APPENDICES

Appendix 1: Limit of Detection (LOD) And Limit of Quantification (LOQ) Calculation

For a linear calibration curve, it is assumed that the instrument response, y, is linearly related to the standard concentration, x, for a limited range of concentrations. It can be expressed in a model such as:

$$y=a+bx$$

This model is used to compute the sensitivity, b, and the LOD and LOQ. Therefore, the LOD and LOQ can be expressed as

$$\textit{Limit of Detection (LOD)} = \cong \frac{3s_a}{b}$$

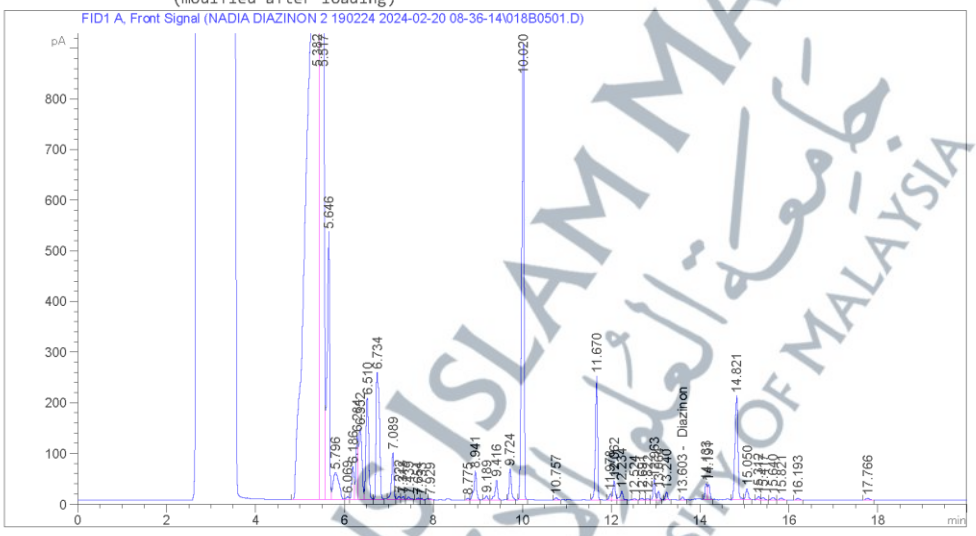
$$\textit{Limit of Quantification (LOQ)} = \cong \frac{10s_a}{b}$$

where S_a is the standard deviation (SD) of the response and b is the slope of the calibration curve (Shrivastava & Gupta, 2011).

Appendix 2: Chromatogram Report for Sample Detected with Diazinon Residue

Data File C:\CHEM32\1\DATA\NADIA DIAZINON 2 190224 2024-02-20 08-36-14\018B0501.D
Sample Name: USL1(G)

```
==================================================================
Acq. Operator   : ASHRAF                      Seq. Line :   5
Acq. Instrument : Instrument 1                 Location : Vial 18
Injection Date  : 20/02/2024 11:10:33               Inj :   1
                                             Inj Volume : 1 µl
Acq. Method     : C:\CHEM32\1\DATA\NADIA DIAZINON 2 190224 2024-02-20 08-36-14\DIAZINON
                  PESTICIDE(CAL).M
Last changed    : 19/02/2024 10:01:59 by ASHRAF
Analysis Method : C:\CHEM32\1\METHODS\DIAZINON PESTICIDE(CAL).M
Last changed    : 21/02/2024 10:46:32 by ASHRAF
                  (modified after loading)
```




```
==================================================================
                    External Standard Report
==================================================================

Sorted By             :      Signal
Calib. Data Modified  :      20 February 2024 11:51:13
Multiplier:           :      1.0000
Dilution:             :      1.0000
Use Multiplier & Dilution Factor with ISTDs

Signal 1: FID1 A, Front Signal

RetTime  Type     Area      Amt/Area    Amount    Grp   Name
 [min]          [pA*s]                 [ng/ul]
-------|------|----------|----------|----------|--|-----------------
 13.603 BB       20.64569    5.93974  122.63008    Diazinon

Totals :                                122.63008

==================================================================
```

Appendix 3: Physical Appearance of Samples from Various Hypermarket

Hypermarket	F	C1	C7	C15	U1	U7	U15
1							
2							
3							

(F): fresh (non-treated); (C1): immersed in distilled water for 1 minute, (C7): immersed in distilled water for 7 minutes, (C15): immersed in distilled water for 15 minutes; (U1): ultrasonicated in distilled water for 1 minute, (U7): ultrasonicated in distilled water for 7 minutes, (U15): ultrasonicated in distilled water for 15 minutes