

Numerical Analysis of Floristic Data in Mt Gibson Area

Prepared for
ATA Environmental

by
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December 2005

INTRODUCTION

1.1 Purpose of this report

This report presents the results and brief presentation of floristic analyses carried out to provide a sub-regional overview of the floristic variation present in the vegetation of in the vicinity of Mt Gibson provided by ATA Environmental. This was part of an environmental assessment of the impacts of the proposed Mt Gibson Iron Ore Project

The results of the analysis are interpreted to provide a sub-regional overview of the significance of the vegetation types present in the Mt Gibson survey area.

The significance of the potential disturbance on floristic communities at Mt Gibson as a result of the proposed project mining operation is discussed.

An attempt was made to interpret the nature of the main plant communities in the vicinity of the proposed mining operation.

1.2 Levels of classification provided

While a classification of the site data was a fundamental part of the analysis, the levels of the groups in the classification may not be consistent with the field based plant community concept. Some groups defined in this report are largely abstract, but are significant for the purpose of the analysis.

It is not possible in the scope of this report to define the classification levels closely, but the 28 and 40 group levels would be a similar level of synthesis to the vegetation association level (although based only on floristics, not on a combination of structure and floristics) and the 10 group level would be similar to (or a bit lower than) the vegetation formation level (although only on floristics, not only on structure).

Based on the classification, an interpretation of the composition of the main communities in the vicinity of the proposed operations.

1.2 Location

The data used in the analyses are from survey areas roughly in the South West Interzone in, or northeast of Mt Gibson.

The proposed mine covers the extent of the area referred to as Extension Hill in this report.

1.3 Data provided by ATA

One hundred sample points were 20m x 20m quadrats located on the ridges and side slope mainly on BIF formations.

The data were provided in a spreadsheet as present and absence. Each site had co-ordinates and had been allocated to a geographic group. No vegetation or site description was provided but the more abundant species had been assigned a % cover. A ranking of condition of the site (0 → 3 with 0 being best) was also provided as was the location co-ordinates.

A table was provided which attempted to define the species that were either perennials or geophytes.

Digital photos of each site were provided.

2.0 METHODS

2.1 Data Preparation

In consultation with the Department of Conservation and Land Management (CALM), ATA Environmental conducted a spring survey in 2005 of a hundred (100) 20m x 20m permanent quadrats located on Banded Iron Formation (BIF) in the Mt Gibson lease area and within a 20km radius of the area. Floristic data collected included species, percentage foliage cover and vegetation condition was collected from each quadrat. This data was imported into the Microsoft Access database. All relevant data used for preparing the analysis and the products of the PATN analyses were incorporated into that database. The queries used to carry out the analysis are also incorporated into this database.

After the analysis leading to conclusions about the sub-regional patterns, it became obvious that there were two data entry errors in the names used in the classification. As it was feared that as one of these appeared to be a distinguishing taxon for a major division in the classification, the required changes were made, analysis run on all species from all sites and consequences reviewed.

The consequences had no bearing on the classification of sites outside of the Mt Gibson study area and very little within (Appendix 2). It was concluded that the interpretation prepared to that point on subregional significance would be unaffected and the results that had been prepared would be used. The results presented for the Mt Gibson area is that from the re-evaluation.

2.2 Comparisons Made

The data assembled were run as two dataset with the species being considered as either presence or absent from a site. This presence absence format has been proven appropriate for assessing the regional nature of the variation in site composition of quadrat data in studies such as in the south-western Australia and the Pilbara bioregion data. Data including the cover of species at sites tends to be more useful when analysing datasets from smaller areas but has to be treated with caution.

A subset dataset that only included perennials or geophytes was also used.

All 100 sites were used in all analyses, even those considered to have been disturbed. (The level of disturbance was at worst moderate.) Preliminary analysis had suggested that disturbed sites would tend to group with each other and it was concluded that their elimination would not significantly improve the understanding of the dataset. Disturbance is a continuum and to some degree eliminating sites by use of the condition score is to some degree arbitrary and often can not identify areas that were once disturbed and have recovered to a different composition. Being able to identify those sites that are considered disturbed is a more robust way of understanding the issues.

2.3 Numerical Analyses analyses carried out

Several modules of the numerical classification package PATN (Belbin 1987) were used for the analyses. PATN's default parameter settings were used in all analyses. The PATN modules used were ASO (calculation of similarity matrix), FUSE (classification), DEND (representation of classification) and SSH (a form of ordination to display relationship of sites to the whole dataset).

For each dataset the modules were run twice;

- first with the sites as the classified objects (ie the species as the attributes), and
- then with the species as the classified objects (ie the sites as the attributes).

In this way both site and species groups were generated. The whole data matrix can then be presented with the rows being ordered by the species groupings and the columns ordered by the site groupings. This provides a way of inspecting how well the data conform with the classifications. Most of the interpretation is made from the classification of sites. The species groups are used to support the interpretations more than to identify species that may be expected to occur in similar habitats.

The dendrogram represents the way the classified rows (sites or species) fuse. This can be used to construct groups of rows by "cutting" at a particular value or cutting to obtain a particular number of groups. For the purpose of this study, two "cuts" were made for each of the sites to form "10 group", "28 group" and "40 group" classifications and for the species to form "20 group", and "80 group" classifications. While these are arbitrary, they provide an opportunity to make interpretations of the nature of the classification.

In addition to the classifications described above, an ordination of the site and species data was carried out using the SSH (semi-strong hybrid multi-dimensional scaling) module of the PATN package (Belbin 1987). This was performed to diagrammatically present some of the relationships between sites.

Commonly, there is too much variation in the datasets to allow useful interpretations to be made using this technique. Interpretation from the preliminary analysis suggested that in this case it is to some degree useful.

2.4 Summaries made

The PATN results were imported into the Access database where it was joined and summarised with Access queries. Key portions were exported to Excel in which charts of geographic distribution and ordination were constructed.

3.0 LIMITATIONS

The results are a presentation of views of the data provided which is the responsibility of others. While some feedback on the data quality was considered and corrected by ATA, no comprehensive QA of the data was undertaken as part of this analysis.

Experience with other data sets shows that the quality of field observation (eg experience and effort) can have a significant influence on the classification.

Therefore, it is asserted that any misinterpretations that may be made are likely to be principally data quality rather than analysis deficiencies.

The classifications have been prepared primarily to provide a basis for interpreting subregional variation in site floristic composition. The composition of groups defined by these analyses should only be interpreted as a suggestion what real communities might contain. Suggestions made about the differences between communities should be validated by other observations, preferably in the field.

4.0 RESULTS

As the principal objective of the analysis was to provide the basis for sub-regional comparison, the results will be presented to give prominence to that. Appendix 1 lists the interpretations presented. These interpretations include dendrograms representing the clustering of the sites, site by species matrix which assists in the understanding of the classification, scatter plots which show distribution of sites in geographic space as well as ordination space. More interpretations can be made using the Mt Gibson database.

The classification of the "all species" data set is reasonably similar to that using only "perennials and geophytes" (Table 1 - Group 10 level, Table 2 - Group 40 level).

These suggest that the datasets produce quite similar classifications and interpretations might be taken from either. For this study it was decided to use all species.

Table 1 Comparison of 10 group level classification all species (rows) with perennials and geophytes (columns) (Values are number of sites.)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|----|----|---|---|---|---|---|---|---|----|
| 1 | 34 | | | | | | | | | |
| 2 | | 23 | | | | | | | | |
| 3 | | | 4 | | | | | | | |
| 4 | | | | 2 | | | | | | |
| 5 | | | 2 | | | | 5 | 3 | | |
| 6 | | | | | | | | 5 | | |
| 7 | | | | | | | | | 3 | |
| 8 | | | | | 2 | 1 | | | | |
| 9 | | | | | | | | | | 5 |
| 10 | | | | 2 | 1 | | 1 | | | 7 |

Sub-regional Geographic Context

Geography appears to have a strong influence on the classification with many of the groups being confined to one or a few geographic areas (All species 10 group level Table 3, Perennial and geophyte species 10 group level Table 4, 40 group level Table 5, Figure 1). This holds well for the 10 group level for both classifications but also to a significant degree for the 40 group level too, (Figure 5).

Table 3 Geographic area by 10 group classification (All species)
(areas in bold are Mt Gibson area)

| area | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------------------|----|---|---|---|---|---|---|---|---|----|
| 1 Extension Hill | 15 | 9 | | | | | | | | |
| 2 Iron Hill North | 10 | 3 | | | | | | | | |
| 3 Iron Hill | 3 | 4 | 2 | | | | | | | |
| 4 Iron Hill East | 1 | 2 | | | | | | | | |
| 5 Mt Gibson North | 5 | 3 | | | | | | | | |
| 6 Mt Gibson South | | 1 | 2 | | | | | | | |
| 7 Vermin Fence | | 1 | | | | | 1 | | | |
| 8 Taylor Well | | | | | 2 | | | | | |
| 9 East GNH | | | | | 4 | | | | | |
| 10 Mt Singleton | | | | | | | | | 5 | 7 |
| 11 Coonigal Well | | | | | | | | | | 2 |
| 12 SW Mt Singleton | | | | | | | | 3 | | |
| 13 Well (ruin) E | | | | 2 | | | 2 | | | 2 |
| 14 Extension Hill Vermin Fence | | | | | 1 | | | | | |
| 15 East Extension Hill | | | | | 3 | 2 | | | | |
| 16 Yandhanoo Hill | | | | | | 3 | | | | |

Table 4 Geographic area by 10 group classification (Perennials and Geophytes)
(areas in bold are Mt Gibson area)

| name | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------------------|----|---|---|---|---|---|---|---|---|----|
| 1 Extension Hill | 15 | 9 | | | | | | | | |
| 2 Iron Hill North | 10 | 3 | | | | | | | | |
| 3 Iron Hill | 3 | 4 | 2 | | | | | | | |
| 4 Iron Hill East | 1 | 2 | | | | | | | | |
| 5 Mt Gibson North | 5 | 3 | | | | | | | | |
| 6 Mt Gibson South | | 1 | 2 | | | | | | | |
| 7 Vermin Fence | | 1 | | | | | | | 1 | |
| 8 Taylor Well | | | 2 | | | | | | | |
| 9 East GNH | | | | | | | 1 | 3 | | |
| 10 Mt Singleton | | | | | 1 | | | | | 11 |
| 11 Coonigal Well | | | | | | | 1 | | | 1 |
| 12 SW Mt Singleton | | | | | 2 | 1 | | | | |
| 13 Well (ruin) E | | | | 4 | | | | | 2 | |
| 14 Extension Hill Vermin Fence | | | | | | | 1 | | | |
| 15 East Extension Hill | | | | | | | 3 | 2 | | |
| 16 Yandhanoo Hill | | | | | | | | 3 | | |

Table 5a Geographic area by 40 group classification (All species)

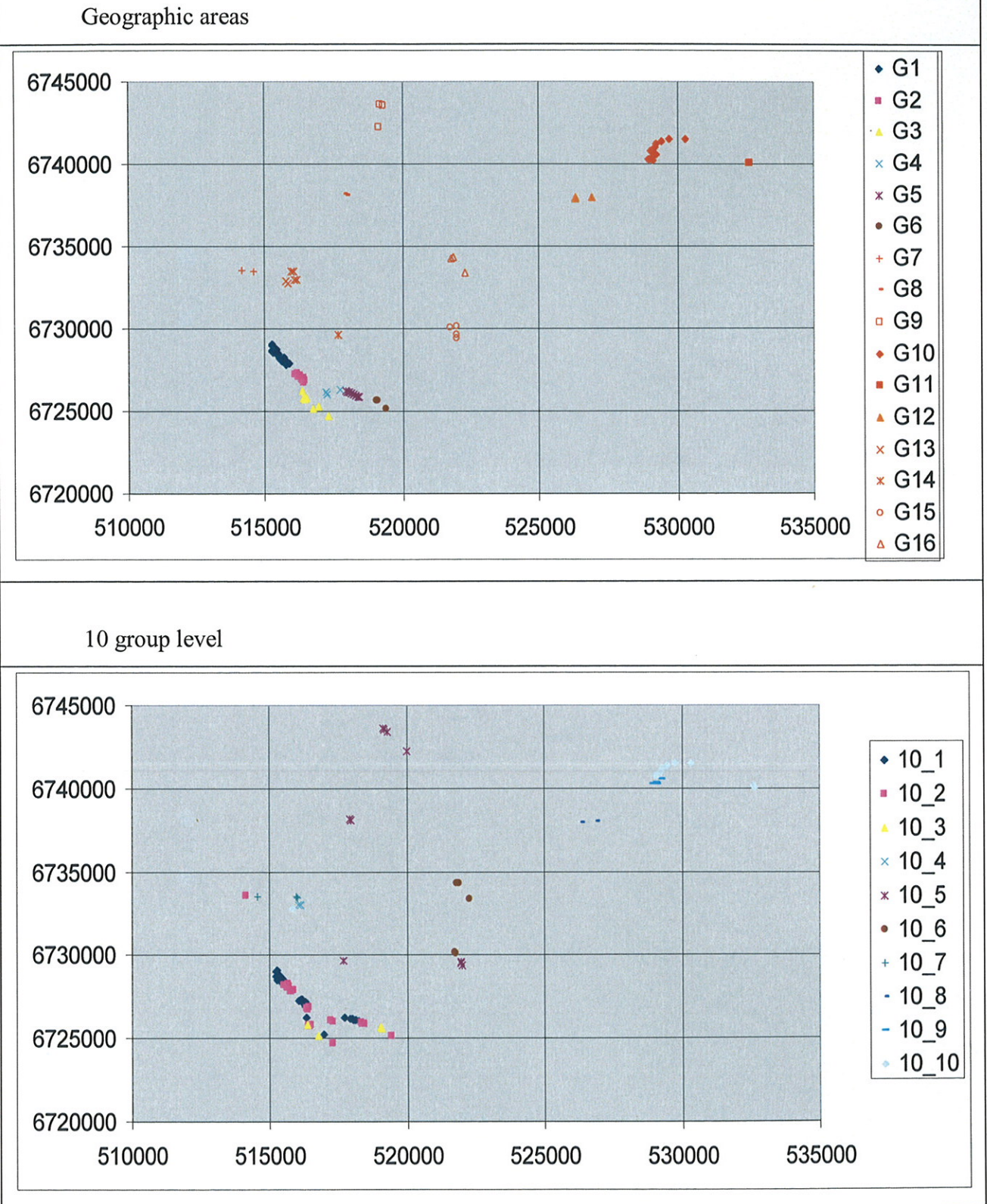
| area | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|
| 1 Extension Hill | 1 | 1 | | | | | | | | |
| 2 Iron Hill North | 2 | 3 | 1 | | | | | | | |
| 3 Iron Hill | 7 | 3 | | | | | | | | |
| 4 Iron Hill East | 2 | 1 | 1 | | | | | | | |
| 5 Mt Gibson North | 1 | | 1 | | | | | | | |
| 6 Mt Gibson South | 3 | 2 | 3 | | | | | | | |
| 7 Vermin Fence | 3 | 2 | 1 | 2 | | | 1 | | | |
| 8 Taylor Well | | | | | 2 | | | | | |
| 9 East GNH | | | | | 3 | 1 | | | | |
| 10 Mt Singleton | | | | | | | | | 5 | 1 |
| 11 Coonigal Well | | | | | | | | | 2 | 3 |
| 12 SW Mt Singleton | | | | | | | | 1 | 2 | 1 |
| 13 Well (ruin) E | | | | 1 | 1 | | 2 | | | |
| 14 Extension Hill Vermin Fence | | | | | | 1 | | | | |
| 15 East Extension Hill | | | | | 3 | 2 | | | | |
| 16 Yandhanoo Hill | | | | | | 2 | 1 | | | |

Table 5b Geographic area by 40 group classification (perennials and geophytes)

| area | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|
| 1 Extension Hill | 1 | 2 | | | | | | | | |
| 2 Iron Hill North | 1 | 3 | 1 | | | | | | | |
| 3 Iron Hill | 1 | 1 | 2 | | | | | | | |
| 4 Iron Hill East | 1 | 1 | 1 | | | | | | | |
| 5 Mt Gibson North | 1 | | 3 | | | | | | | |
| 6 Mt Gibson South | 5 | | 4 | 2 | | | | | | |
| 7 Vermin Fence | | | | | | | | | 1 | |
| 8 Taylor Well | | | | | | | | | | |
| 9 East GNH | | | | | 1 | | | | | |
| 10 Mt Singleton | | | | | | | | | | |
| 11 Coonigal Well | | | | | | | | | | |
| 12 SW Mt Singleton | | | | | | | | | | |
| 13 Well (ruin) E | | | | 1 | 2 | 1 | | | | |
| 14 Extension Hill Vermin Fence | | | | | | | | | | |
| 15 East Extension Hill | | | | | | | | | | |
| 16 Yandhanoo Hill | | | | | | | | | | |

Significantly, the Mt Gibson area largely contains groups largely absent from other areas.

Figure 1 Geographic distribution of 10 group classification



Site conditions appears to have a modest relationship with the group classification (Tables 6 and 7). In particular, there is a significant difference between group 10 level group 1 and the rest of the sites. It should be borne in mind that the simple condition score did not distinguish between areas with a small proportion of intensive disturbance (eg a drilling track) from large proportion of a low level disturbance (eg mild grazing or burning). Never-the-less, the Mt Gibson area is in relatively good condition according to these scores.

Table 6 Group 10 level by Site condition score

| gp10 | 0 | 1 | 2 | 3 |
|------|----|----|---|---|
| 1 | 34 | | | |
| 2 | 5 | 9 | 8 | 1 |
| 3 | 3 | 1 | | |
| 4 | | 2 | | |
| 5 | 2 | 8 | | |
| 6 | | 4 | 1 | |
| 7 | | 1 | 2 | |
| 8 | | | | 3 |
| 9 | | | 3 | 2 |
| 10 | 1 | 10 | | |

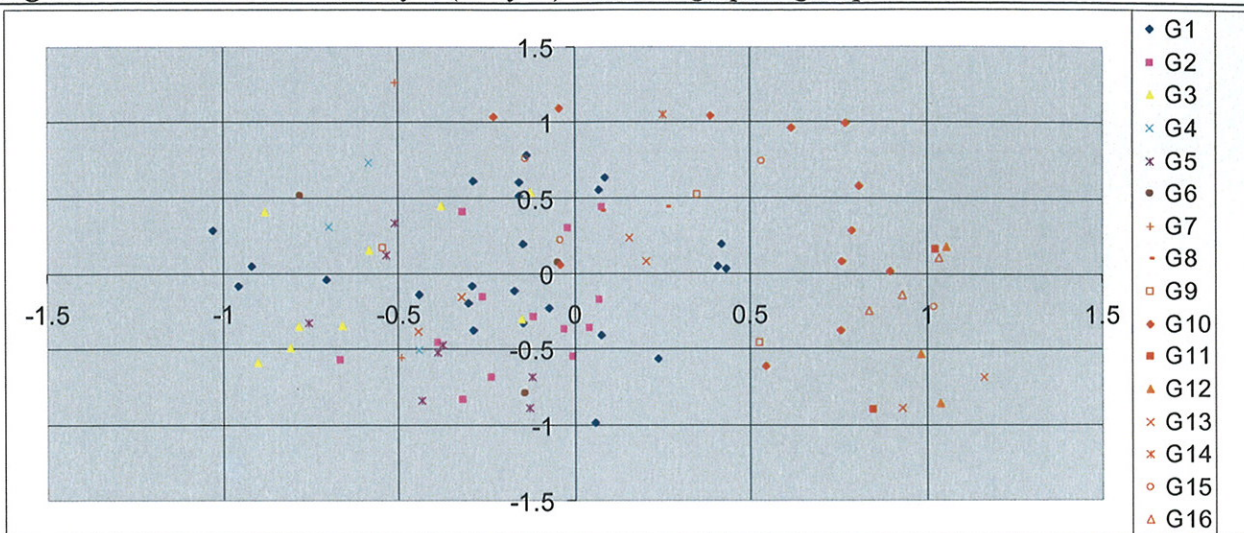
Table 7 Group 40 level by Site condition score

| gp10 | gp40 | 0 | 1 | 2 | 3 |
|------|------|---|---|---|---|
| 1 | 1 | 2 | | | |
| 1 | 2 | 1 | | | |
| 1 | 3 | 7 | | | |
| 1 | 4 | 9 | | | |
| 1 | 5 | 3 | | | |
| 1 | 6 | 6 | | | |
| 1 | 7 | 3 | | | |
| 1 | 8 | 1 | | | |
| 1 | 9 | 1 | | | |
| 1 | 10 | 1 | | | |
| 2 | 11 | 5 | 1 | 3 | |
| 2 | 12 | | | 1 | |
| 2 | 13 | | 5 | 3 | 1 |
| 2 | 14 | | | 1 | |
| 2 | 15 | | 1 | | |
| 2 | 16 | | 1 | | |
| 2 | 17 | | 1 | | |
| 3 | 18 | 1 | | | |
| 3 | 19 | 1 | | | |
| 3 | 20 | 1 | 1 | | |
| 4 | 21 | | 1 | | |
| 4 | 22 | | 1 | | |
| 5 | 23 | 1 | 1 | | |
| 5 | 24 | 1 | 2 | | |
| 5 | 25 | | 1 | | |
| 5 | 26 | | 3 | | |
| 5 | 27 | | 1 | | |
| 6 | 28 | | 3 | 1 | |
| 6 | 29 | | 1 | | |
| 7 | 30 | | | 1 | |
| 7 | 31 | | 1 | 1 | |
| 8 | 32 | | | | 1 |
| 8 | 33 | | | | 2 |
| 9 | 34 | | 3 | 2 | |
| 10 | 35 | | 1 | | |
| 10 | 36 | | 2 | | |
| 10 | 37 | | 3 | | |
| 10 | 38 | 1 | | | |
| 10 | 39 | | 2 | | |
| 10 | 40 | | 2 | | |

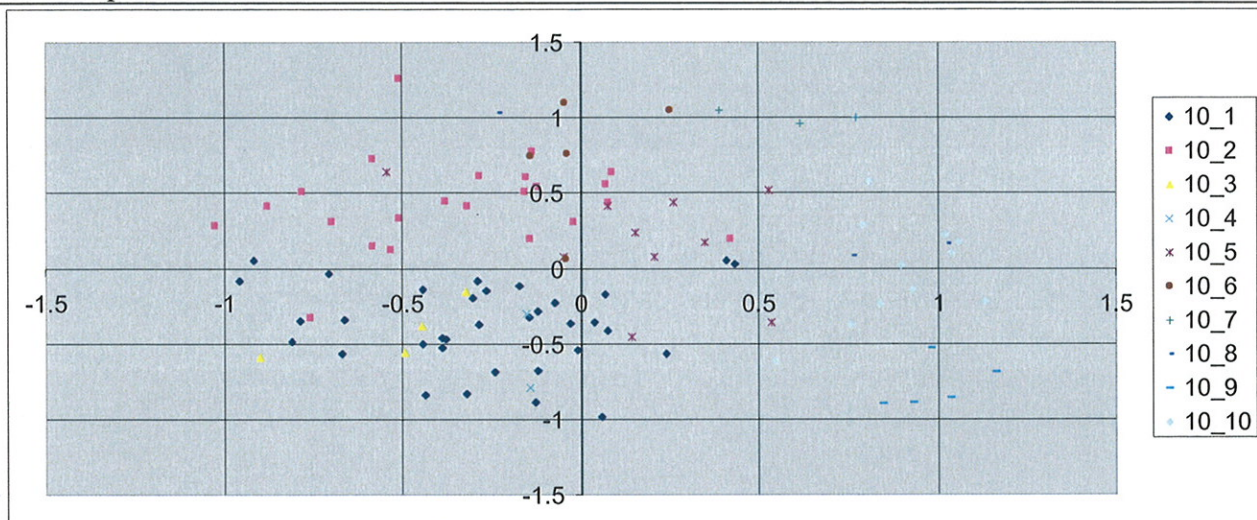
The ordination also appears to indicate that there are strong influences of geography and a lesser influence vegetation condition. The scatter plots of vector 1 on vector 2 (Figure 2) shows vector 1 separates the Mt Gibson area from the rest. Superficially, site condition appears to be significantly correlated to on vector 2. Vector 3 (not presented here) further emphasised differences between Mt Gibson and the rest.

Thus at a sub-regional scale the Mt Gibson area contains vegetation significantly different from other areas.

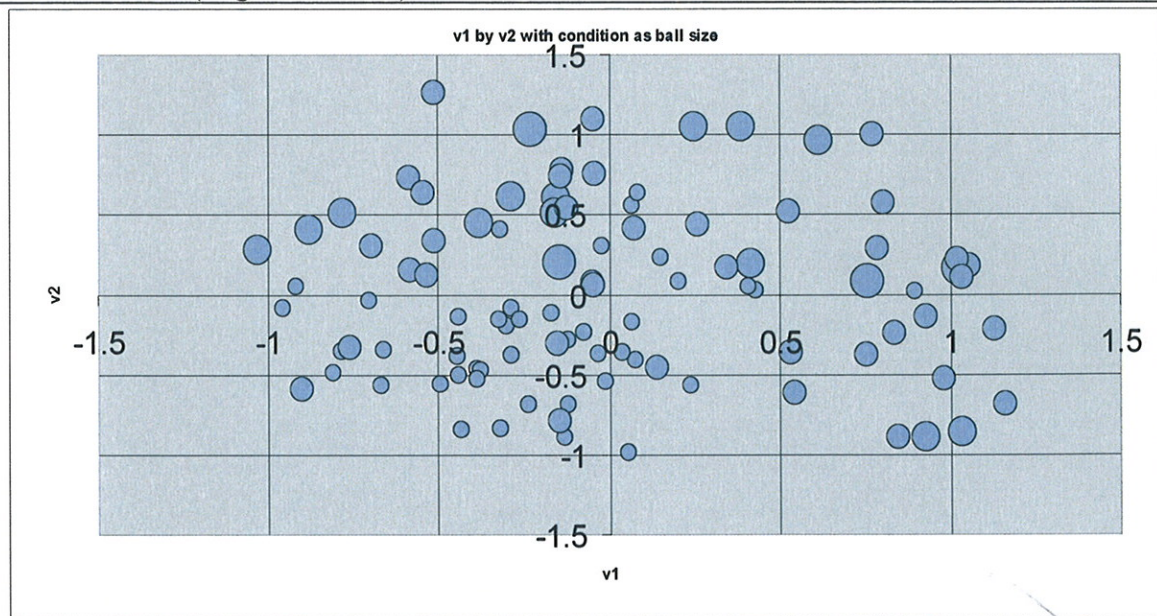
Figure 2 Ordination vectors 1 by 2 (X by Y) with Geographic group:



10 Group classification:



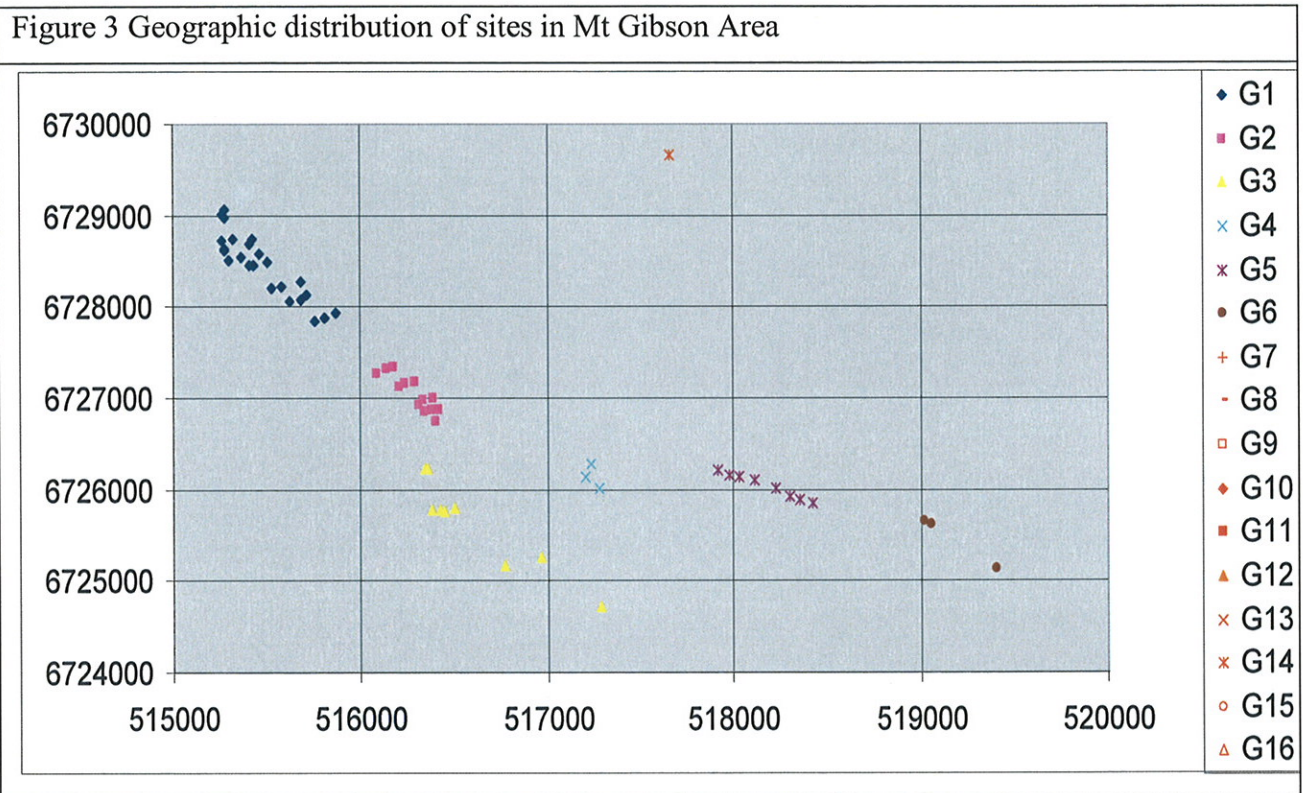
Site condition (larger are worst):



Local Geographic Context

(These results are from re analysis which is very slightly different from that presented for the sub regional interpretation.)

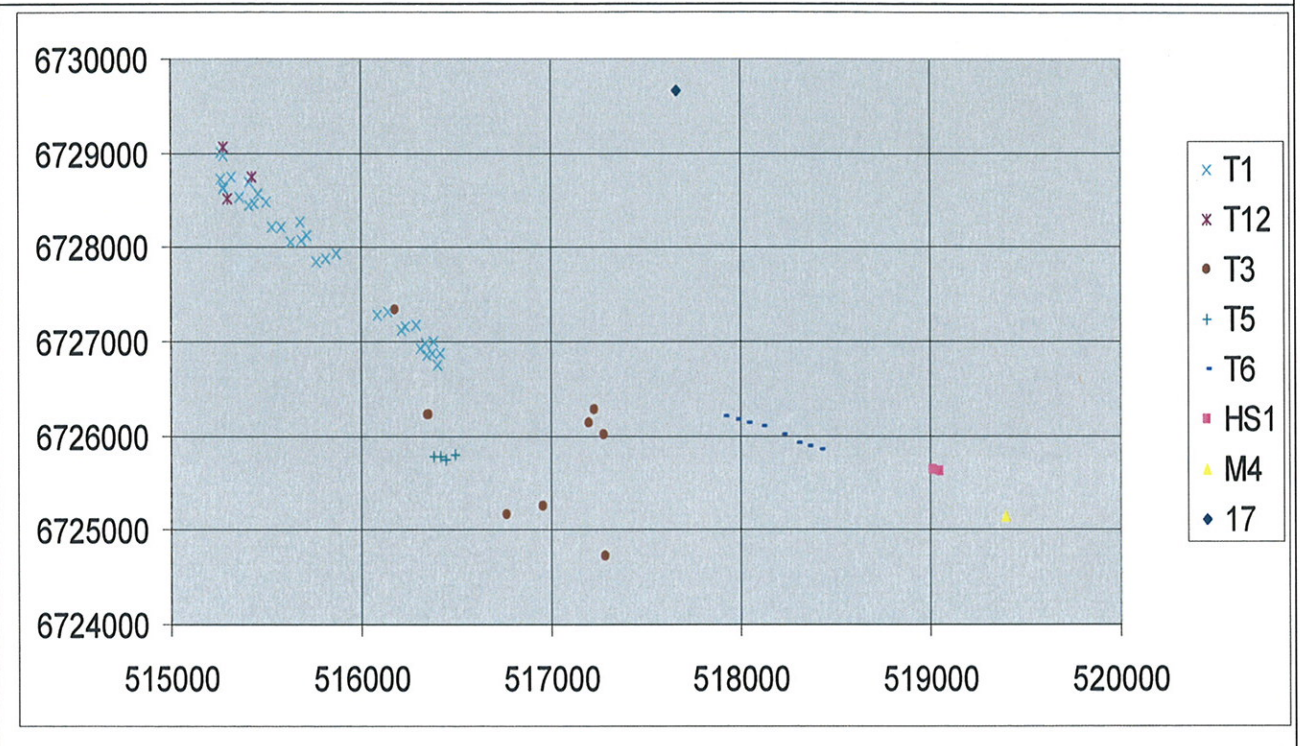
Seven geographic areas were defined within Mt Gibson for the purpose of analysis (Figure 3).



| | |
|----|-----------------|
| G1 | Extension Hill |
| G2 | Iron Hill North |
| G3 | Iron Hill |
| G4 | Iron Hill East |
| G5 | Mt Gibson North |
| G6 | Mt Gibson South |
| G7 | Vermin Fence |

The vegetation map units at the sites (Figure 4) shows strong geographic patterns. This is probably a reflection of significant variations in geology as so often occurs in the vicinity of banded iron formations. It will also be a product of the concept which the mapper mentally constructed. Because of this strong pattern, there is a strong correlation between the mapping and the geographic areas defined.

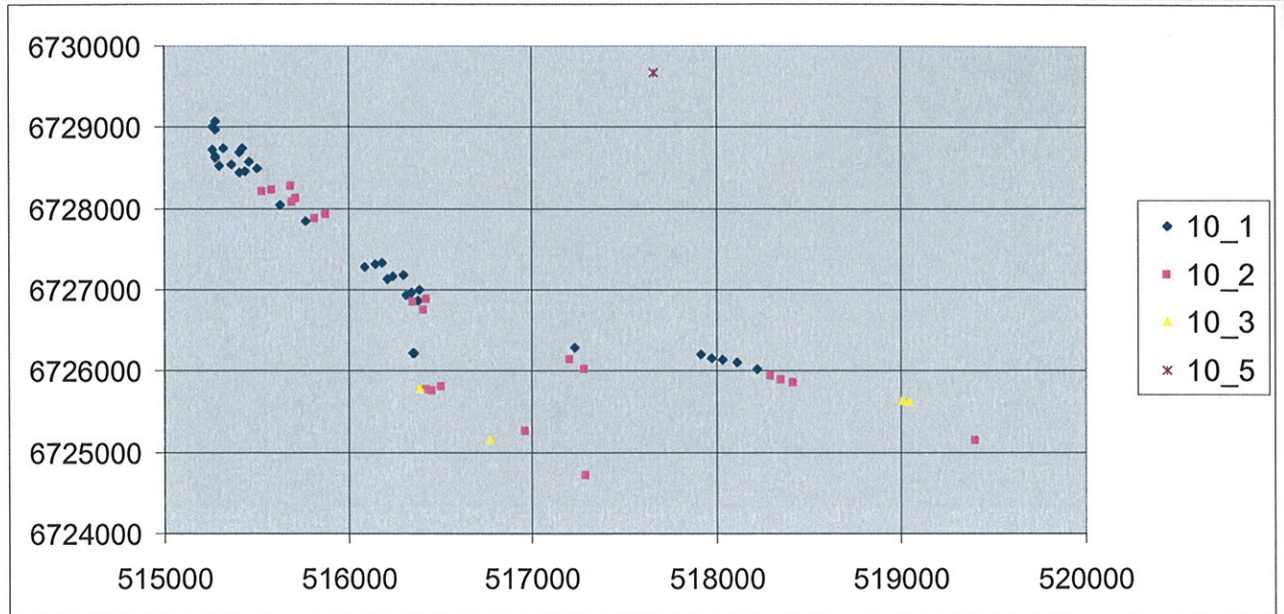
Figure 4 Vegetation Map Units at sampled sites



- T1** - ridge - Dense Thicket of mixed species dominated by *Acacia* species in jaspilite rock with pockets of loam
- T12** - sideslopes - Thicket of *Acacia ramulosa* in loam with pebbles common on the surface
- T3** - footslope - Dense thicket of *Acacia assimilis* *Allocasuarina acutivalvis* subsp. *prinsepiana* and *Melaleuca nematophylla* in loam pockets in jaspilite rocks
- T5** - ridge - Thicket of *Allocasuarina acutivalvis* subsp. *prinsepiana* and *Grevillea obliquistigma* in loam pockets in jaspilite rocks
- T6** - ridge - Thicket of *Acacia aneura* and *Acacia stowardii* in loam with abundant rocks on the surface
- HS1** - ridge - Low Heath of *Ptilotus obovatus* in loamy clay amongst large boulders
- M4** - ridge - Very Open Shrub Mallee of *Eucalyptus leptopoda* in loam
- 17** - low hill - Low Open Woodland of *Eucalyptus kochii* on clayey loamy soil

Within the Mt Gibson area, there are noticeable geographic patterns to the results of the classification. This is not so obvious at the 10 group level (Figure 5) as at the 40 group level (Figure 6).

Figure 5 Geographic distribution of 10 group classification in Mt Gibson Area
10 group level

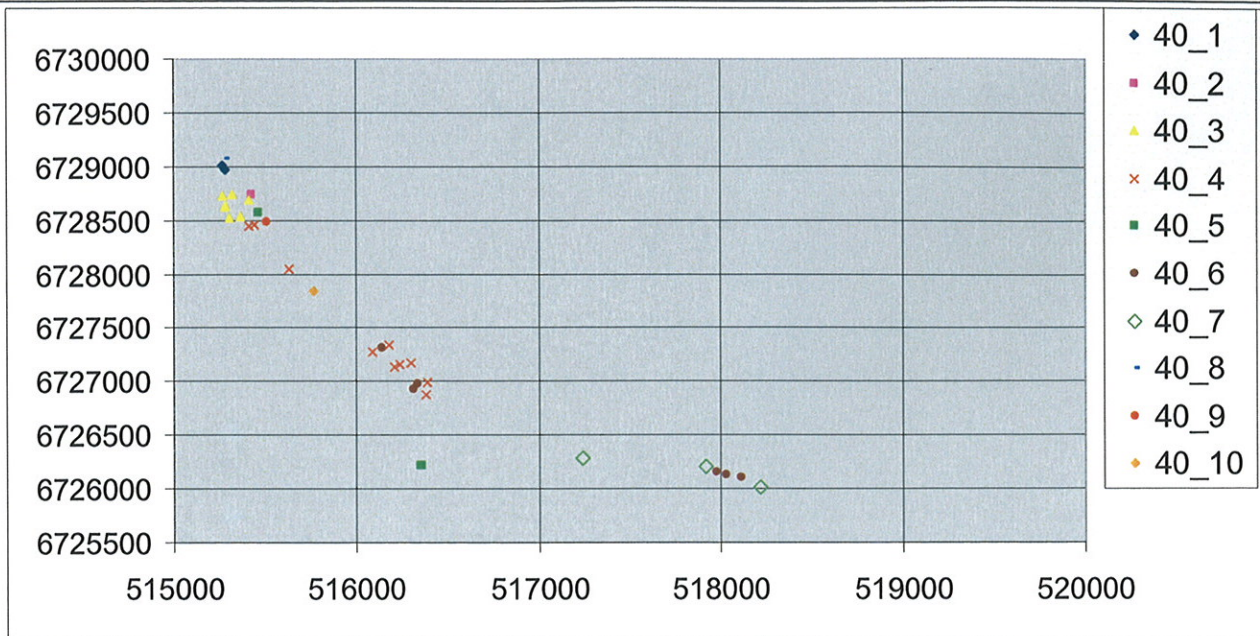


The 10 group level is considered to probably to be too abstract to represent “real communities”, ie these are likely to be aggregations of communities that as aggregates mean little other than they contain certain species in common. On the other hand, it is possible that the 40 group level could be too “detailed”. It is difficult to determine how many “real communities” are present without review in the field. Analysis for the purpose of elucidating patterns of distribution will be done using 20 of the 40 group level classification. These are summarised in Figure 6.

There are half of 40 group level groups within the Mt Gibson area (from 60 sites). Thirteen of these 20 groups (27 sites) occurred in no more than one of the geographically defined areas (Table 8). Just to exemplify the degree of localisation, seven of the 12 groups in Extension Hill occurred in none of the other areas.

Figure 6 Geographic distribution of 40 group classification in Mt Gibson Area

Those within 20 group level group 1:



Those within 20 group level group 2:

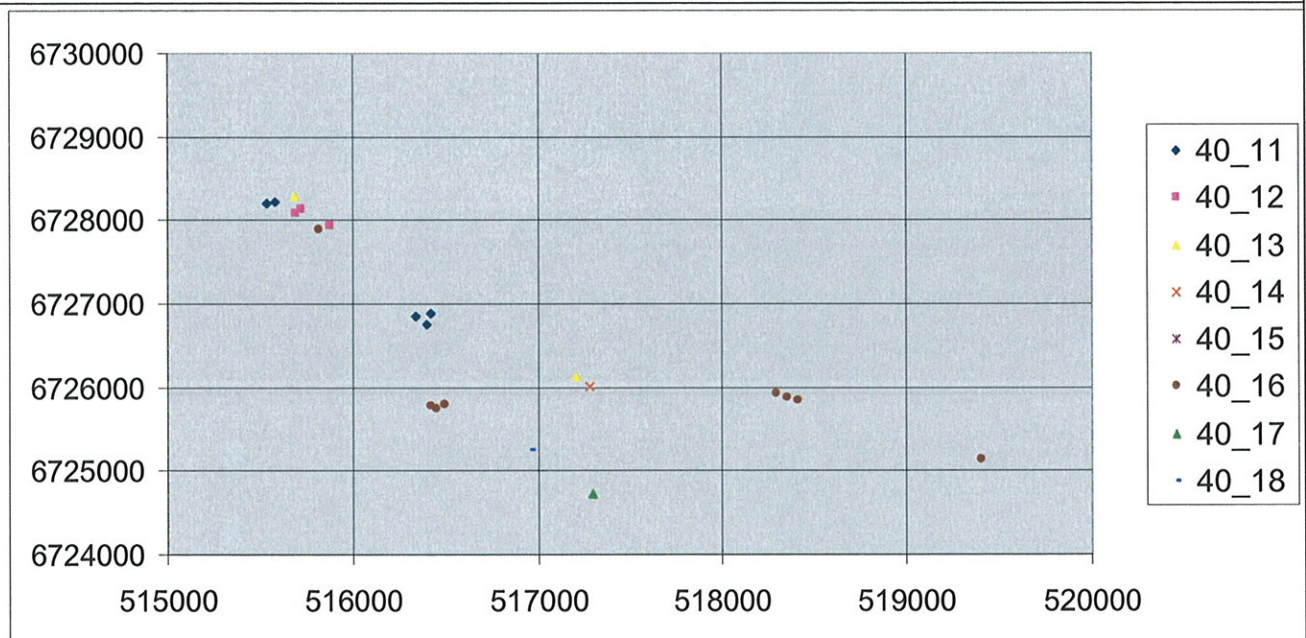


Figure 6 (continued)

Those within 20 group level group 3:

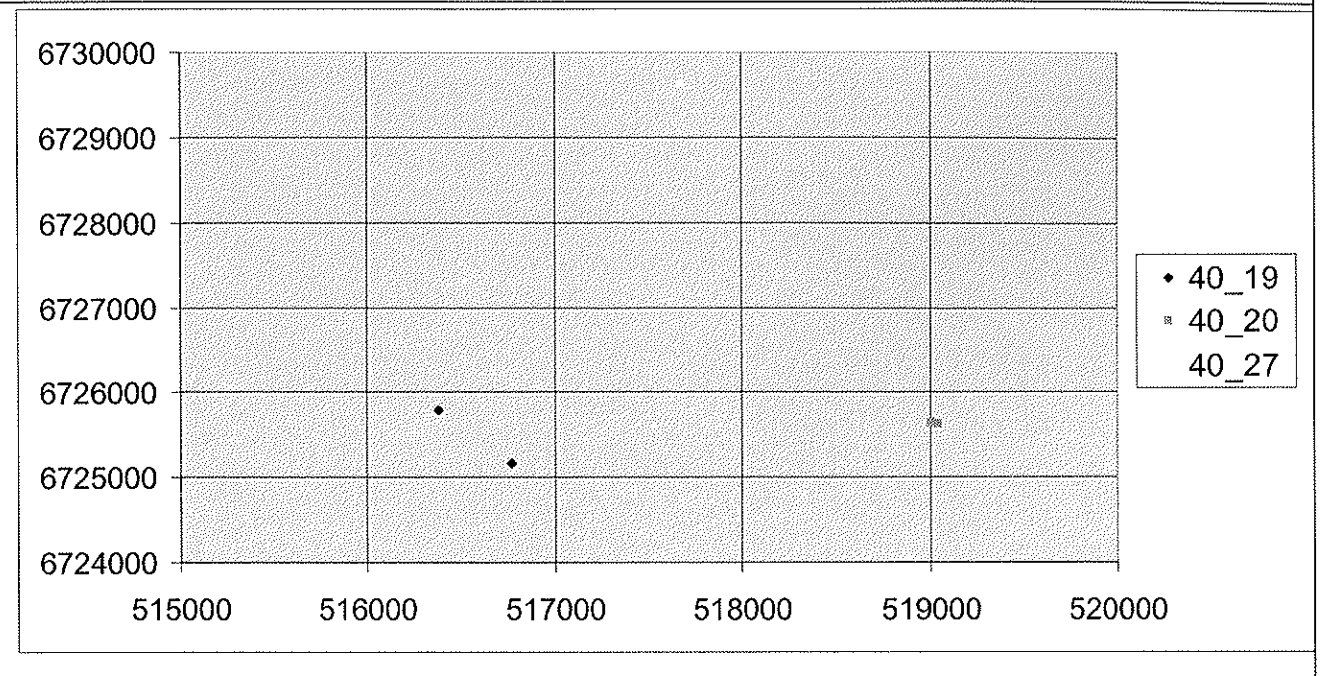


Table 8 Vegetation Map units (plus Geo Areas) by Group 10, 28 and 40 classification

| | Gp10→ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 5 | | | | |
|------------------|--------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|-----------|---------|
| | Gp28→ | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 8 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 19 | one area | # from |
| Name | Gp 40→ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 17 | 18 | 19 | 20 | 27 | only | Ex Hill |
| Extension Hill | | 2 | 1 | 7 | 3 | 1 | | | 1 | 1 | 1 | 2 | 3 | 1 | | 1 | | | | | | 7 (16/24) | - |
| Iron Hill North | | | | | 7 | | 3 | | | | | 3 | | | | | | | | | | 0 (0/13) | 2/3 |
| Iron Hill | | | | | | 2 | | | | | | | | | | | 3 | 1 | 1 | 2 | | 3 (3/8) | 2/5 |
| Iron Hill East | | | | | | | | 1 | | | | | | 1 | 1 | | | | | | | 1 (1/3) | 1/3 |
| Mt Gibson North | | | | | | | 3 | 2 | | | | | | | | | | | 3 | | | 0 (0/8) | 1/3 |
| Mt Gibson South | | | | | | | | | | | | | | | | | 1 | | | | 2 | 1 (2/3) | 1/2 |
| Extension Hill | | | | | | | | | | | | | | | | | | | | | | 1 (1/1) | 0/1 |
| Vermin Fence | | | | | | | | | | | | | | | | | | | | | | | |
| Present in areas | | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

One area only - # group 40 groups in geographic area (no sites from groups in geographic area / # sites sampled in geographic area)

from Ex Hill - # group 40 groups shared with Extension Hill / # group 40 groups in geographic area

Present in areas -- number of areas in which the group 40 groups were present. (Those in bold are groups represented by >2 sites)

Thus, more than half of the sites sampled on Extension Hill were from groups (at either group 28 or group 40 level) from no other area. (The possibility of a sampling effort issue confounding this needs to be recognised. With the focus of the study being Extension Hill, it needs to be borne in mind that sampling density in other areas may not have been as comprehensive though it would have sampled most of the communities of the ridges of all areas.)

While both 10 group level groups 1 or 2 were in most geographic areas, only one of the 40 groups level groups were in even 4 of the 7 geographic areas. Most were from just one or two of the areas and if from two, typically they were from neighbouring areas.

There is further localised distribution of communities. Figure 7 shows the sites from Extension Hill and Iron Hill North (with which it shares most) represented at the Group 40 classification level. Groups 1, 2, 3 and 8 (sites 001 - 011) are apparently confined to the northern part of Extension Hill. This area contains no other groups suggesting it to be a node of different communities.

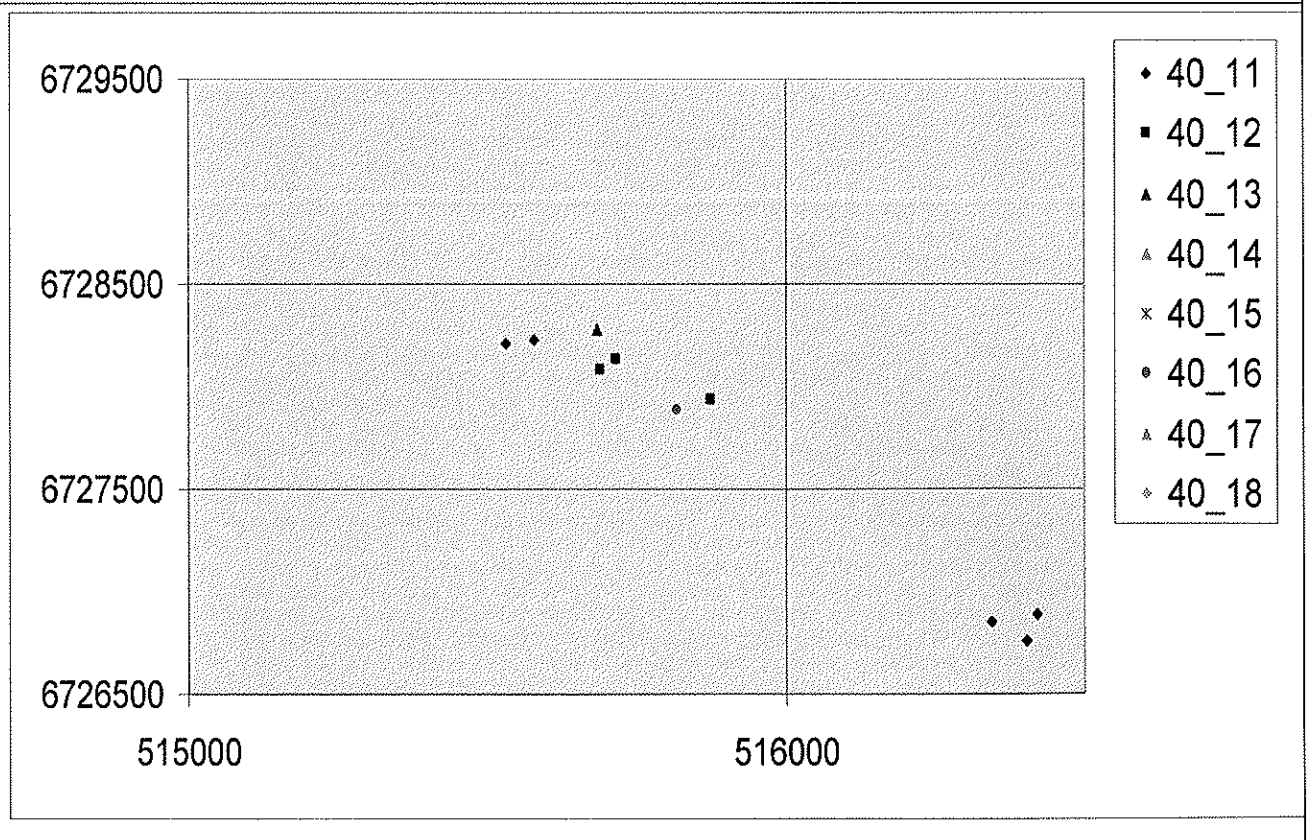
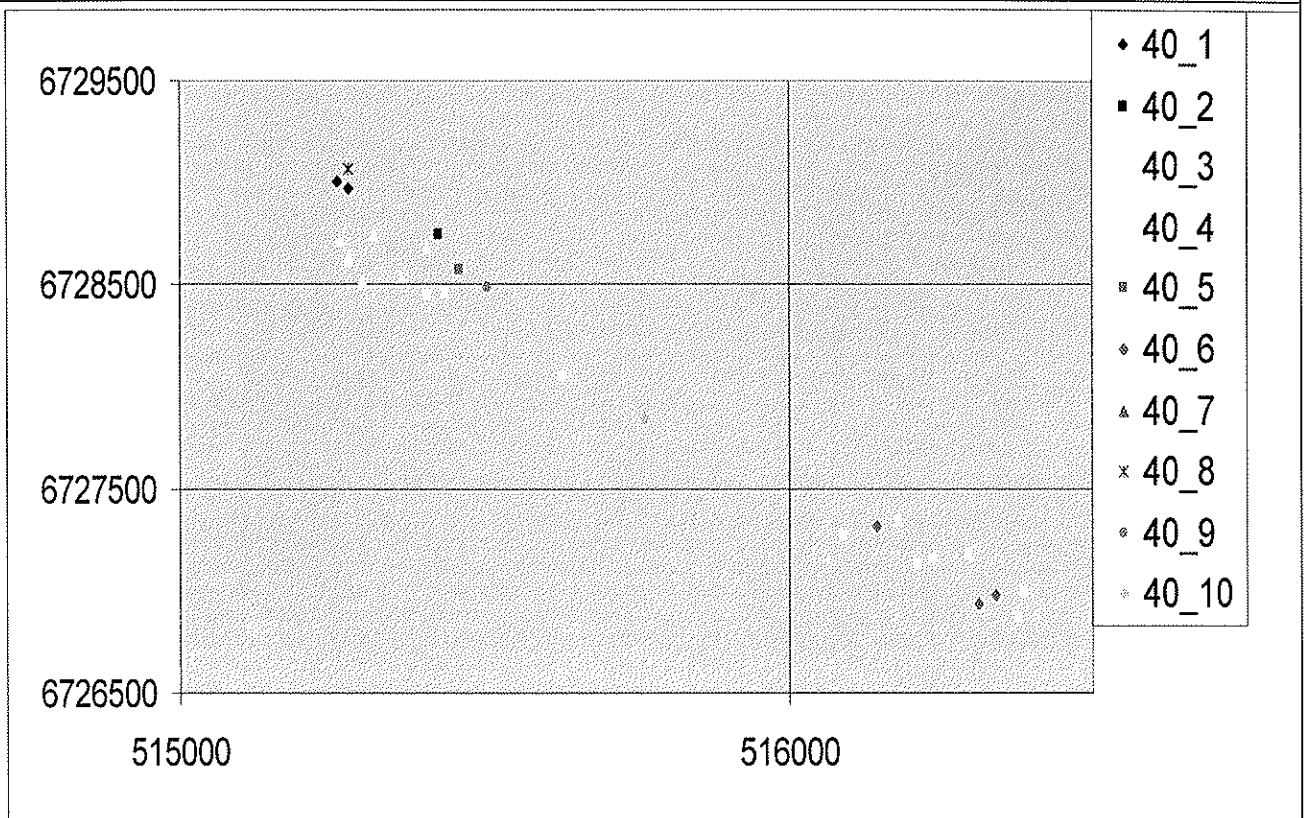
The group 28 level (represented by the colour of symbols in Figure 7) show reasonable overlap between Extension Hill and Iron Hill North. It isn't clear in Figure 7 that you mean group 28 level (title of Fig 7 is 40 group classification)

The groups (40 group level) that are shared between Extension Hill and Iron Hill North (and other areas) occur only in the southern portion of Extension Hill. Three (including ones represented by one site each) of the eight groups in this southern portion are apparently also confined to this area. This suggests that the southern portion of Extension Hill is more similar to the rest of the Mt Gibson area than is the northern portion.

An examination of the species composition is required before any conclusion should be drawn from this interpretation.

Figure 7 Geographic distribution of 40 group and 28 classification in the Extension Hill or Iron Hill North Areas (The 516000 easting separates the two areas.)

(The symbol colours indicate Group 28 level groups. see Table 8 for lookup of 28 group number.)



The sites' recorded position in the landscape (eg morphological type and slope class) did not add much to the interpretation of the differences identified by classification. This is probably as most sites sampled were in upper parts of the landscape. However, the vegetation mapping (see below) suggests that in conjunction with geographic area, landscape position might be important.

The classification is moderately related to the units that were recognised in the vegetation mapping (Table 9). (It should be clearly understood that, because of the nature of mapping, each map unit will contain a number of communities and that mapping often represents more than just plant communities.) This table shows that, within a geographic area, a floristic group tends to be confined to a vegetation map units.

While the sampling included few colluvial slope areas, it can be inferred that from the mapping that these are more wide spread than the ridge crest units which by both mapping and this analyses appear to be more confined.

Table 9 Vegetation Map units (plus Geo Areas) by Group 10, 28 and 40 classification (colluvial slope units highlighted)

| | Gp10→ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 5 | |
|-----------------|-------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|
| | Gp28→ | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 8 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 19 |
| Name & V Unit | Gp40→ | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 16 | 17 | 18 | 19 | 20 | 27 |
| Extension Hill | T1 | 2 | 6 | 3 | 1 | | | | | 1 | 1 | 2 | 3 | 1 | 1 | | | | | | |
| Extension Hill | T12 | | 1 | 1 | | | | | 1 | | | | | | | | | | | | |
| Iron Hill North | T1 | | | | 6 | 3 | | | | | | 3 | | | | | | | | | |
| Iron Hill North | T3 | | | | 1 | | | | | | | | | | | | | | | | |
| Iron Hill | T3 | | | | | 2 | | | | | | | | | | | 1 | 1 | 1 | | |
| Iron Hill | T5 | | | | | | | | | | | | | | | | 3 | | 1 | | |
| Iron Hill East | T3 | | | | | | 1 | | | | | | 1 | 1 | | | | | | | |
| Mt Gibson North | T6 | | | | | 3 | 2 | | | | | | | | | 3 | | | | | |
| Mt Gibson South | HS1 | | | | | | | | | | | | | | | | | | | | 2 |
| Mt Gibson South | M4 | | | | | | | | | | | | | | | 1 | | | | | |
| Extension Hill | 17 | | | | | | | | | | | | | | | | | | | | 1 |
| Vermin Fence | | | | | | | | | | | | | | | | | | | | | |

Vegetation Units (Bennett, 2000, ATA Environmental, 2005:

- T1 - ridge - Dense Thicket of mixed species dominated by *Acacia* species in jaspilite rock with pockets of loam
- T12 - sideslopes - Thicket of *Acacia ramulosa* in loam with pebbles common on the surface
- T3 - footslope - Dense thicket of *Acacia assimils Allocasuarina acutivalvis* subsp. *prinsepiana* and *Melaleuca nematophylla* in loam pockets in jaspilite rocks
- T5 - ridge - Thicket of *Allocasuarina acutivalvis* subsp. *prinsepiana* and *Grevillea obliquistigma* in loam pockets in jaspilite rocks

- T6 - ridge - Thicket of *Acacia aneura* and *Acacia stowardii* in loam with abundant rocks on the surface
- HS1 - ridge - Low Heath of *Ptilotus obovatus* in loamy clay amongst large boulders
- M4 - ridge - Very Open Shrub Mallee of *Eucalyptus leptopoda* in loam
- 17 - low hill - Low Open Woodland of *Eucalyptus kochii* on clayey loamy soil

Only one community (Group 40_16) occurred in ridge vegetation map units across several areas within Mt Gibson (Table 9). Sites on the T1 vegetation map unit occurred only in Extension Hill and Iron Hill North that contains communities that largely do not occur in other areas. Mount Gibson North and South have units that are largely not in other areas. (As indicated earlier, this might be partially a product of the mapping technique.)

Floristic Community Composition in Extension Hill and Iron Hill North Areas

The above analyses demonstrate that there is significant geographic influence on the plant community composition. These interpretations, in part, require a degree of corroboration that the communities are robust and moderately related to entities definable in traditional ways.

In Appendix 3, the photographs of the sites have been ordered according the classification to assist in interpretation. Also shown in this are the species observed to have the greatest cover. However, before examining the communities implied by these analyses a brief examination of the level of classification is appropriate.

The Group 10 level is clearly too general for the purpose of defining communities. All sites in Extension Hill and Iron Hill North are from Groups 1 and 2. The species differentiating between these two groups are mainly annuals (Table 10). As a generalisation, the sites of group 1 appear to have denser cover of scrub vegetation (see html document) than do the sites from group 2. To a limited degree this is a reflection of the abundance of *Allocasuarina acutivalvis* subsp. *prinsepiana*.

Table 10 Apparently Distinguishing Species between Gp10 groups 1 and 2

| | 1 | 2 |
|-------------------------------------|------|------|
| <i>Cheilanthes austrotenuifolia</i> | 82.9 | 9.09 |
| <i>Waitzia nitida</i> | 65.7 | 4.55 |
| <i>Goodenia ? berardiana</i> | 60 | 4.55 |
| <i>Velleia rosea</i> | 48.6 | 4.55 |
| <i>Eremophila clarkei</i> | 14.3 | 54.5 |
| <i>Goodenia pinnatifida</i> | 2.86 | 86.4 |
| <i>Velleia cynopotamica</i> | 2.86 | 50 |

The next issue is the level of classification that best represents the communities. An examination of the structure of the dendrogram suggested that the 28 group level merits consideration.

One of the issues about accepting the 40 group level was the number of singletons. For example of the 20 in the Mt Gibson area, 8 were singletons. These may be real or a symptom of too fine a division. However, this level has only one less singletons than does the Group 40 level. Mainly, therefore, group 40 is division of a the largest three groups at the 28 group level.

Another measure of the goodness of group classification is the similarity between sites in a group and the similarity of sites to those of other groups. (The proportion of sites in a group that are more similar to a site from other groups is a measure of heterogeneity of the group. Such measures can only be used for groups with at least two sites.)

Only seven of the 23 Gp 40 groups (which had 2 or more sites) had any sites more similar to sites of other groups than to those of its current Gp40 group. This is better than the six out of 18 Gp28 groups (with more than 2 sites). Thus by this measure Gp 40 is not too many groups.

The average similarity of sites within a group is also a measure. (This can be done for only groups with two or more sites.) Of the 23 Gp 40 groups (which had 2 or more sites), the average similarity was 0.21. This was only a slight improvement over the 0.26 for the 28 group level.

As an example of the merits of the 40 group level compared to the 28 group level, the differences between Gp 40 groups 3 and 4 which combines to form Gp28 group 2 were investigated (Table 11.) This suggests that there are probably real differences, particularly as there are a number of conspicuous perennial species involved. Supporting this is the fact that these groups are geographically separate. The validity of this conclusion really needs testing in the field.

Table 11 Apparently Distinguishing Species between Gp40 groups 3 and 4 (Gp28 group 2)

| | 3 | 4 |
|--|-----|-----|
| <i>Velleia rosea</i> | 100 | 33 |
| <i>Acacia aneura</i> var. <i>aneura</i> | 86 | |
| <i>Leucopogon breviflorus</i> | 86 | 11 |
| <i>Hibbertia hypericoides</i> | | 89 |
| <i>Stylidium confluens</i> | 14 | 80 |
| <i>Lawrencella rosea</i> | 43 | 100 |
| <i>Melaleuca fulgens</i> subsp. <i>fulgens</i> | | 50 |
| <i>Xanthosia bungei</i> | | 50 |

It is concluded, therefore, that the 40 group level is an appropriate level to be discussing the local scale variation in community composition. Although it is appropriate to stratify it with the 28 group level.

There is not enough information to define the communities that are represented by single sites.

Appendix 4 is a listing of the "constant" species (ones occurring in >40% of sites in a group) for the Gp 28 and Gp 40 groups that occur in the Extension Hill and Iron Hill North areas. (Those represented single sites have been omitted from this listing.)

The species for Gp40 have been summarised in Table 12 to allow an insight into the fidelity of species for groups. Species like *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Melaleuca conothamnoides* x *nematophylla*, *Grevillea paradoxa*, *Calycopeplus paucifolius*, *Philotheca sericea*, *Trachymene ornata* and *Lawrencella rosea* are constant throughout these groups. Others like *Acacia stereophylla* var. *stereophylla*, *Hibbertia hypericoides*, *Acacia aneura* var. *aneura*, *Darwinia masonii* and *Xanthosia bungei* appear to differentiate between communities.

Acacia aneura appears to be present in the northern portion of Extension Hill (Gp 40 groups 1 and 3) but not in its southern part or Iron Hill North. On the other hand, *Hibbertia hypericoides* and to some degree *Darwinia masonii* and *Xanthosia bungei* is absent from the north of Extension Hill.

Table 12 Constant Species in Group 40 groups present on either Extension Hill or Iron Hill North.

| | Gp10 → | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
|--|-----------|-----|------|-----|------|------|-----|------|-----|------|
| | Gp28 → | 1 | 2 | 2 | 3 | 4 | 8 | 8 | 8 | 11 |
| NAME | Gp40 → | 1 | 3 | 4 | 5 | 6 | 11 | 12 | 13 | 16 |
| | # Sites → | 2 | 7 | 10 | 3 | 6 | 5 | 3 | 2 | 8 |
| <i>Drosera macrantha</i> | | 100 | 14.3 | 30 | | 16.7 | | | | |
| <i>Stylidium confluens</i> | | 100 | 14.3 | 80 | | | 40 | | 50 | |
| <i>Erodium cygnorum</i> | | | | | | 16.7 | | 33.3 | | 50 |
| <i>Eremophila latrobei</i> subsp. <i>latrobei</i> | | | | | | | | | | 50 |
| <i>Crassula colorata</i> var. <i>colorata</i> | | | | | | 66.7 | | | | |
| <i>Rhodanthe polycephala</i> | | | | | | 50 | | | | 12.5 |
| <i>Hibbertia acerosa</i> | | | | | | 50 | | | | |
| <i>Ptilotus obovatus</i> | | | | | | | | 33.3 | | 50 |
| <i>Dodonaea inaequifolia</i> | | | | | | | | 66.7 | | 25 |
| <i>Mirbelia depressa</i> | | | | | | | | | | 50 |
| <i>Eremophila clarkei</i> | | | 28.6 | | | | | 100 | 50 | 87.5 |
| <i>Goodenia pinnatifida</i> | | | | 10 | | | 100 | 100 | 100 | 75 |
| <i>Velleia cynopotamica</i> | | | | 10 | | | | 100 | | 75 |
| <i>Enekbatus stowardii</i> | | 100 | 14.3 | | | | | 33.3 | 50 | |
| <i>Eucalyptus oldfieldii</i> | | 100 | | | 33.3 | | | | | |
| <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i> | | | | | | | 60 | 66.7 | | |
| <i>Hemigenia macphersonii</i> | | 50 | 28.6 | 10 | | | 100 | 66.7 | 100 | |
| <i>Acacia stereophylla</i> var. <i>stereophylla</i> | | | 42.9 | 40 | 33.3 | | 40 | | | |
| <i>Cheilanthes austrotenuifolia</i> | | 100 | 100 | 100 | | 83.3 | 20 | 33.3 | | |
| <i>Thysanotus patersonii</i> | | 100 | 85.7 | 60 | | 83.3 | 100 | 100 | 100 | 62.5 |
| <i>Allocasuarina acutivalvis</i> subsp. <i>prinsepiana</i> | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 87.5 |
| <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i> | | | 85.7 | 100 | 100 | 100 | 100 | 100 | 100 | 75 |
| <i>Grevillea paradoxa</i> | | 100 | 71.4 | 50 | 100 | 66.7 | 60 | 66.7 | 100 | 87.5 |
| <i>Acacia assimilis</i> subsp. <i>assimilis</i> | | 50 | 85.7 | 90 | 100 | 66.7 | 80 | 100 | | 25 |
| <i>Philotheca sericea</i> | | 50 | 100 | 100 | 100 | 66.7 | 40 | 100 | | 100 |
| <i>Calycopeplus paucifolius</i> | | 100 | 71.4 | 90 | 100 | 100 | 20 | 33.3 | 50 | 100 |
| <i>Hibbertia hypericoides</i> | | | | 90 | 33.3 | 50 | 100 | 33.3 | 50 | 87.5 |
| <i>Melaleuca conothamnoides</i> x <i>nematophylla</i> | | 50 | 85.7 | 100 | 100 | 100 | 100 | 66.7 | 100 | 100 |
| <i>Micromyrtus racemosa</i> var. <i>prochytes</i> | | 50 | 71.4 | 60 | | 16.7 | | | | 100 |
| <i>Trachymene ornata</i> | | 100 | 57.1 | 80 | 66.7 | 83.3 | 60 | 100 | 50 | 75 |
| <i>Lawrenceella rosea</i> | | 50 | 42.9 | 100 | 33.3 | 33.3 | 100 | 100 | 50 | 100 |
| <i>Waitzia nitida</i> | | 100 | 85.7 | 50 | 100 | 33.3 | | | | |
| <i>Goodenia ? berardiana</i> | | 50 | 100 | 50 | 33.3 | 50 | | | | |
| <i>Velleia rosea</i> | | 50 | 100 | 30 | 66.7 | 16.7 | | | | |
| <i>Leucopogon breviflorus</i> | | | 85.7 | 20 | 100 | | | | | 12.5 |
| <i>Acacia aneura</i> var. <i>aneura</i> | | 100 | 85.7 | | | | | | 100 | 37.5 |
| <i>Aluta aspera</i> | | 50 | 100 | 70 | | | 100 | 66.7 | 100 | 37.5 |
| <i>Cassutha nodiflora</i> | | | | 20 | 66.7 | 100 | 80 | | | 37.5 |
| <i>Darwinia masonii</i> | | | 42.9 | 40 | 66.7 | 66.7 | 40 | | | 87.5 |
| <i>Melaleuca fulgens</i> subsp. <i>fulgens</i> | | | | 50 | | 66.7 | 20 | | 100 | 62.5 |
| <i>Xanthosia bungei</i> | | 50 | | 50 | | 100 | 60 | | | 87.5 |
| <i>Gastrolobium laytonii</i> | | | | | 33.3 | 100 | | | | 25 |

Species are ordered by species classification.

Names in **bold** are species apparently distinguishing between Extension Hill and Iron Hill North OR between the north and south of Extension Hill

Location of Floristic Groups:

- 1 Extension Hill
- 3 Extension Hill
- 4 Extension Hill, Iron Hill North
- 5 Extension Hill, Iron Hill
- 6 Iron Hill North, Mount Gibson North
- 11 Extension Hill, Iron Hill North
- 12 Extension Hill
- 13 Extension Hill, Iron Hill East
- 16 Extension Hill, Iron Hill Mount Gibson North, Mount Gibson South

5.0 DISCUSSION

At a sub-regional scale the Mt Gibson area contains communities that appear to be distinct from those of other areas sampled. This is probably related to differences in parent material (geology, geomorphology and soils). The issue of disturbance being significantly lower in the Mt Gibson area should not be discounted. However, the reasonable accord between the classifications using all species and that using only the perennial and geophyte species to some degree discounts the degree of disturbance as being the major influence to the differences at this scale of examination. It should be noted that the sites for other areas that were recorded as largely undisturbed were distinct from sites in the Mt Gibson area.

There is significant local geographically related variation in the floristic composition of vegetation within the Mt Gibson area. These can be related to the local ridge features and has generally been recognised in the vegetation mapping.

The ridges of Extension Hill and Iron Hill North largely contain communities different from the other areas. Iron Hill and Iron Hill East have some similarities but these appear to be more in the vegetation related to the colluvium and less prominent ridges.

Generally, there is broad similarity between Extension Hill and Iron Hill North (group 28 level). The variations recognised in this study between these areas, while probably real, needs investigation in the field.

Extension Hill appears to have a geographically definable division within it reflecting differences in the distribution of plant communities. The northern portion contains several communities (at the 40 group level) that are largely not represented (by the present sampling) in other areas. The southern part is more similar to the Iron Hill North area and to a lesser degree, Iron Hill and Mt Gibson.

Several species were identified as distinguishing between the north and southern portions of Extension Hill. These included *Acacia aneura* in the north and *Hibbertia hypericoides* in the south.

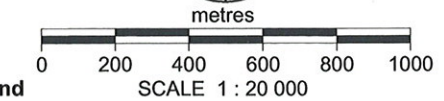
Several floristic communities (at the group 40 level) identified by this methodology are totally within the proposed pit that covers the extent of Extension Hill. These are principally Gp40 groups 1, 2, 3 and 12. Of these groups 3 and 12 are moderately similar to groups 4 and 11 that occur on Iron Hill North. Workplan 1 shows the location of the 20 indicatively mapped Gp 40 floristic groups occurring within the Mt Gibson project area. This figures indicate that six of the 20 floristic groups occurring in the area occur only within the Extension Hill area.

6.0 REFERENCE

Belbin, L. (1987). PATN Reference Manual (313p), Users Guide (79p), Command Manual (47p), and Example Manual (108p). CSIRO Division of Wildlife and Ecology, Lynham, ACT.

APPENDIX 1: Description of Interpretations

- Site dendrogram All** Dendrogram of all 100 sites using all species with geographic group name, Group 10 and Group 40 numbers, # species per site and condition of site.
- Revised Site dendrogram** Revised Dendrogram of all 100 sites using all species with geographic group name, Group 10 and Group 40 numbers, # species per site and condition of site, most similar sites and species with high cover.
- Rev Gp10 ASO** Average Association matrix Revised All Sites, All Species for group 10 level
- Rev Gp28 ASO** Average Association matrix Revised All Sites, All Species for group 28 level
- Rev Gp40 ASO** Average Association matrix Revised All Sites, All Species for group 40 level
- AllSpecies AllSites** Matrix of all species (rows) by All sites with the species and sites ordered by the respective dendrograms. The classifications are emphasised by highlighting.
- Site scatter plots_all** Scatter plots of sites with various charts based on easting and northing and ordination vectors.
 Charts (easting by northing) (all sites)
 Geographic group, Group 10 classification,
 Charts (easting by northing) (Mt Gibson only)
 Geographic group, Group 10 classification, 40 group classification
 Charts (Ordination, v1 by v2 and v1 by v3) (all sites)
 Group 10 classification, condition as ball size
- Revised Site scatter plots_all** Revised Scatter plots of sites with various charts based on easting and northing, Mt Gibson area only.
 Charts (easting by northing) (Mt Gibson only)
 Group 10 classification, 40 group classification)
 Charts (easting by northing) (Extension Hill and Iron Hill North)
 Geographic group, Group 10 classification, 40 group classification



Legend

- Project Layout
- Cadastral Boundary
- Tenement Boundary
- Floristic Group Boundary
- Floristic Community Types Impacted by the Project Not Occurring Elsewhere on Banded Iron Formation in the Mt Gibson Area

Floristic Group Mapping (Group 40 groups) on Banded Iron Formation Mt Gibson

- G1** Closed Tall Scrub *Acacia aneura* var. *aneura*, *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Grevillea paradoxa* with scattered *Eucalyptus oldfieldii* and *Calycopeplus paucifolius* over Herbland of *Waitzia nitida*, *Trachymene ornata*, *Stylidium confuens*, *Enekbatus stowardii*, *Drosera micrantha* and *Thysanotus patersonii*.
- G2** Open Heath *Mirbella macrophylla* and *Philotheca sericea* with scattered *Acacia aneura* subsp. *aneura* and *Allocasuarina acutivalvis* subsp. *prinsepiana*.
- G3** Closed Tall Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Aluta aspera*, *Philotheca sericea*, *Acacia aneura* var. *aneura*, *Acacia assimilis* subsp. *assimilis*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Melaleuca conothamnoides* x *nematophylla*, *Calycopeplus paucifolius*, *Grevillea paradoxa*, *Micromyrtus racemosa* var. *prochytes* and *Acacia stereophylla* var. *stereophylla*.
- G4** Closed Tall Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Melaleuca conothamnoides* x *nematophylla*, *Philotheca sericea*, *Acacia assimilis* subsp. *assimilis*, *Calycopeplus paucifolius*, *Hibbertia hypericoides* and *Aluta aspera*.
- G5** Closed Tall Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Calycopeplus paucifolius*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Melaleuca conothamnoides* x *nematophylla* and *Philotheca sericea*.
- G6** Closed Tall Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Calycopeplus paucifolius*, *Gastrolobium laytonii*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Melaleuca conothamnoides* x *nematophylla* and *Xanthosia bungei*.
- G7** Tall Open Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Melaleuca conothamnoides* x *nematophylla*, *Calycopeplus paucifolius*, *Grevillea paradoxa*, *Hibbertia acerosa* and *Grevillea obliquistigma* subsp. *obliquistigma*.
- G8** Tall Shrubland *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Philotheca sericea* and *Acacia assimilis* subsp. *assimilis*.
- G9** Tall Open Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Eucalyptus loxophleba* subsp. *supralaevis*, *Melaleuca leiocarpa*, *Acacia assimilis* subsp. *assimilis* and *Philotheca sericea*.
- G10** Tall Open Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Hibbertia hypericoides*, *Melaleuca conothamnoides* x *nematophylla*, *Acacia assimilis* subsp. *assimilis*, *Aluta aspera* subsp. *hesperia* and *Grevillea paradoxa*.
- G11** Closed Tall Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Aluta aspera*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Hibbertia hypericoides*, *Melaleuca conothamnoides* x *nematophylla*, *Acacia assimilis* subsp. *assimilis*, *Grevillea paradoxa* and *Xanthosia bungei*.
- G12** Closed Tall Scrub *Acacia assimilis*, *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Eremophila clarkei*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Philotheca sericea*, *Aluta aspera*, *Grevillea paradoxa* and *Melaleuca conothamnoides* x *nematophylla*.
- G13** Closed Tall Scrub *Acacia aneura* var. *aneura*, *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Aluta aspera*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Grevillea paradoxa* and *Melaleuca conothamnoides* x *nematophylla*.
- G14** Tall Open Scrub *Aluta aspera*, *Acacia aspera*, *Grevillea obliquistigma* subsp. *obliquistigma* and *Allocasuarina acutivalvis* subsp. *prinsepiana*.
- G16** Shrubland to Tall Open Scrub *Calycopeplus paucifolius*, *Melaleuca conothamnoides* x *nematophylla*, *Philotheca sericea*, *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Darwinia masonii*, *Eremophila clarkei*, *Grevillea paradoxa*, *Hibbertia hypericoides*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Velleia cynoplatmica* and *Melaleuca fulgens* subsp. *fulgens*.
- G18** Open Heath to Tall Open Scrub *Acacia aneura*, *Grevillea obliquistigma* subsp. *obliquistigma*, *Allocasuarina acutivalvis* subsp. *prinsepiana* and *Sida excedentifolia* over Open Herbland of *Waitzia nitida*.
- G19** Tall Open Scrub *Allocasuarina acutivalvis* subsp. *prinsepiana*, *Eremophila clarkei*, *Philotheca brucei* subsp. *brucei*, *Calycopeplus paucifolius*, *Melaleuca conothamnoides* x *nematophylla*, *Acacia tetragonophylla* and *Aluta aspera*.
- G20** Tall Shrubland of *Calycopeplus paucifolius*, *Dodonaea inaequitolia* over Herbland of *Ptilotus obovatus*.



NUMERICAL ANALYSIS OF FLORISTIC DATA IN MT GIBSON AREA
FLORISTIC GROUP MAPPING (GROUP 40 GROUPS) ON BANDED IRON FORMATION AT MT GIBSON
 WORKPLAN 1

APPENDIX 3: Photographs of sites sampled

Sites ordered by classification with group number at 10, 28 and 40 group levels indicated.

APPENDIX 4: Extension Hill and Iron Hill North Floristic Communities

Species that occur with the highest "constancy" in the main floristic groups in the Extension Hill and Iron Hill North areas. Values are % of sites in group.

Species in **bold** were recorded to have a significant cover in at least one of the sites in the group.

Gp28 Group 1 (3 sites) (in veg unit T1)

| | |
|--|-----|
| Acacia aneura var. aneura | 100 |
| Grevillea paradoxa | 100 |
| Calycopeplus paucifolius | 100 |
| Cheilanthes austrotenuifolia | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Trachymene ornata | 100 |
| Stylidium confluens | 100 |
| Waitzia nitida | 100 |
| Xanthosia bungei | 67 |
| Eucalyptus oldfieldii | 67 |
| Philotheca sericea | 67 |
| Thysanotus patersonii | 67 |
| Enekbatus stowardii | 67 |
| Velleia rosea | 67 |
| Drosera macrantha | 67 |

Gp40 Group 1 (2 sites) (in veg unit T1)

| | |
|---|-----|
| Acacia aneura var. aneura | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Calycopeplus paucifolius | 100 |
| Cheilanthes austrotenuifolia | 100 |
| Drosera macrantha | 100 |
| Enekbatus stowardii | 100 |
| Eucalyptus oldfieldii | 100 |
| Grevillea paradoxa | 100 |
| Stylidium confluens | 100 |
| Thysanotus patersonii | 100 |
| Trachymene ornata | 100 |
| Waitzia nitida | 100 |

Gp28 Group 2 (17 sites) (in veg unit T1, T12)

| | |
|--|-----|
| Philotheca sericea | 100 |
| Cheilanthes austrotenuifolia | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Melaleuca conothamnoides x nematophylla | 94 |
| Grevillea obliquistigma subsp. obliquistigma | 94 |
| Acacia assimilis subsp. assimilis | 88 |
| Calycopeplus paucifolius | 82 |
| Aluta aspera | 82 |
| Lawrencella rosea | 76 |
| Thysanotus patersonii | 71 |

| | |
|---------------------------------------|----|
| Trachymene ornata | 71 |
| Goodenia ? berardiana | 71 |
| Micromyrtus racemosa var. prochytes | 65 |
| Waitzia nitida | 65 |
| Velleia rosea | 59 |
| Grevillea paradoxa | 59 |
| Stylidium confluens | 53 |
| Hibbertia hypericoides | 53 |
| Leucopogon breviflorus | 47 |
| Acacia stereophylla var. stereophylla | 41 |
| Darwinia masonii | 41 |

Gp40 Group 3 (7 sites)(in veg unit T1, T12)

| | |
|---|-----|
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Aluta aspera | 100 |
| Cheilanthes austrotenuifolia | 100 |
| Goodenia ? berardiana | 100 |
| Philothea sericea | 100 |
| Velleia rosea | 100 |
| Acacia aneura var. aneura | 86 |
| Acacia assimilis subsp. assimilis | 86 |
| Grevillea obliquistigma subsp. obliquistigma | 86 |
| Leucopogon breviflorus | 86 |
| Melaleuca conothamnoides x nematophylla | 86 |
| Thysanotus patersonii | 86 |
| Waitzia nitida | 86 |
| Calycopeplus paucifolius | 71 |
| Grevillea paradoxa | 71 |
| Micromyrtus racemosa var. prochytes | 71 |
| Trachymene ornata | 57 |
| Acacia stereophylla var. stereophylla | 43 |
| Darwinia masonii | 43 |
| Lawrencella rosea | 43 |

Gp40 Group 4 (10 sites) (in veg unit T1)

| | |
|---|-----|
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Cheilanthes austrotenuifolia | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Lawrencella rosea | 100 |
| Melaleuca conothamnoides x nematophylla | 100 |
| Philothea sericea | 100 |
| Acacia assimilis subsp. assimilis | 90 |
| Calycopeplus paucifolius | 90 |
| Hibbertia hypericoides | 90 |
| Stylidium confluens | 80 |
| Trachymene ornata | 80 |
| Aluta aspera | 70 |
| Micromyrtus racemosa var. prochytes | 60 |
| Thysanotus patersonii | 60 |
| Goodenia ? berardiana | 50 |
| Grevillea paradoxa | 50 |

| | |
|---|----|
| Melaleuca fulgens subsp. fulgens | 50 |
| Waitzia nitida | 50 |
| Xanthosia bungei | 50 |

Gp 28 Group 3 = Gp40 Group 5 (3 sites) (in veg unit T3 and T1)

| | |
|---|-----|
| Acacia assimilis subsp. assimilis | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Calycopeplus paucifolius | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Grevillea paradoxa | 100 |
| Leucopogon breviflorus | 100 |
| Melaleuca conothamnoides x nematophylla | 100 |
| Philotheca sericea | 100 |
| Waitzia nitida | 100 |
| Cassytha nodiflora | 67 |
| Darwinia masonii | 67 |
| Trachymene ornata | 67 |
| Velleia rosea | 67 |

Gp28 Group 4 (9 sites)(in veg unit T1, T6)

| | |
|--|-----|
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Xanthosia bungei | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Cassytha nodiflora | 100 |
| Calycopeplus paucifolius | 100 |
| Cheilanthes austrotenuifolia | 89 |
| Melaleuca conothamnoides x nematophylla | 89 |
| Darwinia masonii | 78 |
| Acacia assimilis subsp. assimilis | 78 |
| Gastrolobium laytonii | 67 |
| Hibbertia acerosa | 67 |
| Thysanotus patersonii | 67 |
| Goodenia ? berardiana | 67 |
| Grevillea paradoxa | 67 |
| Philotheca sericea | 67 |
| Crassula colorata var. colorata | 56 |
| Melaleuca fulgens subsp. fulgens | 56 |
| Trachymene ornata | 56 |
| Waitzia nitida | 56 |
| Lawrenceella rosea | 56 |
| Hibbertia hypericoides | 44 |
| Rhodanthe polycephala | 44 |
| Erodium cygnorum | 44 |
| Micromyrtus racemosa var. prochytes | 44 |

Gp40 Group 6 (6 sites) (in veg unit T1, T6)

| | |
|---|-----|
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Calycopeplus paucifolius | 100 |
| Cassytha nodiflora | 100 |
| Gastrolobium laytonii | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Melaleuca conothamnoides x nematophylla | 100 |
| Xanthosia bungei | 100 |
| Cheilanthes austrotenuifolia | 83 |
| Thysanotus patersonii | 83 |
| Trachymene ornata | 83 |

| | |
|--|----|
| Acacia assimilis subsp. assimilis | 67 |
| Crassula colorata var. colorata | 67 |
| Darwinia masonii | 67 |
| Grevillea paradoxa | 67 |
| Melaleuca fulgens subsp. fulgens | 67 |
| Philotheca sericea | 67 |
| Goodenia ? berardiana | 50 |
| Hibbertia acerosa | 50 |
| Hibbertia hypericoides | 50 |
| Rhodanthe polycephala | 50 |

Gp28 Group 8 (10 sites)(in veg unit T1, T3)

| | |
|--|-----|
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Thysanotus patersonii | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Goodenia pinnatifida | 100 |
| Hemigenia macphersonii | 90 |
| Melaleuca conothamnoides x nematophylla | 90 |
| Aluta aspera | 90 |
| Lawrencella rosea | 90 |
| Hibbertia hypericoides | 70 |
| Acacia assimilis subsp. assimilis | 70 |
| Grevillea paradoxa | 70 |
| Trachymene ornata | 70 |
| Cheilanthes sieberi subsp. sieberi | 50 |
| Philotheca sericea | 50 |
| Cassytha nodiflora | 40 |
| Eremophila clarkei | 40 |

Gp40 Group 11 (5 sites) (in veg unit T1)

| | |
|---|-----|
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Aluta aspera | 100 |
| Goodenia pinnatifida | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Hemigenia macphersonii | 100 |
| Hibbertia hypericoides | 100 |
| Lawrencella rosea | 100 |
| Melaleuca conothamnoides x nematophylla | 100 |
| Thysanotus patersonii | 100 |
| Acacia assimilis subsp. assimilis | 80 |
| Cassytha nodiflora | 80 |
| Cheilanthes sieberi subsp. sieberi | 60 |
| Grevillea paradoxa | 60 |
| Trachymene ornata | 60 |
| Xanthosia bungei | 60 |

Gp40 Group 12 (3 sites) (in veg unit T1)

| | |
|---|-----|
| Acacia assimilis subsp. assimilis | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Eremophila clarkei | 100 |
| Goodenia pinnatifida | 100 |

| | |
|---|-----|
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Lawrencella rosea | 100 |
| Philotheca sericea | 100 |
| Thysanotus patersonii | 100 |
| Trachymene ornata | 100 |
| Velleia cynopotamica | 100 |
| Aluta aspera | 67 |
| Cheilanthes sieberi subsp. Sieberi | 67 |
| Dodonaea inaequifolia | 67 |
| Grevillea paradoxa | 67 |
| Hemigenia macphersonii | 67 |
| Melaleuca conothamnoides x nematophylla | 67 |

Gp40 Group 13 (2 sites) (in veg unit T1, T3)

| | |
|---|-----|
| Acacia aneura var. aneura | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 100 |
| Aluta aspera | 100 |
| Goodenia pinnatifida | 100 |
| Grevillea obliquistigma subsp. obliquistigma | 100 |
| Grevillea paradoxa | 100 |
| Hemigenia macphersonii | 100 |
| Melaleuca conothamnoides x nematophylla | 100 |
| Melaleuca fulgens subsp. fulgens | 100 |
| Thysanotus patersonii | 100 |

Gp28 Group 16 = Gp40 Group 16 (8 sites) (in veg unit T5, T6, T1, M4)

| | |
|---|-----|
| Calycopeplus paucifolius | 100 |
| Lawrencella rosea | 100 |
| Melaleuca conothamnoides x nematophylla | 100 |
| Micromyrtus racemosa var. prochytes | 100 |
| Philotheca sericea | 100 |
| Allocasuarina acutivalvis subsp. prinsepiana | 88 |
| Darwinia masonii | 88 |
| Eremophila clarkei | 88 |
| Grevillea paradoxa | 88 |
| Hibbertia hypericoides | 88 |
| Xanthosia bungei | 88 |
| Goodenia pinnatifida | 75 |
| Grevillea obliquistigma subsp. obliquistigma | 75 |
| Trachymene ornata | 75 |
| Velleia cynopotamica | 75 |
| Melaleuca fulgens subsp. fulgens | 63 |
| Thysanotus patersonii | 63 |
| Eremophila latrobei subsp. latrobei | 50 |
| Erodium cygnorum | 50 |
| Mirbelia depressa | 50 |
| Ptilotus obovatus | 50 |

| | | |
|--------------------------------|---|---|
| Site dendrogram All | Dendrogram of all 100 sites using all species with geographic group name, Group 10 and Group 40 numbers, # species per site and condition of site. | |
| Site dendrogram per geophy | Dendrogram of all 100 sites using only perennials and geophytes with geographic group name, Group 10 and Group 40 numbers, # species per site and condition of site. | |
| Revised Site dendrogram | Revised Dendrogram of all 100 sites using all species with geographic group name, Group 10 group 28 and Group 40 numbers, # species per site and condition of site, most similar sites and species with high cover. | |
| Rev Sites ASO | Association matrix Revised All Sites, All Species. | |
| Rev Gp10 ASO | Average Association matrix Revised All Sites, All Species for group 10 level | |
| Rev Gp28 ASO | Average Association matrix Revised All Sites, All Species for group 28 level | |
| Rev Gp40 ASO | Average Association matrix Revised All Sites, All Species for group 40 level | |
| AllSpecies AllSites | Matrix of all species (rows) by All sites with the species and sites ordered by the respective dendrograms. The classifications are emphasised by highlighting. | |
| All, Slope class | Summary of sites by Group 40 classification by slope class | |
| All, Morph type | Summary of sites by Group 40 classification by morphological type | |
| All, map unit | Summary of sites by Group 40 classification by vegetation map unit | |
| All, map_unit+geo | Summary of sites by Group 40 classification by vegetation map unit and local geographic area | |
| Site scatter plots_all | Scatter plots of sites with various charts based on easting and northing and ordination vectors. Charts (easting by northing) (all sites) Charts (easting by northing) (Mt Gibson only) Charts (Ordination, v1 by v2 and v1 by v3) (all sites) | Geographic group, Group 10 classification, Geographic group, Group 10 classification, 40 group classification Group 10 classification, condition as ball size |
| Revised Site scatter plots_all | Revised Scatter plots of sites with various charts based on easting and northing, Mt Gibson area only. Charts (easting by northing) (Mt Gibson only) Charts (easting by northing) (Extension Hill and Iron Hill North) | Group 10 classification, 40 group classification) Geographic group, Group 10 classification, 40 group classification |
| Site scatter plots_per geophy | Charts (easting by northing) (all sites) Charts (easting by northing) (Mt Gibson only) Charts (Ordination, v1 by v2 and v1 by v3) (all sites) | Scatter plots of sites with various charts based on easting and northing and ordination vectors. Geographic group, Group 10 classification, Geographic group, Group 10 classification, 40 group classification Group 10 classification, condition as ball size |
| SpeciesBySiteGp10 | Group 10 groups 1 and 2 site frequency of species with high constancy. | |
| SpeciesBySiteGp28 | Group 28 groups 1 to 14 site frequency of species with high constancy. | |
| SpeciesBySiteGp40 | Group 40 groups 1 to 18 site frequency of species with high constancy. | |

| ID | site | name | gp10 | gp28 | gp40 | no_sp | conditior | data | | | | | photo# | elev | slope type | morph type | map unit |
|----|------|-----------------|------|------|------|-------|-----------|--------|--------|--------|--------|--------|--------|------|------------|------------|----------|
| 3 | | | | | | | | 0.8469 | 0.9927 | 1.1384 | 1.2842 | 1.4300 | | | | | |
| 4 | | | | | | | | | | | | | | | | | |
| 5 | 001 | Extension Hill | 1 | 1 | 1 | 20 | 0 | | | | | | 1 | 390 | VG | R | T1 |
| 6 | 002 | Extension Hill | 1 | 1 | 1 | 18 | 0 | | | | | | 2 | 337 | GE | U | T1 |
| 7 | 006 | Extension Hill | 1 | 1 | 2 | 20 | 0 | | | | | | 6 | 387 | ST | U | T12 |
| 8 | 004 | Extension Hill | 1 | 2 | 3 | 18 | 0 | | | | | | 4 | 398 | VG | R | T1 |
| 9 | 008 | Extension Hill | 1 | 2 | 3 | 19 | 0 | | | | | | 8 | 391 | MO | U | T1 |
| 10 | 010 | Extension Hill | 1 | 2 | 3 | 20 | 0 | | | | | | 10 | 404 | MO | U | T1 |
| 11 | 011 | Extension Hill | 1 | 2 | 3 | 20 | 0 | | | | | | 11 | 394 | ST | U | T12 |
| 12 | 007 | Extension Hill | 1 | 2 | 3 | 15 | 0 | | | | | | 7 | 400 | GE | R | T1 |
| 13 | 009 | Extension Hill | 1 | 2 | 3 | 17 | 0 | | | | | | 9 | 400 | MO | U | T1 |
| 14 | 005 | Extension Hill | 1 | 2 | 3 | 17 | 0 | | | | | | 5 | 385 | MO | U | T1 |
| 15 | 013 | Extension Hill | 1 | 2 | 4 | 17 | 0 | | | | | | 13 | 415 | MO | R | T1 |
| 16 | 028 | Iron Hill North | 1 | 2 | 4 | 20 | 0 | | | | | | 28 | 417 | MO | R | T1 |
| 17 | 014 | Extension Hill | 1 | 2 | 4 | 17 | 0 | | | | | | 14 | 402 | ST | U | T1 |
| 18 | 029 | Iron Hill North | 1 | 2 | 4 | 16 | 0 | | | | | | 29 | 417 | ST | U | T1 |
| 19 | 026 | Iron Hill North | 1 | 2 | 4 | 14 | 0 | | | | | | 26 | 408 | ST | U | T1 |
| 20 | 027 | Iron Hill North | 1 | 2 | 4 | 14 | 0 | | | | | | 27 | 417 | MO | U | T3 |
| 21 | 030 | Iron Hill North | 1 | 2 | 4 | 18 | 0 | | | | | | 30 | 421 | MO | U | T1 |
| 22 | 033 | Iron Hill North | 1 | 2 | 4 | 16 | 0 | | | | | | 33 | 418 | ST | U | T1 |
| 23 | 034 | Iron Hill North | 1 | 2 | 4 | 21 | 0 | | | | | | 34 | 420 | LE | R | T1 |
| 24 | 012 | Extension Hill | 1 | 3 | 5 | 14 | 0 | | | | | | 12 | 401 | MO | U | T1 |
| 25 | 038 | Iron Hill | 1 | 3 | 5 | 16 | 0 | | | | | | 38 | 403 | MO | R | T3 |
| 26 | 039 | Iron Hill | 1 | 3 | 5 | 17 | 0 | | | | | | 39 | 398 | VG | R | T3 |
| 27 | 025 | Iron Hill North | 1 | 4 | 6 | 11 | 0 | | | | | | 25 | 425 | MO | R | T1 |
| 28 | 031 | Iron Hill North | 1 | 4 | 6 | 18 | 0 | | | | | | 31 | 425 | VG | R | T1 |
| 29 | 032 | Iron Hill North | 1 | 4 | 6 | 16 | 0 | | | | | | 32 | 422 | ST | U | T1 |
| 30 | 051 | Mt Gibson North | 1 | 4 | 6 | 18 | 0 | | | | | | 51 | 443 | ST | R | T6 |
| 31 | 052 | Mt Gibson North | 1 | 4 | 6 | 27 | 0 | | | | | | 52 | 448 | ST | R | T6 |
| 32 | 053 | Mt Gibson North | 1 | 4 | 6 | 23 | 0 | | | | | | 53 | 453 | MO | R | T6 |
| 33 | 049 | Iron Hill East | 1 | 4 | 7 | 18 | 0 | | | | | | 49 | 445 | MO | R | T3 |
| 34 | 050 | Mt Gibson North | 1 | 4 | 7 | 24 | 0 | | | | | | 50 | 435 | MO | R | T6 |
| 35 | 054 | Mt Gibson North | 1 | 4 | 7 | 24 | 0 | | | | | | 54 | 438 | MO | R | T6 |
| 36 | 045 | Iron Hill | 1 | 5 | 8 | 23 | 0 | | | | | | 45 | 408 | ST | U | T3 |
| 37 | 003 | Extension Hill | 1 | 6 | 9 | 14 | 0 | | | | | | 3 | 375 | MO | U | T12 |
| 38 | 015 | Extension Hill | 1 | 7 | 10 | 17 | 0 | | | | | | 15 | 406 | MO | U | T1 |
| 39 | 016 | Extension Hill | 2 | 8 | 11 | 15 | 2 | | | | | | 16 | 413 | GE | R | T1 |
| 40 | 017 | Extension Hill | 2 | 8 | 11 | 17 | 0 | | | | | | 17 | 402 | MO | U | T1 |
| 41 | 018 | Extension Hill | 2 | 8 | 11 | 20 | 0 | | | | | | 18 | 396 | MO | U | T1 |
| 42 | 035 | Iron Hill North | 2 | 8 | 11 | 23 | 0 | | | | | | 35 | 421 | GE | R | T1 |
| 43 | 036 | Iron Hill North | 2 | 8 | 11 | 25 | 0 | | | | | | 36 | 424 | GE | U | T1 |
| 44 | 037 | Iron Hill North | 2 | 8 | 11 | 17 | 0 | | | | | | 37 | 413 | GE | U | T1 |
| 45 | 019 | Extension Hill | 2 | 8 | 11 | 21 | 2 | | | | | | 19 | 419 | ST | R | T1 |
| 46 | 020 | Extension Hill | 2 | 8 | 11 | 22 | 2 | | | | | | 20 | 404 | MO | U | T1 |
| 47 | 023 | Extension Hill | 2 | 8 | 11 | 18 | 1 | | | | | | 23 | 432 | MO | U | T1 |
| 48 | 024 | Extension Hill | 2 | 9 | 12 | 16 | 2 | | | | | | 24 | 441 | GE | U | T1 |
| 49 | 021 | Extension Hill | 2 | 10 | 13 | 18 | 3 | | | | | | 21 | 415 | MO | U | T1 |
| 50 | 043 | Iron Hill | 2 | 10 | 13 | 25 | 2 | | | | | | 43 | 396 | MO | U | T5 |
| 51 | 041 | Iron Hill | 2 | 10 | 13 | 24 | 1 | | | | | | 41 | 406 | VG | R | T5 |
| 52 | 060 | Mt Gibson South | 2 | 10 | 13 | 18 | 2 | | | | | | 60 | 392 | GE | U | M4 |
| 53 | 040 | Iron Hill | 2 | 10 | 13 | 20 | 1 | | | | | | 40 | 414 | GE | R | T5 |
| 54 | 055 | Mt Gibson North | 2 | 10 | 13 | 27 | 1 | | | | | | 55 | 454 | MO | U | T6 |
| 55 | 056 | Mt Gibson North | 2 | 10 | 13 | 24 | 1 | | | | | | 56 | 455 | MO | U | T6 |
| 56 | 057 | Mt Gibson North | 2 | 10 | 13 | 32 | 1 | | | | | | 57 | 451 | VG | R | T6 |
| 57 | 022 | Extension Hill | 2 | 10 | 13 | 19 | 2 | | | | | | 22 | 444 | GE | R | T1 |
| 58 | 046 | Iron Hill | 2 | 11 | 14 | 27 | 2 | | | | | | 46 | 390 | MO | M | T3 |
| 59 | 047 | Iron Hill East | 2 | 12 | 15 | 11 | 1 | | | | | | 47 | 382 | GE | M | T3 |
| 60 | 048 | Iron Hill East | 2 | 12 | 16 | 18 | 1 | | | | | | 48 | 391 | MO | M | T3 |
| 61 | 062 | Vermin Fence | 2 | 13 | 17 | 9 | 1 | | | | | | 62 | 353 | VG | S | |
| 62 | 042 | Iron Hill | 3 | 14 | 18 | 22 | 0 | | | | | | 42 | 410 | VG | R | T5 |
| 63 | 044 | Iron Hill | 3 | 14 | 19 | 26 | 0 | | | | | | 44 | 416 | ST | R | T3 |
| 64 | 058 | Mt Gibson South | 3 | 15 | 20 | 19 | 0 | | | | | | 58 | 395 | GE | R | HS1 |
| 65 | 059 | Mt Gibson South | 3 | 15 | 20 | 17 | 1 | | | | | | 59 | 402 | ST | R | HS1 |
| 66 | 088 | Well (ruin) E | 4 | 16 | 21 | 28 | 1 | | | | | | 88 | 338 | MO | R | |
| 67 | 089 | Well (ruin) E | 4 | 17 | 22 | 18 | 1 | | | | | | 89 | 330 | VG | F | |
| 68 | 063 | Taylor Well | 5 | 18 | 23 | 25 | 1 | | | | | | 63 | 337 | MO | R | |
| 69 | 064 | Taylor Well | 5 | 18 | 23 | 25 | 0 | | | | | | 64 | 359 | MO | R | |
| 70 | 083 | East GNH | 5 | 18 | 24 | 29 | 0 | | | | | | 83 | 342 | MO | U | |

| ID | site | name | gp1(gp4fio_sjdit | data | | | | | | | | | | Photo No. | levation (ft) | Slope Class | Morph typ | Map units |
|----|------|-----------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|---------------|-------------|-----------|-----------|
| 3 | | | | 0.0667 | 0.2193 | 0.3719 | 0.5245 | 0.6771 | 0.8296 | 0.9822 | 1.1348 | 1.2874 | 1.4400 | | | | | |
| 4 | | | | | | | | | | | | | | | | | | |
| 5 | 001 | Extension Hill | 1 1 17 0 | | | | | | | | | | | 1 | 390 | VG | R | T1 |
| 6 | 002 | Extension Hill | 1 1 15 0 | | | | | | | | | | | 2 | 337 | GE | U | T1 |
| 7 | 005 | Extension Hill | 1 2 13 0 | | | | | | | | | | | 5 | 385 | MO | U | T1 |
| 8 | 015 | Extension Hill | 1 3 15 0 | | | | | | | | | | | 15 | 406 | MO | U | T1 |
| 9 | 003 | Extension Hill | 1 4 14 0 | | | | | | | | | | | 3 | 375 | MO | U | T12 |
| 10 | 006 | Extension Hill | 1 5 15 0 | | | | | | | | | | | 6 | 387 | ST | U | T12 |
| 11 | 004 | Extension Hill | 1 6 14 0 | | | | | | | | | | | 4 | 398 | VG | R | T1 |
| 12 | 007 | Extension Hill | 1 6 13 0 | | | | | | | | | | | 7 | 400 | GE | R | T1 |
| 13 | 008 | Extension Hill | 1 6 16 0 | | | | | | | | | | | 8 | 391 | MO | U | T1 |
| 14 | 010 | Extension Hill | 1 6 18 0 | | | | | | | | | | | 10 | 404 | MO | U | T1 |
| 15 | 011 | Extension Hill | 1 6 18 0 | | | | | | | | | | | 11 | 394 | ST | U | T12 |
| 16 | 009 | Extension Hill | 1 6 13 0 | | | | | | | | | | | 9 | 400 | MO | U | T1 |
| 17 | 013 | Extension Hill | 1 7 13 0 | | | | | | | | | | | 13 | 415 | MO | R | T1 |
| 18 | 026 | Iron Hill North | 1 7 12 0 | | | | | | | | | | | 26 | 408 | ST | U | T1 |
| 19 | 014 | Extension Hill | 1 7 14 0 | | | | | | | | | | | 14 | 402 | ST | U | T1 |
| 20 | 029 | Iron Hill North | 1 7 15 0 | | | | | | | | | | | 29 | 417 | ST | U | T1 |
| 21 | 028 | Iron Hill North | 1 7 17 0 | | | | | | | | | | | 28 | 417 | MO | R | T1 |
| 22 | 025 | Iron Hill North | 1 7 11 0 | | | | | | | | | | | 25 | 425 | MO | R | T1 |
| 23 | 031 | Iron Hill North | 1 7 15 0 | | | | | | | | | | | 31 | 425 | VG | R | T1 |
| 24 | 032 | Iron Hill North | 1 7 14 0 | | | | | | | | | | | 32 | 422 | ST | U | T1 |
| 25 | 027 | Iron Hill North | 1 7 12 0 | | | | | | | | | | | 27 | 417 | MO | U | T3 |
| 26 | 030 | Iron Hill North | 1 7 15 0 | | | | | | | | | | | 30 | 421 | MO | U | T1 |
| 27 | 033 | Iron Hill North | 1 7 14 0 | | | | | | | | | | | 33 | 418 | ST | U | T1 |
| 28 | 034 | Iron Hill North | 1 7 16 0 | | | | | | | | | | | 34 | 420 | LE | R | T1 |
| 29 | 012 | Extension Hill | 1 8 12 0 | | | | | | | | | | | 12 | 401 | MO | U | T1 |
| 30 | 038 | Iron Hill | 1 8 13 0 | | | | | | | | | | | 38 | 403 | MO | R | T3 |
| 31 | 039 | Iron Hill | 1 8 14 0 | | | | | | | | | | | 39 | 398 | VG | R | T3 |
| 32 | 049 | Iron Hill East | 1 9 15 0 | | | | | | | | | | | 49 | 445 | MO | R | T3 |
| 33 | 050 | Mt Gibson North | 1 9 20 0 | | | | | | | | | | | 50 | 435 | MO | R | T6 |
| 34 | 054 | Mt Gibson North | 1 9 17 0 | | | | | | | | | | | 54 | 438 | MO | R | T6 |
| 35 | 051 | Mt Gibson North | 1 9 16 0 | | | | | | | | | | | 51 | 443 | ST | R | T6 |
| 36 | 052 | Mt Gibson North | 1 9 19 0 | | | | | | | | | | | 52 | 448 | ST | R | T6 |
| 37 | 053 | Mt Gibson North | 1 9 17 0 | | | | | | | | | | | 53 | 453 | MO | R | T6 |
| 38 | 045 | Iron Hill | 1 10 18 0 | | | | | | | | | | | 45 | 408 | ST | U | T3 |
| 39 | 016 | Extension Hill | 2 11 13 2 | | | | | | | | | | | 16 | 413 | GE | R | T1 |
| 40 | 036 | Iron Hill North | 2 11 20 0 | | | | | | | | | | | 36 | 424 | GE | U | T1 |
| 41 | 035 | Iron Hill North | 2 11 19 0 | | | | | | | | | | | 35 | 421 | GE | R | T1 |
| 42 | 017 | Extension Hill | 2 11 14 0 | | | | | | | | | | | 17 | 402 | MO | U | T1 |
| 43 | 037 | Iron Hill North | 2 11 13 0 | | | | | | | | | | | 37 | 413 | GE | U | T1 |
| 44 | 019 | Extension Hill | 2 12 16 2 | | | | | | | | | | | 19 | 419 | ST | R | T1 |
| 45 | 020 | Extension Hill | 2 12 16 2 | | | | | | | | | | | 20 | 404 | MO | U | T1 |
| 46 | 023 | Extension Hill | 2 12 12 1 | | | | | | | | | | | 23 | 432 | MO | U | T1 |
| 47 | 018 | Extension Hill | 2 13 16 0 | | | | | | | | | | | 18 | 396 | MO | U | T1 |
| 48 | 047 | Iron Hill East | 2 13 11 1 | | | | | | | | | | | 47 | 382 | GE | M | T3 |
| 49 | 024 | Extension Hill | 2 14 13 2 | | | | | | | | | | | 24 | 441 | GE | U | T1 |
| 50 | 048 | Iron Hill East | 2 15 16 1 | | | | | | | | | | | 48 | 391 | MO | M | T3 |
| 51 | 062 | Vermin Fence | 2 16 6 1 | | | | | | | | | | | 62 | 353 | VG | S | |
| 52 | 021 | Extension Hill | 2 17 14 3 | | | | | | | | | | | 21 | 415 | MO | U | T1 |
| 53 | 043 | Iron Hill | 2 17 18 2 | | | | | | | | | | | 43 | 396 | MO | U | T5 |
| 54 | 041 | Iron Hill | 2 17 19 1 | | | | | | | | | | | 41 | 406 | VG | R | T5 |
| 55 | 022 | Extension Hill | 2 17 14 2 | | | | | | | | | | | 22 | 444 | GE | R | T1 |
| 56 | 040 | Iron Hill | 2 17 16 1 | | | | | | | | | | | 40 | 414 | GE | R | T5 |
| 57 | 055 | Mt Gibson North | 2 17 20 1 | | | | | | | | | | | 55 | 454 | MO | U | T6 |
| 58 | 056 | Mt Gibson North | 2 17 19 1 | | | | | | | | | | | 56 | 455 | MO | U | T6 |
| 59 | 060 | Mt Gibson South | 2 17 12 2 | | | | | | | | | | | 60 | 392 | GE | U | M4 |
| 60 | 057 | Mt Gibson North | 2 17 28 1 | | | | | | | | | | | 57 | 451 | VG | R | T6 |
| 61 | 046 | Iron Hill | 2 18 21 2 | | | | | | | | | | | 46 | 390 | MO | M | T3 |
| 62 | 042 | Iron Hill | 3 19 19 0 | | | | | | | | | | | 42 | 410 | VG | R | T5 |
| 63 | 044 | Iron Hill | 3 19 18 0 | | | | | | | | | | | 44 | 416 | ST | R | T3 |
| 64 | 063 | Taylor Well | 3 20 11 1 | | | | | | | | | | | 63 | 337 | MO | R | |
| 65 | 064 | Taylor Well | 3 20 11 0 | | | | | | | | | | | 64 | 359 | MO | R | |
| 66 | 058 | Mt Gibson South | 3 21 10 0 | | | | | | | | | | | 58 | 395 | GE | R | HS1 |
| 67 | 059 | Mt Gibson South | 3 21 12 1 | | | | | | | | | | | 59 | 402 | ST | R | HS1 |
| 68 | 088 | Well (ruin) E | 4 22 18 1 | | | | | | | | | | | 88 | 338 | MO | R | |
| 69 | 090 | Well (ruin) E | 4 23 19 1 | | | | | | | | | | | 90 | 331 | GE | F | |
| 70 | 091 | Well (ruin) E | 4 23 18 1 | | | | | | | | | | | 91 | 335 | VG | F | |
| 71 | 089 | Well (ruin) E | 4 24 13 1 | | | | | | | | | | | 89 | 330 | VG | F | |
| 72 | 077 | Mt Singleton | 5 25 7 0 | | | | | | | | | | | 77 | 435 | MO | U | |
| 73 | 081 | SW Mt Singleton | 5 26 7 3 | | | | | | | | | | | 81 | 459 | GE | H | |
| 74 | 082 | SW Mt Singleton | 5 26 5 3 | | | | | | | | | | | 82 | 460 | VG | H | |

Association Matrix Site by Site (Values >= 0.6 omitted)

Table with 45 columns (ID, site, gp10, gp28, gp40, name, 5-45) and 45 rows of association matrix data. Includes site names like 'Iron Hill', 'Mt Gibson South', and 'Mt Singleton'.

Association Matrix Site by Site (Values >

| | | | | | SW Mt Singleton | SW Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Mt Singleton | Coonigal Well | Coonigal Well | Well (ruin) E | Well (ruin) E | | | |
|-----|------|------|------|------|---------------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|-------|-------|-------|
| | | | | | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | | | |
| | | | | | 23 | 23 | 24 | 24 | 24 | 24 | 24 | 25 | 25 | 25 | 26 | 26 | 26 | 27 | 27 | 27 | | | |
| | | | | | 33 | 33 | 34 | 34 | 34 | 34 | 34 | 35 | 36 | 36 | 37 | 37 | 37 | 38 | 39 | 39 | | | |
| | | | | | 15 | 11 | 14 | 14 | 13 | 13 | 14 | 25 | 13 | 21 | 15 | 20 | 14 | 21 | 24 | 22 | | | |
| | | | | | 3 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | | | |
| | | | | | 81 | 82 | 66 | 70 | 67 | 69 | 68 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | | | |
| ID | site | gp10 | gp28 | gp40 | name | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 |
| 62 | 042 | 3 | 14 | 19 | Iron Hill | | | | | | | | | | | | | | | | | | |
| 63 | 044 | 3 | 14 | 19 | Iron Hill | | | | | | | | | | | | | | | | | | |
| 64 | 058 | 3 | 15 | 20 | Mt Gibson South | | | | | | | | | | | 0.59 | | 0.55 | | | | 0.569 | |
| 65 | 059 | 3 | 15 | 20 | Mt Gibson South | | | | | | | | | | | | | | | | | | |
| 66 | 088 | 4 | 16 | 21 | Well (ruin) E | | | | | | | | | | | | | | | | | 0.567 | 0.544 |
| 67 | 089 | 4 | 17 | 22 | Well (ruin) E | | | | | | | | | | 0.59 | | | | | | | | |
| 68 | 063 | 5 | 18 | 23 | Taylor Well | | | | | | | | | | | | | | 0.522 | | 0.575 | 0.579 | 0.593 |
| 69 | 064 | 5 | 18 | 23 | Taylor Well | | | | | | | | | | | | 0.556 | | 0.565 | | 0.447 | 0.579 | 0.593 |
| 70 | 083 | 5 | 18 | 24 | East GNH | | | | | | | | 0.593 | | | 0.51 | | 0.56 | 0.547 | 0.569 | | | |
| 71 | 084 | 5 | 18 | 24 | East GNH | | | | | | | | 0.56 | | | 0.556 | | | | | | | |
| 72 | 085 | 5 | 18 | 24 | East GNH | | | | | | | | | | | | | | | | 0.583 | | |
| 73 | 065 | 5 | 19 | 25 | East GNH | | | | | | | | | | | | | | | | | | |
| 74 | 093 | 5 | 19 | 26 | East Extension Hill | | | | | | | | | | | | | | 0.556 | | 0.478 | 0.571 | 0.547 |
| 75 | 094 | 5 | 19 | 26 | East Extension Hill | | | | | | | | | | | 0.546 | | | | | 0.435 | 0.571 | |
| 76 | 095 | 5 | 19 | 26 | East Extension Hill | | | | | | | | | | | | | | | | | | |
| 77 | 092 | 5 | 19 | 27 | Fence | | | | | | | | | | | 0.489 | | 0.583 | 0.529 | 0.51 | 0.559 | | |
| 78 | 096 | 6 | 20 | 28 | East Extension Hill | 0.529 | | | | | | | | | | | | | | | | | |
| 79 | 100 | 6 | 20 | 28 | Yandhanoo Hill | | | | | | | | | | | | | | | | | | |
| 80 | 097 | 6 | 20 | 28 | East Extension Hill | | | | | | | | | | | | | | | | | | |
| 81 | 098 | 6 | 20 | 28 | Yandhanoo Hill | | | | | | | | | | | | | | | | | | |
| 82 | 099 | 6 | 20 | 29 | Yandhanoo Hill | | | | | | | | | | | | | | | | | | |
| 83 | 061 | 7 | 21 | 30 | Vermin Fence | | | | | | | | | | | | | | | | | | |
| 84 | 086 | 7 | 21 | 31 | Well (ruin) E | | | | | | | | | | | | | | | | | | |
| 85 | 087 | 7 | 21 | 31 | Well (ruin) E | | | | | | | | | | | | | | | | | | |
| 86 | 080 | 8 | 22 | 32 | SW Mt Singleton | | | | | | | | | | | | | | | | | | |
| 87 | 081 | 8 | 23 | 33 | SW Mt Singleton | 0 | 0.308 | | | | | | | | | | | | | | | | |
| 88 | 082 | 8 | 23 | 33 | SW Mt Singleton | 0.308 | 0 | | | | | | | | | | | | | | | | |
| 89 | 066 | 9 | 24 | 34 | Mt Singleton | | | 0 | 0.214 | 0.259 | 0.333 | 0.286 | | | 0.543 | 0.586 | 0.529 | 0.571 | | | | | |
| 90 | 070 | 9 | 24 | 34 | Mt Singleton | | | 0.214 | 0 | 0.259 | 0.333 | 0.429 | | | | 0.586 | | | | | | | |
| 91 | 067 | 9 | 24 | 34 | Mt Singleton | | | 0.259 | 0.259 | 0 | 0.231 | 0.407 | | | | 0.571 | 0.576 | | | | | | |
| 92 | 069 | 9 | 24 | 34 | Mt Singleton | | | 0.333 | 0.333 | 0.231 | 0 | 0.407 | | 0.579 | | 0.5 | | | | | | | |
| 93 | 068 | 9 | 24 | 34 | Mt Singleton | | | 0.286 | 0.429 | 0.407 | 0.407 | 0 | | 0.556 | 0.543 | 0.517 | 0.588 | 0.5 | | | | | |
| 94 | 071 | 10 | 25 | 35 | Mt Singleton | | | | | | 0.579 | | 0 | 0.526 | 0.478 | 0.45 | 0.422 | | 0.522 | 0.469 | 0.575 | | |
| 95 | 072 | 10 | 25 | 36 | Mt Singleton | | | | | | 0.556 | 0.526 | 0 | 0.412 | 0.571 | 0.576 | 0.556 | | 0.568 | | | | |
| 96 | 073 | 10 | 25 | 36 | Mt Singleton | | | 0.543 | | | 0.543 | 0.478 | 0.412 | 0 | 0.556 | 0.463 | 0.486 | | 0.422 | 0.581 | | | |
| 97 | 074 | 10 | 26 | 37 | Mt Singleton | | | 0.586 | 0.586 | 0.571 | 0.5 | 0.517 | 0.45 | 0.571 | 0.556 | 0 | 0.371 | 0.379 | | 0.539 | 0.568 | | |
| 98 | 075 | 10 | 26 | 37 | Mt Singleton | | | 0.529 | | 0.576 | 0.588 | 0.422 | 0.576 | 0.463 | 0.371 | 0 | 0.471 | 0.463 | 0.409 | 0.476 | 0.577 | | |
| 99 | 076 | 10 | 26 | 37 | Mt Singleton | | | 0.571 | | | 0.5 | | 0.556 | 0.486 | 0.379 | 0.471 | 0 | | 0.526 | | | | |
| 100 | 077 | 10 | 27 | 38 | Mt Singleton | | | | | | | 0.522 | | | | 0.463 | | 0 | 0.511 | 0.488 | | | |
| 101 | 078 | 10 | 27 | 39 | Coonigal Well | | | | | | | 0.469 | 0.568 | 0.422 | 0.539 | 0.409 | 0.526 | 0.511 | 0 | 0.435 | 0.5 | | |
| 102 | 079 | 10 | 27 | 39 | Coonigal Well | | | | | | | 0.575 | | 0.581 | 0.568 | 0.476 | | 0.488 | 0.435 | 0 | 0.519 | 0.529 | |
| 103 | 090 | 10 | 28 | 40 | Well (ruin) E | | | | | | | | | | | 0.577 | | | 0.5 | 0.519 | 0 | 0.377 | |
| 104 | 091 | 10 | 28 | 40 | Well (ruin) E | | | | | | | | | | | | | | | 0.529 | 0.377 | 0 | |

Average similarity of sites in groups (lowest values are most similar)
highlighted cells are within group averages

| gp10 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 0.44 | 0.56 | 0.69 | 0.79 | 0.74 | 0.81 | 0.76 | 0.91 | 0.77 | 0.74 |
| 2 | 0.56 | 0.48 | 0.74 | 0.81 | 0.76 | 0.77 | 0.71 | 0.90 | 0.81 | 0.77 |
| 3 | 0.69 | 0.74 | 0.39 | 0.72 | 0.66 | 0.76 | 0.84 | 0.83 | 0.82 | 0.74 |
| 4 | 0.79 | 0.81 | 0.72 | 0.28 | 0.72 | 0.78 | 0.87 | 0.81 | 0.88 | 0.72 |
| 5 | 0.74 | 0.76 | 0.66 | 0.72 | 0.42 | 0.62 | 0.77 | 0.81 | 0.83 | 0.66 |
| 6 | 0.81 | 0.77 | 0.76 | 0.78 | 0.62 | 0.32 | 0.73 | 0.73 | 0.84 | 0.79 |
| 7 | 0.76 | 0.71 | 0.84 | 0.87 | 0.77 | 0.73 | 0.28 | 0.90 | 0.83 | 0.82 |
| 8 | 0.91 | 0.90 | 0.83 | 0.81 | 0.81 | 0.73 | 0.90 | 0.36 | 0.89 | 0.82 |
| 9 | 0.77 | 0.81 | 0.82 | 0.88 | 0.83 | 0.84 | 0.83 | 0.89 | 0.25 | 0.70 |
| 10 | 0.74 | 0.77 | 0.74 | 0.72 | 0.66 | 0.79 | 0.82 | 0.82 | 0.70 | 0.51 |

Average similarity of sites in groups (lowest values are most similar)
 highlighted cells are within group averages (0.00 for only one site)

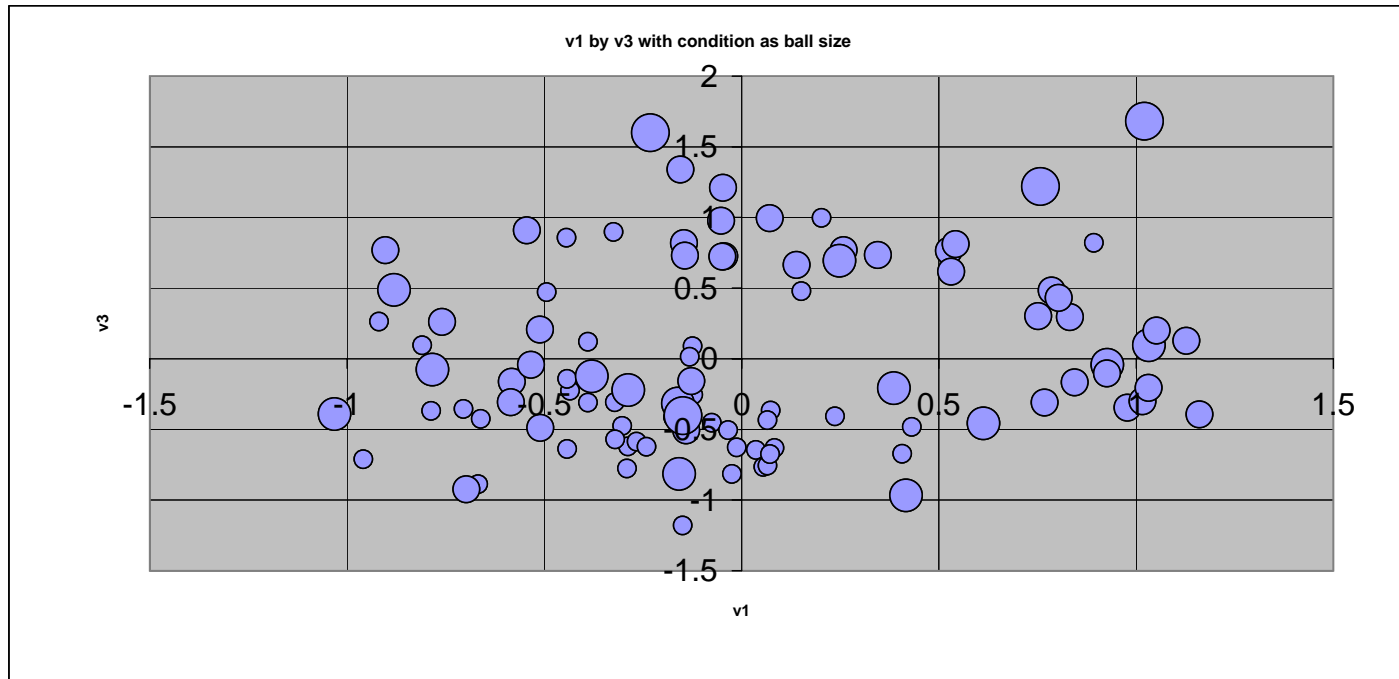
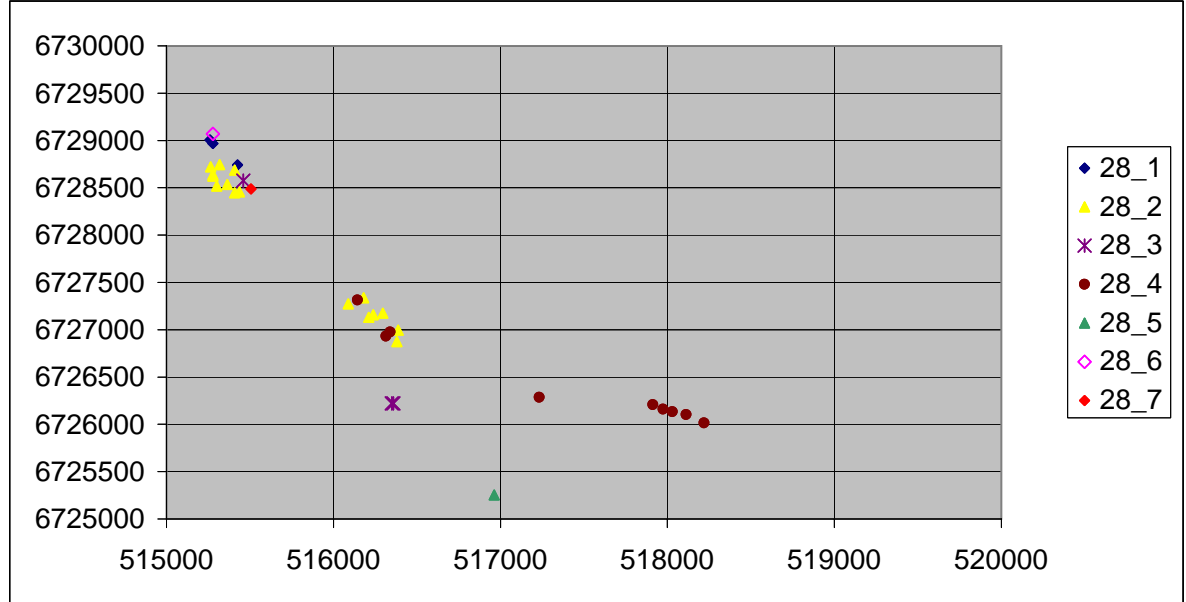
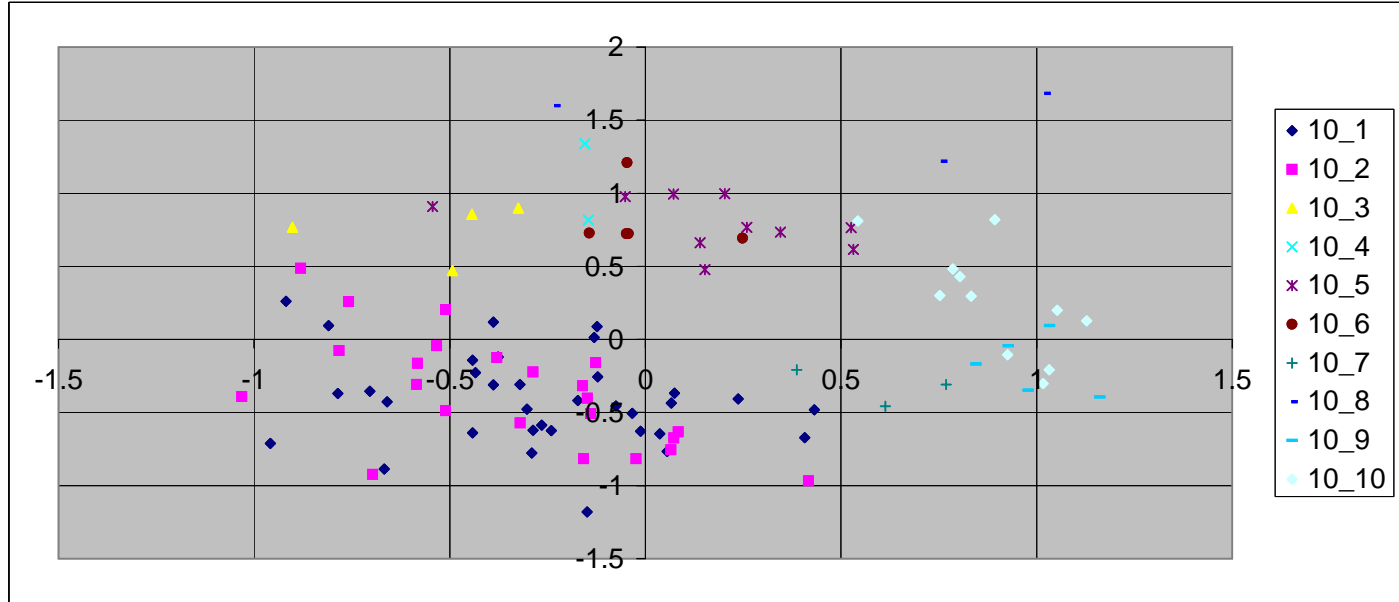
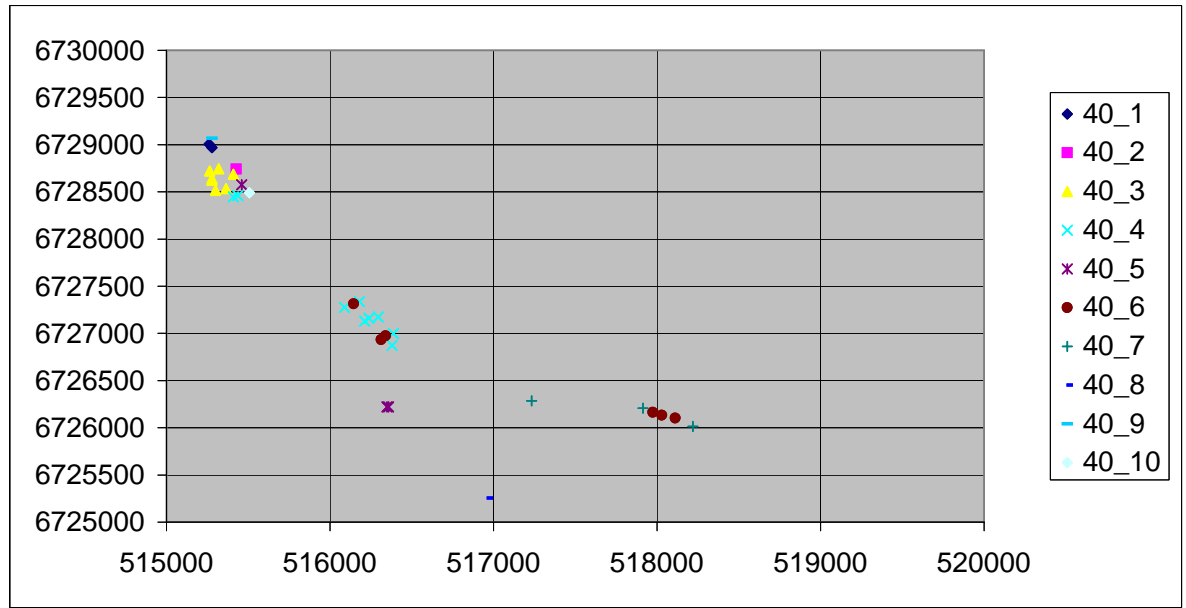
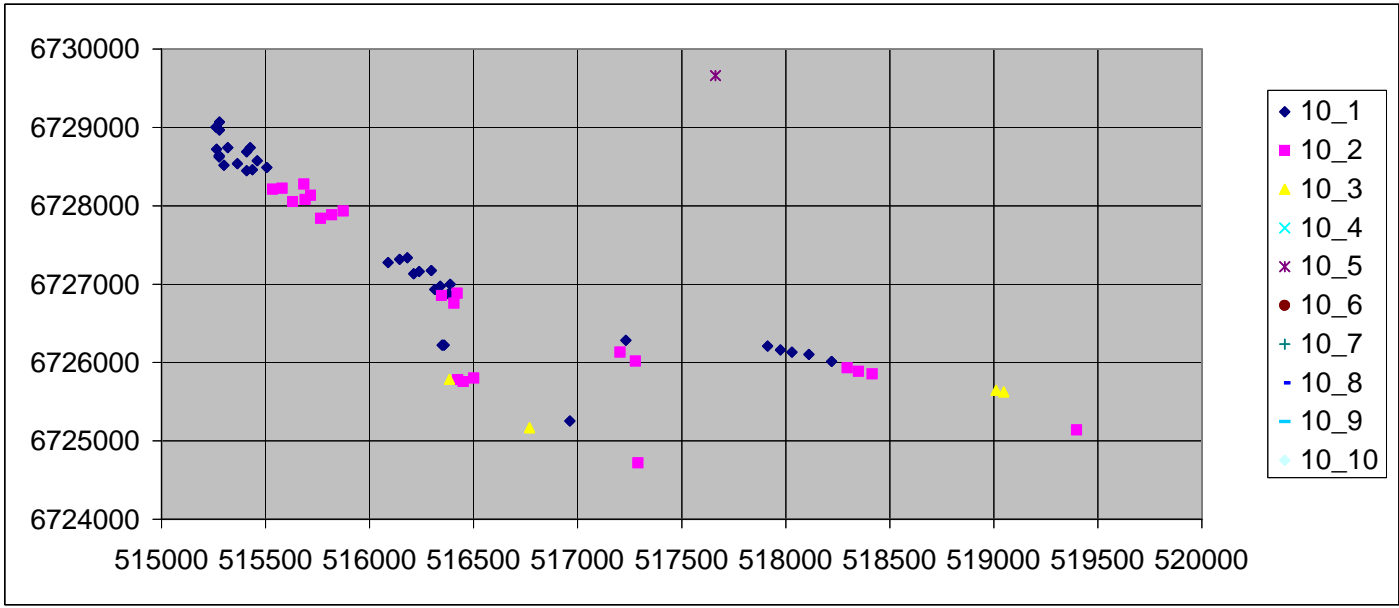
| gp10 | gp28 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 1 | 0.30 | 0.48 | 0.58 | 0.60 | 0.62 | 0.59 | 0.67 | 0.62 | 0.60 | 0.83 | 0.63 | 0.78 | 0.62 | 0.70 | 0.73 | 0.73 | 0.67 | 0.71 | 0.71 | 0.77 | 0.78 | 0.91 | 0.88 | 0.76 | 0.68 | 0.71 | 0.74 | 0.70 |
| 1 | 2 | 0.48 | 0.31 | 0.43 | 0.46 | 0.51 | 0.54 | 0.52 | 0.48 | 0.52 | 0.72 | 0.51 | 0.69 | 0.53 | 0.64 | 0.71 | 0.82 | 0.72 | 0.72 | 0.72 | 0.79 | 0.74 | 0.95 | 0.89 | 0.75 | 0.69 | 0.71 | 0.73 | 0.77 |
| 1 | 3 | 0.58 | 0.43 | 0.23 | 0.47 | 0.59 | 0.57 | 0.56 | 0.57 | 0.53 | 0.76 | 0.54 | 0.67 | 0.57 | 0.70 | 0.74 | 0.92 | 0.82 | 0.78 | 0.79 | 0.84 | 0.78 | 0.92 | 0.95 | 0.87 | 0.83 | 0.84 | 0.83 | 0.84 |
| 1 | 4 | 0.60 | 0.46 | 0.47 | 0.33 | 0.62 | 0.63 | 0.61 | 0.57 | 0.64 | 0.83 | 0.50 | 0.70 | 0.58 | 0.62 | 0.67 | 0.85 | 0.74 | 0.71 | 0.75 | 0.83 | 0.79 | 0.96 | 0.90 | 0.76 | 0.73 | 0.73 | 0.76 | 0.81 |
| 1 | 5 | 0.62 | 0.51 | 0.59 | 0.62 | 0.00 | 0.61 | 0.67 | 0.74 | 0.69 | 0.91 | 0.68 | 0.76 | 0.78 | 0.76 | 0.78 | 0.90 | 0.88 | 0.85 | 0.77 | 0.92 | 0.91 | 1.00 | 0.93 | 0.75 | 0.78 | 0.76 | 0.84 | 0.82 |
| 1 | 6 | 0.59 | 0.54 | 0.57 | 0.63 | 0.61 | 0.00 | 0.58 | 0.65 | 0.71 | 0.85 | 0.62 | 0.68 | 0.70 | 0.72 | 0.75 | 0.87 | 0.71 | 0.84 | 0.86 | 0.93 | 0.81 | 0.85 | 0.97 | 0.87 | 0.74 | 0.78 | 0.83 | 0.81 |
| 1 | 7 | 0.67 | 0.52 | 0.56 | 0.61 | 0.67 | 0.58 | 0.00 | 0.53 | 0.59 | 0.68 | 0.58 | 0.72 | 0.74 | 0.82 | 0.91 | 0.91 | 0.82 | 0.84 | 0.83 | 0.86 | 0.70 | 0.92 | 0.97 | 0.68 | 0.66 | 0.73 | 0.79 | 0.78 |
| 2 | 8 | 0.62 | 0.48 | 0.57 | 0.57 | 0.74 | 0.65 | 0.53 | 0.36 | 0.52 | 0.62 | 0.51 | 0.68 | 0.63 | 0.73 | 0.81 | 0.84 | 0.81 | 0.79 | 0.75 | 0.79 | 0.71 | 0.92 | 0.91 | 0.80 | 0.77 | 0.77 | 0.77 | 0.78 |
| 2 | 9 | 0.60 | 0.52 | 0.53 | 0.64 | 0.69 | 0.71 | 0.59 | 0.52 | 0.00 | 0.56 | 0.58 | 0.69 | 0.56 | 0.71 | 0.81 | 0.83 | 0.72 | 0.78 | 0.73 | 0.77 | 0.93 | 0.94 | 0.81 | 0.77 | 0.80 | 0.84 | 0.84 | 0.86 |
| 2 | 10 | 0.83 | 0.72 | 0.76 | 0.83 | 0.91 | 0.85 | 0.68 | 0.62 | 0.56 | 0.00 | 0.74 | 0.72 | 0.88 | 0.94 | 0.93 | 0.89 | 0.78 | 0.88 | 0.88 | 0.79 | 0.75 | 0.89 | 0.87 | 0.95 | 0.84 | 0.86 | 0.92 | 0.90 |
| 2 | 11 | 0.63 | 0.51 | 0.54 | 0.50 | 0.68 | 0.62 | 0.58 | 0.51 | 0.58 | 0.74 | 0.33 | 0.50 | 0.56 | 0.61 | 0.78 | 0.83 | 0.78 | 0.75 | 0.72 | 0.74 | 0.68 | 0.89 | 0.88 | 0.79 | 0.76 | 0.74 | 0.77 | 0.78 |
| 2 | 12 | 0.78 | 0.69 | 0.67 | 0.70 | 0.76 | 0.68 | 0.72 | 0.68 | 0.69 | 0.72 | 0.50 | 0.00 | 0.68 | 0.59 | 0.62 | 0.75 | 0.82 | 0.74 | 0.76 | 0.76 | 0.78 | 0.84 | 0.88 | 0.88 | 0.83 | 0.77 | 0.77 | 0.70 |
| 2 | 13 | 0.62 | 0.53 | 0.57 | 0.58 | 0.78 | 0.70 | 0.74 | 0.63 | 0.56 | 0.88 | 0.56 | 0.68 | 0.00 | 0.66 | 0.78 | 0.80 | 0.80 | 0.68 | 0.68 | 0.76 | 0.77 | 0.94 | 0.92 | 0.83 | 0.80 | 0.75 | 0.68 | 0.74 |
| 3 | 14 | 0.70 | 0.64 | 0.70 | 0.62 | 0.76 | 0.72 | 0.82 | 0.73 | 0.71 | 0.94 | 0.61 | 0.59 | 0.66 | 0.23 | 0.59 | 0.69 | 0.66 | 0.63 | 0.69 | 0.77 | 0.75 | 0.85 | 0.81 | 0.80 | 0.78 | 0.75 | 0.71 | 0.66 |
| 3 | 15 | 0.73 | 0.71 | 0.74 | 0.67 | 0.78 | 0.75 | 0.91 | 0.81 | 0.81 | 0.93 | 0.78 | 0.62 | 0.78 | 0.59 | 0.17 | 0.78 | 0.72 | 0.58 | 0.74 | 0.75 | 0.92 | 0.79 | 0.84 | 0.83 | 0.77 | 0.77 | 0.70 | 0.70 |
| 4 | 16 | 0.73 | 0.82 | 0.92 | 0.85 | 0.90 | 0.87 | 0.91 | 0.84 | 0.83 | 0.89 | 0.83 | 0.75 | 0.80 | 0.69 | 0.78 | 0.00 | 0.57 | 0.71 | 0.70 | 0.80 | 0.88 | 0.84 | 0.81 | 0.89 | 0.77 | 0.82 | 0.76 | 0.56 |
| 4 | 17 | 0.67 | 0.72 | 0.82 | 0.74 | 0.88 | 0.71 | 0.82 | 0.81 | 0.72 | 0.78 | 0.78 | 0.82 | 0.80 | 0.66 | 0.72 | 0.57 | 0.00 | 0.70 | 0.76 | 0.76 | 0.85 | 0.86 | 0.78 | 0.86 | 0.63 | 0.79 | 0.72 | 0.63 |
| 5 | 18 | 0.71 | 0.72 | 0.78 | 0.71 | 0.85 | 0.84 | 0.84 | 0.79 | 0.72 | 0.88 | 0.75 | 0.74 | 0.68 | 0.63 | 0.58 | 0.71 | 0.70 | 0.30 | 0.52 | 0.58 | 0.75 | 0.84 | 0.81 | 0.84 | 0.73 | 0.67 | 0.59 | 0.64 |
| 5 | 19 | 0.71 | 0.72 | 0.79 | 0.75 | 0.77 | 0.86 | 0.83 | 0.75 | 0.78 | 0.88 | 0.72 | 0.76 | 0.68 | 0.69 | 0.74 | 0.70 | 0.76 | 0.52 | 0.35 | 0.66 | 0.79 | 0.81 | 0.80 | 0.82 | 0.74 | 0.68 | 0.60 | 0.64 |
| 6 | 20 | 0.77 | 0.79 | 0.84 | 0.83 | 0.92 | 0.93 | 0.86 | 0.79 | 0.73 | 0.79 | 0.74 | 0.76 | 0.76 | 0.77 | 0.75 | 0.80 | 0.76 | 0.58 | 0.66 | 0.32 | 0.73 | 0.75 | 0.72 | 0.84 | 0.82 | 0.78 | 0.77 | 0.80 |
| 7 | 21 | 0.78 | 0.74 | 0.78 | 0.79 | 0.91 | 0.81 | 0.70 | 0.71 | 0.77 | 0.75 | 0.68 | 0.78 | 0.77 | 0.75 | 0.92 | 0.88 | 0.85 | 0.75 | 0.79 | 0.73 | 0.28 | 0.90 | 0.90 | 0.83 | 0.83 | 0.79 | 0.82 | 0.83 |
| 8 | 22 | 0.91 | 0.95 | 0.92 | 0.96 | 1.00 | 0.85 | 0.92 | 0.92 | 0.93 | 0.89 | 0.89 | 0.84 | 0.94 | 0.85 | 0.79 | 0.84 | 0.86 | 0.84 | 0.81 | 0.75 | 0.90 | 0.00 | 0.66 | 0.97 | 0.86 | 0.92 | 0.90 | 0.85 |
| 8 | 23 | 0.88 | 0.89 | 0.95 | 0.90 | 0.93 | 0.97 | 0.97 | 0.91 | 0.94 | 0.87 | 0.88 | 0.88 | 0.92 | 0.81 | 0.84 | 0.81 | 0.78 | 0.81 | 0.80 | 0.72 | 0.90 | 0.66 | 0.15 | 0.86 | 0.79 | 0.82 | 0.76 | 0.76 |
| 9 | 24 | 0.76 | 0.75 | 0.87 | 0.76 | 0.75 | 0.87 | 0.68 | 0.80 | 0.81 | 0.95 | 0.79 | 0.88 | 0.83 | 0.80 | 0.83 | 0.89 | 0.86 | 0.84 | 0.82 | 0.84 | 0.83 | 0.97 | 0.86 | 0.25 | 0.66 | 0.58 | 0.79 | 0.79 |
| 10 | 25 | 0.68 | 0.69 | 0.83 | 0.73 | 0.78 | 0.74 | 0.66 | 0.77 | 0.77 | 0.84 | 0.76 | 0.83 | 0.80 | 0.78 | 0.77 | 0.77 | 0.63 | 0.73 | 0.74 | 0.82 | 0.83 | 0.86 | 0.79 | 0.66 | 0.31 | 0.52 | 0.58 | 0.68 |
| 10 | 26 | 0.71 | 0.71 | 0.84 | 0.73 | 0.76 | 0.78 | 0.73 | 0.77 | 0.80 | 0.86 | 0.74 | 0.77 | 0.75 | 0.75 | 0.77 | 0.82 | 0.79 | 0.67 | 0.68 | 0.78 | 0.79 | 0.92 | 0.82 | 0.58 | 0.52 | 0.27 | 0.56 | 0.65 |
| 10 | 27 | 0.74 | 0.73 | 0.83 | 0.76 | 0.84 | 0.83 | 0.79 | 0.77 | 0.84 | 0.92 | 0.77 | 0.77 | 0.68 | 0.71 | 0.70 | 0.76 | 0.72 | 0.59 | 0.60 | 0.77 | 0.82 | 0.90 | 0.76 | 0.79 | 0.58 | 0.56 | 0.32 | 0.57 |
| 10 | 28 | 0.70 | 0.77 | 0.84 | 0.81 | 0.82 | 0.81 | 0.78 | 0.78 | 0.86 | 0.90 | 0.78 | 0.70 | 0.74 | 0.66 | 0.70 | 0.56 | 0.63 | 0.64 | 0.64 | 0.80 | 0.83 | 0.85 | 0.76 | 0.79 | 0.68 | 0.65 | 0.57 | 0.19 |

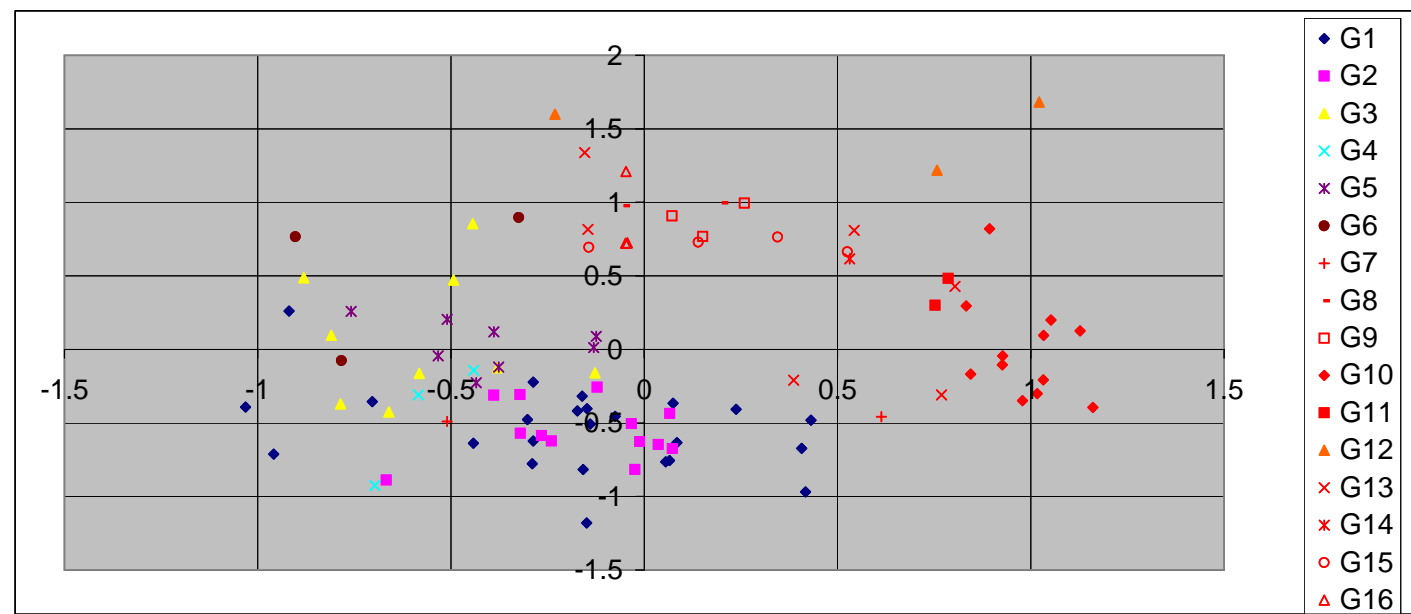
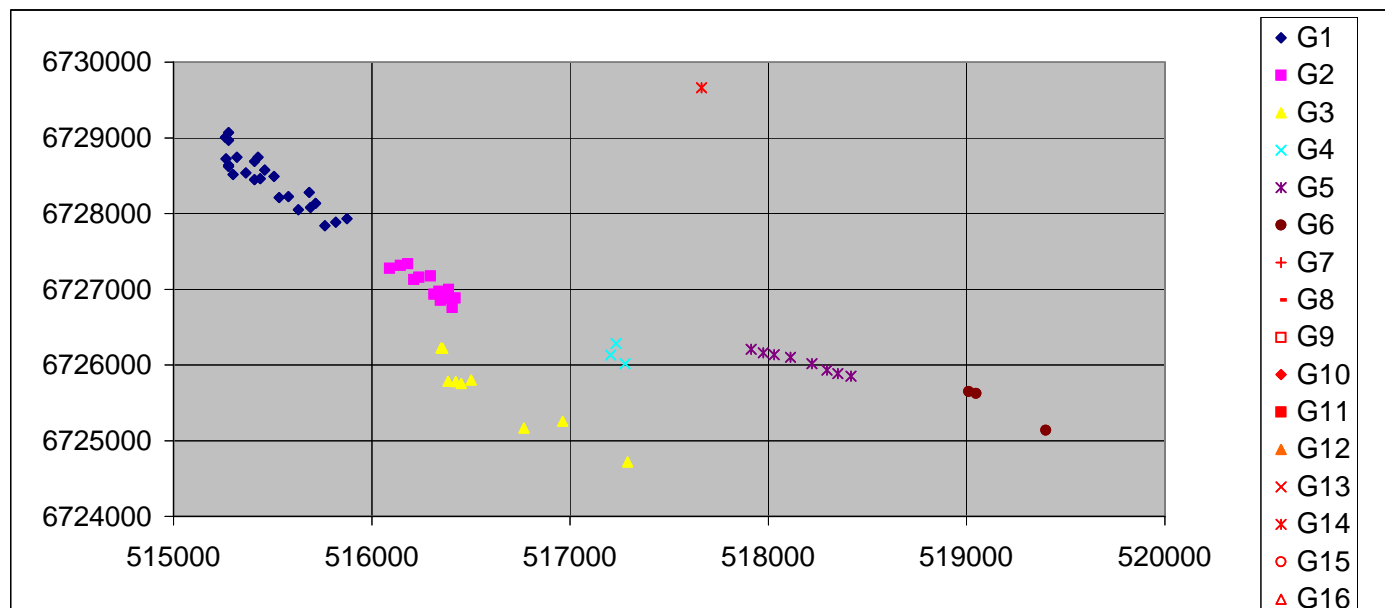
All, Slope class

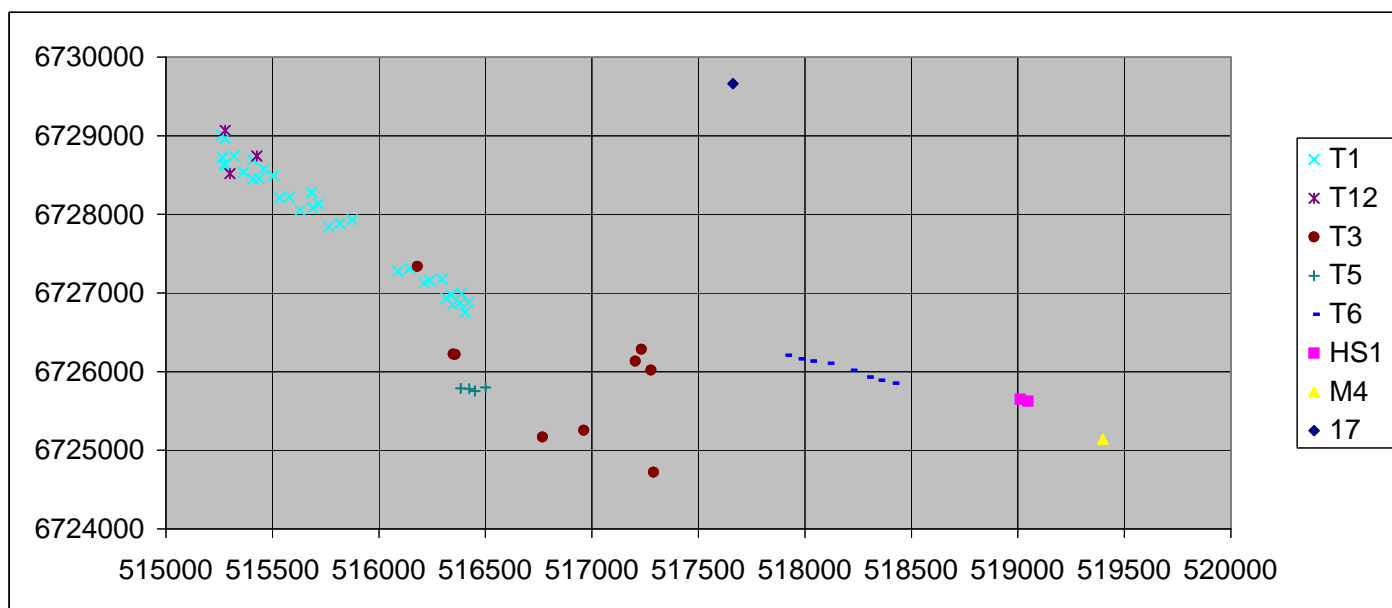
| gp10 | gp40 | LE | VG | GE | MO | ST |
|------|------|----|----|----|----|----|
| 1 | 1 | | 1 | 1 | | |
| 1 | 2 | | | | | 1 |
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| 4 | 22 | | 1 | | | |
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| 5 | 27 | | | 1 | | |
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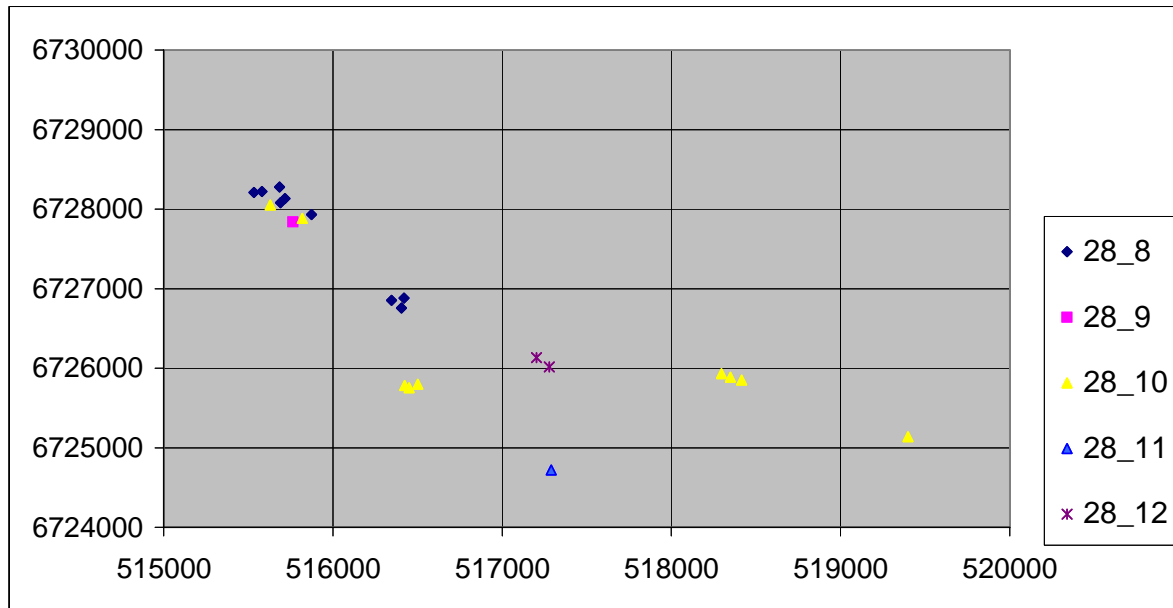
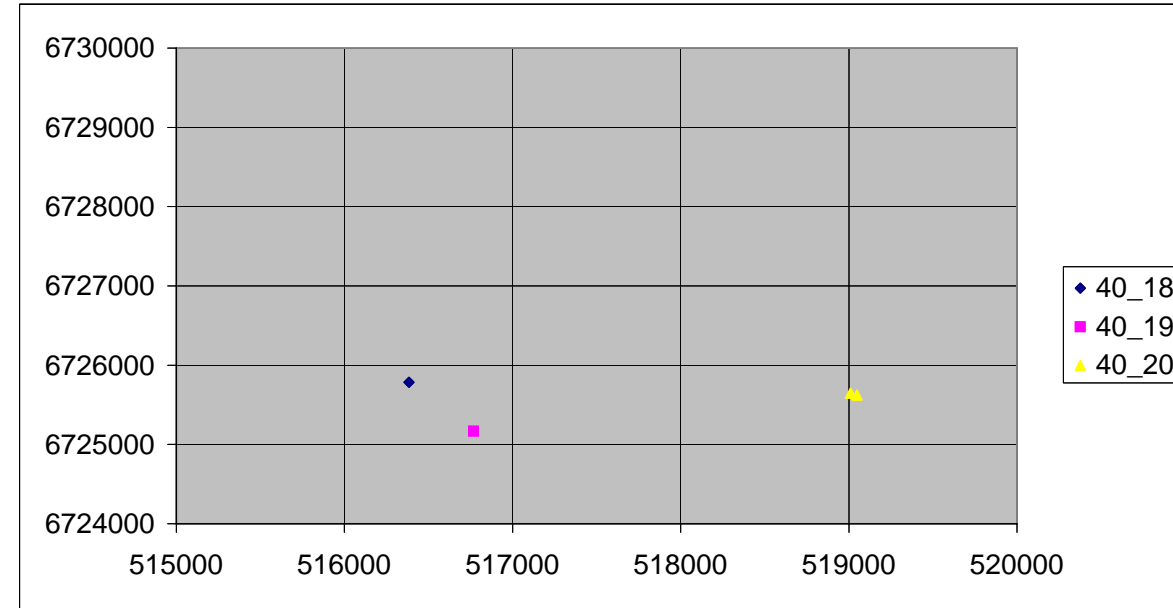
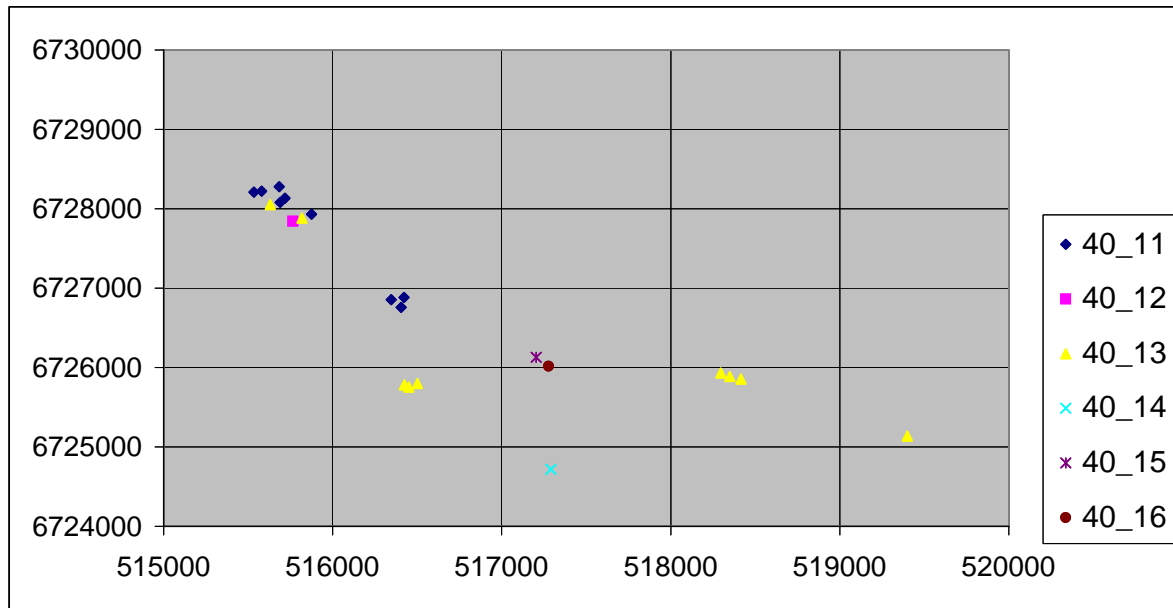
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| 5 | 24 | | | | | 1 | 2 |
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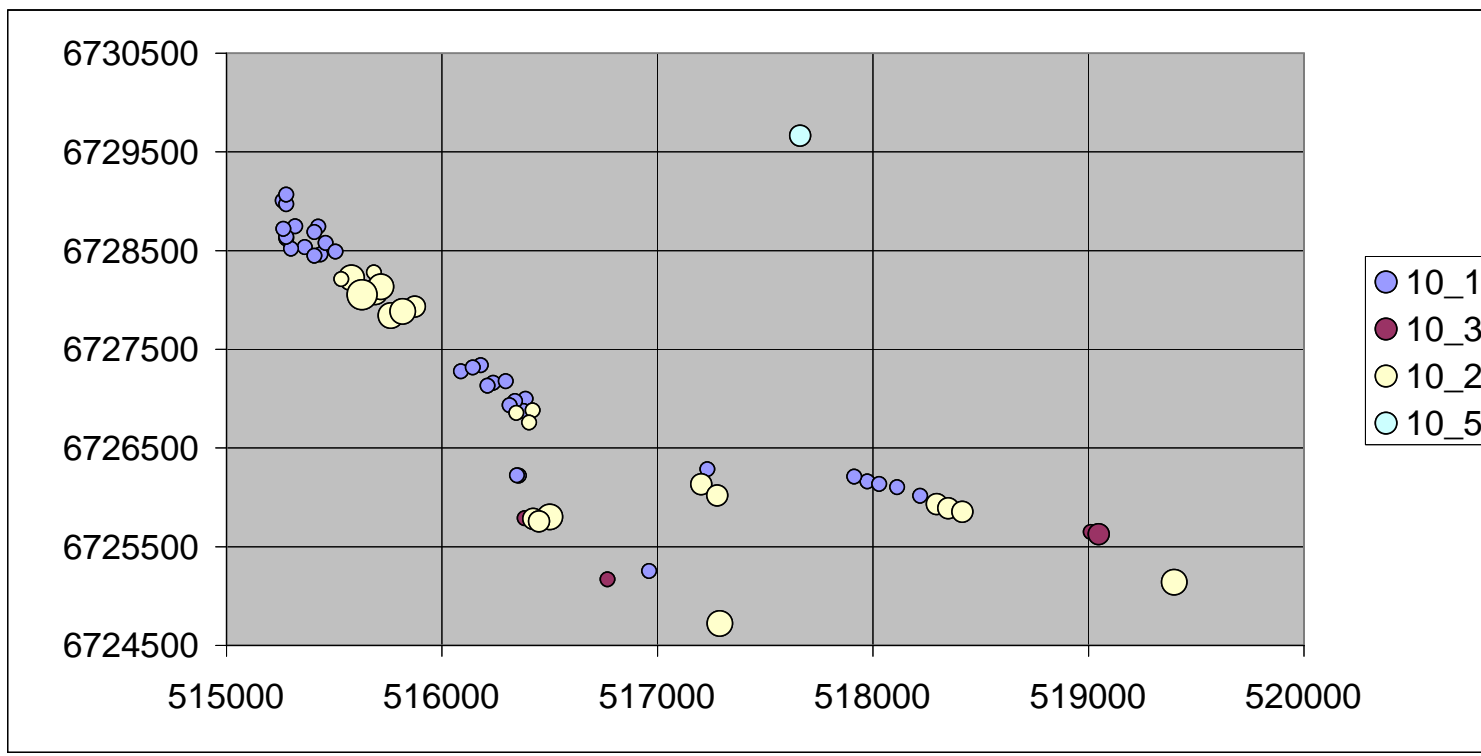
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| 70 089 | 89 | 330 | VG | F | | 4 | | 22 | 18 | 1 | 2 | -0.1453 | -0.7903 | 0.8164 | 516145 | 6732981 | 13 | 67 |
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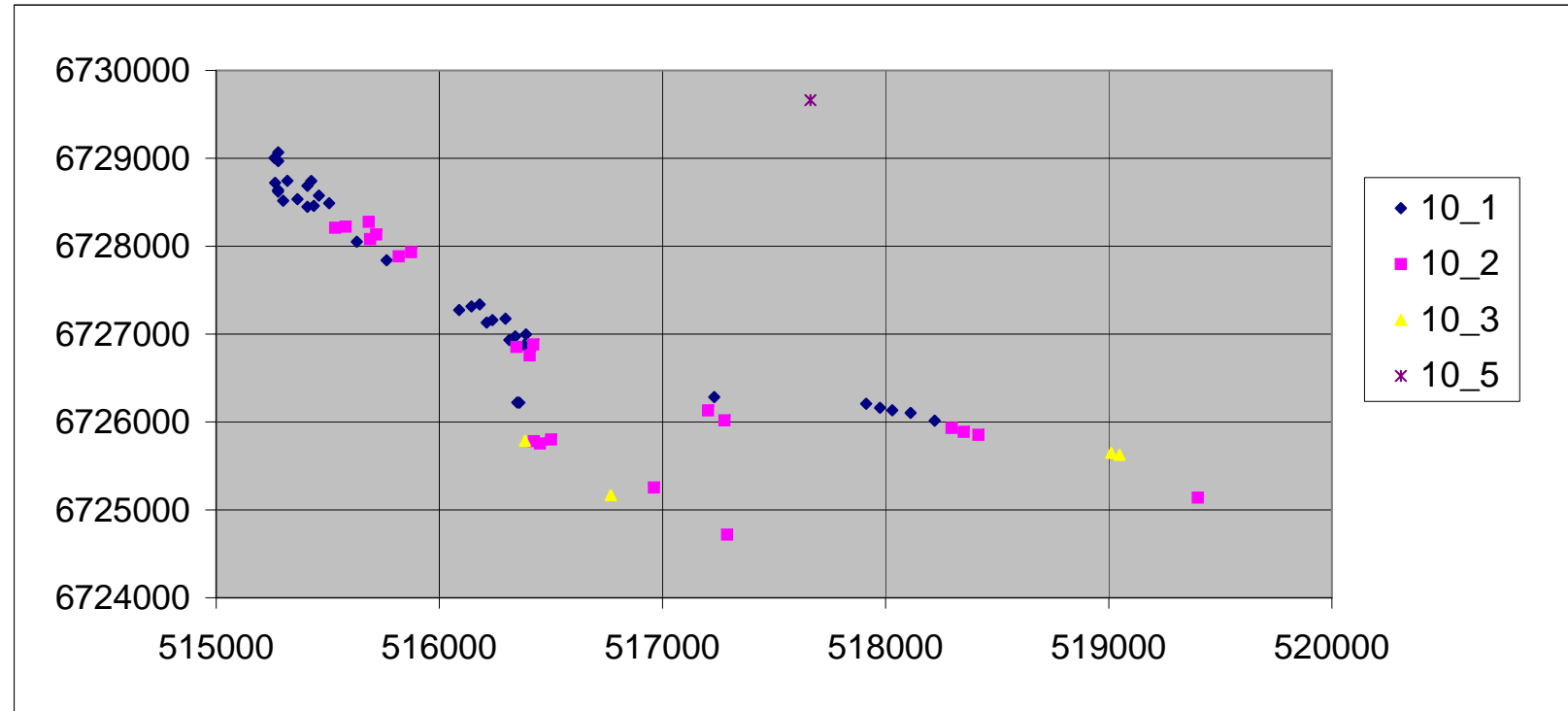




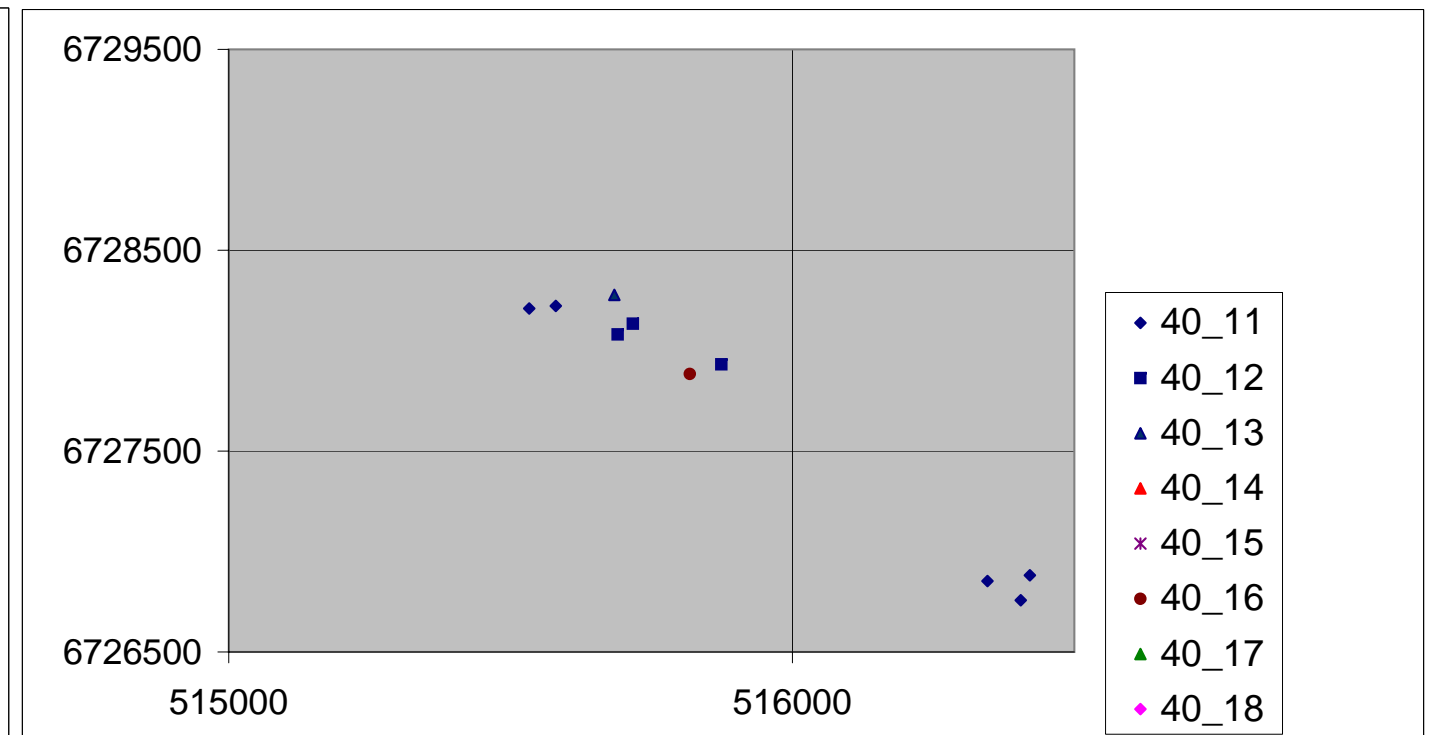
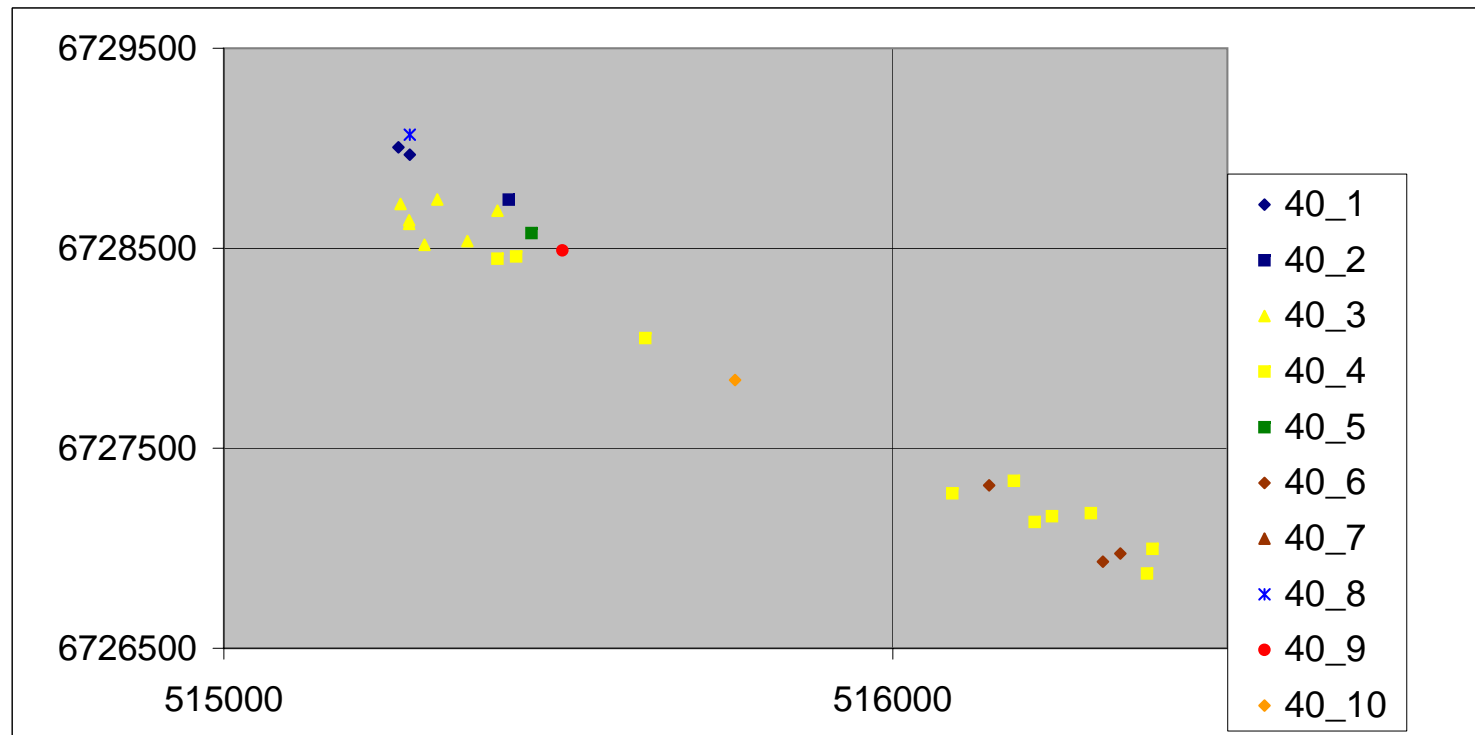
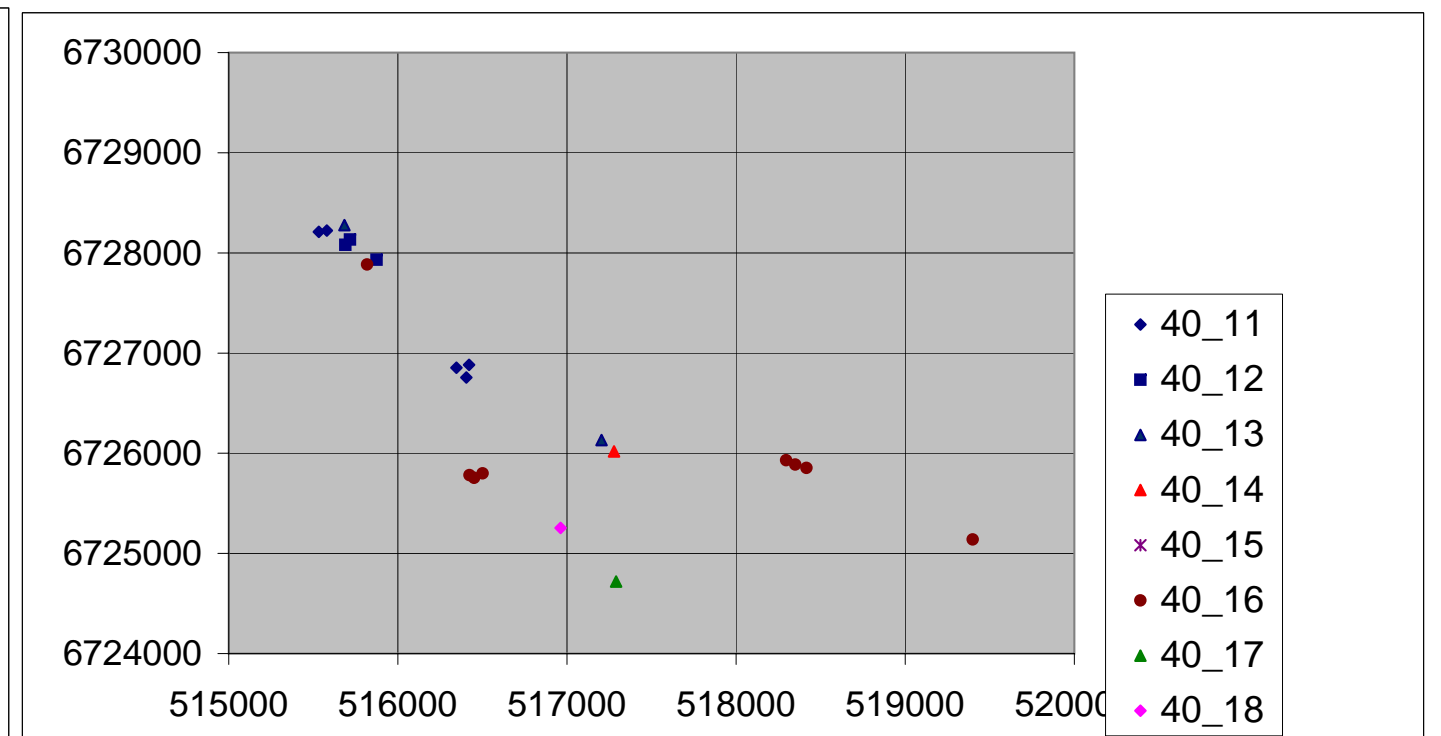
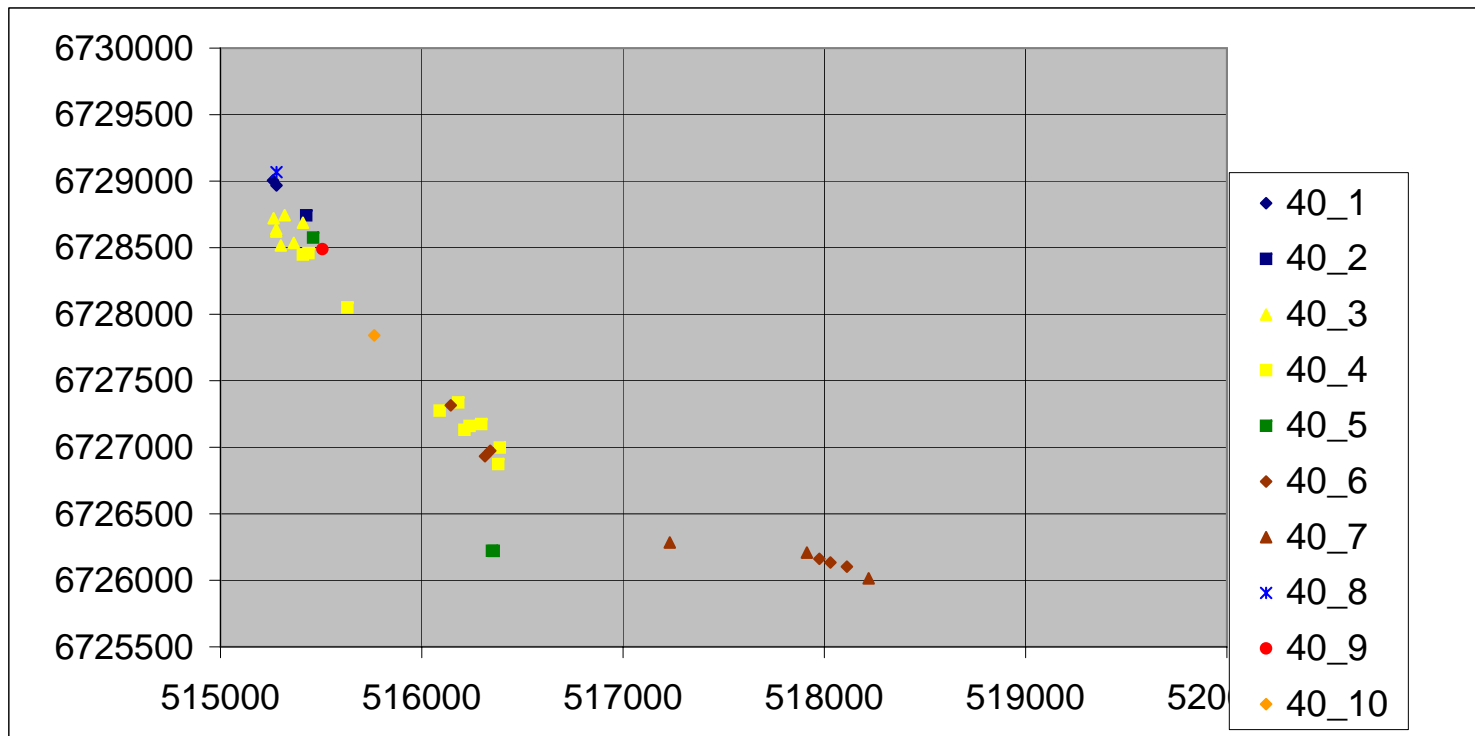


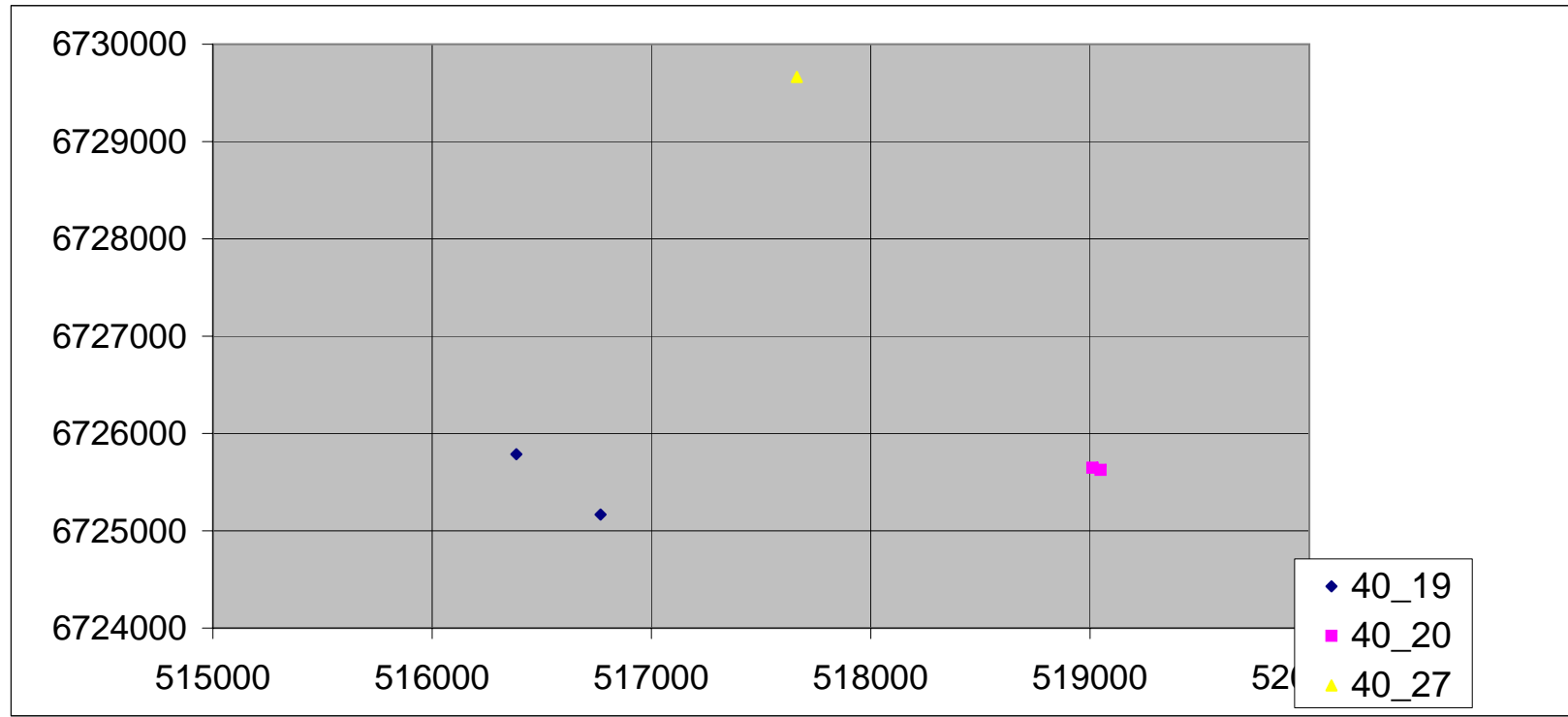


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| 8 004 | 1 | 3 | 18 | 0 | 1 | -0.2721 | 0.0742 | -0.3425 | 515319 | 6728744 |
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| 10 010 | 1 | 3 | 20 | 0 | 1 | -0.5334 | 0.092 | -0.5458 | 515364 | 6728536 |
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| 17 014 | 1 | 4 | 17 | 0 | 1 | 0.0669 | -0.3863 | -0.4151 | 515409 | 6728448 |
| 18 029 | 1 | 4 | 16 | 0 | 1 | -0.2118 | -0.6563 | -0.6567 | 516212 | 6727131 |
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| 64 058 | 3 | 20 | 19 | 0 | 1 | -0.4054 | 0.0783 | 0.8909 | 519011 | 6725648 |
| 65 059 | 3 | 20 | 17 | 1 | 2 | -1.0802 | -0.1785 | 0.7487 | 519048 | 6725625 |
| 66 088 | 4 | 21 | 28 | 1 | 2 | -0.3017 | -0.0098 | 1.3382 | 516077 | 6732999 |
| 67 089 | 4 | 22 | 18 | 1 | 2 | -0.5394 | -0.3354 | 0.9538 | 516145 | 6732981 |
| 68 063 | 5 | 23 | 25 | 1 | 2 | -0.0639 | 0.1072 | 0.9968 | 517949 | 6738107 |
| 69 064 | 5 | 23 | 25 | 0 | 1 | 0.1382 | 0.2022 | 1.0175 | 517900 | 6738164 |
| 70 083 | 5 | 24 | 29 | 0 | 1 | -0.0125 | 0.4894 | 0.4292 | 519288 | 6743377 |
| 71 084 | 5 | 24 | 25 | 1 | 2 | 0.0686 | 0.5564 | 0.7432 | 519176 | 6743561 |
| 72 085 | 5 | 24 | 26 | 1 | 2 | -0.0606 | 0.5271 | 0.9645 | 519144 | 6743592 |
| 73 065 | 5 | 25 | 32 | 1 | 2 | -0.5831 | 0.8741 | 0.6752 | 519984 | 6742246 |
| 74 093 | 5 | 26 | 24 | 1 | 2 | 0.3008 | 0.1697 | 0.7645 | 521959 | 6729526 |
| 75 094 | 5 | 26 | 24 | 1 | 2 | 0.474 | 0.5372 | 0.7985 | 521965 | 6729602 |
| 76 095 | 5 | 26 | 24 | 1 | 2 | 0.1098 | -0.2399 | 0.6937 | 521975 | 6729386 |
| 77 092 | 5 | 27 | 27 | 1 | 2 | 0.5599 | -0.3077 | 0.6585 | 517663 | 6729663 |
| 78 096 | 6 | 28 | 19 | 1 | 2 | -0.2349 | 0.7741 | 0.6986 | 521719 | 6730169 |
| 79 100 | 6 | 28 | 22 | 1 | 2 | 0.0595 | 0.771 | 0.7397 | 522277 | 6733394 |
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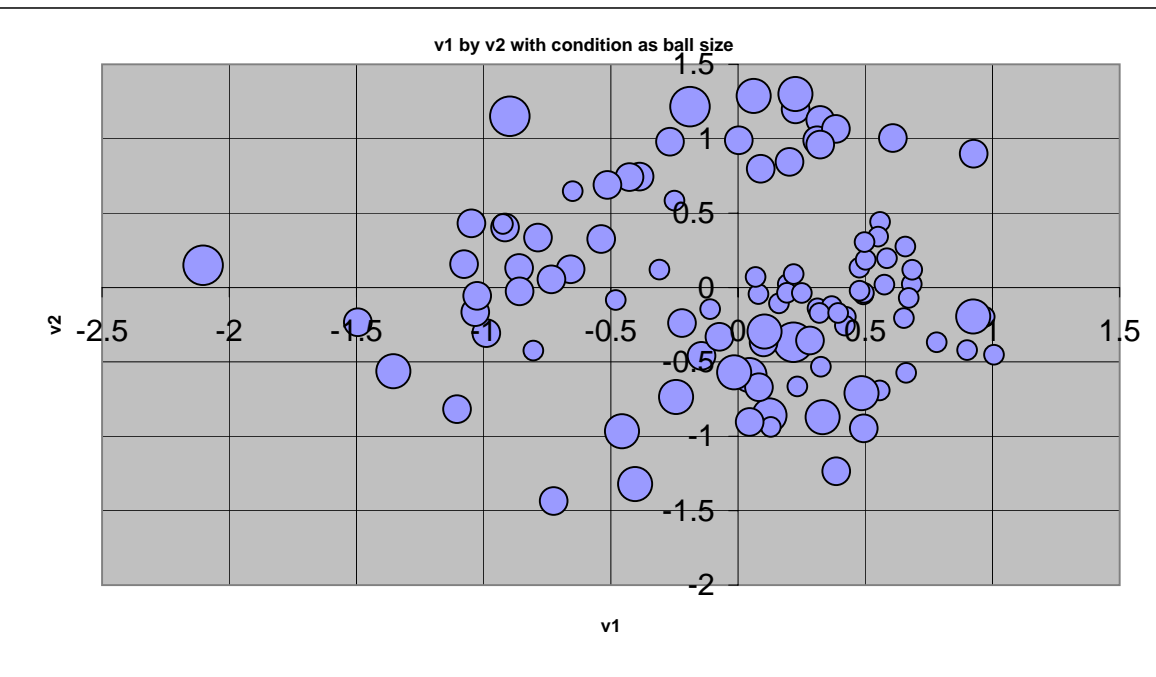
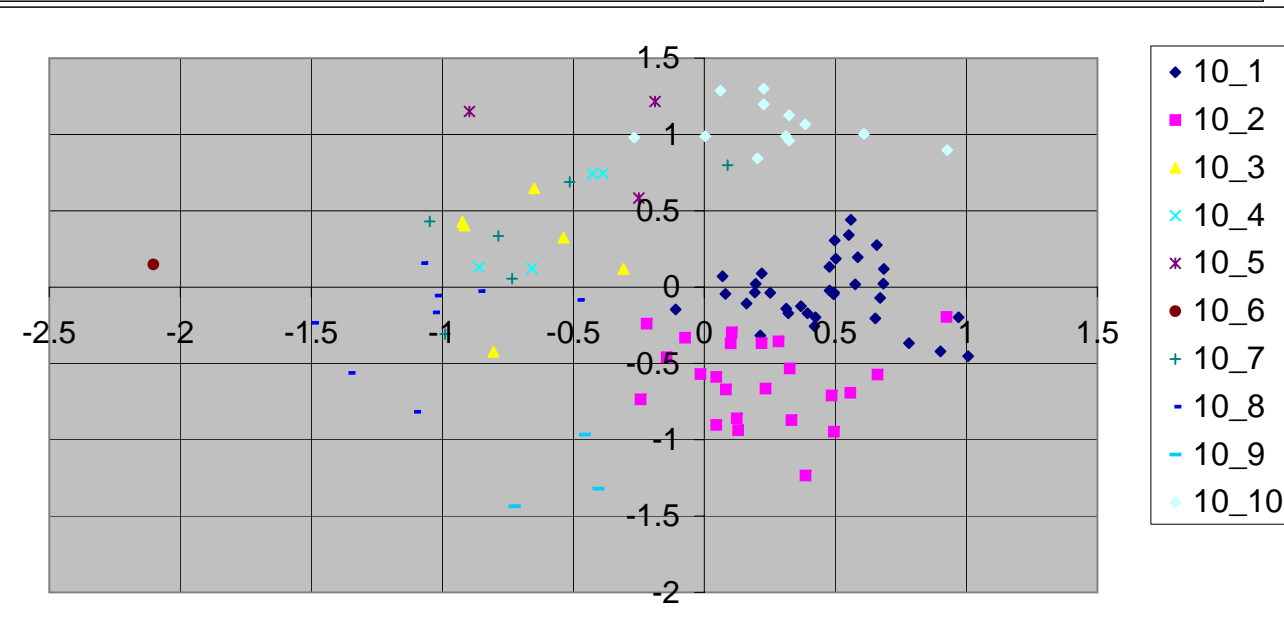
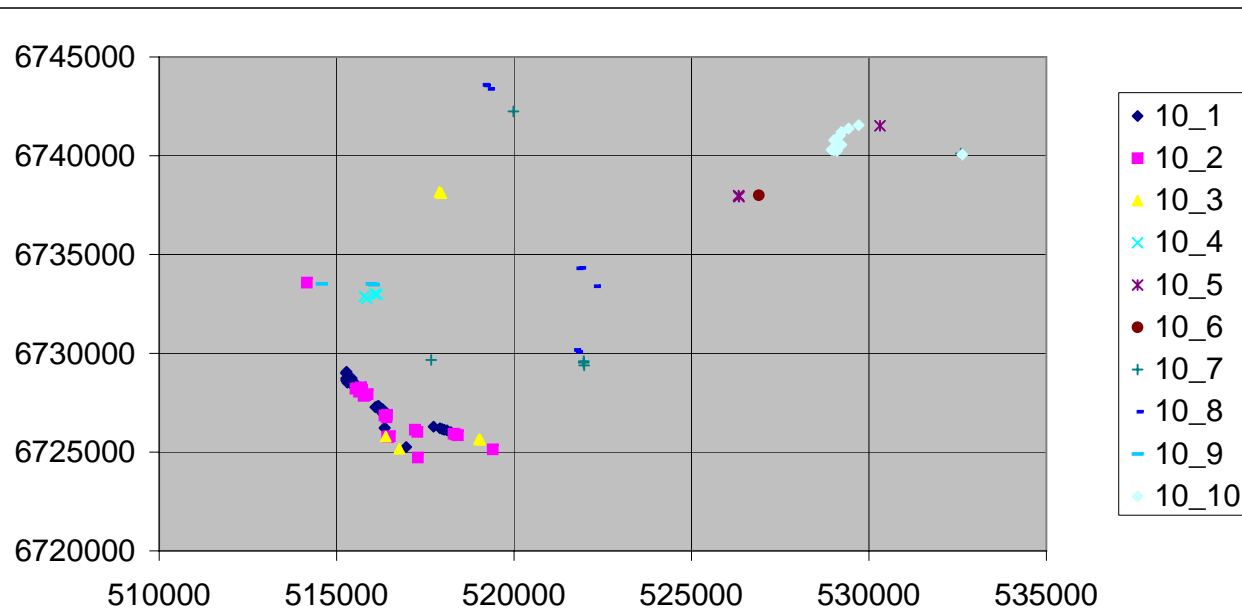
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|-----|------|------|------|------------|-------|----|---------|---------|---------|----------|---------|
| 81 | 098 | 6 | 28 | 15 | 1 | 2 | -0.0347 | -0.3397 | 1.1829 | 521785 | 6734296 |
| 82 | 099 | 6 | 29 | 19 | 1 | 2 | -0.1332 | 1.1539 | 0.6432 | 521861 | 6734325 |
| 83 | 061 | 7 | 30 | 16 | 2 | 3 | 0.7821 | 0.7998 | -0.5987 | 514581 | 6733514 |
| 84 | 086 | 7 | 31 | 17 | 2 | 3 | 0.2947 | 1.0872 | -0.2564 | 516046 | 6733471 |
| 85 | 087 | 7 | 31 | 19 | 1 | 2 | 1.1206 | 0.4932 | -0.5036 | 515981 | 6733513 |
| 86 | 080 | 8 | 32 | 10 | 3 | 4 | -0.3621 | 0.8909 | 1.4774 | 526896 | 6737997 |
| 87 | 081 | 8 | 33 | 15 | 3 | 4 | 0.7109 | 0.0973 | 1.2753 | 526339 | 6737925 |
| 88 | 082 | 8 | 33 | 11 | 3 | 4 | 1.0746 | 0.3364 | 1.8321 | 526327 | 6737984 |
| 89 | 066 | 9 | 34 | 14 | 1 | 2 | 0.8267 | -0.9734 | 0.0087 | 529007 | 6740271 |
| 90 | 070 | 9 | 34 | 14 | 1 | 2 | 1.209 | -0.7623 | -0.2402 | 529224 | 6740550 |
| 91 | 067 | 9 | 34 | 13 | 2 | 3 | 0.9833 | -0.8763 | 0.0751 | 528944 | 6740301 |
| 92 | 069 | 9 | 34 | 13 | 2 | 3 | 1.0433 | -0.8494 | 0.2516 | 529062 | 6740362 |
| 93 | 068 | 9 | 34 | 14 | 1 | 2 | 0.9485 | -0.6846 | -0.1716 | 529099 | 6740246 |
| 94 | 071 | 10 | 35 | 25 | 1 | 2 | 0.9648 | 0.4789 | 0.2261 | 529017 | 6740790 |
| 95 | 072 | 10 | 36 | 13 | 1 | 2 | 0.9055 | 0.563 | -0.1426 | 529071 | 6740772 |
| 96 | 073 | 10 | 36 | 21 | 1 | 2 | 0.9474 | -0.1618 | 0.0155 | 529182 | 6741021 |
| 97 | 074 | 10 | 37 | 15 | 1 | 2 | 1.154 | 0.01 | 0.1911 | 529224 | 6741197 |
| 98 | 075 | 10 | 37 | 20 | 1 | 2 | 0.8636 | -0.1404 | 0.3428 | 529426 | 6741380 |
| 99 | 076 | 10 | 37 | 14 | 1 | 2 | 1.0649 | 0.0614 | -0.1074 | 529711 | 6741545 |
| 100 | 077 | 10 | 38 | 21 | 0 | 1 | 0.8552 | 0.107 | 0.8789 | 530310 | 6741516 |
| 101 | 078 | 10 | 39 | 24 | 1 | 2 | 0.7561 | -0.3272 | 0.3989 | 532629 | 6740055 |
| 102 | 079 | 10 | 39 | 22 | 1 | 2 | 0.7548 | 0.3747 | 0.5158 | 532589 | 6740107 |
| 103 | 090 | 10 | 40 | 32 | 1 | 2 | 0.6498 | 0.7667 | 0.4373 | 515852 | 6732784 |
| 104 | 091 | 10 | 40 | 29 | 1 | 2 | 0.4776 | -0.5512 | 0.9091 | 515782 | 6732870 |





Ordered by Classification

| ID | site | gp10 | gp40 | no_sp | condition | Expr1 | v1 | v2 | v3 | easting | northing |
|--------|------|------|------|-------|-----------|-------|---------|---------|---------|---------|----------|
| 5 001 | | 1 | 1 | 20 | 0 | 1 | 0.5588 | 0.441 | 0.0866 | 515261 | 6729005 |
| 6 002 | | 1 | 1 | 18 | 0 | 1 | 0.0804 | -0.0449 | -0.7032 | 515278 | 6728968 |
| 7 005 | | 1 | 2 | 17 | 0 | 1 | 0.4929 | -0.0468 | -0.782 | 515264 | 6728721 |
| 8 015 | | 1 | 3 | 17 | 0 | 1 | 0.9699 | -0.1973 | -0.5061 | 515506 | 6728489 |
| 9 003 | | 1 | 4 | 14 | 0 | 1 | 0.5512 | 0.3415 | -0.5402 | 515278 | 6729068 |
| 10 006 | | 1 | 5 | 20 | 0 | 1 | -0.1093 | -0.1461 | -0.8216 | 515426 | 6728743 |
| 11 004 | | 1 | 6 | 18 | 0 | 1 | 0.3125 | -0.1406 | -0.2657 | 515319 | 6728744 |
| 12 007 | | 1 | 6 | 15 | 0 | 1 | 0.4239 | -0.1975 | -0.4486 | 515277 | 6728640 |
| 13 008 | | 1 | 6 | 19 | 0 | 1 | 0.3688 | -0.1257 | -0.2188 | 515277 | 6728622 |
| 14 010 | | 1 | 6 | 20 | 0 | 1 | 0.4202 | -0.2565 | -0.2415 | 515364 | 6728536 |
| 15 011 | | 1 | 6 | 20 | 0 | 1 | 0.3204 | -0.171 | -0.2541 | 515300 | 6728517 |
| 16 009 | | 1 | 6 | 17 | 0 | 1 | 0.2137 | -0.3166 | -0.5005 | 515409 | 6728688 |
| 17 013 | | 1 | 7 | 17 | 0 | 1 | 0.495 | -0.036 | -0.2004 | 515437 | 6728459 |
| 18 026 | | 1 | 7 | 14 | 0 | 1 | 0.5755 | 0.0186 | -0.3253 | 516089 | 6727275 |
| 19 014 | | 1 | 7 | 17 | 0 | 1 | 0.658 | 0.2748 | -0.0406 | 515409 | 6728448 |
| 20 029 | | 1 | 7 | 16 | 0 | 1 | 0.4773 | 0.1328 | 0.1702 | 516212 | 6727131 |
| 21 028 | | 1 | 7 | 20 | 0 | 1 | 0.3936 | -0.1715 | 0.1766 | 516238 | 6727160 |
| 22 025 | | 1 | 7 | 11 | 0 | 1 | 0.6522 | -0.2054 | 0.4423 | 516144 | 6727315 |
| 23 031 | | 1 | 7 | 18 | 0 | 1 | 0.4777 | -0.0222 | 0.2259 | 516340 | 6726974 |
| 24 032 | | 1 | 7 | 16 | 0 | 1 | 0.5017 | 0.1858 | 0.345 | 516314 | 6726933 |
| 25 027 | | 1 | 7 | 14 | 0 | 1 | 0.1607 | -0.1069 | -0.2994 | 516181 | 6727337 |
| 26 030 | | 1 | 7 | 18 | 0 | 1 | 0.1958 | 0.022 | -0.081 | 516296 | 6727175 |
| 27 033 | | 1 | 7 | 16 | 0 | 1 | 0.1925 | -0.0355 | 0.0326 | 516388 | 6726997 |
| 28 034 | | 1 | 7 | 21 | 0 | 1 | 0.2512 | -0.0372 | 0.1497 | 516380 | 6726874 |
| 29 012 | | 1 | 8 | 14 | 0 | 1 | 0.9008 | -0.4208 | -0.4226 | 515460 | 6728576 |
| 30 038 | | 1 | 8 | 16 | 0 | 1 | 0.781 | -0.3679 | 0.0269 | 516358 | 6726220 |
| 31 039 | | 1 | 8 | 17 | 0 | 1 | 1.0064 | -0.4521 | 0.1382 | 516349 | 6726222 |
| 32 049 | | 1 | 9 | 18 | 0 | 1 | 0.6831 | 0.0226 | 0.14 | 517732 | 6726284 |
| 33 050 | | 1 | 9 | 24 | 0 | 1 | 0.671 | -0.0705 | 0.0568 | 517913 | 6726208 |
| 34 054 | | 1 | 9 | 24 | 0 | 1 | 0.219 | 0.09 | 0.4823 | 518220 | 6726015 |
| 35 051 | | 1 | 9 | 18 | 0 | 1 | 0.6848 | 0.1188 | 0.3581 | 517975 | 6726162 |
| 36 052 | | 1 | 9 | 27 | 0 | 1 | 0.5855 | 0.1961 | 0.5824 | 518030 | 6726134 |
| 37 053 | | 1 | 9 | 23 | 0 | 1 | 0.4973 | 0.3054 | 0.5007 | 518112 | 6726103 |
| 38 045 | | 1 | 10 | 23 | 0 | 1 | 0.0692 | 0.0705 | 1.0563 | 516962 | 6725254 |
| 39 016 | | 2 | 11 | 15 | 2 | 3 | 0.3324 | -0.872 | 0.3109 | 515580 | 6728223 |
| 40 036 | | 2 | 11 | 25 | 0 | 1 | 0.6609 | -0.5734 | 0.4073 | 516421 | 6726882 |
| 41 035 | | 2 | 11 | 23 | 0 | 1 | 0.3257 | -0.5327 | 0.6179 | 516346 | 6726853 |
| 42 017 | | 2 | 11 | 17 | 0 | 1 | 0.2336 | -0.6654 | -0.3047 | 515533 | 6728210 |
| 43 037 | | 2 | 11 | 17 | 0 | 1 | 0.5574 | -0.6924 | 0.3891 | 516405 | 6726757 |
| 44 019 | | 2 | 12 | 21 | 2 | 3 | 0.0453 | -0.5887 | -0.1478 | 515690 | 6728081 |
| 45 020 | | 2 | 12 | 22 | 2 | 3 | 0.1238 | -0.8604 | 0.0787 | 515717 | 6728134 |
| 46 023 | | 2 | 12 | 18 | 1 | 2 | 0.4946 | -0.947 | -0.0646 | 515874 | 6727932 |
| 47 018 | | 2 | 13 | 20 | 0 | 1 | 0.1292 | -0.9377 | 0.3653 | 515684 | 6728278 |
| 48 047 | | 2 | 13 | 11 | 1 | 2 | 0.0823 | -0.6706 | 0.1515 | 517204 | 6726131 |
| 49 024 | | 2 | 14 | 16 | 2 | 3 | 0.9244 | -0.1953 | 0.636 | 515764 | 6727841 |
| 50 048 | | 2 | 15 | 18 | 1 | 2 | 0.0456 | -0.9036 | -0.2799 | 517278 | 6726018 |
| 51 062 | | 2 | 16 | 9 | 1 | 2 | 0.3862 | -1.2349 | -0.3819 | 514163 | 6733575 |
| 52 021 | | 2 | 17 | 18 | 3 | 4 | 0.2184 | -0.3678 | 0.0212 | 515630 | 6728051 |
| 53 043 | | 2 | 17 | 25 | 2 | 3 | -0.0151 | -0.5703 | 0.3407 | 516501 | 6725800 |
| 54 041 | | 2 | 17 | 24 | 1 | 2 | -0.1437 | -0.4596 | 0.5761 | 516424 | 6725781 |
| 55 022 | | 2 | 17 | 19 | 2 | 3 | 0.4856 | -0.7099 | 0.7514 | 515818 | 6727884 |
| 56 040 | | 2 | 17 | 20 | 1 | 2 | 0.1004 | -0.369 | 0.5395 | 516451 | 6725755 |
| 57 055 | | 2 | 17 | 27 | 1 | 2 | -0.0732 | -0.3318 | 0.723 | 518296 | 6725931 |
| 58 056 | | 2 | 17 | 24 | 1 | 2 | 0.2829 | -0.3562 | 0.5889 | 518350 | 6725887 |
| 59 060 | | 2 | 17 | 18 | 2 | 3 | 0.1046 | -0.2964 | 0.8985 | 519399 | 6725139 |
| 60 057 | | 2 | 17 | 32 | 1 | 2 | -0.2203 | -0.2393 | 0.7063 | 518416 | 6725853 |
| 61 046 | | 2 | 18 | 27 | 2 | 3 | -0.2431 | -0.7359 | -0.7332 | 517290 | 6724719 |
| 62 042 | | 3 | 19 | 22 | 0 | 1 | -0.3087 | 0.1195 | -0.5899 | 516384 | 6725786 |
| 63 044 | | 3 | 19 | 26 | 0 | 1 | -0.8047 | -0.4243 | -0.5295 | 516768 | 6725167 |
| 64 063 | | 3 | 20 | 25 | 1 | 2 | -0.9157 | 0.4029 | -0.0142 | 517949 | 6738107 |
| 65 064 | | 3 | 20 | 25 | 0 | 1 | -0.9237 | 0.4263 | -0.234 | 517900 | 6738164 |
| 66 058 | | 3 | 21 | 19 | 0 | 1 | -0.6495 | 0.6475 | -0.3131 | 519011 | 6725648 |
| 67 059 | | 3 | 21 | 17 | 1 | 2 | -0.5378 | 0.325 | -0.4012 | 519048 | 6725625 |
| 68 088 | | 4 | 22 | 28 | 1 | 2 | -0.8606 | 0.1304 | -1.1566 | 516077 | 6732999 |
| 69 090 | | 4 | 23 | 32 | 1 | 2 | -0.3865 | 0.7451 | -0.808 | 515852 | 6732784 |
| 70 091 | | 4 | 23 | 29 | 1 | 2 | -0.4267 | 0.7414 | -0.8692 | 515782 | 6732870 |
| 71 089 | | 4 | 24 | 18 | 1 | 2 | -0.6577 | 0.1221 | -0.9427 | 516145 | 6732981 |
| 72 077 | | 5 | 25 | 21 | 0 | 1 | -0.2498 | 0.5839 | -1.1129 | 530310 | 6741516 |
| 73 081 | | 5 | 26 | 15 | 3 | 4 | -0.8968 | 1.1507 | -0.6875 | 526339 | 6737925 |
| 74 082 | | 5 | 26 | 11 | 3 | 4 | -0.1884 | 1.2155 | -1.019 | 526327 | 6737984 |
| 75 080 | | 6 | 27 | 10 | 3 | 4 | -2.1025 | 0.1488 | 0.4839 | 526896 | 6737997 |
| 76 065 | | 7 | 28 | 32 | 1 | 2 | -0.9893 | -0.3073 | 0.7026 | 519984 | 6742246 |
| 77 095 | | 7 | 28 | 24 | 1 | 2 | -0.7334 | 0.0548 | 0.7498 | 521975 | 6729386 |
| 78 093 | | 7 | 28 | 24 | 1 | 2 | -0.7861 | 0.3352 | 0.5067 | 521959 | 6729526 |
| 79 094 | | 7 | 28 | 24 | 1 | 2 | -1.048 | 0.4308 | 0.4446 | 521965 | 6729602 |
| 80 079 | | 7 | 29 | 22 | 1 | 2 | 0.0891 | 0.7981 | 0.7853 | 532589 | 6740107 |
| 81 092 | | 7 | 30 | 27 | 1 | 2 | -0.5135 | 0.6887 | 0.6503 | 517663 | 6729663 |
| 82 083 | | 8 | 31 | 29 | 0 | 1 | -0.4802 | -0.0848 | -0.0726 | 519288 | 6743377 |
| 83 084 | | 8 | 31 | 25 | 1 | 2 | -0.8586 | -0.0264 | -0.1253 | 519176 | 6743561 |
| 84 085 | | 8 | 31 | 26 | 1 | 2 | -1.0768 | 0.1565 | 0.0879 | 519144 | 6743592 |
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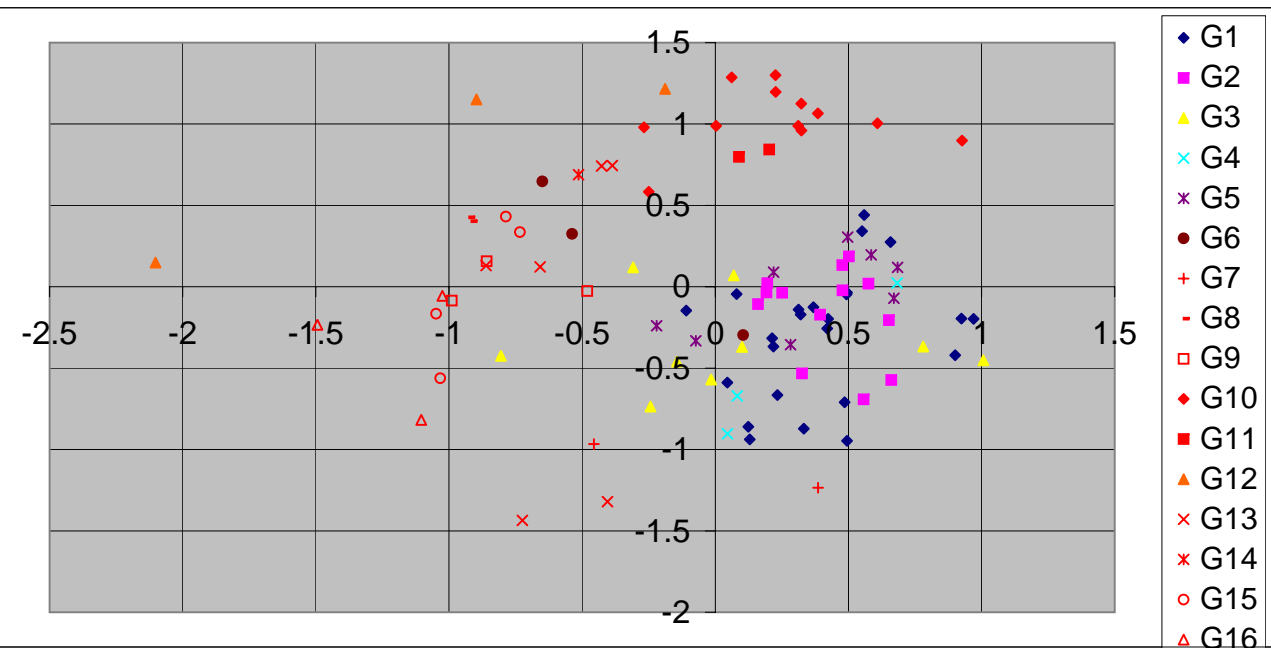
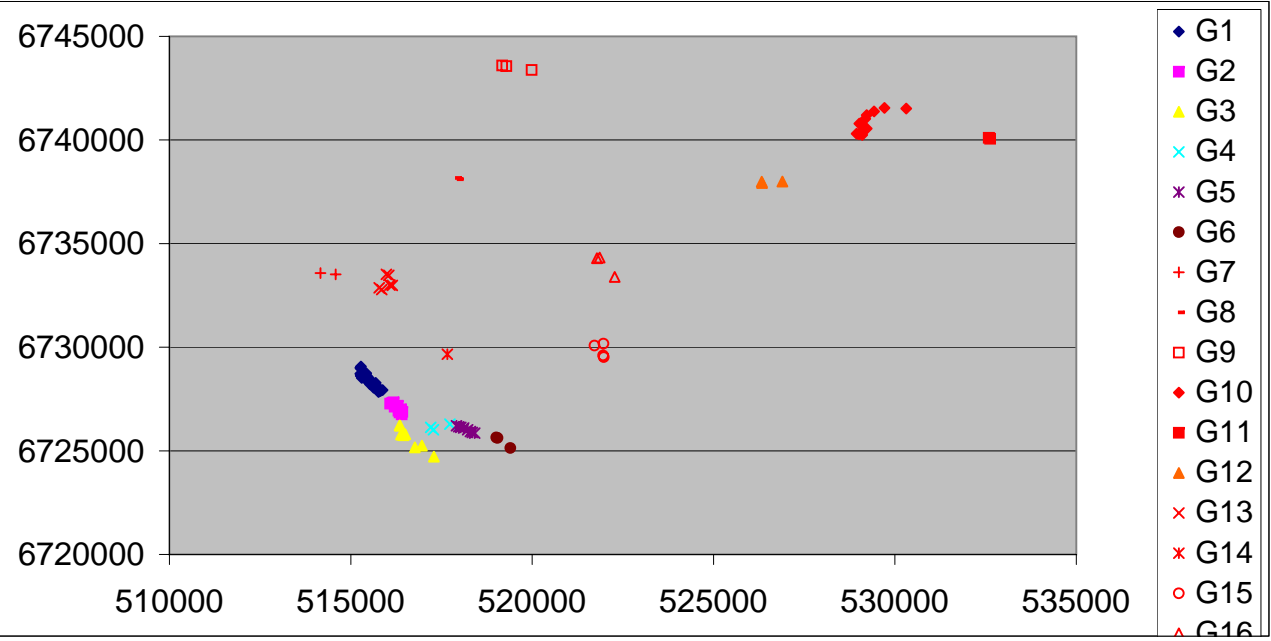


Ordered by Classification

| ID | site | gp10 | gp40 | no_sp | condition | Expr1 | v1 | v2 | v3 | easting | northing |
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| 87 099 | | 8 | 33 | 19 | 1 | 2 | -1.4943 | -0.2339 | 0.0769 | 521861 | 6734325 |
| 88 097 | | 8 | 34 | 19 | 2 | 3 | -1.3547 | -0.5627 | 0.2352 | 521767 | 6730079 |
| 89 098 | | 8 | 34 | 15 | 1 | 2 | -1.1043 | -0.8176 | 0.2909 | 521785 | 6734296 |
| 90 061 | | 9 | 35 | 16 | 2 | 3 | -0.456 | -0.9663 | -0.5885 | 514581 | 6733514 |
| 91 086 | | 9 | 36 | 17 | 2 | 3 | -0.4046 | -1.3209 | 0.0496 | 516046 | 6733471 |
| 92 087 | | 9 | 36 | 19 | 1 | 2 | -0.7245 | -1.4357 | -0.2407 | 515981 | 6733513 |
| 93 066 | | 10 | 37 | 14 | 1 | 2 | 0.2266 | 1.1972 | 0.4239 | 529007 | 6740271 |
| 94 070 | | 10 | 37 | 14 | 1 | 2 | 0.3231 | 1.1256 | 0.7295 | 529224 | 6740550 |
| 95 068 | | 10 | 37 | 14 | 1 | 2 | 0.6089 | 1.0043 | -0.1873 | 529099 | 6740246 |
| 96 067 | | 10 | 37 | 13 | 2 | 3 | 0.0614 | 1.287 | 0.1833 | 528944 | 6740301 |
| 97 069 | | 10 | 37 | 13 | 2 | 3 | 0.2261 | 1.3002 | 0.0196 | 529062 | 6740362 |
| 98 071 | | 10 | 38 | 25 | 1 | 2 | -0.2676 | 0.9798 | 0.1073 | 529017 | 6740790 |
| 99 072 | | 10 | 38 | 13 | 1 | 2 | 0.3112 | 0.989 | -0.0321 | 529071 | 6740772 |
| 100 073 | | 10 | 39 | 21 | 1 | 2 | 0.0033 | 0.9886 | -0.0118 | 529182 | 6741021 |
| 101 075 | | 10 | 39 | 20 | 1 | 2 | 0.3852 | 1.0654 | 0.1371 | 529426 | 6741380 |
| 102 078 | | 10 | 39 | 24 | 1 | 2 | 0.2026 | 0.8434 | -0.5699 | 532629 | 6740055 |
| 103 074 | | 10 | 40 | 15 | 1 | 2 | 0.3235 | 0.9597 | -0.3733 | 529224 | 6741197 |
| 104 076 | | 10 | 40 | 14 | 1 | 2 | 0.9266 | 0.8985 | -0.3431 | 529711 | 6741545 |

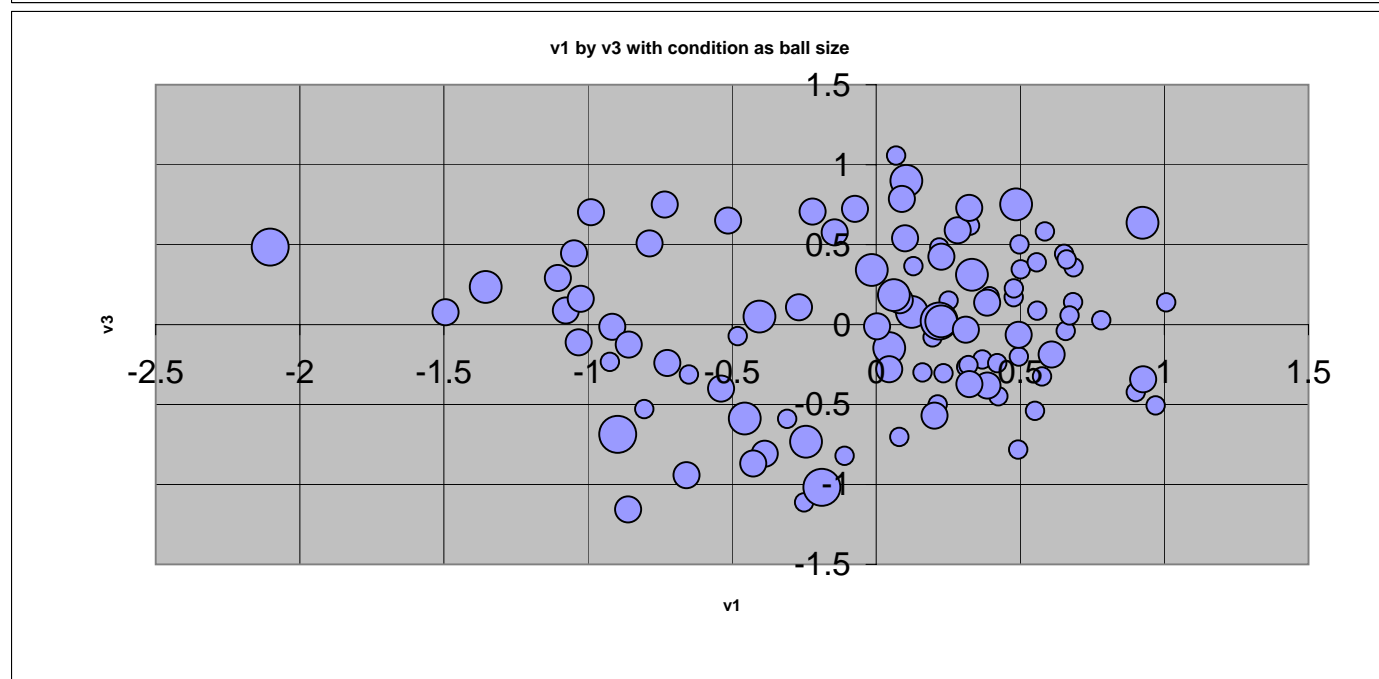
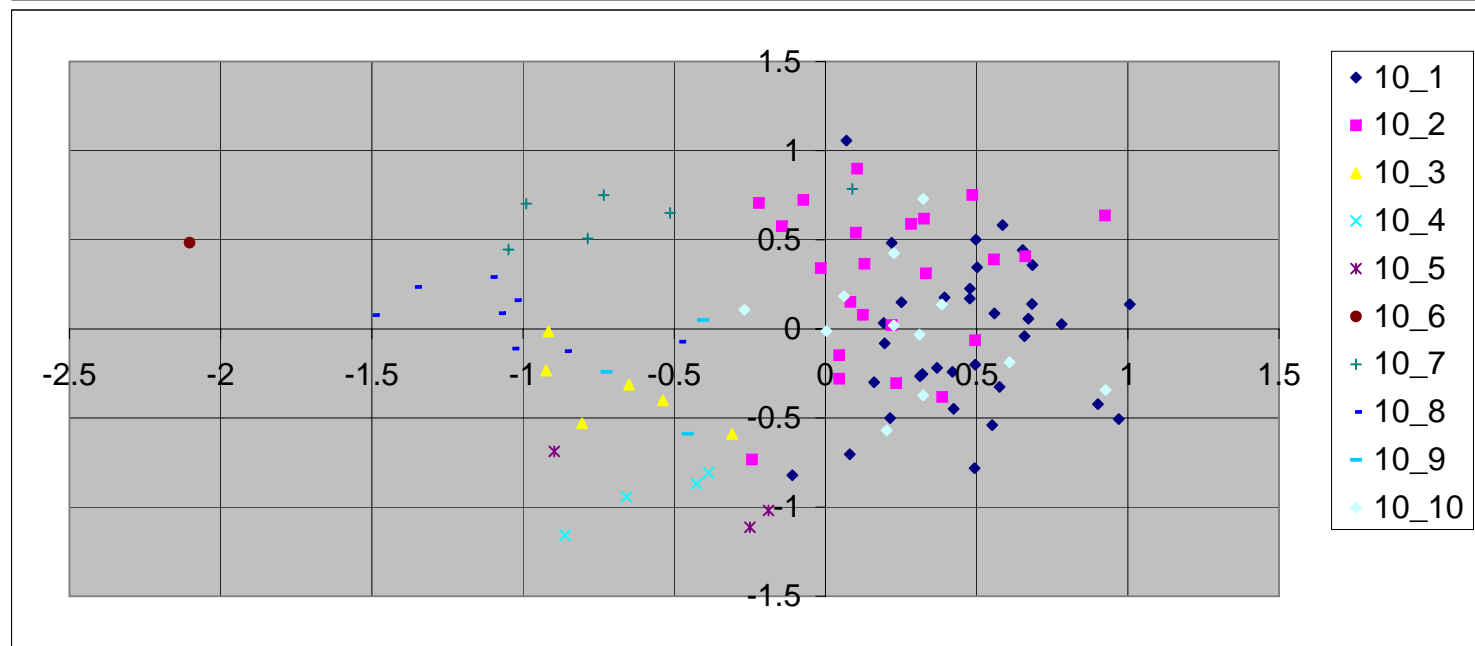
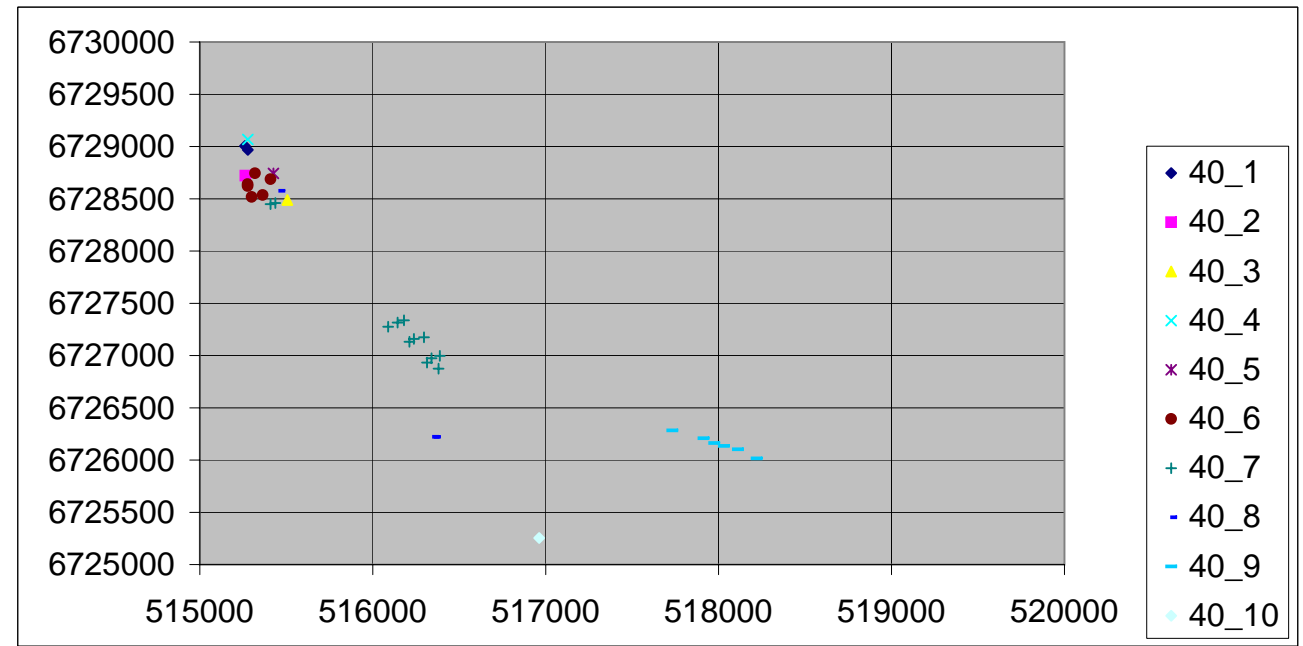
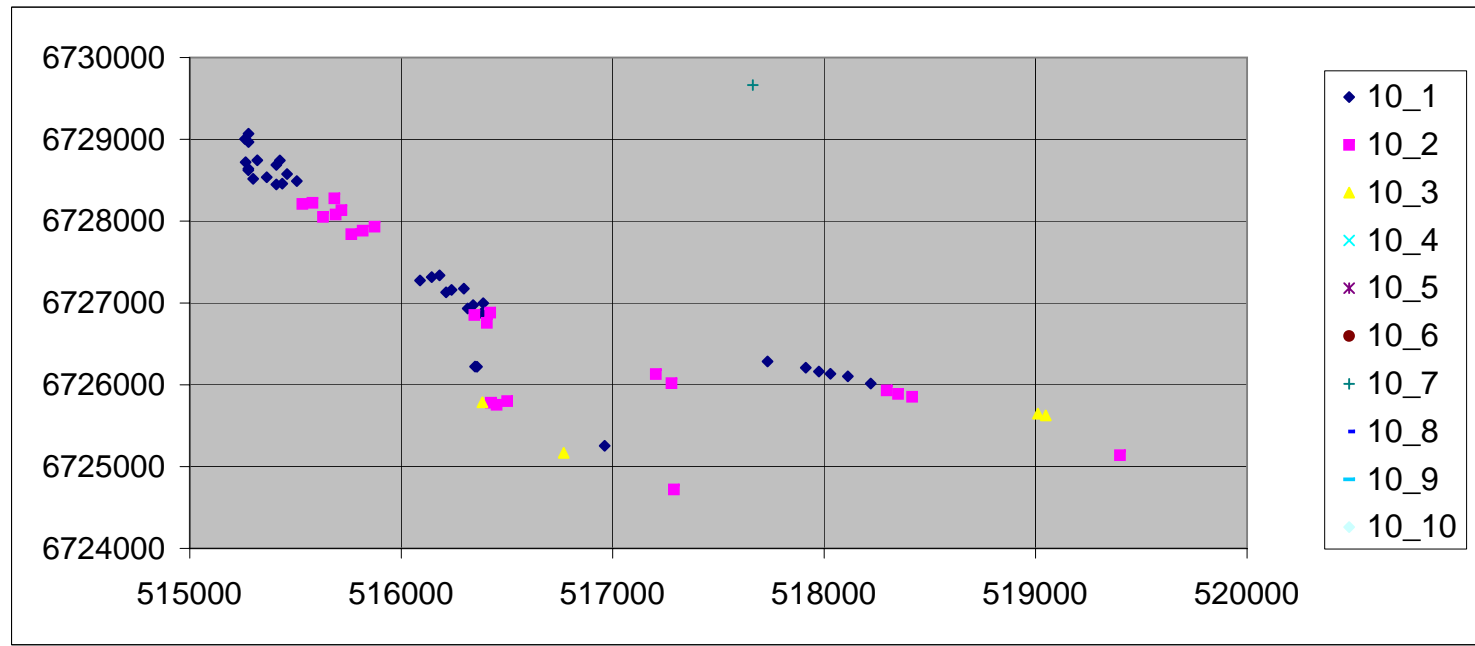
Ordered by Geographic Group

| ID | site | gp10 | gp40 | no_sp | condition | Expr1 | v1 | v2 | v3 | easting | northing | geo_group |
|--------|------|------|------|-------|-----------|-------|---------|---------|---------|---------|----------|-----------|
| 5 001 | | 1 | 1 | 20 | 0 | 1 | 0.5588 | 0.441 | 0.0866 | 515261 | 6729005 | 1 |
| 6 002 | | 1 | 1 | 18 | 0 | 1 | 0.0804 | -0.0449 | -0.7032 | 515278 | 6728968 | 1 |
| 7 005 | | 1 | 2 | 17 | 0 | 1 | 0.4929 | -0.0468 | -0.782 | 515264 | 6728721 | 1 |
| 8 015 | | 1 | 3 | 17 | 0 | 1 | 0.9699 | -0.1973 | -0.5061 | 515506 | 6728489 | 1 |
| 9 003 | | 1 | 4 | 14 | 0 | 1 | 0.5512 | 0.3415 | -0.5402 | 515278 | 6729068 | 1 |
| 10 006 | | 1 | 5 | 20 | 0 | 1 | -0.1093 | -0.1461 | -0.8216 | 515426 | 6728743 | 1 |
| 11 004 | | 1 | 6 | 18 | 0 | 1 | 0.3125 | -0.1406 | -0.2657 | 515319 | 6728744 | 1 |
| 12 007 | | 1 | 6 | 15 | 0 | 1 | 0.4239 | -0.1975 | -0.4486 | 515277 | 6728640 | 1 |
| 13 008 | | 1 | 6 | 19 | 0 | 1 | 0.3688 | -0.1257 | -0.2188 | 515277 | 6728622 | 1 |
| 14 010 | | 1 | 6 | 20 | 0 | 1 | 0.4202 | -0.2565 | -0.2415 | 515364 | 6728536 | 1 |
| 15 011 | | 1 | 6 | 20 | 0 | 1 | 0.3204 | -0.171 | -0.2541 | 515300 | 6728517 | 1 |
| 16 009 | | 1 | 6 | 17 | 0 | 1 | 0.2137 | -0.3166 | -0.5005 | 515409 | 6728688 | 1 |
| 17 013 | | 1 | 7 | 17 | 0 | 1 | 0.495 | -0.036 | -0.2004 | 515437 | 6728459 | 1 |
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| 29 012 | | 1 | 8 | 14 | 0 | 1 | 0.9008 | -0.4208 | -0.4226 | 515460 | 6728576 | 1 |
| 39 016 | | 2 | 11 | 15 | 2 | 3 | 0.3324 | -0.872 | 0.3109 | 515580 | 6728223 | 1 |
| 42 017 | | 2 | 11 | 17 | 0 | 1 | 0.2336 | -0.6654 | -0.3047 | 515533 | 6728210 | 1 |
| 44 019 | | 2 | 12 | 21 | 2 | 3 | 0.0453 | -0.5887 | -0.1478 | 515690 | 6728081 | 1 |
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| 46 023 | | 2 | 12 | 18 | 1 | 2 | 0.4946 | -0.947 | -0.0646 | 515874 | 6727932 | 1 |
| 47 018 | | 2 | 13 | 20 | 0 | 1 | 0.1292 | -0.9377 | 0.3653 | 515684 | 6728278 | 1 |
| 49 024 | | 2 | 14 | 16 | 2 | 3 | 0.9244 | -0.1953 | 0.636 | 515764 | 6727841 | 1 |
| 52 021 | | 2 | 17 | 18 | 3 | 4 | 0.2184 | -0.3678 | 0.0212 | 515630 | 6728051 | 1 |
| 55 022 | | 2 | 17 | 19 | 2 | 3 | 0.4856 | -0.7099 | 0.7514 | 515818 | 6727884 | 1 |
| 18 026 | | 1 | 7 | 14 | 0 | 1 | 0.5755 | 0.0186 | -0.3253 | 516089 | 6727275 | 2 |
| 20 029 | | 1 | 7 | 16 | 0 | 1 | 0.4773 | 0.1328 | 0.1702 | 516212 | 6727131 | 2 |
| 21 028 | | 1 | 7 | 20 | 0 | 1 | 0.3936 | -0.1715 | 0.1766 | 516238 | 6727160 | 2 |
| 22 025 | | 1 | 7 | 11 | 0 | 1 | 0.6522 | -0.2054 | 0.4423 | 516144 | 6727315 | 2 |
| 23 031 | | 1 | 7 | 18 | 0 | 1 | 0.4777 | -0.0222 | 0.2259 | 516340 | 6726974 | 2 |
| 24 032 | | 1 | 7 | 16 | 0 | 1 | 0.5017 | 0.1858 | 0.345 | 516314 | 6726933 | 2 |
| 25 027 | | 1 | 7 | 14 | 0 | 1 | 0.1607 | -0.1069 | -0.2994 | 516181 | 6727337 | 2 |
| 26 030 | | 1 | 7 | 18 | 0 | 1 | 0.1958 | 0.022 | -0.081 | 516296 | 6727175 | 2 |
| 27 033 | | 1 | 7 | 16 | 0 | 1 | 0.1925 | -0.0355 | 0.0326 | 516388 | 6726997 | 2 |
| 28 034 | | 1 | 7 | 21 | 0 | 1 | 0.2512 | -0.0372 | 0.1497 | 516380 | 6726874 | 2 |
| 40 036 | | 2 | 11 | 25 | 0 | 1 | 0.6609 | -0.5734 | 0.4073 | 516421 | 6726882 | 2 |
| 41 035 | | 2 | 11 | 23 | 0 | 1 | 0.3257 | -0.5327 | 0.6179 | 516346 | 6726853 | 2 |
| 43 037 | | 2 | 11 | 17 | 0 | 1 | 0.5574 | -0.6924 | 0.3891 | 516405 | 6726757 | 2 |
| 30 038 | | 1 | 8 | 16 | 0 | 1 | 0.781 | -0.3679 | 0.0269 | 516358 | 6726220 | 3 |
| 31 039 | | 1 | 8 | 17 | 0 | 1 | 1.0064 | -0.4521 | 0.1382 | 516349 | 6726222 | 3 |
| 38 045 | | 1 | 10 | 23 | 0 | 1 | 0.0692 | 0.0705 | 1.0563 | 516962 | 6725254 | 3 |
| 53 043 | | 2 | 17 | 25 | 2 | 3 | -0.0151 | -0.5703 | 0.3407 | 516501 | 6725800 | 3 |
| 54 041 | | 2 | 17 | 24 | 1 | 2 | -0.1437 | -0.4596 | 0.5761 | 516424 | 6725781 | 3 |
| 56 040 | | 2 | 17 | 20 | 1 | 2 | 0.1004 | -0.369 | 0.5395 | 516451 | 6725755 | 3 |
| 61 046 | | 2 | 18 | 27 | 2 | 3 | -0.2431 | -0.7359 | -0.7332 | 517290 | 6724719 | 3 |
| 62 042 | | 3 | 19 | 22 | 0 | 1 | -0.3087 | 0.1195 | -0.5899 | 516384 | 6725786 | 3 |
| 63 044 | | 3 | 19 | 26 | 0 | 1 | -0.8047 | -0.4243 | -0.5295 | 516768 | 6725167 | 3 |
| 32 049 | | 1 | 9 | 18 | 0 | 1 | 0.6831 | 0.0226 | 0.14 | 517732 | 6726284 | 4 |
| 48 047 | | 2 | 13 | 11 | 1 | 2 | 0.0823 | -0.6706 | 0.1515 | 517204 | 6726131 | 4 |
| 50 048 | | 2 | 15 | 18 | 1 | 2 | 0.0456 | -0.9036 | -0.2799 | 517278 | 6726018 | 4 |
| 33 050 | | 1 | 9 | 24 | 0 | 1 | 0.671 | -0.0705 | 0.0568 | 517913 | 6726208 | 5 |
| 34 054 | | 1 | 9 | 24 | 0 | 1 | 0.219 | 0.09 | 0.4823 | 518220 | 6726015 | 5 |
| 35 051 | | 1 | 9 | 18 | 0 | 1 | 0.6848 | 0.1188 | 0.3581 | 517975 | 6726162 | 5 |

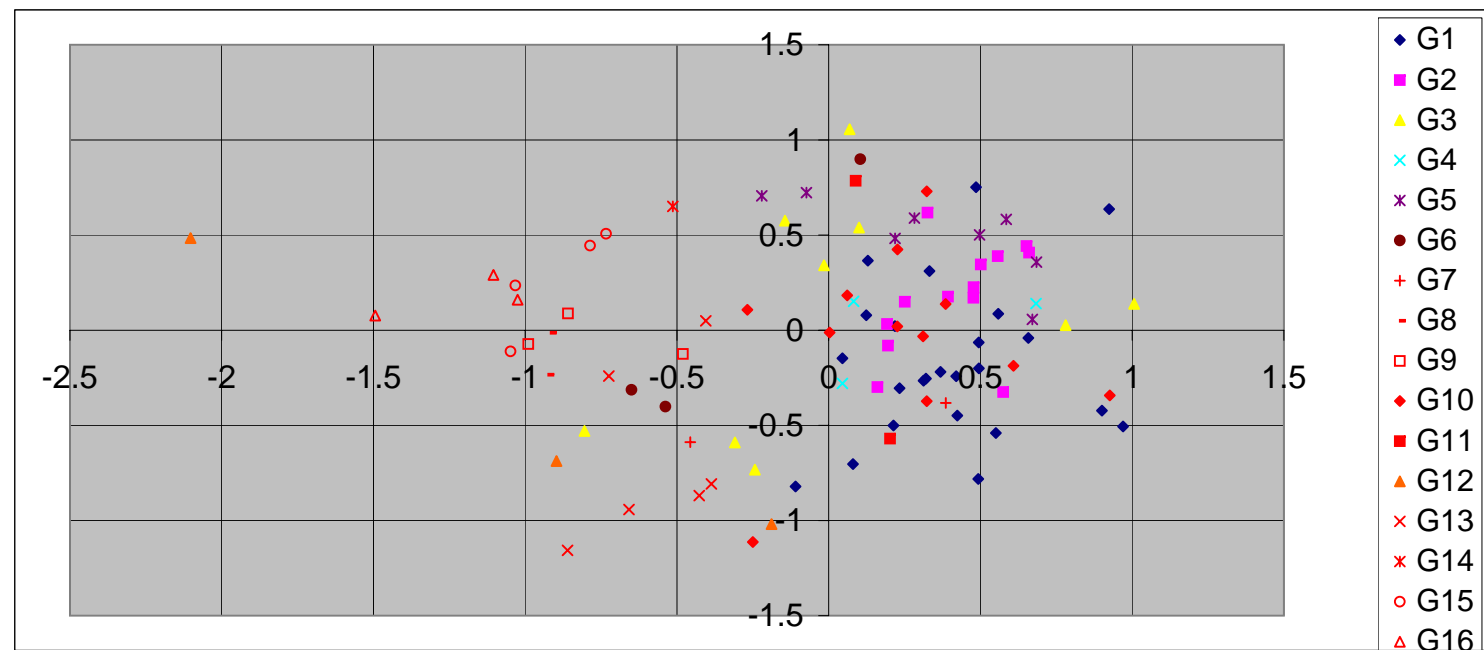
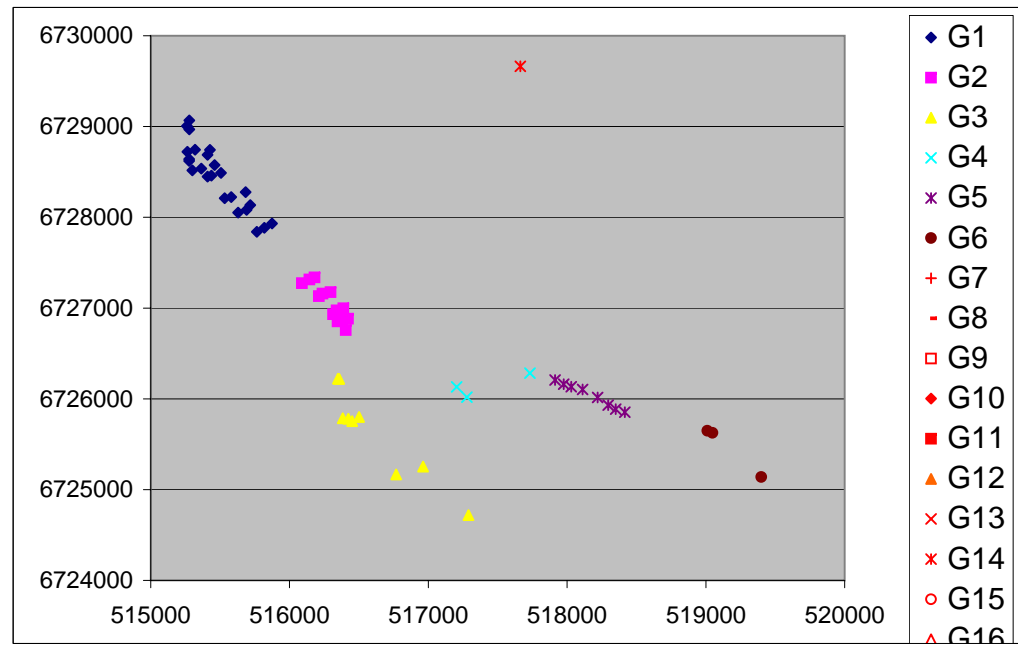


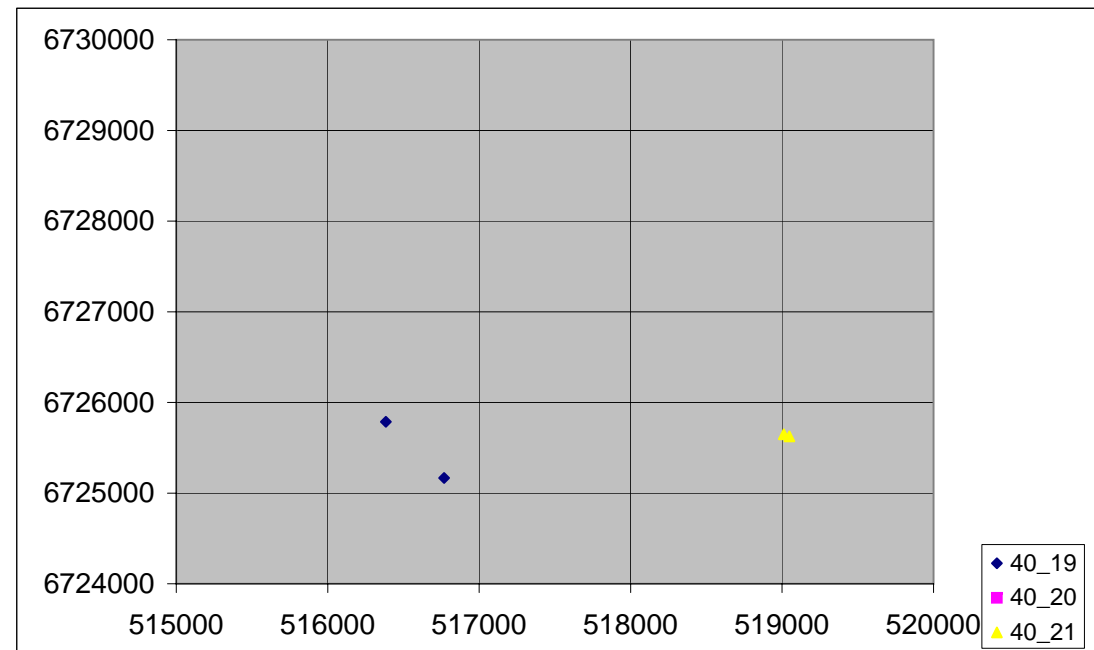
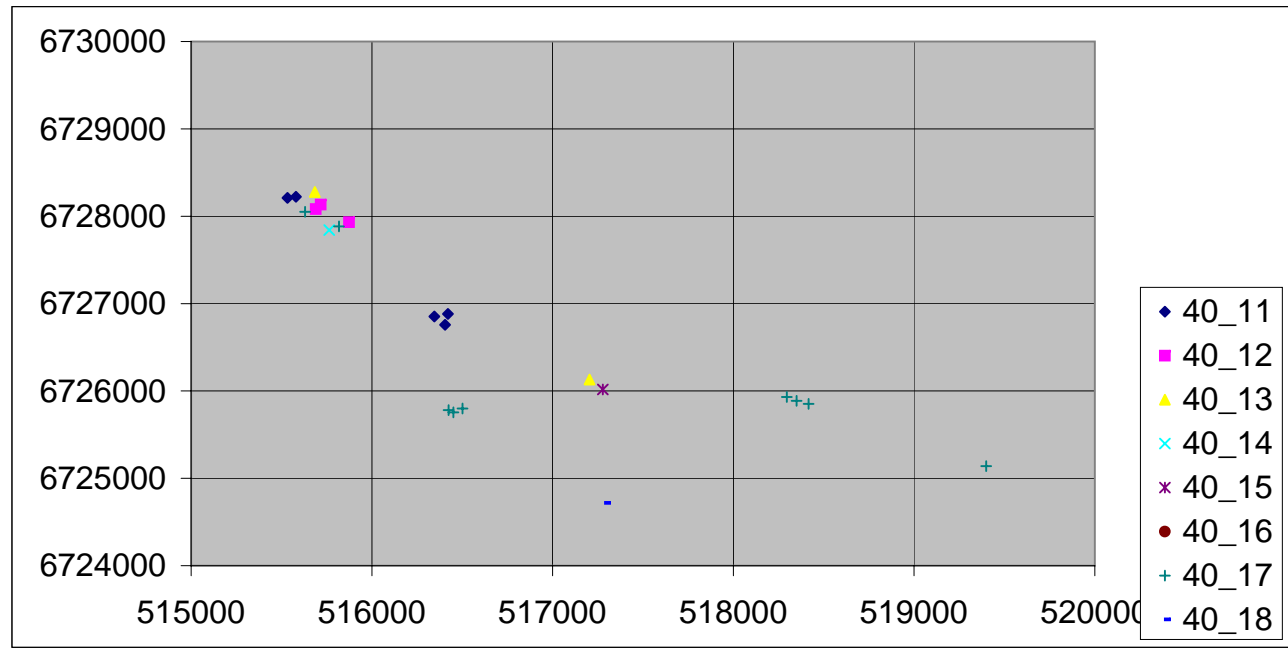
Ordered by Classification

| ID | site | gp10 | gp40 | no_sp | condition | Expr1 | v1 | v2 | v3 | easting | northing | |
|-----|------|------|------|-------|-----------|-------|---------|---------|---------|---------|----------|----|
| 36 | 052 | 1 | 9 | 27 | 0 | 1 | 0.5855 | 0.1961 | 0.5824 | 518030 | 6726134 | 5 |
| 37 | 053 | 1 | 9 | 23 | 0 | 1 | 0.4973 | 0.3054 | 0.5007 | 518112 | 6726103 | 5 |
| 57 | 055 | 2 | 17 | 27 | 1 | 2 | -0.0732 | -0.3318 | 0.723 | 518296 | 6725931 | 5 |
| 58 | 056 | 2 | 17 | 24 | 1 | 2 | 0.2829 | -0.3562 | 0.5889 | 518350 | 6725887 | 5 |
| 60 | 057 | 2 | 17 | 32 | 1 | 2 | -0.2203 | -0.2393 | 0.7063 | 518416 | 6725853 | 5 |
| 59 | 060 | 2 | 17 | 18 | 2 | 3 | 0.1046 | -0.2964 | 0.8985 | 519399 | 6725139 | 6 |
| 66 | 058 | 3 | 21 | 19 | 0 | 1 | -0.6495 | 0.6475 | -0.3131 | 519011 | 6725648 | 6 |
| 67 | 059 | 3 | 21 | 17 | 1 | 2 | -0.5378 | 0.325 | -0.4012 | 519048 | 6725625 | 6 |
| 51 | 062 | 2 | 16 | 9 | 1 | 2 | 0.3862 | -1.2349 | -0.3819 | 514163 | 6733575 | 7 |
| 90 | 061 | 9 | 35 | 16 | 2 | 3 | -0.456 | -0.9663 | -0.5885 | 514581 | 6733514 | 7 |
| 64 | 063 | 3 | 20 | 25 | 1 | 2 | -0.9157 | 0.4029 | -0.0142 | 517949 | 6738107 | 8 |
| 65 | 064 | 3 | 20 | 25 | 0 | 1 | -0.9237 | 0.4263 | -0.234 | 517900 | 6738164 | 8 |
| 76 | 065 | 7 | 28 | 32 | 1 | 2 | -0.9893 | -0.3073 | 0.7026 | 519984 | 6742246 | 9 |
| 82 | 083 | 8 | 31 | 29 | 0 | 1 | -0.4802 | -0.0848 | -0.0726 | 519288 | 6743377 | 9 |
| 83 | 084 | 8 | 31 | 25 | 1 | 2 | -0.8586 | -0.0264 | -0.1253 | 519176 | 6743561 | 9 |
| 84 | 085 | 8 | 31 | 26 | 1 | 2 | -1.0768 | 0.1565 | 0.0879 | 519144 | 6743592 | 9 |
| 72 | 077 | 5 | 25 | 21 | 0 | 1 | -0.2498 | 0.5839 | -1.1129 | 530310 | 6741516 | 10 |
| 93 | 066 | 10 | 37 | 14 | 1 | 2 | 0.2266 | 1.1972 | 0.4239 | 529007 | 6740271 | 10 |
| 94 | 070 | 10 | 37 | 14 | 1 | 2 | 0.3231 | 1.1256 | 0.7295 | 529224 | 6740550 | 10 |
| 95 | 068 | 10 | 37 | 14 | 1 | 2 | 0.6089 | 1.0043 | -0.1873 | 529099 | 6740246 | 10 |
| 96 | 067 | 10 | 37 | 13 | 2 | 3 | 0.0614 | 1.287 | 0.1833 | 528944 | 6740301 | 10 |
| 97 | 069 | 10 | 37 | 13 | 2 | 3 | 0.2261 | 1.3002 | 0.0196 | 529062 | 6740362 | 10 |
| 98 | 071 | 10 | 38 | 25 | 1 | 2 | -0.2676 | 0.9798 | 0.1073 | 529017 | 6740790 | 10 |
| 99 | 072 | 10 | 38 | 13 | 1 | 2 | 0.3112 | 0.989 | -0.0321 | 529071 | 6740772 | 10 |
| 100 | 073 | 10 | 39 | 21 | 1 | 2 | 0.0033 | 0.9886 | -0.0118 | 529182 | 6741021 | 10 |
| 101 | 075 | 10 | 39 | 20 | 1 | 2 | 0.3852 | 1.0654 | 0.1371 | 529426 | 6741380 | 10 |
| 103 | 074 | 10 | 40 | 15 | 1 | 2 | 0.3235 | 0.9597 | -0.3733 | 529224 | 6741197 | 10 |
| 104 | 076 | 10 | 40 | 14 | 1 | 2 | 0.9266 | 0.8985 | -0.3431 | 529711 | 6741545 | 10 |
| 80 | 079 | 7 | 29 | 22 | 1 | 2 | 0.0891 | 0.7981 | 0.7853 | 532589 | 6740107 | 11 |
| 102 | 078 | 10 | 39 | 24 | 1 | 2 | 0.2026 | 0.8434 | -0.5699 | 532629 | 6740055 | 11 |
| 73 | 081 | 5 | 26 | 15 | 3 | 4 | -0.8968 | 1.1507 | -0.6875 | 526339 | 6737925 | 12 |
| 74 | 082 | 5 | 26 | 11 | 3 | 4 | -0.1884 | 1.2155 | -1.019 | 526327 | 6737984 | 12 |
| 75 | 080 | 6 | 27 | 10 | 3 | 4 | -2.1025 | 0.1488 | 0.4839 | 526896 | 6737997 | 12 |
| 68 | 088 | 4 | 22 | 28 | 1 | 2 | -0.8606 | 0.1304 | -1.1566 | 516077 | 6732999 | 13 |
| 69 | 090 | 4 | 23 | 32 | 1 | 2 | -0.3865 | 0.7451 | -0.808 | 515852 | 6732784 | 13 |
| 70 | 091 | 4 | 23 | 29 | 1 | 2 | -0.4267 | 0.7414 | -0.8692 | 515782 | 6732870 | 13 |
| 71 | 089 | 4 | 24 | 18 | 1 | 2 | -0.6577 | 0.1221 | -0.9427 | 516145 | 6732981 | 13 |
| 91 | 086 | 9 | 36 | 17 | 2 | 3 | -0.4046 | -1.3209 | 0.0496 | 516046 | 6733471 | 13 |
| 92 | 087 | 9 | 36 | 19 | 1 | 2 | -0.7245 | -1.4357 | -0.2407 | 515981 | 6733513 | 13 |
| 81 | 092 | 7 | 30 | 27 | 1 | 2 | -0.5135 | 0.6887 | 0.6503 | 517663 | 6729663 | 14 |
| 77 | 095 | 7 | 28 | 24 | 1 | 2 | -0.7334 | 0.0548 | 0.7498 | 521975 | 6729386 | 15 |
| 78 | 093 | 7 | 28 | 24 | 1 | 2 | -0.7861 | 0.3352 | 0.5067 | 521959 | 6729526 | 15 |
| 79 | 094 | 7 | 28 | 24 | 1 | 2 | -1.048 | 0.4308 | 0.4446 | 521965 | 6729602 | 15 |
| 85 | 096 | 8 | 32 | 19 | 1 | 2 | -1.0324 | -0.1658 | -0.1112 | 521719 | 6730169 | 15 |
| 88 | 097 | 8 | 34 | 19 | 2 | 3 | -1.3547 | -0.5627 | 0.2352 | 521767 | 6730079 | 15 |
| 86 | 100 | 8 | 32 | 22 | 1 | 2 | -1.0249 | -0.0562 | 0.1603 | 522277 | 6733394 | 16 |
| 87 | 099 | 8 | 33 | 19 | 1 | 2 | -1.4943 | -0.2339 | 0.0769 | 521861 | 6734325 | 16 |
| 89 | 098 | 8 | 34 | 15 | 1 | 2 | -1.1043 | -0.8176 | 0.2909 | 521785 | 6734296 | 16 |



| group | name |
|-------|-----------------------------|
| 1 | Extension Hill |
| 2 | Iron Hill North |
| 3 | Iron Hill |
| 4 | Iron Hill East |
| 5 | Mt Gibson North |
| 6 | Mt Gibson South |
| 7 | Vermin Fence |
| 8 | Taylor Well |
| 9 | East GNH |
| 10 | Mt Singleton |
| 11 | Coonigal Well |
| 12 | SW Mt Singleton |
| 13 | Well (ruin) E |
| 14 | Extension Hill Vermin Fence |
| 15 | East Extension Hill |
| 16 | Yandhanoo Hill |





For Mt Gibson area (defined by Group 10 numbers 1 and 2)
 Main Species as defined by those >40% of sites in any group)
 Values (% of sites) are for all occurrences in these groups
 Species ordered by Species classification
 Apparently distinguishing species highlighted

| gp20 | gp80 | FCODE | NAME | 1 | 2 |
|------|------|-------|--|------|------|
| | | | # Sites --> | 35 | 22 |
| 7 | 35 | 326 | <i>Eremophila clarkei</i> | 14.3 | 54.5 |
| 7 | 35 | 341 | <i>Goodenia pinnatifida</i> | 2.86 | 86.4 |
| 7 | 35 | 341 | <i>Velleia cycnotamica</i> | 2.86 | 50 |
| 12 | 58 | 313 | <i>Hemigenia macphersonii</i> | 14.3 | 40.9 |
| 20 | 75 | 007 | <i>Cheilanthes austrotenuifolia</i> | 82.9 | 9.09 |
| 20 | 75 | 054F | <i>Thysanotus patersonii</i> | 62.9 | 77.3 |
| 20 | 75 | 070 | <i>Allocasuarina acutivalvis</i> subsp. <i>prinsepiana</i> | 100 | 90.9 |
| 20 | 75 | 090 | <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i> | 80 | 90.9 |
| 20 | 75 | 090 | <i>Grevillea paradoxa</i> | 68.6 | 63.6 |
| 20 | 75 | 163 | <i>Acacia assimilis</i> subsp. <i>assimilis</i> | 82.9 | 40.9 |
| 20 | 75 | 175 | <i>Philotheca sericea</i> | 85.7 | 68.2 |
| 20 | 75 | 185 | <i>Calycopeplus paucifolius</i> | 85.7 | 59.1 |
| 20 | 75 | 226 | <i>Hibbertia hypericoides</i> | 42.9 | 68.2 |
| 20 | 75 | 273 | <i>Melaleuca conothamnoides</i> x <i>nematophylla</i> | 88.6 | 90.9 |
| 20 | 75 | 273 | <i>Micromyrtus racemosa</i> var. <i>prochytes</i> | 54.3 | 40.9 |
| 20 | 75 | 281 | <i>Trachymene ornata</i> | 62.9 | 68.2 |
| 20 | 75 | 345 | <i>Lawrencella rosea</i> | 60 | 86.4 |
| 20 | 75 | 345 | <i>Waitzia nitida</i> | 65.7 | 4.55 |
| 20 | 76 | 341 | <i>Goodenia ? berardiana</i> | 60 | 4.55 |
| 20 | 76 | 341 | <i>Velleia rosea</i> | 48.6 | 4.55 |
| 20 | 77 | 288 | <i>Leucopogon breviflorus</i> | 45.7 | 18.2 |
| 20 | 78 | 273 | <i>Aluta aspera</i> | 42.9 | 63.6 |
| 20 | 79 | 273 | <i>Darwinia masonii</i> | 45.7 | 50 |
| 20 | 79 | 281 | <i>Xanthosia bungei</i> | 45.7 | 50 |





For Mt Gibson area (defined by Group 28 numbers 1-12)
 Main Species as defined by those >40% of sites in any group
 Values (% of sites) are for all occurrences in these groups
 Species ordered by Species classification




| gp20 | gp80 | FCODE | NAME | Gp10 | | | | | | | | | | | | | 13 |
|-------------|------|-------|--|------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|-----|----|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | |
| # Sites --> | | | | 3 | 17 | 3 | 9 | 1 | 1 | 1 | 10 | 1 | 1 | 8 | 1 | 1 | |
| 1 | 1 | 060 | Thelymitra ? petrophila | | | | | | | | 100 | 10 | | | | | |
| 1 | 3 | 054L | Borya sphaerocephala | | | | | 100 | | | | | | | | | |
| 1 | 3 | 143 | Drosera andersoniana | | | | | | | 100 | 10 | | | | | | |
| 1 | 4 | 054F | Arthropodium curvipes | | | | 11.1 | | | 100 | 20 | 100 | | | | | |
| 2 | 8 | 054E | Dianella revoluta | | | | | | | | | | 100 | | | | |
| 2 | 10 | 345 | Podolepis canescens | | | | | | | 100 | 10 | | | 12.5 | | | |
| 2 | 12 | 345 | Calotis hispidula | | | | | | | | | | | 12.5 | 100 | | |
| 2 | 14 | 143 | Drosera macrantha | 66.7 | 23.5 | | 11.1 | | | | | | | | | | |
| 2 | 15 | 343 | Stylidium confluens | 100 | 52.9 | | | 100 | | | 30 | | | | | 100 | |
| 3 | 18 | 167 | Erodium cygnorum | | | | 44.4 | | | | 10 | | | 50 | 100 | 100 | |
| 3 | 18 | 326 | Eremophila latrobei subsp. latrobei | | | | 11.1 | | | | | | | 50 | 100 | 100 | |
| 3 | 20 | 345 | Rhodanthe charsleyae | | | | | | | | | | | | 100 | | |
| 3 | 21 | 149 | Crassula colorata var. colorata | | | | 55.6 | | | | | | | | | | |
| 3 | 21 | 345 | Rhodanthe polycephala | | | | 44.4 | | | | | | | 12.5 | | | |
| 3 | 22 | 165 | Mirbelia microphylla | 33.3 | | | | 100 | | | | | | | | | |
| 4 | 24 | 276 | Glischrocaryon aureum | | | | | | | | | 100 | | 12.5 | | | |
| 4 | 25 | 226 | Hibbertia acerosa | | | | 66.7 | | | | | | | | | | |
| 5 | 26 | 018 | Callitris glaucophylla | 33.3 | | | | | 100 | | | | | 12.5 | 100 | | |
| 6 | 30 | 183 | Comesperma integerrimum | | | | | | | | 10 | | | 12.5 | 100 | | |
| 7 | 32 | 090 | Hakea preissii | | | | | | | | | | | 12.5 | 100 | | |
| 7 | 32 | 163 | Acacia exocarpoides | | | | | | | | | | | 12.5 | 100 | | |
| 7 | 33 | 106 | Ptilotus obovatus | | | | | | | | 10 | | | 50 | 100 | | |
| 7 | 33 | 163 | Acacia tetragonophylla | | | | | | | | | | | 25 | 100 | | |
| 7 | 33 | 207 | Dodonaea inaequifolia | 33.3 | | | | | 100 | | 20 | | | 25 | 100 | | |
| 7 | 34 | 165 | Mirbelia depressa | | | | | | | | | | | 50 | | | |
| 7 | 35 | 326 | Eremophila clarkei | | 11.8 | | 22.2 | | 100 | | 40 | | | 87.5 | 100 | | |
| 7 | 35 | 341 | Goodenia pinnatifida | | 5.88 | | | | | | 100 | 100 | 100 | 75 | 100 | | |
| 7 | 35 | 341 | Velleia cynopotamica | | 5.88 | | | | | | 30 | | 100 | 75 | 100 | | |
| 7 | 36 | 152 | Cheiranthra filifolia var. simplicifolia | | | | | | | | 10 | | | 12.5 | 100 | | |
| 8 | 37 | 273 | Eucalyptus loxophleba subsp. supralaevis | | | | | | | 100 | | | | | | | |
| 8 | 37 | 273 | Melaleuca leiocarpa | | | | | | | 100 | | | | | | | |
| 8 | 38 | 273 | Calytrix leschenaultii | | | | | | 100 | | | | | | | | |
| 8 | 39 | 031 | Amphipogon caricinus var. caricinus | | 5.88 | | | | 100 | 100 | | | | | | | |
| 9 | 41 | 273 | Enekbatus stowardii | 66.7 | 5.88 | | | | | | | 20 | | | | | |
| 9 | 41 | 273 | Eucalyptus oldfieldii | 66.7 | | 33.3 | | | | | | | | | | | |
| 9 | 42 | 273 | Melaleuca fabri | 33.3 | 5.88 | | | | | 100 | | | | | | | |
| 10 | 45 | 341 | Brunonia australis | | | | | | | | 10 | 100 | | 12.5 | | 100 | |
| 11 | 48 | 223 | Rulingia luteiflora | | | 33.3 | | | | | | | 100 | | | 100 | |
| 11 | 49 | 165 | Leptosema aphyllum | | | | 11.1 | | | | | | 100 | | | | |
| 11 | 49 | 223 | Keraudrenia velutina subsp. velutina | | | | | | | | | | 100 | | | | |
| 12 | 58 | 007 | Cheilanthes sieberi subsp. sieberi | | | | | | | | | 50 | | | | | |
| 12 | 58 | 313 | Hemigenia macphersonii | 33.3 | 17.6 | | 11.1 | | | | | 90 | | | | | |
| 12 | 59 | 163 | Acacia stereophylla var. stereophylla | | 41.2 | 33.3 | | | | | | 20 | | | | | |
| 16 | 67 | 345 | Cratystylis subspinescens | | | | | | | | | | | | | 100 | |
| 16 | 68 | 345 | Brachyscome pusilla | | | | | | | | | | 100 | | | | |
| 18 | 73 | 105 | Rhagodia drummondii | | | | | | | | | | | 12.5 | 100 | | |
| 19 | 74 | 164 | Senna artemisioides subsp. artemisioides | | | | | | | | | | | | | 100 | |
| 20 | 75 | 007 | Cheilanthes austrotenuifolia | 100 | 100 | | 88.9 | 100 | | | | 20 | | | | | |
| 20 | 75 | 054F | Thysanotus patersonii | 66.7 | 70.6 | | 66.7 | | 100 | 100 | 100 | 100 | 100 | 62.5 | | | |
| 20 | 75 | 070 | Allocasuarina acutivalvis subsp. prinsepiana | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 87.5 | 100 | 100 | |
| 20 | 75 | 090 | Grevillea obliquistigma subsp. obliquistigma | | 94.1 | 100 | 100 | | | | 100 | 100 | 100 | 75 | 100 | 100 | |
| 20 | 75 | 090 | Grevillea paradoxa | 100 | 58.8 | 100 | 66.7 | | 100 | 100 | 70 | | | 87.5 | | | |
| 20 | 75 | 163 | Acacia assimilis subsp. assimilis | 33.3 | 88.2 | 100 | 77.8 | 100 | 100 | 100 | 70 | | | 25 | | | |
| 20 | 75 | 175 | Philotheca sericea | 66.7 | 100 | 100 | 66.7 | 100 | 100 | | 50 | 100 | | 100 | | 100 | |
| 20 | 75 | 185 | Calycopeplus paucifolius | 100 | 82.4 | 100 | 100 | 100 | | | 30 | 100 | | 100 | 100 | | |
| 20 | 75 | 226 | Hibbertia hypericoides | | 52.9 | 33.3 | 44.4 | | | 100 | 70 | | | 87.5 | | 100 | |
| 20 | 75 | 273 | Melaleuca conothamnoides x nematophylla | 33.3 | 94.1 | 100 | 88.9 | 100 | 100 | 100 | 90 | 100 | | 100 | 100 | 100 | |
| 20 | 75 | 273 | Micromyrtus racemosa var. prochytes | 33.3 | 64.7 | | 44.4 | 100 | 100 | 100 | | | | 100 | 100 | | |
| 20 | 75 | 281 | Trachymene ornata | 100 | 70.6 | 66.7 | 55.6 | | | | 70 | 100 | | 75 | | 100 | |
| 20 | 75 | 345 | Lawrencella rosea | 33.3 | 76.5 | 33.3 | 55.6 | | | | 100 | 90 | | 100 | 100 | 100 | |
| 20 | 75 | 345 | Waitzia nitida | 100 | 64.7 | 100 | 55.6 | | 100 | | | | | | | 100 | |
| 20 | 76 | 341 | Goodenia ? berardiana | 33.3 | 70.6 | 33.3 | 66.7 | | | 100 | | | | | | 100 | |
| 20 | 76 | 341 | Velleia rosea | 66.7 | 58.8 | 66.7 | 22.2 | | 100 | | | | | | | 100 | |
| 20 | 77 | 288 | Leucopogon breviflorus | 33.3 | 47.1 | 100 | 22.2 | 100 | | 100 | | 100 | 100 | 12.5 | 100 | | |
| 20 | 78 | 163 | Acacia aneura var. aneura | 100 | 35.3 | | | | | | | 20 | 100 | 37.5 | | 100 | |
| 20 | 78 | 273 | Aluta aspera | 33.3 | 82.4 | | | | | | | 90 | 100 | 100 | 37.5 | | |
| 20 | 79 | 131 | Cassytha nodiflora | | 11.8 | 66.7 | 100 | | | | 40 | | | 37.5 | | | |
| 20 | 79 | 273 | Darwinia masonii | | 41.2 | 66.7 | 77.8 | | | | 20 | | | 87.5 | 100 | 100 | |
| 20 | 79 | 273 | Melaleuca fulgens subsp. fulgens | | 29.4 | | 55.6 | 100 | | | 30 | | | 62.5 | | | |
| 20 | 79 | 281 | Xanthosia bungei | 66.7 | 29.4 | | 100 | | | | 30 | | | 87.5 | | 100 | |
| 20 | 80 | 165 | Gastrolobium laytonii | | | 33.3 | 66.7 | | | 100 | | | | 25 | | | |





For Mt Gibson area (defined by Group 40 numbers 1-17)
 Main Species as defined by those >40% of sites in any group
 Values (% of sites) are for all occurrences in these groups
 Species ordered by Species classification
 Apparently distinguishing species highlighted




| | | Gp10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
|------|------|-----------|--|-----|-----|------|------|------|------|------|------|-----|-----|-----|------|------|-----|-----|-----|------|------|
| | | Gp28 | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 8 | 8 | 8 | 9 | 10 | 11 | 12 | |
| gp20 | gp80 | FCODE | NAME | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | | Sites --> | | | | | | | | | | | | | | | | | | | |
| gp20 | gp80 | FCODE | NAME | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 1 | 1 | 060 | Thelymitra ? petrophila | | | | | | | | | | 100 | 20 | | | | | | | |
| 1 | 3 | 054L | Borya sphaerocephala | | | | | | | | 100 | | | | | | | | | | |
| 1 | 3 | 143 | Drosera andersoniana | | | | | | | | | | 100 | 20 | | | | | | | |
| 1 | 4 | 054F | Arthropodium curvipes | | | | | | 16.7 | | | | 100 | 40 | | | 100 | | | | |
| 2 | 8 | 054E | Dianella revoluta | | | | | | | | | | | | | | | 100 | | | |
| 2 | 10 | 345 | Podolepis canescens | | | | | | | | | | 100 | | 33.3 | | | | | 12.5 | |
| 2 | 12 | 345 | Calotis hispidula | | | | | | | | | | | | | | | | | 12.5 | 100 |
| 2 | 14 | 143 | Drosera macrantha | 100 | | 14.3 | 30 | | 16.7 | | | | | | | | | | | | |
| 2 | 15 | 343 | Stylidium confluens | 100 | 100 | 14.3 | 80 | | | | 100 | | 40 | | 50 | | | | | | 100 |
| 3 | 18 | 167 | Erodium cygnorum | | | | | | 16.7 | 100 | | | | | 33.3 | | | | | 50 | 100 |
| 3 | 18 | 326 | Eremophila latrobei subsp. latrobei | | | | | | | 33.3 | | | | | | | | | | 50 | 100 |
| 3 | 20 | 345 | Rhodanthe charsleyae | | | | | | | | | | | | | | | | | | 100 |
| 3 | 21 | 149 | Crassula colorata var. colorata | | | | | | 66.7 | 33.3 | | | | | | | | | | | |
| 3 | 21 | 345 | Rhodanthe polycephala | | | | | | 50 | 33.3 | | | | | | | | | | | 12.5 |
| 3 | 22 | 165 | Mirbelia microphylla | | 100 | | | | | | 100 | | | | | | | | | | |
| 4 | 24 | 276 | Glischrocaryon aureum | | | | | | | | | | | | | | 100 | | | | 12.5 |
| 4 | 25 | 226 | Hibbertia acerosa | | | | | | 50 | 100 | | | | | | | | | | | |
| 5 | 26 | 018 | Callitris glaucophylla | | 100 | | | | | | | 100 | | | | | | | | | 12.5 |
| 5 | 27 | 054C | Chamaexeros macranthera | | 100 | | | | | | | | | | | | | | | | |
| 5 | 27 | 345 | Schoenia cassiniana | | 100 | | | | | | | | | | | | | | | | |
| 6 | 30 | 183 | Comesperma integerrimum | | | | | | | | | | | | 33.3 | | | | | | 12.5 |
| 7 | 32 | 090 | Hakea preissii | | | | | | | | | | | | | | | | | | 12.5 |
| 7 | 32 | 163 | Acacia exocarpoides | | | | | | | | | | | | | | | | | | 100 |
| 7 | 33 | 106 | Ptilotus obovatus | | | | | | | | | | | | 33.3 | | | | | | 50 |
| 7 | 33 | 163 | Acacia tetragonophylla | | | | | | | | | | | | | | | | | | 25 |
| 7 | 33 | 207 | Dodonaea inaequifolia | | 100 | | | | | | | 100 | | | 66.7 | | | | | | 25 |
| 7 | 34 | 165 | Mirbelia depressa | | | | | | | | | | | | | | | | | | 50 |
| 7 | 34 | 175 | Philotheca brucei subsp. brucei | | 100 | 14.3 | | 33.3 | | 66.7 | | | | | | | | | | | 37.5 |
| 7 | 35 | 326 | Eremophila clarkei | | | 28.6 | | | | 66.7 | | 100 | | | 100 | 50 | | | | | 87.5 |
| 7 | 35 | 341 | Goodenia pinnatifida | | | | 10 | | | | | | | 100 | 100 | 100 | 100 | 100 | 100 | 75 | 100 |
| 7 | 35 | 341 | Velleia cynopotamica | | | | 10 | | | | | | | | 100 | | | | | 100 | 75 |
| 7 | 36 | 152 | Cheilanthes filifolia var. simplicifolia | | | | | | | | | | | | 33.3 | | | | | | 12.5 |
| 8 | 37 | 273 | Eucalyptus loxophleba subsp. supralaevis | | | | | | | | | 100 | | | | | | | | | |
| 8 | 37 | 273 | Melaleuca leiocarpa | | | | | | | | | 100 | | | | | | | | | |
| 8 | 38 | 273 | Calytrix leschenaultii | | | | | | | | 100 | | | | | | | | | | |
| 8 | 39 | 031 | Amphipogon caricinus var. caricinus | | | 14.3 | | | | | 100 | 100 | | | | | | | | | |
| 9 | 40 | 059 | Dioscorea hastifolia | | 50 | | | | | | | | | | | | | | | | |
| 9 | 41 | 273 | Enekbatus stowardii | | 100 | 14.3 | | | | | | | | | 33.3 | 50 | | | | | |
| 9 | 41 | 273 | Eucalyptus oldfieldii | | 100 | | | 33.3 | | | | | | | | | | | | | |
| 9 | 42 | 273 | Melaleuca fabri | | 50 | 14.3 | | | | | | 100 | | | | | | | | | |
| 9 | 42 | 273 | Thryptomene cuspidata | | 50 | | | | | | | | | | | | | | | | |
| 10 | 45 | 341 | Brunonia australis | | | | | | | | | | | 20 | | | 100 | | | | 12.5 |
| 11 | 48 | 223 | Rulingia luteiflora | | | | | 33.3 | | | | | | | | | 100 | | | | 100 |
| 11 | 49 | 165 | Leptosema aphyllum | | | | | | 16.7 | | | | | | | | 100 | | | | |
| 11 | 49 | 223 | Keraudrenia velutina subsp. velutina | | | | | | | | | | | | | | 100 | | | | |
| 12 | 54 | 138 | Stenopetalum filifolium | | | | | | | | | | | 20 | | 50 | | | | | |
| 12 | 55 | 031 | Austrostipa elegantissima | | | | | | | | | | | | | 50 | | | | | |
| 12 | 56 | 163 | Acacia acanthoclada | | | 14.3 | | | | | | | | | | 50 | | | | | |
| 12 | 58 | 007 | Cheilanthes sieberi subsp. sieberi | | | | | | | | | | | 60 | 66.7 | | | | | | |
| 12 | 58 | 313 | Hemigenia macphersonii | | 50 | 28.6 | 10 | | | 33.3 | | | | 100 | 66.7 | 100 | | | | | |
| 12 | 59 | 163 | Acacia stereophylla var. stereophylla | | | 42.9 | 40 | 33.3 | | | | | | 40 | | | | | | | |
| 16 | 67 | 345 | Cratystylis subspinescens | | | | | | | | | | | | | | | | | | 100 |
| 16 | 68 | 345 | Brachyscome pusilla | | | | | | | | | | | | | | | | 100 | | |
| 18 | 73 | 105 | Rhagodia drummondii | | | | | | | | | | | | | | | | | | 12.5 |
| 18 | 73 | 326 | Eremophila oldfieldii | | 100 | | | | | | | | | | | | | | | | 100 |
| 19 | 74 | 164 | Senna artemisioides subsp. artemisioides | | | | | | | | | | | | | | | | | | 100 |
| 20 | 75 | 007 | Cheilanthes austrotenuifolia | | 100 | 100 | 100 | 100 | | 83.3 | 100 | 100 | | | 20 | 33.3 | | | | | |
| 20 | 75 | 054F | Thysanotus patersonii | | 100 | | 85.7 | 60 | | 83.3 | 33.3 | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 62.5 | |
| 20 | 75 | 070 | Allocasuarina acutivalvis subsp. prinsepiana | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 87.5 | 100 |
| 20 | 75 | 090 | Grevillea obliquistigma subsp. obliquistigma | | | | 85.7 | 100 | 100 | 100 | 100 | | | | 100 | 100 | 100 | 100 | 100 | 75 | 100 |
| 20 | 75 | 090 | Grevillea paradoxa | | 100 | 100 | 71.4 | 50 | 100 | 66.7 | 66.7 | | 100 | 100 | 60 | 66.7 | 100 | | | | 87.5 |
| 20 | 75 | 163 | Acacia assimilis subsp. assimilis | | 50 | | 85.7 | 90 | 100 | 66.7 | 100 | 100 | 100 | 80 | 100 | | | | | | 25 |
| 20 | 75 | 175 | Philotheca sericea | | 50 | 100 | 100 | 100 | 100 | 66.7 | 66.7 | 100 | 100 | 40 | 100 | | | 100 | | | 100 |
| 20 | 75 | 185 | Calycopeplus paucifolius | | 100 | 100 | 71.4 | 90 | 100 | 100 | 100 | 100 | | | 20 | 33.3 | 50 | 100 | 100 | 100 | 100 |
| 20 | 75 | 226 | Hibbertia hypericoides | | | | 90 | 33.3 | 50 | 33.3 | | | 100 | 100 | 33.3 | 50 | | | | | 87.5 |
| 20 | 75 | 273 | Melaleuca conothamnoides x nematophylla | | 50 | | 85.7 | 100 | 100 | 100 | 66.7 | 100 | 100 | 100 | 66.7 | 100 | 100 | | | | 100 |
| 20 | 75 | 273 | Micromyrtus racemosa var. prochytes | | 50 | | 71.4 | 60 | | 16.7 | 100 | 100 | 100 | 100 | | | | | | | 100 |
| 20 | 75 | 281 | Trachymene ornata | | 100 | 100 | 57.1 | 80 | 66.7 | 83.3 | | | | 60 | 100 | 50 | 100 | | | | 75 |
| 20 | 75 | 345 | Lawrencella rosea | | 50 | | 42.9 | 100 | 33.3 | 33.3 | 100 | | | 100 | 100 | 100 | 50 | | | | 100 |
| 20 | 75 | 345 | Waitzia nitida | | 100 | 100 | 85.7 | 50 | 100 | 33.3 | 100 | | 100 | | | | | | | | 100 |
| 20 | 76 | 341 | Goodenia ? berardiana | | 50 | | 100 | 50 | 33.3 | 50 | 100 | | 100 | | | | | | | | 100 |
| 20 | 76 | 341 | Velleia rosea | | 50 | 100 | 100 | 30 | 66.7 | 16.7 | 33.3 | | 100 | | | | | | | | 100 |
| 20 | 77 | 288 | Leucopogon breviflorus | | 100 | 85.7 | 20 | 100 | | 66.7 | 100 | | 100 | | | | | 100 | 100 | 12.5 | 100 |
| 20 | 78 | 163 | Acacia aneura var. aneura | | 100 | 100 | 85.7 | | | | | | | | | | 100 | 100 | | | 37.5 |
| 20 | 78 | 273 | Aluta aspera | | 50 | | 100 | 70 | | | | | | 100 | 66.7 | 100 | 100 | 100 | 100 | | 37.5 |
| 20 | 79 | 131 | Cassylia nodiflora | | | | 20 | 66.7 | 100 | 100 | | | | | 80 | | | | | | 37.5 |
| 20 | 79 | 273 | Darwinia masonii | | | | 42.9 | 40 | 66.7 | 66.7 | 100 | | | | 40 | | | | | | 87.5 |
| 20 | 79 | 273 | Melaleuca fulgens subsp. fulgens | | | | 50 | | 66.7 | 33.3 | 100 | | | | 20 | | 100 | | | | 62.5 |
| 20 | 79 | 281 | Xanthosia bungei | | 50 | 100 | | 50 | | 100 | 100 | | | | 60 | | | | | | 87.5 |
| 20 | 80 | 165 | Gastrolobium laytonii | | | | | | 33.3 | 100 | | | | 100 | | | | | | | 25 |




ATA Mt Gibson Sites ordered by classification 21 Dec 2005





| site | area | gp10 | gp28 | gp40 | map | cond | photo | species and cover % |
|------|----------------|------|------|------|-----|------|--|--|
| 001 | Extension Hill | 1 | 1 | 1 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 15 Philotheca sericea 15 Acacia aneura var. aneura 10 Melaleuca conothamnoides x nematophylla 8 Aluta aspera 1 |
| 002 | Extension Hill | 1 | 1 | 1 | T1 | 0.00 |  | Aluta aspera 35 Allocasuarina acutivalvis subsp. prinsepiana 30 Eucalyptus oldfieldii 8 Acacia aneura var. aneura 5 Grevillea paradoxa 5 |
| 006 | Extension Hill | 1 | 1 | 2 | T12 | 0.00 |  | Mirbelia microphylla 10 Philotheca sericea 10 Allocasuarina acutivalvis subsp. prinsepiana 8 Acacia aneura var. aneura 7 |
| 004 | Extension Hill | 1 | 2 | 3 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Melaleuca conothamnoides x nematophylla 15 Philotheca sericea 15 Calycopeplus paucifolius 5 Grevillea paradoxa 5 Aluta aspera 2 |
| | | | | | | | | Aluta aspera 30 Allocasuarina acutivalvis subsp. |




| | | | | | | | | |
|-----|----------------|---|---|---|-----|------|--|---|
| 008 | Extension Hill | 1 | 2 | 3 | T1 | 0.00 |  | prinsepiana 15 Grevillea obliquistigma subsp. obliquistigma 15 Acacia assimilis subsp. assimilis 10 Philotheca sericea 8 Melaleuca fabri 2 |
| 010 | Extension Hill | 1 | 2 | 3 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 15 Grevillea obliquistigma subsp. obliquistigma 15 Melaleuca conothamnoides x nematophylla 15 Micromyrtus racemosa var. prochytes 15 Aluta aspera 10 Acacia assimilis subsp. assimilis 8 Grevillea paradoxa 5 |
| 011 | Extension Hill | 1 | 2 | 3 | T12 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Acacia assimilis subsp. assimilis 15 Grevillea obliquistigma subsp. obliquistigma 15 Philotheca sericea 10 Calycopeplus paucifolius 5 Enekbatus stowardii 5 |
| | | | | | | | | Aluta aspera 40 Melaleuca conothamnoides x nematophylla 15 |



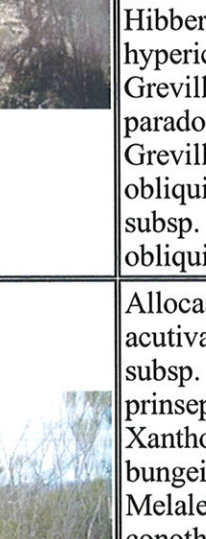
| | | | | | | | | |
|-----|----------------|---|---|---|----|------|--|---|
| 007 | Extension Hill | 1 | 2 | 3 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Grevillea obliquistigma subsp. obliquistigma 7 Philotheca sericea 2 |
| 009 | Extension Hill | 1 | 2 | 3 | T1 | 0.00 |  | Aluta aspera 25 Philotheca sericea 10 Calycoplepus paucifolius 8 Grevillea obliquistigma subsp. obliquistigma 8 Melaleuca conothamnoides x nematophylla 6 |
| 005 | Extension Hill | 1 | 2 | 3 | T1 | 0.00 |  | Aluta aspera 35 Allocasuarina acutivalvis subsp. prinsepiana 8 Acacia stereophylla var. stereophylla 6 Acacia aneura var. aneura 5 Philotheca sericea 3 |
| 013 | Extension Hill | 1 | 2 | 4 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 25 Aluta aspera 15 Melaleuca conothamnoides x nematophylla 10 Philotheca sericea 10 Melaleuca fulgens subsp. fulgens 5 |
| | | | | | | | | Aluta aspera 15 Melaleuca conothamnoides x nematophylla 15 Acacia assimilis subsp. assimilis 10 |





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|-----|-----------------|---|---|---|----|------|--|---|
| 028 | Iron Hill North | 1 | 2 | 4 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Grevillea obliquistigma subsp. obliquistigma 4 Melaleuca fulgens subsp. fulgens 3 |
| 014 | Extension Hill | 1 | 2 | 4 | T1 | 0.00 |  | Melaleuca fulgens subsp. fulgens 25 Allocasuarina acutivalvis subsp. prinsepiana 15 Melaleuca conothamnoides x nematophylla 15 Philothea sericea 15 Grevillea obliquistigma subsp. obliquistigma 2 Hibbertia hypericoides 2 |
| 029 | Iron Hill North | 1 | 2 | 4 | T1 | 0.00 |  | Acacia assimilis subsp. assimilis 20 Allocasuarina acutivalvis subsp. prinsepiana 20 Xanthosia bungei 15 Grevillea obliquistigma subsp. obliquistigma 8 Aluta aspera 5 Melaleuca conothamnoides x nematophylla 5 Calycopeplus paucifolius 4 |
| | | | | | | | | Allocasuarina acutivalvis subsp. prinsepiana 30 Aluta aspera 10 Grevillea obliquistigma subsp. |





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|-----|-----------------|---|---|---|----|------|--|--|
| 021 | Extension Hill | 1 | 2 | 4 | T1 | 3.00 |  | obliquistigma 10 Melaleuca conothamnoides x nematophylla 10 Calycopeplus paucifolius 5 Acacia assimilis subsp. assimilis 2 |
| 026 | Iron Hill North | 1 | 2 | 4 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Melaleuca conothamnoides x nematophylla 30 Aluta aspera 8 Grevillea obliquistigma subsp. obliquistigma 5 Acacia assimilis subsp. assimilis 4 Hibbertia hypericoides 4 |
| 027 | Iron Hill North | 1 | 2 | 4 | T3 | 0.00 |  | Melaleuca conothamnoides x nematophylla 30 Allocasuarina acutivalvis subsp. prinsepiana 25 Aluta aspera 7 Acacia stereophylla var. stereophylla 3 Grevillea obliquistigma subsp. obliquistigma 2 Hibbertia hypericoides 2 |
| 030 | Iron Hill | 1 | 2 | 4 | T1 | 0.00 | | Acacia assimilis subsp. assimilis 10 Allocasuarina acutivalvis subsp. prinsepiana 10 Melaleuca conothamnoides x nematophylla |




| | | | | | | | | |
|-----|-----------------|---|---|---|----|------|--|---|
| | North | | | | | |  | 10 Aluta aspera 5 Calycopeplus paucifolius 5 Grevillea obliquistigma subsp. obliquistigma 5 Xanthosia bungei 4 |
| 033 | Iron Hill North | 1 | 2 | 4 | T1 | 0.00 |  | Melaleuca conothamnoides x nematophylla 30 Allocasuarina acutivalvis subsp. prinsepiana 25 Hibbertia hypericoides 15 Xanthosia bungei 5 Aluta aspera 3 |
| 034 | Iron Hill North | 1 | 2 | 4 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 50 Grevillea obliquistigma subsp. obliquistigma 15 Xanthosia bungei 15 Melaleuca fulgens subsp. fulgens 10 Aluta aspera 2 Melaleuca conothamnoides x nematophylla 2 |
| 012 | Extension Hill | 1 | 3 | 5 | T1 | 0.00 |  | Philotheca sericea 25 Acacia assimilis subsp. assimilis 15 Allocasuarina acutivalvis subsp. prinsepiana 15 Grevillea obliquistigma subsp. obliquistigma 10 Melaleuca conothamnoides |





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|-----|--------------------|---|---|---|----|------|--|---|
| | | | | | | | | x nematophylla 3 Eucalyptus oldfieldii 2 |
| 038 | Iron Hill | 1 | 3 | 5 | T3 | 0.00 |  | Acacia assimilis subsp. assimilis 20 Allocasuarina acutivalvis subsp. prinsepiana 20 Calycopeplus paucifolius 15 Melaleuca conothamnoides x nematophylla 10 Aluta aspera 3 Grevillea obliquistigma subsp. obliquistigma 3 |
| 039 | Iron Hill | 1 | 3 | 5 | T3 | 0.00 |  | Melaleuca conothamnoides x nematophylla 25 Acacia assimilis subsp. assimilis 15 Allocasuarina acutivalvis subsp. prinsepiana 15 Aluta aspera 15 Calycopeplus paucifolius 10 Grevillea obliquistigma subsp. obliquistigma 3 |
| 025 | Iron Hill North | 1 | 4 | 6 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 20 Melaleuca conothamnoides x nematophylla 10 Aluta aspera 8 Hibbertia hypericoides 5 Calycopeplus paucifolius 3 Acacia assimilis subsp. assimilis 2 |
| | | | | | | | | Allocasuarina acutivalvis |





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|-----|-----------------|---|---|---|----|------|---|---|
| 031 | Iron Hill North | 1 | 4 | 6 | T1 | 0.00 |  | subsp. prinsepiana 15 Melaleuca conothamnoides x nematophylla 10 Grevillea obliquistigma subsp. obliquistigma 8 Hibbertia hypericoides 8 Xanthosia bungei 6 Aluta aspera 4 |
| 032 | Iron Hill North | 1 | 4 | 6 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 35 Xanthosia bungei 15 Melaleuca conothamnoides x nematophylla 8 Hibbertia hypericoides 5 Grevillea paradoxa 4 Grevillea obliquistigma subsp. obliquistigma 3 |
| 051 | Mt Gibson North | 1 | 4 | 6 | T6 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 60 Xanthosia bungei 8 Melaleuca conothamnoides x nematophylla 5 Acacia assimilis subsp. assimilis 3 Calycopeplus paucifolius 2 |
| 052 | Mt Gibson North | 1 | 4 | 6 | T6 | 0.00 | | Allocasuarina acutivalvis subsp. prinsepiana 60 Xanthosia bungei 15 Melaleuca conothamnoides x nematophylla 10 |





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|-----|--------------------|---|---|---|----|------|--|--|
| | | | | | | |  | Acacia cerastes 2 Gastrolobium laytonii 2 |
| 053 | Mt Gibson North | 1 | 4 | 6 | T6 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Melaleuca conothamnoides x nematophylla 10 Melaleuca fulgens subsp. fulgens 10 Calycopeplus paucifolius 5 Grevillea paradoxa 5 |
| 049 | Iron Hill East | 1 | 4 | 7 | T3 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 35 Melaleuca conothamnoides x nematophylla 15 Calycopeplus paucifolius 5 Grevillea paradoxa 5 Hibbertia acerosa 5 Grevillea obliquistigma subsp. obliquistigma 3 |
| 050 | Mt Gibson North | 1 | 4 | 7 | T6 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 35 Melaleuca conothamnoides x nematophylla 20 Xanthosia bungei 10 Grevillea paradoxa 6 Grevillea obliquistigma subsp. obliquistigma 5 |




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|-----|-----------------|---|---|----|-----|------|--|---|
| 054 | Mt Gibson North | 1 | 4 | 7 | T6 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 15 Melaleuca conothamnoides x nematophylla 10 Xanthosia bungei 8 Calycopeplus paucifolius 7 Grevillea obliquistigma subsp. obliquistigma 2 |
| 003 | Extension Hill | 1 | 5 | 8 | T12 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Philotheca sericea 5 Acacia assimilis subsp. assimilis 2 |
| 015 | Extension Hill | 1 | 6 | 9 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Eucalyptus loxophleba subsp. supralaevis 10 Melaleuca leiocarpa 6 Acacia assimilis subsp. assimilis 5 Philotheca sericea 5 |
| 024 | Extension Hill | 1 | 7 | 10 | T1 | 2.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Hibbertia hypericoides 10 Melaleuca conothamnoides x nematophylla 10 Acacia assimilis subsp. assimilis 5 Aluta aspera subsp. hesperia 5 Grevillea paradoxa 2 |


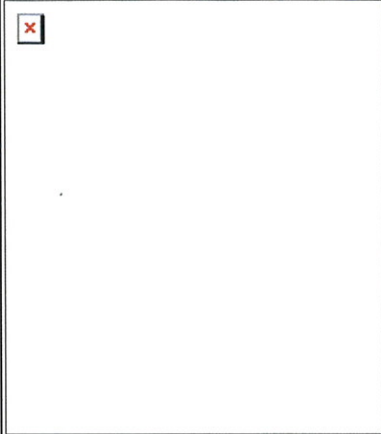


| | | | | | | | | |
|-----|-----------------|---|---|----|----|------|--|---|
| 016 | Extension Hill | 2 | 8 | 11 | T1 | 2.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Acacia assimilis subsp. assimilis 10 Hibbertia hypericoides 10 Melaleuca conothamnoides x nematophylla 10 Grevillea paradoxa 5 |
| 017 | Extension Hill | 2 | 8 | 11 | T1 | 0.00 |  | Acacia assimilis subsp. assimilis 20 Allocasuarina acutivalvis subsp. prinsepiana 20 Hibbertia hypericoides 20 Grevillea obliquistigma subsp. obliquistigma 5 Melaleuca conothamnoides x nematophylla 5 Aluta aspera 2 |
| 035 | Iron Hill North | 2 | 8 | 11 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 50 Melaleuca fulgens subsp. fulgens 10 Grevillea obliquistigma subsp. obliquistigma 5 Grevillea paradoxa 5 Melaleuca conothamnoides x nematophylla 5 Xanthosia bungei 5 |
| | | | | | | | | Allocasuarina acutivalvis subsp. prinsepiana 20 Grevillea obliquistigma |





| | | | | | | | | |
|-----|-----------------|---|---|----|----|------|--|--|
| 036 | Iron Hill North | 2 | 8 | 11 | T1 | 0.00 |  | subsp. obliquistigma 15 Xanthosia bungei 10 Acacia stereophylla var. stereophylla 5 Hibbertia hypericoides 2 |
| 037 | Iron Hill North | 2 | 8 | 11 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Hibbertia hypericoides 10 Xanthosia bungei 10 Aluta aspera 5 Melaleuca conothamnoides x nematophylla 5 Acacia stereophylla var. stereophylla 2 |
| 019 | Extension Hill | 2 | 8 | 12 | T1 | 2.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 40 Melaleuca conothamnoides x nematophylla 10 Grevillea paradoxa 5 Philotheca sericea 5 |
| 020 | Extension Hill | 2 | 8 | 12 | T1 | 2.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Aluta aspera 10 Eucalyptus leptopoda subsp. leptopoda 10 Grevillea obliquistigma subsp. obliquistigma 10 Acacia assimilis subsp. assimilis 5 Eremophila |




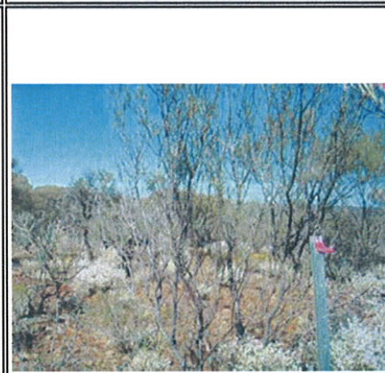
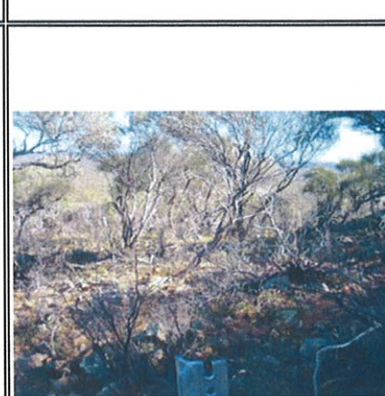
| | | | | | | | | |
|-----|----------------|---|---|----|----|------|--|--|
| | | | | | | | | clarkei 2 Acacia acanthoclada 1 |
| 023 | Extension Hill | 2 | 8 | 12 | T1 | 1.00 |  | Aluta aspera subsp. hesperia 30 Allocasuarina acutivalvis subsp. prinsepiana 20 Acacia assimilis subsp. assimilis 10 Aluta aspera 5 Grevillea obliquistigma subsp. obliquistigma 5 |
| 018 | Extension Hill | 2 | 8 | 13 | T1 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Grevillea obliquistigma subsp. obliquistigma 10 Grevillea paradoxa 2 Melaleuca conothamnoides x nematophylla 2 |
| 047 | Iron Hill East | 2 | 8 | 13 | T3 | 1.00 |  | Aluta aspera 50 Acacia aneura var. aneura 10 Allocasuarina acutivalvis subsp. prinsepiana 10 Melaleuca fabri 5 Grevillea obliquistigma subsp. obliquistigma 2 |
| 048 | Iron Hill East | 2 | 9 | 14 | T3 | 1.00 |  | Aluta aspera 50 Acacia aneura var. aneura 5 Grevillea obliquistigma subsp. obliquistigma 5 Allocasuarina acutivalvis subsp. prinsepiana 2 |






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|-----|----------------|---|----|----|----|------|--|--|
| 062 | Vermin Fence | 2 | 10 | 15 | | 1.00 |  | Aluta aspera 60 Brachyscome pusilla 2 Grevillea obliquistigma subsp. obliquistigma 1 Velleia cyncopotamica 1 |
| 022 | Extension Hill | 2 | 11 | 16 | T1 | 2.00 |  | Grevillea obliquistigma subsp. obliquistigma 10 Melaleuca conothamnoides x nematophylla 10 Acacia assimilis subsp. assimilis 5 Aluta aspera 5 Darwinia masonii 2 Grevillea paradoxa 2 Hibbertia hypericoides 2 |
| 040 | Iron Hill | 2 | 11 | 16 | T5 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Aluta aspera 10 Darwinia masonii 10 Melaleuca conothamnoides x nematophylla 10 Velleia cyncopotamica 10 Calycopeplus paucifolius 5 |
| 043 | Iron Hill | 2 | 11 | 16 | T5 | 2.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Aluta aspera 10 Acacia aneura var. aneura 5 Melaleuca conothamnoides x nematophylla 5 Philotheca sericea 5 |






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|-----|--------------------|---|----|----|----|------|--|--|
| | | | | | | | | Callitris glaucophylla 2 |
| 041 | Iron Hill | 2 | 11 | 16 | T5 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Aluta aspera 10 Calycopeplus paucifolius 10 Melaleuca conothamnoides x nematophylla 10 Darwinia masonii 5 Velleia cycnopotamica 5 |
| 055 | Mt Gibson North | 2 | 11 | 16 | T6 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Calycopeplus paucifolius 5 Darwinia masonii 5 Grevillea obliquistigma subsp. obliquistigma 2 Melaleuca conothamnoides x nematophylla 2 Philotheca sericea 2 |
| 056 | Mt Gibson North | 2 | 11 | 16 | T6 | 1.00 |  | Calycopeplus paucifolius 10 Grevillea obliquistigma subsp. obliquistigma 10 Melaleuca conothamnoides x nematophylla 10 Darwinia masonii 5 Philotheca sericea 5 Eremophila clarkei 2 |
| | | | | | | | | Allocasuarina acutivalvis subsp. prinsepiana 30 Melaleuca |






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|-----|-----------------|---|----|----|----|------|--|--|
| 060 | Mt Gibson South | 2 | 11 | 16 | M4 | 2.00 |  | <p>conothamnoides x nematophylla 20</p> <p>Calycopeplus paucifolius 5</p> <p>Darwinia masonii 5</p> <p>Podolepis lessonii 5</p> |
| 057 | Mt Gibson North | 2 | 11 | 16 | T6 | 1.00 |  | <p>Acacia aneura var. aneura 5</p> <p>Acacia tetragonophylla 5</p> <p>Allocasuarina acutivalvis subsp. prinsepiana 5</p> <p>Calycopeplus paucifolius 5</p> <p>Glischrocaryon aureum 5</p> <p>Melaleuca conothamnoides x nematophylla 5</p> <p>Melaleuca fulgens subsp. fulgens 5</p> |
| 046 | Iron Hill | 2 | 12 | 17 | T3 | 2.00 |  | <p>Allocasuarina acutivalvis subsp. prinsepiana 10</p> <p>Cratystylis subspinescens 10</p> <p>Darwinia masonii 10</p> <p>Calycopeplus paucifolius 5</p> <p>Eremophila latrobei subsp. latrobei 5</p> <p>Acacia exocarpoides 2</p> |
| 045 | Iron Hill | 2 | 13 | 18 | T3 | 0.00 |  | <p>Acacia aneura var. aneura 20</p> <p>Grevillea obliquistigma subsp. obliquistigma 6</p> <p>Sida excedentifolia 5</p> <p>Waitzia nitida 5</p> <p>Allocasuarina acutivalvis subsp. prinsepiana 3</p> |


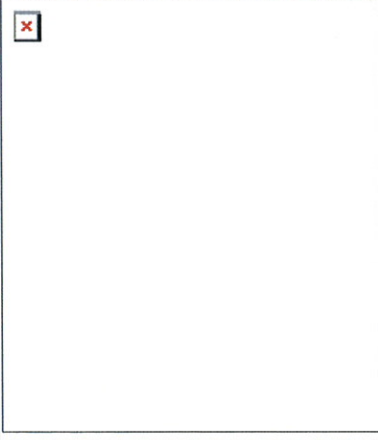
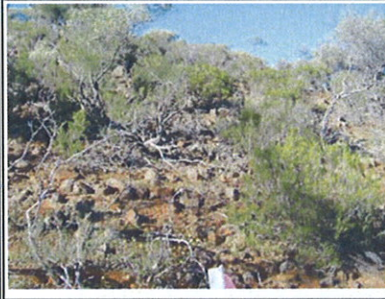


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|-----|--------------------|---|----|----|-----|------|--|---|
| 042 | Iron Hill | 3 | 14 | 19 | T5 | 0.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 10 Melaleuca conothamnoides x nematophylla 8 Aluta aspera 7 Acacia tetragonophylla 6 Philotheca brucei subsp. brucei 3 Darwinia masonii 2 |
| 044 | Iron Hill | 3 | 14 | 19 | T3 | 0.00 |  | Eremophila clarkei 10 Philotheca brucei subsp. brucei 10 Calycopeplus paucifolius 8 Hakea preissii 5 Ptilotus obovatus 5 Grevillea obliquistigma subsp. obliquistigma 4 Hibbertia hypericoides 3 |
| 058 | Mt Gibson South | 3 | 15 | 20 | HS1 | 0.00 |  | Ptilotus obovatus 30 Calycopeplus paucifolius 15 Dodonaea inaequifolia 5 Allocasuarina acutivalvis subsp. prinsepiana 2 |
| 059 | Mt Gibson South | 3 | 15 | 20 | HS1 | 1.00 |  | Ptilotus obovatus 25 Calycopeplus paucifolius 20 Dodonaea inaequifolia 5 Acacia exocarpoides 1 |
| 088 | Well (ruin) E | 4 | 16 | 21 | | 1.00 | | Acacia tetragonophylla 15 Dodonaea inaequifolia 15 Acacia |




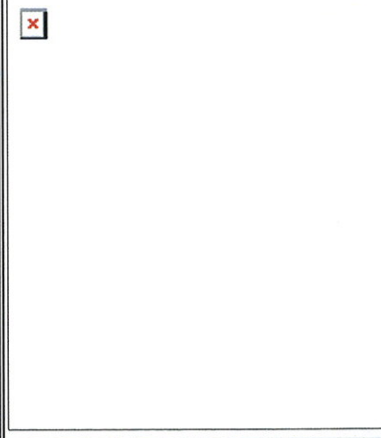

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|-----|------------------|---|----|----|------|--|--|
| | | | | | |  | andrewsii 5 Acacia aneura var. aneura 5 Ptilotus obovatus 3 |
| 089 | Well (ruin) E | 4 | 17 | 22 | 1.00 |  | Acacia aneura var. aneura 20 Eucalyptus loxophleba subsp. supraevis 4 Calycopleplus paucifolius 2 Acacia tetragonophylla 1 |
| 063 | Taylor Well | 5 | 18 | 23 | 1.00 |  | Ptilotus obovatus 25 Hakea preissii 15 Allocasuarina acutivalvis subsp. prinsepiana 12 Calycopleplus paucifolius 10 Podolepis lessonii 2 |
| 064 | Taylor Well | 5 | 18 | 23 | 0.00 |  | Ptilotus obovatus 25 Allocasuarina acutivalvis subsp. prinsepiana 15 Calycopleplus paucifolius 15 Hakea preissii 10 Acacia ramulosa var. ramulosa 5 |
| 083 | East GNH | 5 | 18 | 24 | 0.00 |  | Acacia aneura var. aneura 15 Acacia quadriflorata 8 Aluta aspera 5 Calycopleplus paucifolius 5 Grevillea obliquistigma subsp. obliquistigma 5 Waitzia nitida 4 |





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|-----|---------------------|---|----|----|------|--|--|--|---|
| | | | | | | | | | Cuscuta epithymum 2 |
| 084 | East GNH | 5 | 18 | 24 | 1.00 |  | | | Calycopeplus paucifolius 15 Acacia aneura var. aneura 10 Podolepis lessonii 4 Acacia quadrimarginea 2 |
| 085 | East GNH | 5 | 18 | 24 | 1.00 |  | | | Acacia quadrimarginea 20 Acacia aneura var. aneura 15 Calycopeplus paucifolius 5 Scaevola spinescens 2 |
| 065 | East GNH | 5 | 19 | 25 | 1.00 |  | | | Calycopeplus paucifolius 35 Acacia assimilis subsp. assimilis 4 Acacia quadrimarginea 4 Acacia ramulosa var. ramulosa 4 Cuscuta epithymum 3 |
| 093 | East Extension Hill | 5 | 19 | 26 | 1.00 |  | | | Acacia quadrimarginea 15 Calycopeplus paucifolius 15 Acacia ramulosa var. ramulosa 8 Podolepis lessonii 4 |
| 094 | East Extension Hill | 5 | 19 | 26 | 1.00 |  | | | Melaleuca uncinata 15 Acacia quadrimarginea 10 Scaevola spinescens 7 Acacia ramulosa var. ramulosa 5 Eremophila georgei 2 |
| | | | | | | | | | Acacia quadrimarginea |




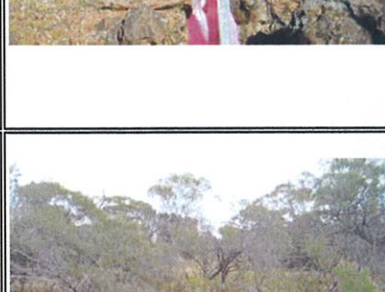

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|-----|-----------------------------|---|----|----|----|------|--|---|
| 095 | East Extension Hill | 5 | 19 | 26 | | 1.00 |  | 15 Mirbelia microphylla 10 Acacia ramulosa var. ramulosa 6 Calycopeplus paucifolius 4 Acacia assimilis subsp. assimilis 2 |
| 092 | Extension Hill Vermin Fence | 5 | 19 | 27 | 17 | 1.00 |  | Melaleuca fulgens subsp. fulgens 30 Xanthosia bungei 7 Melaleuca uncinata 6 Allocasuarina acutivalvis subsp. prinsepiana 5 Mirbelia microphylla 5 Grevillea scabrida 4 |
| 096 | East Extension Hill | 6 | 20 | 28 | | 1.00 |  | Aluta aspera 20 Acacia quadrimarginea 15 Calycopeplus paucifolius 5 |
| 100 | Yandhanoo Hill | 6 | 20 | 28 | | 1.00 |  | Acacia coolgardiensis subsp. effusa 40 Aluta aspera 5 Acacia quadrimarginea 1 Cryptandra connata 1 |
| 097 | East Extension Hill | 6 | 20 | 28 | | 2.00 |  | Acacia quadrimarginea 15 Aluta aspera 5 Acacia coolgardiensis subsp. effusa 2 Calycopeplus paucifolius 2 Waitzia acuminata var. acuminata 2 |
| | | | | | | | | Acacia coolgardiensis |

| | | | | | | | |
|-----|----------------|---|----|----|------|--|---|
| 098 | Yandhanoo Hill | 6 | 20 | 28 | 1.00 |  | subsp. effusa 20 Acacia quadrimarginea 10 Aluta aspera 5 Eremophila latrobei subsp. latrobei 5 Calycopeplus paucifolius 2 |
| 099 | Yandhanoo Hill | 6 | 20 | 29 | 1.00 |  | Acacia quadrimarginea 30 Aluta aspera 5 Eremophila clarkei 5 Cryptandra connata 2 |
| 061 | Vermin Fence | 7 | 21 | 30 | 2.00 |  | Mirbelia depressa 20 Acacia aneura var. aneura 10 Grevillea sarissa subsp. sarissa 5 Lobelia winfridae 5 Schoenia filifolia subsp. filifolia 5 |
| 086 | Well (ruin) E | 7 | 21 | 31 | 2.00 |  | Aluta aspera 15 Acacia aneura var. aneura 10 Waitzia acuminata var. acuminata 10 Mirbelia depressa 5 |
| 087 | Well (ruin) E | 7 | 21 | 31 | 1.00 |  | Acacia aneura var. aneura 50 Aluta aspera 5 Podolepis lessonii 5 Waitzia acuminata var. acuminata 5 Mirbelia depressa 2 |
| | | | | | | | Helipterum craspedioides 5 Acacia |

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|-----|-----------------|---|----|----|------|--|--|
| 080 | SW Mt Singleton | 8 | 22 | 32 | 3.00 |  | quadrimarginea 3 Dodonaea inaequifolia 2 |
| 081 | SW Mt Singleton | 8 | 23 | 33 | 3.00 |  | Acacia acuminata 25 Allocasuarina campestris 5 |
| 082 | SW Mt Singleton | 8 | 23 | 33 | 3.00 |  | Acacia acuminata 20 Allocasuarina campestris 5 |
| 066 | Mt Singleton | 9 | 24 | 34 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 60 Borya sphaerocephala 5 Xanthosia bungei 1 |
| 070 | Mt Singleton | 9 | 24 | 34 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 40 Borya sphaerocephala 10 Cryptandra connata 5 Micromyrtus racemosa var. prochytes 5 Diuris porrifolia 1 Xanthosia bungei 1 |
| | | | | | | | Allocasuarina acutivalvis |

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|-----|--------------|----|----|----|------|--|---|
| 067 | Mt Singleton | 9 | 24 | 34 | 2.00 |  | subsp. prinsepiana 60 Borya sphaerocephala 10 Cryptandra connata 2 Xanthosia bungei 1 |
| 069 | Mt Singleton | 9 | 24 | 34 | 2.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 50 Borya sphaerocephala 10 Micromyrtus racemosa var. prochytes 10 Cryptandra connata 2 |
| 068 | Mt Singleton | 9 | 24 | 34 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 60 Micromyrtus racemosa var. prochytes 5 Cryptandra connata 2 Borya sphaerocephala |
| 071 | Mt Singleton | 10 | 25 | 35 | 1.00 |  | Micromyrtus racemosa var. prochytes 30 Allocasuarina acutivalvis subsp. prinsepiana 15 Calothamnus gilesii 1 Podolepis canescens 1 Schoenus nanus 1 |
| 072 | Mt Singleton | 10 | 25 | 36 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 70 Melaleuca uncinata 2 Schoenus nanus 2 |
| | | | | | | | Allocasuarina acutivalvis subsp. prinsepiana 35 |

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|-----|--------------|----|----|----|------|--|--|
| 073 | Mt Singleton | 10 | 25 | 36 | 1.00 |  | Borya sphaerocephala 2 Hypoxis occidentalis var. occidentalis 2 Micromyrtus racemosa var. prochytes 2 Acacia oswaldii 1 |
| 074 | Mt Singleton | 10 | 26 | 37 | 1.00 |  | Micromyrtus racemosa var. prochytes 6 Allocasuarina acutivalvis subsp. prinsepiana 4 Hypoxis occidentalis var. occidentalis 3 |
| 075 | Mt Singleton | 10 | 26 | 37 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 30 Borya sphaerocephala 5 Micromyrtus racemosa var. prochytes 4 Hypoxis occidentalis var. occidentalis 2 Xanthosia bungei 1 |
| 076 | Mt Singleton | 10 | 26 | 37 | 1.00 |  | Allocasuarina acutivalvis subsp. prinsepiana 20 Micromyrtus racemosa var. prochytes 10 Acacia acuminata 4 Borya sphaerocephala 4 Hypoxis occidentalis var. occidentalis 3 Lawrencella rosea 3 Waitzia nitida 2 |
| | | | | | | | Allocasuarina acutivalvis subsp. prinsepiana 15 |

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|-----|---------------|----|----|----|------|--|---|
| 077 | Mt Singleton | 10 | 27 | 38 | 0.00 |  | Acacia acuminata 8 Brachychiton gregorii 4 Aristida contorta 3 Rhodanthe charshleyae 2 |
| 078 | Coonigal Well | 10 | 27 | 39 | 1.00 |  | Acacia acuminata 30 Allocasuarina acutivalvis subsp. prinsepiana 15 Hypoxis occidentalis var. occidentalis 5 |
| 079 | Coonigal Well | 10 | 27 | 39 | 1.00 |  | Acacia acuminata 30 Allocasuarina acutivalvis subsp. prinsepiana 20 Hyalosperma cotula 3 Lawrencella rosea 3 Hypoxis occidentalis var. occidentalis 2 |
| 090 | Well (ruin) E | 10 | 28 | 40 | 1.00 |  | Acacia acuminata 20 Hyalosperma cotula 5 Eremophila oldfieldii 4 Grevillea scabrada 4 Dodonaea inaequifolia 3 |
| 091 | Well (ruin) E | 10 | 28 | 40 | 1.00 |  | Grevillea paradoxa 10 Acacia acuminata 7 Acacia tetragonophylla 7 Acacia kochii 5 Podolepis canescens 5 Podolepis lessonii 4 |