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Environment Protection Authority

Preliminary Methane Investigation Landfill Screening Project

January 2009





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1. Introduction

The Environment Protection Authority Victoria (EPA) contracted GHD Pty Ltd (GHD) to undertake a preliminary methane monitoring programme around selected landfills. EPA identified that these landfills required monitoring to confirm their methane status relative to nearby offsite building development.

1.1 Background

EPA has conducted an assessment of EPA licensed landfills throughout Victoria to identify if there are any sites that might pose a community risk due to offsite migration of methane. EPA engaged GHD to undertake monitoring work at 19 sites where EPA's assessment process identified perimeter methane monitoring was required.

This report details the results of the methane monitoring undertaken.

1.2 Scope

The scope of the project was to:

- » Establish soil gas bores up to 1.5 m in depth below ground level in the vicinity of the nominated landfills with particular reference to any nearby sensitive land uses;
- » Sample the soil gas bores using a methane and oxygen dual monitor, to determine whether methane is migrating beyond the boundary of the landfill towards sensitive land uses; and
- » Where methane was detected at a landfill boundary, conduct a monitoring sweep of service pits (stormwater and electrical) within the area to check for the presence of methane.

1.3 Objective

The objective of this initial phase of the project is to determine whether any of the nominated landfills pose a potential risk to proximate sensitive land uses due to methane migration.

1.4 Limitations

This report has been prepared for use by EPA only who has commissioned the works and investigations, in accordance with their instructions and GHD's proposal, and has been based on information and subsequent directions provided by the client.

The information and advice herein relates only to this project and all results should be reviewed by a competent and experienced person with experience in environmental investigations before being used for any other purpose.

GHD accepts no liability for use or interpretation by any person or body other than the EPA who commissioned this work. This report should not be reproduced, or amended in any way without prior approval by EPA and GHD.



The extent of bore establishment and sampling has been necessarily limited at this stage, and has been targeted towards areas where methane migration could impact on sensitive land uses based on knowledge of the site history, surrounding geology and topography, visual observation, and where access could be obtained to the preferred bore establishment/sampling locations. This approach should enable an assessment to be made of whether a site has methane migration that could impact on nearby sensitive land uses. However, it may not identify such migration that occurs in unexpected locations or from unexpected sources.

Further, soil, rock, aquifer and landfill conditions (e.g. age, design, waste types received) are often variable resulting in non-homogeneous distribution and migration of methane from sites, where this is occurring. Where methane concentrations have been identified at sample locations around a site, conditions between sample locations can only be inferred on the basis of the estimated geological and hydrogeological conditions and the recorded concentrations and extent of the identified methane.

Conditions between zones of variable concentration are often difficult to determine, and interpretations would need to be based on the available information and the application of professional judgment. The accuracy with which the subsurface conditions have been characterised depends on the frequency and methods of sampling and the uniformity, or otherwise, of subsurface conditions, and is therefore limited by the scope of works undertaken.

This report does not provide a complete assessment of the environmental status of the sites investigated during this phase of the project, and is limited to the scope defined herein. Should further information become available regarding conditions at the sites investigated, GHD reserves the right to review the report in the context of the additional information.



2. Methodology

2.1 EPA Screening

EPA conducted an assessment of current and former EPA-licensed landfills across Victoria. The assessment considered key characteristics of the landfills.

The risk assessment identified 20 landfill sites where further information was required on the methane status of the landfill. GHD were commissioned to undertake methane testing for 19 of these sites to provide an indication of the potential for methane to migrate from the landfill site. Details of these sites are presented in Table 2.1 (in alphabetical order by suburb/town).

Table 1 Landfills Subject to Field Investigation

#	EPA Licence Number	Licence Holder	Site Address
1	HS311	ARARAT RURAL CITY COUNCIL	Queen Street South, ARARAT , 3377
2	LS169	EAST GIPPSLAND SHIRE COUNCIL	Bosworth Road, BAIRNSDALE , 3875
3	ES506	HUME CITY COUNCIL	Corner Bolinda Road and Sydney Road, CAMPBELLFIELD , 3061
4	ES24499	MOUNT ALEXANDER SHIRE COUNCIL	Sluicers Road, CASTLEMAINE , 3450
5	ES491	TPI	Corner of Deals Road and Ryans Road, CLAYTON , 3169
6	ES20872	CLAYTON ROAD LANDFILL JV	654-718 Clayton Road, CLAYTON SOUTH , 3169
7	ES49849	TPI	Corner Deals Road and Heatherton Road, CLAYTON SOUTH , 3169
8	ES419	TPI	Victory Road, CLAYTON SOUTH , 3169
9	EM28818	TPI	Fraser Road, CLAYTON SOUTH , 3169
10	ES146	ERNEST SMITH CONTRACTORS P/L	Lot 1 Lp46395, Lots 1,2 & 3 Lp61906, Lot 1 Lp79066 & Pt Ca 2Section 14 Parish Of Mordialloc, DINGLEY , 3172
11	ES177	EPPING WASTE DISPOSAL ENTERPRISES P/L	Lots 1 & 2 Childs Road, EPPING , 3076



#	EPA Licence Number	Licence Holder	Site Address
12	ES37130	BASS COAST SHIRE COUNCIL	Grantville Gravel Reserve, Corner Bass Highway and Stanley Road, GRANTVILLE , 3984
13	HS1400	MITCHELL SHIRE COUNCIL	Walders Road, KILMORE , 3764
14	ES511	SITA	890 Taylors Road, LYNDHURST , 3975
15	ES453	MORNINGTON PENINSULA SHIRE COUNCIL	C/A 38b Sect A Parish Of Wannaeu, RYE , 3941
16	ES109	GLYNLEE P/L	Corner Clarke Road and Spring Road, SPRINGVALE , 3171
17	ES553	CITY OF GREATER DANDENONG	Clarke Road, SPRINGVALE SOUTH , 3172
18	EM28913	KNOX CITY COUNCIL	Corner High Street & Cathies Lane, WANTIRNA SOUTH , 3152
19	LS118	LATROBE CITY COUNCIL	Mill Road, YALLOURN NORTH , 3825

2.2 Methane Investigations

The methodology for determining whether methane migration is occurring beyond site boundaries and potentially able to impact on nearby sensitive land uses is described below.

Bores were installed and monitored at the nominated sites between 13 October and 25 November 2008 in accordance with the programme schedule presented in Appendix A.

2.2.1 Bore Location

Bore location was initially selected on the basis of covering each side of the nominated landfill sites with particular emphasis on those site boundaries proximate to sensitive land uses such as housing. This was the indicative sampling plan initially provided to GHD field staff.

As the purpose of the investigations was to determine whether methane is migrating beyond site (and/or buffer) boundaries, it was appropriate to establish soil gas sampling bores away from the landfill and towards the identified sensitive land uses.

When field staff attended a site these considerations were addressed on site, and other aspects and issues such as topography and access were taken into consideration in determining final bore locations. In addition, EPA reviewed proposed locations for the bores and some proposed bore locations were changed or additional bores requested.



All prospective bore locations were screened for underground services using a specialist sub-contractor in conjunction with maps provided by utility companies, where necessary. All bore locations were logged using a GPS and photographed (refer Appendix C).

Dependent on the initial test results for methane after establishment of a bore, or on re-sampling within a 24 to 48 hour period, additional bores were established to delineate potential methane migration. This typically involved establishing additional bores in the direction towards sensitive land uses.

Typically no further bores were established at a site where there was no detectable methane in the bore after a 24 to 48 hour period.

Where a number of landfill sites were in close proximity, such as in the Clayton and Springvale areas, a slightly different strategy was developed to determine whether there were any potential issues at locations between landfills as well as near sensitive land uses.

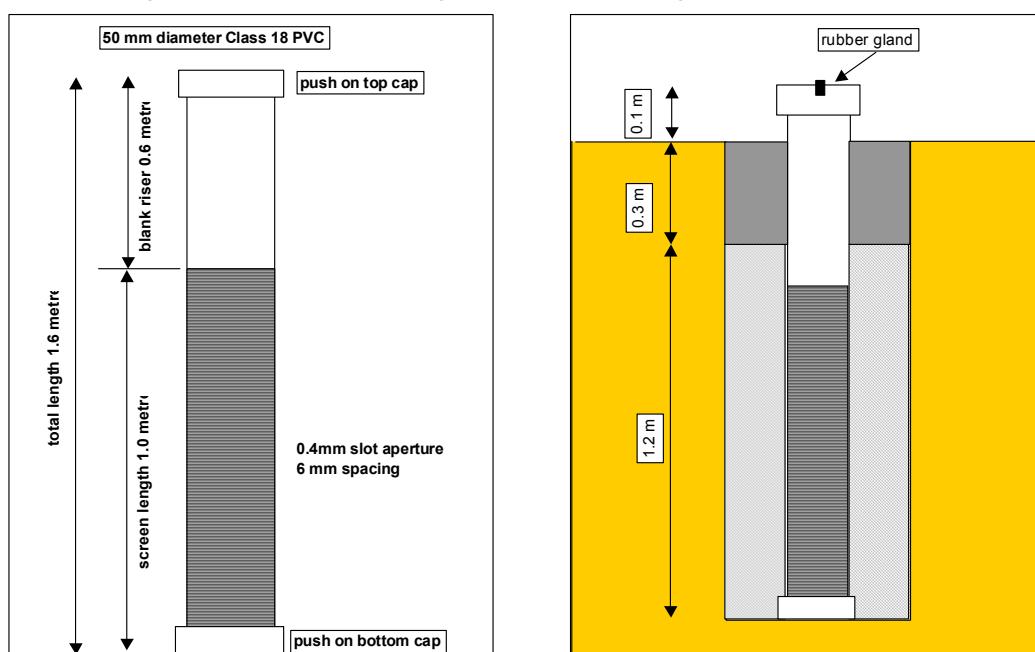
The bore locations for each site are presented in Appendix B.

The location of the nearest sensitive land use and the presence of dead vegetation (as a possible indicator of elevated methane levels) were recorded by field staff (refer tables of results presented in section 3 for recorded observations).

2.2.2 Bore Construction

Bore construction was as indicated in Figure 2.1, except where auger refusal caused bores to be established to depths less than 1.5 m below ground level. Where shorter bores were established, the excess section of pipe was cut from the slotted or bottom part of the bore. The shortest bores established were 0.8 to 0.9 m below ground level.

Figure 2.1 - Landfill Gas Monitoring Probes - Schematic Design



Installation Method:

1. Hand auger down to 100 mm for initial u/g service check EVEN IF dial-before-you-dig indicates no services in area.
2. Ream out hole using motorised auger and continue (if possible) to total depth of 1.5 m
3. IF BOREHOLE IS UNSTABLE, use PVC sleeving to keep hole open ie alternate between augering and rotating the sleeve in - TURN AUGER OFF before using the sleeve
4. Place top cap on pipe
5. Backfill with 1840 graded sand (or equivalent) back up to 0.2 m above top of slotted section
IF using PVC sleeve, alternate between pouring sand in and pulling sleeve out (using vice grips or other similar device)
6. Check on sand level with steel measuring tape - once at 0.3 m below ground, stop
7. Pour in bentonite up to 5 cm below ground level, and hydrate with 500 mL of water
8. Drill hole into top of top cap, and place rubber gland in hole



As indicated in Figure 2.1, the holes in the ground were established using a hand auger and/or a motorised auger. In a couple of instances, due to the presence of rock, larger drill rigs were provided and used by specialist sub-contractors in order to establish the bores.

2.2.3 Bore Monitoring

Bore monitoring took place immediately upon bore establishment, and in a couple of instances where initial readings were high, bores were checked again before leaving the area. Bores were then monitored again within 24 to 48 hours after establishment (in most cases). Depending on the results obtained additional monitoring occurred at some sites/bores.

Monitoring was undertaken using a Q-RAE Plus Multi-Gas Monitor(PGM-2000/2020) and GA2000 portable gas analyser. Appendix D contains further information on the specifications of these instruments.

The Q-RAE monitors methane (CH_4) levels as a percentage of LEL (Lower Explosive Limit), until 100% LEL is reached (i.e. 5% v/v CH_4) where the monitor alarm sounds and it then starts to read directly in %v/v CH_4 , i.e. 5% v/v CH_4 , 6% v/v CH_4 , 7% v/v CH_4 , etc. The monitor can read up to 100% v/v CH_4 . The lower detection limit of the monitor appears to be about 2% to 3% LEL (or 0.1%-0.15% v/v CH_4). The explosive range for methane is approximately 5-15% v/v. Oxygen levels are displayed on the monitor as %v/v O_2 .

The GA2000 displays methane (CH_4), Carbon dioxide (CO_2), Oxygen(O_2) and the balance of gas, expressed as %v/v.

During bore establishment, field teams were instructed to monitor gases while the hole was being established if any odours were noticed during this process. In a couple of instances, strong odours were noticed and the monitor indicated readings above 10% LEL (0.5% v/v). In these instances (>10% LEL) staff were instructed not to establish a bore but to move to an acceptable location further away from the landfill and try again.

2.2.4 Interpretation of Results

The interpretation of results has initially been based on the following investigation criteria developed as per the document *Best Practice Environmental Management (Siting, Design, Operation and Rehabilitation of Landfills)*, EPA (October 2001).

Table 2 Adopted Investigation criteria

Methane Level (%v/v)	<1	>1
Site Status	No Further Action	Further Action Required

It is intended that these thresholds, the status of the sites with respect to the nature of further investigations or required actions, and the assignment of priority will be re-examined and developed further with EPA as a result of this testing programme.



3. Results

The results of preliminary methane monitoring of the sites, in alphabetical order by suburb/town, as per Table 1, are presented as follows.

Landfill: Ararat
Licence No.: HS 311

Bore No.: AR-BH1
GPS (GDA 94): 54671274 E
 5870152 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	21.00	0.00	20.90	50m	Some trees closer to landfill		
0.50	0.00	21.00	0.00	20.50				
0.75	0.00	21.00	0.00	20.90				
1.00	0.00	21.00	0.00	20.60				
1.25	0.00	21.00	0.00	20.40				
1.50	0.00	21.00	0.00	ND				
Monitor Used:	Q-RAE							

Bore No.: AR-BH2
GPS (GDA 94): 54670806 E
 5870171 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	21.90	0.00	20.90	200m	Some bush		
0.50	0.00	21.90	0.00	20.40				
0.75	0.00	21.90	0.00	20.90				
1.00	0.00	21.90	0.00	20.40				
1.25	0.00	21.90	0.00	20.60				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

Landfill: Bairnsdale Note to tables: ND denotes 'No Data'
 Licence No.: LS169

Bore No.: BA-BH1
 GPS (GDA 94): 37.83798 Lat
 147.61739 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		15/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	18.20	0.15	18.50	10m	No Dead Vegetation visible		
0.50	0.00	ND	0.00	18.20	0.15	18.50				
0.75	0.00	ND	0.00	18.10	0.15	18.40				
1.00	0.00	ND	0.00	18.10	0.15	18.30				
1.25	0.00	ND	0.00	18.10	0.15	18.30				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE									

Bore No.: BA-BH2
 GPS (GDA 94): 37.83695 Lat
 147.61797 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		15/10/2008		20/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	ND	0.15	16.50	0.15	17.30	0.00	19.60	30-40m	No Dead Vegetation visible		
0.50	0.00	ND	0.15	16.40	0.20	16.90	0.00	19.60				
0.75	0.00	ND	0.15	16.30	0.20	16.80	0.00	19.30				
1.00	0.00	ND	0.15	16.90	0.20	16.40	0.00	19.30				
1.25	0.00	ND	0.15	16.00	0.20	16.30	0.00	19.30				
1.50	0.00	ND	0.15	16.10	0.20	16.20	0.00	19.30				
Monitor Used:	Q-RAE											

Bore No.: BA-BH3
GPS (GDA 94): 37.83427 Lat
 147.62109 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		15/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	20.00	ND	2.15	16.00	0.50	15.80	No data Recorded	No Dead Vegetation visible		
0.50	30.00	ND	2.40	15.70	0.50	15.90				
0.75	47.00	ND	2.65	15.20	0.50	16.20				
1.00	72.00	ND	3.00	14.40	0.55	15.30				
1.25	84.00	ND	3.35	14.20	0.60	15.10				
1.50	0.00	ND	3.40	14.20	0.15	20.10				
Monitor Used:	Q-RAE									

High methane levels recorded at this bore were suspected to be caused by the large amounts of organic material in the soil surrounding. A sample was taken and monitored, however, the results were inconclusive. Further monitoring or investigation is recommended to better determine the source of the methane.

Bore No.: BA-BH4
GPS (GDA 94): 37.83921 Lat
 147.61913 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		15/10/2008		20/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	ND	0.00	18.70	0.15	19.10	0.00	20.60	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	18.60	0.15	19.00	0.00	20.50				
0.75	0.00	ND	0.00	18.70	0.20	19.00	0.00	20.40				
1.00	0.00	ND	0.15	18.60	0.25	18.80	0.00	20.20				
1.25	0.00	ND	0.00	ND	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE											

Bore No.: BA-BH5
GPS (GDA 94): 37.83556 Lat
 147.61889 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		15/10/2008		20/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	ND	0.00	18.60	0.00	16.20	0.00	20.90	20m	No Dead Vegetation visible		
0.50	0.00	ND	0.00	18.50	0.00	16.20	0.00	20.90				
0.75	0.00	ND	0.00	18.60	0.00	16.20	0.00	20.90				
1.00	0.00	ND	0.00	18.50	0.00	16.10	0.00	20.90				
1.25	0.00	ND	0.00	18.60	0.00	16.00	0.00	ND				
1.50	0.00	ND	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE											

Bore No.: BA-BH6
GPS (GDA 94): 37.83411 Lat
 147.61958 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		15/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	19.10	0.00	15.40	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	19.10	0.15	15.30				
0.75	0.00	ND	0.00	19.20	0.15	15.20				
1.00	0.00	ND	0.00	19.10	0.15	14.90				
1.25	0.00	ND	0.00	ND	0.15	ND				
1.50	0.00	ND	0.00	ND	0.15	ND				
Monitor Used:	Q-RAE									

Landfill: Campbellfield
Licence No.: ES506

Note to tables: ND denotes 'No Data'

Bore No.: CM-BH1
GPS (GDA 94): 320807 E
 5827530 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	16/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	17.90	0.00	20.20	150m	No Dead Vegetation visible		
0.50	0.00	18.50	0.00	20.40				
0.75	0.00	17.80	0.00	20.20				
1.00	0.00	18.60	0.50	18.80				
1.25	0.00	19.90	0.50	18.70				
1.50	0.00	19.50	0.00	ND				
Monitor Used:	Q-RAE							

Bore No.: CM-BH2
GPS (GDA 94): 320498 E
 5826959 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	16/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.50	20.20	50m	Dead Vegetation visible		
0.50	0.00	ND	0.00	20.50				
0.75	0.00	ND	0.00	20.10				
1.00	0.00	ND	0.00	19.90				
1.25	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

Note to tables: 'ND' denotes No Data

Bore No.: CM-BH3
GPS (GDA 94): 5532045 E
5826934 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	21/10/2008		22/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.00	20.90	2.5m to houses	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90				
0.75	0.00	20.90	0.00	20.80				
1.00	0.00	20.90	0.00	20.70				
1.25	0.00	20.90	0.00	20.60				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

Landfill: Castlemaine
Licence No.: ES24499

Bore No.: CS-BH1
GPS: 250751 E
5892895 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	18.10	0.00	18.10	400m to factory	No Dead Vegetation visible		
0.50	0.00	15.80	0.00	15.80				
0.75	0.00	17.00	0.00	17.00				
1.00	0.00	18.10	0.00	18.10				
1.25	0.00	14.90	0.00	14.90				
1.50	0.00	19.90	0.00	19.90				
Monitor Used:	Q-RAE							

Bore No.: CS-BH2
GPS: 250715 E
5892673 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.00	20.90	300m to residential	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90				
0.75	0.00	20.90	0.00	20.90				
1.00	0.00	20.90	0.00	20.90				
1.25	0.00	20.90	0.00	20.90				
1.50	0.00	20.90	0.00	20.90				
Monitor Used:	Q-RAE							

Bore No.: CS-BH3
GPS: 250464 E
5892587 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.00	20.90	500m to residential	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90				
0.75	0.00	20.90	0.00	20.90				
1.00	0.00	20.90	0.00	20.90				
1.25	0.00	20.90	0.00	20.90				
1.50	0.00	20.90	0.00	20.90				
Monitor Used:	Q-RAE							

Bore No.: CS-BH4
GPS: 850614 E
5892980 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.10	0.00	20.10	200m to factories	No Dead Vegetation visible		
0.50	0.00	20.00	0.00	20.00				
0.75	0.00	20.50	0.00	20.50				
1.00	0.00	19.10	0.00	19.10				
1.25	0.00	19.00	0.00	19.00				
1.50	0.00	20.90	0.00	20.90				
Monitor Used:	Q-RAE							

Landfill: Clayton Landfills
Licence No.: ES 419; ES 491; ES 49849; ES 20872

Bore No.: CL-BH1
GPS (GDA 94): 335081 E
 5797139 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.80	0.00	20.90	2.90	12.00	ND	18.80	0.00	20.30	Plant Nursery 20m East	No Dead Vegetation visible		
0.50	0.00	20.80	0.00	20.90	0.80	17.10	0.20	18.70	0.00	20.20				
0.75	0.00	20.90	0.00	20.90	0.55	17.50	0.30	19.70	0.00	20.20				
1.00	0.00	20.90	0.00	20.20	0.50	17.90	0.20	19.70	0.00	20.10				
1.25	0.00	20.90	0.00	20.20	0.35	18.50	0.20	19.60	0.00	20.10				
1.50	0.00	20.50	0.00	20.20	0.30	18.90	0.30	19.70	0.00	20.10				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH2
GPS (GDA 94): 335095 E
 5797229 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		20/10/2008*		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	2.45	12.40	15.60	0.80	10.80	1.40	Golf Course 1m E; Indigenous plant nursery 50m SE	Large Trees		
0.50	4.20	15.20	0.00	20.90	2.60	11.40	15.70	0.80	11.00	1.00				
0.75	7.00	12.80	0.00	3.40	2.65	10.80	16.60	0.50	13.20	0.70				
1.00	8.00	12.20	0.00	3.10	2.85	10.60	10.20	0.40	15.60	0.60				
1.25	8.00	8.30	0.00	3.10	2.45	10.80	20.00	0.30	15.50	0.50				
1.50	10.00	10.60	0.00	3.10	3.10	10.10	20.10	0.30	17.00	0.50				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH3
 GPS (GDA 94): 335112 E
 5797346 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	27.00	9.80	0.00	20.90	3.10	18.70	61.50	0.70	57.90	1.00	Golf Course 1m E	No Dead Vegetation visible		
0.50	32.00	6.60	0.00	20.90	4.05	18.00	61.60	0.50	58.40	0.70				
0.75	35.00	5.80	0.00	20.90	5.00	16.80	61.80	0.40	58.20	0.60				
1.00	39.00	3.40	29.00	9.80	6.00	17.90	62.10	0.30	58.60	0.60				
1.25	43.00	1.20	32.00	8.50	5.00	18.20	62.10	0.40	58.60	0.40				
1.50	44.00	1.00	35.00	6.40	5.00	18.10	62.30	0.30	58.60	0.50				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH4
 GPS (GDA 94): 335003 E
 5797119 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	0.10	20.20	59.40	0.70	57.20	1.10	50m S, small garden centre on opposite side of Heatherton Rd	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.05	20.30	59.30	0.50	57.10	0.80				
0.75	0.00	20.90	0.00	20.90	5.00	17.40	59.80	0.50	57.10	0.70				
1.00	0.00	20.90	36.00	5.40	6.00	17.00	59.60	0.40	57.20	0.60				
1.25	34.00	6.30	37.00	4.70	9.00	13.90	59.70	0.40	57.10	0.60				
1.50	37.00	5.60	38.00	4.10	10.00	14.10	59.70	0.40	57.30	0.50				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH5
 GPS (GDA 94): 334726 E
 5797162 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	5.00	17.00	0.30	18.70	0.00	19.80	20m W	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	6.00	15.70	0.30	18.60	0.00	19.80				
0.75	0.00	20.90	0.00	19.60	5.00	18.90	0.30	18.50	0.00	19.70				
1.00	0.00	20.30	0.00	19.70	18.00	19.50	0.20	19.20	0.00	19.60				
1.25	0.00	20.20	0.00	19.60	0.30	20.10	0.30	19.30	0.00	19.50				
1.50	0.00	20.10	0.00	19.30	0.10	20.30	0.30	18.40	0.00	18.10				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH6
 GPS (GDA 94): - E
 - N

Bore not established due to Auger Refusal

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation		
	Methane (Initial % v/v)	Oxygen (Initial % v/v)				
0.25	ND	ND	No Data Recorded	No Data Recorded		
0.50	ND	ND				
0.75	ND	ND				
1.00	ND	ND				
1.25	ND	ND				
1.50	ND	ND				
Monitor Used:	Not Applicable					

Bore No.: CL-BH7
 GPS (GDA 94): 334993 E
 5798766 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	0.00	20.30	0.20	20.30	0.00	20.20	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.30	0.20	20.30	0.10	20.10				
0.75	0.00	20.90	0.00	20.90	0.00	20.00	0.20	20.20	0.00	20.00				
1.00	0.00	20.90	0.00	20.90	0.00	20.40	0.20	20.00	0.10	19.60				
1.25	0.00	20.90	0.00	20.90	0.00	20.30	0.30	19.80	0.10	19.40				
1.50	0.00	20.90	0.00	20.90	0.00	20.20	0.20	19.40	0.10	19.10				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH8
 GPS (GDA 94): 335094 E
 5798749 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.50	0.00	20.50	0.30	20.30	0.10	20.50	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.40	0.00	20.50	0.30	20.30	0.10	20.40				
0.75	0.00	20.90	0.00	20.40	0.00	20.40	0.30	20.60	0.10	20.20				
1.00	0.00	20.90	0.00	20.50	0.00	20.40	0.30	20.20	0.10	20.00				
1.25	0.00	20.90	0.00	20.40	0.00	20.30	0.30	19.80	0.10	19.80				
1.50	0.00	20.90	0.00	20.40	0.00	20.20	0.30	19.50	0.10	20.10				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH9
 GPS (GDA 94): 334337 E
 5797693 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)												
0.25	0.00	20.00	0.00	20.20	0.00	20.90	0.35	20.20	0.30	18.50	0.10	20.90	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	20.00	0.00	20.20	0.00	20.90	0.35	19.60	0.30	18.40	0.10	19.20				
0.75	0.15	19.90	0.00	20.20	0.00	20.90	0.25	19.50	0.30	18.30	0.10	19.10				
1.00	0.00	20.90	0.00	18.70	0.00	19.20	0.20	19.60	0.20	18.10	0.10	18.60				
1.25	0.00	20.40	0.00	18.70	0.00	19.00	0.20	19.50	0.30	17.80	0.10	18.40				
1.50	0.00	19.80	0.00	18.30	0.00	18.90	0.15	19.50	0.20	17.70	0.10	18.20				
Monitor Used:	Q-RAE												GA 2000			

Bore No.: CL-BH10
 GPS (GDA 94): 334355 E
 5797816 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)												
0.25	0.00	20.60	0.70	20.40	0.00	20.90	0.00	20.90	62.10	0.80	59.20	0.60	100 SE, dwelling	No Dead Vegetation visible		
0.50	0.00	20.60	39.00	5.90	0.00	20.90	10.00	15.70	62.10	0.60	60.30	0.40				
0.75	35.00	5.40	40.00	5.50	0.00	20.90	13.00	15.10	61.00	0.50	60.60	0.30				
1.00	36.00	4.80	41.00	5.40	42.00	4.80	13.00	14.00	62.00	0.50	60.50	0.30				
1.25	37.00	4.60	45.00	3.60	43.00	3.30	14.00	13.70	62.20	0.40	61.00	0.20				
1.50	36.00	4.80	46.00	3.60	44.00	3.60	15.00	14.20	62.30	0.40	61.40	0.30				
Monitor Used:	Q-RAE												GA 2000			

Bore No.: CL-BH11
 GPS (GDA 94): 334479 E
 5798005 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)												
0.25	0.00	0.00	0.00	0.00	20.90	0.00	20.60	61.30	0.60	60.80	0.40		50m N, to waste depot	No Dead Vegetation visible		
0.50	0.00	0.00	0.00	0.00	20.90	0.90	12.50	61.10	0.50	61.20	0.20					
0.75	47.00	1.70	47.00	3.70	47.00	2.60	0.95	10.70	61.10	0.50	61.30	0.20				
1.00	48.00	1.60	47.00	3.60	48.00	2.40	0.85	11.90	61.30	0.40	62.00	0.20				
1.25	48.00	1.50	48.00	3.30	48.00	2.40	0.75	12.70	61.30	0.40	61.90	0.20				
1.50	48.00	1.50	12.00	18.80	48.00	2.40	0.75	11.60	61.50	0.40	60.90	0.20				
Monitor Used:	Q-RAE										GA 2000					

Bore No.: CL-BH12
 GPS (GDA 94): 334594 E
 5797990 N

Depth	Results												Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		16/10/2008		20/10/2008		23/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)												
0.25	48.00	1.80	0.00	2.00	0.00	20.90	0.20	20.50	60.00	0.60	61.40	0.40	50m N, recycling centre	No Dead Vegetation visible		
0.50	49.00	1.70	49.00	1.80	48.00	1.90	0.20	20.50	59.90	0.50	61.30	0.30				
0.75	49.00	1.70	50.00	1.50	49.00	1.70	0.15	20.70	60.20	0.50	61.20	0.30				
1.00	49.00	1.70	51.00	1.10	49.00	1.70	0.20	20.60	60.00	0.50	61.40	0.30				
1.25	49.00	1.70	51.00	1.10	49.00	1.70	0.20	20.60	60.40	0.50	61.40	0.20				
1.50	49.00	1.70	51.00	1.00	49.00	1.70	0.15	20.60	60.50	0.40	61.30	0.20				
Monitor Used:	Q-RAE										GA 2000					

Bore No.: CL-BH13
 GPS (GDA 94): - E
 - N

Bore not established due to Auger Refusal

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation		
	Methane (Initial % v/v)	Oxygen (Initial % v/v)				
0.25	ND	ND	No Data Recorded	No Data Recorded		
0.50	ND	ND				
0.75	ND	ND				
1.00	ND	ND				
1.25	ND	ND				
1.50	ND	ND				
Monitor Used:	Not Applicable					

Bore No.: CL-BH14
 GPS (GDA 94): 335955 E
 5797559 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation	
	16/10/2008		17/10/2008		20/10/2008		24/10/2008		30/10/2008		17/11/2008		
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)							
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.00	20.70	0.10	20.20	0.10	19.90	Residential Dwellings ~20m E
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.00	20.70	0.10	19.30	0.00	19.90	
0.75	0.00	20.90	0.00	20.90	0.00	20.90	0.00	19.90	0.10	19.70	0.00	19.80	
1.00	0.00	20.40	0.00	20.40	0.00	19.60	0.00	19.90	0.10	19.70	0.00	19.80	
1.25	0.00	ND	0.00	ND	0.00	19.50	0.00	20.00	0.10	19.00	0.10	19.80	
1.50	0.00	ND	0.00	ND	0.00	19.50	0.00	19.90	0.10	19.10	0.10	19.70	
Monitor Used:	Q-RAE						GA 2000						

Bore No.: CL-BH15
 GPS (GDA 94): 336042 E
 5798207 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	16/10/2008		20/10/2008		24/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.70	0.00	19.60	0.10	21.00	0.10	21.10	Residential Dwellings 10m E	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.70	0.00	20.50	0.10	21.00	0.10	21.10				
0.75	0.00	20.90	0.00	20.60	0.00	20.50	0.20	21.00	0.10	21.10				
1.00	0.00	20.50	0.00	20.30	0.00	20.50	0.20	21.00	0.10	21.00				
1.25	0.00	20.50	0.00	20.20	0.00	20.50	0.20	21.00	0.10	20.90				
1.50	0.00	20.50	0.00	20.20	0.00	20.50	0.20	20.90	0.10	20.80				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH16
 GPS (GDA 94): 335379 E
 5797073 N

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	16/10/2008		20/10/2008		24/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.20	20.40	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.20	0.20	20.40				
0.75	0.00	20.90	0.00	20.90	0.00	20.10	0.20	20.30				
1.00	0.00	20.90	0.00	20.00	0.00	19.90	0.10	20.2				
1.25	0.00	20.90	0.00	19.80	0.00	19.70	0.00	ND				
1.50	0.00	20.90	0.00	19.70	0.00	19.40	0.00	ND				
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH17
 GPS (GDA 94): 334354 E
 5798200 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		23/10.08		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	0.00	20.70	0.30	11.40	0.00	14.40	Residential, 15m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.70	0.30	11.40	0.00	14.00				
0.75	0.00	20.90	0.00	20.90	0.00	20.70	0.20	10.80	0.00	13.60				
1.00	0.00	16.40	0.00	17.70	0.00	18.50	0.20	9.60	0.00	11.40				
1.25	0.00	15.90	0.00	16.40	0.00	18.10	0.20	8.70	0.00	10.20				
1.50	0.00	15.70	0.00	15.10	0.00	17.90	0.20	8.50	0.00	9.40				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH18
 GPS (GDA 94): 334266 E
 5798209 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		23/10.08		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	0.00	20.30	0.20	17.80	0.00	18.00	Dwelling, 20m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.10	0.20	17.80	0.00	17.90				
0.75	0.00	20.90	0.00	20.90	0.00	19.40	0.20	17.80	0.00	17.60				
1.00	0.00	19.60	0.00	20.90	0.00	19.20	0.20	17.70	0.00	17.20				
1.25	0.00	19.40	0.00	19.40	0.00	19.20	0.30	17.60	0.00	17.10				
1.50	0.00	18.90	0.00	19.10	0.00	19.20	0.30	17.50	0.00	17.00				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH19
 GPS (GDA 94): 334438 E
 5798461 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		23/10.08		30/10/2008		18/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.30	20.20	0.00	19.70	Residential, 30m W	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.30	20.00	0.00	19.50				
0.75	0.00	20.90	0.00	20.60	0.00	20.90	0.30	19.90	0.00	19.50				
1.00	0.00	20.90	0.00	20.60	0.00	20.90	0.20	19.90	0.00	19.50				
1.25	0.00	20.40	0.00	20.40	0.00	20.90	0.30	19.70	0.00	19.40				
1.50	0.00	20.40	0.00	20.10	0.00	20.90	0.20	19.60	0.00	19.20				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH20
 GPS (GDA 94): 334292 E
 5797774 N

Depth	Results										Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		23/10.08		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.30	21.20	0.10	17.00	Concrete plant 20m S, Residential dwelling 70-80m S	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.30	15.50	0.10	14.90				
0.75	0.00	20.90	0.00	18.10	0.00	19.70	0.30	14.30	0.10	14.10				
1.00	0.00	20.90	0.00	18.30	0.00	19.20	0.30	13.90	0.10	13.80				
1.25	0.00	20.90	0.00	17.10	0.00	18.40	0.20	13.70	0.10	13.30				
1.50	0.00	17.70	0.00	17.00	0.00	18.30	0.20	13.60	0.10	13.10				
Monitor Used:	Q-RAE					GA 2000								

Bore No.: CL-BH21
 GPS (GDA 94): 335834 E
 5798643 N

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		23/10/08		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.00	20.90	0.00	20.90	0.00	21.00	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.90	0.00	21.00				
0.75	0.00	20.90	0.00	20.90	0.00	20.90	0.00	21.00				
1.00	0.00	20.90	0.00	20.50	0.00	20.90	0.00	20.90				
1.25	0.00	ND	0.00	ND	0.00	20.90	0.00	20.80				
1.50	0.00	ND	0.00	ND	0.00	20.90	ND	ND				
Monitor Used:	Q-RAE					GA 2000						

Bore No.: CL-BH22
 GPS (GDA 94): 334556 E
 5798206 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	24/10/2008		3/11/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.00	21.10	0.00	20.80	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	21.20	0.00	20.60				
0.75	0.00	20.90	0.00	20.90	0.00	20.60				
1.00	0.00	20.90	0.00	20.90	0.00	20.70				
1.25	0.00	ND	0.00	21.20	0.00	ND				
1.50	1.00	ND	0.00	21.20	0.00	ND				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH23
 GPS (GDA 94): 334542 E
 5798092 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	24/10/2008		3/11/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.10	ND	0.10	20.80	0.00	20.30	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.60	0.00	20.20				
0.75	0.00	ND	0.00	20.30	0.00	20.10				
1.00	0.00	ND	0.00	20.30	0.10	19.90				
1.25	0.00	ND	0.00	ND	0.00	20.00				
1.50	0.00	ND	0.00	ND	ND	ND				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH24
 GPS (GDA 94): 334408 E
 5798227 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	24/10/2008		3/11/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.10	18.20	0.00	20.30	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.10	18.70	0.00	19.50				
0.75	0.00	20.90	0.10	18.70	0.00	19.30				
1.00	0.00	20.90	0.20	18.60	0.00	19.10				
1.25	0.00	20.90	0.20	18.40	0.00	18.90				
1.50	0.00	19.60	0.10	18.40	0.00	18.90				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH25
 GPS (GDA 94): 334390 E
 5798112 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	24/10/2008		3/11/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.20	18.60	0.00	17.20	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.20	16.80	0.00	16.70				
0.75	0.00	19.90	0.20	16.40	0.00	15.60				
1.00	0.00	19.40	0.20	15.90	0.00	15.00				
1.25	0.00	18.70	0.20	15.30	0.00	14.50				
1.50	0.00	17.60	0.20	14.90	0.00	14.50				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH26
 GPS (GDA 94): 334401 E
 5798033 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	27/10/2008		6/11/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.20	16.00	0.10	16.50	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.20	15.80	0.10	15.50				
0.75	0.00	20.90	0.20	15.60	0.10	15.10				
1.00	0.00	19.10	0.10	15.00	0.10	14.40				
1.25	0.00	19.20	0.10	13.70	0.10	13.90				
1.50	0.00	18.60	0.20	13.70	0.10	13.70				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH27
 GPS (GDA 94): 335748 E
 5797024 N

Bore not established as found to be within old landfill cell.

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation		
	28/10/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)				
0.25	ND	ND	No Data Recorded	No Data Recorded		
0.50	ND	ND				
0.75	ND	ND				
1.00	ND	ND				
1.25	ND	ND				
1.50	ND	ND				
Monitor Used:	Not Applicable					

Bore No.: CL-BH28
 GPS (GDA 94): 225922 E
 5797315 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	28/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.20	20.10	0.00	20.10	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.10	20.40	0.00	19.40				
0.75	0.00	20.50	0.10	19.10	0.00	19.50				
1.00	0.00	20.50	0.10	18.40	0.00	18.60				
1.25	0.00	20.50	0.10	17.80	0.00	18.30				
1.50	0.00	20.50	0.10	17.80	0.00	18.30				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH29
 GPS (GDA 94): 335899 E
 5797117 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	28/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.10	19.30	0.00	20.30	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.10	19.30	0.00	20.20				
0.75	0.00	20.90	0.10	19.20	0.00	20.10				
1.00	0.00	20.90	0.20	19.00	0.00	19.90				
1.25	0.00	20.10	0.10	19.00	0.00	19.70				
1.50	0.00	ND	0.10	18.80	0.00	19.60				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH30
 GPS (GDA 94): 335942 E
 5797435 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	28/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.10	18.90	0.00	20.40	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.10	18.50	0.00	19.90				
0.75	0.00	20.00	0.10	18.30	0.00	19.80				
1.00	0.00	19.90	0.10	18.10	0.00	19.60				
1.25	0.00	19.70	0.10	18.30	0.00	19.50				
1.50	0.00	ND	0.00	ND	0.00	19.10				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH31
GPS (GDA 94): 335750 E
 5797024 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.10	19.20	0.00	20.90	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.40	0.10	19.10	0.00	19.60				
0.75	0.00	20.30	0.10	18.90	0.00	19.10				
1.00	0.00	20.00	0.10	18.60	0.00	18.50				
1.25	0.00	19.60	0.10	18.50	0.00	18.70				
1.50	0.00	19.40	0.10	18.60	0.00	18.70				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH32
GPS (GDA 94): 334836 E
 5787141 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.20	19.20	0.40	19.30	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.20	19.30	0.40	19.30				
0.75	0.00	20.90	0.20	19.30	0.40	19.20				
1.00	0.00	20.90	0.20	19.40	0.40	19.20				
1.25	0.00	20.90	0.30	18.00	0.40	19.20				
1.50	0.00	20.90	0.30	17.60	0.30	19.20				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH33
 GPS (GDA 94): 334658 E
 5797056 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.00	0.30	18.70	0.40	17.40	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	19.30	0.20	18.00	0.40	18.10				
0.75	0.00	19.10	0.20	17.80	0.40	18.50				
1.00	0.00	18.90	0.20	17.90	0.40	17.30				
1.25	0.00	18.70	0.20	17.20	0.40	17.90				
1.50	0.00	18.60	0.20	17.00	0.40	17.00				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH34
 GPS (GDA 94): 334657 E
 5797129 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	24/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.20	20.70	0.50	20.30	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.20	20.70	0.50	20.10				
0.75	0.00	ND	0.20	20.70	0.40	20.00				
1.00	0.00	20.40	0.20	20.40	0.50	19.90				
1.25	0.00	20.30	0.20	20.30	0.50	19.90				
1.50	0.00	20.10	0.20	20.20	0.50	19.60				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH35
 GPS (GDA 94): 334575 E
 5797160 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.30	0.20	20.20	0.40	19.40	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	19.90	0.20	19.60	0.40	19.30				
0.75	0.00	19.80	0.20	19.30	0.40	19.10				
1.00	0.00	19.80	0.20	19.00	0.30	19.00				
1.25	0.00	19.60	0.20	18.90	0.40	18.80				
1.50	0.00	ND	0.20	18.50	0.40	18.60				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH36
 GPS (GDA 94): 303618 E
 58368391 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.20	0.30	20.30	0.30	19.40	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	19.50	0.30	20.80	0.30	19.40				
0.75	0.00	19.40	0.30	20.00	0.30	19.30				
1.00	0.15	19.40	0.30	19.80	0.40	19.40				
1.25	0.15	19.30	0.30	19.40	0.40	19.20				
1.50	0.15	19.20	0.20	19.60	0.30	19.00				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH37
GPS (GDA 94): (55)334272 E
 5797328 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.90	0.10	20.00	0.30	20.00	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.40	0.20	20.20	0.30	19.60				
0.75	0.00	20.30	0.20	19.40	0.30	19.70				
1.00	0.00	20.30	0.20	18.60	0.30	19.20				
1.25	0.00	20.30	0.20	18.30	0.30	18.60				
1.50	0.00	20.30	0.20	18.20	0.30	18.90				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH38
GPS (GDA 94): - E
 - N

Bore not established due to Auger Refusal

Depth	Results		Nearest Sensitive Land Use	Dead Vegetation		
	Methane (Initial % v/v)	Oxygen (Initial % v/v)				
0.25	ND	ND	No Data Recorded	No Data Recorded		
0.50	ND	ND				
0.75	ND	ND				
1.00	ND	ND				
1.25	ND	ND				
1.50	ND	ND				
Monitor Used:	Not Applicable					

Bore No.: CL-BH39
 GPS (GDA 94): 334301 E
 5797752 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		30/10/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.15	18.40	0.20	21.30	0.00	13.30	Residential 30m N	No Dead Vegetation visible		
0.50	0.20	17.80	0.20	21.40	0.00	13.20				
0.75	0.20	16.70	0.20	21.10	0.00	13.20				
1.00	0.20	16.10	0.30	21.10	0.00	13.10				
1.25	0.20	15.80	0.30	21.20	0.00	13.20				
1.50	0.20	15.40	0.20	21.20	0.00	13.10				
Monitor Used:	Q-RAE		GA 2000							

Bore No.: CL-BH40
 GPS (GDA 94): 335452 E
 5788695 N

Depth	Results						Nearest Sensitive Land Use	Nearest Sensitive Land Use		
	30/10/2008		6/11/2008		17/11/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	21.00	0.20	20.50	0.00	20.90	Residential 30m N	No Dead Vegetation visible		
0.50	0.00	20.80	0.20	20.00	0.00	21.00				
0.75	0.00	20.50	0.20	19.80	0.00	21.00				
1.00	0.00	20.40	0.20	19.70	0.00	20.90				
1.25	0.00	20.10	0.20	19.60	0.00	20.70				
1.50	0.00	20.10	0.20	19.10	0.00	20.40				
Monitor Used:	GA 2000									

Service Sweep:		CL	Location 1A - Fibre Optics cover, Ryan's rd			
Depth	Results		Nearest Sensitive Land Use	Nearest Sensitive Land Use		
	27/10/2008					
	Methane (Initial % v/v)	Oxygen (Initial % v/v)				
0.25	ND	ND	No Data Recorded	No Data Recorded		
0.50	ND	ND				
0.75	0.00	20.90				
1.00	ND	ND				
1.25	ND	ND				
Monitor Used:	Q-RAE					

Service Sweep: CL Location 1 - Telstra Pit, West side of Clayton Rd, approx. 30m south of Victory Rd(opposite bus shelter) 9:42 am

Results		Nearest Sensitive Land Use	Dead Vegetation	
25/11/2008				
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Open	0.00	20.80	No Data Recorded	No Data Recorded
Service	0.00	21.20		
Monitor Used:	GA 2000			

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL Location 2- ("FP" Plate, west side of Clayton Rd 5m South of Leslie Rd) 10:24 am

Results		Nearest Sensitive Land Use	Dead Vegetation	
25/11/2008				
	Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Open	0.00	20.40	No Data Recorded	No Data Recorded
Service	0.00	19.70		
Monitor Used:	GA 2000			

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)
 (20m North to houses)

Service Sweep: CL West side of Clayton Rd

Location	Results		Nearest Sensitive Land Use	Dead Vegetation	
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 3 Telstra Pit 10:30	Open	0.00	20.30	No Data Recorded	No Data Recorded
	Service	0.00	20.10		
Location 4 Telstra Pit 10:36 am	Open	0.00	20.00		
	Service	0.00	20.00		
Location 5 Telstra Pit 10:40 am	Open	0.00	20.10		
	Service	0.00	20.20		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL West side of Clayton Rd

Location	Results		Nearest Sensitive Land Use	Dead Vegetation	
	25/11/2008				
		Methane (Initial % v/v)	Oxygen (Initial % v/v)		
Location 6 Telstra Pit 11:38	Open	0.00	21.10	No Data Recorded	No Data Recorded
	Service	0.00	21.20		
Location 7 Telstra Pit 11:45am	Open	0.00	21.20		
	Service	0.00	21.10		
Location 8 Telstra Pit	Open	0.00	21.20		
	Service	0.00	21.00		
Monitor Used:	GA 2000				

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL East Side of Clayton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Location 9	Open	0.00	21.10	No Data Recorded	No Data Recorded		
Telstra Pit 11:58	Service	0.00	20.60				
Location 10	Open	0.00	21.20				
Access Pit 12:03	Service	0.00	21.20				
Location 11	Open	0.00	21.20				
Access Pit 12:08 pm	Service	0.10	21.00				
Monitor Used:	GA 2000						

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Location 12	Open	0.10	21.10	No Data Recorded	No Data Recorded		
Telstra Pit 12:13	Service	0.10	20.30				
Location 13	Open	0.10	21.00				
Access Pit 12:17	Service	0.10	21.20				
Location 14	Open	0.00	21.40				
Access Pit 12:22 pm	Service	0.40	20.70				
Monitor Used:	GA 2000						

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Location 15	Open	0.00	21.20	No Data Recorded	No Data Recorded		
Optus Pit	Service	0.00	21.30				
Location 16	Open	0.10	21.30				
Access Pit	Service	0.10	21.10				
Location 17	Open	0.10	21.30				
Telstra Pit	Service	0.10	21.00				
Monitor Used:	GA 2000						

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL East side of Clayton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Location 18	Open	0.10	21.30	No Data Recorded	No Data Recorded		
Access Pit 12:39pm	Service	0.10	21.10				
Location 19	Open	0.20	21.20				
Access Pit	Service	0.10	21.20				
Location 20	Open	0.20	21.10				
Access Pit 2:50pm	Service	0.30	21.20				
Location 21 PMG Pit 12:54pm	Open	0.20	21.10				
Pit 12:54pm	Service	0.20	21.30				
Monitor Used:	GA 2000						

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL Heatherton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Location 22 Stormwater drain	Open	0.00	21.20	No Data Recorded	No Data Recorded		
	Service	0.00	21.40				
Location 23 Access pit 2:27	Open	0.00	21.50				
	Service	0.00	21.30				
Location 24 Telstra Pit 2:31pm	Open	0.00	21.30				
	Service	0.00	21.10				
Location 25 Telstra Pit 2:34 pm	Open	0.00	21.30				
	Service	0.00	21.10				
Location 26 Access Pit 2:37 pm	Open	0.00	21.40				
	Service	0.00	21.20				
Location 27 Access Pit 2:40pm	Open	0.00	21.30				
	Service	0.00	21.30				
Monitor Used:	GA 2000						

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL Heatherton Rd

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Location 28 Telstra Pit	Open	0.00	21.30	No Data Recorded	No Data Recorded		
	Service	0.00	21.30				
Location 29 CFC Hydrant 2:57pm	Open	0.00	21.40				
	Service	0.00	21.20				
Location 30 Telstra Pit 3:01pm	Open	0.00	21.40				
	Service	0.00	21.30				
Location 31 CFC Hydrant 3:11pm	Open	0.00	21.40				
	Service	0.00	21.20				
Location 32 Access Pit 3:16pm	Open	0.00	21.50				
	Service	0.00	21.40				
Location 33 Access Pit 3:23pm	Open	0.00	21.40				
	Service	0.00	21.30				
Location 34 Valve(gas valve) 3:33pm	Open	0.00	21.40				
	Service	2.70	16.10				
Location 35 Access Pit 3:36pm	Open	0.00	21.70				
	Service	0.90	20.00				
Monitor Used:	GA 2000						

Note : Open (Approx. 1 m above pit) and Service (Sample taken from within the pit)

Service Sweep: CL Bayaley Flowers Warehouse

Location	Results			Nearest Sensitive Land Use	Dead Vegetation		
	25/11/2008						
		Methane (Initial % v/v)	Oxygen (Initial % v/v)				
Corner of Warehouse	Open	0.00	20.70	No Data Recorded	No Data Recorded		
	Service	0.00	20.80				
Eastern Side of Building under	Open	0.00	21.00				
	Service	0.00	21.00				
Kitchen under oven Laundry under sink	Open	0.00	21.00				
	Service	ND	ND				
Monitor Used:	GA 2000						

Landfill: Dingley
Licence No.: ES 146

Bore No.: DY-BH1
GPS (GDA 94): 335094 E
 5795732 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.30	30m E	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.30				
0.75	0.00	ND	0.00	20.00				
1.00	0.00	ND	0.00	19.80				
1.25	0.00	ND	0.00	19.60				
1.50	0.00	ND	0.00	19.40				
Monitor Used:	Q-RAE							

Bore No.: DY-BH2
GPS (GDA 94): 335137 E
 5795807 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	19.40	30m E	No Data Recorded		
0.50	0.00	ND	0.00	19.60				
0.75	0.00	ND	0.00	18.80				
1.00	0.00	ND	0.00	18.50				
1.25	0.00	ND	0.00	17.50				
1.50	0.00	ND	0.00	17.00				
Monitor Used:	Q-RAE							

Bore No.: DY-BH3
GPS (GDA 94): 335213 E
5795951 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.90	30m E	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.90				
0.75	0.00	ND	0.00	20.90				
1.00	0.00	ND	0.00	20.50				
1.25	0.00	ND	0.00	20.40				
1.50	0.00	ND	0.00	20.40				
Monitor Used:	Q-RAE							

Bore No.: DY-BH4
GPS (GDA 94): 335237 E
5795993 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.40	30m E	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.40				
0.75	0.00	ND	0.00	20.40				
1.00	0.00	ND	0.00	20.30				
1.25	0.00	ND	0.00	20.10				
1.50	0.00	ND	0.00	19.90				
Monitor Used:	Q-RAE							

Bore No.: DY-BH5
GPS (GDA 94): 335331 E
5796163 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	14/10/2008		16/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.40	30m E	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.40				
0.75	0.00	ND	0.00	20.20				
1.00	0.00	ND	0.00	20.20				
1.25	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

Landfill: Epping
Licence No.: ES 177

Bore No.: Epping 1
GPS (GDA 94) 55324718 E
 5830886 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		28/10/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.70	0.00	20.90	0.00	20.00	20m	No Data Recorded		
0.50	0.00	20.50	0.00	20.90	0.00	20.00				
0.75	0.00	19.40	0.00	20.90	0.00	19.40				
1.00	0.00	20.10	0.00	20.60	0.00	17.70				
1.25	0.00	19.50	0.00	20.90	ND	ND				
1.50	0.00	17.50	0.00	ND	ND	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: Epping 2
GPS (GDA 94) 55324821 E
 5830500 N

Depth	Results**								Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		16/10/2008		28/10/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)										
0.25	0.00	20.50	0.00	20.90	0.00	20.20	0.00	20.40	Hospital 200m	No Data Recorded		
0.60	0.00	19.20	0.00	20.90	0.50	19.40	0.00	20.30				
0.75	0.00	18.50	0.00	20.90	0.50	19.40	0.00	20.40				
1.00	0.00	18.00	0.00	20.90	0.50	19.40	0.00	20.30				
1.25	0.00	ND	0.00	20.90	0.00	ND	0.00	19.90				
1.50	0.00	ND	0.00	20.90	0.00	ND	0.00	19.50				
Monitor Used:	Q-RAE					GA 2000						

** Original of BH2 was not completed because of high LEL reading.

Field sheet dated 15/10/08. 46% LEL read at 0.6m depth and drilling ceased.

Bore No.: Epping 3
 GPS (GDA 94) - E
 - N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	16/10/2008		28/10/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	21.90	0.00	20.90	0.00	20.30	Hospital 300m	No Dead Vegetation visible		
0.50	0.00	21.90	0.00	20.50	0.00	20.30				
0.75	0.00	21.90	0.00	20.40	0.00	19.90				
1.00	0.00	21.90	0.00	20.20	0.00	19.90				
1.25	0.00	21.90	0.00	19.90	0.00	19.90				
1.50	0.00	ND	0.00	ND	ND	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: Epping 4
 GPS (GDA 94) 324515 E
 5831059 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	16/10/2008		28/10/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.90	0.00	20.40	Hospital 300m	Some trees closer to landfill		
0.50	0.00	20.90	0.00	20.40	0.00	20.10				
0.75	0.00	20.90	0.00	20.40	0.00	19.70				
1.00	0.00	20.90	0.00	20.40	0.00	19.60				
1.25	0.00	20.90	0.00	20.40	0.00	19.50				
1.50	0.00	20.90	0.00	ND	0.00	19.50				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: Epping 1H
 GPS (GDA 94) 324930 E
 5830590 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	7/11/2008		10/11/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.20	20.60	0.00	19.80	Hospital 300m	Some trees closer to landfill		
0.50	0.00	20.90	0.20	20.70	0.00	19.90				
0.75	0.00	20.90	0.20	20.70	0.00	20.10				
1.00	0.00	20.90	0.20	20.80	0.00	19.50				
1.25	0.00	20.90	0.20	20.60	0.00	19.40				
1.50	0.00	20.90	0.20	20.70	0.00	19.60				
Monitor Used:	GA 2000									

Bore No.: Epping 2H
 GPS (GDA 94) 324767 E
 5830688 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	7/11/2008		10/11/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	21.00	0.20	20.70	0.00	16.40	Hospital 300m	Some trees closer to landfill		
0.50	0.00	21.30	0.20	20.70	0.00	14.70				
0.75	0.00	21.50	0.20	20.60	0.00	14.00				
1.00	0.00	21.60	0.20	20.60	0.00	12.70				
1.25	0.00	21.60	0.20	20.60	0.00	12.20				
1.50	0.00	21.60	0.25	20.50	0.00	12.40				
Monitor Used:	GA 2000									

Bore No.: Epping 3H
GPS (GDA 94) 324776 E
5830744 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	7/11/2008		10/11/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	21.10	0.35	20.60	0.00	20.30	Hospital 300m	Some trees closer to landfill		
0.50	0.00	21.20	0.25	20.50	0.00	20.20				
0.75	0.00	21.10	0.25	20.50	0.00	20.00				
1.00	0.00	21.10	0.30	20.50	0.00	19.50				
1.25	0.00	21.20	0.20	20.50	0.00	18.80				
1.50	0.00	21.20	0.25	20.60	0.00	18.10				
Monitor Used:	GA 2000									

Bore No.: Epping 4H
GPS (GDA 94) 324780 E
5830833 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	7/11/2008		10/11/2008		21/11/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	21.10	0.30	20.70	0.00	19.60	Hospital 300m	Some trees closer to landfill		
0.50	0.00	21.10	0.30	20.70	0.00	19.00				
0.75	0.00	21.10	0.30	20.70	0.00	18.90				
1.00	0.00	21.10	0.25	20.60	0.00	18.80				
1.25	0.00	21.10	0.30	20.60	0.00	18.60				
1.50	0.00	21.10	0.30	20.80	0.00	18.40				
Monitor Used:	GA 2000									

Landfill: Grantville
Licence No.: ES37130

Bore No.: BH1
GPS (GDA 94): - Lat
- Long

Bore not established - Access to indicated site not possible

Bore No.: BH2
GPS (GDA 94): 38.42269 Lat
145.5226 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		15/10/2008		21/10/2008		29/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	0.00	0.00	17.40	0.00	ND	0.00	19.50	40-50m	No Dead Vegetation visible		
0.50	0.00	0.00	0.00	17.30	0.00	ND	0.00	19.40				
0.75	0.00	0.00	0.00	17.20	0.00	ND	0.00	19.40				
1.00	0.00	0.00	0.00	16.70	0.15	ND	0.00	19.30				
1.25	0.00	0.00	0.00	16.40	0.15	ND	0.00	18.70				
1.50	0.00	0.00	0.00	16.10	0.15	ND	0.00	18.90				
Monitor Used:	Q-RAE											

Bore No.: BH3
GPS (GDA 94): 38.42199 Lat
145.52654 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		15/10/2008		21/10/2008		29/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	19.60	0.00	17.90	0.00	ND	0.00	19.60	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	19.60	0.00	17.80	0.00	ND	0.00	19.40				
0.75	0.00	19.60	0.00	17.70	0.00	ND	0.00	19.40				
1.00	0.00	19.60	0.00	17.40	0.00	ND	0.00	18.90				
1.25	0.00	19.60	0.00	17.20	0.00	ND	0.00	18.50				
1.50	0.00	19.60	0.15	17.10	0.00	ND	0.15	18.10				
Monitor Used:	Q-RAE											

Landfill: Kilmore
Licence No.: HS 1400

Bore No.: KL-BH1
GPS (GDA 94): 55319985 E
 5871550 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		17/10/2008					
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (%v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.90	400m	3 dead trees 40m away		
0.50	0.00	20.90	0.00	20.90				
0.75	0.00	20.90	0.00	20.80				
1.00	0.00	20.90	0.00	20.80				
1.25	0.00	ND	0.00	20.90				
1.50	0.00	ND	0.00	20.90				
Monitor Used:	Q-RAE							

Bore No.: KL-BH2
GPS (GDA 94): 55320130 E
 5871635 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		17/10/2008**					
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (Final)	Oxygen (%) (Final)				
0.25	0.00	20.90	0.00	ND	800m to house	No Dead Vegetation visible		
0.50	0.00	20.70	0.00	ND				
0.75	0.00	20.40	0.00	ND				
1.00	0.00	20.90	0.00	ND				
1.25	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

** Field staff present on this day called through the results to the project manager on the 17th and recorded results on the field sheet on return to the office

Bore No.: KL-BH3
GPS (GDA 94): 55319918 E
 5871841 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		17/10/2008					
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (Final)	Oxygen (%) (Final)				
0.25	0.00	20.90	0.00	29.90	300m	Few dead trees		
0.50	0.00	20.70	0.00	29.90				
0.75	0.00	20.60	0.00	29.90				
1.00	0.00	20.90	0.00	29.90				
1.25	0.00	ND	0.00	29.90				
1.50	0.00	ND	0.00	29.90				
Monitor Used:	Q-RAE							

Bore No.: KL-BH4
GPS (GDA 94): 55320014 E
 5871842 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		17/10/2008**					
	Methane (Initial % v/v)	Oxygen (%) (Initial)	Methane (Final)	Oxygen (%) (Final)				
0.25	0.00	20.90	0.00	ND	400m	Few dead trees		
0.50	0.00	20.90	0.00	ND				
0.75	0.00	20.90	0.00	ND				
1.00	0.00	20.90	0.00	ND				
1.25	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

** Field staff present on this day called through the results to the project manager on the 17th and recorded results on the field sheet on return to the office

Landfill: Lyndhurst
Licence No.: ES 511

Bore No.: LT-BH1
GPS (GDA 94): 334769 E
 5788214 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		17/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.00	300m	No Dead Vegetation Recorded		
0.50	0.00	ND	0.00	19.30				
0.75	0.00	ND	0.00	19.10				
1.00	0.00	ND	0.00	19.00				
1.25	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

Bore No.: LT-BH2
GPS (GDA 94): 344824 E
 5788222 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		17/10/2008		18/11/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	2.75	19.30	1.00	19.30	100m N	No Data Recorded		
0.50	0.00	ND	3.00	19.20	0.90	19.40				
0.75	0.00	ND	3.25	19.00	0.90	19.20				
1.00	0.00	ND	3.80	18.70	1.10	19.00				
1.25	0.00	ND	4.05	18.60	0.80	18.90				
1.50	0.00	ND	4.10	18.60	1.00	19.00				
Monitor Used:	Q-RAE				GA 2000					

Bore No.: LT-BH3
 GPS (GDA 94): 334447 E
 5788078 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		17/10/2008		18/11/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.40	0.00	19.10	50m W	No Data Recorded		
0.50	0.00	ND	0.00	19.60	0.00	19.00				
0.75	0.00	ND	0.00	19.40	0.00	19.30				
1.00	0.00	ND	0.00	19.10	0.00	18.90				
1.25	0.00	ND	0.15	19.00	0.00	18.30				
1.50	0.00	ND	0.15	18.90	0.00	18.60				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: LT-BH4
 GPS (GDA 94): 344413 E
 5787716 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		17/10/2008		18/11/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	19.70	0.10	20.00	70m W	No Data Recorded		
0.50	0.00	ND	0.00	19.70	0.10	19.60				
0.75	0.00	ND	0.00	19.60	0.10	19.00				
1.00	0.00	ND	0.00	19.50	0.10	19.00				
1.25	0.00	ND	0.00	19.50	0.10	18.30				
1.50	0.00	ND	0.00	19.50	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: LT-BH5
 GPS (GDA 94): 344936 E
 5787511 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	15/10/2008		17/10/2008		18/11/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	ND**	ND**	0.00	20.60	Adjacent to cow paddock - nearest house 1km	No Data Recorded		
0.50	0.00	ND	ND**	ND**	0.00	20.20				
0.75	0.00	ND	ND**	ND**	0.00	20.20				
1.00	0.00	ND	ND**	ND**	0.00	20.10				
1.25	0.00	ND	ND**	ND**	0.00	20.10				
1.50	0.00	ND	ND**	ND**	0.00	20.00				
Monitor Used:	Q-RAE			GA 2000						

** Note an equipment malfunction was encountered and no readings were recorded.

Landfill: Rye
Licence No.: ES 453

Bore No.: R - BH1
GPS (GDA 94): 38.39625 Lat
144.8515 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.30	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.30				
0.75	0.00	ND	0.00	20.20				
1.00	0.00	ND	0.00	20.20				
1.25	0.00	ND	0.00	20.10				
1.50	0.00	ND	0.00	20.10				
Monitor Used:	Q-RAE							

Bore No.: R - BH2
GPS (GDA 94): 38.39603 Lat
144.85549 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	29/10/2008		23/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	20.30	0.00	ND	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	20.30	0.00	ND				
0.75	0.00	20.20	0.00	ND				
1.00	0.00	20.10	0.00	ND				
1.25	0.00	20.00	0.00	ND				
1.50	0.00	19.00	0.00	ND				
Monitor Used:	Q-RAE							

Bore No.: R - BH3
GPS (GDA 94): 38.38772 Lat
 144.85265 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008					
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.30	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.20				
0.75	0.00	ND	0.00	20.10				
1.00	0.00	ND	0.00	20.10				
1.25	0.00	ND	0.00	20.10				
1.50	0.00	ND	0.00	20.00				
Monitor Used:	Q-RAE							

Bore No.: R - BH4
GPS (GDA 94): 38.39041 Lat
 144.85148 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008					
	Methane (%v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.40	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.40				
0.75	0.00	ND	0.00	20.30				
1.00	0.00	ND	0.00	20.20				
1.25	0.00	ND	0.00	20.20				
1.50	0.00	ND	0.00	20.20				
Monitor Used:	Q-RAE							

Bore No.: R - BH5
GPS (GDA 94): 38.38768 Lat
144.85427 Long

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.90	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.90				
0.75	0.00	ND	0.00	20.90				
1.00	0.00	ND	0.00	20.90				
1.25	0.00	ND	0.00	20.90				
1.50	0.00	ND	0.00	20.90				
Monitor Used:	Q-RAE							

Landfill: Springvale
Licence No.: ES109

Bore No.: SP-BH1
GPS (GDA 94): 337066 E
 5794873 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		21/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.9	0.00	20.6	25m	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.6	0.00	20.5				
0.75	0.00	ND	0.00	20.5	0.00	20.4				
1.00	0.00	ND	0.00	20.5	0.00	20.3				
1.25	0.00	ND	0.00	20.5	0.00	10.7				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH2
GPS (GDA 94): 337102 E
 5795208 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		21/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.20	0.00	19.80	Aged care facility - fence 20-50m S	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.20	0.00	19.70				
0.75	0.00	ND	0.00	20.00	0.00	19.70				
1.00	0.00	ND	0.00	20.00	0.00	16.60				
1.25	0.00	ND	0.00	19.80	0.00	ND				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH3
 GPS (GDA 94): 336571 E
 5796136 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	ND	ND	0.00	20.90	0.00	21.10	50m to N	No Dead Vegetation visible		
0.50	ND	ND	0.00	20.90	0.00	21.10				
0.75	ND	ND	0.00	20.90	0.00	20.80				
1.00	ND	ND	0.00	20.90	0.00	10.80				
1.25	ND	ND	0.00	20.90	0.00	18.20				
1.50	ND	ND	0.00	20.90	0.00	17.10				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH4
 GPS (GDA 94): 336514 E
 5796084 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		20/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	ND	ND	0.00	20.90	0.00	20.00	No Data Recorded	No Dead Vegetation visible		
0.50	ND	ND	0.00	20.90	0.00	10.70				
0.75	ND	ND	0.00	20.90	0.00	10.80				
1.00	ND	ND	0.00	20.90	0.00	10.50				
1.25	ND	ND	0.00	20.90	0.00	10.00				
1.50	ND	ND	0.00	20.90	0.00	18.80				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH5
 GPS (GDA 94): 236542 E
 5795526 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	20/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%) (Final)	Methane (% v/v)	Oxygen (%) (Final)				
0.25	0.00	20.90	0.00	20.80	0.00	20.00	Dwellings 200m N	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.80	0.00	20.40				
0.75	0.00	20.90	0.00	20.80	0.00	18.80				
1.00	0.00	20.90	0.00	18.40	0.00	18.00				
1.25	0.00	20.30	0.00	17.70	0.00	17.70				
1.50	0.00	19.70	0.00	17.50	0.00	17.30				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH6
 GPS (GDA 94): 336656 E
 5796005 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	21/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	0.00	39.00	5.10	61.40	1.60	Dwellings 20m to E	No Dead Vegetation visible		
0.50	7.00	18.40	41.00	4.60	58.00	2.60				
0.75	10.00	17.40	42.00	4.40	52.20	3.60				
1.00	13.00	16.80	43.00	4.20	56.60	2.60				
1.25	0.00	ND	43.00	4.20	ND**	ND**				
1.50	0.00	ND	44.00	3.80	ND**	ND**				
Monitor Used:	Q-RAE			GA 2000						

High methane levels recorded at this bore were suspected to be caused by the large amounts of organic material in the soil surrounding. Further monitoring or investigation is recommended to better determine the source of the methane.

** Please note unable to monitor from this depth due to water present in Bore.

Bore No.: SP-BH7
GPS (GDA 94): 336591 E
 5794596 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	21/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (%) v/v)	Oxygen (%) (Final)	Methane (% v/v)	Oxygen (%) (Final)				
0.25	0.00	20.90	0.00	20.50	0.00	20.80	Residential 20m S	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.50	0.00	20.70				
0.75	0.00	20.90	0.00	20.50	0.00	20.50				
1.00	0.00	20.90	0.00	20.50	0.00	20.50				
1.25	0.00	ND	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH8
GPS (GDA 94): 336387 E
 5794831 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	21/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (%) v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.40	0.00	20.40	Residential 20m W	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.10	0.00	19.10				
0.75	0.00	20.90	0.00	19.20	0.00	18.80				
1.00	0.00	20.90	0.00	18.60	0.00	18.20				
1.25	0.00	20.90	0.00	18.30	0.00	18.00				
1.50	0.00	20.40	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH9
GPS (GDA 94): 336231 E
 5795051 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	21/10/2008		29/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.70	30m W houses	Yes, to the east, on west border of the site		
0.50	0.00	20.90	0.00	20.40				
0.75	0.00	20.90	0.00	20.30				
1.00	0.00	20.40	0.00	20.10				
1.25	0.00	20.40	0.00	20.00				
1.50	0.00	20.30	0.00	18.70				
Monitor Used:	Q-RAE							

Bore No.: SP-BH10
GPS (GDA 94): 336062 E
 5795402 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	21/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.50	0.00	20.80	20m to house under construction	Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.50	0.00	21.00				
0.75	0.00	20.90	0.00	20.30	0.00	20.80				
1.00	0.00	20.90	0.00	20.10	0.00	20.80				
1.25	0.00	20.90	0.00	ND	0.00	ND				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE				GA 2000					

Bore No.: SP-BH11
GPS (GDA 94): 336026 E
 5795635 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	22/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.90	0.00	20.30	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.40				
0.75	0.00	20.90	0.00	20.90	0.00	20.30				
1.00	0.00	20.40	0.00	20.40	0.00	18.00				
1.25	0.00	ND	0.00	20.10	0.00	18.80				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH12
GPS (GDA 94): 336658 E
 5795985 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	22/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.70	0.00	17.80	0.00	14.70	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.30	0.00	17.70	0.00	14.10				
0.75	0.00	19.90	0.00	13.50	0.00	12.40				
1.00	0.20	17.90	0.00	13.50	0.00	12.20				
1.25	0.00	ND	0.00	12.80	0.00	12.20				
1.50	0.00	ND	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH13
 GPS (GDA 94): 336666 E
 5796001 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	22/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.60	0.00	18.80	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.50	0.00	15.40	0.00	17.80				
0.75	0.00	20.40	0.00	18.00	0.00	16.80				
1.00	0.00	20.30	0.00	17.40	0.00	16.50				
1.25	0.00	20.30	0.00	16.80	0.00	16.50				
1.50	0.00	ND	0.00	19.62	ND**	ND**				
Monitor Used:	Q-RAE			GA 2000						

** Please note unable to monitor from this depth due to water present in Bore.

Bore No.: SP-BH14
 GPS (GDA 94): 337260 E
 5795618 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.80	0.00	20.50	0.00	20.30	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.60	0.00	20.50	0.00	20.30				
0.75	0.00	20.60	0.00	20.50	0.00	20.30				
1.00	0.00	20.60	0.00	20.50	0.00	20.30				
1.25	0.00	20.50	0.00	20.40	0.00	20.10				
1.50	0.00	20.50	0.00	20.30	0.00	20.10				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH15
 GPS (GDA 94): 337129 E
 5795607 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.90	0.00	20.60	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.60				
0.75	0.00	20.90	0.00	20.90	0.00	20.50				
1.00	0.00	20.90	0.00	20.50	0.00	ND				
1.25	0.00	20.90	0.00	20.50	0.00	20.40				
1.50	0.00	20.90	0.00	20.90	ND**	ND**				
Monitor Used:	Q-RAE			GA 2000						

** Please note unable to monitor from this depth due to water present in Bore.

Bore No.: SP-BH16
 GPS (GDA 94): 336829 E
 5796237 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.90	0.00	20.80	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.90	0.00	20.90	0.00	20.80				
0.75	0.00	20.90	0.00	20.90	0.00	20.70				
1.00	0.00	20.90	0.00	20.90	0.00	20.60				
1.25	0.00	20.90	0.00	20.60	0.00	20.30				
1.50	0.00	20.90	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH17
 GPS (GDA 94): 336957 E
 5796239 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		23/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.60	0.00	20.90	0.00	20.80	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.60	0.00	20.90	0.00	20.60				
0.75	0.00	20.50	0.00	20.50	0.00	20.20				
1.00	0.00	20.40	0.00	20.30	0.00	18.80				
1.25	0.00	20.30	0.00	20.30	0.00	18.70				
1.50	0.00	20.30	0.00	20.10	0.00	18.70				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH18
 GPS (GDA 94): 337279 E
 5796230 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.90	0.00	20.40	0.00	20.80	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.60	0.00	20.40	0.00	20.80				
0.75	0.00	20.60	0.00	20.30	0.00	20.80				
1.00	0.00	20.50	0.00	20.20	0.00	20.80				
1.25	0.00	20.50	0.00	20.30	0.00	20.20				
1.50	0.00	20.30	0.00	20.00	0.00	20.00				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH19
GPS (GDA 94): 337312 E
 5796056 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.20	0.00	20.90	0.00	20.80	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	18.70	0.00	20.90	0.00	20.80				
0.75	0.00	18.70	0.00	10.30	0.00	19.70				
1.00	0.00	18.40	0.00	10.10	0.00	19.70				
1.25	0.00	18.40	0.00	10.10	0.00	19.60				
1.50	0.00	18.40	0.00	17.00	0.00	19.60				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH20
GPS (GDA 94): 337287 E
 5795730 N

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	23/10/2008		29/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.00	20.70	0.00	20.90	0.00	21.00	20m to house under construction	No Dead Vegetation visible		
0.50	0.00	20.70	0.00	20.50	0.00	20.80				
0.75	0.00	20.70	0.00	20.50	0.00	20.80				
1.00	0.00	20.70	0.00	20.50	0.00	20.60				
1.25	0.00	20.60	0.00	20.50	0.00	20.60				
1.50	0.00	20.60	0.00	20.50	0.00	20.40				
Monitor Used:	Q-RAE			GA 2000						

Bore No.: SP-BH21
 GPS (GDA 94): 337287 E
 5795730 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	30/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	12.80	6.30	28.80	10.80	20m to house under construction	No Dead Vegetation visible		
0.50	8.60	17.90	30.60	10.60				
0.75	11.50	17.10	37.50	8.60				
1.00	10.30	16.80	34.50	8.30				
1.25	9.40	17.40	ND**	ND**				
1.50	0.00	ND	ND**	ND**				
Monitor Used:	GA 2000							

** Please note unable to monitor from this depth due to water present in Bore.

Bore No.: SP-BH22
 GPS (GDA 94): 337287 E
 5795730 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	30/10/2008		31/10/2008					
	Methane (% v/v)	Oxygen (%v/v)	Methane (% v/v)	Oxygen (%v/v)				
0.25	0.20	20.20	0.00	18.80	20m to house under construction	No Dead Vegetation visible		
0.50	0.20	20.20	0.00	18.30				
0.75	0.20	20.30	0.00	18.00				
1.00	0.20	20.10	0.00	18.80				
1.25	0.20	19.90	0.00	18.60				
1.50	0.20	19.80	0.00	18.30				
Monitor Used:	GA 2000							

Bore No.: CL Clark Road Residences
GPS (GDA 94): E
N

Sample Location	Results		Nearest Sensitive Land Use	Dead Vegetation		
	3/11/2008					
	Methane (% v/v)	Oxygen (% v/v)				
Under house	0.20	20.60	No Data Recorded	No Dead Vegetation visible		
Vent NW Corner	0.20	20.60				
Southern Shed	0.20	20.60				
Northern Shed	0.20	20.60				
Monitor Used:	GA 2000					

Note sample locations refer to in house readings: Hatch under house, vent at NW corner house, southern shed and northern shed

Landfill: Wantirna South
Licence No.: EM 28913

Bore No.: WS-BH1
GPS (GDA 94): 343239 E
 5805454 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		24/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.90	15m S	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.90				
0.75	0.00	ND	0.00	20.90				
1.00	0.00	ND	0.00	19.90				
1.25	0.00	ND	0.00	19.80				
1.50	0.00	ND	0.00	19.40				
Monitor Used:	Q-RAE							

Bore No.: WS-BH2
GPS (GDA 94): 343378 E
 5805462 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		24/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	19.10	20m S	No Dead Vegetation visible		
0.50	0.00	ND	0.00	18.70				
0.75	0.00	ND	0.00	18.70				
1.00	0.00	ND	0.25	11.70				
1.25	0.00	ND	0.25	11.20				
1.50	0.00	ND	0.00	ND				
Monitor Used:	Q-RAE							

Bore No.: WS-BH3
GPS (GDA 94): 343477 E
 5805546 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		24/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.10	20.20	3m from residential	No Dead Vegetation visible		
0.50	0.00	ND	0.10	20.00				
0.75	0.00	ND	0.10	20.00				
1.00	0.00	ND	0.05	20.00				
1.25	0.00	ND	0.05	20.00				
1.50	0.00	ND	0.10	19.80				
Monitor Used:	Q-RAE							

Bore No.: WS-BH4
GPS (GDA 94): 343476 E
 5805697 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		24/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.70	5m W of residential fence	No Dead Vegetation visible		
0.50	0.00	ND	0.00	17.60				
0.75	0.00	ND	0.00	17.10				
1.00	0.00	ND	0.00	16.20				
1.25	0.00	ND	0.00	14.40				
1.50	0.00	ND	0.00	14.30				
Monitor Used:	Q-RAE							

Bore No.: WS-BH5
GPS (GDA 94): 343434 E
 5805924 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		24/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	19.70	30m N to residential	No Dead Vegetation visible		
0.50	0.00	ND	0.00	19.70				
0.75	0.00	ND	0.00	ND				
1.00	0.00	ND	0.00	19.50				
1.25	0.00	ND	0.00	19.30				
1.50	0.00	ND	0.00	19.20				
Monitor Used:	Q-RAE							

Bore No.: WS-BH6
GPS (GDA 94): 342173 E
 5806137 N

Depth	Results				Nearest Sensitive Land Use	Dead Vegetation		
	17/10/2008		27/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	20.90	No Data Recorded	No Dead Vegetation visible		
0.50	0.00	ND	0.00	20.20				
0.75	0.00	ND	0.00	20.20				
1.00	0.00	ND	0.00	ND				
1.25	0.00	ND	0.00	20.10				
1.50	0.00	ND	0.00	20.10				
Monitor Used:	Q-RAE							

Landfill: Yallourn North
Licence No.: LS118

Bore No.: YN-BH1
GPS (GDA 94): 38.1537 Lat
 146.34999 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		15/10/2008		21/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	17.80	0.00	ND**	50m	Some trees near landfill		
0.50	0.00	ND	0.00	17.70	0.00	ND**				
0.75	0.00	ND	0.00	17.80	0.00	ND**				
1.00	0.00	ND	0.00	17.40	0.00	ND**				
1.25	0.00	ND	0.00	17.30	0.00	ND**				
1.50	0.00	ND	0.00	17.30	0.00	ND**				
Monitor Used:	Q-RAE									

** - Equipment Malfunction

Bore No.: YN-BH2
GPS (GDA 94): 38.15451 Lat
 146.35095 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		15/10/2008		21/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	ND	0.15	11.20	0.00	ND**	0.00	17.10	50m	Some trees near landfill		
0.50	0.00	ND	0.15	11.10	0.00	ND**	0.00	17.10				
0.75	0.00	ND	0.15	10.90	0.00	ND**	0.00	16.9				
1.00	0.00	ND	0.15	10.50	0.00	ND**	0.00	16.2				
1.25	0.00	ND	0.15	10.10	0.00	ND**	0.00	15.60				
1.50	0.00	ND	0.15	9.90	0.00	ND**	0.00	15.50				
Monitor Used:	Q-RAE											

** - Equipment Malfunction

Bore No.: YN-BH3
 GPS (GDA 94): 38.15511 Lat
 146.35018 Long

Depth	Results						Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		15/10/2008		21/10/2008					
	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)	Methane (% v/v)	Oxygen (% v/v)				
0.25	0.00	ND	0.00	17.50	0.00	ND**	50m	Some trees near landfill		
0.50	0.00	ND	0.00	17.50	0.00	ND**				
0.75	0.00	ND	0.00	17.50	0.00	ND**				
1.00	0.00	ND	0.00	17.40	0.00	ND**				
1.25	0.00	ND	0.00	17.40	0.00	ND**				
1.50	0.00	ND	0.00	17.40	0.00	ND**				
Monitor Used :	Q-RAE									

** - Equipment Malfunction

Bore No.: YN-BH4
 GPS (GDA 94): 38.15259 Lat
 146.34925 Long

Depth	Results								Nearest Sensitive Land Use	Dead Vegetation		
	13/10/2008		15/10/2008		21/10/2008		28/10/2008					
	Methane (% v/v)	Oxygen (% v/v)										
0.25	0.00	ND	0.00	19.30	0.00	ND**	0.00	19.30	50m	Some trees near landfill		
0.50	0.00	ND	0.15	19.20	0.00	ND**	0.00	19.30				
0.75	0.00	ND	0.15	19.10	0.00	ND**	0.00	19.30				
1.00	0.00	ND	0.15	19.00	0.00	ND**	0.00	19.20				
1.25	0.00	ND	0.15	18.90	0.00	ND**	0.00	19.10				
1.50	0.00	ND	0.10	19.10	0.00	ND**	0.00	19.10				
Monitor Used:	Q-RAE											

** - Equipment Malfunction



4. References

EPA Vic., 2001, *Best Practice Environmental Management (Siting, Design, Operation and Rehabilitation of Landfills)*, Publication No. 788, (October 2001).



Appendix A

Programme Schedule

**WEEK 1**

MONDAY – 13/10/2008	TUESDAY – 14/10/2008	WEDNESDAY – 15/10/2008	THURSDAY – 16/10/2008	FRIDAY – 17/10/2008
Team 1: (Morwell Office) Bore Establishment: Yallourn North (LS118): 4 bores @ 1.5 m. Grantville (ES37130): 2 bores @ 1.2 & 1.35 m respectively	Team 1: (Morwell Office) Bore Establishment Bairnsdale (LS169): 6 bores established @ 0.8, 0.9, (2x) 1.2 and (2x) 1.5m as per Plan.	Team 1: (Morwell Office) Bore Sampling Yallourn North (LS118): 4 bores tested. Grantville (ES37130): 2 bores tested. Bairnsdale (LS169): 6 bores tested.	Team 1: (Morwell Office) Team finished initial bore establishment and sampling as required for Grantville, Yallourn North and Bairnsdale.	Team 1: (Morwell Office) Team finished initial bore establishment and sampling as required for Grantville, Yallourn North and Bairnsdale.
Team 2: (Melbourne Office) Bore Establishment: Clayton South 'Cluster': Drilled first four holes as per Sampling Plan to 1.5 m – all collapsed with free-flowing sand.	Team 2: (Melbourne Office) Bore Establishment Clayton South 'Cluster': 5 bores established as per Sampling Plan to date.	Team 2: (Melbourne Office) Bore Establishment and Sampling Clayton South 'Cluster': 11 bores established to date	Team 2: (Melbourne Office) Bore Establishment and Sampling Clayton South 'Cluster': 14 bores established to date with plans for another 2-5 Friday.	Team 2: (Melbourne Office) Bore Establishment and Sampling Clayton South 'Cluster': 19 bores have now been established.
Team 3: (Melbourne Office) Bore Establishment: Dingley (ES146): One (location) hole collapsed at 0.7 m with free-flowing sand. Another location had auger refusal at 0.7 due to compacted dried silt.	Team 3: (Melbourne Office) Bore Establishment » Dingley (ES146): 5 bores established as per Plan. 4x 1.5m, and 1x 1.0m. » Lyndhurst (ES511): No bores yet established, but team worked with service locator personnel to check each of the locations to be drilled Wednesday before finishing for the day.	Team 3: (Melbourne Office) Bore Establishment and Sampling Lyndhurst (ES511): 5 bores were established, 2 to the North, 2 to the West (all at 1.5m) and 1 to the South (at 1m).	Team 3: (Melbourne Office) Bore Establishment and Sampling Wantirna (EM 28913): 5 bores were established to the south and east of the landfill with one proposed for the north tomorrow. All were established between 1.2-1.5 m.	Team 3: (Melbourne Office) Bore Establishment and Sampling » Wantirna (EM28913): Another bore was established to the north, making a total of 6. » Lyndhurst (ES511): All 5 bores were monitored. » Springvale (ES109): sampling locations were changed by EPA. 5 of 6 new locations were surveyed for services, 1 is still pending. 2 bores were established.
Team 4: (Geelong Office) Bore Establishment » Kilmore (HS1400): 4 bores @ 1.1 – 1.2 m as per Plan. » Castlemaine (ES24499): No bores able to be established – will require a rock corer to proceed.	Team 4: (Geelong Office) Bore Establishment Ararat (HS311): Some access issues around landfill boundary. One bore was attempted on road reserve 50 m E from landfill entrance/gate, but at ~0.4 m strong odours were noted, and as per instructions team ceased drilling and used methane monitor, where a reading of 7-8% CH ₄ was detected (i.e. within explosive range). 2 more bores were established.	Team 4: (Geelong Office) Bore Establishment and Sampling Epping (ES177): 3 bores established.	Team 4: (Geelong Office) Bore Establishment and Sampling » Epping (ES177): 5 bores now established. 2 established today. » Campbellfield (ES 506): 2 bores established	Team 4: (Geelong Office) Bore Establishment and Sampling Castlemaine (ES24499): 4 bores established with drill rig at 1.5m.

**WEEK 2**

MONDAY – 20/10/2008	TUESDAY – 21/10/2008	WEDNESDAY – 22/10/2008	THURSDAY – 23/10/2008	FRIDAY – 24/10/2008
Team 1: (Morwell Office) Bores re-sampled at Bairnsdale	Team 1: (Morwell Office) Bore Sampling Bores re-sampled at Grantville and Yallourn.	Team 1: (Morwell Office) Status: No further action for Grantville, Yallourn or Bairnsdale, until directed otherwise by EPA. Team to establish bores at Rye tomorrow (Thursday).	Team 1: (Morwell Office) 5 bores were established at Rye in accordance with the sampling plan to 1.5m	Team 1: (Morwell Office) Team Demobilised (at present)
Team 2: BM (Melbourne Office) Clayton South 'Cluster' of 19 bores was sampled, along with 3 of the new Springvale 'cluster' bores.	Team Demobilised.	Team Demobilised.	Team Demobilised.	Team Demobilised.
Team 3: (Melbourne Office) Bore Establishment Springvale (ES109): 3 new bores established, and site clearance obtained for another 6	Team 3: (Melbourne Office) Bore Establishment and Sampling Springvale (ES109): 4 new bores established. One bore ~ 7m from residential boundary had 13% v/v CH ₄ upon establishment. This result was reported to EPA.	Team 3: (Melbourne Office) Bore Establishment and Sampling Springvale 'cluster': 2 bores established near houses E side of Clark Road, 5% LEL (i.e. 0.25% vol CH ₄). Another new bore established at Westall Road. Site locations and clearance obtained for additional bores to be established at the Clayton and Springvale clusters.	Team 3: (Melbourne Office) Bore Establishment and Sampling Springvale 'cluster': 8 bores established. Sampling run conducted through the bores established in the Clayton and Springvale clusters to date. Site locations and clearance obtained for additional bores to be established at the Clayton cluster.	Team 3: (Melbourne Office) Bore Establishment and Sampling Clayton 'cluster': 3 bores established. Sampling run conducted of bores not sampled yesterday in the Clayton 'cluster'. 5 bores sampled at Wantirna South (one bore was not accessible due to locked gate and arrangements have been made to sample on Monday).
Team 4: (Geelong Office) Castlemaine (ES24499): 4 bores sampled.	Team 4: (Geelong Office). Campbellfield (ES506): 1 bore established SW corner of landfill adjacent to houses	Team 4: (Geelong Office). Bore and Sampling Campbellfield (ES506): The bore established SW corner of landfill adjacent to houses was re-sampled	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.

**WEEK 3**

MONDAY – 27/10/2008	TUESDAY – 28/10/2008	WEDNESDAY – 29/10/2008	THURSDAY – 30/10/2008	FRIDAY 31/10/2008
Team 1: (Morwell Office) Team Demobilised (at present)	Team 1: (Morwell Office) Bores monitored at Yallourn and Bairnsdale.	Team 1: (Morwell Office) Bores monitored at Grantville and Rye	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised
Team 2: (Melbourne Office) Team to be re-mobilised Wednesday to assist Team 3	Team 2: (Melbourne Office) A hand auger, motorised auger, vehicle, GPS and methane monitor has been organised for the team. They will also pick up a new supply of standpipes (20x) and caps tomorrow for both teams for the additional bores.	Team 2: (Melbourne Office) Team 2 assisted Team 3 in bore establishment and sampling. See Team 3 report below.	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised
Team 3: (Melbourne Office) Bore Establishment and Sampling <ul style="list-style-type: none">» Clayton 'cluster': 1 bore established in Ryans Road» 6 locations cleared for services.» 1 bore (BH#6) sampled at Wantirna South» More slotted bore pipes and caps ordered (20x), more sand obtained from suppliers	Team 3: (Melbourne Office) Bore Establishment and Sampling - Clayton area <ul style="list-style-type: none">3 bores established along residential fence-line adjoining Heatherton Park.A number of locations were cleared around Grange and Heatherton Roads for tomorrow.	Team 3: (Melbourne Office) Bore Establishment and Sampling <ul style="list-style-type: none">» 8 new bores established as directed in Clayton area. One location had bore refusal due to waste 'road base', another 3 attempts in this area all hit the same waste material.» Springvale bores were re-sampled at EPA's request. A total of 16 were re-sampled	Team 3: (Melbourne Office) Bore Establishment and Sampling <ul style="list-style-type: none">» 30 Bores were sampled in the Clayton Cluster.» 2 bores established at Springvale in the vicinity of the Clark Rd landfill	Team 3: (Melbourne Office) Bore Establishment and Sampling <ul style="list-style-type: none">2 bores were established in Springvale and outstanding sampling from Thursday was completed.
Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office) Bores monitored at Epping and Campbellfield.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised

**WEEK 4**

MONDAY – 3/11/2008	TUESDAY – 4/11/2008	WEDNESDAY – 5/11/2008	THURSDAY – 6/11/2008	FRIDAY – 7/11/2008
Team 1: (Morwell Office) Team Demobilised	Public Holiday – Melbourne Cup	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised
Team 2: (Melbourne Office) Team Demobilised	Public Holiday – Melbourne Cup	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised
Team 3: (Melbourne Office) Bore Establishment and Sampling <ul style="list-style-type: none">» Outstanding bores at the Clayton site were sampled using the GA2000» Aided EPA officer in taking measurements at a residence on Clarke Rd. No methane readings were recorded.	Public Holiday – Melbourne Cup	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Sampling of bores established at Clayton on previous Friday.	Team 3: (Melbourne Office) Team Demobilised.
Team 4: (Geelong Office). Team Demobilised.	Public Holiday – Melbourne Cup	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Establishment of 4 bores at Epping Hospital.

**WEEK 5**

MONDAY – 10/11/2008	TUESDAY – 11/11/2008	WEDNESDAY – 12/11/2008	THURSDAY – 13/11/2008	FRIDAY – 14/11/2008
Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised
Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised
Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.
Team 4: (Geelong Office). Further round of sampling at new bores established in Epping surrounding the hospital.	Team 4: (Geelong Office). Team Demobilised.			

**WEEK 6**

MONDAY – 17/11/2008	TUESDAY – 18/11/2008	WEDNESDAY – 19/11/2008	THURSDAY – 20/11/2008	FRIDAY – 21/11/2008
Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised
Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised EPPING
Team 3: (Melbourne Office) Monitoring of bores in Clayton area	Team 3: (Melbourne Office) Monitoring of remaining bores Clayton and monitoring at Lyndhurst	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Monitoring of bores at Epping to include follow up for bores established on 7 November.
Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.

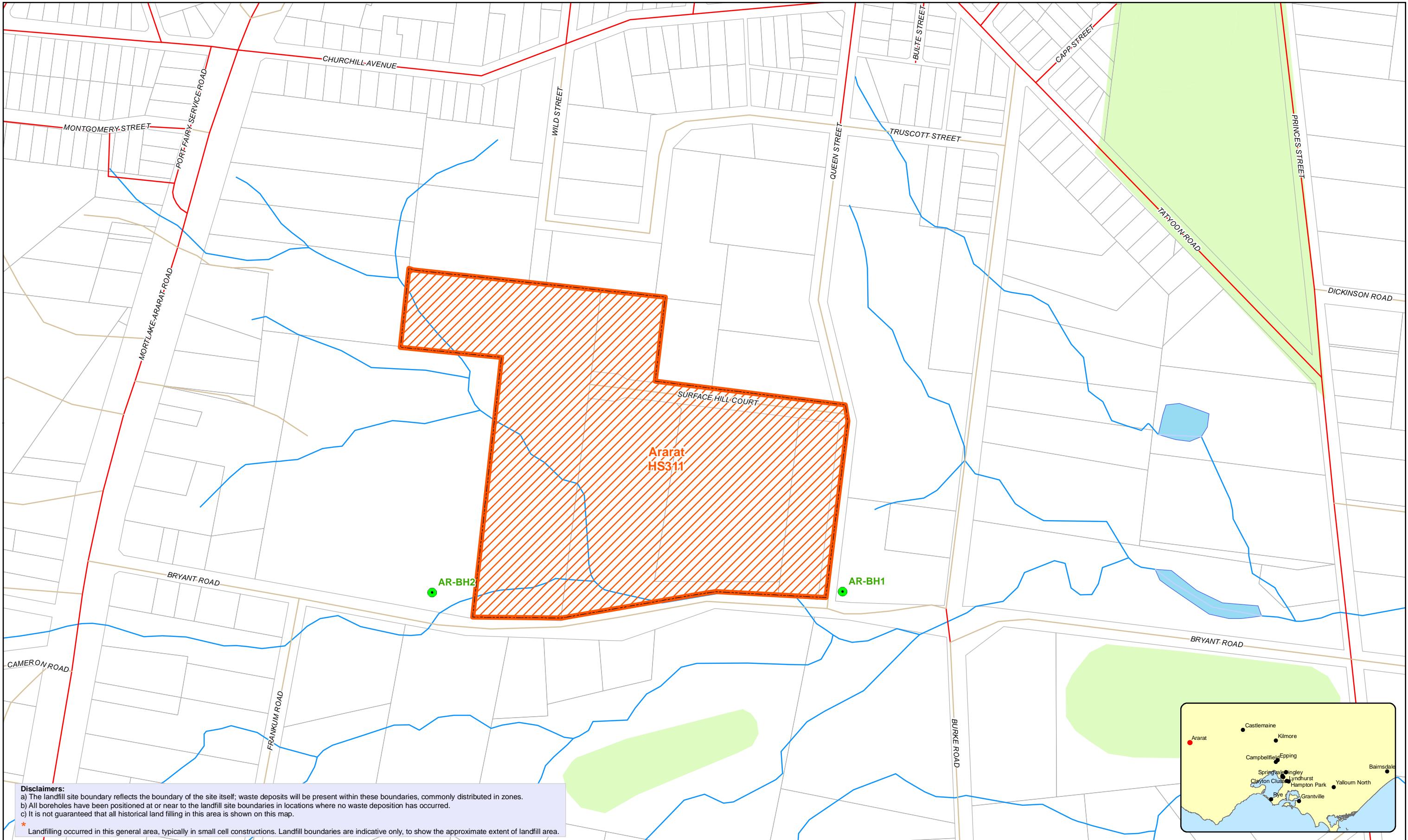
**WEEK 7**

MONDAY – 24/11/2008	TUESDAY – 25/11/2008	WEDNESDAY – 26/11/2008	THURSDAY – 27/11/2008	FRIDAY – 28/11/2008
Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised	Team 1: (Morwell Office) Team Demobilised
Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised	Team 2: (Melbourne Office) Team Demobilised
Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Service Sweep in Clayton area	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.	Team 3: (Melbourne Office) Team Demobilised.
Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.	Team 4: (Geelong Office). Team Demobilised.



Appendix B

Bore and Service Sweep Locations



1:4,000 (at A3)

0 15 30 60 90 120 Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Salt Lake	Carpark
Freeway	Unsealed Track	Dashed Line	Watercourse Area	Cemetery
Highway	Sealed Walking/Bike Trail	Connector	Wetland / Swamp	Landmark
	Unsealed Walking/Bike Trail		Parcel	Flat
	Land Fill Site		Pondage	Recreation/Sporting Area
				Showgrounds



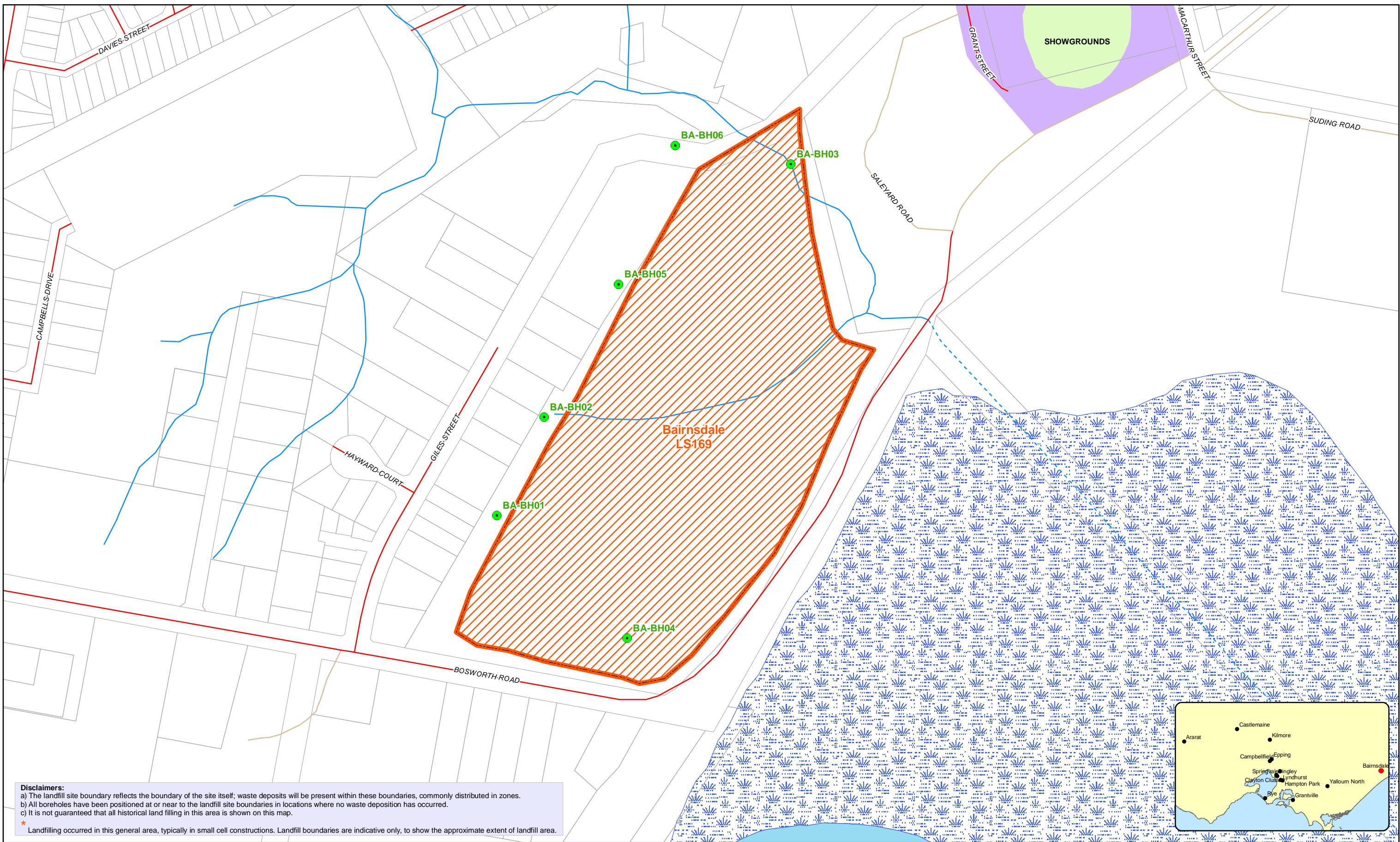
CLIENTS | PEOPLE | PERFORMANCE

EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

Bore Locations
Ararat Licence No. HS311

Appendix B



1:4,000 (at A3)

0 15 30 60 90 120 Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Stream	Carpark
	Unsealed Track	Dashed Line	Watercourse Area	Cemetery
	Sealed Walking/Bike Trail	Connector	Wetland / Swamp	Landmark
	Unsealed Walking/Bike Trail	Parcel	Flat	Recreation/Sporting Area
	Land Fill Site		Pondage	Showgrounds



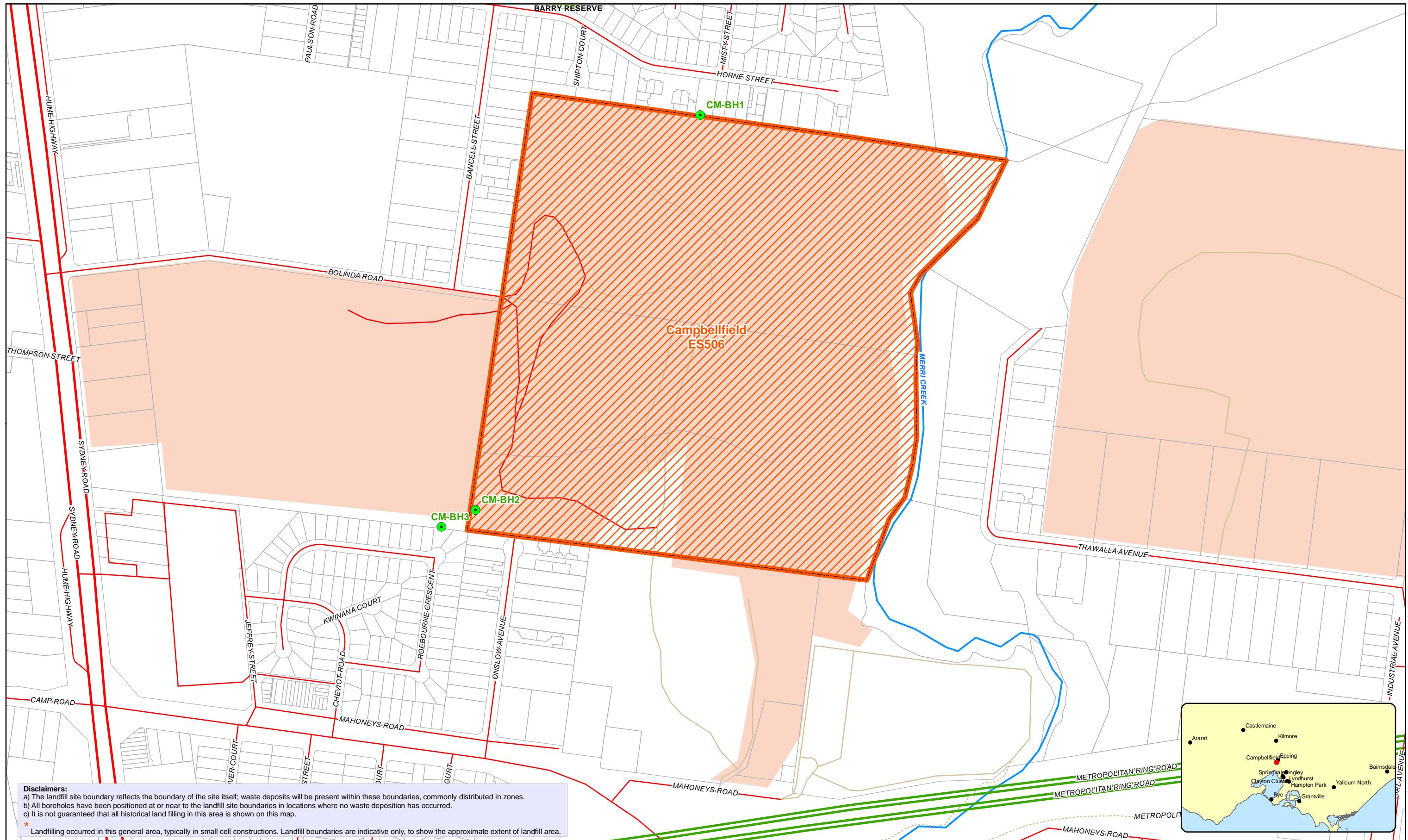
CLIENTS | PEOPLE | PERFORMANCE

EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

Bore Locations
Bairnsdale Licence No. LS169

Appendix B



1:5,000 (at A3)
0 20 40 80 120 160
Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Salt Lake	Carpark
	Unsealed Track	Dashed Line	Watercourse Area	Cemetery
	Dotted Line	Connector	Wetland / Swamp	Landmark
	Dash-dot Line	Parcel	Flat	Recreation/Sporting Area
	Land Fill Site		Pondage	Showgrounds



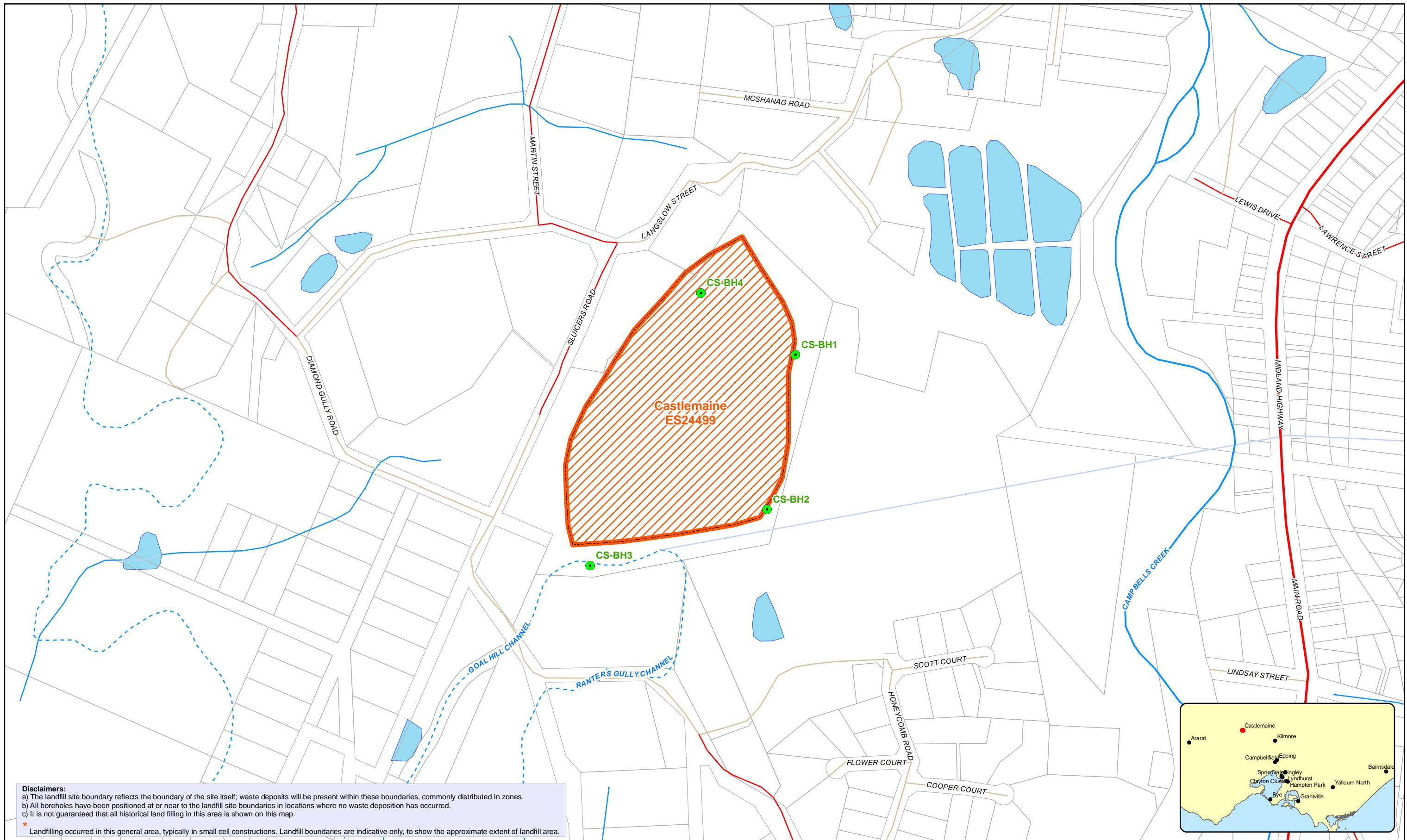
CLIENTS | PEOPLE | PERFORMANCE

EPA
Preliminary Landfill Screening Project

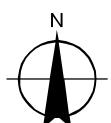
Job Number 31-23655
Revision A
Date Oct 2008

Bore Locations
Campbellfield Licence No. ES506

Appendix B



1:5,000 (at A3)
0 20 40 80 120 160
Metres



Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994

Legend

Borehole	Sealed Road (Arterial & Local)	River
X Refused Borehole	Unsealed Road	Stream
Freeway	Unsealed Track	Lake
Highway	Sealed Walking/Bike Trail	Salt Lake
	Unsealed Walking/Bike Trail	Channel / Drain
	Land Fill Site	Watercourse Area
		Connector
		Parcel
		Flat
		Pondage

Carpark	Cemetery
Wetland / Swamp	Landmark
Recreation/Sporting Area	Showgrounds

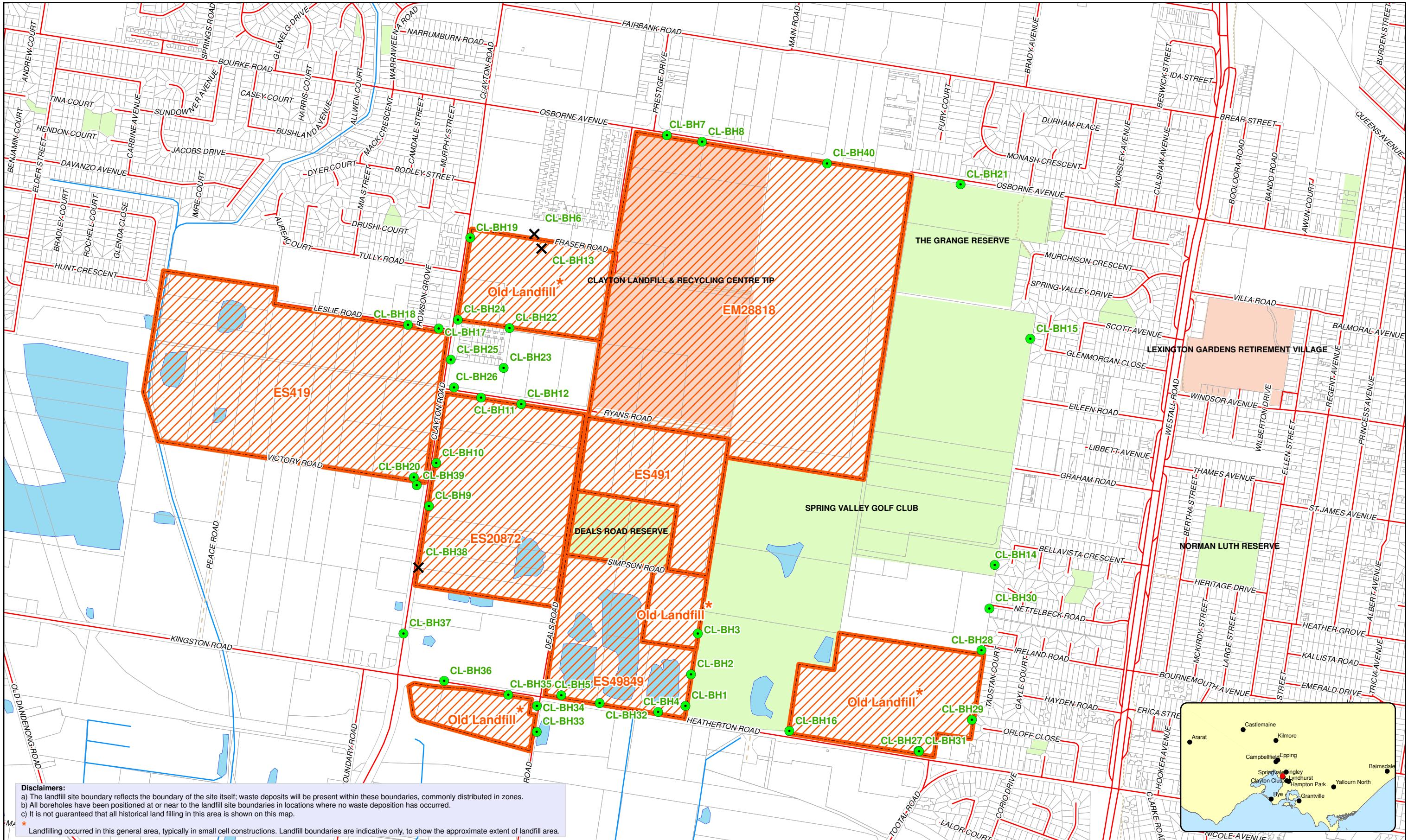
GHD
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Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

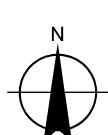
Bore Locations
Castlemaine Licence No. ES24499

Appendix B



1:10,000 (at A3)
0 40 80 160 240 320
Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River
X Refused Borehole	Unsealed Road	Lake
Freeway	Unsealed Track	Stream
Highway	Sealed Walking/Bike Trail	Channel / Drain
	Unsealed Walking/Bike Trail	Watercourse Area
		Connector
		Wetland / Swamp
		Parcel
		Flat
		Pondage
		Land Fill Site

Lake	Camping/Caravan Park
Salt Lake	Carpark
Stream	Cemetery
Unsealed Track	Watercourse Area
Sealed Walking/Bike Trail	Wetland / Swamp
Unsealed Walking/Bike Trail	Landmark
	Recreation/Sporting Area
	Showgrounds



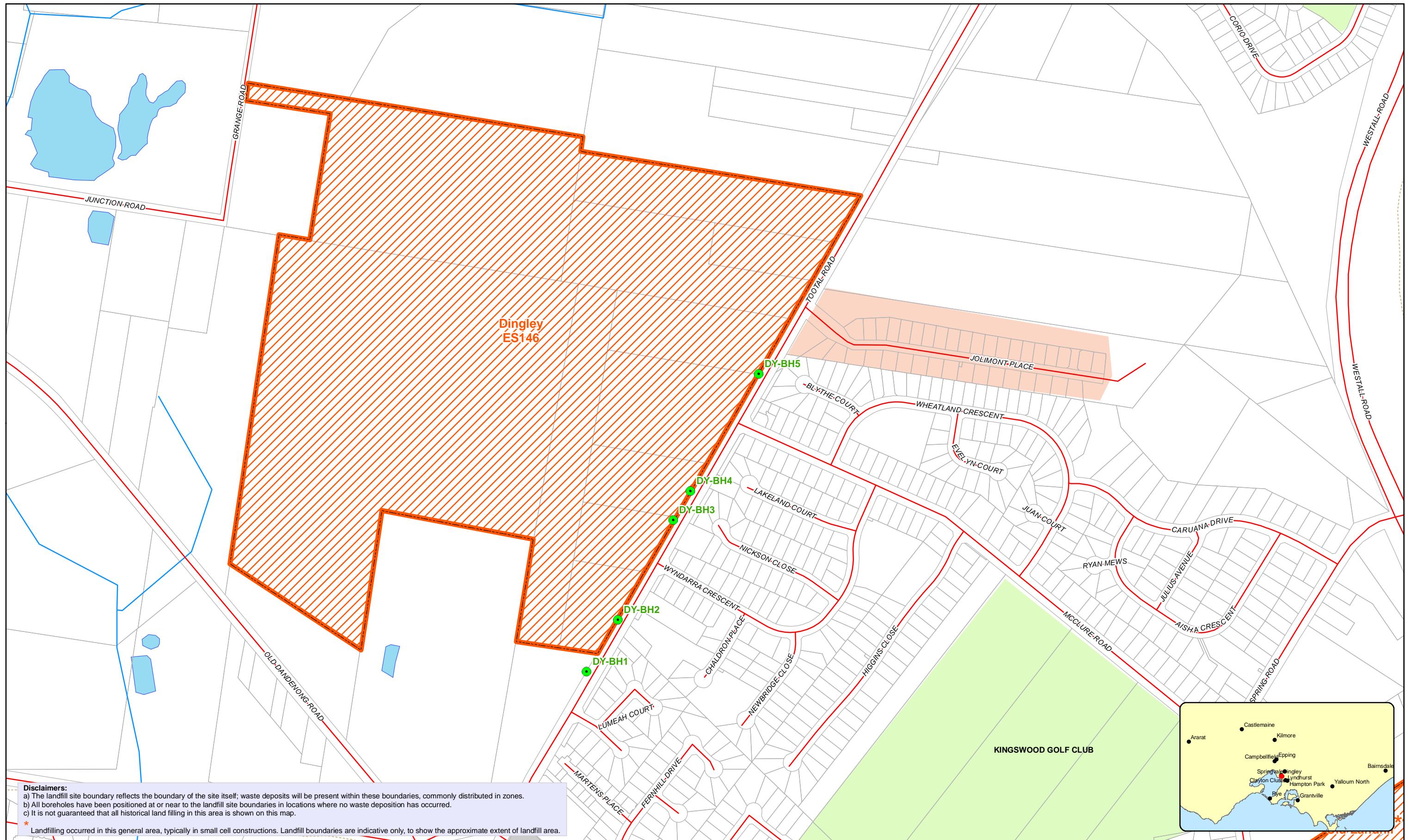
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EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

Bore Locations Clayton Landfills

Appendix B



1:5,000 (at A3)
0 20 40 80 120 160
Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

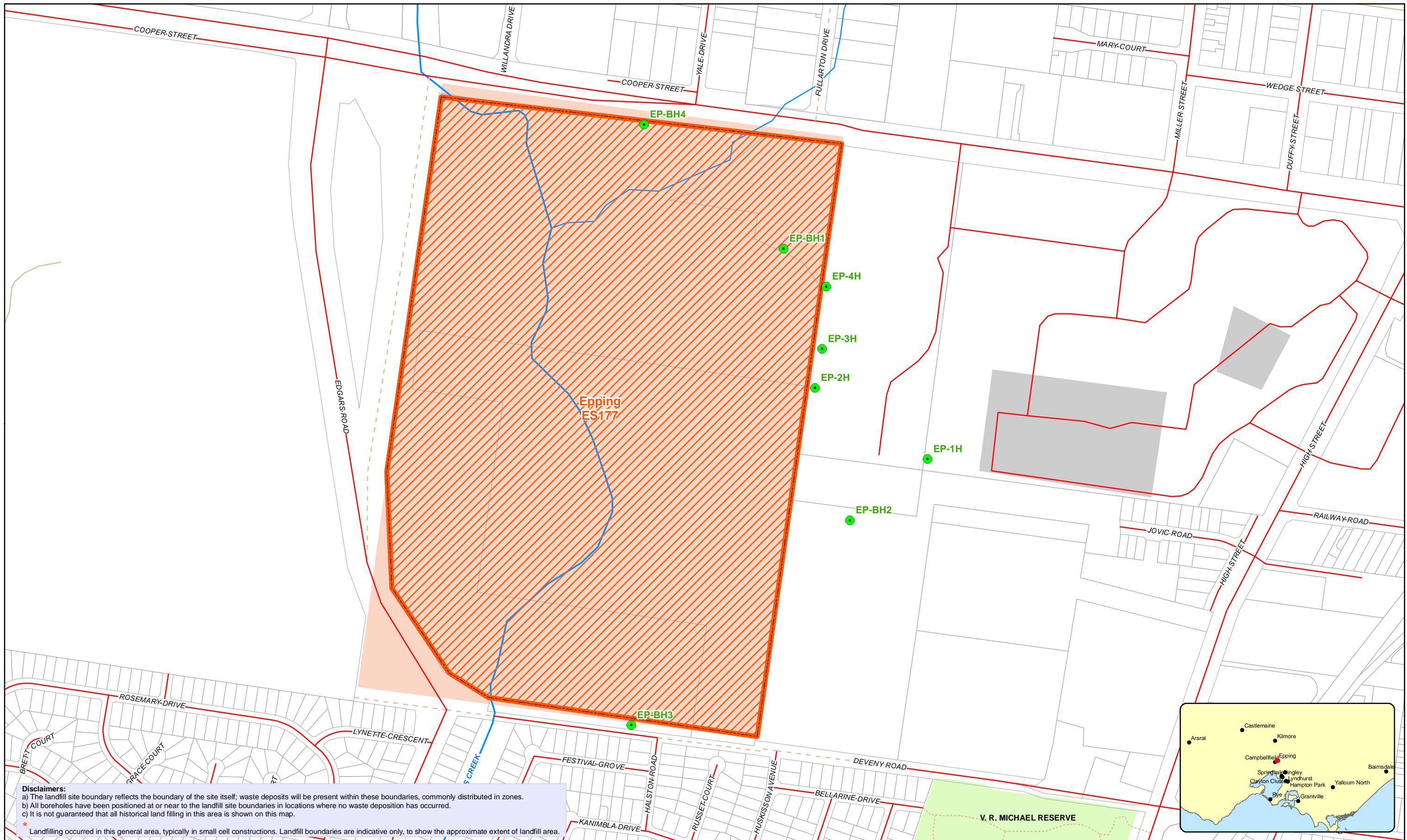
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|--------------------|--------------------------------|-----------------|------------------|--------------------------|
| Borehole | Sealed Road (Arterial & Local) | River | Lake | Camping/Caravan Park |
| X Refused Borehole | Unsealed Road | Stream | Salt Lake | Carpark |
| Freeway | Unsealed Track | Channel / Drain | Watercourse Area | Cemetery |
| Highway | Sealed Walking/Bike Trail | Connector | Wetland / Swamp | Landmark |
| | Unsealed Walking/Bike Trail | Parcel | Flat | Recreation/Sporting Area |
| | Land Fill Site | | Pondage | Showgrounds |



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Preliminary Landfill Screening Project
Bore Locations
Dingley
Licence No. ES 146

Job Number 31-23655
Revision A
Date Oct 2008
Appendix B



1:5,000 (at A3)

0 20 40 80 120 160 Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Stream	Carpark
	Unsealed Track	Dashed Line	Watercourse Area	Cemetery
	Dotted Line	Connector	Wetland / Swamp	Landmark
	Dash-dot Line	Parcel	Flat	Recreation/Sporting Area
	Land Fill Site		Pondage	Showgrounds



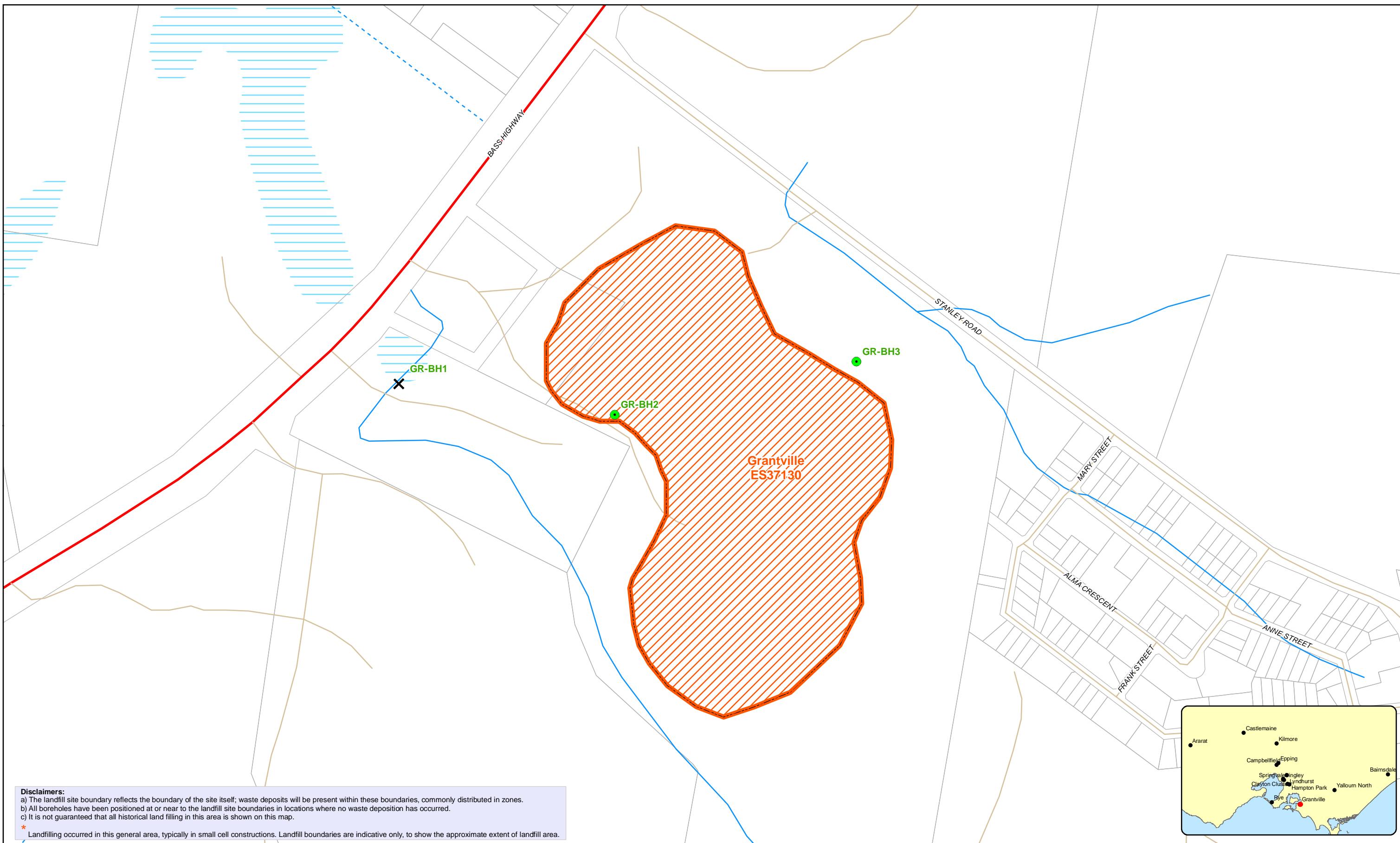
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EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

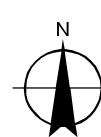
Bore Locations
Epping Licence No. ES177

Appendix B



1:5,000 (at A3)
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Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Stream	Carpark
Freeway	Unsealed Track	Dashed Line	Watercourse Area	Cemetery
Highway	Dotted Line	Connector	Wetland / Swamp	Landmark
	Dash-dot Line	Parcel	Flat	Recreation/Sporting Area
	Land Fill Site		Pondage	Showgrounds



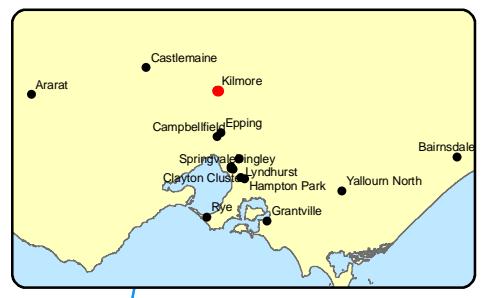
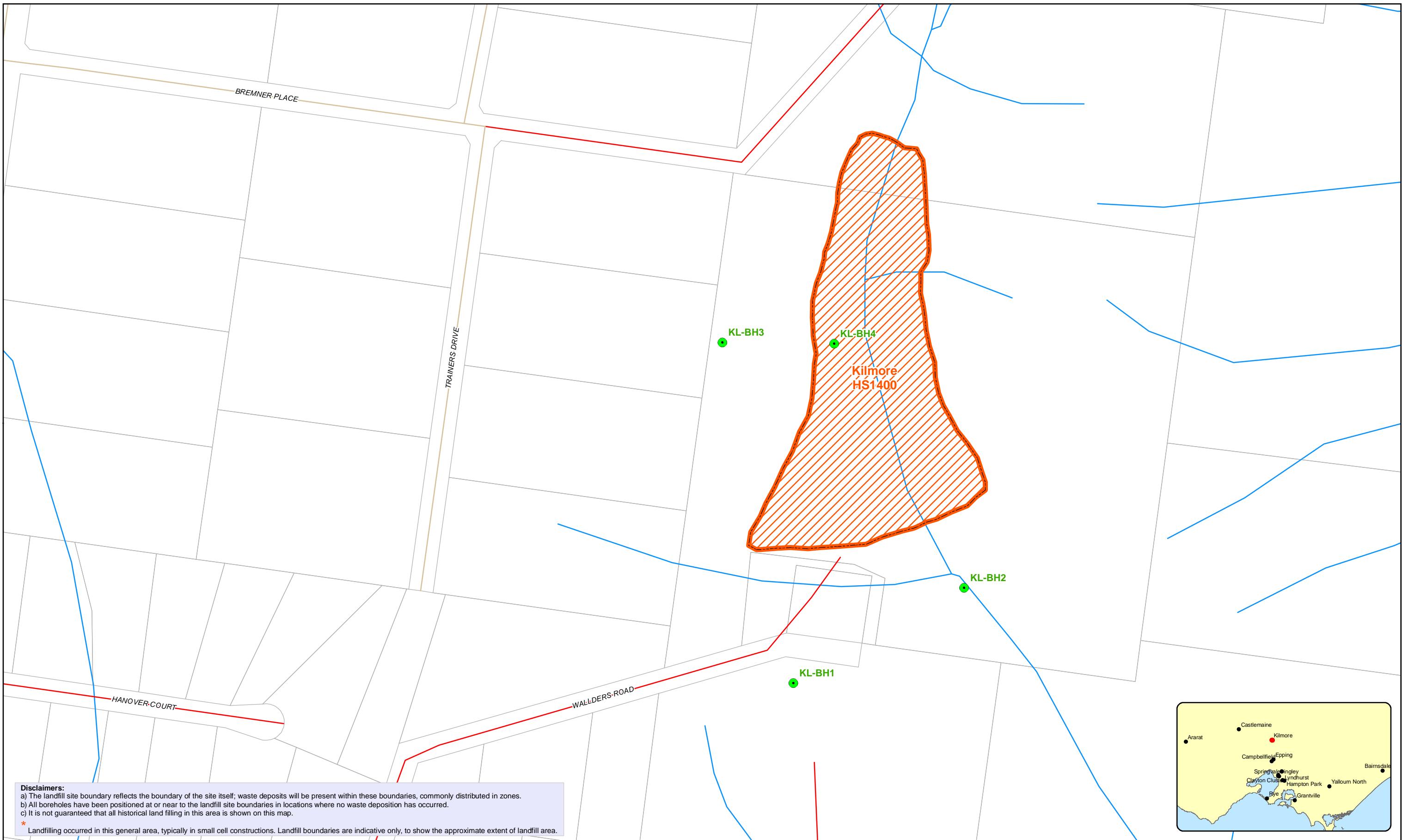
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EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

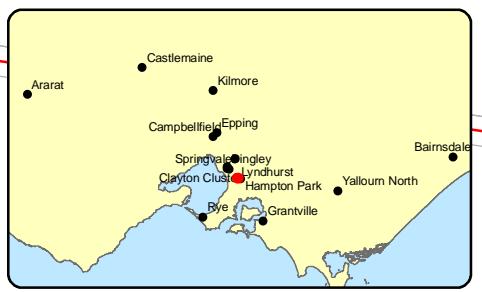
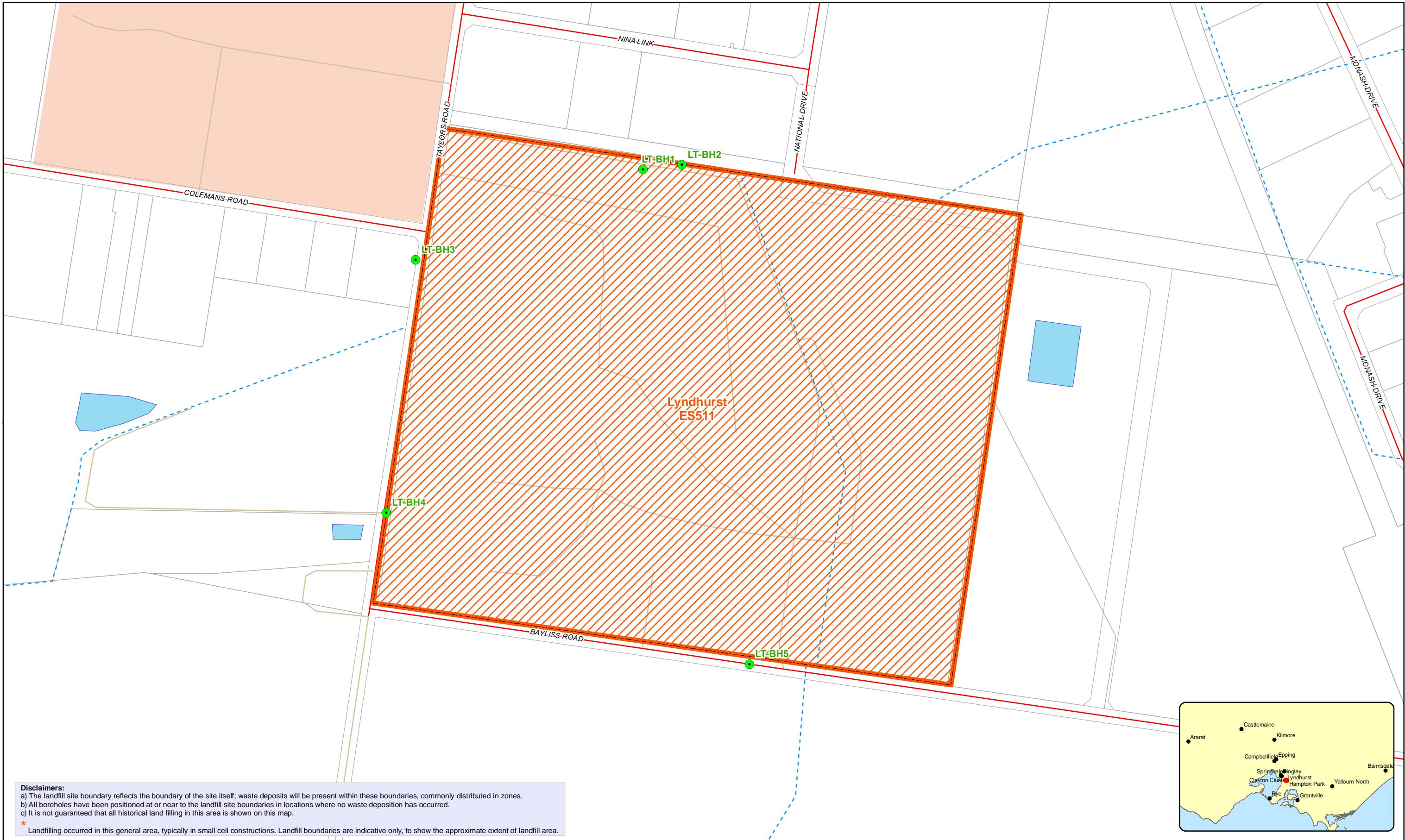
Bore Locations
Grantville Licence No. ES37130

Appendix B

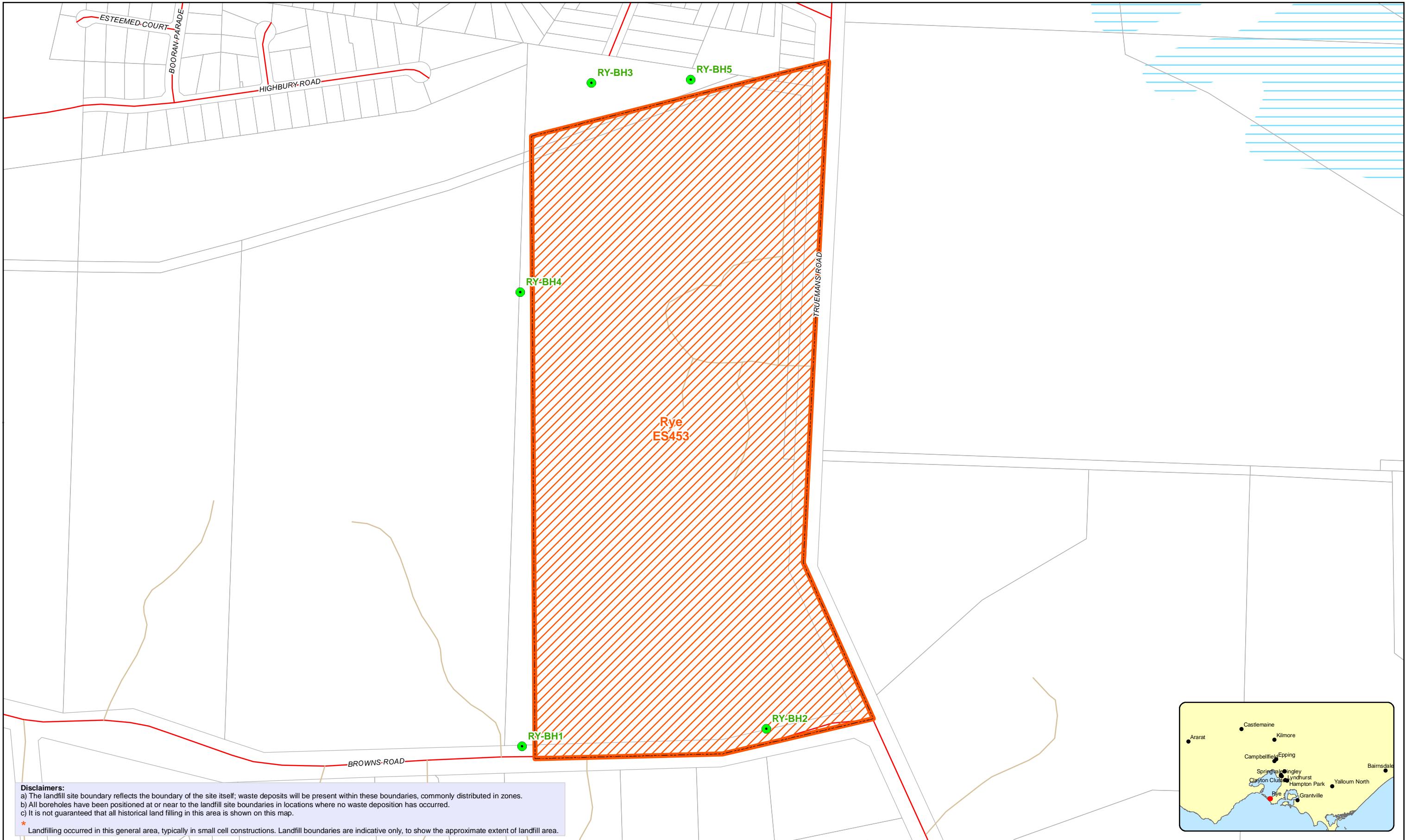


1:3,000 (at A3)
0 12.5 25 50 75 100
Metres





Appendix B



1:5,000 (at A3)
0 20 40 80 120 160
Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Salt Lake	Carpark
	Unsealed Track	- - - Channel / Drain	Watercourse Area	Cemetery
	Sealed Walking/Bike Trail	Connector	Wetland / Swamp	Landmark
	Unsealed Walking/Bike Trail		Flat	Recreation/Sporting Area
	Land Fill Site		Pondage	Showgrounds



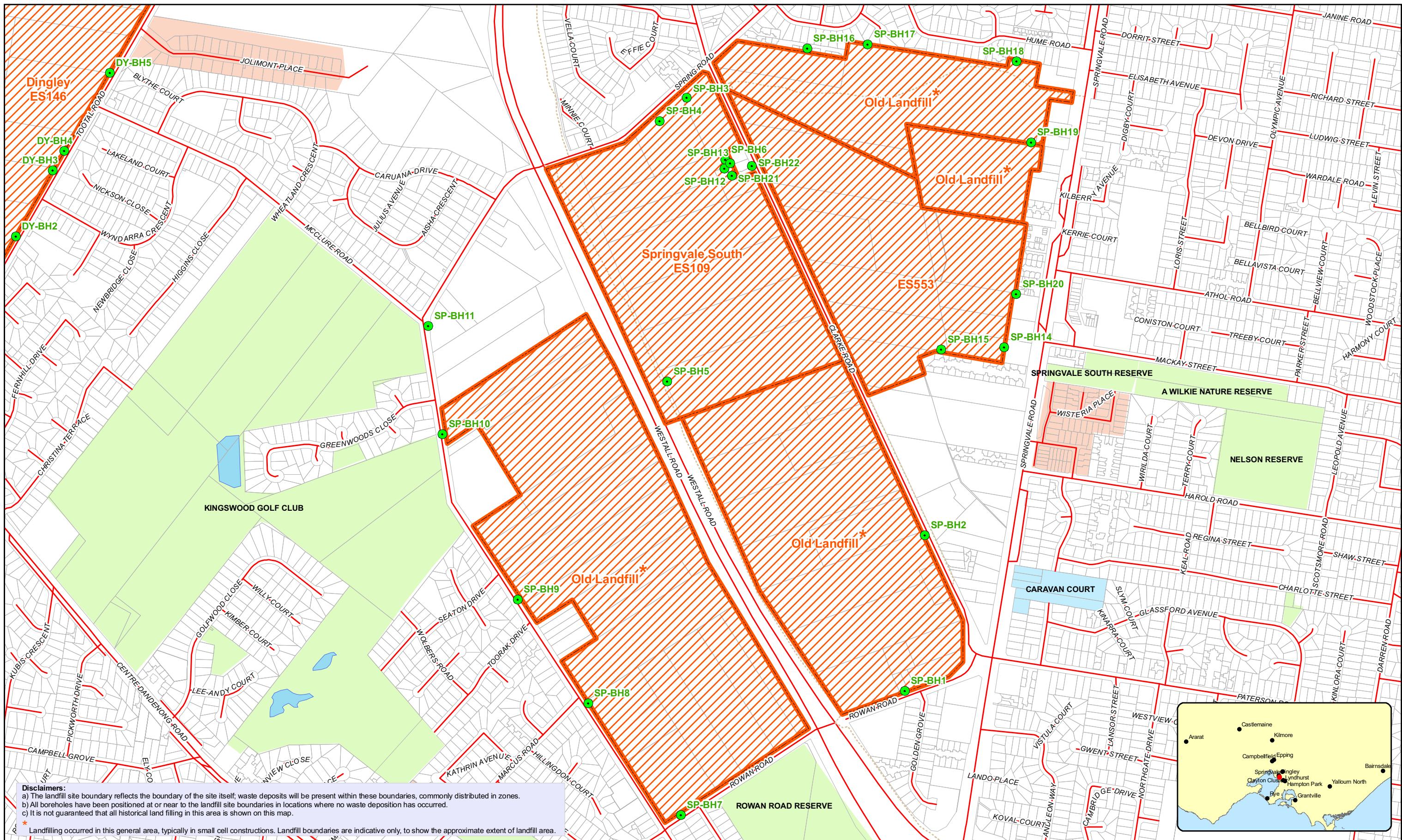
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EPA
Preliminary Landfill Screening Project

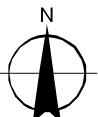
Job Number 31-23655
Revision A
Date Oct 2008

Bore Locations
Rye Licence No. ES453

Appendix B

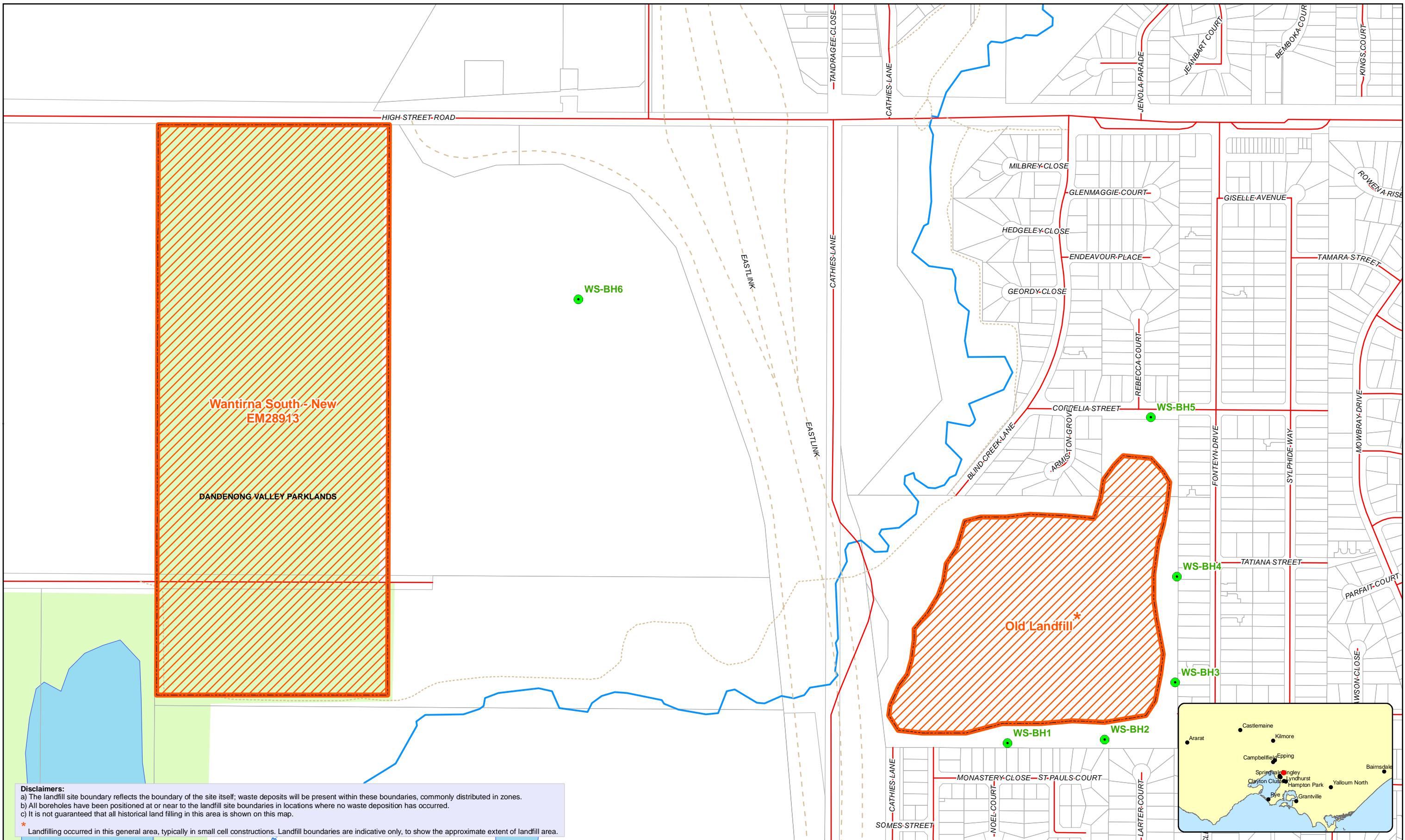


1:7,500 (at A3)
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Metres



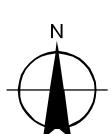
Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994

Legend	
Borehole	Sealed Road (Arterial & Local)
X Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
	Unsealed Walking/Bike Trail
	Land Fill Site
	River
	Stream
	Channel / Drain
	Watercourse Area
	Connector
	Wetland / Swamp
	Parcel
	Flat
	Pondage
	Lake
	Salt Lake
	Carpark
	Cemetery
	Landmark
	Recreation/Sporting Area
	Showgrounds



1:5,000 (at A3)
0 20 40 80 120 160
Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



Legend	
Borehole	Sealed Road (Arterial & Local)
X Refused Borehole	Unsealed Road
Freeway	Unsealed Track
Highway	Sealed Walking/Bike Trail
	Unsealed Walking/Bike Trail
	Land Fill Site
	River
	Stream
	Channel / Drain
	Watercourse Area
	Connector
	Parcel
	Pondage
	Lake
	Salt Lake
	Watercourse Area
	Wetland / Swamp
	Flat
	Carpark
	Cemetery
	Landmark
	Recreation/Sporting Area
	Showgrounds



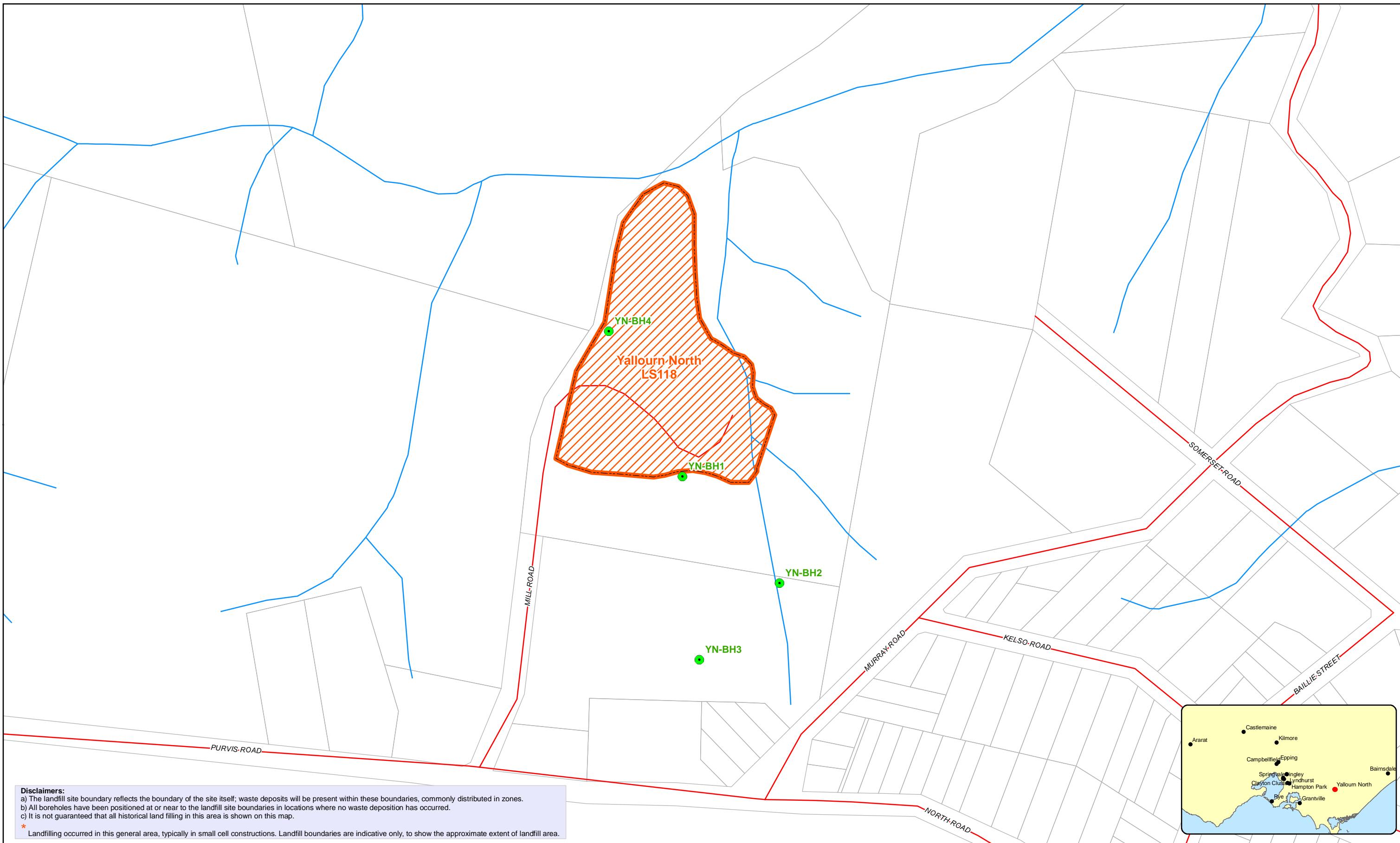
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EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

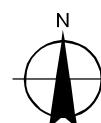
Bore Locations
Wantirna South Licence No. EM28913

Appendix B



1:3,000 (at A3)

0 12.5 25 50 75 100 Metres



Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994

Legend

Borehole	Sealed Road (Arterial & Local)	River	Lake	Camping/Caravan Park
X Refused Borehole	Unsealed Road	Stream	Salt Lake	Carpark
	Unsealed Track	Dashed Line	Watercourse Area	Cemetery
	Sealed Walking/Bike Trail	Connector	Wetland / Swamp	Landmark
	Unsealed Walking/Bike Trail		Flat	Recreation/Sporting Area
	Land Fill Site		Pondage	Showgrounds



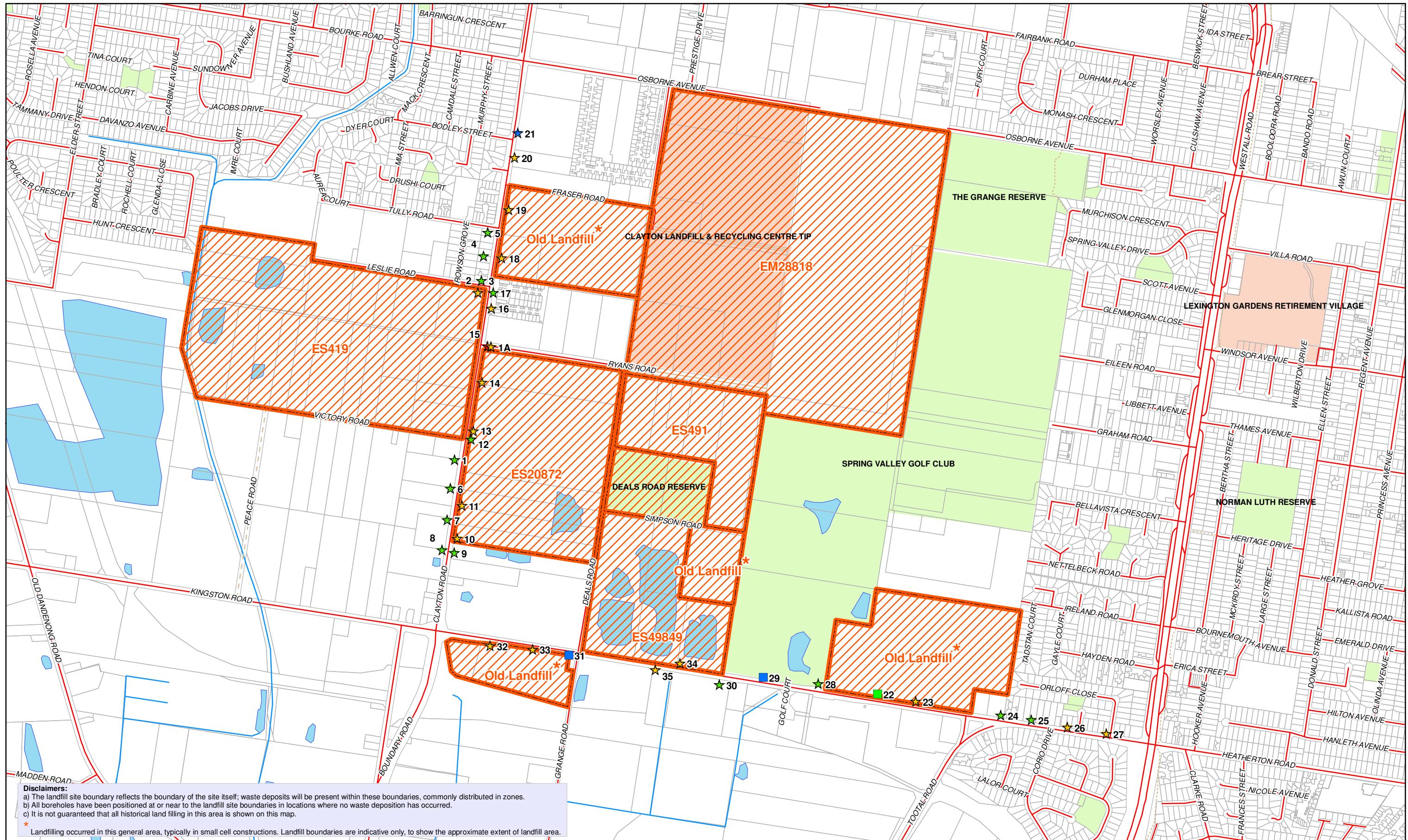
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EPA
Preliminary Landfill Screening Project

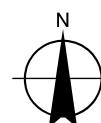
Job Number 31-23655
Revision A
Date Oct 2008

Bore Locations
Yallourn North Licence No. LS118

Appendix B



1:10,000 (at A3)
0 40 80 160 240 320
Metres



Legend

★ Acess Pit	Freeway	Land Fill Site	Lake	Camping/Caravan Park
■ CFC Hydrant	Highway	Elevation	Salt Lake	Carpark
★ Optus Pit	Sealed Road (Arterial & Local)	River	Watercourse Area	Cemetery
★ Telstra Pit	Unsealed Road	Stream	Wetland / Swamp	Landmark
★ PMG Pit	Unsealed Track	Channel / Drain	Flat	Recreation/Sporting Area
■ Stromwater Drain	Sealed Walking/Bike Trail	Connector	Pondage	Showgrounds
	Unsealed Walking/Bike Trail	Parcel		

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: VicGrid 1994



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EPA
Preliminary Landfill Screening Project

Job Number 31-23655
Revision A
Date Oct 2008

Service Sweep Locations Clayton Landfills

Appendix B



Appendix C

Field Photographs



Appendix C1

Field Photographs – Ararat (HS311)

Ararat (HS311)

 A photograph showing a white survey pole standing upright in a grassy field. In the background, there is a wooden fence post, some pipes, and a small building or trailer.	 A photograph showing a white survey pole standing in a grassy field. A shovel and a white bag are nearby. A circular outline on the ground indicates the location of the survey point.
B1 – North	B1 – South
 A photograph showing a tall grey concrete pillar standing in a grassy field. There are some white cones and containers at its base.	 A photograph showing a person wearing a yellow high-visibility vest and a hat, standing in a grassy field and looking towards a dirt road and trees.
B1 – East	B1 – West



Ararat (HS311)



B2 – North

B2 – South



B2 – East

B2 – West



Appendix C2

Field Photographs – Bairnsdale (LS 169)



Bairnsdale (LS 169)



B1 – North

B1 – South



B1 – East

B1 – West



Bairnsdale (LS 169)



B2 – North



B2 – South



B2 – East



B2 – West



Bairnsdale (LS 169)



B3 – North



B3 – South



B3 – East



B3 – West



Bairnsdale (LS 169)



B4 – North



B4 – South



B4 – East



B4 – West

Bairnsdale (LS 169)



B5 – North



B5 – South



B5 – East



B5 – West



Bairnsdale (LS 169)

	
B6 – North	B6 – South
	
B6 – East	B6 – West



Appendix C3

Field Photographs – Campbellfield (ES 506)



Campbellfield (ES 506)



B1 – North



B1 – West



B1 – East



Campbellfield (ES 506)

 A photograph showing a large yellow and black hydraulic drill rig positioned in a grassy field. A worker in a hard hat and safety vest is standing near the base of the rig. In the background, there is a chain-link fence and some low-lying vegetation under a clear blue sky.	 A photograph of an excavated area in a grassy field. The ground is uneven and shows signs of earthmoving activity. Some metal debris and equipment are scattered across the site. The sky is clear and blue.
B2 – North	B2 – South
 A photograph of a yellow and black hydraulic drill rig operating in a grassy field. A worker is visible near the base of the rig. In the background, a chain-link fence and a white vehicle are visible under a clear blue sky.	 A photograph showing two workers in hard hats and safety vests working in a hilly, grassy area. One worker is sitting on a white container, while the other stands nearby. They appear to be handling some equipment or materials. The background features trees and a chain-link fence under a clear blue sky.
B2 – East	B2 – West



Campbellfield (ES 506)

	
B3 – North	B3 – South



Appendix C4

Field Photographs – Castlemaine (ES 24499)



Castlemaine (ES 24499)

	
B1 – North	B1 – South
	
B1 – East	B1 – West



Castlemaine (ES 24499)

	
B2 – North	B2 – South
	
B2 – East	B2 – West

Castlemaine (ES 24499)

	
B3 – North	B3 – South
	
B3 – East	B3 – West



Appendix C5

Field Photographs – Clayton Landfills



Clayton Landfills

A photograph showing a white electronic device connected to a blue cable lying on the ground. In the background, there are trees and some debris.	A photograph showing two large white barrels on the ground, surrounded by trees and debris. A fence and buildings are visible in the background.
B1 – North	B1 – South
A photograph showing a view through dense foliage and trees towards a dry, open field.	A photograph showing a white utility vehicle parked on a dirt surface under the shade of a large tree.
B1 – East	B1 – West



Clayton Landfills

A photograph showing a dry, brown, and somewhat eroded landscape. A chain-link fence runs across the middle ground, separating the foreground from a hillside with sparse vegetation and a few large trees.	A photograph showing a similar dry, brown landscape. A chain-link fence is visible in the background, and a large tree stands prominently on the right side of the frame.
B2 – North	B2 – South
A photograph showing a dry, brown landscape with a chain-link fence in the background. A white marker is visible in the foreground.	A photograph showing a dry, brown landscape with a chain-link fence in the background. A white utility vehicle is parked on the right side of the frame.
B2 – East	B2 – West



Clayton Landfills

	
B3 – North	B3 – South
	
B3 – East	B3 – West

Clayton Landfills

	
B4 – North	B4 – South
	
B4 – East	B4 – West



Clayton Landfills

	
B5 – North	B5 – South
	
B5 – East	B5 – West

NOTE: No photos available for bore BH6

Clayton Landfills

	
B7 – North	B7 – South
	
B7 – East	B7 – West



Clayton Landfills

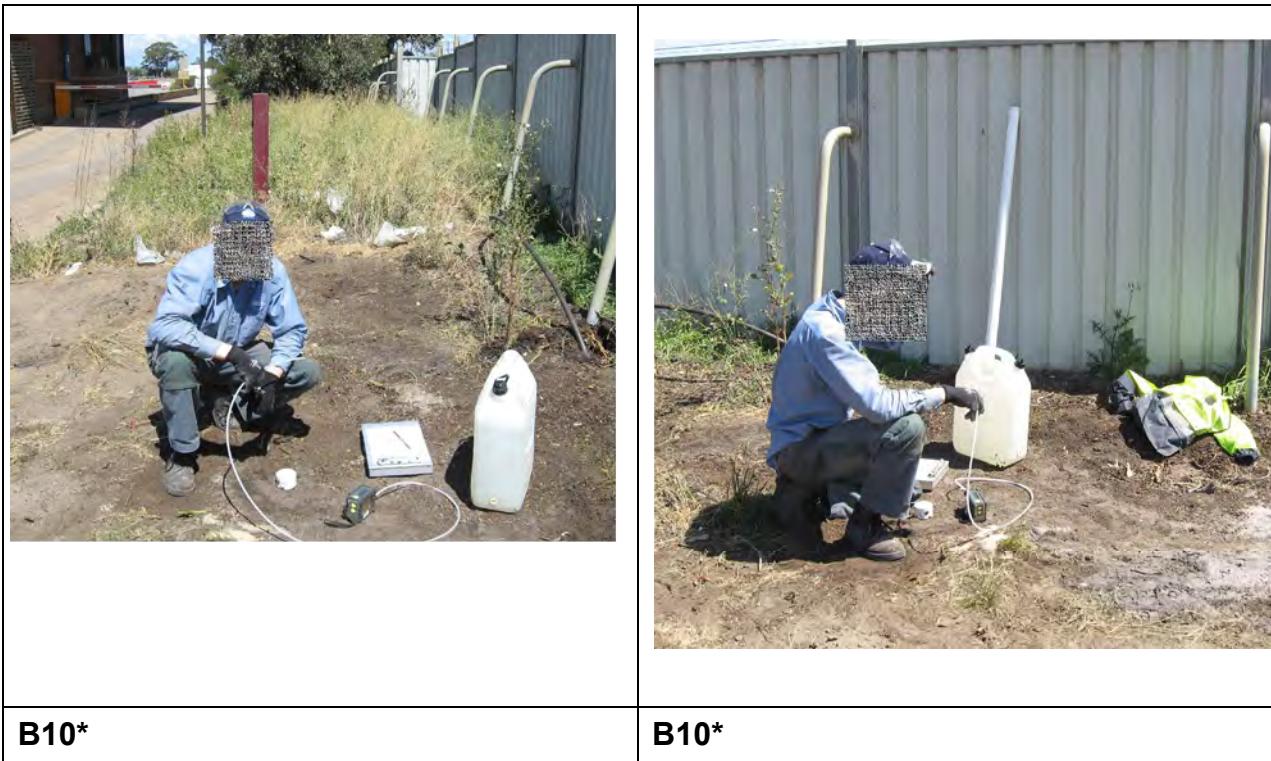
A photograph showing a grassy area in front of a chain-link fence. A white van is parked behind the fence. In the foreground, there is a blue container and a white cylindrical object on the grass.	A photograph of a steep hillside covered in woodchips or mulch under a clear blue sky.
B8 – North	B8 – South
A photograph showing a grassy area next to a chain-link fence. There is some debris and a small tree on the hillside. A white cylindrical object and a blue container are on the grass in the foreground.	A photograph of a grassy area next to a chain-link fence. A blue container is visible on the grass in the foreground.
B8 – East	B8 – West



Clayton Landfills

 A photograph showing a corrugated metal fence with a hand-painted "EXIT" sign and an arrow pointing to the right. The fence is surrounded by overgrown grass and weeds.	 A photograph of a paved surface with a large, irregular shadow cast across it, likely from a nearby tree or structure. A white pipe lies on the ground in the foreground.
B9 – North	B9 – South
 A photograph of a paved pathway leading through a grassy area. To the left is a long, grey corrugated metal fence with some graffiti, including a stylized letter "T" and an arrow. The path is shaded by trees on the right.	 A photograph of a paved surface with a large, irregular shadow cast across it, likely from a nearby tree or structure. A white pipe lies on the ground in the foreground.
B9 – East	B9 – West

Clayton Landfills



* Direction of photo unknown; no additional photos available

Clayton Landfills

	
B11 – North 	B11 – South 
B11 – East	B11 – West

Clayton Landfills

 A photograph showing the bore setup for B12 - North. A white pickup truck is parked on the left. In the center, there is a white rectangular container, a black cylindrical probe connected by a cable, a white cup, and some stones. The ground is grassy and uneven.	 A photograph showing the bore setup for B12 - South. It features a chain-link fence in the background. In the foreground, there is a white rectangular container, a black cylindrical probe, a white cup, and some stones on a grassy area.
B12 – North	B12 – South
 A photograph showing the bore setup for B12 - East. It is similar to the North setup, featuring a white rectangular container, a black cylindrical probe, a white cup, and some stones on a grassy area.	 A photograph showing the bore setup for B12 - West. It is similar to the North setup, featuring a white rectangular container, a black cylindrical probe, a white cup, and some stones on a grassy area.
B12 – East	B12 – West

NOTE: No photos available for bore BH13



Clayton Landfills

A photograph showing a grassy area next to a paved road. There is a small, irregularly shaped depression or hole in the grass, possibly a landfill site.	A photograph of a steep, overgrown hillside covered in dense green vegetation. The slope appears to be a landfill site.
B14 North A photograph of the same grassy area from a different angle, showing a car parked near the edge of the lawn. A small depression is visible in the grass.	B14 South A photograph of the steep hillside from a distance, showing the road curving away from the base of the slope.
B14 East	B14 West

Clayton Landfills

	
B15 – West	B15 – South
	
B15 – East	B15 – North



Clayton Landfills

 A photograph showing sampling equipment on a grassy area. A white plastic jug with a black cap sits on the ground. A small white device with a coiled tube is connected to it. A blue cloth or tarp is visible in the background.	 A photograph showing sampling equipment on a grassy area. A white plastic jug with a black cap sits on the ground. A small white device with a coiled tube is connected to it. A blue cloth or tarp is visible in the background.
B16 North  A photograph showing sampling equipment on a grassy area. A white plastic jug with a black cap sits on the ground. A small white device with a coiled tube is connected to it. A blue cloth or tarp is visible in the background.	B16 South
B16 West	



Clayton Landfills



B17 North



B17 West



B17 East



Clayton Landfills

 A photograph showing a paved road in the foreground leading towards a building and trees in the background. The grassy area in the foreground has a small white object on the ground.	 A photograph of a grassy area with a large, dense bush or shrub on the right side. A paved road is visible behind the bush.
B18 North  A photograph of a grassy field with a white pickup truck parked on the right side. The sky is clear and blue.	B18 South  A photograph of a grassy area with a white van parked on the left and a silver car parked further back. A paved road curves through the background.
B18 East	B18 West



Clayton Landfills

A photograph showing various pieces of litter scattered across a patch of dry, brownish-green grass. Visible items include a large white plastic jug, a black bottle, a white styrofoam container, and a small white cup. In the background, a paved road with utility poles and a chain-link fence runs parallel to the grassy area.	A photograph showing more litter on the same grassy area. A large brown sack lies on the grass, along with a white board or piece of debris. Other smaller items like a blue bottle and a white cup are also visible. The background shows the same paved road and fence.
B19 North	B19 South
A photograph showing litter on the grass near a paved road. A blue and yellow jacket lies on the grass, along with a white cup and a small white object. In the background, there's a parking area with several trash cans and a sign that reads "CROWN CROWN TRASH TRASH TRASH TRASH".	
B19 West	



Clayton Landfills



B20 West

B20 East



Clayton Landfills

A photograph showing a grassy field with several trees in the background. In the foreground, there is some equipment and a small white cylindrical object on the ground.	A photograph of a grassy area with a white cylindrical object on the ground. A black tablet device is also visible nearby.
B21 North A photograph of a grassy area with two pieces of equipment on the ground. One is a black device mounted on a grey rectangular base, and the other is a smaller black device.	B21 South A photograph of a grassy area with several pieces of equipment on the ground. These include a black device on a grey base, a white cylindrical object, a black tablet, and a green device.
B21 East	B21 West



Clayton Landfills



B22 – North



B22 – South-West



B22 – East



Clayton Landfills



B23 – North

B23 – South



B23 – East

B23 – West



Clayton Landfills

	
B24 – North	B24 – South
	
B24 – East	B24 – West



Clayton Landfills

 A photograph showing a vertical soil profile. The top layer is dark, possibly organic material or compost. Below it is a lighter-colored, more weathered soil layer. A distinct yellowish-brown stain or leachate plume is visible in the lower part of the profile, indicating environmental contamination.	 A photograph of a grassy area with a small, irregularly shaped brown stain on the ground. This stain likely represents a localized area of environmental impact or a specific monitoring point.
B25 – North	B25 – South
 A photograph of a construction worker wearing an orange vest and blue jeans, kneeling on the grass next to a sidewalk. The worker appears to be performing some task related to the landfill site, possibly monitoring or preparing the ground.	 A photograph of a grassy area next to a paved road. A wooden fence runs along the edge of the grass. In the background, a bus is visible on the road, and utility poles are lined up along the street.
B25 – East	B25 – West



Clayton Landfills



B26 – North



B26 – South



B26 – East



B26 – West

Clayton Landfills

 A side-view photograph of a white utility truck with a flatbed trailer. The trailer is carrying some equipment or materials. The truck is parked on a grassy area with trees in the background.	 A photograph showing a wooden fence in the foreground. Behind the fence, a white bus is parked on a grassy field. There is some equipment on the ground near the fence, including a white container and a yellow tape measure.
B27 – North	B27 – South
 A photograph of a long wooden fence running along a dirt road. A white utility truck is parked behind the fence. The area is surrounded by trees and power lines.	 A photograph of a long concrete barrier wall running along a dirt road. A white utility truck is parked behind the wall. The area is surrounded by trees and power lines.
B27 – East	B27 – West



Clayton Landfills



B28 – North



B28 – South



B28 – East



B28 – West



Clayton Landfills



B29 – North



B29 – South



B29 – East



B29 – West



Clayton Landfills

A photograph showing various construction tools and materials laid out on a grassy area. These include a power drill, a white bucket, a yellow bag, and some pipes. In the background, there is a large tree, a wooden fence, and a paved path leading to a building.	A photograph showing a white bucket and other small items on a grassy lawn. A wooden fence runs along the left side, and a small tree stands in the center-right. A paved path is visible in the background.
B30 – North	B30 – South
A photograph showing a white bucket and other small items on a grassy lawn. A wooden fence runs along the left side, and a yellow container is visible. A power drill and a yellow bag are also on the grass.	A photograph of a landscape featuring several mature trees and a paved path or road in the foreground. The area appears to be a park or a residential street.
B30 – East	B30 – West



Clayton Landfills



B31 – North

B31 – South



B31 – East

B31 – West

Clayton Landfills



B32 – North



B32 – South

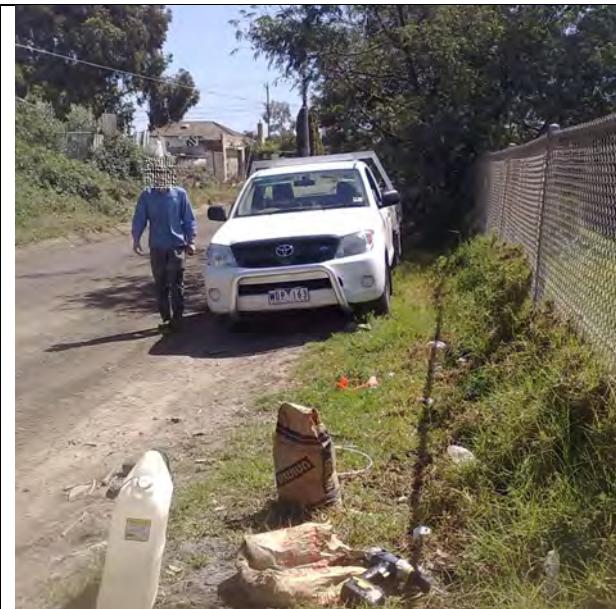


B32 – East



B32 – West

Clayton Landfills



B33 – North

B33 – South

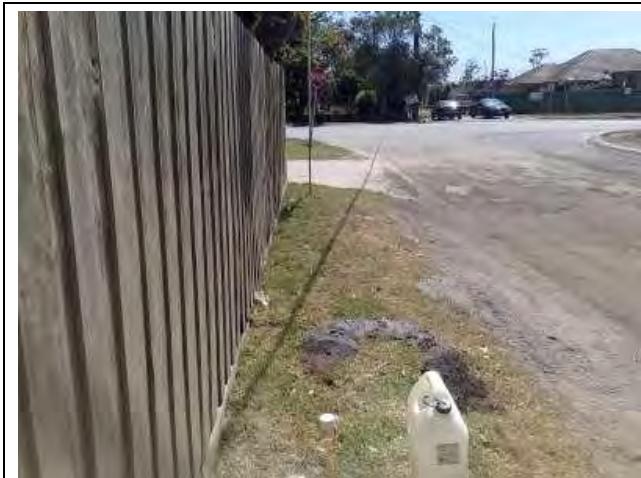


B33 – East

B33 – West



Clayton Landfills



B34 – North



B34 – South



B34 – East



B34 – West



Clayton Landfills



B35 – North



B35 – South



B35 – East



B35 – West



Clayton Landfills

	
B36 – North	B36 – South
	
B36 – East	B36 – West



Clayton Landfills

	
B37 – North	B37 – South
	
B37 – East	B37 – West

NOTE: No photos available for bore BH38



Clayton Landfills



B39 – North



B39 – South



B39 – East

B39 – West



Clayton Landfills



B40 – North



B40 – East

B40 – South



B40 – West



Appendix C8

Field Photographs – Dingley (ES 146)

Dingley (ES 146)

	
B1 – North	B1 – South
	
B1 – East	B1 – West



Dingley (ES 146)

	
B2 – North	B2 – South
	
B2 – East	B2 – West



Dingley (ES 146)



B3 – North



B3 – South



B3 – East



B3 – West



Dingley (ES 146)



B4 – North



B4 – South

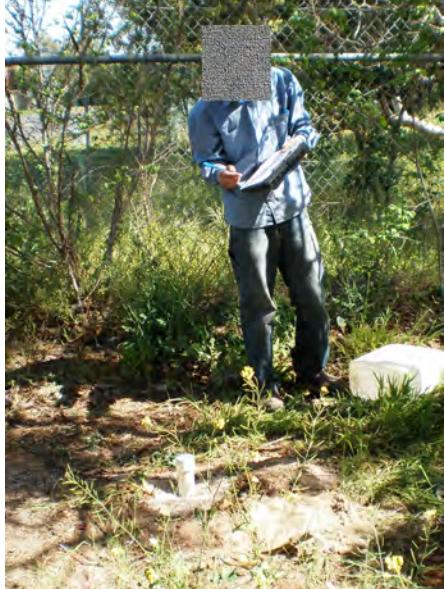


B4 – East



B4 – West

Dingley (ES 146)

 A photograph showing a white cylindrical soil sample tube standing upright in a patch of dry, brownish ground. The background is filled with dense green bushes and trees.	 A photograph of a person wearing a blue long-sleeved shirt and dark trousers, standing in a similar dry, brownish area. They are holding a clipboard and a pen, appearing to take notes. A white bucket sits on the ground to their right.
B5 – North  A photograph of a white cylindrical soil sample tube standing in a dry, brownish area next to a large tree trunk. In the background, there's a chain-link fence and some buildings across a road.	B5 – South  A photograph of a white cylindrical soil sample tube standing in a dry, brownish area with sparse vegetation and a few small yellow flowers. A chain-link fence runs across the background.
B5 – East	B5 – West



Appendix C9

Field Photographs – Epping (ES 177)



Epping (ES 177)

	
B1 – North	B1 – South
	
B1 – East	B1 – West

Epping (ES 177)

 A worker in a yellow high-visibility vest and brown pants is kneeling on a grassy field, pouring liquid from a white bucket into another white bucket. A vertical white pipe is standing upright in the ground nearby. Another person is standing in the background. The sky is blue with some clouds.	 A worker in a yellow high-visibility vest and brown pants is kneeling on a grassy field, pouring liquid from a white bucket into another white bucket. A vertical white pipe is standing upright in the ground nearby. A white drum and some tools are visible on the ground. In the background, there is a grassy embankment and a road with vehicles. The sky is blue with some clouds.
B2 – North  A view of a grassy field showing a vertical white pipe standing upright in the ground. The sky is blue with some clouds.	B2 – South  A worker in a yellow high-visibility vest and brown pants is kneeling on a grassy field, pouring liquid from a white bucket into another white bucket. A vertical white pipe is standing upright in the ground nearby. A white drum and some tools are visible on the ground. The sky is blue with some clouds.
B2 – East	B2 – West



Epping (ES 177)



B3 – North

B3 – South



B3 – East

B3 – West

Epping (ES 177)

	
B4 – North	B4 – South
	
B4 – East	

Note: Photographs are not available for bores 1H-4H



Appendix C10

Field Photographs – Grantville (ES 37130)



Grantville (ES 37130)

NOTE: It was not possible to establish bore BH01

A photograph showing a dirt track winding through dense green bushes and trees, likely a rural or bushland area.	A photograph showing a white utility truck parked on a dirt track next to a chain-link fence, surrounded by dense green vegetation.
B2 – North	B2 – South
A photograph showing a dense, bushy green hedge or wall of low-lying plants.	A photograph showing a chain-link fence made of metal posts and wire mesh, stretching across the frame.
B2 – East	B2 – West



Grantville (ES 37130)



B3 – North



B3 – South



B3 – East



B3 – West



Appendix C12

Field Photographs – Kilmore (HS 1400)



Kilmore (HS 1400)



B1 – North



B1 – South



B1 – East



B1 – West



Kilmore (HS 1400)

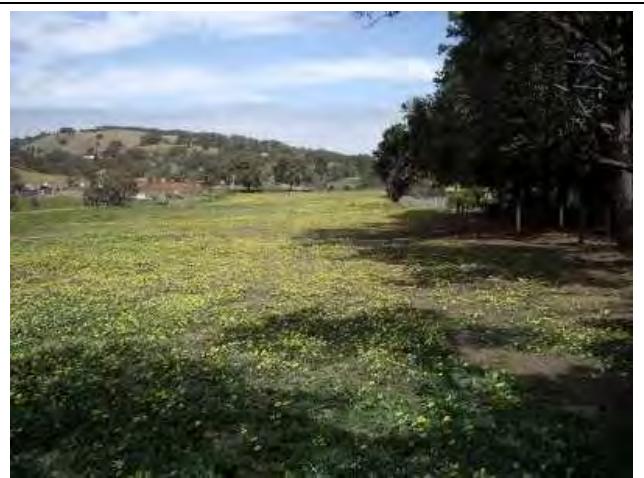
 A photograph showing a large green tree in the foreground on a grassy hillside. A wire fence runs across the middle ground. In the background, more trees are visible on a hillside under a clear sky.	 A photograph of a grassy hillside with several large trees in the background. The foreground is covered in green grass and some small yellow flowers.
B2 – North	B2 – South
 A photograph of a pickup truck with its bed open, showing various construction materials like pipes and tools. The truck is parked on a grassy hillside with hills in the background under a blue sky.	 A photograph of a grassy hillside with a fence line in the foreground. A small, dark structure or shed is visible on the hillside. The background shows more greenery and hills under a clear sky.
B2 – East	B2 – West



Kilmore (HS 1400)



B3 – North



B3 – South



B3 – East



B3 – West



Kilmore (HS 1400)

A photograph showing a wire fence running across a grassy hillside. A person's arm and hand are visible on the left, pointing towards the fence. The background shows more green hills and trees under a clear sky.	A photograph of a person in a red shirt standing in a grassy field next to a wire fence. They are holding a long cylindrical object. A shovel lies on the ground nearby. The background features a line of trees and a hillside.
B4 – North	B4 – South
A photograph of a wire fence in a grassy field. The fence runs diagonally across the frame. The foreground is covered in low-lying yellow flowers. The background shows a hillside with sparse vegetation and some tall trees.	A photograph of a wire fence in a grassy field. The fence runs horizontally across the middle of the frame. The background is filled with dense green trees and bushes under a clear blue sky.
B4 – East	B4 – West



Appendix C13

Field Photographs – Lyndhurst (ES 511)



Lyndhurst (ES 511)

	
B1 – North	B1 – South
	
B1 – East	B1 – West

Lyndhurst (ES 511)

	
B2 – North 	B2 – South 
B2 – East	B2 – West



Lyndhurst (ES 511)

A photograph showing a white cylindrical soil sample tube standing upright in a patch of dry, brownish soil. The background shows a grassy field and some trees under a cloudy sky.	A photograph of a surveyor wearing a blue shirt, yellow vest, and hard hat, standing in a grassy area and looking at a handheld device. A white cylindrical soil sample tube lies on the ground nearby. In the background, there's a road, utility poles, and trees.
B3 – North A close-up photograph of a white cylindrical soil sample tube standing in a pile of disturbed earth or soil.	B3 – West A photograph showing a white cylindrical soil sample tube standing in a patch of dry, brownish soil. The background shows a grassy field and some trees under a clear blue sky.
B3 – East	B3 – West



Lyndhurst (ES 511)

 A photograph showing a yellow excavator arm and bucket digging into the ground in a grassy, overgrown area. A white cylindrical object, likely a survey marker, sits on the ground near the excavation point.	 A photograph showing a yellow excavator arm and bucket digging into the ground in a grassy, overgrown area. A white cylindrical object, likely a survey marker, sits on the ground near the excavation point.
B4 – North	B4 – South
 A photograph showing a yellow excavator unit with a circular base and a small wheel, positioned on a grassy slope. A white cylindrical object, likely a survey marker, sits on the ground nearby.	 A photograph showing a yellow excavator arm and bucket digging into the ground in a grassy, overgrown area. A white cylindrical object, likely a survey marker, sits on the ground near the excavation point.
B4 – East	B4 – West



Lyndhurst (ES 511)

A photograph showing a white survey marker in a grassy field. In the background, there are trees and a paved road.	A photograph showing a yellow surveying machine and a white survey marker in a grassy field. A wooden fence post is visible in the background.
B5 – North	B5 – South
A photograph showing a white survey marker in a grassy field near a wooden fence. A yellow surveying machine is partially visible in the foreground.	A photograph showing a yellow surveying machine and a white survey marker in a grassy field. A white pickup truck is parked in the background.
B5 – East	B5 – West



Appendix C14

Field Photographs – Rye (ES 453)



Rye (ES 453)

A photograph showing a person's arm and shoulder in the foreground, reaching towards a dense thicket of green trees and bushes. A vertical metal pole is visible on the right side of the frame.	A photograph of a dark-colored sedan parked on a paved road. The vehicle is positioned on the right side of the frame, with a grassy field and some low-lying shrubs in the foreground and a line of trees in the background under a clear blue sky.
B1 – North	B1 – South
A photograph of a steep, overgrown hillside covered in dense green vegetation, including tall grasses and various shrubs. A thin red line extends from the top center of the image down towards the hillside.	A photograph of a dirt path or track winding through a dense thicket of green trees and bushes, with a grassy area visible on the right side.
B1 – East	B1 – West



Rye (ES 453)

A photograph showing a steep, grassy hillside. A chain-link fence runs across the middle of the frame, separating the foreground from the hillside. The hillside is covered in green grass and some low-lying shrubs. The sky is clear and blue.	A photograph of a dense thicket of bushes and trees. The vegetation is primarily green, with some purple flowers visible on the right side. The ground in the foreground is covered in dry, yellowish grass.
B2 – North	B2 – South
A photograph of a hillside with a mix of green and brown vegetation. There are several large, bare, tangled bushes in the foreground on the left. The hillside slopes upwards towards the right, with more dense greenery at the top. The sky is clear.	A photograph taken from behind a large wooden utility pole. The pole is dark and textured. In the background, there is a hillside covered in green grass and some brown, dead vegetation. The sky is clear.
B2 – East	B2 – West



Rye (ES 453)

A photograph showing a dense thicket of green bushes and trees in the foreground, with a dirt path visible. The background shows more vegetation under a clear blue sky.	A photograph of a grassy field with a line of trees and bushes in the background under a clear blue sky.
B3 – North	B3 – South
A photograph of a grassy field with a line of trees and bushes in the background under a clear blue sky. A white cylindrical object is visible in the foreground.	A photograph showing a dense thicket of green bushes and trees in the foreground, with a dirt path visible.
B3 – East	B3 – West



Rye (ES 453)

A photograph showing a white utility vehicle with its rear door open, parked in a grassy area. In the foreground, there is some equipment, including a green bucket and a blue bag, resting on the ground. The background is filled with dense green shrubs under a clear blue sky.	A photograph of a dirt path or track winding through a dense thicket of green bushes and trees. The path appears to be a natural or less-traveled route through the undergrowth.
B4 – North	B4 – South
A photograph of a dense cluster of green bushes and shrubs, likely eucalyptus, growing on a hillside. The sky above is clear and blue.	A photograph of a dense cluster of green bushes and shrubs, likely eucalyptus, growing on a hillside. The sky above is clear and blue.
B4 – East	B4 – West



Rye (ES 453)



B5 – North

B5 – South



B5 – East

B5 – West



Appendix C15

Field Photographs – Springvale Landfills



Springvale Landfills



B1 – North



B1 – South



B1 – East



B1 – West



Springvale Landfills

A photograph showing a white pickup truck parked in a grassy field. The truck bed is filled with various items, possibly equipment or supplies. A person is standing next to the truck on the right side.	A photograph of a hilly landscape under a clear blue sky. In the foreground, there's a grassy slope. A yellow fence runs along the top of the hill. In the background, there are some houses and utility poles.
B2 – North	B2 – South
A photograph taken from a low angle, looking across a grassy area towards a road. On the road, there are several vehicles, including a white SUV and a red car. In the background, there are trees and some buildings.	A photograph showing a wide, open grassy field extending towards a distant horizon under a clear blue sky.
B2 – East	B2 – West



Springvale Landfills

A photograph showing a small, irregularly shaped depression in the ground covered with sparse green grass and dry brown patches. A white plastic bottle lies on the ground to the right of the depression.	A photograph showing a similar depression to the north, but with more extensive dry, brownish areas and some scattered debris, including a white bottle.
B3 – North	B3 – South
A photograph showing a depression in the ground with more dense green grass than the other sites. A white bottle is visible near the center-left of the depression.	A photograph showing a depression in the ground with more dense green grass than the other sites. A white bottle is visible near the center-right of the depression.
B3 – East	B3 – West



Springvale Landfills

A photograph showing a grassy area with a small, light-colored cylindrical object on the ground near a concrete wall.	A photograph showing a grassy hillside with a white cylindrical object standing upright in the foreground. A white truck is visible in the background.
B4 – North	B4 – South
A photograph showing a grassy area with a small, light-colored cylindrical object on the ground near a concrete wall.	A photograph showing a grassy hillside with a white cylindrical object standing upright in the foreground. A concrete wall is visible on the right side.
B4 – East	B4 – West



Springvale Landfills

A photograph showing a grassy slope leading up to a large, brown, textured landfill mound. A white cylindrical marker is visible on the ground in the foreground.	A photograph showing a steep, brown, textured slope of a landfill, with dense green vegetation at the bottom and a bright sky above.
B5 – North	B5 – South
A photograph showing a grassy slope leading up to a large, brown, textured landfill mound. A white cylindrical marker is visible on the ground in the foreground.	A photograph showing a steep, brown, textured slope of a landfill, with dense green vegetation at the bottom and a bright sky above.
B5 – East	B5 – West



Springvale Landfills

A photograph showing a grassy, uneven hillside. In the foreground, there are some small white objects on the ground. In the background, there are several large, grey, corrugated metal structures, likely landfill cells or waste management units.	A photograph showing a similar grassy hillside. A small white object is visible on the ground in the lower-left area. In the background, there are more grey corrugated metal structures.
B6 – North	B6 – South
A photograph showing a grassy hillside with a wooden fence and some buildings in the background. A small white object is visible on the ground in the lower-left area.	A photograph showing a grassy hillside. A small white object is visible on the ground in the lower-left area.
B6 – East	B6 – West



Springvale Landfills

A photograph showing a surveyor in a blue vest and hard hat kneeling on a grassy area next to a chain-link fence. A tripod-mounted instrument is positioned on the ground in front of them. The background shows some trees and a clear sky.	A photograph showing a surveyor in a blue vest and hard hat kneeling on a grassy area near a paved driveway. A house with a double garage is visible in the background. A tripod-mounted instrument is on the ground nearby.
B7 – North	B7 – South
A photograph showing a surveyor in a blue vest and hard hat kneeling on a grassy area next to a paved road. The road has a white line marking. A tripod-mounted instrument is on the ground nearby.	A photograph showing a surveyor in a blue vest and hard hat kneeling on a grassy area near a paved road. The road has a white line marking. A tripod-mounted instrument is on the ground nearby.
B7 – East	B7 – West



Springvale Landfills



B8 – North



B8 – East



Springvale Landfills



B9 – North



B9 – South



B9 – East



B9 – West



Springvale Landfills

A photograph showing a bore site labeled B10 - North. A white pickup truck is parked on the left, and a blue water tank sits on the grass. A small circular bore equipment is on the ground. A person is standing near a chain-link fence in the background.	A photograph showing a bore site labeled B10 - South. A white water tank and a small white container are on the grass. A bore equipment is visible on the ground. A chain-link fence is in the background.
B10 – North	B10 – South
A photograph showing a bore site labeled B10 - East. A white water tank and a small white container are on the grass. A bore equipment is visible on the ground. A chain-link fence and trees are in the background.	A photograph showing a bore site labeled B10 - West. A white water tank and a small white container are on the grass. A bore equipment is visible on the ground. A road and some debris are in the background.
B10 – East	B10 – West

NOTE: No photos are available for bore BH11



Springvale Landfills

A photograph showing a grassy hillside. A white rectangular object, possibly a sensor or marker, lies on the grass. A thin white cable extends from it across the grass towards the bottom of the hill.	A photograph of a grassy hillside under a blue sky with scattered clouds. Two white rectangular objects are visible on the grass. In the background, there are some trees and utility poles.
B12 – North	B12 – South
A photograph showing a close-up view of a dark grey corrugated metal fence. The ground in front of the fence is covered in tall, dry grass and some weeds. A thin white cable is visible on the ground near the fence.	A photograph of a grassy hillside. Several small white rectangular objects are scattered on the grass. The terrain is uneven with patches of taller grass.
B12 – East	B12 – West



Springvale Landfills

 A photograph showing a grassy, uneven slope. In the background, there are some buildings and a wooden fence under a clear sky.	 A photograph showing a grassy slope with a corrugated metal fence in the background. A small yellow object is visible on the ground near the fence.
B13 – North	B13 – South
 A photograph showing a grassy slope with a corrugated metal fence in the background. The slope appears steeper and more exposed than the other views.	 A photograph showing a grassy slope with a corrugated metal fence in the background. The slope appears steeper and more exposed than the other views.
B13 – East	B13 – West

Springvale Landfills

 A photograph showing a small, irregular pile of white and grey debris or trash on a grassy, sunlit ground surface. The area is surrounded by dense green bushes and trees.	 A photograph showing a larger, more organized pile of white and grey debris or trash on a grassy, sunlit ground surface. The area is surrounded by dense green bushes and trees.
B14 – North	B14 – South
 A photograph showing a large, irregular pile of white and grey debris or trash on a grassy, sunlit ground surface. In the background, there is a building with a metal frame and some trees.	 A photograph showing a large, irregular pile of white and grey debris or trash on a grassy, sunlit ground surface. The area is surrounded by dense green bushes and trees.
B14 – East	B14 – West



Springvale Landfills



B15 – North



B15 – South



B15 – East



B15 – West



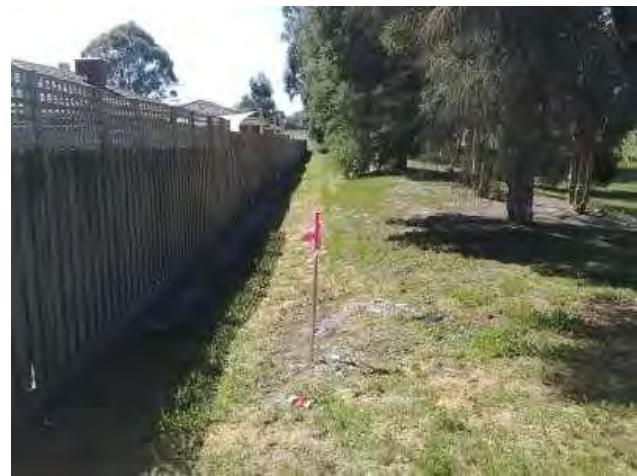
Springvale Landfills



B16 – North



B16 – South



B16 – East



B16 – West



Springvale Landfills



B17 – North



B17 – South



B17 – East



B17 – West



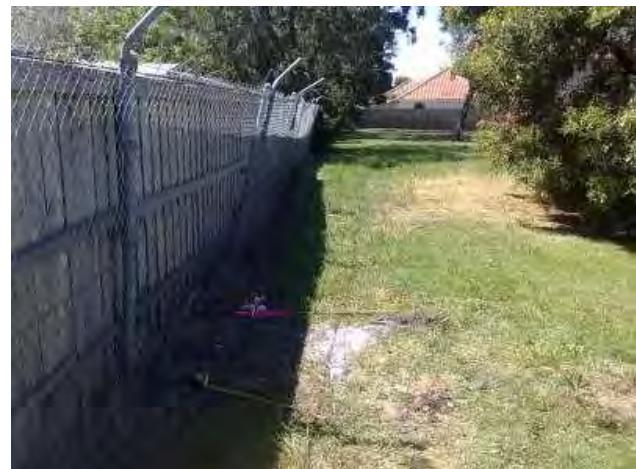
Springvale Landfills



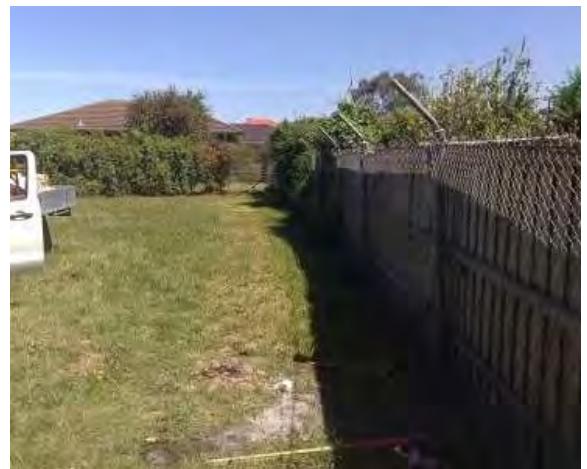
B18 – North



B18 – South



B18 – East



B18 – West



Springvale Landfills



B19 – North



B19 – South



B19 – East



B19 – West



Springvale Landfills

	
B20 – North	B20 – South
	
B20 – East	B20 – West

NOTE: No photos are available for bore BH21

Springvale Landfills



B22 – North



B22 – South



B22 – East



B22 – West



Appendix C16

Field Photographs – Wantirna South (EM 28913)

Wantirna South (EM 28913)

	
B1 – North	B1 – South
	
B1 – East	B1 – West



Wantirna South (EM 28913)

A photograph showing a construction worker in a blue shirt and dark pants working on a concrete slab in a grassy field. A yellow surveying tripod and equipment are visible in the foreground.	A photograph showing a yellow surveying tripod with a vertical rod and a circular base, positioned in a grassy area near a wooden fence and trees. Some bags and tools are scattered on the ground.
B2 – North	B2 – South
A photograph showing a yellow surveying tripod and equipment in a grassy field with trees in the background. A car is partially visible on the left.	A photograph showing a yellow surveying tripod and equipment in a grassy field with trees in the background. A concrete slab is visible on the right.
B2 – East	B2 – West



Wantirna South (EM 28913)

 A photograph showing a white survey marker in a grassy area with large trees casting long shadows. A yellow lawn mower is visible in the background.	 A photograph showing a white survey marker in a grassy area with large trees casting long shadows. The marker is positioned near a small, shallow excavation.
B3 – North	B3 – South
 A photograph showing a white survey marker in a grassy area with dense green bushes and a chain-link fence in the background.	 A photograph showing a white survey marker in a grassy area with large trees casting long shadows. The marker is positioned near a small, shallow excavation.
B3 – East	B3 – West

Wantirna South (EM 28913)

 A photograph showing a grassy area with a large tree on the left. Several items are scattered on the ground, including a white bucket, a yellow bag, and some debris. A small yellow cart is visible in the background.	 A photograph showing a grassy area with a person standing on the right side. There are several items on the ground, including a white bucket, a brown bag, and some debris. A white container is visible in the foreground.
B4 – North	B4 – South
 A photograph showing a grassy area with a chain-link fence in the background. A white bucket and a white plastic bag are on the ground. A small white object is visible near the bottom left.	 A photograph showing a white pickup truck with its tailgate open. A person is standing next to the truck. There are several items on the ground in front of the truck, including a white bucket and a brown bag.
B4 – East	B4 – West



Wantirna South (EM 28913)

A yellow excavator with a long hydraulic arm is positioned on a grassy area. It is facing towards the right side of the frame. In front of the excavator, there is a white cylindrical container and some debris. The background shows a residential street with houses and trees.	A yellow excavator with a long hydraulic arm is positioned on a grassy area. It is facing towards the left side of the frame. In front of the excavator, there is a white cylindrical container and some debris. The background shows a dense area of fallen trees and branches.
B5 – North	B5 – South
A yellow excavator with a long hydraulic arm is positioned on a grassy area. It is facing towards the left side of the frame. In front of the excavator, there is a white cylindrical container and some debris. The background shows a residential street with houses and trees.	A yellow excavator with a long hydraulic arm is positioned on a grassy area. It is facing towards the right side of the frame. In front of the excavator, there is a white cylindrical container and some debris. The background shows a dense area of fallen trees and branches.
B5 – East	B5 – West



Wantirna South (EM 28913)



B6 – North



B6 – South



B6 – East



B6 – West



Appendix C17

Field Photographs – Yallourn North (LS 118)



Yallourn North (LS 118)

	
B1 – North	B1 – South
	
B1 – East	B1 – West



Yallourn North (LS 118)

A photograph showing a dirt path leading through a cluster of trees, likely eucalyptus, onto a grassy area. A white fence post is visible on the left.	A photograph of a dense thicket of green bushes and trees growing on a hillside. The ground is covered in fallen leaves and twigs.
B2 – North	B2 – South
A photograph of a grassy hillside with a large tree trunk in the foreground on the right. A small, brown and white horse is grazing near a metal gate.	A photograph of a grassy hillside with a large tree trunk in the foreground on the right. A small, brown and white horse is grazing near a metal gate.
B2 – East	B2 – West



Yallourn North (LS 118)

	
B3 – North	B3 – South
	
B3 – East	B3 – West



Yallourn North (LS 118)



B4 – North

B4 – South



B4 – East

B4 – West



Appendix D

Summary of Methane Analyser and Sensor Specifications



Summary of Methane Analysers and Sensor Specifications

Initial methane monitoring at these sites was undertaken using a QRAE Plus portable gas analyser. This instrument uses a protected dual-mode catalytic bead detector to detect combustible gases (taken as a proxy for methane in this investigation) and an electrochemical fuel-cell to detect oxygen. The technical specification of the sensors in this instrument is given in Table 1 below.

Table 1 - QRAE Plus Sensor Specifications

Gas	Sensor Type	Range	Resolution
Combustibles#	Protected dual-mode catalytic bead	0 – 100% LEL*, and 0 – 100% volume	1% of LEL and 1% of volume
Oxygen	Electrochemical fuel-cell	0 – 30% volume	0.1%

Combustibles used as a proxy for methane in this investigation.

*LEL = Lower explosive limit (approximately 5% methane in air).

Subsequent monitoring rounds utilised a GA2000 portable gas analyser.

This instrument uses a dual wavelength infrared cell with reference channel to detect methane and an internal electrochemical cell to detect oxygen. The technical specification of these sensors in this instrument are given in Table 2 below.

Table 2 – GA2000 Sensor Specifications

Gas	Sensor Type	Range	Typical Accuracy 0 – 5% Volume	Typical Accuracy 5 – 15% Volume	Typical Accuracy 15% – Full Scale	Full Scale
Methane	Dual wavelength infrared cell with reference channel	0 – 70% to specification, 0 – 100% reading	+/- 0.5% (vol)	+/- 1.0% (vol)	+/- 3.0% (vol)	70%
Oxygen	Electrochemical cell	0 – 70% to specification, 0 – 100% reading	+/- 1.0% (vol)	+/- 1.0% (vol)	+/- 1.0% (vol)	25%

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Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	P.R. CLAREY	M. KOLLER	**	W. BAJWA	**	27/11/08
1	P.R. CLAREY	M. KOLLER	**	W. BAJWA	**	09/12/08
2	P.R. CLAREY	W.BAJWA	**	W.BAJWA	**	22/12/08
3	P.R. CLAREY	W.BAJWA		W.BAJWA		09/01/09

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