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PRELIMINARY REGOLITH STUDIES AT ET, MONSOON, JUMBUCK, SOUTH HILGA AND GOLF BORE GOLD PROSPECTS, GAWLER CRATON, SOUTH AUSTRALIA

Volume 2

M.J. Lintern, M.J. Sheard and G. Gouthas

CRC LEME OPEN FILE REPORT 115

April 2002

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(CSIRO Exploration and Mining Report 864R/
PIRSA Office of Minerals and Energy Resources,
South Australia, Report Book RB 2002_004)

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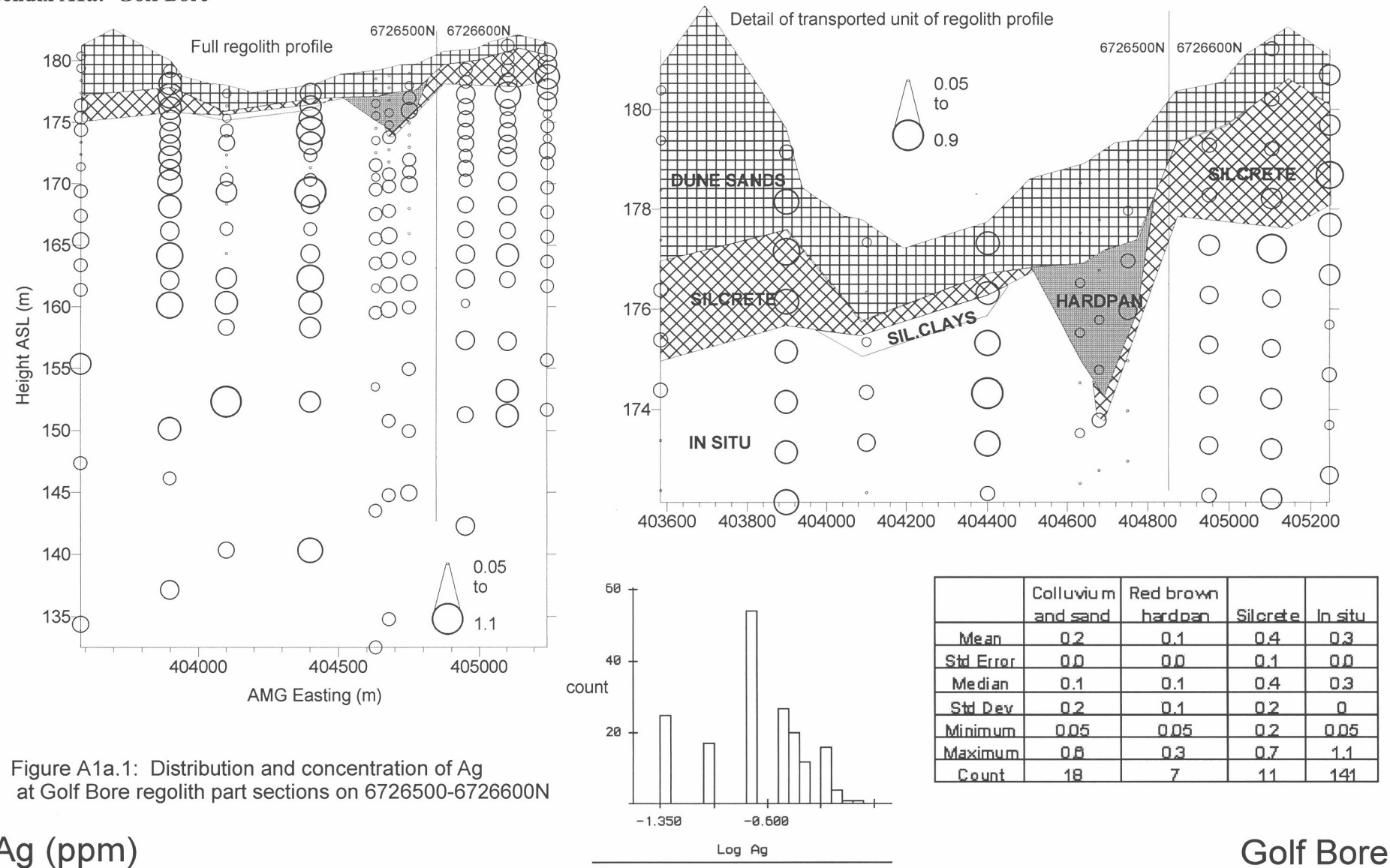
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APPENDIX 1

Regolith Sections

Appendix A1a: Golf Bore



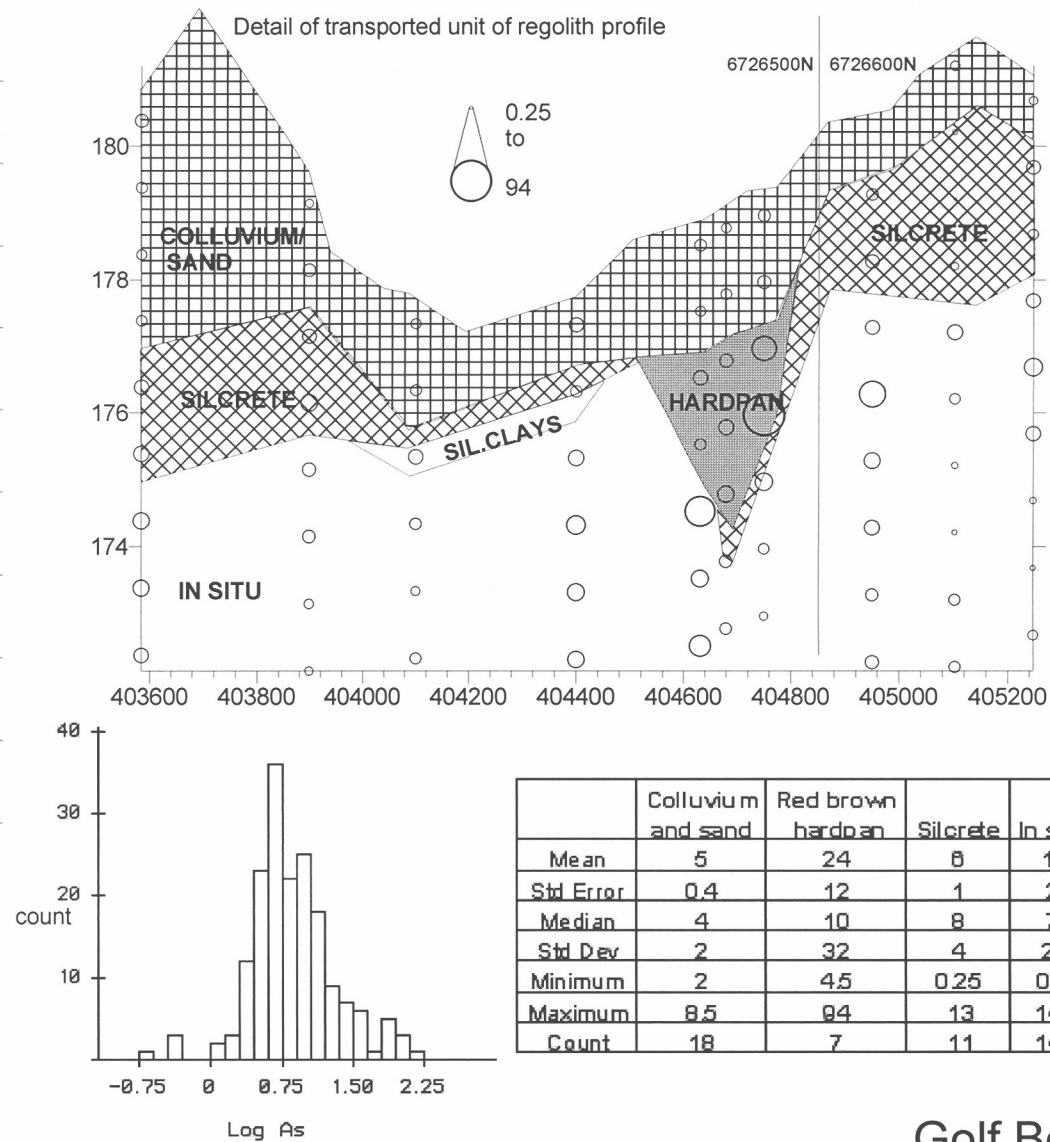
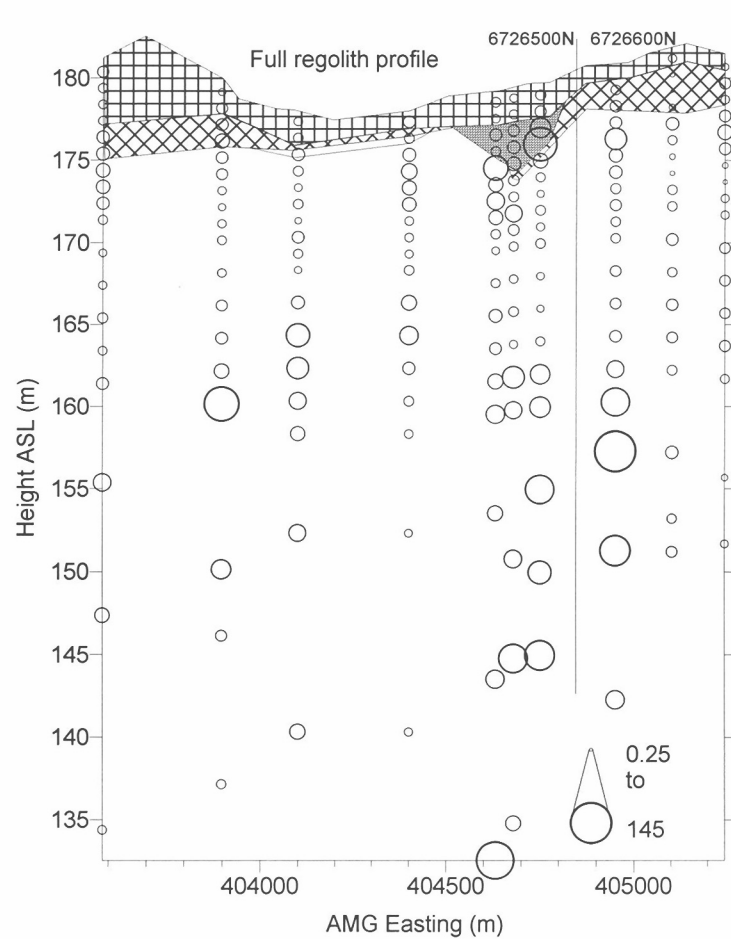


Figure A1a.2: Distribution and concentration of As at Golf Bore regolith part sections on 6726500-6726600N

As (ppm)

Golf Bore

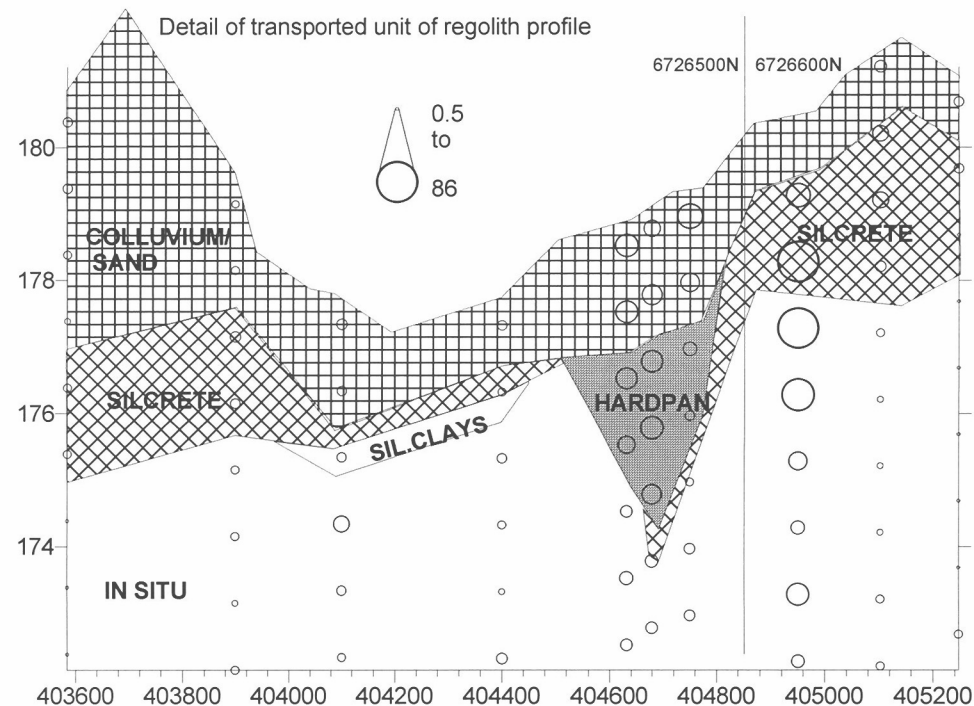
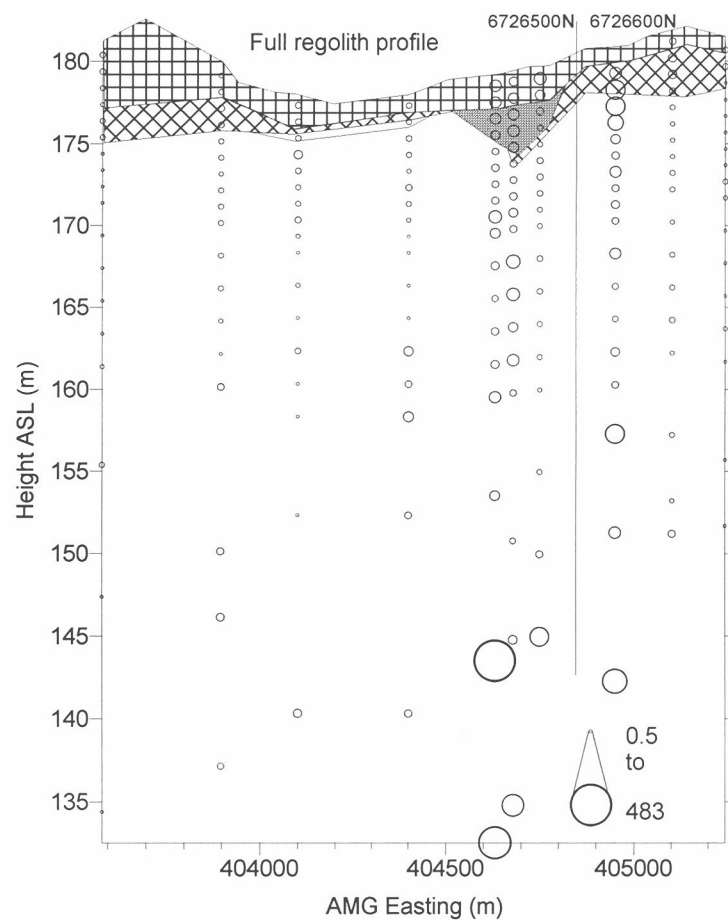
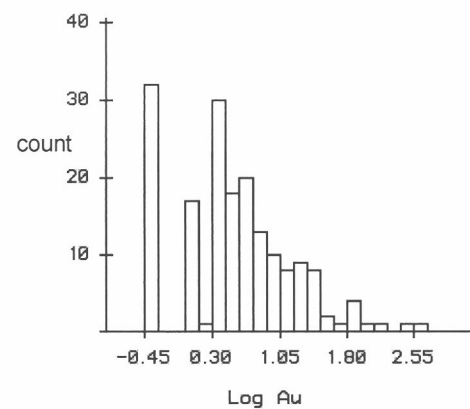


Figure A1a.3: Distribution and concentration of Au at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 10 | 15 | 19 | 14 |
| Std Error | 2 | 3 | 10 | 4 |
| Median | 4 | 17 | 4 | 2 |
| Std Dev | 10 | 8 | 33 | 50 |
| Minimum | 1 | 3 | 0.5 | 0.5 |
| Maximum | 29 | 24 | 86 | 483 |
| Count | 18 | 7 | 11 | 141 |

Au (ppb)

Golf Bore

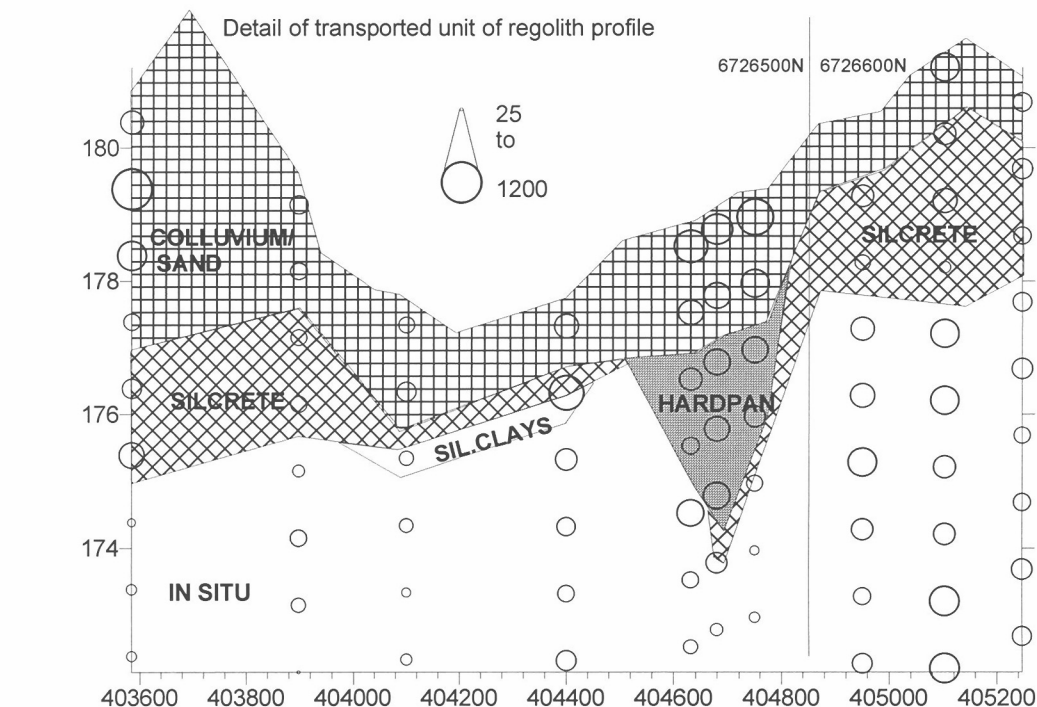
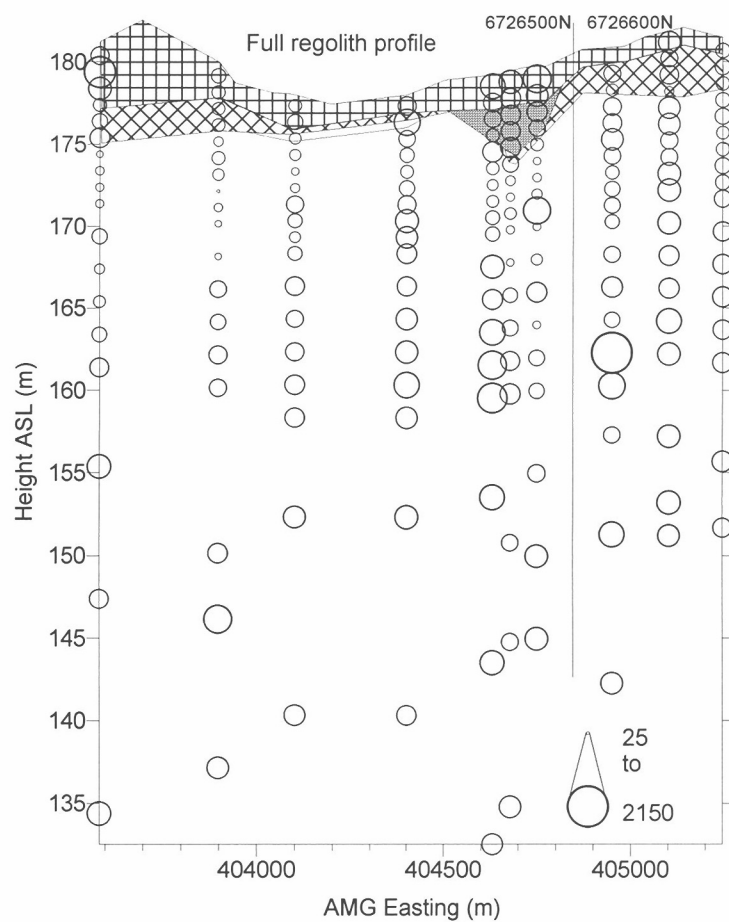
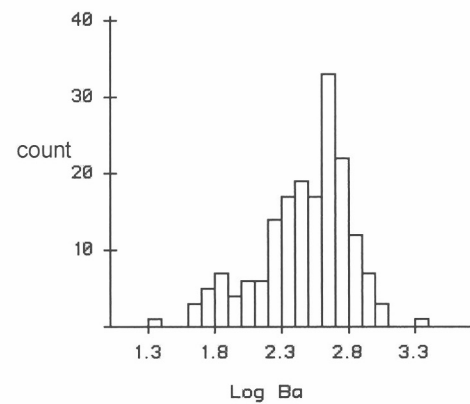


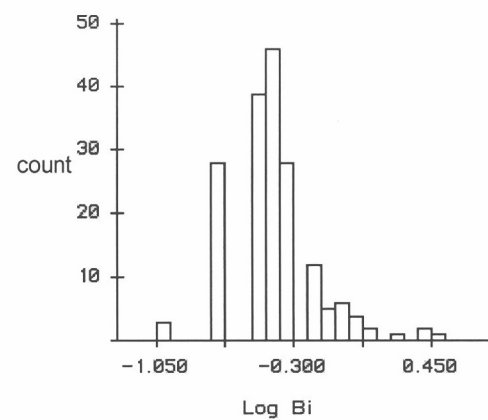
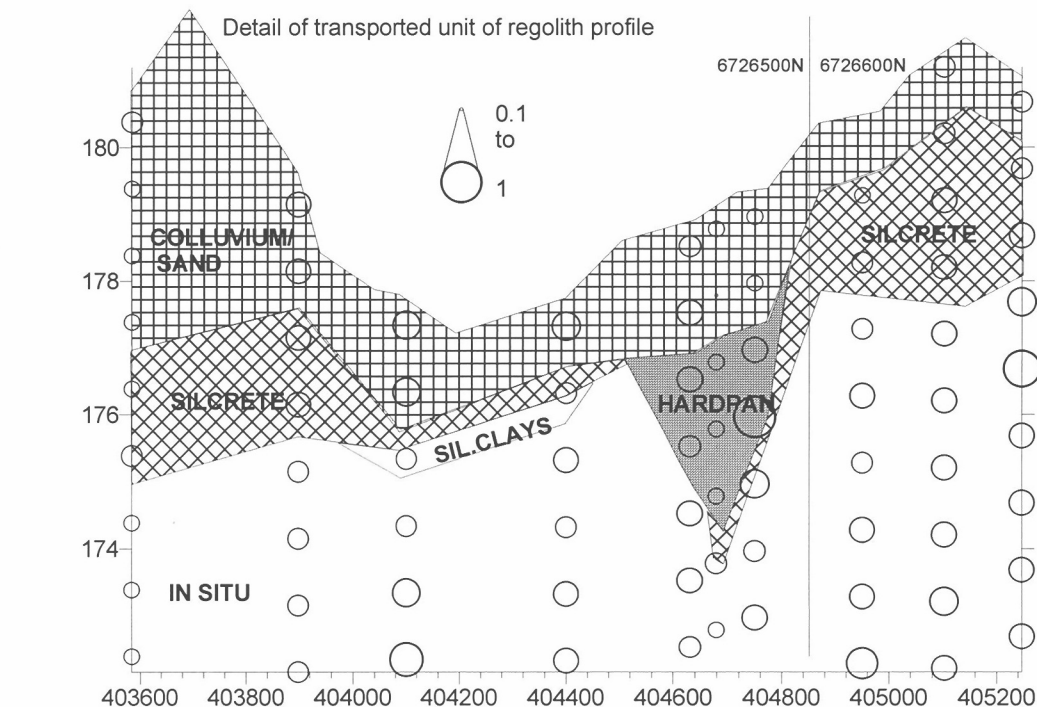
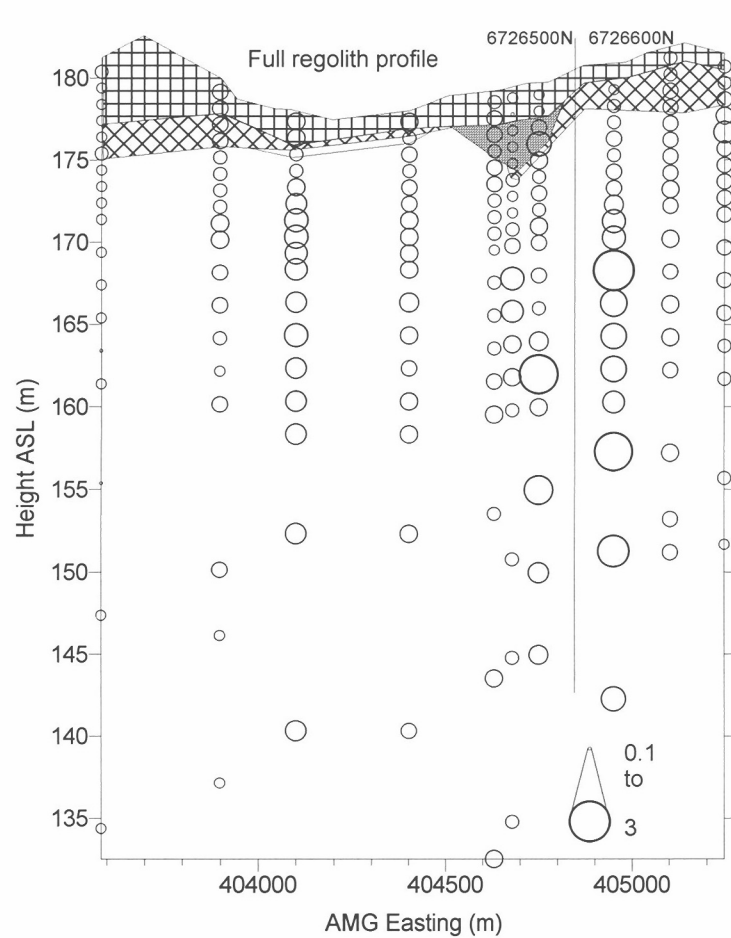
Figure A1a.4: Distribution and concentration of Ba at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 487 | 389 | 255 | 382 |
| Std Error | 87 | 41 | 35 | 23 |
| Median | 395 | 410 | 250 | 330 |
| Std Dev | 285 | 109 | 115 | 276 |
| Minimum | 165 | 180 | 85 | 25 |
| Maximum | 1200 | 470 | 460 | 2150 |
| Count | 18 | 7 | 11 | 141 |

Ba (ppm)

Golf Bore



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.3 | 0.4 | 0.3 | 0.5 |
| Std Error | 0.0 | 0.1 | 0.0 | 0.0 |
| Median | 0.3 | 0.3 | 0.3 | 0.4 |
| Std Dev | 0.1 | 0.3 | 0.1 | 0.4 |
| Minimum | 0.1 | 0.2 | 0.2 | 0.1 |
| Maximum | 0.5 | 1 | 0.4 | 2.8 |
| Count | 18 | 7 | 11 | 141 |

Golf Bore

Figure A1a.5: Distribution and concentration of Bi at Golf Bore regolith part sections on 6726500-6726600N

Bi (ppm)

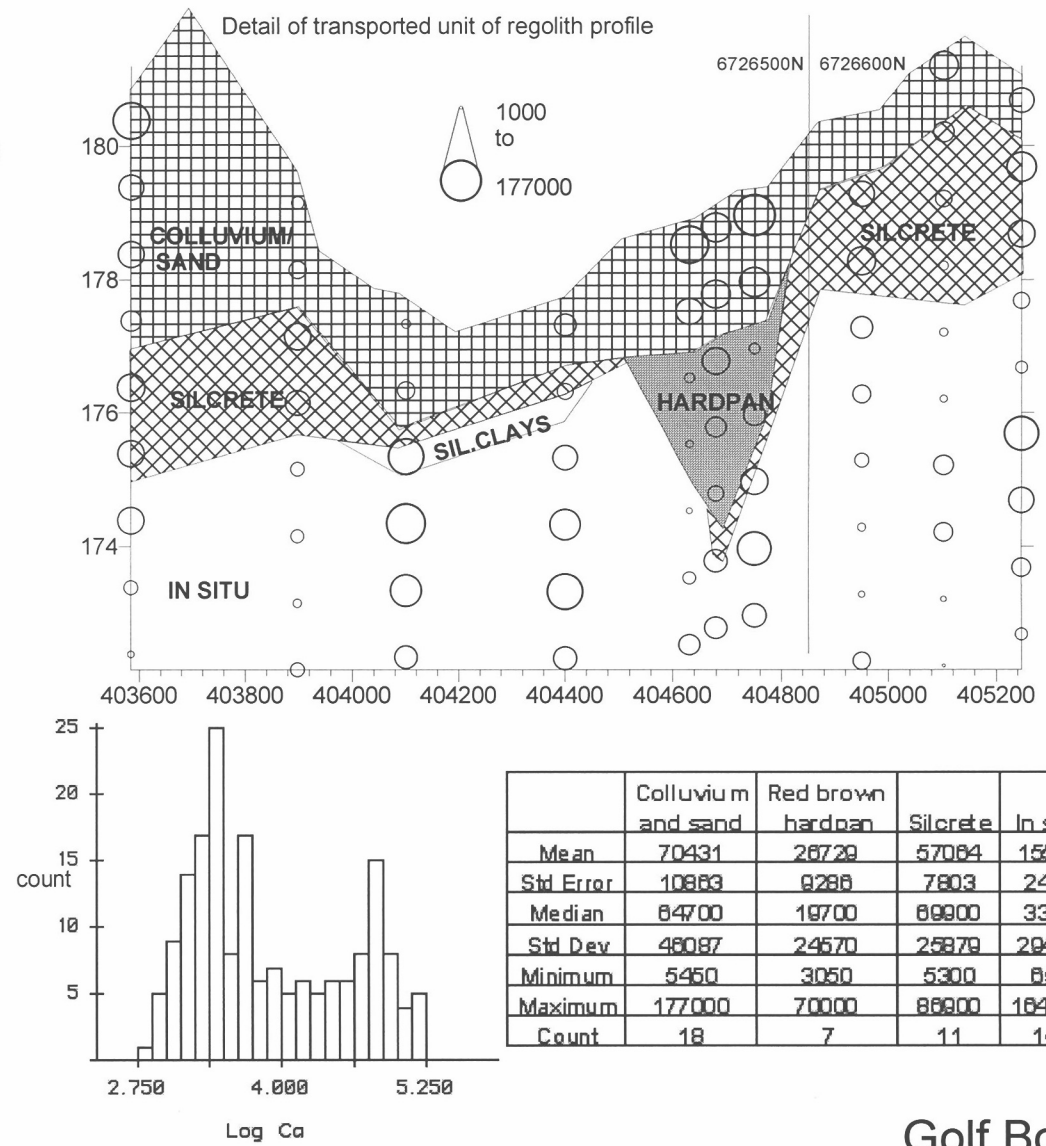
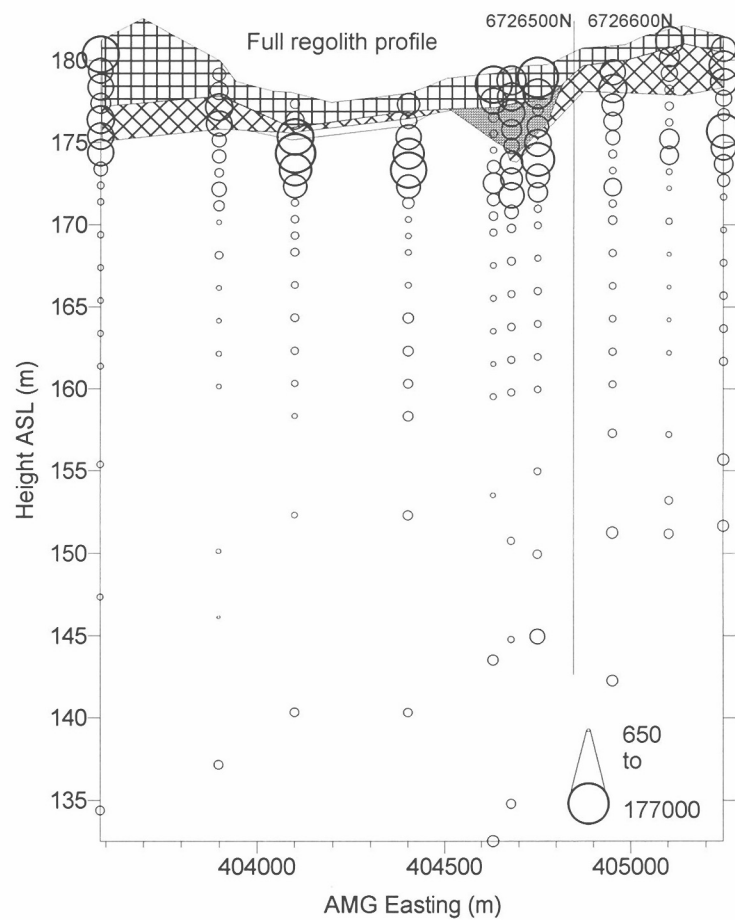


Figure A1a.6: Distribution and concentration of Ca at Golf Bore regolith part sections on 6726500-6726600N

Ca (ppm)

Golf Bore

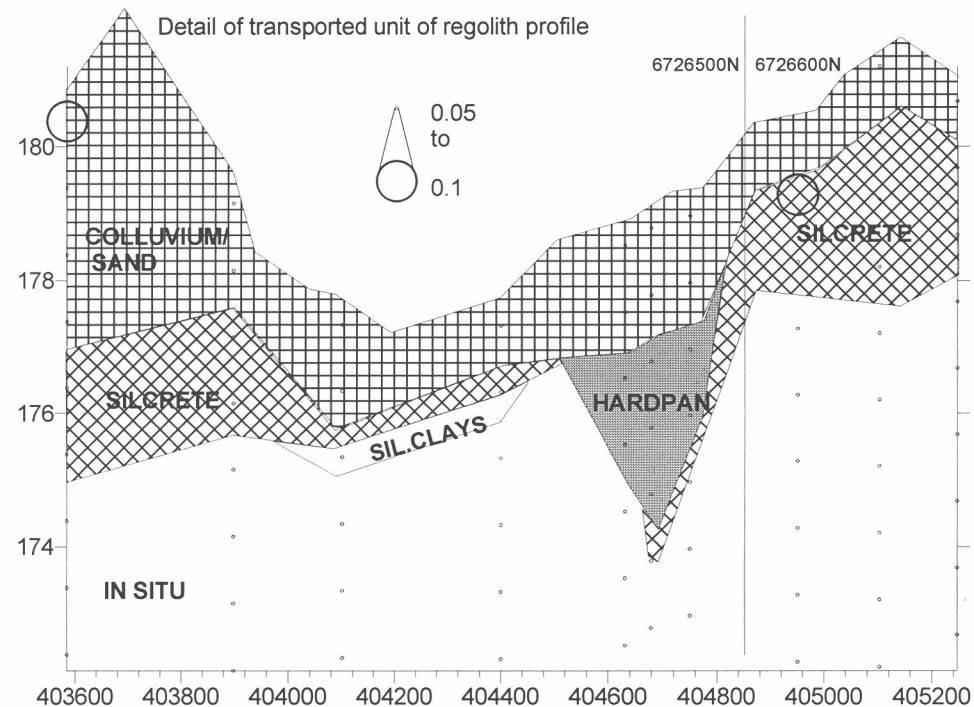
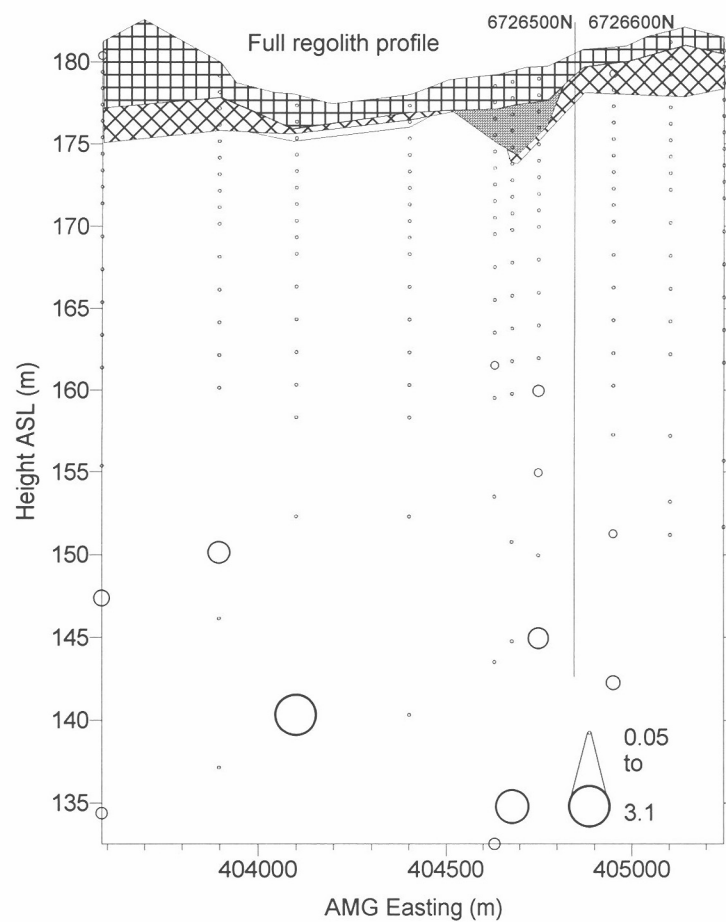
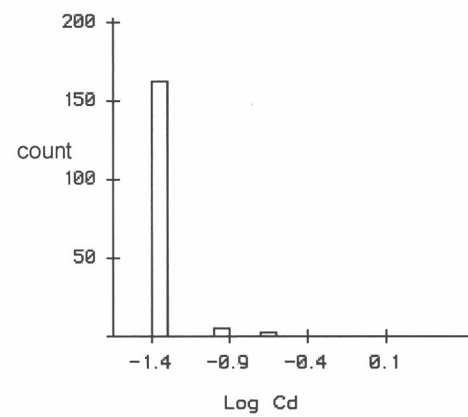


Figure A1a.7: Distribution and concentration of Cd at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.1 | 0.1 | 0.1 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.05 | 0.05 | 0.05 | 0.05 |
| Std Dev | 0.0 | 0.0 | 0.0 | 0.3 |
| Minimum | 0.05 | 0.05 | 0.05 | 0.05 |
| Maximum | 0.1 | 0.05 | 0.05 | 3.1 |
| Count | 18 | 7 | 11 | 141 |

Cd (ppm)

Golf Bore

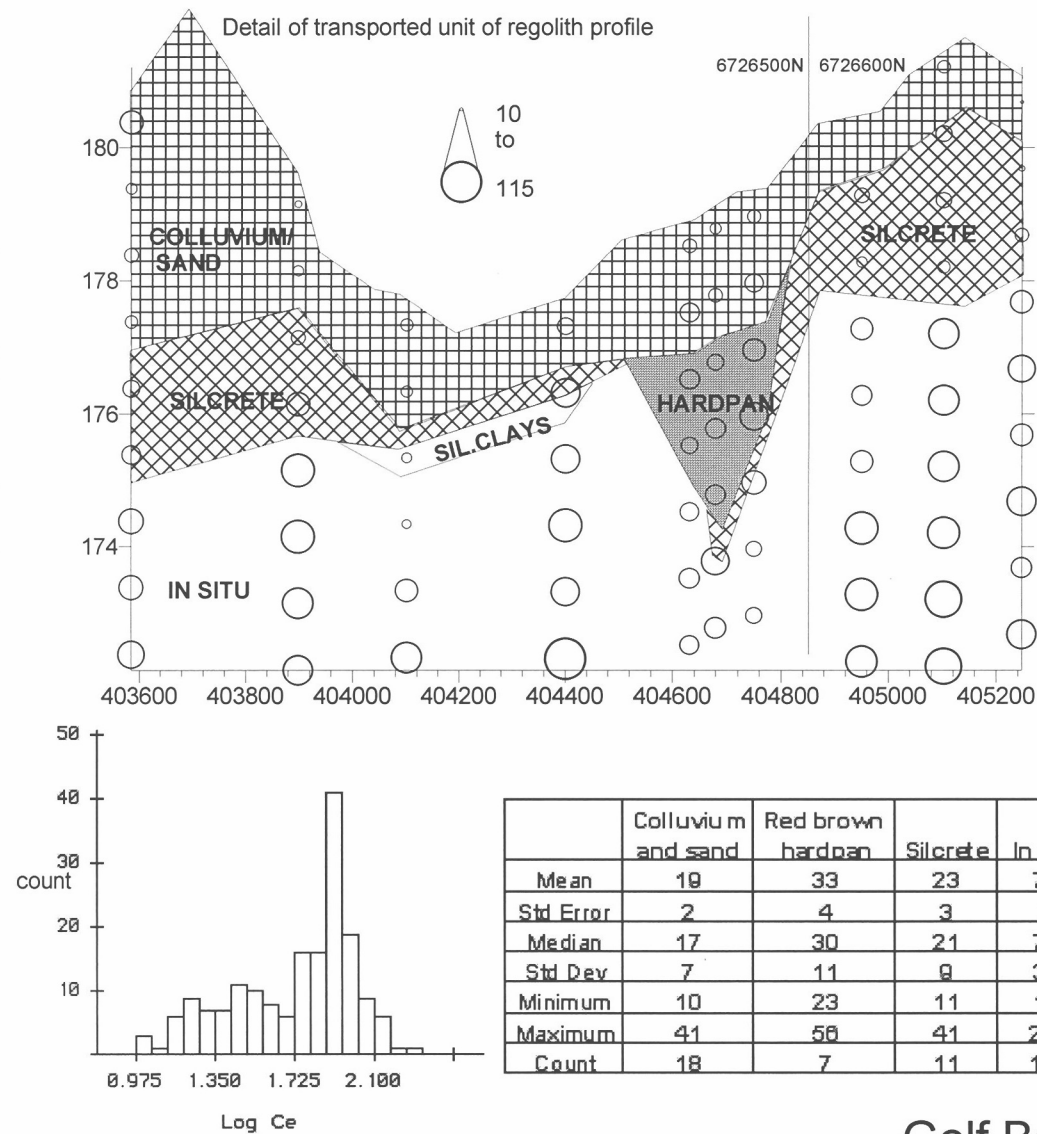
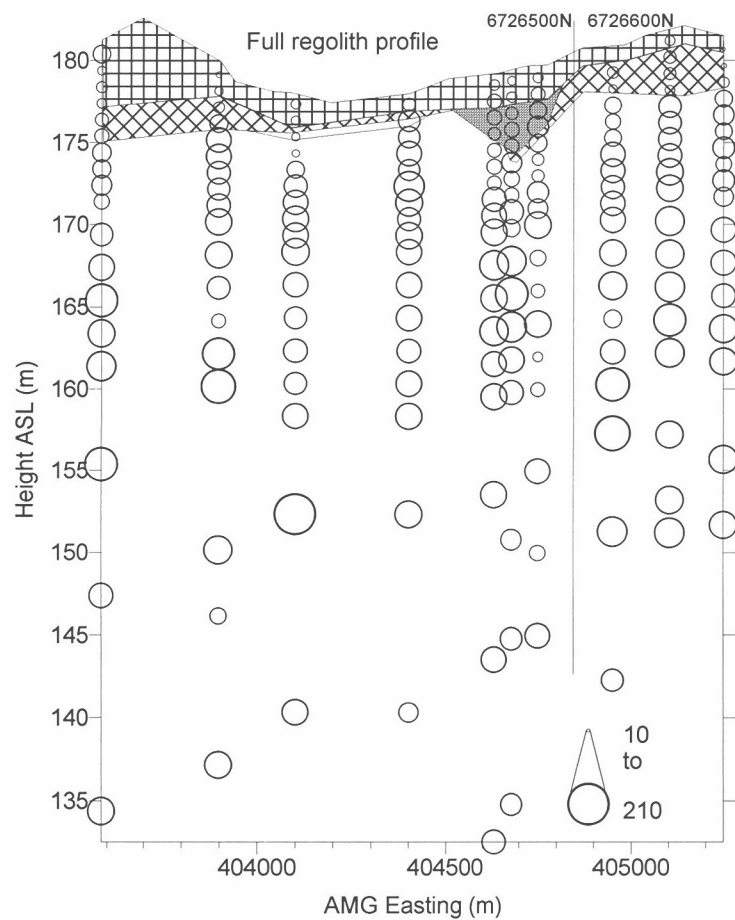
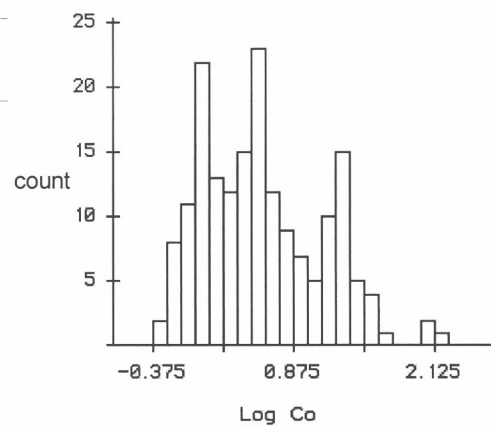
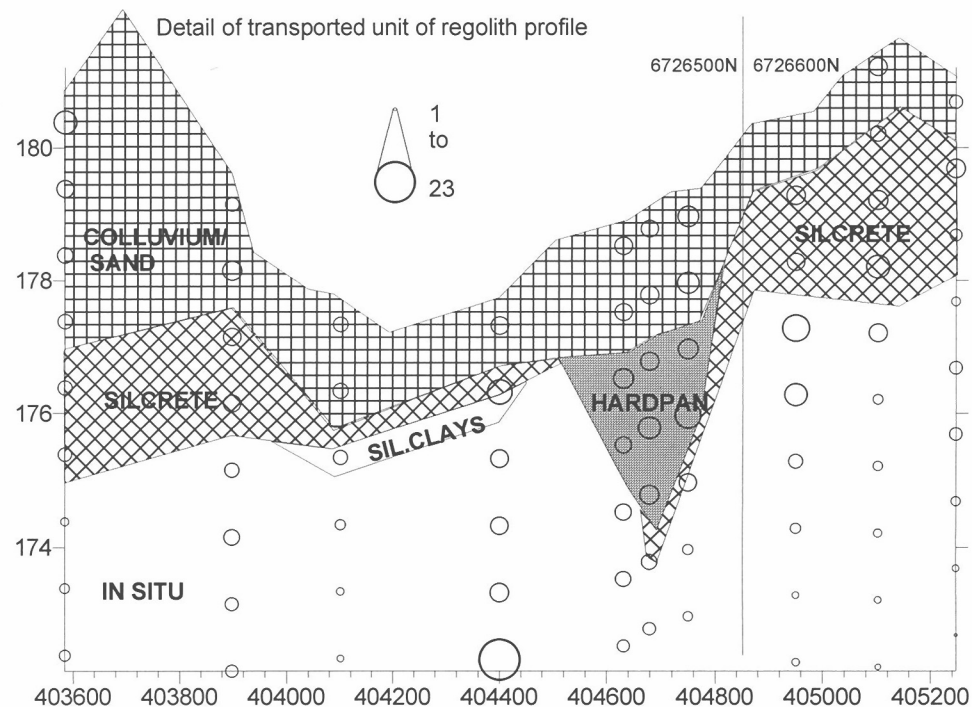
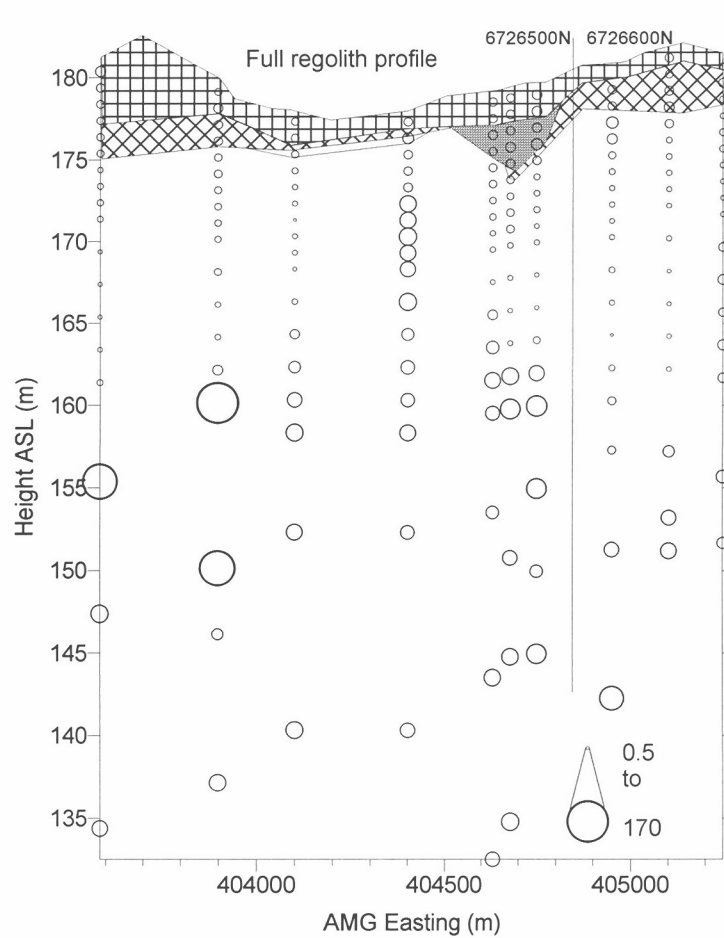


Figure A1a.8: Distribution and concentration of Ce at Golf Bore regolith part sections on 6726500-6726600N

Ce (ppm)

Golf Bore



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 4 | 5 | 4 | 11 |
| Std Error | 0.3 | 0.6 | 0.7 | 2 |
| Median | 4.0 | 5 | 4 | 3 |
| Std Dev | 1 | 2 | 2 | 21 |
| Minimum | 2 | 3 | 2 | 0.5 |
| Maximum | 7 | 9 | 10 | 170 |
| Count | 18 | 7 | 11 | 141 |

Golf Bore

Figure A1a.9: Distribution and concentration of Co at Golf Bore regolith part sections on 6726500-6726600N

Co (ppm)

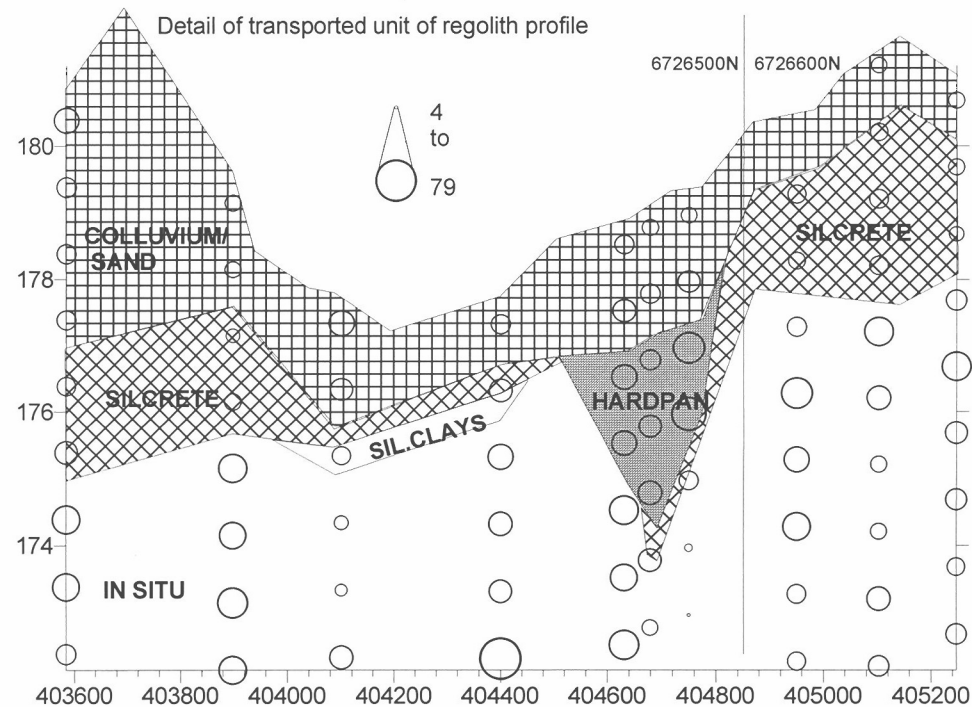
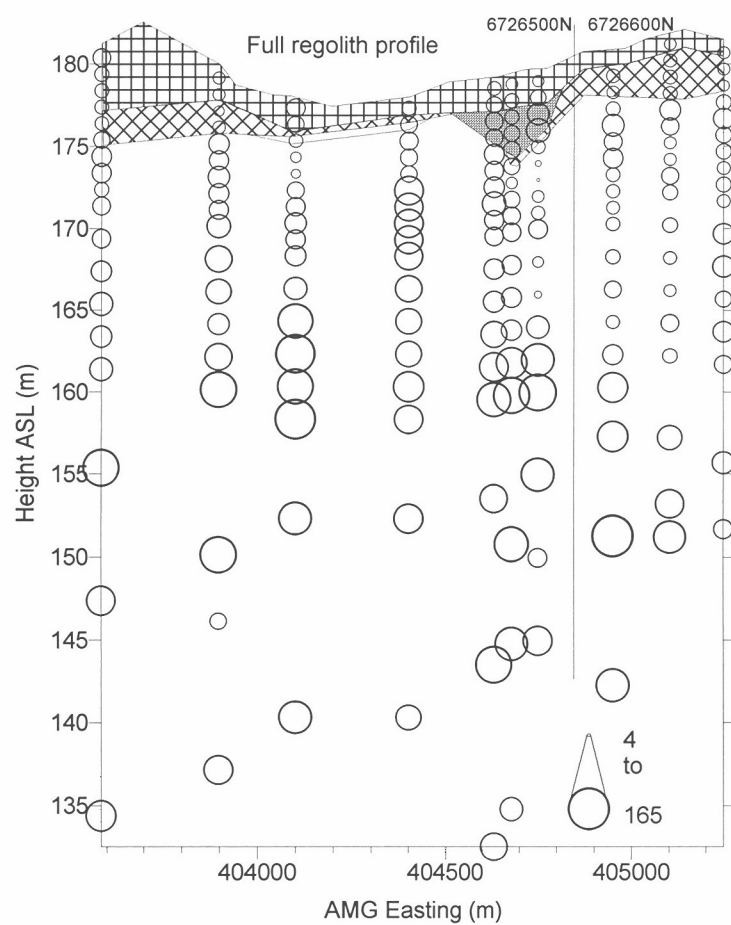
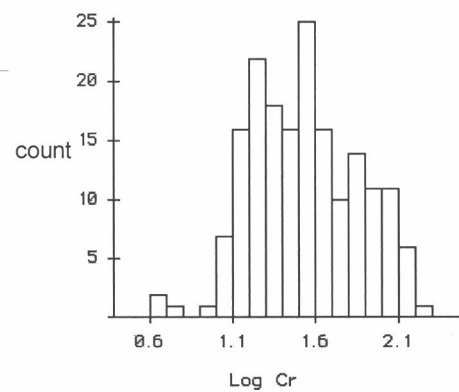


Figure A1a.10: Distribution and concentration of Cr at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 18 | 32 | 18 | 51 |
| Std Error | 1 | 5 | 1 | 3 |
| Median | 18 | 28 | 15 | 38 |
| Std Dev | 8 | 12 | 4 | 38 |
| Minimum | 12 | 18 | 10 | 4 |
| Maximum | 30 | 53 | 25 | 185 |
| Count | 18 | 7 | 11 | 141 |

Cr (ppm)

Golf Bore

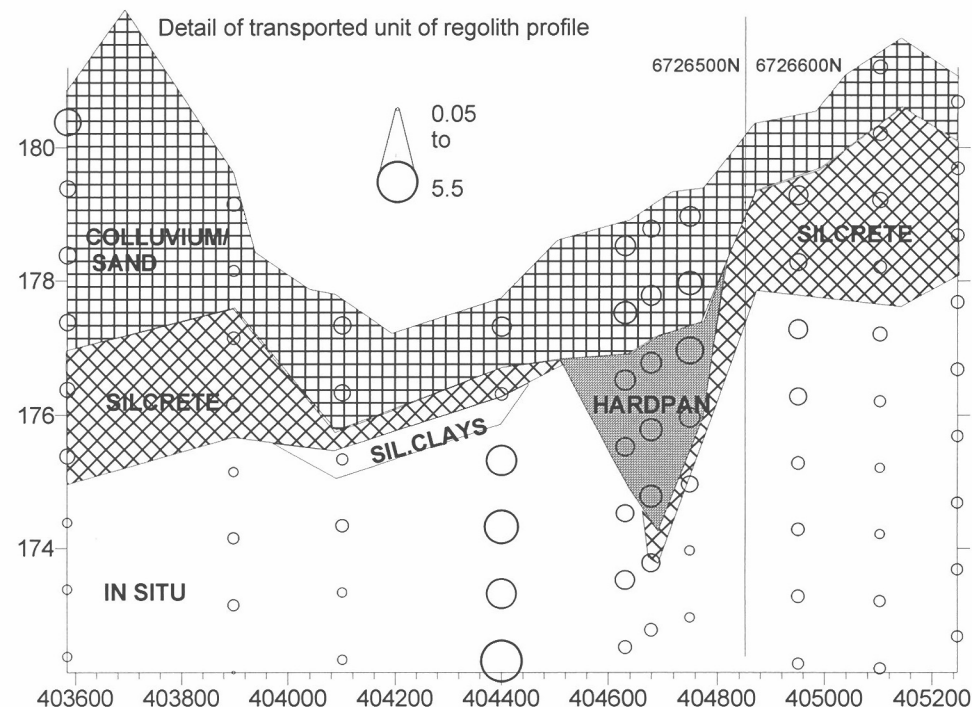
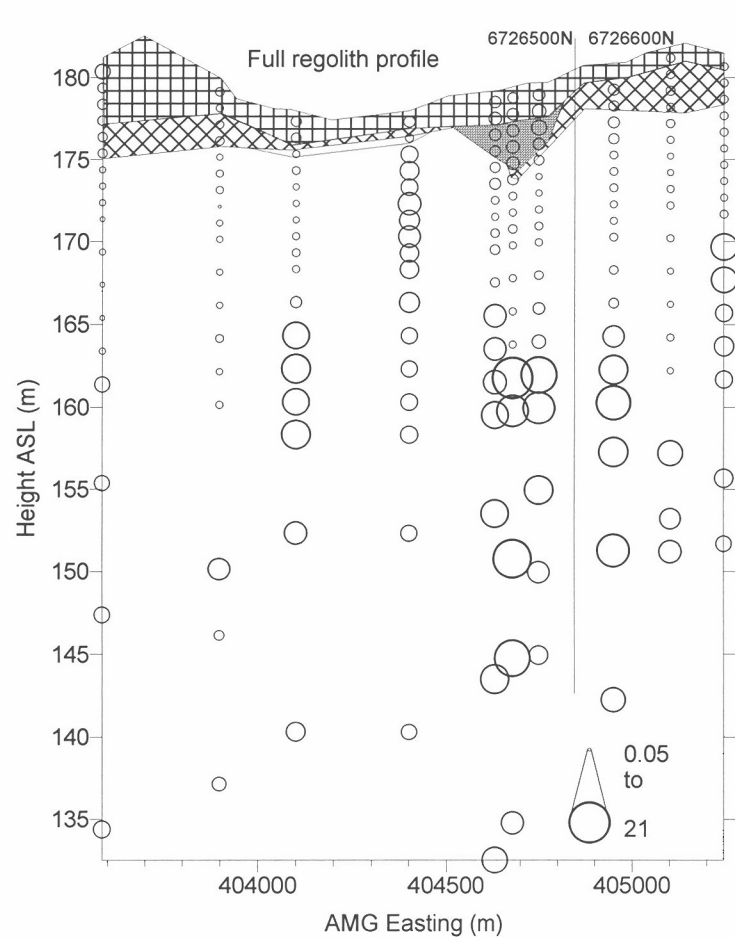
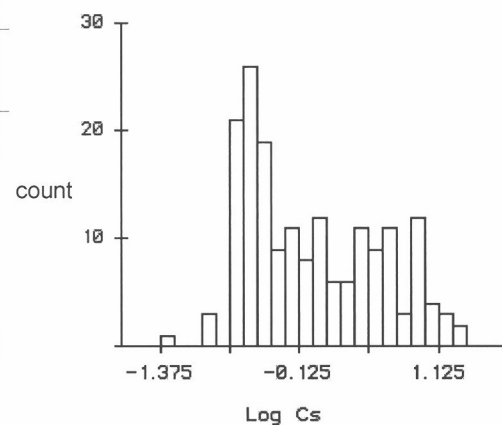


Figure A1a.11: Distribution and concentration of Cs at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.9 | 1.3 | 0.6 | 3 |
| Std Error | 0.1 | 0.1 | 0.1 | 0.3 |
| Median | 0.8 | 1.2 | 0.5 | 0.7 |
| Std Dev | 0.5 | 0.4 | 0.2 | 4 |
| Minimum | 0.3 | 0.9 | 0.4 | 0.05 |
| Maximum | 2.2 | 2.1 | 1 | 21 |
| Count | 18 | 7 | 11 | 141 |

Cs (ppm)

Golf Bore

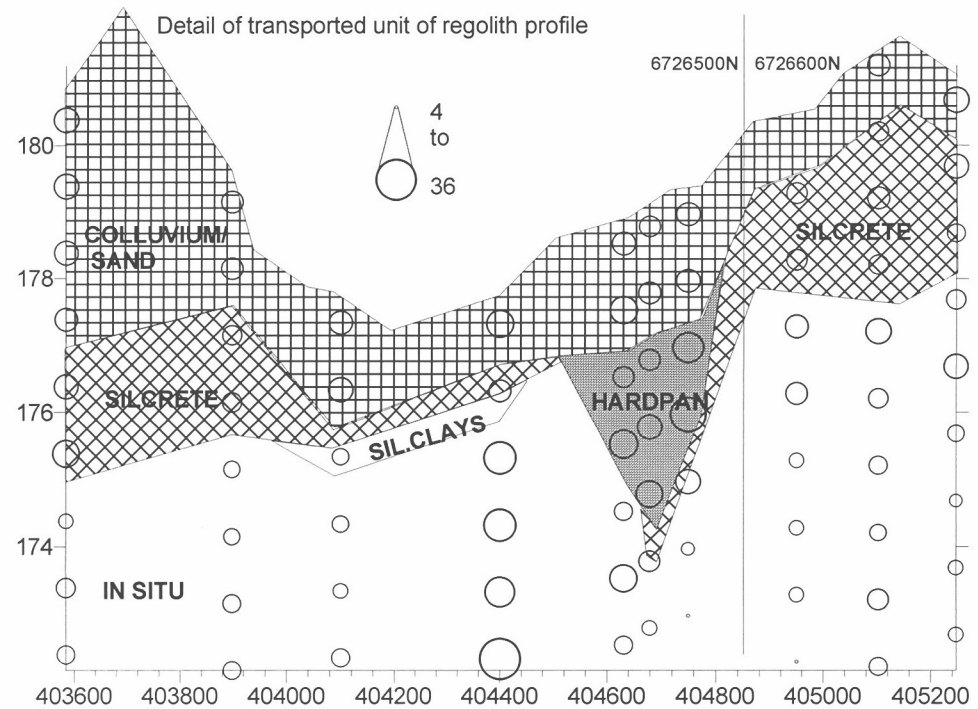
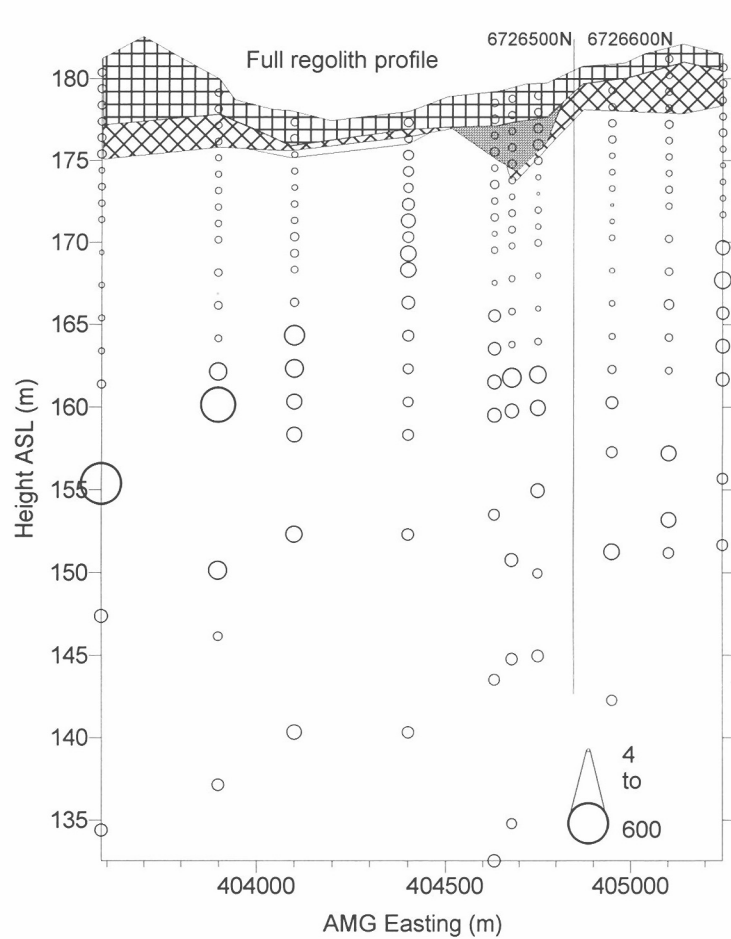
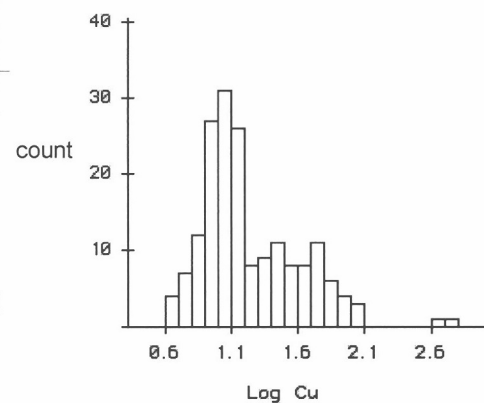


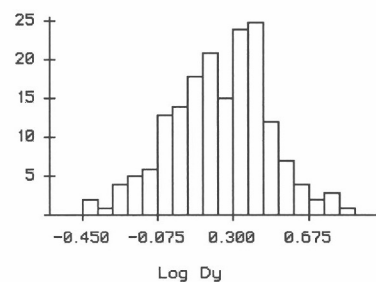
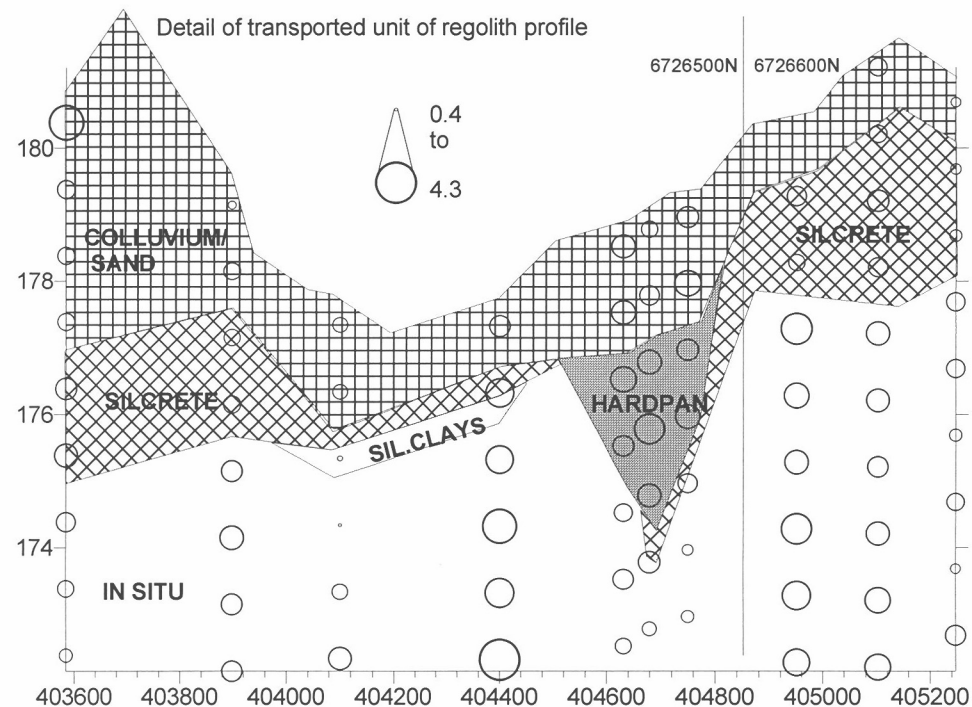
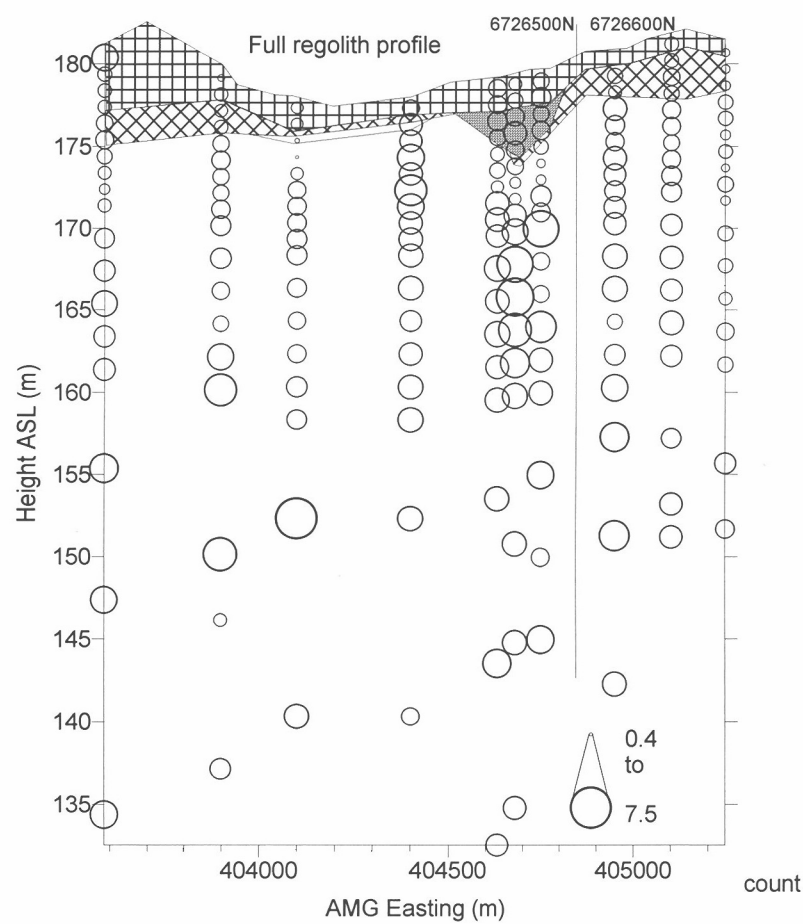
Figure A1a.12: Distribution and concentration of Cu at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 13 | 17 | 12 | 33 |
| Std Error | 0.4 | 2 | 0.7 | 5 |
| Median | 13 | 16 | 11 | 14 |
| Std Dev | 1.8 | 5 | 2.4 | 6.3 |
| Minimum | 11 | 11 | 9 | 4 |
| Maximum | 17 | 26 | 17 | 600 |
| Count | 18 | 7 | 11 | 141 |

Cu (ppm)

Golf Bore

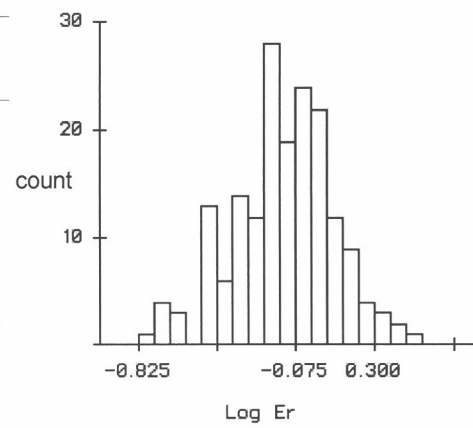
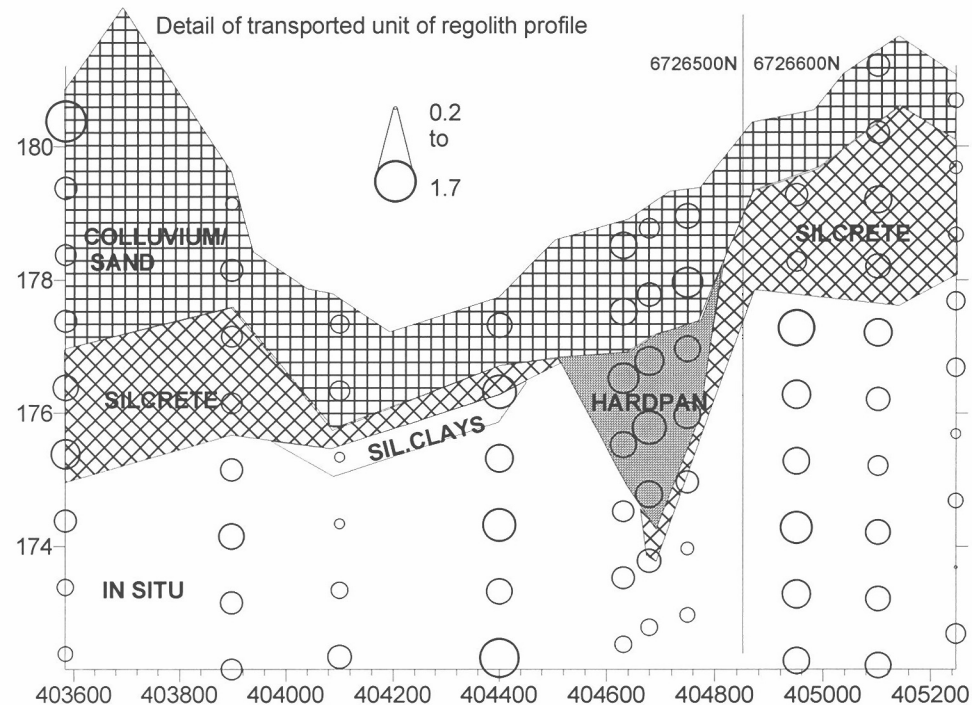
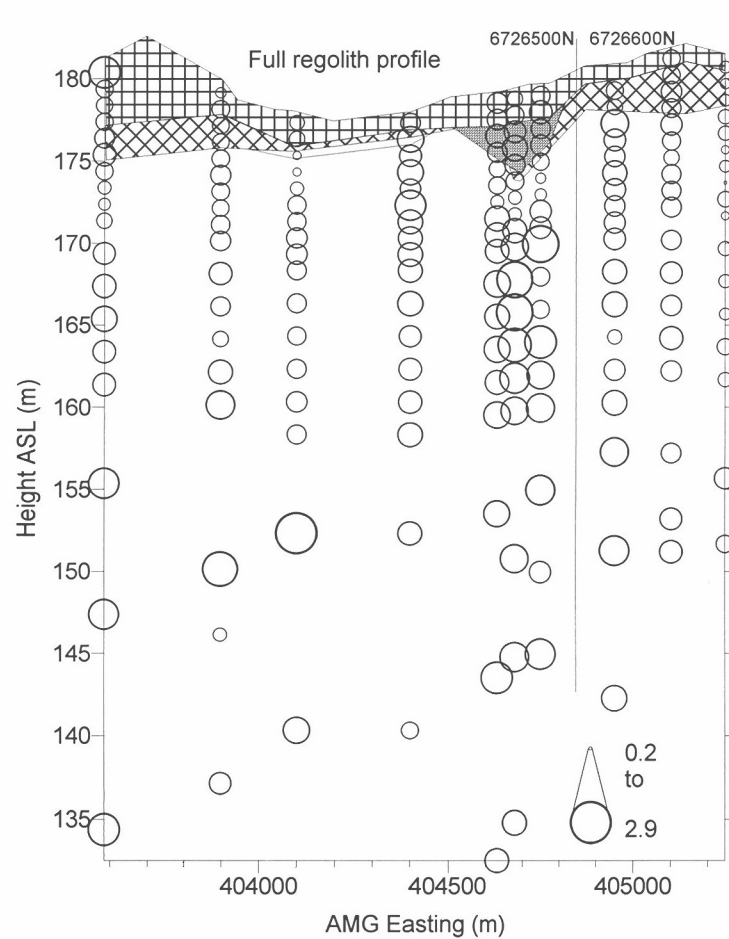


| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 1.2 | 1.8 | 1.2 | 2.2 |
| Std Error | 0.1 | 0.1 | 0.2 | 0.1 |
| Median | 1.025 | 1.8 | 1 | 2 |
| Std Dev | 0.8 | 0.4 | 0.8 | 1.2 |
| Minimum | 0.48 | 1.25 | 0.58 | 0.41 |
| Maximum | 3.2 | 2.4 | 2.8 | 7.5 |
| Count | 18 | 7 | 11 | 141 |

Figure A1a.13: Distribution and concentration of Dy at Golf Bore regolith part sections on 6726500-6726600N

Dy (ppm)

Golf Bore



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.8 | 0.8 | 0.8 | 0.9 |
| Std Error | 0.1 | 0.1 | 0.1 | 0.0 |
| Median | 0.55 | 0.75 | 0.55 | 0.8 |
| Std Dev | 0.3 | 0.2 | 0.3 | 0.5 |
| Minimum | 0.25 | 0.7 | 0.25 | 0.15 |
| Maximum | 1.7 | 1.15 | 1.35 | 2.9 |
| Count | 18 | 7 | 11 | 141 |

Golf Bore

Figure A1a.14: Distribution and concentration of Er at Golf Bore regolith part sections on 6726500-6726600N

Er (ppm)

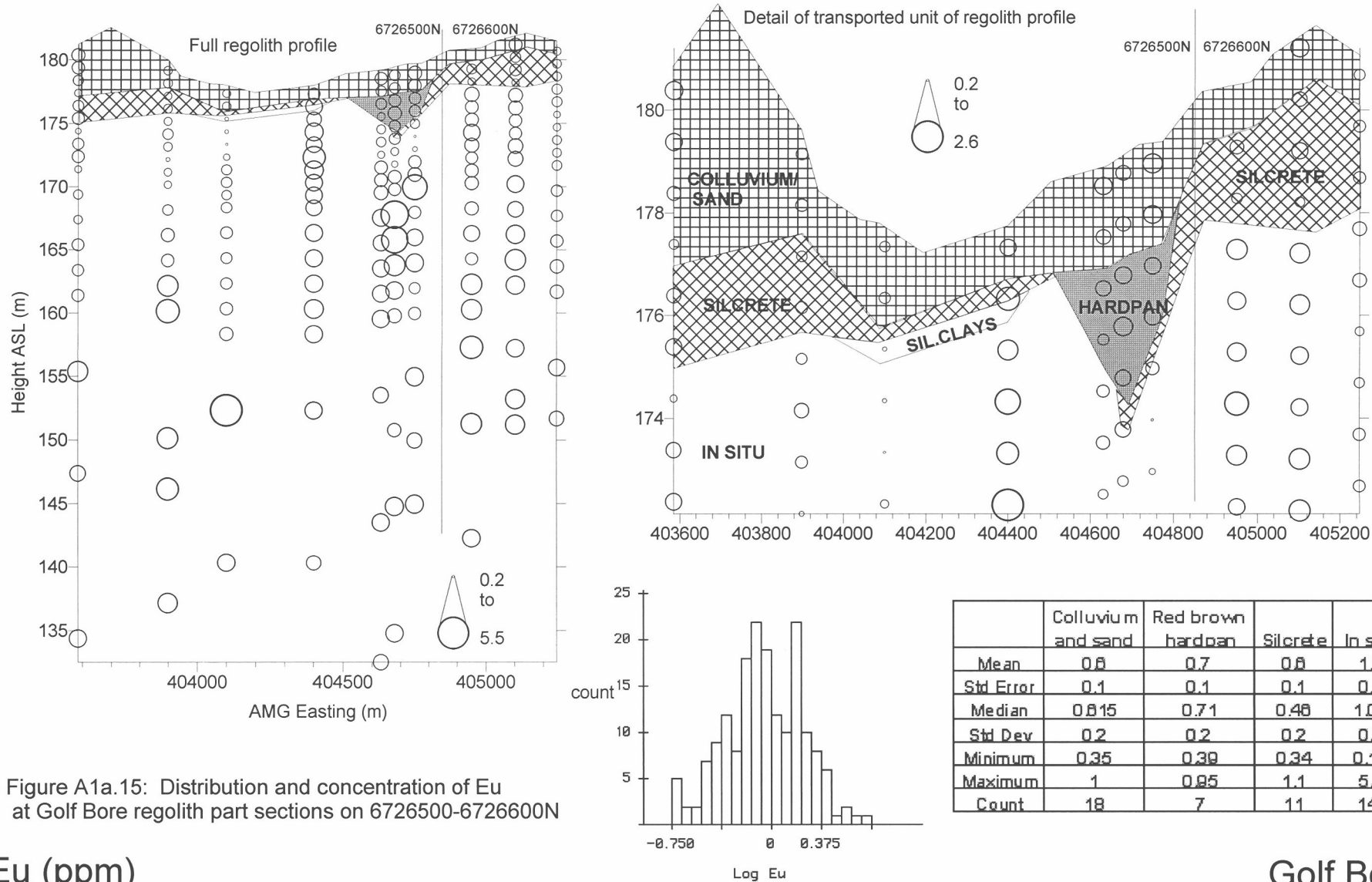


Figure A1a.15: Distribution and concentration of Eu at Golf Bore regolith part sections on 6726500-6726600N

Eu (ppm)

Golf Bore

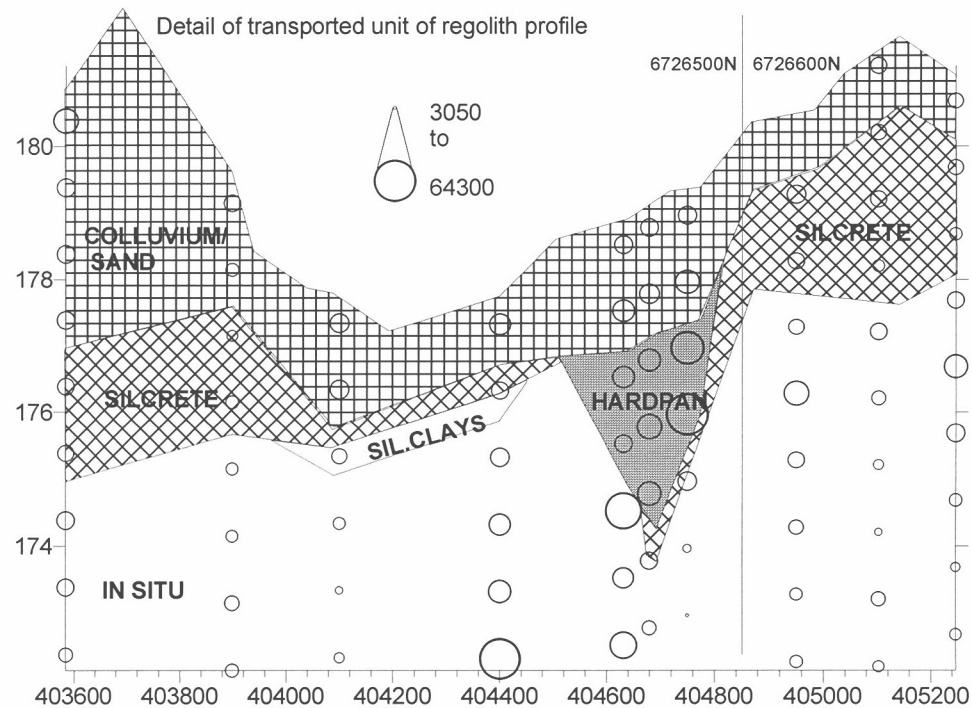
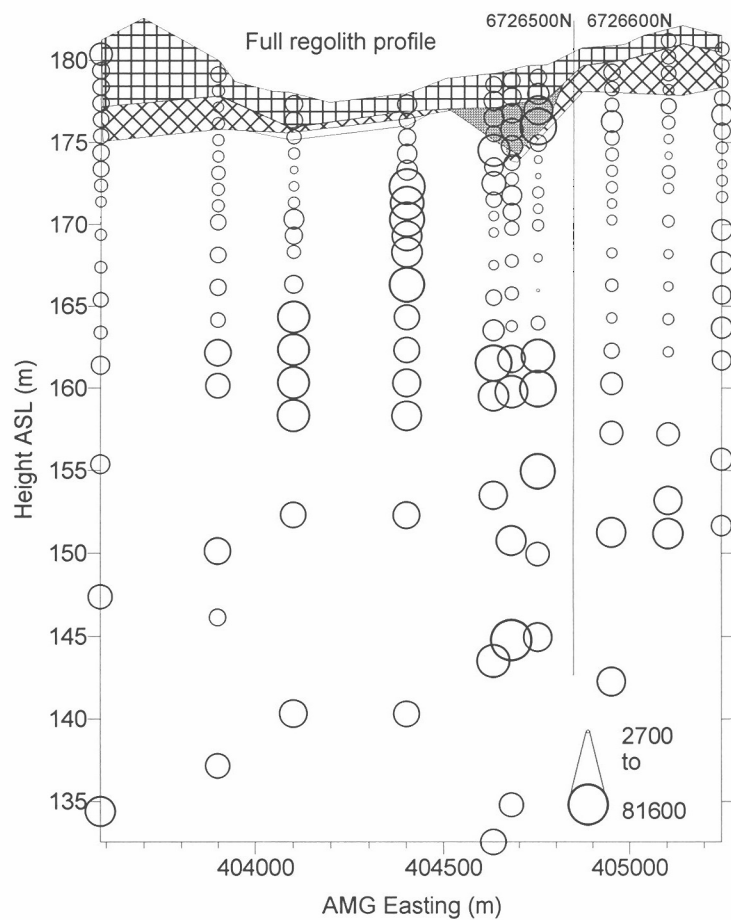
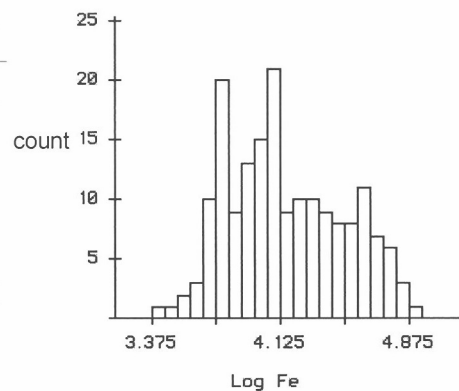


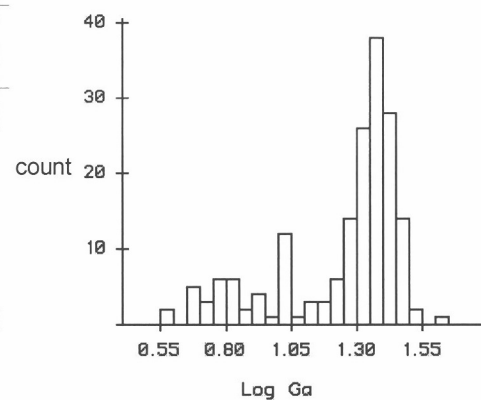
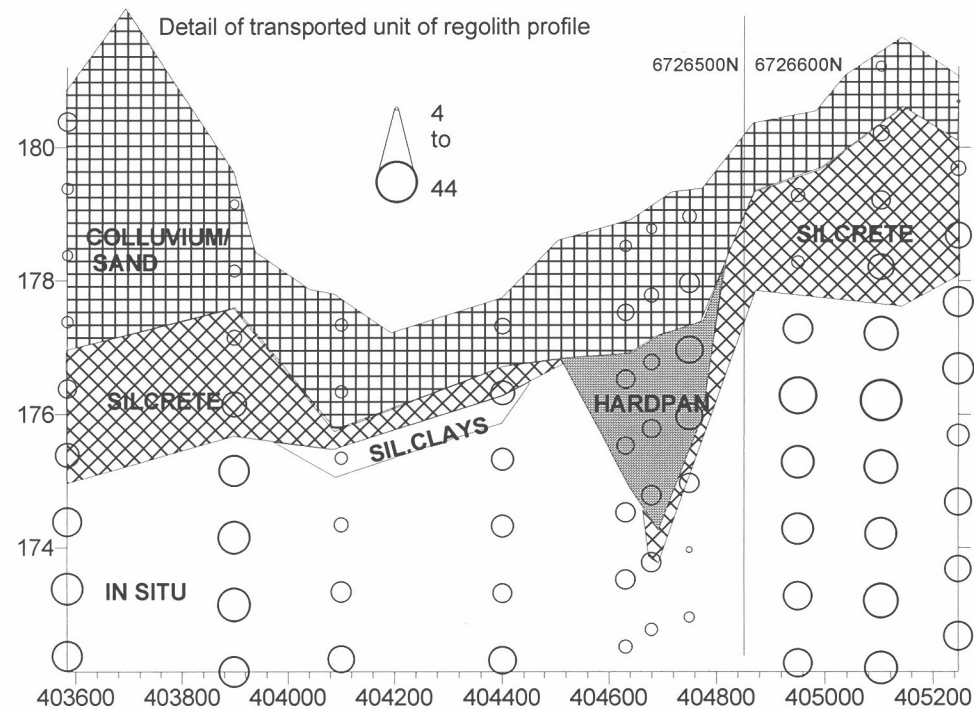
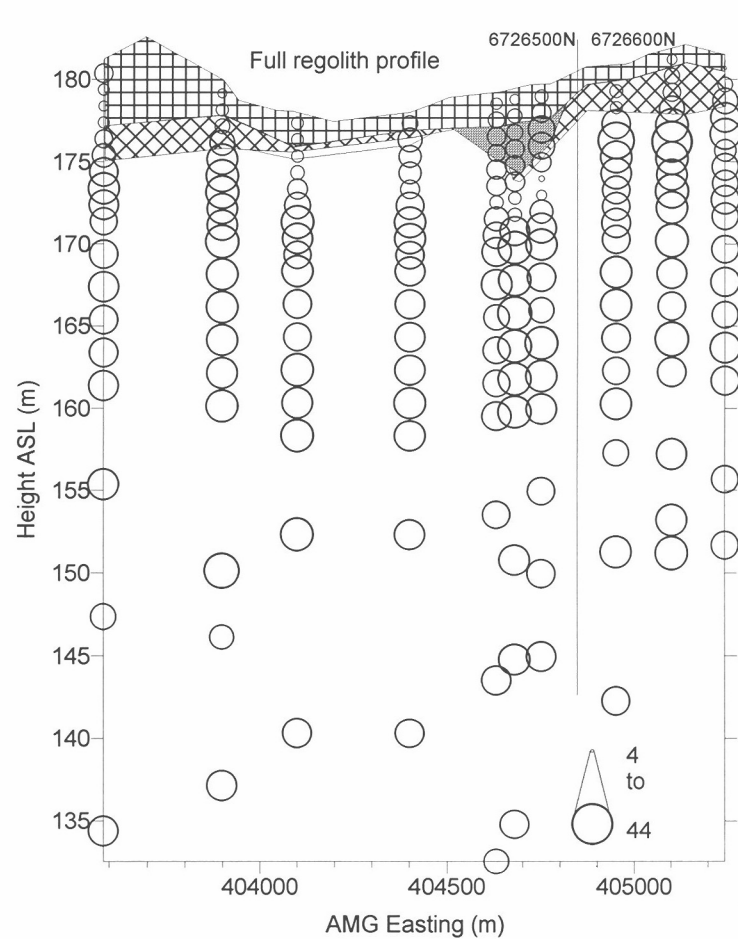
Figure A1a.16: Distribution and concentration of Fe at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 13792 | 28014 | 8791 | 20713 |
| Std Error | 934 | 6912 | 569 | 1445 |
| Median | 12850 | 20800 | 9450 | 12900 |
| Std Dev | 3981 | 18287 | 1886 | 17159 |
| Minimum | 7500 | 11700 | 5800 | 2700 |
| Maximum | 23300 | 64300 | 11000 | 81600 |
| Count | 18 | 7 | 11 | 141 |

Fe (ppm)

Golf Bore



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 8 | 12 | 13 | 22 |
| Std Error | 0.5 | 1.8 | 1.7 | 0.5 |
| Median | 8 | 10 | 10 | 23 |
| Std Dev | 2 | 5 | 8 | 8 |
| Minimum | 4 | 8 | 8 | 38 |
| Maximum | 11 | 20 | 23 | 44 |
| Count | 18 | 7 | 11 | 141 |

Figure A1a.17: Distribution and concentration of Ga at Golf Bore regolith part sections on 6726500-6726600N

Ga (ppm)

Golf Bore

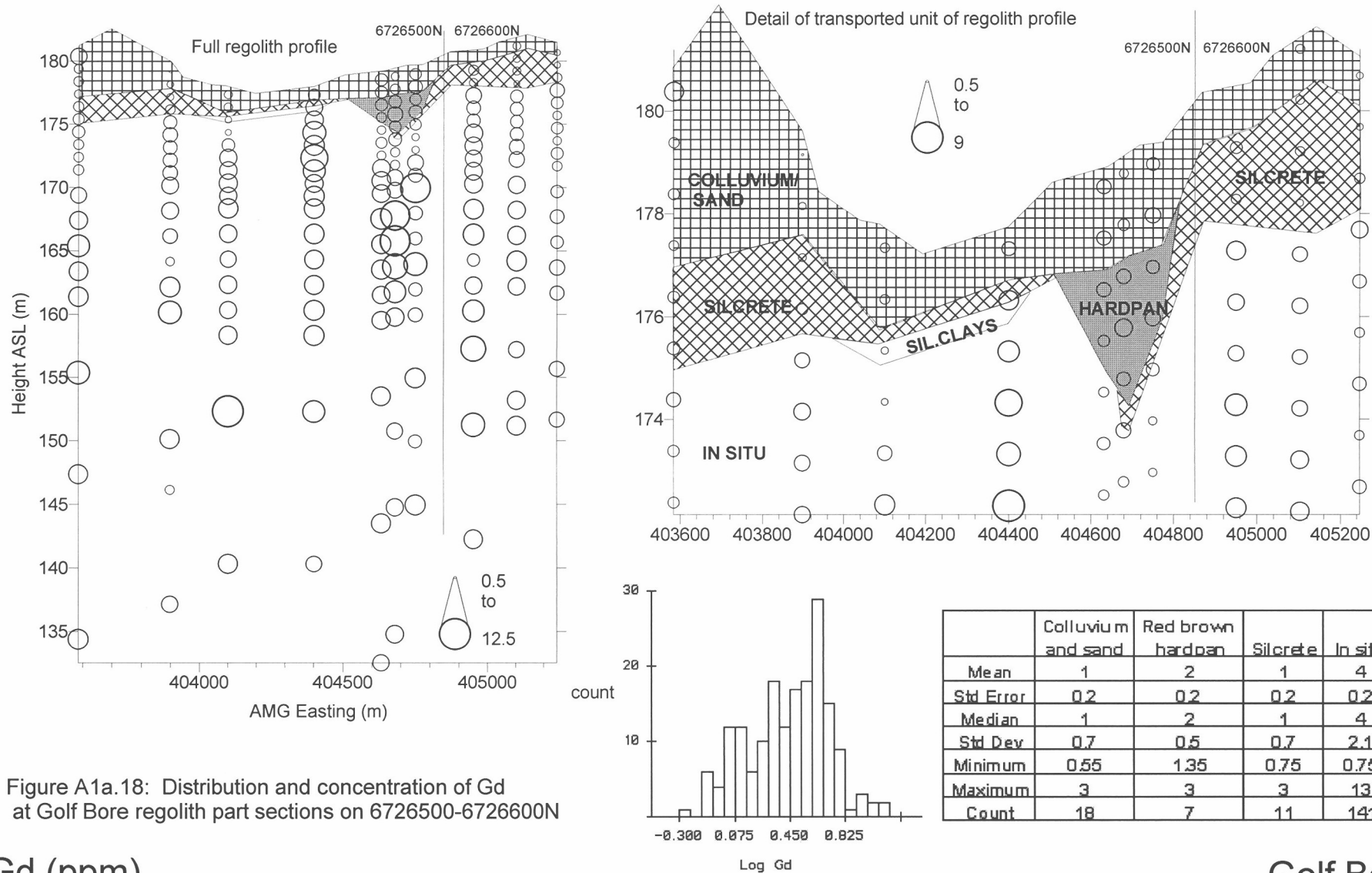


Figure A1a.18: Distribution and concentration of Gd at Golf Bore regolith part sections on 6726500-6726600N

Gd (ppm)

Golf Bore

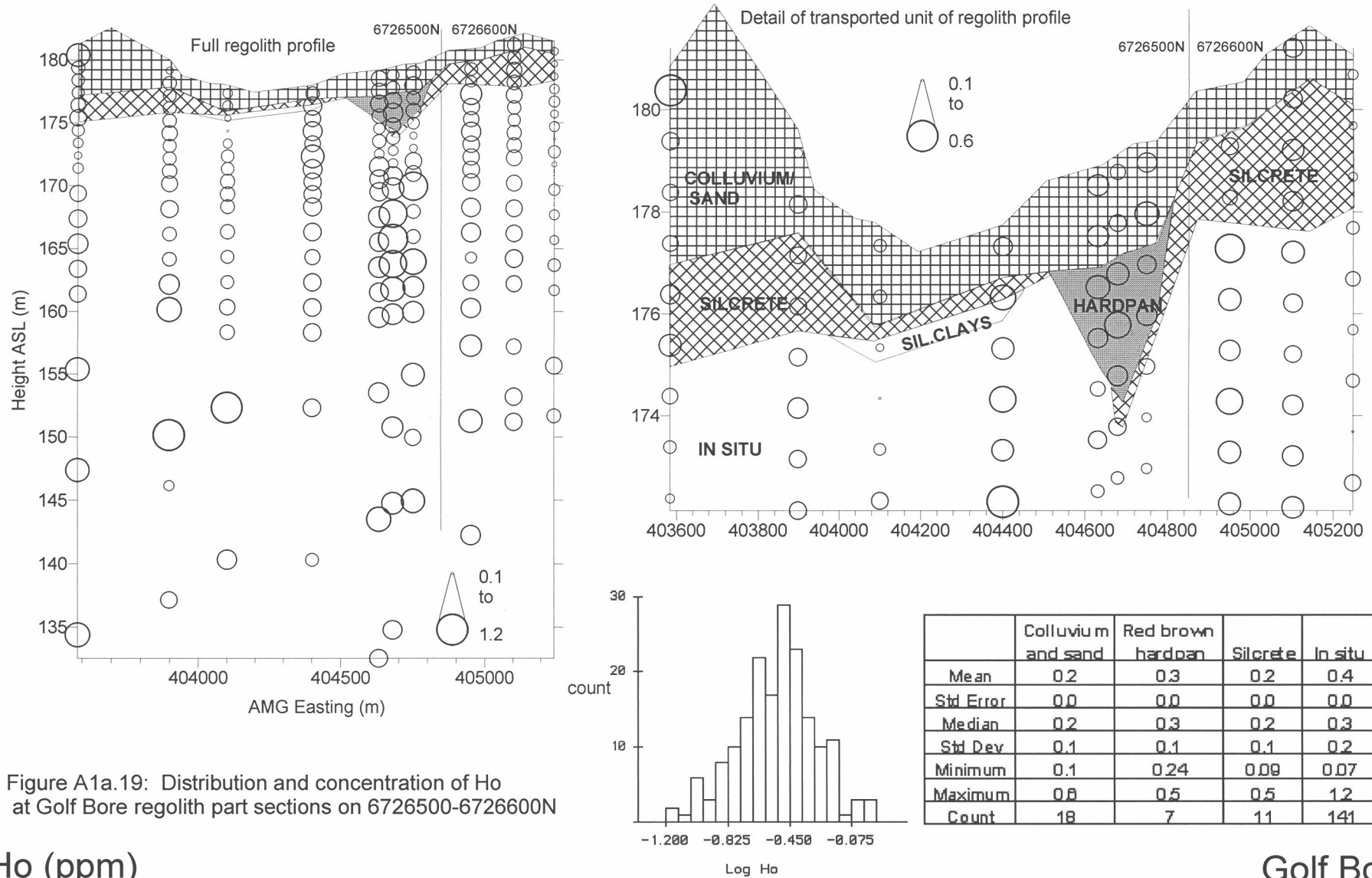


Figure A1a.19: Distribution and concentration of Ho at Golf Bore regolith part sections on 6726500-6726600N

Ho (ppm)

Golf Bore

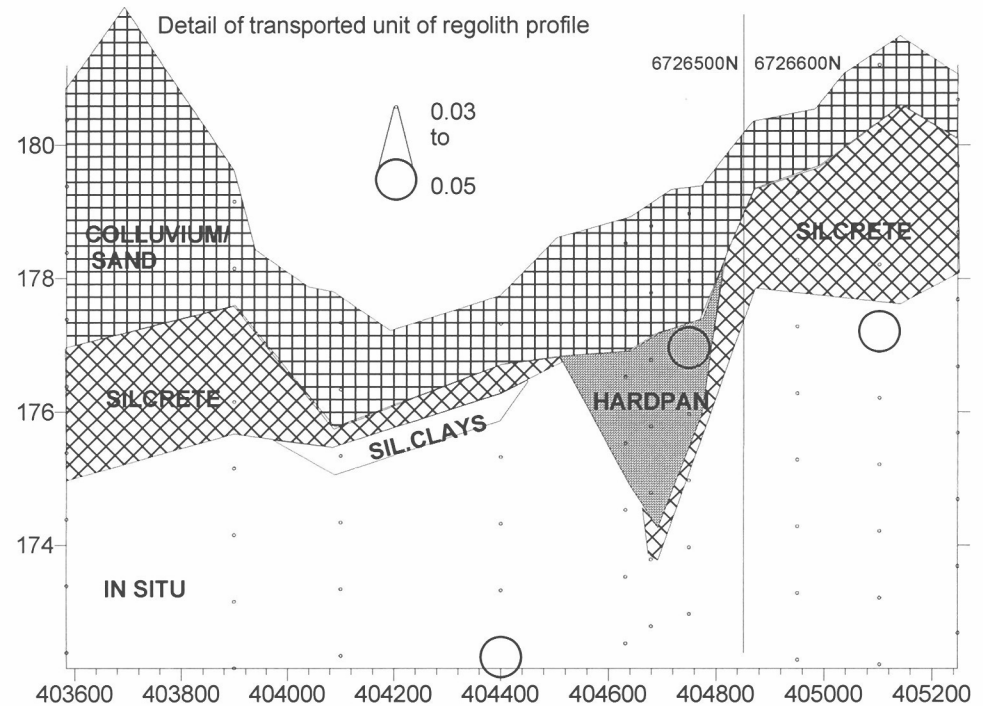
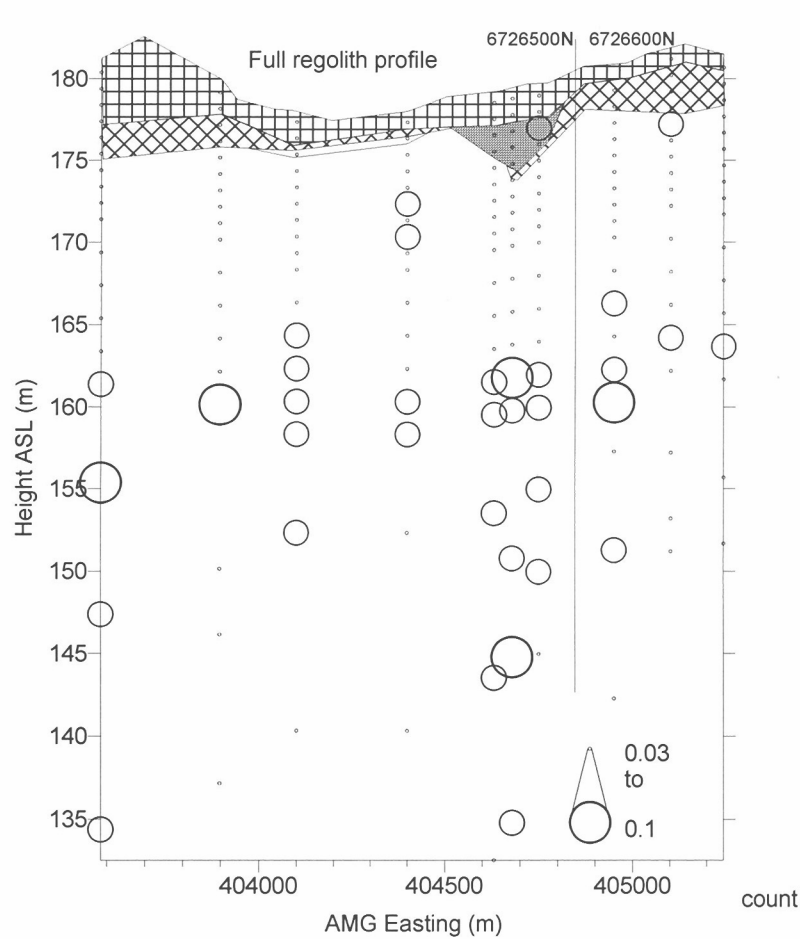
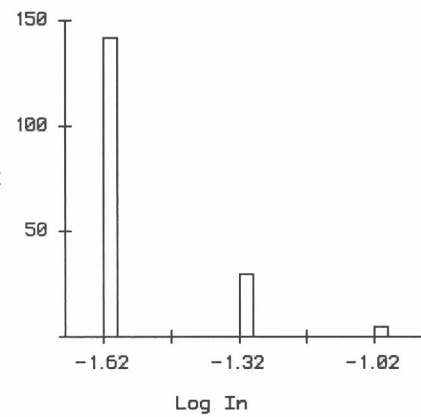


Figure A1a.20: Distribution and concentration of In at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.0 | 0.0 | 0.0 | 0.0 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.025 | 0.025 | 0.025 | 0.025 |
| Std Dev | 0.0 | 0.0 | 0.0 | 0.0 |
| Minimum | 0.025 | 0.025 | 0.025 | 0.025 |
| Maximum | 0.025 | 0.05 | 0.025 | 0.1 |
| Count | 18 | 7 | 11 | 141 |

In (ppm)

Golf Bore

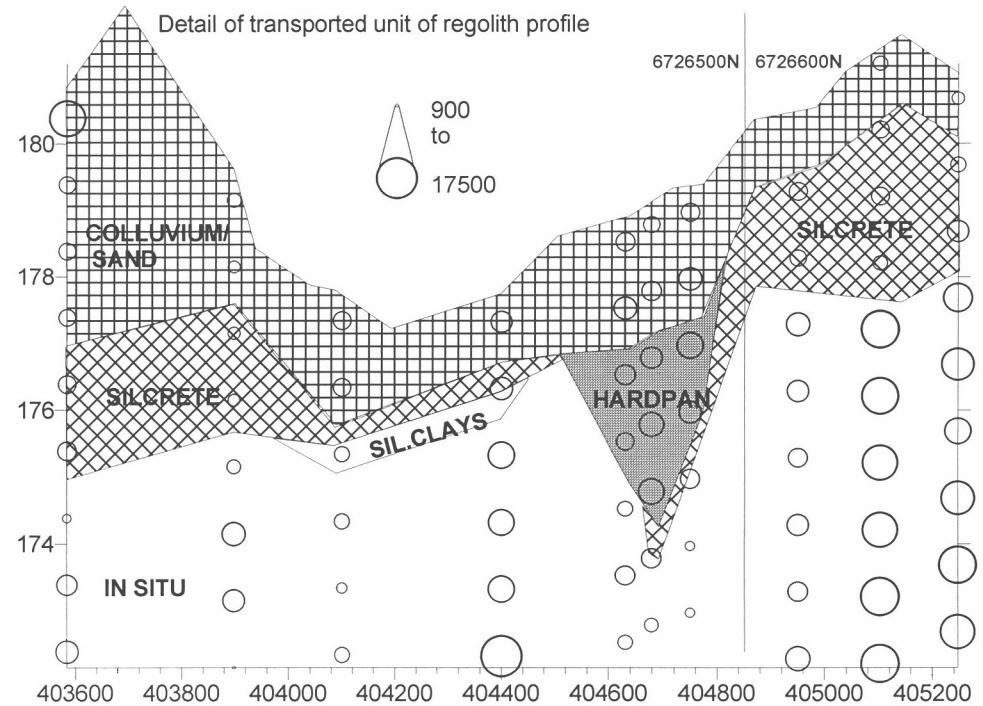
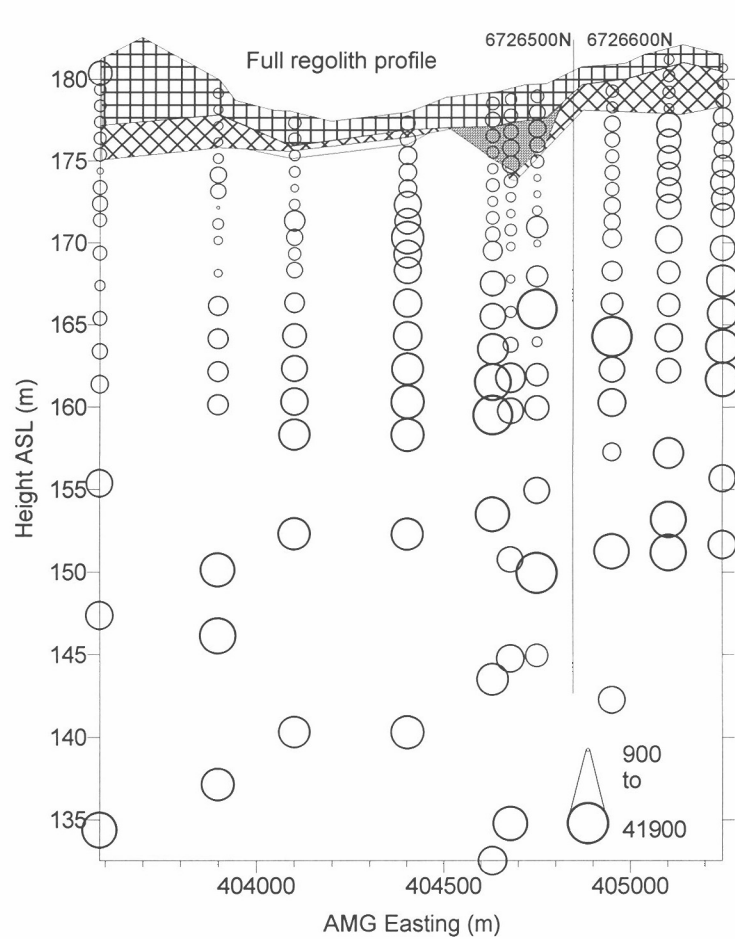
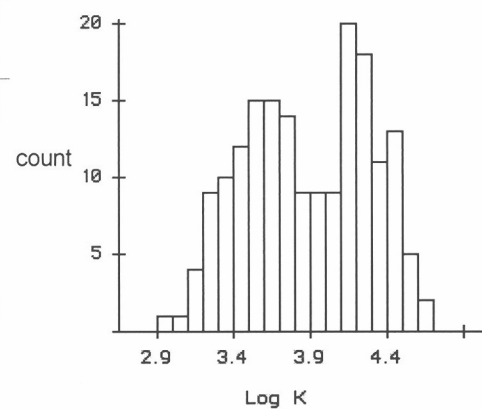


Figure A1a.21: Distribution and concentration of K at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 3975 | 5279 | 3250 | 13282 |
| Std Error | 819 | 512 | 352 | 835 |
| Median | 3450 | 5100 | 3200 | 11800 |
| Std Dev | 2828 | 1354 | 1168 | 9918 |
| Minimum | 1800 | 3200 | 1800 | 900 |
| Maximum | 13700 | 7000 | 5650 | 41900 |
| Count | 18 | 7 | 11 | 141 |

K (ppm)

Golf Bore

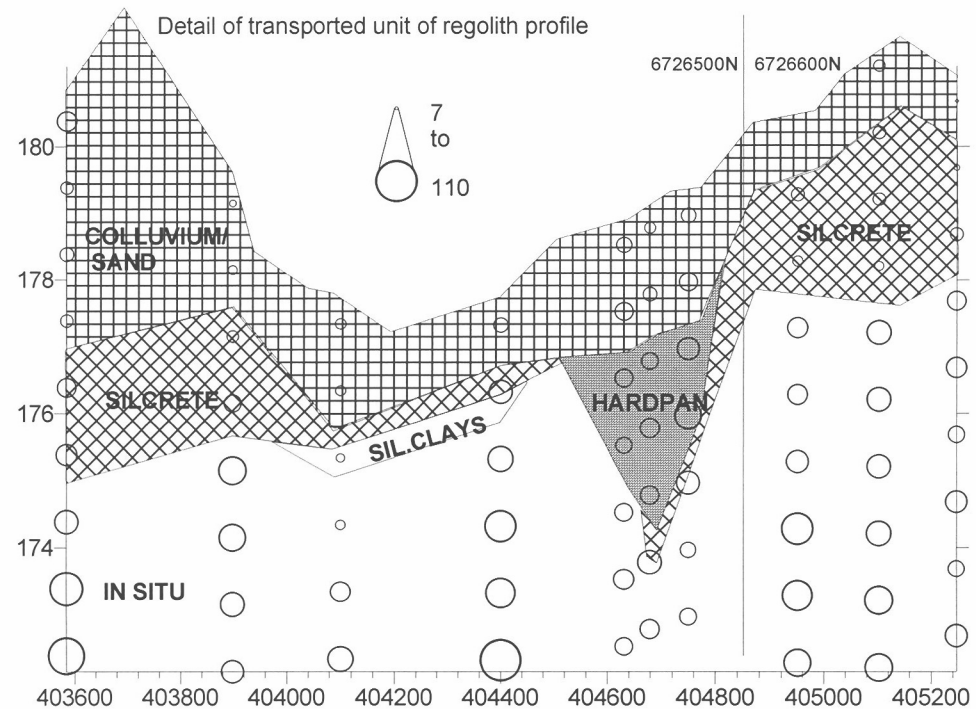
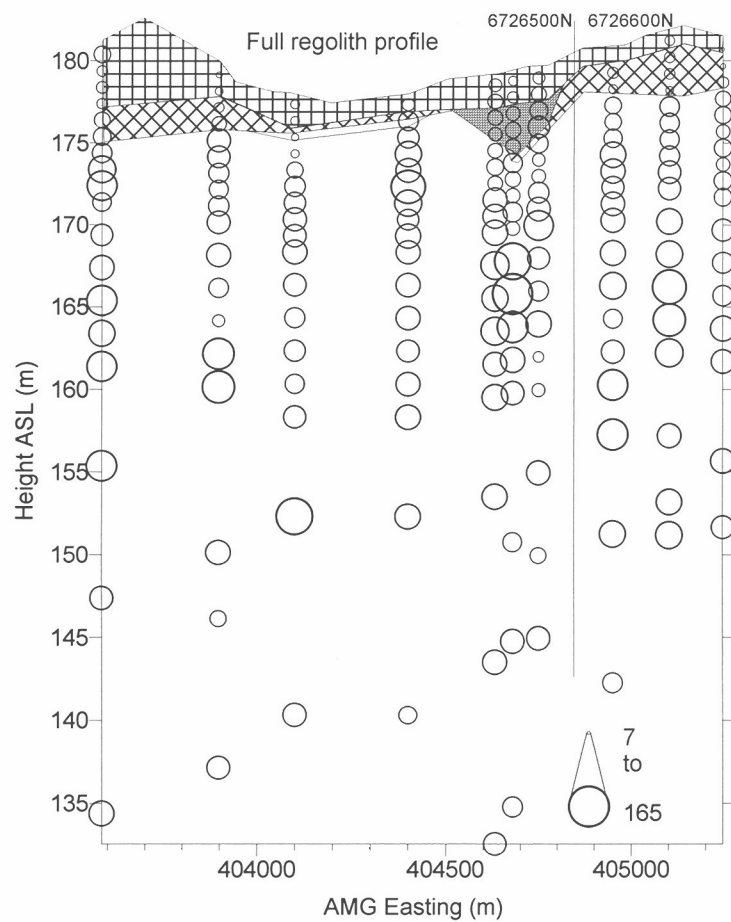
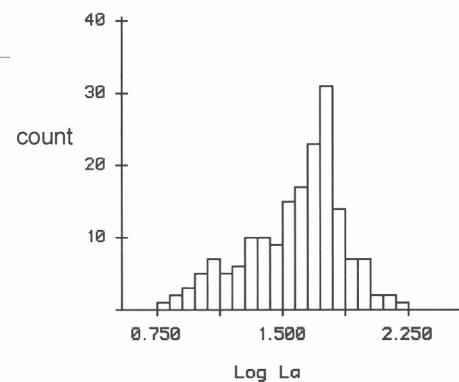


Figure A1a.22: Distribution and concentration of La at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 14 | 27 | 17 | 53 |
| Std Error | 1 | 4 | 2 | 2 |
| Median | 14 | 23 | 13 | 51 |
| Std Dev | 5 | 10 | 8 | 25 |
| Minimum | 7 | 19 | 7 | 9 |
| Maximum | 27 | 46.5 | 30 | 165 |
| Count | 18 | 7 | 11 | 141 |

La (ppm)

Golf Bore

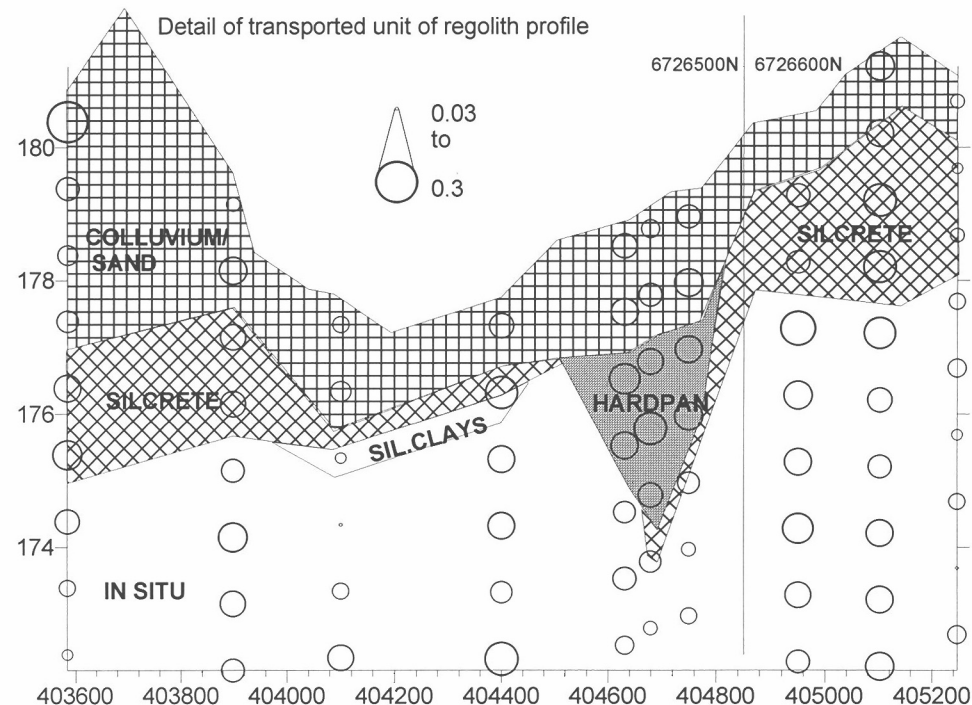
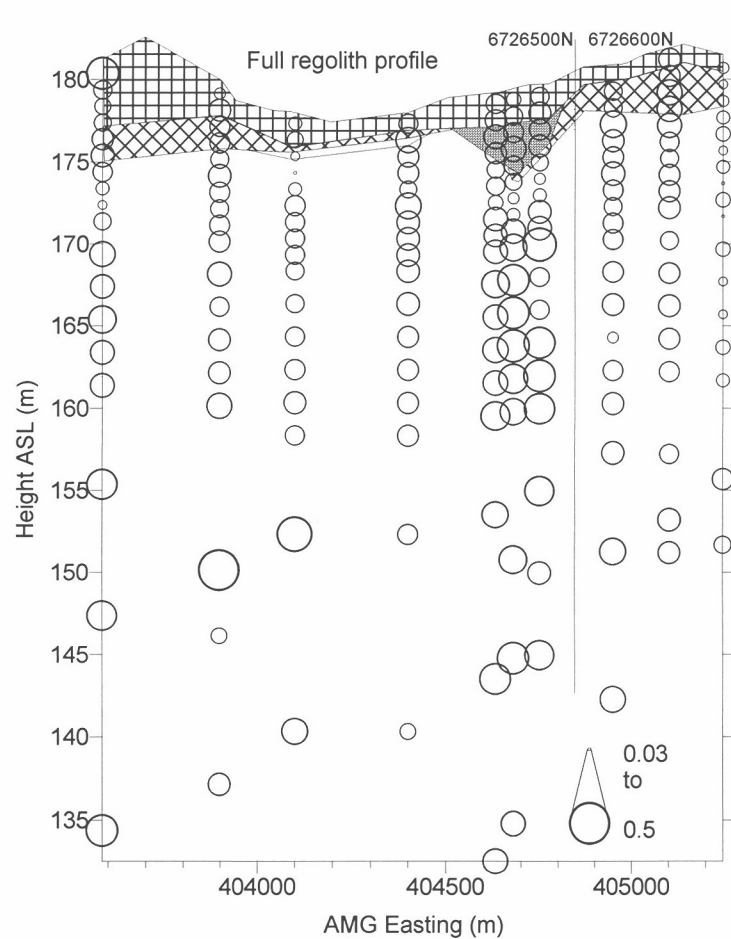
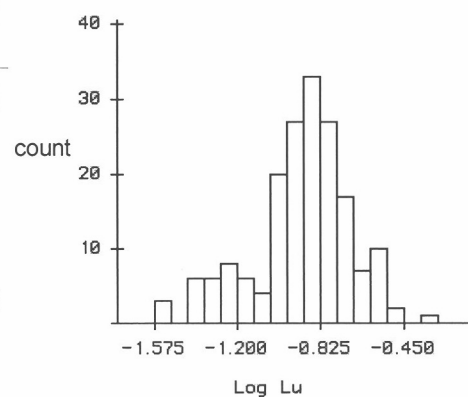


Figure A1a.23: Distribution and concentration of Lu at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.1 | 0.1 | 0.1 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.1 | 0.13 | 0.13 | 0.13 |
| Std Dev | 0.1 | 0.0 | 0.1 | 0.1 |
| Minimum | 0.05 | 0.11 | 0.04 | 0.03 |
| Maximum | 0.28 | 0.18 | 0.2 | 0.46 |
| Count | 18 | 7 | 11 | 141 |

Lu (ppm)

Golf Bore

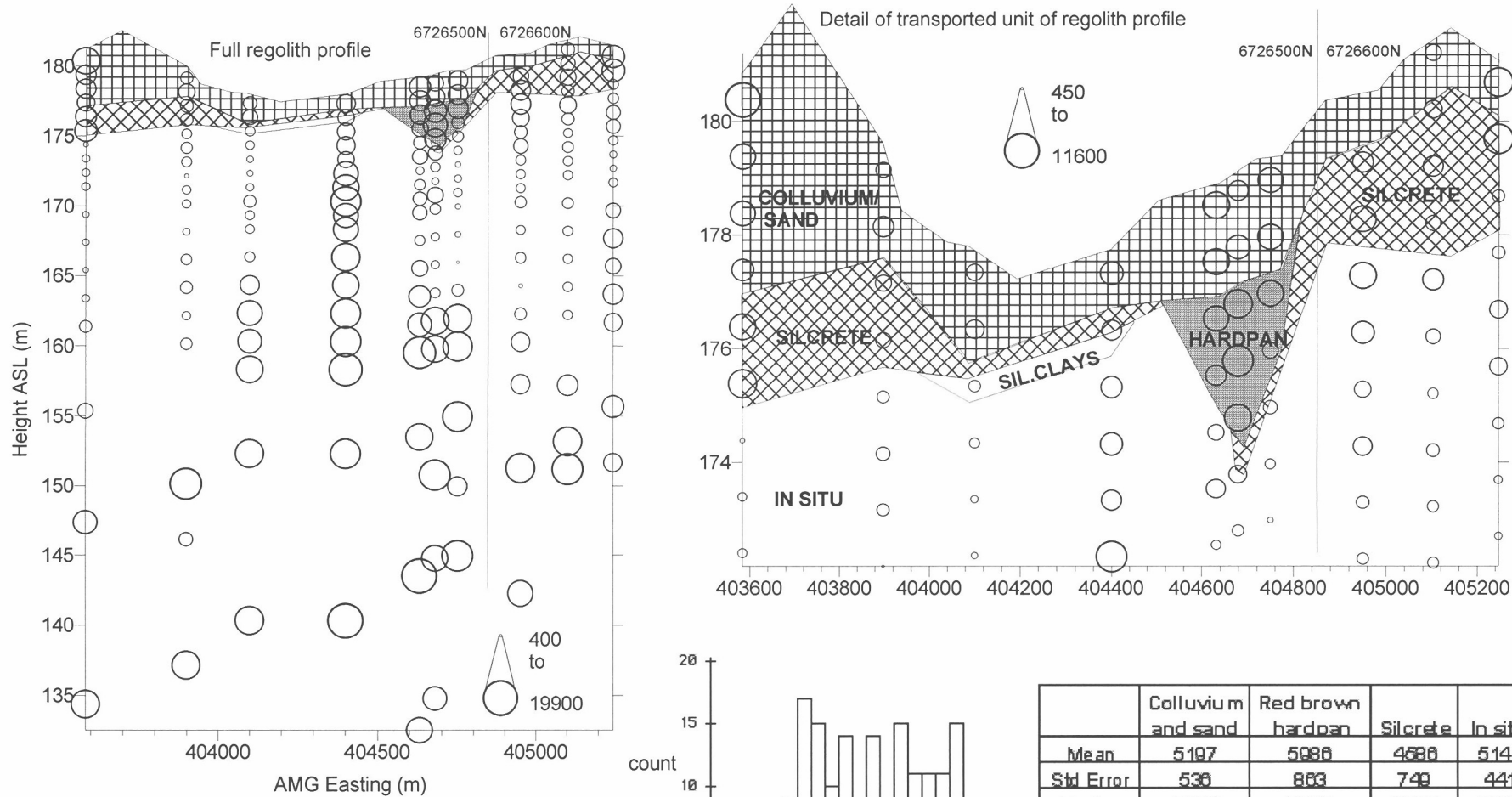


Figure A1a.24: Distribution and concentration of Mg at Golf Bore regolith part sections on 6726500-6726600N

Mg (ppm)

Golf Bore

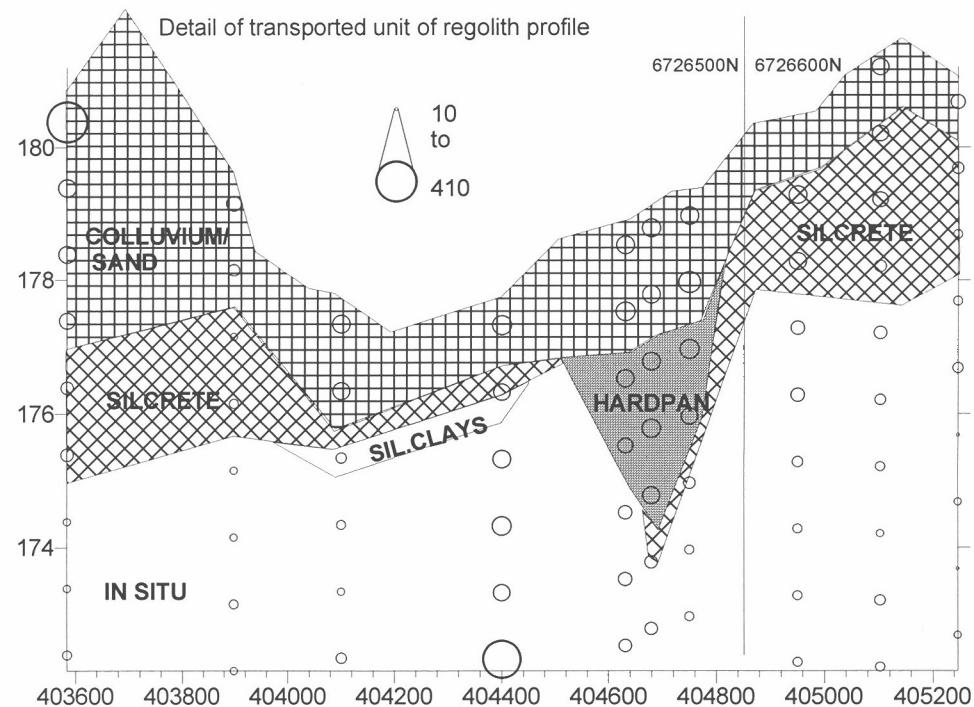
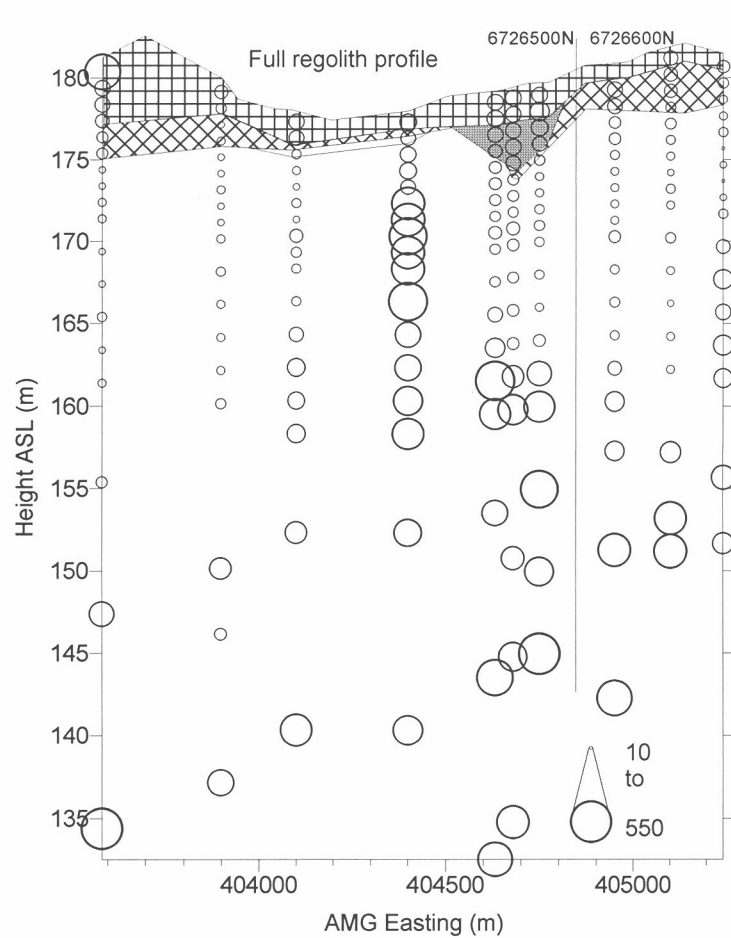
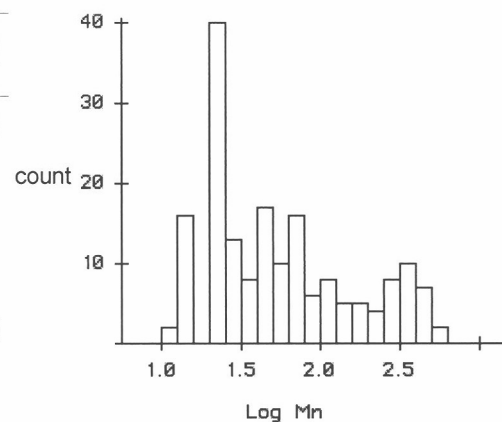


Figure A1a.25: Distribution and concentration of Mn at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 88 | 88 | 38 | 111 |
| Std Error | 18 | 4 | 5 | 11 |
| Median | 70 | 85 | 35 | 35 |
| Std Dev | 82 | 10 | 18 | 138 |
| Minimum | 30 | 50 | 15 | 10 |
| Maximum | 410 | 80 | 85 | 550 |
| Count | 18 | 7 | 11 | 141 |

Mn (ppm)

Golf Bore

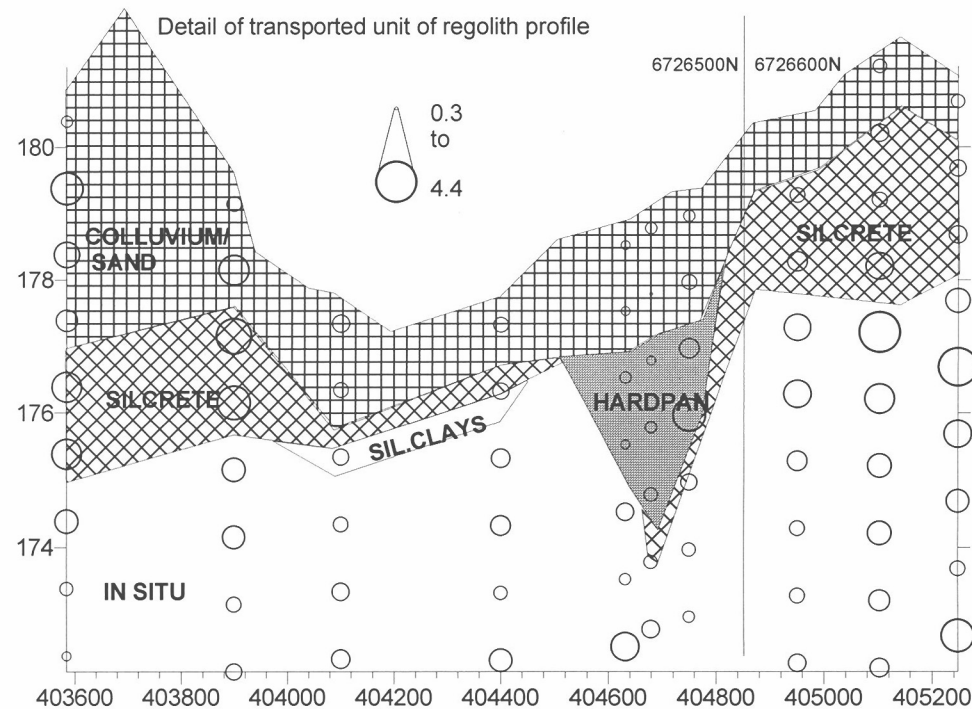
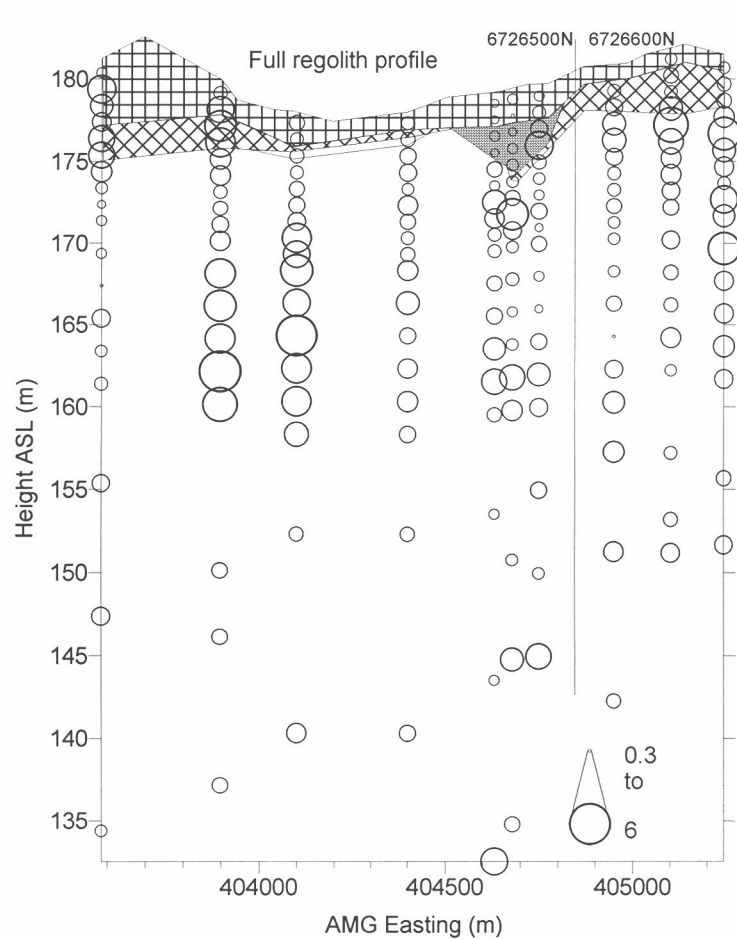
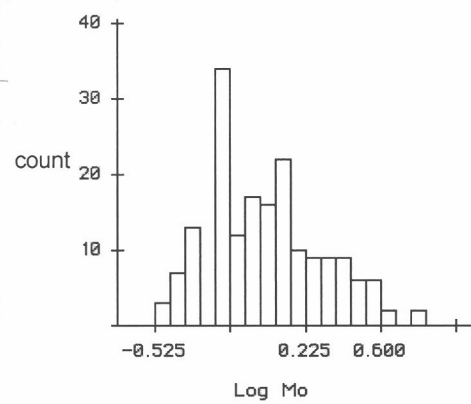


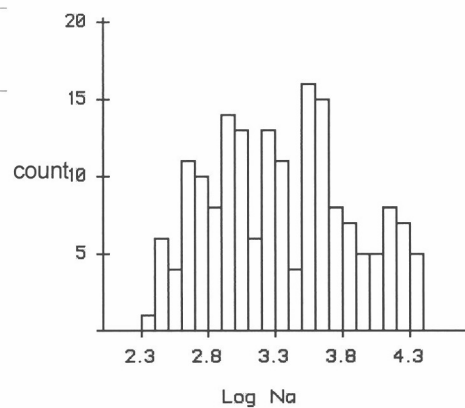
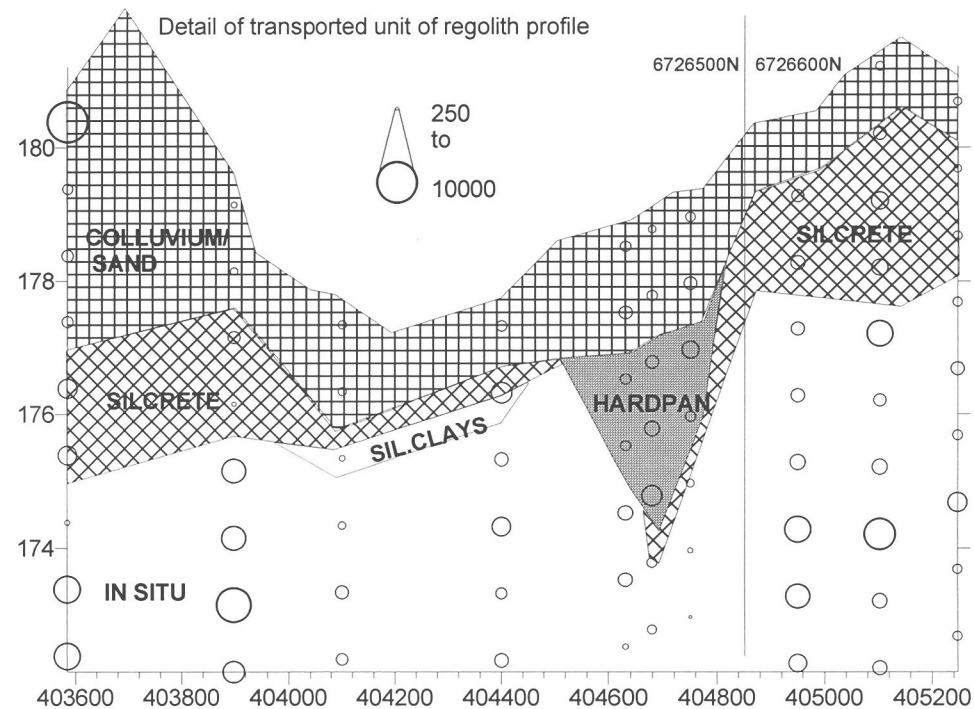
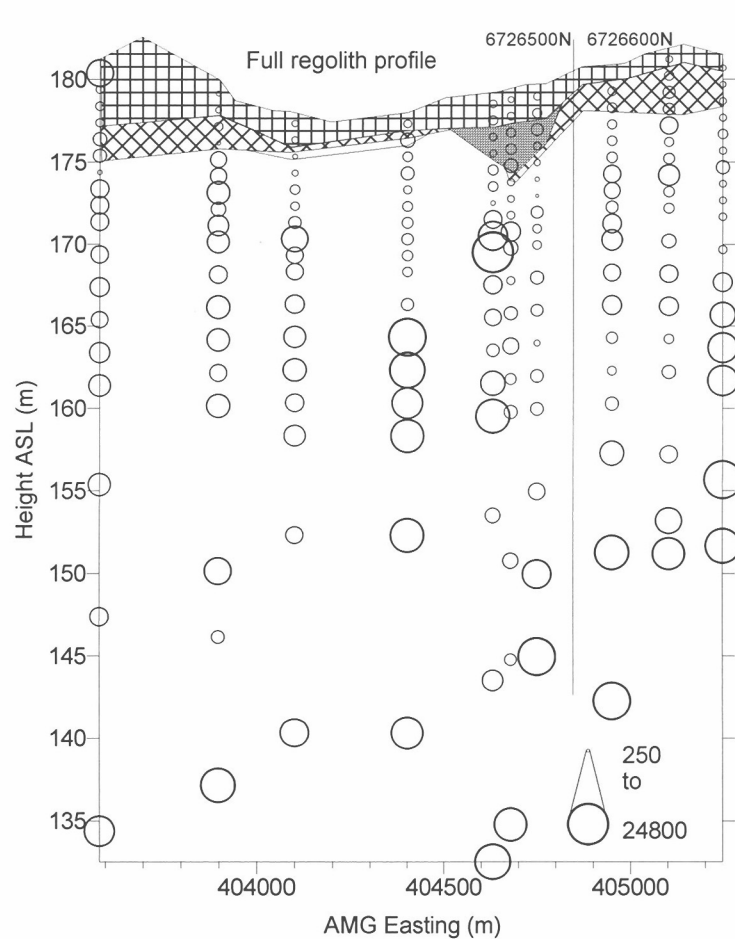
Figure A1a.26: Distribution and concentration of Mo at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.9 | 0.9 | 1.8 | 1.4 |
| Std Error | 0.2 | 0.3 | 0.3 | 0.1 |
| Median | 0.7 | 0.5 | 1.9 | 1 |
| Std Dev | 0.7 | 0.9 | 1.0 | 1.0 |
| Minimum | 0.3 | 0.4 | 0.7 | 0.3 |
| Maximum | 2.8 | 2.8 | 3.4 | 8 |
| Count | 18 | 7 | 11 | 141 |

Mo (ppm)

Golf Bore



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 1104 | 1093 | 1080 | 5176 |
| Std Error | 525 | 235 | 184 | 470 |
| Median | 800 | 900 | 950 | 3350 |
| Std Dev | 2227 | 821 | 612 | 5582 |
| Minimum | 300 | 550 | 280 | 250 |
| Maximum | 10000 | 2200 | 2050 | 24800 |
| Count | 18 | 7 | 11 | 141 |

Figure A1a.27: Distribution and concentration of Na at Golf Bore regolith part sections on 6726500-6726600N

Na (ppm)

Golf Bore

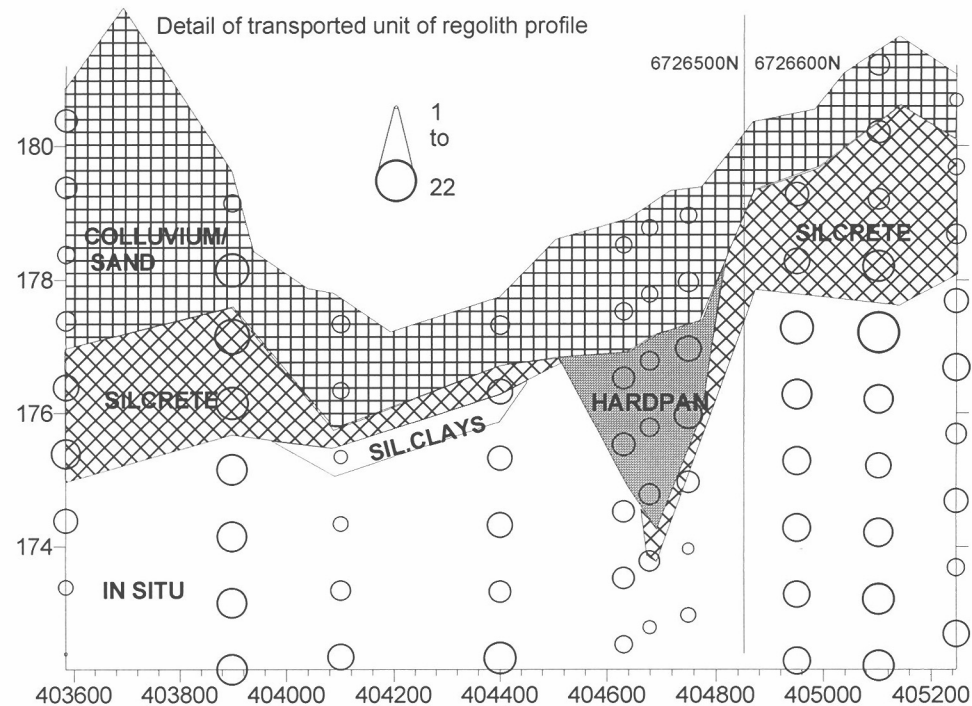
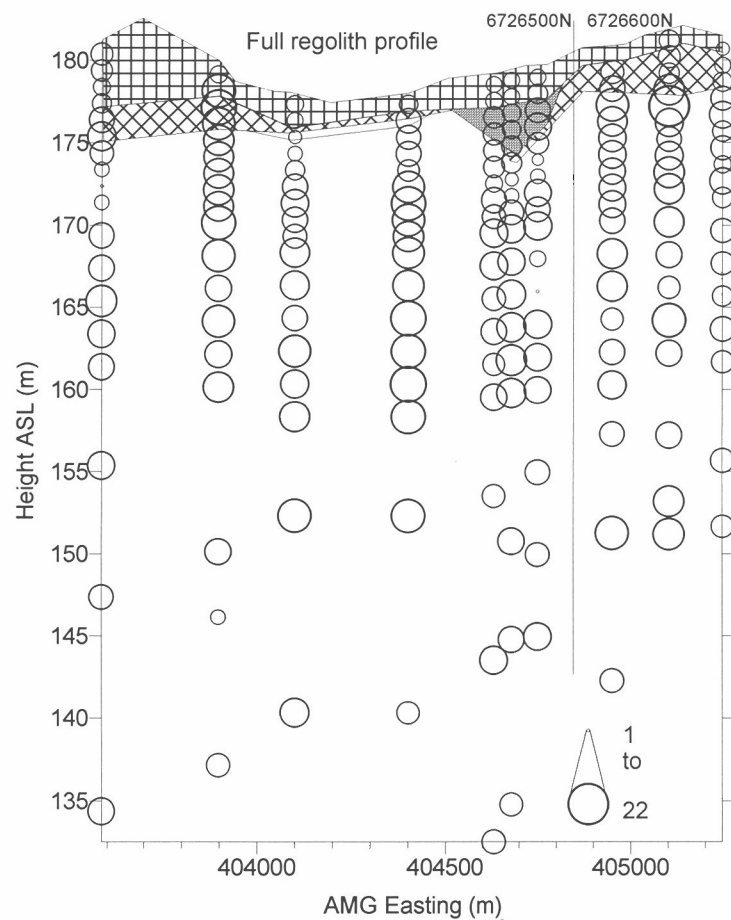
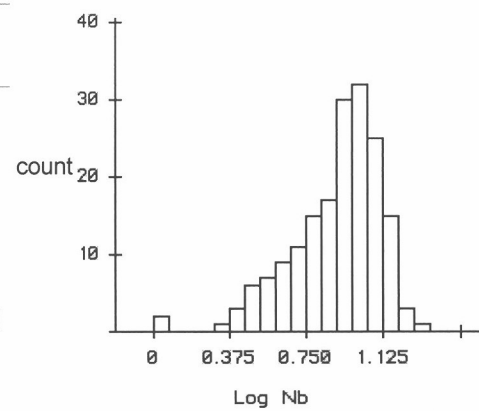


Figure A1a.28: Distribution and concentration of Nb at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 5 | 8 | 10 | 9 |
| Std Error | 0.6 | 0.7 | 1.3 | 0.3 |
| Median | 4 | 8 | 9 | 9 |
| Std Dev | 3 | 2 | 4 | 3 |
| Minimum | 3 | 5 | 4 | 1 |
| Maximum | 14.5 | 9.5 | 16 | 22 |
| Count | 18 | 7 | 11 | 141 |

Nb (ppm)

Golf Bore

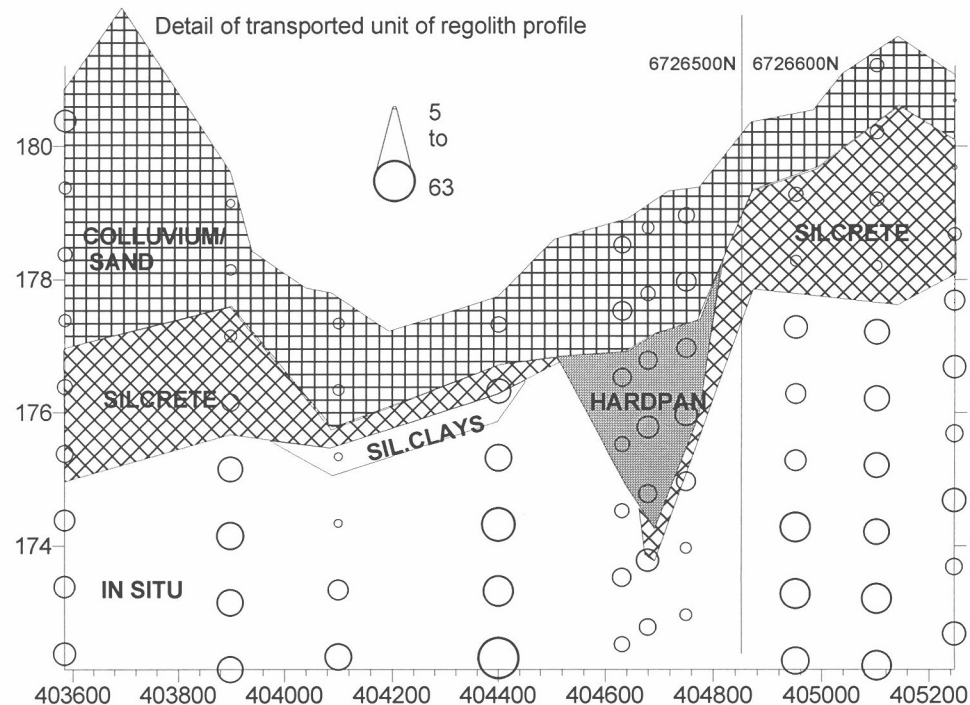
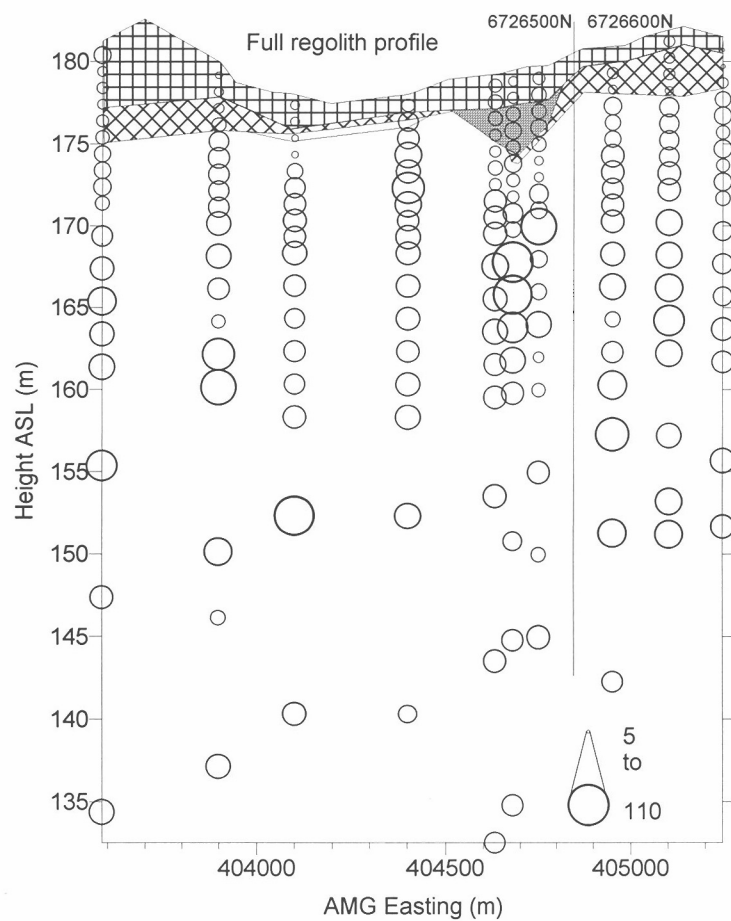
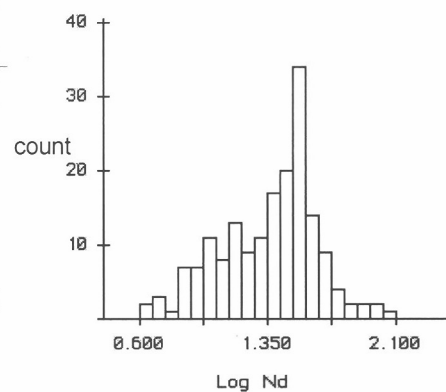


Figure A1a.29: Distribution and concentration of Nd at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 10 | 15 | 10 | 32 |
| Std Error | 0.9 | 1 | 1 | 1 |
| Median | 9 | 14 | 9 | 31 |
| Std Dev | 4 | 3 | 4 | 18 |
| Minimum | 5 | 10 | 4.6 | 5.5 |
| Maximum | 19 | 19 | 21 | 110 |
| Count | 18 | 7 | 11 | 141 |

Nd (ppm)

Golf Bore

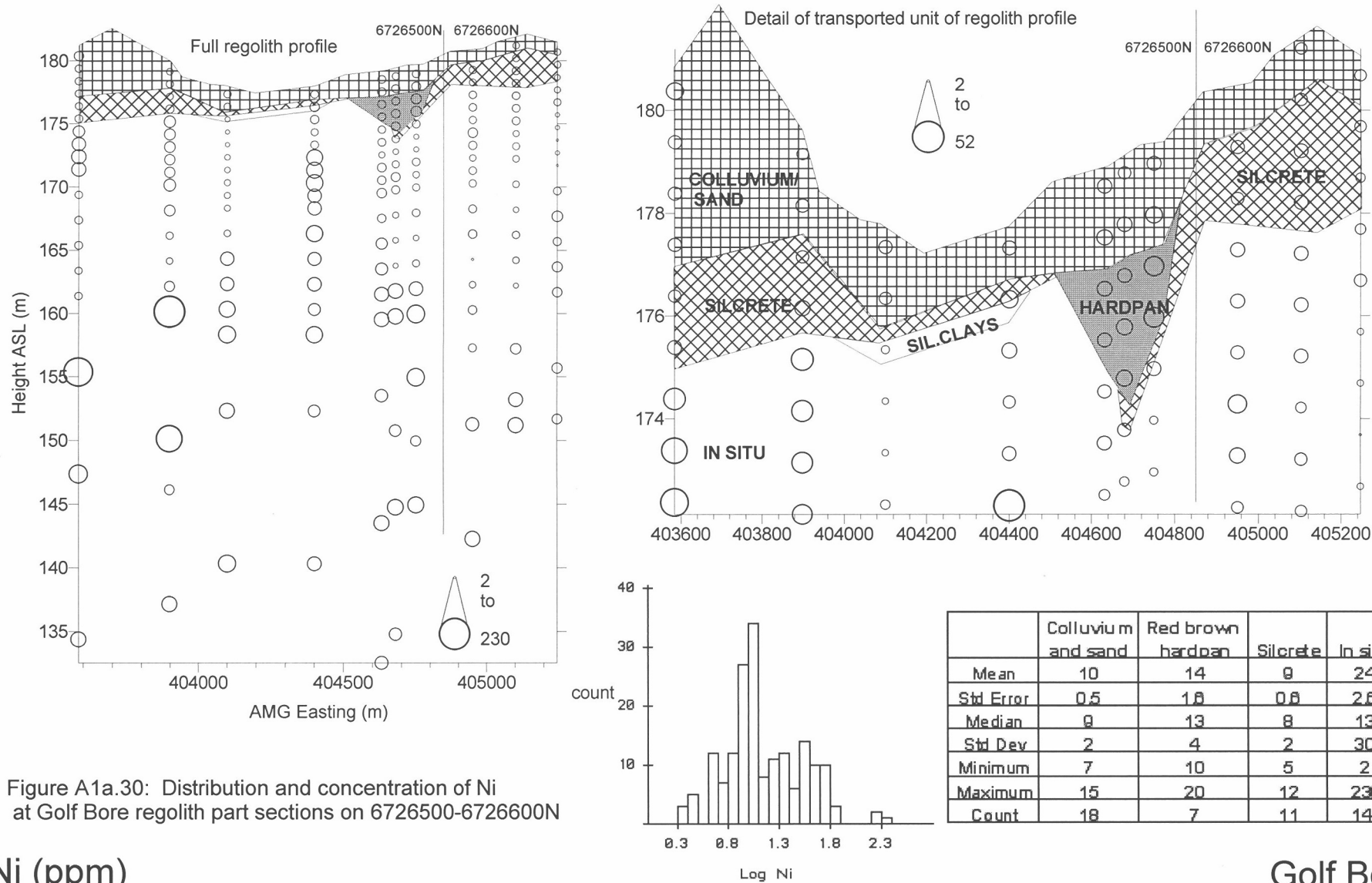


Figure A1a.30: Distribution and concentration of Ni at Golf Bore regolith part sections on 6726500-6726600N

Ni (ppm)

Golf Bore

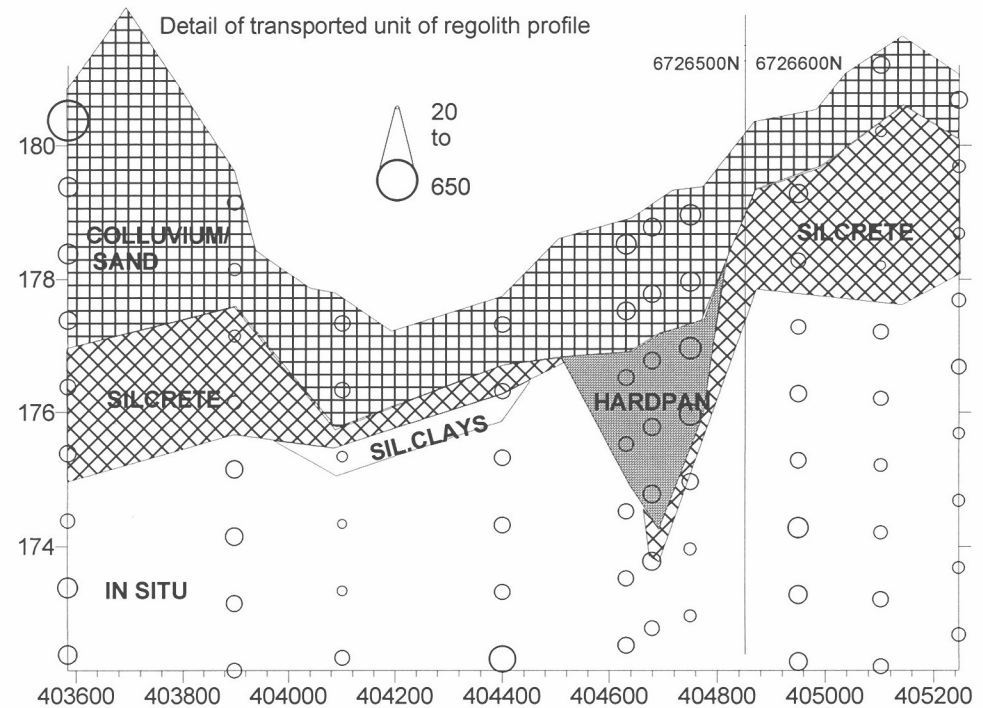
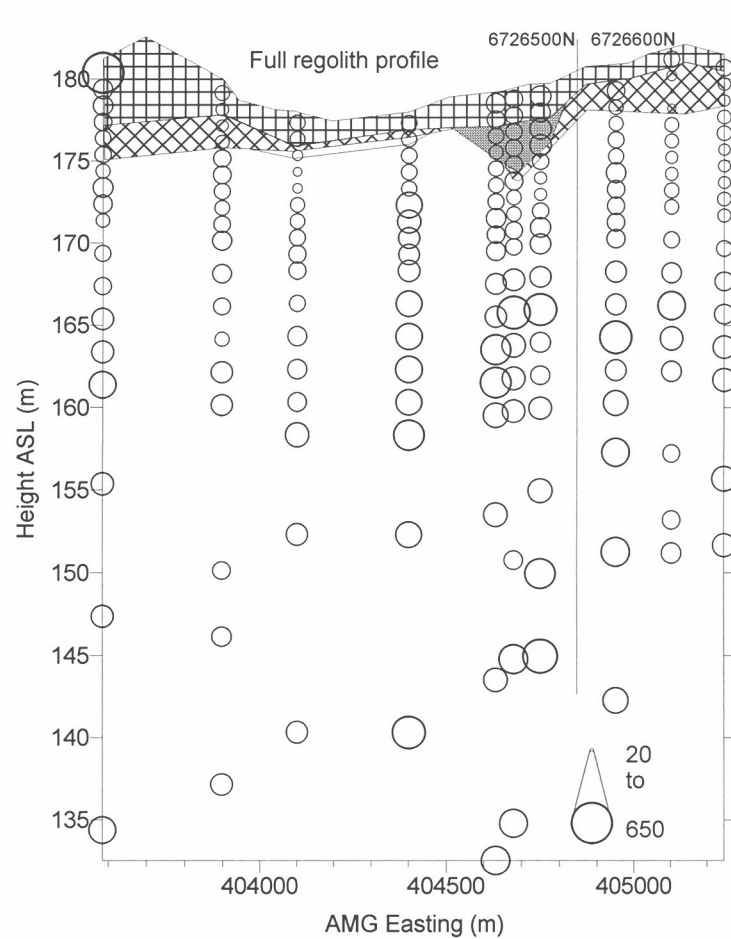
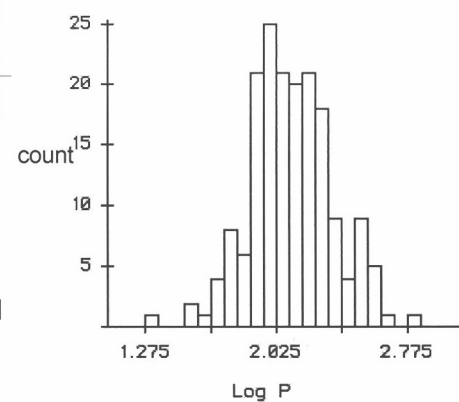


Figure A1a.31: Distribution and concentration of P at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 141 | 118 | 82 | 180 |
| Std Error | 30 | 13 | 7 | 7 |
| Median | 115 | 105 | 80 | 140 |
| Std Dev | 129 | 36 | 24 | 88 |
| Minimum | 80 | 75 | 20 | 35 |
| Maximum | 650 | 185 | 100 | 440 |
| Count | 18 | 7 | 11 | 141 |

P (ppm)

Golf Bore

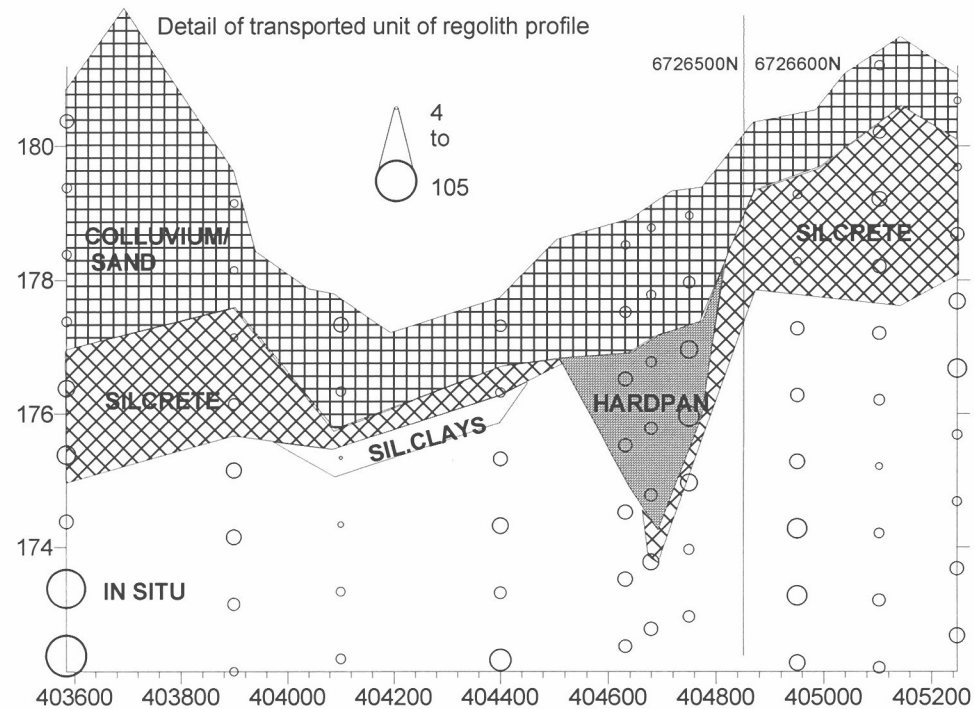
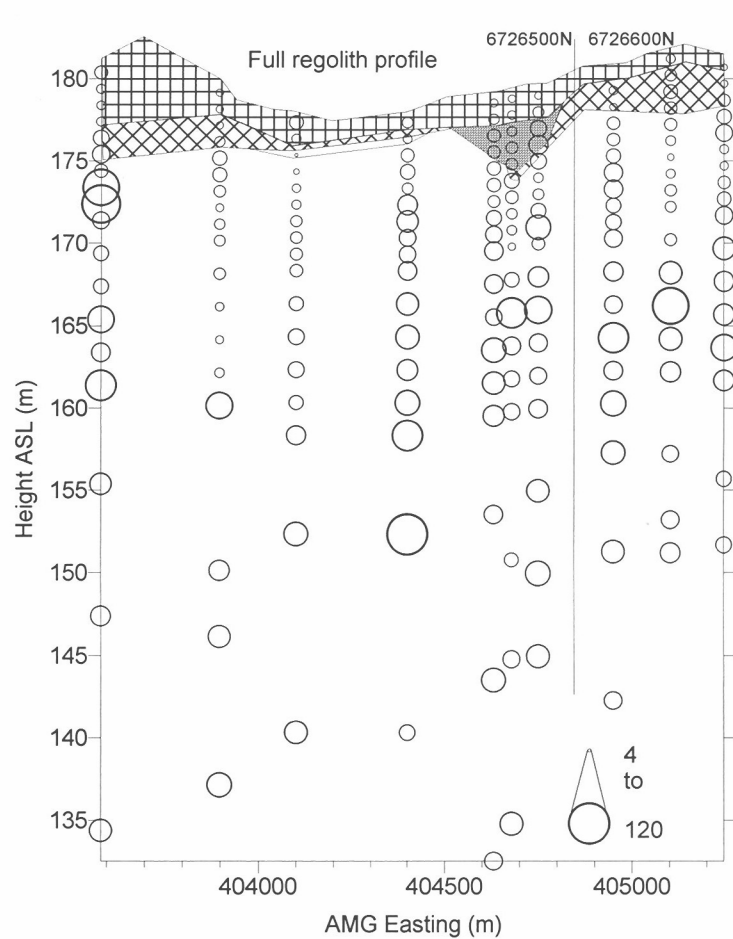
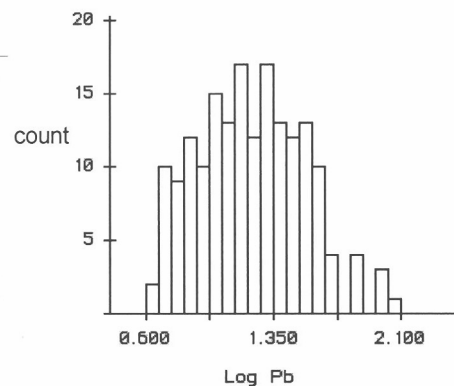


Figure A1a.32: Distribution and concentration of Pb at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 7 | 13 | 11 | 25 |
| Std Error | 0.5 | 2 | 1 | 2 |
| Median | 7 | 11 | 11 | 20 |
| Std Dev | 2 | 8 | 5 | 19 |
| Minimum | 5 | 8 | 8 | 4 |
| Maximum | 14 | 25 | 21 | 120 |
| Count | 18 | 7 | 11 | 141 |

Pb (ppm)

Golf Bore

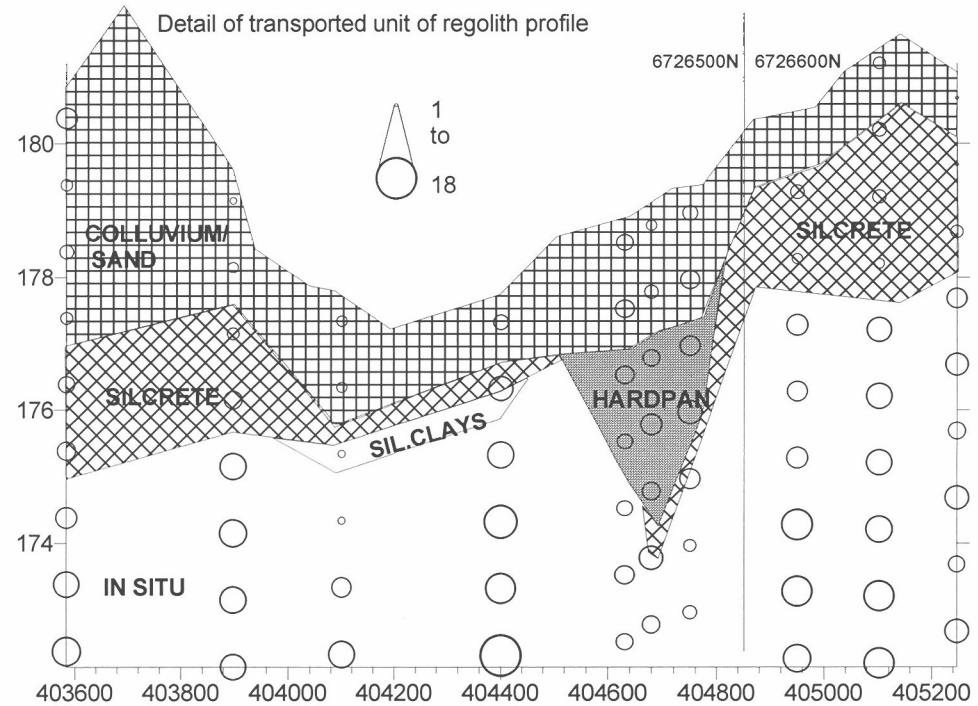
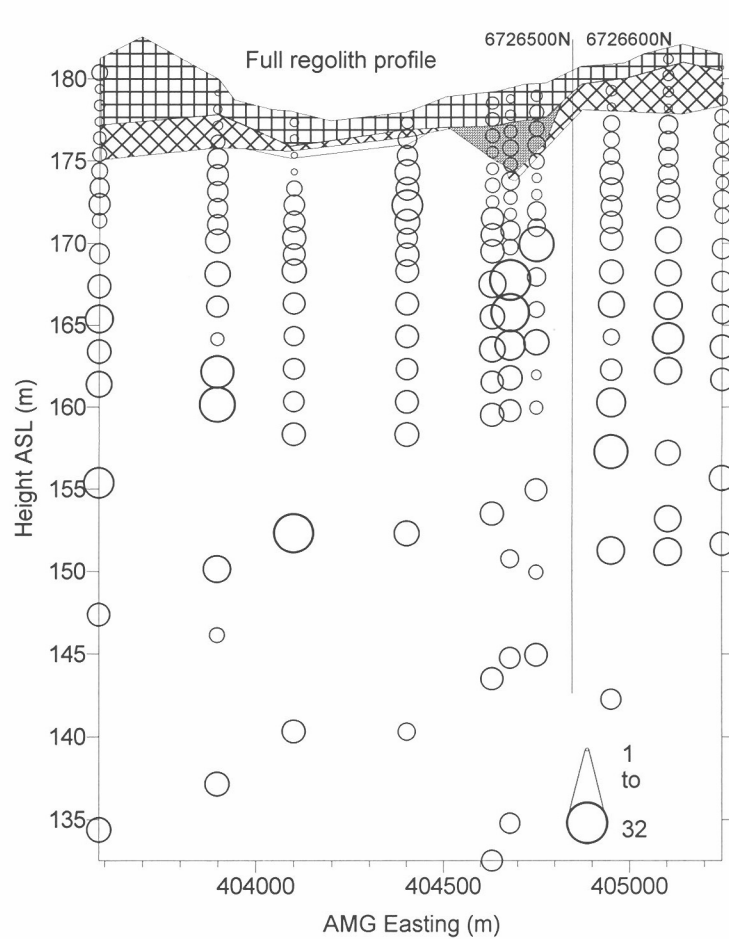
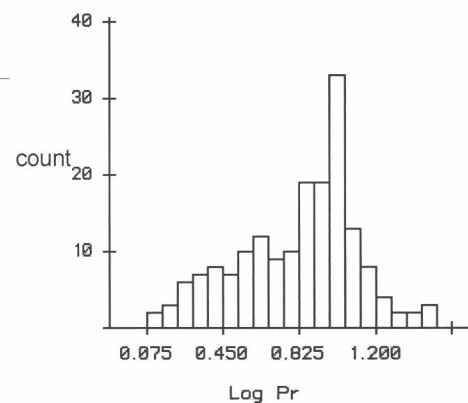


Figure A1a.33: Distribution and concentration of Pr at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 2.0 | 4.1 | 2.8 | 9.3 |
| Std Error | 0.2 | 0.4 | 0.3 | 0.4 |
| Median | 2.35 | 3.7 | 2.5 | 9 |
| Std Dev | 0.9 | 1.1 | 1.1 | 5.0 |
| Minimum | 1.3 | 2.8 | 1.3 | 1.5 |
| Maximum | 4.0 | 6 | 5 | 31.5 |
| Count | 18 | 7 | 11 | 141 |

Pr (ppm)

Golf Bore

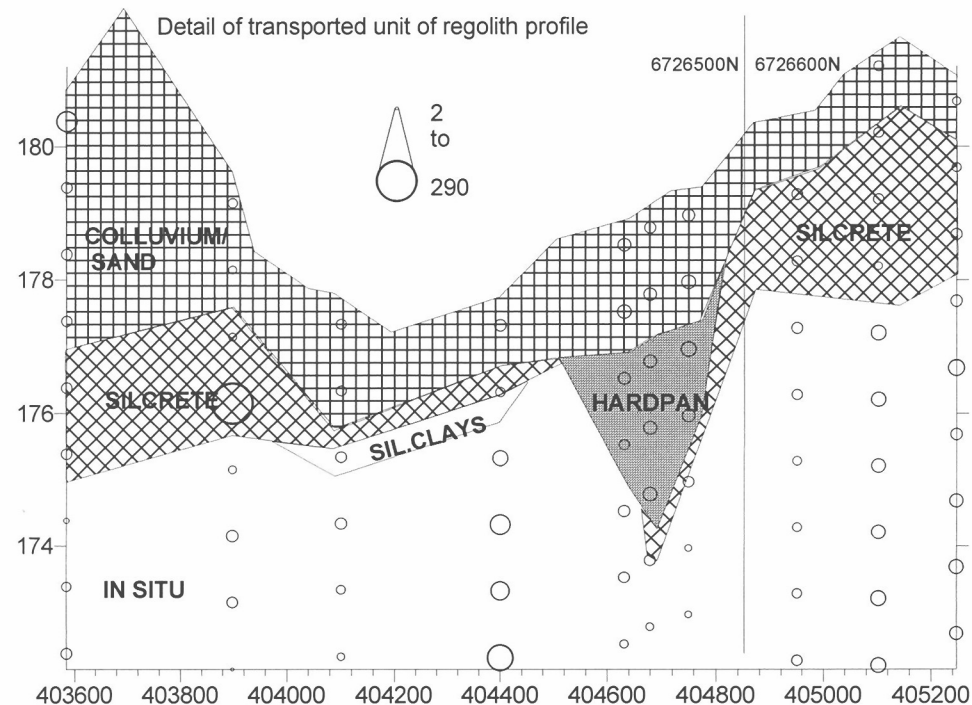
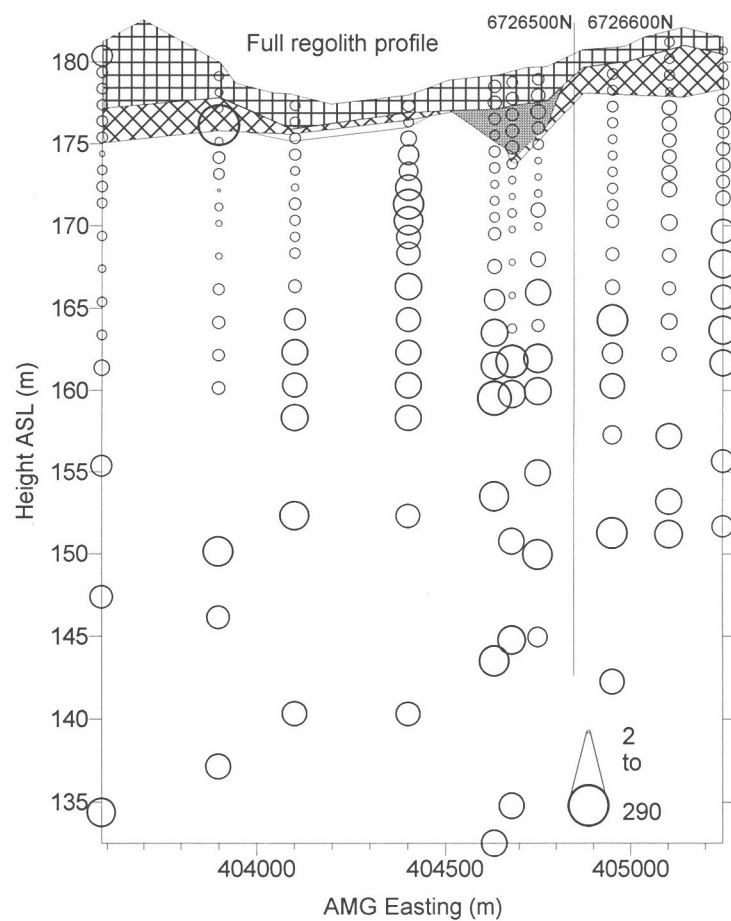
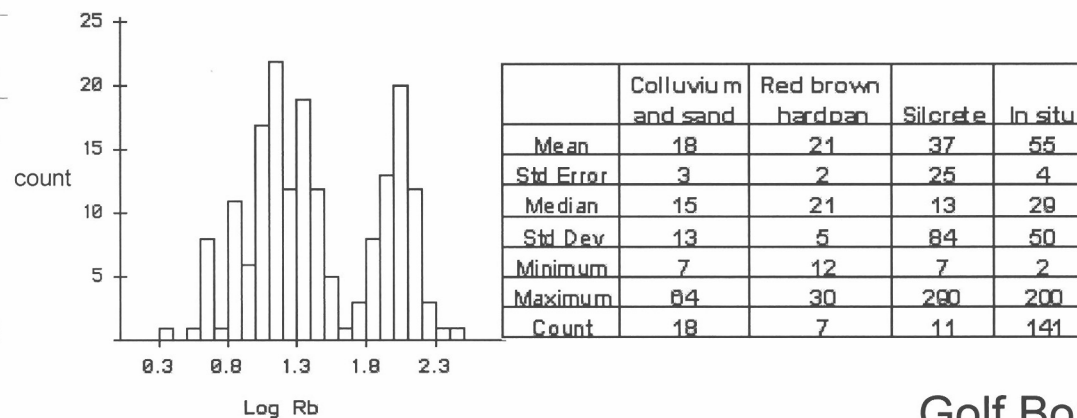


Figure A1a.34: Distribution and concentration of Rb at Golf Bore regolith part sections on 6726500-6726600N



Rb (ppm)

Golf Bore

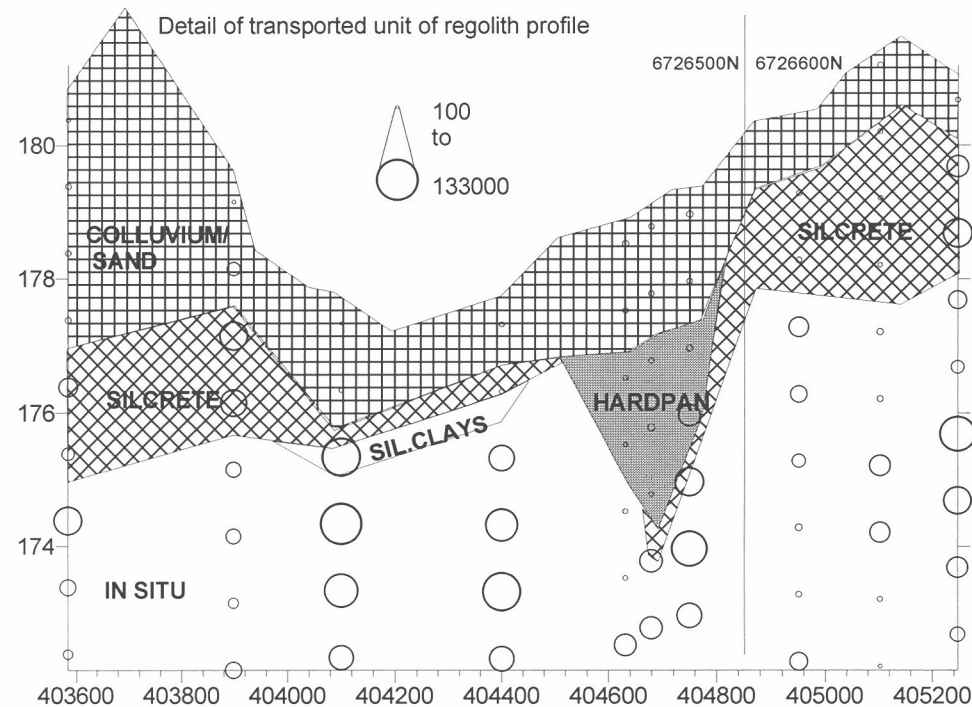
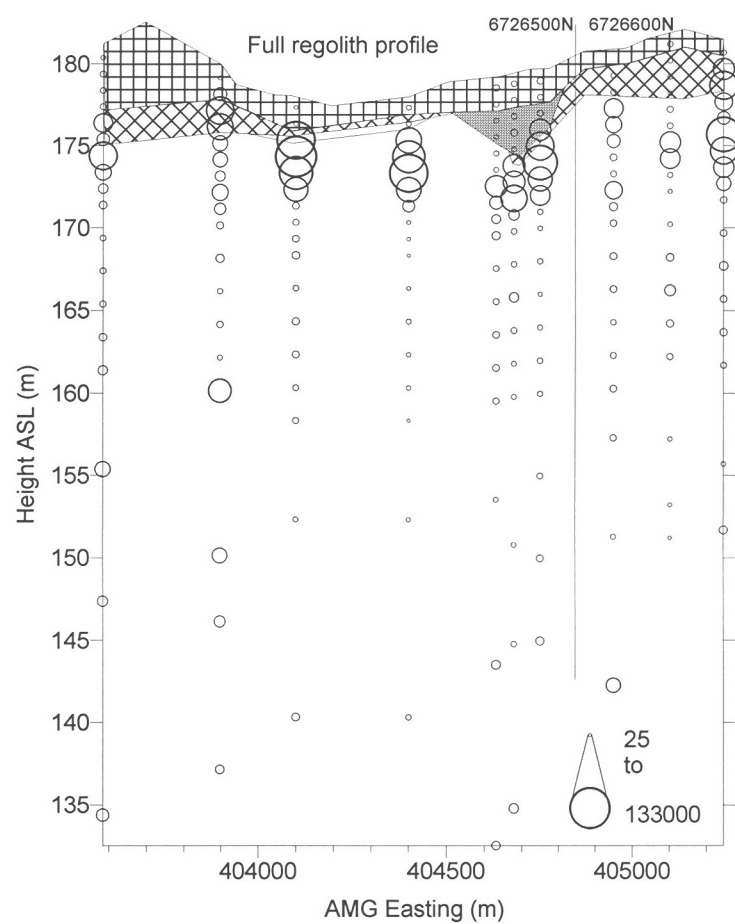
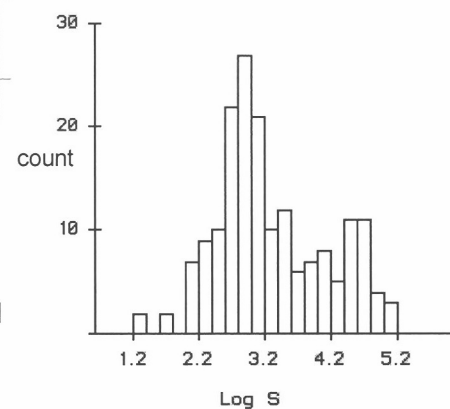


Figure A1a.35: Distribution and concentration of S at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 1084 | 5107 | 23518 | 12208 |
| Std Error | 528 | 4452 | 7208 | 2082 |
| Median | 825 | 850 | 22800 | 1450 |
| Std Dev | 2240 | 11780 | 23898 | 24720 |
| Minimum | 100 | 200 | 250 | 25 |
| Maximum | 10000 | 31800 | 80000 | 133000 |
| Count | 18 | 7 | 11 | 141 |

S (ppm)

Golf Bore

All data below detection limit of 0.5 ppm

Figure A1a.36: Distribution and concentration of Sb
at Golf Bore regolith part sections on 6726500-6726600N

Sb (ppm)

Golf Bore

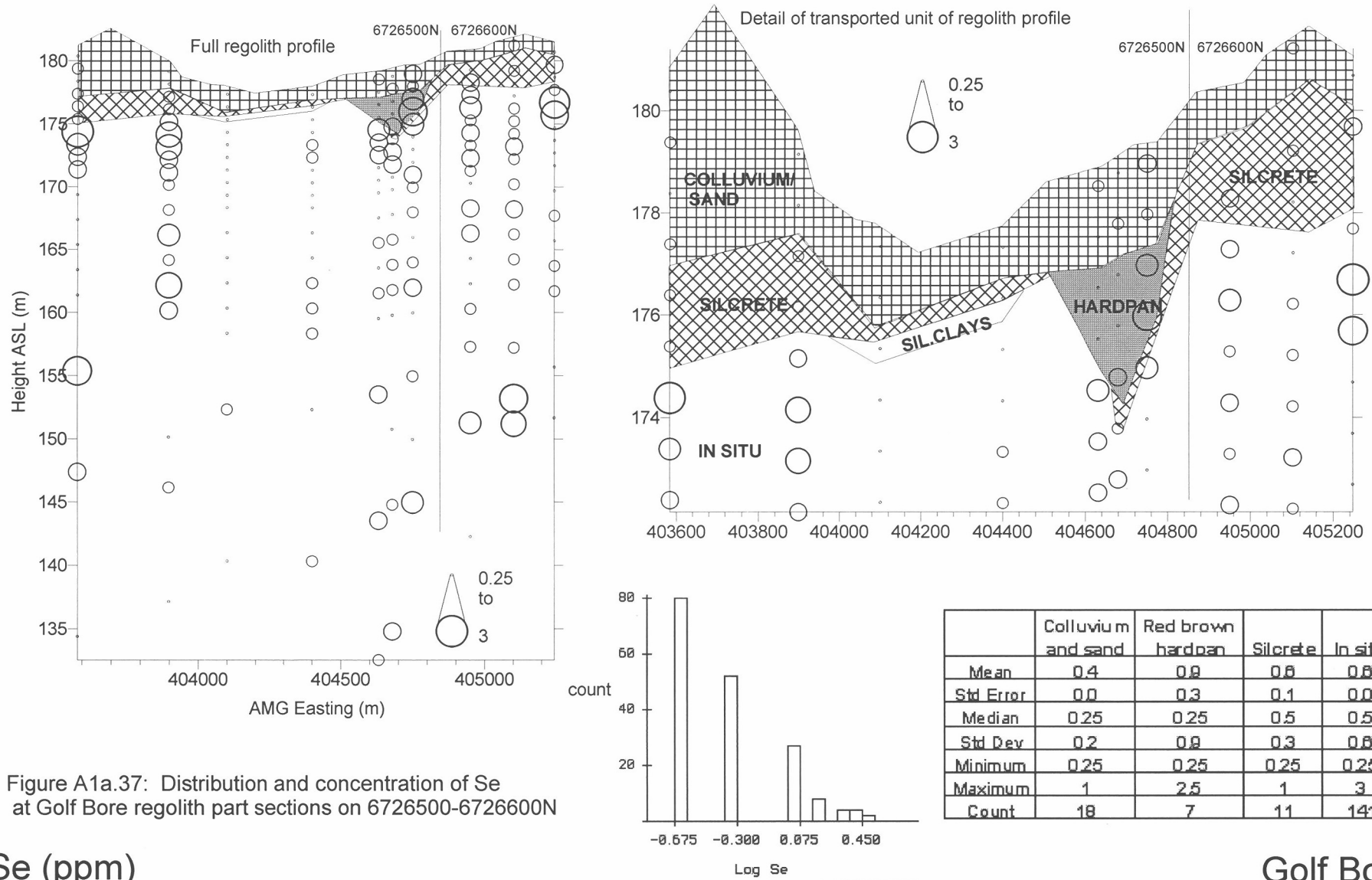


Figure A1a.37: Distribution and concentration of Se at Golf Bore regolith part sections on 6726500-6726600N

Se (ppm)

Golf Bore

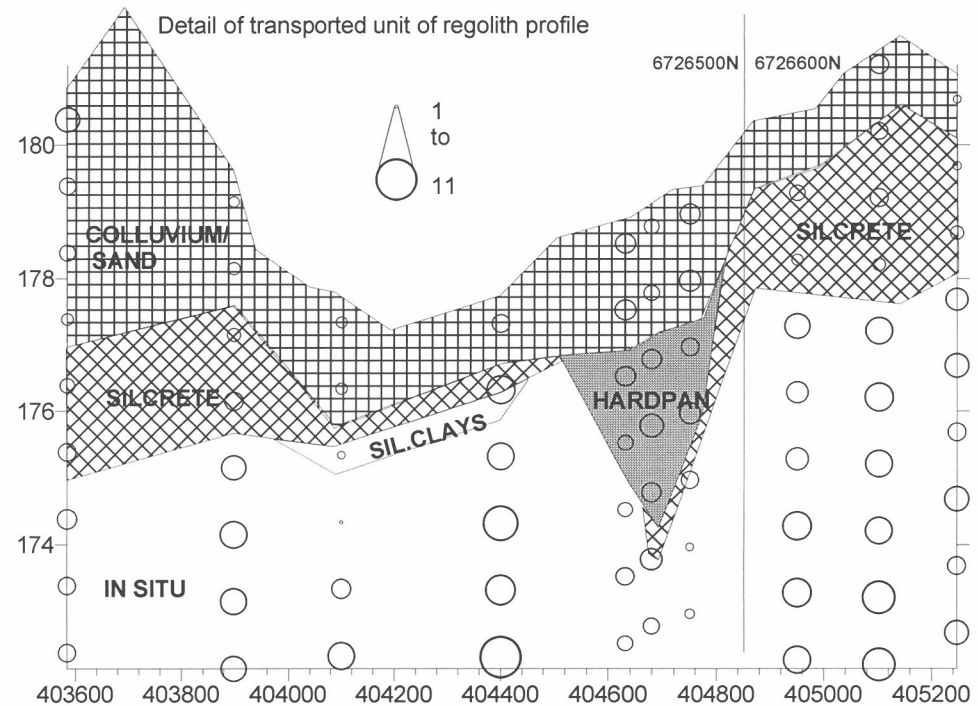
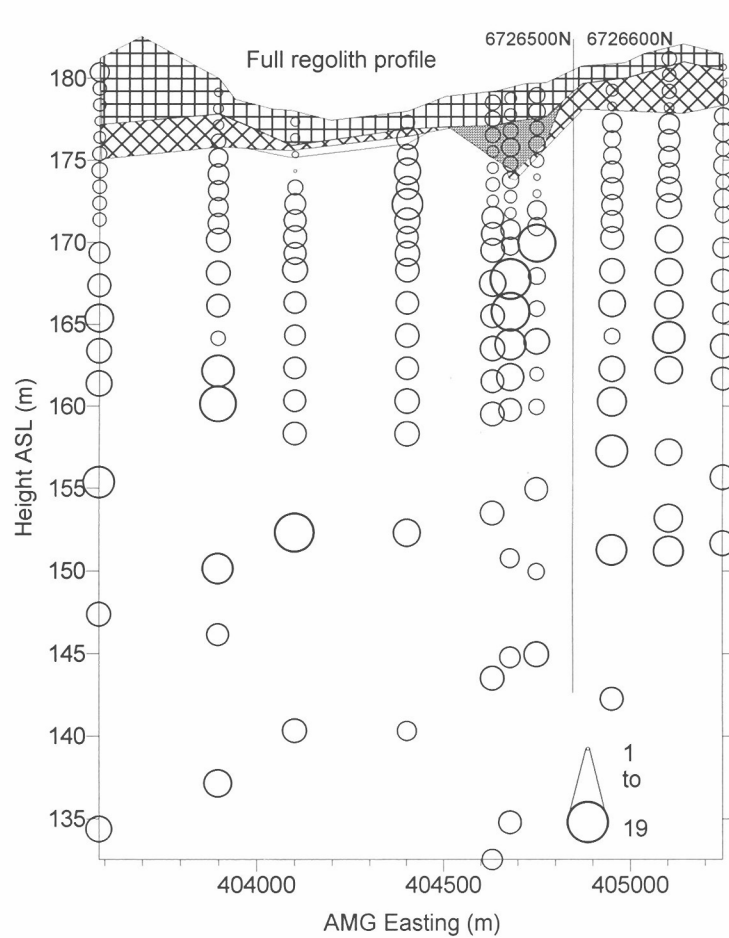
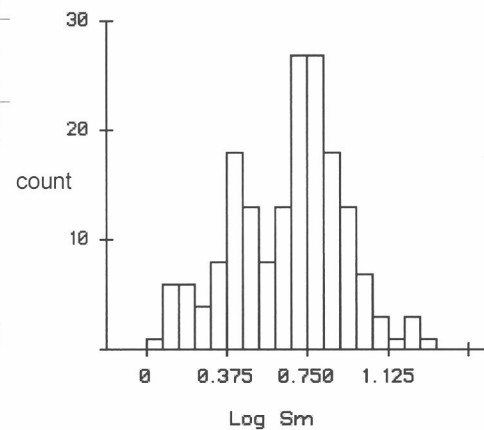


Figure A1a.38: Distribution and concentration of Sm at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 2.3 | 2.0 | 2.2 | 0.1 |
| Std Error | 0.2 | 0.2 | 0.3 | 0.3 |
| Median | 2.15 | 2.0 | 2 | 0 |
| Std Dev | 0.8 | 0.6 | 0.9 | 3.1 |
| Minimum | 1.2 | 2 | 1.25 | 1.05 |
| Maximum | 4.3 | 3.0 | 4.4 | 19 |
| Count | 18 | 7 | 11 | 141 |

Sm (ppm)

Golf Bore

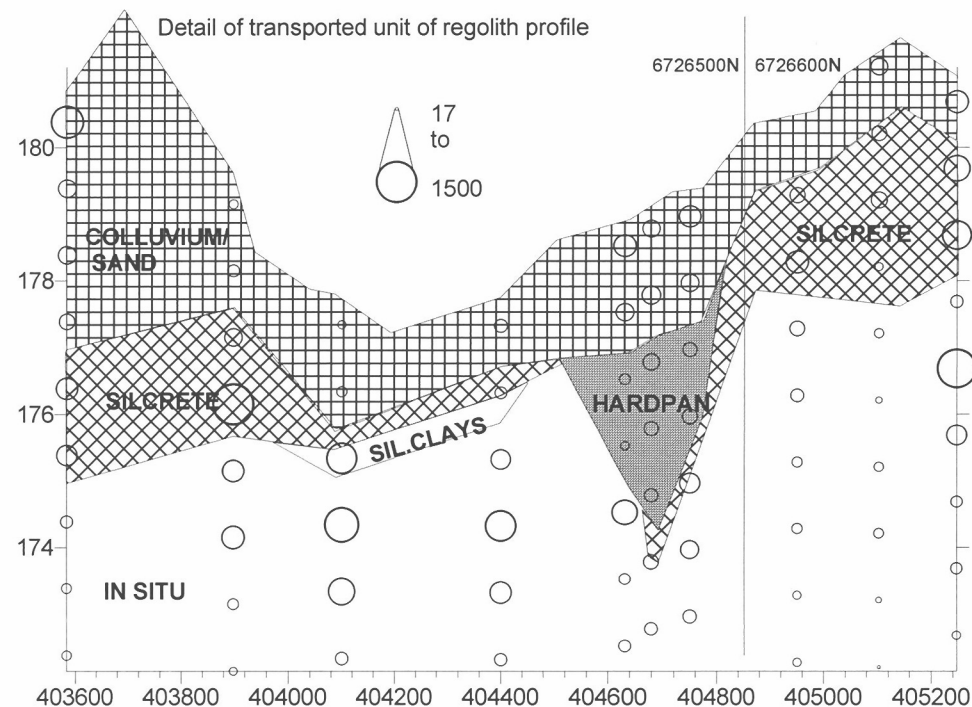
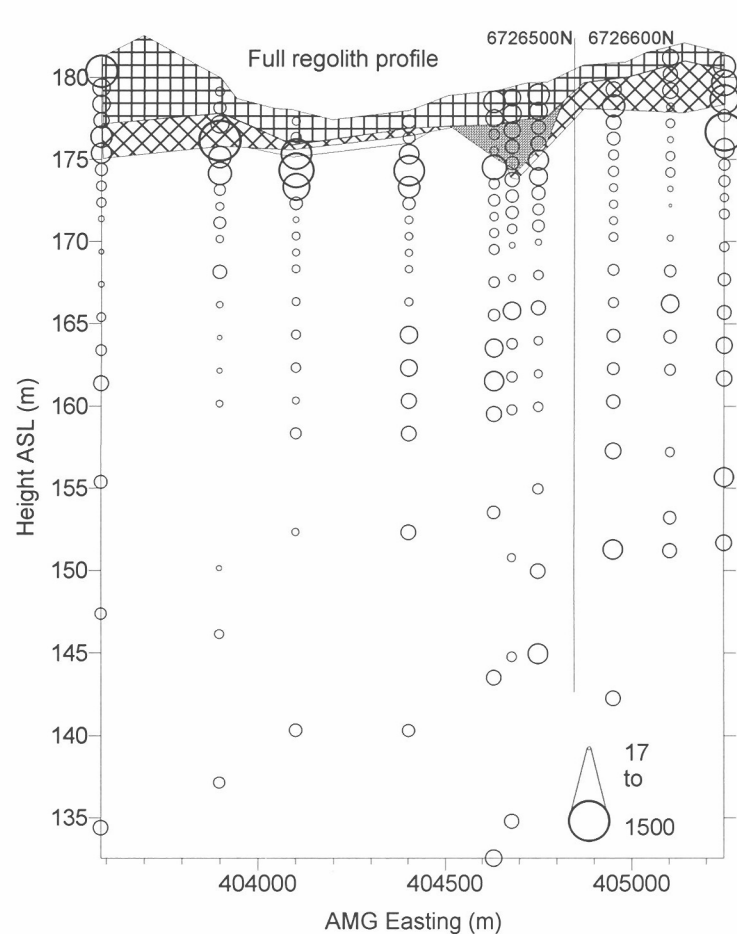
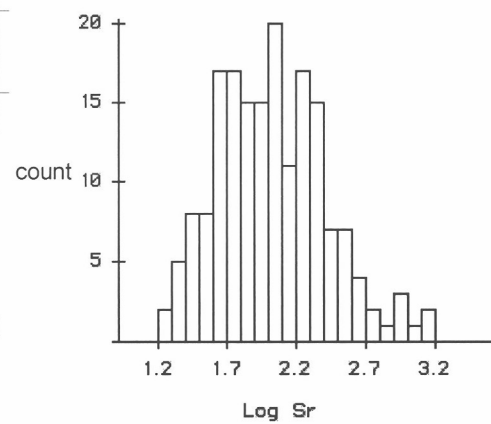


Figure A1a.39: Distribution and concentration of Sr at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 290 | 127 | 422 | 139 |
| Std Error | 48 | 20 | 122 | 15 |
| Median | 225 | 140 | 330 | 85 |
| Std Dev | 194 | 52 | 404 | 179 |
| Minimum | 45 | 47 | 43 | 17 |
| Maximum | 900 | 200 | 1500 | 1300 |
| Count | 18 | 7 | 11 | 141 |

Sr (ppm)

Golf Bore

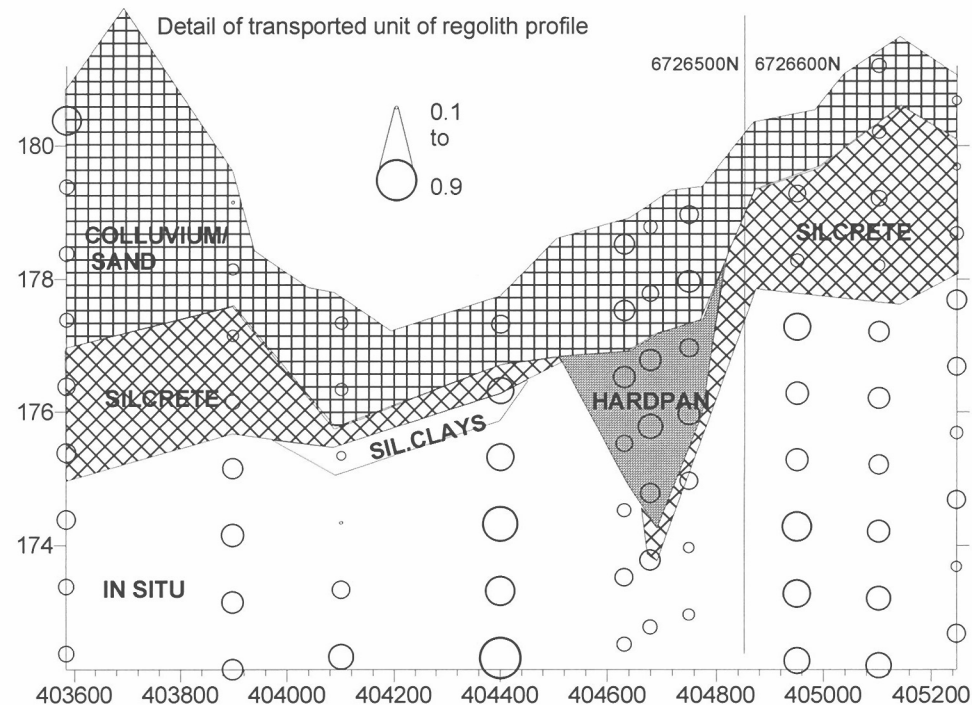
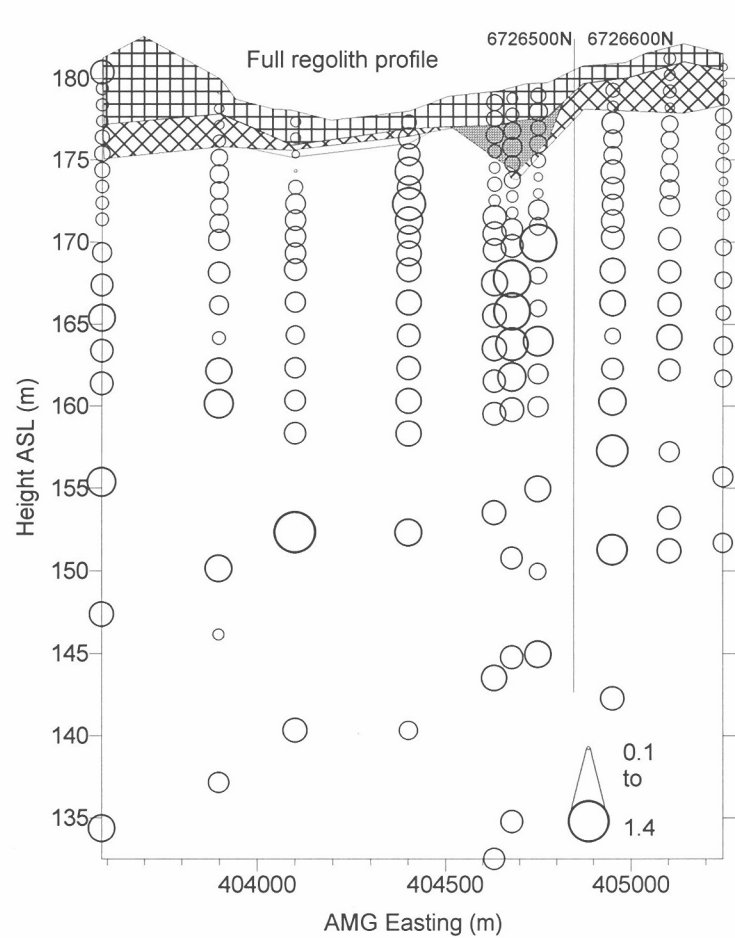
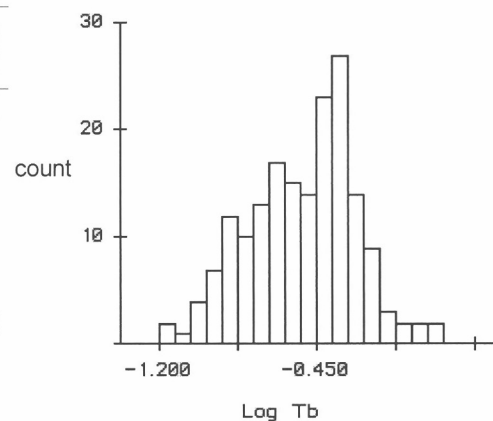


Figure A1a.40: Distribution and concentration of Tb at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.2 | 0.2 | 0.2 | 0.4 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.15 | 0.28 | 0.13 | 0.38 |
| Std Dev | 0.1 | 0.1 | 0.1 | 0.2 |
| Minimum | 0.07 | 0.17 | 0.08 | 0.07 |
| Maximum | 0.47 | 0.33 | 0.4 | 1.4 |
| Count | 18 | 7 | 11 | 141 |

Tb (ppm)

Golf Bore

All data below detection limit of 0.2 ppm

Figure A1a.41: Distribution and concentration of Te
at Golf Bore regolith part sections on 6726500-6726600N

Te (ppm)

Golf Bore

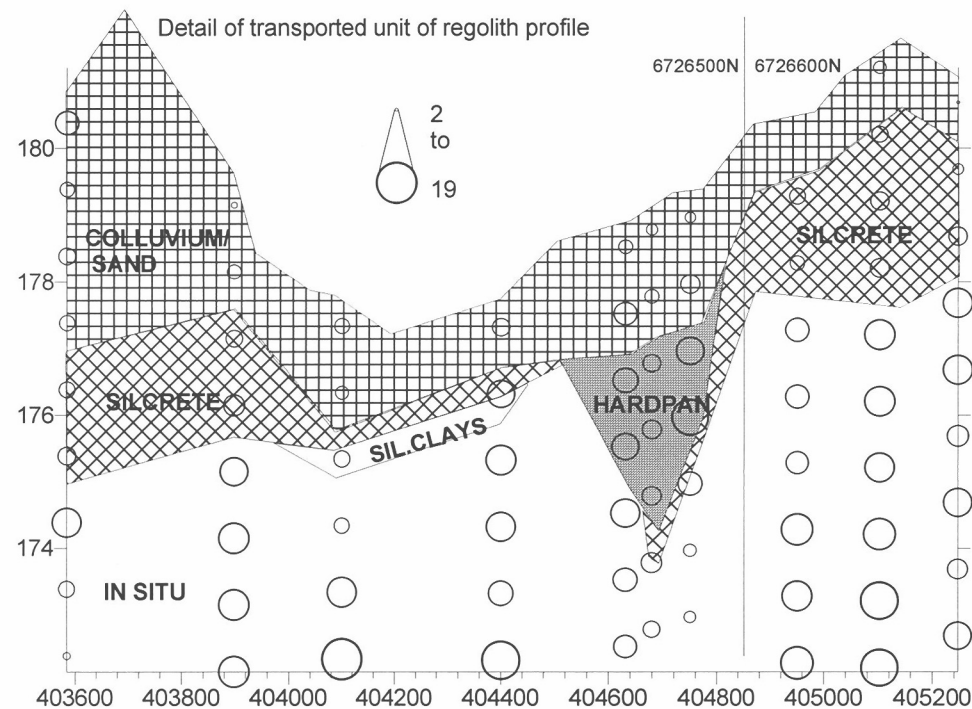
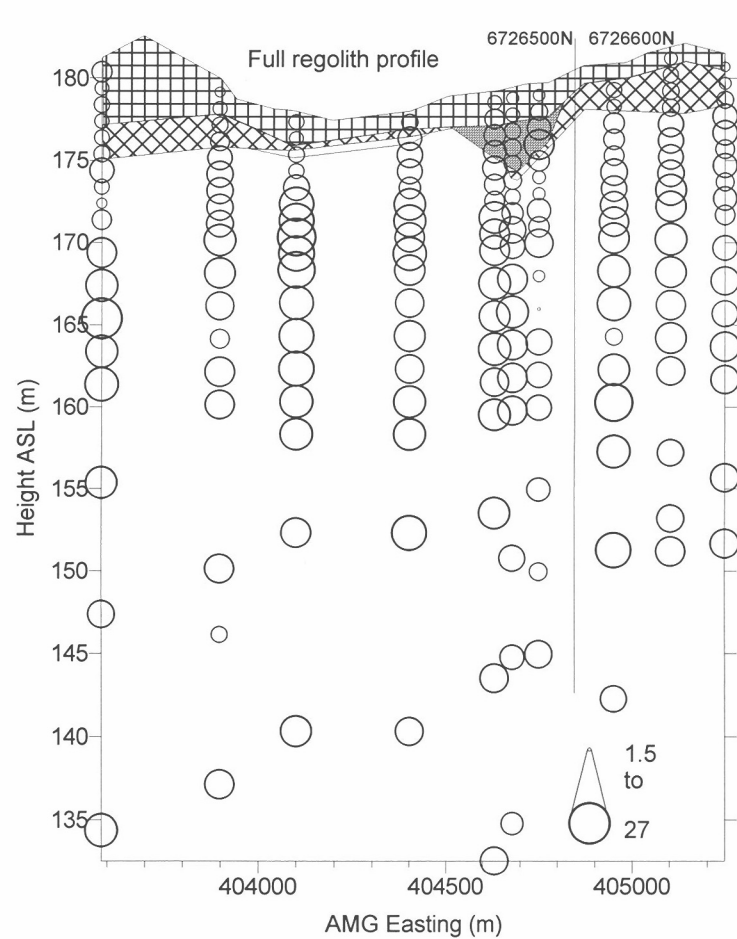
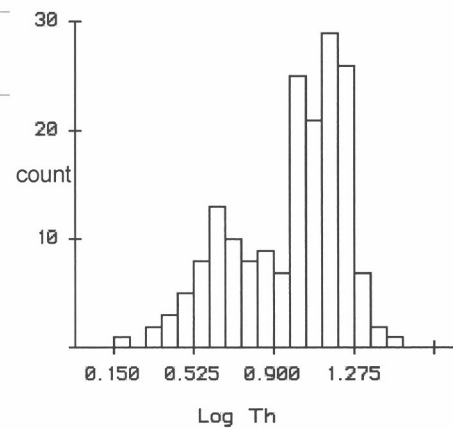


Figure A1a.42: Distribution and concentration of Th at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 4 | 8 | 5 | 12 |
| Std Error | 0.3 | 1 | 0.3 | 0.4 |
| Median | 3.7 | 8 | 5 | 13 |
| Std Dev | 1.3 | 3 | 1 | 5 |
| Minimum | 2.2 | 5 | 3 | 1 |
| Maximum | 7 | 15 | 7 | 27 |
| Count | 18 | 7 | 11 | 141 |

Th (ppm)

Golf Bore

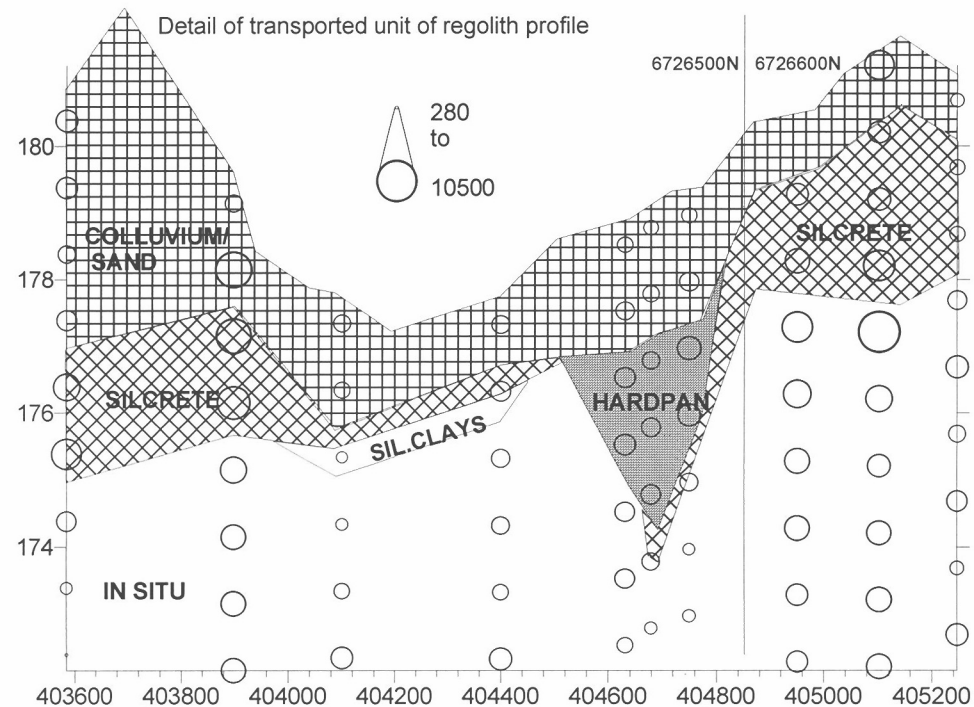
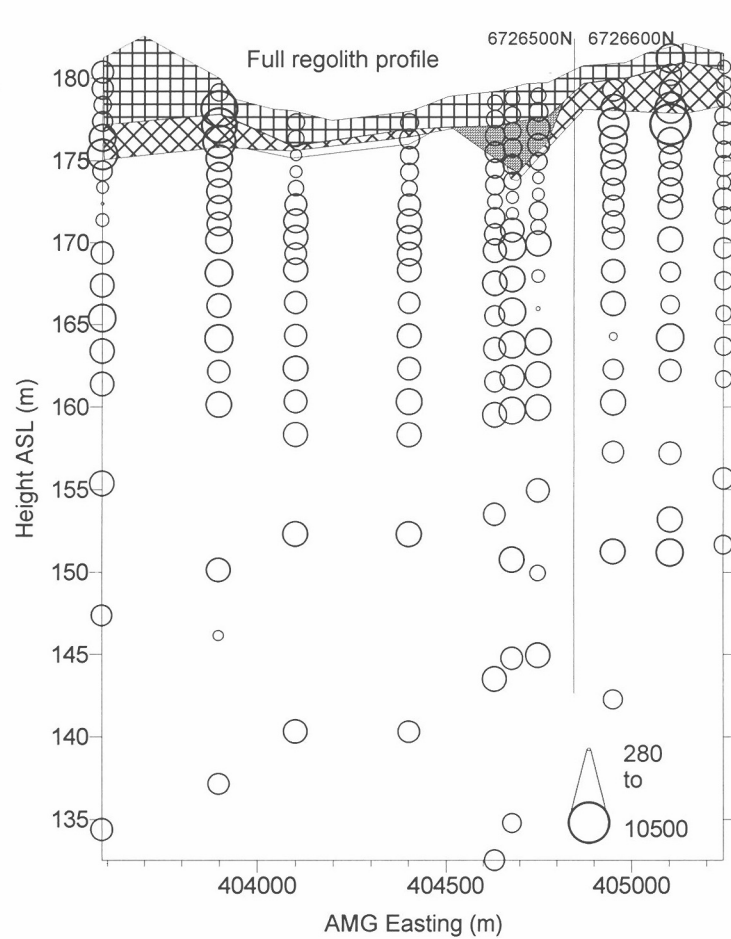
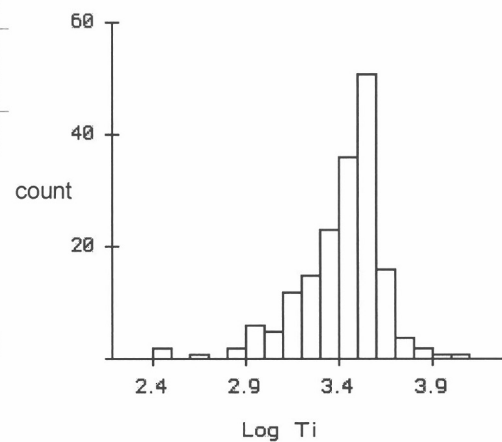


Figure A1a.43: Distribution and concentration of Ti at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 2397 | 2414 | 4332 | 2920 |
| Std Error | 403 | 185 | 833 | 104 |
| Median | 1825 | 2350 | 4350 | 2950 |
| Std Dev | 1711 | 490 | 2100 | 1241 |
| Minimum | 1050 | 1750 | 1300 | 280 |
| Maximum | 8150 | 3200 | 7550 | 10500 |
| Count | 18 | 7 | 11 | 141 |

Ti (ppm)

Golf Bore

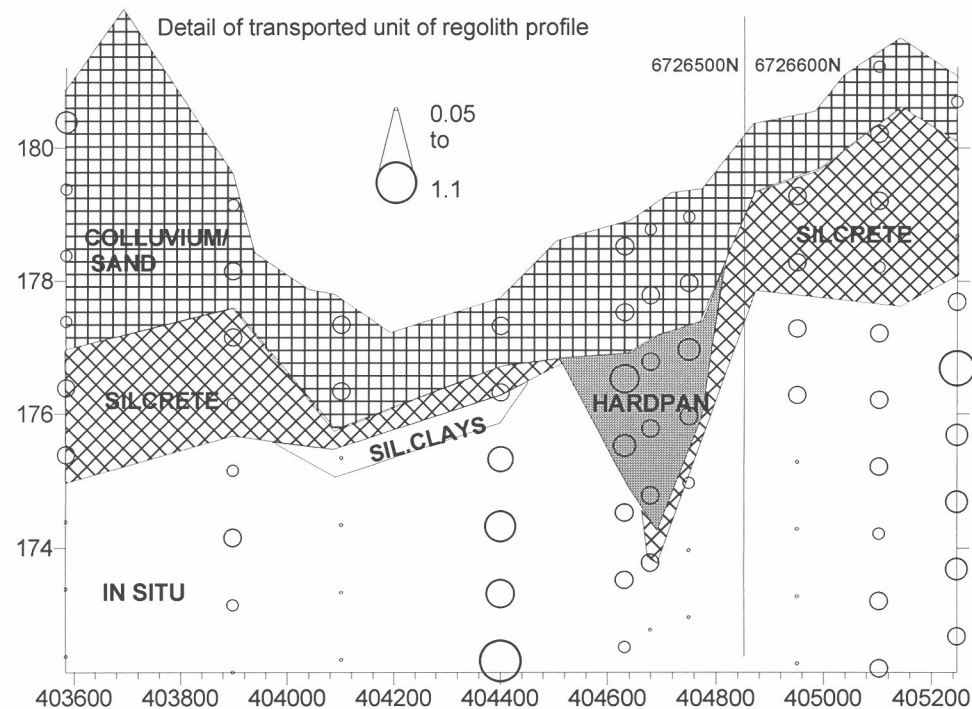
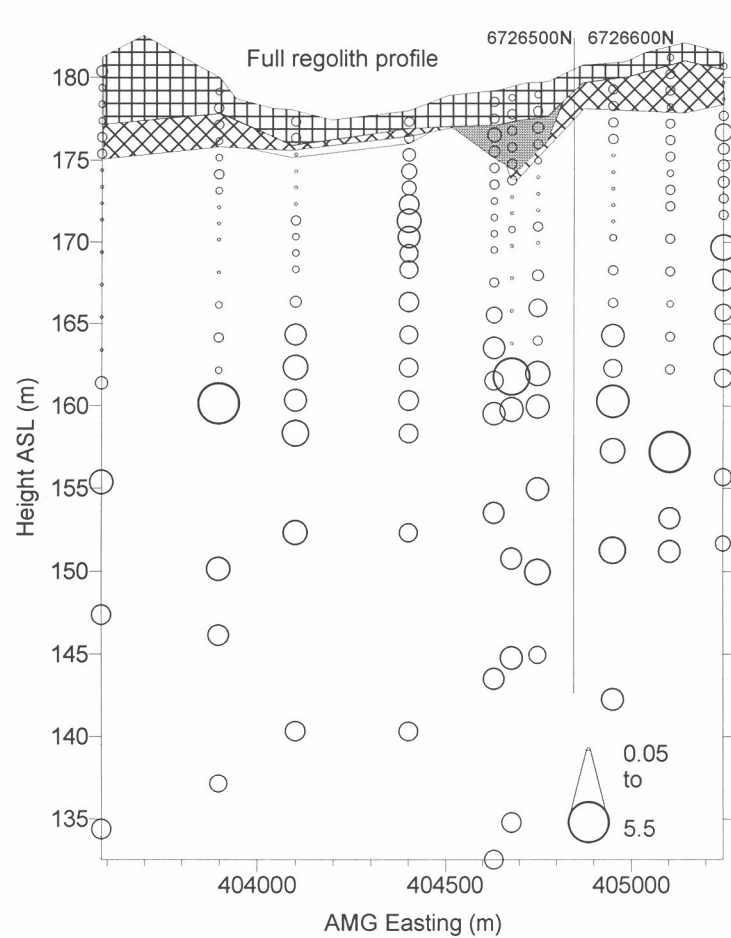
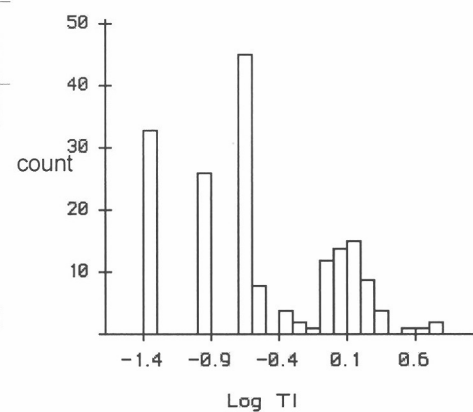


Figure A1a.44: Distribution and concentration of TI at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.2 | 0.3 | 0.2 | 0.7 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.1 |
| Median | 0.2 | 0.2 | 0.2 | 0.2 |
| Std Dev | 0.1 | 0.1 | 0.1 | 0.9 |
| Minimum | 0.1 | 0.2 | 0.05 | 0.05 |
| Maximum | 0.3 | 0.5 | 0.2 | 5.5 |
| Count | 18 | 7 | 11 | 141 |

TI (ppm)

Golf Bore

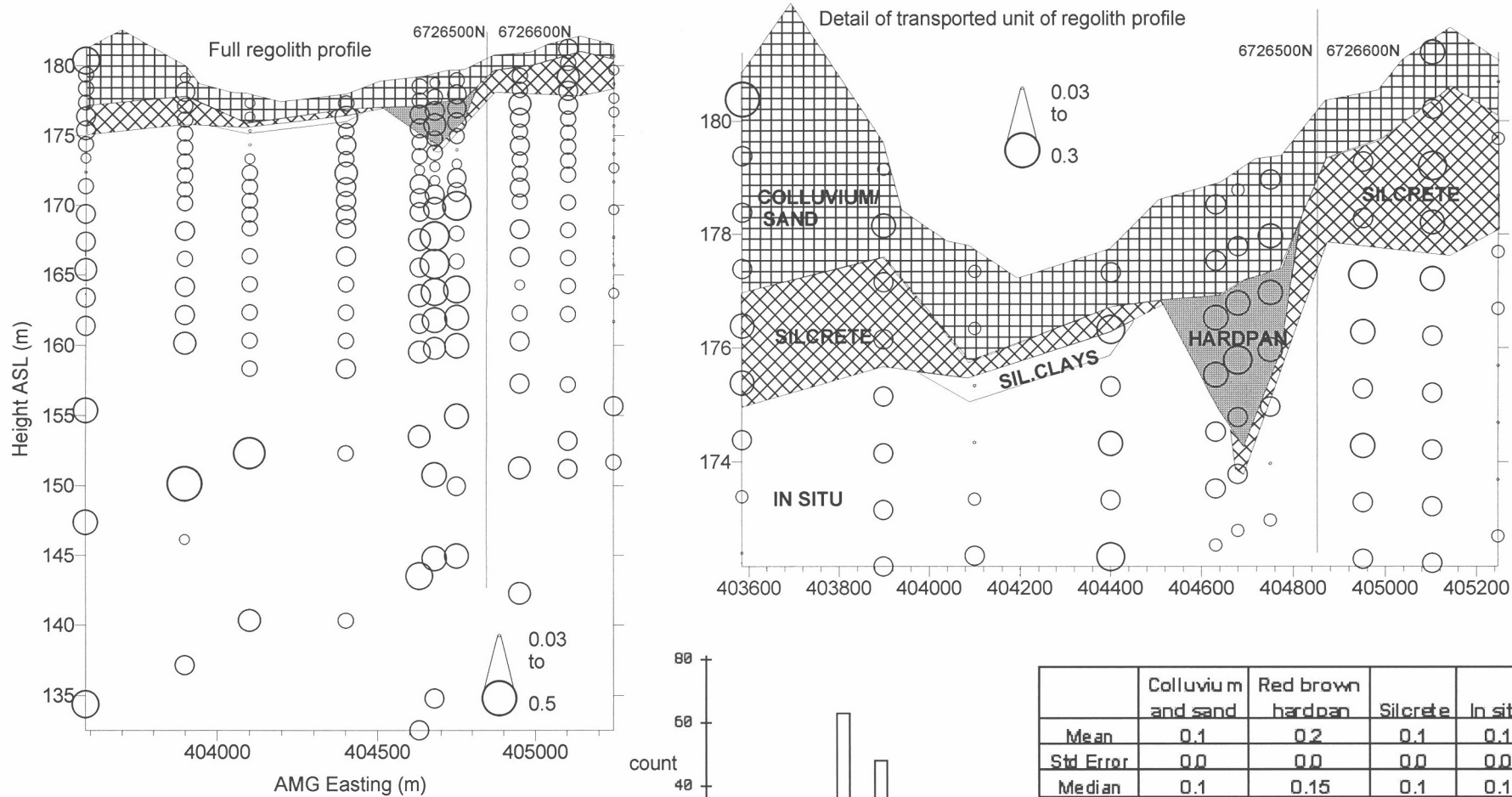


Figure A1a.45: Distribution and concentration of Tm at Golf Bore regolith part sections on 6726500-6726600N

Tm (ppm)

Golf Bore

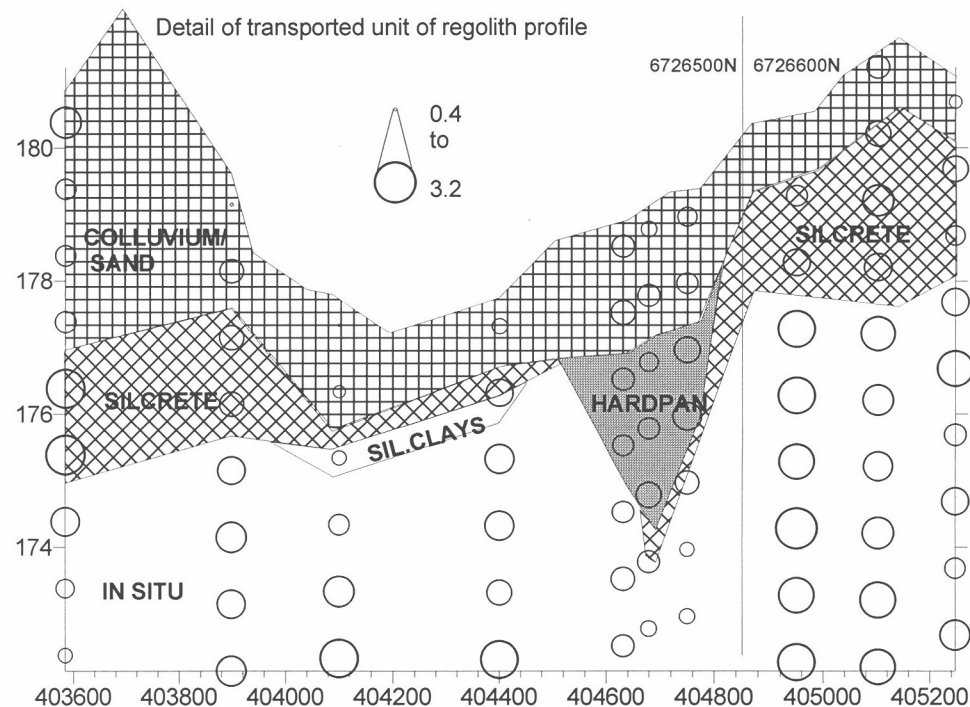
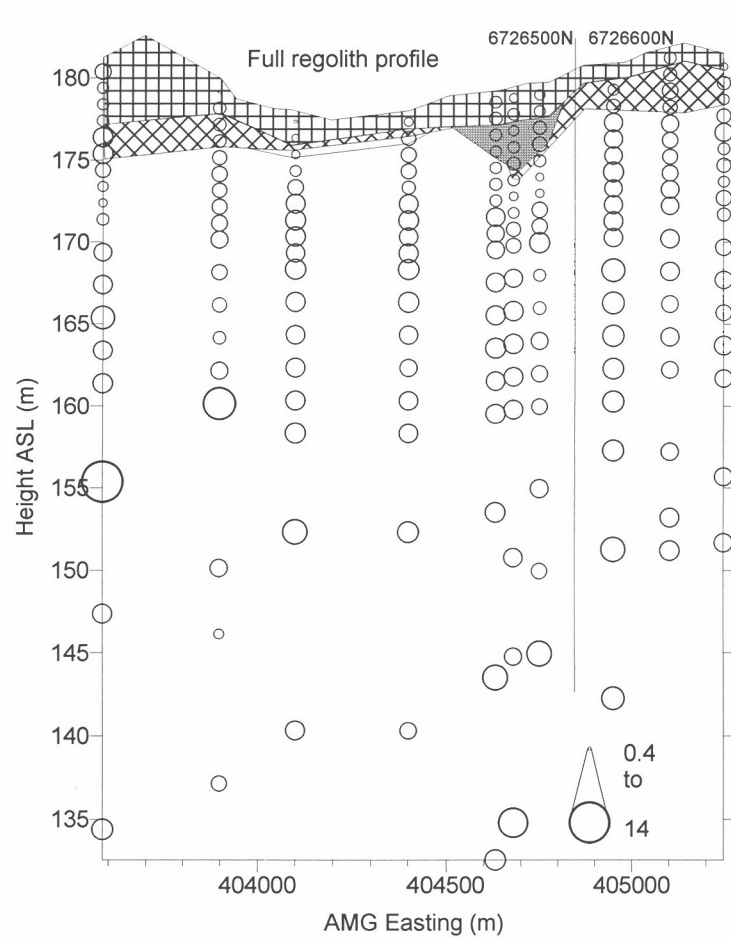
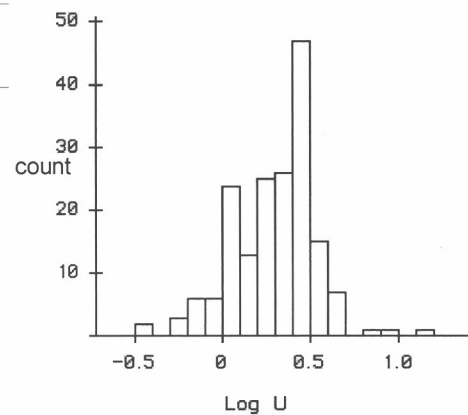


Figure A1a.46: Distribution and concentration of U at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.9 | 1.2 | 1.8 | 2.5 |
| Std Error | 0.1 | 0.1 | 0.2 | 0.1 |
| Median | 1 | 1.1 | 1.5 | 2.5 |
| Std Dev | 0.4 | 0.3 | 0.7 | 1.5 |
| Minimum | 0.4 | 0.8 | 0.8 | 0.8 |
| Maximum | 1.95 | 1.65 | 3 | 14 |
| Count | 18 | 7 | 11 | 141 |

U (ppm)

Golf Bore

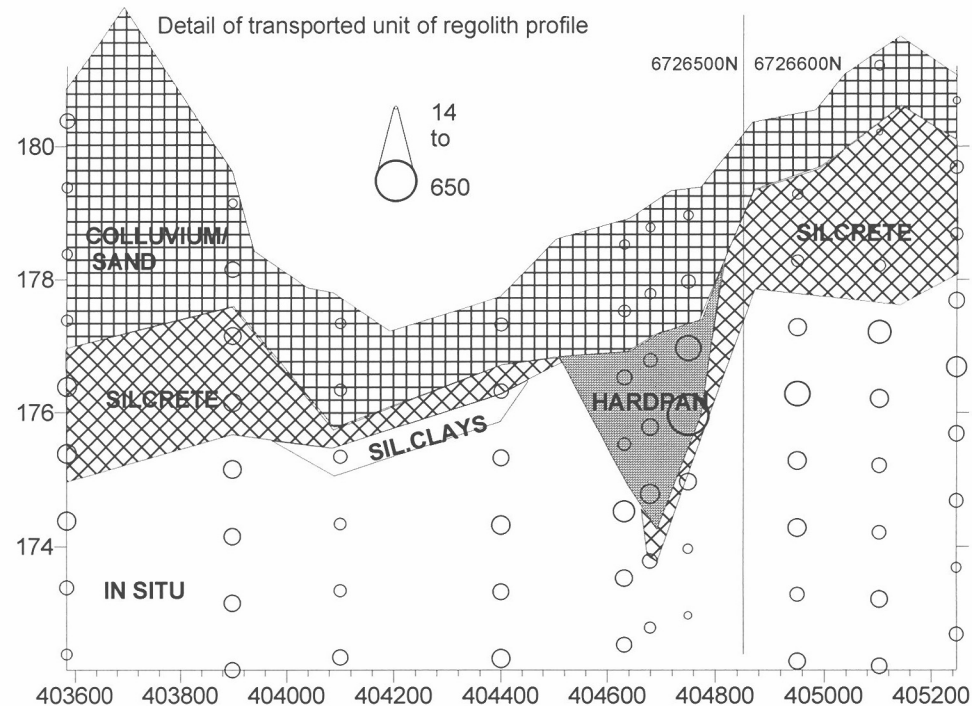
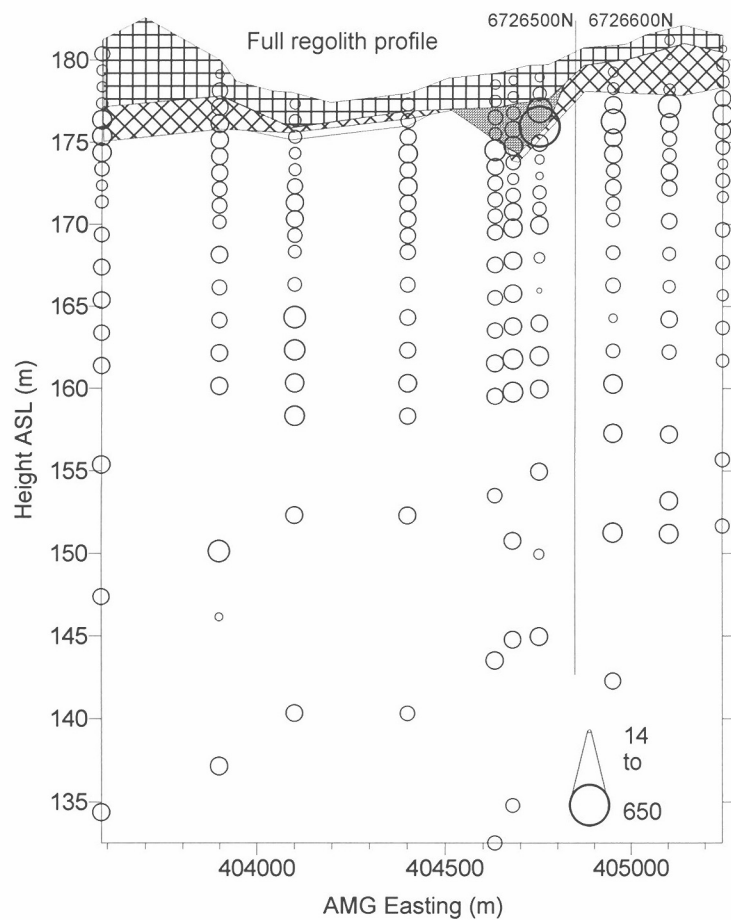
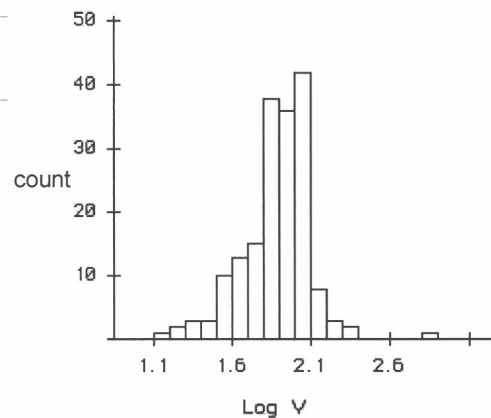


Figure A1a.47: Distribution and concentration of V at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 44 | 184 | 73 | 88 |
| Std Error | 4 | 81 | 13 | 3 |
| Median | 39 | 95 | 58 | 88 |
| Std Dev | 17 | 214 | 42 | 32 |
| Minimum | 22 | 53 | 14 | 16 |
| Maximum | 85 | 650 | 125 | 220 |
| Count | 18 | 7 | 11 | 141 |

V (ppm)

Golf Bore

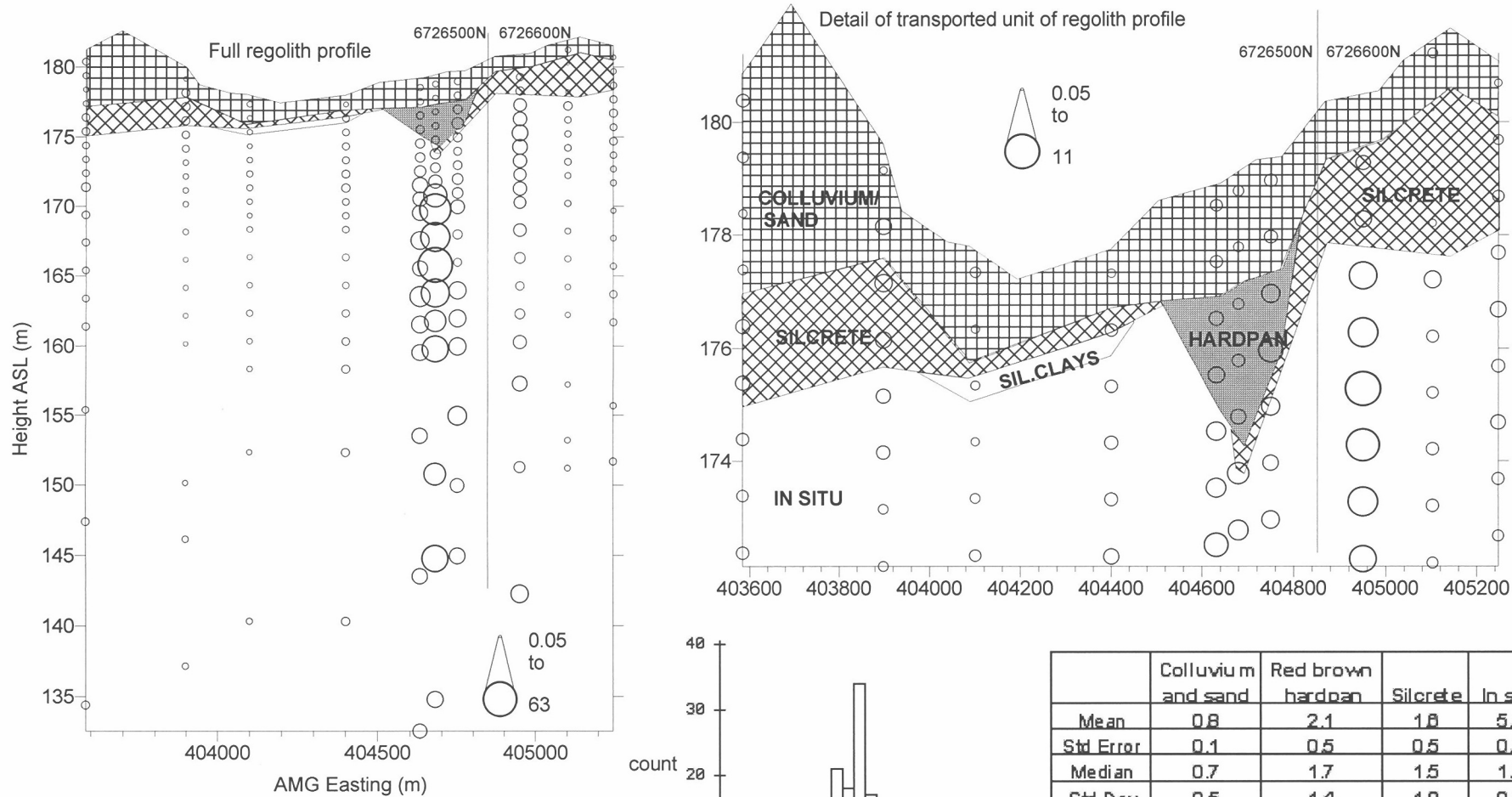


Figure A1a.48: Distribution and concentration of W at Golf Bore regolith part sections on 6726500-6726600N

W (ppm)

Golf Bore

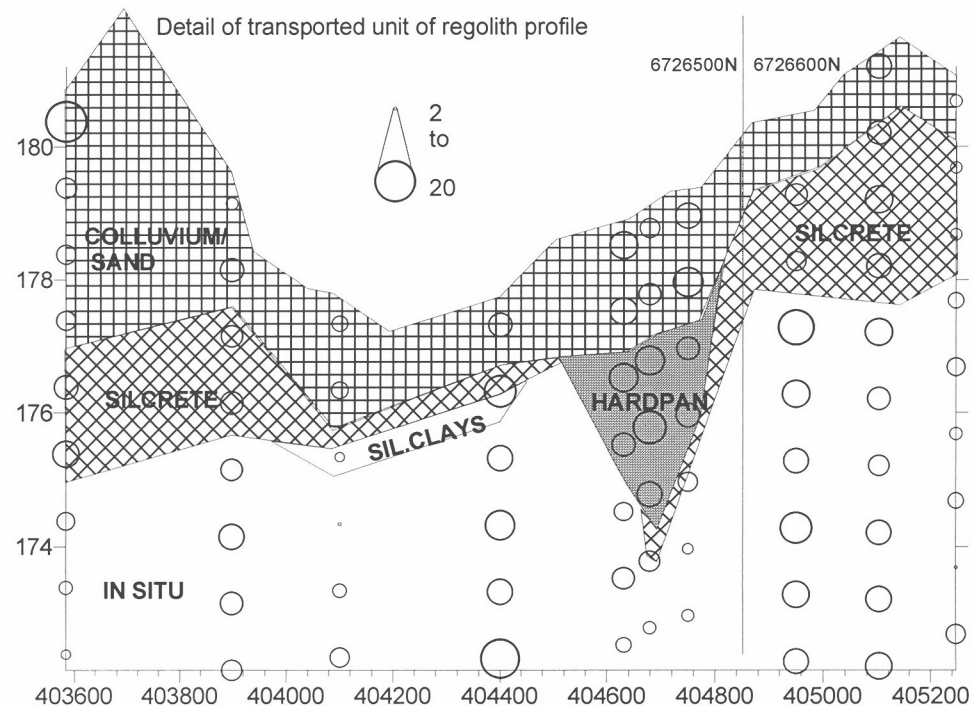
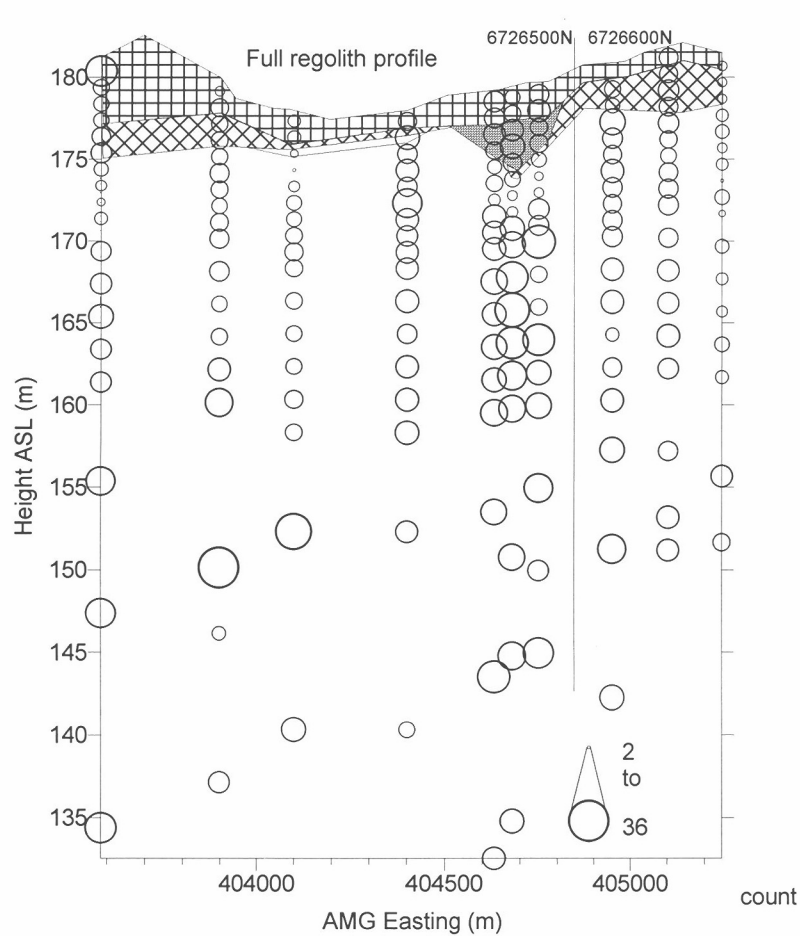
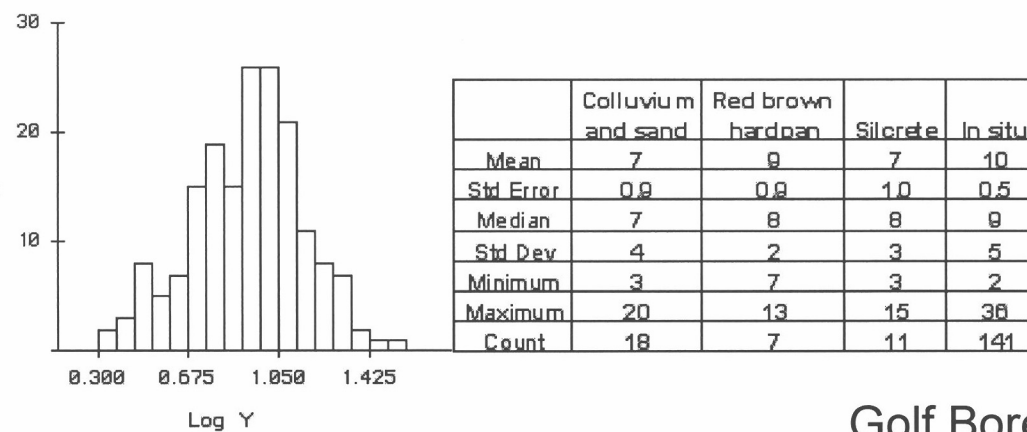


Figure A1a.49: Distribution and concentration of Y at Golf Bore regolith part sections on 6726500-6726600N



Y (ppm)

Golf Bore

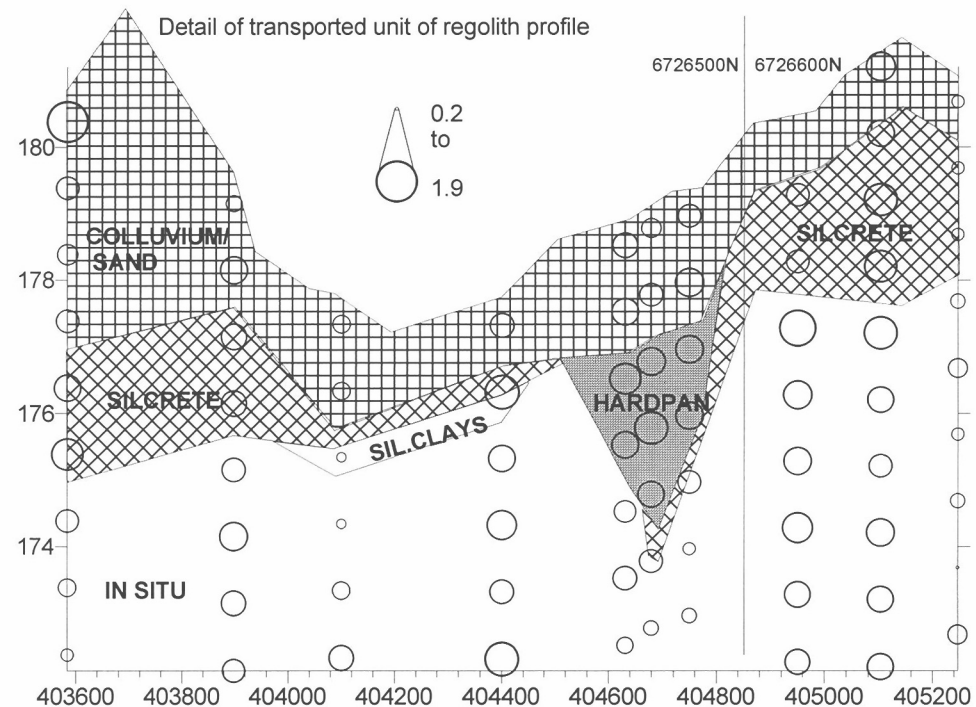
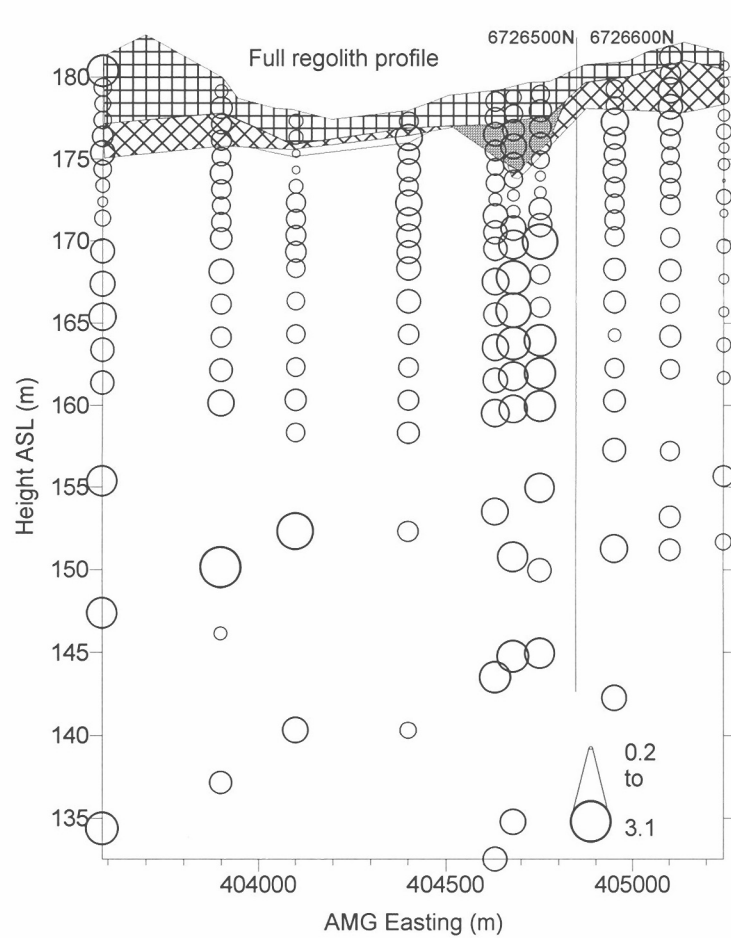
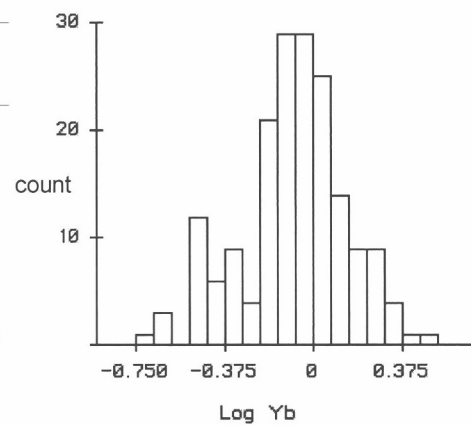


Figure A1a.50: Distribution and concentration of Yb at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 0.7 | 1.0 | 0.9 | 1.0 |
| Std Error | 0.1 | 0.1 | 0.1 | 0.0 |
| Median | 0.7 | 0.9 | 0.9 | 0.9 |
| Std Dev | 0.3 | 0.1 | 0.4 | 0.5 |
| Minimum | 0.3 | 0.8 | 0.3 | 0.2 |
| Maximum | 1.9 | 1.2 | 1.5 | 3.1 |
| Count | 18 | 7 | 11 | 141 |

Yb (ppm)

Golf Bore

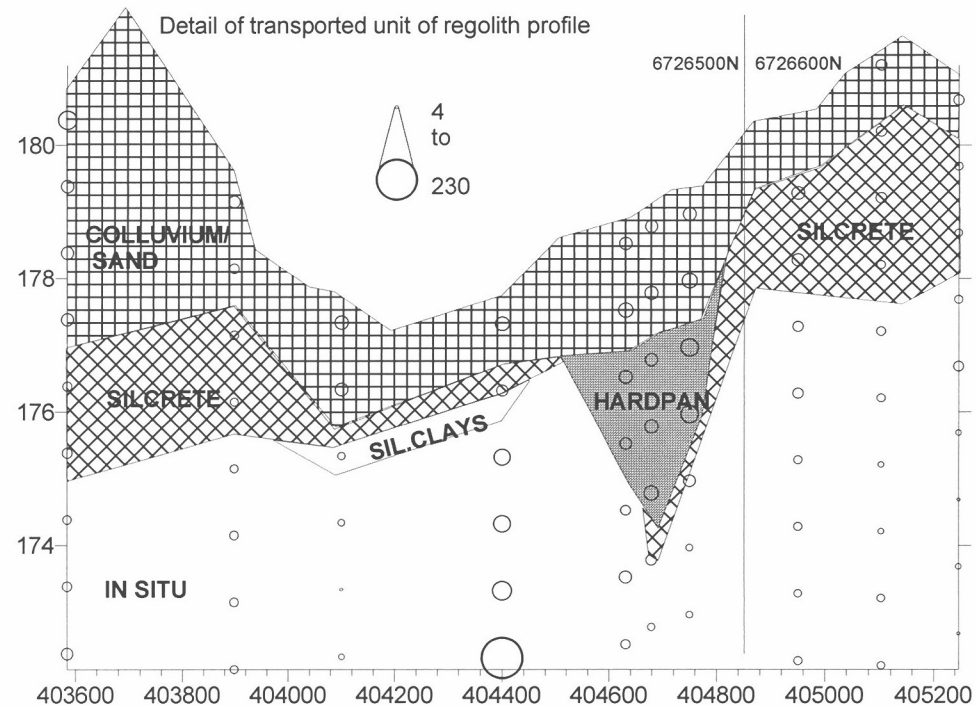
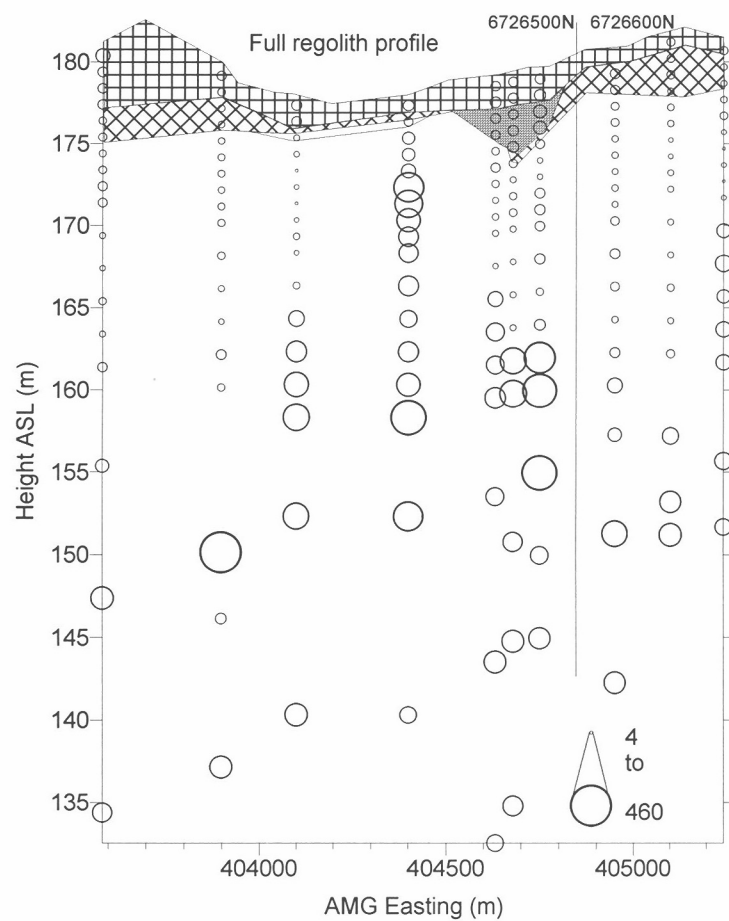
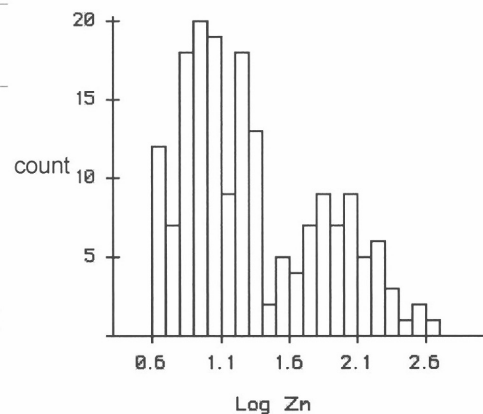


Figure A1a.51: Distribution and concentration of Zn at Golf Bore regolith part sections on 6726500-6726600N



| | Colluvium and sand | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------|-------------------|----------|---------|
| Mean | 20 | 24 | 11 | 54 |
| Std Error | 2 | 3 | 1 | 8 |
| Median | 19 | 21 | 10 | 15 |
| Std Dev | 7 | 9 | 3 | 78 |
| Minimum | 11 | 15 | 7 | 4 |
| Maximum | 43 | 37 | 17 | 460 |
| Count | 18 | 7 | 11 | 141 |

Zn (ppm)

Golf Bore

Appendix A1b: Jumbuck

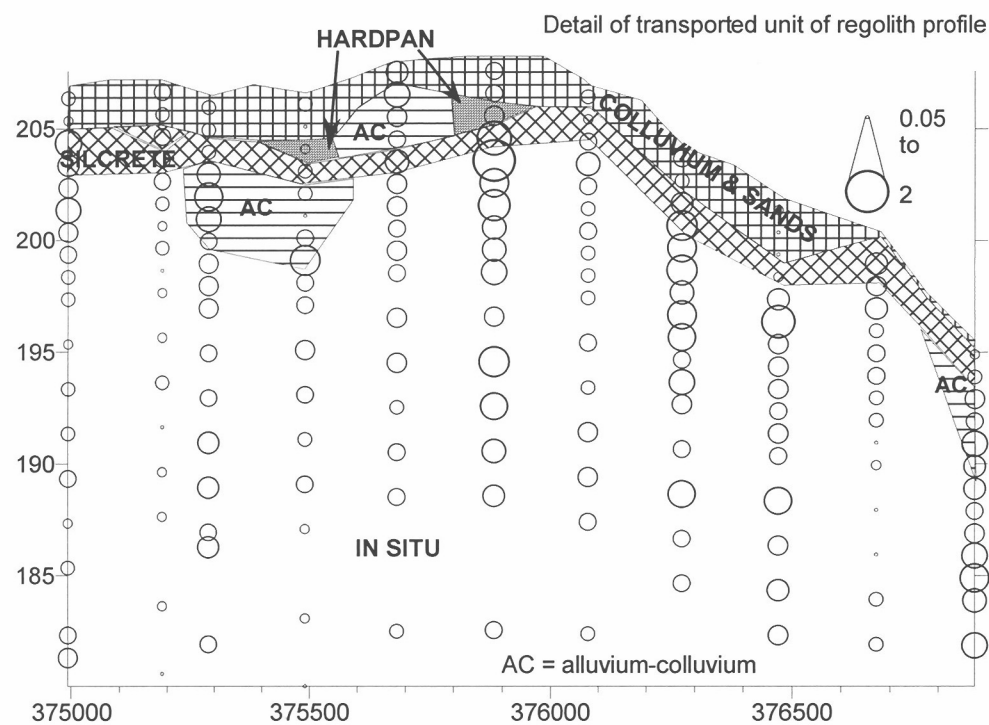
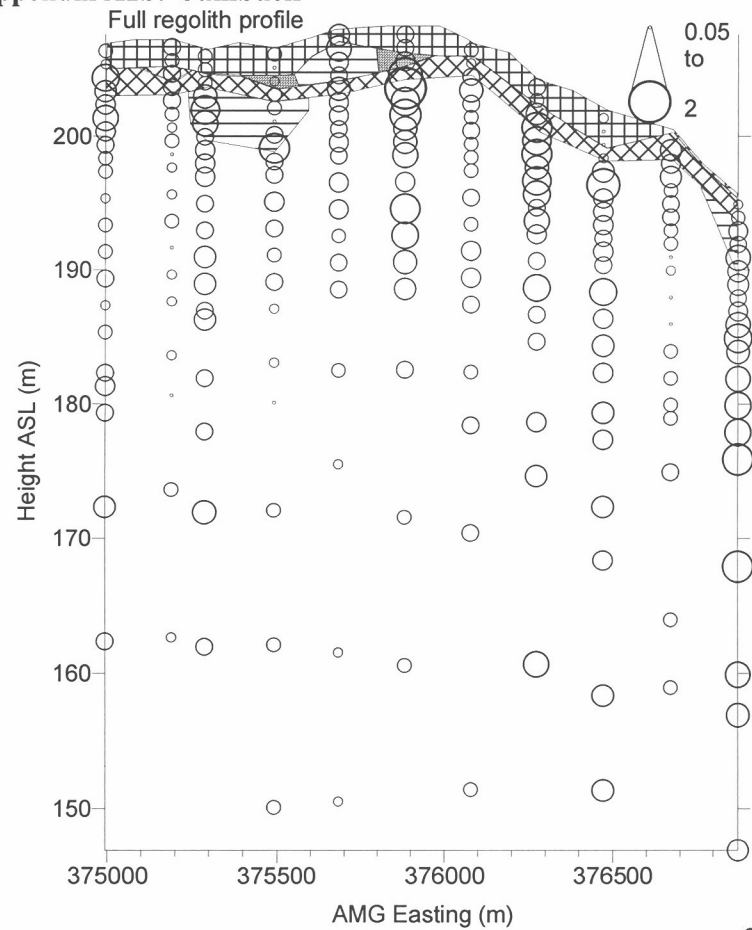
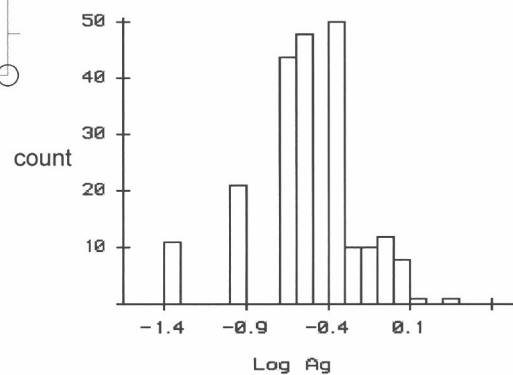


Figure A1b.01: Distribution and concentration of Au at Jumbuck regolith section on 6690450N.



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.49 | 0.39 | 0.20 | 0.44 |
| Std Error | 0.07 | 0.02 | 0.03 | 0.08 |
| Median | 0.4 | 0.3 | 0.2 | 0.3 |
| Std Dev | 0.28 | 0.27 | 0.12 | 0.34 |
| Minimum | 0.05 | 0.05 | 0.05 | 0.1 |
| Maximum | 1 | 2 | 0.5 | 1.3 |
| Count | 14 | 166 | 17 | 17 |

Ag (ppm)

Jumbuck

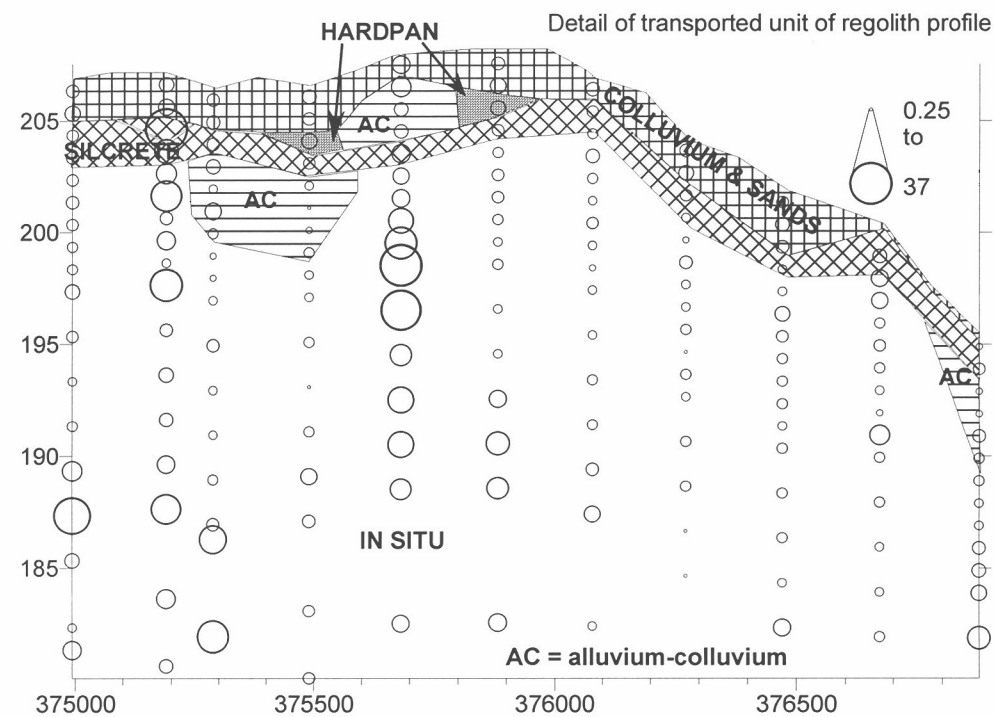
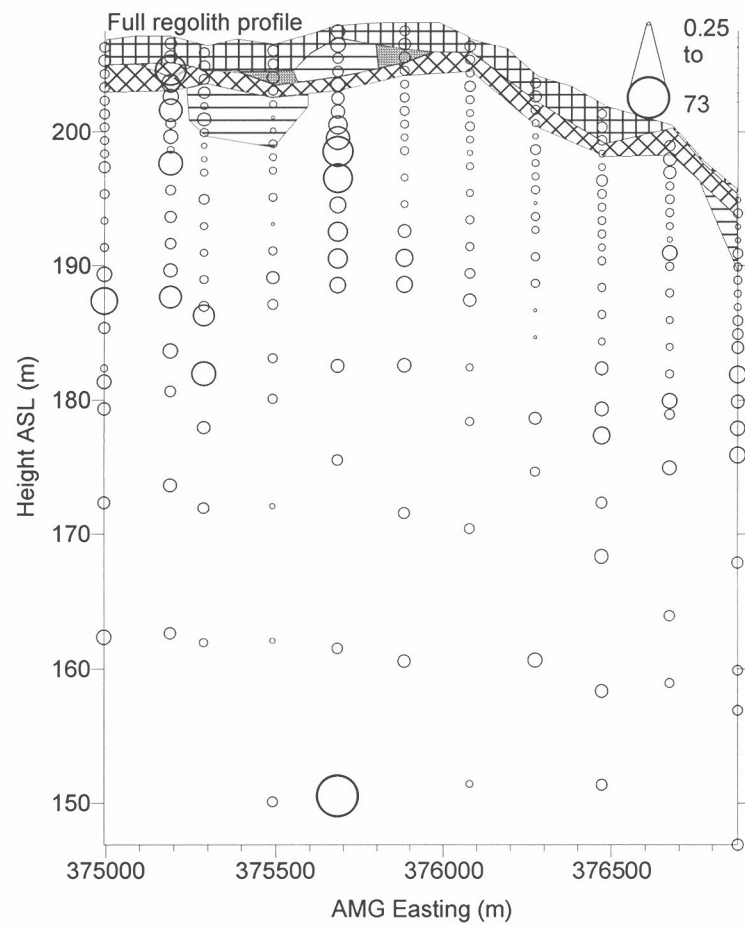
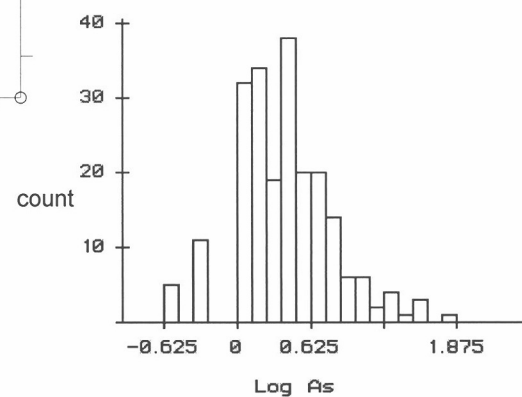


Figure A1b.02: Distribution and concentration of As at Jumbuck regolith section on 6690450N.

As (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 2.2 | 4.8 | 3.2 | 4.9 |
| Std Error | 0.5 | 0.8 | 0.2 | 2.1 |
| Median | 1.5 | 2.5 | 3 | 2 |
| Std Dev | 2.0 | 7.7 | 0.8 | 8.5 |
| Minimum | 0.25 | 0.25 | 2 | 0.5 |
| Maximum | 7 | 73 | 5.5 | 38.5 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck

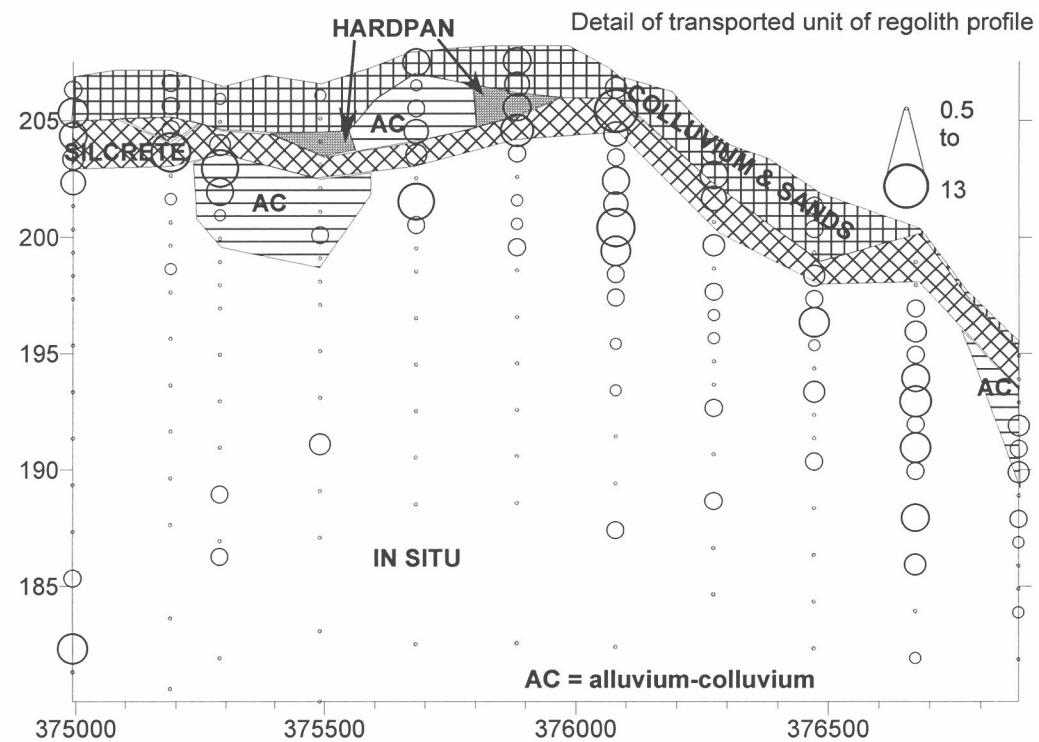
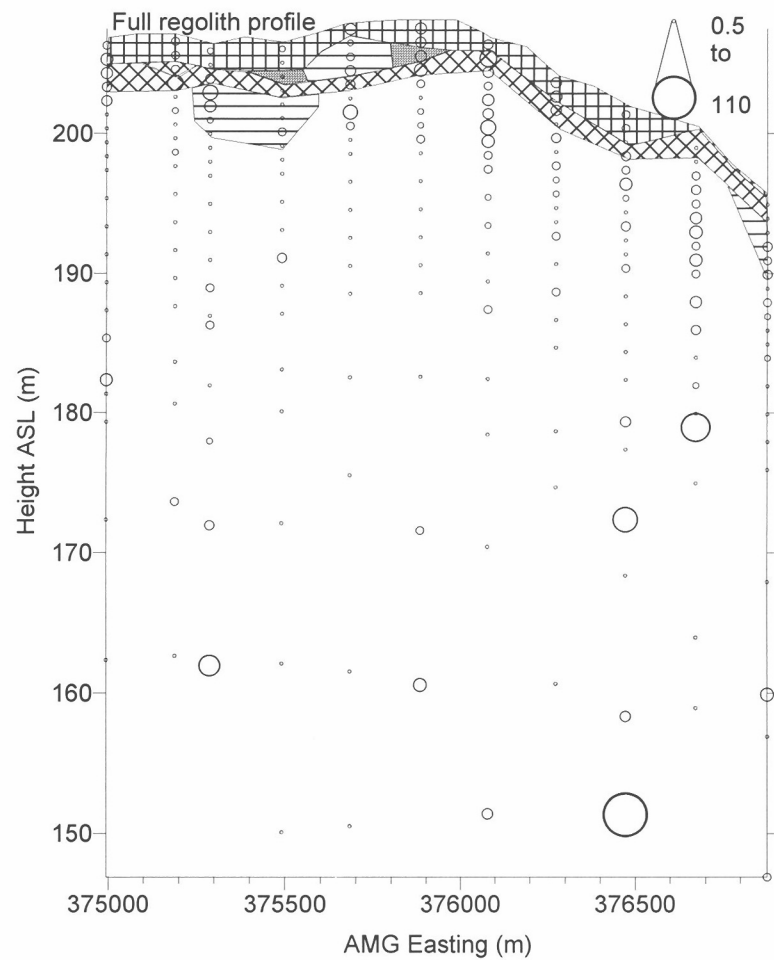
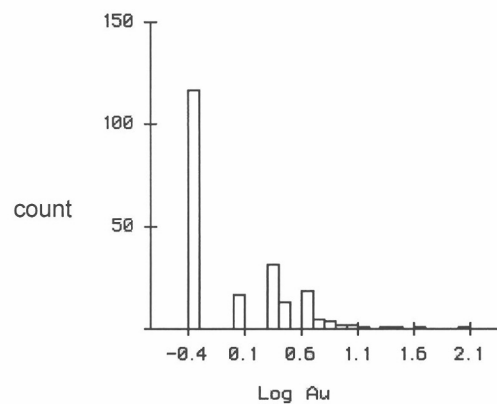


Figure B3: Distribution and concentration of Au at Jumbuck regolith section on 6690450N.

Au (ppb)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 2.3 | 2.6 | 2.7 | 3.6 |
| Std Error | 0.7 | 0.7 | 0.4 | 0.9 |
| Median | 1.5 | 0.5 | 2 | 3 |
| Std Dev | 2.5 | 9.6 | 1.8 | 3.6 |
| Minimum | 0.5 | 0.5 | 0.5 | 0.5 |
| Maximum | 9.5 | 110 | 6 | 13 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

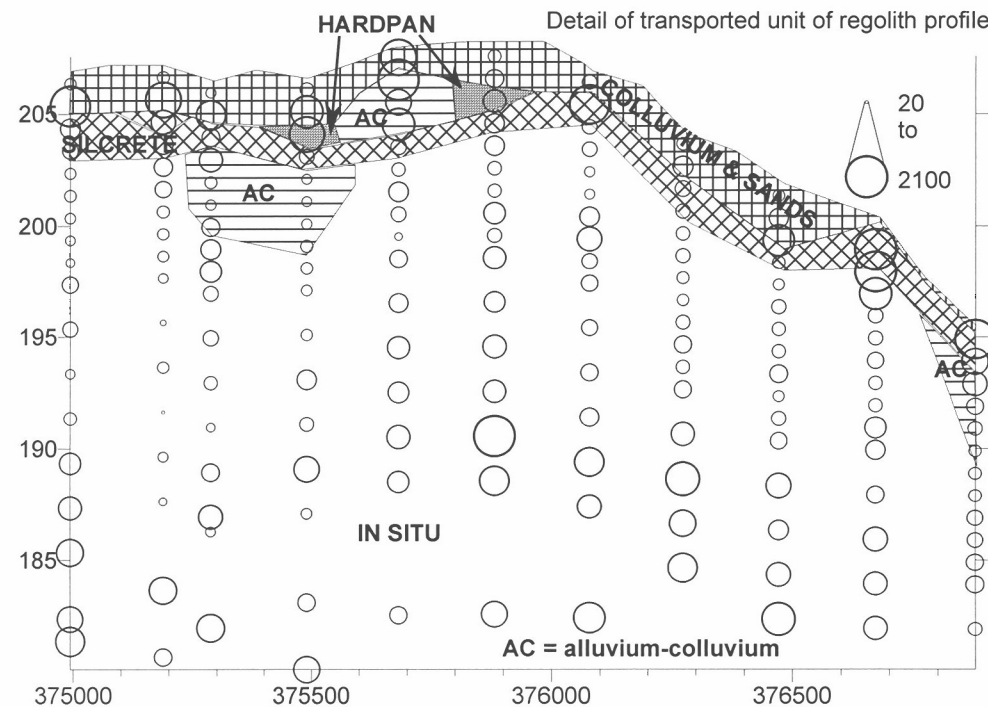
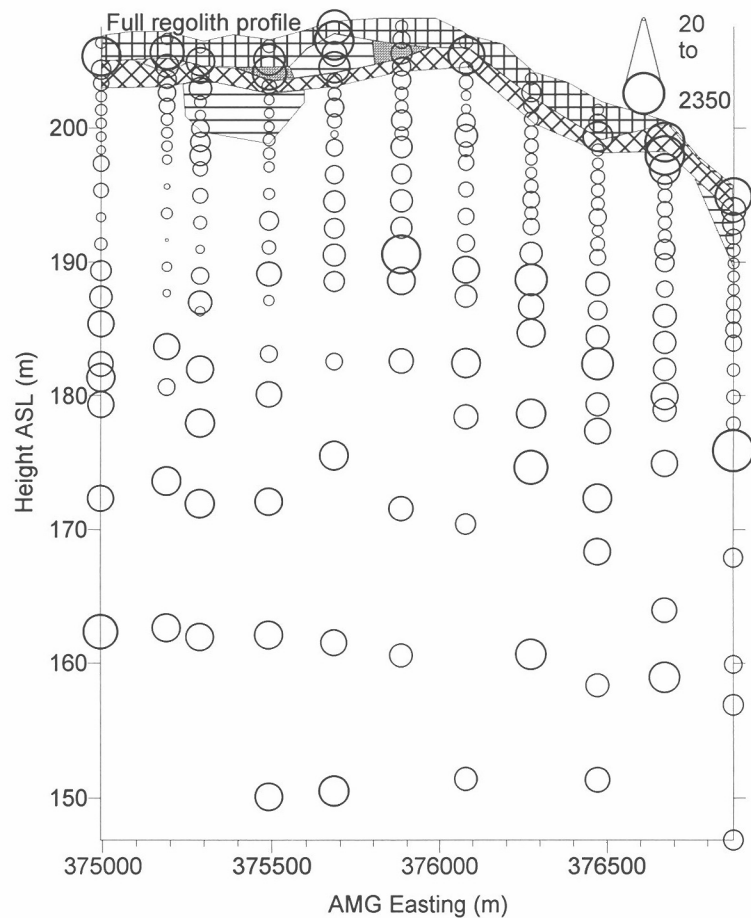
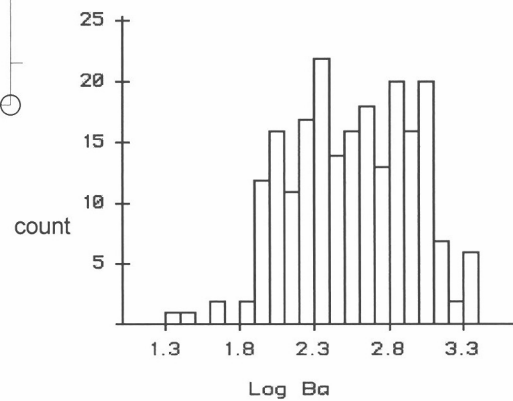


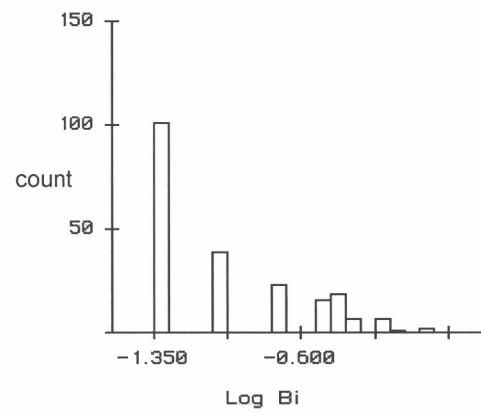
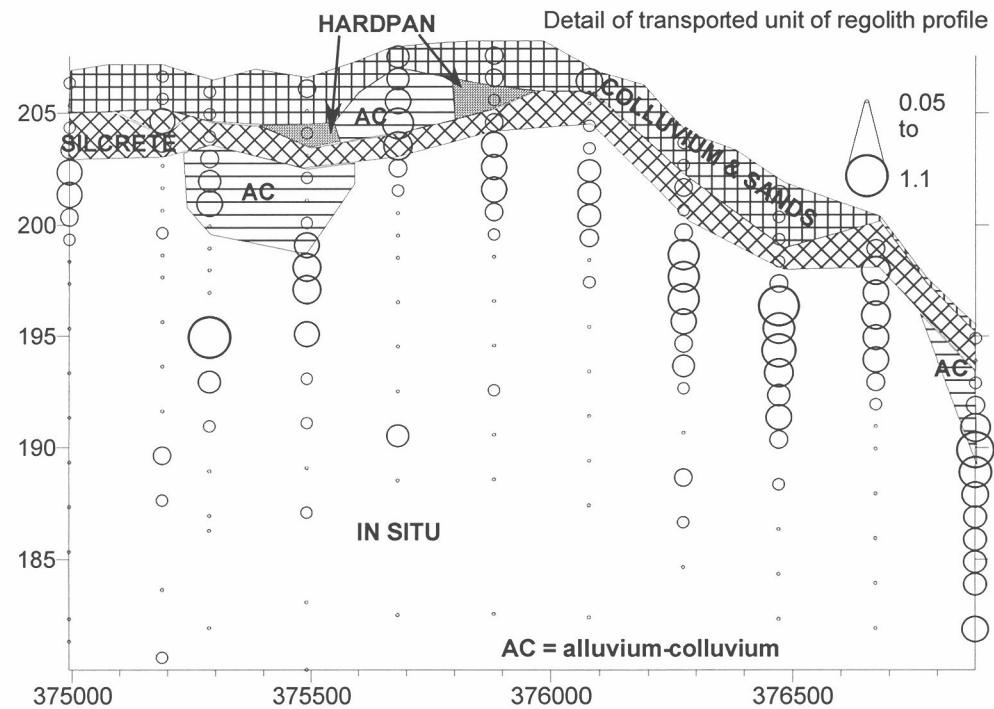
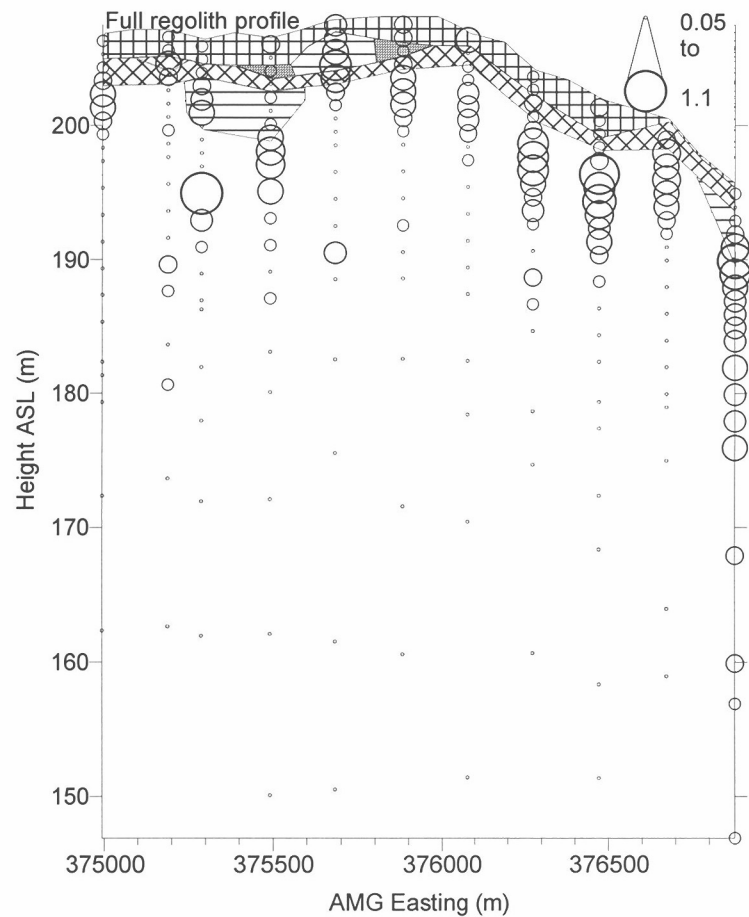
Figure A1b.04: Distribution and concentration of Ba at Jumbuck regolith section on 6690450N.

Ba (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 478 | 498 | 831 | 724 |
| Std Error | 151 | 31 | 153 | 178 |
| Median | 218 | 385 | 340 | 390 |
| Std Dev | 568 | 401 | 831 | 728 |
| Minimum | 85 | 20 | 80 | 145 |
| Maximum | 2050 | 2350 | 2000 | 2100 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.28 | 0.18 | 0.15 | 0.19 |
| Std Error | 0.05 | 0.01 | 0.02 | 0.04 |
| Median | 0.25 | 0.05 | 0.1 | 0.1 |
| Std Dev | 0.18 | 0.19 | 0.09 | 0.15 |
| Minimum | 0.05 | 0.05 | 0.05 | 0.05 |
| Maximum | 0.8 | 1.1 | 0.4 | 0.5 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck

Figure A1b.05: Distribution and concentration of Bi at Jumbuck regolith section on 6690450N.

Bi (ppm)

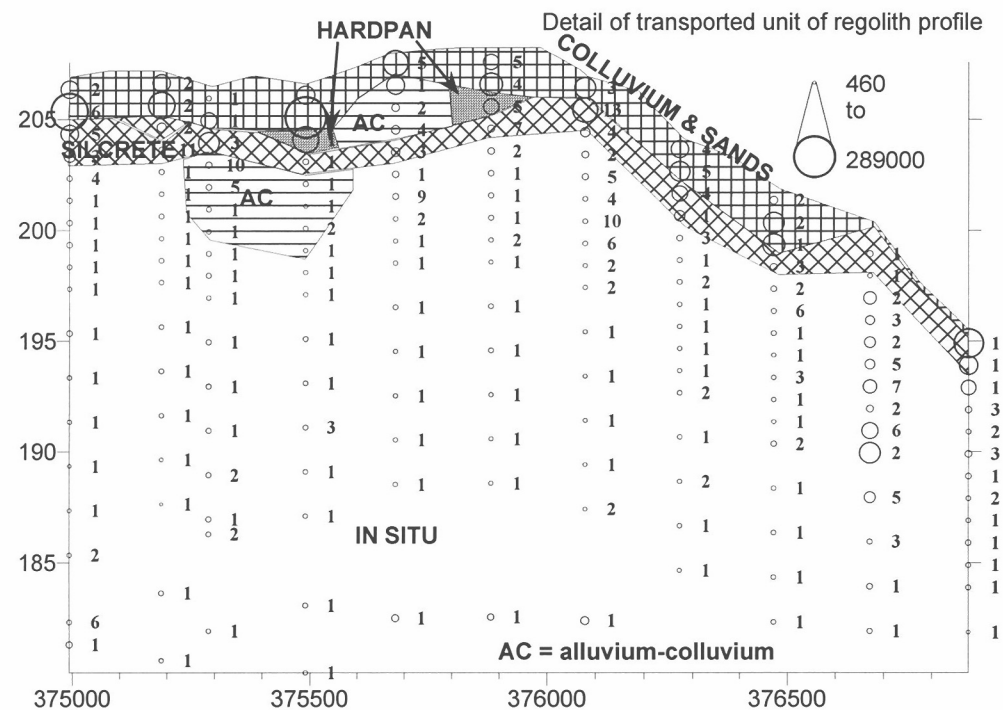
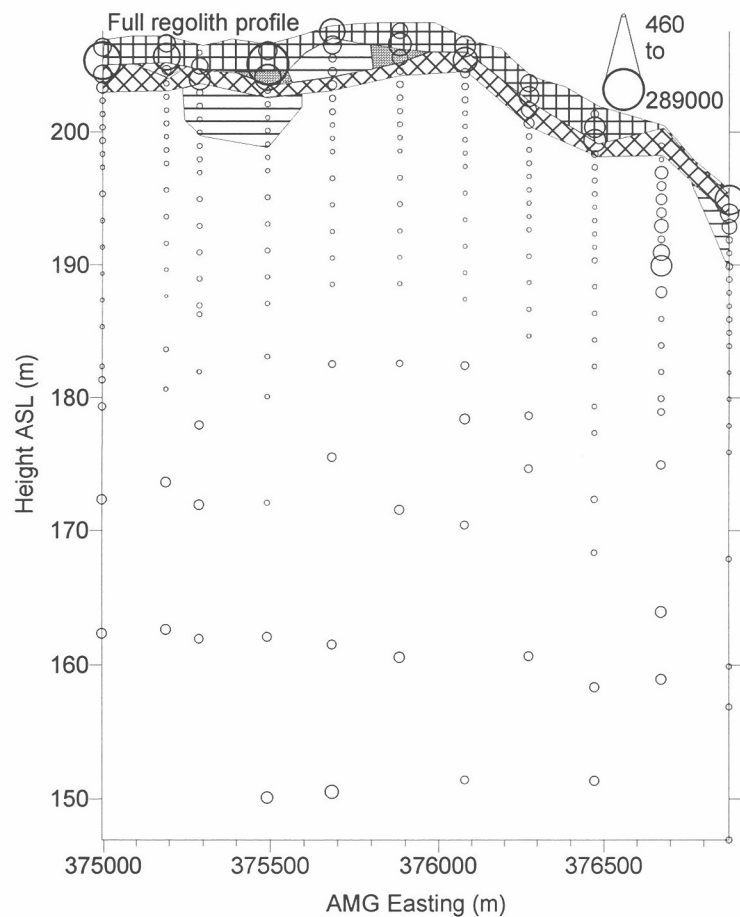
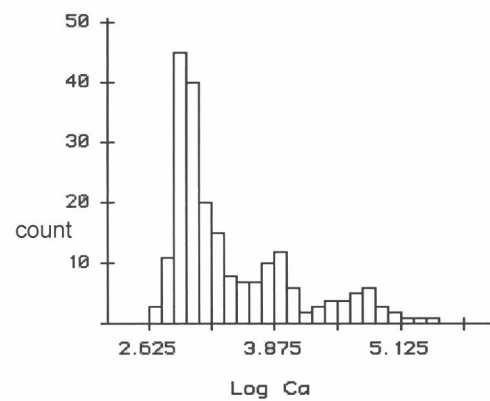


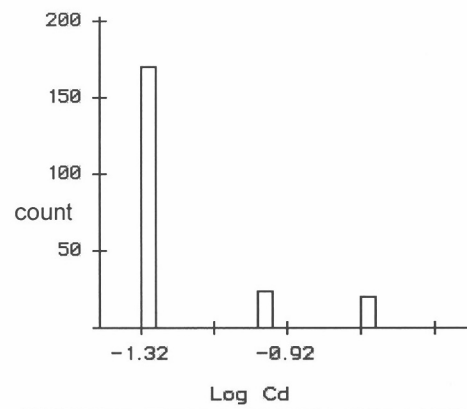
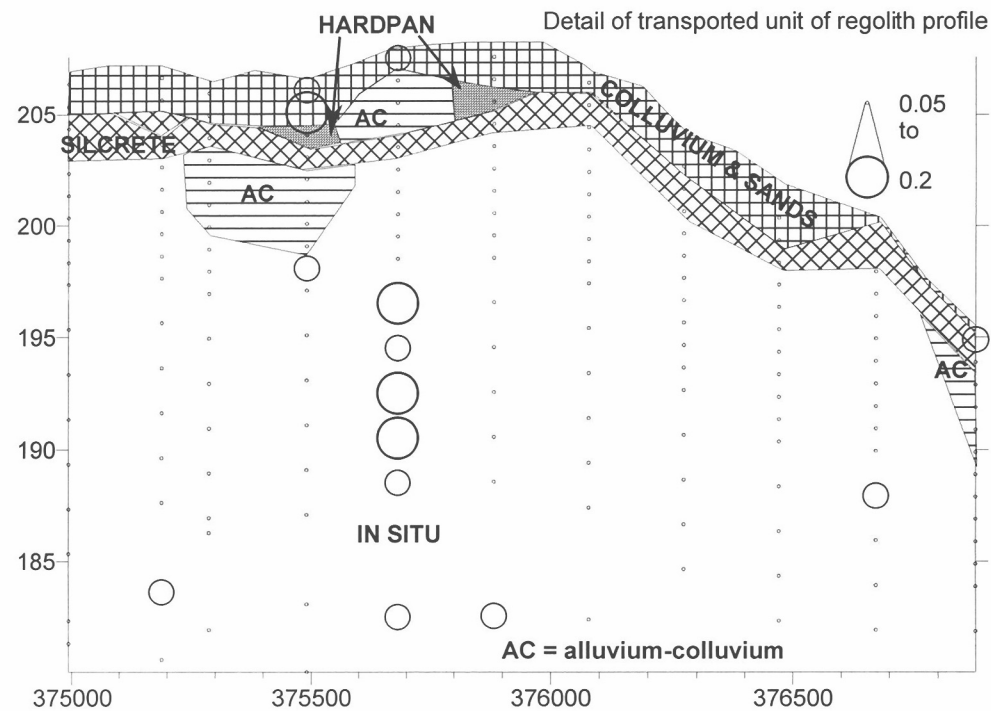
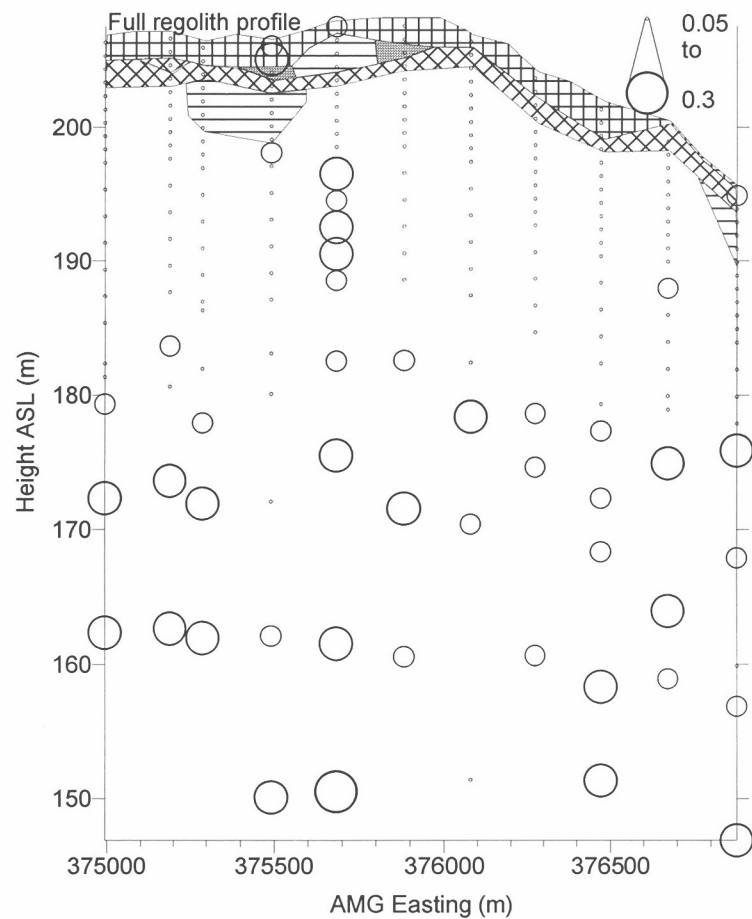
Figure A1b.06: Distribution and concentration of Ca at Jumbuck regolith section on 6690450N.

Ca (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 6082 | 3422 | 76328 | 28053 |
| Std Error | 3455 | 500 | 18287 | 9328 |
| Median | 1800 | 1200 | 56300 | 7950 |
| Std Dev | 12929 | 6448 | 75400 | 38450 |
| Minimum | 700 | 480 | 1100 | 950 |
| Maximum | 44800 | 62300 | 289000 | 137000 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

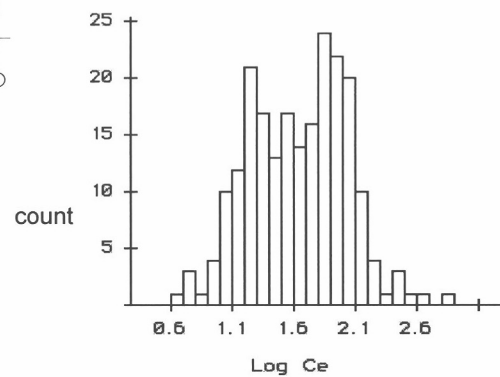
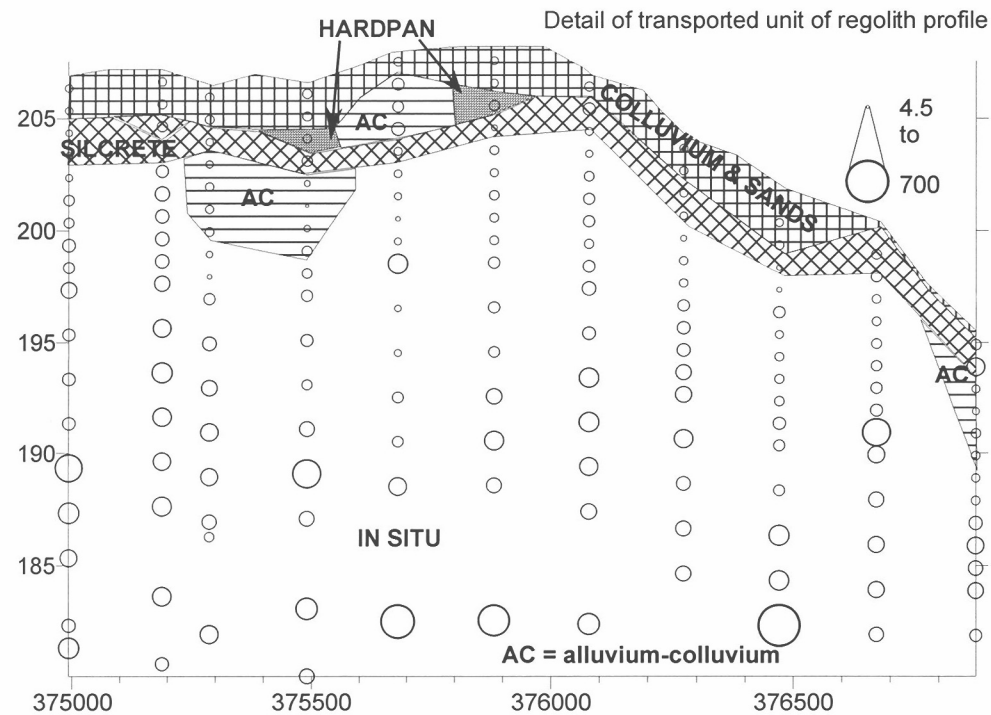
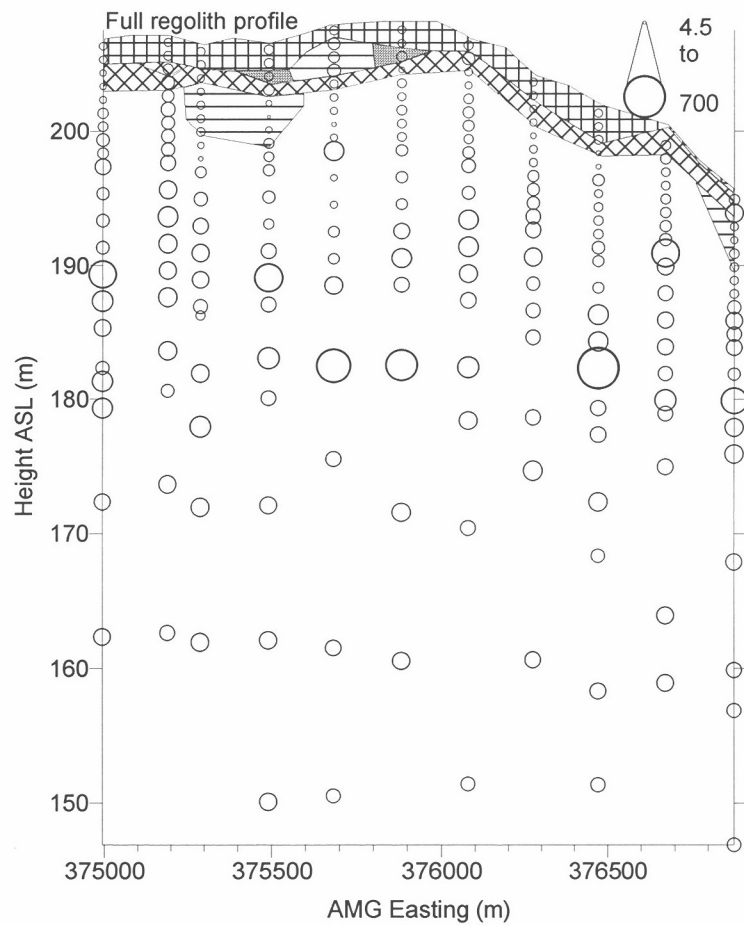


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.05 | 0.08 | 0.08 | 0.05 |
| Std Error | 0.00 | 0.00 | 0.01 | 0.00 |
| Median | 0.05 | 0.05 | 0.05 | 0.05 |
| Std Dev | 0.00 | 0.05 | 0.04 | 0.01 |
| Minimum | 0.05 | 0.05 | 0.05 | 0.05 |
| Maximum | 0.05 | 0.3 | 0.2 | 0.1 |
| Count | 14 | 188 | 17 | 17 |

Figure A1b.07: Distribution and concentration of Cd at Jumbuck regolith section on 6690450N.

Cd (ppm)

Jumbuck

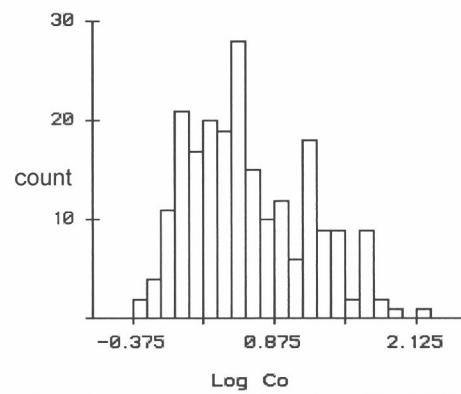
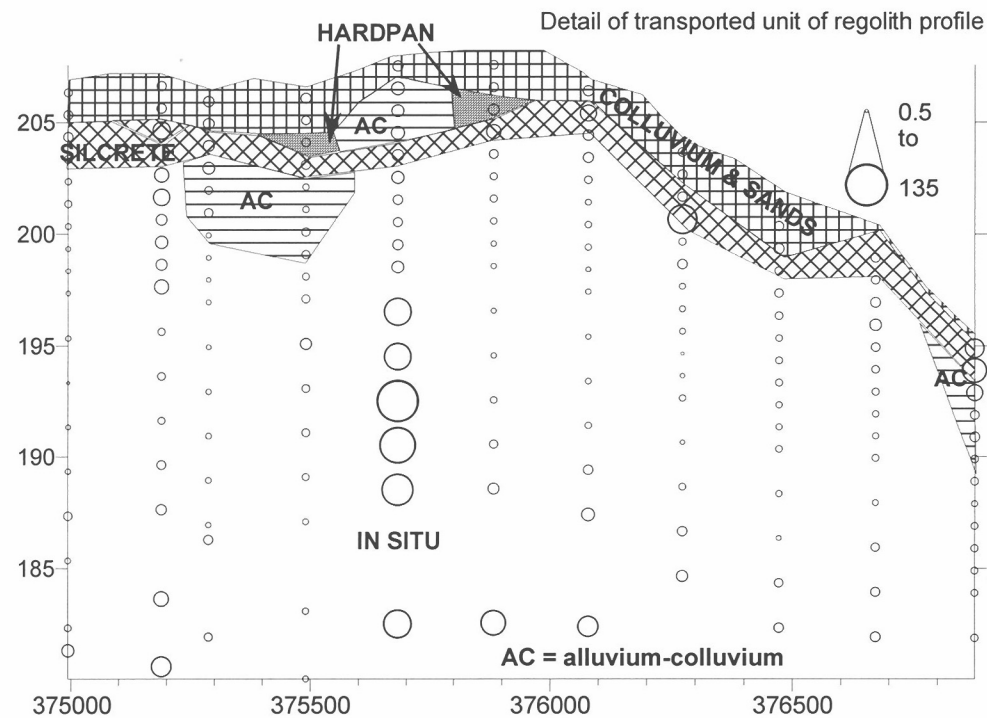
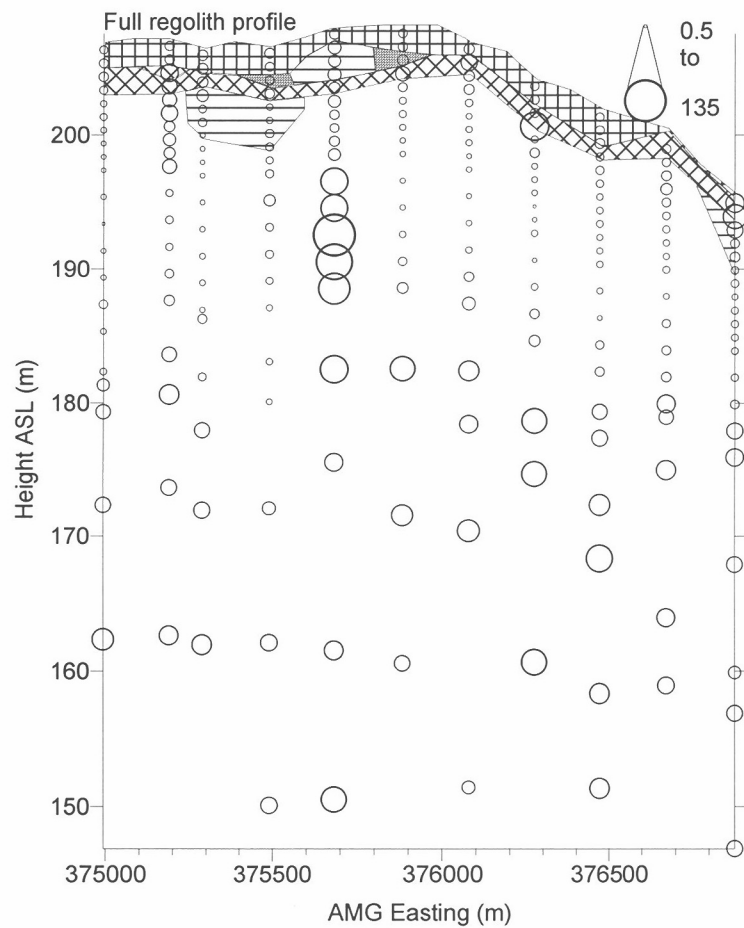


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 21 | 79 | 18 | 27 |
| Std Error | 3 | 8 | 1 | 8 |
| Median | 17 | 87 | 17 | 18 |
| Std Dev | 13 | 80 | 3 | 25 |
| Minimum | 5 | 8 | 14 | 7 |
| Maximum | 50 | 700 | 23 | 110 |
| Count | 14 | 186 | 17 | 17 |

Figure A1b.08: Distribution and concentration of Ce at Jumbuck regolith section on 6690450N.

Ce (ppm)

Jumbuck

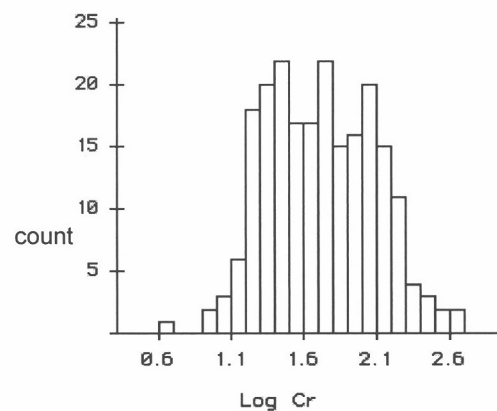
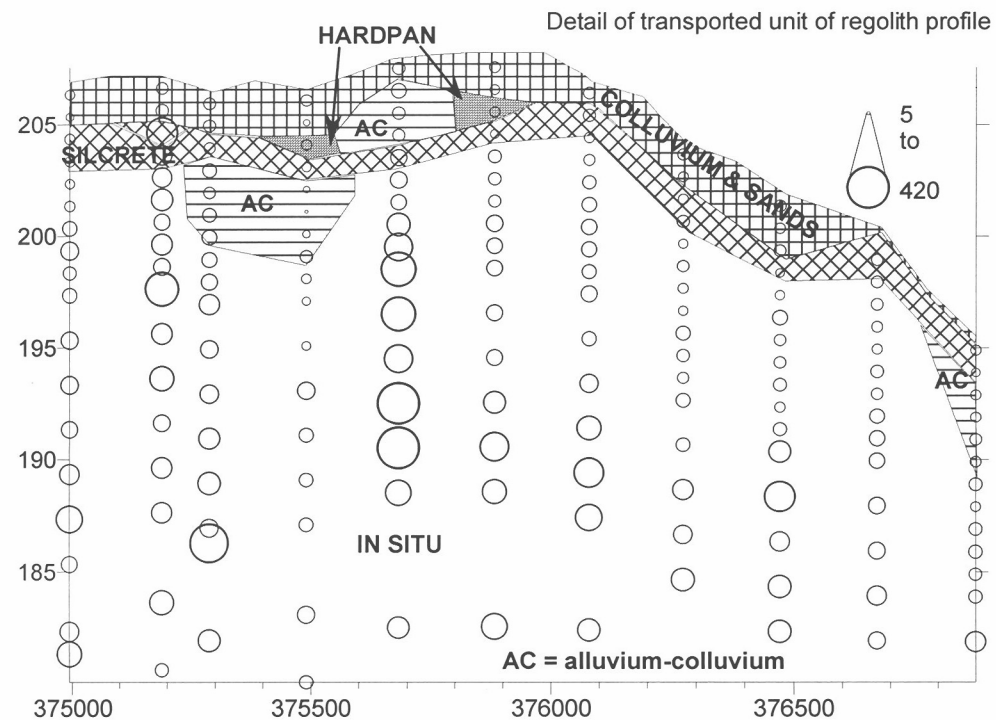
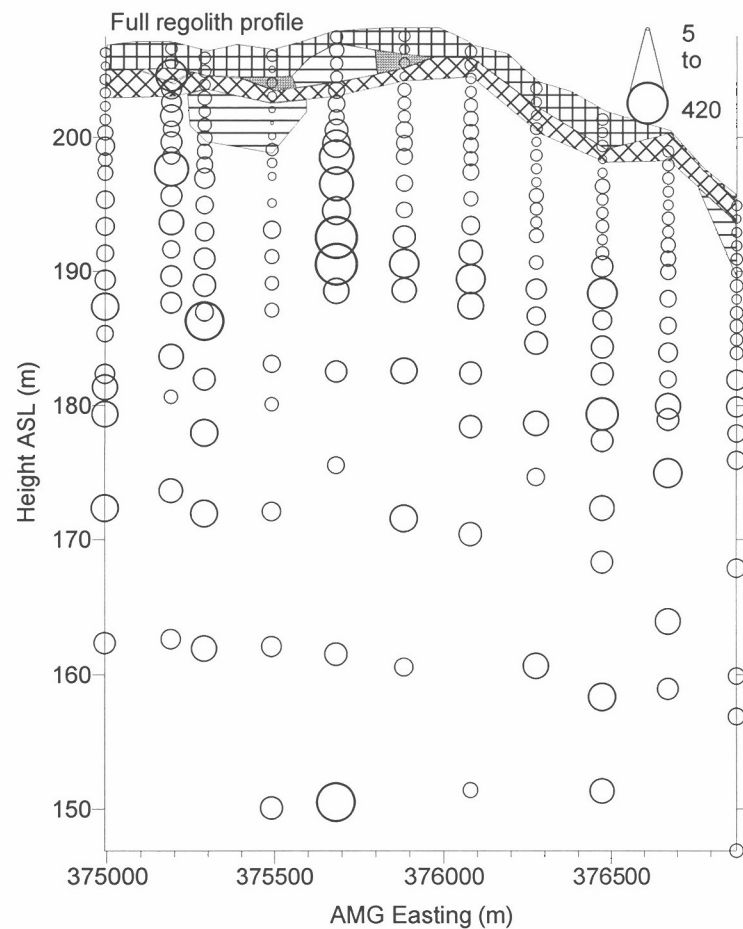


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 5 | 11 | 4 | 13 |
| Std Error | 1 | 1.4 | 0.2 | 3.8 |
| Median | 3 | 3 | 4 | 8 |
| Std Dev | 4 | 18 | 1 | 18 |
| Minimum | 0.9 | 0.5 | 2.7 | 2.8 |
| Maximum | 18 | 135 | 6 | 81 |
| Count | 14 | 188 | 17 | 17 |

Figure A1b.09: Distribution and concentration of Co at Jumbuck regolith section on 6690450N.

Co (ppm)

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 25 | 88 | 22 | 38 |
| Std Error | 3.3 | 8 | 1 | 13 |
| Median | 26 | 88 | 24 | 21 |
| Std Dev | 12 | 73 | 8 | 53 |
| Minimum | 5 | 12 | 8 | 13 |
| Maximum | 44 | 420 | 31 | 230 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.10: Distribution and concentration of Cr at Jumbuck regolith section on 6690450N.

Cr (ppm)

Jumbuck

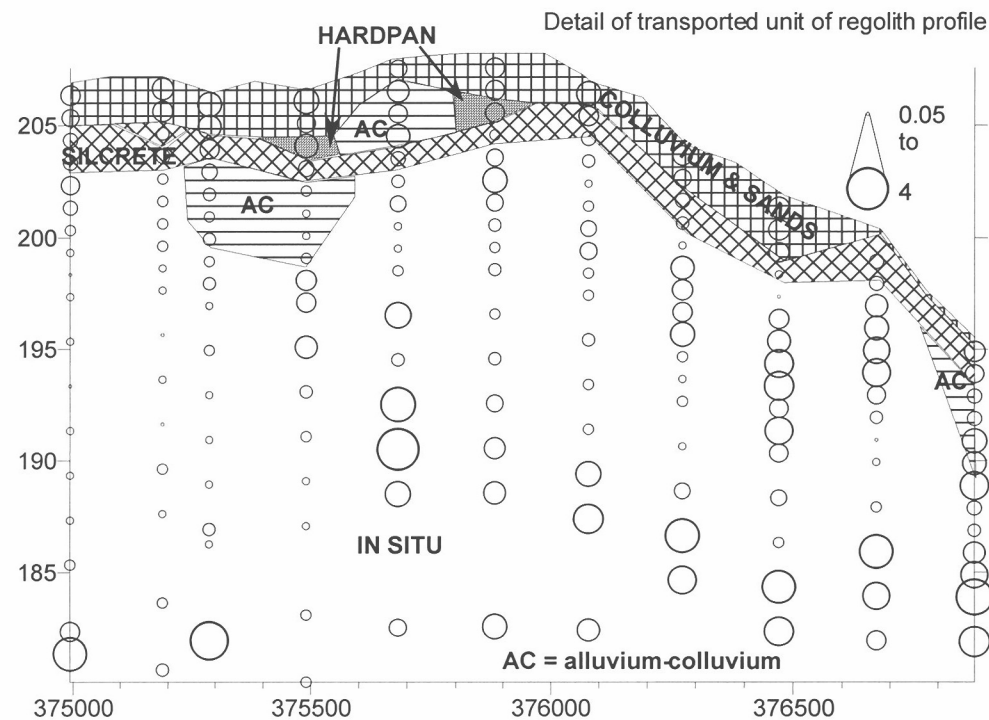
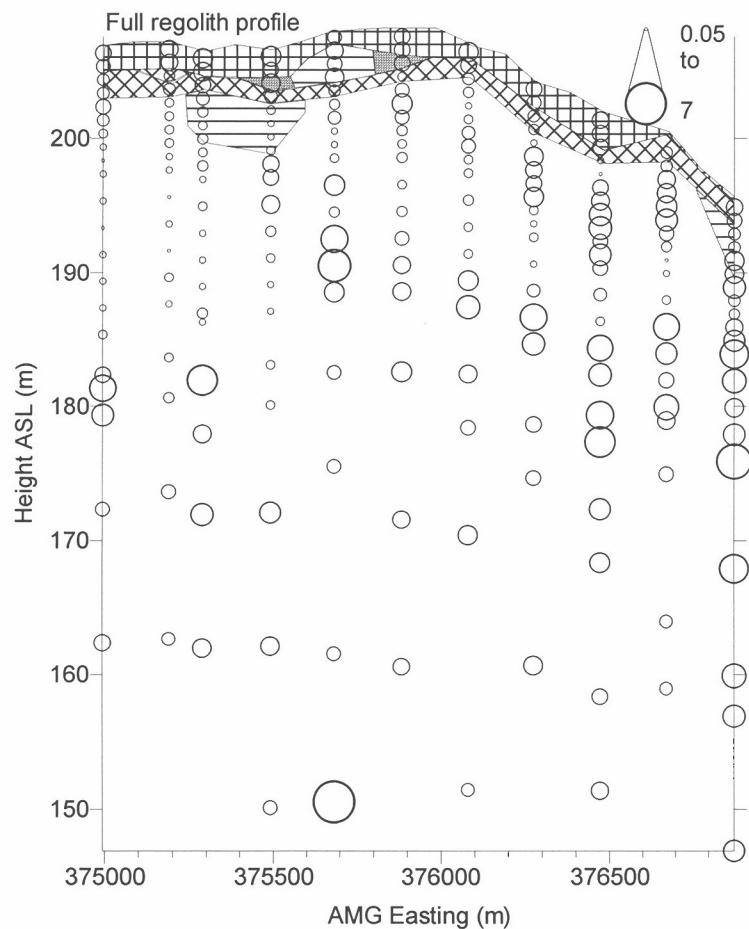
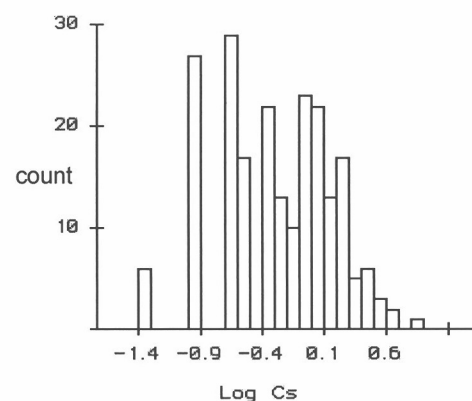


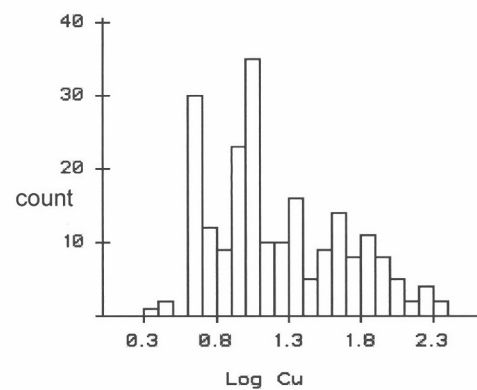
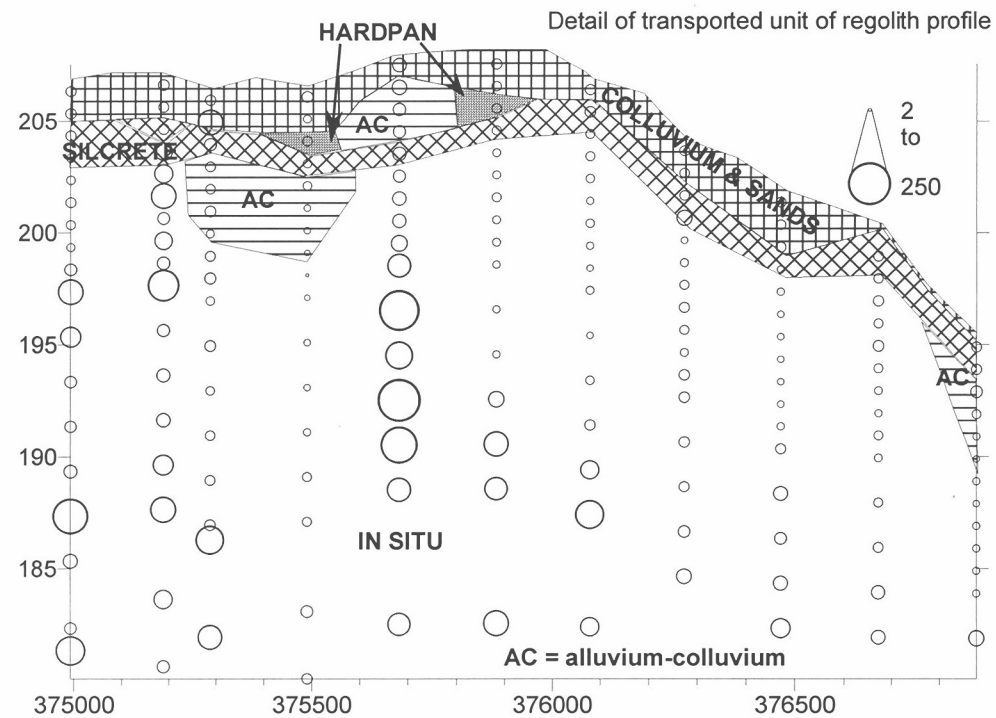
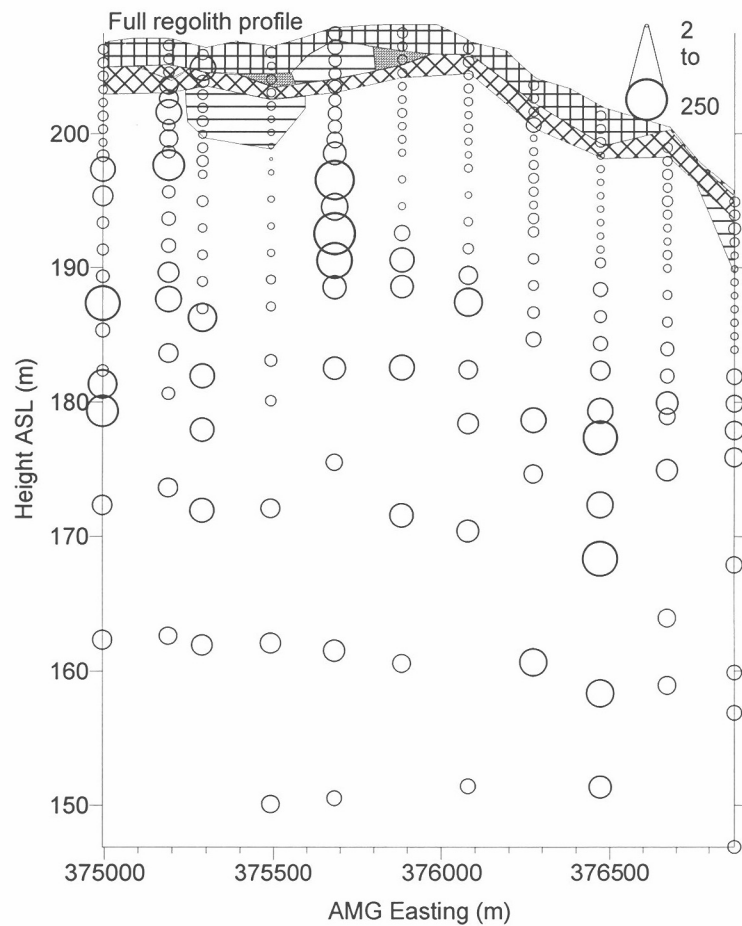
Figure A1b.11: Distribution and concentration of Cs at Jumbuck regolith section on 6690450N.

Cs (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.48 | 0.81 | 0.81 | 0.48 |
| Std Error | 0.11 | 0.08 | 0.08 | 0.05 |
| Median | 0.35 | 0.8 | 0.8 | 0.4 |
| Std Dev | 0.40 | 1.01 | 0.25 | 0.22 |
| Minimum | 0.1 | 0.05 | 0.8 | 0.1 |
| Maximum | 1.3 | 7 | 1.4 | 0.8 |
| Count | 14 | 18 | 17 | 17 |

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 10 | 35 | 15 | 13 |
| Std Error | 2 | 3 | 4 | 2 |
| Median | 8.5 | 18 | 10 | 10 |
| Std Dev | 8 | 43 | 18 | 8 |
| Minimum | 3 | 2 | 8 | 5 |
| Maximum | 25 | 250 | 84 | 38 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.12: Distribution and concentration of Cu at Jumbuck regolith section on 6690450N.

Cu (ppm)

Jumbuck

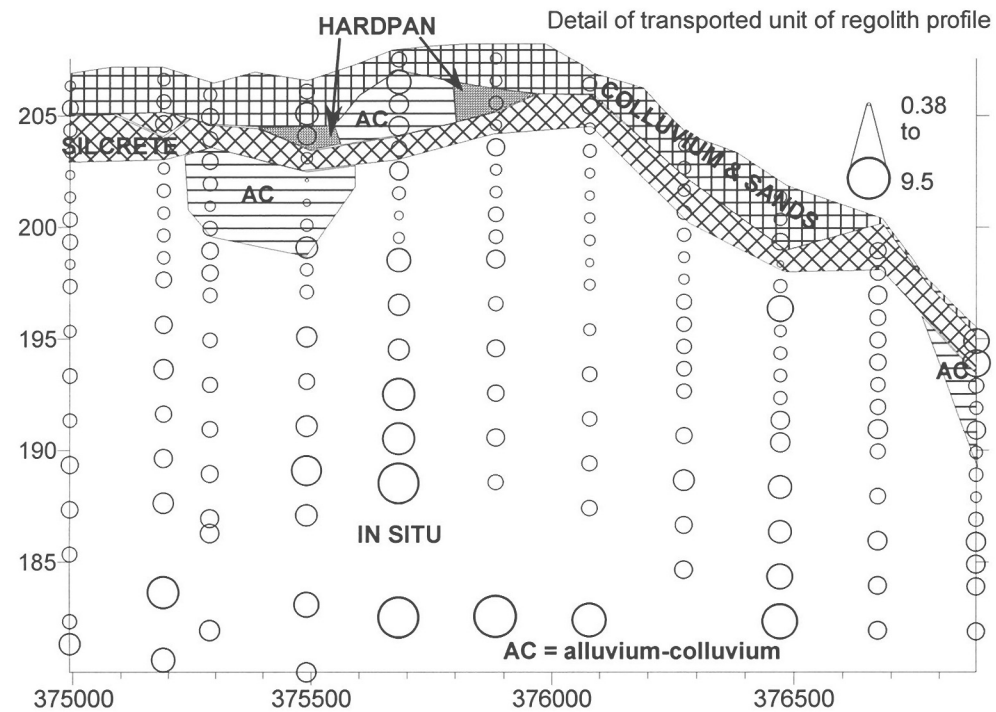
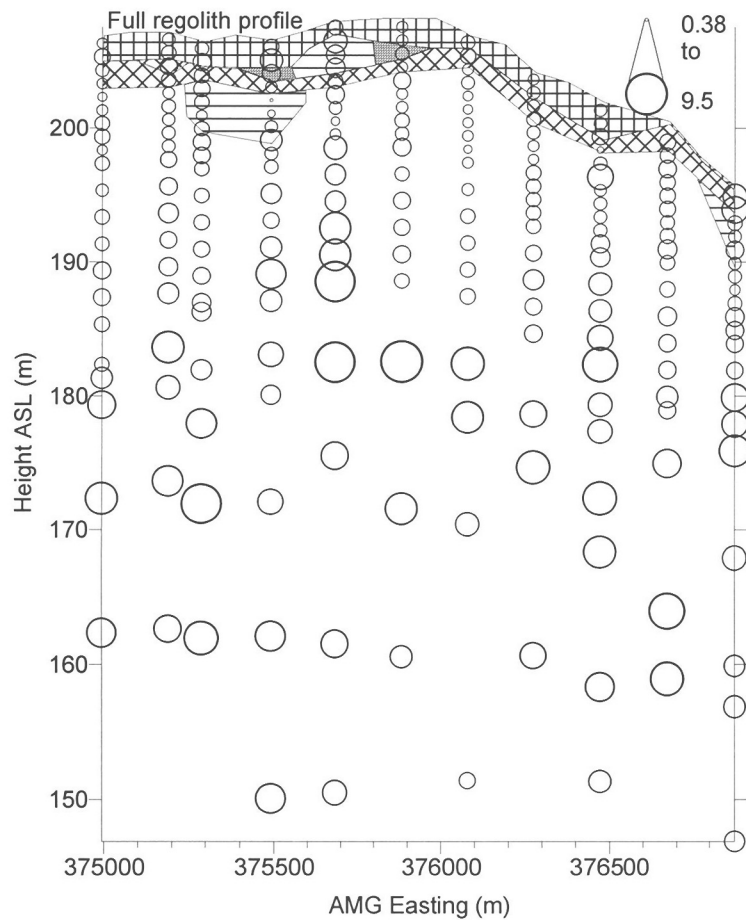
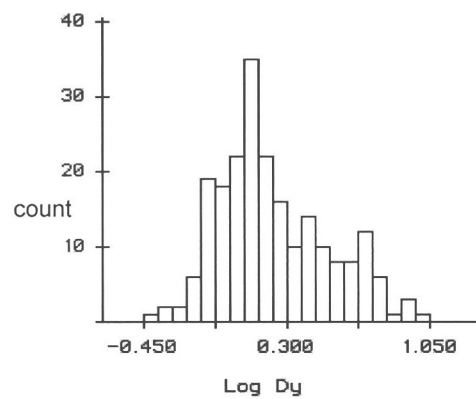


Figure A1b.13: Distribution and concentration of Dy at Jumbuck regolith section on 6690450N.

Dy (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 1 | 2.41 | 1.16 | 1.36 |
| Std Error | 0.2 | 0.14 | 0.12 | 0.22 |
| Median | 1 | 1.85 | 1 | 1.15 |
| Std Dev | 1 | 1.86 | 0.48 | 0.80 |
| Minimum | 0.4 | 0.54 | 0.71 | 0.46 |
| Maximum | 3.1 | 9.5 | 2.7 | 3.9 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

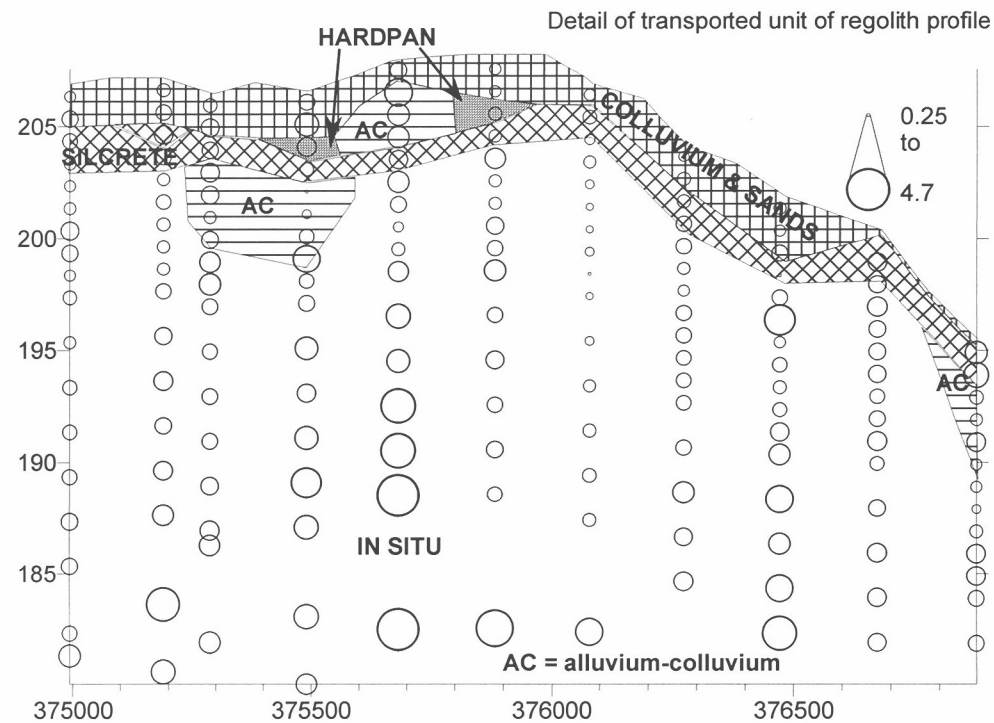
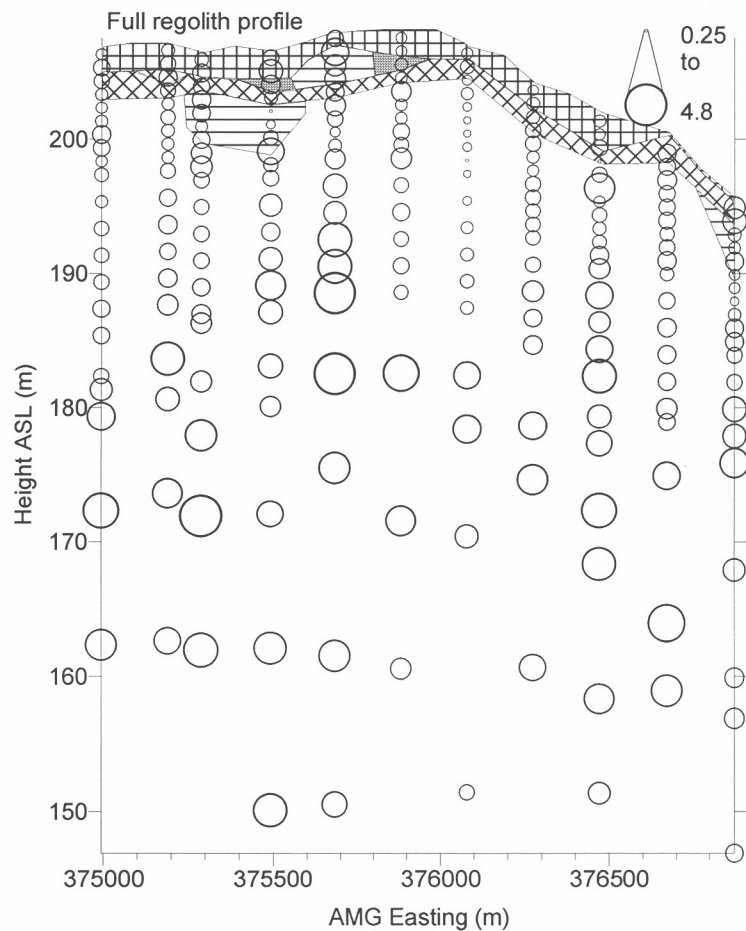
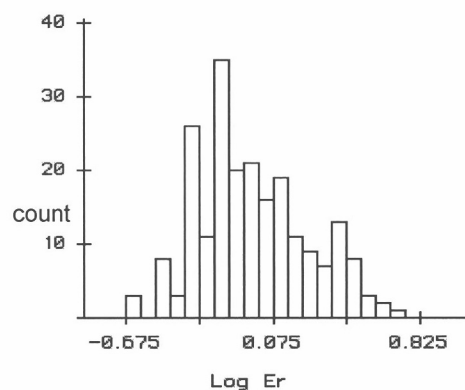


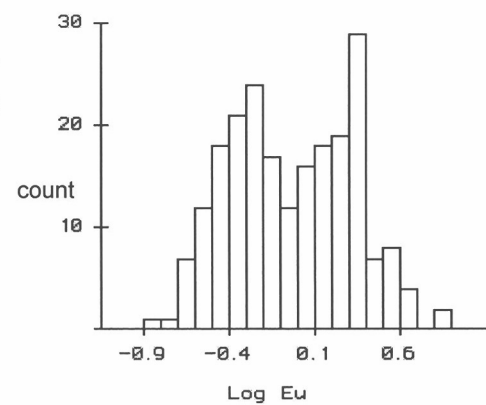
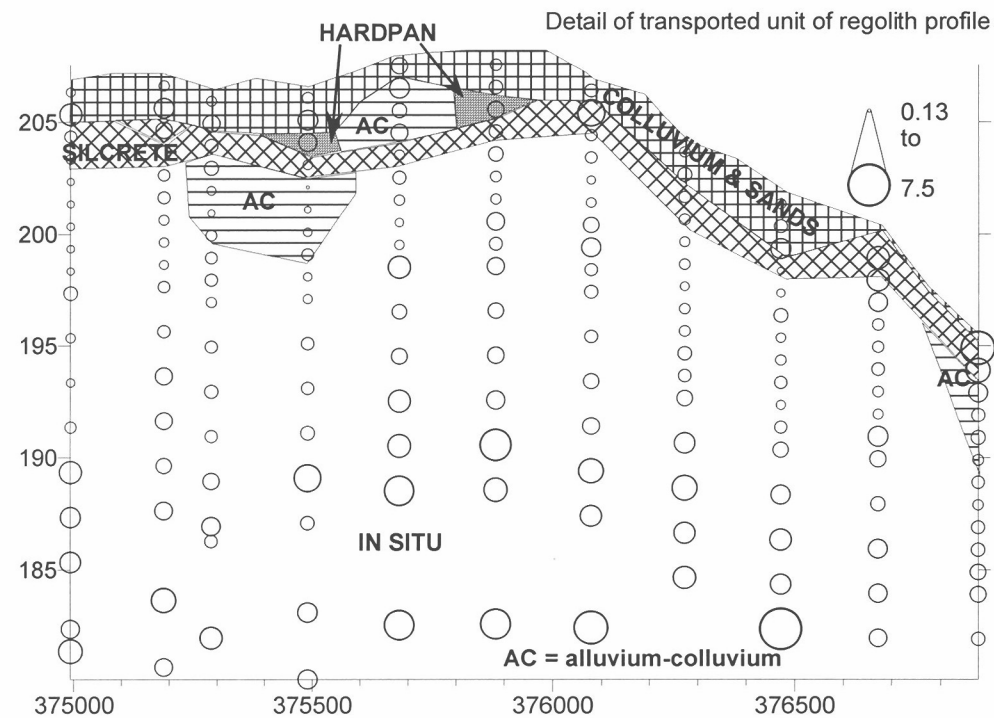
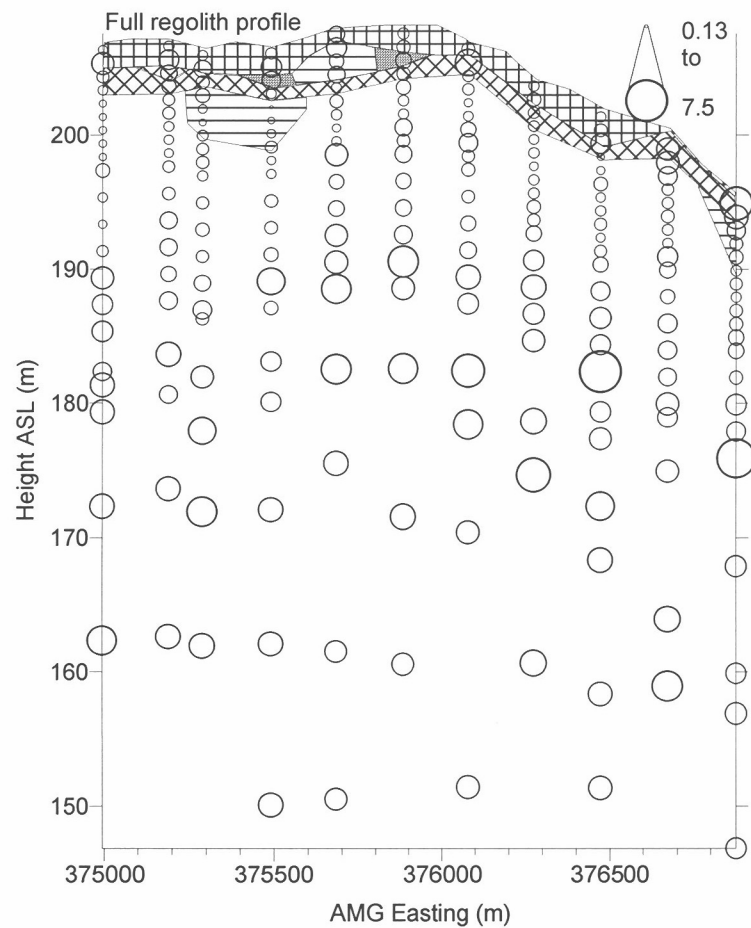
Figure A1b.14: Distribution and concentration of Er at Jumbuck regolith section on 6690450N.

Er (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.94 | 1.29 | 0.65 | 0.76 |
| Std Error | 0.15 | 0.07 | 0.07 | 0.09 |
| Median | 0.875 | 0.95 | 0.55 | 0.7 |
| Std Dev | 0.58 | 0.94 | 0.27 | 0.35 |
| Minimum | 0.25 | 0.25 | 0.4 | 0.25 |
| Maximum | 2.1 | 4.8 | 1.5 | 1.7 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

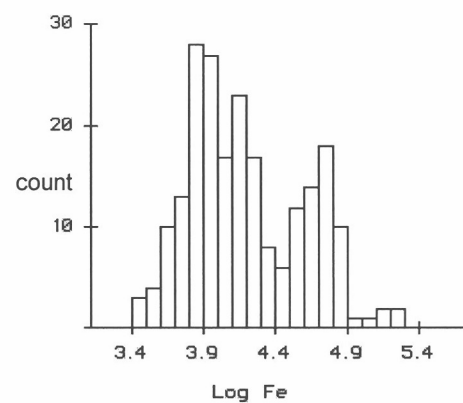
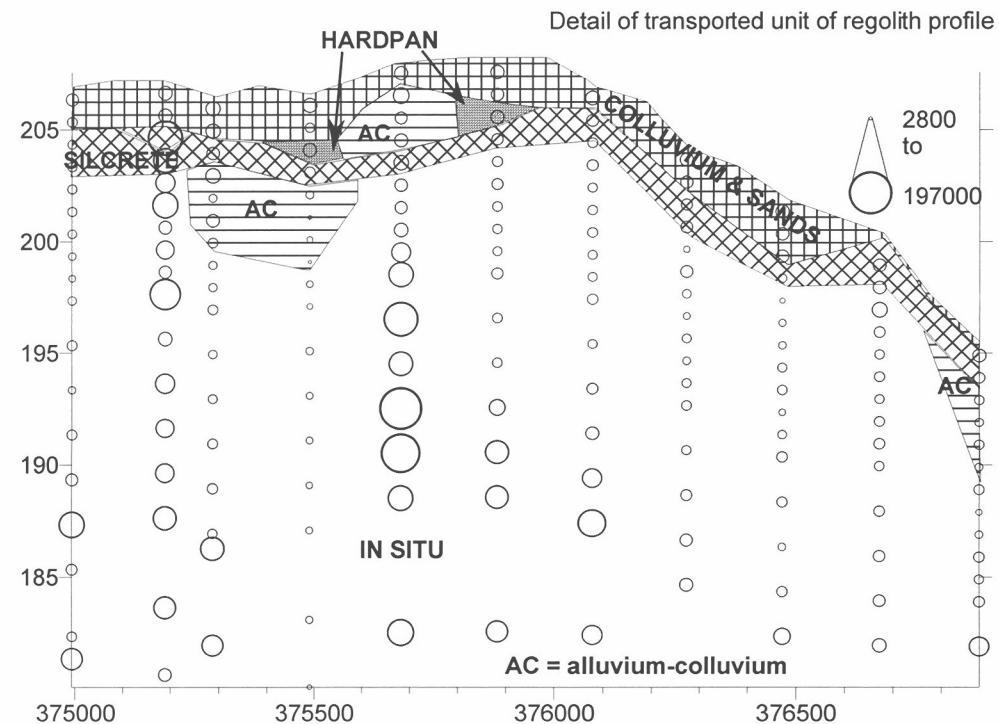
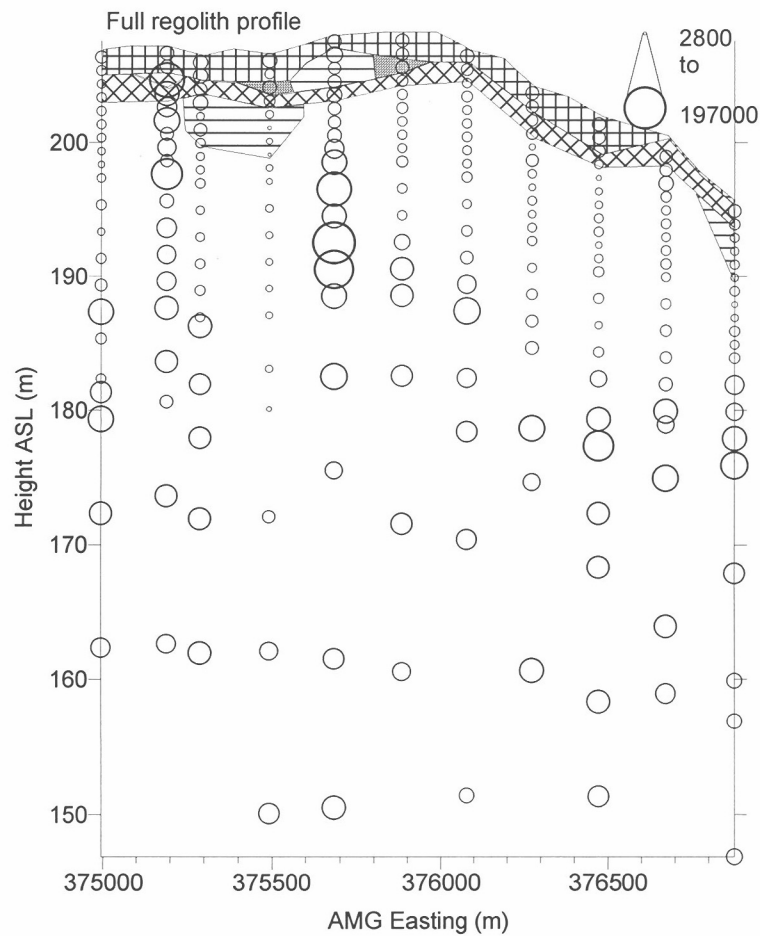


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.83 | 1.41 | 0.82 | 1.18 |
| Std Error | 0.12 | 0.09 | 0.13 | 0.30 |
| Median | 0.575 | 1.075 | 0.82 | 0.82 |
| Std Dev | 0.44 | 1.19 | 0.52 | 1.22 |
| Minimum | 0.13 | 0.21 | 0.31 | 0.21 |
| Maximum | 1.55 | 7.5 | 1.85 | 4.7 |
| Count | 14 | 18 | 17 | 17 |

Figure A1b.15: Distribution and concentration of Eu at Jumbuck regolith section on 6690450N.

Eu (ppm)

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 9939 | 27273 | 15382 | 21859 |
| Std Error | 1770 | 2271 | 760 | 7498 |
| Median | 7675 | 13550 | 16200 | 12400 |
| Std Dev | 6625 | 29260 | 3135 | 30909 |
| Minimum | 2800 | 3150 | 7900 | 6800 |
| Maximum | 24000 | 2E+05 | 18100 | 132000 |
| Count | 14 | 168 | 17 | 17 |

Figure A1b.16: Distribution and concentration of Fe at Jumbuck regolith section on 6690450N.

Fe (ppm)

Jumbuck

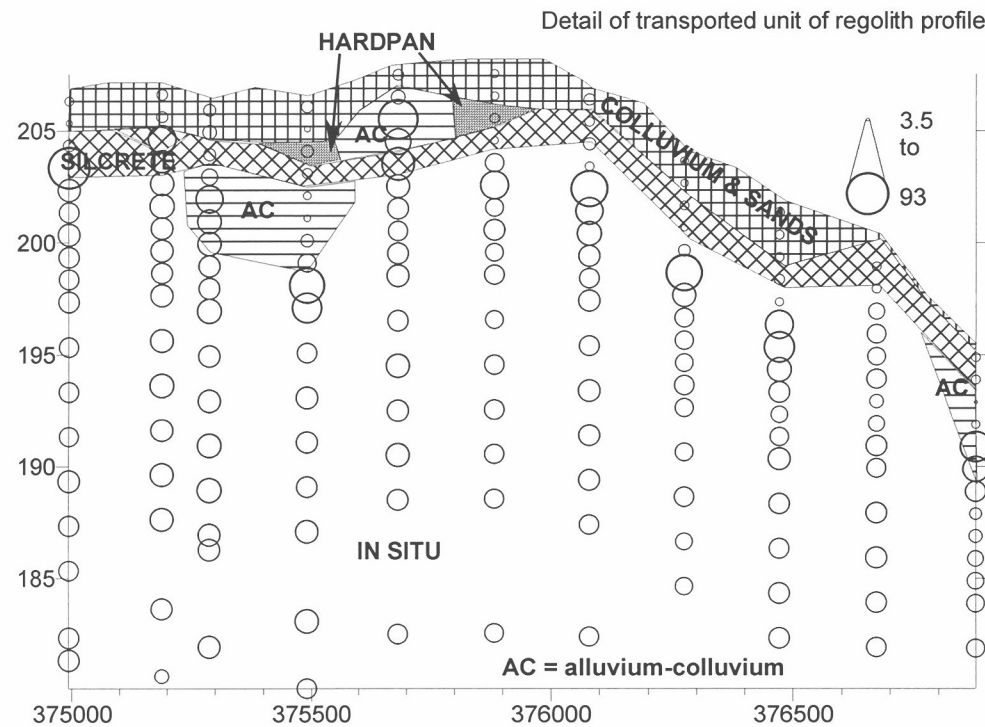
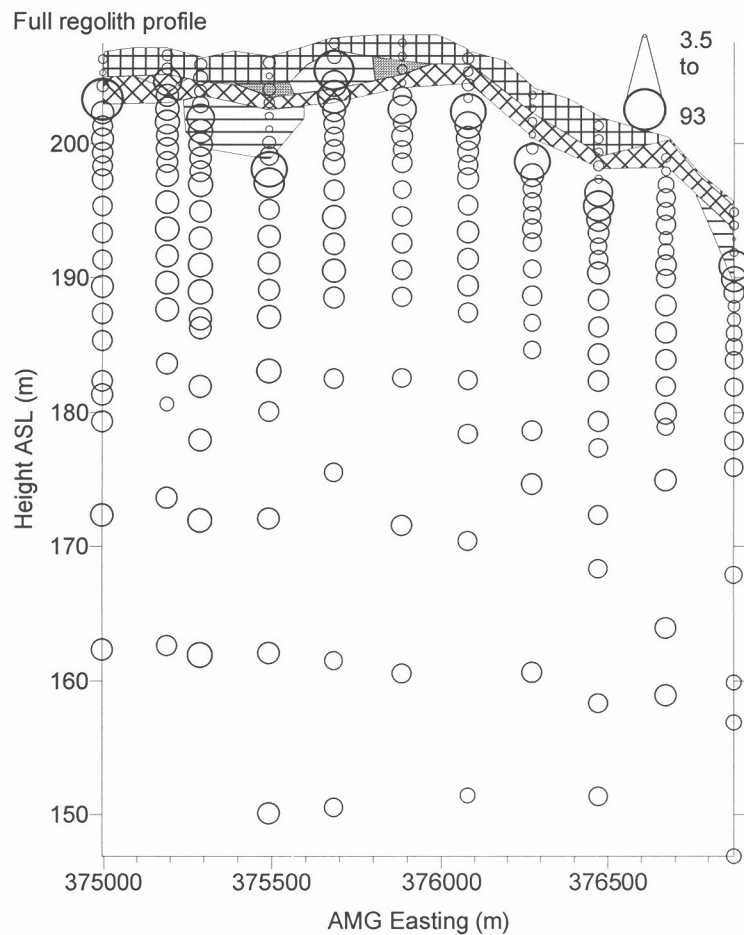
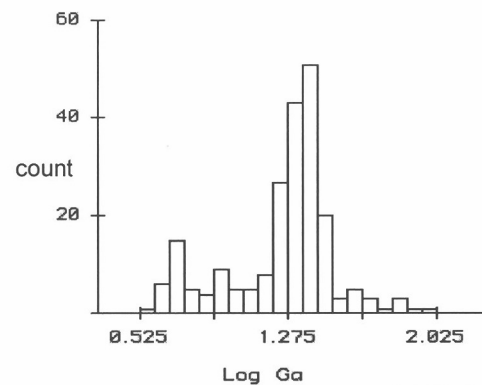


Figure A1b.17: Distribution and concentration of Ga at Jumbuck regolith section on 6690450N.

Ga (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 24 | 23 | 8 | 17 |
| Std Error | 8 | 0.7 | 0.4 | 8 |
| Median | 18 | 22 | 8 | 7 |
| Std Dev | 23 | 8 | 2 | 24 |
| Minimum | 3.5 | 5 | 4 | 4.2 |
| Maximum | 85 | 89 | 10.5 | 93 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

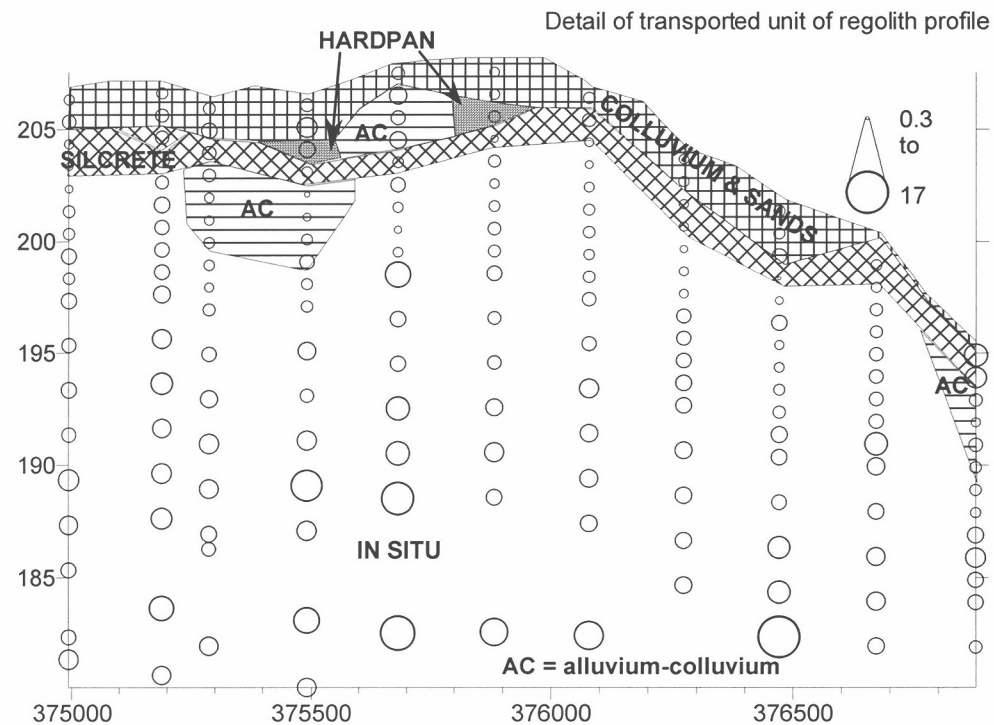
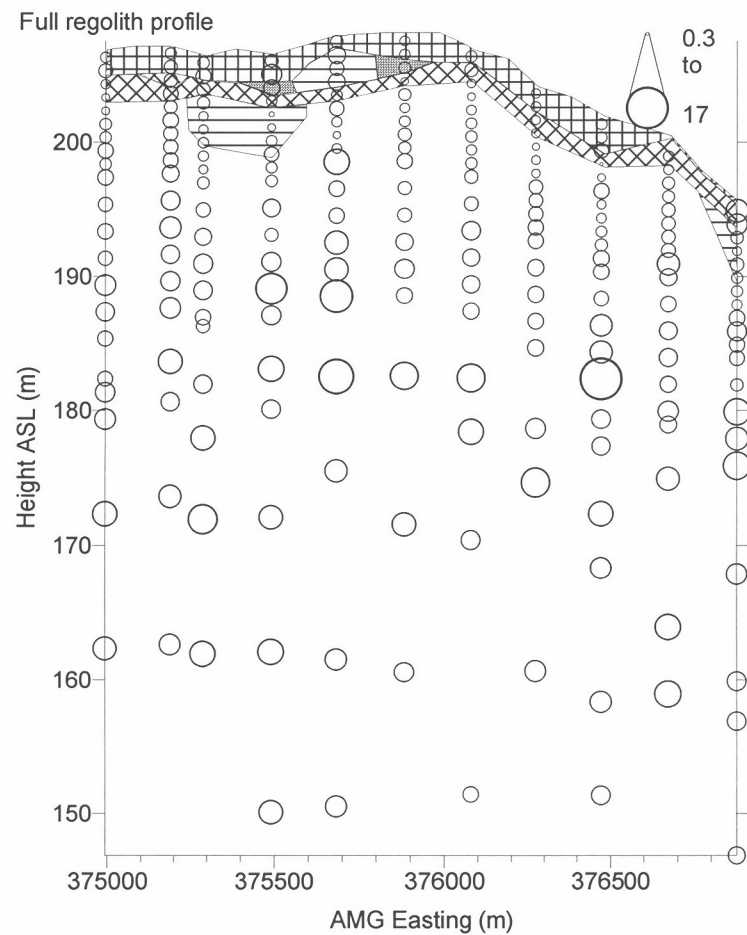
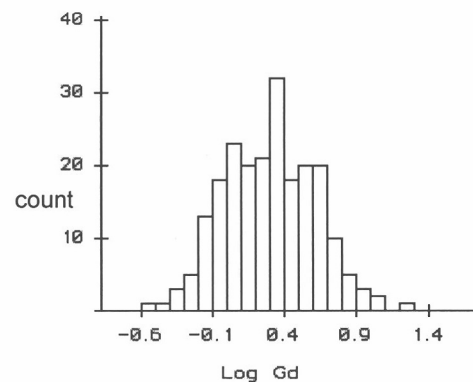


Figure A1b.18: Distribution and concentration of Gd at Jumbuck regolith section on 6690450N.

Gd (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 1.3 | 3.0 | 1.3 | 1.3 |
| Std Error | 0.2 | 0.2 | 0.2 | 0.3 |
| Median | 1.13 | 2.30 | 1.05 | 0.80 |
| Std Dev | 0.88 | 2.25 | 0.87 | 1.17 |
| Minimum | 0.35 | 0.5 | 0.75 | 0.3 |
| Maximum | 2.8 | 17 | 3.5 | 4.8 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

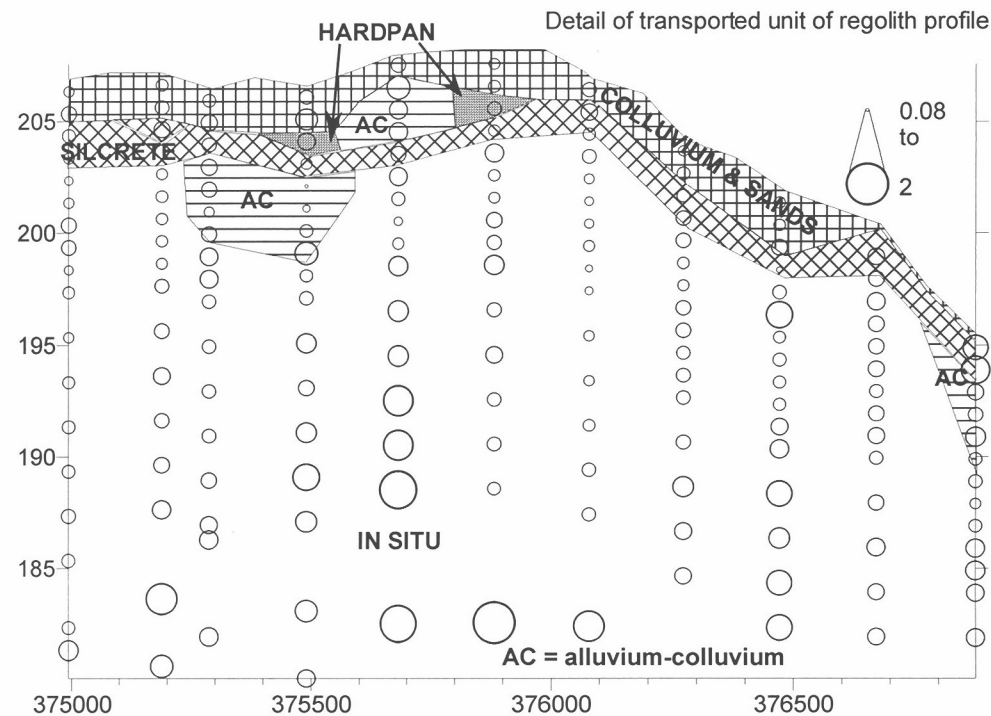
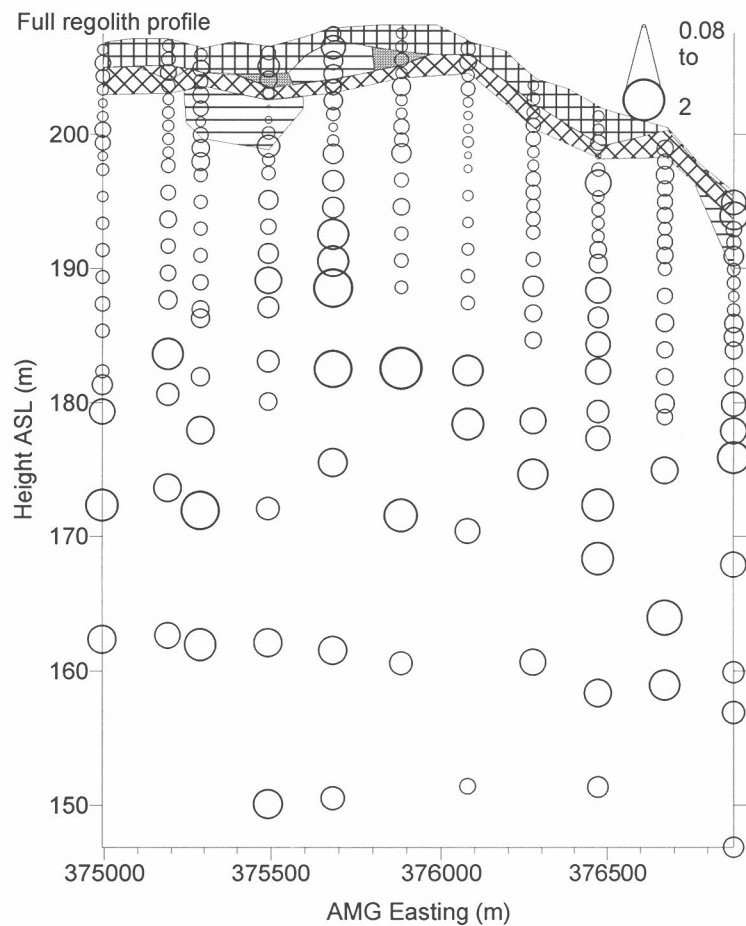
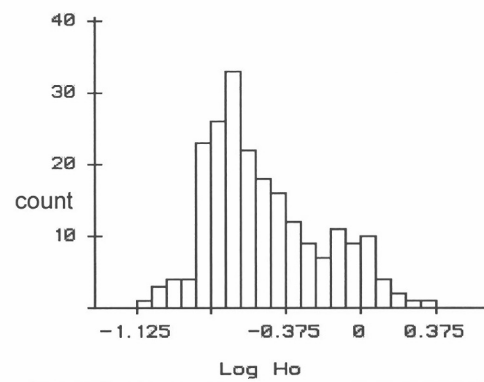


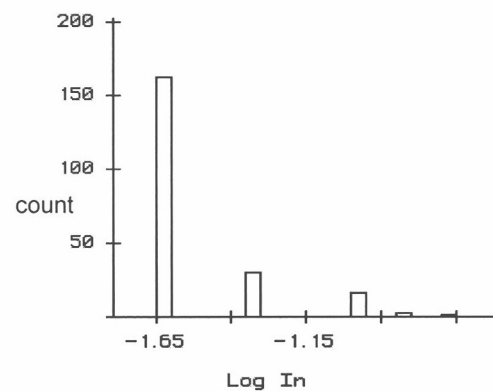
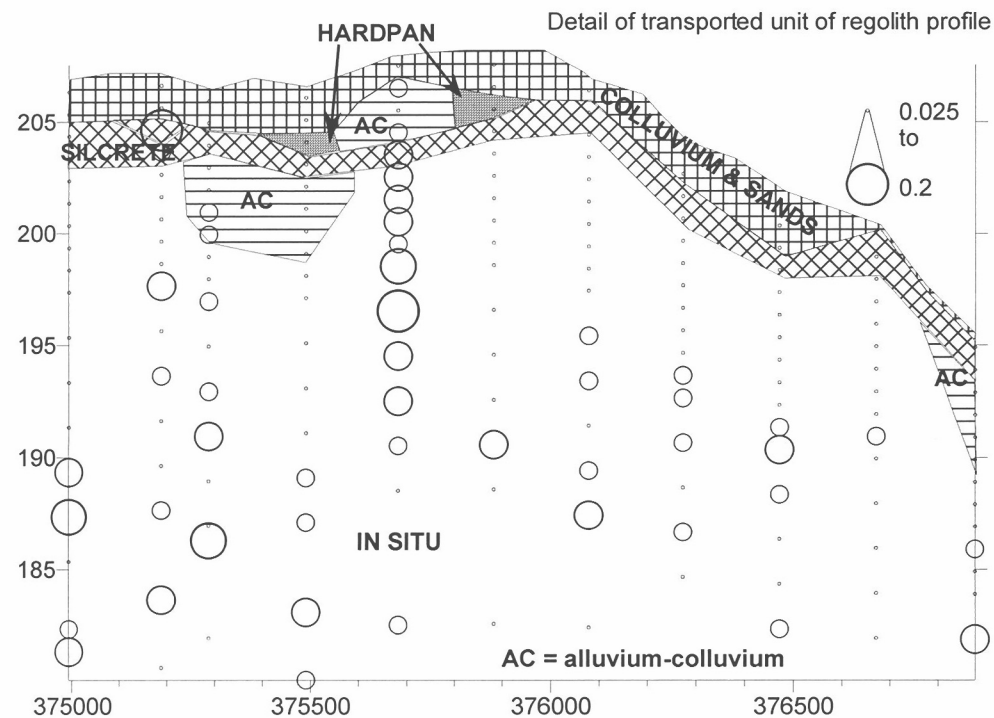
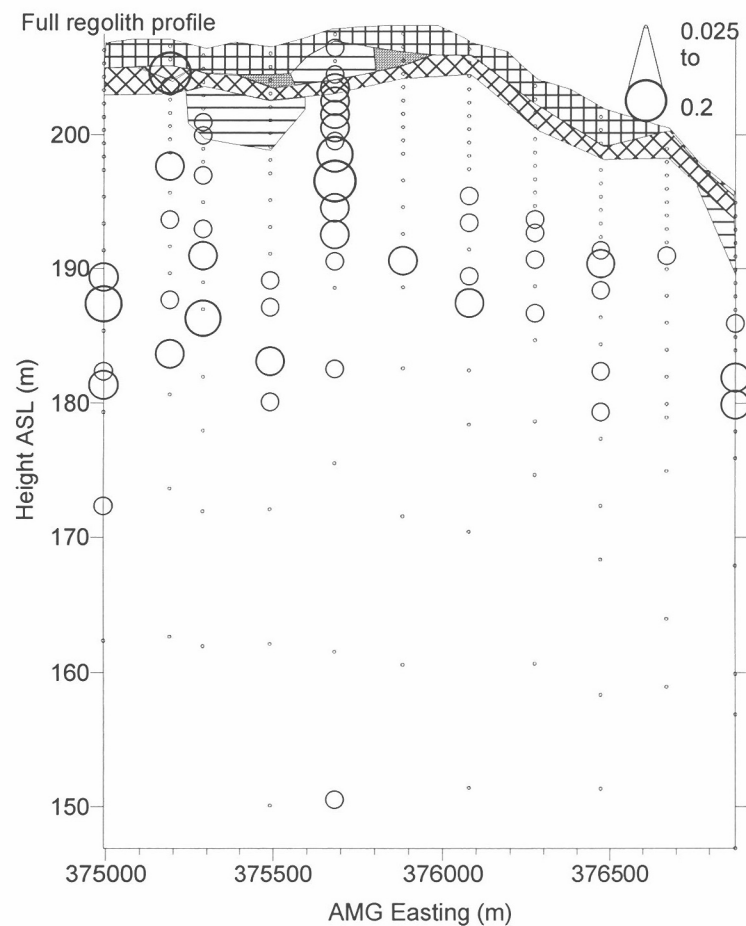
Figure A1b.19: Distribution and concentration of Ho at Jumbuck regolith section on 6690450N.

Ho (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.31 | 0.48 | 0.23 | 0.29 |
| Std Error | 0.04 | 0.03 | 0.02 | 0.05 |
| Median | 0.28 | 0.32 | 0.2 | 0.24 |
| Std Dev | 0.16 | 0.36 | 0.09 | 0.20 |
| Minimum | 0.08 | 0.1 | 0.15 | 0.09 |
| Maximum | 0.63 | 2 | 0.52 | 0.88 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

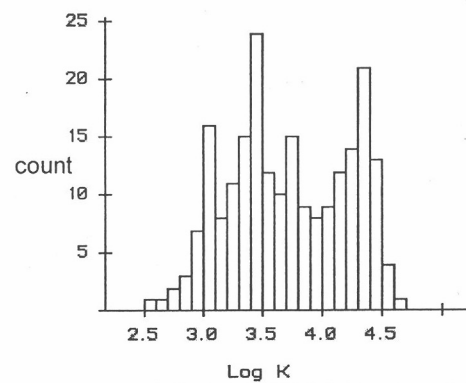
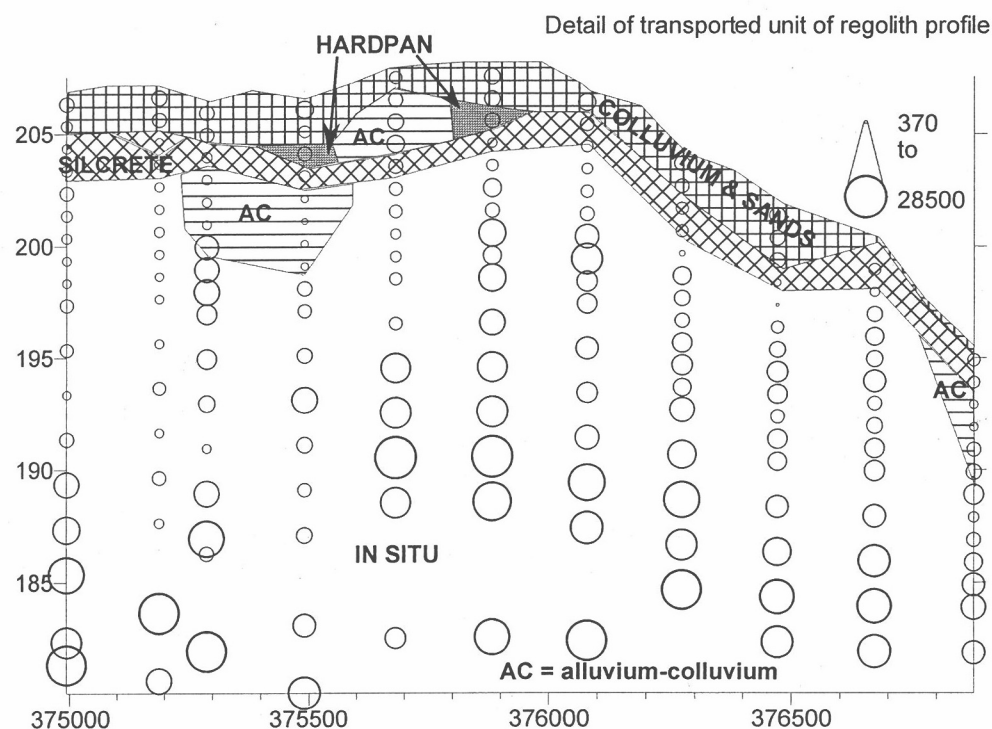
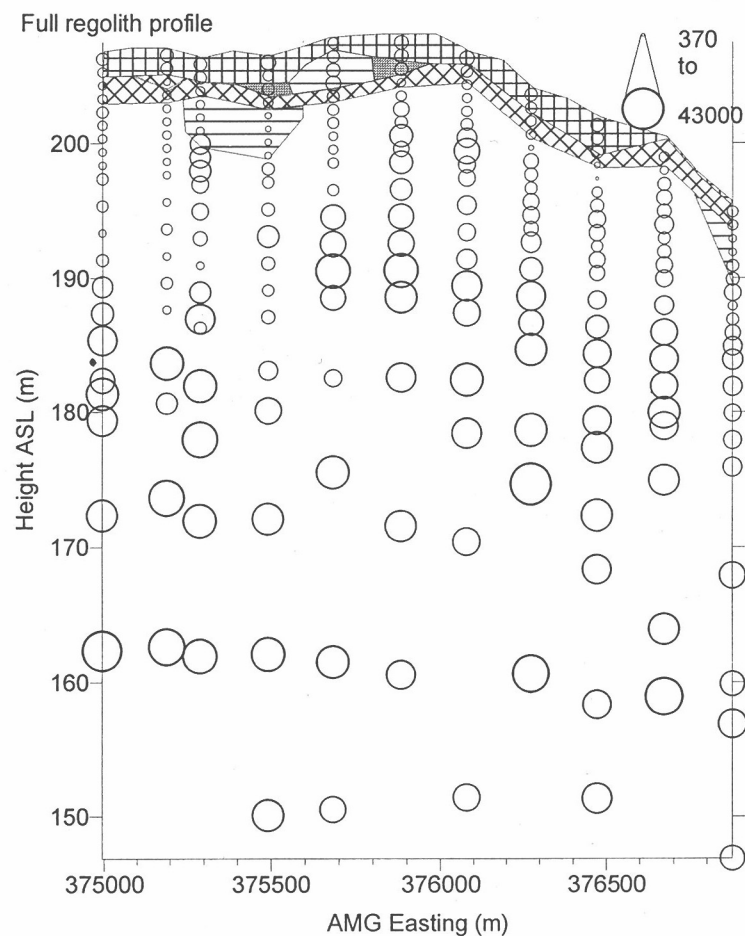


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.03 | 0.04 | 0.03 | 0.04 |
| Std Error | 0.00 | 0.00 | 0.00 | 0.01 |
| Median | 0.025 | 0.03 | 0.03 | 0.03 |
| Std Dev | 0.01 | 0.03 | 0.00 | 0.05 |
| Minimum | 0.025 | 0.03 | 0.03 | 0.03 |
| Maximum | 0.05 | 0.2 | 0.025 | 0.2 |
| Count | 14 | 160 | 17 | 17 |

Figure A1b.20: Distribution and concentration of In at Jumbuck regolith section on 6690450N.

In (ppm)

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 2132 | 11375 | 2059 | 1582 |
| Std Error | 803 | 751 | 173 | 133 |
| Median | 1075 | 7050 | 3000 | 1050 |
| Std Dev | 2254 | 8680 | 711 | 549 |
| Minimum | 550 | 370 | 1800 | 800 |
| Maximum | 8800 | 43000 | 4350 | 2050 |
| Count | 14 | 168 | 17 | 17 |

Figure A1b.21: Distribution and concentration of K at Jumbuck regolith section on 6690450N.

K (ppm)

Jumbuck

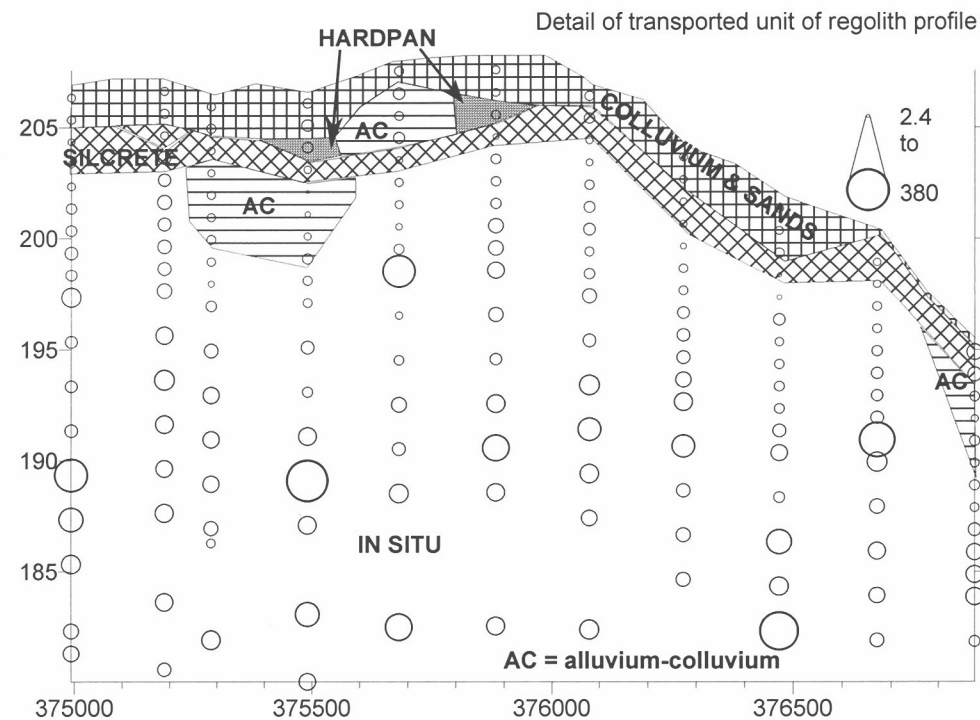
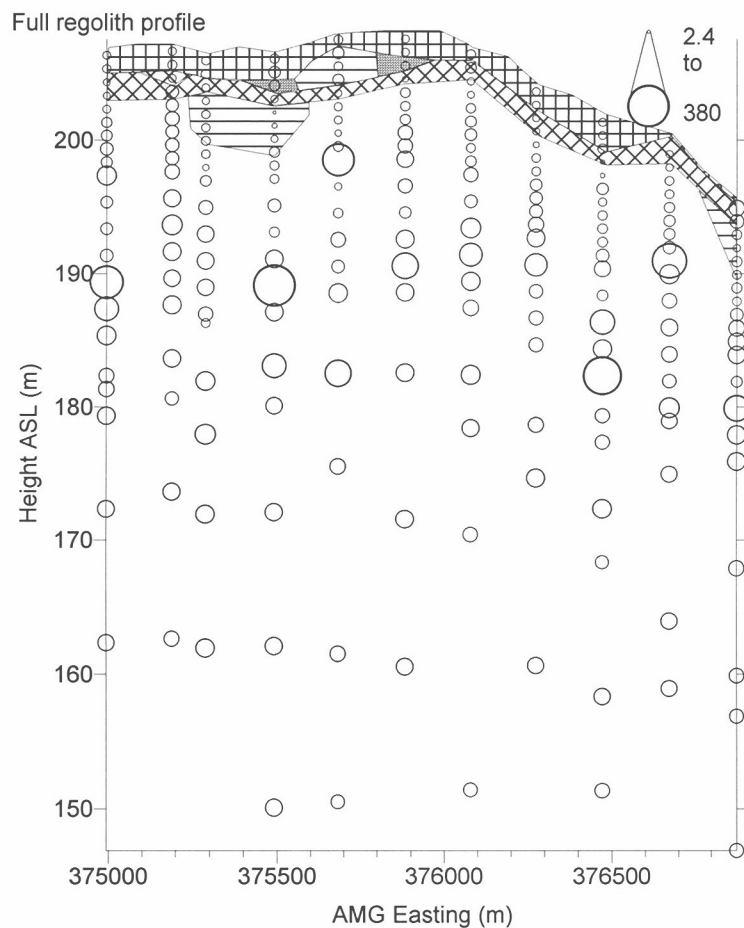
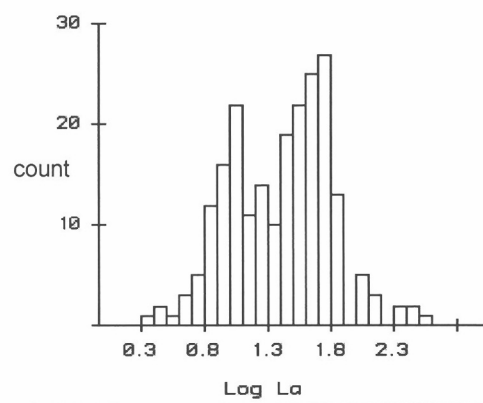


Figure A1b.22: Distribution and concentration of La at Jumbuck regolith section on 6690450N.

La (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 11 | 47 | 11 | 12 |
| Std Error | 1 | 4 | 1 | 3 |
| Median | 10 | 37 | 10 | 7 |
| Std Dev | 8 | 50 | 3 | 12 |
| Minimum | 2.4 | 3 | 7.5 | 2.8 |
| Maximum | 20.5 | 380 | 21.5 | 44.5 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

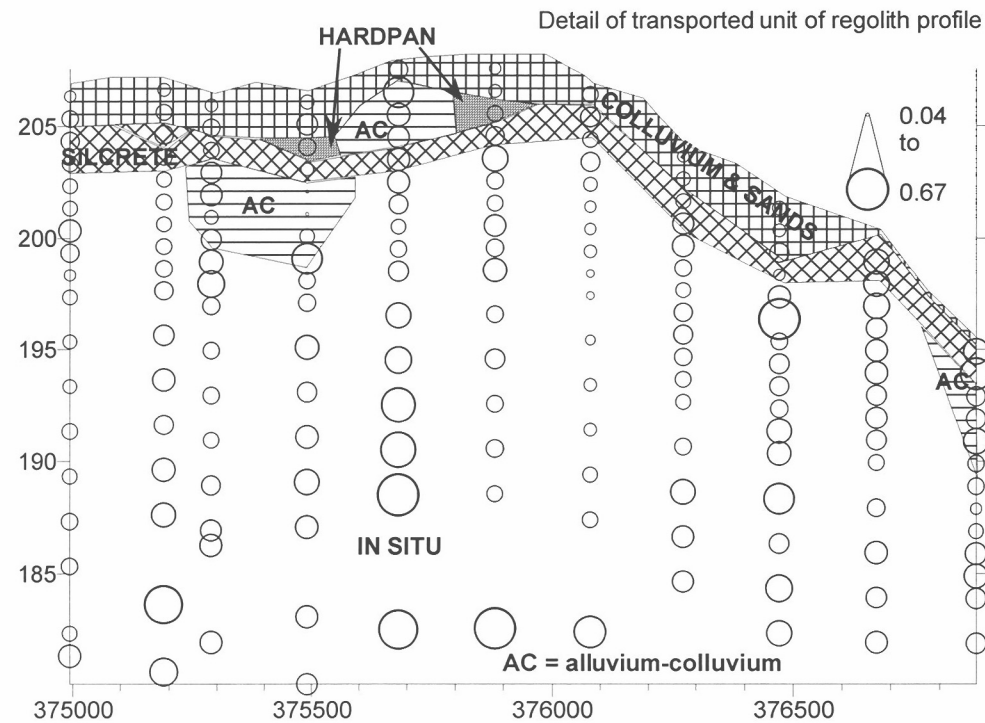
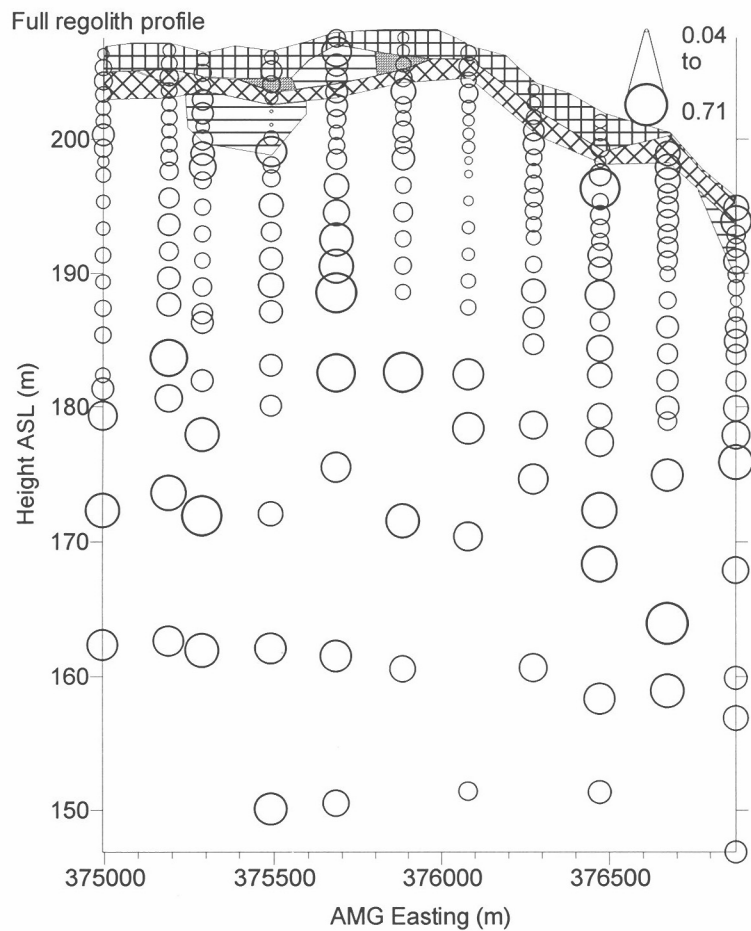
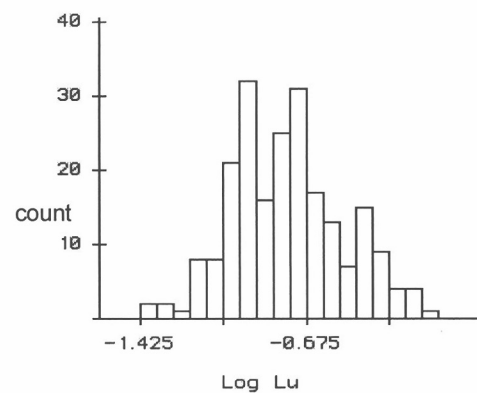


Figure A1b.23: Distribution and concentration of Lu at Jumbuck regolith section on 6690450N.

Lu (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.18 | 0.22 | 0.10 | 0.17 |
| Std Error | 0.03 | 0.01 | 0.01 | 0.02 |
| Median | 0.18 | 0.19 | 0.09 | 0.14 |
| Std Dev | 0.10 | 0.14 | 0.03 | 0.08 |
| Minimum | 0.04 | 0.05 | 0.07 | 0.07 |
| Maximum | 0.37 | 0.71 | 0.18 | 0.39 |
| Count | 14 | 18 | 17 | 17 |

Jumbuck

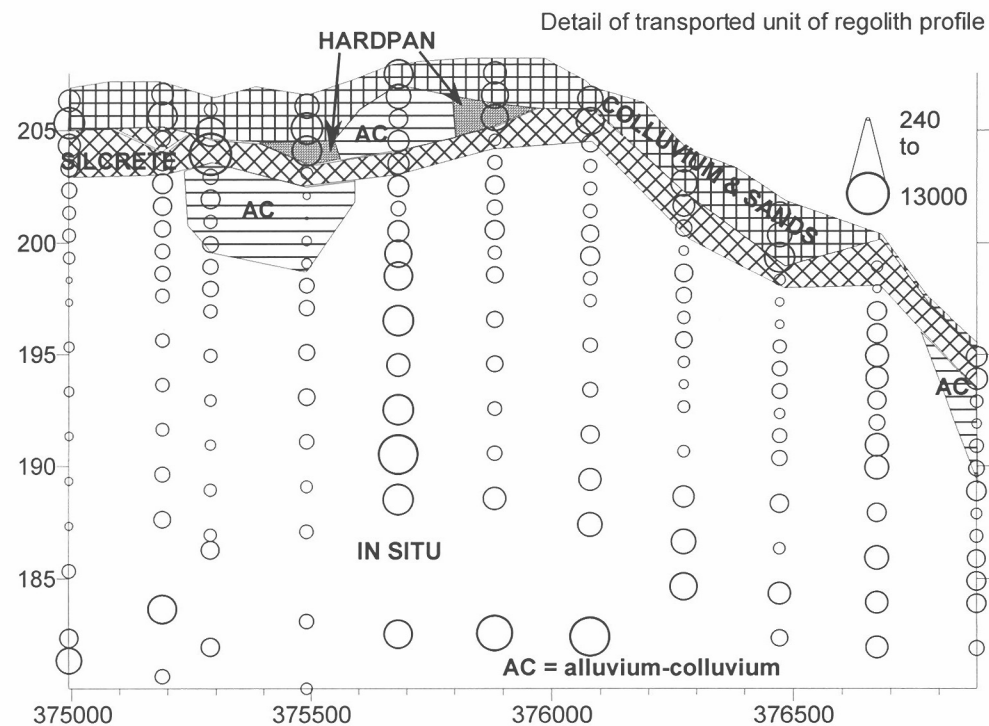
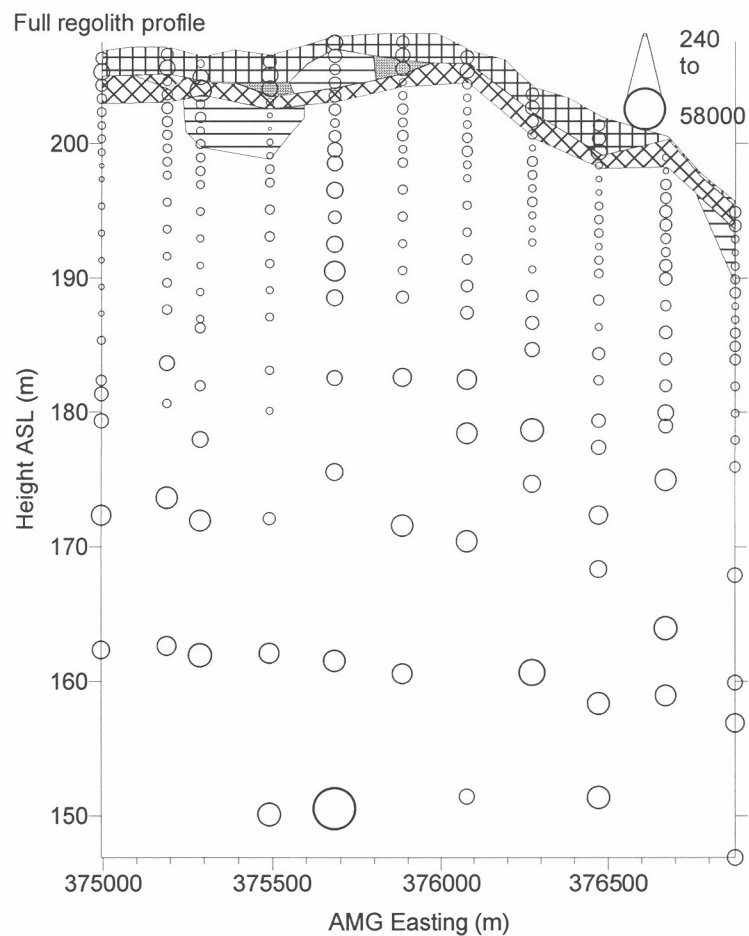
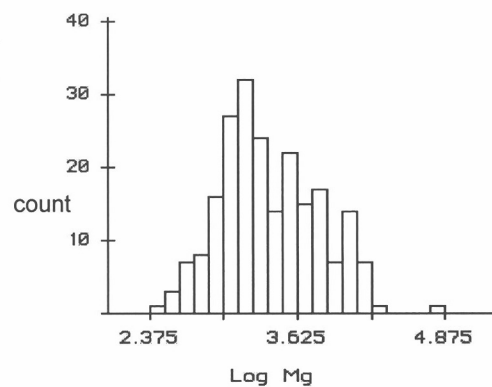


Figure A1b.24: Distribution and concentration of Mg at Jumbuck regolith section on 6690450N.

Mg (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 1488 | 4280 | 4812 | 2778 |
| Std Error | 308 | 482 | 408 | 708 |
| Median | 1150 | 2100 | 4250 | 1950 |
| Std Dev | 1143 | 5952 | 1884 | 2918 |
| Minimum | 240 | 330 | 1000 | 470 |
| Maximum | 4250 | 58000 | 7350 | 13000 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

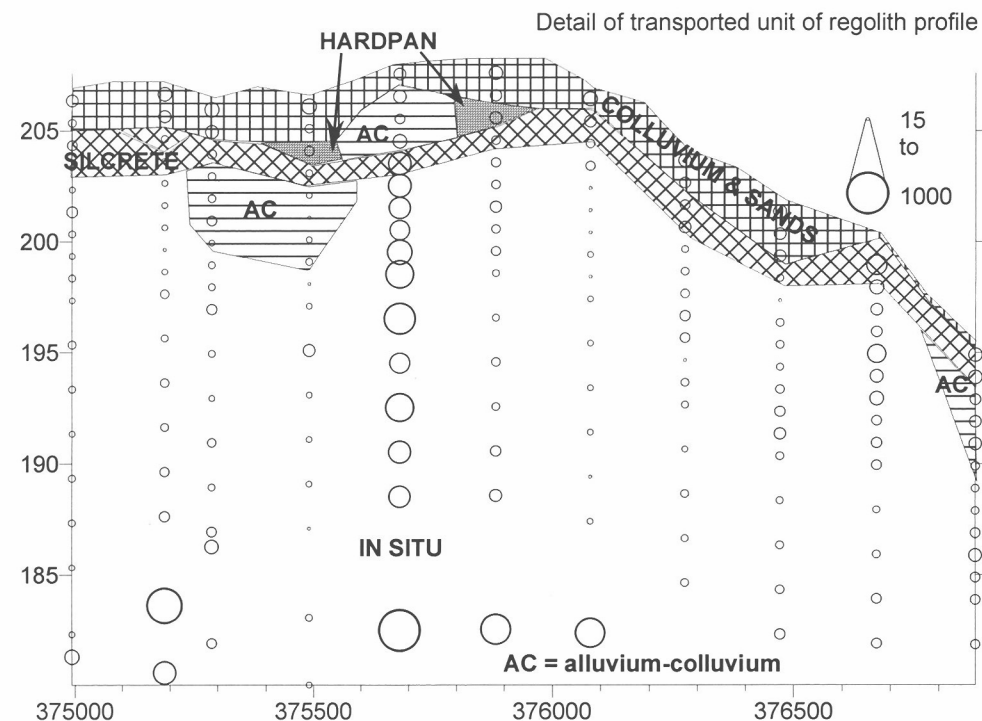
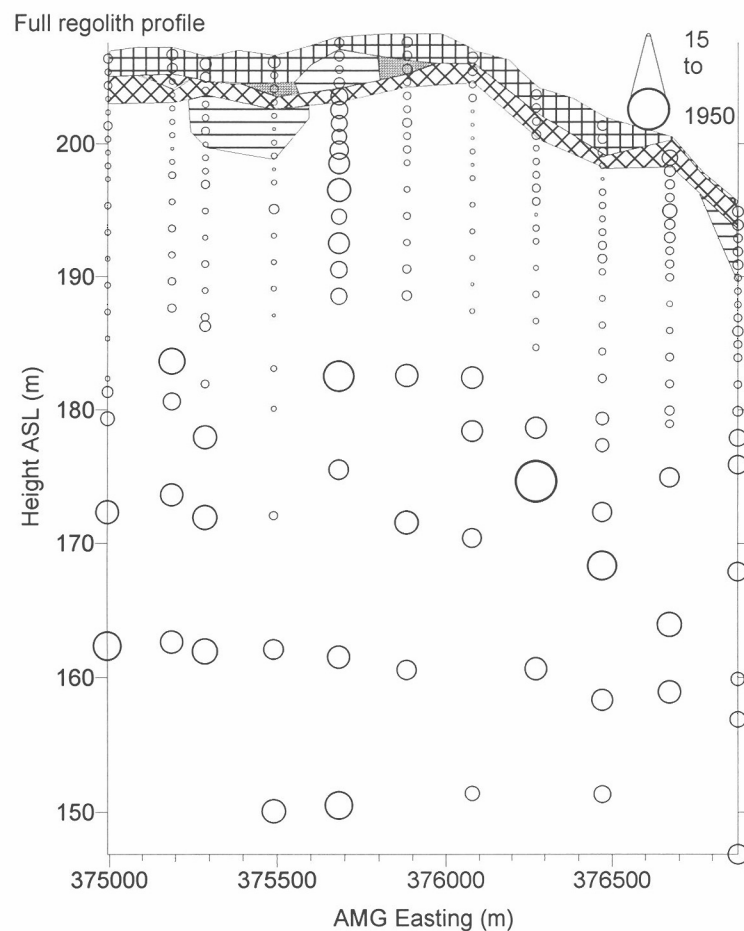
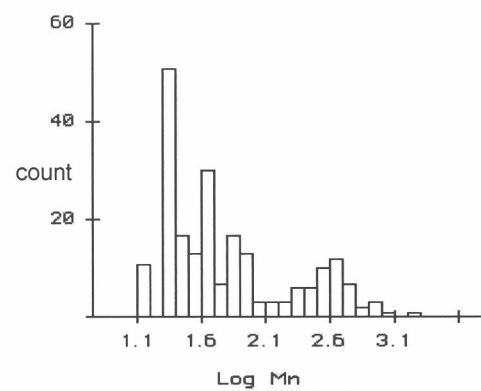


Figure A1b.25: Distribution and concentration of Mn at Jumbuck regolith section on 6690450N.

Mn (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 44 | 165 | 72 | 71 |
| Std Error | 7 | 20 | 5 | 17 |
| Median | 38 | 45 | 70 | 45 |
| Std Dev | 25 | 252 | 21 | 89 |
| Minimum | 15 | 15 | 30 | 20 |
| Maximum | 90 | 1950 | 110 | 270 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

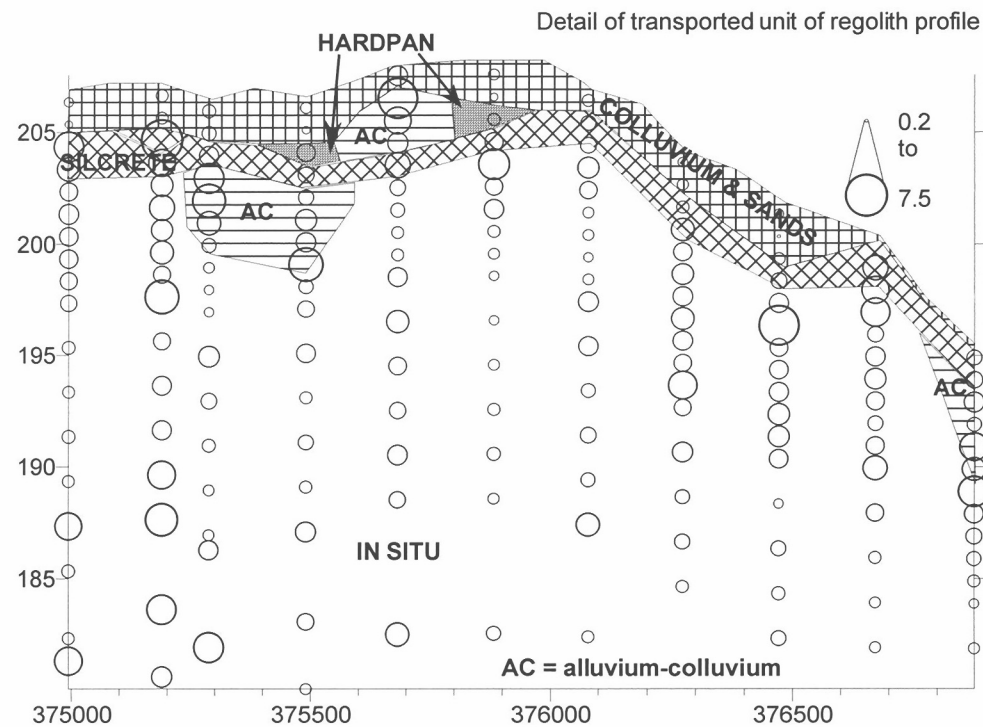
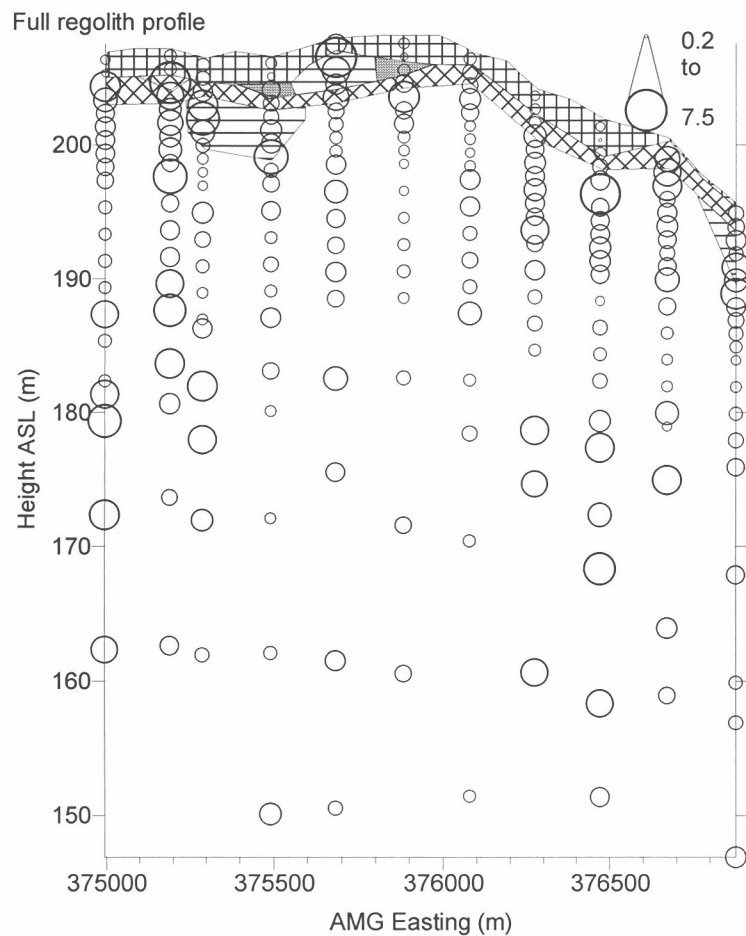
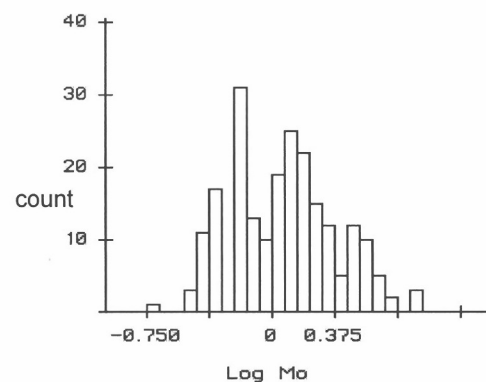


Figure A1b.26: Distribution and concentration of Mo at Jumbuck regolith section on 6690450N.

Mo (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 2.7 | 1.5 | 0.5 | 2.1 |
| Std Error | 0.5 | 0.1 | 0.1 | 0.4 |
| Median | 2.1 | 1.2 | 0.5 | 1.5 |
| Std Dev | 1.8 | 1.1 | 0.3 | 1.7 |
| Minimum | 0.8 | 0.4 | 0.2 | 0.8 |
| Maximum | 7 | 7 | 1.8 | 7.5 |
| Count | 14 | 160 | 17 | 17 |

Jumbuck

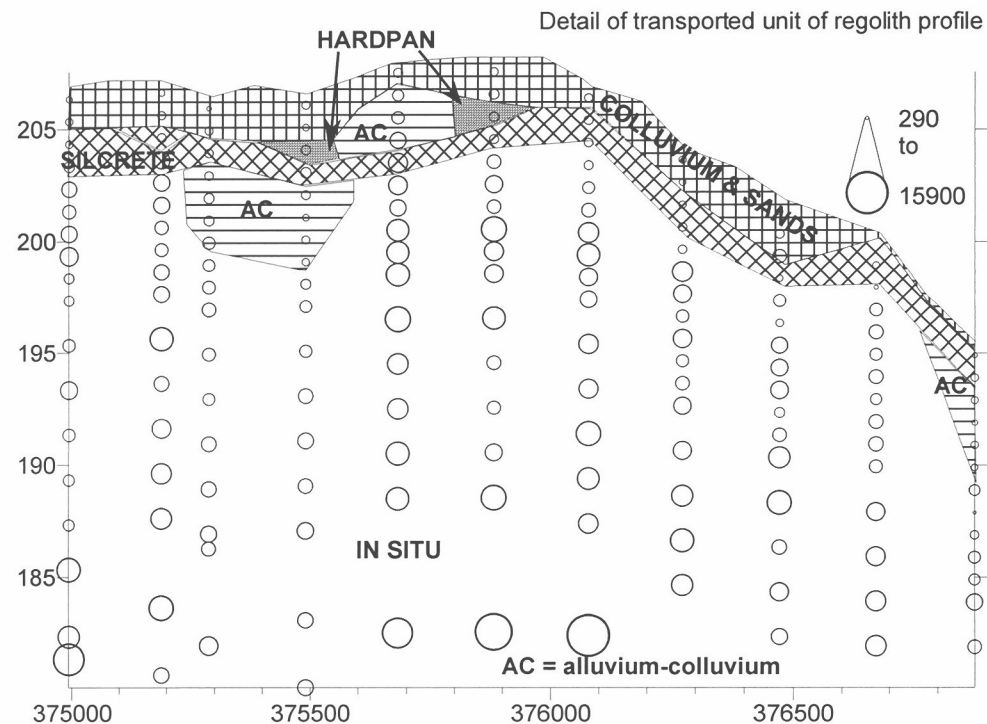
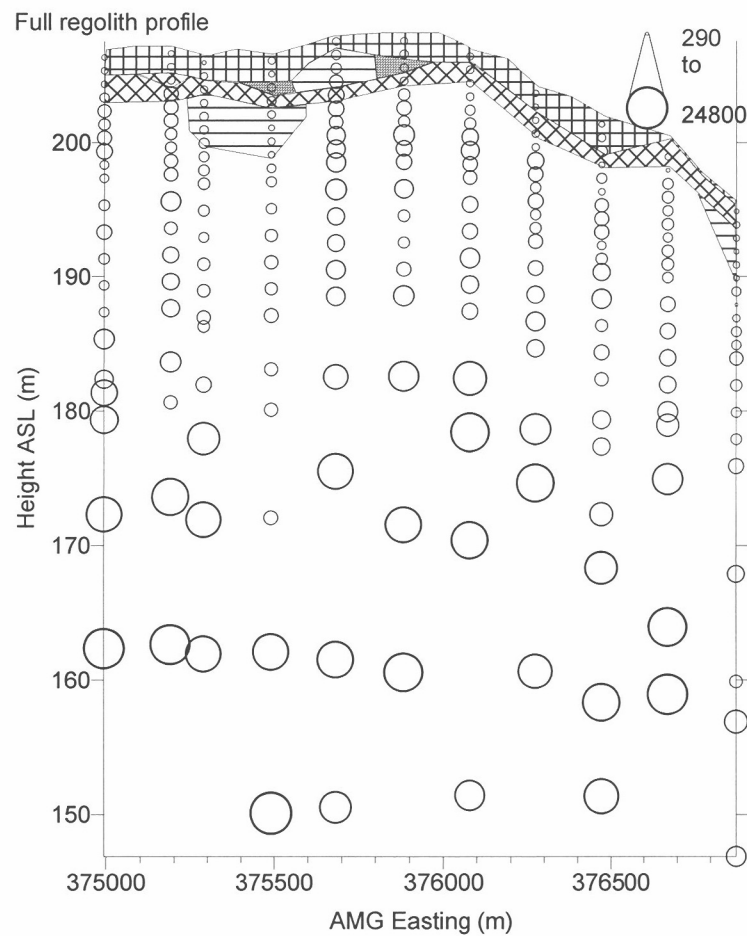
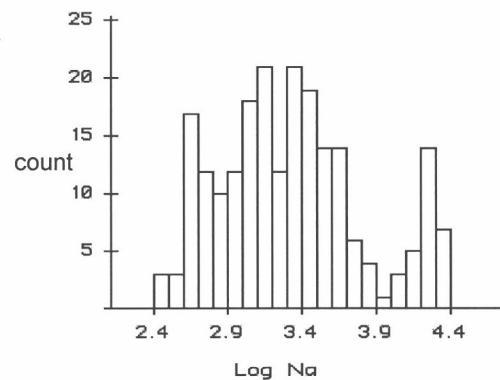


Figure A1b.27: Distribution and concentration of Na at Jumbuck regolith section on 6690450N.

Na (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 785 | 5183 | 559 | 802 |
| Std Error | 122 | 473 | 59 | 171 |
| Median | 625 | 2825 | 550 | 600 |
| Std Dev | 465 | 6085 | 244 | 708 |
| Minimum | 350 | 280 | 310 | 300 |
| Maximum | 2050 | 24800 | 1400 | 2850 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck

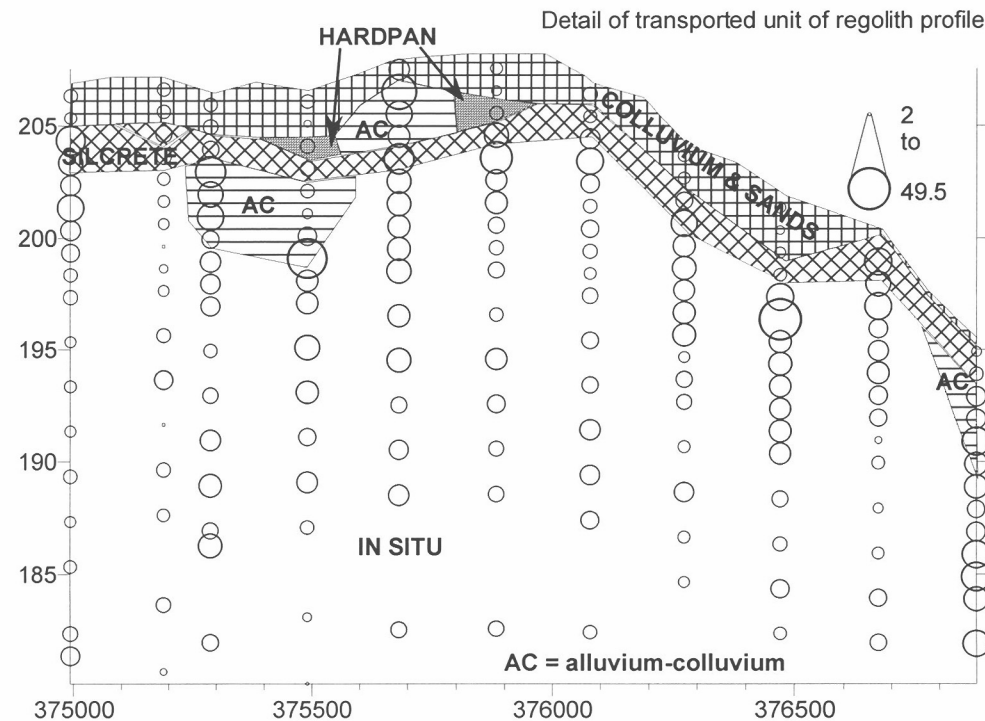
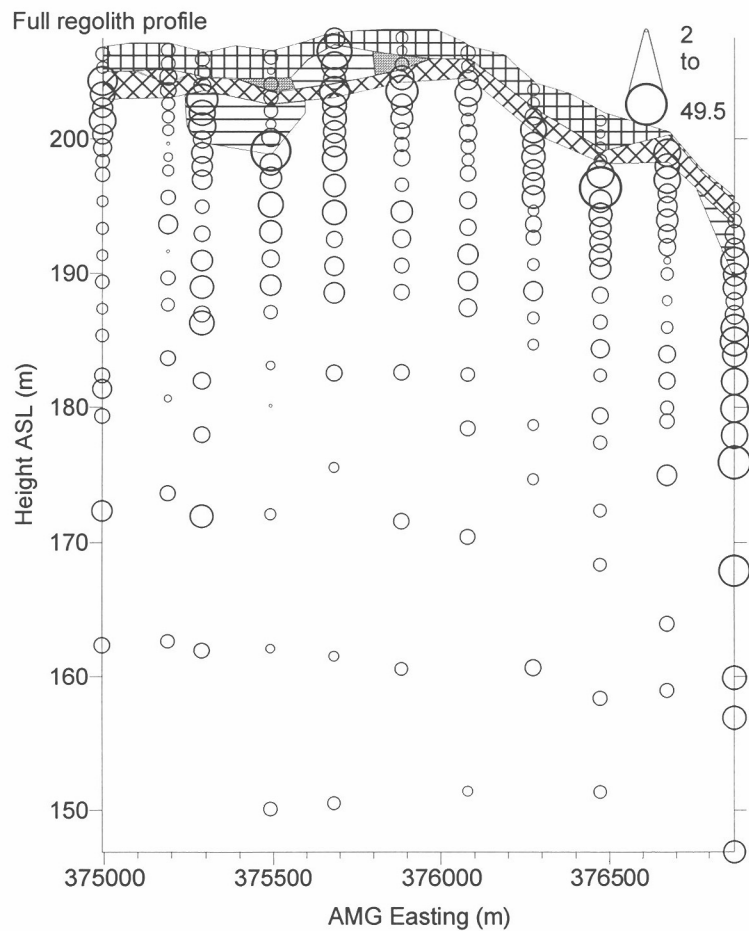
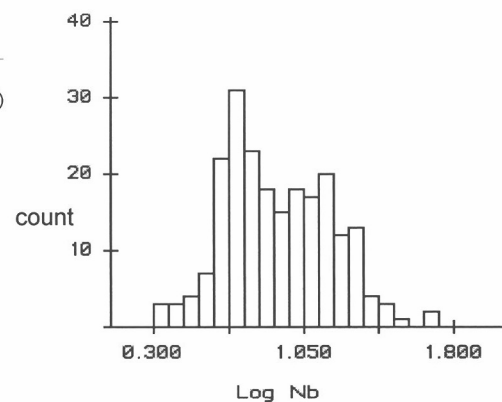


Figure A1b.28: Distribution and concentration of Nb at Jumbuck regolith section on 6690450N.

Nb (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 17.7 | 9.7 | 5.1 | 12.2 |
| Std Error | 3.1 | 0.5 | 0.5 | 1.8 |
| Median | 15.8 | 7.5 | 4.5 | 8.0 |
| Std Dev | 11.7 | 6.2 | 2.1 | 7.3 |
| Minimum | 3.5 | 2 | 2.5 | 3.5 |
| Maximum | 45 | 49.5 | 12 | 28 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

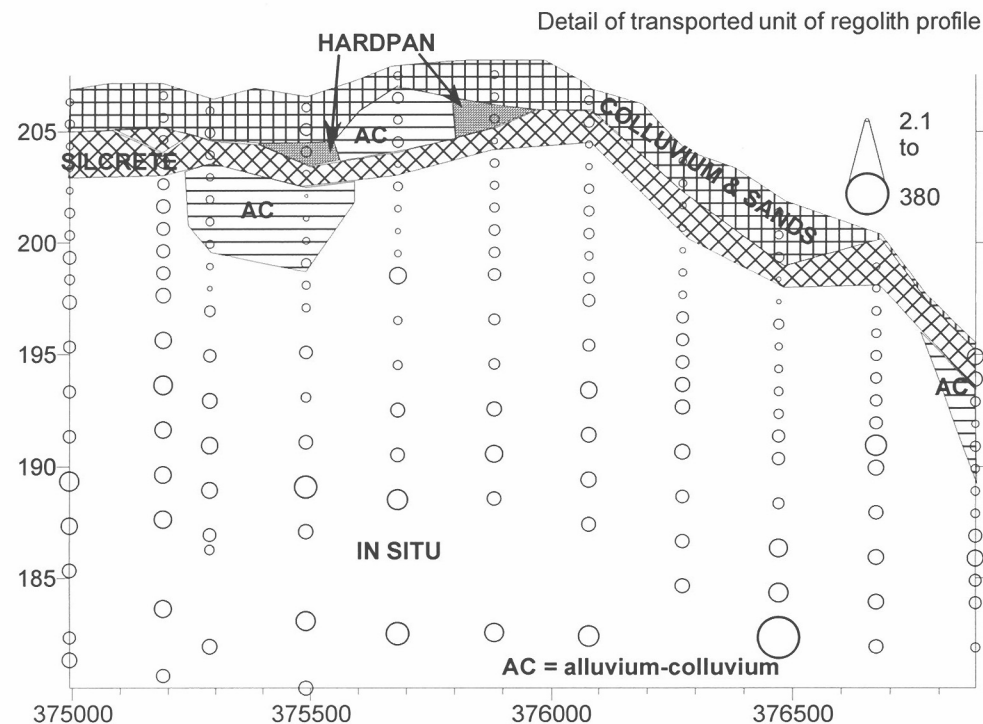
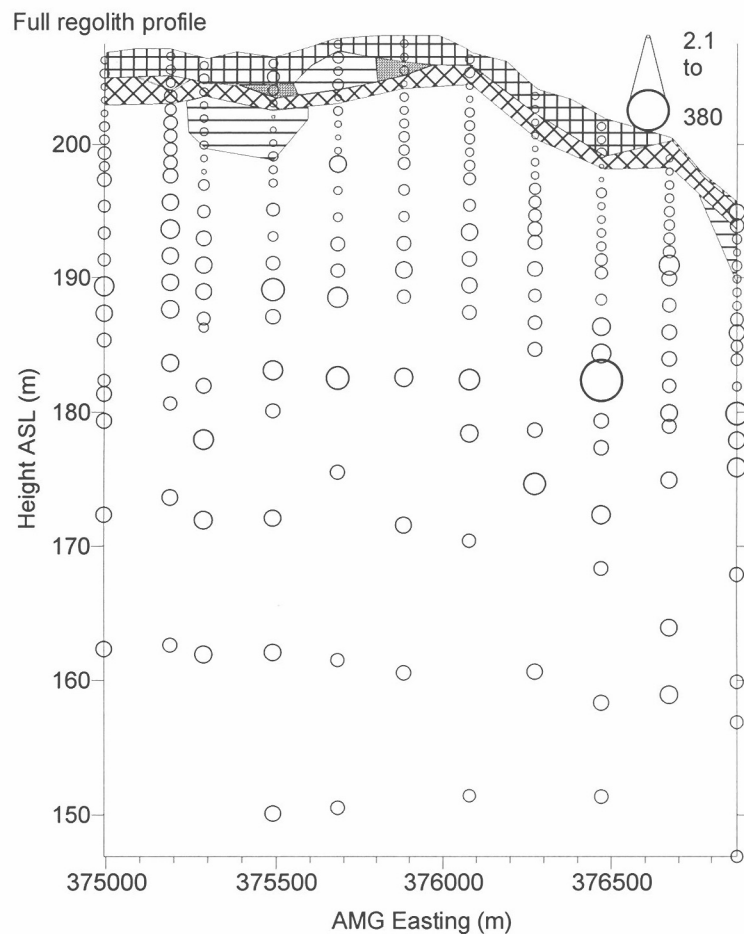
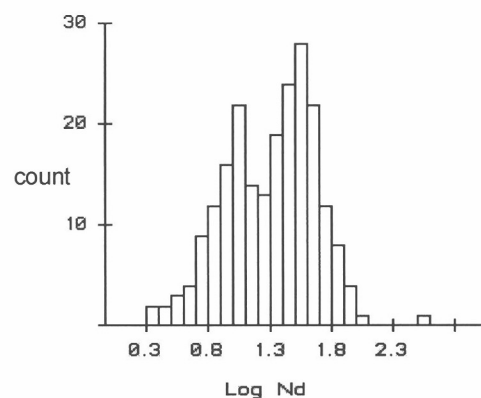


Figure A1b.29: Distribution and concentration of Nd at Jumbuck regolith section on 6690450N.

Nd (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 10 | 34 | 10 | 12 |
| Std Error | 1 | 3 | 1 | 3 |
| Median | 9 | 30 | 9 | 7 |
| Std Dev | 5 | 34 | 4 | 12 |
| Minimum | 2.1 | 2.8 | 7 | 2.5 |
| Maximum | 17.5 | 380 | 21.5 | 45 |
| Count | 14 | 168 | 17 | 17 |

Jumbuck

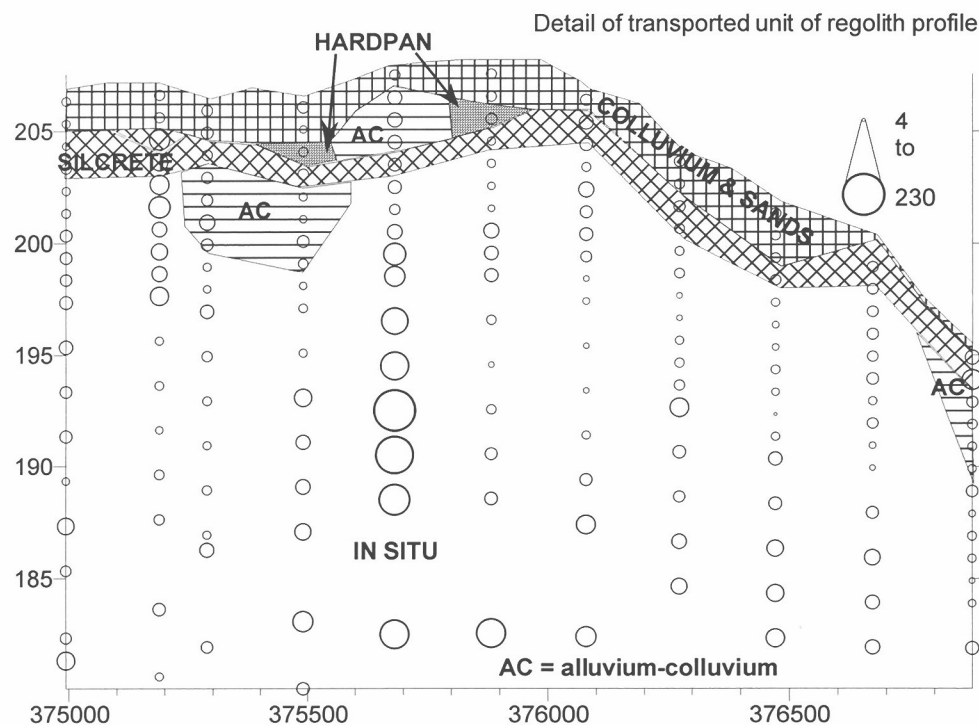
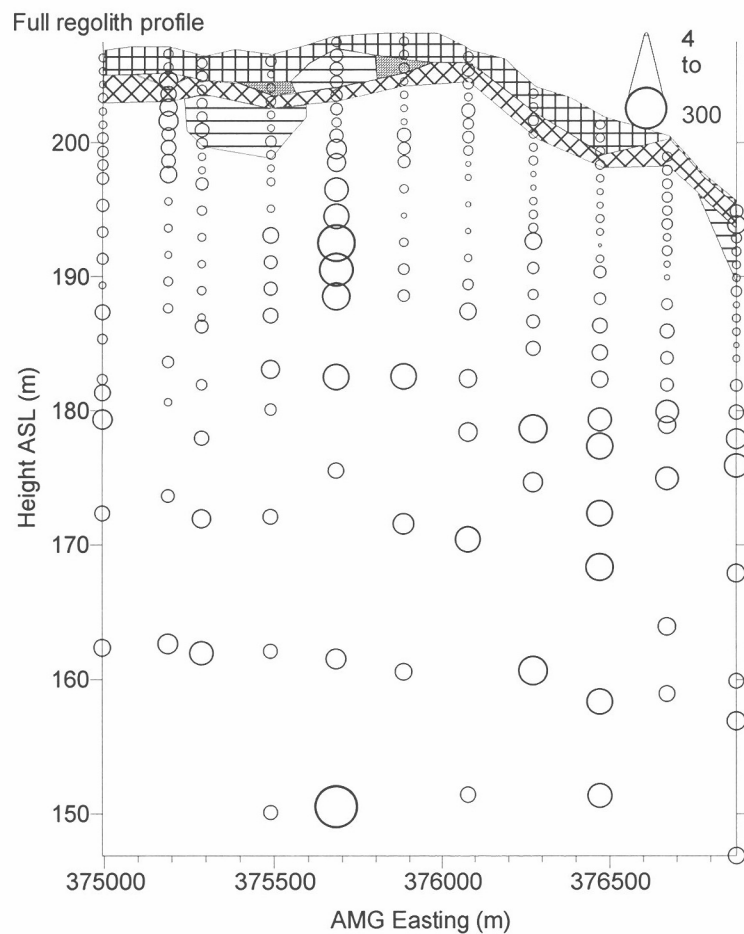
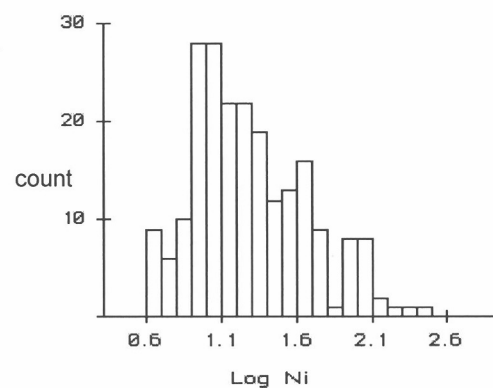


Figure A1b.30: Distribution and concentration of Ni at Jumbuck regolith section on 6690450N.

Ni (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 15 | 34 | 12 | 19 |
| Std Error | 2 | 3 | 1 | 3 |
| Median | 14 | 19 | 12 | 13 |
| Std Dev | 6 | 41 | 2 | 13 |
| Minimum | 7 | 4 | 7 | 7 |
| Maximum | 27 | 300 | 18 | 50 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

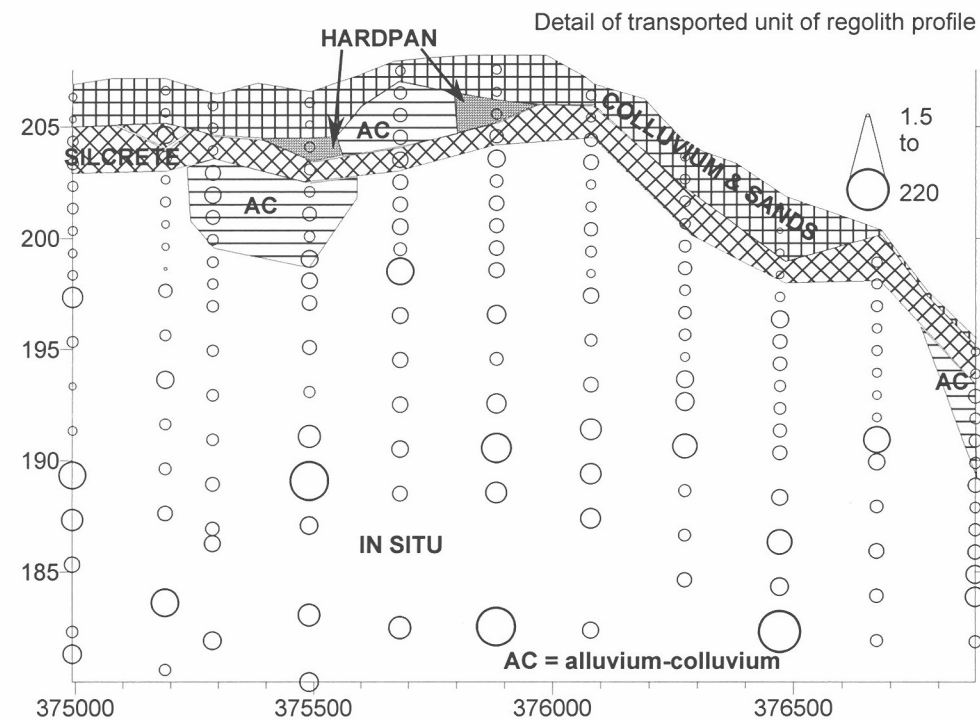
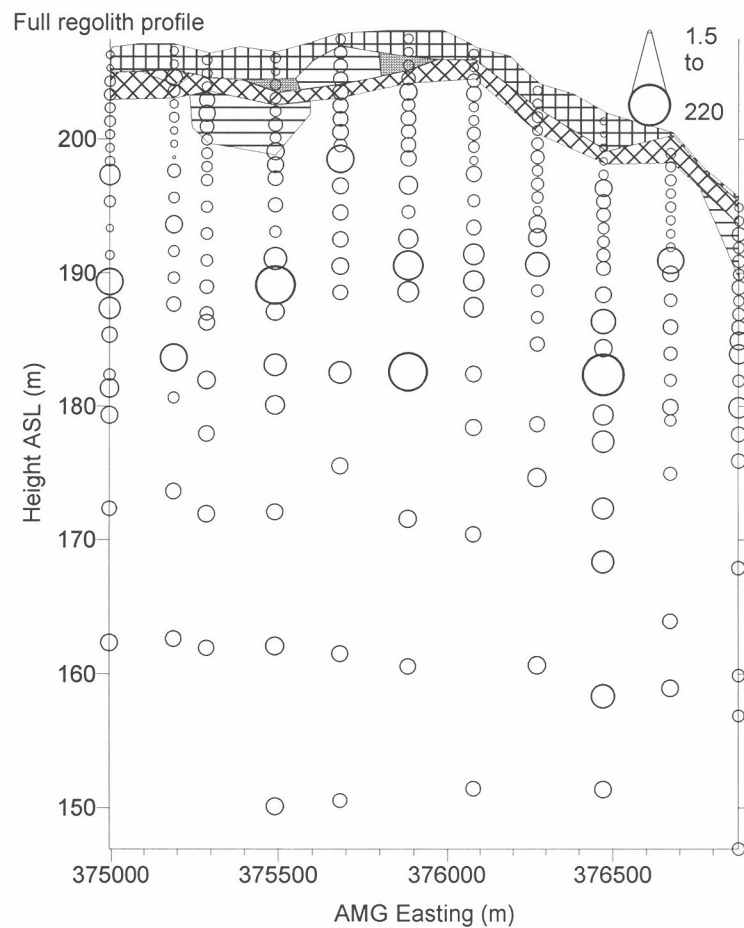
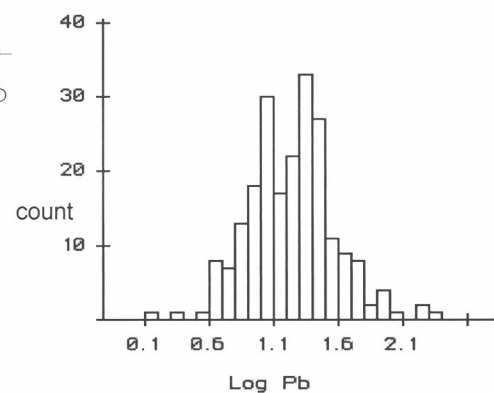


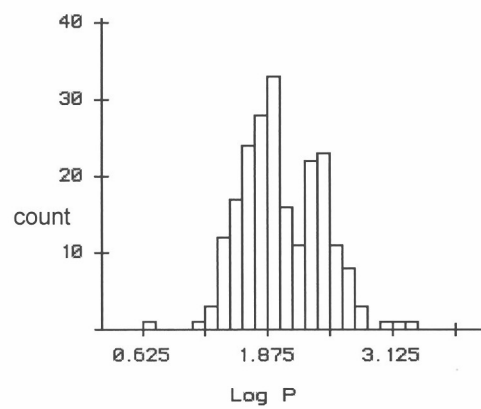
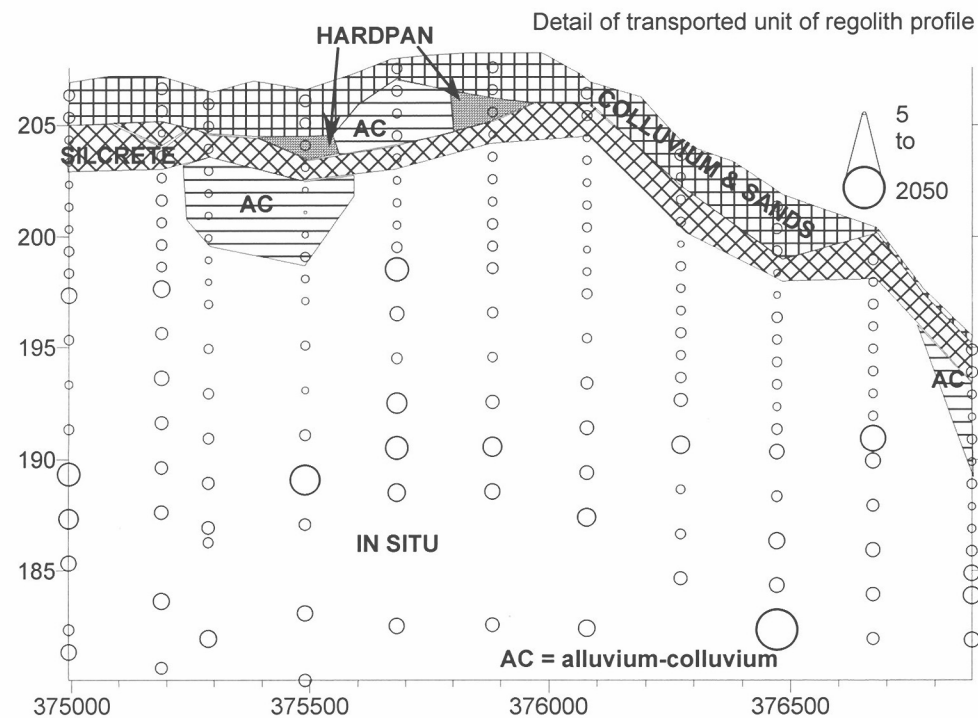
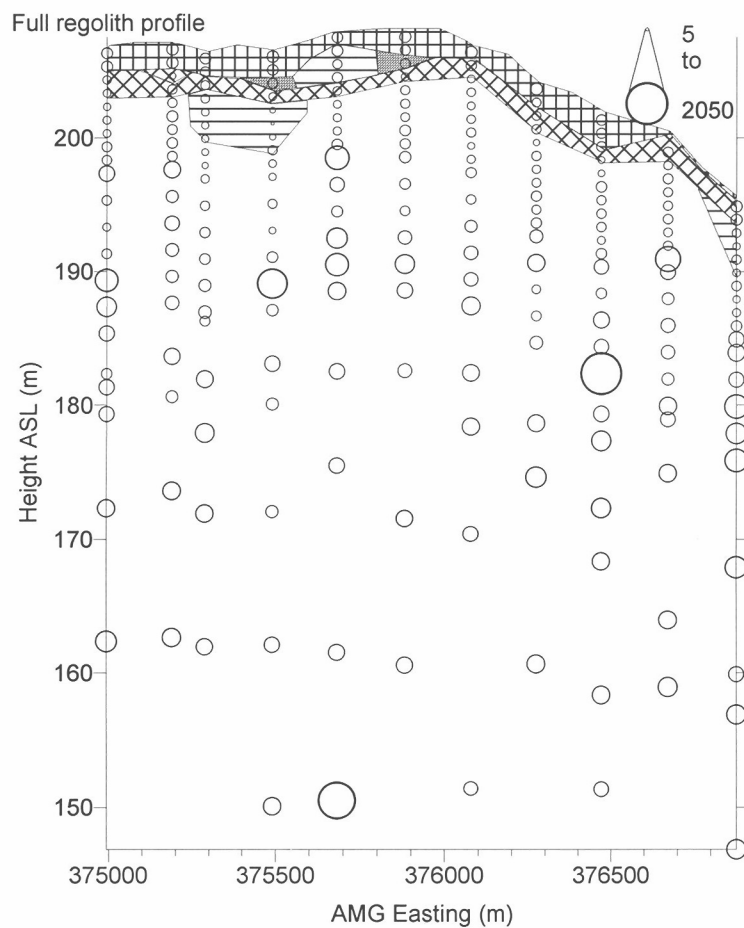
Figure A1b.31: Distribution and concentration of Pb at Jumbuck regolith section on 6690450N.

Pb (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 18 | 28 | 6 | 12 |
| Std Error | 1.7 | 2.3 | 0.4 | 1.6 |
| Median | 18 | 22 | 7 | 10 |
| Std Dev | 8 | 28 | 2 | 7 |
| Minimum | 10 | 1.5 | 2.5 | 4.5 |
| Maximum | 31 | 220 | 9 | 30 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 43 | 197 | 88 | 52 |
| Std Error | 8 | 18 | 4 | 5 |
| Median | 43 | 123 | 90 | 50 |
| Std Dev | 23 | 237 | 16 | 22 |
| Minimum | 5 | 20 | 50 | 25 |
| Maximum | 85 | 2050 | 110 | 95 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.32: Distribution and concentration of P at Jumbuck regolith section on 6690450N.

P (ppm)

Jumbuck

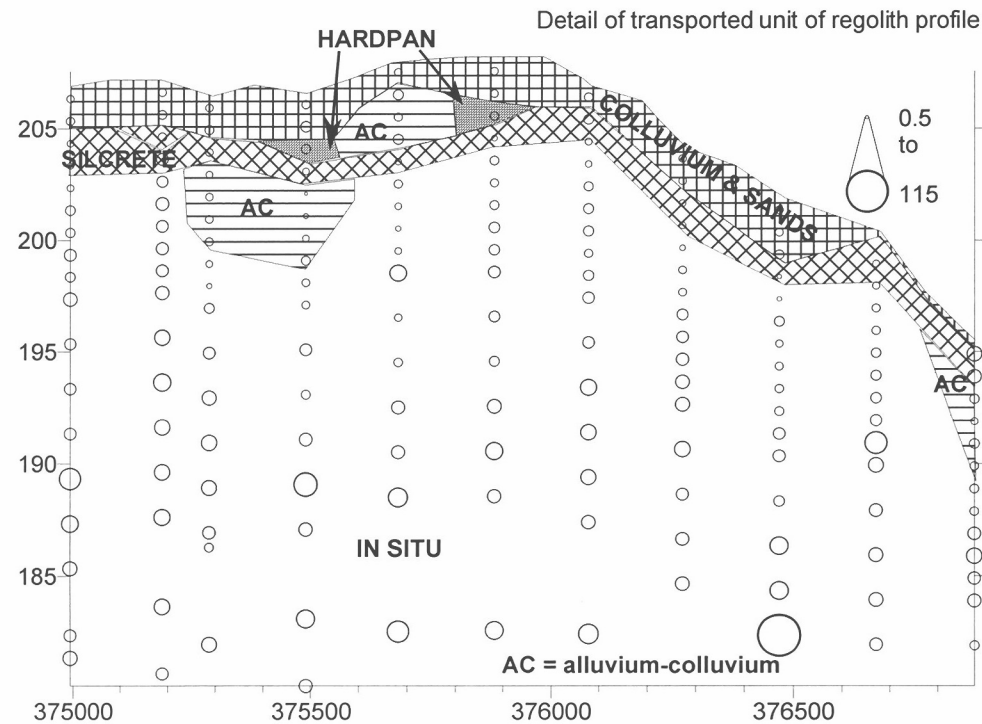
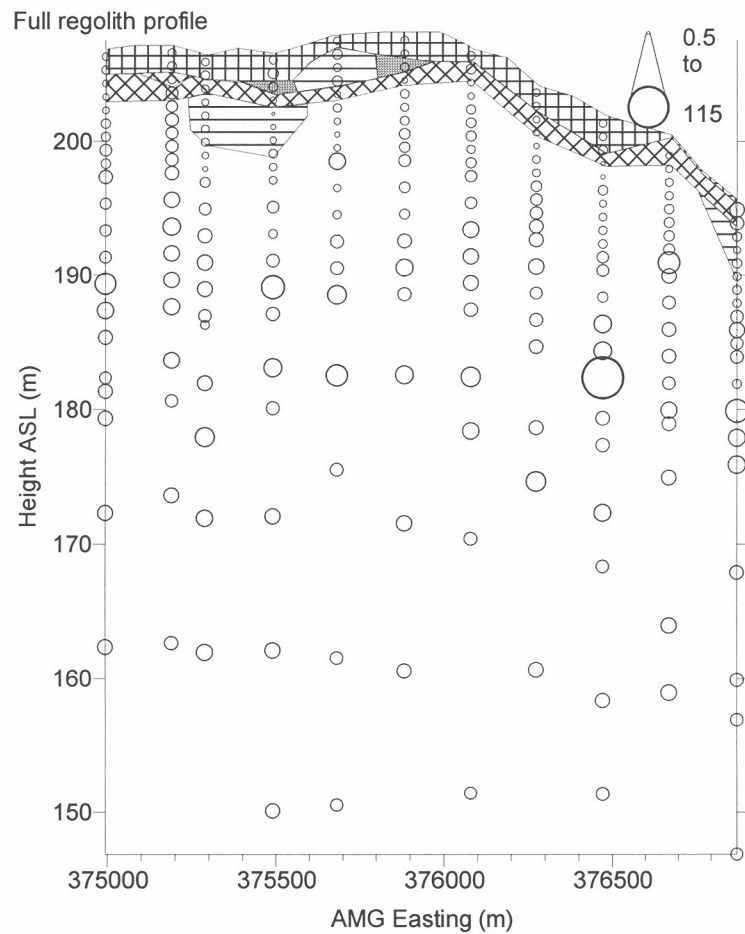
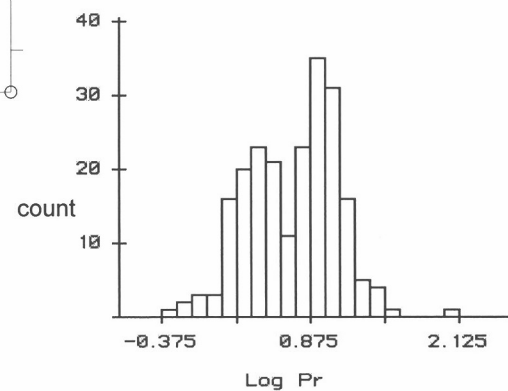


Figure A1b.33: Distribution and concentration of Pr at Jumbuck regolith section on 6690450N.

Pr (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 2 | 9 | 3 | 3 |
| Std Error | 0.3 | 0.8 | 0.2 | 0.7 |
| Median | 2.3 | 8 | 2.2 | 1.8 |
| Std Dev | 1 | 10 | 1 | 3 |
| Minimum | 0.5 | 0.85 | 1.8 | 0.8 |
| Maximum | 4.2 | 115 | 4.8 | 11 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck

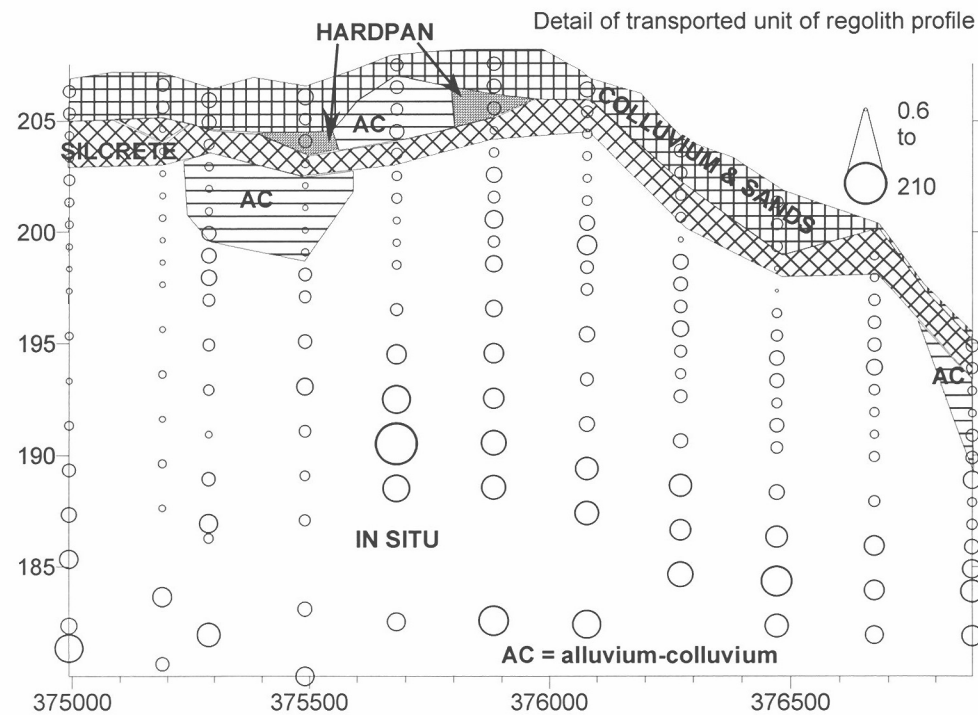
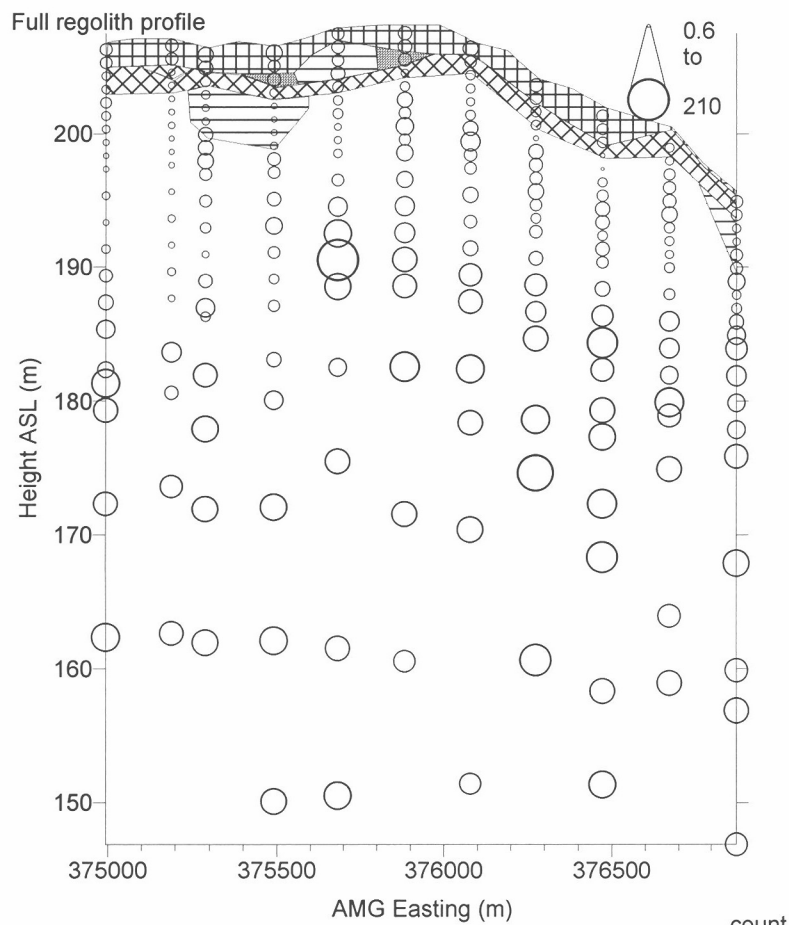
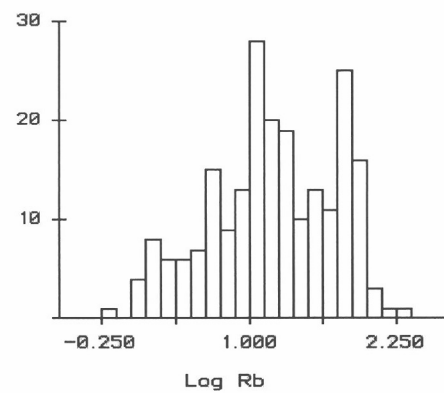


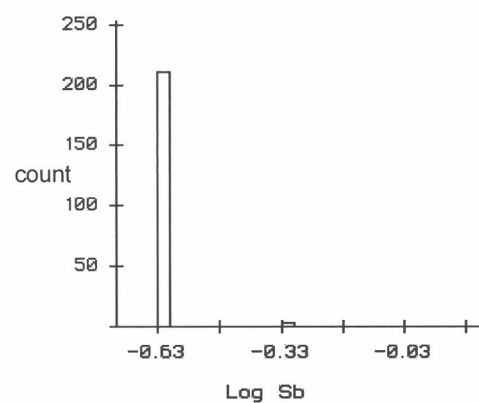
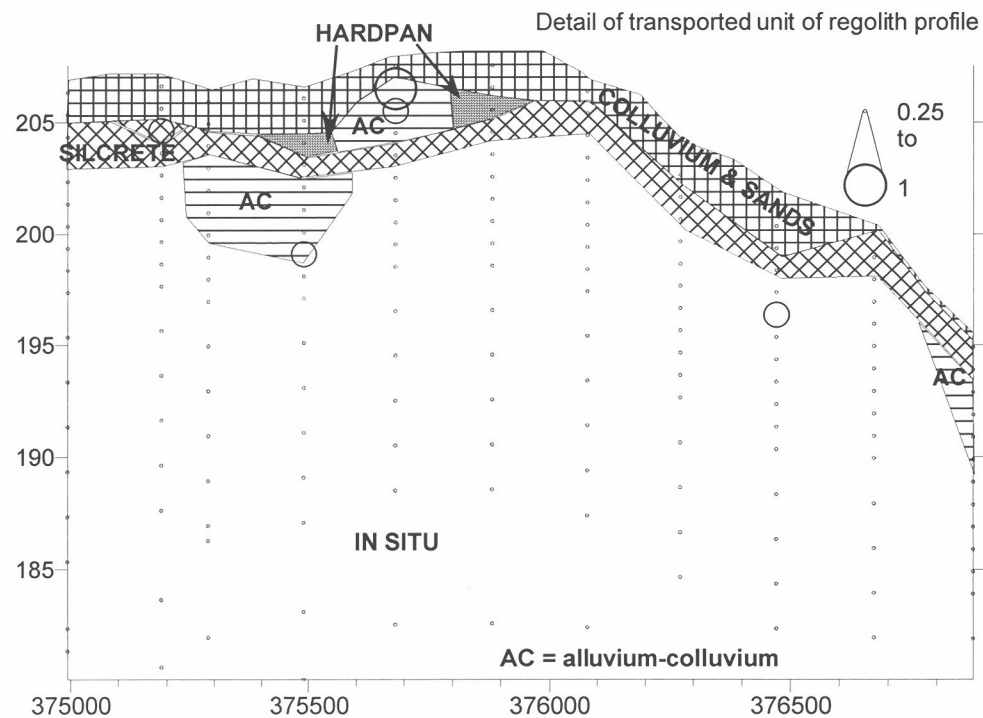
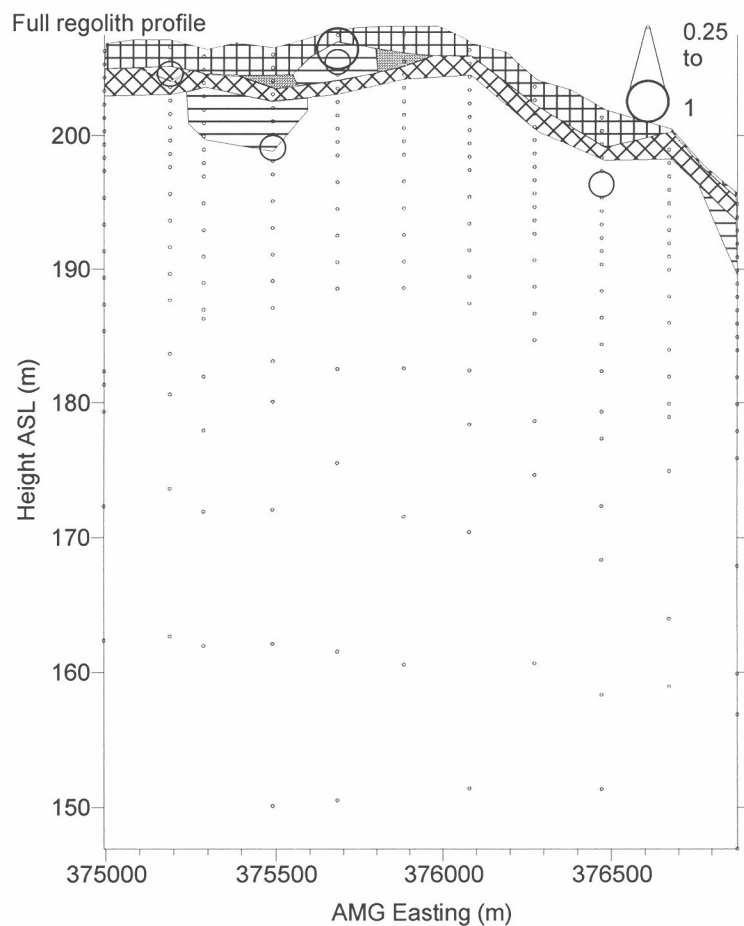
Figure A1b.34: Distribution and concentration of Rb at Jumbuck regolith section on 6690450N.

Rb (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 7 | 35 | 15 | 8 |
| Std Error | 1.7 | 2.8 | 1.1 | 0.8 |
| Median | 4 | 22 | 13 | 8 |
| Std Dev | 8 | 34 | 5 | 3 |
| Minimum | 1.4 | 0.8 | 8.5 | 1 |
| Maximum | 18.5 | 210 | 25 | 13 |
| Count | 14 | 166 | 17 | 17 |

Jumbuck

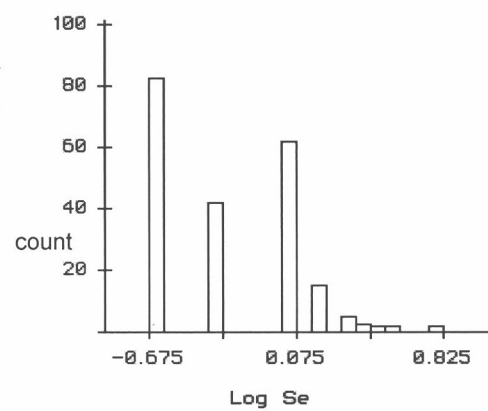
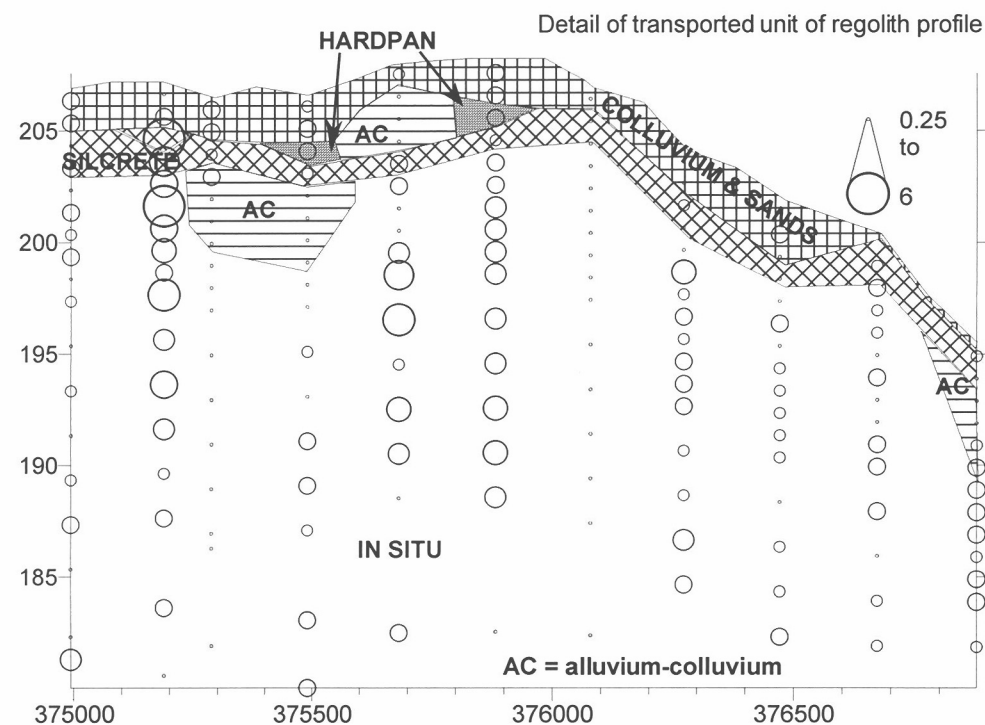
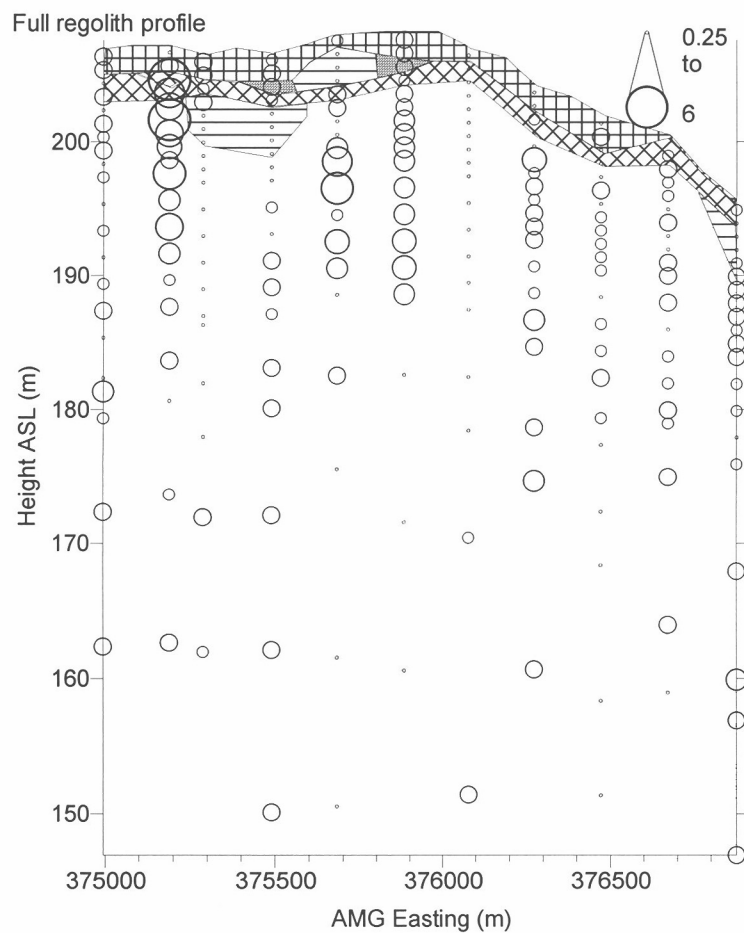


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.34 | 0.25 | 0.25 | 0.28 |
| Std Error | 0.08 | 0.00 | 0.00 | 0.01 |
| Median | 0.25 | 0.25 | 0.25 | 0.25 |
| Std Dev | 0.21 | 0.02 | 0.00 | 0.08 |
| Minimum | 0.25 | 0.25 | 0.25 | 0.25 |
| Maximum | 1 | 0.5 | 0.25 | 0.5 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck

Figure A1b.35: Distribution and concentration of Sb at Jumbuck regolith section on 6690450N.

Sb (ppm)

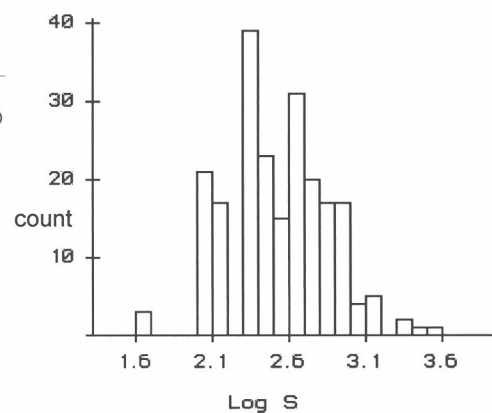
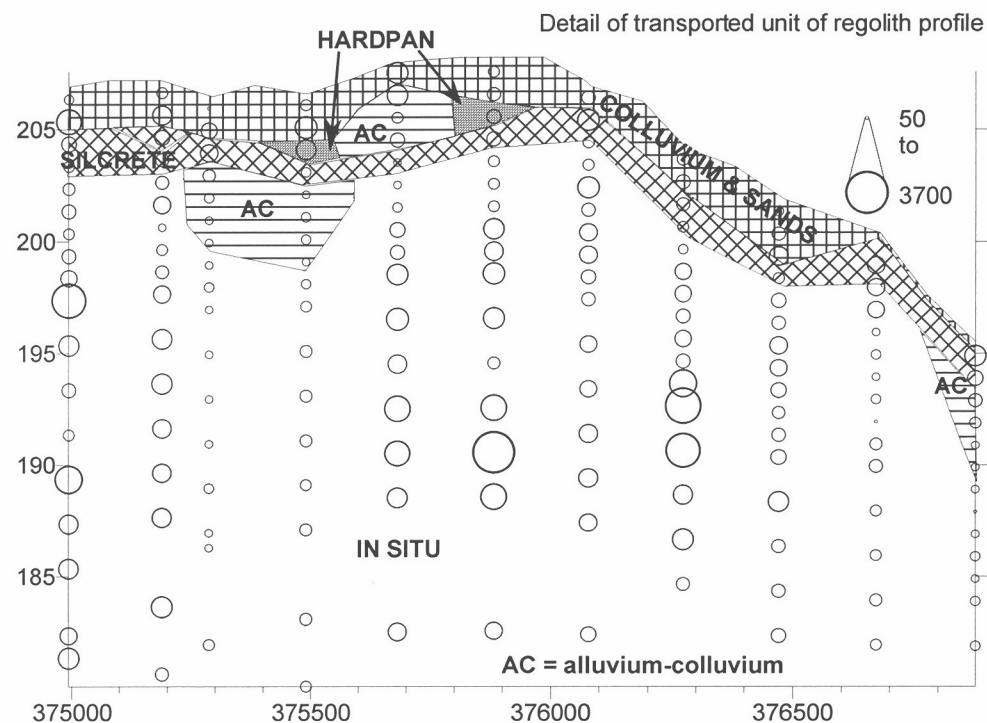
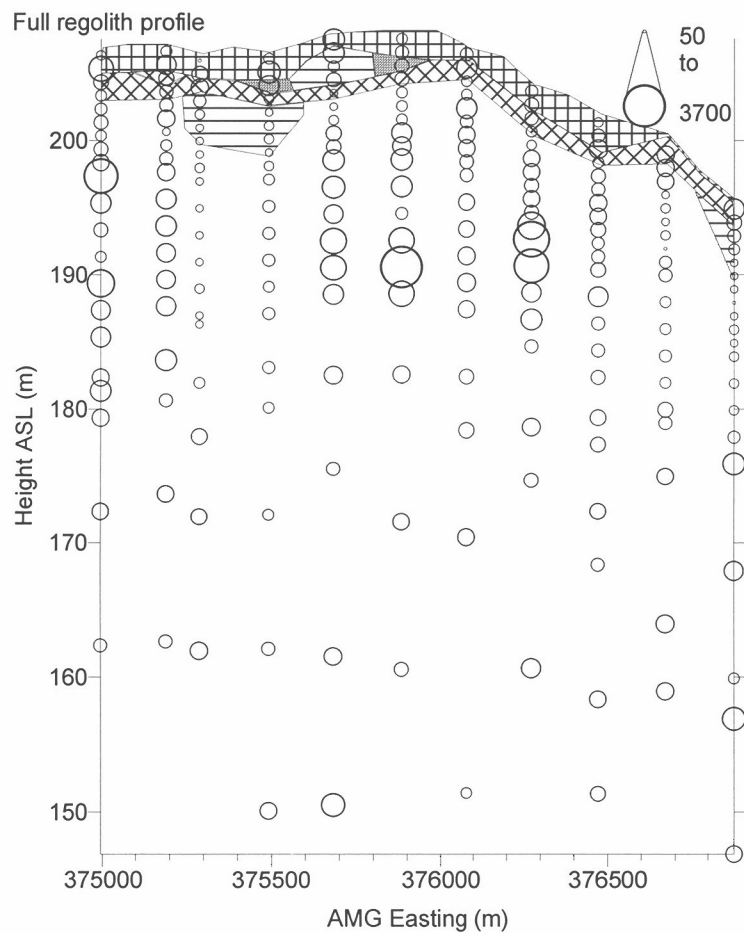


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.32 | 0.81 | 0.88 | 0.97 |
| Std Error | 0.08 | 0.08 | 0.08 | 0.35 |
| Median | 0.25 | 0.5 | 1 | 0.5 |
| Std Dev | 0.21 | 0.75 | 0.38 | 1.45 |
| Minimum | 0.25 | 0.25 | 0.25 | 0.25 |
| Maximum | 1 | 8 | 1 | 8 |
| Count | 14 | 188 | 17 | 17 |

Figure A1b.36: Distribution and concentration of Se at Jumbuck regolith section on 6690450N.

Se (ppm)

Jumbuck

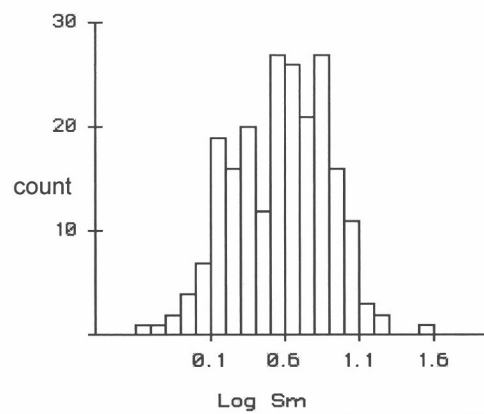
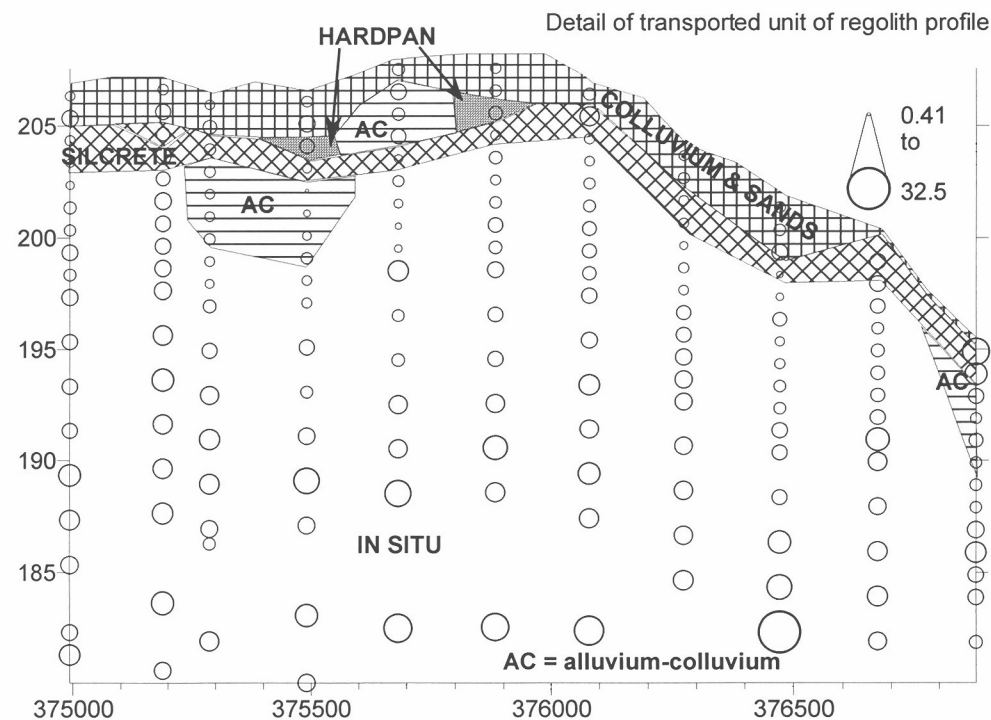
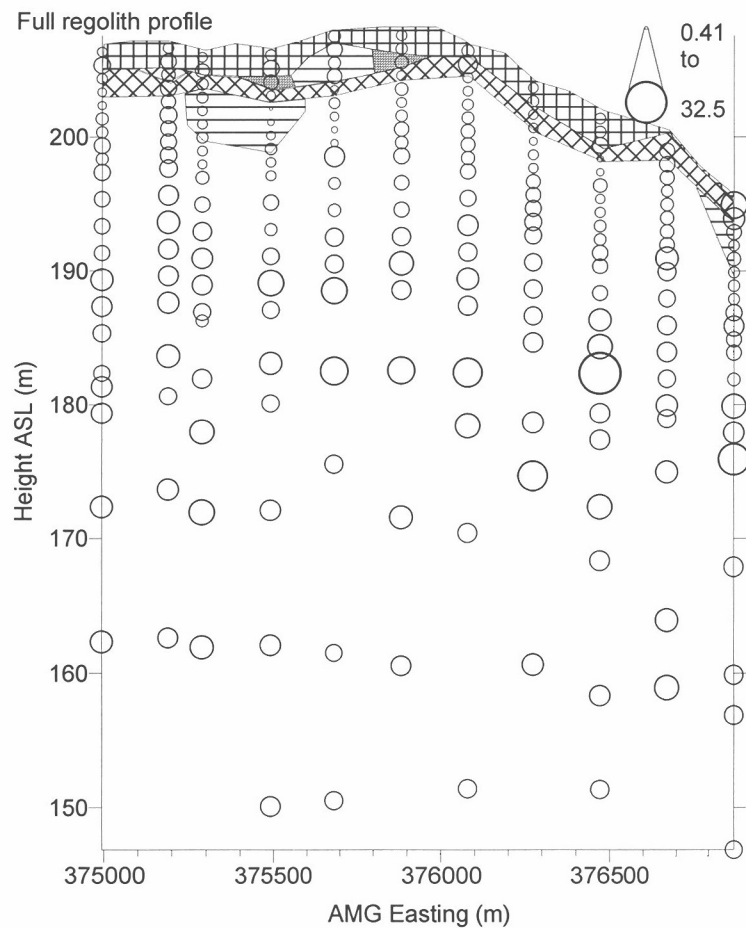


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 218 | 404 | 420 | 382 |
| Std Error | 50 | 37 | 81 | 53 |
| Median | 150 | 350 | 300 | 350 |
| Std Dev | 188 | 475 | 335 | 218 |
| Minimum | 100 | 50 | 50 | 100 |
| Maximum | 800 | 3700 | 1250 | 850 |
| Count | 14 | 188 | 17 | 17 |

Figure A1b.37: Distribution and concentration of S at Jumbuck regolith section on 6690450N.

S (ppm)

Jumbuck

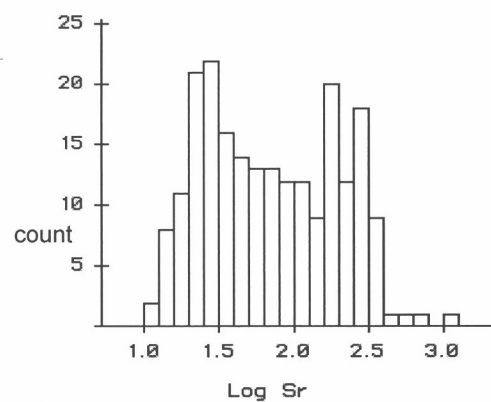
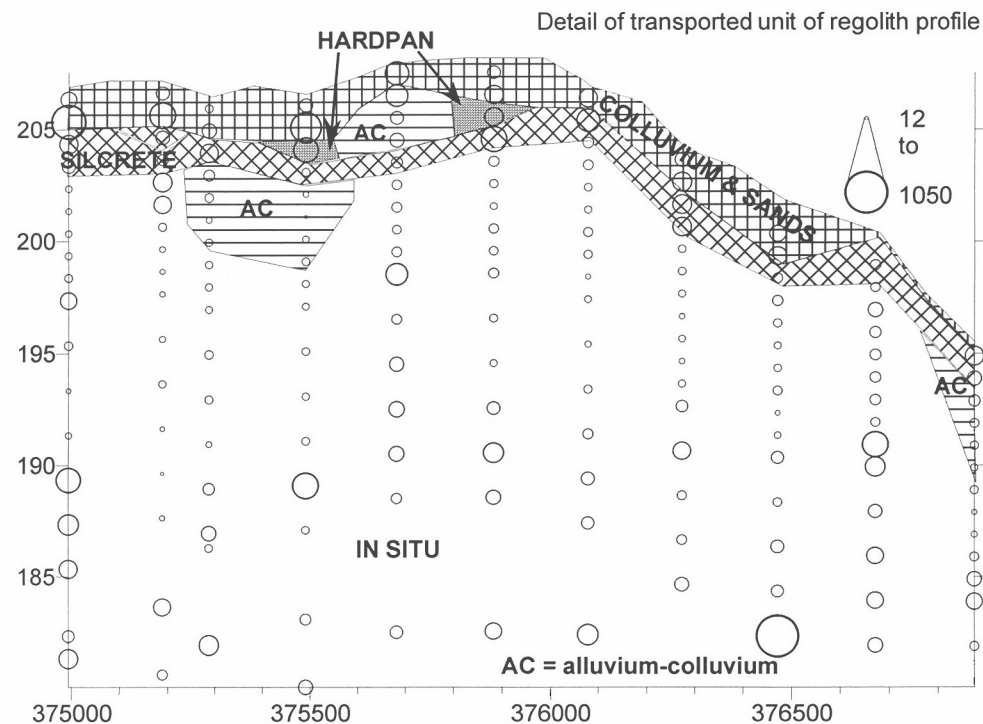
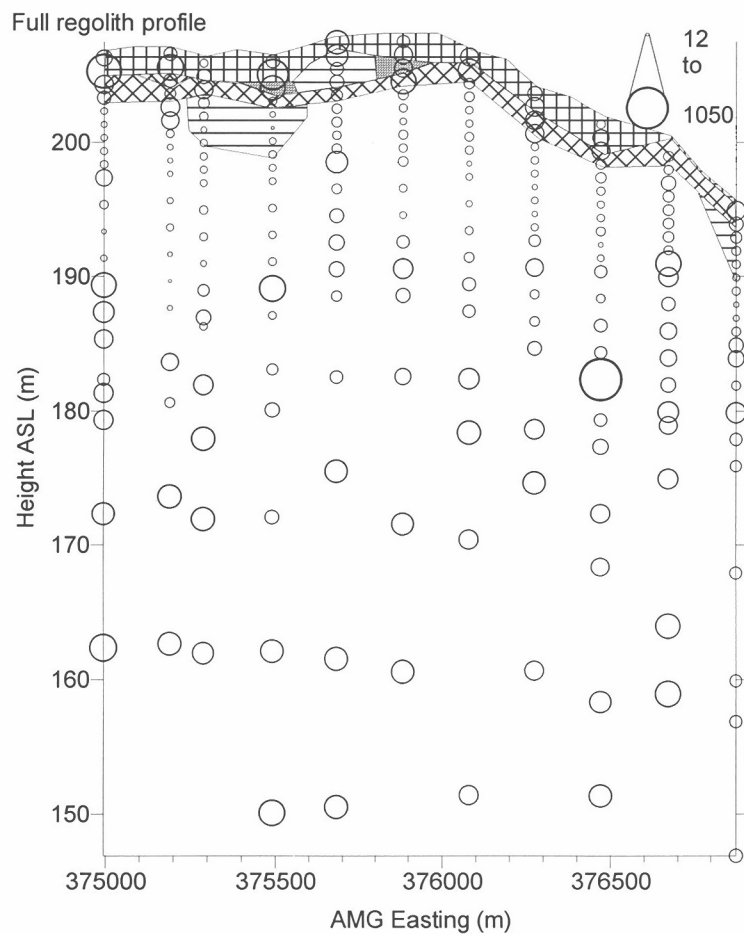


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 2.01 | 5.43 | 2.33 | 3.17 |
| Std Error | 0.29 | 0.29 | 0.25 | 0.78 |
| Median | 1.775 | 4.85 | 1.9 | 1.5 |
| Std Dev | 1.08 | 3.79 | 1.05 | 3.13 |
| Minimum | 0.41 | 0.83 | 1.3 | 0.85 |
| Maximum | 3.8 | 32.5 | 4.3 | 12.5 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.38: Distribution and concentration of Sm at Jumbuck regolith section on 6690450N.

Sm (ppm)

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 58 | 111 | 201 | 127 |
| Std Error | 17 | 10 | 45 | 23 |
| Median | 33 | 58 | 130 | 90 |
| Std Dev | 64 | 126 | 185 | 98 |
| Minimum | 12 | 12 | 30 | 29 |
| Maximum | 280 | 1050 | 700 | 380 |
| Count | 14 | 168 | 17 | 17 |

Figure A1b.39: Distribution and concentration of Sr at Jumbuck regolith section on 6690450N.

Sr (ppm)

Jumbuck

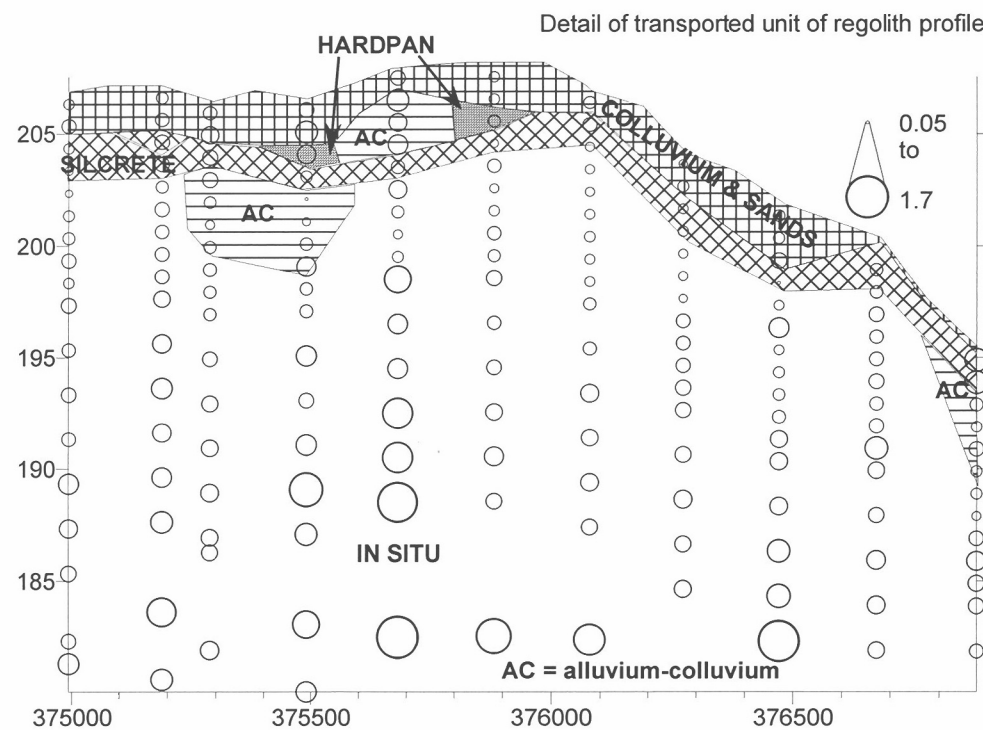
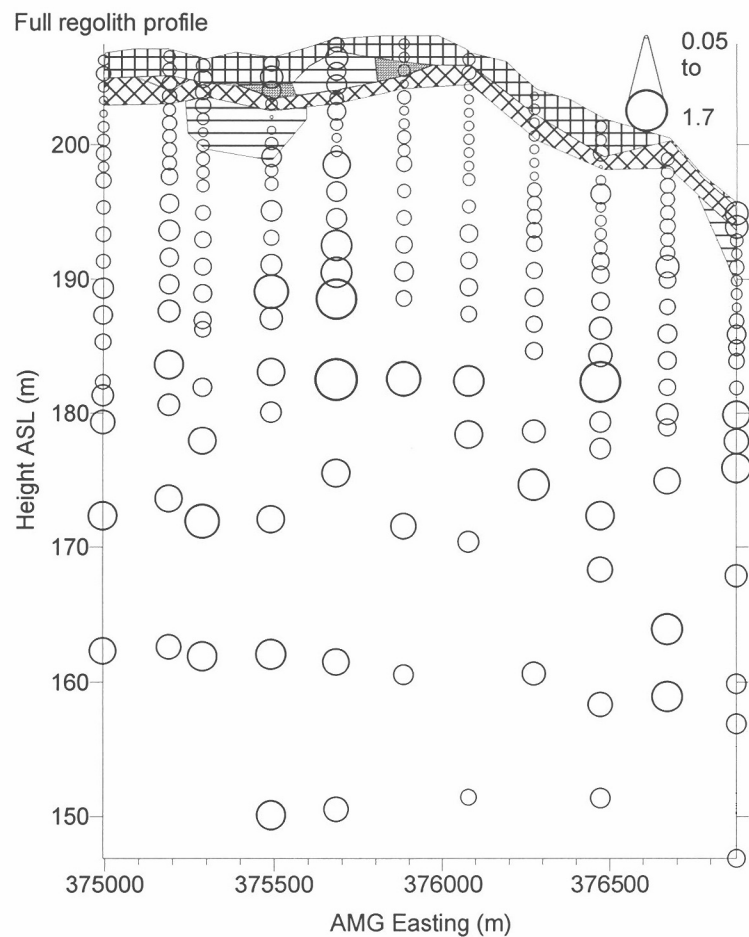
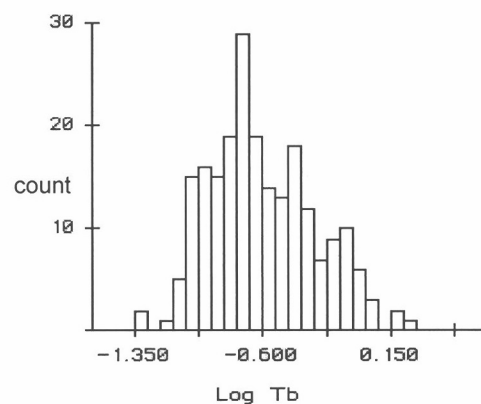


Figure A1b.40: Distribution and concentration of Tb at Jumbuck regolith section on 6690450N.

Tb (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.20 | 0.37 | 0.17 | 0.18 |
| Std Error | 0.03 | 0.02 | 0.02 | 0.03 |
| Median | 0.18 | 0.27 | 0.14 | 0.15 |
| Std Dev | 0.12 | 0.30 | 0.08 | 0.13 |
| Minimum | 0.05 | 0.07 | 0.08 | 0.05 |
| Maximum | 0.46 | 1.7 | 0.48 | 0.5 |
| Count | 14 | 186 | 17 | 17 |

Jumbuck

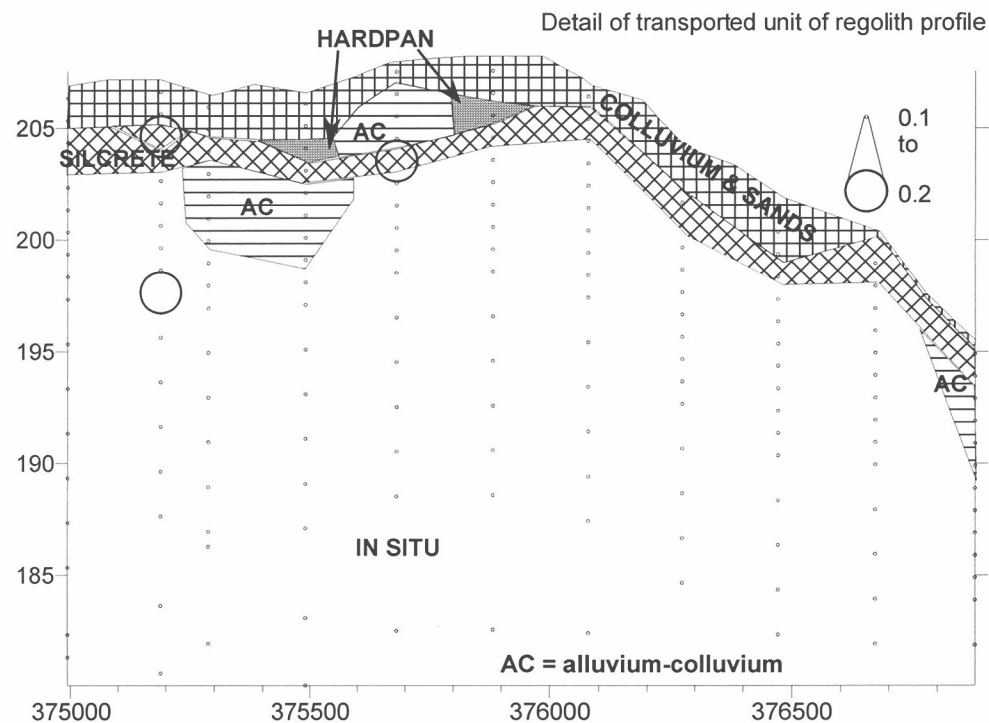
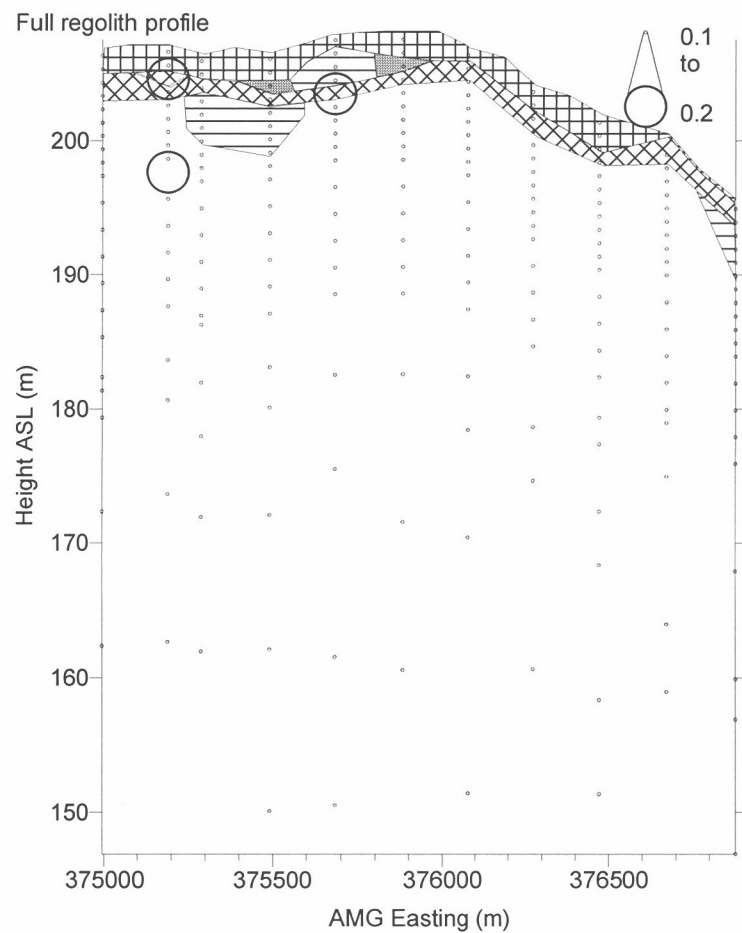
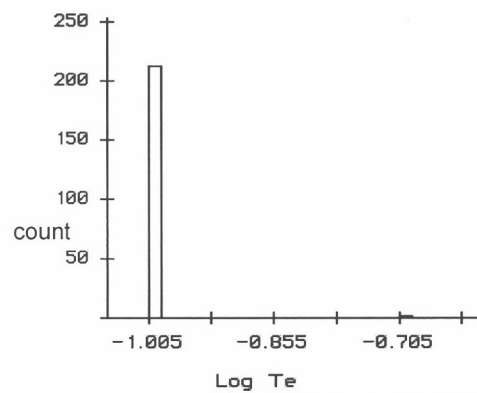


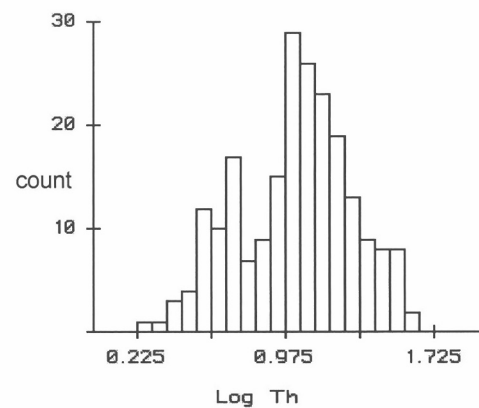
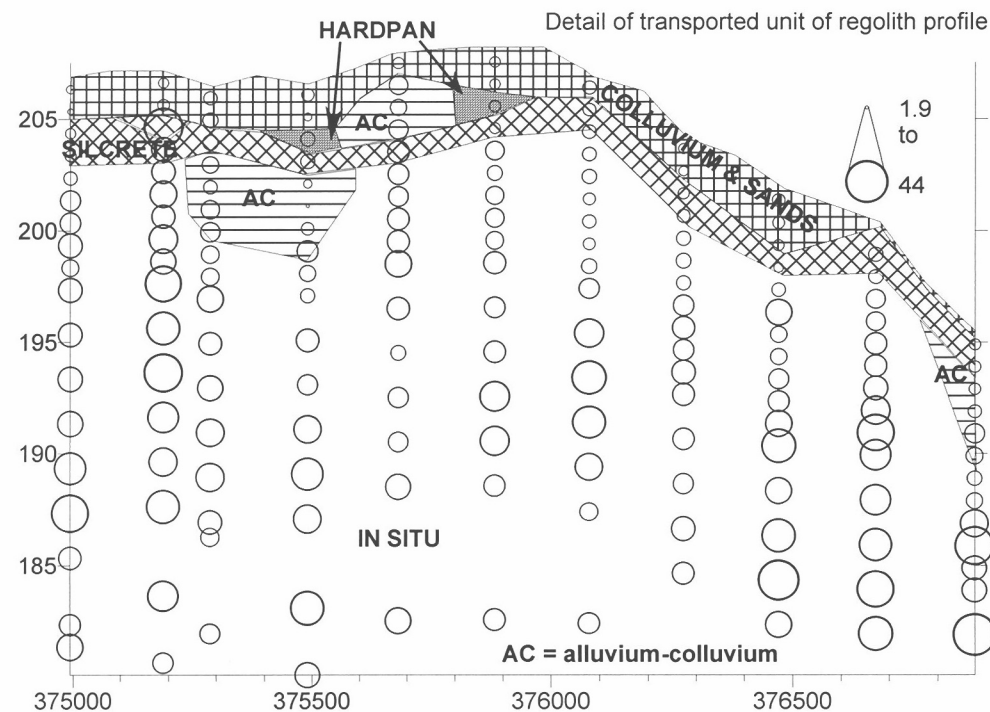
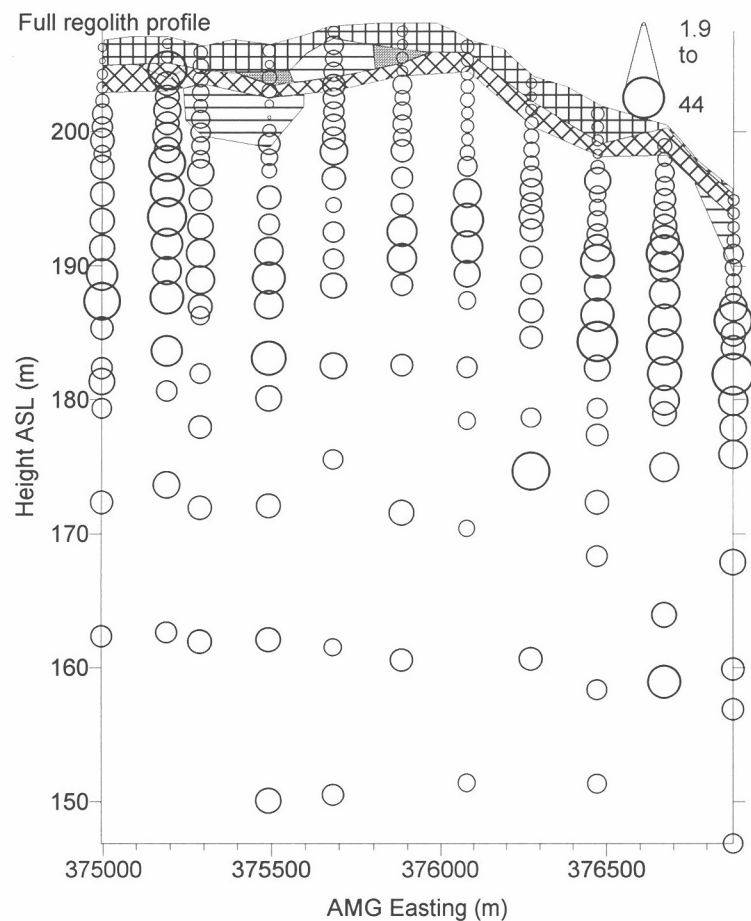
Figure A1b.41: Distribution and concentration of Te at Jumbuck regolith section on 6690450N.

Te (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.10 | 0.10 | 0.10 | 0.11 |
| Std Error | 0.00 | 0.00 | 0.00 | 0.01 |
| Median | 0.1 | 0.1 | 0.1 | 0.1 |
| Std Dev | 0.00 | 0.01 | 0.00 | 0.03 |
| Minimum | 0.1 | 0.1 | 0.1 | 0.1 |
| Maximum | 0.1 | 0.2 | 0.1 | 0.2 |
| Count | 14 | 100 | 17 | 17 |

Jumbuck

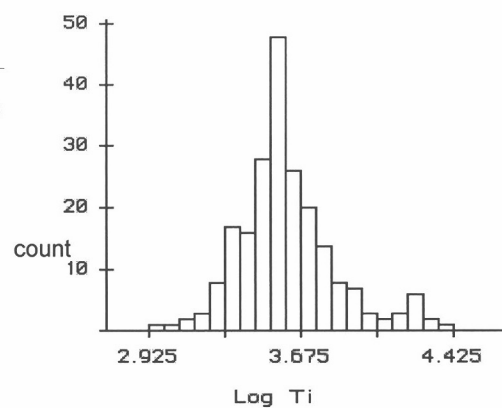
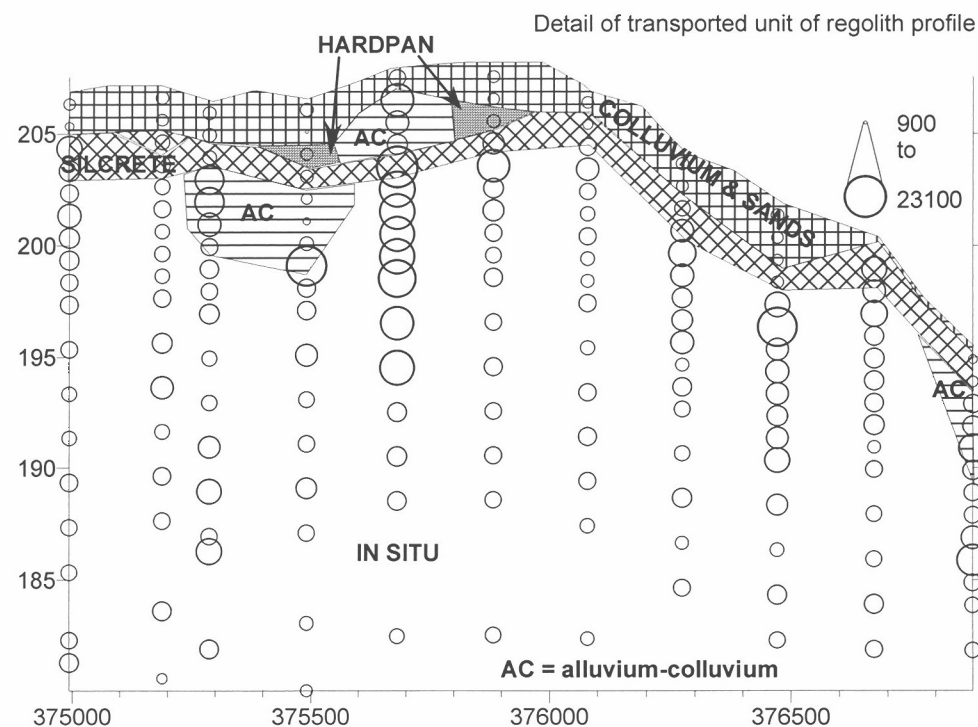
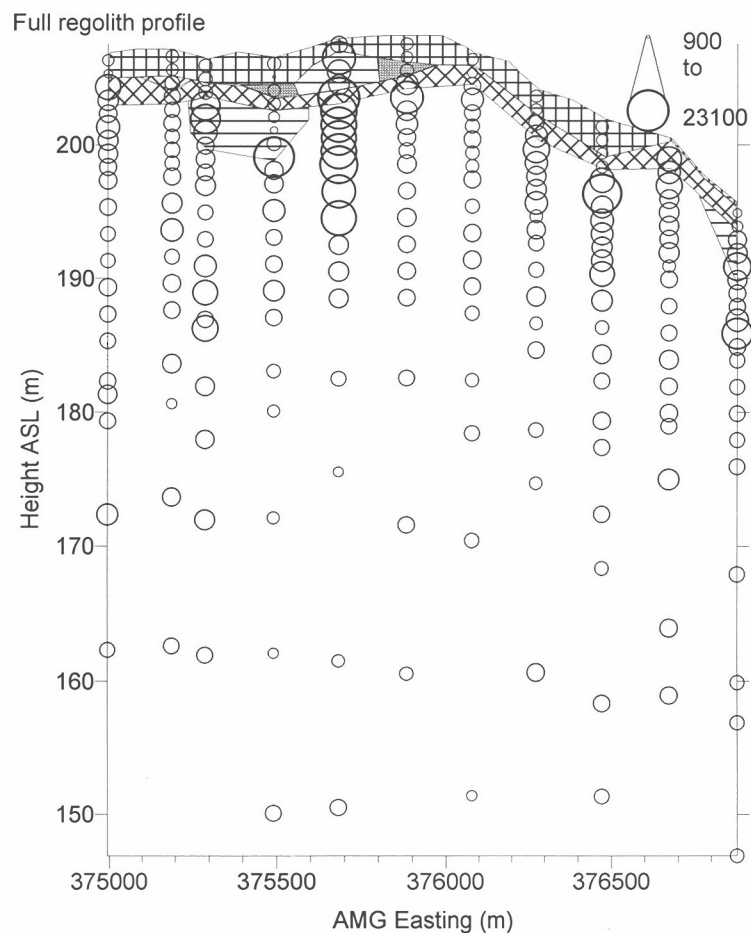


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 7 | 15 | 4 | 7 |
| Std Error | 0.8 | 0.8 | 0.2 | 2.0 |
| Median | 7 | 13 | 4 | 5 |
| Std Dev | 3 | 8 | 1 | 8 |
| Minimum | 1.9 | 4 | 2.1 | 3 |
| Maximum | 11.5 | 44 | 6 | 38 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.42: Distribution and concentration of Th at Jumbuck regolith section on 6690450N.

Th (ppm)

Jumbuck

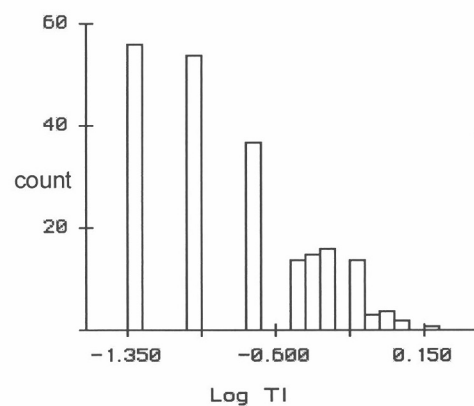
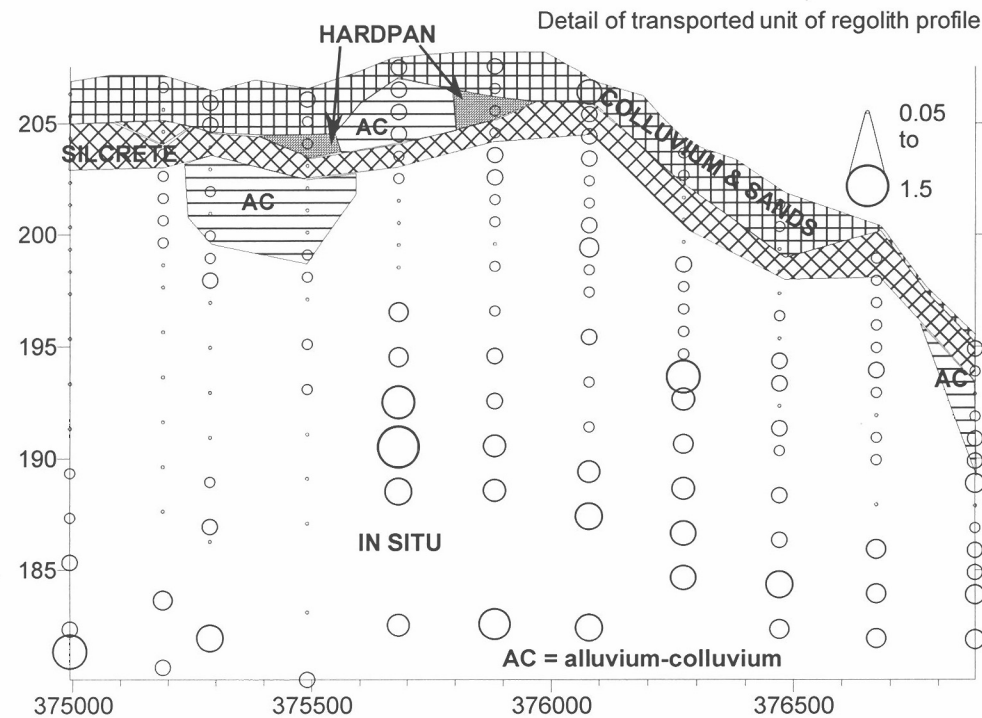
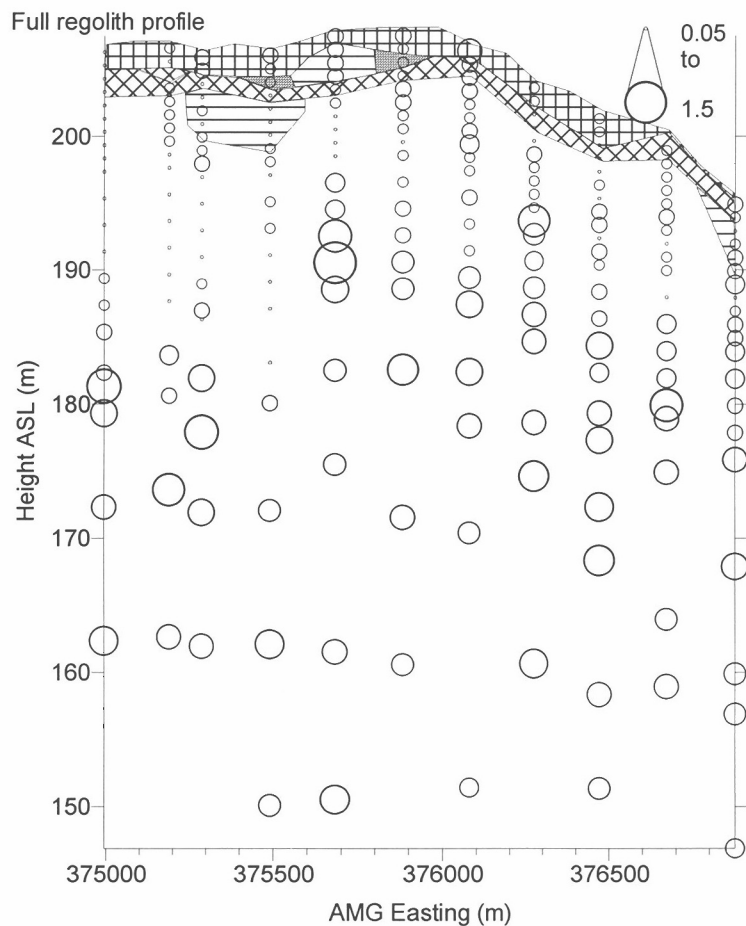


| | Colluvium -alluvium | In situ | Colluvium -sand | Silicate |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 7643 | 4851 | 2106 | 5271 |
| Std Error | 1507 | 253 | 133 | 1243 |
| Median | 6100 | 3850 | 2050 | 3500 |
| Std Dev | 5637 | 3262 | 547 | 5123 |
| Minimum | 1150 | 1600 | 900 | 1400 |
| Maximum | 21700 | 20400 | 3600 | 23100 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.43: Distribution and concentration of Ti at Jumbuck regolith section on 6690450N.

Ti (ppm)

Jumbuck

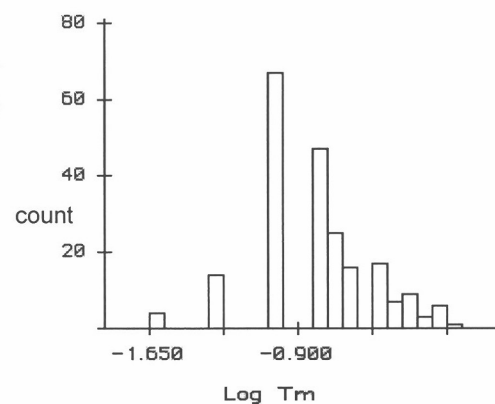
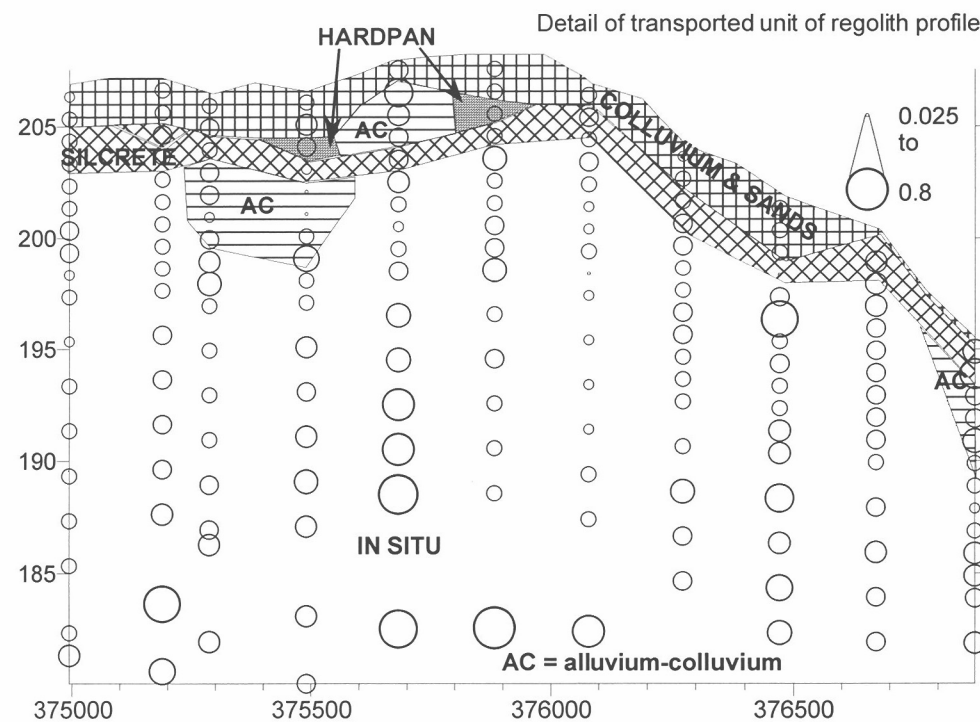
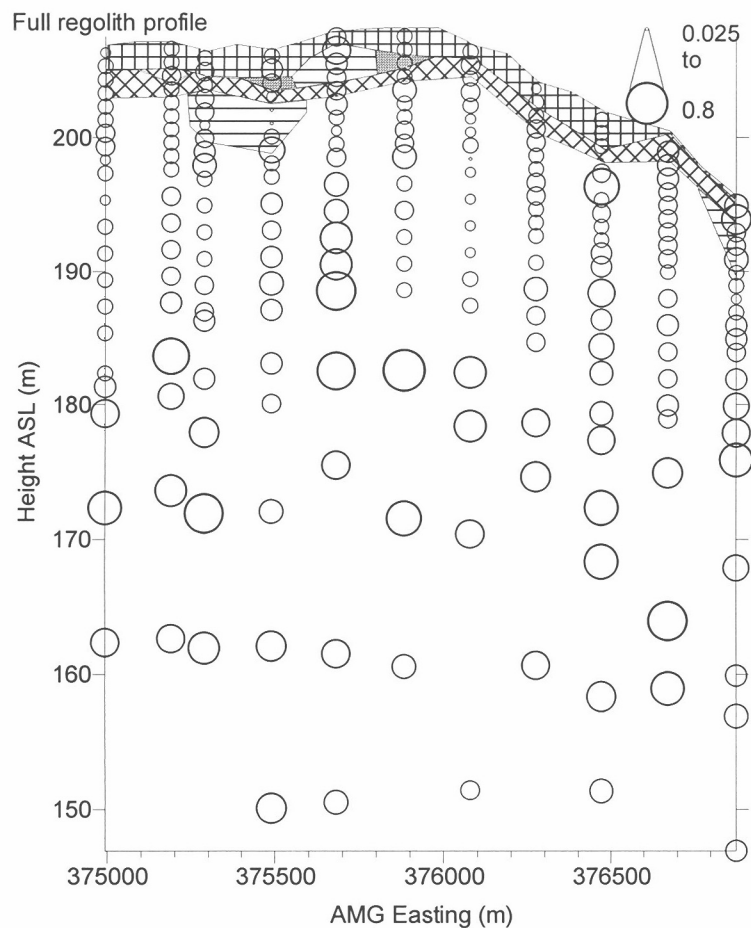


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.11 | 0.28 | 0.14 | 0.09 |
| Std Error | 0.02 | 0.02 | 0.03 | 0.01 |
| Median | 0.1 | 0.2 | 0.1 | 0.1 |
| Std Dev | 0.08 | 0.28 | 0.11 | 0.08 |
| Minimum | 0.05 | 0.05 | 0.05 | 0.05 |
| Maximum | 0.2 | 1.5 | 0.5 | 0.2 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.44: Distribution and concentration of TI at Jumbuck regolith section on 6690450N.

TI (ppm)

Jumbuck

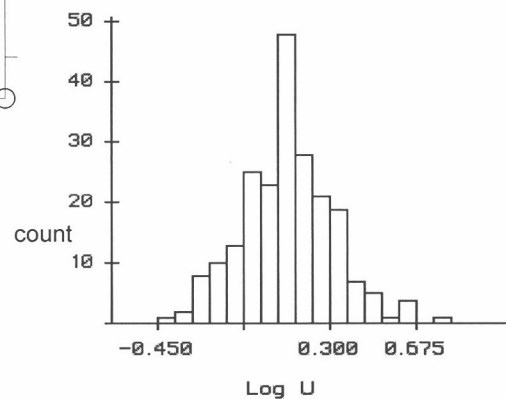
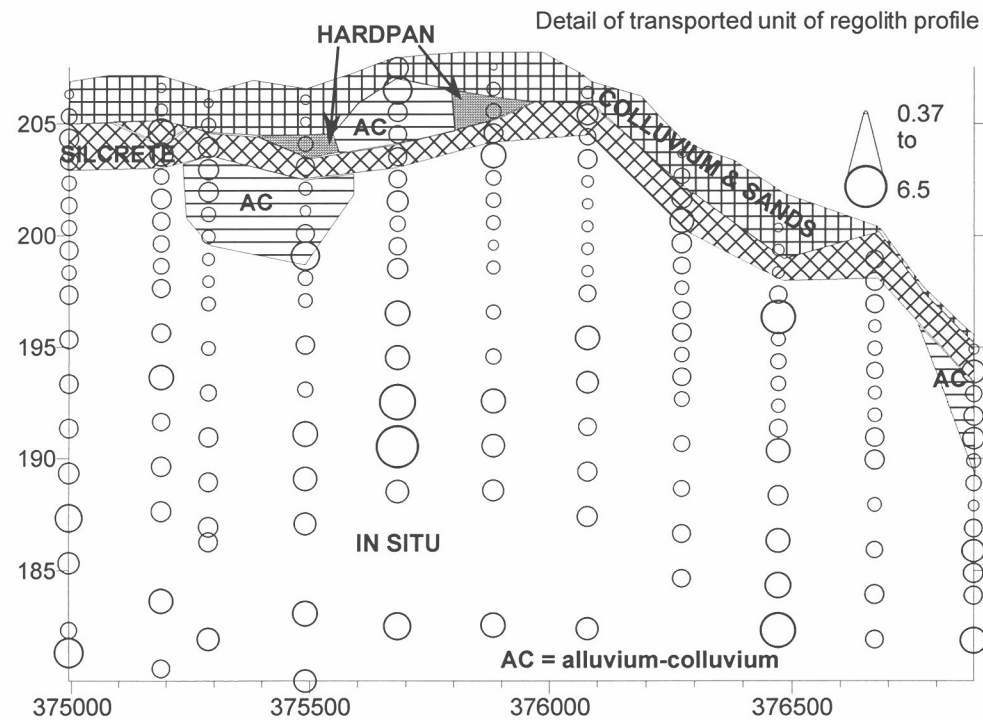
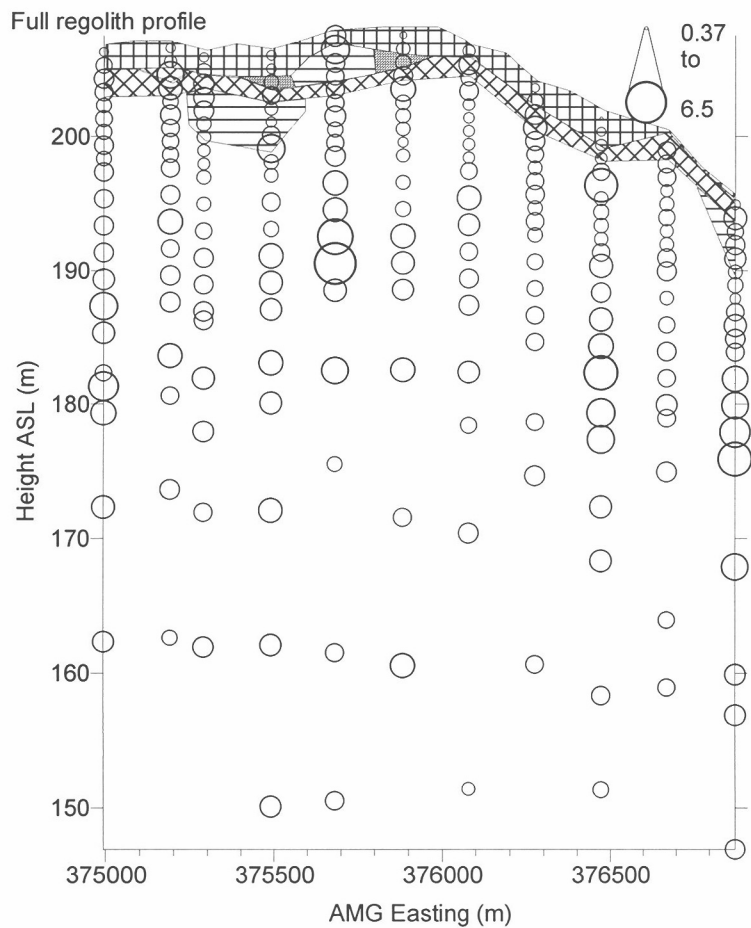


| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 0.16 | 0.22 | 0.11 | 0.14 |
| Std Error | 0.03 | 0.01 | 0.01 | 0.02 |
| Median | 0.15 | 0.15 | 0.1 | 0.1 |
| Std Dev | 0.10 | 0.15 | 0.03 | 0.09 |
| Minimum | 0.025 | 0.025 | 0.05 | 0.025 |
| Maximum | 0.35 | 0.8 | 0.2 | 0.4 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.45: Distribution and concentration of Tm at Jumbuck regolith section on 6690450N.

Tm (ppm)

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 1.5 | 1.5 | 0.7 | 1.5 |
| Std Error | 0.2 | 0.1 | 0.1 | 0.1 |
| Median | 1.4 | 1.4 | 0.6 | 1.4 |
| Std Dev | 0.7 | 0.8 | 0.3 | 0.5 |
| Minimum | 0.6 | 0.6 | 0.4 | 0.6 |
| Maximum | 3 | 6.5 | 1.7 | 2.7 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.46: Distribution and concentration of U at Jumbuck regolith section on 6690450N.

U (ppm)

Jumbuck

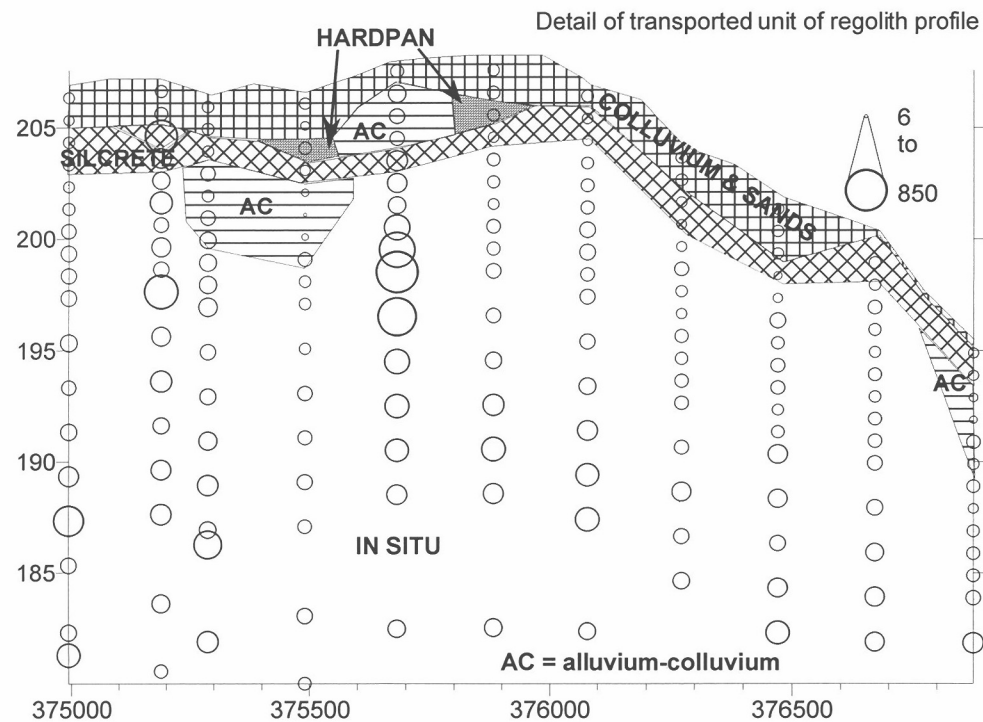
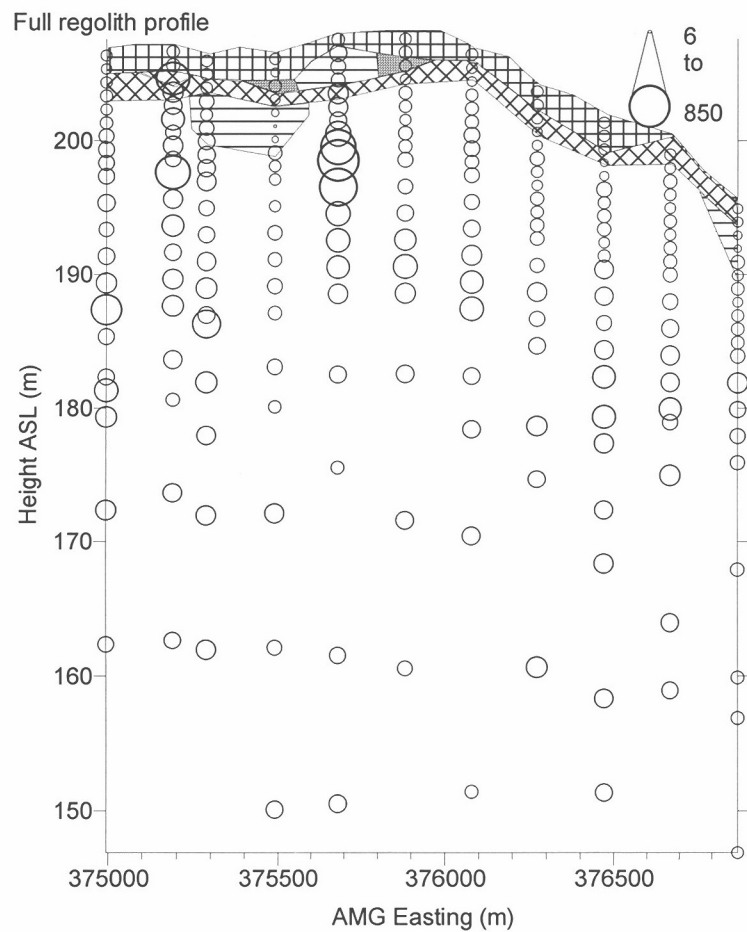
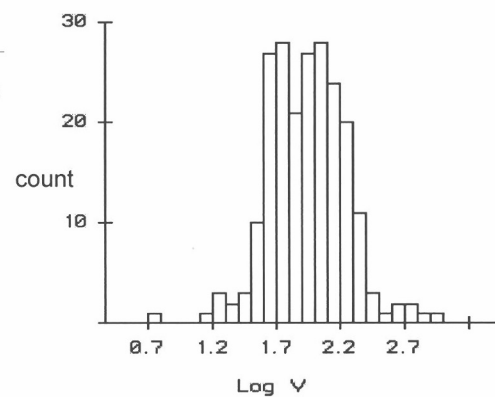


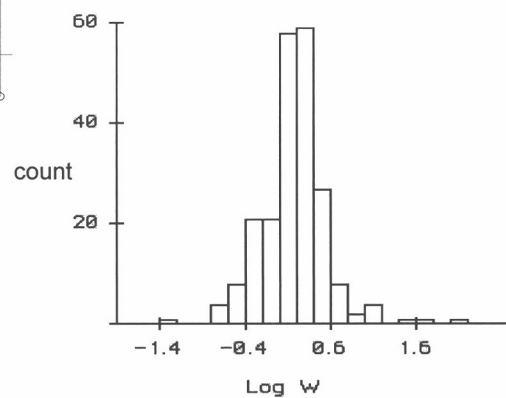
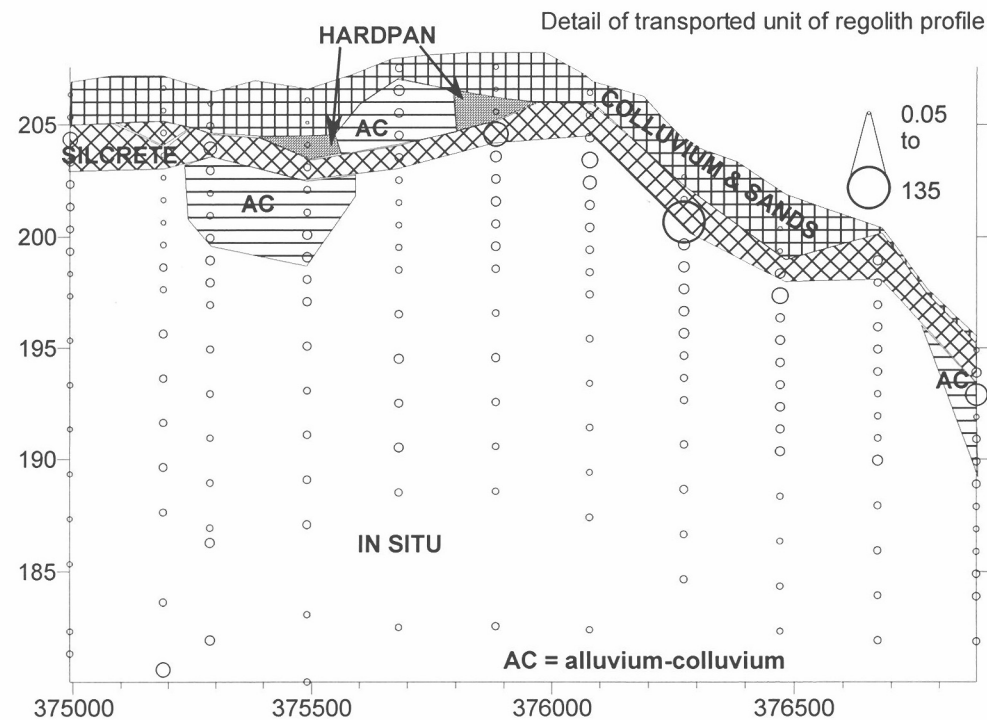
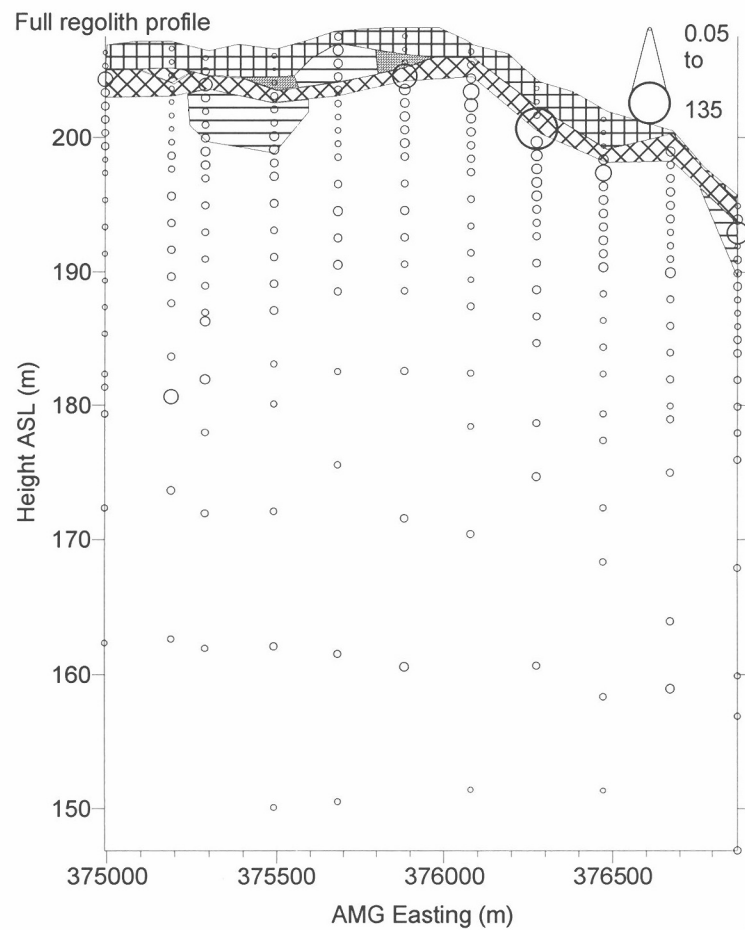
Figure A1b.47: Distribution and concentration of V at Jumbuck regolith section on 6690450N.

V (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 59 | 130 | 47 | 81 |
| Std Error | 10 | 8 | 2 | 28 |
| Median | 71 | 105 | 48 | 38 |
| Std Dev | 38 | 108 | 9 | 117 |
| Minimum | 8 | 27 | 25 | 19 |
| Maximum | 120 | 850 | 83 | 500 |
| Count | 14 | 186 | 17 | 17 |

Jumbuck



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 4 | 2 | 0.5 | 13 |
| Std Error | 2.1 | 0.2 | 0.1 | 8.0 |
| Median | 2.2 | 1.5 | 0.3 | 2.3 |
| Std Dev | 7.9 | 2.0 | 0.5 | 33 |
| Minimum | 0.5 | 0.3 | 0.05 | 0.4 |
| Maximum | 32 | 15 | 2 | 135 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.48: Distribution and concentration of W at Jumbuck regolith section on 6690450N.

W (ppm)

Jumbuck

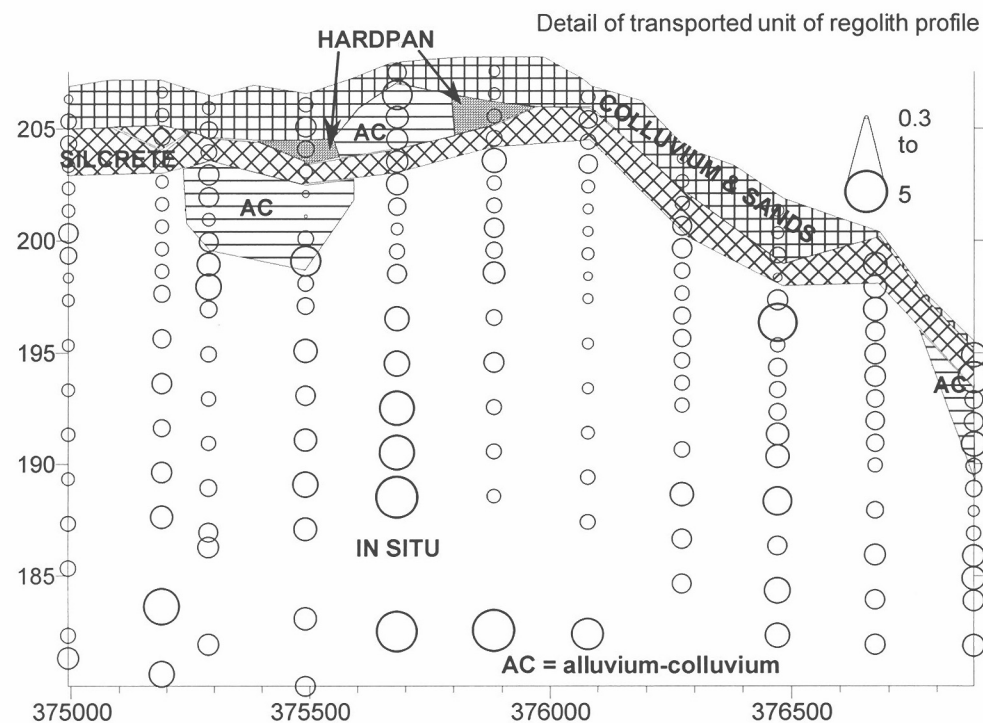
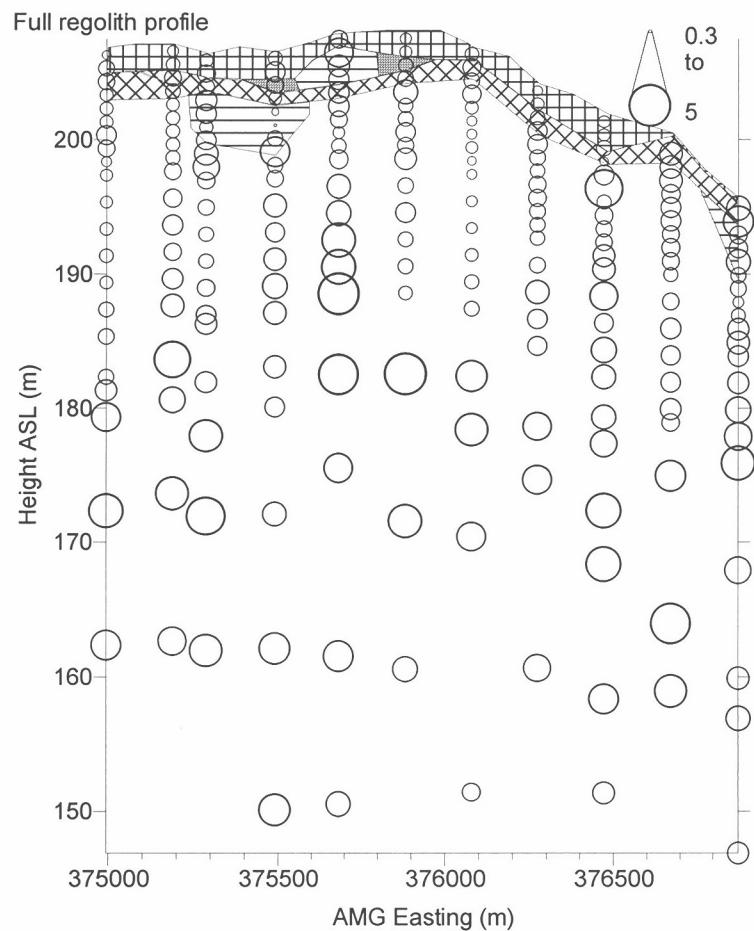
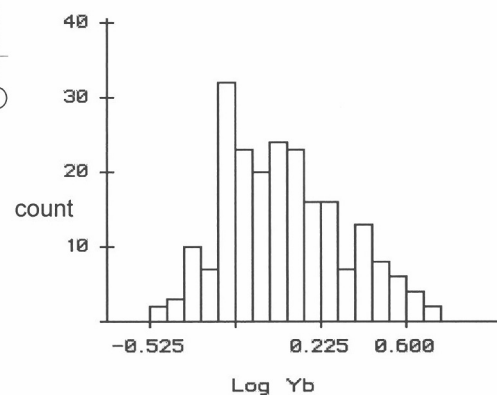


Figure A1b.49: Distribution and concentration of Yb at Jumbuck regolith section on 6690450N.

Yb (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 1.2 | 1.5 | 0.7 | 1.1 |
| Std Error | 0.2 | 0.1 | 0.1 | 0.1 |
| Median | 1.1 | 1.2 | 0.8 | 0.8 |
| Std Dev | 0.7 | 1.0 | 0.2 | 0.8 |
| Minimum | 0.3 | 0.4 | 0.4 | 0.4 |
| Maximum | 2.8 | 5 | 1.25 | 2.8 |
| Count | 14 | 188 | 17 | 17 |

Jumbuck

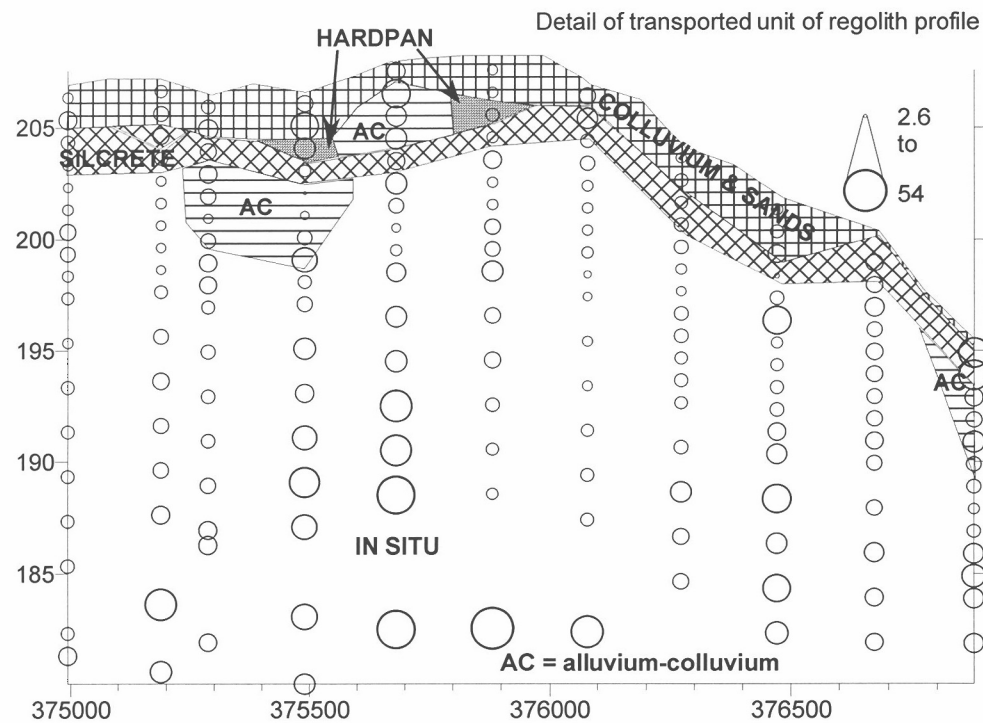
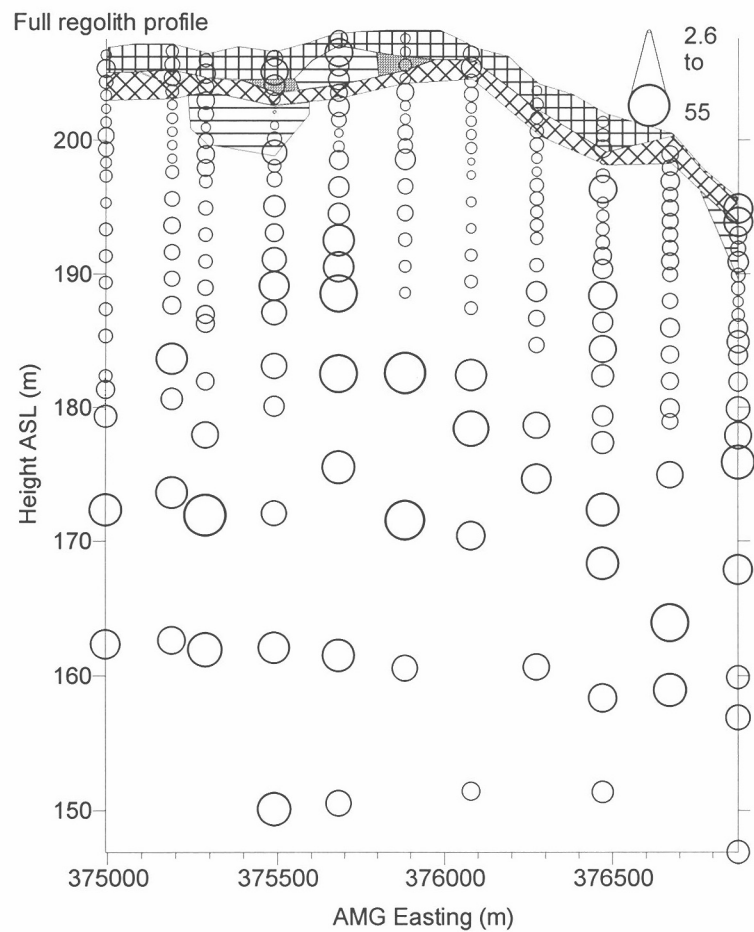
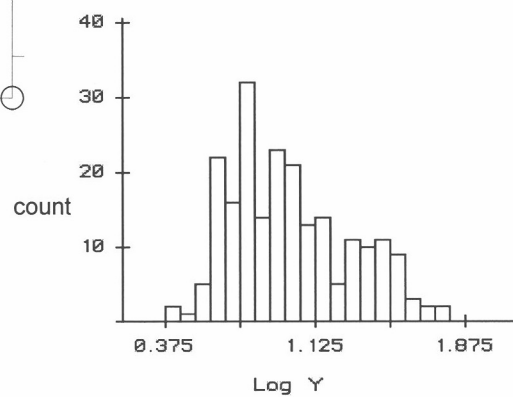


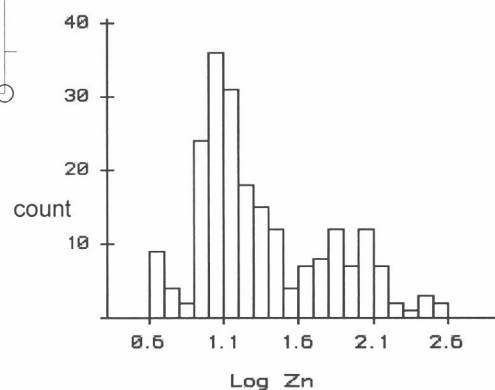
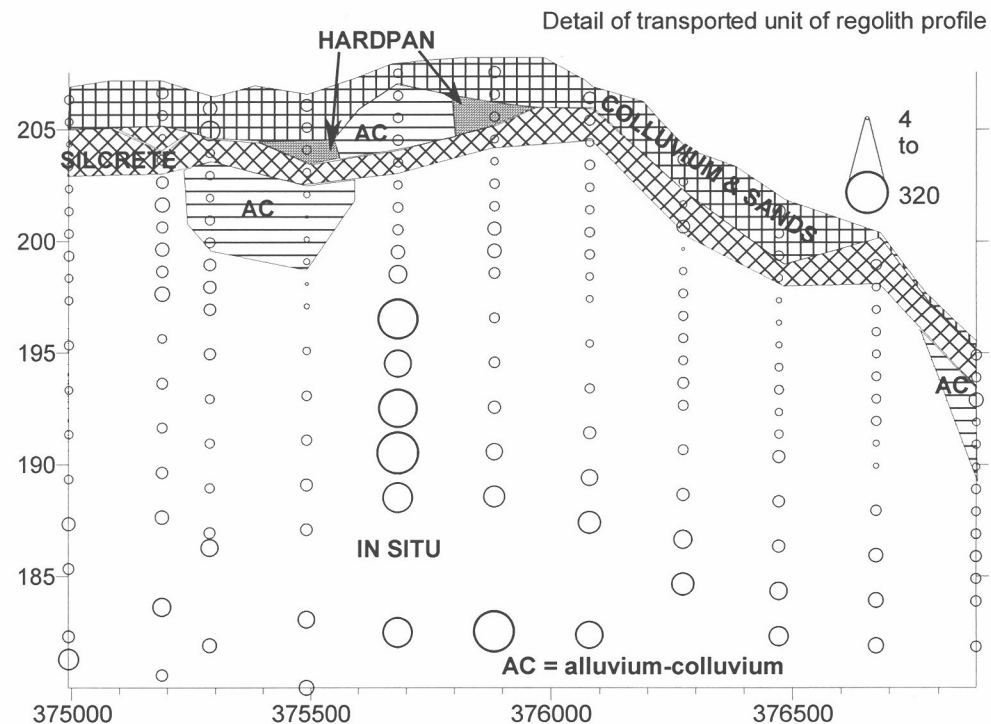
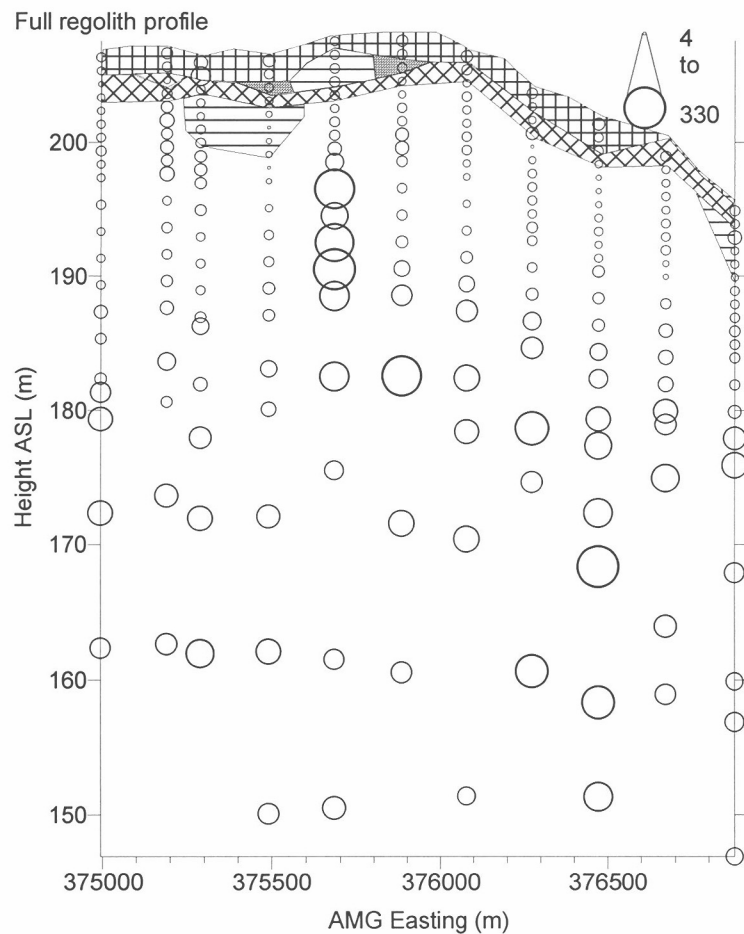
Figure A1b.50: Distribution and concentration of Y at Jumbuck regolith section on 6690450N.

Y (ppm)



| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 10 | 14 | 8 | 9 |
| Std Error | 1.6 | 0.9 | 1.1 | 1.7 |
| Median | 9 | 10 | 7 | 7 |
| Std Dev | 6 | 11 | 4 | 7 |
| Minimum | 3 | 3 | 4 | 3 |
| Maximum | 25 | 55 | 23 | 28 |
| Count | 14 | 16 | 17 | 17 |

Jumbuck



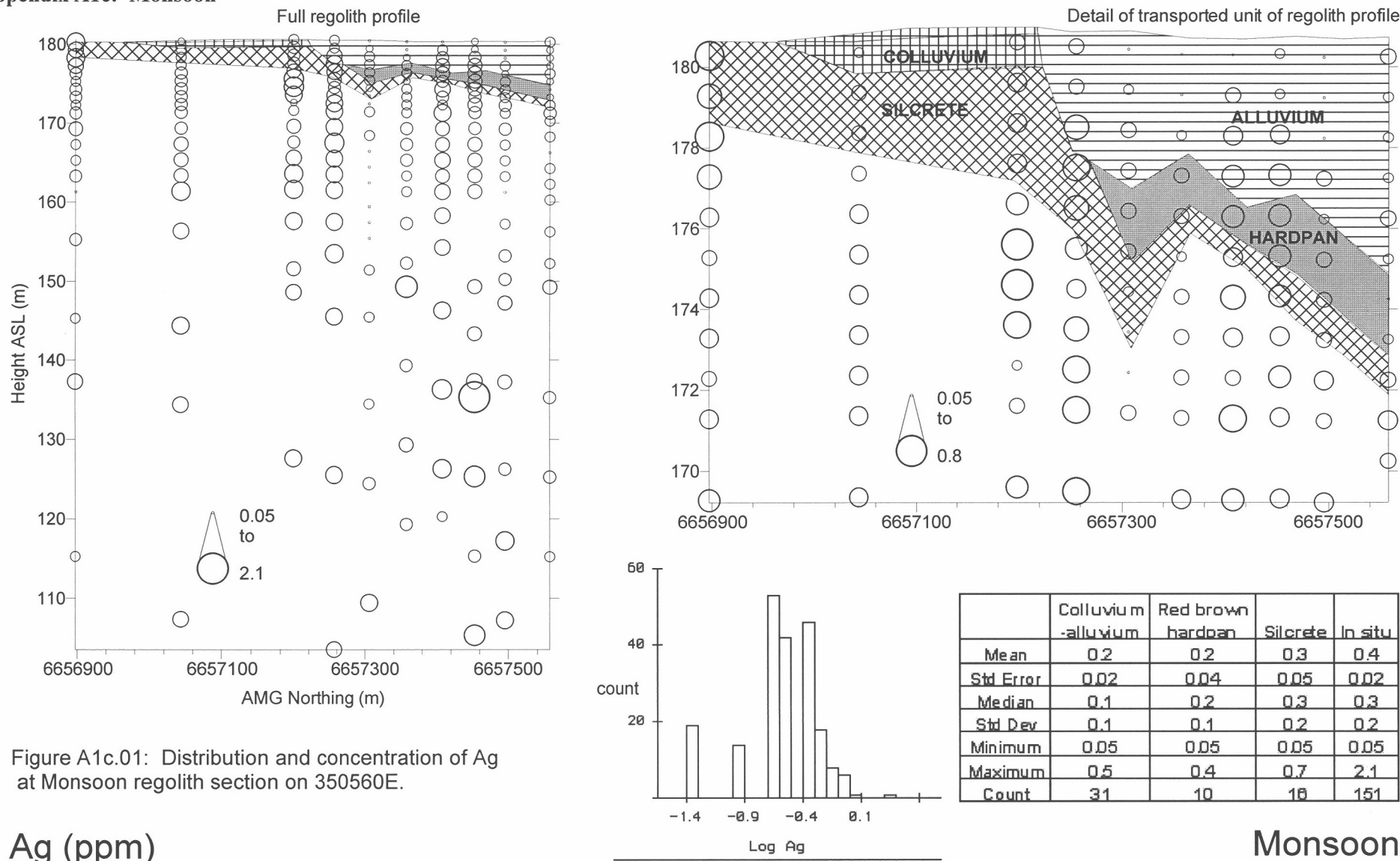
| | Colluvium -alluvium | In situ | Colluvium -sand | Silcrete |
|-----------|------------------------|---------|--------------------|----------|
| Mean | 11 | 40 | 18 | 11 |
| Std Error | 2 | 5 | 3 | 1 |
| Median | 10 | 20 | 14 | 9 |
| Std Dev | 6 | 63 | 12 | 5 |
| Minimum | 4 | 4 | 9 | 5 |
| Maximum | 29 | 330 | 61 | 24 |
| Count | 14 | 166 | 17 | 17 |

Figure A1b.51: Distribution and concentration of Zn at Jumbuck regolith section on 6690450N.

Zn (ppm)

Jumbuck

Appendix A1c: Monsoon



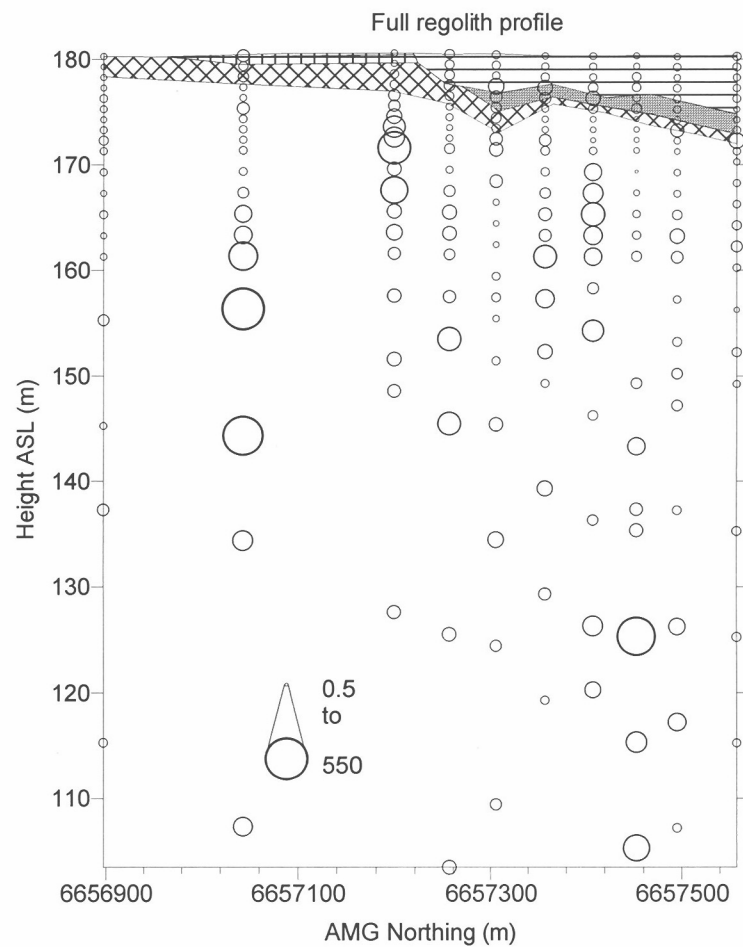
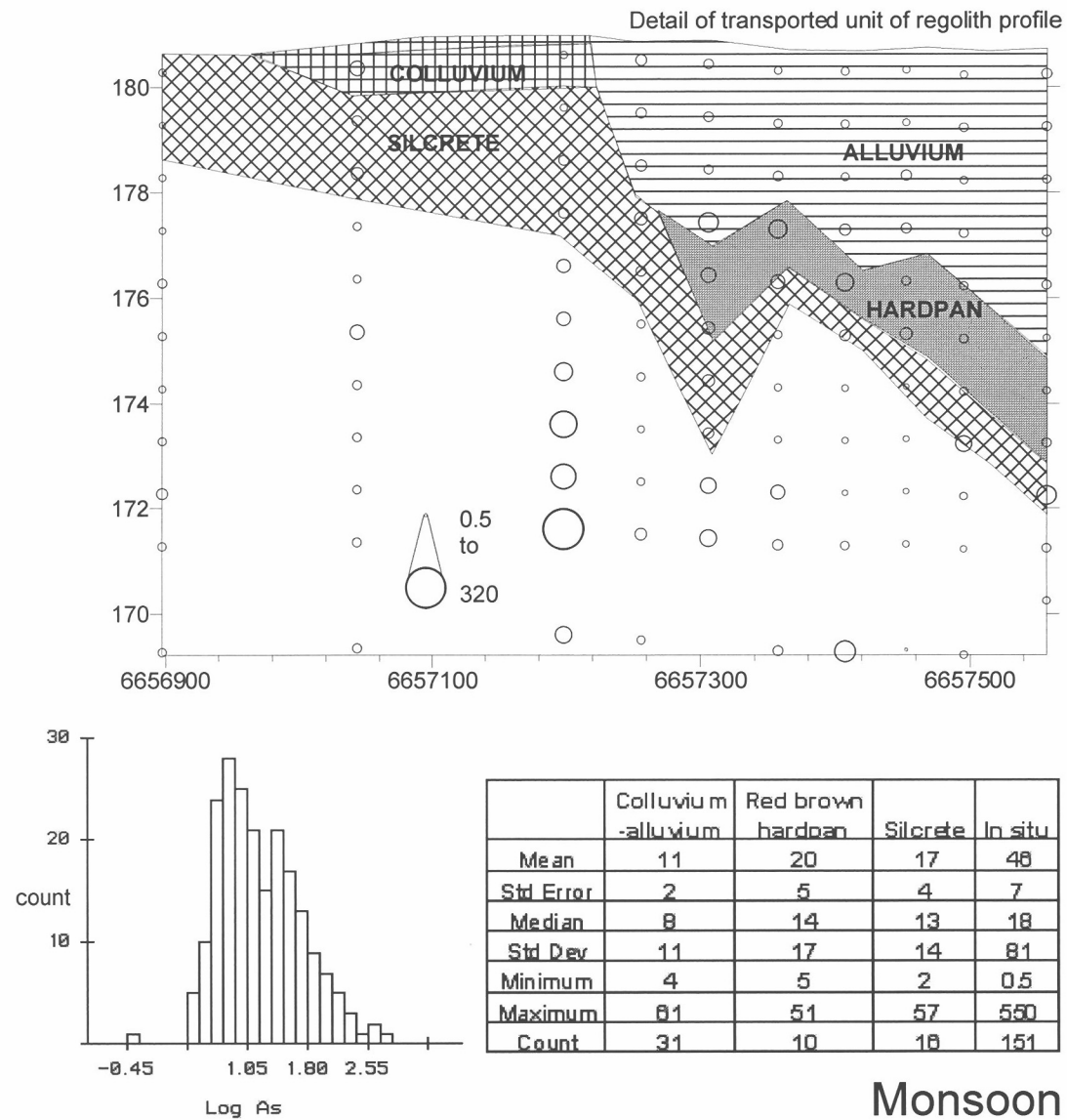


Figure A1c.02: Distribution and concentration of As at Monsoon regolith section on 350560E.

As (ppm)



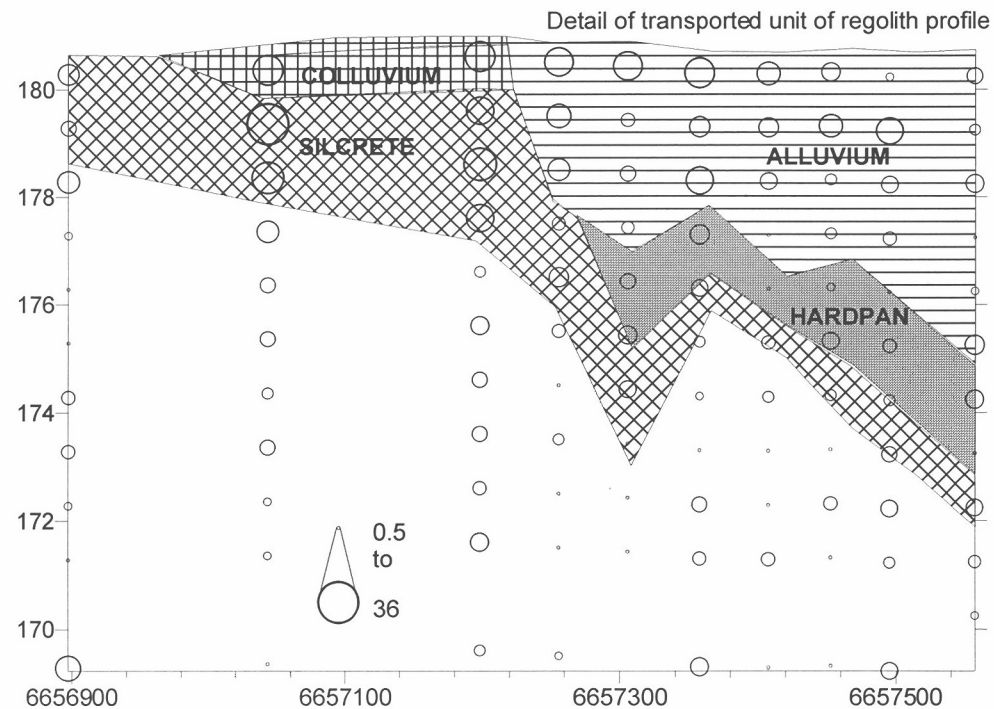
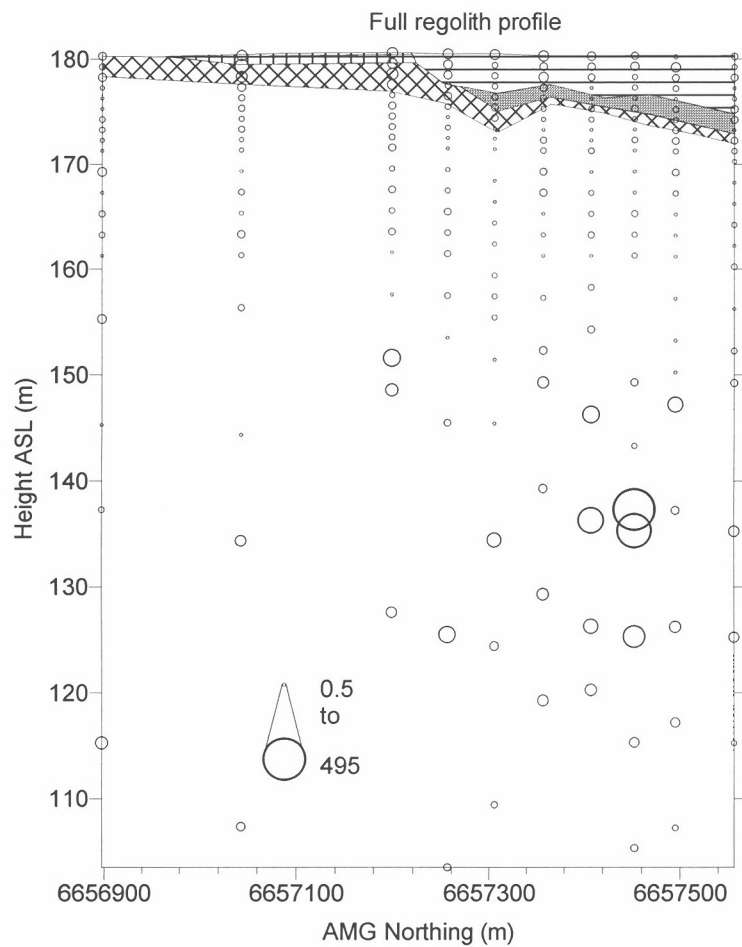
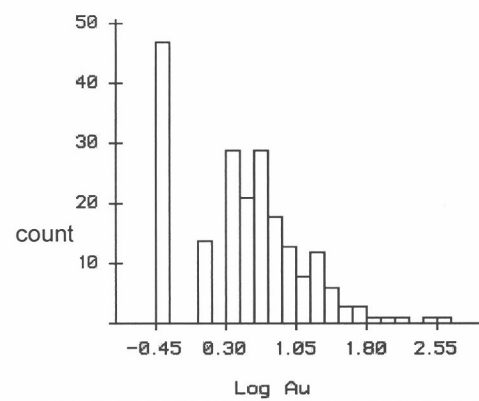


Figure A1c.03: Distribution and concentration of Au at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 7 | 4 | 10 | 14 |
| Std Error | 1 | 1 | 2 | 4 |
| Median | 8 | 4 | 5 | 3 |
| Std Dev | 8 | 2 | 10 | 51 |
| Minimum | 0.5 | 0.5 | 0.5 | 0.5 |
| Maximum | 18 | 7 | 36 | 495 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

Au (ppb)

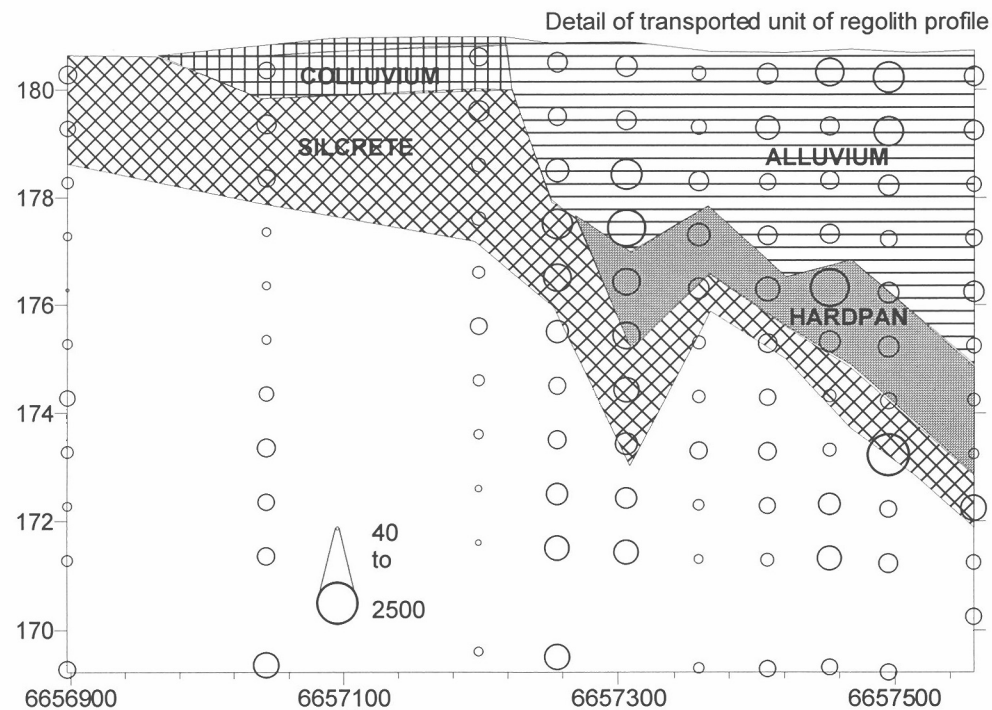
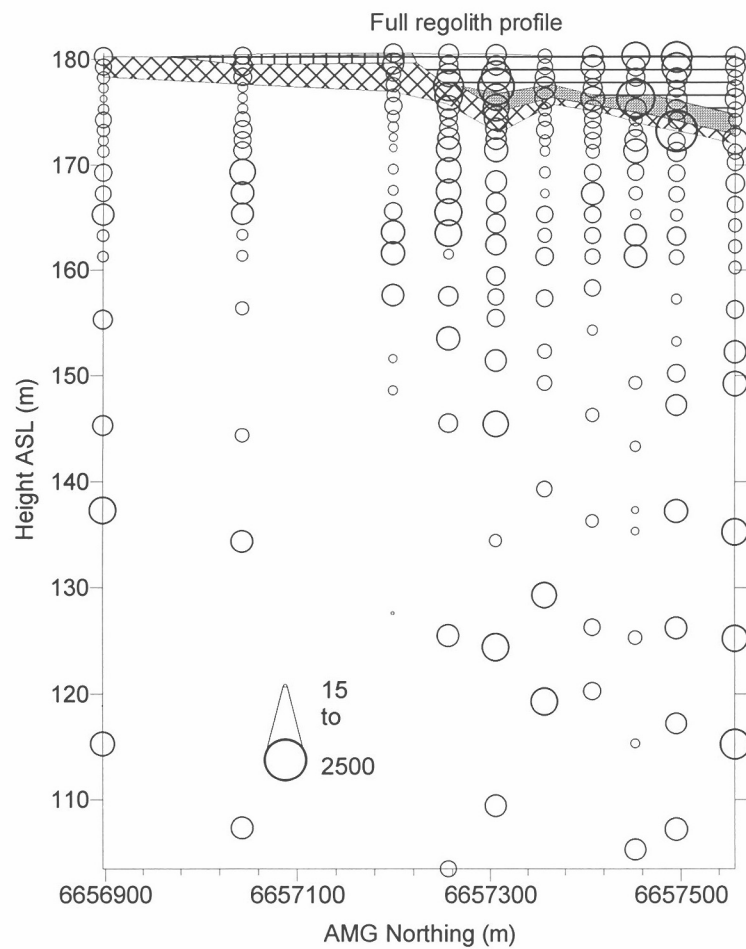
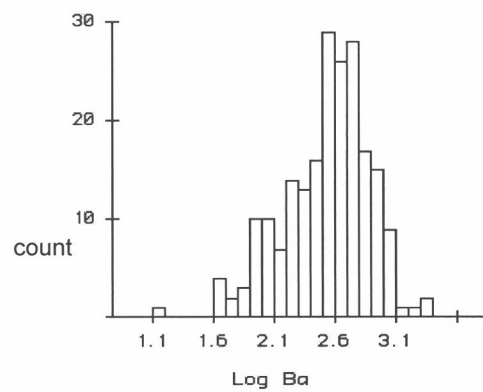


Figure A1c.04: Distribution and concentration of Ba at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 593 | 709 | 678 | 394 |
| Std Error | 68 | 174 | 144 | 22 |
| Median | 490 | 800 | 505 | 330 |
| Std Dev | 379 | 550 | 575 | 265 |
| Minimum | 230 | 125 | 180 | 15 |
| Maximum | 1950 | 2050 | 2500 | 1250 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

Ba (ppm)

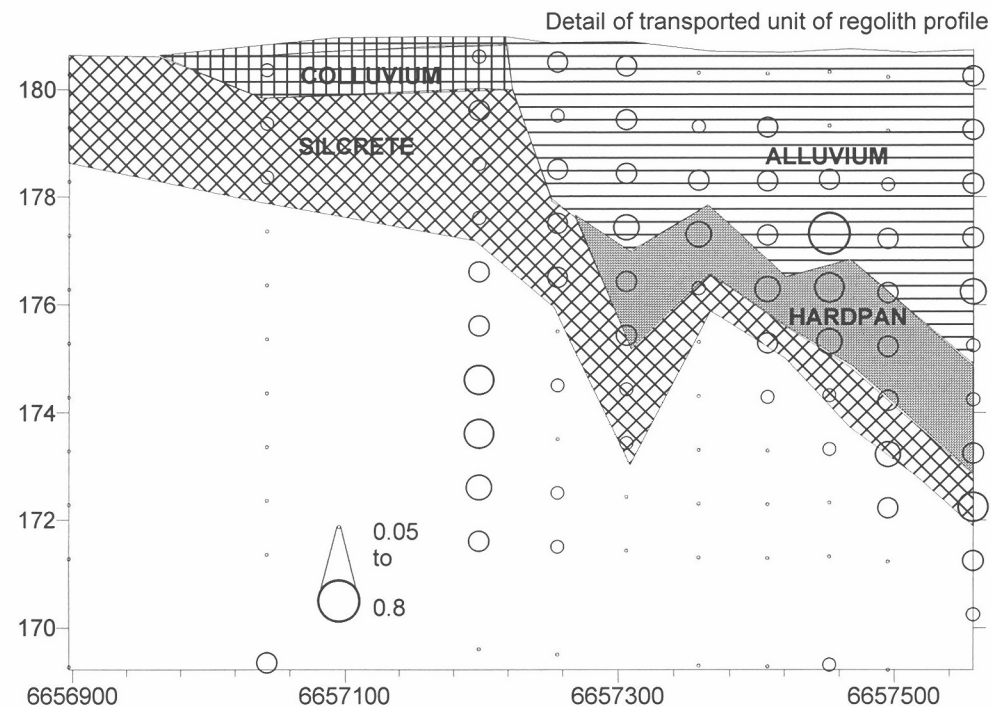
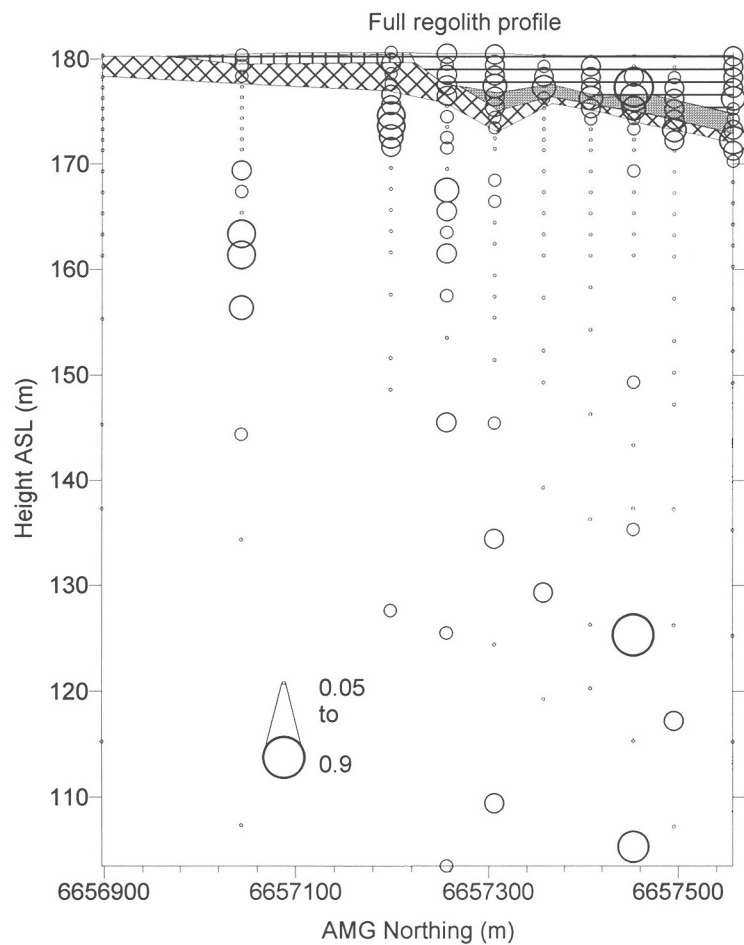
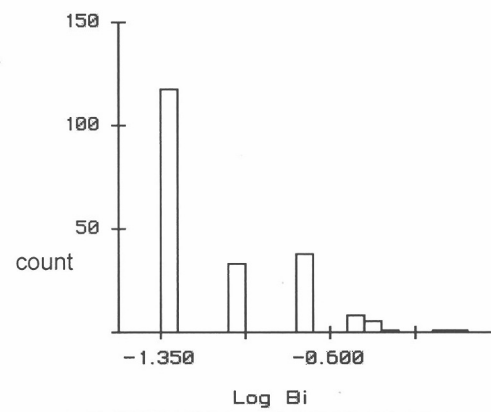


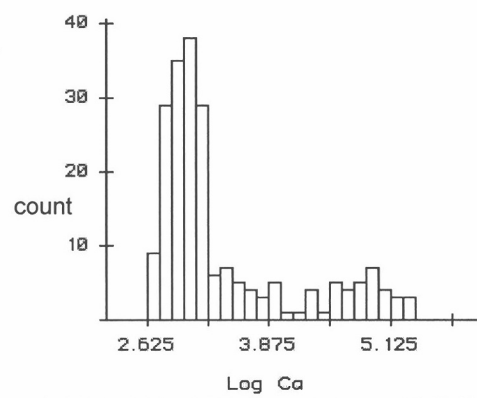
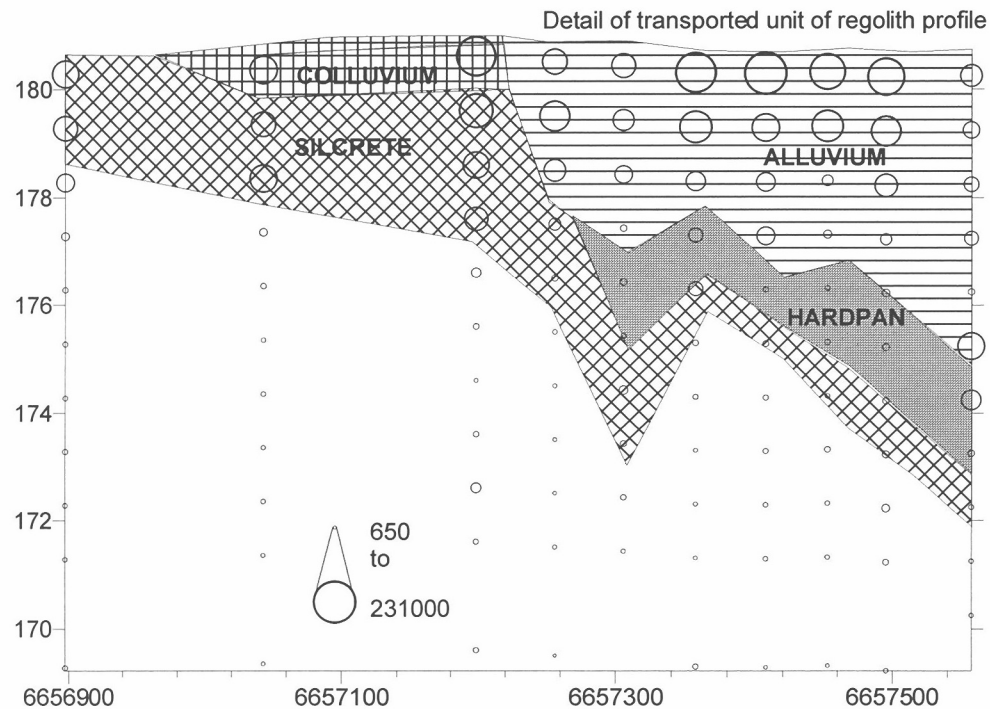
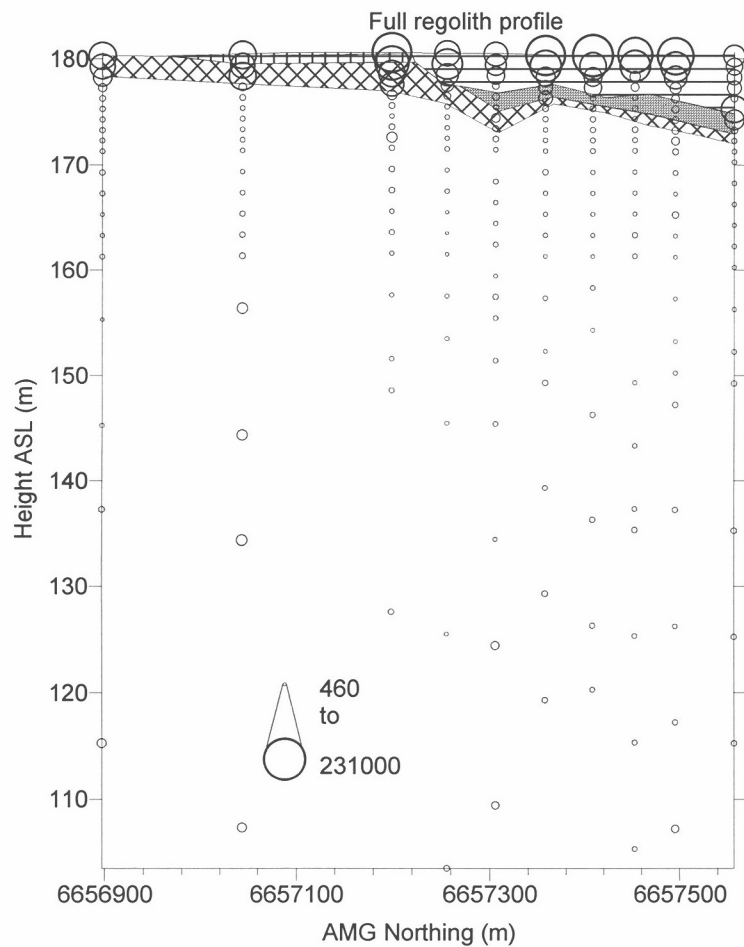
Figure A1c.05: Distribution and concentration of Bi at Monsoon regolith section on 350560E.

Bi (ppm)



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.2 | 0.2 | 0.2 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.2 | 0.2 | 0.1 | 0.05 |
| Std Dev | 0.1 | 0.1 | 0.1 | 0.1 |
| Minimum | 0.05 | 0.1 | 0.05 | 0.05 |
| Maximum | 0.8 | 0.4 | 0.4 | 0.8 |
| Count | 31 | 10 | 18 | 151 |

Monsoon



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 75894 | 7850 | 42272 | 1871 |
| Std Error | 11753 | 4339 | 11835 | 285 |
| Median | 58000 | 2425 | 18400 | 1000 |
| Std Dev | 85438 | 13721 | 48540 | 3257 |
| Minimum | 2300 | 1150 | 1100 | 480 |
| Maximum | 231000 | 43800 | 147000 | 38300 |
| Count | 31 | 10 | 18 | 151 |

Figure A1c.06: Distribution and concentration of Ca at Monsoon regolith section on 350560E.

Ca (ppm)

Monsoon

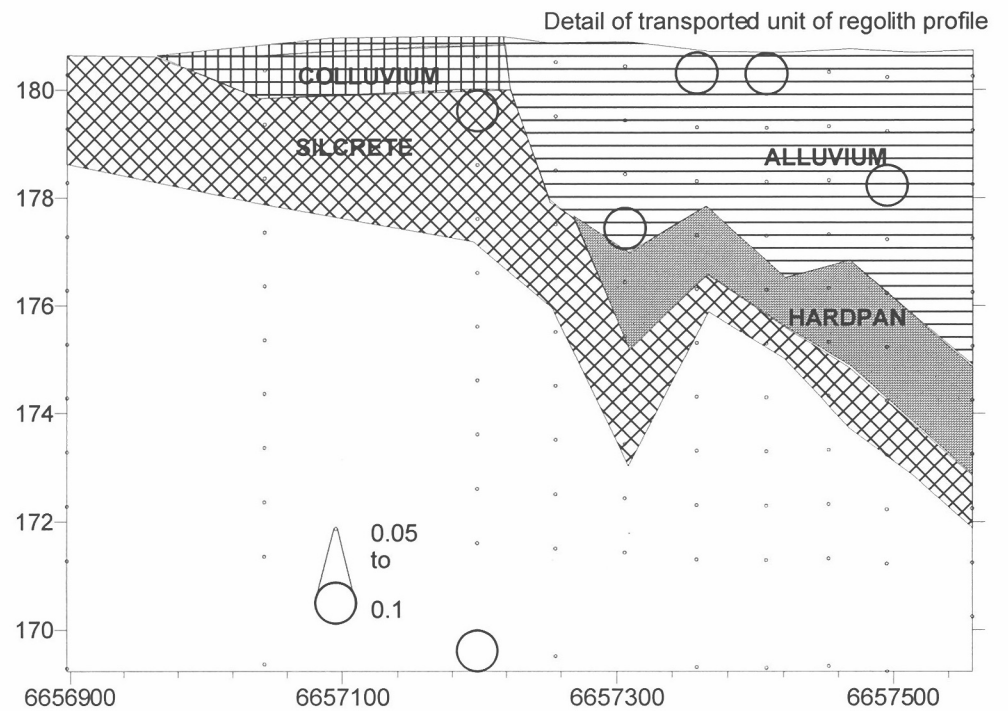
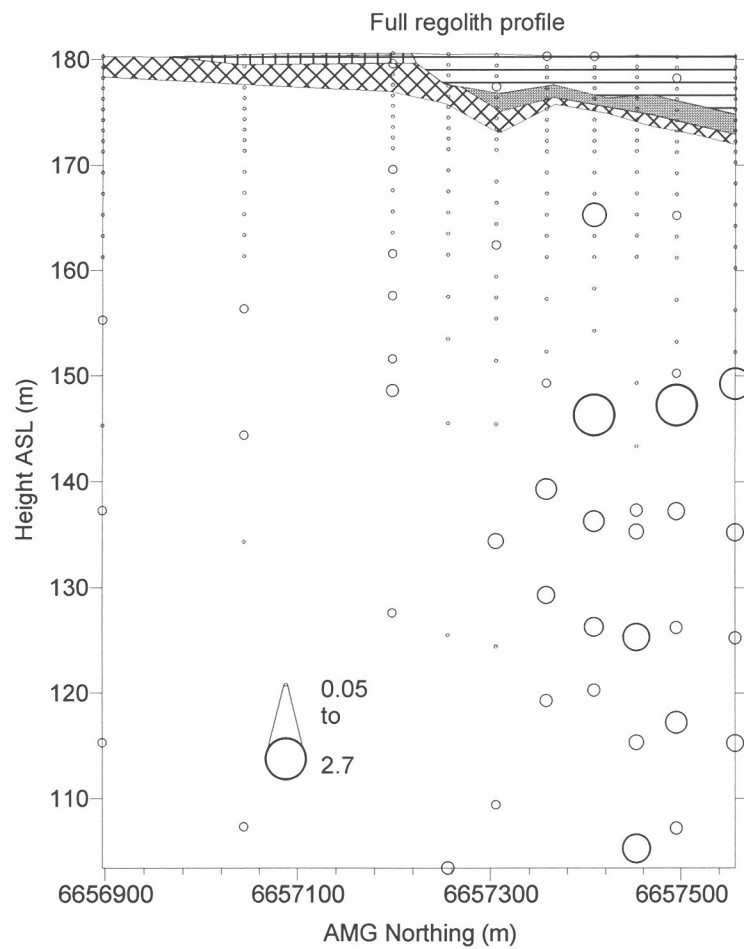
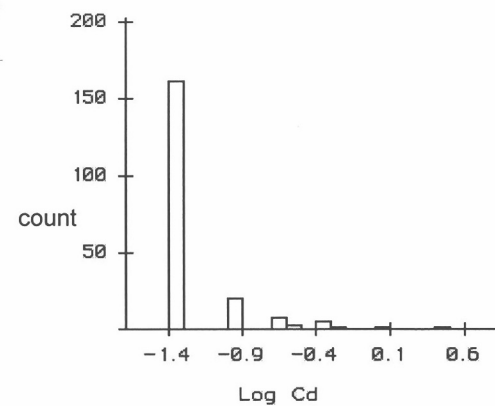


Figure A1c.07: Distribution and concentration of Cd at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.1 | 0.1 | 0.1 | 0.2 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.05 | 0.05 | 0.05 | 0.05 |
| Std Dev | 0.0 | 0.0 | 0.0 | 0.4 |
| Minimum | 0.05 | 0.05 | 0.05 | 0.05 |
| Maximum | 0.1 | 0.05 | 0.1 | 2.7 |
| Count | 31 | 10 | 10 | 151 |

Monsoon

Cd (ppm)

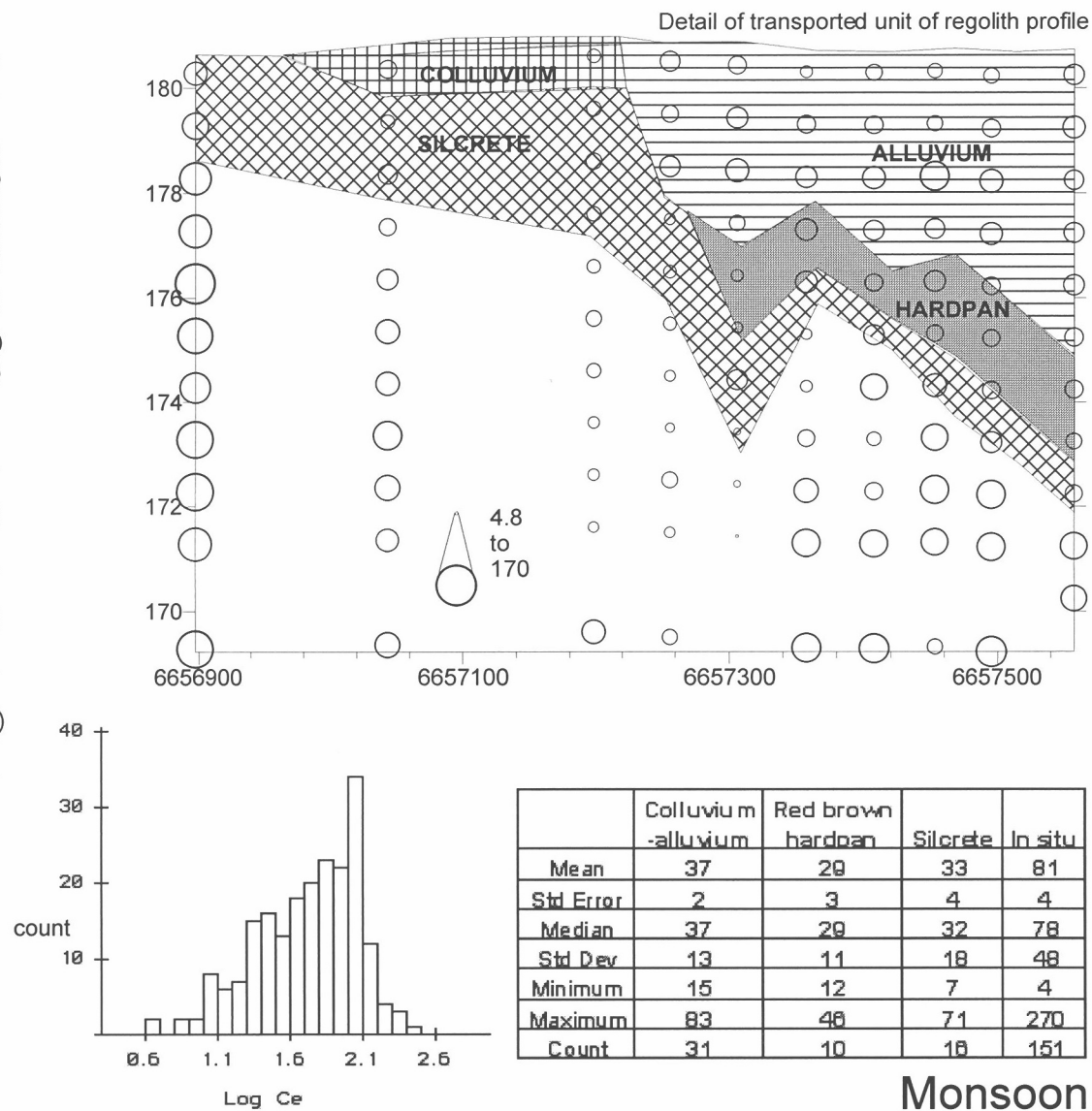
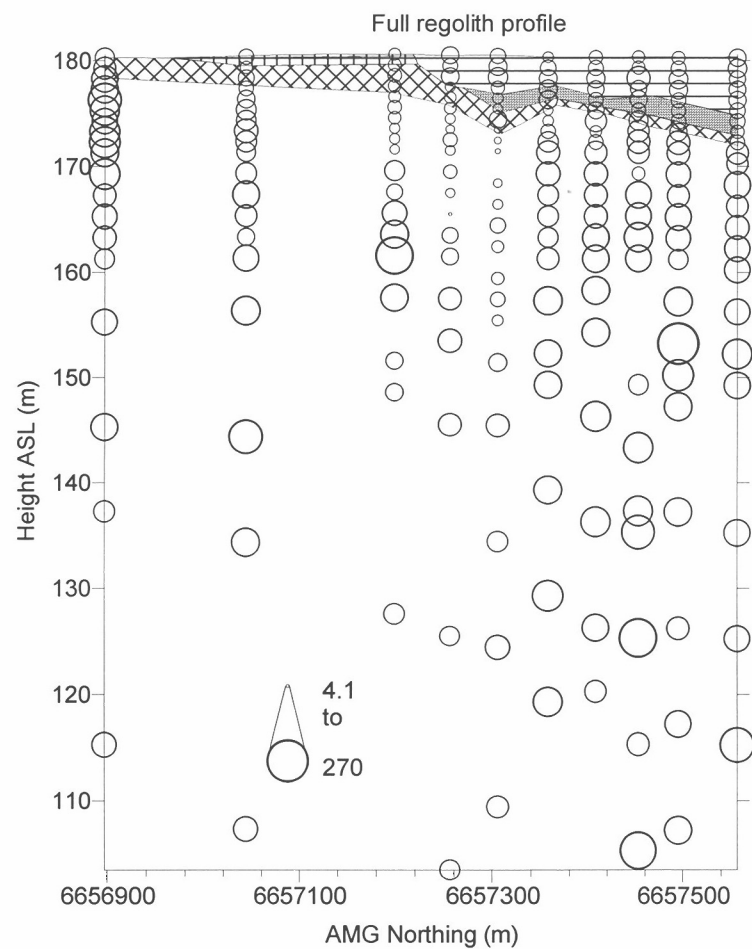
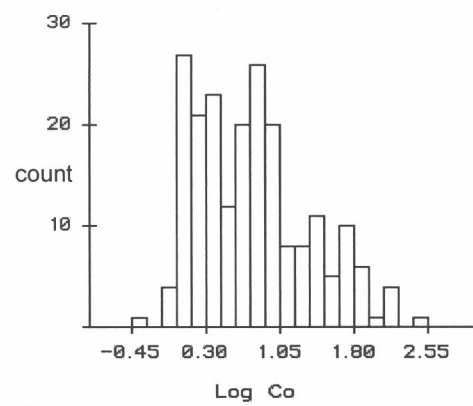
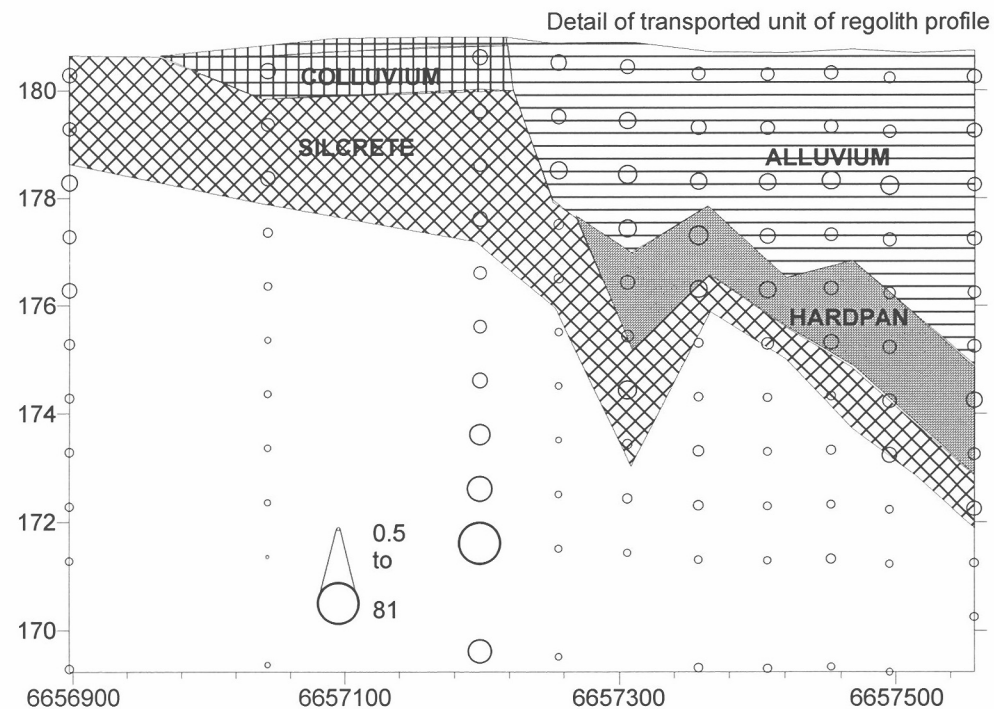
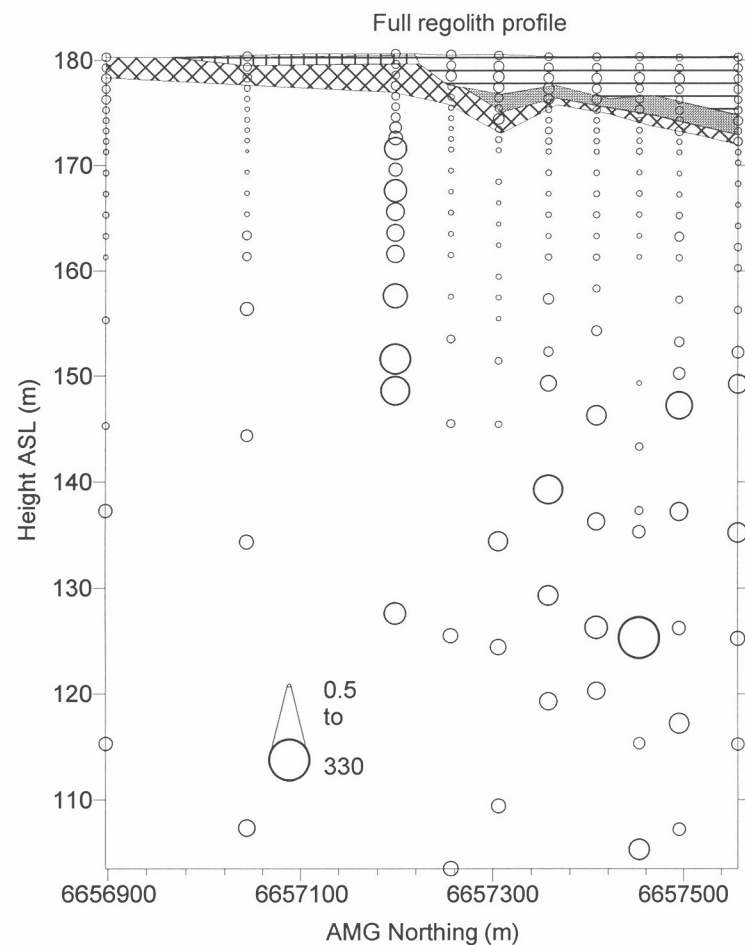


Figure A1c.08: Distribution and concentration of Ce at Monsoon regolith section on 350560E.

Ce (ppm)

Monsoon

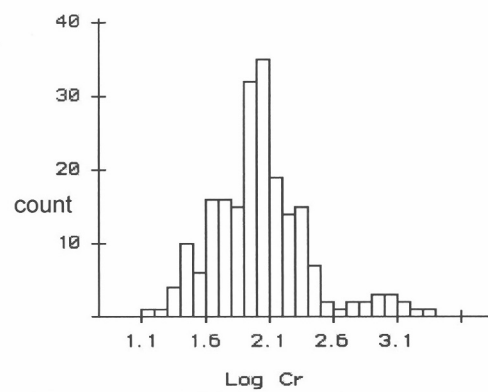
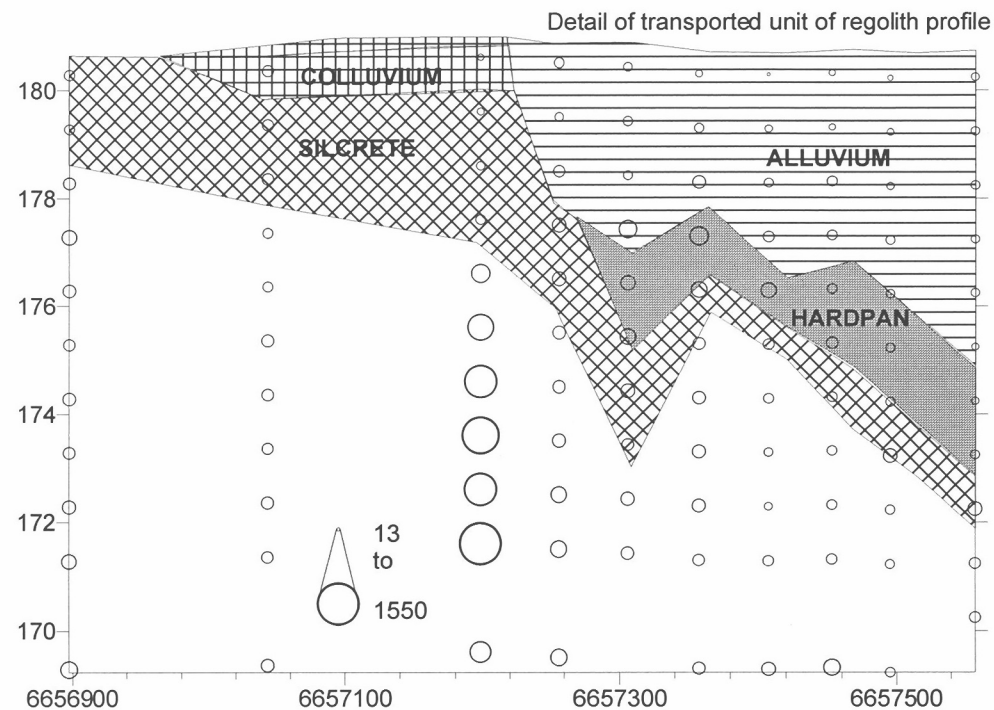
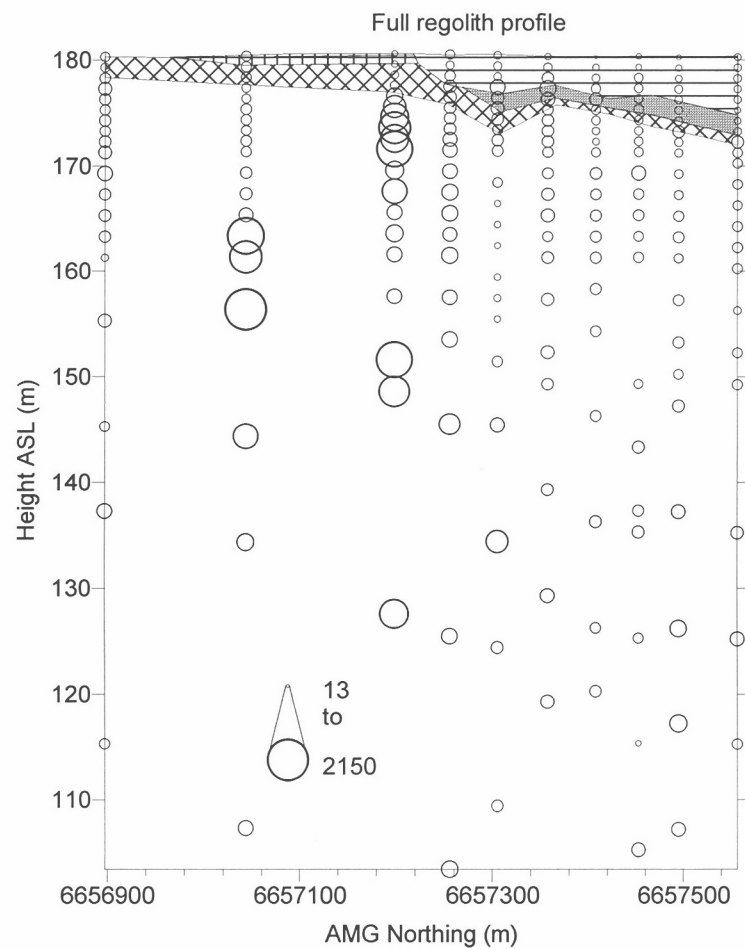


| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 8 | 7 | 8 | 10 |
| Std Error | 0.5 | 0.8 | 0.7 | 3.2 |
| Median | 7 | 7 | 8 | 3 |
| Std Dev | 3 | 3 | 3 | 39 |
| Minimum | 4 | 4 | 2 | 1 |
| Maximum | 13 | 14 | 13 | 330 |
| Count | 31 | 10 | 18 | 151 |

Figure A1c.09: Distribution and concentration of Co at Monsoon regolith section on 350560E.

Co (ppm)

Monsoon



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 52 | 104 | 94 | 219 |
| Std Error | 7 | 23 | 10 | 27 |
| Median | 45 | 71 | 85 | 115 |
| Std Dev | 39 | 73 | 42 | 328 |
| Minimum | 13 | 31 | 29 | 23 |
| Maximum | 230 | 250 | 175 | 2150 |
| Count | 31 | 10 | 16 | 151 |

Monsoon

Figure A1c.10: Distribution and concentration of Cr at Monsoon regolith section on 350560E.

Cr (ppm)

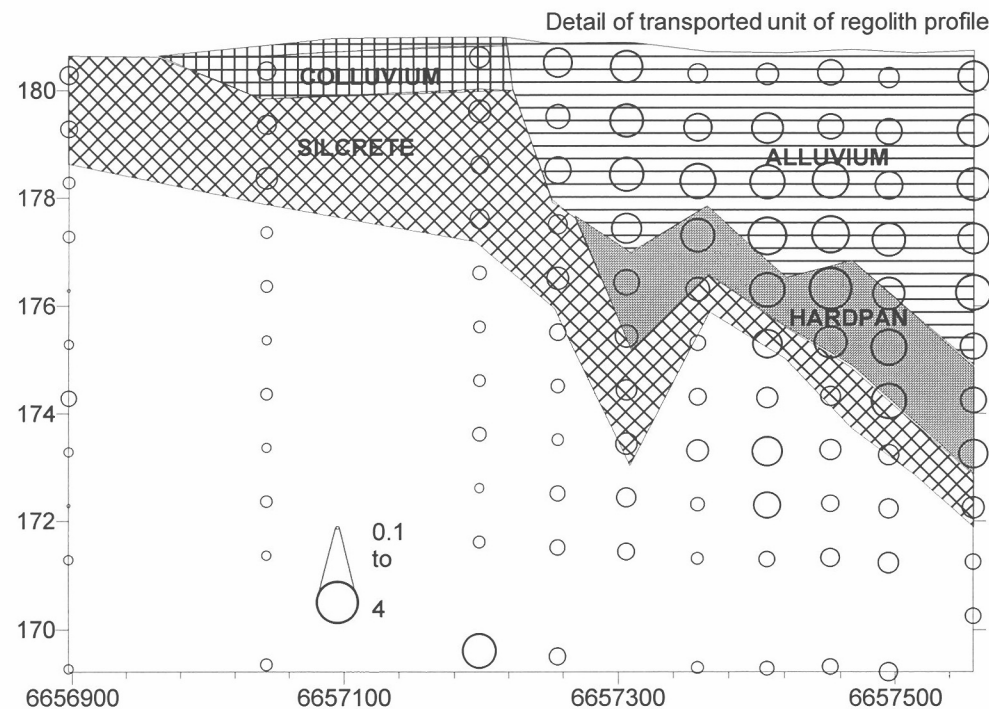
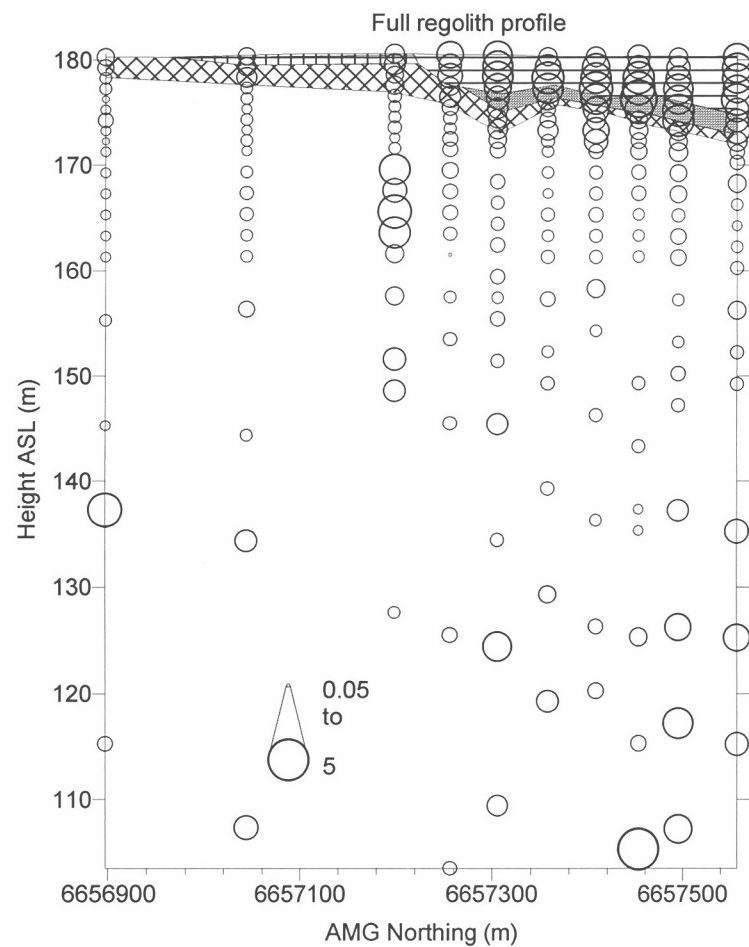
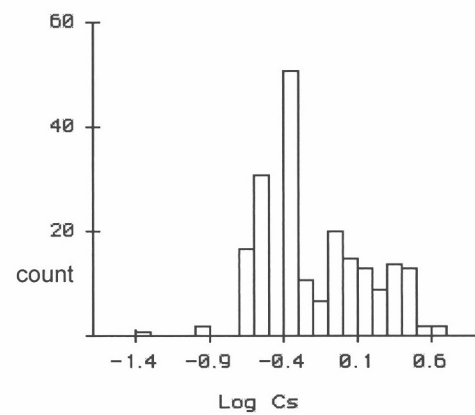


Figure A1c.11: Distribution and concentration of Cs at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 2.0 | 2.3 | 1.0 | 0.7 |
| Std Error | 0.1 | 0.3 | 0.1 | 0.1 |
| Median | 2.1 | 2.4 | 0.9 | 0.4 |
| Std Dev | 0.7 | 0.9 | 0.3 | 0.7 |
| Minimum | 0.7 | 1.1 | 0.8 | 0.05 |
| Maximum | 3.2 | 4 | 1.8 | 5 |
| Count | 31 | 10 | 10 | 151 |

Cs (ppm)

Monsoon

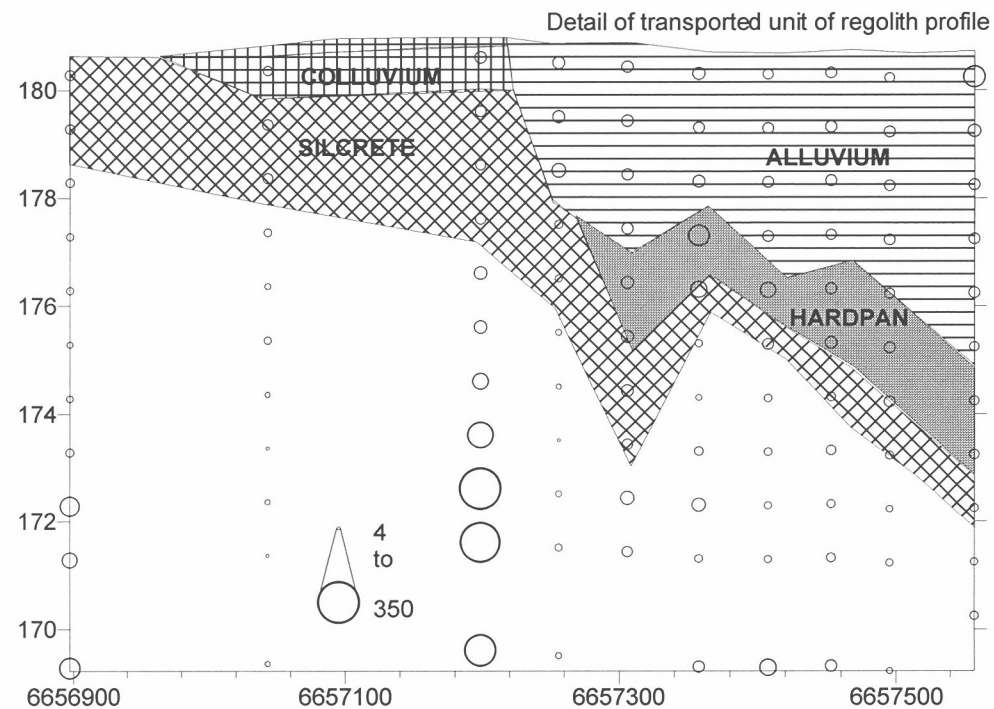
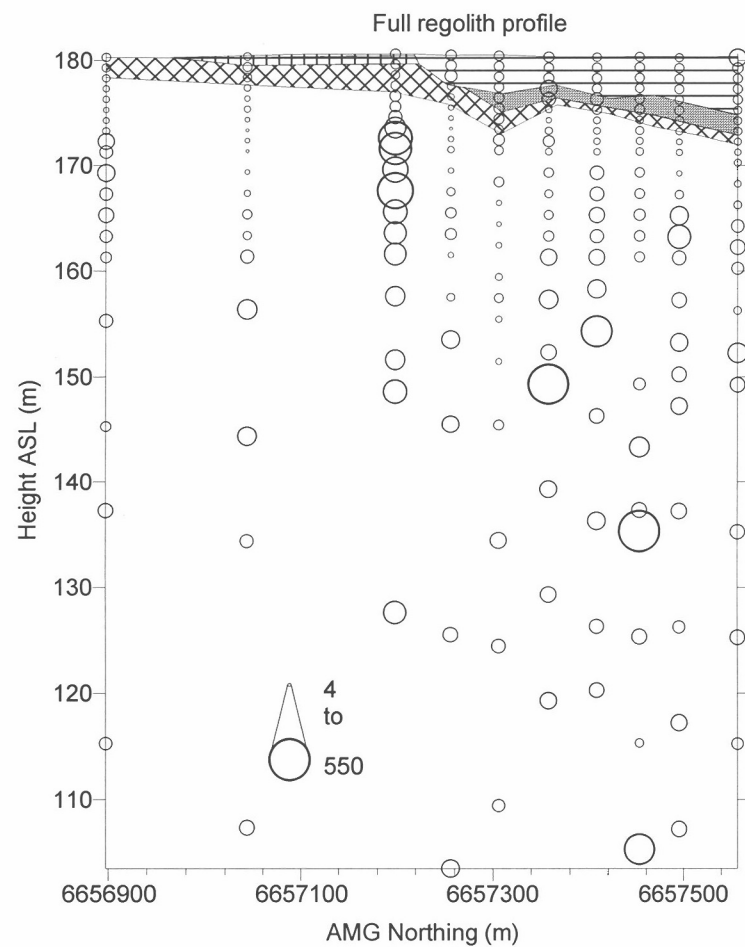
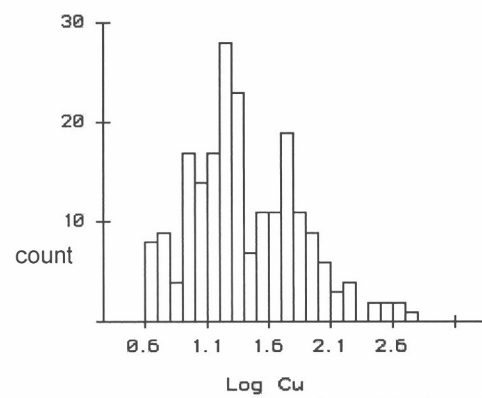


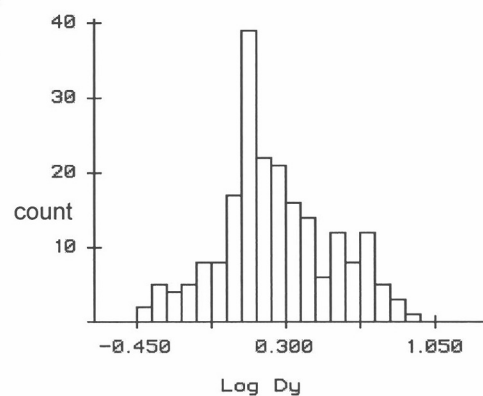
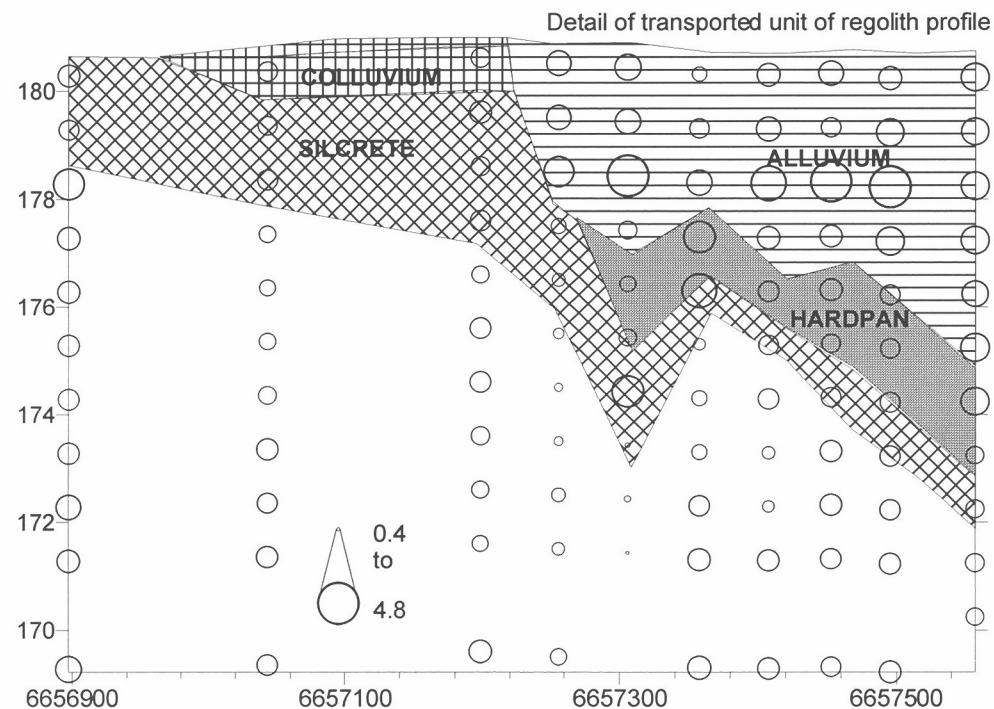
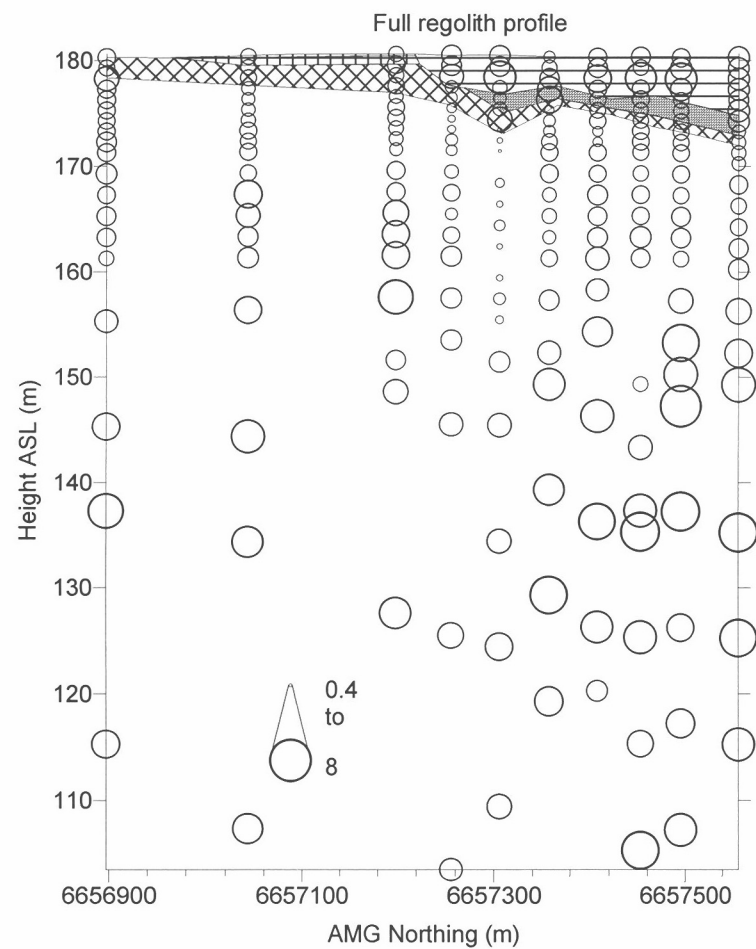
Figure A1c.12: Distribution and concentration of Cu at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 21 | 20 | 10 | 57 |
| Std Error | 2 | 8 | 2 | 7 |
| Median | 18 | 21 | 15 | 33 |
| Std Dev | 12 | 18 | 8 | 84 |
| Minimum | 13 | 13 | 8 | 4 |
| Maximum | 81 | 75 | 43 | 550 |
| Count | 31 | 10 | 10 | 151 |

Cu (ppm)

Monsoon



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 2.1 | 1.4 | 1.4 | 2.3 |
| Std Error | 0.2 | 0.2 | 0.2 | 0.1 |
| Median | 1.0 | 1.2 | 1.2 | 1.7 |
| Std Dev | 1.0 | 0.6 | 0.7 | 1.7 |
| Minimum | 0.8 | 0.8 | 0.4 | 0.4 |
| Maximum | 4.8 | 2.8 | 3.3 | 8 |
| Count | 31 | 10 | 10 | 151 |

Figure A1c.13: Distribution and concentration of Dy at Monsoon regolith section on 350560E.

Dy (ppm)

Monsoon

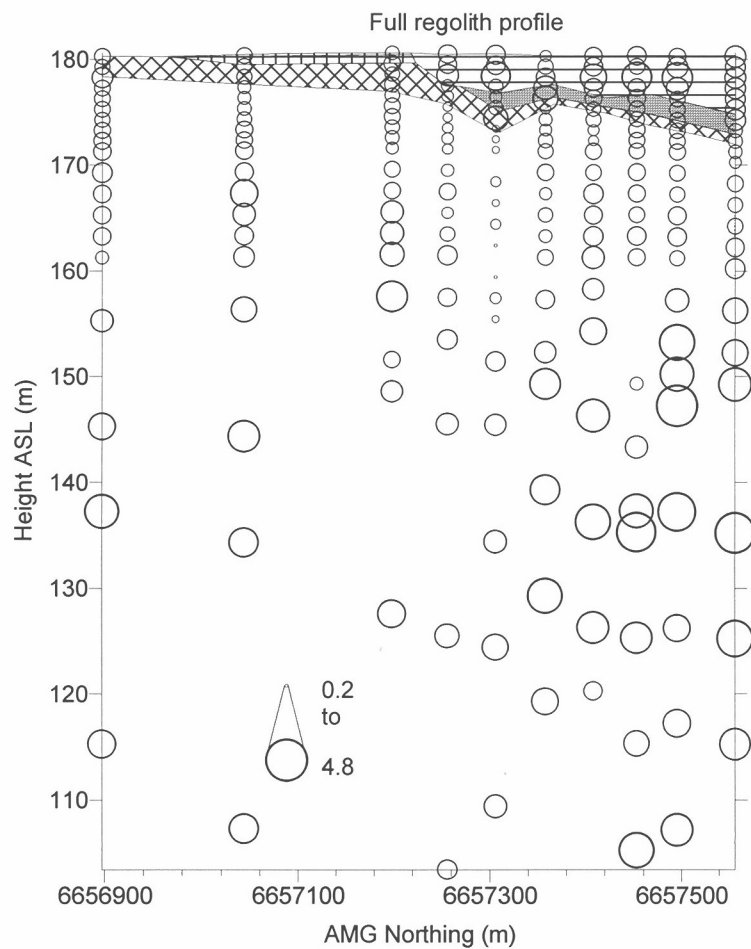
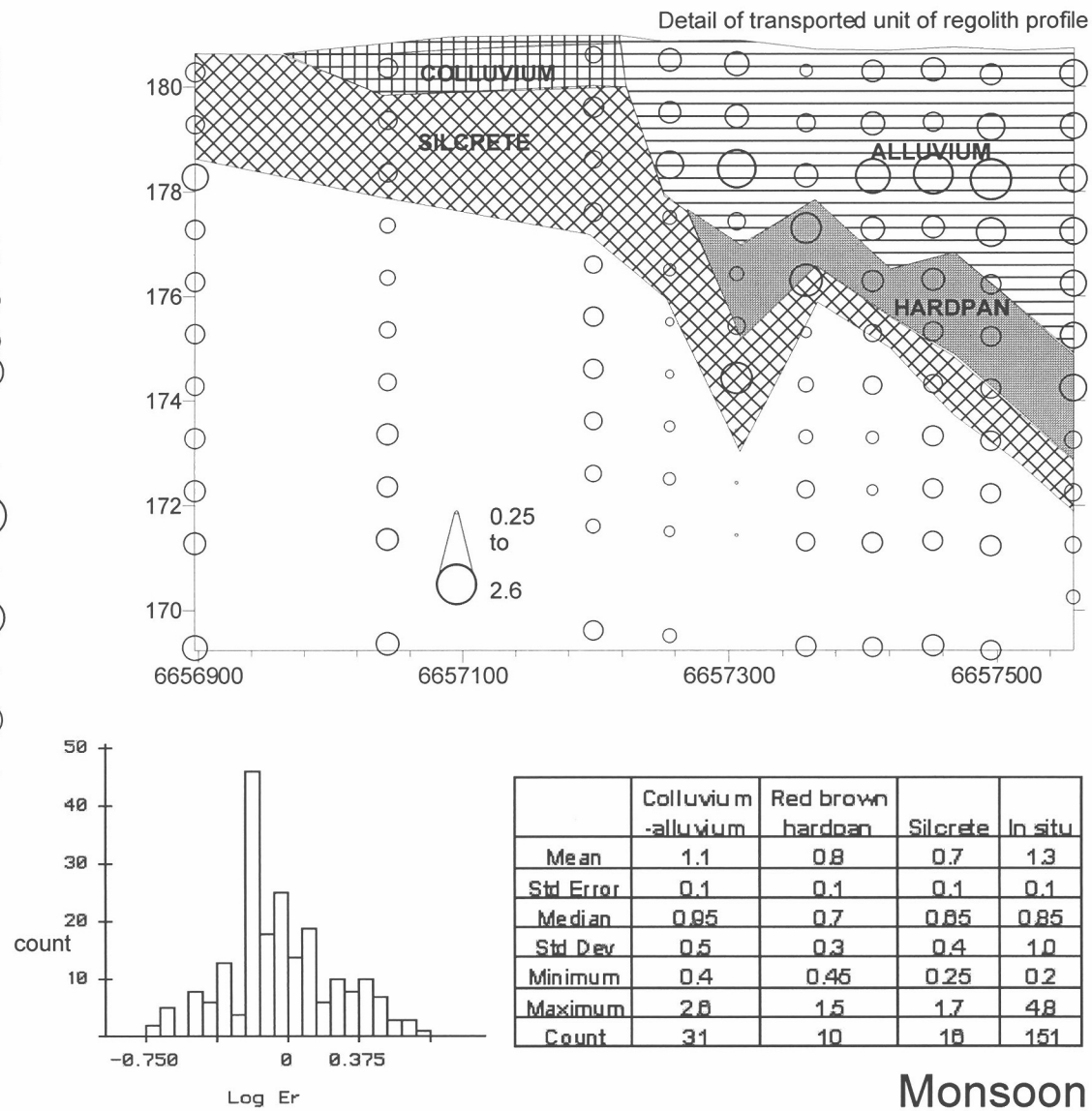
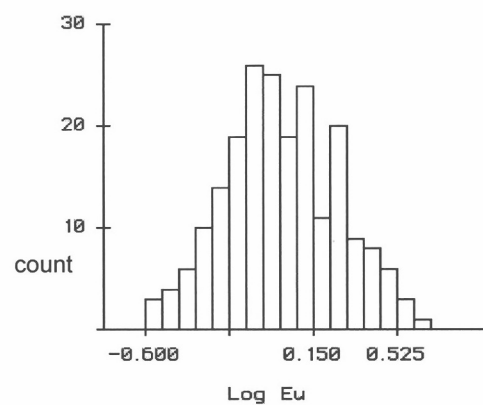
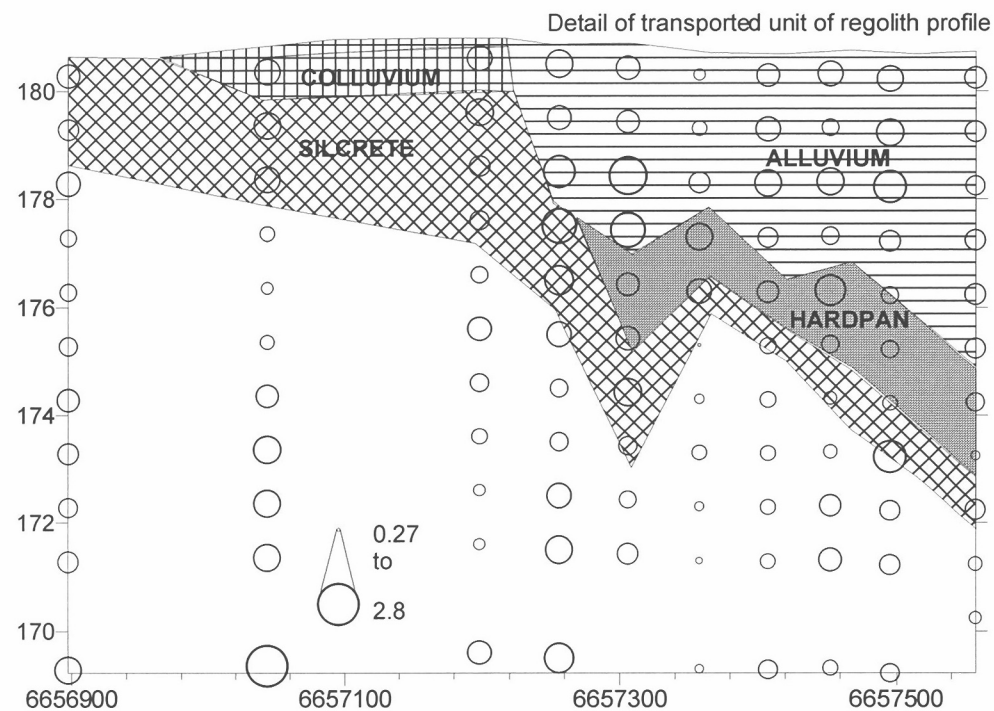
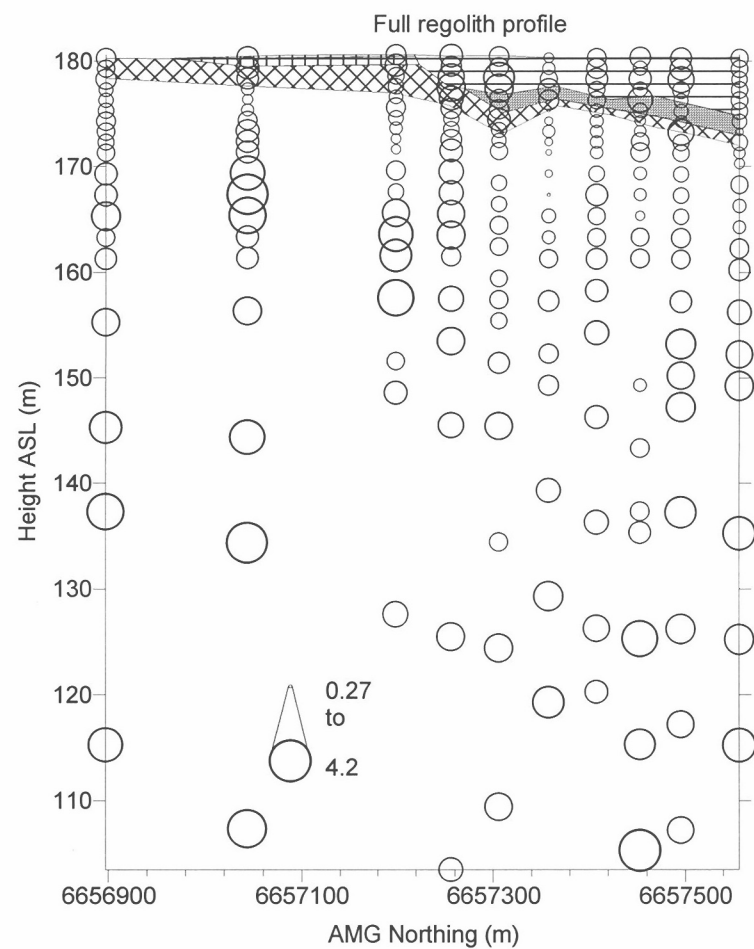


Figure A1c.14: Distribution and concentration of Er at Monsoon regolith section on 350560E.

Er (ppm)





| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 1.0 | 0.8 | 1.0 | 1.3 |
| Std Error | 0.1 | 0.1 | 0.1 | 0.1 |
| Median | 0.84 | 0.745 | 1.01 | 0.97 |
| Std Dev | 0.4 | 0.4 | 0.4 | 0.8 |
| Minimum | 0.39 | 0.33 | 0.43 | 0.27 |
| Maximum | 2.3 | 1.55 | 1.85 | 4.2 |
| Count | 31 | 10 | 18 | 151 |

Figure A1c.15: Distribution and concentration of Eu at Monsoon regolith section on 350560E.

Eu (ppm)

Monsoon

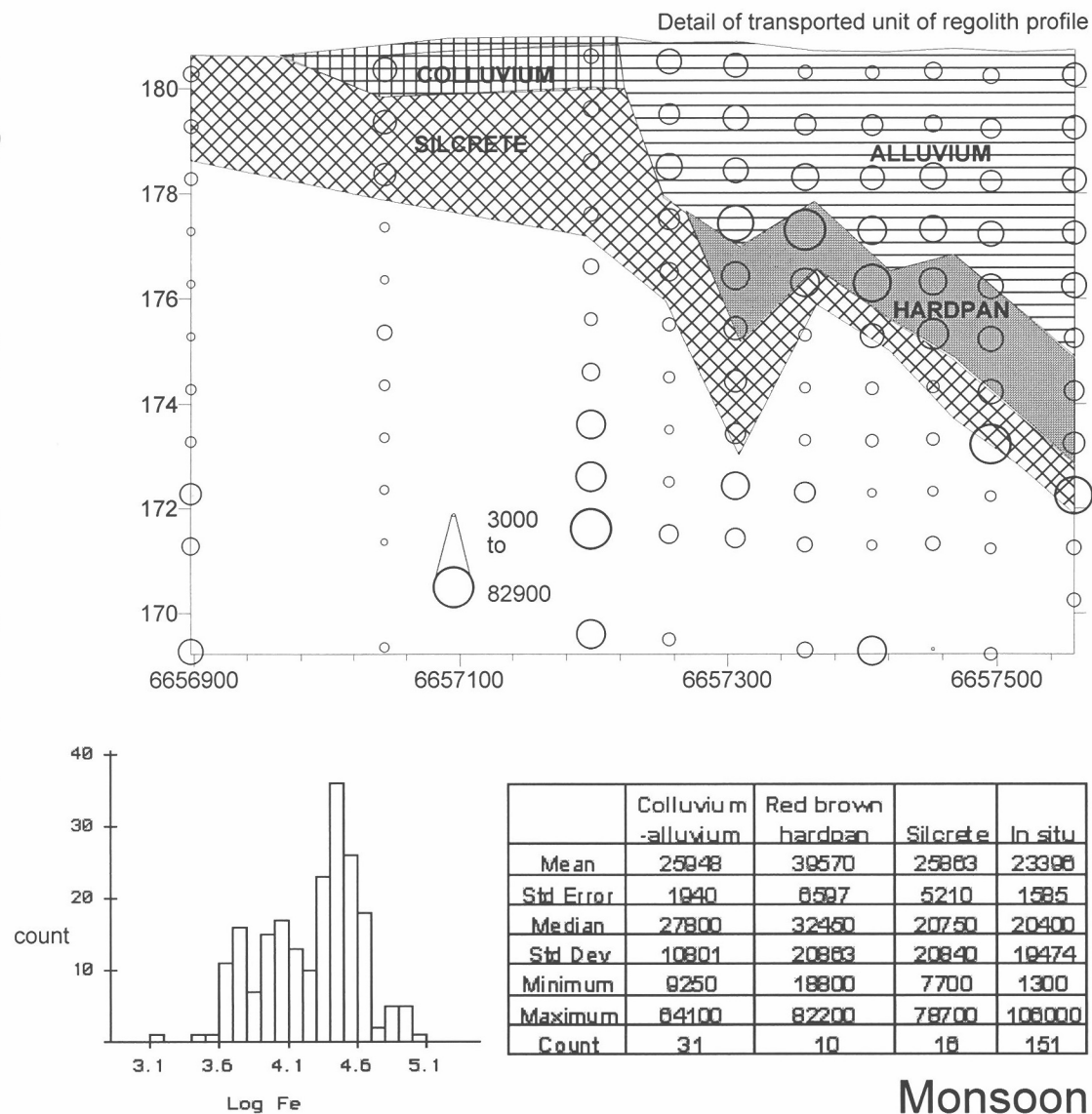
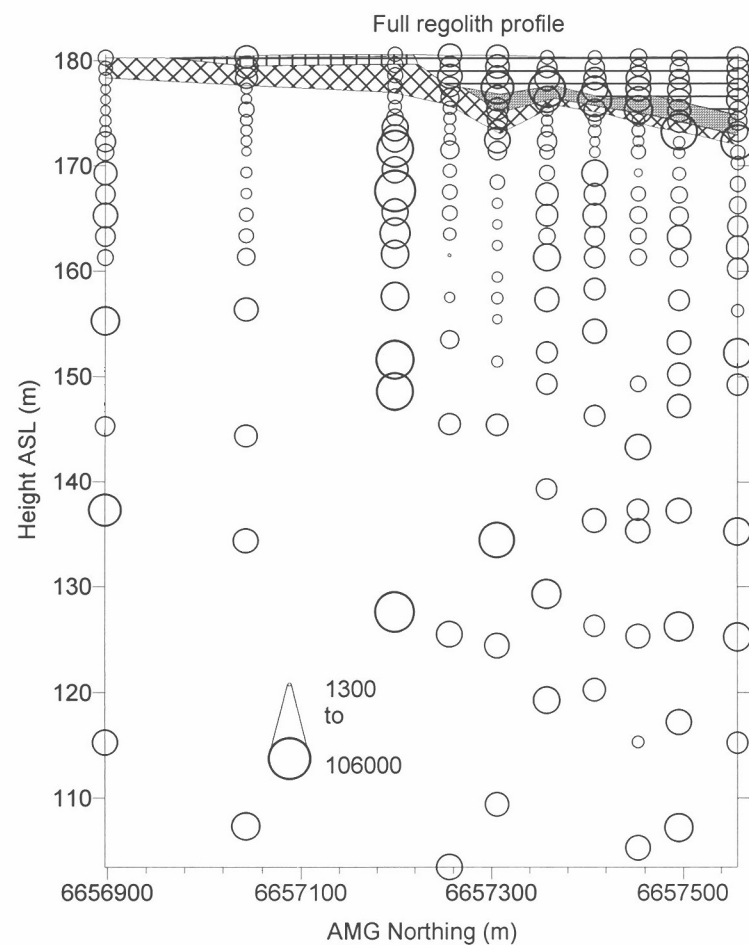


Figure A1c.16: Distribution and concentration of Fe at Monsoon regolith section on 350560E.

Fe (ppm)

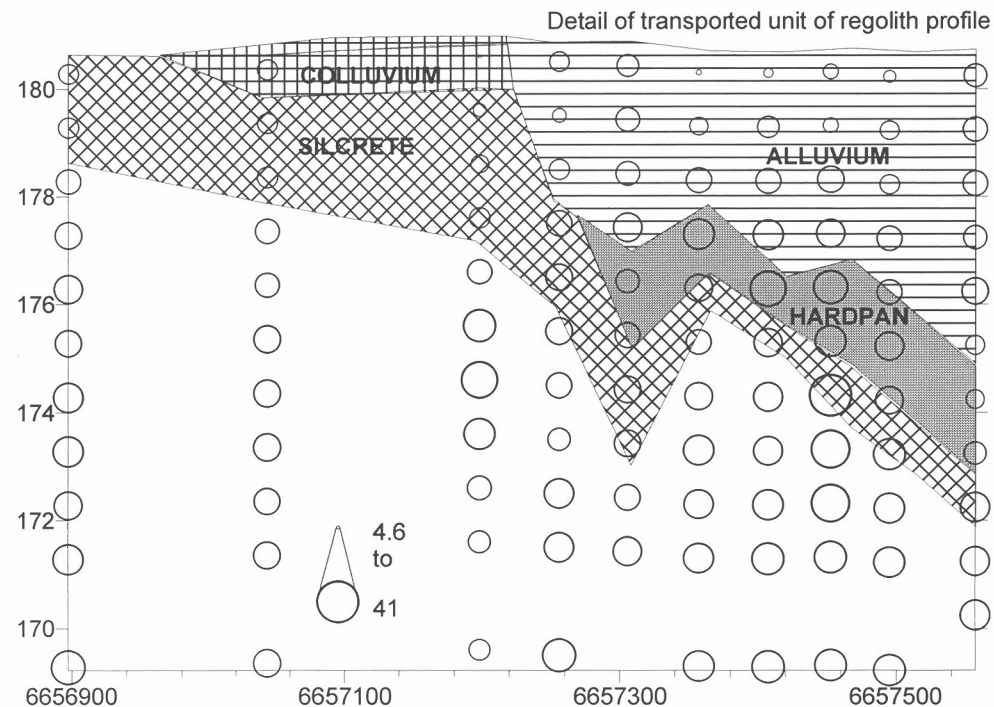
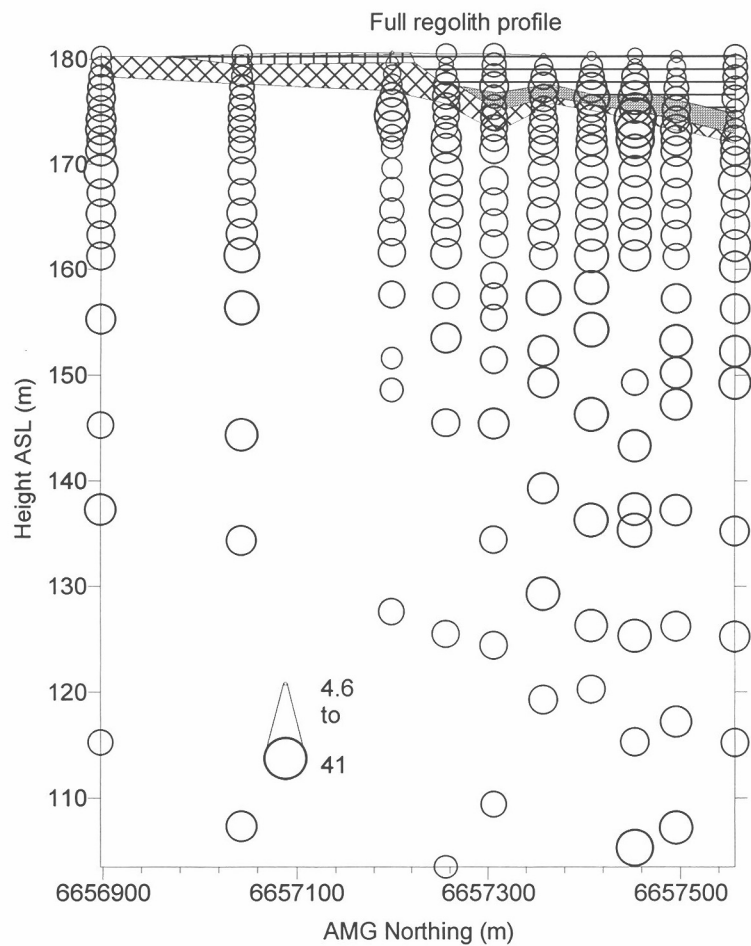
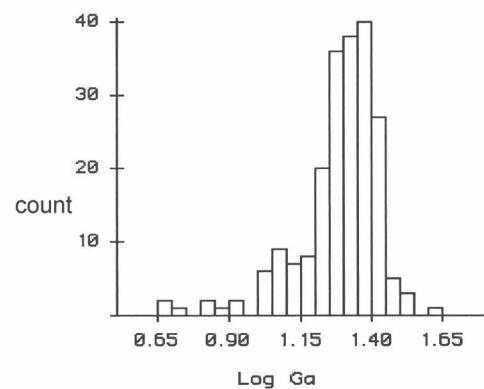


Figure A1c.17: Distribution and concentration of Ga at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 13 | 20 | 17 | 22 |
| Std Error | 0.8 | 2.0 | 2.0 | 0.3 |
| Median | 14 | 20 | 18 | 22 |
| Std Dev | 5 | 8 | 8 | 4 |
| Minimum | 5 | 11 | 7 | 13 |
| Maximum | 23 | 31 | 41 | 35 |
| Count | 31 | 10 | 18 | 151 |

Ga (ppm)

Monsoon

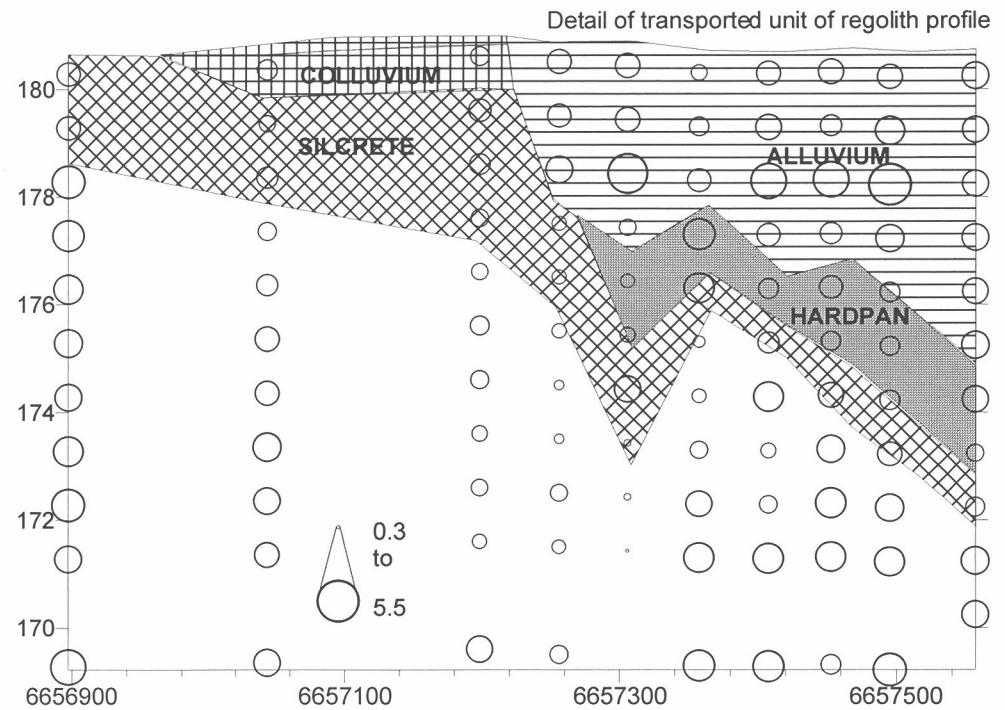
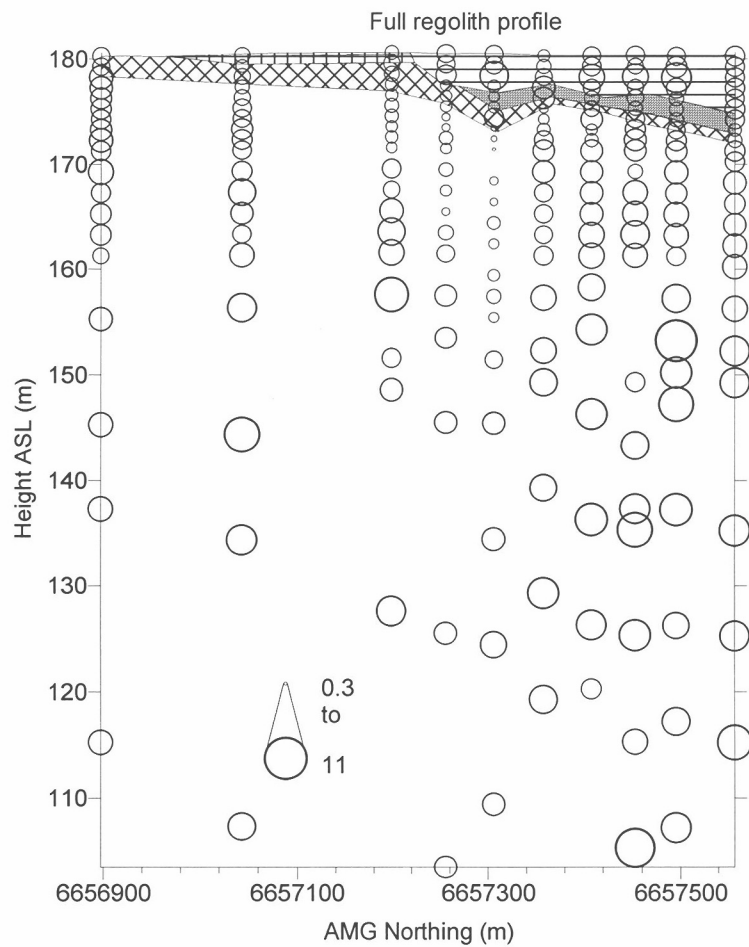
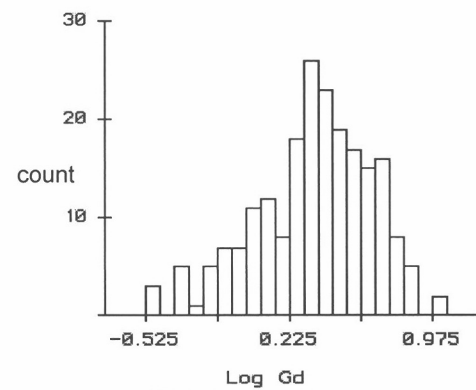


Figure A1c.18: Distribution and concentration of Gd at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 2 | 1 | 1 | 32 |
| Std Error | 0.2 | 0.2 | 0.2 | 0.2 |
| Median | 1.0 | 1.2 | 1.5 | 2.9 |
| Std Dev | 1.1 | 0.7 | 0.6 | 1.9 |
| Minimum | 0.0 | 0.7 | 0.4 | 0.3 |
| Maximum | 6 | 3 | 3 | 11 |
| Count | 31 | 10 | 10 | 151 |

Gd (ppm)

Monsoon

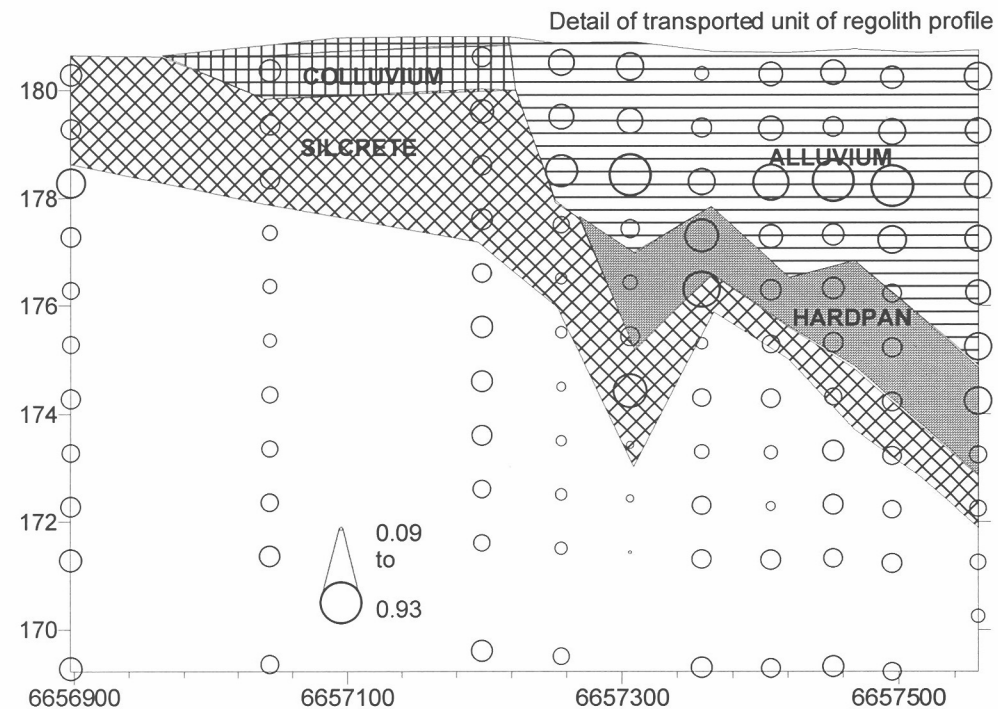
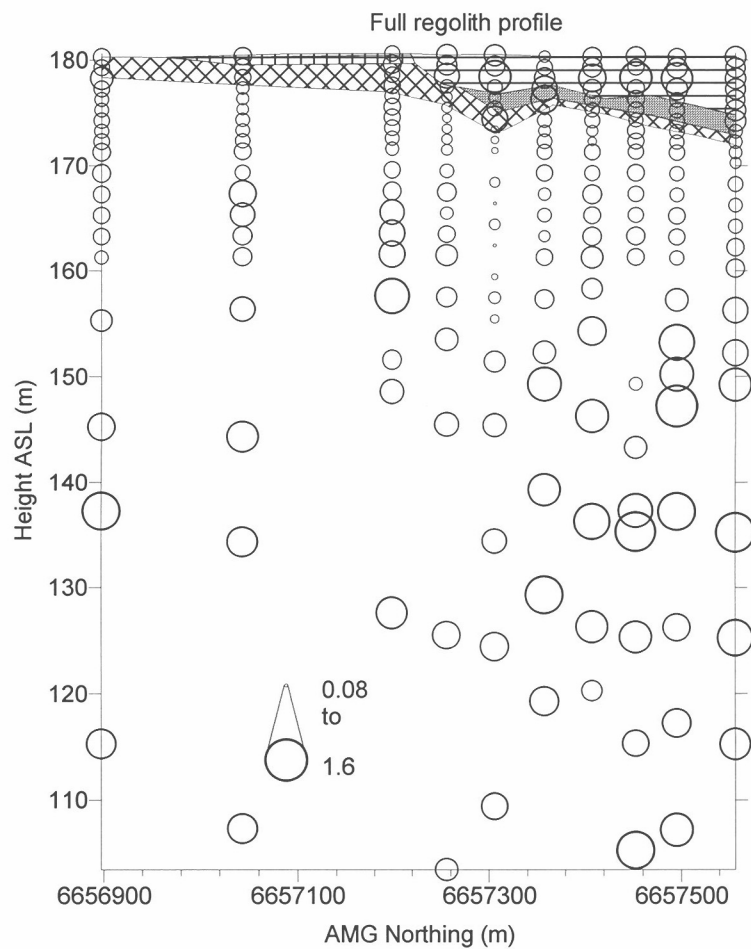
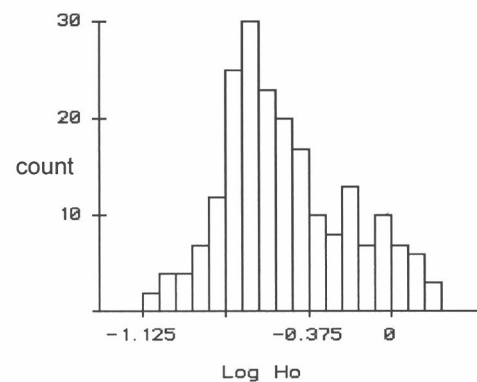


Figure A1c.19: Distribution and concentration of Ho at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.4 | 0.3 | 0.3 | 0.4 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.4 | 0.2 | 0.2 | 0.3 |
| Std Dev | 0.2 | 0.1 | 0.2 | 0.3 |
| Minimum | 0.15 | 0.16 | 0.1 | 0.08 |
| Maximum | 0.83 | 0.58 | 0.7 | 1.8 |
| Count | 31 | 10 | 18 | 151 |

Ho (ppm)

Monsoon

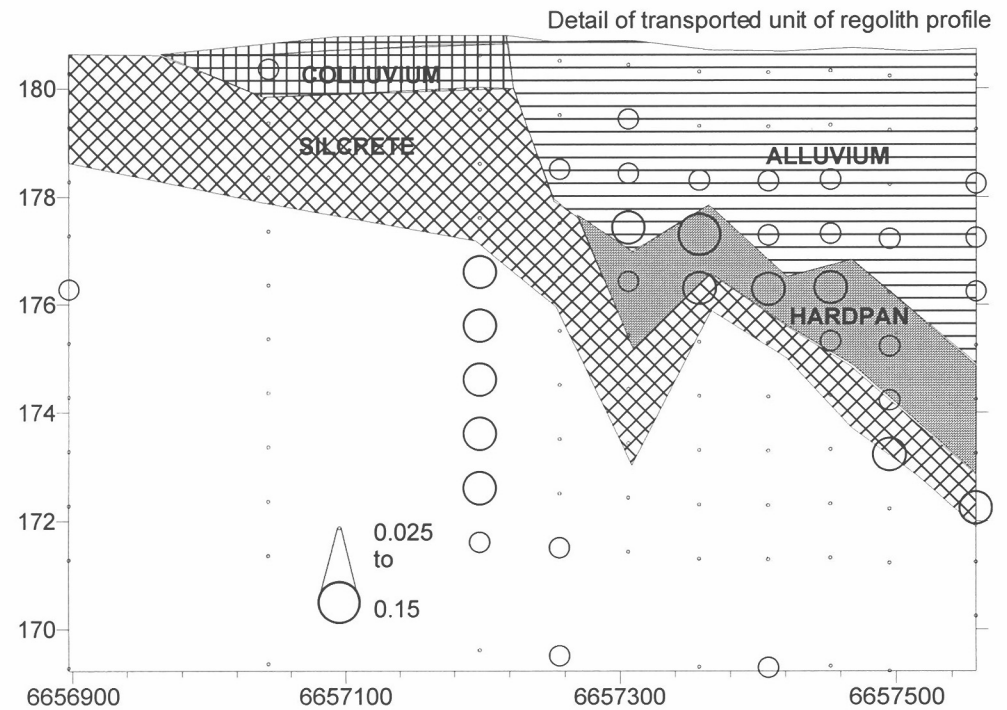
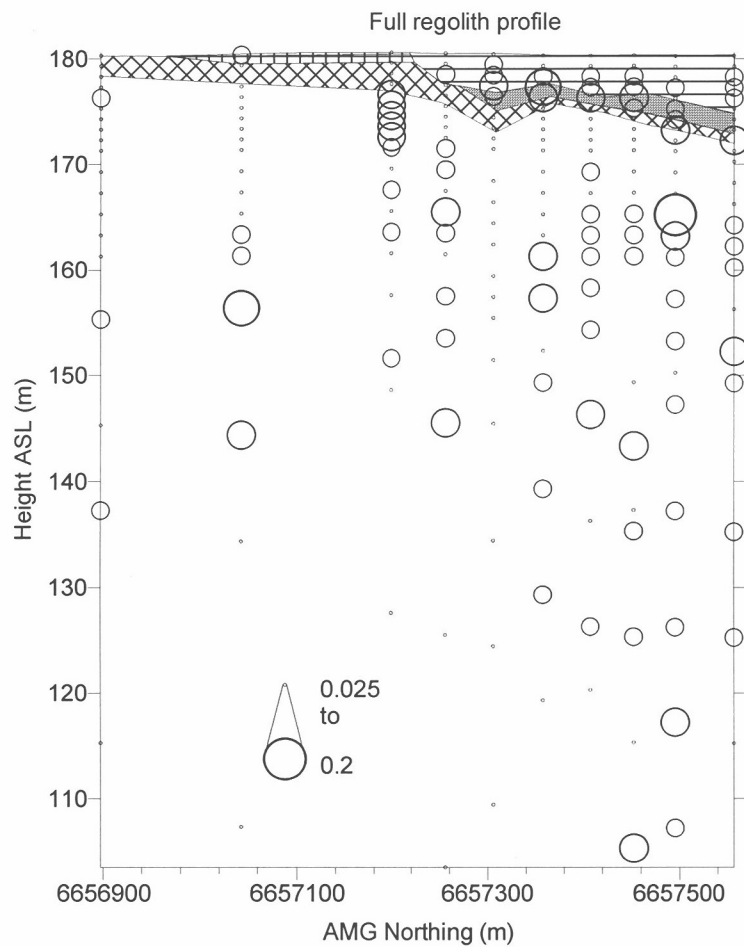
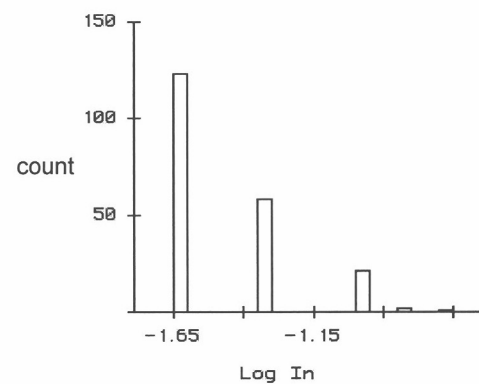


Figure A1c.20: Distribution and concentration of In at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.0 | 0.1 | 0.0 | 0.0 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.025 | 0.05 | 0.025 | 0.025 |
| Std Dev | 0.0 | 0.0 | 0.0 | 0.0 |
| Minimum | 0.025 | 0.025 | 0.025 | 0.025 |
| Maximum | 0.1 | 0.15 | 0.1 | 0.2 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

In (ppm)

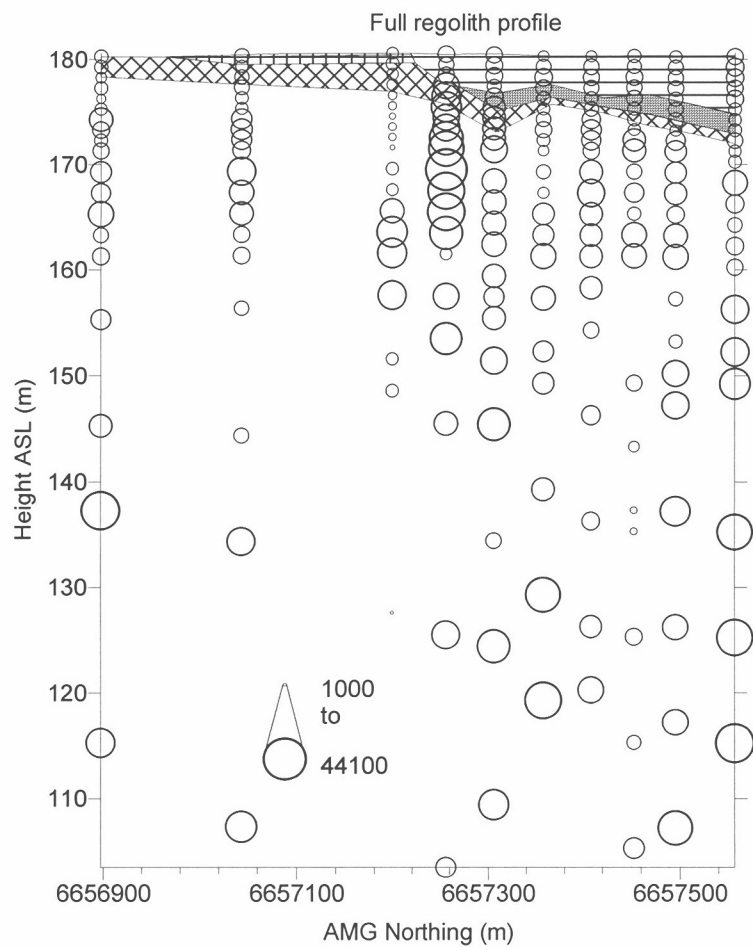
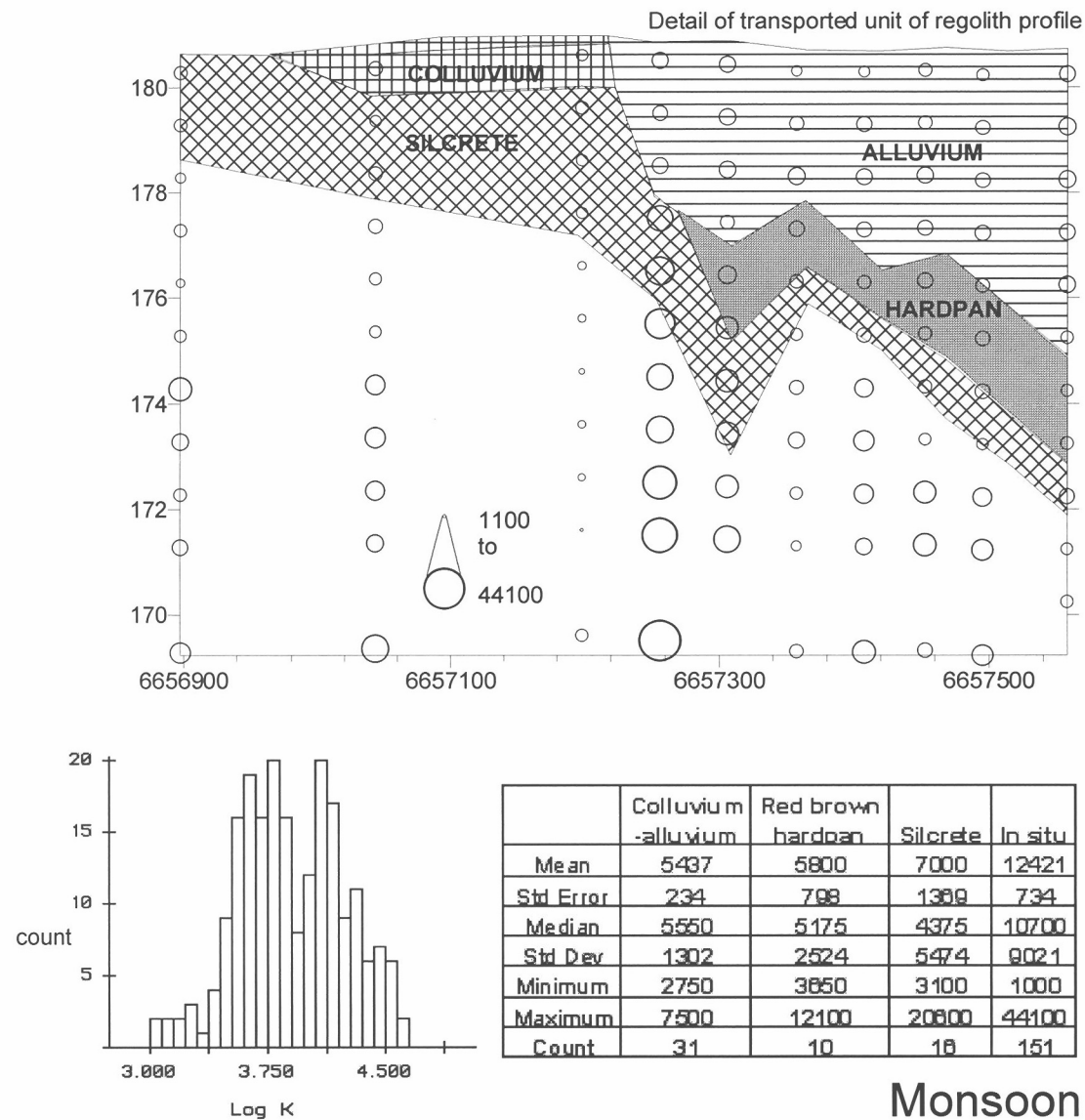
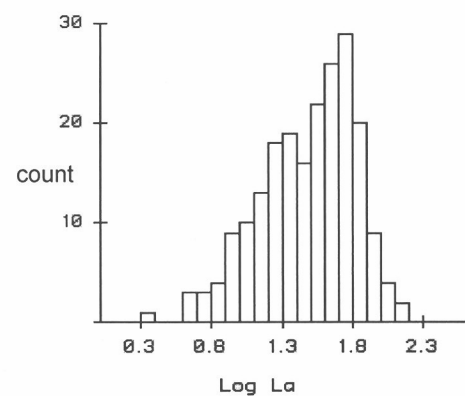
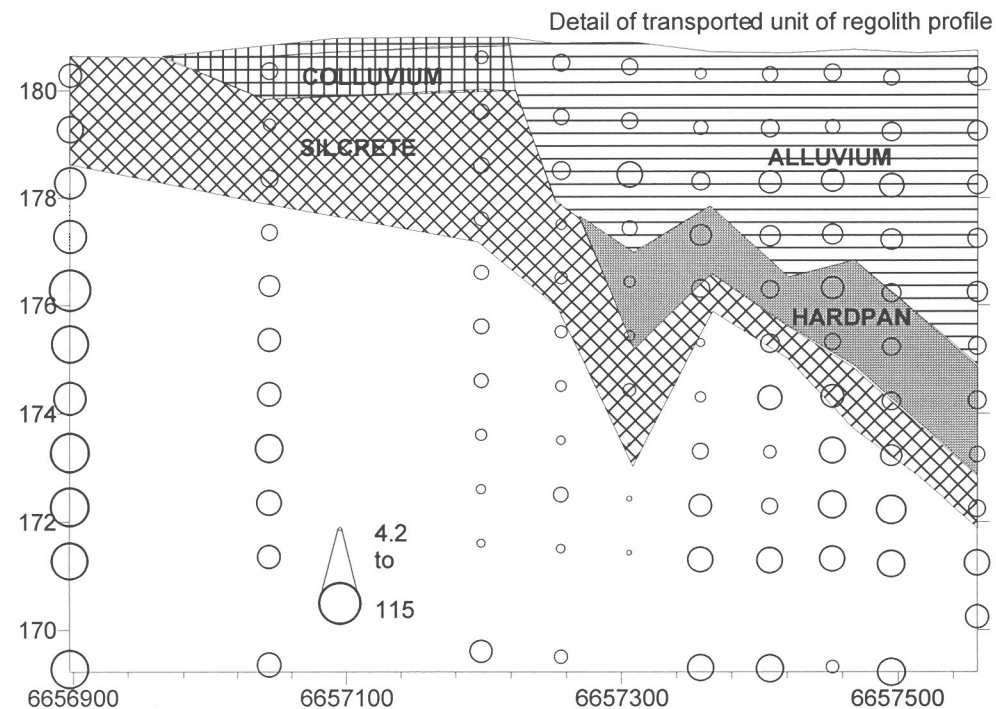
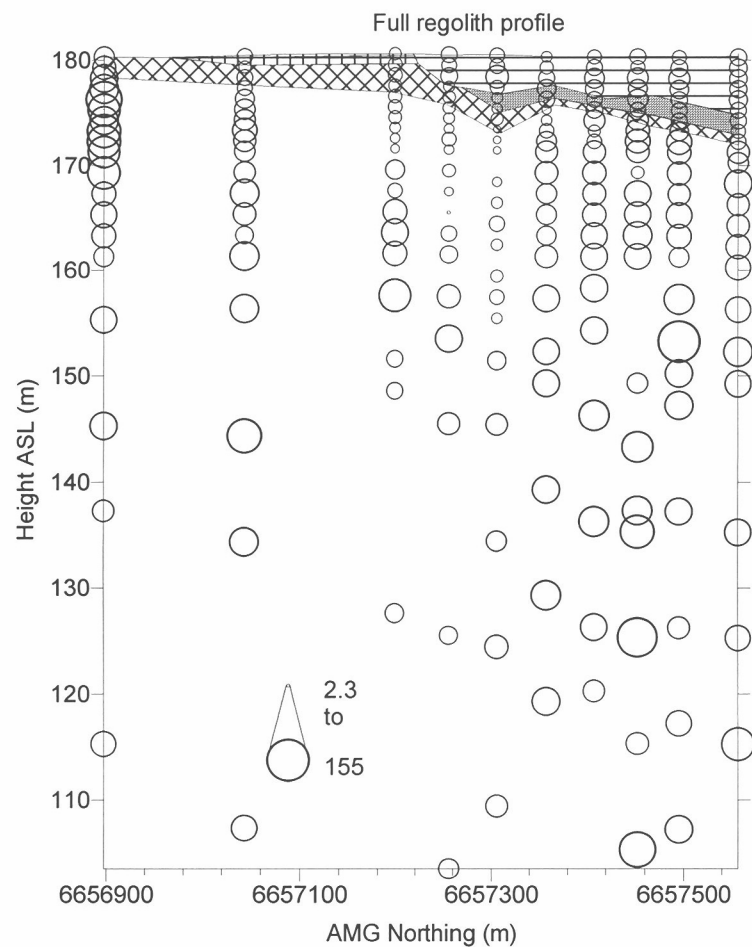


Figure A1c.21: Distribution and concentration of K at Monsoon regolith section on 350560E.

K (ppm)



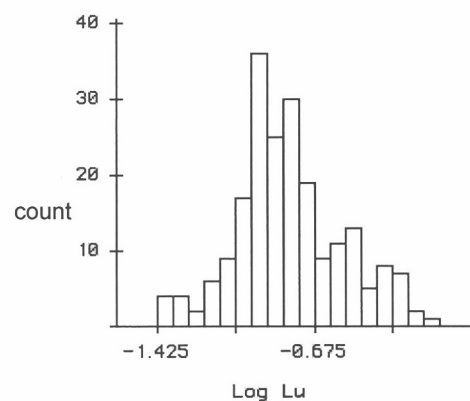
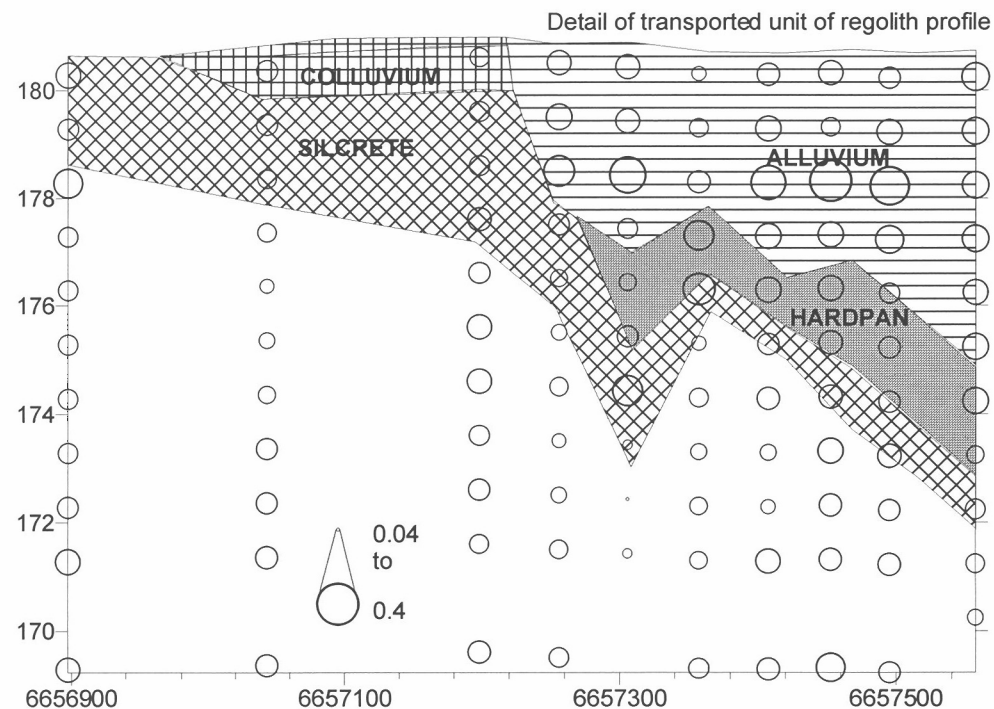
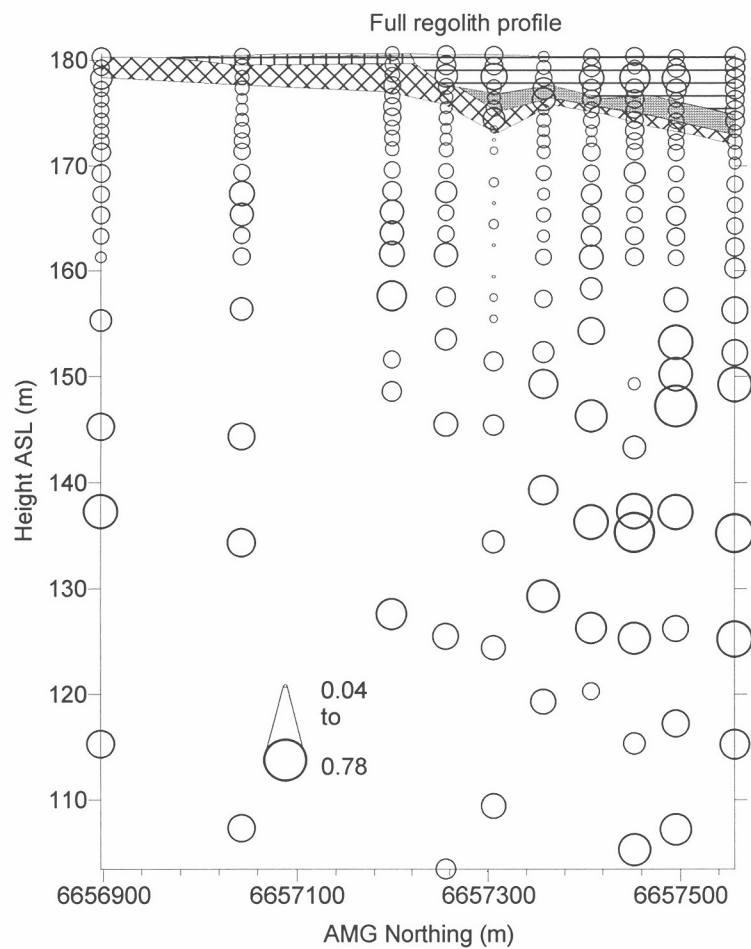


| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 21 | 19 | 19 | 48 |
| Std Error | 1 | 2 | 3 | 2 |
| Median | 20 | 19 | 17 | 44 |
| Std Dev | 7 | 7 | 11 | 28 |
| Minimum | 9 | 8 | 4 | 2 |
| Maximum | 43 | 31 | 45 | 155 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

Figure A1c.22: Distribution and concentration of La at Monsoon regolith section on 350560E.

La (ppm)



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.2 | 0.1 | 0.1 | 0.2 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.18 | 0.13 | 0.12 | 0.15 |
| Std Dev | 0.1 | 0.0 | 0.0 | 0.1 |
| Minimum | 0.07 | 0.09 | 0.05 | 0.04 |
| Maximum | 0.4 | 0.21 | 0.24 | 0.78 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

Figure A1c.23: Distribution and concentration of Lu at Monsoon regolith section on 350560E.

Lu (ppm)

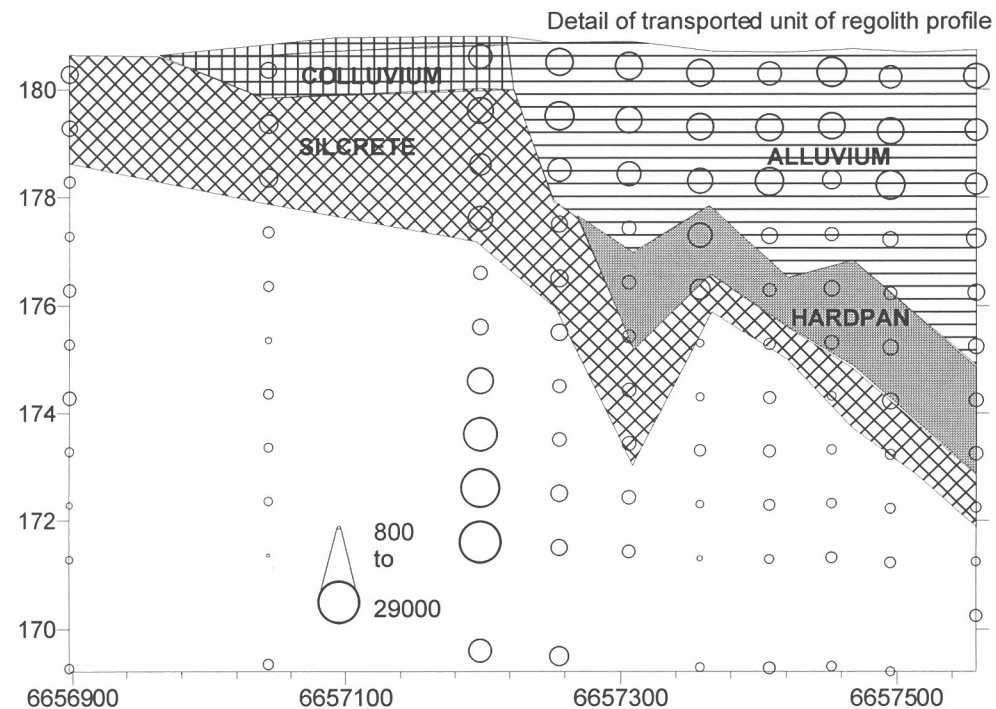
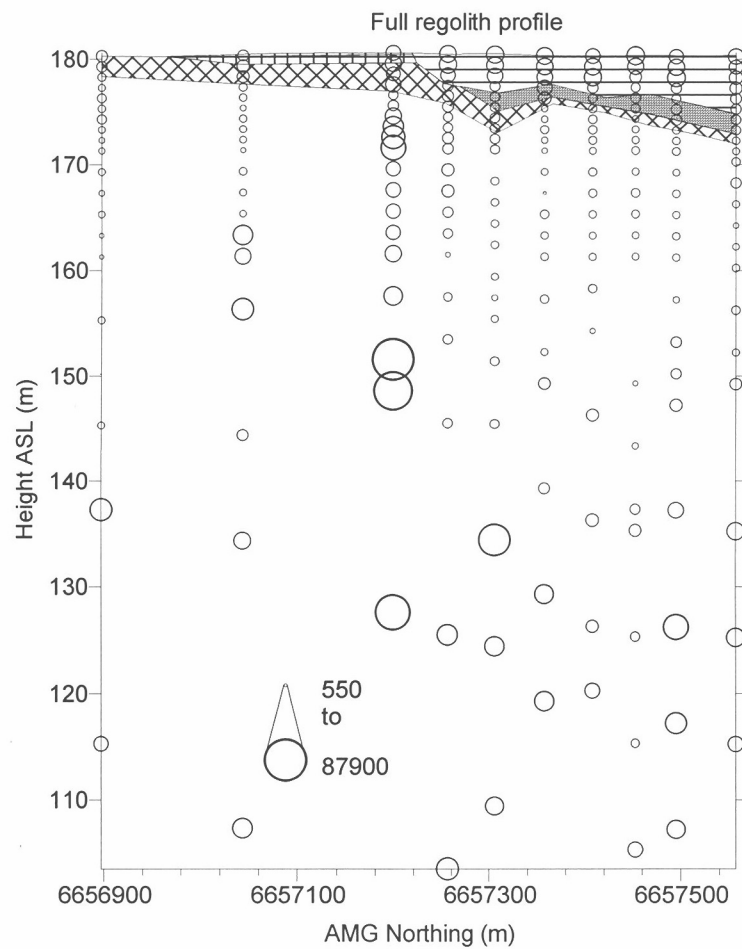
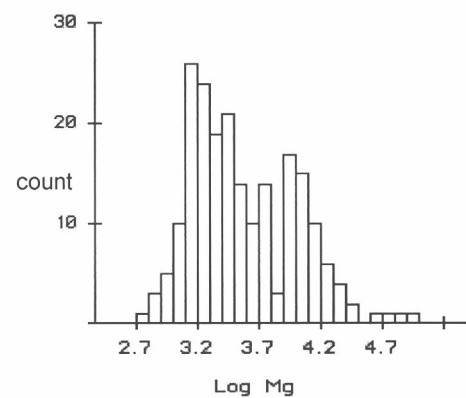


Figure A1c.24: Distribution and concentration of Mg at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 8408 | 3715 | 4878 | 8872 |
| Std Error | 858 | 821 | 894 | 974 |
| Median | 8750 | 2850 | 4275 | 2300 |
| Std Dev | 3854 | 1984 | 2774 | 11989 |
| Minimum | 2500 | 2550 | 1400 | 550 |
| Maximum | 14000 | 9150 | 10800 | 87900 |
| Count | 31 | 10 | 18 | 151 |

Mg (ppm)

Monsoon

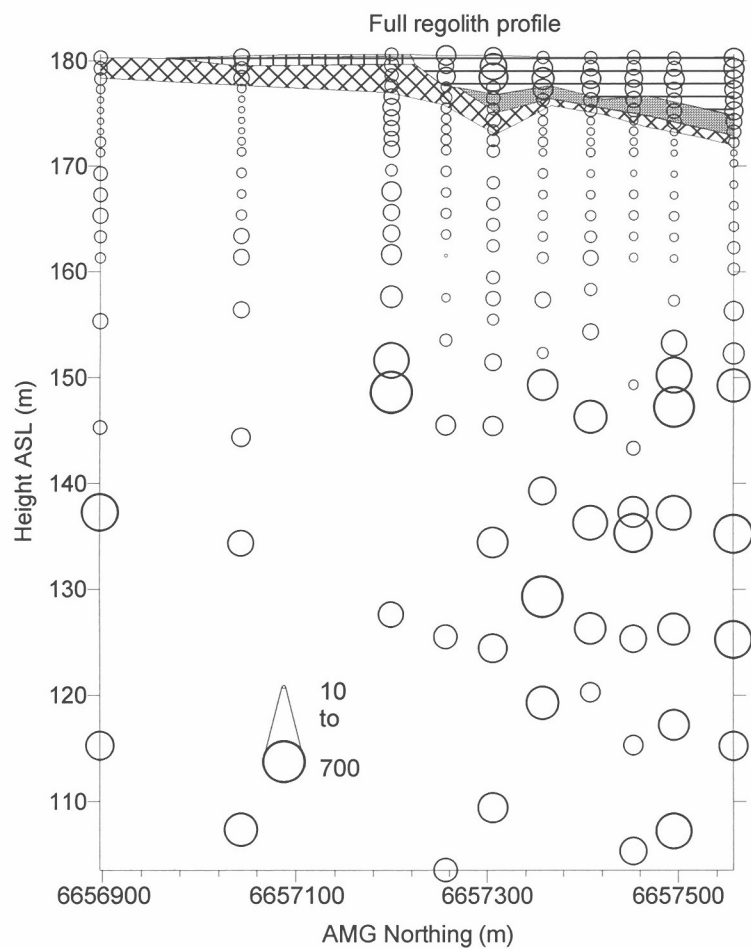
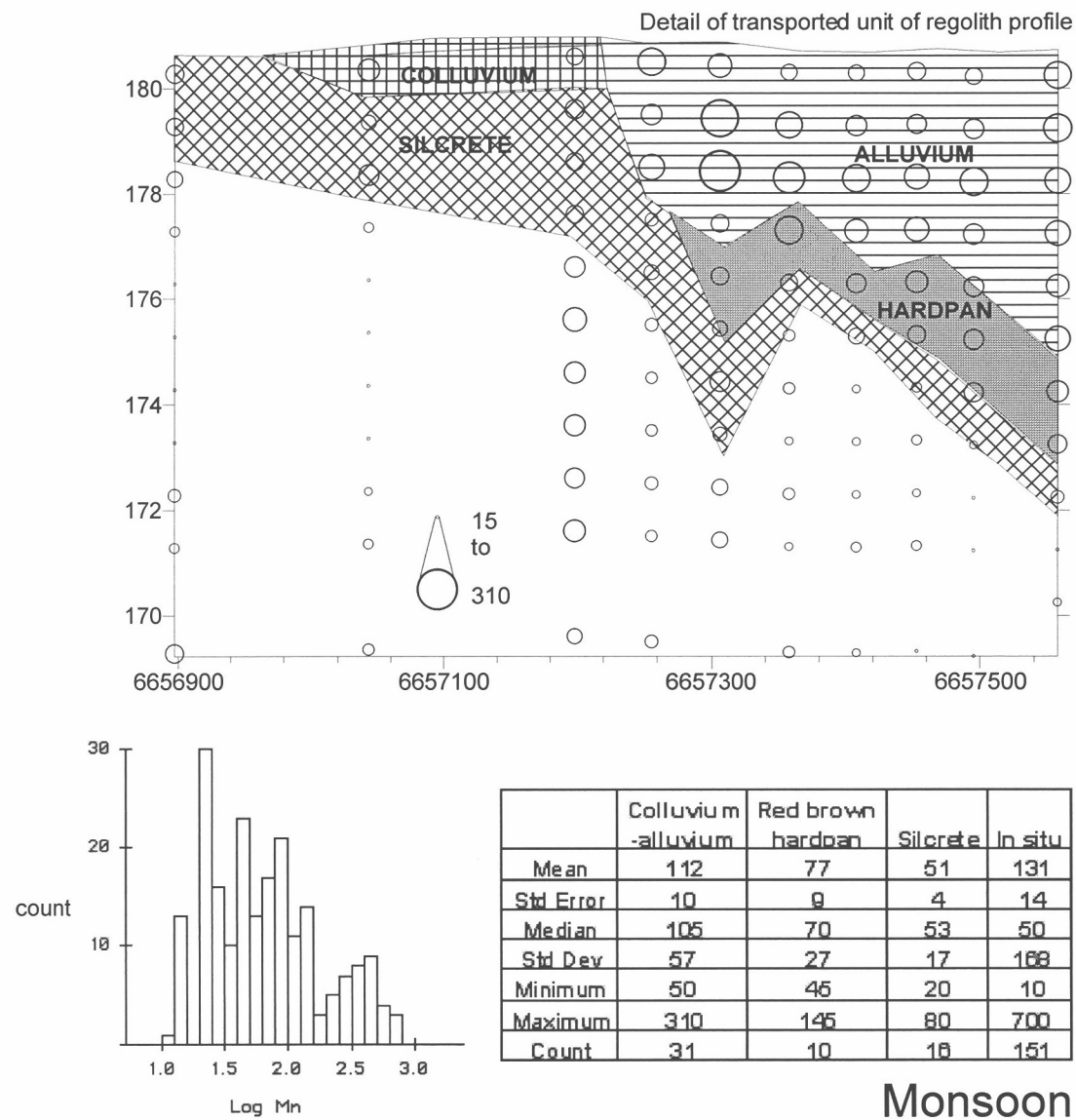


Figure A1c.25: Distribution and concentration of Mn at Monsoon regolith section on 350560E.

Mn (ppm)



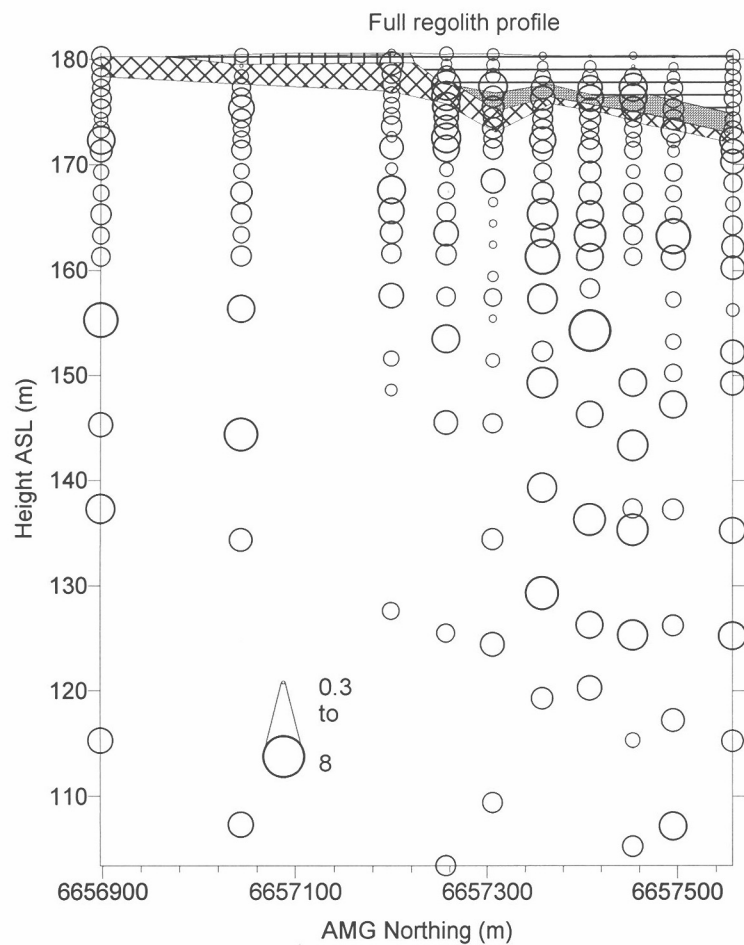
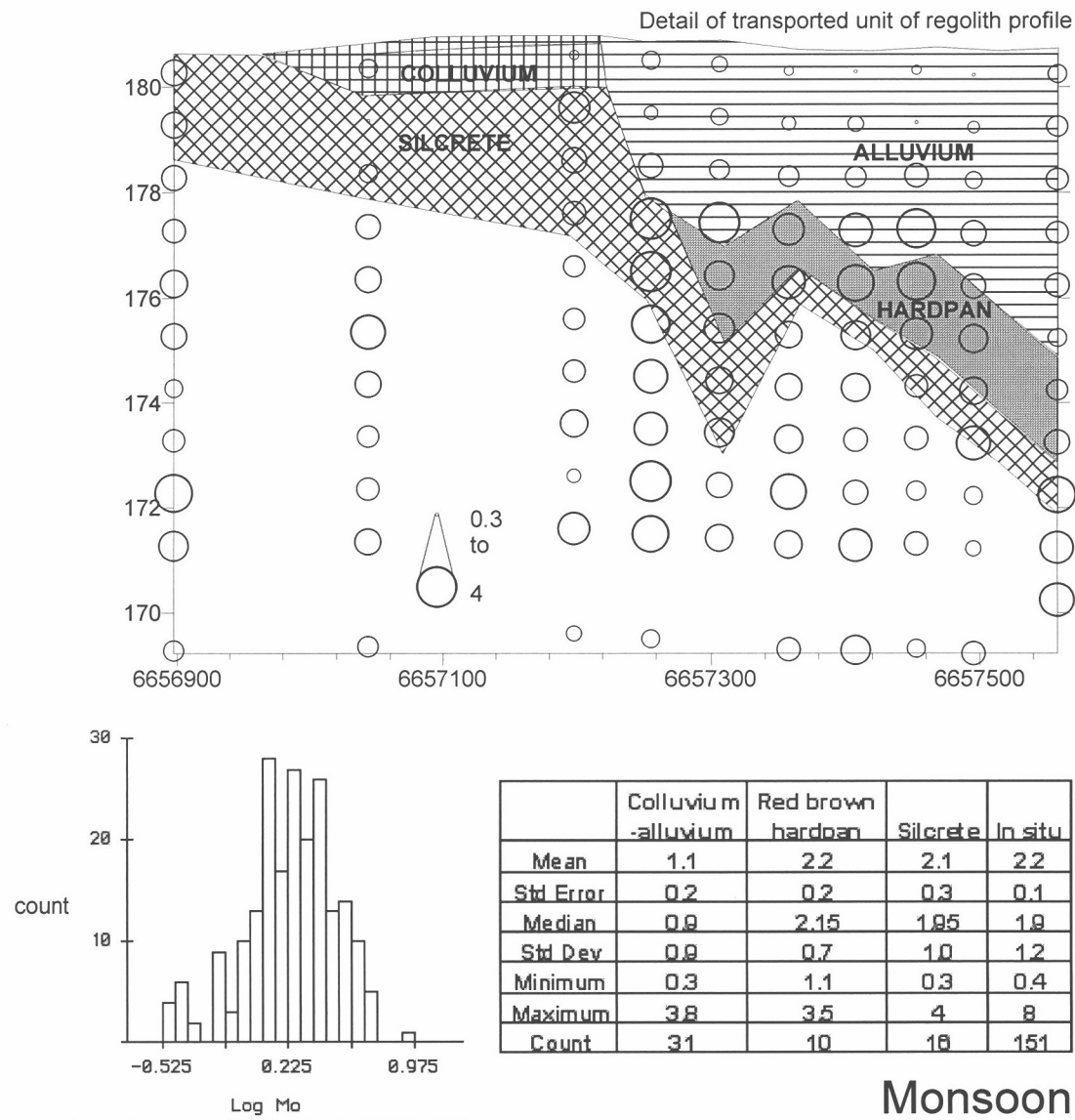
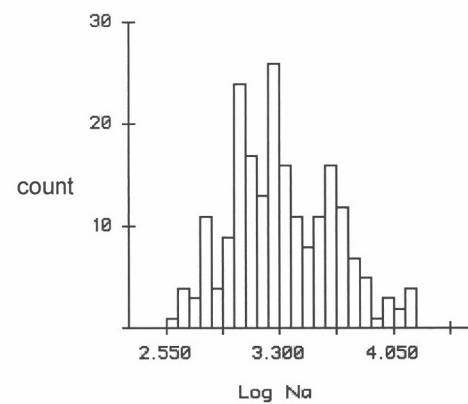
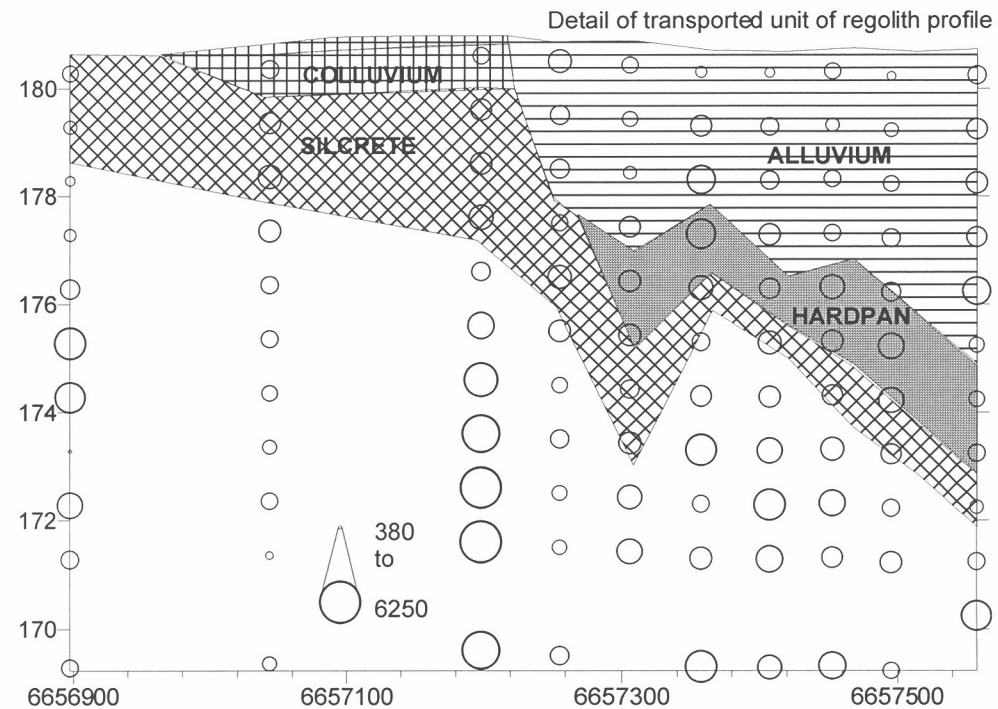
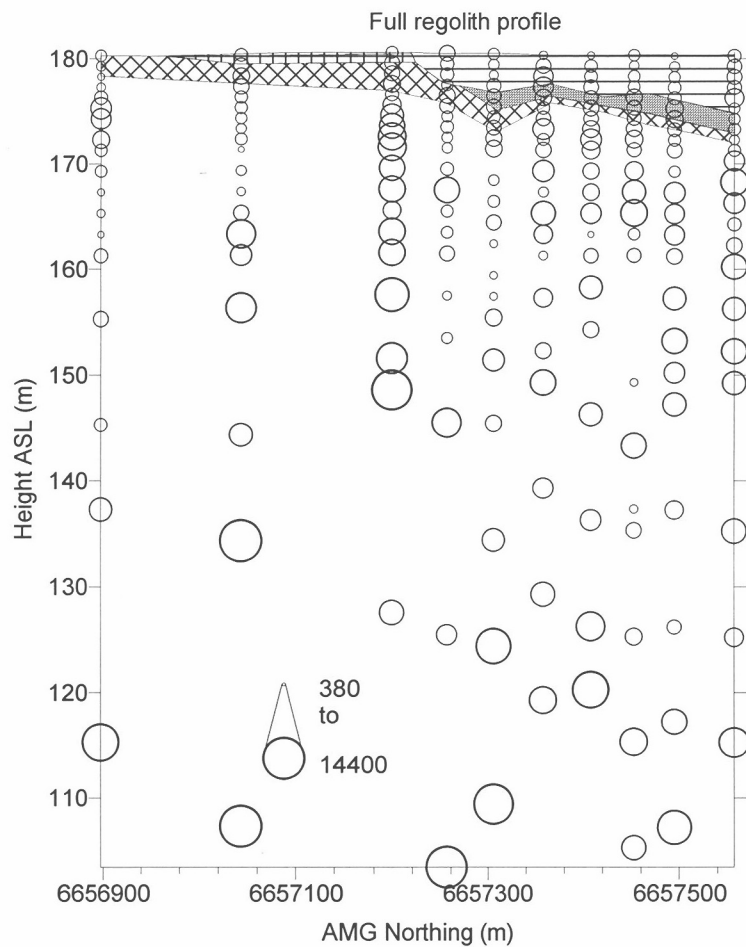


Figure A1c.26: Distribution and concentration of Mo at Monsoon regolith section on 350560E.

Mo (ppm)





| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 1302 | 1875 | 1584 | 3381 |
| Std Error | 98 | 190 | 118 | 242 |
| Median | 1250 | 1725 | 1700 | 2450 |
| Std Dev | 546 | 620 | 483 | 2971 |
| Minimum | 500 | 1000 | 800 | 380 |
| Maximum | 2850 | 3100 | 2200 | 14400 |
| Count | 31 | 10 | 18 | 151 |

Figure A1c.27: Distribution and concentration of Na at Monsoon regolith section on 350560E.

Na (ppm)

Monsoon

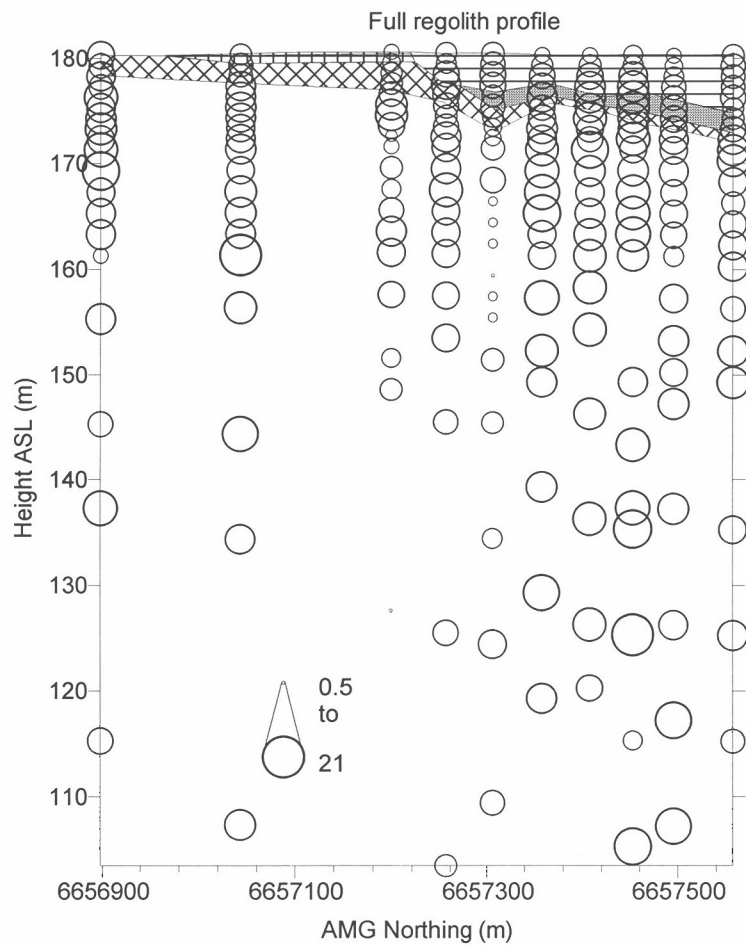
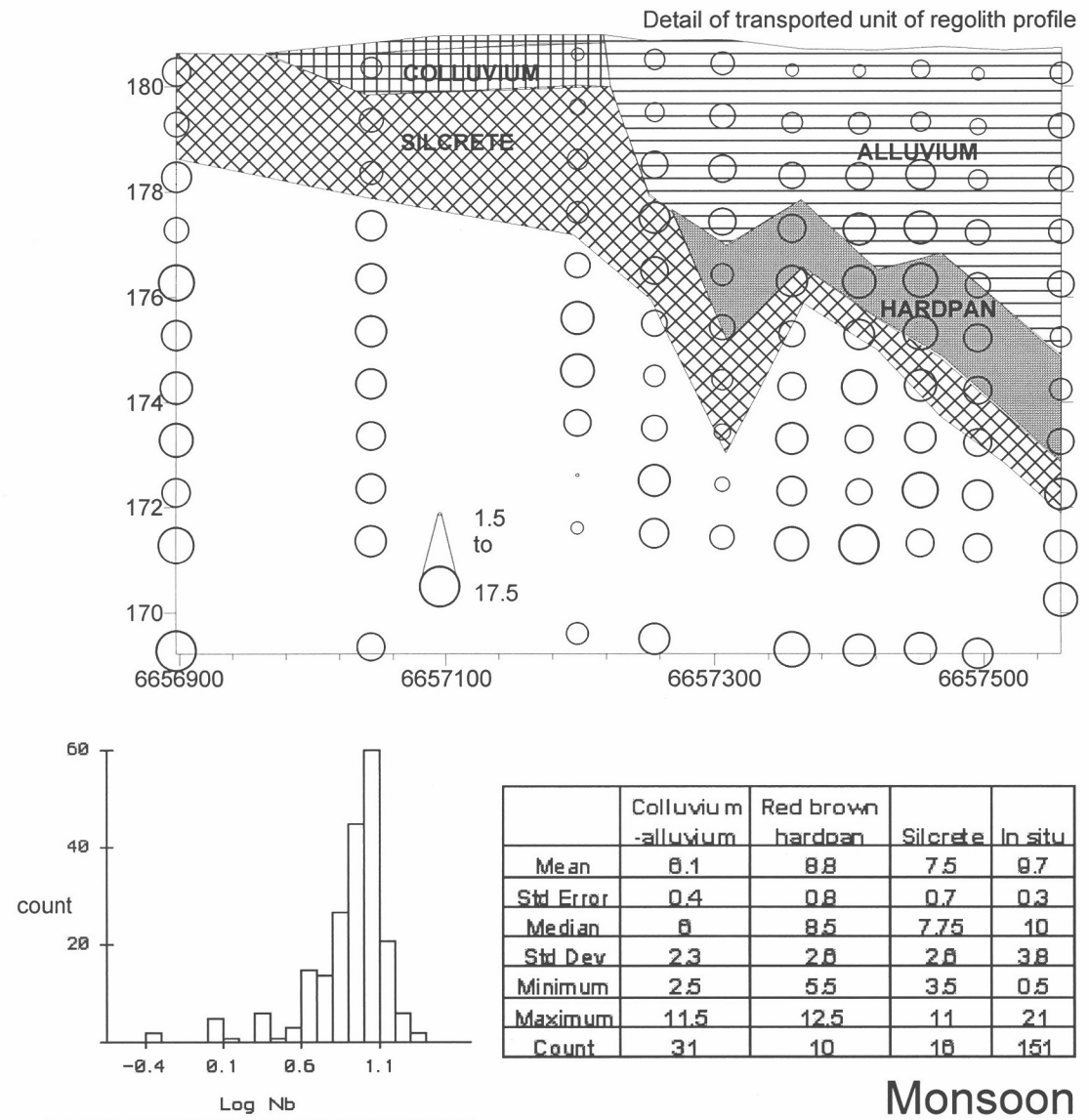
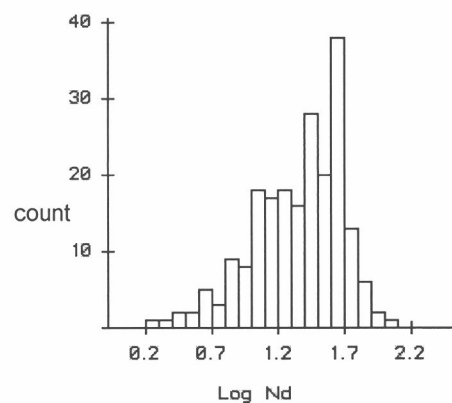
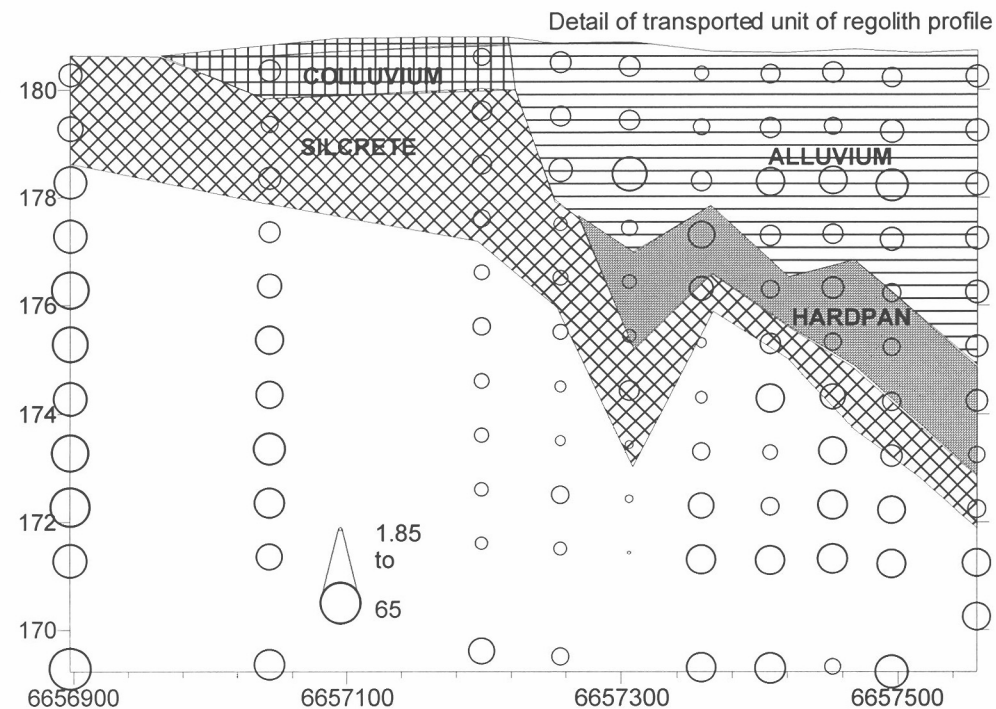
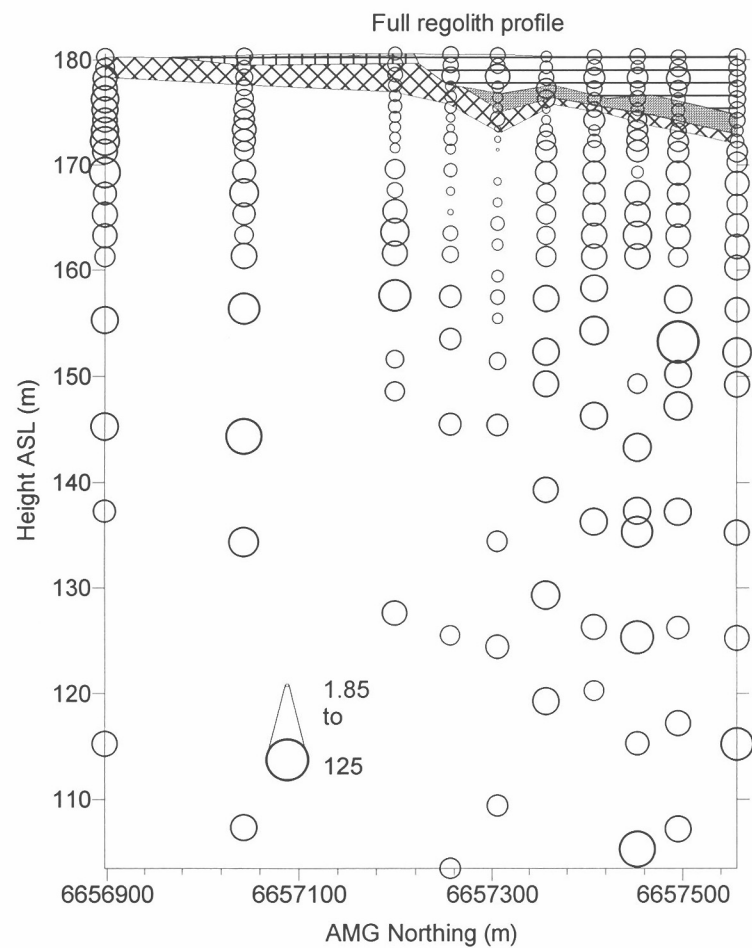


Figure A1c.28: Distribution and concentration of Nb at Monsoon regolith section on 350560E.

Nb (ppm)





| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 17 | 12 | 14 | 34 |
| Std Error | 1 | 2 | 1 | 2 |
| Median | 15 | 10 | 14 | 33 |
| Std Dev | 8 | 8 | 8 | 20 |
| Minimum | 7 | 8 | 3 | 2 |
| Maximum | 43 | 28 | 23 | 125 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

Figure A1c.29: Distribution and concentration of Nd at Monsoon regolith section on 350560E.

Nd (ppm)

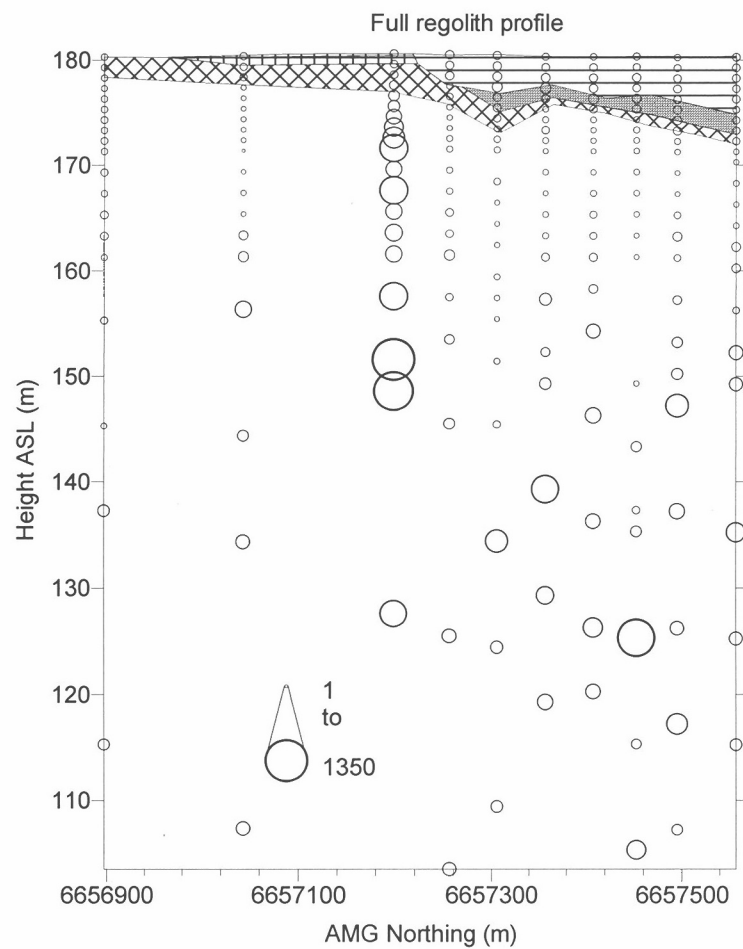
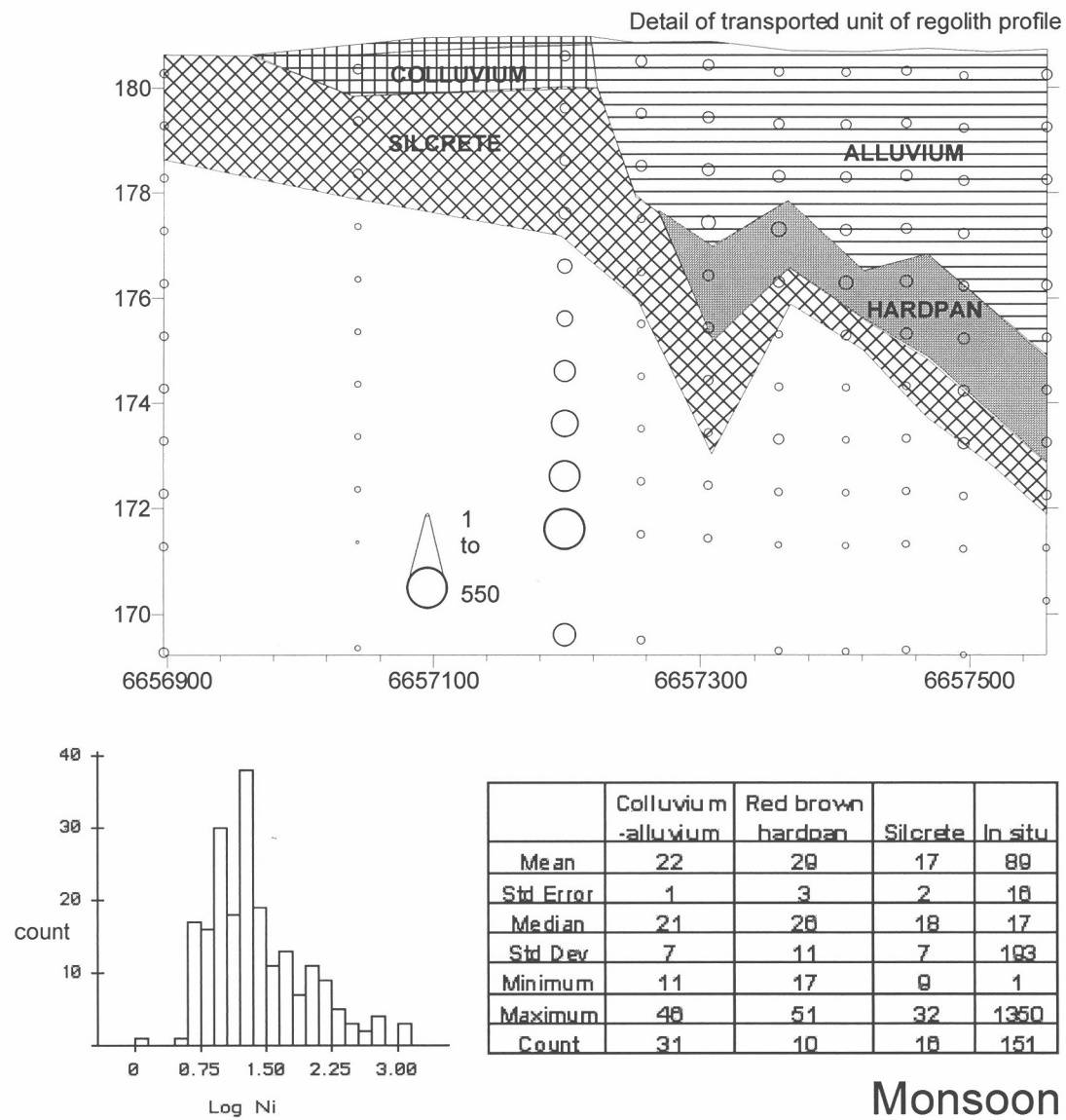


Figure A1c.30: Distribution and concentration of Ni at Monsoon regolith section on 350560E.

Ni (ppm)



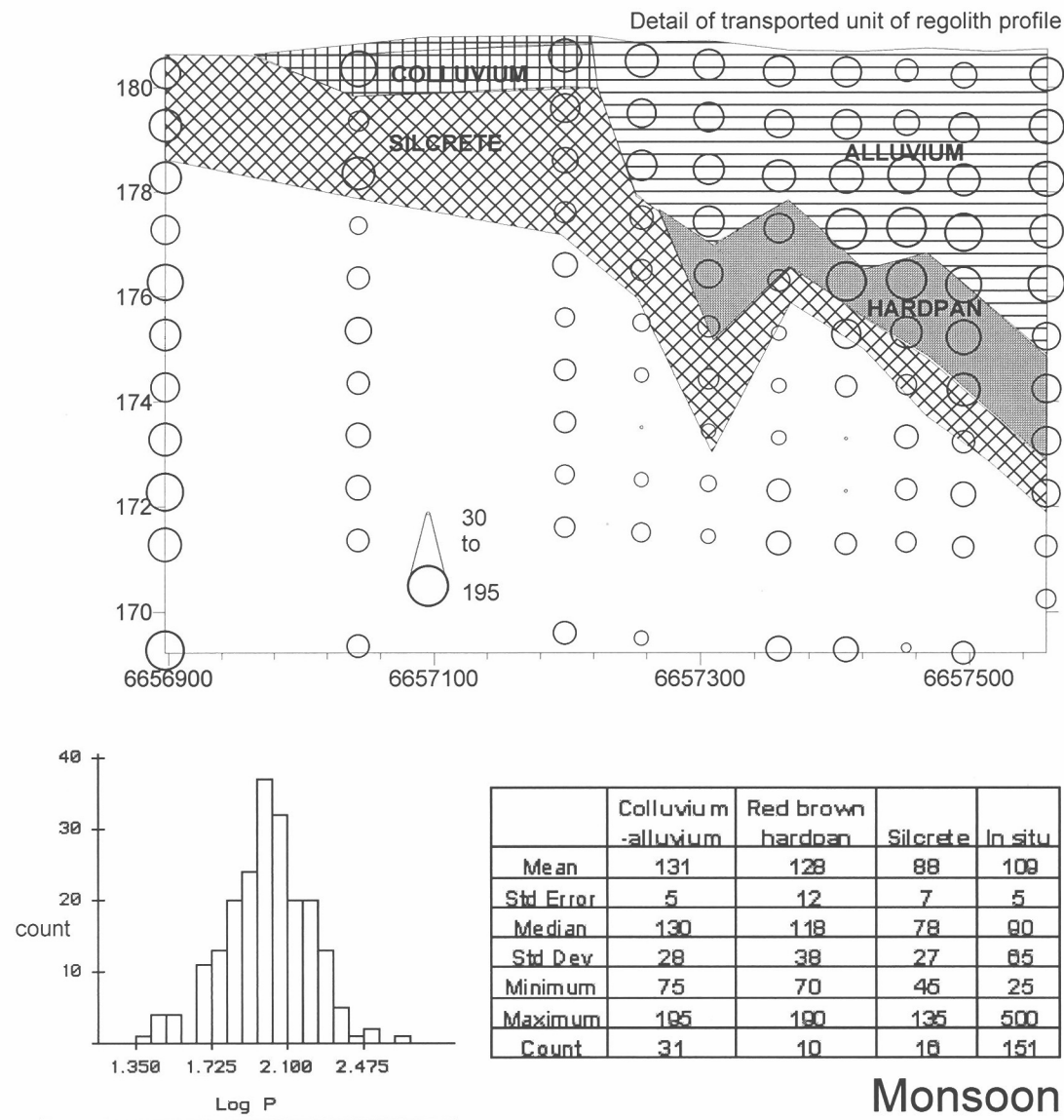
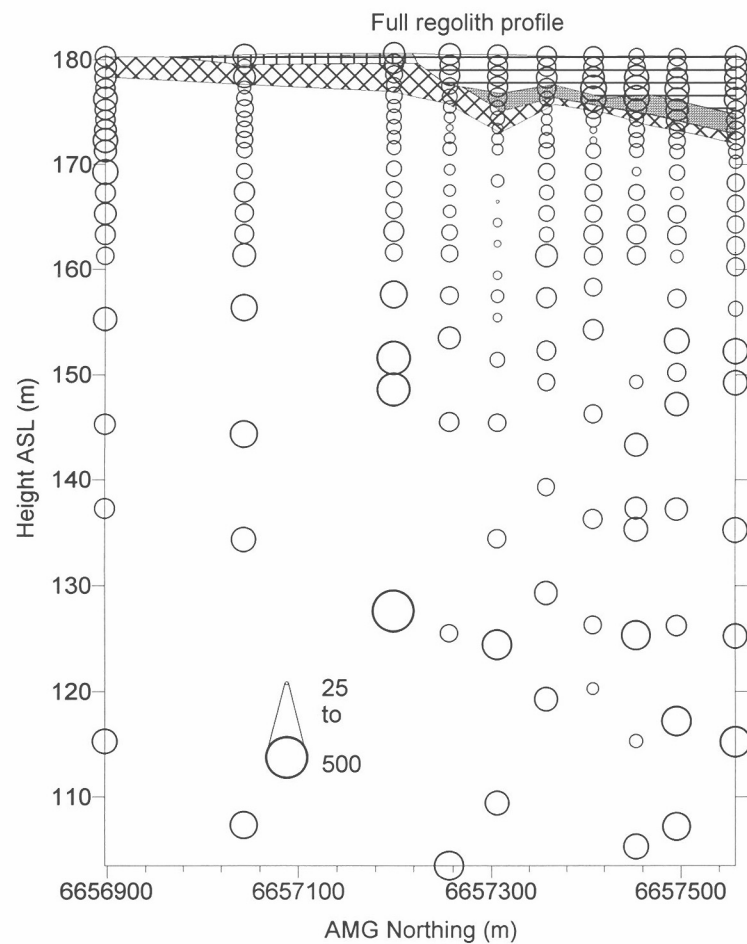


Figure A1c.31: Distribution and concentration of P at Monsoon regolith section on 350560E.

P (ppm)

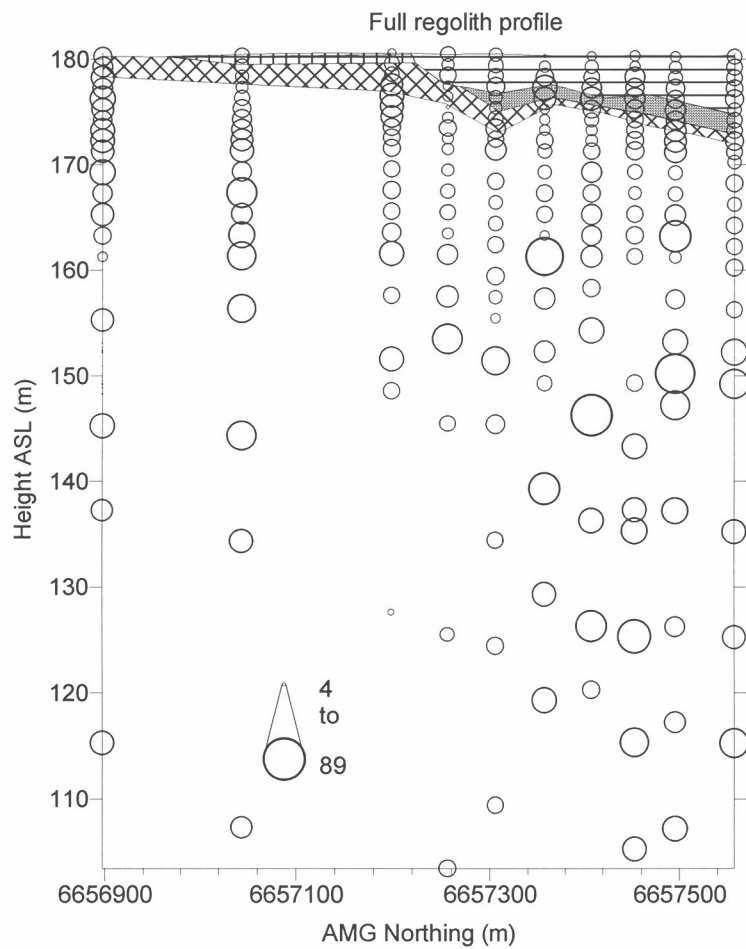
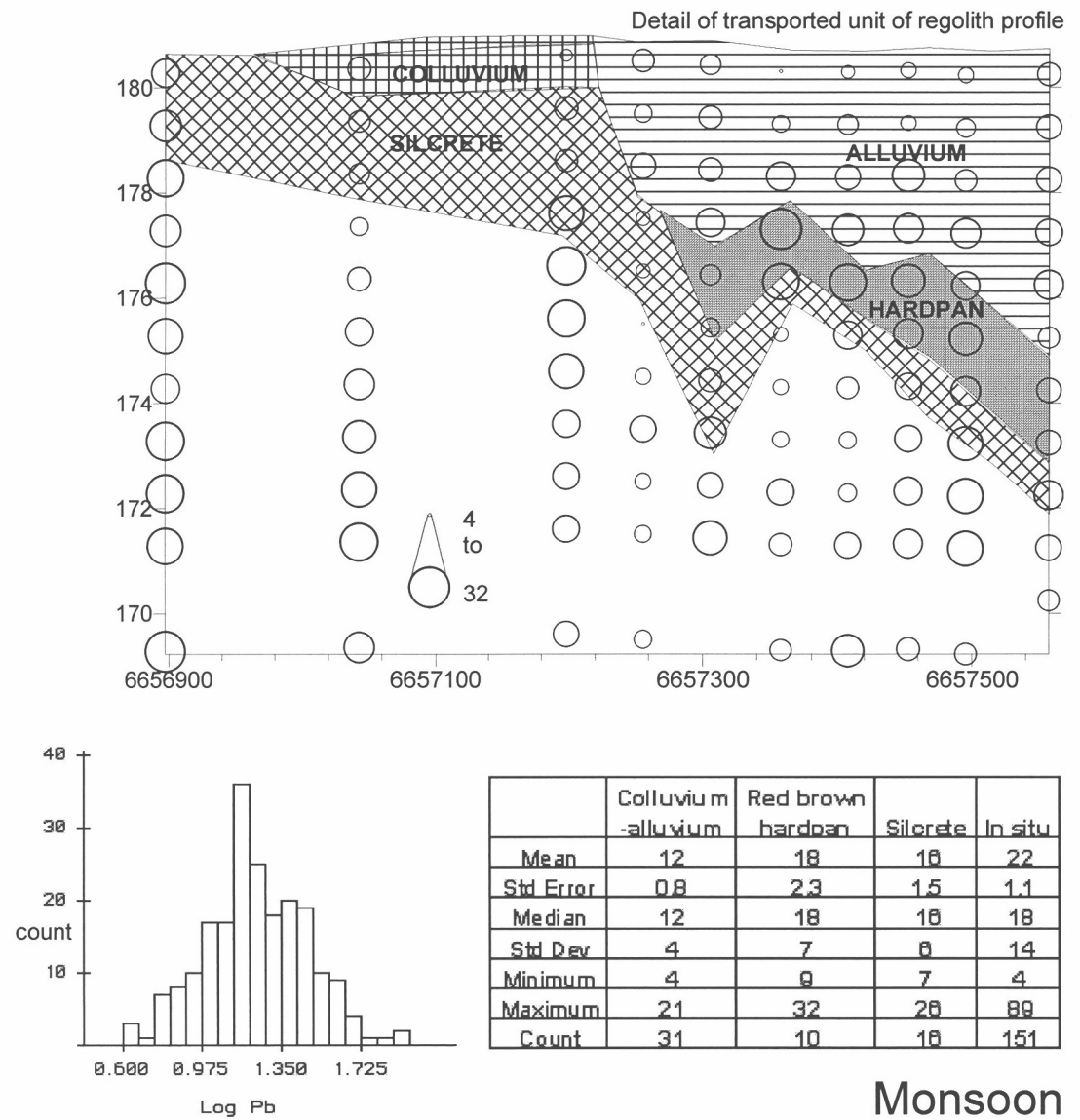


Figure A1c.32: Distribution and concentration of Pb at Monsoon regolith section on 350560E.

Pb (ppm)



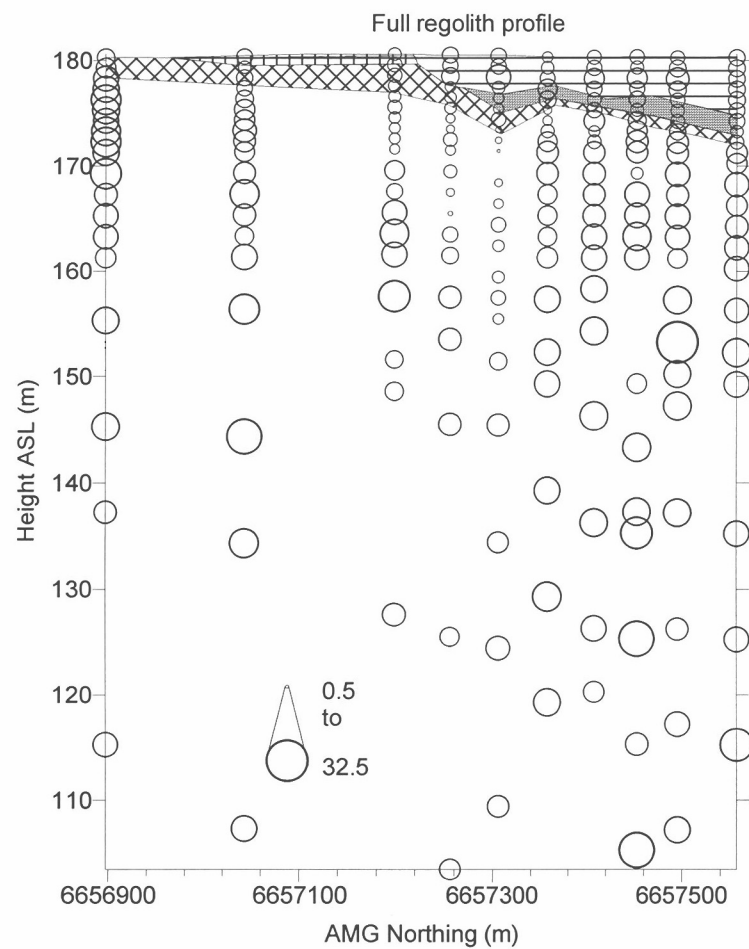
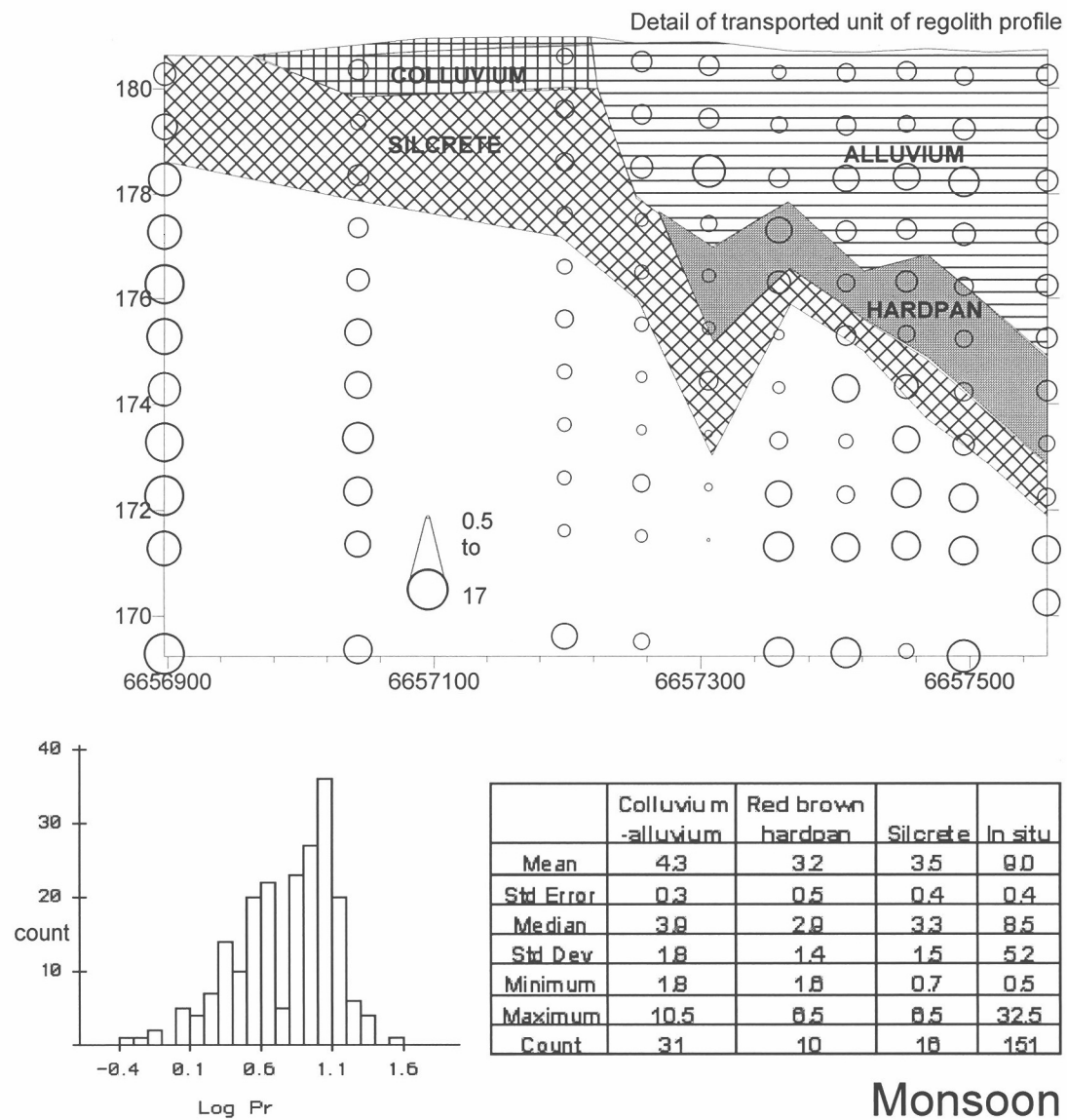


Figure A1c.33: Distribution and concentration of Pr at Monsoon regolith section on 350560E.

Pr (ppm)



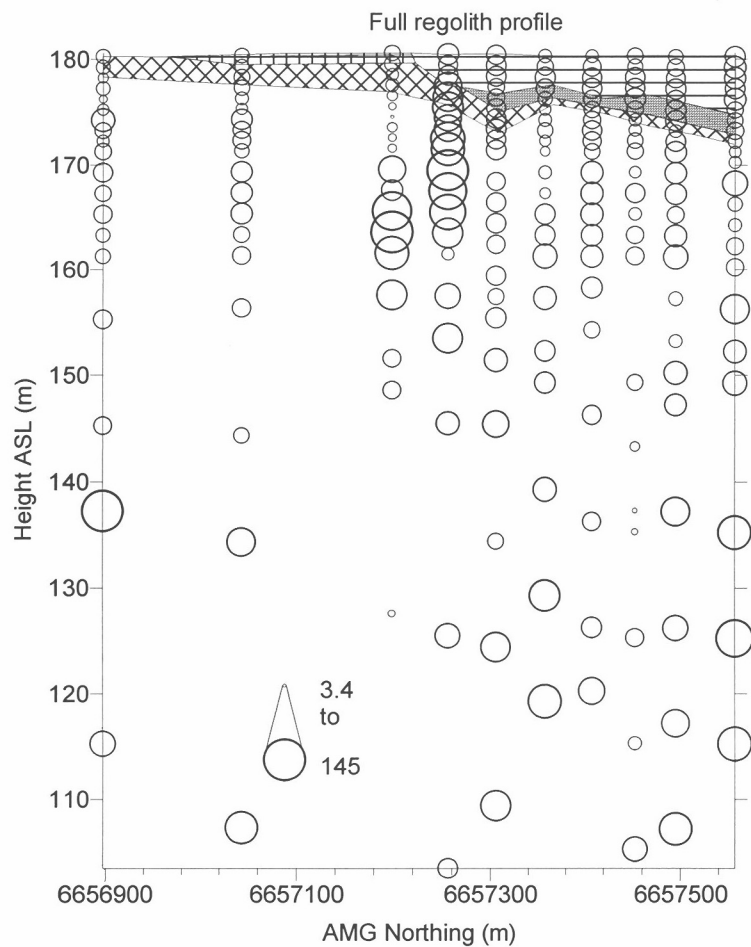
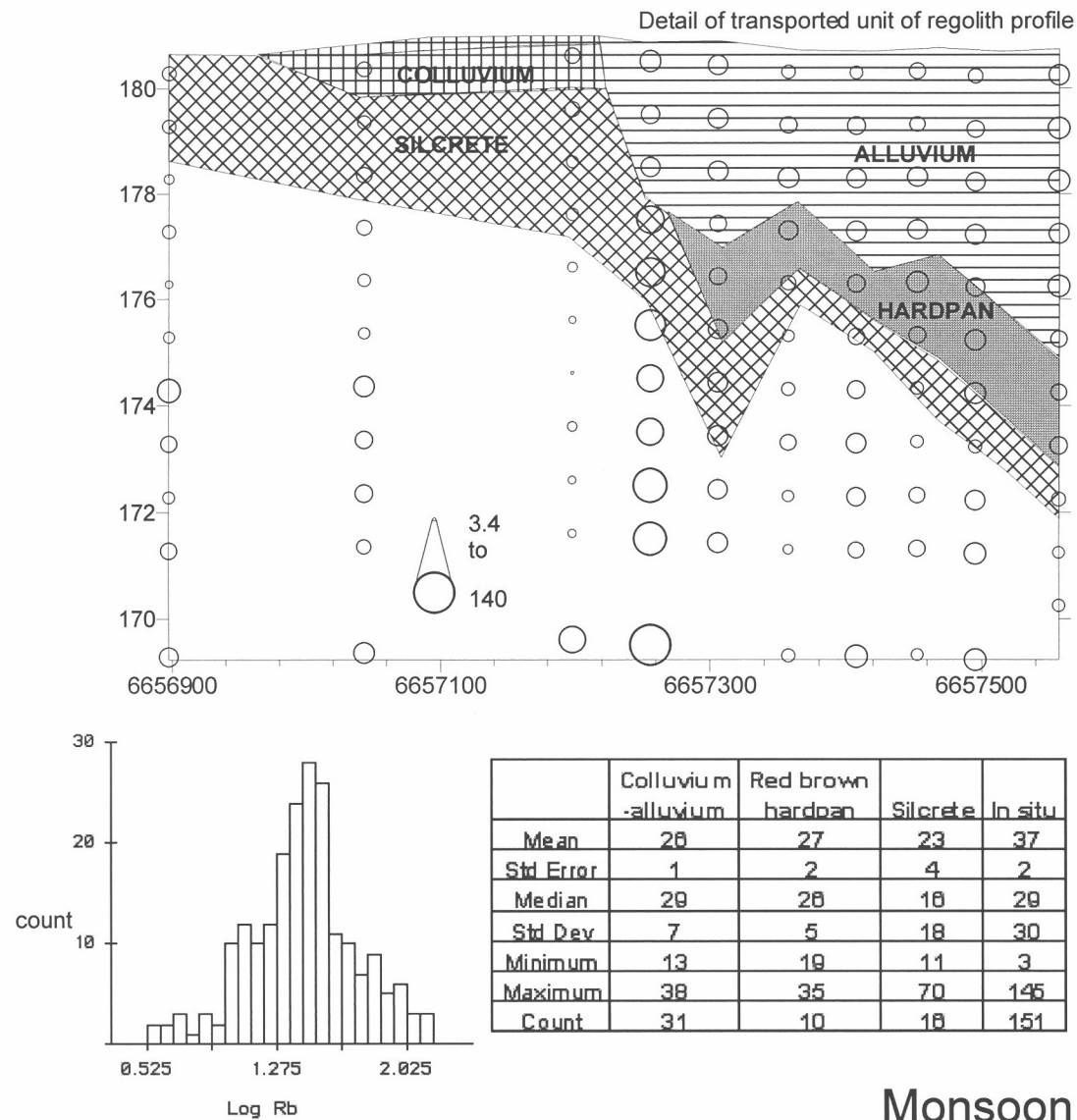


Figure A1c.34: Distribution and concentration of Rb at Monsoon regolith section on 350560E.

Rb (ppm)



Monsoon

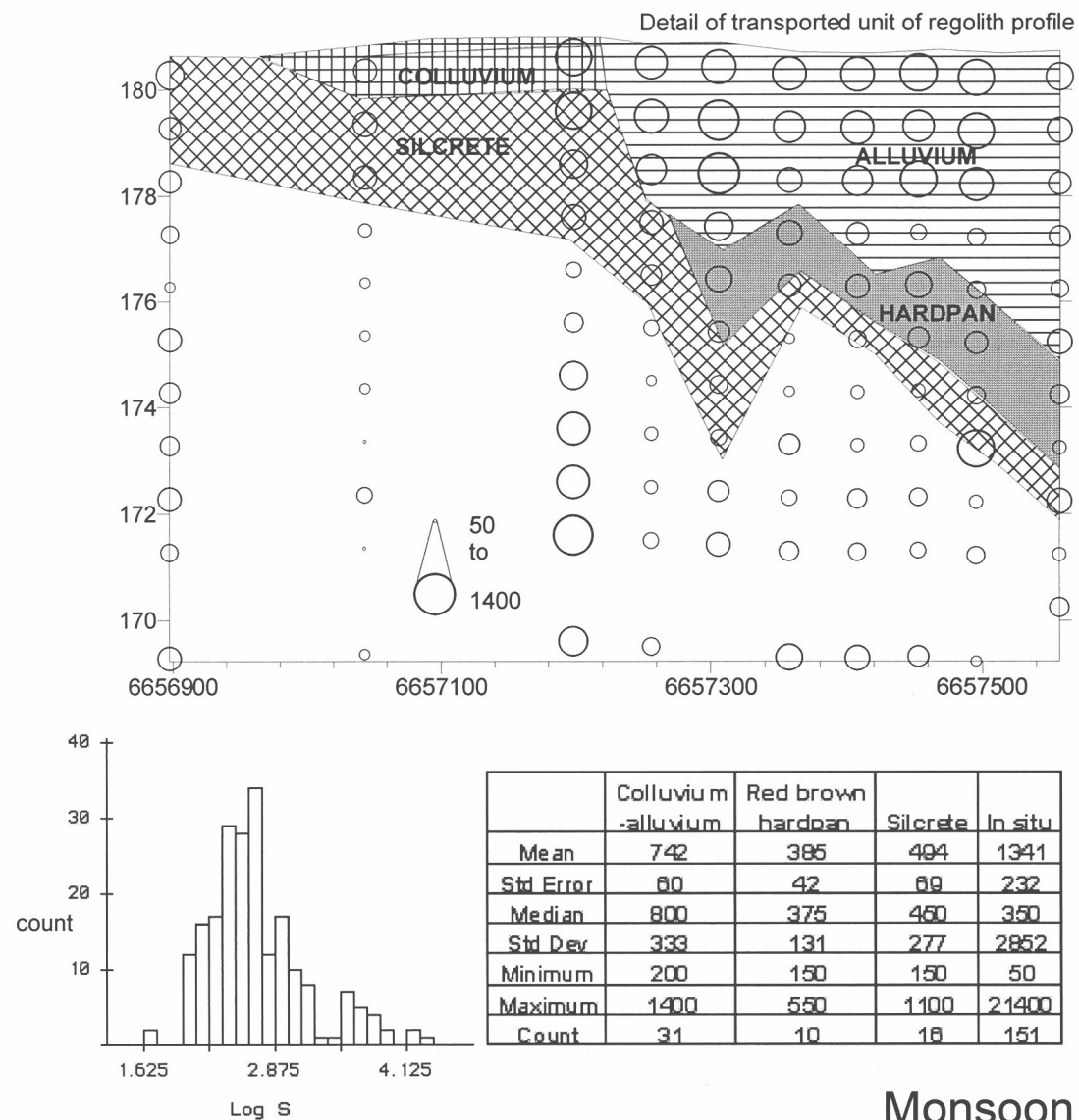
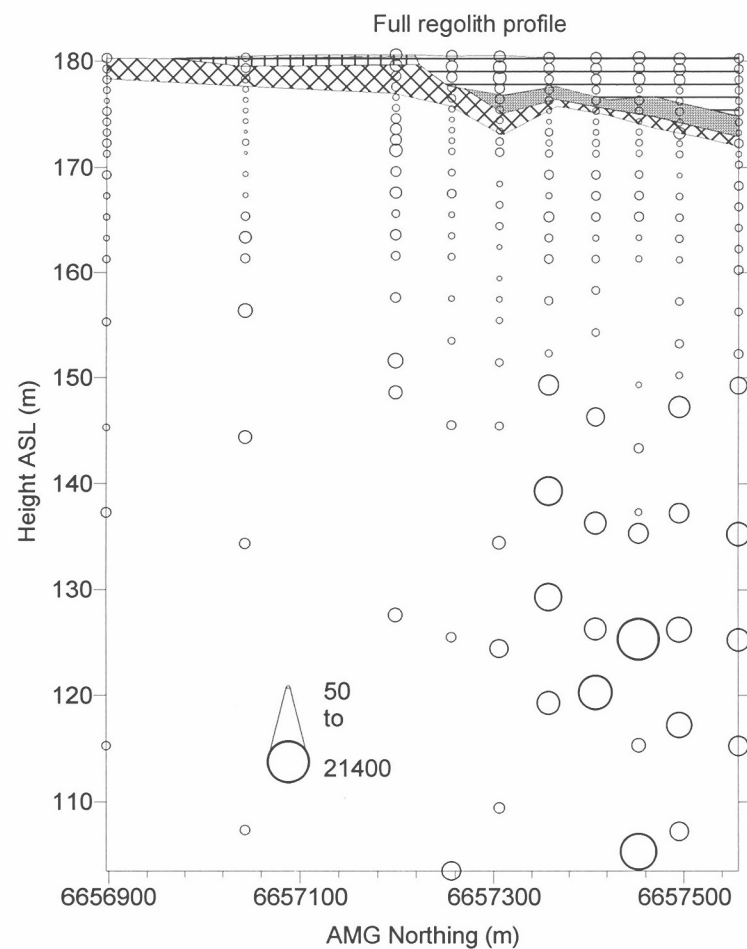


Figure A1c.35: Distribution and concentration of S at Monsoon regolith section on 350560E.

S (ppm)

Monsoon

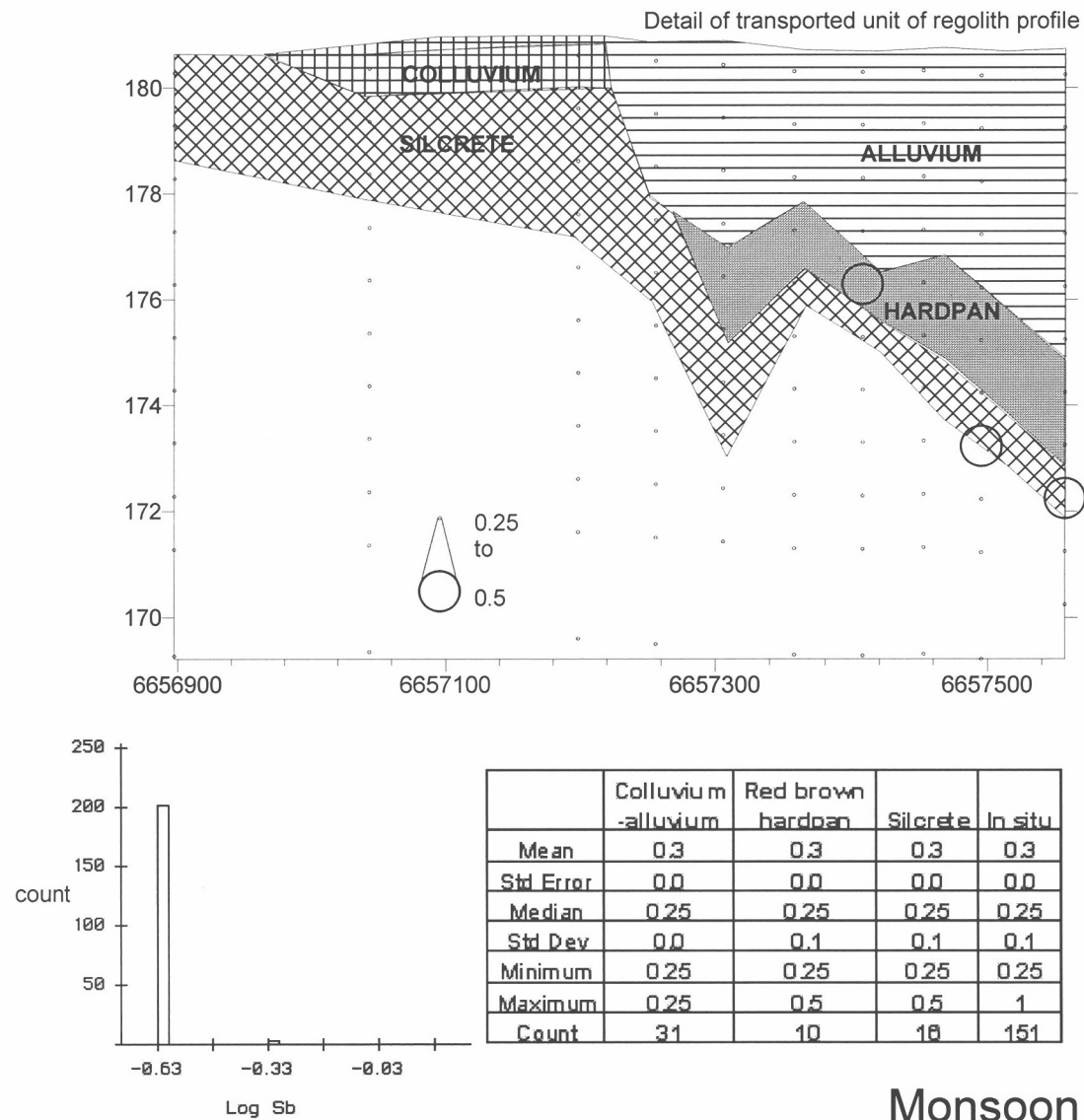
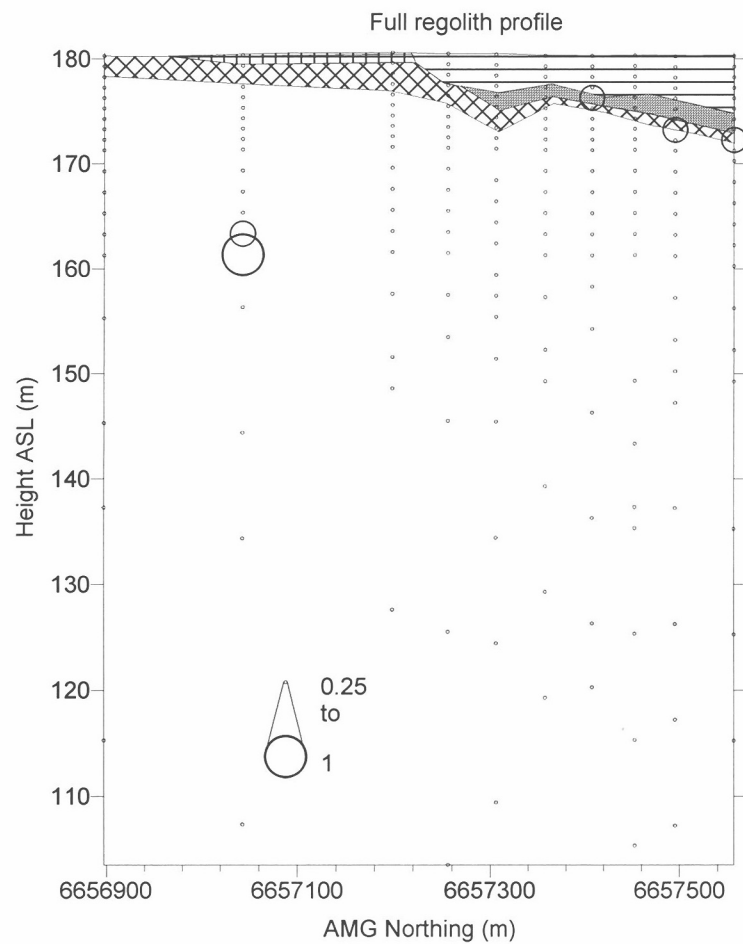
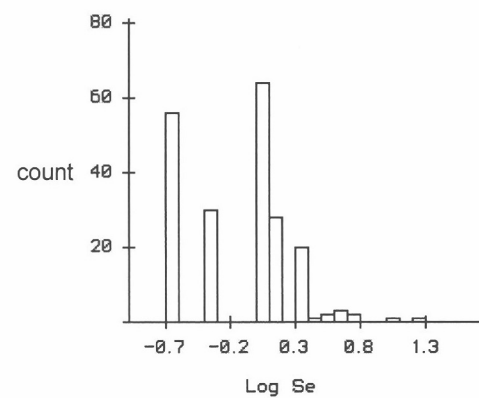
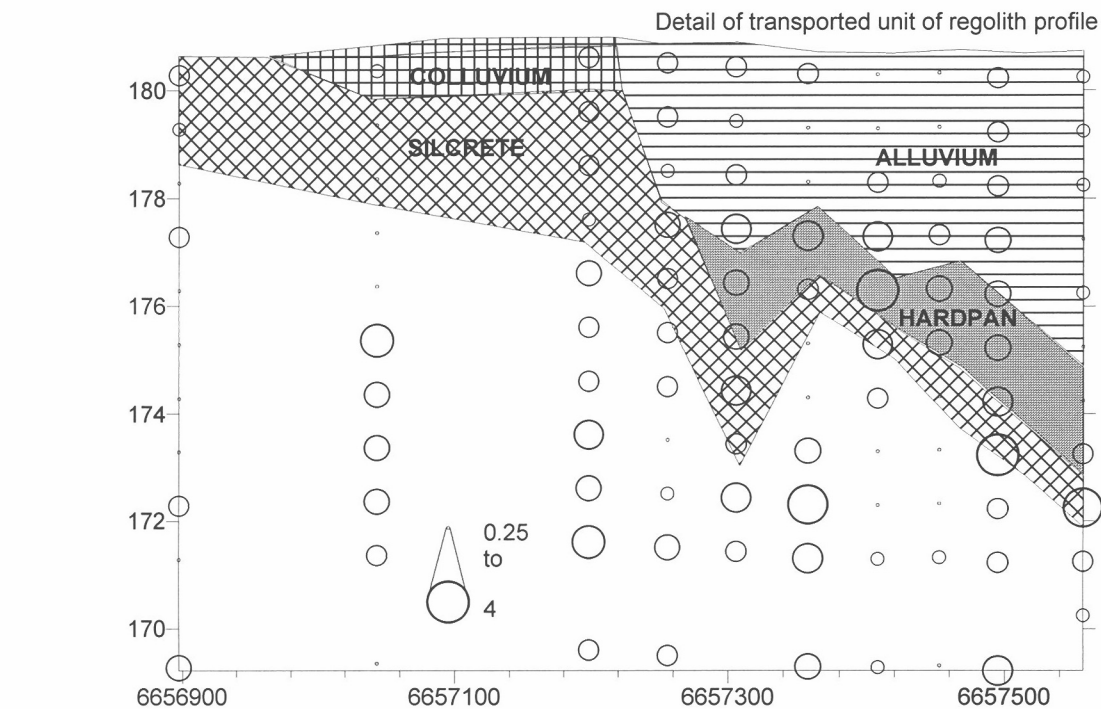
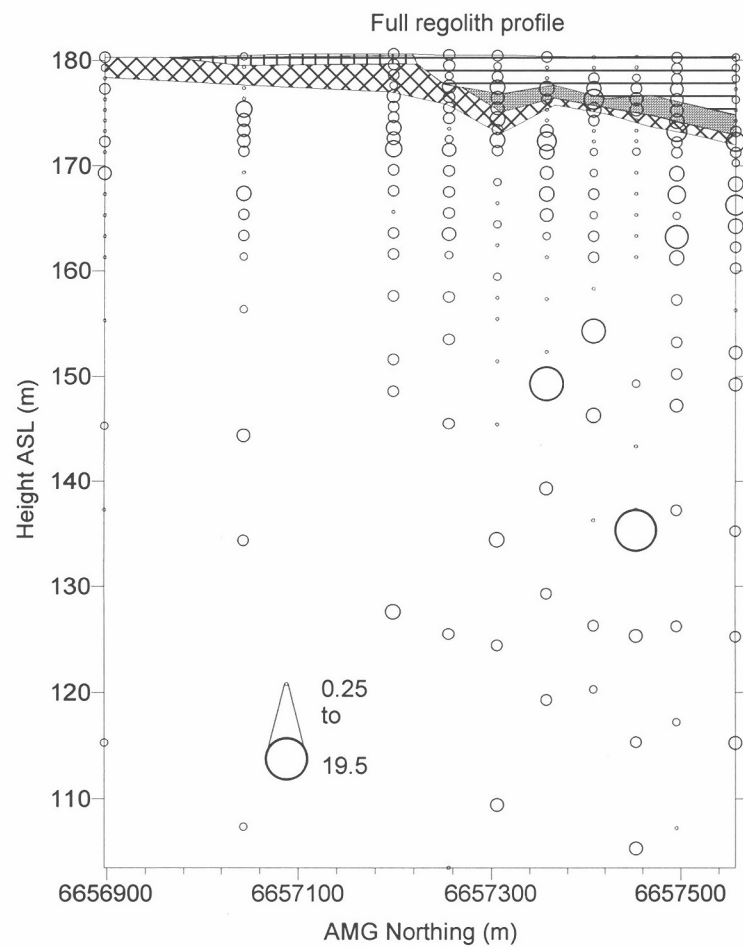


Figure A1c.36: Distribution and concentration of Sb at Monsoon regolith section on 350560E.

Sb (ppm)



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.8 | 1.7 | 1.3 | 1.2 |
| Std Error | 0.1 | 0.3 | 0.3 | 0.2 |
| Median | 0.5 | 1.5 | 1 | 1 |
| Std Dev | 0.5 | 1.0 | 1.1 | 2.0 |
| Minimum | 0.25 | 0.25 | 0.25 | 0.25 |
| Maximum | 2 | 4 | 4 | 19.5 |
| Count | 31 | 10 | 10 | 151 |

Figure A1c.37: Distribution and concentration of Se at Monsoon regolith section on 350560E.

Se (ppm)

Monsoon

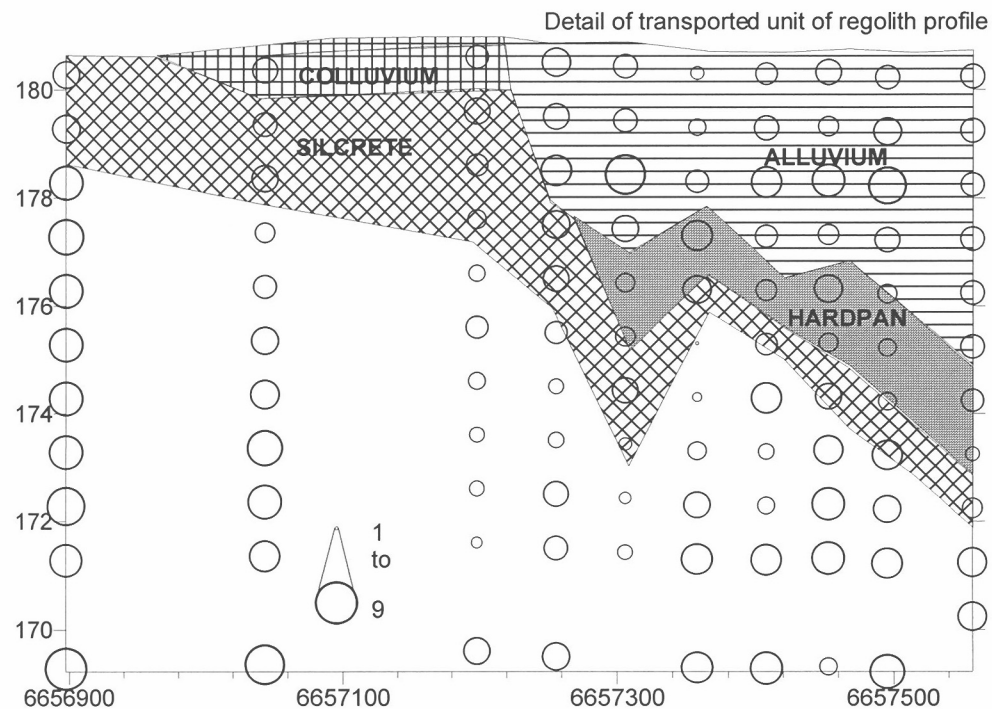
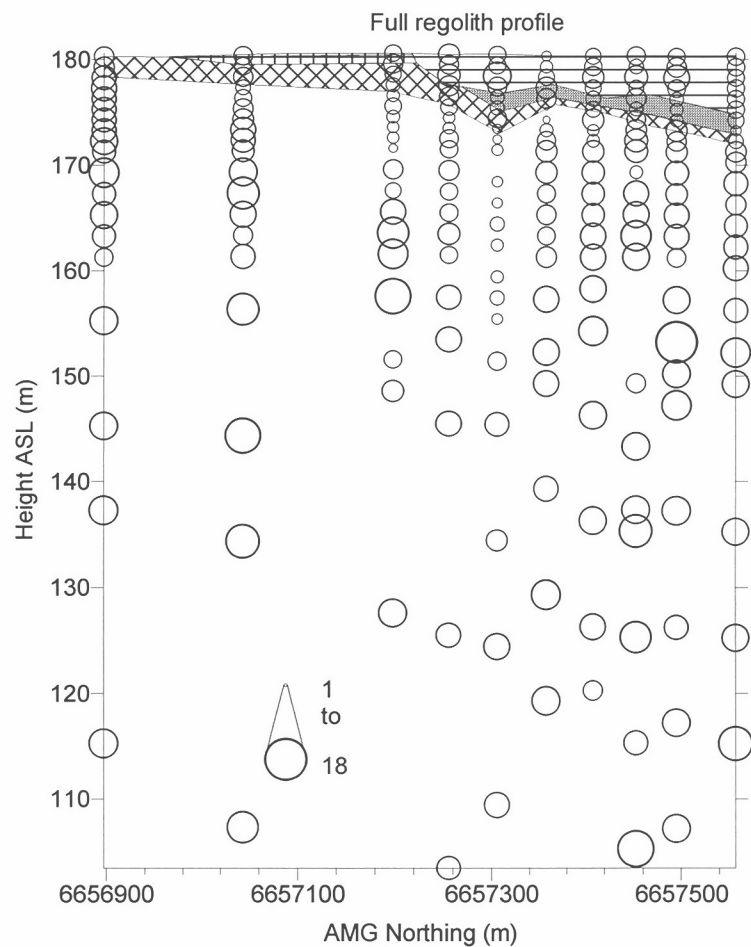
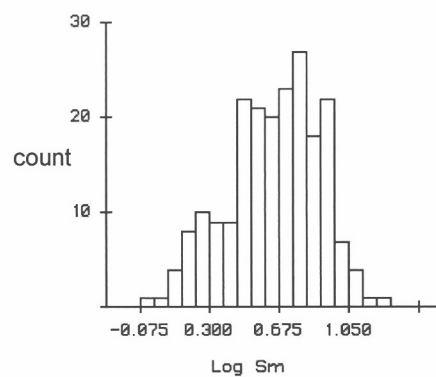


Figure A1c.38: Distribution and concentration of Sm at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 3.8 | 2.7 | 3.4 | 5.8 |
| Std Error | 0.2 | 0.3 | 0.2 | 0.2 |
| Median | 3.2 | 2.25 | 3.7 | 8 |
| Std Dev | 1.4 | 1.0 | 0.9 | 2.9 |
| Minimum | 1.4 | 1.5 | 1.35 | 0.88 |
| Maximum | 8 | 4.8 | 4.7 | 18 |
| Count | 31 | 10 | 16 | 151 |

Sm (ppm)

Monsoon

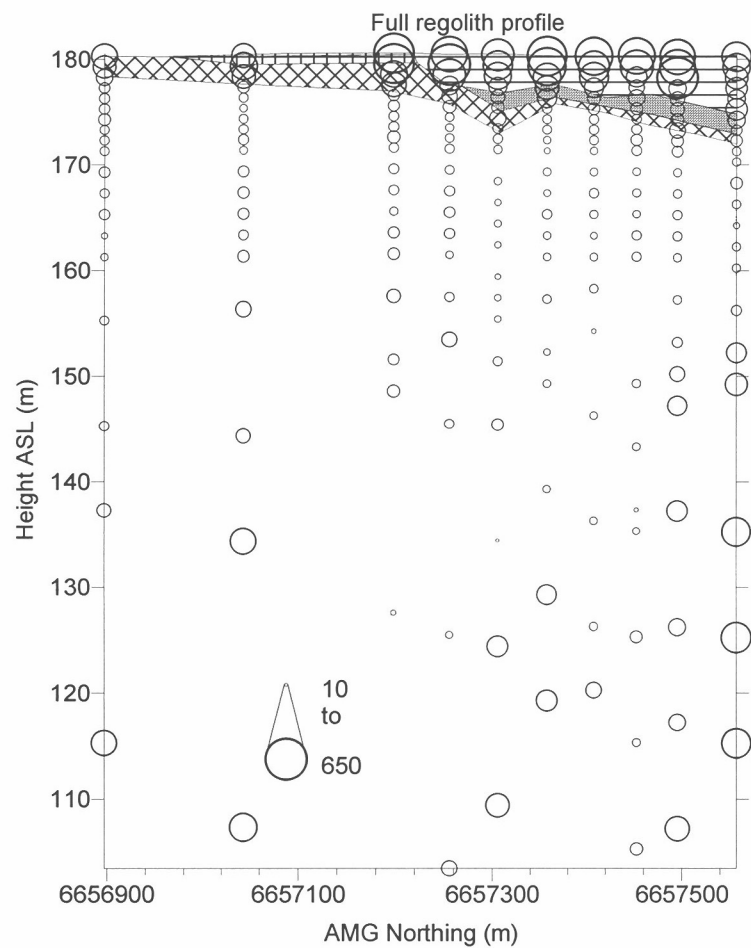
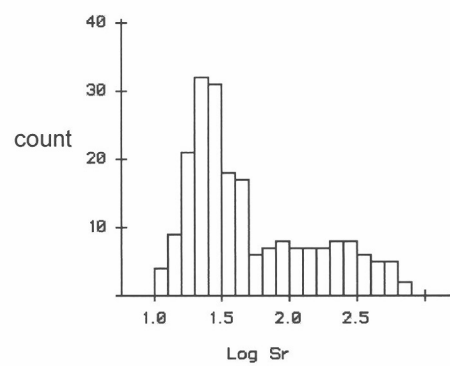
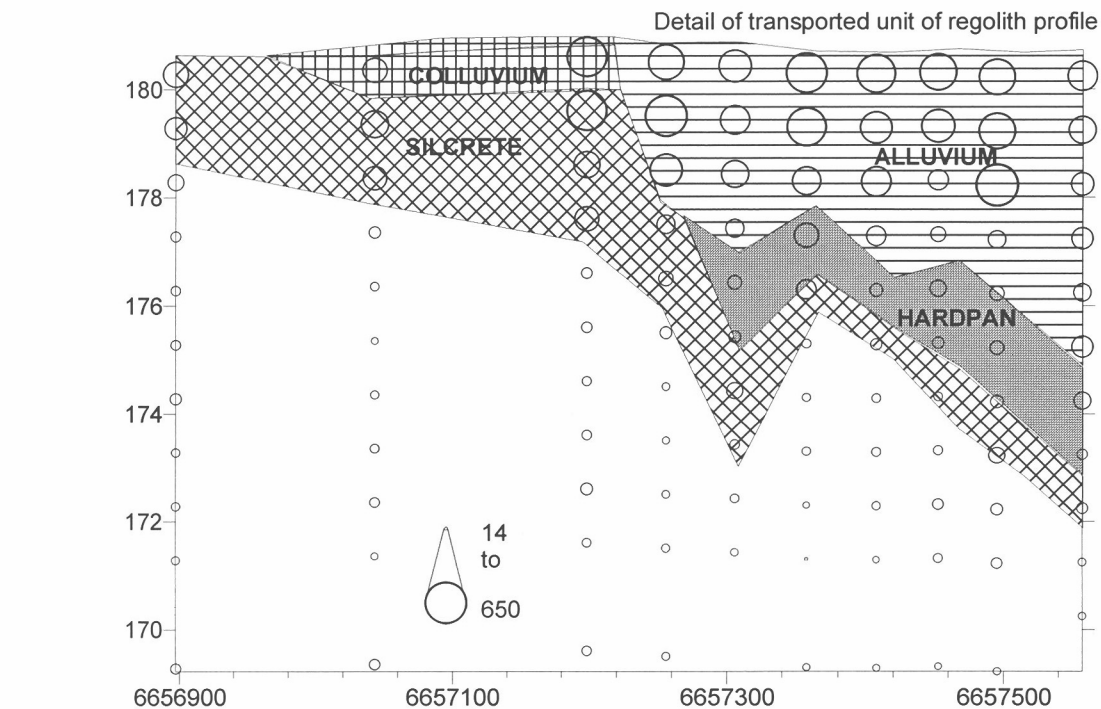


Figure A1c.39: Distribution and concentration of Sr at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 330 | 75 | 180 | 47 |
| Std Error | 33 | 15 | 38 | 5 |
| Median | 320 | 59 | 120 | 27 |
| Std Dev | 184 | 48 | 143 | 59 |
| Minimum | 88 | 37 | 27 | 10 |
| Maximum | 650 | 200 | 600 | 330 |
| Count | 31 | 10 | 18 | 151 |

Sr (ppm)

Monsoon

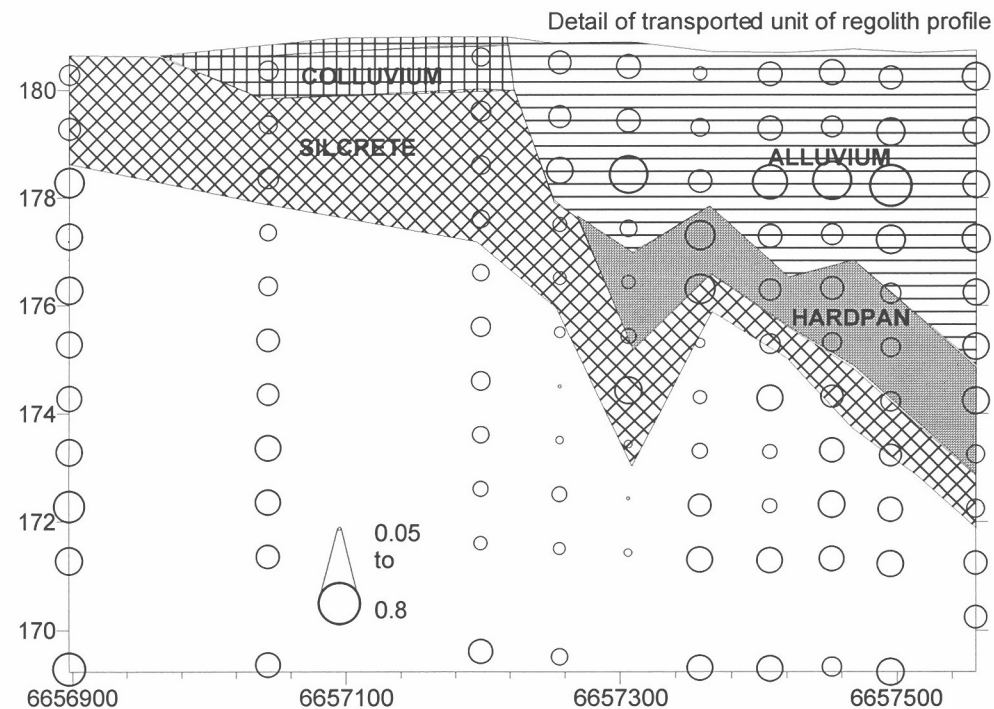
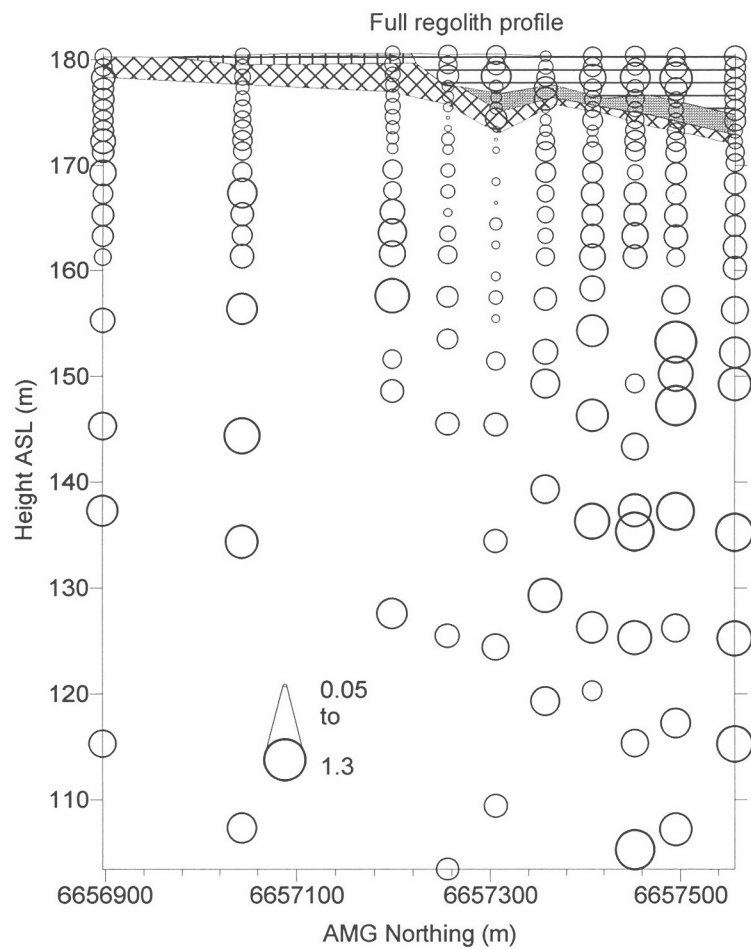
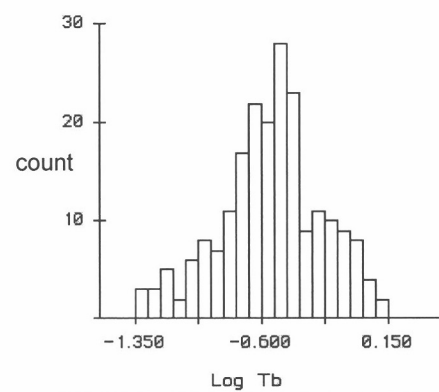


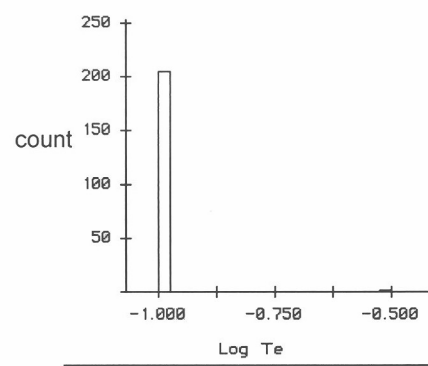
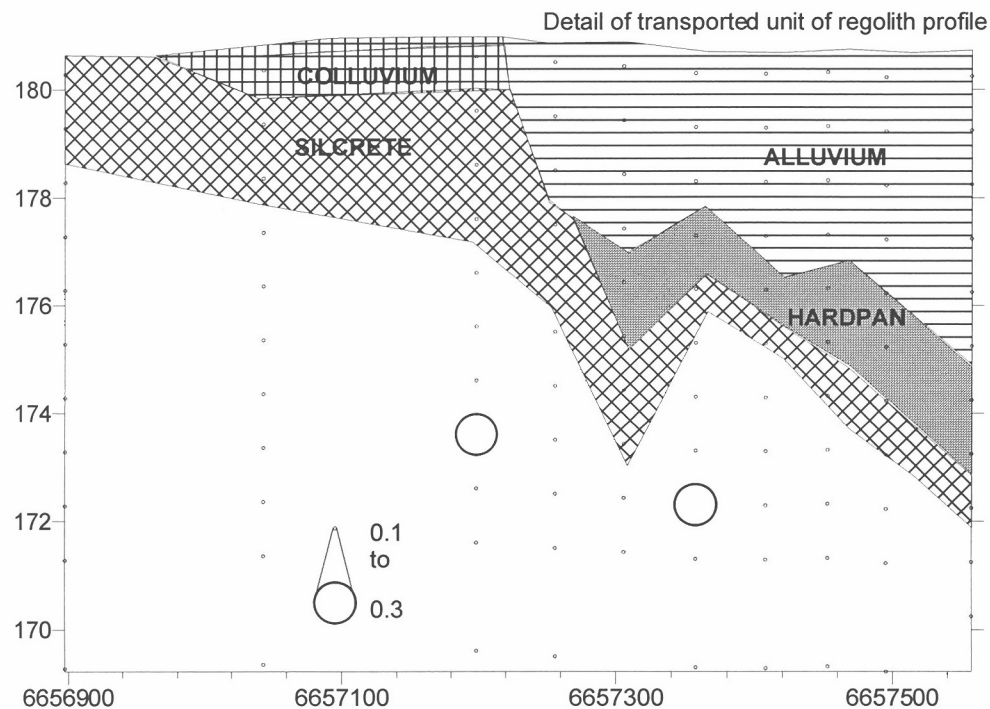
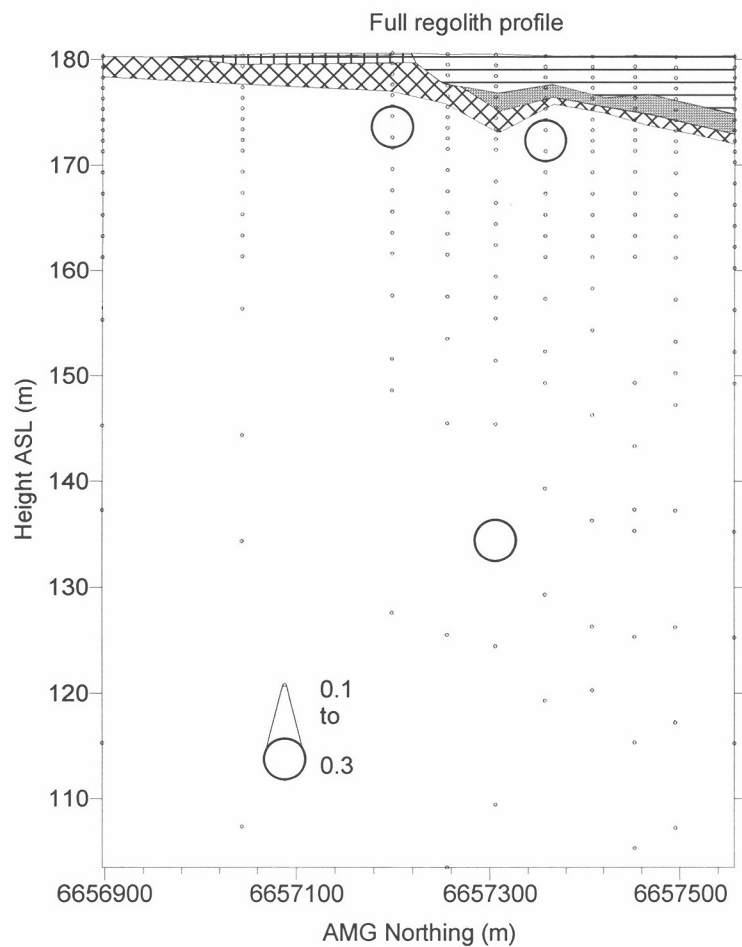
Figure A1c.40: Distribution and concentration of Tb at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.3 | 0.2 | 0.2 | 0.4 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.20 | 0.175 | 0.19 | 0.32 |
| Std Dev | 0.2 | 0.1 | 0.1 | 0.3 |
| Minimum | 0.1 | 0.1 | 0.08 | 0.05 |
| Maximum | 0.78 | 0.38 | 0.39 | 1.3 |
| Count | 31 | 10 | 18 | 151 |

Tb (ppm)

Monsoon

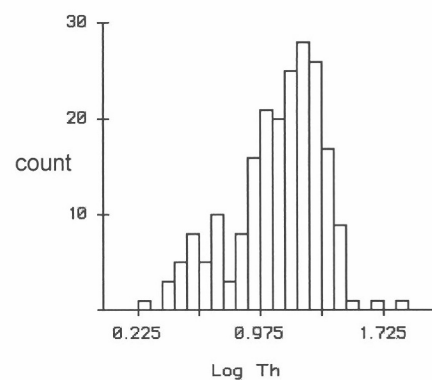
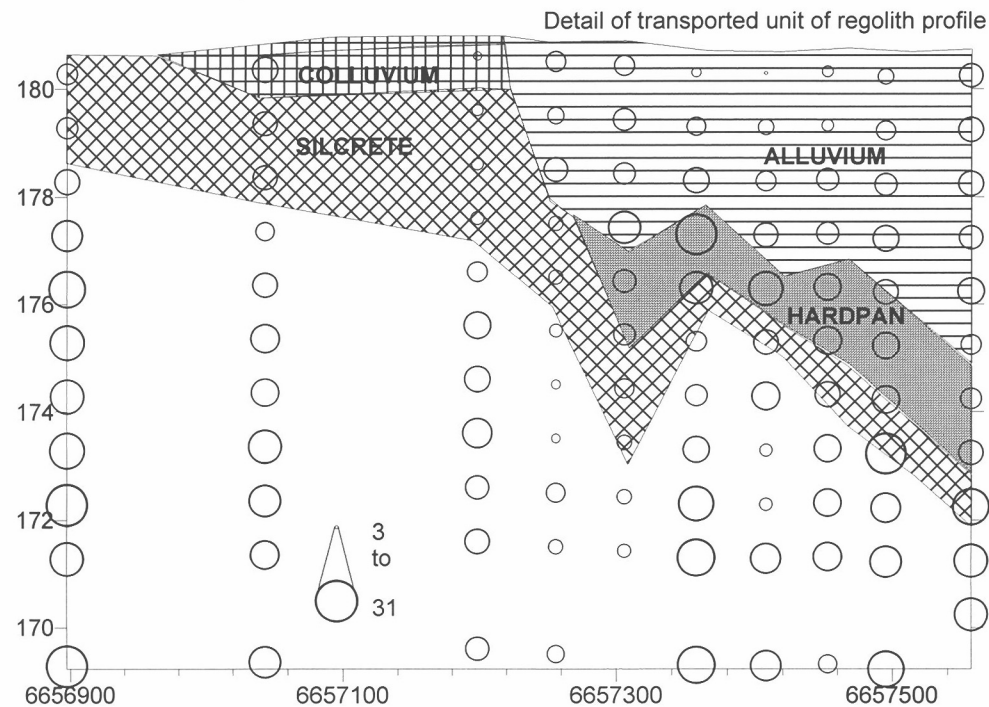
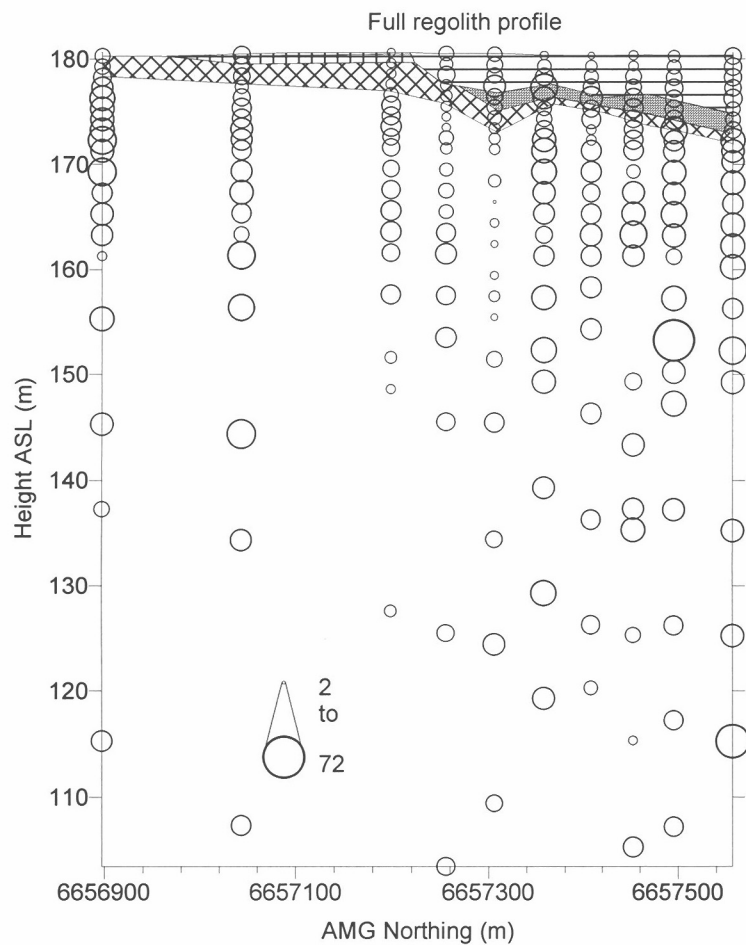


| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.1 | 0.1 | 0.1 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.1 | 0.1 | 0.1 | 0.1 |
| Std Dev | 0.0 | 0.0 | 0.0 | 0.0 |
| Minimum | 0.1 | 0.1 | 0.1 | 0.1 |
| Maximum | 0.1 | 0.1 | 0.1 | 0.3 |
| Count | 31 | 10 | 10 | 151 |

Figure A1c.41: Distribution and concentration of Te at Monsoon regolith section on 350560E.

Te (ppm)

Monsoon

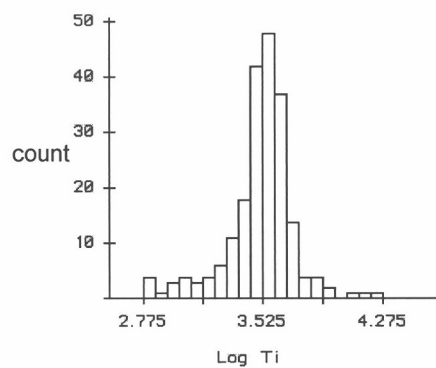
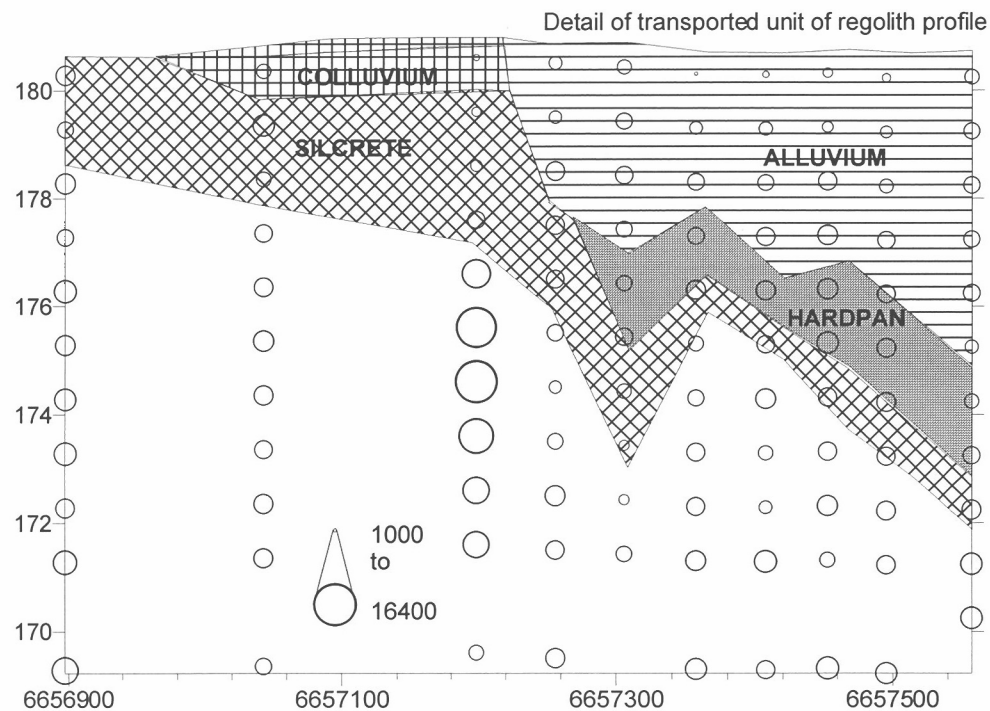
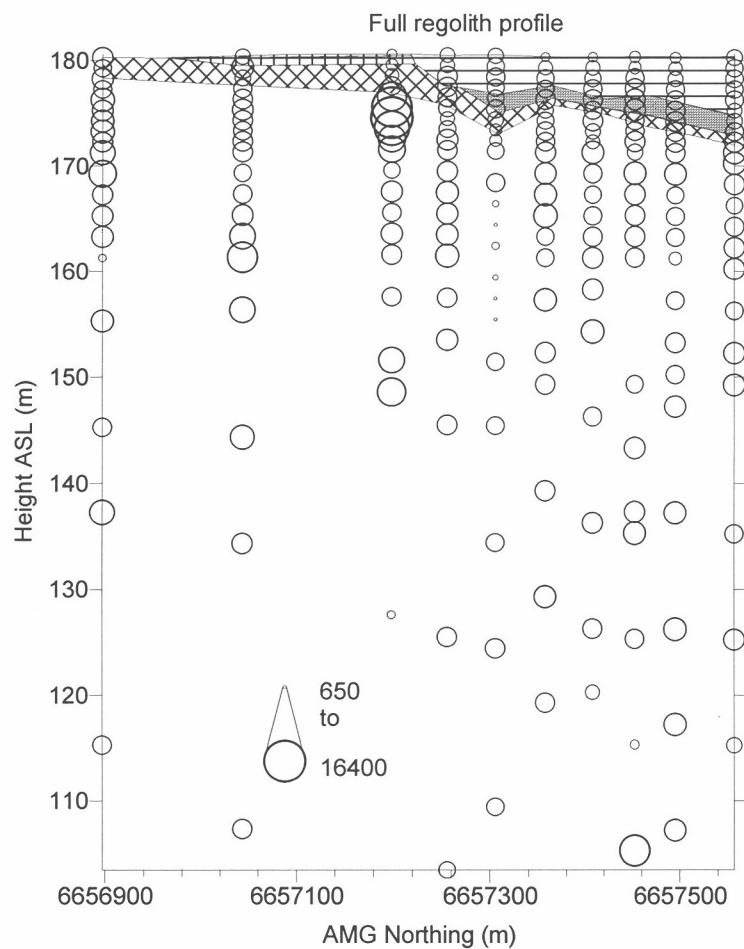


| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 9 | 14 | 11 | 16 |
| Std Error | 0.6 | 2.0 | 1.8 | 0.7 |
| Median | 10 | 13 | 9 | 16 |
| Std Dev | 4 | 8 | 7 | 9 |
| Minimum | 3 | 9 | 4 | 2 |
| Maximum | 19 | 29 | 29 | 72 |
| Count | 31 | 10 | 16 | 151 |

Figure A1c.42: Distribution and concentration of Th at Monsoon regolith section on 350560E.

Th (ppm)

Monsoon



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 2413 | 3325 | 2972 | 3936 |
| Std Error | 139 | 204 | 222 | 166 |
| Median | 2400 | 3325 | 3200 | 3700 |
| Std Dev | 776 | 845 | 888 | 2045 |
| Minimum | 1000 | 2350 | 1400 | 650 |
| Maximum | 3850 | 4400 | 4550 | 16400 |
| Count | 31 | 10 | 16 | 151 |

Figure A1c.43: Distribution and concentration of Ti at Monsoon regolith section on 350560E.

Ti (ppm)

Monsoon

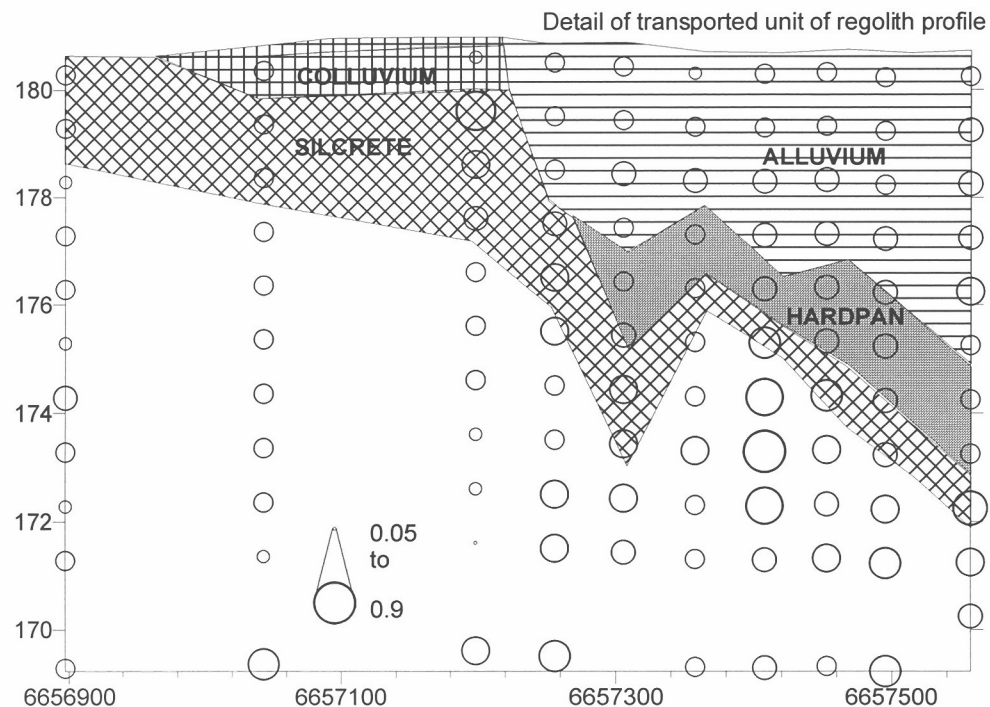
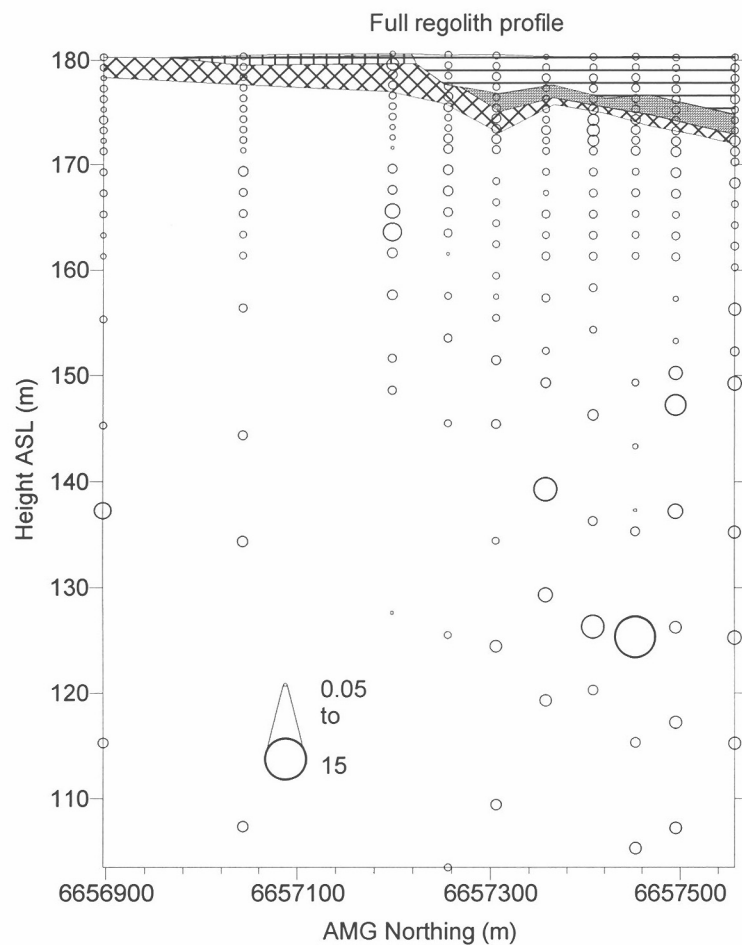
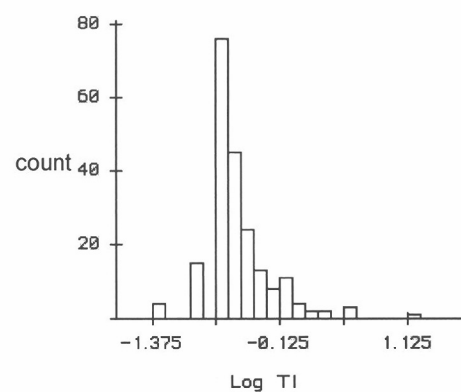


Figure C44: Distribution and concentration of TI at Monsoon regolith section on 350560E.

TI (ppm)



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.2 | 0.3 | 0.4 | 0.8 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.1 |
| Median | 0.2 | 0.3 | 0.35 | 0.3 |
| Std Dev | 0.1 | 0.1 | 0.2 | 1.3 |
| Minimum | 0.1 | 0.2 | 0.2 | 0.05 |
| Maximum | 0.4 | 0.3 | 0.8 | 15 |
| Count | 31 | 10 | 18 | 151 |

Monsoon

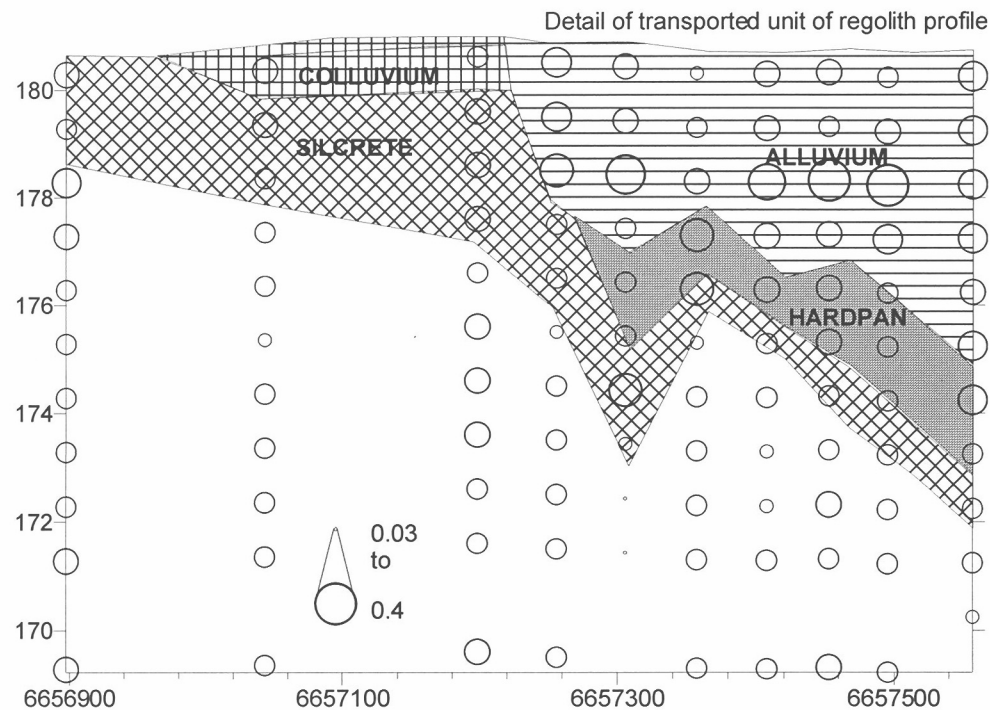
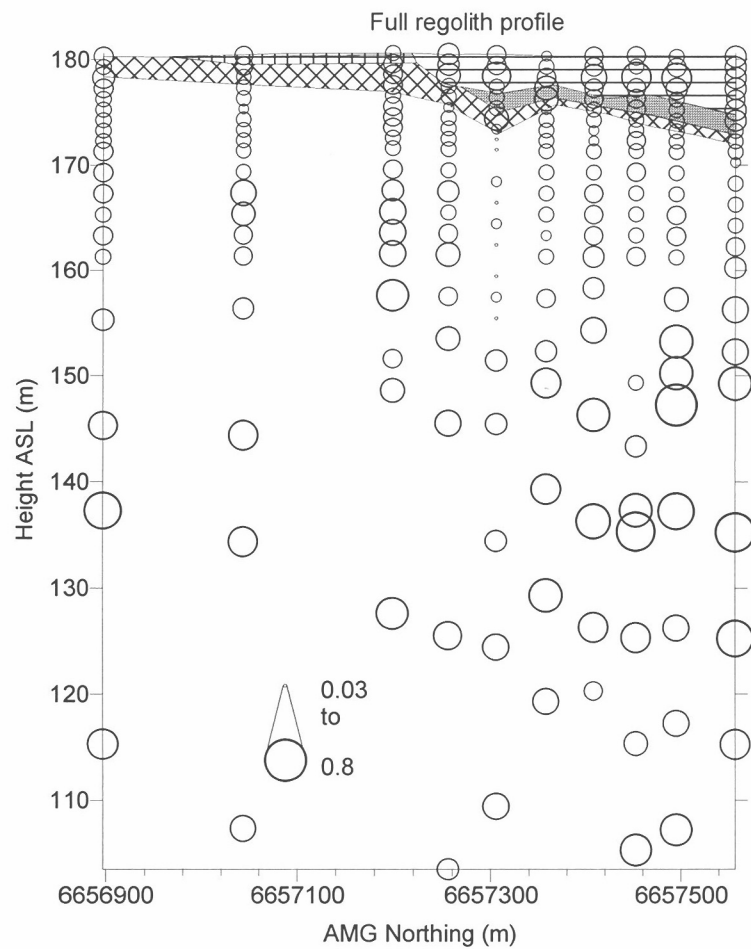
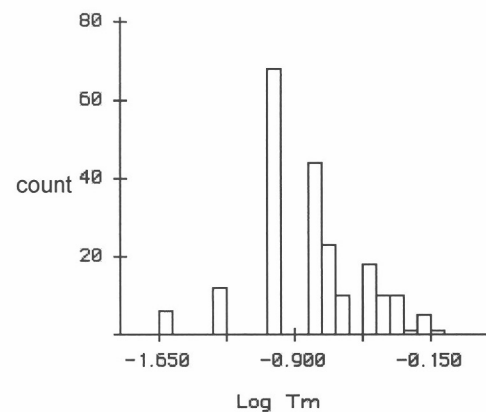


Figure A1c.45: Distribution and concentration of Tm at Monsoon regolith section on 350560E.



| | Colluvium -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|------------------------|----------------------|----------|---------|
| Mean | 0.2 | 0.1 | 0.1 | 0.2 |
| Std Error | 0.0 | 0.0 | 0.0 | 0.0 |
| Median | 0.15 | 0.125 | 0.1 | 0.15 |
| Std Dev | 0.1 | 0.1 | 0.1 | 0.2 |
| Minimum | 0.05 | 0.1 | 0.05 | 0.025 |
| Maximum | 0.4 | 0.25 | 0.25 | 0.8 |
| Count | 31 | 10 | 18 | 151 |

Tm (ppm)

Monsoon

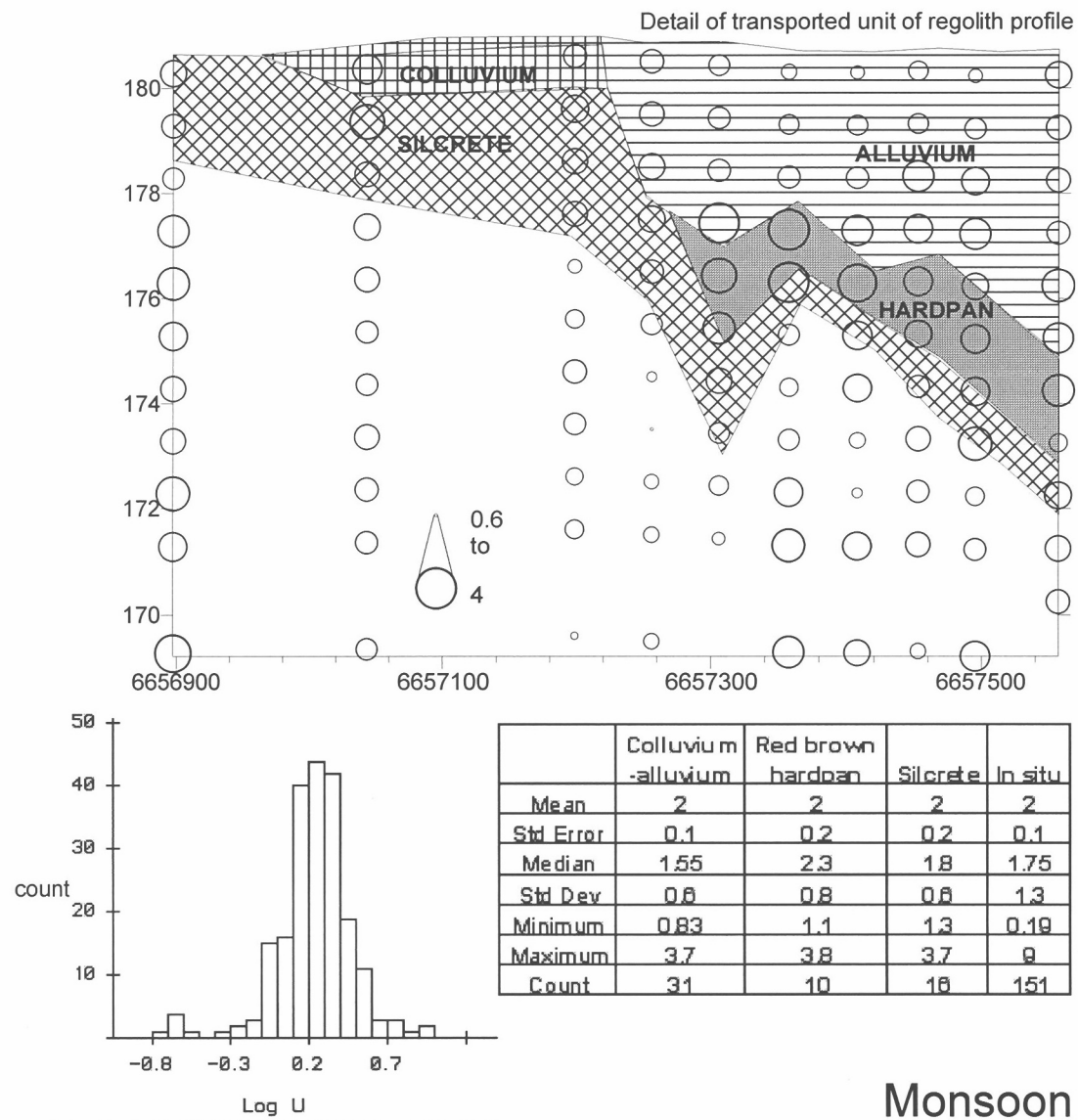
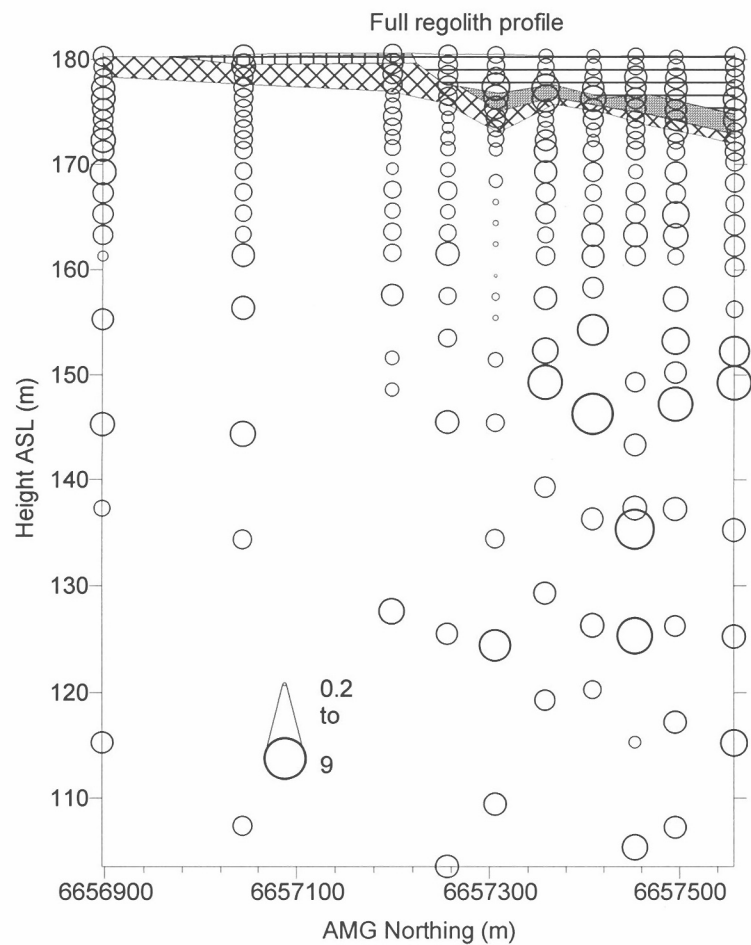


Figure A1c.46: Distribution and concentration of U at Monsoon regolith section on 350560E.

U (ppm)

Monsoon

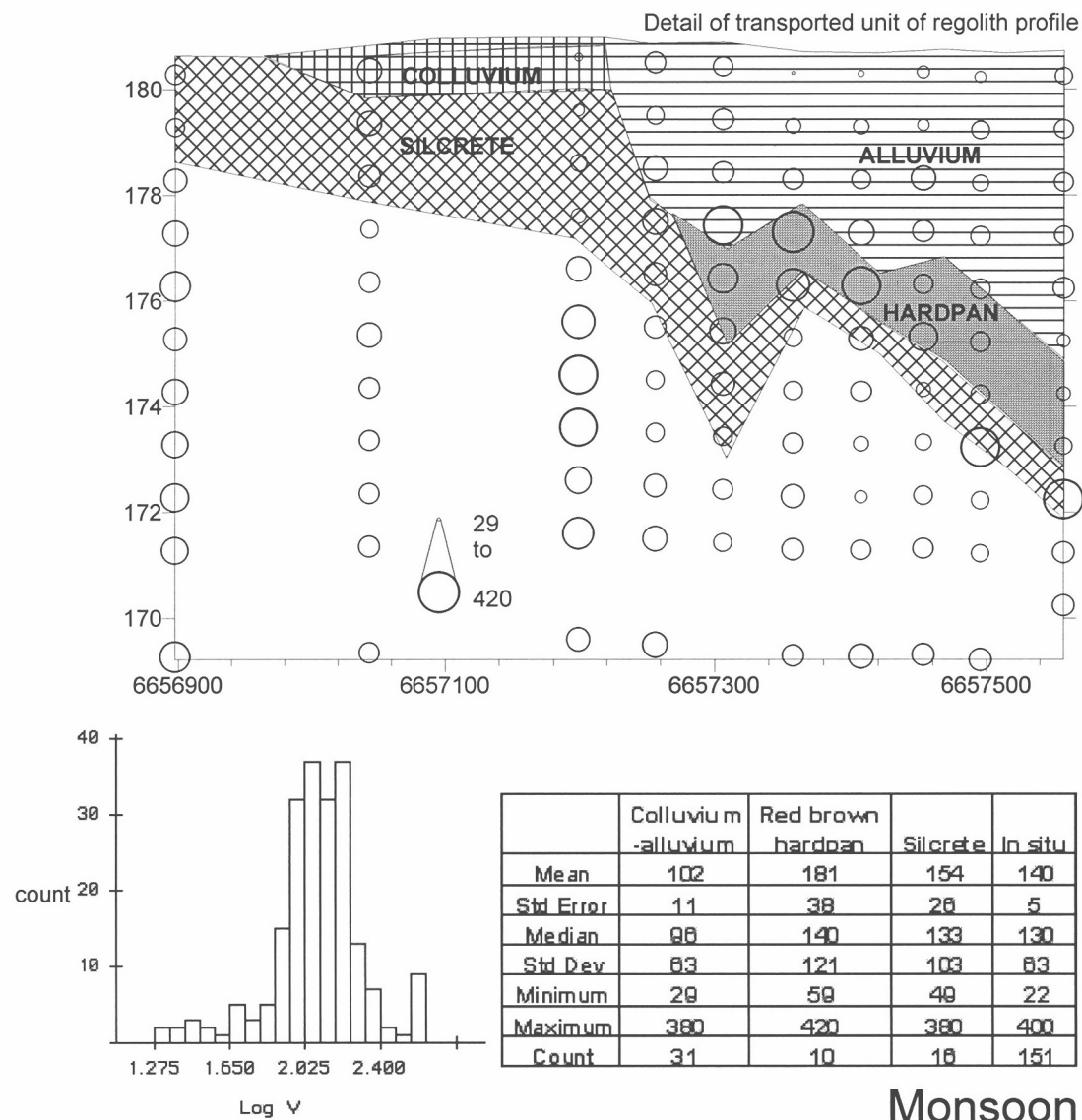
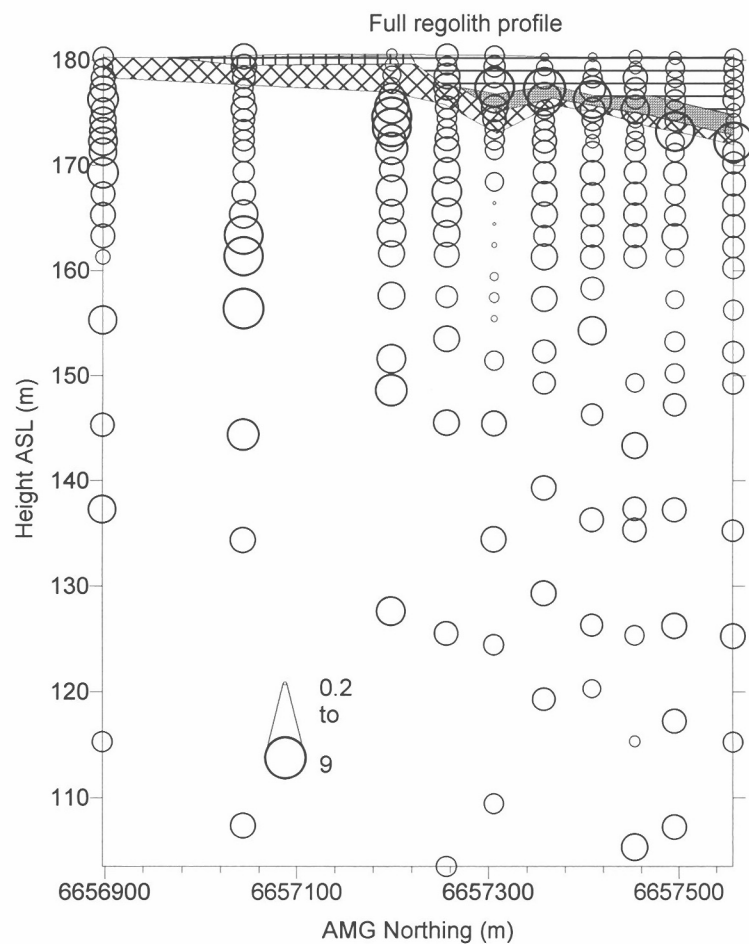


Figure A1c.47: Distribution and concentration of V at Monsoon regolith section on 350560E.

V (ppm)

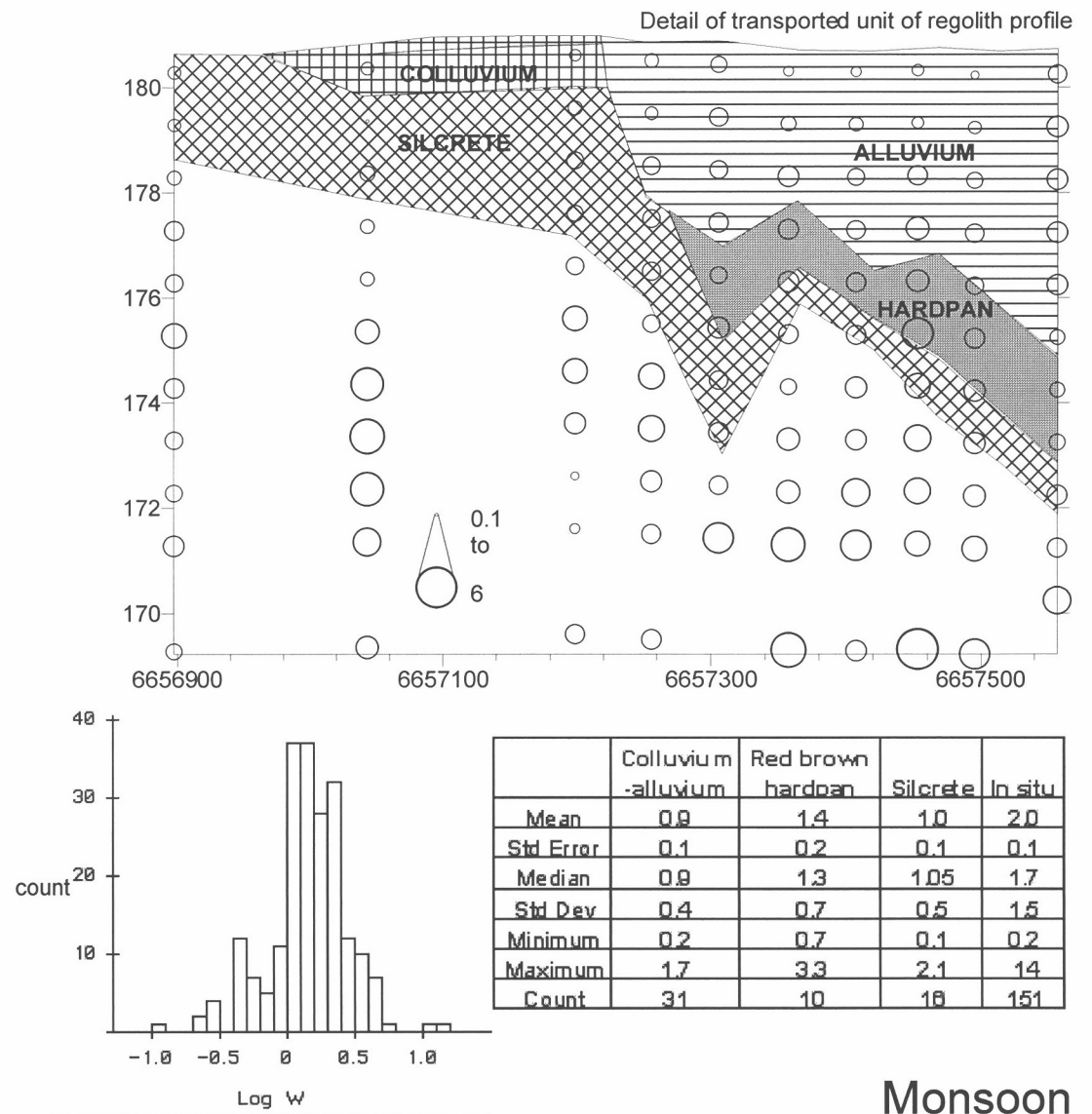
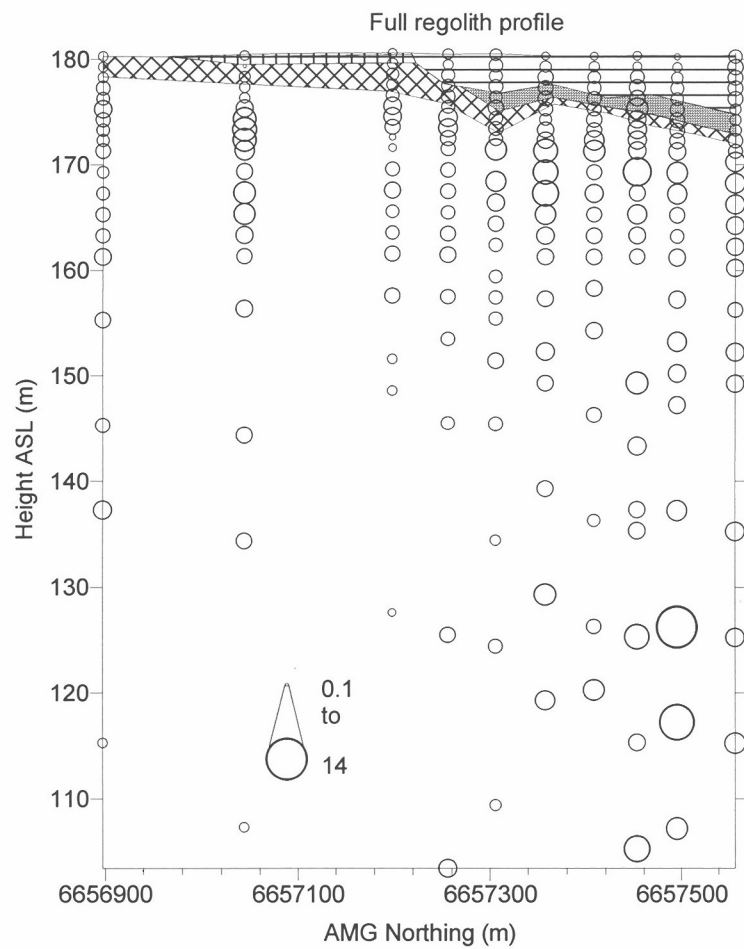


Figure A1c.48: Distribution and concentration of W at Monsoon regolith section on 350560E.

W (ppm)

Monsoon

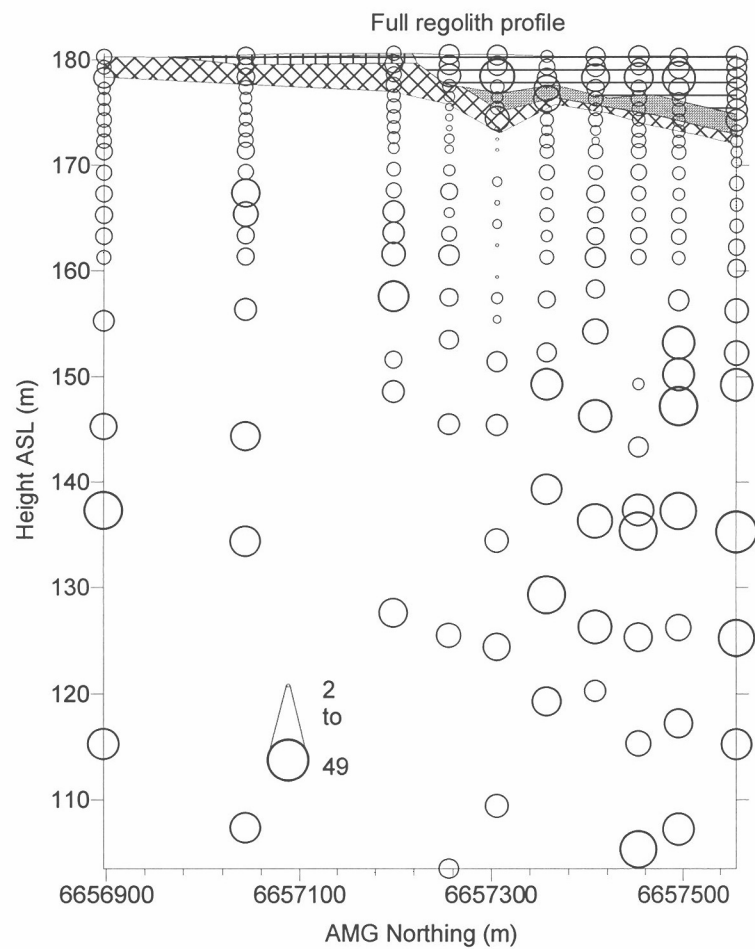
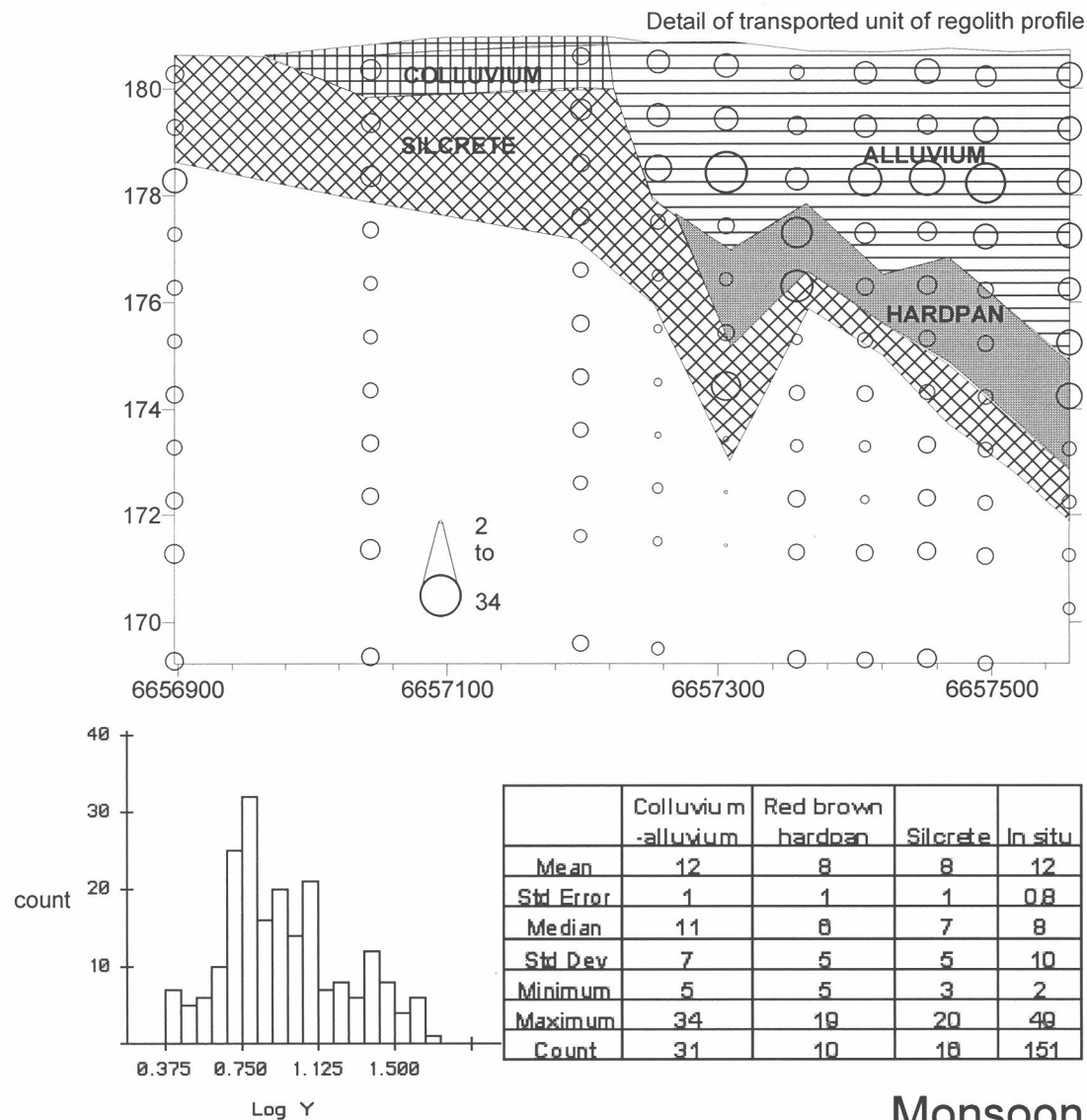
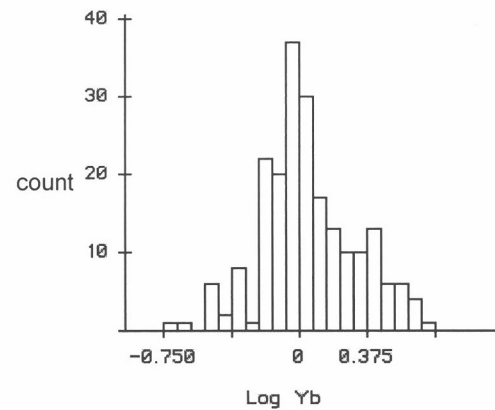
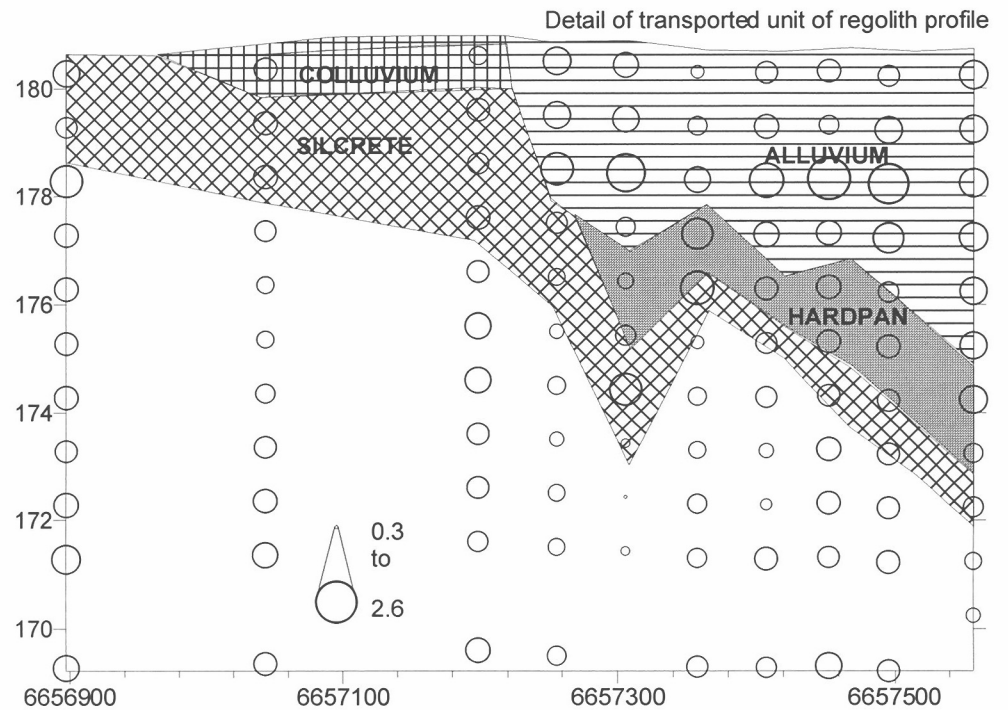
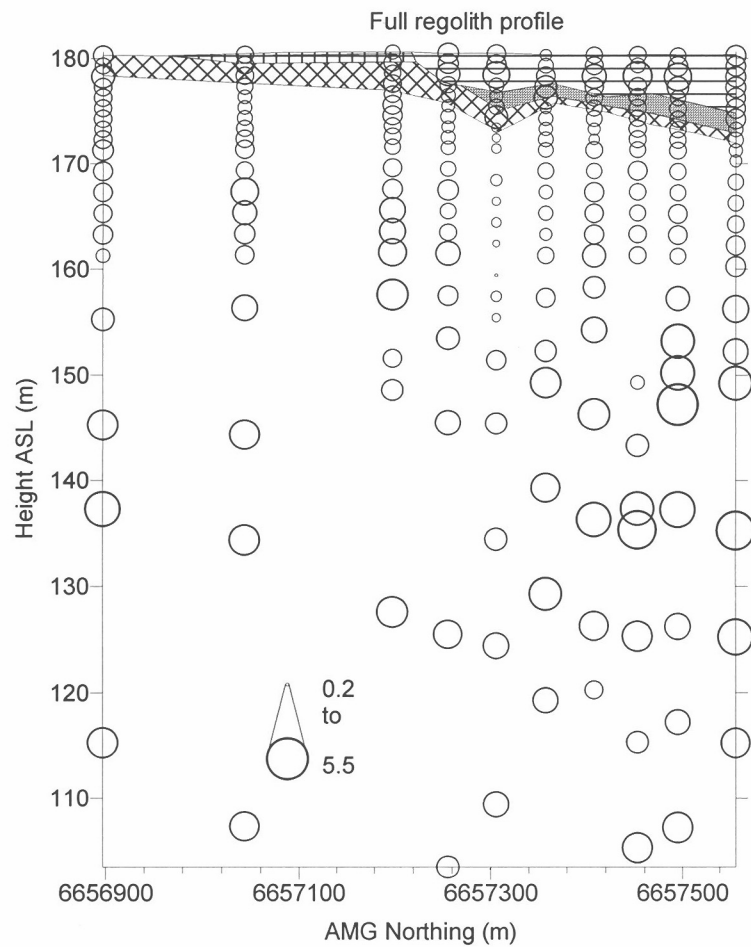


Figure A1c.49: Distribution and concentration of Y at Monsoon regolith section on 350560E.

Y (ppm)



Monsoon

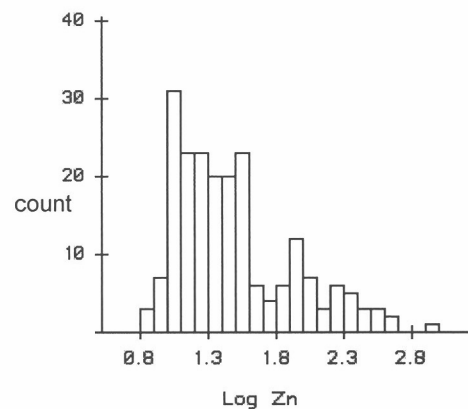
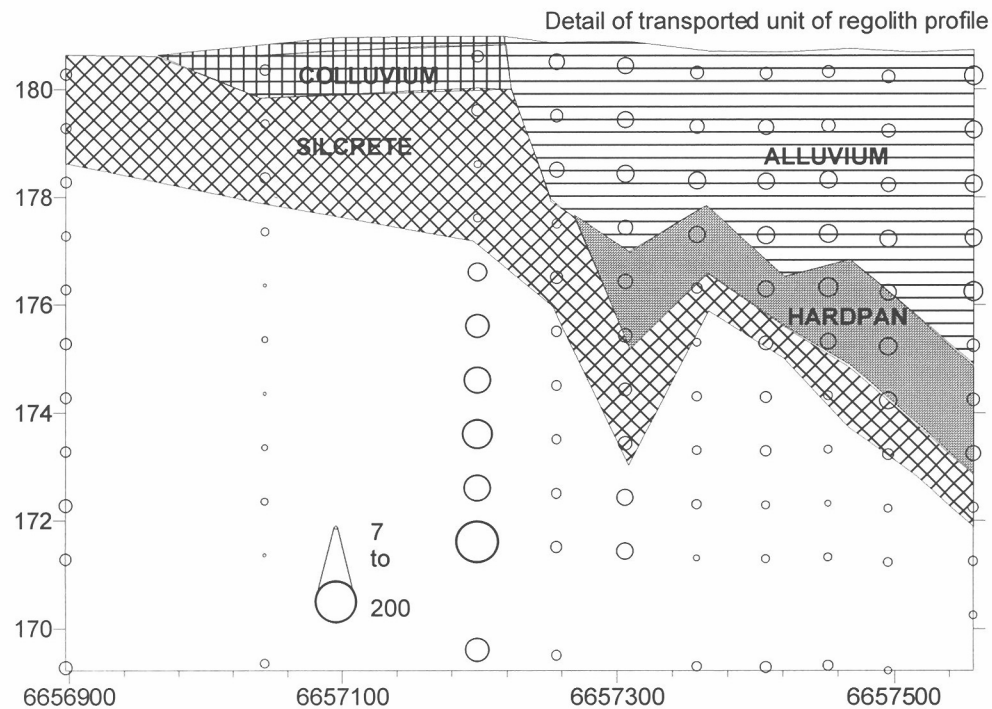
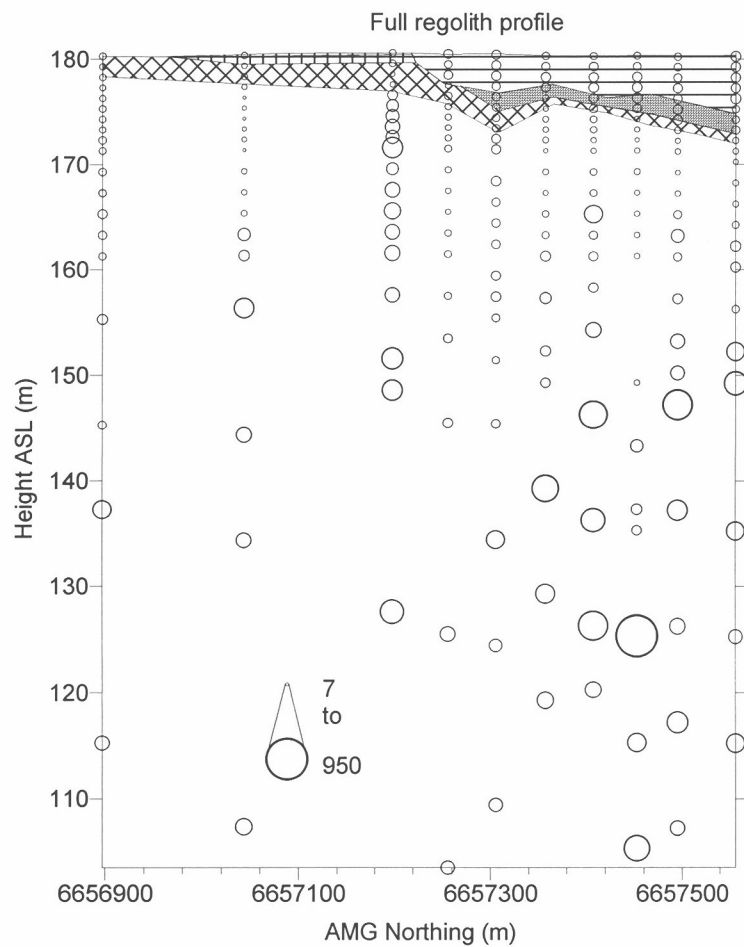


| | Colluvium alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|-----------------------|----------------------|----------|---------|
| Mean | 1.2 | 0.9 | 0.9 | 1.5 |
| Std Error | 0.1 | 0.1 | 0.1 | 0.1 |
| Median | 1.15 | 0.9 | 0.85 | 1.05 |
| Std Dev | 0.5 | 0.3 | 0.3 | 1.0 |
| Minimum | 0.45 | 0.55 | 0.35 | 0.2 |
| Maximum | 2.8 | 1.5 | 1.7 | 5.5 |
| Count | 31 | 10 | 10 | 151 |

Figure A1c.50: Distribution and concentration of Yb at Monsoon regolith section on 350560E.

Yb (ppm)

Monsoon



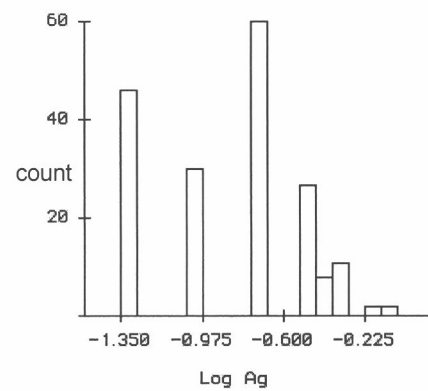
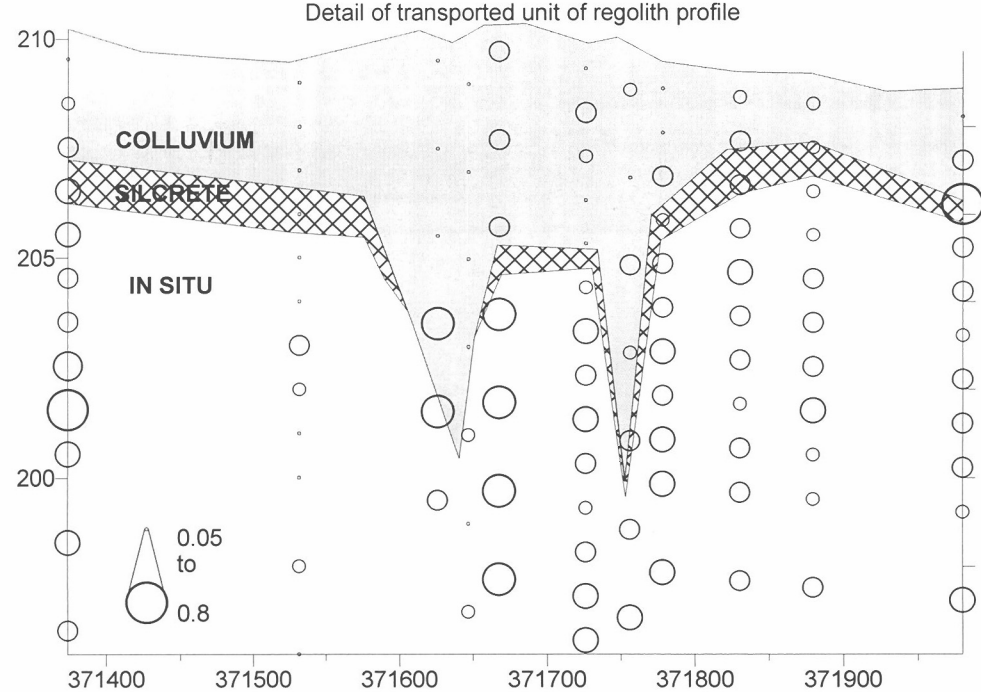
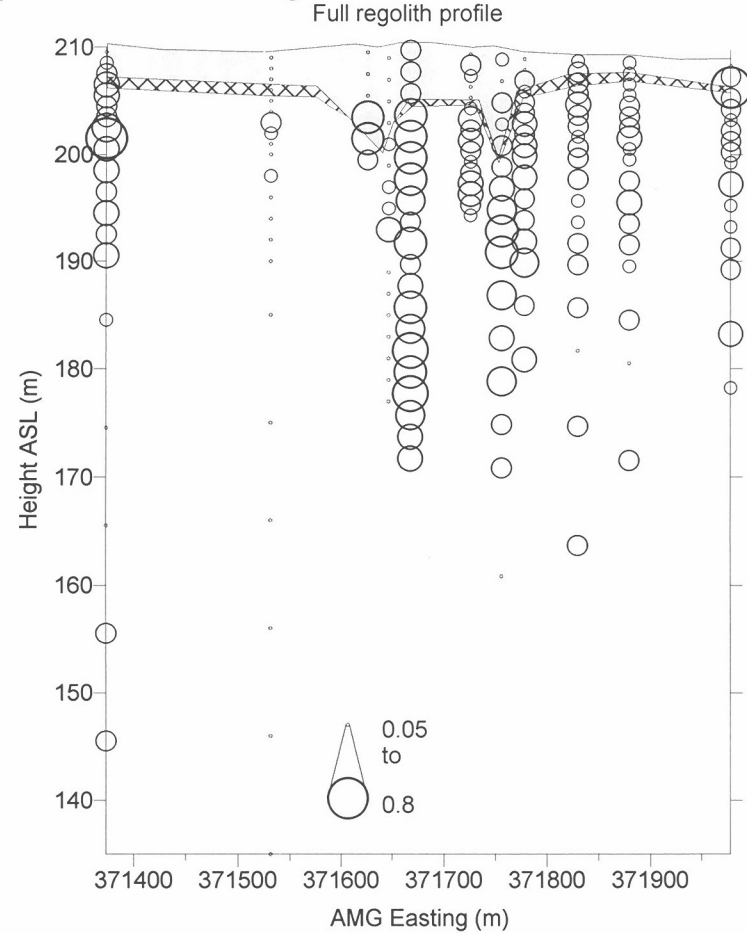
| | Colluvium m -alluvium | Red brown hardpan | Silcrete | In situ |
|-----------|--------------------------|----------------------|----------|---------|
| Mean | 27 | 28 | 15 | 71 |
| Std Error | 1 | 2 | 1 | 9 |
| Median | 28 | 28 | 14 | 27 |
| Std Dev | 7 | 8 | 4 | 112 |
| Minimum | 14 | 19 | 9 | 7 |
| Maximum | 41 | 38 | 22 | 950 |
| Count | 31 | 10 | 18 | 151 |

Figure A1c.51: Distribution and concentration of Zn at Monsoon regolith section on 350560E.

Zn (ppm)

Monsoon

Appendix A1d: South Hilga

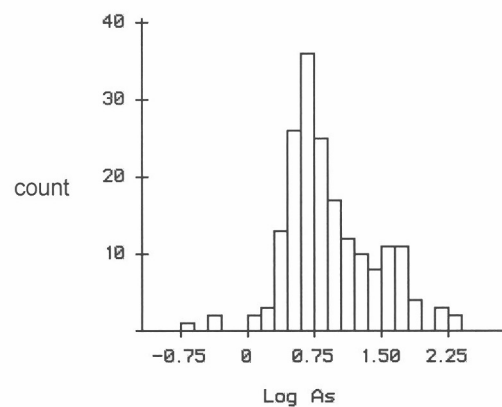
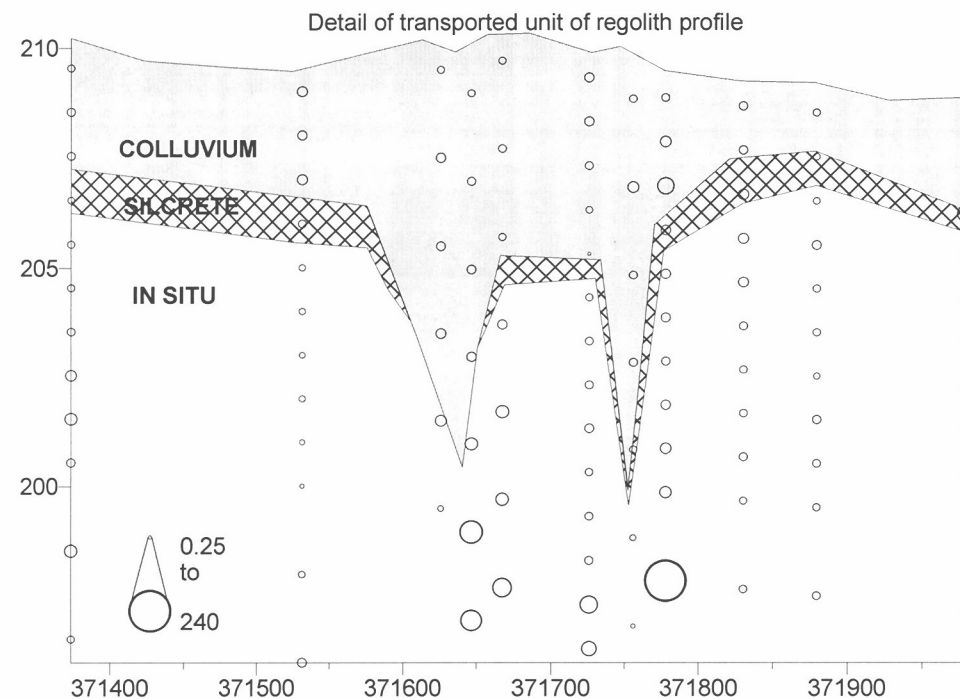
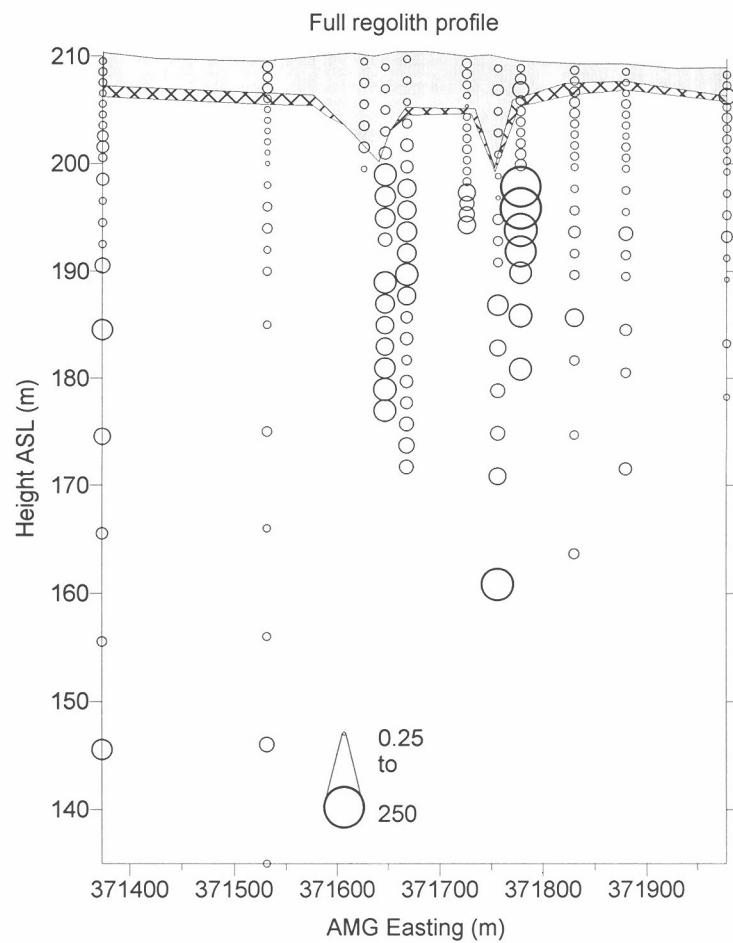


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.28 | 0.11 | 0.22 |
| Std Error | 0.09 | 0.02 | 0.01 |
| Median | 0.20 | 0.10 | 0.20 |
| Std Dev | 0.26 | 0.09 | 0.14 |
| Minimum | 0.05 | 0.05 | 0.05 |
| Maximum | 0.8 | 0.5 | 0.8 |
| Count | 8 | 35 | 143 |

South Hilga

Figure A1d.01: Distribution and concentration of Ag at South Hilga regolith section on 6660300N.

Ag (ppm)

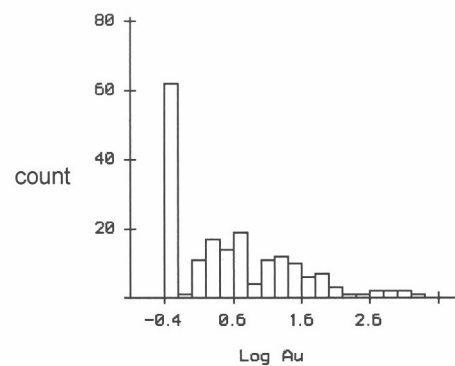
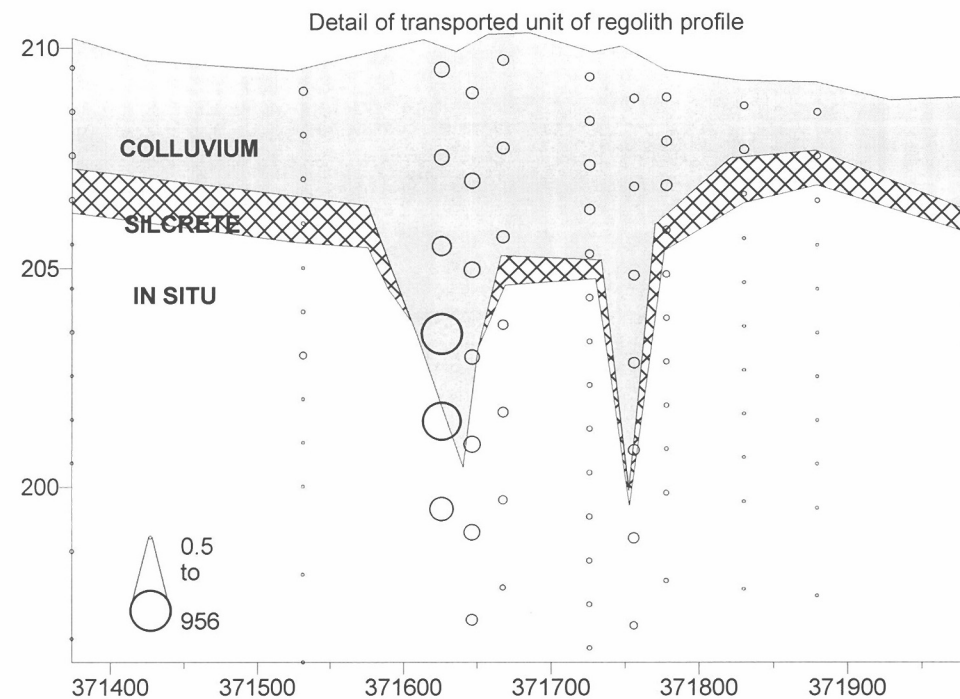
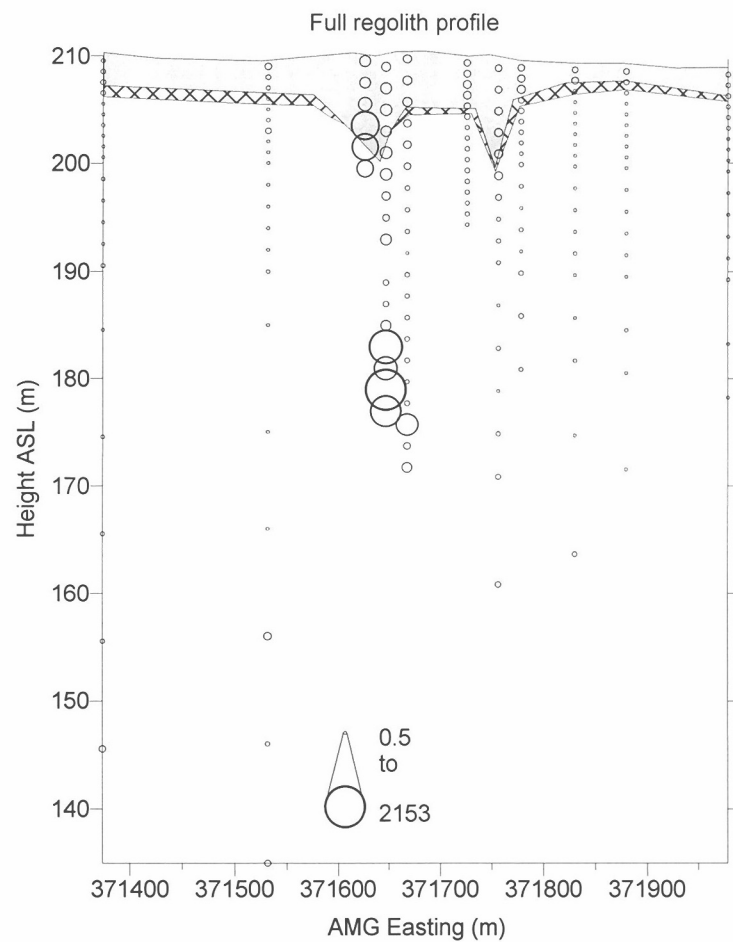


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 8 | 8 | 22 |
| Std Error | 4 | 1 | 3 |
| Median | 4 | 5 | 7 |
| Std Dev | 10 | 5 | 37 |
| Minimum | 0.25 | 2.5 | 0.5 |
| Maximum | 31 | 30 | 250 |
| Count | 8 | 35 | 143 |

Figure A1d.02: Distribution and concentration of As at South Hilga regolith section on 6660300N.

As (ppm)

South Hilga

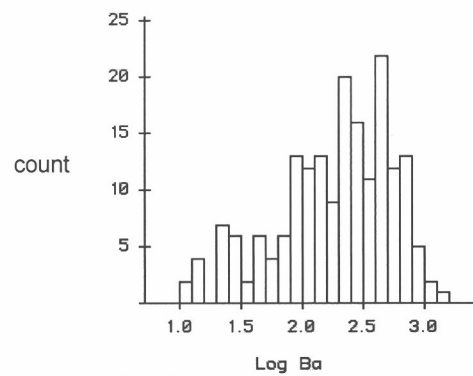
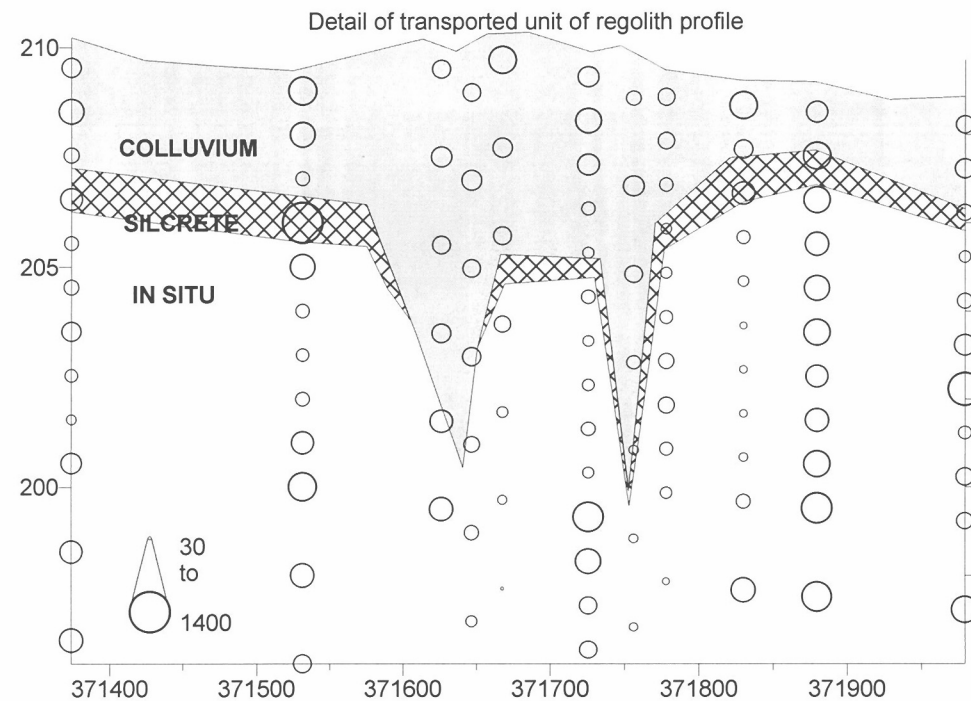
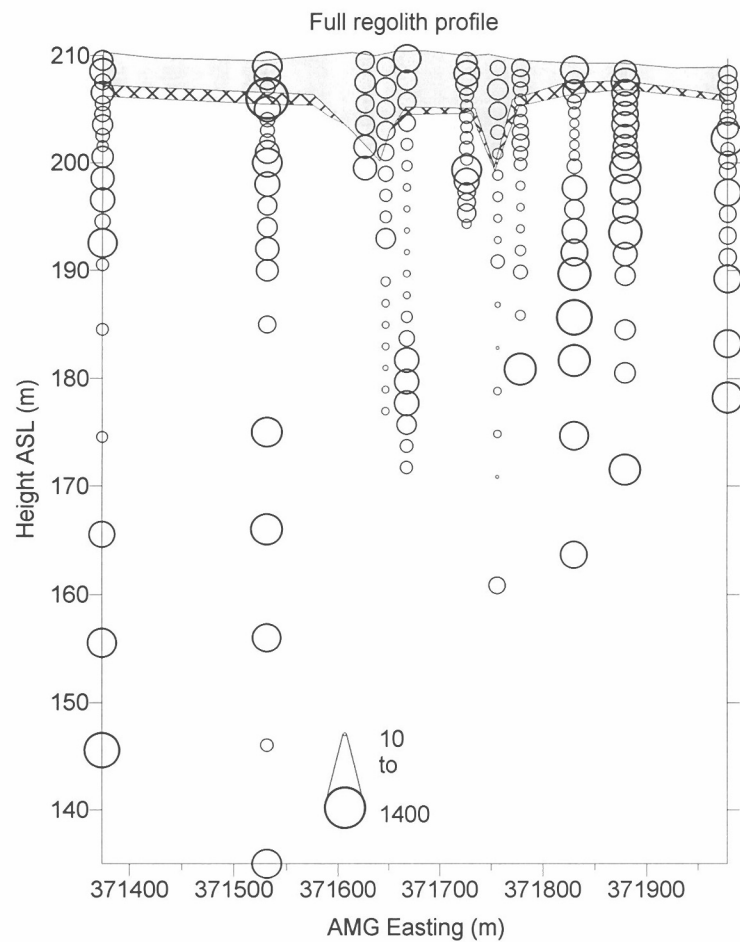


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 118 | 88 | 49 |
| Std Error | 103 | 27 | 20 |
| Median | 7 | 29 | 1 |
| Std Dev | 292 | 160 | 243 |
| Minimum | 1 | 2 | 0.5 |
| Maximum | 837 | 956 | 2153 |
| Count | 8 | 35 | 143 |

Figure A1d.03: Distribution and concentration of Au at South Hilga regolith section on 6660300N.

Au (ppb)

South Hilga

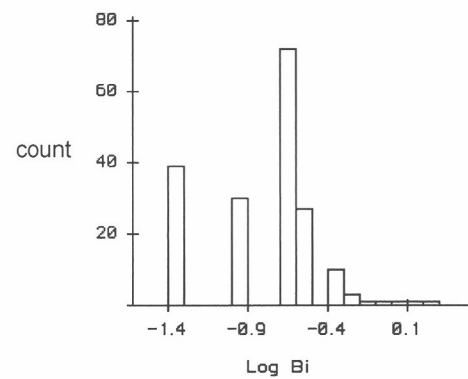
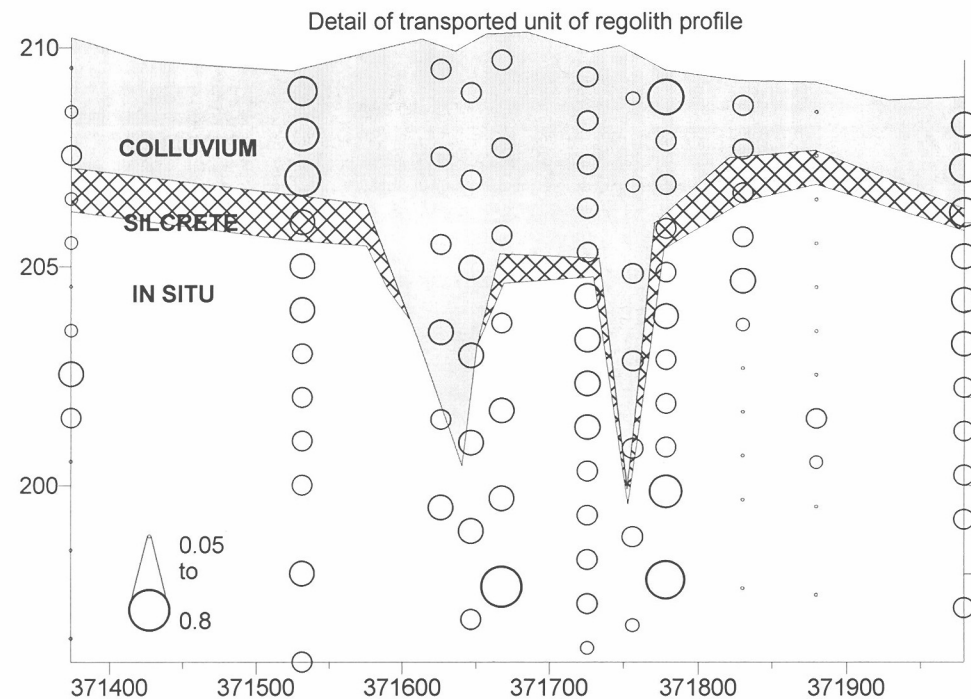
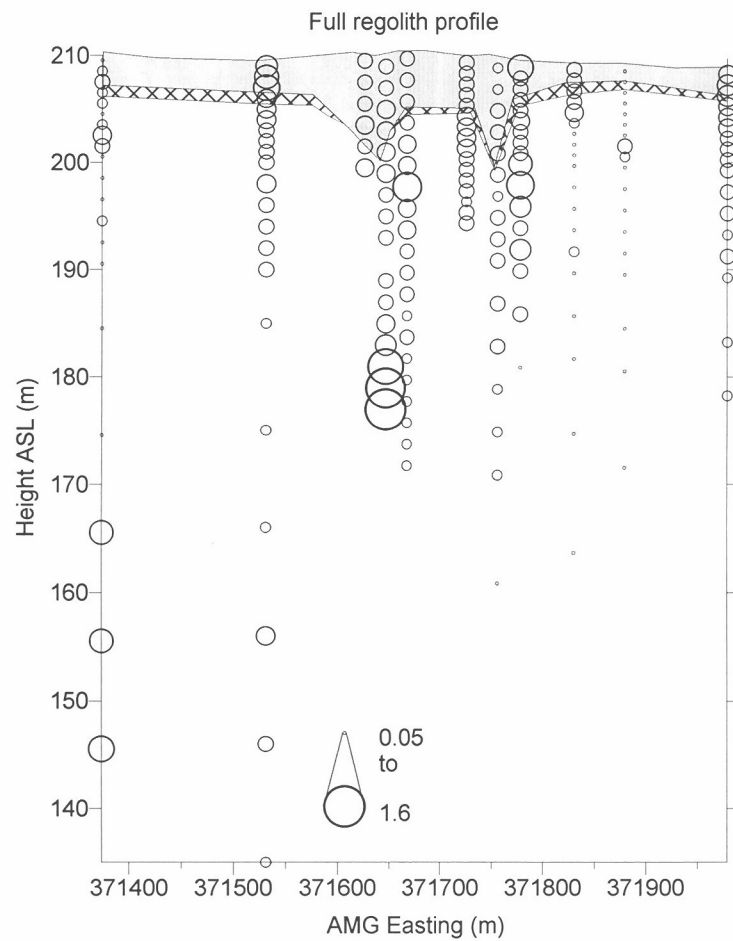


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 463 | 286 | 281 |
| Std Error | 145 | 25 | 21 |
| Median | 390 | 260 | 185 |
| Std Dev | 409 | 148 | 254 |
| Minimum | 90 | 65 | 10 |
| Maximum | 1400 | 850 | 1000 |
| Count | 8 | 35 | 143 |

Figure A1d.04: Distribution and concentration of Ba at South Hilga regolith section on 6660300N.

Ba (ppm)

South Hilga

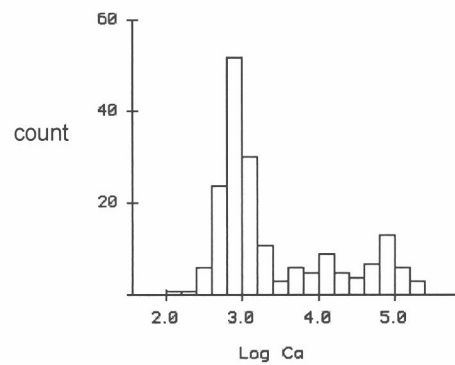
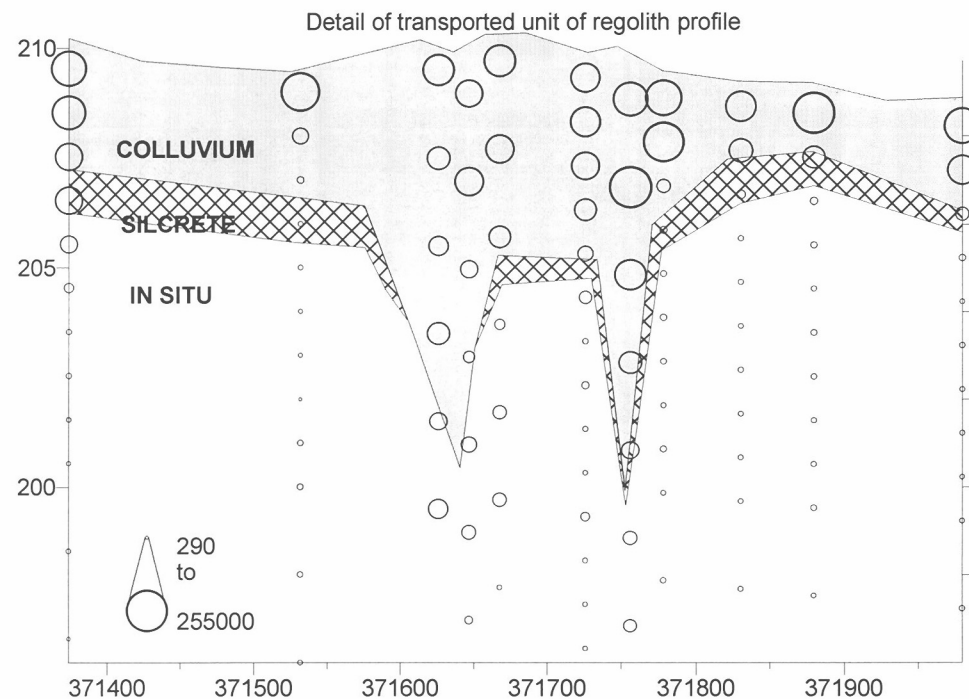
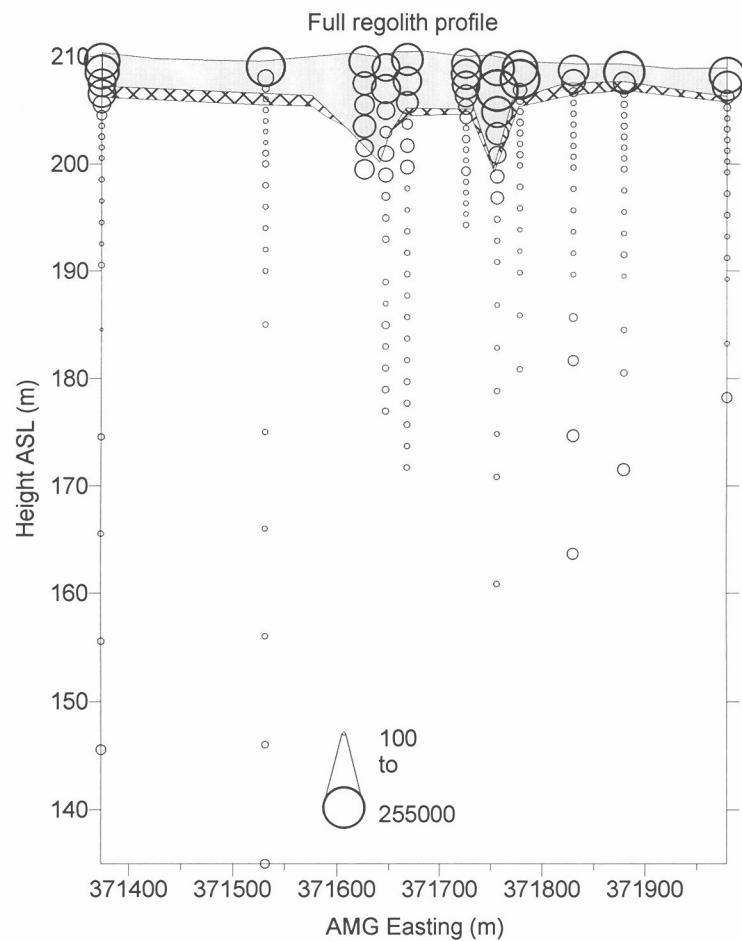


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.2 | 0.2 | 0.2 |
| Std Error | 0.0 | 0.0 | 0.0 |
| Median | 0.2 | 0.2 | 0.2 |
| Std Dev | 0.11 | 0.1 | 0.2 |
| Minimum | 0.05 | 0.05 | 0.05 |
| Maximum | 0.4 | 0.8 | 1.6 |
| Count | 8 | 35 | 143 |

Figure A1d.05: Distribution and concentration of Bi at South Hilga regolith section on 6660300N.

Bi (ppm)

South Hilga



| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 27608 | 75271 | 2228 |
| Std Error | 8491 | 8213 | 358 |
| Median | 21900 | 78000 | 850 |
| Std Dev | 24016 | 48587 | 4276 |
| Minimum | 750 | 1600 | 100 |
| Maximum | 72000 | 174000 | 32400 |
| Count | 8 | 35 | 143 |

South Hilga

Figure A1d.06: Distribution and concentration of Ca at South Hilga regolith section on 6660300N.

Ca (ppm)

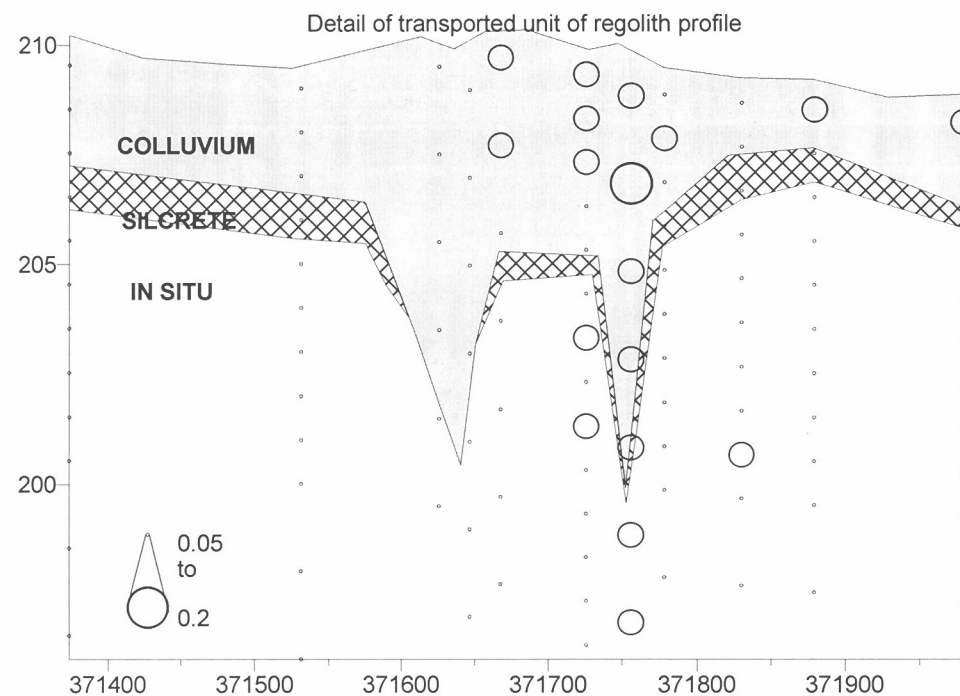
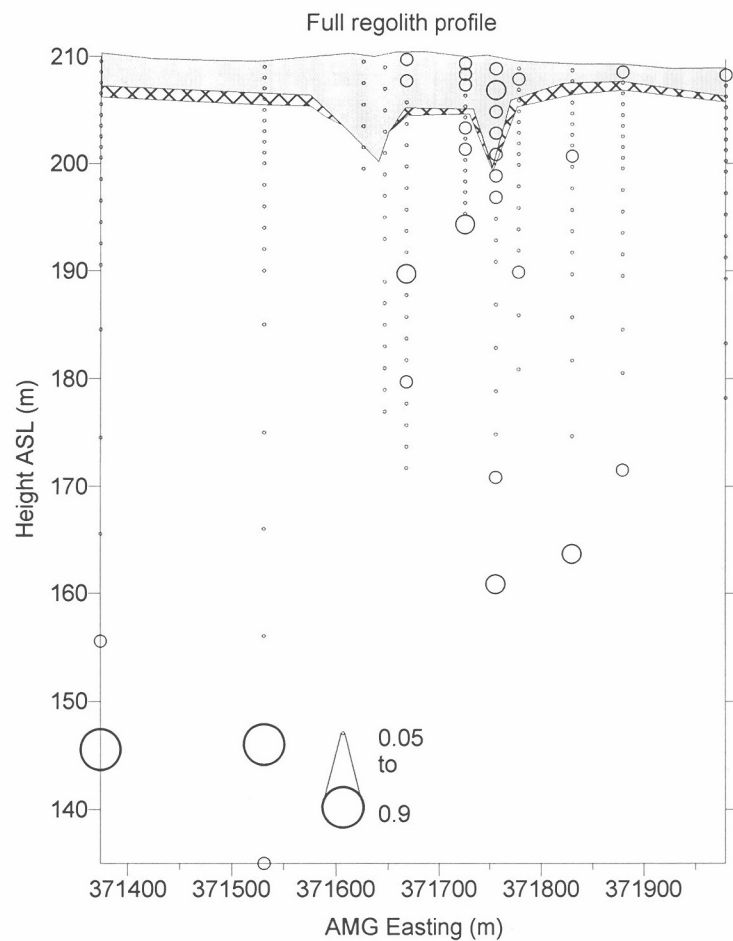
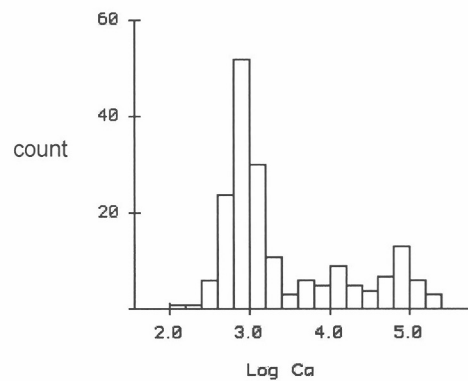


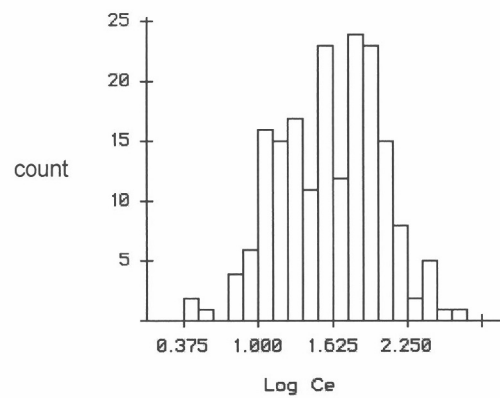
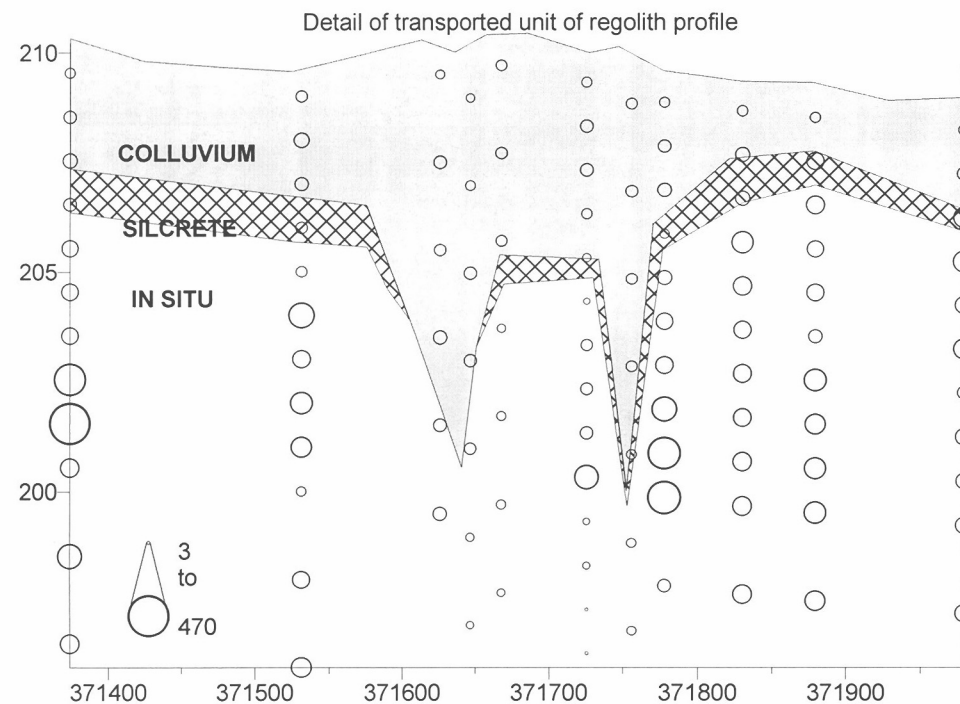
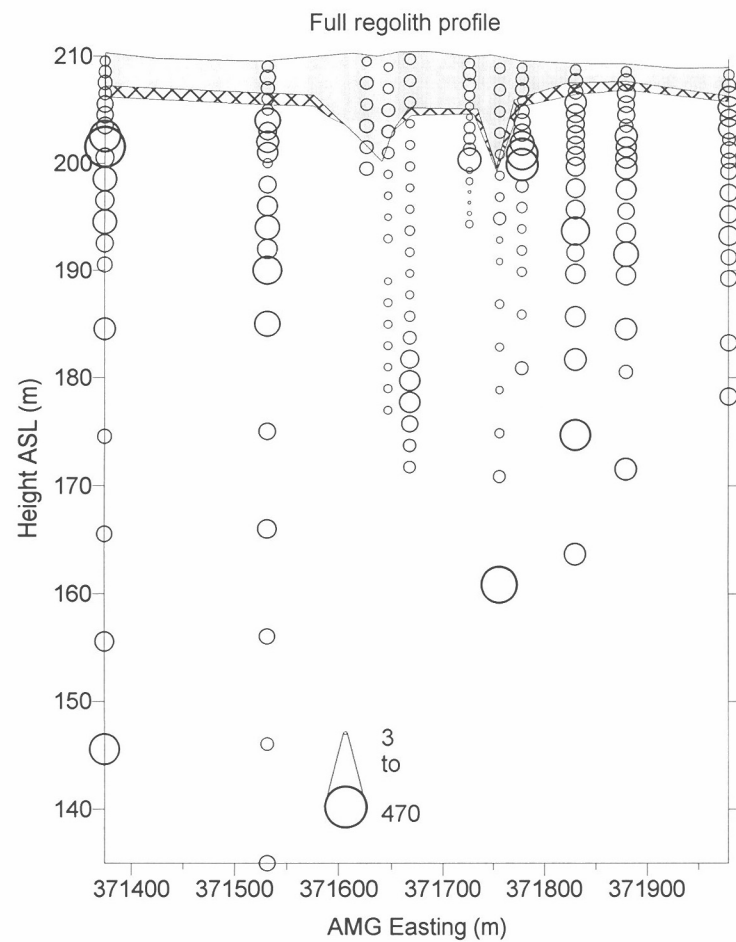
Figure A1d.07: Distribution and concentration of Cd at South Hilga regolith section on 6660300N.

Cd (ppm)



| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.1 | 0.1 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 |
| Median | 0.05 | 0.1 | 0.05 |
| Std Dev | 0.00 | 0.0 | 0.1 |
| Minimum | 0.05 | 0.05 | 0.05 |
| Maximum | 0.05 | 0.2 | 0.9 |
| Count | 8 | 35 | 143 |

South Hilga

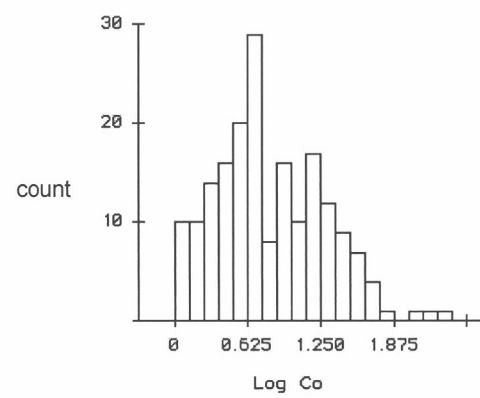
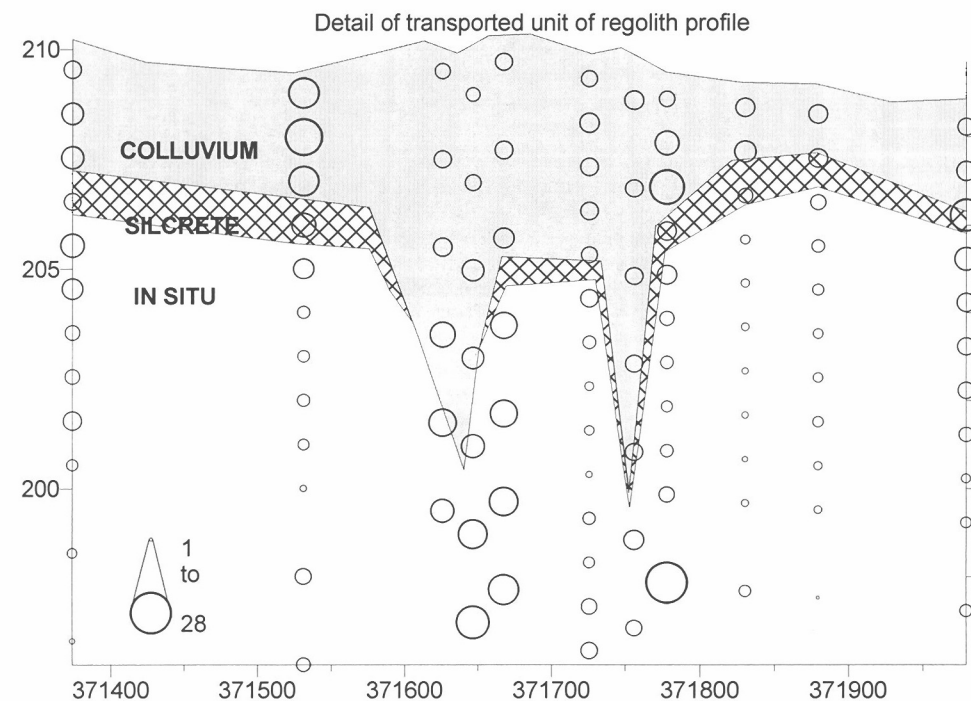
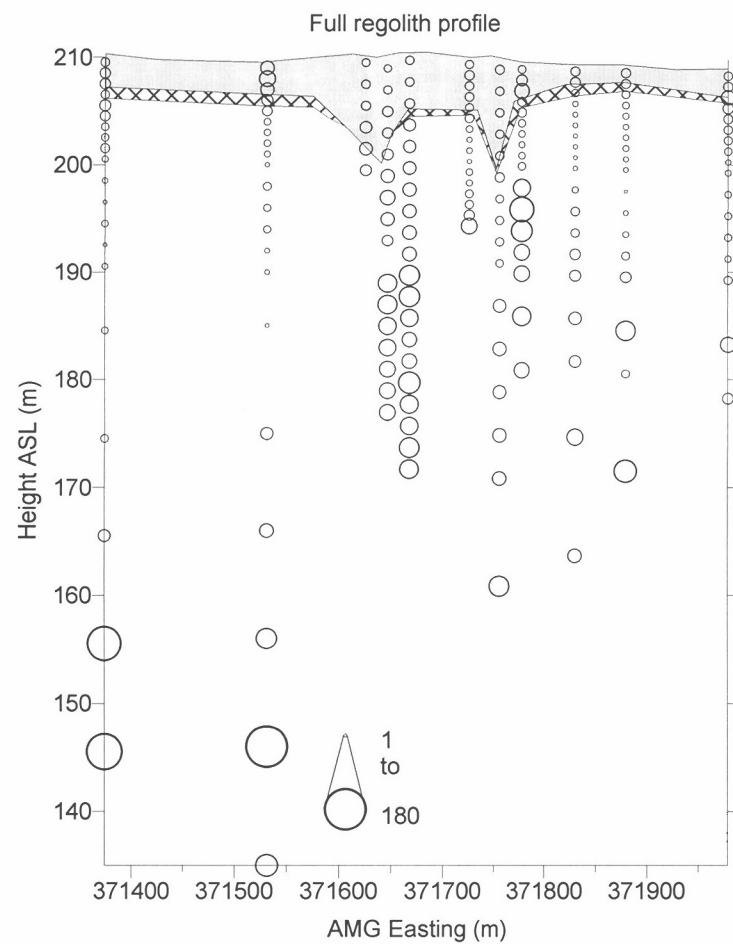


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 43 | 27 | 72 |
| Std Error | 10 | 2 | 8 |
| Median | 35 | 27 | 81 |
| Std Dev | 28 | 9 | 72 |
| Minimum | 12 | 13 | 3 |
| Maximum | 100 | 48 | 470 |
| Count | 8 | 35 | 143 |

Figure A1d.08: Distribution and concentration of Ce at South Hilga regolith section on 6660300N.

Ce (ppm)

South Hilga

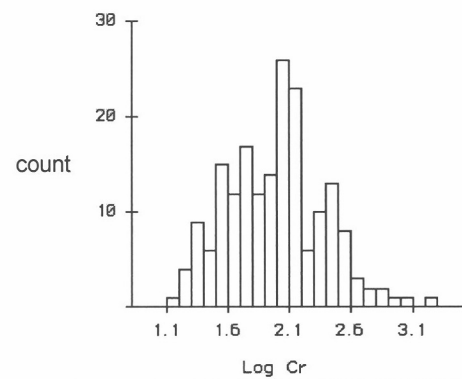
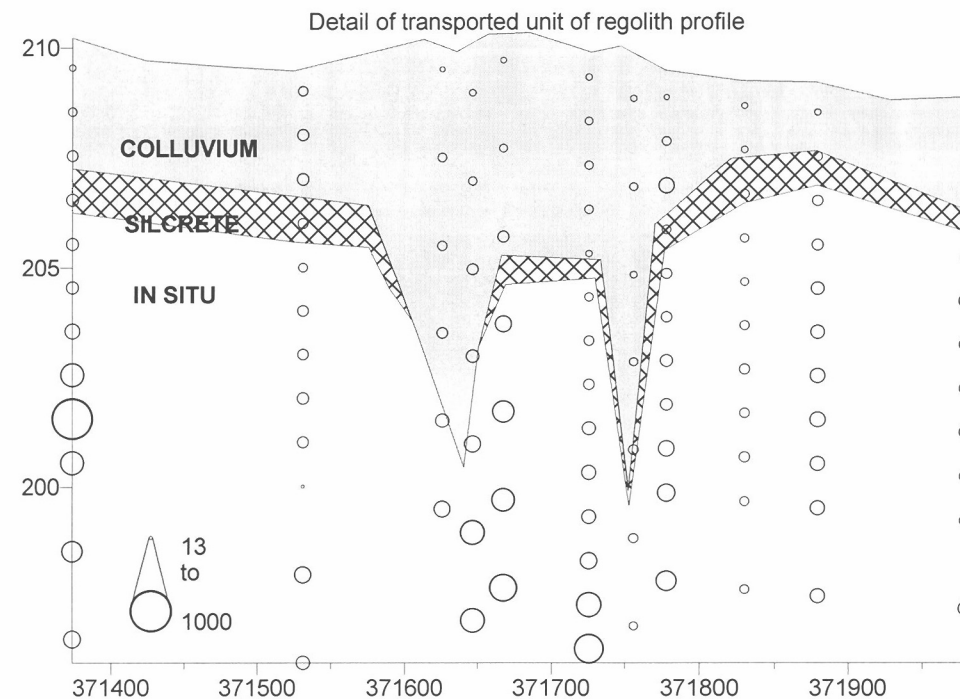
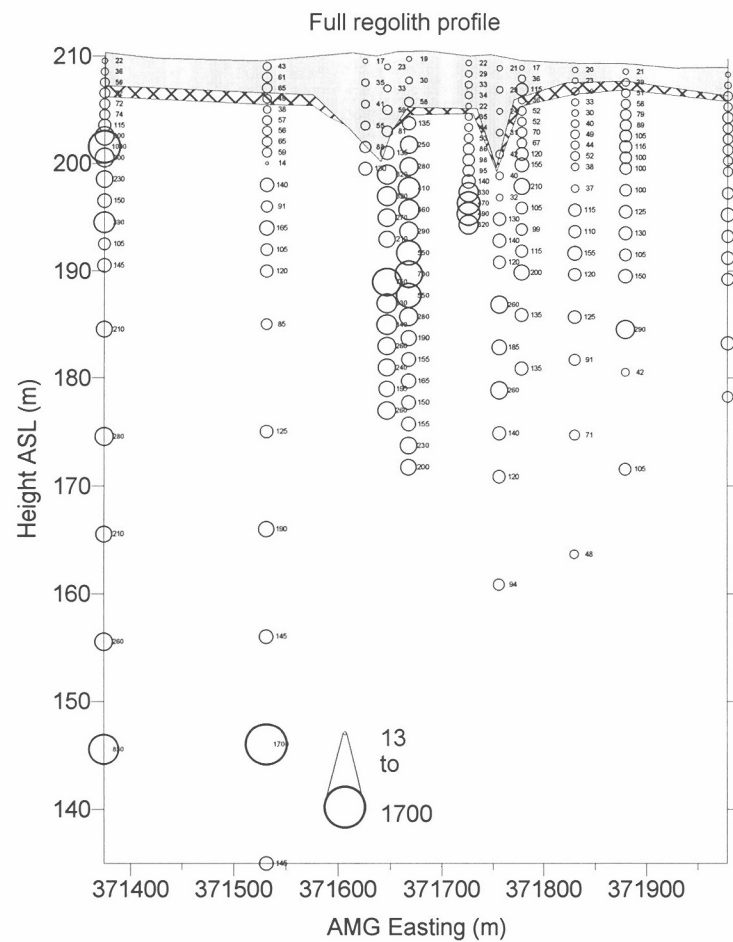


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 8 | 7 | 14 |
| Std Error | 2 | 1 | 2 |
| Median | 6 | 6 | 5 |
| Std Dev | 5 | 4 | 23 |
| Minimum | 3 | 3 | 1 |
| Maximum | 17 | 22 | 180 |
| Count | 8 | 35 | 143 |

Figure A1d.09: Distribution and concentration of Co at South Hilga regolith section on 6660300N.

Co (ppm)

South Hilga

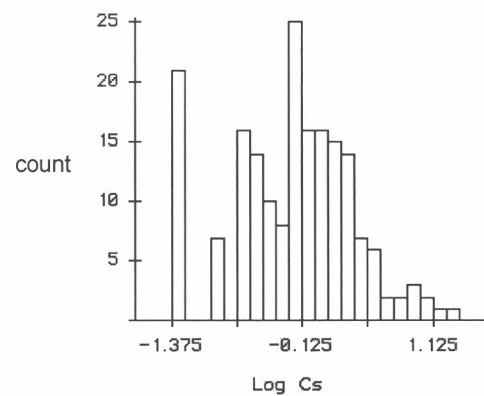
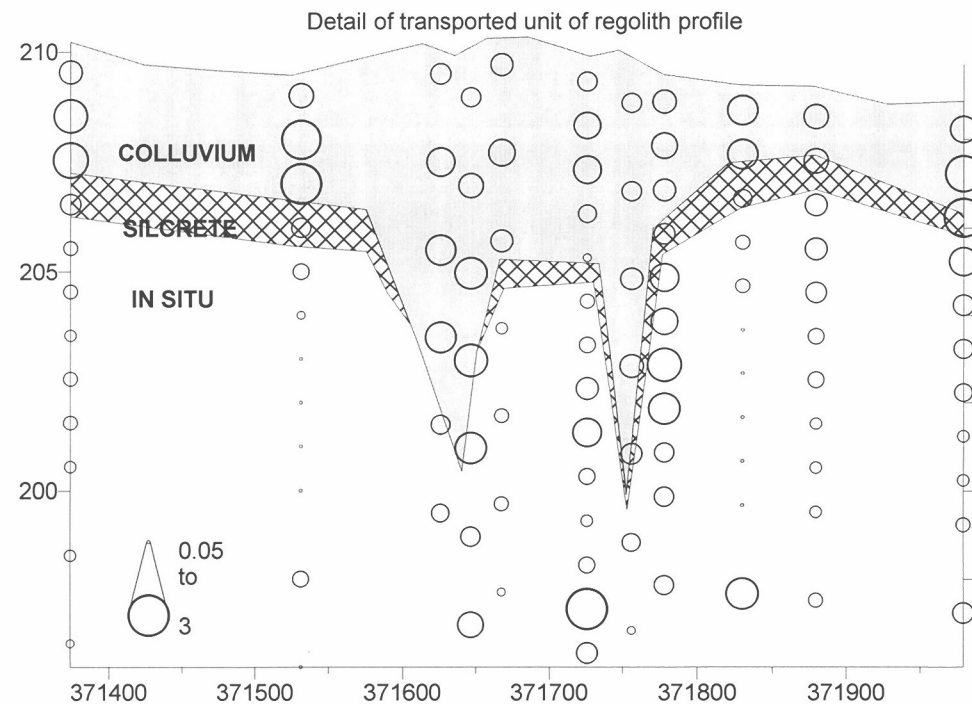
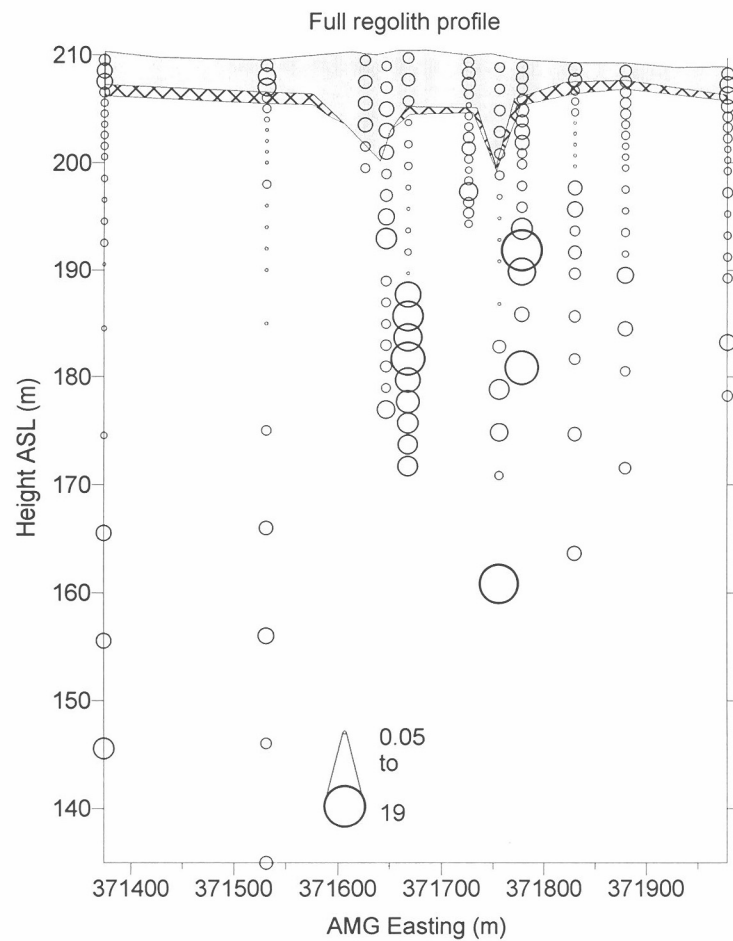


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 53 | 40 | 182 |
| Std Error | 7 | 4 | 17 |
| Median | 53 | 33 | 125 |
| Std Dev | 21 | 28 | 201 |
| Minimum | 22 | 17 | 14 |
| Maximum | 88 | 135 | 1700 |
| Count | 8 | 35 | 143 |

Figure A1d.10: Distribution and concentration of Cr at South Hilga regolith section on 6660300N.

Cr (ppm)

South Hilga

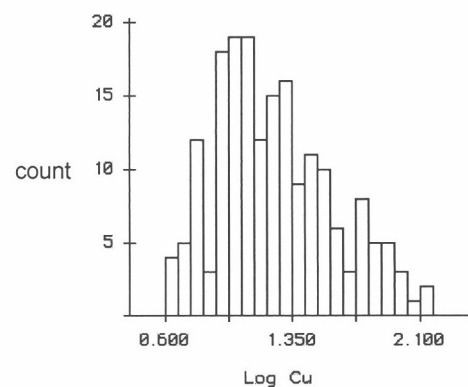
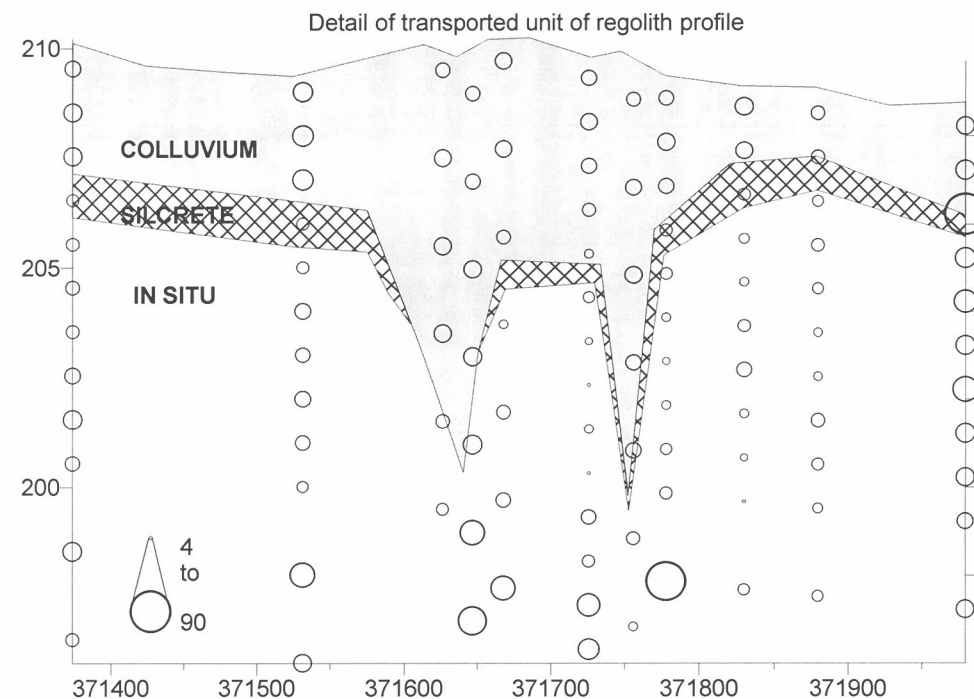
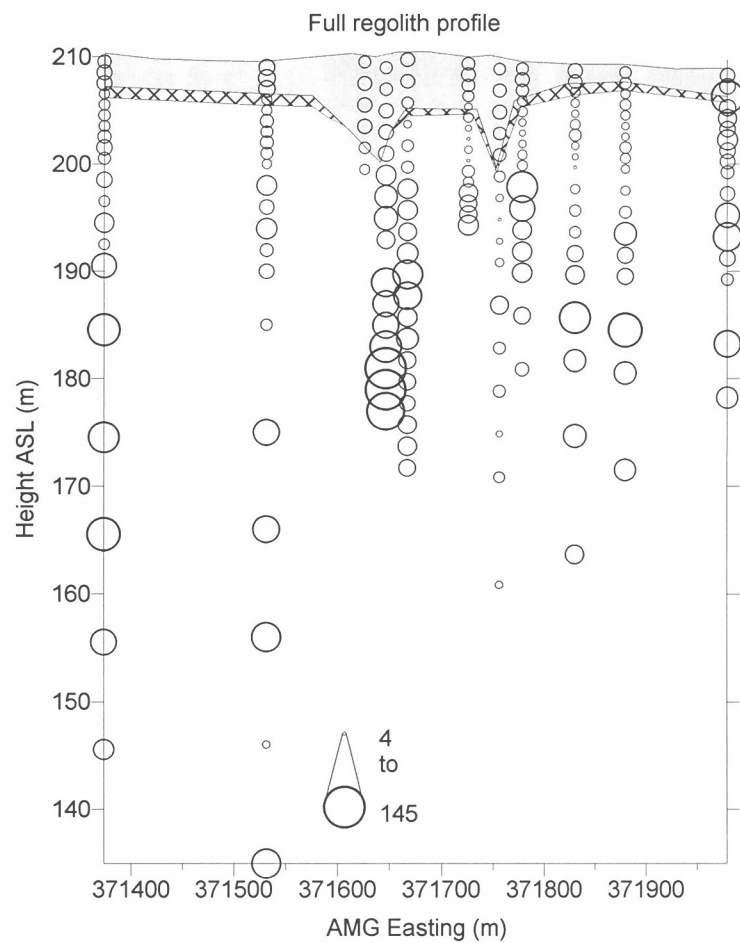


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.9 | 1.3 | 1.5 |
| Std Error | 0.3 | 0.1 | 0.2 |
| Median | 0.85 | 1.1 | 0.5 |
| Std Dev | 0.78 | 1 | 2.8 |
| Minimum | 0.1 | 0.5 | 0.05 |
| Maximum | 2.7 | 2.8 | 18 |
| Count | 8 | 35 | 143 |

Figure A1d.11: Distribution and concentration of Cs at South Hilga regolith section on 6660300N.

Cs (ppm)

South Hilga

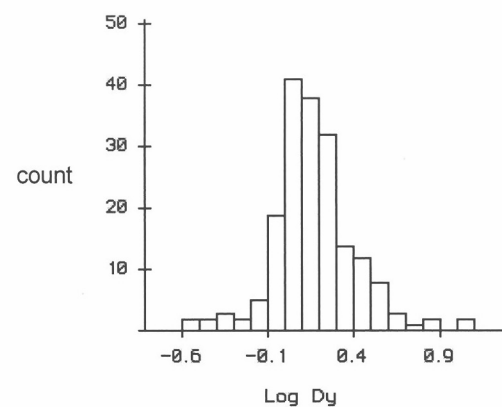
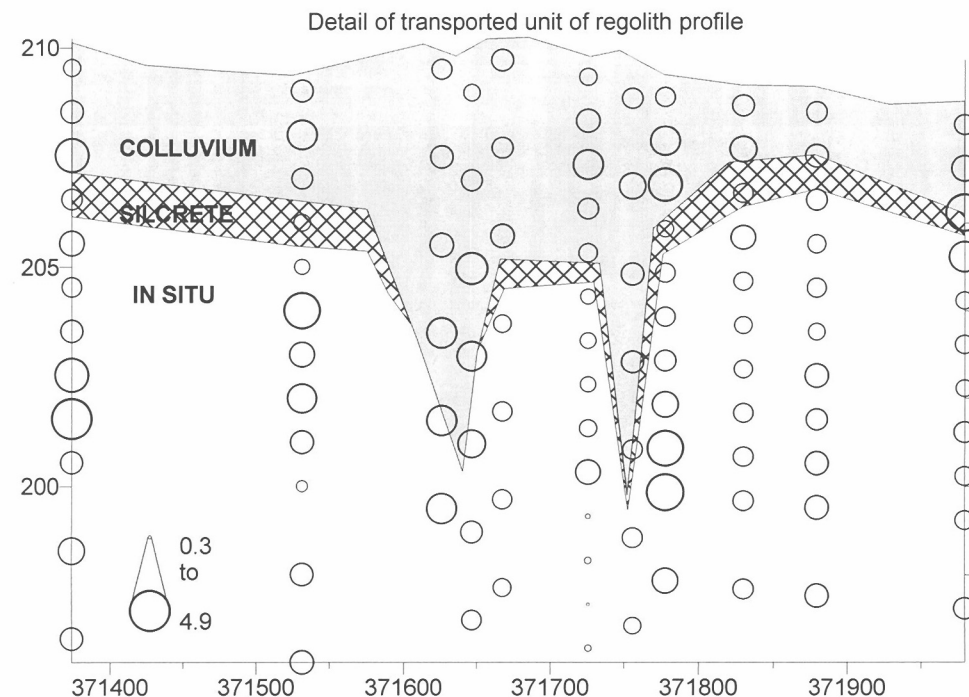
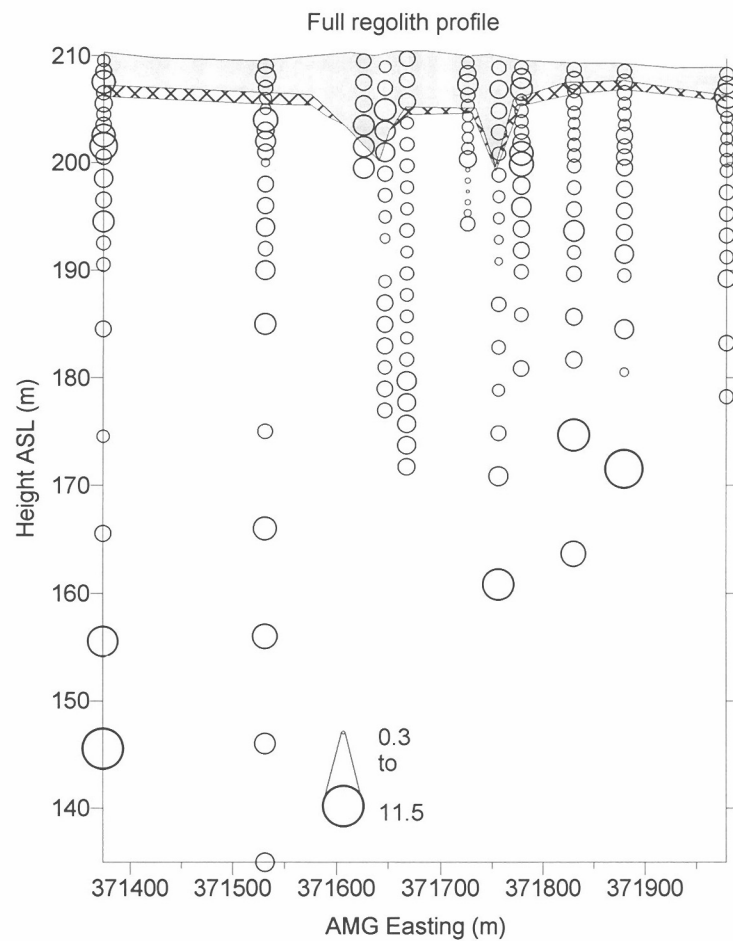


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 20 | 15 | 28 |
| Std Error | 10 | 1 | 2 |
| Median | 10 | 15 | 19 |
| Std Dev | 29 | 3 | 27 |
| Minimum | 8 | 9 | 4 |
| Maximum | 90 | 23 | 145 |
| Count | 8 | 35 | 143 |

Figure A1d.12: Distribution and concentration of Cu at South Hilga regolith section on 6660300N.

Cu (ppm)

South Hilga

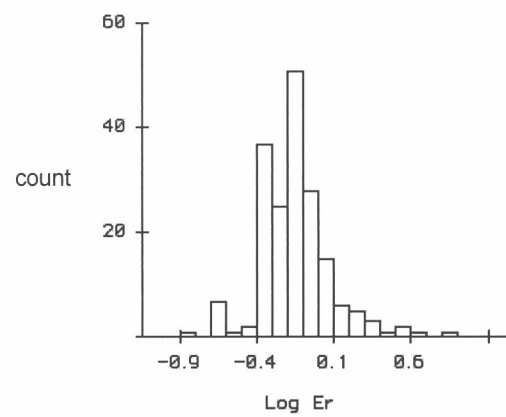
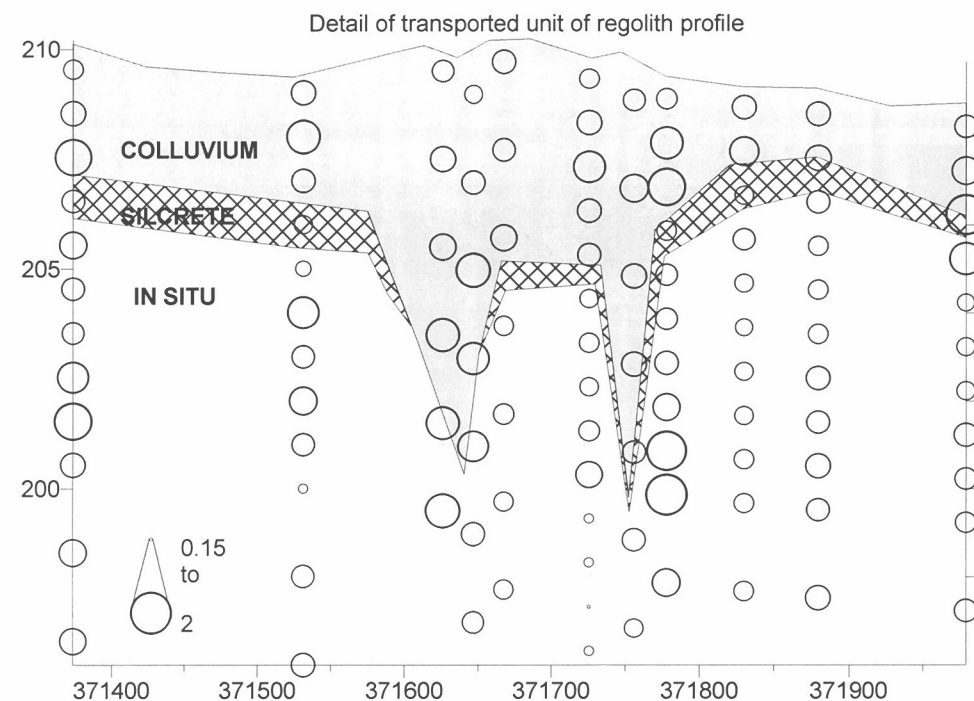
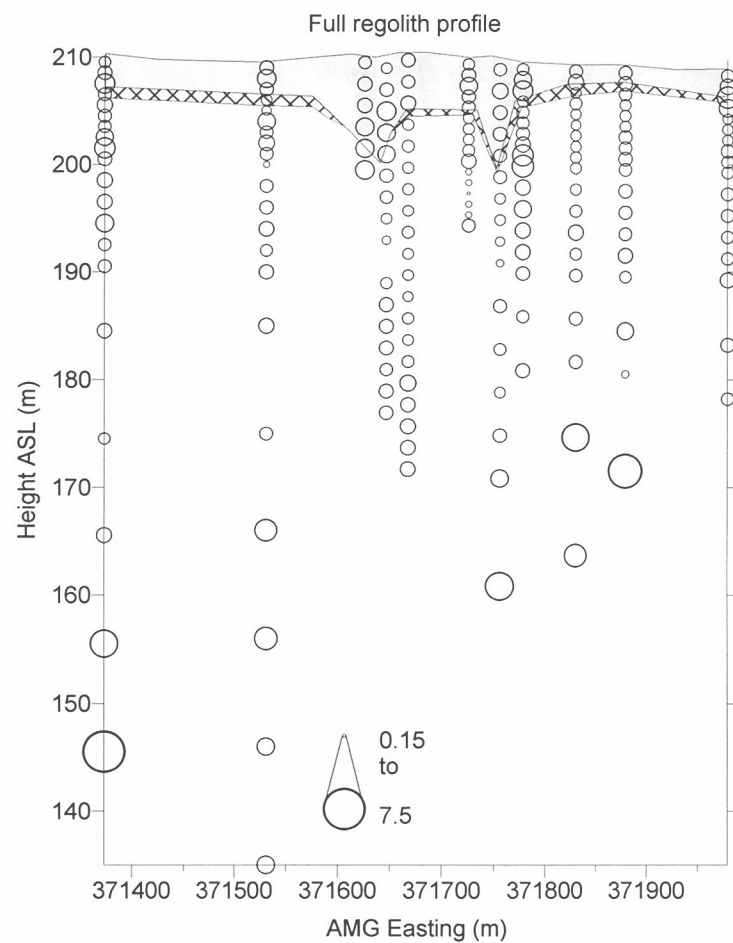


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 1.8 | 1.7 | 1.8 |
| Std Error | 0.4 | 0.1 | 0.1 |
| Median | 1.45 | 1.5 | 1.35 |
| Std Dev | 1.08 | 1 | 1.5 |
| Minimum | 0.9 | 0.88 | 0.28 |
| Maximum | 4 | 3.4 | 11.5 |
| Count | 8 | 35 | 143 |

Figure A1d.13: Distribution and concentration of Dy at South Hilga regolith section on 6660300N.

Dy (ppm)

South Hilga

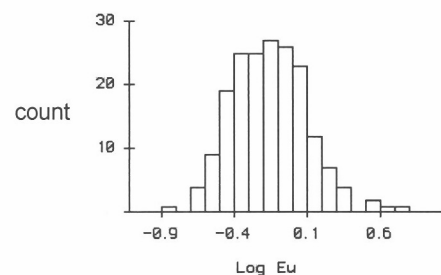
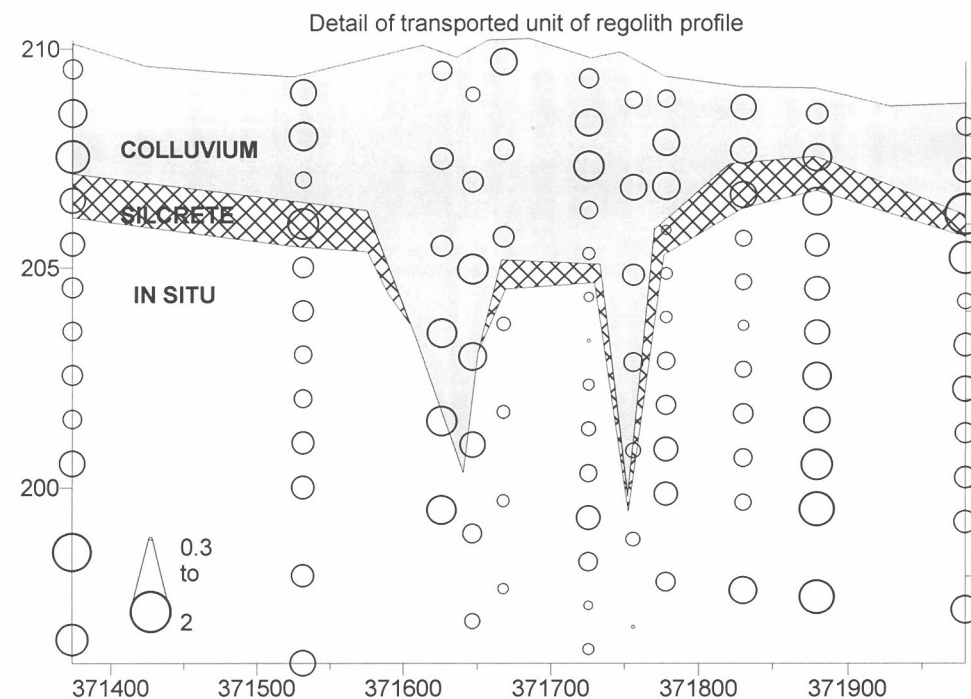
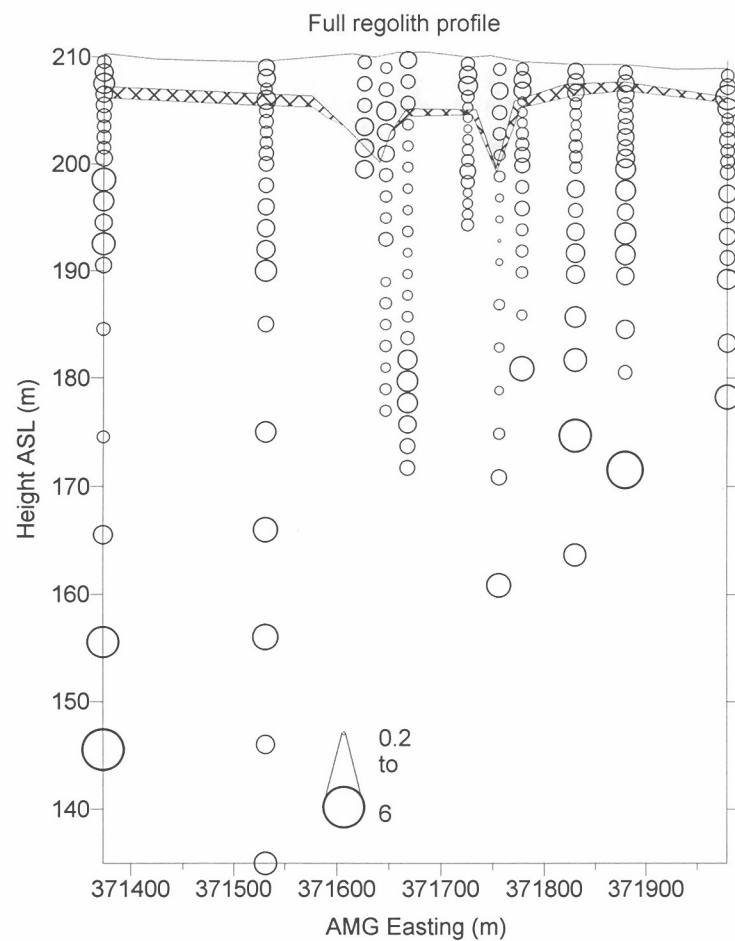


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.9 | 0.9 | 0.8 |
| Std Error | 0.2 | 0.1 | 0.1 |
| Median | 0.7 | 0.8 | 0.7 |
| Std Dev | 0.5 | 0.3 | 0.8 |
| Minimum | 0.5 | 0.5 | 0.2 |
| Maximum | 1.9 | 1.7 | 7.5 |
| Count | 8 | 35 | 143 |

Figure A1d.14: Distribution and concentration of Er at South Hilga regolith section on 6660300N.

Er (ppm)

South Hilga

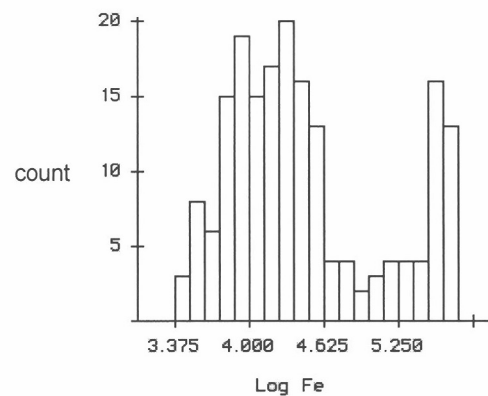
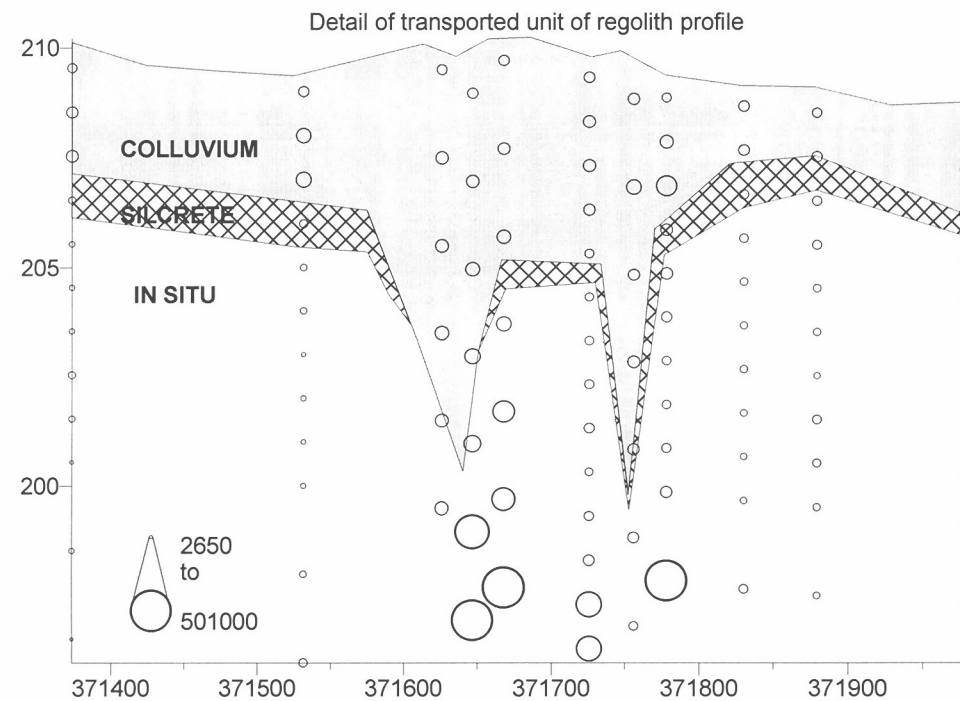
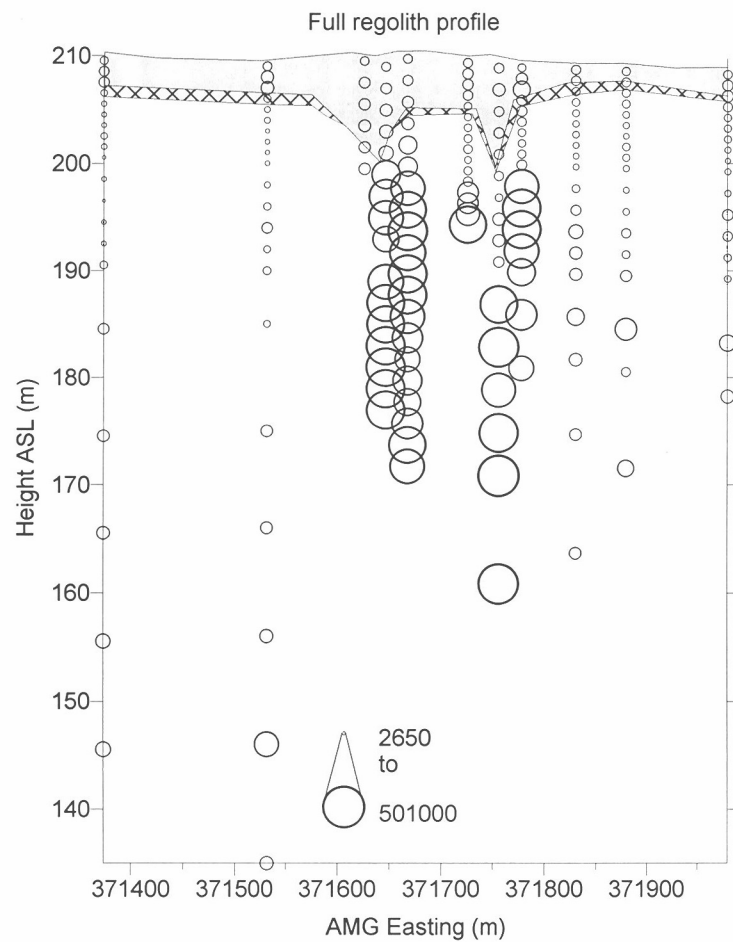


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 1.0 | 0.8 | 0.9 |
| Std Error | 0.2 | 0.0 | 0.1 |
| Median | 0.946 | 0.7 | 0.85 |
| Std Dev | 0.48 | 0.3 | 0.8 |
| Minimum | 0.35 | 0.3 | 0.15 |
| Maximum | 2 | 1.35 | 6 |
| Count | 8 | 35 | 143 |

Figure A1d.15: Distribution and concentration of Eu at South Hilga regolith section on 6660300N.

Eu (ppm)

South Hilga

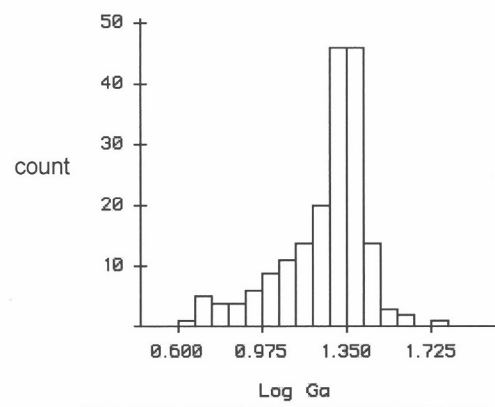
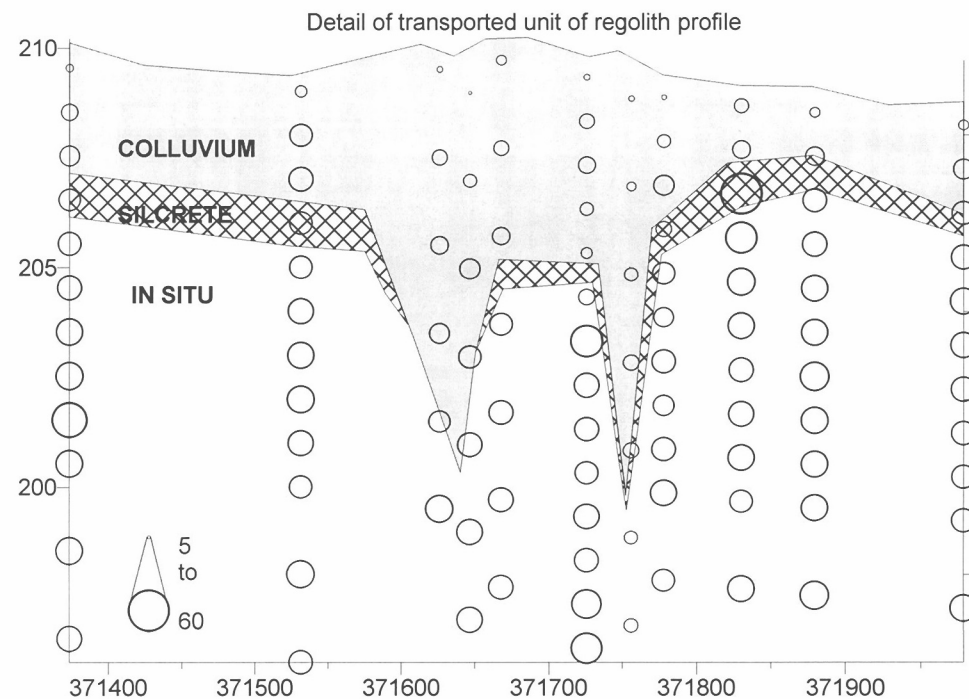
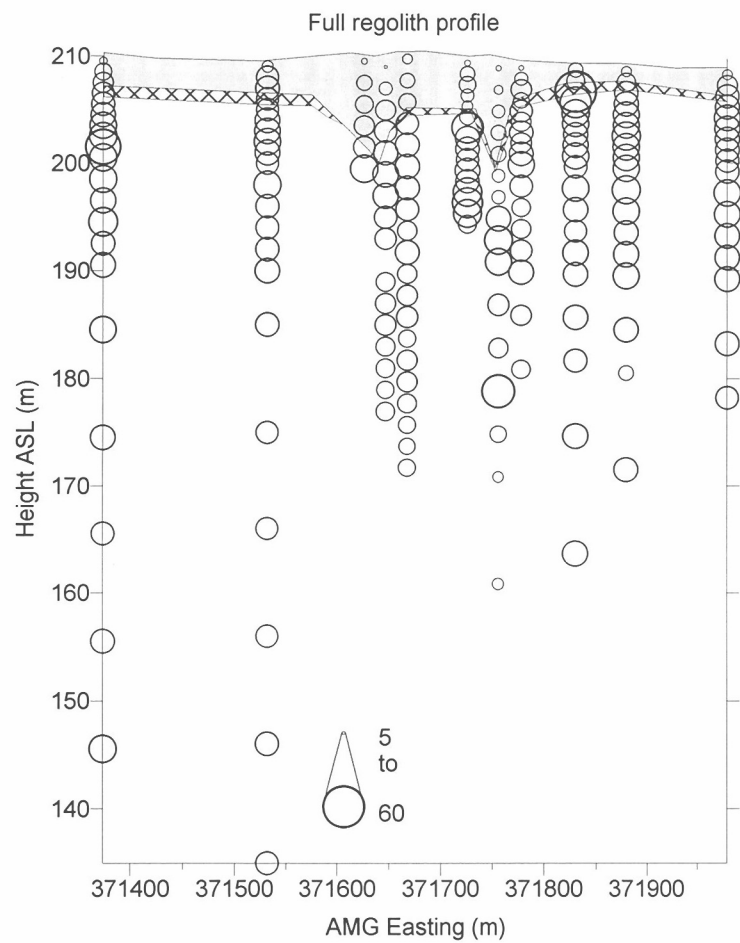


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 18744 | 22829 | 113588 |
| Std Error | 3132 | 1834 | 13180 |
| Median | 13400 | 20300 | 23100 |
| Std Dev | 8857 | 11438 | 157372 |
| Minimum | 8900 | 10800 | 2650 |
| Maximum | 27800 | 88300 | 501000 |
| Count | 8 | 35 | 143 |

Figure A1d.16: Distribution and concentration of Fe at South Hilga regolith section on 6660300N.

Fe (ppm)

South Hilga

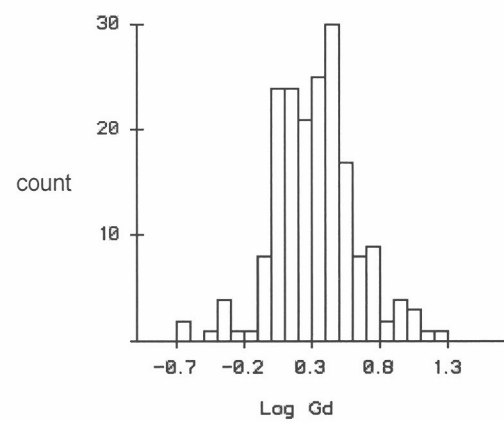
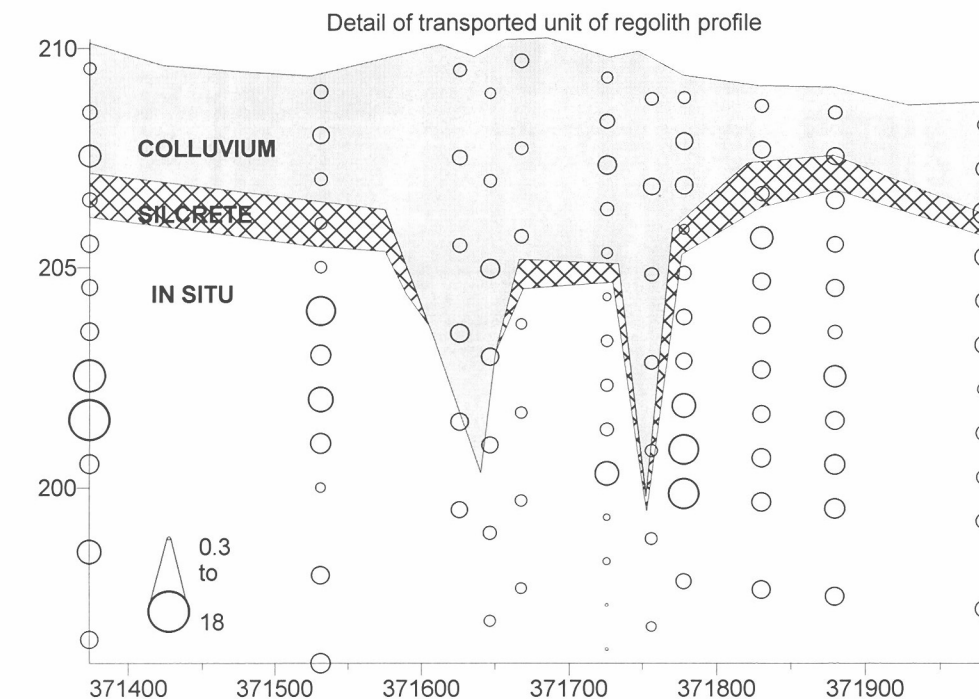
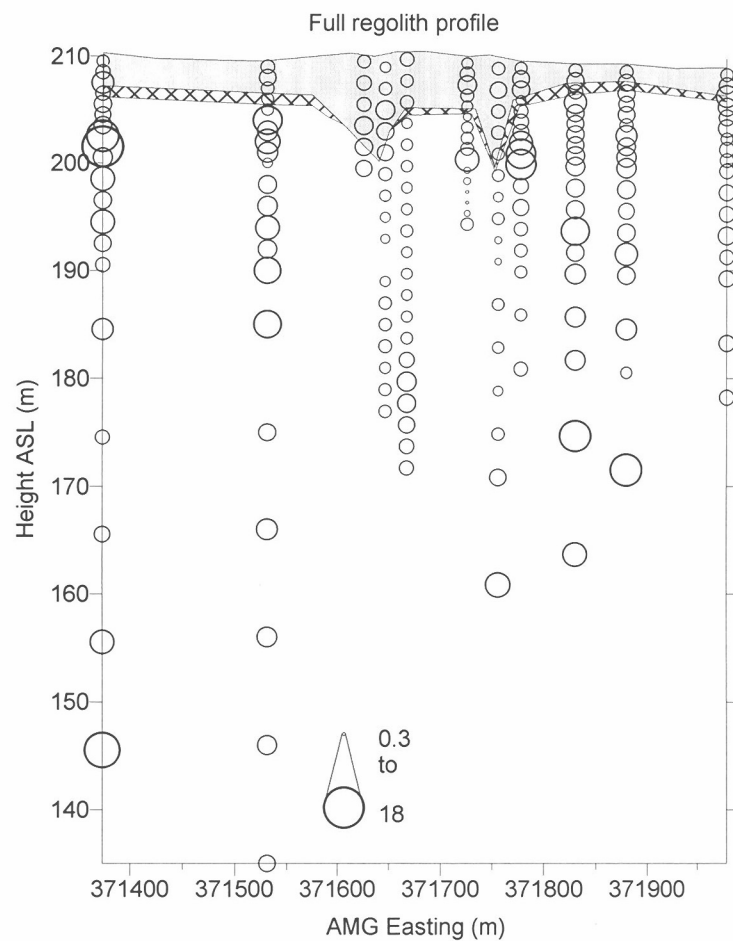


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 21 | 11 | 21 |
| Std Error | 5.8 | 0.8 | 0.5 |
| Median | 18 | 10 | 22 |
| Std Dev | 18 | 5 | 8 |
| Minimum | 7 | 5 | 7 |
| Maximum | 80 | 22 | 45 |
| Count | 8 | 35 | 143 |

Figure A1d.17: Distribution and concentration of Ga at South Hilga regolith section on 6660300N.

Ga (ppm)

South Hilga

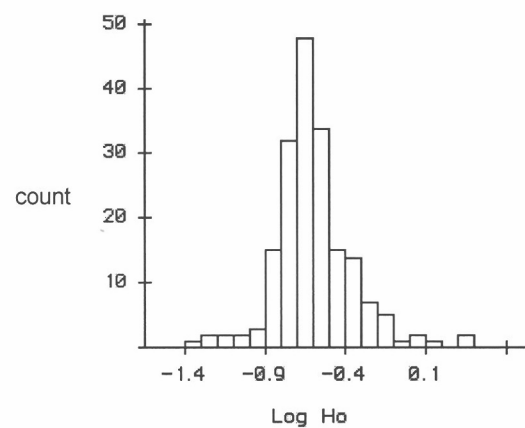
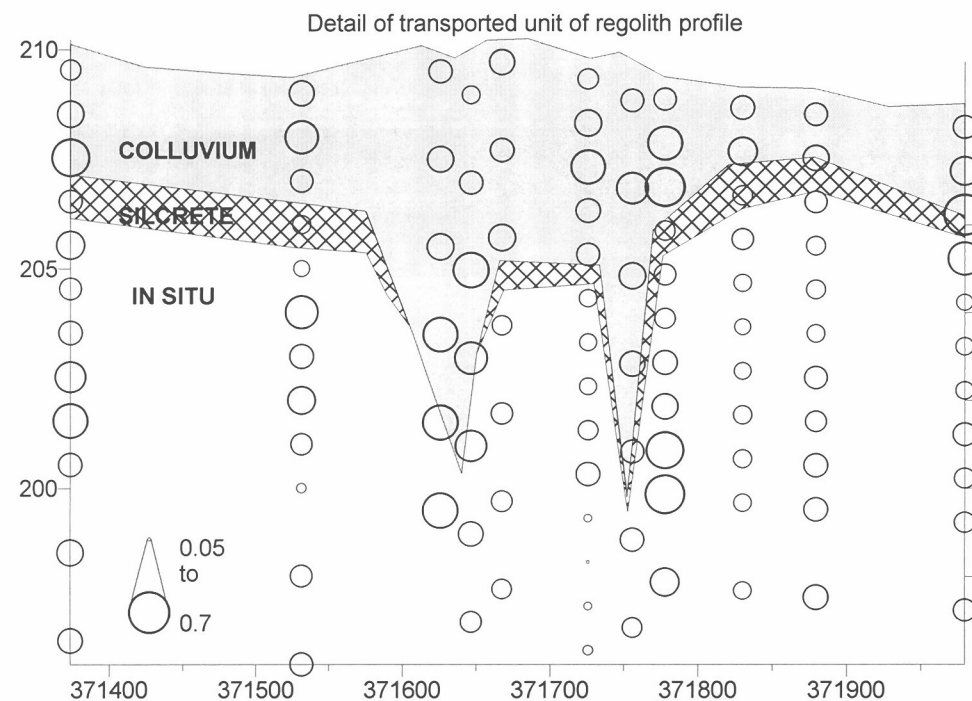
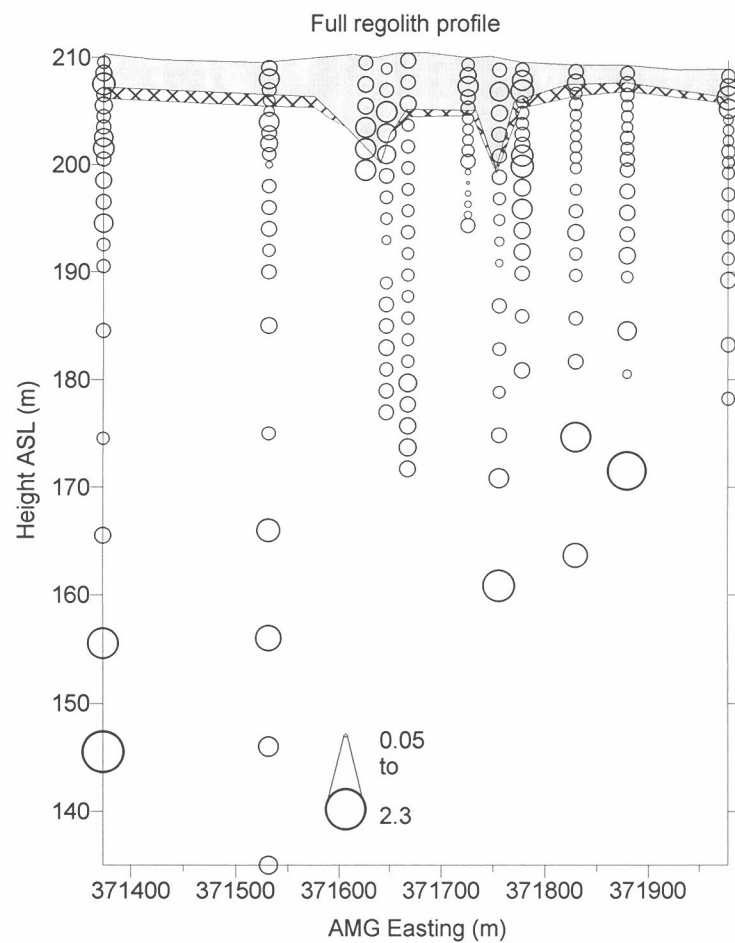


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 2.2 | 2.0 | 3.0 |
| Std Error | 0.4 | 0.1 | 0.2 |
| Median | 1.0 | 1.7 | 2.4 |
| Std Dev | 1.2 | 0.8 | 2.6 |
| Minimum | 1.0 | 0.9 | 0.3 |
| Maximum | 4.7 | 4.6 | 18 |
| Count | 8 | 35 | 143 |

South Hilga

Figure A1d.18: Distribution and concentration of Gd at South Hilga regolith section on 6660300N.

Gd (ppm)

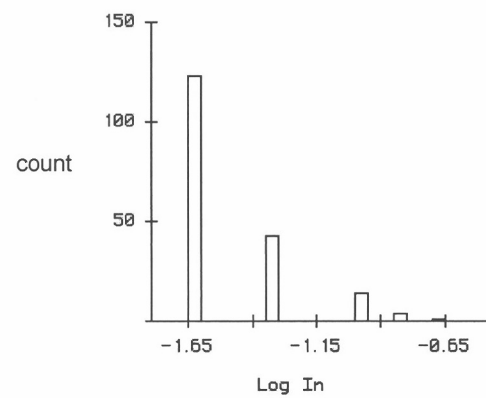
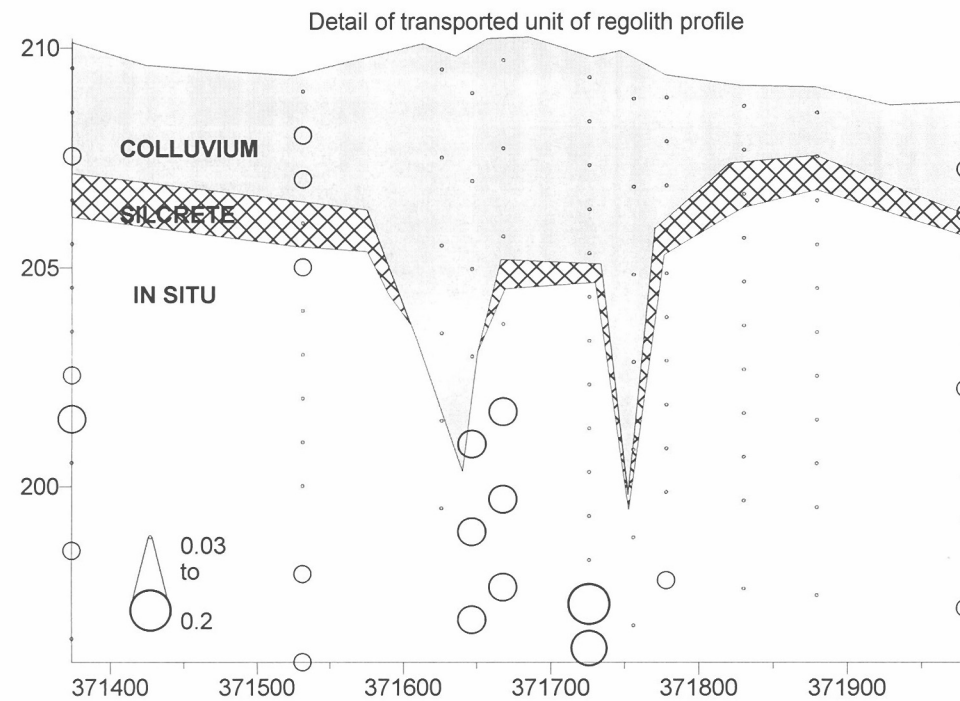
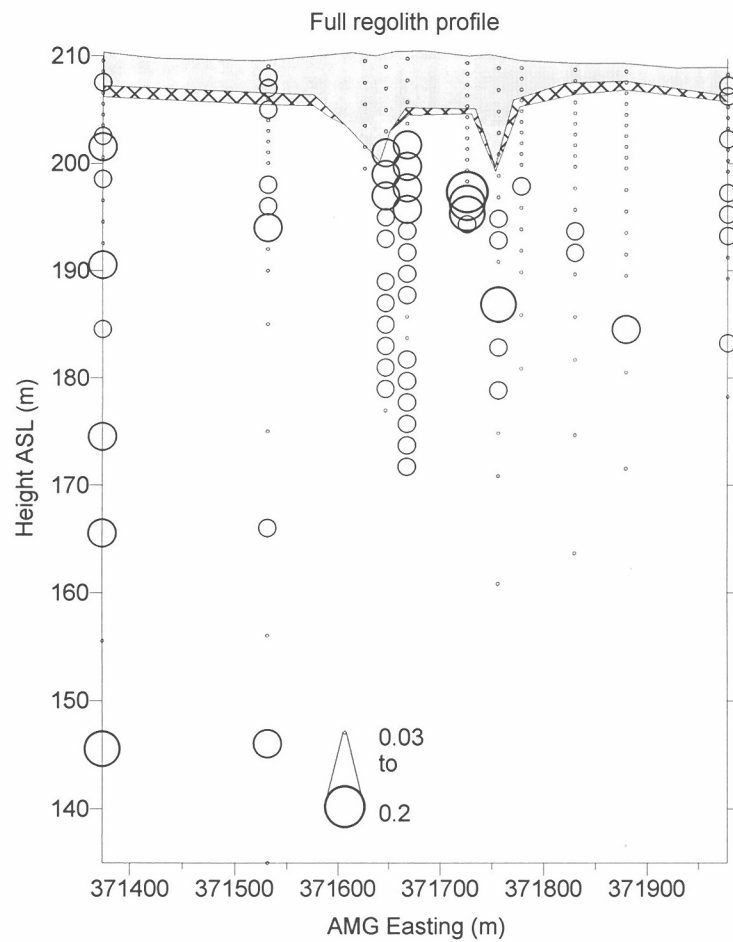


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.3 | 0.3 | 0.3 |
| Std Error | 0.07 | 0.02 | 0.02 |
| Median | 0.3 | 0.3 | 0.2 |
| Std Dev | 0.2 | 0.1 | 0.3 |
| Minimum | 0.2 | 0.2 | 0.1 |
| Maximum | 0.7 | 0.7 | 2.3 |
| Count | 8 | 35 | 143 |

Figure A1d.19: Distribution and concentration of Ho at South Hilga regolith section on 6660300N.

Ho (ppm)

South Hilga

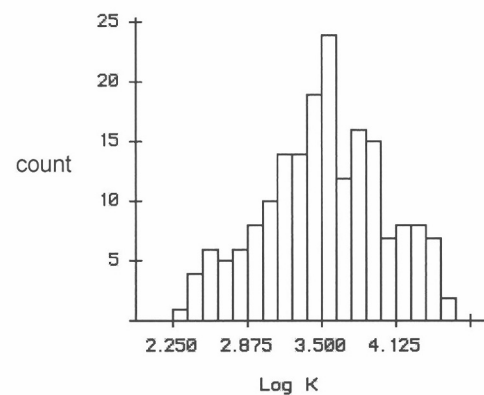
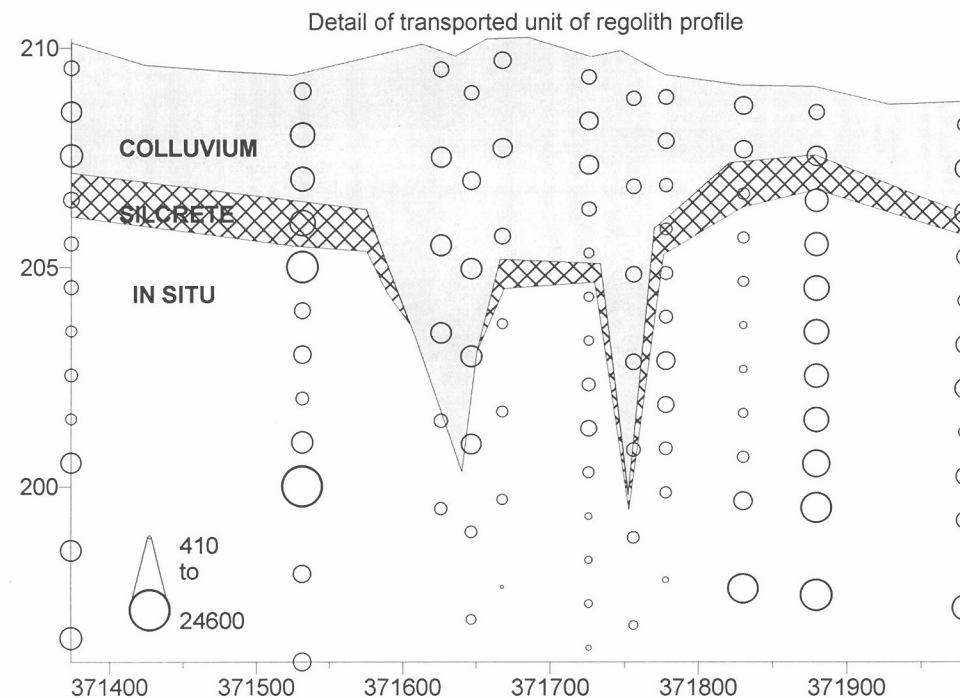
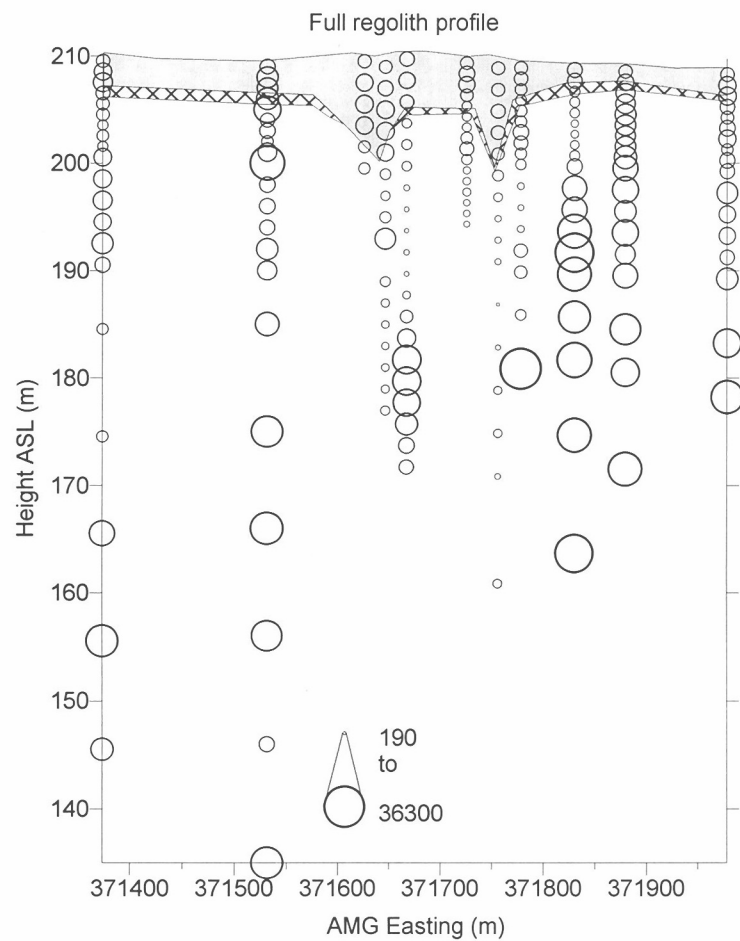


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.03 | 0.03 | 0.04 |
| Std Error | 0.003 | 0.002 | 0.003 |
| Median | 0.025 | 0.0 | 0.025 |
| Std Dev | 0.01 | 0.01 | 0.03 |
| Minimum | 0.025 | 0.025 | 0.025 |
| Maximum | 0.05 | 0.1 | 0.2 |
| Count | 8 | 35 | 143 |

Figure A1d.20: Distribution and concentration of In at South Hilga regolith section on 6660300N.

In (ppm)

South Hilga

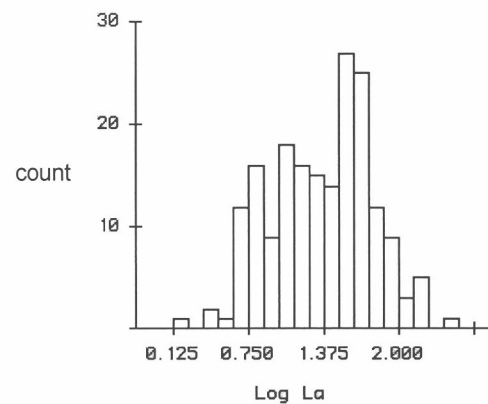
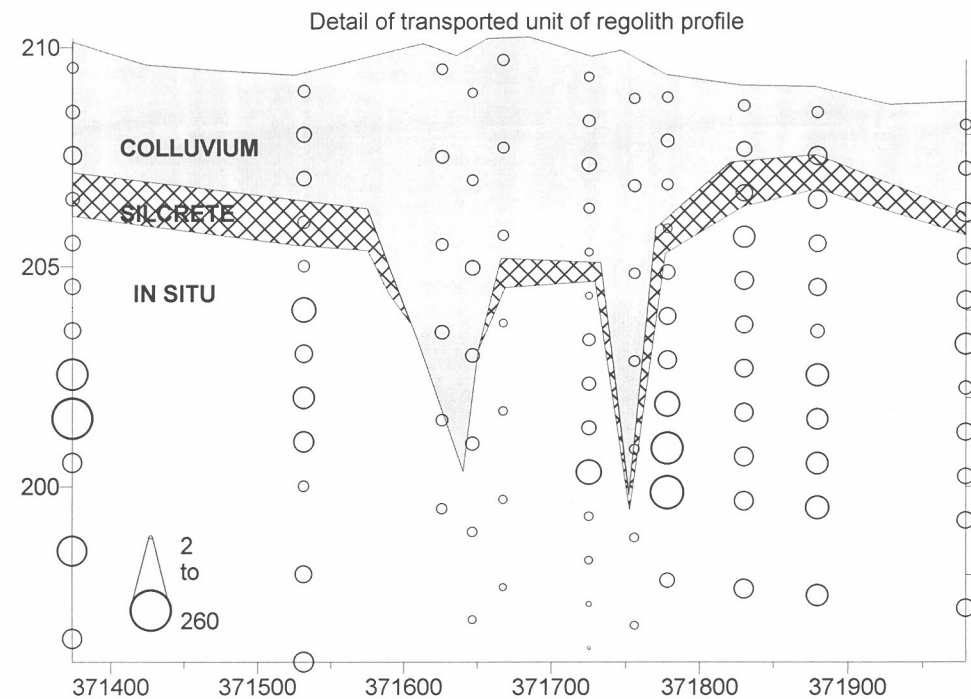
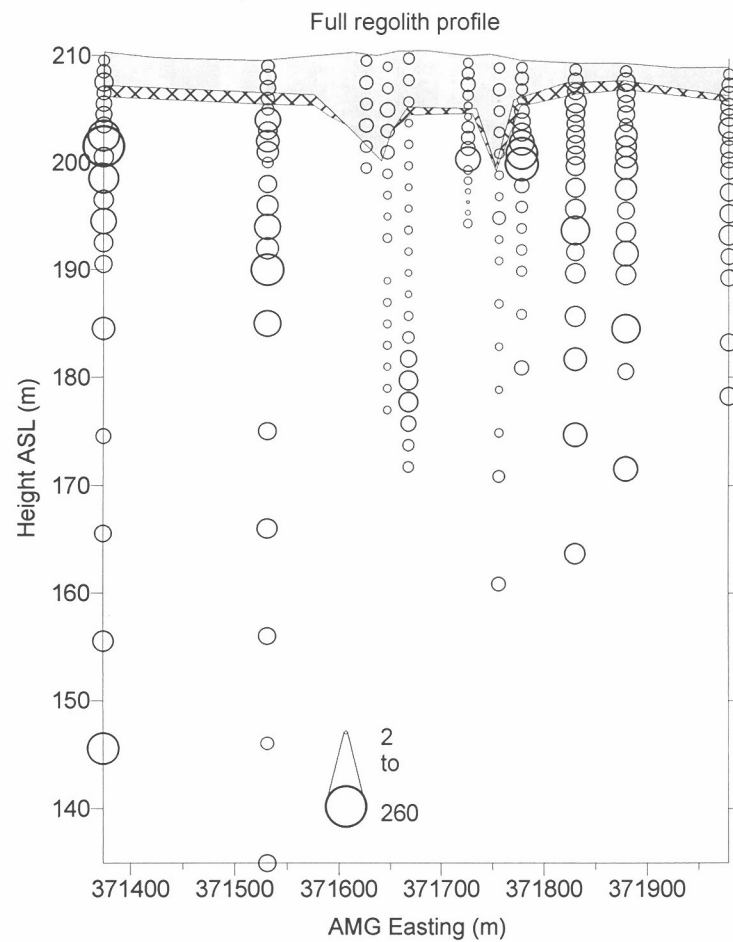


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 3944 | 4083 | 6707 |
| Std Error | 949 | 277 | 659 |
| Median | 3150 | 3750 | 3450 |
| Std Dev | 2677 | 1638 | 7883 |
| Minimum | 1200 | 1750 | 190 |
| Maximum | 9200 | 8350 | 36300 |
| Count | 8 | 35 | 143 |

Figure A1d.21: Distribution and concentration of K at South Hilga regolith section on 6660300N.

K (ppm)

South Hilga

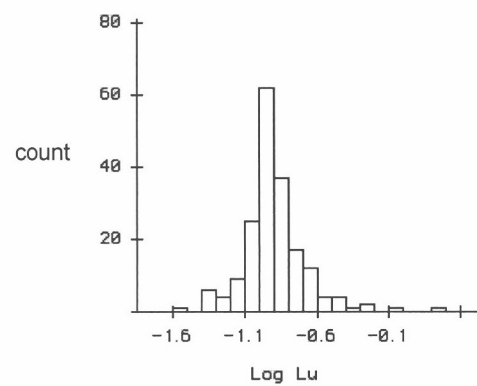
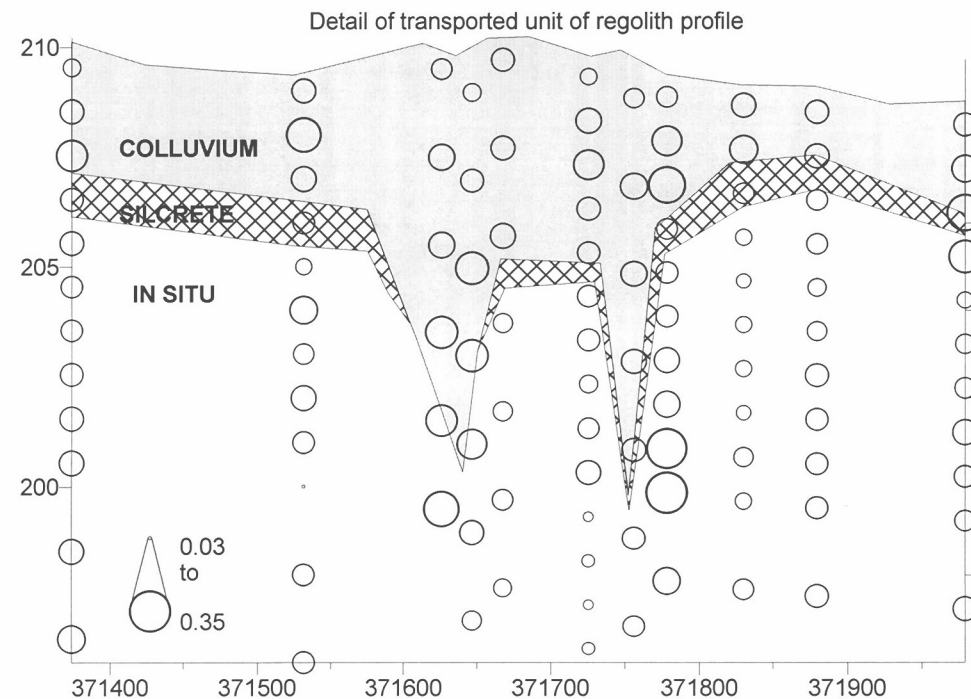
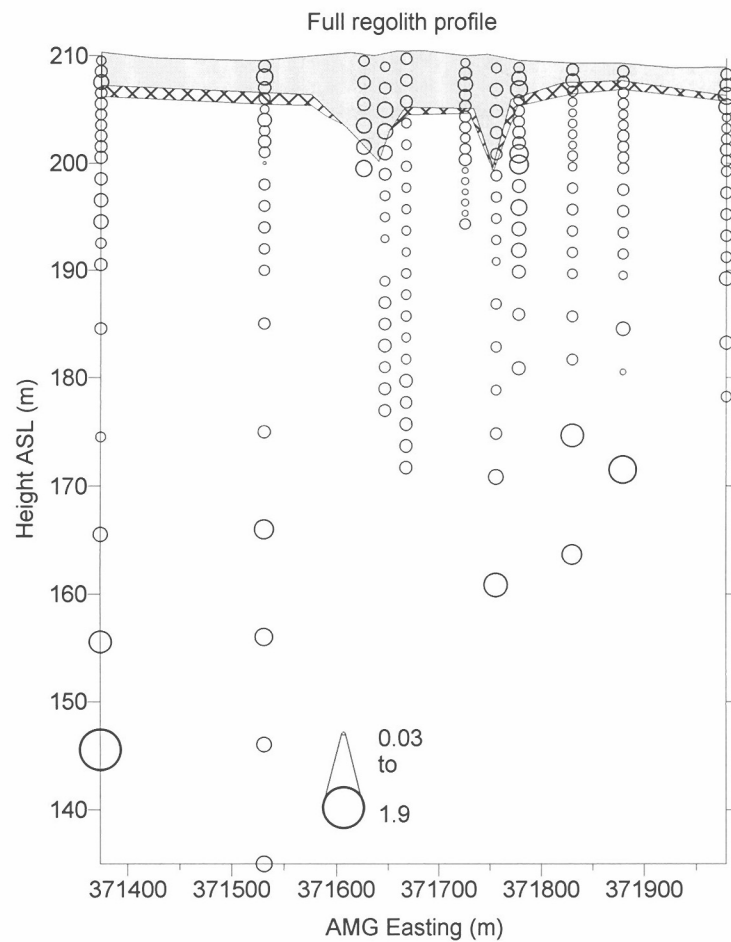


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 25 | 17 | 40 |
| Std Error | 8 | 1 | 3 |
| Median | 20 | 15 | 38 |
| Std Dev | 18 | 7 | 39 |
| Minimum | 8 | 8 | 2 |
| Maximum | 50 | 42 | 280 |
| Count | 8 | 35 | 143 |

Figure A1d.22: Distribution and concentration of La at South Hilga regolith section on 6660300N.

La (ppm)

South Hilga

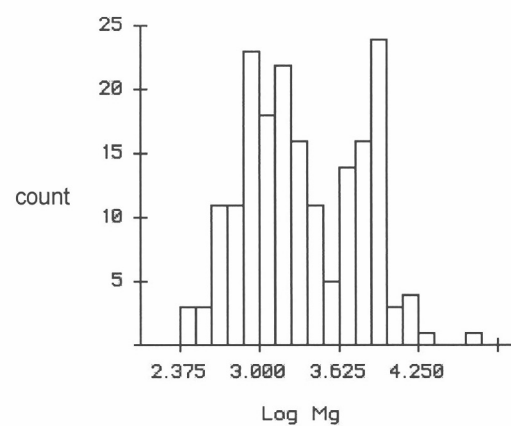
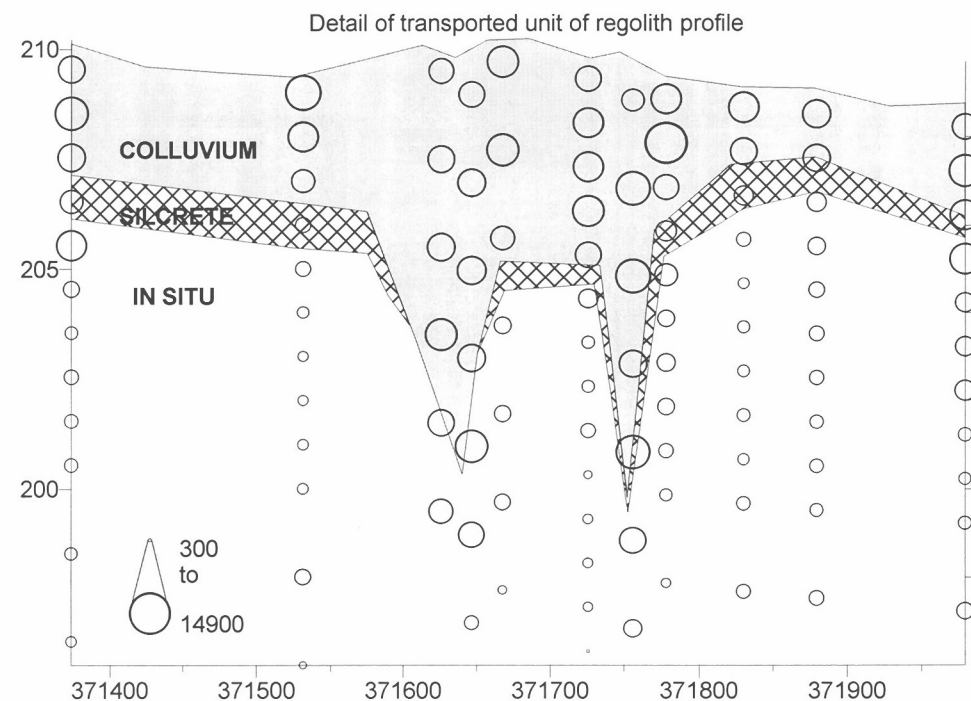
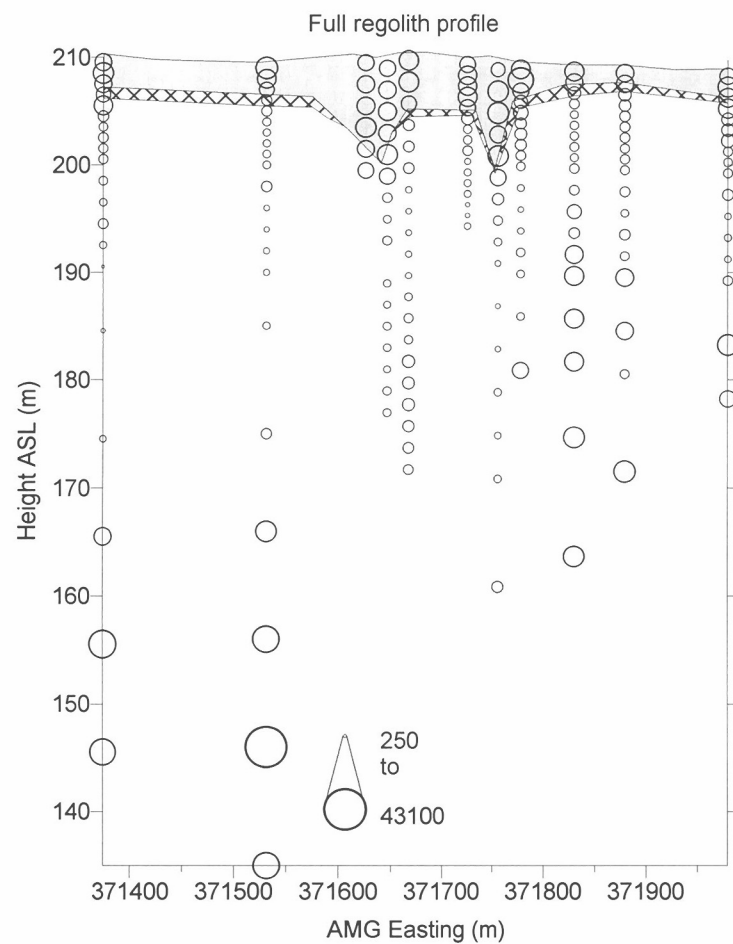


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.2 | 0.1 | 0.1 |
| Std Error | 0.02 | 0.01 | 0.01 |
| Median | 0.13 | 0.13 | 0.11 |
| Std Dev | 0.08 | 0.05 | 0.18 |
| Minimum | 0.1 | 0.07 | 0.03 |
| Maximum | 0.3 | 0.3 | 1.9 |
| Count | 8 | 35 | 143 |

Figure A1d.23: Distribution and concentration of Lu at South Hilga regolith section on 6660300N.

Lu (ppm)

South Hilga

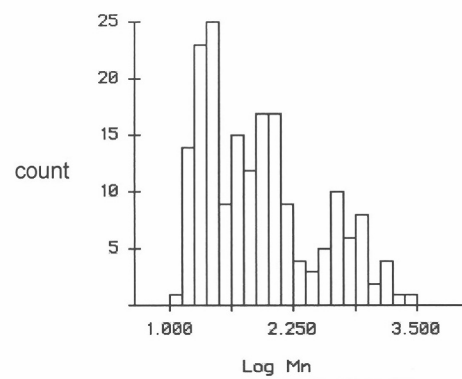
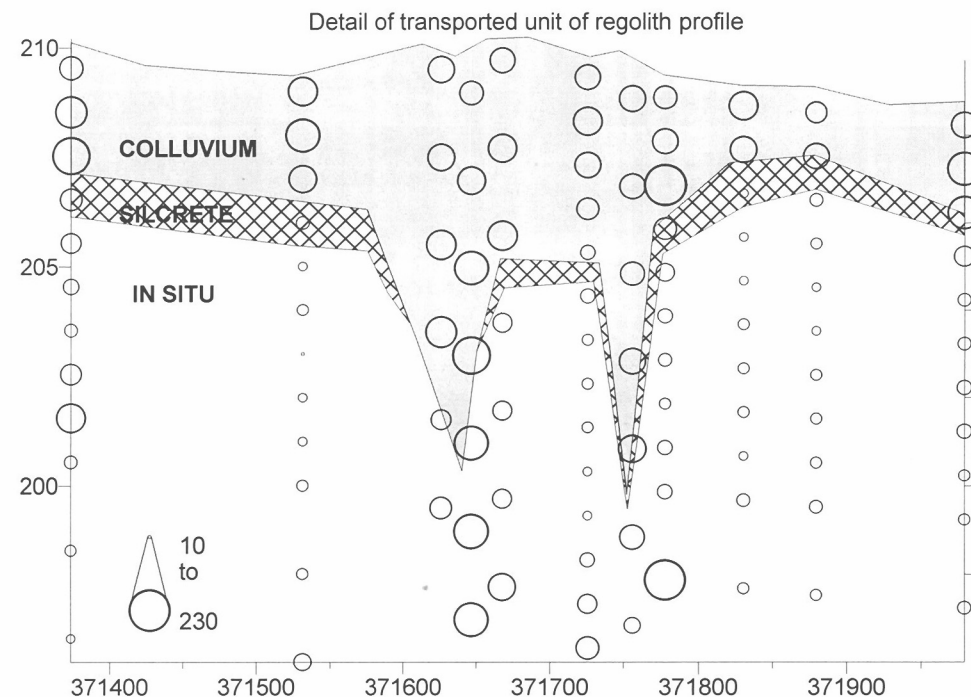
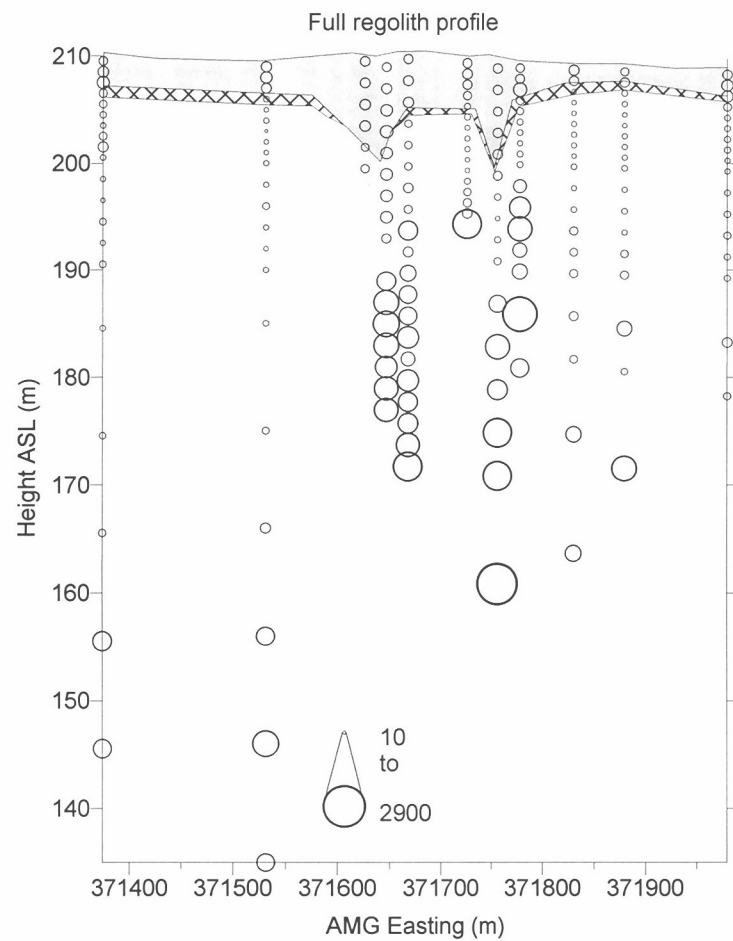


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 4931 | 7349 | 2890 |
| Std Error | 663 | 375 | 398 |
| Median | 5100 | 6900 | 1400 |
| Std Dev | 1875 | 2220 | 4759 |
| Minimum | 1800 | 3350 | 250 |
| Maximum | 7700 | 14900 | 43100 |
| Count | 8 | 35 | 143 |

Figure A1d.24: Distribution and concentration of Mg at South Hilga regolith section on 6660300N.

Mg (ppm)

South Hilga

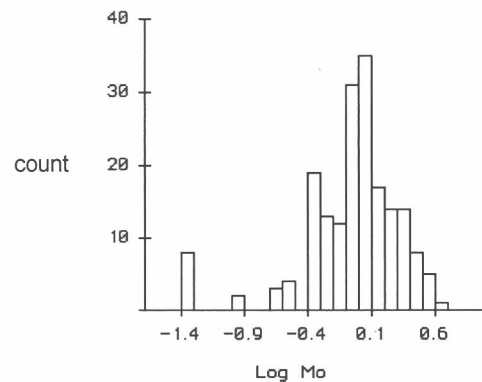
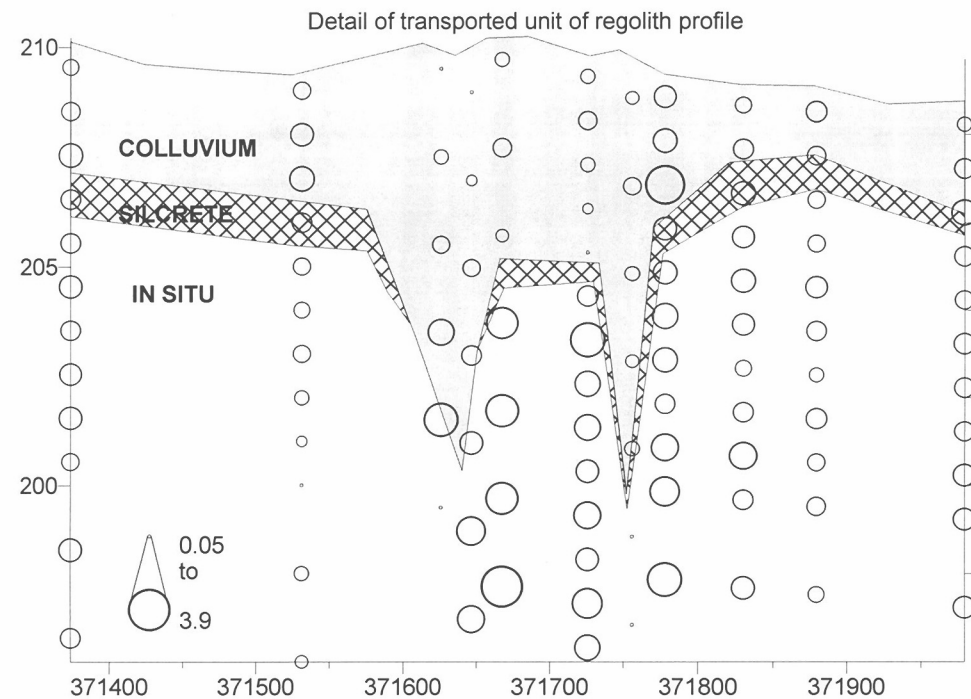
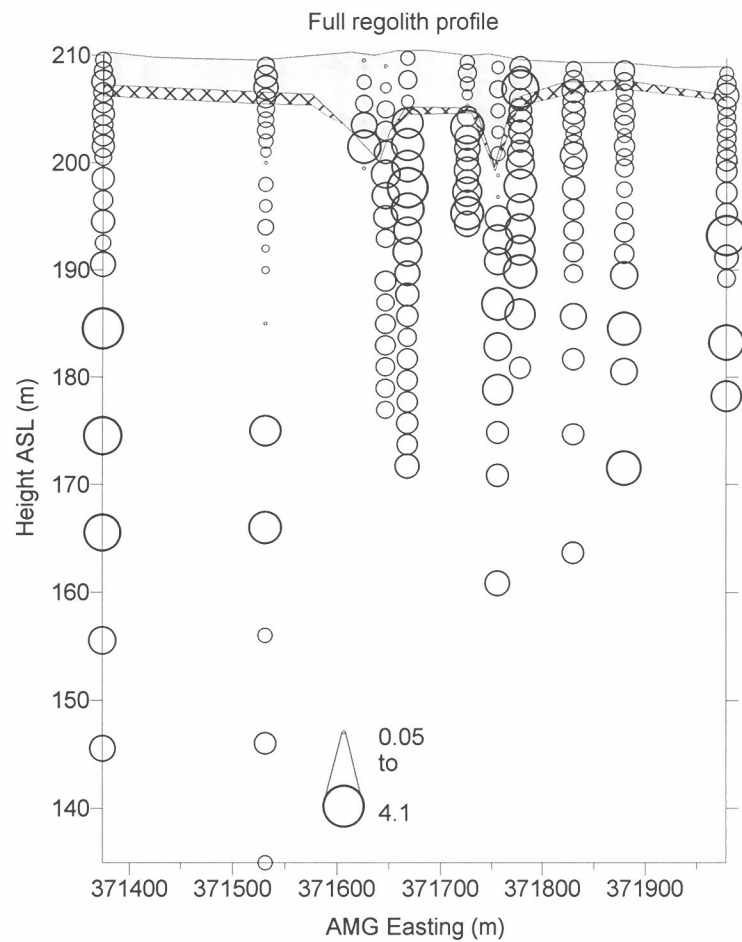


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 88.1 | 108.3 | 248.7 |
| Std Error | 18.8 | 8.8 | 38.0 |
| Median | 80 | 100.0 | 45 |
| Std Dev | 48.90 | 39 | 430.7 |
| Minimum | 15 | 80 | 10 |
| Maximum | 145 | 230 | 2900 |
| Count | 8 | 35 | 143 |

Figure A1d.25: Distribution and concentration of Mn at South Hilga regolith section on 6660300N.

Mn (ppm)

South Hilga

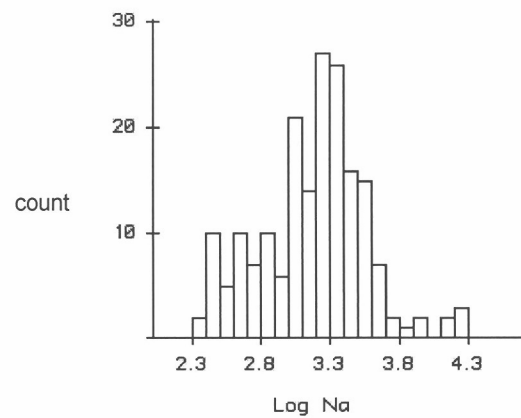
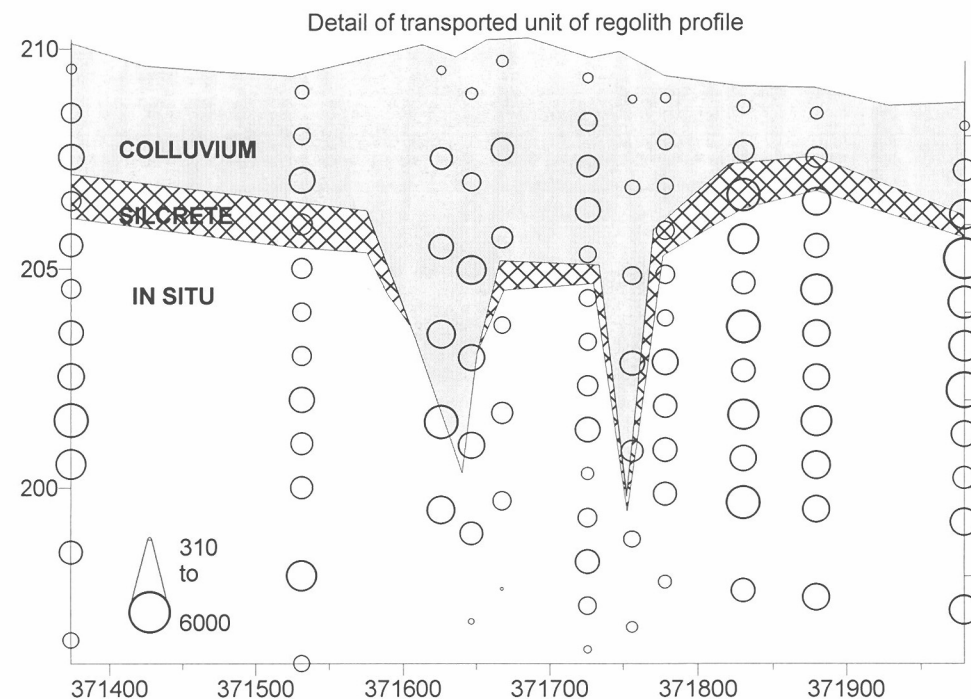
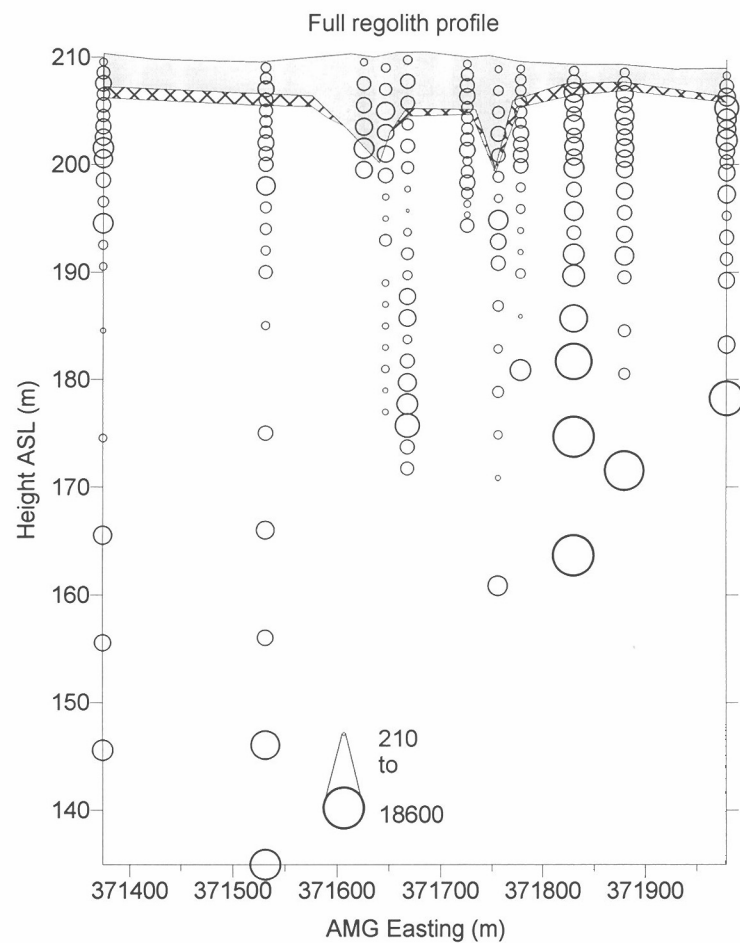


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 1.0 | 0.7 | 1.3 |
| Std Error | 0.3 | 0.1 | 0.1 |
| Median | 0.8 | 0.8 | 1 |
| Std Dev | 0.79 | 1 | 0.8 |
| Minimum | 0.05 | 0.05 | 0.05 |
| Maximum | 2.8 | 3.4 | 4.1 |
| Count | 8 | 35 | 143 |

Figure A1d.26: Distribution and concentration of Mo at South Hilga regolith section on 6660300N.

Mo (ppm)

South Hilga

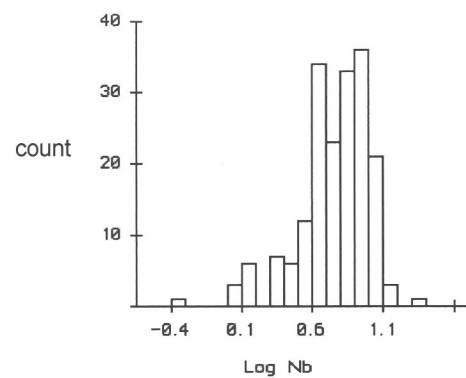
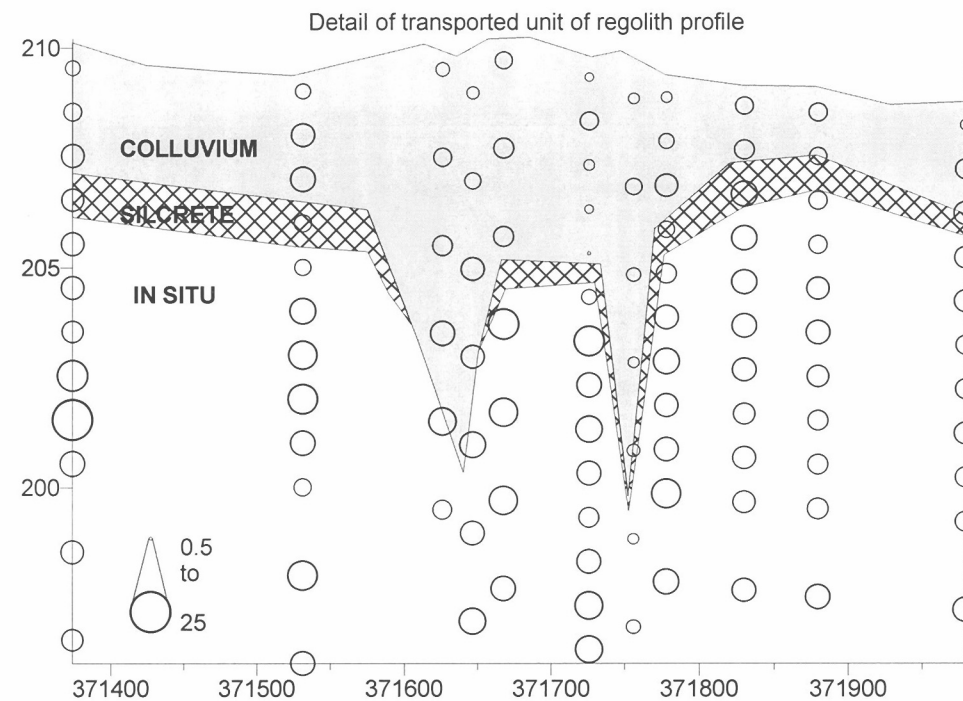
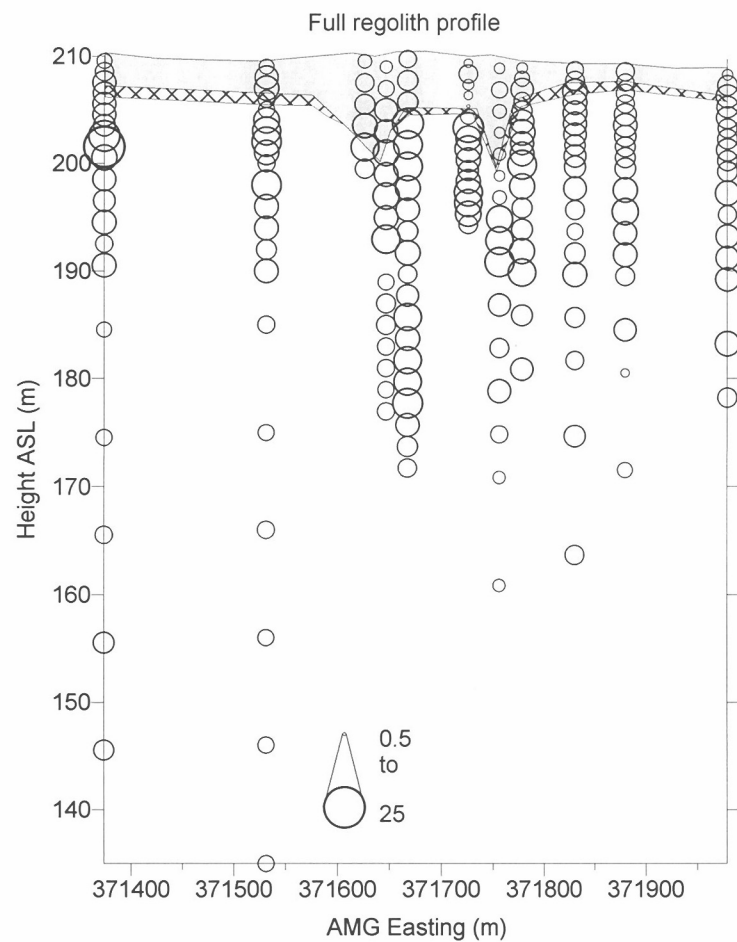


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 2225 | 1364 | 2517 |
| Std Error | 402 | 126 | 257 |
| Median | 1600 | 1200 | 1850 |
| Std Dev | 1138 | 746 | 3077 |
| Minimum | 1050 | 400 | 210 |
| Maximum | 3950 | 2900 | 18600 |
| Count | 8 | 35 | 143 |

Figure A1d.27: Distribution and concentration of Na at South Hilga regolith section on 6660300N.

Na (ppm)

South Hilga

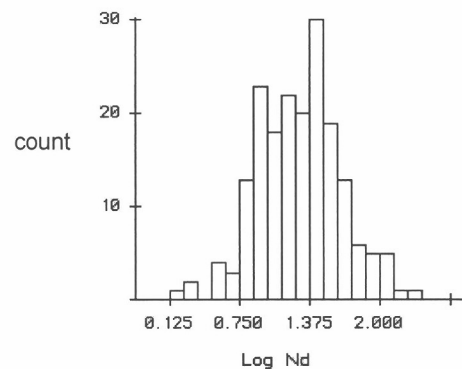
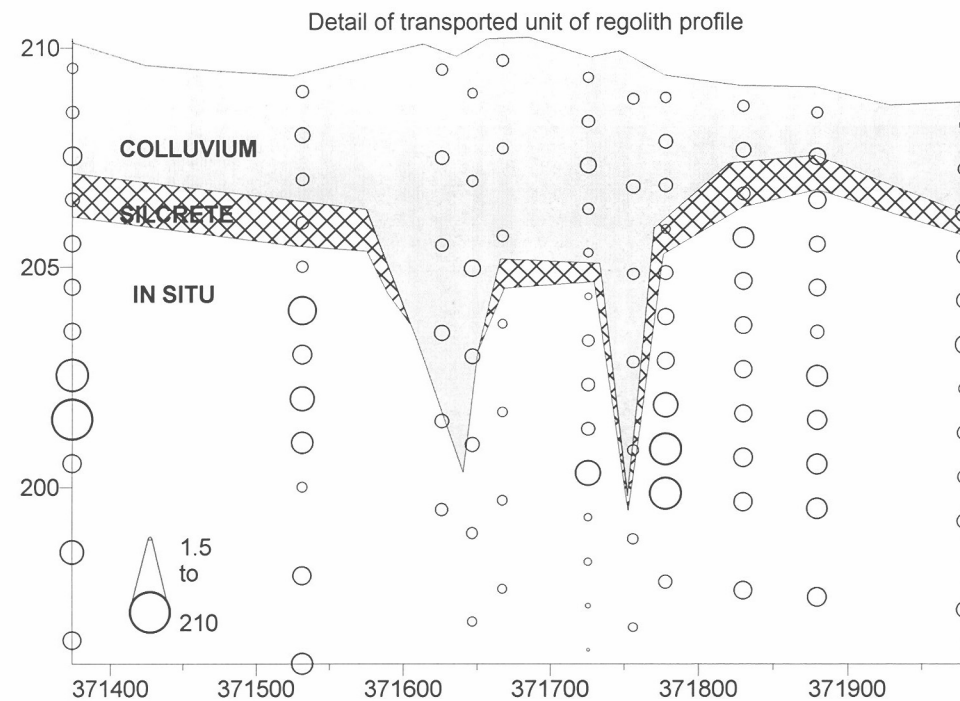
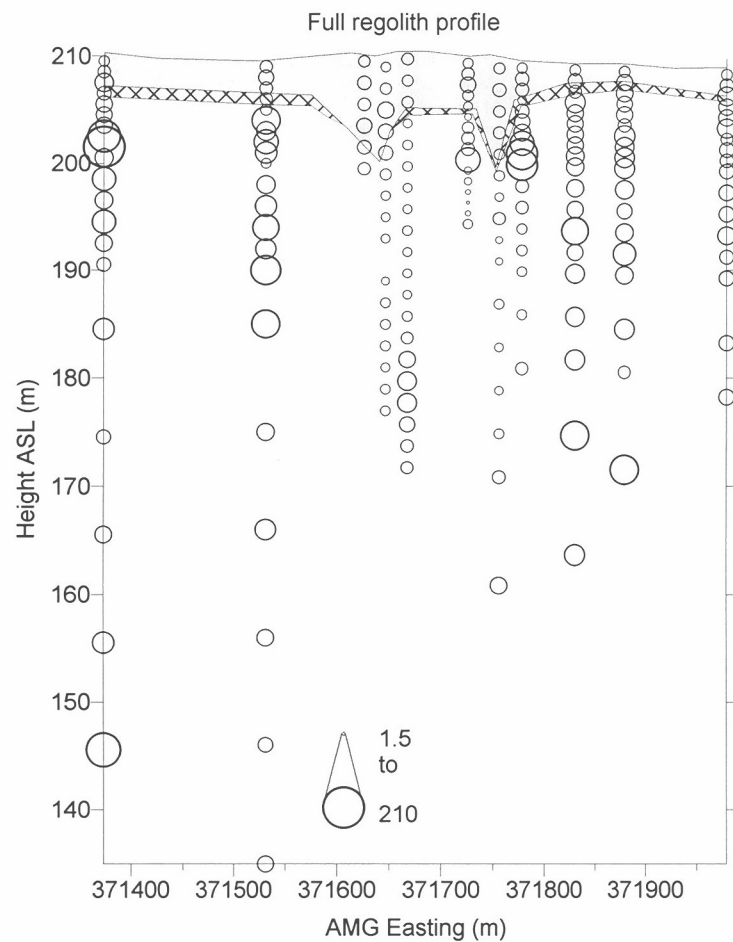


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.1 | 4.3 | 7.1 |
| Std Error | 1.2 | 0.4 | 0.3 |
| Median | 0.25 | 4.0 | 7 |
| Std Dev | 3.29 | 2 | 3.1 |
| Minimum | 0.5 | 1 | 1 |
| Maximum | 11 | 0.5 | 25 |
| Count | 8 | 35 | 143 |

Figure A1d.28: Distribution and concentration of Nb at South Hilga regolith section on 6660300N.

Nb (ppm)

South Hilga

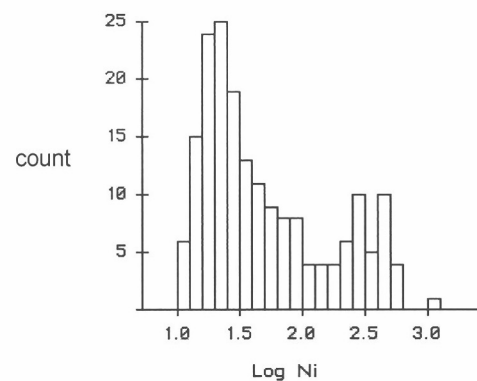
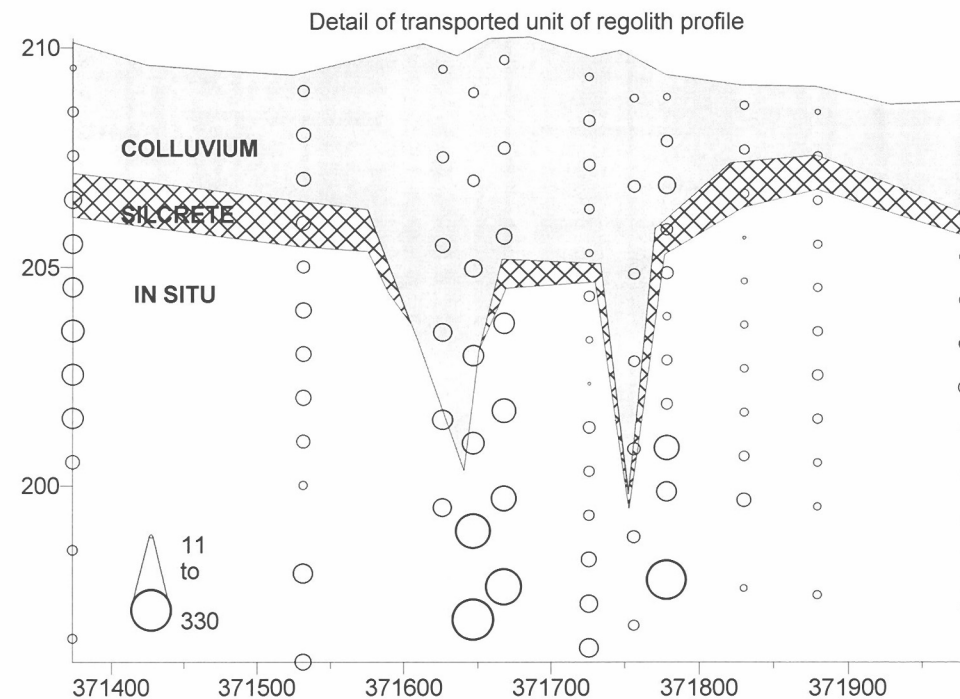
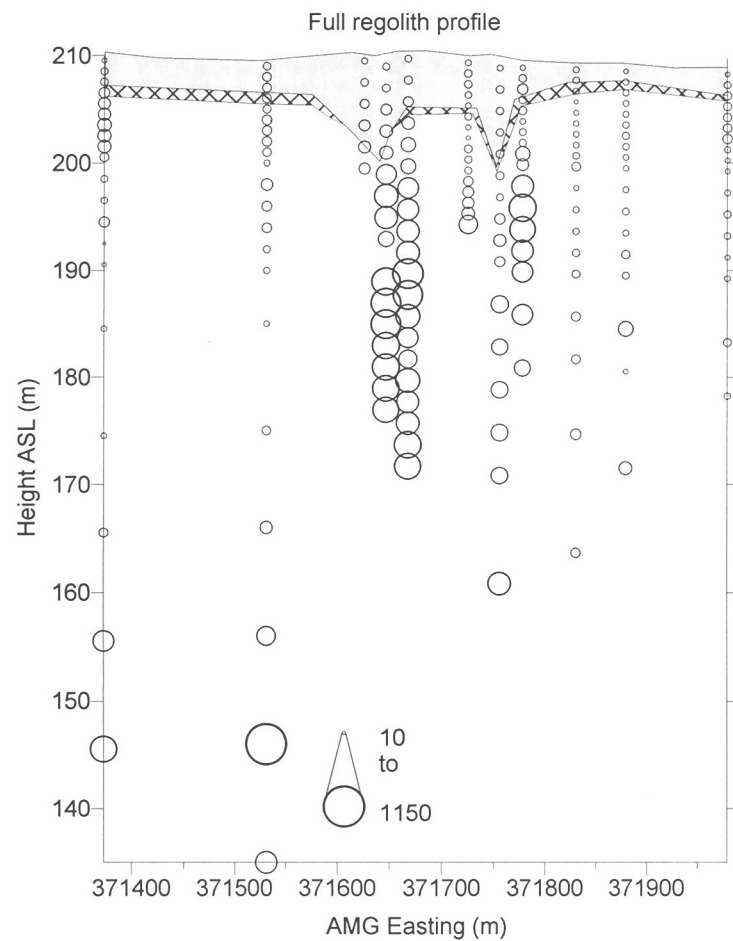


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 19 | 15 | 31 |
| Std Error | 4 | 1 | 3 |
| Median | 17 | 14 | 28 |
| Std Dev | 10 | 8 | 31 |
| Minimum | 7 | 7 | 2 |
| Maximum | 38 | 37 | 210 |
| Count | 8 | 35 | 143 |

Figure A1d.29: Distribution and concentration of Nd at South Hilga regolith section on 6660300N.

Nd (ppm)

South Hilga

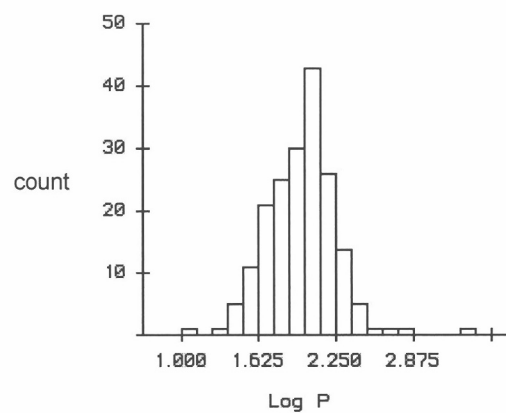
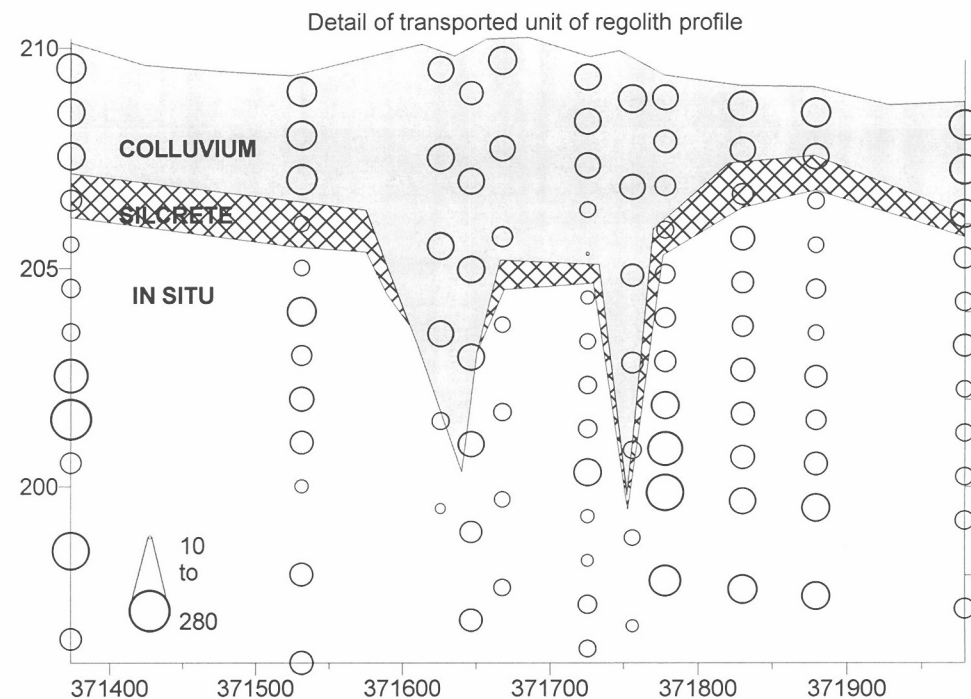
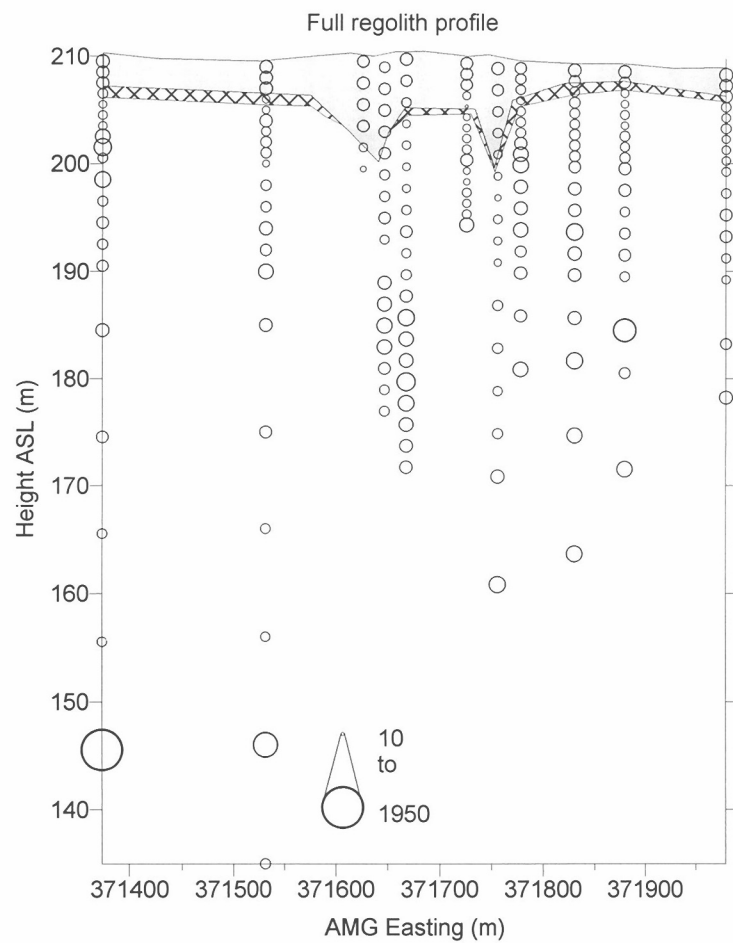


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 37 | 30 | 131 |
| Std Error | 7 | 3 | 14 |
| Median | 34 | 28 | 43 |
| Std Dev | 21 | 18 | 173 |
| Minimum | 15 | 12 | 10 |
| Maximum | 74 | 90 | 1150 |
| Count | 8 | 35 | 143 |

Figure A1d.30: Distribution and concentration of Ni at South Hilga regolith section on 6660300N.

Ni (ppm)

South Hilga

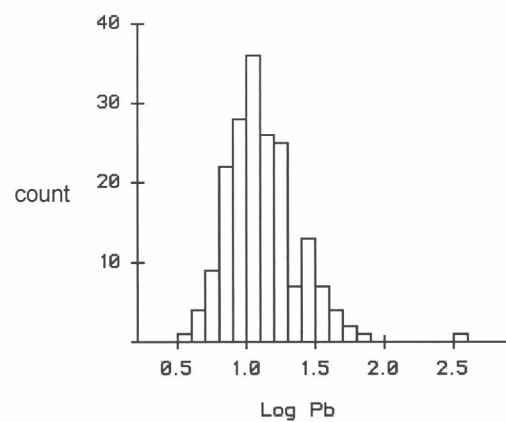
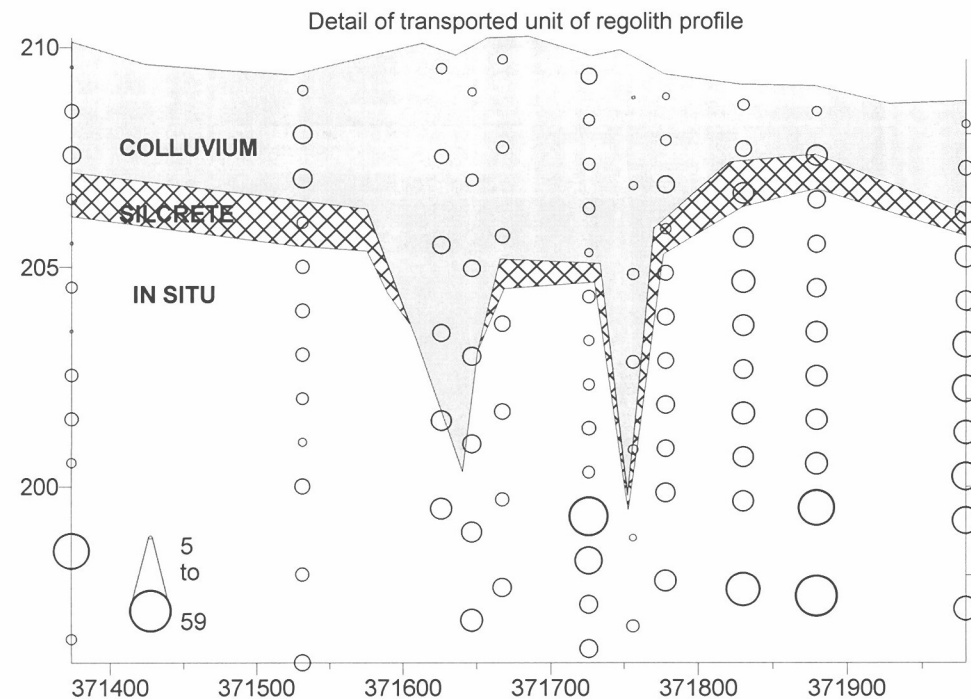
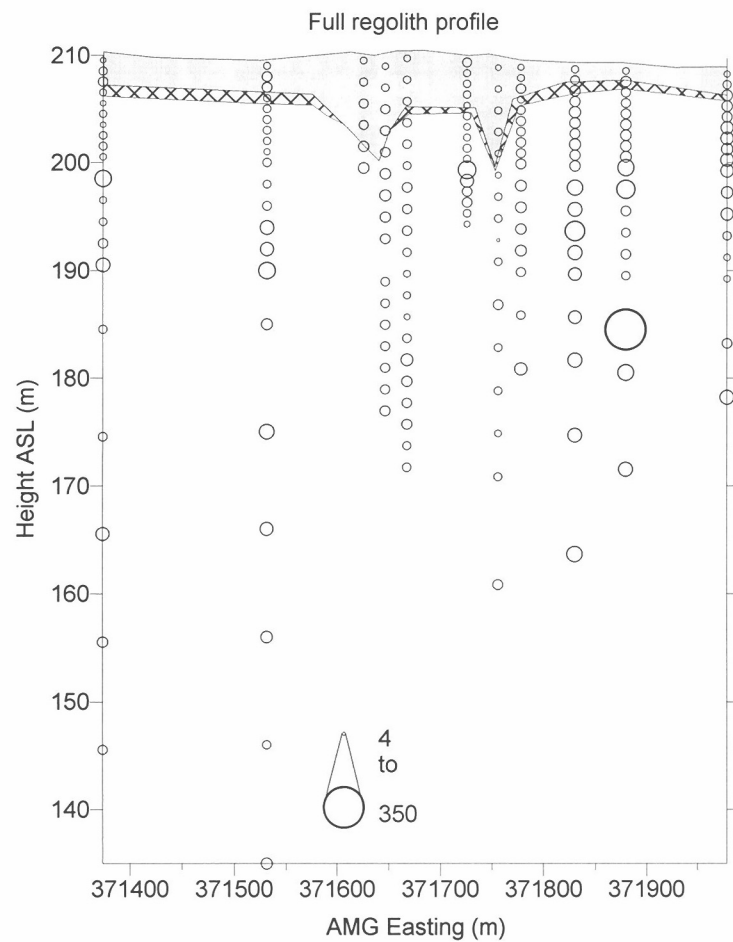


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 87 | 107 | 125 |
| Std Error | 13 | 5 | 15 |
| Median | 88 | 110 | 85 |
| Std Dev | 38 | 28 | 178 |
| Minimum | 10 | 40 | 20 |
| Maximum | 125 | 150 | 1950 |
| Count | 8 | 35 | 143 |

Figure A1d.31: Distribution and concentration of P at South Hilga regolith section on 6660300N.

P (ppm)

South Hilga

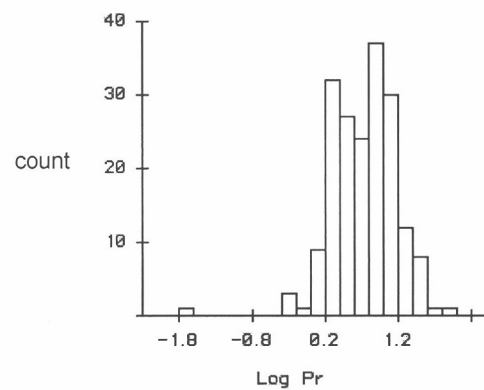
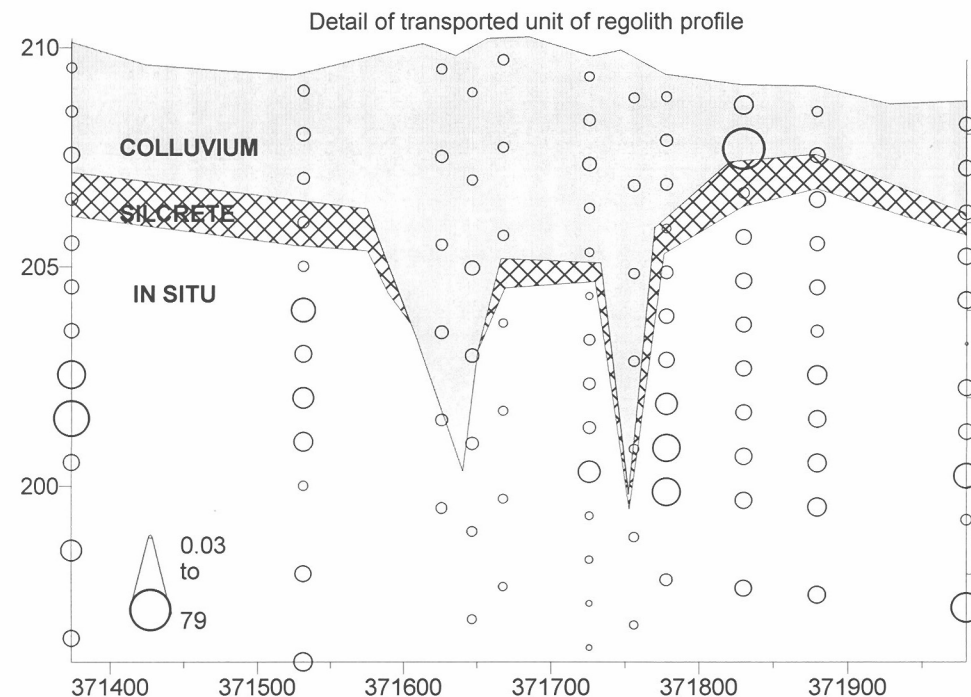
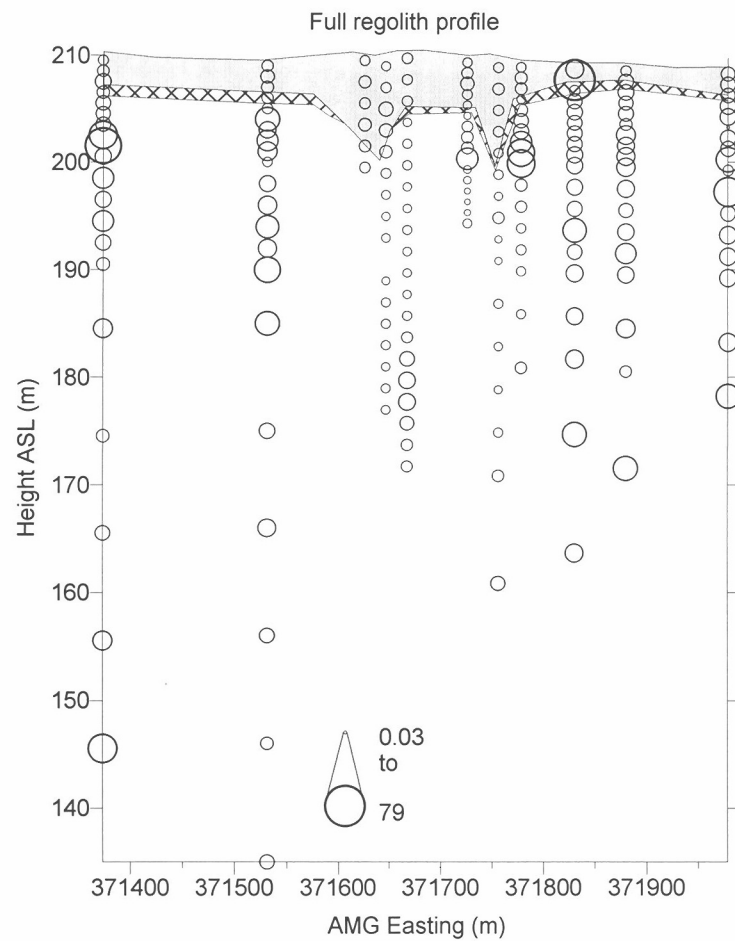


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 12 | 9 | 19 |
| Std Error | 1.8 | 0.5 | 2.4 |
| Median | 13 | 8 | 14 |
| Std Dev | 5 | 3 | 29 |
| Minimum | 6 | 5 | 4 |
| Maximum | 18 | 15 | 340 |
| Count | 8 | 35 | 143 |

Figure A1d.32: Distribution and concentration of Pb at South Hilga regolith section on 6660300N.

Pb (ppm)

South Hilga

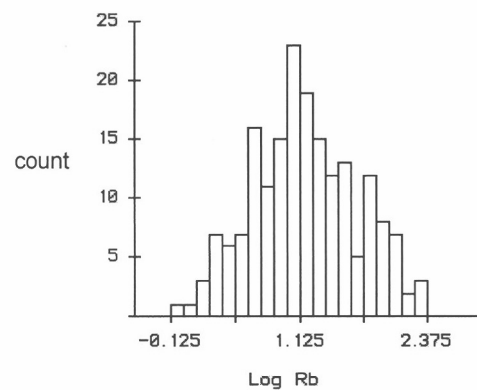
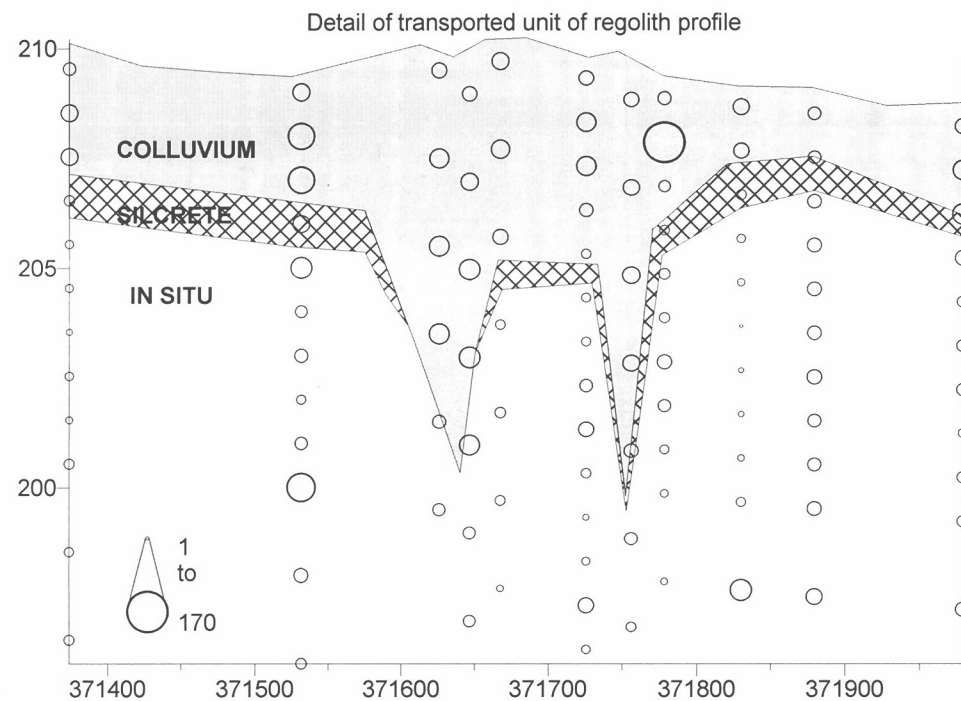
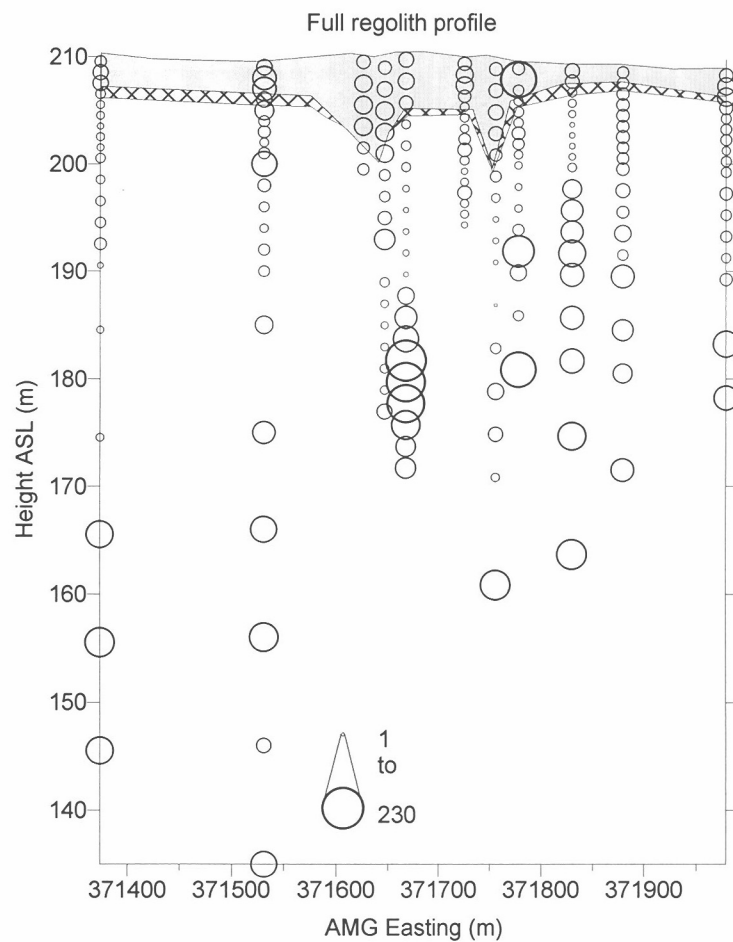


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 5 | 7 | 9 |
| Std Error | 1 | 2 | 1 |
| Median | 4 | 4 | 8 |
| Std Dev | 2 | 13 | 9 |
| Minimum | 2 | 2 | 0 |
| Maximum | 8 | 79 | 59 |
| Count | 8 | 35 | 143 |

Figure A1d.33: Distribution and concentration of Pr at South Hilga regolith section on 6660300N.

Pr (ppm)

South Hilga

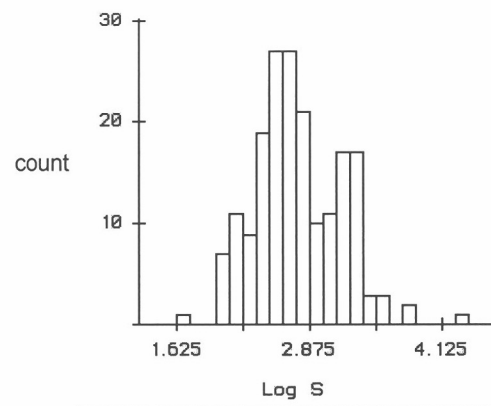
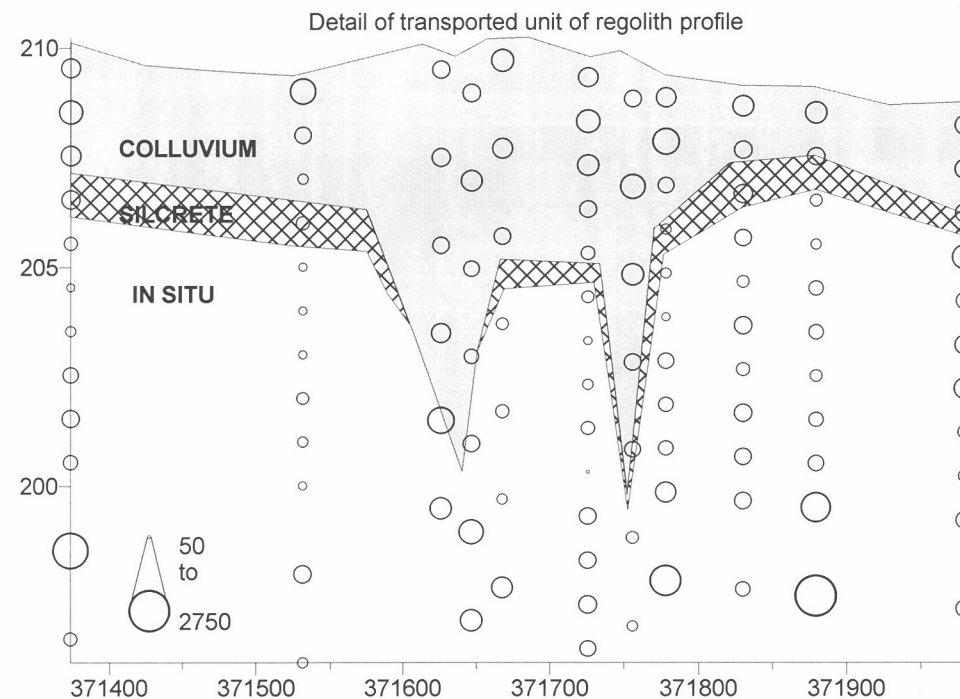
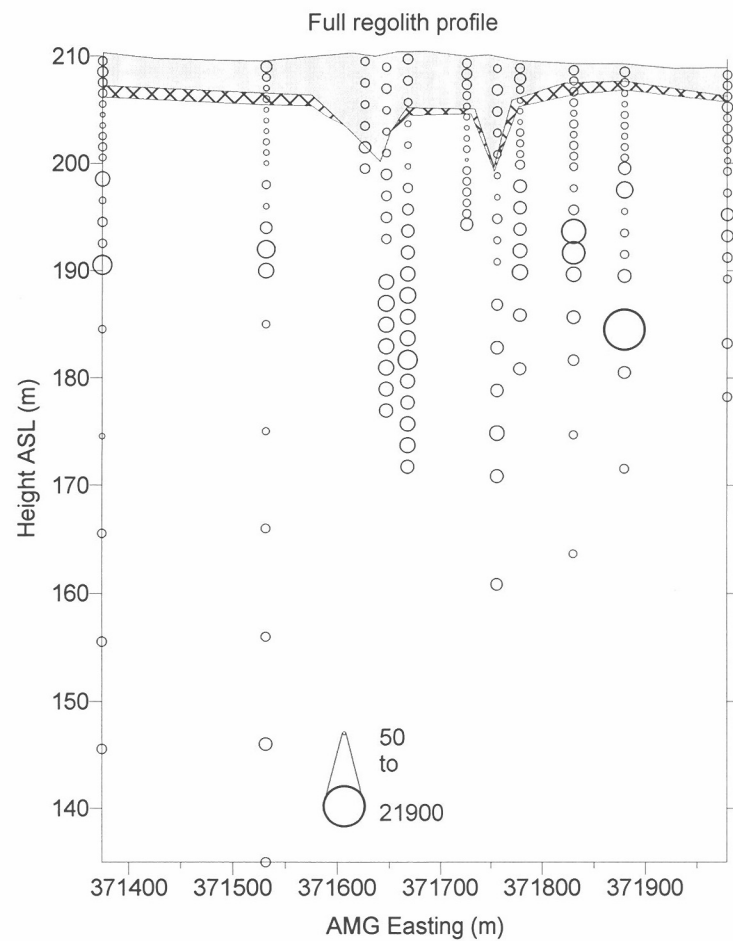


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 18 | 30 | 30 |
| Std Error | 4 | 5 | 4 |
| Median | 13 | 25 | 12 |
| Std Dev | 11 | 28 | 42 |
| Minimum | 6 | 7 | 1 |
| Maximum | 38 | 170 | 230 |
| Count | 8 | 35 | 143 |

Figure A1d.34: Distribution and concentration of Rb at South Hilga regolith section on 6660300N.

Rb (ppm)

South Hilga

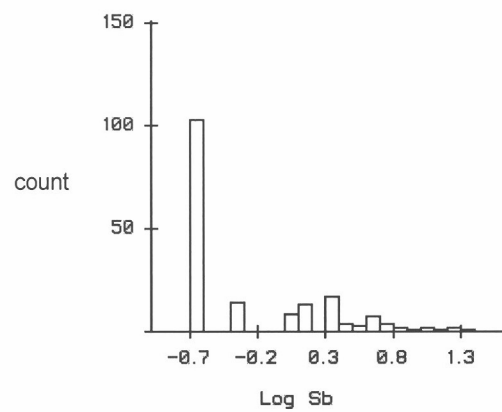
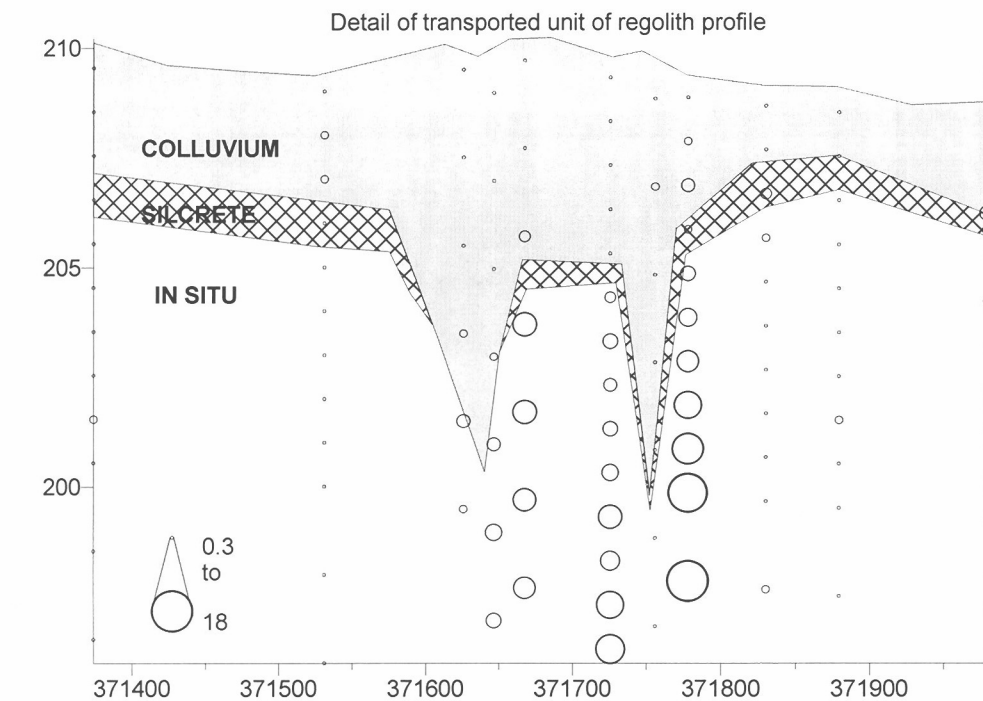
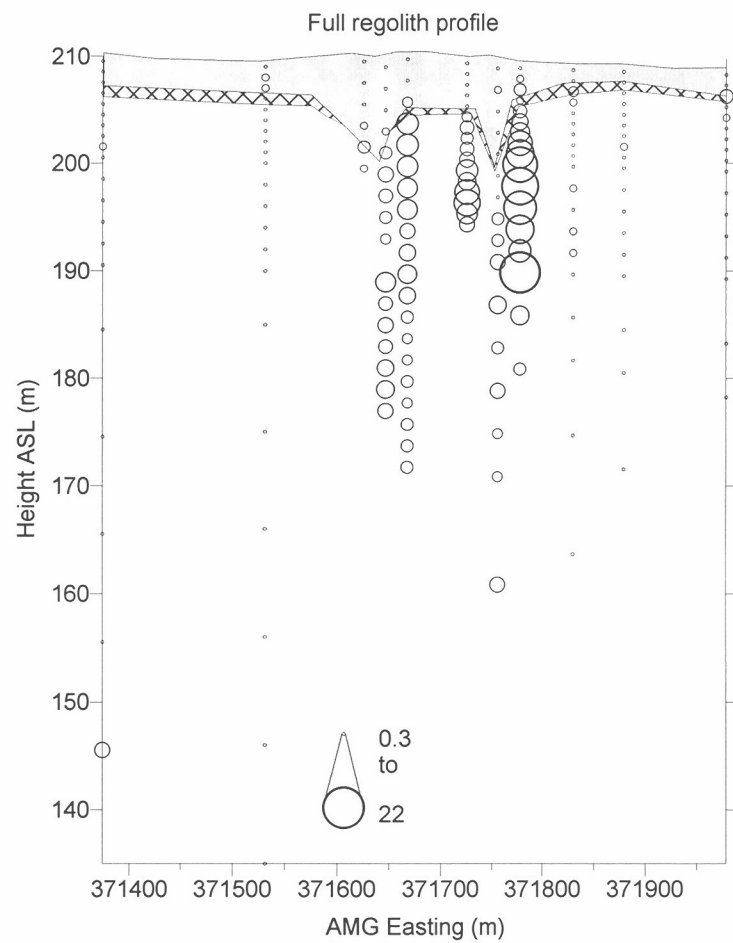


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 494 | 546 | 1122 |
| Std Error | 94 | 38 | 170 |
| Median | 475 | 550 | 550 |
| Std Dev | 267 | 211 | 2035 |
| Minimum | 250 | 150 | 50 |
| Maximum | 1100 | 1050 | 21900 |
| Count | 8 | 35 | 143 |

Figure A1d.35: Distribution and concentration of S at South Hilga regolith section on 6660300N.

S (ppm)

South Hilga

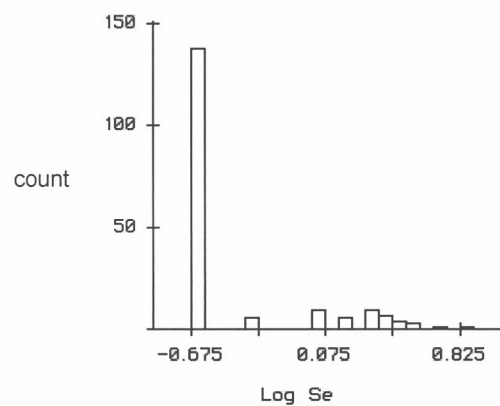
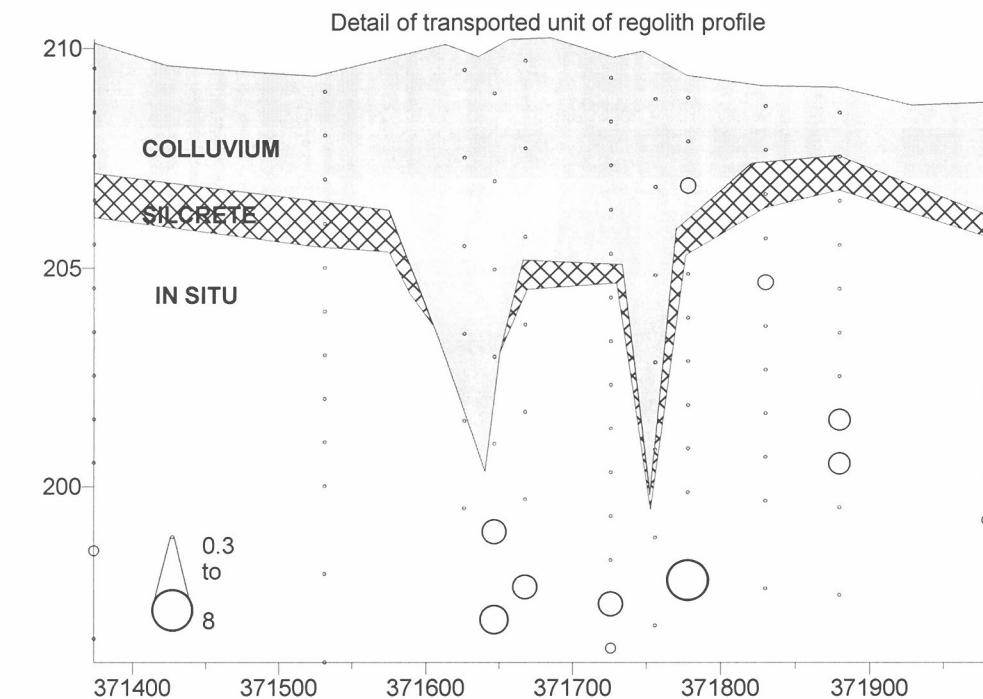
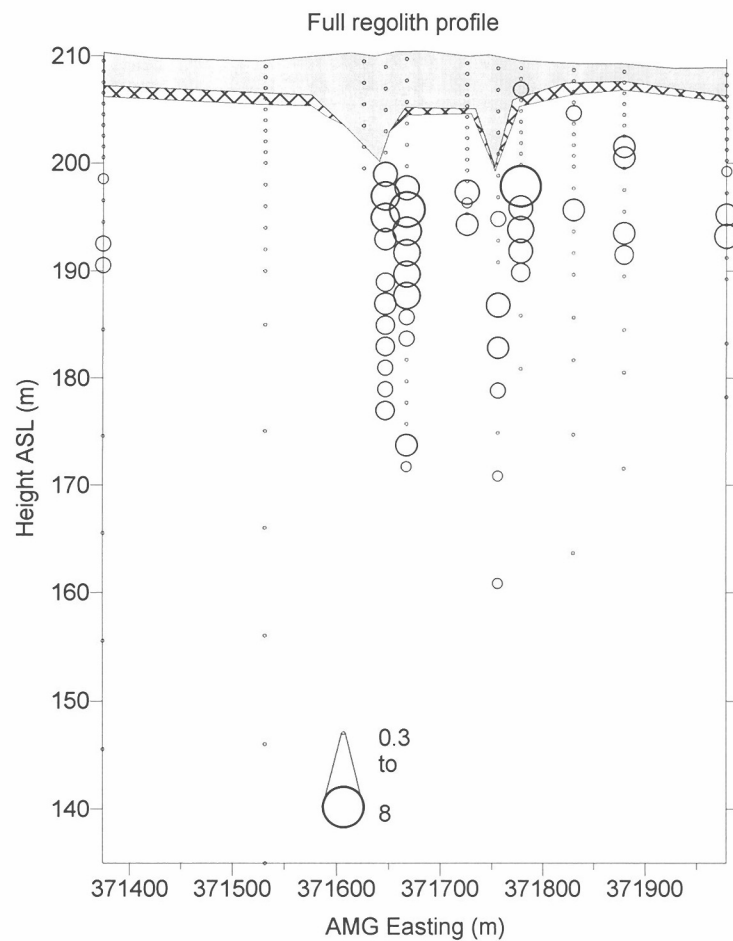


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.8 | 0.4 | 1.0 |
| Std Error | 0.2 | 0.1 | 0.3 |
| Median | 0.63 | 0.3 | 0.25 |
| Std Dev | 0.88 | 0.3 | 3.4 |
| Minimum | 0.25 | 0.25 | 0.25 |
| Maximum | 2 | 1.5 | 22 |
| Count | 8 | 35 | 143 |

Figure A1d.36: Distribution and concentration of Sb at South Hilga regolith section on 6660300N.

Sb (ppm)

South Hilga

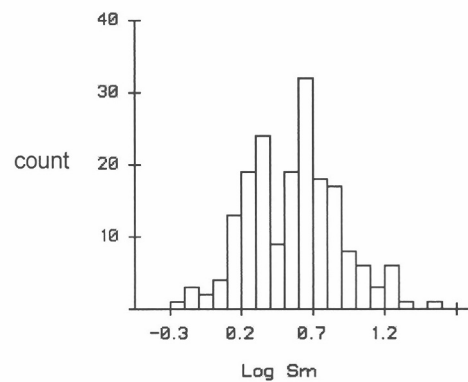
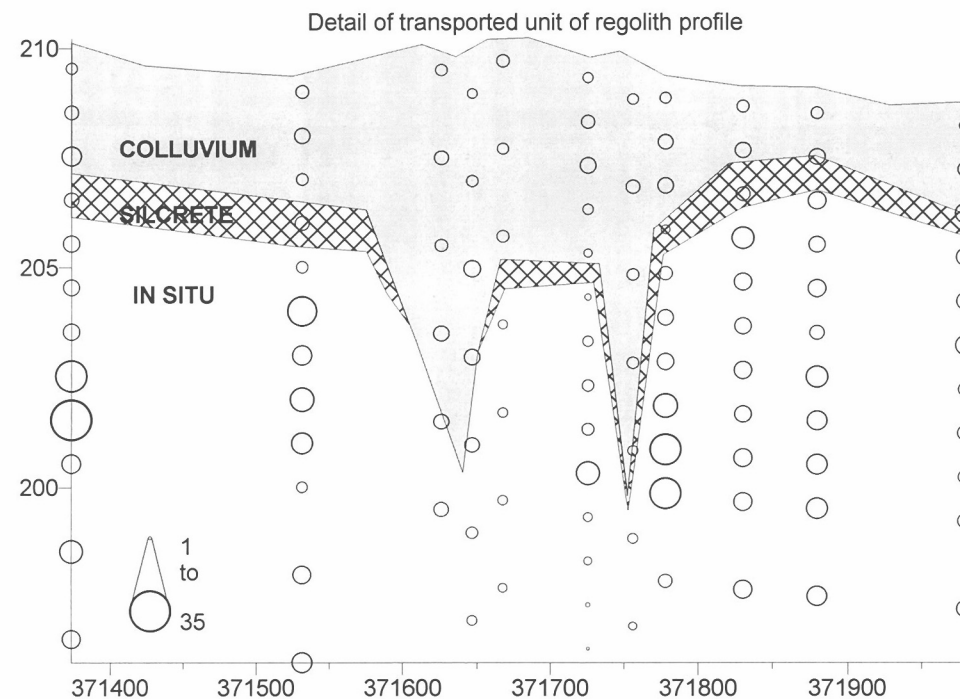
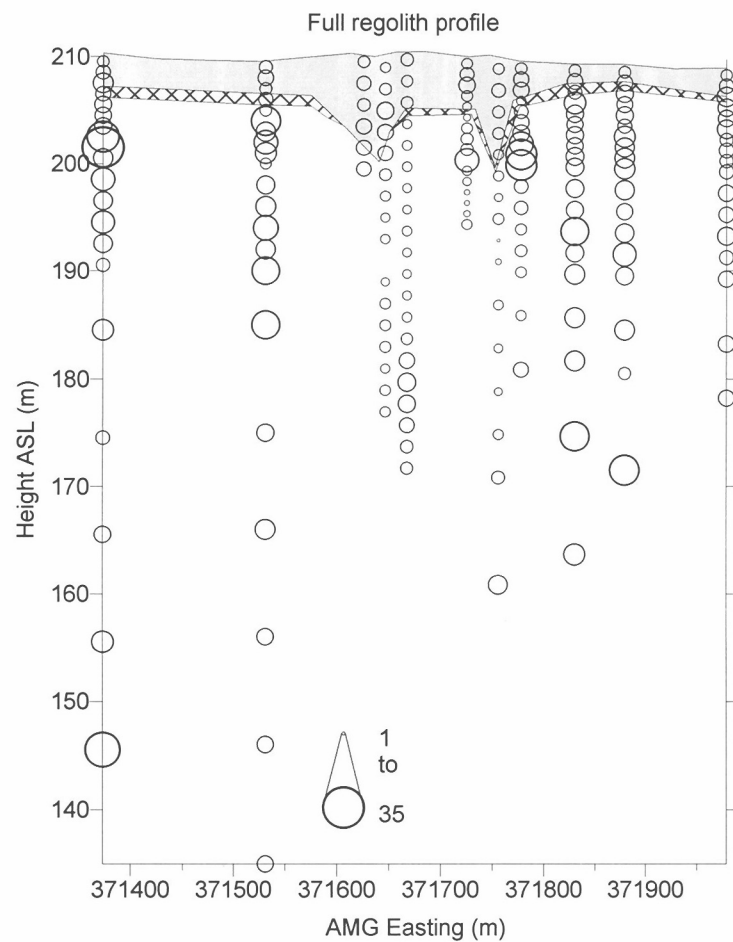


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.3 | 0.3 | 0.8 |
| Std Error | 0.0 | 0.0 | 0.1 |
| Median | 0.25 | 0.3 | 0.25 |
| Std Dev | 0.00 | 0.1 | 1.1 |
| Minimum | 0.25 | 0.25 | 0.25 |
| Maximum | 0.25 | 1 | 7.5 |
| Count | 8 | 35 | 143 |

Figure A1d.37: Distribution and concentration of Se at South Hilga regolith section on 6660300N.

Se (ppm)

South Hilga

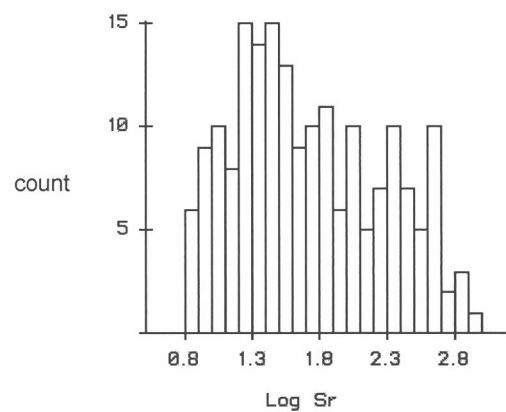
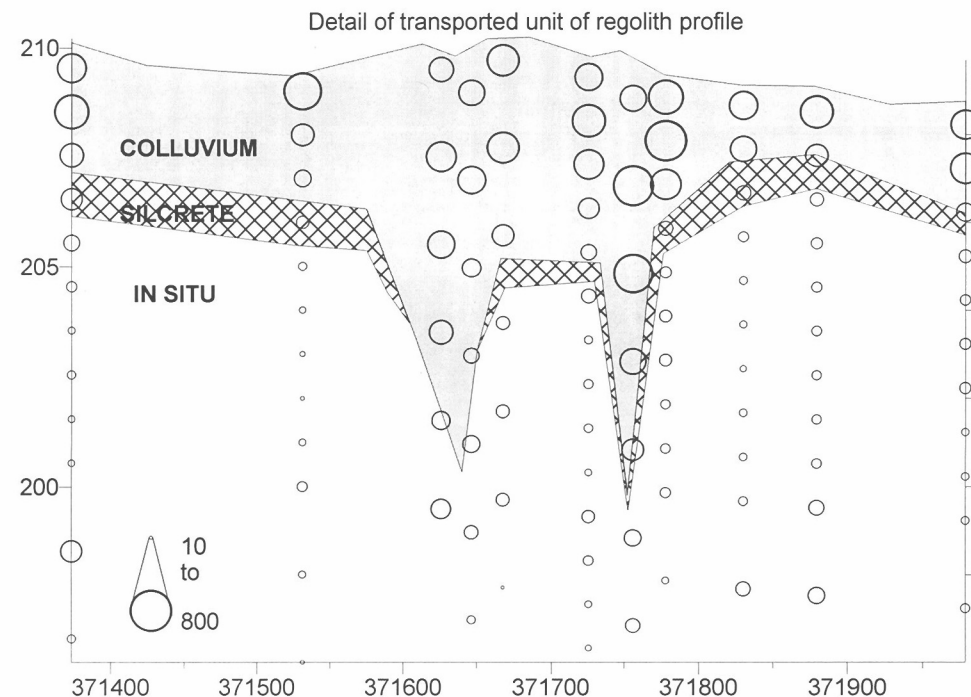
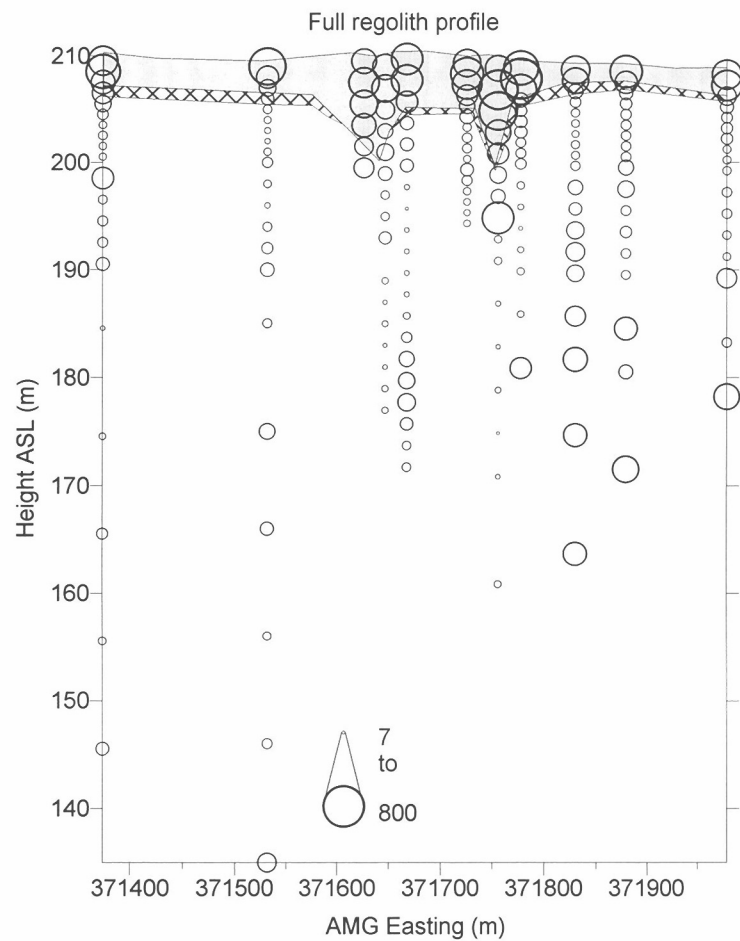


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 3.8 | 3.1 | 5.5 |
| Std Error | 0.8 | 0.2 | 0.4 |
| Median | 3.7 | 2.7 | 4.7 |
| Std Dev | 1.8 | 1 | 5.0 |
| Minimum | 1.3 | 1.45 | 0.8 |
| Maximum | 7 | 7 | 34.5 |
| Count | 8 | 35 | 143 |

Figure A1d.38: Distribution and concentration of Sm at South Hilga regolith section on 6660300N.

Sm (ppm)

South Hilga

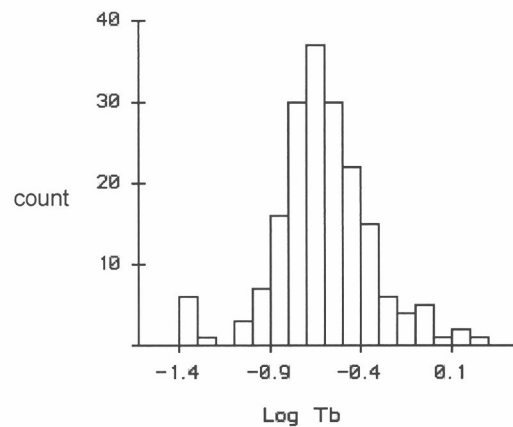
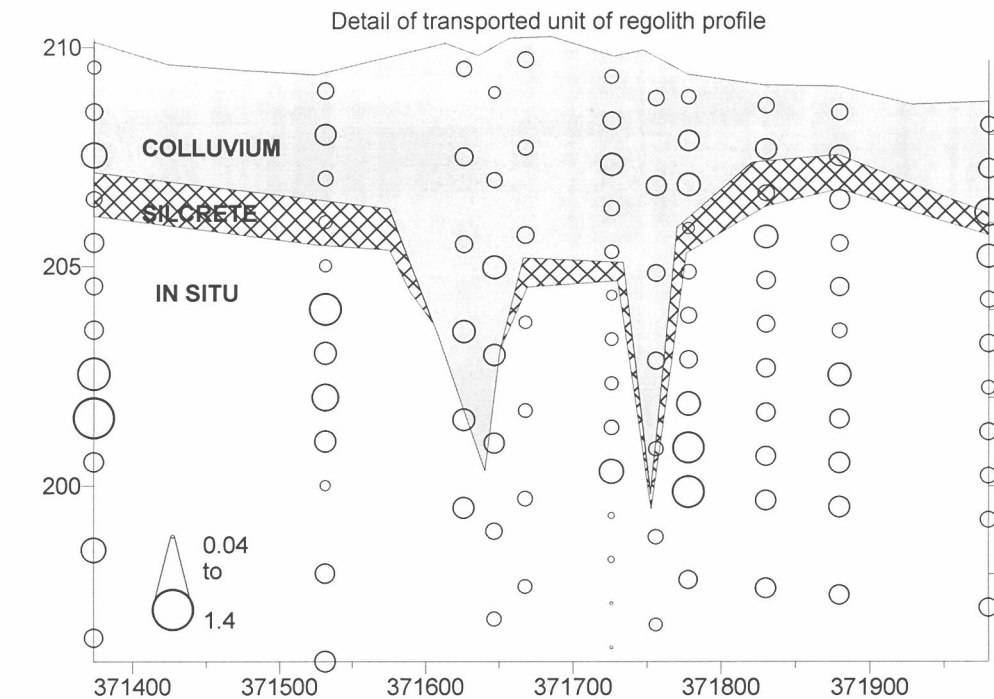
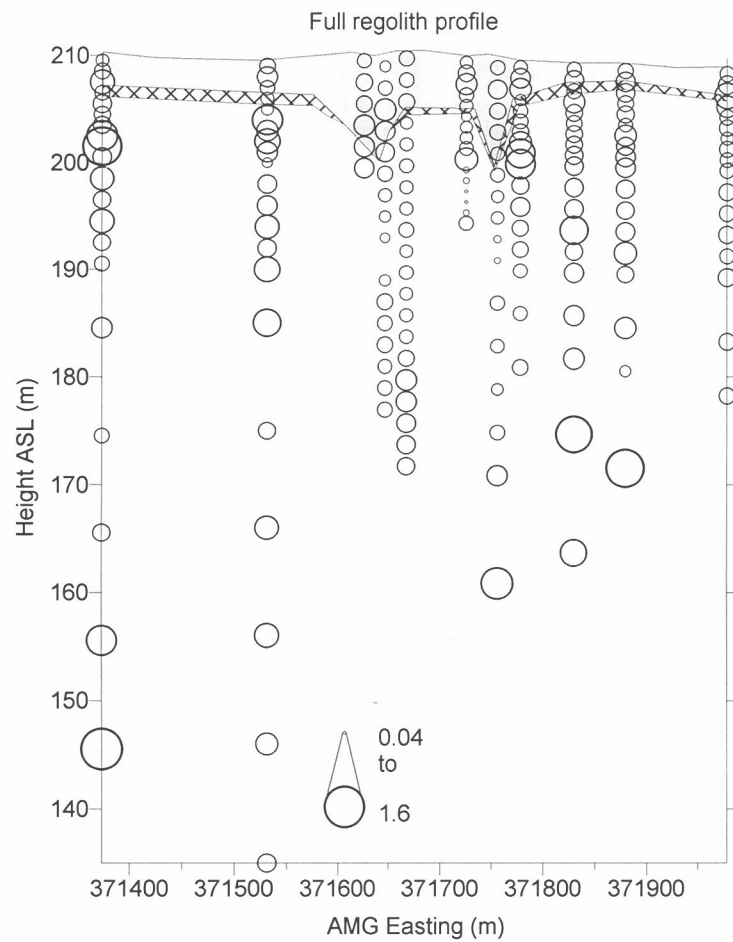


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 141 | 386 | 54 |
| Std Error | 21 | 31 | 6 |
| Median | 140 | 340 | 31 |
| Std Dev | 60 | 183 | 68 |
| Minimum | 59 | 77 | 7 |
| Maximum | 220 | 800 | 470 |
| Count | 8 | 35 | 143 |

South Hilga

Figure A1d.39: Distribution and concentration of Sr at South Hilga regolith section on 6660300N.

Sr (ppm)

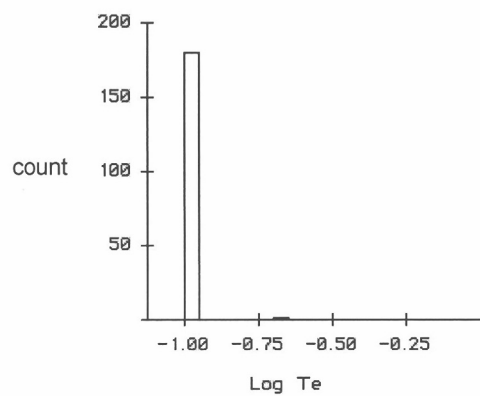
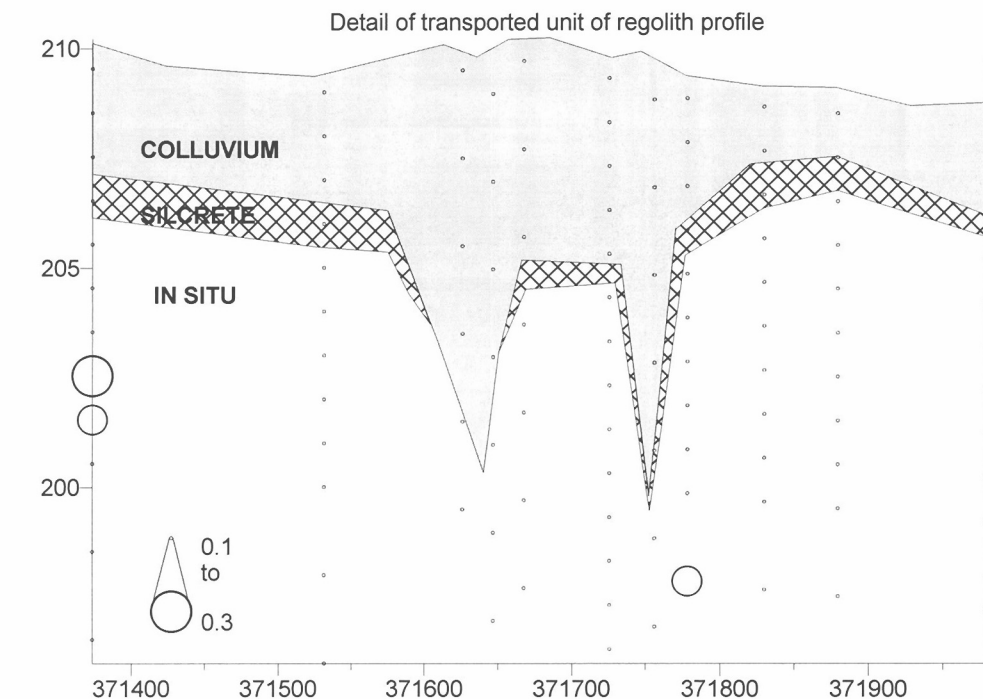
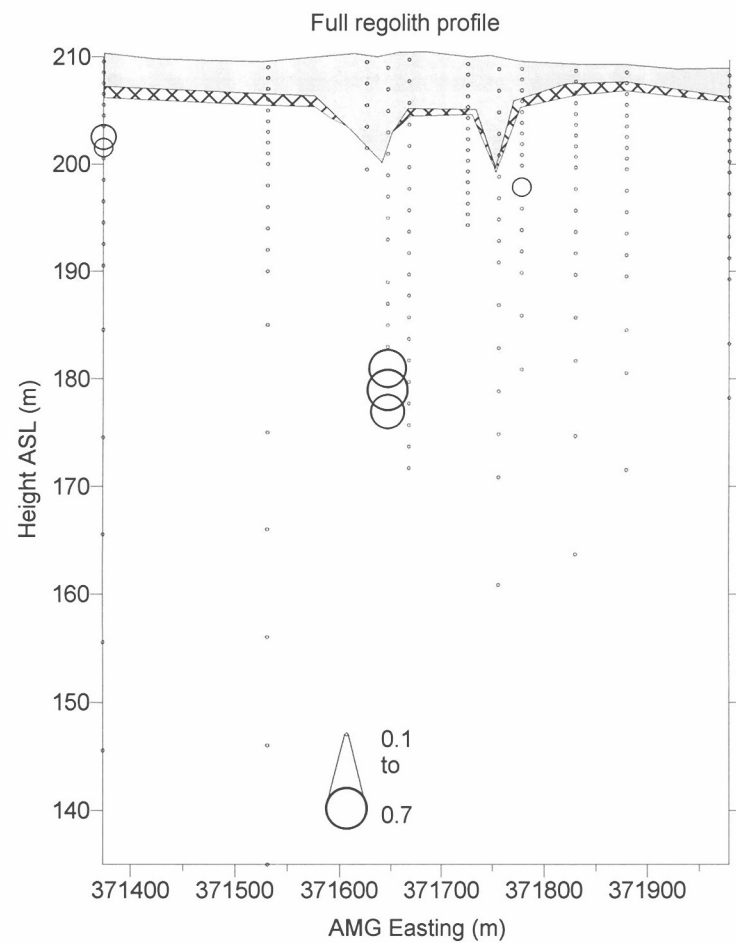


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.3 | 0.2 | 0.3 |
| Std Error | 0.05 | 0.02 | 0.02 |
| Median | 0.21 | 0.2 | 0.25 |
| Std Dev | 0.16 | 0.1 | 0.3 |
| Minimum | 0.14 | 0.11 | 0.04 |
| Maximum | 0.8 | 0.5 | 1.6 |
| Count | 8 | 35 | 143 |

Figure A1d.40: Distribution and concentration of Tb at South Hilga regolith section on 6660300N.

Tb (ppm)

South Hilga

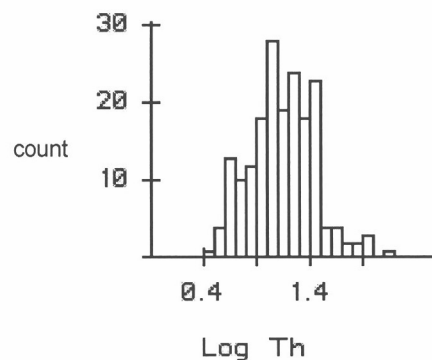
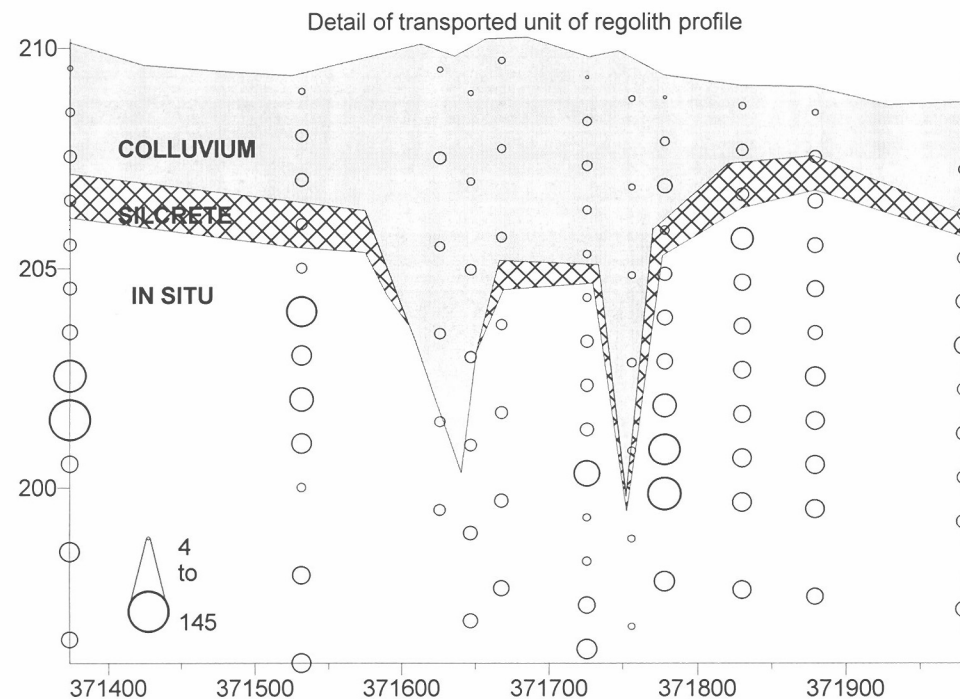
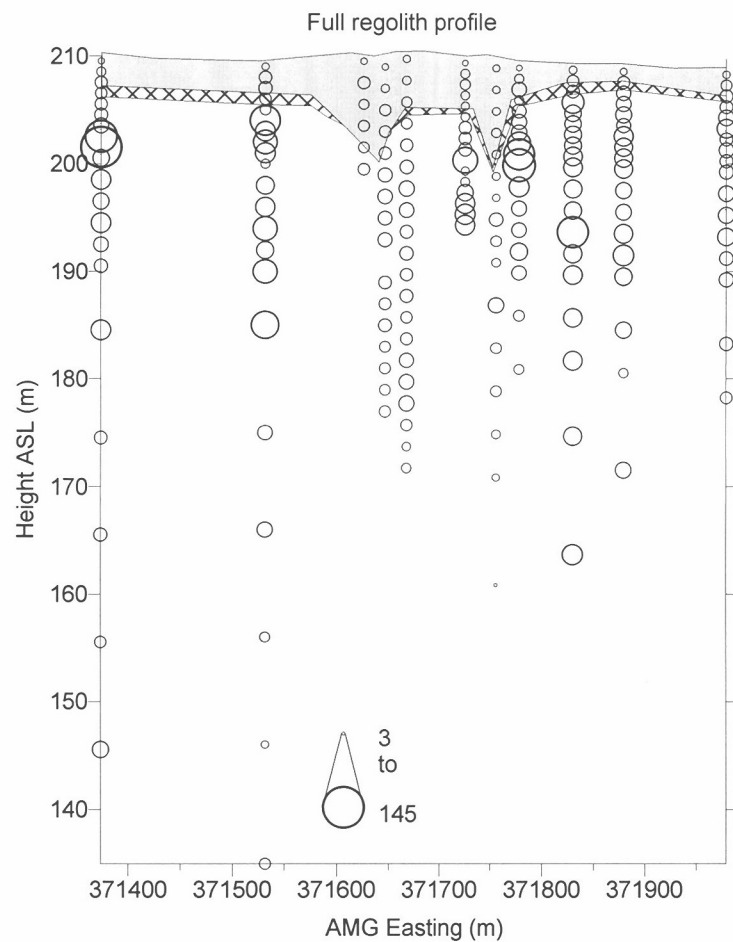


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.1 | 0.1 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 |
| Median | 0.1 | 0.1 | 0.1 |
| Std Dev | 0.00 | 0.0 | 0.1 |
| Minimum | 0.1 | 0.1 | 0.1 |
| Maximum | 0.1 | 0.1 | 0.7 |
| Count | 8 | 35 | 143 |

Figure A1d.41: Distribution and concentration of Te at South Hilga regolith section on 6660300N.

Te (ppm)

South Hilga

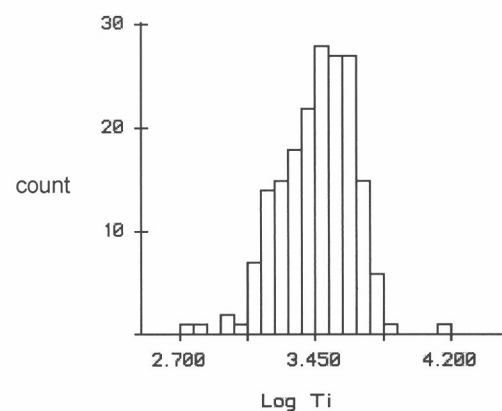
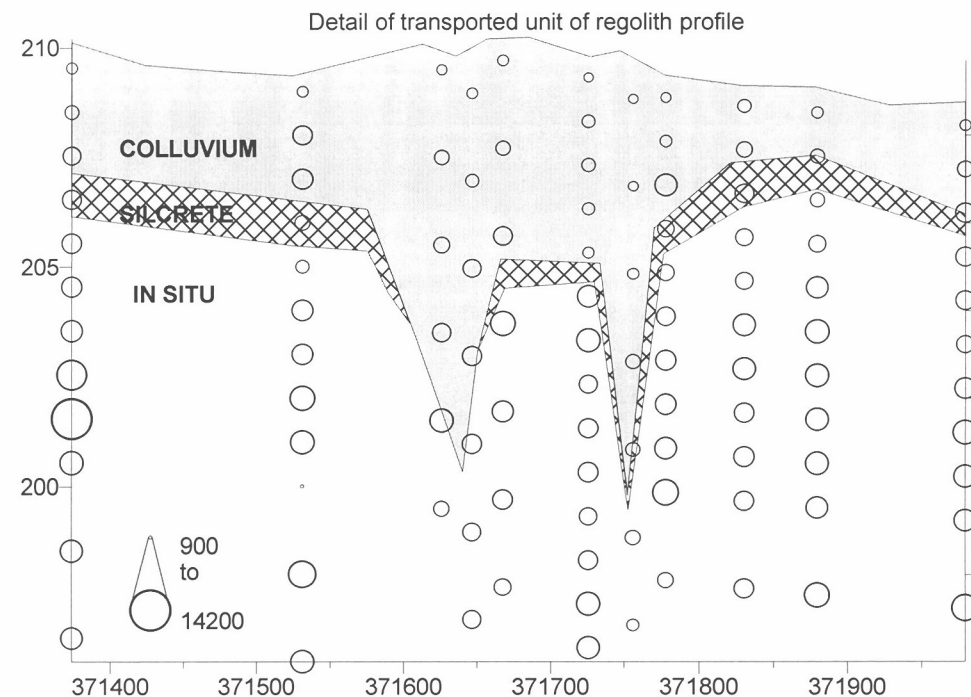
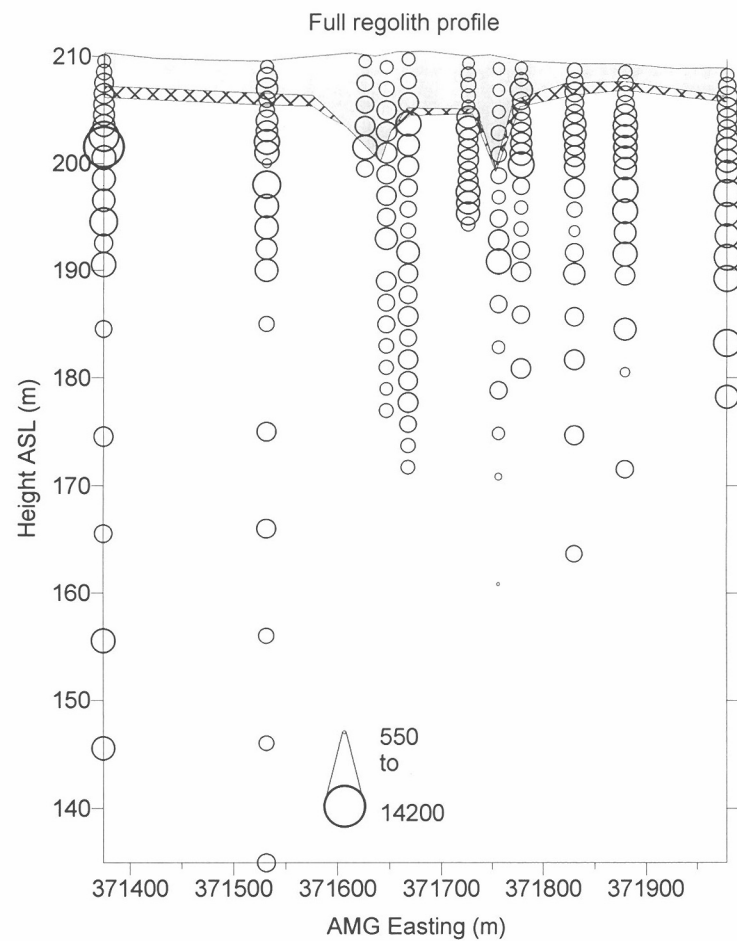


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 9.8 | 7.1 | 21.8 |
| Std Error | 0.9 | 0.5 | 1.8 |
| Median | 9.75 | 8.5 | 17 |
| Std Dev | 2.42 | 3 | 18.7 |
| Minimum | 5.5 | 3.5 | 2.8 |
| Maximum | 12.5 | 18 | 145 |
| Count | 8 | 35 | 143 |

Figure A1d.42: Distribution and concentration of Th at South Hilga regolith section on 6660300N.

Th (ppm)

South Hilga

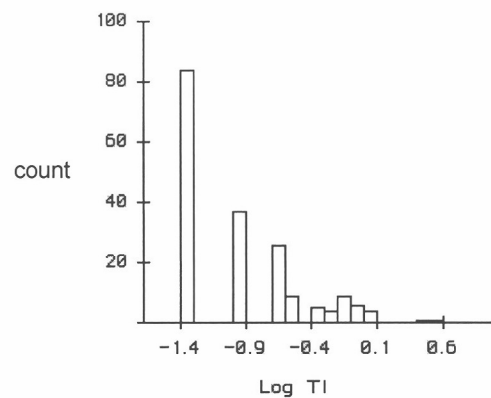
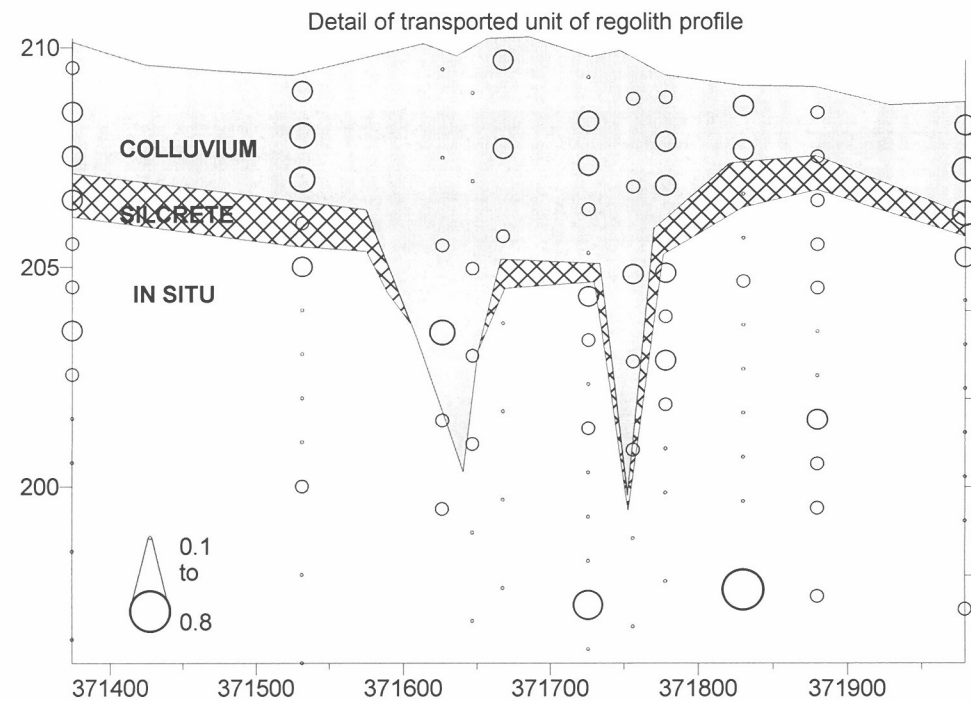
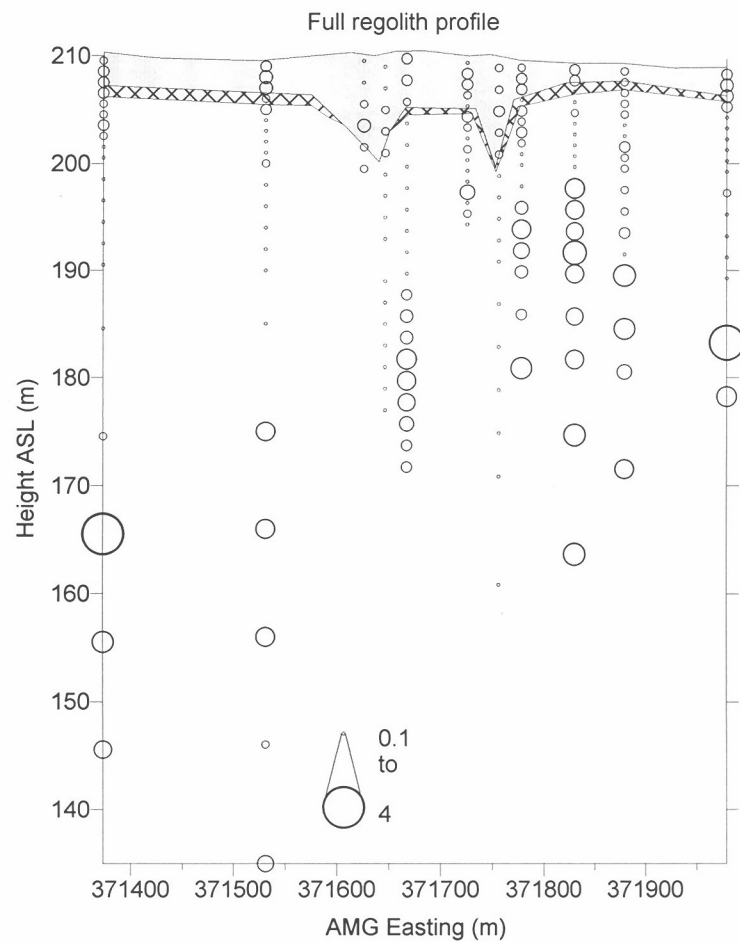


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 2058 | 2141 | 3451 |
| Std Error | 380 | 135 | 131 |
| Median | 3150 | 1900 | 3250 |
| Std Dev | 1018 | 801 | 1572 |
| Minimum | 1500 | 1250 | 550 |
| Maximum | 4750 | 4300 | 14200 |
| Count | 8 | 35 | 143 |

Figure A1d.43: Distribution and concentration of Ti at South Hilga regolith section on 6660300N.

Ti (ppm)

South Hilga

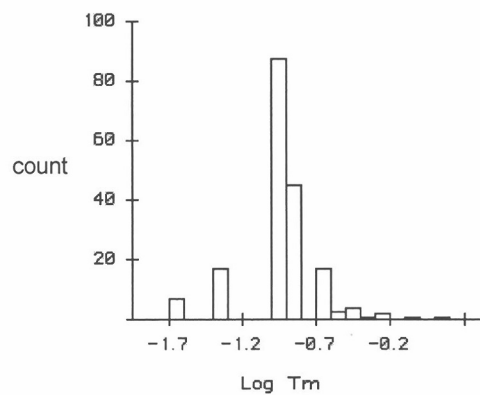
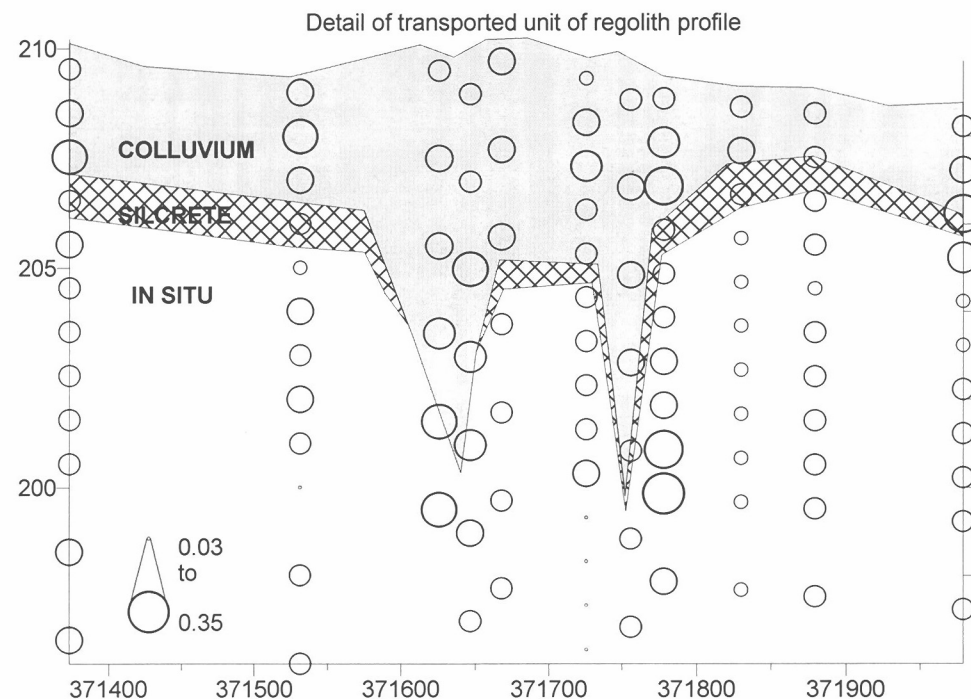
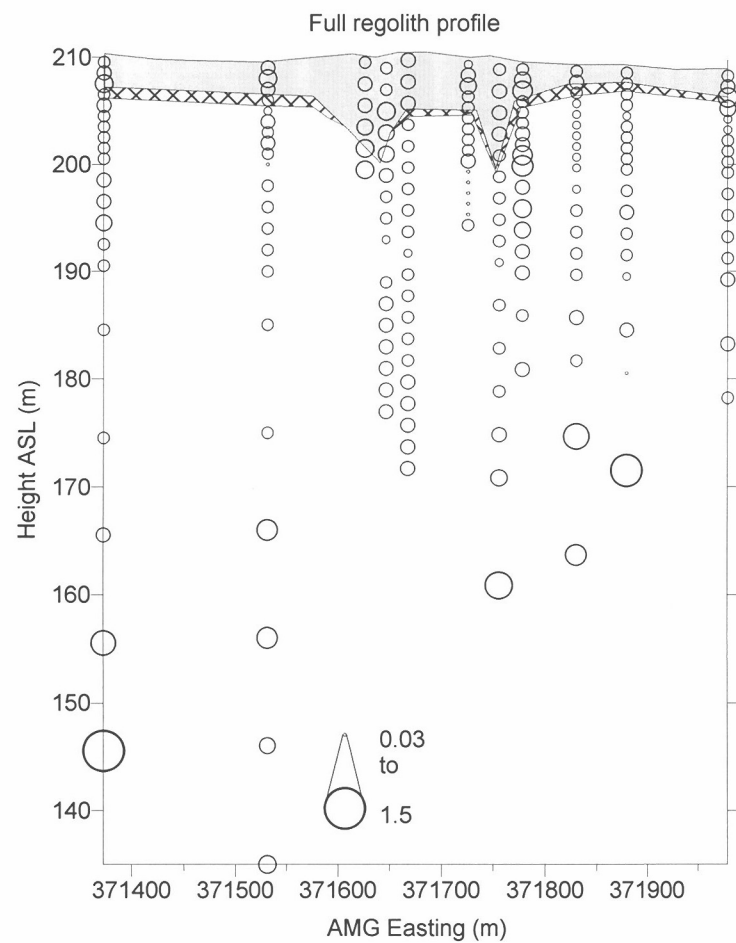


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.1 | 0.2 | 0.3 |
| Std Error | 0.0 | 0.0 | 0.0 |
| Median | 0.1 | 0.1 | 0.05 |
| Std Dev | 0.08 | 0.1 | 0.5 |
| Minimum | 0.05 | 0.05 | 0.05 |
| Maximum | 0.3 | 0.3 | 3.8 |
| Count | 8 | 35 | 143 |

Figure A1d.44: Distribution and concentration of Tl at South Hilga regolith section on 6660300N.

Tl (ppm)

South Hilga

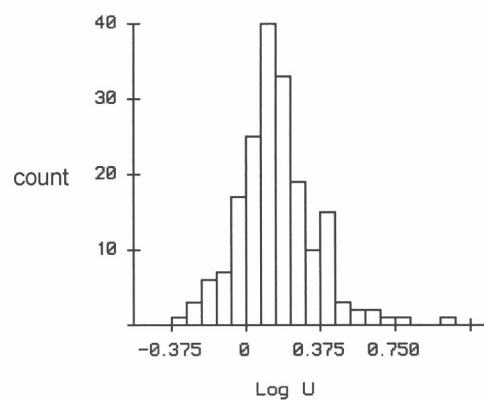
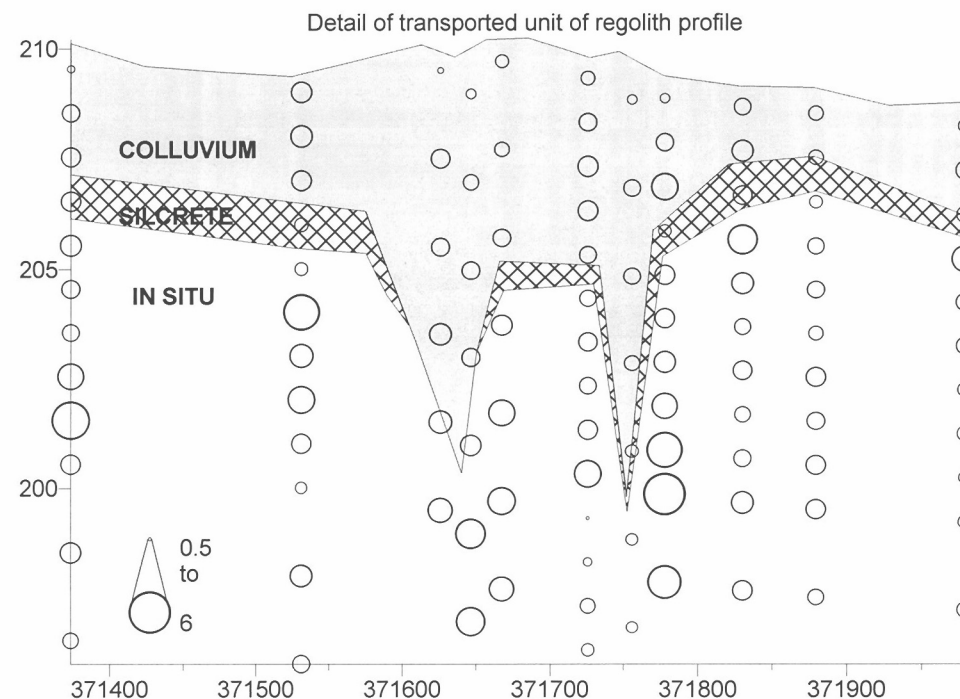
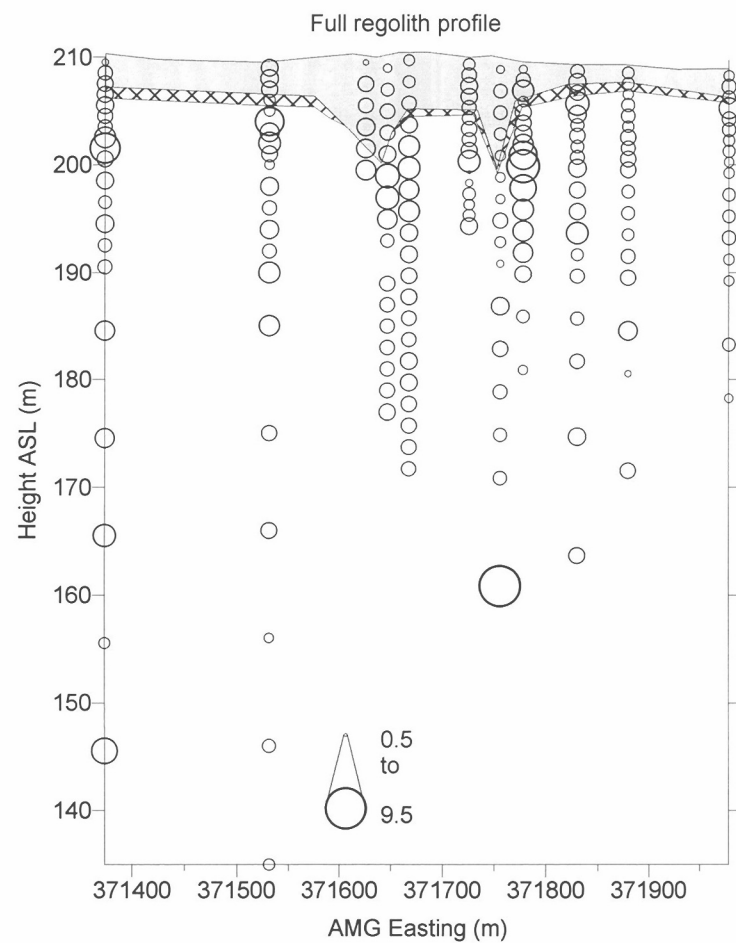


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 0.2 | 0.2 | 0.1 |
| Std Error | 0.0 | 0.0 | 0.0 |
| Median | 0.1 | 0.2 | 0.1 |
| Std Dev | 0.08 | 0.1 | 0.2 |
| Minimum | 0.1 | 0.05 | 0.025 |
| Maximum | 0.3 | 0.3 | 1.5 |
| Count | 8 | 35 | 143 |

Figure A1d.45: Distribution and concentration of Tm at South Hilga regolith section on 6660300N.

Tm (ppm)

South Hilga

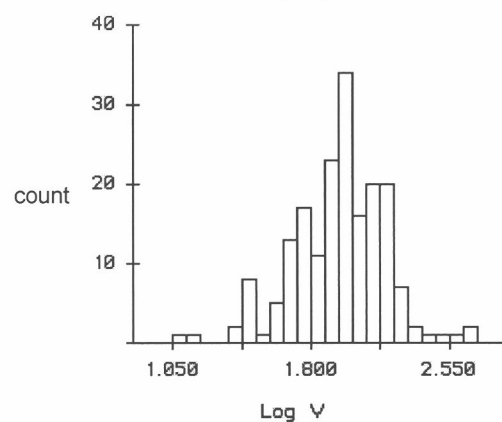
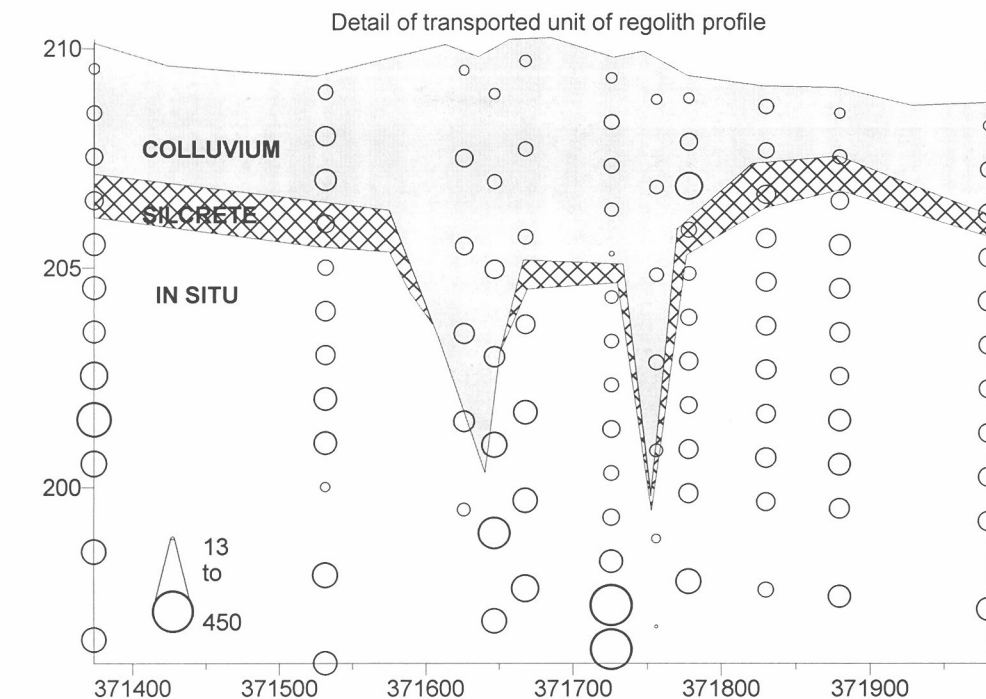
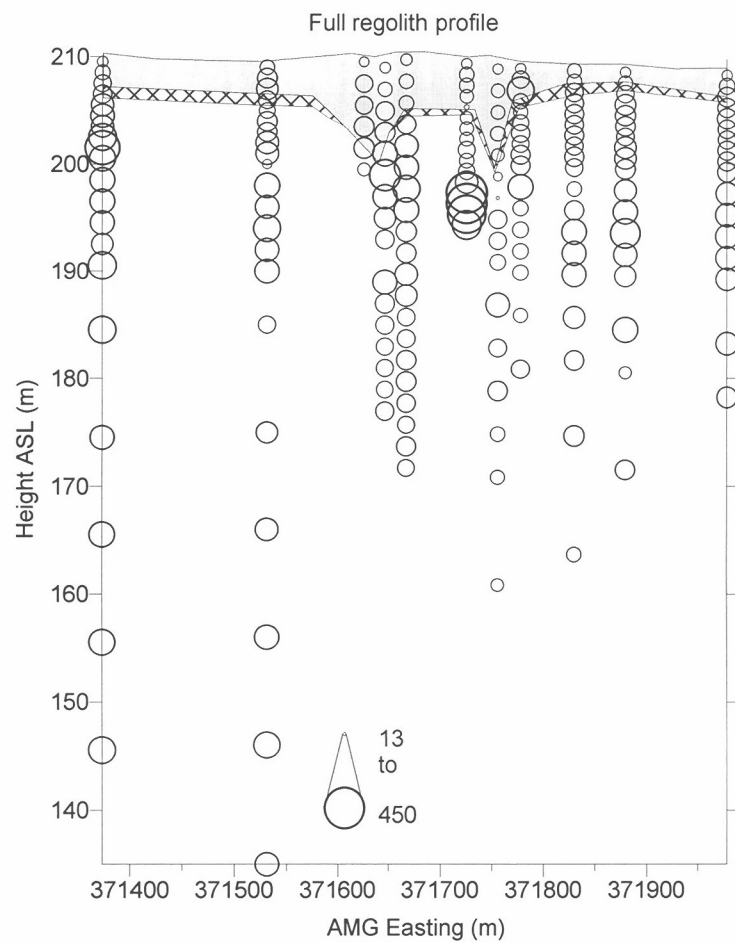


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 1.3 | 1.3 | 1.7 |
| Std Error | 0.1 | 0.1 | 0.1 |
| Median | 1.3 | 1.3 | 1.5 |
| Std Dev | 0.3 | 0.4 | 1.1 |
| Minimum | 0.8 | 0.5 | 0.5 |
| Maximum | 2 | 2.8 | 9.5 |
| Count | 8 | 35 | 143 |

Figure A1d.46: Distribution and concentration of U at South Hilga regolith section on 6660300N.

U (ppm)

South Hilga

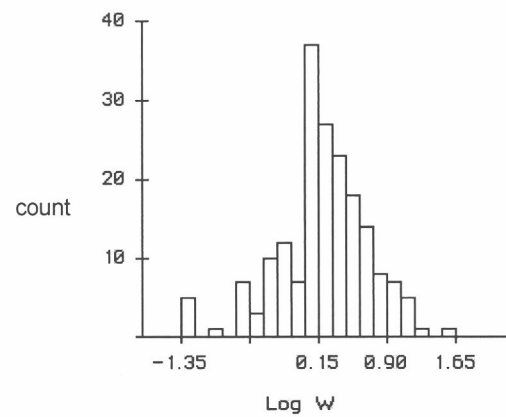
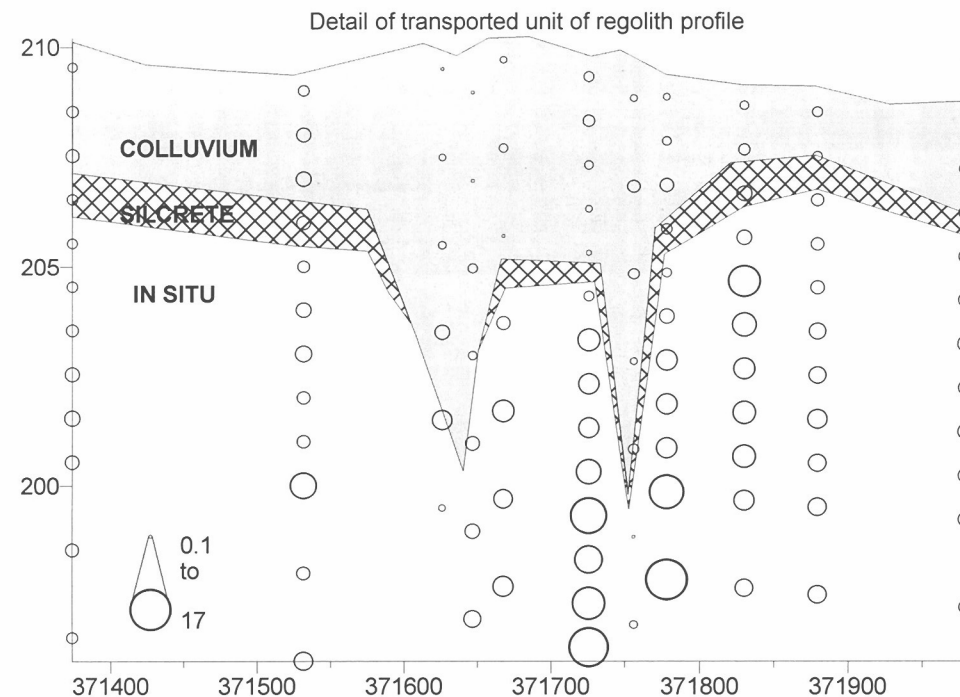
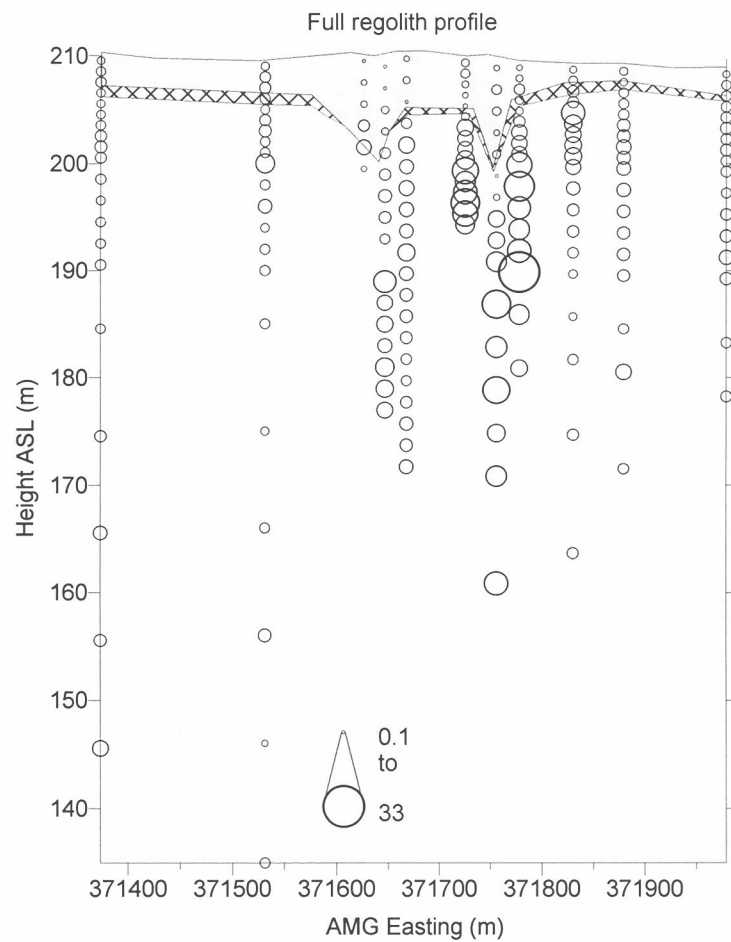


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 72 | 84 | 117 |
| Std Error | 11 | 8 | 5 |
| Median | 81 | 55 | 99 |
| Std Dev | 31 | 38 | 65 |
| Minimum | 14 | 27 | 13 |
| Maximum | 110 | 185 | 450 |
| Count | 8 | 35 | 143 |

Figure A1d.47: Distribution and concentration of V at South Hilga regolith section on 6660300N.

V (ppm)

South Hilga

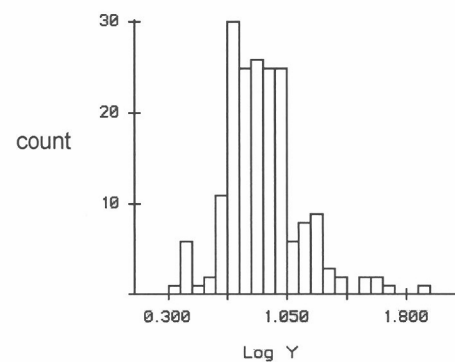
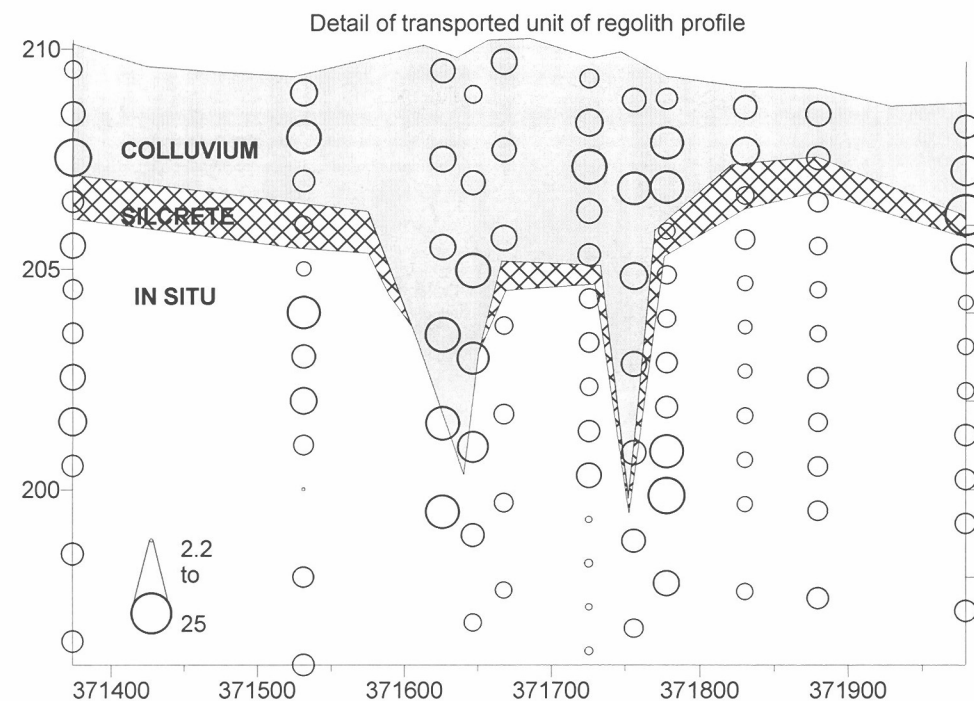
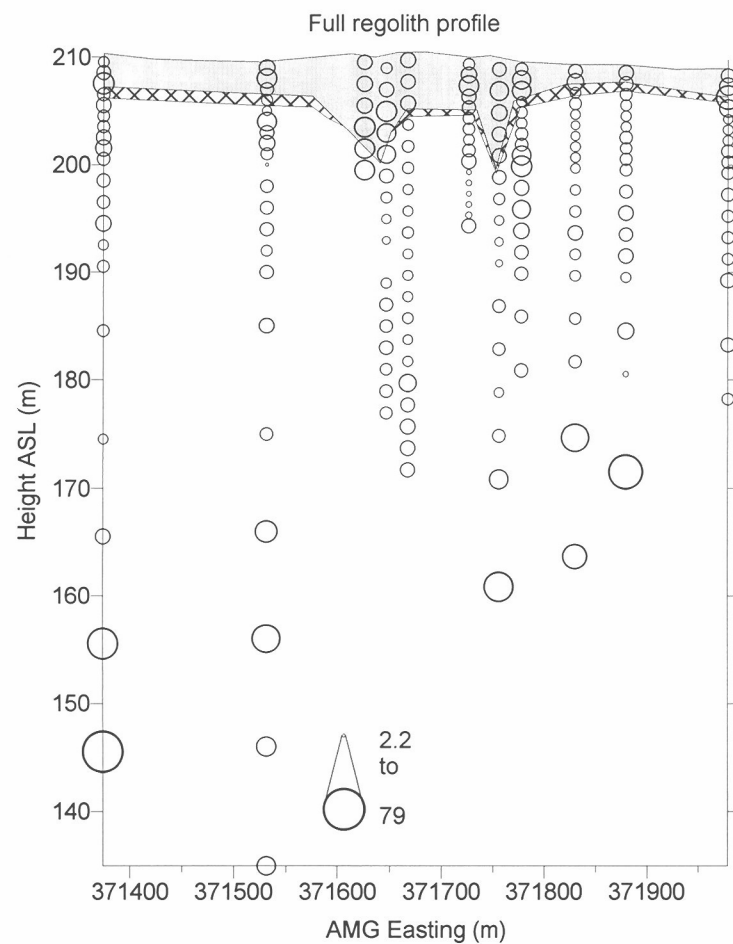


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 1.1 | 0.8 | 3.5 |
| Std Error | 0.4 | 0.1 | 0.3 |
| Median | 1.0 | 0.5 | 2.1 |
| Std Dev | 1.03 | 0.5 | 4 |
| Minimum | 0.05 | 0.05 | 0.05 |
| Maximum | 32 | 1.8 | 32.5 |
| Count | 8 | 35 | 143 |

Figure A1d.48: Distribution and concentration of W at South Hilga regolith section on 6660300N.

W (ppm)

South Hilga

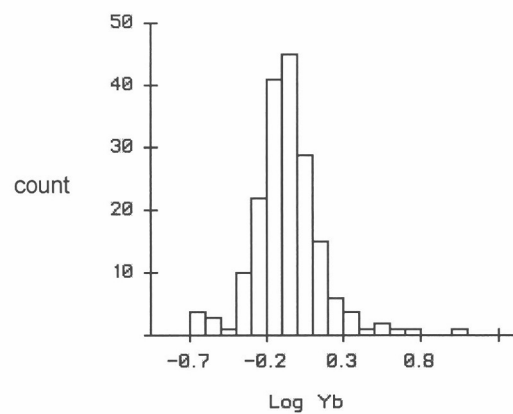
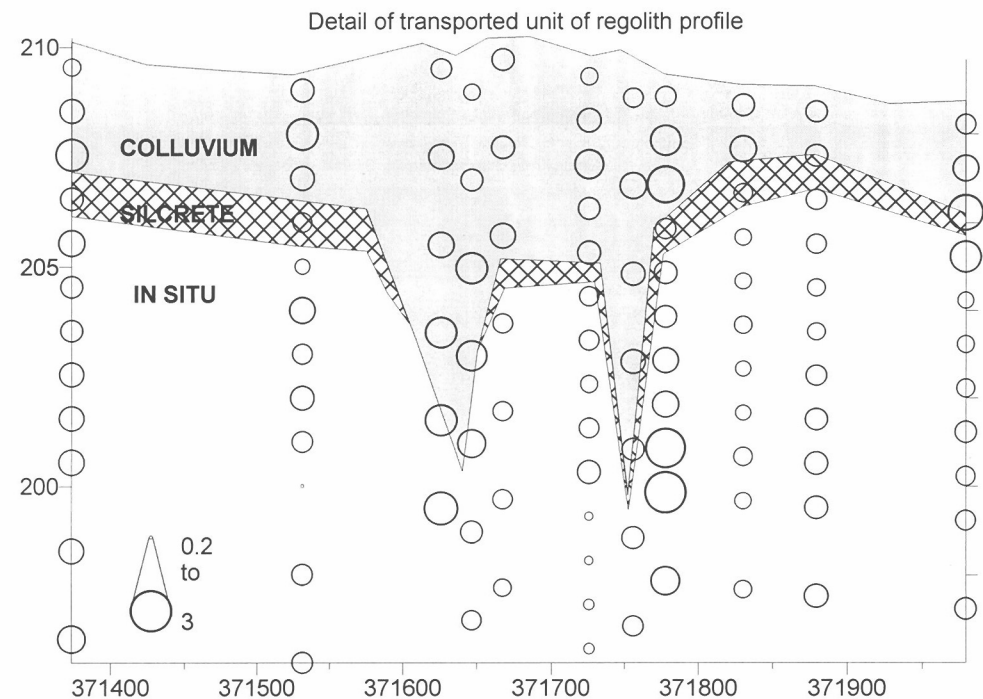
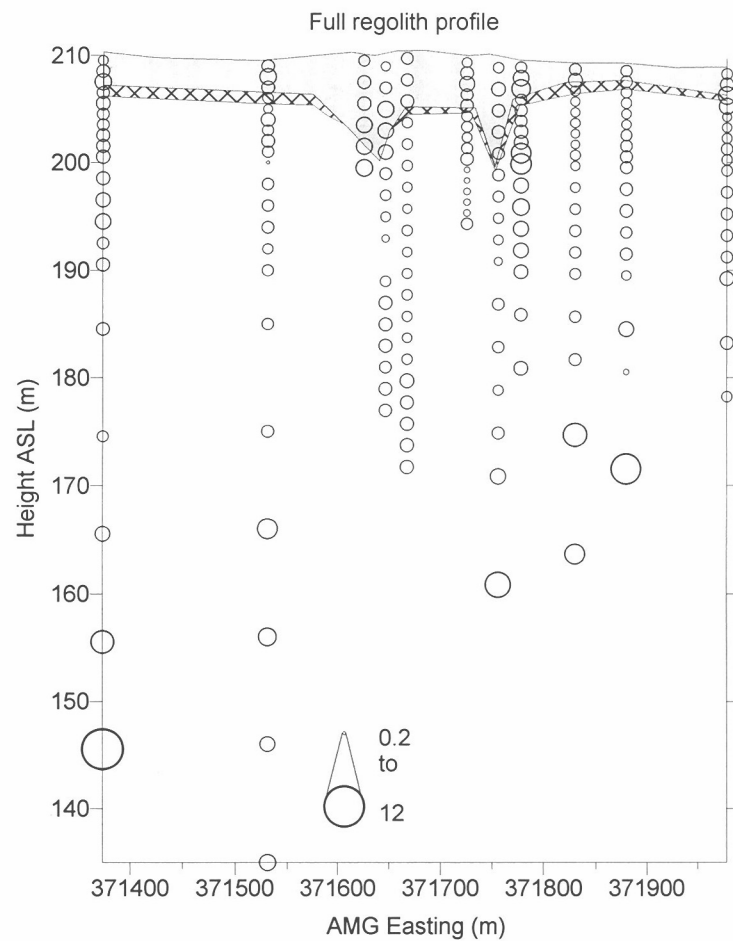


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 11 | 11 | 9 |
| Std Error | 2 | 1 | 1 |
| Median | 8 | 10 | 7 |
| Std Dev | 7 | 4 | 9 |
| Minimum | 6 | 5 | 2 |
| Maximum | 25 | 20 | 79 |
| Count | 8 | 35 | 143 |

Figure A1d.49: Distribution and concentration of Y at South Hilga regolith section on 6660300N.

Y (ppm)

South Hilga

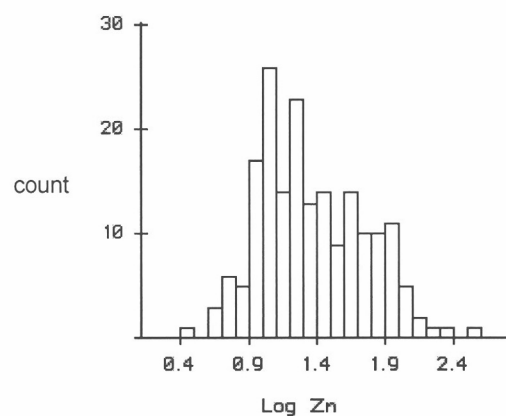
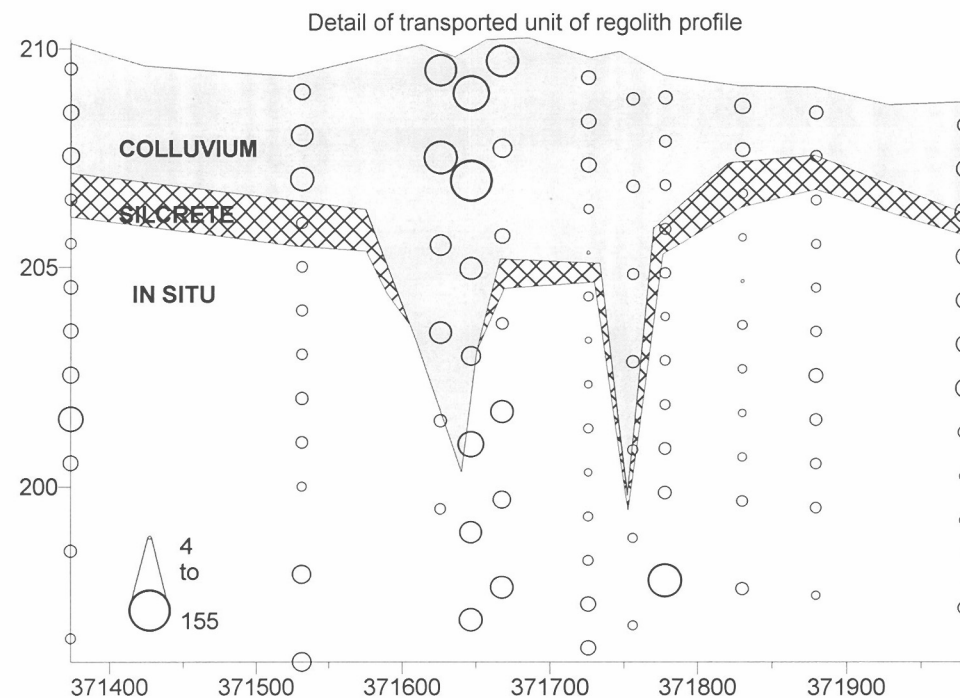
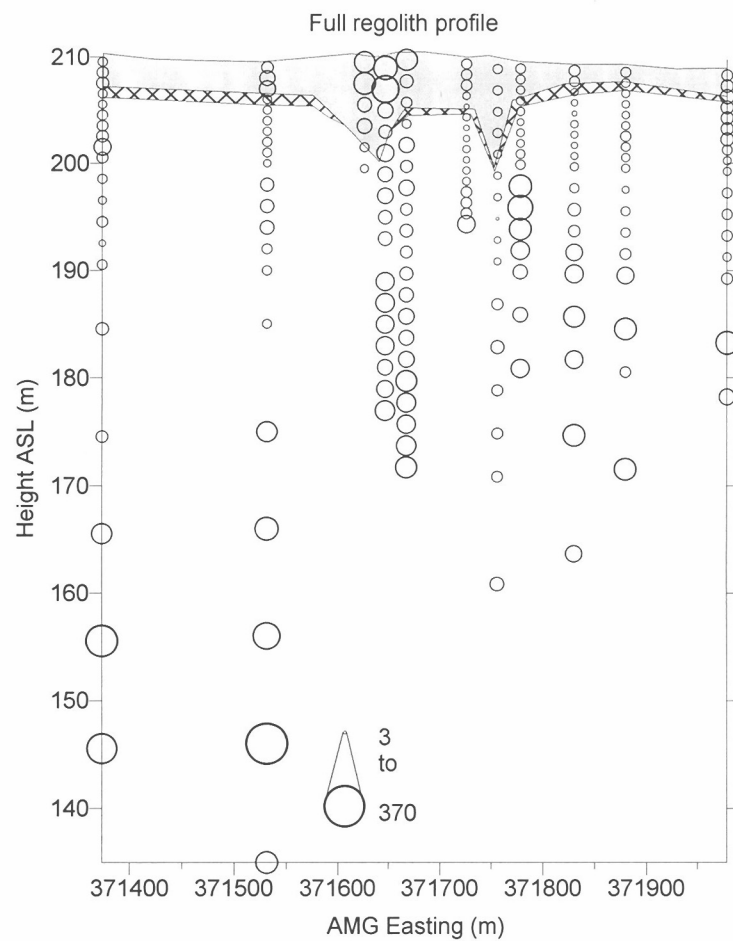


| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 1.0 | 1.0 | 1.0 |
| Std Error | 0.2 | 0.1 | 0.1 |
| Median | 0.9 | 1.0 | 0.8 |
| Std Dev | 0.5 | 0.4 | 1.1 |
| Minimum | 0.6 | 0.5 | 0.2 |
| Maximum | 2 | 2 | 12 |
| Count | 8 | 35 | 143 |

Figure A1d.50: Distribution and concentration of Yb at South Hilga regolith section on 6660300N.

Yb (ppm)

South Hilga



| | Silcrete | Colluvium | In situ |
|-----------|----------|-----------|---------|
| Mean | 14 | 35 | 37 |
| Std Error | 4 | 6 | 4 |
| Median | 12 | 20 | 19 |
| Std Dev | 10 | 34 | 45 |
| Minimum | 4 | 8 | 3 |
| Maximum | 37 | 155 | 370 |
| Count | 8 | 35 | 143 |

Figure A1d.51: Distribution and concentration of Zn at South Hilga regolith section on 6660300N.

Zn (ppm)

South Hilga

APPENDIX 2

Regolith Study Logs.

In-Field Descriptions of pre-existing RAB drilling samples.

Appendix 2.1: Regolith logging of reconnaissance line at E.T.

| Hole: 96 ETAR 178 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|--|--|
| Location: 340215.4 E, 6637341 N, AHD: 192.168 m. | |
| Site: | |
| Vegetation : Low Open <i>Acacia aneura</i> Woodland over <i>Acacia aneura</i> Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – 3 | Reddish dune siliceous sand |
| 3 – 4 | Reddish dune siliceous sand with calcrete |
| 4 – 5 | Silcrete with calcrete down hole contamination |
| 5 – 8 | Pale brown saprolite with calcrete & silcrete down hole contamination |
| 8 – 18 | Pallid zone, saprolite, quartz + kaolin, yellowish grey from 17 m |
| 18 – 22 | Cream to pale yellow saprolite |
| 22 – 25 | Bright yellow to orange saprolite |
| 25 – 32 | Pale creamy brown saprolite, greyish vein quartz @ 27-28 m |
| 32 – 41 | Strong yellowish khaki saprolite, greyish vein quartz @ 35-36 m |
| 41 – 45 | Pale greyish brown to pale medium brown saprolite with relic lithic fragments. |

| Hole: 96 ETAR 182 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|--|---|
| Location: 340219 E, 6636949 N, AHD: 188.482 m. | |
| Site: | |
| Vegetation: Open <i>Casuarina pauper</i> Woodland over <i>Acacia aneura</i> Low Open Woodland over <i>Acacia aneura</i> and <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Shrubland over <i>Maireana pentatropis</i> , <i>Maireana georgei</i> and <i>Sclerolaena</i> Low Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular & platy | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – 3 | Reddish dune siliceous sand, redder @ 3 m, 2 calcrete zones, 1 st @ 1 m is nodular, 2 nd @ 2 m is platy |
| 3 – 4 | Brownish grey silcrete with calcrete down hole contamination |
| 4 – 5 | Creamy brown saprolite with calcrete & silcrete down hole contamination |
| 6 – 18 | Pallid saprolite, mostly kaolin + some quartz & vein quartz (very thin veins) |
| 18 – 23 | Cream to pale yellow saprolite, quartz + kaolin, Fe oxide segregations @ 19-22 m. |
| 23 – 35 | Pale yellow-olive clay-rich saprolite, ?smectitic |
| 35 – 40 | Brown saprolite, clay + quartz + relic lithic fragments (?mafic) |
| 40 – 55 | Khaki saprolite, clay + quartz + relic lithic fragments (?mafic & still highly weathered @ 55 m). |

A2.1 (continued): Regolith logging of reconnaissance line at E.T.

| Hole: 96 ETAR 185 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> Location: 340228.6 E, 6636654 N, AHD: 191.171 m. Site: Vegetation: Low <i>Acacia aneura</i> Woodland over <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Open Shrubland over <i>Atriplex vesicaria</i> Low Open Shrubland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular & platy Logged by: M.J. Sheard | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 8 | Reddish dune siliceous sand, redder @ 3 m (?palaeosol), 2 calcrete zones, 1 st @ 2 m is nodular, 2 nd @ 8 m is platy, Fe & Mn oxide segregations @ 4-6 m |
| 8 – 11 | Red hard-pan palaeosol |
| 11 – 12 | Silcrete, yellowish & grey |
| 13 – 23 | Pallid saprolite, very pale pinky browns to white & then to pale grey-brown, clay + quartz |
| 23 – 29 | Pale brown saprolite, clay + quartz & grey vein quartz @ 27-28 m |
| 23 – 33 | Bright yellow saprolite, clay-rich |
| 33 – 39 | Pallid clay-rich saprolite with pink stains & smears |
| 39 – 50 | Brown saprolite, clay-rich (?mafic) |
| 50 – 56 | Pale brown saprolite, clay + quartz. |

| Hole: 96 ETAR 186 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> Location: 340226.8 E, 6636545 N, AHD: 189.436 m. Site: Vegetation: <i>Casuarina pauper</i> Open Woodland over <i>Senna cardiosperma</i> subsp. <i>gawlerensis</i> and <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Open Shrubland over <i>Ptilotus obovatus</i> , <i>Atriplex vesicaria</i> and <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Low Open Shrubland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular, multiple zones Logged by: M.J. Sheard | |
|--|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 6.5 | Reddish dune siliceous sand, 4 calcrete zones @ 1, 2, 4-5, ~6.5 m, sand is cemented between 3-4 m |
| 6.5 – >9 | Red hard-pan palaeosol |
| >9 – 12 | Silcrete, Fe-silcrete & silicified pallid saprolite |
| 12 – 14 | Brown saprolite, clay-rich |
| 13 – 23 | Saprolite, browns to pink-browns, clay-rich (?mafic) |
| 23 – >26 | Yellowish saprolite, clay-rich (?mafic) |
| >26 – 32 | Pink-brown saprolite, clay-rich (?mafic) |
| 32 – 39 | khaki clay-rich saprolite (?mafic) |
| 39 – 49 | Bright yellowish saprolite, clay-rich with some yellow-olive to olive-grey relic lithic fragments (?mafic) |
| 49 – 56 | Pale brown saprolite, clay + quartz with hard relic lithic fragments, ?silicified (?mafic). |

A2.1 (continued): Regolith logging of reconnaissance line at E.T.

| Hole: 96 ETAR 187 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|--|--|
| Location: 340237.3 E, 6636441 N, AHD: 187.830 m. | |
| Site: | |
| Vegetation: <i>Acacia aneura</i> and <i>Alectryon oleifolius</i> subsp. <i>canescens</i> Tall Shrubland over <i>Senna artemisioides</i> subsp. <i>petiolaris</i> and <i>Acacia aneura</i> Open Shrubland over <i>Acacia aneura</i> and <i>Sclerolaena</i> Low Open Shrubland. (vehicle track disturbance). (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – >6 | Reddish dune siliceous sand, 2 calcrete zones @ ~1, 6 m |
| >6 – 8 | Red hard-pan palaeosol |
| 8 – 9 | Silcrete + quartz on/in saprolite |
| 9 – 11 | Silicified saprolite, cream to brown |
| 11 – 14 | Brown clay-rich saprolite (?mafic) grey vein quartz @ 11-12 m |
| 14 – 17 | Bright yellow saprolite, relic granulite texture, quartz + clays + FeOH (?mafic) |
| 17 – >18 | Pale reddish brown, clays + quartz (?mafic) |
| >18 – 24 | Brown to pale saprolite with white kaolin flecks, clays + quartz (?mafic) |
| 24 – 30 | Yellow-brown saprolite with white kaolin flecks, clay-rich (?mafic) |
| 30 – 34 | khaki clay-rich saprolite with darker coloured relic lithic fragments (?mafic). |

| Hole: 96 ETAR 188 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|--|--|
| Location: 340240 E, 6636344 N, AHD: 188.181 m. | |
| Site: | |
| Vegetation: <i>Casuarina pauper</i> Open Woodland over <i>Senna cardiosperma</i> subsp. <i>gawlerensis</i> Open Shrubland over <i>Cratystylis conocephala</i> and <i>Atriplex vesicaria</i> Low Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – 5 | Reddish dune siliceous sand, 2 calcrete zones @ 1, 4-5 m |
| 5 – ~8 | Red hard-pan palaeosol, sandy |
| ~8 – 10 | Silcrete, brownish to grey, + quartz on saprolite |
| 10 – 12 | Pallid saprolite, kaolin + quartz |
| 12 – 14 | Very pale brown saprolite, clay-rich |
| 14 – 17 | Brown clay-rich saprolite (?mafic) |
| 17 – 18 | Yellow to yellow-brown saprolite (mafic) |
| 18 – 29 | Variably reddish brown, clay-rich (?mafic) |
| 29 – 34 | Khaki-grey saprolite, clay-rich (?mafic) |
| 34 – 39 | Pale reddish brown saprolite, clay-rich (?mafic) |
| 39 – 55 | Khaki clay-rich saprolite (?mafic) |
| 55 – 60 | Pale yellowish grey saprolite, clay-rich. |

A2.1 (continued): Regolith logging of reconnaissance line at E.T.

| Hole: 96 ETAR 189 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|---|--|
| Location: 340239 E, 6636246 N, AHD: 188.833 m. | |
| Site: | |
| Vegetation: <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Open Shrubland over <i>Atriplex vesicaria</i> Low Open Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – >5 | Reddish dune siliceous sand & calcretes @ ~1 & 2-4 m |
| >5 – 8 | Dark red sandy hard-pan palaeosol |
| 8 – <9 | Thin silcrete & Fe-silcrete with abundant greyish vein quartz, on pallid saprolite |
| <9 – 10 | Pallid silicified saprolite, quartz fragment-rich |
| 10 – 21 | Pallid saprolite, pinkish between 10-14 m, kaolin + quartz |
| 21 – 26 | Yellowish clay-rich saprolite (?mafic) |
| 26 – 31 | Khaki saprolite ?smectitic (mafic) |
| 31 – 39 | Pale khaki-grey saprolite, clay-rich (?mafic) |
| 39 – 44 | Pale brown saprolite, clay-rich. |

| Hole: 96 ETAR 190 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|--|---|
| Location: 340245.2 E, 6636148 N, AHD: 187.436 m. | |
| Site: | |
| Vegetation: <i>Casuarina pauper</i> Open Woodland over <i>Eucalyptus</i> Very Open Tree Mallee over Tall Open Shrubland over <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Open Shrubland over <i>Atriplex vesicaria</i> Low Open Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – <5 | Reddish dune siliceous sand & calcretes @ 2 & 4 m |
| <5 – ~6 | Dark red sandy hard-pan palaeosol |
| ~6 – 7 | Thin silcrete & Fe-silcrete + quartz on pallid saprolite |
| 7 – 10 | Pale creamy to very pale brown saprolite, clays + quartz. |
| 10 – 18 | Pallid saprolite, clays + quartz |
| 18 – 22 | Pale brown saprolite, vein quartz @ 19-20 m, kaolin + quartz |
| 22 – 27 | Yellowish brown clay-rich saprolite (?mafic) |
| 27 – 31 | Pale brown saprolite ?smectitic (mafic) |
| 31 – 39 | Yellow-brown saprolite, clay-rich, ?smectitic, dark greenish lithic relics (?mafic) |
| 39 – 44 | Pale khaki saprolite, clay-rich. |

A2.1 (continued): Regolith logging of reconnaissance line at E.T.

| Hole: 96 ETAR 193 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|--|--|
| Location: 340259.4 E, 6635573 N, AHD: 186.895 m. | |
| Site: | |
| Vegetation: <i>Casuarina pauper</i> Woodland over <i>Acacia aneura</i> and <i>Acacia</i> sp. Tall Open Shrubland over <i>Senna cardiosperma</i> subsp. <i>gawlerensis</i> Shrubland over Low Open Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: massive | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – 2 | Reddish dune siliceous sand & nodular calcrete @ ~1 m & massive @ ~2 m |
| 2 – 3 | Calcrete – massive, on silcrete |
| 3 – 4 | Silcrete on saprolite |
| 4 – 6 | Saprolite, very pale brownish grey, partly silicified |
| 6 – 10 | Pale pink (6-8) to stronger pink (8-10) saprolite, clays + quartz. |
| 10 – >22 | Pallid saprolite, clays + quartz |
| >22 – >25 | Cream to pale yellow saprolite, kaolin + quartz |
| >25 – 44 | Pale khaki saprolite, clay-rich. ?smectitic (?mafic) |

| Hole: 96 ETAR 196 Pilot Regolith Line, E.T. Prospect. <u>In-Field Descriptions</u> | |
|---|--|
| Location: 340267.2 E, 6635267 N, AHD: 185.135 m. | |
| Site: Outcrop area with surface lag | |
| Vegetation: <i>Casuarina pauper</i> Woodland over <i>Acacia aneura</i> Tall Shrubland over <i>Eremophila latrobei</i> and <i>Senna cardiosperma</i> subsp. <i>gawlerensis</i> Low Open Shrubland. (Logged by S. Lintern) | |
| Soil: Um (sandy) | |
| Calcrete: nodular | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 | Outcrop area with surface lag, rounded quartz clasts observed, silcrete is greenish with granule quartz clasts |
| 0 – 1 | Thin red sandy soil skin on silcrete with calcrete coatings & joint infill |
| 1 – 2 | Silcrete on/in saprolite |
| 2 – 5 | Variably partly silicified pallid saprolite |
| 5 – 12 | Pallid saprolite, kaolin-rich + some quartz |
| 12 – 14 | Creamy saprolite, ?partly silicified, has a faint greenish tint |
| 14 – 20 | Yellow & becoming a strong yellow with depth, clay-rich saprolite |
| 20 – >23 | Strong brown saprolite, clays + quartz |
| 25 – 32 | Pale khaki saprolite, ?smectitic |
| 32 – 44 | Khaki to brown ?mafic (Fe-rich) saprolite with dark grey fragment coatings @ 34-35 m. |

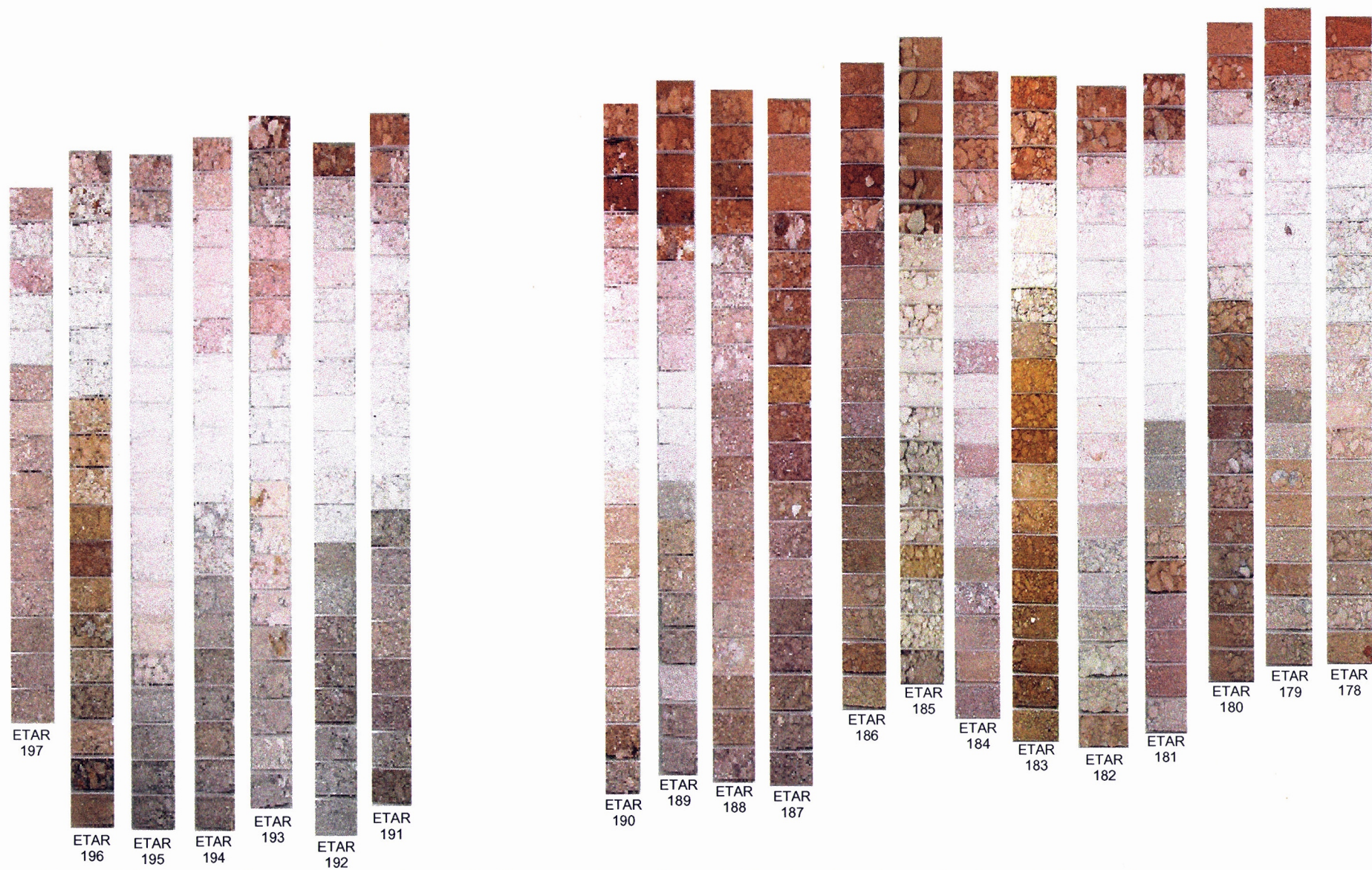


Figure A2.1.1: E.T. Prospect chip tray photographs - vertically arranged according to AHD. Samples taken at 1 m intervals from surface.

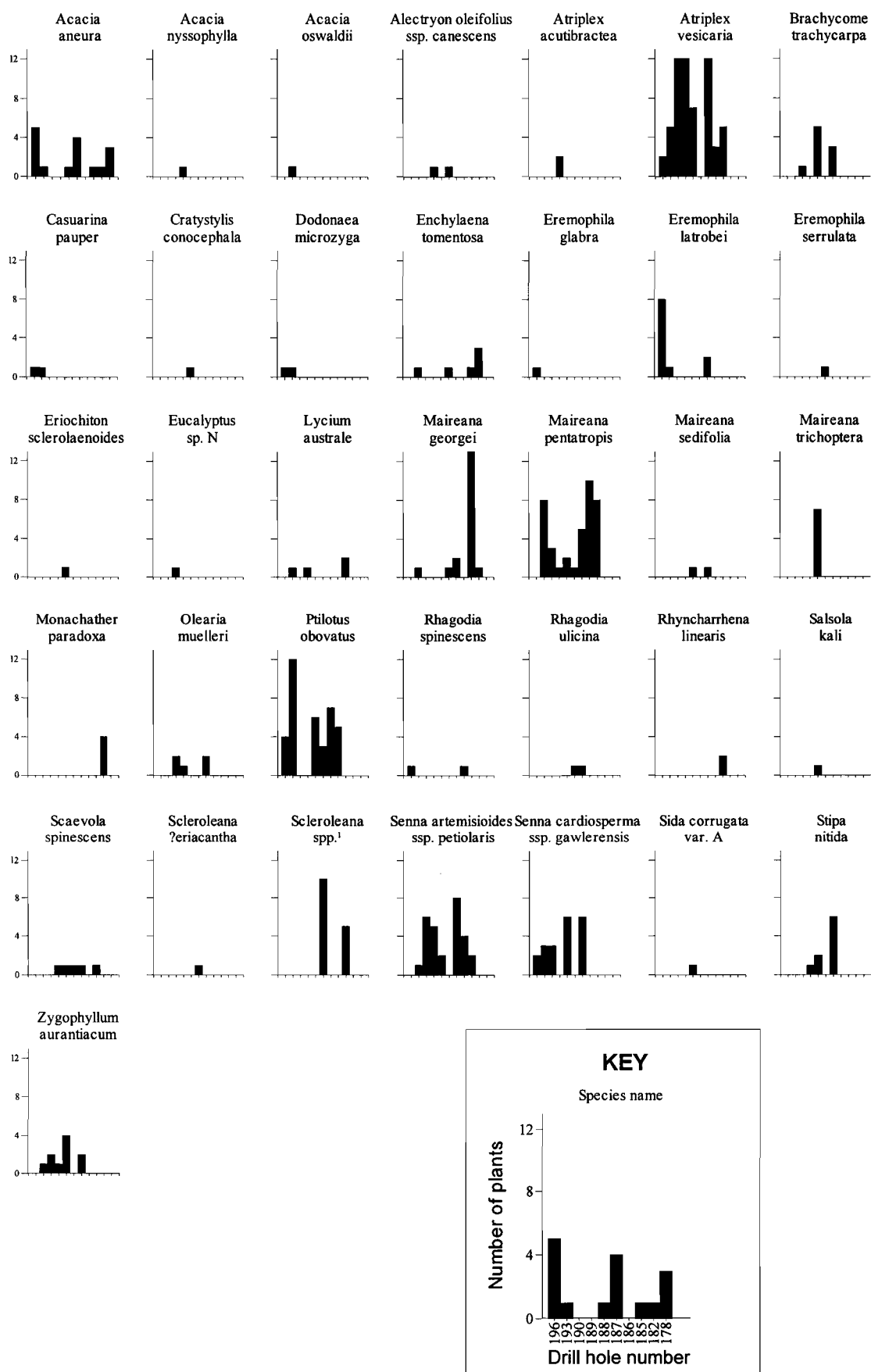


Figure A2.1.2: Species diversity and density at ET Prospect.
¹Sclerolaena spp. includes *S. obliquicuspis* and *S. diacantha*.

Appendix 2.2: Regolith logging of reconnaissance line at Golf Bore

| Hole: 96 GBAR 028 Pilot Regolith Line, Golf Bore Prospect. <u>In-Field Descriptions</u> Location: 405246.8 E, 6726618.6 N, AHD: 181.188 m. Site: dune clad silcrete rise Vegetation: <i>Acacia aneura</i> Low Woodland over <i>Eremophila neglecta</i> and <i>Senna cardiosperma</i> subsp. <i>gawlerensis</i> Open Shrubland over <i>Maireana sedifolia</i> and <i>Ptilotus obovatus</i> Low Shrubland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular & platy Logged by: M.J. Sheard | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Reddish dune siliceous sand with calcrete |
| 1 – 3 | Silcrete with rounded & angular quartz clasts mm – cm sizes |
| 3 – 5 | Pallid zone with reddish Fe oxide mottling @ 4-5 m, saprolite |
| 5 – 11 | Pallid zone, pale khaki @ ~5 m, pallid below, abundant grey vein quartz fragments |
| 11 – 12 | Pinkish saprolite |
| 12 – >30 | Greyish to khaki to olive grey saprolite, greasy feel (talc) & has obvious micaceous minerals. |

| Hole: 96 GBAR 027 Pilot Regolith Line, Golf Bore Prospect. <u>In-Field Descriptions</u> Location: 405102.6 E, 6726616.8 N, AHD: 181.711 m. Site: dune clad silcrete rise Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Acacia tetragonophylla</i> Tall Open Shrubland over <i>Maireana sedifolia</i> and <i>Eremophila latrobei</i> Low Shrubland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular & platy Logged by: M.J. Sheard | |
|--|---|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Reddish dune siliceous sand with calcrete & some silcrete fragments |
| 1 – 4 | Silcrete, massive & grey with rounded & angular quartz clasts (sand – pebbles) some sand contamination from above |
| 4 – >5 | Pallid zone with yellow mottled & stained waste mantle (pedolith) capping to saprolite |
| >5 – 7 | Pallid zone, kaolin + quartz, saprolite |
| 7 – 11 | Yellow zone, kaolin + quartz, saprolite |
| 11 – 23 | Pale yellow kaolin + ?talc + quartz, saprolite |
| 23 – 30 | Greenish saprolite with greasy feel (talc) & has obvious micaceous minerals |
| 30 – >33 | As above but darker with some dark greenish to black relic lithic fragments, saprolite to near saprock. |

Hole: 96 GBAR 102 **Pilot Regolith Line, Golf Bore Prospect. In-Field Descriptions Location:** 404950.4 E, 6726622.1 N, **AHD:** 180.819 m. **Angle Hole @** 60° dip → 090°

Site: dune clad silcrete rise

Vegetation: *Acacia aneura* Tall Open Shrubland over *Maireana sedifolia* Low Shrubland over *Eragrostis eriopoda* Very Open Grassland. (very variable site also drilling disturbance) (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular & platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 1 | Reddish dune siliceous sand with calcrete & some silcrete fragments |
| 1 – 2 | Silcrete, massive & grey with rounded & angular quartz clasts (sand – gravel) some sand contamination from above |
| 2 – >3 | Silcrete on yellow stained pallid zone – waste mantle (pedolith) capping to saprolite |
| >3 – 7 | Pallid zone, kaolin + quartz, saprolite |
| 7 – 10 | Yellow grading to cream saprolite, kaolin + quartz & a hint of talc @ 10 m |
| 10 – 17 | Cream saprolite, kaolin + ?talc + quartz |
| 17 – 27 | Cream to grey to greyish green saprolite, chloritic |
| 27 – >50 | Greenish grey saprolite, very chloritic & grading to saprock. |

Hole: 96 GBAR 088 **Pilot Regolith Line, Golf Bore Prospect. In-Field Descriptions Location:** 404749.9 E, 6726506.7 N, **AHD:** 179.467 m. **NOTE:** Moved south to pick up on another parallel line. **Angle Hole @** 60° dip → 090°

Site: flat, sandy area.

Vegetation: *Acacia aneura* Low Open Woodland over *Acacia aneura* Tall Open Shrubland over *Maireana integra* and *Maireana georgei* Low Shrubland. (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 2 | Reddish aeolian siliceous sand with calcrete |
| 2 – 3 | Red hard-pan with dark Fe oxide bands or mottles |
| 3 – 4 | As above with thin silcrete-silicified saprolite containing angular quartz grains & fragments |
| 4 – 5 | Yellow to orange stained pallid zone, rich in gypsum, possible waste mantle (pedolith) capping to saprolite |
| 5 – 15 | Pallid zone with yellowish & creamy sub-zones, kaolin + angular quartz, gypseous to ~7 m, saprolite |
| 15 – 29 | Greenish grey, greenish yellow saprolite with greasy feel, kaolin + ?talc + quartz + chlorite + mica-like minerals |
| 29 – >49 | Greyish saprolite with quartz + micas + chlorite, greenish cast to hue (last 4 samples in poor condition). |

| Hole: 96 GBAR 091 Pilot Regolith Line, Golf Bore Prospect. In-Field Descriptions Location: 404679.1 E, 6726509 N, AHD: 179.283 m. Angle Hole @ 60° dip → 090° Site: flat, sandy area Vegetation: <i>Acacia aneura</i> Tall Shrubland over Open Shrubland over <i>Atriplex vesicaria</i> , <i>Maireana integra</i> and <i>Maireana georgei</i> Low Open Shrubland. (many tracks drilling disturbance) (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|--|---|
| Depth (m) | Description of RAB cuttings |
| 0 – 2 | Reddish aeolian siliceous sand with calcrete |
| 2 – 5 | Red hard-pan & calcrete, carbonate coatings on hard-pan blocks near its top |
| 5 – 7 | ? thin silcrete-silicified saprolite, rich in gypsum, possible waste mantle (pedolith) capping to saprolite – pallid with some yellow & pink staining |
| 7 – 11 | Pallid saprolite with yellow & reddish mottling & staining, mostly kaolin + quartz, Fe oxide segregations @ 10-11 m, |
| 11 – 16 | Creamy saprolite with greenish cast to hue, greasy feel (talc), kaolin + angular quartz, increasing chlorite with depth |
| 16 – 24 | Greenish to greyish, saprolite with greasy feel, kaolin + talc + quartz + chlorite + mica-like minerals |
| 24 – 26 | Yellow-brown saprolite with quartz + micas + chlorite |
| 26 – >50 | Greenish grey saprolite, chloritic & micaceous (41-50 m, samples not well preserved & contaminated by surface materials. |

| Hole: 96 GBAR 093 Pilot Regolith Line, Golf Bore Prospect. In-Field Descriptions Location: 404631.3 E, 6726511 N, AHD: 179.026 m. Angle Hole @ 60° dip → 090° Site: flat, sandy area Vegetation: <i>Acacia aneura</i> Tall Shrubland over <i>Eremophila latrobei</i> , <i>Maireana georgei</i> and <i>Atriplex vesicaria</i> Low Open Shrubland. (many vehicle tracks) (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|--|---|
| Depth (m) | Description of RAB cuttings |
| 0 – 2 | Reddish aeolian siliceous sand with calcrete |
| 2 – >4 | Red hard-pan & calcrete, carbonate coatings on hard-pan blocks @ 2-3 m & some saprolite @ 4 m |
| >4 – 6 | Waste mantle (pedolith) capping to saprolite – multi coloured & gypseous |
| 6 – 8 | Pallid saprolite with bright yellow mottling & staining, mostly kaolin + quartz, abundant grey vein quartz as cm sized angular fragments. Down hole contamination by rounded quartz clasts from the red hard-pan is prominent |
| 8 – 11 | Pallid zone, greasy feel (talc), kaolin + angular quartz |
| 11 – 13 | As above, but with greenish cast to saprolite, kaolin + talc + quartz, red mottling @ 12-13 m |
| 13 – 17 | Greenish saprolite, quartz + kaolin + micas + chlorite |
| 17 – 18 | Yellowish saprolite |
| 18 – 32 | Greyish saprolite with olive green cast, quartz + kaolin + micas + chlorite |
| 32 – 37 | Strong yellow saprolite |
| 37 – >50 | Greyish saprolite with abundant grey quartz. |

| Hole: 96 GBAR 244 Pilot Regolith Line, Golf Bore Prospect. <u>In-Field Descriptions</u> Location: 404400.2 E, 6726514 N, AHD: 177.822 m. Site: flat, sandy area. On west side of road. Vegetation: <i>Acacia aneura</i> Tall Open Shrubland over <i>Atriplex vesicaria</i> , <i>Maireana integra</i> and <i>Maireana georgei</i> Low Shrubland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Reddish orange aeolian siliceous sand with calcrete |
| 1 – 2 | Thin partly silicified cap to saprolite, pallid zone with yellow bands and/or staining |
| 2 – 3 | As above but greenish, quartz + kaolin + silica + gypsum |
| 3 – 7 | Greenish saprolite with some brownish sub-zones, contains talc |
| 7 – 12 | Greyish saprolite with quartz & kaolin + micas + talc |
| 12 – 14 | Pale yellowish green saprolite |
| 14 – 24 | Greenish grey saprolite, quartz + clay + talc + chlorite |
| 24 – 29 | Greyish saprolite |
| 29 – 32 | Greenish to dark greenish saprolite |
| 32 – >38 | Greyish ?saprock with quartz veining. |

| Hole: 96 GBAR 247 Pilot Regolith Line, Golf Bore Prospect. <u>In-Field Descriptions</u> Location: 404100.4 E, 6726517.8 N, AHD: 177.839 m. Large distance from last hole sampled. Site: flat, sandy area Vegetation: <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Shrubland over <i>Atriplex vesicaria</i> Low Open Shrubland over <i>Eragrostis eriopoda</i> Very Open Grassland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|---|---|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Reddish aeolian siliceous sand |
| 1 – 2 | Reddish aeolian siliceous sand with calcrete & some rounded quartz gravel |
| 2 – 3 | Bright yellow clay – partly to fully silicified, has some rounded quartz gravel within, includes upper part of waste mantle (pedolith) cap to saprolite |
| 3 – 4 | Yellow clay zone, part of the waste mantle (pedolith) cap to saprolite |
| 4 – >11 | Pallid zone, saprolite with kaolin + quartz + talc |
| >11 – 15 | Yellowish to bright yellow clay, saprolite, clay + talc + micas |
| 15 – 25 | Greenish saprolite, quartz + clay + talc + chlorite + micas |
| 25 – >47 | Grey saprolite to grey saprock with quartz veining @ 38-40 m & yellow sub-zone @ 28 m. |

Hole: 96 GBAR 249 **Pilot Regolith Line, Golf Bore Prospect. In-Field Descriptions Location:** 403898.1 E, 6726511.1 N, **AHD:** 179.650 m. (Near Hole 98 ORAR 001)

Site: on dune-silcrete rise

Vegetation: *Acacia aneura* Tall Open Shrubland over Shrubland over *Maireana georgei* and *Maireana integra* Low Open Shrubland over *Eragrostis eriopoda* Very Open Grassland. (many dead *Acacia aneura* trees.) (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 1 | Reddish aeolian siliceous sand with some calcrete |
| 1 – 2 | Reddish aeolian siliceous sand with calcrete + some silcrete & grey quartz fragments |
| 2 – 4 | Silcrete with enclosed quartz clasts & fragments thereof |
| 4 – 6 | Cream clay zone, yellow mottles waste mantle (pedolith) capping to saprolite |
| 6 – 8 | Pallid zone, kaolin + angular quartz |
| 8 – 9 | Yellow to off-white & grey saprolite |
| 9 – 13 | Yellowish saprolite with a weak greasy feel, quartz + kaolin + ?talc |
| 13 – 14 | Bright yellow saprolite |
| 14 – 17 | Pale yellow saprolite |
| 17 – 19 | Strong yellow saprolite |
| 19 – >44 | Grey saprolite with olive-green chlorite-rich zones & abundant grey quartz. |

Hole: 98 ORAR 010 **Pilot Regolith Line, Golf Bore Prospect. In-Field Descriptions Location:** 403584.2 E, 6726522.3 N **AHD:** 180.884 m. (Later set of RAB holes)

Site: on dune-silcrete crest at far western end of Investigation line

Vegetation: *Acacia aneura* Low Open Woodland over Shrubland over *Ptilotus obovatus*, *Atriplex vesicaria* and *Maireana georgei* Low Shrubland. (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 1 | Reddish aeolian siliceous sand with some calcrete |
| 1 – ~4 | As above with abundant calcrete nodules + siliceous calcrete |
| 4 – 6 | Silcrete with abundant quartz clasts – rounded & angular with some having calcrete coatings |
| 6 – 9 | Yellow & near white clay + gypsum, waste mantle (pedolith) capping to saprolite |
| 9 – 11 | Pallid zone, kaolin + angular quartz + ?talc |
| 11 – 14 | White-yellow to cream saprolite with greasy feel, kaolin + angular quartz + ?talc |
| 14 – 17 | Pallid zone with greenish tint |
| 17 – 21 | Bright yellow saprolite |
| 21 – 25 | Yellow to green-grey saprolite |
| 25 – 34 | Greenish grey saprolite |
| 34 – 35 | Greenish grey saprolite |
| 35 – >50 | Greenish grey to grey and green saprolite to saprock. |

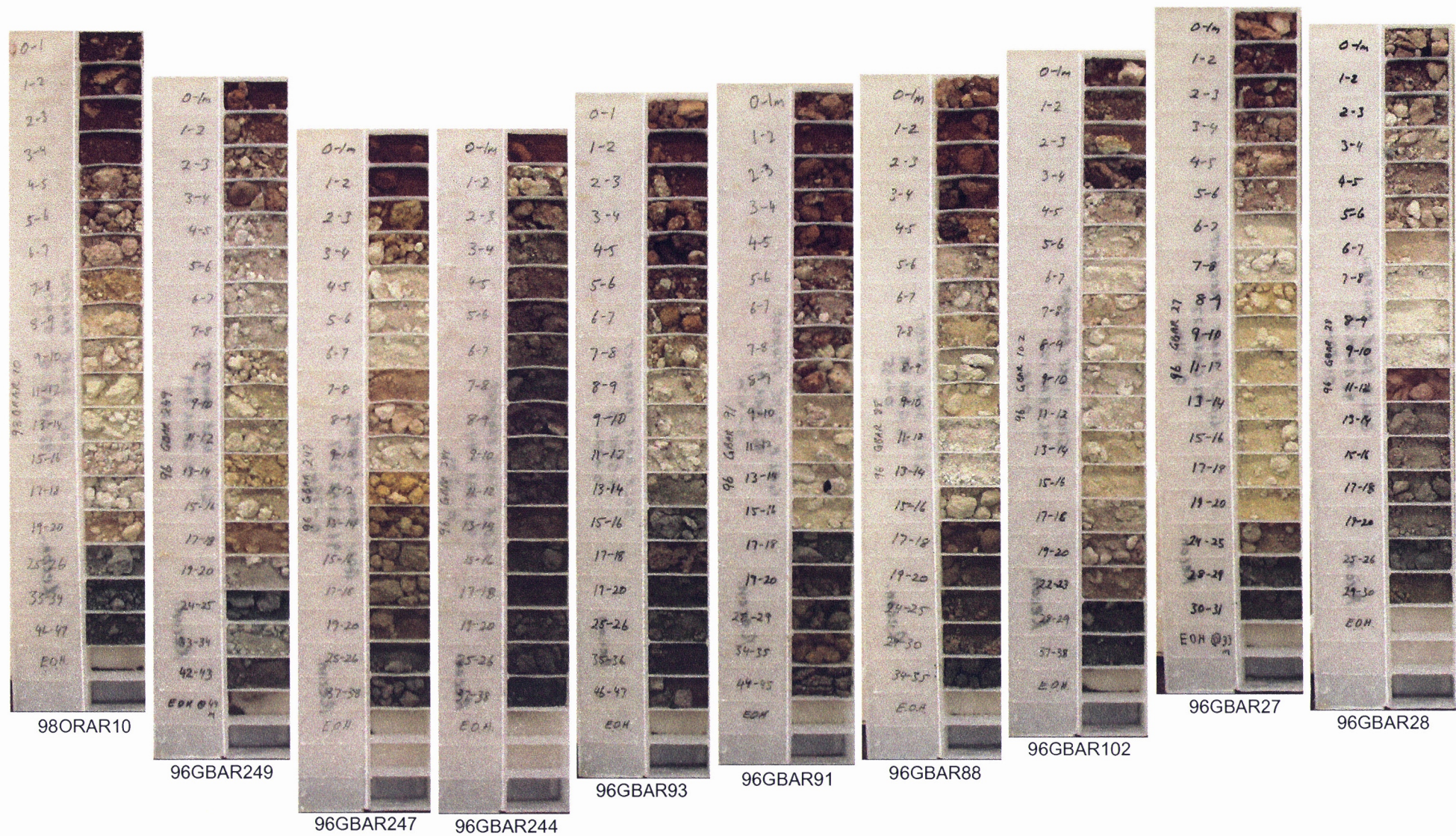


Figure A2.2.1: Golf Bore Prospect chip tray photographs - vertically arranged according to AHD

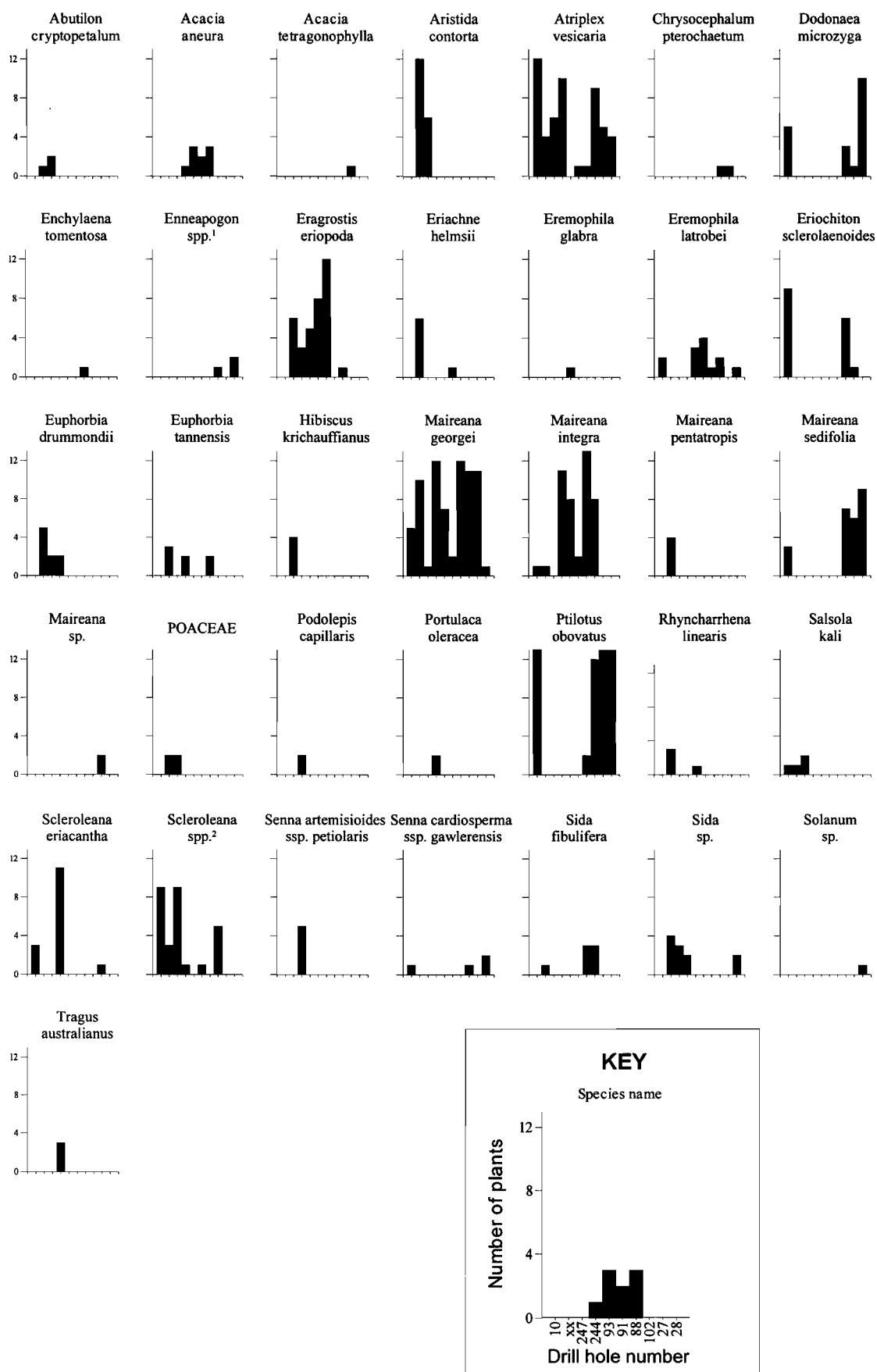


Figure A2.2.2: Species diversity and density along 6726500N at Golf Bore Prospect.

¹Enneapogon spp. includes *E. avenaceus* and *E. polyphyllus*.

²Sclerolaena spp. includes *S. diacantha/uniflora*, *S. eriacantha*, *S. obliquicuspis* and *S. patentiscuspis*.

Appendix 2.3: Regolith logging of reconnaissance line at Jumbuck

| Hole: 97 JBAR 069 Pilot Regolith Line, Jumbuck Prospect. <u>In-Field Descriptions</u> Location: 374993.6 E, 6690435.7 N, AHD: 206.844 m Site: Vegetation: <i>Ptilotus obovatus</i> and <i>Maireana</i> sp. Low Open Shrubland over <i>Eragrostis eriopoda</i> Very Open Grassland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 2 | Orange sand + pinky calcrete |
| 2 – ~4 | Silcrete enclosing angular quartz clasts |
| >4 – 17 | Pallid zone with chunks appearing like saprolite but rounded quartz clasts seen @ 6 – 7 m, yellow mottling @ 11-12 & 17 m, |
| 17 – 25 | Yellow saprolite, strongest colours @ 19-21 & 23 m, rounded quartz clasts seen @ 24, 25 m |
| 25 – 29 | Pale brown to yellowish brown clay saprolite with angular vein quartz fragments common |
| 29 – 32 | Pinkish clay saprolite |
| 32 – >51 | Greyish saprolite with plenty of vein quartz fragments. |

| Hole: 97 JBAR 067 Pilot Regolith Line, Jumbuck Prospect. <u>In-Field Descriptions</u> Location: 375188.6 E, 6690436.3 N, AHD: 207.138 m Site: Vegetation: <i>Acacia aneura</i> Low Woodland over Shrubland over <i>Maireana georgei</i> , <i>Ptilotus obovatus</i> and <i>Sclerolaena</i> Low Open Shrubland over Very Open Grassland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 2 | Orange sand + calcrete @ 1-2 m |
| 2 – >3 | Ferruginous–siliceous rounded granules–nodules with khaki coloured coatings (cutans) |
| >3 – >4 | Silcreted quartz grains – mostly angular |
| >4 – 12 | Pallid zone, kaolinitic + quartz but less than in previous hole (069). Some yellow FeOH mottles @ 10 m. No rounded clasts. Zone has a slight greenish cast to it |
| 12 – 39 | Pinkish to pale maroon saprolite, hue intensifies with depth, much bluish grey vein quartz @ 27 m |
| 39 – >48 | Greyish saprolite with yellowish-green cast. |

Hole: 97 JBAR 066 **Pilot Regolith Line, Jumbuck Prospect. In-Field Descriptions Location:** 375287.6 E, 6690443 N, **AHD:** 206.446 m. **Photo:** 11/99/R2/#8

Site:

Vegetation: *Acacia aneura* Low Open Woodland over *Eremophila Latrobei* Open Shrubland over *Maireana georgei*, *Sclerolaena* and *Sida fibulifera* Low Shrubland over *Eragrostis eriopoda* Open Grassland. (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 2 | Reddish quartz sand, aeolian dune with calcrete @ 1-2 m |
| 2 – 3 | Silcrete – both reddish & grey, encloses greyish quartz grains |
| 3 – 4 | Pale brownish sandy clay |
| 4 – 5 | Grey quartz + some clay |
| 5 – 7 | Brown silty sandy clay |
| 7 – 20 | Pallid zone, greyish to off-white, kaolin + quartz, coarse blue vein quartz @ 7-8 m |
| 20 – 22 | Bright yellow clay saprolite & much coarse bluish vein quartz as fragments (5-20 mm) |
| 22 – 23 | Yellowish clay saprolite |
| 23 – 25 | Yellow clay saprolite |
| 25 – 31 | Pinkish to maroon clay saprolite |
| 31 – >34 | Brown clay saprolite with greyish zones & quartz, coarse blue vein quartz |
| >34 – 37 | Mostly grey quartz & some clay |
| 37 – 42 | Brownish-stained grey saprolite + quartz |
| 42 – >49 | Greyish saprolite grading to saprock. |

Hole: 97 JBAR 064 **Pilot Regolith Line, Jumbuck Prospect. In-Field Descriptions Location:** 375490.3 E, 6690433.4 N, **AHD:** 206.593 m

Site:

Vegetation: *Acacia aneura* Low Open Woodland over *Acacia aneura* Open Shrubland over *Ptilotus obovatus* and *Maireana georgei* Low Open Shrubland over *Eragrostis eriopoda* Very Open Grassland. (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 1 | Reddish dune sand, siliceous, some calcrete present |
| 1 – 2 | As above with ubiquitous calcrete |
| 2 – ~3 | Red hardpan, non calcareous but peds/clods are calcrete coated, ferruginous |
| ~3 – 4 | Brown to yellowish silcrete with rounded & angular sand grains – granules, hardpan also within this interval – boundary ~midway |
| 4 – 5 | Yellow to reddish sandy clay with some rounded sand grains |
| 5 – 8 | Pale pink to buff coloured sand + silt & kaolin, boundary @ 8 m |
| 8 – 11 | Kaolinitic material, white with yellow staining & flecks, very little quartz clasts, rare rounded quartz @ 9-10 m |
| 11 – 31 | As above but with more quartz, including subrounded granules, start of new pallid zone, saprolite, having abundant angular bluish vein quartz fragments @ 13-15, 17-18 & 26-28 m |
| 31 – 36 | Pinkish-grey-creamy mottled zone, saprolite |
| 36 – 42 | Brownish-grey saprolite with yellow mottles & becoming pale olive-grey with depth |
| 42 – >60 | Greyish saprolite with some pink staining, reddish staining @ 55, 57 & 60 m. |

Hole: 97 JBAR 062 **Pilot Regolith Line, Jumbuck Prospect.** **In-Field Descriptions** **Location:** 375681.8 E, 6690448.1 N, **AHD:** 208.026 m

Site:

Vegetation: *Acacia aneura* Low Open Woodland over *Ptilotus obovatus* and *Sida fibulifera* Low Open Shrubland over *Eragrostis eriopoda* Very Open Shrubland. (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 1 | Reddish siliceous dune sand + pink calcrete + silcrete gibber fragments |
| 1 – 2 | Pink & white & yellow clays with grey quartz |
| 2 – 4 | As above but with more white kaolinite |
| 4 – 5 | Silicified material to silcrete with pepper-like flecks of ?biotite or graphite enclosed within (implying this is silicified saprolite) |
| 5 – 6 | White & brownish clay + quartz, saprolite |
| 6 – 7 | Pale brown clay, saprolite |
| 7 – 8 | White clay, saprolite |
| 8 – 11 | Olive smectitic clays with some yellow flecks & quartz, saprolite |
| 11 – 12 | Bright yellow & olive smectitic clays |
| 12 – ~14 | Grey smectitic saprolite |
| ~14 – 18 | Bright yellow clay saprolite |
| 18 – 22 | Pale brown saprolite |
| 22 – 24 | Pale grey saprolite with FeOH segregations & vein quartz |
| 24 – 28 | As above but brownish |
| 28 – 51 | Grey saprolite with brown FeOH segregations |
| 51 – >58 | Grey saprock with large fragments of biotite-rich rock (strongly foliated) + vein quartz |

Hole: 97 JBAR 060 **Pilot Regolith Line, Jumbuck Prospect.** **In-Field Descriptions** **Location:** 375978.5 E, 6690461.4 N, **AHD:** 208.076 m

Site:

Vegetation: *Acacia aneura* Tall Open Shrubland over *Senna artemisioides* subsp. *petiolaris* Open Shrubland over *Ptilotus obovatus* Low Open Shrubland over *Eragrostis* Open Grassland. (Logged by S. Lintern)

Soil: Um (sandy)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 2 | Orange-red siliceous dune sand + calcrete |
| 2 – 3 | Bright orange sand & rounded clasts + some clay, may equate to the red hardpan seen in other holes. |
| 3 – 4 | Silcrete, grey with angular clasts of quartz |
| 4 – 8 | Pallid kaolin + quartz zone with angular vein quartz, saprolite |
| 8 – 10 | As above but with abundant dark bluish vein quartz, saprolite |
| 10 – 12 | As above with some down-hole contamination |
| 12 – 15 | White & yellow saprolite |
| 15 – 24 | Yellow clay saprolite |
| 24 – 37 | Grey vein quartz & clay saprolite with Fe oxide stained lithic relics |
| 37 – >48 | Pinkish-grey saprolite + vein quartz with redder & orange lithic relics. |

| Hole: 97 JBAR 058 Pilot Regolith Line, Jumbuck Prospect. <u>In-Field Descriptions</u> Location: 376078.6 E, 6690461.9 N, AHD: 206.918 m Site: Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Eremophila latrobei</i> and <i>Acacia aneura</i> Shrubland over <i>Ptilotus obovatus</i> and <i>Maireana georgei</i> Low Shrubland over <i>Eragrostis eriopoda</i> Very Open Grassland. (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Reddish siliceous dune sand + calcrete |
| 1 – 2 | Brown & grey silcrete containing rounded quartz clasts – sand to cobbles |
| 2 – 3 | Brown & grey silcrete as above + clays |
| 3 – 4 | Clays & some silcrete + down-hole contamination of subrounded quartz |
| 4 – 11 | White zone, kaolin + quartz with some angular quartz fragments, ?saprolite |
| 11 – 12 | As above with abundant blue vein quartz fragments, saprolite |
| 12 – ~16 | Pallid saprolite zone with some pinkish colourings, little vein quartz |
| ~16 – 23 | Yellow-orange saprolite |
| 23 – 26 | Greyish saprolite with bluish vein quartz fragments |
| 26 – 55 | Brownish saprolite with yellow-brown relic lithic fragments, vein quartz @ 32 & 40 m |
| 55 – >60 | As above but material becoming fresher with depth, vein quartz @ 57 m. |

| Hole: 97 JBAR 056 Pilot Regolith Line, Jumbuck Prospect. <u>In-Field Descriptions</u> Location: 376273.2 E, 6690463.5 N, AHD: 204.160 m. Photo: 11/99/R2/#7 Site: Vegetation: <i>Maireana georgei</i> and <i>Ptilotus obovatus</i> Low Shrubland over <i>Eragrostis eriopoda</i> Open Grassland. (many dead <i>Acacia aneura</i> trees) (Logged by S. Lintern) Soil: Um (sandy) Calcrete: nodular Logged by: M.J. Sheard | |
|--|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Orange siliceous dune sand |
| 1 – 2 | Paler orange siliceous dune sand + calcrete |
| 2 – 4 | As above + grey silcrete with yellow stains & blebs |
| 4 – 8 | Pallid zone, kaolin + quartz, yellow mottling @ 5-6 m & pale pink mottling @ 7 m |
| 8 – 9 | As above with abundant rounded bluish quartz clasts as gravel to pebbles (to 50 mm) ⇨ ? this is a fluvial sequence. |
| 9 – 10 | Pallid zone, kaolin + quartz, yellow to pink mottling & streaking, may be a waste mantle (pedolith) cap to saprolite below |
| 10 – 19 | Pallid zone, kaolin + quartz, yellow mottling, saprolite |
| 19 – 23 | Brownish grey saprolite |
| 23 – 29 | Brownish grey saprolite + yellow FeOH segregations or relic lithic fragments |
| 29 – 37 | Brown-grey saprolite with dark brown or yellow-brown relic rock fragments |
| 37 – >51 | Greyish to dark olive-grey saprolite to saprock, the latter forms dark grey fissile rock fragments rich in mafic minerals |

Hole: 97 JBAR 054 **Pilot Regolith Line, Jumbuck Prospect. In-Field Descriptions Location:** 376471.2 E, 6690470.8 N, **AHD:** 201.853 m. **NOTE:** this hole logged in more detail to better delineate model alluded to in log of hole 97 JBAR 56 (requires PIMA to verify due to down-hole contamination by rounded clasts).

Site:

Vegetation: *Acacia aneura* Tall Open Shrubland over *Senna artemisioides* subsp. *petiolaris* Open Shrubland over *Ptilotus obovatus* and *Maireana georgei* Low Shrubland over *Eragrostis eriopoda* Very Open Grassland. (Logged by S. Lintern)

Soil: Um (sand)

Calcrete: nodular

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 1 | Reddish siliceous dune sand |
| 1 – 2 | Pale red siliceous dune sand + carbonate |
| 2 – 3 | Pale red siliceous dune sand + nodular carbonate |
| 3 – 4 | Greyish to yellowish silcrete + quartz fragments & coarse sand |
| 4 – 5 | White, red & yellow clay, kaolin + quartz sand |
| 5 – 9 | Pallid zone, white to grey kaolin + quartz with rounded water-worn clasts (of quartz, sandstone & silcrete: 10-40 mm) @ 7-9 m |
| 9 – 10 | Clay-rich zone, kaolinitic with angular quartz fragments only, waste mantle (pedolith) cap to saprolite. |
| 10 – 12 | Yellow version of 9 – 10 m, saprolite |
| 12 – 14 | Pallid zone, kaolin with greenish hue cast, saprolite |
| 14 – 17 | Bright yellow saprolite, paler yellow with depth |
| 17 – 22 | Pinkish clay saprolite with vein quartz fragments @ 20 m |
| 22 – 25 | Brown Fe-stained saprolite with yellow-brown segregations |
| 25 – 28 | Brownish grey saprolite with quartz veining @ 26 m |
| 28 – 35 | Olive-brown & grey saprolite with dark brown relic lithic fragments |
| 35 – >52 | Pale olive-brownish grey saprolite to near saprock. |

Hole: 97 JBAR 052 **Pilot Regolith Line, Jumbuck Prospect. In-Field Descriptions Location:** 376671.6 E, 6690479.3 N, **AHD:** 199.448 m.

Site:

Vegetation: *Acacia aneura* Woodland over *Acacia aneura* Open Shrubland over *Ptilotus obovatus*, *Eremophila latrobei* and *Maireana georgei* Open Low Heath over *Eragrostis eriopoda* and *Thyridolepis mitchelliana* Open Grassland. (Logged by S. Lintern)

Soil: thin Um (sandy)

Calcrete: platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 2.5 | Thin reddish sandy soil – aeolian (<30 cm) on massive yellow to grey silcrete, porcellanite towards base and lower part is silicified sandstone |
| 2.5 – 8 | Pallid zone, kaolin + quartz sand, rounded clasts of mm to cm sizes, grey to white with some pale pink & pale yellow tints |
| 8 – 11 | Creamy to grey clay-rich zone, waste mantle (pedolith) cap to saprolite, with yellow staining @ 10-11 m |
| 11 – 16 | Pinkish saprolite, kaolin-rich + quartz |
| 16 – 19 | Yellowish grey saprolite with yellow staining |
| 19 – 20 | Pinkish saprolite |
| 20 – 21 | Pinkish saprolite with abundant dark bluish vein quartz fragments (cm sized) |
| 21 – 29 | Pinkish brown-grey saprolite, clay & quartz-rich |
| 29 – >42 | Mostly greyish saprolite, variably quartz veined and with some brownish zones. |

Hole: 97 JBAR 050 **Pilot Regolith Line, Jumbuck Prospect.** **In-Field Descriptions** **Location:** 376876.8 E, 6690477.3 N, **AHD:** 195.397 m.

Site:

Vegetation: *Acacia aneura* Low Open Woodland over *Acacia aneura* Tall Open Shrubland over *Eremophila latrobei* Shrubland over *Maireana georgei* Low Open Shrubland over *Eragrostis eriopoda* and *Thyridolepis mitchelliana* Open Grassland. (Logged by S. Lintern)

Soil: thin Um (sandy)

Calcrete: platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|------------------|---|
| 0 – 1 | Thin reddish sandy soil – aeolian (<20 cm) on massive yellow to grey silcrete, |
| 1 – >3 | Grey silcrete developed in & on kaolin-rich quartz sand |
| >3 – 10 | Greyish quartz sand + kaolin with rounded bluish & grey quartz granules to gravel @ 6-10 m |
| 10 – 11 | Pallid zone, kaolin-rich & quartz poor with creamy tints – waste mantle (pedolith) cap to saprolite |
| 11 – 13 | As above but pinkish, saprolite |
| 13 – 16 | Yellow stained pallid zone, saprolite |
| 16 – 22 | Bright yellow saprolite |
| 22 – 31 | Pinkish grey to grey saprolite |
| 31 – 35 | NO SAMPLE available |
| 35 – 37 | Bright yellow to cream saprolite |
| 37 – 45 | Grey saprolite with pink staining |
| 45 – >51 | Grey saprolite with pink staining & abundant pale olive smectitic clays. |

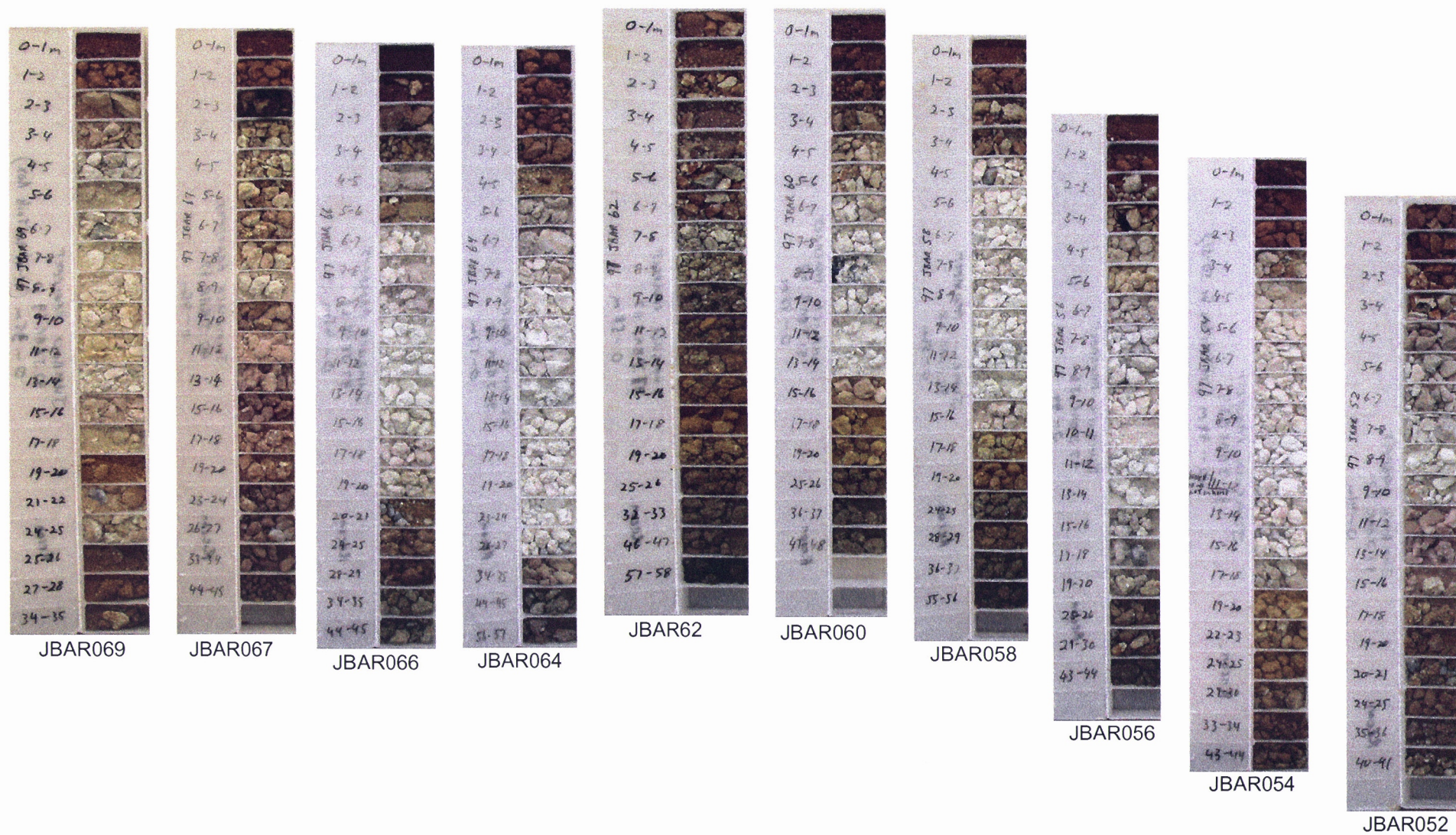


Figure A2.3.1: Jumbuck Prospect chip tray photographs - vertically arranged according to AHD

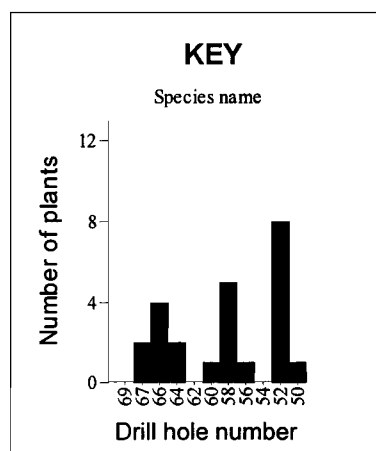
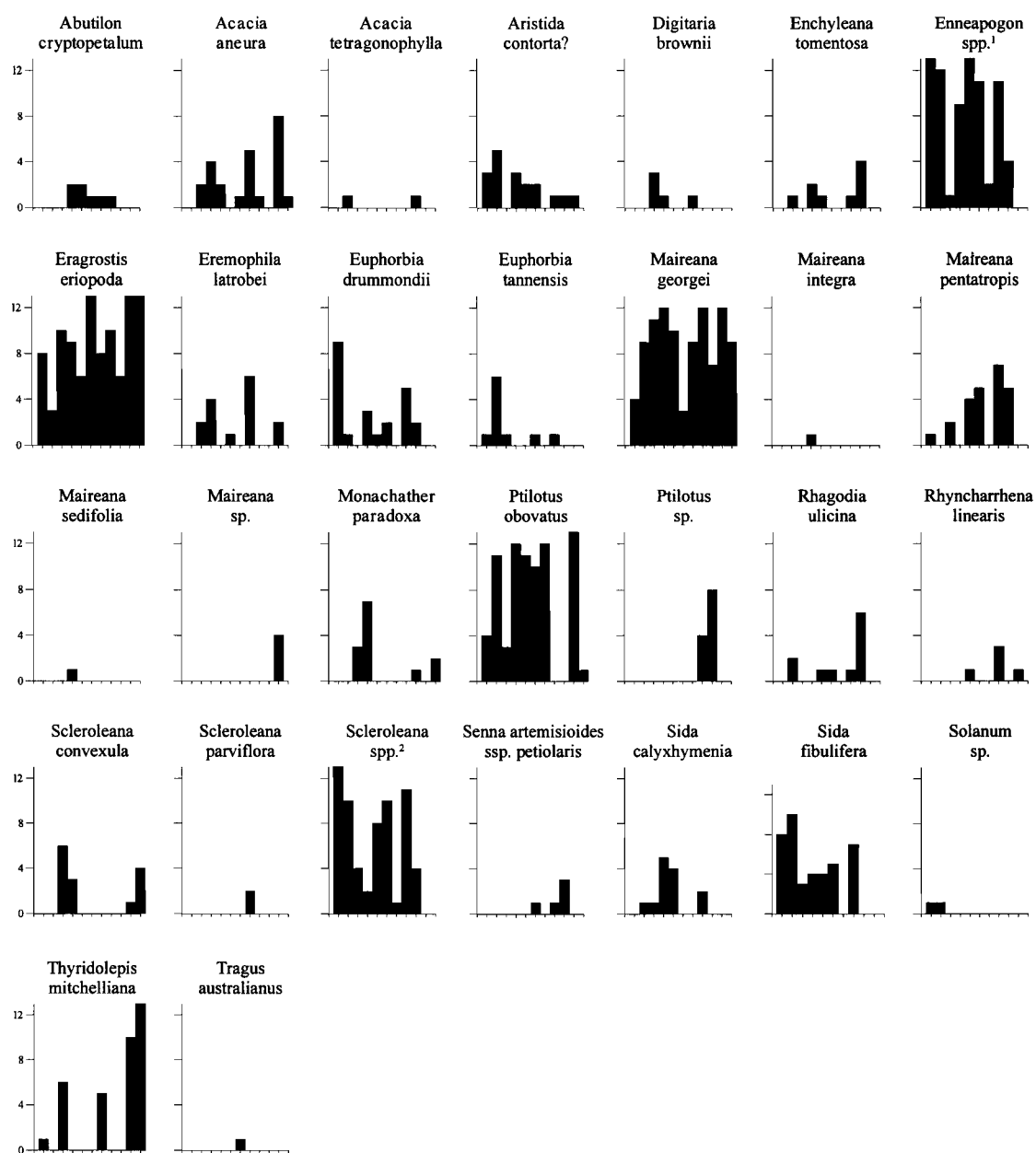


Figure A2.3.2: Species diversity and density along 6690450N at Jumbuck Prospect.

¹Enneapogon spp. includes *E. avenaceus*, *E. caerulescens* and *E. cylindricus*.

²Scleroleana spp. includes *S. diacantha*, *S. obliquicuspis*, *S. uniflora* and *S. aff. burbidgeae*.

Appendix 2.4a: Regolith logging of reconnaissance line at Monsoon.

| Hole: 97 MNAR 106 Pilot Regolith Line, Monsoon Prospect. <u>In-Field Descriptions</u> Location: 350550.8 E, 6657557 N, AHD: 180.747 m Site: within a shallow creek gully Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Maireana sedifolia</i> and <i>Eremophila latrobei</i> Low Shrubland. (Logged by S. Lintern) Soil: Uc (gravelly alluvium) Calcrete: massive to platy Logged by: M.J. Sheard | |
|---|---|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Pale coloured siliceous alluvium, sand to pebbles cemented by calcrete |
| 1 – 6 | An older reddish to reddish brown colluvium–alluvium related to the modern channel, calcareous in part as coatings, clasts within are rounded to subangular, quartz as sand to gravel |
| 6 – 8 | Red-brown hard-pan, palaeosol, partly Fe oxide cemented |
| 8 – 9 | Thin silcrete on incipiently silicified saprolite which is pallid with weakly developed brownish micro mottles |
| 9 – 16 | Pallid saprolite, kaolin + quartz |
| 16 – 22 | Pinkish to yellowish saprolite, kaolin + quartz, vein quartz @ 19 m |
| 22 – 26 | Greyish saprolite, kaolin + quartz |
| 26 – 30 | Reddish saprolite, kaolin + quartz + Fe oxides |
| 30 – 42 | Greyish saprolite, kaolin + quartz |
| 42 – 55 | Khaki saprolite, kaolin + quartz, top appears to be more weathered than zone 30-42 m, vein quartz @ 45-46 m, more lithic relics by 45 m |
| 55 – >66 | Greyish to dark grey saprolite, kaolin + quartz + lithic remnants. |

| Hole: 97 MNAR 186 Pilot Regolith Line, Monsoon Prospect. <u>In-Field Descriptions</u> Location: 350554.8 E, 6657495 N, AHD: 180.728 m Site: within a shallow creek gully Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Senna cardiosperma</i> subsp. <i>microphylla</i> , <i>Maireana sedifolia</i> and <i>Senna artemisioides</i> subsp. <i>petiolaris</i> Low Shrubland. (Logged by S. Lintern) Soil: Uc (gravelly alluvium) Calcrete: massive to platy Logged by: M.J. Sheard | |
|--|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 2.5 | Pale coloured siliceous alluvium, sand to pebbles cemented by calcrete |
| 2.5 – 5 | An older dark brown colluvium–alluvium related to the modern channel, calcareous in part as coatings, Fe oxide staining |
| 5 – 7 | Red-brown hard-pan, palaeosol, partly Fe oxide & ?silica cemented |
| 7 – 8 | Thin silcrete on incipiently silicified saprolite which is pallid with weakly developed brownish Fe oxide micro mottles & staining |
| 8 – 11 | Silicified pallid saprolite, off-white with weak pink tint, kaolin + quartz |
| 11 – 15 | Pale pink saprolite, kaolin + quartz |
| 15 – 18 | Pink saprolite, redder at top of zone, kaolin + quartz |
| 18 – 31 | Pale yellow-brown saprolite (near pallid), kaolin + quartz, bluish grey vein quartz @ 19-20 m |
| 31 – 40 | Pale grey saprolite, kaolin + quartz, bluish vein quartz @ 33-34 m |
| 40 – >74 | Grey saprolite with a redder sub-zone @ 73-74 m. |

Hole: 97 MNAR 105 **Pilot Regolith Line, Monsoon Prospect. In-Field Descriptions Location:** 350560.1 E, 6657453 N, **AHD:** 180.823 m

Site: within a shallow creek gully

Vegetation: *Acacia aneura* Low Open Woodland over *Maireana sedifolia*, *Senna cardiosperma* subsp. *microphylla* and *Eremophila latrobei* Low Open Heath. (Logged by S. Lintern)

Soil: Uc (gravelly alluvium)

Calcrete: massive to platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 2 | Pale pinkish siliceous alluvium, sand to pebbles cemented by calcrete |
| 2 – 4 | An older dark reddish brown colluvium–alluvium related to the modern channel, calcareous in part as coatings, Fe oxide staining |
| 4 – 6 | Red-brown hard-pan, palaeosol, partly Fe oxide cemented |
| 6 – 8 | Silcrete on incipiently silicified saprolite which is greyish to cream |
| 8 – 12 | Pallid saprolite, kaolin + quartz |
| 12 – 32 | Pinkish to pink saprolite, kaolin + quartz |
| 32 – 45 | Pale yellow brown saprolite |
| 45 – 72 | Grey saprolite, clays + quartz, bluish grey vein quartz @ 55-56 m |
| 72 – >76 | Dark grey saprolite, quartz + clays. |

Hole: 97 MNAR 104 **Pilot Regolith Line, Monsoon Prospect. In-Field Descriptions Location:** 350560.2 E, 6657408 N, **AHD:** 180.792 m

Site: near the edge of shallow creek gully

Vegetation: *Acacia aneura* Low Open Woodland over *Maireana sedifolia* and *Senna cardiosperma* subsp. *microphylla* Low Shrubland. (Logged by S. Lintern)

Soil: Uc (gravelly alluvium)

Calcrete: massive to platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 2 | Pale pinkish siliceous alluvium, sand to pebbles cemented by calcrete |
| 2 – >4 | An older dark reddish brown colluvium–alluvium related to the modern channel, calcareous in part as coatings, Fe oxide staining |
| >4 – >5 | Red-brown hard-pan, palaeosol, with dark brown to black Fe oxide segregations, partly Fe oxide & ?silica cemented |
| >5 – >6 | Pale greyish silcrete on incipiently silicified pallid saprolite |
| >6 – 10 | Pallid saprolite, kaolin + quartz |
| 10 – 15 | Pinkish to purplish saprolite, mostly clay + some quartz |
| 15 – 21 | Pale yellow brown saprolite with thin quartz veining |
| 21 – 25 | Pale grey saprolite, mostly clay |
| 25 – 30 | Dark brown saprolite, mostly clays. |
| 30 – >61 | Pale grey saprolite with some darker grey lithic relics, becomes greenish tinted near 61 m |

Hole: 97 MNAR 119 **Pilot Regolith Line, Monsoon Prospect. In-Field Descriptions Location:** 350566.5 E, 6657358 N, **AHD:** 180.806 m

Site: near the edge of a shallow creek gully

Vegetation: *Acacia aneura* Low Open Woodland over *Maireana sedifolia* and *Senna cardiosperma* subsp. *microphylla* Low Shrubland. (Logged by S. Lintern)

Soil: Uc (gravelly alluvium)

Calcrete: massive to platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – >1 | Pale pinkish siliceous alluvium, sand to pebbles cemented by calcrete |
| >1 – 3 | An older reddish brown colluvium–alluvium related to the modern channel, calcareous in part as coatings, Fe oxide staining |
| 3 – >4 | Red-brown hard-pan, palaeosol, with dark brown to black Fe oxide segregations, partly Fe oxide & ?silica cemented |
| >4 – 5 | Pale greyish silcrete on incipiently silicified pallid saprolite |
| 5 – 8 | Pallid saprolite, with relict granulite texture preserved, medium to coarse-grained kaolin + quartz |
| 8 – 14 | Pallid saprolite, finer grained, pinkish near base of zone, clays + some quartz |
| 14 – 18 | Pale brown to brown saprolite |
| 18 – 22 | Yellow saprolite, mostly clay |
| 22 – 30 | Pinkish grey saprolite, mostly clays. |
| 30 – 50 | Grey saprolite |
| 50 – >62 | Grey saprolite with greenish blue-grey tint. |

Hole: 97 MNAR 046 **Pilot Regolith Line, Monsoon Prospect. In-Field Descriptions Location:** 350559.1 E, 6657306 N, **AHD:** 180.933 m

Site: near the edge of a shallow creek gully

Vegetation: *Acacia aneura* Low Open Woodland over *Maireana sedifolia* and *Senna cardiosperma* subsp. *microphylla* Low Shrubland. (This site contains a distinct margin in vegetation and sand/rock changes) (Logged by S. Lintern)

Soil: Uc (lithosol, gravelly colluvium)

Calcrete: massive to platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 2 | Pale grey-brown colluvium, mostly cemented by calcrete |
| 2 – 4 | An older reddish brown colluvium related to the nearby modern channel, calcareous in part as coatings, Fe oxide staining |
| 4 – <6 | Red-brown hard-pan, palaeosol, partly Fe oxide & ?silica cemented |
| <6 – 8 | Grey silcrete with enclosed angular quartz clasts |
| 8 – 10 | Greyish to pinkish grey silicified saprolite |
| 10 – 13 | As above but not silicified, clays + some quartz |
| 13 – 25 | White saprolite, kaolin + some quartz |
| 25 – 33 | Pale greyish to yellowish grey saprolite |
| 33 – 40 | Pinkish grey saprolite, mostly clays. |
| 40 – 50 | Grey saprolite |
| 50 – >72 | Grey saprolite with greenish tint & more competent after 60 m. |

| Hole: 97 MNAR 118 Pilot Regolith Line, Monsoon Prospect. <u>In-Field Descriptions</u> Location: 350564.3 E, 6657256 N, AHD: 181.008 m Site: minor creek channel within the upper part of a low flat outcrop area Vegetation: <i>Maireana sedifolia</i> and <i>Dodonaea microzyga</i> Low Shrubland over Very Open Grassland. (Logged by S. Lintern) Soil: Uc (lithosol, gravelly alluvium) Calcrete: massive to platy Logged by: M.J. Sheard | |
|--|---|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Modern creek alluvium, pale pinkish grey |
| 1 – 3 | As above, with quartz pebbles to 20 mm with reddish brown fines, may include a thin dark reddish alluvium-colluvium |
| 3 – 5 | Greyish to yellowish grey silicified saprolite |
| 5 – 6 | Pallid clay saprolite with reddish micro-mottles & stains |
| 6 – 14 | White clay-rich saprolite + quartz |
| 14 – 25 | Pallid saprolite with pinkish stains @ 15-16 m |
| 25 – 30 | Pinkish to pale yellowish red saprolite, clay + some quartz |
| 30 – 40 | Pinkish grey saprolite |
| 40 – 60 | Grey saprolite, with greenish tint |
| 60 – >78 | Grey to dark grey saprolite with dark grey lithic relic fragments. |

| Hole: 97 MNAR 047 Pilot Regolith Line, Monsoon Prospect. <u>In-Field Descriptions</u> Location: 350567.1 E, 6657199 N, AHD: 181.109 m Site: on the upper part of a low flat outcrop area Vegetation: <i>Maireana sedifolia</i> Low Shrubland. (Logged by S. Lintern) Soil: Uc (lithosol, gravelly colluvium) Calcrete: massive to platy Logged by: M.J. Sheard | |
|--|--|
| Depth (m) | Description of RAB cuttings |
| 0 – 1 | Surficial lag + colluvium + thin lithosol, pale brown, calcreted |
| 1 – ~4 | Pinkish – brownish – greyish silcreted saprolite & partly silicified saprolite |
| ~4 – 5 | Off-white silicified saprolite |
| 5 – ~8 | Pallid clay saprolite, kaolin + quartz |
| ~8 – 12 | ?smectitic clay saprolite – greyish with multi coloured mottles & staining |
| 12 – 15 | Bright yellow saprolite |
| 15 – 17 | Creamy saprolite |
| 17 – 19 | Pale brown saprolite |
| 19 – 22 | Pale yellow-grey saprolite |
| 22 – 40 | Greyish saprolite, with relict schistose fabric evident & greenish tint |
| 40 – >54 | Grey, dark grey and greenish grey saprolite with abundant relic lithic fragments approaching saprock mineralogy. |

Hole: 97 MNAR 049 **Pilot Regolith Line, Monsoon Prospect. In-Field Descriptions Location:** 350569 E, 6657043 N, **AHD:** 180.859 m

Site: on the upper part of a low flat outcrop area

Vegetation: *Maireana sedifolia* and *Senna cardiosperma* subsp. *microphylla* Low Shrubland. (Logged by S. Lintern)

Soil: Uc (lithosol, gravelly colluvium)

Calcrete: massive to platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 1 | Surficial lag + colluvium + thin lithosol, pale brown, calcreted |
| 1 – 3 | Brownish silicified unit & partly ?silcrete or just silicified colluvium & saprolite |
| 3 – <6 | White silicified saprolite |
| <6 – 12 | Pallid clay saprolite, kaolin + quartz & bluish vein quartz @ 8-9 m |
| 12 – 15 | Greyish saprolite, more quartz than zone above |
| 15 – 17 | Khaki saprolite |
| 17 – 19 | Pallid zone with brown micro-flecking, saprolite |
| 19 – 30 | Pale yellowish to grey to khaki saprolite with bluish vein quartz @ 19-20 m |
| 30 – 50 | Pale brown saprolite, mostly clays |
| 30 – >74 | Greyish saprolite, with dark grey lithic relics increasing towards 70 m. |

Hole: 97 MNAR 052 **Pilot Regolith Line, Monsoon Prospect. In-Field Descriptions Location:** 350570.4 E, 6656897 N, **AHD:** 180.780 m

Site: on the upper part of a low flat outcrop area, end of sampled line of RAB holes

Vegetation: *Maireana sedifolia* Low Shrubland. (Logged by S. Lintern)

Soil: Uc (lithosol, gravelly colluvium)

Calcrete: platy

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – 2 | Silcrete with quartz clasts and thin calcrete coatings |
| 2 – 8 | Pallid zone, mostly kaolin + some quartz |
| 8 – 10 | Pale yellow saprolite |
| 10 – >16 | Yellow clay saprolite |
| >16 – 20 | Cream to pale grey saprolite |
| 20 – 40 | Pale pinkish saprolite |
| 40 – 50 | Grey saprolite |
| 50 – >66 | Grey to pinkish grey saprolite. |

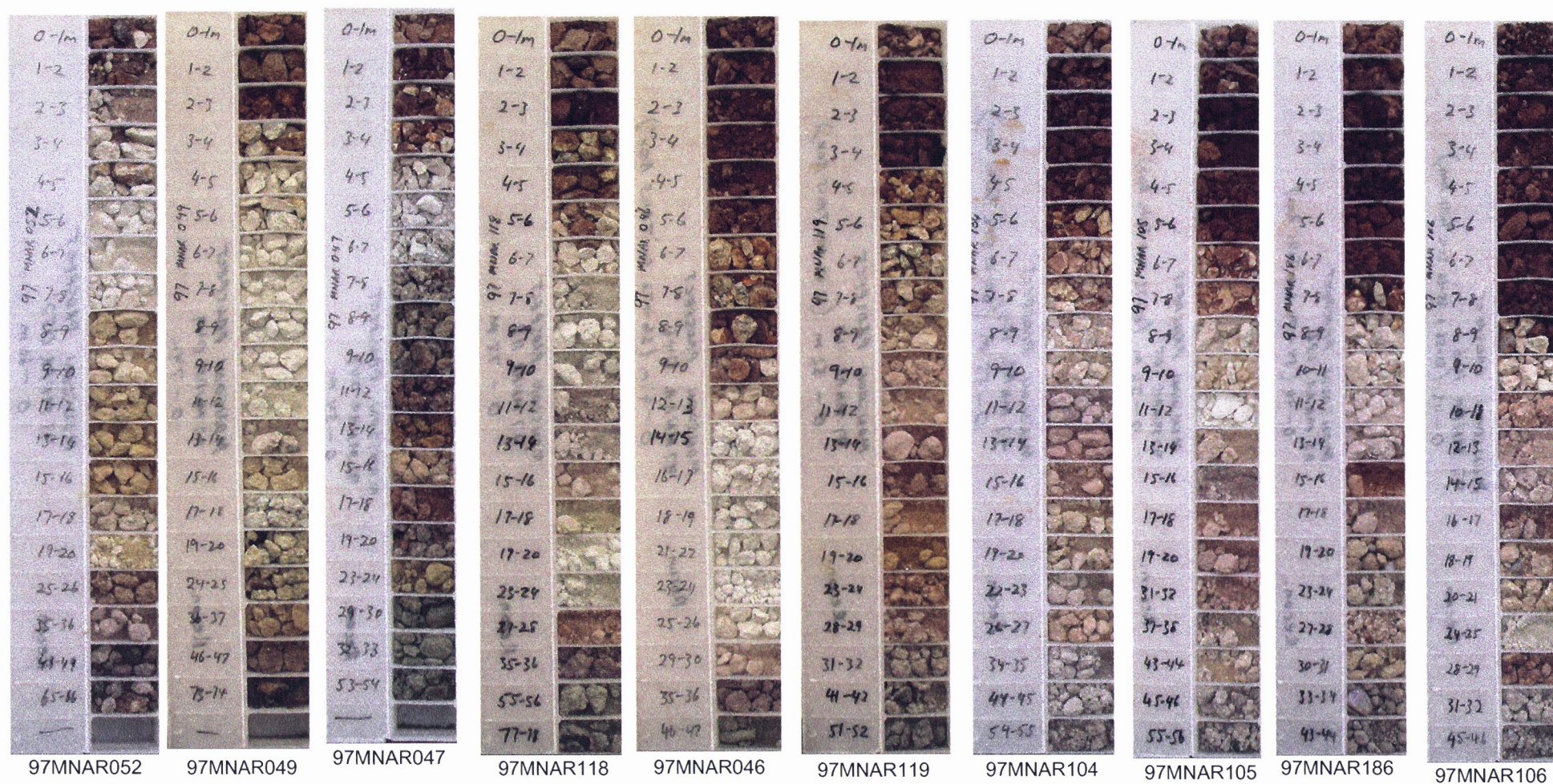


Figure A2.4.1: Monsoon Prospect chip tray photographs - vertically arranged according to AHD

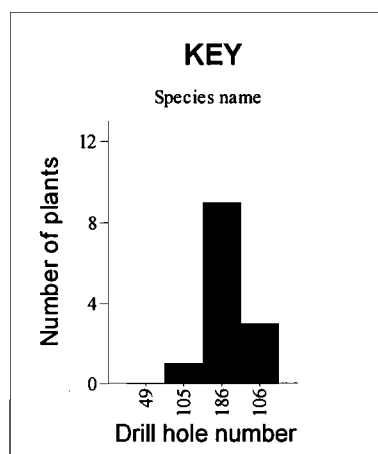
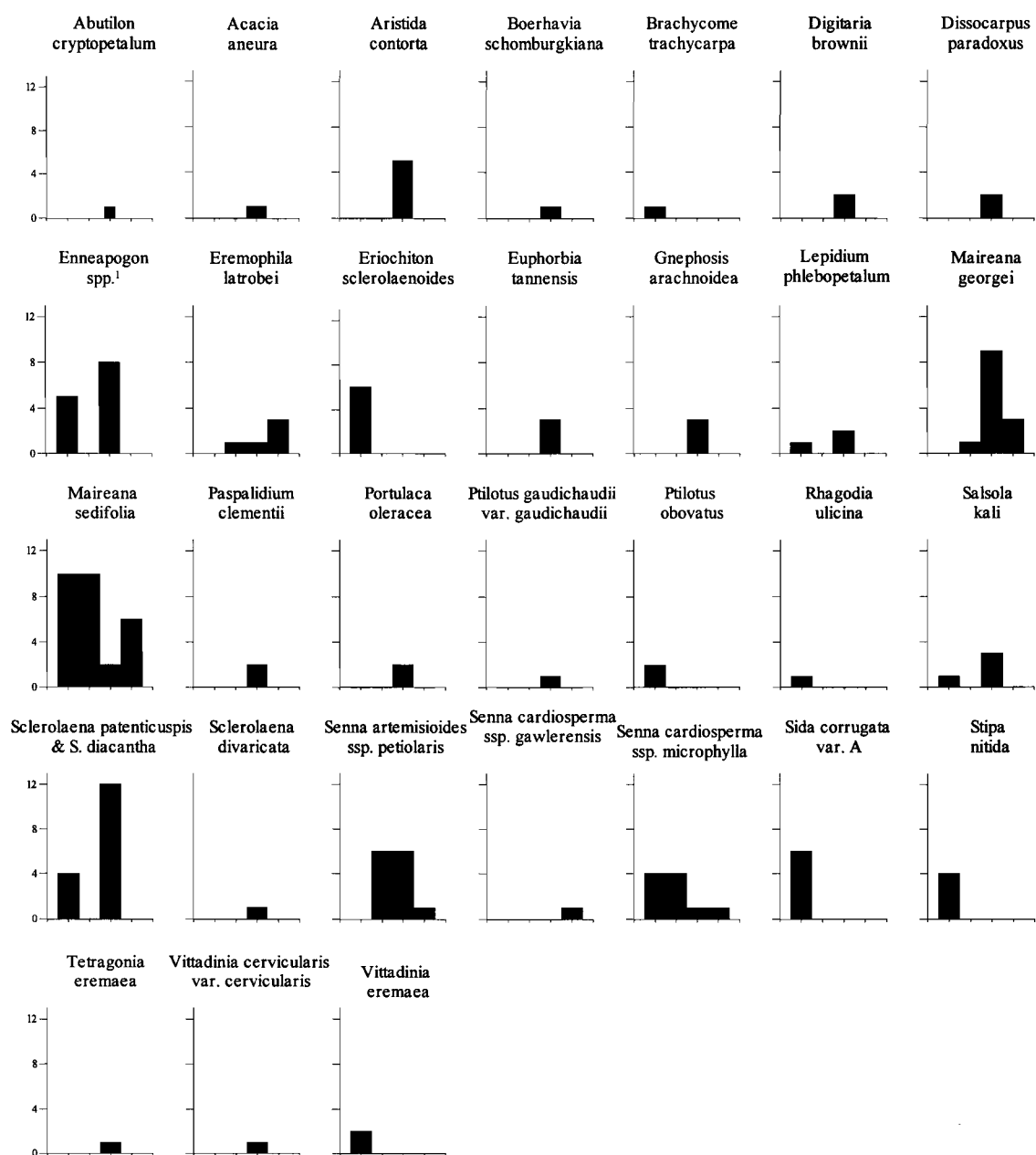


Figure A2.4.2: Species diversity and density at Monsoon Prospect.

N.B. For holes 105 and 106 only plants >0.7 m counted.

¹Enneapogon spp. includes *E.avenaceus*, *E. caeruleus* & *E. cylindricus*.

Appendix 2.5a: Regolith logging of reconnaissance line at South Hilga.

| Hole: 96 SHAR 154 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> Location: 371373.4 E, 6660305 N, AHD: 210.041 m Site: Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Acacia aneura</i> Tall Open Shrubland over Shrubland over mixed <i>Chenopodaceae</i> Low Shrubland. (Logged by S. Lintern) Soil: Calcrete: Logged by: M.J. Sheard | |
|--|--|
| Depth (m) | Description of RAB cuttings |
| 0 - ~3 | Brown colluvium—alluvium with prominent carbonate within the 1 st meter |
| ~3 - 4 | Thin silcrete developed on white clay saprolite |
| 4 - 19 | White saprolite with green ?Fuchsite staining, lithic relics @ 15 - 16 m |
| 19 - 36 | Yellowish to pinkish saprolite |
| 36 - 54 | Greyish saprolite with dark coloured Fe oxide-rich chips |
| 54 - 58 | Yellowish grey saprolite with brown Fe sesquioxide nodules & chips |
| 58 - 59 | Pallid saprolite |
| 59 - >65 | Pallid saprolite with greenish tint + pink saprolite. |

| Hole: 96 SHAR 152 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> Location: 371531.3 E, 6660306 N, AHD: 209.509 m Site: Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Maireana sedifolia</i> and <i>Sclerolaena</i> Low Shrubland. (Logged by S. Lintern) Soil: Calcrete: Logged by: M.J. Sheard | |
|---|---|
| Depth (m) | Description of RAB cuttings |
| 0 - 3 | Reddish colluvium—alluvium with prominent carbonate within the 1 st meter |
| 3 - 4 | Incipient silcrete developed in/on white clay saprolite |
| 4 - 10 | Pallid saprolite - ?weathered gneiss |
| 10 - 20 | Yellowish to pinkish saprolite with Fe sesquioxide segregations rods & @ 14, 16 & 19 m |
| 20 - 34 | Yellowish to pinkish saprolite with Fe sesquioxide rods & segregations @ 21 & 33 m |
| 34 - 42 | Greyish saprolite with darker relicts as chips |
| 42 - 48 | Dark greyish saprolite with darker chips |
| 48 - 61 | Greyish-green saprolite with Fe oxide as dark reddish fragments & mica common below 49 m |
| 61 - 64 | Pinkish saprolite |
| 64 - >75 | Variably coloured - grey, purple, brown. Mica & Fe oxide segregations, relic lithic fragments - garnet-bearing felsic gneiss. |

| Hole: MHP 079 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions - Roughs</u> Location: 371625.9 E, 6660322 N, AHD: 210.002 m, Angle Hole 60° → 270° Site: Vegetation: <i>Acacia aneura</i> Low Open Woodland over Shrubland over <i>Maireana sedifolia</i> and <i>Sclerolaena</i> Low Shrubland. (Logged by S. Lintern) Soil: Calcrete: Logged by: M.J. Sheard NOTE: only 2 m composite sample piles available. | |
|---|--|
| Depth (m) | Description of RAB cuttings |
| 0 - 7 | Reddish colluvium—alluvium with prominent carbonate @ ~1 st meter & Mn oxide staining @ 6 m |
| 7 - 8 | Silcrete developed on pale clay saprolite |
| 8 - >12 | Pallid saprolite, partly silicified |

| | |
|---|---|
| Hole: MHP 080b (on bags as 085) Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> | |
| Location: 371646.6 E, 6660331 N, AHD: 209.971 m, Angle Hole 60° → 270° | |
| Site: | |
| Vegetation: | |
| Soil: | |
| Calcrete: | |
| Logged by: M.J. Sheard NOTE: only 2 m composite sample piles available. | |
| Depth (m) | Description of RAB cuttings |
| 0 – 10 | Reddish colluvium–alluvium (deepest channel infill here) with prominent carbonate @ ~1 st meter |
| 10 – 16 | Yellow-brown clay-rich material – ferruginous saprolite, [NOT Algebuckina Sandstone (JKa) as stated by K. Wills, 1997 AMF Calcrete Course Case Studies paper] |
| 16 – 18 | Reddish saprolite |
| 18 – 20 | NO SAMPLE |
| 20 – >34 | Yellowish brown to dark yellowish brown saprolite. |

| | |
|--|---|
| Hole: MHP 081 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> | |
| Location: 371667.6 E, 6660342 N, AHD: 210.211 m, Angle Hole 60° → 270° | |
| Site: | |
| Vegetation: <i>Acacia aneura</i> Low Woodland over <i>Senna artemisioides</i> subsp. <i>artemisioides</i> , <i>Eremophila latrobei</i> and <i>Sclerolaena</i> Open Shrubland over <i>Maireana sedifolia</i> and <i>Maireana georgei</i> Low Shrubland. (many dead <i>Acacia aneura</i>) (Logged by S. Lintern) | |
| Soil: | |
| Calcrete: | |
| Logged by: M.J. Sheard NOTE: only 2 m composite sample piles available. | |
| Depth (m) | Description of RAB cuttings |
| 0 – <5 | Reddish colluvium–alluvium (deepest channel infill here) with prominent carbonate @ >1 m |
| 5 – 12 | Yellowish to strong yellow clay saprolite with silcrete (yellowish-grey) @ ~6 m. [NOT Algebuckina Sandstone (JKa) as stated by K. Wills, 1997 AMF Calcrete Course Case Studies paper] |
| 12 – 34 | Dark yellow to yellow-brown clay saprolite |
| 34 – >40 | Dark yellow-brown-grey saprolite, ferruginous. |

| | |
|--|--|
| Hole: 96 SHAR 148 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> | |
| Location: 371725.6 E, 6660322 N, AHD: 209.827 m | |
| Site: | |
| Vegetation: <i>Senna artemisioides</i> subsp. <i>artemisioides</i> Shrubland over <i>Maireana sedifolia</i> , <i>Maireana georgei</i> and <i>Sclerolaena</i> Low Shrubland. (Site drilling disturbance. Many dead <i>Acacia aneura</i>) (Logged by S. Lintern) | |
| Soil: | |
| Calcrete: | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – <5 | Reddish colluvium–alluvium with many rounded quartz clasts + prominent carbonate within the 1 st meter |
| 5 | Pale silcrete developed in/on white clay saprolite (plenty of down-hole contamination of silcrete & rounded quartz clasts) |
| >5 – 11 | Pallid clay saprolite – ?weathered gneiss, plenty of down-hole contamination of silcrete & rounded quartz clasts, [may have led to sediment confusion by K. Wills] |
| 11 – >16 | Yellowish to strong yellow-brown Fe-stained clay saprolite (plenty of down-hole contamination of silcrete, rounded quartz clasts & calcrete). |

| Hole: MHP 102 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> | |
|---|---|
| Location: 371755.8 E, 6660344 N, AHD: 209.843 m, Angle Hole 60° → 270° | |
| Site: | |
| Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Senna artemisioides</i> subsp. <i>artemisioides</i> Shrubland over <i>Maireana sedifolia</i> , <i>Maireana georgei</i> and <i>Sclerolaena</i> Low Shrubland. (Logged by S. Lintern) | |
| Soil: | |
| Calcrete: | |
| Logged by: M.J. Sheard NOTE: only 2 m composite sample piles available. | |
| Depth (m) | Description of RAB cuttings |
| 0 – >10 | Reddish colluvium–alluvium with many rounded quartz clasts + prominent carbonate within the 1 st meter |
| ~11 | Thin yellowish silcrete developed in/on pallid clay saprolite |
| ~12 – 22 | Pallid clay saprolite with yellowish-pink upper zone, waste mantle (pedolith) cap to saprolite, [down-hole contamination of silcrete & rounded quartz clasts, may have led to sediment confusion by K. Wills] |
| 22 – 38 | Yellow clay saprolite ferruginising & stronger colour development with depth |
| 38 – ~43 | Dark yellow saprolite |
| 44 – >76 | Dark reddish to some dark yellowish clay saprolite. |

| Hole: 96 SHAR 147 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> | |
|--|--|
| Location: 371777.8 E, 6660310 N, AHD: 209.369 m | |
| Site: | |
| Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Senna artemisioides</i> subsp. <i>artemisioides</i> Shrubland over <i>Maireana sedifolia</i> , <i>Senna artemisioides</i> subsp. <i>artemisioides</i> and <i>Sclerolaena</i> Low Shrubland. (Logged by S. Lintern) | |
| Soil: | |
| Calcrete: | |
| Logged by: M.J. Sheard Photo: 11/99/R2/#4 | |
| Depth (m) | Description of RAB cuttings |
| 0 – <4 | Reddish colluvium–alluvium with abundant rounded quartz clasts + prominent carbonate within the 1 st meter |
| ~4 | Thin yellowish silcrete developed in/on pallid clay saprolite |
| >4 – 10 | Pallid zone, kaolin + quartz (?clay saprolite or ?transported JKa) under hand lens cuttings exhibit ?graphite + angular micro-vein quartz & polymict grains (possibly contamination from top zone) |
| 10 – 23 | Yellowish clay saprolite Fe-rich & stronger colour development with depth |
| 23 – 26 | Dark reddish (maroon) clay saprolite with dark red-brown segregations & yellow patches |
| 26 – >29 | Yellow to dark yellow-brown clay saprolite. |

Hole: 96 SHAR 146 **Pilot Regolith Line, South Hilga Prospect. In-Field Descriptions**

Location: 371830 E, 6660319 N, **AHD:** 209.369 m

Site:

Vegetation: *Acacia aneura* Low Open Woodland over *Senna artemisioides* subsp. *artemisioides* Shrubland over *Maireana sedifolia*, *Senna artemisioides* subsp. *artemisioides* and *Sclerolaena* Low Shrubland. (Logged by S. Lintern)

Soil:

Calcrete:

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|---|
| 0 – 2 | Reddish colluvium with mostly angular quartz clasts + prominent carbonate within the 1 st meter |
| 2 – 3 | Silcrete developed in/on pallid clay saprolite |
| 3 – 11 | Pallid clay saprolite with yellowish-pink upper zone, waste mantle (pedolith) cap to saprolite, [down-hole contamination of silcrete & rounded quartz clasts, may have led to sediment confusion by K. Wills] |
| 11 – 13 | Pallid clay saprolite with obvious mica present |
| 13 – 21 | Pinkish to reddish saprolite |
| 21 – 25 | Yellowish clay saprolite with Fe hydroxide segregations @ 24m |
| 25 – 28 | Greyish pink saprolite zone, dark reddish @ 26 – 27 m |
| 28 – >46 | Saprolite, variably grey with yellow-brown, greenish & dark grey fragments + many relic lithic fragments. |

Hole: 96 SHAR 145 **Pilot Regolith Line, South Hilga Prospect. In-Field Descriptions**

Location: 371879.4 E, 6660325 N, **AHD:** 209.025 m

Site:

Vegetation: *Acacia aneura* Low Open Woodland over *Eremophila latrobei* Open Shrubland over *Maireana sedifolia* and *Sclerolaena* Low Open Shrubland. (Logged by S. Lintern)

Soil:

Calcrete:

Logged by: M.J. Sheard

| Depth (m) | Description of RAB cuttings |
|-----------|--|
| 0 – <2 | Reddish colluvium with rounded quartz clasts + prominent carbonate within the 1 st m |
| ~2 | Grey silcrete developed in/on pallid clay saprolite |
| >2 – 8 | Pallid clay saprolite with yellowish-pink upper zone, waste mantle (pedolith) cap to saprolite, (some down-hole contamination of silcrete & rounded quartz clasts) |
| 8 – 11 | Pale yellowish clay saprolite |
| 11 – 18 | Pallid saprolite with yellow zones @ 13 & 16 m |
| 18 – 19 | Pale yellow saprolite |
| 19 – 28 | Reddish saprolite |
| 28 – 30 | As above but with plenty of coarse fragments (2-3 cm) of grey vein quartz |
| 30 – >38 | Grey to dark grey saprolite to saprock with some red & yellow zones within. |

| | |
|---|--|
| Hole: 96 SHAR 143 Pilot Regolith Line, South Hilga Prospect. <u>In-Field Descriptions</u> | |
| Location: 371979.2 E, 6660318 N, AHD: 208.734 m | |
| Site: | |
| Vegetation: <i>Acacia aneura</i> Open Woodland over <i>Senna artemisioides</i> subsp. <i>artemisioides</i> Open Shrubland over <i>Maireana sedifolia</i> and <i>Sclerolaena</i> Low Open Shrubland. (Logged by S. Lintern) | |
| Soil: | |
| Calcrete: | |
| Logged by: M.J. Sheard | |
| Depth (m) | Description of RAB cuttings |
| 0 – <3 | Orange colluvium with rounded quartz clasts + prominent carbonate within the 1 st m |
| ~3 | Very thin brown to grey silcrete developed in/on pallid clay saprolite |
| >3 – 12 | Pallid kaolin + quartz saprolite |
| 12 – 25 | Pale pink to dark pink saprolite |
| 25 – >31 | Maroon-red saprolite |

Appendix 2.5b: Sample descriptions of reconnaissance line at South Hilga.

| Hole: 96 SHAR 154 Pilot Regolith Line, South Hilga Prospect. <u>Sample Descriptions</u> | | |
|---|----------|--|
| Location: 371373.4 E, 6660305 N, AHD: 210.041 m | | |
| Site: | | |
| Vegetation: <i>Acacia aneura</i> Low Open Woodland over <i>Acacia aneura</i> Tall Open Shrubland over Shrubland over mixed Chenopodaceae Low Shrubland. (Logged by S. Lintern) | | |
| Soil: | | |
| Calcrete: | | |
| Logged by: M.J. Sheard | | |
| Depth (m) | Sample # | Description of RAB cuttings |
| 0-1 | R | UNWASHED: : (d), ; texture – (w) (/). Brown colluvium–alluvium with prominent carbonate within the 1 st meter, |
| 1-2 | R | UNWASHED: : (d), ; texture – (w) (/). Brown colluvium–alluvium |
| 2–3 | R | UNWASHED: : (d), ; texture – (w) (/). Brown colluvium–alluvium |
| ~3 | R | UNWASHED: : (d), ; texture – (w) (/). Thin silcrete on white saprolite. |
| ~3-4 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 4-5 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 5-6 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 6-7 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 7-8 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 8-9 | | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 9-10 | | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 11-12 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 13-14 | R | UNWASHED: : (d), ; texture – (w) (/). White saprolite |
| 15-16 | R | UNWASHED: : (d), ; texture – (w) (/). Green Fuchsite noted in the near-white saprolite, relict lithics @ 15-16 m. |
| 17-18 | R | UNWASHED: : (d), ; texture – (w) (/). Green Fuchsite noted in the near-white saprolite |
| 19-20 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite |
| 25-26 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite |
| 35-36 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite |
| 37->54 | R | UNWASHED: : (d), ; texture – (w) (/). Greyish saprolite with FeOH chips (dark) |
| 45-46 | R | UNWASHED: : (d), ; texture – (w) (/). Greyish saprolite with FeOH chips (dark) |
| 55-56 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish-grey saprolite with brown FeOH nodules & chips. |
| 58-59 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite. |
| 59-60 | | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite with greenish tint, plus pink saprolite. |

Hole: 96 SHAR 152 Pilot Regolith Line, South Hilga Prospect. Sample Descriptions**Location:** 371531.3 E, 6660306 N, AHD: 209.509 m**Site:****Vegetation:** *Acacia aneura* Low Open Woodland over *Maireana sedifolia* and *Sclerolaena* Low Shrubland. (Logged by S. Lintern)**Soil:****Calcrete:****Logged by:** M.J. Sheard

| Depth (m) | Sample # | Description of RAB cuttings | <u>Sample Descriptions</u> |
|------------------|-----------------|--|-----------------------------------|
| 0-1 | R | UNWASHED: : (d), ; texture – (w) (/). Brown colluvium–alluvium with prominent carbonate within the 1 st meter, | |
| 1-2 | R | UNWASHED: : (d), ; texture – (w) (/). Brown colluvium–alluvium | |
| 2-3 | R | UNWASHED: : (d), ; texture – (w) (/). Brown colluvium–alluvium | |
| 3-4 | R | UNWASHED: : (d), ; texture – (w) (/). Incipient silcrete on/in white saprolite | |
| 4-5 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite, weathered gneiss | |
| 5-6 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite, weathered gneiss | |
| 6-7 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite, weathered gneiss | |
| 7-8 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite, weathered gneiss | |
| 8-9 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite, weathered gneiss | |
| 9-10 | R | UNWASHED: : (d), ; texture – (w) (/). Pallid saprolite, weathered gneiss | |
| 11-12 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite | |
| 13-14 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite with FeOH segregations | |
| 15-16 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite with FeOH segregations. | |
| 17-18 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite | |
| 19-20 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite with FeOH segregations (to 21m). | |
| 25-26 | R | UNWASHED: : (d), ; texture – (w) (/). Yellowish to pinkish saprolite | |
| 35-36 | R | UNWASHED: : (d), ; texture – (w) (/). greyish saprolite with darker relicts as chips. | |
| 37-54 | R | UNWASHED: : (d), ; texture – (w) (/). | |
| 45-46 | R | UNWASHED: : (d), ; texture – (w) (/). | |
| 55-56 | R | UNWASHED: : (d), ; texture – (w) (/). | |
| 58-59 | R | UNWASHED: : (d), ; texture – (w) (/). | |
| 59-60 | R | UNWASHED: : (d), ; texture – (w) (/). | |

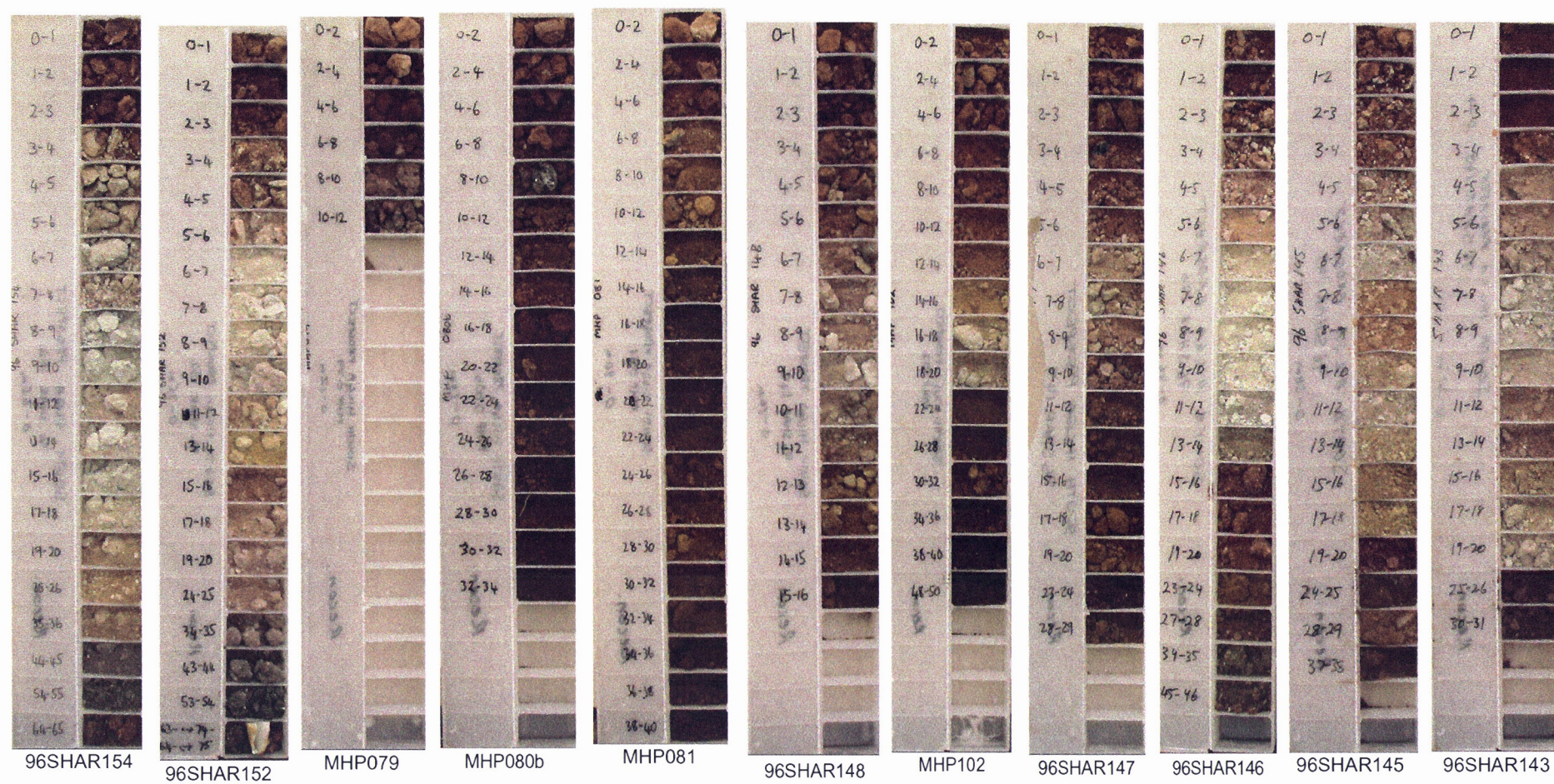


Figure A2.5.1: South Hilga Prospect chip tray photographs - vertically arranged according to AHD

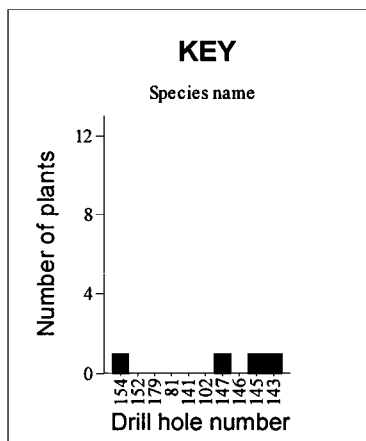
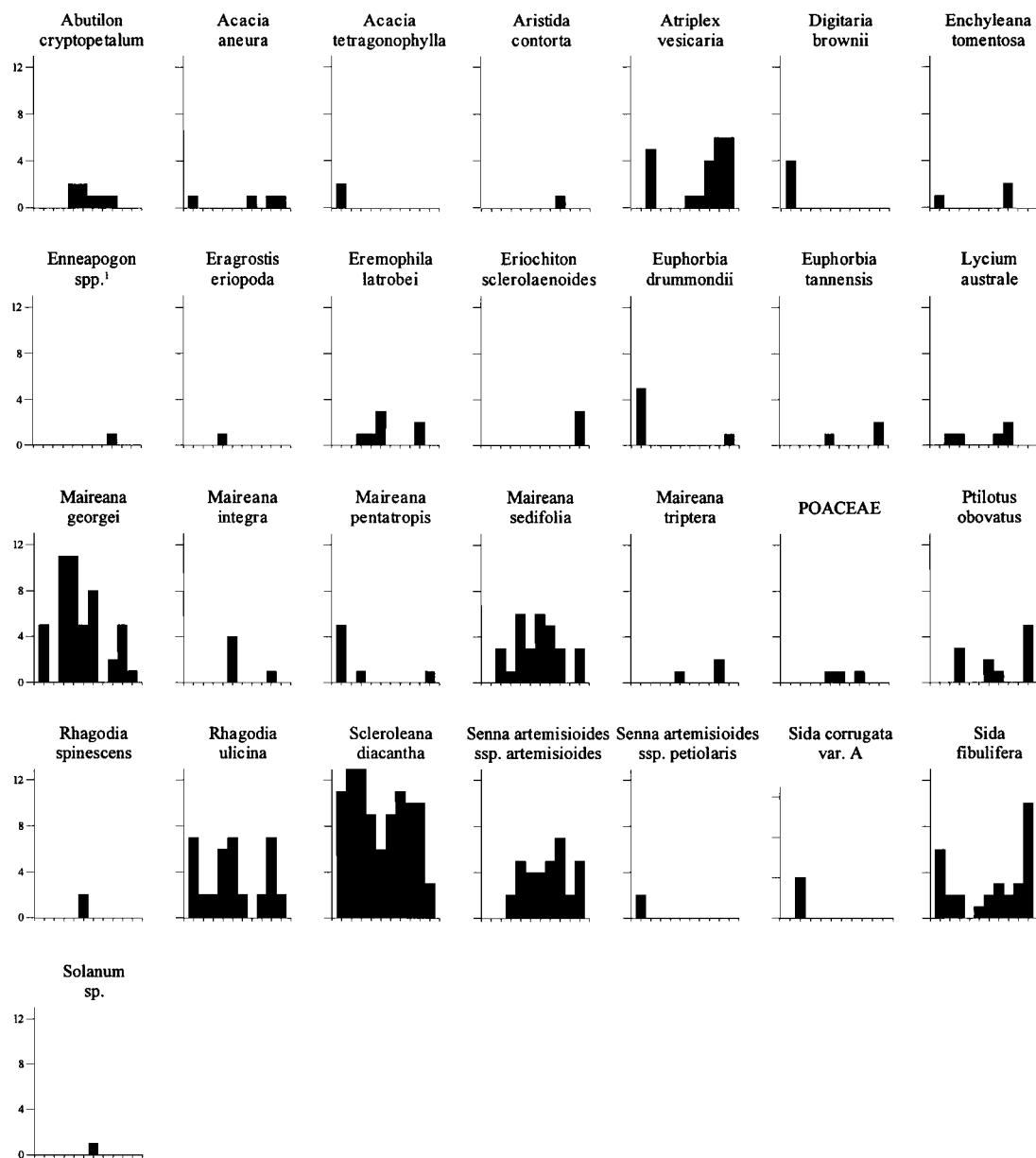


Figure A2.5.2: Species diversity and density along 6660320N at South Hilga Prospect.
¹Enneapogon spp. includes *E. avenaceus*, *E. caerulescens*?, *E. cylindricus* and *E. intermedius*

APPENDIX 3

Geochemical Data

Data located on CD-ROM

APPENDIX 4

Differential GPS data

Table A4.1: Tabulated differential data along regolith line at Golf Bore.

| Site No. | DH | Easting | Northing | Height (m) |
|----------|-----------|----------|-----------|------------|
| G001 | 96JBAR102 | 404950.4 | 6726622.1 | 180.819 |
| G002 | 96JBAR26 | 404998.0 | 6726623.1 | 181.035 |
| G003 | | 405038.9 | 6726625.7 | 181.246 |
| G004 | 96JBAR27 | 405102.6 | 6726616.8 | 181.711 |
| G005 | | 405136.5 | 6726626.0 | 181.54 |
| G006 | | 405179.0 | 6726626.4 | 181.031 |
| G007 | | 405246.7 | 6726618.6 | 181.186 |
| G008 | | 405284.7 | 6726594.4 | 181.832 |
| G009 | | 404926.9 | 6726624.2 | 180.655 |
| G010 | | 404893.3 | 6726632.7 | 180.407 |
| G011 | | 404857.1 | 6726612.4 | 180.423 |
| G012 | | 404845.6 | 6726575.4 | 179.782 |
| G013 | | 404818.8 | 6726547.7 | 179.666 |
| G014 | | 404781.6 | 6726526.5 | 179.636 |
| G015 | 96GBAR88 | 404749.9 | 6726506.7 | 179.467 |
| G016 | 96GBAR90 | 404701.7 | 6726503.2 | 179.428 |
| G017 | 96GBAR91 | 404679.1 | 6726509.0 | 179.283 |
| G018 | | 404654.7 | 6726518.8 | 179.099 |
| G019 | 96GBAR93 | 404631.3 | 6726511.0 | 179.026 |
| G020 | | 404578.6 | 6726517.8 | 178.682 |
| G021 | 96GBAR243 | 404508.2 | 6726522.3 | 178.716 |
| G022 | | 404482.1 | 6726513.0 | 178.642 |
| G023 | | 404432.0 | 6726520.2 | 178.278 |
| G024 | 96GBAR244 | 404400.2 | 6726514.0 | 177.822 |
| G025 | | 404350.9 | 6726513.7 | 177.776 |
| G026 | 96GBAR245 | 404304.2 | 6726511.0 | 177.561 |
| G027 | | 404257.3 | 6726515.8 | 177.406 |
| G028 | 96GBAR246 | 404199.3 | 6726510.0 | 177.266 |
| G029 | | 404153.5 | 6726510.1 | 177.534 |
| G030 | 96GBAR247 | 404100.4 | 6726517.8 | 177.839 |
| G031 | | 404046.7 | 6726514.4 | 177.79 |
| G032 | | 403942.3 | 6726514.9 | 178.674 |
| G033 | 96GBAR249 | 403898.1 | 6726511.1 | 179.65 |
| G034 | | 403829.4 | 6726513.1 | 180.66 |
| G035 | 98ORAR001 | 403792.2 | 6726522.7 | 180.978 |
| G036 | | 403741.7 | 6726511.9 | 181.531 |
| G037 | 98ORAR011 | 403691.6 | 6726508.8 | 182.092 |
| G038 | | 403638.7 | 6726523.5 | 181.499 |
| G039 | 98ORAR010 | 403584.2 | 6726522.3 | 180.884 |
| G040 | | 403538.2 | 6726531.3 | 180.592 |
| G041 | 98ORAR009 | 403490.4 | 6726525.3 | 180.536 |
| G042 | | 403427.5 | 6726540.4 | 179.855 |

Table A4.2: Tabulated differential data along regolith line at ET.

| Site No | DH | Easting | Northing | Height (m) |
|---------|-----------|----------|-----------|------------|
| E001 | 96ETAR193 | 340259.4 | 6635572.6 | 186.895 |
| E002 | 96ETAR194 | 340255.4 | 6635469.0 | 185.751 |
| E003 | 96ETAR195 | 340257.6 | 6635369.9 | 184.891 |
| E004 | 96ETAR196 | 340267.2 | 6635267.2 | 185.135 |
| E005 | 96ETAR197 | 340268.7 | 6635167.1 | 182.31 |
| E011 | 96ETAR192 | 340251.8 | 6635674.1 | 185.516 |
| E012 | 96ETAR191 | 340255.5 | 6635767.5 | 187.101 |
| E013 | 96ETAR190 | 340245.2 | 6636148.1 | 187.436 |
| E014 | 96ETAR189 | 340239.0 | 6636245.6 | 188.833 |
| E015 | 96ETAR188 | 340240.0 | 6636344.2 | 188.181 |
| E016 | 96ETAR187 | 340237.3 | 6636441.2 | 187.83 |
| E019 | 96ETAR184 | 340224.0 | 6636745.3 | 189.235 |
| E021 | 96ETAR182 | 340219.0 | 6636948.8 | 188.482 |
| E022 | 96ETAR181 | 340209.1 | 6637042.8 | 189.093 |
| E023 | 96ETAR180 | 340216.9 | 6637148.9 | 191.642 |
| E024 | 96ETAR179 | 340206.9 | 6637248.9 | 192.662 |
| E025 | 96ETAR178 | 340215.4 | 6637341.3 | 192.168 |
| E031 | 96ETAR183 | 340213.1 | 6636845.6 | 188.88 |
| E033 | 96ETAR185 | 340226.6 | 6636654.1 | 191.171 |

Table A4.3: Tabulated differential data along regolith line at Jumbuck.

| Site | DH | Easting | Northing | Height (m) |
|------|---------|----------|-----------|------------|
| J001 | JBAR055 | 376366.2 | 6690462.5 | 203.326 |
| J002 | | 376393.8 | 6690466.1 | 202.955 |
| J003 | | 376444.1 | 6690462.9 | 202.239 |
| J004 | JBAR054 | 376471.2 | 6690470.8 | 201.853 |
| J005 | | 376509.3 | 6690477.4 | 201.461 |
| J006 | | 376567.8 | 6690492.4 | 200.885 |
| J007 | JBAR053 | 376569.6 | 6690477.3 | 201.02 |
| J008 | | 376612.8 | 6690477.1 | 200.383 |
| J009 | JBAR052 | 376671.6 | 6690479.3 | 199.446 |
| J010 | | 376721.8 | 6690485.2 | 198.407 |
| J011 | JBAR051 | 376764.5 | 6690476.2 | 197.565 |
| J012 | | 376787.5 | 6690467.8 | 197.441 |
| J013 | | 376835.3 | 6690475.8 | 196.048 |
| J014 | JBAR050 | 376876.8 | 6690477.3 | 195.397 |
| J015 | | 376918.8 | 6690464.6 | 194.838 |
| J016 | | 376321.2 | 6690453.6 | 203.677 |
| J017 | JBAR056 | 376273.2 | 6690463.5 | 204.16 |
| J018 | | 376204.3 | 6690471.7 | 205.025 |
| J019 | JBAR057 | 376173.4 | 6690460.4 | 206.221 |
| J020 | | 376144.7 | 6690466.8 | 206.719 |
| J021 | | 376106.8 | 6690470.3 | 206.938 |
| J022 | JBAR058 | 376078.6 | 6690461.9 | 206.916 |
| J023 | | 376048.1 | 6690462.3 | 207.236 |
| J024 | | 376020.7 | 6690464.3 | 208.003 |
| J025 | JBAR059 | 375978.5 | 6690461.4 | 208.114 |
| J026 | | 375930.9 | 6690463.4 | 207.895 |
| J027 | JBAR060 | 375882.5 | 6690460.0 | 208.076 |
| J028 | | 375834.8 | 6690450.8 | 208.072 |
| J029 | JBAR061 | 375784.5 | 6690456.9 | 208.197 |
| J030 | | 375721.1 | 6690448.3 | 208.149 |
| J031 | JBAR062 | 375681.8 | 6690448.0 | 208.026 |
| J032 | | 375640.5 | 6690446.6 | 207.923 |
| J033 | JBAR063 | 375588.5 | 6690450.9 | 207.315 |
| J034 | | 375543.8 | 6690446.8 | 206.818 |
| J035 | JBAR064 | 375490.2 | 6690443.4 | 206.593 |
| J036 | | 375443.1 | 6690439.5 | 206.516 |
| J037 | JBAR065 | 375391.1 | 6690444.6 | 206.901 |
| J038 | | 375349.0 | 6690443.8 | 206.757 |
| J039 | JBAR066 | 375287.4 | 6690443.0 | 206.446 |
| J040 | | 375259.3 | 6690434.6 | 206.673 |
| J041 | | 375232.8 | 6690428.6 | 207.318 |
| J042 | JBAR067 | 375188.6 | 6690436.3 | 207.138 |
| J043 | | 375162.5 | 6690438.1 | 207.356 |
| J044 | | 375130.8 | 6690438.7 | 207.334 |
| J045 | JBAR068 | 375097.1 | 6690432.8 | 207.159 |
| J046 | | 375048.1 | 6690434.5 | 206.981 |
| J047 | JBAR069 | 374993.6 | 6690435.7 | 206.844 |
| J048 | | 374954.9 | 6690459.5 | 206.857 |

Table A4.4: Tabulated differential data along regolith line at Monsoon.

| Site | DH | Easting | Northing | Height (m) |
|------|-----------|----------|-----------|------------|
| M001 | 97MNAR106 | 350550.8 | 6657557.2 | 180.747 |
| M002 | 97MNAR186 | 350554.8 | 6657495.3 | 180.728 |
| M003 | 97MNAR105 | 350560.1 | 6657452.8 | 180.823 |
| M004 | 97MNAR104 | 350560.2 | 6657407.6 | 180.792 |
| M005 | 97MNAR119 | 350566.5 | 6657357.6 | 180.806 |
| M006 | 97MNAR046 | 350559.1 | 6657305.9 | 180.933 |
| M007 | 97MNAR118 | 350564.3 | 6657255.9 | 181.008 |
| M008 | 97MNAR047 | 350567.1 | 6657198.5 | 181.109 |
| M009 | 97MNAR117 | 350574.5 | 6657146.4 | 181.011 |
| M010 | 97MNAR048 | 350568.3 | 6657092.5 | 181.023 |
| M011 | 97MNAR049 | 350569.0 | 6657043.2 | 180.859 |
| M012 | 97MNAR050 | 350568.7 | 6656997.6 | 180.739 |
| M013 | 97MNAR051 | 350575.4 | 6656941.8 | 180.655 |
| M014 | 97MNAR052 | 350570.4 | 6656897.3 | 180.78 |
| M015 | 97MNAR053 | 350576.2 | 6656790.0 | 180.208 |
| M016 | 97MNAR054 | 350576.5 | 6656691.4 | 179.924 |
| M017 | 97MNAR107 | 350584.4 | 6656632.3 | 179.787 |

Table A4.4: Tabulated differential data along regolith line at South Hilga.

| Site | DH | Easting | Northing | Height (m) |
|------|-----------|----------|-----------|------------|
| SH01 | 96SHAR151 | 371579.2 | 6660315.2 | 209.86 |
| SH02 | | 371557.7 | 6660311.6 | 209.645 |
| SH03 | 96SHAR152 | 371531.3 | 6660305.7 | 209.509 |
| SH04 | | 371503.5 | 6660308.9 | 209.497 |
| SH05 | 96SHAR153 | 371482.1 | 6660319.2 | 209.615 |
| SH06 | | 371451.6 | 6660316.2 | 209.63 |
| SH07 | 96SHAR155 | 371422.6 | 6660317.3 | 209.696 |
| SH08 | | 371400.6 | 6660313.2 | 209.898 |
| SH09 | 96SHAR154 | 371373.4 | 6660305.2 | 210.041 |
| SH10 | | 371349.5 | 6660306.9 | 209.945 |
| SH11 | | 371326.9 | 6660316.3 | 209.956 |
| SH12 | | 371302.0 | 6660321.4 | 210.018 |
| SH13 | | 371266.9 | 6660321.3 | 210.086 |
| SH14 | | 371243.3 | 6660321.3 | 210.193 |
| SH15 | | 371588.7 | 6660314.0 | 209.926 |
| SH16 | MHR078 | 371599.0 | 6660309.3 | 209.925 |
| SH17 | | 371613.6 | 6660319.4 | 210.057 |
| SH18 | MHP079 | 371625.9 | 6660322.1 | 210.002 |
| SH19 | | 371637.3 | 6660324.7 | 209.941 |
| SH20 | MHP080B | 371646.6 | 6660330.7 | 209.971 |
| SH21 | | 371657.2 | 6660337.8 | 210.153 |
| SH22 | MHP081 | 371667.6 | 6660342.1 | 210.211 |
| SH23 | | 371677.6 | 6660337.1 | 210.151 |
| SH24 | 96SHAR329 | 371688.5 | 6660336.0 | 210.2 |
| SH25 | | 371704.9 | 6660321.7 | 209.894 |
| SH26 | 96SHAR148 | 371725.6 | 6660321.7 | 209.827 |
| SH27 | | 371742.8 | 6660331.4 | 209.884 |
| SH28 | MHP102 | 371755.8 | 6660343.6 | 209.843 |
| SH29 | | 371767.4 | 6660328.5 | 209.593 |
| SH30 | 96SHAR147 | 371777.8 | 6660310.1 | 209.369 |
| SH31 | | 371802.7 | 6660318.5 | 209.314 |
| SH32 | 96SHAR146 | 371830.0 | 6660318.7 | 209.176 |
| SH33 | | 371854.9 | 6660320.3 | 209.183 |
| SH34 | 96SHAR145 | 371879.4 | 6660324.5 | 209.025 |
| SH35 | | 371905.0 | 6660326.1 | 208.953 |
| SH36 | 96SHAR144 | 371930.5 | 6660319.4 | 208.764 |
| SH37 | | 371961.0 | 6660318.3 | 208.764 |
| SH38 | 96SHAR143 | 371979.2 | 6660317.9 | 208.734 |
| SH39 | | 372006.5 | 6660316.2 | 208.703 |
| SH40 | 96SHAR142 | 372030.9 | 6660316.6 | 208.857 |
| SH41 | | 372063.2 | 6660314.8 | 208.487 |
| SH42 | | 372099.2 | 6660310.2 | 208.51 |

APPENDIX 5

Quality Control

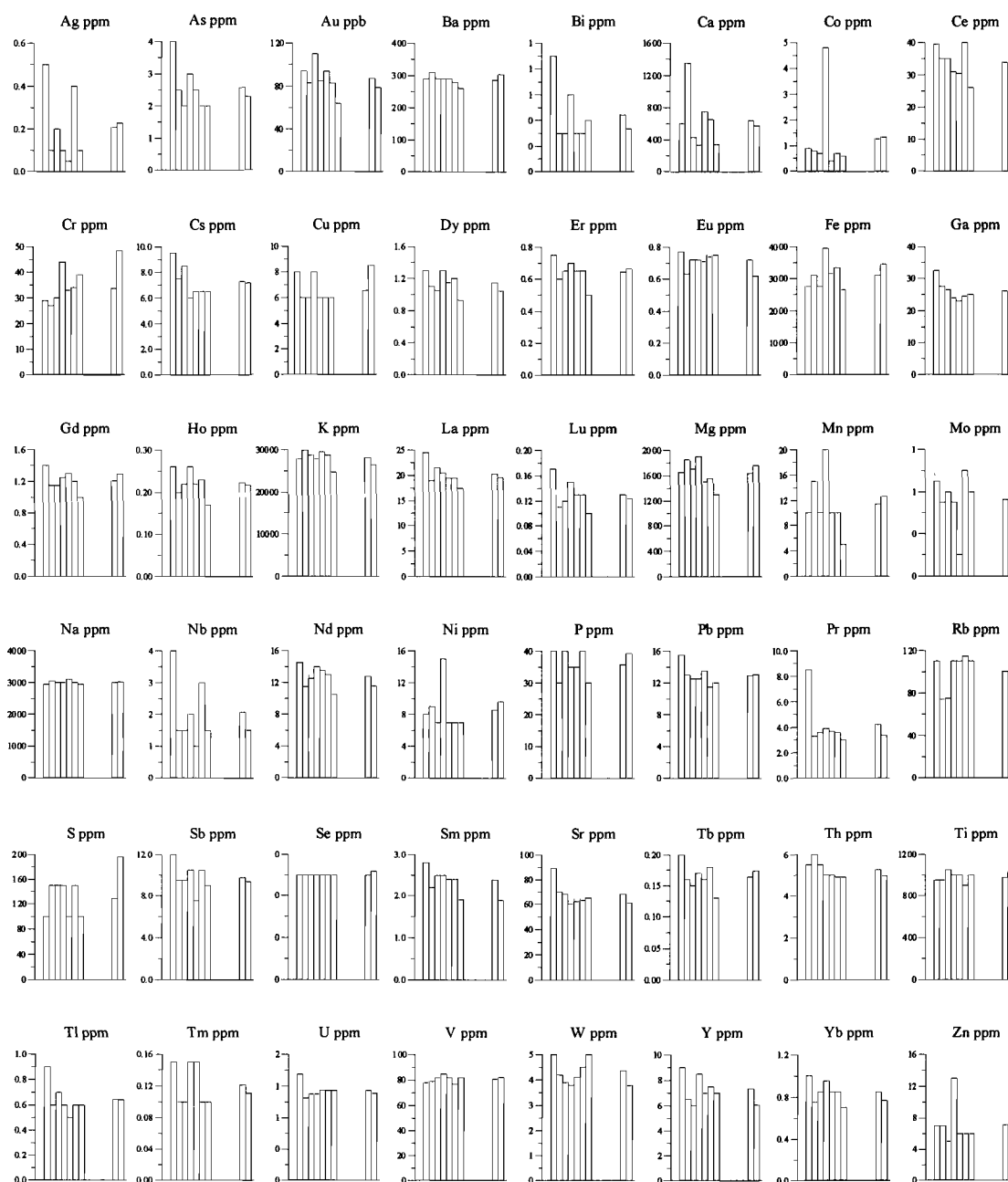


Fig A5.1: Elemental abundancies for a series of CRC LEME STANDARD 6 samples submitted "blind" with regolith samples. The two bar charts (from l to r) on right of each graph is mean of samples from this project and mean from 27 samples from previous projects.

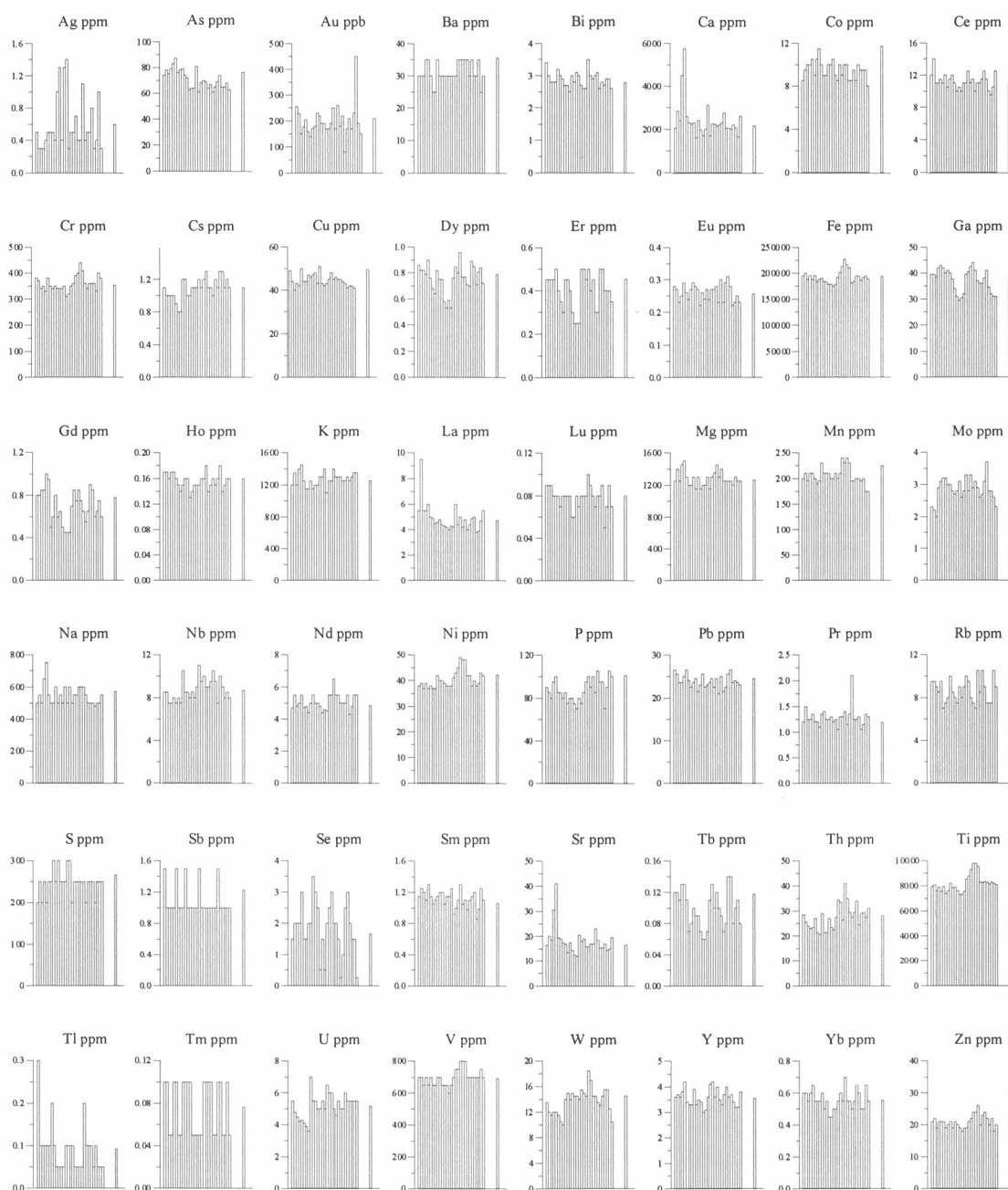


Fig A5.2: Elemental abundancies for a series of CRC LEME STANDARD 6 samples submitted "blind" with regolith samples. Bar on far right are means of 57 samples from previous projects using the same standard

APPENDIX 6

CD containing data and pdf files