



**7 Shaft Surface Fan.**

**Measurements - 7# Downcast 60m below surface**

<b>Measurements conducted on 10/12/2014</b>				
<b>Ref.</b>	<b>Type of test conducted</b>	<b>Occupational Exposure Limit (OEL)</b>	<b>Actual Measurement (Avg. over the 2 days)</b>	<b>Remarks</b>
1	Surface Barometric Pressure	N/A	87.59 kPa	
2	Wet Bulb Temperature	WB May Not exceed 32.5 degrees Celsius	8.8 ° C	
3	Dry Bulb Temperature	DB May Not exceed 37.0 degrees Celsius	17.0° C	
4	Air velocity	N/A	4.9 m/s	
5	Noise	May not exceed 85 dB	82.1 dB	Surface fan is source of noise
6	Carbon Monoxide	May not exceed 30 ppm	0 ppm	
7	Carbon Dioxide	May not exceed 5000 ppm	600 ppm	
8	Hydrogen Sulphide	10 ppm	0 ppm	
9	Methane	May not exceed 1.4 %	0 %	
10	Oxygen	May not be less than 19.0 %	20.8 %	

**Measurements - 7# Surface Fan.**

<b>Ref.</b>	<b>Type of test conducted</b>	<b>Occupational Exposure Limit (OEL)</b>	<b>Actual Measurement (Avg. over the 4 days)</b>	<b>Remarks</b>
1	Surface Barometric Pressure	N/A	89.0 kPa	
2	Wet Bulb Temperature	WB May Not exceed 32.5 degrees Celsius	17.5 ° C	
3	Dry Bulb Temperature	DB May Not exceed 37.0 degrees Celsius	18.0 ° C	
4	Air velocity	N/A	12.8 m/s	
5	Fan Pressure	N/A	2.2 kPa	
6	Noise	May not exceed 85 dB	89.2 dB	Surface fan is source of noise
7	Air quantity	N/A	Approximately 110 m <sup>3</sup> /s	
8	Carbon Monoxide	May not exceed 30 ppm	0 ppm	
9	Carbon Dioxide	May not exceed 5000 ppm	700 ppm	
10	Hydrogen Sulphide	10 ppm	0 ppm	
11	Methane	May not exceed 1.4 %	0 %	
12	Oxygen	May not be less than 19.0 %	20.9 %	

**Measurements - 6# Downcast.**

Measurements conducted 10/12/2014				
Ref.	Type of test conducted	Occupational Exposure Limit (OEL)	Actual Measurement (Avg. over the 2 days)	Remarks
1	Surface Barometric Pressure	N/A	87.97 kPa	
2	Wet Bulb Temperature	WB May Not exceed 32.5 degrees Celsius	19.5 ° C	
3	Dry Bulb Temperature	DB May Not exceed 37.0 degrees Celsius	28.7 ° C	
4	Air velocity	N/A	6.3 m/s	
5	Noise	May not exceed 85 dB	54.0 dB	
6	Carbon Monoxide	May not exceed 30 ppm	0 ppm	
7	Carbon Dioxide	May not exceed 5000 ppm	500 ppm	
8	Hydrogen Sulphide	10 ppm	0 ppm	
9	Methane	May not exceed 1.4 %	0 %	
10	Oxygen	May not be less than 19.0 %	20.9 %	



**6 Shaft Surface Fan.**

**Measurements - 6# Surface Fan.**

<b>Ref.</b>	<b>Type of test conducted</b>	<b>Occupational Exposure Limit (OEL)</b>	<b>Actual Measurement (Avg. over the 4 days)</b>	<b>Remarks</b>
1	Surface Barometric Pressure	N/A	88.12 kPa	
2	Wet Bulb Temperature	WB May Not exceed 32.5 degrees Celsius	18.1 ° C	
3	Dry Bulb Temperature	DB May Not exceed 37.0 degrees Celsius	23.1 ° C	
4	Air velocity	N/A	11.9 m/s	
5	Fan Pressure	N/A	2.1 kPa	
6	Noise	May not exceed 85 dB	86.7 dB	
7	Air quantity	N/A	Approximately 120 m <sup>3</sup> /s	
8	Carbon Monoxide	May not exceed 30 ppm	0 ppm	
9	Carbon Dioxide	May not exceed 5000 ppm	600 ppm	
10	Hydrogen Sulphide	10 ppm	2-4 ppm	Definitely a presence of Hydrogen Sulphide in the return air. This could be as a result of Fissures encountered underground.
11	Methane	May not exceed 1.4 %	0 %	
12	Oxygen	May not be less than 19.0 %	20.6 %	



**6 Shaft Bank Area.**



**Tests being conducted over the shaft on 6 Shaft Bank.**



Abandoned Vent shaft in Kanana.

**Measurements – Abandoned Vent shaft in Kanana (Air Upcasting NVP).**

Measurements conducted on 10/12/ 2014				
Ref.	Type of test conducted	Occupational Exposure Limit (OEL)	Actual Measurement (Avg. over the 2 days)	Remarks
1	Surface Barometric Pressure	N/A	88.11 kPa	
2	Wet Bulb Temperature	WB May Not exceed 32.5 degrees Celsius	24.3 ° C	
3	Dry Bulb Temperature	DB May Not exceed 37.0 degrees Celsius	25.3 ° C	
4	Air velocity	N/A	6.4 m/s	
5	Noise	May not exceed 85 dB	51.0 dB	
6	Carbon Monoxide	May not exceed 30 ppm	0 ppm	
7	Carbon Dioxide	May not exceed 5000 ppm	700 ppm	
8	Hydrogen Sulphide	10 ppm	0 ppm	
9	Methane	May not exceed 1.4 %	0 %	
10	Oxygen	May not be less than 19.0 %	20.6 %	







**Annual Personal Noise Exposure - Report Form 21.9(2)(e)**  
in terms of regulation 9.2.(7)

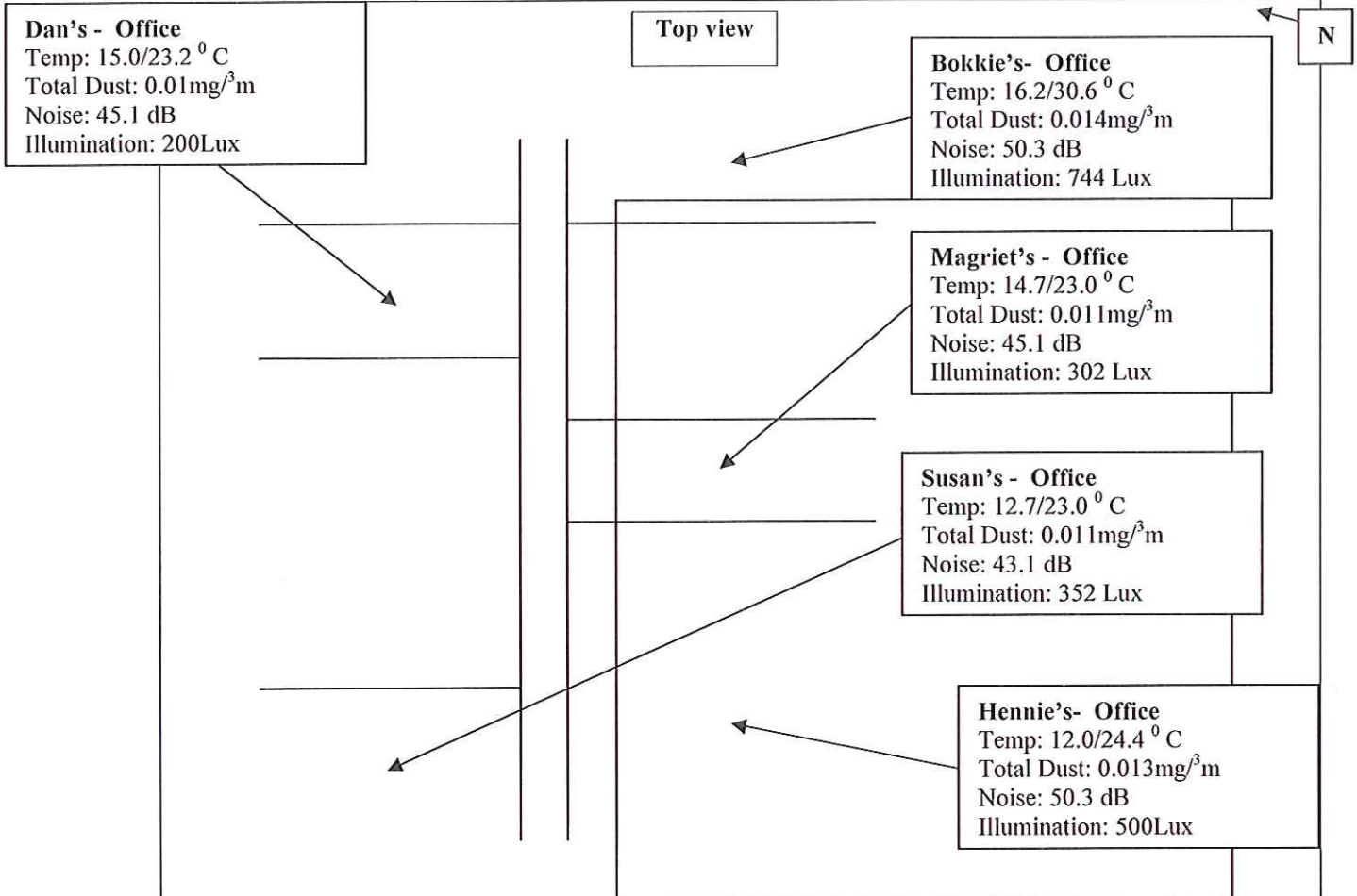
Main Commodity Code	AU	DME Mine Code	13172
Measurement Area	CAPM Orkney,6 & 7# Eng.shops,Roving & #Barrel	SUB Mine Code	2620
Activity Area Code	16, 31 & 33	Reporting Period	
HEG Classification Band	C	Start Date :	2014/01/01
		End Date:	2014/12/31

Occupation Codes in Noise HEG	Number of Persons per Occupation	* Logarithmic Average Sound Pressure Level (LAeq,8h) per Occupation (dB)
40399	7	80
21302	2	67
80103	77	77.9
40653	7	80
40399	7	80
21502	2	91.9
21503	4	92.2
21304	2	83.2
40510	3	77.3
0.0.101	1	53
2002	1	59
10900	2	45
10199	1	50
50899	2	55
10320	3	50
40904	2	55
50800	2	50
80507	3	45
80703	2	56
80504	2	66
21301	2	67

Occupational Hygiene survey conducted for CAPM 7# on 17-02-2015

(OH Audit)

W/place – Main Offices (Sketch not to scale)



**Occupational Hygienist:**

T.Siko

**Date survey conducted:** 17<sup>th</sup> February 2014

**Time survey conducted:** 08:30 – 12:00

**Mine Manager:**

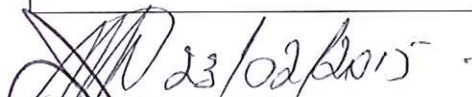
J. Pieters

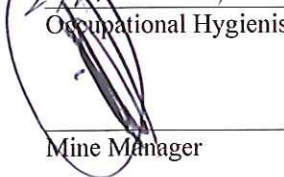
**Remarks/Recommendations:**


- 1) Offices - Clean and Tidy.
- 2) Fire Extinguishers observed and in order.
- 3) General office work taking place in offices at time of survey.
- 4) Dust represented on this report is Total Dust sampled. Respirable Quartz Silica will be measured using the Gillian Gravimetric Dust Sampling Pumps.

**Remarks/Recommendations:**

<u>Legend</u>
<b>Max. Permissible Occ. Hygiene Levels:</b>
Total Dust: > 0.45 mg/m <sup>3</sup>
Respirable Silica Dust: >0.10 mg/m <sup>3</sup>
Noise: > 85 dB
Temp - WB: > 27.5 °C
Temp - DB: > 37.0 °C

  
Occupational Hygienist

  
Mine Manager

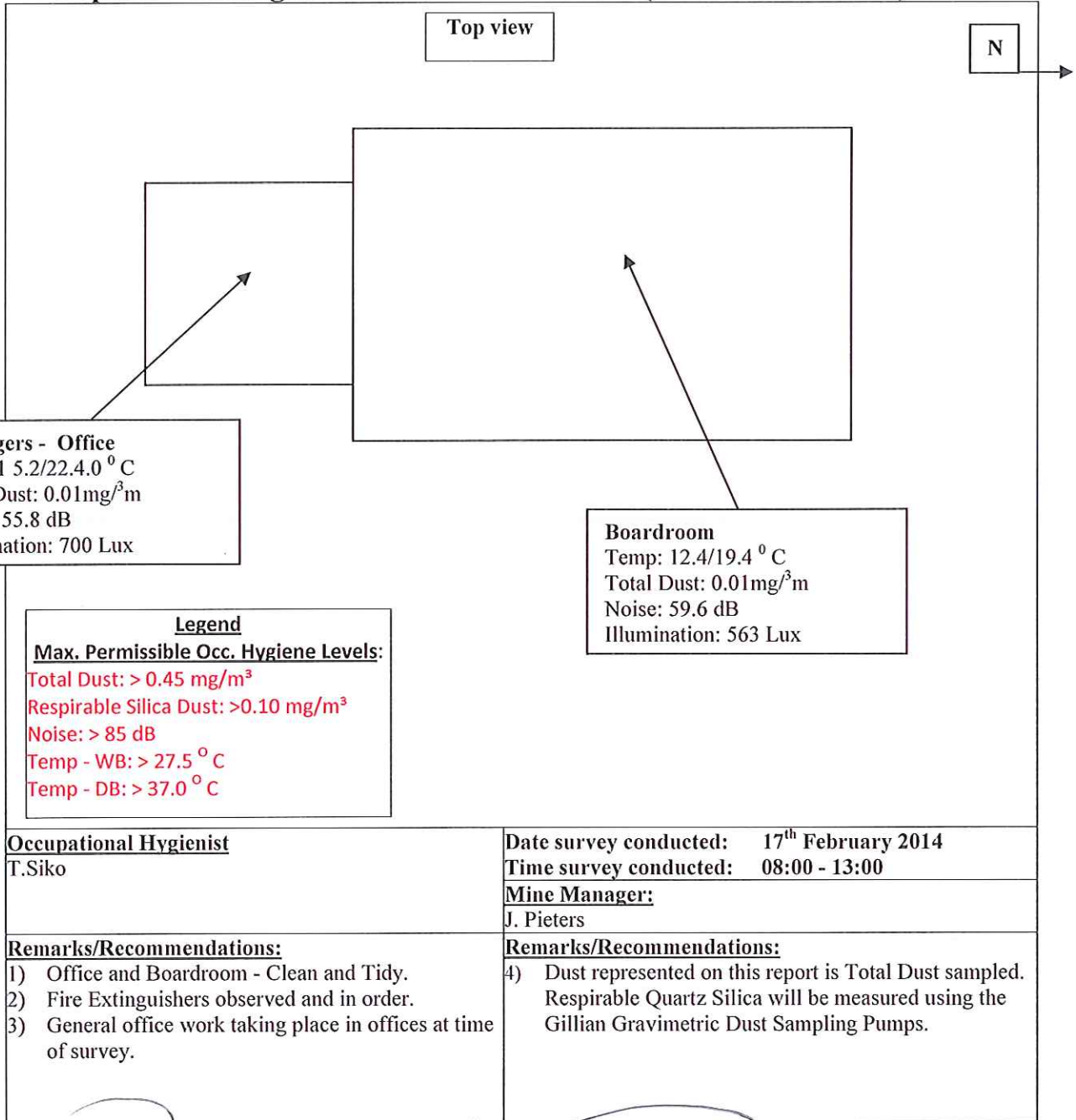
  
Engineering Manager



**Occupational Hygiene survey conducted for  
CAPM 7# on 17-02-2015**

**(Audit)**

**W/Place – Managers Office and Boardroom (Sketch not to scale)**



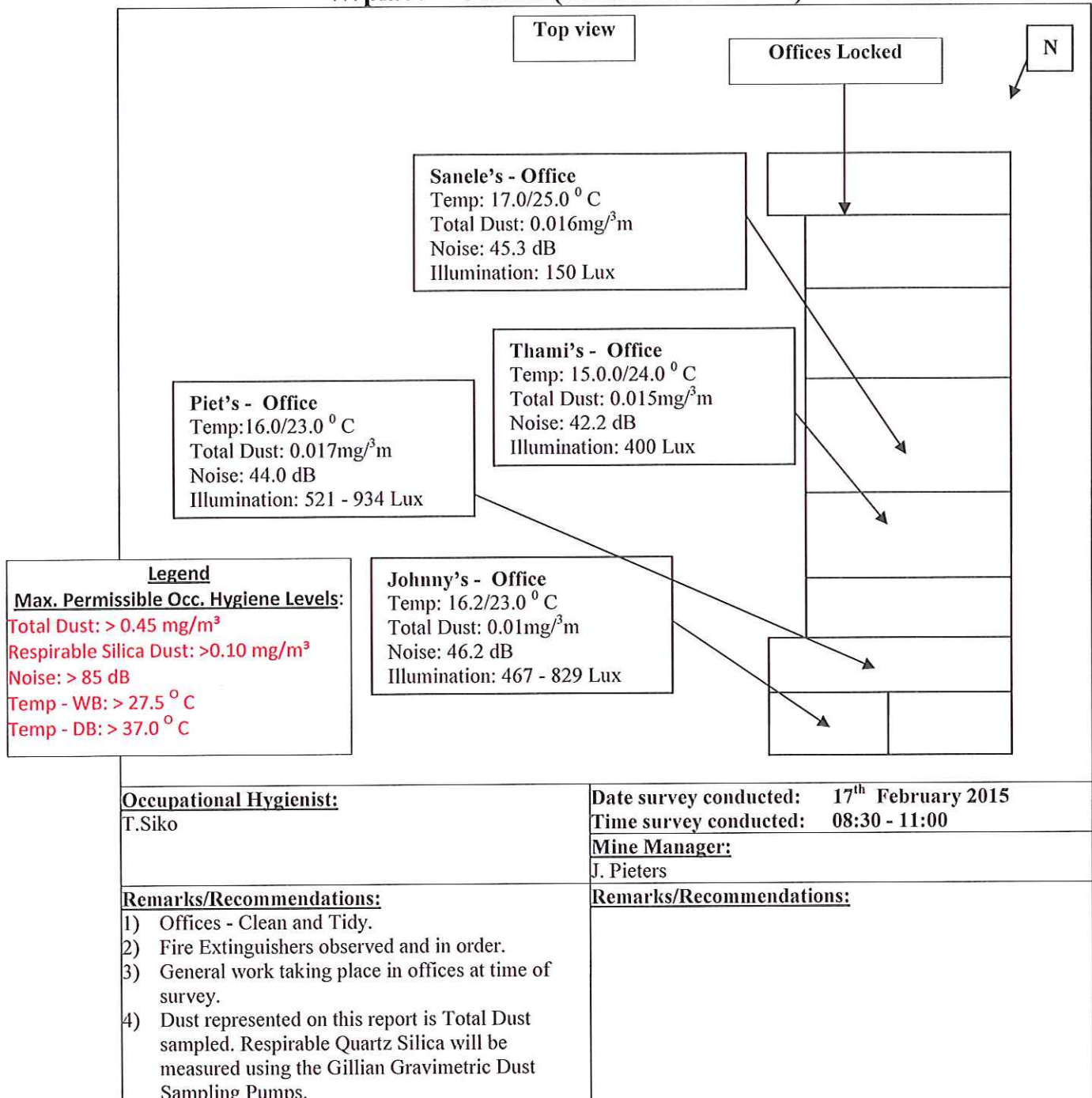
*T.Siko*  
17/02/2015  
Occupational Hygienist  
Mine Manager

*J. Pieters*  
Engineering manager

**Occupational Hygiene survey conducted for  
CAPM 7# on 17-02-2015**

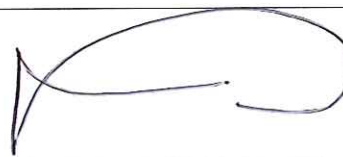
**(OH Audit)**

**W/place – Offices (Sketch not to scale)**



23/02/2015  
Occupational hygienist

Mine Manager



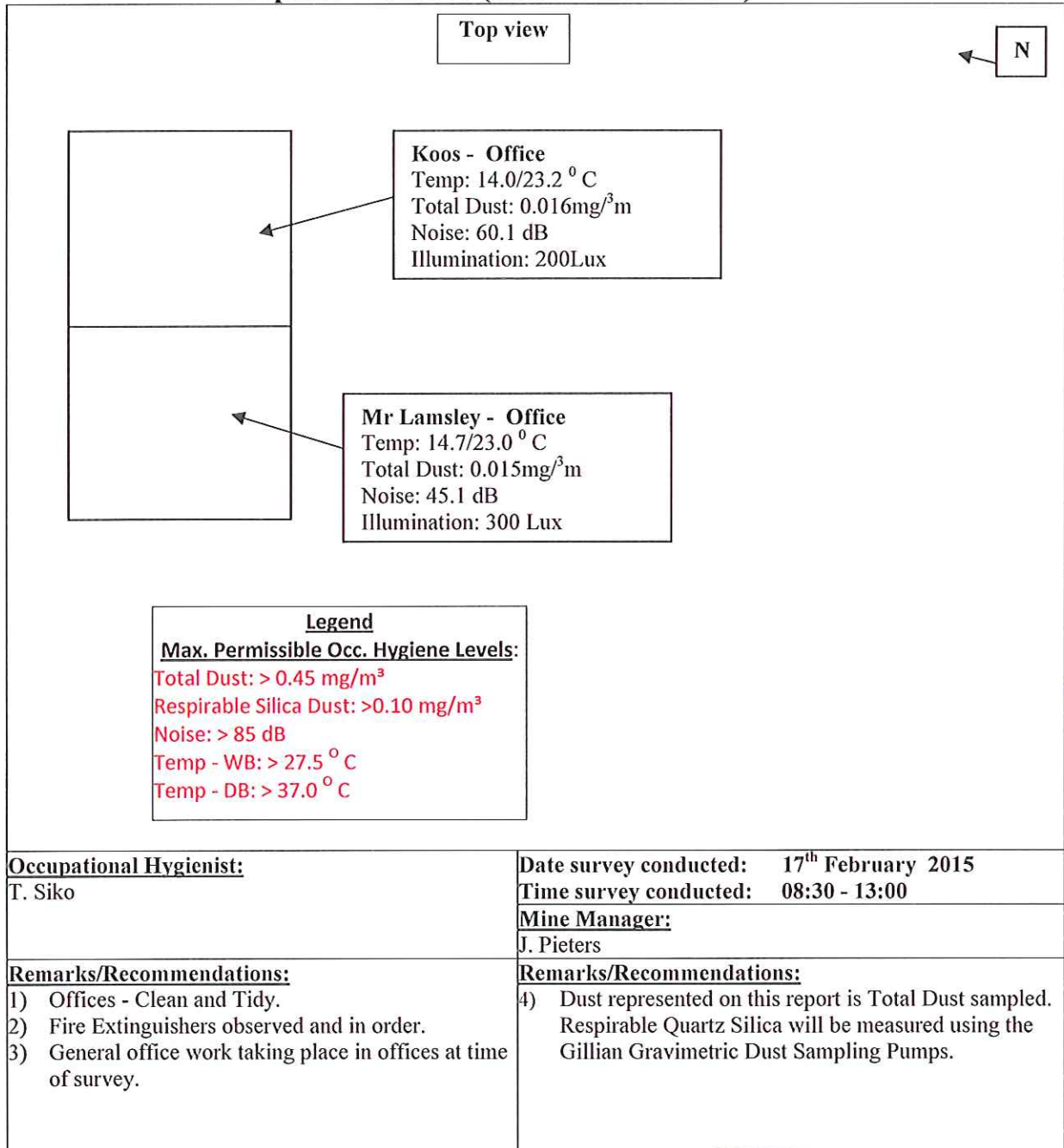
Engineering Manager



Occupational Hygiene survey conducted for CAPM 7# on 17-02-2015

(OH Audit)

W/place – Offices (Sketch not to scale)



23/02/2015  
 Occupational Hygienist

Mine Manager

Engineering Manager



**Occupational Hygiene  
survey conducted CAPM  
7# on 17-02-2015**

**OH Audit)**

**W/place – Office (Sketch not to scale)**

<p>Top view</p>	
<p>Andre's - Office Temp: 16.2/25.8 °C Total Dust: 0.016mg<sup>3</sup>m Noise: 84.4 dB Illumination: 460 Lux</p>	
<p><b>Legend</b> <b>Max. Permissible Occ. Hygiene Levels:</b> Total Dust: &gt; 0.45 mg/m<sup>3</sup> Respirable Silica Dust: &gt;0.10 mg/m<sup>3</sup> Noise: &gt; 85 dB Temp - WB: &gt; 27.5 °C Temp - DB: &gt; 37.0 °C</p>	
<p><b>Occupational Hygienist:</b> T.Siko</p>	<p><b>Date survey conducted:</b> 17<sup>th</sup> Feb 2015 <b>Time survey conducted:</b> 08:00 - 14:00 <b>Mine Manager:</b> J. Pieters</p>
<p><b>Remarks/Recommendations:</b> 1) Offices - Clean and Tidy. 2) Fire Extinguishers observed and in order. 3) General office work taking place in office at time of survey.</p>	<p><b>Remarks/Recommendations:</b> 4) Dust represented on this report is Total Dust sampled. Respirable Quartz Silica will be measured using the Gillian Gravimetric Dust Sampling Pumps.</p>

*[Signature]*  
23/02/2015  
Occupational Hygienist

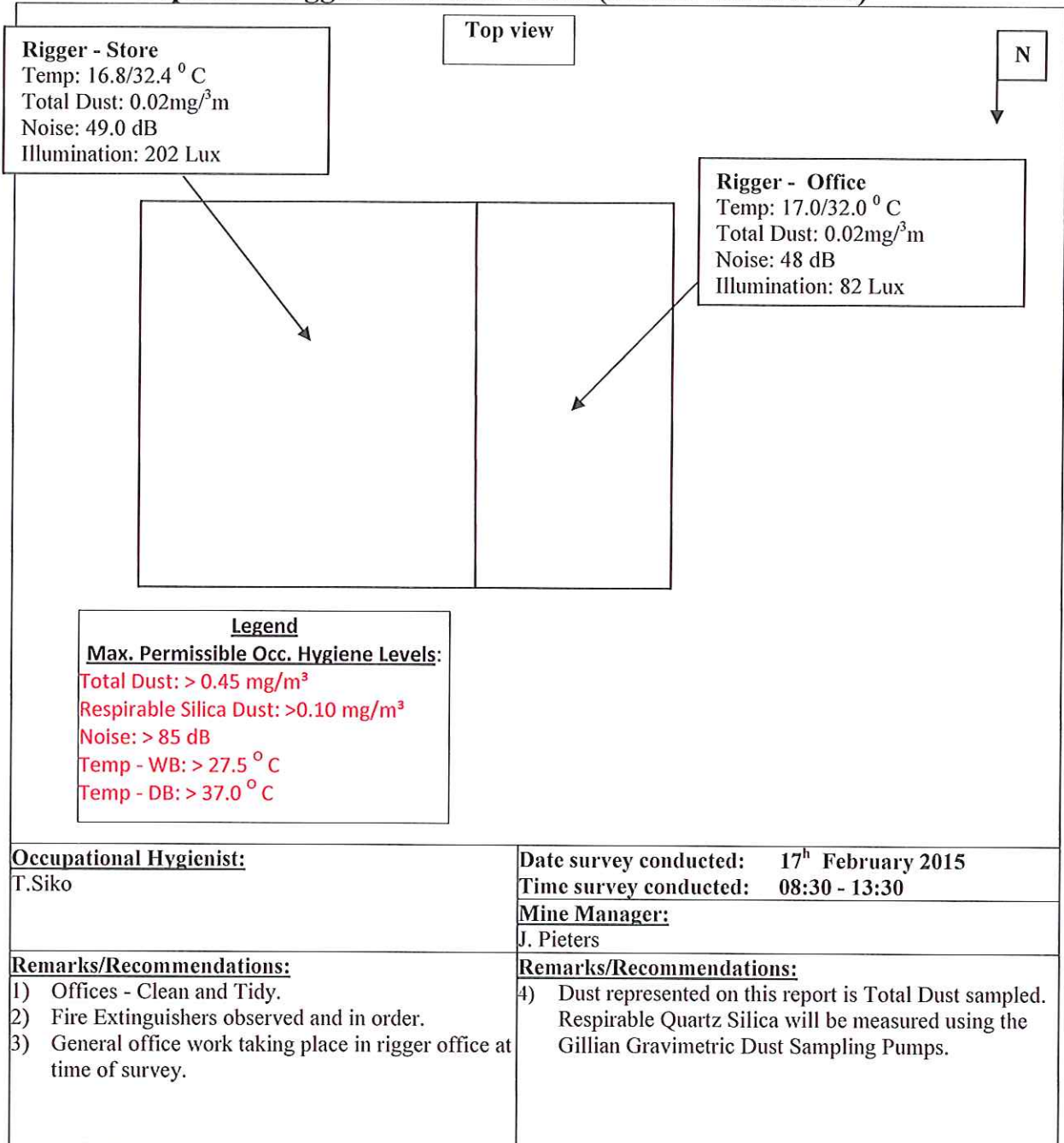
*[Signature]*  
Mine Manager

*[Signature]*  
Engineering Manager



Occupational Hygiene survey conducted for  
CAPM 7# on 17-02-2015  
**(OH Audit)**

**W/place – Rigger store and Office (Sketch not to scale)**



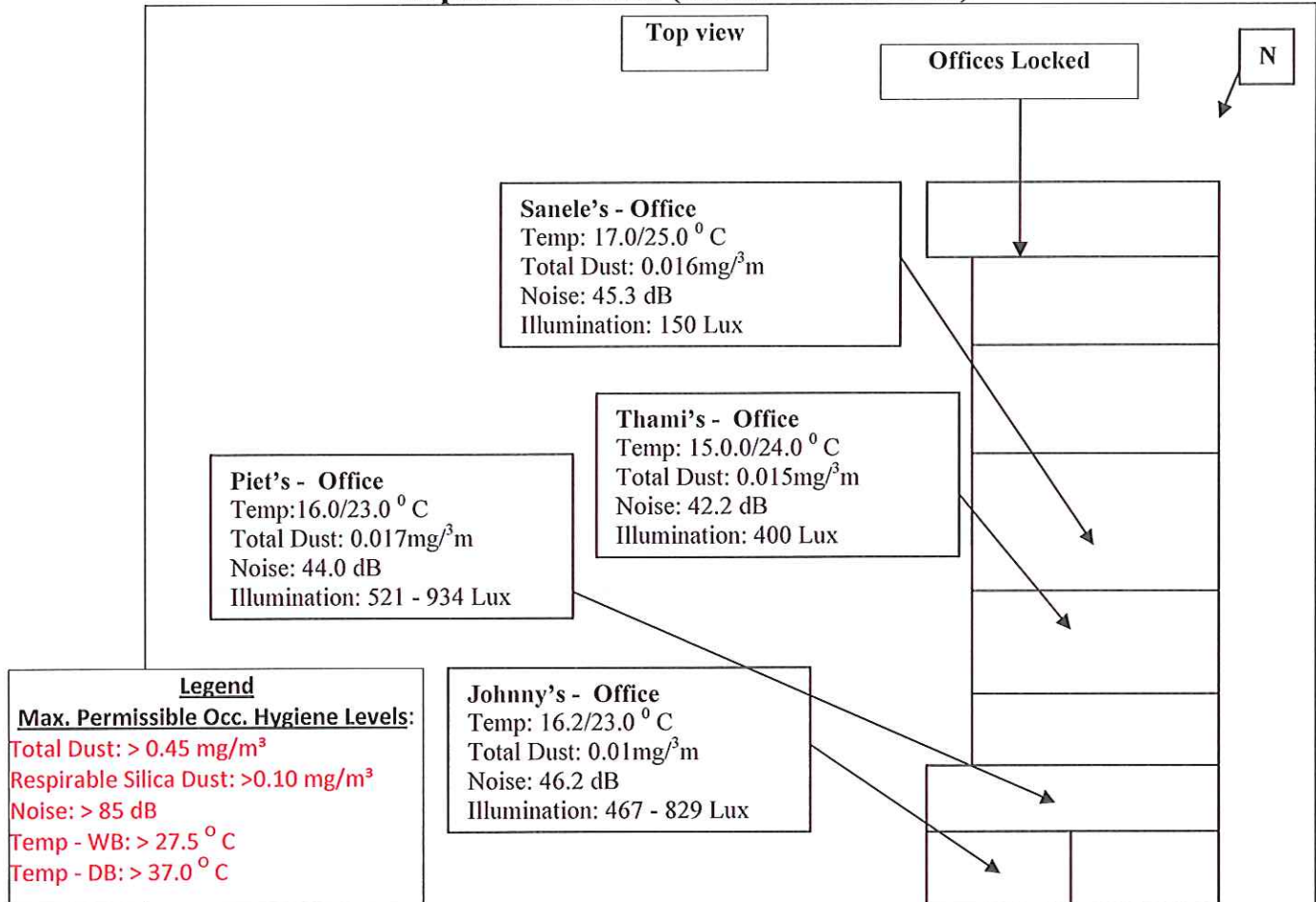
*T.Siko 23/02/2015*  
Occupational Hygienist  
\_\_\_\_\_  
Mine Manger

*J. Pieters*  
\_\_\_\_\_  
Engineering Manager

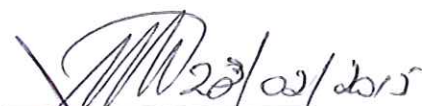
**Occupational Hygiene survey conducted for  
CAPM 7# on 17-02-2015**


**(OH Audit)**

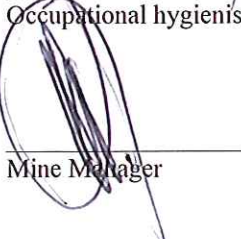
**W/place – Offices (Sketch not to scale)**



<b>Occupational Hygienist:</b> T.Siko	<b>Date survey conducted:</b> 17 <sup>th</sup> February 2015 <b>Time survey conducted:</b> 08:30 - 11:00
	<b>Mine Manager:</b> J. Pieters
<b>Remarks/Recommendations:</b> 1) Offices - Clean and Tidy. 2) Fire Extinguishers observed and in order. 3) General work taking place in offices at time of survey. 4) Dust represented on this report is Total Dust sampled. Respirable Quartz Silica will be measured using the Gillian Gravimetric Dust Sampling Pumps.	<b>Remarks/Recommendations:</b>

  
Occupational hygienist

  
Engineering Manager

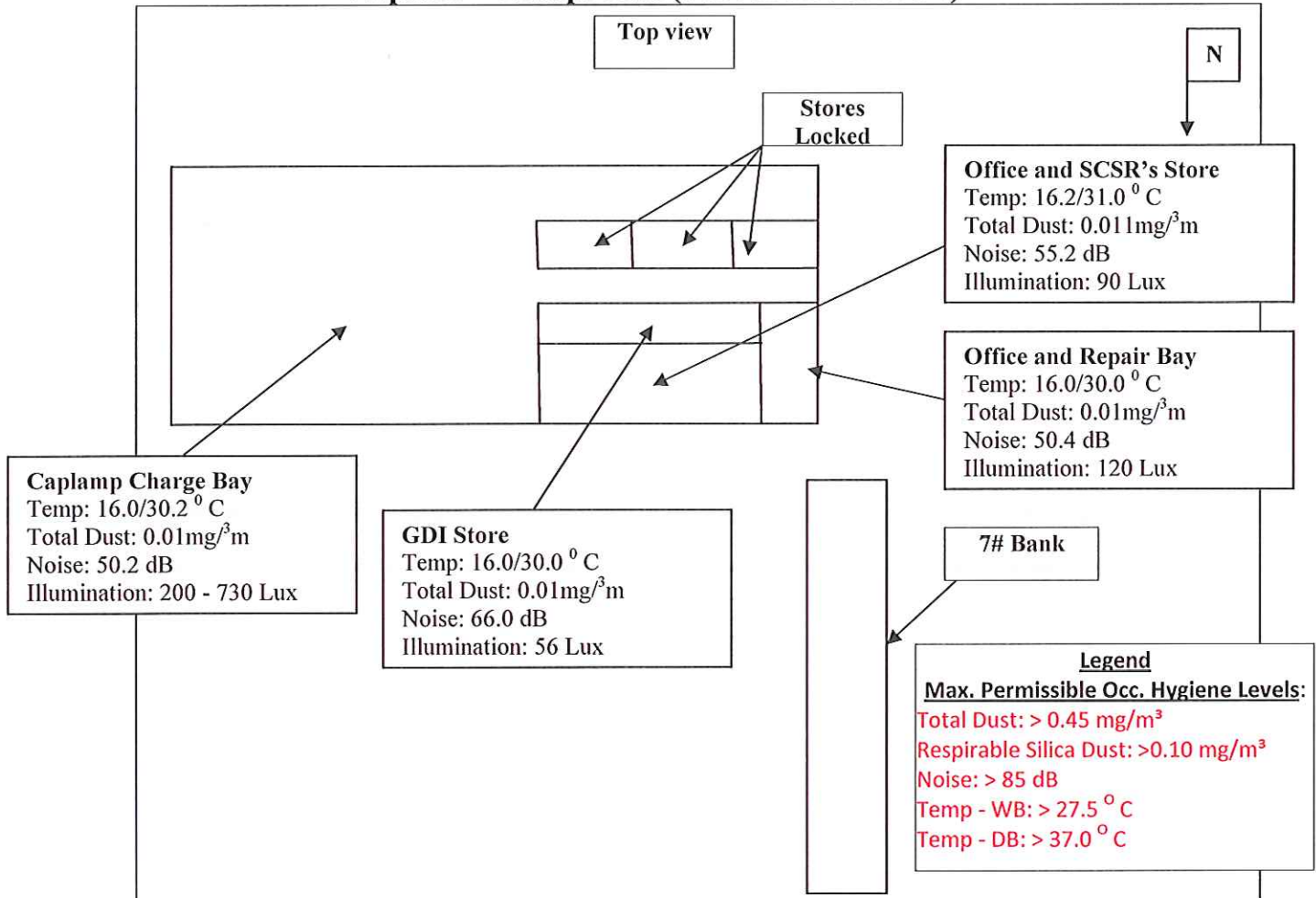
  
Mine Manager





**Occupational Hygiene survey conducted for**  
**CAPM 7# on 17-02-2015**  
**(OH Audit)**

**W/place – Lamproom (Sketch not to scale)**



<b>Occupational Hygienist:</b> T.Siko	<b>Date survey conducted:</b> 18 <sup>th</sup> February 2015 <b>Time survey conducted:</b> 08:00 - 15:00
	<b>Mine Manager:</b> J. Pieters
<b>Remarks/Recommendations:</b> 1) Lamproom- Clean and Tidy. 2) Fire Extinguishers observed and in order. 3) No work taking place at time of survey	<b>Remarks/Recommendations:</b> 4) Dust represented on this report is Total Dust sampled. Respirable Quartz Silica will be measured using the Gillian Gravimetric Dust Sampling Pumps.

*T.Siko 18/02/2015*  
 Occupational Hygienist

*[Signature]*  
 Mine Manager

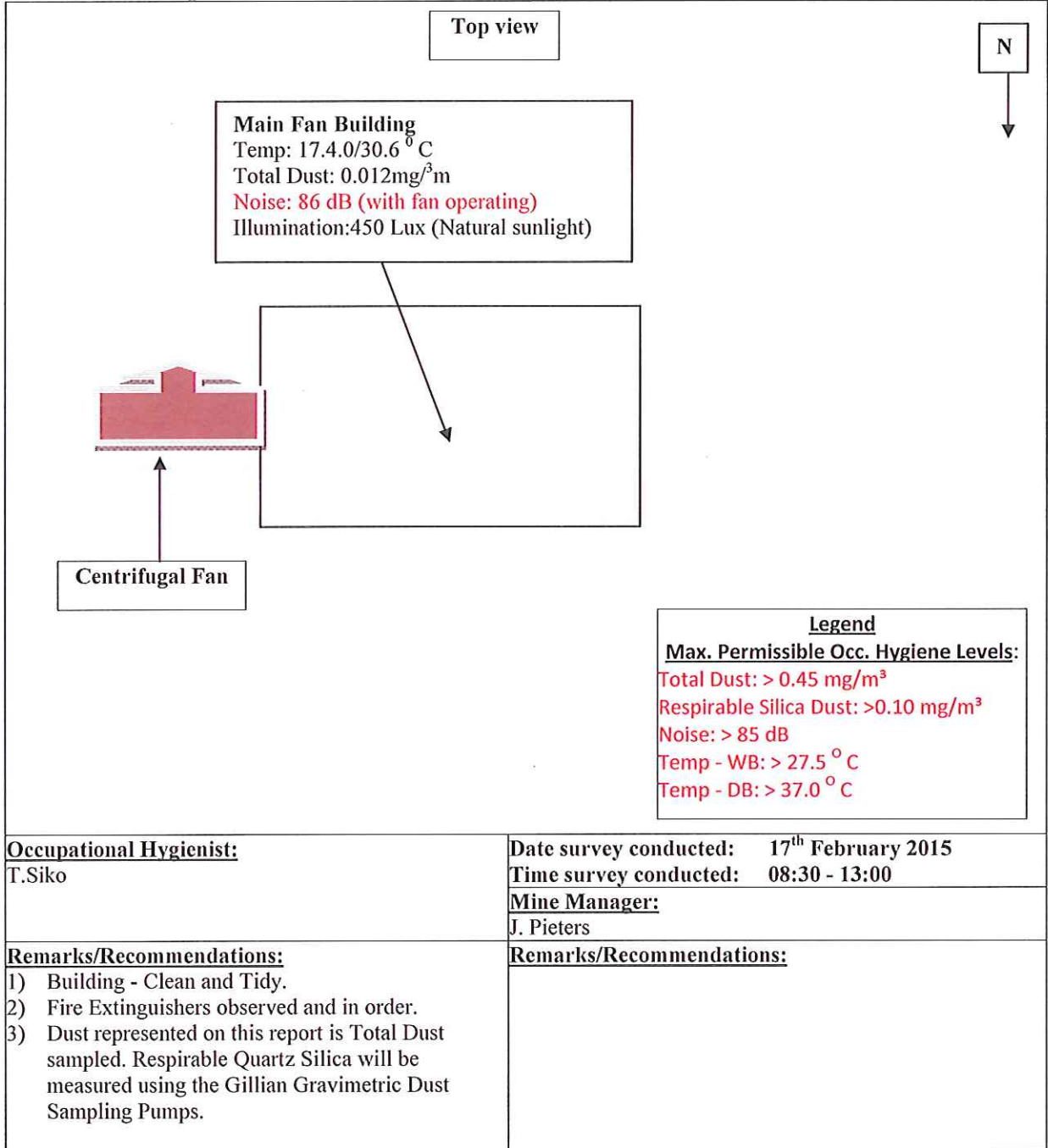
*[Signature]*  
 Engineering Manager



**Occupational Hygiene survey conducted for CAPM 7# on 17-02-2015**

**(OH Audit)**

**W/place – Main Fan Building (Sketch not to scale)**



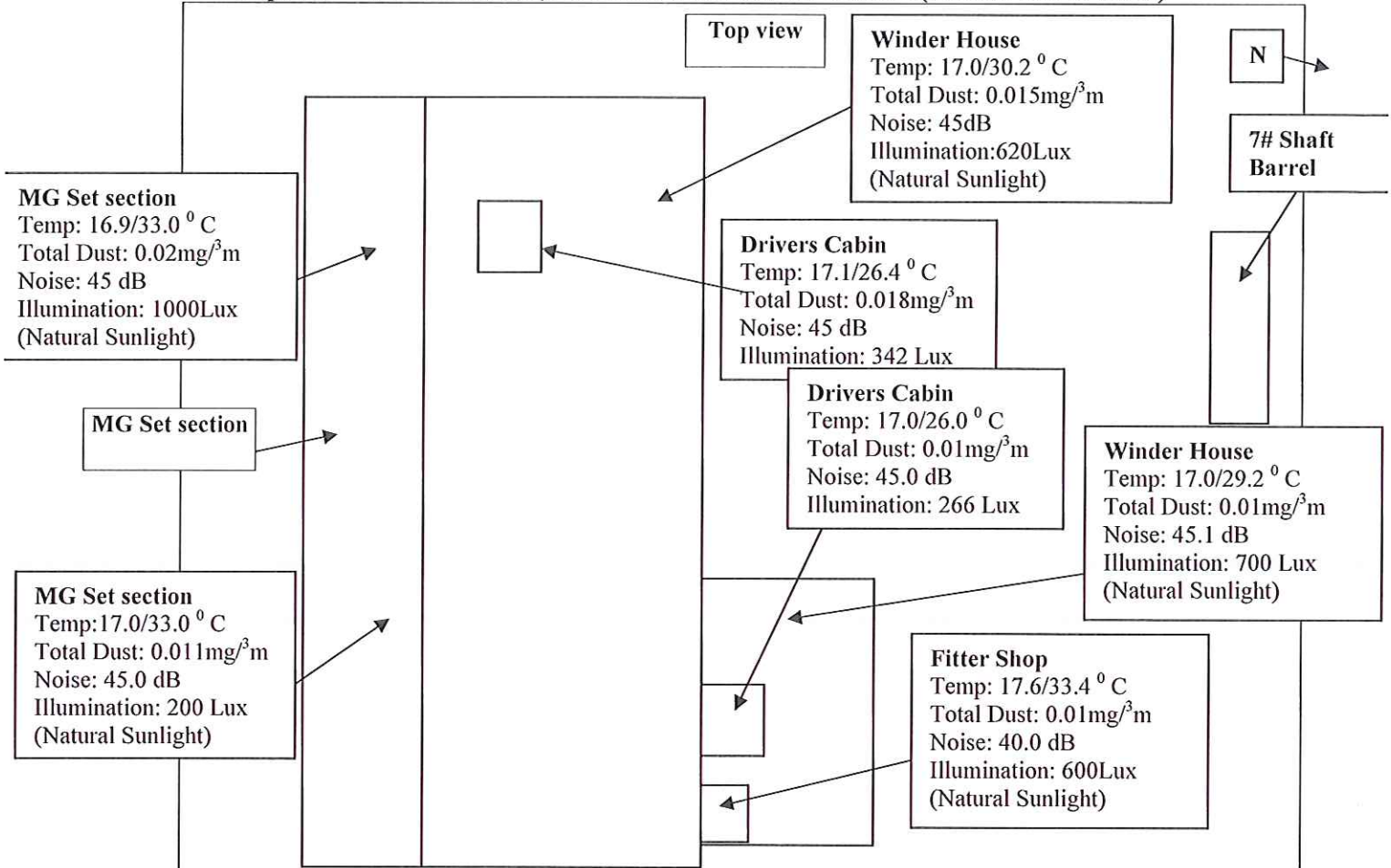
Occupational Hygienist  
  
 Mine Manager

Engineering Manager



**Occupational Hygiene survey conducted for  
CAPM 7# on 17-02-2015  
(OH Audit)**

**W/Place – Winder House, MG Sets and Drivers Cabins (Sketch not to scale)**



<b>Occupational Hygienist:</b> T.Siko	<b>Date survey conducted:</b> 17 <sup>st</sup> February 2015 <b>Time survey conducted:</b> 08:00 - 011:30
	<b>Mine Manager:</b> J. Pieters
<b>Remarks/Recommendations:</b> 1) Winder House and Drivers Cabins - Clean and Tidy. 2) Fire Extinguishers observed. 3) Concrete floor observed. 4) No work taking place in Winder House at time of survey.	<b>Remarks/Recommendations:</b> 5) Dust represented on this report is Total Dust sampled. Respirable Quartz Silica will be measured using the Gillian Gravimetric Dust Sampling Pumps.

*T.Siko*  
23/02/2015  
Occupational Hygienist

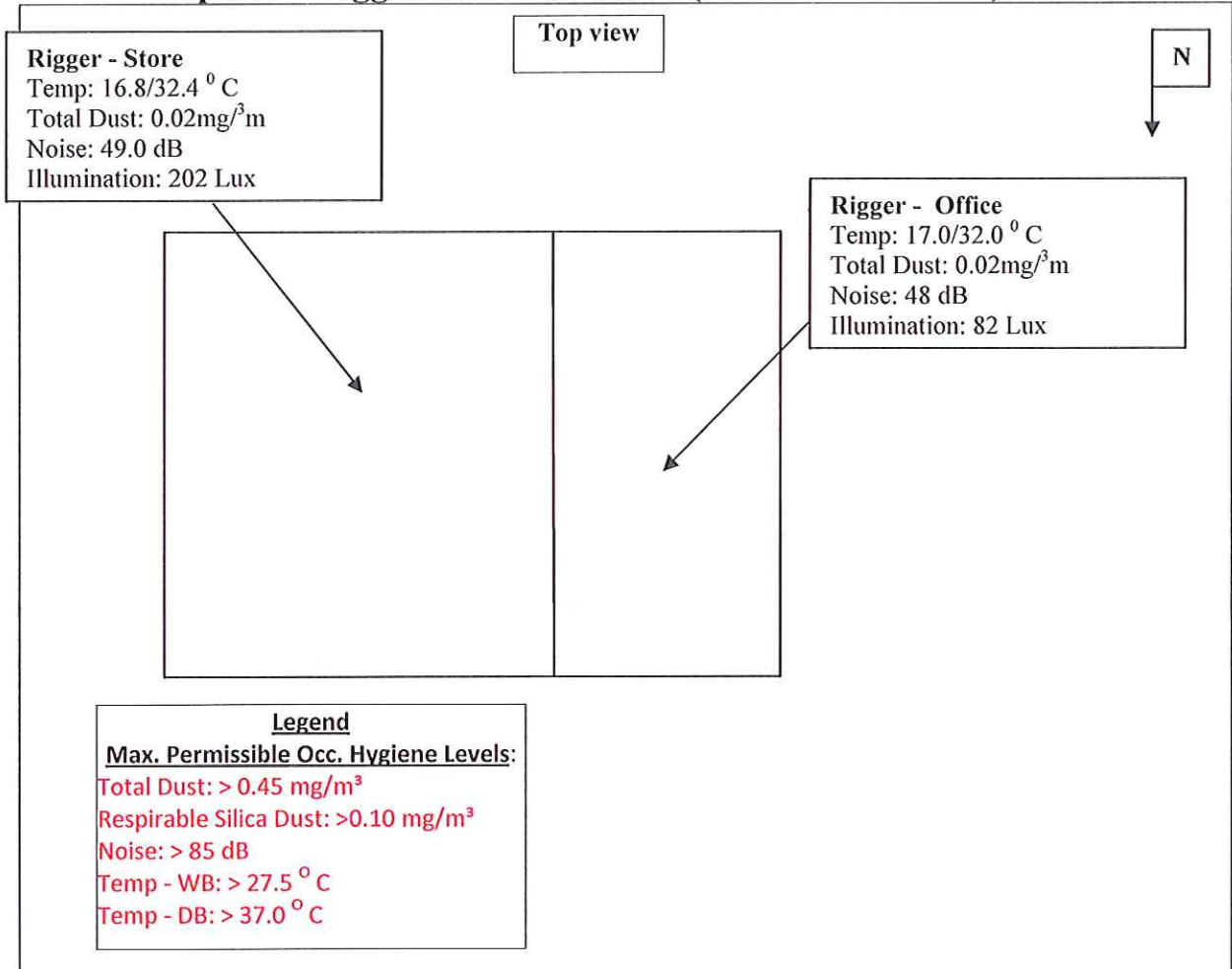
*J. Pieters*  
Mine Manager

*J. Pieters*  
Engineering Manager



**Occupational Hygiene survey conducted for**  
**CAPM 7# on 17-02-2015**  
**(OH Audit)**

**W/Place – Rigger store and Office (Sketch not to scale)**



<b>Occupational Hygienist:</b> T.Siko	<b>Date survey conducted:</b> 17th February 2015 <b>Time survey conducted:</b> 08:30 - 13:30
	<b>Mine Manager:</b> J. Pieters
<b>Remarks/Recommendations:</b> 1) Offices - Clean and Tidy. 2) Fire Extinguishers observed and in order. 3) General office work taking place in rigger office at time of survey.	<b>Remarks/Recommendations:</b> 4) Dust represented on this report is Total Dust sampled. Respirable Quartz Silica will be measured using the Gillian Gravimetric Dust Sampling Pumps.

*T.Siko* 23/02/2015  
 Occupational Hygienist  
 Mine Manager

*J. Pieters*  
 Engineering Manager