

## TEST REPORT

**DATE OF REPORT** : 29 June 2015

**REFERENCE NO** : CLS151854

**CLIENT REFERENCE NO** :

**CLIENT ORDER NO** :

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**CLIENT** : South Durban Community Environmental Alliance

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**ANALYSIS REQUIRED** : Analysis for Volatile Organic Compounds.  
: Analysis for Carbon Dioxide.\*  
: Analysis for Sulphur Dioxide.  
: Analysis for Hydrogen Sulphide.

**METHOD USED** : NIOSH 2549.  
: EPA Method 3A.  
: NIOSH 6004.  
: NIOSH 6013.

## TEST RESULTS

*Table 1– Volatile Organic Compounds.*

<b>TEST ITEM DESCRIPTION</b>	<b>TEST ITEM CONDITION</b>	<b>DATE RECEIVED</b>	<b>DATE OF ANALYSIS</b>
<i>Tedlar Bags</i>	<i>Received at ambient temperature.</i>	<i>15/06/2015</i>	<i>26/06/2015</i>

*The following compounds were specifically tested for:*

<i>Pentane</i>	<i>3-Methylhexane</i>	<i>n-Butyl acetate</i>
<i>Ethanol</i>	<i>Benzene</i>	<i>Ethyl benzene</i>
<i>Acetone</i>	<i>Isooctane</i>	<i>Xylene</i>
<i>2-Methylpentane</i>	<i>n-Heptane</i>	<i>2-Butoxyethanol</i>
<i>3-Methylpentane</i>	<i>Trichloroethylene</i>	<i>Cyclohexanone</i>
<i>n-Hexane</i>	<i>Methylmethacrylate</i>	<i>Propyl benzene</i>
<i>Methyl Ethyl Ketone</i>	<i>Propyl acetate</i>	<i>d-Limonene</i>
<i>Ethyl acetate</i>	<i>Methyl Isobutyl Ketone</i>	<i>1,2,3-Trimethylbenzene</i>
<i>Chloroform</i>	<i>Toluene</i>	<i>1,2,4-Trimethylbenzene</i>
<i>2-Methylhexane</i>	<i>Perchloroethylene</i>	<i>1,3,5-Trimethylbenzene</i>

## RESULTS: ( $\mu\text{g}/\text{m}^3$ )

<b>Compound</b>	<b>Teakwood Rd</b>	<b>IOP</b>	<b>Badula Drive</b>
<i>n-Pentane</i>	<i>87.67</i>	<i>33.90</i>	<i>37.18</i>
<i>Isohexane</i>	<i>164.39</i>	<i>19.23</i>	<i>34.59</i>
<i>n-Hexane</i>	<i>46.52</i>	<i>86.19</i>	<i>30.13</i>
<i>Ethyl acetate</i>	<i>11.64</i>	<i>16.03</i>	<i>5.64</i>
<i>2-Methylhexane</i>	<i>14.09</i>	<i>23.90</i>	<i>11.80</i>
<i>3-Methylhexane</i>	<i>19.44</i>	<i>33.39</i>	<i>15.36</i>
<i>Benzene</i>	<i>17.25</i>	<i>9.95</i>	<i>61.52</i>
<i>Isooctane</i>	<i>22.85</i>	<i>5.15</i>	<i>2.52</i>
<i>n-Heptane</i>	<i>16.07</i>	<i>116.89</i>	<i>36.51</i>
<i>Toluene</i>	<i>50.70</i>	<i>66.45</i>	<i>74.29</i>
<i>n-Octane</i>	<i>21.71</i>	<i>88.54</i>	<i>33.21</i>
<i>Perchloroethylene</i>	<i>4.37</i>	<i>33.27</i>	<i>4.86</i>
<i>Ethyl benzene</i>	<i>18.64</i>	<i>26.74</i>	<i>25.08</i>
<i>Xylene</i>	<i>72.83</i>	<i>85.30</i>	<i>99.93</i>
<i>n-Nonane</i>	<i>7.45</i>	<i>9.86</i>	<i>24.50</i>
<i>Propyl benzene</i>	<i>1.74</i>	<i>4.14</i>	<i>3.04</i>
<i>1,2,3-Trimethylbenzene</i>	<i>0.94</i>	<i>1.09</i>	<i>3.37</i>
<i>Decane</i>	<i>11.91</i>	<i>11.49</i>	<i>19.32</i>
<i>1,2,4-Trimethylbenzene</i>	<i>6.95</i>	<i>5.93</i>	<i>10.58</i>
<i>d-Limonene</i>	<i>7.37</i>	<i>7.67</i>	<i>5.46</i>

<b>Specific Test Conditions</b>	<i>Samples stored at 5<sup>o</sup>C prior to analysis. Analysis performed using Thermal Desorption Gas Chromatography/Mass Spectrometry.</i>
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<b>Detection Limit</b>	<b>1 ng per compound.</b>
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**Table 2– Analysis for Gasses.**

<b>TEST ITEM DESCRIPTION</b>	<b>TEST ITEM CONDITION</b>	<b>DATE RECEIVED</b>	<b>DATE OF ANALYSIS</b>
<b>Tedlar Bags</b>	<b>Received at ambient temperature.</b>	<b>15/06/2015</b>	<b>26/06/2015</b>

**RESULTS:**

<b>Gas</b>	<b>Unit</b>	<b>Teakwood Rd</b>	<b>IOP</b>	<b>Badula</b>
<i>Carbon Dioxide</i>	<i>ppm_vol</i>	<i>487.16</i>	<i>394.94</i>	<i>403.07</i>
<i>Sulphur Dioxide</i>	<i>mg/m<sup>3</sup></i>	<i>2.25</i>	<i>&lt; 0.35</i>	<i>&lt; 0.35</i>
<i>Hydrogen Sulphide</i>	<i>mg/m<sup>3</sup></i>	<i>0.64</i>	<i>0.99</i>	<i>0.71</i>

<b>Gas</b>	<b>Unit</b>	<b>Detection Limit</b>
<i>Carbon Dioxide</i>	<i>ppm_vol</i>	<i>10</i>
<i>Sulphur Dioxide</i>	<i>mg/m<sup>3</sup></i>	<i>0.35</i>
<i>Hydrogen Sulphide</i>	<i>mg/m<sup>3</sup></i>	<i>0.19</i>

<b>Specific Test Conditions</b>	<b>Samples stored at 5<sup>0</sup>C prior to analysis.</b>
<b>Deviations</b>	<b>None.</b>

**WORK APPROVED BY:**



**Eugene Cowley**  
(*Technical Manager*)  
(*Technical Signatory*)

30/06/2015  
**Date**

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*Results express in ppm, ppb, mg/m<sup>3</sup> or µg/m<sup>3</sup> were calculated using data supplied by the client.*

\* *This test method is not included in the Scope of Accreditation for Chemtech Laboratory Services.*