St Neots Mobile Home Park

REMEDIATION STATEMENT

Environmental Protection Act 1990

Section 78H(7)

REMEDIATION STATEMENT

Environmental Protection Act 1990

Section 78H(7)

1. On 4 January 2005 Huntingdonshire District Council identified the land set out in Schedule One below ("the Land") as contaminated land under Section 78B(1) of the Environmental Protection Act 1990 ("the 1990 Act").

2. Huntingdonshire District Council ("the Enforcing Authority") is precluded from serving a Remediation Notice in respect of the Land in accordance with Section 78H(5)(c) of the 1990 Act since the Enforcing Authority is satisfied that the person on whom notice would be served is the Enforcing Authority.

3. This Remediation Statement is therefore prepared under Section 78H(7) of the 1990 Act by Huntingdonshire District Council as the "responsible person" under Section 78H(8) of the 1990 Act in respect of the Land.

4. The actions which are expected to be carried out by way of assessment action and remediation action, and the periods within which they are expected to be done are set out in Schedule Two.

5. The name and address of the person who is expected to carry out the appropriate actions is:

   Huntingdonshire District Council
   Pathfinder House
   St Mary's Street
   Huntingdon
   PE29 3TN

SCHEDULE ONE – The Land

The land is St Neots Mobile Home Park, Eynesbury, St Neots, Cambridgeshire PE19 2JR. Grid Reference 518918,259179

At Annex 1 to this Remediation Statement is shown a location plan and site layout of the land. This determination relates to the area hatched blue on the site layout.

SCHEDULE TWO

Assessment Action and the period within which action is to be carried out is shown as Annex Two

Remediation Action and the period within which action is to be carried out is shown as Annex Three

Dated: 26 May 2006

Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
PE29 3TN

St Neots Mobile Home Park

<u>Annex Two</u>

Assessment Action

The Assessment Action was completed on 12th May 2006

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury
Cambridgeshire

Prepared for:

Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
PE29 3TN

Report Status: Final

Date Issued: 26th April 2006

Author: **Reviewed / Authorised:**

Tom Lamb   Will Evans

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1   INTRODUCTION

On 4th January 2006, Environmental Protection Strategies Ltd (EPS) was commissioned by Mr. Steve Plant of Huntingdonshire District Council (HDC) to undertake supplementary soil sampling at St Neots Mobile Home Park, Eynesbury as part of a detailed inspection under Part IIa of the Environmental Protection Act 1990.

Previous detailed inspection defined the physical extent of the land to be investigated as *'limited to the land within the boundary of the St Neots Mobile Home Park property'*. A description of this work and its findings is provided in the following report, which should be referred to for details of the environmental setting and site description.

- *Environmental Assessment Report, St. Neots Mobile Home Park – 30th September 2005*

For the purposes of the additional sampling work described within the following report, the physical extent of the land to be investigated has been defined as the physical land within the boundaries of each of the 50 individual plots which make up St Neot's Mobile Home Park and also the open amenity space (within has been taken to include areas of grass verge)

1.1   Objectives

The objectives of this work are as follows:

- To carry out sufficient additional soil sampling and analysis to enable the Regulator to determine whether the 50 plots and common land are 'Contaminated Land' within the framework of the Part IIa of the Environmental Protection Act 1990.

For the purposes of this work, all soil samples were only analysed for the principle contaminant of concern and risk driver, identified through previous investigation and subsequent work to be the polycyclic aromatic hydrocarbon compound, benzo(a)pyrene.

1.2   Scope of Work

The following tasks were completed as part of this work

Site Work:
- Drilling of 220 boreholes by hand auger within domestic and communal garden areas to a maximum depth of 0.6 mbgl.
- Laboratory analysis of selected soil samples.

Reporting:
- Data collection and interpretation
- Reporting

2   SUMMARY OF INVESTIGATIONS

The additional sampling work was undertaken between 3rd March 2006 and 15th March 2006 and is described in the following sections.

2.1   Sampling Locations

Four additional soil sampling locations were agreed for each individual plot with Mr Adrian Beeching, Senior Environmental Protection Officer of HDC, during a site walkover on 23rd February 2006. Locations were selected at each plot with the following considerations:

- To supplement data obtained through previous investigation
- To assess shallow soil quality in areas where exposure routes were considered to be currently most active / prominent – e.g. vegetable growing areas, flower beds, grassed areas etc
- To provide good coverage of the plot area
- To take due consideration of below ground services and amenities

The location of all sampling locations (including those obtained through previous investigation) are shown on individual plot plans provided as Appendix A

2.2   Sampling Methodology

All shallow soil samples were obtained in an identical manner in accordance with the sampling protocol agreed prior to commencement of site work with Mr Adrian Beeching, Senior Environmental Protection Officer of HDC, as follows:

- Make a sketch of the plot identifying basic plot configuration, including location of mobile home, ground cover type (i.e. concrete hard standing, paving, grass etc) and identify all previously agreed sampling locations.
- Ensure a safe drilling location at each location through inspection of service plans, identification of the entry points of mobile home services, testing for buried cables using a Cable Avoidance Tool (CAT).
- Drill to a depth of 600mm using a hand auger in increments of up to 200mm, placing all arising within a plastic sample bag and mixing well.
- Wearing fresh sampling gloves, 'blind sampling' of soil directly from the plastic bag directly to laboratory supplied and labelled containers.
- Brush and wipe down hand auger prior to drilling at next location.

2.3   Laboratory Analysis

All soil samples were submitted to Chemex Environmental International Ltd (Chemex) of Cottenham, Cambridge for analysis of benzo(a)pyrene. Chemex hold full UKAS accreditation for the required testing. Samples were transported in laboratory supplied containers in iced cool boxes and delivered to the laboratory by the supervising EPS engineer.

Copies of chain of custody documentation are held by EPS and will be made available on request. Original signed laboratory reports can be made available on request.

3   RESULTS OF ADDITIONAL SAMPLING

3.1   Benzo(a)pyrene Results

The results of benzo(a)pyrene analysis on all supplementary soil samples are presented as Table 1.

In accordance with the CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research* 95th percentile Mean Value Tests are undertaken using the data for all 50 individual plots and the open amenity area. The results of these tests are also presented on Table 1.

Maximum value tests were also completed for each plot, which indicated that the data for 4 plots may contain statistical outliers, which are included in the table below along with the resultant 95th percentile mean value results with and without the statistical outliers included.

Plot No.	Mean Value Test Result (all samples)	Mean Value Test Result (potential outlier excluded)
Plot 11	20.89 mg/kg	4.72 mg/kg
Plot 14	41.04 mg/kg	7.20 mg/kg
Plot 23	16.64 mg/kg	4.82 mg/kg
Plot41	8.19 mg/kg	3.70 mg/kg

However, given the findings of the previous assessment, which concluded that the identified concentrations of benzo(a)pyrene identified at the site to be associated with mixing of ash and clinker and other made ground and top soil which occurred in some areas of the site during historical levelling, the degree of variance within the sample population of benzo(a)pyrene concentrations at some plots is not entirely unexpected. The data set is therefore considered to be generally representative of shallow soil conditions at the site and the exclusion of those samples failing the maximum value test it is not considered justified in this instance. These data have therefore been included in the data set.

Individual plot sketches showing current land use / cover material and sample locations (including those obtained form the top 600mm of ground during the previous investigation), along with a tabularised summary of the sampling results and the 95th percentile mean value test result are provided as Appendix A.

3.2   Comparison with Regulatory Derived Site Specific Remedial Target

Subsequent to the site investigation detailed in the EPS report referenced in Section 1.1, Land Quality Management Ltd (LQM) were commissioned by HDC to develop a conceptual human health exposure model to determine an Index Dose-based site-specific assessment criterion (SSAC) for benzo(a)pyrene.

This work was presented in the following LQM report:

- *Derivation of a Site-specific Assessment Criterion for Benzo(a)pyrene for use at the St Neots Mobile Home Park, Eynesbury. Land Quality Management Ltd, Dec 2005*

The report derived a residential SSAC ($SSAC_{resi}$) for benzo(a)pyrene in surface soils of 1.2 mg/kg, taking into account all active pathways on domestic plots.

HDC subsequently calculated a SSAC for the central open area, using the same information and assumptions employed by LQM to calculate the residential SSAC and making adjustments for the absence of the following pathways:

- Ingestion of home-grown vegetables and soil attached to vegetables
- Ingestion of soil (indoor)
- Inhalation of soil derived fugitive dust (indoor)
- Inhalation of soil derived vapours (indoor)

These adjustments give an open area SSAC ($SSAC_{open}$) of 1.7 mg/kg.

SSACs are calculated by site-specific quantitative risk assessment. It is important to recognise that, owing to the uncertainties inherent in characterising the environment, site-specific quantitative risk assessment is necessarily conservative. EPS recommends that the reader review LQM (2006) for a full discussion of the uncertainties.

Amongst the many uncertainties inherent in the derivation of SSACs for the site (see LQM 2006), perhaps the greatest involves the decision regarding how far above the Index Dose based SSAC the relevant soil concentration would have to be to meet the 'unacceptable intake' test in the statutory guidance pertaining to Part IIA. The following passage from LQM (2006) addresses this as follows:

> *The key question … is a matter of currently unavailable national policy and guidance. At the present time published DEFRA/Environment Agency technical guidance on risk assessment does not address this issue. The DEFRA SGV Task Force is considering several proposals for defining 'potentially unacceptable intakes' – doses higher than the Index Dose – that would meet the legal test for Part IIA. In the case of oral exposure to BaP it seems that some of the options essentially involve straight multipliers of the Index Dose by factors of approximately 10. Given the uncertainty in the eventual findings of the SGV Task Force, a cautious multiplier of 5 has been adopted to assist the inspection of the site.*
>
> (Paragraph 151, Section 8.3.4, LQM (2006))

Discussions between HDC, EPS and DEFRA have indicated that a multiplier of 2 would be appropriate in order to be protective of human health and consistent with the ALARP (as low as reasonably practicable) principle in CLR 10 (DEFRA/EA, 2005).

The multiplier of 2 gives the following Remedial Targets (RT) for benzo(a)pyrene for the site:

$$RT_{resi} \qquad \textbf{2.4 mg/kg}$$

$$RT_{open} \qquad \textbf{3.4 mg/kg}$$

The mean value concentration of benzo(a)pyrene in surface soils exceeded the RT_{resi} in all except Plots 30, 34, 39 and 50 i.e. in 46 of the 50 residential plots, as shown on Figure 1.

The mean value concentration of benzo(a)pyrene in surface soils in the central open area and verges did not exceed the RT_{open}.

FIGURES
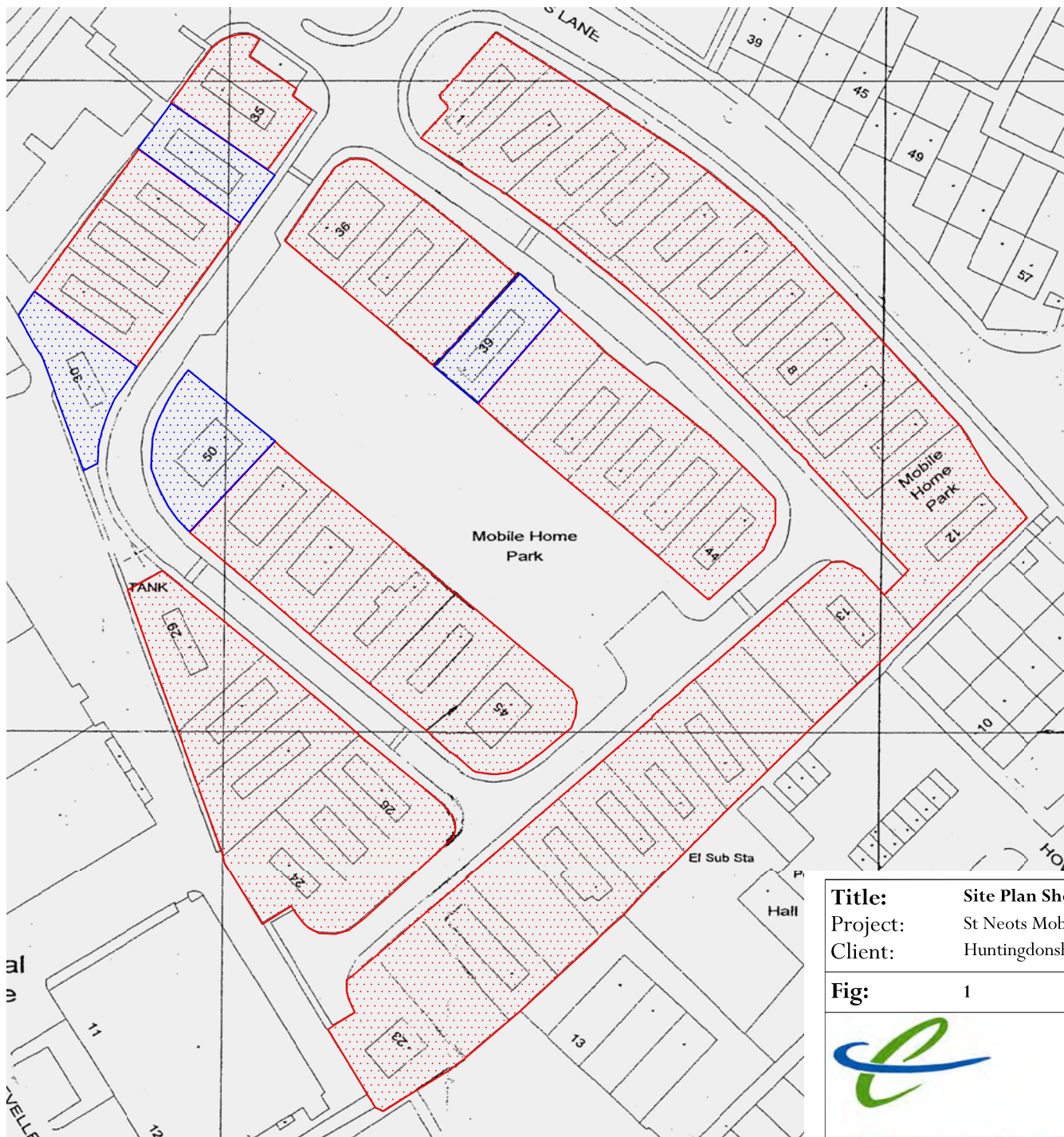
Key

Plots where 95th Percentile Mean
Value Test exceeds remedial target

Plots where 95th Percentile Mean
Value Test does not exceed remedial
target

Title:	**Site Plan Showing Plots Requiring Remediation**
Project:	St Neots Mobile Home Park
Client:	Huntingdonshire District Council

Fig: 1

Environmental Protection Strategies Ltd

Scale:	NTS - Indicative Only
Drawn By:	TRL
Job No:	UK05.0250
Dwg No:	HDC/MHP/0406/01
Date:	April 2006

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury

Environmental Protection Strategies Ltd.

TABLES

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury

Environmental Protection Strategies Ltd.

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 1	
Sample Ref	BAP
PL 1A	2.1
PL 1B	13
PL 1C	1.2
PL 1D	4.6
PL1 0.0-0.3	1.90

Mean Value Test Result	**9.13**

Plot 2	
Sample Ref	BAP
PL 2A	2.2
PL 2B	14
PL 2C	6.1
PL 2D	10.1
PL2 0.0-0.3	3.60

Mean Value Test Result	**11.45**

Plot 3	
Sample Ref	BAP
PL 3A	1.5
PL 3B	2.0
PL 3C	2.1
PL 3D	1.2
PL3 0.0-0.5	2.80

Mean Value Test Result	**2.47**

Plot 4	
Sample Ref	BAP
PL 4A	8.0
PL 4B	16
PL 4C	6.7
PL 4D	1.0
PL4 0.0-0.5	5.90

Mean Value Test Result	**12.52**

Plot 5	
Sample Ref	BAP
PL 5A	1.1
PL 5B	2.8
PL 5C	3.5
PL 5D	1.8
PL5 0.0-0.3	2.40

Mean Value Test Result	**3.16**

Plot 6	
Sample Ref	BAP
PL 6A	6.8
PL 6B	3.3
PL 6C	4.9
PL 6D	7.1
PL6 0.0-0.5	7.40

Mean Value Test Result	**7.47**

Notes: 1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)

2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 7	
Sample Ref	BAP
PL 7A	12
PL 7B	2.1
PL 7C	5.3
PL 7D	1.7
PL7 0.0-0.5	1.70

Mean Value Test Result	**8.70**

Plot 8	
Sample Ref	BAP
PL 8A	5.3
PL 8B	2.0
PL 8C	3.1
PL 8D	2.8
PL8 0.0-0.3	3.90

Mean Value Test Result	**4.54**

Plot 9	
Sample Ref	BAP
PL 9A	3.1
PL 9B	3.5
PL 9C	3.3
PL 9D	4.5
PL9 0.0-0.5	0.79

Mean Value Test Result	**4.26**

Plot 10	
Sample Ref	BAP
PL 10A	3.8
PL 10B	3.1
PL 10C	27
PL 10D	12
PL10 0.0-0.3	5.30

Mean Value Test Result	**19.46**

Plot 11	
Sample Ref	BAP
PL 11A	1.4
PL 11B	5.5
PL 11C	2.3
PL 11D	33
PL11 0.0-0.5	2.30

Mean Value Test Result	**20.89**

Plot 12	
Sample Ref	BAP
PL 12A	3.4
PL 12B	2.4
PL 12C	0.4
PL 12D	4.7
PL12 0.0-0.3	2.80

Mean Value Test Result	**4.17**

Notes:
1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)
2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury

Environmental Protection Strategies Ltd.

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 13	
Sample Ref	BAP
PL 13A	21
PL 13B	19
PL 13C	4.0
PL 13D	1.1
PL13 0.0-0.5	2.90

Mean Value Test Result	**18.24**

Plot 14	
Sample Ref	BAP
PL 14A	65
PL 14B	5.9
PL 14C	6.6
PL 14D	1.6
PL14 0.0-0.3	5.60

Mean Value Test Result	**41.04**

Plot 15	
Sample Ref	BAP
PL 15A	7.1
PL 15B	9.7
PL 15C	14
PL 15D	3.0
PL15 0.0-0.5	1.30

Mean Value Test Result	**11.65**

Plot 16	
Sample Ref	BAP
PL 16A	9.3
PL 16B	4.6
PL 16C	8.7
PL 16D	7.3
PL16 0.0-0.3	10.00

Mean Value Test Result	**9.89**

Plot 17	
Sample Ref	BAP
PL 17A	0.8
PL 17B	2.0
PL 17C	3.3
PL 17D	14
PL17 0.0-0.5	11.00

Mean Value Test Result	**11.37**

Plot 18	
Sample Ref	BAP
PL 18A	5.5
PL 18B	6.3
PL 18C	3.6
PL 18D	*0.1*
PL18 0.0-0.5	13.00

Mean Value Test Result	**9.97**

Notes:
1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)
2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 19	
Sample Ref	BAP
PL 19A	2.2
PL 19B	7.7
PL 19C	1.2
PL 19D	5.2
PL19 0.0-0.5	6.30

Mean Value Test Result	**7.01**

Plot 20	
Sample Ref	BAP
PL 20A	7.0
PL 20B	2.1
PL 20C	2.9
PL 20D	1.9
PL20 0.0-0.3	4.20

Mean Value Test Result	**5.51**

Plot 21	
Sample Ref	BAP
PL 21A	2.9
PL 21B	6.2
PL 21C	1.2
PL 21D	3.9
PL21 0.0-0.5	7.00

Mean Value Test Result	**6.40**

Plot 22	
Sample Ref	BAP
PL 22A	7.4
PL 22B	3.5
PL 22C	7.4
PL 22D	22
PL22 0.0-0.3	2.00

Mean Value Test Result	**15.52**

Plot 23	
Sample Ref	BAP
PL 23A	5.2
PL 23B	2.9
PL 23C	3.8
PL 23D	3.5
PL23 0.0-0.5	25.00

Mean Value Test Result	**16.64**

Plot 24	
Sample Ref	BAP
PL 24A	5.4
PL 24B	2.8
PL 24C	0.7
PL 24D	7.9
PL24 0.0-0.3	11.00

Mean Value Test Result	**9.23**

Notes:
1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)
2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 25	
Sample Ref	BAP
PL 25A	13
PL 25B	*0.1*
PL 25C	4.9
PL 25D	13
PL25 0.0-0.5	12.00

Mean Value Test Result	**13.81**

Plot 26	
Sample Ref	BAP
PL 26A	12
PL 26B	16
PL 26C	6.2
PL 26D	1.4
PL26 0.4-0.6	1.40

Mean Value Test Result	**13.11**

Plot 27	
Sample Ref	BAP
PL 27A	2.2
PL 27B	1.8
PL 27C	4.7
PL 27D	0.5
PL27 0.0-0.5	3.50

Mean Value Test Result	**3.98**

Plot 28	
Sample Ref	BAP
PL 28A	1.6
PL 28B	1.0
PL 28C	1.8
PL 28D	1.9
PL28 0.0-0.3	4.70

Mean Value Test Result	**3.49**

Plot 29	
Sample Ref	BAP
PL 29A	2.6
PL 29B	4.6
PL 29C	1.0
PL 29D	1.5
PL29 0.0-0.3	3.70

Mean Value Test Result	**4.03**

Plot 30	
Sample Ref	BAP
PL 30A	0.6
PL 30B	0.7
PL 30C	2.3
PL 30D	1.7
PL30 0.0-0.3	2.50

Mean Value Test Result	**2.36**

Notes:

1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)

2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 31	
Sample Ref	BAP
PL 31A	0.6
PL 31B	*0.1*
PL 31C	1.7
PL 31D	2.0
PL31 0.0-0.5	20.00

Mean Value Test Result	**12.53**

Plot 32	
Sample Ref	BAP
PL 32A	5.9
PL 32B	3.1
PL 32C	11.1
PL 32D	0.8
PL32 0.0-0.5	0.42

Mean Value Test Result	**8.23**

Plot 33	
Sample Ref	BAP
PL 33A	0.9
PL 33B	7.9
PL 33C	*0.1*
PL 33D	1.0
PL33 0.0-0.3	1.20

Mean Value Test Result	**5.07**

Plot 34	
Sample Ref	BAP
PL 34A	2.0
PL 34B	*0.1*
PL 34C	*0.1*
PL 34D	*0.1*
PL34 0.0-0.5	1.60

Mean Value Test Result	**1.62**

Plot 35	
Sample Ref	BAP
PL 35A	*0.1*
PL 35B	*0.1*
PL 35C	1.2
PL 35D	18.2
PL35 0.0-0.3	1.40

Mean Value Test Result	**11.24**

Plot 36	
Sample Ref	BAP
PL 36A	0.4
PL 36B	1.2
PL 36C	2.2
PL 36D	2.2
PL36 0.0-0.5	22.00

Mean Value Test Result	**13.89**

Notes:
1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)
2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 37	
Sample Ref	BAP
PL 37A	6.2
PL 37B	13.0
PL 37C	5.2
PL 37D	2.6
PL37 0.0-0.3	0.99

Mean Value Test Result	**9.79**

Plot 38	
Sample Ref	BAP
PL 38A	3.3
PL 38B	27.6
PL 38C	0.7
PL 38D	4.8
PL38 0.0-0.5	2.00

Mean Value Test Result	**17.80**

Plot 39	
Sample Ref	BAP
PL 39A	1.1
PL 39B	1.5
PL 39C	*0.1*
PL 39D	2.6
PL39 0.0-0.5	1.20

Mean Value Test Result	**2.11**

Plot 40	
Sample Ref	BAP
PL 40A	9.0
PL 40B	*0.1*
PL 40C	1.4
PL 40 D	4.1
PL40 0.0-0.5	9.50

Mean Value Test Result	**8.70**

Plot 41	
Sample Ref	BAP
PL 41A	11.6
PL 41B	2.5
PL 41C	2.0
PL 41D	3.8
PL41 0.0-0.5	3.20

Mean Value Test Result	**8.19**

Plot 42	
Sample Ref	BAP
PL 42A	4.0
PL 42B	19.5
PL 42C	5.8
PL 42D	4.7
PL42 0.0-0.3	16.00

Mean Value Test Result	**16.50**

Notes:
1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)
2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 43	
Sample Ref	BAP
PL 43A	3.3
PL 43B	4.0
PL 43C	1.1
PL 43D	4.8
PL43 0.0-0.5	5.90

Mean Value Test Result	**5.46**

Plot 44	
Sample Ref	BAP
PL 44A	1.0
PL 44B	*0.1*
PL 44C	1.2
PL 44D	4.2
PL44 0.4-0.6	0.31

Mean Value Test Result	**2.83**

Plot 45	
Sample Ref	BAP
PL 45A	3.3
PL 45B	2.7
PL 45C	3.3
PL 45D	1.6
PL45 0.0-0.3	3.70

Mean Value Test Result	**3.67**

Plot 46	
Sample Ref	BAP
PL 46A	1.5
PL 46B	3.3
PL 46C	2.1
PL 46D	3.9
PL46 0.0-0.5	5.10

Mean Value Test Result	**4.49**

Plot 47	
Sample Ref	BAP
PL47A	2.2
PL 47B	1.5
PL 47C	1.3
PL47D	4.6
PL47 0.0-0.3	3.90

Mean Value Test Result	**4.02**

Plot 48	
Sample Ref	BAP
PL 48A	3.5
PL 48B	3.7
PL48C	1.6
PL48D	3.1
PL48 0.0-0.5	2.60

Mean Value Test Result	**3.63**

Notes: 1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)

2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Plot 49	
Sample Ref	BAP
PL 49A	9.3
PL 49B	11
PL 49C	2.6
PL 49D	2.5
PL49 0.0-0.5	6.60

Plot 50	
Sample Ref	BAP
PL 50A	1.0
PL 50B	1.1
PL 50C	*0.1*
PL 50D	1.2
PL50 0.4-0.6	2.60

Mean Value Test Result	**9.76**

Mean Value Test Result	**2.00**

Notes: 1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)

2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

Additional Soil Sampling
St Neots Mobile Home Park
Eynesbury

Table 1 – Results of Additional Soil Sampling – Benzo(a)Pyrene (BAP) (mg/kg)

Open Area	
Sample Ref	BAP
OA 1	1.3
OA 2	1.3
OA 3	0.7
OA 4	3.2
OA 5	1.4
OA 6	2.2
OA 7	*0.1*
OA 8	*0.1*
OA 9	3.9
OA 10	2.3
OA 11	4.5
OA 12	6.3
OA 13	1.9
OA 14	2.5
OA 15	2.5
OA 16	2.9
OA 17	2.7
OA 18	1.3
OA 19	1.7
OA 20	1.5
Open 0.0-0.3	8.20
Open 0.2-0.4	6.30

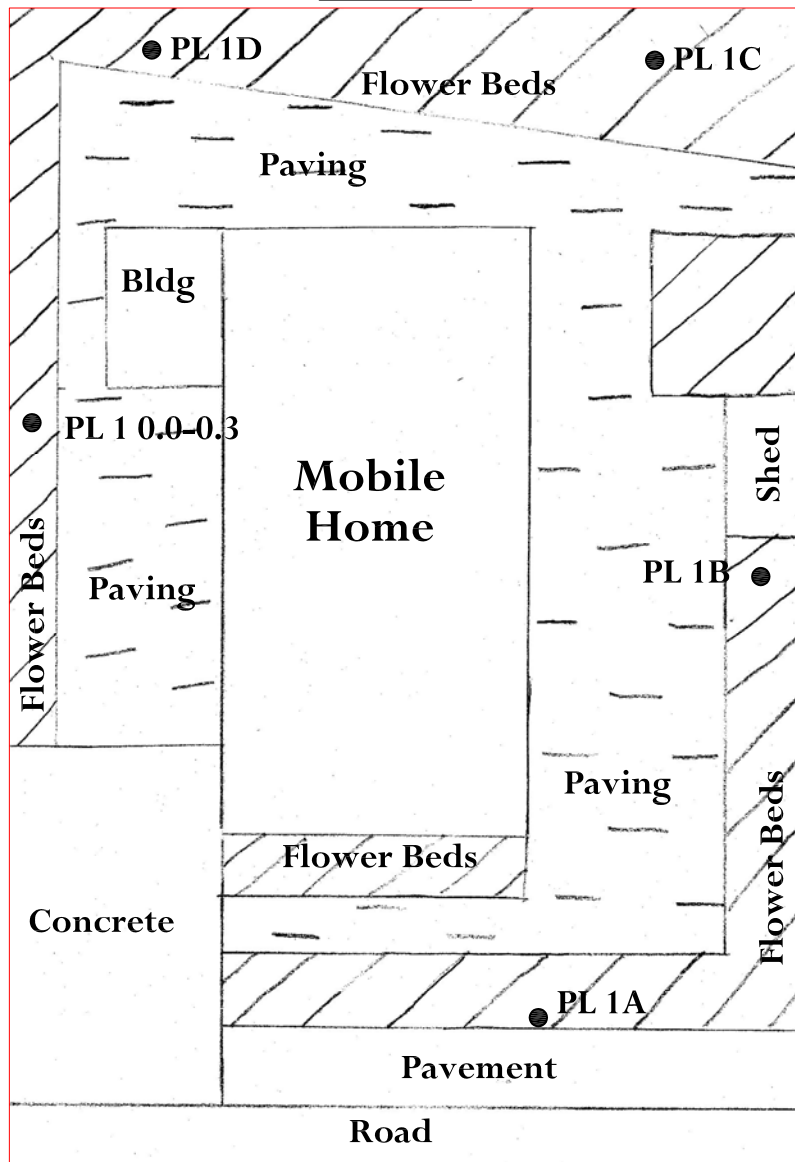| **Mean Value Test Result**	**3.44**

Notes:
1. Where benzo(a)pyrene was not found above laboratory detection limits they are quoted as 0.1 (in italics)
2. Mean Value Tests calculated in accordance with CLR7: *Assessment of risks to human health from land contamination. An overview of the development of guideline values and related research.*

APPENDIX A

SCHEMATIC PLOT LAYOUTS WITH SAMPLING
LOCATIONS & RESULTS SUMMARIES

Eynesbury Mobile Home Park

PLOT 1

● PL 1D

● PL 1C

Flower Beds

Paving

Bldg

● PL 1 0.0-0.3

Mobile Home

Shed

PL 1B ●

Flower Beds

Paving

Paving

Flower Beds

Flower Beds

Concrete

● PL 1A

Pavement

Road

● PL 1A – 1D = Sample Locations

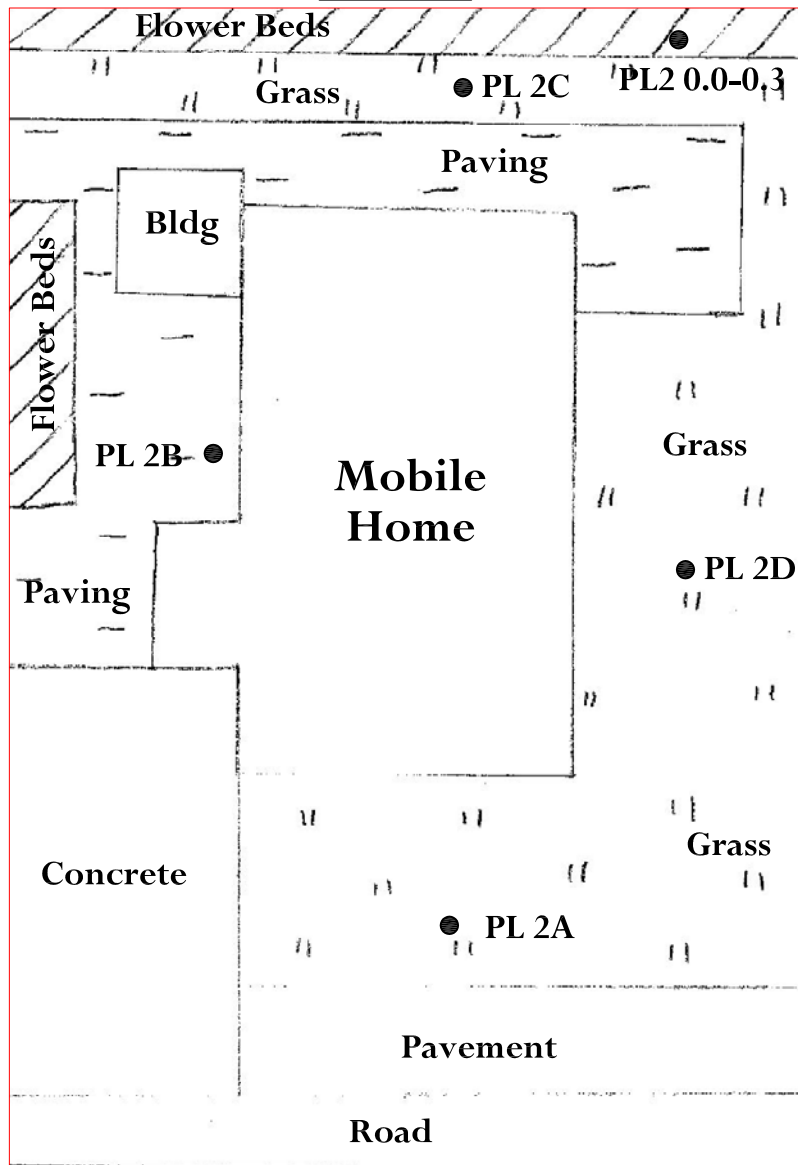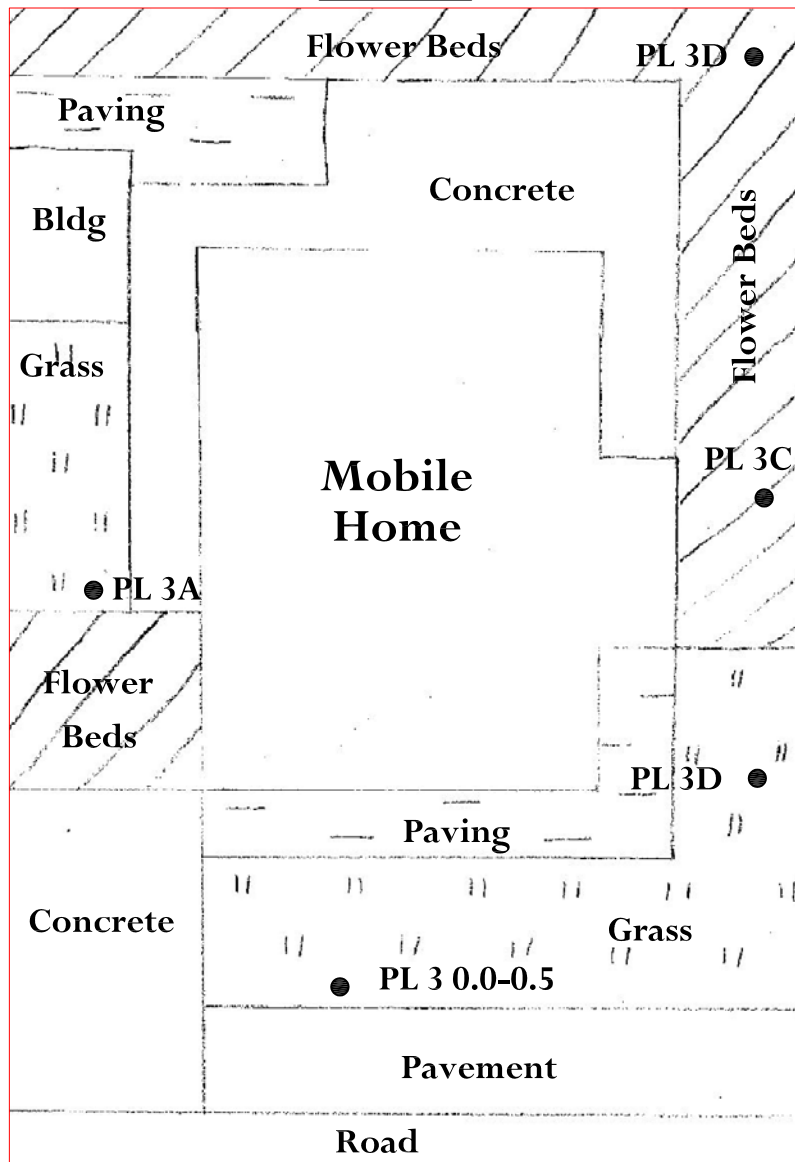| Plot 1	
Sample Ref	BAP
PL 1A	2.1
PL 1B	13
PL 1C	1.2
PL 1D	4.6
PL1 0.0-0.3	1.90
Means Value Test Result* =	**9.13**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 2

● PL 2A – 2D = Sample Locations

Plot 2	
Sample Ref	BAP
PL 2A	2.2
PL 2B	14
PL 2C	6.1
PL 2D	10.1
PL2 0.0-0.3	3.60
Means Value Test Result* =	**11.45**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 3

PL 3A - 3D = Sample Locations

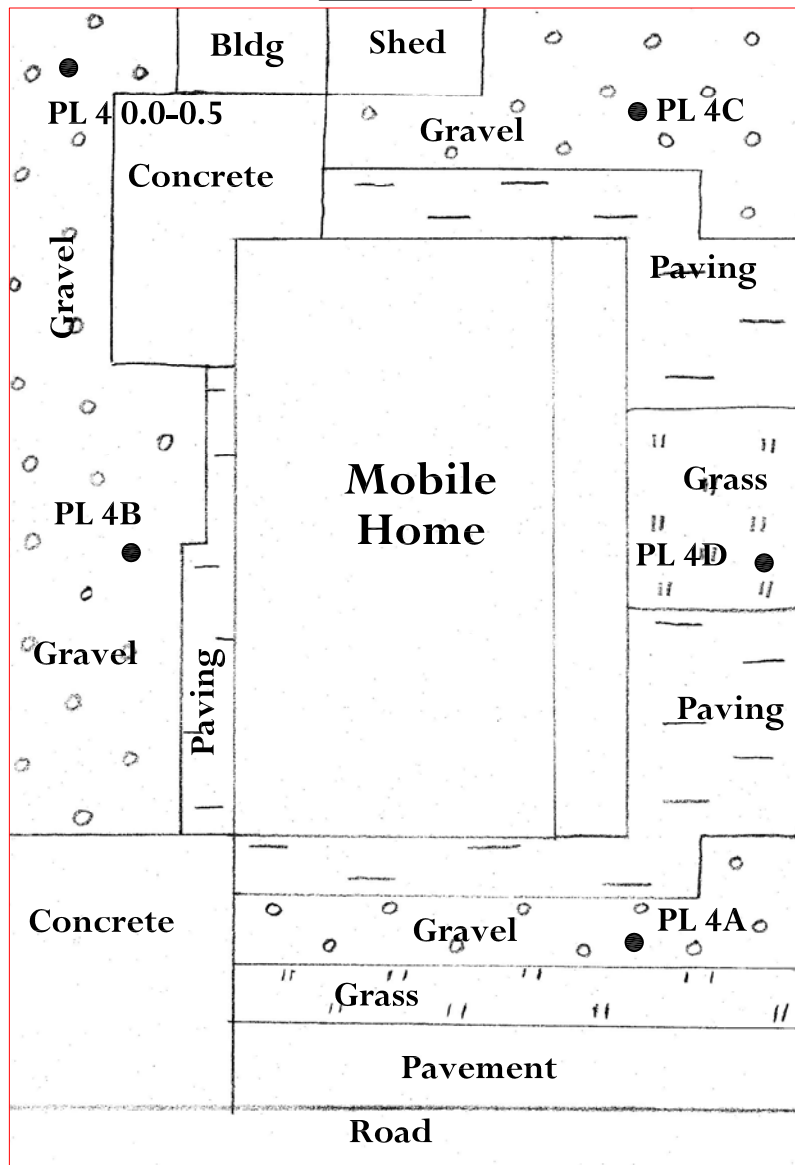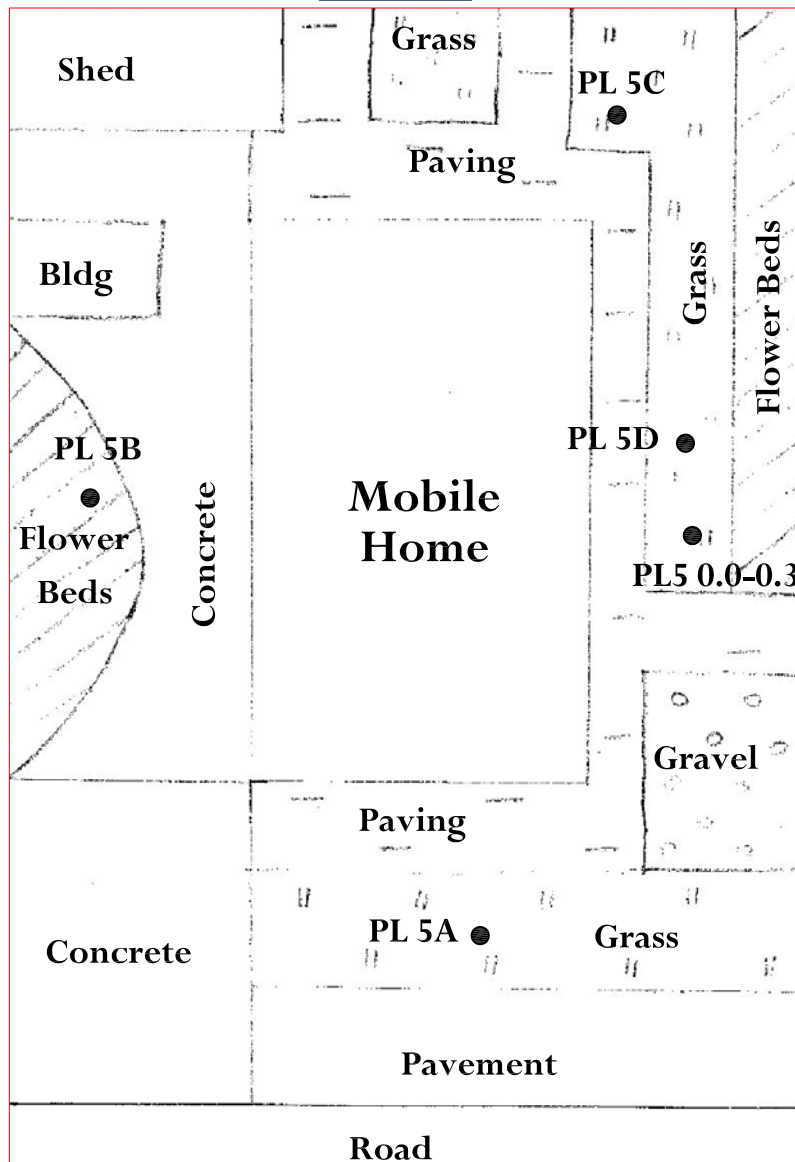| Plot 3	
Sample Ref	BAP
PL 3A	1.5
PL 3B	2.0
PL 3C	2.1
PL 3D	1.2
PL3 0.0-0.5	2.80
Means Value Test Result* =	<u>2.47</u>

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 4

Bldg | Shed

PL 4 0.0-0.5

PL 4C

Gravel

Concrete

Paving

Gravel

Mobile Home

Grass

PL 4B

PL 4D

Gravel

Paving

Paving

Concrete

Gravel

PL 4A

Grass

Pavement

Road

● PL 4A – 4D = Sample Locations

Plot 4	
Sample Ref	BAP
PL 4A	8.0
PL 4B	16
PL 4C	6.7
PL 4D	1.0
PL4 0.0-0.5	5.90
Means Value Test Result* =	<u>12.52</u>

* = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 5

Shed

Grass

PL 5C

Paving

Bldg

Grass

Flower Beds

PL 5B

Concrete

PL 5D

Mobile Home

Flower Beds

PL5 0.0-0.3

Gravel

Paving

Concrete

PL 5A

Grass

Pavement

Road

● PL 5A – 5D = Sample Locations

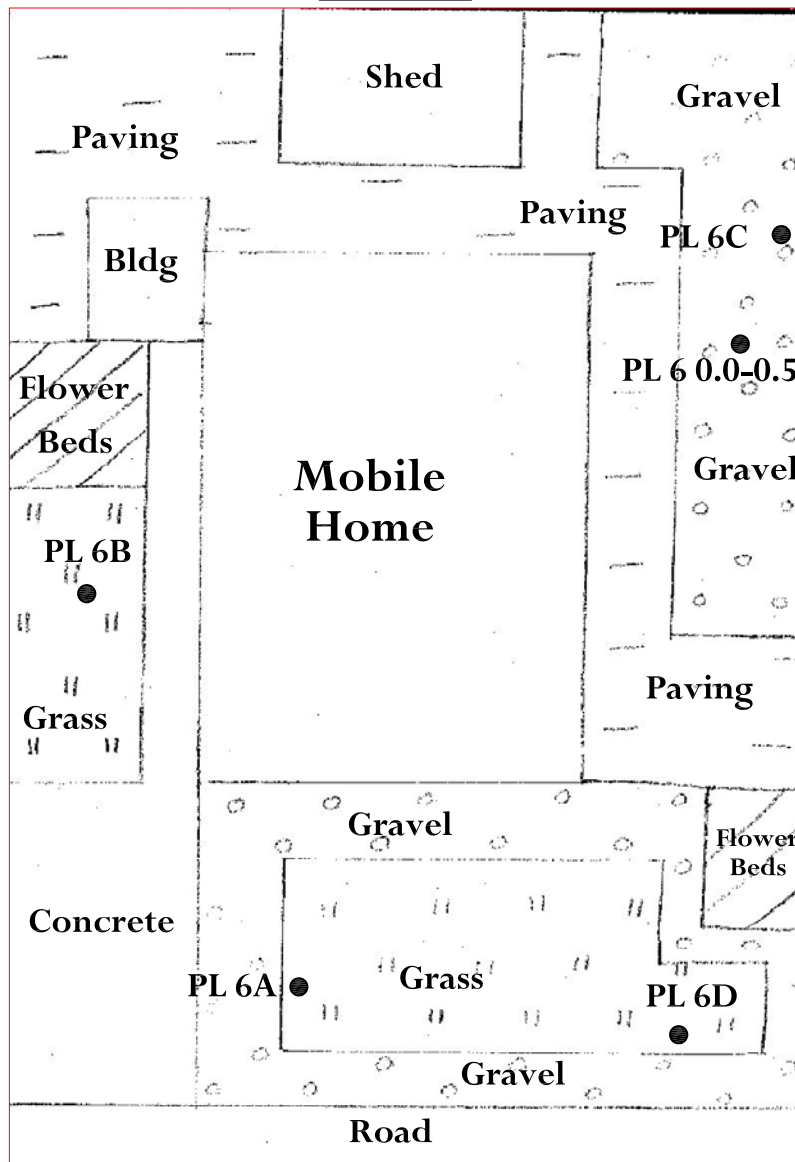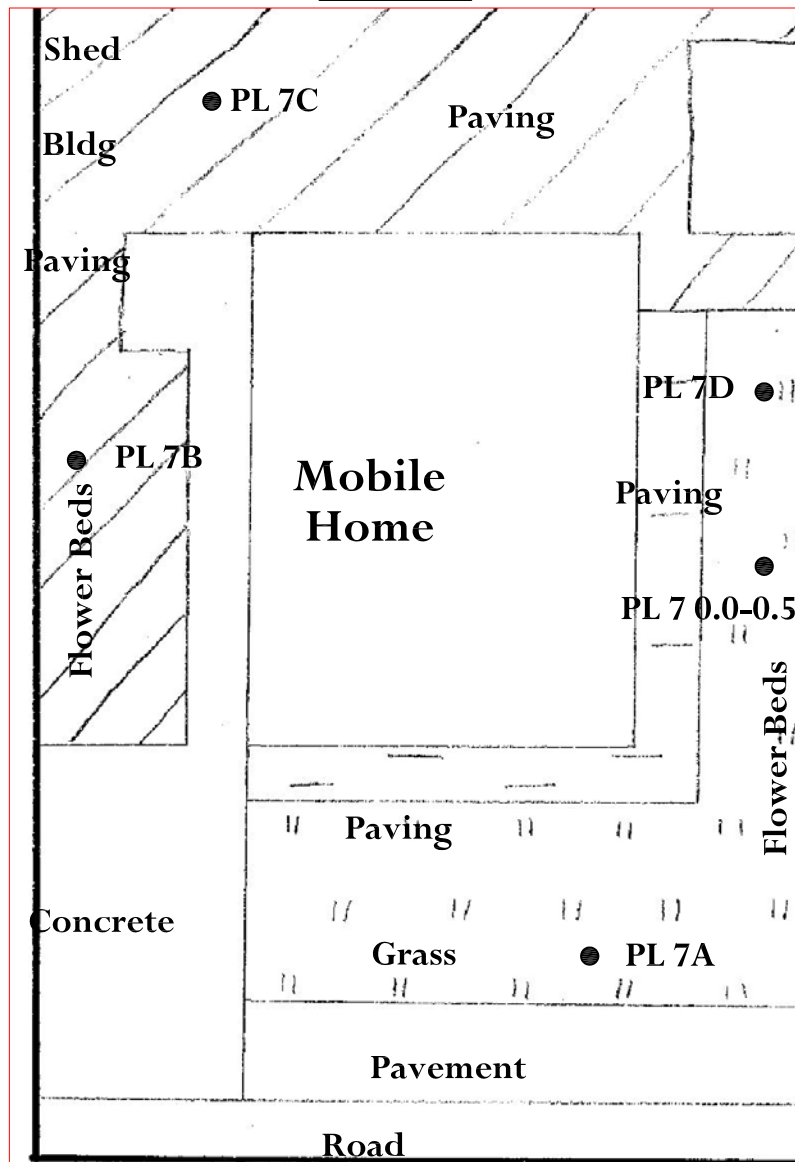| Plot 5	
Sample Ref	BAP
PL 5A	1.1
PL 5B	2.8
PL 5C	3.5
PL 5D	1.8
PL5 0.0-0.3	2.40
Means Value Test Result* =	**3.16**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 6

Shed

Gravel

Paving

Paving

PL 6C ●

Bldg

PL 6 0.0-0.5 ●

Flower
Beds

Gravel

Mobile
Home

PL 6B
●

Paving

Grass

Gravel

Concrete

Flower
Beds

Grass

PL 6A ●

PL 6D
●

Gravel

Road

● PL 6A – 6D = Sample Locations

Plot 6	
Sample Ref	BAP
PL 6A	6.8
PL 6B	3.3
PL 6C	4.9
PL 6D	7.1
PL6 0.0-0.5	7.40
Means Value Test Result* =	**7.47**

$*$ = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 7

Shed

● PL 7C

Bldg

Paving

Paving

Flower Beds

PL 7B ●

Mobile Home

PL 7D ●

Paving

● PL 7 0.0-0.5

Flower Beds

Paving

Concrete

Grass   ● PL 7A

Pavement

Road

● PL 7A – 7D   =   Sample Locations

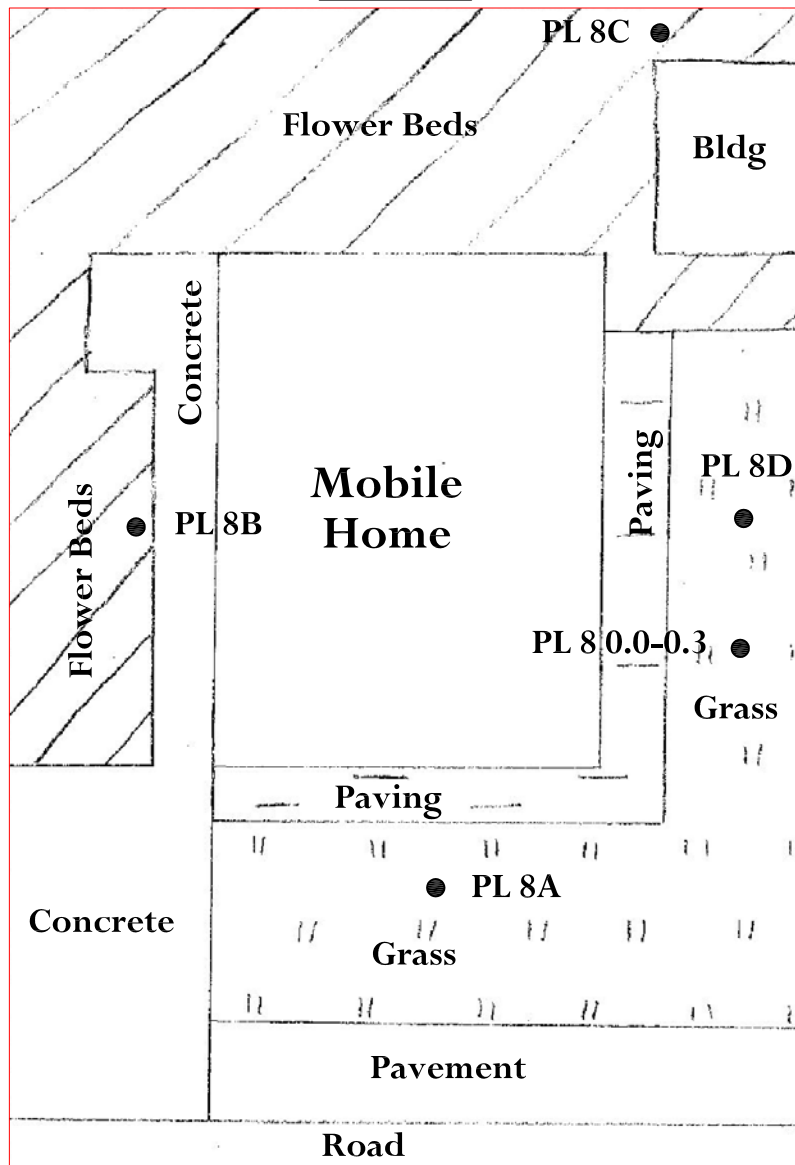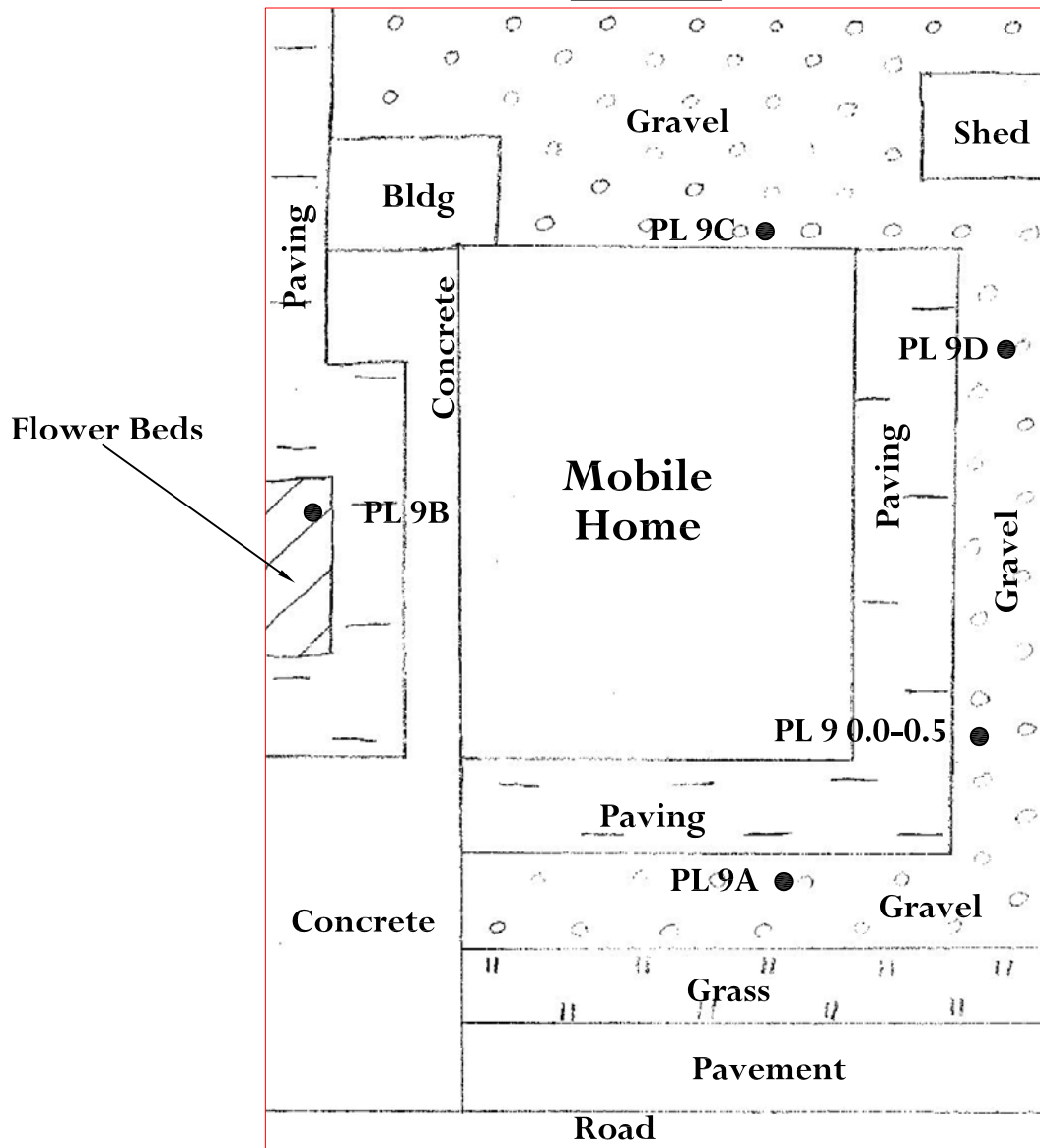| Plot 7	
Sample Ref	BAP
PL 7A	12
PL 7B	2.1
PL 7C	5.3
PL 7D	1.7
PL7 0.0-0.5	1.70
Means Value Test Result* =	**8.70**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 8

PL 8C ●

Flower Beds

Bldg

Concrete

Flower Beds

PL 8B ●

Mobile Home

Paving

PL 8D ●

PL 8 0.0-0.3 ●

Grass

Paving

PL 8A ●

Concrete

Grass

Pavement

Road

● PL 8A - 8D   =   Sample Locations

Plot 8	
Sample Ref	BAP
PL 8A	5.3
PL 8B	2.0
PL 8C	3.1
PL 8D	2.8
PL8 0.0-0.3	3.90
Means Value Test Result* =	**4.54**

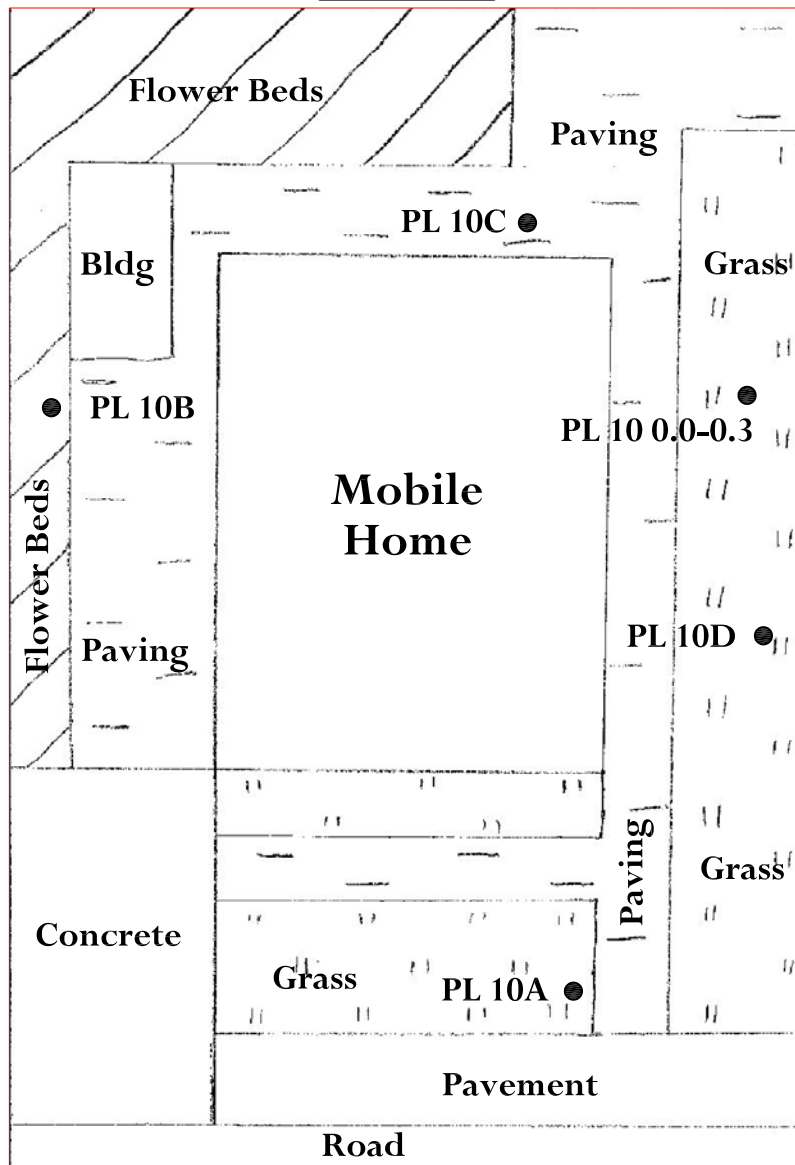* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 9

Gravel

Shed

Bldg

Paving

Concrete

PL 9C ●

PL 9D ●

Paving

Gravel

Flower Beds

PL 9B ●

Mobile
Home

PL 9 0.0-0.5 ●

Paving

PL 9A ●

Gravel

Concrete

Grass

Pavement

Road

● PL 9A - 9D = Sample Locations

Plot 9	
Sample Ref	BAP
PL 9A	3.1
PL 9B	3.5
PL 9C	3.3
PL 9D	4.5
PL9 0.0-0.5	0.79
Means Value Test Result* =	**4.26**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 10

Flower Beds

Paving

PL 10C ●

Bldg

Grass

● PL 10B

PL 10 0.0–0.3 ●

Flower Beds

Mobile Home

Paving

PL 10D ●

Concrete

Grass

Grass

PL 10A ●

Paving

Pavement

Road

● PL 10A – 10D = Sample Locations

Plot 10	
Sample Ref	BAP
PL 10A	3.8
PL 10B	3.1
PL 10C	27
PL 10D	12
PL10 0.0-0.3	5.30
Means Value Test Result* =	**19.46**

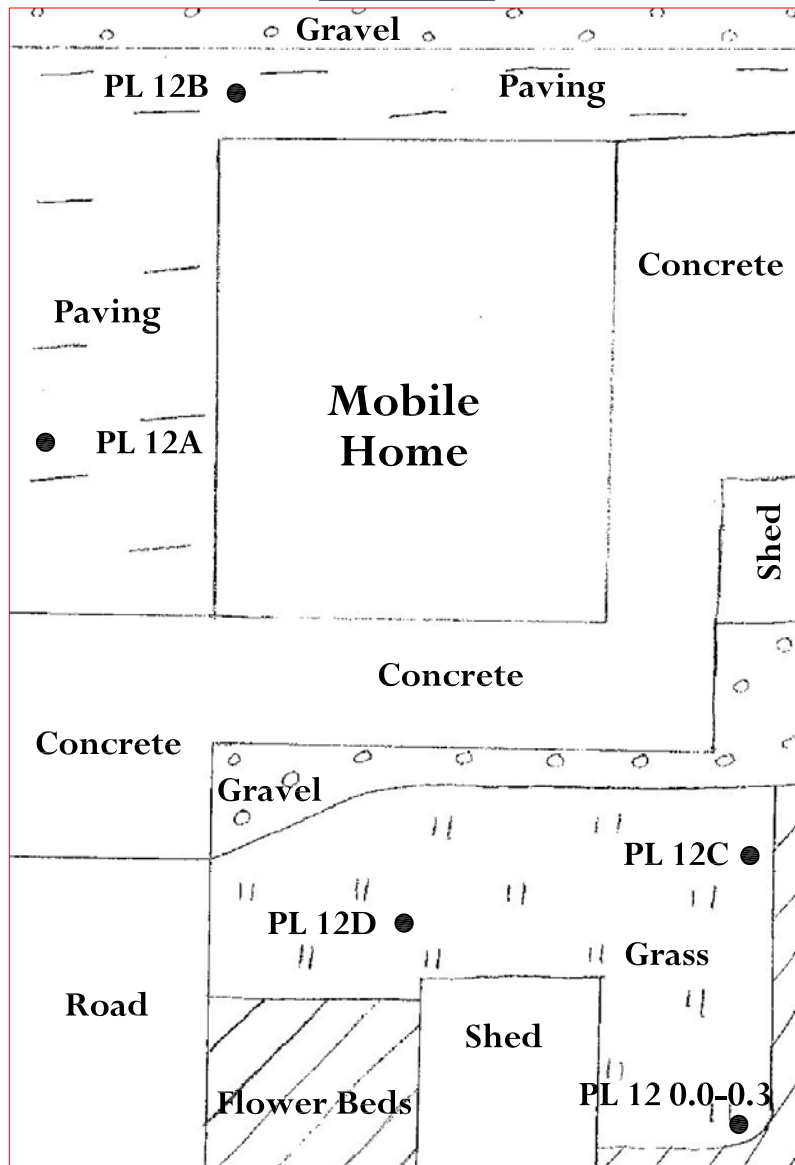* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 11

Flower Beds

Concrete

PL 11C

Paving

Bldg

Mobile
Home

PL 11B

PL 11D

Gravel

Flower Beds

PL 11 0.0-0.5

Grass

PL 11A

Concrete

Grass

Pavement

Road
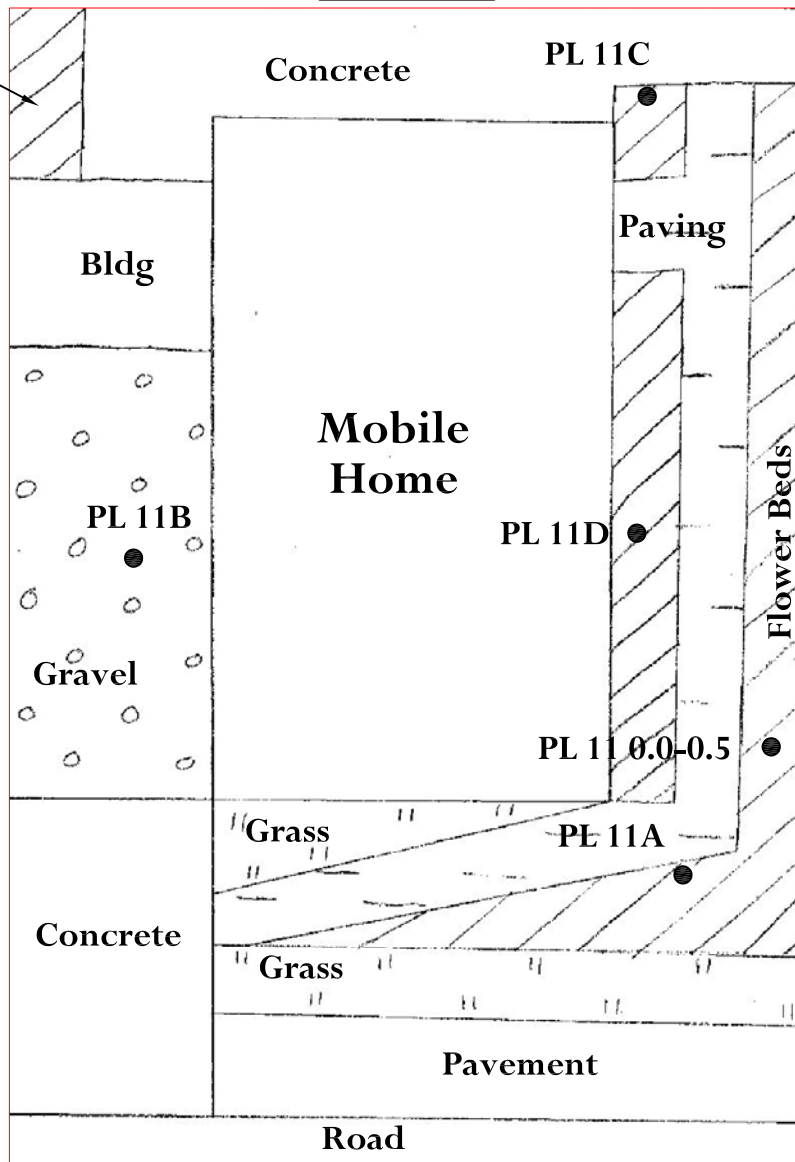
● PL 11A – 11D = Sample Locations

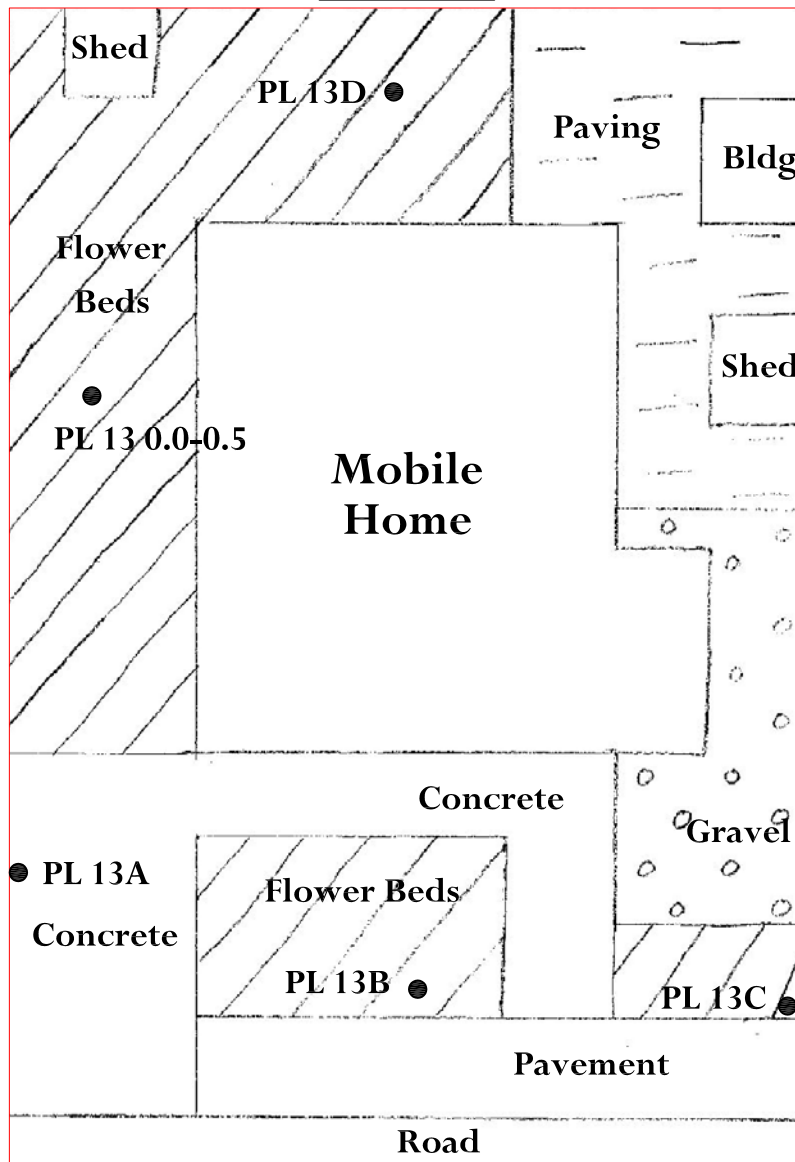| Plot 11	
Sample Ref	BAP
PL 11A	1.4
PL 11B	5.5
PL 11C	2.3
PL 11D	33
PL11 0.0-0.5	2.30
Means Value Test Result* =	**20.89**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 12

● PL 12A – 12D = Sample Locations

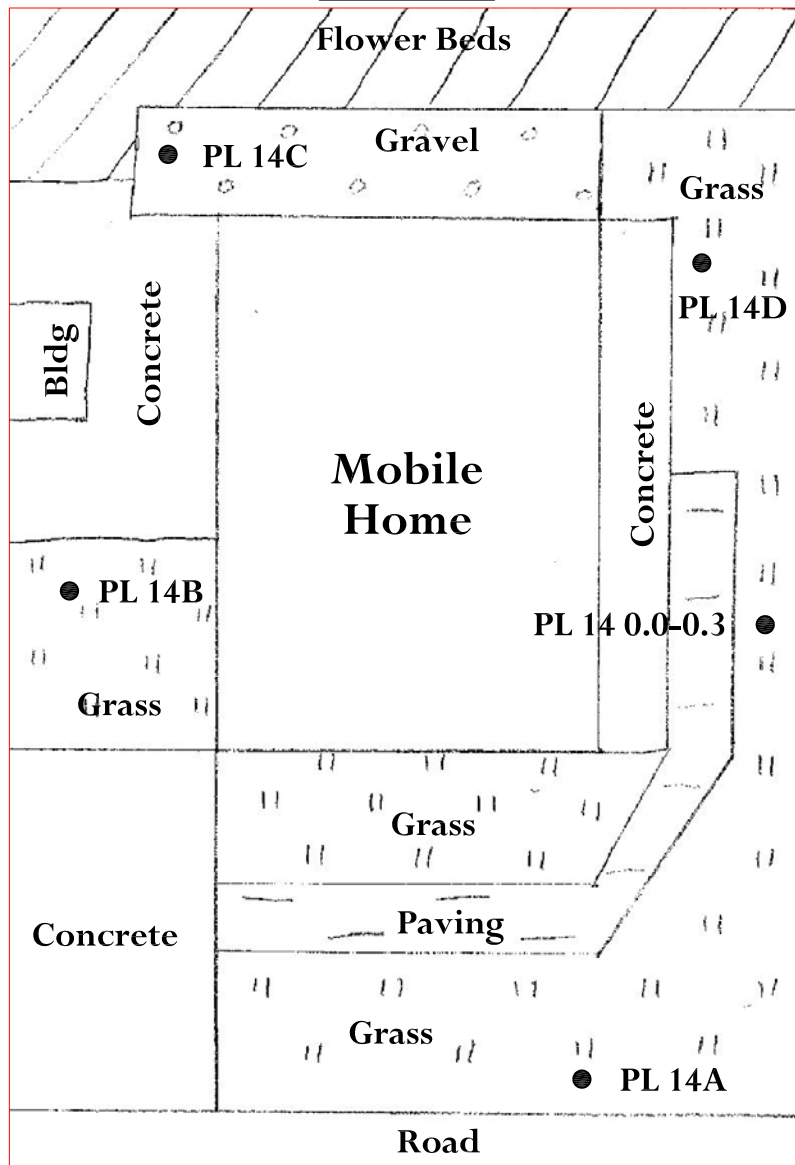| Plot 12	
Sample Ref	BAP
PL 12A	3.4
PL 12B	2.4
PL 12C	0.4
PL 12D	4.7
PL12 0.0-0.3	2.80
Means Value Test Result* =	**4.17**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 13

Shed

PL 13D ●

Paving

Bldg

Flower Beds

Shed

● PL 13 0.0-0.5

Mobile Home

Concrete

Gravel

● PL 13A

Concrete

Flower Beds

PL 13B ●

PL 13C ●

Pavement

Road

● PL 13A – 13D = Sample Locations

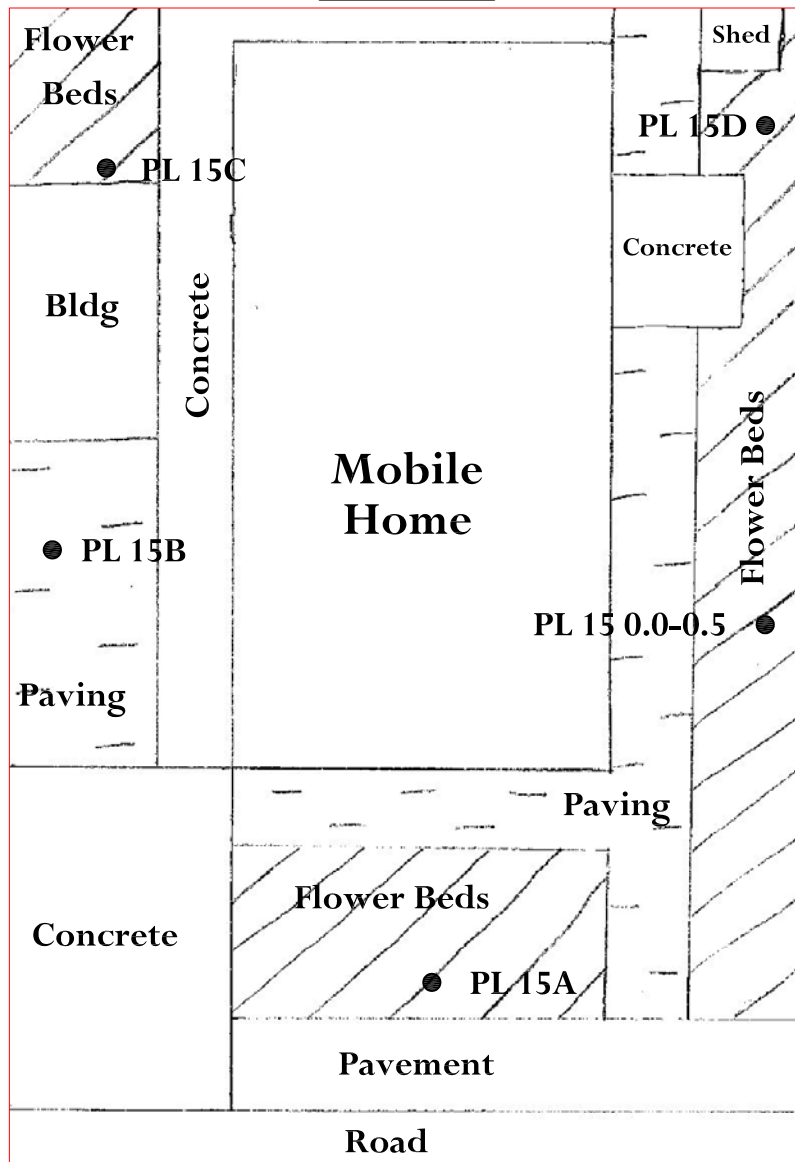| Plot 13	
Sample Ref	BAP
PL 13A	21
PL 13B	19
PL 13C	4.0
PL 13D	1.1
PL13 0.0-0.5	2.90
Means Value Test Result* =	18.24

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 14

● PL 14A – 14D = Sample Locations

Plot 14	
Sample Ref	BAP
PL 14A	65
PL 14B	5.9
PL 14C	6.6
PL 14D	1.6
PL14 0.0-0.3	5.60
Means Value Test Result* =	**41.04**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 15

● PL 15A – 15D = Sample Locations

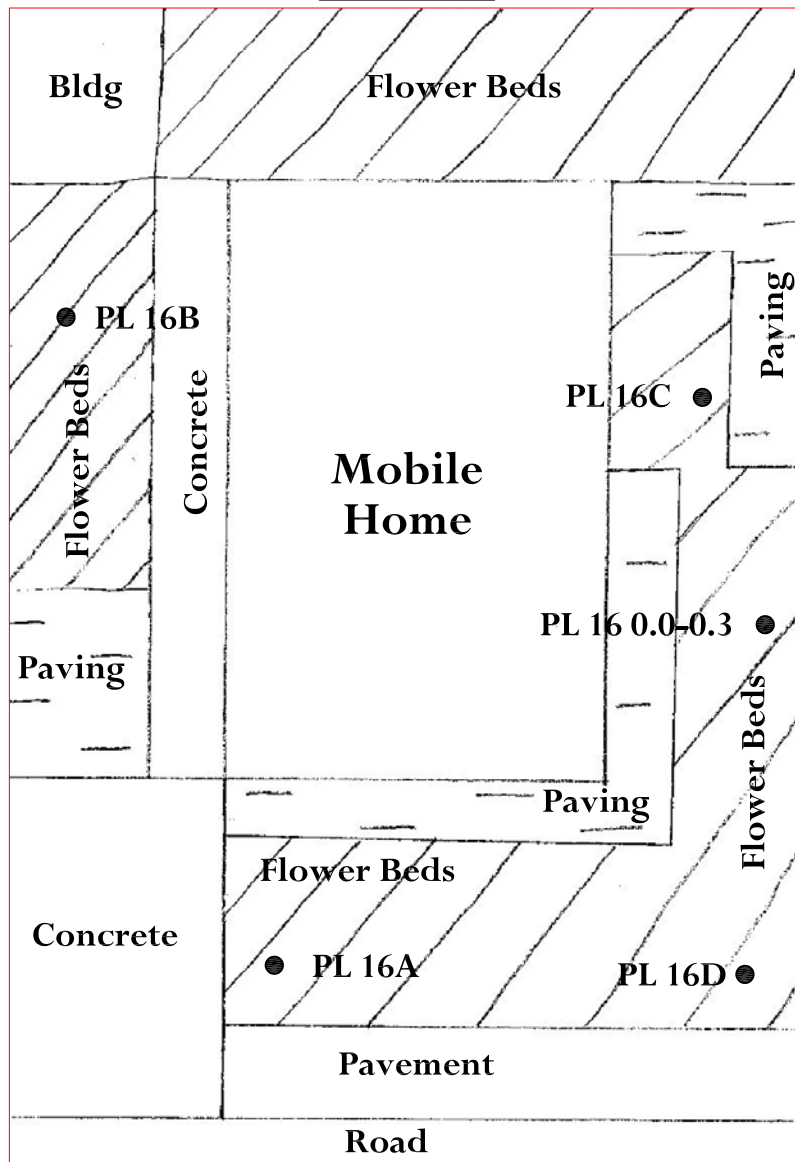| Plot 15	
Sample Ref	BAP
PL 15A	7.1
PL 15B	9.7
PL 15C	14
PL 15D	3.0
PL15 0.0-0.5	1.30
Means Value Test Result* =	**11.65**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 16

Bldg   Flower Beds

● PL 16B

Flower Beds

Concrete

PL 16C ●

Paving

Mobile Home

PL 16 0.0-0.3 ●

Flower Beds

Paving

Paving

Flower Beds

Concrete

● PL 16A

PL 16D ●

Pavement

Road

● PL 16A – 16D = Sample Locations

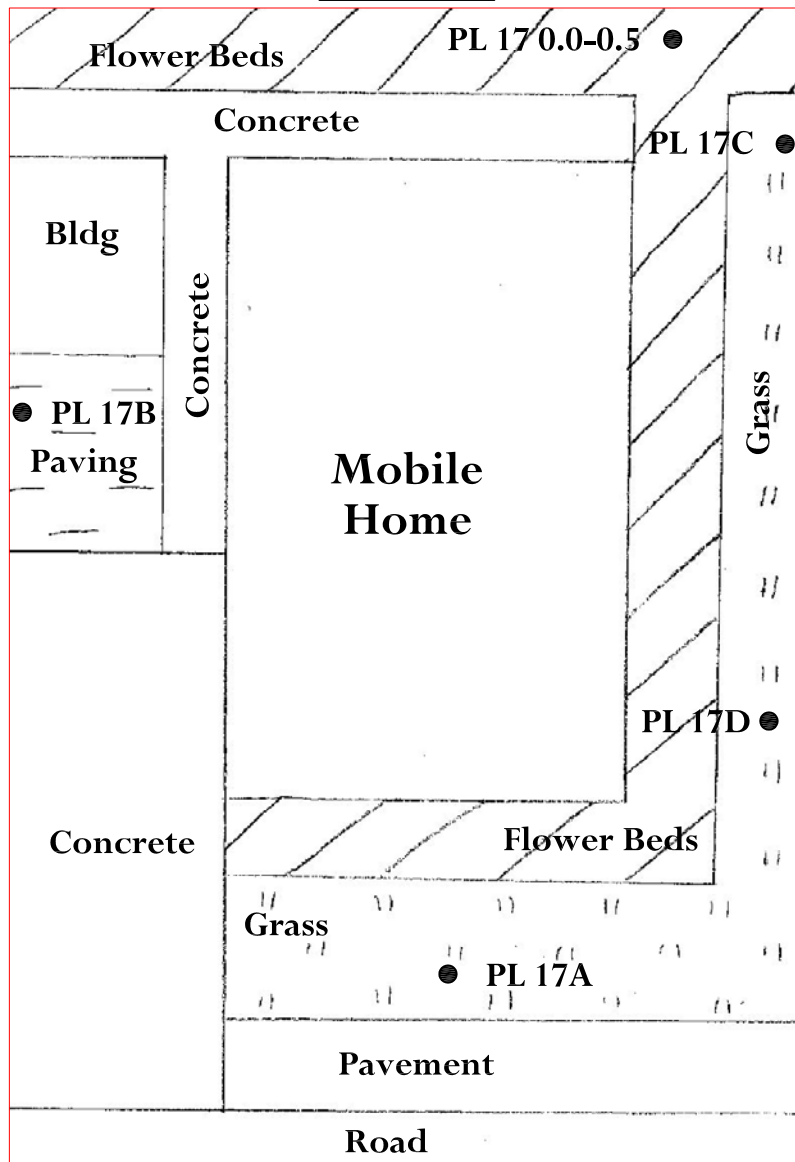| Plot 16	
Sample Ref	BAP
PL 16A	9.3
PL 16B	4.6
PL 16C	8.7
PL 16D	7.3
PL16 0.0-0.3	10.00
Means Value Test Result* =	**9.89**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 17

● PL 17A – 17D = Sample Locations

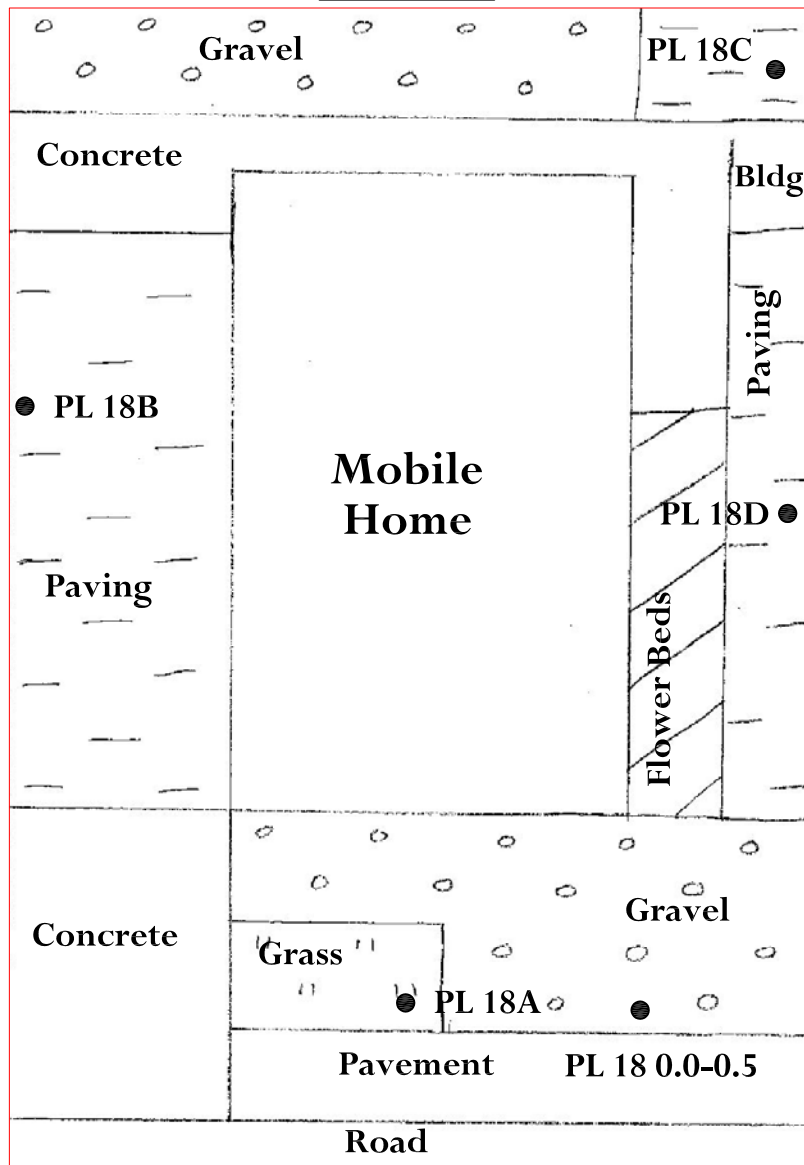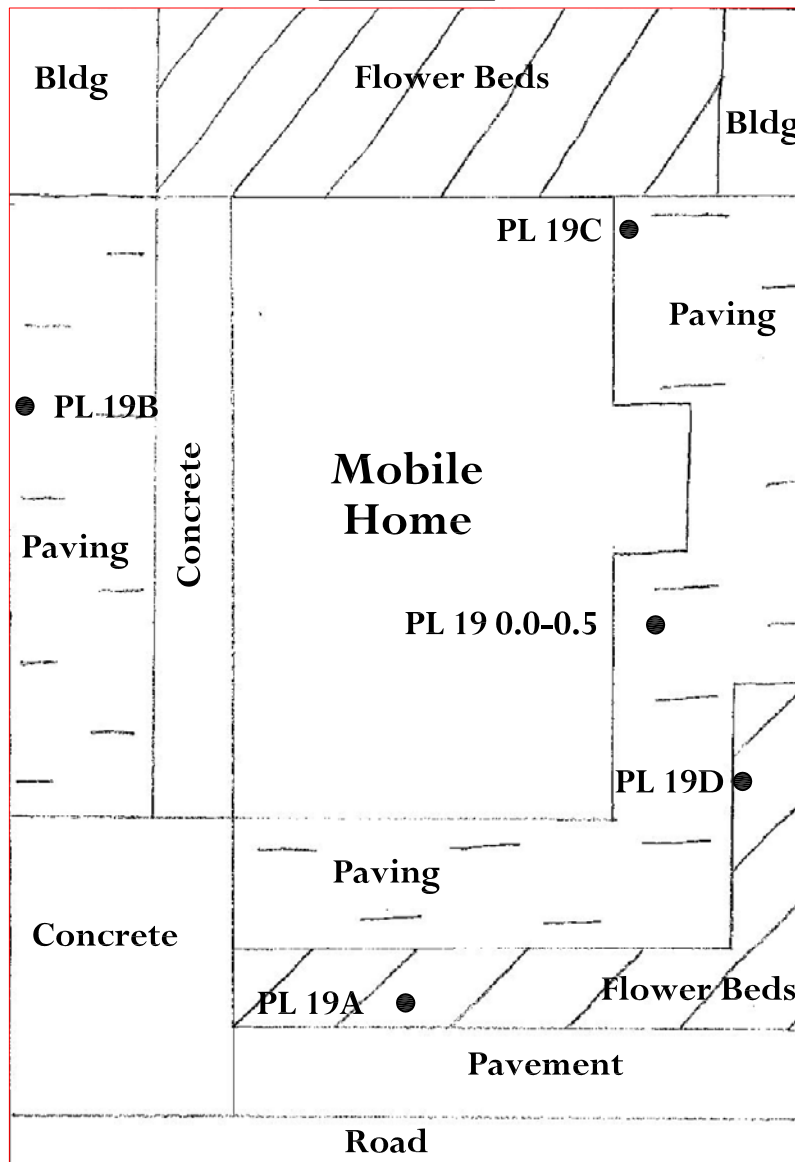| Plot 17	
Sample Ref	BAP
PL 17A	0.8
PL 17B	2.0
PL 17C	3.3
PL 17D	14
PL17 0.0-0.5	11.00
Means Value Test Result* =	**11.37**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 18

Gravel

PL 18C

Concrete

Bldg

Paving

PL 18B

Mobile
Home

Paving

PL 18D

Flower Beds

Concrete

Grass

Gravel

PL 18A

PL 18 0.0-0.5

Pavement

Road

● PL 18A – 18D = Sample Locations

Plot 18	
Sample Ref	BAP
PL 18A	5.5
PL 18B	6.3
PL 18C	3.6
PL 18D	*0.1*
PL18 0.0-0.5	13.00
Means Value Test Result* =	<u>**9.97**</u>

* = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 19

Bldg   Flower Beds   Bldg

PL 19C ●

Paving

● PL 19B

Concrete

Mobile Home

Paving

PL 19 0.0-0.5 ●

PL 19D ●

Paving

Concrete

PL 19A ●

Flower Beds

Pavement

Road

● PL 19A – 19D = Sample Locations

Plot 19	
Sample Ref	BAP
PL 19A	2.2
PL 19B	7.7
PL 19C	1.2
PL 19D	5.2
PL19 0.0-0.5	6.30
Means Value Test Result* =	**7.01**

* = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 20

PL 20 0.0-0.3   Flower Beds

Paving

Bldg   Shed

Mobile Home

PL 20B

Grass

PL 20C

Gravel

Concrete   PL 20A   PL 20D

Grass

Pavement

Road
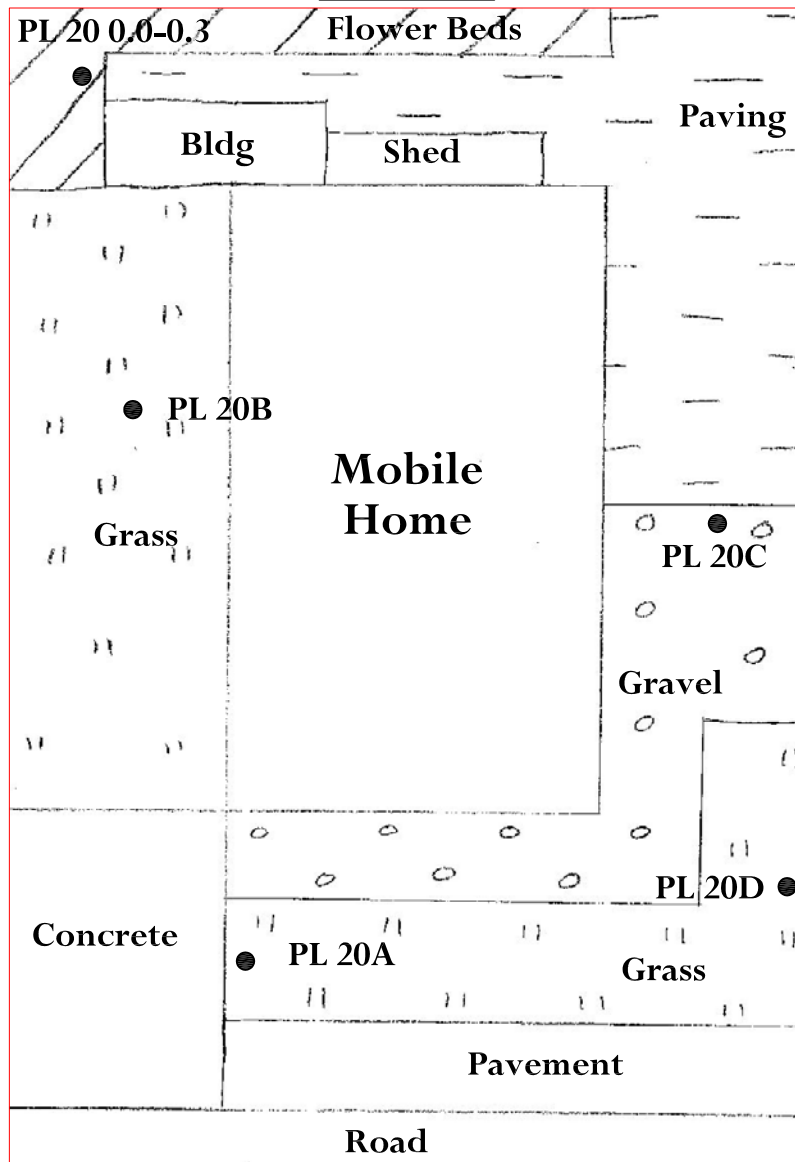
● PL 20A – 20D = Sample Locations

Plot 20	
Sample Ref	BAP
PL 20A	7.0
PL 20B	2.1
PL 20C	2.9
PL 20D	1.9
PL20 0.0-0.3	4.20
Means Value Test Result* =	**5.51**

* = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 21

PL 21B

Grass

PL 21C

Shed

PL 21 0.0-0.5

Shed

Bldg

PL 21D

Concrete

Mobile Home

Concrete

Grass

Concrete

PL 21A

Pavement

Road
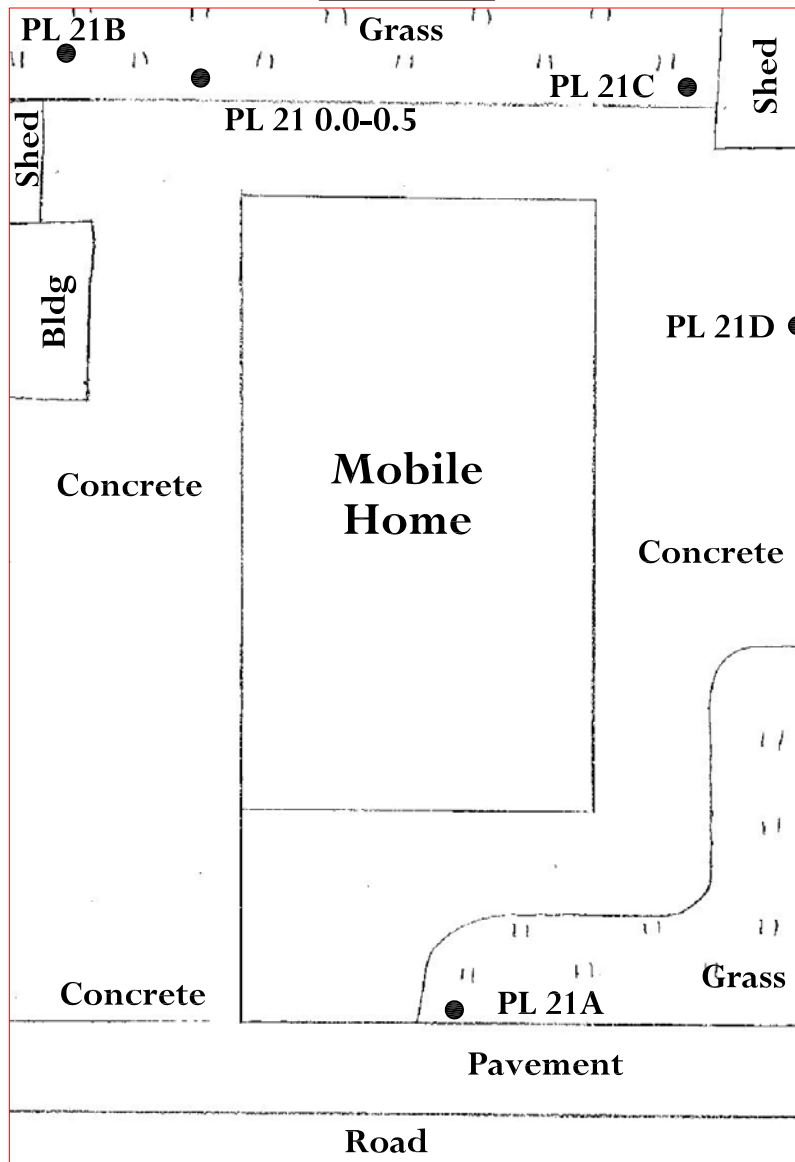
● PL 21A – 21D = Sample Locations

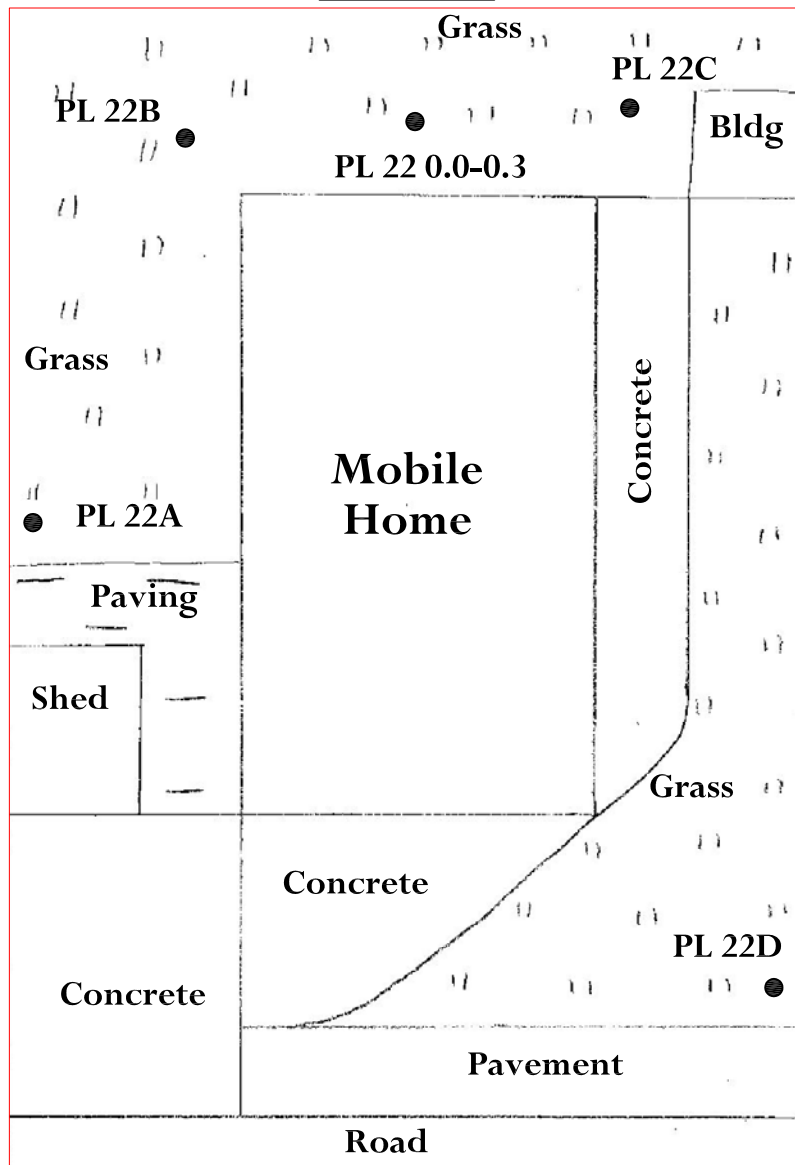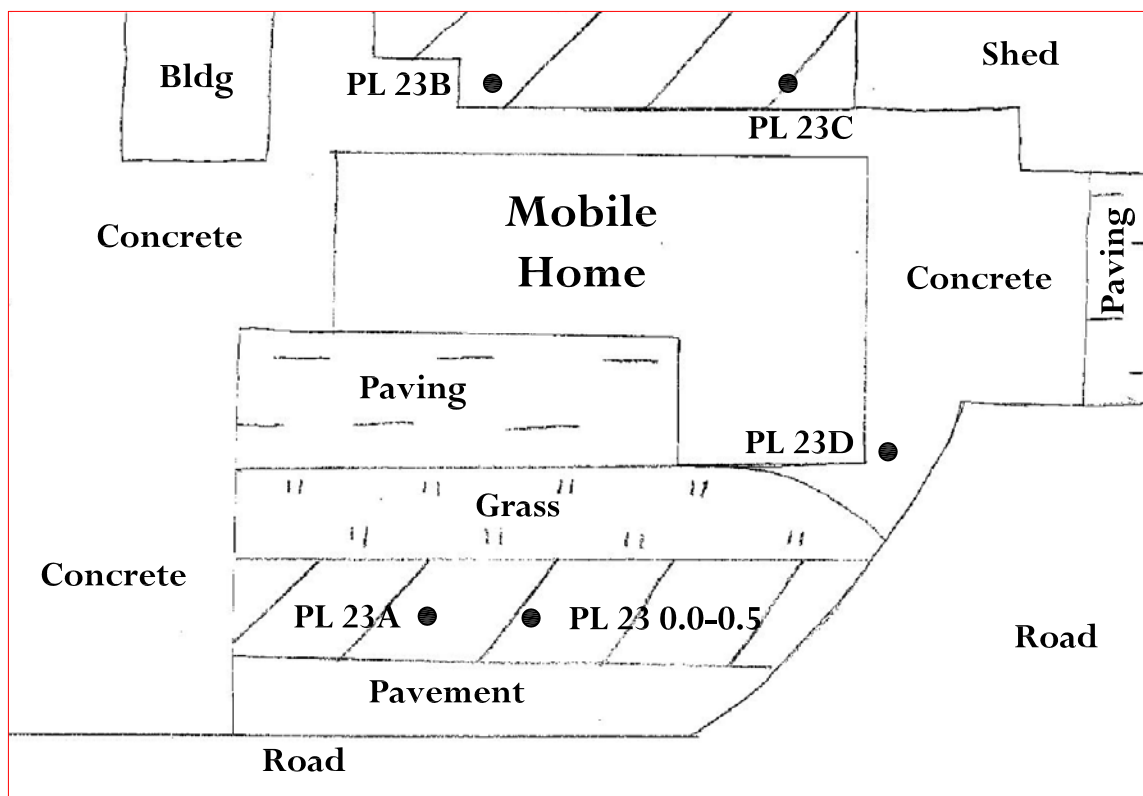| Plot 21	
Sample Ref	BAP
PL 21A	2.9
PL 21B	6.2
PL 21C	1.2
PL 21D	3.9
PL21 0.0-0.5	7.00
Means Value Test Result* =	**6.40**

* = 95th Percentile Means Value Test in accordance with CLR 7

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Eynesbury Mobile Home Park

PLOT 22

Grass

PL 22C

PL 22B

PL 22 0.0-0.3

Bldg

Grass

Concrete

Mobile
Home

PL 22A

Paving

Shed

Grass

Concrete

Concrete

PL 22D

Pavement

Road

● PL 22A – 22D = Sample Locations

Plot 22	
Sample Ref	BAP
PL 22A	7.4
PL 22B	3.5
PL 22C	7.4
PL 22D	22
PL22 0.0-0.3	2.00
Means Value Test Result* =	**15.52**

* = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 23

Bldg
PL 23B ●
Shed
●
PL 23C

Concrete

Mobile Home

Concrete

Paving

Paving

PL 23D ●

Grass

Concrete

PL 23A ●
● PL 23 0.0-0.5

Road

Pavement

Road

● PL 23A – 23D = Sample Locations

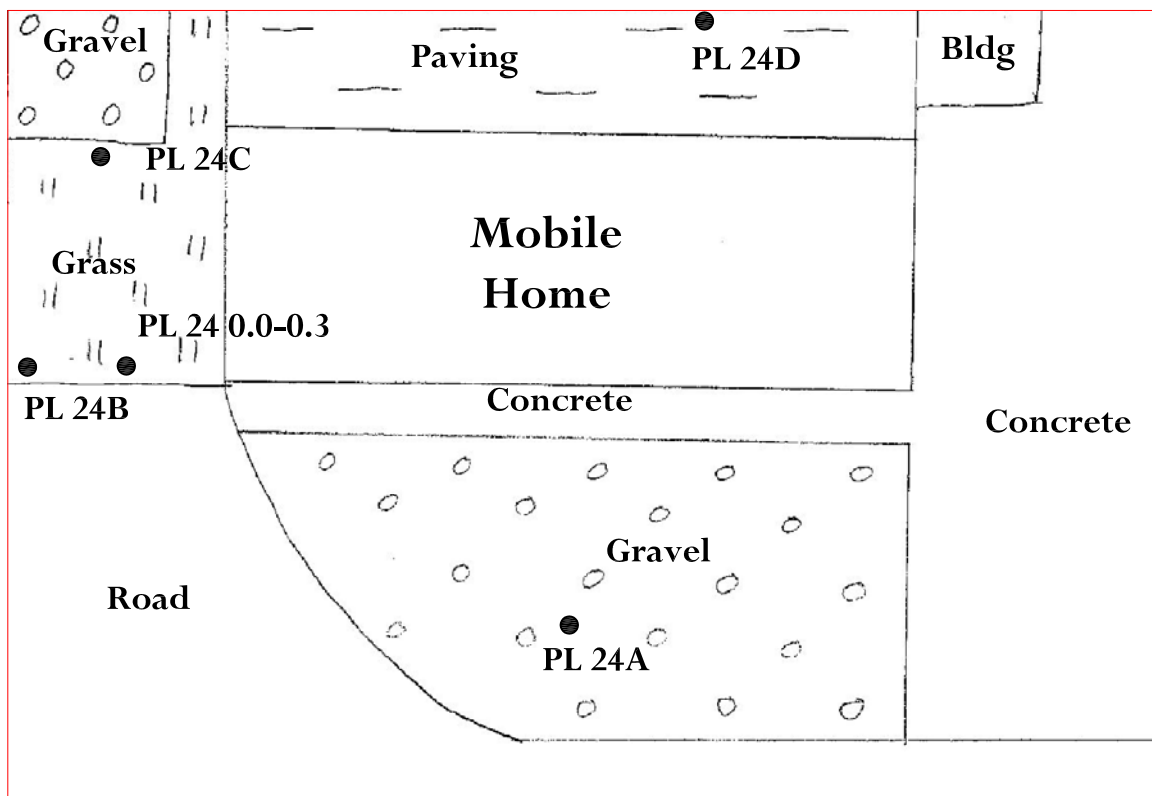| Plot 23	
Sample Ref	BAP
PL 23A	5.2
PL 23B	2.9
PL 23C	3.8
PL 23D	3.5
PL23 0.0-0.5	25.00
Means Value Test Result* =	**16.64**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 24

PL 24A – 24D = Sample Locations

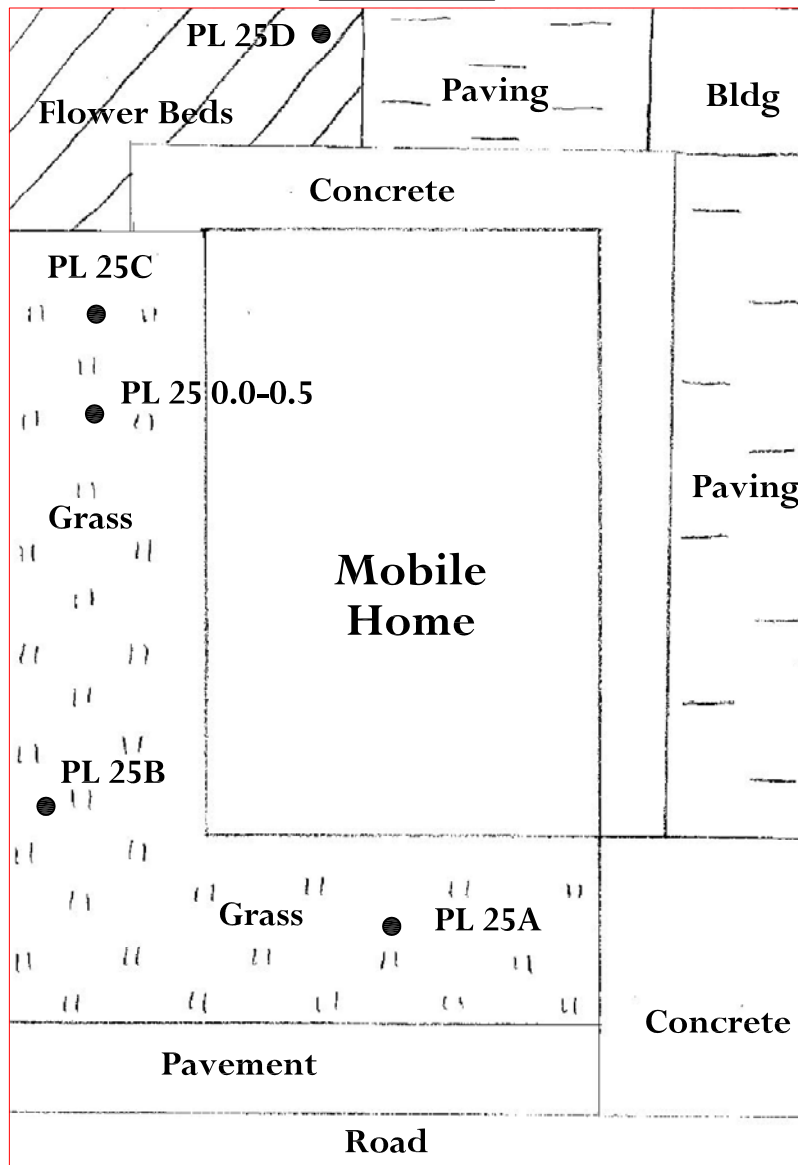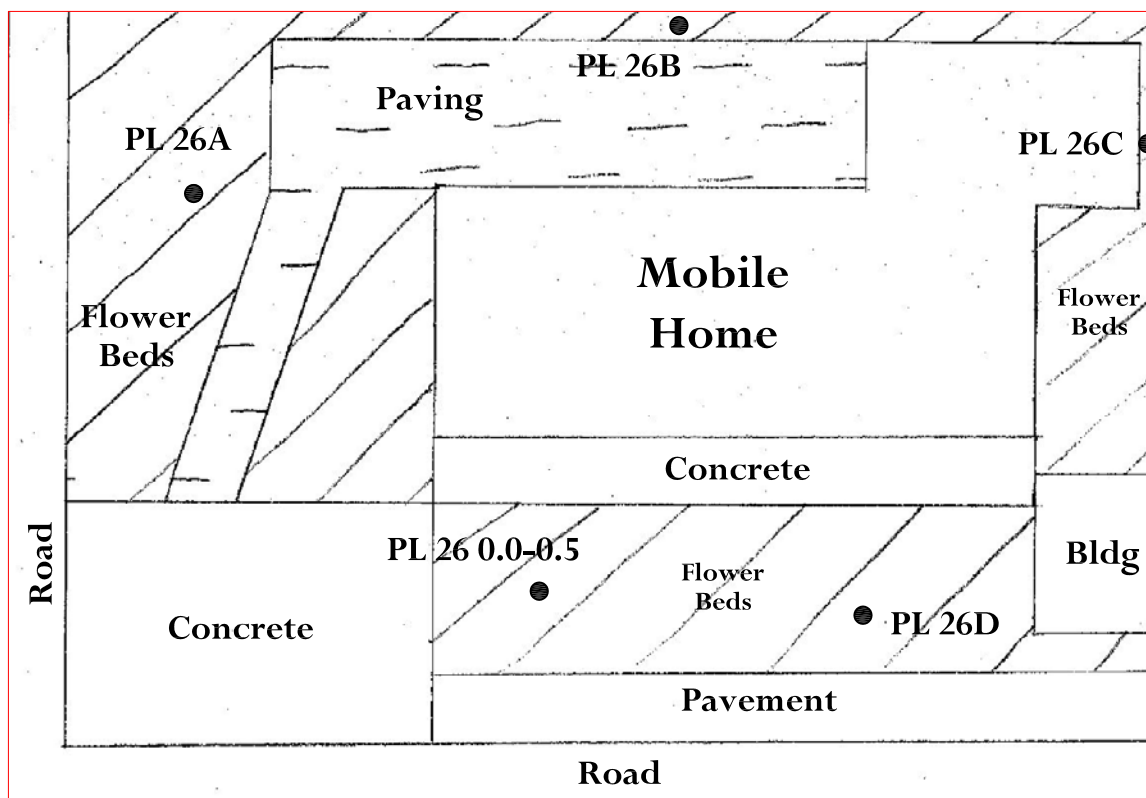| Plot 24	
Sample Ref	BAP
PL 24A	5.4
PL 24B	2.8
PL 24C	0.7
PL 24D	7.9
PL24 0.0-0.3	11.00
Means Value Test Result* =	**9.23**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 25

PL 25D ●

Flower Beds

Paving

Bldg

Concrete

PL 25C
●

PL 25 0.0-0.5
●

Grass

Paving

Mobile
Home

PL 25B
●

Grass   PL 25A
●

Concrete

Pavement

Road

● PL 25A – 25D = Sample Locations

Plot 25	
Sample Ref	BAP
PL 25A	13
PL 25B	*0.1*
PL 25C	4.9
PL 25D	13
PL25 0.0-0.5	12.00
Means Value Test Result* =	<u>13.81</u>

* = 95th Percentile Means Value Test in accordance with CLR 7

Eynesbury Mobile Home Park

PLOT 26

● PL 26A - 26D = Sample Locations

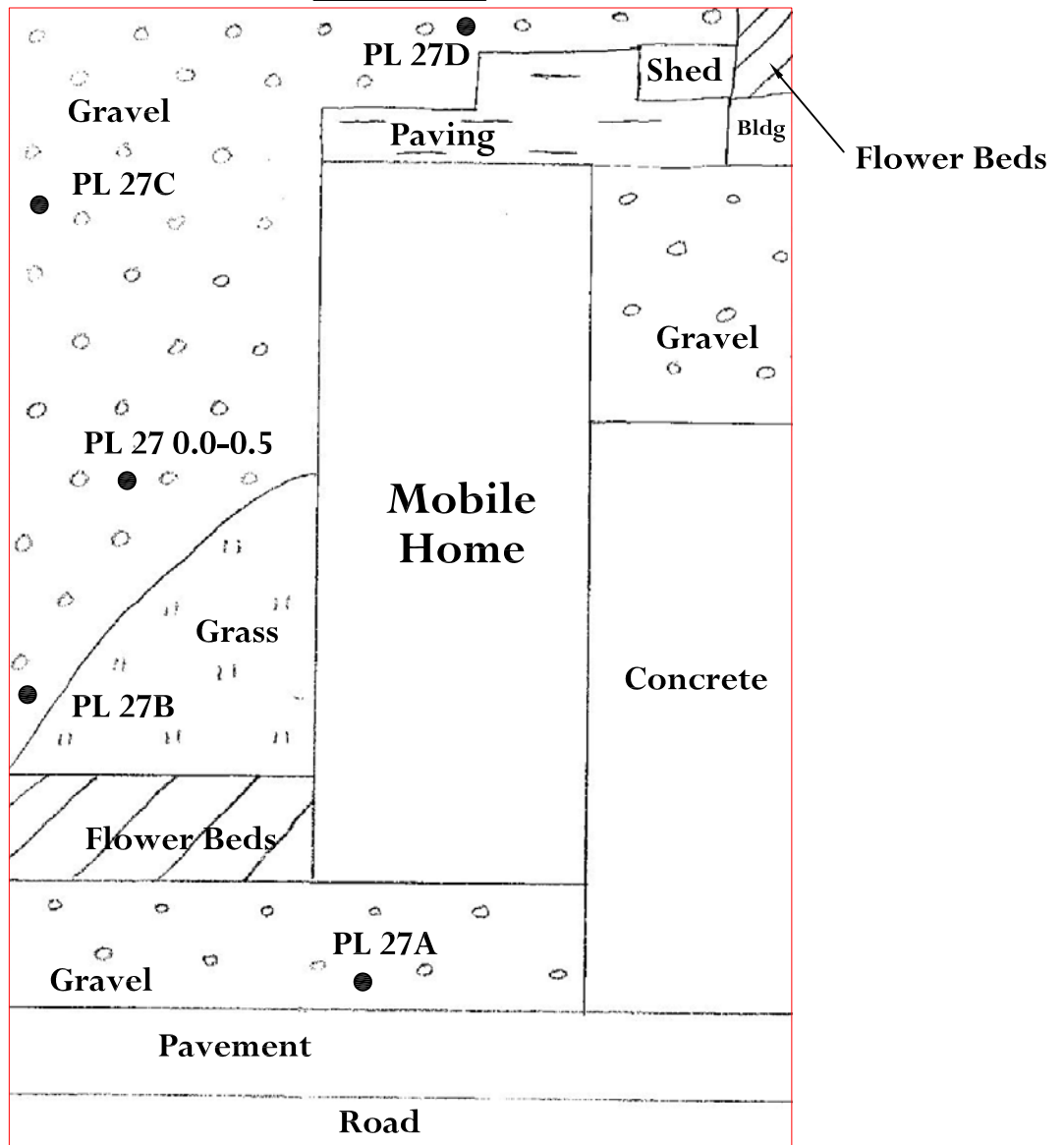| Plot 26	
Sample Ref	BAP
PL 26A	12
PL 26B	16
PL 26C	6.2
PL 26D	1.4
PL26 0.4-0.6	1.40
Means Value Test Result* =	<u>13.11</u>

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 27

Gravel

PL 27D

Shed

Bldg

Flower Beds

PL 27C

Paving

Gravel

PL 27 0.0-0.5

Mobile Home

PL 27B

Grass

Concrete

Flower Beds

Gravel

PL 27A

Pavement

Road

● PL 27A – 27D = Sample Locations

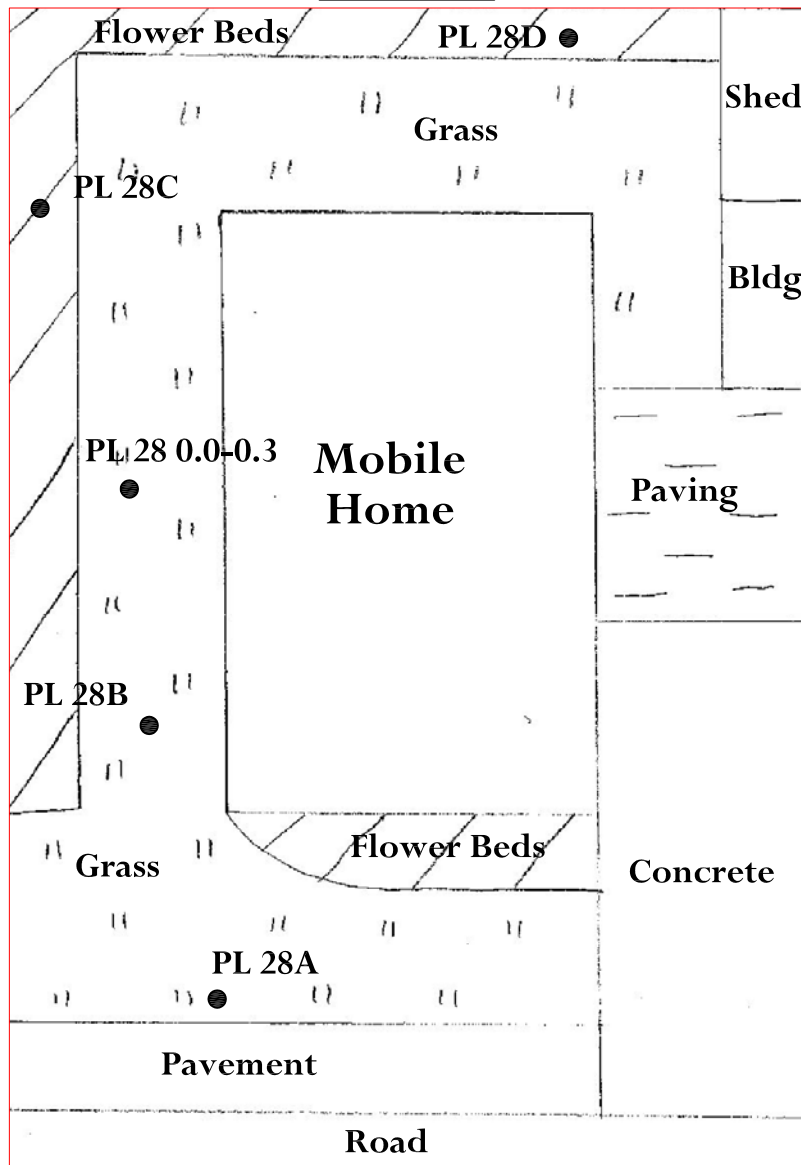| Plot 27	
Sample Ref	BAP
PL 27A	2.2
PL 27B	1.8
PL 27C	4.7
PL 27D	0.5
PL27 0.0-0.5	3.50
Means Value Test Result* =	**3.98**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 28

Flower Beds   PL 28D ●

Shed

Grass

PL 28C ●

Bldg

PL 28 0.0-0.3 ●

Mobile Home

Paving

PL 28B ●

Flower Beds

Concrete

Grass

PL 28A ●

Pavement

Road

● PL 28A – 28D = Sample Locations

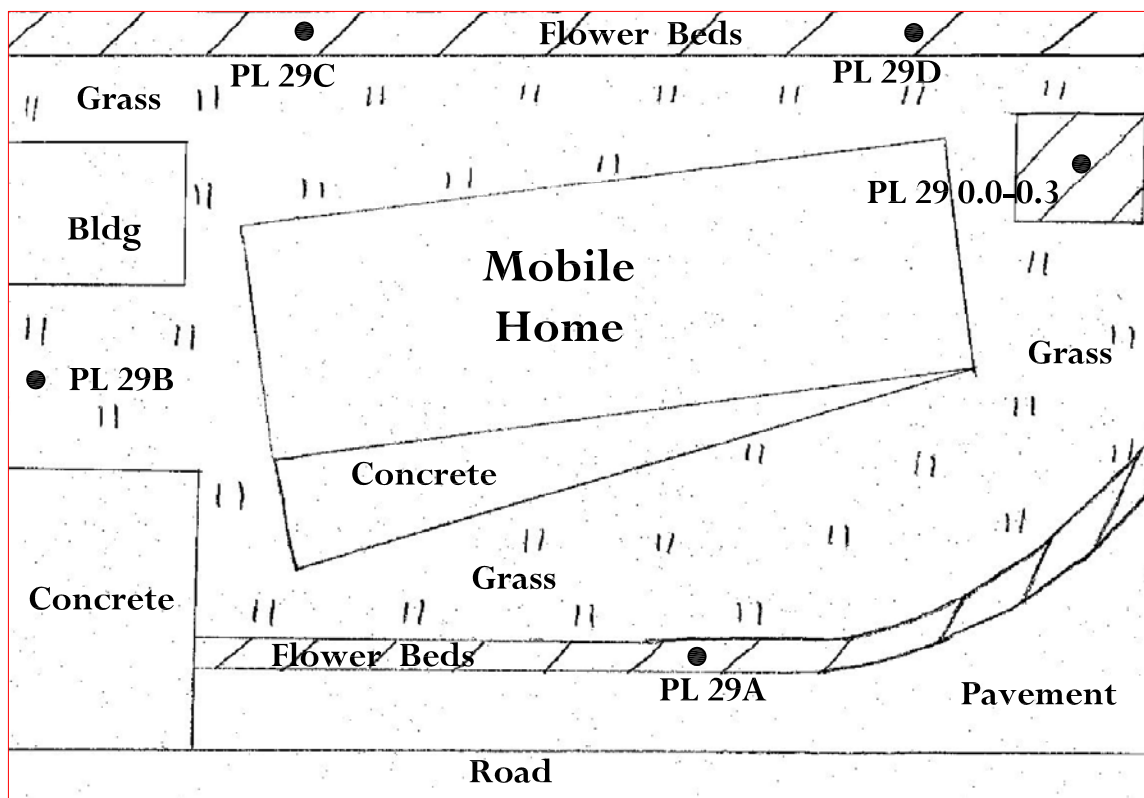| Plot 28	
Sample Ref	BAP
PL 28A	1.6
PL 28B	1.0
PL 28C	1.8
PL 28D	1.9
PL28 0.0-0.3	4.70
Means Value Test Result* =	**3.49**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 29

● PL 29A - 29D = Sample Locations

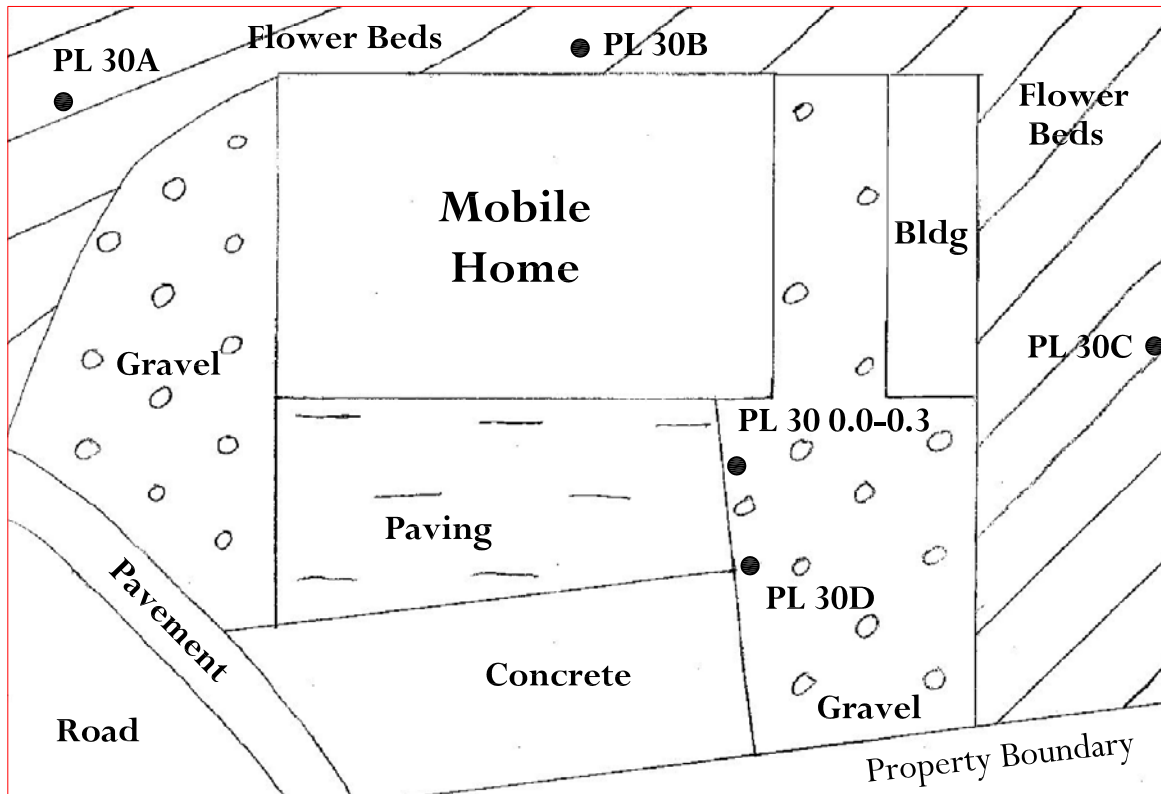| Plot 29	
Sample Ref	BAP
PL 29A	2.6
PL 29B	4.6
PL 29C	1.0
PL 29D	1.5
PL29 0.0-0.3	3.70
Means Value Test Result* =	**4.03**

* = 95th Percentile Means Value Test in accordance with CLR 7

Environmental Protection Strategies Ltd

Eynesbury Mobile Home Park

PLOT 30

PL 30A – 30D = Sample Locations

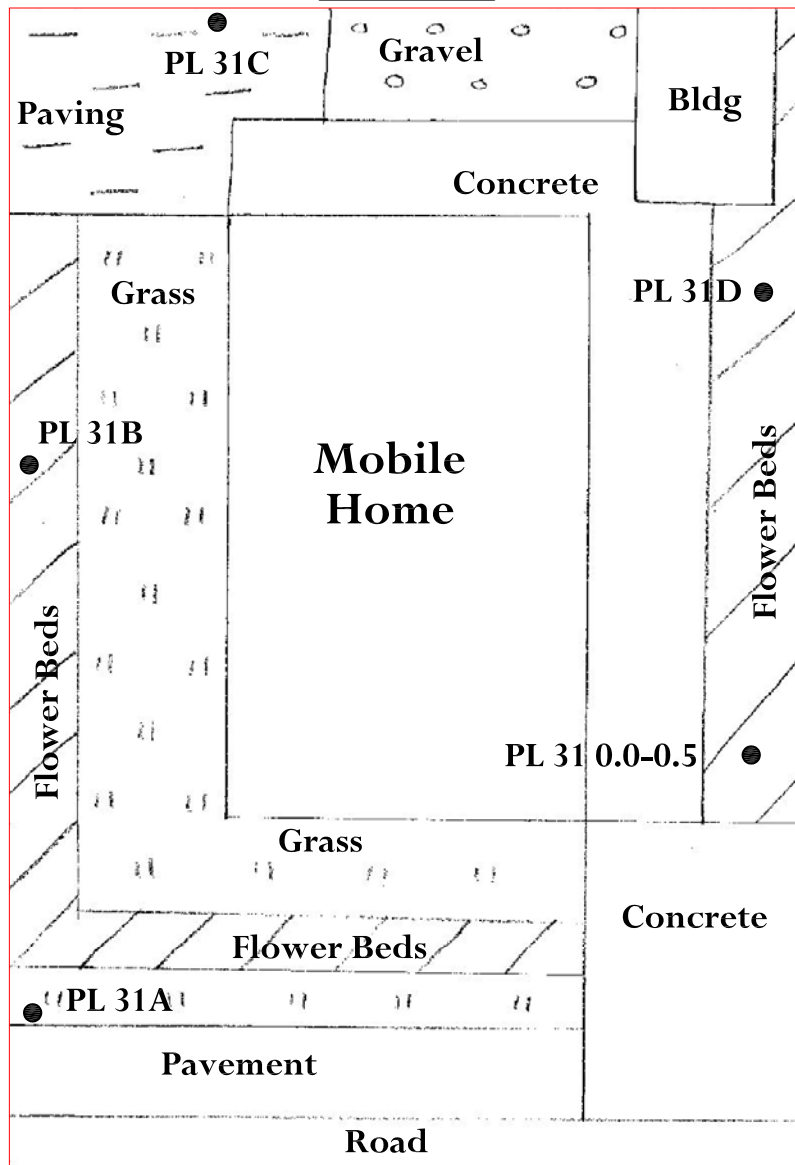| Plot 30	
Sample Ref	BAP
PL 30A	0.6
PL 30B	0.7
PL 30C	2.3
PL 30D	1.7
PL30 0.0-0.3	2.50
Means Value Test Result* =	**2.36**

* = 95th Percentile Means Value Test in accordance with CLR 7

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PLOT 31

● PL 31A – 31D = Sample Locations

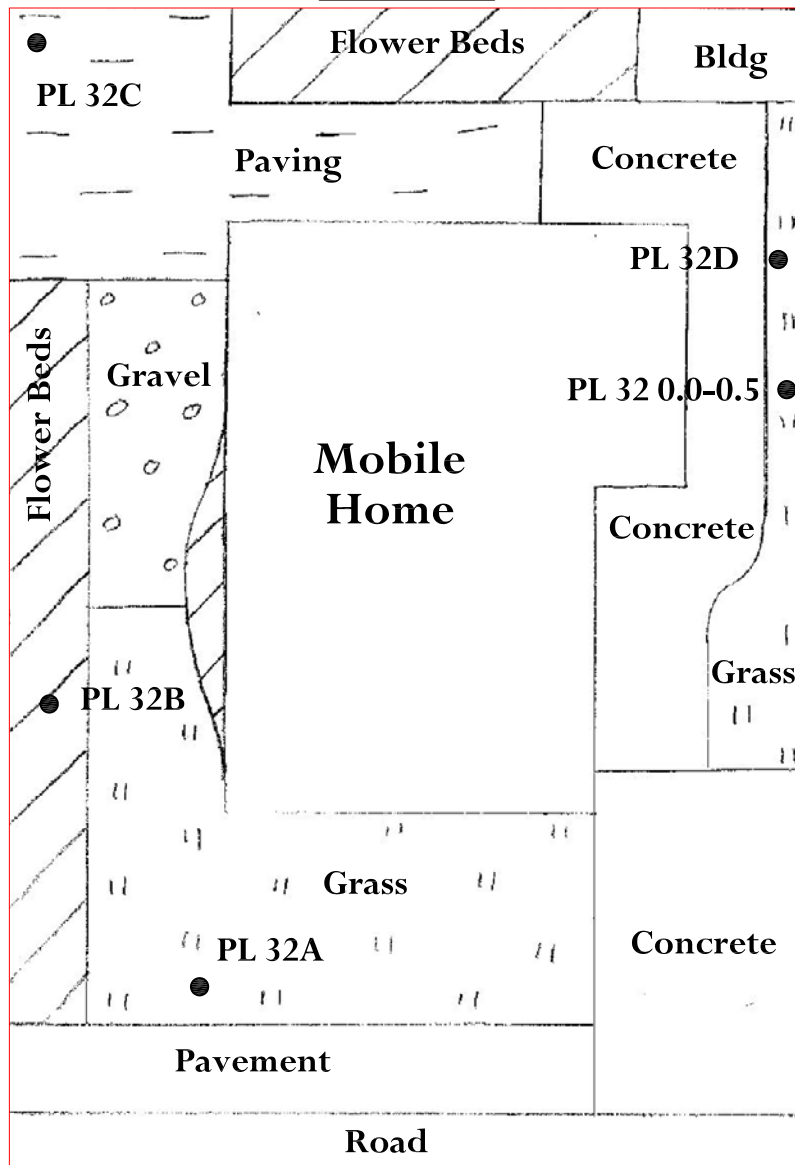| Plot 31	
Sample Ref	BAP
PL 31A	0.6
PL 31B	*0.1*
PL 31C	1.7
PL 31D	2.0
PL31 0.0-0.5	20.00
Means Value Test Result* =	**12.53**

* = 95th Percentile Means Value Test in accordance with CLR 7

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PLOT 32

Flower Beds

Bldg

● PL 32C

Paving

Concrete

PL 32D ●

Flower Beds

Gravel

PL 32 0.0-0.5 ●

Mobile Home

Concrete

● PL 32B

Grass

Grass

Concrete

● PL 32A

Pavement

Road

● **PL 32A – 32D = Sample Locations**

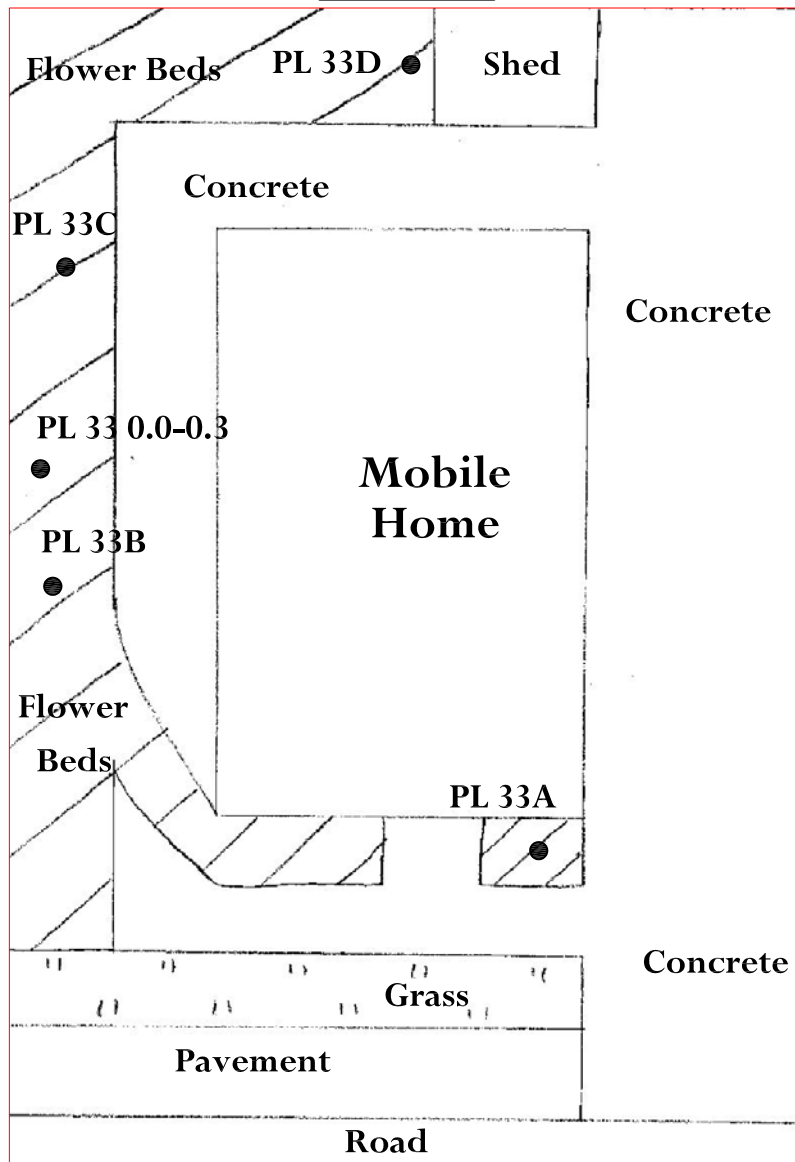| Plot 32	
Sample Ref	BAP
PL 32A	5.9
PL 32B	3.1
PL 32C	11.1
PL 32D	0.8
PL32 0.0-0.5	0.42
Means Value Test Result* =	**8.23**

* = 95th Percentile Means Value Test in accordance with CLR 7

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PLOT 33

Flower Beds   PL 33D   Shed

Concrete

PL 33C

Concrete

PL 33 0.0-0.3

PL 33B

Mobile Home

Flower Beds

PL 33A

Concrete

Grass

Pavement

Road

● PL 33A – 33D = Sample Locations

Plot 33	
Sample Ref	BAP
PL 33A	0.9
PL 33B	7.9
PL 33C	*0.1*
PL 33D	1.0
PL33 0.0-0.3	1.20
Means Value Test Result* =	**5.07**

* = 95th Percentile Means Value Test in accordance with CLR 7

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