

## **Appendix F**

### **DWA meeting**

- Meeting attendance
- Presentation
- Meeting minutes

Waste management Licence (16/2/7/B100/C617)

ATTENDANCE REGISTER

Date: 22 February 2012 Time: 9:00

Venue: Silicon Smelters – Rand Carbide, eMalahleni (Old Middelburg road)

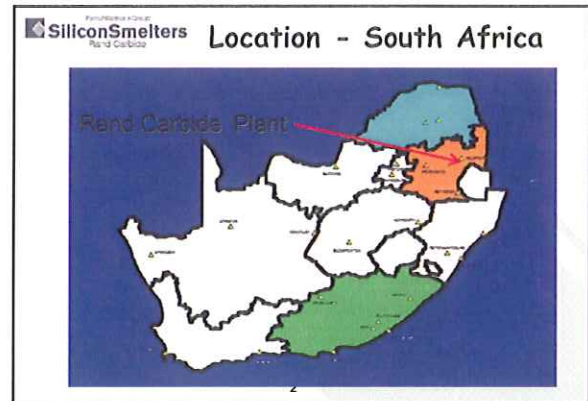
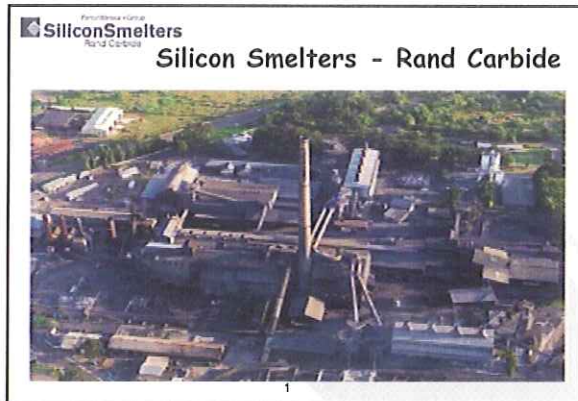
Objective: Waste Management Licence

| Name:              | Organisation:           | Tel & Cell:                    | Fax:         | E-mail:  | Signature: |
|--------------------|-------------------------|--------------------------------|--------------|--|------------|
| Ms Paulette Jacobs | HydroScience            | 082 850 5482                   | 086 692 8820 | paulette@hydroscience.co.za                      |            |
| Mr Inus de Wit     | HydroScience            | 0827867910                     | 086 692 8820 | info@hydroscience.co.za                          |            |
| Ms Kerry Beamish   | Silicon Smelters        | 013 690 8263 /<br>082 894 5856 | 013 690 8364 | kerry.beamish@siliconsmelters.co.za              |            |
| Mr Andre Nel       | Silicon Smelters        | 013 690 8245                   | 013 690 8380 | andre.nel@siliconsmelters.co.za                  |            |
| Rambuda Adivhaho   | DWA                     | 013 932 2061                   | 013 932 2071 | RambudaA@dwa.gov.za                              |            |
| Madi Moloto        | DWA                     | 013 932 2061 /<br>082 887 4332 | 086 616 0005 | MolotoM@dwa.gov.za                               |            |
| Liziwe Kama        | eMalahleni Municipality |                                |              | kamal@webmail.co.za /<br>kamal@emalahleni.gov.za |            |
| EUNICE NEMUTUDI    | DWA                     | 012 336 7623<br>072 289 3208   | 012 323 0321 | NemutudiE@dwa.gov.za                             |            |

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**SiliconSmelters**  
Rand Carbide

### History

- 1918 - Rand Carbide Ltd was established in Germiston with one 1.5 MVA furnace;
- Core product was Calcium Carbide used for lighting in Miner's lamps in the Gold Mines;
- 1926 - Due to rising costs of electricity, the factory moved to Witbank;
- 1950 - 1<sup>st</sup> paste plant to produce Soderberg electrode paste;
- 1951 - D Furnace (25 MVA) for the production of Carbide;
- 1965 - New Ferrosilicon Furnace 'E', at 16 MVA, commissioned;
- 1968 - The 131-Meter tall chimney was built;
- 1968 - 2nd Paste Plant was commissioned with facilities to Process Electrically Calcined Anthracite into Metallurgical Recarburiser;
- 1972 - A fourth Stoker was commissioned;
- 1974 - A dust plant was commissioned for use on 'A' furnace;
- 1976 - F dust plant was commissioned for use on 'F' furnace;

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**SiliconSmelters**  
Rand Carbide

### History

- 1979 - AECI Ltd sold its share holding to Highveld Steel and Rand Carbide, subsequently operates as a division of Highveld Steel;
- 1981 - Dust plants were commissioned for use on Paste Plants 1 and 2, as well as 'D' and 'E' furnaces;
- 1991 - the new FeSi crushing, packing and cleaning plant was built;
- 2005 - Rebuild of furnace D to improve efficiency and reduce low level pollution;
- 2006 - Cyclone commissioned on stoker number 3 in March;
- 2008 - In February, Silicon Smelters purchased all the assets from Highveld Steel;
- 2008 - Stoker operation discontinued;
- 2009 - March, Silicon Smelters, Rand Carbide Branch purchased the Afrisam Silica Fume Plant in Witbank;

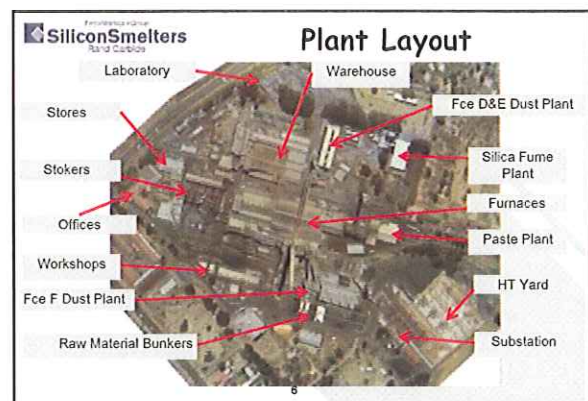
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**SiliconSmelters**  
Rand Carbide

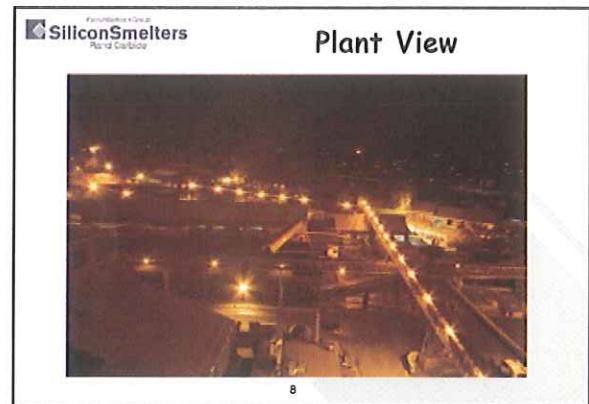
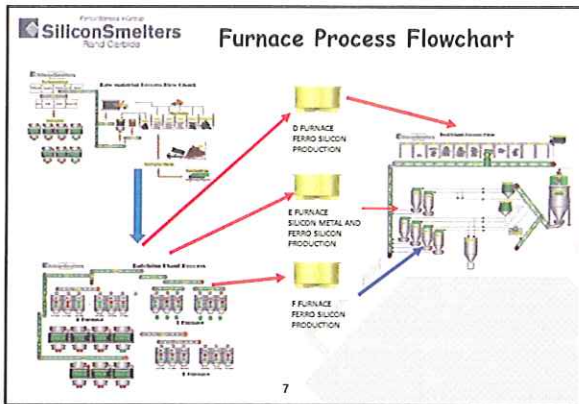
### History

- 2009 - August: lowered D Furnace roof and additional stack to improve low level emissions;
- 2010 - Convert E furnace to Si-Metal Production;
- 2010 - Started producing Inoculants;
- 2011 - E furnace started to produce Si-Metal in April;
- 2011 - Demolition of all 5 stokers in November;
- 2011 - Commissioned Inopipe Mixing plant in October;
- The factory produces Ferrosilicon, Silicon Metal, Inoculants, Silica fume, Electrically calcinated anthracite and Electrode paste.

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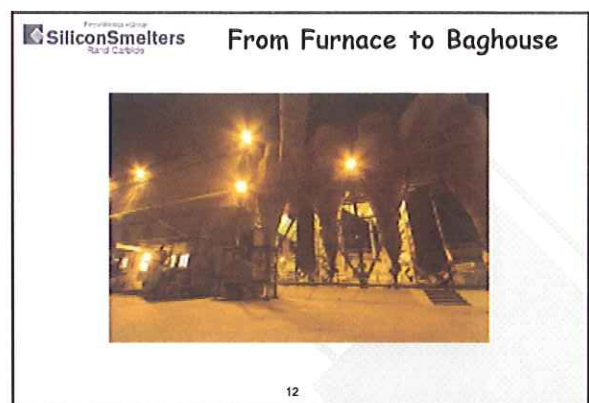
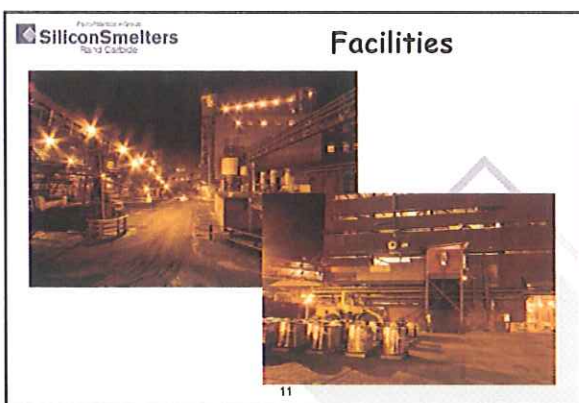
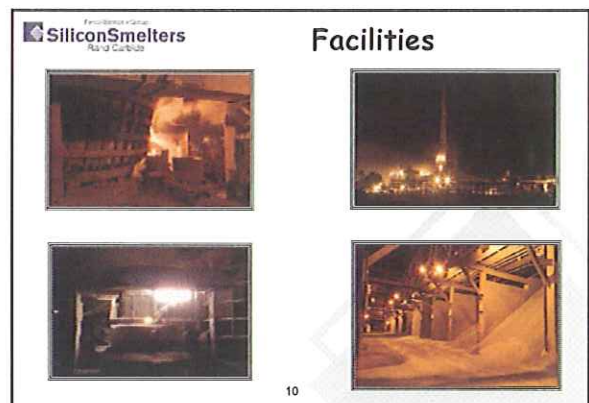


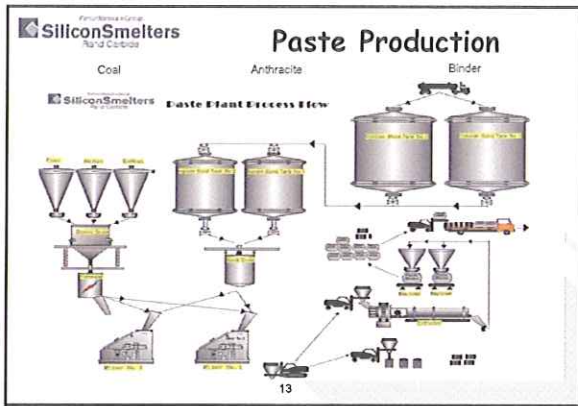
**SiliconSmelters**  
Pretoria, South Africa  
Rand Carbide

### Capacity & Facilities

|   |  |  |
|---|--|--|
| <b>Ferrosilicon</b><br>2 Furnaces<br>50 MW<br>50,000 tons | <b>Si Metal</b><br>1 Furnace<br>19 MW<br>12,000 tons | <b>Silica Fume</b><br>15,000 tons<br><b>Paste</b><br>22,000 tons |
|---|--|--|

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**Raw Materials**

**Mainly Purchased Raw Materials**

- Quartz - Outside purchases
- Wood - Outside purchases
- Coal - Local
- Charcoal - Purchased and own supply
- Medium Ash Coal - Imported
- Millscale - Outside purchases
- Anthracite - Outside purchases
- Electrode Paste - Produced

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**Final Products**

Ferro Silicon Silicon Metal

Inoculants

Silica Fume Paste Cylinders

15

**Product Distribution**

|                |                          |                |                  |
|----------------|--------------------------|----------------|------------------|
| FerroSilicon : | 10% Export (Europe)      | Silicon Metal: | 90% Export (USA) |
|                | 90% Local                |                | 10% Local        |
| Silica Fume :  | 70% Export (Middle East) | Paste:         | 100% RSA         |
|                | 30% Local                |                |                  |

World map showing distribution: Silicon Metal USA 90%, FeSi RSA 90%, Fume RSA 30%, Paste RSA 100%, Export 10%, Export 70%, Export 90%.

16

**Product Application - FeSi**

◆ **Stainless Steel and Steel Industry & Foundries**

Scrap being Charged in the Steel Plant where FeSils then added



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**Product Application - Silicon Metal**

CHEMICAL APPLICATION METALLURGICAL APPLICATION

18

**SiliconSmelters** Product Application - **Innoculants**




Automotive Industry  
  
 Pipe Makers  


Foundries of Cast iron  


19

**SiliconSmelters** Product Application - **Paste**

◆ **Electrode Column**

20

**SiliconSmelters** Product Application - **Fume**

◆ Kubota Matsushita Exterior Works (KMEW)  
 → Roofing tiles  




◆ Middle East  
 → High performance concrete  
 21

**SiliconSmelters** Environmental Improvements

- ◆ From the date of the take over, FerroAtlantica has made major improvements to the Rand Carbide facility in order to bring the operations up to the standard we have in our French and Spanish Plants.
- ◆ The same tendency was followed with the purchase of our Polokwane facility in 1999, which is an exemplary plant today in SA.
- ◆ A list of these improvements will be circulated.
- ◆ The major ones will be highlighted below.

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**SiliconSmelters** PAVING

250m<sup>2</sup> between Silica Fume Plant and Main plant  

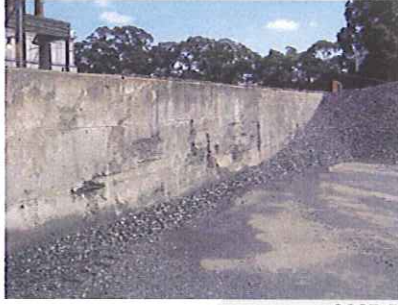

80m<sup>2</sup> Workshop Area  


80m<sup>2</sup> Weighbridge Entrance  


COST: R230 000

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**SiliconSmelters** ANTHRACITE STORAGE AREA



24

COST: R670 000



**SiliconSmelters** Perth Silicon Smelter  
Rural Carbide **CONCRETE FLOORING INSTALLED AT LADLE BAY AREA**



25 COST: R700 00

The image shows two side-by-side photographs. The left photo, labeled 'BEFORE', shows a rough, uneven concrete floor. The right photo, labeled 'AFTER', shows the same area with a smooth, finished concrete floor. A large metal bucket is visible in the 'AFTER' photo.


**SiliconSmelters** Perth Silicon Smelter  
Rural Carbide **F FURNACE – 4 X OFF-TAKES REPLACED**



26 COST: R900 000

The photograph shows a large industrial furnace with four vertical off-takes. The off-takes are surrounded by a complex network of pipes and structural steel. The furnace is illuminated by bright lights, highlighting its metallic surface.


**SiliconSmelters** Perth Silicon Smelter  
Rural Carbide **F FURNACE TAP HOLE FUME EXTRACTION SYSTEM**



27 COST: R150 000

The photograph shows a close-up view of the tap hole area of the F furnace. A large, bright orange glow from the molten metal is visible through the tap hole. A fume extraction system is installed above the tap hole to capture the fumes.


**SiliconSmelters** Perth Silicon Smelter  
Rural Carbide **D+E FURNACE TAP HOLE FUME EXTRACTION SYSTEMS**



28 COST: R6 MILLION

The photograph shows a large, curved industrial structure, likely the D+E furnace. A complex network of pipes and structural steel is visible, representing the fume extraction system installed for the tap hole area.


**SiliconSmelters** Perth Silicon Smelter  
Rural Carbide **D FURNACE – TAP HOLE FUME EXTRACTION (cont)**



29

The photograph shows a large, cylindrical industrial structure, likely the D furnace. A fume extraction system is installed above the tap hole area, with pipes and structural steel visible.

**SiliconSmelters** Perth Silicon Smelter  
Rural Carbide **D+E FURNACE TAP HOLE FUME EXTRACTION (SMOKE OFF-TAKES)**



30

The photograph shows a large industrial structure with a complex network of pipes and structural steel. This system is designed for smoke off-takes from the D+E furnace tap hole area.

**SiliconSmelters** **D FURNACE NEW CANOPIES OVER TAP HOLES**



31 **Cost R75 000**  
Quarterly maintenance cost – R25 000

**SiliconSmelters** **D FURNACE NEW CANOPIES OVER TAP HOLES**




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**SiliconSmelters** **D FURNACE ROTATING SKIRTS (DOORS)**



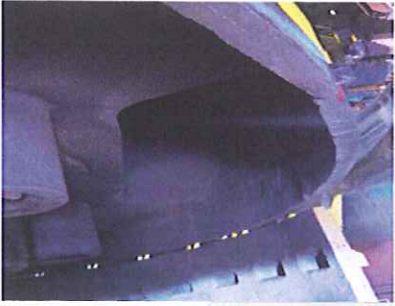
33 **COST: R300 000 = +/- R100 000**  
monthly maintenance

**SiliconSmelters** **E FURNACE ROTATING DOORS**



34 **COST: R600 000**

**SiliconSmelters** **E FURNACE WATER COOLED ROOF AND EXTRACTION SYSTEM**



35 **COST: R100 000**

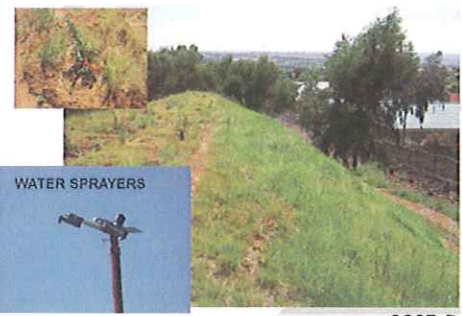
**SiliconSmelters** **SILICON METAL STORAGE SHED**



36 **COST R540 000**



**SiliconSmelters** Rand Carbide **DUMP SITE – BARRIER WALL**



**WATER SPRAYERS**

37 **COST: R430 000**

**SiliconSmelters** Rand Carbide **APPA PERMITS**

- ◆ FerroAtlantica took ownership of Rand Carbide in February 2008.
- ◆ As it was purchased as a running operation, the impression was that all necessary permits were in place and valid, the need to transfer them was an oversight.
- ◆ We were aware that new AEL's had to be applied for, but presumed we still had time.
- ◆ Our old APPA permits do state Rand Carbide and we are operating as Rand Carbide with the same processes
- ◆ We are now in possession of a AEL for all Rand Carbide activities. (issued on 14 April 2011 – Licence Number 17/AEL/MP312/11/02 ).

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**SiliconSmelters** Rand Carbide **STOKERS STACK MONITORING**

- ◆ In the past, the Stokers were the biggest contributors to air pollution.(R6million spent 2006 – abatement)
- ◆ Stack monitoring was carried out as follows:
  - Batemans Report No. 05/R2177/hb 31Jan 2005
  - Levego Report No. 06/2546/gw 6 Sept 2006
  - Levego Report No. 06/2549 13 Sept 2006
  - Levego Report No. 07/2314/hb 28 May 2007
- ◆ Decision made in 2008 by Ferro Atlantica to discontinue production of Char due to environmental impact and negative plant image.

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**SiliconSmelters** Rand Carbide **DUST PLANT SPECIFICATIONS D+E DUST PLANT**

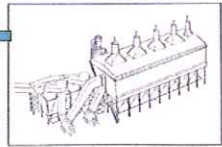
**TECHNICAL DATA**

**BAGHOUSE TYPE LEO**

|                                      |                                |                            |
|--------------------------------------|--------------------------------|----------------------------|
| • Total gas flow                     | m <sup>3</sup> /h              | 1 000 000                  |
| • Gas temperature                    | °C                             | 120                        |
| • Total dust concentration, normally | g/m <sup>3</sup>               | 5                          |
| • Inlet dust concentration, max      | g/m <sup>3</sup>               | 50                         |
| • Inlet air flow                     | m <sup>3</sup> /h              | 85 000                     |
| • Number of filter units             |                                | 2 x 9                      |
| • Surface of filter gas side         | m <sup>2</sup>                 | 240                        |
| • Total number of bags               |                                | 30 000                     |
| • Filter bag area                    | m <sup>2</sup>                 | 30 000                     |
| • Air to fabric ratio, gross         | m <sup>3</sup> /m <sup>2</sup> | 200                        |
| • Air to fabric ratio, net           | m <sup>3</sup> /m <sup>2</sup> | 150                        |
| • Bag material                       |                                | Extruded glass fibre (EFG) |

**MAIN GAS FANS**

|   |                   |             |
|---|-------------------|-------------|
| • Type                                  |                   | WEG-200-200 |
| • Material                              |                   | 2           |
| • Gas flow                              | m <sup>3</sup> /h | 800 000     |
| • Gas temperature                       | °C                | 120         |
| • Total pressure of operating condition | mm Hg             | 500         |
| • Gas density                           | kg/m <sup>3</sup> | 0.75        |
| • Motor                                 |                   | 200         |
| • Motor size                            | kW                | 1000        |



40

**SiliconSmelters** Rand Carbide **DUST PLANT SPECIFICATIONS F DUST PLANT**

**TECHNICAL DATA**

**BAGHOUSE TYPE LFT**

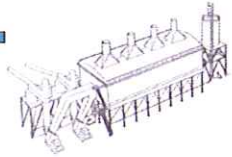
|                                      |                                |                            |
|--------------------------------------|--------------------------------|----------------------------|
| • Total gas flow                     | m <sup>3</sup> /h              | 400 000                    |
| • Gas temperature                    | °C                             | 120                        |
| • Total dust concentration, normally | g/m <sup>3</sup>               | 5                          |
| • Inlet dust concentration, max      | g/m <sup>3</sup>               | 50                         |
| • Inlet air flow                     | m <sup>3</sup> /h              | 85 000                     |
| • Number of filter units             |                                | 2 x 9                      |
| • Surface of filter gas side         | m <sup>2</sup>                 | 240                        |
| • Total number of bags               |                                | 30 000                     |
| • Filter bag area                    | m <sup>2</sup>                 | 30 000                     |
| • Air to fabric ratio, gross         | m <sup>3</sup> /m <sup>2</sup> | 200                        |
| • Air to fabric ratio, net           | m <sup>3</sup> /m <sup>2</sup> | 150                        |
| • Bag material                       |                                | Extruded glass fibre (EFG) |

**MAIN GAS FANS**

|   |                   |             |
|---|-------------------|-------------|
| • Type                                  |                   | WEG-200-200 |
| • Material                              |                   | 2           |
| • Gas flow                              | m <sup>3</sup> /h | 800 000     |
| • Gas temperature                       | °C                | 120         |
| • Total pressure of operating condition | mm Hg             | 500         |
| • Gas density                           | kg/m <sup>3</sup> | 0.75        |
| • Motor                                 |                   | 200         |
| • Motor size                            | kW                | 1000        |

**REVERSE AIR FAN**

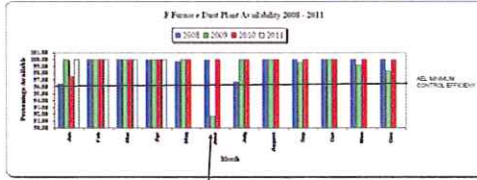
|   |                   |             |
|---|-------------------|-------------|
| • Type                                  |                   | WEG-200-200 |
| • Material                              |                   | 2           |
| • Gas flow                              | m <sup>3</sup> /h | 800 000     |
| • Gas temperature                       | °C                | 120         |
| • Total pressure of operating condition | mm Hg             | 500         |
| • Gas density                           | kg/m <sup>3</sup> | 0.75        |
| • Motor                                 |                   | 200         |
| • Motor size                            | kW                | 1000        |



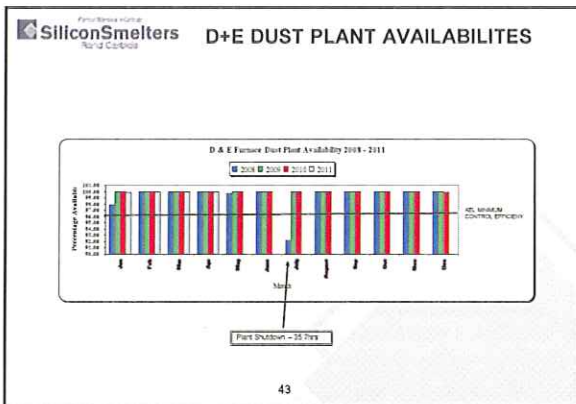
41

**SiliconSmelters** Rand Carbide **F DUST PLANT AVAILABILITES**

**F Filter - Dust Plant Availability 2008 - 2011**



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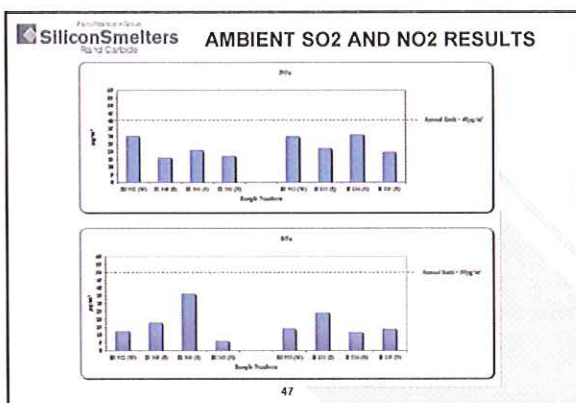
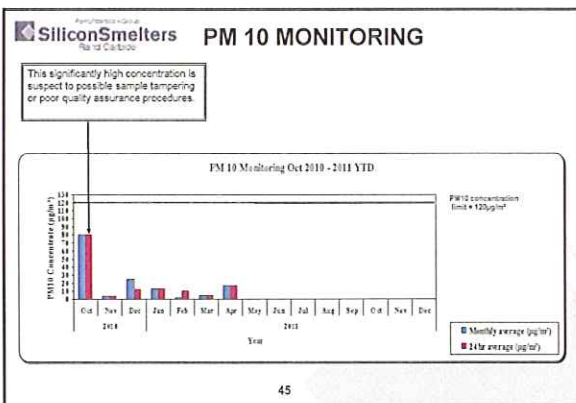
### SiliconSmelters RALD Carbon STACK MONITORING RESULTS

- ◆ D+F Furnace Dust Plant (only D Furnace in operation)
 

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| PM                       | SO <sub>2</sub>          | NO <sub>2</sub>          |
| 31mg/Nm <sup>3</sup>     | 11.9 mg/Nm <sup>3</sup>  | 72 mg/Nm <sup>3</sup>    |
| (120mg/Nm <sup>3</sup> ) | (500mg/Nm <sup>3</sup> ) | (750mg/Nm <sup>3</sup> ) |
- ◆ F Furnace Dust Plant
 

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| PM                       | SO <sub>2</sub>          | NO <sub>2</sub>          |
| 42mg/Nm <sup>3</sup>     | 9.3 mg/Nm <sup>3</sup>   | 64 mg/Nm <sup>3</sup>    |
| (120mg/Nm <sup>3</sup> ) | (500mg/Nm <sup>3</sup> ) | (750mg/Nm <sup>3</sup> ) |

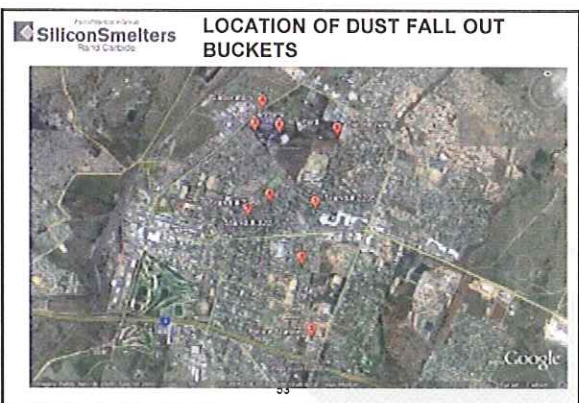
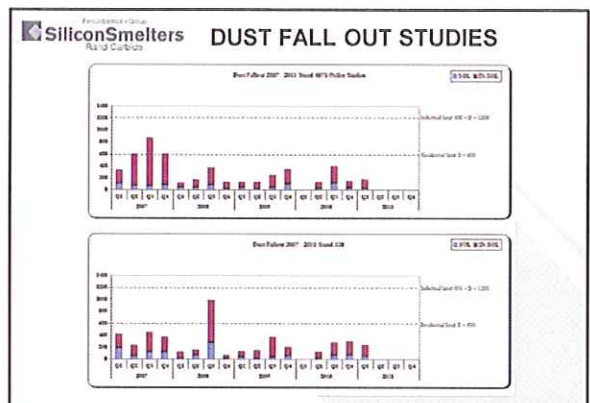
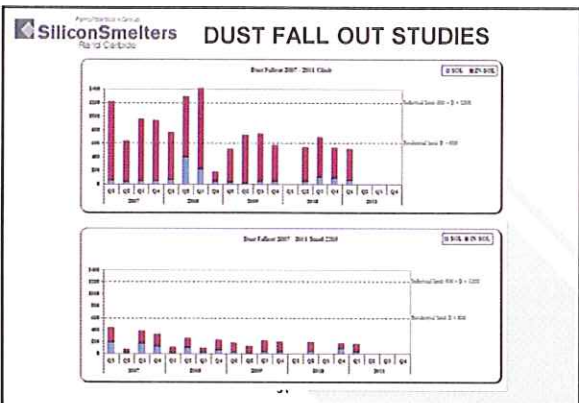
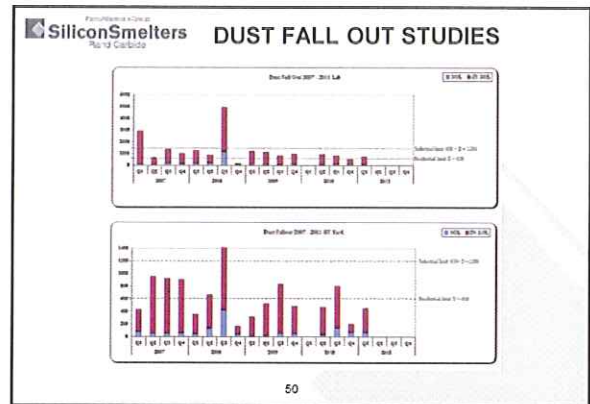
44



### SiliconSmelters RALD Carbon AMBIENT SO2 AND NO2 RESULTS

- ◆ It should be noted that the values are considerably lower than the respective standards for the annual averaging period.
  - Annual SO<sub>2</sub> = 50µg/m<sup>3</sup>
  - Annual NO<sub>2</sub> = 40µg/m<sup>3</sup>
- ◆ Although direct comparisons across averaging periods is not possible, this is a good indication that exceedences of the shorter-term standards are unlikely to occur.

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**SiliconSmelters** Facility Name: Rand Carbide  
**WATER MANAGEMENT**

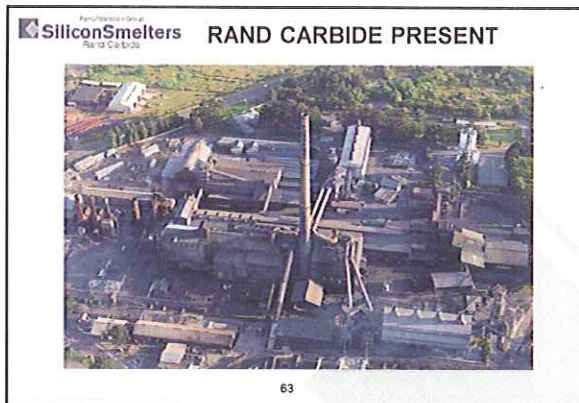
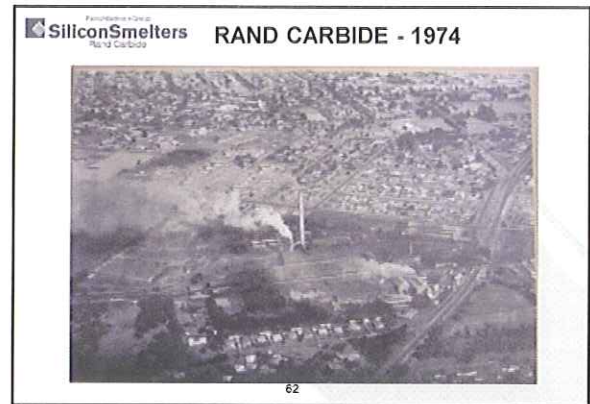
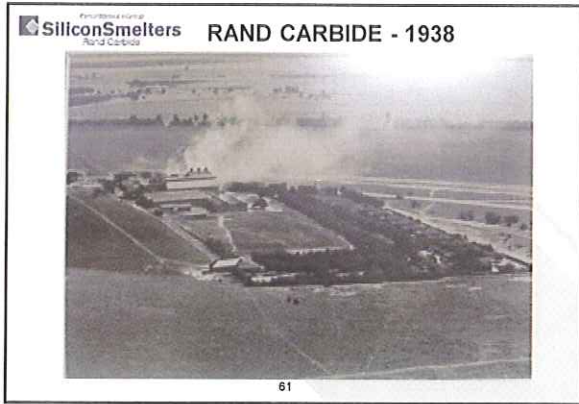
- ◆ Rand Carbide has six boreholes;
- ◆ Each borehole is regularly sampled;
- ◆ Regen Waters (Witbank) analyse the water.

Two further samples are taken regularly: Swartbos and Panorama. These samples are analysed by Regen Waters and a reference borehole sample at Regen Waters

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## Minutes of the meeting held with Department of Water Affairs (DWA)

**Date:** Wednesday, 22 February 2012

**Time:** 9:00 – 12:30

**Venue:** Boardroom at Rand Carbide, eMalahleni

### Present:

- |                   |  |
|-------------------|--|
| • Andre Nel       | - Silicon Smelters - Rand Carbide: General Manager     |
| • Kerry Beamish   | - Silicon Smelters - Rand Carbide: SHEQ manager        |
| • Harry Landman   | - Silicon Smelters - Rand Carbide: Technical           |
| • Arno Archer     | - Silicon Smelters - Rand Carbide: SHEQ superintendent |
| • Paulette Jacobs | - HydroScience   |
| • Inus de Wit     | - HydroScience   |
| • Adivaho Rambuda | - DWA: Bronkhorstspuit regional office                 |
| • Madi Moloto     | - DWA: Bronkhorstspuit regional office                 |
| • Eunice Nemutudi | - DWA: Head Office (Environmental impact)              |
| • Wilna Moolman   | - DWA: Head Office (Groundwater)                       |
| • Liziwe Kama     | - eMalahleni Municipality: Stormwater management       |

### Apologies:

None

### Welcome:

Mr Andre Nel welcomed everybody and thanked them for attending the meeting.

### Presentation on background:

Mr Andre Nel gave a Powerpoint presentation to provide background on Rand Carbide, its ownership and history, its location and site layout, its processes and products, environmental improvement and monitoring.

### Legal background:

Ms Paulette Jacobs provided some legal background and the status quo of applications:

- NEMAQA: Rand Carbide has an Atmospheric Emissions Licence (AEL), 17/4/AEL/MP312/11/02 issued by Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET) on 14 April 2011.
- NEMWA: The site visit and meeting relates to Rand Carbide's application for a waste management licence (WML). The process is currently in the Scoping phase and DWA has received a copy of the Scoping report on which they already provided their comments (2012-02-02). The WML application is for the storage, reuse and recycling, recovery and treatment of hazardous waste. A historic waste dump is currently being reprocessed by EnviroServ Mineral Beneficiation (EMB). Reprocessing should be completed in about 8 years' time. No waste generated by rand carbide is disposed on the site.
- NWA: The Integrated Water and Waste Management Plan (IWWMP) is 90% complete. Only the groundwater investigation is outstanding. Rand Carbide has an existing lawful use Permit 282N (29 March 1989; ref B33/2/210/34) from the Department of Water Affairs (DWA) in terms of the use of municipal water for



industrial purposes at the premises. The following water uses form part of this application which will be submitted in May 2012:

- **Section 21 (a): Taking water from a water resource:** Usage of the water from the three (3) springs for industrial purposes:
  - Spring underneath Furnace E water used for dust suppression
  - Spring underneath Furnace F water used for dust suppression
  - Spring underneath Conveyor Sump B9 water used for dust suppression
- **Section 21 (g): Disposing of waste in a manner which may detrimentally impact on a water resource:** Waste and wastewater disposal
  - Historic waste dump
  - Harry's dam
  - New storm water control dam
- **Section 21 (j): Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people:** Dewatering of three (3) springs in the plant area.
  - Spring underneath Furnace E
  - Spring underneath Furnace F
  - Spring underneath Conveyor Sump B9

**Questions:**

Ms Madi Moloto (DWA) asked whether water from the springs is used in the processes. Ms Paulette Jacobs indicated that the water is used for dust suppression only. The water for processing and workers is obtained from the municipal supply

Ms Moloto asked about the water quality of the springs. Ms Jacobs responded that the water is contaminated probably due to surface sources as the springs are located underneath the furnaces. The water quality of the springs is included in the report. Ms Jacobs provided TDS and sulphate values of the springs.

Ms Moloto asked if the Waste dump has been moved recently, on which Ms Jacobs replied that it has not. Ms Moloto asked whether the waste dump will be moved to a new location. Ms Jacobs indicated that the waste on the dump will be processed and remaining waste will be disposed to Holfontein, no disposal on the site.

Ms Moloto asked whether any authorisation has been granted for the dump. Ms Jacobs replied that an application was submitted under the Environmental Conservation Act (ECA) and but no permit was issued.

Ms Moloto asked about Rand Carbide's relationship with Highveld Steel. Mr Nel and Ms Jacobs explained that Rand Carbide was part of the Highveld Group but was sold and is now part of the Ferro Atlantica group and no longer has any association with Highveld Steel.

Ms Moolman enquired about the groundwater quality and the monitoring thereof. Ms Jacobs indicated that there are more than 10 boreholes used for monitoring and that elevated levels of Manganese are present in some samples.

Ms Moolman informed that with the Waste Management Licence (WML) application, groundwater quality results must be attached. HydroScience noted and indicated that it is.

Ms Nemutudi enquired about the boreholes and asked if they are used for monitoring or abstraction. Ms Jacobs indicated that the boreholes are used for monitoring purposes only.

Ms Moloto asked which and where the closest watercourse is. Ms Jacobs informed that the Olifants River is approximately 4km NE of the site, and that the Doornpoort dam is approximately 7.5km away.

**Safety induction:**

Mr Anro Archer gave an safety induction presentation prior to the site visit.

**Site visit:**

The following was visited and noted:

- Berm constructed on boundary to protect neighbouring residents from dust and noise due to historic complaints. It has been planted with indigenous shrubs (Pyracantha) which will grow to 4metres high and provide further protection. Few complaints have been received recently.
- Area where large quantities of storm water from neighbouring property enters the Rand Carbide site.
- Harry's dam: Unlined and approximately 1.5metres deep. Capturing all water from the property (storm water runoff and process water). No water leaves the site but any water leaving the site and entering the municipal storm water system will be monitored.
- Raw materials storage areas across the site. Bags in good condition are reused.
- Historic waste dump where waste material is currently being screened (two on-site screens currently operating) and separated
- Catchment ponds to capture and contain high silt load from plant before water enters Harry's dam
- EMB plant currently not operational as material is insufficient.
- Furnaces
- Springs underneath furnaces and at B conveyor sump
- Sprinklers along road for dust suppression. Switched on at least twice a day during the dry windy season.
- Watering truck for dust suppression – continuous.
- Storm water canals
- Products
- Monitoring borehole of 30metres deep that overflows in plant area. It has been equipped with a valve to prevent overflows.
- Bakwena Cement plant – obtains sand and stone from Rand Carbide

**Further discussion session:**

Ms Moolman requested that all storage areas for waste and materials must be indicated on a map and included in the WML application. This includes waste such as waste oil etc.

**ACTION: HydroScience**

Ms Moolman and Ms Moloto indicated that a more formal type of storm water management system is required. Ms Jacobs responded and indicated that this has been developed by Etek Consulting and the report produced was presented.

Ms Moloto stated that housekeeping on the site requires attention. **ACTION: Rand Carbide**

Ms Moolman requested that the water from the B conveyor sump spring which is currently relatively uncontaminated be channelled in order to prevent contamination. Ms Jacobs indicated that this might not be possible as it is not a point source but seeps from a large area on the embankment. The only possibility would be to increase the pump rates to prevent any seeping from the embankment.

Ms Nemutundi asked whether a water balance was done and Ms Jacobs confirmed.

DWA in their comments on the Scoping report requested an agreement between the municipality and Rand Carbide in terms of water supply and sewage management. Ms Jacobs informed DWA that there is no such an agreement. Ms Kama agreed to assist..

**ACTION: Ms Kama**

Ms Jacobs will request details from Ms Kama on the relevant person to contact and then forward a request / letter to this person and copying Ms Kama. **ACTION: Ms Jacobs**

HydroScience will provide Ms Kama with a copy of the scoping report, the letter from DWA and the storm water management plan. **ACTION: HydroScience**



## Paulette

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**From:** Paulette <paulette@hydroscience.co.za>  
**Sent:** 03 May 2012 12:10 PM  
**To:** 'Mukondelelidr@emalahleni.gov.za'  
**Cc:** Liziwe Kama (kamal@webmail.co.za)  
**Subject:** FW: Silicon Smelters - Rand Carbide  
**Attachments:** RC\_Letter re services\_20120301.pdf

Dear Ronald & Liziwe,

When can we expect responses from the municipality?

Paulette  
082 850 5482

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**From:** Paulette [mailto:paulette@hydroscience.co.za]  
**Sent:** 03 April 2012 11:37 AM  
**To:** 'Mukondelelidr@emalahleni.gov.za'  
**Cc:** Liziwe Kama (kamal@webmail.co.za)  
**Subject:** FW: Silicon Smelters - Rand Carbide

Dear Ronald,

Kindly indicate when we can expect your response.

Paulette  
082 850 5482

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**From:** Paulette [mailto:paulette@hydroscience.co.za]  
**Sent:** 01 March 2012 12:18 PM  
**To:** 'Mukondelelidr@emalahleni.gov.za'  
**Cc:** Liziwe Kama (kamal@webmail.co.za); Beamish, Kerry (kerry.beamish@siliconsmelters.co.za) (kerry.beamish@siliconsmelters.co.za)  
**Subject:** Silicon Smelters - Rand Carbide

Dear Ronald,

Please see attached letter for your urgent response. An original hard copy has been posted to you.

**Paulette Jacobs**  
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086 588 1770  
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