

# Dust & Acetone Survey

M<sup>c</sup>Lean & Daughters

## Contents

1. RESULTS
2. RECOMMENDATIONS
3. SAMPLE LOCATIONS
4. AIR SAMPLES
  - (a) Acetone
  - (b) Dust Particles
5. LOG GRAPHS

## 1. Results

Air Quality Services Pty Ltd have carried out Dust and Acetone monitoring at the Terri's Nails and Beauty at the request of M/s Trish Pittman from M<sup>c</sup>Lean & Daughters.

The survey entailed the following services being performed at 10 number steps through out the nail care process on the 16<sup>th</sup> August 2002 and the 11<sup>th</sup> September 2002.

The results of the tests are as follows :

<b>Test</b>		<b>Results</b>
Acetone Fumes	✓	Satisfactory
Dust Particles		Refer Section 4(b)
Log Graphs		Refer section 5

The test results achieved are indicative of the environment at the time the tests were taken.

These tests may not account for all operational conditions or seasonal variations.

**AIR QUALITY SERVICES PTY LTD**  
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**D.W. PATTON**  
Managing Director

## 2. Recommendations

We recommend the following action be taken in response to the results achieved:

- **Acetone Fumes** Within the recommended level
  
- **Dust Particles** There is no relevant Standard for this type of work.  
Refer to section 4(b)
  
- **Log Graphs** Refer Section 5

We recommend that you have another full survey carried out within 12 months to ensure that the air quality is being maintained.

If there are any apparent changes experienced spot checks should be carried out to ascertain if there is a potential problem.

If there are any major changes to the air conditioning plant or the building proper we would recommend a full survey be carried out within the 12 month period. Also if there are any major demolition or construction works being undertaken within the immediate area or up wind of the fresh air intakes further tests should be taken.

### 3. Sample Locations

The following sample sites were selected after a visual inspection and discussion with M/s T. Pitman

Process	Acetone Sample
<b>Machine On</b>	
Cleaning of Right Hand	A
Clipping of Right Hand	A
Filing of Right Hand	B
Acrylicing of Right Hand	B
Buffing of Right Hand	B
<b>Machine Off</b>	
Cleaning of Left Hand	C
Clipping of Left Hand	C
Filing of Left Hand	D
Acrylicing of Left Hand	D
Buffing of Left Hand	D

#### 4. Air Samples

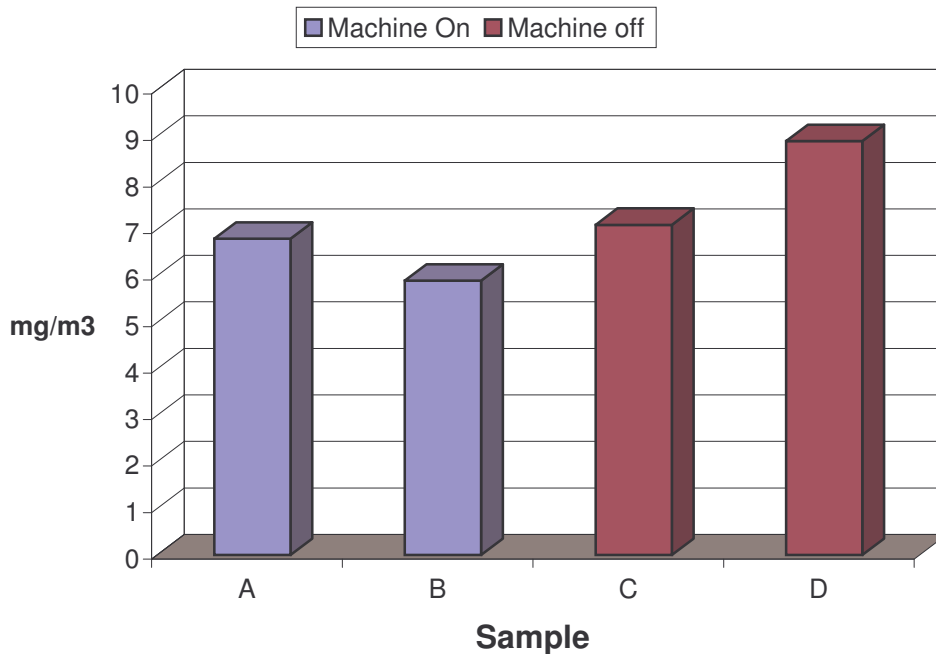
##### (a) ACETONE FUMES

The levels of Acetone were measured by the drawing air through a DNPH Cartridge at a rate of 1.008L per minute for 10 minutes for Samples B and D and for 15 minutes for Samples A and C.

Test Site	Acetone mg/m <sup>3</sup>
A.	6.8
B.	5.9
C.	7.1
D.	8.9

NGT = Not Greater Than  
 TWA = Time Weighted Average  
 STEL = Short Term Exposure Level

Recommended Level = TWA NGT 1,185 mg/m<sup>3</sup>  
 = STEL NGT 2,375 mg/m<sup>3</sup>



- Legend**
- Machine On**
    - A. Clipping & Cleaning of Right Hand
    - B. Filing, Application of Acrylic and Buffing of Right Hand
  - Machine Off**
    - C. Cleaning & Clipping of Left Hand
    - D. Filing, Application of Acrylic and Buffing of Left Hand

**(b) DUST PARTICLES**

Dust particle samples were taken drawing 1.7 litres of air per minute through a DustTrak Aerosol Monitor and logged each second.

Test Statistics	mg/m <sup>3</sup>	Time
<b>Machine On</b>		
Maximum	0.368	2:59:06pm
Minimum	0.012	3:02:49 pm
Average	0.022	-
<b>Machine Off</b>		
Maximum	20.593	3:20:53 pm
Minimum	0.008	3:32:31pm
Average	0.116	-

< = *Less Than*  
 > = *Greater Than*  
 mg/m<sup>3</sup> = *Milligrams per Cubic Metre*  
 NGT = *Not Greater Than*

*There is no relevant Standard for this type of work*

## 5. Log Graphs

Dust Logs were taken in Terri's Nail & Beauty at one second intervals utilising a TSI DustTrak Logger as per the following graphs:

Area H            Nail care Bench            2:32:26 pm Wed 11/09/02 to 3:45:05 pm Wed 11/09/02

- (a)    Through out Testing period
- (b)    Machine on
- (c)    Machine off

*There is no relevant standard for this type of work.*

