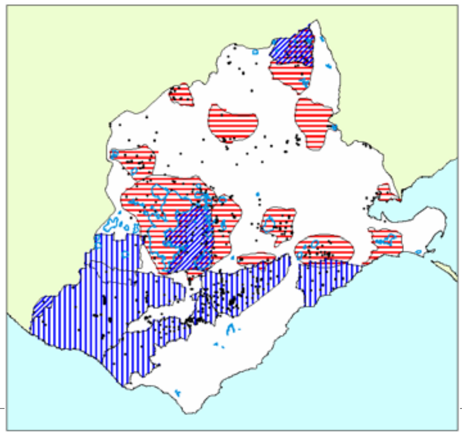
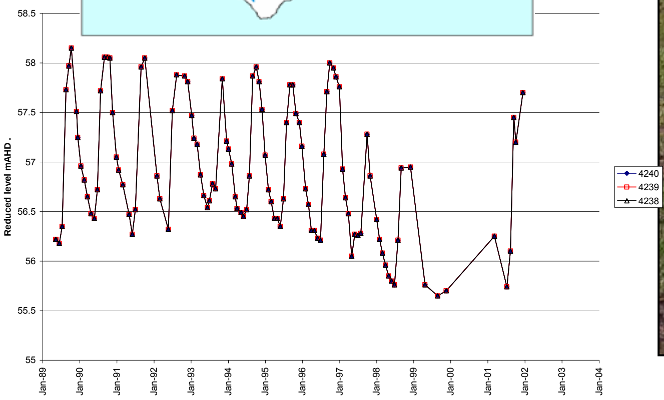
*Tuesday, 23 March 2004*

# Groundwater monitoring

## Guidelines and review



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## Executive Summary

This groundwater monitoring guidelines and review research project was initiated by the Corangamite Catchment Management Authority (CCMA) and funded by the National Action Plan for salinity and water quality. The fundamental goal of the project is to provide the best possible basis for monitoring the targets required by the NAP, in particular, groundwater levels, salinity risk and salinity loads. The general output from this research contributes to the regional knowledge base and benchmark register, and provides input to the Corangamite Salinity Action Plan and the Corangamite Regional Catchment Strategy.

The project follows from the construction of a Corangamite Groundwater Monitoring and Research Database (CGMRD) in 2003. The 9260 bores in the CGMRD are combined from three State government databases and include 956 bores in the CCMA region with a monitoring record. The number of monitoring records for the individual bores varies from one record to 305 records, with the majority of monitored bores containing between 50 and 100 records. The spatial distribution of the monitoring bores is shows higher numbers clumped in areas where groundwater monitoring is, and has been, required. These include the salinity 'Hot Spots' of the former CCMA salinity management plan and the areas of groundwater extraction.

A review of *Restoring the Balance* (Nicholson, 2002) indicated that 580 salinity monitoring bores had been constructed in the first decade of salinity management in the Corangamite CMA region, although only 519 were listed in the database. Of these, a field checking program located 409 bores, with the remaining 110 consisting of 42 bores that could not be located with the information available, 62 that apparently did not exist at all in the area of their stated location (based on landholder information), and 6 that were located but their identity could not be determined. All field checked bores were accurately located using Global Positioning System (GPS) technology, photographed, measured for depth, water level and salinity, and their condition reported. Of the 409 bores, 75 (19%) had broken standpipes, with 52 (13%) broken at or below ground level and 23 (6%) broken above ground level. The field checking measured 266 bores shallower than recorded (most possibly due to silting) and 81 bores deeper than recorded.

Several modifications have been made to the operation of the CGMRD to overcome some of the shortcomings recognised in this project. The database has been partly cleaned by the removal of 226 clearly identified duplicates in the monitoring bores listed. Improved functions such as links to photographs and maps to assist in the recognition of a bore and its location have been added.

For the salinity bores in the CCMA region, the limitations in the quality of the monitoring record results in ambiguity and uncertainty in the interpretation of the results. This uncertainty compromises the ability to properly audit the targets for catchment condition set by the RCS, and quantify the benefits of NAP investment.

The recommendations of this project fall into three main categories: the continuous improvement of the CGMRD; changes to the current groundwater monitoring; and requirements for new monitoring bores. Additional monitoring bores are required in target areas where bores do not currently exist. Preference should be given to bores required to set the resource condition targets in the salinity target areas. Initially the Geelong – Lake Connewarre area stands out, as there are no groundwater monitoring bores currently listed. Other areas which urgently require more monitoring bores are the Morrisons – Sheoaks, Lara and Illabarook target areas.

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## List of Acronyms

| Acronym | Meaning |
|---|---|
| CCMA | Corangamite Catchment Management Authority |
| CGMRD | Corangamite Groundwater Monitoring and Research Database |
| CLPR | Centre for Land Protection Research |
| DPI | Department of Primary Industries |
| DSE | Department of Sustainability and Environment |
| EC | Electrical Conductivity (usually measured in μS/cm) |
| GEDIS | Geological Exploration and Development Information System |
| GFS | Groundwater flow systems |
| GMA | Groundwater Management Area |
| GSV | Geological Survey of Victoria |
| NAP | National Action Plan for salinity and water quality |
| PAV | Permissible Annual Volume |
| RCS | Regional Catchment Strategy |
| RWC | Rural Water Commission, later the Rural Water Corporation |
| SAP | Salinity Action Plan |
| SCA | Soil Conservation Authority |
| SKM | Sinclair Knight Merz Pty Ltd |
| SOB | State Observation Bores |
| SRW | Southern Rural Water |
| SRWSC | State Rivers and Water Supply Commission |
| TDS | Total Dissolved Salts (usually measured in mg/l or ppm) |
| VGDB | Victorian Groundwater Data Base |
| VVP | Victorian Volcanic Plains |
| WatLUC | Water and Land Use Change project |
| WSPA | Water Supply Protection Area |

# 1 Introduction

This groundwater monitoring guidelines and review research project was initiated by the Corangamite Catchment Management Authority (CCMA) and funded by the National Action Plan (NAP) for salinity and water quality. The fundamental goal of the project is to provide the best possible basis for monitoring the targets required by the NAP, in particular, groundwater levels, salinity risk and salinity loads. The general output from this research contributes to the regional knowledge base and benchmark register, and provides input to the Corangamite Salinity Action Plan (SAP) (Nicholson *et al.*, 2003) and the Regional Catchment Strategy (RCS) (CCMA, 2003).

## *1.1* Background and context of the research

The initial Corangamite dryland salinity management plan – *Restoring the Balance* - was launched in December 1992 (Nicholson *et al.*, 1992). The plan was implemented by the Corangamite Salinity Forum, which later evolved into the Corangamite Salinity Implementation Group and finally the Corangamite Catchment Management Authority in 1997. Among the many achievements in the implementation of *Restoring the Balance* was the establishment of an extensive monitoring network that included 580 bores and 14 surface water monitoring stations (Nicholson, 2002).

The monitoring of waterlevels in the salinity bores has been reported to the CCMA (and precursors) on an intermittent basis (eg. Heislers, 1995, Pillai & Heislers, 2000). The results have been subjected to basic trend analysis to determine if the groundwater levels are rising or falling and if the associated salinity treatments have been successful. Within the CCMA this analysis of groundwater trends is critical to monitoring the SAP resource condition targets, and auditing the goals of both the RCS and the NAP. Ideally the salinity plan implementation committee would use the results of the monitoring and evaluation to guide their decisions on investing in salinity management.

However, of the salinity bores currently reported to the CCMA, approximately one third have been constructed to monitor the effectiveness of particular salinity treatments. In some situations, the monitored groundwater levels do not have an unequivocal proven relationship to the treatment adopted. Local groundwater systems are often assumed and monitoring bores are placed in the area where trees have been planted, even though the simplistic relationship between cause and effect is based on little direct evidence. If the salinity at a specific site is related to a regional or intermediate groundwater flow system, the water levels and salinity values recorded at that site will have little or no relationship to the salinity management investment at that site. In these circumstances, groundwater levels may be rising and the area affected by salinity increasing, even though recharge control planting has been undertaken, whereas discharge control may be more effective.

A review of *Restoring the Balance* (Nicholson, 2002) and the development of the second generation Corangamite SAP (Nicholson, *et al.*, 2003) identified the need for a review of the CCMA groundwater monitoring program and the development of a comprehensive CCMA groundwater monitoring database. The construction of the Corangamite Groundwater Monitoring and Research Database (CGMRD) was completed in August 2002 (Nolan-ITU, 2003c). This project completes the review of the monitoring network and establishes guidelines for future monitoring.

### 1.1.1 Opportunities

In addition to the salinity monitoring bores, there are approximately 460 groundwater monitoring bores that have been constructed by various the government agencies responsible for the management of groundwater since the introduction of the *Groundwater Act* in 1969. Although many of these State Observation Bores (SOB) are regularly monitored for groundwater management, the results are not reported to the CCMA or evaluated for the implementation of the salinity management plan.

The monitoring of groundwater bores within the CCMA region has varied according to the protocols and needs of the responsible authority. The Department of Sustainability and Environment (DSE), the Department of Primary Industries (DPI), the CCMA and all precursors to these authorities have been responsible at various times for the installation, monitoring and maintenance of the groundwater bore monitoring network. At present the DSE has a program to combine the various groundwater databases and rationalise the State monitoring needs (Minchin, *pers. comm*.).

However the needs of the CCMA vary from those of the State. The CCMA requires a comprehensive groundwater monitoring network to evaluate the resource condition targets in the SAP, as well as monitor regional trends. This could be partly achieved by assessing the suitability of the currently monitored bores (regardless of their origins) to provide the required parameters and quality of groundwater data. Where insufficient data of suitable quality is available, an assessment can be made to upgrade existing bores or construct new bores. Similarly, where current monitoring is not required, bores may be decommissioned from the network.

## 1.2 Aims of project

The project aims to:

1. Review the recommendations from Stage 1 and provide the CCMA with a platform for data rectification.
2. Review the monitoring needs and network to relate the data to the needs of the CCMA, specifically in relation to SAP targets, RCS and NAP auditing.
3. Establish common guidelines for data collection, database entry and reporting of the monitoring data.
4. Establish guidelines for the responsible use of the monitoring data within a framework of confidence limits. Higher confidence is given to proven groundwater systems, lower confidence to conceptual groundwater systems.
5. Educate the community to the need and importance of monitoring and encourage participation in the process.
6. Develop a tool to geo-spatially determine the most appropriate locations for bore placement.
7. Identify knowledge gaps in the monitoring network and make recommendations to address the shortcomings.

## 1.3 Project structure

The project has been undertaken by a research team within the Geology department in the School of Science and Engineering at the University of Ballarat, Mount Helen. The research team was guided by a steering committee comprising key stakeholders in groundwater monitoring in the region. Details of both groups are appended (Appendix A).

# 2 Groundwater monitoring

The monitoring of groundwater by the CCMA is required to assess the management of the catchment resource condition, as stated in the RCS and sub-strategies and plans. In particular, the SAP lists resource condition targets which require no net gain in the area of secondary saline discharge, no net loss in the areas of primary saline discharge and the establishment of targets for groundwater dependent ecosystems and other environmental sites (including refugia). These targets require the monitoring of groundwater levels and salinity (among other parameters).

## *2.1* Observation bores and piezometers

As the majority of groundwater is not able to be observed, bores and piezometers are traditionally used for monitoring. Observation bores and piezometers differ in their construction details and are used to measure different things (Figure 2.1).

An observation bore can be constructed in a variety of different ways, but essentially measures the rise and fall of the watertable. The watertable, or phreatic surface, is the top of the saturated zone where the fluid pressure in the pore spaces of the soil or rock is equal to atmospheric pressure. An observation bore typically comprises a hole drilled to the desired depth and cased with a solid pipe (PVC or steel) to a distance below the watertable. In fractured rock, the bore may be left open (uncased) beyond this point. If the material surrounding the bore is sandy or subject to collapse, a slotted pipe or wound-wire screen is used to keep the borehole open and allow water to enter the bore standpipe. The water rises up the bore to the level of the watertable at that location.

A piezometer is constructed to measure the total hydraulic head of water at a particular point in the groundwater system. The total head, being the sum of the elevation head and pressure head, may be higher or lower than the watertable, depending on the fluid energy at that point in the system. Piezometers are available in many forms:

1. An open or standpipe piezometer is used when the permeability of the rock or soil is usually greater than one mm/day. These are typically constructed by using a short length of slotted screen, usually wrapped in a filter cloth and surrounded by porous sand or gravel, which is isolated at a particular depth in the system by sealing the hole above with an impermeable clay plug (Figure 2.1).
2. A Casagrande piezometer is very similar to the above, but has a perforated tip attached to a smaller diameter pipe. Where the permeability of the ground is less than one mm/day, the time lag in the response of an open piezometer can be too great and a Casagrande piezometer is used. The porous tip (usually 60 μm pore diameter or less) and small diameter pipe improve the response time between changes in the water pressure and the level of water in the standpipe.
3. Where the permeability of the rock or soil is below about 10 μm/day, the time lag of open or Casagrande piezometers becomes too great for some monitoring applications. For example, approximately 5 days would be required for a typical open piezometer to reach equilibrium after a change in groundwater pressure in a rock or soil having a permeability of 1 μm/day. In monitoring applications where the change in pressure is critical (eg. dam walls, landslides, tunnels and mines) more responsive instruments are required. These include pneumatic piezometers, vibrating wire piezometers and vibrating strip piezometers.

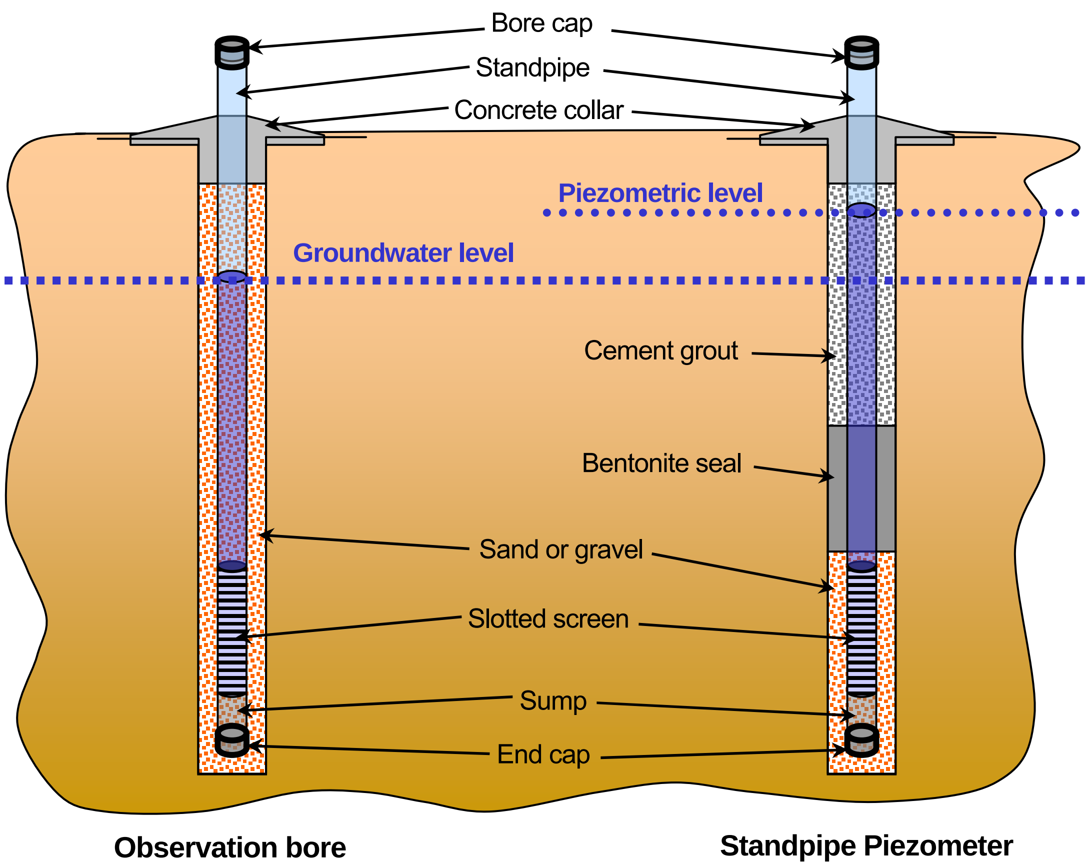



*Figure 2.1 Observation bore and piezometer construction*

The total head measured by piezometers constructed at various depths in the same spatial location (termed a piezometer nest) provides information on the direction of groundwater flow (Figure 2.2). Like any fluid, water flows from higher to lower pressure, and piezometer nests can be used to determine if water is flowing into (recharge) or out of (discharge) a system.

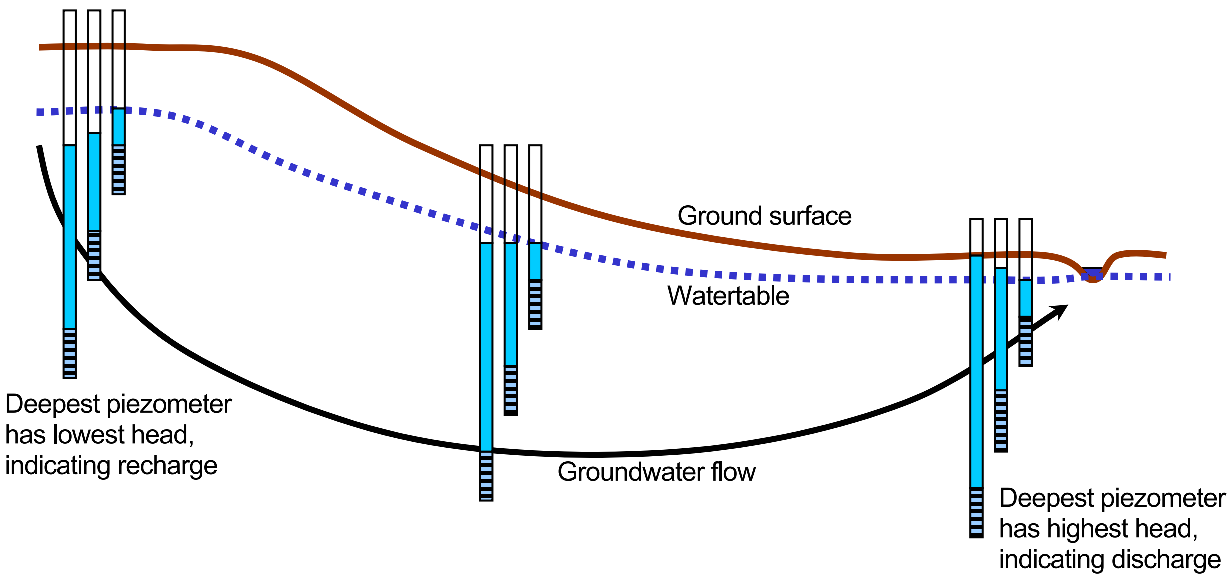



*Figure 2.2 Piezometer nests used to determine recharge and discharge*

## 2.2 Interpretation of water levels

Given that observation bores and piezometers can provide different information on the same flow system, knowledge of the bore construction details is obviously essential for the correct interpretation of the groundwater surface. More importantly, the construction details need to be associated with the record of materials encountered at depth during drilling the bore (lithological log). Bores of different depth in a regional location may not be monitoring the same groundwater flow system, depending on the subsurface conditions and the bore construction (Figure 2.3).

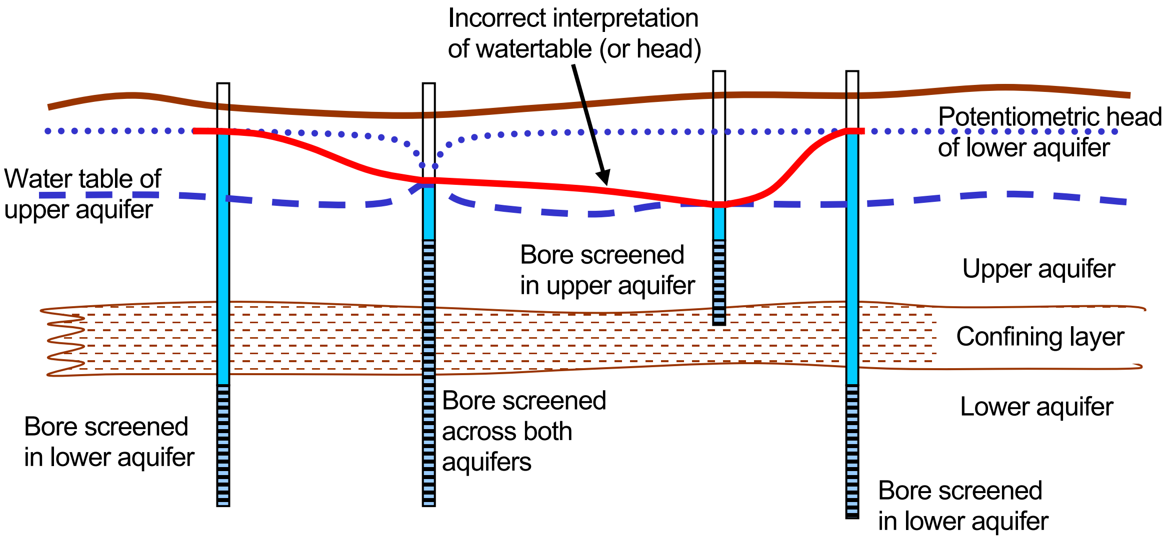



*Figure 2.3 Incorrect interpretation of waterlevels.*

*(source: modified from Leonard, 2003)*

Similarly, any groundwater flow system that leads to total head values in an aquifer that exceed the surface elevation will produce artesian bores. Therefore, artesian bores and sub-artesian bores can be either geologically controlled (as shown in Figure 2.3 above) or topographically controlled (as shown in Figure 2.2 on previous page). The correct interpretation requires knowledge of the geometry of the groundwater flow system in three dimensions.

## 2.3 Measuring groundwater salinity

Salinity is a measure of the Total Dissolved Salts (TDS) in water. Since salts in solution dissociate into ions, the ability of the solution to conduct an electrical current is proportional to the TDS of the solution. Therefore Electrical Conductivity (EC) is commonly measured as a surrogate for salinity measurement. In Système International (SI) units, EC is reported in siemens per metre (S/m), however decisiemens per metre, millisiemens per centimetre or microsiemens per centimetre are more commonly used in practice (1 dS/m = 1 mS/cm = 1000 μS/cm). The conversion of EC readings (μS/cm) to TDS (mg/l) requires multiplying by a factor between 0.55 and 0.75 depending on the ionic composition of the solution.

Sampling groundwater from a bore usually requires purging a minimum of three times the volume of water held in the bore to ensure that the water sampled is direct from the aquifer. Water standing in the bore casing for a length period may have changed in salinity due to precipitation of salts, or changes in water chemistry associated with the oxygenation of the water.

## 2.4 Groundwater monitoring protocols

Measuring groundwater levels and sampling groundwater for analyses is usually conducted according to a standard, so that the quality of the data is assured and the results are comparable.

The most basic method of measuring a groundwater level in a bore uses a whistle (usually a 'fox whistle') fitted to the upper end of a tube which is attached to a tape measure. As the tube is lowered down the bore, the lower end enters the standing water and the air compressed in the tube makes the whistle work. The distance from the standing water level to the top of the bore is then measured by the tape. An alternative and more reliable method uses a weighted probe with electrical contacts that complete a circuit when they come into contact with the water surface. The closed circuit is connected to a battery which is used to create a sound speaker and/or light to operate, and the distance is measured on the graduated electrical cable. The most sophisticated methods use capacitance probes which are permanently installed in the bore below the watertable and supply a continuous readout of the varying depth of the column of water in the bore.

Sampling water quality is much more difficult as the chemistry of the water can change according to the sampling method and treatment of the sample. Standards for groundwater sampling are provided by Australian and International standards and EPA Victoria. The two most important are:

- AS/NZS 5667.11:1998 Water Quality Sampling – Guidance on sampling of groundwaters
- AS/NZS 5667.1:1998 Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples.

Guidelines for measuring groundwater levels and salinity for the Victoria salinity management programs were developed by the DPI, and are included as Appendix B. Although not as rigorous as international standards, these monitoring protocols are suited to their purpose and designed for community use.

In the USA, approximately 40 groundwater standards have been developed by the American Society for Testing and Materials (ASTM), partly driven by the increasing need for accountability in a litigious society. These include every aspect of the installation, maintenance and rehabilitation of monitoring wells through to the choice of sampling equipment and treatment of samples and the modelling of groundwater flow systems. Relevant examples include:

- ASTM D6000-96 (2002) Standard guide for presentation of water-level Information from ground-water sites.
- ASTM D6089-97 (2003) Standard guide for documenting a ground-water sampling event.
- ASTM D4448-01 Standard guide for sampling ground-water monitoring wells.

The CCMA is also increasingly accountable for the reporting of catchment condition under the RCS. The investment of public funds is in part dependent on the progress towards meeting the targets for catchment condition set by the RCS. Auditing the progress towards reaching the targets relies on the appropriate and correct monitoring data, and the implementation of strict protocols is required to ensure that the data is of the highest quality.

# 3 Review of Corangamite groundwater database

A comprehensive groundwater bore database was assembled for the Corangamite region in 2002 (Nolan-ITU, 2003b). The CGMRD is intended as the dynamic repository of groundwater monitoring data for the region, available and accessible to the Corangamite community and stakeholders. Ideally, the database should provide relevant information, including up-to-date waterlevel readings, for any of the monitored bores.

## *3.1* History of groundwater data collection in Victoria

The first comprehensive groundwater bore database was assembled by the Geological Survey of Victoria (GSV) in the late 1960s, with the introduction of the *Groundwater Act 1969*. A digital database, compiled from the existing records of Government bores (from the commencement of the GSV in 1852) and the few records of private bores, was progressively assembled on mainframe computers. Historically, the bores were identified by Parish and bore number. In each Parish, the Government bores were assigned sequential numbers from 1 to 8000, records of private bores before the introduction of the *Groundwater Act 1969* were assigned 8000 – 10000, and private bore records after the Act were sequentially numbered 10000 onwards. Following the introduction of the *Water Act 1988*, the private bores in each Parish were sequentially numbered from 15000.

From 1969, the legislation required a permit to drill groundwater bores, and the information captured by the registration process was added to the database. This included groundwater investigation or observation bores drilled by other government agencies such as the State Rivers and Water Supply Commission (SRWSC) and the Soil Conservation Authority (SCA) and subsequent equivalents, although these agencies also kept a bore database.

Following the split of the groundwater group from the GSV in mid 1988 the bore database was duplicated. One copy was merged with several Rural Water Corporation (RWC) databases to become the Victorian Groundwater Data Base (VGDB), and the other copy was developed into the Geological Exploration and Development Information System (GEDIS), which included the mineral exploration bores. Data exchange was attempted for a few years following the split, but ultimately the databases grew into quite separate entities. Both bore databases converted to using a unique bore identifier rather than the historical Parish system.

The SCA began to investigate salinity in the late 1970s and developed separate databases for salinity monitoring. Since the release of the first Victorian Salinity Strategy in 1988, the salinity bore database has emerged as the Centre for Land Protection Research (CLPR) database, first compiled in 1994 (M. Reid, *pers comm.*).

The current situation is complex. The VGDB is administered by DSE but the data management and monitoring are outsourced to private consultants. The GEDIS database is administered and managed by the GSV, within DPI. The CLPR database is administered by Primary Industries Research Victoria (PIRVic) within DPI and the monitoring is partly outsourced to the community and partly conducted by the DPI, both PIRVic and the locally-based extension officers.

Several other bore databases were developed by public utility agencies that have now been privatised. Although most groundwater data has probably been captured on the VGDB, a vast amount of geotechnical and lithological information has been archived. Similarly a great deal of information stored in independent databases maintained by research organisations and consulting companies is not accessible in the public domain.

### 3.2 Assembly of the CGMRD

The 9260 bores in the CGMRD are combined from 8058 VGDB bores, 677 GEDIS bores and 519 CLPR bores (Figure 1).

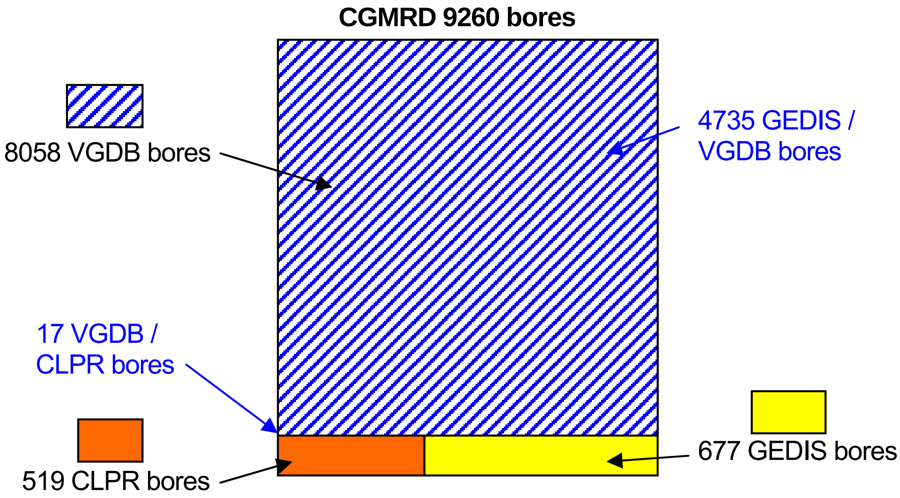



*Figure 3.1 Sources for CGMRD (data from Nolan-ITU, 2003a)*

The CGMRD is stored in digital format (computer based) and has been assembled into a relational database using Microsoft Access 97 database, Microsoft Visual Basic for Applications programming language, and MapInfo Professional v7.0 Geographic Information System (GIS). A number of screens have been developed as easy access tools for searching the groundwater bore data, and a user's guide is provided in the accompanying report (Nolan-ITU, 2003d).

### 3.3 Review of the CGMRD functionality and usefulness

The CGMRD provides the most complete and functional database yet developed for the CCMA's purposes. Until this database had been assembled, the majority of groundwater bore information had to be sourced through the managers of the various data repositories. The assembly of the CGMRD has now provided the CCMA with the capability to easily track monitoring data, query bore information and update the information as it is collected.

#### *3.3.1 Functionality of the CGMRD*

The CGMRD operates through a series of query screens in Microsoft Access. These screens allow the user to:

- Search for a bore, using either a radius or box centred on an x,y coordinate entered on screen or selected from a map; and/or a Parish name; and/or a bore use.
- Browse bore data, including basic location details, aquifer details, bore construction details, time-series waterlevel readings, bore lithological log, and hydrochemistry, where these details have been recorded in the database.
- Open a table in MapInfo GIS, to connect the database to a spatial analysis tool.
- Add or edit bores.
- Produce reports on bore information.

The functionality of the database has been thoroughly tested and reviewed as a component of this project and a detailed report is appended (Appendix C).

Several shortcomings were noted and some of these have been addressed in this project (refer to Section 6). The main deficiencies in functionality are:

1. An inability to intuitively select a bore (or group of bores) from the map function and find the data for those bores with ease.
2. The coding of bore data which makes the interpretation of the information difficult for users without previous knowledge of the parent bore databases.
3. The lack of qualifiers on the quality of the bore data, such as the date fields, the number of significant figures reported and the bore construction details.
4. The ability to inadvertently change or edit data and save those changes.
5. The operation of the database functions varies according to the computer platform on which it has been installed.

The additional functions that could significantly enhance the database are links to photographs, images or documents relating to the bore, or the area surrounding the bore. Information can also be added to provide a context to the bore's location, such as geology, land system, rainfall, raindays, evaporation, sub-catchment and groundwater flow system.

### 3.3.2 *Usefulness of the CGMRD*

The assembly of the CGMRD generally meets the outcomes of the project brief for stage one of the project. However, the CGMRD is only as good as the information it contains. The quality of the data is essential, given that it forms the basis on which the resource condition targets of the SAP and RCS are monitored and the benefit of an investment is evaluated. Questionable reliability of the monitoring data undermines the confidence of the evaluation, and ultimately the benefits of the investment of economic, intellectual, and social capital cannot be quantified.

Quality indicators have been included in the database for three bore parameters, *viz:* location, elevation, and reported Parish. However, many pitfalls in the data remain 'hardwired' from the original source. Three examples are:

1. In the original GSV database, the completion date for many of the bores was unknown. However, as the initial database required a date field, bores with unknown completion dates were assigned to New Year's Eve or New Year's Day in the year they were drilled. Thus a date of 31/12/1964 indicates that the bore was completed at an unknown time in 1964. These date fields carryover into both the VGDB and GEDIS, and ultimately the CGMRD.
2. In the original GSV database, the Parish in which a bore was drilled may have been known, but not the exact location. In some instances, these bores were assigned to coordinates in the centre of the Parish.
3. A result of the merging and splitting of the State bore database over the past 15 years is that any one bore may have been assigned a new bore identification in a different database. Where this has happened, a bore can be double or triple counted (refer to Section 6 for more detail).

The implications of drawing together three databases containing data of varying provenance and quality is that the CGMRD requires a significant effort at data cleaning This was obviously beyond the scope of the stage one project.

# 4 Field checking of salinity bores

The entire salinity bore monitoring network was checked in the field to verify the existing records and review the accuracy of the information in the CGMRD. The secondary purpose of the exercise was to fill the gaps in the data records for each bore and collect additional data for assessment and evaluation of the monitored data.

The majority of the field work was undertaken in July and August 2003 by Mark Dixon, Bob Smith and Briony Muller, with some assistance from Narelle Beattie and Warren Feltham. For reasons of safety, efficiency and quality assurance, fieldwork was always carried out in pairs.

## *4.1* Methods

### *4.1.1 Bore selection*

The 9,260 groundwater bores listed on the CGMRD, include salinity monitoring bores, SOB, bores drilled by government agencies, water authorities, private companies and individuals for both groundwater and non-groundwater investigations, and private groundwater bores. Of these, only the 505 salinity monitoring bores and the 464 SOB have some waterlevel monitoring information. Of the remaining 8,291 bores, many are unavailable for monitoring because they have been decommissioned, are in private ownership, have not been suitably constructed, or simply never existed.

In general, the quality of the bore location, construction, and monitored data of the SOB is more accurate than the salinity monitoring bores. The SOB are managed by DSE, and monitored by Theiss Environmental Services Pty Ltd and/or Sinclair Knight Merz Pty Ltd (SKM). The DSE have recently commissioned SKM to field-check the data of all SOB for improvement of the accuracy of the Victorian Groundwater Database (which is also managed by SKM for DSE) (Minchin, *pers comm*., 2003).

The logical action for this research project was to field-check the salinity monitoring bore network, as the information was critical to the CCMA's needs and was in most need of data improvement. Although other existing bores may be available for the monitoring network, it is beyond the scope of this project to field-check every bore in the database.

### *4.1.2 Site investigations*

As the majority of salinity monitoring bores have been constructed on private property, permission to enter a property and access the bores was sought from the individual landholders. The bores were located using pre-prepared map sheets displaying the existing bore location information, the mapped salinity and the 1:25 000 topographic map data (from the VicMap digital mapsheets). Accompanying maps showing the geology, groundwater flow system and land system were also prepared. In order to standardise the review, field sheets were produced for each bore, which consisted of the current database information and a checklist for the review (Appendix D).

The data collected at each site included location (using a Global Positioning System – GPS), standing water level (SWL), Electrical Conductivity (EC) measurement, bore depth, and an evaluation of the bore construction, conditions and quality. Detailed site location descriptions were documented and the bores photographed to provide a record of the bore condition, site conditions, and context within the landscape. The field equipment used is listed in Appendix D.

Where multiple bores had been constructed at one site (i.e. “nested” piezometers) the GPS coordinates were recorded for the most northern or eastern bore in the nest and the distance between adjacent bores was subtracted from the recorded coordinates. This allowed the location of the bores to be discriminated in the database, rather than be assigned the same co-ordinate as previously occurred. The SWL data was recorded from standpipe height and then reduced to ground level. The EC was measured in water samples bailed from the bore, as a surrogate for salinity. Due to time constraints, the bores were not purged prior to sampling, so the EC value reflects the salinity in the bore water rather than the aquifer. Bore depths were recorded to check on the bore construction details recorded in the database, and perhaps indicate if the bores had substantial accumulations of silt.

The subjective assessment of current condition and quality was obtained to assist in the review of monitoring bores. Detailed site descriptions and photos will be included in the CGMRD to provide a context for bore location, hydrologic setting, landscape position, site conditions and to clearly identify the bore. A sign identifying the bore number and compass direction have been included in each photograph.


*Figure 3.2 Examples of bore photographs*

### *4.2* Results

The review of *Restoring the Balance* (Nicholson, 2002) indicated that 580 salinity monitoring bores had been constructed in the first decade of salinity management in the Corangamite CMA region. The CGMRD records 519 salinity bores in the region. Of these, the field checking located 409 bores, with the remaining 110 consisting of 42 bores that could not be located with the information available, 62 that apparently did not exist at all in the area of their stated location (based on landholder information), and 6 that were located but their identity could not be determined.

The difficulties in locating groundwater bores in the field resulted from the inaccuracies in the majority of the existing location coordinates in the CGMRD. The bores located in the road reserves or adjacent to roadsides were easier to find, and the descriptive locations given by landholders were very useful to locate bores within paddocks. This experience emphasizes the need to collect and register the descriptive detail of bore locations in the updated version of the database.

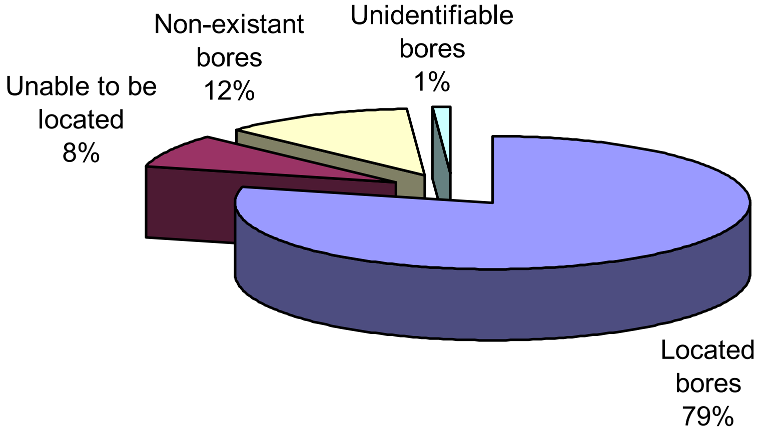



*Figure 3.3 Bore location statistics*


*Figure 3.4 Exemplary bore location practice*

### 4.2.1 Bore condition

The condition of the salinity bores checked in the field varied considerably. Information was documented on the condition of the standpipe, cap and bore collar, which will be used to assess the integrity of the groundwater monitoring data collected at that site. A broken standpipe, missing cap or degraded bore collar may allow the contamination or dilution of the groundwater by rainfall and runoff, and may result in an erroneous measurement of SWL or EC. In particular, if water can flow down the annulus of the bore because of poor construction and broken or missing bore collar, the monitored groundwater level will be incorrect.

Of the 409 bores, 75 (19%) had broken standpipes, with 52 (13%) broken at or below ground level and 23 (6%) broken above ground level. Some of the standpipes that were broken above ground level still retain their caps and therefore may provide reasonable quality data. If required for the monitoring network, these bores could be relatively easy to repair.

Of the 357 bores that had standpipes above ground level, 66 (19%) had no caps, with 14 (4%) of those being bores with broken standpipes.

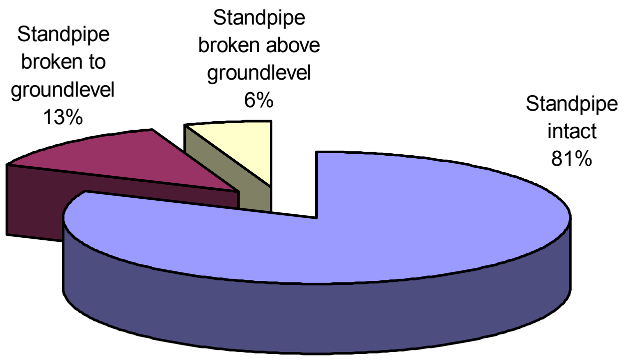



*Figure 3.5 Condition of bore standpipes*

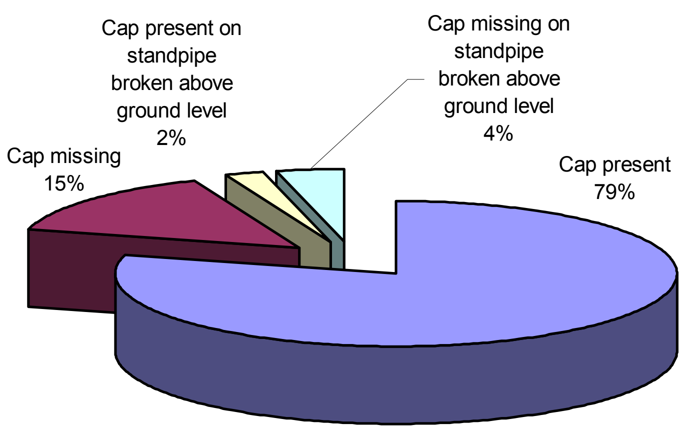



*Figure 3.6 Condition of bore caps*

Although approximately 20% of the salinity monitoring bores have fallen into disrepair, a number of 'intact' bores are poorly protected from future damage.


*Figure 3.7 Varying states of bore condition due to guarding*

Photo A Well protected bores in good condition
B An unprotected bore has a broken standpipe
C Poor bore protection and broken standpipes

The measured bore depths (355 bores) showed discrepancies (some quite significant) to the total bore depths recorded in the CGMRD. For bores that are deeper than their total depth recorded on the database it is assumed that the original database record is incorrect. However, shallower bores may have an incorrect database record or be shorter due to an obstruction in the bore or the accumulation of mud in the base of the bore. The rate of accumulation of silt and clay in the base of a bore depends on bore construction, specifically the size of the slots in the bore screens, and the presence or absence of a filter cloth, gravel pack, sump and end cap. Over time, silting at the base of the bore can reduce the screened interval until the bore becomes dysfunctional, and reverts to a pipe containing water protruding from the ground.

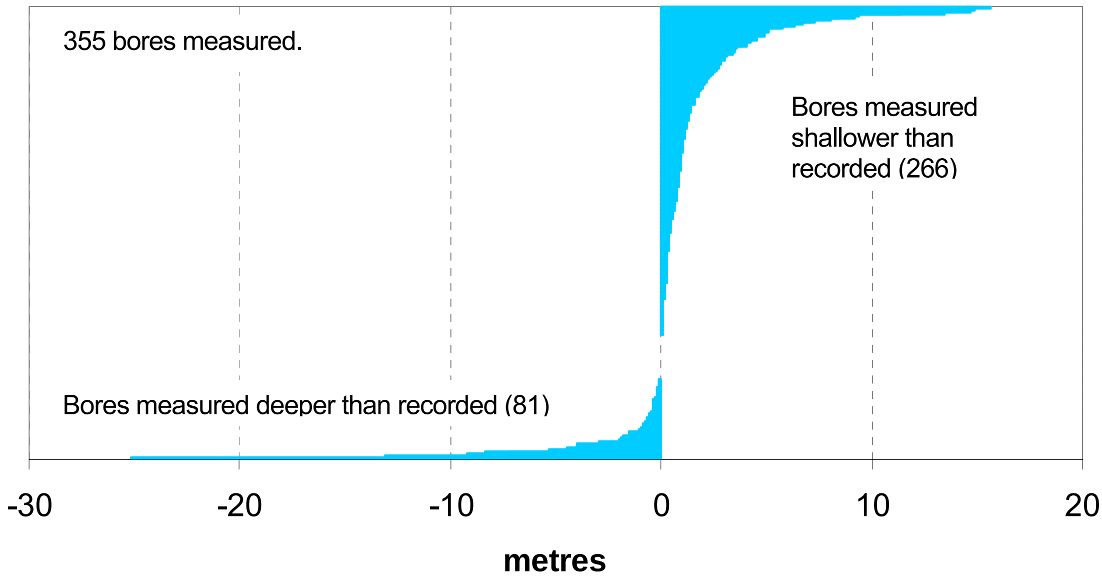



*Figure 3.8 Discrepancy between measured depth of bores and recorded total depth.*

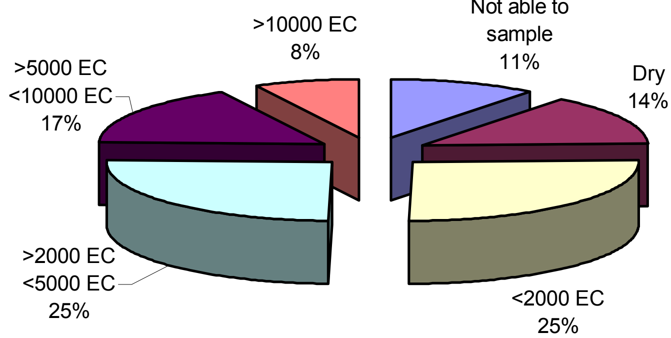
### *4.2.2 Measured salinity*

Water in the monitoring bores was sampled using a polyethylene bailer and measured for salinity using a portable EC meter (Appendix D). The bores were not purged before sampling, so the readings reflect the salinity of the water stored in the bore, rather than the salinity of the groundwater. Therefore the salinity readings are an approximation of the actual groundwater salinity due to concentration of bore water salinity by evaporation, diluted by rainwater of runoff entering the bore, or changes to the chemistry of the water stored in the bore over time.

In a few cases (15 bores, 3.7%) the monitoring bore deviated from the vertical with a kink or bend that probably occurred after the construction of the bore due to earth movements (creep, landslides, etc.). This prevented the sampling of the groundwater for EC testing, since the bailer could not get below the kink.

*Figure 3.9 Measured salinity of bore waters*

*(EC units = $\mu$S/cm)*
*(399 bores)*



### 4.2.3 Site characteristics

The characteristics of the sites at which the monitoring bores are located was recorded in the field, and later checked and supplemented by reference to the Corangamite GIS data. The results show a skewed distribution of bores in particular geological units (Figure 3.10) and a spread of landscape positions.

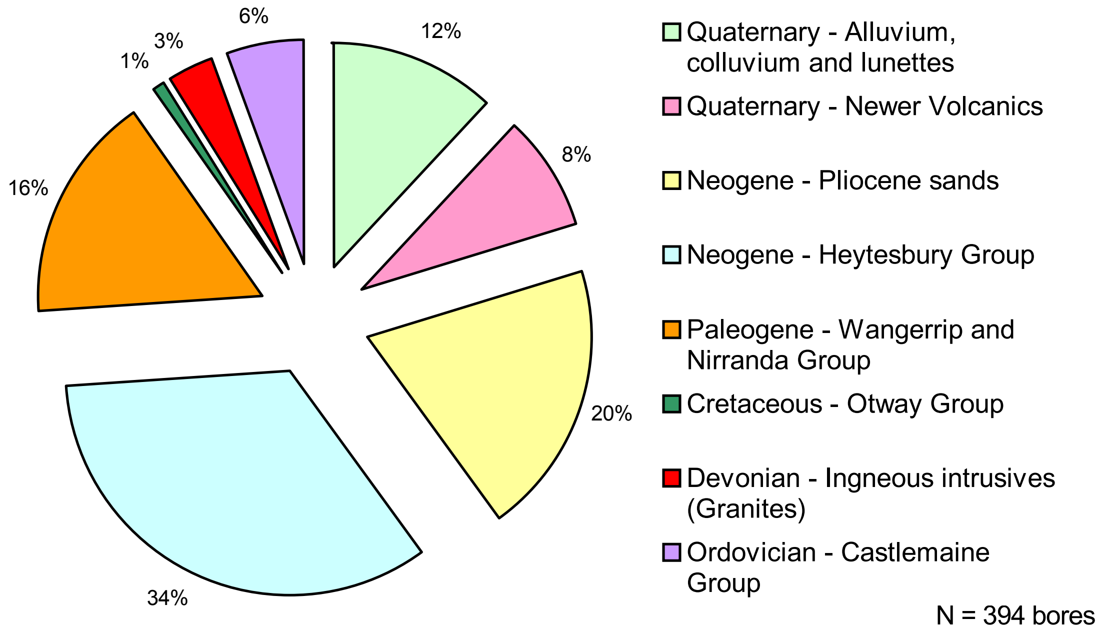



*Figure 3.10 Geological units in which salinity monitoring bores have been constructed*

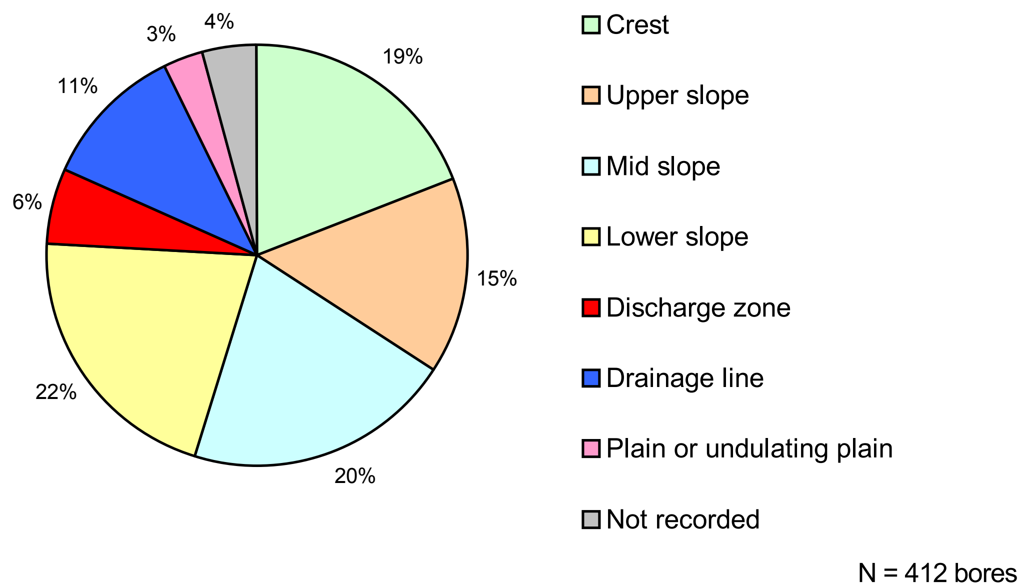



*Figure 3.11 Landscape position in which salinity monitoring bores have been constructed*

### *4.3* Landholder comments

Discussions with landholders during the field-checking program revealed that the condition of the monitoring bore under their stewardship is closely related to their interest in the salinity program. In general, landholders indicated that their interest in salinity monitoring has reduced significantly in recent years, mostly due to a lack of feedback from the agencies involved in the salinity program. As stewards of the bores constructed on their properties, landholders felt an obligation to actively maintain the condition of bores, and some had been paid for monitoring their bores at various times. A few people expressed dissatisfaction with changes that had been made to the original agreements on bore maintaining and monitoring.

Field observations revealed a general decline in the condition of monitoring bores that were once well maintained and protected. In some cases, the location of bores has inconvenienced landholders and some commented that intended changes to the farm or property may result damage to their bores.

# 5 Review of monitoring record

Analysis of the measured groundwater levels was undertaken to assist in identifying the most useful monitor bores. Although the physical condition of the monitoring bores is important, the relevance of the data collected from the bores is equally important.

## *5.1* Number of monitored bores and records

There are 956 bores in the CGMRD with a monitoring record. The number of records varies from one record to 305 records, with the majority of monitored bores containing between 50 and 100 records (Figure 5.1).

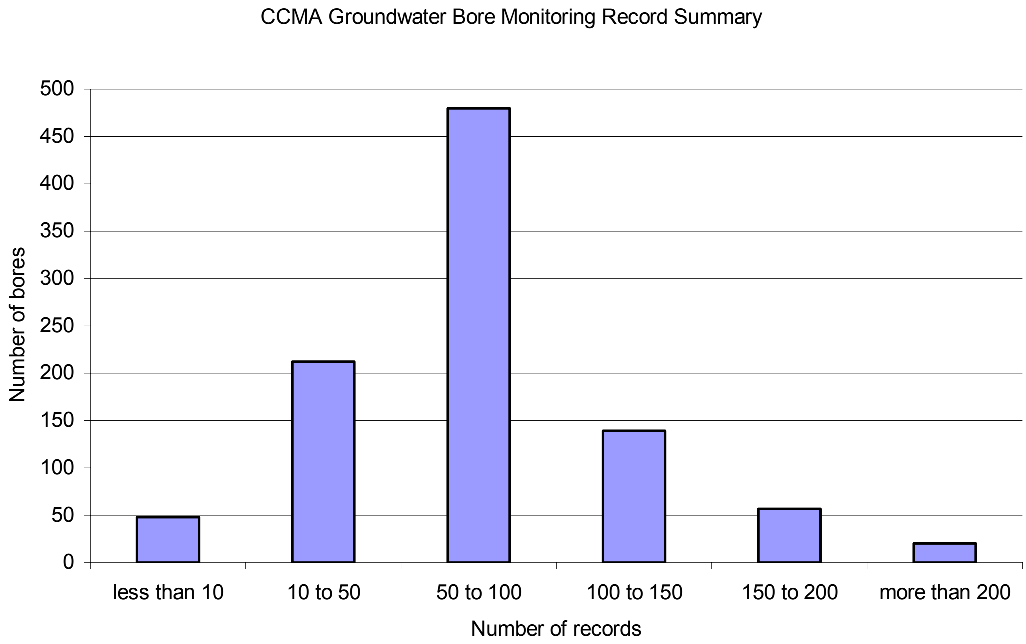



*Figure 5.1 Number of monitored bores and monitoring records*

| Bore ID | Start date | Records |
|---|---|---|
| 64227 | 6/3/1974 | 305 |
| 102867 | 12/6/1973 | 299 |
| 82838 | 6/3/1974 | 296 |
| 64228 | 6/3/1974 | 294 |
| 82840 | 12/6/1973 | 294 |
| 4536 | 29/3/1993 | 291 |
| 64229 | 12/6/1973 | 289 |
| 82841 | 10/3/1974 | 288 |
| 109110 | 12/4/1981 | 258 |
| 109111 | 12/4/1981 | 256 |

| Bore ID | Start date | Records |
|---|---|---|
| 64230 | 19/2/1979 | 251 |
| 64233 | 12/4/1981 | 247 |
| 48249 | 12/6/1982 | 219 |
| 4244 | 5/8/1989 | 218 |
| 4246 | 5/8/1989 | 214 |
| 64235 | 12/7/1983 | 212 |
| 109108 | 12/7/1983 | 208 |
| 64234 | 6/1/1983 | 207 |
| 64236 | 12/7/1983 | 207 |
| 109112 | 31/1/1984 | 201 |

***Table 5.1 Bores with more than 200 monitoring records.***

### *5.2* Spatial distribution

The spatial distribution of the monitoring bores is shows higher numbers clumped in areas where groundwater monitoring is, and has been, required (Figure 5.2). These include the salinity 'Hot Spots' of the first CCMA salinity management plan (*Restoring the Balance*, Nicholson *et al.*, 1992) and the areas of groundwater extraction.

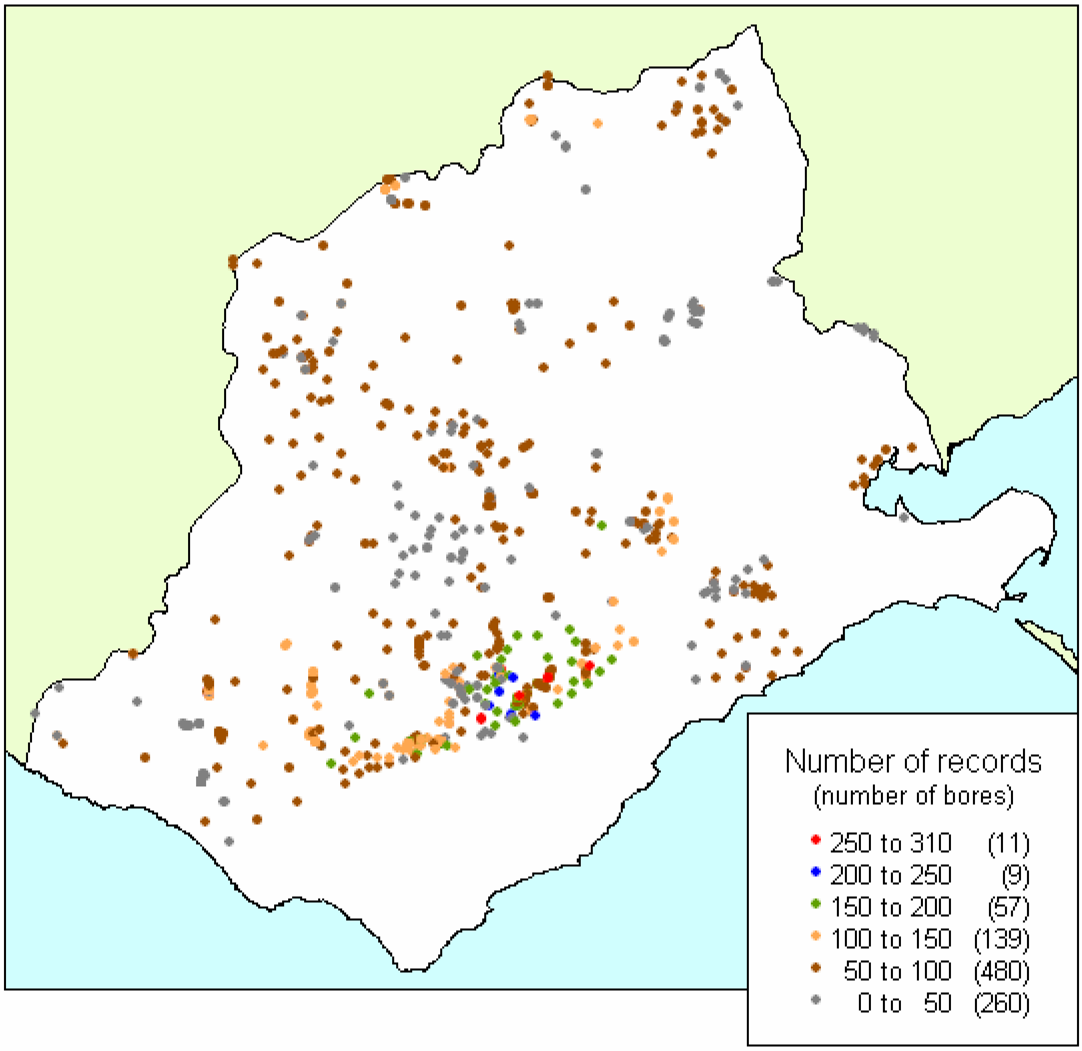



*Figure 5.2 Distribution of monitoring bores in the CCMA region*

### 5.2.1 Distribution by groundwater flow system

The second-generation CCMA SAP has adopted groundwater flow systems (GFS) as the primary means by which the CCMA landscapes have been disaggregated into salinity management units. GFS are explained in more detail in Section 7.3.1.5 of this report and are fully documented in Dahlhaus *et al*., (2002). The distribution of bores by GFS is shown below (Figure 5.3 & Table 5.2).

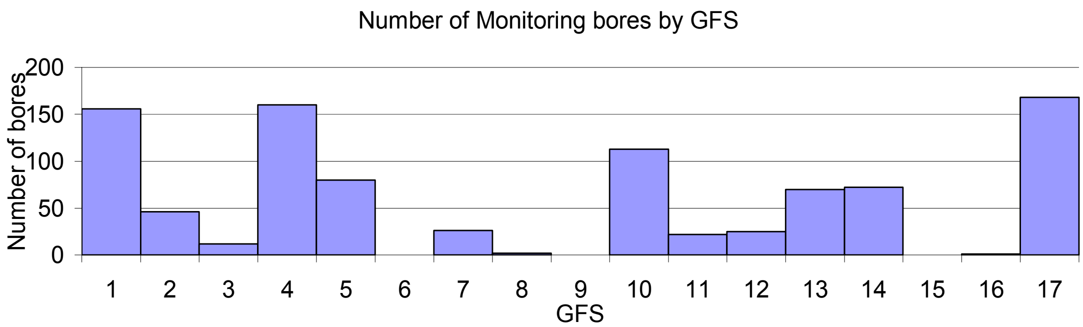



*Figure 5.3 Number of monitoring bores by GFS*

| GFS | GFS name | Number of bores | Record count | | |
|---|---|---|---|---|---|
| | | | min | max | average |
| 1 | Quaternary sediments | 156 | 1 | 299 | 81.6 |
| 2 | Scoria cones and stony rises | 46 | 1 | 122 | 48.3 |
| 3 | Highlands gravel caps | 12 | 11 | 64 | 31.5 |
| 4 | Heytesbury marl | 160 | 1 | 218 | 53 |
| 5 | Gerangamete marls | 80 | 15 | 296 | 118.2 |
| 6 | Otway Group rocks (Barrabool Hills) | 0 | | | |
| 7 | Granitic rocks | 26 | 41 | 111 | 78.6 |
| 8 | Older volcanics | 2 | 40 | 100 | |
| 9 | Otway Group rocks (Otway Range) | 0 | | | |
| 10 | Pliocene sands | 113 | 1 | 247 | 73.7 |
| 11 | Wiridjil Gravels | 22 | 17 | 161 | 99.5 |
| 12 | Palaeozoic sedimentary rocks | 25 | 4 | 74 | 41.6 |
| 13 | Central Highlands volcanics | 70 | 1 | 132 | 60.7 |
| 14 | Volcanic plains basalt | 72 | 17 | 144 | 68.2 |
| 15 | Subsurface Deep Leads | 0 | | | |
| 16 | Port Campbell Limestone | 1 | | 64 | |
| 17 | Dilwyn Formation | 168 | 1 | 305 | 102.7 |

***Table 5.2 Monitoring bores listed in each GFS***

It should be noted that the table shows the spatial correlation of bore collars in the surface extent of each GFS. The actual aquifer (and GFS) that the bore monitors will depend on its depth and bore construction details. For example a number of the bores spatially located in GFS 1 – Quaternary alluvium – may actually monitor the underlying GFS.

### 5.2.2 Distribution by groundwater protection area

Groundwater Management Areas (GMAs) and Water Supply Protection Areas (WSPAs) have been declared in parts of the CCMA region (more fully discussed in Section 7.3.1.2 of this report). The distribution of groundwater monitoring bores in these regions is illustrated in Figure 5.4 and tabulated in Table 5.3 below. It should be noted that only a small portion of the Nullawarre WSPA extends into the CCMA region, and parts of the Bungaree WSPA, Colongulac GMA and Paaratte GMA extend into neighbouring CMAs.

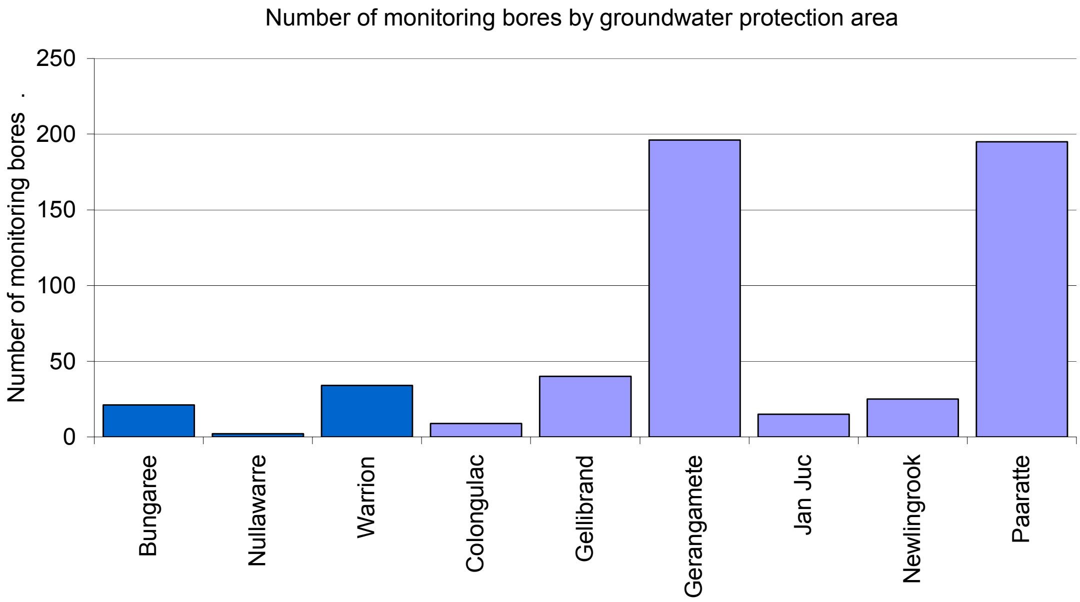



*Figure 5.4 Distribution of monitoring bores by groundwater protection area*

| Groundwater protection area | Type | Number of bores | Record count | | |
|---|---|---|---|---|---|
| | | | min | max | average |
| Bungaree | WSPA | 21 | 1 | 92 | 51.6 |
| Nullawarre | WSPA | 2 | 1 | 19 | |
| Warrion | WSPA | 34 | 1 | 118 | 34.7 |
| Colongulac | GMA | 9 | 2 | 107 | 79.7 |
| Gellibrand | GMA | 40 | 4 | 305 | 102.9 |
| Gerangamete | GMA | 196 | 1 | 299 | 118 |
| Jan Juc | GMA | 15 | 2 | 77 | 62.6 |
| Newlingrook | GMA | 25 | 17 | 167 | 88.2 |
| Paaratte | GMA | 195 | 1 | 218 | 59 |

***Table 5.3 Monitoring bores listed in groundwater protection areas***

The number of monitoring bores in the Gerangamete and Paaratte GMAs is biased by the high count of relatively shallow salinity monitoring bores in those regions.

### *5.2.3 Distribution by salinity target area*

The distribution of bores in the target areas of the CCMA second-generation salinity action plan (SAP) is shown below (Figure 5.5 & Table 5.4).

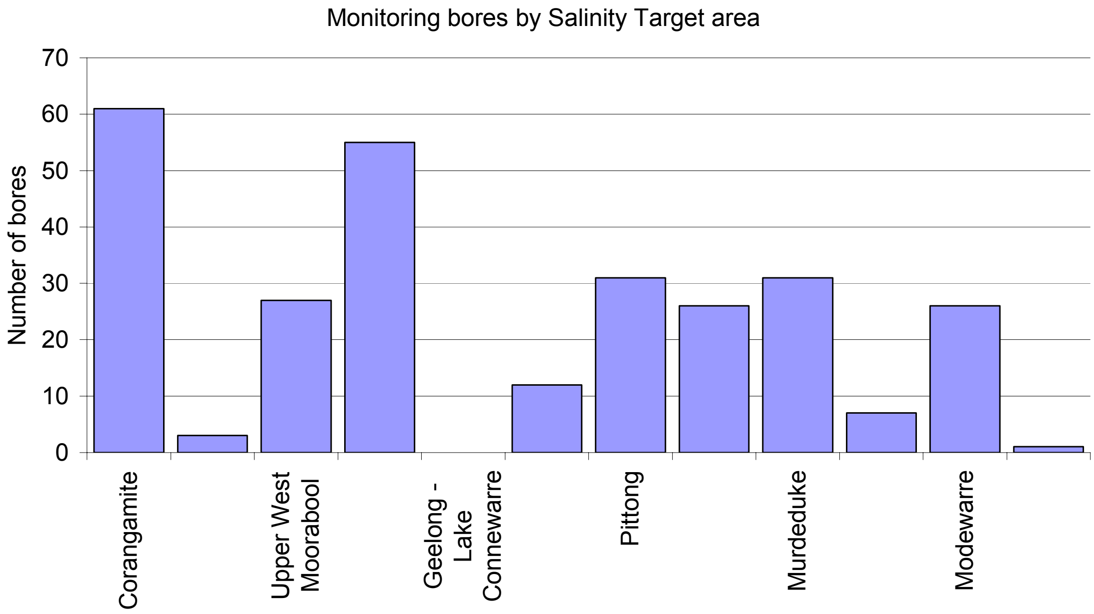



*Figure 5.5 Distribution of monitoring bores by SAP target area*

| SAP Priority | Target area | Number of bores | Percentage of total monitoring bores |
|---|---|---|---|
| 1 | Corangamite | 61 | 6.4 |
| 2 | Morrisons - Sheoaks | 3 | 0.3 |
| 3 | Upper West Moorabool | 27 | 2.8 |
| 4 | Colac - Eurack | 55 | 5.8 |
| 5 | Geelong - Lake Connewarre | 0 | 0.0 |
| 6 | Illabarook | 12 | 1.3 |
| 7 | Pittong | 31 | 3.2 |
| 8 | Lismore - Derrinallum | 26 | 2.7 |
| 9 | Murdeduke | 31 | 3.2 |
| 10 | Warncoort | 7 | 0.7 |
| 11 | Modewarre | 26 | 2.7 |
| 12 | Lara | 1 | 0.1 |
| | Total | 280 | 29.3 |

***Table 5.4 Number and percentage of monitoring bores by SAP target area***

## *5.3* Quality of monitoring record

### *5.3.1 Waterlevels*

The record of waterlevels for the 956 monitored bores varies in relation to the monitoring frequency, the monitoring agency and the purpose of the bore. In general, the bores used to monitor groundwater resources have the longest and most continuous records and are regularly monitored by contractors (Figure 5.6)

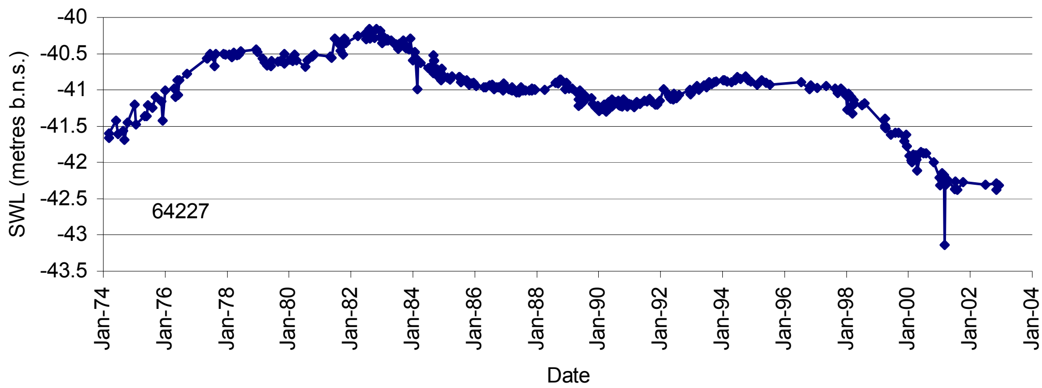



*Figure 5.6 Monitoring record for Bore 64227.*

*Bore 64227 is 459 metres deep and is one of the bores used to monitor the Barwon Downs graben from which urban water for Geelong is extracted.*

Nearly all of the monitoring records contain gaps, one or more erroneous readings (data spikes), or zero-value readings. While there data gaps and spikes are inevitable in the longer monitoring records, in shorter records they severely compromise the value of the data.

An attempt was made at evaluating the monitoring record using HARTT-xls, a program developed specifically for hydrograph analysis (Ferdowsian *et al.,* 2001). However after all the data was prepared it became apparent that a number of the time-series monitoring records in the CGMRD have monitoring dates that differ to the original data. It appears that in the construction of the original CGMRD, the day and month have been switched for the VGDB records where the day is ≤12. This compromises the analysis of the records within each year (i.e. the seasonal variation) for part of the data set. In discussing this serious problem with the project manager (Mr Tim Corlett) it was decided that the repair of the records would unreasonably delay the completion of this project, and it has been postponed to a later stage (refer to Recommendation 1, Section 8.1).

### *5.3.2 Salinity*

The groundwater salinity records are generally poorly recorded in both time-series and quality. Very few bores record the changes to groundwater salinity over time and most do not record how the sample was obtained, or whether the bore was purged before sampling.

### *5.3.3 Bore construction details*

In all cases, the monitoring data needs to be interpreted in the context of the monitoring bore construction. Unless the drilling rig type (auger, percussion, rotary), borehole depth and lithology, bore screen length and depth, presence or absence of a gravel pack, presence or absence of a seal and length and depth of the seal (if present), and the bore development history (jetting, air lift, purging, etc.) are known, the monitoring data is severely limited in its full interpretation (refer to Figure 2.3 as an example).

### *5.3.4 Limitations of the monitoring record*

In general, the CCMA monitoring record is relatively poor in both its quality and spatial distribution. The quality is severely compromised by the lack of bore construction details and borehole lithological logs. It is believed that many of these records do exist, but have not been adequately captured. However, it is probable that the details simply do not exist for some (an unknown percentage) of the bores. The lack of bore construction detail limits the interpretation of the monitoring records. Two examples are given below:

Example 1.

Bores 5144, 5145, 5146 and 5147 located at Pittong. These bores were not field checked, as they could not be located during the course of this project by the field personnel. They are presumed to constitute a 'piezometer nest', since all the bores have been given the same coordinates. It is apparent that the reported total depths (all reported as 17 metres deep) for bores 5144, 5145 & 5146 cannot be correct, since the time-series water levels are too varied. The recorded artesian pressures in bores 5146 and 5147 suggest that 5146 is a deep bore in a discharge zone where it is recording a topographic driven groundwater pressure. Alternatively, it may be a bore that intersects a confined aquifer. However, bore 5147 is a relatively shallow bore (assuming it's recorded correctly) with an artesian (presumably topographically driven) head. This monitoring record cannot be interpreted with any degree of confidence unless the bore depths, borehole lithology and bore construction details are known.

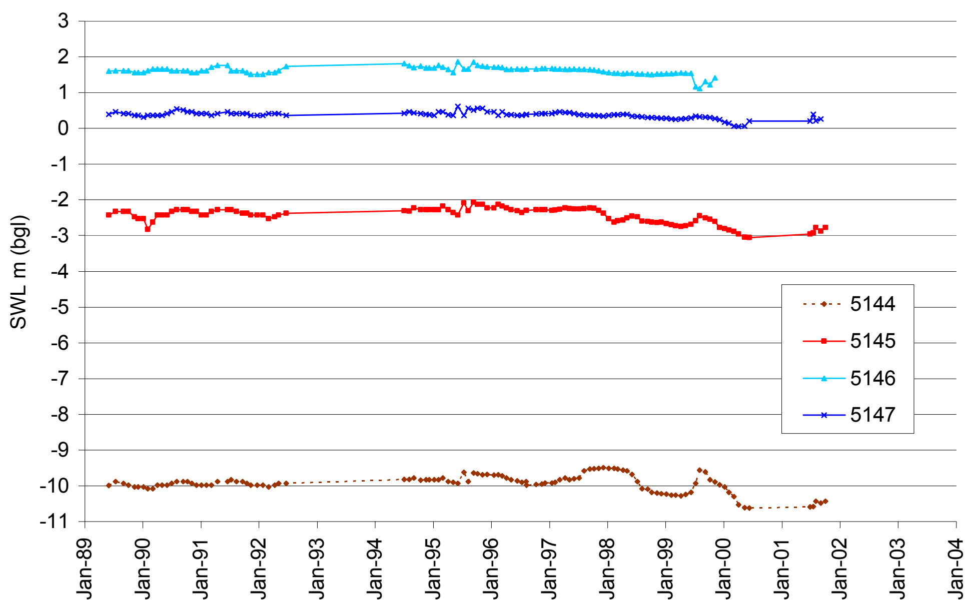



*Figure 5.7 Hydrographs of four bores at Pittong*

Example 2

Bores 4238, 4239 and 4240 in the Heytesbury. The bores are nested piezometers in a discharge area. Bore 4238 is reported as 20 m deep, which accords with that measured in this project as 20.2 m from the natural surface. Bore 4239 reported at 10 m (measured 9.92 m) and Bore 4240 as 5 m (measured 4.85 m). As can be seen by the hydrograph, all bores respond absolutely identically to the seasonal recharge and discharge in the system (Figure 5.8). Since the bores are constructed in the Gellibrand Marl, the identical hydrograph response from two bores 15 metres vertically separated in low hydraulic conductivity materials is not credible. With a seasonal fluctuation of over two metres, a lag time of days (if not months) should separate the records.

It is likely that the bores have been constructed as observation bores, rather than piezometers (refer to Figure 2.1). If this is the case than the bores all measure the same thing, i.e. the watertable, rather than the pressure at a point in the system. If that were the case, then two of the three bores are redundant. However, without bore construction records, it is impossible to know with confidence.

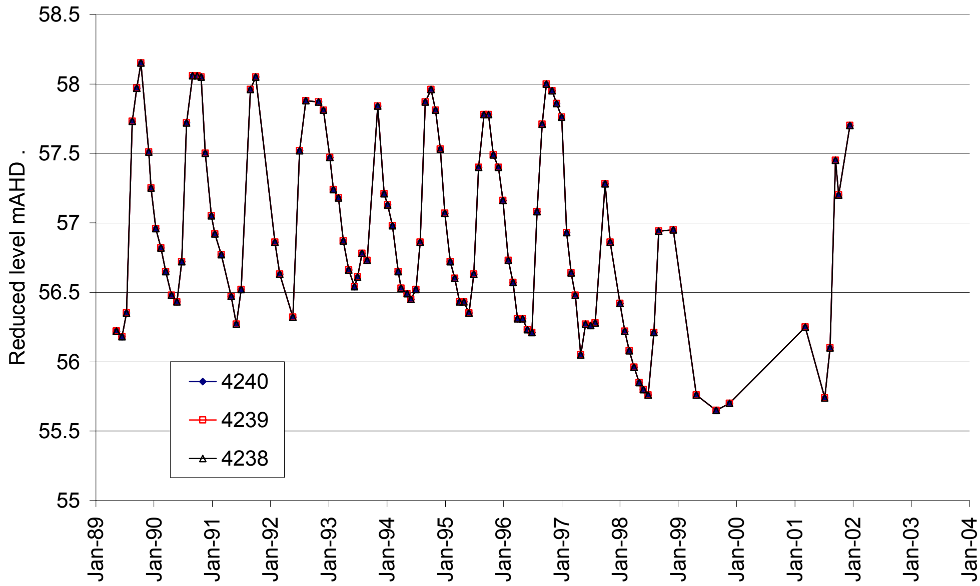



*Figure 5.8 Hydrograph response of 3 bores in the Heytesbury*

Additional limitations imposed by the quality of the monitoring record include the unknown bore collar elevations, unknown condition of the screens, and unknown bore development procedures.

For the salinity bores in the CCMA region, the limitations in the quality of the monitoring record results in ambiguity and uncertainty in the interpretation of the results. This uncertainty compromises the ability to properly audit the benefits of NAP investment. With the ratification of the CCMA RCS by both the Federal and State governments, there is an increased accountability to ensure that the monitoring data justifies the interpretation and evaluation of the catchment condition. On this basis, every effort needs to be made to improve the monitoring network in the region (refer to Recommendation 7, Section 8.2).

# 6 Database modification

Following the review of the CGMRD (Section 3), the field checking of salinity bores (Section 4) and the review of the monitoring record (Section 5), the database has been modified accordingly.

## *6.1* Data cleaning

The legacy of the groundwater database management in Victoria and the provenance of the data in the CGMRD resulted in a number of bores being duplicated, triplicated or even quadruplicated in the database. In all, 2,165 bores (i.e. unique bore identifiers) were identified as potential duplicates, as they shared 479 location co-ordinates.

A proportion of the reported duplicates and triplicates are “nested” piezometers which have been allocated the same co-ordinates (eg. Figure 3.7a). Of the remainder, a proportion are individual bores that were allocated unique bore identifiers in the various groundwater databases, and a number are non-groundwater bores (eg. closely-spaced exploration or geotechnical bores) which have been historically reported at the same co-ordinates.

The situation is somewhat more complicated as a proportion of the bores in each separate database were subsequently allocated revised co-ordinates which separated the bores from the original duplicates resulting in “phantom” bores in the CGMRD.

The majority of the “nested” piezometers were reallocated unique co-ordinates during the field inspections. These updated co-ordinates have been entered into the revised CGMRD following the removal of 226 clearly identified duplicates from the original database (Appendix F). These duplicates were twice checked - individually and independently – before removal to ensure that no data was lost from the bore records.

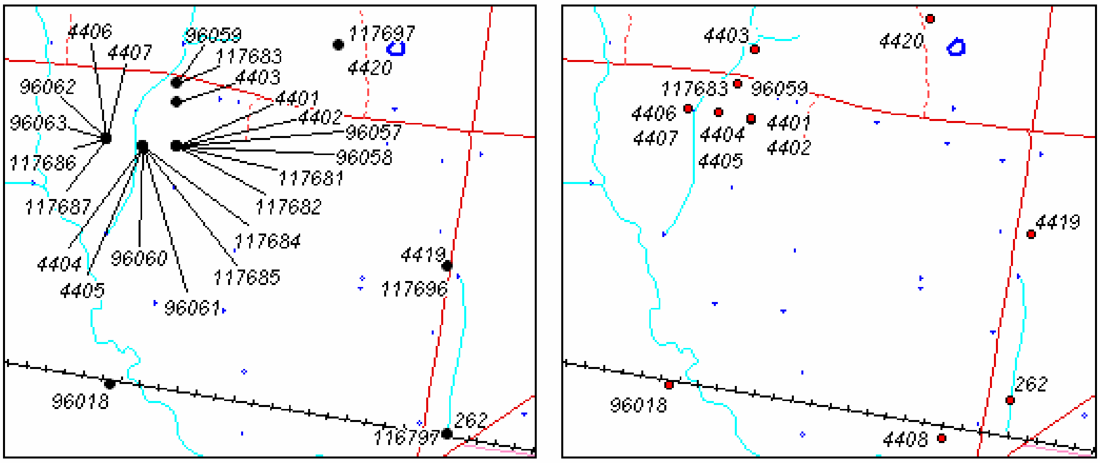



*Figure 6.1 An example of changes made to the database (Lismore district).*

<u>Left hand side (*before*):</u> The nested piezometers 4401 to 4407, 96057 to 96063 and 117681 to 117687 were triplicated in the CGMRD, except for 4403 which has unique coordinates. Bores 4419 / 117696, 4420 / 117697 and 262 / 116797 are duplicated.
<u>Right hand side (*after*):</u> After field checking, bores 262, 4401 to 4408, 4419 and 4420 were more accurately located. Note that nested bores 4401 / 4402, 4404 / 4405 and 4406 / 4407 have unique coordinates, but appear identical at the scale of this map. Duplicates of the original coordinates were removed from the base. The remaining duplicate - bores 96059 and 117683 - are almost certainly phantom (non-existing) bores that were originally duplicates of bore 4403.

It is estimated that approximately 25% of the remaining 1,939 bores that share the 479 coordinates may be duplicates, triplicates or quadruplicates of the same bore, or non-existing bores that were duplicates a bore which has since been allocated new coordinates. These bores should be removed from the CGMRD, but the task of identifying them (i.e. field checking and/or checking the original records) is outside of the scope of this project.

The remaining 75% (estimated) are unique bores that have been assigned the same co-ordinate. This practice is an historical artefact in the database records, dating from the 1960's and 1970's when the original GSV database was built. An example is given by four bores (305133 to 305136) which are assigned the same coordinate, which also coincides with the centroid of the parish (Corio). The bores are shallow bores – 1.5 m to 2.3 m deep – reported as constructed on 27/7/1967. Two explanations are possible: either

1. The bores are closely spaced bores (for example, geotechnical site investigation bores) assigned to a single coordinate of the site.
2. The bores were originally reported simply as being in the parish of Corio, and were assigned the coordinates in the centre of the parish.

To investigate the truth of the matter would require tracing the bores to their original source, which is both time consuming and not justified for this project.

## *6.2* Data updates and additions

Several changes have been made to the CGMRD to update data and add relevant information. Among the most obvious is the updated information gained by field checking the bores and the addition of information mined from the GIS layers for the CCMA region. New screens have been added to separate the bore details from the location details, and to add information on landscape features, climate data and inspection details.

### *6.2.1 Bore details*

The Bore Details screen now includes the decoded information on bore use, authority, type, etc. and information on the bore construction materials. A warning has been posted under the completion date on the true meaning of the 31/12/YYYY date.

### *6.2.2 Location details*

The Location screen includes access to a map of the bore location, photograph of the bore, and information on the site details and site access, etc.

### *6.2.3 Landscape features*

The landscape features screen indicates the Geology, Groundwater Flow System, Landform, Public land status, River Basin and salinity relevance of the place where the bore is located. This information has been mined from the Corangamite GIS files.

### *6.2.4 Climate data*

The climate data screen reports on the Average Annual Rainfall, Raindays and Evaporation for the point where the bore is located. The data is mined from the CCMA Climate Surfaces prepared by Dahlhaus (2002).

#### 6.2.5 Inspected bore depth

The inspected bore depth screen provides information on the latest measured bore collar height, and standing water level.

### 6.3 Missing and bad data

Throughout the project it became apparent that many database records were incomplete or erroneous when checked against known records. In general, these missing or erroneous records fall into three categories.

3. Bore records that existed in previous databases but are absent in the CGMRD.

   An example is given by Bore 48875 (old bore Bellarine 10025) which was reported in a previous database downloaded from the internet (c. 1999 - 2000), but absent in the CGMRD. The bore is known to exist as it was key source of information in the current landslide investigation and monitoring at The Dell, Clifton Springs.

4. Bore records that contained different data in previous databases to that in the CGMRD.

   The most obvious examples are the bores which have discrepancies in the reported groundwater monitoring dates (refer to Section 5.3.1).

5. Bores records that are incomplete.

   Many of the salinity monitoring bores have lithological logs or construction details that have not been entered into the records used to construct the CGMRD. These details exist in paper files within the DPI or PIRVic offices.

It is recommended that these errors and missing data are rectified (refer to Recommendations 1 & 2, Section 8.1).

### 6.4 Changes to database operation

Several modifications have been made to the operation of the CGMRD to overcome some of the shortcomings outlined in Section 3 of this report. These range from 'cosmetic' changes to the opening screen by the addition of logos, etc. to more significant changes such as the re-build of the bore search functions and the addition of a location map and photograph (where one exists) for each bore.

#### 6.4.1 Database modification

Perhaps the most significant change is the removal of the capability to easily enter or change information in the database. The revised database exists as a read-only base which can be distributed to users as an annual version. The updating of information should be centrally organised to avoid the development of many individual databases and compromising data quality. The CCMA in conjunction with its partner agencies need to maintain their responsibilities as the repository for groundwater monitoring information and quality assurance agencies. If individual users of the database were given the ability to alter the data, there is no guarantee on the quality assurance of the data, or that the alterations or additions to their databases would filter through to the central repository.

It is envisaged that the distribution of the database could be either web-based or via a single CD disk, very similar to the methods used by the Bureau of Meteorology to distribute climate data, and the Geological Survey of Victoria to distribute geological data (refer to Recommendation 5, Section 8.1).

# 7 Groundwater monitoring needs in the CCMA

## 7.1 Purpose

Within the CCMA region, groundwater is monitored for two main purposes: salinity management, and groundwater resource management.

### 7.1.1 Salinity management

Although the causes of dryland salinity in the CCMA region are varied, it is generally linked to the response of the hydrologic budget to environmental changes. Groundwater is regarded as the main component of the hydrologic cycle directly related to salinity processes. Traditionally, rising groundwater levels were seen as the key threat which caused salinity and most of the salinity monitoring bores have been installed in treatment areas to monitor the effect of the treatment.

### 7.1.2 Resource management.

Groundwater is one of the few Earth resources that can be sustainably managed in human time-frames. Provided the output from an aquifer (that is, extraction and discharge) matches the rate at which it is replenished, and the environmental needs are met and the groundwater quality does not deteriorate, the use of the resource should be sustainable.

Sustainable management of the groundwater resource is regularly monitored by DSE using the SOB network. However, it is appropriate that the SOB monitoring information be included in any regular evaluation of trends in groundwater levels and quality conducted by the CCMA, since they provide valuable information which is relevant to catchment management.

### 7.1.3 The requirements of the RCS

The RCS is represents the Corangamite community's aspiration for the future condition of the catchment. It is also the prime basis on which the allocation of National and State funding for catchment management is determined under a Bilateral Agreement between the Victorian and Australian Governments. A key component of the RCS is a framework for monitoring, evaluation and reporting of the environmental condition, to ensure that the investment is achieving the targets set out in the RCS.

The RCS sets out preliminary indicators for assessing achievement against priority targets within the Corangamite region (Table 38, pages 127-131 of the RCS, CCMA 2003). Those related to groundwater are:

- Groundwater extraction (annual withdrawals) versus availability (in $m^3$)
- Groundwater contaminants: by type (eg. nitrates, salinity, toxicants) and extent
- Trend in groundwater levels (rising, constant, falling) and salinity concentrations over time

The RCS suggests that the first two – groundwater extraction and groundwater contaminants – are required for monitoring resource condition, whereas the last – groundwater levels – is required to monitor a threat.

## 7.2 Parameters

Monitoring the groundwater indicators mentioned in the RCS is in part the responsibility of the State government agencies. Groundwater extraction is regulated by Southern Rural Water (SRW) and the DSE, and monitoring is generally conducted quarterly.

Monitoring for salinity threat is more difficult, since the salinity risk to each class of asset varies according to the nature of the hazard. In some cases, such as Ramsar Wetlands, the threat may be from declining levels of saline watertables, whereas for agricultural land the threat may be from rising levels of saline watertables. Similarly, to measure the salinity (or EC) of groundwater at a specific site may not be an appropriate measure of risk, as some assets can tolerate a range of salinity values without long-term damage, provided that the salinity range remains relatively constant. In these cases, monitoring *per se* is not a reliable indicator of a threat due to salinity. In all cases, the salinity threat to regional assets requires the monitoring so *trends* can be established. It is also logical that the monitoring of groundwater must be matched to the RCS resource condition targets and the management action targets. However, it may be desirable to monitor some catchment-wide groundwater levels and salinity trends, particularly in areas where rapid use changes are occurring.

### 7.2.1 Monitoring for resource condition targets

The Federal and State Governments require that resource condition targets be set for certain National and State outcomes. For salinity management, the resource condition targets have been set for each salinity management target area in CCMA SAP Background Report No. 3 (Dahlhaus, 2003b). The groundwater monitoring required to determine the trends in the condition of the resource includes:

- The depth of shallow saline water tables over time
- The groundwater tables in relation to underlying potentiometric surfaces over time
- The direction of groundwater movement over time
- The groundwater salinity over time

## 7.3 Location

The decision on where to locate the monitoring bores should consider both the purpose and the landscape parameters at both the regional and site scale.

### 7.3.1 Regional Scale.

In the region-wide context, bores are required to monitor the trend in groundwater levels for:

#### 7.3.1.1 Resource condition targets in salinity target areas

At present, very few resource condition targets have been developed for the CCMA SAP. Most targets will be developed over the next two years and the monitoring of groundwater levels is critical to setting these targets. Targets are generally set using scenario models (eg. *Flowtube*) which are usually calibrated using time-series monitoring records of groundwater levels.

Although unlikely, the resource condition target may set the groundwater level as the target in some salinity management areas if appropriate (eg. *"the groundwater level measured in bore X will not be less than Y metres below the natural surface by year Z"*).

#### *7.3.1.2* Resource consumption in groundwater management areas

Groundwater Management Areas (GMAs) and Water Supply Protection Areas (WSPAs) have been declared under Section 27 of the Water Act (1989) to manage groundwater resources in parts of the CCMA region. For each GMA and WSPA, the maximum volume that can be extracted has been set as the Permissible Annual Volume (PAV), which is regulated through Southern Rural Water's licensing procedures. WSPAs are generally formed when the allocations in a GMA exceed 70% of the PAV.

The monitoring of the groundwater levels in the GMAs and WSPAs is undertaken by the DSE or their sub-contractors. They are also responsible for establishing the monitoring bore network to ensure adequate resource management.

#### *7.3.1.3* Groundwater threats to regional assets

Many of the region's groundwater dependent ecosystems are international assets. These assets are subject to threats from both natural and anthropogenic alterations to the groundwater system, such as falling water levels or changes in flow direction. Monitoring of the water levels around assets which are susceptible to changes in the groundwater flow systems is essential to ensure their sustainable management and on-going protection.

#### *7.3.1.4* Hydrologic changes in areas of rapid land-use change

The predictions of the water and land-use change (WatLUC) project (SKM, 2003) indicate that in some areas of the CCMA region, the impact of land-use on the groundwater will be quite severe. This is particularly true for the Victorian Volcanic Plains (VVP) region. Monitoring in these areas is required to confirm the predictions and assist in sustainable management of the groundwater resource and groundwater dependent ecosystems.

#### *7.3.1.5* Calibration of hydrologic response in groundwater flow systems

The second-generation CCMA SAP has adopted groundwater flow systems (GFS) as the primary means by which the CCMA landscapes have been disaggregated into salinity management units. The GFS framework recognises that the manifestation of salinity in each landscape is a function of the relationship between the geology, hydrogeology, landscape evolution, climate, environmental history and current land-use. Within the CCMA, 17 GFS have been delineated in which similar landscape-groundwater systems give effect to similar salinity issues, where similar management options may apply. GFS are characterised by their hydrological responses and flow paths into local, intermediate and regional systems.

The choice of salinity management is directly related to the ability to influence the hydrologic response of the GFS. Where possible, the predicted hydrologic response has been modelled using *Flowtube*, a simple program is based on a finite difference solution to the one-dimensional Darcy's Law for saturated flow in a semi-confined aquifer (Dahlhaus, 2003). *Flowtube* can assess long-term trends in groundwater levels, and estimate rates of rise or fall of groundwater, length of discharge at or near the catchment surface, and the periods of time over which groundwater movements will take place. Groundwater monitoring bores are essential to calibrate the model and provide confidence in the management scenarios and the predicted outcomes for the investment.

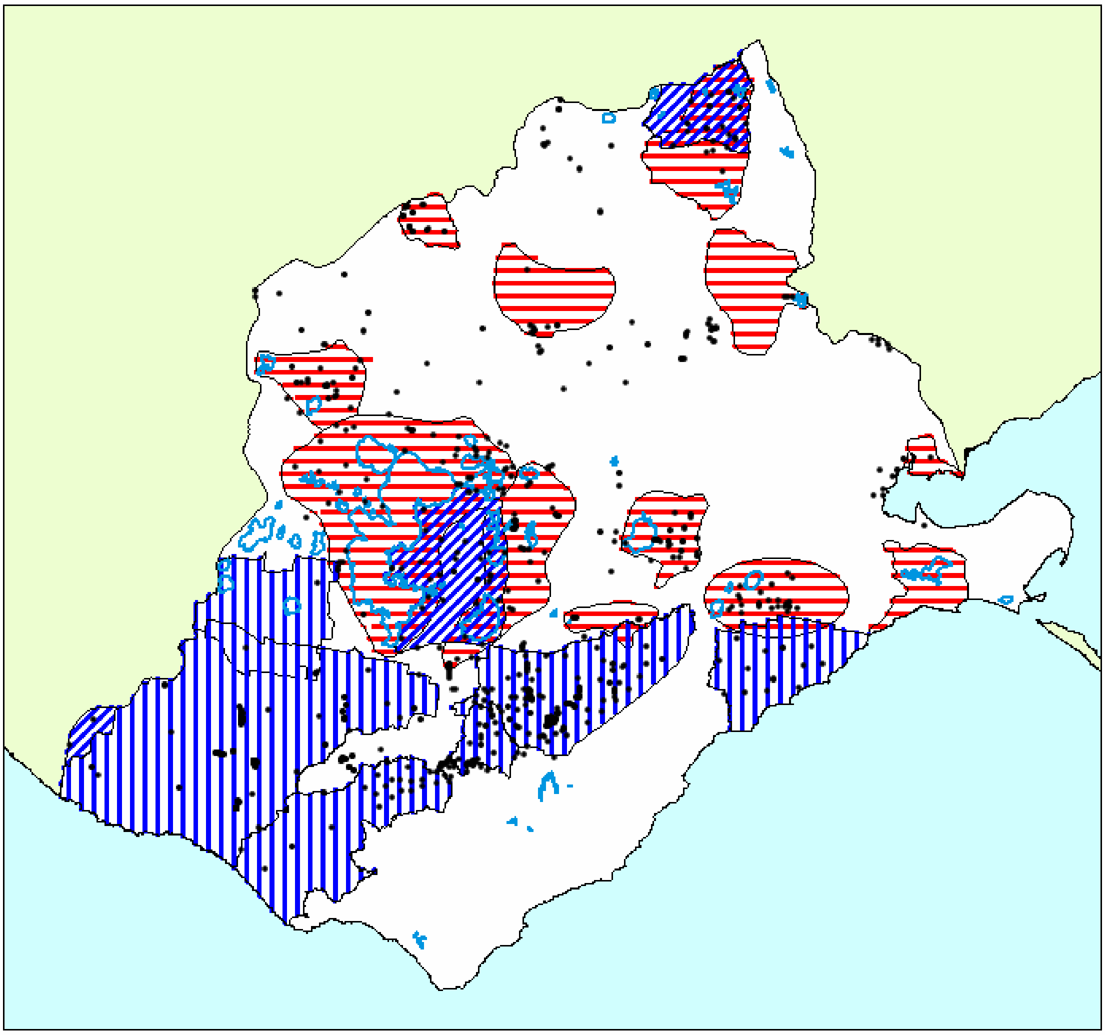


*Figure 7.1 Priority areas for monitoring bore location*

- SAP target areas are shown with red horizontal stripes
- Groundwater WSPAs are shown with blue diagonal stripes
- GMAs are shown with blue vertical stripes.
- The black dots are the current monitoring bores

### 7.3.2 Site Scale

At the site scale, the location of bores needs to take into account the purpose of the monitoring, the features of the landscape and consider the practical constraints of the site.

#### 7.3.2.1 Bore purpose.

The choice of where to locate a monitoring bore at the site scale depends primarily on the purpose of the bore (i.e. those listed in Section 7.3.1: salinity RCT monitoring, groundwater resource monitoring, wetland monitoring, monitoring base hydrologic change, GFS response monitoring.) The purpose determines the appropriate soil-landscape unit, hydrologic unit, and land-use unit in which to place the bore.

#### 7.3.2.2 Site hydrogeology.

For a given purpose, the location of the bore, its depth and construction details depend on the hydrogeology of the site in three-dimensions. Monitoring must target the required aquifer and/or GFS to record the correct information.

#### 7.3.2.3 Landscape position (if applicable).

The depth to watertable in a shallow unconfined homogeneous aquifer often varies with landscape position, as a subdued reflection of the topography. Discharge areas are usually associated with the lower elevations in the landscape (eg. valleys), and recharge areas with the higher elevations. In other situations, the discharge areas can be at the base of a geological unit, part way towards the top of a slope (eg. the gravel caps around Illabarook and Meredith). If monitoring an unconfined aquifer, the placement of a monitoring bore needs to relate to the landscape at the site (Figure 7.1).

#### 7.3.2.4 Treatment (if applicable).

Where the bore is intended to monitor a RCT, or response in a GFS, or response to salinity treatment, the bore needs to be located in the appropriate position to register the response. For example, a bore in a discharge zone is generally unsuited to monitoring the success of treatment that targets recharge control (Figure 7.1).

#### 7.3.2.5 Convenience (if applicable).

Where a bore is located on private property or in an urban area, consideration should be given to the access for the drilling rig, access for continued monitoring, the impact on present and future infrastructure, and protection from damage and vandalism.

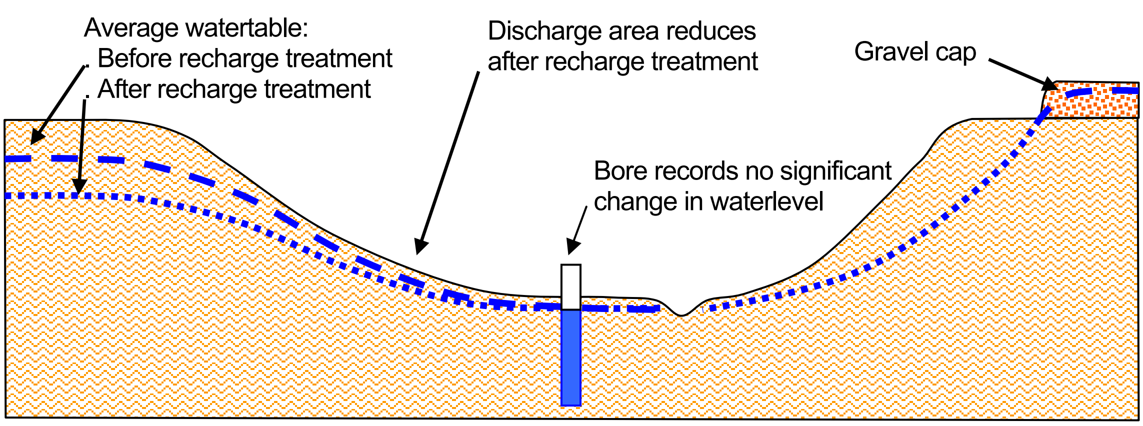



*Figure 7.2 Examples of groundwater - landscape relationship.*

## 7.4 Type of monitoring bore

The selection of the type of monitoring bore depends on its purpose and depth of aquifer to be monitored. Whether to construct an observation bore or piezometer usually depends on the aquifer and depth to the groundwater. An observation bore may be sufficient to monitor the rise and fall in the watertable of a shallow, unconfined aquifer. In most other situations, a piezometer would be more useful to measure the pressure at a point in the system (refer to Section 2.1).

The diameter of the bore needs to be sufficient to allow water sampling if required. Many of the existing salinity monitoring bores are too narrow to allow a small submersible sampling pump (i.e. Grundfos MP-1), which restricts the ability to sample the bores in accordance with the standards. Smaller diameter pumps are available, but are usually restricted in their capability to lift the water from depths below about 10 metres.

### *7.4.1 Recording of construction details*

As discussed in Section 5.4, the monitoring record is severely compromised unless the bore construction details are known. The recording of the bore construction details is required in accordance with the groundwater bore construction permit, but those data are not always recorded on the CGMRD.

Regardless of the type of bore and its purpose and location, the drilling and construction details are essential for reliable interpretations and evaluations of the monitoring data. Every effort needs to be made to update the existing monitoring data as well as record any future bore data correctly.

## 7.5 Bore monitors

The question of who monitors the bores is in part predetermined by the nature and purpose of the bores. The SOB and other monitoring bores for groundwater resource management are monitored by contractors appointed by DSE. The monitoring of bores for salinity management is the responsibility of the CCMA and has been contracted to DPI, PIRVic and the Corangamite community in the past.

With the introduction of the CCMA second-generation SAP, there is an increased accountability in the monitoring of groundwater for to assess RCTs and reporting on the ultimate success or failure of NAP investment. The bore monitoring record indicates that bores monitored by contractors have a higher quality of data, and it is recommended that all future contractual arrangements should include strict conditions to ensure quality assured data.

# 8 Summary of recommendations

The recommendations of this project fall into three main categories: the continuous improvement of the CGMRD; changes to the current groundwater monitoring; and requirements for new monitoring bores. The recommendations are listed in order of priority within each category, with the highest priority being the first listed.

## 8.1 Continuous improvement of the CGMRD

1. Update the time-series waterlevel data in the CGMRD to repair the errors in the recording of dates for the VGDB bores (refer to Section 5.3.1).
2. Update the borehole lithological records and bore construction details for the salinity monitoring bores where those data exist as paper records within DPI and PIRVic (refer to Section 6.3).
3. Once updated, make the CGMRD available on CD to any users who wish to use it in its current form. Note that for the database to operate the user is required to install it on a computer with Microsoft Access and MapInfo GIS. Users should be encouraged to report data errors and deficiencies, provide updated information where known, and suggest enhancements to its functional use.
4. Update the data in the CGMRD by including the most recent records from DSE's VGDB, DPI's GEDIS and other databases. Only new and recently updated records should be included to avoid duplicating or overwriting the existing (cleaned) CGRMD records.
5. Rebuild the CGMRD to operate as a stand-alone CD based on shareware or freeware programs compatible with Streets Ahead GIS and other freely distributed CCMA data. This will make the CGMRD more accessible to the CCMA community by removing the requirement for installation on a computer with Microsoft Access and MapInfo (refer to Section 6.4.1).
6. To improve the usefulness of the CGMRD, three enhancements could be added:
   a) Link the existing groundwater investigation reports to the relevant bore data in the CGMRD in electronic format.
   b) Report the groundwater chemistry in a graphical format using a choice of standard figures, i.e. Piper Plots, Stiff Plots or Durov Plots. The graphs should be created 'on-the-fly' as the data is accessed.
   c) Include a basic interpretation of the waterlevel trend by an analysis of the bore hydrographs (eg. using Excel regression or HARTT-xls).

## 8.2 Current monitoring network

7. Continue monthly monitoring all bores in the current salinity monitoring network until they have been either upgraded or abandoned (points 8 and 9 below). The monitoring should adhere to the current protocols developed by PIRVic (Appendix B), and the data added to the CGMRD every six months.

   The evaluation of individual bores should commence as soon as the CGMRD has been upgraded (recommendations 1 & 2 above). This should commence with an rigorous analysis of the time-series waterlevel information to supplement the field data collected in this project. Emphasis should be given to identifying the bore type and function (piezometer or observation bore).

8. Commence a program to refurbish bores in the salinity target areas which will contribute to the setting of, and the on-going monitoring of, RCTs. Each bore should be assessed according to:

    a) The information available on bore type and function, bore construction and borehole lithology (once completed under recommendations 1 & 2).

    b) It's appropriateness in measuring the expected changes to the hydrology of the GFS through the investment in salinity management

    c) The current condition of the bore and its likelihood of future damage

    Bores that remain in the monitoring program should be cleaned out (airlifted) to remove any accumulated sediment blocking the screening interval, and waterlevels and salinity data collected. The recovery of the waterlevels in the bore following purging should be measured and analysed using the appropriate single bore recovery test method (i.e. slug tests) which will provide the guide to setting the appropriate monitoring interval. Improvements to the bore condition and protection against damage should also be made if necessary.

    The initial selection of bores for refurbishment can be obtained by reference to the list provided in Appendix F. Preference should be given to bores with longer records.

9. Commence a program to decommission monitoring bores which are broken, faulty, redundant, and inconvenient to the landholders. The requirements for decommissioning a bore are stipulated by DSE (Appendix G). In order of progression, the decommissioning program should commence with:

    a) Bores in non-target areas which are no longer monitored

    b) Bores in non-target areas which are broken, inconveniently located or redundant

    c) Bores in non-target areas without lithological logs and construction details

    d) Bores in target areas which have been assessed as redundant to requirements (through the refurbishment program outlined in point 8).

    The initial selection of bores for decommissioning can be obtained by reference to the list provided in Appendix F.

### 8.3 Enhancements to the monitoring network

10. Additional monitoring bores are required in target areas (Figure 7.1) where bores do not currently exist. Preference should be given to bores required to set RCTs in the SAP target areas. Initially the Geelong – Lake Connewarre area stands out, as there are no groundwater monitoring bores currently listed. Other areas which urgently require more monitoring bores are the Morrisons – Sheoaks, Lara and Illabarook target areas.

    The location of bores should be based on their purpose, site hydrogeology, and landscape position (as outlined in Section 7.3). Based on the field observations in this project, it is apparent that the preferred locations of groundwater monitoring bores are roadside areas and public land where possible. This option improves the access and efficiency of continual monitoring. Issues that arise when bores are located on private land include: change in landholders, damage by stock, and changes in farming practice resulting in the location of a site inconveniencing the landholder. Suitable protection against damage and vandalism is recommended for all additional bores regardless of location. If bore location on private land is unavoidable, it should be installed in a convenient are of low traffic and low risk of damage site.

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# Appendix A Research team and Steering Committee

**Research Team**

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Mr Mark Dixon, hydrogeologist

Ms Narelle Beattie, geologist

Mr Warren Feltham, Information technologist

Mr Bob Smith, Senior Technical Officer, Science and Engineering

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Dr Stuart Minchin, State Water Monitoring Manager, DSE

Mr David Heislers, Senior Hydrogeologist, DPI

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Ms Belinda Gardiner, Salinity Extension Officer, DPI

# Appendix B Bore monitoring protocols

DPI brochure, 1994

**THE WAY TO BETTER GROUNDWATER MONITORING**

**November 1994**

Groundwater monitoring in dryland salinity affected areas generally involves the following activities:
- monthly measurement of water levels
- annual (or twice annually) measurement of groundwater salinity
- annual bailing or flushing of bores
- periodical check of bore condition and maintenance

**Measuring water levels**
Water levels are usually measured with a simple device called a *fox whistle*. This is a hollow metal or plastic tube on the end of a tape measure. When the bottom of the tube hits the top of the water surface, air is pushed upwards through a narrow hole in the top of the tube, making a whistling noise.

Follow this simple procedure:
1. Lower the fox whistle gently down the hole until the instrument whistles.
2. It is important that when the whistle is initially heard, the tape be pulled back slightly and carefully jigged up and down to determine the first indication of the whistle (and hence the correct water level). This becomes easy to pick with a little practice.
3. Measure the level at the top of the PVC pipe (or the protective steel collar if it sits higher than the pipe). Of course it is critical to always measure from the same point on the lip, especially if the top of the bore isn't exactly horizontal. It is good practice to measure from the highest point on the lip. Consistency in measurement is the very important.

   *If the casing height has been altered (for whatever reason,) make a note of this in the comments column of the monitoring sheet. It is also important, if possible, to record the change in height between the old and new measuring points.*

4. Monitor levels on a monthly basis, at approximately the same time every month.

Be careful to make sure that your fox whistle is correctly calibrated. That is, the bottom of the fox whistle is equal to 0 cm if the tape could be extended that far. This ensures that the measurement read from the tape is the actual measurement to the water level.

**Measuring Salinity**
If you have a conductivity or salinity meter then you will be able to measure salinity directly in the field. Otherwise you will have to send a water sample into your DCNR Salinity Extension Officer for analysis. In either case a sample is collected from the bore using a *bailer.* This consists of a narrow length of PVC tube (1.5-2 m length), with a hole and marble valve at the base, attached to a length of rope.

*In salinity measurements it is important to ensure that the bore is bailed (or pumped) once annually so that it remains "fresh". This is discussed in the next section..*

To collect a water sample follow the following procedure:
1. If possible lower the bailer to the bottom of the piezometer so that it will collect aquifer water at the level of the bore screen (where water flows into the bore). Withdraw the bailer.
2. By pushing the valve marble upwards, allow any muddied water at the bottom to drain from the bailer. Then rinse the measuring vessel once using water from the bailer.
3. Fill the rinsed vessel with water (though not much sample is necessary - sufficient to cover the electrodes of the conductivity probe). You can measure the salinity on the spot with an appropriate conductivity meter; or send the sample to your DCNR officer for measurement.
4. Salinity should be measured at least once a year.

**Annual bailing of piezometers**

Once a year a piezometer should be bailed out. This should be carried out prior to collecting an annual water sample for salinity measurement. Bailing makes sure that any stagnant or stratified water in the bore is removed, and allows a fresh flow of aquifer water into the bore. Bailing is more important the longer it has been since the piezometer was previously bailed.

This bailing procedure should be carried out at least several days before the water sample is collected, so as to allow the piezometer time to recover. From a convenience point of view, bailing is usually most convenient on the previous month's monitoring run (but after measuring the water level first !).

A piezometer should be continually bailed for approximately 10 minutes or until it becomes emptied.

**Piezometer condition check**

For piezometer measurements to remain meaningful and to ensure longevity of the bore, it is important to be aware of deteriorating bore condition or potential hazards.

Some of the common maintenance issues for piezometers are:

- Vented bore lid Often these are missing from bores. These are necessary to prevent debris and rainfall entering the bore.
- Casing repair Sometimes the PVC casing might have been fractured or has deteriorated due to age. A part of the casing may have to be replaced.
- Cement bore If the bore is not well sealed into place (the bore may wobble in the hole for instance) then it may be necessary to cement it into place at the surface.
- Extension to casing If the bore is flowing then an extension to the casing is necessary
- Marker stake The bore might be difficult to locate
- Identification The **database bore number** should be clearly and permanently marked on the casing, preferably in indented markings. "Permanent marks" by pen are rarely permanent.

In addition, if there is significant vulnerability for damage to an unprotected bore, then steps can be taken to reduce the damage risk (eg. lockable steel bore cap; fenced enclosure to protect from stock). Potential damage situations include:

- Roadside Bore might be prone to vandalism or run-over. A steel cap would be useful here.
- Cattle Often the bore might be prone to damage from stock
- Water The area immediately around the bore might be prone to prolonged flooding

If you notice damage or suspect a potential hazard to an unprotected bore, contact your local DCNR salinity extension officer who will be able to advise on repair.

**What should I do with the information I collect ?**

The information should be recorded on the 6 monthly monitoring sheets provided to you by your DCNR Salinity Extension Officer. Dates (at least twice annual ) will be nominated for the monitoring sheets to be returned.

Your information is entered into the statewide dryland salinity groundwater database that is located at the Centre for Land Protection Research (CLPR) in Bendigo. Here hydrogeologists have the resources to be able to undertake detailed interpretation of the information you collect.

**Where can I obtain monitoring equipment ?**

Contact your DCNR Salinity Extension Officer or the Centre for Land Protection Research directly.

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**For Further Information on Groundwater Monitoring contact:**

Centre for Land Protection Research
PO Box 401 Bendigo 3550
ph: 054 44 6777

DPI brochure, 1995

# THE IMPORTANCE OF GROUNDWATER MONITORING

**February 1995**

**Why groundwater monitoring ?**
Groundwater monitoring for dryland salinity is undertaken for 4 major reasons. These are to:
- measure the local watertable depth and its salinity
- help understand the nature of the groundwater system as a whole (eg. across a sub-catchment) and the causes of salinity in a particular area.
- monitor changes in the groundwater system with time and determine trends.
- monitor the effectiveness of salinity control options (eg. adoption of perennial pastures or trees).

An immediate indication of the height and salinity of the watertable is obtained as soon as an observation bore (also known as a piezometer) is drilled. However, an observation bore is usually drilled with the purpose of monitoring changes in these conditions with time.

There is usually considerable effort and expense necessary in siting and drilling an observation bore, so it makes sense to make the most of this investment by having a disciplined and consistent approach to monitoring. Simply, the bore is there for a reason - to be monitored.

Usually the biggest pitfall to a successful monitoring program is lack of communication. Like most repetitive activities, monitoring at times may be monotonous and routine. However, as long as the purpose of the monitoring is remembered, and you receive regular explanation and recognition from CNR of the information you collect, monitoring is likely to be more interesting and relevant to you.

**What should be monitored and for how long ?**
Your groundwater monitoring activities will generally include the following:
- monthly (or quarterly) measurement of water levels
- annual measurement of groundwater salinity
- annual bailing or flushing of bores
- periodical check of bore condition

These activities are described in more detail on a companion information sheet titled “The way to better Groundwater Monitoring”.

Data recording booklets/sheets and monitoring equipment are available from your local CNR Salinity Extension Officer.

**The importance of long term monitoring**
Several years of monitoring are generally necessary before any meaningful evidence of long term groundwater trends can be identified. As a rule of thumb, a minimum of 5 years of data is necessary. In slowly responding groundwater systems, or where there is wide climatic variation, even 5 years of data may be insufficient.

If the piezometer is constructed to monitor the effect on water tables of a newly planted tree plantation, it would be expected that it would be monitored for perhaps 20 years, to track the life cycle of the plantation. If a piezometer is maintained properly, there is no reason why it may not last 20 years or more.

Bores are usually monitored on a monthly basis so that the pattern of seasonal variation in water levels can be determined. This is important because it gives a clue to the responsiveness of the groundwater system to rainfall events, as well as providing an indication of the amount of recharge entering the groundwater system. After a period of perhaps 5 years, monitoring may be relaxed to quarterly or 6 monthly.

**What should I do with the information I collect ?**
The information should be recorded on the 6 monthly monitoring booklets/sheets provided to you by your CNR Salinity Extension Officer. Dates (at least twice annual) will be nominated for the monitoring sheets to be returned.

Your information is entered into the statewide dryland salinity groundwater database that is located at the Centre for Land Protection Research (CLPR) in Bendigo. Here hydrogeologists have the resources to be able to undertake detailed interpretation of the information you collect.

**Do I see anything in return ?**
CNR has a commitment to provide annual groundwater interpretation reports for each priority dryland salinity area. This includes hydrographs for all bores monitored and discussion of groundwater trends. These reports will be available either from CLPR or your salinity extension officer if for some reason you do not receive one. In addition, interim hydrographs are able to be produced by your local CNR officer.

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**For Further Information on groundwater monitoring contact:**
Your local CNR Salinity Extension Officer located at:
Colac (052) 33 5533
Geelong (052) 26 4667
Macedon (054) 26 1866
Ballarat (053) 33 6782

or the Centre for Land Protection Research,
CNR, Bendigo (054) 44 6777

## CLARIFICATION OF NRE REGION AND CLPR RESPONSIBILITIES IN COMMUNITY MONITORING

DPI internal memorandum, 1998

**NRE Region responsibilities (Ballarat, Colac, Geelong, Macedon)**

- **Setting up community groups with monitoring**
  - invite community groups and/or individuals to monitor local bores
  - explain contract arrangements and groundwater monitoring procedures
  - train local monitors

- **Co-ordinate local groundwater monitoring activities**
  - management of community groundwater monitoring runs (i.e. waterlevels)
  - collation of 6 monthly groundwater data from community monitors each May and November
  - forward collated monitoring data to CLPR by May 31 and November 30 each year

- **Ensure adequate maintenance of monitoring networks**
  - provide basic bore maintenance kits to monitors (via CLPR) and communicate the importance of properly maintained bores
  - be vigilant regarding the condition of bores; encourage feedback from monitors on this
  - attend directly to or report bore maintenance requirements to CLPR

- **Administering monitoring contracts (or grants)**
  - ensure that data is being collected according to schedule and to the standards agreed
  - maintain ongoing communication with monitors
  - arrange contract payment

- **Distribute to communities interpreted groundwater information that is provided periodically by CLPR**

**CLPR responsibilities (Bendigo)**

- **Provision of general monitoring advice and technical assistance where necessary**

- **Provision of community monitoring kits on request**
  - recording booklets, monitoring leaflets etc
  - calibrated monitoring equipment
  - bore maintenance kits

- **Assistance with bore maintenance**
  - provision of advice
  - technical assistance and field support when necessary

- **Undertake bi-annual bore salinity measurement program**
  - includes check and maintenance of *key bores*

- **To provide periodical updated and interpreted hydrograph information**
  - bi-annual Corangamite-wide monitoring report
  - personalized reporting to individual groups/areas upon request

Most of the above should be fairly self explanatory, but please contact me if you have any queries. To further assist you with community monitoring initiation and administration I've included the following items:

- a check list to use when training and setting up community monitors
- a simple accounting proforma when determining payment

Just a few things to remember in regards to groundwater monitoring:

- consider restricting paid community monitoring to ex-DNRE monitoring runs.  Payment for monitoring can be in the form of products (e.g. monitoring reports) and services as well as be of monetary reward.  Of course this will depend upon local circumstances.
- the current payment schedule is $12/hr and 50 cents/km.
- in 1997 a grant system is likely to be implemented to replace the current fee for service contract arrangement
- check the list of minimum recommended monitoring frequencies (see CLPR mon. report no. 12)

For more detailed information on the Upper Maribyrnong monitoring refer to CLPR monitoring report no. 12.

David Heislers

# SETTING UP COMMUNITY GROUPS WITH GROUNDWATER MONITORING

DPI internal memorandum, 1998

## A STEP BY STEP GUIDE

*Providing information when seeking community monitors*

1. Indicate the type and scope of monitoring necessary

2. Explain the rationale behind community groundwater monitoring
   - opportunity for community "ownership" and responsibility for data collection
   - allows the community direct access to basic environmental information

3. Outline payment for service (if necessary)
   - likely to be $12/hr and 50 cents/km for mileage)
   - arrangement by contract
   - possible for group to undertake bore maintenance

*Setting up monitors (i.e. the formal briefing)*

4. Illustrate bores to be picked up in monitoring run
   - provide A4 folder, with list of bores to be monitored, maps

5. Distribute monitoring leaflets and briefly explain
   - <u>The importance of groundwater monitoring</u>
   - <u>The way to better groundwater monitoring</u>

6. Discuss in detail procedure for waterlevel measurement (follow leaflets)
   - explain fox whistle
   - explain measurement frequency and time of measurement (first week of month)
   - mention that agency is still collecting salinity info., but this could change in the future

7. Outline data recording booklet
   - duplicate, 6 monthly format

8. Discuss importance of bore maintenance (follow leaflets)
   - discuss the sorts of problems that arise and modes of repair
   - provide explanation of bore maintenance kit

9. Discuss how to fill out bore run time sheet (if necessary)

10. Ensure that the "contract" (i.e. expression of interest form) is signed

11. Visit site and demonstrate fox whistle usage as well as highlight key bore maintenance criteria

*ensure that you have the following items on hand during the briefing.......*

- A4 folder containing:
  - list of bores to be monitored; monitoring frequency details
  - maps of bore locations
  - groundwater monitoring leaflets (2)
  - monitoring run report sheets (ie. time sheet)
- groundwater data recording booklet
- fox whistle
- bore maintenance kit (optional)

GROUNDWATER MONITORING FOR SALINITY

DPI brochure, 1998

**Data recording booklet**

The data recording sheets in this groundwater monitoring booklet are to be completed over the designated 6 monthly periods (ie. May-October and November April). On the completion of each form the original copy should be returned to Department of Primary Industries (DPI) Research and Development (R&D) Division, Bendigo.

When the data is received by DPI, it is entered into the statewide groundwater database. DPI R&D is then able to plot hydrographs for you on request. However, as a matter of course, you should receive a full set of groundwater charts annually.

**Some critical things to remember each time you monitor**

For details on how to take groundwater readings, refer to the notes titled "Groundwater Monitoring How and Why?". This can be obtained from DPI R&D Division. However, here are some essential things to remember each time you monitor:

- make sure your fox whistle is correctly calibrated. It should read zero at the base of the pvc whistle.
  New equipment can be requested from DPI.
- the correct way to use a fox whistle is to take the reading when the bottom of the whistle hits the top of the water
- always measure from the same point on the top of casing (usually the highest point above the ground)
- if the top of the bore is damaged, record the new height of the top of the bore above ground and note it in the comments column on the recording sheet. Then notify your DPI Officer.

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Return data to: Department of Primary Industries
R & D Division
PO. Box 3100
Bendigo Delivery Centre 3554

Or your local Salinity Officer in DPI

Officer: ____________________

Phone: 03 5430 4444

This booklet was compiled at the Research and Development Division,
DPI, Bendigo, July 2003.

## Explanation of the monitoring sheet

**Bore number**
Database no.- number of the bore on the groundwater database (required)
Local no. - number of the bore in the local area numbering system (not required)

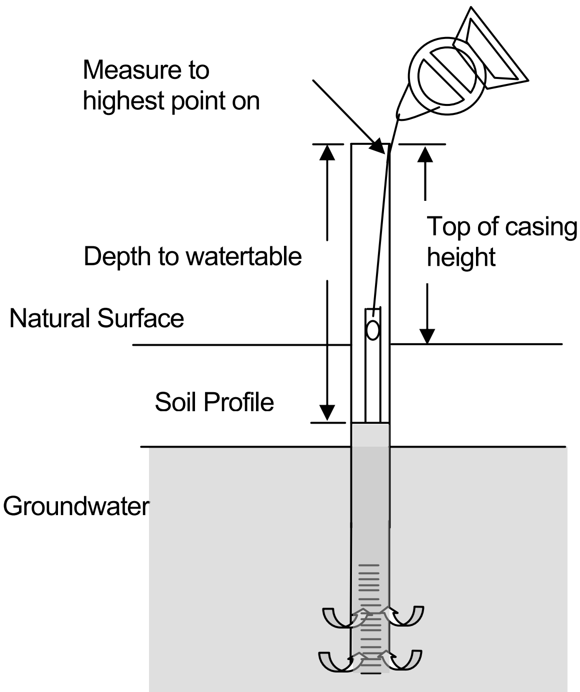
Your DPI officer will supply you with the correct numbers for your monitoring run.

**Depth to Water Table**
Complete the date for each month's entry.

**EC**
You may or may not be asked to collect this information. EC (or electrical conductivity) is a measure of salinity. Most salinity metres measure in EC units (uS/cm). There is a conversion factor of about 0.64 to convert between EC and ppm's. Normally EC need only be measured once or twice a year. However, your salinity officer will discuss this with you if the measurement is necessary.

**Comments**
It is important to mention if there has been any change or modification to the bore. For instance, sometimes the bore is damaged and there is a change to the top of casing (the measuring point).

**Rainfall**
If you are collecting rainfall information this can be entered in the appropriate monthly column. The monthly totals should be in millimetres (mm).



Six pages to be inserted here

# Appendix C Detailed comments on functionality of the CGMRD

The functionality of the CGMRD was rigorously and extensively tested by both Peter Dahlhaus and Mark Dixon. In fairness to the database designer, it should be noted that the review is a subjective assessment from hydrogeologists who are experienced in using the bore data and aware of the shortcomings of the primary datasets.

**Overall impressions:**

- An excellent attempt at getting the regional bore data into one functional database. It's generally logical, and operates reasonably well.
- Because the bore data fields are coded the data is confusing for users who are generally unfamiliar with the way the bore data have been collected and stored. There are serious pitfalls for users who do not understand the provenance of the bore data and the 'hardwired' errors in the data. For this reason, the database needs an on-line users guide, or should be restricted to experienced users. There needs to be a decision on who is allowed to get the data.
- Not clear on installation and setup instructions.
- The initial screen with the OK button is not necessary.
- The Main Menu side graphic is distorted and should be replace with a suitable CCMA graphic.
- Title needs to be stronger and stand out more.
- Needs to be an explanation (one-line) of what the function buttons do.

**Bore search:**

- Search Functions are very effective, particularly if some information is already known, such as parish, Bore use or AMG coordinates.
- The Show Map function is regarded as the cornerstone of the database and is generally handled poorly in the CGMRD. In other words, to be able to choose a bore graphically or spatially and then have the option to "show database" would make the database function very, very, intuitive.
- In the Show Map function, there could be a lot more information on the map and the functionality would be vastly improved if the map showed the bore locations and was zoomable and panable. The zoomable function should bring in different levels of data as the map is zoomed in and drop levels of data off as the map is zoomed out. In addition there needs to be an ability to make a selection by dragging a circle or box over an area. Additionally, the map window size needs to be changed to fit the size of the screen.
- If the show map function is pressed repeatedly, multiple windows of the same map are opened. Simply changing to the open map would be preferable.
- The accept selection function works very well although there is no prompt to view map, select a point and then use this button. The co-ordinates should be able to be filled out in the bore search window automatically or semi-automatically as happens at the moment with the "Accept Selection" button, but it would be better placed in the map window.
- The zone 55 to zone 54 conversion function is excellent.

- The search radius should also default to 10000 metres.and the Easting and Northing should default to the centre of the CMA or somewhere convenient (eg. 740000, 5770000). It should also be clear that the Parish and Bore use items are filters on the geographic selection.
- It would be really nice if the bores that were selected appeared in the bore search window also appeared in the browse bore box.
- In the bore search window, there is no "Export of Excel" function as reported in the user guide and the Print Results button does not work.
- It would be good to change the drop down menu of Bore Use to the full phrase, rather than the anagram or abbreviation.
- If a search is conducted solely on bore uses the results are not ranked in relevance to the search item but appear ranked by BoreID. Results then include any entry that contains the search item which can appear as a primary, secondary or tertiary use.
- The drop down prompts, for example "Enter northing (7 digits)" when manually entering Northings, are excellent although they need to be more visible. Perhaps they should be instructions on the screen under the boxes.
- The layout does not follow a logical progression through the steps a user is likely to make. For example, a user using a map to select a point will have to press show map, then highlight a point on the map, close the map window, press accept selection, move to radius selection and then up to the search key. A more logical, intuitive and well prompted process could be made with few alterations to the screen layout.

### Browse bore data

- The Select Groundwater Bore does not always work correctly depending on the computer. On some machines, changing the bore number does not change the data. The window has to be closed first then reopened in between bore data searches. This is a very annoying and limiting feature of the browse bore data window which restricts the ability to view more than one bore in a session. On many computers, there is no option to look at the details of a bore and then type another entry in and view its details. The database does not alert the user that this function is not possible and appears to accept new selection without refreshing details. It is a bit cumbersome to have to exit the window and re-enter simply to view another bore (especially with XP bugs!).
- This window needs to have the fields spelled out longhand, "Compl. Date" should be Completion date, the z54 and z55 should be better understood as the AMG Zone indicated in the box above.
- The completion date of DD/MM/YYY where DD/MM = 31/12 needs to be translated to YYYY only (where the year of completion is known, but not the exact date, the groundwater database reports this as 31/12 by default).
- The Monitoring Frequency should have a "no record" field, rather than a blank.
- All the fields in the "Details" portion of the screen should be longhand.
- It is of great concern that the drop-down menus allow the data to be changed too easily. There needs to be a separate process for changing data, which requires special authority or a special password to be able to change the database. Perhaps the drop-down menus need to be fixed menus at this screen, with the words reported longhand and then a button to the edit/change record screen.

- Main detail and additional detail windows are not intuitive or descriptive. They appear as grabs of the parent data sets arranged to fit into a window. It would be more logical to have:
    - A location/use window with a text field for description and a link to maps and photos
    - A drilling details / bore construction window which would absorb most of the additional details page
    - A groundwater details window with aquifer details including drilling interception and pumping details (the stuff in tables in additional details)
    - A water level window, where water level data exists for the bore.
    - A bore lithology window, where a lithological log exists for the bore.
    - A hydrochemistry window, where hydrochemical data exists for that bore.
- Construction details need to include fields such as casing height above ground……(to be taken from existing data and field sheets)
- Also aquifer test data and composite data tables as displayed in additional details are very clumsy and hide important groundwater and construction details. This can probably be fixed by changing their layout and maybe prioritising columns to be seen in opening window. Prime example of the layout problem is the column width of first column in aquifer test data table hides half of its header which is essential information.
- It would be desirable to have a print-friendly version of the bore hydrographs, with units and titles for the axes on graphs.
- People measuring SWL must have exceptional tapes and eyesight to measure to $10^{-9}$!. The number of significant figures needs to be reduced to two.

### View Map Info

- Function works well. Worth retaining for regional analysis.

### Add/edit

- A thorough review of this screen was not included. It will be revised during the course of this project.

### Reports

- The report function does not work on all computers. Where it was seen, the reports are lists of data which have limited relevance or use to the CCMA needs.
- Print preview does not work on any of the computers used.
- It might be more useful to have an export *.txt or *.csv file function for each of the parameters (lithology, swl, etc) rather than a restrictive and pre formatted (easily dated) report.

# Appendix D Example field sheet and details of field equipment

## *CCMA Groundwater Database. Field Worksheet*

**Date:** **Inspection Performed by:**

| | |
|---|---|
| **Bore ID** | **4101** |
| Authority | NRE |
| Monitored Frequency | Monthly |
| Z54 Easting | 739900 |
| Z54 Northing | 5774200 |
| Location Quality | C |
| Completion Date | |
| Bore Depth | 0.00 |
| Bore Elevation | |
| Elevation Quality | C |
| Digitised Elevation | 118 |
| Reported Parish | Not Known |
| Digitised Parish | WARRACBARUNA |
| Parish Quality | C |
| Source | CLPR |
| Landscape Position | Upper Slope |
| Salinity TDS (mg/L) | |
| Aquifer Name | Not Known |
| Aquifer Depth | |
| From (m) | |
| To (m) | |
| Water Intercepted | |
| From (m) | |
| Bore Type | GW |
| Bore Use 1 | OB |
| Bore Use 2 | IV |
| Bore Use 3 | |
| Geo Log Available | |
| Drill Log Available | |

**Location (GPS):**

| | |
|---|---|
| AMG Zone | *54* |
| Easting | *740061* |
| Northing | *5774284* |
| Elevation of Ground | *123 m* |
| Total Depth from Collar (m) | *8.90* |
| Total Depth from Ground (m) | *7.90* |
| Standpipe height (m) | *1.00* |
| SWL (m below collar) | *7.70* |
| Salinity TDS(mg/L) | *1780 µS/cm* |
| Purged (y/n) | *n* |
| Landscape Position | *Crest* |
| Bore Use | *Salinity Investigation* |
| Land Use | *Roadside* |
| Geology | *Basalt* |
| Approx Dist to Disharge | *250 m* |
| Description of Site: Location Vegetation | *Occurs on south side of Fyffes Road, 250 m west of Mt Hesse Road. Nested with Bore 4102. Bore 4101 occurs 3 m east of Bore 4102.* |
| Photo Taken (y/n) Facing which direction? Which bores? | *Facing west towards Bore 4203* |
| Access | *Good - roadside* |
| **Bore Condition:** | |
| Casing/Standpipe | *40 mm PVC, Good condition, fenced with star pickets and barbwire* |
| Collar | *Cement* |
| Cap | *Yes - PVC* |

### *Equipment*

Field measurements were obtained and recorded by the following equipment:

- Bore location coordinates: Magellan SportTrak Handheld GPS.
- Water level readings: measured with a 25 mm diameter stainless steel fox whistle attached to a 30 m fibreglass measuring tape.
- Total bore depths: either with the 30 m fibre glass measuring tape above or a weighted Komelon 50 m fibreglass measuring tape with weights attached (depending on bore depth).
- Bore water samples: Enviro Equip Polyethylene Weighted Bore Bailer (38 mm x 900 mm, 1 litre capacity) attached to nylon woven cord wound onto a fishing hand reel. Samples were then transferred to a modified 1 litre capacity low density polyethylene container for salinity measurements.
- Salinity readings: measured and recorded on a TPS Microprocessor Dissolved Oxygen Meter (Model 90DC).

# Appendix E Duplicated Bores removed from CGMRD

| Bore Identifier | Duplicated Bore Identifier | Easting (AMG Z54 AGD66) | Northing (AMG Z54 AGD66) | Constructed depth (metres) |
|---|---|---|---|---|
| 4291 | 56821 | 686250 | 5742850 | 18 |
| 4292 | 56822 | 686250 | 5742850 | 5 |
| 4293 | 56823 | 686050 | 5742650 | 18 |
| 4294 | 56824 | 686050 | 5742650 | 5 |
| 4287 | 56825 | 685950 | 5743700 | 18 |
| 4288 | 56826 | 685950 | 5743700 | 5 |
| 4289 | 56827 | 686150 | 5743150 | 18 |
| 4290 | 56828 | 686150 | 5743150 | 5 |
| 4162 | 82855 | 748450 | 5745000 | 18 |
| 4163 | 82856 | 748450 | 5745000 | 5 |
| 4164 | 82857 | 748400 | 5744500 | 18 |
| 4165 | 82858 | 748400 | 5744500 | 5 |
| 4277 | 83664 | 720850 | 5749250 | 18 |
| 4278 | 83665 | 720850 | 5749250 | 5 |
| 4279 | 83666 | 720800 | 5749500 | 18 |
| 4280 | 83667 | 720800 | 5749500 | 5 |
| 4281 | 83668 | 720950 | 5749700 | 18 |
| 4282 | 83669 | 720950 | 5749700 | 5 |
| 4283 | 83670 | 720950 | 5749850 | 18 |
| 4284 | 83671 | 720950 | 5749850 | 5 |
| 4285 | 83672 | 720850 | 5750050 | 18 |
| 4286 | 83673 | 720850 | 5750050 | 5 |
| 4149 | 86841 | 732800 | 5773550 | 18 |
| 4150 | 86842 | 732800 | 5773550 | 5 |
| 4151 | 86843 | 732600 | 5773550 | 18 |
| 4152 | 86844 | 732600 | 5773550 | 5 |
| 4153 | 86845 | 732400 | 5773550 | 18 |
| 4154 | 86846 | 732400 | 5773550 | 5 |
| 4411 | 92662 | 715650 | 5789100 | 18 |
| 4412 | 92663 | 715650 | 5789100 | 5 |
| 4414 | 92664 | 715900 | 5789050 | 5 |
| 4413 | 92665 | 715900 | 5789050 | 18 |
| 4409 | 96055 | 701950 | 5794800 | 18 |
| 4410 | 96056 | 701950 | 5794800 | 5 |
| 4401 | 96057 | 701800 | 5796800 | 18 |
| 4402 | 96058 | 701800 | 5796800 | 5 |
| 4404 | 96060 | 701600 | 5796800 | 12 |
| 4405 | 96061 | 701600 | 5796800 | 5 |
| 4406 | 96062 | 701400 | 5796850 | 18 |
| 4407 | 96063 | 701400 | 5796850 | 5 |
| 259 | 116794 | 701600 | 5803800 | 57 |
| 260 | 116795 | 707300 | 5801050 | 8 |
| 261 | 116796 | 708100 | 5805800 | 55 |
| 262 | 116797 | 703300 | 5795200 | 8 |
| 263 | 116798 | 698500 | 5797450 | 30 |
| 4110 | 117492 | 715680 | 5752840 | 17.4 |
| 4111 | 117493 | 719440 | 5752710 | 19.2 |
| 4112 | 117494 | 721030 | 5748740 | 19.2 |
| 4113 | 117495 | 720950 | 5748220 | 8.4 |

| | | | | |
|---|---|---|---|---|
| 4114 | 117496 | 721460 | 5745820 | 17.4 |
| 4115 | 117497 | 721850 | 5745730 | 24.6 |
| 4116 | 117498 | 733400 | 5753080 | 22.8 |
| 4117 | 117499 | 733340 | 5752580 | 17.4 |
| 4118 | 117500 | 733340 | 5752580 | 4.4 |
| 4119 | 117501 | 733250 | 5752040 | 13.4 |
| 4120 | 117502 | 733820 | 5751120 | 17.4 |
| 4121 | 117503 | 734060 | 5749750 | 17.4 |
| 4122 | 117504 | 734060 | 5749750 | 6.2 |
| 4123 | 117505 | 734040 | 5749200 | 19.2 |
| 4124 | 117506 | 733950 | 5748950 | 19.2 |
| 4125 | 117507 | 733950 | 5748950 | 8.4 |
| 4126 | 117508 | 733780 | 5748380 | 21 |
| 4127 | 117509 | 732560 | 5747800 | 19.4 |
| 4130 | 117511 | 737480 | 5768060 | 4.8 |
| 4131 | 117512 | 733950 | 5768780 | 17.4 |
| 4133 | 117514 | 733370 | 5769080 | 21.4 |
| 4149 | 117526 | 732800 | 5773550 | 18 |
| 4150 | 117527 | 732800 | 5773550 | 5 |
| 4151 | 117528 | 732600 | 5773550 | 18 |
| 4152 | 117529 | 732600 | 5773550 | 5 |
| 4153 | 117530 | 732400 | 5773550 | 18 |
| 4154 | 117531 | 732400 | 5773550 | 5 |
| 4162 | 117539 | 748450 | 5745000 | 18 |
| 4163 | 117540 | 748450 | 5745000 | 5 |
| 4164 | 117541 | 748400 | 5744500 | 18 |
| 4165 | 117542 | 748400 | 5744500 | 5 |
| 4167 | 117544 | 742630 | 5745370 | 20 |
| 4168 | 117545 | 742630 | 5745370 | 10 |
| 4169 | 117546 | 742630 | 5745370 | 5 |
| 4170 | 117547 | 742550 | 5744890 | 20 |
| 4171 | 117548 | 742550 | 5744890 | 10 |
| 4172 | 117549 | 742550 | 5744890 | 5 |
| 4188 | 117565 | 741000 | 5742730 | 20 |
| 4189 | 117566 | 741000 | 5742730 | 10 |
| 4190 | 117567 | 741000 | 5742730 | 5 |
| 4191 | 117568 | 741480 | 5742520 | 20 |
| 4192 | 117569 | 741480 | 5742520 | 10 |
| 4193 | 117570 | 741480 | 5742520 | 5 |
| 4197 | 117574 | 737670 | 5740520 | 20 |
| 4198 | 117575 | 737670 | 5740520 | 10 |
| 4199 | 117576 | 737670 | 5740520 | 5 |
| 4200 | 117577 | 737610 | 5740230 | 20 |
| 4201 | 117578 | 737610 | 5740230 | 10 |
| 4202 | 117579 | 737610 | 5740230 | 5 |
| 4203 | 117580 | 737570 | 5739950 | 20 |
| 4204 | 117581 | 737570 | 5739950 | 10 |
| 4205 | 117582 | 737570 | 5739950 | 5 |
| 4209 | 117586 | 704630 | 5732720 | 20 |
| 4210 | 117587 | 704630 | 5732720 | 10 |
| 4211 | 117588 | 704630 | 5732720 | 5 |
| 4212 | 117589 | 703860 | 5733170 | 20 |
| 4213 | 117590 | 703860 | 5733170 | 10 |
| 4214 | 117591 | 703860 | 5733170 | 5 |

| | | | | |
|---|---|---|---|---|
| 4215 | 117592 | 703800 | 5733320 | 20 |
| 4216 | 117593 | 703800 | 5733320 | 10 |
| 4217 | 117594 | 703800 | 5733320 | 5 |
| 4218 | 117595 | 702650 | 5734280 | 20 |
| 4219 | 117596 | 702650 | 5734280 | 10 |
| 4220 | 117597 | 702650 | 5734280 | 5 |
| 4221 | 117598 | 702660 | 5734770 | 10 |
| 4222 | 117599 | 702660 | 5734770 | 5 |
| 4223 | 117600 | 702890 | 5734870 | 20 |
| 4224 | 117601 | 702890 | 5734870 | 10 |
| 4225 | 117602 | 702890 | 5734870 | 5 |
| 4226 | 117603 | 703340 | 5734710 | 20 |
| 4227 | 117604 | 703340 | 5734710 | 10 |
| 4228 | 117605 | 703340 | 5734710 | 5 |
| 4229 | 117606 | 704400 | 5735240 | 20 |
| 4230 | 117607 | 704400 | 5735240 | 10 |
| 4231 | 117608 | 704400 | 5735240 | 5 |
| 4232 | 117609 | 699910 | 5737000 | 20 |
| 4233 | 117610 | 699910 | 5737000 | 10 |
| 4234 | 117611 | 699910 | 5737000 | 5 |
| 4235 | 117612 | 686140 | 5742180 | 20 |
| 4236 | 117613 | 686140 | 5742180 | 10 |
| 4237 | 117614 | 686140 | 5742180 | 5 |
| 4238 | 117615 | 686090 | 5741960 | 20 |
| 4239 | 117616 | 686090 | 5741960 | 10 |
| 4240 | 117617 | 686090 | 5741960 | 5 |
| 4244 | 117621 | 685920 | 5741450 | 20 |
| 4245 | 117622 | 685920 | 5741450 | 10 |
| 4246 | 117623 | 685920 | 5741450 | 5 |
| 4247 | 117624 | 686100 | 5741000 | 20 |
| 4248 | 117625 | 686100 | 5741000 | 10 |
| 4249 | 117626 | 686100 | 5741000 | 5 |
| 4250 | 117627 | 686260 | 5741455 | 20 |
| 4251 | 117628 | 686260 | 5741455 | 10 |
| 4252 | 117629 | 686260 | 5741455 | 5 |
| 4253 | 117630 | 686230 | 5741700 | 20 |
| 4254 | 117631 | 686230 | 5741700 | 10 |
| 4255 | 117632 | 686230 | 5741700 | 5 |
| 4256 | 117633 | 686210 | 5741930 | 20 |
| 4257 | 117634 | 686210 | 5741930 | 10 |
| 4258 | 117635 | 686210 | 5741930 | 5 |
| 4259 | 117636 | 703180 | 5741320 | 20 |
| 4260 | 117637 | 703180 | 5741320 | 10 |
| 4261 | 117638 | 703180 | 5741320 | 5 |
| 4262 | 117639 | 703380 | 5741590 | 20 |
| 4263 | 117640 | 703380 | 5741590 | 10 |
| 4264 | 117641 | 703380 | 5741590 | 5 |
| 4265 | 117642 | 702990 | 5742490 | 20 |
| 4266 | 117643 | 702990 | 5742490 | 10 |
| 4267 | 117644 | 702990 | 5742490 | 5 |
| 4268 | 117645 | 703550 | 5743750 | 20 |
| 4269 | 117646 | 703550 | 5743750 | 10 |
| 4270 | 117647 | 703550 | 5743750 | 5 |
| 4271 | 117648 | 703270 | 5744930 | 20 |

| | | | | |
|---|---|---|---|---|
| 4272 | 117649 | 703270 | 5744930 | 10 |
| 4273 | 117650 | 703270 | 5744930 | 5 |
| 4274 | 117651 | 701270 | 5747500 | 20 |
| 4275 | 117652 | 701270 | 5747500 | 10 |
| 4276 | 117653 | 701270 | 5747500 | 5 |
| 4277 | 117654 | 720850 | 5749250 | 18 |
| 4278 | 117655 | 720850 | 5749250 | 5 |
| 4279 | 117656 | 720800 | 5749500 | 18 |
| 4280 | 117657 | 720800 | 5749500 | 5 |
| 4281 | 117658 | 720950 | 5749700 | 18 |
| 4282 | 117659 | 720950 | 5749700 | 5 |
| 4283 | 117660 | 720950 | 5749850 | 18 |
| 4284 | 117661 | 720950 | 5749850 | 5 |
| 4285 | 117662 | 720850 | 5750050 | 18 |
| 4286 | 117663 | 720850 | 5750050 | 5 |
| 4287 | 117664 | 685950 | 5743700 | 18 |
| 4288 | 117665 | 685950 | 5743700 | 5 |
| 4289 | 117666 | 686150 | 5743150 | 18 |
| 4290 | 117667 | 686150 | 5743150 | 5 |
| 4291 | 117668 | 686250 | 5742850 | 18 |
| 4292 | 117669 | 686250 | 5742850 | 5 |
| 4293 | 117670 | 686050 | 5742650 | 18 |
| 4294 | 117671 | 686050 | 5742650 | 5 |
| 4401 | 117681 | 701800 | 5796800 | 18 |
| 4402 | 117682 | 701800 | 5796800 | 5 |
| 4404 | 117684 | 701600 | 5796800 | 12 |
| 4405 | 117685 | 701600 | 5796800 | 5 |
| 4406 | 117686 | 701400 | 5796850 | 18 |
| 4407 | 117687 | 701400 | 5796850 | 5 |
| 4408 | 117688 | 702900 | 5794980 | 5 |
| 4409 | 117689 | 701950 | 5794800 | 18 |
| 4410 | 117690 | 701950 | 5794800 | 5 |
| 4411 | 117691 | 715650 | 5789100 | 18 |
| 4412 | 117692 | 715650 | 5789100 | 5 |
| 4413 | 117693 | 715900 | 5789050 | 18 |
| 4414 | 117694 | 715900 | 5789050 | 5 |
| 4419 | 117696 | 703300 | 5796130 | 4.4 |
| 4420 | 117697 | 702700 | 5797360 | 19.2 |
| 4421 | 117698 | 700660 | 5799800 | 21 |
| 4422 | 117699 | 698520 | 5798020 | 14.7 |
| 4423 | 117700 | 696600 | 5797550 | 8.4 |
| 4424 | 117701 | 696600 | 5797550 | 4.8 |
| 4425 | 117702 | 706650 | 5799550 | 17 |
| 4426 | 117703 | 705980 | 5798000 | 13 |
| 4427 | 117704 | 705980 | 5798000 | 5 |
| 5140 | 117846 | 716800 | 5822200 | 17 |
| 5141 | 117847 | 716800 | 5822200 | 17.3 |
| 5142 | 117848 | 716800 | 5822200 | 15.2 |
| 5143 | 117849 | 716800 | 5822200 | 4.8 |
| 5144 | 117850 | 715200 | 5824800 | 17.3 |
| 5145 | 117851 | 715200 | 5824800 | 17.3 |
| 5146 | 117852 | 715200 | 5824800 | 17.3 |
| 5147 | 117853 | 715200 | 5824800 | 7.3 |
| 5148 | 117854 | 716800 | 5825300 | 17.3 |

| | | | | |
|---|---|---|---|---|
| 5149 | 117855 | 716800 | 5825300 | 17.3 |
| 5150 | 117856 | 716800 | 5825300 | 7.3 |
| 5151 | 117857 | 722000 | 5822000 | 17.3 |
| 5152 | 117858 | 722000 | 5822000 | 15.2 |
| 5153 | 117859 | 722000 | 5822000 | 5.4 |
| 5154 | 117860 | 750300 | 5814600 | 17.3 |
| 5155 | 117861 | 750300 | 5814600 | 17.3 |
| 5156 | 117862 | 750300 | 5814600 | 17.3 |
| 290 | 124961 | 715600 | 5826300 | 34 |
| 289 | 124962 | 715700 | 5826300 | 32 |
| 5268 | 124963 | 719400 | 5822500 | 21 |
| 4320 | 125461 | 728900 | 5786350 | 5 |
| 4321 | 125462 | 725650 | 5785350 | 20 |
| 4322 | 125463 | 725650 | 5785350 | 5 |
| 5269 | 125464 | 739900 | 5836350 | 19 |

# Appendix F Full listing of monitored bores

The following eight pages list the bores in the CGMRD with a monitoring record. The lists include:

| Column | Description |
|---|---|
| A | Bore Identifier |
| B | Start date of monitoring record |
| C | End date of monitoring record |
| D | Number of monitoring records |
| E | Easting co-ordinate of the bore[1] |
| F | Northing co-ordinate of the bore |
| G | Bore Identifier. This should match column A |
| H | Groundwater flow system in which the bore is located |
| I | Name of the groundwater flow system in which the bore is located |
| J | Primary groundwater flow system |
| K | Secondary groundwater flow system |
| L | Bore Identifier. This should match column A |
| M | Salinity target area in which the bore is located |
| N | Bore Identifier. This should match column A |
| O | Name of the groundwater management area in which the bore is located |
| P | Type of groundwater management area in which the bore is located |

[1] Coordinates are Australian Map Grid, Zone 54, Australian Geodetic Datum of 1966

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Bore_Id | Start_Date | End_Date | No_of_Readings | Easting | Northing | Bore_Id | GFS | Description | Flow_system | Secondary_Flow_System | Bore_Id | Target_area | Bore_Id | Wspa_name | Type |
| 2 | 259 | 9/21/1989 | 9/23/2000 | 82 | 701600 | 5803800 | 259 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 3 | 260 | 9/21/1989 | 9/23/2000 | 84 | 707300 | 5801050 | 260 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 260 | Lismore - Derrinallum | | | |
| 4 | 261 | 9/21/1989 | 9/23/2000 | 84 | 708100 | 5805800 | 261 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 5 | 262 | 9/21/1989 | 9/23/2000 | 82 | 703300 | 5795200 | 262 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 262 | Lismore - Derrinallum | | | |
| 6 | 263 | 5/15/1994 | 3/11/1999 | 23 | 698500 | 5797450 | 263 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 263 | Lismore - Derrinallum | | | |
| 7 | 284 | 7/1/1994 | 7/24/2001 | 74 | 736060 | 5805900 | 284 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 284 | Illabarook | | | |
| 8 | 285 | 7/1/1994 | 7/24/2001 | 74 | 736820 | 5805240 | 285 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 285 | Illabarook | | | |
| 9 | 286 | 7/1/1994 | 7/24/2001 | 74 | 736800 | 5805130 | 286 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 286 | Illabarook | | | |
| 10 | 289 | 7/1/1994 | 10/1/2001 | 77 | 715700 | 5826300 | 289 | GFS_7 | Granitic rocks | Local | | 289 | Pittong | | | |
| 11 | 290 | 7/1/1994 | 10/1/2001 | 77 | 715600 | 5826300 | 290 | GFS_7 | Granitic rocks | Local | | 290 | Pittong | | | |
| 12 | 320 | 6/4/1997 | 4/5/1998 | 8 | 682604 | 5735799 | 320 | GFS_4 | Heytesbury marl | Local | | | | 320 | Paaratte | GMA |
| 13 | 4001 | 9/4/2000 | 1/8/2001 | 5 | 703431 | 5779048 | 4001 | GFS_10 | Pliocene sands | Intermediate | Local | 4001 | Corangamite | | | |
| 14 | 4101 | 5/29/1992 | 10/8/2001 | 85 | 739900 | 5774200 | 4101 | GFS_1 | Quaternary sediments | Local | | 4101 | Colac - Eurack | | | |
| 15 | 4102 | 5/29/1992 | 10/8/2001 | 65 | 739900 | 5774200 | 4102 | GFS_1 | Quaternary sediments | Local | | 4102 | Colac - Eurack | | | |
| 16 | 4103 | 5/29/1992 | 10/8/2001 | 84 | 739700 | 5774250 | 4103 | GFS_1 | Quaternary sediments | Local | | 4103 | Colac - Eurack | | | |
| 17 | 4104 | 5/29/1992 | 10/8/2001 | 84 | 739700 | 5774250 | 4104 | GFS_1 | Quaternary sediments | Local | | 4104 | Colac - Eurack | | | |
| 18 | 4105 | 5/29/1992 | 10/8/2001 | 85 | 739500 | 5774300 | 4105 | GFS_1 | Quaternary sediments | Local | | 4105 | Colac - Eurack | | | |
| 19 | 4106 | 5/29/1992 | 10/8/2001 | 85 | 739500 | 5774300 | 4106 | GFS_1 | Quaternary sediments | Local | | 4106 | Colac - Eurack | | | |
| 20 | 4109 | 9/17/1998 | 2/5/2001 | 7 | 725678 | 5750730 | 4109 | GFS_17 | Dilwyn Formation | Regional | | | | 4109 | Gerangamete | GMA |
| 21 | 4110 | 5/31/1991 | 10/1/2001 | 85 | 715680 | 5752840 | 4110 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 22 | 4111 | 5/31/1991 | 10/1/2001 | 85 | 719440 | 5752710 | 4111 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 23 | 4112 | 5/31/1991 | 10/1/2001 | 86 | 721030 | 5748740 | 4112 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 24 | 4113 | 5/31/1991 | 10/1/2001 | 86 | 720950 | 5748220 | 4113 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 25 | 4114 | 5/31/1991 | 10/1/2001 | 74 | 721460 | 5745820 | 4114 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 26 | 4115 | 5/31/1991 | 10/1/2001 | 86 | 721850 | 5745730 | 4115 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 27 | 4116 | 8/20/1991 | 10/2/2001 | 90 | 733400 | 5753080 | 4116 | GFS_5 | Gerangamete marls | Local | | | | | | |
| 28 | 4117 | 5/31/1991 | 10/2/2001 | 90 | 733340 | 5752580 | 4117 | GFS_5 | Gerangamete marls | Local | | | | | | |
| 29 | 4118 | 5/31/1991 | 10/2/2001 | 92 | 733340 | 5752580 | 4118 | GFS_5 | Gerangamete marls | Local | | | | | | |
| 30 | 4119 | 5/31/1991 | 10/2/2001 | 90 | 733250 | 5752040 | 4119 | GFS_5 | Gerangamete marls | Local | | | | | | |
| 31 | 4120 | 5/31/1991 | 10/2/2001 | 92 | 733820 | 5751120 | 4120 | GFS_5 | Gerangamete marls | Local | | | | 4120 | Gerangamete | GMA |
| 32 | 4121 | 6/26/1991 | 10/2/2001 | 83 | 734060 | 5749750 | 4121 | GFS_5 | Gerangamete marls | Local | | | | 4121 | Gerangamete | GMA |
| 33 | 4122 | 6/26/1991 | 10/2/2001 | 90 | 734060 | 5749750 | 4122 | GFS_5 | Gerangamete marls | Local | | | | 4122 | Gerangamete | GMA |
| 34 | 4123 | 5/31/1991 | 10/2/2001 | 90 | 734040 | 5749200 | 4123 | GFS_5 | Gerangamete marls | Local | | | | 4123 | Gerangamete | GMA |
| 35 | 4124 | 5/31/1993 | 10/2/2001 | 71 | 733950 | 5748950 | 4124 | GFS_5 | Gerangamete marls | Local | | | | 4124 | Gerangamete | GMA |
| 36 | 4125 | 5/31/1991 | 10/2/2001 | 93 | 733950 | 5748950 | 4125 | GFS_5 | Gerangamete marls | Local | | | | 4125 | Gerangamete | GMA |
| 37 | 4126 | 5/31/1991 | 10/2/2001 | 92 | 733780 | 5748380 | 4126 | GFS_5 | Gerangamete marls | Local | | | | 4126 | Gerangamete | GMA |
| 38 | 4127 | 5/31/1991 | 10/2/2001 | 92 | 732560 | 5747800 | 4127 | GFS_5 | Gerangamete marls | Local | | | | 4127 | Gerangamete | GMA |
| 39 | 4130 | 4/30/1991 | 10/8/2001 | 69 | 737480 | 5768060 | 4130 | GFS_1 | Quaternary sediments | Local | | 4130 | Colac - Eurack | | | |
| 40 | 4131 | 4/30/1991 | 10/8/2001 | 96 | 733950 | 5768780 | | | | | | 4131 | Colac - Eurack | | | |
| 41 | 4132 | 4/30/1991 | 10/8/2001 | 97 | 733950 | 5768780 | | | | | | 4132 | Colac - Eurack | | | |
| 42 | 4133 | 4/30/1991 | 10/8/2001 | 96 | 733370 | 5769080 | 4133 | GFS_1 | Quaternary sediments | Local | | 4133 | Colac - Eurack | | | |
| 43 | 4134 | 9/9/1991 | 4/10/1997 | 45 | 732400 | 5774600 | 4134 | GFS_1 | Quaternary sediments | Local | | 4134 | Colac - Eurack | | | |
| 44 | 4135 | 5/29/1992 | 10/8/2001 | 86 | 732750 | 5772400 | 4135 | GFS_1 | Quaternary sediments | Local | | 4135 | Colac - Eurack | | | |
| 45 | 4136 | 6/26/1992 | 10/8/2001 | 65 | 732750 | 5772400 | 4136 | GFS_1 | Quaternary sediments | Local | | 4136 | Colac - Eurack | | | |
| 46 | 4137 | 5/29/1992 | 10/8/2001 | 75 | 732550 | 5772300 | 4137 | GFS_1 | Quaternary sediments | Local | | 4137 | Colac - Eurack | | | |
| 47 | 4138 | 7/28/1992 | 10/8/2001 | 60 | 732550 | 5772300 | 4138 | GFS_1 | Quaternary sediments | Local | | 4138 | Colac - Eurack | | | |
| 48 | 4139 | 6/26/1992 | 10/8/2001 | 85 | 732400 | 5772300 | 4139 | GFS_1 | Quaternary sediments | Local | | 4139 | Colac - Eurack | | | |
| 49 | 4140 | 6/26/1992 | 10/8/2001 | 85 | 732400 | 5772300 | 4140 | GFS_1 | Quaternary sediments | Local | | 4140 | Colac - Eurack | | | |
| 50 | 4141 | 5/29/1992 | 10/8/2001 | 83 | 732250 | 5772300 | 4141 | GFS_1 | Quaternary sediments | Local | | 4141 | Colac - Eurack | | | |
| 51 | 4142 | 5/29/1992 | 10/8/2001 | 83 | 732250 | 5772300 | 4142 | GFS_1 | Quaternary sediments | Local | | 4142 | Colac - Eurack | | | |
| 52 | 4143 | 5/29/1992 | 10/8/2001 | 86 | 732700 | 5772750 | 4143 | GFS_1 | Quaternary sediments | Local | | 4143 | Colac - Eurack | | | |
| 53 | 4144 | 5/29/1992 | 10/8/2001 | 77 | 732700 | 5772750 | 4144 | GFS_1 | Quaternary sediments | Local | | 4144 | Colac - Eurack | | | |
| 54 | 4149 | 5/8/1990 | 10/8/2001 | 91 | 732800 | 5773550 | 4149 | GFS_1 | Quaternary sediments | Local | | 4149 | Colac - Eurack | | | |
| 55 | 4150 | 4/30/1992 | 10/8/2001 | 49 | 732800 | 5773550 | 4150 | GFS_1 | Quaternary sediments | Local | | 4150 | Colac - Eurack | | | |
| 56 | 4151 | 5/8/1990 | 10/8/2001 | 90 | 732600 | 5773550 | 4151 | GFS_1 | Quaternary sediments | Local | | 4151 | Colac - Eurack | | | |
| 57 | 4152 | 5/8/1990 | 10/8/2001 | 77 | 732600 | 5773550 | 4152 | GFS_1 | Quaternary sediments | Local | | 4152 | Colac - Eurack | | | |
| 58 | 4153 | 5/8/1990 | 10/8/2001 | 90 | 732400 | 5773550 | 4153 | GFS_1 | Quaternary sediments | Local | | 4153 | Colac - Eurack | | | |
| 59 | 4154 | 5/8/1990 | 10/8/2001 | 89 | 732400 | 5773550 | 4154 | GFS_1 | Quaternary sediments | Local | | 4154 | Colac - Eurack | | | |
| 60 | 4155 | 5/8/1990 | 6/6/2000 | 81 | 742475 | 5757100 | 4155 | GFS_10 | Pliocene sands | Intermediate | Local | 4155 | Warncoort | | | |
| 61 | 4156 | 4/30/1992 | 6/6/2000 | 54 | 742475 | 5757100 | 4156 | GFS_10 | Pliocene sands | Intermediate | Local | 4156 | Warncoort | | | |
| 62 | 4157 | 5/8/1990 | 6/6/2000 | 79 | 742100 | 5757050 | 4157 | GFS_10 | Pliocene sands | Intermediate | Local | 4157 | Warncoort | | | |
| 63 | 4158 | 5/8/1990 | 6/6/2000 | 82 | 741950 | 5757100 | 4158 | GFS_10 | Pliocene sands | Intermediate | Local | 4158 | Warncoort | | | |
| 64 | 4159 | 4/30/1992 | 6/6/2000 | 54 | 741950 | 5757100 | 4159 | GFS_10 | Pliocene sands | Intermediate | Local | 4159 | Warncoort | | | |
| 65 | 4160 | 5/8/1990 | 10/15/2001 | 100 | 747600 | 5746200 | 4160 | GFS_5 | Gerangamete marls | Local | | | | 4160 | Gerangamete | GMA |
| 66 | 4161 | 5/8/1990 | 10/15/2001 | 100 | 747600 | 5746200 | 4161 | GFS_5 | Gerangamete marls | Local | | | | 4161 | Gerangamete | GMA |
| 67 | 4162 | 5/8/1990 | 10/15/2001 | 97 | 748450 | 5745000 | 4162 | GFS_5 | Gerangamete marls | Local | | | | 4162 | Gerangamete | GMA |
| 68 | 4163 | 5/8/1990 | 10/15/2001 | 94 | 748450 | 5745000 | 4163 | GFS_5 | Gerangamete marls | Local | | | | 4163 | Gerangamete | GMA |
| 69 | 4164 | 5/8/1990 | 10/15/2001 | 96 | 748400 | 5744500 | 4164 | GFS_5 | Gerangamete marls | Local | | | | 4164 | Gerangamete | GMA |
| 70 | 4165 | 9/23/1992 | 10/15/2001 | 71 | 748400 | 5744500 | 4165 | GFS_5 | Gerangamete marls | Local | | | | 4165 | Gerangamete | GMA |
| 71 | 4166 | 5/8/1990 | 10/15/2001 | 100 | 748300 | 5743750 | 4166 | GFS_5 | Gerangamete marls | Local | | | | 4166 | Gerangamete | GMA |
| 72 | 4167 | 5/3/1989 | 2/27/2002 | 97 | 742630 | 5745370 | 4167 | GFS_5 | Gerangamete marls | Local | | | | 4167 | Gerangamete | GMA |
| 73 | 4168 | 5/3/1989 | 2/27/2002 | 97 | 742630 | 5745370 | 4168 | GFS_5 | Gerangamete marls | Local | | | | 4168 | Gerangamete | GMA |
| 74 | 4169 | 5/3/1989 | 2/27/2002 | 96 | 742630 | 5745370 | 4169 | GFS_5 | Gerangamete marls | Local | | | | 4169 | Gerangamete | GMA |
| 75 | 4170 | 6/8/1989 | 2/27/2002 | 96 | 742550 | 5744890 | 4170 | GFS_1 | Quaternary sediments | Local | | | | 4170 | Gerangamete | GMA |
| 76 | 4171 | 5/3/1989 | 2/27/2002 | 97 | 742550 | 5744890 | 4171 | GFS_1 | Quaternary sediments | Local | | | | 4171 | Gerangamete | GMA |
| 77 | 4172 | 5/3/1989 | 2/27/2002 | 97 | 742550 | 5744890 | 4172 | GFS_1 | Quaternary sediments | Local | | | | 4172 | Gerangamete | GMA |
| 78 | 4173 | 6/8/1989 | 2/27/2002 | 95 | 742451 | 5744217 | 4173 | GFS_5 | Gerangamete marls | Local | | | | 4173 | Gerangamete | GMA |
| 79 | 4174 | 5/3/1989 | 2/27/2002 | 95 | 742451 | 5744217 | 4174 | GFS_5 | Gerangamete marls | Local | | | | 4174 | Gerangamete | GMA |
| 80 | 4175 | 5/3/1989 | 2/27/2002 | 96 | 742451 | 5744217 | 4175 | GFS_5 | Gerangamete marls | Local | | | | 4175 | Gerangamete | GMA |
| 81 | 4176 | 5/3/1989 | 2/27/2002 | 97 | 742379 | 5743884 | 4176 | GFS_5 | Gerangamete marls | Local | | | | 4176 | Gerangamete | GMA |
| 82 | 4177 | 5/3/1989 | 2/27/2002 | 96 | 742379 | 5743884 | 4177 | GFS_5 | Gerangamete marls | Local | | | | 4177 | Gerangamete | GMA |
| 83 | 4178 | 8/8/1989 | 2/27/2002 | 80 | 742379 | 5743884 | 4178 | GFS_5 | Gerangamete marls | Local | | | | 4178 | Gerangamete | GMA |
| 84 | 4179 | 5/3/1989 | 2/27/2002 | 196 | 740429 | 5742788 | 4179 | GFS_5 | Gerangamete marls | Local | | | | 4179 | Gerangamete | GMA |
| 85 | 4180 | 6/7/1990 | 2/27/2002 | 158 | 740429 | 5742788 | 4180 | GFS_5 | Gerangamete marls | Local | | | | 4180 | Gerangamete | GMA |
| 86 | 4181 | 5/3/1989 | 2/27/2002 | 97 | 740429 | 5742788 | 4181 | GFS_5 | Gerangamete marls | Local | | | | 4181 | Gerangamete | GMA |
| 87 | 4182 | 5/3/1989 | 2/27/2002 | 98 | 740602 | 5742775 | 4182 | GFS_5 | Gerangamete marls | Local | | | | 4182 | Gerangamete | GMA |
| 88 | 4183 | 5/3/1989 | 2/27/2002 | 196 | 740602 | 5742775 | 4183 | GFS_5 | Gerangamete marls | Local | | | | 4183 | Gerangamete | GMA |
| 89 | 4184 | 8/8/1989 | 2/27/2002 | 91 | 740602 | 5742775 | 4184 | GFS_5 | Gerangamete marls | Local | | | | 4184 | Gerangamete | GMA |
| 90 | 4185 | 5/3/1989 | 2/27/2002 | 95 | 740702 | 5742787 | 4185 | GFS_5 | Gerangamete marls | Local | | | | 4185 | Gerangamete | GMA |
| 91 | 4186 | 5/3/1989 | 2/27/2002 | 98 | 740702 | 5742787 | 4186 | GFS_5 | Gerangamete marls | Local | | | | 4186 | Gerangamete | GMA |
| 92 | 4187 | 5/3/1989 | 2/27/2002 | 98 | 740702 | 5742787 | 4187 | GFS_5 | Gerangamete marls | Local | | | | 4187 | Gerangamete | GMA |
| 93 | 4188 | 5/3/1989 | 2/27/2002 | 96 | 741000 | 5742730 | 4188 | GFS_5 | Gerangamete marls | Local | | | | 4188 | Gerangamete | GMA |
| 94 | 4189 | 8/8/1989 | 2/27/2002 | 93 | 741000 | 5742730 | 4189 | GFS_5 | Gerangamete marls | Local | | | | 4189 | Gerangamete | GMA |
| 95 | 4190 | 5/3/1989 | 2/27/2002 | 96 | 741000 | 5742730 | 4190 | GFS_5 | Gerangamete marls | Local | | | | 4190 | Gerangamete | GMA |
| 96 | 4191 | 5/3/1989 | 2/27/2002 | 96 | 741480 | 5742520 | 4191 | GFS_5 | Gerangamete marls | Local | | | | 4191 | Gerangamete | GMA |
| 97 | 4192 | 5/3/1989 | 2/27/2002 | 96 | 741480 | 5742520 | 4192 | GFS_5 | Gerangamete marls | Local | | | | 4192 | Gerangamete | GMA |
| 98 | 4193 | 5/3/1989 | 2/27/2002 | 96 | 741480 | 5742520 | 4193 | GFS_5 | Gerangamete marls | Local | | | | 4193 | Gerangamete | GMA |
| 99 | 4194 | 5/3/1989 | 2/27/2002 | 94 | 741750 | 5742400 | 4194 | GFS_5 | Gerangamete marls | Local | | | | 4194 | Gerangamete | GMA |
| 100 | 4195 | 5/3/1989 | 2/27/2002 | 95 | 741750 | 5742400 | 4195 | GFS_5 | Gerangamete marls | Local | | | | 4195 | Gerangamete | GMA |
| 101 | 4196 | 5/3/1989 | 2/27/2002 | 91 | 741750 | 5742400 | 4196 | GFS_5 | Gerangamete marls | Local | | | | 4196 | Gerangamete | GMA |
| 102 | 4197 | 5/3/1989 | 9/27/2001 | 141 | 737670 | 5740520 | 4197 | GFS_17 | Dilwyn Formation | Regional | | | | 4197 | Gerangamete | GMA |
| 103 | 4198 | 5/3/1989 | 10/5/2001 | 141 | 737670 | 5740520 | 4198 | GFS_17 | Dilwyn Formation | Regional | | | | 4198 | Gerangamete | GMA |
| 104 | 4199 | 5/3/1989 | 10/5/2001 | 141 | 737670 | 5740520 | 4199 | GFS_17 | Dilwyn Formation | Regional | | | | 4199 | Gerangamete | GMA |
| 105 | 4200 | 6/8/1989 | 2/27/2002 | 128 | 737610 | 5740230 | 4200 | GFS_17 | Dilwyn Formation | Regional | | | | 4200 | Gerangamete | GMA |
| 106 | 4201 | 6/8/1989 | 2/27/2002 | 124 | 737610 | 5740230 | 4201 | GFS_17 | Dilwyn Formation | Regional | | | | 4201 | Gerangamete | GMA |
| 107 | 4202 | 8/8/1989 | 2/27/2002 | 120 | 737610 | 5740230 | 4202 | GFS_17 | Dilwyn Formation | Regional | | | | 4202 | Gerangamete | GMA |
| 108 | 4203 | 5/3/1989 | 2/27/2002 | 123 | 737570 | 5739950 | 4203 | GFS_17 | Dilwyn Formation | Regional | | | | 4203 | Gerangamete | GMA |
| 109 | 4204 | 5/3/1989 | 2/27/2002 | 123 | 737570 | 5739950 | 4204 | GFS_17 | Dilwyn Formation | Regional | | | | 4204 | Gerangamete | GMA |
| 110 | 4205 | 7/7/1989 | 2/27/2002 | 122 | 737570 | 5739950 | 4205 | GFS_17 | Dilwyn Formation | Regional | | | | 4205 | Gerangamete | GMA |
| 111 | 4206 | 5/3/1989 | 2/27/2002 | 126 | 737470 | 5739488 | 4206 | GFS_17 | Dilwyn Formation | Regional | | | | 4206 | Gerangamete | GMA |
| 112 | 4207 | 5/3/1989 | 2/27/2002 | 125 | 737470 | 5739488 | 4207 | GFS_17 | Dilwyn Formation | Regional | | | | 4207 | Gerangamete | GMA |
| 113 | 4208 | 7/7/1989 | 2/27/2002 | 113 | 737470 | 5739488 | 4208 | GFS_17 | Dilwyn Formation | Regional | | | | 4208 | Gerangamete | GMA |
| 114 | 4209 | 6/10/1993 | 12/11/2001 | 28 | 704630 | 5732720 | 4209 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 115 | 4210 | 6/22/1990 | 12/11/2001 | 24 | 704630 | 5732720 | 4210 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 116 | 4211 | 6/22/1990 | 11/18/1999 | 54 | 704630 | 5732720 | 4211 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 117 | 4212 | 11/17/1989 | 11/18/1999 | 95 | 703860 | 5733170 | 4212 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 118 | 4213 | 5/22/1990 | 12/12/2001 | 87 | 703860 | 5733170 | 4213 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 119 | 4214 | 8/15/1989 | 10/3/2001 | 84 | 703860 | 5733170 | 4214 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 120 | 4215 | 5/10/1989 | 12/12/2001 | 107 | 703800 | 5733320 | 4215 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 121 | 4216 | 5/10/1989 | 12/12/2001 | 107 | 703800 | 5733320 | 4216 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 122 | 4217 | 5/10/1989 | 12/12/2001 | 104 | 703800 | 5733320 | 4217 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 123 | 4218 | 5/10/1989 | 12/11/2001 | 110 | 702650 | 5734280 | 4218 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 124 | 4219 | 5/10/1989 | 12/11/2001 | 106 | 702650 | 5734280 | 4219 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 125 | 4220 | 8/15/1989 | 12/11/2001 | 105 | 702650 | 5734280 | 4220 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 126 | 4221 | 5/10/1989 | 12/11/2001 | 104 | 702660 | 5734770 | 4221 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 127 | 4222 | 5/10/1989 | 12/11/2001 | 108 | 702660 | 5734770 | 4222 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 128 | 4223 | 5/10/1989 | 12/11/2001 | 111 | 702890 | 5734870 | 4223 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 129 | 4224 | 5/10/1989 | 12/11/2001 | 110 | 702890 | 5734870 | 4224 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 130 | 4225 | 8/15/1989 | 12/11/2001 | 86 | 702890 | 5734870 | 4225 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 131 | 4226 | 5/10/1989 | 12/11/2001 | 109 | 703340 | 5734710 | 4226 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 132 | 4227 | 5/10/1989 | 12/11/2001 | 108 | 703340 | 5734710 | 4227 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 133 | 4228 | 6/10/1993 | 12/11/2001 | 68 | 703340 | 5734710 | 4228 | GFS_4 | Heytesbury marl | Local | | | | | | |
| 134 | 4229 | 5/10/1989 | 12/12/2001 | 109 | 704400 | 5735240 | 4229 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 135 | 4230 | 6/13/1989 | 12/12/2001 | 102 | 704400 | 5735240 | 4230 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 136 | 4231 | 6/22/1990 | 12/12/2001 | 82 | 704400 | 5735240 | 4231 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 137 | 4232 | 5/10/1989 | 12/11/2001 | 105 | 699910 | 5737000 | 4232 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4232 | Paaratte | GMA |
| 138 | 4233 | 5/10/1989 | 12/11/2001 | 106 | 699910 | 5737000 | 4233 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4233 | Paaratte | GMA |
| 139 | 4234 | 7/11/1989 | 12/12/2001 | 90 | 699910 | 5737000 | 4234 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4234 | Paaratte | GMA |
| 140 | 4235 | 5/8/1989 | 5/29/1996 | 76 | 686140 | 5742180 | 4235 | GFS_1 | Quaternary sediments | Local | | | | 4235 | Paaratte | GMA |
| 141 | 4236 | 5/8/1989 | 5/29/1996 | 76 | 686140 | 5742180 | 4236 | GFS_1 | Quaternary sediments | Local | | | | 4236 | Paaratte | GMA |
| 142 | 4237 | 5/8/1989 | 5/29/1996 | 75 | 686140 | 5742180 | 4237 | GFS_1 | Quaternary sediments | Local | | | | 4237 | Paaratte | GMA |
| 143 | 4238 | 5/8/1989 | 12/11/2001 | 112 | 686090 | 5741960 | 4238 | GFS_4 | Heytesbury marl | Local | | | | 4238 | Paaratte | GMA |
| 144 | 4239 | 5/8/1989 | 12/11/2001 | 112 | 686090 | 5741960 | 4239 | GFS_4 | Heytesbury marl | Local | | | | 4239 | Paaratte | GMA |
| 145 | 4240 | 5/8/1989 | 12/11/2001 | 111 | 686090 | 5741960 | 4240 | GFS_4 | Heytesbury marl | Local | | | | 4240 | Paaratte | GMA |
| 146 | 4241 | 5/8/1989 | 12/11/2001 | 112 | 685970 | 5741710 | 4241 | GFS_4 | Heytesbury marl | Local | | | | 4241 | Paaratte | GMA |
| 147 | 4242 | 5/8/1989 | 12/11/2001 | 112 | 685970 | 5741710 | 4242 | GFS_4 | Heytesbury marl | Local | | | | 4242 | Paaratte | GMA |
| 148 | 4243 | 2/12/1990 | 12/11/2001 | 92 | 685970 | 5741710 | 4243 | GFS_4 | Heytesbury marl | Local | | | | 4243 | Paaratte | GMA |
| 149 | 4244 | 5/8/1989 | 12/11/2001 | 218 | 685920 | 5741450 | 4244 | GFS_4 | Heytesbury marl | Local | | | | 4244 | Paaratte | GMA |
| 150 | 4245 | 5/8/1989 | 9/13/2001 | 104 | 685920 | 5741450 | 4245 | GFS_4 | Heytesbury marl | Local | | | | 4245 | Paaratte | GMA |
| 151 | 4246 | 5/8/1989 | 12/11/2001 | 214 | 685920 | 5741450 | 4246 | GFS_4 | Heytesbury marl | Local | | | | 4246 | Paaratte | GMA |
| 152 | 4247 | 5/8/1989 | 12/11/2001 | 112 | 686100 | 5741000 | 4247 | GFS_4 | Heytesbury marl | Local | | | | 4247 | Paaratte | GMA |
| 153 | 4248 | 9/14/1989 | 12/11/2001 | 99 | 686100 | 5741000 | 4248 | GFS_4 | Heytesbury marl | Local | | | | 4248 | Paaratte | GMA |
| 154 | 4249 | 5/8/1989 | 12/11/2001 | 112 | 686100 | 5741000 | 4249 | GFS_4 | Heytesbury marl | Local | | | | 4249 | Paaratte | GMA |
| 155 | 4250 | 5/8/1989 | 12/11/2001 | 112 | 686260 | 5741455 | 4250 | GFS_4 | Heytesbury marl | Local | | | | 4250 | Paaratte | GMA |
| 156 | 4251 | 5/8/1989 | 12/11/2001 | 112 | 686260 | 5741455 | 4251 | GFS_4 | Heytesbury marl | Local | | | | 4251 | Paaratte | GMA |
| 157 | 4252 | 9/14/1989 | 12/11/2001 | 89 | 686260 | 5741455 | 4252 | GFS_4 | Heytesbury marl | Local | | | | 4252 | Paaratte | GMA |
| 158 | 4253 | 5/10/1989 | 12/11/2001 | 105 | 686230 | 5741700 | 4253 | GFS_4 | Heytesbury marl | Local | | | | 4253 | Paaratte | GMA |
| 159 | 4254 | 5/10/1989 | 12/11/2001 | 106 | 686230 | 5741700 | 4254 | GFS_4 | Heytesbury marl | Local | | | | 4254 | Paaratte | GMA |
| 160 | 4255 | 8/17/1989 | 12/11/2001 | 32 | 686230 | 5741700 | 4255 | GFS_4 | Heytesbury marl | Local | | | | 4255 | Paaratte | GMA |
| 161 | 4256 | 5/10/1989 | 12/11/2001 | 109 | 686210 | 5741930 | 4256 | GFS_4 | Heytesbury marl | Local | | | | 4256 | Paaratte | GMA |
| 162 | 4257 | 5/8/1989 | 12/11/2001 | 112 | 686210 | 5741930 | 4257 | GFS_4 | Heytesbury marl | Local | | | | 4257 | Paaratte | GMA |
| 163 | 4258 | 5/8/1989 | 12/11/2001 | 112 | 686210 | 5741930 | 4258 | GFS_4 | Heytesbury marl | Local | | | | 4258 | Paaratte | GMA |
| 164 | 4259 | 5/12/1989 | 10/3/2001 | 112 | 703180 | 5741320 | 4259 | GFS_4 | Heytesbury marl | Local | | | | 4259 | Paaratte | GMA |
| 165 | 4260 | 5/12/1989 | 10/3/2001 | 112 | 703180 | 5741320 | 4260 | GFS_4 | Heytesbury marl | Local | | | | 4260 | Paaratte | GMA |
| 166 | 4261 | 5/12/1989 | 10/3/2001 | 112 | 703180 | 5741320 | 4261 | GFS_4 | Heytesbury marl | Local | | | | 4261 | Paaratte | GMA |
| 167 | 4262 | 5/12/1989 | 10/3/2001 | 112 | 703380 | 5741590 | 4262 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4262 | Paaratte | GMA |
| 168 | 4263 | 5/12/1989 | 10/3/2001 | 112 | 703380 | 5741590 | 4263 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4263 | Paaratte | GMA |
| 169 | 4264 | 5/12/1989 | 10/3/2001 | 112 | 703380 | 5741590 | 4264 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4264 | Paaratte | GMA |
| 170 | 4265 | 5/12/1989 | 10/3/2001 | 112 | 702990 | 5742490 | 4265 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4265 | Paaratte | GMA |
| 171 | 4266 | 5/12/1989 | 10/3/2001 | 112 | 702990 | 5742490 | 4266 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4266 | Paaratte | GMA |
| 172 | 4267 | 5/12/1989 | 10/3/2001 | 112 | 702990 | 5742490 | 4267 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4267 | Paaratte | GMA |
| 173 | 4268 | 5/12/1989 | 11/3/1998 | 98 | 703550 | 5743750 | 4268 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4268 | Paaratte | GMA |
| 174 | 4269 | 5/12/1989 | 11/3/1998 | 99 | 703550 | 5743750 | 4269 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4269 | Paaratte | GMA |
| 175 | 4270 | 7/11/1989 | 11/3/1998 | 88 | 703550 | 5743750 | 4270 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4270 | Paaratte | GMA |
| 176 | 4271 | 5/12/1989 | 10/3/2001 | 105 | 703270 | 5744930 | 4271 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4271 | Paaratte | GMA |
| 177 | 4272 | 5/12/1989 | 10/3/2001 | 105 | 703270 | 5744930 | 4272 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4272 | Paaratte | GMA |
| 178 | 4273 | 5/12/1989 | 10/3/2001 | 108 | 703270 | 5744930 | 4273 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4273 | Paaratte | GMA |
| 179 | 4277 | 5/22/1990 | 10/1/2001 | 97 | 720850 | 5749250 | 4277 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 180 | 4278 | 5/22/1990 | 10/1/2001 | 97 | 720850 | 5749250 | 4278 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 181 | 4279 | 5/22/1990 | 10/1/2001 | 97 | 720800 | 5749500 | 4279 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 182 | 4280 | 5/22/1990 | 10/1/2001 | 97 | 720800 | 5749500 | 4280 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 183 | 4281 | 5/22/1990 | 10/1/2001 | 97 | 720950 | 5749700 | 4281 | GFS_10 | Pliocene sands | Intermediate | Local | 4281 | Colac - Eurack | | | |
| 184 | 4282 | 8/28/1990 | 10/1/2001 | 89 | 720950 | 5749700 | 4282 | GFS_10 | Pliocene sands | Intermediate | Local | 4282 | Colac - Eurack | | | |
| 185 | 4283 | 5/22/1990 | 10/1/2001 | 97 | 720950 | 5749850 | 4283 | GFS_10 | Pliocene sands | Intermediate | Local | 4283 | Colac - Eurack | | | |
| 186 | 4284 | 6/22/1990 | 10/1/2001 | 84 | 720950 | 5749850 | 4284 | GFS_10 | Pliocene sands | Intermediate | Local | 4284 | Colac - Eurack | | | |
| 187 | 4285 | 5/22/1990 | 10/1/2001 | 96 | 720850 | 5750050 | 4285 | GFS_17 | Dilwyn Formation | Regional | | 4285 | Colac - Eurack | | | |
| 188 | 4286 | 5/22/1990 | 10/1/2001 | 97 | 720850 | 5750050 | 4286 | GFS_17 | Dilwyn Formation | Regional | | 4286 | Colac - Eurack | | | |
| 189 | 4287 | 5/23/1990 | 12/11/2001 | 98 | 685950 | 5743700 | 4287 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4287 | Paaratte | GMA |
| 190 | 4288 | 5/23/1990 | 12/11/2001 | 99 | 685950 | 5743700 | 4288 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4288 | Paaratte | GMA |
| 191 | 4289 | 5/23/1990 | 7/28/1995 | 52 | 686150 | 5743150 | 4289 | GFS_4 | Heytesbury marl | Local | | | | 4289 | Paaratte | GMA |
| 192 | 4290 | 5/23/1990 | 7/28/1995 | 52 | 686150 | 5743150 | 4290 | GFS_4 | Heytesbury marl | Local | | | | 4290 | Paaratte | GMA |
| 193 | 4291 | 5/23/1990 | 7/28/1995 | 53 | 686250 | 5742850 | 4291 | GFS_4 | Heytesbury marl | Local | | | | 4291 | Paaratte | GMA |
| 194 | 4292 | 5/23/1990 | 7/28/1995 | 53 | 686250 | 5742850 | 4292 | GFS_4 | Heytesbury marl | Local | | | | 4292 | Paaratte | GMA |
| 195 | 4293 | 5/23/1990 | 7/28/1995 | 53 | 686050 | 5742650 | 4293 | GFS_4 | Heytesbury marl | Local | | | | 4293 | Paaratte | GMA |
| 196 | 4294 | 5/23/1990 | 7/28/1995 | 53 | 686050 | 5742650 | 4294 | GFS_4 | Heytesbury marl | Local | | | | 4294 | Paaratte | GMA |
| 197 | 4295 | 5/29/1992 | 10/15/2001 | 74 | 748300 | 5749380 | 4295 | GFS_17 | Dilwyn Formation | Regional | | | | 4295 | Gerangamete | GMA |
| 198 | 4296 | 10/28/1992 | 10/15/2001 | 68 | 748300 | 5749380 | 4296 | GFS_17 | Dilwyn Formation | Regional | | | | 4296 | Gerangamete | GMA |
| 199 | 4297 | 5/29/1992 | 10/15/2001 | 75 | 749750 | 5748680 | 4297 | GFS_17 | Dilwyn Formation | Regional | | | | 4297 | Gerangamete | GMA |
| 200 | 4298 | 5/29/1992 | 8/15/2001 | 74 | 748300 | 5748080 | 4298 | GFS_1 | Quaternary sediments | Local | | | | 4298 | Gerangamete | GMA |
| 201 | 4299 | 5/29/1992 | 8/15/2001 | 74 | 748300 | 5748080 | 4299 | GFS_1 | Quaternary sediments | Local | | | | 4299 | Gerangamete | GMA |
| 202 | 4301 | 6/1/1992 | 6/6/1997 | 21 | 685150 | 5727750 | 4301 | GFS_4 | Heytesbury marl | Local | | | | 4301 | Paaratte | GMA |
| 203 | 4302 | 6/1/1992 | 6/6/1997 | 21 | 685160 | 5728150 | 4302 | GFS_4 | Heytesbury marl | Local | | | | 4302 | Paaratte | GMA |
| 204 | 4303 | 6/1/1992 | 6/6/1997 | 21 | 685160 | 5728150 | 4303 | GFS_4 | Heytesbury marl | Local | | | | 4303 | Paaratte | GMA |
| 205 | 4304 | 6/1/1992 | 6/6/1997 | 21 | 685275 | 5727950 | 4304 | GFS_4 | Heytesbury marl | Local | | | | 4304 | Paaratte | GMA |
| 206 | 4305 | 6/1/1992 | 6/6/1997 | 21 | 685275 | 5727950 | 4305 | GFS_4 | Heytesbury marl | Local | | | | 4305 | Paaratte | GMA |
| 207 | 4306 | 6/1/1992 | 6/6/1997 | 22 | 685375 | 5727800 | 4306 | GFS_4 | Heytesbury marl | Local | | | | 4306 | Paaratte | GMA |
| 208 | 4307 | 6/1/1992 | 6/6/1997 | 22 | 685375 | 5727800 | 4307 | GFS_4 | Heytesbury marl | Local | | | | 4307 | Paaratte | GMA |
| 209 | 4310 | 5/30/2000 | 10/1/2001 | 15 | 724675 | 5750975 | 4310 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 210 | 4323 | 5/8/1996 | 3/31/1998 | 18 | 681798 | 5736146 | 4323 | GFS_4 | Heytesbury marl | Local | | | | 4323 | Paaratte | GMA |
| 211 | 4324 | 5/8/1996 | 3/31/1998 | 17 | 681798 | 5736146 | 4324 | GFS_4 | Heytesbury marl | Local | | | | 4324 | Paaratte | GMA |
| 212 | 4325 | 5/8/1996 | 3/31/1998 | 18 | 681798 | 5736146 | 4325 | GFS_4 | Heytesbury marl | Local | | | | 4325 | Paaratte | GMA |
| 213 | 4326 | 5/8/1996 | 3/31/1998 | 18 | 682245 | 5736105 | 4326 | GFS_4 | Heytesbury marl | Local | | | | 4326 | Paaratte | GMA |
| 214 | 4327 | 5/8/1996 | 3/31/1998 | 17 | 682245 | 5736105 | 4327 | GFS_4 | Heytesbury marl | Local | | | | 4327 | Paaratte | GMA |
| 215 | 4328 | 5/8/1996 | 3/31/1998 | 18 | 682245 | 5736105 | 4328 | GFS_4 | Heytesbury marl | Local | | | | 4328 | Paaratte | GMA |
| 216 | 4329 | 5/8/1996 | 4/5/1998 | 29 | 682604 | 5735799 | 4329 | GFS_4 | Heytesbury marl | Local | | | | 4329 | Paaratte | GMA |
| 217 | 4330 | 5/8/1996 | 4/5/1998 | 28 | 682604 | 5735799 | 4330 | GFS_4 | Heytesbury marl | Local | | | | 4330 | Paaratte | GMA |
| 218 | 4331 | 5/8/1996 | 4/5/1998 | 29 | 682604 | 5735799 | 4331 | GFS_4 | Heytesbury marl | Local | | | | 4331 | Paaratte | GMA |
| 219 | 4332 | 5/8/1996 | 6/5/1996 | 3 | 683011 | 5735860 | 4332 | GFS_4 | Heytesbury marl | Local | | | | 4332 | Paaratte | GMA |
| 220 | 4333 | 5/8/1996 | 5/27/1996 | 2 | 683011 | 5735860 | 4333 | GFS_4 | Heytesbury marl | Local | | | | 4333 | Paaratte | GMA |
| 221 | 4334 | 5/8/1996 | 6/5/1996 | 3 | 683011 | 5735860 | 4334 | GFS_4 | Heytesbury marl | Local | | | | 4334 | Paaratte | GMA |
| 222 | 4341 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4341 | GFS_4 | Heytesbury marl | Local | | | | 4341 | Paaratte | GMA |
| 223 | 4342 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4342 | GFS_4 | Heytesbury marl | Local | | | | 4342 | Paaratte | GMA |
| 224 | 4343 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4343 | GFS_4 | Heytesbury marl | Local | | | | 4343 | Paaratte | GMA |
| 225 | 4344 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4344 | GFS_4 | Heytesbury marl | Local | | | | 4344 | Paaratte | GMA |
| 226 | 4345 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4345 | GFS_4 | Heytesbury marl | Local | | | | 4345 | Paaratte | GMA |
| 227 | 4346 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4346 | GFS_4 | Heytesbury marl | Local | | | | 4346 | Paaratte | GMA |
| 228 | 4347 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4347 | GFS_4 | Heytesbury marl | Local | | | | 4347 | Paaratte | GMA |
| 229 | 4348 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4348 | GFS_4 | Heytesbury marl | Local | | | | 4348 | Paaratte | GMA |
| 230 | 4349 | 12/31/1997 | 8/31/1998 | 9 | 685000 | 5726800 | 4349 | GFS_4 | Heytesbury marl | Local | | | | 4349 | Paaratte | GMA |
| 231 | 4350 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4350 | GFS_4 | Heytesbury marl | Local | | | | 4350 | Paaratte | GMA |
| 232 | 4351 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4351 | GFS_4 | Heytesbury marl | Local | | | | 4351 | Paaratte | GMA |
| 233 | 4353 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4353 | GFS_4 | Heytesbury marl | Local | | | | 4353 | Paaratte | GMA |
| 234 | 4354 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4354 | GFS_4 | Heytesbury marl | Local | | | | 4354 | Paaratte | GMA |
| 235 | 4355 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4355 | GFS_4 | Heytesbury marl | Local | | | | 4355 | Paaratte | GMA |
| 236 | 4356 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4356 | GFS_4 | Heytesbury marl | Local | | | | 4356 | Paaratte | GMA |
| 237 | 4357 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4357 | GFS_4 | Heytesbury marl | Local | | | | 4357 | Paaratte | GMA |
| 238 | 4358 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4358 | GFS_4 | Heytesbury marl | Local | | | | 4358 | Paaratte | GMA |
| 239 | 4359 | 10/29/1997 | 10/29/1997 | 1 | 685000 | 5726800 | 4359 | GFS_4 | Heytesbury marl | Local | | | | 4359 | Paaratte | GMA |
| 240 | 4360 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4360 | GFS_4 | Heytesbury marl | Local | | | | 4360 | Paaratte | GMA |
| 241 | 4361 | 12/31/1997 | 12/31/1997 | 1 | 685000 | 5726800 | 4361 | GFS_4 | Heytesbury marl | Local | | | | 4361 | Paaratte | GMA |
| 242 | 4362 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4362 | GFS_4 | Heytesbury marl | Local | | | | 4362 | Paaratte | GMA |
| 243 | 4363 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4363 | GFS_4 | Heytesbury marl | Local | | | | 4363 | Paaratte | GMA |
| 244 | 4364 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4364 | GFS_4 | Heytesbury marl | Local | | | | 4364 | Paaratte | GMA |
| 245 | 4365 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4365 | GFS_4 | Heytesbury marl | Local | | | | 4365 | Paaratte | GMA |
| 246 | 4366 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4366 | GFS_4 | Heytesbury marl | Local | | | | 4366 | Paaratte | GMA |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 247 | 4367 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4367 | GFS_4 | Heytesbury marl | Local | | | | 4367 | Paaratte | GMA |
| 248 | 4368 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4368 | GFS_4 | Heytesbury marl | Local | | | | 4368 | Paaratte | GMA |
| 249 | 4369 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4369 | GFS_4 | Heytesbury marl | Local | | | | 4369 | Paaratte | GMA |
| 250 | 4370 | 10/29/1997 | 10/29/1997 | 1 | 685000 | 5726800 | 4370 | GFS_4 | Heytesbury marl | Local | | | | 4370 | Paaratte | GMA |
| 251 | 4371 | 6/26/1998 | 6/26/1998 | 1 | 685000 | 5726800 | 4371 | GFS_4 | Heytesbury marl | Local | | | | 4371 | Paaratte | GMA |
| 252 | 4372 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4372 | GFS_4 | Heytesbury marl | Local | | | | 4372 | Paaratte | GMA |
| 253 | 4373 | 10/29/1997 | 10/29/1997 | 1 | 685000 | 5726800 | 4373 | GFS_4 | Heytesbury marl | Local | | | | 4373 | Paaratte | GMA |
| 254 | 4374 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4374 | GFS_4 | Heytesbury marl | Local | | | | 4374 | Paaratte | GMA |
| 255 | 4375 | 10/29/1997 | 10/29/1997 | 1 | 685000 | 5726800 | 4375 | GFS_4 | Heytesbury marl | Local | | | | 4375 | Paaratte | GMA |
| 256 | 4376 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4376 | GFS_4 | Heytesbury marl | Local | | | | 4376 | Paaratte | GMA |
| 257 | 4377 | 6/26/1998 | 8/31/1998 | 3 | 685000 | 5726800 | 4377 | GFS_4 | Heytesbury marl | Local | | | | 4377 | Paaratte | GMA |
| 258 | 4378 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4378 | GFS_4 | Heytesbury marl | Local | | | | 4378 | Paaratte | GMA |
| 259 | 4379 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4379 | GFS_4 | Heytesbury marl | Local | | | | 4379 | Paaratte | GMA |
| 260 | 4380 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4380 | GFS_4 | Heytesbury marl | Local | | | | 4380 | Paaratte | GMA |
| 261 | 4381 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4381 | GFS_4 | Heytesbury marl | Local | | | | 4381 | Paaratte | GMA |
| 262 | 4382 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4382 | GFS_4 | Heytesbury marl | Local | | | | 4382 | Paaratte | GMA |
| 263 | 4383 | 7/31/1998 | 7/31/1998 | 1 | 685000 | 5726800 | 4383 | GFS_4 | Heytesbury marl | Local | | | | 4383 | Paaratte | GMA |
| 264 | 4384 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4384 | GFS_4 | Heytesbury marl | Local | | | | 4384 | Paaratte | GMA |
| 265 | 4385 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4385 | GFS_4 | Heytesbury marl | Local | | | | 4385 | Paaratte | GMA |
| 266 | 4386 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4386 | GFS_4 | Heytesbury marl | Local | | | | 4386 | Paaratte | GMA |
| 267 | 4387 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4387 | GFS_4 | Heytesbury marl | Local | | | | 4387 | Paaratte | GMA |
| 268 | 4388 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4388 | GFS_4 | Heytesbury marl | Local | | | | 4388 | Paaratte | GMA |
| 269 | 4389 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4389 | GFS_4 | Heytesbury marl | Local | | | | 4389 | Paaratte | GMA |
| 270 | 4390 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4390 | GFS_4 | Heytesbury marl | Local | | | | 4390 | Paaratte | GMA |
| 271 | 4391 | 10/29/1997 | 10/29/1997 | 1 | 685000 | 5726800 | 4391 | GFS_4 | Heytesbury marl | Local | | | | 4391 | Paaratte | GMA |
| 272 | 4392 | 10/29/1997 | 2/27/1998 | 4 | 685000 | 5726800 | 4392 | GFS_4 | Heytesbury marl | Local | | | | 4392 | Paaratte | GMA |
| 273 | 4393 | 10/29/1997 | 8/31/1998 | 4 | 685000 | 5726800 | 4393 | GFS_4 | Heytesbury marl | Local | | | | 4393 | Paaratte | GMA |
| 274 | 4394 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4394 | GFS_4 | Heytesbury marl | Local | | | | 4394 | Paaratte | GMA |
| 275 | 4395 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4395 | GFS_4 | Heytesbury marl | Local | | | | 4395 | Paaratte | GMA |
| 276 | 4396 | 10/29/1997 | 8/31/1998 | 10 | 685000 | 5726800 | 4396 | GFS_4 | Heytesbury marl | Local | | | | 4396 | Paaratte | GMA |
| 277 | 4401 | 5/28/1990 | 9/23/2000 | 76 | 701800 | 5796800 | 4401 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4401 | Lismore - Derrinallum | | | |
| 278 | 4402 | 9/17/1990 | 9/23/2000 | 49 | 701800 | 5796800 | 4402 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4402 | Lismore - Derrinallum | | | |
| 279 | 4403 | 5/28/1990 | 9/23/2000 | 77 | 701800 | 5797050 | 4403 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4403 | Lismore - Derrinallum | | | |
| 280 | 4404 | 5/28/1990 | 9/23/2000 | 76 | 701600 | 5796800 | 4404 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4404 | Lismore - Derrinallum | | | |
| 281 | 4405 | 5/28/1990 | 9/23/2000 | 76 | 701600 | 5796800 | 4405 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4405 | Lismore - Derrinallum | | | |
| 282 | 4406 | 5/28/1990 | 9/23/2000 | 76 | 701400 | 5796850 | 4406 | GFS_1 | Quaternary sediments | Local | | 4406 | Lismore - Derrinallum | | | |
| 283 | 4407 | 9/15/1993 | 3/11/1999 | 37 | 701400 | 5796850 | 4407 | GFS_1 | Quaternary sediments | Local | | 4407 | Lismore - Derrinallum | | | |
| 284 | 4408 | 5/28/1990 | 9/23/2000 | 51 | 702900 | 5794980 | 4408 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4408 | Lismore - Derrinallum | | | |
| 285 | 4409 | 5/28/1990 | 9/23/2000 | 77 | 701950 | 5794800 | 4409 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4409 | Lismore - Derrinallum | | | |
| 286 | 4410 | 7/18/1990 | 3/11/1999 | 40 | 701950 | 5794800 | 4410 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4410 | Lismore - Derrinallum | | | |
| 287 | 4411 | 5/28/1990 | 9/23/2000 | 77 | 715650 | 5789100 | 4411 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4411 | Corangamite | | | |
| 288 | 4412 | 6/27/1990 | 3/11/1999 | 38 | 715650 | 5789100 | 4412 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4412 | Corangamite | | | |
| 289 | 4413 | 5/28/1990 | 9/23/2000 | 76 | 715900 | 5789050 | 4413 | GFS_1 | Quaternary sediments | Local | | 4413 | Corangamite | | | |
| 290 | 4414 | 5/28/1990 | 9/23/2000 | 77 | 715900 | 5789050 | 4414 | GFS_1 | Quaternary sediments | Local | | 4414 | Corangamite | | | |
| 291 | | | | | | | | | | | | | | | | |
| 292 | | | | | | | | | | | | | | | | |
| 293 | | | | | | | | | | | | | | | | |
| 294 | 4418 | 5/30/1991 | 9/23/2000 | 65 | 704700 | 5789500 | 4418 | GFS_1 | Quaternary sediments | Local | | 4418 | Corangamite | | | |
| 295 | 4419 | 5/30/1991 | 9/23/2000 | 61 | 703300 | 5796130 | 4419 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4419 | Lismore - Derrinallum | | | |
| 296 | 4420 | 5/30/1991 | 9/23/2000 | 65 | 702700 | 5797360 | 4420 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 4420 | Lismore - Derrinallum | | | |
| 297 | 4421 | 5/30/1991 | 9/23/2000 | 63 | 700660 | 5799800 | 4421 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 4421 | Lismore - Derrinallum | | | |
| 298 | 4422 | 5/30/1991 | 9/23/2000 | 64 | 698520 | 5798020 | 4422 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 4422 | Lismore - Derrinallum | | | |
| 299 | 4423 | 5/30/1991 | 9/23/2000 | 65 | 696600 | 5797550 | 4423 | GFS_1 | Quaternary sediments | Local | | 4423 | Lismore - Derrinallum | | | |
| 300 | 4424 | 5/30/1991 | 9/23/2000 | 65 | 696600 | 5797550 | 4424 | GFS_1 | Quaternary sediments | Local | | 4424 | Lismore - Derrinallum | | | |
| 301 | 4425 | 5/30/1991 | 9/23/2000 | 49 | 706650 | 5799550 | 4425 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 4425 | Lismore - Derrinallum | | | |
| 302 | 4426 | 5/30/1991 | 9/23/2000 | 65 | 705980 | 5798000 | 4426 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 4426 | Lismore - Derrinallum | | | |
| 303 | 4427 | 5/30/1991 | 9/23/2000 | 65 | 705980 | 5798000 | 4427 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 4427 | Lismore - Derrinallum | | | |
| 304 | 4428 | 6/16/1992 | 9/23/2000 | 54 | 713450 | 5795400 | 4428 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 305 | 4501 | 3/29/1993 | 2/27/2002 | 81 | 738160 | 5739715 | 4501 | GFS_17 | Dilwyn Formation | Regional | | | | 4501 | Gerangamete | GMA |
| 306 | 4502 | 3/29/1993 | 2/27/2002 | 81 | 738160 | 5739715 | 4502 | GFS_17 | Dilwyn Formation | Regional | | | | 4502 | Gerangamete | GMA |
| 307 | 4503 | 3/29/1993 | 2/27/2002 | 80 | 738184 | 5739710 | 4503 | GFS_17 | Dilwyn Formation | Regional | | | | 4503 | Gerangamete | GMA |
| 308 | 4504 | 3/29/1993 | 2/27/2002 | 81 | 738184 | 5739710 | 4504 | GFS_17 | Dilwyn Formation | Regional | | | | 4504 | Gerangamete | GMA |
| 309 | 4505 | 3/29/1993 | 4/8/2000 | 79 | 738469 | 5740340 | 4505 | GFS_17 | Dilwyn Formation | Regional | | | | 4505 | Gerangamete | GMA |
| 310 | 4506 | 3/29/1993 | 2/27/2002 | 83 | 738469 | 5740340 | 4506 | GFS_17 | Dilwyn Formation | Regional | | | | 4506 | Gerangamete | GMA |
| 311 | 4507 | 3/29/1993 | 2/27/2002 | 82 | 738450 | 5740373 | 4507 | GFS_17 | Dilwyn Formation | Regional | | | | 4507 | Gerangamete | GMA |
| 312 | 4508 | 3/29/1993 | 2/27/2002 | 82 | 738450 | 5740373 | 4508 | GFS_17 | Dilwyn Formation | Regional | | | | 4508 | Gerangamete | GMA |
| 313 | 4509 | 3/29/1993 | 2/27/2002 | 73 | 737938 | 5739865 | 4509 | GFS_17 | Dilwyn Formation | Regional | | | | 4509 | Gerangamete | GMA |
| 314 | 4510 | 3/29/1993 | 10/3/1999 | 70 | 737938 | 5739865 | 4510 | GFS_17 | Dilwyn Formation | Regional | | | | 4510 | Gerangamete | GMA |
| 315 | 4511 | 3/29/1993 | 2/27/2002 | 73 | 737939 | 5739893 | 4511 | GFS_17 | Dilwyn Formation | Regional | | | | 4511 | Gerangamete | GMA |
| 316 | 4512 | 3/29/1993 | 2/27/2002 | 72 | 737939 | 5739893 | 4512 | GFS_17 | Dilwyn Formation | Regional | | | | 4512 | Gerangamete | GMA |
| 317 | 4513 | 3/29/1993 | 2/27/2002 | 80 | 737404 | 5739647 | 4513 | GFS_17 | Dilwyn Formation | Regional | | | | 4513 | Gerangamete | GMA |
| 318 | 4514 | 3/29/1993 | 2/27/2002 | 80 | 737404 | 5739647 | 4514 | GFS_17 | Dilwyn Formation | Regional | | | | 4514 | Gerangamete | GMA |
| 319 | 4515 | 3/29/1993 | 2/27/2002 | 78 | 737400 | 5739628 | 4515 | GFS_17 | Dilwyn Formation | Regional | | | | 4515 | Gerangamete | GMA |
| 320 | 4516 | 3/29/1993 | 2/27/2002 | 78 | 737400 | 5739628 | 4516 | GFS_17 | Dilwyn Formation | Regional | | | | 4516 | Gerangamete | GMA |
| 321 | 4517 | 3/29/1993 | 2/27/2002 | 156 | 737419 | 5739469 | 4517 | GFS_17 | Dilwyn Formation | Regional | | | | 4517 | Gerangamete | GMA |
| 322 | 4518 | 3/29/1993 | 2/27/2002 | 156 | 737419 | 5739469 | 4518 | GFS_17 | Dilwyn Formation | Regional | | | | 4518 | Gerangamete | GMA |
| 323 | 4519 | 3/29/1993 | 2/27/2002 | 154 | 737097 | 5739279 | 4519 | GFS_17 | Dilwyn Formation | Regional | | | | 4519 | Gerangamete | GMA |
| 324 | 4520 | 3/29/1993 | 2/27/2002 | 154 | 737097 | 5739279 | 4520 | GFS_17 | Dilwyn Formation | Regional | | | | 4520 | Gerangamete | GMA |
| 325 | 4521 | 3/29/1993 | 2/27/2002 | 80 | 737033 | 5739980 | 4521 | GFS_17 | Dilwyn Formation | Regional | | | | 4521 | Gerangamete | GMA |
| 326 | 4522 | 3/29/1993 | 2/27/2002 | 80 | 737033 | 5739980 | 4522 | GFS_17 | Dilwyn Formation | Regional | | | | 4522 | Gerangamete | GMA |
| 327 | 4523 | 3/29/1993 | 2/27/2002 | 80 | 737034 | 5740010 | 4523 | GFS_17 | Dilwyn Formation | Regional | | | | 4523 | Gerangamete | GMA |
| 328 | 4524 | 3/29/1993 | 2/27/2002 | 80 | 737034 | 5740010 | 4524 | GFS_17 | Dilwyn Formation | Regional | | | | 4524 | Gerangamete | GMA |
| 329 | 4525 | 3/29/1993 | 2/27/2002 | 79 | 736984 | 5740216 | 4525 | GFS_17 | Dilwyn Formation | Regional | | | | 4525 | Gerangamete | GMA |
| 330 | 4526 | 3/29/1993 | 2/27/2002 | 79 | 736984 | 5740216 | 4526 | GFS_17 | Dilwyn Formation | Regional | | | | 4526 | Gerangamete | GMA |
| 331 | 4527 | 3/29/1993 | 2/27/2002 | 78 | 737001 | 5740228 | 4527 | GFS_17 | Dilwyn Formation | Regional | | | | 4527 | Gerangamete | GMA |
| 332 | 4528 | 3/29/1993 | 9/27/2001 | 78 | 737001 | 5740228 | 4528 | GFS_17 | Dilwyn Formation | Regional | | | | 4528 | Gerangamete | GMA |
| 333 | 4529 | 3/29/1993 | 2/27/2002 | 80 | 737465 | 5740213 | 4529 | GFS_17 | Dilwyn Formation | Regional | | | | 4529 | Gerangamete | GMA |
| 334 | 4530 | 3/29/1993 | 2/27/2002 | 80 | 737465 | 5740213 | 4530 | GFS_17 | Dilwyn Formation | Regional | | | | 4530 | Gerangamete | GMA |
| 335 | 4531 | 3/29/1993 | 9/27/2001 | 190 | 737118 | 5740606 | 4531 | GFS_17 | Dilwyn Formation | Regional | | | | 4531 | Gerangamete | GMA |
| 336 | 4532 | 3/29/1993 | 9/27/2001 | 190 | 737118 | 5740606 | 4532 | GFS_17 | Dilwyn Formation | Regional | | | | 4532 | Gerangamete | GMA |
| 337 | 4533 | 3/29/1993 | 2/27/2002 | 97 | 737140 | 5740604 | 4533 | GFS_17 | Dilwyn Formation | Regional | | | | 4533 | Gerangamete | GMA |
| 338 | 4534 | 3/29/1993 | 2/27/2002 | 194 | 737140 | 5740604 | 4534 | GFS_17 | Dilwyn Formation | Regional | | | | 4534 | Gerangamete | GMA |
| 339 | 4535 | 3/29/1993 | 2/27/2002 | 194 | 737964 | 5740435 | 4535 | GFS_17 | Dilwyn Formation | Regional | | | | 4535 | Gerangamete | GMA |
| 340 | 4536 | 3/29/1993 | 2/27/2002 | 291 | 737964 | 5740435 | 4536 | GFS_17 | Dilwyn Formation | Regional | | | | 4536 | Gerangamete | GMA |
| 341 | 4537 | 3/29/1993 | 2/27/2002 | 97 | 737944 | 5740503 | 4537 | GFS_17 | Dilwyn Formation | Regional | | | | 4537 | Gerangamete | GMA |
| 342 | 4538 | 3/29/1993 | 2/27/2002 | 97 | 737944 | 5740503 | 4538 | GFS_17 | Dilwyn Formation | Regional | | | | 4538 | Gerangamete | GMA |
| 343 | 4539 | 3/29/1993 | 2/27/2002 | 150 | 736767 | 5739248 | 4539 | GFS_17 | Dilwyn Formation | Regional | | | | 4539 | Gerangamete | GMA |
| 344 | 4540 | 3/29/1993 | 2/27/2002 | 150 | 736767 | 5739248 | 4540 | GFS_17 | Dilwyn Formation | Regional | | | | 4540 | Gerangamete | GMA |
| 345 | 4541 | 3/30/1993 | 4/12/2001 | 90 | 688141 | 5733981 | 4541 | GFS_4 | Heytesbury marl | Local | | | | 4541 | Paaratte | GMA |
| 346 | 4542 | 3/30/1993 | 4/12/2001 | 90 | 688141 | 5733981 | 4542 | GFS_4 | Heytesbury marl | Local | | | | 4542 | Paaratte | GMA |
| 347 | 4543 | 3/30/1993 | 4/12/2001 | 90 | 688088 | 5734212 | 4543 | GFS_4 | Heytesbury marl | Local | | | | 4543 | Paaratte | GMA |
| 348 | 4544 | 3/30/1993 | 4/12/2001 | 86 | 688088 | 5734212 | 4544 | GFS_4 | Heytesbury marl | Local | | | | 4544 | Paaratte | GMA |
| 349 | 4545 | 3/30/1993 | 4/12/2001 | 89 | 688147 | 5734329 | 4545 | GFS_4 | Heytesbury marl | Local | | | | 4545 | Paaratte | GMA |
| 350 | 4546 | 3/30/1993 | 4/12/2001 | 90 | 688147 | 5734329 | 4546 | GFS_4 | Heytesbury marl | Local | | | | 4546 | Paaratte | GMA |
| 351 | 4547 | 3/30/1993 | 4/12/2001 | 89 | 688433 | 5734501 | 4547 | GFS_4 | Heytesbury marl | Local | | | | 4547 | Paaratte | GMA |
| 352 | 4548 | 3/30/1993 | 4/12/2001 | 90 | 688433 | 5734501 | 4548 | GFS_4 | Heytesbury marl | Local | | | | 4548 | Paaratte | GMA |
| 353 | 4549 | 3/30/1993 | 4/12/2001 | 90 | 688593 | 5734489 | 4549 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4549 | Paaratte | GMA |
| 354 | 4550 | 3/30/1993 | 4/12/2001 | 90 | 688593 | 5734489 | 4550 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4550 | Paaratte | GMA |
| 355 | 4551 | 3/30/1993 | 4/12/2001 | 90 | 688299 | 5734507 | 4551 | GFS_4 | Heytesbury marl | Local | | | | 4551 | Paaratte | GMA |
| 356 | 4552 | 3/30/1993 | 4/12/2001 | 90 | 688299 | 5734507 | 4552 | GFS_4 | Heytesbury marl | Local | | | | 4552 | Paaratte | GMA |
| 357 | 4553 | 3/30/1993 | 4/12/2001 | 89 | 688322 | 5734511 | 4553 | GFS_4 | Heytesbury marl | Local | | | | 4553 | Paaratte | GMA |
| 358 | 4554 | 3/30/1993 | 4/12/2001 | 89 | 688322 | 5734511 | 4554 | GFS_4 | Heytesbury marl | Local | | | | 4554 | Paaratte | GMA |
| 359 | 4555 | 3/30/1993 | 4/12/2001 | 90 | 688128 | 5734441 | 4555 | GFS_4 | Heytesbury marl | Local | | | | 4555 | Paaratte | GMA |
| 360 | 4556 | 3/30/1993 | 4/12/2001 | 90 | 688128 | 5734441 | 4556 | GFS_4 | Heytesbury marl | Local | | | | 4556 | Paaratte | GMA |
| 361 | 4557 | 3/30/1993 | 4/12/2001 | 90 | 688109 | 5734430 | 4557 | GFS_4 | Heytesbury marl | Local | | | | 4557 | Paaratte | GMA |
| 362 | 4558 | 3/30/1993 | 4/12/2001 | 91 | 688109 | 5734430 | 4558 | GFS_4 | Heytesbury marl | Local | | | | 4558 | Paaratte | GMA |
| 363 | 4559 | 3/30/1993 | 4/12/2001 | 90 | 688160 | 5734715 | 4559 | GFS_4 | Heytesbury marl | Local | | | | 4559 | Paaratte | GMA |
| 364 | 4560 | 3/30/1993 | 4/12/2001 | 91 | 688160 | 5734715 | 4560 | GFS_4 | Heytesbury marl | Local | | | | 4560 | Paaratte | GMA |
| 365 | 4561 | 3/30/1993 | 4/12/2001 | 88 | 688049 | 5734617 | 4561 | GFS_4 | Heytesbury marl | Local | | | | 4561 | Paaratte | GMA |
| 366 | 4562 | 3/30/1993 | 4/12/2001 | 89 | 688049 | 5734617 | 4562 | GFS_4 | Heytesbury marl | Local | | | | 4562 | Paaratte | GMA |
| 367 | 4563 | 3/30/1993 | 4/12/2001 | 91 | 688145 | 5734754 | 4563 | GFS_4 | Heytesbury marl | Local | | | | 4563 | Paaratte | GMA |
| 368 | 4564 | 3/30/1993 | 4/12/2001 | 85 | 688145 | 5734754 | 4564 | GFS_4 | Heytesbury marl | Local | | | | 4564 | Paaratte | GMA |
| 369 | 4565 | 3/30/1993 | 4/12/2001 | 91 | 687888 | 5734837 | 4565 | GFS_4 | Heytesbury marl | Local | | | | 4565 | Paaratte | GMA |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 370 | 4566 | 3/30/1993 | 4/12/2001 | 87 | 687888 | 5734837 | 4566 | GFS_4 | Heytesbury marl | Local | | | | 4566 | Paaratte | GMA |
| 371 | 4567 | 3/30/1993 | 4/12/2001 | 91 | 687895 | 5734818 | 4567 | GFS_4 | Heytesbury marl | Local | | | | 4567 | Paaratte | GMA |
| 372 | 4568 | 3/30/1993 | 4/12/2001 | 85 | 687895 | 5734818 | 4568 | GFS_4 | Heytesbury marl | Local | | | | 4568 | Paaratte | GMA |
| 373 | 4569 | 3/30/1993 | 4/12/2001 | 91 | 687921 | 5734684 | 4569 | GFS_4 | Heytesbury marl | Local | | | | 4569 | Paaratte | GMA |
| 374 | 4570 | 3/30/1993 | 4/12/2001 | 91 | 687921 | 5734684 | 4570 | GFS_4 | Heytesbury marl | Local | | | | 4570 | Paaratte | GMA |
| 375 | 4571 | 3/30/1993 | 4/12/2001 | 91 | 687927 | 5734652 | 4571 | GFS_4 | Heytesbury marl | Local | | | | 4571 | Paaratte | GMA |
| 376 | 4572 | 3/30/1993 | 4/12/2001 | 91 | 687927 | 5734652 | 4572 | GFS_4 | Heytesbury marl | Local | | | | 4572 | Paaratte | GMA |
| 377 | 4573 | 3/30/1993 | 4/12/2001 | 91 | 687924 | 5734536 | 4573 | GFS_4 | Heytesbury marl | Local | | | | 4573 | Paaratte | GMA |
| 378 | 4574 | 3/30/1993 | 4/12/2001 | 91 | 687924 | 5734536 | 4574 | GFS_4 | Heytesbury marl | Local | | | | 4574 | Paaratte | GMA |
| 379 | 4575 | 3/30/1993 | 4/12/2001 | 91 | 687931 | 5734509 | 4575 | GFS_4 | Heytesbury marl | Local | | | | 4575 | Paaratte | GMA |
| 380 | 4576 | 3/30/1993 | 4/12/2001 | 91 | 687931 | 5734509 | 4576 | GFS_4 | Heytesbury marl | Local | | | | 4576 | Paaratte | GMA |
| 381 | 4577 | 3/30/1993 | 11/12/2000 | 83 | 688289 | 5733742 | 4577 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4577 | Paaratte | GMA |
| 382 | 4578 | 3/30/1993 | 4/12/2001 | 91 | 688289 | 5733742 | 4578 | GFS_10 | Pliocene sands | Intermediate | Local | | | 4578 | Paaratte | GMA |
| 383 | 4595 | 8/18/1992 | 5/22/1996 | 46 | 684600 | 5736400 | 4595 | GFS_4 | Heytesbury marl | Local | | | | 4595 | Paaratte | GMA |
| 384 | 4596 | 8/18/1992 | 5/22/1996 | 46 | 684600 | 5736400 | 4596 | GFS_4 | Heytesbury marl | Local | | | | 4596 | Paaratte | GMA |
| 385 | 4597 | 8/18/1992 | 5/22/1996 | 46 | 684600 | 5736400 | 4597 | GFS_4 | Heytesbury marl | Local | | | | 4597 | Paaratte | GMA |
| 386 | 4598 | 8/18/1992 | 5/22/1996 | 46 | 684600 | 5736400 | 4598 | GFS_4 | Heytesbury marl | Local | | | | 4598 | Paaratte | GMA |
| 387 | 4599 | 8/18/1992 | 5/22/1996 | 46 | 684600 | 5736400 | 4599 | GFS_4 | Heytesbury marl | Local | | | | 4599 | Paaratte | GMA |
| 388 | 4600 | 8/18/1992 | 5/22/1996 | 46 | 684600 | 5736400 | 4600 | GFS_4 | Heytesbury marl | Local | | | | 4600 | Paaratte | GMA |
| 389 | 4601 | 1/21/1997 | 10/8/2001 | 36 | 730800 | 5768400 | | | | | | 4601 | Colac - Eurack | 4601 | Warrion | WSPA |
| 390 | 4602 | 1/21/1997 | 10/8/2001 | 36 | 728100 | 5768500 | 4602 | GFS_1 | Quaternary sediments | Local | | 4602 | Colac - Eurack | 4602 | Warrion | WSPA |
| 391 | 4603 | 1/21/1997 | 10/8/2001 | 34 | 723600 | 5754500 | 4603 | GFS_17 | Dilwyn Formation | Regional | | 4603 | Colac - Eurack | 4603 | Warrion | WSPA |
| 392 | 4604 | 1/6/1998 | 10/8/2001 | 24 | 755700 | 5769700 | 4604 | GFS_1 | Quaternary sediments | Local | | 4604 | Murdeduke | | | |
| 393 | 4605 | 1/6/1998 | 10/8/2001 | 24 | 755700 | 5769700 | 4605 | GFS_1 | Quaternary sediments | Local | | 4605 | Murdeduke | | | |
| 394 | 5140 | 6/1/1989 | 9/1/2001 | 95 | 716800 | 5822200 | 5140 | GFS_7 | Granitic rocks | Local | | 5140 | Pittong | | | |
| 395 | 5141 | 6/1/1989 | 10/1/2001 | 89 | 716800 | 5822200 | 5141 | GFS_7 | Granitic rocks | Local | | 5141 | Pittong | | | |
| 396 | 5142 | 12/1/1989 | 10/6/1999 | 79 | 716800 | 5822200 | 5142 | GFS_7 | Granitic rocks | Local | | 5142 | Pittong | | | |
| 397 | 5143 | 6/1/1989 | 10/1/2001 | 86 | 716800 | 5822200 | 5143 | GFS_7 | Granitic rocks | Local | | 5143 | Pittong | | | |
| 398 | 5144 | 6/1/1989 | 10/1/2001 | 111 | 715200 | 5824800 | 5144 | GFS_7 | Granitic rocks | Local | | 5144 | Pittong | | | |
| 399 | 5145 | 6/1/1989 | 10/1/2001 | 111 | 715200 | 5824800 | 5145 | GFS_7 | Granitic rocks | Local | | 5145 | Pittong | | | |
| 400 | 5146 | 6/1/1989 | 10/1/2001 | 99 | 715200 | 5824800 | 5146 | GFS_7 | Granitic rocks | Local | | 5146 | Pittong | | | |
| 401 | 5147 | 6/1/1989 | 10/1/2001 | 110 | 715200 | 5824800 | 5147 | GFS_7 | Granitic rocks | Local | | 5147 | Pittong | | | |
| 402 | 5148 | 6/1/1989 | 10/1/2001 | 108 | 716800 | 5825300 | 5148 | GFS_7 | Granitic rocks | Local | | 5148 | Pittong | | | |
| 403 | 5149 | 6/1/1989 | 10/1/2001 | 109 | 716800 | 5825300 | 5149 | GFS_7 | Granitic rocks | Local | | 5149 | Pittong | | | |
| 404 | 5150 | 6/1/1989 | 10/1/2001 | 109 | 716800 | 5825300 | 5150 | GFS_7 | Granitic rocks | Local | | 5150 | Pittong | | | |
| 405 | 5151 | 6/1/1989 | 10/1/2001 | 77 | 722000 | 5822000 | 5151 | GFS_7 | Granitic rocks | Local | | 5151 | Pittong | | | |
| 406 | 5152 | 6/1/1989 | 10/1/2001 | 87 | 722000 | 5822000 | 5152 | GFS_7 | Granitic rocks | Local | | 5152 | Pittong | | | |
| 407 | 5153 | 6/1/1989 | 10/1/2001 | 75 | 722000 | 5822000 | 5153 | GFS_7 | Granitic rocks | Local | | 5153 | Pittong | | | |
| 408 | 5262 | 7/1/1994 | 10/1/2001 | 77 | 715700 | 5826300 | 5262 | GFS_7 | Granitic rocks | Local | | 5262 | Pittong | | | |
| 409 | 5263 | 7/1/1994 | 10/1/2001 | 77 | 715900 | 5826300 | 5263 | GFS_7 | Granitic rocks | Local | | 5263 | Pittong | | | |
| 410 | 5264 | 7/1/1994 | 7/17/2001 | 74 | 716200 | 5826300 | 5264 | GFS_7 | Granitic rocks | Local | | 5264 | Pittong | | | |
| 411 | 5265 | 7/1/1994 | 10/1/2001 | 77 | 719100 | 5822500 | 5265 | GFS_1 | Quaternary sediments | Local | | 5265 | Pittong | | | |
| 412 | 5266 | 7/1/1994 | 10/1/2001 | 77 | 719100 | 5822500 | 5266 | GFS_1 | Quaternary sediments | Local | | 5266 | Pittong | | | |
| 413 | 5267 | 7/1/1994 | 10/1/2001 | 68 | 719200 | 5822500 | 5267 | GFS_1 | Quaternary sediments | Local | | 5267 | Pittong | | | |
| 414 | 5268 | 7/1/1994 | 10/1/2001 | 77 | 719400 | 5822500 | 5268 | GFS_1 | Quaternary sediments | Local | | 5268 | Pittong | | | |
| 415 | 5269 | 7/1/1994 | 7/17/2001 | 74 | 739900 | 5836350 | 5269 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 416 | 5271 | 4/5/1996 | 9/1/2001 | 55 | 735700 | 5815300 | 5271 | GFS_3 | Highlands gravel caps | Local | | 5271 | Illabarook | | | |
| 417 | 5290 | 3/1/1995 | 7/17/2001 | 66 | 739350 | 5835900 | 5290 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 418 | 5402 | 4/9/1997 | 10/1/2001 | 44 | 716200 | 5823000 | 5402 | GFS_7 | Granitic rocks | Local | | 5402 | Pittong | | | |
| 419 | 5403 | 4/9/1997 | 10/1/2001 | 44 | 716200 | 5823000 | 5403 | GFS_7 | Granitic rocks | Local | | 5403 | Pittong | | | |
| 420 | 5404 | 4/9/1997 | 10/1/2001 | 44 | 716200 | 5823000 | 5404 | GFS_7 | Granitic rocks | Local | | 5404 | Pittong | | | |
| 421 | 5405 | 4/9/1997 | 7/17/2001 | 41 | 716200 | 5823000 | 5405 | GFS_7 | Granitic rocks | Local | | 5405 | Pittong | | | |
| 422 | 5406 | 4/9/1997 | 10/1/2001 | 41 | 716200 | 5823000 | 5406 | GFS_7 | Granitic rocks | Local | | 5406 | Pittong | | | |
| 423 | 5409 | 4/9/1997 | 10/1/2001 | 43 | 716200 | 5823000 | 5409 | GFS_7 | Granitic rocks | Local | | 5409 | Pittong | | | |
| 424 | 5410 | 6/8/1997 | 10/8/2000 | 40 | 740550 | 5805950 | 5410 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5410 | Illabarook | | | |
| 425 | 5411 | 6/8/1997 | 10/8/2000 | 40 | 740550 | 5805950 | 5411 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5411 | Illabarook | | | |
| 426 | 5413 | 9/7/1997 | 10/28/2001 | 40 | 737350 | 5802450 | 5413 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 427 | 5414 | 9/7/1997 | 10/28/2001 | 40 | 739150 | 5805700 | 5414 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5414 | Illabarook | | | |
| 428 | 5435 | 5/31/1999 | 4/30/2002 | 30 | 745250 | 5831950 | 5435 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 429 | 5436 | 5/31/1999 | 4/30/2002 | 30 | 745200 | 5831575 | 5436 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 430 | 5437 | 4/15/1998 | 6/22/2000 | 7 | 748275 | 5824575 | 5437 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 431 | 5438 | 4/15/1998 | 6/22/2000 | 7 | 748375 | 5824700 | 5438 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 432 | 5439 | 5/15/2000 | 10/15/2000 | 4 | 743450 | 5833625 | 5439 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 433 | 5503 | 7/1/1994 | 12/5/1999 | 64 | 736670 | 5805750 | 5503 | GFS_3 | Highlands gravel caps | Local | | 5503 | Illabarook | | | |
| 434 | 5504 | 7/1/1994 | 6/8/2000 | 71 | 736360 | 5804800 | 5504 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5504 | Illabarook | | | |
| 435 | 5505 | 7/1/1994 | 6/8/2000 | 71 | 736370 | 5804960 | 5505 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5505 | Illabarook | | | |
| 436 | 5506 | 7/1/1994 | 7/24/2001 | 73 | 736610 | 5804970 | 5506 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5506 | Illabarook | | | |
| 437 | 5507 | 7/1/1994 | 7/24/2001 | 73 | 736630 | 5805010 | 5507 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 5507 | Illabarook | | | |
| 438 | 7001 | 2/15/1990 | 4/24/2000 | 70 | 778110 | 5758731 | 7001 | GFS_10 | Pliocene sands | Intermediate | Local | 7001 | Modewarre | | | |
| 439 | 7002 | 2/15/1990 | 3/22/2002 | 70 | 779333 | 5757499 | 7002 | GFS_10 | Pliocene sands | Intermediate | Local | 7002 | Modewarre | | | |
| 440 | 7003 | 2/15/1990 | 3/22/2002 | 72 | 777995 | 5757737 | 7003 | GFS_1 | Quaternary sediments | Local | | 7003 | Modewarre | | | |
| 441 | 7004 | 2/15/1990 | 3/22/2002 | 72 | 777995 | 5757737 | 7004 | GFS_1 | Quaternary sediments | Local | | 7004 | Modewarre | | | |
| 442 | 7005 | 2/15/1990 | 3/22/2002 | 71 | 777603 | 5757111 | 7005 | GFS_10 | Pliocene sands | Intermediate | Local | 7005 | Modewarre | | | |
| 443 | 7006 | 2/15/1990 | 4/24/2000 | 65 | 777103 | 5757895 | 7006 | GFS_10 | Pliocene sands | Intermediate | Local | 7006 | Modewarre | | | |
| 444 | 7007 | 2/15/1990 | 4/24/2000 | 71 | 776092 | 5757760 | 7007 | GFS_10 | Pliocene sands | Intermediate | Local | 7007 | Modewarre | | | |
| 445 | 7008 | 2/15/1990 | 4/24/2000 | 71 | 776173 | 5759008 | 7008 | GFS_10 | Pliocene sands | Intermediate | Local | 7008 | Modewarre | | | |
| 446 | 7009 | 2/15/1990 | 3/22/2002 | 72 | 777342 | 5758481 | 7009 | GFS_10 | Pliocene sands | Intermediate | Local | 7009 | Modewarre | | | |
| 447 | 7010 | 12/19/1991 | 3/22/2002 | 61 | 772863 | 5758190 | 7010 | GFS_10 | Pliocene sands | Intermediate | Local | 7010 | Modewarre | | | |
| 448 | 7011 | 12/19/1991 | 3/22/2002 | 61 | 774607 | 5758969 | 7011 | GFS_10 | Pliocene sands | Intermediate | Local | 7011 | Modewarre | | | |
| 449 | 7012 | 12/19/1991 | 4/24/2000 | 60 | 772852 | 5758031 | 7012 | GFS_10 | Pliocene sands | Intermediate | Local | 7012 | Modewarre | | | |
| 450 | 7013 | 12/19/1991 | 3/22/2002 | 60 | 769536 | 5759900 | 7013 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 7013 | Modewarre | | | |
| 451 | 7014 | 12/19/1991 | 3/22/2002 | 61 | 769782 | 5761533 | 7014 | GFS_10 | Pliocene sands | Intermediate | Local | 7014 | Modewarre | | | |
| 452 | 7015 | 12/19/1991 | 3/22/2002 | 64 | 778646 | 5762544 | 7015 | GFS_10 | Pliocene sands | Intermediate | Local | 7015 | Modewarre | | | |
| 453 | 7020 | 6/9/1993 | 3/22/2002 | 48 | 777906 | 5763305 | 7020 | GFS_10 | Pliocene sands | Intermediate | Local | 7020 | Modewarre | | | |
| 454 | 7022 | 6/9/1993 | 3/22/2002 | 48 | 775294 | 5761671 | 7022 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 7022 | Modewarre | | | |
| 455 | 7023 | 6/9/1993 | 3/22/2001 | 48 | 773247 | 5760250 | 7023 | GFS_10 | Pliocene sands | Intermediate | Local | 7023 | Modewarre | | | |
| 456 | 7024 | 6/9/1993 | 3/22/2001 | 47 | 772934 | 5758517 | 7024 | GFS_10 | Pliocene sands | Intermediate | Local | 7024 | Modewarre | | | |
| 457 | 7025 | 6/9/1993 | 3/22/2001 | 48 | 772934 | 5758517 | 7025 | GFS_10 | Pliocene sands | Intermediate | Local | 7025 | Modewarre | | | |
| 458 | 7026 | 6/9/1993 | 6/21/1999 | 41 | 769729 | 5759326 | 7026 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 7026 | Modewarre | | | |
| 459 | 7027 | 6/9/1993 | 3/22/2001 | 48 | 770014 | 5758306 | 7027 | GFS_10 | Pliocene sands | Intermediate | Local | 7027 | Modewarre | | | |
| 460 | 7028 | 6/9/1993 | 3/22/2001 | 48 | 769979 | 5757005 | 7028 | GFS_10 | Pliocene sands | Intermediate | Local | 7028 | Modewarre | | | |
| 461 | 7029 | 6/9/1993 | 3/22/2001 | 48 | 768497 | 5758103 | 7029 | GFS_10 | Pliocene sands | Intermediate | Local | 7029 | Modewarre | | | |
| 462 | 7030 | 6/9/1993 | 3/22/2001 | 48 | 767816 | 5757642 | 7030 | GFS_10 | Pliocene sands | Intermediate | Local | 7030 | Modewarre | | | |
| 463 | 7051 | 2/15/1990 | 6/13/1990 | 5 | 796169 | 5800014 | 7051 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 464 | 7059 | 2/15/1990 | 5/15/1990 | 4 | 793370 | 5801698 | 7059 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 465 | 7060 | 8/30/1991 | 4/15/1999 | 31 | 795950 | 5800971 | 7060 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 466 | 7061 | 8/30/1991 | 9/27/1991 | 2 | 794513 | 5801073 | 7061 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 467 | 7062 | 8/30/1991 | 4/15/1999 | 39 | 794544 | 5801873 | 7062 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 468 | 7101 | 2/15/1990 | 3/22/2001 | 50 | 767362 | 5804684 | 7101 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 469 | 7102 | 2/15/1990 | 3/22/2001 | 32 | 767293 | 5804531 | 7102 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 470 | 7103 | 2/15/1990 | 3/22/2001 | 32 | 767293 | 5804531 | 7103 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 471 | 7104 | 2/15/1990 | 5/6/1993 | 31 | 766428 | 5804336 | 7104 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 472 | 7105 | 2/15/1990 | 5/6/1993 | 31 | 766603 | 5804325 | 7105 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 473 | 7106 | 2/15/1990 | 5/6/1993 | 31 | 765844 | 5805376 | 7106 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 474 | 7107 | 2/15/1990 | 10/14/2000 | 49 | 766142 | 5806108 | 7107 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 475 | 7108 | 2/15/1990 | 5/6/1993 | 31 | 766700 | 5804669 | 7108 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 476 | 7109 | 2/15/1990 | 5/6/1993 | 31 | 766700 | 5804669 | 7109 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 477 | 7110 | 6/18/1990 | 3/4/1993 | 26 | 766489 | 5804883 | 7110 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 478 | 7111 | 12/10/1991 | 1/12/1993 | 14 | 762060 | 5803480 | 7111 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 479 | 7112 | 12/10/1991 | 10/11/1992 | 11 | 762060 | 5803550 | 7112 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 480 | 7113 | 12/10/1991 | 1/12/1993 | 14 | 762300 | 5803980 | 7113 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 481 | 7114 | 12/10/1991 | 1/12/1993 | 14 | 762370 | 5804250 | 7114 | GFS_3 | Highlands gravel caps | Local | | | | | | |
| 482 | 7121 | 11/1/1993 | 3/22/2002 | 42 | 761674 | 5799574 | 7121 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 483 | 7122 | 11/1/1993 | 3/3/1994 | 4 | 761402 | 5799616 | 7122 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 484 | 7123 | 11/1/1993 | 3/22/2002 | 42 | 761193 | 5799703 | 7123 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 485 | 7124 | 11/1/1993 | 3/22/2002 | 42 | 761344 | 5799695 | 7124 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 486 | 7125 | 6/23/1994 | 5/16/1999 | 34 | 766655 | 5802417 | 7125 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 487 | 7126 | 6/23/1994 | 5/16/1999 | 33 | 766855 | 5802405 | 7126 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 488 | 7127 | 6/23/1994 | 5/16/1999 | 34 | 766089 | 5802955 | 7127 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | | | | | |
| 489 | 7128 | 1/3/1995 | 12/1/1995 | 12 | 779036 | 5809472 | 7128 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 7128 | Morrisons - Sheoaks | | | |
| 490 | 7129 | 1/3/1995 | 12/1/1995 | 12 | 779439 | 5809512 | 7129 | GFS_12 | Palaeozoic sedimentary rocks | Intermediate | Local | 7129 | Morrisons - Sheoaks | | | |
| 491 | 7130 | 1/3/1995 | 12/1/1995 | 12 | 780329 | 5809329 | 7130 | GFS_3 | Highlands gravel caps | Local | | 7130 | Morrisons - Sheoaks | | | |
| 492 | 7201 | 8/12/1997 | 4/29/1999 | 7 | 774983 | 5757682 | 7201 | GFS_10 | Pliocene sands | Intermediate | Local | 7201 | Modewarre | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 493 | 7202 | 12/30/1997 | 1/30/2001 | 33 | 750218 | 5781090 | 7202 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 494 | 7203 | 12/30/1997 | 1/31/2000 | 21 | 750300 | 5781100 | 7203 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 495 | 26654 | 4/4/1987 | 5/19/2002 | 42 | 731700 | 5758800 | 26654 | GFS_1 | Quaternary sediments | Local | | 26654 | Colac - Eurack | | | |
| 496 | 26655 | 2/11/1987 | 5/19/2002 | 57 | 731200 | 5758900 | 26655 | GFS_1 | Quaternary sediments | Local | | 26655 | Colac - Eurack | | | |
| 497 | 26656 | 4/4/1987 | 5/19/2002 | 43 | 739000 | 5775500 | 26656 | GFS_1 | Quaternary sediments | Local | | 26656 | Colac - Eurack | | | |
| 498 | 26657 | 2/11/1987 | 5/20/2002 | 64 | 735210 | 5779720 | 26657 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 26657 | Colac - Eurack | | | |
| 499 | 26658 | 2/11/1987 | 5/20/2002 | 66 | 734780 | 5779410 | 26658 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 26658 | Colac - Eurack | | | |
| 500 | 26659 | 2/11/1987 | 5/20/2002 | 57 | 738730 | 5782430 | 26659 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 501 | 26660 | 2/11/1987 | 5/20/2002 | 59 | 739040 | 5782650 | 26660 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 502 | 26661 | 2/11/1987 | 5/20/2002 | 75 | 732480 | 5782660 | 26661 | GFS_1 | Quaternary sediments | Local | | 26661 | Corangamite | | | |
| 503 | 26662 | 4/4/1987 | 5/20/2002 | 53 | 737450 | 5801600 | 26662 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 504 | 26663 | 2/11/1987 | 5/20/2002 | 47 | 737850 | 5801650 | 26663 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 505 | 26664 | 4/4/1987 | 12/8/1987 | 6 | 718700 | 5826700 | 26664 | GFS_1 | Quaternary sediments | Local | | 26664 | Pittong | | | |
| 506 | 26665 | 4/4/1987 | 12/8/1987 | 6 | 718600 | 5826500 | 26665 | GFS_1 | Quaternary sediments | Local | | 26665 | Pittong | | | |
| 507 | 26680 | 2/11/1987 | 5/18/2002 | 90 | 758930 | 5766710 | 26680 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 26680 | Murdeduke | | | |
| 508 | 26681 | 2/11/1987 | 5/18/2002 | 89 | 760150 | 5767740 | 26681 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 26681 | Murdeduke | | | |
| 509 | 26682 | 2/11/1987 | 5/18/2002 | 89 | 760150 | 5767740 | 26682 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 26682 | Murdeduke | | | |
| 510 | 26683 | 2/11/1987 | 5/18/2002 | 89 | 760420 | 5769210 | 26683 | GFS_1 | Quaternary sediments | Local | | 26683 | Murdeduke | | | |
| 511 | 26684 | 4/4/1987 | 5/4/1995 | 54 | 762800 | 5767200 | 26684 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 26684 | Murdeduke | | | |
| 512 | 26685 | 2/11/1987 | 7/5/2002 | 70 | 722400 | 5750700 | 26685 | GFS_17 | Dilwyn Formation | Regional | | 26685 | Colac - Eurack | | | |
| 513 | 26686 | 2/11/1987 | 12/2/2002 | 97 | 713340 | 5766050 | 26686 | GFS_1 | Quaternary sediments | Local | | 26686 | Corangamite | 26686 | Warrion | WSPA |
| 514 | 26687 | 2/11/1987 | 6/15/2002 | 81 | 729450 | 5760460 | 26687 | GFS_1 | Quaternary sediments | Local | | 26687 | Colac - Eurack | 26687 | Warrion | WSPA |
| 515 | 26691 | 2/11/1987 | 5/19/2002 | 57 | 734700 | 5768600 | 26691 | GFS_1 | Quaternary sediments | Local | | 26691 | Colac - Eurack | | | |
| 516 | 26692 | 2/11/1987 | 5/20/2002 | 72 | 730690 | 5778950 | 26692 | GFS_1 | Quaternary sediments | Local | | 26692 | Corangamite | | | |
| 517 | 26693 | 2/11/1987 | 6/15/2002 | 118 | 725100 | 5778570 | 26693 | GFS_1 | Quaternary sediments | Local | | 26693 | Corangamite | 26693 | Warrion | WSPA |
| 518 | 26694 | 2/11/1987 | 5/19/2002 | 73 | 726080 | 5785860 | 26694 | GFS_1 | Quaternary sediments | Local | | 26694 | Corangamite | | | |
| 519 | 26840 | 2/11/1987 | 5/21/2002 | 78 | 714500 | 5785700 | 26840 | GFS_1 | Quaternary sediments | Local | | 26840 | Corangamite | | | |
| 520 | 26841 | 2/11/1987 | 12/2/2002 | 75 | 704200 | 5769200 | 26841 | GFS_1 | Quaternary sediments | Local | | 26841 | Corangamite | | | |
| 521 | 26842 | 2/11/1987 | 12/2/2002 | 87 | 713200 | 5754500 | 26842 | GFS_17 | Dilwyn Formation | Regional | | 26842 | Corangamite | 26842 | Warrion | WSPA |
| 522 | 26843 | 2/11/1987 | 5/19/2002 | 56 | 731170 | 5762070 | 26843 | GFS_1 | Quaternary sediments | Local | | 26843 | Colac - Eurack | | | |
| 523 | 26844 | 4/6/1987 | 1/1/1992 | 9 | 736100 | 5763500 | 26844 | GFS_1 | Quaternary sediments | Local | | 26844 | Colac - Eurack | | | |
| 524 | 26845 | 2/11/1987 | 5/19/2002 | 56 | 734900 | 5766700 | 26845 | GFS_1 | Quaternary sediments | Local | | 26845 | Colac - Eurack | | | |
| 525 | 36050 | 3/11/1989 | 5/19/2002 | 51 | 728310 | 5784210 | 36050 | GFS_1 | Quaternary sediments | Local | | 36050 | Corangamite | | | |
| 526 | 36051 | 3/11/1989 | 5/19/2002 | 50 | 728460 | 5785160 | 36051 | GFS_10 | Pliocene sands | Intermediate | Local | 36051 | Corangamite | | | |
| 527 | 36052 | 3/11/1989 | 5/18/2002 | 71 | 728250 | 5787470 | 36052 | GFS_10 | Pliocene sands | Intermediate | Local | 36052 | Corangamite | | | |
| 528 | 36053 | 3/11/1989 | 5/19/2002 | 50 | 723240 | 5785600 | 36053 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 36053 | Corangamite | | | |
| 529 | 36054 | 3/11/1989 | 5/19/2002 | 50 | 725500 | 5780850 | 36054 | GFS_1 | Quaternary sediments | Local | | 36054 | Corangamite | | | |
| 530 | 36055 | 3/11/1989 | 5/19/2002 | 50 | 725030 | 5780900 | 36055 | GFS_1 | Quaternary sediments | Local | | 36055 | Corangamite | | | |
| 531 | 36056 | 3/11/1989 | 5/19/2002 | 50 | 723150 | 5780000 | 36056 | GFS_1 | Quaternary sediments | Local | | 36056 | Corangamite | | | |
| 532 | 36057 | 3/11/1989 | 5/19/2002 | 50 | 723600 | 5779780 | 36057 | GFS_1 | Quaternary sediments | Local | | 36057 | Corangamite | | | |
| 533 | 36058 | 3/25/1991 | 6/15/2002 | 50 | 726180 | 5778640 | 36058 | GFS_1 | Quaternary sediments | Local | | 36058 | Corangamite | 36058 | Warrion | WSPA |
| 534 | 36059 | 3/11/1989 | 5/20/2002 | 51 | 731340 | 5782250 | 36059 | GFS_1 | Quaternary sediments | Local | | 36059 | Corangamite | | | |
| 535 | 36060 | 3/11/1989 | 5/4/1995 | 34 | 730000 | 5779040 | | | | | | 36060 | Corangamite | | | |
| 536 | 36061 | 3/11/1989 | 5/20/2002 | 51 | 732100 | 5780950 | 36061 | GFS_1 | Quaternary sediments | Local | | 36061 | Corangamite | | | |
| 537 | 36062 | 3/11/1989 | 5/20/2002 | 51 | 731550 | 5786000 | 36062 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 538 | 47192 | 7/12/1987 | 5/24/2002 | 132 | 750500 | 5835550 | 47192 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 539 | 47771 | 11/25/1985 | 12/3/2002 | 172 | 750880 | 5744900 | 47771 | GFS_1 | Quaternary sediments | Local | | | | 47771 | Gerangamete | GMA |
| 540 | 47773 | 8/12/1986 | 12/3/2002 | 161 | 752700 | 5747000 | 47773 | GFS_5 | Gerangamete marls | Local | | | | 47773 | Gerangamete | GMA |
| 541 | 47774 | 12/21/1987 | 12/3/2002 | 147 | 753850 | 5749150 | 47774 | GFS_17 | Dilwyn Formation | Regional | | | | 47774 | Gerangamete | GMA |
| 542 | 47775 | 12/15/1988 | 12/3/2002 | 142 | 750000 | 5749000 | 47775 | GFS_17 | Dilwyn Formation | Regional | | | | 47775 | Gerangamete | GMA |
| 543 | 47986 | 7/12/1982 | 8/5/2002 | 134 | 726000 | 5738000 | 47986 | GFS_17 | Dilwyn Formation | Regional | | | | 47986 | Gellibrand | GMA |
| 544 | 47987 | 7/12/1983 | 7/5/2002 | 136 | 727580 | 5743122 | 47987 | GFS_5 | Gerangamete marls | Local | | | | 47987 | Gellibrand | GMA |
| 545 | 47988 | 1/7/1993 | 4/15/1994 | 11 | 727800 | 5741250 | 47988 | GFS_17 | Dilwyn Formation | Regional | | | | 47988 | Gellibrand | GMA |
| 546 | 47989 | 8/23/1983 | 2/21/1994 | 11 | 727800 | 5741250 | 47989 | GFS_17 | Dilwyn Formation | Regional | | | | 47989 | Gellibrand | GMA |
| 547 | 47990 | 11/17/1983 | 8/5/2002 | 124 | 725775 | 5739850 | 47990 | GFS_5 | Gerangamete marls | Local | | | | 47990 | Gellibrand | GMA |
| 548 | 47992 | 11/17/1983 | 7/5/2002 | 131 | 726600 | 5745600 | 47992 | GFS_17 | Dilwyn Formation | Regional | | | | 47992 | Gerangamete | GMA |
| 549 | 47993 | 1/6/1984 | 1/6/1984 | 1 | 725100 | 5743600 | 47993 | GFS_17 | Dilwyn Formation | Regional | | | | 47993 | Gerangamete | GMA |
| 550 | 47994 | 10/16/1984 | 8/5/2002 | 101 | 725300 | 5744550 | 47994 | GFS_17 | Dilwyn Formation | Regional | | | | 47994 | Gerangamete | GMA |
| 551 | 47996 | 7/18/1985 | 7/5/2002 | 91 | 727500 | 5742140 | 47996 | GFS_17 | Dilwyn Formation | Regional | | | | 47996 | Gellibrand | GMA |
| 552 | 47997 | 9/24/1985 | 8/1/1991 | 41 | 727500 | 5742140 | 47997 | GFS_17 | Dilwyn Formation | Regional | | | | 47997 | Gellibrand | GMA |
| 553 | 47998 | 10/4/1988 | 10/9/2001 | 34 | 730580 | 5742640 | 47998 | GFS_17 | Dilwyn Formation | Regional | | | | 47998 | Gerangamete | GMA |
| 554 | 47999 | 4/15/1986 | 7/5/2002 | 96 | 726550 | 5743800 | 47999 | GFS_5 | Gerangamete marls | Local | | | | 47999 | Gerangamete | GMA |
| 555 | 48000 | 7/23/1986 | 7/5/2002 | 81 | 728000 | 5745650 | 48000 | GFS_17 | Dilwyn Formation | Regional | | | | 48000 | Gerangamete | GMA |
| 556 | 48001 | 10/12/1986 | 12/3/2002 | 158 | 729350 | 5741750 | 48001 | GFS_17 | Dilwyn Formation | Regional | | | | 48001 | Gerangamete | GMA |
| 557 | 48002 | 4/11/1987 | 10/9/2001 | 98 | 731075 | 5744275 | 48002 | GFS_17 | Dilwyn Formation | Regional | | | | 48002 | Gerangamete | GMA |
| 558 | 48003 | 5/11/1987 | 7/5/2002 | 64 | 728450 | 5738250 | 48003 | GFS_17 | Dilwyn Formation | Regional | | | | 48003 | Gellibrand | GMA |
| 559 | 48010 | 3/14/1986 | 5/23/1990 | 29 | 728932 | 5742578 | 48010 | GFS_17 | Dilwyn Formation | Regional | | | | 48010 | Gerangamete | GMA |
| 560 | 48249 | 6/12/1982 | 12/3/2002 | 219 | 740280 | 5737655 | 48249 | GFS_5 | Gerangamete marls | Local | | | | 48249 | Gerangamete | GMA |
| 561 | 48250 | 5/11/1987 | 6/26/1997 | 94 | 739550 | 5738400 | 48250 | GFS_5 | Gerangamete marls | Local | | | | 48250 | Gerangamete | GMA |
| 562 | 50056 | 2/19/1986 | 1/15/1992 | 15 | 743516 | 5754017 | 50056 | GFS_5 | Gerangamete marls | Local | | | | | | |
| 563 | 53206 | 4/2/2002 | 4/2/2002 | 1 | 771593 | 5842781 | 53206 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 53206 | Upper West Moorabool | 53206 | Bungaree | WSPA |
| 564 | 54574 | 7/12/1987 | 5/24/2002 | 98 | 739250 | 5838750 | 54574 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 565 | 54575 | 7/12/1987 | 1/3/2002 | 89 | 742000 | 5841900 | 54575 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 566 | 54596 | 3/25/1991 | 1/3/2002 | 51 | 742000 | 5841900 | 54596 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 567 | 54597 | 3/25/1991 | 1/3/2002 | 51 | 742000 | 5841900 | 54597 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 568 | 54598 | 3/25/1991 | 5/24/2002 | 61 | 742000 | 5841900 | 54598 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 569 | 54924 | 3/12/1975 | 12/2/2002 | 106 | 698723 | 5749076 | 54924 | GFS_2 | Scoria cones and stony rises | Local | | | | 54924 | Colongulac | GMA |
| 570 | | | | | | | | | | | | | | 54924 | Paaratte | GMA |
| 571 | 54925 | 3/12/1975 | 12/2/2002 | 107 | 698722 | 5749064 | 54925 | GFS_2 | Scoria cones and stony rises | Local | | | | 54925 | Colongulac | GMA |
| 572 | | | | | | | | | | | | | | 54925 | Paaratte | GMA |
| 573 | 54927 | 3/12/1975 | 12/2/2002 | 107 | 698923 | 5749399 | 54927 | GFS_2 | Scoria cones and stony rises | Local | | | | 54927 | Colongulac | GMA |
| 574 | | | | | | | | | | | | | | 54927 | Paaratte | GMA |
| 575 | 56055 | 4/19/1989 | 7/5/2002 | 50 | 726675 | 5752975 | 56055 | GFS_10 | Pliocene sands | Intermediate | Local | 56055 | Colac - Eurack | | | |
| 576 | 56252 | 11/25/1987 | 12/2/2002 | 83 | 727950 | 5805600 | 56252 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 577 | 56253 | 7/26/1988 | 12/2/2002 | 80 | 727950 | 5805600 | 56253 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 578 | 56801 | 12/18/1986 | 5/20/2002 | 82 | 690500 | 5743200 | 56801 | GFS_4 | Heytesbury marl | Local | | | | 56801 | Paaratte | GMA |
| 579 | 56831 | 1/10/1981 | 5/19/2002 | 104 | 704100 | 5739340 | 56831 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 580 | 56832 | 5/30/1979 | 5/20/2002 | 125 | 695196 | 5732621 | 56832 | GFS_4 | Heytesbury marl | Local | | | | 56832 | Paaratte | GMA |
| 581 | 56834 | 11/17/1988 | 12/2/2002 | 66 | 699150 | 5741800 | 56834 | GFS_10 | Pliocene sands | Intermediate | Local | | | 56834 | Paaratte | GMA |
| 582 | 56883 | 1/5/1990 | 5/21/2002 | 67 | 708100 | 5781000 | 56883 | GFS_10 | Pliocene sands | Intermediate | Local | 56883 | Corangamite | | | |
| 583 | 56884 | 1/5/1990 | 5/21/2002 | 65 | 701500 | 5777200 | 56884 | GFS_10 | Pliocene sands | Intermediate | Local | 56884 | Corangamite | | | |
| 584 | 56885 | 1/5/1990 | 5/21/2002 | 66 | 704500 | 5783550 | 56885 | GFS_10 | Pliocene sands | Intermediate | Local | 56885 | Corangamite | | | |
| 585 | 56886 | 1/5/1990 | 5/21/2002 | 59 | 707500 | 5777500 | 56886 | GFS_10 | Pliocene sands | Intermediate | Local | 56886 | Corangamite | | | |
| 586 | 57505 | 11/25/1986 | 5/18/2002 | 86 | 738300 | 5782100 | 57505 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 57505 | Colac - Eurack | | | |
| 587 | 57506 | 11/25/1987 | 5/20/2002 | 56 | 738300 | 5782100 | 57506 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 57506 | Colac - Eurack | | | |
| 588 | 57507 | 3/11/1989 | 5/20/2002 | 54 | 731170 | 5781970 | 57507 | GFS_1 | Quaternary sediments | Local | | 57507 | Corangamite | | | |
| 589 | 57517 | 2/5/1990 | 5/20/2002 | 43 | 730400 | 5786700 | 57517 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 590 | 57694 | 1/7/1986 | 6/15/2002 | 76 | 726900 | 5770100 | 57694 | GFS_2 | Scoria cones and stony rises | Local | | | | 57694 | Warrion | WSPA |
| 591 | 57697 | 3/11/1989 | 6/15/2002 | 75 | 724800 | 5778600 | 57697 | GFS_1 | Quaternary sediments | Local | | 57697 | Corangamite | 57697 | Warrion | WSPA |
| 592 | 57735 | 7/25/1997 | 7/25/1997 | 1 | 722774 | 5768405 | 57735 | GFS_2 | Scoria cones and stony rises | Local | | | | 57735 | Warrion | WSPA |
| 593 | 62426 | 8/8/1985 | 12/2/2002 | 102 | 673550 | 5747700 | 62426 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | 62426 | Paaratte | GMA |
| 594 | 62427 | 4/6/1985 | 12/2/2002 | 97 | 673560 | 5747710 | 62427 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | 62427 | Paaratte | GMA |
| 595 | 62578 | 9/17/1986 | 12/3/2002 | 157 | 730605 | 5747505 | 62578 | GFS_5 | Gerangamete marls | Local | | | | 62578 | Gerangamete | GMA |
| 596 | 62886 | 3/9/1990 | 5/21/2002 | 62 | 697100 | 5792500 | 62886 | GFS_2 | Scoria cones and stony rises | Local | | | | | | |
| 597 | 62900 | 3/5/1990 | 5/21/2002 | 66 | 700400 | 5787520 | 62900 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 62900 | Corangamite | | | |
| 598 | 64008 | 11/21/1989 | 5/21/2002 | 75 | 705200 | 5815300 | 64008 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 599 | 64009 | 11/21/1989 | 5/21/2002 | 74 | 705200 | 5815300 | 64009 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 600 | 64010 | 3/14/1990 | 2/15/1994 | 32 | 708150 | 5805850 | 64010 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 601 | 64011 | 3/14/1990 | 2/15/1994 | 32 | 701250 | 5803750 | 64011 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 602 | 64012 | 5/9/1991 | 5/21/2002 | 63 | 708990 | 5808950 | 64012 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 603 | 64013 | 5/9/1991 | 5/21/2002 | 63 | 708980 | 5808950 | 64013 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 604 | 64152 | 11/22/1990 | 5/21/2002 | 66 | 695100 | 5794800 | 64152 | GFS_2 | Scoria cones and stony rises | Local | | | | | | |
| 605 | 64223 | 10/16/1990 | 12/11/1992 | 19 | 736487 | 5737326 | 64223 | GFS_17 | Dilwyn Formation | Regional | | | | 64223 | Gerangamete | GMA |
| 606 | 64224 | 10/16/1990 | 12/11/1992 | 19 | 735765 | 5737379 | 64224 | GFS_17 | Dilwyn Formation | Regional | | | | 64224 | Gerangamete | GMA |
| 607 | 64225 | 10/16/1990 | 12/11/1992 | 19 | 732003 | 5739158 | 64225 | GFS_17 | Dilwyn Formation | Regional | | | | 64225 | Gerangamete | GMA |
| 608 | 64227 | 3/6/1974 | 12/3/2002 | 305 | 731089 | 5737164 | 64227 | GFS_17 | Dilwyn Formation | Regional | | | | 64227 | Gellibrand | GMA |
| 609 | 64228 | 3/6/1974 | 12/3/2002 | 294 | 731155 | 5736982 | 64228 | GFS_17 | Dilwyn Formation | Regional | | | | 64228 | Gellibrand | GMA |
| 610 | 64229 | 6/12/1973 | 12/3/2002 | 289 | 737615 | 5740832 | 64229 | GFS_17 | Dilwyn Formation | Regional | | | | 64229 | Gerangamete | GMA |
| 611 | 64230 | 2/19/1979 | 12/3/2002 | 251 | 738700 | 5741367 | 64230 | GFS_17 | Dilwyn Formation | Regional | | | | 64230 | Gerangamete | GMA |
| 612 | 64231 | 11/21/1977 | 11/4/1996 | 101 | 738728 | 5741188 | 64231 | GFS_17 | Dilwyn Formation | Regional | | | | 64231 | Gerangamete | GMA |
| 613 | 64232 | 9/11/1982 | 2/26/1998 | 115 | 738701 | 5741380 | 64232 | GFS_17 | Dilwyn Formation | Regional | | | | 64232 | Gerangamete | GMA |
| 614 | 64233 | 4/12/1981 | 12/3/2002 | 247 | 734250 | 5741550 | 64233 | GFS_10 | Pliocene sands | Intermediate | Local | | | 64233 | Gerangamete | GMA |
| 615 | 64234 | 1/6/1983 | 12/3/2002 | 207 | 738750 | 5741450 | 64234 | GFS_17 | Dilwyn Formation | Regional | | | | 64234 | Gerangamete | GMA |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 616 | 64235 | 7/12/1983 | 12/3/2002 | 212 | 732400 | 5739150 | 64235 | GFS_17 | Dilwyn Formation | Regional | | | | 64235 | Gerangamete | GMA |
| 617 | 64236 | 7/12/1983 | 12/3/2002 | 207 | 736300 | 5737800 | 64236 | GFS_17 | Dilwyn Formation | Regional | | | | 64236 | Gerangamete | GMA |
| 618 | 64237 | 9/24/1985 | 12/3/2002 | 177 | 733800 | 5738100 | 64237 | GFS_17 | Dilwyn Formation | Regional | | | | 64237 | Gerangamete | GMA |
| 619 | 64238 | 7/18/1985 | 12/3/2002 | 173 | 733600 | 5742900 | 64238 | GFS_17 | Dilwyn Formation | Regional | | | | 64238 | Gerangamete | GMA |
| 620 | 64239 | 7/23/1986 | 12/3/2002 | 159 | 732150 | 5742000 | 64239 | GFS_17 | Dilwyn Formation | Regional | | | | 64239 | Gerangamete | GMA |
| 621 | 64240 | 9/12/1986 | 12/3/2002 | 173 | 734200 | 5741500 | 64240 | GFS_5 | Gerangamete marls | Local | | | | 64240 | Gerangamete | GMA |
| 622 | 64241 | 9/12/1986 | 12/3/2002 | 169 | 736900 | 5736550 | 64241 | GFS_17 | Dilwyn Formation | Regional | | | | 64241 | Gerangamete | GMA |
| 623 | 64242 | 5/11/1987 | 12/3/2002 | 156 | 738850 | 5741375 | 64242 | GFS_17 | Dilwyn Formation | Regional | | | | 64242 | Gerangamete | GMA |
| 624 | 64243 | 2/4/1987 | 10/9/2001 | 55 | 731825 | 5744125 | 64243 | GFS_17 | Dilwyn Formation | Regional | | | | 64243 | Gerangamete | GMA |
| 625 | 64244 | 5/11/1987 | 12/3/2002 | 153 | 731725 | 5739500 | 64244 | GFS_17 | Dilwyn Formation | Regional | | | | 64244 | Gerangamete | GMA |
| 626 | 64245 | 10/14/1990 | 11/4/2002 | 93 | 738288 | 5737858 | 64245 | GFS_17 | Dilwyn Formation | Regional | | | | 64245 | Gerangamete | GMA |
| 627 | 64246 | 10/14/1990 | 11/4/2002 | 93 | 738870 | 5741370 | 64246 | GFS_17 | Dilwyn Formation | Regional | | | | 64246 | Gerangamete | GMA |
| 628 | 64247 | 10/14/1990 | 11/4/2002 | 89 | 737557 | 5740323 | 64247 | GFS_17 | Dilwyn Formation | Regional | | | | 64247 | Gerangamete | GMA |
| 629 | 64248 | 10/14/1990 | 11/4/2002 | 93 | 738779 | 5742075 | 64248 | GFS_1 | Quaternary sediments | Local | | | | 64248 | Gerangamete | GMA |
| 630 | 66622 | 7/12/1987 | 5/24/2002 | 100 | 739200 | 5836175 | 66622 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 631 | 66623 | 7/12/1987 | 5/24/2002 | 100 | 739350 | 5836100 | 66623 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 632 | 67810 | 5/8/1976 | 12/2/2002 | 161 | 712490 | 5741242 | 67810 | GFS_10 | Pliocene sands | Intermediate | Local | | | 67810 | Paaratte | GMA |
| 633 | 67825 | 4/9/1990 | 12/2/2002 | 67 | 710500 | 5743700 | 67825 | GFS_10 | Pliocene sands | Intermediate | Local | | | 67825 | Paaratte | GMA |
| 634 | 67826 | 4/9/1990 | 12/2/2002 | 67 | 714900 | 5742900 | 67826 | GFS_10 | Pliocene sands | Intermediate | Local | | | 67826 | Paaratte | GMA |
| 635 | 67827 | 4/9/1990 | 12/2/2002 | 42 | 714900 | 5742900 | 67827 | GFS_10 | Pliocene sands | Intermediate | Local | | | 67827 | Paaratte | GMA |
| 636 | 69478 | 3/9/1990 | 5/21/2002 | 63 | 697600 | 5775000 | 69478 | GFS_2 | Scoria cones and stony rises | Local | | | | | | |
| 637 | 69497 | 3/6/1974 | 5/20/2002 | 25 | 752777 | 5756627 | 69497 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 69497 | Warncoort | | | |
| 638 | 69499 | 3/10/1974 | 5/20/2002 | 144 | 752898 | 5756518 | 69499 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 69499 | Warncoort | | | |
| 639 | 70137 | 1/10/1975 | 3/26/1980 | 27 | 771463 | 5836059 | 70137 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 70137 | Upper West Moorabool | 70137 | Bungaree | WSPA |
| 640 | 70139 | 1/10/1975 | 5/27/2002 | 51 | 771608 | 5835923 | 70139 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 70139 | Upper West Moorabool | 70139 | Bungaree | WSPA |
| 641 | 70193 | 2/27/2001 | 2/27/2001 | 1 | 773530 | 5838590 | 70193 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 70193 | Upper West Moorabool | | | |
| 642 | 75066 | 2/11/1989 | 6/30/1995 | 39 | 689560 | 5716800 | 75066 | GFS_4 | Heytesbury marl | Local | | | | 75066 | Newlingrook | GMA |
| 643 | 75069 | 2/11/1989 | 5/20/2002 | 70 | 694000 | 5720300 | 75069 | GFS_4 | Heytesbury marl | Local | | | | 75069 | Newlingrook | GMA |
| 644 | 75070 | 11/19/1990 | 5/20/2002 | 61 | 694000 | 5720300 | 75070 | GFS_4 | Heytesbury marl | Local | | | | 75070 | Newlingrook | GMA |
| 645 | 75804 | 2/5/1990 | 5/21/2002 | 65 | 705700 | 5793150 | 75804 | GFS_10 | Pliocene sands | Intermediate | Local | 75804 | Lismore - Derrinallum | | | |
| 646 | 80229 | 7/16/1985 | 8/5/2002 | 82 | 708660 | 5726480 | 80229 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80229 | Newlingrook | GMA |
| 647 | 80230 | 3/5/1990 | 5/20/2002 | 65 | 700600 | 5723400 | 80230 | GFS_17 | Dilwyn Formation | Regional | | | | 80230 | Newlingrook | GMA |
| 648 | 80730 | 1/16/1980 | 8/5/2002 | 149 | 714076 | 5730609 | 80730 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80730 | Newlingrook | GMA |
| 649 | 80731 | 4/29/1982 | 7/29/1983 | 17 | 718350 | 5730350 | 80731 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80731 | Newlingrook | GMA |
| 650 | 80732 | 3/12/1981 | 8/5/2002 | 157 | 720650 | 5731250 | 80732 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 651 | 80733 | 1/7/1982 | 8/5/2002 | 129 | 717250 | 5732200 | 80733 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | | | |
| 652 | 80734 | 1/7/1982 | 8/5/2002 | 126 | 715800 | 5730750 | 80734 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80734 | Newlingrook | GMA |
| 653 | 80735 | 1/7/1982 | 8/5/2002 | 143 | 719750 | 5731550 | 80735 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80735 | Newlingrook | GMA |
| 654 | 80737 | 3/10/1985 | 8/5/2002 | 83 | 715800 | 5729700 | 80737 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80737 | Newlingrook | GMA |
| 655 | 80739 | 4/17/1986 | 8/5/2002 | 71 | 714050 | 5728950 | 80739 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 80739 | Newlingrook | GMA |
| 656 | 80745 | 3/12/1981 | 10/1/1984 | 50 | 720325 | 5730550 | 80745 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | | | |
| 657 | 82838 | 3/6/1974 | 12/3/2002 | 296 | 742052 | 5743756 | 82838 | GFS_5 | Gerangamete marls | Local | | | | 82838 | Gerangamete | GMA |
| 658 | 82840 | 6/12/1973 | 12/3/2002 | 294 | 742052 | 5743756 | 82840 | GFS_5 | Gerangamete marls | Local | | | | 82840 | Gerangamete | GMA |
| 659 | 82841 | 3/10/1974 | 12/3/2002 | 288 | 742052 | 5743756 | 82841 | GFS_5 | Gerangamete marls | Local | | | | 82841 | Gerangamete | GMA |
| 660 | 82842 | 11/25/1985 | 12/3/2002 | 158 | 746450 | 5743200 | 82842 | GFS_5 | Gerangamete marls | Local | | | | 82842 | Gerangamete | GMA |
| 661 | 82843 | 4/15/1986 | 10/9/2001 | 146 | 743660 | 5741770 | 82843 | GFS_1 | Quaternary sediments | Local | | | | 82843 | Gerangamete | GMA |
| 662 | 82844 | 3/14/1985 | 12/3/2002 | 181 | 742250 | 5747100 | 82844 | GFS_5 | Gerangamete marls | Local | | | | 82844 | Gerangamete | GMA |
| 663 | 82845 | 1/14/1986 | 11/4/2002 | 161 | 746060 | 5741270 | 82845 | GFS_1 | Quaternary sediments | Local | | | | 82845 | Gerangamete | GMA |
| 664 | 82846 | 4/15/1986 | 12/3/2002 | 160 | 748700 | 5743050 | 82846 | GFS_17 | Dilwyn Formation | Regional | | | | 82846 | Gerangamete | GMA |
| 665 | 82847 | 5/13/1986 | 12/3/2002 | 167 | 743750 | 5739600 | 82847 | GFS_1 | Quaternary sediments | Local | | | | 82847 | Gerangamete | GMA |
| 666 | 82848 | 7/18/1985 | 6/27/1997 | 124 | 739600 | 5738650 | 82848 | GFS_5 | Gerangamete marls | Local | | | | 82848 | Gerangamete | GMA |
| 667 | 82850 | 7/5/1985 | 6/30/1997 | 123 | 739600 | 5738925 | 82850 | GFS_5 | Gerangamete marls | Local | | | | 82850 | Gerangamete | GMA |
| 668 | 82851 | 9/12/1986 | 6/24/1997 | 96 | 739770 | 5738780 | 82851 | GFS_5 | Gerangamete marls | Local | | | | 82851 | Gerangamete | GMA |
| 669 | 82852 | 9/24/1985 | 5/5/1997 | 96 | 739817 | 5738776 | 82852 | GFS_5 | Gerangamete marls | Local | | | | 82852 | Gerangamete | GMA |
| 670 | 84014 | 5/9/1991 | 5/21/2002 | 63 | 718600 | 5800030 | 84014 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 671 | 84288 | 4/6/1985 | 5/24/2002 | 108 | 661100 | 5734300 | 84288 | GFS_10 | Pliocene sands | Intermediate | Local | | | 84288 | Paaratte | GMA |
| 672 | 84290 | 2/10/1986 | 11/16/1988 | 8 | 661100 | 5734300 | 84290 | GFS_10 | Pliocene sands | Intermediate | Local | | | 84290 | Paaratte | GMA |
| 673 | 84291 | 1/11/1989 | 5/24/2002 | 72 | 662000 | 5733000 | 84291 | GFS_10 | Pliocene sands | Intermediate | Local | | | 84291 | Paaratte | GMA |
| 674 | 84749 | 2/3/1977 | 8/5/2002 | 161 | 710243 | 5733941 | 84749 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 84749 | Newlingrook | GMA |
| 675 | 84751 | 11/21/1985 | 8/5/2002 | 67 | 713500 | 5733050 | 84751 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 84751 | Newlingrook | GMA |
| 676 | 85785 | 2/3/1977 | 8/5/2002 | 167 | 706406 | 5729670 | 85785 | GFS_1 | Quaternary sediments | Local | | | | 85785 | Newlingrook | GMA |
| 677 | 85786 | 1/7/1982 | 8/5/2002 | 119 | 709900 | 5729950 | 85786 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 85786 | Newlingrook | GMA |
| 678 | 85788 | 7/12/1982 | 8/5/2002 | 121 | 710900 | 5730950 | 85788 | GFS_1 | Quaternary sediments | Local | | | | 85788 | Newlingrook | GMA |
| 679 | 85789 | 7/16/1985 | 8/5/2002 | 82 | 710920 | 5728140 | 85789 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 85789 | Newlingrook | GMA |
| 680 | 85790 | 9/25/1985 | 8/5/2002 | 80 | 708600 | 5731770 | 85790 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 85790 | Newlingrook | GMA |
| 681 | 85791 | 6/26/1986 | 8/5/2002 | 65 | 712500 | 5729000 | 85791 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 85791 | Newlingrook | GMA |
| 682 | 85793 | 2/10/1986 | 8/5/2002 | 71 | 708200 | 5728800 | 85793 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 85793 | Newlingrook | GMA |
| 683 | 85794 | 5/15/1986 | 8/5/2002 | 73 | 712300 | 5731000 | 85794 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 85794 | Newlingrook | GMA |
| 684 | 86446 | 9/14/1993 | 9/14/1993 | 1 | 661460 | 5742180 | 86446 | GFS_10 | Pliocene sands | Intermediate | Local | | | 86446 | Nullawarre | WSPA |
| 685 | 86785 | 3/14/1991 | 5/18/2002 | 60 | 730800 | 5778000 | 86785 | GFS_1 | Quaternary sediments | Local | | 86785 | Colac - Eurack | | | |
| 686 | 86816 | 10/14/1999 | 10/14/1999 | 1 | 728311 | 5764671 | 86816 | GFS_2 | Scoria cones and stony rises | Local | | 86816 | Colac - Eurack | 86816 | Warrion | WSPA |
| 687 | 86818 | 10/13/1999 | 10/13/1999 | 1 | 727865 | 5763530 | 86818 | GFS_2 | Scoria cones and stony rises | Local | | 86818 | Colac - Eurack | 86818 | Warrion | WSPA |
| 688 | 86825 | 10/14/1999 | 10/14/1999 | 1 | 728222 | 5764306 | 86825 | GFS_2 | Scoria cones and stony rises | Local | | 86825 | Colac - Eurack | 86825 | Warrion | WSPA |
| 689 | 87250 | 2/10/1986 | 5/20/2002 | 91 | 675500 | 5730620 | 87250 | GFS_1 | Quaternary sediments | Local | | | | 87250 | Paaratte | GMA |
| 690 | 87251 | 2/9/1987 | 5/20/2002 | 70 | 675500 | 5730600 | 87251 | GFS_1 | Quaternary sediments | Local | | | | 87251 | Paaratte | GMA |
| 691 | 88120 | 4/9/1990 | 12/2/2002 | 60 | 707500 | 5749300 | 88120 | GFS_10 | Pliocene sands | Intermediate | Local | | | 88120 | Paaratte | GMA |
| 692 | 88125 | 10/16/1990 | 7/5/2002 | 59 | 720850 | 5747600 | 88125 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 693 | 88126 | 10/16/1990 | 12/2/2002 | 67 | 715750 | 5748400 | 88126 | GFS_10 | Pliocene sands | Intermediate | Local | | | 88126 | Paaratte | GMA |
| 694 | 88137 | 2/5/1990 | 5/18/2002 | 64 | 720700 | 5783800 | 88137 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 88137 | Corangamite | | | |
| 695 | 88138 | 2/5/1990 | 5/18/2002 | 64 | 719400 | 5788100 | 88138 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 88138 | Corangamite | | | |
| 696 | 89039 | 8/9/1986 | 12/2/2002 | 92 | 702850 | 5766250 | 89039 | GFS_2 | Scoria cones and stony rises | Local | | 89039 | Corangamite | 89039 | Colongulac | GMA |
| 697 | 89040 | 8/9/1986 | 12/2/2002 | 92 | 702850 | 5766253 | 89040 | GFS_2 | Scoria cones and stony rises | Local | | 89040 | Corangamite | 89040 | Colongulac | GMA |
| 698 | 89046 | 5/10/1993 | 8/18/1993 | 2 | 702715 | 5766630 | 89046 | GFS_2 | Scoria cones and stony rises | Local | | 89046 | Corangamite | 89046 | Colongulac | GMA |
| 699 | 89048 | 8/12/1988 | 12/2/2002 | 78 | 699300 | 5764000 | 89048 | GFS_2 | Scoria cones and stony rises | Local | | | | 89048 | Colongulac | GMA |
| 700 | 89085 | 4/4/1990 | 12/2/2002 | 69 | 703000 | 5767500 | 89085 | GFS_2 | Scoria cones and stony rises | Local | | 89085 | Corangamite | 89085 | Colongulac | GMA |
| 701 | 92658 | 2/5/1990 | 5/21/2002 | 55 | 715200 | 5789300 | 92658 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 92658 | Corangamite | | | |
| 702 | 92659 | 2/5/1990 | 5/21/2002 | 65 | 706100 | 5789900 | 92659 | GFS_10 | Pliocene sands | Intermediate | Local | 92659 | Corangamite | | | |
| 703 | 92660 | 2/5/1990 | 5/21/2002 | 66 | 703050 | 5790350 | 92660 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 92660 | Corangamite | | | |
| 704 | 92661 | 2/5/1990 | 5/21/2002 | 52 | 712050 | 5791900 | 92661 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 705 | 92708 | 1/5/1990 | 5/21/2002 | 65 | 696100 | 5783400 | 92708 | GFS_1 | Quaternary sediments | Local | | 92708 | Corangamite | | | |
| 706 | 92710 | 1/5/1990 | 5/21/2002 | 65 | 700000 | 5782700 | 92710 | GFS_1 | Quaternary sediments | Local | | 92710 | Corangamite | | | |
| 707 | 93323 | 2/11/1989 | 12/2/2002 | 64 | 687200 | 5753600 | 93323 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | 93323 | Colongulac | GMA |
| 708 | | | | | | | | | | | | | | 93323 | Paaratte | GMA |
| 709 | 95131 | 2/10/1986 | 11/16/1988 | 17 | 673500 | 5747500 | 95131 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | 95131 | Paaratte | GMA |
| 710 | 96050 | 10/15/1990 | 5/21/2002 | 67 | 697500 | 5797500 | 96050 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 96050 | Lismore - Derrinallum | | | |
| 711 | 96052 | 10/15/1990 | 5/21/2002 | 66 | 695800 | 5800202 | 96052 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 96052 | Lismore - Derrinallum | | | |
| 712 | 96053 | 10/15/1990 | 5/21/2002 | 66 | 695800 | 5800200 | 96053 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 96053 | Lismore - Derrinallum | | | |
| 713 | 97869 | 7/19/1989 | 11/2/2002 | 79 | 694000 | 5812300 | 97869 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 714 | 97877 | 10/15/1990 | 5/21/2002 | 57 | 697800 | 5806200 | 97877 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 715 | 97878 | 10/15/1990 | 5/21/2002 | 57 | 697800 | 5806202 | 97878 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 716 | 97994 | 2/11/1989 | 5/20/2002 | 63 | 687500 | 5729150 | 97994 | GFS_4 | Heytesbury marl | Local | | | | 97994 | Paaratte | GMA |
| 717 | 97995 | 2/11/1989 | 5/20/2002 | 64 | 685580 | 5720060 | 97995 | GFS_16 | Port Campbell Limestone | Regional | | | | 97995 | Newlingrook | GMA |
| 718 | 98253 | 5/9/1991 | 12/2/2002 | 63 | 727200 | 5796650 | 98253 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 719 | 102865 | 6/12/1973 | 12/3/2002 | 192 | 746662 | 5749707 | 102865 | GFS_5 | Gerangamete marls | Local | | | | 102865 | Gerangamete | GMA |
| 720 | 102867 | 6/12/1973 | 12/3/2002 | 299 | 749134 | 5746032 | 102867 | GFS_1 | Quaternary sediments | Local | | | | 102867 | Gerangamete | GMA |
| 721 | 102868 | 8/5/1984 | 12/3/2002 | 199 | 745650 | 5751950 | 102868 | GFS_5 | Gerangamete marls | Local | | | | 102868 | Gerangamete | GMA |
| 722 | 102869 | 1/14/1986 | 12/3/2002 | 175 | 746140 | 5746540 | 102869 | GFS_5 | Gerangamete marls | Local | | | | 102869 | Gerangamete | GMA |
| 723 | 103104 | 2/5/1990 | 5/18/2002 | 64 | 723600 | 5787900 | 103104 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 103104 | Corangamite | | | |
| 724 | 103108 | 2/3/1990 | 5/19/2002 | 44 | 726450 | 5785450 | 103108 | GFS_1 | Quaternary sediments | Local | | 103108 | Corangamite | | | |
| 725 | 103109 | 2/5/1990 | 5/19/2002 | 42 | 723050 | 5784750 | 103109 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 103109 | Corangamite | | | |
| 726 | 103110 | 2/5/1990 | 5/19/2002 | 43 | 726370 | 5784650 | 103110 | GFS_1 | Quaternary sediments | Local | | 103110 | Corangamite | | | |
| 727 | 103877 | 2/11/1989 | 5/20/2002 | 72 | 693200 | 5726300 | 103877 | GFS_17 | Dilwyn Formation | Regional | | | | 103877 | Paaratte | GMA |
| 728 | 103886 | 1/24/1990 | 5/19/2002 | 56 | 699430 | 5729100 | 103886 | GFS_10 | Pliocene sands | Intermediate | Local | | | 103886 | Newlingrook | GMA |
| 729 | 103887 | 11/19/1990 | 5/19/2002 | 51 | 699430 | 5729105 | 103887 | GFS_10 | Pliocene sands | Intermediate | Local | | | 103887 | Newlingrook | GMA |
| 730 | 107716 | 12/14/1987 | 12/3/2002 | 149 | 756450 | 5749850 | 107716 | GFS_17 | Dilwyn Formation | Regional | | | | 107716 | Gerangamete | GMA |
| 731 | 107717 | 12/14/1987 | 12/3/2002 | 147 | 756450 | 5749850 | 107717 | GFS_17 | Dilwyn Formation | Regional | | | | 107717 | Gerangamete | GMA |
| 732 | 107720 | 12/15/1988 | 12/3/2002 | 140 | 753950 | 5752000 | 107720 | GFS_17 | Dilwyn Formation | Regional | | | | 107720 | Gerangamete | GMA |
| 733 | 108894 | 3/6/1974 | 8/6/1993 | 163 | 719200 | 5733400 | 108894 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 734 | 108897 | 1/6/1981 | 8/5/2002 | 160 | 724500 | 5733050 | 108897 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 735 | 108898 | 3/12/1981 | 8/5/2002 | 163 | 724580 | 5733560 | 108898 | GFS_1 | Quaternary sediments | Local | | | | 108898 | Gellibrand | GMA |
| 736 | 108899 | 3/12/1981 | 8/5/2002 | 149 | 724600 | 5733551 | 108899 | GFS_1 | Quaternary sediments | Local | | | | 108899 | Gellibrand | GMA |
| 737 | 108900 | 3/12/1981 | 8/5/2002 | 152 | 721230 | 5733750 | 108900 | GFS_1 | Quaternary sediments | Local | | | | 108900 | Gellibrand | GMA |
| 738 | 108901 | 3/12/1981 | 8/5/2002 | 164 | 721220 | 5733750 | 108901 | GFS_1 | Quaternary sediments | Local | | | | 108901 | Gellibrand | GMA |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 739 | 108902 | 3/12/1981 | 8/5/2002 | 154 | 721230 | 5733720 | 108902 | GFS_1 | Quaternary sediments | Local | | | | 108902 | Gellibrand | GMA |
| 740 | 108903 | 3/12/1981 | 8/5/2002 | 152 | 721250 | 5733650 | 108903 | GFS_1 | Quaternary sediments | Local | | | | 108903 | Gellibrand | GMA |
| 741 | 108904 | 10/12/1981 | 8/5/2002 | 141 | 719000 | 5732900 | 108904 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | | | |
| 742 | 108905 | 1/7/1982 | 8/5/2002 | 121 | 718379 | 5732028 | 108905 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | 108905 | Newlingrook | GMA |
| 743 | 108906 | 1/7/1982 | 8/5/2002 | 143 | 719030 | 5732900 | 108906 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | | | |
| 744 | 108907 | 9/11/1982 | 8/5/2002 | 111 | 722100 | 5734100 | 108907 | GFS_5 | Gerangamete marls | Local | | | | 108907 | Gellibrand | GMA |
| 745 | | | | | | | 108907 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 746 | 108909 | 8/9/1982 | 8/5/2002 | 138 | 725950 | 5736305 | 108909 | GFS_17 | Dilwyn Formation | Regional | | | | 108909 | Gellibrand | GMA |
| 747 | 108910 | 1/7/1983 | 8/5/2002 | 115 | 724100 | 5736600 | 108910 | GFS_17 | Dilwyn Formation | Regional | | | | 108910 | Gellibrand | GMA |
| 748 | 108911 | 2/21/1984 | 8/5/2002 | 100 | 726000 | 5737400 | 108911 | GFS_8 | Older volcanics | Local | Intermediate | | | 108911 | Gellibrand | GMA |
| 749 | | | | | | | 108911 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 750 | 108913 | 8/11/1984 | 8/5/2002 | 96 | 725950 | 5736300 | 108913 | GFS_17 | Dilwyn Formation | Regional | | | | 108913 | Gellibrand | GMA |
| 751 | 108914 | 7/18/1985 | 8/5/2002 | 89 | 727840 | 5734940 | 108914 | GFS_17 | Dilwyn Formation | Regional | | | | 108914 | Gellibrand | GMA |
| 752 | 108915 | 5/11/1987 | 12/3/2002 | 151 | 733610 | 5736050 | 108915 | GFS_17 | Dilwyn Formation | Regional | | | | 108915 | Gerangamete | GMA |
| 753 | 108916 | 1/6/1981 | 8/5/2002 | 126 | 724580 | 5733530 | 108916 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 754 | 108917 | 1/6/1981 | 8/5/2002 | 124 | 724580 | 5733550 | 108917 | GFS_1 | Quaternary sediments | Local | | | | 108917 | Gellibrand | GMA |
| 755 | 108918 | 1/6/1981 | 4/4/1995 | 80 | 724601 | 5733550 | 108918 | GFS_1 | Quaternary sediments | Local | | | | 108918 | Gellibrand | GMA |
| 756 | 108919 | 3/12/1981 | 8/5/2002 | 121 | 724350 | 5733600 | 108919 | GFS_1 | Quaternary sediments | Local | | | | 108919 | Gellibrand | GMA |
| 757 | 108920 | 3/12/1981 | 7/5/2001 | 116 | 724250 | 5733550 | 108920 | GFS_1 | Quaternary sediments | Local | | | | 108920 | Gellibrand | GMA |
| 758 | 108921 | 3/12/1981 | 7/5/2001 | 118 | 724200 | 5733300 | 108921 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 759 | 108922 | 3/12/1981 | 8/5/2002 | 120 | 724050 | 5733300 | 108922 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 760 | 108924 | 3/12/1981 | 8/5/2002 | 123 | 726800 | 5732150 | 108924 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 761 | 108925 | 1/6/1981 | 8/5/2002 | 110 | 723500 | 5732100 | 108925 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 762 | 108927 | 3/12/1981 | 8/5/2002 | 123 | 721250 | 5733670 | 108927 | GFS_1 | Quaternary sediments | Local | | | | 108927 | Gellibrand | GMA |
| 763 | 108928 | 3/12/1981 | 8/5/2002 | 121 | 721250 | 5733690 | 108928 | GFS_1 | Quaternary sediments | Local | | | | 108928 | Gellibrand | GMA |
| 764 | 108929 | 3/12/1981 | 8/5/2002 | 118 | 721250 | 5732700 | 108929 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 765 | 108930 | 2/14/1981 | 6/9/1989 | 79 | 721200 | 5733585 | 108930 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 766 | 108931 | 3/12/1981 | 8/5/2002 | 117 | 720500 | 5732800 | 108931 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 767 | 108932 | 3/12/1981 | 8/5/2002 | 118 | 719150 | 5732900 | 108932 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | | | |
| 768 | 108933 | 1/7/1982 | 8/5/2002 | 107 | 723800 | 5733500 | 108933 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 769 | 108934 | 1/7/1982 | 8/5/2002 | 107 | 723500 | 5733350 | 108934 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 770 | 108935 | 1/7/1982 | 8/5/2002 | 97 | 723300 | 5733000 | 108935 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 771 | 108936 | 1/7/1982 | 8/5/2002 | 98 | 720500 | 5734400 | 108936 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 772 | 108937 | 1/7/1982 | 8/5/2002 | 91 | 720400 | 5734000 | 108937 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 773 | 108938 | 1/7/1982 | 8/5/2002 | 97 | 720400 | 5733850 | 108938 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 774 | 108939 | 1/7/1982 | 7/5/2001 | 96 | 720200 | 5733850 | 108939 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 775 | 108940 | 1/7/1982 | 8/5/2002 | 99 | 720050 | 5733650 | 108940 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 776 | 108941 | 2/9/1982 | 8/5/2002 | 94 | 719850 | 5733500 | 108941 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 777 | 108942 | 1/7/1982 | 8/5/2002 | 100 | 719700 | 5733400 | 108942 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 778 | 108943 | 1/7/1982 | 8/5/2002 | 97 | 719500 | 5733350 | 108943 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 779 | 108944 | 2/9/1982 | 8/5/2002 | 98 | 719250 | 5733400 | 108944 | GFS_11 | Wiridjil Gravels | Intermediate | Local | | | | | |
| 780 | 108945 | 6/11/1979 | 8/5/2002 | 149 | 724550 | 5733250 | 108945 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 781 | 108946 | 9/11/1979 | 8/5/2002 | 150 | 724550 | 5733300 | 108946 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 782 | 108947 | 6/11/1979 | 8/5/2002 | 148 | 724550 | 5733150 | 108947 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 783 | 108948 | 9/11/1979 | 9/26/1985 | 46 | 724510 | 5733330 | 108948 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 784 | 108949 | 6/11/1979 | 8/5/2002 | 143 | 724650 | 5733250 | 108949 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 785 | 108950 | 1/8/1980 | 7/28/1981 | 31 | 724475 | 5733075 | 108950 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 786 | 108952 | 10/5/1979 | 3/13/1985 | 69 | 724550 | 5733475 | 108952 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 787 | 108953 | 1/5/1979 | 10/1/1984 | 84 | 724555 | 5733475 | 108953 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 788 | 108954 | 1/5/1979 | 8/1/1985 | 91 | 724551 | 5733475 | 108954 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 789 | 108955 | 9/5/1979 | 8/1/1985 | 91 | 724552 | 5733475 | 108955 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 790 | 108956 | 9/5/1979 | 11/18/1983 | 82 | 724553 | 5733475 | 108956 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 791 | 108958 | 9/5/1979 | 8/1/1985 | 67 | 724525 | 5733700 | 108958 | GFS_17 | Dilwyn Formation | Regional | | | | 108958 | Gellibrand | GMA |
| 792 | 108959 | 9/5/1979 | 9/28/1983 | 83 | 724525 | 5733702 | 108959 | GFS_17 | Dilwyn Formation | Regional | | | | 108959 | Gellibrand | GMA |
| 793 | 108960 | 9/5/1979 | 8/1/1985 | 95 | 724525 | 5733703 | 108960 | GFS_17 | Dilwyn Formation | Regional | | | | 108960 | Gellibrand | GMA |
| 794 | 108961 | 9/5/1979 | 12/13/1985 | 95 | 724525 | 5733701 | 108961 | GFS_17 | Dilwyn Formation | Regional | | | | 108961 | Gellibrand | GMA |
| 795 | 108970 | 8/19/1986 | 12/1/1988 | 14 | 738038 | 5734000 | 108970 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 796 | 109108 | 7/12/1983 | 11/4/2002 | 208 | 734326 | 5744493 | 109108 | GFS_17 | Dilwyn Formation | Regional | | | | 109108 | Gerangamete | GMA |
| 797 | 109110 | 4/12/1981 | 12/3/2002 | 258 | 734460 | 5745190 | 109110 | GFS_17 | Dilwyn Formation | Regional | | | | 109110 | Gerangamete | GMA |
| 798 | 109111 | 4/12/1981 | 12/3/2002 | 256 | 734460 | 5745190 | 109111 | GFS_17 | Dilwyn Formation | Regional | | | | 109111 | Gerangamete | GMA |
| 799 | 109112 | 1/31/1984 | 12/3/2002 | 201 | 736500 | 5743950 | 109112 | GFS_5 | Gerangamete marls | Local | | | | 109112 | Gerangamete | GMA |
| 800 | 109113 | 9/7/1984 | 12/3/2002 | 190 | 735950 | 5744350 | 109113 | GFS_5 | Gerangamete marls | Local | | | | 109113 | Gerangamete | GMA |
| 801 | 109114 | 12/20/1984 | 12/3/2002 | 181 | 737100 | 5751000 | 109114 | GFS_5 | Gerangamete marls | Local | | | | 109114 | Gerangamete | GMA |
| 802 | 109115 | 12/16/1985 | 10/9/2001 | 106 | 734400 | 5743820 | 109115 | GFS_17 | Dilwyn Formation | Regional | | | | 109115 | Gerangamete | GMA |
| 803 | 109120 | 2/9/1986 | 6/9/1989 | 43 | 734450 | 5743800 | 109120 | GFS_17 | Dilwyn Formation | Regional | | | | 109120 | Gerangamete | GMA |
| 804 | 109121 | 2/9/1986 | 6/9/1989 | 43 | 734450 | 5743800 | 109121 | GFS_17 | Dilwyn Formation | Regional | | | | 109121 | Gerangamete | GMA |
| 805 | 109123 | 2/9/1986 | 6/9/1989 | 32 | 734450 | 5743800 | 109123 | GFS_17 | Dilwyn Formation | Regional | | | | 109123 | Gerangamete | GMA |
| 806 | 109124 | 2/9/1986 | 6/9/1989 | 30 | 734500 | 5743700 | 109124 | GFS_17 | Dilwyn Formation | Regional | | | | 109124 | Gerangamete | GMA |
| 807 | 109125 | 2/9/1986 | 11/6/1987 | 32 | 734450 | 5743800 | 109125 | GFS_17 | Dilwyn Formation | Regional | | | | 109125 | Gerangamete | GMA |
| 808 | 109126 | 2/9/1986 | 10/9/2001 | 145 | 734140 | 5744200 | 109126 | GFS_17 | Dilwyn Formation | Regional | | | | 109126 | Gerangamete | GMA |
| 809 | 109127 | 5/22/1987 | 10/9/2001 | 115 | 734180 | 5744200 | 109127 | GFS_17 | Dilwyn Formation | Regional | | | | 109127 | Gerangamete | GMA |
| 810 | 109128 | 2/9/1986 | 12/3/2002 | 170 | 734240 | 5744300 | 109128 | GFS_17 | Dilwyn Formation | Regional | | | | 109128 | Gerangamete | GMA |
| 811 | 109129 | 2/9/1986 | 11/4/2002 | 173 | 734310 | 5744310 | 109129 | GFS_17 | Dilwyn Formation | Regional | | | | 109129 | Gerangamete | GMA |
| 812 | 109130 | 2/9/1986 | 12/3/2002 | 179 | 734090 | 5745190 | 109130 | GFS_1 | Quaternary sediments | Local | | | | 109130 | Gerangamete | GMA |
| 813 | 109131 | 2/9/1986 | 11/4/2002 | 167 | 734370 | 5744490 | 109131 | GFS_17 | Dilwyn Formation | Regional | | | | 109131 | Gerangamete | GMA |
| 814 | 109132 | 6/24/1986 | 12/3/2002 | 166 | 733550 | 5744000 | 109132 | GFS_17 | Dilwyn Formation | Regional | | | | 109132 | Gerangamete | GMA |
| 815 | 109133 | 7/23/1986 | 12/3/2002 | 167 | 734650 | 5746950 | 109133 | GFS_5 | Gerangamete marls | Local | | | | 109133 | Gerangamete | GMA |
| 816 | 109134 | 7/23/1986 | 10/9/2001 | 158 | 735650 | 5748600 | 109134 | GFS_5 | Gerangamete marls | Local | | | | 109134 | Gerangamete | GMA |
| 817 | 109135 | 8/19/1986 | 12/3/2002 | 160 | 740300 | 5750900 | 109135 | GFS_5 | Gerangamete marls | Local | | | | 109135 | Gerangamete | GMA |
| 818 | 109136 | 2/4/1987 | 10/9/2001 | 146 | 733350 | 5745400 | 109136 | GFS_17 | Dilwyn Formation | Regional | | | | 109136 | Gerangamete | GMA |
| 819 | 109139 | 2/4/1987 | 12/1/1988 | 12 | 733975 | 5745560 | 109139 | GFS_1 | Quaternary sediments | Local | | | | 109139 | Gerangamete | GMA |
| 820 | 109140 | 4/14/1987 | 12/20/1988 | 13 | 733990 | 5745575 | 109140 | GFS_1 | Quaternary sediments | Local | | | | 109140 | Gerangamete | GMA |
| 821 | 109141 | 2/4/1987 | 12/20/1989 | 15 | 733940 | 5745260 | 109141 | GFS_1 | Quaternary sediments | Local | | | | 109141 | Gerangamete | GMA |
| 822 | 109142 | 4/28/1987 | 12/20/1989 | 17 | 734050 | 5745210 | 109142 | GFS_1 | Quaternary sediments | Local | | | | 109142 | Gerangamete | GMA |
| 823 | 109143 | 4/28/1987 | 12/14/1989 | 12 | 734030 | 5745035 | 109143 | GFS_17 | Dilwyn Formation | Regional | | | | 109143 | Gerangamete | GMA |
| 824 | 109144 | 4/28/1987 | 12/20/1989 | 13 | 734100 | 5744550 | 109144 | GFS_17 | Dilwyn Formation | Regional | | | | 109144 | Gerangamete | GMA |
| 825 | 109552 | 4/9/1990 | 12/2/2002 | 68 | 716000 | 5741000 | 109552 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 826 | 109553 | 4/9/1990 | 12/2/2002 | 45 | 716000 | 5741000 | 109553 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 827 | 110100 | 2/18/1992 | 11/2/2002 | 61 | 690000 | 5813050 | 110100 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 828 | 110101 | 2/18/1992 | 11/2/2002 | 61 | 690000 | 5813052 | 110101 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 829 | 110102 | 2/18/1992 | 11/2/2002 | 61 | 690000 | 5812054 | 110102 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 830 | 110103 | 3/11/1992 | 5/18/2002 | 61 | 741400 | 5795300 | 110103 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 831 | 110140 | 3/11/1992 | 5/19/2002 | 61 | 751740 | 5795990 | 110140 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 832 | 110190 | 1/7/1992 | 5/18/2002 | 62 | 756352 | 5769600 | 110190 | GFS_1 | Quaternary sediments | Local | | 110190 | Murdeduke | | | |
| 833 | 110191 | 1/7/1992 | 5/18/2002 | 63 | 756350 | 5769600 | 110191 | GFS_1 | Quaternary sediments | Local | | 110191 | Murdeduke | | | |
| 834 | 110192 | 1/7/1992 | 5/18/2002 | 61 | 755150 | 5766150 | 110192 | GFS_2 | Scoria cones and stony rises | Local | | | | | | |
| 835 | 110193 | 1/7/1992 | 5/18/2002 | 63 | 759903 | 5766600 | 110193 | GFS_1 | Quaternary sediments | Local | | 110193 | Murdeduke | | | |
| 836 | 110194 | 1/7/1992 | 5/18/2002 | 62 | 758102 | 5769300 | 110194 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110194 | Murdeduke | | | |
| 837 | 110195 | 1/7/1992 | 5/18/2002 | 62 | 758100 | 5769300 | 110195 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110195 | Murdeduke | | | |
| 838 | 110196 | 1/7/1992 | 5/18/2002 | 62 | 756354 | 5769600 | 110196 | GFS_1 | Quaternary sediments | Local | | 110196 | Murdeduke | | | |
| 839 | 110197 | 3/11/1992 | 5/19/2002 | 61 | 753100 | 5806100 | 110197 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 840 | 110533 | 2/9/1992 | 5/18/2002 | 62 | 750200 | 5778800 | 110533 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 841 | 110534 | 2/9/1992 | 5/18/2002 | 61 | 749550 | 5771300 | 110534 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 842 | 110535 | 2/9/1992 | 5/18/2002 | 62 | 749050 | 5769600 | 110535 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 843 | 110536 | 2/9/1992 | 5/18/2002 | 58 | 748400 | 5764500 | 110536 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 844 | 110652 | 1/7/1992 | 5/18/2002 | 61 | 760500 | 5769250 | 110652 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110652 | Murdeduke | | | |
| 845 | 110654 | 1/7/1992 | 5/18/2002 | 122 | 760600 | 5769300 | 110654 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110654 | Murdeduke | | | |
| 846 | 110656 | 3/11/1992 | 5/19/2002 | 58 | 749430 | 5801873 | 110656 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 847 | 110657 | 3/11/1992 | 5/19/2002 | 59 | 749430 | 5801870 | 110657 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 848 | 110700 | 1/7/1992 | 5/18/2002 | 62 | 758400 | 5771200 | 110700 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110700 | Murdeduke | | | |
| 849 | 110702 | 1/7/1992 | 5/18/2002 | 62 | 758080 | 5769300 | 110702 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110702 | Murdeduke | | | |
| 850 | 110703 | 1/7/1992 | 5/18/2002 | 62 | 756950 | 5769500 | 110703 | GFS_1 | Quaternary sediments | Local | | 110703 | Murdeduke | | | |
| 851 | 110704 | 1/7/1992 | 5/18/2002 | 61 | 759400 | 5773950 | 110704 | GFS_1 | Quaternary sediments | Local | | 110704 | Murdeduke | | | |
| 852 | 110705 | 1/7/1992 | 5/18/2002 | 122 | 760800 | 5771500 | 110705 | GFS_2 | Scoria cones and stony rises | Local | | 110705 | Murdeduke | | | |
| 853 | 110706 | 1/7/1992 | 5/18/2002 | 122 | 760800 | 5771502 | 110706 | GFS_2 | Scoria cones and stony rises | Local | | 110706 | Murdeduke | | | |
| 854 | 110707 | 1/7/1992 | 5/18/2002 | 122 | 762002 | 5773600 | 110707 | GFS_2 | Scoria cones and stony rises | Local | | 110707 | Murdeduke | | | |
| 855 | 110708 | 1/7/1992 | 5/18/2002 | 122 | 762000 | 5773600 | 110708 | GFS_2 | Scoria cones and stony rises | Local | | 110708 | Murdeduke | | | |
| 856 | 110709 | 1/7/1992 | 5/18/2002 | 120 | 761000 | 5764700 | 110709 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110709 | Murdeduke | | | |
| 857 | 110737 | 1/8/1980 | 8/5/2002 | 167 | 725650 | 5732800 | 110737 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 858 | 110979 | 1/7/1992 | 5/18/2002 | 62 | 758400 | 5771202 | 110979 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 110979 | Murdeduke | | | |
| 859 | 110984 | 5/29/1992 | 12/2/2002 | 78 | 711901 | 5766201 | 110984 | GFS_2 | Scoria cones and stony rises | Local | | 110984 | Corangamite | 110984 | Warrion | WSPA |
| 860 | 110985 | 5/29/1992 | 12/2/2002 | 78 | 711900 | 5766200 | 110985 | GFS_2 | Scoria cones and stony rises | Local | | 110985 | Corangamite | 110985 | Warrion | WSPA |
| 861 | 110986 | 5/29/1992 | 5/21/2002 | 53 | 710450 | 5776600 | 110986 | GFS_10 | Pliocene sands | Intermediate | Local | 110986 | Corangamite | | | |

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 862 | 111229 | 6/18/1992 | 12/2/2002 | 49 | 703650 | 5767400 | 111229 | GFS_2 | Scoria cones and stony rises | Local | | 111229 | Corangamite | | | |
| 863 | 111230 | 6/18/1992 | 12/2/2002 | 47 | 706952 | 5758700 | 111230 | GFS_2 | Scoria cones and stony rises | Local | | 111230 | Corangamite | | | |
| 864 | 111231 | 6/18/1992 | 12/2/2002 | 47 | 706950 | 5758700 | 111231 | GFS_2 | Scoria cones and stony rises | Local | | 111231 | Corangamite | | | |
| 865 | 111232 | 1/7/1992 | 5/18/2002 | 122 | 762100 | 5773200 | 111232 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 111232 | Murdeduke | | | |
| 866 | 111233 | 1/7/1992 | 5/18/2002 | 124 | 762930 | 5769589 | 111233 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 867 | 111234 | 1/7/1992 | 5/18/2002 | 124 | 762930 | 5769591 | 111234 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 868 | 111235 | 1/7/1992 | 5/18/2002 | 120 | 762855 | 5766888 | 111235 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 111235 | Murdeduke | | | |
| 869 | 111236 | 1/7/1992 | 5/18/2002 | 120 | 762857 | 5766888 | 111236 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 111236 | Murdeduke | | | |
| 870 | 111786 | 8/13/1991 | 5/18/2002 | 60 | 746700 | 5771350 | 111786 | GFS_2 | Scoria cones and stony rises | Local | | | | | | |
| 871 | 111787 | 4/10/1991 | 5/18/2002 | 61 | 746700 | 5771300 | 111787 | GFS_2 | Scoria cones and stony rises | Local | | | | | | |
| 872 | 112239 | 3/11/1992 | 5/18/2002 | 55 | 745875 | 5799320 | 112239 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 873 | 112240 | 2/9/1992 | 5/19/2002 | 55 | 755600 | 5802250 | 112240 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 874 | 112241 | 2/9/1992 | 5/19/2002 | 55 | 755600 | 5802250 | 112241 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 875 | 113002 | 6/10/1993 | 8/30/1993 | 2 | 766023 | 5749345 | 113002 | GFS_17 | Dilwyn Formation | Regional | | | | 113002 | Jan Juc | GMA |
| 876 | 113003 | 6/10/1993 | 8/30/1993 | 2 | 766707 | 5743688 | 113003 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 877 | 113004 | 6/10/1993 | 5/22/2002 | 77 | 768937 | 5752854 | 113004 | GFS_10 | Pliocene sands | Intermediate | Local | | | 113004 | Jan Juc | GMA |
| 878 | 113171 | 1/7/1992 | 3/2/1996 | 33 | 758500 | 5768850 | 113171 | GFS_1 | Quaternary sediments | Local | | 113171 | Murdeduke | | | |
| 879 | 113172 | 1/7/1992 | 3/2/1996 | 32 | 758100 | 5768450 | | | | | | 113172 | Murdeduke | | | |
| 880 | 113466 | 1/21/1993 | 5/20/2002 | 49 | 688550 | 5723500 | 113466 | GFS_17 | Dilwyn Formation | Regional | | | | 113466 | Paaratte | GMA |
| 881 | 113467 | 2/23/1993 | 5/20/2002 | 48 | 688750 | 5723450 | 113467 | GFS_10 | Pliocene sands | Intermediate | Local | | | 113467 | Paaratte | GMA |
| 882 | 113468 | 1/22/1993 | 12/2/2002 | 49 | 709200 | 5736050 | 113468 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 883 | 113470 | 6/10/1993 | 5/22/2002 | 75 | 770790 | 5747754 | 113470 | GFS_10 | Pliocene sands | Intermediate | Local | | | 113470 | Jan Juc | GMA |
| 884 | 113471 | 1/2/1980 | 3/2/1996 | 171 | 750950 | 5769200 | | | | | | 113471 | Murdeduke | | | |
| 885 | 113705 | 1/7/1993 | 7/5/2002 | 48 | 726150 | 5742780 | 113705 | GFS_17 | Dilwyn Formation | Regional | | | | 113705 | Gellibrand | GMA |
| 886 | 113706 | 1/7/1993 | 7/5/2002 | 48 | 726150 | 5742780 | 113706 | GFS_17 | Dilwyn Formation | Regional | | | | 113706 | Gellibrand | GMA |
| 887 | 113707 | 1/7/1993 | 7/5/2002 | 50 | 727900 | 5741325 | 113707 | GFS_17 | Dilwyn Formation | Regional | | | | 113707 | Gellibrand | GMA |
| 888 | 114147 | 1/7/1993 | 8/6/1993 | 4 | 731300 | 5734200 | 114147 | GFS_17 | Dilwyn Formation | Regional | | | | 114147 | Gellibrand | GMA |
| 889 | 114150 | 1/7/1993 | 8/6/1993 | 4 | 732975 | 5734675 | 114150 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 890 | 114151 | 1/7/1993 | 7/5/2002 | 41 | 732000 | 5734800 | 114151 | GFS_17 | Dilwyn Formation | Regional | | | | | | |
| 891 | 114163 | 1/7/1993 | 2/21/1994 | 9 | 728380 | 5740100 | 114163 | GFS_17 | Dilwyn Formation | Regional | | | | 114163 | Gellibrand | GMA |
| 892 | 114164 | 1/7/1993 | 7/5/2002 | 49 | 730630 | 5740460 | 114164 | GFS_5 | Gerangamete marls | Local | | | | 114164 | Gerangamete | GMA |
| 893 | 114165 | 1/7/1993 | 7/5/2002 | 49 | 730630 | 5740460 | 114165 | GFS_5 | Gerangamete marls | Local | | | | 114165 | Gerangamete | GMA |
| 894 | 114166 | 1/7/1993 | 7/5/2002 | 48 | 730550 | 5742675 | 114166 | GFS_17 | Dilwyn Formation | Regional | | | | 114166 | Gerangamete | GMA |
| 895 | 114167 | 1/7/1993 | 7/5/2002 | 48 | 727060 | 5745000 | 114167 | GFS_17 | Dilwyn Formation | Regional | | | | 114167 | Gerangamete | GMA |
| 896 | 114168 | 1/7/1993 | 8/5/2002 | 48 | 726650 | 5739570 | 114168 | GFS_5 | Gerangamete marls | Local | | | | 114168 | Gellibrand | GMA |
| 897 | 114169 | 1/7/1993 | 8/5/2002 | 48 | 726650 | 5739570 | 114169 | GFS_5 | Gerangamete marls | Local | | | | 114169 | Gellibrand | GMA |
| 898 | 115361 | 12/23/1996 | 12/23/1996 | 1 | 719880 | 5764960 | 115361 | GFS_2 | Scoria cones and stony rises | Local | | 115361 | Corangamite | 115361 | Warrion | WSPA |
| 899 | 115867 | 4/10/1993 | 5/22/2002 | 72 | 774896 | 5745702 | 115867 | GFS_17 | Dilwyn Formation | Regional | | | | 115867 | Jan Juc | GMA |
| 900 | 115868 | 4/10/1993 | 5/22/2002 | 76 | 773742 | 5743960 | 115868 | GFS_17 | Dilwyn Formation | Regional | | | | 115868 | Jan Juc | GMA |
| 901 | 115869 | 1/7/1993 | 5/22/2002 | 68 | 783328 | 5748116 | 115869 | GFS_10 | Pliocene sands | Intermediate | Local | | | 115869 | Jan Juc | GMA |
| 902 | 115870 | 4/10/1993 | 12/16/1997 | 3 | 775009 | 5745893 | 115870 | GFS_17 | Dilwyn Formation | Regional | | | | 115870 | Jan Juc | GMA |
| 903 | 115872 | 9/21/1993 | 5/20/2002 | 44 | 674300 | 5739820 | 115872 | GFS_4 | Heytesbury marl | Local | | | | 115872 | Paaratte | GMA |
| 904 | 115873 | 4/10/1993 | 5/22/2002 | 76 | 776678 | 5751013 | 115873 | GFS_10 | Pliocene sands | Intermediate | Local | | | 115873 | Jan Juc | GMA |
| 905 | 116043 | 6/2/1998 | 6/2/1998 | 1 | 800933 | 5770422 | 116043 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 906 | 116458 | 4/10/1993 | 5/22/2002 | 75 | 776676 | 5751016 | 116458 | GFS_10 | Pliocene sands | Intermediate | Local | | | 116458 | Jan Juc | GMA |
| 907 | 116459 | 11/26/1993 | 5/22/2002 | 70 | 774865 | 5745616 | 116459 | GFS_17 | Dilwyn Formation | Regional | | | | 116459 | Jan Juc | GMA |
| 908 | 116460 | 1/3/1994 | 5/22/2002 | 67 | 769936 | 5743831 | 116460 | GFS_10 | Pliocene sands | Intermediate | Local | | | 116460 | Jan Juc | GMA |
| 909 | | | | | | | 116489 | GFS_8 | Older volcanics | Local | Intermediate | | | | | |
| 910 | 116489 | 12/17/1993 | 8/5/2002 | 40 | 725250 | 5734000 | 116489 | GFS_17 | Dilwyn Formation | Regional | | | | 116489 | Gellibrand | GMA |
| 911 | 119329 | 10/26/1994 | 5/27/2002 | 58 | 763620 | 5838700 | 119329 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119329 | Upper West Moorabool | 119329 | Bungaree | WSPA |
| 912 | 119330 | 10/26/1994 | 5/27/2002 | 91 | 761070 | 5835120 | 119330 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119330 | Upper West Moorabool | 119330 | Bungaree | WSPA |
| 913 | 119331 | 10/26/1994 | 5/28/2002 | 92 | 767740 | 5843534 | 119331 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119331 | Upper West Moorabool | 119331 | Bungaree | WSPA |
| 914 | 119333 | 10/26/1994 | 5/27/2002 | 59 | 767613 | 5834183 | 119333 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119333 | Upper West Moorabool | | | |
| 915 | 119334 | 10/26/1994 | 5/27/2002 | 59 | 767676 | 5835782 | 119334 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119334 | Upper West Moorabool | | | |
| 916 | 119335 | 10/26/1994 | 5/27/2002 | 59 | 767698 | 5835740 | 119335 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119335 | Upper West Moorabool | | | |
| 917 | 119336 | 10/26/1994 | 5/27/2002 | 59 | 769234 | 5830692 | 119336 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119336 | Upper West Moorabool | | | |
| 918 | 119337 | 10/26/1994 | 5/27/2002 | 92 | 766836 | 5838010 | 119337 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119337 | Upper West Moorabool | 119337 | Bungaree | WSPA |
| 919 | 119338 | 10/26/1994 | 5/27/2002 | 81 | 766836 | 5838010 | 119338 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119338 | Upper West Moorabool | 119338 | Bungaree | WSPA |
| 920 | 119339 | 11/16/1994 | 5/28/2002 | 91 | 772542 | 5841052 | 119339 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119339 | Upper West Moorabool | 119339 | Bungaree | WSPA |
| 921 | 119340 | 11/16/1994 | 5/28/2002 | 79 | 772552 | 5841042 | 119340 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119340 | Upper West Moorabool | 119340 | Bungaree | WSPA |
| 922 | 119341 | 10/26/1994 | 5/28/2002 | 92 | 764250 | 5842460 | 119341 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119341 | Upper West Moorabool | 119341 | Bungaree | WSPA |
| 923 | 119347 | 2/28/1994 | 5/22/2002 | 73 | 773699 | 5750566 | 119347 | GFS_17 | Dilwyn Formation | Regional | | | | 119347 | Jan Juc | GMA |
| 924 | 119348 | 2/28/1994 | 5/22/2002 | 71 | 781321 | 5751025 | 119348 | GFS_5 | Gerangamete marls | Local | | | | 119348 | Jan Juc | GMA |
| 925 | 119349 | 1/3/1994 | 5/22/2002 | 70 | 779134 | 5744218 | 119349 | GFS_5 | Gerangamete marls | Local | | | | 119349 | Jan Juc | GMA |
| 926 | 119365 | 10/26/1994 | 5/27/2002 | 58 | 769555 | 5838057 | 119365 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119365 | Upper West Moorabool | 119365 | Bungaree | WSPA |
| 927 | 119366 | 10/26/1994 | 5/27/2002 | 59 | 770598 | 5836667 | 119366 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119366 | Upper West Moorabool | 119366 | Bungaree | WSPA |
| 928 | 119367 | 10/26/1994 | 5/27/2002 | 59 | 763400 | 5837600 | 119367 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119367 | Upper West Moorabool | 119367 | Bungaree | WSPA |
| 929 | 119368 | 10/26/1994 | 5/27/2002 | 60 | 766529 | 5833991 | 119368 | GFS_7 | Granitic rocks | Local | | 119368 | Upper West Moorabool | | | |
| 930 | 119429 | 10/26/1994 | 5/27/2002 | 91 | 770245 | 5834585 | 119429 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119429 | Upper West Moorabool | 119429 | Bungaree | WSPA |
| 931 | 119499 | 8/22/1995 | 8/22/1995 | 1 | 763580 | 5838710 | 119499 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 119499 | Upper West Moorabool | 119499 | Bungaree | WSPA |
| 932 | 121449 | 1/14/1979 | 5/24/2002 | 68 | 798079 | 5781785 | 121449 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 933 | 121450 | 1/14/1979 | 5/24/2002 | 68 | 798079 | 5781785 | 121450 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 934 | 121451 | 1/14/1979 | 5/24/2002 | 67 | 802418 | 5781896 | 121451 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | 121451 | Lara | | | |
| 935 | 121452 | 1/14/1979 | 5/24/2002 | 68 | 796004 | 5778842 | 121452 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 936 | 121453 | 1/14/1979 | 5/22/2002 | 68 | 792782 | 5775833 | 121453 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 937 | 121454 | 1/14/1979 | 5/22/2002 | 68 | 793946 | 5780028 | 121454 | GFS_14 | Volcanic plains basalt | Regional | Intermediate | | | | | |
| 938 | 121456 | 1/14/1979 | 5/24/2002 | 68 | 796869 | 5779819 | 121456 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 939 | 121457 | 1/14/1979 | 5/24/2002 | 68 | 796869 | 5779819 | 121457 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 940 | 121458 | 1/14/1979 | 5/24/2002 | 68 | 794328 | 5775873 | 121458 | GFS_10 | Pliocene sands | Intermediate | Local | | | | | |
| 941 | 121459 | 1/14/1979 | 5/24/2002 | 68 | 794446 | 5776918 | 121459 | GFS_1 | Quaternary sediments | Local | | | | | | |
| 942 | 121768 | 6/23/1994 | 5/22/2002 | 64 | 779922 | 5748054 | 121768 | GFS_10 | Pliocene sands | Intermediate | Local | | | 121768 | Jan Juc | GMA |
| 943 | 122381 | 10/26/1994 | 5/24/2002 | 92 | 742140 | 5843560 | 122381 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 944 | 122382 | 10/26/1994 | 5/24/2002 | 92 | 742140 | 5843560 | 122382 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | | | | | |
| 945 | 141241 | 11/24/2000 | 10/4/2002 | 19 | 657300 | 5738030 | 141241 | GFS_10 | Pliocene sands | Intermediate | Local | | | 141241 | Nullawarre | WSPA |
| 946 | 142660 | 11/24/2000 | 12/2/2002 | 19 | 716810 | 5759325 | 142660 | GFS_2 | Scoria cones and stony rises | Local | | 142660 | Corangamite | 142660 | Warrion | WSPA |
| 947 | 142666 | 11/24/2000 | 12/2/2002 | 19 | 720270 | 5760770 | 142666 | GFS_2 | Scoria cones and stony rises | Local | | | | 142666 | Warrion | WSPA |
| 948 | 142668 | 11/24/2000 | 12/2/2002 | 19 | 717740 | 5761215 | 142668 | GFS_2 | Scoria cones and stony rises | Local | | 142668 | Corangamite | 142668 | Warrion | WSPA |
| 949 | 142670 | 11/24/2000 | 12/2/2002 | 19 | 718270 | 5764230 | 142670 | GFS_2 | Scoria cones and stony rises | Local | | 142670 | Corangamite | 142670 | Warrion | WSPA |
| 950 | 142671 | 11/24/2000 | 12/2/2002 | 19 | 716640 | 5767160 | 142671 | GFS_2 | Scoria cones and stony rises | Local | | 142671 | Corangamite | 142671 | Warrion | WSPA |
| 951 | 142689 | 11/24/2000 | 12/2/2002 | 20 | 717630 | 5772500 | 142689 | GFS_2 | Scoria cones and stony rises | Local | | 142689 | Corangamite | 142689 | Warrion | WSPA |
| 952 | 142691 | 11/24/2000 | 12/2/2002 | 19 | 717365 | 5775820 | 142691 | GFS_2 | Scoria cones and stony rises | Local | | 142691 | Corangamite | 142691 | Warrion | WSPA |
| 953 | 142693 | 11/24/2000 | 12/2/2002 | 19 | 720285 | 5770810 | 142693 | GFS_2 | Scoria cones and stony rises | Local | | | | 142693 | Warrion | WSPA |
| 954 | 142696 | 11/24/2000 | 12/2/2002 | 20 | 724090 | 5770405 | 142696 | GFS_2 | Scoria cones and stony rises | Local | | | | 142696 | Warrion | WSPA |
| 955 | 142699 | 11/24/2000 | 12/2/2002 | 19 | 726825 | 5767290 | 142699 | GFS_2 | Scoria cones and stony rises | Local | | | | 142699 | Warrion | WSPA |
| 956 | 142702 | 11/24/2000 | 12/2/2002 | 20 | 722490 | 5767400 | 142702 | GFS_2 | Scoria cones and stony rises | Local | | | | 142702 | Warrion | WSPA |
| 957 | 142703 | 11/24/2000 | 12/2/2002 | 19 | 726150 | 5763810 | 142703 | GFS_2 | Scoria cones and stony rises | Local | | | | 142703 | Warrion | WSPA |
| 958 | 142705 | 11/24/2000 | 12/2/2002 | 19 | 726150 | 5763810 | 142705 | GFS_2 | Scoria cones and stony rises | Local | | | | 142705 | Warrion | WSPA |
| 959 | 142712 | 11/24/2000 | 12/2/2002 | 19 | 725810 | 5759885 | 142712 | GFS_2 | Scoria cones and stony rises | Local | | 142712 | Colac - Eurack | 142712 | Warrion | WSPA |
| 960 | 142714 | 11/24/2000 | 12/2/2002 | 20 | 722140 | 5765325 | 142714 | GFS_2 | Scoria cones and stony rises | Local | | | | 142714 | Warrion | WSPA |
| 961 | 142717 | 11/24/2000 | 12/2/2002 | 20 | 722140 | 5765325 | 142717 | GFS_2 | Scoria cones and stony rises | Local | | | | 142717 | Warrion | WSPA |
| 962 | 142720 | 11/24/2000 | 12/2/2002 | 20 | 722140 | 5765325 | 142720 | GFS_2 | Scoria cones and stony rises | Local | | | | 142720 | Warrion | WSPA |
| 963 | 144991 | 6/27/2001 | 5/28/2002 | 12 | 770662 | 5843903 | 144991 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 144991 | Upper West Moorabool | 144991 | Bungaree | WSPA |
| 964 | 144992 | 6/27/2001 | 5/28/2002 | 12 | 770665 | 5843902 | 144992 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 144992 | Upper West Moorabool | 144992 | Bungaree | WSPA |
| 965 | 144993 | 6/27/2001 | 5/28/2002 | 12 | 770670 | 5843900 | 144993 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 144993 | Upper West Moorabool | 144993 | Bungaree | WSPA |
| 966 | 144994 | 6/27/2001 | 5/28/2002 | 12 | 767387 | 5841484 | 144994 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 144994 | Upper West Moorabool | 144994 | Bungaree | WSPA |
| 967 | 144995 | 6/27/2001 | 5/28/2002 | 12 | 767386 | 5841480 | 144995 | GFS_13 | Central Highlands volcanics | Intermediate | Regional | 144995 | Upper West Moorabool | 144995 | Bungaree | WSPA |

# Appendix G Bore decommissioning notes

The following groundwater notes are taken from the DSE web site: www.dse.vic.gov.au