**SITE INFORMATION**

| | |
|---|---|
| **Site Name** | Myers Wood |
| **Area** | Trench L |
| **Context No** | L112 to L115 |
| **Description** | Hearth/furnace |
| **Latitude (+ve N)** | 53.60 |
| **Longitude (+ve E)** | -1.73 |
| **Magnetic Var** | -3.72 |
| **Date Sampled** | 27/8/03 |

**MAGNETIC MEASUREMENTS**

| Sample no. | NRM | | | Field | After partial demag | | | Pilot? | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | D | I | Int | | D | I | Int | | |
| | *degs.* | *degs.* | *mA m$^{-1}$* | *mT* | *degs.* | *degs.* | *mA m$^{-1}$* | *Y/N* | |
| 1 | 283.5 | 81.20 | 7.87 | 2.5 | 323.00 | 78.20 | 7.86 | Y | Outlier |
| 2 | 266.90 | 60.40 | 3.21 | 2.5 | 263.00 | 66.30 | 3.39 | | Outlier |
| 3 | 54.20 | 67.80 | 2.54 | 2.5 | 94.90 | 74.90 | 2.95 | | Outlier |
| 4 | 29.90 | 60.80 | 41.68 | 2.5 | 25.20 | 65.50 | 44.80 | Y | |
| 5 | 39.40 | 60.20 | 36.01 | 2.5 | 29.20 | 71.40 | 38.83 | | |
| 6 | 173.90 | 79.40 | 6.54 | 2.5 | 181.00 | 74.60 | 7.16 | | Outlier |
| 7 | 30.00 | 58.30 | 91.43 | 2.5 | 32.10 | 60.50 | 94.62 | | |
| 8 | 102.00 | 55.40 | 1.54 | 2.5 | 122.80 | 63.30 | 1.48 | | Outlier |
| 9 | 29.30 | 60.20 | 43.90 | 2.5 | 26.40 | 65.00 | 43.72 | | |
| 10 | 30.30 | 64.70 | 14.92 | 2.5 | 14.40 | 63.30 | 18.95 | | |
| 11 | 322.30 | 76.70 | 6.18 | 2.5 | 277.00 | 76.80 | 7.28 | | Outlier |
| 12 | 33.60 | 61.10 | 130.71 | 2.5 | 28.30 | 64.30 | 130.00 | Y | |
| 13 | 26.40 | 62.90 | 46.68 | 2.5 | 25.80 | 68.10 | 48.76 | | |

**STATISTICS FOR NRM**

| Sample no. | NRM | | | | |
|---|---|---|---|---|---|
| | D | I | x | y | z |
| | *degs.* | *degs.* | | | |
| 1 | 283.50 | 81.20 | 0.03571 | -0.14876 | 0.98823 |
| 2 | 266.90 | 60.40 | -0.02671 | -0.49322 | 0.86949 |
| 3 | 54.20 | 67.80 | 0.22102 | 0.30645 | 0.92587 |
| 4 | 29.90 | 60.80 | 0.42292 | 0.24319 | 0.87292 |
| 5 | 39.40 | 60.20 | 0.38403 | 0.31544 | 0.86777 |
| 6 | 173.90 | 79.40 | -0.18291 | 0.01955 | 0.98294 |
| 7 | 30.00 | 58.30 | 0.45507 | 0.26274 | 0.85081 |
| 8 | 102.00 | 55.40 | -0.11806 | 0.55543 | 0.82314 |
| 9 | 29.30 | 60.20 | 0.43340 | 0.24321 | 0.86777 |
| 10 | 30.30 | 64.70 | 0.36898 | 0.21561 | 0.90408 |
| 11 | 322.30 | 76.70 | 0.18202 | -0.14068 | 0.97318 |
| 12 | 33.60 | 61.10 | 0.40254 | 0.26744 | 0.87546 |
| 13 | 26.40 | 62.90 | 0.40804 | 0.20255 | 0.89021 |

| | |
|---|---|
| Number = | 13 |
| Sum x = | 2.98604 |
| Sum y = | 1.84897 |
| Sum z = | 11.69187 |
| R = | 12.20799 |
| x bar = | 0.24460 |
| y bar = | 0.15146 |
| z bar = | 0.95772 |
| **Mean Dec =** | 31.77 |
| **Mean Inc =** | 73.28 |
| **Alpha95 =** | 11.01 |

**STATISTICS FOR PARTIAL DEMAGNETISATION**

| Sample no. | Demagnetisation | | | | |
|---|---|---|---|---|---|
| | D | I | x | y | z |
| | *degs.* | *degs.* | | | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | 25.20 | 65.50 | 0.37523 | 0.17657 | 0.90996 |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | 26.40 | 65.00 | 0.37854 | 0.18791 | 0.90631 |
| 10 | 14.40 | 63.30 | 0.43520 | 0.11174 | 0.89337 |
| 11 | | | | | |
| 12 | 28.30 | 64.30 | 0.38183 | 0.20559 | 0.90108 |
| 13 | 25.80 | 68.10 | 0.33581 | 0.16234 | 0.92784 |

| | |
|---|---|
| Number = | 5 |
| Sum x = | 1.90661 |
| Sum y = | 0.84415 |
| Sum z = | 4.53855 |
| R = | 4.99462 |
| x bar = | 0.38173 |
| y bar = | 0.16901 |
| z bar = | 0.90869 |
| **Mean Dec =** | 23.88 |
| **Mean Inc =** | 65.32 |
| **Alpha95 =** | 2.81 |

**Alpha68 =** 1.53

**CORRECTIONS**

| | |
|---|---|
| Mean Dec = | 23.88 |
| Mean Inc = | 65.32 |

*Correction for magnetic variation*

| | |
|---|---|
| Mean Dec = | 20.16 |
| Mean Inc = | 65.32 |

*Correction to Meriden (CVP)*

| | |
|---|---|
| Uncorrected Dec = | 20.16 |
| Uncorrected Inc = | 65.32 |
| Latitude = | 53.60 |
| Longitude = | -1.73 |
| | |
| Kai = | 42.58 |
| Latitude of pole= | 75.83 |
| Beta1 = | 72.34 |
| Longitude of pole = | 105.93 |
| Geomag colat = | 43.66 |
| Corrected Inc= | 64.50 |
| Beta 2 = | 72.45 |
| Corrected Dec= | 19.76 |

**FINAL RESULT**

| | |
|---|---|
| **Corrected Dec=** | 19.76 |
| **Corrected Inc =** | 64.50 |
| **Alpha95 =** | 2.81 |

**ERROR BARS**

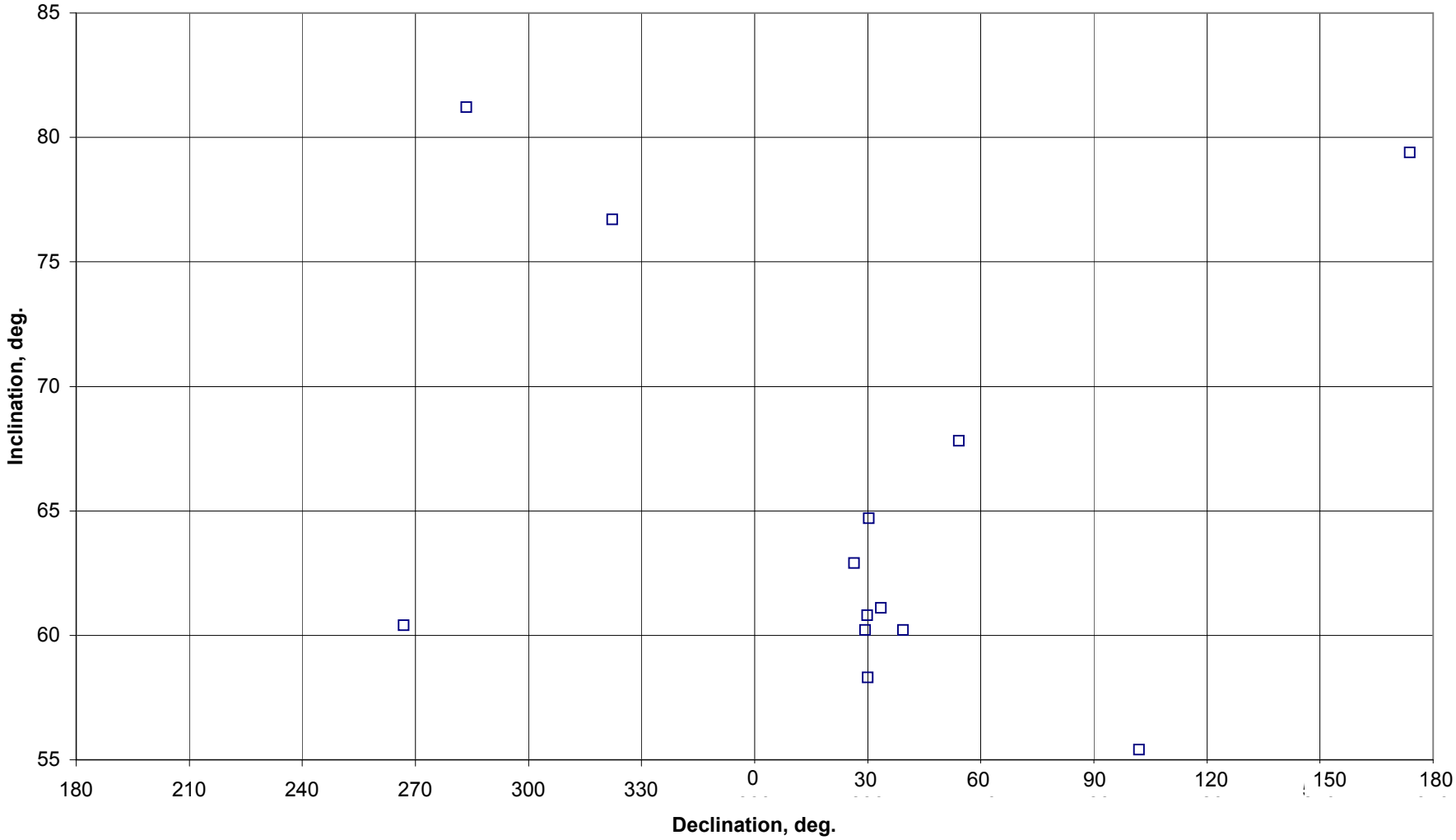
| | |
|---|---|
| **Alpha95** | |
| **δDec = ±** | 6.52 |
| **δInc = ±** | 2.81 |

| | |
|---|---|
| **Alpha68** | |
| **δDec = ±** | 3.55 |
| **δInc = ±** | 1.53 |

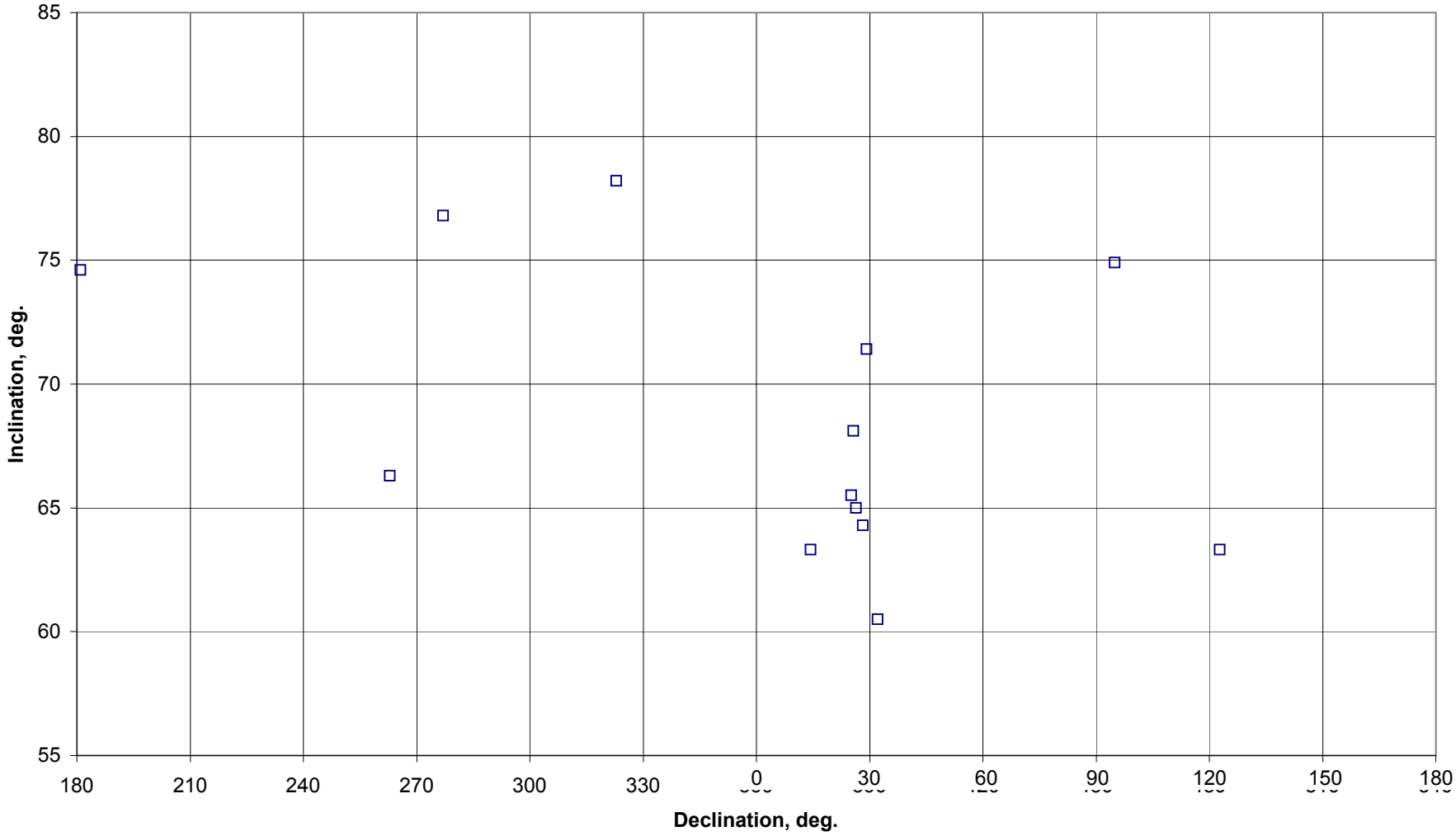
**SUMMARY OF PARTIAL DEMAGNETISATION STATISTICAL RESULTS**

| Demag Field *mT* | No. of samples | Samples removed | Alpha95 ± *degs.* | Mean Corrected Dec *degs.* | Mean Corrected Inc *degs.* |
|---|---|---|---|---|---|
| 0 | 13 | | 11.01 | 27.15 | 72.65 |
| | 7 | 1,2,3,6,8,11 | 2.15 | 27.17 | 60.36 |
| 2.5 | 13 | | 10.29 | 22.51 | 77.72 |
| | 7 | 1,2,3,6,8,11 | 3.17 | 21.69 | 64.73 |
| | 6 | 1,2,3,5 6,8,11 | 3.01 | 21.31 | 63.72 |
| | 5 | 1,2,3,5,6 7,8,11 | **2.81** | **19.76** | **64.50** |
| 5 | 13 | | 14.75 | 21.65 | 77.77 |
| | 7 | 1,2,3,6,8,11 | 8.12 | 21.87 | 61.25 |
| | 6 | 1,2,3,6 8,11,13 | 2.58 | 24.56 | 65.02 |
| 7.5 | 13 | | 15.39 | 9.02 | 80.64 |
| | 7 | 1,2,3,6,8,11 | 3.49 | 20.55 | 64.06 |
| | 6 | 1,2,3,6 8,9,11 | 3.68 | 19.62 | 64.86 |

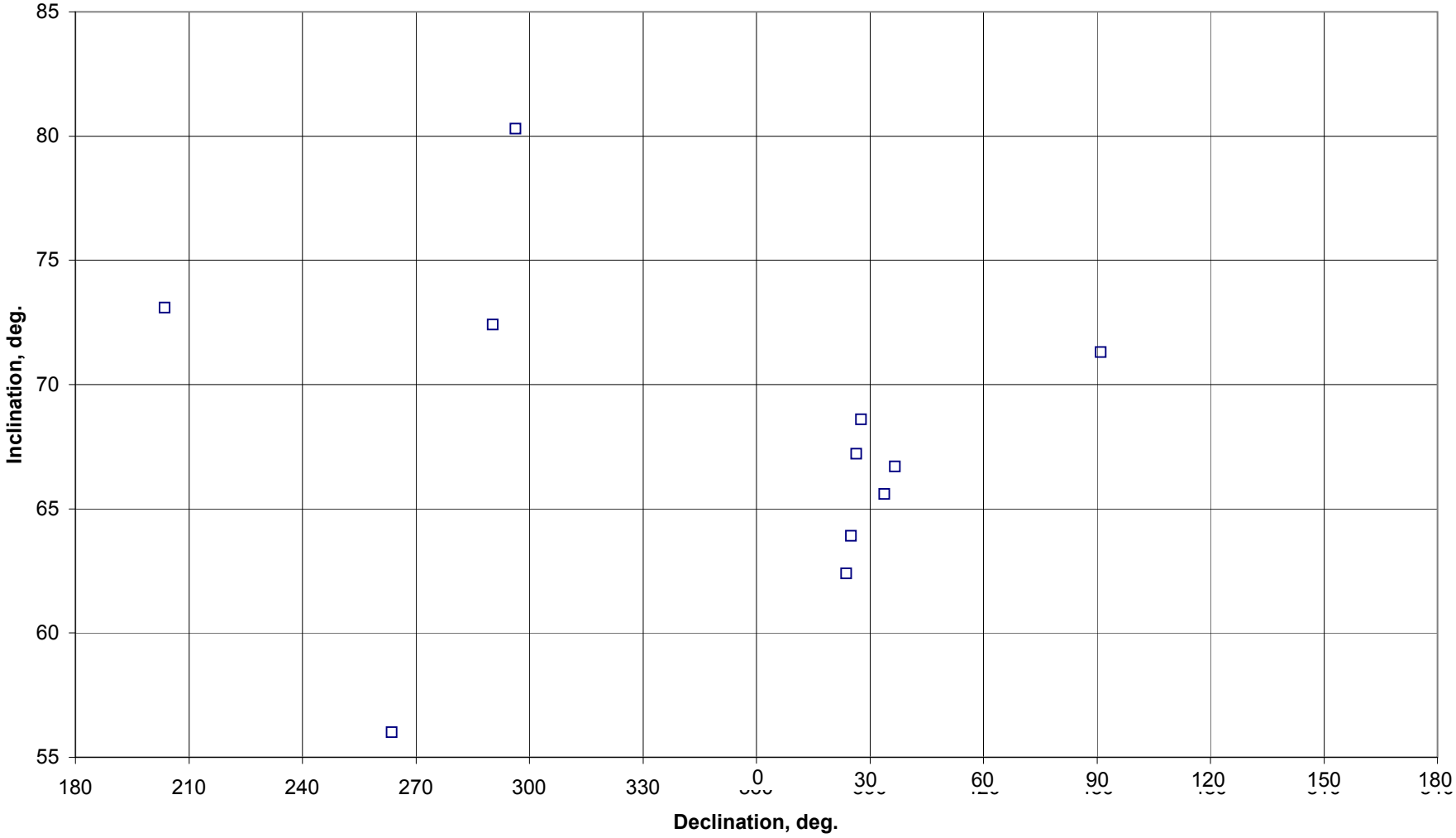
## INITIAL SAMPLE SCATTER



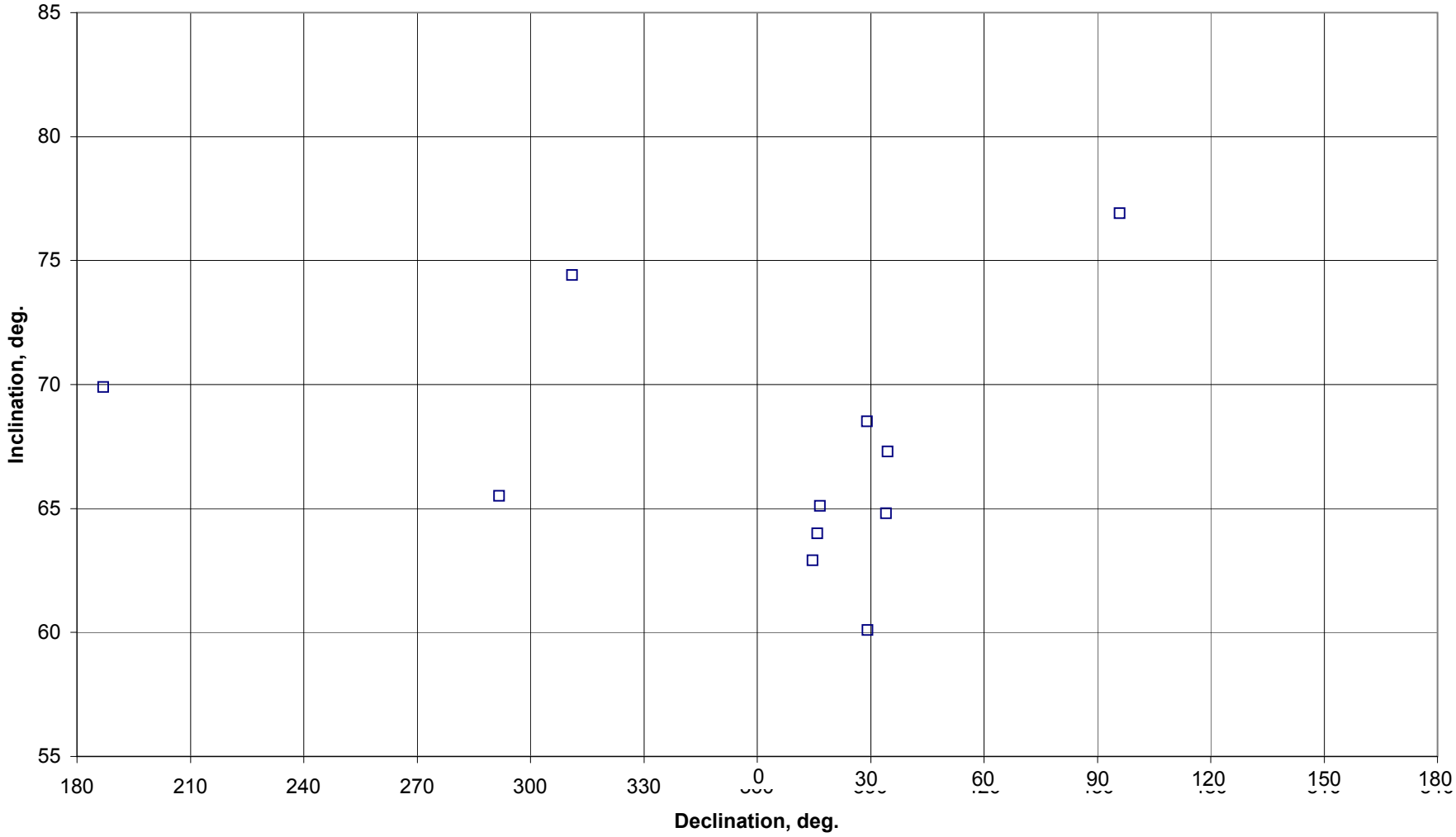
## 2.5mT DEMAGNETISED SAMPLE SCATTER



## 5mT DEMAGNETISED SAMPLE SCATTER



## 7.5mT DEMAGNETISED SAMPLE SCATTER



**PILOT STEPPED A.F. DEMAGNETISATION MEASUREMENTS**

**Sample No. 1**

| Demag Step | NRM | | | | | | |
|---|---|---|---|---|---|---|---|
| | Intensity | Normalised | Co-ordinates | | | Dec. | Inc. |
| *mT* | *mA m$^{-1}$* | intensity | X | Y | Z | *degs.* | *degs.* |
| 0.0 | 8.32 | 1.00 | 0.48 | -1.13 | 8.23 | 292.80 | 81.50 |
| 2.5 | 7.86 | 0.95 | 1.28 | -0.97 | 7.70 | 323.00 | 78.20 |
| 5.0 | 6.86 | 0.82 | 0.51 | -1.03 | 6.76 | 296.40 | 80.30 |
| 7.5 | 6.00 | 0.72 | 1.06 | -1.22 | 5.78 | 311.10 | 74.40 |
| 10.0 | 5.24 | 0.63 | 0.49 | -1.34 | 5.04 | 290.10 | 74.10 |
| 15.0 | 3.88 | 0.47 | 0.31 | -1.32 | 3.64 | 283.20 | 69.60 |
| 20.0 | 2.76 | 0.33 | 0.28 | -1.17 | 2.48 | 283.70 | 64.20 |
| 30.0 | 1.60 | 0.19 | 0.19 | -0.74 | 1.41 | 284.50 | 61.60 |
| 40.0 | 1.32 | 0.16 | 0.01 | -0.69 | 1.12 | 271.00 | 58.30 |
| 60.0 | 1.14 | 0.14 | 0.03 | -0.58 | 0.98 | 272.60 | 59.20 |
| 80.0 | 1.09 | 0.13 | 0.04 | -0.59 | 0.91 | 273.90 | 56.90 |
| 100.0 | 0.97 | 0.12 | 0.00 | -0.49 | 0.84 | 269.80 | 59.80 |

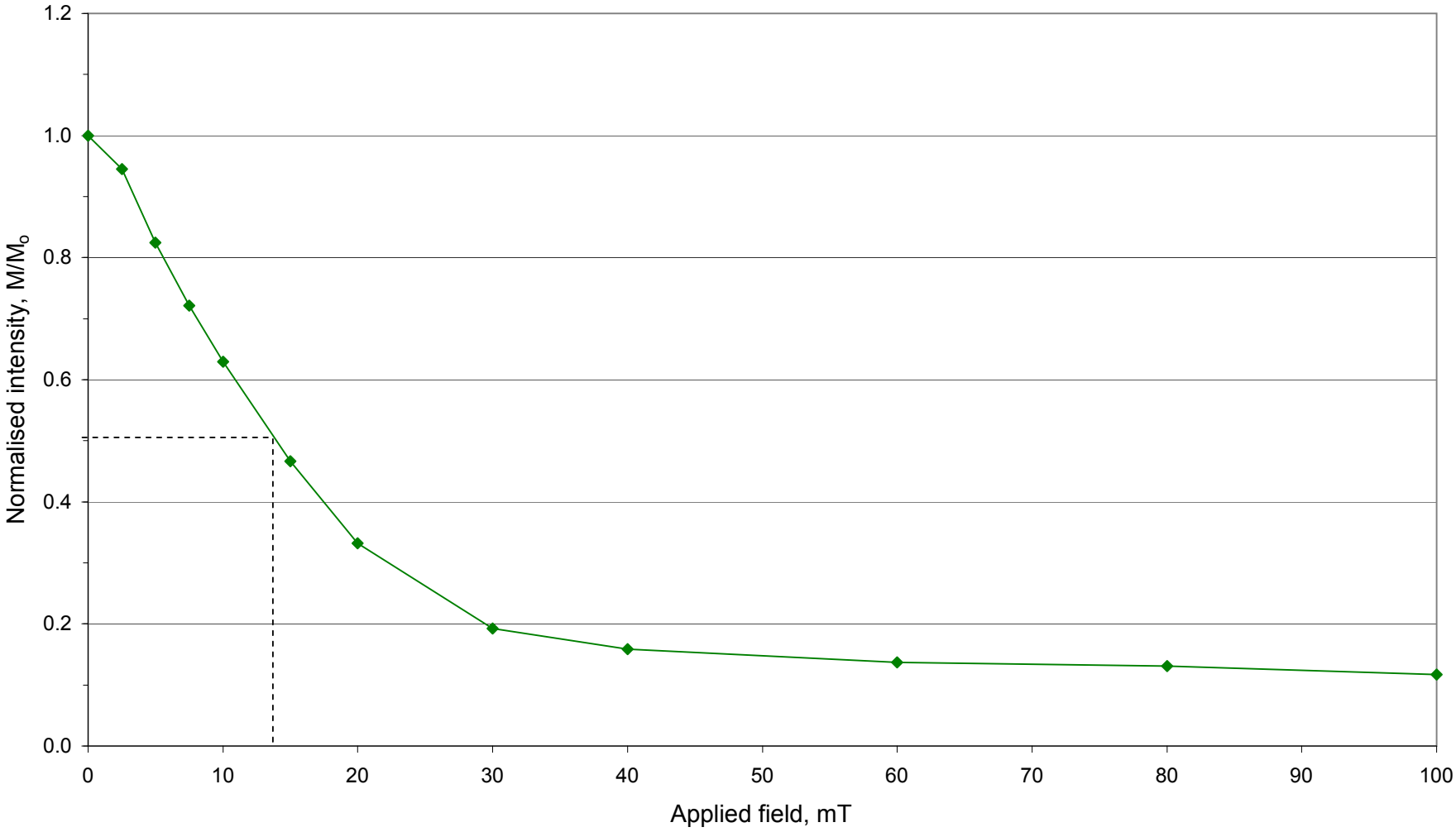
**Sample No. 4**

| Demag Step | NRM | | | | | | |
|---|---|---|---|---|---|---|---|
| | Intensity | Normalised | Co-ordinates | | | Dec. | Inc. |
| *mT* | *mA m$^{-1}$* | intensity | X | Y | Z | *degs.* | *degs.* |
| 0.0 | 46.30 | 1.00 | 15.85 | 7.60 | 42.83 | 25.60 | 67.70 |
| 2.5 | 44.80 | 0.97 | 16.80 | 7.92 | 40.76 | 25.20 | 65.50 |
| 5.0 | 37.78 | 0.82 | 13.12 | 6.53 | 34.82 | 26.50 | 67.20 |
| 7.5 | 29.94 | 0.65 | 12.60 | 3.61 | 26.92 | 16.00 | 64.00 |
| 10.0 | 22.05 | 0.48 | 8.50 | 1.78 | 20.27 | 11.80 | 66.80 |
| 15.0 | 10.12 | 0.22 | 4.42 | 1.08 | 9.04 | 13.80 | 63.30 |
| 20.0 | 3.87 | 0.08 | 1.58 | 0.06 | 3.53 | 2.20 | 65.90 |
| 30.0 | 1.17 | 0.03 | 0.60 | -0.09 | 1.00 | 351.20 | 58.80 |
| 40.0 | 0.88 | 0.02 | 0.47 | -0.13 | 0.73 | 344.90 | 56.20 |
| 60.0 | 0.74 | 0.02 | 0.36 | -0.23 | 0.61 | 327.60 | 55.00 |
| 80.0 | 0.69 | 0.01 | 0.39 | -0.03 | 0.56 | 354.90 | 55.20 |
| 100.0 | 0.62 | 0.01 | 0.28 | -0.25 | 0.49 | 318.00 | 52.60 |

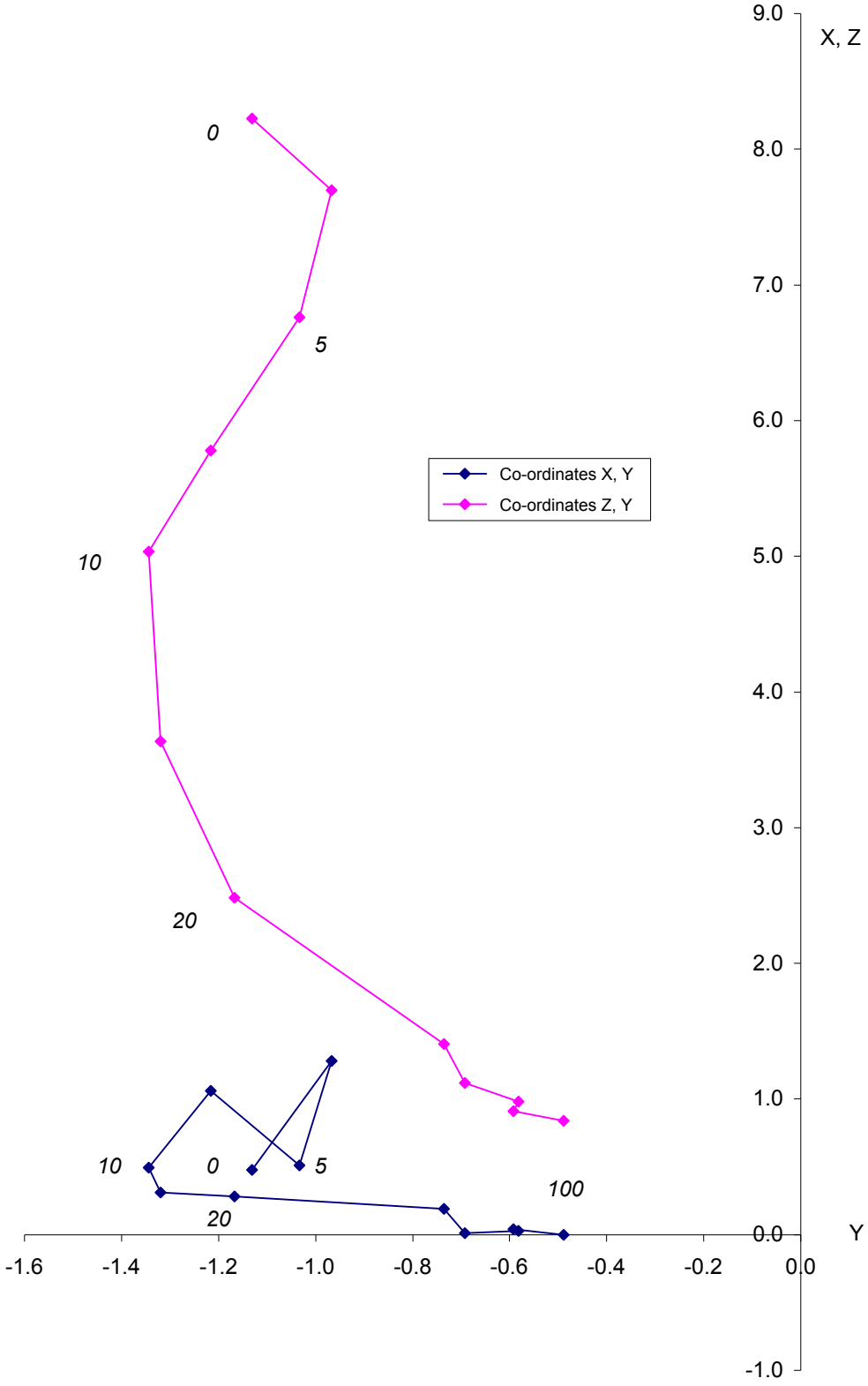
**Sample No.** **12**

| Demag Step | NRM | | | | | | |
|---|---|---|---|---|---|---|---|
| | Intensity | Normalised | Co-ordinates | | | Dec. | Inc. |
| *mT* | *mA m$^{-1}$* | intensity | X | Y | Z | *degs.* | *degs.* |
| 0.0 | 132.42 | 1.00 | 49.26 | 28.01 | 119.69 | 29.60 | 64.70 |
| 2.5 | 130.00 | 0.98 | 49.66 | 26.78 | 117.11 | 28.30 | 64.30 |
| 5.0 | 115.39 | 0.87 | 37.24 | 19.51 | 107.46 | 27.70 | 68.60 |
| 7.5 | 94.81 | 0.72 | 30.40 | 16.92 | 88.20 | 29.10 | 68.50 |
| 10.0 | 72.18 | 0.55 | 28.87 | 13.39 | 64.78 | 24.90 | 63.80 |
| 15.0 | 30.89 | 0.23 | 12.36 | 2.81 | 28.16 | 12.80 | 65.80 |
| 20.0 | 12.70 | 0.10 | 4.78 | 1.81 | 11.62 | 20.80 | 66.20 |
| 30.0 | 5.71 | 0.04 | 2.27 | 0.67 | 5.20 | 16.40 | 65.50 |
| 40.0 | 4.37 | 0.03 | 1.80 | 0.10 | 3.98 | 3.20 | 65.60 |
| 60.0 | 3.36 | 0.03 | 1.46 | -0.06 | 3.02 | 357.50 | 64.10 |
| 80.0 | 3.01 | 0.02 | 1.27 | 0.18 | 2.73 | 8.10 | 64.90 |
| 100.0 | 2.78 | 0.02 | 1.15 | -0.13 | 2.53 | 353.40 | 65.40 |

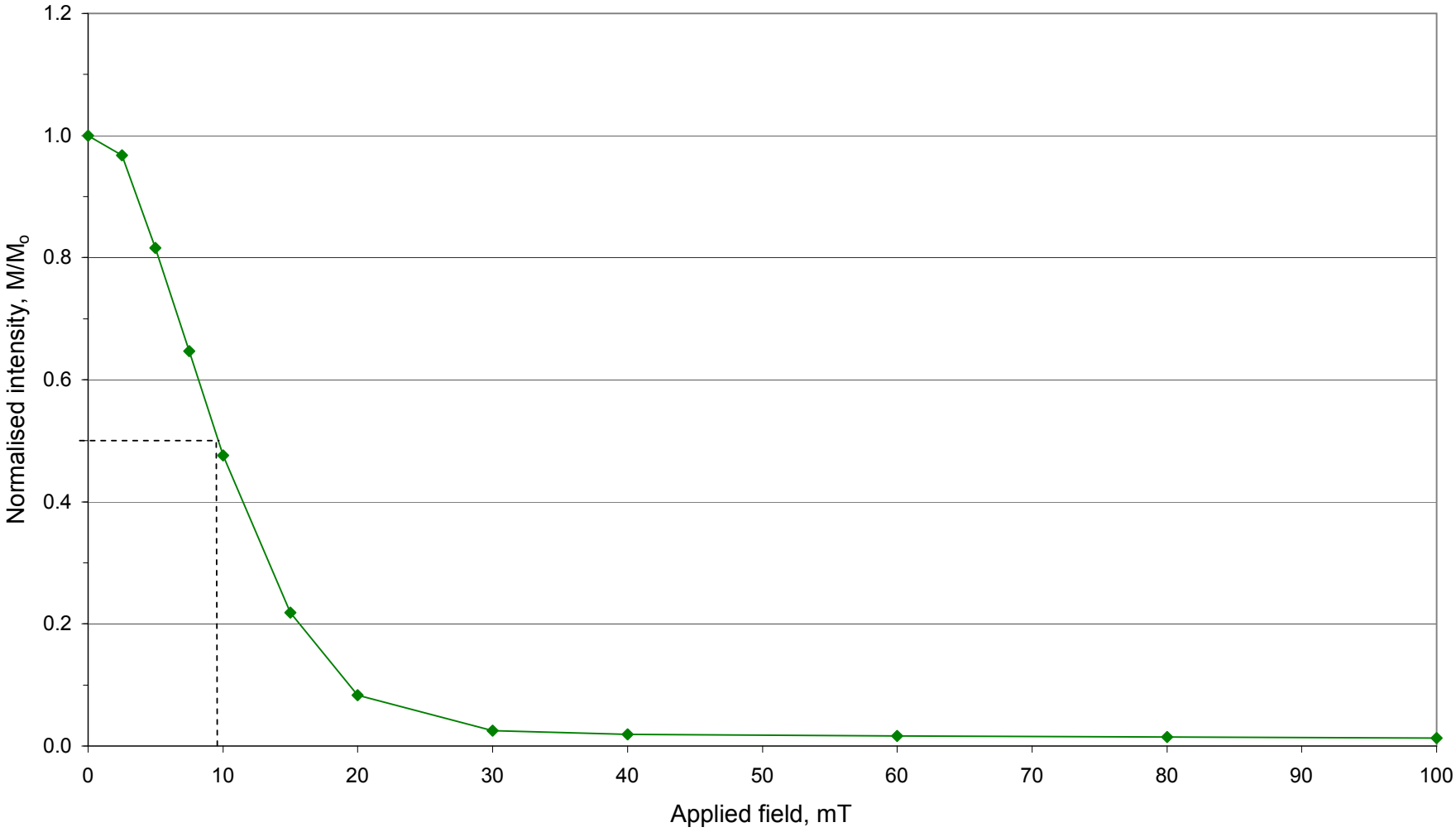
## MYERS WOOD - SAMPLE POINT L1 DEMAGNETISATION: INTENSITY SPECTRUM



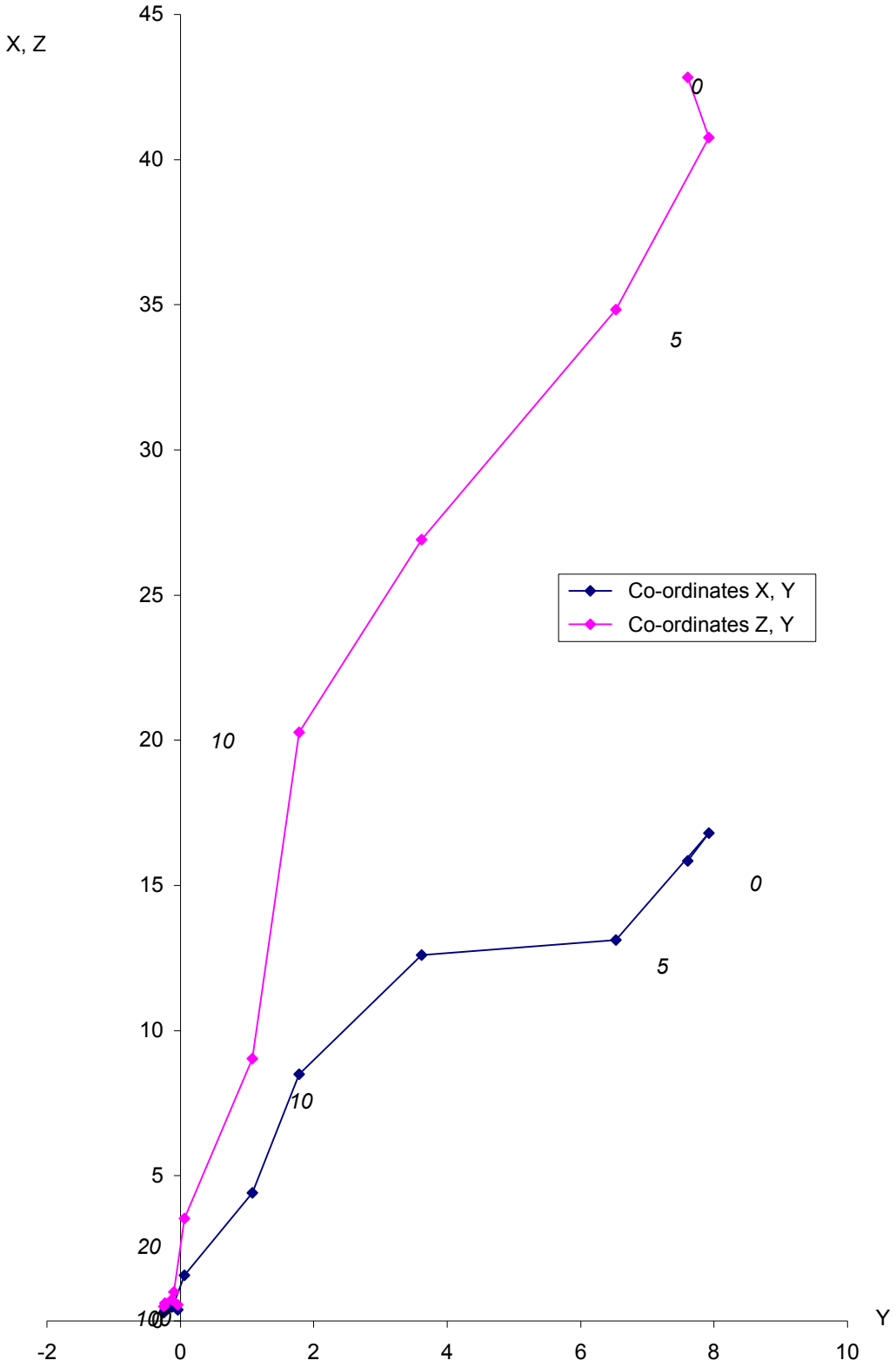
## MYERS WOOD - SAMPLE POINT L1 - ZIJDERVELD PLOT



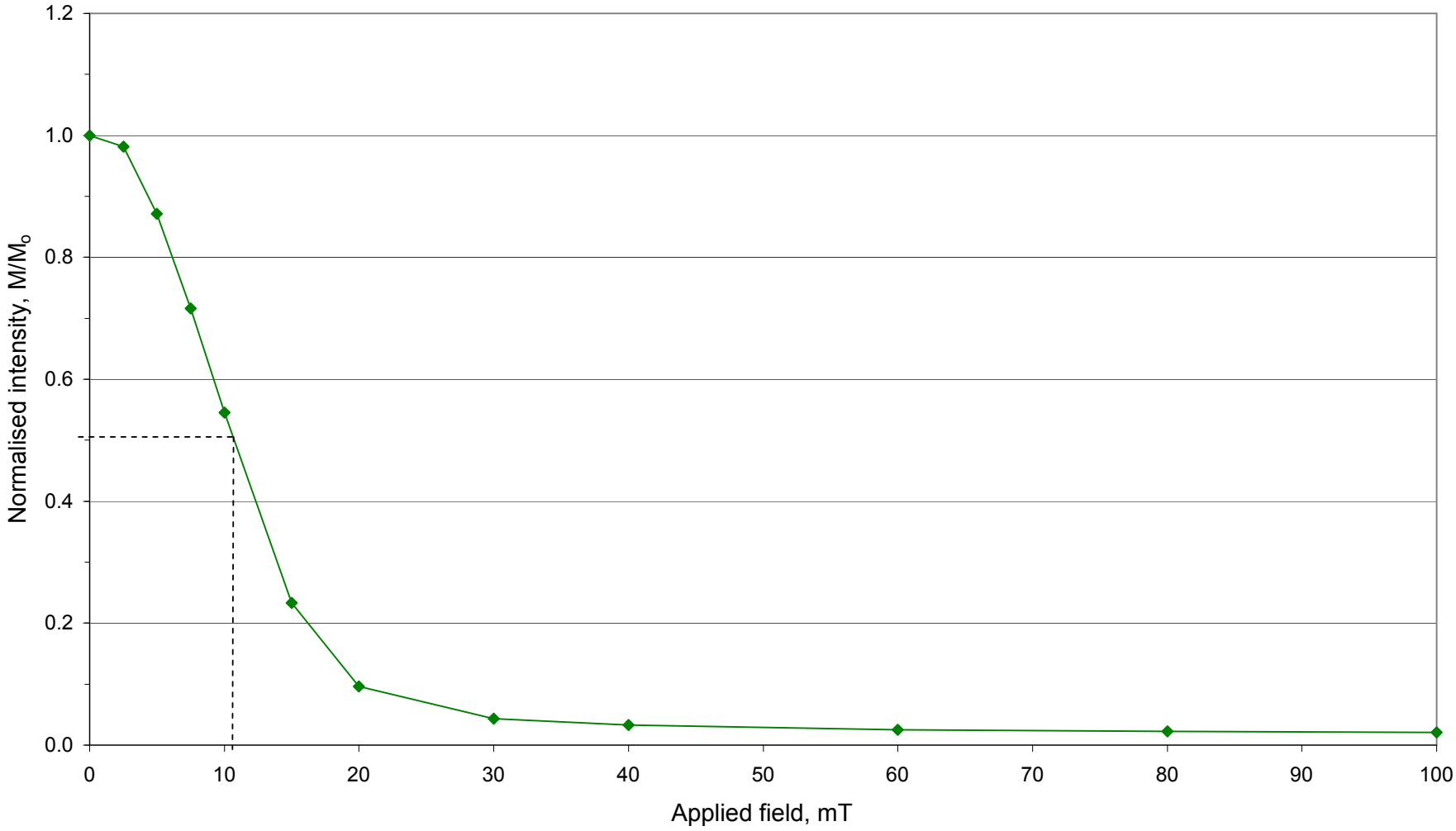
## MYERS WOOD - SAMPLE POINT L4 DEMAGNETISATION: INTENSITY SPECTRUM



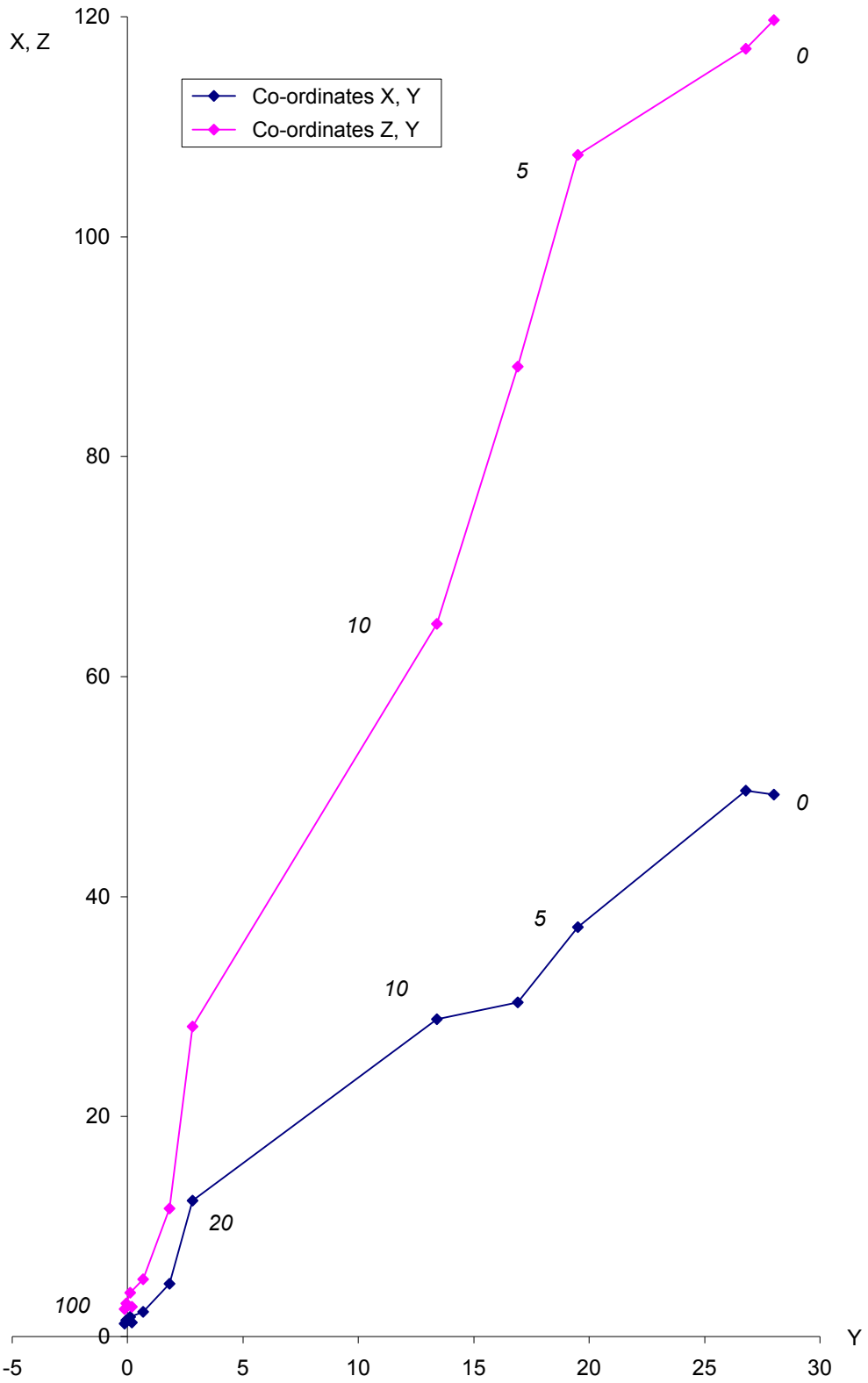
## MYERS WOOD - SAMPLE POINT L4 - ZIJDERVELD PLOT



## MYERS WOOD - SAMPLE POINT L12 DEMAGNETISATION: INTENSITY SPECTRUM



## MYERS WOOD - SAMPLE POINT L12 - ZIJDERVELD PLOT



**STABILITY INDEX**

**Sample No. 1**

| Demag Step | NRM | | | | |
|---|---|---|---|---|---|
| | D | I | x | y | z |
| *mT* | *degs.* | *degs.* | | | |
| 0.0 | 292.80 | 81.50 | 0.05728 | -0.13626 | 0.98902 |
| 2.5 | 323.00 | 78.20 | 0.16332 | -0.12307 | 0.97887 |
| 5.0 | 296.40 | 80.30 | 0.07492 | -0.15092 | 0.98570 |
| 7.5 | 311.10 | 74.40 | 0.17678 | -0.20265 | 0.96316 |
| 10.0 | 290.10 | 74.10 | 0.09415 | -0.25727 | 0.96174 |
| 15.0 | 283.20 | 69.60 | 0.07960 | -0.33936 | 0.93728 |
| 20.0 | 283.70 | 64.20 | 0.10308 | -0.42285 | 0.90032 |
| 30.0 | 284.50 | 61.60 | 0.11909 | -0.46047 | 0.87965 |
| 40.0 | 271.00 | 58.30 | 0.00917 | -0.52539 | 0.85081 |
| 60.0 | 272.60 | 59.20 | 0.02323 | -0.51152 | 0.85896 |
| 80.0 | 273.90 | 56.90 | 0.03714 | -0.54484 | 0.83772 |
| 100.0 | 269.80 | 59.80 | -0.00176 | -0.50302 | 0.86427 |

**Sample No. 1**

| Number | Range | S.I. | |
|---|---|---|---|
| 3 | 5 | 2.1 | |
| 4 | 7.5 | 2.1 | |
| 5 | 10 | 2.2 | |
| 6 | 15 | 2.1 | |
| 7 | 20 | 2.0 | |
| 8 | 30 | 2.1 | |
| 9 | 40 | 2.1 | |
| 10 | 60 | 2.4 | |
| 11 | 80 | 2.7 | |
| 12 | 100 | 3.0 | * |

| | | | |
|---|---|---|---|
| Number = | 12 | | |
| Sum x = | 0.93599 | | |
| Sum y = | -4.17762 | | |
| Sum z = | 11.00750 | | |
| R = | 11.81075 | | |
| x bar = | 0.07925 | | |
| y bar = | -0.35371 | | |
| z bar = | 0.93199 | | |
| | | k = | 58 |
| **Mean Dec =** | -77.37 | Theta63 = | 10.62 |
| **Mean Inc =** | 68.75 | Range = | 100 |
| **Alpha95 =** | 5.74 | **S.I. =** | 3.0 |

**Sample No. 4**

| Demag Step | NRM | | | | |
|---|---|---|---|---|---|
| | D | I | x | y | z |
| *mT* | *degs.* | *degs.* | | | |
| 0.0 | 25.60 | 67.70 | 0.34221 | 0.16396 | 0.92521 |
| 2.5 | 25.20 | 65.50 | 0.37523 | 0.17657 | 0.90996 |
| 5.0 | 26.50 | 67.20 | 0.34680 | 0.17291 | 0.92186 |
| 7.5 | 16.00 | 64.00 | 0.42139 | 0.12083 | 0.89879 |
| 10.0 | 11.80 | 66.80 | 0.38562 | 0.08056 | 0.91914 |
| 15.0 | 13.80 | 63.30 | 0.43635 | 0.10718 | 0.89337 |
| 20.0 | 2.20 | 65.90 | 0.40803 | 0.01567 | 0.91283 |
| 30.0 | 351.20 | 58.80 | 0.51193 | -0.07925 | 0.85536 |
| 40.0 | 344.90 | 56.20 | 0.53709 | -0.14492 | 0.83098 |
| 60.0 | 327.60 | 55.00 | 0.48429 | -0.30734 | 0.81915 |
| 80.0 | 354.90 | 55.20 | 0.56845 | -0.05073 | 0.82115 |
| 100.0 | 318.00 | 52.60 | 0.45137 | -0.40641 | 0.79441 |

**Sample No. 4**

| Number | Range | S.I. | |
|---|---|---|---|
| 3 | 5 | 6.0 | * |
| 4 | 7.5 | 3.3 | |
| 5 | 10 | 3.3 | |
| 6 | 15 | 3.8 | |
| 7 | 20 | 3.5 | |
| 8 | 30 | 2.8 | |
| 9 | 40 | 2.5 | |
| 10 | 60 | 2.4 | |
| 11 | 80 | 2.8 | |
| 12 | 100 | 2.6 | |

| | | | |
|---|---|---|---|
| Number = | 12 | | |
| Sum x = | 5.26874 | | |
| Sum y = | -0.15098 | | |
| Sum z = | 10.50223 | | |
| R = | 11.75072 | | |
| x bar = | 0.44838 | | |
| y bar = | -0.01285 | | |
| z bar = | 0.89375 | | |
| | | k = | 44 |
| **Mean Dec =** | -1.64 | Theta63 = | 12.19 |
| **Mean Inc =** | 63.35 | Range = | 100 |
| **Alpha95 =** | 6.61 | **S.I. =** | 2.6 |

**Sample No.** **12**

| Demag Step | NRM | | | | |
|---|---|---|---|---|---|
| | D | I | x | y | z |
| *mT* | *degs.* | *degs.* | | | |
| 0.0 | 29.60 | 64.70 | 0.37159 | 0.21109 | 0.90408 |
| 2.5 | 28.30 | 64.30 | 0.38183 | 0.20559 | 0.90108 |
| 5.0 | 27.70 | 68.60 | 0.32306 | 0.16961 | 0.93106 |
| 7.5 | 29.10 | 68.50 | 0.32024 | 0.17824 | 0.93042 |
| 10.0 | 24.90 | 63.80 | 0.40047 | 0.18589 | 0.89726 |
| 15.0 | 12.80 | 65.80 | 0.39974 | 0.09082 | 0.91212 |
| 20.0 | 20.80 | 66.20 | 0.37724 | 0.14330 | 0.91496 |
| 30.0 | 16.40 | 65.50 | 0.39782 | 0.11709 | 0.90996 |
| 40.0 | 3.20 | 65.60 | 0.41246 | 0.02306 | 0.91068 |
| 60.0 | 357.50 | 64.10 | 0.43639 | -0.01905 | 0.89956 |
| 80.0 | 8.10 | 64.90 | 0.41997 | 0.05977 | 0.90557 |
| 100.0 | 353.40 | 65.40 | 0.41352 | -0.04785 | 0.90924 |

**Sample No.** **12**

| **Number** | **Range** | **S.I.** | |
|---|---|---|---|
| 3 | 5 | 2.9 | |
| 4 | 7.5 | 3.7 | |
| 5 | 10 | 4.0 | |
| 6 | 15 | 3.7 | |
| 7 | 20 | 4.5 | |
| 8 | 30 | 5.5 | |
| 9 | 40 | 4.9 | |
| 10 | 60 | 4.9 | |
| 11 | 80 | 5.7 | * |
| 12 | 100 | 5.7 | |

| | | | |
|---|---|---|---|
| Number = | 12 | | |
| Sum x = | 4.65431 | | |
| Sum y = | 1.31756 | | |
| Sum z = | 10.92598 | | |
| R = | 11.94887 | | |
| x bar = | 0.38952 | | |
| y bar = | 0.11027 | | |
| z bar = | 0.91439 | | |
| | | k = | 215 |
| **Mean Dec =** | 15.81 | Theta63 = | 5.52 |
| **Mean Inc =** | 66.12 | Range = | 100 |
| **Alpha95 =** | 2.97 | **S.I. =** | 5.7 |