# GRAVITY AND MAGNETIC SURVEY
# NECHAKO BASIN STUDY
# ACQUISITION AND PROCESSING PHASE

Report prepared for the
B.C. Ministry of Energy and Mines
Resource Development Division
New Ventures Branch

by

Bemex Consulting International
5288 Cordova Bay Road
Victoria, B.C. V8Y 2L4

## *Introduction*

In 2002 the Resource Development Division, New Ventures Branch of the B.C. Ministry of Energy and Mines commissioned Petrel Robertson from Calgary to determine the oil and gas potential of the Nechako basin. One of the data sets used in their report was a regional gravity map originally constructed for Canadian Hunter in the early 1980's from a regional gravity survey carried out under contract. A gravity low can be seen on this map in the southwestern portion of the Nechako basin that has about 25 mGal of relief. The center of this gravity low trends approximately N-S, extending from a few tens of kilometers north of Alexis Creek on Highway 20 to a few tens of kilometers south of Big Creek. Unfortunately the original data are not available for re-interpretation at this time.

The purpose of the present project is to carry out a high resolution ground gravity and magnetic survey across this gravity low to demonstrate their usefulness in mapping basement structure and topography (for example potential sedimentary basins), basement faults and lineaments, as well as their usefulness for determining the extent of near surface volcanic cover. Bemex Consulting International was contracted therefore to conduct a combined gravity and magnetic survey along an approximately east-west line approximately midway (in the north-south direction) along the gravity low. The survey was carried out between October 1 and October 12, 2003. This report discusses the field procedures, data manipulation and processing steps applied to the gravity and magnetic data. The report does not provide a detailed interpretation of the data.

## *Location*

The location of the survey line was chosen to examine more closely the regional gravity low that was outlined during the earlier geophysical work conducted by Canadian Hunter in the late 1980's. This new line followed a 33 km segment of the road that connects Riske Creek with Big Creek (Figure 1). Figure 1 shows the location of the survey line, with the approximate center (station 100) located near the village of Big Creek. The western end of the line (station 0) is near the eastern end of Willan Lake and crosses one of Canadian Hunter's seismic lines. The eastern end of the line (station 200) ends approximately 200 m west of the kilometre 45 marker on the Big Creek-Riske Creek Road.

## *Field and acquisition procedures*

### Gravity data

The gravity survey was conducted using a Lacoste and Romberg model G gravity meter leased from Instrumentation GDD of Quebec City. Gravity meter readings were taken approximately every 300 to 350 m along the survey line at station numbers 0, 2, 4, ..., 200 . The location of each reading was plotted on British Columbia TRIM maps (92O/10 and 92O/11) at a scale of 1:50 000. Gravity base stations were set up at stations 0, 36, 62, 88, and 120. These stations were used to correct for instrument drift and earth tide effects. Repeat readings were taken no more than 4 hours apart at different pairs of these stations. Changes in the gravity

meter reading at a given base station measured during this time period was assumed to vary linearly. Consequently gravity meter readings taken at all stations during this time period were corrected for drift using the linear correction from the base station(s). All station values s are given relative to the initial reading at station zero.

**Magnetic data**

The magnetic survey was conducted using a GEM GSM-19G gradiometer system to collect total magnetic field data and vertical gradient data of the total magnetic field. A base station magnetometer (a GEM GSM-19 magnetometer system) was used for diurnally correcting the total magnetic field data. Both these magnetometers were leased from Terraplus of Mississauga, Ontario. Magnetic readings were taken at each gravity station and mid way between each gravity station. Every second magnetic reading at stations 0, 2, 4, etc. is therefore located at the corresponding gravity stations 0, 2, 4, etc.. Midpoint magnetic stations were assigned odd station numbers of 1, 3, 5, etc . and their location was estimated by simply pacing the distance. The base station magnetometer was located near station 34 on October 3, near station 60 on October 6 and near station 118 on October 9. The last magnetic reading of the survey on October 3 and the first magnetic reading of the survey on October 6 was at station 62 to enable the two magnetic data sets to be merged. Similarly the last magnetic reading on October 6 and the first reading on October 9 was at station 122 to enable these data sets to be merged.

**Elevation and UTM data**

The NAD-83 UTM [easting (x) and northing(y)] coordinates of each gravity station were obtained directly from BC TRIM maps (92O/10 and 920/11). The accuracy of the location of each gravity station was estimated to be ± 50 m for both x and y coordinates. Coordinates for the mid point magnetic readings were not computed but estimated instead.

The distance between each gravity station was computed from the UTM coordinates using Pythagorus' formula [distance = SQRT((∂x)$^2$ + (∂y)$^2$)] where ∂x (∂y) is the difference in the x (y) coordinate between two adjacent gravity stations. The distance of gravity station "n" (n = 2, 4, 6, . . .) from station 0 is therefore the sum of the distances between station 0 and station "n". The distance of midpoint magnetic readings from station 0 was assumed to be the distance midway between the two adjacent gravity reading distances. For example, the distance of station 5 is mid way between the distances of gravity stations 4 and 6. Plots of calculated distance between stations and total distance from station zero versus station number are given in Appendix A.

Elevations at each gravity station were obtained using a Pentax model PLP-71 laser level leased from Frederick Goertz of Victoria, B.C. The elevation at Station 0 was assigned an arbitrary value of 0 m above sea level (asl) and all subsequent gravity elevations were measured relative to station 0. The elevations for midpoint magnetic readings were not computed as they are not needed for magnetic corrections. A plot of eation relative to station zero verus station number is given in Appendix A.

A known elevation point (1111 m asl) shown on TRIM maps (NTS 92)/10 and 92)/11) was located within a few meters of station 122.. The final elevation of each station was therefore adjusted so that station 122 had a value of 1111 m asl. The overall accuracy of the elevation survey is estimated to be ± 2 m, with an estimated accuracy between any two stations of ± 10 cm. As an example the elevation between stations 40 and 42 was measured twice and the difference was only 8 cm. This error occurred over an approximate distance of 190 m. For elevation corrections we assumed an overall elevation accuracy of ± 1m fo any given station.

***Data processing***

**Gravity data**

# Table 1

**Lacoste and Romberg Model G gravity meter # 53**
**Supplemental Table to convert meter readings to mGal units**

| Meter Reading | Multiplier | Gravity value (mGal) |
|---|---|---|
| 0 | 1.1575 | 0.000 |
| 10 | 1.1573 | 11.573 |
| 20 | 1.1572 | 23.144 |
| 30 | 1.1570 | 34.710 |
| 40 | 1.1568 | 46.272 |
| 50 | 1.1567 | 57.835 |
| 60 | 1.1566 | 69.396 |
| 70 | 1.1565 | 80.955 |
| 80 | 1.1563 | 92.504 |
| 90 | 1.1562 | 104.058 |
| 100 | 1.1560 | 115.600 |
| 110 | 1.1558 | 127.138 |
| 120 | 1.1557 | 138.684 |
| 130 | 1.1555 | 150.215 |
| 140 | 1.1554 | 161.756 |
| 150 | 1.1552 | 173.280 |
| 160 | 1.1551 | 184.816 |
| 170 | 1.1549 | 196.333 |
| 180 | 1.1548 | 207.864 |
| 190 | 1.1546 | 219.374 |
| 200 | 1.1545 | 230.900 |

The drift corrected gravity meter readings were first multiplied by the appropriate multiplier in Table 1 to convert the readings to actual gravity values (mGal). The multipliers in Table 1 are supplied by the Lacoste and Romberg instrument manufacturer and are specific for each instrument. Once the gravity readings are expressed in units of mGal, elevation and latitude corrections were applied. A plot of drift corrected gravity data verus station number is given in Appendix A.

The gravity values measured with the Lacoste and Romber gravity meter are not absolute values. Consequently these are only relative values, in this case relative to the initial gravity

value assigned to station zero. This is also true for the regional gravity survey in the Petrel Robertson report. The present survey has relative gravity values around 150 mGal while the earlier regional survey has relative values around 650 mGal.

**o Latitude corrections**

Latitude corrections account for the fact the earth is not a perfect sphere but has a larger diameter at the equator than at the poles. Consequently the pull of gravity is stronger near the poles and this affect must be removed from the original gravity data. The correction is quite complex to compute but for our purpose the correction is equal to

$$0.000786753\ \Delta y \text{ Mgal}$$

where $\Delta y$ is the distance (m) north or south of station 36. The correction was added to the original drift corrected gravity value if the station was south of station 36 and subtracted from the original drift corrected gravity reading if the station was north of station 36. Station 36 was chosen as the station where the gravity value remains the same before and after corrections are applied for reasons explained in the next section on elevation corrections. A plot a the northing (y) coordinate relative to station 36 versus station number is given in Appendix A.

**o Elevation corrections**

Figure 2 shows a plot of the distance along the profile in meters (starting at station 0) versus elevation above sea level. All elevation and latitude corrections were made relative to station 36 so that the maximum elevation change above the elevation of station 36 is roughly the same as the maximum elevation change below the elevation of station 36. Consequently the gravity value at station 36 remains the same before and after corrections are applied.

The free air correction takes into account the elevation difference between the station being corrected and station 36. The free air correction assumes there is only air between the stations. The correction is equal to

$$0.3086\ h \text{ mGal}$$

with the free air correction at station 36 zero. The height h is the elevation difference between station 36 and the station being corrected. The correction is added to the latitude corrected gravity values at stations with an elevation greater than that of station 36 and subtracted from the latitude corrected gravity values at stations with an elevation less than that of station 36. The corrected gravity readings are called the free air gravity.

The Bouguer correction takes into account the fact rock lies between the station being corrected and station 36. The Bouguer correction is equal to

$$0.04191\ \rho h \text{ mGal}$$

with ρ equal to the rock density in g/cc. We experimented with different density values in order to minimize topographic effects. Eventually we came up with a density of 2.35 g/cc (2350 $kg/m^3$) which is consistent with the one used for the earlier contractor. The Bouguer correction is therefore equal to

0.09849 h mGal.

It is subtracted from stations with an elevation greater than that of station 36 and added to stations with an elevation less than that of station 36.

The corrected gravity readings that include both free air elevation effects and Bouguer elevation effects are called the Bouguer gravity. The Bouguer correction is therefore equal to

(0.3086 - 0.09849) h = 0.2101 h mGal.

and the correction is applied to the latitude corrected gravity values using the rules given above for the free air correction.

Figure 2 also shows plots of distance verus the original drift corrected gravity before corrections and the Bouguer gravity after latitude and elevation corrections were applied. Plots of gravity data before and after latitude and Bouguer corrections were applied are given in Appendix A as well.

**o Terrain corrections**

Terrain corrections account for the fact that the slab used for Bouguer corrections is not perfectly flat. Terrain corrections are complex and tedious to compute. Corrections up to ring D (using the Hammer method) were carried out for each station and were added to the corresponding Bouguer gravity value. Terrain corrections are negligible for stations east of station 90 as there is very little relief along this portion of the survey line. The largest terrain corrections occur for stations west of station 40. Typical terrain correction values to ring D in this area are of the order of 0.4 mGal (note the terrain correction is always added to the corrected gravity values no matter whether the elevation is above or below the elevation of the station being corrected). A few terrain corrections for stations between 0 and 36 were computed from the TRIM maps, using elevations out to several kilometers, to determine the size of these corrections. The conclusion reached is that these corrections will only change the Gouger gravity values 0.2 to 0.4. mGal which, for our purposes, will not be included . Figure 3 shows the final corrected gravity data (including elevation, latitude and terrain corrections) versus distance.

**o Accuracy of corrections**

The latitude correction has an accuracy of ± 0.04 mGal based on the estimated position accuracy of ± 50 m The elevation correction has an accuracy of ± 0.2101 mGal based on an estimated overall elevation accuracy of ± 1 m. The combined accuracy of these two corrections

has an accuracy of ± 0.25 mGal. Terrain corrections are estimated to have an accuracy of ± 0.4 mGal to give an overall accuracy for the gravity data of ± 0.6 mGal

## Magnetic data

The total magnetic field data collected along the profile were diurnally corrected using the base station magnetometer which was synchronized in time with the roving magnetometer. Software supplied by the manufacturer of the magnetometers (GEM) was used to carry out the diurnal corrections. Plots of the magnetic readings versus time for the three sets of base station data are given in Appendix A. A base level was selected within the software program for each of the three sets of magnetic data. For the data on October 3 the level was selected to keep the total magnetic field value at station 0 the same before and after diurnal correction. The base level for October 6 was selected to ensue the common total magnetic field value at station 62 had the value computed on October 3 after diurnal corrections were applied. Similarly the base level on October 9 was selected using the same methodology, but for station 122. The vertical gradient of the total magnetic field at each station was also recorded but no diurnal corrections are required since the gradient is the difference between. two total magnetic field measurements taken at the same time. Figure 3 also shows a plot of distance versus the diurnally corrected total magnetic field data . Figure 4 show plots of distance verus the diurnally corrected total magnetic field data and the vertical gradient of the total magnetic field versus distance.

### *Qualitative description of results*

The final processed gravity and magnetic data are shown in Figures 3 and 4. The gravity profile does confirm there is a low near Big Creek with roughly the same magnitude as the regional gravity map in the Petrel Robertson report. This gravity feature has an approximate width of 20 km. This does not imply the width of the density anomaly causing this feature has the same width as the gravity low. In fact the causative body would be narrower. There are several smaller features worth noting along the gravity profile. Two gravity lows of a few mGal with widths of approximately 5 km can be seen between 17 and 23 km and between 9 and16 km. There is a unique low of approximately 2.5 mGal around 14.5 km that occurs over 4 stations (approximately 2 km) which is not associated with any significant changes in elevation.

In order to provide a more comprehensive interpretation of the gravity data this profile needs to be merged with the regional gravity data from the Petrel Robertson report. Once this is accomplished the regional component of gravity along this profile can be removed and the remaining residual anomalies more easily interpreted. As discussed earlier in the section on gravity processing the gravity values are relative measurements so the regional data and the data from this profile must be adjusted so they have consistent magnitudes.

The final total magnetic field data are shown in Figures 3 and 4 and the magnetic gradient data (vertical gradient of the total magnetic field) are shown in Figure 4. The highest average value of the total magnetic field is approximately 57500 nT and it occurs between stations 0 and 36 (0 and 6 km) where the topography is greatest. There are also large variations in the magnetic field (from 52000 to 60000 nT) along the same part of the profile. The rest of the profile has an average total field value around 56500 nT. Several regions with relatively constant values of

the magnetic field appear to be associated with the two small gravity lows mentioned above. The high magnetic field values associated with the higher topography are likely associated with shallow basaltic rocks, which may also explain, at least in part, the higher gravity values in that region.

The reports submitted to the BC government for the earlier regional gravity survey speculated that the regional low is associated with a fault (they named it the Alexis Creek fault). The reports also mentioned the possibility of sediment infilling the downthrown side of the fault to the east.

***Recommendations for interpretation***

These gravity and magnetic data sets can be used in conjunction with regional potential field data to carry out a preliminary interpretation of this gravity regional low. In addition to the regional potential field data the interpretation should incorporate geological information as well as all available well and seismic data. The regional potential field data sets should include regional aeromagnetic data from the GSC and the regional gravity data from the Petrel Robertson. One or more of the seismic lines that cross the regional gravity low should be incorporated into the interpretation (perhaps they should be reprocessed first, if the digital data is available). The seismic and well data can be used to provide depth constraints for the quantitative interpretation of the gravity and magnetic data.

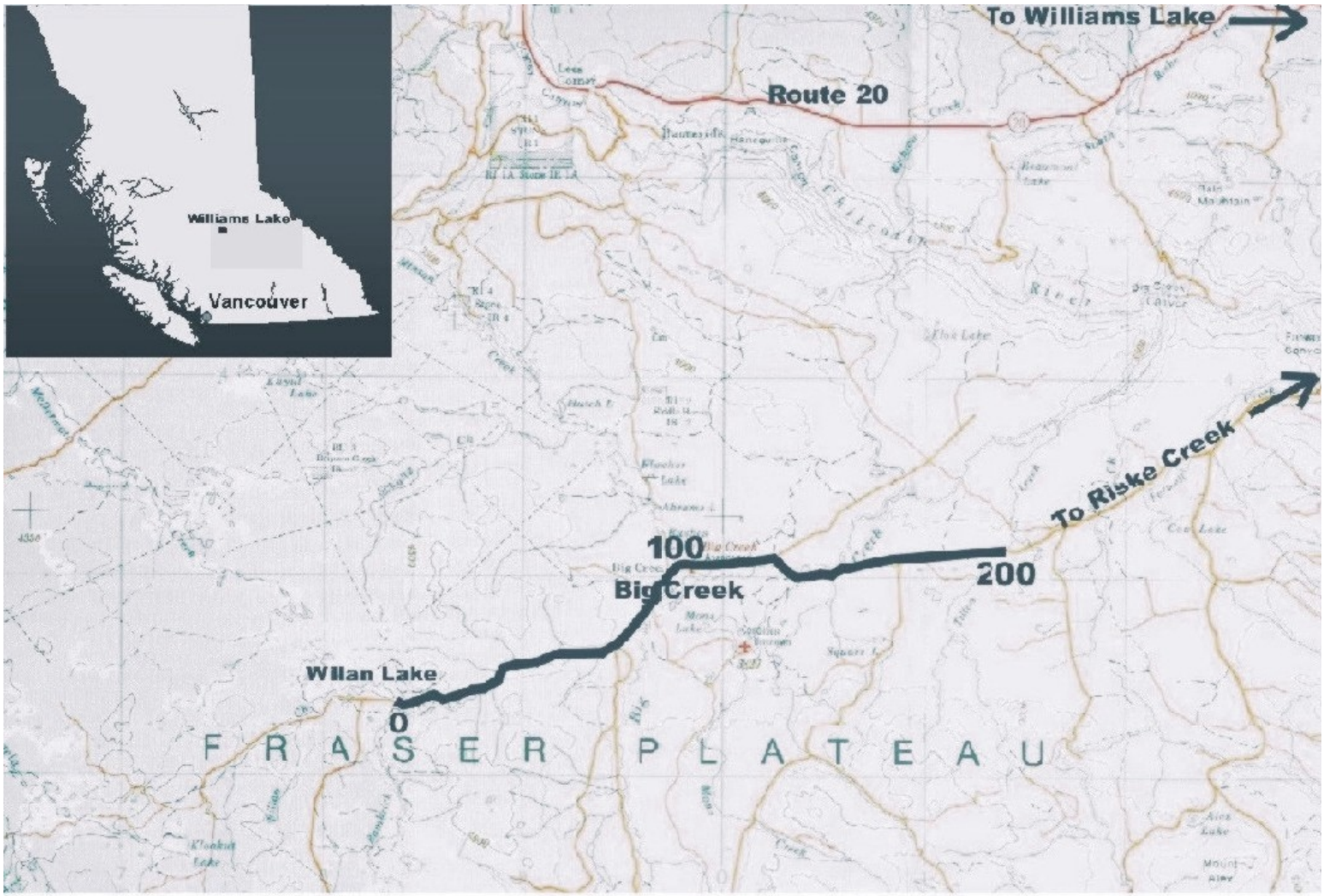



**Figure 1 Location of Survey Line (from NTS 920)**

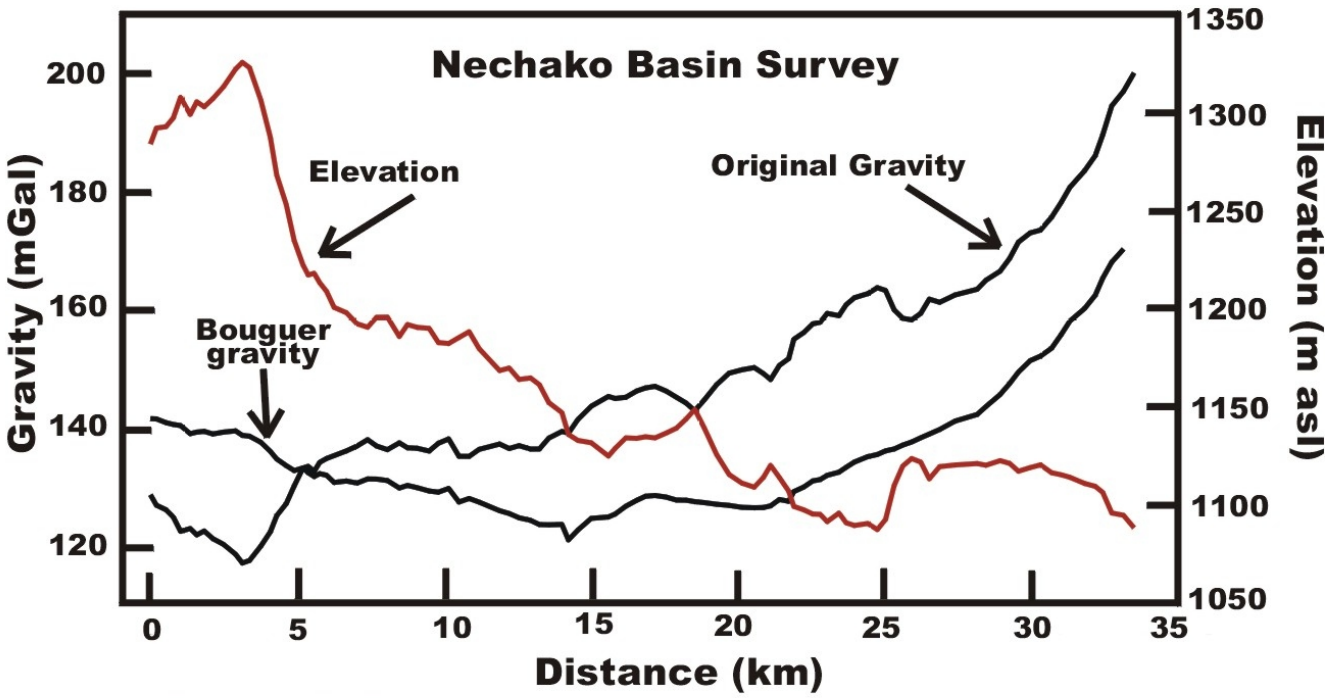



**Figure 2 Elevation and Gravity Versus Distance**

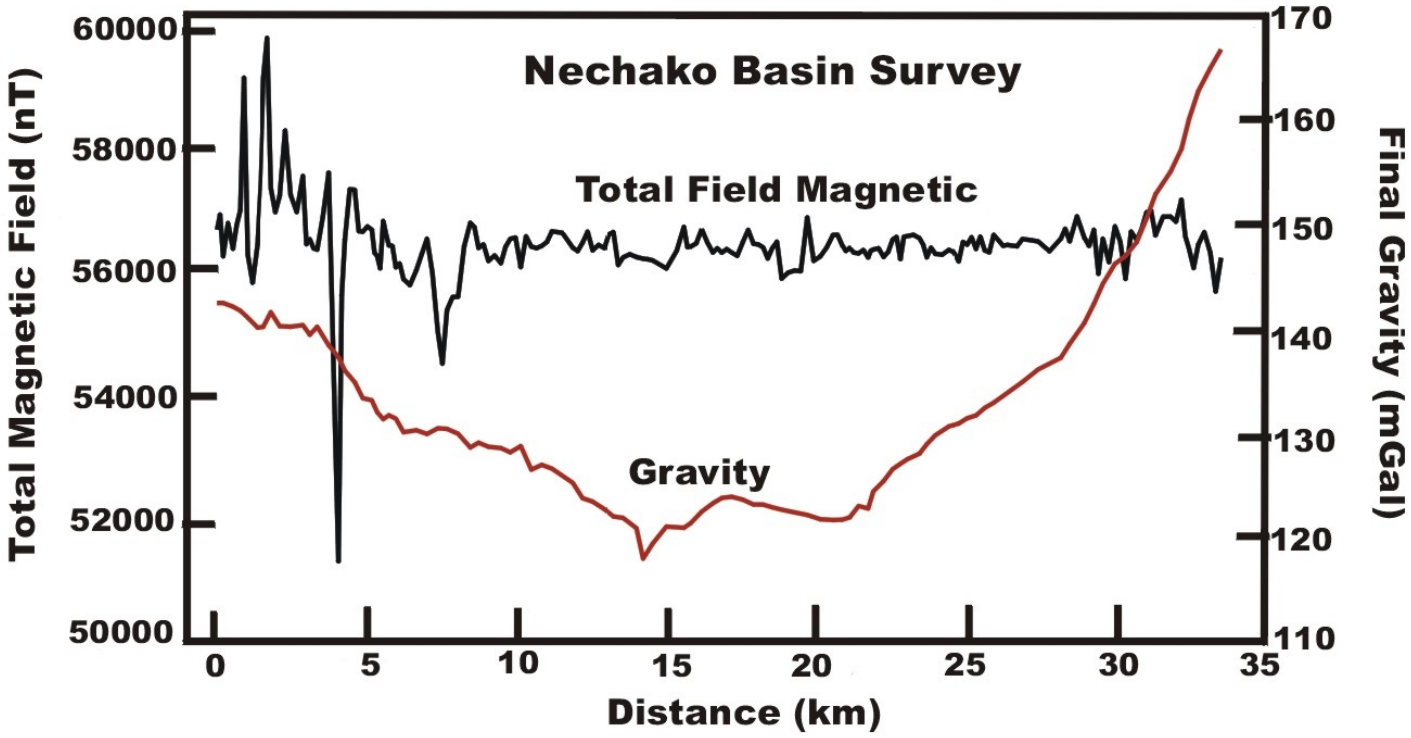



**Figure 3 Final Total Field Magnetic and Gravity Data**

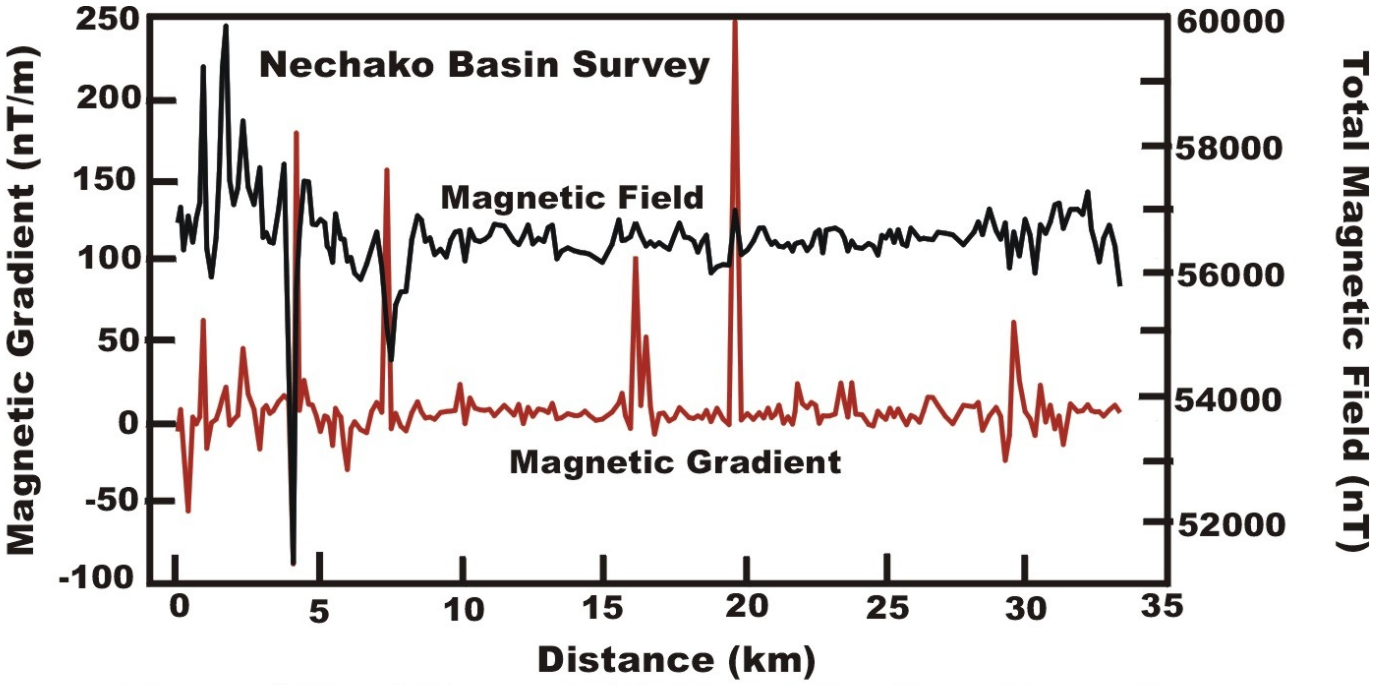


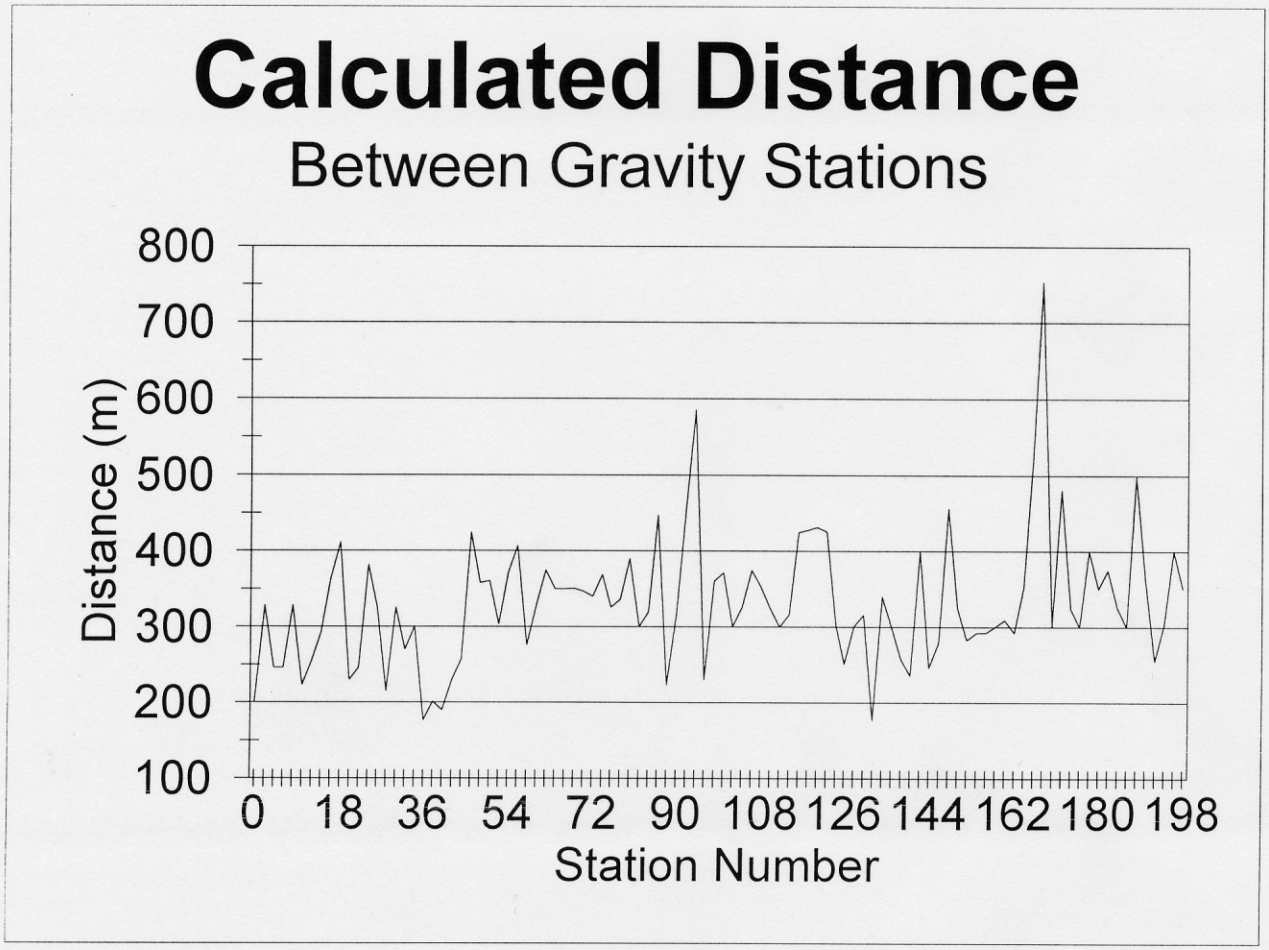

**Figure 4 Total Magnetic Field and Gradient Magnetic**

# APPENDIX A

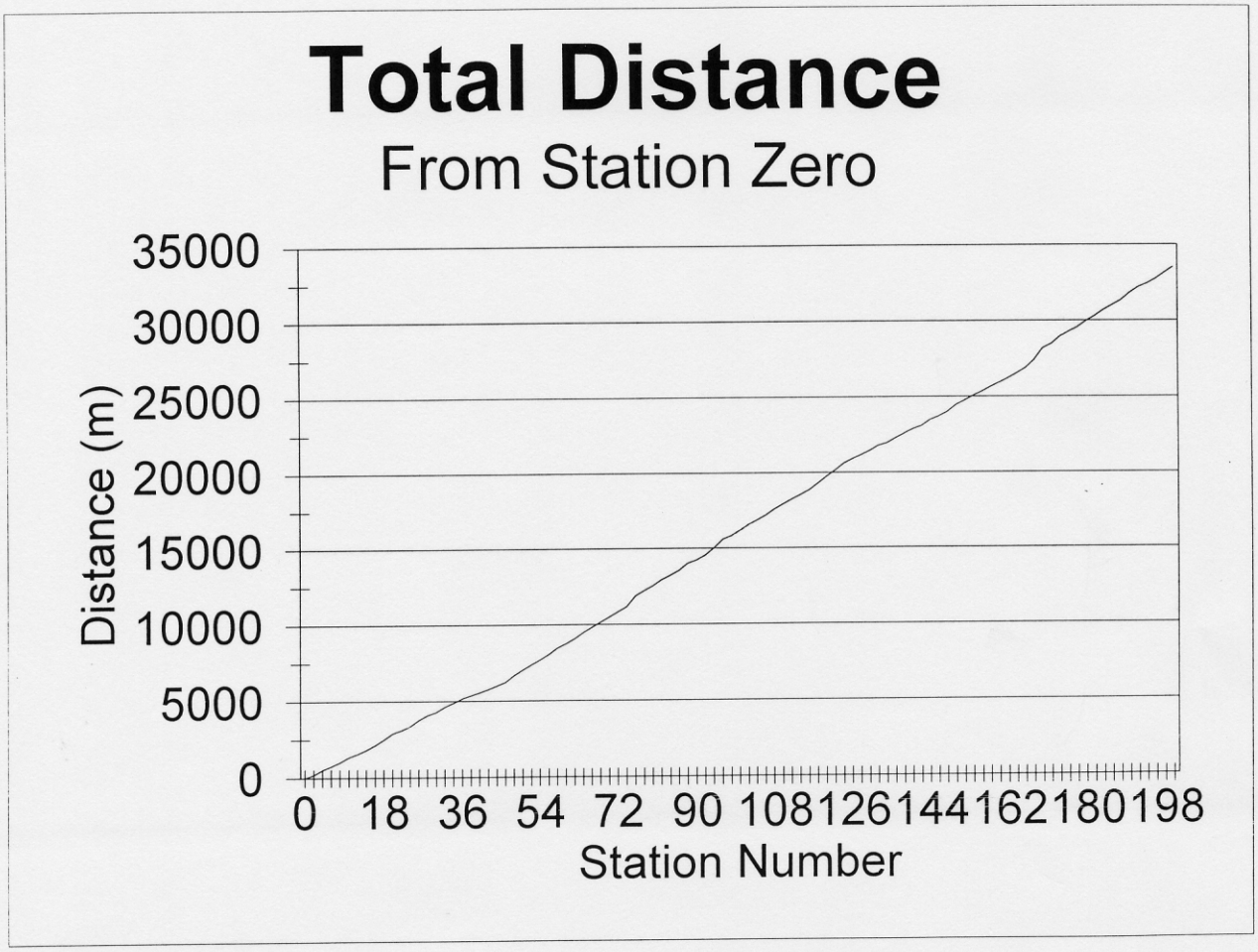
# ADDITIONAL PLOTS

The following additional plots are included with this report.

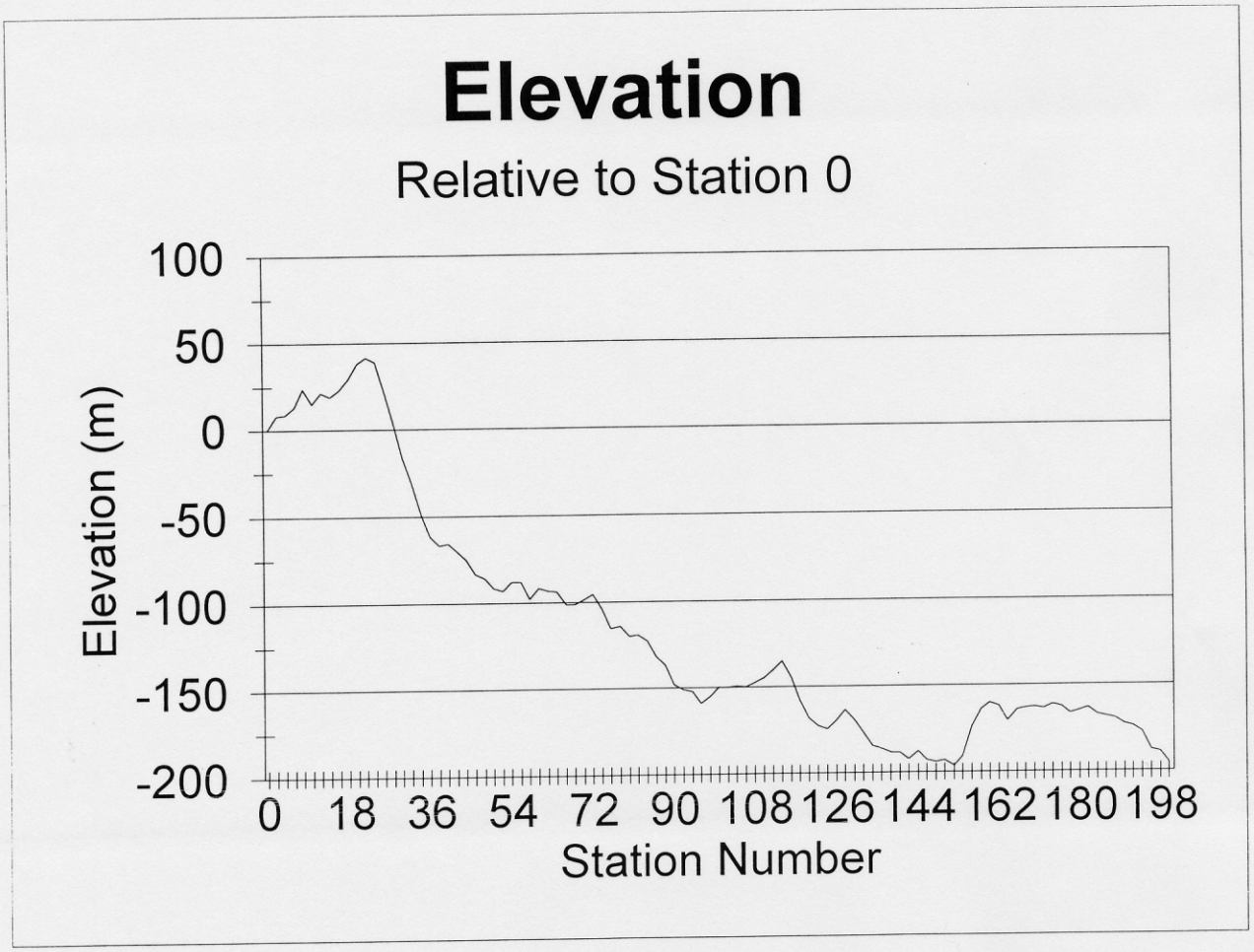
| | |
|---|---|
| Plot 1 | Calculated distance between gravity stations |
| Plot 2 | Total distance from station 0 |
| Plot 3 | Elevation relative to station 0 |
| Plot 4 | Drift corrected gravity data (no elevation and latitude corrections) |
| Plot 5 | Northing (y) distance relative to station 36 (for latitude corrections) |
| Plot 6 | Gravity data before and after corrections (with labelling) |
| Plot 7 | Gravity data before and after corrections (without labelling) |
| Plot 8 | October 3 magnetic base station data |
| Plot 9 | October 6 magnetic base station data |
| Plot 10 | October 9 magnetic base station data |




**Nechako basin survey** **Plot 1**



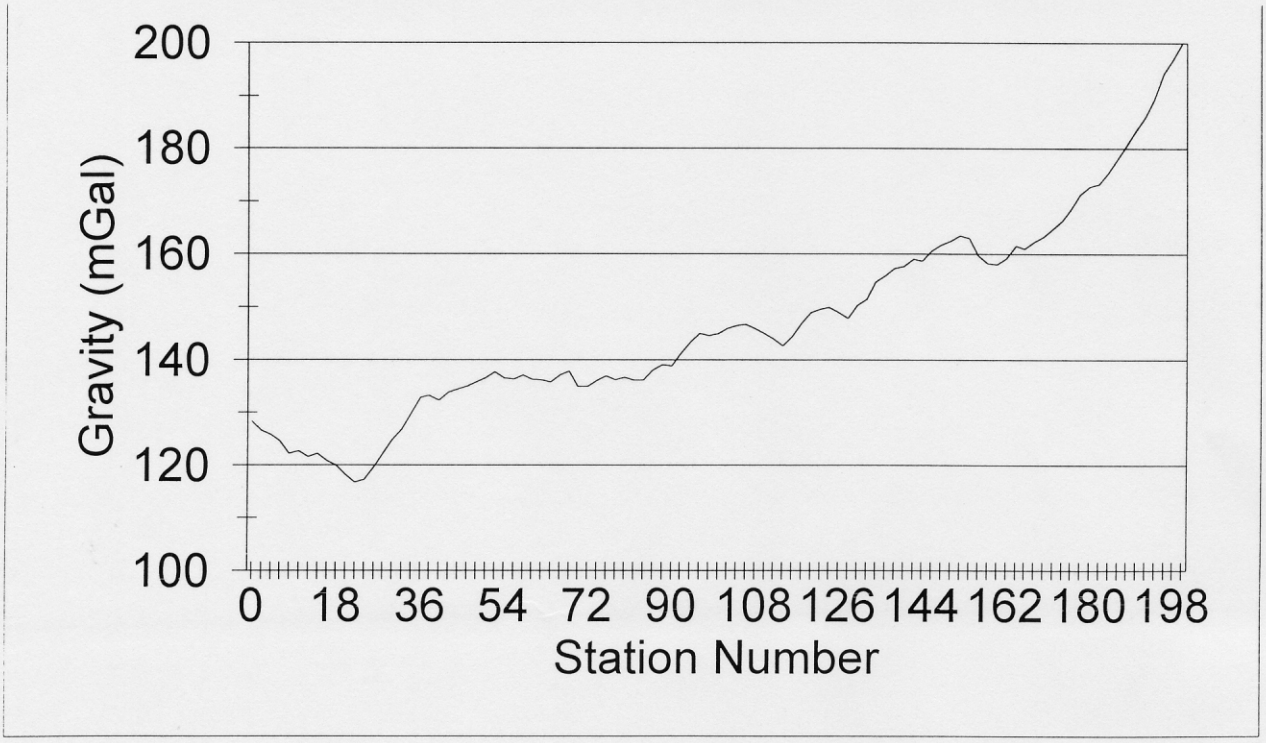

**Nechako basin survey** **Plot 2**



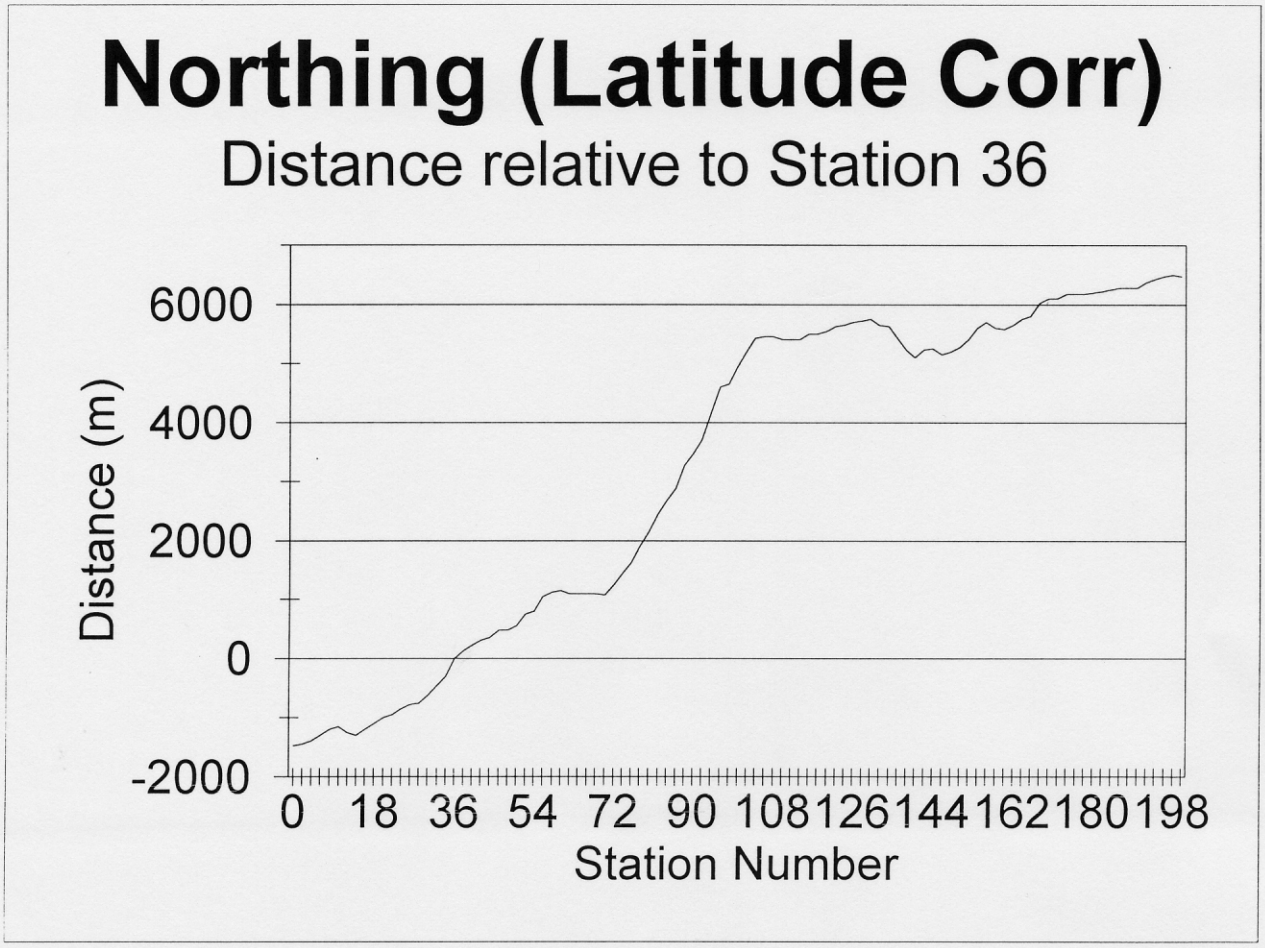

**Nechako basin survey** **Plot 3**

# Drift Corrected Gravity Data

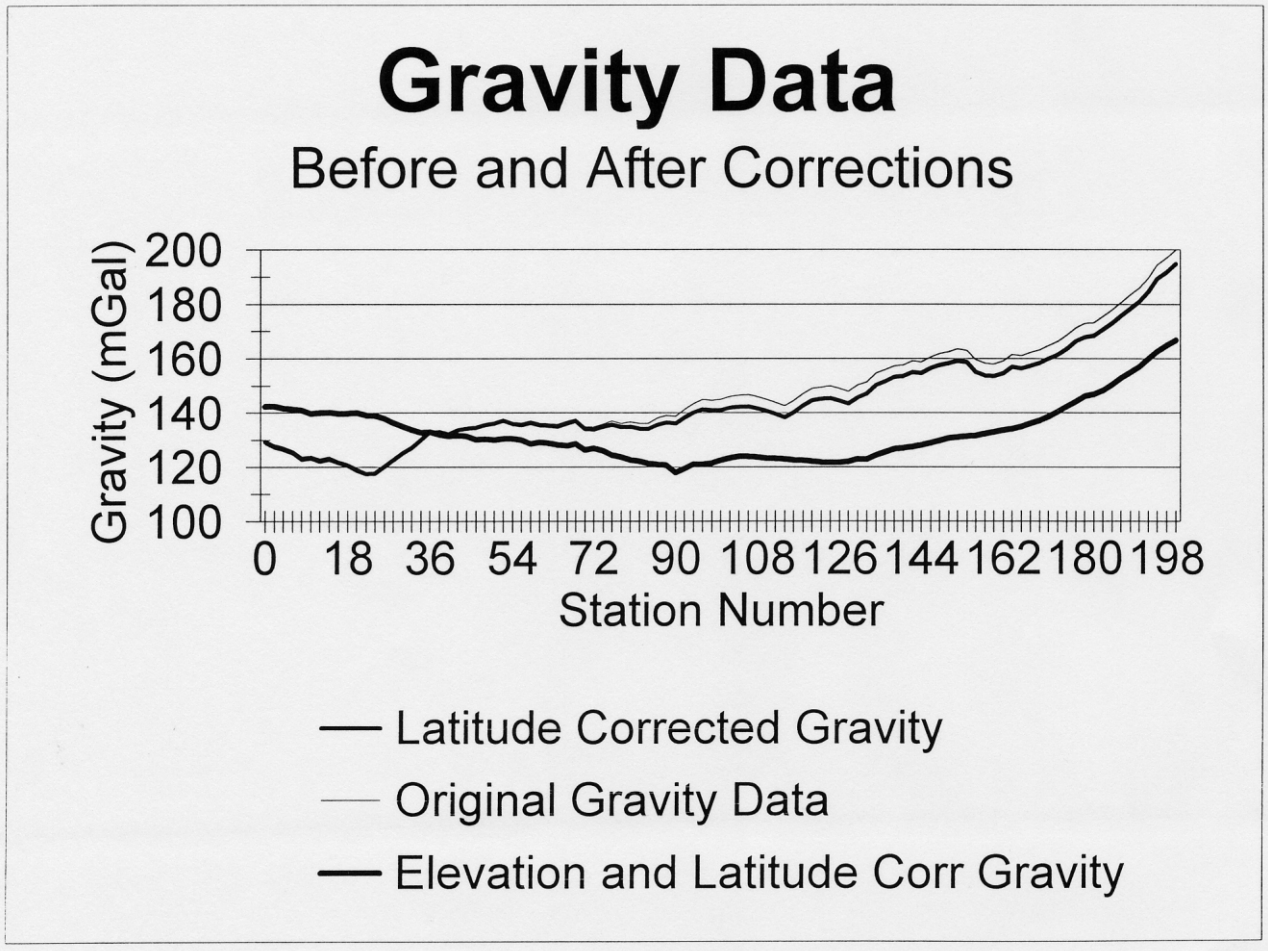
## No Elevation and Latitude Correction



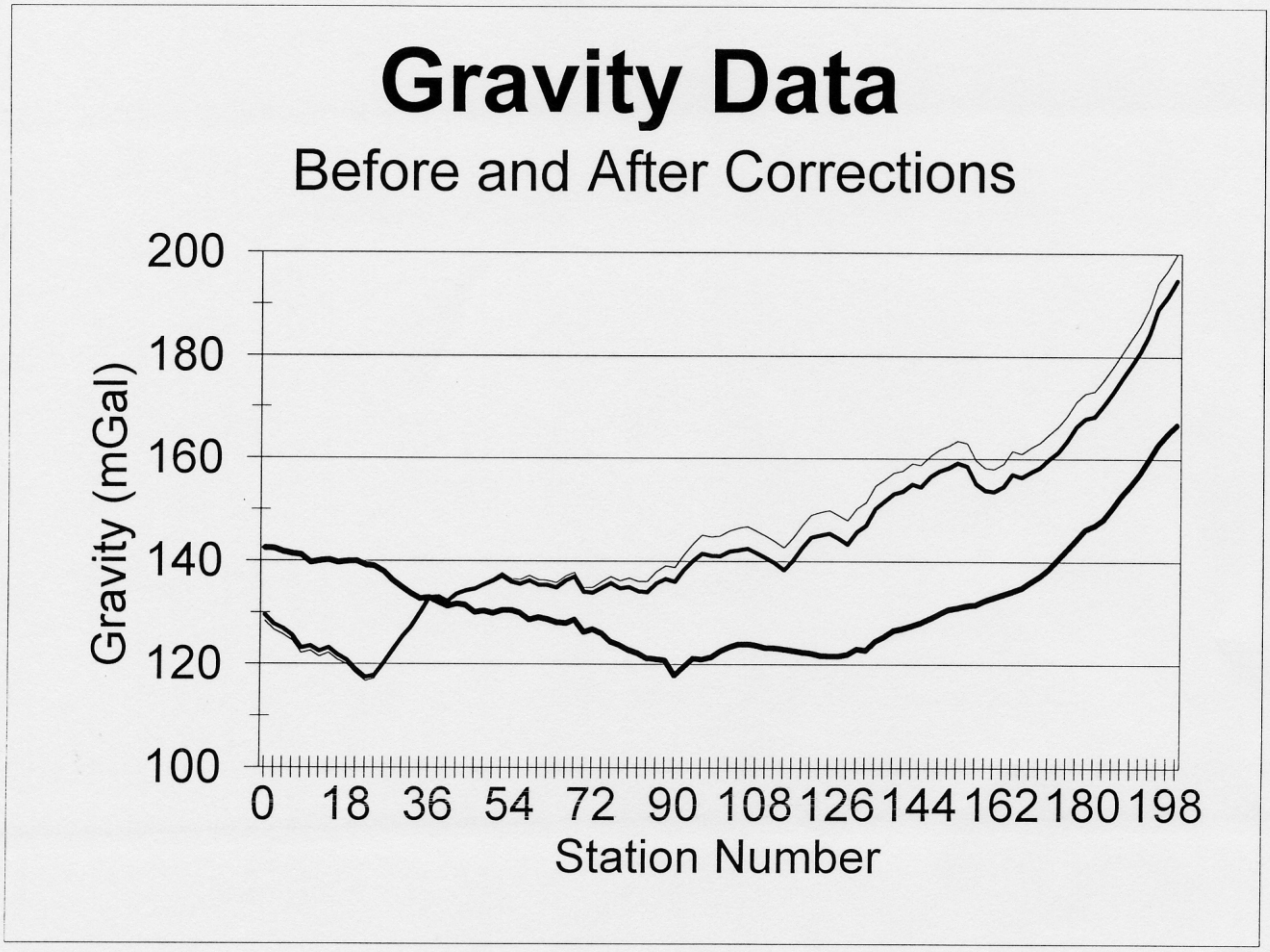

**Nechako basin survey** **Plot 4**




**Nechako basin survey** **Plot 5**



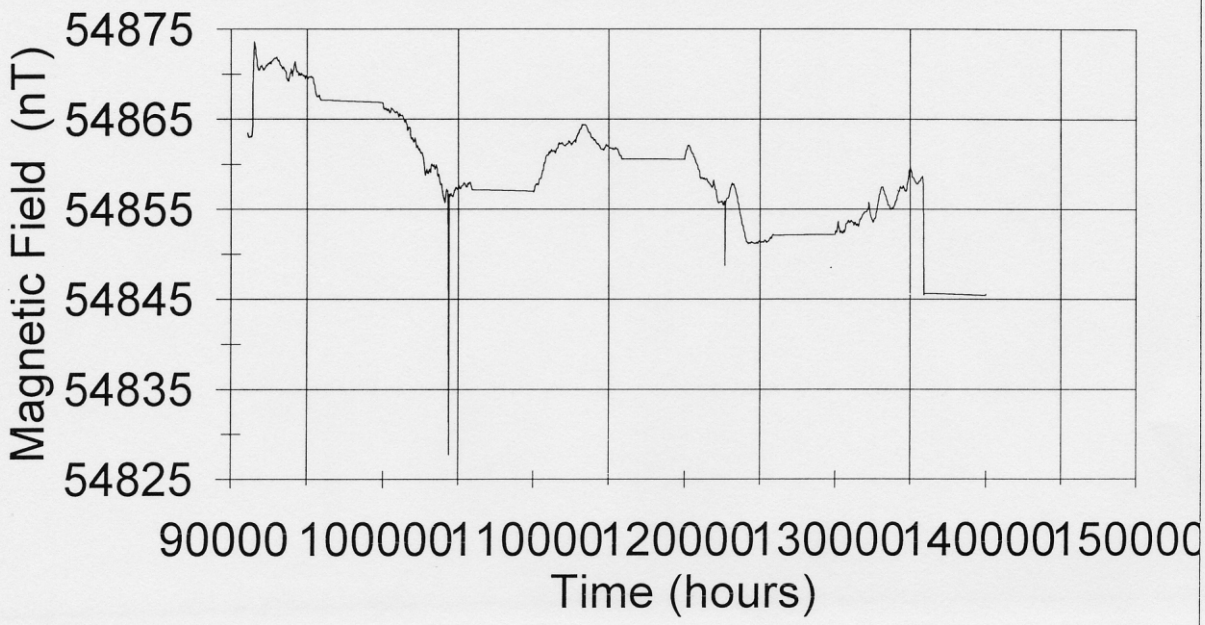

**Nechako basin survey** **Plot 6**




**Nechako basin survey** **Plot 7**

# October 3 Magnetic Data

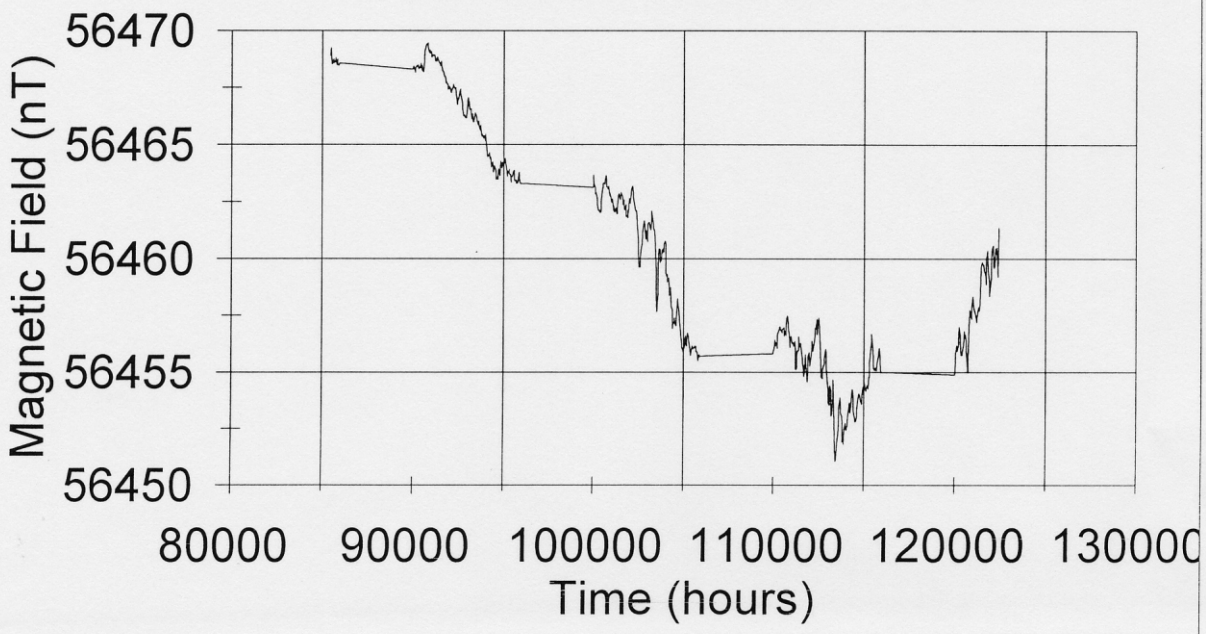
## Base Station Data




**Nechako basin survey** **Plot 8**

# October 6 Magnetic Data

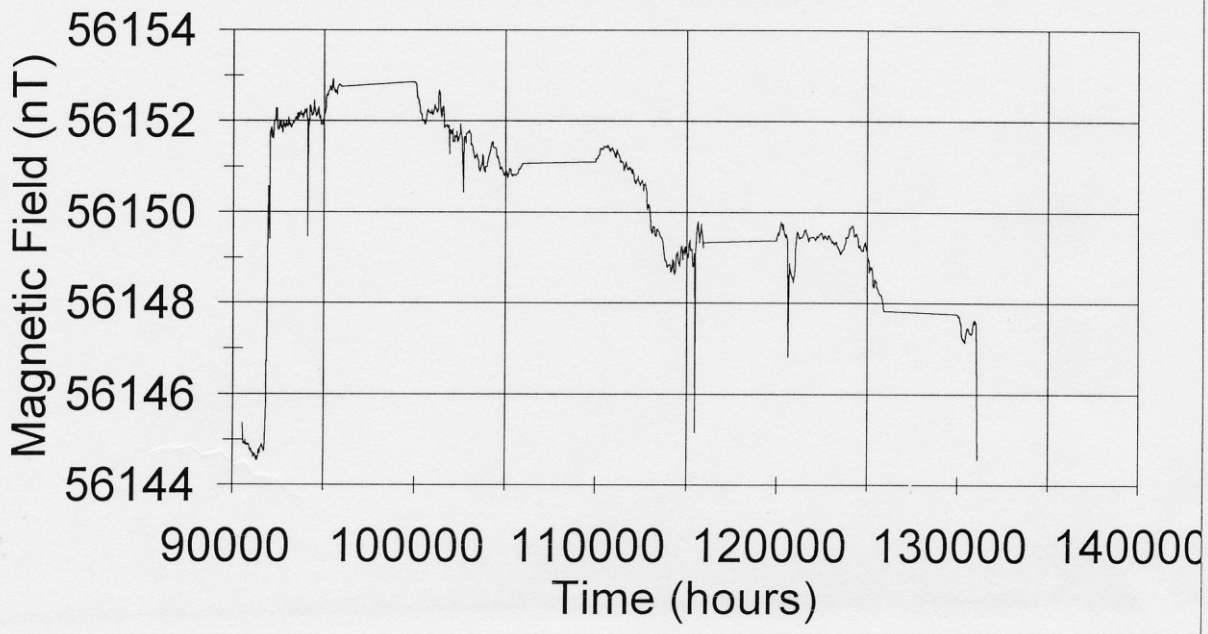
## Base Station Data




**Nechako basin survey** **Plot 9**

# October 9 Magnetic Data

## Base Station Data




**Nechako basin survey** **Plot 10**

# APPENDIX B

# DATA LISTINGS

The following data listings are enclosed as hard copies.

1 UTM and distance data (from digital file **UTM_data)**

2 Elevation data (from digital file **elevation_data)**

3 Original drift corrected gravity data (from digital file **drift_corrected_gravity**)

4 Corrected and final gravity data (from digital file **gravity_corrections**)

5 Original and final diurnally corrected total magnetic field and gradiometer data (from digital file **mag_final_with_x_position**)

# UTM and distance data

The 9 columns contain the following information going from left to right.

1 Station number
2 easting (x) in meters
3 northing (y) in meters
4 delta x - distance between adjacent x - values in meters
5 delta y - distance between adjacent y -values in meters
6 y - value relative to station 36 (m)
7 distance between stations (m)
8 total distance from station 0 (m)
9 y-value relative to station 36 in meters (used for latitude correction)

There are two pages with station numbers going from 0, 2, 4, 6, ... 200.

| station | x easting (m) | y northing (m) | del x (m) | del y (m) | y rel station 0 (m) | distance between stations (m) | total distance from stn 0 (m) | y rel stn 36 (used for ) lat corr) | y northing (m) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 484250 | 5723925 | | | 0 | | 0 | -1475 | 5723925 |
| 2 | 484450 | 5723950 | 200 | 25 | 25 | 201.5564 | 202 | -1450 | 5723950 |
| 4 | 484775 | 5724000 | 325 | 50 | 75 | 328.8237 | 530 | -1400 | 5724000 |
| 6 | 485000 | 5724100 | 225 | 100 | 175 | 246.2214 | 777 | -1300 | 5724100 |
| 8 | 485225 | 5724200 | 225 | 100 | 275 | 246.2214 | 1023 | -1200 | 5724200 |
| 10 | 485550 | 5724250 | 325 | 50 | 325 | 328.8237 | 1352 | -1150 | 5724250 |
| 12 | 485750 | 5724150 | 200 | -100 | 225 | 223.6068 | 1575 | -1250 | 5724150 |
| 14 | 486000 | 5724100 | 250 | -50 | 175 | 254.951 | 1830 | -1300 | 5724100 |
| 16 | 486275 | 5724200 | 275 | 100 | 275 | 292.6175 | 2123 | -1200 | 5724200 |
| 18 | 486625 | 5724300 | 350 | 100 | 375 | 364.0055 | 2487 | -1100 | 5724300 |
| 20 | 486800 | 5724400 | 400 | 100 | 475 | 412.3106 | 2899 | -1000 | 5724400 |
| 22 | 487025 | 5724450 | 225 | 50 | 525 | 230.4886 | 3129 | -950 | 5724450 |
| 24 | 487250 | 5724550 | 225 | 100 | 625 | 246.2214 | 3375 | -850 | 5724550 |
| 26 | 487625 | 5724625 | 375 | 75 | 700 | 382.4265 | 3758 | -775 | 5724625 |
| 28 | 487950 | 5724650 | 325 | 25 | 725 | 325.9601 | 4084 | -750 | 5724650 |
| 30 | 488125 | 5724775 | 175 | 125 | 850 | 215.0581 | 4299 | -625 | 5724775 |
| 32 | 488400 | 5724950 | 275 | 175 | 1025 | 325.9601 | 4625 | -450 | 5724950 |
| 34 | 488625 | 5725100 | 225 | 150 | 1175 | 270.4163 | 4895 | -300 | 5725100 |
| 36 | 488650 | 5725400 | 25 | 300 | 1475 | 301.0399 | 5196 | 0 | 5725400 |
| 38 | 488775 | 5725525 | 125 | 125 | 1600 | 176.7767 | 5373 | 125 | 5725525 |
| 40 | 488950 | 5725625 | 175 | 100 | 1700 | 201.5564 | 5575 | 225 | 5725625 |
| 42 | 489175 | 5725700 | 175 | 75 | 1775 | 190.3943 | 5765 | 300 | 5725700 |
| 44 | 489400 | 5725750 | 225 | 50 | 1825 | 230.4886 | 5996 | 350 | 5725750 |
| 46 | 489625 | 5725875 | 225 | 125 | 1950 | 257.3908 | 6253 | 475 | 5725875 |
| 48 | 490050 | 5725875 | 425 | 0 | 1950 | 425 | 6678 | 475 | 5725875 |
| 50 | 490400 | 5725950 | 350 | 75 | 2025 | 357.9455 | 7036 | 550 | 5725950 |
| 52 | 490700 | 5726150 | 300 | 200 | 2225 | 360.5551 | 7397 | 750 | 5726150 |
| 54 | 491000 | 5726200 | 300 | 50 | 2275 | 304.1381 | 7701 | 800 | 5726200 |
| 56 | 491275 | 5726450 | 275 | 250 | 2525 | 371.6517 | 8072 | 1050 | 5726450 |
| 58 | 491675 | 5726525 | 400 | 75 | 2600 | 406.9705 | 8479 | 1125 | 5726525 |
| 60 | 491950 | 5726550 | 275 | 25 | 2625 | 276.134 | 8755 | 1150 | 5726550 |
| 62 | 492275 | 5726500 | 325 | -50 | 2575 | 328.8237 | 9084 | 1100 | 5726500 |
| 64 | 492650 | 5726500 | 375 | 0 | 2575 | 375 | 9495 | 1100 | 5726500 |
| 66 | 493000 | 5726500 | 350 | 0 | 2575 | 350 | 9809 | 1100 | 5726500 |
| 68 | 493350 | 5726500 | 350 | 0 | 2575 | 350 | 10159 | 1100 | 5726500 |
| 70 | 493700 | 5726475 | 350 | -25 | 2550 | 350.8917 | 10510 | 1075 | 5726475 |
| 72 | 494000 | 5726650 | 300 | 175 | 2725 | 347.3111 | 10857 | 1250 | 5726650 |
| 74 | 494275 | 5726850 | 275 | 200 | 2925 | 340.0368 | 11198 | 1450 | 5726850 |
| 76 | 494600 | 5727025 | 325 | 175 | 3100 | 369.1206 | 11893 | 1625 | 5727025 |
| 78 | 494775 | 5727300 | 175 | 275 | 3375 | 325.9601 | 12219 | 1900 | 5727300 |
| 80 | 495000 | 5727550 | 225 | 250 | 3625 | 336.3406 | 12555 | 2150 | 5727550 |

| station | x easting (m) | y northing (m) | del x (m) | del y (m) | y rel station 0 (m) | distance between stations (m) | total distance from stn 0 (m) | y rel stn 36 (used for ) lat corr) | y northing (m) |
|---|---|---|---|---|---|---|---|---|---|
| 90 | 496000 | 5728825 | 100 | 200 | 4950 | 223.6068 | 14237 | 3475 | 5728825 |
| 92 | 496225 | 5729050 | 225 | 225 | 5175 | 318.1981 | 14556 | 3700 | 5729050 |
| 94 | 496300 | 5729500 | 75 | 450 | 5625 | 456.2072 | 15012 | 4150 | 5729500 |
| 96 | 496675 | 5729950 | 375 | 450 | 6075 | 585.7687 | 15598 | 4600 | 5729950 |
| 98 | 496900 | 5730000 | 225 | 50 | 6125 | 230.4886 | 15828 | 4650 | 5730000 |
| 100 | 497100 | 5730300 | 200 | 300 | 6425 | 360.5551 | 16189 | 4950 | 5730300 |
| 102 | 497375 | 5730550 | 275 | 250 | 6675 | 371.6517 | 16560 | 5200 | 5730550 |
| 104 | 497575 | 5730775 | 200 | 225 | 6900 | 301.0399 | 16861 | 5425 | 5730775 |
| 106 | 497900 | 5730800 | 325 | 25 | 6925 | 325.9601 | 17187 | 5450 | 5730800 |
| 108 | 498275 | 5730800 | 375 | 0 | 6925 | 375 | 17562 | 5450 | 5730800 |
| 110 | 498625 | 5730750 | 350 | -50 | 6875 | 353.5534 | 17916 | 5400 | 5730750 |
| 112 | 498950 | 5730750 | 325 | 0 | 6875 | 325 | 18241 | 5400 | 5730750 |
| 114 | 499250 | 5730750 | 300 | 0 | 6875 | 300 | 18541 | 5400 | 5730750 |
| 116 | 499550 | 5730850 | 300 | 100 | 6975 | 316.2278 | 18857 | 5500 | 5730850 |
| 118 | 499975 | 5730850 | 425 | 0 | 6975 | 425 | 19282 | 5500 | 5730850 |
| 120 | 500400 | 5730900 | 425 | 50 | 7025 | 427.9311 | 19710 | 5550 | 5730900 |
| 122 | 500825 | 5730975 | 425 | 75 | 7100 | 431.5669 | 20142 | 5625 | 5730975 |
| 124 | 501250 | 5731000 | 425 | 25 | 7125 | 425.7347 | 20567 | 5650 | 5731000 |
| 126 | 501550 | 5731050 | 300 | 50 | 7175 | 304.1381 | 20874 | 5700 | 5731050 |
| 128 | 501800 | 5731075 | 250 | 25 | 7200 | 251.2469 | 21122 | 5725 | 5731075 |
| 130 | 502100 | 5731100 | 300 | 25 | 7225 | 301.0399 | 21423 | 5750 | 5731100 |
| 132 | 502400 | 5731000 | 300 | -100 | 7125 | 316.2278 | 21740 | 5650 | 5731000 |
| 134 | 502575 | 5730775 | 175 | -25 | 7100 | 176.7767 | 21916 | 5625 | 5730775 |
| 136 | 502850 | 5730575 | 275 | -200 | 6900 | 340.0368 | 22256 | 5425 | 5730575 |
| 138 | 503075 | 5730375 | 225 | -200 | 6700 | 301.0399 | 22557 | 5225 | 5730375 |
| 140 | 503350 | 5730250 | 225 | -125 | 6575 | 257.3908 | 22814 | 5100 | 5730250 |
| 142 | 503550 | 5730375 | 200 | 125 | 6700 | 235.8495 | 23050 | 5225 | 5730375 |
| 144 | 503950 | 5730400 | 400 | 25 | 6725 | 400.7805 | 23451 | 5250 | 5730400 |
| 146 | 504175 | 5730300 | 225 | -100 | 6625 | 246.2214 | 23697 | 5150 | 5730300 |
| 148 | 504450 | 5730350 | 275 | 50 | 6675 | 279.5085 | 23977 | 5200 | 5730350 |
| 150 | 504900 | 5730425 | 450 | 75 | 6750 | 456.2072 | 24433 | 5275 | 5730425 |
| 152 | 505200 | 5730550 | 300 | 125 | 6875 | 325 | 24759 | 5400 | 5730550 |
| 154 | 505400 | 5730750 | 200 | 200 | 7075 | 282.8427 | 25041 | 5600 | 5730750 |
| 156 | 505675 | 5730850 | 275 | 100 | 7175 | 292.6175 | 25334 | 5700 | 5730850 |
| 158 | 505950 | 5730750 | 275 | -100 | 7075 | 292.6175 | 25626 | 5600 | 5730750 |
| 160 | 506250 | 5730725 | 300 | -25 | 7050 | 301.0399 | 25927 | 5575 | 5730725 |
| 162 | 506550 | 5730800 | 300 | 75 | 7125 | 309.2329 | 26237 | 5650 | 5730800 |
| 164 | 506825 | 5730900 | 275 | 100 | 7225 | 292.6175 | 26529 | 5750 | 5730900 |
| 166 | 507175 | 5730950 | 350 | 50 | 7275 | 353.5534 | 26883 | 5800 | 5730950 |
| 168 | 507650 | 5731125 | 475 | 225 | 7500 | 525.5949 | 27408 | 6025 | 5731125 |
| 170 | 508400 | 5731200 | 750 | 75 | 7575 | 753.7407 | 28161 | 6100 | 5731200 |
| 172 | 508700 | 5731200 | 300 | 0 | 7575 | 300 | 28461 | 6100 | 5731200 |
| 174 | 509175 | 5731275 | 475 | 75 | 7650 | 480.8846 | 28942 | 6175 | 5731275 |
| 176 | 509500 | 5731275 | 325 | 0 | 7650 | 325 | 29267 | 6175 | 5731275 |
| 178 | 509800 | 5731275 | 300 | 0 | 7650 | 300 | 29567 | 6175 | 5731275 |
| 180 | 510200 | 5731300 | 400 | 25 | 7675 | 400.7805 | 29968 | 6200 | 5731300 |

| station | x easting (m) | y northing (m) | del x (m) | del y (m) | y rel station 0 (m) | distance between stations (m) | total distance from stn 0 (m) | y rel stn 36 (used for ) lat corr) | y northing (m) |
|---|---|---|---|---|---|---|---|---|---|
| 182 | 510550 | 5731325 | 350 | 25 | 7700 | 350.8917 | 30319 | 6225 | 5731325 |
| 184 | 510925 | 5731350 | 375 | 25 | 7725 | 375.8324 | 30695 | 6250 | 5731350 |
| 186 | 511250 | 5731400 | 325 | 25 | 7750 | 325.9601 | 31021 | 6275 | 5731400 |
| 188 | 511550 | 5731400 | 300 | 0 | 7750 | 300 | 31321 | 6275 | 5731400 |
| 190 | 512050 | 5731400 | 500 | 0 | 7750 | 500 | 31821 | 6275 | 5731400 |
| 192 | 512400 | 5731500 | 350 | 100 | 7850 | 364.0055 | 32185 | 6375 | 5731500 |
| 194 | 512650 | 5731550 | 250 | 50 | 7900 | 254.951 | 32440 | 6425 | 5731550 |
| 196 | 512950 | 5731600 | 300 | 50 | 7950 | 304.1381 | 32744 | 6475 | 5731600 |
| 198 | 513350 | 5731625 | 400 | 25 | 7975 | 400.7805 | 33145 | 6500 | 5731625 |
| 200 | 513700 | 5731600 | 350 | -25 | 7950 | 350.8917 | 33506 | 6475 | 5731600 |

# Elevation data

The 4 columns contain the following information going from left to right.

1 station number
2 calculated elevation relative to station 0 (m)
3 elevation adjusted to elevation in m above sea level at station 122
4 elevation relative to station 36 (m)

There are two pages with station numbers going from 0, 2, 4, 6, ... 200.

| station | calc. elev rel stn 0 (m) | elevation (m asl) | elev rel stn 36 (m) |
|---|---|---|---|
| 0 | 0 | 1283.57 | 61.54 |
| 2 | 8.1 | 1291.67 | 69.64 |
| 4 | 8.82 | 1292.39 | 70.36 |
| 6 | 13.26 | 1296.83 | 74.8 |
| 8 | 23.77 | 1307.34 | 85.31 |
| 10 | 15.01 | 1298.58 | 76.55 |
| 12 | 21.5 | 1305.07 | 83.04 |
| 14 | 18.92 | 1302.49 | 80.46 |
| 16 | 23.02 | 1306.59 | 84.56 |
| 18 | 29.11 | 1312.68 | 90.65 |
| 20 | 38.15 | 1321.72 | 99.69 |
| 22 | 41.57 | 1325.14 | 103.11 |
| 24 | 38.86 | 1322.43 | 100.4 |
| 26 | 22.29 | 1305.86 | 83.83 |
| 28 | 3.31 | 1286.88 | 64.85 |
| 30 | -15.82 | 1267.75 | 45.72 |
| 32 | -30.83 | 1252.74 | 30.71 |
| 34 | -49.07 | 1234.5 | 12.47 |
| 36 | -61.54 | 1222.03 | 0 |
| 38 | -66.67 | 1216.9 | -5.13 |
| 40 | -65.82 | 1217.75 | -4.28 |
| 42 | -70.64 | 1212.93 | -9.1 |
| 44 | -75.01 | 1208.56 | -13.47 |
| 46 | -83.18 | 1200.39 | -21.64 |
| 48 | -85.94 | 1197.63 | -24.4 |
| 50 | -91.52 | 1192.05 | -29.98 |
| 52 | -93.28 | 1190.29 | -31.74 |
| 54 | -88.21 | 1195.36 | -26.67 |
| 56 | -88.09 | 1195.48 | -26.55 |
| 58 | -98 | 1185.57 | -36.46 |
| 60 | -91.91 | 1191.66 | -30.37 |
| 62 | -93.33 | 1190.24 | -31.79 |
| 64 | -93.85 | 1189.72 | -32.31 |
| 66 | -101.09 | 1182.48 | -39.55 |
| 68 | -101.54 | 1182.03 | -40 |
| 70 | -98.5 | 1185.07 | -36.96 |
| 72 | -95.55 | 1188.02 | -34.01 |
| 74 | -104.15 | 1179.42 | -42.61 |
| 76 | -115.35 | 1168.22 | -53.81 |
| 78 | -114.04 | 1169.53 | -52.5 |
| 80 | -119.84 | 1163.73 | -58.3 |
| 82 | -119.08 | 1164.49 | -57.54 |
| 84 | -122.51 | 1161.06 | -60.97 |
| 86 | -131.6 | 1151.97 | -70.06 |
| 88 | -136.69 | 1146.88 | -75.15 |
| 90 | -147.81 | 1135.76 | -86.27 |
| 92 | -150.85 | 1132.72 | -89.31 |
| 94 | -152.04 | 1131.53 | -90.5 |
| 96 | -158.85 | 1124.72 | -97.31 |

| station | calc. elev rel stn 0 (m) | elevation (m asl) | elev rel stn 36 (m) |
|---|---|---|---|
| 98 | -154.87 | 1128.7 | -93.33 |
| 100 | -149.54 | 1134.03 | -88 |
| 102 | -149.78 | 1133.79 | -88.24 |
| 104 | -148.98 | 1134.59 | -87.44 |
| 106 | -149.57 | 1134 | -88.03 |
| 108 | -147.14 | 1136.43 | -85.6 |
| 110 | -144.61 | 1138.96 | -83.07 |
| 112 | -140.04 | 1143.53 | -78.5 |
| 114 | -135.07 | 1148.5 | -73.53 |
| 116 | -144.27 | 1139.3 | -82.73 |
| 118 | -158.01 | 1125.56 | -96.47 |
| 120 | -168.21 | 1115.36 | -106.67 |
| 122 | -172.57 | 1111 | -111.03 |
| 124 | -174.64 | 1108.93 | -113.1 |
| 126 | -169.75 | 1113.82 | -108.21 |
| 128 | -163.53 | 1120.04 | -101.99 |
| 130 | -169.71 | 1113.86 | -108.17 |
| 132 | -176.65 | 1106.92 | -115.11 |
| 134 | -184.47 | 1099.1 | -122.93 |
| 136 | -186.22 | 1097.35 | -124.68 |
| 138 | -188.28 | 1095.29 | -126.74 |
| 140 | -188.49 | 1095.08 | -126.95 |
| 142 | -192.22 | 1091.35 | -130.68 |
| 144 | -187.83 | 1095.74 | -126.29 |
| 146 | -192.75 | 1090.82 | -131.21 |
| 148 | -194.13 | 1089.44 | -132.59 |
| 150 | -193.13 | 1090.44 | -131.59 |
| 152 | -196.24 | 1087.33 | -134.7 |
| 154 | -191.04 | 1092.53 | -129.5 |
| 156 | -173.86 | 1109.71 | -112.32 |
| 158 | -163.86 | 1119.71 | -102.32 |
| 160 | -160.07 | 1123.5 | -98.53 |
| 162 | -161.89 | 1121.68 | -100.35 |
| 164 | -170.42 | 1113.15 | -108.88 |
| 166 | -164.18 | 1119.39 | -102.64 |
| 168 | -163.36 | 1120.21 | -101.82 |
| 170 | -162.61 | 1120.96 | -101.07 |
| 172 | -163.5 | 1120.07 | -101.96 |
| 174 | -161.15 | 1122.42 | -99.61 |
| 176 | -162.55 | 1121.02 | -101.01 |
| 178 | -166.52 | 1117.05 | -104.98 |
| 180 | -164.7 | 1118.87 | -103.16 |
| 182 | -163.32 | 1120.25 | -101.78 |
| 184 | -167.3 | 1116.27 | -105.76 |
| 186 | -168.36 | 1115.21 | -106.82 |
| 188 | -169.61 | 1113.96 | -108.07 |
| 190 | -172.76 | 1110.81 | -111.22 |
| 192 | -174.24 | 1109.33 | -112.7 |
| 194 | -177.32 | 1106.25 | -115.78 |

| station | calc. elev rel stn 0 (m) | elevation (m asl) | elev rel stn 36 (m) |
|---|---|---|---|
| 196 | -187.77 | 1095.8 | -126.23 |
| 198 | -188.97 | 1094.6 | -127.43 |
| 200 | -195.31 | 1088.26 | -133.77 |

# Original drift corrected gravity data

The 5 columns contain the following information going from left to right.

1 station number
2 original drift corrected gravity (mGal)
3 elevation in (m asl)
4 easting (x) in meters
5 northing (y) in meters

There are two pages with station numbers going from 0, 2, 4, 6, ... 200.

| station | gravity (mGal) | elevation (m asl) | easting x (m) | northing (m) |
|---|---|---|---|---|
| 0 | 128.333 | 1283.57 | 484250 | 5723925 |
| 2 | 126.579 | 1291.67 | 484450 | 5723950 |
| 4 | 125.799 | 1292.39 | 484775 | 5724000 |
| 6 | 124.567 | 1296.83 | 485000 | 5724100 |
| 8 | 122.162 | 1307.34 | 485225 | 5724200 |
| 10 | 122.624 | 1298.58 | 485550 | 5724250 |
| 12 | 121.537 | 1305.07 | 485750 | 5724150 |
| 14 | 122.203 | 1302.49 | 486000 | 5724100 |
| 16 | 120.9 | 1306.59 | 486275 | 5724200 |
| 18 | 119.945 | 1312.68 | 486625 | 5724300 |
| 20 | 118.24 | 1321.72 | 486800 | 5724400 |
| 22 | 116.768 | 1325.14 | 487025 | 5724450 |
| 24 | 117.2 | 1322.43 | 487250 | 5724550 |
| 26 | 119.643 | 1305.86 | 487625 | 5724625 |
| 28 | 122.077 | 1286.88 | 487950 | 5724650 |
| 30 | 124.809 | 1267.75 | 488125 | 5724775 |
| 32 | 126.852 | 1252.74 | 488400 | 5724950 |
| 34 | 129.844 | 1234.5 | 488625 | 5725100 |
| 36 | 132.899 | 1222.03 | 488650 | 5725400 |
| 38 | 133.172 | 1216.9 | 488775 | 5725525 |
| 40 | 132.338 | 1217.75 | 488950 | 5725625 |
| 42 | 133.844 | 1212.93 | 489175 | 5725700 |
| 44 | 134.499 | 1208.56 | 489400 | 5725750 |
| 46 | 134.993 | 1200.39 | 489625 | 5725875 |
| 48 | 135.802 | 1197.63 | 490050 | 5725875 |
| 50 | 136.627 | 1192.05 | 490400 | 5725950 |
| 52 | 137.701 | 1190.29 | 490700 | 5726150 |
| 54 | 136.627 | 1195.36 | 491000 | 5726200 |
| 56 | 136 | 1195.48 | 491275 | 5726450 |
| 58 | 137.163 | 1185.57 | 491675 | 5726525 |
| 60 | 136.316 | 1191.66 | 491950 | 5726550 |
| 62 | 136.239 | 1190.24 | 492275 | 5726500 |
| 64 | 135.775 | 1189.72 | 492650 | 5726500 |
| 66 | 137.103 | 1182.48 | 493000 | 5726500 |
| 68 | 137.83 | 1182.03 | 493350 | 5726500 |
| 70 | 134.879 | 1185.07 | 493700 | 5726475 |
| 72 | 134.87 | 1188.02 | 494000 | 5726650 |
| 74 | 136.048 | 1179.42 | 494275 | 5726850 |
| 76 | 136.949 | 1168.22 | 494600 | 5727025 |
| 78 | 136.196 | 1169.53 | 494775 | 5727300 |
| 80 | 136.691 | 1163.73 | 495000 | 5727550 |
| 82 | 136.105 | 1164.49 | 495250 | 5727850 |

| station | gravity (mGal) | elevation (m asl) | easting x (m) | northing (m) |
|---|---|---|---|---|
| 92 | 141.126 | 1132.72 | 496225 | 5729050 |
| 94 | 143.366 | 1131.53 | 496300 | 5729500 |
| 96 | 145.037 | 1124.72 | 496675 | 5729950 |
| 98 | 144.542 | 1128.7 | 496900 | 5730000 |
| 100 | 144.897 | 1134.03 | 497100 | 5730300 |
| 102 | 145.944 | 1133.79 | 497375 | 5730550 |
| 104 | 146.467 | 1134.59 | 497575 | 5730775 |
| 106 | 146.727 | 1134 | 497900 | 5730800 |
| 108 | 145.941 | 1136.43 | 498275 | 5730800 |
| 110 | 144.898 | 1138.96 | 498625 | 5730750 |
| 112 | 143.927 | 1143.53 | 498950 | 5730750 |
| 114 | 142.628 | 1148.5 | 499250 | 5730750 |
| 116 | 144.4 | 1139.3 | 499550 | 5730850 |
| 118 | 147.012 | 1125.56 | 499975 | 5730850 |
| 120 | 148.965 | 1115.36 | 500400 | 5730900 |
| 122 | 149.542 | 1111 | 500825 | 5730975 |
| 124 | 149.914 | 1108.93 | 501250 | 5731000 |
| 126 | 148.912 | 1113.82 | 501550 | 5731050 |
| 128 | 147.895 | 1120.04 | 501800 | 5731075 |
| 130 | 150.275 | 1113.86 | 502100 | 5731100 |
| 132 | 151.431 | 1106.92 | 502400 | 5731000 |
| 134 | 154.716 | 1099.1 | 502575 | 5730775 |
| 136 | 155.867 | 1097.35 | 502850 | 5730575 |
| 138 | 157.324 | 1095.29 | 503075 | 5730375 |
| 140 | 157.614 | 1095.08 | 503350 | 5730250 |
| 142 | 159.099 | 1091.35 | 503550 | 5730375 |
| 144 | 158.728 | 1095.74 | 503950 | 5730400 |
| 146 | 160.586 | 1090.82 | 504175 | 5730300 |
| 148 | 161.763 | 1089.44 | 504450 | 5730350 |
| 150 | 162.467 | 1090.44 | 504900 | 5730425 |
| 152 | 163.484 | 1087.33 | 505200 | 5730550 |
| 154 | 163.008 | 1092.53 | 505400 | 5730750 |
| 156 | 159.713 | 1109.71 | 505675 | 5730850 |
| 158 | 158.282 | 1119.71 | 505950 | 5730750 |
| 160 | 158.014 | 1123.5 | 506250 | 5730725 |
| 162 | 159.107 | 1121.68 | 506550 | 5730800 |
| 164 | 161.535 | 1113.15 | 506825 | 5730900 |
| 166 | 160.991 | 1119.39 | 507175 | 5730950 |
| 168 | 162.244 | 1120.21 | 507650 | 5731125 |
| 170 | 163.215 | 1120.96 | 508400 | 5731200 |
| 172 | 164.748 | 1120.07 | 508700 | 5731200 |
| 174 | 166.268 | 1122.42 | 509175 | 5731275 |
| 176 | 168.432 | 1121.02 | 509500 | 5731275 |
| 178 | 171.213 | 1117.05 | 509800 | 5731275 |
| 180 | 172.766 | 1118.87 | 510200 | 5731300 |
| 182 | 173.245 | 1120.25 | 510550 | 5731325 |
| 184 | 175.423 | 1116.27 | 510925 | 5731350 |
| 186 | 177.931 | 1115.21 | 511250 | 5731400 |
| 188 | 180.513 | 1113.96 | 511550 | 5731400 |

| station | gravity (mGal) | elevation (m asl) | easting x (m) | northing (m) |
|---|---|---|---|---|
| 190 | 183.306 | 1110.81 | 512050 | 5731400 |
| 192 | 185.872 | 1109.33 | 512400 | 5731500 |
| 194 | 189.416 | 1106.25 | 512650 | 5731550 |
| 196 | 194.323 | 1095.8 | 512950 | 5731600 |
| 198 | 196.802 | 1094.6 | 513350 | 5731625 |
| 200 | 199.898 | 1088.26 | 513700 | 5731600 |

# Corrected and final gravity data

The 12 columns contain the following information going from left to right.

1 station number
2 total distance from station 0 (m)
3 original drift corrected gravity (mGal)
4 elevation (m asl)
5 elevation relative to station 36 (m)
6 easting (x) in meters
7 northing (y) in meters
8 y- value relative to station 36 (m)
9 latitude corrected gravity values (mGal)
10 Bouguer corrected gravity values (density = 2.350 g/cc) in mGal
11 terrain corrections (for rings b, c and D) in mGal
12 Final gravity values with terrain corrections included (mGal)

There are two pages with station numbers going from 0, 2, 4, 6, ... 200.

| station | diatance metre | original gravity mGal | elevation (m) | elev rel stn 36 (m) | easting x (m) | y northing (m) | y rel station 36 (m) | latitude corr grav (mGal) | tot elev (Bouguer) corr grav den=2.35 (mGal) | terrain corrrftion ring BCD (mGal) | final grav with terr correction (mGal) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 128.333 | 1283.57 | 61.54 | 484250 | 5723925 | -1475 | 129.4935 | 141.2632 | 0.04 | 142.4637 |
| 2 | 202 | 126.579 | 1291.67 | 69.64 | 484450 | 5723950 | -1450 | 127.7198 | 141.2111 | 0.115 | 142.4669 |
| 4 | 530 | 125.799 | 1292.39 | 70.36 | 484775 | 5724000 | -1400 | 126.9005 | 140.5823 | 0.435 | 142.1188 |
| 6 | 777 | 124.567 | 1296.83 | 74.8 | 485000 | 5724100 | -1300 | 125.5898 | 140.2833 | 0.415 | 141.7211 |
| 8 | 1023 | 122.162 | 1307.34 | 85.31 | 485225 | 5724200 | -1200 | 123.1061 | 140.0865 | 0.03 | 141.0606 |
| 10 | 1352 | 122.624 | 1298.58 | 76.55 | 485550 | 5724250 | -1150 | 123.5288 | 138.7079 | 0.505 | 140.1177 |
| 12 | 1575 | 121.537 | 1305.07 | 83.04 | 485750 | 5724150 | -1250 | 122.5204 | 138.9846 | 0.22 | 140.1881 |
| 14 | 1830 | 122.203 | 1302.49 | 80.46 | 486000 | 5724100 | -1300 | 123.2258 | 139.1085 | 1.45 | 141.5812 |
| 16 | 2123 | 120.9 | 1306.59 | 84.56 | 486275 | 5724200 | -1200 | 121.8441 | 138.6669 | 0.645 | 140.256 |
| 18 | 2487 | 119.945 | 1312.68 | 90.65 | 486625 | 5724300 | -1100 | 120.8104 | 138.9916 | 0.35 | 140.207 |
| 20 | 2899 | 118.24 | 1321.72 | 99.69 | 486800 | 5724400 | -1000 | 119.0268 | 139.1859 | 0.38 | 140.3526 |
| 22 | 3129 | 116.768 | 1325.14 | 103.11 | 487025 | 5724450 | -950 | 117.5154 | 138.4324 | 0.255 | 139.4349 |
| 24 | 3375 | 117.2 | 1322.43 | 100.4 | 487250 | 5724550 | -850 | 117.8687 | 138.2951 | 1.245 | 140.2089 |
| 26 | 3758 | 119.643 | 1305.86 | 83.83 | 487625 | 5724625 | -775 | 120.2527 | 137.2565 | 0.56 | 138.4263 |
| 28 | 4084 | 122.077 | 1286.88 | 64.85 | 487950 | 5724650 | -750 | 122.6671 | 135.7026 | 1 | 137.2927 |
| 30 | 4299 | 124.809 | 1267.75 | 45.72 | 488125 | 5724775 | -625 | 125.3007 | 134.4153 | 1.1 | 136.007 |
| 32 | 4625 | 126.852 | 1252.74 | 30.71 | 488400 | 5724950 | -450 | 127.206 | 133.3045 | 1.245 | 134.9035 |
| 34 | 4895 | 129.844 | 1234.5 | 12.47 | 488625 | 5725100 | -300 | 130.08 | 132.4641 | 0.665 | 133.3651 |
| 36 | 5196 | 132.899 | 1222.03 | 0 | 488650 | 5725400 | 0 | 132.899 | 132.899 | 0.27 | 133.169 |
| 38 | 5373 | 133.172 | 1216.9 | -5.13 | 488775 | 5725525 | 125 | 133.0737 | 132.0941 | 0.04 | 132.0358 |
| 40 | 5575 | 132.338 | 1217.75 | -4.28 | 488950 | 5725625 | 225 | 132.161 | 131.4387 | 0.105 | 131.3667 |
| 42 | 5765 | 133.844 | 1212.93 | -9.1 | 489175 | 5725700 | 300 | 133.608 | 131.932 | 0.04 | 131.736 |
| 44 | 5996 | 134.499 | 1208.56 | -13.47 | 489400 | 5725750 | 350 | 134.2236 | 131.6688 | 0.015 | 131.4085 |
| 46 | 6253 | 134.993 | 1200.39 | -21.64 | 489625 | 5725875 | 475 | 134.6193 | 130.4462 | 0.05 | 130.1225 |
| 48 | 6678 | 135.802 | 1197.63 | -24.4 | 490050 | 5725875 | 475 | 135.4283 | 130.6753 | 0 | 130.3016 |
| 50 | 7036 | 136.627 | 1192.05 | -29.98 | 490400 | 5725950 | 550 | 136.1943 | 130.3279 | 0.05 | 129.9452 |
| 52 | 7397 | 137.701 | 1190.29 | -31.74 | 490700 | 5726150 | 750 | 137.1109 | 131.0321 | 0.045 | 130.487 |
| 54 | 7701 | 136.627 | 1195.36 | -26.67 | 491000 | 5726200 | 800 | 135.9976 | 131.0233 | 0.04 | 130.4339 |
| 56 | 8072 | 136 | 1195.48 | -26.55 | 491275 | 5726450 | 1050 | 135.5129 | 130.7606 | 0.035 | 129.9695 |
| 58 | 8479 | 137.163 | 1185.57 | -36.46 | 491675 | 5726525 | 1125 | 136.2779 | 129.5024 | 0.035 | 128.6523 |
| 60 | 8755 | 136.316 | 1191.66 | -30.37 | 491950 | 5726550 | 1150 | 135.4112 | 129.9349 | 0.085 | 129.1152 |
| 62 | 9084 | 136.239 | 1190.24 | -31.79 | 492275 | 5726500 | 1100 | 135.3736 | 129.5596 | 0.03 | 128.7242 |
| 64 | 9495 | 135.775 | 1189.72 | -32.31 | 492650 | 5726500 | 1100 | 134.9096 | 128.9863 | 0.475 | 128.5959 |
| 66 | 9809 | 137.103 | 1182.48 | -39.55 | 493000 | 5726500 | 1100 | 136.2376 | 128.7931 | 0.265 | 128.1927 |
| 68 | 10159 | 137.83 | 1182.03 | -40 | 493350 | 5726500 | 1100 | 136.9646 | 129.4256 | 0.23 | 128.7902 |
| 70 | 10510 | 134.879 | 1185.07 | -36.96 | 493700 | 5726475 | 1075 | 134.0332 | 127.1133 | 0.27 | 126.5376 |
| 72 | 10857 | 134.87 | 1188.02 | -34.01 | 494000 | 5726650 | 1250 | 133.8866 | 127.7241 | 0.255 | 126.9957 |
| 74 | 11198 | 136.048 | 1179.42 | -42.61 | 494275 | 5726850 | 1450 | 134.9072 | 127.0952 | 0.675 | 126.6294 |
| 76 | 11893 | 136.949 | 1168.22 | -53.81 | 494600 | 5727025 | 1625 | 135.6705 | 125.643 | 0.91 | 125.2745 |
| 78 | 12219 | 136.196 | 1169.53 | -52.5 | 494775 | 5727300 | 1900 | 134.7012 | 125.1652 | 0.14 | 123.8103 |
| 80 | 12555 | 136.691 | 1163.73 | -58.3 | 495000 | 5727550 | 2150 | 134.9995 | 124.4416 | 0.725 | 123.4751 |
| 82 | 12945 | 136.105 | 1164.49 | -57.54 | 495250 | 5727850 | 2450 | 134.1775 | 124.0153 | 0.665 | 122.7527 |
| 84 | 13246 | 136.11 | 1161.06 | -60.97 | 495450 | 5728075 | 2675 | 134.0054 | 123.2995 | 0.86 | 122.055 |
| 86 | 13567 | 137.976 | 1151.97 | -70.06 | 495700 | 5728275 | 2875 | 135.7141 | 123.2557 | 0.925 | 121.9188 |
| 88 | 14014 | 139.102 | 1146.88 | -75.15 | 495900 | 5728625 | 3275 | 136.5254 | 123.3122 | 0.2 | 120.9356 |
| 90 | 14237 | 138.81 | 1135.76 | -86.27 | 496000 | 5728825 | 3475 | 136.076 | 120.6837 | 0.065 | 118.0148 |
| 92 | 14556 | 141.126 | 1132.72 | -89.31 | 496225 | 5729050 | 3700 | 138.215 | 122.3611 | 0 | 119.4501 |

| station | diatance metre | original gravity mGal | elevation (m) | elev rel stn 36 (m) | easting x (m) | y northing (m) | y rel station 36 (m) | latitude corr grav (mGal) | tot elev (Bouguer) corr grav den=2.35 (mGal) | terrain corrrftion ring BCD (mGal) | final grav with terr correction (mGal) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 102 | 16560 | 145.944 | 1133.79 | -88.24 | 497375 | 5730550 | 5200 | 141.8529 | 127.4038 | 0 | 123.3127 |
| 104 | 16861 | 146.467 | 1134.59 | -87.44 | 497575 | 5730775 | 5425 | 142.1989 | 128.095 | 0 | 123.8268 |
| 106 | 17187 | 146.727 | 1134 | -88.03 | 497900 | 5730800 | 5450 | 142.4392 | 128.231 | 0 | 123.9432 |
| 108 | 17562 | 145.941 | 1136.43 | -85.6 | 498275 | 5730800 | 5450 | 141.6532 | 127.9555 | 0 | 123.6677 |
| 110 | 17916 | 144.898 | 1138.96 | -83.07 | 498625 | 5730750 | 5400 | 140.6495 | 127.4442 | 0 | 123.1957 |
| 112 | 18241 | 143.927 | 1143.53 | -78.5 | 498950 | 5730750 | 5400 | 139.6785 | 127.4334 | 0 | 123.1849 |
| 114 | 18541 | 142.628 | 1148.5 | -73.53 | 499250 | 5730750 | 5400 | 138.3795 | 127.1785 | 0 | 122.9301 |
| 116 | 18857 | 144.4 | 1139.3 | -82.73 | 499550 | 5730850 | 5500 | 140.0729 | 127.0176 | 0.01 | 122.7005 |
| 118 | 19282 | 147.012 | 1125.56 | -96.47 | 499975 | 5730850 | 5500 | 142.6849 | 126.7427 | 0.03 | 122.4455 |
| 120 | 19710 | 148.965 | 1115.36 | -106.67 | 500400 | 5730900 | 5550 | 144.5985 | 126.5525 | 0.01 | 122.196 |
| 122 | 20142 | 149.542 | 1111 | -111.03 | 500825 | 5730975 | 5625 | 145.1165 | 126.2135 | 0 | 121.788 |
| 124 | 20567 | 149.914 | 1108.93 | -113.1 | 501250 | 5731000 | 5650 | 145.4688 | 126.1506 | 0.01 | 121.7154 |
| 126 | 20874 | 148.912 | 1113.82 | -108.21 | 501550 | 5731050 | 5700 | 144.4275 | 126.1759 | 0.05 | 121.7414 |
| 128 | 21122 | 147.895 | 1120.04 | -101.99 | 501800 | 5731075 | 5725 | 143.3908 | 126.4659 | 0.005 | 121.9667 |
| 130 | 21423 | 150.275 | 1113.86 | -108.17 | 502100 | 5731100 | 5750 | 145.7512 | 127.5474 | 0.03 | 123.0536 |
| 132 | 21740 | 151.431 | 1106.92 | -115.11 | 502400 | 5731000 | 5650 | 146.9858 | 127.2451 | 0.02 | 122.82 |
| 134 | 21916 | 154.716 | 1099.1 | -122.93 | 502575 | 5730775 | 5625 | 150.2905 | 128.8872 | 0 | 124.4617 |
| 136 | 22256 | 155.867 | 1097.35 | -124.68 | 502850 | 5730575 | 5425 | 151.5989 | 129.6705 | 0.04 | 125.4424 |
| 138 | 22557 | 157.324 | 1095.29 | -126.74 | 503075 | 5730375 | 5225 | 153.2132 | 130.6945 | 0 | 126.5837 |
| 140 | 22814 | 157.614 | 1095.08 | -126.95 | 503350 | 5730250 | 5100 | 153.6016 | 130.9405 | 0.17 | 127.0981 |
| 142 | 23050 | 159.099 | 1091.35 | -130.68 | 503550 | 5730375 | 5225 | 154.9882 | 131.6418 | 0 | 127.531 |
| 144 | 23451 | 158.728 | 1095.74 | -126.29 | 503950 | 5730400 | 5250 | 154.5975 | 132.1931 | 0 | 128.0626 |
| 146 | 23697 | 160.586 | 1090.82 | -131.21 | 504175 | 5730300 | 5150 | 156.5342 | 133.0175 | 0 | 128.9657 |
| 148 | 23977 | 161.763 | 1089.44 | -132.59 | 504450 | 5730350 | 5200 | 157.6719 | 133.9045 | 0 | 129.8134 |
| 150 | 24433 | 162.467 | 1090.44 | -131.59 | 504900 | 5730425 | 5275 | 158.3169 | 134.8185 | 0.005 | 130.6734 |
| 152 | 24759 | 163.484 | 1087.33 | -134.7 | 505200 | 5730550 | 5400 | 159.2355 | 135.1822 | 0.01 | 130.9437 |
| 154 | 25041 | 163.008 | 1092.53 | -129.5 | 505400 | 5730750 | 5600 | 158.6022 | 135.7988 | 0.06 | 131.4529 |
| 156 | 25334 | 159.713 | 1109.71 | -112.32 | 505675 | 5730850 | 5700 | 155.2285 | 136.1133 | 0.09 | 131.7188 |
| 158 | 25626 | 158.282 | 1119.71 | -102.32 | 505950 | 5730750 | 5600 | 153.8762 | 136.7835 | 0.065 | 132.4427 |
| 160 | 25927 | 158.014 | 1123.5 | -98.53 | 506250 | 5730725 | 5575 | 153.6279 | 137.3119 | 0.015 | 132.9407 |
| 162 | 26237 | 159.107 | 1121.68 | -100.35 | 506550 | 5730800 | 5650 | 154.6618 | 138.0224 | 0.005 | 133.5822 |
| 164 | 26529 | 161.535 | 1113.15 | -108.88 | 506825 | 5730900 | 5750 | 157.0112 | 138.6582 | 0.05 | 134.1844 |
| 166 | 26883 | 160.991 | 1119.39 | -102.64 | 507175 | 5730950 | 5800 | 156.4278 | 139.4253 | 0.055 | 134.9171 |
| 168 | 27408 | 162.244 | 1120.21 | -101.82 | 507650 | 5731125 | 6025 | 157.5038 | 140.8505 | 0.005 | 136.1153 |
| 170 | 28161 | 163.215 | 1120.96 | -101.07 | 508400 | 5731200 | 6100 | 158.4158 | 141.9792 | 0.05 | 137.23 |
| 172 | 28461 | 164.748 | 1120.07 | -101.96 | 508700 | 5731200 | 6100 | 159.9488 | 143.3252 | 0.05 | 138.576 |
| 174 | 28942 | 166.268 | 1122.42 | -99.61 | 509175 | 5731275 | 6175 | 161.4098 | 145.3388 | 0.05 | 140.5306 |
| 176 | 29267 | 168.432 | 1121.02 | -101.01 | 509500 | 5731275 | 6175 | 163.5738 | 147.2088 | 0.035 | 142.3856 |
| 178 | 29567 | 171.213 | 1117.05 | -104.98 | 509800 | 5731275 | 6175 | 166.3548 | 149.1557 | 0 | 144.2975 |
| 180 | 29968 | 172.766 | 1118.87 | -103.16 | 510200 | 5731300 | 6200 | 167.8881 | 151.0909 | 0 | 146.2131 |
| 182 | 30319 | 173.245 | 1120.25 | -101.78 | 510550 | 5731325 | 6225 | 168.3475 | 151.86 | 0 | 146.9625 |
| 184 | 30695 | 175.423 | 1116.27 | -105.76 | 510925 | 5731350 | 6250 | 170.5058 | 153.2018 | 0.005 | 148.2896 |
| 186 | 31021 | 177.931 | 1115.21 | -106.82 | 511250 | 5731400 | 6275 | 172.9941 | 155.4869 | 0.01 | 150.5601 |
| 188 | 31321 | 180.513 | 1113.96 | -108.07 | 511550 | 5731400 | 6275 | 175.5761 | 157.8064 | 0 | 152.8695 |
| 190 | 31821 | 183.306 | 1110.81 | -111.22 | 512050 | 5731400 | 6275 | 178.3691 | 159.9376 | 0.01 | 155.0107 |
| 192 | 32185 | 185.872 | 1109.33 | -112.7 | 512400 | 5731500 | 6375 | 180.8564 | 162.1926 | 0.01 | 157.1871 |
| 194 | 32440 | 189.416 | 1106.25 | -115.78 | 512650 | 5731550 | 6425 | 184.3611 | 165.0895 | 0.025 | 160.0596 |
| 196 | 32744 | 194.323 | 1095.8 | -126.23 | 512950 | 5731600 | 6475 | 189.2288 | 167.8007 | 0.005 | 162.7115 |
| 198 | 33145 | 196.802 | 1094.6 | -127.43 | 513350 | 5731625 | 6500 | 191.6881 | 170.0277 | 0.01 | 164.9238 |
| 200 | 33506 | 199.898 | 1088.26 | -133.77 | 513700 | 5731600 | 6475 | 194.8038 | 171.7916 | 0.01 | 166.7074 |

# Original and final diurnally corrected total magnetic field and gradiometer data

The 10 columns contain the following information going from left to right.

1 time (hours/minutes/seconds)
2 line number and direction
3 station number
4 station direction
5 original total magnetic field before diurnal corrections (nT)
6 gradient field (nT/m)
7 accuracy measurement form GEM magnetometer
8 final total magnetic field after diurnal corrections (nT)
9 diurnal fit parameter (from GEM software)
10 distance relative to station 0 (m)

There are four pages with station numbers going from 0, 1, 2, 3, 4, 5, 6, ... , 199, 200.

| time | line | station | stn dir | orig mag (nT) | gradient (nT/m) | accuracy | final mag (nT) | dirunal fit parameter | distance (m) |
|---|---|---|---|---|---|---|---|---|---|
| 101042 | 00000E | 0 | E | 56713.1 | -6.41 | 96 | 56713.1 | i--- | 0 |
| 101226 | 00000E | 1 | E | 56956.08 | 7.07 | 99 | 56955.99 | i020 | 101 |
| 101614 | 00000E | 2 | E | 56278.82 | -17.37 | 99 | 56279.9 | i020 | 202 |
| 101746 | 00000E | 3 | E | 56816.66 | -55.61 | 99 | 56817.79 | i020 | 366 |
| 101918 | 00000E | 4 | E | 56398.83 | 2.41 | 99 | 56401.23 | i020 | 530 |
| 102134 | 00000E | 5 | E | 56780.27 | -1.92 | 99 | 56782.74 | i020 | 654 |
| 102458 | 00000E | 6 | E | 57025.23 | 2.44 | 99 | 57029.05 | i020 | 777 |
| 102730 | 00000E | 7 | E | 59177.51 | 61.93 | 99 | 59182.4 | i020 | 900 |
| 104218 | 00000E | 8 | E | 56295.04 | -17.02 | 96 | 56303.16 | i020 | 1023 |
| 104506 | 00000E | 9 | E | 55841.19 | -1.19 | 99 | 55849.71 | i020 | 1188 |
| 104654 | 00000E | 10 | E | 56464.55 | 0.96 | 99 | 56473.19 | i020 | 1352 |
| 104946 | 00000E | 11 | E | 57484.89 | 6.63 | 99 | 57492.9 | i020 | 1464 |
| 105142 | 00000E | 12 | E | 59157.95 | 13.84 | 99 | 59165.96 | i--- | 1575 |
| 105446 | 00000E | 13 | E | 59821.97 | 20.78 | 99 | 59829.39 | i020 | 1703 |
| 105638 | 00000E | 14 | E | 57378.08 | -2.64 | 96 | 57385.48 | i020 | 1830 |
| 105826 | 00000E | 15 | E | 56988.97 | 0.83 | 99 | 56996.26 | i020 | 1977 |
| 110034 | 00000E | 16 | E | 57251.28 | 3.41 | 99 | 57259.55 | i020 | 2123 |
| 110242 | 00000E | 17 | E | 58317.64 | 44.56 | 99 | 58325.01 | i--- | 2305 |
| 110422 | 00000E | 18 | E | 57270.79 | 16.5 | 99 | 57277.61 | i--- | 2487 |
| 110914 | 00000E | 19 | E | 56993.05 | 7.16 | 99 | 56997.27 | i020 | 2693 |
| 111026 | 00000E | 20 | E | 57579.97 | -17.4 | 99 | 57583.91 | i020 | 2899 |
| 111326 | 00000E | 21 | E | 56471.96 | 7.21 | 99 | 56475.69 | i020 | 3014 |
| 111606 | 00000E | 22 | E | 56551.05 | 9.44 | 99 | 56554.5 | i020 | 3129 |
| 112510 | 00000E | 23 | E | 56405.15 | 4.59 | 99 | 56408.18 | i020 | 3252 |
| 112714 | 00000E | 24 | E | 56384.53 | 6.17 | 99 | 56387.19 | i020 | 3375 |
| 112918 | 00000E | 25 | E | 56909.89 | 11.8 | 99 | 56911.92 | i020 | 3562 |
| 113126 | 00000E | 26 | E | 57637.65 | 15.57 | 99 | 57639.02 | i020 | 3758 |
| 113530 | 00000E | 27 | E | 54452.5 | 12.72 | 96 | 54453.56 | i020 | 3921 |
| 113742 | 00000E | 28 | E | 51319.64 | -88.23 | 66 | 51321.36 | i--- | 4084 |
| 114802 | 00000E | 29 | E | 55641.34 | 177.44 | 66 | 55644.57 | i--- | 4192 |
| 115158 | 00000E | 30 | E | 56554.07 | 6.48 | 99 | 56557.53 | i020 | 4299 |
| 115346 | 00000E | 31 | E | 57364.94 | 24.98 | 99 | 57368.49 | i020 | 4462 |
| 115538 | 00000E | 32 | E | 57357 | 10.31 | 99 | 57360.57 | i020 | 4625 |
| 115842 | 00000E | 33 | E | 56685.23 | 9.79 | 99 | 56689.75 | i--- | 4760 |
| 120042 | 00000E | 34 | E | 56672.93 | 3.28 | 99 | 56677.33 | i--- | 4895 |
| 120334 | 00000E | 35 | E | 56759.87 | -6.61 | 99 | 56763.09 | i020 | 5046 |
| 120534 | 00000E | 36 | E | 56706.28 | 3.06 | 99 | 56710.36 | i020 | 5196 |
| 121002 | 00000E | 37 | E | 56330.36 | 2.38 | 99 | 56336.22 | i--- | 5285 |
| 121114 | 00000E | 38 | E | 56275.59 | -1.43 | 99 | 56282.38 | i020 | 5373 |
| 121314 | 00000E | 39 | E | 56075.79 | -15.21 | 99 | 56082.58 | i020 | 5474 |
| 121706 | 00000E | 40 | E | 56845.43 | 7.79 | 99 | 56852.84 | i020 | 5575 |
| 121822 | 00000E | 41 | E | 56629.38 | 4.44 | 99 | 56637.2 | i--- | 5670 |
| 122026 | 00000E | 42 | E | 56448.44 | 2.47 | 99 | 56456.26 | i020 | 5765 |
| 122226 | 00000E | 43 | E | 56438.25 | -16.64 | 99 | 56447.65 | i020 | 5881 |
| 122434 | 00000E | 44 | E | 56090.09 | -30.03 | 99 | 56099.53 | i020 | 5996 |
| 122542 | 00000E | 45 | E | 56151.92 | -4.71 | 99 | 56161.58 | i--- | 6125 |
| 123118 | 00000E | 46 | E | 55900.23 | -0.48 | 99 | 55907.94 | i020 | 6253 |
| 123418 | 00000E | 47 | E | 55802.15 | -5.45 | 99 | 55810.34 | i020 | 6466 |
| 123634 | 00000E | 48 | E | 56040.3 | -7.34 | 99 | 56050.52 | i020 | 6678 |

| time | line | station | stn dir | orig mag (nT) | gradient (nT/m) | accuracy | final mag (nT) | dirunal fit parameter | distance (m) |
|---|---|---|---|---|---|---|---|---|---|
| 123814 | 00000E | 49 | E | 56298.69 | 5.89 | 99 | 56310.33 | i020 | 6857 |
| 124050 | 00000E | 50 | E | 56551.84 | 11.36 | 99 | 56565.29 | i020 | 7036 |
| 124214 | 00000E | 51 | E | 55995.01 | 5.29 | 99 | 56009.04 | i020 | 7217 |
| 124450 | 00000E | 52 | E | 55039.08 | 154.62 | 99 | 55052.96 | i020 | 7397 |
| 124610 | 00000E | 53 | E | 54521.46 | -4.89 | 99 | 54535.5 | i020 | 7549 |
| 124922 | 00000E | 54 | E | 55391.48 | 4.72 | 99 | 55405.32 | i--- | 7701 |
| 125050 | 00000E | 55 | E | 55600.1 | -3.31 | 99 | 55613.97 | i020 | 7887 |
| 125150 | 00000E | 56 | E | 55607.69 | -6.21 | 99 | 55621.51 | i020 | 8072 |
| 125310 | 00000E | 57 | E | 56427.98 | 4.96 | 99 | 56441.67 | i020 | 8276 |
| 125526 | 00000E | 58 | E | 56808.92 | 11.83 | 99 | 56822.76 | i020 | 8479 |
| 125622 | 00000E | 59 | E | 56740.43 | 5.5 | 99 | 56754.2 | i--- | 8617 |
| 130314 | 00000E | 60 | E | 56402.5 | 1.79 | 99 | 56415.27 | i020 | 8755 |
| 130442 | 00000E | 61 | E | 56458.24 | 2.27 | 99 | 56471.04 | i--- | 8920 |
| 130734 | 00000E | 62 | E | 56191.55 | 0.96 | 99 | 56203.5 | i020 | 9084 |
| 91310 | 00000E | 63 | E | 56278.69 | 5.12 | 99 | 56290.99 | i020 | 9290 |
| 91534 | 00000E | 64 | E | 56153.46 | 5.77 | 99 | 56165.88 | i020 | 9495 |
| 91650 | 00000E | 65 | E | 56421.23 | 5.98 | 99 | 56434.01 | i020 | 9652 |
| 92002 | 00000E | 66 | E | 56548.34 | 6.39 | 99 | 56561.78 | i--- | 9809 |
| 92130 | 00000E | 67 | E | 56568.89 | 22.54 | 99 | 56582.56 | i020 | 9984 |
| 92506 | 00000E | 68 | E | 56090.09 | -1.79 | 99 | 56104.07 | i020 | 10159 |
| 92646 | 00000E | 69 | E | 56588.17 | 14.12 | 99 | 56601.98 | i020 | 10335 |
| 92930 | 00000E | 70 | E | 56420.91 | 7.9 | 99 | 56435.75 | i020 | 10510 |
| 93050 | 00000E | 71 | E | 56397.73 | 6.84 | 99 | 56411.82 | i020 | 10684 |
| 93426 | 00000E | 72 | E | 56431.55 | 6.47 | 99 | 56446.24 | i020 | 10857 |
| 93558 | 00000E | 73 | E | 56494.94 | 7.11 | 99 | 56510.03 | i020 | 11028 |
| 93754 | 00000E | 74 | E | 56669.6 | 3.11 | 99 | 56685.08 | i020 | 11198 |
| 93930 | 00000E | 75 | E | 56643.36 | 9.58 | 99 | 56658.98 | i020 | 11546 |
| 94234 | 00000E | 76 | E | 56400.57 | 3.58 | 99 | 56417.07 | i020 | 11893 |
| 94354 | 00000E | 77 | E | 56346.38 | 10.23 | 99 | 56363.23 | i020 | 12056 |
| 94734 | 00000E | 78 | E | 56482.18 | -1.7 | 99 | 56499.34 | i020 | 12219 |
| 94918 | 00000E | 79 | E | 56660.42 | 8.37 | 99 | 56677.44 | i020 | 12387 |
| 95230 | 00000E | 80 | E | 56356.24 | 2.75 | 99 | 56373.54 | i020 | 12555 |
| 95414 | 00000E | 81 | E | 56446.24 | 7.35 | 99 | 56463.75 | i020 | 12750 |
| 95638 | 00000E | 82 | E | 56394.05 | 6.59 | 99 | 56411.64 | i020 | 12945 |
| 95814 | 00000E | 83 | E | 56617.29 | 5.11 | 99 | 56634.83 | i020 | 13096 |
| 100042 | 00000E | 84 | E | 56653.72 | 10.8 | 99 | 56671.47 | i--- | 13246 |
| 100206 | 00000E | 85 | E | 56118.11 | 1.21 | 99 | 56136.53 | i020 | 13407 |
| 100638 | 00000E | 86 | E | 56242.03 | 1.9 | 99 | 56259.64 | i020 | 13567 |
| 100934 | 00000E | 87 | E | 56293.68 | 4.43 | 99 | 56311.87 | i020 | 13791 |
| 101226 | 00000E | 88 | E | 56247.22 | 3.33 | 99 | 56266.02 | i020 | 14014 |
| 101426 | 00000E | 89 | E | 56235.16 | 3.16 | 99 | 56253.41 | i020 | 14126 |
| 101826 | 00000E | 90 | E | 56219.53 | 3.72 | 99 | 56238.68 | i020 | 14237 |
| 102054 | 00000E | 91 | E | 56212.35 | 6.03 | 99 | 56230.76 | i020 | 14397 |
| 102318 | 00000E | 92 | E | 56191.59 | 3.34 | 99 | 56210.42 | i020 | 14556 |
| 102550 | 00000E | 93 | E | 56125.69 | 0.31 | 99 | 56147.08 | i020 | 14784 |
| 102734 | 00000E | 94 | E | 56060.65 | 1.08 | 99 | 56080.71 | i020 | 15012 |
| 103050 | 00000E | 95 | E | 56348.15 | 5.32 | 99 | 56367.62 | i020 | 15357 |
| 103234 | 00000E | 96 | E | 56737.27 | 11.01 | 99 | 56756.38 | i020 | 15598 |
| 103602 | 00000E | 97 | E | 56405.38 | 17.02 | 99 | 56427.9 | i--- | 15713 |
| 103946 | 00000E | 98 | E | 56416.62 | 3.34 | 99 | 56436.95 | i020 | 15828 |

| time | line | station | stn dir | orig mag (nT) | gradient (nT/m) | accuracy | final mag (nT) | dirunal fit parameter | distance (m) |
|---|---|---|---|---|---|---|---|---|---|
| 110242 | 00000E | 99 | E | 56463.29 | -4.73 | 99 | 56487.64 | i--- | 16009 |
| 110434 | 00000E | 100 | E | 56695.99 | 101.14 | 99 | 56720.13 | i020 | 16189 |
| 110602 | 00000E | 101 | E | 56482.74 | 9.42 | 99 | 56506.77 | i--- | 16375 |
| 110906 | 00000E | 102 | E | 56316.31 | 51.69 | 99 | 56340.76 | i020 | 16560 |
| 111050 | 00000E | 103 | E | 56382.65 | 9.08 | 99 | 56407.35 | i020 | 16711 |
| 111318 | 00000E | 104 | E | 56313.85 | -8.27 | 99 | 56339.17 | i020 | 16861 |
| 111522 | 00000E | 105 | E | 56369.95 | 4.41 | 99 | 56394.67 | i--- | 17024 |
| 111822 | 00000E | 106 | E | 56313.88 | 4.84 | 99 | 56339.67 | i--- | 17187 |
| 112018 | 00000E | 107 | E | 56261.79 | -0.11 | 99 | 56287.37 | i020 | 17375 |
| 112306 | 00000E | 108 | E | 56484.76 | 1.79 | 99 | 56509.09 | i020 | 17562 |
| 112510 | 00000E | 109 | E | 56684.01 | 8.22 | 99 | 56707.62 | i020 | 17739 |
| 112750 | 00000E | 110 | E | 56456.79 | 5.03 | 99 | 56482.59 | i020 | 17916 |
| 112934 | 00000E | 111 | E | 56446.34 | 2.06 | 99 | 56471.9 | i020 | 18079 |
| 113326 | 00000E | 112 | E | 56396.52 | 1.43 | 99 | 56423.01 | i020 | 18241 |
| 113546 | 00000E | 113 | E | 56214.3 | 3.1 | 99 | 56243.2 | i020 | 18391 |
| 113834 | 00000E | 114 | E | 56379.12 | 1.61 | 99 | 56407.87 | i020 | 18541 |
| 114054 | 00000E | 115 | E | 56485.56 | 6.49 | 99 | 56513.99 | i020 | 18699 |
| 114414 | 00000E | 116 | E | 55888.29 | -0.48 | 99 | 55915.3 | i020 | 18857 |
| 114550 | 00000E | 117 | E | 55983.29 | 7.82 | 99 | 56011.46 | i020 | 19070 |
| 114818 | 00000E | 118 | E | 56019.7 | 1.12 | 99 | 56046.8 | i020 | 19282 |
| 114922 | 00000E | 119 | E | 56010.3 | -2.4 | 99 | 56037.33 | i--- | 19496 |
| 115210 | 00000E | 120 | E | 56883.73 | 245.91 | 99 | 56910.34 | i020 | 19710 |
| 115310 | 00000E | 121 | E | 56177.64 | 0.52 | 99 | 56203.85 | i020 | 19926 |
| 115606 | 00000E | 122 | E | 56249.82 | 4.5 | 99 | 56275.71 | i020 | 20142 |
| 92830 | 00000E | 123 | E | 56433.74 | 0.88 | 99 | 56420.09 | i020 | 20355 |
| 93042 | 00000E | 124 | E | 56639.27 | 5.13 | 99 | 56625.42 | i--- | 20567 |
| 93218 | 00000E | 125 | E | 56641.28 | 1.73 | 99 | 56627.6 | i020 | 20721 |
| 93450 | 00000E | 126 | E | 56470.53 | 7.87 | 99 | 56456.69 | i020 | 20874 |
| 93638 | 00000E | 127 | E | 56379.95 | 1.92 | 99 | 56366.05 | i020 | 20998 |
| 93838 | 00000E | 128 | E | 56427.07 | 4.02 | 99 | 56413.21 | i020 | 21122 |
| 94006 | 00000E | 129 | E | 56351.96 | 9.68 | 99 | 56337.95 | i020 | 21262 |
| 94234 | 00000E | 130 | E | 56340.79 | -1.49 | 99 | 56326.67 | i020 | 21423 |
| 94422 | 00000E | 131 | E | 56395.36 | 2.56 | 99 | 56381.35 | i--- | 21582 |
| 94610 | 00000E | 132 | E | 56273.97 | -2.06 | 99 | 56260.06 | i020 | 21740 |
| 94718 | 00000E | 133 | E | 56383.93 | 5.56 | 99 | 56370.02 | i020 | 21828 |
| 95010 | 00000E | 134 | E | 56402.26 | 22.91 | 99 | 56388.38 | i020 | 21916 |
| 95302 | 00000E | 135 | E | 56422.94 | 10.57 | 99 | 56408.48 | i--- | 22086 |
| 95646 | 00000E | 136 | E | 56282.15 | 8.07 | 99 | 56267.7 | i020 | 22256 |
| 95842 | 00000E | 137 | E | 56364.09 | 11.36 | 99 | 56349.5 | i--- | 22407 |
| 100058 | 00000E | 138 | E | 56567.33 | 9.71 | 99 | 56552.72 | i020 | 22557 |
| 100454 | 00000E | 139 | E | 56608 | -1.53 | 99 | 56594.21 | i020 | 22686 |
| 100702 | 00000E | 140 | E | 56247.16 | 3.16 | 99 | 56233.16 | i--- | 22814 |
| 101026 | 00000E | 141 | E | 56608.95 | 2.98 | 99 | 56595.02 | i020 | 22932 |
| 101130 | 00000E | 142 | E | 56621.68 | 3.06 | 99 | 56607.56 | i020 | 23050 |
| 101250 | 00000E | 143 | E | 56639.96 | 4.22 | 99 | 56625.96 | i020 | 23251 |
| 101554 | 00000E | 144 | E | 56587.64 | 23.29 | 99 | 56573.54 | i020 | 23451 |
| 101746 | 00000E | 145 | E | 56481.23 | 12.02 | 99 | 56467.55 | i020 | 23574 |
| 102034 | 00000E | 146 | E | 56275.65 | 2.35 | 99 | 56262.15 | i020 | 23697 |
| 102746 | 00000E | 147 | E | 56433.2 | 23.47 | 99 | 56419.76 | i020 | 23837 |
| 102934 | 00000E | 148 | E | 56333.55 | 4.19 | 99 | 56320.02 | i020 | 23977 |

| time | line | station | stn dir | orig mag (nT) | gradient (nT/m) | accuracy | final mag (nT) | dirunal fit parameter | distance (m) |
|---|---|---|---|---|---|---|---|---|---|
| 103058 | 00000E | 149 | E | 56317.66 | 3.73 | 99 | 56304.16 | i020 | 24205 |
| 103346 | 00000E | 150 | E | 56394.74 | -2.2 | 99 | 56381.74 | i020 | 24433 |
| 103550 | 00000E | 151 | E | 56356.68 | -3.2 | 99 | 56343.94 | i020 | 24596 |
| 103834 | 00000E | 152 | E | 56209.08 | 6 | 99 | 56196.34 | i020 | 24759 |
| 104042 | 00000E | 153 | E | 56523.71 | 2.88 | 99 | 56510.79 | i--- | 24900 |
| 104250 | 00000E | 154 | E | 56481.39 | 0.95 | 99 | 56468.09 | i020 | 25041 |
| 104518 | 00000E | 155 | E | 56600.5 | 7.81 | 99 | 56587.39 | i020 | 25188 |
| 104718 | 00000E | 156 | E | 56410.67 | 2.49 | 99 | 56397.94 | i020 | 25334 |
| 104922 | 00000E | 157 | E | 56611.99 | 7.4 | 99 | 56599.41 | i--- | 25480 |
| 105130 | 00000E | 158 | E | 56386.86 | 2.08 | 99 | 56374.32 | i020 | 25626 |
| 105258 | 00000E | 159 | E | 56355.48 | -2.42 | 99 | 56342.75 | i020 | 25777 |
| 105702 | 00000E | 160 | E | 56638.38 | 3.39 | 99 | 56625.75 | i--- | 25927 |
| 110338 | 00000E | 161 | E | 56552.53 | 2.06 | 99 | 56539.37 | i020 | 26082 |
| 110706 | 00000E | 162 | E | 56462.82 | -0.86 | 99 | 56449.6 | i020 | 26237 |
| 110754 | 00000E | 163 | E | 56476.57 | 6.49 | 99 | 56463.43 | i020 | 26383 |
| 110938 | 00000E | 164 | E | 56464.42 | 14.59 | 99 | 56451.27 | i020 | 26529 |
| 111030 | 00000E | 165 | E | 56455.15 | 14.37 | 99 | 56442.09 | i020 | 26706 |
| 111158 | 00000E | 166 | E | 56572.18 | 9.51 | 99 | 56559.06 | i020 | 26883 |
| 111342 | 00000E | 167 | E | 56555.41 | 2.79 | 99 | 56542.53 | i--- | 27146 |
| 111842 | 00000E | 168 | E | 56531.9 | -1.81 | 99 | 56519.11 | i--- | 27408 |
| 114406 | 00000E | 169 | E | 56371.03 | 9.57 | 99 | 56360.49 | i020 | 27785 |
| 114730 | 00000E | 170 | E | 56574.08 | 8.66 | 99 | 56563.04 | i020 | 28161 |
| 114926 | 00000E | 171 | E | 56736.14 | 11.35 | 99 | 56725.15 | i020 | 28311 |
| 115218 | 00000E | 172 | E | 56533.3 | -5.84 | 99 | 56522.23 | i020 | 28461 |
| 115750 | 00000E | 173 | E | 56939.35 | 3.07 | 99 | 56928.15 | i020 | 28702 |
| 120142 | 00000E | 174 | E | 56594.89 | 8.37 | 99 | 56583.6 | i--- | 28942 |
| 120310 | 00000E | 175 | E | 56460.37 | 2.73 | 99 | 56448.92 | i020 | 29105 |
| 120638 | 00000E | 176 | E | 56718.24 | -24.46 | 99 | 56709.18 | i020 | 29267 |
| 122910 | 00000E | 177 | E | 56004.91 | -8.66 | 99 | 55993.64 | i020 | 29417 |
| 123006 | 00000E | 178 | E | 56576.54 | 60.75 | 99 | 56565.37 | i020 | 29567 |
| 123102 | 00000E | 179 | E | 56194.79 | 24.58 | 99 | 56183.68 | i--- | 29768 |
| 123154 | 00000E | 180 | E | 56776.29 | 5.79 | 99 | 56765.2 | i020 | 29968 |
| 123250 | 00000E | 181 | E | 56526.5 | 1.35 | 99 | 56515.38 | i020 | 30144 |
| 123346 | 00000E | 182 | E | 55922.88 | -9.03 | 99 | 55911.86 | i020 | 30319 |
| 123438 | 00000E | 183 | E | 56690.76 | 21.99 | 99 | 56679.79 | i020 | 30507 |
| 123554 | 00000E | 184 | E | 56552.06 | -0.76 | 99 | 56541.17 | i020 | 30695 |
| 123654 | 00000E | 185 | E | 56731.29 | 9.73 | 99 | 56720.33 | i020 | 30858 |
| 123758 | 00000E | 186 | E | 57004.45 | -4.91 | 99 | 56993.36 | i020 | 31021 |
| 123854 | 00000E | 187 | E | 57033.13 | 3.12 | 99 | 57021.9 | i020 | 31171 |
| 123958 | 00000E | 188 | E | 56631.6 | -14.64 | 99 | 56620.31 | i020 | 31321 |
| 124106 | 00000E | 189 | E | 56932.67 | 10.54 | 99 | 56921.24 | i020 | 31571 |
| 124202 | 00000E | 190 | E | 56935.71 | 5.77 | 99 | 56924.22 | i--- | 31821 |
| 124258 | 00000E | 191 | E | 56852.18 | 6.29 | 99 | 56840.87 | i020 | 32003 |
| 124350 | 00000E | 192 | E | 57209.54 | 10.01 | 99 | 57198.25 | i020 | 32185 |
| 124446 | 00000E | 193 | E | 56615.32 | 6.3 | 99 | 56604.05 | i020 | 32313 |
| 124554 | 00000E | 194 | E | 56407.8 | 5.54 | 99 | 56396.78 | i020 | 32440 |
| 124646 | 00000E | 195 | E | 56099 | 5.64 | 99 | 56088.01 | i020 | 32592 |
| 124742 | 00000E | 196 | E | 56475.87 | 2.87 | 99 | 56464.94 | i--- | 32744 |
| 124838 | 00000E | 197 | E | 56682.36 | 6.64 | 99 | 56671.31 | i020 | 32945 |
| 124942 | 00000E | 198 | E | 56351.08 | 9.66 | 99 | 56340.1 | i--- | 33145 |

| time | line | station | stn dir | orig mag (nT) | gradient (nT/m) | accuracy | final mag (nT) | dirunal fit parameter | distance (m) |
|---|---|---|---|---|---|---|---|---|---|
| 125038 | 00000E | 199 | E | 55716.96 | 5.14 | 99 | 55706.18 | i020 | 33326 |
| 125142 | 00000E | 200 | E | 56262.05 | 8.54 | 99 | 56251.47 | i--- | 33506 |

# APPENDIX C

# DIGITAL FILES

The enclosed disc contains the following data.

**Gravity, UTM and distance data**

Both Corel Quattro Pro and MS Excel files included

UTM_data
elevation_data
drift_corrected_gravity
gravity_corrections

**Magnetic data (3 directories)**

original_data **directory** contains 6 text files edited_data **directory** contains 6 text files
(b = base and g = gradiometer data)

| | |
|---|---|
| Oct3b | Oct3b_edit |
| Oct3g | Oct3g_edit |
| Oct6b | Oct6b_edit |
| Oct6g | Oct6g_edit |
| Oct9b | Oct9b_edit |
| Oct9g | Oct9g_edit |

final_magnetic_data **directory** contains text, Corel Quattro Pro and MS Excel files of

final_mag_corr
mag_final_with_x_position

Copies of the 4 figures (jpg format) and the report (wordperfect and MS word format) are on the digital disc. The report is called report_acquisition.