

**IN THE COMPETITION TRIBUNAL OF SOUTH AFRICA  
(HELD AT PRETORIA)**

**CT case no. 10/AM/Jan12**

**[013946]**

REQUEST FOR CONSIDERATION OF AN INTERMEDIATE MERGER:

<b>THABA CHUEU MINING (PROPRIETARY) LIMITED</b>	First Applicant
<b>SAMQUARTZ (PROPRIETARY) LIMITED</b>	Second Applicant
and	
<b>THE COMPETITION COMMISSION OF SOUTH AFRICA</b>	Respondent

IN RE THE INTERMEDIATE MERGER INVOLVING:

<b>THABA CHUEU MINING (PROPRIETARY) LIMITED</b>	Acquiring firm
<b>SAMQUARTZ (PROPRIETARY) LIMITED</b>	Target firm

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Panel	:	Y Carrim (Presiding Member)
		L Reyburn (Tribunal Member)
		T Madima (Tribunal Member)
Heard during	:	04 – 08, 11–15 and 22 June 2012
Order issued on	:	29 June 2012
Reasons issued	:	15 November 2012

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## REASONS FOR DECISION

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### INTRODUCTION

[1] An order of the Tribunal was issued on 29 June 2012 conditionally approving the merger which is the subject of this case. The conditions consist of supply obligations placed on the merging parties in the form of long-term supply agreements with two of its major customers, namely, Siltech Technology (Pty) Ltd and Sublime Technologies (Pty) Ltd as well as non-discriminatory supply terms to any new entrants. For convenience the order is repeated at the end of this decision.

### PARTIES AND THEIR ACTIVITIES

[2] The merger involves two companies which mine silica. The acquiring firm is Thaba Chueu Mining (Pty) Ltd ("TCM") and the target firm is SamQuartz (Pty) Ltd ("SQ"). TCM, which owns and operates eight silica mines in the Limpopo province, is held as to 74% of its shareholding by Silicon Smelters (Pty) Ltd ("SS"), which owns and operates smelters in the Limpopo province at Polokwane and in Mpumalanga at Emalahleni (Witbank). SS is a wholly owned subsidiary of Ferroatlantica SL ("FA"), a Spanish company with international interests in electrometallurgy and other fields.

[3] SS obtains silica from TCM and is its sole customer<sup>1</sup>, processing this silica at SS's Polokwane smelting plant to produce silicon metal. SS also obtains silica from SQ which it processes at its Rand Carbide smelting plant, located at Witbank, to produce silicon metal and ferrosilicon.

[4] SQ is a wholly owned subsidiary of Petmin Ltd, which is a listed South African company with diverse mining interests. SQ owns and operates a mine in the Delmas area of Mpumalanga, producing silica of high quality. SQ provides silica to a number of customers in South Africa including companies in the construction industry, large

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<sup>1</sup> See Commission's merger report, page 38.

companies which undertake steel-making and glass-making, and customers in the metallurgical sector who operate smelters.

- [5] The merger involves the transfer of 100% of the shares of SQ to TCM, together with vendor claims.

## **BACKGROUND**

- [6] On 05 October 2011 TCM and SQ (collectively “the merging parties”) notified the Competition Commission (“the Commission”) of their merger in terms of section 13A of the Competition Act 89 of 1998 (“the Act”), as an intermediate merger. On 13 January 2012 the Commission prohibited the merger on the ground that it is likely to result in significant input foreclosure concerns. On 27 January 2012 the merging parties filed a request for consideration in terms of section 16(1)(a) of the Act alleging that the Commission findings were incorrect and requesting the Tribunal to approve the merger without conditions.

- [7] Two interested parties, namely Siltech Technology (Pty) Ltd (“Siltech”) and Sublime Technologies (Pty) Ltd (“Sublime”), applied for leave to intervene in the consideration proceedings in terms of Section 53(1)(c)(v) of the Act. Both are substantial customers of SQ.

- [8] Siltech is based in Newcastle, KZN Province and obtains its supplies of silica from SQ in the form of rock. It utilizes the silica rock to manufacture ferrosilicon in competition with SS. Some [ ] of Siltech’s output is exported<sup>2</sup>, the balance being sold to large local customers in the steel-making industry and to other customers, notably in the metallurgical sector.

- [9] Sublime is based at Kriel, Mpumalanga, some 55 km<sup>3</sup> from SQ’s mine. It purchases silica chip from SQ<sup>4</sup> and utilizes the silica to produce silicon carbide for the local and export market, using one single furnace. Sublime’s output comprises a high-value form of silicon carbide which is used in the refractories industry as an

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<sup>2</sup> See Mr Morkel witness statement para 8.

<sup>3</sup> Footnote: See Commission’s merger report, page 32.

<sup>4</sup> Footnote: Witness statement of Mr Osler, para 5.5.

abrasive and a lower-value product, making up some 75% of its output by volume, which is used in the smelters of producers of steel and pig iron.<sup>5</sup>

[10] Siltech and Sublime applied to be part of the merger proceedings as they were worried about their respective supply of silica as each had received a notice from SQ informing them that it was terminating the indefinite-term supply agreements it had with them. On 02 April 2012 the Tribunal granted both parties leave to intervene. However, on 23 April 2012 Siltech and Sublime withdrew their intervention. The reason for their withdrawal was that they were at that time in the final stages of concluding long-term supply agreements with SQ. The agreements were subsequently finalized on 26 April 2012. Following the withdrawal of Siltech and Sublime as intervenors the Commission called them as witnesses at the hearing.

## WITNESSES

[11] The Commission and merging parties called the following witnesses to give evidence at the hearing:

### *Commission*

[12] The Commission called three factual witnesses and one expert witness:

- Mr John Davies (“Mr Davies”), chief executive officer of the South African Institute of Foundrymen;
- Mr Theo Morkel (“Mr. Morkel”), managing director of Siltech;
- Mr George Osler (“Mr. Osler”), managing director of Sublime; and
- Dr Nicholas Ngepah (“Dr. Ngepah”), an official of the Commission, as an expert economist.

### *Merging Parties*

[13] The merging parties called two factual witnesses and one expert witness:

- Mr Andreus Knopjes (“Mr Knopjes”), operations manager of SQ;
- Mr Jan Coetzee (“Mr. Coetzee”), deputy sales director of FerroPerm, a division of FA, who is responsible for the commercial functions of FA in South Africa, the Middle East, and Europe; and
- Mr Patrick Smith (“Mr. Smith”) of the firm RBB Economics as an expert witness.

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<sup>5</sup> Transcript, page 296.

[14] The Tribunal also requested that a representative of the Department of Trade and Industry (“Dti”) be present at the hearing in order to give evidence on the potential impact of the merger on the foundry and steel industry. The Dti was represented by Mr. Muzi Manzi (“Mr Manzi”), director of the non-ferrous metals unit of the Industrial Development Division of the Dti.

## TECHNICAL BACKGROUND

[15] Silica is a commonly occurring crystalline mineral. It consists largely of the element silicon (Si), present in the form of silicon dioxide (SiO<sub>2</sub>), but with impurities of various kinds and extents. Those impurities of relevance to this matter are ferric oxide (Fe<sub>2</sub>O<sub>3</sub>) and alumina (Al<sub>2</sub>O<sub>3</sub>).

[16] Silica is often referred to in the mining industry as quartz or quartzite. It is mined in blocks of relatively large size which are reduced in size to yield a commercial output in the forms known *inter alia* as handstone (relatively large fragments), rocks (material that is 15mm diameter and above), chips (between 1mm and 15mm in diameter) and finer particles (below 1mm in diameter) known as sand.<sup>6</sup>

[17] Silica is used in several industries including the glass-making and construction industries and what may for present purposes be called the metallurgical industry. Among the metallurgical uses relevant to this matter are smelting for the production of three products in particular: silicon metal (i.e. the element Si) at varying levels of purity; the alloy ferrosilicon (technically a mixture of the elements iron (Fe) and silicon, at varying constituent percentage levels and varying levels of purity); and the compound silicon carbide (SiC), at varying levels of purity. The use of high-purity silica sand, in particular for glass-making, is also of importance in the matter.

[18] The merging entities provide [ ] of their output in the form of silica sand<sup>7</sup> and their profit margin on sales of sand is [ ] compared with [ ] on silica rock and silica chip.<sup>8</sup> There is moreover a ‘bonus’ factor attached to sand in that some [ ] of the silica sand produced by SQ is generated during mining operations and the crushing

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<sup>6</sup>See Witness statement of Mr. Knopjes, para 4.

<sup>7</sup> See Commission's merger report, page 52.

<sup>8</sup> See Commission's merger report, page 45.

and washing of silica blocks to produce silica rock and silica chips. Some [ ] of the sand arises from the initial mining operation.<sup>9</sup>

[19] SQ uses open-cast procedures to mine an ore body that is generally of the shape of an elongated bowl that has an outer shell of a mineral known as chert, which is a silicon-containing material of considerably lower silicon content than silica. The ore body is relatively large, comprising reserves of 44 million tonnes. The mine has an estimated life of upwards of 30 years.<sup>10</sup> Mining has until recently been conducted by conventional open-cast techniques involving the removal of overburden (waste material), blasting of ore, removal of blasted material to stockpiles, and crushing and washing of the ore to render it in the form of rocks, chips and sand, according to a mine plan which takes into account to customers' requirements. SQ outsources the mining operations and conducts its own crushing operations.

[20] Mining is already taking place on level 6 and 7 (i.e. 60-70 meters below the surface) and from approximately the end of 2011 SQ began to mine in places below the level of the water table. This involves considerably more expensive mining procedures than hitherto because water must constantly be pumped from the workings, which are in any case located in a depression in the surrounding topography. In order to mine the ore body extensively and so prolong the life of the mine it has also recently been necessary to do additional mine development work by removing a substantial quantity of chert in order to keep the slope angle of the excavation within a safe limit.<sup>11</sup>

[21] Silica is a relatively high-bulk, low-value material. Transport costs are of high importance in the economics of silica production and distribution. Evidence was placed before the Tribunal that when one has regard to the comparison of the price at the mine and the delivered price from SQ to one of its customers located 253 km<sup>12</sup> from SQ's mine, namely Siltech, there is almost a [ ] increase in the delivered price

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<sup>9</sup>See evidence of Mr Knopjes, transcript, page 315.

<sup>10</sup> Mr Coetzee's evidence, transcript, page 549.

<sup>11</sup>See Mr Knopjes' evidence in chief, transcript pages 306-309.

<sup>12</sup> See the Commission's report, table 7, page 42.

compared with the price at the mine.<sup>13</sup> Thus customers must be relatively near to their sources of silica. In its merger report the Commission cited a report of 2004 of the Department of Mineral Affairs and Energy which found that 87% of silica producers were located within 65 km of their major customers.<sup>14</sup>

[22] Further, the Tribunal was told that in the cost make-up of Siltech, the delivered cost of the silica it consumes represents some 5.5% to 7% of Siltech's total production costs of the ferrosilicon which it produces.<sup>15</sup>

[23] Electrical power makes up some 45% or more<sup>16</sup> of the present-day costs of customers who operate smelters. Electricity is used to heat the furnaces in which smelting takes place. SS's three furnaces at Polokwane together consume some 90 megawatts of power, which is roughly equal to the consumption of the whole of the city of Polokwane.<sup>17</sup> Some eight megawatt hours of electricity are required to produce one tonne of ferrosilicon and for silicon metal the equivalent figure is 13 megawatt hours.<sup>18</sup> If the smelters are reliant on supplies from Eskom, as is true of SQ's customers of major interest to this matter, the electricity is not only costly but scarce, to the point where Eskom pays some of its customers in the winter high-demand period for not consuming power. The position has been reached where Siltech has found it worthwhile to claim this payment from Eskom and close down a smelter, importing ferrosilicon to keep its customers supplied.

[24] Silicon metal has grown to be an important source of revenue for SS, particularly now that particularly high-grade metal for the chemical and poly-silicon sectors has been successfully produced at Polokwane and supplied to customers abroad. Between five and six tonnes of silica are used at its Polokwane plant to produce one tonne of silicon. This gives viability to the exportation of silicon metal whereas the exportation of unprocessed silica would be entirely uneconomic.<sup>19</sup>

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<sup>13</sup> Mr. Morkel estimated that the pre on mine price is currently [ ] of the total delivered cost (see transcript page 123).

<sup>14</sup> Footnote: See Commission's merger report, page 30.

<sup>15</sup> See evidence of Mr Morkel, transcript page 177.

<sup>16</sup> See evidence of Mr Coetzee, transcript page 497.

<sup>17</sup> See evidence of Mr Coetzee, transcript page 483.

<sup>18</sup> See evidence of Mr Coetzee, transcript page 483.

<sup>19</sup> See evidence of Mr Coetzee, transcript page 504.

## FACTORS AFFECTING MARKET DEFINITION

[25] SQ provides silica to a number of customers in South Africa including companies in the construction industry, large companies which undertake steel-making and glass-making, and customers in the metallurgical sector who operate smelters. As indicated above, Siltech and Sublime are two of SQ's customers which are of particular interest in this matter. They operate at arm's length from SQ. SS's smelters in Polokwane produce silicon metal for the local and export markets. Some 90% of the silicon metal is currently exported. A development of recent years, achieved during FA's ownership of SS, has been the production at Polokwane of silicon metal of particularly high purity which is exported to companies in the chemical and poly-silicon industries in the USA and elsewhere. In the poly-silicon field the silicon metal is used in the manufacture of solar panels and micro-chips for computers and other electronic devices.<sup>20</sup>

[26] This development has been translated into steady volumes of sales at prices that represent a substantial premium over silicon metal sold to the metallurgical industry, which is SS's traditional customer. On this basis silicon metal of lower grade for use chiefly in the aluminium castings sector in the USA, which was formerly supplied from Polokwane, would have been in short supply. For this reason SS, after acquiring Rand Carbide in 2008, converted one of the three furnaces at the Rand Carbide plant in Witbank to the production of silicon metal which since mid-2011 has been supplied to the metallurgical sector.<sup>21</sup>

[27] The Rand Carbide plant has two other furnaces which produce standard and off-grade ferrosilicon for the local and export markets.

[28] FA owns a mothballed smelter, obtained in about 2003 from Samancor and located at Secunda, where it was used to make products incorporating manganese. This smelter has been standing idle for some time. FA has no immediate plans to renovate it. Renovation and conversion to non-manganese products which would require silica as their main input would be a costly operation. The smelter currently has no electricity supply and to provide this facility alone expenditure of about [ ]

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<sup>20</sup> See evidence of Mr Coetzee, transcript page 477.

<sup>21</sup> See transcript pages 558 - 559.



would be needed.<sup>22</sup> Manganese products seem to offer the most promising prospects for this plant. In Mr Coetzee's view it "does not make sense" to use it for the production of ferrosilicon.

[29] The distance of approximately 296 km<sup>23</sup> between SQ's mine at Delmas and SS's plant at Polokwane makes it impractical on economic grounds for silica to be transported in bulk from SQ to the Polokwane plant. Moreover, the nature of the silica produced by SQ is dissimilar from that produced by TCM's mines, making SQ's silica an unsuitable feedstock for the smelters at the Polokwane plant.<sup>24</sup>

[30] The Commission considers that the geographical limit of the relevant silica market within which SQ operates is a circle around SQ of some 200 km in radius<sup>25</sup> with some constraints from silica mines located further away. This boundary was not challenged by the merging parties although, anomalously, Siltech, which is a substantial customer of SQ, is located at a distance of no less than 253 km from SQ.

## **HORIZONTAL ASPECT OF THE MERGER**

[31] In its merger report that Commission stated that it had concluded that there were both horizontal and vertical aspects of the merger. That is undoubtedly so. The horizontal aspect can be disposed of in a few sentences. Because TCM's output of silica is wholly absorbed by SS, its parent company, this supply of silica never plays a part in the operation of a competitive silica market and consequently TCM cannot be considered in competition analysis as a competitor of SQ. Hence the merger of TCM and SQ will not have anticompetitive effects in any contested silica markets regardless of their geographical extent.

[32] As regards potential competition *inter se* between TCM and SQ, the distance of some 296 km between Delmas and Polokwane is such, in relation to the value of silica and to transport costs, that effective competition between TCM and SQ would in any case be ruled out.

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<sup>22</sup> Mr Coetzee's evidence, transcript pages 493-495.

<sup>23</sup> Exhibit 9.

<sup>24</sup> Witness statement of Mr Coetzee, para 30.

<sup>25</sup> See Commission's initial report, page 5.

[33] No attempt was made by the Commission at any stage to argue that the horizontal aspect of the merger should lead to its prohibition. We agree, having heard the evidence presented at the hearing, that there is no reason for the merger to be blocked on the basis of horizontal issues.

[34] The concerns raised by the Commission relate to the vertical aspect of the merger, and the remainder of this decision deals with that topic.

## **VERTICAL ANALYSIS**

[35] Since issues of market definition are not at the crux of the disputes between the Commission and the merging parties, we find it unnecessary to provide comprehensive market determinations as a framework for our consideration of these disputes. We are, however, fully aware of the limits which transport costs impose on the geographical reach of a silica miner such as SQ.

[36] For purposes of analysing input foreclosure the upstream and downstream markets are defined as follows:

[37] The upstream activities can be taken to comprise the production and sale of silica in all the forms in which it is supplied by SQ within the geographical area within which silica can economically be transported from SQ's mine to customers, together with the activities of TCM in providing silica to SS which is used to produce silicon metal in SS's plant at Polokwane.

[38] The downstream activities of interest comprise the production and sale of silicon metal and ferrosilicon by SS, derived from its plants at Polokwane and Witbank; and the production of ferrosilicon by Siltech and of silicon carbide by Sublime, derived from their own plants at Newcastle and Kriel respectively; supplemented to some extent by imports of ferrosilicon and silicon carbide. In considering these activities consideration must also be given to the potential new entry of other participants.

[39] The chief issue is the potential for input foreclosure by the merged entity of Siltech and Sublime in the light of the merged entity's own activities in the downstream markets in which Siltech and Sublime participate. The Commission expressed concern that SQ, once owned by TCM, might withhold silica from those companies and divert SQ's output to SS's Rand Carbide plant, or, certainly as regards Siltech, supply Siltech at prices which would make Siltech's operations uneconomic in relation to SS's pricing of ferrosilicon to SS's own customers.

[40] Then, the Commission has a concern regarding potential collusion between SS and Siltech in the production and supply of ferrosilicon. They are the only local producers of ferrosilicon and in the Commission's view their operations in South Africa are unconstrained or at least poorly constrained by imports of ferrosilicon. The Commission alleged that the merger would enhance the prospects for duopolistic collusion which would have adverse effects on customers.

[41] To the extent that there is substitutability between silicon carbide in place of silicon metal and ferrosilicon the Commission was also concerned about possible collusion between SS and Sublime. In the local market for silicon carbide the Commission considers, as with ferrosilicon, that the constraining effect of imports or potential imports is weak, so that price gouging by the merged entity in conjunction with Sublime would prejudice local customers in the silicon carbide market.

[42] Access to and misuse of confidential information of strategic competitive value is another of the Commission's concerns. The crux of this contention is that SS will post-merger have full information on sales of silica by SQ to Siltech and will hence be able to predict Siltech's production and sales volumes and will have unwarranted insight into the structure of Siltech's costs. This, the Commission considers, will give SS unhealthy leverage over Siltech that will facilitate a collusive approach to pricing and other issues in relationships with customers. SS, so the Commission alleges, will be able to punish Siltech if Siltech deviates from agreed collusive behavior.

[43] The Commission is also concerned about the impact of the merger on potential new entrants into the business of producing ferrosilicon and silicon carbide. The Commission considers that the already high barriers to entry of new entrants into the

metallurgical processing of silica to produce silicon metal, ferrosilicon and silicon carbide will be raised unacceptably, inhibiting entry into these markets.

## **HISTORY OF CONDITIONS PROPOSED BY MERGING PARTIES TO ALLAY THE COMMISSION'S CONCERNS**

[44] In response to the Commission's concerns the merger parties had proposed certain conditions.

[45] At the date of the Commission's merger report, namely 13 January 2012, these conditions took the form of proposed agreements with Siltech and Sublime guaranteeing to supply each of them with a minimum tonnage of silica for a period of three years in the case of Sublime and with a potentially longer period in the case of Siltech, and with a pricing mechanism that set a ceiling on annual price increases.<sup>26</sup> For convenience these agreements will be referred to below as "the three-year agreements."

[46] In its merger report the Commission rejected the conditions represented by the three-year agreements on a number of grounds, chiefly that these agreements would be capable of being circumvented by the merging parties to the detriment of Siltech and Sublime, and that the conduct which required to be curbed by the conditions was too complex to be adequately dealt with in an agreement.<sup>27</sup> The Commission reasoned in this regard that the merged entity would be tempted to distort the price of silica to customers who posed a competitive threat, taking its profits at a point in the production and distribution chain where the profits provided a suitable reward to it but supplying silica to customers who were competitors at prices which would be uneconomically high for these customers' operations. Alternatively sub-quality silica could be delivered which the affected customer would not be able to use effectively or which would drive up the customer's costs in dealing with the defects in its processing operations. The affected customer would be unable to deal effectively with these risks.

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<sup>26</sup> Footnote: See pages 12 -13 of the Commission's initial report.

<sup>27</sup> See pages 13-14 of the Commission's initial report.

[47] The Commission's merger report of 13 January 2012 mentioned that the conditions summarized above had been proposed by the merging parties. This was at a time when SQ had given notice to Siltech and Sublime that it was terminating indefinite-term supply agreements it then had with them and certain other substantial customers, with a view to negotiating new agreements that would redefine the relationship SW had with them and would ensure that SW received prices for its silica which took account of its increased development costs.<sup>28</sup>

[48] The three-year agreements were concluded by SQ on 3 April 2012 in the case of Siltech and 29 March 2012 in the case of Sublime; in each case several weeks after the date of the Commission's merger report and its prohibition of the merger.

[49] The three-year supply agreements clearly failed to sway the Commission in its view on the merits of the merger and further agreements were drawn up and negotiated between SQ and Siltech and Sublime. It appears that they were concluded on 26 April 2012.<sup>29</sup> If renewal mechanisms in these agreements are followed they will be in force for 10 to 15 years.

[50] These agreements of 26 April 2012 were amended by the merging parties on 9 June 2012, during the course of the hearing, after the Tribunal had commented that they contained restrictions which would inhibit Siltech and Sublime in converting smelters they operated to a purpose other than an existing purpose identified in the long-term agreements. The amendments removing these restrictions were contained in addenda which formed Exhibits 21 and 22 in the case.

[51] We shall for convenience refer to the agreements concluded on 26 April 2012, as amended by the addenda forming Exhibits 21 and 22, as "the long-term supply agreements." Each contains stipulations regarding the quantities and pricing of silica to be supplied by SQ. They contain a provision stating that they will come into force on approval of the merger by the Tribunal.

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<sup>28</sup> See evidence of Mr Knopjes, transcript pages 308 – 311.

<sup>29</sup> The copy provided to the Tribunal of the agreement between SQ and Siltech has not been signed on behalf of SQ but it was confirmed by at the hearing on 06 June 2012 by TCM's counsel that the agreement had indeed been signed and the copy provided to the Tribunal was a true copy.

[52] By a further concession made by the merging parties following a comment made by the Tribunal at the hearing, the merging parties undertook that similar price levels to those stipulated in the long-term agreements would be extended to any new entrants to the silicon smelting sector who became customers of SQ. That further concession was submitted by way of a document on 20 June 2012 by the merging parties. The Tribunal's order refers to it as Annexure E to the order and specifies that its terms form part of the conditions to which the merger is subject. For convenience we shall refer to it below as "the new entry stipulation."

[53] In summary, then, by the time the hearing on the matter commenced, the long-term agreements (not yet subject to the limitations contained in the addenda to them referred to above or to the new entry stipulation) formed part of the record and represented the merging parties' attempt to overcome the Commission's objections to the merger. By the time the closing arguments were heard the long-term agreements had been amended to include the concessions reflected in Exhibits 21 and 22, and the new entry stipulation had been tendered by the merging parties.

[54] Exhibits 21 and 21 amend the original versions of the long-term agreements to remove from them stipulations that would have freed SQ from its supply obligations if Siltech and Sublime used their furnaces to produce different products from those to which the furnaces were dedicated at the commencement of the long-term agreements. Thus the amendments give Siltech and Sublime the flexibility to alter their furnaces so that they can produce other products. In relation to the new entry stipulation the merging parties have made an undertaking to supply silica for internal consumption to producers of silicon metal and/or ferrosilicon entering the market after the date of approval of the merger. The supply will take place on terms similar to those contained in the long-term agreement between SQ and Siltech. Thus any such new entrant will have most-favoured-customer status alongside Siltech.

## **SUMMARY OF CONDITIONS PROPOSED BY THE MERGING PARTIES AND THEIR EFFECT**

[55] The long-term agreements are comprehensive and detailed, as befits their intended purpose and potentially lengthy duration, and we have no reason to believe otherwise than that they represented the outcome of normal commercial bargaining

between a supplier and a customer each seeking to advance and protect its own interests. We shall deal with them separately below.

Siltech

[56] The long-term agreement between SQ and Siltech commences on the first day of the month following the issuance of the Tribunal's order and will be in operation, subject to certain provisos, for an initial period of [ ] followed, if Siltech so elects, by three consecutive extensions each of [ ]. Thus if Siltech abides by the agreement and opts for the extensions the total period for which the agreement will be in force is 10 to 15 years.<sup>30</sup>

[57] SQ undertakes to supply Siltech with [ ] of silica rock per month provided SQ's production rate does not fall below the rate prevailing at the time of last signature of the agreement and provided Siltech purchases [ ] of its silica requirements from SQ. Siltech undertakes, provided one of its smelters is operating, to purchase this quantity from SQ, or a lesser quantity on a *pro-rata* basis if none of its smelters is operational for any period.

[58] The price at which silica will be bought by Siltech from SQ will be [ ], with escalation of essentially [ ] annually during the initial term. Escalation after expiry of the initial term will be annual with the applicable rate being subject to negotiation, with a mechanism of referral to a panel of economists if there is disagreement.<sup>31</sup> However, if SQ supplies silica of similar properties to any customer, including Rand Carbide, [ ]. Thus Siltech will have [ ].<sup>32</sup>

[59] The agreement contains a 'hardship clause'<sup>33</sup> by which either SQ or Siltech will, if it suffers hardship as a result of the execution or implementation of the agreement, be entitled to require that the parties enter into a negotiation to find ways to ameliorate the hardship, which might include amendment of the agreement.

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<sup>30</sup> See clauses 1.3, 3, and 4.

<sup>31</sup> See clause 8.

<sup>32</sup> See clause 9.

<sup>33</sup> See clause 17.

[60] Siltech may not on-sell to third parties the silica purchased from SQ.<sup>34</sup>

Sublime

[61] The long-term agreement between SQ and Sublime provides for Sublime to be supplied with a quantity up to [ ] per month of silica chips from SQ, subject to various provisos, *inter alia* that that SQ's output does not fall below its average in the [ ] preceding the commencement date of the agreement, and that Sublime purchases [ ] of its requirements from SQ.<sup>35</sup> The obligation on Sublime to take the stipulated quantity will not apply during periods when Sublime has no furnace in operation.<sup>36</sup>

[62] This agreement has an initial term of [ ] followed, if Sublime so elects, by [ ] renewal periods each of [ ], making it potentially a 10 to 15 years agreement.

[63] The price per tonne of silica chips supplied by SQ to Sublime will, in the first year of the initial [ ] period, be [ ], escalated in the following years of that period at an annual rate of [ ]. The price applicable during the renewal periods will be determined by a formula which takes account of increases in the cost of electricity, labour and other inputs.

[64] A hardship clause is included, similar to that in the SQ-Siltech long-term agreement.

[65] Sublime may not on-sell to third parties silica obtained from SQ.<sup>37</sup>

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<sup>34</sup> See clause 9.2.

<sup>35</sup> See clauses 5.1 and 5.2 and 6.2 of this long-term agreement.

<sup>36</sup> See clause 6.2 of this agreement.

<sup>37</sup> See clause 9.2 of this agreement.



## **AMENDMENTS TO THE LONG-TERM AGREEMENTS EFFECTED BY EXHIBITS 21 AND 22**

[66] As is mentioned above, Exhibits 21 and 21 amend the original versions of the long-term agreements to remove from them stipulations that would have freed SQ from its supply obligations if Siltech and Sublime used their furnaces to produce different products from those to which the furnaces were dedicated at the commencement of the long-term agreements. Thus the amendments give Siltech and Sublime the flexibility to alter their furnaces so that they can produce other products.

### **Position of new entrants**

[67] The conditions set out in Annexure E to the Tribunal's order contain an undertaking by the merged entity to supply silica for internal consumption to producers of silicon metal and/or ferrosilicon entering the market after the date of approval of the merger. The supply will take place on terms similar to those contained in the long-term agreement between SQ and Siltech. Thus any such new entrant will have [ ].

[68] The question of the likelihood of such new entry is discussed later in this decision.

## **WHAT REMAINS OF THE COMMISSION'S OBJECTIONS TO THE MERGER FOLLOWING TENDER OF THE CONDITIONS BY THE MERGING PARTIES?**

[69] The conclusion of the long-term agreements obviously required consent to them by Siltech and Sublime. This consent raises the proposition that, since potential input foreclosure of these customers by the merged entity post-merger was a central issue in the Commission's objections to the merger, the Commission should take the consent to indicate that its foreclosure concerns could be laid at rest. After all, these customers of SQ would only in extreme and unusual circumstances conclude agreements of this nature and potential duration, and withdraw their interventions in the merger proceedings, if they considered that their interests remained in jeopardy despite securing the benefits to themselves which the agreements provide.

[70] However we do not consider that the proposition will be necessarily be true. It is conceivable that in these circumstances Siltech and Sublime might have reasoned that the agreements, although worth having, did not go far enough in the protection and advancement of their interests, and that the best outcome from their viewpoint would be for the Tribunal to uphold the prohibition on the merger. But then there would need to be an appreciable level of discontent on the part of Siltech and Sublime with the agreements, and a willingness on their part to indicate in what respects and to what extent the agreements would fail to avert input foreclosure or other forms of competitive harm which the merger might bring about.

[71] No indication that this might be the case was manifest at the hearing. On the contrary, the spokesmen of both Siltech and Sublime expressed their satisfaction at the hearing with the provisions of the long-term agreements and considered that their long-term supply arrangements with SQ were now resolved to their satisfaction. As stated, they had, before the hearing, withdrawn from intervention in the case.

## **THE COMMISSION'S RESIDUAL CONCERNS**

[72] Whilst the Commission accepts that the supply of silica to Siltech and Sublime post-merger has been properly addressed by the conclusion of the long-term agreements, it still has certain remaining concerns and indicated that the conditions tendered do not adequately address the concerns. Below is a list of these concerns:<sup>38</sup>

- (i) Potential foreclosure of Siltech by the merged entity;
- (ii) The possibility of the merger resulting in co-ordination between Siltech and SS ;
- (iii) Other unilateral effects (access to confidential information, enhanced bargaining power and predation);
- (iv) Non-competition foreclosure; and
- (v) Barriers to entry in the downstream markets.

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<sup>38</sup> Exhibit 7, slide 37 and transcript pages 735 – 736.

(i) *Potential foreclosure*

[73] On the issue of foreclosure the Commission indicated that it is possible that Siltech could be foreclosed by means of the low quality silica it receives from SQ. In essence Dr. Ngepah's argument is that even though Siltech has contractually stipulated for a minimum silica requirement of [ ] and a maximum alumina content of [ ] from SQ, it could still be supplied with silica with an alumina content which is higher than that stipulated, resulting in Siltech producing low quality ferrosilicon. According to the Commission, if this scenario were to come to pass Siltech would not be protected by the agreement.

[74] Although there is some history of SQ delivering under-spec material (around 0.7% alumina) to Siltech during the period 2005-2009, the circumstances for this were investigated and it emerged at the hearing that in terms of SQ's mining plan that material was the only silica rock available at that time<sup>39</sup> and Siltech accepted the material. Mr Morkel of Siltech also indicated that Siltech could process material with higher alumina content than specified but that 0.7% is probably the limit. Similarly with Sublime even though SQ had not been able to meet Sublime's initial contractual stipulation that the ferric oxide content of the silica supplied should not exceed 0.015% (which according to SQ was not practically achievable), Sublime regarded SQ as a satisfactory supplier and indicated that silica with a ferric oxide content of .05% represented by far the best quality material that available to it.<sup>40</sup>

[75] We are therefore of the view that the Commission's argument about the potential for SQ or the merged entity to subvert the supply agreements is without any merit. There is no motive for the merged entity to supply Siltech or even Sublime with silica of inferior quality. Even if that problem were to arise it would in the first instance be a contractual matter and remedies under contract law could be sought to resolve it.

(ii) *Co-ordination*

[76] On this issue Dr. Ngepah is the view that Siltech and SS would be able to collude in anticompetitive practices and that the requirements for successful co-ordination of

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<sup>39</sup> Transcript, page 113.

<sup>40</sup> Transcript page 225.

this nature are present. These requirements are: (i) ability to reach agreement on illicit co-ordination (ii) ability on the part of both parties involved to monitor compliance with the agreement (iii) ability on the part of each party to punish deviation from the agreement and (iv) the participants must believe that co-ordination is feasible. According to Dr. Ngepah there are no asymmetries in this matter and therefore the parties will be able to reach an agreement to collude. In relation to the monitoring of the agreement Dr. Ngepah's evidence is that since SQ has information on its customers this information will post-merger be passed on to Siltech's competitor, i.e. SS. This information, according to Dr. Ngepah, will give the merged entity the power to monitor any deviation by Siltech from the agreed co-ordination terms. In relation to the punishment mechanism Dr. Ngepah's evidence is that the merged entity can punish Siltech by the use of quality, degradation and predation.

[77] The merging parties refute the claims made by Dr. Ngepah. Mr. Smith, the merging parties' economic expert, submitted that there are asymmetries between the operations of Siltech and SS. In advancing this view, Mr. Smith relied on a number of factors which formed part of the evidence of Mr. Morkel and Mr. Coetzee and which would make it difficult for Siltech and the merged entity to reach a point of co-ordination. According to Mr. Smith these factors include *inter alia*:

- Uncertainty over the size of the ferrosilicon market – for example Mr. Morkel estimated the demand for domestic ferrosilicon at 55,000 tons<sup>41</sup> whereas Mr. Coetzee's estimate is 70,000 tons.<sup>42</sup> According to Mr. Smith these uncertainties are very significant considering that the market consists of only two players;<sup>43</sup>
- Stockpiling of silica – since Siltech stockpiles quantities of silica that vary from time to time the volume of silica purchased is not a reliable indicator of the volume of ferrosilicon to be produced;<sup>44</sup> and
- Stockpiling, exportation and importation of ferrosilicon – Mr. Morkel's testified that Siltech stockpiles significant quantities of ferrosilicon that it produces.<sup>45</sup>

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<sup>41</sup> Transcript page 138.

<sup>42</sup> Mr. Coetzee's witness statement, para 37.

<sup>43</sup> Transcript page 967.

<sup>44</sup> Transcript pages 199 – 200.

<sup>45</sup> Transcript page 200.

Further, Siltech exports between [ ] and [ ] of the ferrosilicon it produces.<sup>46</sup> On the other hand SS exports between [ ] of its ferrosilicon. Siltech is able to and does import ferrosilicon and has in fact been servicing its entire local ferrosilicon demand from imports for several months.<sup>47</sup>

[78] In relation to monitoring of a collusive agreement Mr. Smith contended that the lack of transparency in the ferrosilicon market would prevent Siltech and SS from being able to monitor compliance with such an agreement. In respect of punishment, although Dr. Ngepah had contended during his examination-in-chief that the merged entity would be able to punish Siltech for non-compliance, he accepted under cross-examination that there is no credible two-way punishment mechanism as Siltech would have no ability to punish the merged entity if it deviated from the agreement.<sup>48</sup> In relation to feasibility of co-ordination the merging parties submitted that there are two factors that would act as a constraint and would be likely to provide a significant source of external destabilization of any co-ordination between SS and Siltech. These factors are constraints from imports and customers' countervailing power. As has already been indicated, Siltech is able to and does import ferrosilicon. Further, Mr. Coetzee testified that SS itself had in the month preceding the hearing imported [ ] of ferrosilicon from China for the benefit of two of its customers when the scarcity of electrical power from Eskom had curtailed production at one of SS's furnaces at Polokwane.<sup>49</sup>

[79] In relation to the countervailing power of customers, the merging parties submitted that SS's customer base is highly concentrated with its two largest local customers (Evraz and Columbus) accounting for approximately [ ] of domestic sales of standard ferrosilicon in [ ].<sup>50</sup> The merging parties contend that these customers would be able to destabilize any collusive arrangement by either switching or threatening to switch their purchases between SS and Siltech or threatening to switch to imports.

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<sup>46</sup> Transcript page 146.

<sup>47</sup> Transcript page 179.

<sup>48</sup> Transcript page 861.

<sup>49</sup> Transcript pages 517 - 518.

<sup>50</sup> File B 121, table 9.

[80] Based on these factors we agree with the merging parties that the transaction is unlikely to lead to successful collusion between SS and Siltech. Further, the Commission's argument is not merger-specific: SS already supplies Siltech with two essential inputs for the production of ferrosilicon, namely, electrode paste (for which SS is the sole supplier) and charcoal.<sup>51</sup> Therefore if SS and Siltech were inclined to co-ordinate their conduct they would have already done so, and we have heard no evidence that they have colluded in the past.

*(iii) Other Unilateral Effects*

[81] In relation to the Commission's other unilateral effects, namely access to confidential information, enhanced bargaining power and predation, Dr. Ngepah argued that this merger will allow SS to access commercially sensitive information regarding the activities of Siltech. However, as has been indicated above, the merging parties contend that this information will be commercially meaningless because of a combination of factors such as uncertainty over the size of the ferrosilicon market, stockpiling of silica as well as stockpiling, exportation and importation of ferrosilicon. They say that the information will not allow them post merger to determine either Siltech's domestic sales or Siltech's total production costs.

[82] In relation to the point about bargaining power Dr. Ngepah argued that the merger will give the merged entity enhanced bargaining power by providing it with a credible threat to use silica in-house instead of selling to Siltech and Sublime if those firms are reluctant to take silica on the merged entity's terms. In other words Dr. Ngepah contends that there will be an outside option available for the silica currently supplied to Siltech and Sublime. The merging parties disagree with this contention. They argue that there is no outside option because (i) SQ does not have capacity constraints and is in fact operating at sub-optimal capacity<sup>52</sup> (ii) SS was offered additional volumes of silica by SQ in [ ] at a reduced price but declined the offer as it could not use the silica because of electricity supply constraints and weak market conditions which it did not believe were likely to improve.<sup>53</sup> Finally on the point of

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<sup>51</sup> Transcript page 197.

<sup>52</sup> Transcript page 337.

<sup>53</sup> Transcript page 328.

predation Dr. Ngepah argued that the merging parties would be able to predate through the price of ferrosilicon, i.e. the merged entity would post-merger be able to lower the prices of ferrosilicon and be able to compensate itself by increasing its margin upstream in the silica market. Mr. Smith however argued that he does not see how the predation concern is made worse by the merger and further argued that “...predation makes no sense for Rand Carbide as it has no ferrosilicon capacity...”<sup>54</sup>

(iv) *Non-Competition Foreclosure*

[83] With regards to the non-competitive foreclosure, the Commission's concern is that the merged entity would convert one of its existing ferrosilicon furnaces in order to produce silicon metal because margins are higher in the production of silicon metal, and then divert supplies of silica from existing customers in order to boost its output of silicon metal. However, production of silicon metal is power-intensive and evidence lead during the hearing indicated that there are severe limitations on the capacity of Eskom to supply additional power to industrial clients. There have been steep increases in power costs which have lead to the closure of some foundries. Further, the evidence of Mr. Coetzee has shown that converting a furnace would require capital expenditure of approximately [ ] and that this is something that is not being contemplated by FA in current times when the markets for primary industrial products are weak.

(v) *Barriers to Entry*

[84] Dr. Ngepah submitted that this merger raises entry barriers in the downstream markets for the production of silicon metal and ferrosilicon and that the long-term agreements do not remove this concern.<sup>55</sup> It is common cause that barriers in these markets are high pre-merger. However we heard nothing to suggest that these high entry barriers would be raised by this transaction. Further, the evidence we heard at the hearing suggests that entry in the downstream markets by new participants is not likely in the near future. Mr Morkel testified that entry in the ferrosilicon market is unlikely as the costs are excessive and Mr. Manzi<sup>56</sup> testified that the Dti was not aware of potential new entrants.

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<sup>54</sup> Transcript page 1120.

<sup>55</sup> Transcript pages 679- 680.

<sup>56</sup> Transcript pages 628 – 630.

[85] As indicated above, a condition was tendered by the merging parties to supply silica to potential producers of silicon metal and ferrosilicon after the merger on favourable terms. In our view this undertaking addresses entry barrier concerns raised by the Commission.

## **PUBLIC INTEREST**

[86] The Commission submitted in its heads of argument at paragraph 92 that the concern about the non-competitive foreclosure is directly related to public interest. The Commission further stated that *“the local manufacturing sector will suffer the burden when products are not available and shifted for production of products primarily for export”*. This non-competitive foreclosure concern is linked to the foreclosure concern, which has been discussed above. In our view foreclosure is unlikely to occur. The transaction does not raise any other public interest issue.

## **CONCLUSION**

[87] We conclude that the main issue that induced the Commission to prohibit this transaction, namely the fear of input foreclosure of Siltech and Sublime, has been properly addressed by the conclusion of the long-term supply agreements. Further, both Siltech and Sublime expressed their satisfaction at the hearing with the provisions of the agreements and considered that their supply arrangements with SQ had been resolved by the conclusion of those agreements. In addition, the merging parties have made undertakings to supply silica for internal consumption to producers of silicon metal and/or ferrosilicon entering the market after the date of the approval of this merger, on terms similar to those contained in the long-term agreements between SQ and both Siltech and Sublime.

[88] In respect of the Commission’s allegation of potential co-ordination we conclude that this concern is not merger-specific and is not factually substantiated, and in relation to the concerns about unilateral effects of the merger we conclude that the concerns are without merit. We have accordingly approved the merger subject to the conditions attached hereto marked as annexures A to E.



## **COSTS**

[89] There is no order as to costs.

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**Lawrence Reyburn**

**15 November 2012**

Date

Yasmin Carrim and Takalani Madima concurring.

Tribunal Researcher : Ipeleng Selaledi

For the Commission : Adv. Omphemetse Mooki instructed by the State  
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For the Target Firm : Adv. Jerome Wilson instructed by Cliffe Dekker Hofmeyr