	43,534	1.22	1,261	54.9
Bloeddrif	1.36	6,081	2.21	2,055	12.5
Reuning	0.34	696	2.77	2,491	1.73
Remhoogte	-	4,241	3.12	2,272	9.64
Shallow Water	-	7,136	0.33	518	3.7
Total LOR	**1.29**	**61,688**	**1.00**	**1,353**	**83.5**
WCR					
Total WCR – No production	-	-	-	-	-
Angola					
Total Somiluana JV	**27.99**	**94,483**	**0.53**	**458**	**43.3**
Group total FY2015		**156,171**		**812**	**126.7**

Source: Trans Hex, 2016

Note: Average grade in South Africa is calculated excluding Shallow Water production

Ct – carat; St – stone (diamond); LOR – Lower Orange River; WCR – West Coast Resources

Totals may not add up due to rounding

3.4 Performance by operation for FY2016 and FY2015

3.4.1 LOR operations

The LOR operations are situated along the southern bank of the Orange River in the Richtersveld region of the Northern Cape Province and comprise Baken and Bloeddrif Mines.

The operations reached a safety milestone of seven years without a fatality at the end of FY2016. In February 2016, the Company concluded an agreement with the National Union of Mineworkers to change the production shift system effective from 29 February 2016. Operations changed from a four-shift system, running seven days per week, to a three-shift system, working a five and a

half day week. Overburden stripping rates and the volumes of gravel mined and treated were adjusted to ensure the most sustainable model for each mine going forward. A total of 125 employees (22% of the workforce) accepted voluntary retrenchment packages, effective on 29 February 2016. The majority of the volunteers were older employees with long service.

The change is in line with the Company's strategy of responsibly managing the ageing LOR operations in the final years of their economic life cycles by optimising mining and treatment volumes, together with cost reductions and improvements in efficiencies across the board. The aim is to extend the viable LoM of each operation for as long as possible, whilst constantly managing the risks inherent to mature alluvial mines.

Sales revenue from the South African operations decreased by 29% in Rand terms from ZAR939.7 M in 2015 to ZAR671.4 M in 2016. The disposal of the Remhoogte mining right and the discontinuation of operations at Reuning Mine accounted for 14% of the decrease. Sales from the LOR operations and Shallow Water operations decreased by 15% due to a decline of 23% in US$ diamond prices and 16% fewer carats sold. Revenue in ZAR was, however, positively affected by a 27% weakening in the Rand.

LOR operations production decreased by 21% to 48,435 carats (FY2015: 61,688 carats), mainly as a result of a 13% reduction in gravel treated and a 5% decline in average grade at the LOR operations to 1.22 carats per 100 cubic metres (ct/100 m^3) (FY2015: 1.29 carats/100 m^3). The voluntary retrenchment of some of the workforce in February 2016, as well as the accompanying shift changes, contributed to the decline in volumes treated.

The cost of goods sold decreased to ZAR678.2 M (FY2015: ZAR778.1 M). Key contributors included:

- a decrease in contractors fees in respect of Remhoogte (ZAR90.6 M)
- the discontinuation of the Reuning operations (ZAR56.2 M)
- stock movement (ZAR24.1 M)
- lower depreciation (ZAR20.6 M)
- retrenchment costs (ZAR46.6 M).

Unit cost of production for the LOR operations increased by 19% due to a reduction in volumes treated and an 8% increase in operating costs.

The gross loss for these operations amounted to ZAR6.8 M (FY2015: profit of ZAR161.6 M). Impairment charges in respect of these operations amounted to ZAR55.1 M (FY2015: ZAR86.2 M). The LOR operations recorded a loss before tax of ZAR119.1 M (FY2015: profit of ZAR173.2 M).

Planned production for the Orange River Operations in FY2017 is 41,000 carats.

Baken Mine

Production at Baken for FY2016 amounted to 37,603 carats (FY2015: 43 534 carats) at an average grade of 1.28 carats/100 m^3 compared to 1.34 carats/100 m^3 in FY2015. The average stone size increased by 16% from 1.22 carats per stone in FY2015 to 1.42 carats per stone in FY2016.

As a result of the change in shift systems, the processing capacity of the Baken central plant was downscaled from 1,600 tonnes per hour (tph) to 600 tph, and throughput reduced by approximately 36%. During FY2016, Baken Mine treated *in-situ* gravels from the Baken main

channel and Koeskop mining area, with average grades and stones sizes in sections of the main channel exceeding plan. One of three bulk sample trenches in the main channel was completed by year-end and the stripping of the other two trenches has been planned for the FY2017 period.

Operations will remain focused on these deposits until the economically viable gravel in the main channel has been exhausted, which is expected to be towards the end of February 2018. Baken Mine is nearing end of life in its current form as remaining reserves either lie too deep or are of too low a grade to mine profitably. Future operations will therefore be heavily dependent on the profitable mining of lower grade deposits. As a result, process improvements and cost-saving exercises are currently being focussed on by Trans Hex management.

Bloeddrif Mine

Bloeddrif Mine is situated in the Richtersveld region along the banks of the Lower Orange River, approximately 30 km upstream from Baken Mine. Although Bloeddrif Mine traditionally produces fewer diamonds than Baken Mine, these stones are generally larger and attract better prices per carat.

Bloeddrif Mine produced 3,538 carats during the reporting period compared to 6,081 carats in FY2015. The average grade achieved decreased significantly from 1.36 carats/100 m^3 in FY2015 to 0.80 carats/100 m^3 in FY2016. The average stone size was 2.19 carats per stone (FY2015: 2.21 carats per stone).

Gravel treated during the year under review originated mainly from the B1 paleo-channel. More than 63% of the total volumes mined comprised lower grade suspended gravel which was mined to gain access to higher grade basal gravel. As a result, the average grade decreased significantly and carat production fell by 42%.

The B1 paleo-channel will continue to be targeted in FY2017, but results are expected to improve with the mining of the now exposed higher grade basal gravel. The Bloeddrif plant was closed in December 2015 and January 2016 for production improvements to the front-end and tailings dump, which has increased its throughput capacity from 50,000 m^3 per month to 60,000 m^3 per month.

3.4.2 WCR

Trans Hex has been contracted by WCR to manage its Namaqualand operations. The Mine is situated approximately 60 km south of Port Nolloth along the West Coast of the Northern Cape Province and spans a total geographical area of more than 2,750 square kilometres (km^2).

Trans Hex holds a 40% stake in WCR, while the balance of the shares is held by RECM and Calibre Limited, the State through the Department of Public Enterprises, Dinoka Investment Holdings and the Namaqualand Diamond Fund Trust.

The acquisition of the Mine was finalised in October 2014, and production commenced in December 2015. Net revenue from the treatment of the small remaining tonnages of final recovery tailings and initial production was not expected to cover project operational expenditure during FY2016. As this project was still in a start-up phase, an expected loss was incurred for the year.

Production at WCR during FY2016 amounted to 24,930 carats at an average grade of 53.34 carats/100 m^3. The average stone size amounted to 0.30 carats per stone. Sales totalled ZAR49.4 M at an average price of US$208/ct.

At Koingnaas, the initial drilling programme targeted areas to be stripped and mined in the first six to 12 months of production. A 10 tph mobile sampling plant was commissioned in July 2015, treating samples from the scheduled production blocks to verify grade distribution.

Construction of the Michell's Bay production plant was completed towards the end of the 2015 calendar year. The 50 tph dense media separation (DMS) plant was commissioned in November 2015, followed by the washing and screening plant in December 2015. Mining operations commenced in December 2015 in the Langklip area, and produced 16,517 carats at an average grade of 37.40 ct/100 m^3.

During FY2016, the final recovery plant at Kleinsee treated final recovery tailings and produced 8,413 carats. A GeoLab was commissioned in January 2016 at the final recovery plant and will focus on sorting gravel received from the mobile sampling plant. On-going drilling and prospecting will continue to target high-priority areas that may identify additional resources for mining. Mining activities will remain focused on the Langklip area and on other sections of the Koingnaas area.

The introduction of an automatic carousel system at the final recovery plant in FY2017 will enable more than one type of gravel to be treated simultaneously, ensuring uninterrupted treatment and improved plant efficiency.

Sales amounted to ZAR49.4 M at an average price of US$208/ct. The equity accounted loss for the year amounted to ZAR13.6 M (FY2015: profit of ZAR123.3 M). In FY2015, the 40% interest in WCR is accounted for as an investment in an associate under the equity method. Included in the previous year profit is a gain of ZAR132.0 M, being negative goodwill that arose as a result of the acquisition of assets and liabilities relating to Namaqualand Mines.

Planned production for FY2017 is 123,000 carats.

3.4.3 Somiluana JV – Angola

Trans Hex operates the Somiluana Mine, as part of the Somiluana JV. The mine is located approximately 1,000 km northeast of Luanda in the diamond-rich but underdeveloped province of Lunda Norte. Trans Hex holds a 33% stake in the Mine, while Empresa Nacional de Diamantes de Angola or ENDIAMA (which is the State Diamond Company), holds a 39% stake; the balance of the shares is collectively held by three local companies. Somiluana started production in June 2010 after the conclusion of mining-phase agreements between Trans Hex and its partners.

Production at Somiluana Mine during the year amounted to 99,572 carats at an average grade of 31.96 carats/100 m^3 compared to 94,483 carats at an average grade of 27.99 carats/100 m^3 in FY2015. Total sales amounted to US$34.2 M at an average price of US$351/ct, compared to US$43.9 M at US$458/ct in FY2015.

In FY2015, funds generated from sales were retained to develop the Somiluana Mine. However, a decline in diamond prices, and the subsequent impact on revenue, halted some equipment purchases planned for the year under review. Carat production started to decline mid-2015 when mining operations encountered areas with high overburden and stripping operations were hampered by the equipment shortage.

In February 2016, mining operations were moved to a new part of the concession characterised by less overburden as well as promising grades and stone sizes. Production from the new area, also located on the east bank of the Luana River, commenced in late March 2016 and the initial results are positive. During FY2017, mining operations will continue on the east bank of the Luana River and prospecting activities will remain focused on the new location to direct

operations to areas of interest. External funding is being sought in order to speed up the expansion of the production footprint. Production results and geological work through drilling and bulk sampling indicate a profitable and long-term future.

In FY2016, production at the Somiluana JV amounted to 99,572 carats (FY2015: 94,483 carats) due to a 14% increase in average grade, partly offset by an 8% decrease in gravel treated. Total sales amounted to US$34.2 M at an average price of US$351/ct (FY2015: sales of US$43.9 M at an average price of US$458/ct). Repayments of US$1 M were made to Trans Hex against the outstanding investment amount and Trans Hex received US$330,000 in dividends. The loss from the Angolan operations amounted to ZAR36 M (FY2015: profit of ZAR2.4 M), consisting of a Somiluana JV equity accounted loss of ZAR15.8 M and Angola head office costs of ZAR20.6 M.

Planned production for FY2017 is 99,500 carats.

3.5 Five year business plan(s)

The Trans Hex five year business plan, 1 April 2016 to 31 March 2021 is discussed below (herein referred to as Trans Hex BP2017).

3.5.1 LOR operations

All LOR operations plan to be cash flow positive, except for Reuning which is under care and maintenance.

Baken Mine has 41,917 carats in Probable Reserve, scheduled over a LoM of less than two years. There is potential upside at Baken Mine associated with a number of marginal blocks that may become profitable due to changes in economic parameters as well as on-going sampling operations.

Bloeddrif has 25,600 carats in Probable Reserve, scheduled over a LoM of 31 months (to October 2018). An assumption has been made that these projects run to the end of life of mine where after employees are retrenched, earth moving equipment (EME) is sold and the rehabilitation shortfall is paid.

A further assumption is made that the cutting and polishing factory will close at this stage and the diamond stock will be liquidated as it will not be feasible to continue without the Baken and Bloeddrif production.

Shallow Water Operations will continue generating cash over the five year period at the same rate as the FY2017 budget.

These mines, together with the Shallow Water operations and the Reuning and Hondeklip mines (which are under care and maintenance) may generate a gross profit of ZAR116.5 M over the five year business model period (as reported in Trans Hex BP2017).

Cash generated after capital expenditure for these operations is ZAR225.5 M in the five year plan. Whilst taking closure costs into consideration, the cash generated after provision for retrenchments (ZAR75.0 M), proceeds of the sale of EME (ZAR29.6 M and the rehabilitation shortfall (ZAR27.9 M) amounts to ZAR152.3 M.

3.5.2 WCR

Management and Marketing fees received from WCR over the five year period amount to ZAR205.2 M in the Trans Hex BP2017.

Selling and administration costs are budgeted at ZAR96.8 M for FY2017; these costs have been retained at this value during the five year period and amount to ZAR483.8 M in the Trans Hex BP2017. Management commits to preparing an action plan for presentation at the next board meeting with regards to managing the selling and administration costs.

WCR has a LoM of 12 years. Trans Hex's share of the free cash flow from WCR over the five year period amounts to ZAR285.2 M in the Trans Hex BP2017.

3.5.3 Somiluana JV – Angola

Production at Somiluana started in June 2010 after the conclusion of mining-phase agreements.

The mine's known Diamond Resources exceed five million carats (Mct), with a Diamond Reserve estimated at 1.5 Mct, but this is expected to increase as exploration work continues. Confidence in available resources has increased due to an intensive drilling and prospecting campaign. On-going production drilling has allowed the mining operations to focus on areas of interest.

Cash generated by the mine has been used to expand and develop the mine, focussing on increasing production capacity by purchasing additional frontline equipment such as excavators, trucks, bulldozers and front-end loaders and replacing aged mining equipment. The mine also commissioned its third washing plant early in FY2016.

The approach to developing Somiluana JV has been conservative and the business has been growing steadily from internal cash flows. However, Somiluana JV can now be placed in a position where production can be scaled up and fast tracked.

Trans Hex has approached various Angolan and foreign banks with a view to obtaining finance for Somiluana JV to increase the production footprint. To date, two term sheets have been received. The five year business plan has been prepared on the basis that financing is obtained by Q3 2016. The possibility of bringing in a contract miner is also being investigated.

During FY2016, the existing mining fleet moved an average 450,000 m^3 per month. With the planned acquisitions, the EME capacity is planned to rise to 780,000 m^3 per month and to recover a target of 17,000 carats per month.

Dividends received from Somiluana JV in the five year plan amount to ZAR84.2 M and the shareholder loan repayments amount to ZAR277.2 M, bringing the total cash flow from Somiluana JV to ZAR361.3 M. No provision has been made in the Somiluana JV model for new projects.

Net cash generated for the five year period amounts to ZAR658.2 M and cash at the end of the period is ZAR957.7 M (as reported in the Trans Hex BP2017).

3.5.4 Key assumptions in Trans Hex BP2017

The 2017 budget is the first year of the business plan. The business plan is a real model with no escalation of diamond prices, an exchange rate fixed at ZAR14.75:US$1. No inflation or other escalations have been applied in the model. Net free cash flows from WCR and Somiluana JV are distributed to shareholders. WCR has on option to acquire the Buffels Marine Complex (BMC) from De Beers – this acquisition is omitted from the business plan.

No provision has been made for dividends to be paid to Trans Hex shareholders.

3.5.5 Key risks and challenges

There is potential for lower revenues, either through a stronger Rand or lower diamond prices, or both (this would apply to all Trans Hex operations).

The following risks are noted for LOR operations:

- Achieving budgeted throughput at Baken Mine due to one stream of the plant running during the budget period compared to two streams previously.
- Achieving the budgeted throughput at Bloeddrif Mine due to modifications undertaken at the plant.
- Additional capital expenditure (capitalised maintenance) at Baken Mine due to the aging fleet.

The following risks are noted for WCR:

- Achieving budgeted average grades in the mine blocks scheduled, particularly block KN 6869 F6.
- Achieving the design throughput of 200 tph at the Michell's Bay Front-End.

The following risks are noted for Somiluana Mine:

- Obtaining a loan to finance additional EME, or securing a mining contractor and plant to increase the production footprint
- Single marketing channel limits the income by not achieving better open market prices
- Realised diamond prices through single channel marketing
- General slow recovery of the Angolan economy due to the slump of oil prices, may affect the availability of goods and services within the country.

4 IDENTITY AND TENURE

T1.5

4.1 South African legislation

4.1.1 Mining law and mining title

South Africa has a complex system of mineral tenure. Old order rights (mineral rights issued prior to May 2004), had to be converted to new order rights under the new regulations of the Minerals and Petroleum Resources Development Act, Act No. 28 of 2002 (as amended) (MPRDA) within specific time periods. For this purpose new order rights have been classified into specific categories. Old order mining rights were required to be lodged for conversion on or before 30 April 2009. The conversion process is not automatic. A key requirement in the transitional phase, prior to new order mining right approval, is the submission of a social and labour plan (SLP), a mine works program (MWP), proof of technical and financial competence, compliance with the equity ownership targets for participation of historically disadvantaged South Africans (HDSAs) in the Mining Charter as well as an approved environmental management program report (EMPR) (now an environmental authorisation under the "One Environmental System").

The MPRDA also provides that a mining right is valid for a period of up to 30 years and may be renewed for periods of up to 30 years.

From 8 December 2014, the National Environmental Management Act 107 of 1998 (NEMA) and its regulations set out the procedures for undertaking environmental impact assessments (EIAs) and for developing an environmental authorisation for the construction, operation and closure of mine. An approved environmental authorisation certifies that all the legislative requirements at the date when a prospecting or mining right is granted have been met or adequately provided for, and that ongoing compliance with the approved environmental authorisation will be monitored.

The Mining Charter was published by the Minister of Minerals and Energy (now the Minister of Mineral Resources), following engagement with the mining industry and labour organisations, under section 100(2) of the MPRDA. The Mining Charter was initially published in October 2002 and took effect simultaneously with the MPRDA on 1 May 2004. It was subsequently amended in September 2010. Currently under the Mining Charter a mining company is required to achieve a "*minimum target of 26 percent ownership to enable meaningful economic participation of HDSAs"* by 2014. The Mining Charter contains employment equity targes of at least 40% HDSA participation in mining company management within five years, with 10% being participation by women.

All Mining Rights and the Prospecting Right granted are subject to the limitation that "Ministerial consent is required to encumber, cede, transfer, mortgage, let, sublet, assign, alienate or otherwise dispose of shareholding, equity, interest or participation in the right, or a controlling interest in the holder of right, except in the case of a change of controlling interest in listed companies".

The MPRDA Amendment Act 49 of 2008 was assented to by the South African President on 21 April 2009, and partly came into effect on 7 June 2013.

Trans Hex confirms that it qualifies under the legislation referred to above, to continue its mining operations in South Africa.

4.1.2 Mineral and Petroleum Resources Development Amendment Bill (MPRDA Bill)

The MPRDA Bill is not yet an act of Parliament. On 16 January 2015 the President of South Africa referred the MPRDA Bill back to the National Assembly for reconsideration. After careful consideration of the MPRDA Bill and the submissions received, the President was of the view that the MPRDA Bill would not pass constitutional muster. The Constitution requires that the President must assent to and sign the MPRDA Bill referred to him by the National Assembly. However, in terms of the Constitution, if the President has reservations about the constitutionality of the Bill, he may refer it back to the National Assembly for reconsideration.

4.1.3 Diamonds Act No. 56 of 1986 (as amended from time to time)

The purpose of this Act (the Diamonds Act) is to control the possession, the purchase and sale, the processing, the local beneficiation and the export of diamonds and to regulate matters connected therewith through the offices of the Diamond Regulator and the State Diamond Trader. The Diamonds Act regulates the possession, sale and purchase of unpolished diamonds by certain prescribed licencing, permitting or other authorisations. Similarly the following activities are either expressly restricted or prohibited unless certain conditions are met:

- activities restricted to certain persons:
  - dealing in unpolished diamonds
  - processing of diamonds.
- activities prohibited unless certain conditions are met:
  - erection and operation of machinery designed or adapted for the polishing of diamonds
  - export of unpolished diamonds.

4.1.4 Mining title and mining agreements

The mining rights held by Trans Hex are listed in Appendix A.

Snowden has received a letter, dated 24 August 2016 (TSX Letter), from Mr Vincent Madlela, Trans Hex Group Manager: Legal and Stakeholder Relations, which confirms that Trans Hex Group Limited is the duly registered legal holder of the mining rights for the operations referred to as LOR operations (100% ownership) and WCR (40% ownership).

The TSX Letter indicates that all of these mining rights (with the exclusion of NC 531 MR Richtersveld, LOR operations), have no pending legal actions or infringements. An appeal from a third party regardging NC 531 MR Richtersveld has been lodged with the Department of Mineral Resources and is currently pending.Snowden has not undertaken independent review of legal title.

All Mining Rights have been granted for the mining of alluvial diamonds.

Snowden has been informed that the documents in respect of the Mining Rights in Appendix A have been viewed and examined by the Trans Hex Group Manager: Legal and Stakeholder Relations. DMR has not advised Trans Hex of a breach of or non-compliance with any term or condition of its Mining Rights granted under the MPRDA.

Surface rights

The properties indicated in Appendix A cover the entire extent of the Mining Rights held by Trans Hex or its subsidiaries. Surface access is only required on certain portions of the Mining Rights.

WCR is the current surface right holder in respect of all of the surface rights covering the WCR Mining Rights. LOR operations and the Shallow Water operations do not require surface rights for access to the near shore and surf areas. Surface rights for Baken and Bloeddrif operations are in place.

The lease agreement in respect of the Farm Brazil No.329 is for auxiliary mining purposes, such as hostels, which are for use by the contractors (and cannot be used for mining purposes).

The lease agreement for the Farm Schaapvlei Hill No.157 makes provision for the processing of mined gravels, but actual mining is undertaken at sea, as it is adjacent to Mining Rights WC319MR for Weskus. This lease allows for the access and construction of contractor hostels.

The surface leases on the Mining Rights are shown in Table 4.1.

Table 4.1 Trans Hex surface leases

Property	Size (ha)	Name of third party lessor	Status of lease agreement	Term/termination date (if known)
Lower Orange River operations				
The Farm Schaapvlei Hill No.157, Van Rynsdorp	762.46	Department of Public Works	Ongoing	Indefinite until either party terminates with 90 days written notice
The Farm Brazil No.329	6.15	Department of Public Works	Ongoing	31 December 2017

Source: Trans Hex, 2016

Land and Restitution claims

A land claim lodged by the Hondeklip Bay community relates to 11 properties in the Namaqualand area, five of which is owned by DBCM, and form part of the Koingnaas Mining Right and NM Prospecting Right as follows:

- Zwart Lintjes Rivier 484
- Lang Klip 489
- Michell's Bay 495
- Gemsbok Vlakte 498
- Farm No 496 (known as Kliphuis).

At the date of completion of this report the status of these claims is uncertain but generally a claim is made only to the Surface rights attaching to the land and not to the Mineral Rights as well. However, although it seems unlikely that the existing claims may affect the Mineral Rights associated with the WCR operations. It should be noted that in South African case law, decided before the MPRDA took effect, a claim under the Land Rights Act may include Mineral Rights.

If a land claim in respect of the surface is settled in favour of the claimants, this should not stop mining or prospecting operations, as the Mineral Rights holder enjoys statutory rights relating to accessing the land but change of ownership may require additional compensation claims to be negotiated.

4.1.5 Royalty Act and associated royalties

The Mineral and Petroleum Resources Royalty Act, Act No. 28 of 2008 (Royalty Act) was promulgated on 17 November 2008, with an effective royalty payment commencement date of 1 March 2010. The Royalty Act provides for the imposition of a royalty on the transfer of Diamond Resources and the Administration Act provides for the administration of matters in connection with such imposition and matters connected therewith. In terms of the Royalty Act, the holders of Mining Rights and persons who win or recover Diamond Resources from within South Africa (Affected Persons) must apply to register with the Commissioner for the South African Revenue Service (the Commissioner) from 1 November 2009, but by no later than 31 January 2010, and a person who qualifies as an Affected Person after 1 November 2009, must apply to register with the Commissioner within 60 days after the day on which that person qualifies as an Affected Person.

The Royalty Act incorporates a formula-based royalty scheme, specific to commodity and level of product refinement. The royalty calculation used in the Valuation, as per the Royalty Act, is shown below:

- Royalty rate (Unrefined) = 0.5 + [EBIT/(Gross sales x 9)] x 100 with a maximum of 7%
- Royalty rate (Refined) = 0.5 + [EBIT/(Gross sales x 12.5)] x 100 with a maximum of 5%.

In addition, a 5% export levy is applied to WCR diamond sales. LOR operations do not have this levy applied, as it has a diamond cutting works/beneficiation plant.

Trans Hex is registered with the South African Revenue Services (SARS) for Royalty Act purposes. Furthermore, Trans Hex is aware of final royalty payments, the SARS submission of return and appropriate reporting requirements, as determined by the Royalty Act and the Mineral and Petroleum Resources Royalty (Administration) Act, Act No. 29 of 2008 (Administrative Act).

4.2 Angolan legislation

In 2015, Angola was the world's sixth largest producer of diamonds by value with forecast reported annual production of 9 Mct in 2015. Angola introduced a new Mining Code in 2012 and is actively seeking foreign investment in its diamond industry.

The 2012 legislation covering the Angolan diamond industry stipulates that only Empresa Nacional de Diamantes de Angola or ENDIAMA (which is the State Diamond Company) or joint ventures with ENDIAMA, can hold diamond mining rights awarded by the Council of Ministers.

Pursuant to Luana's Concession Decree (Executive Decree 65/10, of 18 June 2010) and the Mining Contract approved thereunder, the Somiluana Mine was granted the following mineral rights:

(i) Mining of mineral alluvial deposits and processing the mineral resources discovered in the concession area during the exploration stage

(ii) Marketing the diamonds recovered during the mining operations

(iii) Exploration, evaluation and reconnaissance of additional diamond alluvial deposits within the concession area.

Pursuant to the Concession Decree, Somiluana has exclusive and irrevocable mining rights over all diamond alluvial deposits which may be discovered further to the additional exploration works, no additional technical, economic and financial feasibility studies, approvals, authorizations or other formalities being required or applicable.

4.2.1 Mining title and mining agreements

The Mining Contract was executed on 12 May 2010 and subsequently approved by the Concession Decree, published in the Angolan Official Gazette on 18 June 2010. According to its Clauses 1.11 and 55, the Mining Contract entered into force and, consequently its duration period started on the 18 June 2010.

The holder of the mineral rights is Somiluana JV, a joint stock company incorporated under Angolan laws, with the following shareholding:

- ENDIAMA – 780 shares, representing 39% of the share capital
- Trans Hex Angola Lda – 660 shares,representing 33% of the share capital
- CAXINJI – 260 shares, representing 13% of the share capital
- WENJY – 200 shares, representing 10 % of the share capital
- ZÁ-KUFUNA – 100 shares, representing 5% of the share capital.

The TSX Letter confirms that Trans Hex Angola Lda is the duly registered legal holder of 33% of the share capital of Somiluana JV. Trans Hex Angola Lda is in good standing with all the relevant authorities in Angola. The TSX Letter indicates that these mining rights have no pending legal actions or infringements.

The Mining Contract is valid for the period of time required to exhaust the alluvial deposit, up to a maximum of 30 years for each mine, renewable for additional 10-year periods upon request of the concessionaire entity (Somiluana). The application for extension must be submitted to the Minister of Geology and Mines with a prior notice of at least six months in relation to the expiry of the initial mining period or any extension thereof.

The mining rights are listed in Appendix A.

4.2.2 Surface rights

According to paragraph 1 of article 72 of the Mining Code “the concession of mining rights shall not entail the assignment of the ownership of areas granted for geological-mining investigation or that of land where mineral beds are located. However, whenever such land belongs to the public domain of the State and is not utilized for specific purposes, the holders of the respective mining rights, shall be entitled to utilize and benefit from same, in accordance with the terms, and for the purposes, contained in paragraphs c), e) and f) of article 92, against payment of the surface taxes established (holders of small-scale mining rights shall be exempt).

Paragraphs c) of article 92:

“Utilize superficial and subterranean water existing close to concession area not being utilized or not covered by another specific mining title, without prejudice to third-party rights and with mining legislation always being observed”.

Paragraphs e) of article 92:

“Utilize, under pertinent legal conditions and regulations, land demarcated for setting up mining facilities, buildings and equipment”.

Paragraphs f) of article 92:

“Modify, in accordance with approved work plans and programs, and as essentially required to execute mining operations, the natural configuration of areas defined in the concession”.

4.2.3 Royalties

Sales taxes amount to 10%, revenue withholding tax to 2.5%, all applicable to gross sales and stamp tax of 1% applicable to net sales. Withholding tax is to be deducted based on the corporate income tax calculation at year end.

In addition to the general and industry-specific tax obligations (surface fees included), holders of mineral rights will be required to make contributions to an environmental fund, still to be created by the Angolan national authorities.

5 MINERAL ASSETS SUMMARY

T1.1, T1.5, T1.6

5.1 LOR operations

The LOR Mining Right situated near Sandrift village, along the banks of the South African side of the Lower Orange River (which forms the border between South Africa and Namibia). The southernmost limit of the Mining Licence area is approximately 40 km upstream from Alexander Bay, near Sandrift village in the Northern Cape Province and extends approximately 50 km upstream.

This Mining Right covers a total combined area of 41,334 hectares (ha) and is shown in Figure 5.1.

In the north, the Mining Right area overlaps (by approximately 8,700 ha) with the Richtersveld Transfrontier National Park.

The Mining Right comprises three mining and exploration areas (each comprising multiple diamondiferous paleo-channel alluvial gravel deposits). The three mining and exploration areas include:

- Baken Mine, in the south, which is focussed on full-scale production of substantial resources with up to 70 m of overburden
- Bloeddrif Mine, in the centre, which is focussed on bulk sampling and selective mining of diamond resources with relatively low stripping ratios (2.9:1)
- Reuning Mine, in the north, is focussed on trench sampling and selective mining of small resource areas with very low stripping ratios (0.3:1).

In total these deposits extend for 55 km along the south bank of the Orange River from above the 1:100 year flood-line to 6 km landward.

5.1.1 Location and access

The LOR operations are situated in the far northwest of South Africa, also known as the region of Little Namaqualand. Alexander Bay is the nearest town to the LOR operations; the town is 787 km north of Cape Town and 227 km northwest of Springbok and was established to service the mining industry in the early 1920's. The town of Oranjemund lies on the northern Namibian bank of the Orange River, which forms the international border between South Africa and Namibia. The mining concession area lies between 16°58'28.12"E, 28°3'48.59"S and 16°48'11.54"E, 28°32'4.19"S.

The regional road, the R382, splits from the national road N7, at Steinkopf, north of Springbok. This regional road passes Port Nolloth, Holgat and Alexander Bay. Road access to the Mining Licence area is by an all-weather gravel road (Divisional Road 3246) from the town of Alexander Bay (approximately 45 km to the southeast). This road is in excellent condition and is maintained by Trans Hex. The road extends an additional 30 km to Bloeddrif Mine. Alexander Bay town is served by a small airport which services flights from South Africa and Namibia.

Access to the various mining areas is by a network of well maintained, all-weather gravel roads. All terraces are interconnected by roads or tracks in generally good state of repair. Only the northernmost terrace (Swartpoort Terrace) requires the use of 4X4 vehicles to gain access.

The Mining Licence area is also serviced by two gravel airstrips (at Baken and Reuning) which are in excellent condition and are maintained by Trans Hex. A third airstrip at Bloeddrif is currently unused and has not been maintained. The Lower Orange River is not navigable.

5.1.2 Climate and topography

The Mining Licence area occurs in a remote mountainous desert environment characterised by very high day time temperatures, (particularly during the summer months from November to March when daily maximum temperatures regularly exceed 35ºC). Regular strong south-westerly winds occur and rainfall of generally less than 50 mm/yr is noted.

Rain either occurs as light winter rain from the west associated with an extensive low pressure cell over the south-western Cape or as very occasional thunder storms in the months of March/April. Given the bare rock exposure of the catchment areas of the Bloeddrif and Baken areas with steep topography, concentrated run-off does occasionally cause wash-aways of sandy soils in the stream channels in this area despite the general low intensity of rainfall. Temperatures typically increase inland from the coast. The prevailing wind direction is from the south (onshore), but switches to an easterly direction during berg wind conditions when increased temperatures are often experienced. Extreme weather conditions are rare with rainfall highs occurring once in ten years and occasional gale force winds.

The Mining Right area encompasses the eastern bank of the deeply incised Lower Orange River as well as the adjacent slopes and rugged mountains of the Western Richtersveld. The river is currently at an elevation of approximately 18 mamsl (meters above mean sea level). The regional topography is dominated by northwest-southeast ridges and mountain ranges. From the Vandersterrberg ridge (1,363 m) which runs northward from the Ploegberg to the Numeesberg and extends north to the Orange River at Swartpoort, these mountains form an east-west watershed between the western (Mining Right area) and eastern Richtersveld catchments.

Within the western slope (basin) of the Orange River a number of hills break the slope into well-defined basins to form topographic features along the river. These include from south to north Koeskop, Bloeddrif black dolerite hills, Nxodap Ridge, Jakkalsberg Ridge, Vyf Susters Ridge to the east and Mehlberg.

The drainage reflects a dendritic pattern in the south on the deep weathered granite slopes in deep soils as far northwest as the Koeskop–Wondergat area. While a similar dendritic pattern or no drainage pattern at all exists on the terraces themselves given their permeability, the remainder of the Mining Right area is characterised by well-defined run-off channels which are generally soil filled but often eroded to bed rock. These channels are charged during rainfall episodes, bringing very fast run-off from bare rock outcrops on the hills and mountain slopes.

5.1.3 Infrastructure

Water is sourced from the Orange River. The operations consume approximately 150,000 kℓ per month for the process plants and 32,250 kℓ per month for the townships. The town of Baken is provided with water from a local 24 m^3/hr water purification plant. The purification consists of flocculation with alum, sand filtration and gas chlorination. Smaller treatment plants have been commissioned at the Baken Central Plant (BCP), Reuning Central Plant and at the towns of Bloeddrif and Reuning with the same process to provide potable water at the plants, offices, workshops, stores and residences. These plants have a capacity of 12 m^3/hr. Process water is supplied directly without treatment from pump stations on the Orange River banks.

Power electricity is sourced via the national grid. The operations notified maximum demand is currently 8 MVA at 22 kV.

Diesel fuel is transported to the mine from Cape Town or Bitterfontein by 20 m³ tanker trucks to diesel tanks at the BCP stores area, the mobile plant workshops, the Baken town filling station and smaller tanks at each plant. The entire management of the supply and storage of fuels and lubricants has been contracted to suppliers.

Each plant has its own limited workshop facilities and the BCP is equipped with a full workshop facility for all plant practices together with outdoor and indoor stores which service all LOR operations.

Each plant retains its small production office and personnel amenities, but the BCP is equipped with a production central office and central personnel amenities for the entire mining area.

Central management and administration of the Baken and Bloeddrif operations is conducted from the office building in Baken town, while that of the Richtersveld operations (Bloeddrif and Reuning operations) is conducted from the office building in Reuning Town.

All staff reside in the two mining towns of Baken and Reuning (old Sendelingsdrift) within the Mining Licence area; or the two non-mining towns of Sanddrif (in the Mining Licence area) and Kuboes (outside the Mining Licence area). All accommodation is provided to staff free of charge and is maintained by Trans Hex.

There are no sewage plants in use at the operations. All houses, hostels, clubs and mine personnel facilities are served by septic tanks and soakaways which, given the depth and permeability of the sands and gravels have not presented any problem to date.

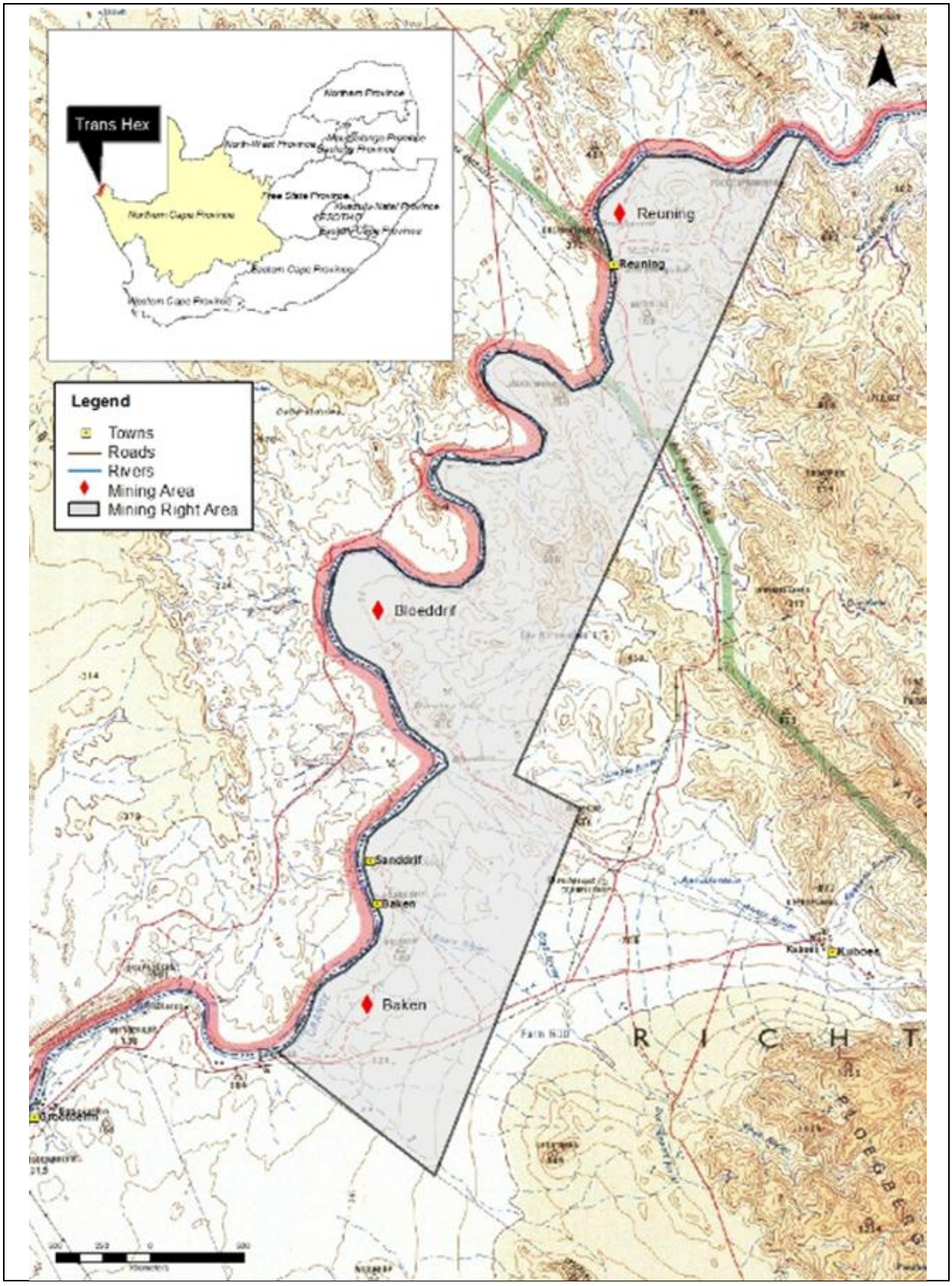
Telecommunication is readily available through the national network (Telkom), and cellular telephone networks are available.

5.1.4 History

T1.6

During the period from 1927 to 1962, prospecting for diamonds on all State land in Namaqualand was prohibited. In the early 1960s, Allied Minerals was granted the rights to the Baken concession and a mining lease was issued during 1969/70. In 1972 Trans Hex Mining acquired all of the assets of Baken Diamante from Allied Minerals. A small-scale mining operation started in 1972, with a bulk-sampling programme. After a short break, full-scale mining operations resumed during 1981 and have continued since then, with intermittent care and maintenance. In 1984, Trans Hex acquired the rights to Namex, gaining an additional area of 20,562 ha. In 1991, the Mining Licence (ML02/1991) for the amalgamated operations in the greater area (now LOR operations) was granted to Trans Hex.

Figure 5.1 Lower Orange River Mining Right



Source: Trans Hex, 2016b

5.1.5 Summary of geology and mineralisation

T1.7

The bedrock or basement geology of the Lower Orange River is dominated by the Middle to Late Proterozoic aged (2.0 Ma to 0.5 Ma) rocks of the Richtersveld Supergroup. These form a rugged mountainous landscape (Figure 5.1), which has been traversed and incised by the meandering Orange River since late Tertiary times (approximately 10 Ma).

In summary, the basement rocks comprise the following:

- a western sequence of the younger (±700 Ma) Holgat Formation, comprising interbedded dolomites, metapelite and arenite. These rocks dominate the bedrock geology of the Baken and Bloeddrif areas
- a central zone which is underlain by the dolomites, tillites (diamictites) and iron-formations of the Hilda Subgroup and the Numees and Kaigas Formations. This is the predominant bedrock geology of the Nxodap, Jakkalsberg, Southgate, Mehl West, Airstrip Terrace and Dreigratdrif satellite areas of Reuning
- the much older 1,100-1,900 Ma Orange River Group rocks comprising granites which underlie the Reuning Central satellite areas of Reuning.

The bedrock has no relation to the diamond deposits, and its significance is limited to:

- having controlled the paleo-river meandering
- having facilitated local development of plunge pools and potholes which are associated with greater concentrations of diamonds.

The diamond deposits are alluvial in nature and are limited to a young system of remnant paleo-channel deposits. These unconsolidated channel deposits are generally associated with a deposition cycle in the Miocene and Pliocene. The Miocene cycle resulted in the deposition of the older gravels and the Pliocene cycle in the deposition of the younger gravels (forming the more recent paleo-terraces). Both deposit types are classified as part of the Arries Drift Gravel Formation. These two sets of diamondiferous gravels are referred to as the “proto” (older); and the “meso” (younger) deposits.

The alluvial diamonds themselves represent transported diamonds eroded from primary kimberlitic sources (kimberlite pipes and dykes) within the catchment of the proto-Orange River on the Kaapvaal Craton.

It is generally accepted that proto-aged gravels have a relatively high average diamond grade and in contrast meso-aged gravels have a relatively low average diamond grade. The proto gravel-filled meanders occur in cut-off meander (horse-shoe or ox-bow) deposits up to 6 km from the present river course as at Bloeddrif B1 and B2 and Baken (deep channel).

The subsequent meso-terraces however, bear no depositional relation or topographical elevation relationship to the proto channels and generally the meso-terraces are located as longitudinal terraces sub-parallel to the present river course.

The meso-terraces are capped by surface deflation rubble (well-rounded and wind eroded pebbles and shards) with topsoil generally absent. The proto gravel areas, more distant from the river, show no surface outcrop but simply reflect the soil profile of the surrounding area (the soils bear no relation to the deep gravels up to 60 m below).

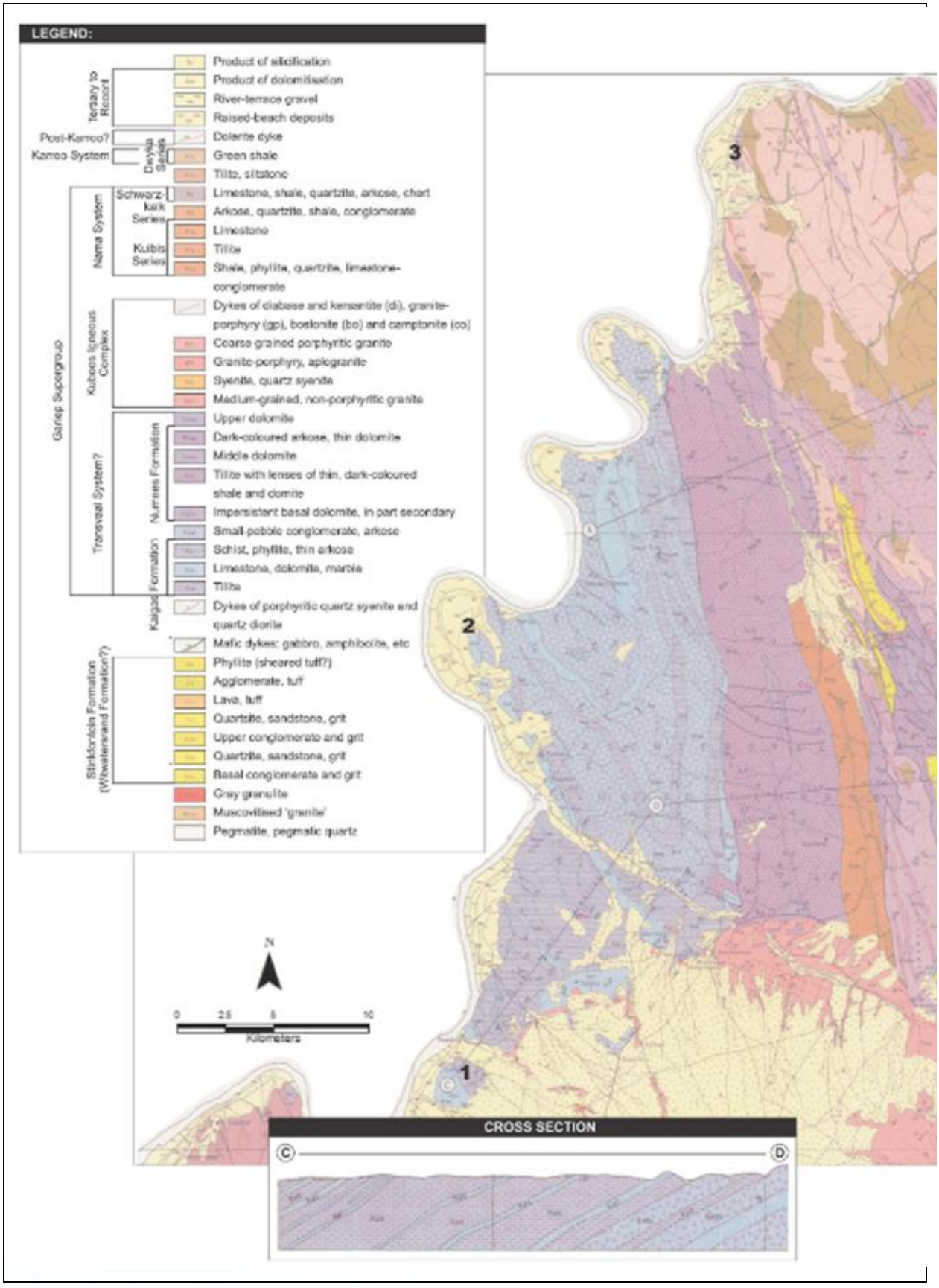
There are currently no mining activities on the meso-aged terraces, except where they are underlain by deep proto- and pre-proto scours. Plans to convert these gravels into a mineable resource

through increased capacity, lowering of unit costs and anticipated improved market conditions are progressing well, particularly at Baken Mine.

Two north-northwest striking dolerite dykes within the bedrock have been mapped; one at the northern end of the B2 horse-shoe at Bloeddrif Mine and another which passes north-south into Mehl and west of Reuning Central.

The Jakkalsberg Fault is the largest fault in the area. Like the dykes, these faults strike north-northwest and none of these affect the mining process given their dormancy (age tectonically) and their similar insignificance in terms of groundwater source or possible contamination conduit.

Figure 5.2 Geological map of Lower Orange River operations



Source: Trans Hex, 2016b

5.1.6 Baken Mine

The Baken Mine is the most southerly mining area (Figure 5.1) within the Mining Right and focuses on the full-scale production of substantial Diamond Reserves with a maximum overburden of 70 m. The Baken Mine is Trans Hex's flagship operation along the Lower Orange River currently treating approximately 10 Mt (or 4 million cubic metres or Mm^3) of gravels per year. Total overburden volumes moved is approximately 23 Mt per annum (Mtpa) (or 11 Mm^3).

Local geology

The Baken area is predominantly underlain by the basement rocks of the Holgat Formation, comprising interbedded dolomites, metapelites and arenites.

The Baken paleo-channel is a classic proto-aged oxbow feature which has been cut-off from the present-day Orange River valley. It represents a remnant of a meandering fluvial system caused by a change in the direction of the river. It is characterised by the deposition of heavy minerals in areas where local conditions like obstructions or depressions, rising bedrock, junctions of cross-channels, etcetera, resulted in a loss of energy. It is filled with an upward fining sequence of sediments correlated with the Arries Drift Gravel formation, comprising a coarse-grained diamondiferous gravel unit (basal gravel) at its base, overlain by often lenticular beds of more sandy gravel (suspended gravel), which, in turn are covered by sand and silt representing the final stages of deposition of the so-called proto-Orange River.

The diamondiferous gravels consist of:

- a large 7 km long, 1.2 km wide horse-shoe proto channel of Koeskop – Swartwater where the gravels occur 2 m to14 m thick overlying schists and granite bedrock and covered by between 30 m and 60 m of sandy and gravel overburden
- the raised Terrace 1 and Terrace 2 proto terraces each measuring 1.5 km by 1.5 km with overburden depth of between 2 m to 5 m
- a smaller 1.5 km by 0.7 km remnant Xheiss proto gravel terrace (largely mined-out)
- the large 3.5 km by 0.8 km Sanddrif meso gravel terrace
- the 7 km by 0.5 km wide lower Koeskop – Swartwater meso-terrace.

The only significant feature of the Baken area bedrock is that of the contact between the schists and granite and granite dykes which have caused deep plunge pools and related enrichment of diamond deposits.

5.1.7 Bloeddrif Mine

Bloeddrif Mine is located on the southern bank of the Orange River, approximately 25 km upstream from Baken Mine within Trans Hex's Mining Right area. The Bloeddrif Mine is currently selectively mining estimated Diamond Reserves and Payable Inferred Resources. Trans Hex management is focussing on upgrading the plant capacity and reducing the plant's unit costs in order to mine lower grade deposits.

Local geology

The basement geology of the Bloeddrif area is dominated by the rocks of the Kaigas Formation, comprising interbedded dolomites, metapelites and arenites. The gravel suites associated with both the proto and meso terraces, characteristic of the Baken area, are also present at Bloeddrif.

The proto-sediments at Bloeddrif are predominantly preserved within two cut-off meanders, named B1 and B2, which are partially surrounded by prominent dolomite hills. These terraces are mid-Miocene in age (19 Ma to 17 Ma). Smaller remnants of proto gravel are also present in deep scour pools, which are generally overlain by younger meso-sediments.

Two low-lying meso gravel terraces at Bloeddrif, which are considered to be Plio-Pleistocene in age (approximately 2 Ma) are preserved along the present day river. These meso-terraces have been named the Xarries and Airstrip terraces.

The country rock in the area consists of schist, dolomite and metapelite/arenite, with roughly a north-south strike direction and a dip to the west. The dolomite unit constitutes a line of isolated hills, which played a major role in the preservation of some of the proto deposits.

The Proto Orange River course can be traced from the Daberas deposit on the Namibian side of the present Orange River, across the Xarries terrace, through B2 and B1, to Auchas on the Namibian side of the present Orange River.

It is interpreted that a lowering of the sea level caused incision of the river to meso-level and resulted in the preservation of a number of cut-off meanders as the deposits of Daberas, B1, B2 and Auchas. Three different stages of meso incision and deposition, namely meso 1, meso 2 and meso 3, have been recognised.

Gravels at the outlet side of both the B1 and B2 paleo-channels have been removed by mining activities conducted by Octha Diamond Company prior to Trans Hex's involvement. Octha Diamond Company also excavated a number of large sampling trenches in the B1, B2 and Xarries deposits for which no results are available. Mining activities are currently focused on the B1 channel where the sediments of the outer bend of the deposit have been excavated.

5.1.8 Shallow Water operations

The Shallow Waters concession comprises the Die Punt operations (Southern Area) and Port Nolloth (Northern area) and relate to concessions on the Namaqualand west coast between Doring Bay and the Sout River northwest of Koekenaap/Lutzville. The concession covers an area of between S31^{0}13' and E31^{0}27', and S31^{0}47' and E31^{0}49'. Trans Hex Operations (Pty) Limited have prospected and mined in Sea Areas 11a & b, 12a and 13a & b, and its respective surf zones, continuously by means of vessel-based operations and by means of contracted shallow water boat diving and beach operations, for more than 10 years. The majority of these contractors are derived from the surrounding local communities and the boats were generally based at De Punt, Lambert's Bay and Doring Bay. Additional shallow water rights are located further north at the farm Brazil and Hondeklip Bay.

These concessions combined have produced a total of approximately 366,000 ct from 1987 to 2010. Production figures average from over 20,000 ct to approximately 5,000 ct per annum at an average stone size of 0.43 ct/st for the same period.

Location and access

Most towns in this region are served by branches from the N7 (R362/R363 to Papendorp and Strandfontein via Vredendal or Lutzville, and R364 to Doring Bay). There is no provincial coastal road along much of the coastline of concessions 11 and 12, although a proclaimed gravel road runs parallel to the coast and approximately 1 km inland. Since the District Municipality discontinued maintenance of the proclaimed coastal road, Trans Hex and De Punt Mining Company Pty Limited (DPMC) as the major users of the road have taken over the responsibility

for its maintenance and upkeep (particularly the section linking Koekenaap with De Punt, and further north to the boundary of concession 11a.

Climate and topography

The West Coast region is arid with a dry and relatively cool climate, moderated by the effects of the Atlantic Ocean upwelling system and influenced constantly by the sea through wind and aerosol inputs. Oceanic fog is common, occurring on an average of 123 days per year. Rainfall occurs mainly in winter and increases from north to south varying from approximately 40 mm/year at Alexander Bay to approximately 200 mm/year at Elands Bay. Mean annual rainfall measured at Vredendal amounts to 151 mm, whilst mean annual evaporation is around 2,230 mm. Moderate to strong south-easterly winds caused by the South Atlantic subtropical anticyclone are typical in summer as are gale force westerly winds in winter, which can produce sandstorms. Highest temperatures (greater than 30°C) tend to occur in summer during 'berg' wind conditions.

The coastal strip between Doring Bay and the Sout River is characterised by two main landforms: a cliffed coast which reflects an eroding coastline, and a relatively homeostatic dune coast. The coastline is subject to gradual accumulation of sand deposits during summer, and subsequent beach erosion during winter, as part of a natural sedimentary cycle. Superimposed on this seasonal pattern are bi-weekly, daily, and storm-associated sand movements. The frequency and duration of sand burial resulting from such events are likely to be highly dependent on local topography.

Figure 5.3 Location of concessions in Sea Areas 11, 12 and 13

Source: Trans Hex, 2016

Infrastructure

All the gravel from their marine, surf-zone and admiralty strip concessions is processed in the 25 tph DMS plant on Trans Hex's property at De Punt. The administration for the concessions under review is centred at the offices at De Punt. Workshop facilities, a mess and clinic, recreational area and accommodation for up to 25 divers are also available. On a smaller scale, accommodation and workshop facilities are also provided on Schaap Vley Hills, the State Land on long-term lease to Trans Hex.

A number of agreements are in place with third party consulting groups, a mine operating agreement, lease agreements (cellular network, municipal, electricity, water, national ports authority rental of Lamberts Bay jetty and right of way on specific farms). Trans Hex has constructed a purpose-built jetty near Lamberts Bay for the off-loading of gravels.

The mining concessions fall into the Matzikama municipality. Nearby settlements include Doring Bay, Strandfontein, Vredendal, Lutzville and Koekenaap. As the whole of the coastal strip is privately owned and utilised for farming purposes, the area is characterised by a network of informal roads and tracks most of which were made without any control or consideration of environmental and socio-economic interaction. These tracks are used regularly by the mining contractors, as well as by a multitude of other users including fishermen, 4x4 clubs and members of the public who have free access to the coastline. The nearest harbours are located at Doring Bay and Lamberts Bay. Shipping in the area is limited to fishing boat activity.

Exploration and mining methodology

Mining and sampling completed by Trans Hex in these mining concessions have to date been a major contributor to Trans Hex's West Coast marine production. In spite of the intensive mining and sampling carried out in the past there are still sections of the coastline that has only been partially mined. Scoping studies and experimental studies using new shallow water and dredging techniques have been ongoing since 2008.

The topography on the coastal plains adjacent to the mining concessions is homogeneous. The coastal zone consists of a reasonably flat inland coastal plain (elevation of 20 mamsl to 50 mamsl), ranging from 3 km to 5 km in width, and a poorly developed dune, and partially cliffed coast which, in most areas, is rock protected.

With the technology currently available these methods are the most widely used and regarded as the most cost effective in these marine environments. These mining methods result in limited damage to intertidal and subtidal flora and fauna, and the total area disturbed annually is almost negligible (less than 2.7%) when compared with the actual size of the concessions.

Exploitation of the diamondiferous gravels occurring in these concessions is undertaken by contractors on behalf of Trans Hex. Due to the exposed nature of the coastline, mining takes place only below the high water mark using the following three methods:

- Beach mining involving the removal of beach sand overburden with heavy machinery to access target gravels overlying the bedrock.
- Shore-based mining using diver-assisted suction pumps to extract gravels from sub-tidal gullies and potholes to approximately 10 m depth. Gravels are fed to a tractor-driven classifier located in the intertidal area.
- Vessel-based mining using diver-assisted suction pumps to extract gravels from gullies and potholes to approximately 25 m depth. Gravels are fed to a classifier located on the vessel. Gravel is off-loaded at Doring Bay or Lamberts Bay and transported to the diamond extraction facilities at De Punt.

Annual gravel production rates from the three mining methods amount to 7,680 m^3. Waste emissions and discharges during mining operations are minimal, with approximately one-third of the volume pumped being discarded as fines and oversize on site. Diamonds are extracted from the remaining two-thirds and the tailings used as landfill, road stabilisation and material for dust control. All domestic waste generated on board vessels, by shore and beach mining contractors, and at the De Punt plant is disposed of in recognised landfill sites. Approximately 18 t of ferrosilicon is used annually in diamond extraction process at the De Punt plant.

Exploration for marine alluvial diamonds both onshore and in the surf zone, shows that there are preferential localities in which marine sedimentary deposits have higher probabilities of containing diamonds. These include gullies, potholes and bedrock depressions all of which are associated with marine wave-cut terraces. Diamonds are generally found close to the bedrock and are deposited in high-energy environment sediments containing pebbles, cobbles, and boulders. These sediments commonly owe their existence to storm beach deposits along the base lines of low cliffs that back wave cut terraces. Also, it is upon these surfaces that diamondiferous deposits have been concentrated and redistributed northward by wave action during sea-level stillstands. Due to numerous sea-level fluctuations, particularly in the Quaternary, multiple terrace development, with subsequent re-occupation and modification of existing terraces is observed and this obviously disrupts the depositional pattern of marine diamonds.

In reality, diamondiferous gravels occur in only a small proportion of the available concession area. They are usually covered by overburden which first has to be stripped away to gain access to the mineralised sediments.However, due to difficulties in conducting geophysical surveys and sampling in the surf-zone and shallow water environments, it is not possible to accurately determine where viable deposits are concentrated; the result of this is that beach and shallow water mining in themselves become the prospecting tools. To improve mining success, near-shore operations are using sophisticated tracking and positioning systems to help focus efforts on the more productive areas.

Shallow water diamond mining remains opportunistic in nature being highly dependent on weather and sea conditions. These effectively limit the periods in which mining can take place. Five days of mining per month by diver-operated systems are considered a good average for the South African west coast although longer individual periods may be workable, particularly in the summer months. Sea conditions also control where safe operations can be conducted, as these often have to be in areas with some wave shelter. Swell conditions and underwater visibility can vary enormously over small spatial and temporal scales, making it necessary to choose appropriate mining sites on specific days rather than sequentially mining a concession from one end to the other.A phased approach to mining the surf-zone, a- and b-concessions is thus not possible, leading to the public misconception that shallow water mining is conducted in an *ad hoc* fashion, and impacts the entire concession area.

Local geology

The basement geology of the mining concessions and the adjacent coastline comprises mainly augen gneisses of the Little Namaqualand Suite, porphyritic granites of the Spektakel Suite and metacarbonates and metaquartzites of the Gariep Supergroup. Precambrian rocks consisting of friable phyllites and greywackes of the Gariep Supergroup and quartzitic sandstones and conglomerates of the Table Mountain Group occur as vertical cliffs north and south of the Olifants River mouth and further south towards the Berg River, and extend seaward to form a largely sediment free, rugged inner shelf on both concessions.

The coastal zone around the Olifants River mouth is characterised by a 5 m to 10 m surface layer of silty brown and fine yellow clayey, wind-blown sands of Pleistocene origin supporting

vegetation of the Strandveld Succulent Karoo type. The unconsolidated nature of the sediment leads to high potential for erosion by runoff and wind where it is disturbed by excavation or vehicles. The aeolian sands overlie a 10 m to 15 m thick sequence of light-brown, orange and greenish, moderately sorted sub-feldspathic medium sand containing loose marine shell material. This sequence tends to become silty towards the base. In places, the marine sand is calcareous, and lenses of calcrete occur throughout the lower marine succession. The lower 3 m generally consists of granular yellow sand containing pebbles, and one or more pebble gravel lenses. The pebbles are predominantly rounded and sub-rounded quartzite, 2.5 cm and smaller in diameter.

These raised gravel horizons represent the fossil beaches targeted by terrestrial mining operations in the area. A densely packed 1 m thick shelly layer occurs in some instances in association with a gravel lens of 1.5 m in thickness. In places a cobble and pebble gravel occurs at the base of the sandy succession, overlying a light grey to white clayey sandstone, which is thought to represent the base of an older channel fill sequence. The white clayey sandstone rests unconformably on gullied and potholed Gariep Supergroup lithologies. The bedrock is sheared, faulted and folded in places resulting in an uneven floor to the overlying marine gravel, with rounded pebbles and boulders of basement rocks, shelly quartzose sands and gravelly sands. At the land-sea interface, these deposits are being targeted by beach mining operations.

Natural cyclical variations, in response to the seasonal supply of sediment to the marine environment and seasonal changes in the nearshore wave regime, are characteristic of the subtidal regions to approximately 40 m depth along this stretch of coastline. As part of a natural sedimentary cycle, the coastline is subject to gradual accumulation of sand deposits during summer, and subsequent beach erosion during winter. Superimposed on this seasonal pattern are bi-weekly, daily, and storm-associated sand movements, when temporary reversal in the sediment transport direction occurs in response to short-term changes in wave conditions. The frequency and duration of sand burial resulting from such events are likely to be highly dependent on local topography.

Rehabilitation

Extensive terrestrial mining and prospecting for diamonds has occurred along the coastline north of Lamberts Bay since the 1950s. In some areas past mining operations have resulted in severe disturbance and alteration of the physical profile of the coastal strip by extensive excavations, and tailings disposal. Trans Hex is not accountable for the rehabilitation of environmental damage or disturbance created prior to 1980. Impacts can be categorised as being either stable or active. At stable sites, the impacts are primarily of an aesthetic nature, limited more or less to the conditions prevailing when mining operations ceased, and are not causing any retrogressive environmental damage. At active sites, impacts to the environment have progressed beyond damage existing at closure of operations, primarily due to erosion and soil loss continuing unchecked over many years, resulting in the active deterioration of roads, trenches and puddle pits. Many of these impacts are being further aggravated by indiscriminate recreational and coastal use both by the public and by mining activities.

Major environmental issues identified by an assessment of the interactions between diamond mining operations in concession 11a, 12a, 13a, the associated surf-zone and admiralty strip concessions include:

- Increased vehicle movement leading to compaction and uncontained erosion of access roads and tracks.
- Compromised water quality and sediment inundation of areas adjacent to those being mined by uncontrolled discharge and dumping of overburden at sea.

- Physical modification of the environment by removal and/or re-distribution of boulders and sediments in the intertidal and subtidal areas which may directly and indirectly disturb ecological processes and/or important biological resources.

In 2010, a rehabilitation liability for the Shallow Water area was determined by DMR to be ZAR5.3 M. A revised calculation was provided by a third party, which calculated the quantum of environmental liability to be ZAR3.8 M (2013).

Other

Snowden notes the existence of extensive marine geological reports, underwater surveys, environmental liability reports, and beach mining protocols for pre-mining phase, mining phase and post-mining phase for the Shallow Water operations. A Trans Hex information memorandum was collated for interested vendors in 2014.

5.2 WCR

5.2.1 Location and access

WCR is located in Little Namaqualand in the Northern Cape Province, an arid region along South Africa's west coast. Two towns have been established in this region, namely Kleinsee and Koingnaas, both developed as access controlled towns to support the mining operations under the original mining operator of these concessions, De Beers Consolidated Mines (DBCM).

Kleinsee town is accessed via Springbok along the regional road ZAR355, of which approximately 65 km is gravel. Access to Koingnaas is either via a gravel road from Garies (approximately 100 km), a town along the national road N7 between Cape Town and Namibia, or via gravel road from Springbok (approximately 110 km) via the small towns of either Komaggas or Soebatsfontein. The road between Kleinsee and Koingnaas in tarred.

Kleinsee lies approximately 615 km north of Cape Town and 105 km west of Springbok. Koingnaas is situated approximately 65 km south of Kleinsee. The concession area is centred around the 'Buffels cluster' 17°12'32.26"E, 29°37'11.75"S and the 'coastal cluster' 17°18'24.43"E, 30°17'32.01"S.

5.2.2 Mine infrastructure

Infrastructural requirements at each mine site and processing operation comprise power, roads, electricity supply, potable and fresh water supply, fuel supply and storage and workshops that are centrally managed from the Koingnaas Office Complex.

All major haul roads have been maintained for use with river crossings where required. Minor haul roads have been barricaded for safety reasons. These roads provide access to all areas with remaining mining and mineral potential.

Kleinsee potable water is supplied by the local municipal Orange River pipeline and Buffels River groundwater extraction system. Koingnaas potable water is received from an aquifer extraction system on-site. Potable water storage dams are located at Kleinsee and Koingnaas. Water is distributed to mining and process areas via pipes or truck where appropriate. Sufficient capacities exist at all potable sources and storage dams.

Sea water for processing operations is supplied from pump stations located Koingnaas and Michell's Bay.

Bulk fuel storage facilities and petrol and diesel fuel pumps are available at Koingnaas and Langklip.

Maintenance workshops are situated at Koingnaas and Langklip. There are also a number of smaller workshops such as electrical, light vehicle maintenance and control and instrumentation.

Electricity is supplied by Eskom to a main intake sub-station located at Gromis close to Kleinsee, with an overhead power line offtake reticulated to Twee Pad, which previously serviced the dragline but now provides a potential future tap-off for movable plant opportunities.

5.2.3 Climate and topography

WCR is situated along the semi-arid western coastline of South Africa and the climate of this area is therefore moderated by its proximity to the Atlantic Ocean. South Africa's west coast experiences most of its rainfall from May to August with annual rainfall figures less than 200 mm. Coastal fogs are common along the west coast particularly in the winter months. Temperatures are cool, between 12° C and 18° C due to the stabilising effects of the Atlantic Ocean's Benguela current. Temperatures typically increase inland from the coast. The prevailing wind direction is from the south (onshore), but switches to an easterly direction during berg wind conditions when increased temperatures are often experienced. Extreme weather conditions are rare with rainfall highs occurring once in ten years and occasional gale force winds.

5.2.4 History

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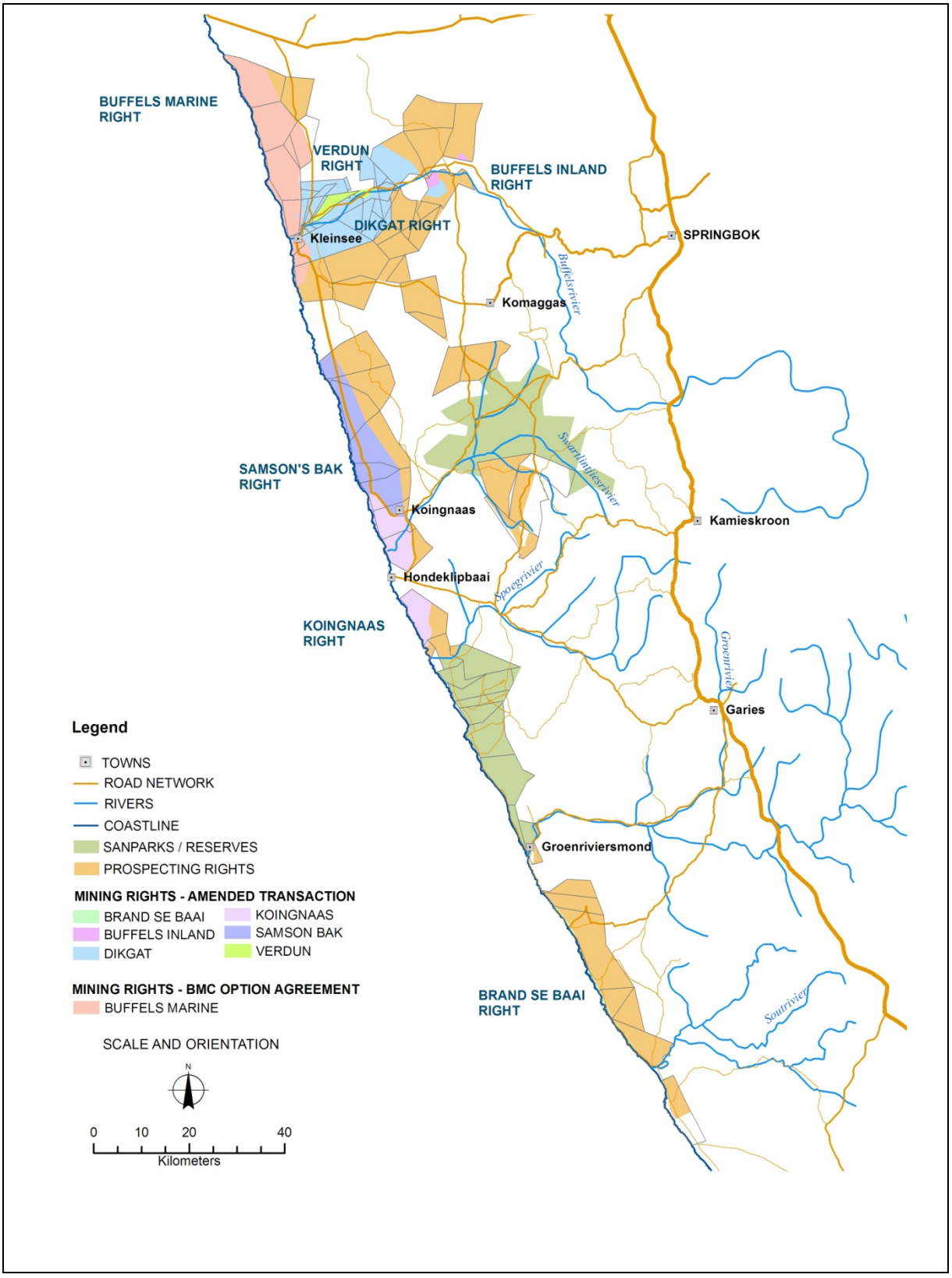
Diamonds were first discovered on the Namaqualand coastal plain on the farm Oubeep 173 in 1925. Further exploration resulted in more substantial discoveries on the farm Klein Zee 193 adjacent to the Buffels River mouth. This led to the formation of the Cape Coast Exploration Company (CCEC) which purchased extensive property in Namaqualand in 1928. The CCEC eventually became the Namaqualand Mines Division of DBCM with extensive diamond mining commencing in 1930 and continuing almost continuously through to the present day. The overall understanding of the geological model applicable to the diamond deposits of Namaqualand has evolved through time into a complex but well understood model that has allowed the accurate targeting of diamond deposits that have systematically been proved up and successfully mined over many decades. The complex nature of the placer deposits required that extensive prospecting continued up to 2010 when DBCM decided to cease mining and prepare Namaqualand Mines for sale.

Figure 5.4 West Coast Resources mining complexes



Source: Trans Hex, 2016b

5.2.5 Regional geology

A host of diamond placers of variable age have been deposited on the Namaqualand coastal plain. The source of the diamond populations in these placers were primary diamondiferous kimberlite pipes located on the South African Kaapvaal Craton. Extensive erosion of these kimberlites released the diamonds into fluvial systems that transported them vast distances to the Atlantic coast. A portion of the diamonds were deposited in fluvial deposits of different ages on the coastal plain, however the majority were carried into the marine environment and deposited and reconcentrated in beach terraces. The abrasive fluvial and marine transport mechanisms have, effectively, removed a high percentage of the poorer quality diamonds from the secondary placer deposits, thus providing a diamond population that is 95% gem quality. The active nature of the tectonic framework of the Namaqualand region during the Cretaceous and Tertiary resulted in a complex structural setting that played a major role in the continuously evolving rift-flank drainage pattern adjacent to this area. As a result, the diamond placers on the Namaqualand coastal plain are complex due to continuous reworking of deposited diamondiferous fluvial sediments which resulted in a highly variable suite of placer deposits in terms of mineralisation style and diamond grade (stone density and stone size).

Historically De Beers categorised these various placer deposits on the basis of mineralisation style and geography into a number of discrete mining areas, the Buffels Marine Complex (BMC), the Koingnaas Complex (KNC), the Buffels Inland Complex (BIC) and the Dikgat Complex (DGC).

Most of the earliest placer and associated sedimentary deposits have been reworked completely, thus making it difficult to trace a complete stratigraphic history for the diamond placers. However, DBCM has undertaken extensive exploration work on the coastal plain and has identified a substantial range of ages of the deposits from the older Koingnaas fluvial channels (Cretaceous) in the south to the Megalodon type channels (Oligocene) and proto-Buffels River sediments (Miocene) and finally the marine terraces of the Buffels Marine Complex (Plio-Pleistocene) in the north.

5.2.6 Local geology

Buffels Inland Complex and Dikgat Complex

The BIC and DGC comprise the deposits of the inland portion of the Buffels River valley. The Buffels River is one of the major Namaqualand fluvial systems that supplied clastic diamond bearing gravels to the west coast. The BIC comprises deposits of the inland portion of the Buffels River valley which hosts a number of Miocene age proto-Buffels River fluvial placers of which the Langhoogte and Nuttabooi deposits have been extensively mined. Grades of diamondiferous fluvial placer deposits are highly variable. Due to reworking in the proto deposits, diamond grades and stone sizes of sediments deposited in favourable sedimentological environments, can reach significant levels (greater than 20 carats per 100 tonnes).

Koingnaas Complex

In the KNC, approximately 70 km south of the DGC, the architecture of the diamond placers is very different to that seen in the northern mining areas. The granitic gneiss bedrock has been extensively eroded by a complex drainage network of diamond bearing, high grade, clay-filled, fluvial channels formed during the Cretaceous period (Hall, 2002). The basal channel gravels comprise quartz-rich gravels typical of tropical climatic regimes. Partial re-working in the marine environment has resulted in localised movement of diamonds into beaches that have formed within the depressions created by the drainage system. The result is an absence of linear marine terraces which means that exploration strategy is less predictable. The deeper portions of specific

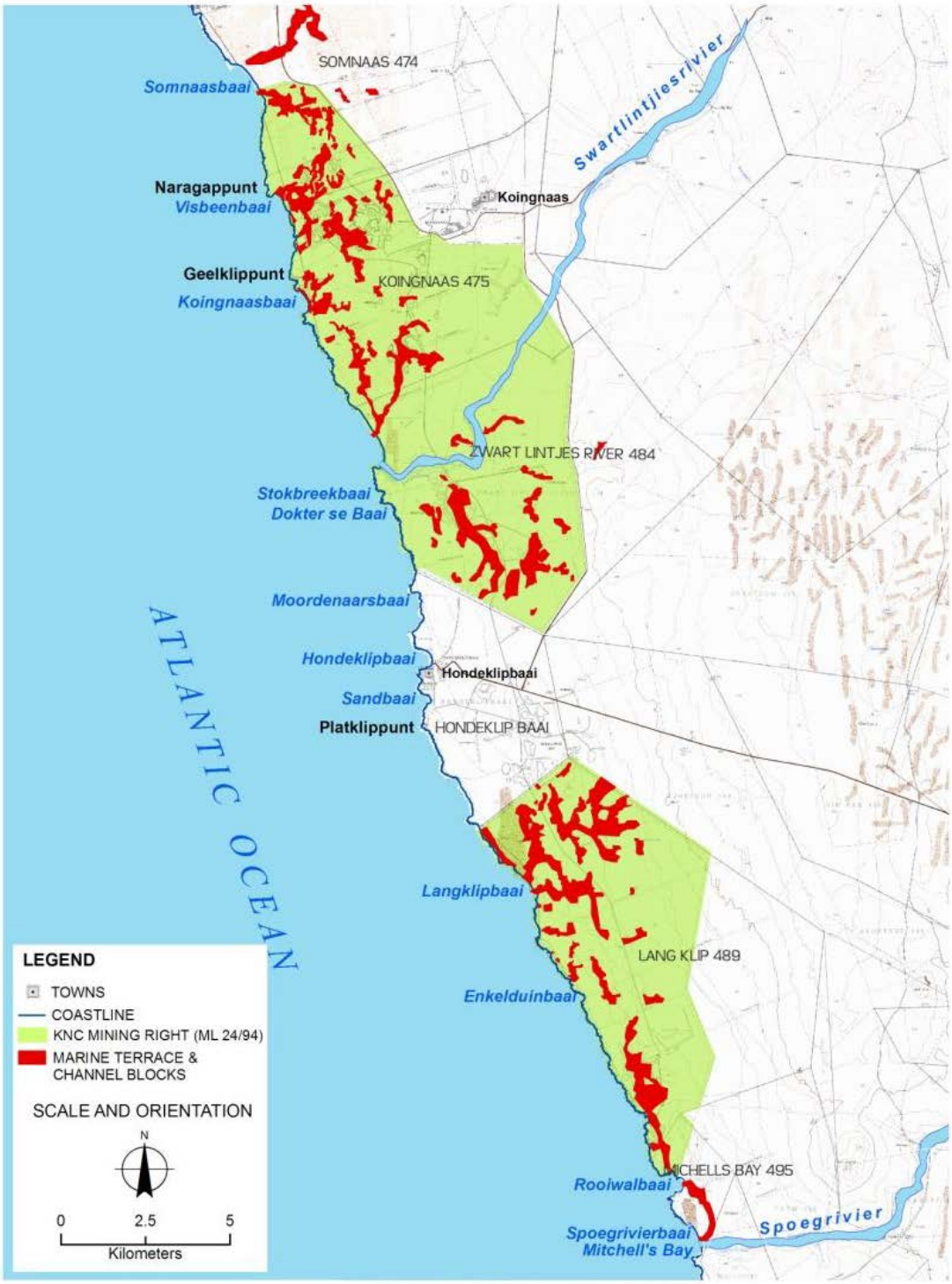
channels have remained intact from marine re-working and in specific locations this has resulted in two diamondiferous gravel horizons (one fluvial and one marine) at different elevations in the same location. Although extensively mined, the KNC is still prospective on a local scale and is typified by high stone densities but a small average stone size (approximately 0.25 ct/stone).

5.2.7 Other areas

The Samsons Bak Complex (SBC) lies between the BMC and KNC mining areas and exhibits a transition from the linear beaches recognised in the north, to the drainage network terrain of (the south. A number of beaches and fluvial diamond placers have been identified in this area but no mining has taken place as the SBC typically exhibits lower grades and small stone sizes and is less prospective than the KNC. WCR also holds Prospecting Rights and Mining Rights that extend considerable distances south of Koingnaas. In the Brand se Baai (BBR) area a number of small pocket beach Recent Emergent Terrace (RET) deposits have been identified and sampled on Karoetjies Kop and Tities Baai. These deposits have reasonable grades and are typified by an extremely small stone size (approximately 0.08 ct/stone) but contain high quality gem diamonds as they represent the extreme northern extent of the Olifants River diamond region.

Blocked diamondiferous channels and marine deposits of the KNC and SBC are shown in Figure 5.5.

Figure 5.5 Blocked diamondiferous channels and marine deposits of the KNC and SBC



Source: Trans Hex, 2016b

5.3 Somiluana Mine

The Somiluana Mine is a secondary diamond deposit with mineralisation spread across both banks of and within the current bed of the Luana River. Somiluana started production in June 2010 after the conclusion of mining-phase agreements between Trans Hex (33% stake in the Somiluana Mine) and its partners. Currently, all mining activities are focused on the east bank of the Luana River were the grades and diamond values continue to exceed resource estimates. On-going geological work should see the expansion of the operations into the more distant areas of the concession to expand the production base, reduce risk, and occupy the concession more fully.

5.3.1 Location and access

The Somiluana Mine is situated approximately 70 km, by road, northeast of the town of Lucapa, in the Lunda Norte Province (Figure 5.6). The mining licence area lies between 8º00'00''S, 21º04'20''E and 8º18'31''S, 21º15'30''E. and covers an area of 444 km^2.It is transected by the perennial northward flowing Luana River.

Access to the Somiluana Mine is from the town of Lucapa via a wide well maintained dirt road over a distance of approximately 70 km. The road passes through the Laurica Project where it crosses the Chiumbe River. Lucapa can be reached from Luanda by via several commercial flights, which connect from Luanda, on a weekly basis. The gravel airstrip is in an excellent condition and is large enough to land Boeing 727s or a small Antonov. Alternatively, Lucapa can be reached by road from Luanda, a distance of approximately 1,500 km. The condition of these roads is poor and the journey takes approximately three days.

5.3.2 Climate and topography

The climate is temperate in the dry season and hot and humid in the wet season. Temperatures range from a maximum of 35ºC to a minimum of 10ºC, with a mean of 22ºC. The dry season occurs between May and September and the rainy season between October until end April. Rainfall occurs almost daily during this season as heavy thunderstorms. Total rainfall in FY2015 was 2,194 mm (FY2014: 2,010 mm) as measured in the Vige valley in the concession.

The Somiluana concession is drained by the northward flowing Luana River, a tributary of the Chiumbe River. Multiple tributaries flow into the Luana River generally in an easterly and westerly direction. The concession area lies at an elevation of between 760 mamsl and 960 mamsl. The topography comprises gently undulating hills dipping towards the Luana River. The higher ground is covered by grass and large expanses of forest. The river valleys are filled with dense riverine forest, comprising an upper and lower canopy with undergrowth of shrubs and bushes.

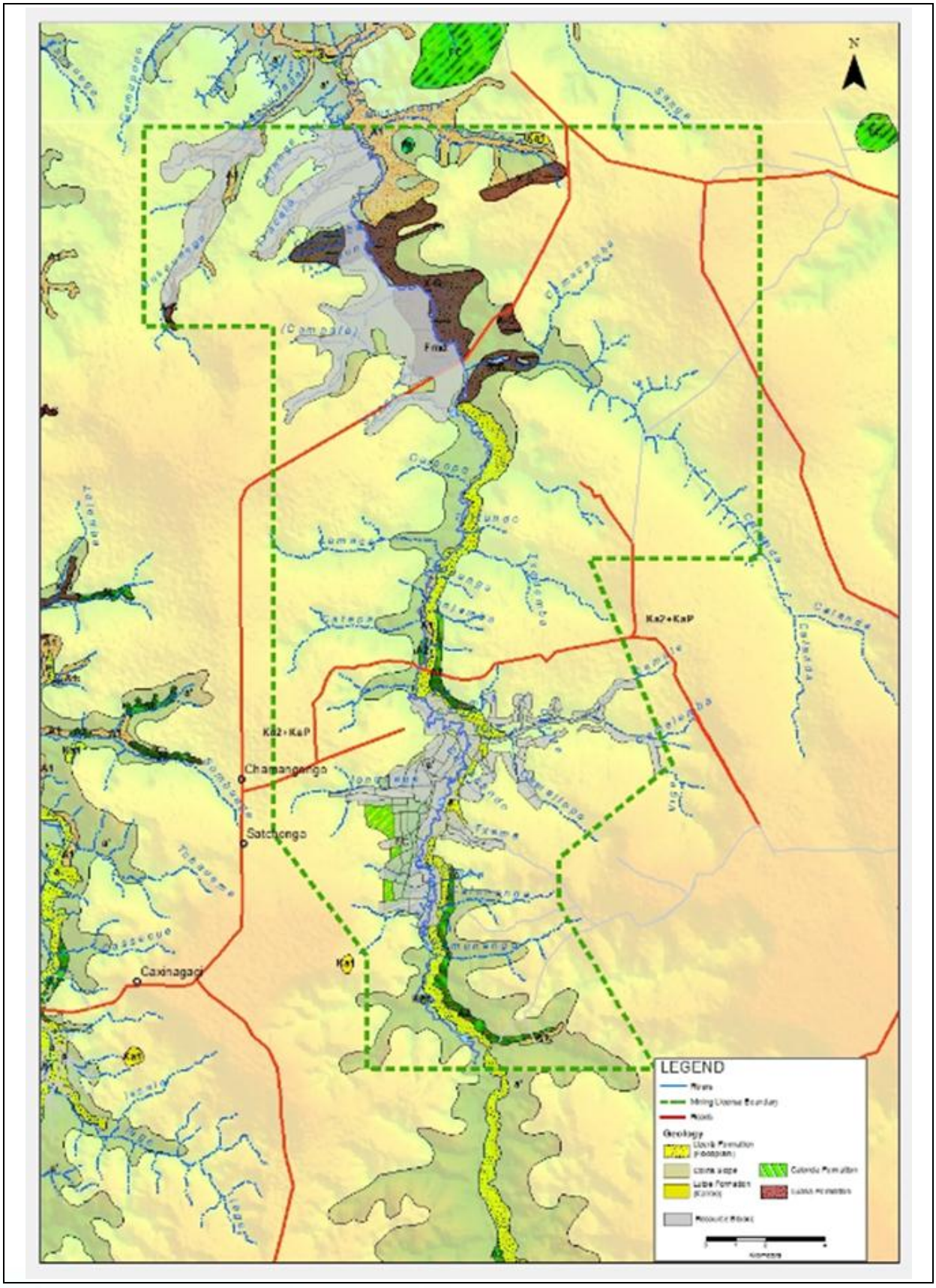
5.3.3 History

The following timeline is noted:

- From November 2003 until 2006 prospecting and exploration was undertaken which included the setting up of the Camp, infrastructure development, initial geology, drilling and dredging activities
- From 2006 until 2008 infrastructure continued to be developed, bulk sampling started on 30 trenches, gravel treatment plants were installed and all the EME was rented. During this period, all available geological information and classification of Diamond Resources and Diamond Reserves was analysed, reviewed and documented

- From 2008 to 2009 bulk sampling continued and the pilot production started and a feasibility study was undertaken
- In June 2010 Somiluana started production after the conclusion of mining-phase agreements between Trans Hex and its partners
- During 2015, the Somiluana JV commissioned its third washing plant and produced 109,000 carats (FY2014: 85,000 carats) with an average grade of 0.31 ct/m^3 and an average size of 0.58 cts/stone. Total sales amounted to US$ 43 M (FY2014: US$ 41 M) at an average price of US$386/ct (FY2014: US$ 492/ct). The decrease in diamond price was mainly due to the global decline in market prices

Figure 5.6 Somiluana Mine regional geology



Source: Trans Hex, 2016b

5.3.4 Northeastern Angola regional geology

The regional geology of north-eastern Angola comprises the Kasai Craton basement which is overlain by Cretaceous to recent sediments (Figure 5.6). This stratigraphy is composed of the following, from the base upwards:

- Lower Archean: gneisses, granulites, quartzites, eclogites
- Middle Archean: gneisses, with minor schists, amphibolites, quartzites, leptites, intruded by gabbro-norites
- Upper Archean: quartzites, epidotites, amphibolites, gneisses, schists, intruded by biotite granites
- Lower Proterozoic: meta-sediments of the Luana and Lunda Groups, intruded by porphyroblastic biotite granites
- Permo-Carboniferous (Karoo): argillites, arenites, conglomerates of the Lutôe Group, intruded by dolerites. During the Mesozoic (approximately 120 Ma), the Kasai Craton was intruded by kimberlites.

The basement was then covered by sediments comprising:

- Cretaceous age argillites, arenites and conglomerates of the Calonda Formation
- Cenozoic (Kalahari Group) age ochre sands, silcrete (gres polymorphe) at the base
- Quaternary age river valley alluvium, etcetera.

Diamond bearing units and kimberlites

The primary source of diamonds on the Kasai Craton is the kimberlite intrusions which were emplaced in the middle to late Cretaceous, and are dated at about 120 million years. The craton is host to at least 700 known kimberlites, the greatest concentration of kimberlite bodies known worldwide, many of which are associated with southwest-northeast striking tectonic lineaments of the Lucapa Trend; and have been subdivided into seven kimberlite districts. Several of these kimberlites are known to be diamondiferous to a greater or lesser degree, although by far the majority have yet to be prospected.

Cretaceous sediments – Calonda Formation

Unconformably overlying the basement and the kimberlite intrusives are the Calonda Formation (also referred to as the Kwango Formation in the DRC), dated at mid- to late-Cretaceous (80 Ma to 100 Ma). The formation comprises a continental sedimentary sequence of conglomerates, arkoses, sandstones and shales. Diamonds weathered and eroded from the kimberlites were deposited by fluvial processes in the conglomerates of the Lower Calonda Formation. The provenance of the sediments of the Calonda Formation was to the south of the depositional basin, and a large “channel”, trending south to north, has been mapped. The sediments in the northern section of the channel are dominantly marine shales.

Towards the base of the Calonda Formation, conglomerates are noted, which comprise gravels, cobbles and pebbles of quartz, quartzite and occasional itabirite, together with weathered gneiss, schist and amphibolite, set in a variegated clayey sand matrix. The gravel is in turn overlain by a semi-consolidated to silicified sandstone or arenite. The Calonda Formation is a typical upward-fining fluvial sequence.

Kalahari Formation

Deposition of the Calonda Formation was followed by a period of stable uplift and arid climatic conditions, resulting in the deposition of the Kalahari Formation. Aeolian and other sediments of this formation cover most of the interfluve ridges between the drainages. At the base of the Kalahari Formation is the “gres polymorphe”, (translated as polymorphic sandstone). The fining-upward gravel comprises angular blocks and nodular boulder silcrete, which may be either amorphous, or silicified gravel and sand. The gravel unit is generally considered to be part of the Kalahari sequence. However, the presence of nodular and brecciated silcrete within the unit, together with well-rounded pebbles similar to those of the underlying Calonda Formation suggests that it should be regarded as a silicified fluvial/lag deposit overlying the Calonda Formation. It is suspected that the unit was formed by the silicification of a lag/fluvial deposit derived from weathering and erosion of the Calonda Formation, silcrete having formed at surface as a discontinuous to nodular layer within and adjacent to the gravel. This layer was subsequently broken up by limited fluvial action and covered by aeolian Kalahari sand.

Recent Superficial Deposits Colinas (hill wash deposits)

Down-cutting of the river systems has given rise to extensive hill wash deposits comprising heterogeneous gravels on hill slopes below the level of the gres polymorphe. At higher levels below the gres polymorphe, but above the suboutcrop of the Calonda Formation, the Colina gravels comprise boulders of silcrete, silicified sandstone, silicified gravel and pebbles derived from the gres polymorphe, admixed with angular blocks of vein quartz derived from the local basement. This deposit is referred to here as Upper Colina and more than one layer of gravel may be present in this unit. Below the level of sub-outcrop of the Calonda Formation, the hill-wash deposits comprises either a discrete gravel unit or, more commonly, the gravel is overlain by a pebbly arkosic grit or coarse sand (gres cascalho), both of which are diamondiferous. This deposit is referred to here as the Lower Colina, as where both units are present the gres polymorphe derived wash invariably overlies the Calonda Formation derived wash.

The quartz veins present in the weathered bedrock, and small pothole-like depressions in the bedrock can give rise to local trap sites with diamond enrichment. Diamond grades for the Colina deposits are generally higher than those of the source gravels.

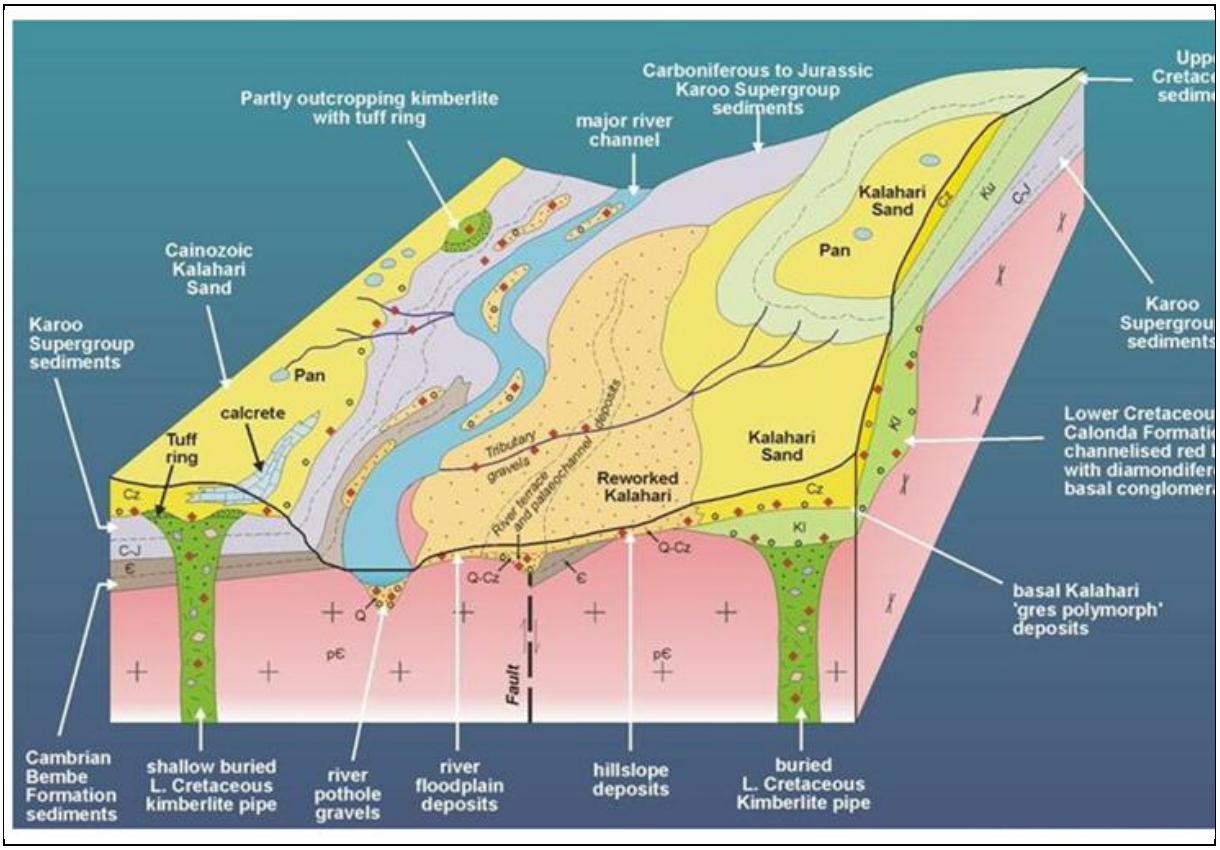
Terraces and lezirias (floodplain deposits)

Genetically, there is little difference between the terraces and lezirias, a terrace being an old flood plain into which the river has incised, leaving a “perched” terrace. A leziria can be considered to be a low-level terrace. These deposits are generally developed in the major river valleys of Lunda Norte, and are important producers of diamonds. Bedrock morphology plays a more important role in diamond concentration in the terraces and floodplains than in the hill wash deposits. Differences in bedrock composition can lead to the development of potholes, small plunge pools and gullies, in which diamonds can be highly concentrated. Such traps are known locally as “marmitas”.

Present River Bed

The gravels of the present river beds in the area, both main rivers and their tributaries, represent the most transported and reworked deposits. This multiple reworking has led to a general increase in grade over that of their source gravels, and the river deposits have been a major target of artisanal activity, both pitting and diving. A conspicuous feature of the lower level gravels is the presence of a much wider range of clast lithologies than in the Colina, pebbles of Proterozoic conglomerate, altered volcanic and ultramafic rocks and bedded cherts having been noted.

Figure 5.7 Generalised cross-section for alluvial diamond deposit genesis



Source: Trans Hex, 2016b

5.3.5 Mining conditions

Aeolian and other sediments of the Calonda Formation cover most of the interfluve ridges between the drainages. The overburden comprises amorphous or silicified gravel and sand, with few or no rocks, clays and arenite, and is easily excavated with general service excavator buckets with or without teeth. Explosives are not required. In some areas, the overburden is sandier and requires a shallower batter angle of maximum 30º and reduced bench height. In other areas, more stable overburden with a higher clay content will permit a steeper angle to perhaps 70º. Mining blocks are rarely contiguous, with undulations in gravel thicknesses, diamond grades and values. Water will often flow through the overburden on top of clays, or through the underlying gravels. Development of mines requires planning for water drainages and pumping. The overburden depth varies from 6 m to greater than 50 m, and the maximum depth of overburden to be stripped will depend on the economics of each block. The average distance from the mine face to the overburden dumping area is between 800 m and 1 km and the maximum distance does not exceed 1.5 km.

6 SAMPLING AND EVALUATION OF DIAMOND DEPOSITS

The primary host rocks for diamonds are kimberlites, lamproites and related rocks of volcanic origin. The weathering and erosion of these rocks, when diamond bearing, gives rise to secondary deposits which contains diamonds. A number of problems are inherent in diamond sampling and evaluation, and any exploration programme should be designed to mitigate these problems:

- Even in economically viable deposits diamonds are present in only extremely small quantities, and their distribution within the host tends to be erratic (e.g. 1 carat per hundred tonnes (cpht) is equivalent to 0.002 parts per million or 2 parts per billion)
- The size and value of stones is erratic and it is possible that the bulk of a diamond parcel value may be attributable to a single stone. The value of a stone is related to its colour, quality, size and shape
- Valuation of the better quality diamonds, which normally constitute most of the inherent value of the deposit, can be subjective and is, to a large extent, influenced by a fashion-controlled market demand.

Multiple phases of intrusion within a single kimberlite pipe can cause the diamond grade to vary from barren in one phase to in excess of 100 cpht in an adjacent one. To mitigate the evaluation challenges caused by these factors, very large samples are required. The accurate evaluation of a deposit, particularly an alluvial deposit, is generally not possible without advancing to the stage of trial mining.

In order to determine the typical expected revenues for a diamond deposit, determination of the following is required:

- the grade (cpht for kimberlites or ct/100 m^3 for alluvial deposits). This is the estimated number of carats contained per hundred tonnes of ore or per hundred cubic metre of gravel. The grade of diamond bearing deposits typically varies from in excess of 100 cpht to 1 cpht for kimberlites and 50 ct/100 m^3 to 1 ct/100 m^3 for alluvial deposits.
- the diamond size frequency distribution (SFD) is a cumulative plot of the percentage of stones found in each size fraction of a parcel. Confidence in the sampling results is obtained when multiple samples of the same deposit display similar SFD curves. These curves provide information regarding the overall value of the stones. Hardrock tends to show a lower number of small stones due to poor liberation, i.e. soft or weathered kimberlite releases stones more readily than hard unweathered kimberlite.
- the recovered diamond sample should be sold as a parcel in today's market to provide a typical value for the diamonds of the deposit. This value is quoted in US$/ct for the whole parcel and mayvary from US$1,000/ct for an alluvial deposit, to US$10/ct for a low value primary deposit such as the Argyle Lamproite Mine (Australia). Kimberlites are typically characterised by lower average diamond values in comparison to those from alluvial deposits.

The guidelines of the SAMREC Code have been used to assess a diamond deposit with respect to the resource available for mining. Key parameters are tonnage, which is the calculated volume of the ore deposit multiplied by its density or specific gravity; diamond grade; and diamond value.

Secondary diamond deposits can be divided into a number of distinct classes, dependent on the distance of transport from the primary host and the sedimentary environment in which the deposits are laid down.

Secondary deposits can, and often do, grade into one another, and older deposits can supply diamonds to the younger ones, during which process either concentration or dilution of diamond grade can occur. Even in a single alluvial gravel unit, the diamond grade may vary from barren to over 1 ct/t, due to the development of localized trap-sites which allow relative concentration of diamonds under favourable bedrock conditions, or hydraulic fractionation within a channel or bar. To mitigate the evaluation problems caused by these factors, very large samples are required.

6.1 Trans Hex's South African operations

6.1.1 Primary exploration

The first stage in the mining process involves the identification and delineation of gravels by exploratory drilling. This phase does not include any bulk earthworks and simply involves:

- a drilling rig and equipment truck with mounted compressor driving over the terrace to pre-surveyed drilling points
- drilling the hole by dry air blast reverse circulation
- collection of drill chips and dust in sample bags.

Reverse Circulation (RC) drilling is conducted on a pre-defined grid (e.g.100 m, 50 m, 25 m or 10 m spacing) depending on requirements and overburden depths of between 10 m and 60 m. Careful logging of drilling results enables the construction of a geomorphological/sedimentological model reflecting paleo-channel configuration and ore body definition.

Historically, open hole percussion (OHP) drilling was conducted, however this technique has proved less accurate than RC drilling. OHP drilling has consequently been discontinued and most OHP drilled areas have been redrilled with RC.

6.1.2 Secondary exploration

Where the results from primary exploration prove positive, a secondary phase of exploration is initiated. This involves the positioning, design and excavation of bulk samples or mega-trenches to evaluate the gravels to bedrock to an accuracy level which permits the determination of grade (carats/100 m^3). The grade is determined to a degree of confidence sufficient to assess the economic viability of the horizon. This also forms the basis of mine planning. These bulk samples typically take the form of large trenches, which vary in depth from 10 m to 80 m deep (depending on combined overburden and gravel thicknesses).

In the Baken area for example, the mega-trenches averaged 1.4 Mm^3 overburden plus 0.35 Mm^3 gravel dug over a period of seven months. Only a portion of the costs are recovered from diamond sales. Such trenching is conducted to achieve a sample comprising approximately 5% of an ore body. To achieve this, large-scale earth moving and processing of gravels is required.

As the plant requirement for such bulk sample processing is merely a reduced capacity production plant, the process and waste products are identical to a normal production plant:

- oversize waste rock from the grizzly intake (>110 mm)
- dry coarse tailings 25 mm to 110 mm ex screening plant
- dry coarse tailings to dumps from the DMS plant
- wet fine tailings to tailings ponds from the de-sanding screens and DMS plant or pan plant
- washed concentrate tailings from the diamond recovery plant.

Such secondary exploration forms the main current short term activities at Bloeddrif. This phase has been effectively completed at Baken proper.

At WCR, bulk sampling is underway at a 10 tph plant and well, which will assist with further Resource delineation.

6.2 Trans Hex's Angolan operations

In order to economically mine its reserves in Angola, Trans Hex and its partners evaluated the economic potential of its concessions based on a conservative, low cost mining approach. Current mine plans are based on Diamond Reserves derived from analysis of exploration drilling and bulk sampling results based on investigation of targets identified from extensive review of historical Diamang data from the area.

This data was supplemented and tested by pilot production which contributed to a feasibility study based on six years of historical production and appropriate planning, scheduling, and reserving methodologies that are typical for large scale alluvial mining operations in Angola.

7 DIAMOND RESOURCE AND DIAMOND RESERVES

7.1 Diamond Resource

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7.1.1 Introduction

Trans Hex has been mining alluvial diamond deposits for the past 50 years and has always undertaken systematic and structured exploration and sampling activities in accordance with sound diamond placer Diamond Resource practices, i.e.:

- A sound geological model forms the basis for resource boundary delineation of homogenous deposits.
- Appropriate sampling tools and methodologies are applied, taking sample density and sample support requirements into consideration
- Revenue estimates are done per homogenous diamond population and refined locally on a block scale based on the average stone size. Linear equations are calculated for major mining areas based on the relationship between known revenue and estimated stone size. Average US$/carat estimates are produced per unique population
- Ore block boundaries are chosen by the responsible geologist based on reverse circulation drilling and sampling information. A bedrock contour plan, gravel development plan and gravel thickness plan are developed from all available information to guide the selection of the block boundary. It is important to note that the generation of payable Diamond Resources is also considered when deciding on a block boundary.

The breakdown of Diamond Resources and Diamond Reserves into respective confidence categories is determined in a semi-quantitative classification technique that analyses confidence in volume, grade, density, diamond value and geological model.

The data collection processes, data validation and QA/QC as well as the geological and other interpretation methods used in the reporting of Diamond Resource statements for WCR, LOR operations and Somiluana Mine have been interrogated by Trans Hex and Z Star and the descriptions that follow are largely referenced from the associated reports, other collected information and discussions between Snowden, Z Star, DBCM and Trans Hex.

The confidence that is assigned refers collectively to the reliability of the grade and volume estimates. This reliability includes consideration of the fidelity of the base data, the geological continuity predicated by the level of understanding of the geology, the likely precision of the estimated grades and understanding of grade variability, as well as various other factors that may influence the confidence that can be placed on the Diamond Resource.

Diamond Resource estimation methodology is generally done on averaging of sample results within a particular block boundary for block grade, block stone size and block gravel thickness.

Diamond Resources have been converted to Diamond Reserves by the application of various modifying factors in accordance with the SAMREC Code. Mining modifying factors include a suite of operating costs, ore losses, dilution, mining recoveries and revenue estimates. Non-mining modifying factors considered include environmental, legal, social and governmental.

LOR operations

The LOR Diamond Resources comprise the Baken, Bloeddrif, Reuning and Shallow Water areas with the Reuning and Hondeklip mines currently under care and maintenance. Baken and Bloeddrif mines will operate until June 2018 and October 2018 respectively with only the Shallow Water operations continuing for the five year budget period.

LOR Diamond Resources are hosted by a series of paleo-channels and terraces with diamondiferous gravels overlain by various depths of overburden. Numerous remnant tailings and stockpile materials are also included in the Diamond Resource inventory.

The Shallow Water Diamond Resources are hosted in active surf zones and are mined continuously by means of vessel-based operations and by means of contracted shallow water boat diving and beach operations.

WCR

The bulk of the remaining Diamond Resources at WCR are typified by resource remnants in many of the old previously mined blocks and unmined lower grade blocks that DBCM either excluded from its mine plan or scheduled late in the LoM, supplemented by occasional more recent exploration discoveries. Various Coarse Tailings Diamond Resource (CTMR) and Coarse Residue Deposits (CRD) stockpiles situated in the vicinity of the old Langhoogte and Koingnaas central treatment plants and the Kleinsee Central Recovery Facility (CRF) are also included in the Diamond Resource inventory. The Mannels Vley deposit is a robust Diamond Resource and represents a significant early exploitation opportunity. In the south, channel deposits at Michell's Bay and Zwart Lintjes Rivier also provide exploitation and exploration opportunities.

Somiluana Mine

Diamond Resources at Somiluana Mine are located in a single continuous river channel. These are hosted by a series of *in-situ* gravel lenses formed from secondary diamond deposition with mineralisation spread across both banks of the Luana River and within the current river bed.

7.1.2 Diamond Resource estimation methodology

Grade and density

LOR operations

At Baken Mine grade estimates for the Diamond Resource are calculated using the historical carats mined recovered from the resource divided by weightometer volumes x an historical survey reconciliation factor of 1.2. Only resource block grades in the paleo-channel and stockpiles within this area were adjusted (i.e. areas whose material was processed through the BCP plant) and excluded the Terrace, Koeskop areas The material density assumed for the LOR operations is based on actual measured and reconciled information and assumes 2.5 t/m^3 for *in-situ* gravel, 2.11 t/m^3 for overburden and 1.8 t/m^3 for tailings stockpiles and dumps.

WCR

Diamonds are often concentrated on the gravel/bedrock interface and consequently, estimation of diamond grade is typically undertaken through the estimation of two variables, stones/m^2 and stone size (ct/stone).

In-situ density is estimated in tonnes/m^3. Historically this was an assumed value of 2.7 t/m^3, but more recently density sampling was undertaken by DBCM and a more representative 2.3 t/m^3 has been utilised, with an amendment made for historic blocks. Snowden considers the latter density to be a more representative density estimate for *in-situ* material.

Diamond Resource estimation at WCR has generally been based on averaging of sample results within a particular block boundary with the block boundary typically delineated based on gravel development or bedrock topography. Results within a block are then averaged to create a block grade, a block stone size and a block gravel thickness. Typically, the stones/m^2 grade was applied to the block area to calculate the block stones. Block carats were determined from the product of the block stones and the block average stone size. Block volume was determined from the product of the block mining thickness and the block area, and the product of block volume (m^3) and density (t/m^3) provided an estimated block ore tonnage. Finally, block carats were divided by the block tonnage by 100 to calculate carats per hundred tonnes (cpht), the grade variable utilised in the mine planning process.

Somiluana Mine

Grade estimation at Somiluana North was undertaken using historical Diamang pitting line data. It was modelled using Surpac software and estimated using the normal Kriging method estimation.

At Somiluana Central on the West Bank, the grade results for the bulk sampling and mining, excluding the effects of dilution and bulking, were used to estimate the grade within the resource block being sampled and within the adjacent blocks. All grade estimations were carried out within a particular gravel unit. Where two or more bulk sampling/mining results could be applied to a particular resource block, the weighted average grade of the samples was used. Further afield, the weighted average grade for all bulk samples/mining, within that type of gravel, was applied across the remaining blocks.

On the East Bank of the Luana River, the grade results for mining, including the effects of dilution and bulking, were used to estimate the grade within the resource block being sampled and within the adjacent blocks. All grade estimations were carried out within a particular gravel unit. Where two or more mining results could be applied to a particular resource block, the weighted average grade was used. Further afield, the weighted average grade for all mining, within that type of gravel, was applied across the remaining blocks.

The grades for the dredge sampling within a particular zone were weighted and averaged and this was applied to the zone.

The density for Somiluana Mine is based on actual measured and reconciled production and assumes 2.2 t/m^3 and a bulking (swell) factor of 1.40.

Revenue

The methodology for diamond revenue estimates, consolidated for each Mining Right is discussed in the sections below.

LOR operations

Estimates for revenue for the LOR operations were determined based on actual December 2015, February and March 2016 sales. Revenue estimates were compiled using the Z Star formula with an adjustment of -27% for Baken and -30% for Bloeddrif.

The Z Star formula is provided in the Trans Hex Ore Reserve Committee Meeting Resource Review of 2016.

WCR

Estimates of diamond revenue have been created for areas that exhibit a homogeneous diamond population and for each of these the diamond size distribution (percent of carats per sieve class) and diamond value (US$/ct per sieve class) have been determined separately. The two models have then been combined to calculate an average US$/ct value for each area.

Diamond size distributions for the principal production areas under consideration were created from 1997 RoM production data stored in the original NM data-room. No modelling of this data was required as the parcels were all sufficiently large (BIC: 20,050 carats and KNC: 220,765 carats).However, to achieve a US$/ct per sieve class valuation, Z Star applied a correction factor to correlate the DTC diamond sieve information with Carater/Grainer data.

Separate unique diamond populations were identified and modelled separately for the Final Recovery Tailings (13,912 carats) and the Brand se Baai Mining Right (293 carats).

The US$/ct per sieve class data for the DGC/BIC, KNC and the Final Recovery Tailings sources was obtained from the last three sales before July 2016 as well as a number of diamond parcels provided by DBCM (where recent sales were not reported). These parcels were scrutinised for relevance and a decision was taken that they were appropriate for US$/ct per sieve class modelling. No recent valuation data was available for the Brand se Baai source and therefore an October 2010 valuation was utilised and escalated to current day prices by applying sieve class price trends from Trans Hex's Baken Mine. These estimates are considered to be representative.

The size frequency distributions for the various Diamond Resource areas were combined with the US$/ct per sieve class models to create an average US$/ct revenue estimate for each area. In the case of the Brand se Baai source a factor per sieve class was also applied from the Baken Mine price trends to ensure that the current estimated revenue was realistic.

Somiluana Mine

The Somiluana Mine diamond revenue equation for the 31 July 2016 diamond reserve update, has been updated, with a proprietary polynomial formulae, based on actual diamond sales for the period 28 March 2016 to 26 June 2016. This equation has been applied to all Calonda and Lazeria gravel type diamonds, realises US$480.60/ct for Calonda. These estimates are used in the Cash Flow Model.

The diamond price formula is provided in the Trans Hex Ore Reserve Committee Meeting resource Review of 2016.

7.1.3 Reasonable prospects for eventual economic extraction

The SAMREC Code dictates that Diamond Resources may only be declared if these have reasonable prospects for eventual economic extraction (RPEEE). In terms of diamond deposits, this requirement is dependent on the accuracy of the grade and stone size estimates and, importantly, to the volatility of the diamond price and the potential for future variability in diamond price.

The grade and stone size estimates presented in this report are set against a proven geological model that has permitted successful exploitation for decades. Although variability in stone density and stone size are observed, these have been estimated to a reasonable level of confidence based on robust sampling and variability is addressed in the Diamond Resource classification process.

The key consideration in terms of RPEEE is the diamond price and its volatility and, in this context, for the purposes of this report, the following has been taken into consideration:

- during the last year rough diamond prices have decreased due to oversupply and lower individual discretionary spend
- the world supply of rough diamonds is predicted to decrease over the next ten years as:

- many of the major producing mines in southern Africa and elsewhere move from opencast to an underground mining methodologies and production drops
- few significant new diamond deposit discoveries have emerged during the last ten years.

Demand for diamonds is expected to remain relatively strong and any gem quality producer is therefore well placed for what appears to be a promising period for gem quality diamond sales over the next decade. The WCR and Somiluana placer deposits contain high quality gem diamonds with a very low proportion of poor quality stones.

7.1.4 Diamond Resource classification

LOR operations and WCR

The breakdown of Diamond Resources and Diamond Reserves into respective confidence categories is determined in a semi-quantitative classification technique that analyses confidence in volume, grade, density, diamond value and geological model.

The confidence that is assigned refers collectively to the reliability of the grade and volume estimates. This reliability includes consideration of the fidelity of the base data, the geological continuity predicated by the level of understanding of the geology, the likely precision of the estimated grades and understanding of grade variability, as well as various other factors that may influence the confidence that can be placed on the Diamond Resource.

Diamond Resource estimation methodology is generally done on averaging of sample results within a particular block boundary for block grade, block stone size and block gravel thickness.

Diamond Resources have been converted to Diamond Reserves by the application of various modifying factors in accordance with the SAMREC Code. Mining modifying factors include a suite of operating costs, ore losses, dilution, mining recoveries and revenue estimates. Non-mining modifying factors considered include environmental, legal, social and governmental.

Somiluana Mine

Trans Hex has utilised two resource categories based upon the relative confidence and amount of available information for the various blocks. Inferred Resources have been defined for those areas within the Somiluana concession for which diamond data was available and areas which have recent drilling results. Indicated Resources have been defined in areas where recent drilling and bulk sampling and mining results were available.

7.1.5 Diamond Resource statement, all operations

Trans Hex diamond resources are reported inclusive of Diamond Reserves, as at 31 July 2016.

The Diamond Reserves are dynamic and are more likely be affected by fluctuations on the diamond prices, uncertainties in production cost, processing cost, other mining, infrastructure, legal, environmental, social and regulatory factors which may impact the financial condition and prospects of Trans Hex.

The total Indicated Resource for all operations is shown in Table 7.1; and Inferred Resources is shown in Table 7.2.

Table 7.1 Total Indicated Resources, all operations, as at 31 July 2016

Operation	Indicated Resource				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	46,123,293	21,477,410	1.29	277,452	920
LOR – Bloeddrif	34,869,897	30,849,125	0.51	156,491	1,191
LOR – Richtersveld	3,862,366	6,362,420	0.57	36,361	1,008
West Coast Resources	84,359,307	6,859,045	23.71	1,626,373	174
Angola					
Somiluana Mine	103,464,336	7,612,051	31.85	2,424,371	302
Totals	**272,679,199**	**73,160,051**	**6.18**	**4,521,048**	**330**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River, Reported inclusive of Diamond Reserves; Totals may not add up due to rounding

Table 7.2 Total Inferred Resources, all operations, as at 31 July 2016

Operation	Inferred Resource				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	36,071,347	64,325,517	0.68	438,581	767
LOR – Bloeddrif	20,873,798	19,828,978	0.48	94,824	1,120
LOR – Richtersveld	20,748,545	28,692,017	0.51	146,441	1,050
West Coast Resources	694,846,685	41,663,821	9.80	4,083,078	174
Angola					
Somiluana Mine	141,410,865	26,071,688	10.14	2,642,567	272
Totals	**913,951,240**	**180,582,021**	**4.10**	**7,405,491**	**274**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River, Reported inclusive of Diamond Reserves; Totals may not add up due to rounding

The marine resources remained unchanged from FY2015 (Table 7.3). No marine resources are stated for the shallow water areas (less than 25 m water depth). In these areas the mineralisation is generally erratic and the lack of suitable technology to sample this zone has prevented definitive resource delineation.

Table 7.3 Marine Diamond Resources, as at 31 July 2016

Concession	Indicated Resource			Inferred Resource		
	Area (m^3)	Grade (ct/m^2)	Carats (ct)	Area (m^3)	Grade (ct/m^2)	Carats (ct)
2b	515,210	0.21	108,194	1,043,000	0,11	114,730
3b	550,000	0.07	38,500	460,000	0,05	20,700
6b	-	-	-	5,838,711	0,02	99,258
11b	83,000	0.04	3,320	-	-	-
13b	72,169	0.05	3,608	-	-	-
Totals	**1,220,379**	**0.13**	**153,622**	**7,341,711**	**0,03**	**234,688**

Source: Trans Hex, 2016

Note: Totals may not add up due to rounding

7.1.6 Diamond Resource potential

LOR operations

Potential exists to extend the operations through improvement in economic parameters, such as exchange rates or diamond prices, particularly at Baken where here are significant quantities of Inferred Resources exist and a program of RC drilling has led to an increased resource base for FY2016.

WCR

Although the WCR Mineral Rights have been systematically explored and mined by DBCM over many decades, significant potential remains for generation of additional Diamond Resources through continued exploration and evaluation of areas, particularly in the KNC and surf zone areas.

Somiluana Mine

Potential exists at Somiluana Mine to increase confidence in the Resource base through additional bulk sampling and sonic drilling activities. Previous bulk sampling has provided access to high-grade areas that significantly added to the Diamond Reserves and Diamond Resources.

7.1.7 Risk assessment

LOR operations

Risks for the Baken Mine are centred on the ability to achieve budgeted throughput due to one stream of the plant running compared to two streams previously. Additional capital expenditure (capitalised maintenance) at Baken Mine operations is also required due to the aging fleet. At Bloeddrif Mine, Trans Hex considers the main risk to be achieving the budgeted throughput due to modifications undertaken to the plant.

WCR

Extensive verification has been undertaken of the WCR Diamond Resource. The geological model, and its use locally in providing Diamond Resource block and zone boundaries, has been considered. Sampling data has been verified to original hardcopy records, the estimation

methodology and calculations of grade and density have been checked and the classification of the Diamond Resource has been verified.

Necessary changes have been made to the DG1 and DG3 Diamond Resources of the DGC area and to the Final Recovery Tailings stored at the CRF.

Diamond revenue has been estimated from historic production size frequency distribution data and specific parcels provided by DBCM and Trans Hex (FY2016) for valuation. Stone size revenue linear equations have been provided for the major mining areas to allow for revenue variability based on the average block stone size. An increase per area has been estimated to move the June 2013 revenue estimates on to a July 2016 base.

The WCR Diamond Resource statement summarised in Table 7.2 and Table 7.3 are considered to be a fair reflection of the diamond content associated with these Mining and Prospecting Rights.

Somiluana Mine

The LoM at Somiluana is based on Probable Reserves of more than ten years. Generally speaking, Somiluana Mine produces high value and desirable gem quality alluvial diamonds. The mine has a good track record, with considerable historic mining data available. Only a small portion of the mining concession has been prospected. Trans Hex is responsible for the management of Somiluana Mine. Trans Hex has reported that the Somiluana JV has consistently fulfilled its obligations towards creditors including taxes.

In February 2016, mining operations were moved to a new part of the concession characterised by less overburden as well as promising grades and stone sizes. Production from the new area, also located on the east bank of the Luana River, commenced late March 2016 and the initial results are positive

Funds generated from sales have been used to expand and develop the Somiluana Mine, focussing on increasing production by replacing aged mining equipment and expanding production capacity by purchasing additional frontline equipment such as excavators, trucks, bulldozers and front-end loaders. Confidence in available resources increased due to an intensive drilling and prospecting campaign. On-going production drilling permit mining operations to focus on areas of interest.

Somiluana Mine opportunities include the potential to increase production capacity materially in the short and medium-term. The performance of Somiluana Mine is dependent on realising the necessary finance to complete the purchase of additional mining equipment in order to achieve budgeted mining rates and plant throughout.

The general economic outlook in Angola is uncertain and impacts on the price of diamonds obtained from this mine. In addition, the new Mining Code may open/change the current single marketing channel system.

7.2 Modifying factors and key assumptions

T1.10

In order to economically mine the remaining reserves within all its Mineral Right areas in South Africa and Angola, Trans Hex has evaluated the Diamond Reserve based on a low cost mining approach.

Input parameters used in the economic evaluation of the planned new operations at WCR are derived from similar Trans Hex alluvial diamond mining operations in other parts of Namaqualand at its Baken, Bloeddrif and Nxodap operations. A similar approach has been used at the Somiluana Mine, based on six years of historical production and appropriate planning, scheduling, and reserving methodologies that are typical for large scale alluvial mining operations in Angola.

By applying first pass screening operations at the mining face, haul costs can be significantly reduced due to the reduction in the quantity of process material transported to the plant. Trans Hex also intends to locate semi-mobile treatment plants at strategic locations in close proximity to operating faces to further reduce screened ore hauling costs. Flat Trans Hex's management structures will also contribute to a much reduced overhead cost structure at the mine, contributing to a lower overall unit cost and improved payability of previously uneconomic diamond resources.

7.2.1 Mine extraction strategy (MES)

The MES is based on the LoM strategic plan which aims to optimally exploit the Diamond Resources. In order to economically mine the remaining reserves, Trans Hex has evaluated the Diamond Reserve based on a low cost mining approach. The significant difference between the traditional DBCM approach and the Trans Hex approach is that the latter envisages partial processing of the ore at the mining face, thus reducing the quantity of ore transported to the treatment plant. Trans Hex has over 50 years' experience in low cost mining of alluvial diamond deposits along the West Coast of South Africa; Trans Hex has employed this experience to the evaluation methodology reviewed in its mining and mineral reserving approach. Input parameters used in the economic evaluation of planned alluvial diamond operations are derived from adjacent Trans Hex workings or historical experience from similar alluvial diamond mining operations.

Historically, the major contributor to mining cost has been the long hauling distances from the mining face to the plants. At the WCR operations, the average one way haul distances to the KNC plant was between 3 km to 4 km. By applying first pass screening operations at the mining face, haul costs can be significantly reduced due to the reduction in the quantity of process material transported to the plant. Trans Hex also intends to locate semi-mobile or modular treatment plants at strategic locations in close proximity to operating faces to further reduce screened ore hauling costs.

Based on this approach, Trans Hex has prepared a 12 year LoM plan (including Payable Inferred) for exploitation of the remaining Diamond Resources in the Mining Right areas associated with WCR.

A ten year LoM plan has been generated for Somiluana Mine.

7.2.2 Diamond Reserve Estimation Process

Diamond Resources have been converted to Diamond Reserves by the application of various modifying factors in accordance with the SAMREC Code.

The current Diamond Reserves Statement includes the mining areas as discussed in Section 5.

7.2.3 Mining Modifying Factors

The mining modifying factors applied in the mine planning process have been appropriately applied in calculating the Diamond Reserve in terms of the SAMREC Code and were also applied to Trans Hex's Inferred Resources to determine the payable portion for inclusion in the LoM plan.

Each of the mining modifying factors applied in reserve determination for Trans Hex's operations are presented below.

Payability

Payability calculations are based on mining costs, processing costs, administration costs, marketing fees, royalty fees and Diamond prices as follows:

- Income/Loss of Block = Revenue less Costs

  Where:

  - **Revenue** = (Carats x US$/ctx ZAR/US$ exchange rate) –(State Royalty+ Market Fee) and
  - **Costs** = (Overburden Cost x (Overburden tons)) + (Gravel Cost x (Gravel Tonnage)) + (Treatment Cost x Gravel Tonnage) + (Overhead Cost x Gravel Tonnage).

Each of these factors is discussed below.

Revenue

Average diamond revenue assumptions for Probable Reserves and Payable Inferred Diamond Reserves are shown in Table 7.4. Additional detail and methodology for diamond revenue estimates, consolidated for each Mining Right is discussed in the sections below. There is no Payable Inferred Resource for Baken, Bloeddrif and Somiluana mines.

A comparison between the input for the Diamond Reserve and Diamond Resources, and the Cash Flow Model is presented in Table 7.4.

Table 7.4 Comparison between Diamond Reserve and Diamond Resource inputs and the Cash Flow Model

Component	LOR				WCR							
	Baken Mine		Bloeddrif Mine		KNC**		BIC		TMR		Somiluana Mine	
	Reserve/ Resources	Financial Model	Reserve/ Resources	Financial Model	Reserve/ Resources	Financial Model	Reserve/ Resources	Financial Model	Reserve/ Resources	Financial Model	Reserve/ Resources	Financial Model
Revenue												
Exchange rate	15.10	15.10	15.10	15.10	15.10	15.10	15.10	15.10	15.10	15.10	15.10	15.10
Price	1,079	1,092	1,403	1,415	174	174	264	264	153	176	481	481
Calonda												466
Unit cost	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**ZAR**	**US$**	**US$**
Stripping*	14.07	12.66	17.83	12.61	28.36	31.82	24.46	24.46	-	-		
Mining*	93.43	76.96	84.81	68.04	72.34	68.78	62.39	62.39	-	-	1.23	1.16
Treatment	102.25	104.31	62.34	54.45	227.57	227.63	227.57	227.57	32.50	32.50	12.00	13.00
Admin	68.41	68.45	28.53	22.07	61.27	61.28	61.27	61.27	15.63	15.63	21.00	25.00

Source: Trans Hex, 2016

Notes: LOR – Lower Orange River; WCR – West Coast Resources; KNC – Koingnaas Complex; DGC – Dikgat Complex; TMR – Tailings diamond resource retreatment; Totals may not add up due to rounding

Additional notes to Table 7.4 above:

Baken and Bloeddrif mines
** The Baken and Bloeddrif unit cost for stripping and mining in Resources and Reserves, includes depreciation*
The Baken and Bloeddrif unit cost for stripping and mining in the Cash Flow Model is based on cost excluding depreciation.

KNC
*** Trans Hex used the FY2017 budget mining cost of ZAR81.0 M as basis for FY2018 to FY2023*
For FY2018 to FY2020, Trans Hex added additional mining costs for the difference in overburden volumes multiplied by ZAR24,46/m^3
For FY2019 to FY2021, Trans Hex added additional costs for the difference in total volumes multiplied by DGC gravel mining and hauling units of ZAR62,39/m^3
For FY2022 and FY2023, the mining cost was kept at ZAR81.0 M per annum.

Mining costs

Mining areas containing tailings resources (and associated mining costs) have all been set at zero as provision is made for this in the treatment cost. The updated mining costs are based on the March 2016 Life Cycle Costs (LCC) for each mining equipment from Original Equipment Manufacturer (OEM) at the current diesel price as at 31 July 2016. The labour costs have also been updated from the recent industry benchmarking exercise.

Mining costs are split into overburden, gravel and dredging, the latter applying only to part of the KNC mining area.

Average historical mining costs for the Diamond Reserve are comparable to those mining costs used to estimate the Diamond Reserve (Table 7.6). Mining costs were based on owner mining and benchmarked against a competitive tender from the contractors.

Mining costs used to develop the Diamond Reserve are summarised in Table 7.4.

Treatment and administration costs

The costs and parameters applicable to gravel treatment and used in the reserve estimation process are summarised in (Table 7.4). These costs have been derived from first principles and are zero based. For WCR, ongoing rehabilitation maintenance costs of approximately ZAR2/t RoM have been included in overheads.

Marketing, royalty fees and management fees

Marketing, management and royalty fees were estimated as a percentage of the revenues realised (Table 7.5). Trans Hex's operations will pay a management fee equivalent to a percentage of annual diamond revenue to Trans Hex. Central services, comprising accounting, human resources, legal and other appointments, health and safety, etcetera, will be managed by WCR, and indirectly Trans Hex. Trans Hex management will sign a management agreement to provide overhead support to WCR.

Table 7.5 Marketing, royalty fees and management fees

Operation	Marketing (% of revenue)	State royalty (% of revenue)	Management fee (% of revenue)
South Africa			
LOR – Baken	1%	≥0.5%	≥0.5%
LOR – Bloeddrif	1%	≥0.5%	≥0.5%
LOR – Richtersveld	1%	≥0.5%	≥0.5%
West Coast Resources	2%	≥0.5%	3.5%
Angola			
Somiluana Mine	3%	6%	

Source: Trans Hex, 2016

Note: LOR – Lower Orange River

Exchange rate

Diamond revenue estimates (Table 7.4) are derived from an analysis of the diamond size distribution and diamond price as described in Section 7.1.2 and Section 9.7. A LoM exchange rate of ZAR15.10:US$1 has been applied.

Mining recovery and dilution

Mining recovery is set at 100% for LOR operations due to dilution and mining losses already being included in the sample process. Therefore, planned ore loss and mining dilution is zero percent for all LOR operations. Somiluana Mine and WCR assume dilution between 20 mm and 30 mm dependent on bed rock type. The estimate allows for no mine call factor for any of the operations, as the Diamond Resource model is adjusted for actual production biannually.

Snowden notes that experienced machine operators will be needed to achieve these targets.

7.2.4 Non-mining Modifying factors

In order for the Diamond Reserve conversion to comply with the SAMREC Code, a number of non-mining related modifying factors must be considered. These relate to the licence to operate (economic, legal, social, marketing, governmental and regulatory) and are given consideration in other parts of this report and are covered in more detail in the Trans Hex Resource and Reserve Book, 2016.

Diamond Reserve determination methodology

The Diamond Resources for each of the mining areas is loaded into a reserve inventory determination spreadsheet to which modifying factors are applied to determine the payability of each block. Payable blocks in the Indicated Resource category are then included as part of the Diamond Reserve as Probable Reserves. Payable Inferred Resources are included in the LoM schedule, but have not been declared as Diamond Reserves.

7.3 Diamond Reserve Statement

In terms of clause 32 of the SAMREC Code, the above listed mining and non-mining related modifying factors have been verified as realistic and have resulted in an economically viable Probable Diamond Reserve of 10.8 M m^3 containing 2.4 Mct at an average grade of 22.5 ct/100m^3 (Table 7.6).

As no Diamond Resources have been classified at the Measured Resource level of confidence, no Proven Diamond Reserves have been declared.

Table 7.6 Total Probable Reserves, all operations, as at 31 July 2016

Operation	Probable Reserves				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	5,510,282	1,669,310	2.51	41,917	1079
LOR – Bloeddrif	4,742,897	1,817,000	1.39	25,267	1403
LOR – Richtersveld	-	-	-	-	
West Coast Resources	14,560,462	1,457,365	54.85	799,385	178
Angola					
Somiluana Mine	63,464,285	5,836,264	26.66	1,556,116	481
Totals	**88,277,926**	**10,779,940**	**22.47**	**2,422,685**	**401**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River; Totals may not add up due to rounding

The results of the reserve calculation demonstrate that based on the current modifying factors, 15% of the gravel tonnage of the Indicated Resource has been converted to Probable Diamond Reserves and 54% of the carats from the Indicated Resource has been converted to Probable Diamond Reserves.

Clause 26 of the SAMREC Code allows a certain percentage of Inferred Resources to be included in the LoM plan. Accordingly, the Payable Inferred Resource for the WCR has been determined and is presented in Table 7.7.

Table 7.7 Total Payable Inferred Resource, as at 31 July 2016

Operation	Payable Inferred Resources				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
West Coast Resources	24,373,559	2,414,497	43.12	1,041,063	168

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off of 1.0 mm for West Coast Resources

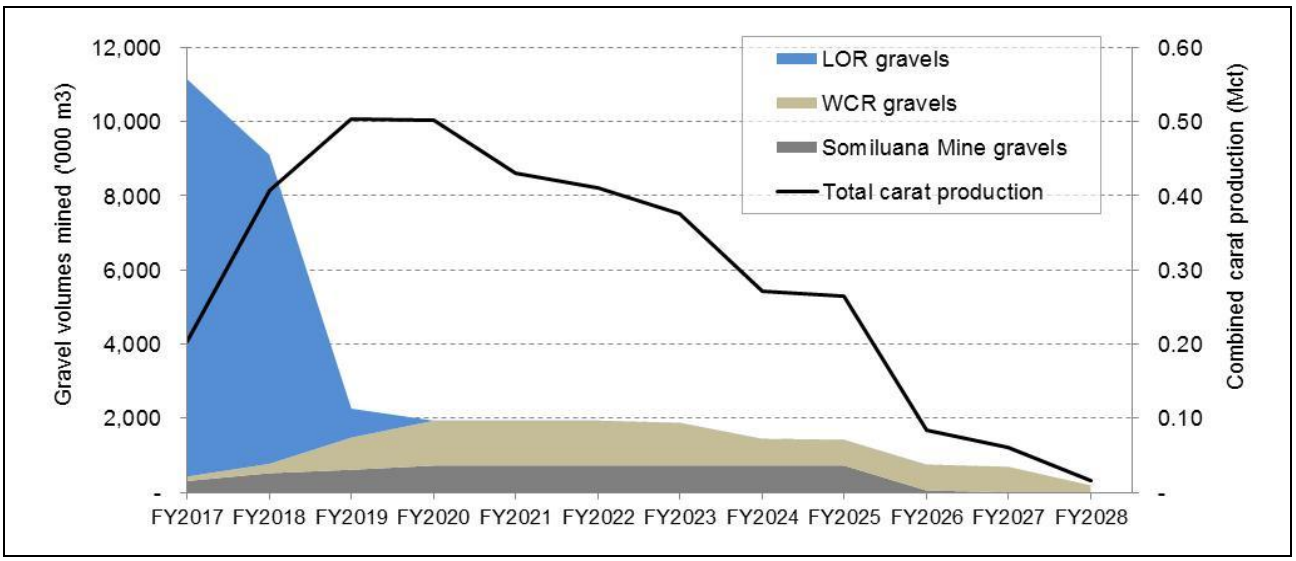
As at 31 July 2016 the Payable Inferred Resource comprises 2.4 M m^3 containing 1.0 Mct at an average grade of 43.12 ct/100m^3. Snowden considers that there is potential for an increase in Payable Inferred Resources, based on current exchange rates and diamond prices. It is diamond industry practice to maintain tailings resources in the Inferred Resource category until mining has commenced. Further bulk sampling work on the Payable Inferred Resources will be undertaken in order to upgrade these to a higher level of confidence ahead of mining and Snowden is satisfied that provision has been made for such bulk sampling in Trans Hex's mine plan.

7.3.1 LoM plan and schedule

Actual Trans Hex mining operations have been planned to achieve a combined steady state annual production of approximately 2.0 Mm^3 and overburden of 14.1 Mm^3 (Figure 7.1).). Gravel mining is the

main driver of carat production as evidenced by the reduction in carat production in later years when only tailings are being processed.

Figure 7.1 Trans Hex consolidated LoM production profile



Source: Modified from Trans Hex, 2016

Overburden waste striping occurs during the first five years of mining, peaking at 17.7 Mm^3 in FY2020, preparation for sustained gravel production over the subsequent years.

At WCR, the mining schedule has commenced with the mining of the Michell's Bay and Koingnaas areas. During FY2018 mining of the pre stripped Probable Reserves of the Mannelsvlei deposit will commence. In FY2019, additional gravel ore will be derived from the Langhoogte TMR to ensure that a total production of at least 2.0 Mtpa is achieved. For each of the mining areas, the Probable Reserves are scheduled before the Payable Inferred Resource.

Processing of the Tailings Diamond Resources commences at Langhoogte (LH) TMR and KNC TMR in FY2019 and FY2020, respectively, providing approximately 1.6 Mtpa until the end of LoM.

The mining schedule was developed on an individual mining block basis per mining area which has allowed micro analysis of the mining potential and not only a global view.

Summary of mining production centres

Planned LoM mining production volumes and statistics, sourced from the Cash Flow Model, are shown in Table 7.8.

Table 7.8 Planned LoM mining production totals

Operations	Unit	Value
Lower Orange River		
Overburden mined	Mm^3	8.6
Gravel mined	Mm^3	19.9
Recovered grade	ct/m^3	0.71
Carats recovered	Mct	140.21
Life of Mine (Baken and Bloeddrif)	Year	3
Life of Mine (Shallow Water)	Year	10
Volume of carats in mineral inventory	Mct	0.07*
Total volume of carats mined in Cash Flow Model	Mct	0.14*
West Coast Resources		
Overburden mined	Mm^3	36.7
Gravel mined	Mm^3	9.0
Recovered grade	ct/m^3	20.37
Carats recovered	Mct	1.84
Life of Mine	Year	12
Volume of carats in mineral inventory (Reserves)	Mct	0.80
Volume of carats in mineral inventory (Payable Inferred)	Mct	1.04
Total volume of carats mined in Cash Flow Model	Mct	1.84
Somiluana Mine		
Overburden mined	Mm^3	75.8
Gravel mined	Mm^3	63.5
Recovered grade	ct/m^3	0.27
Carats recovered	Mct	1.56
Life of Mine	Year	10
Volume of carats in mineral inventory	Mct	1.56
Total volume of carats mined in Cash Flow Model	Mct	1.56

Source: Trans Hex, 2016

*Note: * Carats in Mineral Reserve inventory are less than in Cash Flow Model. The Shallow Water operations have been in operation for more than 50 years. It is foreseen that these areas will continue to operate for at least 10 years at current mining production rates.*

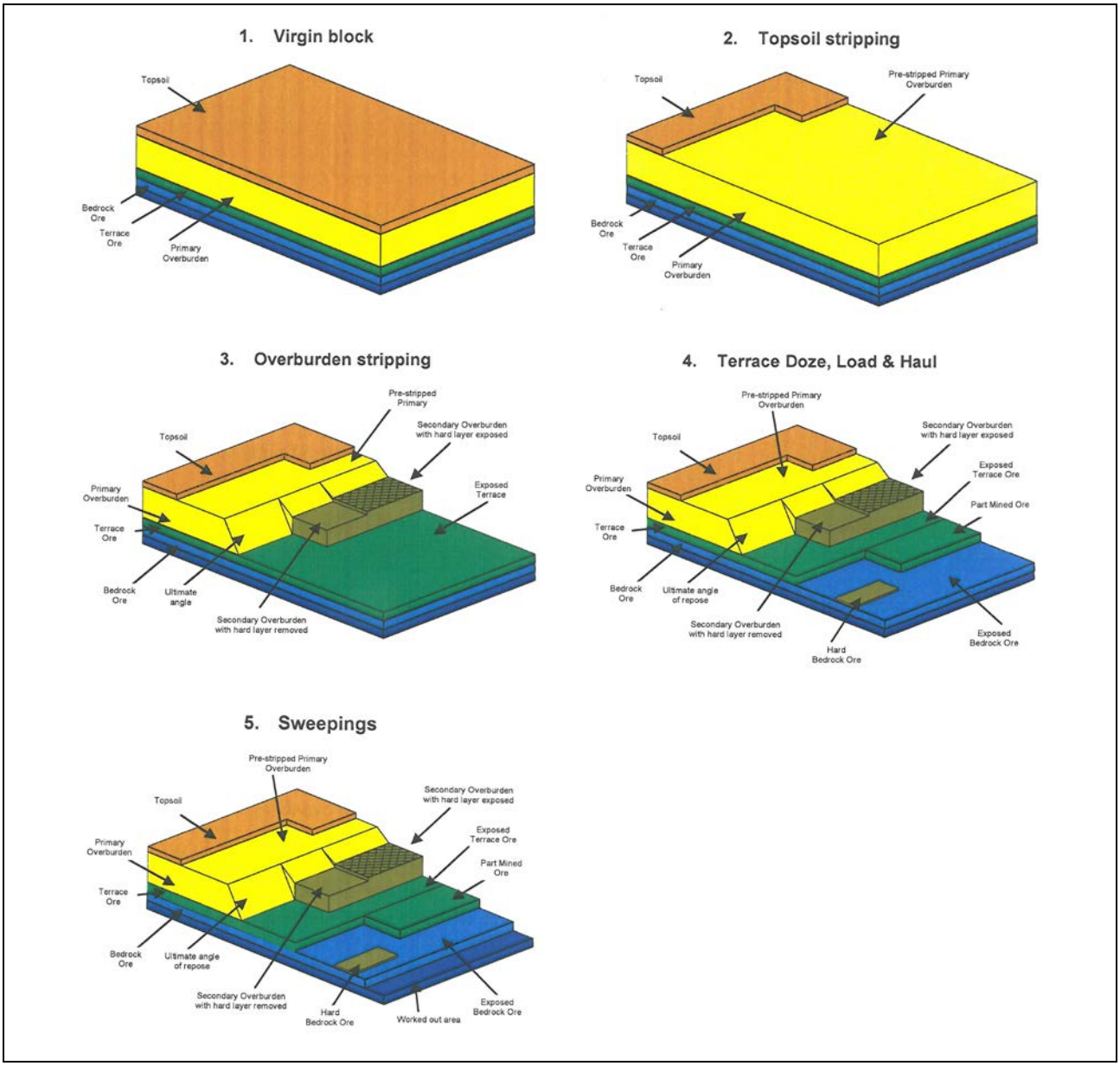
7.3.2 Mining method for all operations

The *in-situ* gravel orebody, although discontinuous, is near surface and relatively flat lying with a large horizontal extent, making it amenable to strip mining. Strip mining defines the mineable area as a series of parallel strips and the mining sequence is as follows:

- overburden stripping
- mechanical extraction of ore
- bedrock cleaning.

Each stage of the sequence is shown in Figure 7.2 and discussed in detail below:

Figure 7.2 Typical alluvial diamond mining method



Source: Trans Hex, 2016

Coastal mining operations

In the KNC area of WCR operations Trans Hex plans to extend its mining activities in some beach areas below sea level by constructing a protective seawall which will serve the following purposes:

- protection of the mining area against wave action
- facilitation of dewatering of the mining area.

Wall construction and dredging

The surface extent of the scheduled mining block on the beach stretches from the high-water mark to the low-water mark with an along-shore extent of approximately 250 m.

Risk

One of the four Probable Diamond Reserve blocks (KN-6869_F6-C) to be mined at WCR, makes up 80% of the carats for the deposit in the seawall area.

Wall stability has been identified as a high risk to the sea wall mining operations.

Somiluana operations

Overburden at Somiluana comprises amorphous or silicified gravel and sand, with few or no rocks, and is easily excavated with general service excavator buckets with or without teeth. Explosives are not required. In some areas, sandier overburden requires a shallower batter angle of maximum 30º and reduced bench height. In other areas, more stable overburden with higher clay content will permit a steeper angle to perhaps 70º. Mining blocks are rarely contiguous, with undulations in gravel thicknesses, diamond grades and values. Water will often flow through the overburden on top of clays, or through the underlying gravels. Development of mining cuts requires planning for water drainages and pumping. The overburden depth varies from 6 m to greater than 50 m, and the maximum depth of overburden to be stripped will depend on the economics of each block. The average distance from the mine face to the overburden dumping area is between 800 m and 1 km and the maximum distance does not exceed 1.5 km.

7.3.3 Equipment selection strategy

Current fleet, ownership, maintenance and replacement

Trans Hex owns a fleet of mining equipment which will be used in its mining operation and replaced once the designated optimal operating hours are reached.

The Diamond Reserves are owner mined, with more than 95% of the required fleet owned and operated by Trans Hex. Trade-offs and benchmarking studies are carried out on a regular basis to ensure mining costs are in line with the most efficient practices. Equipment servicing intervals will be according to OEM specifications, and will be carried out in any of the current three trackless workshops. Trans Hex intends to continue to own, maintain and manage its own production equipment fleet. There is an opportunity to contract OEMs to be responsible for maintenance.

The replacement strategy at WCR is to replace equipment with no provision for refurbishment. Adjustments have however been made to the replacement schedule for management intervention, particularly towards the end of LoM when extended life may be preferred.

The approach to developing the Somiluana operation has been conservative using internal cash flows. To purchase additional frontline equipment such as excavators, trucks, bulldozers and front-end loaders and replacing aged mining equipment. The JV is now in a position where production can be scaled up and fast tracked and with the planned new equipment acquisitions, the EME capacity is planned to rise to 780,000 m^3 per month and to recover a target of 17,000 carats per month.

Labour requirements

Mining labour includes management, and production labour. Each mining operation will have a dedicated Production Manager responsible for meeting daily production targets and will be supported by two Group Leaders, one for Production and a second for Engineering.

At steady state, Trans Hex operations will employ a total of 209 permanent Trans Hex employees and 96 permanent contactors in full time production-related activities (total 305 full time employment positions).

7.3.4 Mining cost model

A mining cost model has been generated based on staffing requirements and production fleet hours and inputted to the overall financial model.

7.3.5 Risk assessment

Seawall stability

Seawall stability has been identified as a high risk to the proposed coastal mining operations which can be mitigated by various geotechnical and other studies.

Grade variability

Grade variability in alluvial diamond deposits creates a risk that the actual grade of individual mining blocks could be well below or above the estimated grade at any point in time. To reduce this risk, the mine plan has allowed for the mining of multiple blocks at one time to mitigate grade variability which will help maintain a constant target feed grade to the treatment plant.

It is important to understand that should Inferred Resources be mined, additional variability and thus risk will be introduced. In this regard the importance of flexibility in the mine plan becomes even more crucial (the availability of sufficient mining faces to allow blending of under and over performing portions of blocks).

Bedrock sweeping

There is a risk of diamond theft during the bedrock sweeping process. To reduce this risk strict security measures should be put in place during the sweeping process. This could include use of security personnel at the mining face as well as video and other monitoring systems.

Cost/revenue variability

The current reserve calculation is based on modifying factors using current costs and current diamond prices. There is a risk that should either of these factors change significantly the reserve could be negatively impacted on. A sensitivity analysis was carried out during the reserve calculation process to improve understanding of the impact of change in these factors.

7.4 Processing

7.4.1 LOR operations

The processing plants at the LOR operations comprise two washing and concentration plants; the Baken Central Plant (BCP), coupled to the Baken Central Recovery Plant (BCRP) at Baken Mine and a single plant treating fresh gravel and tailings at Bloeddrif.

The BCP was commissioned in 2001 and has a nominal 1,350 tph capacity, also producing a final DMS concentrate in the size range -28 mm to +2mm, and comprises two parallel process streams. However a recent change in shift operations has downrated this combined throughput capacity to approximately 600 tph.

RoM gravel is screened at 100 mm and then scrubbed in a rotary scrubber in the presence of water to break up clays and agglomerates, the scrubber discharge is then screened at 28 mm and 2 mm, with the coarse oversize and sands/slimes fractions discarded.

The screened fraction reports to the DMS plant, where a heavy fraction reports to the DMS concentrate (or sinks) stream, whilst the DMS floats are discarded. A density cutpoint of 3.0 to 3.1 is typically targeted and is controlled by the process control system.

DMS sinks from both plants report to the BCRP, where they are split into three size fractions, -28 mm to +16 mm, -16 mm to +8 mm and -8 mm. These fractions are treated through separate X-Ray sorting machines, with the X-Ray concentrate gravitating to a secure hand-sorting facility, from where the diamonds are securely locked for export, whilst the Recovery tailings are discarded.

7.4.2 WCR

Of the treatment plants previously in operation at WCR, only the Michell's Bay dense media separation (DMS) plant and the Kleinsee Final Recovery (KFR) will be used in the new overall treatment process. The other old plants are not included in the WCR' NM purchase agreement.

Trans Hex commissioned a new 200 tph scrubbing and screening plant at Koingnaas/Michell's Bay in FY2016. An additional 200 tph plant will be commissioned at the Dikgat/ Mannelsvley deposits in FY2018. In FY2019 an additional 450 tph jig plant will be brought on-line when treatment of the Langhoogte TMR commences. Once processing of the Langhoogte TMR is completed this plant will move to the KNC TMR.

Concentrate produced from the DMS modules at the various mining areas will be transported in a secure manner to the central recovery facility at Kleinsee. The KFR comprises production streams a prospecting laboratory and a sort-house.

Analysis of mass balances from the various operations has demonstrated that the central recovery will have sufficient capacity to treat the concentrates from all the planned operations.

Adequate capital provision has been made for the purchase of new equipment and refurbishing and recommissioning of the NM processing plants to be used by Trans Hex.

Trans Hex's budgeted operating costs for the processing and recovery plants have been benchmarked against similar operations in the Kimberley area as well as Trans Hex's current LOR operations and are considered to be reasonable.

In Snowden's opinion, Trans Hex's approach to gravel treatment carries low risk in that well established proven technology will be used in all flowsheets and the company has considerable experience in this method of operation.

7.4.3 Somiluana Mine

The processing of gravels at the Somiluana Mine is currently performed in three separate movable wash plants. These plants comprise initial RoM grizzly screening to remove the +12 5mm large rocks, the -125 mm material is then scrubbed in a rotary scrubber in the presence of water. This serves to break up any agglomerates in the gravels and also remove the clay fractions which are deleterious to downstream DMS processing.

The scrubbed slurry is then screened at 25 mm/18 mm and 2 mm, with the -25+18 mm fraction currently being stockpiled for treatment once additional equipment has been procured and installed. The -1.6 mm material is discarded to a slimes dam, whilst the -18mm to +1.6 mm fraction forms the feed to the downstream DMS plant.

The current DMS facility is centralised and has a capacity of 10 tph, and is also limited to a topsize of 18 mm. The concentrates from the washplants are fed into the DMS plant via front end loader, the DMS sinks fraction is then classified into three size fractions; -4 mm, -8 mm and +8 mm. Each fraction is

batch processed through a Flowsort X-ray sorting machine, which utilises the X-ray fluorescence properties of the diamonds to sort them from the balance of the concentrate stream. The X-ray concentrate is stored in locked containers and forwarded to the hand sorting facility where the diamonds are hand-picked under a high security environment.

Somiluana Mine has planned the following capital equipment upgrades to increase both throughput and gravel size capacities:

- April 2017: Additional 50 tph DMS module
- April 2018: Additional 100 tph washing plant
- June 2018: Additional 10 tph final recovery plant.

The capital planning for most of the additional equipment entails the purchase of local second hand equipment to reduce capital costs, transport costs and lead times.

7.5 Tailings management

7.5.1 LOR operations

Each plant has its own slimes dam, coarse tailings dump and oversize dump. The disposal of slimes, tailings and oversize is undertaken in accordance with the guidelines of the EMPR and there is an ongoing programme in place to rehabilitate disused dumps. Due to the extended history of the operations a number of tailings dumps from historical operations have been identified for re-treatment.

7.5.2 WCR

The major mining-related wastes produced from treatment of diamondiferous gravels at NM historically comprised:

- CTMR or tailings (greater than 12 mm in size)
- coarse residue deposits or CRD (generally more than 1 mm in size)
- fine residue deposits (FRD) or slimes (generally less than 1.0 mm in size).

The CTMRs and CRDs are collectively referred to as TMRs in this report.

All of the old residue deposits associated with historical mining within the applicable mining right areas lie in close proximity to the large treatment plants used by DBCM (Langhoogte, Koingnaas and Michell's Bay).

Once production is recommenced, the treatment processes to be used by Trans Hex will be very similar to those used by DBCM except that in-field screening, to be followed by DMS re-concentration using the Michell's Bay screening and DMS plants (southern mining areas).

Trans Hex intends retreating the existing CTMR and CRD (TMR) deposits that have been built up around the old plant sites.

Residues produced by the proposed in-field screening and pan concentration plants will be disposed of into mined out areas as part of the future mining area rehabilitation process.

Wherever possible, Trans Hex intends making use of existing residue repositories.

A preliminary safety classification of all the NM FRD's has been carried out in accordance with the requirements of SABS 0286:1998: Code of Practice for Mine Residue, Annexure A and based on the

zone of influence as defined and the criteria specified in the code, the proposed FRD's have all been classified as low hazard facilities.

No chemical or other derived pollutants are associated with the historical tailings residues produced from diamond mining at NM and, as the ore to be treated and the treatment processes to be used by Trans Hex are similar to those used historically, it is to be expected that there is no risk of indirect harmful pollution from any of the current or planned TNM residue deposits.

In the DGC area, at closure, the finer (-0.3 mm) FRD material will need to be capped to reduce the effects of wind erosion on the surface. For closure of the FRD facilities, provision has been allowed for surface area rehabilitation of ZAR14.8 M (August 2011 estimate).Surface areas rehabilitation includes for the cladding of the fine material with coarse tailings to limit wind erosion and promote vegetation re-growth over time. The cost excludes the netting and seeding of the FRDs. The old FRD constructed in an old mined out area will need to be rehabilitated and this has been included in the Site Plan Consulting (SPC) closure plan.

At closure the residual CRD facilities will be shaped and rounded – a detailed engineering solution has been designed by SPC (base date August 2011) which includes either full rounding, shoulder rounding and surface remedial treatment – in total provision for ZAR1.5 M (August 2011 estimate) has been allowed for, and approved by the DMR.

7.5.3 Somiluana Mine

Each plant has its own slimes dam, coarse tailings dump and oversize dump. The disposal of slimes, tailings and oversize is undertaken in line with industry practice in Angola. Ongoing programmes are in place to rehabilitate disused dumps.

7.6 Environmental considerations

7.6.1 LOR operations

Trans Hex has a long history of mining over a very large, longitudinal area on the Lower Orange River, with considerable impact on the surface and near surface environment of the paleo-river. During its current mining tenure, Trans Hex has carried out rehabilitation and has taken additional steps to repair and mitigate the impacts of historical mining and related activities.

Detailed work has been undertaken by SPC in March 2013 on the LOR operations. In combination with the proposed (and changed) Trans Hex mine plan for LOR operations, SPC has recalculated the rehabilitation quantum to May 2016.

A rehabilitation liability quantum is estimated at ZAR83.9 M (excluding VAT) for the LOR operations in May 2016. The original 2013 SPC quantum has been escalated by SPC to mid-2016 terms. Snowden has used the ZAR83.9 M rehabilitation quantum in the Cash Flow Model.

This liability is funded via cash contributions to a rehabilitation trust (trust value of ZAR51.6 M as at 31 July 2016). During June 2016, a financial provision quantum update, amounting to ZAR68.5 M (exclusive of VAT and contingencies) was submitted to the DMR.

Hondeklip Bay

As per SPC's report (April 2012), the liability was calculated at ZAR3.3 M (exclusive of VAT and contingencies). As at 31 July 2016 the provision, adjusted for inflation, amounted to ZAR5.9 M. This liability is funded via cash contributions into a rehabilitation trust (trust value as at 31 July 2016 was ZAR8.3 M). The most recent correspondence was sent to DMR in 2011. The calculation was part of the

EMPR amendment which had a rehabilitation liability estimated at ZAR4 M (exclusive of VAT and contingencies).

Shallow Water operations

As per SPC's report (April 2012), the liability was calculated at ZAR2.7 M (exclusive of VAT and contingencies) for Shallow Water operations, including De Punt sub-operation. As at 31 July 2016 the provision, adjusted for inflation, amounted to ZAR3.7 M. This liability is funded via monthly payments of ZAR25,000 to a rehabilitation trust (trust value is ZAR2.4 M as at 31 July 2016) and cash secured guarantees issued by an insurance company to the value of ZAR5.2 M.

During April 2014 the DMR formally informed Trans Hex that it requires cash and guarantees to the value of ZAR6.5 M as security for this rehabilitation liability.

7.6.2 WCR (South Africa)

DBCM's NM has a long history of mining over a very large area on the Namaqualand coastal plain with considerable impact on the surface and near surface environment. During its mining tenure in Namaqualand, DBCM carried out rehabilitation and took other steps to repair and mitigate the impacts of historical mining and related activities. A considerable environmental liability has accrued to WCR.

From an environmental legislative compliance perspective, DBCM's NM (and now WCR) largely meets the legislative requirements. The approved EIA and Environmental Management Programme (EMP) would need to be amended to reflect the activities associated with the revised mine plan and in particular the proposed beach mining.

The existing, on site environmental risk is associated with the rehabilitation processes and financial provision, applicable to the Closure Plan.

In Snowden's opinion, no areas of absolute high risk were identified but two areas of moderate to high risk were noted mainly related to the impact of the proposed revised mine plan on heritage resources, surface water, groundwater, ecology, and the loss of topsoil and land capability. In addition, as the towns of Koingnaas and Kleinsee have been proclaimed, the ambient air quality applicable to these towns would need to meet residential standards.

In Snowden's opinion there is negligible risk that the proposed future mine plan will impact on protected areas in greater Namaqualand as existing and planned mining areas constitute only approximately 10% of WCR' total mining right.Large parts of the mining rights areas have not been affected by mining activities. Consequently these are in a pristine or very good ecological state as these have also not been subjected to the same measure of utilisation for grazing as the surrounding farms outside the West Coast mining area.

Illegal mining has occurred in parts of Namaqualand and is an ongoing challenge for diamond mining companies which will require ongoing attention and management.

Decommissioning and closure liabilities

As at 31 July 2016, WCR book value for its rehabilitation liability was ZAR155 M (excluding VAT).

To date, cash backed guarantees to the value of ZAR169 M (including VAT) have been requested by the DMR and issued as security for the liability. As at 31 July 2016 these guarantees have been funded to the value of ZAR108 M and funding is further increased with monthly payments of ZAR670,000.

SPC was appointed by Trans Hex, to compile a rehabilitation plan and re-calculate the closure liability for the WCR operations. In October 2015, an updated rehabilitation quantum was estimated (Table 7.9),

totalling ZAR99.3 M (excluding VAT) and submitted to DMR. SPC have estimated closure liabilities for the WCR since 2011. This closure liability has not been formally approved by the DMR.

For the purposes of this Valuation, Snowden has used the value of ZAR99.3 M in the Cash Flow Model.

Table 7.9 West Coast Resources closure liability

Mining area	Mining subarea	Site Plan rehabilitation cost (October 2015) (ZAR M)
KNC	Koingnaas	61.5
DGC	Dikgat	4.5
DGC	Buffels Inland	12.0
DGC	Samsons Bak	4.0
DGC	Verdun	15.4
BBR	Brand se Baai	0.6
Various	Prospecting Rights	2.6
Total rehabilitation liability (excluding VAT)		**99.3**

Source: Trans Hex, 2016

7.6.3 Somiluana Mine

The mining agreement states that the required and appropriate environmental protection measures shall be implemented with a view to avoiding unnecessary impacts on the environment. Particular effort will be made by Somiluana Mine management, with regards to the restoration of the diverted river courses to their originalcourses and/or the natural filling with water of the excavated areas.

The mining agreement states that Somiluana Mine shall adopt the following guidelines on protection, recoveryand restoration of the environment:

- Adopt and implement a policy on environmental protection in accordance with the General Environment Law, approved by Law 5/98, of 19 July 1998, and further regulations for the mining industry.
- Facilitate any inspection by the competent authorities to verify compliance with the laws in force and additional regulations of the mining industry.
- Plan operations taking into account their environmental impact on a short, medium and long-term basis.
- In order to minimize the impact of mineral activities, the following procedures shall be adopted:

  The agreement calls for:

  – barren soil to be removed to allow for the rehabilitation of the vegetation to occur
  – fine tailings or slimes to be placed into mined out areas
  – coarse tailings to be used for construction, especially roads
  – river diversions to be carried out not to obstruct natural drainage.

  At the end of the LoM, the following must be carried out:

  – restoration of fertile soil and landscaping
  – revegetation of denudedareas
  – return of rivers to their original course
  – restore the spoilt soils' fertility
  – destruction of unusable infrastructure
  – removal of old equipment and machinery.

- The deposition of domestic and industrial waste shall be made in accordance with internationally accepted practices, i.e. through the introduction of processes for the control, treatment and deposition of any sort of waste (selective system to collect wastes, spoils, etc.).
- The restoration of the impacted environment should be programmed and budgeted.
- Somiluana shall facilitate any control and inspection by the competent State authorities, as well as ENDIAMA's specialised teams, to verify the level of compliance with the laws in force and other regulations on environmental protection, and to identify any irregularities or damages to the environment capable of endangering the life of the local populations and of disrupting the ecosystems of the region.

8 EXPLORATION TARGETS/RESULTS

Exploration at the WCR operations is discussed below. WCR and NM are used interchangeably in this section.

The LOR operations are approaching the end of LoM; limited exploration will be undertaken at the LOR operations and are therefore not discussed here.

8.1 WCR – Historical exploration methodologies

8.1.1 Exploration and Resource definition

Historically, field mapping, pitting and probe drilling provided the basis for formulating the early geological interpretation of the alluvial deposits at the WCR operations. However, as geological understanding improved and exploration technology advanced, a more sophisticated and phased exploration approach to the delineation and evaluation of the diamondiferous placer deposits of the Namaqualand coastal plain evolved.

Most recently Airborne Electro-Magnetic (AEM) geophysical surveys provided information on the bedrock-sediment interface, aiding delineation of fluvial channels in the BIC, KNC and SBR and confirming the presence or absence of marine terrace deposits in the BMC adjacent to the coast.

The AEM data, when combined with historic prospecting data, has been a valuable tool for targeting exploration and contiguous evaluation projects. Reverse circulation and mud probe drilling was utilised to confirm the extent and nature of the gravels in the target areas and the use of air-core technology allowed for improved geological understanding in the clay channel deposits.

Evaluation techniques were optimised by target depending on the thickness and nature of overburden. In areas of shallow overburden, pits and trenches were preferred, with individual sample supports being locally optimised based on expected grades. Where deep overburden was encountered (>5 m diameter) auger drilling was employed to sample the gravels. In general sample support size was satisfactory for areas exhibiting reasonable grades but was less adequate, in terms of sample support, for lower grade targets. In later years the use of larger tools such as the Bauer GB50 hydraulic grab (sample size of 1.77 m^2) and later the Bauer BG36 and BG48 auger rigs (sample size of 4.91 m^2 considerably improved sample support.

Trench samples were treated through the BMC and KNC Bulk-Sample Plants (BSPs) and three prospect plants at Oubeep, Dikgat and Koingnaas treated exploration samples.

Trench sample concentrate from the BSPs were sealed in containers and transported to be processed through the BSP stream and Prospecting Laboratory section in the high security Red Area in Kleinsee.

In Snowden's opinion the quality of geological and sampling work carried out at NM has been of a consistently high standard.

8.1.2 Data management

Historically, all prospecting (geological and sampling) data was stored as hardcopy records in a designated data-room in the NM Geology Department offices in Kleinsee. This information is filed by farm and is readily accessible in the data-room. Electronic based data management systems were implemented in the late 1980s and evaluation data has been stored on an ArcGis™ system and is available on the NM Diamond Resource Management server.

8.1.3 Data verification

A number of days were spent on site at Kleinsee in June 2011 verifying the DBCM Diamond Resource estimates for 52% of the Indicated Resource carats and 83% of the Inferred Resource carats listed in the Diamond Resource Statement. On average, for the resources validated, 10% to 20% of the sample data were checked to original hardcopy record which was located in the data-room in 90% of all cases. Diamond Resource estimate methodologies and calculations were also verified and found to be correct with only occasional minor, immaterial errors identified. Records that could not be traced were generally related to extremely old historic estimates (e.g. pre 1980 Nuttabooi shallow block estimates).

In general terms, the geological, sampling and Diamond Resource data has been managed well, stored safely and is in good condition.

8.1.4 Orebody and block definition

Traditionally at NM, the boundary for a particular ore block was chosen by the geologist responsible for prospecting the area. Geophysical, probe drilling and evaluation sampling data were utilised to develop a bedrock contour plan, a gravel development plan (incorporating clast size, packing and sorting parameters) and a gravel thickness plan. The block boundary was selected based on all three plans with consideration also given to the grade (stone density and stone size) sample results. It is important to note that the generation of payable Diamond Resources was also considered when deciding on the block boundary.

8.1.5 Future exploration plans

A vast database of historic exploration information was built up over more than 50 years at NM and includes comprehensive geophysical surveys, percussion and large diameter sample drilling as well as pitting and trench bulk sampling. This information covers most areas inside the mining rights and large portions of the prospecting right. This base information will be re-analysed and will form the basis for a continuous re-evaluation of prospective areas in the active mining areas. Financial provision has been made for infill reverse circulation drilling to the value of ZAR1 M per annum to verify the existing information where necessary. The operational budget includes provisions for continuous sampling in the mine cuts and for test bulk sample cuts to be established as part of the normal development of the active mining areas.

8.2 Current exploration

Trans Hex has three producing mine complexes. The Company has undertaken cash preservation measures where needed and is in the process of applying for further loans to expand the mining fleet and process capacity. Exploration expenditure has been kept to minimum thresholds in light of difficult trading conditions for rough diamonds.

Exploration spend in FY2016 was ZAR2.0 M (FY2015: ZAR2.2 M).

8.2.1 New business opportunities

In respect of new business opportunities, the Company continues to evaluate potential new ventures on an ongoing basis.

8.2.2 South African exploration

Exploration activities remain focused on brownfields work on the Lower Orange licences. Reverse Circulation drilling during 2015 has defined additional resources in the central portion of the Baken paleo-channel. Ongoing mine development and sampling in these areas will enable evaluation of the adjacent diamond resources.

8.2.3 Angolan exploration

Sonic drilling at Somiluana JV continues to expand the resource base ahead of mining. A well-defined Diamond Resource has been established in the Vige and Ngazi River valleys on the east bank of the Luana River. Bulk sample cuts in the Lazeria gravels of the Luana River have proven positive and these low strip ratio resources are being mined in combination with the higher strip ratios of the Calonda Diamond Resources in the Vige and Ngazi River valleys.

9 MARKET ASSESSMENT

T1.18

The global diamond industry comprises three sectors: rough diamond producers/suppliers, cutting centre manufacturers/sales and retail. The retail sector comprises jewellery, the investment market and industrial applications. Approximately 20% of world rough diamond production is utilised by the jewellery sector (gem quality) and 80% by industrial users. Synthetic diamond production is almost exclusively associated with industrial uses, whilst diamond recycling is noted in the cutting and retail industries.

9.1 Rough diamond production

In response to weak market conditions since 2014 De Beers reduced its production in carats. However, increased production by Alrosa in 2015 neutralised the De Beers' production cuts over the H1 2015 period. Since Q3 2015, De Beers and Alrosa have both reduced production and this has led to some recovery in rough diamond prices. Without these interventions it is believed that prices may have been substantially lower. In an attempt to maintain current prices both companies have adjusted their production targets for 2016 to below those of 2015. In addition, increased demand for rough diamonds has also provided support to rough diamond prices.

Between 2004 and August 2011 the Composite Rough Diamond Index more than tripled – almost twice as much as the Diamond Prices Overall Index. Subsequently, between August 2011 and the start of 2016, the Composite Rough Diamond Index decreased by more than 45%. This was in percentage terms more substantial than the decrease in polished prices. Since the beginning of 2016, rough diamond prices have increased by a greater margin than the overall index.

De Beers and Alrosa are price setters (for rough diamonds) in the industry. They compete on quality and perception (i.e. advertising) to achieve and maintain a substantial market share. The diamond industry is confronted with major challenges one of which is the profitability of the middle segment. In 2015, De Beers and Alrosa gave manufacturers and dealers the opportunity to defer allocations of the supply to the next supply offer (sight). In addition, they cut prices for their preferred customers by around 15% in 2015. This supported demand for rough diamonds at the start of 2016, and resulted in a higher Composite Rough Diamond Index in the year to date.

ABN AMRO Bank N.V. (ABN) has reported that it does not consider the increase in the Composite Rough Diamond Index to be sustainable: Firstly, the higher take-up of the rough diamonds at the sights may have been motivated by opportunistic behaviour (short term quick sales). Secondly, higher rough demand may also have been the result of hopes that end-demand may improve and result in a drawdown of inventories. It considers the improvement in end-demand to be fragile and that it doesn't justify higher polished and rough diamond prices. Moreover, history and market dynamics have shown that inventory levels/ positions first need to be cleared before a new uptrend in prices can materialise. As soon as demand for rough diamonds starts to falter again, despite the cut-back in rough diamond production, producers may need to lower prices in order to support demand going forward. Thirdly, structural changes in the industry such as more buyers' power may also weigh on rough diamond prices. ABN comments that rough diamond prices may stagnate, and lower prices are likely in the current environment.

In 2015, eleven countries accounted for 99% of world rough diamond production volumes and 99% of value. In 2015 the main primary producing countries were Russia (41.9 Mct), Botswana (20.8 Mct), DR of Congo (16.0 Mct),) Australia (13.6 Mct) and Canada 11.7 Mct).In 2012, by value, the largest

producers were Russia (US$4.3 billion (Bn)), Botswana (US$3.0 Bn), Canada (US$1.7 Bn) and South Africa (US$1.4 Bn).

Production volumes from 2009 to 2015 averaged approximately 126 Mct per annum. Although total production revenue in US dollar terms reduced slightly in 2015 when compared to 2016, these remain above pre-GFC levels (2008: 163 Mct, valued at US$12.7 Bn), with the 2015 production volume of 127 Mct valued at US$13.88 Bn.

A generally upward trend of global average US$/ct diamond values is noted over the period 2008 (US$78/ct) to 2015 (US$109/ct); however, current values are less than the 2011 high of US$115/ct. Comparisons of 2015 to 2014 output by value shows significant reductions from Botswana (25%) and Canada (14%) which were partially offset by a 21% increase in output by value from Russia. These factors, combined with a 31% decrease in average US$.ct value for Australian diamond production has led to the 2015 average diamond price decrease.

Analysis of company annual reports shows average diamond sale prices per company as follows, for the 2015 period:

- Alrosa – US$115/ct, De Beers – US$207/ct, Petra Diamonds, Rio Tinto, Dominion Diamond Corp. – US$199/ct, , Lucara Diamond Corp. – US$593/ct, Gem Diamonds (US$1322/ct – Letseng US$2,299/ct).

Industry trends include the following:

- Alrosa is the world's largest diamond producer by volume and value. In 2015 it produced 38.3 Mct with rough diamond sales of US$4.61 Bn (from 30 Mct).By volume, the company accounts for about 30% of world diamond production and 97% of production in Russia. The company is valued at approximately US$14.5 Bn and is involved exploration in Angola and Botswana. Changes to Alrosa's rough diamond sales structure led to a 7.6% price decrease when compared to 2014. In Alrosa also embarked on direct rough diamond sales in India in the Special Notified Zone, Mumbai.
- De Beers, in which Anglo American holds an 85% interest, currently produces around 23% of the world's rough diamonds by value. In 2015 the De Beers Group produced 28.7 Mct of diamonds from its mines in Botswana, South Africa, Namibia and Canada. In the second half of 2016 production from the 51% owned Gahcho Kué mine in Canada will commence, while progress will continue with underground development at the Venetia mine.
- De Beers further reduced its operational footprint in South Africa in January 2016 with the sale of its Kimberley Mines (all assets, including the tailings mineral resource) to Ekapa Minerals (Pty) Limited – an investor consortium comprising Ekapa Mining (Pty) (50.1%) and Petra Diamonds Limited (49.9%). In December 2015 De Beers Canada announced that its Snap Lake mine would be put on care and maintenance and this was followed in January 2016 with a notice that the mine would be closed and sold if offers were received. The Damtshaa mine in Botswana was also placed on temporary care and maintenance.
- In 2015, Rio Tinto increased carat production at its Argyle mine by 47% compared to 2014 but production at Diavik was 11% lower due to processing plant pauses and shortage of stockpiled ore. The 77.8% share in the Murowa Mine was sold in June 2015.
- Gem Diamonds reported that 108,579 carats were recovered in 2015 which was very similar to 2014 production. The optimised LoM plan for Letseng allows for increased levels of mining from the higher-grade, higher-value Satellite pipe and from 2020 production will increase to 2.0 Mtpa remaining at that level to the end of LoM in 2038. Diamond prices achieved from the Ghaghoo Phase 1 project were lower than the reserve estimate due to the current depressed state of the rough diamond market and finer diamond sizes and Gem has decided to downsize current production to approximately 300,000 t for 2016.
- Petra Diamonds increased output from its mines in 2015 to 3.2 Mct which is in line with its growth plan of achieving annual production of 5 Mct per annum by 2019. As noted above, in

January 2016, the company participated in the purchase of Kimberley Mines (all assets, including the tailings mineral resource) through Ekapa Minerals (Pty) Limited.

- Lucara Diamond Corporation recovered 365,690 carats of diamonds from approximately 3.2 Mt of kimberlite processed at an average grade of 16.3 cpht. The highlight of the year was the recovery in December of the 1,109 carat Lesedi La Rona Type II diamond together with another 813 carat stone. During 2015, Lucara reported that 377,136 carats were sold for gross proceeds of US$223.8 M at an average price of US$593/ct. In Q4 2015 the company relinquished its 75% ownership of the Mothae Project to the Government of Lesotho following the failure of the planned sale of the project to Paragon Diamonds
- LUKoil brought its Grib Mine (near Arkhangelsk, Russia), into production in mid - 2014, with planned steady state capacity of 4.0 Mct to 4.5 Mct. It was reported that diamonds to the value of US$162 M were sold in 2015.
- Kimberley Diamonds Limited commenced refurbishment of the Lerala Diamond Mine in north-eastern Botswana in mid-2015 and commenced production in April 2016. At full production KDL expects to produce approximately 350,000 carats of diamonds annually.
- Production from the Marange deposit in Zimbabwe has reduced significantly in the last two to three years as the near surface free-dig eluvial material has been depleted. A lack of capital investment and forced company mergers by the Zimbabwean authorities suggest that the downward production trend is likely to continue.

9.1.1 Market factors

De Beers reported that in 2015 end-consumer demand for diamonds continued to be robust in the US, which remains the largest consumer market for polished diamonds with an estimated 45% share of demand. Chinese demand growth for diamond jewellery slowed down after being the engine of growth for the industry in the last decade. Other emerging markets saw weaker consumer demand, exacerbated by the strength of the US dollar. The resulting demand weakness was amplified into the value chain, with jewellery retailers reducing their desired stock levels and their purchasing from the midstream. Faced with lower polished demand and high stocks, built up during 2014 and early 2015, the midstream sector reduced its demand for rough diamonds, which caused a build-up of inventory, with downward pressure on rough diamond pricing. Looking forward, De Beers expects global carat production to grow followed by a period of stabilisation. Post-2020, it considers there is potential for a production decline, given the lack of recent discoveries of significant scale and depletion of the resource base. Consequently the anticipated production decline combined with expected growth in consumer demand for diamond jewellery, points to strong prospects for the diamond business in the medium to long term.

In 2015 the Euro zone, India, Israel, United Arab Emirates (UAE) and China, cumulatively accounted for 85% and 94% of value and volume respectively, of rough diamond imports. Rough diamonds were exported to cutting and polishing centres in various geographic regions, mainly Mumbai and Surat (India), Antwerp (Belgium), Tel Aviv (Israel), New York (US) and China.

9.2 Manufacturing and polished diamonds

The Main trading diamond centres are Belgium, India, Dubai and Israel; and manufacturing centres are India, Southern African countries and China. The latest diamond trade data show that diamond trade via Antwerp has reached its lowest thresholds in recent years. Exports of polished diamonds to other main centres including the US (the largest consumer of diamonds) also show this improvement. Diamond trade to and from the UAE appears to be stabilising while that of Israel remains very weak and there is no ‘market bottom’ yet.

India is the main cutting, polishing and manufacturing centre (90%) for diamonds worldwide. The diamond trade data for India suggest that the market there is bottoming out. This may be a sign of slight improvement in the diamond trade, but this is marginal.

Between August 2011 and February 2016, the overall diamond index dropped by approximately 30%. Since March 2016, the index has stabilised. This is considered sustainable for diamond prices if end-demand picks up strongly. This would result in higher polished diamond prices. There are some signs that end-demand is improving. Since the start of 2016, prices of precious metals used in jewellery (gold, silver and platinum) have risen substantially and this could already result in lower margins and/ or higher prices for end-consumers. If diamond prices were to increase, this could have a material negative effect on jewellery demand. Substantially higher polished prices will only be realised if there is a strong upward shift in end-demand. This is unlikely to happen in the second half of 2016. ABN considers that polished diamond prices may remain stable at best for the remainder of 2016.

9.3 Consumer (retail demand) – Jewellery

The main markets for diamond jewellery are the US, China, India, Japan and Europe. The US is the largest market for diamond jewellery accounting for 30% to 40% of the market; China and India each has a 10% market stake. Jewellery is a luxury product and therefore it has its own specific drivers. Demand for jewellery depends on the net worth of households (the value of households' assets minus their liabilities). Home equity, stocks and savings are important components of household net worth and the changes in value of these components affects individual discretionary spend on jewellery. The outlook for employment and the economy in general is also important. In the US there is a distinct relationship between net worth and jewellery retail sales. An increase in a household net worth increases demand for jewellery.

Other important variable for diamond jewellery demand is the number of marriages. US diamond jewellery demand is predominantly driven by people getting married. Since 2000, the marriage rate per 1,000 residents has declined in the US but also in other countries such as Japan and France. However, in recent years, the marriage rate has stabilised. A bottoming out and a modest increase in the marriage rate is considered a boon for jewellery demand.

The US savings rate is currently relatively high. US economists have reported that this will decline modestly in the short and medium term, reflecting that consumers will spend more and save less. Part of this spend could spur the purchase of jewellery (and diamonds indirectly). The US housing market is expected to remain buoyant this year, with interest rates largely unchanged.

Uncertainty has increased in the global economies through Britain’s exit of the European Union or EU (referred to as Brexit). However, it is expected the 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.

For China and India, ABN expects gross domestic product (GDP) per capita to increase as the middle class grows. The resulting gains in disposable income should result in support for jewellery demand (also diamonds). It is likely that the trend in jewellery consumption will strengthen further over time. In the near term the monsoon in India will play a crucial role for jewellery demand, as the amount of monsoon rain strongly affects agricultural incomes, which indirectly affects demand for jewellery. The government recently announced that it rolled back its budget decision to apply 1% tax collection at source for cash purchase of gold jewellery of 200,000 rupees and above, and raised the threshold to the earlier 500,000 rupees. The decision took effect from 1 June 2016. This will likely support Indian jewellery consumption in 2016.

9.4 Diamond recycling

The 2014 Bain Diamond Market analysis (Bain) reported in 2014 that the volume of diamond trade-ins remains relatively low. In the absence of a liquid secondary market, there is no reason to believe that diamond recycling will have a significant impact on the demand for polished diamonds in the near future. The estimated volume of recycled diamonds is between US$1 billion and US$1.2 billion, or 3% to 5% of the wholesale market for polished diamonds. However, as the supply of natural diamonds contracts in the long term and prices of polished diamonds continue to rise, the recycled-diamond channel may become more prominent.

9.5 Investment market

Bain commented in 2014 that investment demand for diamonds was less than 5% of the total polished market and considers that the diamond industry is still struggling to boost investment demand for diamonds. It suggests that in order to stimulate longer-term demand industry players may need to collectively invest in improving its knowledge bases and generic marketing efforts and brand campaigns aimed at sustaining diamond jewellery consumption preferences.

9.6 Industrial uses and synthetic diamonds

A 2015 research study reported that the global synthetic diamond market was worth US$15.7 Bn in 2014. Driven by the lower cost of synthetic diamonds in comparison with natural diamonds and the rise in the number of industrial applications of synthetic diamonds, the market is expected to witness a rise of close to 100% in the next eight years, ending up at US$28.8 Bn by 2023. Approximately 80% of natural diamonds are classified as industrial quality and are mainly used in facing cutters and abrasives as the poor colour and clarity of these diamonds makes them unsuitable for use in jewellery. Natural diamonds however account for only about 1.2% of all industrial diamonds used. The leading producers include China, Ireland, Japan, Russia, South Africa, and the US.

The Asia Pacific region dominates global consumption and production of industrial diamonds and China alone accounts for over 70% of the global production. Increasing industrial investments and high GDP growth rates in the emerging economies of India and China are expected to drive market growth in the region. The Asia Pacific is expected to be the fastest growing region for industrial diamond market growth in the next few years. North America is the second largest market for industrial diamonds. Demand for industrial diamond in North America and Europe is expected to be driven by growing demand for nano-diamond.

Although some manufactures have reported that progress has been made in the production of high quality synthetic diamonds market insiders consider it unlikely that this will make a significant impact on the traditional natural diamond market in the short to medium term. De Beers (itself a large producer of synthetic diamonds) has launched a campaign against the inclusion of synthetic diamonds in jewellery.

9.7 Pricing

The value of a diamond is determined by its weight in carats, its colour, clarity, and finally its cut, colloquially known as the four Cs; of which these variables can combine in as many as 16,000 different ways. Larger diamonds command disproportionately higher prices, with 7% of global diamond production by weight accounting for 46% by value.

Although natural diamonds display a range of colours, yellow is the dominant influence. The colourless grade is generally the most valuable, but some colours can fluctuate in value due to changes in fashion and are normally designated as 'fancy' stones. Clarity is a measure of minute imperfections, known as inclusions, which may occur naturally in a diamond. Cut is a function of the shape, proportion and finish which determines the 'sparkle', and is a measure of the skills of the cutter.

Demand growth, particularly from developing countries, combined with lower supply growth, has led to rising diamond prices and less need for monopolistic interventions.

The 2014 Bain Diamond Market analysis indicated that gross margins in diamond mining (>20%) and luxury brands sector (50%) are the largest, with trading, polishing and cutting showing gross margins below 3% with 3% to 5% for jewellery manufacture.

9.8 Trans Hex sales process

9.8.1 South African diamond sales

Rough diamond production from each mine submitted to and consolidated at head office. Products from each mine is sized and sorted into categories, per mine. Diamonds are then valued by the marketing manager (a registered diamond valuator), and mixed thereafter per category. After tenders have been accepted, incomes are then split, based on the original valuation. Totals per mine (carats, total dollars, dollar per carat average and stone size average) are reported thereafter to the Trans Hex Ore Reserve Committee. Diamond sales are undertaken six to seven times a year, with an average of 30 parcels per sale.

In terms of the local beneficiation component: representative portions of parcels are kept aside; the price is determined by the final tender price per parcel. Single stones/specials may be materially different in value, often between successive bids; however, the standard categories do not vary materially from the marketing manager’s valuation.

Rough diamonds (export and local) are certified through the Kimberly process and accompanied by a Kimberley process certificate.

9.8.2 Angolan diamond sales

With respect to the diamond mining sector, the Mining Code (Law 31/11 of 23rd September 2011) grants the exclusive right to diamonds to ENDIAMA. This parastatal organisation was established in 1981 from the previous State owned company, Diamang. Diamang, and subsequently ENDIAMA, historically explored for and sampled diamond deposits across the country. The government charges a 5% royalty on the gross value of a parcel sold in order to compensate for the historical exploration costs. In 1999, ENDIAMA created a subsidiary, Sodiam, which controls the marketing of diamonds in Angola. All diamonds must be sold in Angola and using the services of Sodiam. The typical sales procedure entails the following:-

- transport of the parcel from the producer to Luanda under the guard of the Sodiam’s security officials, Corpo Seguranca Diamantes (CSD), together with an ENDIAMA representative. Representatives of the producer are also present during transportation;
- the CSD delivers the diamonds to Sodiam’s offices for grading, assessment, valuation and sale
- diamonds are valued by both Sodiam and an independent valuator
- the parcel is then made available for tender by a buyer. The buyer may be Sodiam in some cases
- a price is then negotiated by all parties involved
- the taxes are then paid on the value of the parcel

- a Kimberley Process certificate is issued by Sodiam and presented to the buyer along with the parcel.

ENDIAMA is a shareholder and recipient of Somiluana Mine's rough diamond production.

9.9 Outlook

In terms of current projects, the world's biggest diamond companies are believed to have sufficient proven reserves to enable them to maintain the current level of diamond production for at least 10 years, without any deterioration in quality of product. Primary production will remain centred in Russia, Botswana and Canada. However, growth in rough diamond carat production is expected to slow in the medium and longer term as many on the world's largest diamond mines are aging and production is expected to decrease as open pit mines are extended to increasing depths or move to underground operations. In the absence of large new discoveries, not yet identified, planned new production is expected to mainly replace depleted production.

9.9.1 Supply-demand balance through 2030

Bain considers that one of the major short-term challenges in the diamond industry is unsustainable profitability erosion in the mid-market segment. Deteriorating profitability in the segment is symptomatic of its persistent problems and may eventually force structural changes. In light of the recent situation, cutters and polishers will be forced to improve operational efficiency, optimize business processes and redefine their overall business model. This may eventually result in the exit of the least efficient players and overall consolidation.

Slowdown of consumer demand in 2014 and 2015 highlights a long-standing challenge for the industry to sustain long-term demand for diamonds. The industry may face changing consumer attitudes in Europe, Japan and the US, which account for about 50% of diamond jewellery sales. Bain studies show that luxury items are forfeiting their aspirational and status appeal in developed markets. In this respect little is known of the diamond consumption patterns of a new generation of consumers.

In the long term, Chinese market growth is expected to slow down because of weaker economic growth and slowing expansion of the middle and upper classes. However, Bain expects the Chinese market to stay flat in 2016 with recovery starting in 2017 and a gradual return to the historical trajectory expected to lead to 4.5% to 5.5% annual growth until 2030 (down from about 7% in previous forecasts).

- India is considered to be transitioning from an emerging diamond market to a more mature market. Nevertheless, increasing urbanization, middle-class expansion and engagement ring penetration are expected to boost diamond demand by 8% to 9% per year in mid-term and then decelerate to 4% to 5% average annual growth (down from previous projections of about 13%).
- Bain's forecast of the rough-diamond supply is based on the analysis of existing mines, publicly announced plans and anticipated production at every expected new mine. The global supply of rough is likely to decline on average by 1% to 2% per year from 2015 to 2030 because of the aging and depletion of existing mines and relatively little new supply coming online.
- Risk factors, not included in the forecast, could affect the long-term diamond supply and demand balance: global macroeconomic shocks, geopolitical risks, changes in consumer preferences away from diamond jewellery, new sources of demand (such as investment demand), technical disruptions in supply and the impact of commodity prices on major producing countries and potential new sources of supply.
- A potential additional challenge for the industry is the penetration of undisclosed synthetics that can undermine consumer confidence in the entire diamond category, particularly for smaller stones. Industry participants are actively addressing these concerns by tightening certification requirements; diffusing and adopting synthetic-diamond detection technologies; and tightening the legal and regulatory framework definitions of synthetic diamonds.

10 MINERAL ASSET VALUATION

The Mineral Assets (or Trans Hex operations) comprise three alluvial diamond mining concessions, Trans Hex head office (Cape Town) and the diamond polishing factory (Johannesburg). Two of the mining concessions are situated in the Northern Cape Province (South Africa), namely: WCR Operations, with 40% Trans Hex ownership; and the LOR operations (100% Trans Hex ownership). The LOR operations (including Baken, Bloeddrif and Shallow Water operation) are situated in an area near Alexander Bay, on the border between South Africa and Namibia. West Coast Resource operations are located in the vicinity of the town of Kleinsee, approximately 615 km north of Cape Town. Trans Hex holds a 33% interest in the Somiluana Joint Venture or JV (Angola). The Somiluana JV owns the Somiluana Mine, which is located approximately 1,000 km from Luanda in the Lunda Norte Province in northeast of Angola.

A SENS announcement was released on 8 August 2016, advising Trans Hex shareholders (the shareholders) that Cream Magenta 140 (Pty) Limited (Cream Magenta) and Metcap 14 (Pty) Limited (Metcap), collectively acquired issued ordinary shares in the Company totalling 49,762,778 or 47.08% of the issued ordinary shares of Trans Hex, excluding treasury shares. Furthermore, the shareholders were advised that Cream Magenta, Metcap and RAC Investment Holdings (Pty) Limited (RAC), acting in concert, (collectively, the Offerors), have extended a mandatory cash offer, in terms of Section 123 of the Companies Act, No 71 of 2008, as amended, (Companies Act), to shareholders to acquire the entire issued ordinary share capital of Trans Hex, other than the issued ordinary shares already held by the Offerors and the issued ordinary shares held as treasury shares (Offer Shares) (the Offer).

The Offerors shall offer to acquire all the Offer Shares in exchange for a cash offer consideration of ZAR3.94 per Offer Share (Offer Consideration). The Offerors will in accordance with regulations 111(4) and 111(5) of the Companies Regulations, 2011, provide the Takeover Regulation Panel to its satisfaction, with an irrevocable unconditional guarantee, in favour of the Offer Shareholders for the sole purpose of fully satisfying the Offer Consideration, pursuant to the Offer. The implementation of the Offer is both subject to and conditional on the fulfilment of conditions precedent customary for a transaction of this nature.

The scope of work for this valuation comprises an independent Valuation of the Diamond Reserves, Diamond Resources and exploration results of the Mineral Assets. Each cash flow for the LOR, WCR and Somiluana Mine operations was constructed on a 100% ownership basis, with loan repayments/obligations to Trans Hex addressed first and thereafter dividends split proportionally, in accordance with the corporate structure outlined in Section 3.2.

Snowden has fulfilled the role of Valuation collator and peer reviewer, and has placed reliance on several third parties that have undertaken work for each discipline – these parties are noted in Section 2.1 of the Valuation. Trans Hex commissioned Snowden to undertake the collation and Valuation in August 2016. Mr VN Agnello (Snowden) is responsible the Valuation of the Mineral Assets. The Valuation has been undertaken on unaudited financials as at the Valuation date; Snowden has undertaken a high level review of key inputs and considers these to be in alignment with the audited financials.

The compilation of this Valuation is based on technical and financial data gathering undertaken between 1 December 2015 and 31 August 2016. The Report Date is 12 September 2016; and the Valuation Date is 31 July 2016.

The DCF valuation has been applied for a LoM forecast period from 31 July 2016 to FY2028 (end-March 2028). Currently inaccessible (strategic) Resources outside the LoM have been valued using the Market Comparable approach.

Unless otherwise stated, all tables and figures in Section 10.9 are derived from the Cash Flow Model.

The US$ and ZAR are the principal currencies used in this Valuation.

In this report, shares refer to ordinary shares less treasury shares for Snowden calculations.

10.1 Sources of information

T1.19

The following principal documentary sources of information have been used in the Mineral Asset Valuation:

- Diamond Resource Statement and report, compiled by Trans Hex, 2016
- Diamond Reserve Statement and report, compiled by Trans Hex, 2016
- Three year historical production, capital and operating costs, FY2014 to FY2016
- Audited consolidated financial statements of Trans Hex for the year ended 31 March 2016, including Reserve and Resource statements
- Input parameters to Resource and Reserve estimation
- Trans Hex balance sheet (unaudited) as at 31 July 2016
- Unaudited interim report of Trans Hex for the four months ended 31 July 2016
- Identity and tenure report compiled by Trans Hex
- Institutional market consensus exchange rate and price forecasts
- Reuters, December 2015 and July 2016, consensus SA and US CPI forecast
- Budgeted and planned Trans Hex operations capex and opex
- Environmental Closure studies, compiled by SPC (2015/2016)
- External data – Trans Hex websites, newsrooms, transaction databases
- Information gathered during head office site visits and interviews with Trans Hex personnel and associated sub-contractors.

Snowden has received the following revised models from Trans Hex:

- THG Land production profitability – Life of mine revised @ R15,10 (zip file)
- WCR Land production profitability – Life of mine @ R15,10 (zip file)
- THG_LOM_Probable_Reserves_SOMILUANA_Business_Plan_Group_v5_Aug16 (zip file)
- BCP Project – Life of mine @ R15,10 (zip file)
- Bloeddrif Project – Life of mine @ R15,10 (zip file)
- Marine production profitability R15,10 (zip file)

These models have been transposed into a single model, referred to as the Cash Flow Model in the Valuation section and referenced as Snowden, 2016, where applicable.

10.2 Identity, tenure and infrastructure

T1.5

Identity and tenure is discussed in Section 4. Infrastructure is discussed in Sections 5 for LOR, WCR and Somiluana Mine.

10.3 History

T1.6

Operational and exploration history is discussed in Section 5 (exploration history per operation), Section 8 (exploration targets and history in general) and Section 10.14 (historic verification of operational performance).

10.4 Geological setting

T1.7

Geological setting is discussed in Section 5 (geological setting per operation).

10.5 Exploration results and exploration targets

T1.8

Exploration results and exploration targets are discussed in Section 8.

10.6 Diamond Reserves and Diamond Resources

T1.9

The Valuation of the Mineral Asset is based on Probable Diamond Reserves. However, Inferred Resources are included in the Cash Flow Model scenario for WCR. Snowden has shown the proportion of Inferred Resources in the initial MES for the WCR in Section 10.6. An increase in the discount rate and WACC has mitigated material resource risk.

The Diamond Resource base is shown in Table 10.1. The Diamond Resource estimation for this Valuation has been prepared in accordance with the SAMREC Code. Mr LM Cilliers of Trans Hex is the CP: Diamond Resources at Somiluana JV and at LOR operations. Dr JA Grills (Z Star) is the CP: Diamond Resources for WCR.

Additional information regarding the Diamond Resources is available in Section 7 of this report.

The total Indicated Resource for all operations is shown in Table 10.1; and Inferred Resources is shown in Table 10.2.

Table 10.1 Total Indicated Resources, all operations, as at 31 July 2016

Operation	Indicated Resource				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	46,123,293	21,477,410	1.29	277,452	920
LOR – Bloeddrif	34,869,897	30,849,125	0.51	156,491	1,191
LOR – Richtersveld	3,862,366	6,362,420	0.57	36,361	1,008
West Coast Resources	84,359,307	6,859,045	23.71	1,626,373	174
Angola					
Somiluana Mine	103,464,336	7,612,051	31.85	2,424,371	302
Totals	**272,679,199**	**73,160,051**	**6.18**	**4,521,048**	**330**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River, Reported inclusive of Diamond Reserves; Totals may not add up due to rounding

Table 10.2 Total Inferred Resources, all operations, as at 31 July 2016

Operation	Inferred Resource				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	36,071,347	64,325,517	0.68	438,581	767
LOR – Bloeddrif	20,873,798	19,828,978	0.48	94,824	1,120
LOR – Richtersveld	20,748,545	28,692,017	0.51	146,441	1,050
West Coast Resources	694,846,685	41,663,821	9.80	4,083,078	174
Angola					
Somiluana Mine	141,410,865	26,071,688	10.14	2,642,567	272
Totals	**913,951,240**	**180,582,021**	**4.10**	**7,405,491**	**274**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. diluted at a bottom screen cut-off for Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); Somiluana Mine grades are reported as RoM grades, i.e. bulked and diluted at a bottom screen cut-off of 1.6 mm.

LOR – Lower Orange River, Reported inclusive of Diamond Reserves; Totals may not add up due to rounding

The marine resources remained unchanged from FY2015 (Table 10.3). No marine resources are stated for the shallow water areas (less than 25 m water depth). In these areas the mineralisation is generally erratic and the lack of suitable technology to sample this zone has prevented definitive resource delineation.

Table 10.3 Marine Diamond Resources, as at 31 July 2016

Concession	Indicated Resource			Inferred Resource		
	Area (m^3)	Grade (ct/m^2)	Carats (ct)	Area (m^3)	Grade (ct/m^2)	Carats (ct)
2b	515,210	0.21	108,194	1,043,000	0,11	114,730
3b	550,000	0.07	38,500	460,000	0,05	20,700
6b	-	-	-	5,838,711	0,02	99,258
11b	83,000	0.04	3,320	-	-	-
13b	72,169	0.05	3,608	-	-	-
Totals	**1,220,379**	**0.13**	**153,622**	**7,341,711**	**0,03**	**234,688**

Source: Trans Hex, 2016

Note: Totals may not add up due to rounding

The Diamond Reserve estimation for this Valuation has been prepared in accordance with the SAMREC Code and the JSE Listings Requirements. The Trans Hex Ore Reserve committee, under the auspices of Mr LM Cilliers has signed off on Diamond Reserves for the South African and Angolan operations. Mr LM Cilliers is overall CP for this Valuation. The Diamond Reserves are listed in Table 10.4. Additional information regarding the Diamond Reserves is available in Section 7 of this report.

A detailed comparison between the Diamond Reserve and Diamond Resource inputs and that in the Cash Flow Model is shown in Table 7.4.

Table 10.4 Total Probable Reserves, all operations, as at 31 July 2016

Operation	Probable Reserves				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade ($ct/ 100m^3$)	Carats (ct)	Value (US$/ct)
South Africa					
LOR – Baken	5,510,282	1,669,310	2.51	41,917	1,079
LOR – Bloeddrif	4,742,897	1,817,000	1.39	25,267	1,403
LOR – Richtersveld	-	-	-	-	
West Coast Resources	14,560,462	1,457,365	54.85	799,385	178
Angola					
Somiluana Mine	63,464,285	5,836,264	26.66	1,556,116	481
Totals	**88,277,926**	**10,779,940**	**22.47**	**2,422,685**	**401**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. bulk and diluted at a bottom screen cut-off of 1.6 mm for Somiluana Mine, Baken (2.0 mm), Bloeddrif (4.0 mm) and West Coast Resources (1.0 mm and 1.6 mm depending on specific diamond resource); LOR – Lower Orange River

Totals may not add up due to rounding;

Clause 26 of the SAMREC Code allows a certain percentage of Inferred Resources to be included in the LoM plan. Accordingly, a Payable Inferred Resource for the WCR has been determined and is presented in Table 10.5. The WCR Payable Inferred Resource, as a percentage of total WCR carat production per annum, is shown in Table 10.6.

Table 10.5 WCR Payable Inferred Resources, as at 31 July 2016

Operation	Payable Inferred Resources				
	Overburden volume (m^3)	Ore/ gravel volume (m^3)	Grade (ct/ 100m^3)	Carats (ct)	Value (US$/ct)
South Africa					
West Coast Resources	24,373,559	2,414,497	43.12	1,041,063	168

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. bulk and diluted at a bottom screen cut-off of 1.0 mm for West Coast Resources

Totals may not add up due to rounding; LOR – Lower Orange River

Table 10.6 Payable Inferred Resource in West Coast Resources LoM plan, as at 31 July 2016

WCR operation	Unit	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	Total
KNC									
Payable Inferred carats	cts	100,040	115,822	99,802	23,469	-	-		339,132
Percent KNC Payable Inferred carats	%	53%	59%	61%	21%				36%
DGC - Buffels River	cts								
Payable Inferred carats	cts	-	22,796	23,314	53,683	58,642	60,348	10,292	229,076
Percent DGC Payable Inferred carats	%			26%	92%	100%	100%	100%	53%
Total	**cts**	**100,040**	**138,617**	**123,115**	**77,152**	**58,642**	**60,348**	**10,292**	**568,208**
Percent Payable Inferred carats	**%**	**56%**	**47%**	**43%**	**35%**	**34%**	**40%**	**16%**	**41%**

Source: Trans Hex, 2016

Note: All grades reported as Run of Mine (RoM) grades, i.e. bulk and diluted at a bottom screen cut-off of 1.0 mm for West Coast Resources; DGC – Dikgat Complex, KNC – Koingnaas Complex.

Totals may not add up due to rounding

10.7 Modifying factors

T1.10

The Diamond Resource to Diamond Reserve modifying factors are discussed in detail in Section 7 of this report, with Table 7.4 providing a comparison between the Diamond Reserve and Cash Flow Model inputs. The same base date, economic factors and diamond prices were applied to the Modifying Factors for reserve estimation and the DCF.

Mining and non-mining related modifying factors have been verified as realistic, and have resulted in an economically viable Proved and Probable Diamond Reserve as defined in terms of clause 32 of the SAMREC Code.

10.8 Valuation considerations

Mineral assets can be defined as “all property including, but not limited to real property, mining and exploration tenements held or acquired in connection with the exploration, the development of and the production from those tenements together with all plant, equipment and infrastructure owned or acquired for the development, extraction and processing of minerals in connection with those tenements”.

The fair market value of a mineral asset is considered to be the estimated amount of money or the cash equivalent of some other consideration for which the mineral asset should change hands on the valuation date between a willing buyer and a willing seller in an arms-length transaction, wherein each party has acted knowledgeably, prudently and without compulsion.

Snowden notes that the value of a mineral asset usually consists of two components: the underlying or Technical Value and the Market component which is a premium or discount relating to market, strategic or other considerations which, depending on circumstances at the time, can be either positive, negative or zero. When the Technical and Market components of value are added together the resulting value is referred to as the Market Value.

The value of mineral assets is time and circumstance specific. The asset value and the market premium (or discount) changes, sometimes significantly, as overall market conditions and sentiment, commodity prices, exchange rates, political and country risk change. Other factors that can influence the valuation of a specific asset include the size of the company's interest, whether it has sound management and the professional competence of the asset's management. All these issues can influence the market's perception of a mineral asset over and above its technical value.

10.9 Valuation approaches and methods

T1.12

The SAMVAL Code requires that a Competent Valuator must apply at least two valuation approaches in determining a mineral asset valuation. The three generally accepted mineral asset valuation approaches are:

- Cash Flow or DCF Approach:
  - The Cash Flow Approach relies on the "value-in-use" principle and requires determination of the NPV of future cash flows over the useful life of a mineral asset. This approach is used in the valuation of the Mineral Assets.
- Market Approach:
  - The Market Approach relies on the principle of "willing buyer, willing seller" and requires that the amount obtainable from the sale of the mineral asset is determined as if in an arm's-length transaction. The Market Approach followed applies a rand value per *in-situ* resource tonne determined by analysis of the transactional value of recently traded similar mineral assets. This approach is used in the valuation of the Mineral Assets.
- Cost Approach:
  - The Cost Approach relies on historical and/or future amounts spent on the mineral asset. This approach is usually applied to early exploration assets and has not been used in the valuation of the Mineral Assets considered in this report.

10.9.1 Cash flow approach valuation

T1.12

The Cash Flow Model is based on the following forecasts:

- carat production, diamond stone size and diamond price
- operating costs
- capital costs
- working capital requirements
- consensus diamond price increases

- exchange rate and economic parameters
- current State royalty and income tax rates
- discount rates for financing and non-financing scenarios.

All cost information has been provided in mid-2016 money terms and the original production and cost schedule commenced on 1 April 2016. The Cash Flow Model has been modified to a new start date of 31 July 2016, with discounting from the same date. The NPV is determined from the post-tax and post-finance cash flow projections from the various Trans Hex mining operations (excluding LOR operations, which are reported as pre-tax cash flows).

The Valuation of the Mineral Asset is based on Probable Diamond Reserves. However, Inferred Resources are included in the Cash Flow Model scenario for WCR. Snowden has shown the proportion of Inferred Resources in the initial MES for the WCR in Section 10.6. An increase in the discount rate and WACC has mitigated material resource risk.

Each cash flow was constructed on a 100% attributable ownership basis, with loan repayments/obligations to Trans Hex addressed first and thereafter dividends split proportionally, in accordance with the corporate structure outlined in Section 3.2.

In addition, the Trans Hex Balance Sheet summary and Net Asset Value (NAV) has been reported in Table 10.18. In the 'adjusted NAV' scenario, Snowden's Valuation of the Mineral Asset is reported for the consolidated cash flows of LOR, WCR and Somiluana Mine and added to the NAV per share. This is reported in Snowden's Valuation results (Section 10.9.5) and Valuation summary and conclusions (Section 10.9.6).

LoM production projections

The Cash Flow Model is based on physical projections for mining and processing production provided by Trans Hex for the LOR operations, WCR and Somiluana Mine. The production and necessary development has been scheduled using excel spreadsheets. The mining production schedule has been developed from first principles.

The processing schedule reflects RoM production, with minimal stockpiling undertaken for each modular and fixed processing plant.

All recovered diamond content is assumed equivalent to diamonds sold for revenue purposes.

Production projections commence from 31 July 2016, in line with the Valuation base date.

An assessment of current production for the period FY0217 year to date indicates that LOR is marginally below planned production targets, WCR is experiencing difficult mining conditions and Somiluana Mine is producing significantly above current budgets (Table 10.23 and Table 10.24).

Key assumptions, exchange rates and diamond prices

The ZAR/US$ exchange rate has been taken from the Reuters institutional consensus forecast as at 31 July 2016. The median consensus price forecast of ZAR15.10:US$1 has been inputted into the Cash Flow Model. No escalation has been applied to the diamond prices in the Cash Flow Model.

The spot price on the Valuation date was ZAR13.88:US$1. Snowden notes that applied long term exchange rate of ZAR15.10:US$1 is materially higher than the Valuation date spot price. A sensitivity analysis has been undertaken on revenue, and indirectly exchange rates to show the sensitivity to revenue.

The sales methodology for South African and Angolan diamonds is discussed in Section 7.1.2 and Section 9.8. Diamond values are attributed to each population within each parcel. The forecast diamond price in the Cash Flow Model is based on the three last parcel sales, with sightholder viewing and sales undertaken every second month.

Key assumptions relating to primary cash flow inputs are shown for the LOR, WCR and Somiluana Mine in Table 10.7 to Table 10.10.

Table 10.9 and Table 10.10 are quoted in US$ for the Angolan operations. Trans Hex (Angola) dividends to Trans Hex Group Limited are converted to ZAR using the long-term exchange rate of ZAR15.10:US$1.

Table 10.7 Lower Orange River operations

Assumptions	Value	Comment/ detail
Diamond price	US$1,075/ct US$1,441/ct US$406/ct	Baken Mine Bloeddrif Shallow Water
Diamond price escalation		No escalation applied in Cash Flow Model
Diamond inventory		All carats mined are sold, on average, bimonthly.
Mining, plant and overheads opex		Base on FY2016 actual fixed and variable costs used (excluding depreciation)
Capital		
Earth moving equipment can be offset from tax in year it is incurred		
Stay in business capex		Minimal stay in business capex as this is addressed in day-to-day opex
Unredeemed capex	ZAR18.3 M	Opening balance
Working capital		
Inventory		No inventory, included in 'mining capital replacements'
Creditors		Adjustment made for operating costs and overheads (excluding depreciation) from year to year.
Debtors		Opening balance of ZAR74.8 M (including net realisable value adjustment). Net sales in following month subtracted.
Royalties and taxes		
State royalties	0.5% to 7%	Variable, dependent on gross sales and EBIT
Company tax	28%	
Export levy	5%	No export levy applied for first two years; from FY2019 export levy applied to gross sales when Diamond Cutting Works operation is closed
Assessed tax loss	ZAR17.1 M	Opening tax balance
Other		
Production volumes converted to cubic metres using am overburden density of 1.8 t/m^3 and gravel density of 2.3 t/m^3		
Baken Mine		
Production volumes of Baken Mine based on revised schedule from Budget FY2017		
Operating costs based on Budget FY2017 costs		
Diamond price per carat based on Z Star model		
Production stops in October 2017		
Bloeddrif Mine		
Production volumes of Bloeddrif Mine based on original schedule		
Operating costs based on Budget FY2017 costs		
Diamond price per carat based on Z Star model		
Production stops in October 2018		
Shallow Waters		
Carat production based on Budget FY2017 for years FY2018 to FY2026		
Operating costs excluding contractors fees based on Budget FY2017 costs for same period as above		
Diamond price per carat based on Budget FY2017		
Exploration and Head Office		
FY2018 based on Budget FY2017 costs		
FY2019 and going forward, based on 5,5% of revenue allocated to Trans Hex		

Source: Modified from Trans Hex, 2016

Table 10.8 West Coast Resources assumptions

Assumptions	Value	Comment/ detail
Diamond price	US$174/ct	KNC
	US$264/ct	DGC
	US$264/ct	TMR KNC (FY2019)
	US$174/ct	TMR KNC (FY2020 onwards)
Diamond price escalation		No escalation applied in Cash Flow Model
Diamond inventory		All carats mined are sold, on average, bimonthly.
Mining, plant and overheads		Discussed in tabulation sub-sections below per operation
Capital		
Earth moving equipment offset from tax in year that it is expensed		
Stay in business capex		Minimal stay in business capex as this is addressed in day-to-day opex
Unredeemed capex	ZAR147.0 M	Opening balance
Working capital		
Inventory		Opening stock of 17,942 carats. Opening stock cost of sales of ZAR37.0 M.
Debtors		Nil; provision made in monthly opening and closing stocks
Creditors		Adjustment made for operating costs and overheads (excluding depreciation) from year to year.
Royalties and taxes		
State royalties	0.5% to 7%	Variable, dependent on gross sales and EBIT
Company tax	28%	
Export levy	5%	Applied to gross sales
Assessed tax loss	ZAR30.1 M	Opening tax balance
Other		
Production volumes converted to cubic metres; overburden density applied of 1.8 t/m^3 and gravel density of 2.3 t/m^3		
Marketing and management fee payable to Trans Hex of 5.5% on gross revenues		
Rehabilitation cash flow contribution ZAR670, 000/ month for period August 2016 to FY2018		
Rehabilitation provision of a cumulative ZAR53 M over six years		
Exploration and WCR overheads applied to each WCR operation		
Repayment of loan advances to Trans Hex, totalling ZAR25.1 M outflow as at 31 July 2016		
Minimum ZAR5 M shareholder cash balance retained per annum		
IDC loan total capital repayment of ZAR180 M, paid over seven years.		
KNC operations		
Mining, process, administration unit costs from Budget FY2017		
Additional mining contractor cost included for FY2017		
Replacement capital expenditure of ZAR6 M for FY2018; ZAR12 M/ p/a for FY2018 and FY202		
Accretion unit cost escalated to FY2017		
DGC operation		
FY2014 unit costs for mining and overburden escalated to FY2017		
Administration costs based on KNC FY2017 budget		
Start-up costs escalated to FY2017		
Capex of ZAR79 M for FY2018 and replacement capex of ZAR4 M for FY2019 to FY2021		
TMR KNC		
Treatment, administration and start-up costs escalated from FY2014 to FY2017		
FY2017 budget opex applied for all other opex		
Capex for FY2018 is ZAR7 M and for FY2019 is ZAR22 M		
Ambicor		
Ambicor is a small scale contractor part of Shallow Water operations; a provision has been made for their fees of ZAR14 M, as the Ambicor production carats are included in the opening stock, with the sale only realising over the period Sep to Nov 2016.		

Source: Modified from Trans Hex, 2016

Table 10.9 Somiluana Mine assumptions

Assumptions	Value	Comment/ detail
Diamond price	US$480.6/ct	Calonda area
	US$480.6/ct	Leziria/ Other
Diamond price escalation		No escalation applied in Cash Flow Model
Diamond inventory		All carats mined are sold in month extracted (no inventory)
Earth moving equipment effective utilisation	75%	Planned utilisation
	75%	Planned availability
	56%	Planned effective utilisation
Shift system		2 x 12 hr shifts, 7 days/week
Plant availability and utilisation		Variable rates for different modular plants
Plant feed split	40%	Calonda
	60%	Leziria/ Other
Mining, plant and overheads		Based on FY2017 actual fixed and variable costs used (excluding depreciation) ; minimal stay in business capital as this is addressed in day-to-day opex
Plant opex and maintenance		Snowden has increased plant opex by 10% to accommodate additional wear and tear
Capital		
Earth moving equipment cannot be offset from tax		
Accounting depreciation is similar to wear and tear in Angola. Added back is deprecation on exploration cost capitalised, which is not tax deductible.		
Capex associated with production expansions is required until Dec 2019. From Jan 2020, only replacement capital is realised. Stay in business capex is low compared to industry benchmarks – this is addressed in day-to-day opex		
Unredeemed capital opening balance: Nil		
Working capital		
Inventory		No inventory, included in ‘mining capital replacements’
Creditors		Select creditors for first two years.
Debtors		Opening balance of US$2.8 M (monthly opening balance used). Net sales in following month subtracted.
Earth moving equipment financing		
US$-based loan scenario applied (CAT Finance)		
Interest rate 10%; Loan term per equipment piece – two years		
Facility first use – Jan 2017; Peak loan value of US$15.9 M (Feb 2019)		
Principal repayments extend over Feb 2017 to Feb 2021		
Royalties and taxes		
Marketing fee – Sodiam	5%	As per national legislation
Royalties	5%	As per national legislation
Withholding tax on sales revenue payable	2.5%	As per national legislation
Stamp tax duty on net revenue	1%	As per national legislation
Company income tax	25%	A number of costs are not accepted for tax purposes; these total US$9.0 M over LoM
Assessed tax losses	-	Zero
Withholding tax (WHT)	US$3.6 M	Opening WHT balance for Somiluana Mine
BNA Licences		Approved Reserve Bank loan repayment structure; repayment does not attract WHT

Source: Modified from Trans Hex, 2016

Table 10.10 Trans Hex (Angola) or THA assumptions

Assumptions	Value	Comment/ detail
Assessed tax losses	US$17.6 M	
Withholding tax opening balance	-	
Contingency fund in bank account	US$2 M	Minimum value retained in bank account
Cash on hand opening balance	US$8.7 M	As reported by Trans Hex (Angola)
THA loan repayment		50% of dividends applied to loan repayments (after contingency fund subtractions)
THA loan opening balance	US$21.7 M	THA loan
Angolan head office		Assumption that Angolan head office will be moved to the mine in H2 2016.
Exemption of withholding tax		THA has a 20% local shareholding and is not required to pay an additional income tax
Withholding tax on dividends	10%	Withholding tax applied to dividends transferred to Trans Hex Group Limited.

Source: Modified from Trans Hex, 2016

Operating expenditure (opex)

Estimates of operating costs have been developed and provided by Trans Hex management, according to the LoM schedule, and is aligned with the Trans Hex financial year. The operating costs estimates have been developed in mid-2016 money terms.

The operating costs used in the Cash Flow Model are FY2017 actuals and/or budgets; with FY2015 values escalated to FY2017 using CPI indices. No real escalations have been applied to any FY2017 opex values.

A summary of the Cash Flow Model operating costs is provided in terms of area costing (Table 10.11). Unit opex per operation is shown in Table 10.12.

Mining, process and administration opex comprises variable and fixed opex. Variable mining costs relate to diesel, lubricants, spares, tyres, equipment rental and sub-contractors. Variable process costs include ferrosilicon, diesel, lubricants, spares, tyres and equipment rental. Variable administration costs comprise opex associated with day-to-day local or regional office operation, including logistics and customs. Fixed costs for mining, plant and administration relate specifically to labour.

Overhead costs in the Cash Flow Model include group centralised costs, shared services and other indirect costs. Shared services include IT, accounting and employee services, audit fees, and guarantee charges.

For the purposes of comparison, overheads in the opex tables below (Table 10.11 and Table 10.12) include depreciation, exploration, contractor fees, start-up costs, and other administration opex. Head office opex is excluded from the opex in Table 10.12; and has not been split per operation.

Excluded in the opex tables are environmental liabilities, financing costs, mining rights depreciation and select WCR overheads.

The LoM average unit cost is ZAR304/m^3. Somiluana Mine LoM average unit is ZAR1,039/m^3. Mining at the LOR Baken Mine and Bloeddrif Mine ceases in FY2018/FY2019, with Shallow Marine operations continuing to FY2026. High LOR unit values for FY2020 to FY2026 relate to the Shallow Water operations, whereby low gravel volumes and high overhead fees are noted; Shallow Water contractors are paid a percentage for diamond content and gravel volumes extracted.

Table 10.11 Summary of opex for all Trans Hex operations

Component	Unit	LoM total	FY2017*	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
LOR														
Total mining	ZAR M	316	149	141	26	-	-	-	-	-	-	-	-	-
Total processing	ZAR M	300	108	111	28	8	8	8	8	8	8	8	-	-
Total overheads	ZAR M	642	128	142	61	44	44	44	44	44	44	44	-	-
Total LOR opex	**ZAR M**	**1,258**	**385**	**394**	**115**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**-**	**-**
WCR														
Total mining	ZAR M	1,173	67	123	255	266	219	143	99	2	-	-	-	-
Total processing	ZAR M	945	34	64	137	147	147	147	134	36	30	30	30	9
Total overheads	ZAR M	661	47	73	82	87	88	85	80	25	25	28	30	10
Total WCR opex	**ZAR M**	**2,779**	**148**	**260**	**474**	**500**	**454**	**375**	**313**	**63**	**55**	**58**	**60**	**19**
Somiluana Mine														
Total mining	ZAR M	2,536	139	231	280	307	315	315	315	315	296	22		
Total processing	ZAR M	1,290	70	119	143	157	158	158	158	158	158	13		
Total overheads	ZAR M	2,223	144	236	249	262	262	262	262	262	262	21		
Total Somiluana Mine opex	**ZAR M**	**6,049**	**353**	**586**	**671**	**726**	**735**	**735**	**735**	**735**	**716**	**56**		
Trans Hex Head office	ZAR M	446	76	80	72	53	42	38	33	17	12	12	9	4
Total opex	**ZAR M**	**10,532**	**961**	**1,320**	**1,332**	**1,332**	**1,283**	**1,200**	**1,134**	**867**	**835**	**177**	**69**	**22**

Source: Snowden, 2016

*Note: * FY2017 – partial year, August 2016 to March 2017; LOR – Lower Orange River; WCR – West Coast Resources; Exchange rate of ZAR15.10:US$1 used to convert Somiluana Mine costs to ZAR.*

Totals may not add up due to rounding

Table 10.12 Summary of unit opex for all Trans Hex operations

Component	Unit	LoM unit total	FY2017*	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
LOR														
Gravels mined	Mm^3	19.87	10.72	8.34	0.78	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Total mining	ZAR/m^3	16	14	17	34	-	-	-	-	-	-	-		
Total processing	ZAR/m^3	15	10	13	35	1,891	1,891	1,891	1,891	1,891	1,891	1,891		
Total overheads	ZAR/m^3	32	12	17	78	10,854	10,854	10,854	10,854	10,854	10,854	10,854		
Total LOR unit opex	**ZAR/m^3**	**63**	**36**	**47**	**147**	**12,745**	**12,745**	**12,745**	**12,745**	**12,745**	**12,745**	**12,745**		
WCR														
Gravels mined	Mm^3	9.00	0.12	0.25	0.87	1.21	1.21	1.21	1.15	0.72	0.69	0.69	0.69	0.19
Total mining	ZAR/m^3	130	555	490	293	220	181	119	86	2				
Total processing	ZAR/m^3	105	285	257	157	122	122	122	117	50	43	43	43	45
Total overheads	ZAR/m^3	73	390	293	94	72	73	70	70	35	37	40	44	52
Total WCR unit opex	**ZAR/m^3**	**309**	**1,230**	**1,041**	**545**	**414**	**376**	**310**	**272**	**87**	**80**	**83**	**87**	**97**
Somiluana Mine														
Gravels mined	Mm^3	5.82	0.31	0.52	0.61	0.72	0.72	0.72	0.72	0.72	0.72	0.06		
Total mining	ZAR/m^3	436	448	444	458	426	438	438	438	438	412	367		
Total processing	ZAR/m^3	222	226	229	234	217	219	219	219	219	219	211		
Total overheads	ZAR/m^3	382	464	453	408	364	364	364	364	364	364	355		
Total Somiluana Mine unit opex	**ZAR/m^3**	**1,039**	**1,138**	**1,127**	**1,100**	**1,008**	**1,021**	**1,021**	**1,021**	**1,021**	**995**	**933**		
Total unit opex	**ZAR/m^3**	**304**	**86**	**145**	**589**	**688**	**664**	**621**	**605**	**600**	**591**	**235**	**100**	**116**

Source: Snowden, 2016

*Note: * FY2017 – partial year, August 2016 to March 2017; totals may not add up due to rounding*

Capital expenditure (capex)

Capex estimates have been provided by Trans Hex management for each operation, relating to mining, process and infrastructure. Snowden considers the capex timing and allocations reasonable for the design capacities and planned mine schedules. SIB capital includes capital required for business continuity, i.e. maintaining planned capacities. A summary of the capital costs included in the Cash Flow Model is shown in Table 10.13.

Some ZAR1,255 M of the ZAR1,505 M total LoM capex will be spent at Somiluana Mine, with WCR allocated ZAR180 M for additional production expansions. Project capital is scheduled each year until FY2026 with over 68% expended in the first four years.

Capex for Trans Hex operations are based on a combination of quotations and estimates based on past experience. At the LOR operations, no provision for contingencies has been made in any of the capex estimates. Snowden considers this fair, as Baken and Bloeddrif are approaching the end of life.

At WCR, the Dikgat capex provides for screening and recovery plants with related infrastructure. The capital expenditure is based on estimates received from project engineering companies in March 2016, with contingencies of 10% applied to all estimates. Michell's Bay capex requirements are based on quotations and estimates. The majority of the Michell's Bay capex will be completed in the current financial year (FY2017). TMR KNC capex is based on quotations and adjusted with CPI.

At Somiluana Mine, EME, trucks, light duty vehicles (LDVs), plants and select component replacement is based on quotations from suppliers from H2 2015. Engineering tools improvements/uplifts and geology general capex estimates have been based on Trans Hex operational experience. No provision was made for capex contingencies at Somiluana Mine. Snowden considers this fair, as the US$ quoted prices have not changed materially over the 2016 calendar period. For Angola, the following is noted:

- EME: Quotations were obtained from Barloworld Angola on September 2015. Transport costs to mine site were added to the overall mine equipment costs.
- Trucks: Quotations obtained from Angobest (local supplier) in August 2015
- LDVs: Quotations obtained from Toyota Angola on September 2015
- Plants: A MB100 plant total cost was estimated at US$0.5 M including breakdown and transport to site. A 50 t/h DMS was estimated at US$0.5 M including breakdown and transport to site.
- Engineering: Total uplifts estimated at US$1 M
- Geology: Estimated US$0.2 M, and one year spares for the drill rig, estimated at US$60,000
- Select component replacement: US$100,000.

The bulk of planned stay in business (SIB) capex occurs over the period FY2020 to FY2025. SIB capex is low compared to industry benchmarks – this is addressed in day-to-day opex for WCR and Somiluana Mine.

The level of contingency contained in overall capex is marginal, and considered fair, as the Company has extensive experience operating in Angola and the West Coast of South Africa.

Table 10.13 Summary of capex for all Trans Hex operations, FY2017 to FY2028

Component	Unit	LoM capex total	FY2017*	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
LOR	**ZAR M**	**70**	**38**	**26**	**5**									
Baken Mine	ZAR M	**49**	31.46	17.50	-									
Bloeddrif Mine	ZAR M	**19**	6.02	8.45	4.93									
Shallow Waters	ZAR M	**1**	0.45	0.48	0.28									
WCR	**ZAR M**	**180**	**17**	**105**	**38**	**16**	**4**	**-**	**-**				**-**	**-**
DGC	ZAR M	**91**	-	79	4	4	4	-	-	-	-	-	-	-
KNC	ZAR M	**61**	17	19	12	12	-	-	-	-	-	-	-	-
TMR	ZAR M	**28**	-	7	22	-	-	-	-	-	-	-	-	-
Somiluana Mine	**ZAR M**	**1,255**	**167**	**245**	**201**	**172**	**93**	**93**	**93**	**93**	**93**	**8**	**-**	**-**
Trans Hex Head office	ZAR M	**-**												
Total capex	**ZAR M**	**1,505**	**223**	**376**	**243**	**188**	**97**	**93**	**93**	**93**	**93**	**8**	**-**	**-**

Source: Snowden, 2016

*Note: * FY2017 – partial year, August 2016 to March 2017; Exchange rate of ZAR15.10:US$1 used to convert Somiluana Mine costs to ZAR.*

LOR – Lower Orange River; WCR – West Coast Resources; DGC – Dikgat Complex, KNC – Koingnaas Complex; TMR – Tailings diamond resource retreatment

Totals may not add up due to rounding

Mineral royalties and taxes

South African royalties have been determined according to the requirements of the Mineral and Petroleum Resources Royalty Act, 2010 (the Royalty Act). The Royalty Act includes different rates for unrefined and refined metals according to the following formula:

- Royalty rate (Unrefined) = 0.5 + [EBIT/(Gross sales x 9)] x 100 with a maximum of 7%

The average mineral royalty percentage reflected in the Cash Flow Model for LOR operations is 1.8% and WCR is 4.6% of gross revenue.

An export levy of 5% is applied to WCR sales. No export levy is applied to LOR operations, as a beneficiation plant has been established for these sales; however from FY2019 onwards, a 5% levy is modelled for LOR, as the beneficiation plant will then be decommissioned.

The corporate tax rate in South Africa is 28% and all capex is deducted for tax purposes in the year that it is incurred. Unredeemed capital balances are allowed to be carried forward. Unredeemed capital balance is discussed in Table 10.7 to Table 10.10 for the Trans Hex operations. The revenues and all costs reflected in the Cash Flow Model are stated to be excluding value added tax (VAT).

The following Angolan sales taxes are reported for Somiluana Mine:

- Discount on gross sale (5%)
- Royalties (5%) on gross sales
- Withholding tax (2.5%) on gross sales
- Stamp tax duty of 1% on the net revenue after deductions.

The Angolan corporate tax rate is 25%.

In Angola, capex cannot be deducted for tax purposes; straight line depreciation has been applied to capex, and subtracted from net cash flows before dividends. Withholding tax of 10% payable on dividends directed to non-Angolan companies.

Working capital

Working capital calculations were undertaken in the Cash Flow Model and have no nominal component. Debtors, creditors and inventory methodologies are discussed in Table 10.7 to Table 10.10.

Discount rate

A weighted average cost of capital (WACC) and capital asset pricing model (CAPM) approach has been used to determine a discount rate for financial year end purposes in March 2016 (Table 10.14). The CV has reviewed these discount rates and considers these to reflect the inherent mine/ operational/ country risks appropriately; the discount rates in Table 10.14 have been applied to the Cash Flow Model. There is no additional debt required for the LOR operations.

Somiluana Mine specific risk premium relates to political risk (1.25%); Diamond Resource and Reserve confidence (4.0%); and 5.0% risk associated with a potential shortage of dollars, inflation containment, further devaluation of the kwanza (national currency) and non-payment of loans/investment covenants.

A small share premium of 3.8% has been assigned by an independent auditing group to Trans Hex; this premium relates to small market capitalisation; and high, variable returns for such companies. Snowden has retained the small share premium in the discount rate.

Snowden has calculated its own WACC for the consolidated cash flows. A specific risk premium of 8% has been included, which incorporates WCR Payable Inferred Resource and production risk, minority shareholder risk in Angola and current economic considerations, earlier closure of LOR operations, and unplanned mitigation that may be required with LOR closure.

Table 10.14 Discount rates and WACC applied

Component	CAPM and WACC components	Discount rate before financing (%)	Weight average cost of capital (%)
Lower Orange River and Head Office	R186 long-term bond (8.9%) Beta of 1.15 Equity 100% Inflation (6.0%)	9.2*	9.2
West Coast Resources	R186 long-term bond (8.9%) Beta of 1.15 Tax rate 28% Equity (70.7%) Inflation (6.0%) Cost of debt (10.9%) Small share premium (3.8%) Specific risk premium (4.0%)	18.7	12.2
Somiluana Mine	AKZ Gov bond (7.0%) Beta of 1.15 Tax rate 25% Equity (64.9%) Inflation (2.0%) Cost of debt (10.0%) Small share premium (3.8%) Specific risk premium (10.3%)	28.0	18.4
Trans Hex consolidated operations	R186 long-term bond (8.9%) Beta of 1.15 Tax rate 28% Market risk premium (6.0%) Equity (75%) Inflation (6.0%) Cost of debt (10.9%) Small share premium (3.8%) Specific risk premium (8.0%)	22.5	16.0

Source: Trans Hex, 2016

Note: LOR pre-tax discount rate is 15.0% using the CAPM methodology

Environmental considerations

Mining companies are required to make a financial provision for environmental closure and rehabilitation. Closure costs, rehabilitation provisions and rehabilitation repayments have been applied in the Cash Flow Model. Closure cost liabilities for LOR and WCR operations are discussed in Section 7.6. The outstanding balances are funded from current and forecasted cash flows, rehabilitation insurance products and residual trust fund values.

A rehabilitation liability quantum is estimated at ZAR83.9 M (excluding VAT) for the LOR operations in May 2016. Snowden has used the ZAR83.9 M rehabilitation quantum in the Cash Flow Model. This liability is funded via cash contributions to a rehabilitation trust (trust value of ZAR51.6 M as at 31 July 2016). During June 2016, a financial provision quantum update, amounting to ZAR68.5 M (exclusive of VAT and contingencies) was submitted to the DMR.

The Hondeklip Bay liability is funded via cash contributions into a rehabilitation trust (trust value as at 31 July 2016 was ZAR8.3 M). As at 31 July 2016 the required rehabilitation provision, adjusted for inflation, amounted to ZAR5.9 M.

The Shallow Water operations liability was calculated at ZAR2.7 M (exclusive of VAT and contingencies). As at 31 July 2016 the provision, adjusted for inflation, amounted to ZAR3.7 M. This liability is funded via monthly payments of ZAR25,000 to a rehabilitation trust (trust value is ZAR2.4 M as at 31 July 2016) and cash secured guarantees issued by an insurance company to the value of ZAR5.2 M.

As at 31 July 2016, WCR book value for its rehabilitation liability was ZAR155 M (excluding VAT). To date, cash backed guarantees to the value of ZAR169 M (including VAT) have been requested by the DMR and issued as security for the liability. As at 31 July 2016 these guarantees have been funded to the value of ZAR108 M and funding is further increased with monthly payments of ZAR670,000. In October 2015, an updated rehabilitation quantum was estimated, totalling ZAR99.3 M (excluding VAT) and submitted to DMR. Snowden has used the ZAR99.3 M value for the Cash Flow Model.

Net present value (NPV)

NPV, internal rate of return (IRR) and payback time are typically used as indicators of project performance and for valuation using the Cash Flow Approach. As the Trans Hex operations are all operating mines, NPV is considered the most appropriate indicator of economic performance for the Mineral Assets. The discounted free cash flow in the consolidated Cash Flow Model (Table 10.16), and as summarised, reflects a NPV of ZAR685 M for Trans Hex's attributable share of the Mineral Assets, using a discount rate of 16.0% (Real). Cash flow summaries for the other three models (LOR, WCR and Somiluana Mine) are shown in Appendix B.

For completeness, NPVs were calculated on the individual operations and shown in Table 10.15, on a 100% basis before dividends and Trans Hex loan repayments.

Table 10.15 NPVs of individual operations

NPV of each operation (100% attributable basis)	Value in ZAR M
Orange River Operations, net cash flow to pre-tax level	219
West Coast Resources, net cash flow before dividends and TSX loan repayment	635
Somiluana JV, net cash flow before dividends and TSX loan repayment	779

Source: Snowden, 2016

Note: WACC rate of 12.2% applied to WCR; 15.0% to LOR operations; and 18.4% for Somiluana Mine; WCR includes Payable Inferred Resources; TSX – Trans Hex

Primary differences: Snowden and Trans Hex models

The primary differences between the Snowden and Trans Hex cash flow models are noted below:

LOR

- Royalty payments are approximately 39% more in the Snowden model (ZAR29 M versus ZAR18 M), relating primarily to royalty inputs and royalty permissible costs.

WCR

- Sales revenue reduced by 10% for FY2017 to incorporate current difficult mining conditions at WCR.
- Royalty payments are approximately 7% more in the Snowden model, relating primarily to royalty inputs and royalty permissible costs.
- Net cash flows from WCR to Trans Hex are some 10% less in the Snowden models, and are attributed to the cumulative effects of the points above.

Somiluana Mine

- Snowden has increased processing opex by 10% to include SIB capex and potentially higher than planned processing opex
- Snowden has reported higher income tax payable – Trans Hex monthly model values incorporate small changes in monthly income tax payable, which cannot be accommodated in the Snowden Cash Flow Model.
- Net cash flows from Trans Hex (Angola) to Trans Hex are some 10% less in the Snowden models, and are attributed to the cumulative effects of the points above.

Table 10.16 Cash Flow Model – summary of consolidated operations post-tax, post financing

Component	Unit	LoM total	1 Aug-FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
TSX inflows														
THA net inflow to TSX	ZAR M	786	66	120	69	36	127	89	89	89	97	3	-	-
Total WCR cash flow to TSX	ZAR M	696	40	23	158	104	72	77	79	52	28	27	26	10
Net cash flow from LOR operations, before tax	ZAR M	285	64	142	48	16	7	0	0	0	0	0	7	-
Total TSX inflows	**ZAR M**	**1,767**	**171**	**285**	**275**	**157**	**206**	**166**	**168**	**141**	**125**	**30**	**33**	**10**
Cash flow adjustments	**ZAR M**	**-479**	**-96**	**-92**	**-78**	**-45**	**- 39**	**- 38**	**- 34**	**- 17**	**- 12**	**- 12**	**- 11**	**-4**
Selling, administration and marketing opex	ZAR M	-432	-64	-78	-72	-53	- 42	- 38	- 33	- 17	- 12	- 12	-9	-4
New business/ exploration opex	ZAR M	-4	- 2	- 2	-	-	-	-	-	-	-	-	-	-
Purchase of concession area	ZAR M	- 10	-10	-	-	-	-	-	-	-	-	-	-	-
Income tax paid	ZAR M	13	-	2	-	8	3	-	-	-	-	-	-	-
Net working capital	ZAR M	- 25	1	-15	- 6	- 1	-0	-0	-0	-1	-0	-	-2	-0
Other movements	ZAR M	- 21	-21	-	-	-	-	-	-	-	-	-	-	-
Net TSX cash flows after adjustments	**ZAR M**	**1,288**	**74**	**192**	**197**	**112**	**166**	**128**	**134**	**124**	**113**	**18**	**22**	**6**
NPV at 16.0% WACC	**ZAR M**	**685**												

Source: Snowden, 2016

Note: TSX – Trans Hex Group Limited; WACC – Weighted average cost of capital

Sensitivity analysis

The Cash Flow Model is most sensitive to revenue (comprising grade, diamond prices and exchange rates) and secondly to operating costs. The Cash Flow Model is least sensitive to capital cost changes, as LoM capital costs are less than 15% of LoM opex and the Mineral Asset is an ongoing operation. The results of the sensitivity analysis at the base discount rate of 16.0% (real) are shown in Table 10.17.

Table 10.17 High level sensitivity analysis of combined Trans Hex operations

Sensitivity range	Value in ZAR (M)			
	Revenue	Operating expenditure	Capital expenditure	Discount rate
-20%	- 14	1,118	773	821
-15%	175	1,009	751	787
-10%	351	901	729	753
-5%	519	791	707	719
0%	**685**	**685**	**685**	**685**
5%	854	581	662	650
10%	1,026	476	640	616
15%	1,197	370	617	582
20%	1,367	259	594	548

Source: Snowden, 2016

Balance Sheet items and NAV

The Trans Hex Balance Sheet summary and NAV has been reported in Table 10.18 – the following scenarios are noted:

- Adjusted scenario. Balance Sheet excluding full book values for LOR, WCR and Somiluana Mine as at 31 July 2016 (unaudited). By applying this scenario, Snowden's Valuation of the Mineral Asset is reported for the consolidated cash flows of LOR, WCR and Somiluana Mine and added to the NAV per share. The NAV per share is reported in Snowden's Valuation results (Section 10.9.3) and Valuation summary and conclusions (Section 10.9.4).
- Actual scenario. Actual Balance Sheet incorporating LOR, WCR and Somiluana Mine book values as at 31 July 2016 (unaudited).
- Audited scenario. Audited Balance Sheet incorporating LOR, WCR and Somiluana Mine book values as at 31 March 2016.

Table 10.18 Trans Hex Balance Sheet as at 31 July 2016

Component	Notes	Value in ZAR M		
		Four Months ended 31 July 2016	Four Months ended 31 July 2016	Year ended 31 March 2016
		Adjusted	Actual	Audited
Assets				
Non-current assets		*9.6*	*427.8*	*388.8*
Property, plant and equipment	1	3.9	78.1	83.0
Investment in WCR	2	-	185.7	166.9
Investment in Somiluana Mine	2	-	73.4	52.9
Investments held by environmental trust	3	2.7	62.7	61.2
Other financial assets	4	3.0	3.0	3.0
Deferred income tax assets	2	-	24.9	21.9
Current assets		*317.5*	*429.4*	*502.1*
Inventories	2	-	111.9	111.0
Trade and other receivables	4	19.7	19.7	37.1
Current income tax	2	-	-	0.5
Cash and cash equivalents	4	297.9	297.9	353.5
Total assets		**327.1**	**857.2**	**890.9**
Equity		-	-	-
Total shareholders' interest		*153.8*	*556.4*	*535.1*
Non-current assets				
Provisions	5	28.0	115.1	112.4
Current liabilities		*145.3*	*185.7*	*243.3*
Trade and other payables	5	45.3	85.7	122.7
Current income tax	2	-	0.0	-
Investment in joint venture	4	100.0	100.0	120.7
Total equity and liabilities		**327.1**	**857.2**	**890.9**
Net Asset Value per share (cents)		**146**	**526**	**506**

Source: Trans Hex, 2016

Notes:

1 *The amount of ZAR3.9 M represents the book value of head office and Shallow Water properties. The latest independent market valuations obtained for these properties, amount to a total of ZAR36 M. The difference between this amount and the actual value for 31 July 2016 represents the book value of assets included in the independent valuations of the respective mining rights.*

2 *These assets and liabilities are included in the independent valuations of the respective mining rights.*

3 *The amount of ZAR2.7 M represents the funds allocated to the Shallow Water and prospecting properties. The difference between this amount and the actual number for 31 July 2016 represents the fund values included in the independent valuations of the respective mining rights.*

4 *These assets and liabilities are not included in the independent valuations of the respective mining rights and are carried at book value.*

5 *The amounts of ZAR28.0 M and ZAR45.3 M represent liabilities not included as part of the independent valuations of the respective mining rights. The difference between these amounts and the actual numbers for 31 July 2016 represents the book values of liabilities included in the independent valuations of the respective mining rights. The difference in the amount for provisions relates to rehabilitation liabilities relating to mining rights independently valued.*

10.9.2 Market Approach Valuation

The second valuation method for Trans Hex operations is based on the Market Approach using comparable transactions. The Market Approach relies on the principle of "willing buyer, willing seller" and assumes that the amount received from the sale of the asset is determined on an arm's length basis. The methodology follows comparison of the asset under consideration to relatively recent asset transactions with similar characteristics. This approach is generally based upon a monetary value per unit of Diamond Resource, or where available, Diamond Reserve.

As no two mineral assets are the same, the CV must be cognisant of the quality of the assets in the comparable transactions, with specific reference to:

- grade of the Diamond Resource
- metallurgical qualities of the Diamond Resource
- proximity to infrastructure such as an existing mill, roads, power, water, skilled work force, equipment, etcetera
- likely operating and capital costs
- amount of pre-strip (for open pits) or development (for underground mines) necessary
- likely ore to waste ratio
- overall confidence in the Diamond Resource.

The relative infrequency of alluvial diamond transactions, specifically relating to operating mines has been observed in the Snowden transaction database for the period January 2010 to August 2016. Snowden has used the following considerations:

- Effective transaction value greater than ZAR50 M
- Active alluvial diamond mine on the coast of Southern Africa.

No comparable, historic transactions were noted in 144 transactions reviewed.

The following transactions, relating to Trans Hex, are noted over the same database period of review. The Diamond Resource, as reported at 31 March 2016 has been used for imputed value calculations. A total Indicated Resource of 4.44 Mct and Inferred Resource of 7.64 Mct was estimated. The Marine concession of 0.15 Mct (Indicated Resource) and 0.23 Mct (Inferred Resource) has been included in the total WCR Resource estimated.

Namaqualand Mines transaction, August 2012 (NM transaction)

In August 2012, Trans Hex reported that it had signed an agreement, on behalf of its associate company, to purchase a 100% interest in DBCM's Namaqualand Mines mineral assets (excluding the BMC) for ZAR166 M. The historic Mineral Resource estimate (2012) comprised 118.2 Mt or ore containing 1.92 Mct, equivalent to 1.62 ct per 100 t. The imputed value for this mineral asset is ZAR1.40/t or ZAR25/ct; and a value of ZAR100/ct for the Indicated Resource exclusively.

Business Venture Investments transaction, May 2016 (BVI transaction)

In May 2016, Trans Hex reported that Business Venture Investments No 1952 (Pty) Limited had acquired a 20.3% interest in Trans Hex Group Limited from Johannesburg-based Northam Platinum Limited (Northam). The transaction has realised a total cash consideration of ZAR81.8 M for Northam.

Cream Magenta, RAC and Metcap transaction, August 2016 (CM, RAC & Metcap transaction)

A SENS announcement was released on 8 August 2016, advising Trans Hex shareholders (the shareholders) that Cream Magenta (Pty) Limited (Cream Magenta) and Metcap 14 (Pty) Limited (Metcap), collectively acquired issued ordinary shares in the Company totalling 49,762,778 or 47.08% of the issued ordinary shares of Trans Hex, excluding treasury shares. Furthermore, the shareholders were advised that Cream Magenta, Metcap and RAC Investment Holdings (Pty) Limited (RAC), acting in concert, (collectively, the Offerors), have extended a mandatory cash offer, in terms of Section 123 of the Companies Act, No 71 of 2008, as amended, (Companies Act), to the shareholders to acquire the remaining issued ordinary share capital of Trans Hex (27.72% interest), other than the issued ordinary shares already held by the Offerors and the issued ordinary shares held as treasury shares (Offer Shares) (the Offer). The Offerors shall offer to acquire all the Offer Shares in exchange for a cash offer consideration of ZAR3.94 per Offer Share (Offer Consideration).

Market Approach Valuation summary

Implied value for the Trans Hex operations

The implied valued for Trans Hex operations is noted in Table 10.19.

The range of implied values is between ZAR25/ct and ZAR33/ct for all Trans Hex Diamond Resources (including the Marine concessions); and ZAR88/ct and ZAR100/ct for all Trans Hex Diamond Resources in the Indicated Resource category.

Table 10.19 Implied and preferred value ranges for Trans Hex operations

Component	Unit	Total Resource	Transaction value (ZAR M)	Implied value, Total Resource	Implied value, Indicated Resource
Indicated Resource	Mct	4.60			
Inferred Resource	Mct	7.97			
Total Resource	**Mct**	**12.57**			
Reported transaction value					
NM	ZAR M		166.0		
BVI	ZAR M		81.8		
CM, RAC & Metcap	ZAR M		417.8		
Implied unit value, per transaction					
NM	ZAR/ct			25.00	100.00
BVI	ZAR/ct			32.06	87.60
CM, RAC & Metcap	ZAR/ct			33.14	90.53
Implied value of Trans Hex, per transaction					
NM	ZAR M			314.2	460.0
BVI	ZAR M			403.0	403.0
CM, RAC & Metcap	ZAR M			416.5	416.5
Implied value for Trans Hex					
Low value	ZAR M			314.2	403.0
High value	ZAR M			416.5	460.0

Source: Snowden, 2016

Market Approach Valuation summary

The NM transaction implied value of ZAR460 M is considered by Snowden to be the preferred Market Comparable value of the Trans Hex Mineral Assets, with an upper threshold of ZAR460 M and a lower threshold of ZAR314 M, based on the transactional values shown in Table 10.19. Due to the relatively large Diamond Resource base, favourable long-term alluvial mining history and strong production outlook associated with the Trans Hex Mineral Assets, Snowden does not consider the Diamond Resource implied and imputed values to accurately reflect a true value for the Trans Hex Mineral Assets.

The Market Approach preferred value of ZAR460 M is noted (in comparison to the DCF base value of or ZAR685 M or ZAR54/ct for the total Resource); and using a 31 July 2016 consensus forecast exchange rate of ZAR15.10:US$1.

10.9.3 Valuation results

T1.14

The discount rate(s) for the Cash Flow Approach has been determined using a WACC and CAPM methodology. As discussed above, the average performance of similar companies has been used to determine a beta of 1.15 that supports the real discount rates of 16.0%. A minimum and maximum beta value of 0.70 and 1.30 has been determined, considering current discount rates and small risk premiums applied. Application of these upper and lower beta values results in a lower and upper real discount rate of 14.1% and 16.6% respectively. Applying these discounts to the Cash Flow Model results in a lower NPV of ZAR671 M and an upper NPV of ZAR729 M. In addition, exchange rates were adjusted by 20%, which resulted in a lower and upper NPV of ZAR205 M and ZAR1,197 M respectively. This consolidated NPV excludes a valuation of the WCR Surf Zone deposit, which is reported in Section 10.10.

The Market Approach results in a lower and upper Mineral Asset value of ZAR314 M and ZAR460 M respectively. The Cash Flow Approach and Market Approach lower and upper values are shown in Table 10.20. The Market Approach preferred value of ZAR460 M (in comparison to the DCF base value of or ZAR685 M) is noted, using a 31 July 2016 consensus forecast exchange rate of ZAR15.10:US$1.

Table 10.20 Range of values and Concluding Opinion of Value

Valuation approach	Value in ZAR M		
	Lower	Preferred value	Upper
Cash Flow Approach	205	685	1,197
Market Approach	314	460	460
Valuator's Concluding Opinion of Value, excluding Balance Sheet NAV p/share*	**205**	**685**	**1,197**

Source: Snowden, 2016

*Note:*And excludes WCR Surf Zone deposit valuation; NAV – Net Asset Value*

Rounding applied to ZAR values

10.9.4 Valuation summary and conclusions

T1.15

The preferred valuation method is a Cash Flow Approach, considering the detailed planning that has been undertaken to generate projections that reflect the technical and economic parameters and

assumptions existing at the date of this report; and is supported by extensive operating experience. The Cash Flow Model is most sensitive to revenue (diamond prices, US$:ZAR exchange rate, and grade) and secondly to operating costs.

The Competent Valuator's Concluding Opinion of Value is presented in Table 10.21 for the combined Mineral Asset, using the attributable ownership shareholding, and including the Surf Zone deposit valuation, with a preferred overall value of ZAR691 M and an applied discount rate of 16.0% (real) for the Mineral Assets. This value includes financing and shareholder dividends, but excludes the NAV per share estimated by Trans Hex (Table 10.18). A detailed valuation is presented in Section 10.9. A non-financed scenario was undertaken and showed an immaterial difference to NPV; delays in capex cash purchases were not factored into the non-financed option.

As at 31 July 2016, there were 105.70 million shares registered to Trans Hex. By including the WCR Surf Zone deposit and Trans Hex adjusted NAV per share, Snowden considers the fair and reasonable value of Trans Hex to be 800 cents per share, with a lower threshold value of 345 cents per share and an upper threshold value of 1,287 cents per share (Table 10.21).

Table 10.21 Valuation of the Mineral Assets, including WCR Payable Inferred and financing

Valuation approach	Unit	Value in ZAR M		
		Lower	Preferred value	Upper
Cash Flow Approach	ZAR M	205	685	1,197
Surf Zone deposit (Section 10.10)	ZAR M	5	6	9
Valuator's Concluding Opinion of Value, excluding Balance Sheet NAV per share	ZAR M	210	691	1,206
Net Asset Value per share equivalent	**Cents**	**199**	**654**	**1,141**
NAV per share from Table 10.18	**Cents**	**146**	**146**	**146**
Total NAV per share	**Cents**	**345**	**800**	**1,287**

Source: Snowden, 2016

The Offerors cash consideration of ZAR3.94 per share is less than Snowden's preferred value of ZAR8.00 per share.

Key risks associated with the Mineral Assets are discussed in Section 11.

10.10 Diamond Resource potential

In Snowden's opinion significant potential exists in the following West Coast Resource areas:

- Megalodon channel
- KNC Target Blocks
- Surf Zone.

The surf zone Inferred Resource estimate is a non-spatial estimate in that it is not located in blocks. As a result accurate planning and mining will prove difficult. A decision was taken to only include 10% of the documented carats (0.11 Mct) in the SBC and KNC areas as an indication of what could be reasonably mined by surf zone contractors currently.

Snowden has provided value for the remaining Diamond Resource potential of 0.89 Mct of the Surf Zone; but has excluded extensions within the Megalodon channel and KNC Target Blocks due to the paucity of information.

The current mineral rights allow WCR exclusive access to these surf zones which are considered an extension of the planned WCR operations. However, there is a possibility that these deposits may never be mined by WCR due to depth of deposition, the possibility of lower grades, and/or other opex and capex considerations. Exploration potential for the Surf Zone has been estimated at 0.89 Mct by Z Star.

Snowden considers the proximal location and mineral right tenure sufficient justification for an implied value of between ZAR12 M and ZAR23 M for the Surf Zone deposit, based on historical Namaqualand Mines transaction of 2012 and after applying a 50% discount for grade variability to the Surf Zone deposit. Snowden's preferred value is ZAR15 M. Trans Hex's 40% interest translates to a preferred value of ZAR6 M, with an upper value of ZAR9 M, and a lower value of ZAR5 M.

10.11 Identifiable Component Asset (ICA) values

T1.11, T1.16

The following valuations have been reported to Snowden in Table 10.22, all exclude VAT. The values are shown below for comparative purposes. Recent property valuations have been incorporated in Trans Hex's (unaudited) estimation of NAV per share and are discussed in the notes of Table 10.18. Previous Mineral Asset valuations are also shown in Table 10.22.

Table 10.22 Identifiable Component Asset values of Trans Hex operations

Component	Value (ZAR M)	Comment
LOR (April 2016)	1,545.2	Total insurance value as at 1 April 2016. LOR buildings (ZAR514 M), fixed plant and equipment (ZAR578 M) and earth moving equipment or EME (ZAR359 M) and other (ZAR95 M). Includes head office (buildings and content), estimated at ZAR57 M
LOR (July 2016)	79.8	Total book value as at 31 July 2016. LOR buildings (ZAR3 M), fixed plant and equipment (ZAR9 M) and EME (ZAR63 M) and other (ZAR4 M). Includes head office (buildings and content), estimated at ZAR4 M
LOR– Shallow Water operations (August 2016)	15.5	Independent, internal valuation undertaken by a registered property valuator in August 2016 of the Shallow Water immovable properties. Some 26 title deeds, each individually valued, covering an area of 1,776 hectares.
WCR (April 2016)	343.1	Total insurance value as at 1 April 2016. WCR buildings (ZAR71 M), fixed plant and equipment (ZAR167 M) and EME (ZAR93 M) and other (ZAR13 M).
WCR (April 2016)	705.2	Total book value as at 1 April 2016. WCR buildings (ZAR2 M), fixed plant and equipment (ZAR107 M) and EME (ZAR37 M), mining rights (ZAR512 M), land (ZAR39 M) and other (ZAR9 M).
WCR (May 2016)	67.6	Independent, internal valuation undertaken by a registered property valuator on 26 May 2016 of the WCR immovable properties. Some 40 title deeds, each individually valued, covering an area of 121,101 hectares.
WCR (June 2014)	208.0	Snowden CPR valuation, June 2014 on NM Mineral Asset (now WCR), including Probable Reserves only, offshore deposits, sale of property (ZAR39 M), less environmental obligations (ZAR166 M); and using a LoM exchange rate of ZAR10.58:US$1, and a real discount rate of 12%. Valuation date of 1 April 2014; 100% attributable basis.
WCR (June 2014)	705.0	Snowden CPR valuation, June 2014 on NM Mineral Asset (now WCR), including Payable Inferred Resources, offshore deposits, sale of property (ZAR39 M), less environmental obligations (ZAR166 M); and using a LoM exchange rate of ZAR10.58:US$1, and a real discount rate of 12%. Valuation date of 1 April 2014; 100% attributable basis.
Head Office (June 2016)	20.2	Independent, internal valuation undertaken by a registered property valuator on 1 June 2016 of the immovable property: Head Office, Parow, Cape Town.
Trans Hex (July 2016)	327.1	Consolidated statement of financial position. Total Asset Value based on Trans Hex Balance Sheet – Adjusted scenario, as at 31 July 2016 (unaudited). See Table 10.18.
Trans Hex (July 2016)	857.2	Consolidated statement of financial position. Total Asset Value based on Trans Hex Balance Sheet – Actual as at 31 July 2016 (unaudited). See Table 10.18.
Trans Hex (July 2016)	890.9	Consolidated statement of financial position. Total Asset Value based on Trans Hex Balance Sheet – Actual as at 31 March 2016 (audited). See Table 10.18.

Source: Modified from Trans Hex, 2016; Snowden, 2016

Note: LOR – Lower Orange River; WCR – West Coast Resources

10.12 Forward looking statements

Certain sections of this Valuation, other than statements of historical fact, contain forward-looking statements regarding Trans Hex.

Although Snowden considers the expectations reflected in such forward-looking statements to be reasonable, no assurance can be given that such expectations will prove to be correct. Accordingly, results may differ materially from those set out in the forward-looking statements as a result of, among other factors, namely:

- changes in economic and market conditions
- changes in the regulatory environment and other State actions
- success of business and operating initiatives
- fluctuations in commodity prices and exchange rates
- business and operational risk management
- changes in the actual orebody composition versus the plan.

The CP and CV are not obliged to update or release any revisions to these forward-looking statements to reflect events or circumstances after the dates of this report or to reflect the occurrence of unanticipated events.

10.13 Independence

T1.0

At the date of this Valuation of 12 September 2016, Snowden had no association with Trans Hex, or its individual employees, or any interest in the securities of Trans Hex or it's Mineral Assets which could be regarded as affecting the ability to give an independent unbiased valuation. Snowden will be paid a fee for its study based on a standard schedule of rates for professional services, plus any expenses incurred. The fee is not contingent on the results of the study or valuation.

10.14 Historic verification

T1.17

An assessment of historic opex and capex, over the period FY2014 to FY2016 shows that Trans Hex has consistently achieved below budget for opex and capex for each financial year under review (Table 10.23 and Table 10.24). Snowden has found that opex, capex and unit cost actuals are in alignment or below budget; indicating that a prudent, cost thrifting methodology has been followed at the Trans Hex operations. However, actual mining and process efficiencies could not be attained for any of the operations (versus budget); as a result of the lower throughput.

Table 10.23 Historic opex and capex assessment of Trans Hex operations

Operations	Unit	FY2014		FY2015		FY2016		YTD July 2016	
		Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
Carats produced									
LOR operations									
Baken Mine	cts	35,406	51,259	43,534	41,945	37,603	38,810	8,073	9,278
Bloeddrif Mine	cts	4,174	6,480	6,081	7,558	3,538	7,982	502	1,759
Shallow Water operations	cts	8,813	8,660	7,137	8,699	7,294	8,902	2,839	3,055
WCR									
WCR	cts					24,930	84,028	22,796	48,408
Somiluana JV									
Somiluana Mine	cts	N/A		N/A		N/A		N/A	
Total operating costs (incl. depreciation)									
LOR operations									
Baken Mine	ZAR M	448	464	465	475	477	536	120	135
Bloeddrif Mine	ZAR M	74	76	81	99	99	96	37	44
Shallow Water operations	ZAR M	40	34	39	37	45	45	23	17
WCR									
WCR	ZAR M	-	-	-	-	93	113	58	67
Somiluana JV									
Somiluana Mine	US$ M	33	32	39	42	N/A	N/A	23	22
Capital expenditure									
LOR operations									
Baken Mine	ZAR M	26	45	30	30	43	40	3	11
Bloeddrif Mine	ZAR M	8	7	10	8	9	12	3	3
Shallow Water operations	ZAR M	-	-	-	-	-	-	-	-
WCR									
WCR	ZAR M					94	85	9	16
Somiluana JV									
Somiluana Mine	US$ M	8	10	2	10	10		3	3
Gravels mined									
LOR operations									
Baken Mine	Mm3	6.83	10.98	4.40	6.07	5.93	7.92	1.37	1.59
Bloeddrif Mine	Mm3	0.44	0.54	0.45	0.78	0.44	0.72	0.13	0.15
Shallow Water operations	Mm3	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
WCR									
WCR	Mm3					0.05	0.18	0.08	0.06
Somiluana JV									
Somiluana Mine	Mm3	0.30		0.34				0.17	
Material moved									
LOR operations									
Baken Mine	ZAR M	10.52	15.30	7.66	10.39	8.87	11.78	1.72	1.93
Bloeddrif Mine	ZAR M	0.59	1.02	0.50	3.69	0.91	1.80	0.55	0.93
Shallow Water operations	ZAR M	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
WCR									
WCR	ZAR M					0.27	1.99	0.22	0.86

Source: Modified from Trans Hex, 2016

Note: LOR – Lower River Orange; WCR – West Coast Resources

Somiluana Mine values not available for material moved

Table 10.24 Historic unit opex assessment of Trans Hex operations

Operations	Unit	FY2014		FY2015		FY2016		YTD July 2016	
		Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
Overall unit cost per gravel cube mined									
LOR operations									
Baken Mine	ZAR/m^3	66	42	106	78	80	68	87	85
Bloeddrif Mine	ZAR/m^3	166	140	181	127	225	134	274	293
Shallow Water operations	ZAR/m^3	11,435	7,011	11,097	11,285	8,513	10,916	14,595	12,400
WCR									
WCR	ZAR/m^3	-	-	-	-	1,992	627	769	1,113
Somiluana JV									
Somiluana Mine	US$/m^3	109		115				136	
Mining unit cost per gravel cube mined									
LOR operations									
Baken Mine	ZAR/m^3	23	16	38	28	29	26	31	31
Bloeddrif Mine	ZAR/m^3	68	61	73	55	102	57	138	162
Shallow Water operations	ZAR/m^3	-	-	-	-	-	-	-	-
WCR									
WCR	ZAR/m^3					561	145	346	437
Process unit cost per gravel cube mined									
LOR operations									
Baken Mine	ZAR/m^3	21	12	33	24	27	20	30	26
Bloeddrif Mine	ZAR/m^3	56	46	56	32	57	35	187	164
Shallow Water operations	ZAR/m^3	1,444	1,139	1,618	1,874	1,060	1,721	1,289	1,879
WCR									
WCR	ZAR/m^3					592	153	365	461

Source: Modified from Trans Hex, 2016

Note: LOR – Lower River Orange; WCR – West Coast Resources

Somiluana Mine values not available for individual mining and processing values

11 RISK ASSESSMENT

Snowden has reviewed the risk profile for the Mineral Assets, as presented in Table 11.1. Many of the risks noted are beyond Trans Hex's management control. The Company is beholden to South African and Angolan Government legislation and world financial factors, which are currently uncertain. A risk analysis of the LOR operations has not been undertaken, as these operations will either close or be on extended care and maintenance within two years of the Report date.

Table 11.1 Snowden risk assessment of the West Coast Resources Mineral Asset

Risk	Risk assessment	Comment
Property, mineral rights and Diamond Resources		
Mining Rights	Low	Mineral rights secured by legal licences
Diamond Resources	Medium	Low proportion of Indicated Resource to Inferred Resource
Land restitution	Low	Limited land cases have occurred in the past. No significant litigation expected.
Mining and Diamond Reserves		
Diamond Reserves	Medium	Based on Payable Inferred Resources and coastal mining resources
Mine schedule	Medium	Based on Payable Inferred Resources and coastal mining reserves.
Mining	Low	Proven technology being employed
Mining equipment scheduling	Low	Excessive distances between mining operations
Geotechnical engineering	High	Seawall stability assessments not done
Planned and future infrastructure	Low	High quality existing and planned infrastructure
Capital expansion	Low	Mine and plant costs planned and included in the costs model
Operating costs	Low-medium	Although mining uses a proven technology, the cost structures for the new planned areas in the medium term is not yet practically proven
Project planning	Low	Experienced project management teams in place
Technical services labour	Low	Some technical services to be outsourced
Processing and Tailings		
Process feed grades	Low	Moderate to high degree of confidence in Resource estimates
Process feed tonnes	Low	Feed rates are reasonable for installed capacities.
Recovery losses	Low	It is expected that small inefficiencies will be encountered in the recovery plants.
Current and future infrastructure	Low	High quality existing infrastructure, extension of plant for increased capacity
Capital expansion	Low	Standard plant technologies with limited upgrades needed on existing plants
Environmental, Health and Safety, Labour		
Health and Safety	Low	Good safety record for Trans Hex, continuous improvement and high targets are expected to meet and/or exceeded.
Environmental	Medium-high	The following is noted: • potential shortfall in financial provision for closure cost liability • the approval of IWULA and IWWMP is still pending. • heritage assessments for the shoreline shell middens must be undertaken in advance of planned mining.
Changes in environmental legislation	Low	Current legislation and compliance at acceptable national levels
Closure cost	Low-medium	Closure cost may increase if DMR requests other rates (versus current unit-based area costing) to be applied.
Skills base	Low-medium	Appropriately skilled labour force for proposed operations, predominantly ex-mining industry staff from scaled down mines in the area.
Skills pool	Low-medium	Global skills shortage
Economic, business, country and political risks		
Sales revenue (prices)	Low-medium	Realistic price forecasts. No escalation applied
Exchange Rate	Low-medium	Realistic exchange rate forecast applied; however ZAR exchange rates are highly erratic
Hedging	Low	None in place

Risk	Risk assessment	Comment
Labour costs	Low-medium	Short-term and medium-term wage agreements are in place
Local raw material costs	Low	Subject to normal commodity price uncertainty
Power costs (Eskom)	Low	Potential for significant power cost increases; these have not beenincorporated in the models
Power availability	Low	Regional power generation uncertainty to be mitigated in short term
Raw material supply	Low	Proven supply chain
Disruption to business	Low	Local community dependence on operations
Industrial relations	Low	Recognition of and relationship with unions
BEE	Low	High level of compliance with legislation
Technical staff	Low	Experienced trained staff
Managerial staff	Low	Experienced management
Taxation	Low	Stable South African tax environment
Insurance	Low	Appropriate insurances in place
Political and social stability	Medium	South African political and social environment still in development
Economic stability	Low-medium	Stable fiscal policies in current regime
South African exchange control and regulations	Low	Stable monetary policy
South African ZAR devaluation	Low	Stable monetary policy
Expansion through acquisitions	Low	Limited degree of opportunity
Expansion through exploration	Low	Significant opportunity on current properties
Liability risk	Low	High degree of compliance
HIV/AIDS risks	Low-medium	Policies in place

Table 11.2 Snowden risk assessment of the Somiluana Mine Mineral Asset

Risk	Risk assessment	Comment
Property, mineral rights and Diamond Resources		
Mining Rights	Low	Mineral rights secured by legal licences
Diamond Resources	Medium	Low proportion of Indicated Resource to Inferred Resource
Land restitution	Low	No land cases noted
Mining and Diamond Reserves		
Diamond Reserves	Medium	Modifying Factors associated with country risk
Mine schedule	Medium	Modifying Factors associated with country risk
Mining	Low	Proven technology being employed
Mining equipment scheduling	Low	No excessive distances between mining operations
Geotechnical engineering	Low	No material geotechnical considerations
Planned and future infrastructure	Low	High quality existing and planned infrastructure
Capital expansion	Low	Mine and plant costs planned for and included in the costs model
Operating costs	Medium	Although mining uses a proven technology, Somiluana Mine is a long distance from Luanda the capital. Bulk goods supply requires good planning.
Project planning	Low	Experienced project management teams in place
Technical services labour	Low	Some technical services are outsourced
Processing and Tailings		
Process feed grades	Low	Moderate to high degree of confidence in Resource estimates
Process feed tonnes	Low	Feed rates are reasonable for installed capacities.
Recovery losses	Low	It is expected that small inefficiencies will be encountered in the recovery plants.
Current and future infrastructure	Low	High quality existing infrastructure, extension of plant for increased capacity
Capital expansion	Low	Standard plant technologies associated with the planned upgrades in place
Environmental, Health and Safety, Labour		
Health and safety	Low	Good safety record for Trans Hex, continuous improvement and high targets are expected to meet and/or exceeded.
Environmental	Low	In line with current industry practice
Changes in environmental legislation	Low	No material changes foreseen in current legislation and compliance
Closure cost	Low	No formal closure costing required currently for Somiluana Mine
Skills base	Low-Medium	Appropriately skilled labour force in place for proposed operations, predominantly ex-mining industry staff from scaled down mines in the area.
Skills pool	Low-Medium	Global skills shortage
Economic, business, country and political risks		
Sales revenue (prices)	Low-Medium	Realistic price forecasts used
Exchange rate	Low	Model in US$; realistic exchange rate forecast applied for Trans Hex dividends
Hedging	Low	None in place
Labour costs	Low-Medium	Short-term and medium-term wage agreements are in place
Local raw material costs	Low	Subject to normal commodity price uncertainty
Power costs	Medium	All diesel generated power, exposure to diesel price

Risk	Risk assessment	Comment
Power availability	N/A	Diesel generated power, independent of regional distribution
Raw material supply	Low	Proven supply chain
Disruption to business	Low	Local community dependence on operations
Industrial relations	Low	Recognition of and relationship with unions
Technical staff	Low	Experienced trained staff
Managerial staff	Low	Experienced management
Taxation	Low	Stable tax environment
Insurance	Low	Appropriate insurances in place
Political and social stability	Low	No material issues noted
Economic stability	Medium	Country risk exposure related to monetary policies
Exchange control and regulations	Medium	Shortage of dollars in country
Kwanza devaluation	Low	Local currency does not impact Somiluana Mine business
Expansion through acquisitions	Low	Limited degree of opportunity
Expansion through exploration	Low	Significant opportunity on current properties
Liability risk	Low	High degree of compliance
HIV /AIDS risks	Low-Medium	Policies in place

12 GLOSSARY AND ABBREVIATIONS

12.1 Glossary

Technical term	Explanation
Audit	Verification of the validity of results.
bedrock	Solid rock mass overlain by gravels.
beneficiation	Any process which removes the gangue minerals from ore to produce a higher grade product (concentrate), and a waste stream (tailings).
block model	These represent the deposit as a series of cubes of fixed or variable size. Block models are ideal for massive deposits such as copper, gold or iron ore. The block is located in space with an XYZ coordinate system and attributes of the block store mineral information.
bottom cut-off	Lowest critical size of diamond that is recovered by the processing plant.
care and maintenance	Care and maintenance is a term used in the mining industry to describe processes and conditions on a closed mine where there is potential to recommence operations at a later date. During a care and maintenance phase, production is stopped but the mine is managed to ensure it remains in a safe and stable condition.
channel	The bed of a stream or waterway.
channel sample	A method of sampling rock exposures where a regular series of chips are broken along a defined line on the rock face.
Competent Person	In terms of the South African Code for the Reporting of Diamond Resources and Diamond Reserves, 2016 (SAMREC), a 'Competent Person' is a person who is a member of the South African Council for Natural Scientific Professions (SACNASP), or the Engineering Council of South Africa (ECSA), or the South African Council for Professional Land Surveyors and Technical Surveyors (PLATO) or any other statutory South African or international body that is recognised by SAMREC. A Competent Person should have a minimum of five years' experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which that person is undertaking.
Competent Person's Report	A report produced by a CP, typically submitted as part of the company stock exchange listing documents.
Competent Valuator	A person who possesses the necessary qualifications, ability and sufficient relevant experience in valuing mineral assets.
Contact (geological)	The surface between two different rock types.
craton	Large, and usually ancient, stable mass of the earth's crust.
cut-off grade	Lowest grade of mineralised material considered to be economically viable to extract.
cyclone	A cyclone is a device to classify, separate or sort particles in a liquid suspension based on the ratio of their centripetal force to fluid resistance.
dilution	Waste that is co-mingled with ore in the mining process.
dip	The angle that a surface, bedding or structure makes with the horizontal measured perpendicular to strike or down its steepest slope.
domain/domaining	Process whereby the geologist/resource geologist splits out those areas that have similar/the same geological characteristics. The domain is a 3D geologically homogenous zone that has grade continuity and delineates spatial limits for a specific population of grade values.
dyke	A tabular igneous intrusion that cuts across the bedding or foliation of the country rock.
facies	A rock assemblage defined by composition, shape and internal geometry or physical properties.
fault	A fracture within rock along which movement has occurred.
feldspar	Feldspars ($KAlSi_3O_8$ –$NaAlSi_3O_8$ – $CaAl_2Si_2O_8$) are a group of rock-forming tectosilicate minerals that make up as much as 60% of the Earth's crust.
fluvial	Pertaining to rivers.

Technical term	Explanation
global grade	The low confidence grade applied to an entire deposit.
graben	A depressed block of land bordered by parallel faults.
grade	The relative quantity or percentage of ore mineral content or average diamond value in an orebody.
Indicated Resource	That part of a Diamond Resource for which quantity, grade or quality, densities, shape, and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes that are spaced closely enough for geological and grade continuity to be reasonably assumed.
Inferred Resources	That part of a Diamond Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.
in-situ	The original, natural state of the orebody before mining or processing of the ore takes place.
Life of Mine or LoM	The time in which, through the employment of the available capital, Diamond Reserves – or such reasonable extension of the Diamond Reserves as conservative geological analysis may justify – will be extracted.
Listings Requirements	JSE Listings Requirements, Service Issue 19.
metasediment	Metamorphosed sedimentary rock.
metamorphism	The mineralogical, chemical and structural adjustment of solid rocks in response to physical and chemical conditions which differ from the conditions under which the rocks originated.
mill	A mill is a device that breaks solid materials into smaller pieces by grinding, crushing, or cutting.
Mine Call Factor or MCF	The MCF is the ratio, expressed as a percentage, of the specific product recovered at the concentrator (plus residue) to the specific product contained in the orebody calculated based on the mine's measuring methods.
Diamond Resource	A concentration or occurrence of natural diamonds in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Diamond Resource are known, estimated or interpreted from specific geological evidence and knowledge.
Diamond Resource Estimation	The Diamond Resource estimation process involves the definition of mineralisation constraints or geological domains, the statistical and/or geostatistical analysis of the sample data, and the application of a suitable grade interpolation technique. The final stage of the estimation process is to classify the resource according to the guidelines of a Reporting Code such as the SAMREC Code.
Diamond Reserve	The economically mineable part of a Measured or Indicated Resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified. A Diamond Reserve includes diluting materials and allowances for losses that may occur when the material is mined.
Mining Charter	The Broad-based Socio-Economic Empowerment Charter for the South African mining industry, promulgated in August 2004.
Miocene	The interval of geological time (Epoch) between 23 and 7.3 million years ago, forms part of the Tertiary period.
Modifying factors	Modifying factors include mining, metallurgical, economic, marketing, legal, environmental, social and governmental considerations that affect quantification of Diamond Reserve.
New order Mining Right	A Mining Right as defined in the MPRDA as being subject to HDSA equity participation pursuant to the Mining Charter.

Technical term	Explanation
Net Present Value or NPV	This is a method used to describe the value of the cash flows produced by a project, discounted to the value of the present day.
Old order Mining Right	A Mining Right as defined in the MPRDA and referring to existing Mining Rights which must be converted to new order rights within five years of the MPRDA coming into force and effect.
ore block	A defined area of ore that is derived from the resource model.
overburden	Layers of soil and rock and sub-grade mineralised material covering a mineral deposit.Overburden is removed prior to and during the mining of the economic ore zone.
paleo-drainage	Drainage as identified in the geological past.
placer	A surficial deposit of sand and gravel containing quantities of valuable minerals or metals.
overburden	Layers of soil and rock and sub-grade mineralised material covering a mineral deposit. Overburden is removed prior to and during the mining of the economic ore zone.
Pleistocene	The interval of geological time (Epoch) between 2.5 and 0.13 million years ago, forms part of Quaternary Period.
Pliocene	The interval of geological time (Epoch) between 7.3 and 2.5 million years ago, forms part of Tertiary Period.
pothole	A pothole is a geological feature in which a basin-shaped depression is formed through agitated pebbles in a stream or river
Prefeasibility Study	A comprehensive study of the viability of a mineral project that has advanced to a state where the mining method (for underground mining) or the pit configuration (for open pit), has been established and an effective method of mineral processing has been determined, and includes a financial analysis based on the reasonable assumptions of technical, engineering, legal, operating, economic, social and environmental factors, and the evaluation of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Diamond Resource may be classified as a Diamond Reserve. Planned capital and operating expenditure accuracy is typically within +15%/-25%.
Probable Reserves	Defined by the SAMREC Code as the economically minable material derived from a Measured or Indicated Resource or both. It is estimated with a lower level of confidence than a Proved Diamond Reserve. It includes diluting and contaminating material and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Prefeasibility Study for a project or a Life of Mine Plan for an operation must have been carried out, including consideration of and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.
production	Mining that produces ore from stoping activities that is processed in the plant
Proved Reserves	Defined by the SAMREC Code as the economically mineable material derived from a Measured Diamond Resource. It is estimated with a level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a Prefeasibility Study for a project or a Life of Mine Plan for an operation must have been carried out including considerations of, and modification by, realistically assumed mining, metallurgical, economic marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.
Real Cash Flow Model	Cash flow model reported in Real terms (i.e. constant money terms) with no nominal escalations or inflationary effects on revenue, operating or capital costs.
Resource Model	A resource model may be a 2D or 3D resource estimate, which reflects total *in-situ* mineralised content, using cut-offs, geological losses, grade/tonnage curves and mining widths (where applicable), under the guidelines of a Reporting Code such as the SAMREC Code.
sampling	Taking small representative pieces of rock or material along exposed mineralisation or diamond drill core for assay.
sedimentary	Refers to rocks formed by deposition of detrital or chemical material that originates from the weathering of rock, and is transported from a source to a site of deposition.

Technical term	Explanation
stratigraphy	The order which rock types occur in a vertical sequence.
tailings	The material remaining after processing has removed the valuable minerals or material.
tailings storage facility	A designated area where tailings are stored. Also referred to as a slimes dam.
terrace	Sheet of alluvial sediments usually sand or gravel lying at an elevation above the current river in a valley.
Tertiary	The interval of geological time between 65 and 2.5 million years ago.
trenching	The act of excavating a narrow, shallow ditch to cut across a mineral deposit to obtain samples or to observe mineralogical character.
waste	Barren rock or mineralised material that is too low in grade to be economically processed.

12.2 Abbreviations

Abbreviation	Full name
ABN	ABN AMRO Bank N.V.
Administrative Act	Royalty Act and the Mineral and Petroleum Resources Royalty (Administration) Act, Act No. 29 of 2008
AEM	Airborne Electromagnetics
BBR	Brand se Baai
BCP	Baken Central Plant
BCRP	Baken Central Recovery Plant
B.Eng	Bachelor of Engineering
BEE	Black Economic Empowerment
BIC	Buffels Inland Complex
B.Sc	Bachelor of Science
BMC	Bufffels Marine Complex
Bn	Billion
BSP	Bulk Sample Plant
BVI transaction	Business Venture Investments transaction, May 2016
C&M	Care and maintenance
Capex	Capital expenditure
CAPM	Capital asset pricing model
CCEC	Cape Coast Exploration Company
CRD	Coarse Residue Deposits
CRF	Central Recovery Facility
Companies Act	Companies Act, Act No.71 of 2008
the Company	Trans Hex Group Limited
the Commissioner	the Commissioner for the South African Revenue Service
CP	Competent Person
cpht	carat per hundred tonnes
CPR	Competent Person's Report
CREAM MAGENTA	Cream Magenta 140 (Pty) Limited
CTMR	Coarse Tailings Diamond Resource
DBCM	De Beers Consolidated Mines Limited
DCF	Discounted Cash Flow
DGC	Dikgat Complex

Abbreviation	Full name
DMR	Department of Mineral Resources (previously Department of Minerals and Energy)
DMS	Dense medium separation
DPMC	De Punt Mining Company Pty Limited
DWA	Department Water Affairs (now Department of Water and Sanitation)
EIA	environmental impact assessment
EME	Earth moving equipment
EMP	environmental management programme
EMPR	environmental management programme report
ENDIAMA	Empresa Nacional de Diamantes de Angola or ENDIAMA
EU	European Union
FRD	fine residue deposits
GCC	group centralised costs
GDP	Gross domestic product
the Group	Trans Hex Group Limited
ha	hectare
HDSA	Historically Disadvantaged South African
Hons	Honours
ICA	Identifiable component asset
IND	Indicated Resource
INF	Inferred Resource
IRR	internal rate of return
ISO	International standards organisation
IWUL	Integrated water use licence
IWULA	integrated waste and water use licence agreement
IWWMP	Integrated waste and waste management plan
JSE	Johannesburg Stock Exchange Limited
JSE Listing Requirements	JSE Listing Requirements, Issue 19
JV	Joint Venture
km	Kilometre
km^2	Square kilometre
KNC	Koingnaas Complex
KPCS	KimberleyProcess Certification Scheme
LDV	Light duty vehicle
LCC	Life Cycle Costs
LHD	Load-haul-dump vehicle
LoM	Life of Mine
LOR	Lower Orange River
m	metres
m^3	Cubic metre
M	Million
mamsl	meters above mean sea level
MCF	Mine Call Factor
Mct	Million carats
MES	Mine Extraction Strategy
Metcap	Metcap 14 (Pty) Limited

Abbreviation	Full name
Mining Charter	Broad Based Socio-Economic Empowerment Charter for the South African Mining Industry
mm	millimetre
Mm^3	million cubic metres
MPRDA	Minerals and Petroleum Resources Development Act, Act No. 28 of 2002
MR	Mineral Right
Mt	Million tonnes
Mtpa	Million tonnes per annum
MWP	Mine works program
N/A	Not available
NEM:AQA	National Environmental Management: Air Quality Act, No. 39 of 2004
NEM:WA	National Environmental Management: Waste Act, Act No. 59 of 2008
NEMA	National Environmental Management Act, Act No. 107 of 1998
NEMBA	National Environmental Management: Biodiversity Act, Act No.10 of 2004
NEMICMA	National Environmental Management: Integrated Coastal Management Act, Act No. 24 of 2008
NEMPA	National Environmental Management: Protected Areas Act, Act No. 57 of 2003
NM	Namaqualand Mines
Northam	Northam Platinum Limited
NPV	Net Present Value
NWA	National Water Act, Act No. 36 of 1998
OEM	Original Equipment Manufacturer
OHP	open hole percussion
OIC	other indirect costs
Opex	Operating expenditure
PR	Prospecting Right
PR only	Probable Reserve only
PWP	polished wholesale prices
QA/QC	Quality assurance and quality control
RAC	RAC Investment Holdings (Pty) Limited
RC	Reverse Circulation
RECM	Regarding Capital Management Limited
Rembro	Rembrandt Group
RET	Recent Emergent Terrace
RoM	Run of Mine
Royalty Act	Mineral and Petroleum Resources Royalty Act, Act No. 28 of 2008
Royalty Administration Act	Mineral and Petroleum Resources Royalty (Administration) Act, Act No. 29 of 2008
RPEEE	Reasonable prospect of eventual economic extraction
RSA	Republic of South Africa
SAMREC Code	South African Code for the Reporting of Exploration Results, Diamond Resources and Diamond Reserves, 2016 Edition
SAMVAL Code	South African Code for the Reporting of Mineral Asset Valuation, 2016 Edition, as amended in July 2015
SARS	South African Revenue Services
SBC	Samsons Bak Complex
SDM	Sociedade de Desenvolvimento Mineiro de Angola, SARL

Abbreviation	Full name
SEC	Securities and Exchange Commission
SENS	Stock Exchange News Service
SFD	size frequency distribution
SIB capital	Stay-in-business capital
SLP	Social and Labour Plan
SMME	Small, medium and micro enterprise
Snowden	Snowden Mining Industry Consultants (Pty) Limited
Sodiam	Sociedade de Comercializacoa de Diamantes de Angola
SPC	Site Plan Consulting
T#	SAMVAL Code naming convention/referencing
T	Tonne
tph	Tonnes per hour
TMR	Tailings diamond resource retreatment
Trans Hex	Trans Hex Group Limited
TSF	Business Venture Investments transaction, May 2016
UAE	United Arab Emirates
US	United States
US$	United States Dollar
WACC	Weighted average cost of capital
WCR	West Coast Resources (Pty) Limited
West Coast Resources	West Coast Resources (Pty) Limited
ZAR	South African Rand
ZAR1 M	One million South African Rand (R1,000,000)
Z Star	Z Star Diamond Resource Consultants (Pty) Limited

13 REFERENCES

Author	Title
DBCM, 2010	De Beers Namaqualand Mines Information Memorandum 23 August 2010
JSE, 2016	JSE Listings Requirements, 2016. Service Issue 19, received 1 September 2016, electronic copy
Reuters, 2016	Reuters SA and US CPI forecasts, July 20116. Monthly Reuters subscription updates.
SACS, 1980	SACS (South African Committee for Stratigraphy), 1980. Stratigraphy of Southern Africa. Part 1. Lithostratigraphy of South Africa, South West Africa/Namibia, and the Republics of Boputhatswana, Transkei, and Venda. Geological Survey of South Africa Handbook, 8, 690 pp.
SAMREC, 2016	South African Mineral Code for Reporting of Exploration Results, Diamond Resources and Diamond Reserves. The South African Code for the Reporting of Exploration Results Committee Working Group, 2016 (The SAMREC Code).
SAMVAL, 2016	The South African Code for the Reporting of Mineral Asset Valuation 2016 Edition, as amended July 2015 (The SAMVAL Code).
Snowden, 2014	Namaqualand Mines – Amended Transaction Competent Person's Report, 13 June 2014; completed by Snowden and co-authors.
Snowden, 2016	Snowden Cash Flow Model, based on Trans Hex models received over the August and September 2016 period.
Trans Hex, 2016	Personal communication, FY2015 and FY2016 annual reports, general reports, databases, LoM plans, drawings, production and evaluation documents, survey records, risk assessments, cash flows, and supporting documentation, supplied to Snowden over the period August to September 2016 by Trans Hex management and staff.
Trans Hex, 2016b	Trans Hex Diamond Resource and Reserve Report, 31 July 2016
Venmyn, 2008	Trans Hex Lower Orange River Competent Persons Report, April 2008

14 CERTIFICATES

CERTIFICATE of COMPETENT PERSON:

DIAMOND RESOURCES AND DIAMOND RESERVES

T1.0

I, LM Cilliers, Group Manager – New Business at Trans Hex Group Limited, 405 Voortrekker Road, Parow, 7500, South Africa do hereby certify that:

(a) I am the Competent Person: Mineral Resource (Lower Orange River and Somiluana Mine operations), as well as all Mineral Reserves for the Trans Hex operations, that are part of the Valuation Report prepared for Trans Hex Group Limited on the Mineral Assets dated 12 September 2016 (the Valuation).

(b) I graduated with a MSc in Geology from the Stellenbosch University, RSA.

(c) I am a Member of the South African Council for Natural Scientific Professions (Membership No. 400135/00).

(d) I have 22 years relevant experience in the estimation of Diamond Resources and Diamond Reserves For De Beers and Trans Hex Group, between 1994 and 2016.

(e) I have read the definition of a 'Competent Person' or "CP" set out in the SAMREC Code and JSE Listings Requirements and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements of a 'CP' for the purposes of the SAMREC Code.

(f) I have made regular visits to the Mineral Assets in the past 12 months.

(g) I am responsible for the review and sign off of the Mineral Resource (Lower Orange River and Somiluana Mine operations), as well as all Mineral Reserves for the Trans Hex operations. I confirm that I have approved the information in the aforementioned section(s), prior to Valuation publication.

(h) I am an employee of Trans Hex. I am <u>not</u> fully independent of the issuer as defined in terms of 4.28(a), 12.9(c) and 12.10(a) (ii) of the JSE Listings Requirements, as Trans Hex is involved in the day-to-day operation and is a shareholder of the Mineral Assets.

(i) I have had prior involvement with the property that is the subject of the Valuation.

I have read the SAMREC Code, SAMVAL Code and JSE Listings Requirements; the Valuation has been prepared in compliance with the SAMREC Code, SAMVAL Code and JSE Listings Requirements (JSE, 2016).

(k) As of the effective date of this Valuation, to the best of my knowledge, information and belief, the Valuation contains all the scientific and technical information that is required to be disclosed to make the Valuation not misleading.

Dated at Parow, South Africa on 12 September 2016.

Original signed

Mr LM Cilliers

CERTIFICATE of COMPETENT PERSON:

DIAMOND RESOURCES

T1.0

I, Dr. JA Grills, Principle Mineral Resource Analyst at Z Star Mineral Resource Consultants (Pty) Limited, Suite G4, Steenberg House, Steenberg Office Park, Tokai, 7945, South Africa do hereby certify that:

(a) I am the Competent Person: West Coast Resources Diamond Resource of the Valuation Report prepared for Trans Hex Group Limited on the Mineral Assets dated 12 September 2016 (the Valuation).

(b) I graduated with a BSc Hons and PhD qualification in Geology from the Queens University of Belfast, UK. In addition, I am a graduate of the École Nationale Supérieure des Mines de Paris, France (CSFG in Advanced Geostatistics).

(c) I am a Member of the South African Council for Natural Scientific Professions (Membership No. 400027/04).

(d) During the period 1989 to 1996, I was employed by Vaal Reefs Gold Mine (Anglo American Corporation of SA) in various Resource management roles.From 1996 to 2001, I was the Divisional Geologist at De Beers Namaqualand Mines, Northern Cape.From 2001 to 2008, I was appointed Head of Estimation at De Beers Group Services (Pty) Limited.Since 2008, I have been director and Principal Mineral Resource Analyst at Z Star Mineral Resource Consultants (Pty) Limited.

(e) I have read the definition of a 'Competent Person' or "CP" set out in the SAMREC Code and JSE Listings Requirements and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements of a 'CP' for the purposes of the SAMREC Code.

(f) I have made visits to the Mineral Assets in the past, over the period 1995 to 2014.

(g) I am responsible for the review of the Geology and Diamond Resource sections, relating to West Coast Resources, of the Valuation. I confirm that I have approved the information in the aforementioned section(s), prior to Valuation publication.

(h) I am an employee of Z Star Mineral Resource Consultants (Pty) Limited. I am fully independent of the issuer as defined in terms of 4.28(a), 12.9(c) and 12.10(a) (ii) of the JSE Listings Requirements.

(i) I have had prior involvement with the property that is the subject of the Valuation.

(k) As of the effective date of this Valuation, to the best of my knowledge, information and belief, the Valuation contains all the scientific and technical information that is required to be disclosed to make the Valuation not misleading.

Dated at Cape Town, South Africa on 12 September 2016.

Original signed

Dr JA Grills

CERTIFICATE of COMPETENT VALUATOR

T1.0

I, Vince Agnello, Senior Consultant of Corporate Advisory of Snowden Mining Industry Consultants (Pty) Limited (Snowden) of Technology House, Greenacres Complex, cnr Victory and Rustenburg Rds, Victory Park, do hereby certify that:

(a) I am the Valuator of the Valuation Report prepared for Trans Hex Group Limited on the Mineral Assets dated 12 September 2016 (the Valuation).

(b) I graduated with a B.Sc (Hons) Geology (Univ. Stellenbosch) in 2000 and an M.Eng (Mineral Economics) at University of Witwatersrand (2005).

(c) I am a Member of the SAIMM (No. 703384) and Pr. Sci Nat (No. 4000271/06).

(d) I have worked as a Valuator continuously for a total of ten years at Snowden. Before this I worked at the Department of Minerals and Energy as a Mineral Economist for five years.

(e) I have read the definition of a 'Competent Valuator' set out in the SAMVAL Code and JSE Listings Requirements and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfil the requirements of a Competent Valuator for the purposes of the SAMVAL Code.

(f) I have not undertaken a site visit to the Mineral Assets.

(g) I am responsible for the authoring and preparation of the Valuation of the Mineral Assets. I confirm that I have approved the information in the aforementioned section(s), prior to Valuation publication.

(h) I am independent of the issuer as defined in terms of 4.28(a), 12.9(c) and 12.10(a)(ii) of the JSE Listings Requirements. The Competent Valuator confirms that he has no bias with respect to the assets that are the subject of the report, or to the parties involved with the assignment. The Competent Valuator's confirms that compensation, employment or contractual relationship with the Commissioning Entity is not contingent on any aspect of the report. The Competent Valuator's confirms that he has no present or prospective interest in the subject property or asset.

(i) I have had no prior involvement with the property that is the subject of this Valuation.

(j) I have read the SAMREC Code, SAMVAL Code and JSE Listings Requirements; the Valuation has been prepared in compliance with the SAMREC Code, SAMVAL Code and JSE Listings Requirements (JSE, 2016).

(k) As of the effective date of this Valuation, to the best of my knowledge, information and belief, the Valuation contains all the scientific and technical information that is required to be disclosed to make the Valuation not misleading.

(l) Vince Agnello highlights that the analyses and conclusions are limited by the reported forecasts and conditions.

Major valuations performed by Vince Agnello include inter alia:

Project	Period	Study level	Valuation
RED Graniti and	2005/6	Producing mine	Internal Valuation
Finstone/Marlin Group	2005/6	Producing mine	Internal Valuation
Mitsubishi Corporation	2007	Various project levels	Internal Valuation
Blina Minerals NL	2007	Producing mine	CPR Valuation
Mitsubishi Corporation	2009	Various project levels	Internal Valuation
Aquila Resources	2010	Various project levels	CPR Valuation
Jubilee Platinum	2010	Pre-Feasibility Study	Internal Valuation
Royal Bafokeng Platinum	2010	Producing mine	CPR Valuation
Glenover Rare Earth Project	2011	Conceptual Study	CPR Valuation
Anglo American Base Metals Project	2011	Pre-Feasibility Study	Internal Valuation
Uranium One	2011/12	Feasibility Study	Internal Valuation
Afarak Platinum Project	2011	Conceptual Study	Internal Valuation
Zhonghe Resources	2011	Conceptual Study	Internal Valuation
Alufer Labe Bauxite Project	2012	Conceptual Study	Internal Valuation
Alufer Bel Air Bauxite Project	2012/13	Feasibility Study	CPR Valuation
Syrah Balama Project	2013	Conceptual Study	Internal Valuation
Signature Metals gold assets	2013	Producing mine	Internal Valuation
Trans Hex – Namaqualand Mines	2011-2014	Feasibility Study	CPR Valuation
Bokoni Platinum Mine	2015	Producing mine	NI 43-101 Technical Report, Valuation
Sadiola Mine	2015	Producing mine	Internal Valuation
Sibanye Rustenburg Operations	2016	Producing mine	CPR Valuation

Note: CPR – Competent Persons Report

Dated at Victory Park, Johannesburg on 12 September 2016.

Original signed

Mr VN Agnello

Appendix A Mineral titles

Trans Hex Group Limited – List of Mining Rights/licences

Reference	Description	Date of Mineral Right issue	Expiry date	Mineral Right holder; tenure
Lower Orange River Operations				
NC 519 MR	Sea Area 2B	27/08/2009	26/08/2029	Trans Hex Operations (100% ownership) All mineral rights have 10 year tenure from date of issue
WC 112 MR	Sea Area 11A	12/03/2010 (renewed 26/04/2016)	11/03/2015 25/04/2046	
WC 47 MR	Farm 423 & Surf Zone Area	12/03/2010	11/03/2020	
NC 88 MR	Hondeklipbaai & Sea World State Land	27/08/2009	27/08/2029	
NC 531 MR	Richtersveld	27/08/2009	26/08/2029	
WC 316 MR	Papendorp	12/03/2010	11/03/2020	
WC 318 MR	Hollebaksfontein	12/03/2010	11/03/2020	
WC 314 MR	De Punt	12/03/2010	11/03/2020	
WC 315 MR	Bethel 278	12/03/2010	11/03/2020	
WC 317 MR	Strykloof	12/03/2010	11/03/2020	
WC 319 MR	Weskus	12/03/2010	11/03/2020	
NCS 539 MR	Brazil	01/09/2009	31/08/2019	
NCS 540 MR	Sea Area 5B	01/09/2009	31/08/2019	
NCS 541 MR	Sea Area 5A	01/09/2009	31/08/2019	
NCS 542 MR	Sea Area 3B	01/09/2009	31/08/2019	
NCS 544 MR	Sea Area 6A	27/08/2009	31/08/2019	
NCS 543 MR	Sea Area 7A	27/08/2009	31/08/2019	
WC 320 MR	Sea Area 13A	12/03/2010	11/03/2020	
WC 321 MR	Sea Area 12A	12/03/2010	11/03/2020	
Angola				
1076/18/RM/DN LCM/2011		18/06/2010	18/06/2040	A joint venture company with five partners. The entity is Somiluana Sociedadae Miniera, SA. Trans HexAngola holds a 33% stake in the entity.All mineral rights have 30 year tenure from date of issue.
West Coast				
NC 509 MR	Verdun*	10/09/2008	09/09/2013	West Coast Resources (40% ownership) Mineral rights have varying tenures from date of issue.
NC 521 MR	Buffels Inland **	13/08/2010	12/08/2016	
NC 522 MR	Koingnaas	13/08/2010	12/08/2024	
NC 523 MR	Brand se Baai	22/12/2011	21/12/2022	
NC 524 MR	Dikgat	13/08/2010	12/08/2017	
NC 525 MR	Samson's Bak	13/08/2010	12/08/2024	

Source: Trans Hex, 2016

*Note: *NC 509 MR – Verdun: Renewal application was lodged by De Beers and still awaiting granting.*

*** NC 521 MR Buffels Inland: Renewal application was lodged by De Beers originally; West Coast Resources awaiting granting of this mining right*

Appendix B Cash flow models per entity

Appendix B Cash Flow Model – Lower Orange River Operations pre-tax, Probable Reserve included

Component	Unit	LoM total	1 Aug-FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027
Production	'000 ct	140	28	33	17	9	9	9	9	9	9	9	-
US $ price per ct	US$/ct	737	1,041	1,019	830	412	412	412	412	412	412	412	412
Sales revenue	**ZAR M**	**1,632**	**459**	**550**	**228**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**7**
State share of profits	ZAR M	8	2	3	1	0	0	0	0	0	0	0	0
Export levy	ZAR M	31	-	-	11	3	3	3	3	3	3	3	0
Net sales revenue	**ZAR M**	**1,593**	**457**	**547**	**215**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**7**
Cost of sales	**ZAR M**	**1,337**	**389**	**441**	**136**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**7**
Opening stock (incl. net realisable value adjustment)	ZAR M	78	78	74	28	7	7	7	7	7	7	7	7
Closing stock (incl. net realisable value adjustment)	ZAR M	-	74	28	7	7	7	7	7	7	7	7	-
Operating costs	**ZAR M**	**1,258**	**385**	**394**	**115**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**-**
Gross profit	**ZAR M**	**257**	**68**	**106**	**80**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
EBITDA		65	-4	50	12	-0	-0	-0	-0	-0	-0	-0	7
Net stock movement	ZAR M	78	4	47	21	-0	-0	-0	-0	-0	-0	-0	7
Depreciation	ZAR M	81	34	39	8	-	-	-	-	-	-	-	-
Capital expenditure	ZAR M	-73	-38	-26	-9	-	-	-	-	-	-	-	-
Reversal of royalties - as per PS	ZAR M	8	2	3	1	0	0	0	0	0	0	0	0
Mineral royalty	ZAR M	-29	-6	-12	-9	-0	-0	-0	-0	-0	-0	-0	-0
EBIT	**ZAR M**	**321**	**64**	**156**	**92**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**
Adjustments for cashflow	**ZAR M**	**-37**	**-**	**-15**	**-44**	**16**	**6**	**-**	**-**	**-**	**-**	**-**	**-**
Retrenchments	ZAR M	-75	-	-62	-13	-	-	-	-	-	-	-	-
Ongoing SLP costs	**ZAR M**	-6	-	-1	-3	-2	-	-	-	-	-	-	-
Sale of EME	ZAR M	30	-	20	10	-	-	-	-	-	-	-	-
Rehabilitation costs	ZAR M	-85	-	-14	-38	-28	-5	-	-	-	-	-	-
Rehabilitation refund	ZAR M	58	-	-	-	46	11	-	-	-	-	-	-
Sale of Diamond Cutting Works stock	ZAR M	43	-	43	-	-	-	-	-	-	-	-	-
Net TSX cash flow from LOR, pre-tax	**ZAR M**	**285**	**64**	**142**	**48**	**16**	**7**	**0**	**0**	**0**	**0**	**0**	**7**
NPV at 15.0% Real discount rate	**ZARM**	**219**											

Source: Snowden, 2016

Note: TSX – Trans Hex Group Limited; LOR – Lower Orange River; PS – Profitability statement; Totals may not add up due to rounding;

Real discount rate applied for pre-tax Sales revenue based on planned sales from the LOR inventory, not carats recovered from production.

Appendix B Cash Flow Model – West Coast Resources operations post-tax, post financing, Probable Reserve including Payable Inferred Resource

Component	Unit	LoM total	1 Aug-FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Production	'000 ct	1,835	93	237	324	301	230	209	175	70	60	60	60	17
US $ price per ct	US$/ct	196	174	186	211	200	197	199	204	193	174	174	174	174
Sales revenue	**ZAR M**	**5,454**	**238**	**554**	**1,082**	**904**	**703**	**636**	**552**	**248**	**158**	**158**	**158**	**64**
State share of profits	ZAR M	27	1	3	5	5	4	3	3	1	1	1	1	0
Management and marketing fee	ZAR M	300	13	30	60	50	39	35	30	14	9	9	9	4
Net sales revenue	**ZAR M**	**5,127**	**224**	**521**	**1,017**	**849**	**661**	**598**	**519**	**233**	**148**	**148**	**148**	**60**
Cost of sales	**ZAR M**	**2,816**	**170**	**215**	**488**	**489**	**456**	**382**	**324**	**95**	**55**	**57**	**60**	**25**
Opening stock (incl. net realisable value adjustment)	ZAR M	37	37	15	60	45	57	56	48	38	6	6	6	7
Closing stock (incl. net realisable value adjustment)	ZAR M	-	15	60	45	57	56	48	38	6	6	6	7	-
Operating costs	**ZAR M**	**2,779**	**148**	**260**	**474**	**501**	**454**	**375**	**313**	**63**	**55**	**57**	**60**	**18**
Gross profit	**ZAR M**	**2,311**	**54**	**306**	**529**	**360**	**205**	**216**	**195**	**138**	**93**	**91**	**88**	**35**
Financing and depreciation	**ZAR M**	**779**	**53**	**117**	**160**	**141**	**106**	**93**	**68**	**20**	**12**	**10**	**9**	**-9**
WCR overheads	ZAR M	61	4	7	7	7	7	7	7	3	3	3	3	3
Financing costs	ZAR M	-65	14	15	10	5	1	-4	-15	-16	-17	-18	-20	-21
Depreciation	ZAR M	7	0	1	1	1	1	1	1	1	1	1	1	1
Depreciation - Mining rights	ZAR M	531	24	69	94	88	67	61	51	20	17	17	17	5
Reversal of royalties, as per profitability statements	ZAR M	-27	-1	-3	-5	-5	-4	-3	-3	-1	-1	-1	-1	-0
Export levy	ZAR M	273	12	28	54	45	35	32	28	12	8	8	8	3
Net profit / (loss) before tax and royalty	ZAR M	1,532	1	189	369	220	99	122	127	118	82	81	80	44
Mineral royalty	ZAR M	250	6	33	58	39	22	23	21	15	10	10	9	3
Net profit / (loss) before tax	**ZAR M**	**1,282**	**-4**	**156**	**311**	**180**	**77**	**99**	**106**	**103**	**72**	**71**	**70**	**41**

Continued from previous table (WCR Cash Flow Model – post-tax, post financing, including Payable Inferred Resource)

Component	Unit	LoM total	1 Aug-FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Adjustments for cashflow	ZAR M	**-245**	**-1**	**-50**	**-65**	**-16**	**11**	**2**	**7**	**- 30**	**- 24**	**- 25**	**- 26**	**- 29**
Depreciation	ZAR M	754	46	102	128	121	100	94	82	21	18	18	18	5
Financing costs (including LP)	ZAR M	-91	-12	15	10	5	1	- 4	- 15	- 16	- 17	- 18	- 20	- 21
Income tax paid	ZAR M	-491	-	-10	-115	-82	-51	- 57	- 53	- 35	- 25	- 25	- 25	- 13
Capital expenditure	ZAR M	-180	-17	-105	-38	-16	-4	-	-	-	-	-	-	-
Funding to Rehabilitation Fund	ZAR M	-26	-5	-8	-8	-5	-	-	-	-	-	-	-	-
IDC - Loan	ZAR M	-211	-12	-45	-42	-38	-35	- 32	- 7	-	-	-	-	-
Net cash flow after interest, tax, depreciation	**ZAR M**	**1,037**	**-5**	**105**	**246**	**165**	**88**	**101**	**113**	**74**	**48**	**46**	**44**	**12**
Net working capital	ZAR M	44	29	-29	19	-12	-1	4	8	22	- 0	- 0	- 0	4
WCR free cash flows	**ZAR M**	**1,080**	**24**	**76**	**266**	**153**	**86**	**105**	**121**	**96**	**48**	**46**	**44**	**16**
WCR NPV @12.2% real disc. rate	**ZAR M**	**635**												
Trans Hex cash flow														
Repayment of loan (40%)	ZAR M	57	-	-	57	-	-	-	-	-	-	-	-	-
Distribution of cash (40%)	ZAR M	310	2	-7	38	55	33	42	48	38	19	18	17	7
Repayment of advances/loan	ZAR M	25	25	-	-	-	-	-	-	-	-	-	-	-
Payment of interest on ZAR5.2 M	ZAR M	4	-	-	4	-	-	-	-	-	-	-	-	-
WCR marketing/management fee	ZAR M	300	13	30	60	50	39	35	30	14	9	9	9	4
Total WCR cash flow to TSX	**ZAR M**	**696**	**40**	**23**	**158**	**104**	**72**	**77**	**79**	**52**	**28**	**27**	**26**	**10**
TSX NPV @ 12.2% real disc. rate	**ZAR M**	**411**												

Source: Snowden, 2016

Note: TSX – Trans Hex Group Limited; WCR – West Coast Resources; Totals may not add up due to rounding,

Sales revenue based on planned sales from the WCR inventory, not carats recovered from production. Financing costs (including LP) – Finance costs including loan repayment/ advances to TSX

Appendix B Cash Flow Model – Somiluana Mine post-tax, post financing

Component	Unit	LoM total	1 Aug-FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Carats recovered	'000 cts	1,556	82	138	163	192	192	192	192	192	195	15		
Diamond price	US$/ct	481	481	481	481	481	481	481	481	481	481	481		
Revenue	**US$ M**	**748**	**39**	**66**	**78**	**93**	**93**	**93**	**93**	**93**	**94**	**7**	**-**	**-**
Less sales taxes	US$ M	-100	-5	-9	-10	-12	-12	- 12	- 12	- 12	- 13	- 1	-	-
Net sales	**US$ M**	**648**	**34**	**58**	**68**	**80**	**80**	**80**	**80**	**80**	**81**	**6**	**-**	**-**
Less opex	US$ M	**401**	**23**	**39**	**44**	**48**	**49**	**49**	**49**	**49**	**47**	**4**	**-**	**-**
Less financing cost	US$ M	**4**	1	0	1	1	0	-	-	-	-	-	-	-
Cashflow before tax	**US$ M**	**244**	10	18	22	31	31	31	31	31	34	3	-	-
Company tax	US$ M	**29**	1	1	1	3	4	4	4	4	5	0	-	-
Cash flow after tax	**US$ M**	**214**	9	17	20	28	27	27	27	27	29	2	-	-
Net working capital	US$ M	**0**	0	0	0	0	-	-	-	-	0	- 0	-	-
Net cash flow before capex & financing	**US$ M**	**214**	9	17	20	28	27	27	27	27	29	2	-	-
Less capex	US$ M	**83**	11	16	13	11	6	6	6	6	6	1	-	-
Cash flow before financing & dividends	**US$ M**	**131**	-2	1	7	16	21	21	21	21	23	2	-	-
Add back financing	US$ M	**-0**	1	12	1	-12	-3	- 0	- 0	-	-	-	-	-
Cash flow before dividends	**US$ M**	**131**	-2	1	7	16	21	21	21	21	23	2	-	-
NPV @18.4% real disc. rate	**US$ M**	**52**												
	ZAR M	**779**												
Trans Hex (Angola) or THA														
After treasury adjustments, loan repayments, exemptions, opening cash balances and anticipated dividends:														
Trans Hex cash flow from Angola	US$ M	20	4	1	5	9	-	-	-	-	-	-	-	-
Transfers exempt from capital tax	US$ M	34	-	-	-	2	9	6	6	6	6	0	-	-
Available THA transferrable dividends, after WHT	**US$ M**	**55**	**4**	**1**	**5**	**11**	**9**	**6**	**6**	**6**	**6**	**0**	**-**	**-**
Add tax applicable to forex	ZAR M	38	9	17	10	2	-	-	-	-	-	-	-	-
THA net inflow to TSX	**ZAR M**	**786**	**66**	**120**	**69**	**36**	**127**	**89**	**89**	**89**	**97**	**3**	**-**	**-**
TSX NPV @18.4% real disc. rate	**ZAR M**	**379**												

Source: Snowden, 2016

Note: WHT – Withholding tax, THA – Trans Hex (Angola), forex – foreign exchange, TSX – Trans Hex Group Limited; Exchange rate of ZAR15.1:US$1 applied; Totals may not add up due to rounding

Appendix C SAMVAL Code and JSE Compliance checklist

SAMVAL Compliance checklist

No.	Assessment criteria	Valuation Report
T1.0	*General*	Letter, Section 1.1
T1.1	*Illustrations*	Section 5
T1.2	*Synopsis*	Letter, Section 1.1
T1.3	*Introduction and scope*	Section 1.1, 2.1-2.4
T1.4	*Compliance*	Letter, Section 1.1, 1.5, 1.10.1, 6, Section 14 (point (i) in certificates)
T1.5	*Identity, tenure and infrastructure*	Section 4, 5
T1.6	*History*	Section 3.1, 5
T1.7	*Geological setting*	Section 5
T1.8	*Exploration results and exploration targets*	Section 8
T1.9	*Diamond Resources and Diamond Reserves*	Section 1.4, 1.5, 7.1, 7.3, 10.6
T1.10	*Modifying factors and key assumptions*	Section 7.2
T1.11	*Previous valuations*	Section 1.10.7, 10.11
T1.12	*Valuation approach and methods*	Section 1.10.5, 10.9,
T1.13	*Valuation date*	Letter, Section 1.1, 10.1
T1.14	*Valuation results*	Section 1.10.4, 10.9.3
T1.15	*Valuation summary and conclusion*	Section 1.10.5, 10.9.4
T1.16	*Identifiable component asset values*	Section 1.10.7, 10.11
T1.17	*Historic verification*	Section 1.10.10, 10.14
T1.18	*Market assessment*	Section 1.9, 9
T1.19	*Source of information*	Section 10.1

JSE Listings Requirements compliance checklist

No.	Assessment criteria	Valuation Report
4.28(a)	Independence	Letter, Section 1.10.9, 2.3.1, 10.13
12.8 (a) (i)	SAMREC Code and SAMVAL compliance	Letter, Section 1.1, 1.5, 1.10.1, 6, Section 14 (point (i) in certificates)
12.8 (b)	Direct or indirect beneficial interest	Letter, Section 1.10.9, 2.3.1, 10.13, Section 14 (point (h) in certificates)
12.8 (c)	Company financial history	Section 3.1-3.4
12.8 (d)	Legal proceedings on rights	N/A; No mining right legal proceedings currently Reconfirmed in Circular
12.8 (e)	Necessary Legal title	Letter, Section 2.2-2.4
12.9 (a)	Effective date	Letter, Section 1.1, 10.1
12.9 (b)	Updated accordingly, if additional information available prior to pre-listing statement.	N/A
12.9 (c)	Independence	Letter, Section 1.10.9, 2.3.1, 10.13, Section 14 (point (h) in certificates)
12.9 (d)	SAMREC Code and SAMVAL compliance	Letter, Section 1.1, 1.5, 1.10.1, 6, Section 14 (point (i) in certificates)
12.9 (e) (i)	Exploration expenditure	Section 8
12.9 (e) (ii)	Planned exploration expenditure committed	Section 8
12.9 (e) (iii)	Planned exploration expenditure not committed	Section 8.4
12.9 (f)	Valuation section	Section 1.10, 10
12.9 (g)	Published in full on website	-
12.9 (h) (i)	Valuation Purpose	Letter, Section 1.1, Section 2
12.9 (h) (ii)	Project outline	Section 1.1, 1.6
12.9 (h) (iii)	Location map	Section 5
12.9 (h) (iv)	Legal aspects and tenure	Section1.3, 4
12.9 (h) (v)	Geological setting description	Section 5
12.9 (h) (vi)	Exploration programme and budget	Section 8
12.9 (h) (vii)	Modifying factors	Section 7.2
12.9 (h) (viii)	Environmental issues	Section 7.6
12.9 (h) (ix)	Diamond Resource and Diamond Reserve statements	Section 1.4, 1.5, 7.1, 7.3, 10.6
12.9 (h) (x)	Risk paragraph	Section 7.3.6, 11
12.9 (h) (xi)	Summary is true reflection of the full CPR/Valuation	Section 1.1
12.9 (h) (xii)	Summary valuation table	Section 1.10.5, 10.9.6
12.10 (a)(i)	Competent Valuator /Person has approved in writing	Section 22 (point (h) in certificates
12.10 (a)(ii)	Competent Valuator /Person is independent	Letter, Section 1.10.9, 2.3.1, 10.13, Section 14 (point (h) in certificates)
12.10 (b)	JSE request for additional information	N/A