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Prepared for:

Maunsell Australia Pty Ltd

Level 9, 8 Exhibition Street
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Environmental Assessment

Shepparton North East Growth Area

ENSR Australia Pty Ltd (ENSR)

21 October 2008

Document No.: M60048301_RPT01_21Oct08.doc

Distribution

Environmental Assessment
Shepparton North East Growth Area

21 October 2008

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Executive Summary

ENSR Australia Pty Ltd, an AECOM Company, was engaged by Maunsell Australia Pty Ltd to undertake a preliminary soil, flora and fauna, and heritage assessment within the Shepparton north-east Growth Area. This information will be used to provide an Outline Development Plan and Development Contributions Plan for residential development of the site.

The site is approximately 164 ha in area and located north-east of the Shepparton township within the Greater Shepparton City Council. The topography at the site is flat. The majority of the site is zoned Farming Zone, and used as apple orchards, while the irrigation channels which bisect the site are zoned Public Use Zone – Service and Utility. The site is comprised of several properties, although access was not permitted to all of them. It is highly modified and it does not any natural biological features such as creeks, waterbodies or patches of remnant vegetation. It contains a number of buildings and associated outbuildings. Exotic and non-indigenous vegetation has been planted around the buildings for aesthetic purposes, and along some of the property boundaries for windbreaks.

Table 1 provides a preliminary summary of the possible constraints and recommendations for future development of the site.

Table 1: Summary of Potential Environmental Constraints and Recommendations

Area	Comments
Contaminated Land Assessment	**Constraints:** • The site has several potential sources of ground/soil contamination, including some elevated lead and copper concentrations within surface soils. • Historic and existing land uses suggest that agricultural activities could have impacted on the quality of the soils and groundwater at the site. **Recommendations:** • Enter into dialogue with Council to determine if an Environmental Audit is required. • Sensitive removal of identified potential sources of contamination. • Excavation, soil validation sampling and remediation of contaminated soils. • A groundwater investigation particularly in the vicinity of potential USTs. • Further investigation and remediation of the sources and extent of elevated lead and copper concentrations at the site should be undertaken prior to sensitive land use.

Area	Comments
Flora and Fauna Assessment	**Constraints:** • The site is highly modified with a long history of horticultural land use. It generally contains an upper storey of apple trees and an understorey of exotic vegetation including environmental weeds. These are unlikely to constrain development of the site. • It also contains a number of irrigation channels which contain common species of frogs. Development within these areas is likely to impact upon these individuals. **Recommendations:** • There are no legislative requirements relating to the known biodiversity values of the site. • No further flora or fauna assessments are recommended.
Cultural Heritage Assessment	**Constraints:** • No Aboriginal sites were identified at the site. • A search of the Victorian Heritage Register and Inventory did not reveal any known historic places or archaeological sites, however, one new historic archaeological site may occur on the site. **Recommendations:** • A Cultural Heritage Management Plan is not a mandatory requirement for the site, however the developer may decide to undertake a voluntary Plan to avoid time delays if any sites are encountered in the future.

1.0 Introduction

1.1 Background

ENSR Australia Pty Ltd (ENSR), an AECOM Company, was engaged by Maunsell Australia Pty Ltd (Maunsell) to undertake a preliminary soil, flora and fauna, and heritage assessment within the Shepparton north-east Growth Area.

It is understood that Maunsell is working for an investor who is exploring the potential to convert the land from agricultural into residential land. Information from this report will be used by Maunsell to develop an Outline Development Plan and Development Contributions Plan to assist in this regard.

1.2 The Site

The site is approximately 164 ha in area and is located to the north-east of the Shepparton township. It is generally flat, and is an irregular shape that is roughly bounded by Verney Road to the west Ford Road to the north, and Grahamvale Road to the east. Residential land is located to the south and west of the site, and land to the north and east is used for agricultural practices (see Figure F1).

The site is located within the Greater Shepparton City Council (Council). It is currently zoned Farming Zone pursuant to the Greater Shepparton Planning Scheme. Irrigation channels which intersect the site, used for irrigation of crops, are zoned Public Use Zone – Service and Utility. The site is not covered by any relevant overlays (e.g. environmental audit overlay, environmental significance overlay, heritage overlay, land subject to inundation overlay, vegetation protection overlay or wildfire management overlay).

The current and historic land-use of the site is horticultural. It currently contains several apple orchards which are irrigated by channels. The channel had been recently dredged and spoil was dumped beside the channel and in some cases covered the vegetation which lined the channel. The channels were the only waterbodies observed on the site. Two of the properties contained paddocks, presumably used for agricultural purposes, however, no livestock were not seen on the property during the assessment.

The site includes a number of residences, and associated outbuildings and sheds. The Assembly of God school and church are located on the western side of the site, and the Grahamvale Primary School is located on the eastern portion of the site. A number of exotic and non-indigenous shrubs and trees have been planted around these buildings and around the property boundaries.

1.3 Scope of Work

Desktop assessments and site assessments were completed for each of the three components during late August and early September 2008.

The soil assessment component of the project was undertaken by Jason Perry, Senior Environmental Scientist on 2 September 2008. The flora and fauna assessment was undertaken by Simon Scott, Senior Environmental Scientist, ENSR, and Aaron Jenkin, Environmental Scientist, ENSR on 2 September 2008. The heritage and archaeological component of the project was undertaken by Rick Bullers, Project Archaeologist, ENSR on 29 August 2008. A representative of the Yorta Yorta Nation Aboriginal Corporation also attended the site assessment.

Some landowners would not provide access into their properties, and the smaller properties were not accessed. In these cases, observations were made from other adjoining areas.

The methodology, results, discussion and recommendations of each of these components is described within separate chapters of this Report:

- **Chapter 2** provides the contaminated lands assessment.
- **Chapter 3** provides the flora and fauna assessment.
- **Chapter 4** provides the cultural heritage assessment.

2.0 Contaminated Land Assessment

The aim of the contaminated land assessment is to identify potential contaminants within the soil which may constrain future development of the site.

2.1 Methods

The contaminated lands assessment involved a desktop site history and background information review, site inspection and limited soil sampling. The methods used are outlined within the following sections:

2.1.1 Site History and Background Information

The site history and background information review was undertaken to identify potential sources of contamination at the site and its surrounds. The desktop assessment focused on reviewing readily available information to develop an understanding of historical activities that were undertaken on the site and their potential to have resulted in contamination. The site history and background information review included a four-hour site visit on 2 September 2008 and a review of the following sources:

- Select historical aerial photographs available at the Department of Sustainability and Environment (DSE) offices to gain an understanding of historical use and development of the site.
- EPA Victoria Priority Sites Register to assess whether Clean-up or Pollution Abatement Notices have been issued to owners or occupiers of the site or immediately surrounding properties.
- List of Certificates and Statements of Environmental Audit maintained by EPA Victoria to establish if the site or nearby properties have previously been investigated and audited.
- Local historical society records and historical certificate of titles.
- A desktop literature and map review to assess the local and regional geological and hydrogeological conditions, to evaluate the general sensitivity of the environment within the vicinity of the site and to assess the potential presence of naturally elevated concentrations of substances that may pose a risk to use of the site.

2.1.2 Limited Soil Sampling

The limited soil sampling was undertaken by Jason Perry of ENSR on 2 September 2008. The limited soil sampling involved the following works:

- Collection soil samples from 10 locations on the five properties accessed during the site visit. Soil samples were collected to assess potential contamination sources derived from historical orcharding practices. Areas of concern were storage facilities that might have housed or disposed of pesticides/insecticides and/or herbicides, older orchard areas and low lying areas where water might drain. Sample locations are shown on Figure F3.
- Samples were collected with a trowel at a depth of approximately 0.1 m below ground surface (bgs).
- Ten primary soil samples were submitted to MGT Environmental (MGT) for the analysis of:
  - Metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel and zinc)
  - Organochlorine pesticides

- Organophosphorus pesticides
- Phenoxyacid herbicides

- Two triplicate samples (QC1 and QC2) were collected from SS-2 and SS-6, respectively, and analysed by ALS Laboratories (ALS) as a quality assurance measure. MGT and ALS are National Association of Testing Authorities Australia (NATA) accredited analytical laboratory for the chosen analytes.
- A photo-ionisation detector (PID) unit was used to screen organic vapour concentrations. The PID was calibrated to 100 ppm isobutylene gas prior to use.
- The regulatory framework for the prevention and management of contaminated land within the State of Victoria is set out within the State Environment Protection Policy (Prevention and Management of Contamination of Land) (Land SEPP). In accordance with the Land SEPP, soil criteria for the identified protected beneficial uses were primarily sourced from the National Environment Protection (Assessment of Site Contamination) Measure (NEPC, 1999) ('the NEPM'), specifically those provided in Schedule F of the NEPM, 'Guideline on the Investigation Levels for Soil and Groundwater'.

2.2 Results

2.2.1 Regional Geology

Geological Survey of Victoria (1:250,000 Geological Map Series) through explore Victoria online (GeoVic) indicates that the geology underlying the site consists of prior stream, valley-backfill and floodplain deposits. These deposits generally consist of clay, sand, silt and gravel.

2.2.2 Regional Hydrogeology

A review of the Victorian Groundwater Beneficial Use Map Series (North Western Victoria) Water Table Aquifers (Department of Natural Resources and Environment, 1994) indicates that groundwater beneath the site occurs within the Shepparton Formation. Groundwater is expected to contain a Total Dissolved Solids (TDS) between 1,000 and 3,500 mg/L (Segment B) and in accordance with the State Environment Protection Policy – Groundwaters of Victoria, 1997 (Groundwater SEPP) is protected for maintenance of ecosystems, potable mineral water supple, agriculture, parks and gardens, stock watering, industrial water use, primary contact recreation and building and structures.

Regional groundwater flow in the aquifer is expected to be to the southwest, towards Goulburn River. A search of the Victorian Groundwater Database (VGD) was conducted by the administrators, of the database, Sinclair Knight Merz. The VGD search found that there are 17 groundwater wells located within a 500-metre radius of the site. The closest registered groundwater well concerned being approximately 92 m north of the centre of the site. The registered groundwater well appears to be within the agricultural area. The groundwater database search results have been provided within **Appendix A**.

2.2.3 Aerial Photographs

Historical aerial photographs were accessed and inspected at the Land Information Office of the DSE. Observations of the site and surrounding land are summarised in the following table:

Photograph Details	Observations	
	On-Site	Surrounding Land
Date: 1968 Run No: 1 Photo No: 51	The site was mostly agricultural, with some residential structures and storage sheds/shacks.	The properties surrounding the site were mostly agricultural. The agricultural land has sparse housing, while residential communities had been developed southwest of the site. There appeared to be industrial development northwest of the site and some commercial buildings west of the site.
Date: 1977 Run No: 5 Photo No: 102	The site was mostly agricultural, and appeared similar to the 1968 aerial photo. The orchards at the property on 165 Verney Road appeared to have been cleared	The properties surrounding the site were mostly agricultural, and appeared to be relatively unchanged since 1968.
Date: 1981 Run No: 10 Photo No: 19	The site was mostly agricultural, and appeared similar to the 1977 aerial photo. The land that appeared to be cleared in the 1997 photo has orchards in 1981.	The properties surrounding the site were mostly agricultural, and appeared to be relatively unchanged since 1977.
Date: 1985 Run No: 10 Photo No: 118	The site was mostly agricultural, and appeared similar to the 1981 aerial photo. The orchards at 165 Verney Road appeared to have been cleared. Plots of land on 139 and 240 Grahamvale Road also appeared to have been cleared.	The properties surrounding the site were mostly agricultural, and appeared to be relatively unchanged since 1981. The residential development had increased to the southwest. Possibly some industrial development immediately south of the site.
Date: 1990 Run No: 10 Photo No: 18	The site remained mostly agricultural and appeared similar to the 1985 aerial photo. The buildings currently at the site were present in the 1990 photo.	The properties surrounding the site were mostly agricultural, and appeared to be relatively unchanged since 1985. The property immediately west of 185 Verney Road, which was agricultural, was being developed into a residential community.
Date: 2007	The site remained mostly agricultural and appeared similar to the 1990 aerial photo.	The surrounding land appeared to be largely unchanged since 1990. The residential community west of 185 Verney Road was completed at the time of this aerial photo

In summary, it appears that the properties have been used for agriculture since at least 1968 with sparse residential housing and warehouses for farming equipment. The sites have changed little from 1968 to the present, although the surrounding land uses have become more residential over time. Copies of the historical aerial photos are provided in **Appendix B**.

2.2.4 Historical Title Review

ENSR obtained land titles, plans and property reports for the properties located at 165 Verney Road, 185 Verney Road, 240 Ford Road, 65 Grahamvale Road and 139 Grahamvale Road. Copies of these documents are provided in **Appendix C**. ENSR searched for historical records in the country records of the Sands and McDougal Directory and no information was available for the subject properties.

2.2.5 Priority Sites Register Review

A search of Victorian Priority Site Register shows that no properties on the site are listed. One property, located approximately 2.5 km west of the site at 44 Wanganui Road, is listed on the Priority Site Register due to dumping of solid inert waste onto that property. Considering the distance of this property from the site and surrounding sites are largely agricultural with some residential use, the potential for off-site contamination from 44 Wanganui Road to impact the site is considered low. An extract from the Priority Site Register is provided in **Appendix C**.

2.2.6 Surrounding Environmental Audit Reports

A review of the EPA Victoria list of certificates and statements of environmental audit shows that no statements or environmental audits have been issued for the site. Four nearby properties have been issued Certificates and Statements.

2.2.7 Site Inspections and Observations

Observations from the site inspection are summarised below. Site inspection photographs are presented in **Plates 1-23**.

Item	Observation
Site Location	Multiple properties between Verney Road and Grahamvale Road, Shepparton, Victoria.
Current Site Use	Agricultural land including residential dwellings. Also present at the sites are schools and religious institutions.
Site Features	The majority of the site consisted of cleared vacant agricultural land or orchards (refer to **Figure F2**). ENSR personnel were able to access five properties (65 Grahamvale Road, 139 Grahamvale Road, 165 Verney Road, 185 Verney Road and 240 Ford Road). ENSR was unable to access 115 Verney Road and 155 Verney Road. Site features for the properties ENSR inspected are described below: **65 Grahamvale Road – 25.30 ha** Comprised of apple orchards with residential buildings and large warehouse building. A small pile of empty containers presumed to have contained magnesium chelate and zinc chelate was observed next to a small shack on top of concrete. Three drums containing organophosphorus pesticides (OPPs) were observed next to the empty containers. One drum of parathion methyl insecticide and a 2,000-litre container of dormant spray petroleum oil were observed near the chelate and OPPs. Two fuel dispenser were observed near the warehouse with an underground storage tank (UST) possibly behind the dispensers. No vent lines were observed, but an open space was lined with concrete posts, and a capped PVC pipe was observed coming out of the ground. **139 Grahamvale Road – 25.03 ha** Comprised of apple orchards and a large warehouse building. An Above Ground Storage tank (AST) containing diesel was observed near the warehouse. The tank appeared in good condition, but a small area of surface staining was observed near the front of the tank. This is believed to be a small spill from using the connected hose, and soil immediately below ground surface was not stained. A fuel dispenser was located next to the AST, but no evidence of what it was connected to was observed (i.e. potential UST). The tree next to the AST appeared to be stressed. **165 Verney Road – 8.631 ha**

Item	Observation
	Comprised cleared vacant agricultural land with some residential buildings. No evidence of sheds or vessels containing potentially hazardous materials were identified on the property. A pen presumably used for livestock was located on the south-western portion of the parcel. **185 Verney Road – 18.22 ha** Comprised of apple orchards with two residential buildings, a garage/shed and a large warehouse used to store farming equipment. A large AST was observed next to the garage shed, which contained diesel fuel. The tank appeared in good condition, and no surface stains around the tank were observed. Car Batteries were stored beneath the AST, and no leaks were observed. **240 Ford Road – 22.66 ha** Comprised of apple orchards with two residential buildings, a large shed to store farming equipment, and a small shed to store chemicals and tools. An AST was observed next to the north side of the large shed. According to the message on the tank, it contained flammable liquid. There was surface staining around the tank, and liquid was dripping from the valve. A bucket was placed beneath the leak to capture the liquid.
Site surface	The site surface generally comprised of agricultural grass land and orchards with sparse residential buildings and warehouses.
Surface Drainage / Topography	The site is generally flat. Dams were present across the site in various properties.
Chemical Storage	Chemical drums containing various fuels, lubricants, farming chemicals were noted within the storage areas at 185 Verney Road, 240 Ford Road, 139 Grahamvale Road and 65 Grahamvale Road.
Underground and Above-ground Storage Tanks	One possible UST was observed at 65 Grahamvale Road. Two fuel dispensers were visible with an open area immediately behind the dispensers surrounded by concrete posts. A small PVC pipe is present coming out from the ground surface. A fuel dispenser was observed at 139 Grahamvale Road, but did not observe signs of an UST. ASTs were present at 185 Verney Road, 240 Ford Road and 139 Grahamvale Road.
Surrounding Land Uses	The surrounding land uses generally comprised a mix of agricultural, residential, school properties.

2.2.8 Potential Sources of Contamination

The following table summarises site observations and evidence of past activities that may indicate the potential presence of contamination at the site:

Potential Source of Contamination	Potential Contaminants of Concern
Agricultural Use	Pesticides, herbicides, heavy metals, petroleum hydrocarbons, monocyclic and polycyclic aromatic hydrocarbons (MAHs and PAHs, respectively), asbestos
USTs and ASTs for re-fuelling farming equipment	Petroleum hydrocarbons, MAHs and PAHs, metals and phenols
Unknown Chemical Storage	Petroleum hydrocarbons, MAHs and PAHs, phenols, metals, solvents, pesticides and herbicides.

Potential Source of Contamination	Potential Contaminants of Concern
Imported fill material	Petroleum hydrocarbons, MAHs and PAHs, and metals, pesticides, polychlorinated biphenyls (PCBs), asbestos.
Storage of farming equipment and vehicles	Hydrocarbons, MAH and PAHs, phenols, asbestos, fuel additives and heavy metals.

2.2.9 Field Observations

Soil samples collected during this assessment were generally stiff reddish brown clay to sandy clay. Soil samples collected from the orchard had more sand and organic material that soil collected around the sheds or storage areas.

Samples did not appear to be stained or contained an odour with the exception of samples SS-2 and SS-4. These samples had a hydrocarbon odour.

2.2.10 Analytical Results

It is understood that the sites are proposed to be redeveloped for residential purposes, As defined in the Land SEPP, the land use of the site can be categorised as 'sensitive use, other'. A 'sensitive use, other' is defined in Clause 9(1) of the Land SEPP as follows, "*consisting of land used for residential use, a childcare centre, pre-school, or primary school. A sensitive use may occur … in Other lower density areas (where there is generally substantial access to soil)".*

The Land SEPP states that the following beneficial uses must be protected for "sensitive use – other":

- Protection of modified and highly modified ecosystems.
- Protection of human health.
- Buildings and Structures.
- Aesthetics.
- Production of Food, Flora and Fibre.

Laboratory analytical results for the soil samples are summarised in **Table T1** (and provided in **Appendix D**) and compared to soil quality objectives for the identified protected beneficial uses of land. Exceedences of soil quality objectives were:

- Lead concentrations (880 mg/kg) exceeded the soil quality objective for the protection of ecosystems and human health at one location, SS-6 located at 139 Grahamvale Road.
- Copper concentrations (110 to 150 mg/kg) exceeded the soil quality objective for the protection of ecosystems at two locations, SS-1 located at 185 Verney Road and SS-5 located at 240 Ford Road.

2.2.11 Data Quality

Specific elements relating to the data validation of the limited soil sampling data that have been checked and assessed for this project were:

- Preservation and storage of samples upon collection and during transport to the laboratory in order to maintain sample integrity in accordance with AS4482.1-1997 (Standards Australia, 1997) and Victorian EPA Publication 441 - "*A guide to the sampling and analysis of waters, wastewaters, soils and wastes*".

- Sample holding times to maintain sample integrity in accordance with AS4482.1-1997 (Standards Australia, 1997) and USEPA SW846 (1998). Soil samples were analysed within the required holding times for the analyses requested.
- Use of appropriate analytical procedures in accordance with National Association of Testing Authorities (NATA). MGT is NATA accredited for the analysis requested.
- Required limits of reporting (LOR) to be below applied guideline concentrations. The laboratory LOR were below the soil quality objectives. Refer to **Table T1**.
- Frequency of conducting quality control measurements as defined in AS4482.1-1997 (Standards Australia, 1997), National Environment Protection Measure (NEPM 1999) – "*Guideline on data collection, sample design and reporting*" and Victorian EPA Publication 441 - "*A guide to the sampling and analysis of waters, wastewaters, soils and wastes*".
- Laboratory blank results which enable the measurement of incidental or accidental contamination within the laboratory. Laboratory method blank samples from the groundwater sampling reported results that were lower than the laboratory LOR.
- Matrix spike recovery results in order to assess the effects of the sample matrix on the precision and accuracy of the analyses. The desired matrix spike recovery range is between 70% - 130%. The matrix spike recovery results can be found in the analytical laboratory reports and generally ranged within the data quality objective (DQO) range of 70% - 130%.
- Surrogate spike results in order to assess the accuracy of organic analyses that involve chromatographic techniques. The desired surrogate recovery range is between 70% - 130%. The surrogate spike recovery results can be found in the analytical laboratory reports and generally ranged within the DQO range of 70% - 130%. This indicates good accuracy of organic chromatographic techniques.
- Intra laboratory duplicate results to assess the combined precision of sampling, sample preparation and analysis AS4482.1-1997 (Standards Australia, 1997). The Relative percent difference (RPD) between analytical results for primary samples and the corresponding laboratory duplicates were within acceptable limits of 0-50%, with the exception of:
  - Elevated RPD (66.7%) for nickel concentrations between primary sample SS-2 (12 mg/kg) and triplicate sample QC1 (6 mg/kg).
  - Elevated RPD (82.4%) for chromium concentrations between primary sample SS-2 (24 mg/kg) and triplicate sample QC1 (10 mg/kg).

  The elevated RPDs can be attributed to small differences in low concentrations, and it should be noted that these results were reported below the soil quality objectives. The calculated RPD results are in **Table T1**.
- The occurrence of apparently unusual or anomalous results, e.g. laboratory results that appear to be inconsistent with field observations or measurements. No anomalous results were recorded during the groundwater monitoring.

Based on this assessment, the reported analytical results are considered to be valid and representative of concentrations of the analysed compounds at the sample location tested.

2.3 Discussion

Based on the site inspection, site history and limited soil sampling the following identified potential on-site sources of contamination include:

- Chemicals associated with agricultural land use.

- USTs and ASTs for re-fuelling farming equipment
- Unknown chemical storage
- Imported fill material
- Storage of farming equipment and vehicles

Soil samples were collected to assess potential contamination sources derived from historical orcharding practices. It should be noted that not all identified potential sources of contamination were assessed as part of the limited soil sampling.

The results reported elevated lead concentrations within surface soils at 139 Grahamvale Road. The lateral and vertical extent of identified contamination has not been delineated, although the source of elevated lead concentrations are potentially associated with the adjacent AST used for re-fuelling farming equipment.

In addition, elevated copper concentrations within surface soils were reported at 185 Verney Road and SS-5 located at 240 Ford Road. The lateral and vertical extent of identified elevated copper concentrations has not been delineated laterally or vertically. The source of the elevated copper concentrations is unknown, however may potentially be associated with natural background levels of the regional area or historic agricultural use of the land and fertilizer use and storage.

2.4 Recommendations

Based on the desktop site history and background information review, site inspection and limited soil sampling the following further works are recommended in the context of the current zoning and potential future use of the site:

- Assessment of the requirement for appointment of an Environmental Auditor (pursuant to Section 53 of the Environment Protection Act 1970). This should be discussed with the local planning authority, prior to submitting a planning application for redevelopment. There is a potential for an Environmental Audit to be required due to the re-zoning of the site from farming to residential under the Shepparton City Council planning scheme.
- Removal of identified potential sources of contamination will be necessary, including USTs and ASTs and associated infrastructure. These items should be removed in accordance within the framework outlined in *Australian Standard AS 4976-2008 The removal and disposal of underground petroleum storage tanks*, and Vic EPA Publication 888 (2003) *Guidelines on the Design, Installation and Management Requirements for Underground Petroleum Storage Systems*.
- Following this process, excavation, soil validation sampling and remediation (of impacted soil if required) should be completed, together with any additional sampling and analysis required as part of the audit or redevelopment process.
- Groundwater investigation in the vicinity of the identified and potential USTs to assess the risk to groundwater beneficial uses at the site.
- Site inspection and soil sampling at the properties that were inaccessible during this assessment. Soil sampling should be undertaken at identified potential sources of contamination. If underground fuel storage is identified, it is recommended that an assessment of groundwater is also undertaken.
- Further investigation and or remediation of the sources and extent of elevated lead and copper concentrations at the site should be undertaken prior to sensitive land use in these areas. The extent of additional investigations will be dependent upon the requirement or otherwise to conduct an Environmental Audit.

3.0 The Flora and Fauna Assessment

3.1 Methods

The aim of the flora and fauna assessment is to identify the biological values of the site which may constrain future development of the site.

3.1.1 Desktop Assessment

A preliminary desktop assessment was conducted to determine flora and fauna possibly occurring on the site. The desktop assessment included a review of the following references:

- The DSE Biodiversity Interactive Map for the presence of Ecological Vegetation Classes (EVCs) present on the site (DSE, 2008);
- A search of the DSEs Flora Information System (FIS, 2005) and Atlas of Victorian Wildlife (AVW, 2005) for flora and fauna previously recorded in the vicinity of the site. A search of the site and a three-kilometre buffer was conducted;
- A search of the Department of the Environment, Water, Heritage and the Arts EPBC Act Protected Matters Search Tool Database (DEWHA, 2008) from an approximate radius of 5 kilometres around the centre of the site; and
- A review of Greater Sheppartons Planning Schemes for any relevant environmental overlays

3.1.2 Field Assessment

Simon Scott, Senior Environmental Scientist and Aaron Jenkin, Environmental Scientist undertook an assessment on 2 September 2008. Properties were traversed in a vehicle and on foot. Areas which contained vegetation that may be remnant (as identified on the aerial photograph) were assessed on foot. Greatest time was spent in areas that contained the highest cover of native vegetation, or waterbodies which were considered to have the highest probability of being habitat for threatened[1] flora and fauna species (from the desktop assessment).

General descriptions of the vegetation and habitat quality were made throughout the site visit. The aim of the site visit was not to provide a detailed list of the flora and fauna species that occur on the site. Rather, it was to identify the likelihood of occurrence for threatened flora and fauna species, communities or their potential habitats.

The site visit identified areas containing indigenous scattered trees[2] and remnant patches[3] of indigenous vegetation which has 'Net Gain' implications described within *Victoria's Native Vegetation Management – A Framework for Action* (the Framework) (DNRE 2002), however, none of these areas were identified on the site.

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[1] 'Threatened is defined as the species listed on the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, Victorian *Flora and Fauna Guarantee Act 1988* and DSE Advisory Lists of Flora and Fauna (DSE 2003; 2005).

[2] Scattered trees are defined as canopy trees within an area where at least 75% of the total understorey plant cover is non-native (DSE, 2007).

[3] An area of vegetation where 25% of the understorey cover is indigenous (DSE, 2007).

3.2 Results

3.2.1 Flora

Vegetation Communities

The site falls within the Victorian Riverina Bioregion of Victoria (DSE, 2008). DSE's pre-1750 mapping shows that the vegetation on the site and its surrounds would have been EVC 803: Plains Woodland and EVC 882: Shallow Sands Woodland (DSE, 2008).

EVC 803: Plains Woodland is described as eucalypt woodland to 15 m tall occurring on fertile clays and clay loam soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species rich grassy and herbaceous ground layer (DSE, 2008).

EVC 882: Shallow Sands Woodland is woodland or open-forest to 12 m tall generally comprising of Yellow Box *Eucalyptus melliodora*, Buloke *Allocasuarina luehmannii* and White Cypress-pine *Callitris glaucophylla.* It has a sparse shrub layer of healthy, ericoid shrubs and a species-rich ground cover dominated by grasses and annual herbs (DSE, 2008).

DSEs mapping of the current EVC distribution shows that very little of this vegetation remains on the site, and that which occurs is likely to be limited to isolated trees. The site assessment confirmed that the site is highly modified and that no identifiable EVCs remain on the site.

Flora Species

The site is mostly an apple orchard, and no remnant or indigenous trees or shrubs were observed. Australian native and exotic trees have been planted around houses and along property boundaries (refer to **Plate 24**). These include Peppercorns *Schinus molle*, Black She-oaks *Allocasuarina littoralis*, Bottle Brushes *Callistemon sp*., Wattles *Acacia* spp, Cherry Blossom *Prunus* sp., Monterey Cypress *Cupressus macrocarpa*, Black Narrow-leaf Peppermint *Eucalyptus nicholli*, Poplars *Populus* sp., Oaks *Quercus* sp., Prickly-leaved Paperbark *Melaleuca styphelioides* and other non-indigenous unidentifiable Gums *Eucalyptus* spp.

The understorey is dominated by exotic plants including environmental weeds. Species which had the highest cover abundance across the site include Capeweed *Arctotheca calendula*, Barley Grass *Hordeum* sp., Ribwort *Plantago lanceolata*, Onion Grass *Romulea rosea*, Annual Veldt Grass *Ehrharta longiflora*, Panic Veldt Grass *Ehrharta erecta*, Fennel , Prairie Grass *Bromus catharticus*, Small-flowered Mallow *Malva parviflora*, peppercress , Shepherd's Purse *Capsella bursa-pastoris*, Dock *Rumex* sp., Toowoomba Canary Grass *Phalaris aquatica*, Burr Medic *Medicago polymorpha*, Peppercress *Lepidium* sp. and White Clover *Trifolium repens.*

Isolated occurrences of indigenous understorey species (less than one percent vegetation cover) were recorded on the site, generally on the edge of property boundaries or near the irrigation channel which may not have been as extensively cultivated and modified over time. Species recorded include Bristly Wallaby Grass *Austrodanthonia setacea var. setacea*, Windmill Grass *Chloris truncata* and Weeping Grass *Microlaena stipoides var. stipoides*.

In addition, two Rush species *Juncus* spp. and Common Reed *Phragmites australis* were recorded in and adjoining the irrigation channel. These species are unlikely to be remnant vegetation but are present on the site favoured by the semi-permanent water within the channel. The cover abundance of these species cannot be determined as the majority of these plants have been covered by spoil from recent dredging of the irrigation channel (refer to **Plate 25**).

Threatened Flora Species

No species of threatened flora were identified on the site during the site assessment. **Table T2** shows the conservation status, preferred habitat and likelihood of occurrence for the flora species that were identified as potentially occurring on the site during the desktop assessment. Whilst seven species of

flora were identified during the desktop assessment, none are considered likely to occur on the site due to an absence of suitable habitat.

3.2.2 Fauna

Fauna Species

Fourteen bird species were recorded during the site assessment including nine native species and five introduced species. Native species include Australian Kestrel *Falco cenchroides*, Magpie-lark *Grallina cyanoleuca*, Yellow-rumped Thornbill *Acanthiza chrysorrhoa*, Galah *Eolophus roseicapilla*, Raven sp. *Corvus* sp., Red Wattlebird *Anthocaera carunculata*, Willie Wagtail *Rhipidura leucophrys,* Australian Magpie *Gymnorhina tibicen* and an Australian Pelican *Pelecanus conspicillatus* flew over the site. The introduced species were Common Blackbird *Turdus merula*, House Sparrow *Passer domesticus*, Common Myna *Acridotheres tristis*, European Goldfinch *Carduelis carduelis* and Common Starling *Sturnus vulgaris*. With the exception of Pelican which flew over the site, these bird species are widespread throughout farmlands of Victoria.

Throughout the assessment period, large numbers (hundreds) of frogs were heard calling from within the irrigation channels on the site. Five species were heard and are expected to occur throughout these channels including Common Froglet *Crinia signifera*, Eastern Sign-bearing Froglet *Crinia parinsignifera*, Pobblebonk Frog *Limnodynastes dumerili* and Spotted Marsh Frog *Limnodynastes tasmaniensis*. These frogs tend to inhabit a wide range of waterbodies that are widespread throughout the Goulburn and Murray areas of Victoria. The quality of habitat for these species has been reduced by spoil from the irrigation channel which has covered the majority of vegetation fringing the channels.

Threatened Fauna

No species of threatened fauna were identified on the site during the site assessment. **Table T3** shows the conservation status, preferred habitat and likelihood of occurrence for the threatened fauna species that were identified as potentially occurring on the site during the desktop assessment. This included seventeen bird species, two mammal species, one frog species, two reptile species and three species of fish. None are considered likely to occur on the site on a permanent basis, however, Cattle Egret *Ardea ibis* and Superb Parrot *Polytelis swainsonii* are known to forage in exotic vegetation and have a low likelihood of occurring on the site. Cattle Egret may forage within grasslands amongst stock, particularly if the site has been recently irrigated and Superb Parrot may forage within orchards on ripe fruits. Development of the site may reduce the amount of foraging area available for these two species, however, it is unlikely to impact on the potential populations of these species as the habitat is considered to be marginal, and these species may only visit the site on an opportunistic or seasonal basis.

3.2.3 Flora and Fauna Habitats

A detailed fauna assessment was beyond the scope of this project. However, the fauna habitats that were observed on the site have been categorised below.

Apple Orchard

The majority of the site is dominated by apple orchards as shown on **Figure F2**. These areas have an upperstorey of apples (approximately 5 m in height) with an understorey dominated by exotic vegetation including environmental weeds. These trees do not provide tree hollows that would provide habitat for arboreal mammals such as possums or bats. During summer, the apple orchard is likely to provide foraging habitat to some birds which feed on insect, nectar and fruit. It is expected that the apple orchard would provide some foraging habitat for species of birds and bats common throughout farmlands in Victoria.

The apple orchard is unlikely to contain habitat for threatened species of flora. It may contain opportunistic habitat for the threatened Superb Parrot which is known to forage within orchards,

although the likelihood of occurrence is considered to be low. It is unlikely to provide nesting or breeding habitat to the species. Development of the apple orchard areas of the site may displace some birds but is unlikely to impact on local populations of native flora or fauna, and therefore is unlikely to constrain future development of the site.

Scattered Trees and Shrubs

None of the trees and shrubs observed on the site are remnants of the EVCs mapped for the area. They are all non-indigenous and likely to have been planted by residents. None of these trees were observed to contain tree hollows and therefore, not likely to provide nesting habitat for arboreal mammals. Some of them were observed to contain stick nests of farmland birds which occur in the area, however, none of the trees are likely to contain nesting or breeding habitat for threatened fauna (refer to **Table T3**). The removal of non-indigenous and shrubs trees may displace some birds, however, removal of some of these shrubs and trees is not likely to impact on local populations and therefore, are not a constraint to development of the site.

Exotic Grassland

Two areas of the site are dominated by exotic grasslands, as shown on **Figure F2**. These suggest the site has an agricultural use, not a horticultural use, although no livestock or crops were recorded at the time of the assessment. These areas were dominated by pasture grasses such as Prairie Grass, White Clover and Veldt Grass spp.

Grasslands provide foraging habitat to birds typical of farmlands. Due to the historical and ongoing land-uses of these exotic grasslands, they are considered unlikely to provide habitat to threatened species of flora. They may provide opportunistic foraging habitat to the threatened Cattle Egret which is known to forage amongst livestock within pastures throughout Victoria. Development of the site is unlikely to impact on populations of this species. Exotic grasslands are unlikely to constrain future development of the site.

Irrigation Channels

Irrigation channels bisect the site in a north-south and east-west direction (**Figure F2**). These are artificial channels and no emergent vegetation was observed. They were recently dredged and the spoil has been dumped on the fringing vegetation which includes Rush spp.

Some waterfowl may forage at these irrigation channels, but it is unlikely to form nesting habitat due to the lack of suitable fringing vegetation. These channels provide habitat for frogs, including the four species mentioned above. However, they are unlikely to provide habitat to the threatened Growling Grass Frog *Litoria raniformis* as it is semi-permanent and does not contain the preferred habitat for the species (refer to **Table T3**). The irrigation channels are unlikely to provide habitat to aquatic species including fish and turtles as the channels do not contain permanent water.

Development of these irrigation channels is likely to remove habitat for common species of frogs, but is unlikely to constrain future development of the site.

3.3 Discussion

The site is highly modified and is dominated by exotic vegetation. Only isolated occurrences of native understorey vegetation occur on the site, while the midstorey and overstorey is non-indigenous. The site is unlikely to contain significant biodiversity values that would preclude or constrain future development. Species which are present on the site are exotic or generally typical of a highly modified landscape. The site is unlikely to contain any threatened flora species, and has only a low likelihood of containing two threatened bird species on a seasonal basis.

Removal of any indigenous vegetation will need to be approved by Council through the planning permitting process. There are no additional biological values, such as indigenous vegetation or threatened species of flora and fauna trees on the site which require additional legislative considerations. A summary of these is provided below.

3.3.1 Victoria's Native Vegetation Management – A Framework for Action

Removal of any remnant patches of native vegetation or scattered indigenous trees will requires an assessment and consideration of Victoria's Net Gain policy described within *Victoria's Native Vegetation Management – A Framework for Action* (the Framework). This document was incorporated into State Planning Policy 15.09 and Provision 52.17 of Victoria's Planning Schemes in 2003. The key objective of the Framework is for *'reversal across the entire landscape, of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain'* (DNRE, 2002).

The three-step approach to applying Net Gain in relation to vegetation clearance includes the following:

- Avoid adverse impacts, particularly by avoiding vegetation clearance;
- If impacts cannot be avoided, minimise impacts through appropriate planning and expert input to project design; and
- Identifying appropriate offset options (DNRE, 2002).

No indigenous vegetation is present on the site and therefore there is no requirement to further consider the implications of the Framework prior to development.

3.3.2 Victoria's Flora and Fauna Guarantee Act 1988

The *Victorian Flora and Fauna Guarantee Act 1998* (*FFG Act*) was established to provide a legal framework for enabling and promoting the conservation of all Victoria's native flora and fauna, and to enable management of potentially threatening processes. The Act provides a listing process, whereby native species and communities of flora and fauna, and the processes that threaten native flora and fauna are listed in the schedules of the Act. This process assists in identifying those species and communities that require management regimes to survive, and highlights the processes required to minimise the threat to native flora and fauna species and communities within Victoria.

A permit from Department of Sustainability and Environment (DSE) is required under the following circumstances:

- To 'take' listed flora species that are members of listed communities or protected flora from public land;
- If the site is declared 'critical habitat' for the species; or where

The assessment area does not contain any public land or critical habitat. No species or communities listed under the Act are likely to occur on the site or be impacted. A Protected Flora Licence or permit is not required for this development unless the development will impact on public land such as road reserves, or the nearby train line.

3.3.3 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (*EPBC Act*) applies to seven "matters of national environmental significance":

- World Heritage properties;
- National Heritage Places;

- Ramsar wetlands of international significance;
- Nationally listed threatened species and ecological communities;
- Listed migratory species;
- Commonwealth marine areas; and
- Nuclear Actions.

Under Section 26 of the EPBC Act, actions that are likely to have a significant impact upon matters of national environmental significance require approval from the Federal Environment Minister. As development of the site is unlikely to impact on any matters of national environmental significance, a referral to the Minister is not recommended.

3.4 Recommendations

The vegetation of the site is highly modified and dominated by exotic and non-indigenous flora. It contains only isolated occurrences of indigenous understorey vegetation. The site has a history of horticultural and agricultural land use and is unlikely to provide habitat to threatened species of flora. It has a low likelihood of containing Swift Parrot and Cattle Egret foraging on the site on an opportunistic basis but is unlikely to provide habitat to other threatened species of fauna.

Some shrubs and trees may contain habitat for native fauna, and large numbers of common species of frogs occur in the irrigation channel. It is expected that these species will be impacted by residential development of the site. Where possible, these could be retained within the development. There are no legislative requirements to undertake any further flora and fauna assessment on the site.

4.0 The Cultural Heritage Assessment

4.1 Methods

The aim of the cultural heritage assessment is to determine the cultural heritage values for the site, to assess the impacts of the preposed works on those values, and determine whether a Cultural Heritage Management plan (CHMP) is required under the *Aboriginal Heritage Act 2006*.

4.1.1 Desktop Assessment

A preliminary desktop assessment was conducted to gain an understanding of the heritage values of the region and, specifically, the site being assessed. The desktop assessment included:

- a review of the Aboriginal Heritage Register (AHR), maintained by Aboriginal Affairs Victoria (AAV);
- a review of relevant Aboriginal cultural heritage reports in the AAV reports library to gain an understanding of the cultural heritage values of the region;
- consultation with the Registered Aboriginal Party (RAP) for the Shepparton area;
- a review of the Victorian Heritage Register (VHR) and Victorian Heritage Inventory (VHI);
- a review of the Australian Heritage Database (AHD);
- a review of the Register of the National Trust (Victoria);
- a review of the City of Greater Shepparton heritage study and heritage overlay;
- a review of relevant historical society records; and
- a desktop literature and map review to assess the local and regional cultural sensitivity and to assess the potential presence of cultural heritage features that may that may be at risk at the site.

4.1.2 Aboriginal Consultation

The *Aboriginal Heritage Act 2006* allows for the establishment of Registered Aboriginal Parties (RAPs) that should be consulted regarding any Aboriginal heritage assessments within the boundaries of their registered territory. The relevant RAP for the site is the Yorta Yorta Nation Aboriginal Corporation (YYNAC). YYNAC were consulted regarding the cultural values of the site and participated in the field survey. YYNAC will be invited to comment on the draft of this section of the report.

4.1.3 Site Visit

A five hour site visit was conducted on 29 August 2008. The traditional approach to archaeological survey involves targeting select landform areas normally considered to be archaeologically sensitive. No sensitive landform elements were identified for sampling (see **Section 4.2.2**). The inspection therefore, employed random transects within each existing landholding (**Figure F4**) aiming at non-biased survey sampling within each property (or group of properties).

General descriptions of the landform, soils, exposures and ground visibility were made throughout the visit.

4.1.4 Limitations of the Cultural Heritage Assessment

Predictions have been made about the probability of subsurface archaeological materials occurring within the site. It is possible that materials may occur in any landscape context, and the assessment of subsurface materials refers to the likelihood of occurrence based on surface indications and environmental context.

ENSR has undertaken a search of the AHR administered by AAV. The search results are provided in **Appendix E**. Register searches are constrained by the amount of data in the register and the quality of that data (for example grid references can be inaccurate). Large areas of Victoria may not have been systematically searched and may contain Aboriginal objects and other heritage values not recorded on the AHR.

In addition, sites are regularly added and removed from the AHR and therefore, the accuracy of information provided from the AHR is only valid on the day the register is searched.

The site inspection was conducted in a manner aimed to gain a random sample of the site. In addition access to some properties was not achievable and they were therefore, omitted from the field inspection. Therefore, it should be noted that complete visual inspection of the site was not conducted. The recommendations made regarding the likelihood of archaeological materials being encountered in the site are made on that basis. It should be noted that archaeological material may occur at any location in the landscape.

A summary of the statutory requirements regarding aboriginal and historic heritage is provided in **Section 4.3**. This does not purport to be legal advice. It should be noted that legislation, regulations and guidelines change over time, and users of the report should satisfy themselves that the statutory requirements have not changed since the report was written.

4.2 Results

4.2.1 Desktop Assessment

Aboriginal Cultural Heritage

A search of AHR was conducted on 18 August 2008. The search revealed that there are no registered aboriginal cultural heritage places within the site (**Appendix E**).

A map prepared by AAV showing concentrations of registered aboriginal cultural heritage places (**Figure F5**) shows the predominant aboriginal site types are artefact scatters and scarred trees. Although these sites occur all over the LGA, they occur in greater densities to the west of Shepparton City associated with the riverine plains of the Goulburn River. **Figure F5** also shows that there are no registered aboriginal cultural heritage places within 1 km of the site.

No part of the site has ever been the subject of a previous cultural heritage investigation and, indeed, few systematic surveys have been conducted in the region. Zobel (1984) lamented the paucity of archaeological research in north eastern Victoria compared to the central Murray area and Western District. The majority of work performed at that time was development-driven, and Zobel (1984) concludes that the lack of information is almost certainly a result of a lack of research, rather than a lack of sites.

Bird (1992) prepared a synopsis and assessment of the available archaeological research conducted in the Goulburn River basin. She concluded that the information at that time was simply too patchy to develop an effective regional synthesis of the region's archaeology. However, she did offer the hypothesis that Aboriginal sites within the riverine corridor will represent a wider range of activities, whilst away from the river sites are more likely to represent specialised activities.

The most comprehensive survey relevant to the site is an investigation carried out by Long (1996) of the western and eastern corridors of the proposed Shepparton Bypass, which was the first systematic study of the area. He recorded a total of 63 Aboriginal sites, the majority of which were located in three major concentrations:

- within the western corridor to the north west of Shepparton City, adjacent to the Goulburn River;
- within the western corridor to the south and south west of Shepparton (around Kiala West and Toolamba) adjacent to the Goulburn River; and
- within the eastern corridor to the south east of Shepparton near the margins of Broken River.

Unlike Bird (1992), Long (1996) concluded that a basic pattern of site distribution is discernable in the Shepparton area. Significant artefact scatter sites, as well as scarred trees, mounds or burials are most likely to occur in distinct concentrations adjacent to, or up to 1 km distant from, the major water courses such as the Goulburn and Broken Rivers. They would typically occur on the slopes defining the margins of the rivers, or on relatively high land adjacent to billabongs, creeks and backwaters on the flood plain, in particular sand dunes, sand drifts, and silt ridges. Long also hypothesized that single (isolated) artefacts or scarred trees may occur anywhere in the region (Long 1996).

AAV has prepared maps of “Areas of Cultural Heritage Sensitivity” covering the whole of Victoria. The map for the Shepparton area (**Figure F6**) supports Long’s patterning of landform sensitivity. The map confirms that the site does not contain culturally sensitive landforms.

A subsequent investigation of an amended western corridor and a central corridor of the Shepparton Bypass by Brown (1996) tended to confirm Long’s observations regarding the distribution of Aboriginal sites on the alluvial plains. The range of artefact types indicates a wide range of activities taking place. The raw material used to make the majority of stone artefacts was quartz, with fewer occurrences of chert and siltstone, sourced from the local area, but greenstone axe-fragments were most likely sourced from outside the region (Brown 1996). Brown also emphasises that the material found during the survey date from the late Holocene (within the last two thousand years).

Long’s (1996) and Brown’s (1996) data were insufficient to test Bird’s (1992) hypothesis, but Lusty’s (1994a, 1994b) investigations near Toolamba have tended to support it.

Historic Cultural Heritage

The City of Greater Shepparton has been extensively surveyed for places of historic cultural heritage. In 2000 - 2001, Stage 1 of a comprehensive heritage study was prepared by SOMA Design Partnership. The Stage 1 study identified 133 places across the LGA that were considered to have potential heritage significance. Three years later, Stage II of the study was completed by Allom Lovell & Associates (2004). The Stage II study identified a total of 147 places across the LGA that were included in the Schedule to the Heritage Overlay of the City of Greater Shepparton Planning Scheme. In addition, a further 90 places were listed as being worthy of further research. Of the 147 places listed on the Heritage Overlay, five were recommended for listing on the VHI.

However, it should be noted that the majority of the sites in the heritage study are built structures. Prior to Long’s (1996) study on heritage issues facing the proposed Shepparton Bypass, there appears to have been no historical archaeological research conducted in the region (Brown, 1996). Long identified 13 historic archaeological sites and Brown identified a further nine sites within the corridor options. None of these sites were in the near vicinity of the site.

A review of the VHR and VHI for the City of Greater Shepparton City was conducted on 25 August 2008, and revealed that there are a total of 53 registered historic heritage sites or places within the City of Greater Shepparton (**Appendix F**). However there are no registered sites or places either within or in the near vicinity of the site.

A review of the Australian Heritage Database (incorporating the Register of the National Estate (RNE), the National Heritage List, the Commonwealth Heritage List and the World Heritage List) revealed that there are 12 places in the City of Greater Shepparton registered on the RNE (**Appendix G**). There are no registered sites or places within or in the near vicinity of the site.

A review of the Register of the National Trust of Australia (Victoria) revealed a total of 36 sites or places registered (**Appendix H**). None of these places are located within or in the near vicinity of the site.

In summary, there are no Aboriginal or historic (non-Aboriginal) sites that have been recorded in or near the site, although sites have been recorded in the wider LGA. Built structures identified in both the heritage study and the VHR reflect the full range of settlement and industrial patterns in the Greater Shepparton area. The archaeological sites reflect the early settlement of the area by Europeans and the expansion of transport and industry. Sites are generally the remains of farmhouses, rubbish dumps and other features associated with early land settlement, or are sites associated with the timber industry or railway infrastructure.

4.2.2 Field Assessment

Aboriginal Cultural Heritage

As noted above, there are no currently registered Aboriginal sites located on the subject land. In addition, a review of landforms suggested that Aboriginal sites are unlikely to occur, due to the uniform flatness of the landscape and the paucity of areas of cultural sensitivity. There are no rises, ridges or dunes, and there are no naturally occurring permanent of semi-permanent rivers, creeks or billabongs either within or in the near vicinity of the site. A series of irrigation channels have been excavated through the site to irrigate the orchards.

The majority of the site has been cultivated for the orchard industry and has been heavily disturbed.

The ground surface between rows of orchard trees was generally characterised by a thick layer of herbaceous ground cover including grass, weeds and mulch. As a result ground visibility was limited to between 0 and 10% in those rows (**Plates 26** and **27**). In paddocks that were currently under cultivation, such as Lot 165, ground cover was quite thick offering very limited ground visibility overall. Thinner patches occurred sporadically over the paddock (**Plate 28**). Exposures were generally restricted to the bases of some trees (**Plates 29** and **30**), on various orchard tracks (**Plates 31** and **32**), or on track margins where the tracks themselves were hardened with imported gravel (**Plate 33**). In these areas the ground visibility ranged fro 70 to 100%, but was generally highly disturbed (**Plate 34**). As a result no stone artefact sites were identified during the survey.

Previous land-clearance for cultivation means that there are few mature trees in the site. Those that remain were inspected for evidence of cultural scarring, but no evidence was found. This is expected as none of the species are remnant to the area (see **Section 3.2.1**). The lack of suitable geological outcropping means that other stone-based Aboriginal sites, such as engravings, grinding grooves and rock shelters do not occur.

The remainder of the site was not inspected in detail. It is unlikely that any sites of high significance will occur in most of the subject area although, based on Long's (1996) predictive model, the possibility that some small artefact scatter sites or isolated artefacts occurring cannot be discounted.

Historic Cultural Heritage

As noted above, a search of the VHR and VHI, maintained by Heritage Victoria, did not reveal any historic places or archaeological sites in or around the site. In addition there are no places listed in the heritage overlay for the City of Greater Shepparton, nor the AHD or Register of the National Trust.

However, during the site inspection, one building was identified that is deemed to warrant further research. The building, nominally designated HS1, is a small weatherboard cottage, probably built c.1900, located on Lot 65, off Grahamvale Road (**Plate 35** and **Figure F7**).

As the entire area of the subject land was not examined in detail. There is a possibility that other historic sites (particularly archaeological sites) may occur that were not identified.

4.3 Discussion

The cultural heritage values are largely confined to the possible occurrence of sub-surface deposits of stone artefacts within the site.

4.3.1 Legislative Requirements for Aboriginal Cultural Heritage

Aboriginal cultural heritage in Victoria is protected under the *Aboriginal Heritage Act* 2006, which requires the preparation of a cultural heritage management plan for certain activities, as defined in the *Aboriginal Heritage Regulations 2007* (regs 42 - 54), if these activities are to be carried out in an area of "cultural heritage sensitivity" (regs 20 – 38).

To supplement the Regulations, AAV have provided maps on their website that show identified areas of cultural heritage sensitivity. These maps are provided as a guide only and are not definitive. The AAV website showing identified areas of cultural heritage sensitivity that covers the subject land (mapsheet 7822) currently does not identify any part of the subject land as an area of cultural heritage sensitivity (**Figure 3**).

Furthermore, the AAV website provides an "Aboriginal heritage planning tool," that provides a ready-reckoner to assist with determining whether a CHMP is required for a specific parcel of land subject to a specific development proposal. Use of this tool for this project demonstrates that the proposed development in the site does not require a CHMP under the *Aboriginal Heritage Act 2006* (**Appendix I**).

Under ss.27 and 28 of the Act it is an offence to knowingly do an act that harms or is likely to harm Aboriginal cultural heritage. Where an activity results in the discovery of Aboriginal cultural heritage material, then work should cease and a cultural heritage permit needs to be obtained under s.36 of the Act. However, in order to avoid potential delays in obtaining a cultural heritage permit or possible breaches of ss.27 and 28, which provides heavy penalties for harming Aboriginal cultural heritage, a proponent may elect to prepare a voluntary CHMP for the entire activity area, pursuant to s.45 of the Act. The plan would identify all Aboriginal cultural heritage in the activity area, provide clear strategies for managing it and, more importantly, outline agreed contingencies for managing new and previously unidentified cultural heritage material that may be found during the activity.

4.3.2 Legislative Requirements for Historic Cultural Heritage

Historic archaeological and cultural heritage sites and places in Victoria are protected under the *Heritage Act 1995*. Under s.129 of the Act it is necessary to obtain a consent to disturb or damage registered historic heritage sites and places.

It should be noted that it is an offence, under s.127 of the Act, to damage or disturb unregistered sites and relics either knowingly or negligently.

4.4 Recommendations

The findings of this assessment can be summarised as:

- no previously recorded Aboriginal or historic heritage sites occur either within or in the near vicinity of the site;
- no Aboriginal sites were located within the site during the field survey;

- one built (historic) structure is considered worthy of further research and heritage assessment;
- there are no indications that the area is of Aboriginal heritage significance; and
- on the basis of this assessment, the proposed activity is unlikely to encounter Aboriginal objects.

Based on the findings of the desktop assessment, the field survey, consultation with the Aboriginal community and assessment of the relevant legislation protecting Aboriginal and historic heritage in Victoria, the following recommendations are made:

- there is no legal requirement under the *Aboriginal Heritage Act 2006* to sponsor a cultural heritage management plan for the site;
- no further archaeological survey, excavation or collection is warranted for the site. However, should material evidence of Aboriginal occupation be identified during the proposed activity, then further damage should cease and consultation with the Aboriginal community and AAV (or the contingencies of a voluntary CHMP) be instigated;
- the proponent should consider the merits of preparing a voluntary CHMP under s.45 of the *Aboriginal Heritage Act 2006*, to avoid possible delays under s.36 or possible breaches of ss.27 and 28 of the Act.
- further historical research and heritage assessment should be conducted on the site HS1, and a report submitted to Heritage Victoria.

5.0 Conclusions

Although it is expected that the majority of site would be developable with the sensitive design of a development plan, the information reviewed and the brief site visit show that the site contains a number of features that require consideration prior to residential development of the site.

Further assessment of the potential for land contamination is recommended to improve the confidence that development will not be constrained by soil and groundwater quality issues. The following are recommended:

- Enter into dialogue with Council to determine if an Environmental Audit is required.
- Sensitive removal of identified potential sources of contamination.
- Excavation, soil validation sampling and remediation of contaminated soils.
- A groundwater investigation particularly in the vicinity of potential USTs .
- Further investigation and remediation of the sources and extent of elevated lead and copper concentrations at the site should be undertaken prior to sensitive land use.

The site has a long history of horticultural and agricultural use. This has modified the flora and fauna values of the site, and there were only isolated occurrences of indigenous understorey vegetation. No remnant midstorey of overstorey vegetation was observed. There were no populations of threatened species of flora and fauna likely to significantly adversely affected by development of the site. Whilst some common species of native fauna may be displaced, these are considered unlikely to costrain development. There are no legislative requirements for further flora and fauna assessment, and none is recommended.

No aboriginal sites have been identified on the site. One potential historic site is located in the south-eastern portion of the site, and further assessment of this is recommended. There is no requirement for a Cultural Heritage Management Plan to be undertaken on the site, however, the proponent may wish to undertake a voluntary plan to avoid time delays if aboriginal artefacts are encountered during construction.

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6.0 References

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Tables

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Table T1: Soil Analysis Results Summarised

Sample	Date	Antimony mg/kg	Arsenic mg/kg	Beryllium mg/kg	Cadmium mg/kg	Chromium mg/kg	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Tin mg/kg	Zinc mg/kg
SS-1	2/09/2008	<10	6.0	<2	0.9	23	5.2	**110**	51	<0.1	<10	10	<2	<10	140
SS-2	2/09/2008	<10	3.9	<2	<0.5	24	<5	49	45	<0.1	<10	12	<2	<10	66
QC1	2/09/2008	NA	<5	NA	<1	10	NA	40	35	<0.1	NA	6	NA	NA	45
RPD	%	--	--	--	--	82.4%	--	20.2%	25.0%	--	--	66.7%	--	--	37.8%
SS-3	2/09/2008	<10	13	<2	1.1	21	<5	45	36	<0.1	<10	8.5	<2	<10	22
SS-4	2/09/2008	<10	28	<2	<0.5	29	7.3	**100**	69	<0.1	<10	19	<2	<10	79
SS-5	2/09/2008	<10	7.8	<2	<0.5	18	<5	**150**	35	<0.1	<10	8.1	<2	<10	80
SS-6	2/09/2008	<10	4.8	<2	<0.5	41	9.3	89	**880**	0.2	<10	21	<2	160	180
QC2	2/09/2008	NA	6	NA	<1	25	NA	**118**	**1,280**	0.1	NA	17	NA	NA	175
RPD	%	--	--	--	--	48.5%	--	28.0%	37.0%	--	--	21.1%	--	--	2.8%
SS-7	2/09/2008	<10	10	<2	<0.5	19	<5	63	40	<0.1	<10	8.8	<2	<10	59
SS-8	2/09/2008	<10	26	<2	<0.5	13	<5	49	96	<0.1	<10	5.8	<2	<10	31
SS-9	2/09/2008	<10	91	<2	<0.5	21	<5	90	220	<0.1	<10	8.1	<2	<10	65
SS-10	2/09/2008	<10	7.7	<2	<0.5	58	13	38	14	<0.1	<10	51	<2	<10	83
NEPM HILs - Level A		NE	100	20	20	100	100	1,000	300	15	NE	600	NE	NE	7,000
NEPM EILs - Interim Urban		NE	20	NE	3	400	NE	100	600	1	NE	60	NE	NE	200

Table Notes:

NEPM - National Environmental Protection Measures

HILs - Level A - Health Investigation Levels for 'Standard' residential with garden/accessible soil

EILs - Ecological Investigation Levels

Bold indicates exceed of nominated guideline value

NE - Not Established

NA = Not Analysed

<# = Concentration of analyte less the laboratory's limit of reporting

RPD = Relative Percent Difference

QC1 is triplicate sample collected from SS-2

QC2 is triplicate sample collected from SS-6

Table T2: Likelihood of Occurrence for Threatened Flora Species

Botanical Name	Common Name	National Conservation Status	Victorian Conservation Status	Preferred Habitat*	Habitat Recorded On-site	Recorded in the Vicinity of the Site (FIS)	Likelihood of Occurrence on the Site
Acacia flexifolia	Bent-leaf Wattle		Rare	Shallow soils in open forest or mallee scrub in north-central Victoria.	No	Yes, in 1960	Unlikely. Absence of suitable habitat
Amphibromus fluitans	River Swamp Wallaby-grass	Vulnerable		Permanent swamps principally along the Murray River between Wodonga and Echuca	No	No	Unlikely. Absence of suitable habitat
Brachyscome chrysoglossa	Yellow-tongue Daisy		Vulnerable, FFG Listed	Clay soils subject to inundation in northern Victoria extending west to about Horsham.	No	Yes, in 2002	Unlikely. Absence of suitable habitat
Brachyscome muelleroides	Mueller Daisy	Vulnerable	Endangered, FFG Listed	Floodplains of the Murray River and its tributaries from Tocumwal east to Ovens River.	No	No	Unlikely. Absence of suitable habitat
Elymus multiflorus	Short-awned Wheat-grass		Poorly Known	Coastal sands in the eastern part of Victoria, and alluvial loams in the Shepparton-Numurkah area.	No	Yes, in 1980	Unlikely. Absence of suitable habitat
Melaleuca armillaris subsp. armillaris	Giant Honey-myrtle		Rare	Near coastal sandy heaths, scrubs, rocky coastlines and foothill outcrops eastwards of Marlo. Rarely inland but widely planted.	No	Yes, in 2006	May be planted. Unlikely to contain remnant plants.
Myriophyllum porcatum	Ridged Water-milfoil	Vulnerable	Vulnerable, FFG Listed	Temporary waterholes, lagoons, farm dams, rock holes and clay pans in northern Victoria.	No	No	Unlikely. Absence of suitable habitat
Source: Walsh and Entwisle (1996a; 1996b; 1999)							

Table T3: Likelihood of Occurrence for Threatened Fauna Species

(Note Migratory Marine Birds identified during the EPBC Protected Matters Search have been omitted from this table as they are unlikely to occur on the site).

Common Name	Scientific Name	National Conservation Status	Victorian Conservation Status	Preferred Habitat	Preferred Habitat Recorded On-site	Recorded in the Vicinity of the Site (AVW)	Likelihood of Occurrence on the Site
Birds							
Australian Painted Snipe	*Rostratula australis*	Vulnerable	Critically Endangered, FFG Listed	Inland grasslands and wetlands, feeding in shallow water and mudflats.	No	No	Unlikely. Absence of suitable habitat
Brown Treecreeper (south-eastern ssp.)	*Climacteris picumnus victoriae*		Near Threatened	Dry woodlands, forests and scrubs with trees and fallen branches. River Red Gum woodlands near watercourses and lake shores.	No	Yes, in 2000	Unlikely. Absence of suitable habitat
Cattle Egret	*Ardea ibis*	Migratory (Wetland)		Pasture, shallows and freshwater wetlands	Yes	No	Low. May forage on grasslands particularly after watered.
Eastern Great Egret	*Ardea modesta*	Migratory (Wetland)	Vulnerable, FFG Listed	Wetlands including tidal flats in estuaries and bays to the margins of inland lakes swamps and rivers. Also farm dams, mangroves, floodwaters and artificial wetlands.	No	Yes, in 2003	Unlikely. Absence of suitable habitat
Grey-crowned Babbler	*Pomatostomus temporalis*		Endangered, FFG Listed	Open forests, woodlands and scrublands dominated by mature Eucalypts with some immature trees and an intact cover of grasses and forbs.	No	Yes, in 1999	Unlikely. Absence of suitable habitat
Hardhead	*Aytha australis*		Vulnerable, FFG Listed	Deep, permanent freshwater wetlands with dense fringing vegetation.	No	Yes, in 2003	Unlikely. Absence of suitable habitat
Latham's Snipe	*Gallinago hardwickii*	Migratory (Wetland)	Near Threatened	Summer migrant to Victoria, occurring in grassland near heavily vegetated freshwater swamps and pools in heaths or sub-alpine herblands.	No	No	Unlikely. Absence of suitable habitat
Nankeen Night Heron	*Nycticorax caledonicus*		Near Threatened	May forage at a wide range of wetlands, typically with fringing vegetation. Requires dense fringing vegetation for roosting.	No	Yes, in 2003	Unlikely. Absence of suitable habitat
Painted Snipe	*Rostratula benghalensis*	Vulnerable	Critically Endangered, FFG Listed	Summer migrants to the lowlands on shallow freshwater swamps with emergent vegetation or flooded saltmarshes.	No	No	Unlikely. Absence of suitable habitat

Common Name	Scientific Name	National Conservation Status	Victorian Conservation Status	Preferred Habitat	Preferred Habitat Recorded On-site	Recorded in the Vicinity of the Site (AVW)	Likelihood of Occurrence on the Site
Plains-wanderer	*Pedionomus torquatus*	Vulnerable	Vulnerable, FFG Listed	Low, open grasslands, sometimes in unimproved pastures.	No	No	Unlikely. Absence of suitable habitat
Powerful Owl	*Ninox strenua*		Vulnerable, FFG Listed	Foothill and coastal forests where they favour gullies with Peppermint-Manna Gum forests.	No	Yes, in 1992	Unlikely. Absence of suitable habitat
Rainbow Bee-eater	*Merops ornatus*	Migratory (Terrestrial)	-	Summer migrant to open woodlands in Victoria.	No	No	Unlikely. Absence of suitable habitat
Regent Honeyeater	*Xanthomyza phrygia*	Endangered, Migratory	Critically Endangered, FFG Listed	Generally confined to Box-Ironbark Eucalypt forests.	No	No	Unlikely. Absence of suitable habitat
Superb Parrot	*Polytelis swainsonii*	Vulnerable	Vulnerable, FFG Listed	Red gums and a range of Box trees, mostly near watercourses in the north of the state.	No	No	Low. An absence of preferred habitat but are known to forage within orchards.
Swift Parrot	*Lathamus discolor*	Endangered	Endangered, FFG Listed	Winter migrant from Tasmania. Generally prefers Box-Ironbark forests and woodlands inland of the Great Dividing Range during winter.	No	No	Unlikely. Absence of suitable habitat
White-bellied Sea-eagle	*Haliaeetus leucogaster*	Migratory (Terrestrial)	Vulnerable, FFG Listed	Coastal islands, coastal lakes and along some inland rivers and lakes.	No	No	Unlikely. Absence of suitable habitat
White-throated Needletail	*Hirundapus caudactus*	Migratory (Terrestrial)	-	Mainly eastern Australia often associated with coastal and mountain regions.	No	No	Unlikely. Absence of suitable habitat
Mammals							
Squirrel Glider	*Petaurus norfolcensis*		Endangered, FFG Listed	Dry scleophyll forests on inland slopes, mostly near riverine corridors.	No	Yes, in 1992	Unlikely. Absence of suitable habitat

Common Name	Scientific Name	National Conservation Status	Victorian Conservation Status	Preferred Habitat	Preferred Habitat Recorded On-site	Recorded in the Vicinity of the Site (AVW)	Likelihood of Occurrence on the Site
Spotted-tailed Quoll	*Dasyurus maculatus maculatus*	Endangered	Endangered, FFG Listed	Coastal heath and scrub, dry and wet sclerophyll forest. Requiring large intact areas of vegetation.	No	No	Unlikely. Absence of suitable habitat
Frogs							
Growling Grass Frog	*Litoria raniformis*	Vulnerable	Endangered, FFG Listed	Permanent lakes, swamps, dams and lagoons; very wet areas in woodland and shrubland.	No	No	Unlikely. Absence of suitable habitat
Reptiles							
Broad-shelled Turtle	*Macrochelodina expansa*		Data Deficient, FFG Listed	Silty rivers, streams and waterholes.	No	Yes, in 2003	Unlikely. Absence of suitable habitat
Striped Legless Lizard	*Delma impar*	Vulnerable	Endangered, FFG Listed	Within grass tussocks, cracks in the ground or under rocks within grasslands and grassy woodland. Has been recorded in exotic pasture.	No	No	Unlikely. Absence of suitable habitat
Woodland Blind Snake	*Ramphotyphlops proximus*		Near Threatened	Dry open forests and woodlands on a range of soil types. Prefers leaf litter.	No	Yes, in 1964	Unlikely. Absence of suitable habitat
Fishes							
Crimson-spotted Rainbowfish	*Melanotaenia fluviatilis*		Data Deficient, FFG Listed	Found in rivers, creeks, drains, ponds and reservoirs. Occurs usually in still or slow-flowing conditions.	No	Yes, in 1989	Unlikely. Absence of suitable habitat
Macquarie Perch	*Macquaria australasica*	Endangered	Endangered, FFG Listed	Rivers and lakes	No	No	Unlikely. Absence of suitable habitat
Murray Cod	*Maccullochela peelii peelii*	Vulnerable	Endangered, FFG Listed	Deep holes within Rivers, preferably with in-stream debris for cover	No	Yes, in 1982	Unlikely. Absence of suitable habitat
* Source: Menkhorst and Knight (2001), Pizzey and Knight (2001), Inland Fisheries Service (2008), Wilson and Swan (2008), Robinson (1998)							

Figures

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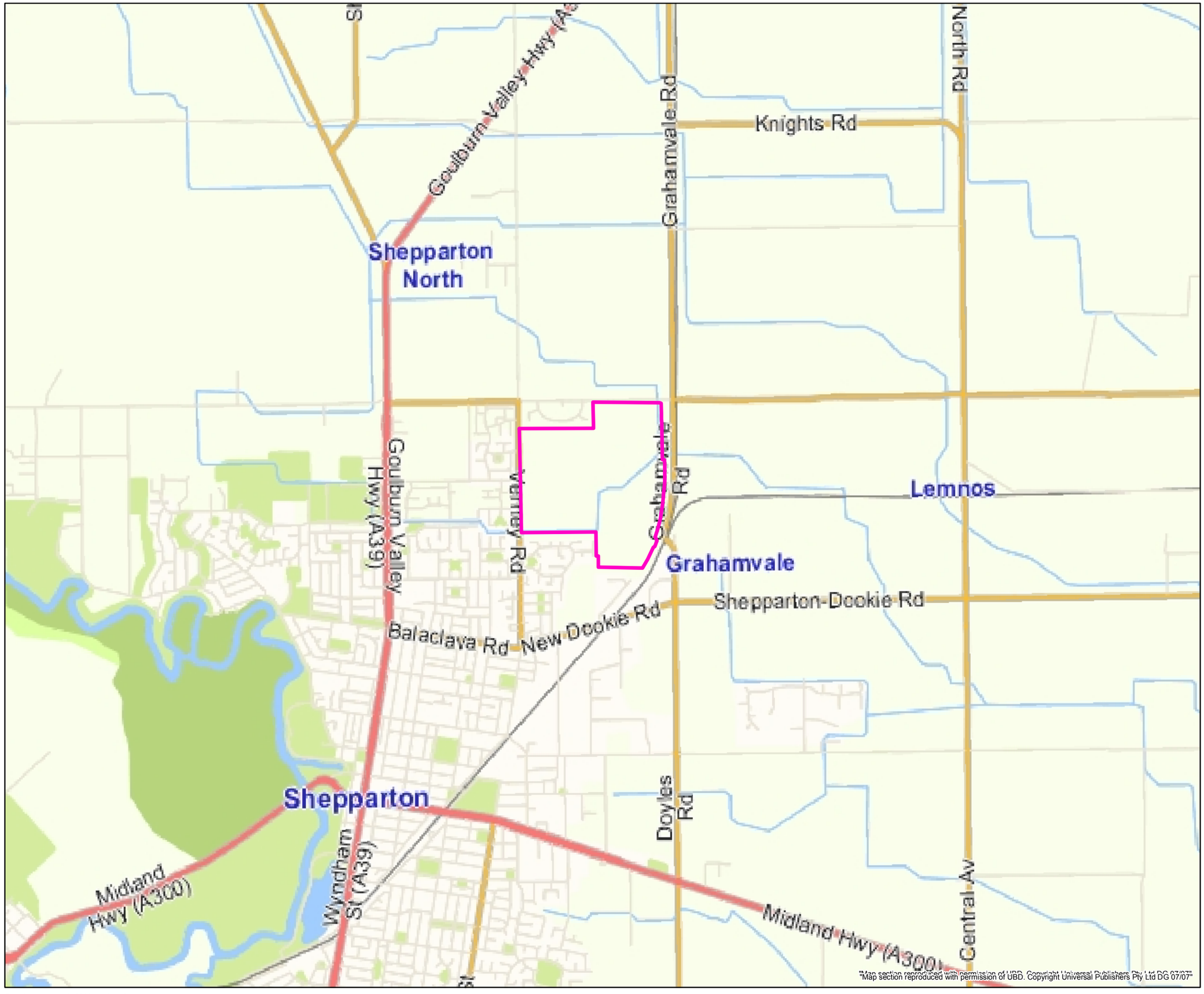

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DATE CREATED	**12 August 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 17 October 2008**
APPROVED	

Legend

Site Boundary

0 187.5375 750 1,125 1,500

Metres

SITE LOCATION

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

ENSR | AECOM

Figure **F1**

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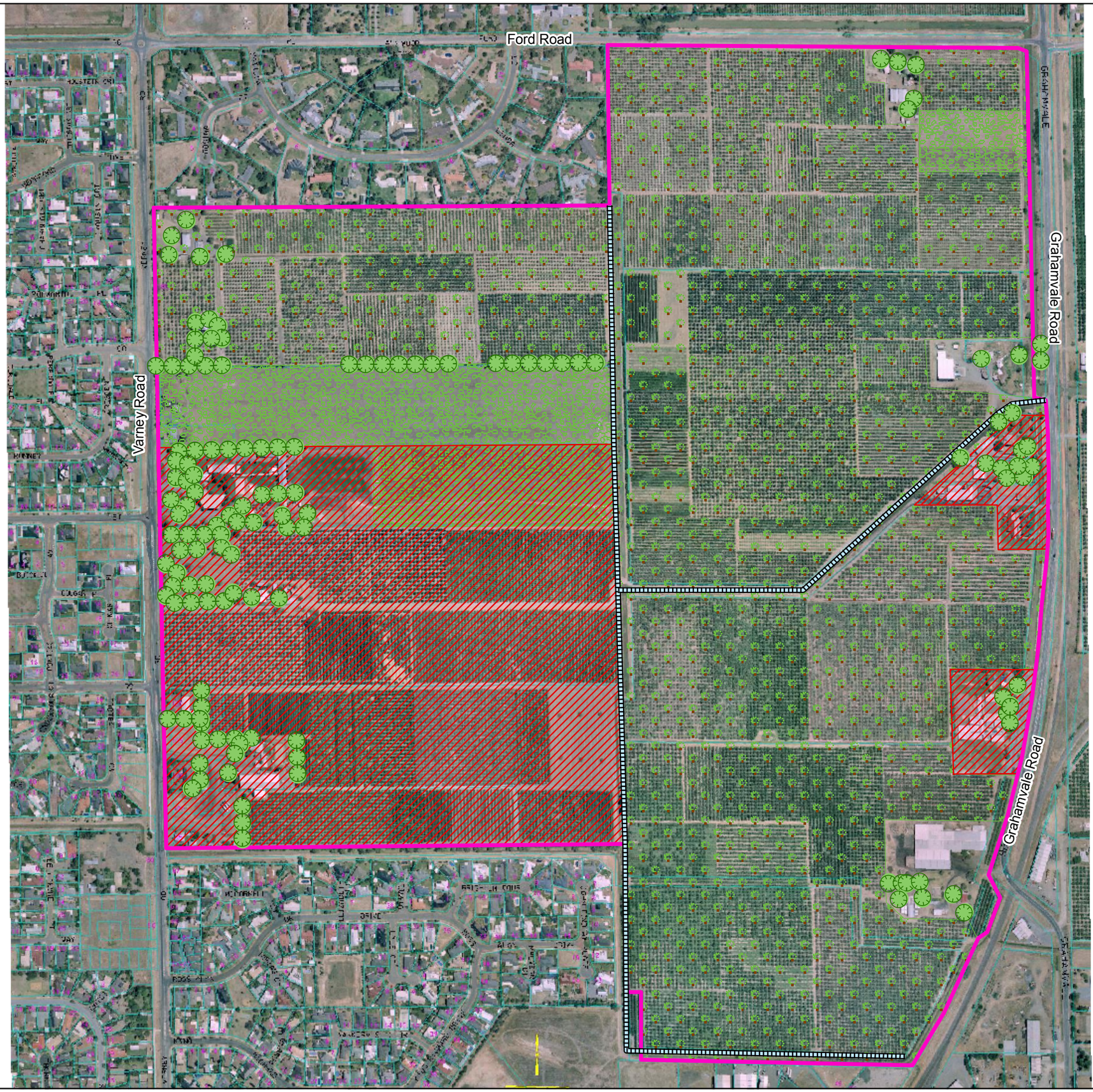

PROJECT ID	**M60048301**
DATE CREATED	**22 August 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 10 October 2008**
APPROVED	

Legend

- Site Boundary
- Site Access not Permitted
- Apple Orchard
- Exotic Pasture
- Planted Non-indigenous Vegetation
- Irrigation Channel

0 37.5 75 150 225 300

Metres

BIOLOGICAL FEATURES AND HABITAT TYPES

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

Figure **F2**

ENSR | AECOM

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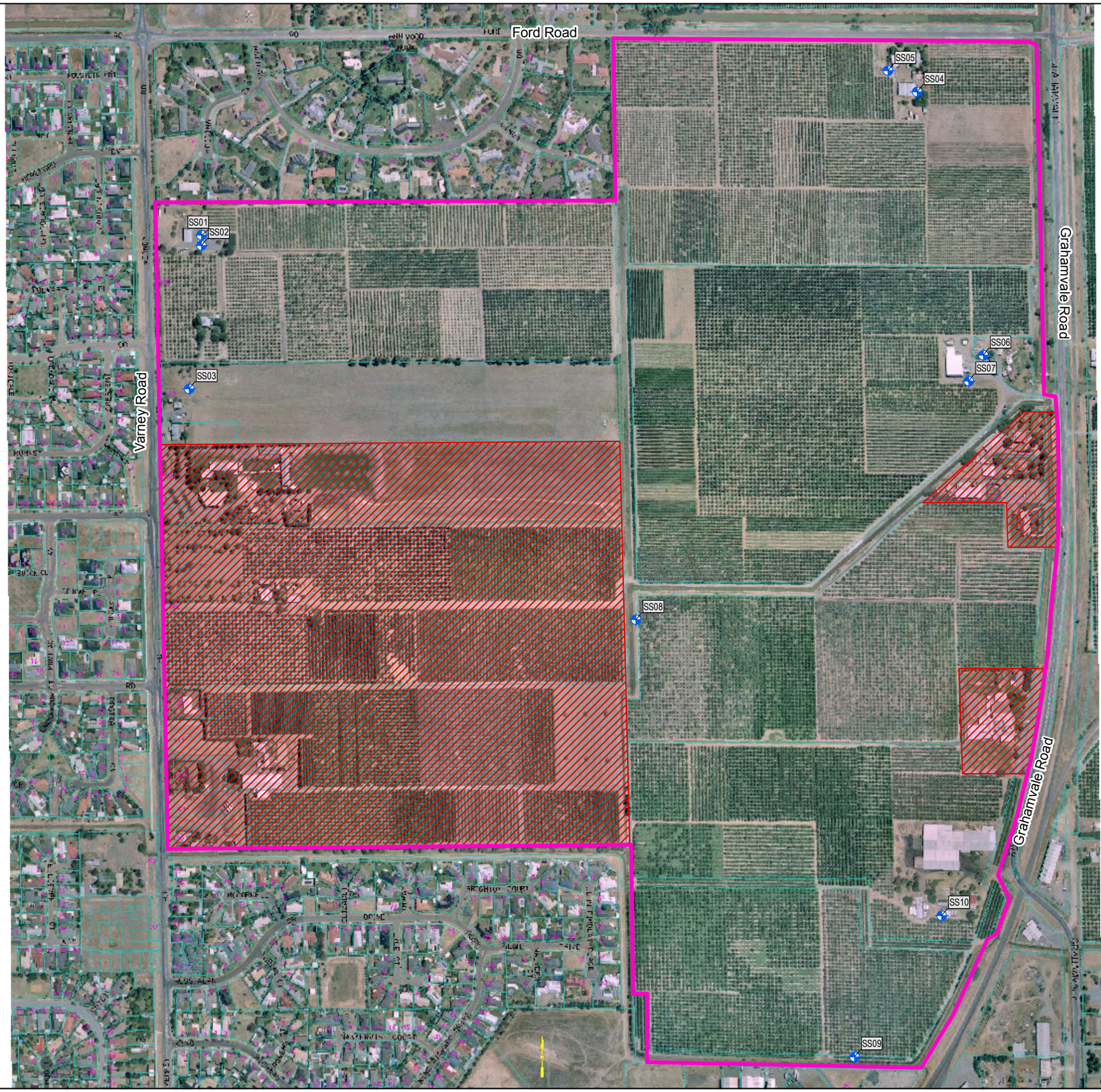

PROJECT ID	**M60048301**
DATE CREATED	**22 August 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 17 October 2008**
APPROVED	

Legend

- Site Boundary
- Site Access not Permitted
- Soil Sampling Locations

0 37.5 75 150 225 300

Metres

SOIL SAMPLE LOCATIONS

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

Figure **F3**

ENSR | AECOM

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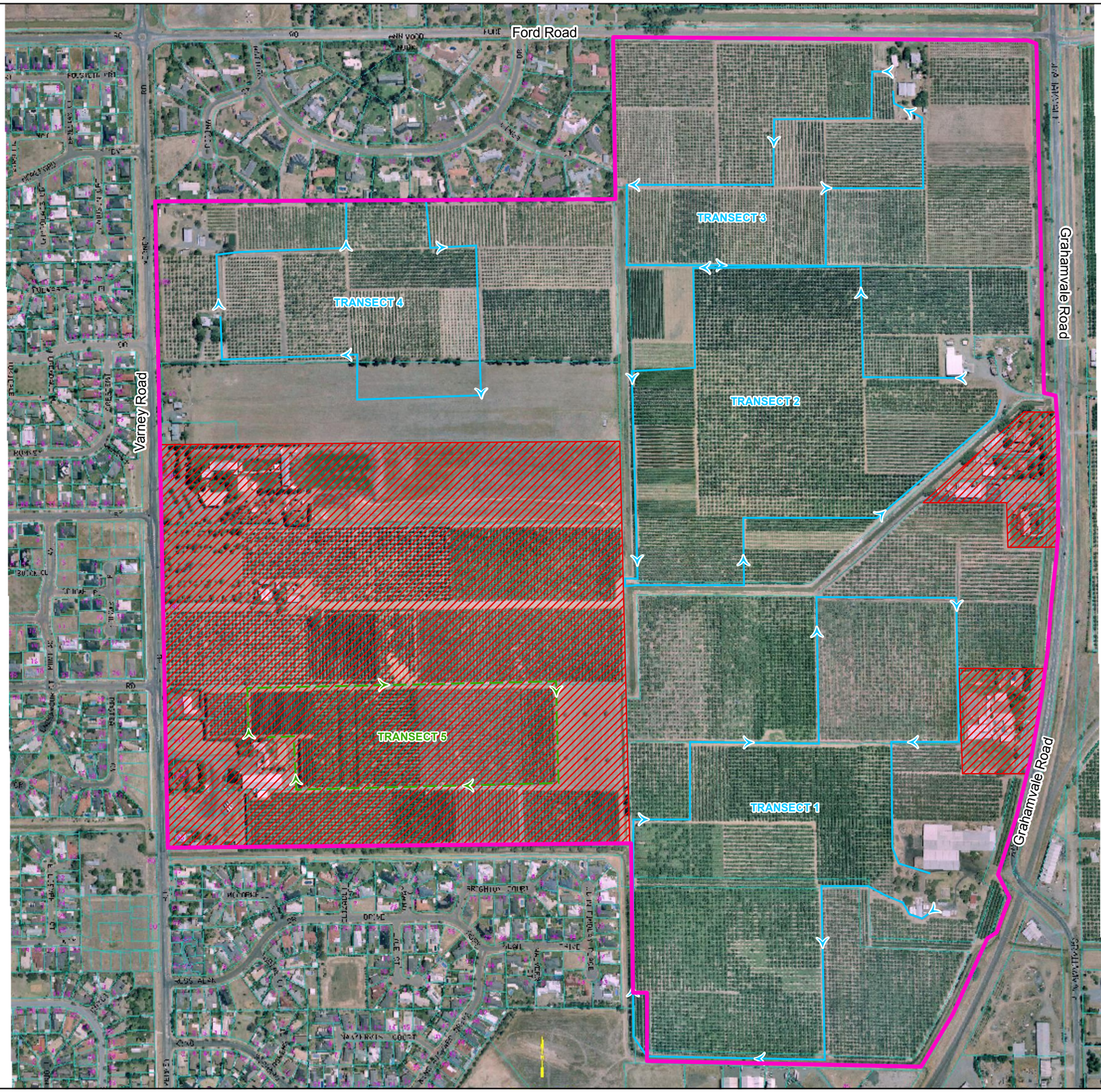

PROJECT ID	**M60048301**
DATE CREATED	**29 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 20 October 2008**
APPROVED	

Legend

- Completed Transects
- Transects Planned but not Completed
- Site Boundary
- Site Access not Permitted

0 37.5 75 150 225 300

Metres

TRANSECTS FOR THE CULTURAL HERITAGE ASSESSMENT

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

Figure **F4**

ENSR | AECOM

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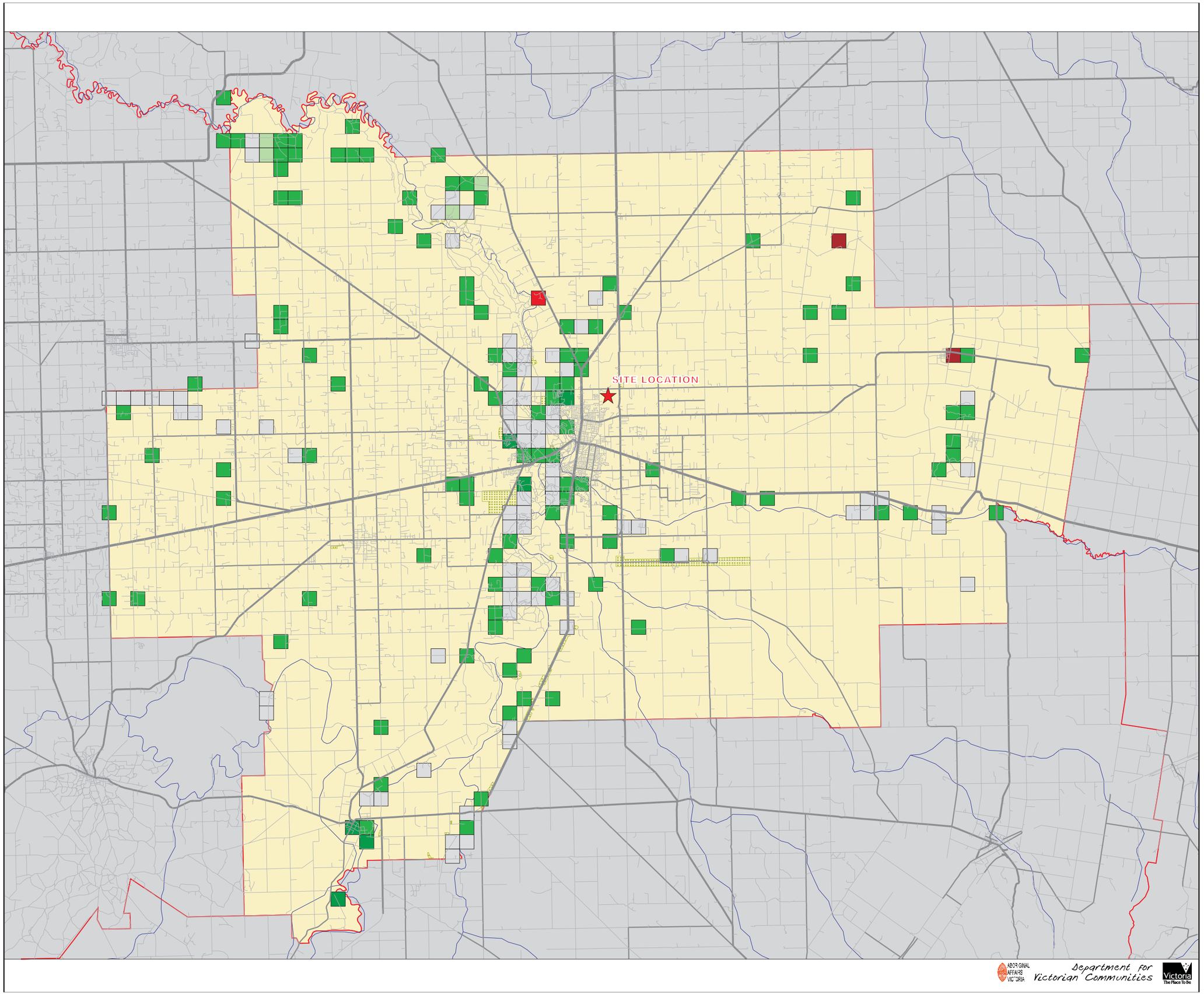
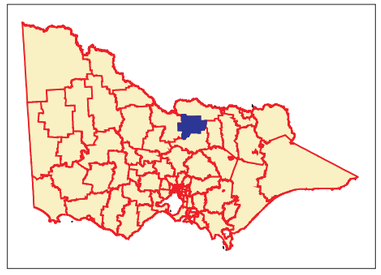


PROJECT ID M60048301
DATE CREATED 29 September 2008
DRAWN BY ALF
LAST MODIFIED Alf 10 October 2008
APPROVED

Legend

- Highway
- Main Road
- Other Road
- Rivers
- Aboriginal Place
- Artifact Scatter
- Burial/Human remains
- Mound
- Quarry/ Stone Source
- Scarred Tree
- Local Government Boundaries
- Cultural Heritage Survey Coverage



Scale is Approximate

0 2.5 5 7.5 10
Kilometres

ABORIGINAL SITES WITHIN THE VICINITY OF THE SITE

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

Figure **F5**

ENSR | AECOM

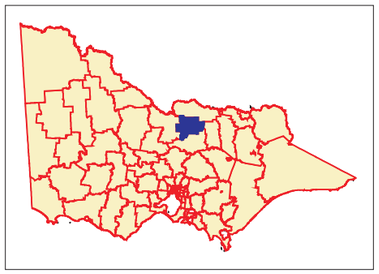
Aboriginal Affairs Victoria — Department for Victorian Communities — Victoria The Place To Be

G:\M600483\01\Corel\M60048301_Fig52_HeritageAAV_29Sep08.cdr

PROJECT ID	**M60048301**
DATE CREATED	**29 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 10 October 2008**
APPROVED	

Legend

- Minor hydrology
- Major hydrology
- Minor/Unsealed roads
- Major roads
- Freeway
- Railway lines
- LGA Boundaries
- Areas of Cultural Heritage Sensitivity (see Map Information below)
- Public Land (outside Areas of Cultural Heritage Sensitivity)



SITE LOCATION

Scale is Approximate

0 1 2 4 6 8

Kilometres

AREAS OF CULTURAL HERITAGE SENSITIVITY WITHIN THE VICINITY OF THE SITE

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

Figure **F6**

ENSR | AECOM

Department for Victorian Communities

Victoria The Place To Be

Spatial Vision

Map Produced by www.SpatialVision.com.au, July - 2007.

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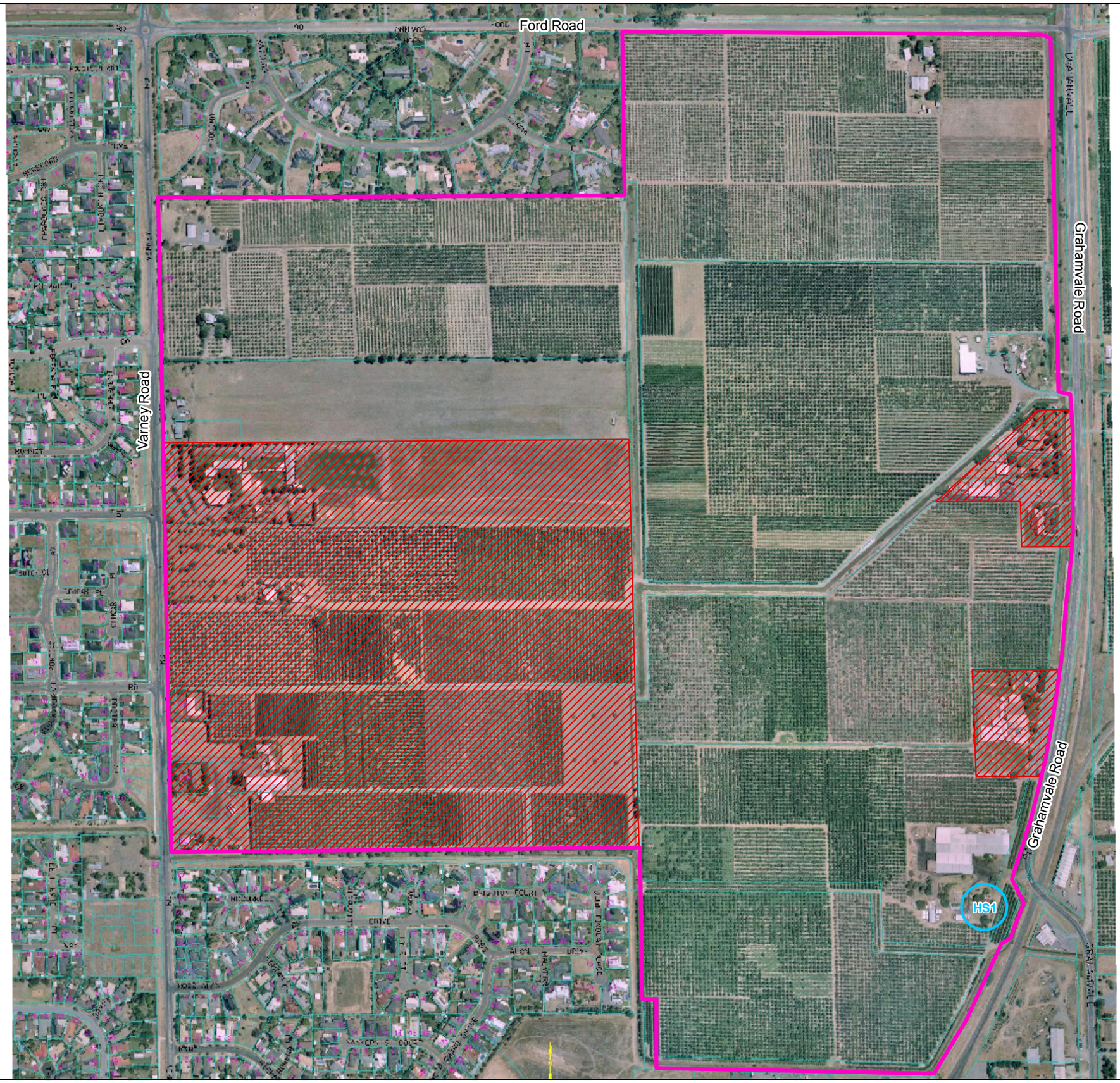

PROJECT ID	**M60048301**
DATE CREATED	**22 August 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 17 October 2008**
APPROVED	

Legend

- Potential Heritage Site
- Site Access not Permitted
- Site Boundary

0 37.5 75 150 225 300

Metres

POTENTIAL HERITAGE SITE

Maunsell Australia Pty Ltd

Shepparton North-east Assessment

Figure **F7**

ENSR | AECOM

G:\M600483\01\ArcGIS\M60048301_Fig07_HS1Location_29Sep08.mxd

Plates

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Plate P1: 65 Grahamvale Road - Insecticide chemicals stored on-site

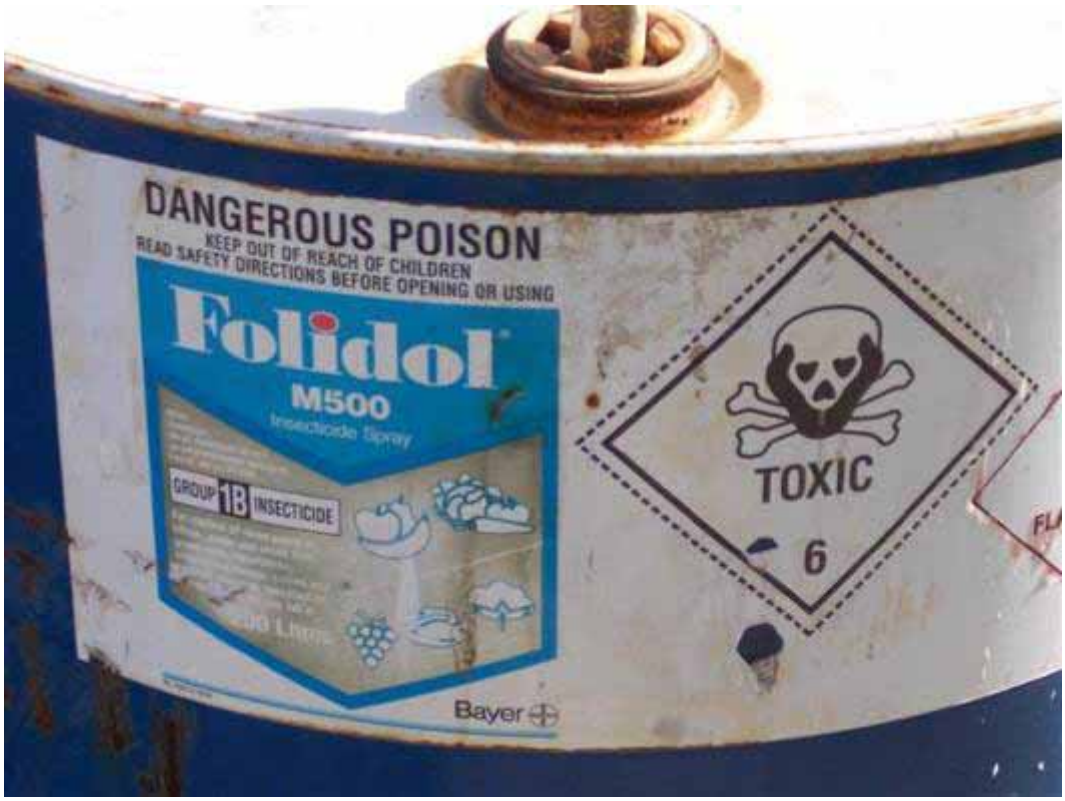

Plate P2: 65 Grahamvale Road - Close-up of drum

Plate P3: 65 Grahamvale Road - Containers containing insecticides on-site

Plate P4: 65 Grahamvale Road - Close-up of container

Plate P5: 65 Grahamvale Road - Drum and containers stored on-site

Plate P6: 65 Grahamvale Road - Close up of drums containing organophosorous pesticides

Plate P7: 65 Grahamvale Road - Barricaded dispensers and possible UST

Plate P8: 139 Grahamvale Road - AST containing diesel and dispenser

Plate P9: 139 Grahamvale Road - Rear view of AST

Plate P10: 165 Verney Road - View of an unused livestock pen surrounded by cleared land

Plate P11: 185 Verney Road - Drum that used to contain lubricants

Plate P12: 185 Verney Road - Close up of drum in D11

Plate P13: 185 Verney Road - More drums possibly containing petroleum hydrocarbons

Plate P14: 185 Verney Road - Drum stored on top of concrete with heavy petroleum hydrocarbon staining

Plate P15: 185 Verney Road - AST containing diesel with automobile batteries stored on ground

Plate P16: 185 Verney Road - Chemicals stored in shed with ground staining to the left

Plate P17: 185 Verney Road - Close-up of possible hydrocarbon staining

Plate P18: 185 Verney Road - Drum containing poison stored in shed

Plate P19: 185 Verney Road - Close-up of drum

Plate P20: 240 Ford Road - Empty drums of insecticide stored behind shed

Plate P21: 240 Ford Road - AST containing unknown combustible liquid

Plate P22: 240 Ford Road - Close-up of ground staining beneath AST

Plate P23: 240 Ford Road - Bucket capturing the contents within the leaking AST

Plate P24: Black Narrow-leaf Peppermint planted by landholder

Plate P25: Vegetation covered by spoil along the verge of the irrigation channel

Plate P26: Orchard showing limited visibility at ground level

Plate P27: Orchard showing limited visibility at ground level

Plate P28: Site showing higher visibility at ground level

Plate P29: Site showing higher visibility at ground level around some trees

Plate P30: Site showing higher visibility at ground level around some trees

Plate P31: Site showing higher visibility at ground level along tracks

Plate P32: Site showing higher visibility at ground level along tracks

Plate P33: Site showing higher visibility at ground level along tracks

Plate P34: Site showing ground disturbance

Plate P35: Weatherboard cottage which may have historic cultural significance

Appendix A

Groundwater Assessment Results

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ENSR | AECOM

Groundwater Database Bore Radius Search Coordinates

Centre of Site		
Easting	Northing	Radius Required (m)
358606	5975492	1000

Distance from Centre (m) 707 707

Minimum Extent of Radius	**357899**	**5974785**
Maximum Extent of Radius	**359313**	**5976199**

1.00 RADIUS (km)

1 Enter site coordinates and required radius

2 Use these values to filter SKM Locn data

3 copy filtered LOCN data

4 copy from SKM COMP data

5 data for reports

DISTANCE (M)	Angle (east-west axis)	Direction Cell 1	Direction Cell 2	Water Level (m)	PARISH NO	PARISH NAME	SITE NO	OLD SITE NO	RIG NO./ LIC NO.	MGA ZONE	EAST	NORTH	DATE COMPLETED	TOTAL DEPTH (m)	RLNS	SITE TYPE	USES	DRILL METHOD	LOGS G	LOGS D	AQUIF FROM (m)	AQUIF TO (m)	TSS mg/L
92	88	N	Refer Cell to Left	12	3486	SHEPPARTON	120137		82/94/0	55	358603.32	5975584.3	12.04.1994	12		BOR	IV	AGM	N	Y			N/A
153	60	NE	Refer Cell to Left	13	3486	SHEPPARTON	120136		82/94/0	55	358683.32	5975624.3	12.04.1994	13		BOR	IV	AGM	N	Y			N/A
153	60	NE	Refer Cell to Left	13	3486	SHEPPARTON	120634		81/94/0	55	358683.32	5975624.3	04.05.1994	13		BOR	IV	AGM	N	Y			N/A
153	60	NE	Refer Cell to Left	13	3486	SHEPPARTON	121075		81/94/0	55	358683.32	5975624.3	04.05.1994	13		BOR	IV	AGM	N	Y			N/A
171	37	NE	Refer Cell to Left	12	3486	SHEPPARTON	120120		82/94/0	55	358743.32	5975594.3	23.03.1994	11.5		BOR	IV	AGM	N	Y			N/A
171	37	NE	Refer Cell to Left	12	3486	SHEPPARTON	120135		82/94/0	55	358743.32	5975594.3	13.04.1994	12		BOR	IV	AGM	N	Y			N/A
160	31	NE	Refer Cell to Left	12	3486	SHEPPARTON	120119		82/94/0	55	358743.32	5975574.3	23.03.1994	12		BOR	IV	AGM	N	Y			N/A
160	31	NE	Refer Cell to Left	13	3486	SHEPPARTON	120635		81/94/0	55	358743.32	5975574.3	05.05.1994	12.5		BOR	IV	AGM	N	Y			N/A
454	40	NE	Refer Cell to Left	10	3486	SHEPPARTON	120122		82/94/0	55	358953.32	5975784.3	22.03.1994	10		BOR	IV	AGM	N	Y			N/A
327	20	E	E	10	3486	SHEPPARTON	120121		82/94/0	55	358913.32	5975604.3	22.03.1994	10		BOR	IV	AGM	N	Y			N/A
323	19	Refer Cell to Right	E	13	3486	SHEPPARTON	112974		0/92/0	55	358911.32	5975387.3	16.11.1992	13		BOR	DW	AGM	N	Y			N/A
309	50	Refer Cell to Right	SE	14	3486	SHEPPARTON	126087		0/95/0	55	358803.32	5975254.3	11.10.1995	13.5		BOR	IV	AGM	N	Y			N/A
484	3	E	E	13	3486	SHEPPARTON	90924	3348610005	5634	55	359089.32	5975518.3	15.10.1974	12.8		BOR	MI	NKN	N	N			N/A
484	3	E	E	23	3486	SHEPPARTON	90925	3348610006	5634	55	359089.32	5975518.3	15.10.1974	22.86		BOR	MI	NKN	N	N			N/A
458	90	Refer Cell to Right	S	12	3486	SHEPPARTON	126084		0/95/0	55	358603.32	5975034.3	11.10.1995	11.5		BOR	IV	AGM	N	Y			N/A
399	64	Refer Cell to Right	SE	10	3486	SHEPPARTON	126308		0/95/0	55	358783.32	5975134.3	20.11.1995	10		BOR	IV	AGM	N	Y			N/A
441	54	Refer Cell to Right	SE	10	3486	SHEPPARTON	126306		0/95/0	55	358863.32	5975134.3	17.11.1995	10		BOR	IV	AGM	N	Y			N/A
506	45	Refer Cell to Right	SE	10	3486	SHEPPARTON	126307		0/95/0	55	358963.32	5975134.3	17.11.1995	10		BOR	IV	AGM	N	Y			N/A

Appendix B

Historical Aerial Photographs of the Site

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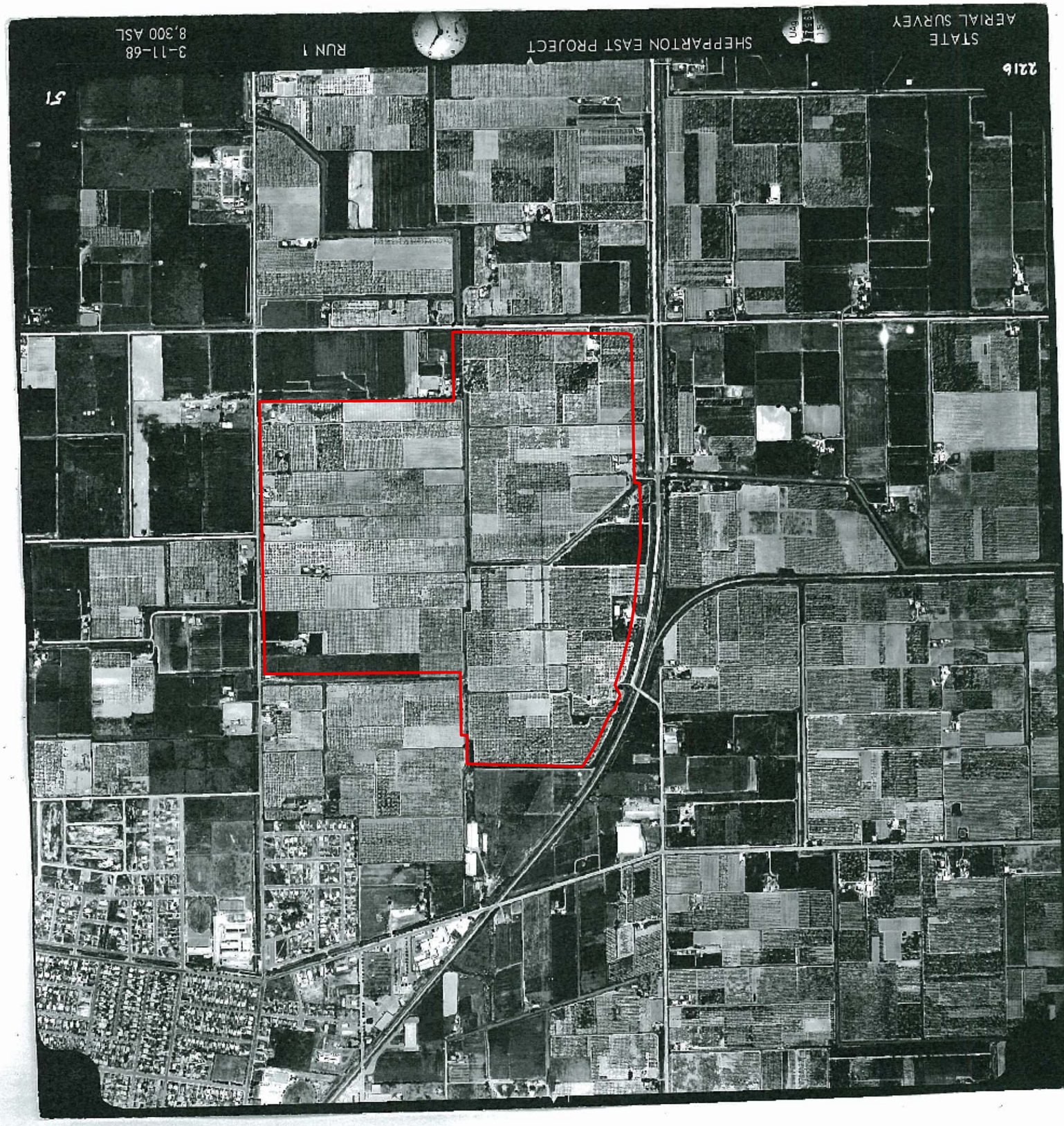

PROJECT ID	**M60048301**
DATE CREATED	**04 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 21 October 2008**
APPROVED	

Legend

Site Boundary

0 87.5 175 350 525 700

Metres

HISTORIC AERIAL
SHEPPARTON 1968
Maunsell Australia Pty Ltd
Shepparton North-east Assessment

Figure
B1

ENSR | AECOM

Thursday, September 4, 2008 11:36:46 AM
G:\M600483\01\ArcGIS\M60048301_FigB1_Shepparton1968_04Sep08.mxd

PROJECT ID	**M60048301**
DATE CREATED	**04 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 21 October 2008**
APPROVED	

Legend

Site Boundary

0 87.5 175 350 525 700

Metres

HISTORIC AERIAL
SHEPPARTON 1977
Maunsell Australia Pty Ltd
Shepparton North-east Assessment

Figure
B2

ENSR | AECOM

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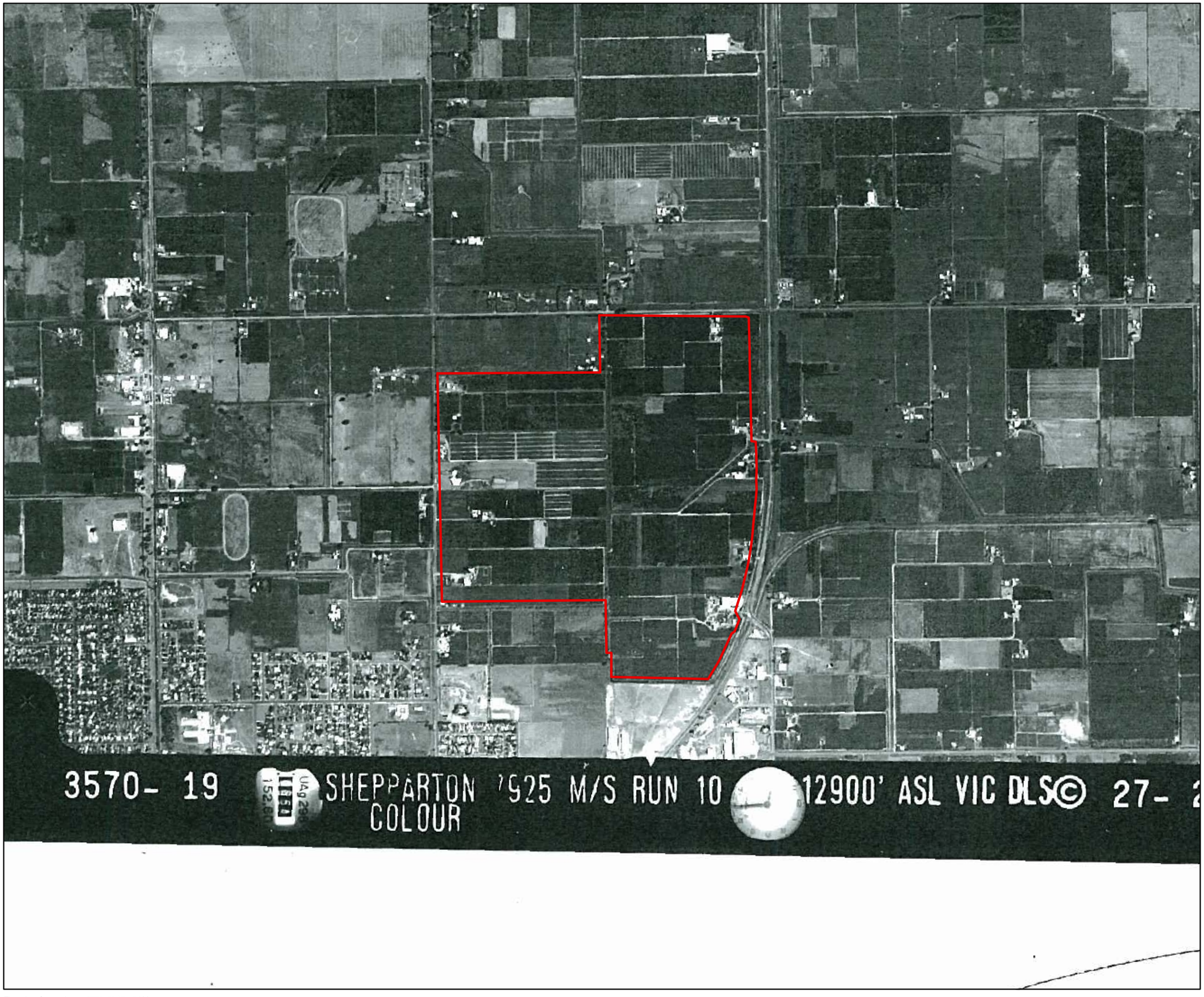

PROJECT ID	**M60048301**
DATE CREATED	**04 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 21 October 2008**
APPROVED	

Legend

Site Boundary

N

0 87.5 175 350 525 700

Metres

HISTORIC AERIAL
SHEPPARTON 1981
Maunsell Australia Pty Ltd
Shepparton North-east Assessment

Figure **B3**

ENSR | AECOM

Thursday, September 4, 2008 11:36:46 AM
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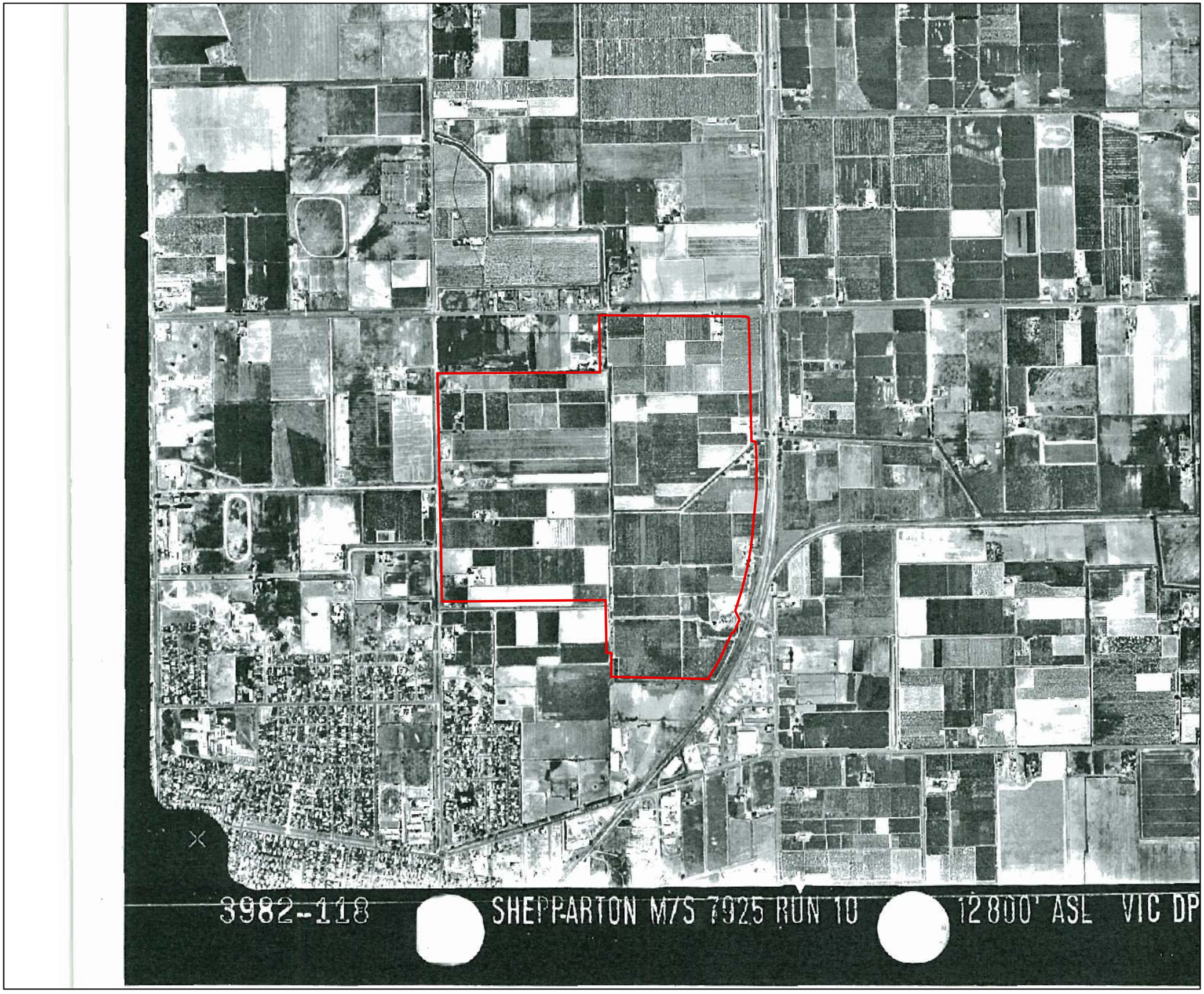

PROJECT ID	**M60048301**
DATE CREATED	**04 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 21 October 2008**
APPROVED	

Legend

Site Boundary

0 87.5 175 350 525 700

Metres

HISTORIC AERIAL
SHEPPARTON 1985
Maunsell Australia Pty Ltd
Shepparton North-east Assessment

Figure **B4**

ENSR | AECOM

Thursday, September 4, 2008 11:36:46 AM
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PROJECT ID	**M60048301**
DATE CREATED	**04 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 21 October 2008**
APPROVED	

Legend

Site Boundary

0 87.5 175 350 525 700

Metres

HISTORIC AERIAL
SHEPPARTON 1990
Maunsell Australia Pty Ltd
Shepparton North-east Assessment

Figure
ENSR | AECOM **B5**

Thursday, September 4, 2008 11:36:46 AM
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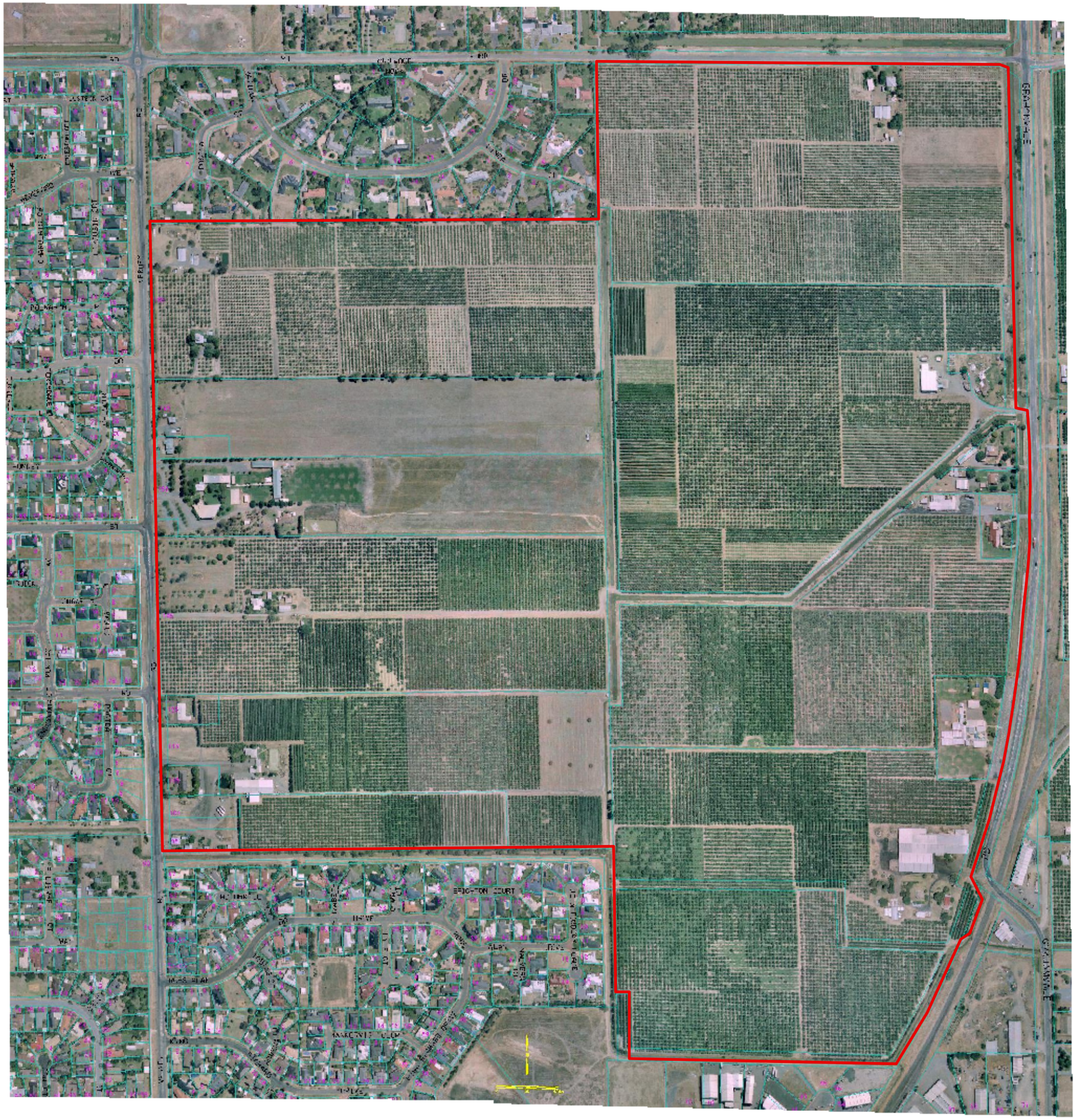

PROJECT ID	**M60048301**
DATE CREATED	**30 September 2008**
DRAWN BY	**ALF**
LAST MODIFIED	**ALF 21 October 2008**
APPROVED	

Legend

Site Boundary

0 37.5 75 150 225 300

Metres

HISTORIC AERIAL
SHEPPARTON 2007
Maunsell Australia Pty Ltd
Shepparton North-east Assessment

Figure **B6**

ENSR | AECOM

Thursday, September 4, 2008 11:36:46 AM
G:\M600483\01\ArcGIS\M60048301_FigB6_Shepparton2007_30Sep08.mxd

ENSR | AECOM

Appendix C

Titles and Property Reports

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Imaged Document Cover Sheet

The document following this cover sheet is an imaged document supplied by LANDATA®, Land Victoria.

Document Type	**Plan**
Document Identification	**TP765737P**
Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**24/09/2008 10:36**

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Delivered by LANDATA®. Land Victoria timestamp 24/09/2008 10:36 Page 1 of 1

TITLE PLAN		EDITION 1	TP 765737P

Location of Land

Parish: SHEPPARTON
Township:
Section: C
Crown Allotment: 28, 28A
Crown Portion:

Last Plan Reference:
Derived From: VOL 9019 FOL 856
Depth Limitation: 50 FEET

Notations

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

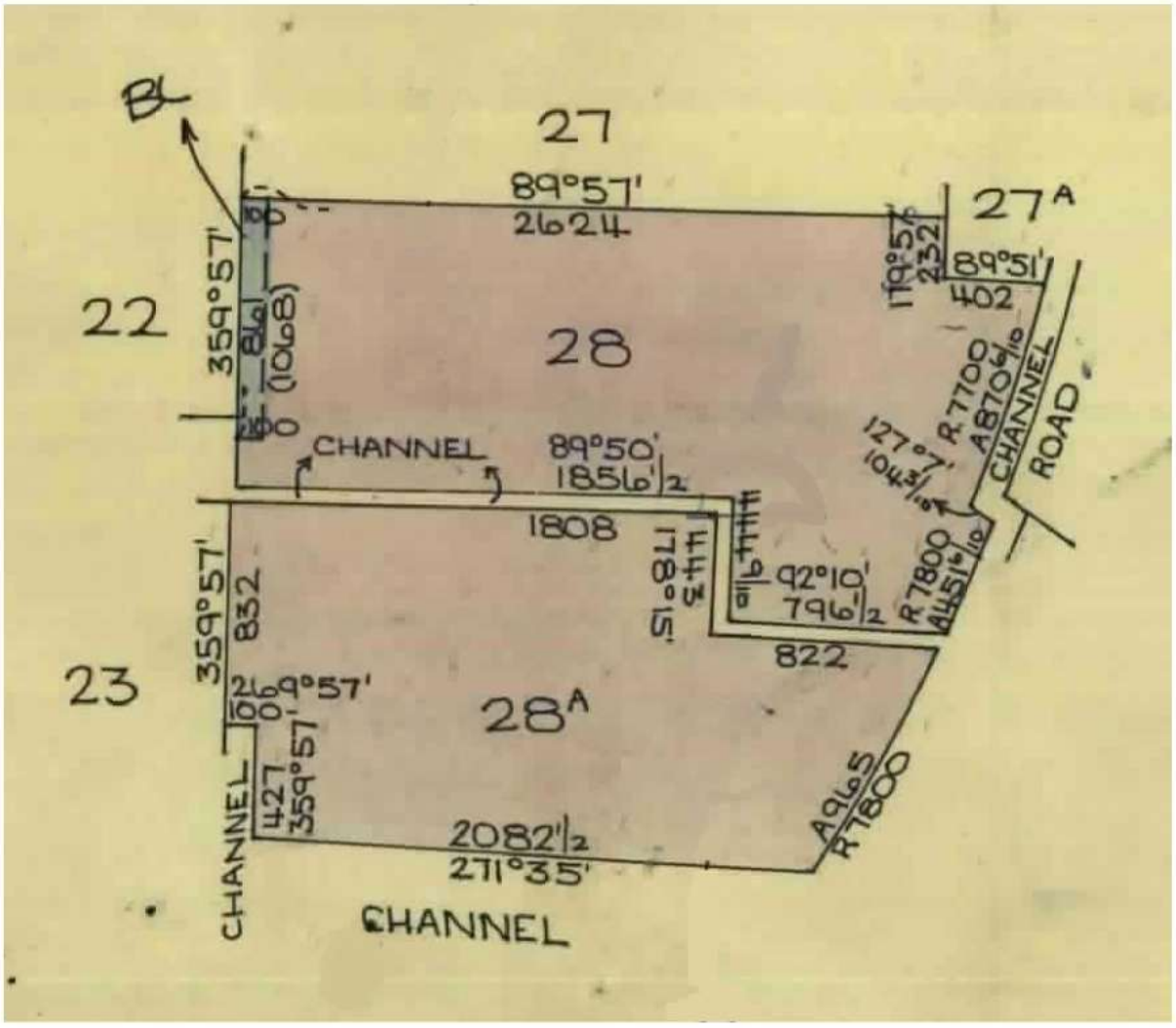
ENCUMBRANCES REFERRED TO

As to the land coloured blue - - - - --
THE CONDITION in favour of State - - --
Rivers and Water Supply Commission - --
set out in Crown Grant Vol.6007 Fol.315

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT

COMPILED: 02/01/2003
VERIFIED: L.S.

COLOUR CODE
BL=BLUE



TOTAL AREA = 62A 2R 4P

LENGTHS ARE IN LINKS	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 1 sheets

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REGISTER SEARCH STATEMENT Land Victoria

Security no : 124027410280V

Volume 09019 Folio 856
Produced 24/09/2008 10:30 am

LAND DESCRIPTION

Crown Allotments 28 and 28A Section C Parish of Shepparton.
PARENT TITLES :
Volume 07103 Folio 482 Volume 08780 Folio 386
Created by instrument F184879 01/02/1974

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors
NICK DAMIEN
ZOE DAMIEN both of 11 WYNDHAM ST SHEPPARTON
M272607H 15/05/1986

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE V619104W 02/09/1998
NATIONAL AUSTRALIA BANK LTD

For details of any other encumbrances see the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP765737P FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

STATEMENT END

Department of Sustainability and Environment

Owners Corporation Search Report

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Produced: 24/09/2008 10:28:12 AM

OWNERS CORPORATION
PLAN NO. PS303316J

The land in PS303316J is affected by 1 Owners Corporation(s)

Land Affected by Owners Corporation:
Common Property, Lots 1, 2.

Limitations on Owners Corporation:
Unlimited

Postal Address for Service of Notices:
GRAHAMVALE ROAD SHEPPARTON VIC 3630
PS303316J 12/03/1991

Rules:
Model Rules apply unless a matter is provided for in Owners Corporation Rules. See Section 139(3) Owners Corporation Act 2006

Owners Corporation Rules:
NIL

Notations:
NIL

Entitlement and Liability:
NOTE - Folio References are only provided in a Premium Report.

Land Parcel	Entitlement	Liability
Common Property	0	0
Lot 1	10	10
Lot 2	90	90
Total	100	100

From 31 December 2007 every Body Corporate is deemed to be an Owners Corporation. Any reference to a Body Corporate in any Plan, Instrument or Folio is to be read as a reference to an Owners Corporation.

Statement End.

Imaged Document Cover Sheet

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Document Type	**Plan**
Document Identification	**PS303316J**
Number of Pages (excluding this cover sheet)	**3**
Document Assembled	**24/09/2008 10:29**

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PLAN OF SUBDIVISION

STAGE No. /

LTO USE ONLY
EDITION 1

PLAN NUMBER
PS 303316 J

LOCATION OF LAND

PARISH: SHEPPARTON

TOWNSHIP:

SECTION: C

CROWN ALLOTMENT: 26

CROWN PORTION:

LTO BASE RECORD: SHEET 2 OF LITHO 3486
TITLE REFERENCES: VOL: 8037 FOL: 153

LAST PLAN REFERENCE/S: ——

POSTAL ADDRESS: (At time of subdivision) GRAHAMVALE ROAD, SHEPPARTON, 3630.

AMG Co-ordinates (of approx centre of land in plan) E 359000 N 5976000 ZONE: 55

COUNCIL CERTIFICATION AND ENDORSEMENT

COUNCIL NAME: SHIRE OF SHEPPARTON REF:

1. This plan is certified under Section 6 of the Subdivision Act 1988.
2. ~~This plan is certified under Section 11(7) of the Subdivision Act 1988. Date of original certification under Section 6 / /~~
3. ~~This is a statement of compliance issued under Section 21 of the Subdivision Act 1988.~~

OPEN SPACE

(i) A requirement for public open space under Section 18 of the Subdivision Act 1988 ~~has~~/has not been made.

~~(ii) The requirement has been satisfied.~~

~~(iii) The requirement is to be satisfied in Stage .....~~

Council Delegate
~~Council Seal~~
Date 30/ 11 /90

Re-certified under Section 11(7) of the Subdivision Act 1988.
Council Delegate
Council Seal
Date 30 / 11 / 90

VESTING OF ROADS AND/OR RESERVES

IDENTIFIER	COUNCIL/BODY/PERSON
NIL	NIL

NOTATIONS

STAGING This ~~is~~/is not a staged subdivision.
Planning permit No. P15/90

DEPTH LIMITATION 15·24 metres.

SURVEY. THIS PLAN IS/~~IS NOT~~ BASED ON SURVEY

THIS SURVEY HAS BEEN CONNECTED TO PERMANENT MARKS No.(s) 162, 571, 14
IN PROCLAIMED SURVEY AREA No. 39

EASEMENT INFORMATION

LEGEND A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

SECTION 12(2) OF THE SUBDIVISION ACT 1988 APPLIES TO THE LAND IN THIS PLAN.

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	WAY	SEE DIAG.	THIS PLAN	LOT ONE OF THIS PLAN.

LTO USE ONLY
STATEMENT OF COMPLIANCE/ EXEMPTION STATEMENT
RECEIVED ☑
DATE: 17 / 1 / 91

LTO USE ONLY
PLAN REGISTERED
TIME
DATE 12 / 3 / '91
A. Yates.
Assistant Registrar of Titles

SHEET 1 OF 3 SHEETS

LAND MANAGEMENT SURVEYS PTY LTD
30 WELSFORD STREET, SHEPPARTON.
P.O. BOX 416, SHEPPARTON, 3630.
Ph. (058) 21 9808.

LICENSED SURVEYOR (PRINT) MICHAEL ALAN TOLL
SIGNATURE ..... DATE 5 / 9 / 90
REF 2011 VERSION

DATE 30 / 11 / 90
COUNCIL DELEGATE SIGNATURE
ORIGINAL SHEET SIZE A3

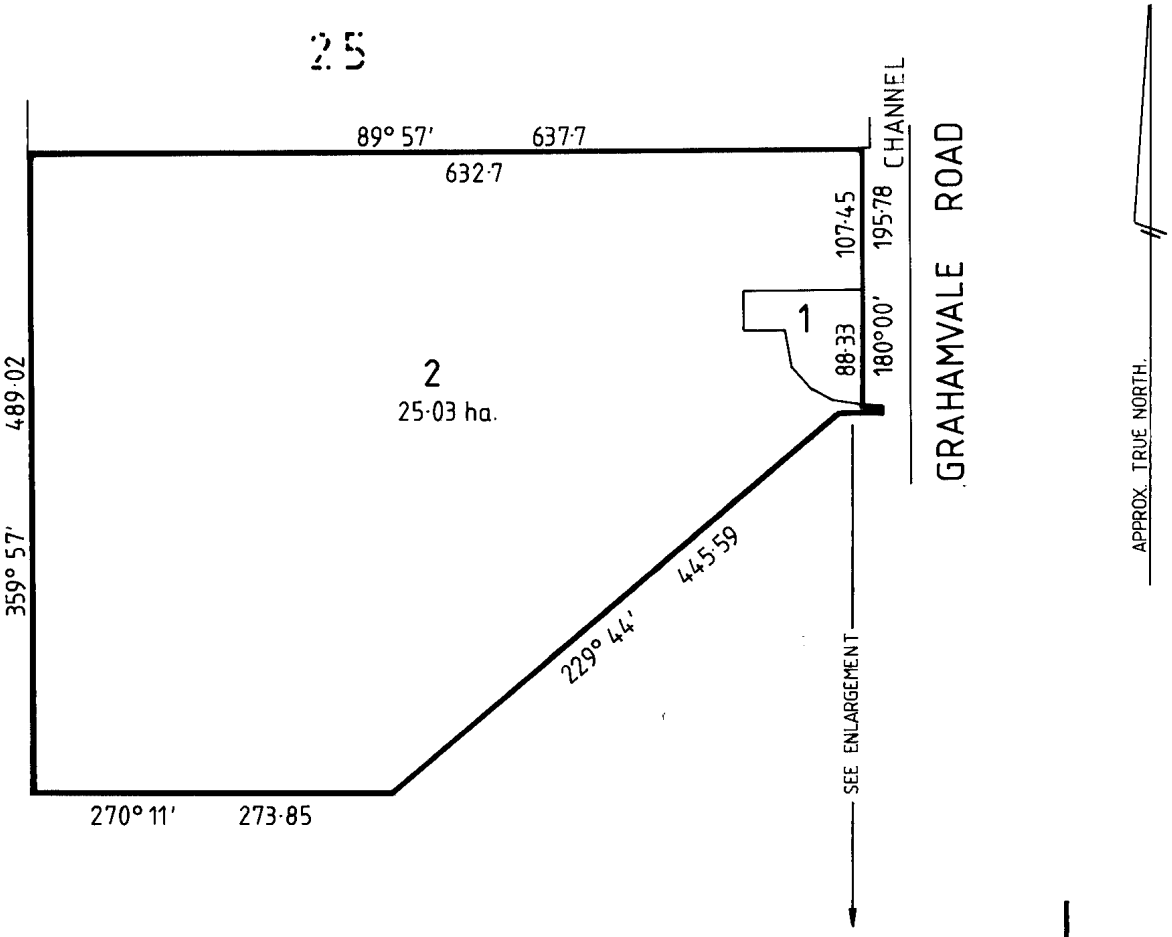
Delivered by LANDATA®. Land Victoria timestamp 24/09/2008 10:28 Page 2 of 3

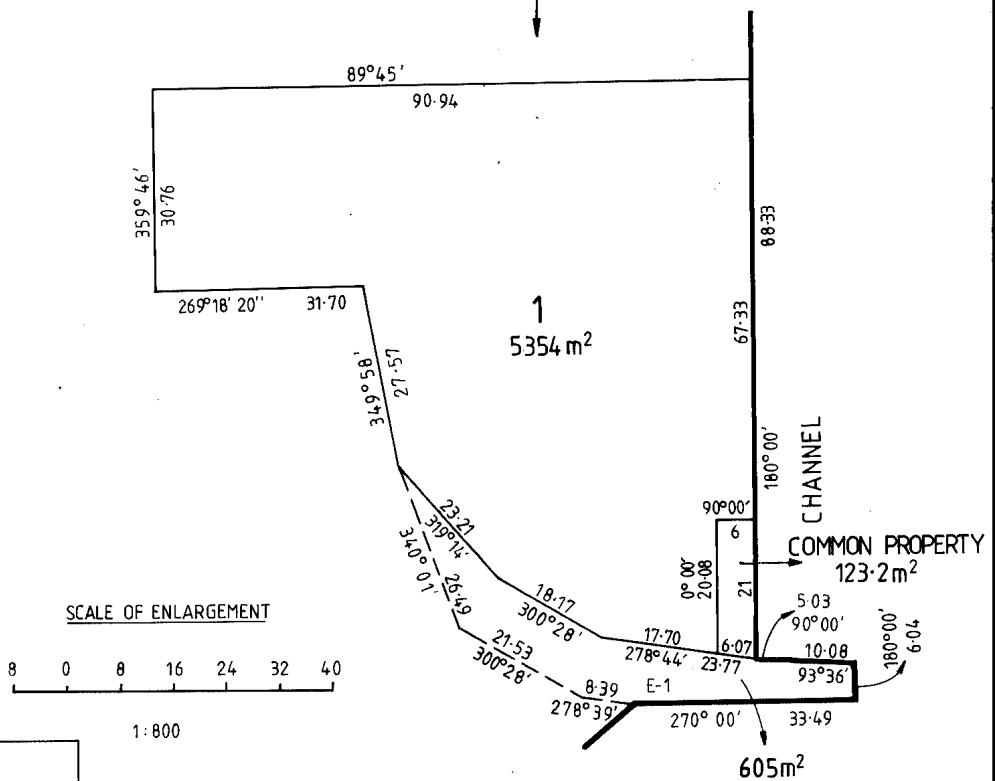
PLAN OF SUBDIVISION

STAGE No.

PLAN NUMBER **PS 303316 J**

25





SCALE OF ENLARGEMENT

8 0 8 16 24 32 40

1:800

LAND MANAGEMENT SERVICES PTY LTD
30 WELSFORD STREET,
SHEPPARTON.
P.O. BOX 416, SHEPPARTON, 3630.
Ph. (058) 21 9808.

40 0 40 80 120 160 200
LENGTHS ARE IN METRES

ORIGINAL

SCALE	SHEET SIZE
1 : 4000	A3

LICENSED SURVEYOR (PRINT) MICHAEL ALAN TOLL.

SIGNATURE ..... DATE 5 / 9 / 90.

REF 2011 VERSION

SHEET 2 OF 3 SHEETS

DATE 30 / 11 / 90

COUNCIL DELEGATE SIGNATURE

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150mm

Creffields PS03

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PS303316J

FOR CURRENT BODY CORPORATE DETAILS SEE BODY CORPORATE SEARCH REPORT

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Security no : 124027410144T

Volume 10007 Folio 420
Produced 24/09/2008 10:25 am

LAND DESCRIPTION

Lot 2 on Plan of Subdivision 303316J.
PARENT TITLE Volume 08037 Folio 153

REGISTERED PROPRIETOR

Estate Fee Simple
TENANTS IN COMMON
As to 1 of a total of 3 equal undivided shares
Sole Proprietor
JOHN SFETCOPOULOS of VERNEY ROAD SHEPPARTON 3630
As to 1 of a total of 3 equal undivided shares
Sole Proprietor
THOMAS SFETCOPOULOS of VERNEY ROAD SHEPPARTON 3630
As to 1 of a total of 3 equal undivided shares
Sole Proprietor
VICTOR SFETCOPOULOS of VERNEY ROAD SHEPPARTON 3630
R927757B

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE R927758X
NATIONAL AUSTRALIA BANK LTD

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS303316J FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NUMBER		STATUS	DATE
AF909778Y	WITHDRAWAL OF CAVEAT	Registered	17/06/2008

The following information is provided for customer information only.

Street Address: 139 GRAHAMVALE ROAD GRAHAMVALE VIC 3631

OWNERS CORPORATIONS

The land in this folio is affected by
OWNERS CORPORATION PLAN NO. PS303316J

STATEMENT END

Imaged Document Cover Sheet

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Document Type	**Plan**
Document Identification	**PS300727C**
Number of Pages (excluding this cover sheet)	**2**
Document Assembled	**24/09/2008 09:19**

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PLAN OF SUBDIVISION

STAGE NO. —

LTO use only **EDITION 1**

Plan Number **PS 300727C**

Location of Land

Parish: SHEPPARTON

Township: —

Section: C

Crown Allotment: 20 (PART)

Crown Portion: —

LTO Base Record: PARISH SH 2

Title Reference: C/T. VOL. 8099 FOL. 083

Last Plan Reference: —

Postal Address: VERNEY ROAD, SHEPPARTON 3630
(at time of subdivision)

AMG Co-ordinates (of approx. centre of land in plan) E 358120 N 5975520 Zone: 55

Council Certificate and Endorsement

Council Name: SHIRE OF SHEPPARTON Ref:

1. This plan is certified under section 6 of the Subdivision Act 1988.
2. ~~This plan is certified under section 11(7) of the Subdivision Act 1988.~~
   ~~Date of original certification under section 6 / /~~
3. This is a statement of compliance issued under section 21 of the Subdivision Act 1988.

OPEN SPACE

(i) A requirement for public open space under section 18 of the Subdivision Act 1988 ~~has/~~has not been made.

(ii) ~~The requirement has been satisfied.~~

(iii) ~~The requirement is to be satisfied in Stage~~.....

Council delegate
Council seal

Date 7 / 5 / 90

Re-certified under section 11(7) of the Subdivision Act 1988

Council Delegate
Council Seal

Date / /

Vesting of Roads and/or Reserves

Identifier	Council/Body/Person
ROAD R1	SHIRE OF SHEPPARTON

Notations

Staging This ~~is~~/is not a staged subdivision
Planning Permit No.

Depth Limitation
19.24 METRES BELOW THE SURFACE. APPLIES TO ALL THE LAND IN THE PLAN.

LOT ONE & THE ROAD ARE THE RESULT OF THIS SURVEY.

Survey This plan is/~~is not~~ based on survey

This survey has been connected to permanent marks no(s)
In Proclaimed Survey Area No.

Easement Information

Legend: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
R1	WAY, DRAINAGE, SEWERAGE & SUPPLY OF WATER, ELECTRICITY, TELEPHONE & GAS.	6	THIS PLAN	LAND IN THIS PLAN.

LTO use only

Statement of Compliance/ Exemption Statement

Received ☑

Date 8 / 6 / 90

LTO use only

PLAN REGISTERED

TIME

DATE 13 / 8 / 90

Assistant Registrar of Titles

Sheet 1 of 2 Sheets

CARR McNAMARA & MUIR PTY LTD
consulting engineers and surveyors
108 WYNDHAM STREET, SHEPPARTON, VIC, 3630. PO BOX 1088 TEL. (058) 21 1633

LICENSED SURVEYOR (PRINT) GRAEME L. FOLLETT

SIGNATURE..... DATE / /

REF 2786 VERSION 1

..... DATE / /

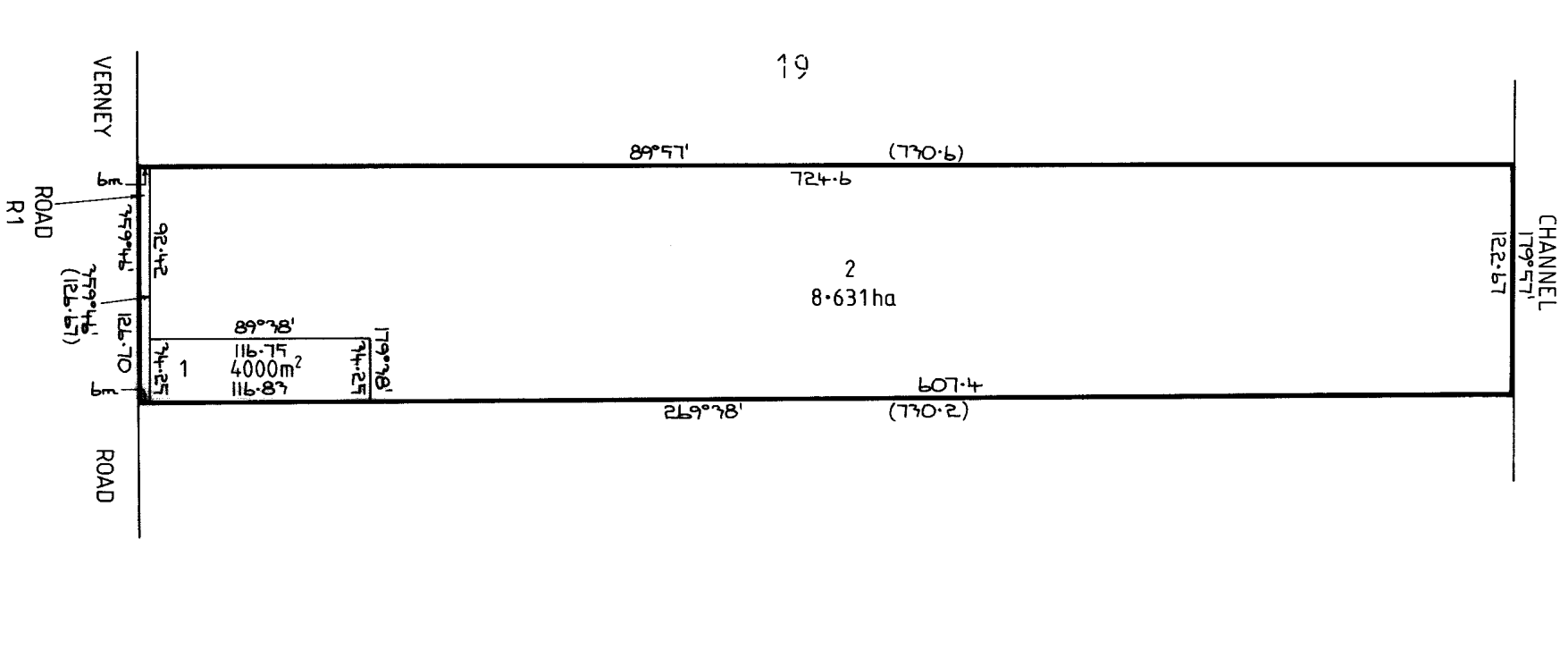
COUNCIL DELEGATE SIGNATURE

Original sheet size A3

TQ1

PLAN OF SUBDIVISION

Stage No.	Plan Number
—	PS 300727C



Sheet 2 of 2 Sheets

CARR McNAMARA & MUIR PTY LTD
consulting engineers and surveyors
108 WYNDHAM STREET, SHEPPARTON, VIC, 3630. PO BOX 1086 TEL. (058) 21 1633

ORIGINAL

SCALE	SHEET SIZE
1:2500	A3

SCALE
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LENGTHS ARE IN METRES

LICENSED SURVEYOR (PRINT) GRAEME L. FOLLETT
SIGNATURE ..... DATE / /
REF 2786 VERSION 1

.....
DATE / /
COUNCIL DELEGATE SIGNATURE

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 mm

T.O. 3

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Security no : 124027408067C

Volume 09968 Folio 584
Produced 24/09/2008 09:05 am

LAND DESCRIPTION

Lot 2 on Plan of Subdivision 300727C.
PARENT TITLE Volume 08099 Folio 083

REGISTERED PROPRIETOR

Estate Fee Simple
TENANTS IN COMMON
As to 2 of a total of 4 equal undivided shares
Sole Proprietor
OSMAN KAMBER of VERNEY ROAD SHEPPARTON 3630
As to 1 of a total of 4 equal undivided shares
Sole Proprietor
KAMBER KAMBER of VERNEY ROAD SHEPPARTON 3630
As to 1 of a total of 4 equal undivided shares
Sole Proprietor
REFAT KAMBER of VERNEY ROAD SHEPPARTON 3630

ENCUMBRANCES, CAVEATS AND NOTICES

CAVEAT AF468613N 14/11/2007
Caveator
SAM MONDOUS
Capacity PURCHASER/FEE SIMPLE
Lodged by
COMITO IACOVINO & CO
Notices to
COMITO IACOVINO & CO. SOLICITORS of 660 HIGH STREET THORNBURY VIC 3071

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS300727C FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

The following information is provided for customer information only.

Street Address: 165 VERNEY ROAD SHEPPARTON VIC 3630

STATEMENT END

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Security no : 124027408066B

Volume 09968 Folio 583
Produced 24/09/2008 09:05 am

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 300727C.
PARENT TITLE Volume 08099 Folio 083
Created by instrument PS300727C 13/08/1990

REGISTERED PROPRIETOR

Estate Fee Simple
Joint Proprietors
KAMBER KAMBER
SUSAN ROSE ANNE KAMBER both of VERNEY ROAD SHEPPARTON 3630
R443485Q

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE T848390V 01/09/1995
NATIONAL AUSTRALIA BANK LTD

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS300727C FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

The following information is provided for customer information only.

Street Address: 165 VERNEY ROAD SHEPPARTON VIC 3630

STATEMENT END

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Document Type	**Plan**
Document Identification	**TP844480M**
Number of Pages (excluding this cover sheet)	**1**
Document Assembled	**24/09/2008 09:20**

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Delivered by LANDATA®. Land Victoria timestamp 24/09/2008 09:19 Page 1 of 1

TITLE PLAN

EDITION 1

TP 844480M

LOCATION OF LAND

Parish: SHEPPARTON
Township: -
Section: C
Crown Allotment: 19
Crown Portion: -

Last Plan Reference: -
Derived From: VOL. 6963 FOL. 436
Depth Limitation: 15·24 METRES

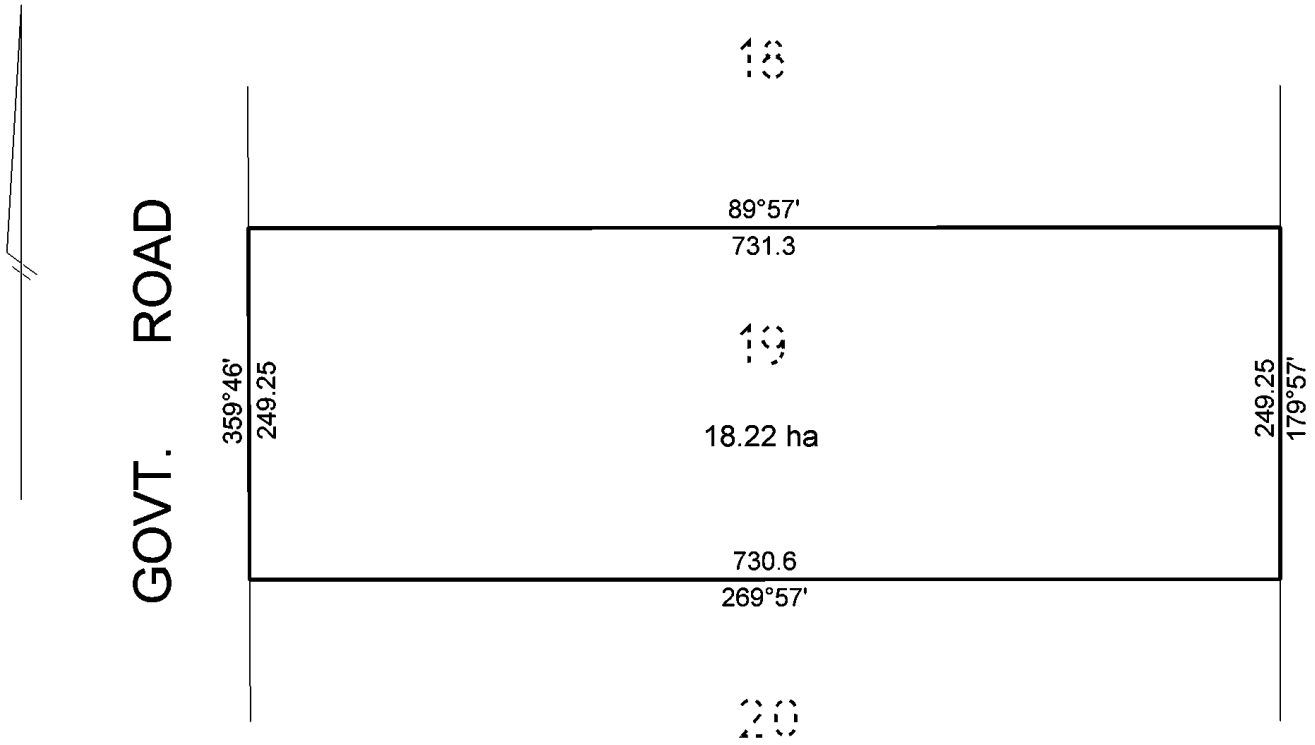
Notations

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land/Easement Information

THIS PLAN HAS BEEN PREPARED BY LAND REGISTRY, LAND VICTORIA FOR TITLE DIAGRAM PURPOSES

COMPILED: Date: 02/03/2006
VERIFIED: A. DALLAS
Assistant Registar of Titles



LENGTHS ARE IN METRES

Metres = 0.3048 Feet
Metres = 0.201168 x Links

Sheet 1 of 1 sheets

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State Government Victoria
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Security no : 124027408114A Volume 06963 Folio 436
Produced 24/09/2008 09:07 am

LAND DESCRIPTION

Crown Allotment 19 Section C Parish of Shepparton.
PARENT TITLE Volume 06857 Folio 239
Created by instrument 2022443 14/08/1946

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
MICHAEL BRUCE SMITH of VERNEY ROAD SHEPPARTON 3630
U370133L 22/08/1996

ENCUMBRANCES, CAVEATS AND NOTICES

CAVEAT AE328975T 03/05/2006
Caveator
SOUHAIL MONDOUS
NAILA MONDOUS
MARK RUSSELL BARTSCH
GENEVIEVE LOUISE MACGREGOR
FAROUK MIJRI
RENEE MIJRI
Capacity PURCHASER/FEE SIMPLE
Lodged by
COMITO & CO
Notices to
COMITO IACOVINO & CO.,SOLICITORS of 660 HIGH STREET THORNBURY VIC 3071

For details of any other encumbrances see the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP844480M FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

The following information is provided for customer information only.

Street Address: 185 VERNEY ROAD SHEPPARTON VIC 3630

STATEMENT END

Imaged Document Cover Sheet

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Document Type	**Plan**
Document Identification	**TP309345F**
Number of Pages (excluding this cover sheet)	**2**
Document Assembled	**24/09/2008 10:32**

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TITLE PLAN		EDITION 1	TP 309345F

Location of Land

Parish: SHEPPARTON
Township:
Section: C
Crown Allotment: 25
Crown Portion:

Last Plan Reference:
Derived From: VOL 6707 FOL 261
Depth Limitation: 50 FEET

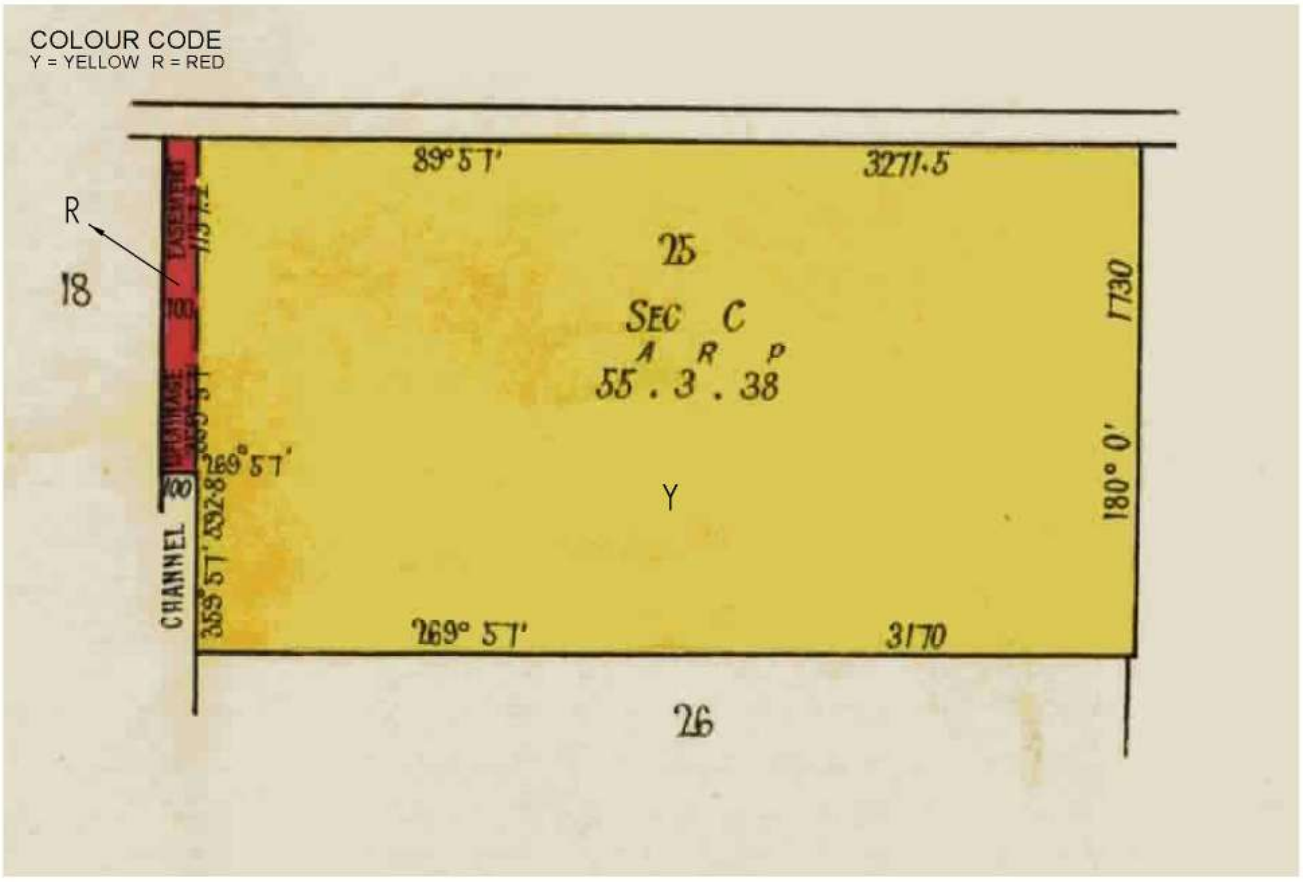
Notations

SUBJECT TO THE RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS CONTAINED IN CROWN GRANT VOL. 6707 FOL. 261 AND NOTED ON SHEET 2 OF THIS PLAN

ANY REFERENCE TO MAP IN THE TEXT MEANS THE DIAGRAM SHOWN ON THIS TITLE PLAN

Description of Land / Easement Information

THIS PLAN HAS BEEN PREPARED FOR THE LAND REGISTRY, LAND VICTORIA, FOR TITLE DIAGRAM PURPOSES AS PART OF THE LAND TITLES AUTOMATION PROJECT
COMPILED: 09/02/2000
VERIFIED: C.L.



LENGTHS ARE IN LINKS	Metres = 0.3048 x Feet Metres = 0.201168 x Links		Sheet 1 of 2 sheets

Delivered by LANDATA®. Land Victoria timestamp 24/09/2008 10:32 Page 2 of 2

LAND DESCRIPTION INCLUDING RESERVATIONS EXCEPTIONS CONDITIONS AND POWERS SHOWN ON THE CROWN GRANT

ALL THAT PIECE OF LAND in the said State containing fifty-five acres three roods and thirty-eight perches more or less being Allotment twenty-five of Section C in the Parish of Shepparton County of Moira

delineated with the measurements and abuttals thereof in the map drawn in the margin of these presents and therein colored yellow and red PROVIDED nevertheless that the grantee shall be entitled to sink wells for water and to the use and enjoyment of any wells or springs of water upon or within the boundaries of the said land for any and for all purposes as though he held the land without limitation as to depth EXCEPTING nevertheless unto Us Our heirs and successors all gold and silver and minerals as defined in the *Mines Act* 1928 in upon or under or within the boundaries of the land hereby granted AND reserving to Us Our heirs and successors free liberty and authority for Us Our heirs and successors and Our and their licensees agents and servants at any time or times hereafter to enter upon the said land and to search and mine therein for gold silver and minerals as aforesaid and to extract and remove therefrom any such gold silver and minerals and to search for and work dispose of and carry away the said gold silver and minerals lying in upon or under the land hereby granted and for the purposes aforesaid to sink shafts make drives erect machinery and to carry on any works and do any other things which may be necessary or usual in mining and with all other incidents that are necessary to be used for the getting of the said gold silver and minerals and the working of all mines seams lodes and deposits containing such gold silver and minerals in upon or under the land hereby granted AND ALSO reserving to Us Our heirs and successors—

(i) all petroleum as defined in the *Mines* (*Petroleum*) *Act* 1935 on or below the surface of the said land and

(ii) the right of access for the purpose of searching for and for the operations of obtaining such petroleum in any part or parts of the said land and

(iii) rights of way for access and for pipe-lines and other purposes necessary for obtaining and conveying such petroleum in the event of such petroleum being obtained in any part or parts of the said land

It is a further condition that the State Rivers and Water Supply Commission and its transferees shall have all that the full and free right and liberty to and for it and them and its and their servants agents and workmen at all times hereafter to enter in and upon so much of the said land as is approximately shown by red color in the said map and to clear the same of obstructions and to dig cut excavate and construct a ~~water~~ channel ~~and waterworks~~ for the purposes of ~~water supply and~~ drainage through in and upon the said land colored red in such manner and of such width depth and nature as the said Commission or its transferees may deem advisable and to use such channel ~~and waterworks~~ for ~~all~~ purposes of ~~water supply and~~ drainage and also to repair and alter the said channel ~~and waterworks~~ and also to deposit or place and allow to remain on or along the said land colored red or any part thereof all timber earth soil stone gravel or other substance matter or thing which may be removed or excavated in clearing the said land colored red or in the making or construction of the said channel ~~and waterworks~~ or in repairing or altering the same and also to go pass and repass for all the purposes aforesaid either with or without horses or other animals carts or other carriages through over and along the land colored red aforesaid.

PROVIDED ALWAYS that the said land is and shall be subject to be resumed for mining purposes under Section 168 of the *Land Act* 1928.

AND PROVIDED also that the said land is and shall be subject to the right of any person being the holder of a miner's right or of a mining lease or mineral lease under the *Mines Act* 1928 or any corresponding previous enactment to enter therein and to mine for gold silver or minerals within the meaning of the said Act and to erect and occupy mining plant or machinery thereon in the same manner and under the same conditions and provisions as those to which such person would for the time being be entitled to mine for gold and silver in and upon Crown lands PROVIDED that compensation shall be paid to the said GRANTEE his executors administrators assigns or transferees by such person for surface damage to be done to such land by reason of mining thereon such compensation to be determined as provided for the time being by law and the payment thereof to be a condition precedent to such right of entry.

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Security no : 124027410242M

Volume 06707 Folio 261
Produced 24/09/2008 10:28 am

CROWN GRANT

LAND DESCRIPTION

Crown Allotment 25 Section C Parish of Shepparton.

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
MAVIS JEAN DAINTON of FORD RD SHEPPARTON 3630
T143645D 16/06/1994

ENCUMBRANCES, CAVEATS AND NOTICES

CAVEAT AF626873G 04/02/2008
Caveator
NORDIC PTY LTD
Capacity PURCHASER/FEE SIMPLE
Lodged by
COMITO IACOVINO & CO
Notices to
C0MITO IACOVINO & CO of 660 HIGH STREET THORNBURY VIC 3071

Any crown grant reservations exceptions conditions limitations and powers noted on the plan or imaged folio set out under DIAGRAM LOCATION below. For details of any other encumbrances see the plan or imaged folio set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE TP309345F FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

The following information is provided for customer information only.

Street Address: 240 FORD ROAD GRAHAMVALE VIC 3631

STATEMENT END

Property Report from **www.land.vic.gov.au** on 15 September 2008 03:01 PM

Lot and Plan Number: Lot 2 PS303316
Address: 139 GRAHAMVALE ROAD GRAHAMVALE 3631
Standard Parcel Identifier (SPI): 2\PS303316
Local Government (Council): GREATER SHEPPARTON **Council Property Number:** 181683
Directory Reference: Vicroads 673 T3

State Electorates

Legislative Council: NORTHERN VICTORIA (2005)
Legislative Assembly: SHEPPARTON (2001)

Utilities

Regional Urban Water Business: Goulburn Valley Water
Rural Water Business: Goulburn-Murray Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE
Planning Overlay: None

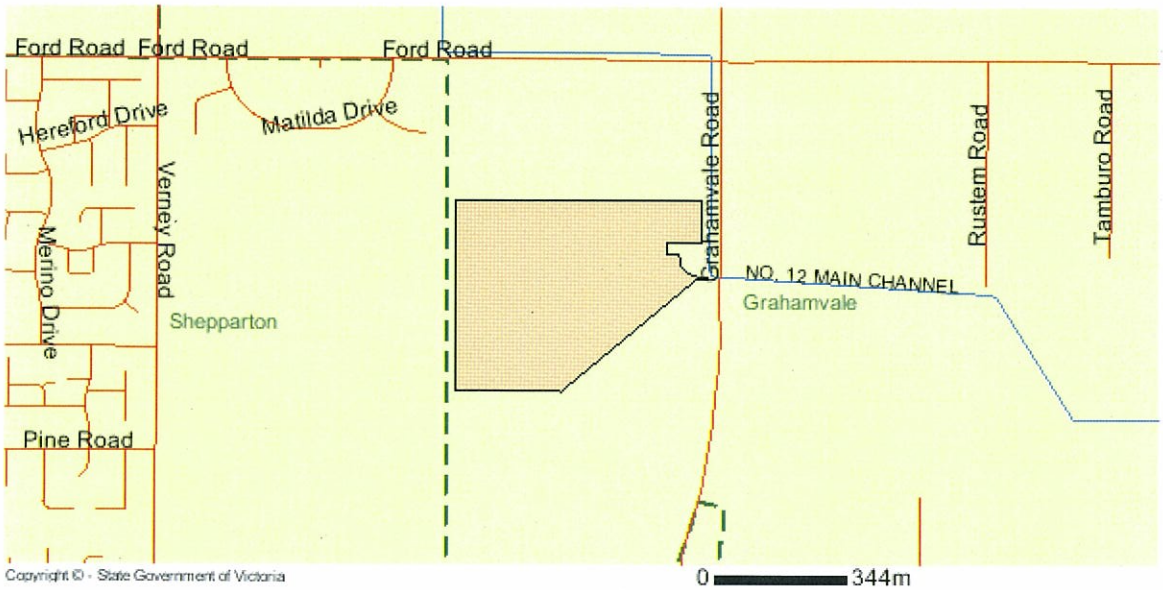
Planning scheme data last updated on 11 September 2008.

This report is not a substitute for a Planning Certificate.

For a **Planning Certificate** (provides statutory protection under Section 200, Planning & Environment Act 1987) go to Titles and Property Certificates

For complete **Planning Scheme Provisions** go to Planning Schemes Online

Area Map



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Property Report from **www.land.vic.gov.au** on 15 September 2008 03:09 PM

Crown Description: Allot. 25 Sec. C PARISH OF SHEPPARTON
Address: 240 FORD ROAD GRAHAMVALE 3631
Standard Parcel Identifier (SPI): 25~C\PP3486
Local Government (Council): GREATER SHEPPARTON **Council Property Number:** 181589
Directory Reference: Vicroads 673 T2

State Electorates

Legislative Council: NORTHERN VICTORIA (2005)
Legislative Assembly: SHEPPARTON (2001)

Utilities

Regional Urban Water Business: Goulburn Valley Water
Rural Water Business: Goulburn-Murray Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE
Planning Overlay: None

Planning scheme data last updated on 11 September 2008.

This report is not a substitute for a Planning Certificate.

For a **Planning Certificate** (provides statutory protection under Section 200, Planning & Environment Act 1987) go to Titles and Property Certificates

For complete **Planning Scheme Provisions** go to Planning Schemes Online

Area Map

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Land
.vic.gov.au

Property Report from www.land.vic.gov.au on 15 September 2008 03:00 PM

Crown Description: Allot. 28A Sec. C PARISH OF SHEPPARTON
Address: 65 GRAHAMVALE ROAD GRAHAMVALE 3631
Standard Parcel Identifier (SPI): 28A~C\PP3486
Local Government (Council): GREATER SHEPPARTON **Council Property Number:** 181720 (Part)
Directory Reference: Vicroads 673 T4
Note: This parcel is part of a property. Try searching by address to find the details of the property.

Parcel Details

This is 1 parcel of 2 parcels comprising the property.The parcel searched for is marked with an * in the table below.

Lot/Plan or Crown Description	SPI
PARISH OF SHEPPARTON Allot. 28 Sec. C	28~C\PP3486
*Allot. 28A Sec. C	28A~C\PP3486

State Electorates

Legislative Council: NORTHERN VICTORIA (2005)
Legislative Assembly: SHEPPARTON (2001)

Utilities

Regional Urban Water Business: Goulburn Valley Water
Rural Water Business: Goulburn-Murray Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE
Planning Overlay: None

Planning scheme data last updated on 11 September 2008.

This report is not a substitute for a Planning Certificate.

For a **Planning Certificate** (provides statutory protection under Section 200, Planning & Environment Act 1987) go to Titles and Property Certificates

For complete **Planning Scheme Provisions** go to Planning Schemes Online

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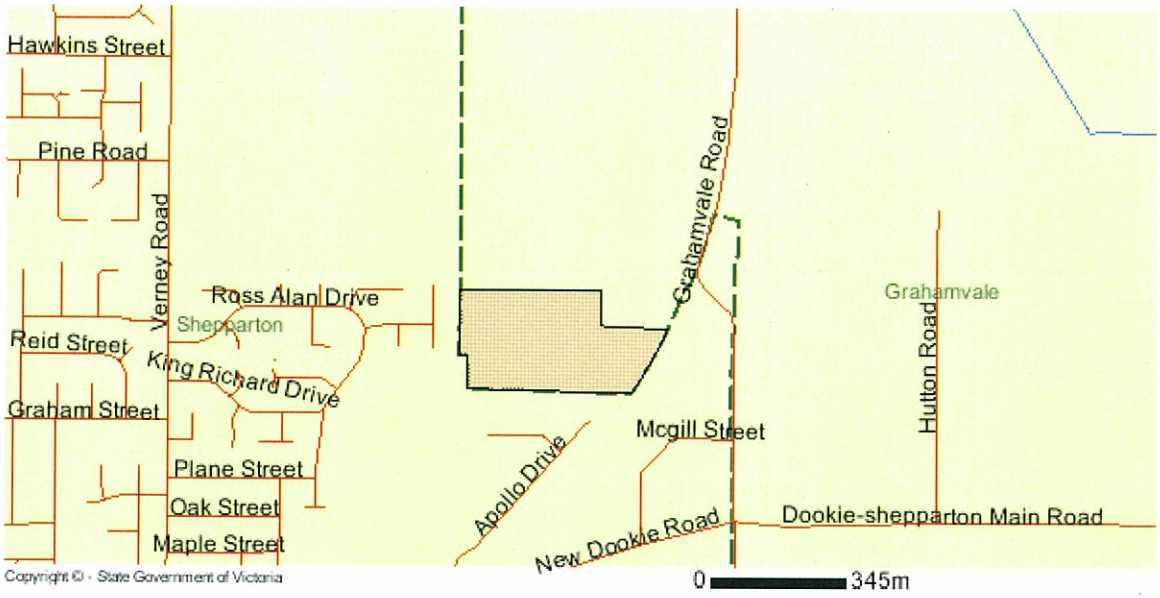
Area Map



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Property Report from www.land.vic.gov.au on 15 September 2008 03:01 PM

Crown Description: Allot. 28 Sec. C PARISH OF SHEPPARTON
Address: 65 GRAHAMVALE ROAD GRAHAMVALE 3631
Standard Parcel Identifier (SPI): 28~C\PP3486
Local Government (Council): GREATER SHEPPARTON **Council Property Number:** 181720 (Part)
Directory Reference: Vicroads 673 T4
Note: This parcel is part of a property. Try searching by address to find the details of the property.

Parcel Details

This is 1 parcel of 2 parcels comprising the property.The parcel searched for is marked with an * in the table below.

Lot/Plan or Crown Description	SPI
PARISH OF SHEPPARTON *Allot. 28 Sec. C	28~C\PP3486
Allot. 28A Sec. C	28A~C\PP3486

State Electorates

Legislative Council: NORTHERN VICTORIA (2005)
Legislative Assembly: SHEPPARTON (2001)

Utilities

Regional Urban Water Business: Goulburn Valley Water
Rural Water Business: Goulburn-Murray Water
Melbourne Water: outside drainage boundary
Power Distributor: POWERCOR (Information about choosing an electricity retailer)

Planning Zone Summary

Planning Zone: FARMING ZONE (FZ)
SCHEDULE TO THE FARMING ZONE
Planning Overlay: None

Planning scheme data last updated on 11 September 2008.

This report is not a substitute for a Planning Certificate.

For a **Planning Certificate** (provides statutory protection under Section 200, Planning & Environment Act 1987) go to Titles and Property Certificates

For complete **Planning Scheme Provisions** go to Planning Schemes Online

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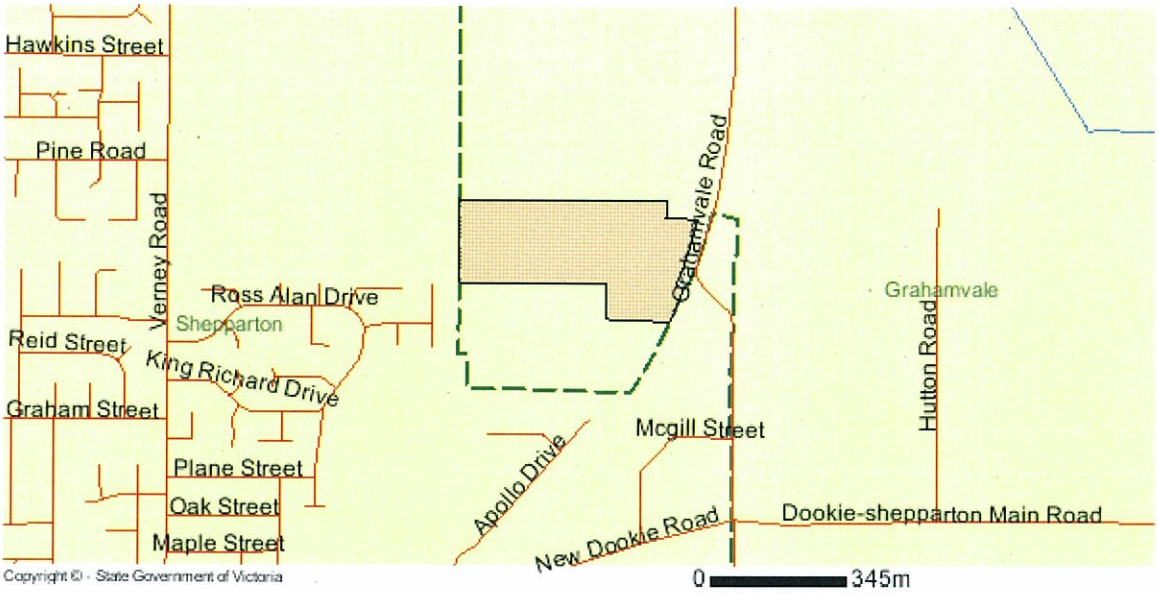
Victoria The Place To Be

Area Map



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Extract of EPA Priority Site Register

**** Delivered by the LANDATA® System, Department of Sustainability and Environment ****

PROPERTY INQUIRY DETAILS:

STREET ADDRESS: 240 FORD ROAD
SUBURB: SHEPPARTON
MUNICIPALITY: CITY OF GREATER SHEPPARTON
MAP REFERENCE: Vicroads Sixth Edition, State Directory, Map 32 Reference H7

DATE OF SEARCH: 24th September 2008

PRIORITY SITES REGISTER REPORT:

A search of the Priority Sites Register for the above map reference, corresponding to the address given above, has indicated that this site is located at, or in the vicinity of, the following sites listed on the Priority Sites Register at the above date.

LIST OF SITES:

44 WANGANUI RD SHEPPARTON NORTH	Solid inert waste has been dumped at the site. Requires assessment and/or clean up.

If the subject property is NOT in this list, then as of the above date, it is not listed on the Priority Sites Register.

IMPORTANT INFORMATION ABOUT THE PRIORITY SITES REGISTER:

You should be aware that the Priority Sites Register lists only those sites for which EPA has requirements for active management of land and groundwater contamination. Appropriate clean up and management of these sites is an EPA priority, and as such, EPA has issued either a:

Clean Up Notice pursuant to section 62A, or a
Pollution Abatement Notice pursuant to section 31A or 31B

of the Environment Protection Act 1970 on the occupier of the site to require active management of these sites.

The Priority Sites Register does not list all sites known to be contaminated in Victoria. A site should not be presumed to be free of contamination just because it does not appear on the Priority Sites Register.

Persons intending to enter into property transactions should be aware that many properties may have been contaminated by past land uses and EPA may not be aware of the presence of contamination. EPA has published information advising of potential contaminating land uses. Municipal planning authorities hold information about previous land uses, and it is advisable that such sources of information also be consulted.

For sites listed on the Priority Sites Register, a copy of the relevant Notice, detailing the reasons for issue of the Notice, and management requirements, is

Extract of EPA Priority Site Register

**** Delivered by the LANDATA® System, Department of Sustainability and Environment ****

available on request from EPA for $8 per Notice.

For more information relating to the Priority Sites Register, refer to EPA contaminated site information bulletin: Priority Sites Register & Contaminated Land Audit Site Listing (EPA Publication 735). For a copy of this publication, copies of relevant Notices, or for more information relating to sites listed on the Priority Sites Register, please contact EPA as given below:

EPA Information Centre
Herald & Weekly Times Tower
40 City Road, Southbank 3006
Tel: (03)9695 2700 Fax:(03)9695 2710

[Extract of Priority Sites Register] # 8569301 - 8569301090847 '240 Ford Road, Shepparton'

Appendix D

Soil Contamination Assessment Laboratory Results

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Chain of Custody

ENSR | AECOM

ENSR Australia Pty Ltd - Melbourne
Level 6, 417 St Kilda Road
Melbourne VIC 3004
Tel: 61 3 8699 2199
Fax: 61 3 8699 2122
E-mail: Simon.Scott@ensr.aecom.com

Laboratory Details

Lab. Name: MGT Environmental
Lab. Address: 3 Kingston Town Close
Contact Name: Michael Wright
Lab. Ref:
Tel: 03 9564 7055
Fax: 03 9564 7190
Preliminary Report by:
Final Report by:
Lab Quote No:

Sampled By: Jason Perry
ENSR Project No: M60048301
Project Name: Shepparton NE Growth Corridor
PO No.

Specifications: QC1 and QC2 to be sent to ALS as triplicate samples for the same analyses. 5-day turnaround time.

	Yes (tick)
1. Urgent TAT required? (please circle: 24hr 48hr 5 days)	
2. Fast TAT Guarantee Required?	
3. Is any sediment layer present in waters to be excluded from extractions?	
4. % extraneous material removed from samples to be reported as per NEPM 5.1.1?	
5. Special storage requirements? (details: _____)	
6. Shell Quality Partnership:	
7. Report Format: ☐ Fax ☐ Hardcopy ☐ Email : Simon.Scott@ensr.aecom.com	

Lab. ID	Sample ID	Sampling Date	Matrix			Preservation				Container	Analysis Request																Other				
			soil	water	other	filt'ed	acid	ice	other	(No. & type)	Metals	Organochlorine Pesticides	Organophosphorus Pesticides	Phenoxyacid Herbicides																	
	SS-1	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-2	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-3	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-4	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-5	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-6	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-7	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-8	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-9	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	SS-10	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	QC1	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	
	QC2	2/09/2008	X					X		1/Glass Jar	X	X	X	X																	

* Metals Required (Delete elements not required): As Cd Cr Cu Ni Pb Zn Hg

Comments:

Lab Report No.

Esky ID

Relinquished by:	Jason Perry	Signed:	Date: 4/9/08	Relinquished by:	Signed: Date:
Recieved by:	MGT	Signed:	Date: 4/9/08 1:00	Recieved by:	Signed: Date:

POD 233086

mgt Environmental Consulting Pty. Ltd.

3 Kingston Town Close, Oakleigh, Victoria 3166, Australia
Postal address: P. O. Box 276, Oakleigh, Victoria 3166, Australia
Telephone: (03) 9564 7055
Fax: (03) 9564 7190
Email: mgt@mgtenv.com.au

CERTIFICATE OF ANALYSIS

ENSR Australia P/L - Melbourne
Lvl 6, 417 St Kilda Rd
Melbourne
Victoria 3004
Site: SHEPPARTON NE GROWTH CORRIDOR
M60048301

Report Number: 233086 Page 1 of 13
Order Number:
Date Received: Sep 4, 2008
Date Sampled: Sep 2, 2008
Date Reported: Sep 19, 2008
Contact: Simon Scott

Methods

- MGT 200A Acid Herbicides
- USEPA 6010B Heavy Metals & USEPA 7470/71 Mercury
- USEPA 8141A Organophosphorus Pesticides
- USEPA 8081A Organochlorine Pesticides
- Method 102 - ANZECC - % Moisture

Comments

Notes

1. The results in this report supersede any previously corresponded results.
2. All Soil Results are reported on a dry basis.
3. Samples are analysed on an as received basis.
4. LOR's are matrix dependent. Stated LOR's may be raised where sample extracts are diluted due to interferences.

ABBREVIATIONS
mg/kg : milligrams per kilograms, mg/L : milligrams per litre, ppm : parts per million,
LOR : Limit of Reporting
RPD : Relative Percent Difference
CRM : Certified Reference Material
LCS : Laboratory Control Sample

Authorised

Report Number: 233086

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Laboratory Manager
NATA Signatory

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NATA
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Laboratory Number 1261
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Environmental Laboratory Industry Group
Member

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ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID		SS-1	SS-2	SS-3	SS-4
	Lab Number		08-Se01565	08-Se01566	08-Se01567	08-Se01568
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	0.14	0.78	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	2.9	0.54	0.93	0.16
4.4'-DDT	0.05	mg/kg	0.97	2.3	0.14	< 0.1
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.5	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	143	120	134	110
Tetrachloro-m-xylene (surr.)	1	%	148	122	144	89
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5

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ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID		SS-1	SS-2	SS-3	SS-4
	Lab Number		08-Se01565	08-Se01566	08-Se01567	08-Se01568
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**				
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.5
Triphenylphosphate (surr.)	1	%	57	76	68	88
Acid Herbicides						
2.4-D	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dicamba	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPA	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

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ENSR Australia P/L - Melbourne	Client Sample ID		SS-1	SS-2	SS-3	SS-4
Lvl 6, 417 St Kilda Rd	Lab Number		08-Se01565	08-Se01566	08-Se01567	08-Se01568
Melbourne	Matrix		Soil	Soil	Soil	Soil
Victoria 3004	Sample Date		Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**				
Warfarin (surr)	1	%	120	130	140	120
% Moisture	0.1	%	13	8.0	15	15
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2.0	mg/kg	6.0	3.9	13	28
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.5	mg/kg	0.9	< 0.5	1.1	< 0.5
Chromium	5	mg/kg	23	24	21	29
Cobalt	5	mg/kg	5.2	< 5	< 5	7.3
Copper	5	mg/kg	110	49	45	100
Lead	5	mg/kg	51	45	36	69
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Nickel	5	mg/kg	10	12	8.5	19
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	140	66	22	79

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ENSR Australia P/L - Melbourne	Client Sample ID		SS-5	SS-6	SS-7	SS-8
Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Lab Number		08-Se01569	08-Se01570	08-Se01571	08-Se01572
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**				
Organochlorine Pesticides						
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	0.05	< 0.05
4.4'-DDE	0.05	mg/kg	0.27	0.25	1.4	0.30
4.4'-DDT	0.05	mg/kg	< 0.1	1.8	0.71	0.14
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	0.24	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	0.20	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	1.1	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	0.29	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	137	140	104	124
Tetrachloro-m-xylene (surr.)	1	%	139	135	118	133
Organophosphorous Pesticides						
Bolstar	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

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ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID		SS-5	SS-6	SS-7	SS-8
	Lab Number		08-Se01569	08-Se01570	08-Se01571	08-Se01572
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**				
Disulfoton	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	88	88	80	65
Acid Herbicides						
2.4-D	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dicamba	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPA	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
MCPB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

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ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID		SS-5	SS-6	SS-7	SS-8
	Lab Number		08-Se01569	08-Se01570	08-Se01571	08-Se01572
	Matrix		Soil	Soil	Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	LOR	Units				
Warfarin (surr)	1	%	120	140	120	120
% Moisture	0.1	%	12	20	20	16
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2.0	mg/kg	7.8	4.8	10	26
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	5	mg/kg	18	41	19	13
Cobalt	5	mg/kg	< 5	9.3	< 5	< 5
Copper	5	mg/kg	150	89	63	49
Lead	5	mg/kg	35	880	40	96
Mercury	0.1	mg/kg	< 0.1	0.2	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Nickel	5	mg/kg	8.1	21	8.8	5.8
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Tin	10	mg/kg	< 10	160	< 10	< 10
Zinc	5	mg/kg	80	180	59	31

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ENSR Australia P/L - Melbourne	Client Sample ID		SS-9	SS-10
Lvl 6, 417 St Kilda Rd	Lab Number		08-Se01573	08-Se01574
Melbourne	Matrix		Soil	Soil
Victoria 3004	Sample Date		Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**		
Organochlorine Pesticides				
4.4'-DDD	0.05	mg/kg	0.12	< 0.05
4.4'-DDE	0.05	mg/kg	0.70	0.05
4.4'-DDT	0.05	mg/kg	0.52	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05
Chlordane	0.1	mg/kg	< 0.1	< 0.1
d-BHC	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxophene	0.1	mg/kg	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	116	106
Tetrachloro-m-xylene (surr.)	1	%	117	105
Organophosphorous Pesticides				
Bolstar	0.2	mg/kg	< 0.2	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2	< 0.2
Coumaphos	0.2	mg/kg	< 0.2	< 0.2
Demeton-O	0.2	mg/kg	< 0.2	< 0.2
Diazinon	0.2	mg/kg	< 0.2	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2	< 0.2

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ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID		SS-9	SS-10
	Lab Number		08-Se01573	08-Se01574
	Matrix		Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**		
Disulfoton	0.2	mg/kg	< 0.2	< 0.2
Ethion	0.2	mg/kg	< 0.2	< 0.2
Ethoprop	0.2	mg/kg	< 0.2	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2	< 0.2
Fenthion	0.2	mg/kg	< 0.2	< 0.2
Merphos	0.2	mg/kg	< 0.2	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2	< 0.2
Mevinphos	0.2	mg/kg	< 0.2	< 0.2
Naled	0.2	mg/kg	< 0.2	< 0.2
Phorate	0.2	mg/kg	< 0.2	< 0.2
Ronnel	0.2	mg/kg	< 0.2	< 0.2
Tokuthion	0.2	mg/kg	< 0.2	< 0.2
Trichloronate	0.2	mg/kg	< 0.2	< 0.2
Triphenylphosphate (surr.)	1	%	67	69
Acid Herbicides				
2.4-D	0.5	mg/kg	< 0.5	< 0.5
2.4-DB	0.5	mg/kg	< 0.5	< 0.5
2.4.5-T	0.5	mg/kg	< 0.5	< 0.5
2.4.5-TP	0.5	mg/kg	< 0.5	< 0.5
Actril (loxynil)	0.5	mg/kg	< 0.5	< 0.5
Dicamba	0.5	mg/kg	< 0.5	< 0.5
Dichlorprop	0.5	mg/kg	< 0.5	< 0.5
Dinitro-o-cresol	0.5	mg/kg	< 0.5	< 0.5
Dinoseb	0.5	mg/kg	< 0.5	< 0.5
MCPA	0.5	mg/kg	< 0.5	< 0.5
MCPB	0.5	mg/kg	< 0.5	< 0.5
Mecoprop	0.5	mg/kg	< 0.5	< 0.5

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ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID		SS-9	SS-10
	Lab Number		08-Se01573	08-Se01574
	Matrix		Soil	Soil
	Sample Date		Sep 2, 2008	Sep 2, 2008
Analysis Type	**LOR**	**Units**		
Warfarin (surr)	1	%	120	130
% Moisture	0.1	%	14	7.6
Heavy Metals				
Antimony	10	mg/kg	< 10	< 10
Arsenic	2.0	mg/kg	91	7.7
Beryllium	2	mg/kg	< 2	< 2
Cadmium	0.5	mg/kg	< 0.5	< 0.5
Chromium	5	mg/kg	21	58
Cobalt	5	mg/kg	< 5	13
Copper	5	mg/kg	90	38
Lead	5	mg/kg	220	14
Mercury	0.1	mg/kg	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10
Nickel	5	mg/kg	8.1	51
Selenium	2	mg/kg	< 2	< 2
Tin	10	mg/kg	< 10	< 10
Zinc	5	mg/kg	65	83

COMMENTS:

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Postal address: P. O. Box 276, Oakleigh, Victoria 3166, Australia
Telephone: (03) 9564 7055
Fax: (03) 9564 7190
Email: mgt@mgtenv.com.au

ENSR Australia P/L - Melbourne Lvl 6, 417 St Kilda Rd Melbourne Victoria 3004	Client Sample ID	SS-1	SS-1	RPD	SPIKE	LCS	Method blank
	Lab Number	08-Se01565	08-Se01565	08-Se01565	08-Se01565	Batch	Batch
	QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
	Matrix	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type	Units			% RPD	% Recovery	% Recovery	mg/L
Organochlorine Pesticides							
4.4'-DDD		-	-	< 1	128	78	< 0.005
4.4'-DDE		2.9	2.9	< 1	108	89	< 0.005
4.4'-DDT		0.97	0.98	1.2	98	95	< 0.005
a-BHC		< 0.05	< 0.05	< 1	112	89	< 0.005
Aldrin		< 0.05	< 0.05	< 1	112	96	< 0.005
b-BHC		< 0.05	< 0.05	< 1	127	91	< 0.005
Chlordane		< 0.1	< 0.1	< 1	71	-	< 0.01
d-BHC		< 0.05	< 0.05	< 1	129	102	< 0:005
Dieldrin		< 0.5	< 0.05	< 1	118	90	< 0.005
Endosulfan I		< 0.05	< 0.05	< 1	114	101	< 0.005
Endosulfan II		< 0.05	< 0.05	< 1	126	96	< 0.005
Endosulfan sulphate		< 0.05	< 0.05	< 1	100	96	< 0.005
Endrin		< 0.05	< 0.05	< 1	126	112	< 0.005
Endrin aldehyde		< 0.05	< 0.05	< 1	88	75	< 0.005
Endrin ketone		< 0.05	< 0.05	< 1	99	90	< 0.005
g-BHC (Lindane)		< 0.05	< 0.05	< 1	112	100	< 0.005
Heptachlor		< 0.05	< 0.05	< 1	126	95	< 0.005
Heptachlor epoxide		< 0.05	< 0.05	< 1	103	97	< 0.005
Hexachlorobenzene		< 0.05	< 0.05	< 1	118	87	< 0.005
Methoxychlor		< 0.05	< 0.05	< 1	95	127	< 0.005
Toxophene		< 0.1	< 0.1	< 1	89	-	< 0.01
Dibutylchlorendate (surr.)		143	117	-	98	117	89
Tetrachloro-m-xylene (surr.)		148	138	-	104	119	86
Organophosphorous Pesticides							
Bolstar		< 0.2	< 0.2	< 1	-	-	< 0.002
Chlorpyrifos		< 0.2	< 0.2	< 1	-	-	< 0.002
Coumaphos		< 0.2	< 0.2	< 1	-	-	< 0.002
Demeton-O		< 0.2	< 0.2	< 1	-	-	< 0.002

COMMENTS:

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ENSR Australia P/L - Melbourne
Lvl 6, 417 St Kilda Rd
Melbourne

Victoria 3004

Client Sample	SS-1	SS-1	RPD	SPIKE	LCS	Method blank
Lab Number	08-Se01565	08-Se01565	08-Se01565	08-Se01565	Batch	Batch
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type / Units			% RPD	% Recovery	% Recovery	mg/L
Organophosphorous Pesticides						
Diazinon	< 0.2	< 0.2	< 1	94	80	< 0.002
Dichlorvos	< 0.2	< 0.2	< 1	-	-	< 0.002
Disulfoton	< 0.2	< 0.2	< 1	-	-	< 0.002
Ethion	< 0.2	< 0.2	< 1	96	105	< 0.002
Ethoprop	< 0.2	< 0.2	< 1	-	-	< 0.002
Fenitrothion	< 0.2	< 0.2	< 1	100	115	< 0.002
Fensulfothion	< 0.2	< 0.2	< 1	-	-	< 0.002
Fenthion	< 0.2	< 0.2	< 1	-	-	< 0.002
Merphos	< 0.2	< 0.2	< 1	-	-	< 0.002
Methyl azinphos	< 0.2	< 0.2	< 1	-	-	< 0.002
Methyl parathion	< 0.2	< 0.2	< 1	113	123	< 0.002
Mevinphos	< 0.2	< 0.2	< 1	107	104	< 0.002
Naled	< 0.2	< 0.2	< 1	-	-	< 0.002
Phorate	< 0.2	< 0.2	< 1	-	-	< 0.002
Ronnel	< 0.2	< 0.2	< 1	-	-	< 0.002
Tokuthion	< 0.2	< 0.2	< 1	-	-	< 0.002
Trichloronate	< 0.2	< 0.2	< 1	-	-	< 0.002
Triphenylphosphate (surr.)	57	61	-	81	-	96
Heavy Metals						
Antimony	< 10	< 10	< 1	91	105	< 0.25
Arsenic	6.0	6.0	< 1	100	109	< 0.05
Beryllium	< 2	< 2	< 1	98	114	< 0.2
Cadmium	0.9	1.1	< 1	100	111	< 0.02
Chromium	23	26	15	102	116	< 0.2
Cobalt	5.2	5.3	< 1	91	109	< 0.2
Copper	110	110	3.6	106	113	< 0.2
Lead	51	60	17	99	107	< 0.05
Mercury	< 0.1	< 0.1	< 1	71	96	< 0.005

COMMENTS:

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Email: mgt@mgtenv.com.au

ENSR Australia P/L - Melbourne
Lvl 6, 417 St Kilda Rd
Melbourne

Victoria 3004

Client Sample	SS-1	SS-1	RPD	SPIKE	LCS	Method blank
Lab Number	08-Se01565	08-Se01565	08-Se01565	08-Se01565	Batch	Batch
QA Description		Duplicate	Duplicate % RPD	Spike % Recovery	% Recovery	
Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008	Sep 2, 2008
Analysis Type / Units			% RPD	% Recovery	% Recovery	mg/L
Heavy Metals						
Molybdenum	< 10	< 10	< 1	97	116	< 0.25
Nickel	10	11	1.8	96	119	< 0.2
Selenium	< 2	< 2	< 1	81	103	< 0.05
Tin	< 10	< 10	< 1	99	116	< 0.25
Zinc	140	170	16	106	109	< 0.2
Acid Herbicides						
2.4-D	< 0.5	< 0.5	-	-	-	< 0.05
2.4-DB	< 0.5	< 0.5	-	-	-	< 0.05
2.4.5-T	< 0.5	< 0.5	-	-	-	< 0.05
2.4.5-TP	< 0.5	< 0.5	-	-	-	< 0.05
Actril (loxynil)	< 0.5	< 0.5	-	-	-	< 0.05
Dicamba	< 0.5	< 0.5	-	-	-	< 0.05
Dichlorprop	< 0.5	< 0.5	-	-	-	< 0.05
Dinitro-o-cresol	< 0.5	< 0.5	-	-	-	< 0.05
Dinoseb	< 0.5	< 0.5	-	-	-	< 0.05
MCPA	< 0.5	< 0.5	-	-	-	< 0.05
MCPB	< 0.5	< 0.5	-	-	-	< 0.05
Mecoprop	< 0.5	< 0.5	-	-	-	< 0.05
Warfarin (surr)	120	120	-	-	-	120

COMMENTS:

Environmental Consulting Pty. Ltd.

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Sample Receipt Advice

Company name:	ENSR Australia P/L-Melb
Contact name:	Simon Scott
Client job number:	SHEPPARTON NE GROWTH CORRIDOR M60048301
COC number:	Not provided
Turn around time:	Five day
Date received:	Sep 4, 2008
MGT lab reference:	233086

Sample information

- ☑ All samples have been received as described on the above COC.
- ☑ COC has been completed correctly.
- ☑ All samples were provided chilled.
- ☑ Appropriately preserved sample containers have been used.
- ☑ All samples were received in good condition.
- ☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

Contact notes

If you have any questions with respect to these samples please contact:

Rhonda Chouman on the above number or by e.mail:
rchouman@mgtenv.com.au

Results will be delivered electronically via e.mail to Simon Scott - simon.scott@ensr.aecom.com.

mgt Sample Receipt

Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: **EM0807384**	Page	: 1 of 6
Client	: ENSR AUSTRALIA PTY LIMITED	Laboratory	: Environmental Division Melbourne
Contact	: MR SIMON SCOTT	Contact	: Paul Loewy
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E-mail	: simon.scott@ensr.aecom.com	E-mail	: paul.loewy@alsenviro.com
Telephone	: +61 03 8699 2199	Telephone	: +61-3-8549 9600
Facsimile	: +61 03 8699 2122	Facsimile	: +61-3-8549 9601
Project	: M60048301 - SHEPPARTON NE GROWTH CORRIDOR	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 05-SEP-2008
Sampler	: JP	Issue Date	: 22-SEP-2008
Order number	: 1801941		
		No. of samples received	: 2
Quote number	: EN/004/08	No. of samples analysed	: 2

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers

Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non -volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **SOIL**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved							
QC1, QC2	**02-SEP-2008**	**----**	----	----	**08-SEP-2008**	09-SEP-2008	✓
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved							
QC1, QC2	**02-SEP-2008**	**11-SEP-2008**	01-MAR-2009	✓	**11-SEP-2008**	01-MAR-2009	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved							
QC1, QC2	**02-SEP-2008**	**11-SEP-2008**	01-MAR-2009	✓	**12-SEP-2008**	30-SEP-2008	✓
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved							
QC1, QC2	**02-SEP-2008**	**15-SEP-2008**	16-SEP-2008	✓	**16-SEP-2008**	25-OCT-2008	✓
EP068B: Organophosphorus Pesticides (OP)							
Soil Glass Jar - Unpreserved							
QC1, QC2	**02-SEP-2008**	**15-SEP-2008**	16-SEP-2008	✓	**16-SEP-2008**	25-OCT-2008	✓
EP202A: Phenoxyacetic Acid Herbicides by LCMS							
Soil Glass Jar - Unpreserved							
QC1, QC2	**02-SEP-2008**	**11-SEP-2008**	16-SEP-2008	✓	**12-SEP-2008**	21-OCT-2008	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Pesticides by GCMS	EP068	1	13	**7.7**	**10.0**	×	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	2	16	**12.5**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	20	**10.0**	**10.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Pesticides by GCMS	EP068	1	13	**7.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	16	**6.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Pesticides by GCMS	EP068	1	13	**7.7**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	16	**6.3**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.0**	**5.0**	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Pesticides by GCMS	EP068	1	13	**7.7**	**5.0**	✓	ALS QCS3 requirement
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	1	16	**6.3**	**5.0**	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	**5.0**	**5.0**	✓	ALS QCS3 requirement

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (1999) Schedule B(3) (Method 102)
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl2)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl2 which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (1999) Schedule B(3) (Method 504,505)
Phenoxyacetic Acid Herbicides (LCMS - Standard DL)	EP202	SOIL	In-House, LCMS (Electrospray in negative mode). Residues of acid herbicides are extracted from soil samples under the alkaline condition. An aliquot of the alkaline aqueous phase is taken and acidified before a SPE cleanup. After eluting off from the SPE cartridge, residues of acid herbicides are dissolved in HPLC mobile phase prior to instrument analysis.

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Extraction for Phenoxy Acid Herbicides in Soils.	* EP202-PR	SOIL	In-House: Alkaline extract followed by SPE clean up of acidified portion of the sample extract.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na2SO4 and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.

Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW 846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP068A: Organochlorine Pesticides (OC)	EM0807384-002	QC2	**gamma-BHC**	58-89-9	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068A: Organochlorine Pesticides (OC)	EM0807384-002	QC2	**Heptachlor**	76-44-8	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068A: Organochlorine Pesticides (OC)	EM0807384-002	QC2	**Aldrin**	309-00-2	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068A: Organochlorine Pesticides (OC)	EM0807384-002	QC2	**Dieldrin**	60-57-1	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068A: Organochlorine Pesticides (OC)	EM0807384-002	QC2	**Endrin**	72-20-8	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068A: Organochlorine Pesticides (OC)	EM0807384-002	QC2	**4.4`-DDT**	50-29-3	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068B: Organophosphorus Pesticides (OP)	EM0807384-002	QC2	**Diazinon**	333-41-5	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068B: Organophosphorus Pesticides (OP)	EM0807384-002	QC2	**Chlorpyrifos-methyl**	5598-13-0	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068B: Organophosphorus Pesticides (OP)	EM0807384-002	QC2	**Pirimphos-ethyl**	23505-41-1	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068B: Organophosphorus Pesticides (OP)	EM0807384-002	QC2	**Bromophos-ethyl**	4824-78-6	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**
EP068B: Organophosphorus Pesticides (OP)	EM0807384-002	QC2	**Prothiofos**	34643-46-4	Not Determined	----	**Matrix spike recovery not determined due to sample matrix interference.**

- **For all matrices, no Method Blank value outliers occur.**
- **For all matrices, no Duplicate outliers occur.**
- **For all matrices, no Laboratory Control outliers occur.**

Regular Sample Surrogates

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted							
EP068S: Organochlorine Pesticide Surrogate	EM0807384-002	QC2	**Dibromo-DDE**	21655-73-2	Not Determined	----	**Surrogate recovery not determined due to (target or non-target) matrix interferences**

Sub-Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Samples Submitted - Continued							
EP068T: Organophosphorus Pesticide Surrogate	EM0807384-002	QC2	**DEF**	78-48-8	Not Determined	----	**Surrogate recovery not determined due to (target or non-target) matrix interferences**

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- **No Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

Matrix: **SOIL**

Quality Control Sample Type	Count		Rate (%)		Quality Control Specification
Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)					
Pesticides by GCMS	1	13	7.7	10.0	NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Environmental Division

QUALITY CONTROL REPORT

Work Order	: **EM0807384**	Page	: 1 of 8
Client	: **ENSR AUSTRALIA PTY LIMITED**	Laboratory	: Environmental Division Melbourne
Contact	: MR SIMON SCOTT	Contact	: Paul Loewy
Address	: LEVEL 6, 417 ST KILDA RD MELBOURNE VIC, AUSTRALIA 3004	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: simon.scott@ensr.aecom.com	E-mail	: paul.loewy@alsenviro.com
Telephone	: +61 03 8699 2199	Telephone	: +61-3-8549 9600
Facsimile	: +61 03 8699 2122	Facsimile	: +61-3-8549 9601
Project	: M60048301 - SHEPPARTON NE GROWTH CORRIDOR	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 05-SEP-2008
Sampler	: JP	Issue Date	: 22-SEP-2008
Order number	: 1801941		
		No. of samples received	: 2
Quote number	: EN/004/08	No. of samples analysed	: 2

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Gaston Allende		Organics
Herman Lin	Senior Inorganic Chemist	Inorganics
Kumara Dadallage	Senior Organic Chemist	Organics
Xingbin Lin	Instrument Chemist	Organics

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been preformed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = Chemistry Abstract Services number
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EG005T: Total Metals by ICP-AES (QC Lot: 753429)									
EM0807379-001	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	3	3	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	5	6	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	41	44	7.3	No Limit
EM0807414-006	Anonymous	EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	30	30	0.0	0% - 50%
		EG005T: Nickel	7440-02-0	2	mg/kg	8	8	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	6	9	40.3	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	30	20	42.9	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	32	28	13.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	50	36	33.2	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 753430)									
EM0807379-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EM0807414-006	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 756041)									
EM0807502-001	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP068A: Organochlorine Pesticides (OC) (QC Lot: 756041) - continued									
EM0807502-001	Anonymous	EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068B: Organophosphorus Pesticides (OP) (QC Lot: 756041)									
EM0807502-001	Anonymous	EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QC Lot: 753806)									
EB0812084-018	Anonymous	EP202: 4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-DB	94-82-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Dicamba	1918-00-9	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Mecoprop	93-65-2	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: MCPA	94-74-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-DP	120-36-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-D	94-75-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Triclopyr	55335-06-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4.5-T	93-76-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: MCPB	94-81-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Picloram	1918-02-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Clopyralid	1702-17-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Fluroxypyr	69377-81-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Recovery Limits (%)*
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QC Lot: 753806) - continued									
EB0812084-022	Anonymous	EP202: 4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-DB	94-82-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Dicamba	1918-00-9	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Mecoprop	93-65-2	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: MCPA	94-74-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-DP	120-36-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4-D	94-75-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Triclopyr	55335-06-3	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: 2.4.5-T	93-76-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: MCPB	94-81-5	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Picloram	1918-02-1	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Clopyralid	1702-17-6	0.02	mg/kg	<0.02	<0.02	0.0	No Limit
		EP202: Fluroxypyr	69377-81-7	0.02	mg/kg	<0.02	<0.02	0.0	No Limit

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **SOIL**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 753429)								
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.6 mg/kg	87.8	82.4	122
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.8 mg/kg	98.8	87.4	122
EG005T: Chromium	7440-47-3	2	mg/kg	<2	60.9 mg/kg	101	88.5	117
EG005T: Copper	7440-50-8	5	mg/kg	<5	55.1 mg/kg	102	89.2	121
EG005T: Lead	7439-92-1	5	mg/kg	<5	54.9 mg/kg	98.0	88.2	118
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.1 mg/kg	98.6	86.8	117
EG005T: Zinc	7440-66-6	5	mg/kg	<5	105 mg/kg	91.0	82	116
EG035T: Total Recoverable Mercury by FIMS (QCLot: 753430)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	1.47 mg/kg	82.9	71.9	119
EP068A: Organochlorine Pesticides (OC) (QCLot: 756041)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.25 mg/kg	100	47.3	130
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.25 mg/kg	103	45.6	128
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.25 mg/kg	100	55.9	130
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.25 mg/kg	103	51.1	129
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.25 mg/kg	99.8	56.1	127
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.25 mg/kg	102	51.6	125
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.25 mg/kg	98.6	54.9	121
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.25 mg/kg	101	56.9	122
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.25 mg/kg	113	57.9	122
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.25 mg/kg	100	56.6	128
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.25 mg/kg	99.2	57.1	123
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.25 mg/kg	99.6	56	123
EP068: 4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	0.25 mg/kg	99.6	58.4	125
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.25 mg/kg	121	57.9	128
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.25 mg/kg	100	60.6	128
EP068: 4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	0.25 mg/kg	100	55.7	126
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.25 mg/kg	86.6	47.1	123
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.25 mg/kg	104	57.2	128
EP068: 4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	0.25 mg/kg	101	52.5	134
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.25 mg/kg	97.0	57.7	126
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.25 mg/kg	105	53.4	139
EP068B: Organophosphorus Pesticides (OP) (QCLot: 756041)								
EP068: Dichlorvos	62-73-7	0.05	mg/kg	<0.05	0.25 mg/kg	113	34.9	138
EP068: Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	0.25 mg/kg	98.7	27.4	135

Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
				Result	Concentration	LCS	Low	High
EP068B: Organophosphorus Pesticides (OP) (QCLot: 756041) - continued								
EP068: Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	0.25 mg/kg	79.6	10	172
EP068: Dimethoate	60-51-5	0.05	mg/kg	<0.05	0.25 mg/kg	114	54.1	136
EP068: Diazinon	333-41-5	0.05	mg/kg	<0.05	0.25 mg/kg	104	52.5	125
EP068: Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg	<0.05	0.25 mg/kg	105	56.6	124
EP068: Parathion-methyl	298-00-0	0.2	mg/kg	<0.2	0.25 mg/kg	105	52.1	134
EP068: Malathion	121-75-5	0.05	mg/kg	<0.05	0.25 mg/kg	114	56.3	134
EP068: Fenthion	55-38-9	0.05	mg/kg	<0.05	0.25 mg/kg	102	55.6	125
EP068: Chlorpyrifos	2921-88-2	0.05	mg/kg	<0.05	0.25 mg/kg	104	57	127
EP068: Parathion	56-38-2	0.2	mg/kg	<0.2	0.25 mg/kg	98.6	49.3	133
EP068: Pirimphos-ethyl	23505-41-1	0.05	mg/kg	<0.05	0.25 mg/kg	103	50	128
EP068: Chlorfenvinphos	470-90-6	0.05	mg/kg	<0.05	0.25 mg/kg	118	53.4	133
EP068: Bromophos-ethyl	4824-78-6	0.05	mg/kg	<0.05	0.25 mg/kg	105	57.4	126
EP068: Fenamiphos	22224-92-6	0.05	mg/kg	<0.05	0.25 mg/kg	110	44.6	131
EP068: Prothiofos	34643-46-4	0.05	mg/kg	<0.05	0.25 mg/kg	103	57.9	125
EP068: Ethion	563-12-2	0.05	mg/kg	<0.05	0.25 mg/kg	106	56.3	130
EP068: Carbophenothion	786-19-6	0.05	mg/kg	<0.05	0.25 mg/kg	105	55.4	126
EP068: Azinphos Methyl	86-50-0	0.05	mg/kg	<0.05	0.25 mg/kg	130	44.6	148
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QCLot: 753806)								
EP202: 4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg	<0.02	0.1 mg/kg	124	54.4	136
EP202: 2.4-DB	94-82-6	0.02	mg/kg	<0.02	0.1 mg/kg	90.8	45.5	144
EP202: Dicamba	1918-00-9	0.02	mg/kg	<0.02	0.1 mg/kg	104	51.7	146
EP202: Mecoprop	93-65-2	0.02	mg/kg	<0.02	0.1 mg/kg	119	60	140
EP202: MCPA	94-74-6	0.02	mg/kg	<0.02	0.1 mg/kg	123	56.8	143
EP202: 2.4-DP	120-36-5	0.02	mg/kg	<0.02	0.1 mg/kg	114	50	141
EP202: 2.4-D	94-75-7	0.02	mg/kg	<0.02	0.1 mg/kg	97.0	68.5	139
EP202: Triclopyr	55335-06-3	0.02	mg/kg	<0.02	0.1 mg/kg	121	50.8	145
EP202: 2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg	<0.02	0.1 mg/kg	98.1	40.8	135
EP202: 2.4.5-T	93-76-5	0.02	mg/kg	<0.02	0.1 mg/kg	111	57.4	142
EP202: MCPB	94-81-5	0.02	mg/kg	<0.02	0.1 mg/kg	91.2	38.9	147
EP202: Picloram	1918-02-1	0.02	mg/kg	<0.02	0.1 mg/kg	75.0	48.7	138
EP202: Clopyralid	1702-17-6	0.02	mg/kg	<0.02	0.1 mg/kg	90.5	59.4	149
EP202: Fluroxypyr	69377-81-7	0.02	mg/kg	<0.02	0.1 mg/kg	116	53.2	145

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
				Spike	Spike Recovery (%)	Recovery Limits (%)	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 753429)							
EM0807379-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	92.3	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	96.2	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	115	70	130
		EG005T: Copper	7440-50-8	50 mg/kg	104	70	130
		EG005T: Lead	7439-92-1	50 mg/kg	92.8	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	99.5	70	130
		EG005T: Zinc	7440-66-6	50 mg/kg	89.4	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 753430)							
EM0807379-002	Anonymous	EG035T: Mercury	7439-97-6	5.0 mg/kg	97.0	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 756041)							
EM0807384-002	QC2	EP068: gamma-BHC	58-89-9	0.25 mg/kg	# Not Determined	70	130
		EP068: Heptachlor	76-44-8	0.25 mg/kg	# Not Determined	70	130
		EP068: Aldrin	309-00-2	0.25 mg/kg	# Not Determined	70	130
		EP068: Dieldrin	60-57-1	0.25 mg/kg	# Not Determined	70	130
		EP068: Endrin	72-20-8	0.25 mg/kg	# Not Determined	70	130
		EP068: 4.4`-DDT	50-29-3	0.25 mg/kg	# Not Determined	70	130
EP068B: Organophosphorus Pesticides (OP) (QCLot: 756041)							
EM0807384-002	QC2	EP068: Diazinon	333-41-5	0.25 mg/kg	# Not Determined	70	130
		EP068: Chlorpyrifos-methyl	5598-13-0	0.25 mg/kg	# Not Determined	70	130
		EP068: Pirimphos-ethyl	23505-41-1	0.25 mg/kg	# Not Determined	70	130
		EP068: Bromophos-ethyl	4824-78-6	0.29 mg/kg	# Not Determined	70	130
		EP068: Prothiofos	34643-46-4	0.25 mg/kg	# Not Determined	70	130
EP202A: Phenoxyacetic Acid Herbicides by LCMS (QCLot: 753806)							
EB0812084-018	Anonymous	EP202: Mecoprop	93-65-2	0.1 mg/kg	125	70	130
		EP202: MCPA	94-74-6	0.1 mg/kg	122	70	130
		EP202: 2.4-D	94-75-7	0.1 mg/kg	81.4	70	130
		EP202: Triclopyr	55335-06-3	0.1 mg/kg	117	70	130
		EP202: 2.4.5-T	93-76-5	0.1 mg/kg	98.1	70	130
		EP202: Picloram	1918-02-1	0.1 mg/kg	98.1	70	130
		EP202: Clopyralid	1702-17-6	0.1 mg/kg	96.7	70	130

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: **EM0807384**	Page	: 1 of 6
Client	: **ENSR AUSTRALIA PTY LIMITED**	Laboratory	: Environmental Division Melbourne
Contact	: MR SIMON SCOTT	Contact	: Paul Loewy
Address	: LEVEL 6, 417 ST KILDA RD MELBOURNE VIC, AUSTRALIA 3004	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: simon.scott@ensr.aecom.com	E-mail	: paul.loewy@alsenviro.com
Telephone	: +61 03 8699 2199	Telephone	: +61-3-8549 9600
Facsimile	: +61 03 8699 2122	Facsimile	: +61-3-8549 9601
Project	: M60048301 - SHEPPARTON NE GROWTH CORRIDOR	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: 1801941		
C-O-C number	: ----	Date Samples Received	: 05-SEP-2008
Sampler	: JP	Issue Date	: 22-SEP-2008
Site	: ----		
		No. of samples received	: 2
Quote number	: EN/004/08	No. of samples analysed	: 2

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Gaston Allende		Organics
Herman Lin	Senior Inorganic Chemist	Inorganics
Kumara Dadallage	Senior Organic Chemist	Organics
Xingbin Lin	Instrument Chemist	Organics

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been preformed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = Chemistry Abstract Services number
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting

- **EP068, EP202: Particular sample 'EM0807384_002' required dilution prior to analysis due to possible matrix interferences. LOR values have been adjusted accordingly.**
- **EP068: Unable to determine matrix spike recoveries due to matrix interference.**

Analytical Results

Sub-Matrix: SOIL			Client sample ID	QC1	QC2	----	----	----
			Client sampling date / time	02-SEP-2008 15:00	02-SEP-2008 15:00	----	----	----
Compound	CAS Number	LOR	Unit	EM0807384-001	EM0807384-002	----	----	----
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1.0	%	7.3	20.9	----	----	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	<5	6	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Chromium	7440-47-3	2	mg/kg	10	25	----	----	----
Copper	7440-50-8	5	mg/kg	40	118	----	----	----
Lead	7439-92-1	5	mg/kg	35	1280	----	----	----
Nickel	7440-02-0	2	mg/kg	6	17	----	----	----
Zinc	7440-66-6	5	mg/kg	45	175	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	0.1	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<1.50	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<1.50	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	<1.50	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<1.50	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	<1.50	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	<1.50	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	<1.50	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<1.50	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<1.50	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<1.50	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<1.50	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	<1.50	----	----	----
4.4`-DDE	72-55-9	0.05	mg/kg	<0.05	<1.50	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	<1.50	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<1.50	----	----	----
4.4`-DDD	72-54-8	0.05	mg/kg	<0.05	<1.50	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<1.50	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<1.50	----	----	----
4.4`-DDT	50-29-3	0.2	mg/kg	<0.2	<6.0	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<1.50	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<6.0	----	----	----
EP068B: Organophosphorus Pesticides (OP)								
Dichlorvos	62-73-7	0.05	mg/kg	<0.05	<1.50	----	----	----
Demeton-S-methyl	919-86-8	0.05	mg/kg	<0.05	<1.50	----	----	----
Monocrotophos	6923-22-4	0.2	mg/kg	<0.2	<6.0	----	----	----
Dimethoate	60-51-5	0.05	mg/kg	<0.05	<1.50	----	----	----

Analytical Results

Sub-Matrix: SOIL				Client sample ID	QC1	QC2	----	----	----
				Client sampling date / time	02-SEP-2008 15:00	02-SEP-2008 15:00	----	----	----
Compound	CAS Number	LOR	Unit		EM0807384-001	EM0807384-002	----	----	----
EP068B: Organophosphorus Pesticides (OP) - Continued									
Diazinon	333-41-5	0.05	mg/kg		<0.05	<1.50	----	----	----
Chlorpyrifos-methyl	5598-13-0	0.05	mg/kg		<0.05	<1.50	----	----	----
Parathion-methyl	298-00-0	0.2	mg/kg		<0.2	<6.0	----	----	----
Malathion	121-75-5	0.05	mg/kg		<0.05	<1.50	----	----	----
Fenthion	55-38-9	0.05	mg/kg		<0.05	<1.50	----	----	----
Chlorpyrifos	2921-88-2	0.05	mg/kg		<0.05	<1.50	----	----	----
Parathion	56-38-2	0.2	mg/kg		<0.2	<6.0	----	----	----
Pirimphos-ethyl	23505-41-1	0.05	mg/kg		<0.05	<1.50	----	----	----
Chlorfenvinphos	470-90-6	0.05	mg/kg		<0.05	<1.50	----	----	----
Bromophos-ethyl	4824-78-6	0.05	mg/kg		<0.05	<1.50	----	----	----
Fenamiphos	22224-92-6	0.05	mg/kg		<0.05	<1.50	----	----	----
Prothiofos	34643-46-4	0.05	mg/kg		<0.05	<1.50	----	----	----
Ethion	563-12-2	0.05	mg/kg		<0.05	<1.50	----	----	----
Carbophenothion	786-19-6	0.05	mg/kg		<0.05	<1.50	----	----	----
Azinphos Methyl	86-50-0	0.05	mg/kg		<0.05	<1.50	----	----	----
EP202A: Phenoxyacetic Acid Herbicides by LCMS									
4-Chlorophenoxy acetic acid	122-88-3	0.02	mg/kg		<0.02	<0.04	----	----	----
2.4-DB	94-82-6	0.02	mg/kg		<0.02	<0.04	----	----	----
Dicamba	1918-00-9	0.02	mg/kg		<0.02	<0.04	----	----	----
Mecoprop	93-65-2	0.02	mg/kg		<0.02	<0.04	----	----	----
MCPA	94-74-6	0.02	mg/kg		<0.02	<0.04	----	----	----
2.4-DP	120-36-5	0.02	mg/kg		<0.02	<0.04	----	----	----
2.4-D	94-75-7	0.02	mg/kg		<0.02	<0.04	----	----	----
Triclopyr	55335-06-3	0.02	mg/kg		<0.02	<0.04	----	----	----
2.4.5-TP (Silvex)	93-72-1	0.02	mg/kg		<0.02	<0.04	----	----	----
2.4.5-T	93-76-5	0.02	mg/kg		<0.02	<0.04	----	----	----
MCPB	94-81-5	0.02	mg/kg		<0.02	<0.04	----	----	----
Picloram	1918-02-1	0.02	mg/kg		<0.02	<0.04	----	----	----
Clopyralid	1702-17-6	0.02	mg/kg		<0.02	<0.04	----	----	----
Fluroxypyr	69377-81-7	0.02	mg/kg		<0.02	<0.04	----	----	----
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.1	%		114	Not Determined	----	----	----
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.1	%		127	Not Determined	----	----	----
EP202S: Phenoxyacetic Acid Herbicide Surrogate									
2.4-Dichlorophenyl Acetic Acid	19719-28-9	0.1	%		88.5	78.6	----	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	*CAS Number*	*Low*	*High*
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	49	130
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	53	140
EP202S: Phenoxyacetic Acid Herbicide Surrogate			
2.4-Dichlorophenyl Acetic Acid	19719-28-9	70	130

SAMPLE RECEIPT NOTIFICATION (SRN)

Comprehensive Report

Work Order : **EM0807384**

Client	: **ENSR AUSTRALIA PTY LIMITED**	Laboratory	: Environmental Division Melbourne
Contact	: MR SIMON SCOTT	Contact	: Paul Loewy
Address	: LEVEL 6, 417 ST KILDA RD MELBOURNE VIC, AUSTRALIA 3004	Address	: 4 Westall Rd Springvale VIC Australia 3171
E-mail	: simon.scott@ensr.aecom.com	E-mail	: paul.loewy@alsenviro.com
Telephone	: +61 03 8699 2199	Telephone	: +61-3-8549 9600
Facsimile	: +61 03 8699 2122	Facsimile	: +61-3-8549 9601
Project	: M60048301 - SHEPPARTON NE GROWTH CORRIDOR	Page	: 1 of 2
Order number	: ----		
C-O-C number	: ----	Quote number	: ES2008HLAENV0046 (EN/004/08)
Site	: ----		
Sampler	: JP	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Dates

Date Samples Received	: 05-SEP-2008	Issue Date	: 05-SEP-2008 16:11
Client Requested Due Date	: 19-SEP-2008	Scheduled Reporting Date	: **19-SEP-2008**

Delivery Details

Mode of Delivery	: Carrier	Temperature	: 12.4
No. of coolers/boxes	: 1	No. of samples received	: 2
Sercurity Seal	: Intact.	No. of samples analysed	: 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Requested Deliverables
- **Samples received in appropriately pretreated and preserved containers.**
- **Sample(s) have been received within recommended holding times**
- **Please direct any queries related to sample condition / numbering / breakages to Peter Ravlic.**
- **Analytical work for this work order will be conducted at ALS Melbourne.**
- Sample Disposal - Aqueous (14 days), Solid (90 days) from date of completion of work order.

Sample Container(s)/Preservation Non-Compliances

All comparisons are made against pretreatment/preservation AS, APHA, USEPA standards.

- **No sample container / preservation non-compliance exist.**

Summary of Sample(s) and Requested Analysis

Some items described below may be part of a laboratory process neccessary for the execution of client requested tasks. Packages may contain additional analyses, such as the determination of moisture content and preparation tasks, that are included in the package.
When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing

Matrix: **SOIL**

Laboratory sample ID	*Client sampling date / time*	*Client sample ID*	SOIL - EP202(solids) Phenoxyacetic acids	SOIL - S-02 8 Metals (incl. Digestion)	SOIL - S-12 OC/OP Pesticides
EM0807384-001	02-SEP-2008 15:00	QC1	✓	✓	✓
EM0807384-002	02-SEP-2008 15:00	QC2	✓	✓	✓

Requested Deliverables

LESLEY FITZGERALD (ACCOUNTS

- A4 - AU Tax Invoice	Email	lesley.fitzgerald@ensr.aecom.com

MR SIMON SCOTT

- *AU Certificate of Analysis - NATA	Email	simon.scott@ensr.aecom.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep)	Email	simon.scott@ensr.aecom.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA	Email	simon.scott@ensr.aecom.com
- A4 - AU Sample Receipt Notification - Environmental	Email	simon.scott@ensr.aecom.com
- A4 - AU Tax Invoice	Email	simon.scott@ensr.aecom.com
- Default - Chain of Custody	Email	simon.scott@ensr.aecom.com
- EDI Format - ESDAT	Email	simon.scott@ensr.aecom.com
- EDI Format - HLAPro	Email	simon.scott@ensr.aecom.com

Appendix E

Aboriginal Heritage Register Results

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Aboriginal Heritage Act 2006 – Section 147

Victorian Aboriginal Heritage Register – advice as to the existence of records in relation to a nominated area of land

SECTION 1 – Applicant information

Name of applicant: Rick Bullers

Business name (if any): ENSR Australia P/L

Postal address: PO Box 726 PYMBLE NSW 2073

Telephone number: 02 8484 8999 Fax number: 02 8484 8999

Email address: rick.bullers@ensr.gecom.com ABN (if any):

SECTION 2 – Land description (as provided by the applicant)

Title details (volume and folio number):

Address / other description of land: Property along Grahamvale Road, Grahamvale

Directory reference (eg VICROADS / Melway): VIC ROADS 673 T2

SECTION 3 – Registered information

Does the Register contain a record of Aboriginal cultural heritage in relation to the nominated area of land?

☒ No ☐ Yes – see attached details

Does the register contain a record of a notified place (ie a place reported but not yet inspected) in relation to the nominated area of land?

☒ No ☐ Yes – see attached details

Does a stop order exist in relation to any part of the nominated area of land?

☒ No ☐ Yes – see attached details

Does an interim or ongoing protection declaration exist in relation to any part of the nominated area of land?

☒ No ☐ Yes – see attached details

Does a cultural heritage agreement exist in relation to any part of the nominated area of land?

☒ No ☐ Yes – see attached details

The absence of records on the Register for a nominated area of land does not necessarily mean that the area is devoid of Aboriginal cultural heritage values. Applicants should be aware of the provisions of s.17 and s.24 of the *Aboriginal Heritage Act* 2006, which require the reporting of Aboriginal remains, Aboriginal places and objects discovered in Victoria. This advice does not abrogate any requirement to prepare a Cultural Heritage Management Plan under the *Aboriginal Heritage Act* 2006.

This advice may be of assistance to you, but the State of Victoria and its employees do not give any warranty, guarantee or representation about its accuracy or reliability or that it is appropriate for your purpose, and therefore disclaims all legal responsibility and liability for any loss (through any cause) or other consequence which may arise from you relying on any of the advice provided for any purpose.

Signed: Date: 18 AUG 2008

IAN HAMM
Deputy Director
Aboriginal Affairs Victoria

Receipt attached: ☐

Appendix F

Victorian Heritage Register and Victorian Heritage Inventory Results

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Simple search Advanced search Listings

Victorian Heritage Register and Heritage Inventory Search Results

The following items match your search criteria. The items higher on the list are those identified as the most likely matches. If your search query did not locate any records, return to the Search Screen and try again using different criteria.
Note that your search list might include items on both the Victorian Heritage Register and the Heritage Inventory.

Click here to see the number of records found...

VHR Number	Item Name	Address
	*** CAMP NUMBER 2	*** BAULCH ROAD and CRAWFORD ROAD TATURA, Greater Shepparton City
	*** PYKES ROAD, HISTORICAL HOMESTEAD	*** PYKES ROAD and MOOROOPNA-MURCHISON ROAD MOOROOPNA, Greater Shepparton City
	*** CROSSMAN'S LOG CABIN	*** KEADY'S LANE and 5470 GOULBURN VALLEY FREEWAY MOORILIM, Greater Shepparton City
	*** CALDER WOODBURN MEMORIAL	*** Greater Shepparton City, Greater Shepparton City
	*** MURCHISON POLICE PADDOCKS	*** 90 WATSON STREET and 3-23 WILLOUGHBY STREET MURCHISON, Greater Shepparton City
	*** BROKEN RIVER RAILWAY BRIDGE	*** Greater Shepparton City, Greater Shepparton City
	*** THE FLAT SCARRED TREE	*** HATTONS STATE FOREST and RAILWAY TRACK SHEPPARTON, Greater Shepparton City
	*** DAYS MILL	*** 75 DAY ROAD MURCHISON, Greater Shepparton City
	*** WRIGHT'S TRAMWAY, YEA	*** Greater Shepparton City, Greater Shepparton City
	*** MCGUIRES RESERVE HISTORICAL SCATTER	*** OFF MIDLAND HIGHWAY and OFF WELSFORD STREET SHEPPARTON, Greater Shepparton City
	*** CHINAMAN'S RESERVE H1	*** SHEPPARTON and CAUSEWAY SHEPPARTON, Greater Shepparton City
	*** GOULBURN RIVER HAULAGE TRACK	*** RUDD ROAD SHEPPARTON, Greater Shepparton City
	*** SEVEN CREEKS SCARRED TREE	*** FURPHY AVENUE SHEPPARTON, Greater Shepparton City
	*** NO.1 INTERNMENT CAMP ENTRANCE	*** 1296 CRAWFORD ROAD MURCHISON, Greater Shepparton City
	*** RIVERVIEW H2 IRRIGATION FLOW REGULATOR	*** 76 RIVERVIEW DRIVE KIALLA, Greater Shepparton City
	*** RIVERVIEW H1 - FIREPLACE & WELL	*** TAIG AVENUE KIALLA, Greater Shepparton City
	*** EAST KIALLA 4 - OLD SCHOOL SITE	*** ARMSTRONG ROAD KIALLA, Greater Shepparton City
	*** REEDY SWAMP HISTORICAL SCATTER 1	*** Greater Shepparton City, Greater Shepparton City
	*** FERGUSON ROAD SCARRED TREE	*** 890 FERGUSON ROAD MOOROOPNA, Greater Shepparton City

☐	*** GOULBURN RIVER WEIR	*** RUDD ROAD MOOROOPNA, Greater Shepparton City
☐	*** ST PETER'S ANGLICAN CHURCH SITE (H1).	*** 10 GRIBBEN ROAD ARCADIA, Greater Shepparton City
☐	*** EAST KIALLA 5 - OLD SCHOOL HOUSE	*** 175 CENTRAL KIALLA ROAD KIALLA, Greater Shepparton City
☐	*** SUNBEAM PARK	*** 5000 GOULBURN VALLEY HIGHWAY MURCHISON EAST, Greater Shepparton City
☐	*** TOOLAMBA HISTORICAL SCATTER	*** MCNAMARA ROAD and DAUNTS STATE FOREST TOOLAMBA, Greater Shepparton City
☐	*** REEDY SWAMP HISTORICAL SCATTER 2	*** Greater Shepparton City, Greater Shepparton City
☐	*** FOUR MILE CREEK 5	*** BRIDGE TRACK TOOLAMBA, Greater Shepparton City
☐	*** YOUNG BEND STATE FOREST HISTORIC AREA	*** 260 CEMETERY ROAD MOOROOPNA, Greater Shepparton City
☐	*** EAST SHEPPARTON, ORRVALE & LEMNOS CLOSER SETTLEMENT SCHEME HOUSES	*** Greater Shepparton City, Greater Shepparton City
☐	*** GOULBURN PROTECTORATE OUTSTATION HUT	*** 110 DAY ROAD MURCHISON, Greater Shepparton City
☐	*** HISTORIC ARTEFACT SCATTER AND ABORIGINAL CONTACT SITE	*** VERNY ROAD NORTH SHEPPARTON, Greater Shepparton City
☐	*** BARMAH ROAD SURVEYORS BLAZE	*** BARMAH ROAD SHEPPARTON, Greater Shepparton City
☐	*** REDBANK TRESTLE BRIDGE AND SCATTER	*** Greater Shepparton City, Greater Shepparton City
☐	*** WANGANUI ROAD FARM COMPLEX	*** 260 WANGANUI ROAD SHEPPARTON, Greater Shepparton City
☐	*** HISTORIC ARTEFACT SCATTER	*** 5770 BARMAH ROAD SHEPPARTON, Greater Shepparton City
☐	*** FREEMANS ROAD HISTORICAL SCATTER 2	*** DALDY ROAD SHEPPARTON, Greater Shepparton City
☐	*** FREEMANS ROAD HISTORICAL SCATTER 1	*** DALDY ROAD SHEPPARTON, Greater Shepparton City
☐	*** BROKEN RIVER LOGGED STUMP	*** 105 HOPPERS ROAD KIALLA, Greater Shepparton City
☐	*** CREEKVIEW HISTORICAL SCATTER	*** 7160 GOULBURN VALLEY HIGHWAY KIALLA WEST, Greater Shepparton City
☐	*** MOORE COTTAGE	*** 695 DOYLES ROAD KIALLA, Greater Shepparton City
☐	*** GEMMILLS TRACK HISTORICAL SCATTER	*** 25-35 LITTLE ROAD MOOROOPNA, Greater Shepparton City
☐	*** EXCELSIOR VINEYARDS	*** 145 EXCELSIOR ROAD MOOROOPNA, Greater Shepparton City
☐	*** MOOROOPNA CEMETERY	*** 440 ECHUCA ROAD MOOROOPNA, Greater Shepparton City
☐	*** TOOLAMBA BARK HUT CAMP	*** 195 POGUE ROAD TOOLAMBA, Greater Shepparton City
☐	*** ARDPATRICK PRE-EMPTIVE RIGHT	*** 560 ECHUCA ROAD MOOROOPNA, Greater Shepparton City

☐	**H2048**	***	NUMBER ONE INTERNMENT CAMP	***	1320 STEWART ROAD TATURA and 1275 CRAWFORD ROAD TATURA, Greater Shepparton City
☐		***	TREVASKIS SELECTION SITE	***	425 RIVER ROAD KIALLA, Greater Shepparton City
☐		***	MOONEE PONDS CK 8	***	FAWKNER STREET (OVER MOONEE PONDS CREEK) WESTMEADOWS, Hume City
☐	**H1975**	***	CALDER WOODBURN MEMORIAL AVENUE	***	GOULBURN VALLEY HIGHWAY ARCADIA and KIALLA WEST and KIALLA and ARCADIA SOUTH, Greater Shepparton City, Strathbogie Shire
☐	**H1523**	***	DAY'S FLOUR MILL COMPLEX	***	75 DAY ROAD MURCHISON, Greater Shepparton City
☐	**H0963**	***	GREGORYS BRIDGE HOTEL	***	10 HIGH ROAD MURCHISON, Greater Shepparton City
☐	**H1082**	***	BANGERANG CULTURAL CENTRE	***	PARKSIDE DRIVE SHEPPARTON, Greater Shepparton City
☐	**H1554**	***	DHURRINGILE	***	870 MURCHISON-TATURA ROAD MURCHISON, Greater Shepparton City
☐		***	CAMP NO.1 WWII INTERNMENT CAMP	***	1320 STEWART ROAD TATURA, Greater Shepparton City

53 Records found

Appendix G

Australian Heritage Database Results

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Search Results

12 results found.

Calder Woodburn Memorial Avenue Goulburn Valley Hwy	Kialla West, VIC, Australia	(Registered) Register of the National Estate
Days Steam Flour Mill Complex Goulburn Weir Murchison Rd	Murchison, VIC, Australia	(Registered) Register of the National Estate
Dookie Bushland Reserve	Dookie College, VIC, Australia	(Indicative Place) Register of the National Estate
Gregorys Bridge Hotel (former) High Rd	Murchison, VIC, Australia	(Indicative Place) Register of the National Estate
HM Dhurringile Rehabilitation Centre Tatura Murchison Rd	Dhurringile, VIC, Australia	(Indicative Place) Register of the National Estate
Murchison Cemetery Aboriginal Graves Cemetery Rd	Murchison, VIC, Australia	(Registered) Register of the National Estate
Sacred Heart Church Hogan St	Tatura, VIC, Australia	(Indicative Place) Register of the National Estate
Shepparton Historical Society Museum Precinct Welsford St	Shepparton, VIC, Australia	(Indicative Place) Register of the National Estate
Shepparton and Goulburn Valley Historical Society Museum Welsford St	Shepparton, VIC, Australia	(Indicative Place) Register of the National Estate
St Marys College Hogan St	Tatura, VIC, Australia	(Registered) Register of the National Estate
Tatura Courthouse 220 Hogan St	Tatura, VIC, Australia	(Indicative Place) Register of the National Estate
Wanganui Homestead Wanganui Rd	Shepparton, VIC, Australia	(Registered) Register of the National Estate

Report Produced: Mon Aug 25 09:15:02 2008

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Appendix H

Register of the National Trust of Australia Results

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Search the Register

Use the form below to search for heritage properties in the Trust Register. Every field in the form is optional, and in most cases you can type part of a value to find all entries that contain that value. For example, you could type "Malvern" in the Property Name field to find all entries in the Register that contain Malvern in their names.

Please note that classified landscapes, gardens and significant trees are also included in this register. They are differentiated by the prefixes: L for Landscape, G for Garden and T for Tree, i.e. L10026, G13001, T11000

Property Name:

Search Text:

Property Location: Shepparton

File Number:

Search

Search returned 36 matches

NAME	LOCATION	FILE NUMBER
LOG CABIN	TALLYGAROOPNA	B5292
AGRICULTURAL COLLEGE - DOOKIE	DOOKIE	B5700
TATTAMBO'S GRAVE (KING OF MOLKA TRIBE)	Cemetery MURCHISON	B1770
PENSHURST	64 Corio Street SHEPPARTON	B4308
DAY'S STEAM FLOUR MILL	Day Road MURCHISON	B40
FURPHY'S FOUNDRY	Drummond Road SHEPPARTON	B6370
132-134 HAYES STREET	132 Hayes Street SHEPPARTON	B5882
CHRIST ANGLICAN CHURCH	Impey Street MURCHISON	B3936
MERRIGUM BUTTER FACTORY & FARMERS' FROZ	Judd Street MERRIGUM	B6335
ATHENAEUM HALL	McLennan Street MOOROOPNA	B6758
MOOROOPNA HOSPITAL	McLennan Street MOOROOPNA	B6773
ST PATRICK'S CATHOLIC CHURCH	Merrigum Road BYRNESIDE	B5290

PUBLIC HALL	Midland Highway BYRNESIDE	B5291
DHURRINGILE	Murchison-Tatura Road DHURRINGILE	B2063
HOUSE	River Parade MURCHISON	B2635
GREGORY'S HOTEL (FORMER)	Shepparton Highway MURCHISON EAST	B2563
TATURA BUTTER FACTORY	Station Street TATURA	B6339
TIMBER RAIL BRIDGE	Stewart Road cnr Murchison-Rushworth Rd 133.2km mark of Murchison East-Rushworth Railway MURCHISON	B7031
TIMBER RAIL BRIDGE	Stewart Road cnr Murchison-Rushworth Rd 133.2km mark of Murchison East-Rushworth Railway MURCHISON	B7031
MCKENZIE'S BUTCHER SHOP	Victoria Street TALLYGAROOPNA	B5418
OLD WANGANUI HOMESTEAD	Wanganui Road SHEPPARTON	B3649
RODNEY STORE (OLD)	Waverley Avenue MERRIGUM	B5841
FORESTERS' HALL (FORMER)	Welsford Street SHEPPARTON	B2410
SHEPPARTON & DISTRICT CO-OP BUTTER, CHEESE FACTORY	428-452 Wyndham Street SHEPPARTON	B6375
PYRUS COMMUNIS 'BLACK PIPPEN'	North of Lilford Road, 1 km west of Byrneside-Kyabram Road, Merrigum	T11090
EUCALYPTUS MICROCARPA	Ferrari Park, Midland Highway MOOROOPNA	T11091
EUCALYPTUS SPP.	Calder Woodburn Memorial Avenue, Goulburn Valley Highway SHEPPARTON	T11115
TIPUANA TIPU	Next to Principal's Residence, Dookie College, off Midland Highway	T11116

EUROPAEA	oval, Dookie College, off Midland Highway	T11117
EUCALYPTUS MICROCARPA	Shepparton-Nathalia Road, 2 km west of Bunbartha School on north side SHEPPARTON	T11118
BRACHYCHITON RUPESTRIS	Alcheringa, Congupna, 8 km N-E of Shepparton on Goulburn Valley Highway	T11119
GEIJERA PARVIFOLIA	Welsford Street, Shepparton, south of Senior Citizens Clubrooms	T11120
THUJA OCCIDENTALIS	Burnham Beeches,west of residence between drive and hedge, Sherbrooke Road SASSAFRAS	T11131
PLATANUS X ACERIFOLIA	Murchison East Road, near Goulburn River, outside Gregory's Bridge Hotel SHEPPARTON	T11684
SHEPPARTON BOWLING CLUB	SHEPPARTON	B7281
FORMER CASHEL NATIONAL BANK	4.8 km south of DOOKIE	B4038

Appendix I

Aboriginal Heritage Planning Tool Results

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Victoria
The Place To Be

Department for Victorian Communities

Aboriginal Affairs Victoria

Process List

Project Name: Shepparton NE Growth Centre

Project Location: Shepparton, Victoria

Date: 07-Aug-2008

	QUESTION	ANSWER
Question 1	Is the proposed activity , or all the proposed activities, exempt?	No
Question 2	Are you undertaking a High Impact Activity as listed in the Aboriginal Heritage Regulations?	Yes
Question 3	Does your activity include significant ground disturbance?	Yes
Question 4	Does your activity area include areas of cultural heritage sensitivity that have not previously been subject to significant ground disturbance?	No
Answer:	ON THE BASIS OF THE ANSWERS YOU HAVE ENTERED YOU ARE NOT REQUIRED BY THE REGULATIONS TO PREPARE A CULTURAL HERITAGE MANAGEMENT PLAN FOR THIS PROJECT	

ENSR | AECOM

Worldwide Locations

Australia	+61-2-8484-8999
Azerbaijan	+994 12 4975881
Belgium	+32-3-540-95-86
Bolivia	+591-3-354-8564
Brazil	+55-21-3526-8160
China	+86-20-8130-3737
England	+44 1928-726006
France	+33(0)1 48 42 59 53
Germany	+49-631-341-13-62
Ireland	+353 1631 9356
Italy	+39-02-3180 77 1
Japan	+813-3541 5926
Malaysia	+603-7725-0380
Netherlands	+31 10 2120 744
Philippines	+632 910 6226
Scotland	+44 (0) 1224-624624
Singapore	+65 6295 5752
Thailand	+662 642 6161
Turkey	+90-312-428-3667
United States	+1 978-589-3200
Venezuela	+58-212-762-63 39

Australian Locations

Adelaide
Brisbane
Canberra
Darwin
Mackay
Melbourne
Newcastle
Sydney
Singleton

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