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KEEP RIVER PROJECT

EL 8676
EL 8677
EL 8678

Annual Report for the Year Ending

5 October 1996

DISTRIBUTION:

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ZEPHYR MINERALS NL (2)

AUTHOR: G. BEILBY

DATE: OCTOBER 1996

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PLANS

1.0 LOCATION AND ACCESS

The project tenements are situated 55 kms NE of Kununurra on the Northern Territory side of the border.(Fig 1)

Access is via the Weber Plain road to Keep River and then the numerous station tracks and old Seismic lines provide access within the tenements.

2.0 TENEMENTS

This report covers the Exploration Licences EL 8676, 8677, 8678 and these were granted on the 05.10.1994.(Plan 1) The table below summarises the tenement information.

Tenement No	Date granted	Date expires	Area	Expenditure requirements
EL 8676	05.10.1994	04.10.1997	16 km²	$ 5,500
EL 8677	05.10.1994	04.10.1998	29 km²	$ 14,000
EL 8678	05.10.1994	04.10.2000	641 km²	$ 23,500
			Total: 686 km²	

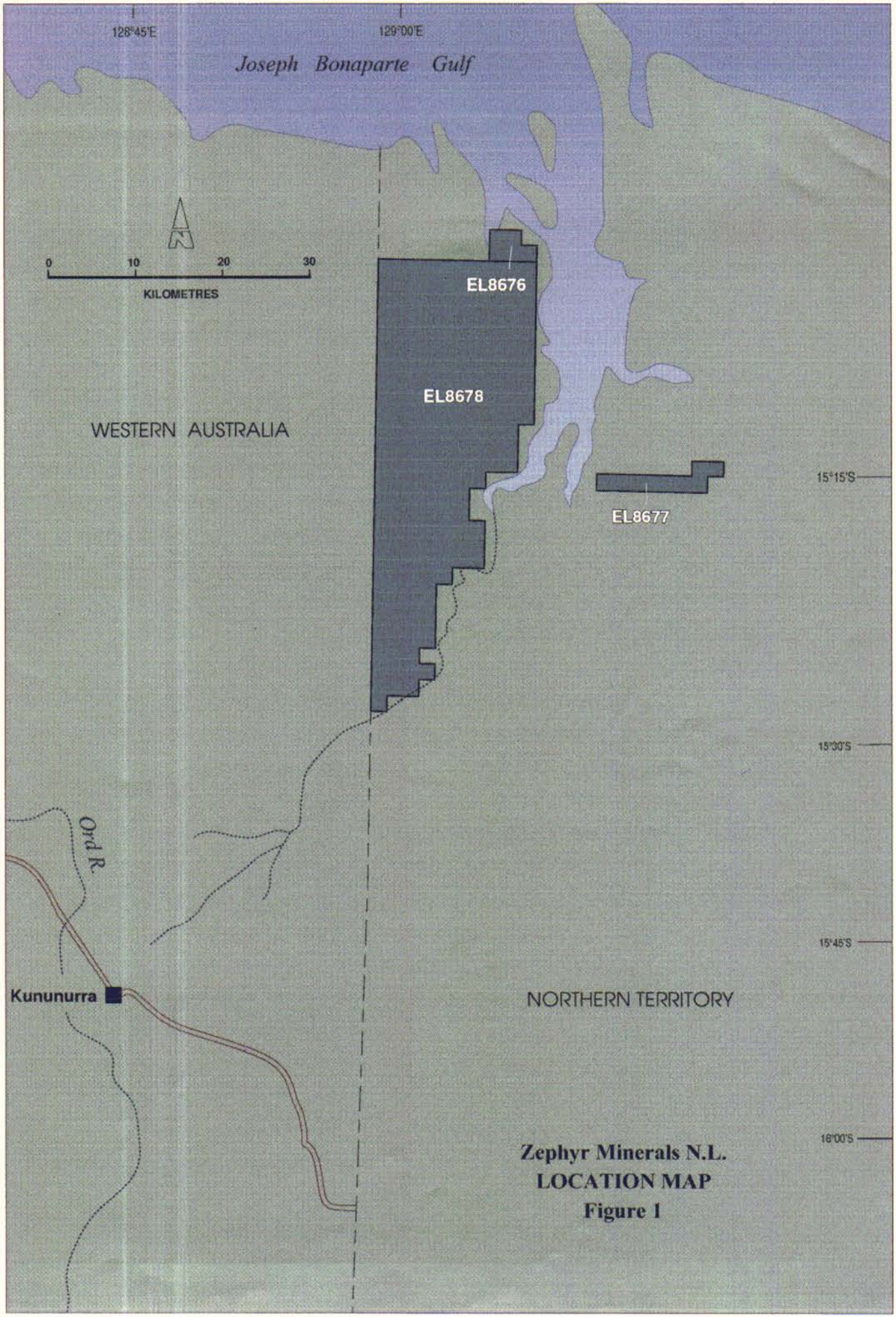
EL 8677 has been joint ventured to Wilga Mines NL. Zephyr will retain a 100% interest in the diamond potential of the lease whilst Wilga will have to sole expend $475,000 to earn a 75% interest in any base metal discoveries it may make. Wilga will be providing a separate report to cover the additional work carried out by them on EL 8677.

3.0 GEOLOGY

The tenements are located near the South Eastern margin of the Bonaparte Basin adjacent to the Western Australian - Northern Territory border. The Bonaparte Basin stratigraphy and lithology is described in Table 1. The basin's geometry is that of a north plunging syncline with its easterly limb located on the Northern Territory side of the border and the westerly limb located on the Western Australian side of the border. The east limb trends northeast - southwest and the west limb trends northwest - southeast. The basin has undergone various stages of faulting, uplift and erosion.

It is believed that the basement in the area is composed of Proterozoic sediments but no exposures of the basement are present. The flood plain of the Keep River consists of Recent alluvial sediments. The position of the incised palaeochannels are becoming better defined from the review of old and new water bore data and the recently completed work carried out by the Water Resources Division of the Northern Territory Power and Water Authority.

The project area is dominated by sand covered plains , areas of black soil cover and minor occurrences of laterite. Isolated outcrops of sandstone are located within the leases.


128°45'E
129°00'E
Joseph Bonaparte Gulf
0
10
20
30
KILOMETRES
EL8676
EL8678
WESTERN AUSTRALIA
EL8677
15°15'S
15°30'S
15°45'S
16°00'S
Ord R
Kununurra
NORTHERN TERRITORY
Zephyr Minerals N.L.
LOCATION MAP
Figure 1

BONAPARTE BASIN N.T. STRATIGRAPHY

			Thick -Ness (m)	Regional Bonaparte Equivalent (Beere & Morv, 1986)	Lithology
CARBONIFEROUS	Visean	Weaber Group		Point Springs Sandstone (Clp)	Grey fine-medium grained sandstone & pebbly sandstone
			0-300	Miligans Formation (Clm)	Grey-black, carbonaceous siltstones & shales with minor sandstones & limestone interbeds
	Tournaisian	Langfield Group	0-50	Septimus Limestone (Cls)	Interbedded, bioclastic limestone with shaley base
			0-150	Enga Formation (Cle)	Well sorted fine to medium grained quartz arenite.
			0-100 0-15 0-80	Burt Range Formation (Clb_2 - unit of Agquitaine sandy dolomite)	Massive poorly bedded sandy dolomites to dolomitic sandstones. Syn-sedimentary breccia are common. Typically grey-blue in colour.
			0-15 0-100	Burt Range Formation Clb_1 unit of Aquitaine silty dolomite	
DEVONIAN	Fammenian	Ningbing Group	0-300	Buttons Formation (Dub)	Thinly bedded silty dolomite interbedded with minor sandy dolomite. Typically grey-green in colour. Brown & light green-grey massive crystalline dolomite. Upper terrigenous silty dolomitised limestone unit. Lower micritic dolomised limestone. Rare fossils. Diagnostic marker horizon at top of formation.
	Frasnian	Cockatoo Group	0-100 0-300	Cockatoo Formation	Kellys Knob Sandstone is the dominant unit of the Cockatoo Formation seen in NT.
CAMBRIAN		Carlton Group	0-150	Antrim Plateau Volcs (Cla)	Tholeiitic basalt
PROTEROZOIC				Precambrian	Metasediments - micaceous siltstones and quartzites.

TABLE 1

4.0 PREVIOUS WORK

As presented in the previous Annual Report a review of the data indicated that extensive water bore drilling had been undertaken throughout the southern part of the project area during the 1960s. In late 1994, the Water Resources Division of the Northern Territory Power and Water Authority undertook a drilling programme and geophysical survey to derive hydrological information in key areas of the Keep River tenements. Subsequently Zephyr has been able to obtain this data in the form of the Authority's report and copies of the geophysical digital data.

The drilling data through the alluvials adjacent to the modern valley of the Keep River on its Eastern edge shows thicknesses ranging between 15 to 25 metres or more. From this review it was possible to formulate the geological model to suggest that these thicknesses could indicate the presence of a paleochannel of the Keep River parallel to the modern system.

Further work was carried out by Zephyr during 1995 as per that years annual report to the department.

Known kimberlite and lamproite intrusives to the southwest of the Keep River were considered as a possible source of diamonds for the ancestral valley.

5.0 EXPLORATION COMPLETED

A number of different data sets were accessed and reviewed in order to establish the best areas to carry out initial loam and stream sediment sampling sites. This method enabled Zephyr to target the more obvious areas initially and to be able to do this in a cost efficient way. The aim was to establish the presence of possible kimberlites through the sampling of targets and thus be able to confine more expensive sampling and geophysical work in the future.

The programme to date has been successful in fulfilling the above aims and has enabled Zephyr to better define its target areas within the tenement areas.

5.1 REGIONAL GEOPHYSICS

B.A.Dockery & Associates Pty Ltd were contracted to complete a study on the Auvergne AGSO Regional Airborne Magnetics (1:250 000) using a computer digital enhancement technique called Upward Continuation.

The technique is used to highlight discrete magnetic expressions from weakly magnetic bodies utilising regional airborne magnetics. The process is described in the report prepared by Dockery and a copy is found in Appendix 1. The Anomalies found to fall within our leases were reviewed and depending on their signature and relationship to other geophysical and geological features they were selected for follow up sampling.

5.2 POWER and WATER AUTHORITY REPORT

The Water Resources Division of the Northern Territory Power and Water Authority has completed a detailed survey for hydrological information within the Northern Territory and this survey covered part of our Keep River tenements.

The report that covered this work was made available to Zephyr and also a copy of the associated digital geophysics.

The reader is referred to this report for further information (see reference section for details).

5.3 SEISMIC INTERPRETATION

That part of the Bonaparte Basin in Zephyr's project area has been subject to several episodes of oil exploration. Numerous lines of seismic data have been shot. This data is available from commercial libraries and Zephyr acquired some 1000 km of it.

A geophysical consultant, Mr Bob Beattie, was employed to interpret the data specifically looking for signatures that may indicate the presence of kimberlite or lamproite pipes.(Plan 4) He highlighted areas of interest on the sections and these were transferred to plan and prioritised according to the seismic signature and were given a rating from 1 to 10. Areas that received a score of 7 or above were chosen for loam sampling.Those with a lesser score but which corresponded with other anomalies,eg geomorphic, aeromagnetic, also were highlighted for sampling.

5.4 AIR PHOTO INTERPRETATION

Coloured air photography which covers Zephyr's Keep River leases was purchased. These were viewed and all photo anomalies were highlighted on the photos.(Plan 5). The anomalies were then transferred onto the 1:100 000 topographic sheets. All these features were sampled out in the field. Predominantly the features were circular in nature and appeared to be isolated from drainage features. Location for stream sediment sampling was also established from the photos.

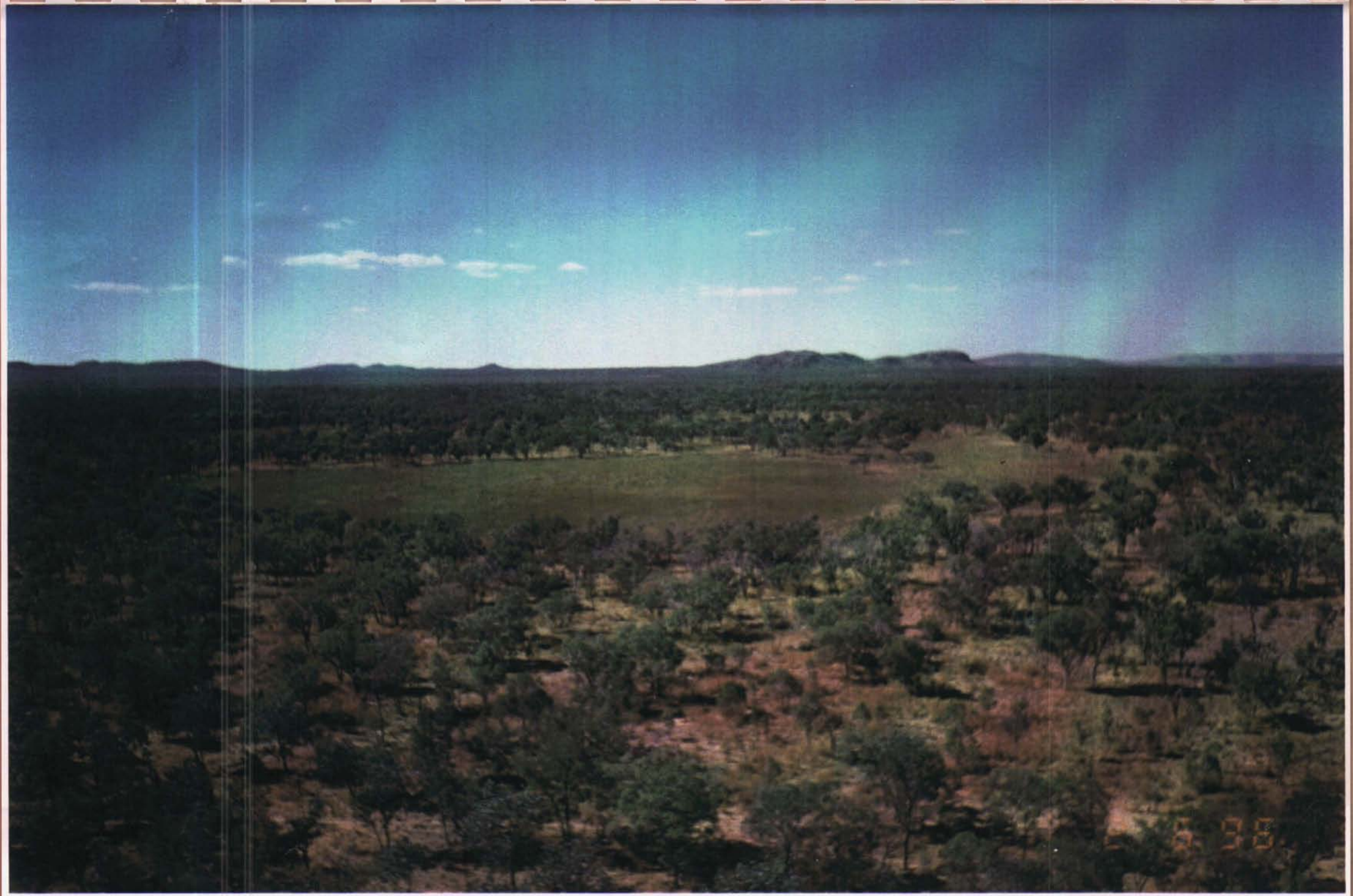
5.5 LOAM and STREAM SEDIMENT SAMPLING

A total of 51 samples were taken over the three leases during three separate campaigns.(Plan 2)

The first effort was completed near the end of the wet season utilising a helicopter and was targeted on the sampling of obvious Photo features. A total of 10 samples were collected during this programme. The samples were wet and the quality was low. (Fig's 2→4)

The second sampling campaign was completed also with a helicopter and a total of 23 samples were taken. The samples were selected from air photo's, seismic and geophysical data. Where possible the samples were sieved on site but due to the nature of some of the material this could not always be achieved. It included some stream sediment samples, which were of relitively low quality due to the time constraints placed on the program with the use of the helicopter and the lack of obvious trap sites.


'87 1 1



The third sampling program was completed using a vehicle and was targeted at following up on seismic and geophysical anomalies that had no surface expression. This was completed by sampling all the stream and creek beds in the area. Samples were of a good quality and 17 samples were collected. One further loam sample was taken over a Photo anomaly.

All samples were sent to Perth via road transport and the +0.20-1.2 mm fraction of the collected samples were screened out and have been analysed by Diatech Heavy Mineral Services (WA)(Appendix 2 and 3).

A total of 17 samples were found to contain chromites of Positive or Possible Kimberlitic Affinity.(Plan 2) (Fig's 5→10)

5.6 GROUND MAGNETIC SURVEY

A ground magnetic survey was carried out over an area which covered our sample points U and KE4. This was carried out to see if the features showed a magnetic response and so could be determined by an airborne survey, which would also be extended over surrounding country. The ground magnetic profiles showed dipole effects and this would indicate that magnetics can be used as a successful exploration tool in this area. Cross lines were surveyed over single anomalies to try and better define them but this was unsuccessful.

Zephyr used a G-856 Magnetometer with a Toshiba T1910 computer to download the data each day.

The main grid survey was carried out on 100m spaced lines. Initially readings were taken every 20m but this was latter increased to 25m. The survey was straight profile and as such base station readings were not taken. Appendix 5 shows the line graphs of the data and plan 3 is a contour of the Three point moving average of the line data.

5.7 SITE CLEARANCES

During the year a request was made to the Aboriginal Areas Protection Authority for information and locations of Aboriginal sites located on our leases. These were supplied to us as maps,(Appendix 4).

During August 1996 an application was sent to the Aboriginal Areas Protection Authority for the issue of an Authority Certificate for Exploration over a portion of our Keep River tenement. This was issued to Zephyr on the 12 August 1996 and is Certificate Number C96/145,(Appendix 4).

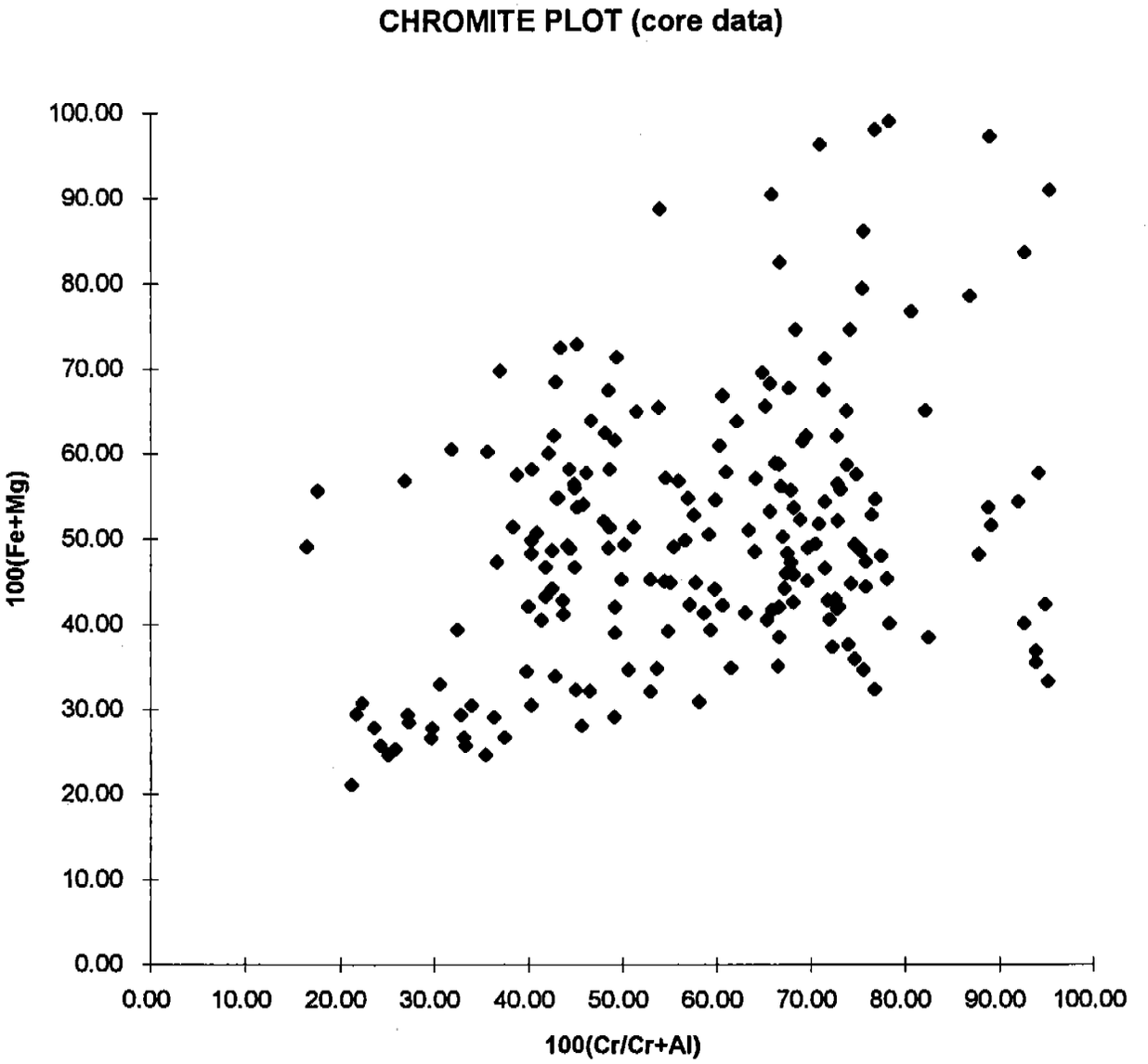

CHROMITE PLOT (core data)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
100(Fe+Mg)
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
100(Cr/Cr+Al)

Figure 5

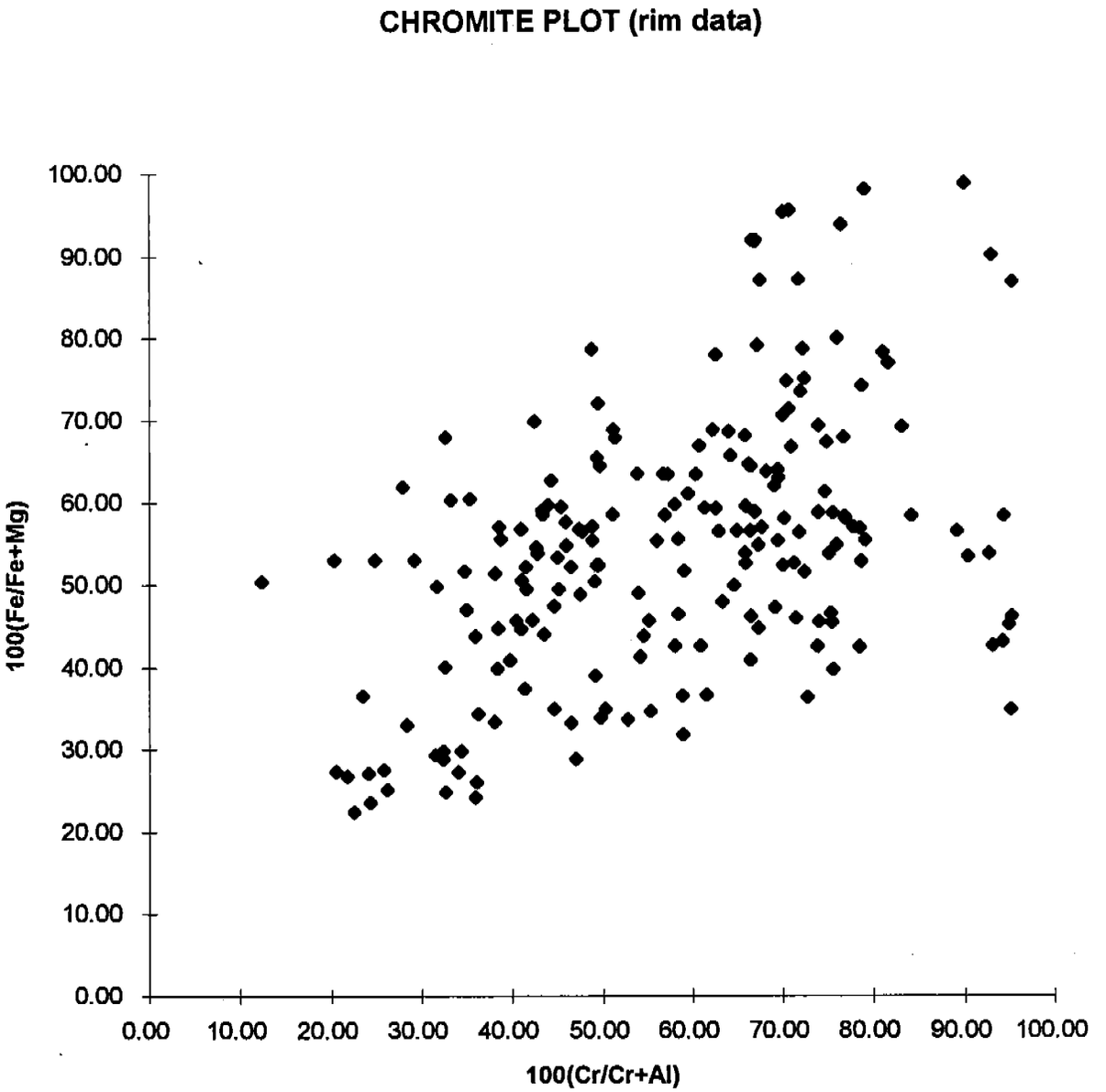

CHROMITE PLOT (rim data)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
100(Fe/Fe+Mg)
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
100(Cr/Cr+Al)

Figure 6

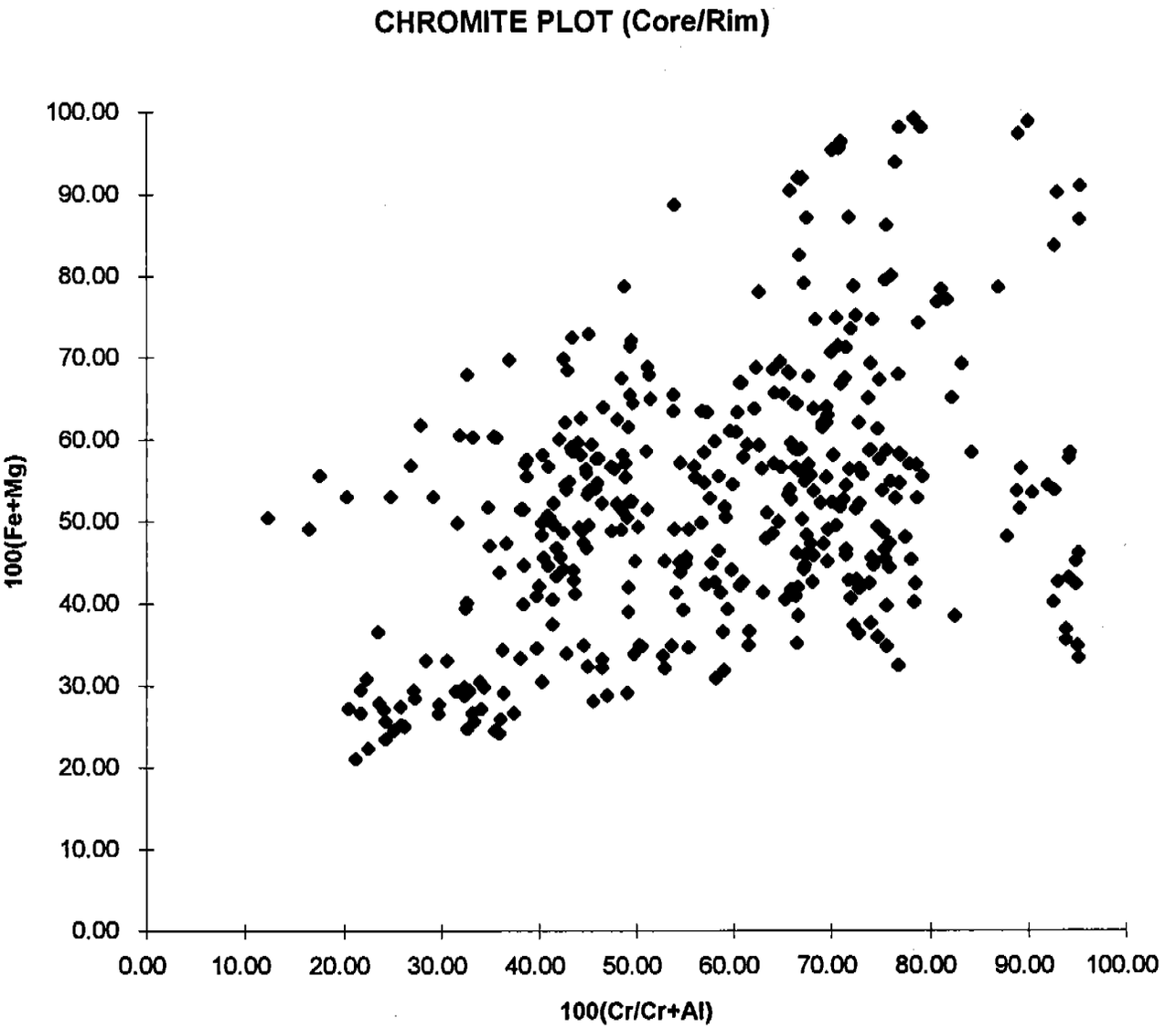

CHROMITE PLOT (Core/Rim)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
100(Fe+Mg)
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
100(Cr/Cr+Al)

Figure 7

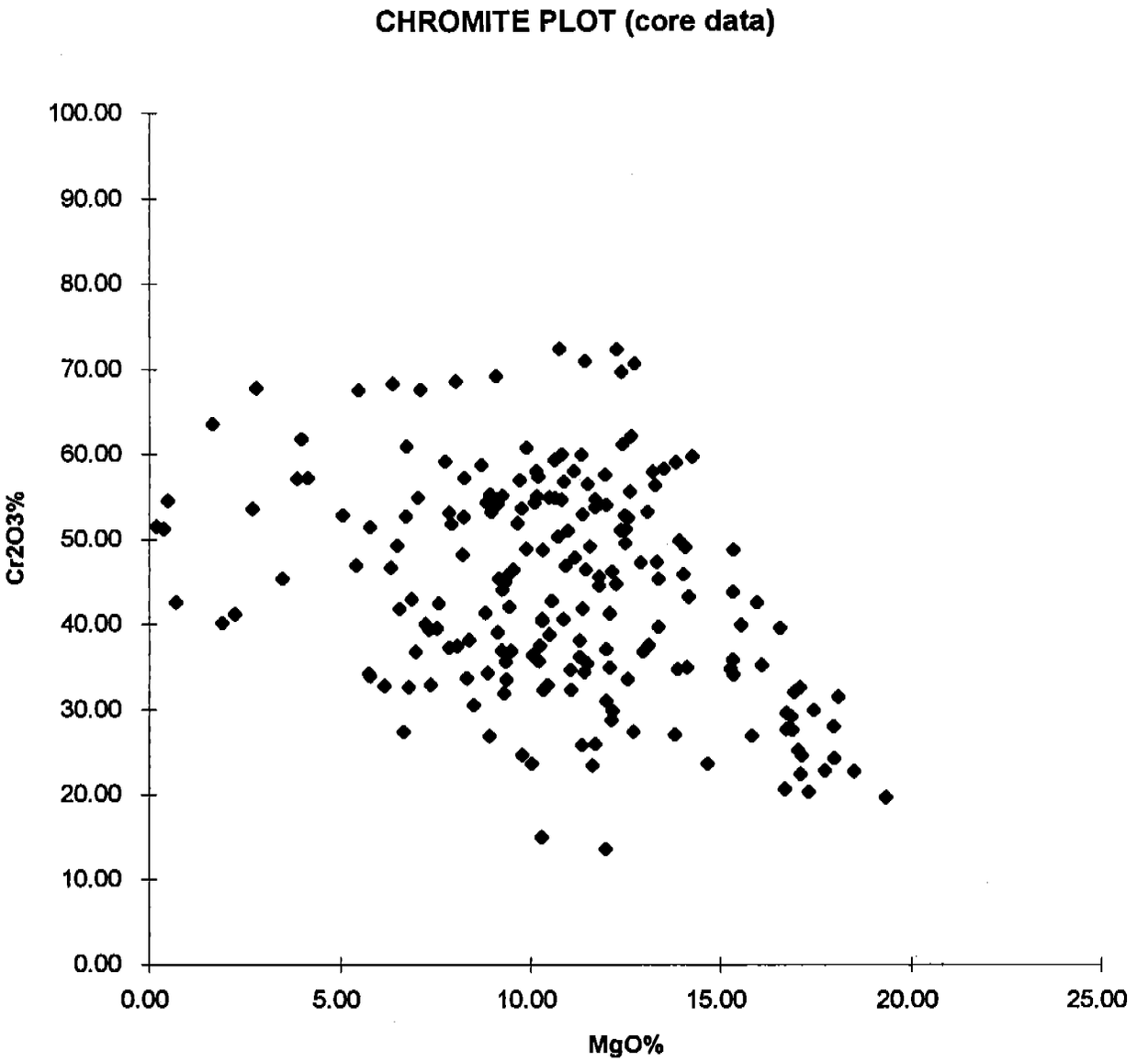

CHROMITE PLOT (core data)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Cr2O3%
0.00
5.00
10.00
15.00
20.00
25.00
MgO%

Figure 8

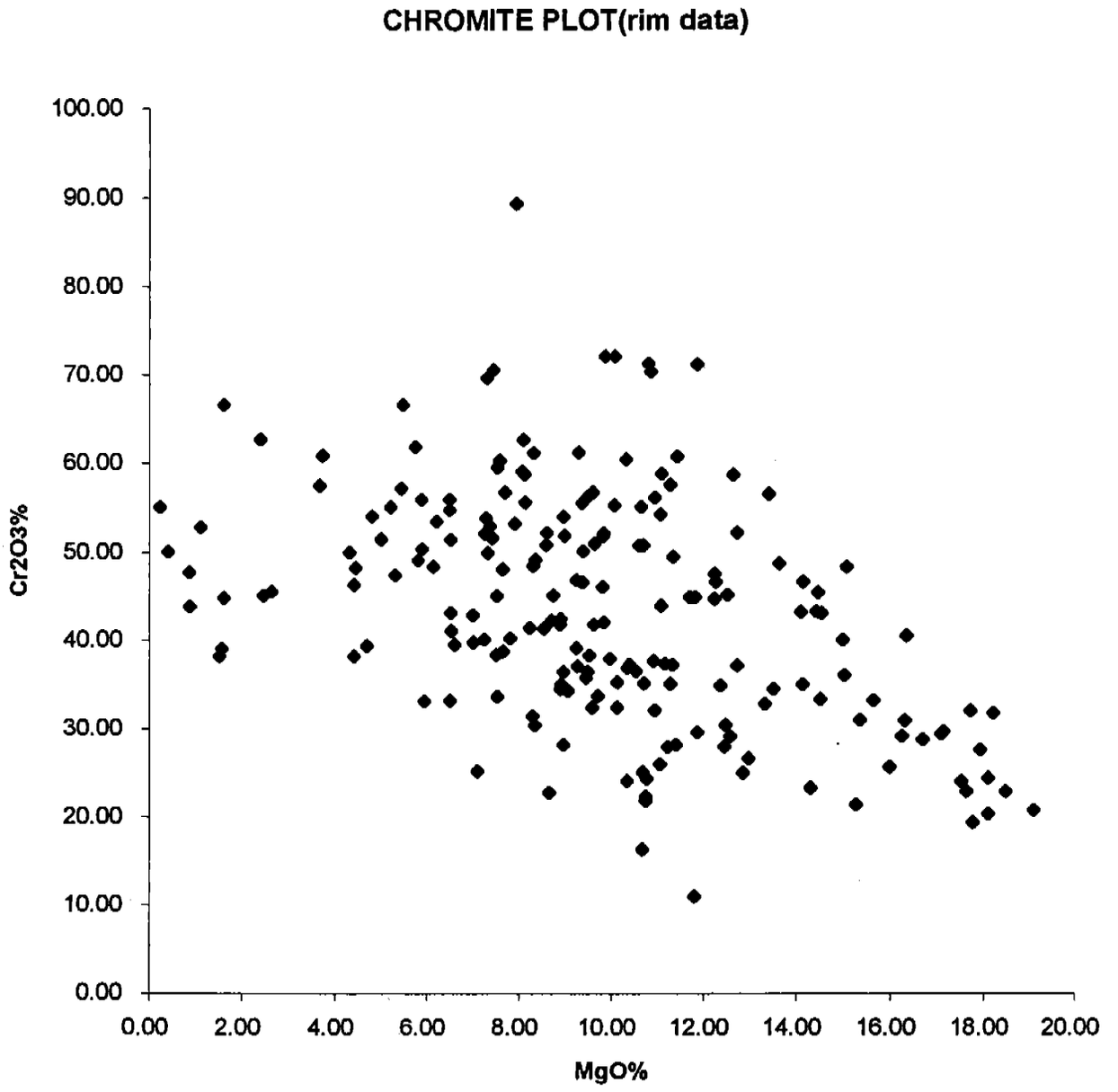

CHROMITE PLOT(rim data)
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
Cr2O3%
0.00
2.00
4.00
6.00
8.00
10.00
12.00
14.00
16.00
18.00
20.00
MgO%

Figure 9

CHROMITE PLOT (Core/Rim)

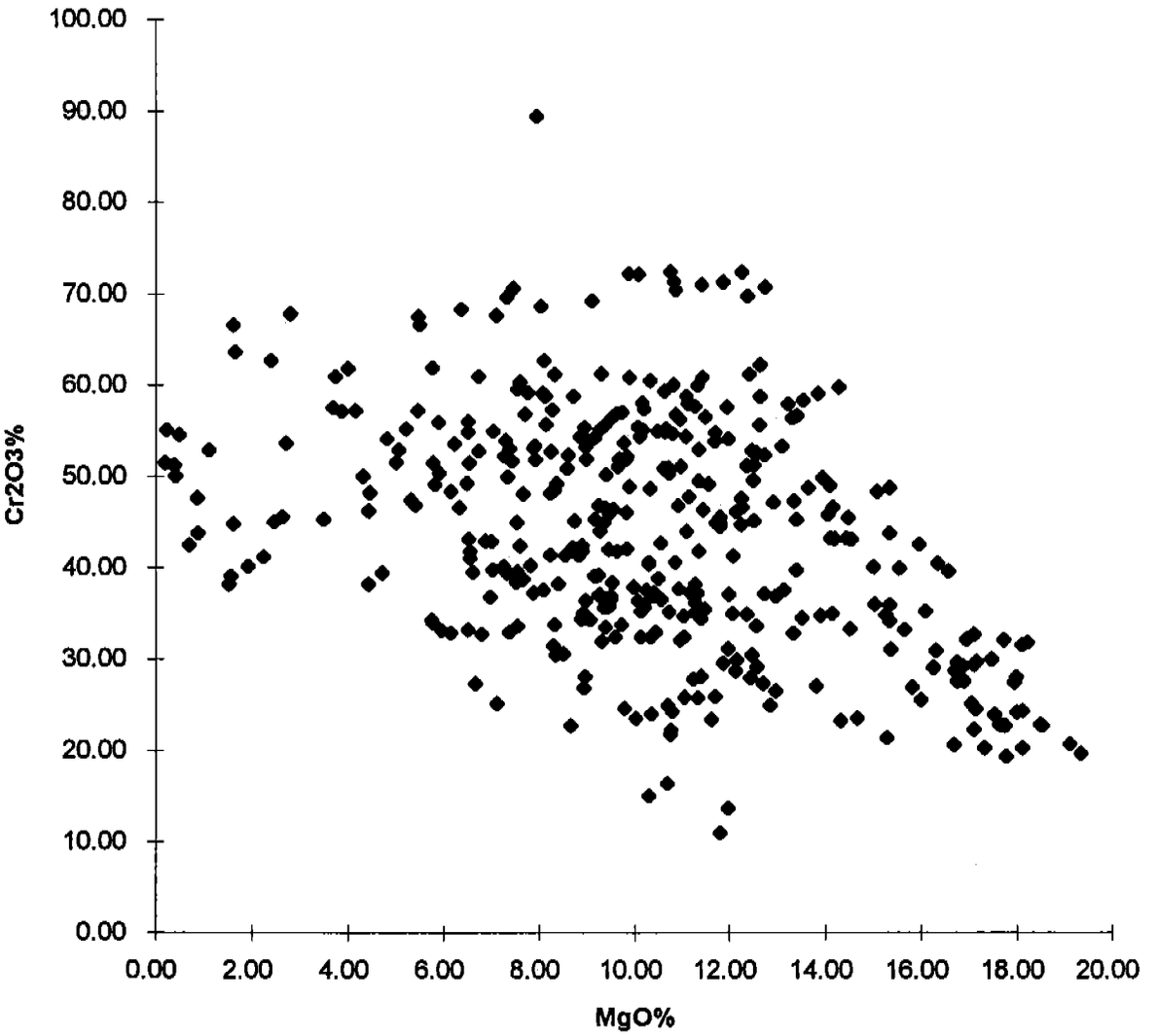


Figure 10

6.0 CONCLUSIONS AND RECOMMENDATIONS

This years exploration has seen the very exciting discovery of positive indicators on our Keep River leases. The work has lead to the delineation of an area where a number of positive results have being obtained and thus our future exploration can be focussed.

The next phase of exploration will be a low level Aeromagnetic survey over the selected area and depending on the results further loam samples will be taken.

Once definite targets are defined bulk sampling and drilling of the targets are recommended.

REFERENCES

Dockery, B.A. 1996: Note on Upward Continuation applied to Auvergne Airborne Magnetometer data.

Kroupnik, V. 1995: Keep River Project Annual Report for Year Ending 5 October 1995

Wilga Mines NL 1995: Report Bundaburg Bore EL8677 Bonaparte Gulf Basin Annual for period October 1994 to October 1995.

Power and Water Authority, 1995 Water Resources Division. Sub-Surface Hydrology of the Keep River Plains.

APPENDIX 1

Geophysical Report B.Dockery

KEE: 43

B.A.Dockery & Associates Pty Ltd,
ACN 008 863 796
23 Chessington Gardens, Mount Claremont, Western Australia 6010
Telephone/facsimile: 383 4560

Note on Upward Continuation applied to Auvergne Airborne Magnetometer data.

In order to highlight magnetic expressions of sources close to the surface, an upward continuation process was applied to airborne magnetometer data collected over the Auvergne 1:250,000 sheet area in the Northern Territory. The aim was to detect any discrete magnetic expressions that might arise from a kimberlite pipe on the assumption that it is weakly magnetic, has a thin soil cover of the order of tens of metres and has a limited depth extent of the order of hundreds of metres.

As an example of the type of response to be expected, an accompanying diagram entitled "Possible target source response" shows theoretical north-south and east-west profiles calculated for a source that is a simple sphere of radius 2 units, centred 4 units below the detector. The inducing field had an inclination of -44°, appropriate to the time the survey data was collected. For the Auvergne survey the data is plotted in terms of the station interval which was about 100 m. Thus the model would translate to a sphere of 200 m radius centred 400 m below the detector. The width and amplitude of each plot was chosen to approach that of the data profiles. The theoretical response is superimposed on a sloping background field with a random noise level of one nanoTesla.

Above the theoretical profiles there is the result from filtering using upward continuation. An optimum definition of the magnetic responses from within a horizontal layer is obtained by taking the difference between the measured field upward continued to twice the distance to the top of the layer and twice the distance to the bottom of the layer. This was proposed by B.H.Jacobsen in "A case for upward continuation as a standard separation filter for potential field maps", Geophysics vol.52 (1987), no.8, pp.1138-1148.

Initially the distance to the top of the layer was taken to be 200 m being 180 m aircraft terrain clearance and 20 m of overburden. Later this was changed to 180 m and then 150 m when it seemed apparent from the profile plots that the terrain clearance of the aircraft was probably less than 180 m. The distance to the bottom of the layer was initially taken to be 1000 m below the detector but this was later changed to 880 m below the detector. That is, the filter was designed to optimise the response from magnetic sources in the top 700 m of the soil and rock.

The data listing was acquired from the Australian Geological Survey Organisation. It was collected by AGSO over the whole of the Auvergne 1:250,000 sheet area. The data had been transferred to CD-ROM by Encom Technology Pty Limited of 118 Alfred Street, Milsons Point, New South Wales, on behalf of Zephyr Minerals N.L. It was contained in files numbered ZEPHYR.001 to ZEPHYR.114. One file on the disk, ZEPHYR.115, did not contain any data.

The first block of data in each file showed the project number (331), the group or flight number (333), the line number, the number of data channels (1), the date (01 January 1967), the coded fiducial factor (1), two zeros followed by the mean altitude above sea

level (180 m) and the mean ground clearance (again 180 m). Other blocks within a file were data records in the form of the fiducial of the first data sample and the last data sample in the block followed by the data in the form of consecutive sequences of the longitude and latitude in decimal degrees multiplied by 1 000 000, the raw magnetometer value and the IGRF corrected magnetometer value both in nanoTeslas multiplied by 1 000. All unused values in the blocks had been set to zero while missing data values had been set to 536 870 912.

For each relevant data file, the IGRF corrected magnetometer values were read, filtered and plotted onto individual A4 sheets. These show the IGRF corrected Total Magnetic Intensity on the lower graph and the filtered result in the upper graph. The east-west lines, numbered 2380 to 2770, show that part of each line west of longitude 129°22'. The lines are of various lengths due to the western extremity being at or before 129°00' and the sample interval fluctuating from line to line with the ground speed of the aircraft. The north-south lines, numbered 9016, 9017 and 9023, show that part of each line north of 15°32'S and extending to or beyond 15°00'S. The horizontal scales are in terms of the sample intervals, usually about 100 m. The vertical scales are in nanoTesla.

For lines 2380, 2390 and 2400, the individual sample values were plotted as points on the graph. However this resulted in a feint trace for the profile so all of the remaining profiles were plotted with the points joined.

Listed below is a table of the data files treated, together with the relevant flight line number, line heading and an estimate of the average station interval for that line. The latter was calculated be taking the spheroidal distance between the start and end points of the line divided by the number of stations. This would have underestimated the average because it did not take account of the drift of the flight path from a straight line.

All of the remaining files contained data from lines which did not pass through the area of interest which was defined to be north of latitude 15°32'S and west of longitude 129°22'.

File Extension	Line Number	Heading	Station Interval, m
.047	2380	east	90.1246
.048	2390	west	107.14
.049	2400	west	107.414
.050	2410	east	95.238
.051	2420	east	93.6084
.052	2430	east	88.6955
.053	2440	west	105.202
.054	2450	east	97.0127
.055	2460	west	116.958
.056	2470	east	89.1928
.058	2480	west	104.052
.059	2490	west	98.0594

File Extension	Line Number	Heading	Station Interval, m
.060	2500	east	97.91
.061	2510	west	102.726
.062	2520	east	89.1026
.064	2530	west	112.5
.065	2540	east	100.72
.066	2550	west	101.188
.067	2560	east	100.123
.068	2570	west	103.129
.069	2580	east	111.535
.070	2590	west	104.341
.071	2600	west	108.628
.072	2610	west	102.572
.073	2620	east	96.4356
.074	2630	west	105.309
.075	2640	east	89.4042
.076	2650	west	103.335
.077	2660	east	99.7004
.082	2670	east	96.2394
.086	2680	west	104.542
.087	2690	east	94.1845
.088	2700	west	107.627
.089	2710	east	89.1853
.090	2720	west	109.269
.091	2730	east	103.066
.092	2740	west	111.35
.093	2750	east	100.979
.095	2760	east	108.985
.096	2770	west	110.258
.099	9016	north	89.9247
.100	9017	south	99.8006
.102	9023	north	106.68

The next table contains a list of locations selected from the profiles as possible kimberlite sources. The selection was made on the basis of the sharpness and amplitude of the response and the similarity to the model responses. The selection is greatly limited by the fact that the majority of lines were flown east-west while it is the north-south profile that is the most distinctive in detecting possible sources. In fact the east-west response can be negative, positive or positive with negative side lobes depending on where the flight path crosses the source. Furthermore this is before taking account of the distortion to the profile shape that may arise from remanent magnetisation of the source.

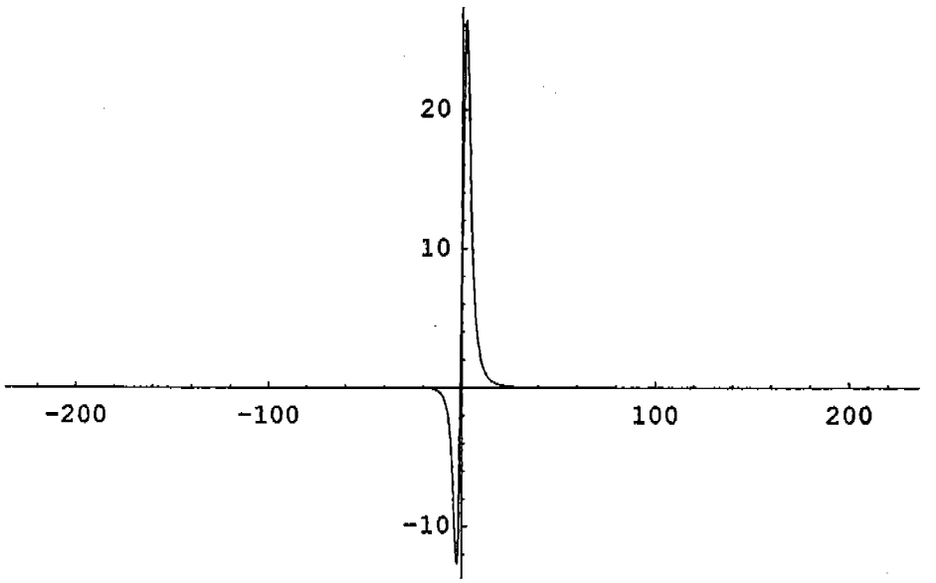
Line No.	Latitude	Longitude	AMG Easting	AMG Northing
2420	15°28'20.4852"S	129°11'31.5168"E	520 605 m	8289 413 m
2420	15°28'21.0072"S	129°18'15.9552"E	532 656 m	8289 383 m
2430	15°27'21.4380"S	129°14'25.2600"E	525 784 m	8291 222 m
2440	15°26'23.8956"S	129°11'00.2364"E	519 676 m	8292 996 m
2450	15°25'53.2992"S	129°17'13.3296"E	530 766 m	8293 924 m
2520	15°19'50.5236"S	129°20'45.0240"E	537 123 m	8305 061 m
2540	15°17'46.3380"S	128°58'14.0376"E	496 840 m	8308 906 m
2560	15°16'18.4980"S	129°14'46.4964"E	526 440 m	8311 590 m
2580	15°14'30.1452"S	129°21'37.5336"E	538 705 m	8314 902 m
2690	15°05'15.2340"S	129°14'55.9608"E	526 746 m	8331 968 m
2730	15°01'47.9352"S	129°18'54.5544"E	533 877 m	8338 328 m
2740	15°01'01.1712"S	129°12'42.4008"E	522 766 m	8339 778 m
2750	15°00'11.9124"S	129°15'03.5964"E	526 984 m	8341 287 m
2750	15°00'05.7960"S	129°18'57.6216"E	533 973 m	8341 466 m
2760	14°59'16.8108"S	129°18'33.2064"E	533 246 m	8342 972 m
2770	14°58'33.0060"S	129°12'13.8600"E	521 918 m	8344 331 m

Of the sixteen locations listed, nine are considered of lesser interest. These are the western source on flight line 2420 and the sources selected from lines 2430, 2440,2450, 2520, 2540, 2560, 2730 and 2760. They all have a similar pattern for the response which may be due to an equipment fault or some other non-geological source. A possible source for some of the other responses is the Antrim Plateau Volcanics which are known to produce highly variable responses on other 1:250,000 sheet areas.

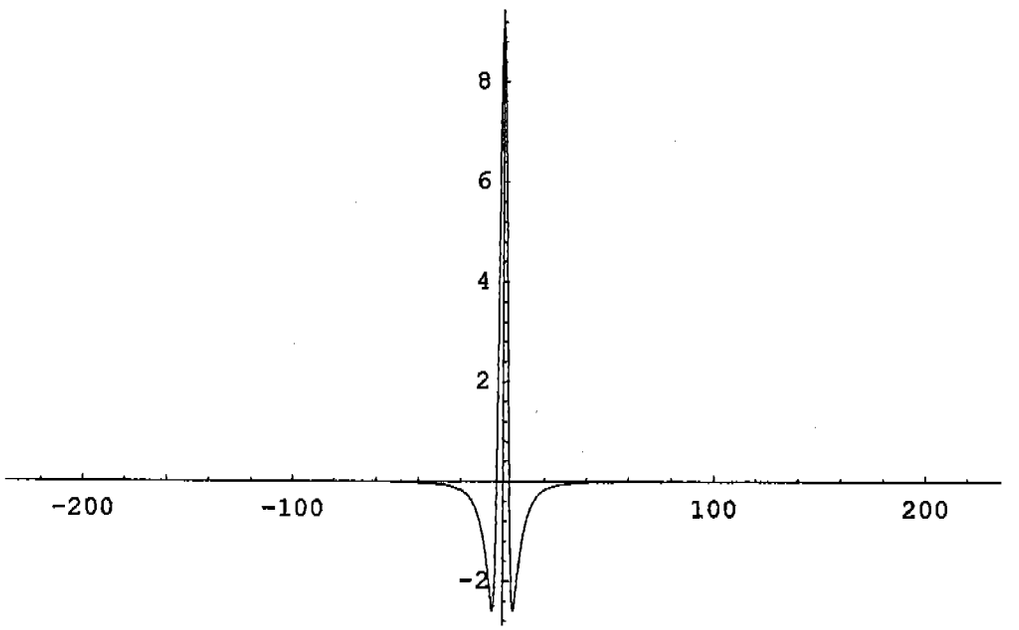
(Bevan Dockery)
Consulting Geophysicist

Auvergne Airborne Magnetometer Survey
possible target source response

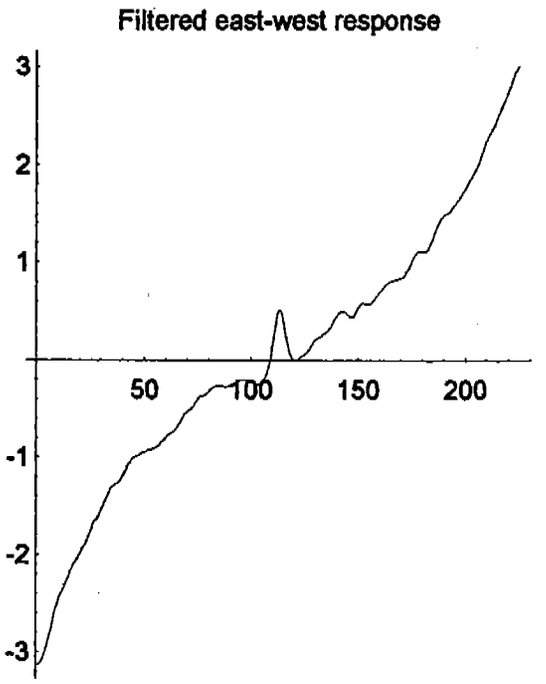
North-South profile from Cube, distance 2 units below detector
Sides of 4 units, striking North-South/East-West

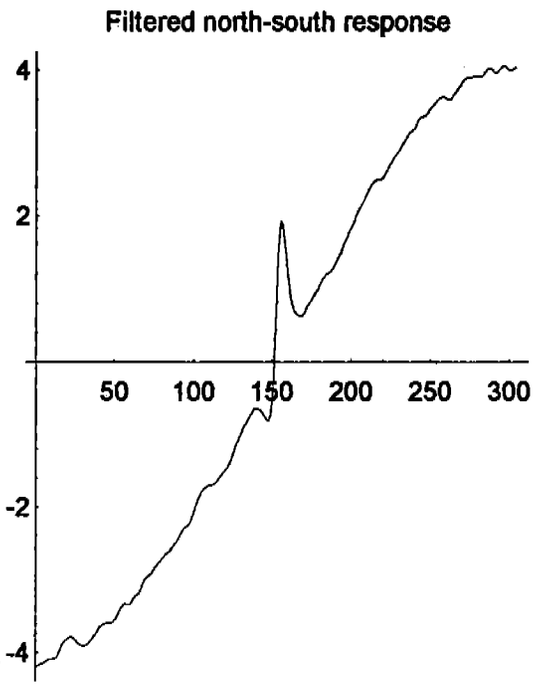


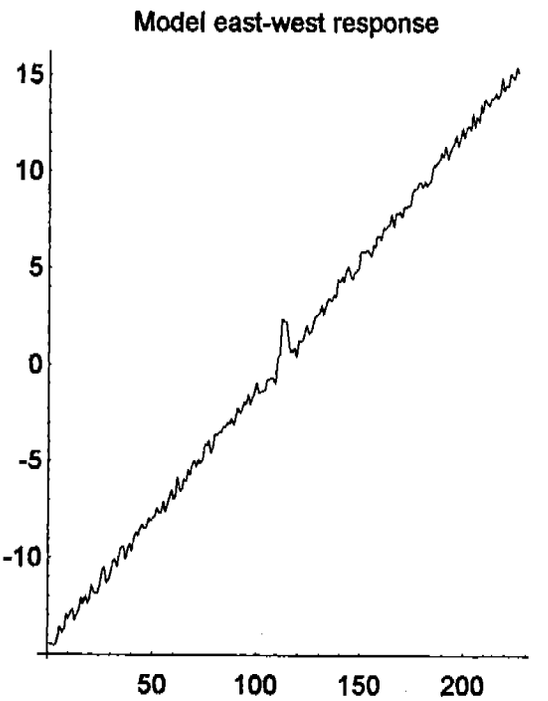
East-West profile across centre of above source

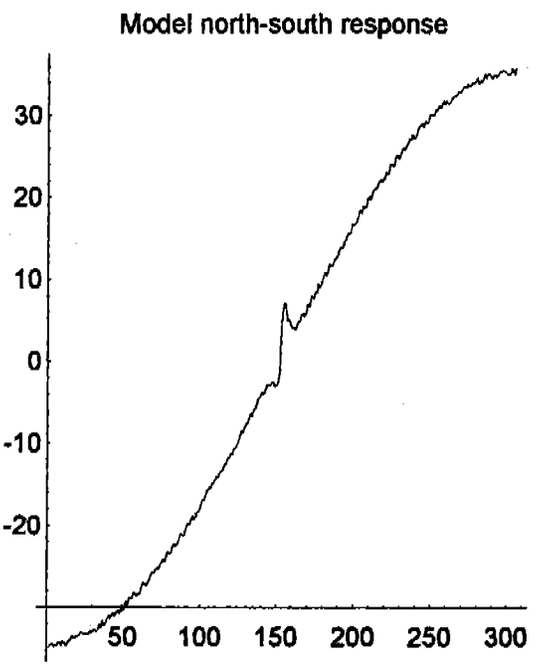


Possible target source response

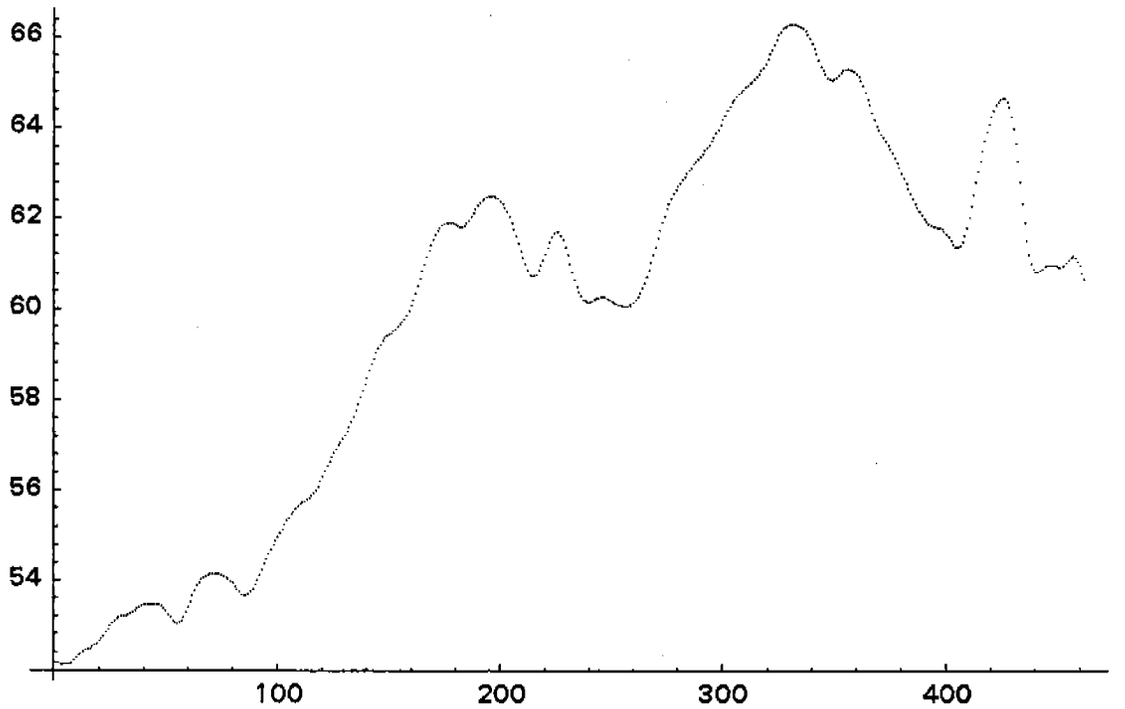




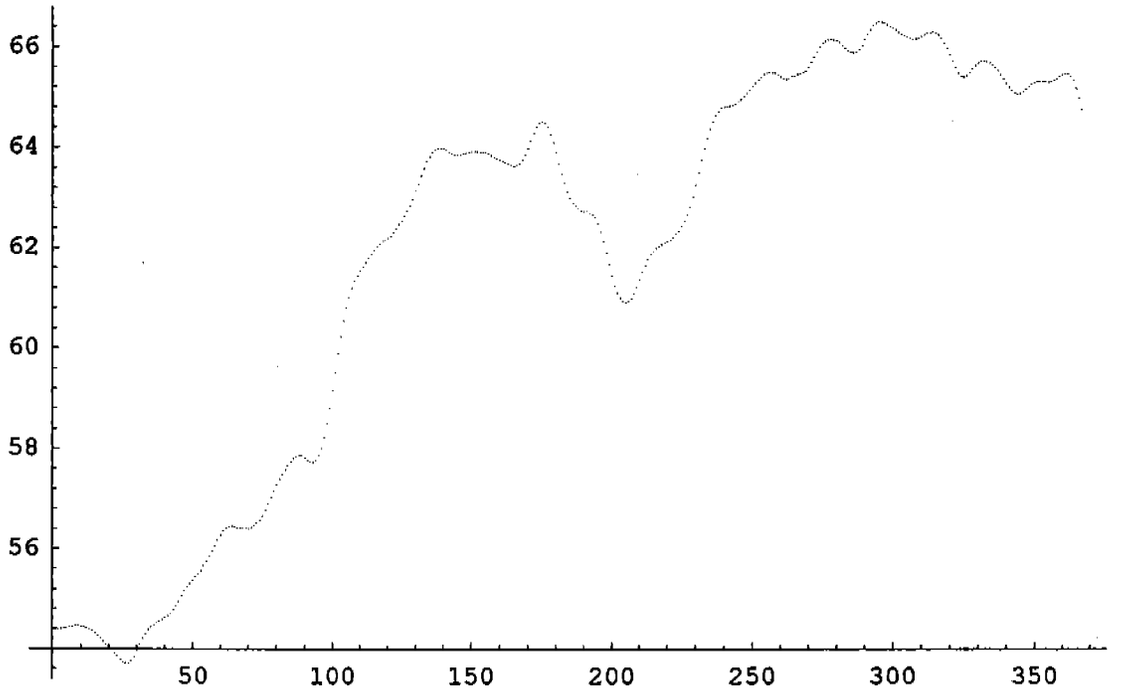


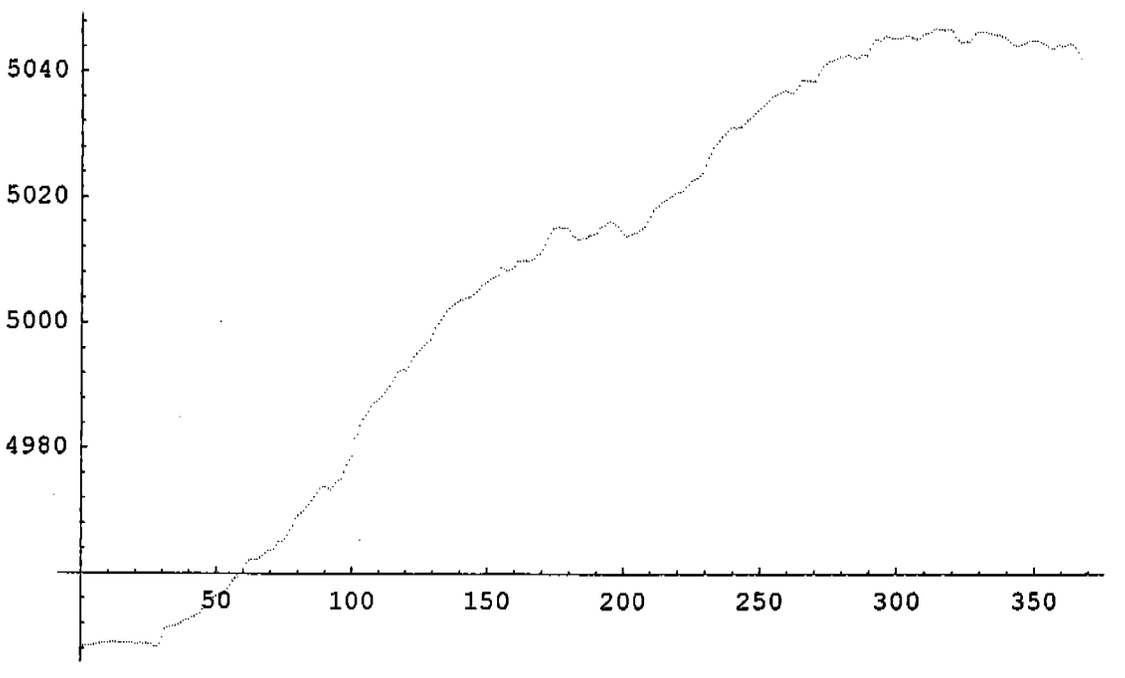


Auvernge Airborne Magnetometer Survey Line 2380

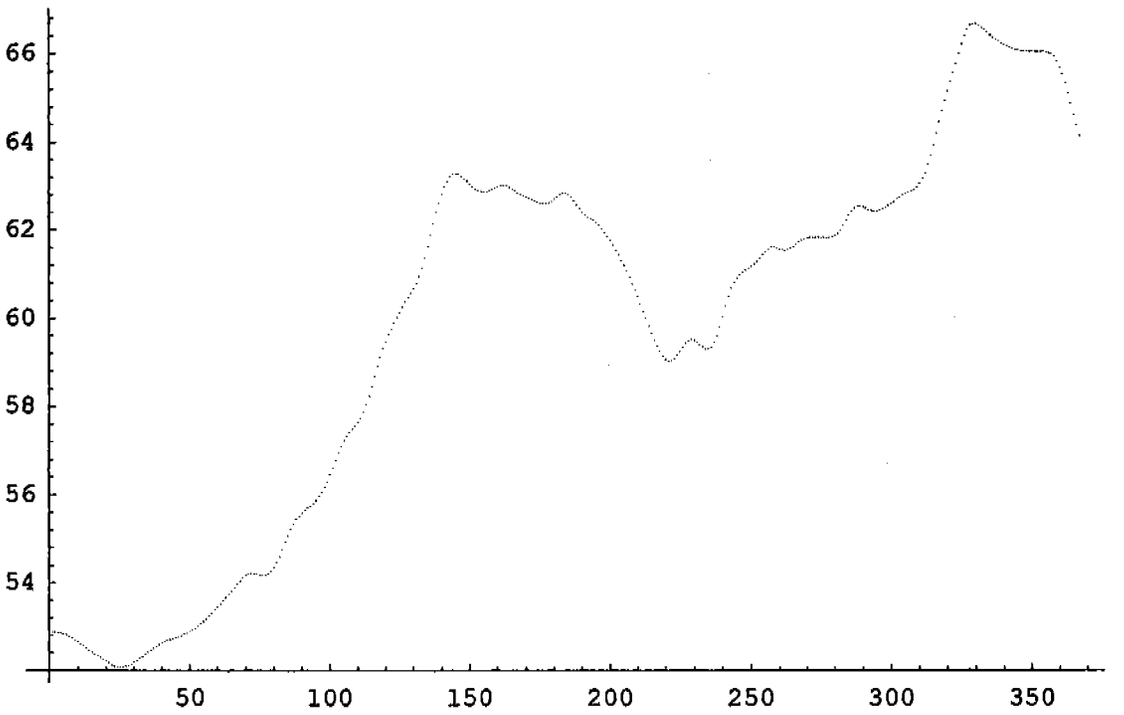


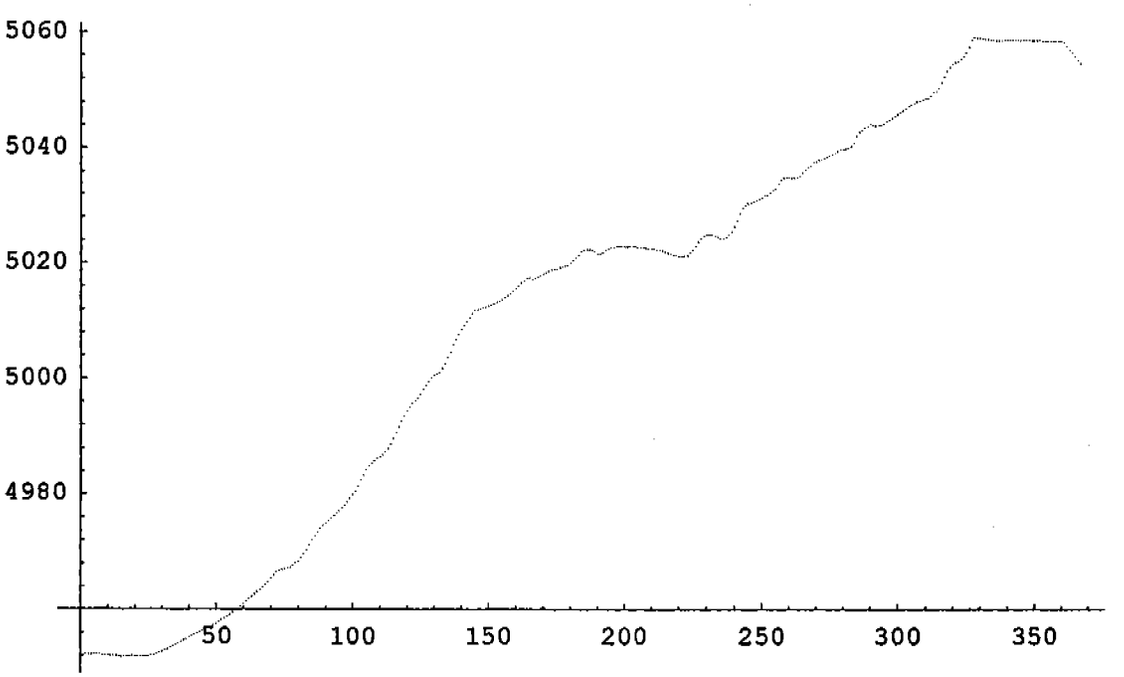
Auvernge Airborne Magnetometer Survey Line 2390



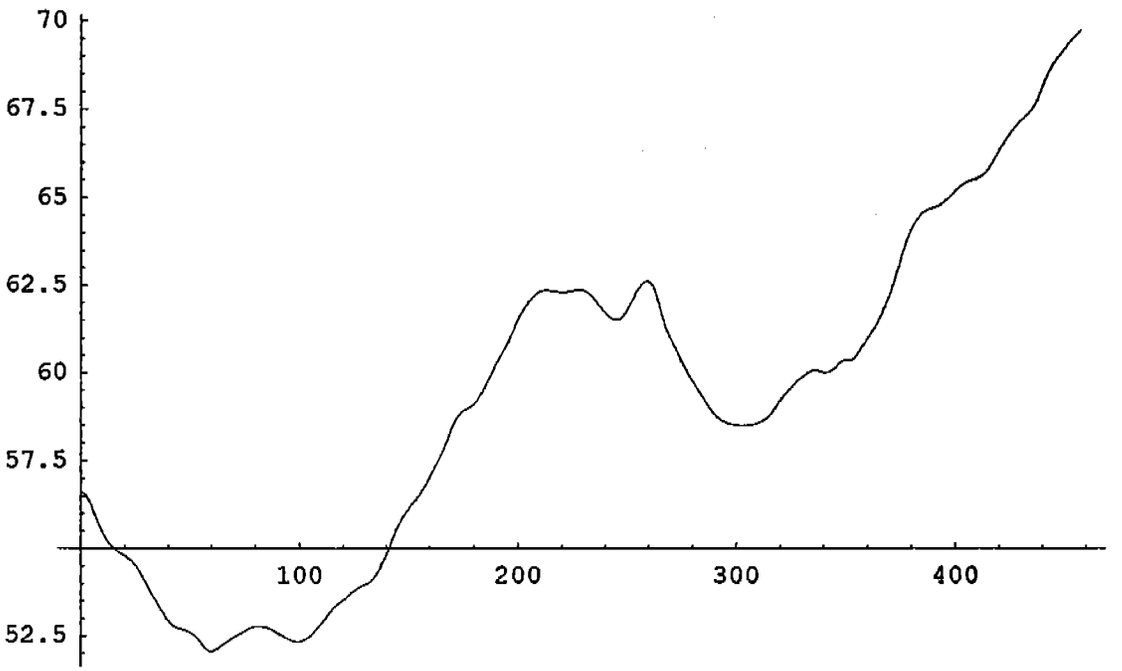


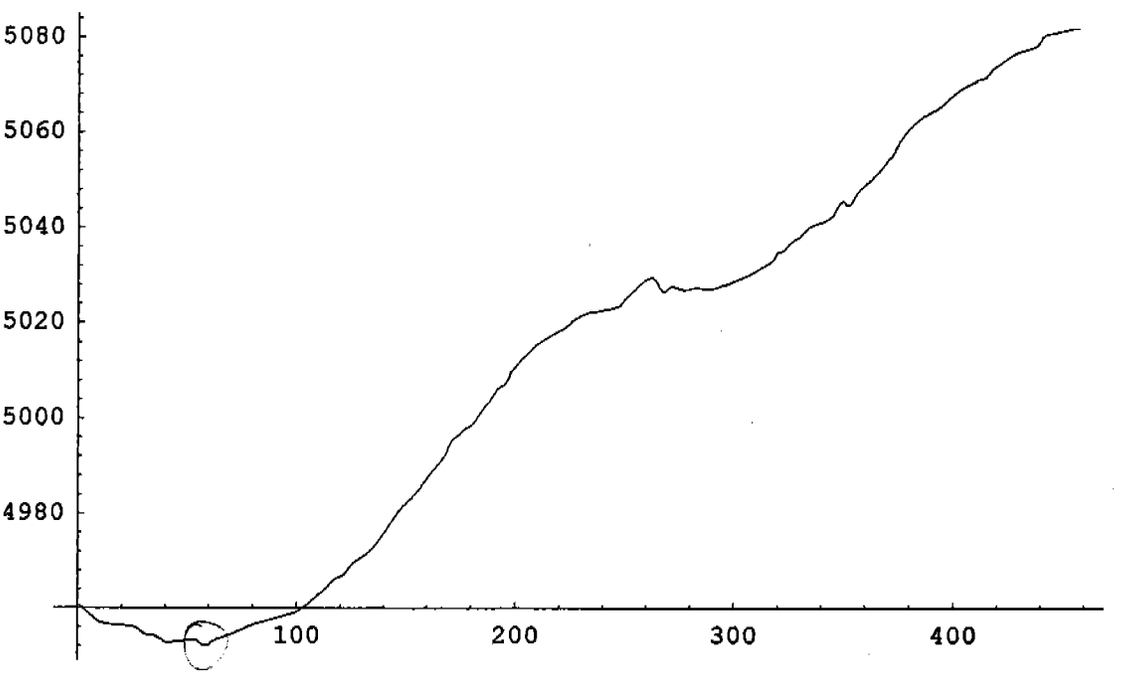
Auvernge Airborne Magnetometer Survey Line 2400





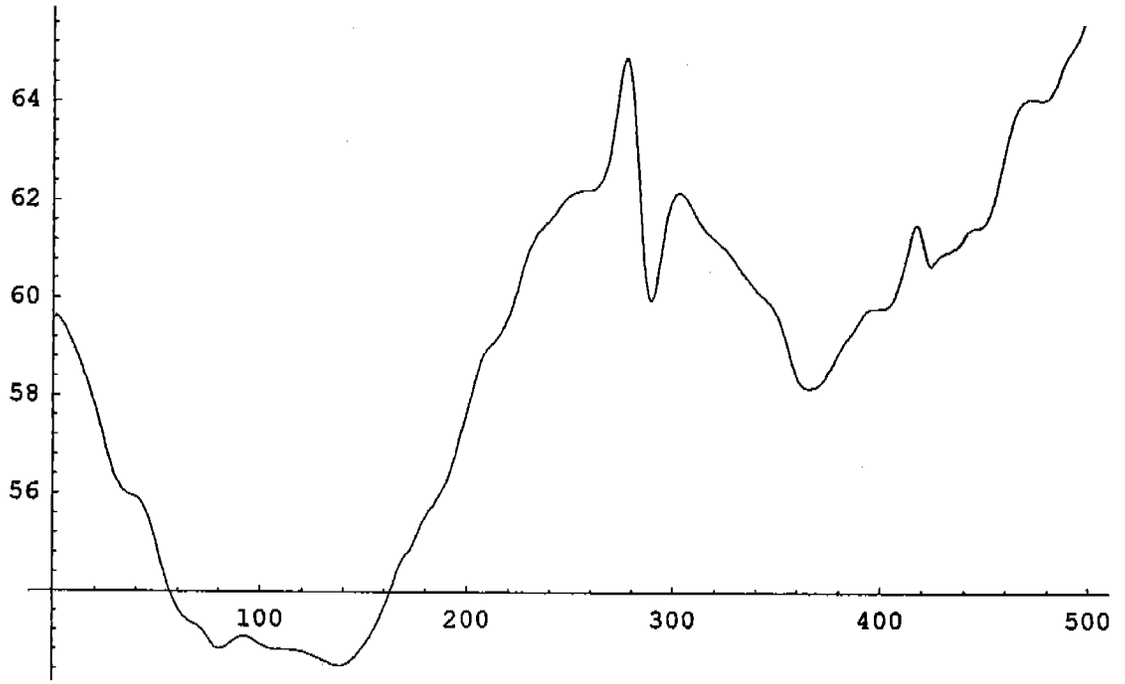
Auvernge Airborne Magnetometer Survey Line 2410



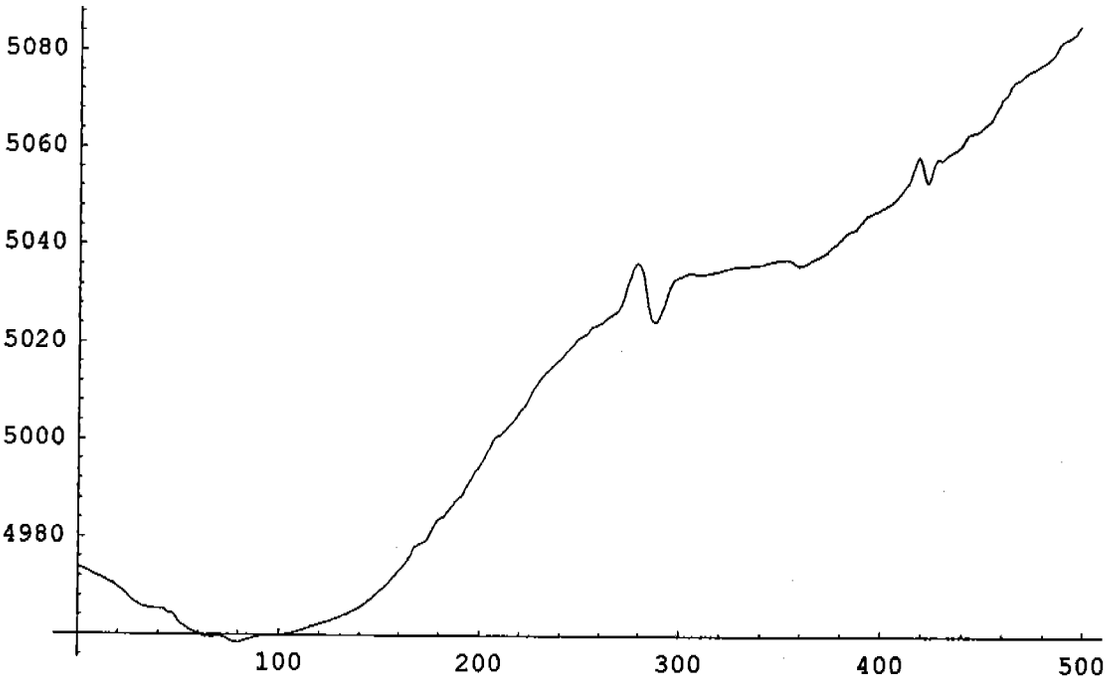


Auvernge Airborne Magnetometer Survey Line 2420

TMI response from top 800m

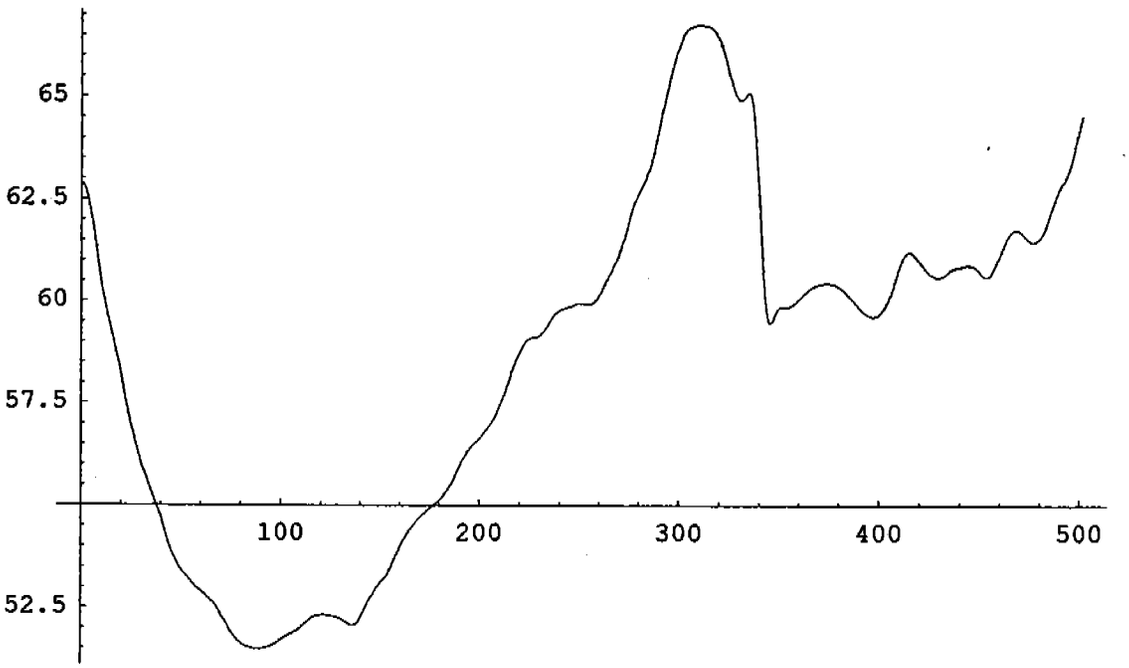


IGRF Corrected TMI

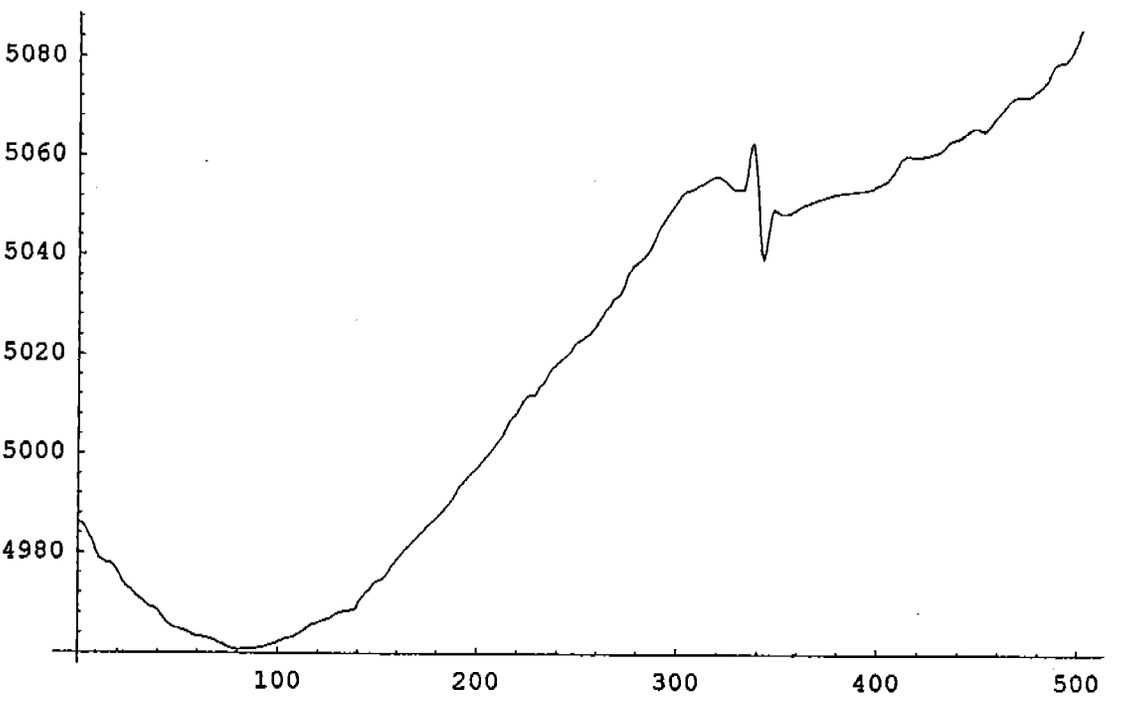


Auvernge Airborne Magnetometer Survey Line 2430

TMI response from top 800m

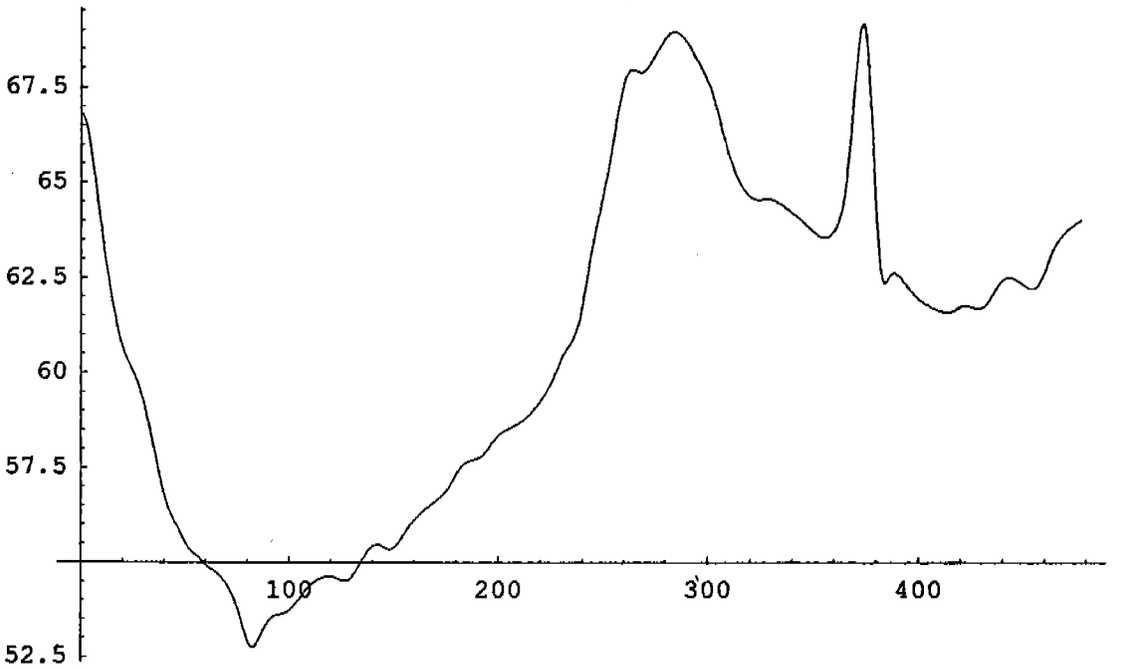


IGRF Corrected TMI

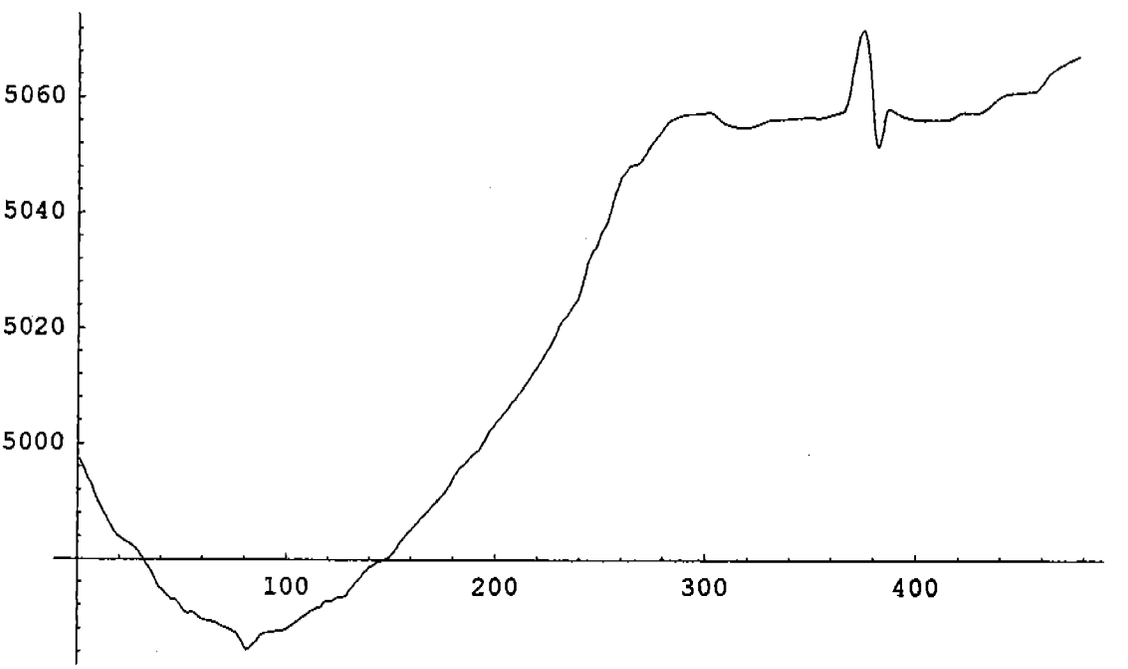


Auvernge Airborne Magnetometer Survey Line 2450

TMI response from top 820m

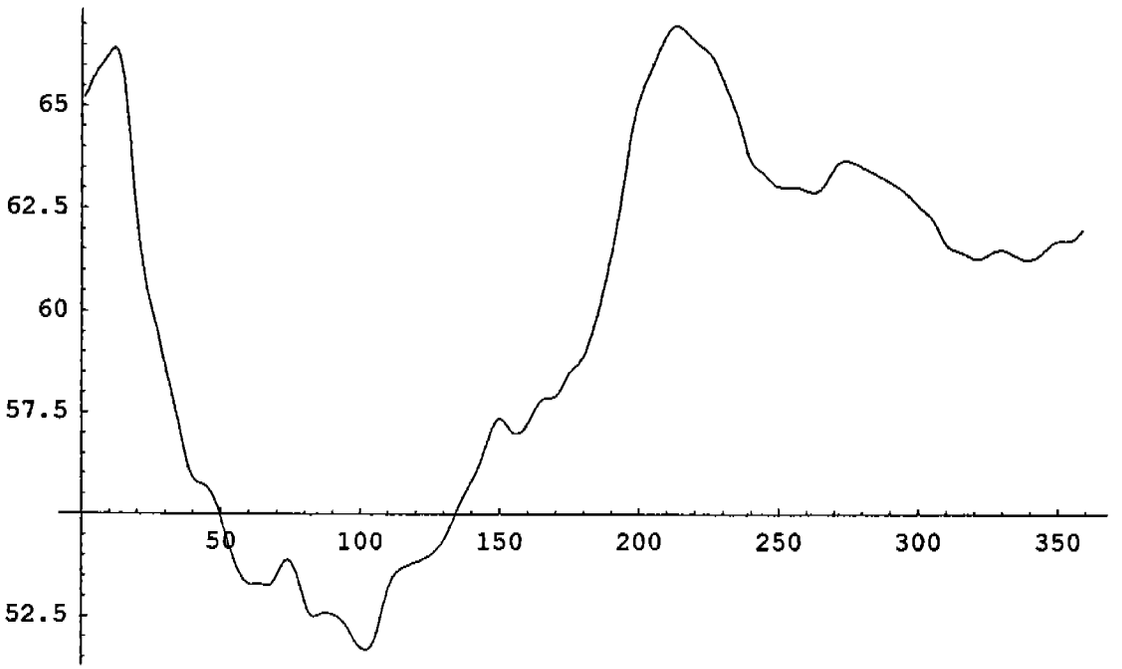


IGRF Corrected TMI

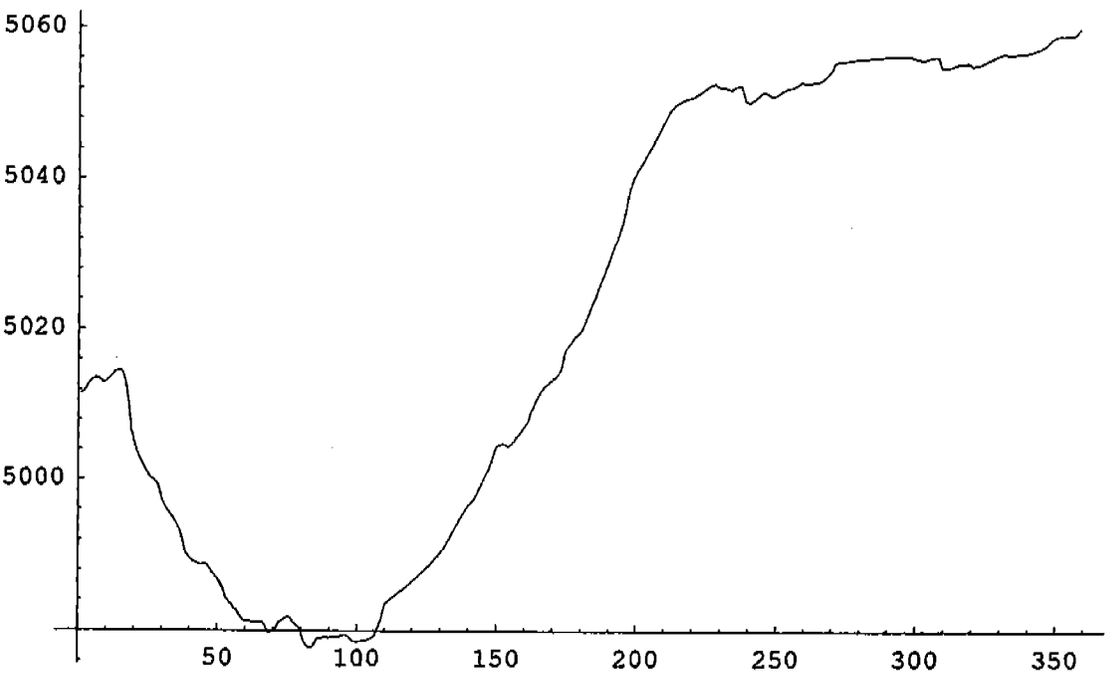


Auvernge Airborne Magnetometer Survey Line 2460

TMI response from top 820m

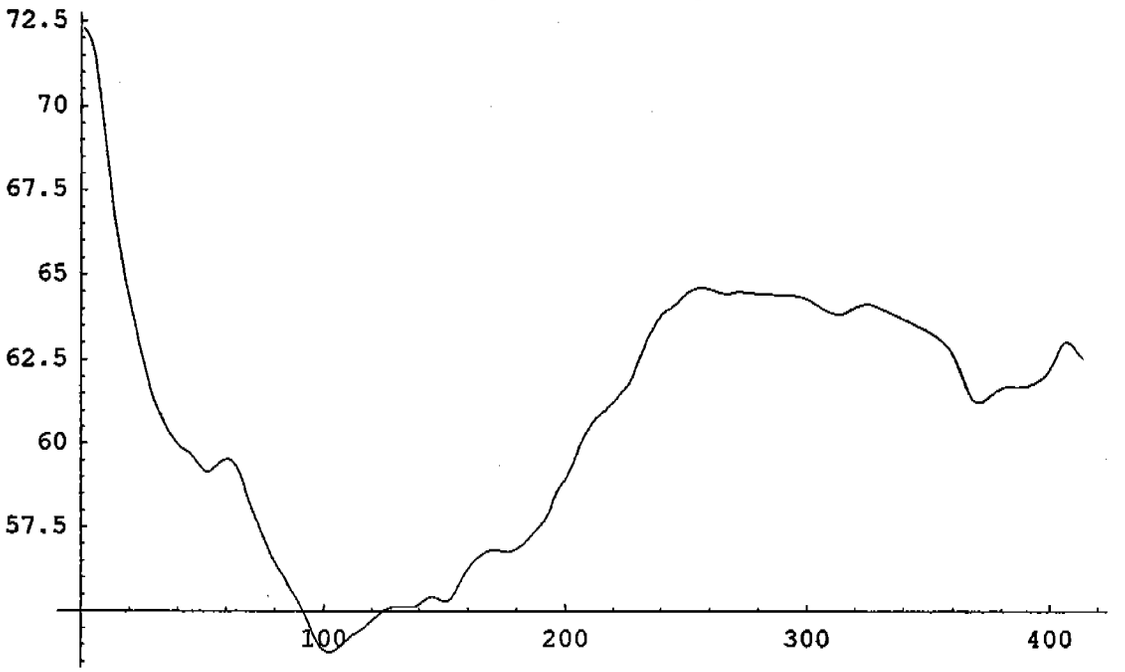


IGRF Corrected TMI

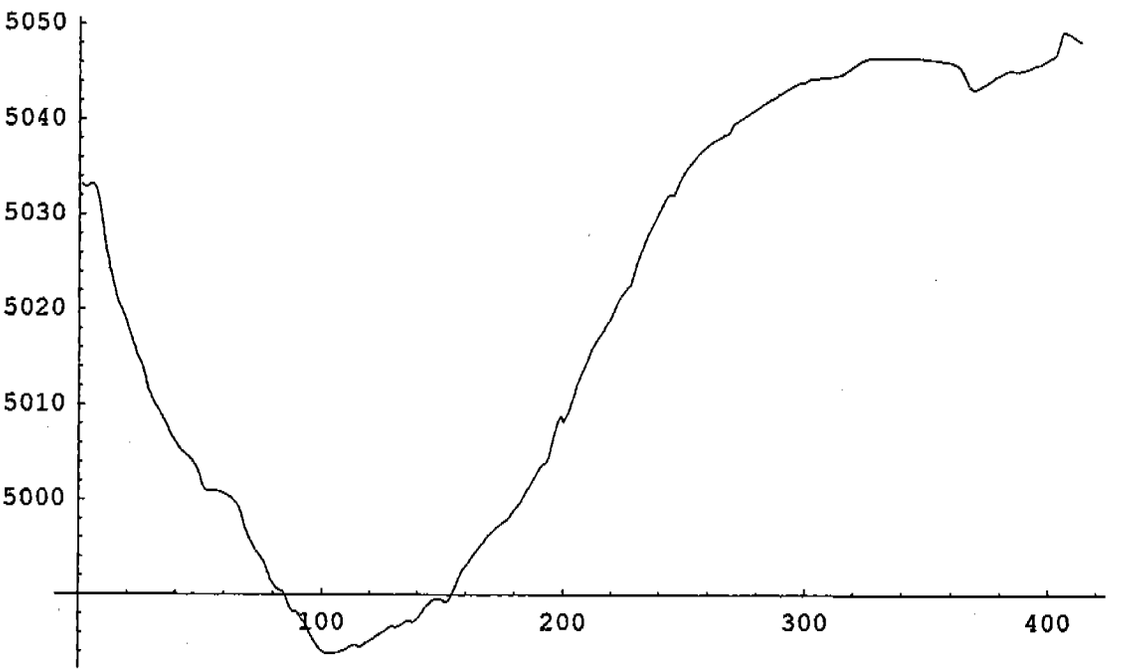


Auvernge Airborne Magnetometer Survey Line 2480

TMI response from top 820m

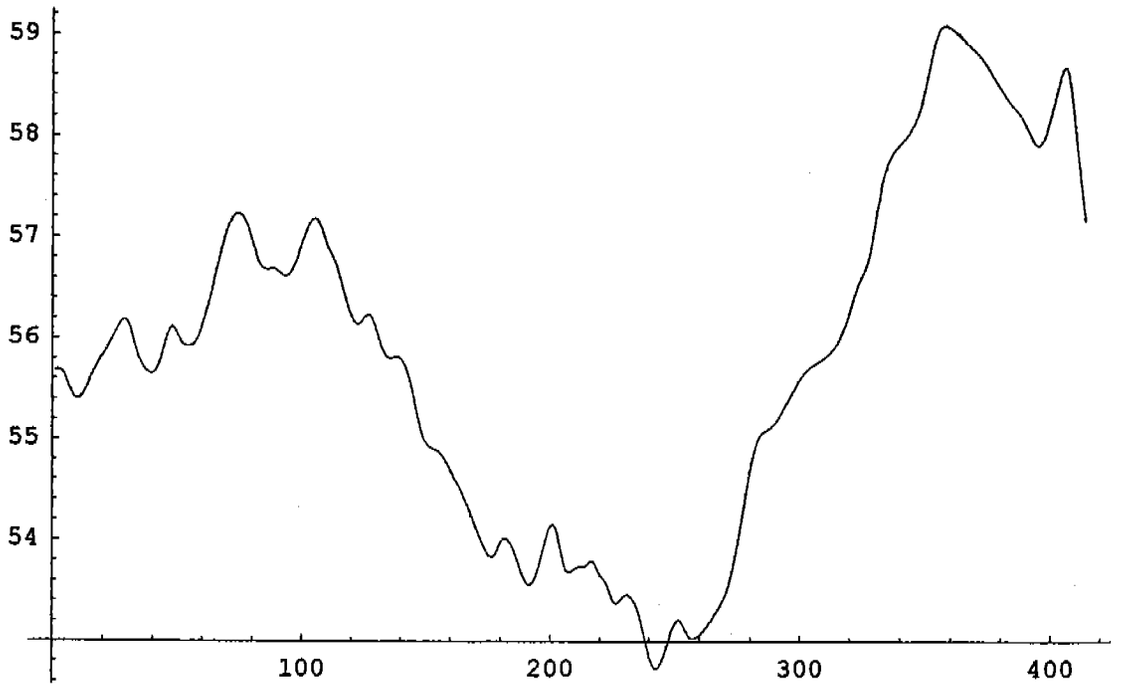


IGRF Corrected TMI

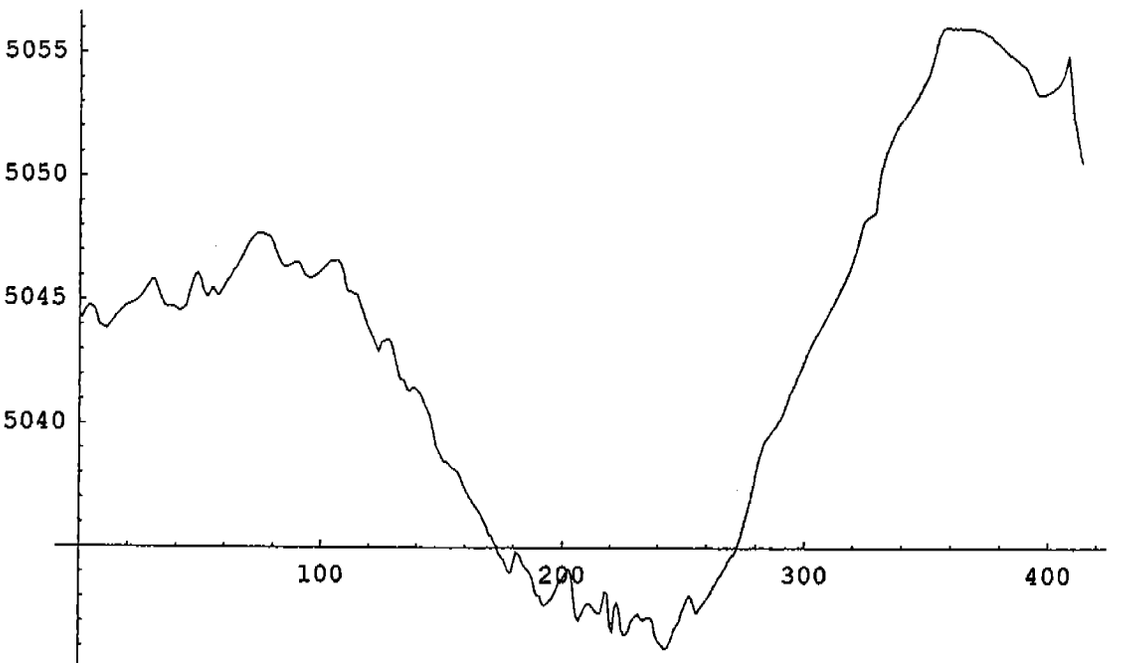


Auvergne Airborne Magnetometer Survey Line 2590

TMI response from top 700m

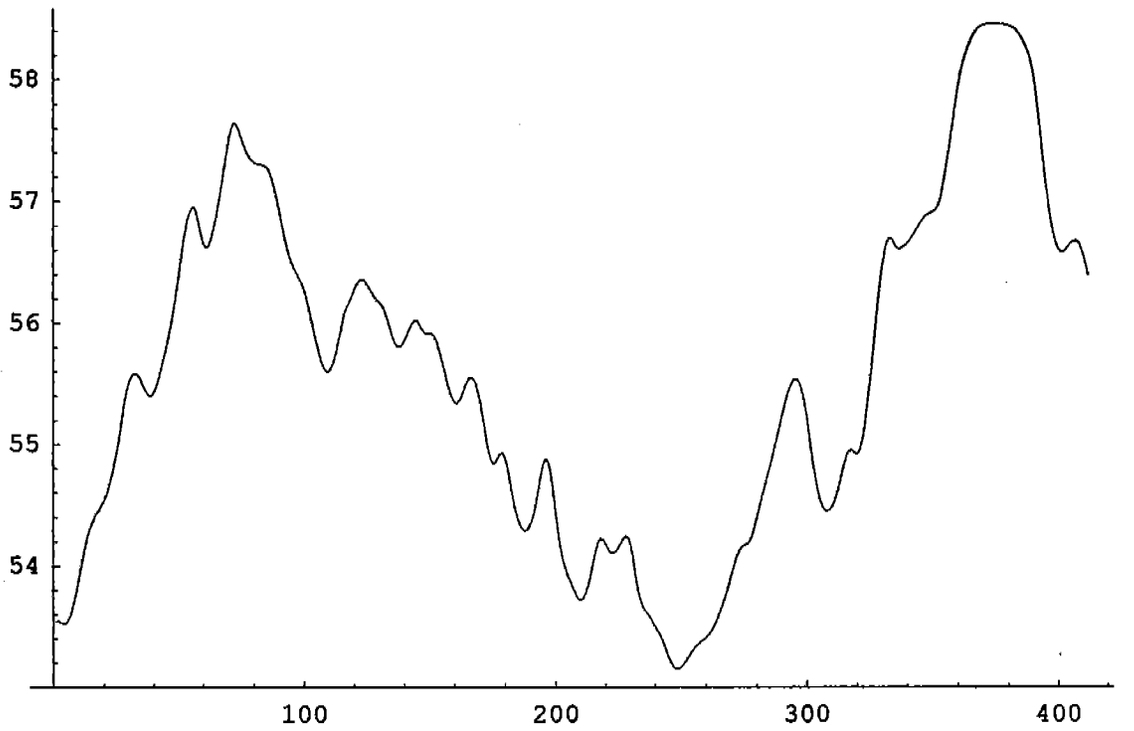


IGRF Corrected TMI

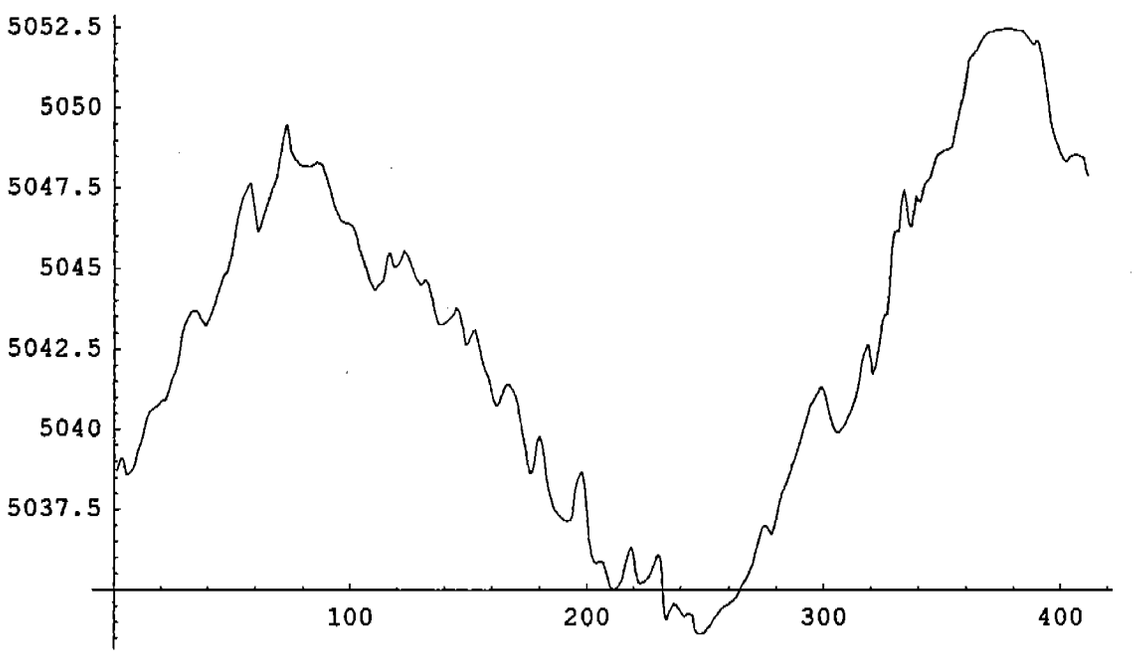


Auvergne Airborne Magnetometer Survey Line 2610

TMI response from top 700m

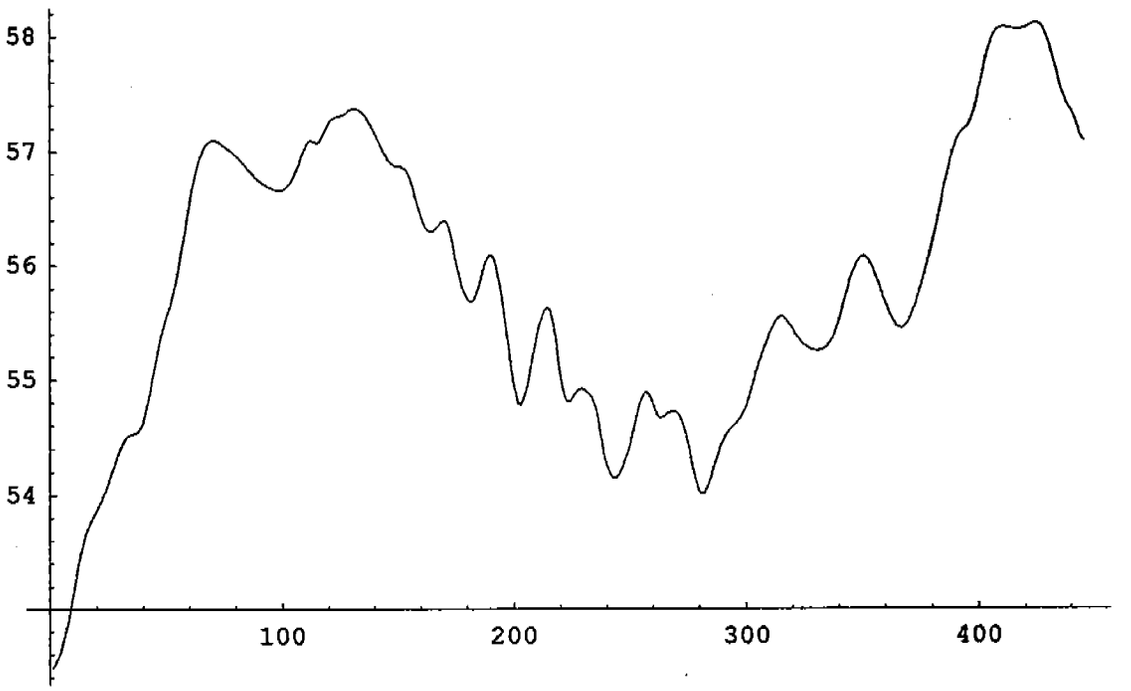


IGRF Corrected TMI

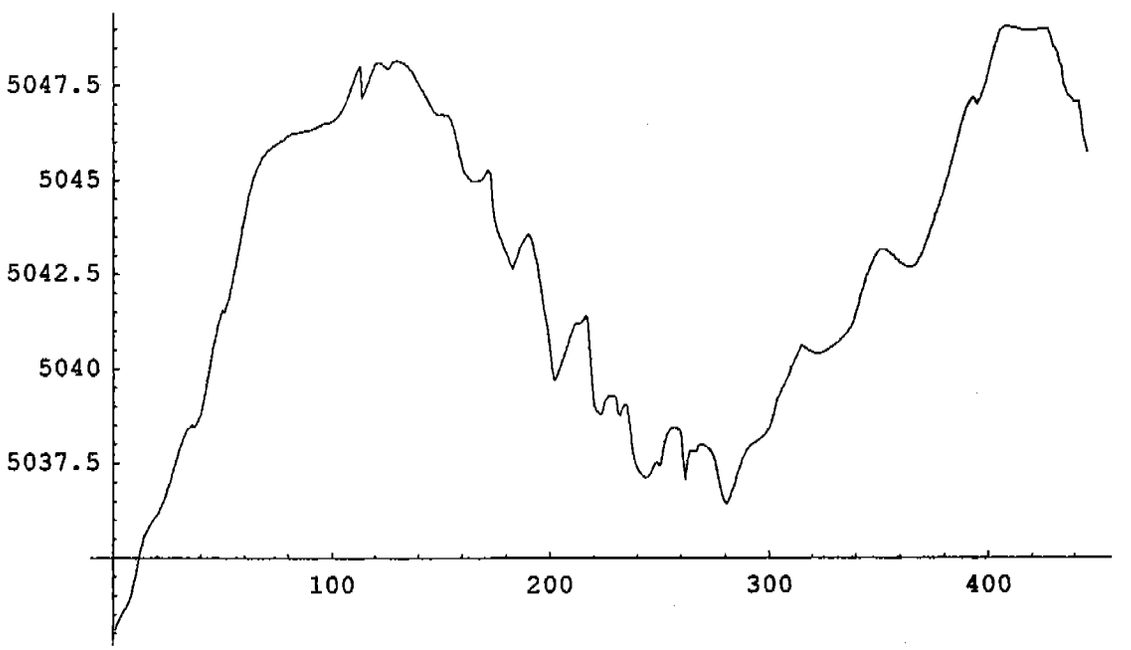


Auvergne Airborne Magnetometer Survey Line 2620

TMI response from top 700m

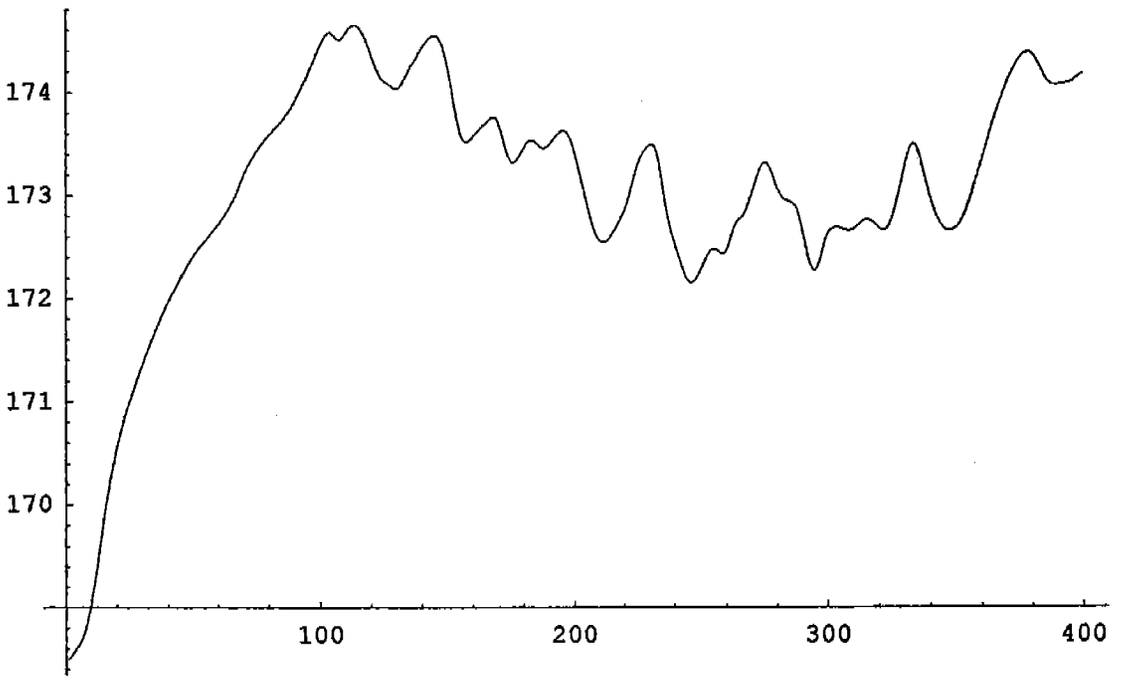


IGRF Corrected TMI

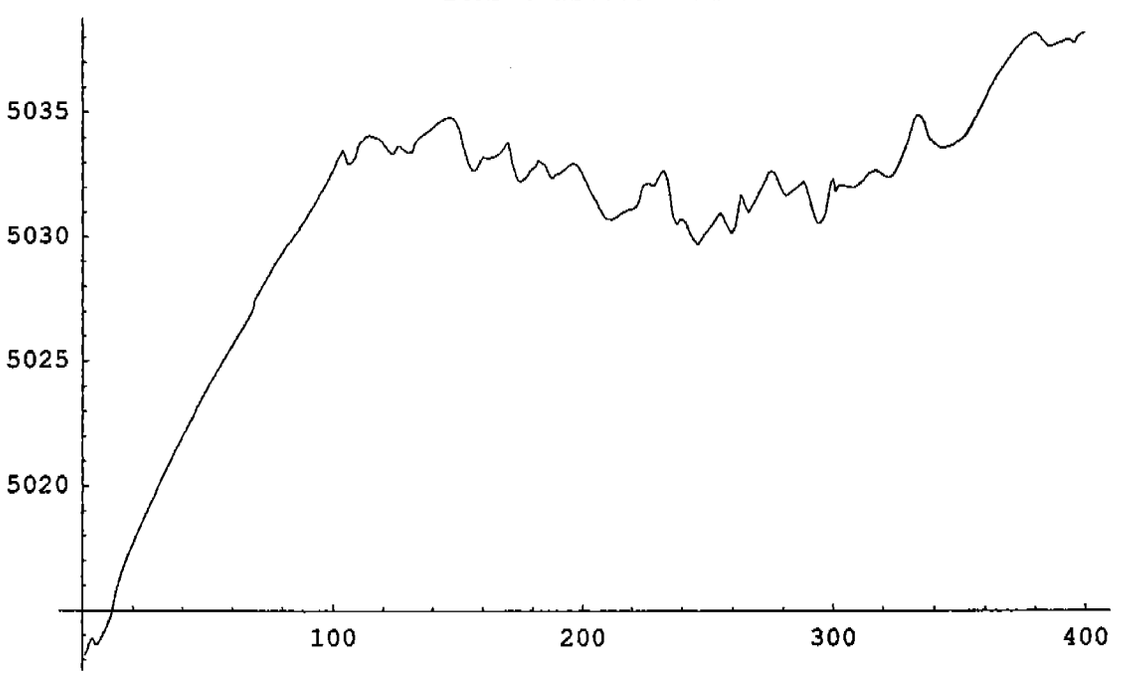


Auvergne Airborne Magnetometer Survey Line 2660

TMI response from top 700m

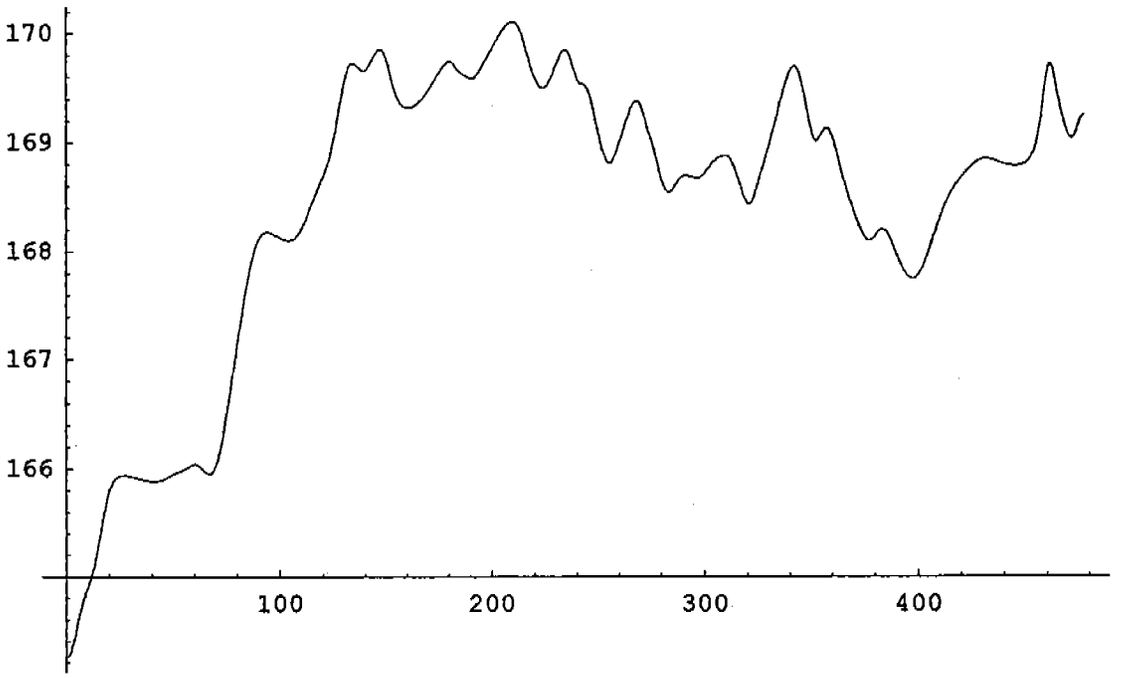


IGRF Corrected TMI

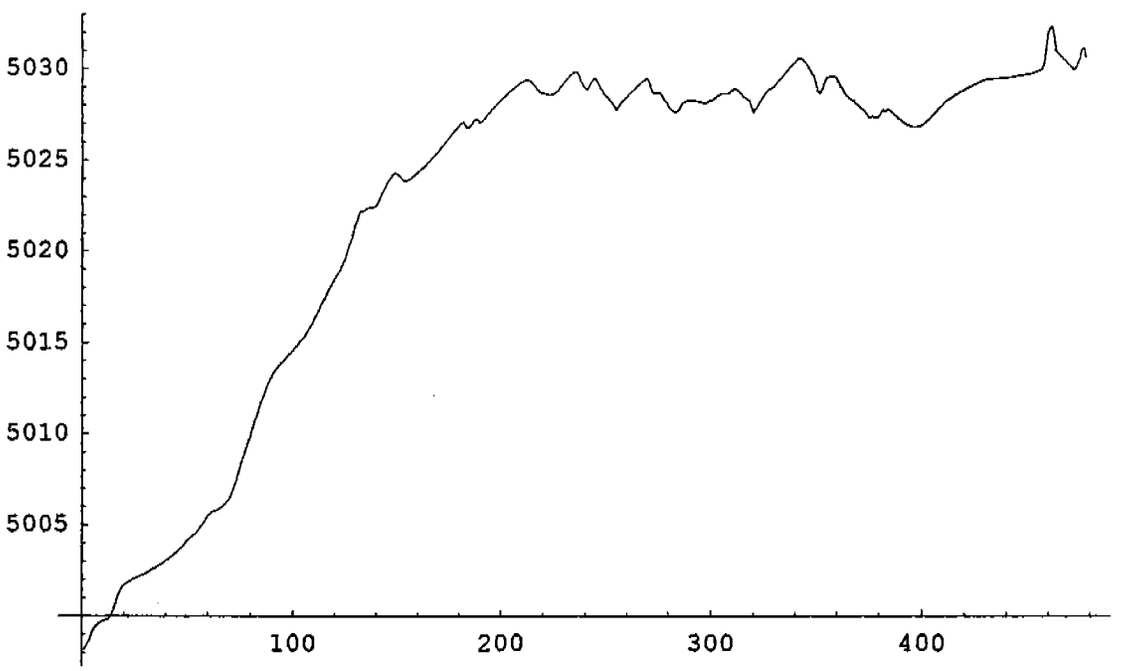


Auvergne Airborne Magnetometer Survey Line 2670

TMI response from top 700m

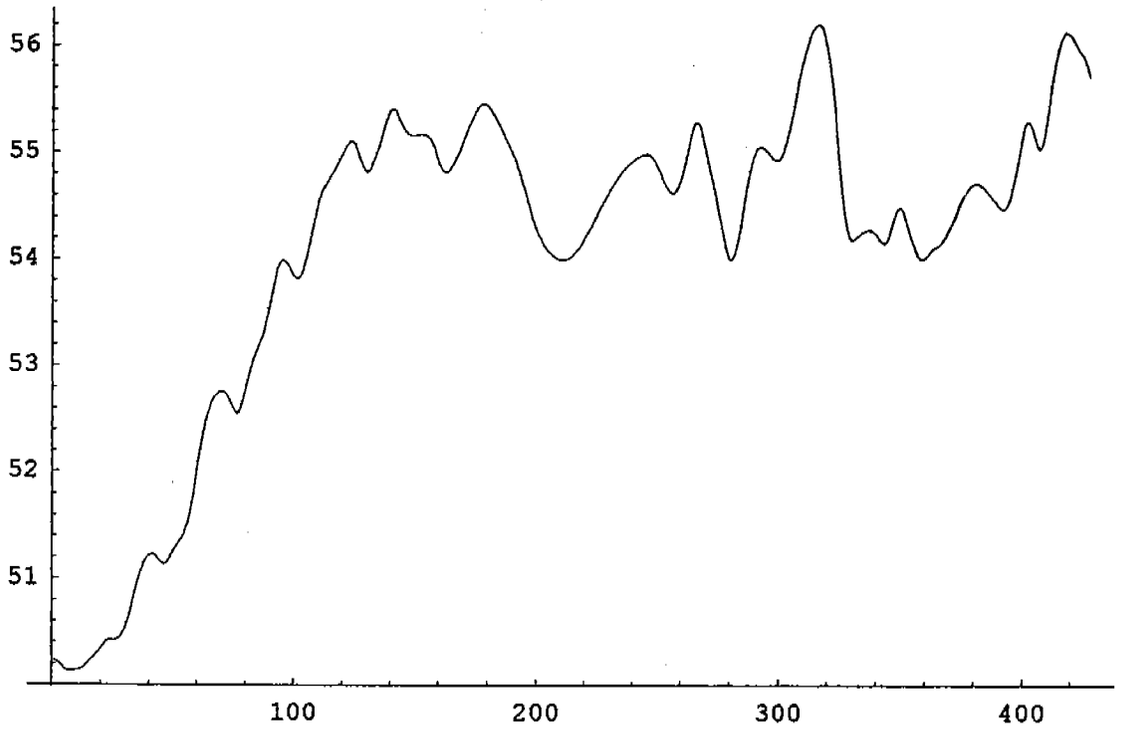


IGRF Corrected TMI



Auvergne Airborne Magnetometer Survey Line 2680

TMI response from top 700m



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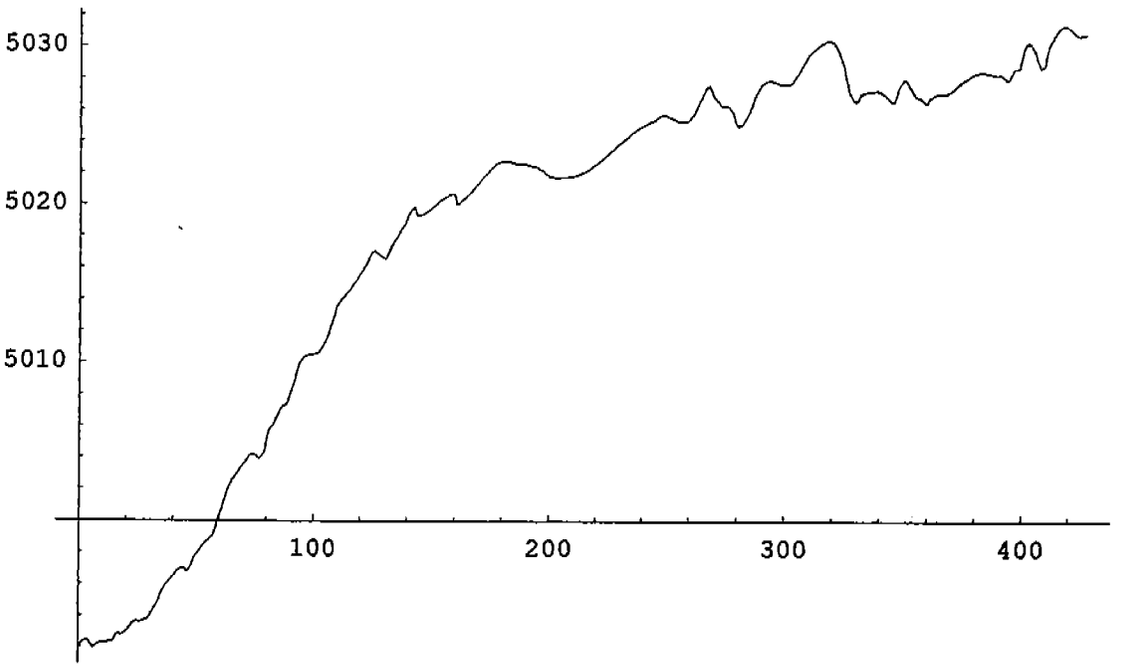
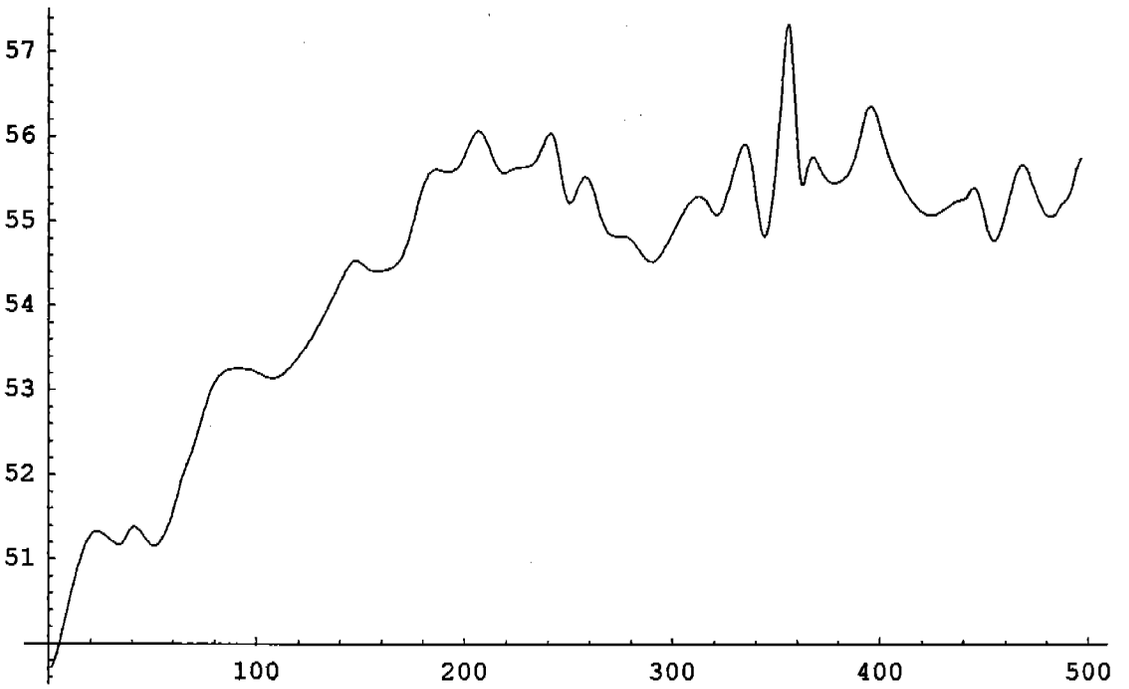
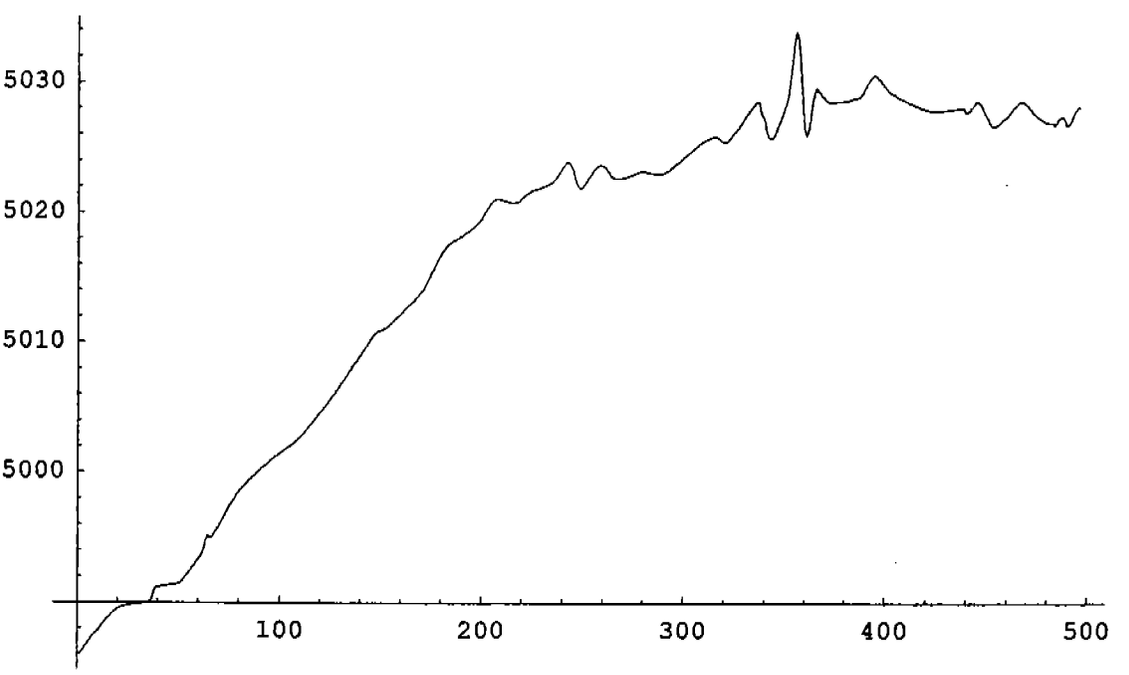


Auvergne Airborne Magnetometer Survey Line 2690

TMI response from top 700m

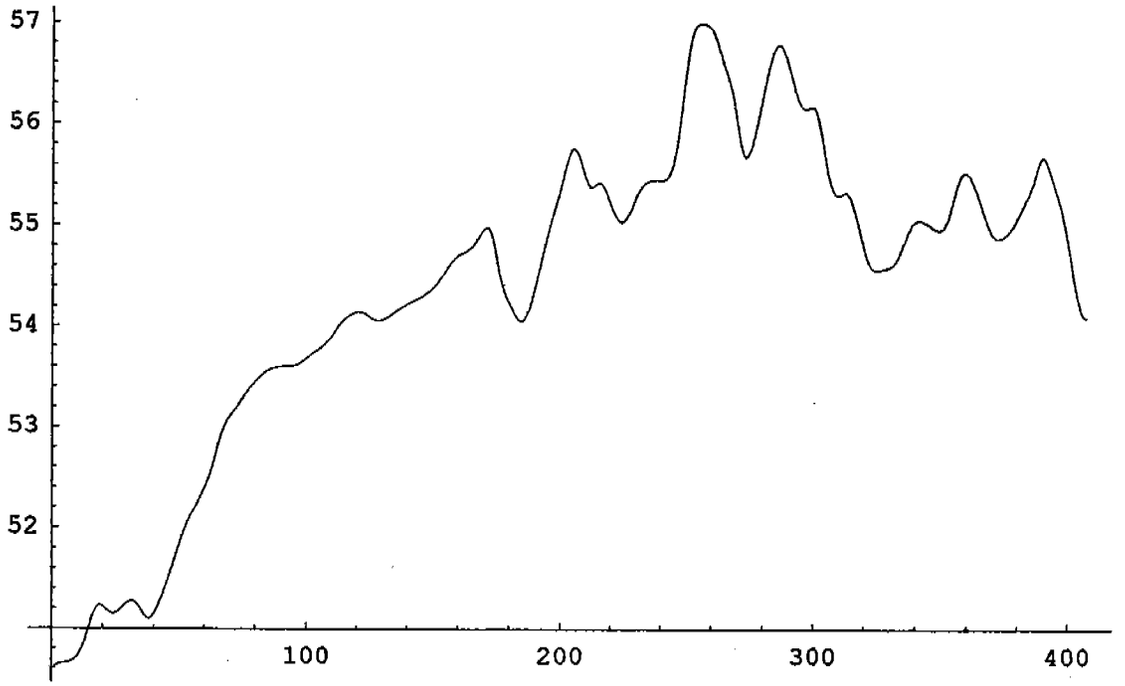


IGRF Corrected TMI

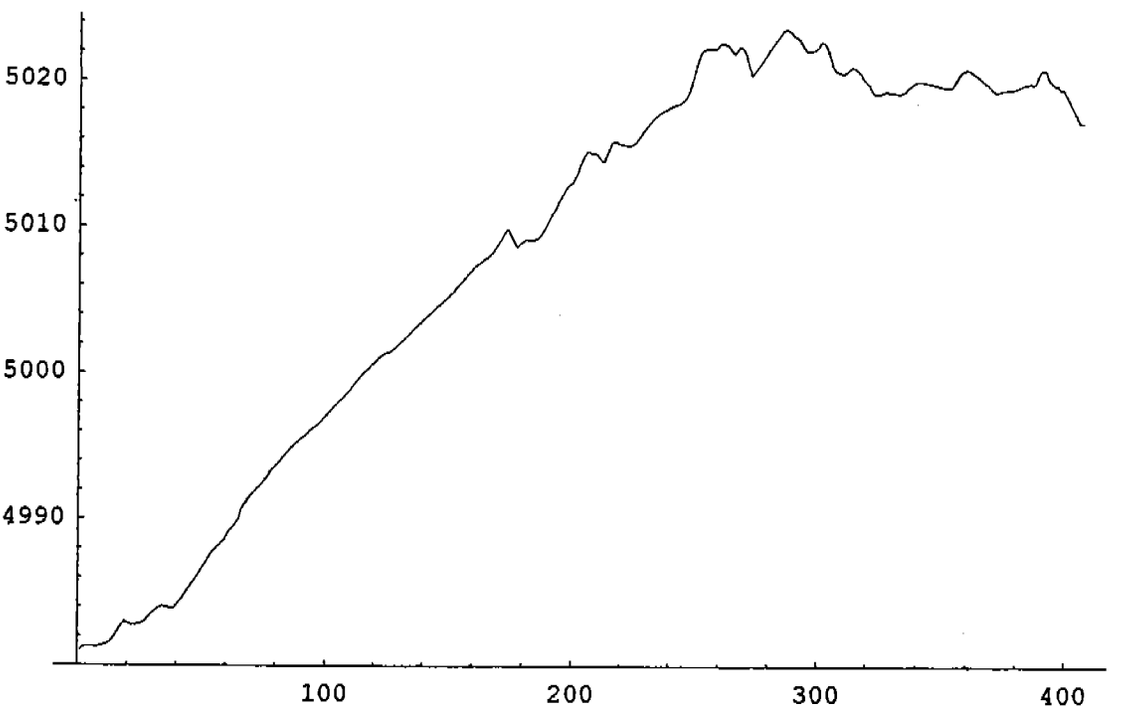


Auvergne Airborne Magnetometer Survey Line 2700

TMI response from top 700m

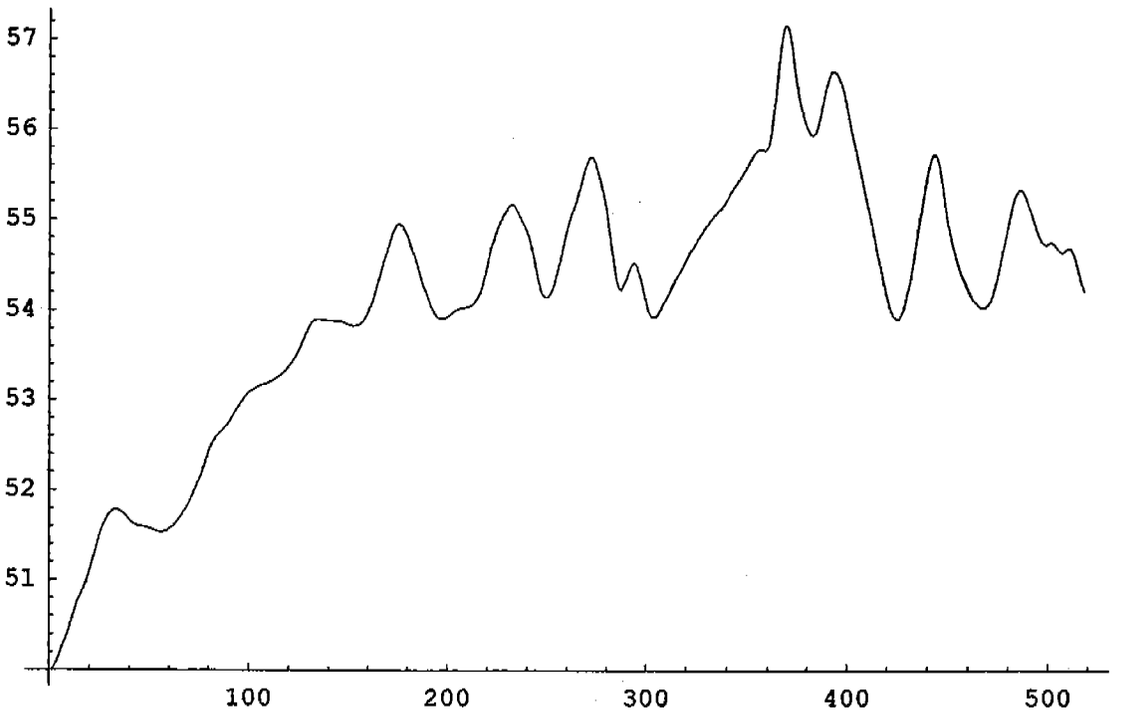


IGRF Corrected TMI

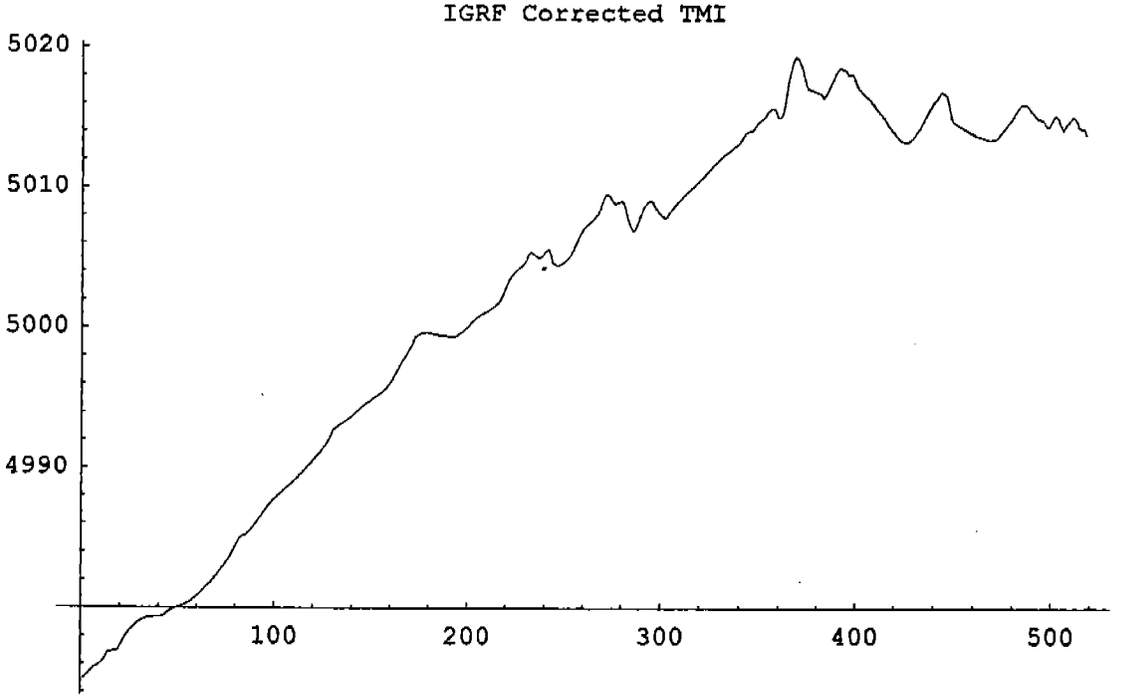


Auvergne Airborne Magnetometer Survey Line 2710

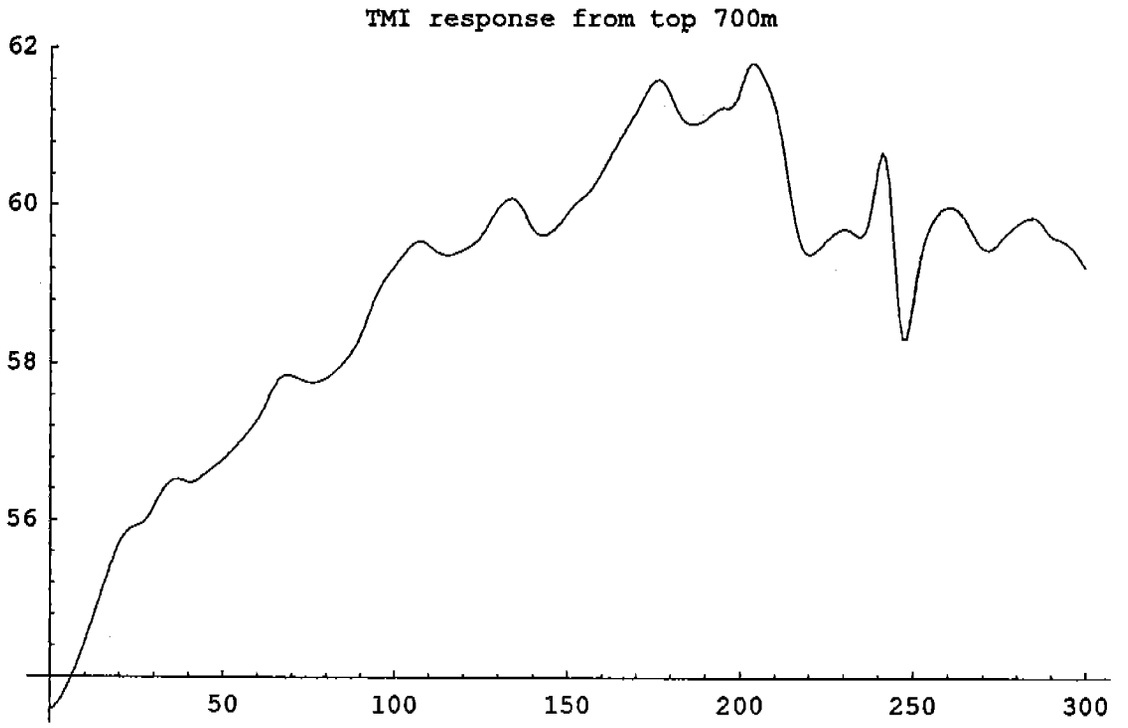
TMI response from top 700m

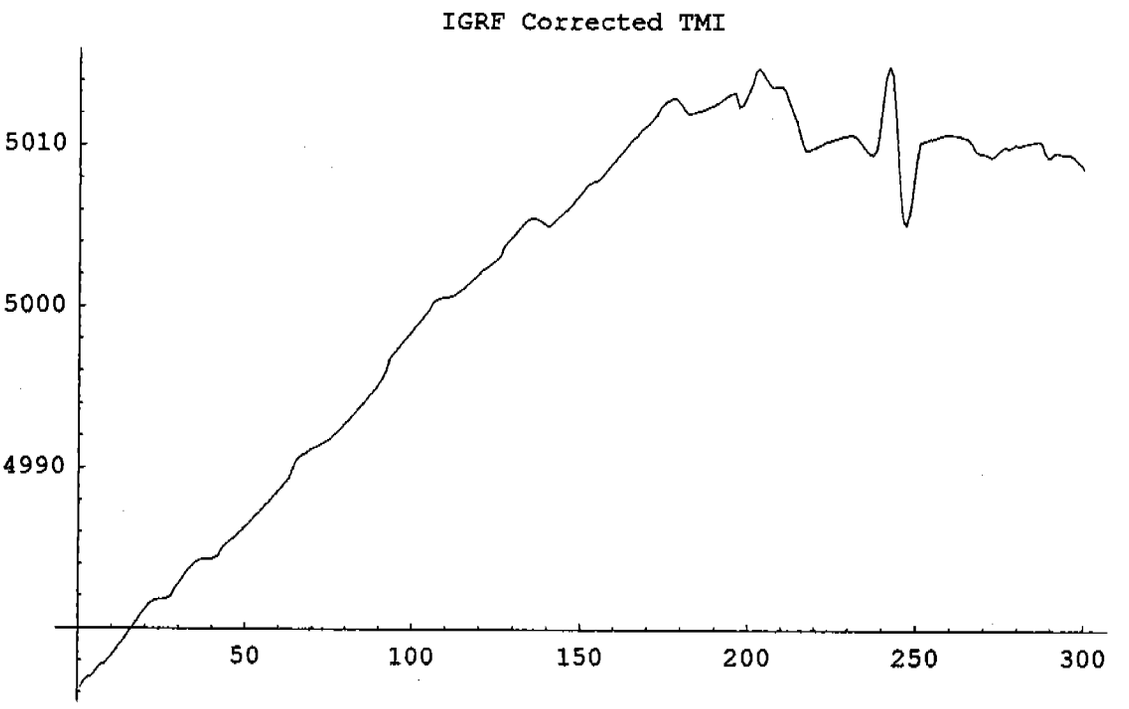


IGRF Corrected TMI



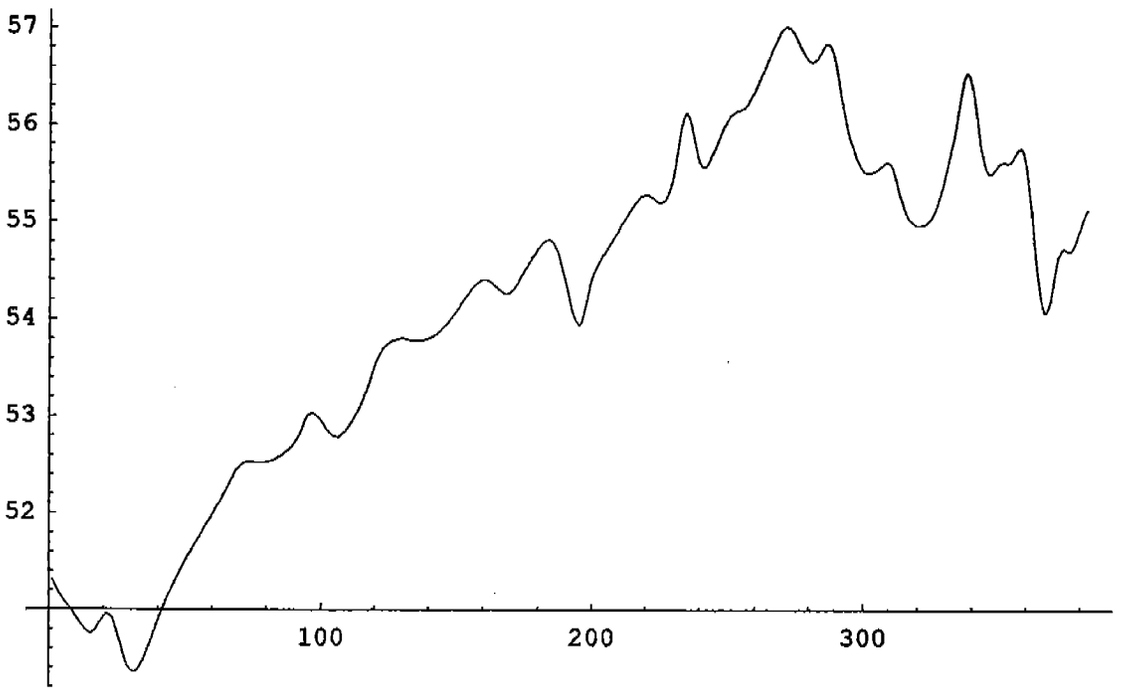
Auvergne Airborne Magnetometer Survey Line 2730



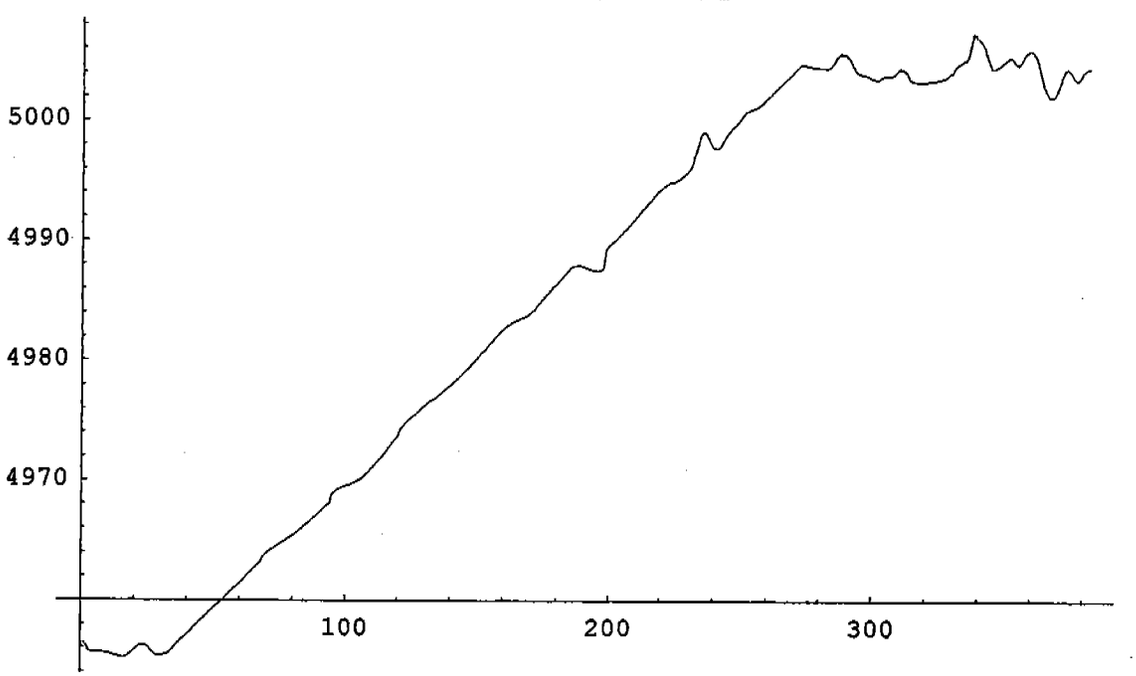


Auvergne Airborne Magnetometer Survey Line 2740

TMI response from top 700m

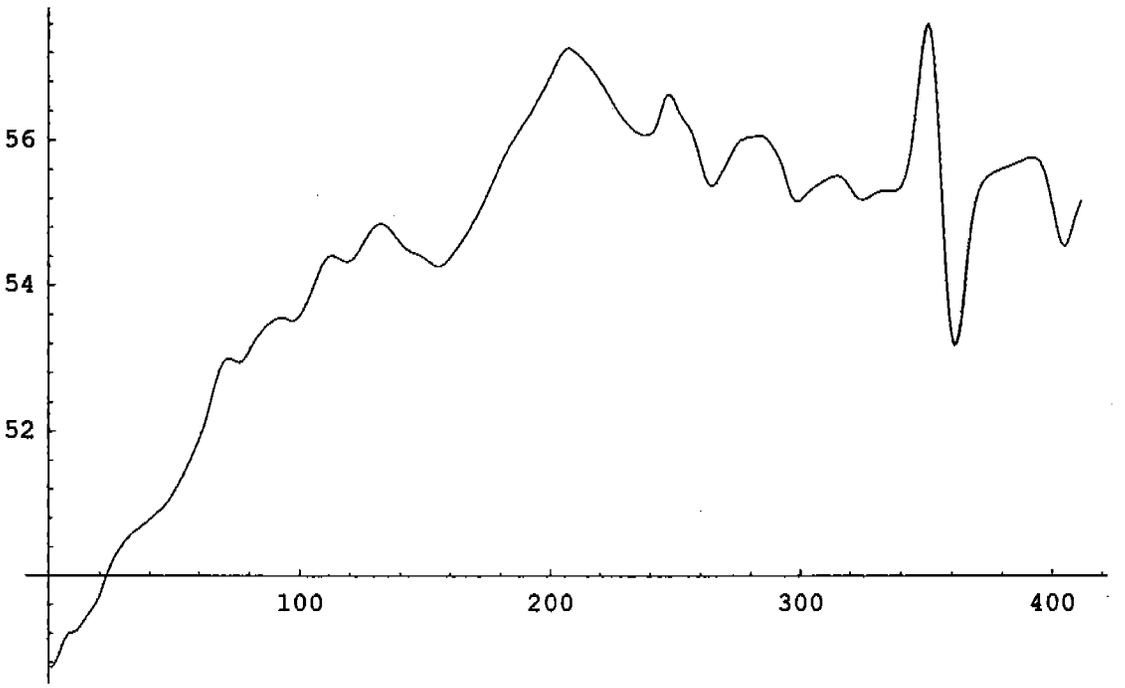


IGRF Corrected TMI

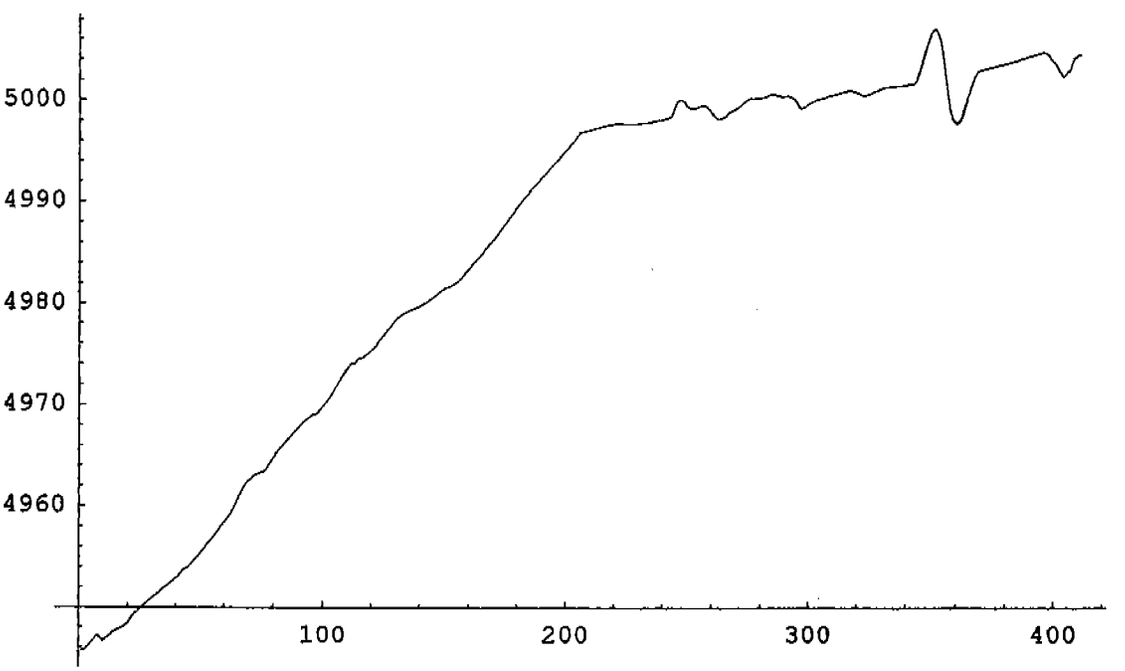


Auvergne Airborne Magnetometer Survey Line 2760

TMI response from top 700m

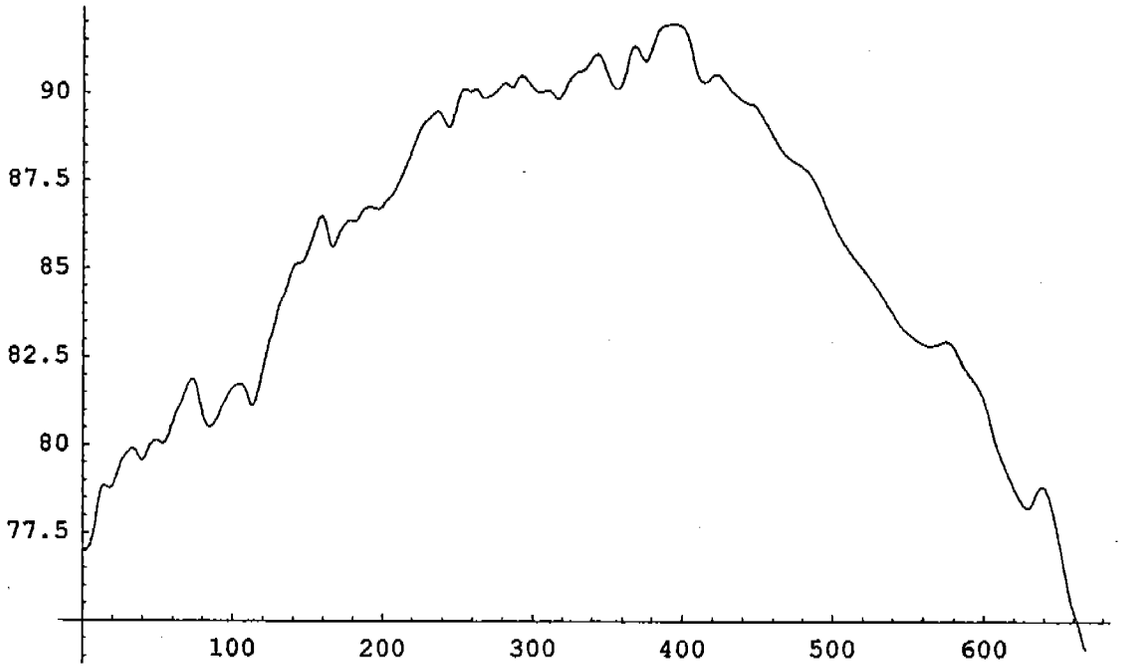


IGRF Corrected TMI

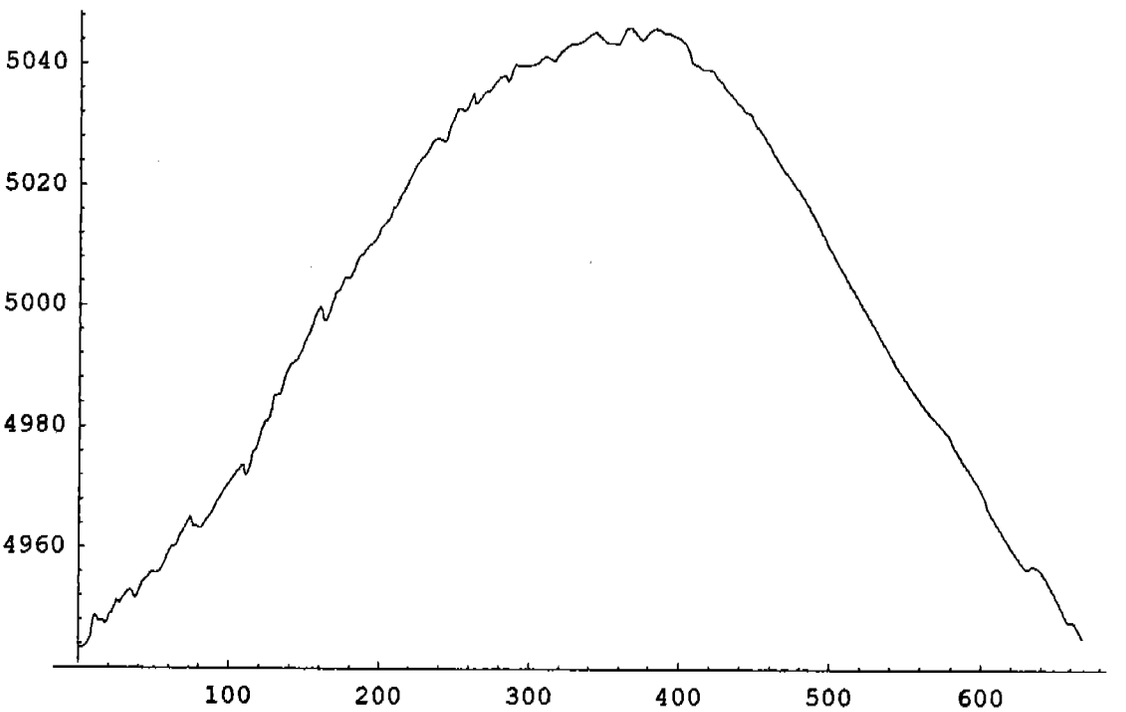


Auvergne Airborne Magnetometer Survey TieLine 9016

TMI response from top 700m

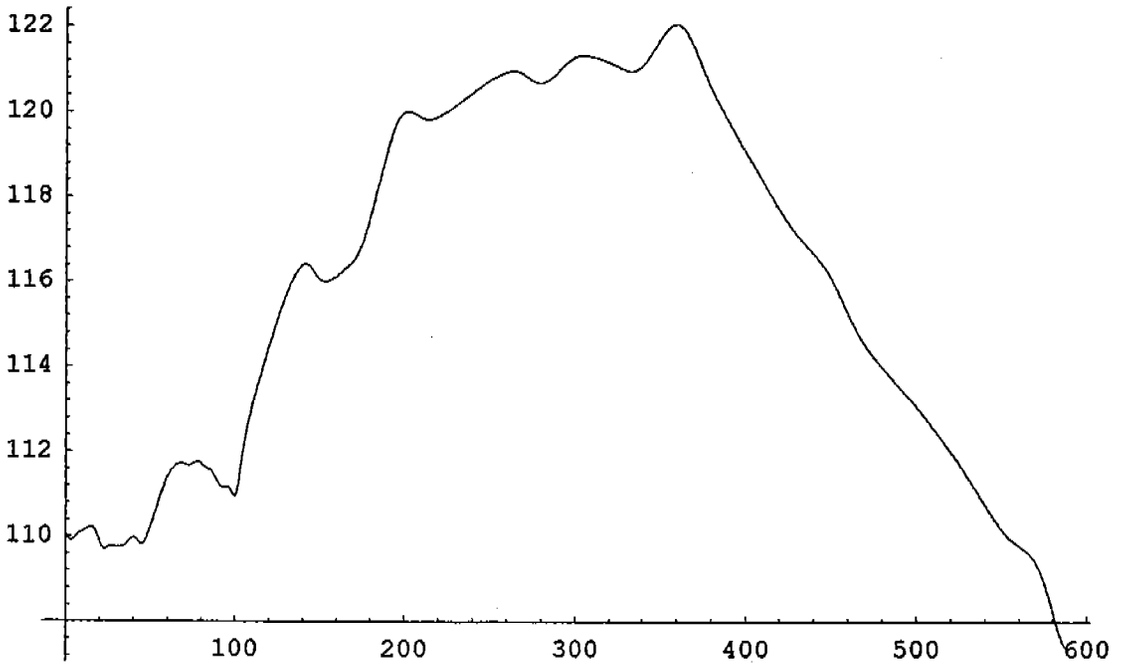


IGRF Corrected TMI

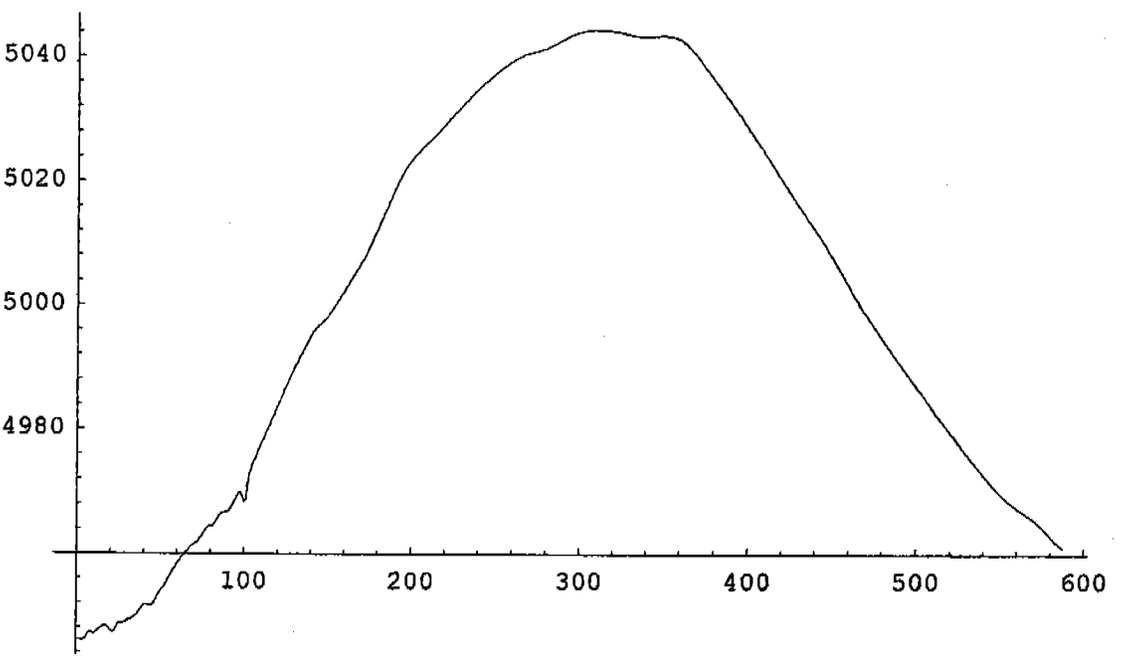


Auvergne Airborne Magnetometer Survey TieLine 9017

TMI response from top 700m

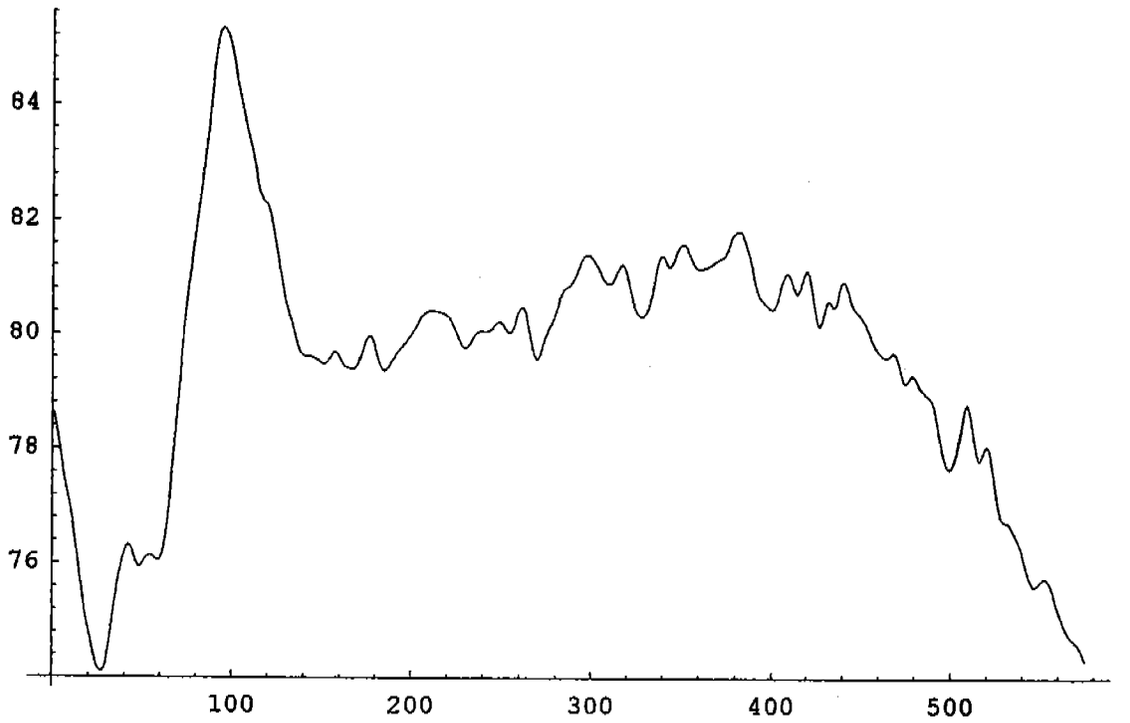


IGRF Corrected TMI

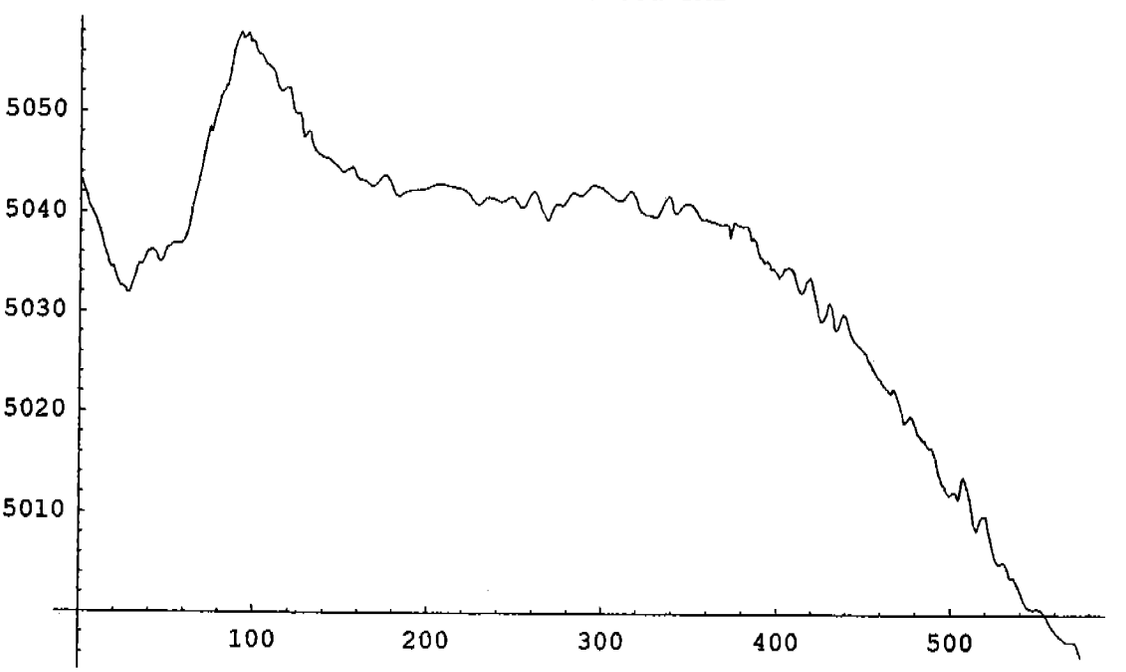


Auvergne Airborne Magnetometer Survey TieLine 9023

TMI response from top 700m

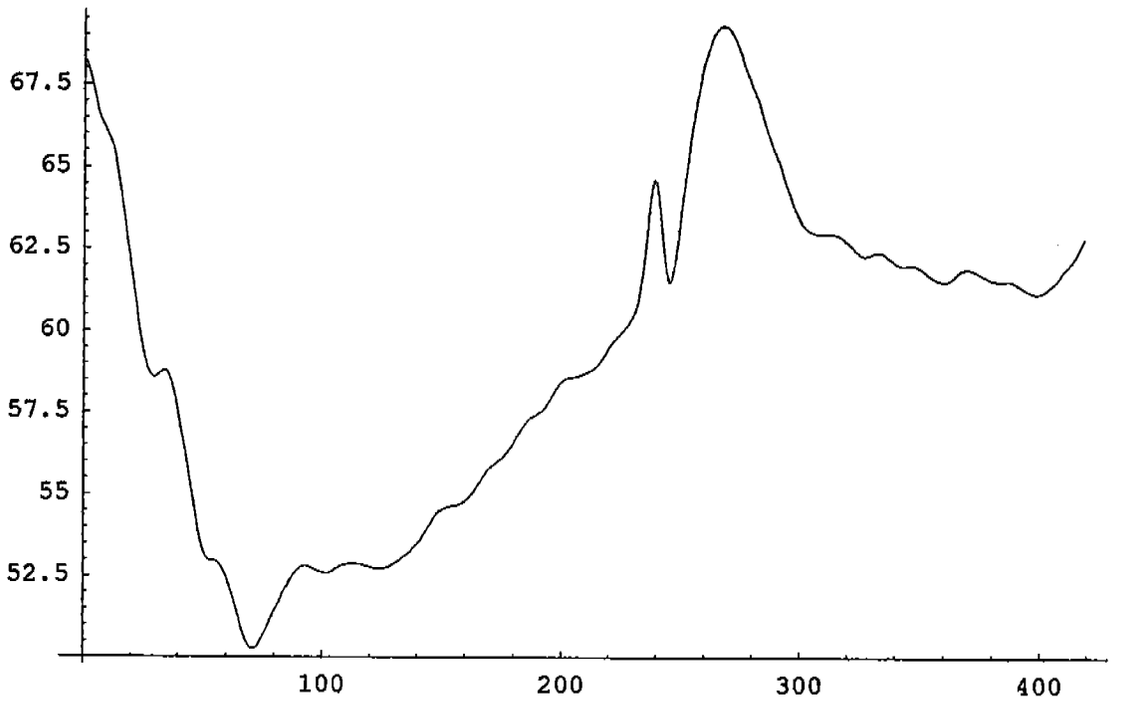


IGRF Corrected TMI

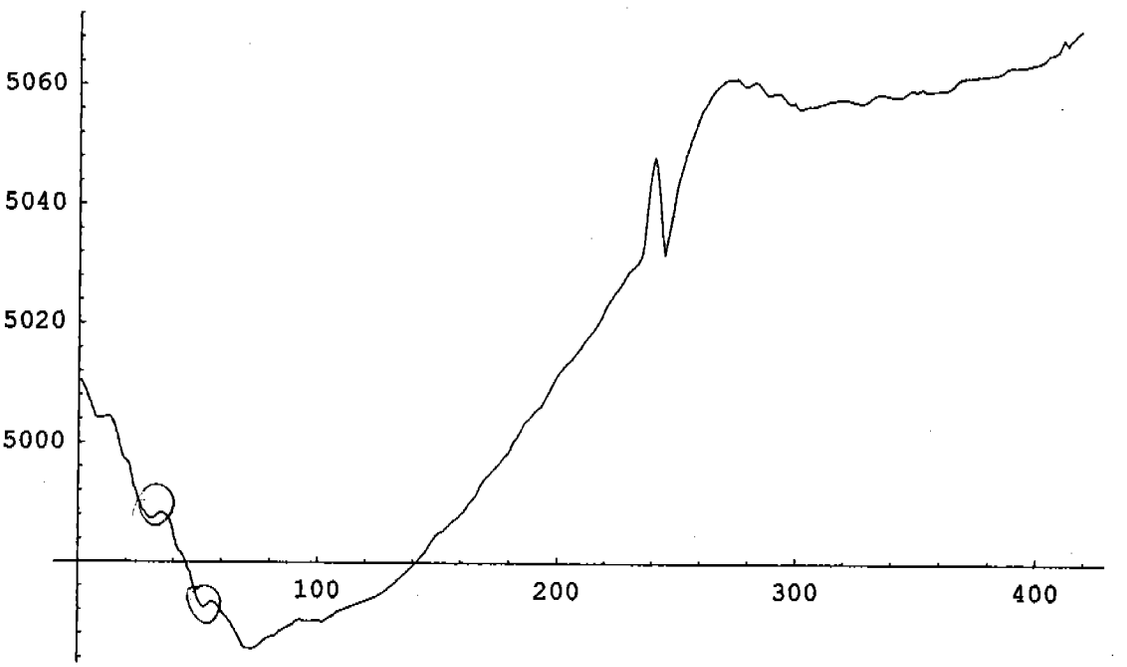


Auvernge Airborne Magnetometer Survey Line 2440

TMI response from top 800m

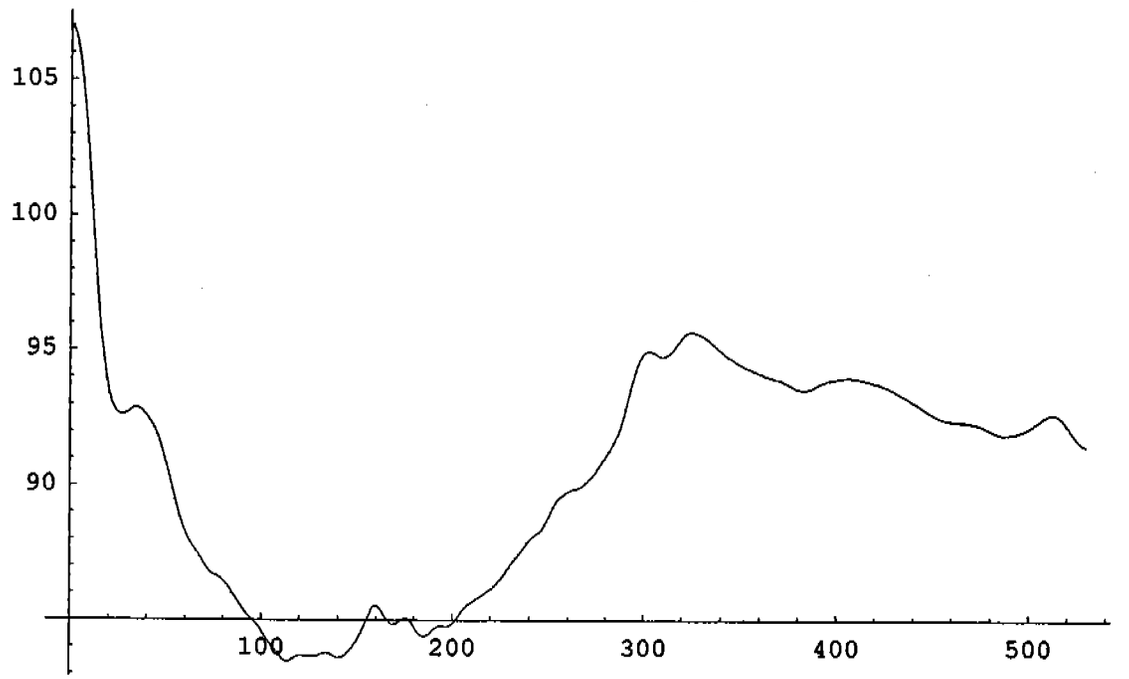


IGRF Corrected TMI

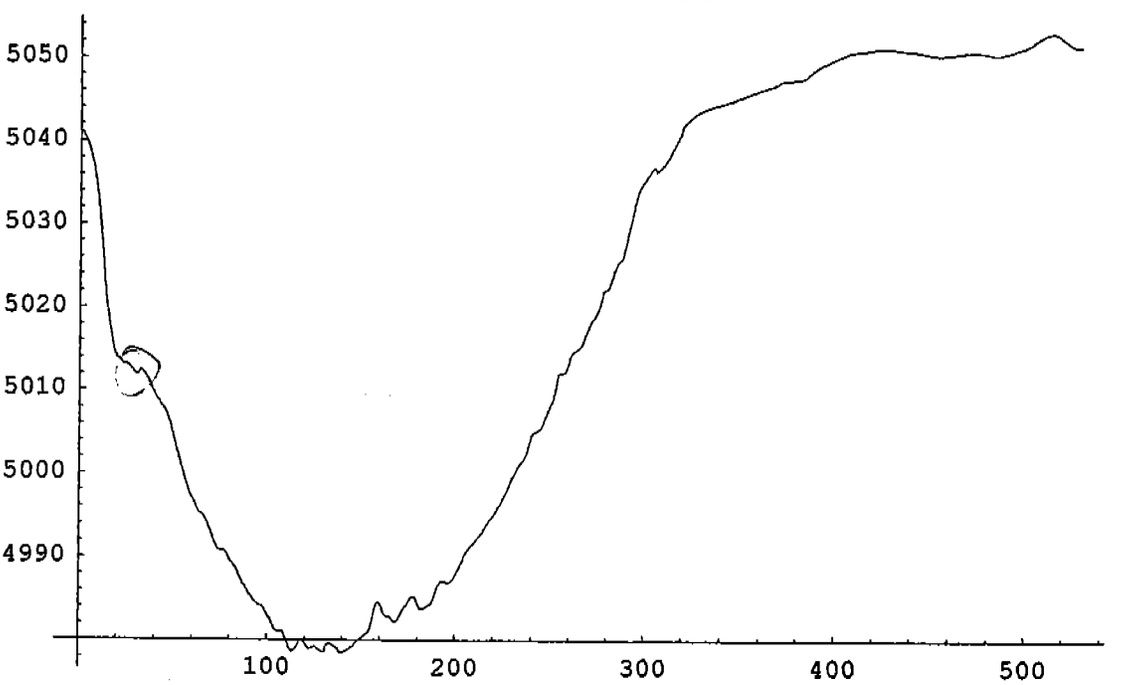


Auvernge Airborne Magnetometer Survey Line 2470

TMI response from top 820m

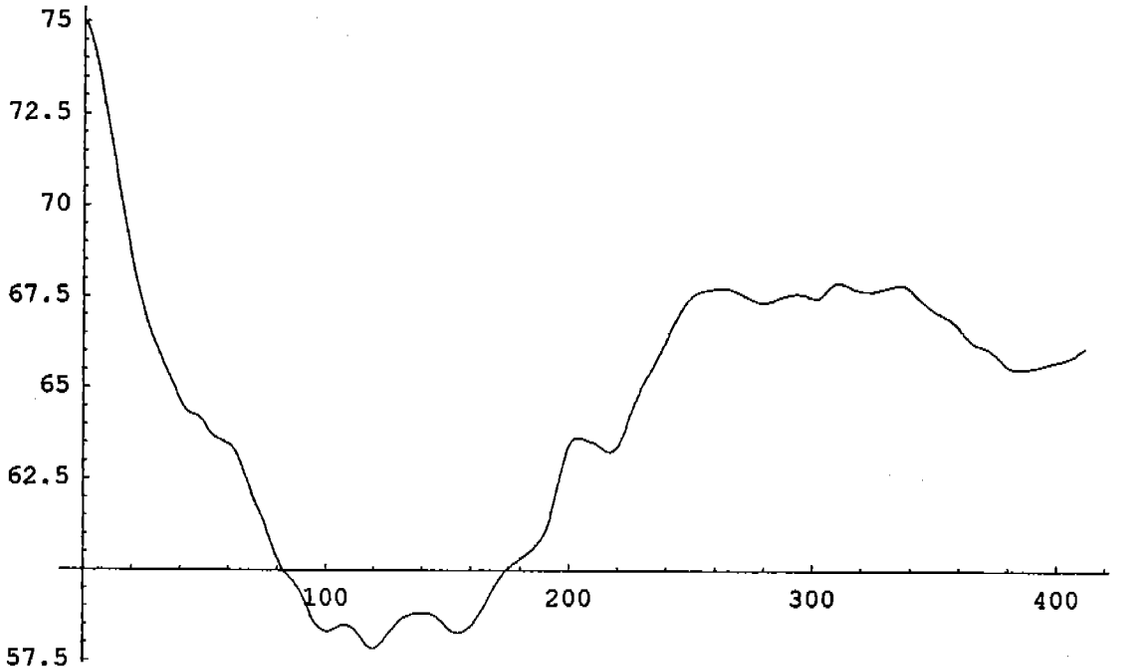


IGRF Corrected TMI

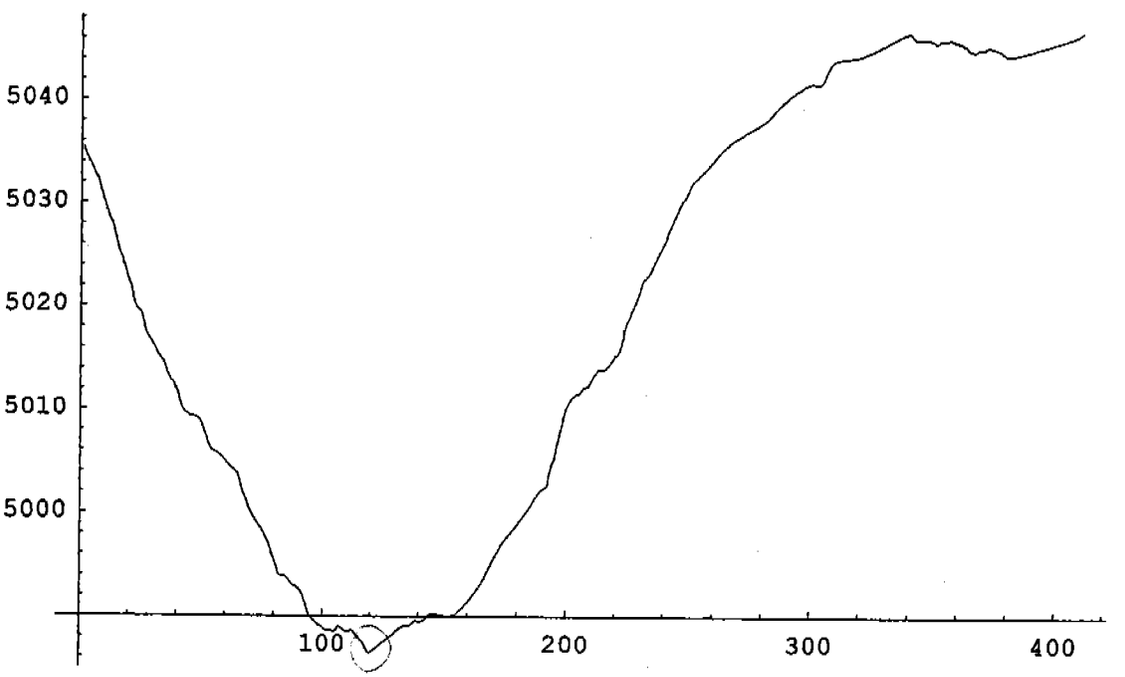


Auvernge Airborne Magnetometer Survey Line 2490

TMI response from top 820m

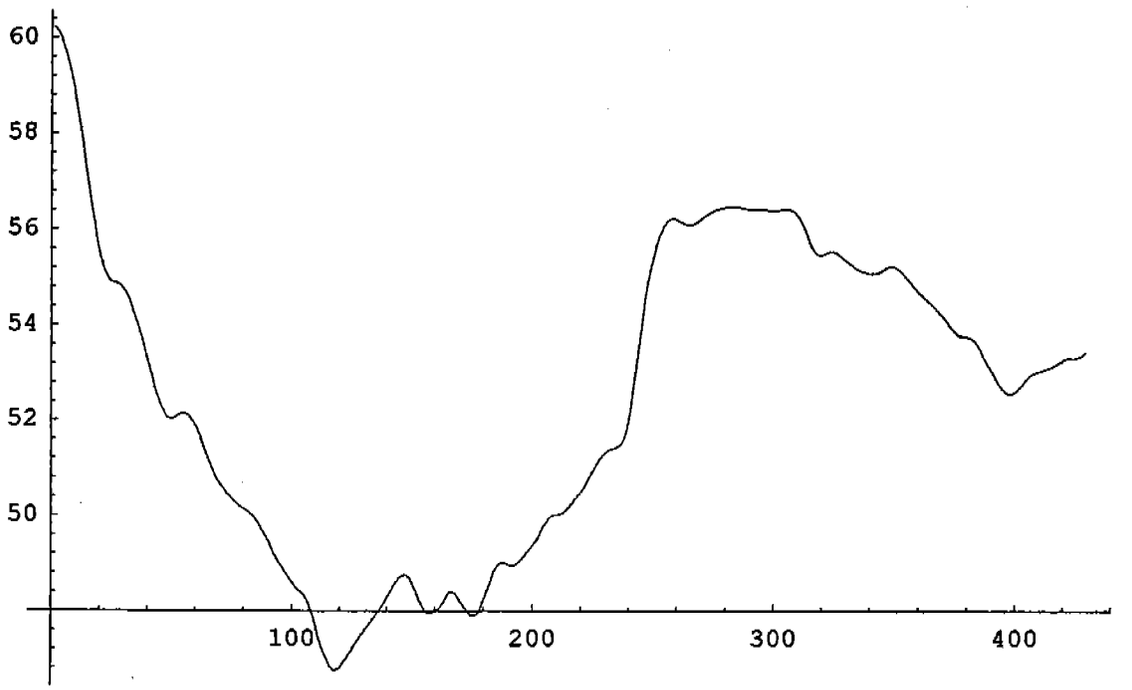


IGRF Corrected TMI



Auvernge Airborne Magnetometer Survey Line 2500

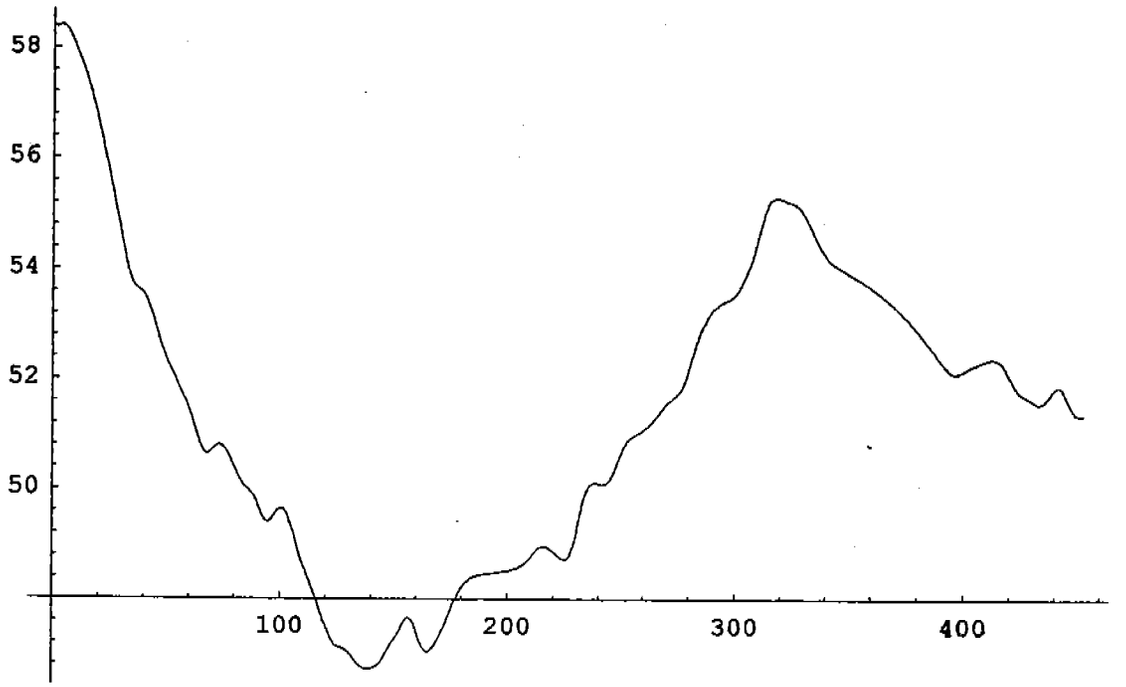
TMI response from top 700m



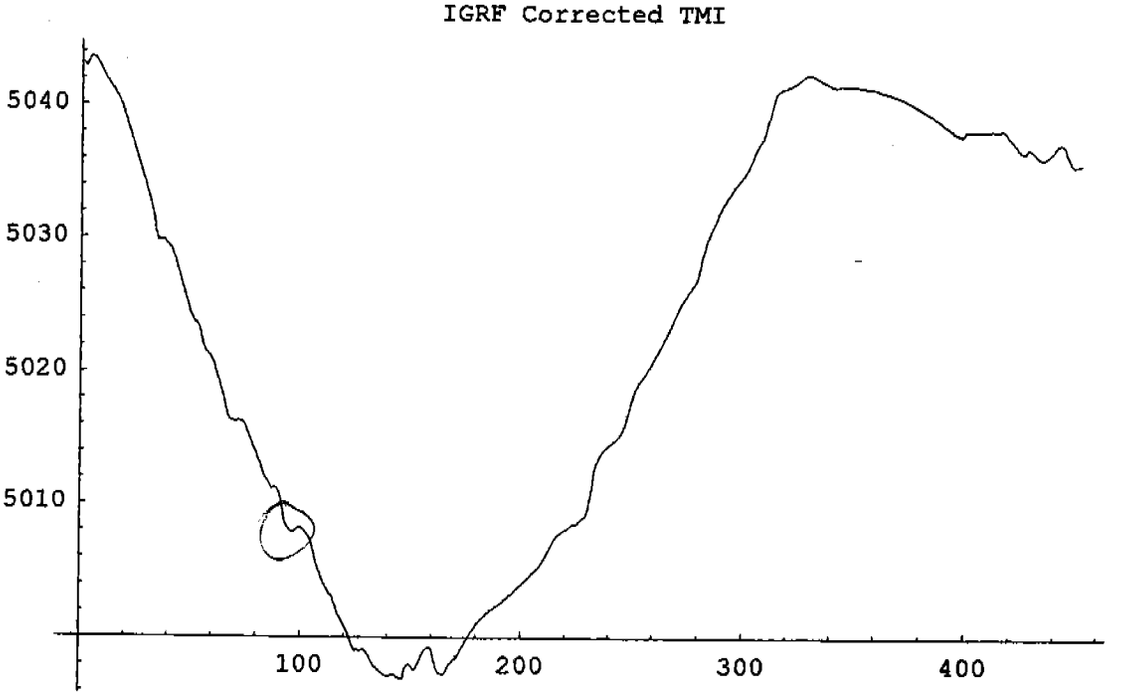
IGRF Corrected TMI

Auvernge Airborne Magnetometer Survey Line 2510

TMI response from top 700m

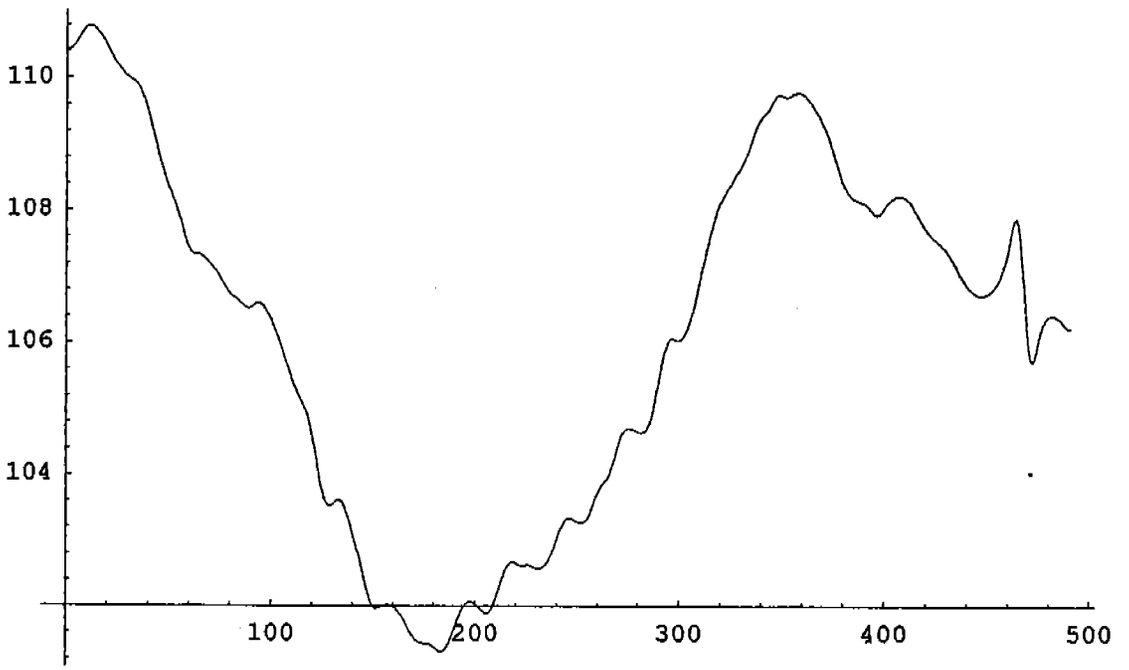


IGRF Corrected TMI

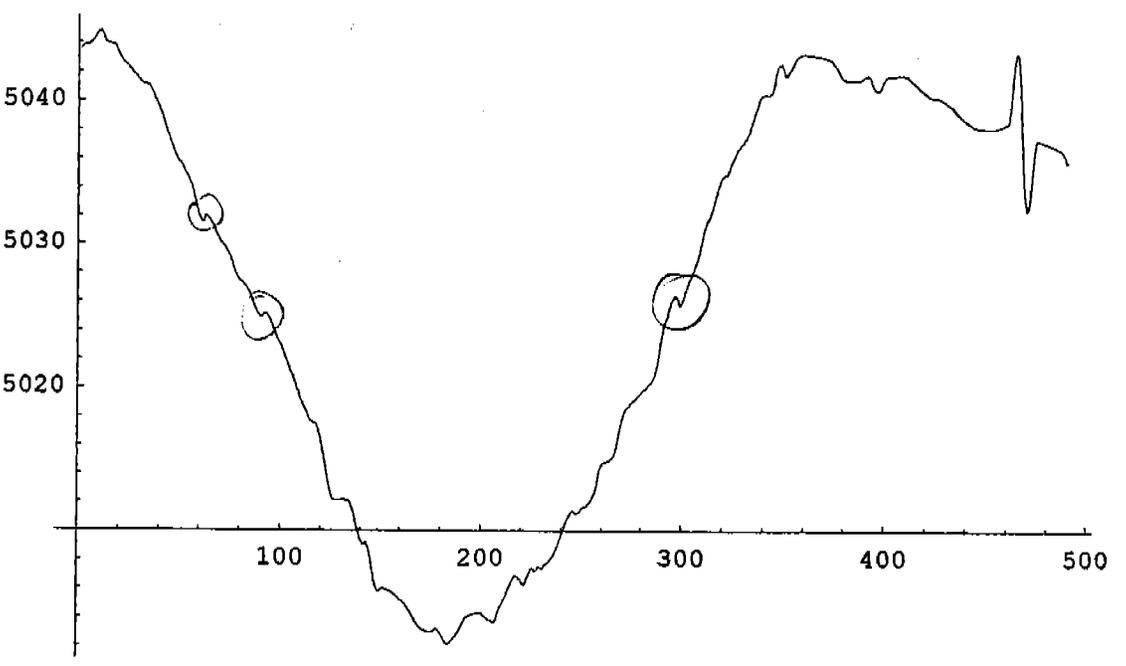


Auvernge Airborne Magnetometer Survey Line 2520

TMI response from top 700m

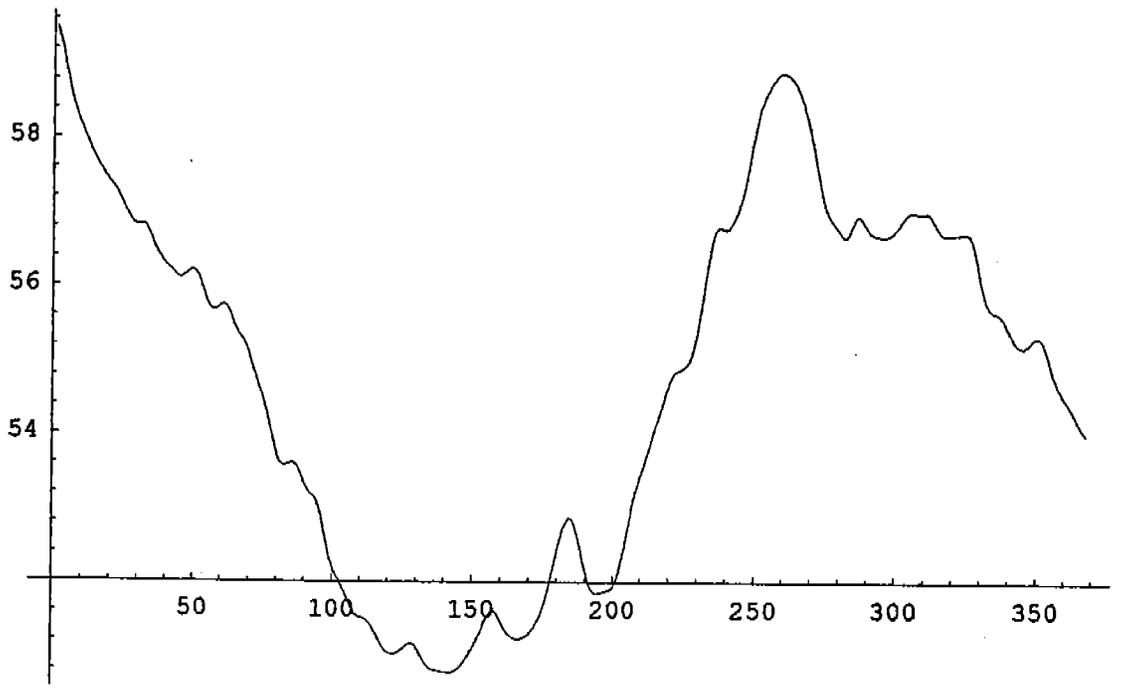


IGRF Corrected TMI

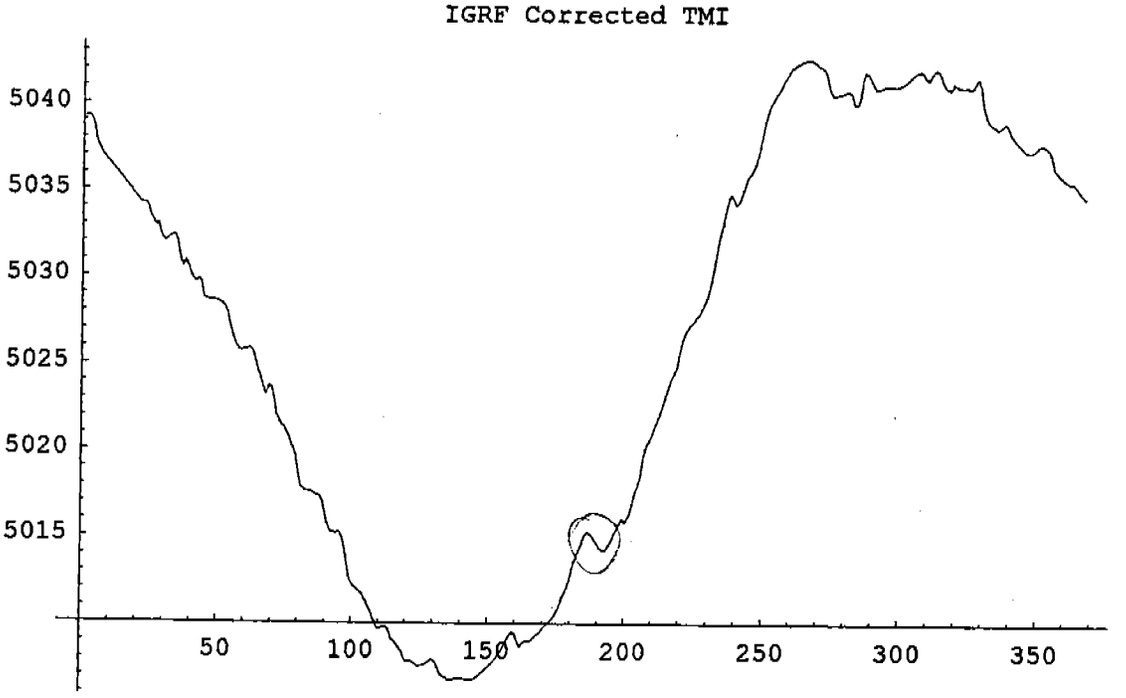


Auvernge Airborne Magnetometer Survey Line 2530

TMI response from top 700m

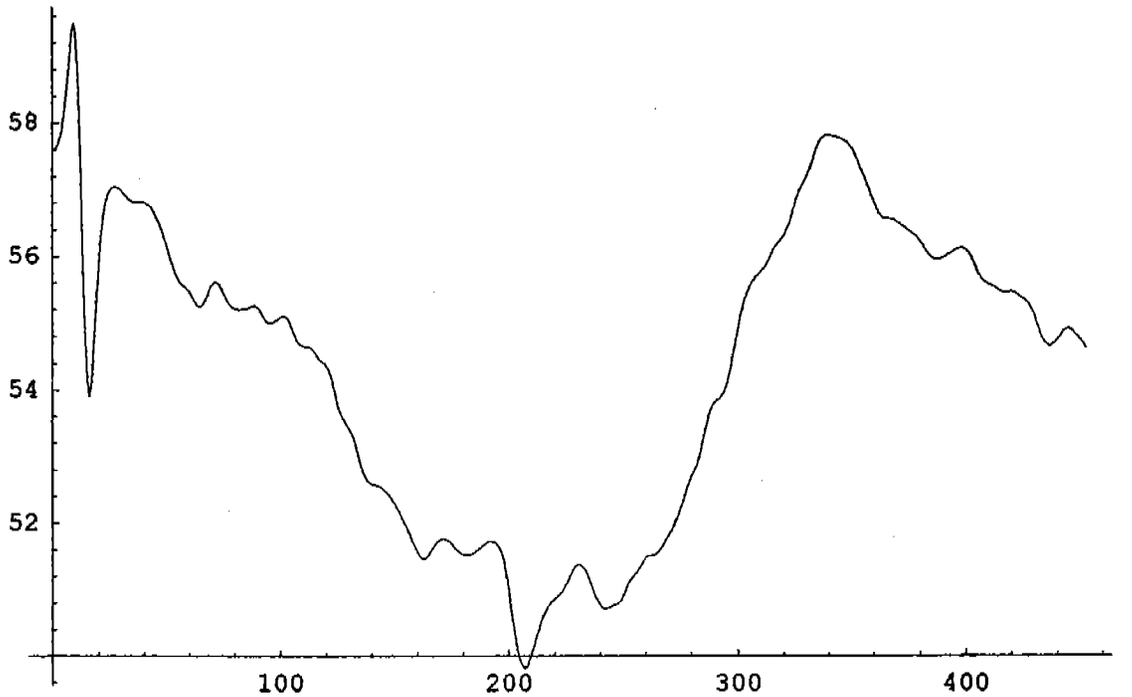


IGRF Corrected TMI



Auvergne Airborne Magnetometer Survey Line 2540

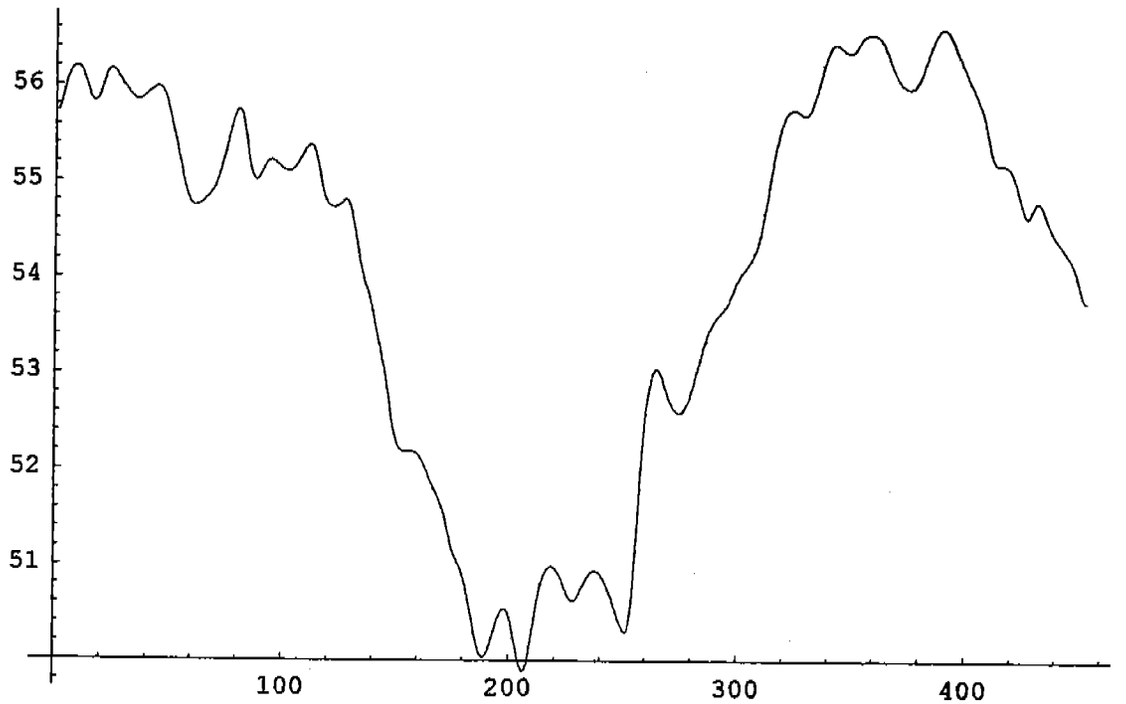
TMI response from top 700m



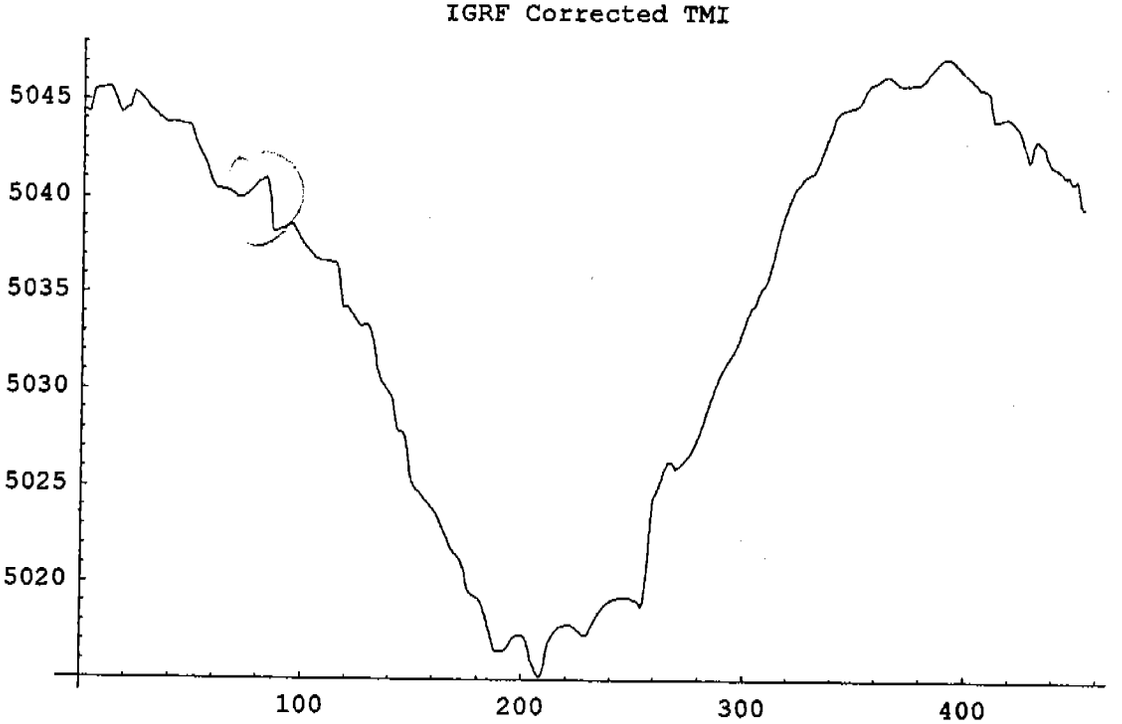
IGRF Corrected TMI

Auvergne Airborne Magnetometer Survey Line 2550

TMI response from top 700m

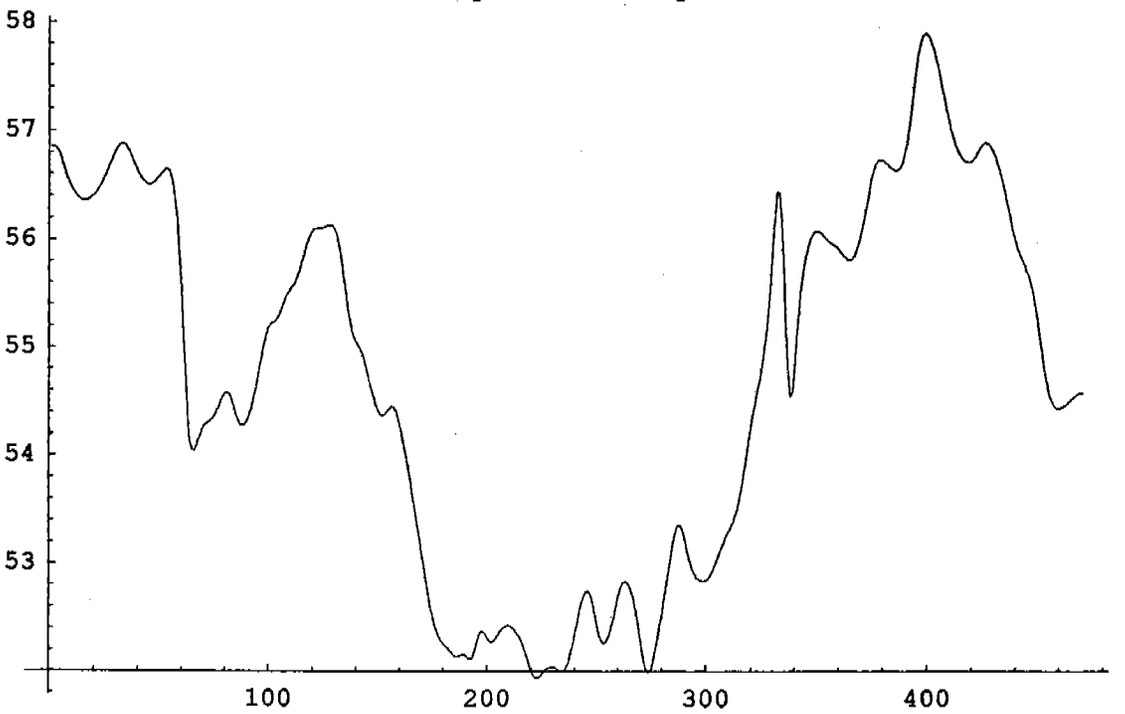


IGRF Corrected TMI

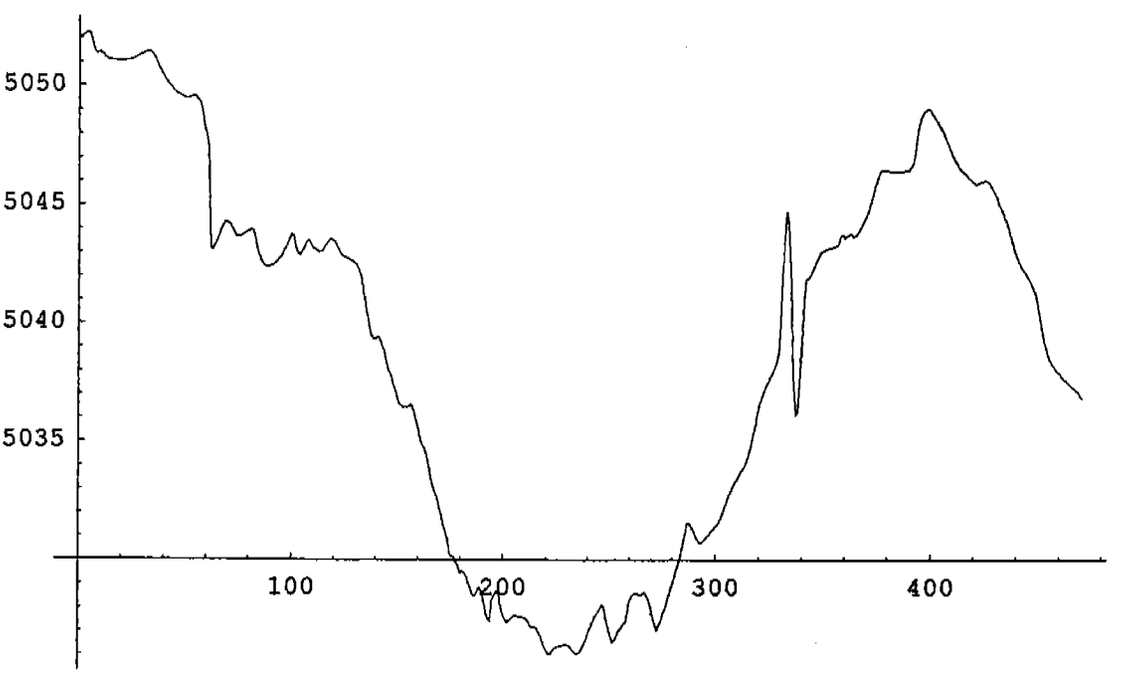


Auvergne Airborne Magnetometer Survey Line 2560

TMI response from top 700m

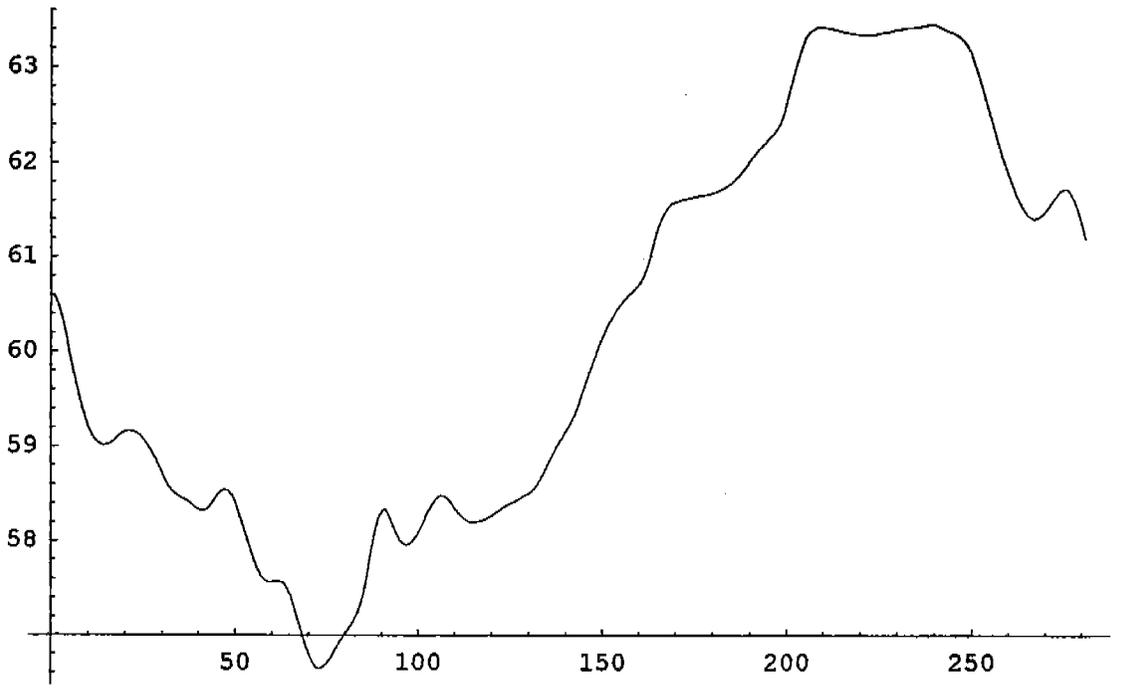


IGRF Corrected TMI

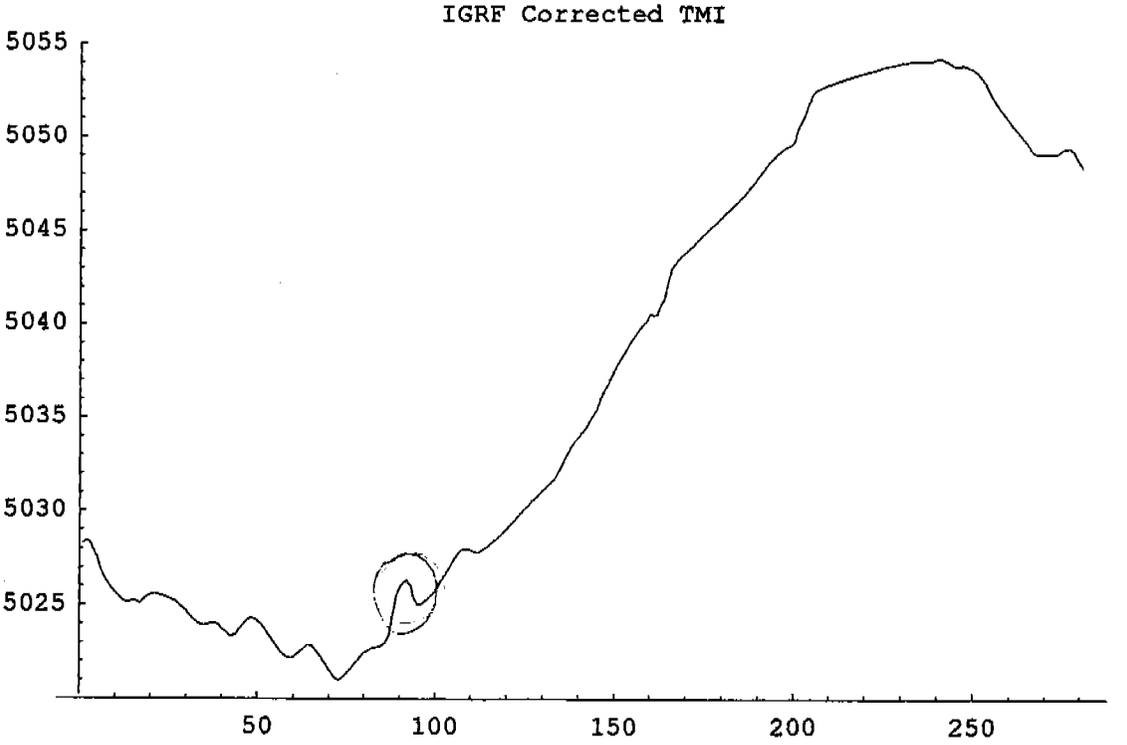


Auvergne Airborne Magnetometer Survey Line 2570

TMI response from top 700m



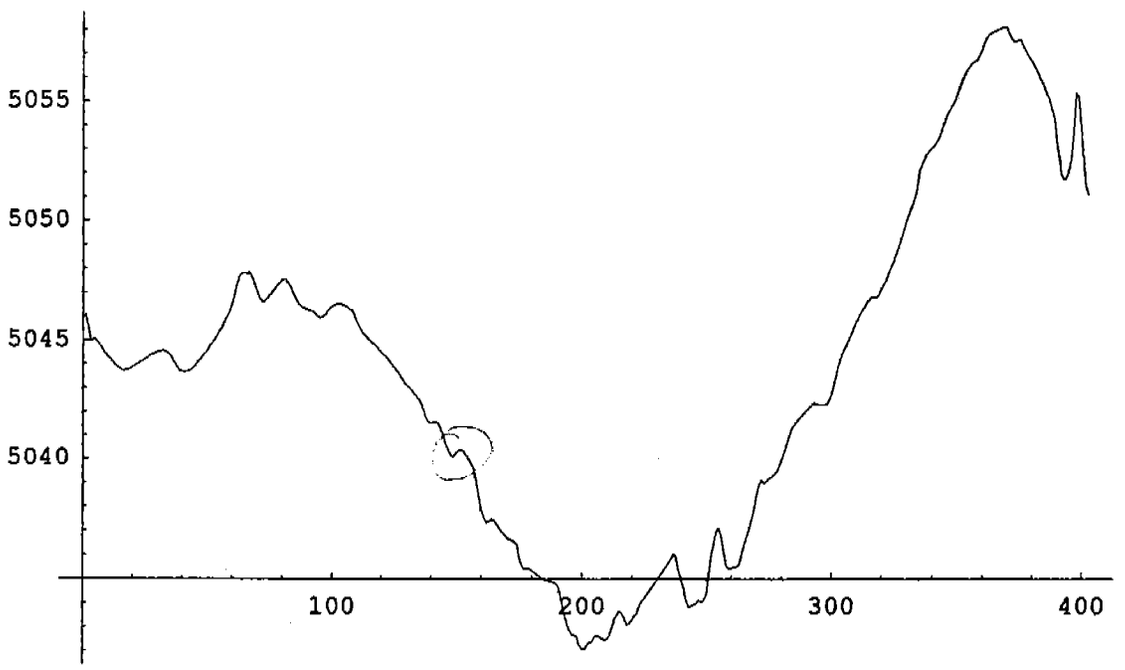
IGRF Corrected TMI



Auvergne Airborne Magnetometer Survey Line 2580

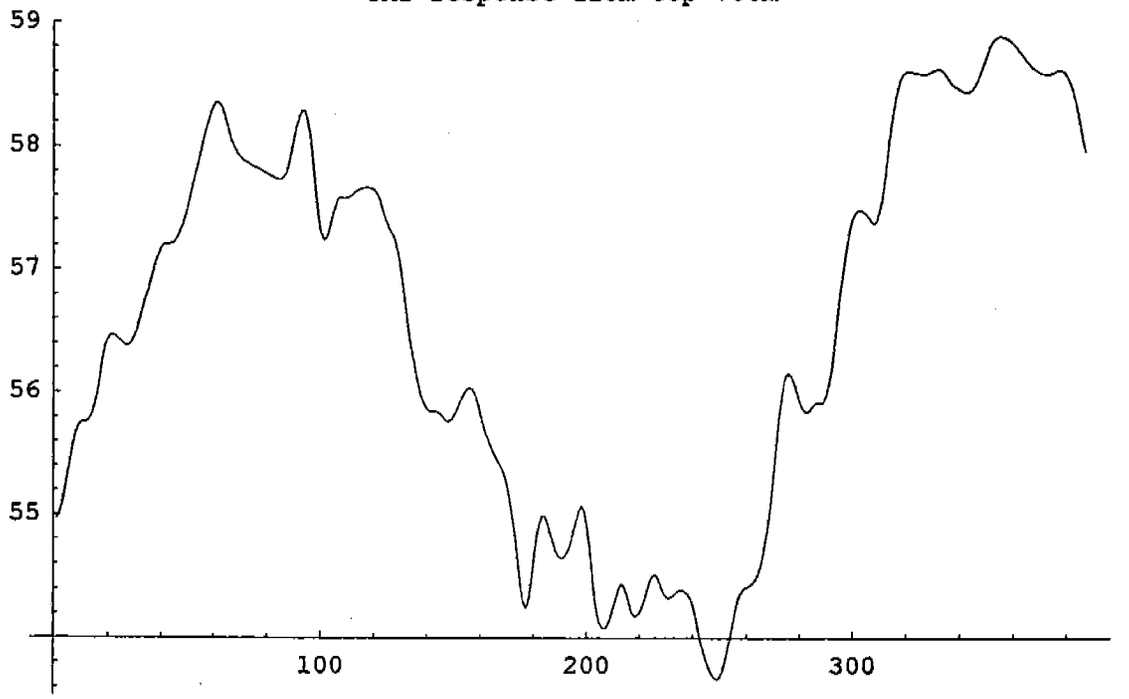
TMI response from top 700m

IGRF Corrected TMI

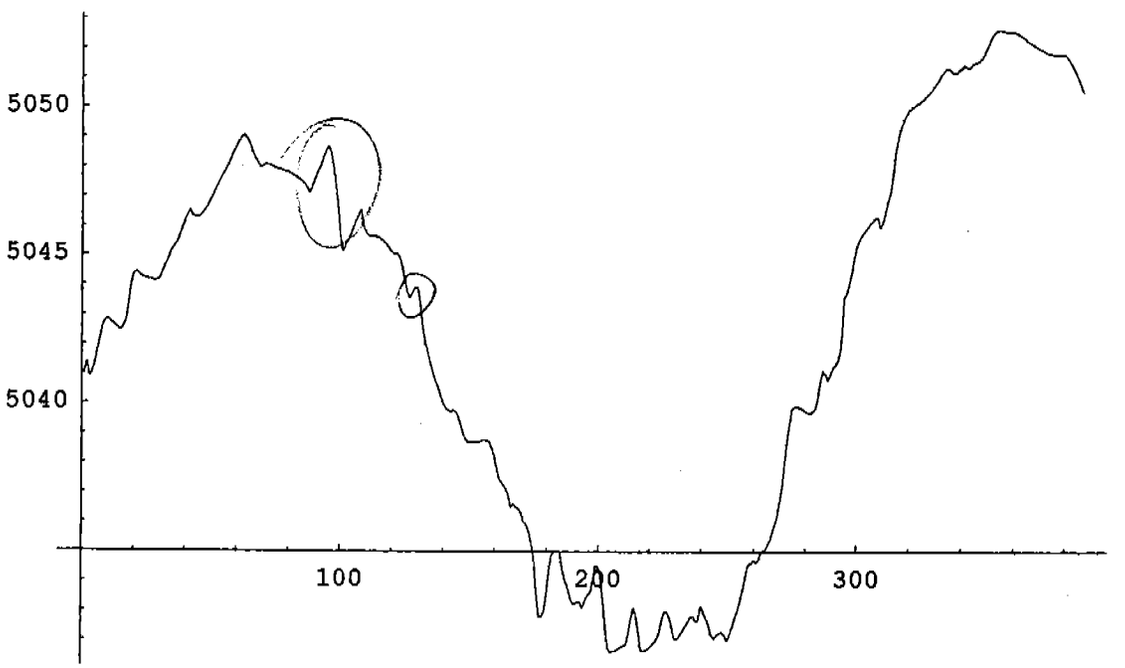


Auvergne Airborne Magnetometer Survey Line 2600

TMI response from top 700m

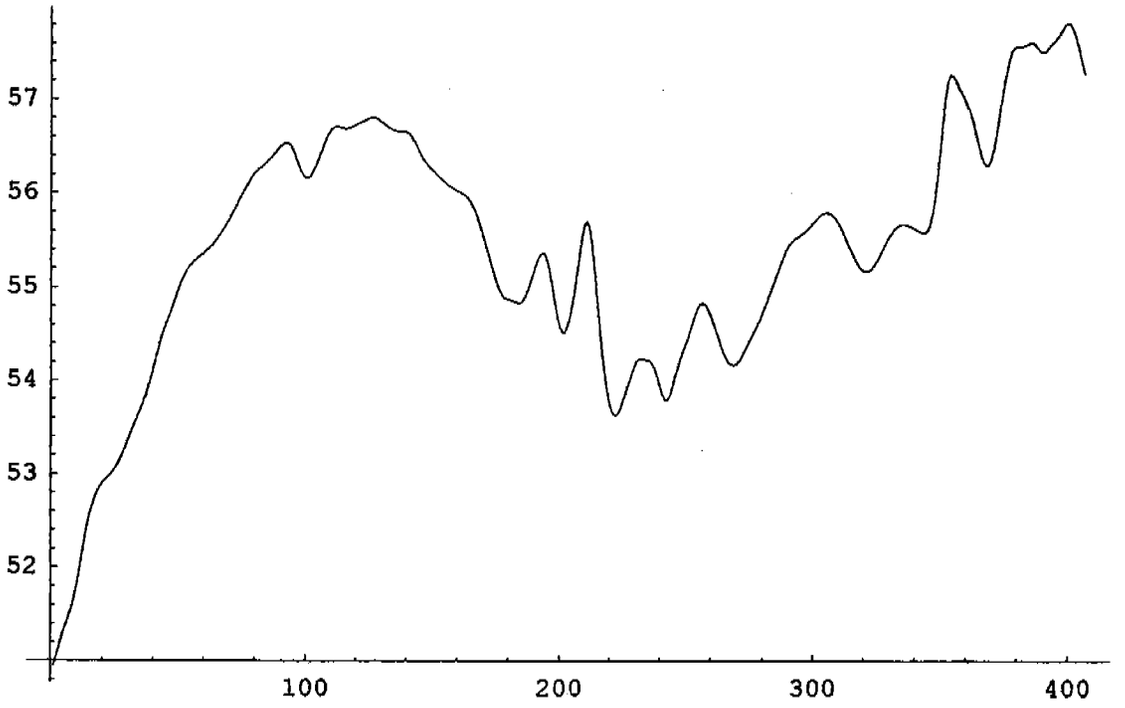


IGRF Corrected TMI

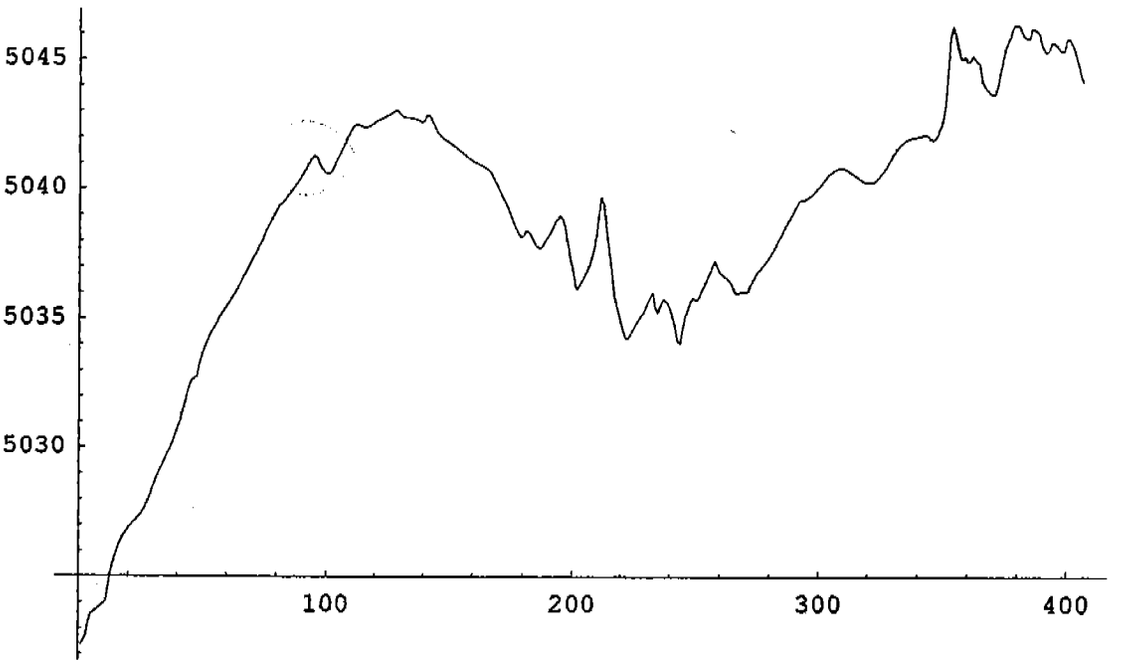


Auvergne Airborne Magnetometer Survey Line 2630

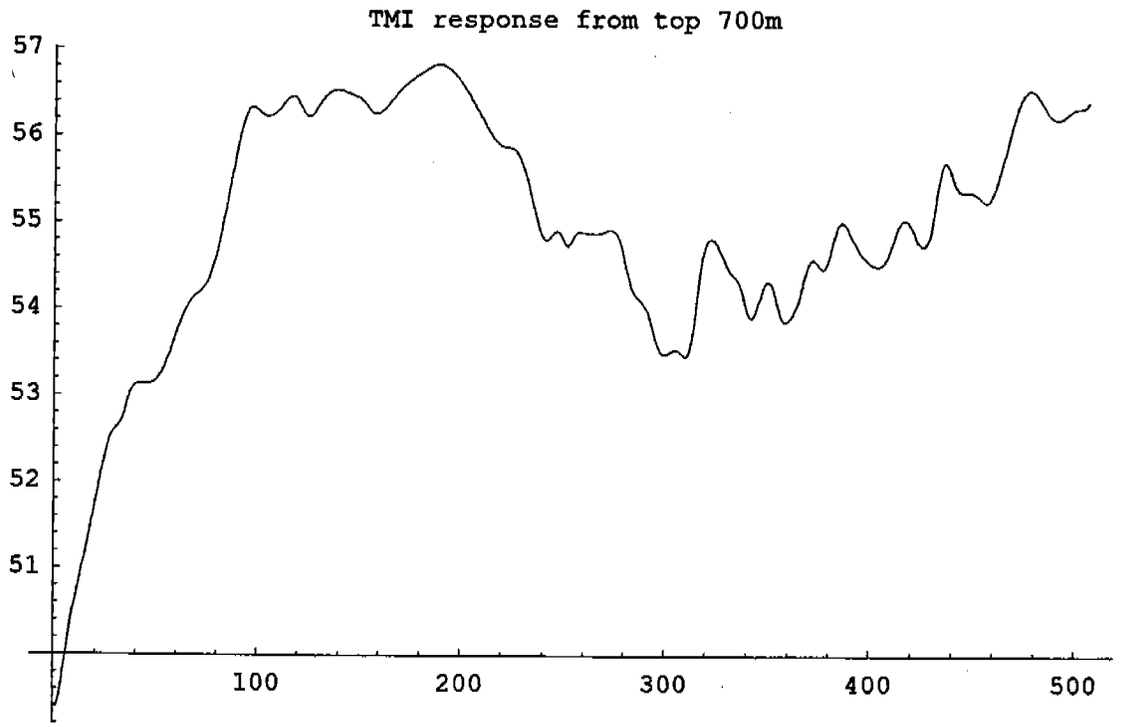
TMI response from top 700m

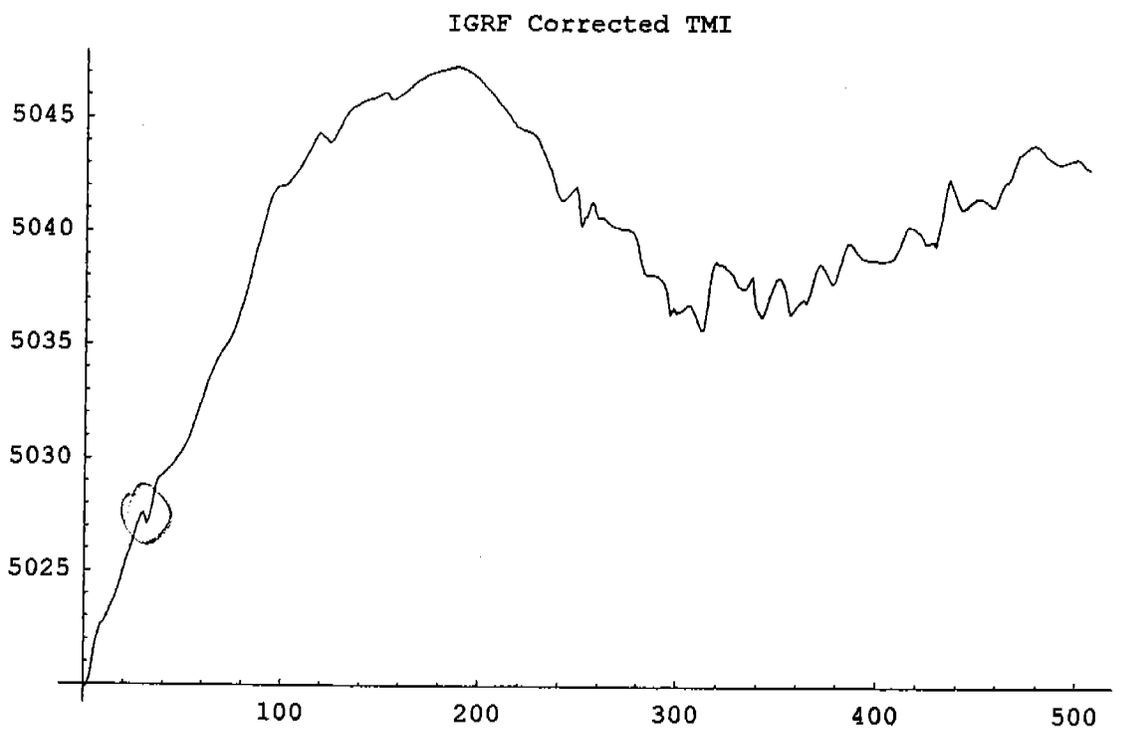


IGRF Corrected TMI



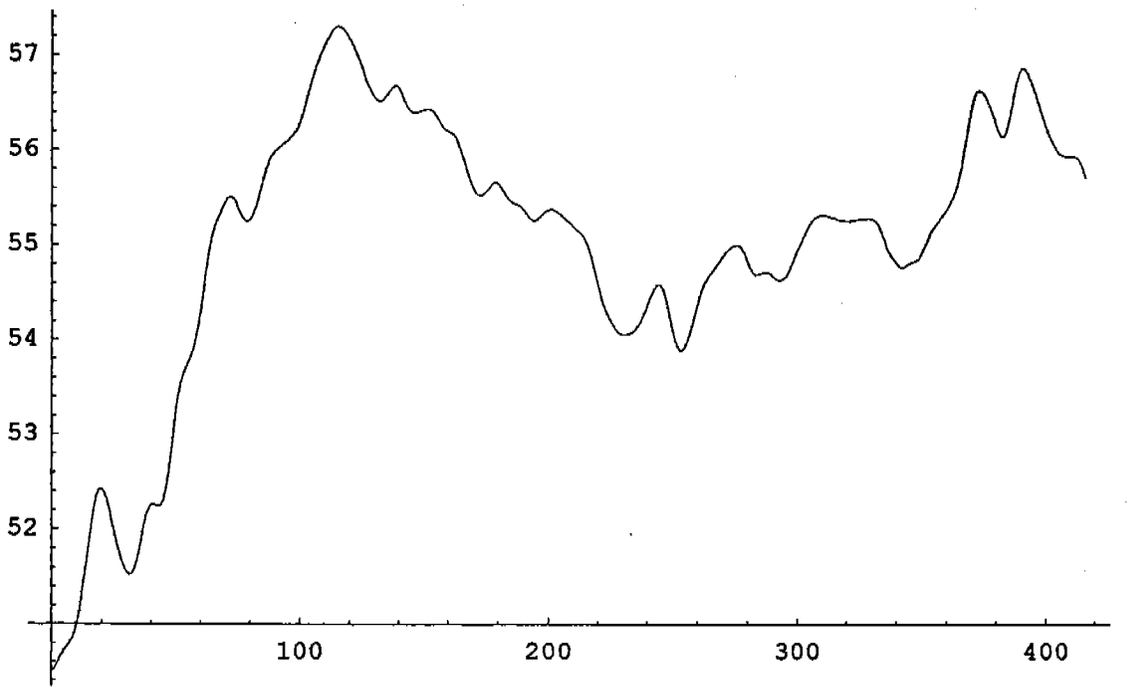
Auvergne Airborne Magnetometer Survey Line 2640



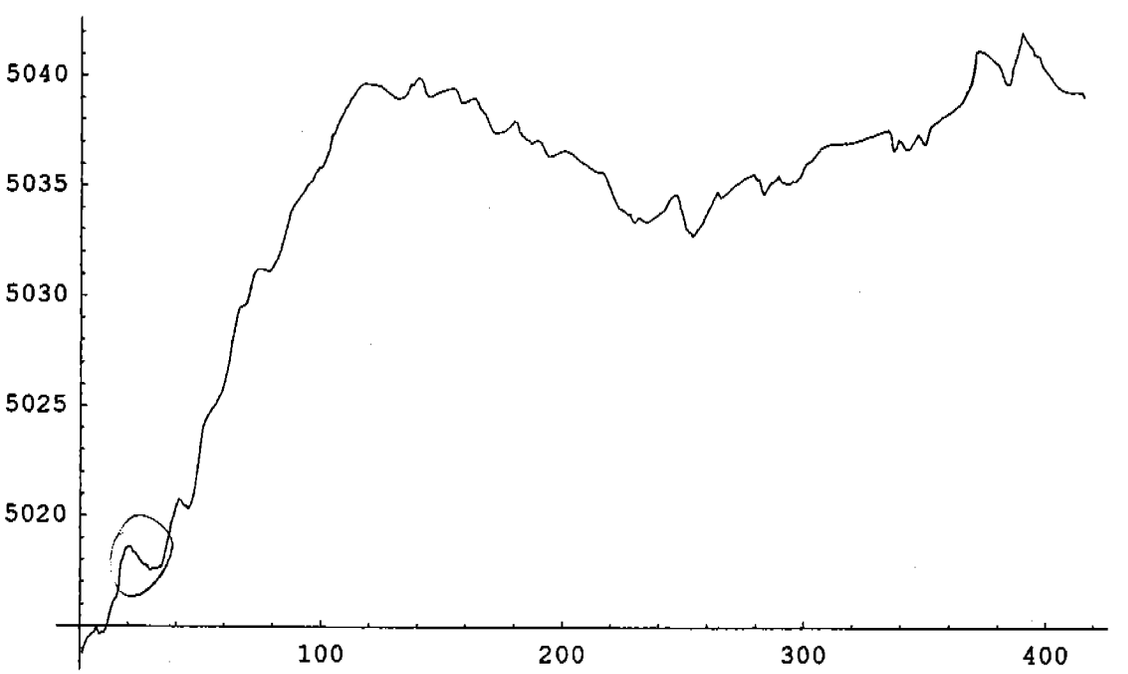


Auvergne Airborne Magnetometer Survey Line 2650

TMI response from top 700m

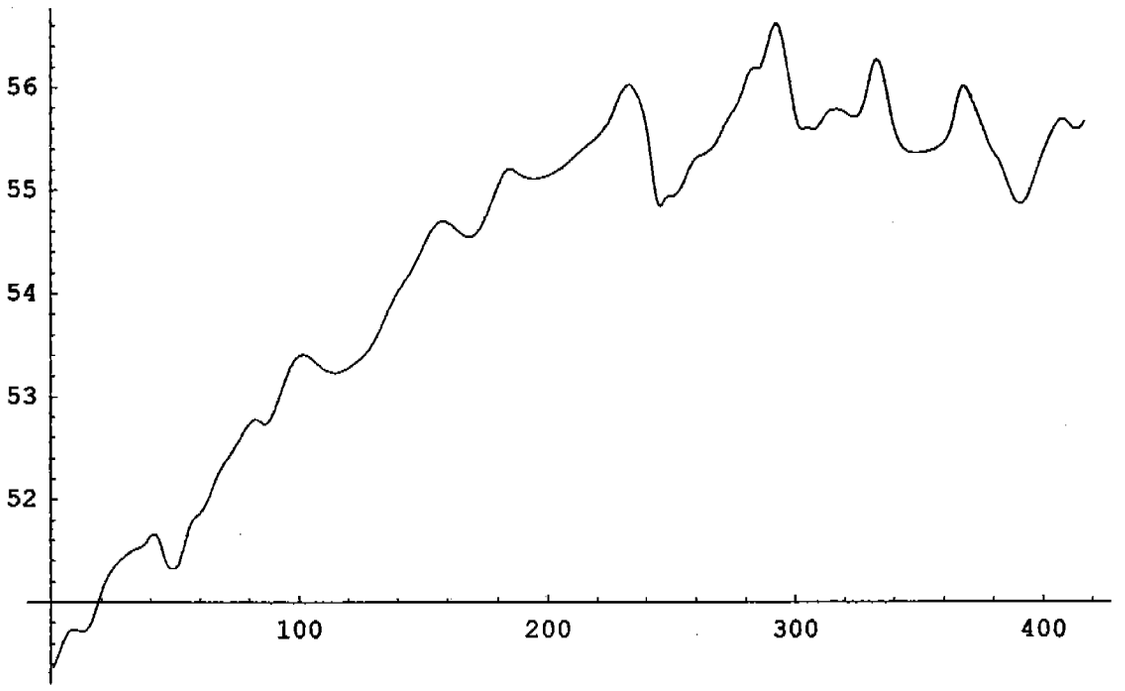


IGRF Corrected TMI

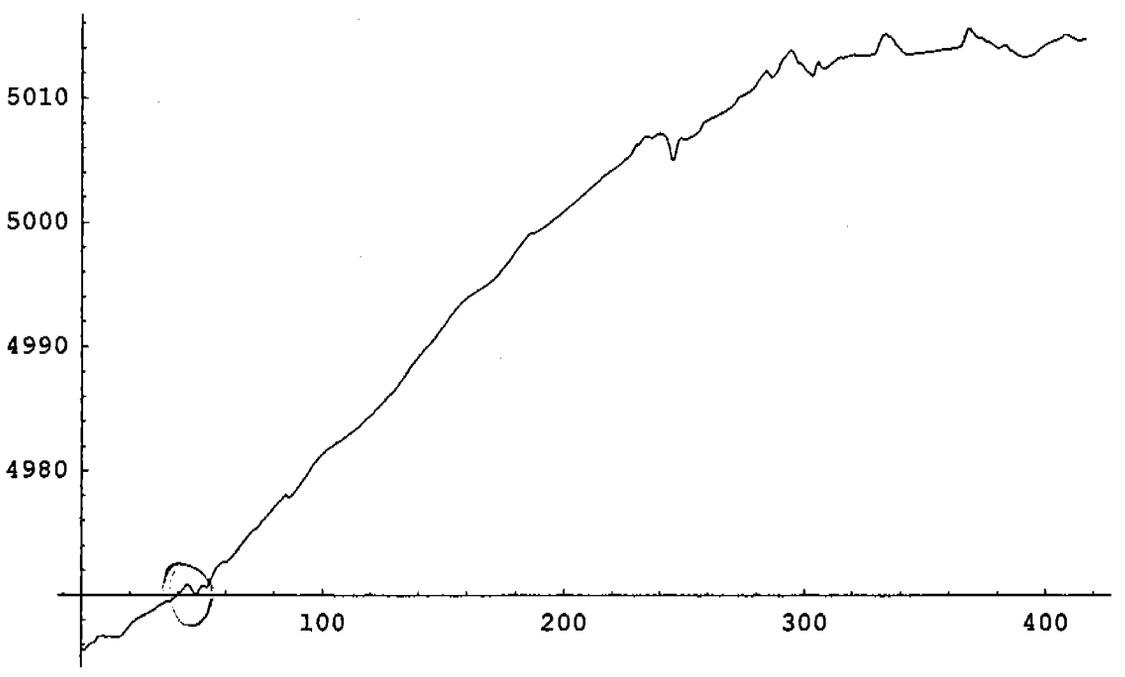


Auvergne Airborne Magnetometer Survey Line 2720

TMI response from top 700m

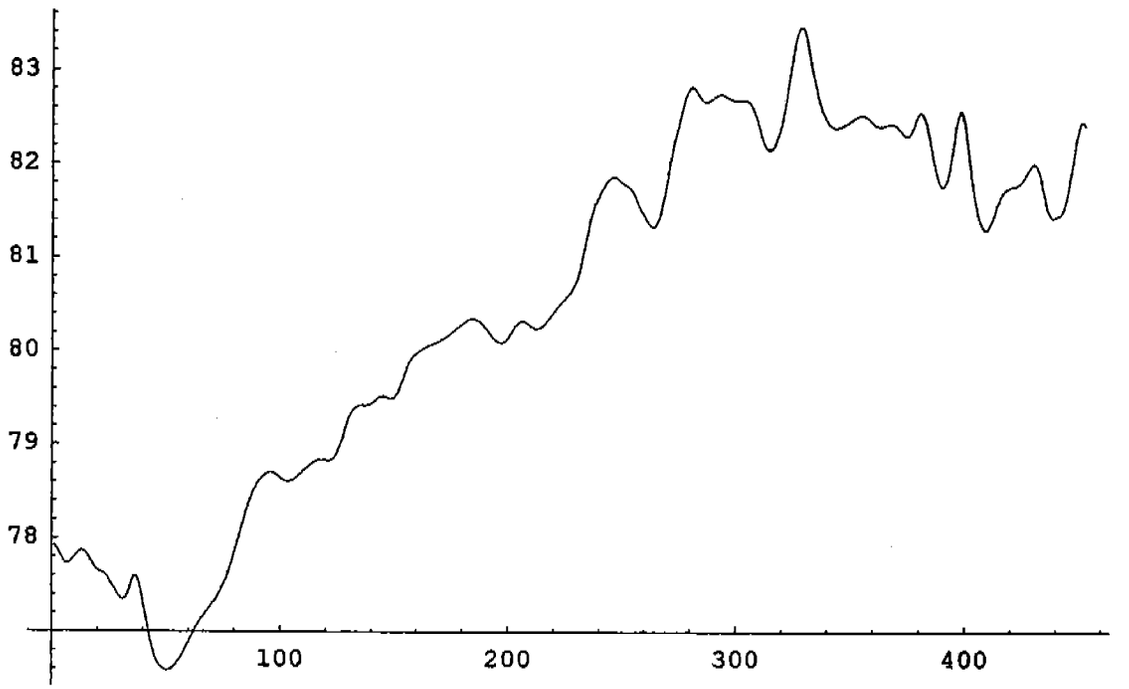


IGRF Corrected TMI



Auvergne Airborne Magnetometer Survey Line 2750

TMI response from top 700m



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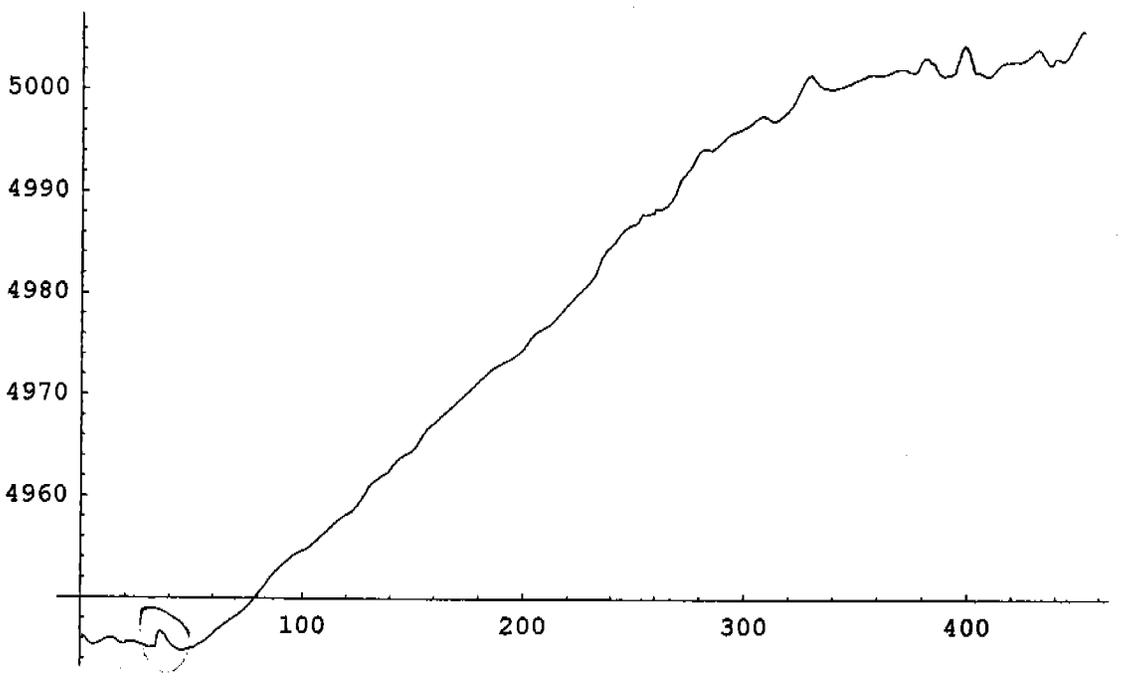
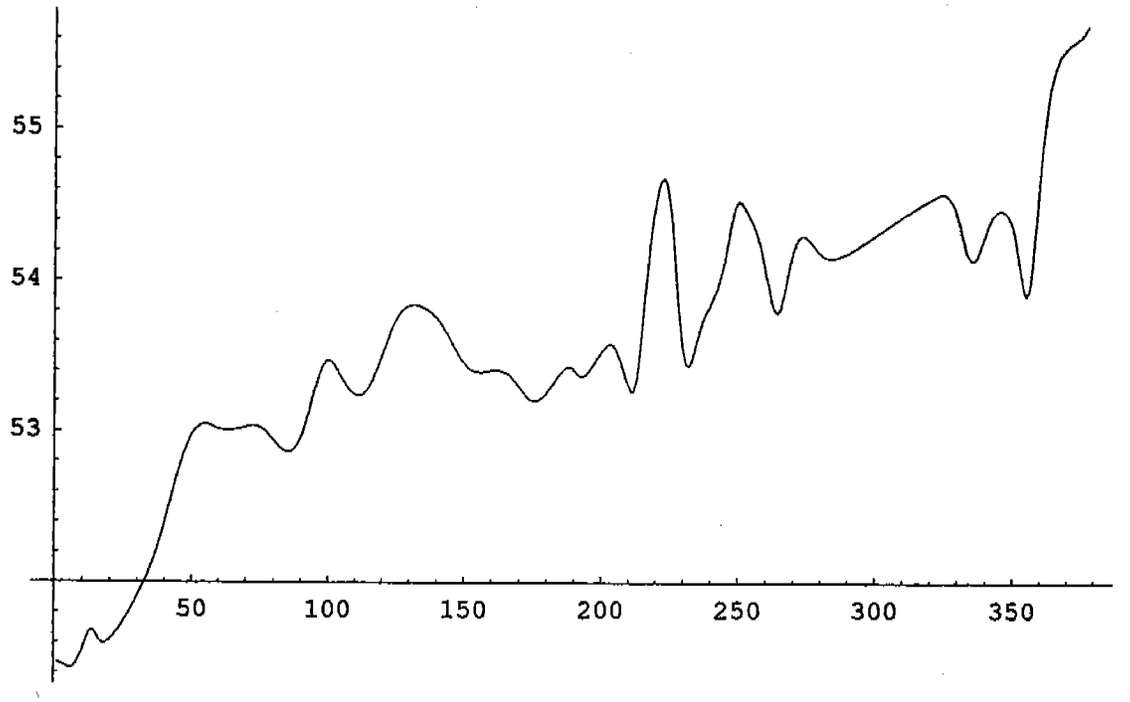
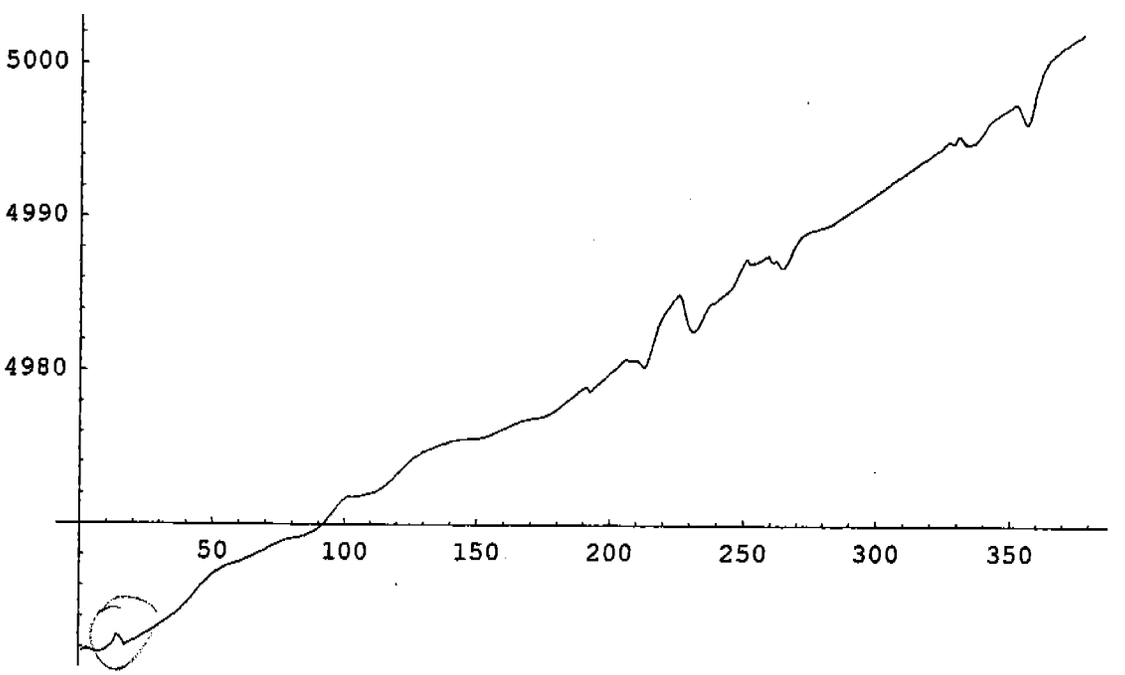


Auvergne Airborne Magnetometer Survey Line 2770

TMI response from top 700m



IGRF Corrected TMI



APPENDIX 2

HEAVY MINERAL ANALYSIS SHEET

SAM NUM	NORTHING	EASTING	ANOMALY	LABORATORY
KE1	8321914	509667	SEISMIC	DIATECH
KE2	8319579	511084	STREAM	DIATECH
KE4	8317750	512000	PHOTO	DIATECH
KE5	8316828	510272	PHOTO	DIATECH
KE6	8316546	505689	SEISMIC	DIATECH
KE7	8315394	505859	STREAM	DIATECH
KE8	8313512	506978	SEISMIC	DIATECH
KE9	8313047	504122	SEISMIC	DIATECH
KE10	8312403	502542	SEISMIC	DIATECH
KE11	8310392	504412	PHOTO,RESAMPLE	DIATECH
KE12	8310457	506891	PHOTO,RESAMPLE	DIATECH
KE13	8312271	510303	STREAM	DIATECH
KE14	8308351	501549	STREAM	DIATECH
KE15	8307975	501647	STREAM	DIATECH
KE16	8308237	504929	STREAM	DIATECH
KE17	8306494	508477	STREAM	DIATECH
KE18	8306863	510256	PHOTO	DIATECH
KE28	8296718	504957	MAG TREND	DIATECH
KE29	8297391	505861	STREAM	DIATECH
KE59	8317252	535313	PHOTO	DIATECH
KE60	8318242	538196	PHOTO	DIATECH
KE63	8318900	508900	RESAMPLE OF T	DIATECH
KE64	8311500	508200	DOWN STREAM KE12	DIATECH
KE65	8308405	507520	STREAM	DIATECH
KE66	8308220	504900	STREAM	DIATECH
KE67	8307000	505000	STREAM	DIATECH
KE68	8306140	503008	STREAM	DIATECH
KE69	8306270	502790	STREAM	DIATECH
KE70	8311500	501800	STREAM	DIATECH
KE71	8311550	502850	STREAM	DIATECH
KE72	8311800	505300	STREAM	DIATECH
KE73	8311525	505730	STREAM	DIATECH
KE74	8311400	507112	STREAM	DIATECH
KE75	8312730	506614	PHOTO	DIATECH
KE76	8315410	503290	STREAM	DIATECH
KE78	8314700	504400	STREAM	DIATECH
KE79	8314790	506460	STREAM	DIATECH
KE80	8315015	507320	STREAM	DIATECH
KE81	8314810	509790	STREAM	DIATECH
KE82	8312250	510000	STREAM	DIATECH
KE84	8319668	510870	STREAM	DIATECH
V	8322931	506371	PHOTO	DIATECH
V1	8319344	504686	PHOTO	DIATECH
T1	8318838	508952	PHOTO	DIATECH
U	8316800	511700	PHOTO	DIATECH
Q	8311006	512132	PHOTO	DIATECH
P2	8310458	507012	PHOTO	DIATECH
P1	8310435	504478	PHOTO	DIATECH
P	8311139	503098	PHOTO	DIATECH
B	8297159	504566	PHOTO	DIATECH
GS	8306614	511652	PHOTO	DIATECH

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE84**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	**PROB KIMB**	
Type of sample	STREAMSED	
Head Weight	17.59	kgs
Conc Weight -2.0+0.2mm	4.2	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	***mm***	***BRIEF DESCRIPTION***
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		2 + 0.25, 6 + 0.2 mm. Black, dull, Eu/sub/anhedral, moderately worn. (1+0.20mm prob kimb, 3+0.20mm poss kimb)
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	***mm***	***BRIEF DESCRIPTION***
AMPHIBOLE					
ANATASE			Tr		Pearly-grey, pale blue, sky-blue, worn, subhedra.
APATITE					
BARITE		Tr	Tr		Creamy-white, sugary texture, opaque.
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE			Tr		Rare, yellow-green moderately worn.
FE OXIDE/HYDROXIDE	100%	50%	Tr		Yellow-brown, pisolitic.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, well rounded.
KYANITE			Tr		Rare, well worn, colourless, Fe stained.
LEUCOXENE			10%		Cream, beige, rarely grey, well worn, opaque.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE			Tr		Red-orange, well rounded resinous.
PREHNITE					
PYROXENE					
RUTILE			Tr		Cherry-red to silvery-black, well worn.
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE	Tr	50%	70%		Black-brown, near spherical, also many worn broken fragments.
ZIRCON		Tr	20%		Colourless, orange, yellow, Fe stained, well rounded.
ROCK FRAGMENTS					

COMMENTS:

Observed by: LF
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

SAMPLE NO **KE82**

ASSESSMENT	POSS KIMB	
Type of sample	STREAMSED	
Head Weight	15.52	kgs
Conc Weight -2.0+0.2mm	22.3	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	3 + 0.25, 12 + 0.2mm. Black, dull, rarely brownish, Eu/Sub/anhedral, moderately worn. (3+0.20mm poss kimb, others not considered kimberlitic)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ¼ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Golden yellow, pearly-grey, worn.
APATITE				
BARITE	10%	40%	25%	Cream, white, sugary textured aggregates.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Rare, yellow-green, pistachio-green, moderately worn, translucent.
FE OXIDE/HYDROXIDE	90%	Tr	Tr	Pisolitic, yellow-brown, dull.
GARNET		Tr	Tr	Almandine - Spessartine, pale candy pink, rarely orange, grey, transparent, some with inclusions, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Dull, silvery-black, worn.
KYANITE				
LEUCOXENE				
MN OXIDE				
MONAZITE				
PHOSPHATES		10%	Tr	Includes monazite, red-orange, orange-brown, red-brown, resinous, worn.
PREHNITE	Tr			
PYROXENE				
RUTILE		Tr	5%	Silvery-black to cherry red, well worn, elongate to rounded.
SPHENE				
SPINEL			Tr	Gahnite, Al-spinel.
STAUROLITE			Tr	Orange-brown, frosted, moderately worn.
SULPHIDES				
TOURMALINE		50%	50%	Abundance of well rounded black-brown grains, worn broken fragments.
XENOTIME				
ZIRCON		Tr	20%	Colourless, orange, yellow, rarely pinkish-mauve, well rounded.
ROCK FRAGMENTS				

COMMENTS:

Observed by: LF
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE81**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT **NEGATIVE**

Type of sample	STREAMSED	
Head Weight	17.72	kgs
Conc Weight -2.0+0.2mm	2.3	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	*mm* ***BRIEF DESCRIPTION***
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	*mm* ***BRIEF DESCRIPTION***
AMPHIBOLE				
ANATASE			Tr	Beige, golden yellow, blue, sub/anhedral, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Yellow-green translucent, moderately worn.
FE OXIDE/HYDROXIDE	100%	5%	Tr	Yellow-brown, dull pisolites, also rusty flakes.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Silvery-black, moderately worn.
KYANITE				
LEUCOXENE		Tr	5%	Beige, cream, grey, dull to porcelain like, moderately worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES	Tr	5%	Tr	Red-brown, orange-brown, cream, resinous opaques.
PREHNITE				
PYROXENE			Tr	Rare. Pale to dark green, lath-like, moderately worn.
RUTILE		Tr	Tr	Cherry red, black, anhedra, moderately worn.
SPHENE				
SPINEL				
STAUROLITE				
SULPHIDES				
TOURMALINE		90%	92%	Black-brown, rarely coloured, well rounded.
XENOTIME				
ZIRCON		Tr	3%	Colourless, orange, rare subhedra, generally well rounded.
Mg Al Si V MINERAL			Tr	1 + 0.2 mm. Apple green, anhedral, subtranslucent, moderately worn.
ROCK FRAGMENTS				

COMMENTS:

Observed by: BG
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE80**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	NEGATIVE	
Type of sample	STREAMSED	
Head Weight	11.59	kgs
Conc Weight -2.0+0.2mm	1.8	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.25 mm. Black, dull, anhedral, moderately worn. Not kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ¼ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE			Tr	Rare moderately worn dark-green laths.
ANATASE			Tr	Palest pearly-grey, yellow, worn, often tabular.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	35%	Tr	Yellow-brown, dull, pisolitic, studded with fine gritty quartz grains.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			15%	Dull, silvery-black.
KYANITE				
LEUCOXENE		Tr	10%	Beige, cream, dull, worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE		Tr	Tr	Red-orange, resinous, worn
PHOSPHATES			Tr	Red-brown, resinous, opaque, worn.
PREHNITE				
PYROXENE				
RUTILE		Tr	Tr	Silvery-black to cherry red, well rounded and worn.
SPHENE				
SPINEL			Tr	Gahnite, dark aqua-green, well worn.
STAUROLITE			Tr	Orange-brown, well worn, translucent.
SULPHIDES				
TOURMALINE		65%	60%	Black-brown, well rounded to blocky, worn.
XENOTIME				
ZIRCON			15%	Colourless, yellow, orange, some Fe stained, well rounded.
ROCK FRAGMENTS				

COMMENTS:

Observed by: LF
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE79**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	**NEGATIVE**	
Type of sample	STREAMSED	
Head Weight	13.72	kgs
Conc Weight -2.0+0.2mm	3.4	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	*mm* *BRIEF DESCRIPTION*
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.2mm, black, dull, anhedral, well rounded, fine, cokey surface. Not Kimb.
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	*mm* *BRIEF DESCRIPTION*
AMPHIBOLE				
ANATASE			Tr	Ice blue, yellow, anhedral, moderately worn.
APATITE				
BARITE	Tr			1 + 0.8mm, creamy, granular, globular.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE		Tr	Tr	1 + 0.4mm, rare + 0.2, yellow-green, pale yellow, translucent, moderately worn, rounded.
FE OXIDE/HYDROXIDE	100%	70%	5%	Yellow-brown, red-brown, dull, pisolitic; also Fe flakes.
GARNET			Tr	1 + 0.2mm, Almandine, pale pink, subangular, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE		Tr	Tr	Silvery-black, moderately worn.
KYANITE				
LEUCOXENE			5%	Grey, beige, dull.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Orange, resinous, opaque.
PHOSPHATES			5%	Yellow-brown, orange-brown, rounded, resinous, opaque.
PREHNITE				
PYROXENE			Tr	Rare. Green fragments, moderately worn.
RUTILE			Tr	Cherry red, anhedral, moderately worn.
SPHENE				
SPINEL			Tr	Gahnite. Rare. Aqua green, moderately worn.
STAUROLITE				
SULPHIDES				
TOURMALINE		30%	85%	Black-brown, some coloured, well rounded.
XENOTIME				
ZIRCON			Tr	Pale pink, orange-brown, brownish-pink, rounded.
AI SILICATE		Tr	Tr	Rare. Colourless, subangular, moderately worn.
ROCK FRAGMENTS				

COMMENTS:

Observed by: B.G.
Date: Sept. 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE78**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	POSITIVE	
Type of sample	STREAMSED	
Head Weight	41.16	kgs
Conc Weight -2.0+0.2mm	8.5	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	11 + 0.25, 20 + 0.2 mm. Black generally dull some more brownish, Eu/Sub/anhedral, many have fine cokey pitted surfaces. (1+0.20mm kimberlitic, 2+0.20mm poss kimb, others not kimb)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Blue, golden yellow, sub/anhedral, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE		Tr	Tr	Yellow-green, translucent moderately worn.
FE OXIDE/HYDROXIDE	100%	20%	Tr	Yellow-brown dull pisolites.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Silvery-black, moderately worn.
KYANITE				
LEUCOXENE		15%	55%	Beige, grey, dull to porcelain-like.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Orange resinous opaques.
PHOSPHATES		55%	15%	Orange-red, orange-brown, cream, yellow-brown, blocky to rounded resinous opaques.
PREHNITE				
PYROXENE				
RUTILE		10%	20%	Reddish-black, cherry red, black, anhedral, moderately worn.
SPHENE				
SPINEL			Tr	Gahnite- Aqua-green, rounded.
STAUROLITE		Tr	Tr	Orange-brown, anhedral, moderately worn.
SULPHIDES				
TOURMALINE		Tr	Tr	Black-brown, well rounded.
XENOTIME				
ZIRCON			10%	Pale pink, colourless, Fe stained sub/anhedra generally well rounded.
ROCK FRAGMENTS				

COMMENTS: Concentrate has been MI separated.

Observed by: BG
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

SAMPLE NO KE76

ASSESSMENT NEGATIVE

Type of sample	STREAMSED	
Head Weight	14.95	kgs
Conc Weight-2.0+0.2mm	2.1	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Pale grey-blue, well worn, tabular.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	15%	Tr	Yellow-brown, dull, studded with fine quartz grains.
GARNET			Tr	Rare, pink, pale orange almandine, spessartine, worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Rare, platy, silvery-black, well worn.
KYANITE				
LEUCOXENE		Tr	15%	Beige, cream, grey, dull, porcelain-like, worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		10%	Tr	Includes gorceixite, monazite, resinous, red-orange, red-brown, cream.
PREHNITE				
PYROXENE				
RUTILE		Tr	Tr	Cherry red to silvery-black, well rounded, worn.
SPHENE				
SPINEL			Tr	Gahnite, rare, well rounded, transparent, etched.
STAUROLITE		Tr	Tr	Orange-brown, moderately worn to worn, small black inclusions.
SULPHIDES				
TOURMALINE	Tr	75%	75%	Abundance of well rounded, black-brown grains, also broken, worn fragments, some bluish-green.
XENOTIME				
ZIRCON			10%	Mainly colourless, but also pink, pinkish-mauve, orange, well rounded, also worn euhedra, vitreous.
ROCK FRAGMENTS				

COMMENTS:

Observed by: L.F.
Date: Sept. 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

SAMPLE NO **KE75**

ASSESSMENT	PROB KIMB	
Type of sample	STREAMSED	
Head Weight	18.20	kgs
Conc Weight -0.2+2.0mm	34.3	grams
Size fractions observed	-0.2+2.0mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	4 + 0.25, 14 + 0.2 mm. Black, rarely brownish, sub/anhedra. Some finely pitted, moderately worn. (1+0.2mm prob kimb, 2+0.2mm poss kimb, others not kimb)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Golden yellow, ice blue, grey, blue, sub/anhedra, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE		Tr	Tr	Yellow-green, yellow, translucent, moderately worn.
FE OXIDE/HYDROXIDE	100%	95%	78%	Red-brown, dull to polished pisolites.
GARNET			Tr	1 + 0.25 mm spessartine, greyish, subhedral, rounded, fine black inclusions.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Silvery-black, black, moderately worn.
KYANITE				
LEUCOXENE		Tr	20%	Cream, beige, brown, dull to porcelain-like.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Orange well rounded resinous opaques.
PHOSPHATES		Tr	2%	Creamy-orange, pinkish-brown, red-brown, orange-brown, blocky to rounded resinous opaques.
PREHNITE				
PYROXENE				
RUTILE			Tr	Cherry red, orange-red, black, moderately worn anhedra.
SPHENE				
SPINEL			Tr	Gahnite, aqua-green anhedra, moderately worn.
STAUROLITE				
SULPHIDES				
TOURMALINE		5%	Tr	Black-brown, some angular, generally well rounded
XENOTIME				
ZIRCON			Tr	Beige, colourless, pale pink, orange-brown, rarely subhedral, generally well rounded anhedra.
ROCK FRAGMENTS				

COMMENTS: Concentrate has been MI separated.

Observed by: BG
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

SAMPLE NO **KE74**

ASSESSMENT	**POSITIVE**	
Type of sample	STREAMSED	
Head Weight	12.47	kgs
Conc Weight -2.0+0.2mm	2.0	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	*mm* ***BRIEF DESCRIPTION***
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	2 + 0.25 mm. Black, dull sub/anhedral, moderately worn. (1+0.25mm kimberlitic, 1+0.25mm ?poss kimb, high Mn content, 10.62%)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	*mm* ***BRIEF DESCRIPTION***
AMPHIBOLE				
ANATASE			Tr	Palest grey-blue, pearly-blue, rarely golden yellow, worn, greasy lustre.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Rare, yellow-green, moderately worn, blocky.
FE OXIDE/HYDROXIDE	100%	75%	Tr	Dull, yellow to red-brown, flaky.
GARNET		Tr		1 + 0.4 mm Spessartine. Orange, subangular, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			2%	Silvery-black, worn.
KYANITE				
LEUCOXENE		Tr	8%	Beige, cream, rarely grey, well rounded, opaque.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES	Tr	5%	Tr	Red-brown, orange, resinous, opaque.
PREHNITE				
PYROXENE				
RUTILE			Tr	Cherry-red, well worn.
SPHENE				
SPINEL				
STAUROLITE		Tr	Tr	Rare, orange-brown, worn, transparent, numerous inclusions.
SULPHIDES				
TOURMALINE	Tr	20%	80%	Abundance of well rounded black-brown grains.
XENOTIME				
ZIRCON			10%	Colourless, orange, yellow, Fe stained, well worn.
ROCK FRAGMENTS				

COMMENTS:

Observed by: LF
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE73**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	NEGATIVE	
Type of sample	STREAMSED	
Head Weight	15.06	kgs
Conc Weight -2.0+0.2mm	1.7	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		1 + 0.25 Black, dull, anhedral, moderately worn. Not kimb
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Rare. Grey-blue, blue, yellow, anhedral, moderately worn
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE			Tr		Rare, yellow-green, translucent, moderately worn.
FE OXIDE/HYDROXIDE	80%	20%	Tr		Yellow-brown dull pisolites, also rusty flakes.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, moderately worn.
KYANITE					
LEUCOXENE		Tr	5%		Cream, beige, grey, generally dull.
MAGNETITE					
MICA			Tr		Rare. brown, flaky.
MN OXIDE					
MONAZITE			Tr		Orange, well rounded resinous opaques.
PHOSPHATES	20%	20%	2%		Red-brown, yellow-brown, cream, orange, blocky to rounded, dull to resinous opaques.
PREHNITE					
PYROXENE			Tr		Rare, pale green laths, moderately worn.
RUTILE		Tr	Tr		Brownish-red, silvery-black, orange-red, cherry-red, anhedral, moderately worn.
SPHENE					
SPINEL			Tr		Zn spinel. 1 + 0.2 mm mauvish-blue, euhedral, rounded, black inclusions.
STAUROLITE					
SULPHIDES					
TOURMALINE		60%	90%		Black-brown, some coloured, well rounded.
XENOTIME					
ZIRCON			3%		Colourless, palest pink, brown, orange, sub/anhedral, generally rounded.
AL SILICATES			Tr		Fibrous, Fe-stained, tabular.
ROCK FRAGMENTS					

COMMENTS:

Observed by: BG
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO KE72

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT **NEGATIVE**

Type of sample	STREAMSED	
Head Weight	12.78	kgs
Conc Weight -2.0+0.2mm	1.8	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ¼ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Rare. Pearly-grey, well worn, translucent.
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE			Tr		Rare, yellow-green, moderately worn.
FE OXIDE/HYDROXIDE	100%	Tr	Tr		Dull, yellow-brown, pisolitic, studded with fine quartz.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Well worn, silvery-black.
KYANITE					
LEUCOXENE			Tr		Beige, cream, well worn.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		10%	10%		Includes monazite, reddish-brown, dull, resinous opaque.
PREHNITE					
PYROXENE					
RUTILE			Tr		Cherry red to silvery-black, well worn.
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE	Tr	90%	90%		Black-brown, rarely pale brown, greenish-blue, near spherical.
XENOTIME					
ZIRCON			Tr		Colourless, Fe-stained, well worn.
ROCK FRAGMENTS					

COMMENTS:

Observed by: L.F.
Date: Sept. 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO KE71

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT NEGATIVE

Type of sample	STREAMSED	
Head Weight	15.50	kgs
Conc Weight -2.0+0.2mm	3.3	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Pale ice blue, sky blue, sub/anhedral, moderately worn.
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE			Tr		Rare. Yellow-green, translucent, moderately worn.
FE OXIDE/HYDROXIDE	100%	20%	3%		Red-brown, yellow-brown, dull, pisolitic/fragmented, some quartz encrusted.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE		Tr	Tr		Silvery-black, moderately worn anhedra.
KYANITE			Tr		Rare. Colourless, bladed, moderately worn.
LEUCOXENE		Tr	1%		Grey, cream, beige, dull to porcelain-like.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		5%	1%		Orange-brown, orange, blocky to rounded, resinous opaques.
PREHNITE					
PYROXENE					
RUTILE			Tr		Cherry red, orange-red, orange, black, generally anhedral, moderately worn.
SPHENE					
SPINEL			Tr		Gahnite. Rare. Greyish-green, opaque, rounded.
STAUROLITE					
SULPHIDES					
TOURMALINE	Tr	75%	95%		Black-brown, some coloured, well rounded.
XENOTIME					
ZIRCON			Tr		Orange, colourless, pale pink, well rounded, rare subhedra.
ROCK FRAGMENTS					

COMMENTS:

Observed by: B.G.
Date: Sept. 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

SAMPLE NO **KE70**

ASSESSMENT **POSITIVE**

Type of sample	STREAMSED	
Head Weight	20.40	kgs
Conc Weight -2.0+0.2mm	3.0	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	4 + 0.2 mm. Black, dull Eu/Sub/anhedra, fine surface pitting, moderately worn. (1+0.20mm kimberlitic, 3+0.20 not kimberlitic)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Golden yellow, pale grey-blue, sky-blue, worn, many tabular.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Rare, mod worn, translucent.
FE OXIDE/HYDROXIDE	100%	50%	Tr	Pisolitic, yellow to red-brown, dull.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			20%	Silvery-black, worn.
KYANITE				
LEUCOXENE			10%	Beige, cream, rarely greyish, often dull and rounded.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		50%	10%	Red-brown, orange-red, resinous, worn.
PREHNITE				
PYROXENE				
RUTILE			20%	Cherry-red to silvery-black, worn, elongate to rounded.
SPHENE				
SPINEL			Tr	Gahnite, Al spinel, pale green, pale grey-pink, worn, anhedral to octahedral.
STAUROLITE				
SULPHIDES				
TOURMALINE			Tr	Rare, black-brown, near spherical, well worn.
XENOTIME				
ZIRCON			40%	Colourless, yellow, orange, well rounded.
ROCK FRAGMENTS				

COMMENTS: Concentrate has been MI separated

Observed by: LF
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE69**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	NEGATIVE	
Type of sample	STREAMSED	
Head Weight	17.84	kgs
Conc Weight -2.0+0.2mm	2.1	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Blue, golden yellow, opaque, sub/anhedral.
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE			Tr		Yellow green, subtranslucent, tabular
FE OXIDE/HYDROXIDE	100%	80%	Tr		Brown, rounded, earthy fragments
GARNET			Tr		Rare. Almandine, pale pink, angular fragment.
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			25%		Silvery black, tabular, blocky to rounded.
KYANITE			Tr		Colourless, tabular, rounded.
LEUCOXENE		10%	20%		Cream, beige, grey, opaque, rounded.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		10%			Brown, orange, resinous, rounded.
PREHNITE					
PYROXENE					
RUTILE			20%		Cherry-red, black, orange-red, rounded, subhedral.
SPHENE					
SPINEL			Tr		Gahnite - dark green, rounded, subhedral.
STAUROLITE					
SULPHIDES					
TOURMALINE		Tr	Tr		Black-brown, pale brown, well rounded.
XENOTIME					
ZIRCON		Tr	35%		Honey brown, colourless, yellow, sub/anhedral transparent to opaque.
ROCK FRAGMENTS					

COMMENTS: Sample has been MI Separated.

Observed by: JD
Date: Sept 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE68**

DIATECH
Ph 61 9 361 2596
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File: 96-078.doc

ASSESSMENT	**NEGATIVE**	
Type of sample	STREAMSED	
Head Weight	17.16	kgs
Conc Weight -2.0+0.2mm	2.8	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	*mm*	***BRIEF DESCRIPTION***
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		2 + 0.2 rounded octahedra, finely pitted. Not kimb.
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	*mm*	***BRIEF DESCRIPTION***
AMPHIBOLE					
ANATASE			5%		Beige, golden yellow, grey-blue, opaque, sub/anhedral.
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	100%	100%	Tr		Brown, rounded, earthy flakes.
GARNET			Tr		Almandine - pale pink, angular fragment, (Rare)
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			20%		Silvery black, tabular, blocky to rounded.
KYANITE					
LEUCOXENE		Tr	20%		Cream, beige, grey, opaque, rounded.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES			Tr		Brown, orange, resinous, rounded.
PREHNITE					
PYROXENE					
RUTILE			15%		Cherry-red, orange-red, black, sub/andedral.
SPHENE					
SPINEL			Tr		Rare. Gahnite - blue green, subhedral,
STAUROLITE					
SULPHIDES					
TOURMALINE			Tr		Black, well rounded.
XENOTIME					
ZIRCON		Tr	40%		Honey brown, colourless, orange, pale pink, transparent to opaque, rounded, subhedral, some metamict.
ROCK FRAGMENTS					

COMMENTS: Sample has been MI Separated.

Observed by: JD
Date: Sept. 1996

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

SAMPLE NO **KE67**

ASSESSMENT **NEGATIVE**

Type of sample	STREAMSED	
Head Weight	20.93	kgs
Conc Weight -2.0+0.2mm	2.6	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	*mm* ***BRIEF DESCRIPTION***
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.25, rounded, very finely pitted. Not kimb.
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	*mm* ***BRIEF DESCRIPTION***
AMPHIBOLE				
ANATASE			Tr	blue-grey, golden yellow, blue, opaque, sub/anhedral.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE		100%	Tr	Brown, earthy flakes.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			25%	Silvery black, tabular, subangular, rounded.
KYANITE				
LEUCOXENE			15%	Cream, brown, grey, opaque, rounded.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Orange-brown, resinous, rounded.
PHOSPHATES		Tr	Tr	Brown resinous, well rounded.
PREHNITE				
PYROXENE				
RUTILE			10%	Black, cherry-red, opaque, sub/anhedral.
SPHENE				
SPINEL			Tr	Gahnite - blue-green, rounded, angular.
STAUROLITE				
SULPHIDES			Tr	Pyrite - dull brassy yellow, granular.
TOURMALINE			TR	Black-brown, blue, rounded.
XENOTIME				
ZIRCON		Tr	50%	Honey brown, colourless, pale peach, orange, rounded, transparent to opaque, subhedral.
ROCK FRAGMENTS				

COMMENTS: Sample has been MI separated.
(N.B. Sample concentrate did not contain +0.8 material.)

Observed by: JD
Date: Sept. 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO KE66

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-078.doc

ASSESSMENT	NEGATIVE	
Type of sample	STREAMSED	
Head Weight	15.00	kgs
Conc Weight -2.0+0.2mm	2.2	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
AMPHIBOLE			Tr	Rare, dark bottle green laths, moderately fresh to worn.
ANATASE			Tr	Pale sky blue, grey-blue, worn euhedra.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Rare, yellow-green, translucent, moderately fresh to worn.
FE OXIDE/HYDROXIDE	100%	20%	Tr	Yellow-brown, dull, studded with fine, rounded quartz grains.
GARNET			Tr	Rare, spessartine, pale orange-brown, worn.
GOLD				
GORCEIXITE			Tr	Red-brown, resinous, well worn.
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE		Tr	25%	Beige to cream, grey, worn, dull, opaque.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Red-orange, well rounded, resinous, opaque.
PHOSPHATES				
PREHNITE				
PYROXENE		Tr	Tr	Brown, pale brown, moderately fresh, semi-opaque.
RUTILE			Tr	Cherry red to silvery-black, well rounded to elongate.
SPHENE				
SPINEL			Tr	Gahnite, pale aqua green, well worn.
STAUROLITE			Tr	Orange-brown, worn, transparent, blocky fragments.
SULPHIDES			Tr	1 + 0.20mm, pyrite, fine, granular aggregate.
TOURMALINE	Tr	80%	75%	Well rounded, black-brown grains, some more blocky, worn, rarely bluish-green, pale brown.
XENOTIME				
ZIRCON			Tr	Colourless, pale pink, pinkish-mauve.
DIASPORE	Tr			Colourless, blocky, worn.
ROCK FRAGMENTS				

COMMENTS:

Observed by: L.F.
Date: Sept. 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
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File: 96-078.doc

SAMPLE NO KE65

ASSESSMENT NEGATIVE

Type of sample	STREAMSED	
Head Weight	15.34	kgs
Conc Weight -2.0+0.2mm	2.6	grams
Size fractions observed	-2.0+0.2mm	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
AMPHIBOLE			Tr	Rare, moderately fresh, dark bottle green, elongate, striate.
ANATASE			Tr	Pale sky blue, grey-blue, worn.
APATITE				
BARITE		Tr	Tr	White, finely crystalline, sugary textured.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Rare, yellow, yellowish-green, well worn, translucent.
FE OXIDE/HYDROXIDE	100%	20%		Yellow-brown, dull, studded with rounded quartz grains.
GARNET			Tr	Almandine, rare, pink euhedra, moderately fresh.
GOLD				
GORCEIXITE		Tr		Resinous, reddish-brown, worn, opaque.
HAEMATITE				
ILMENITE			Tr	Rare, silvery-black, worn subhedra.
KYANITE				
LEUCOXENE		Tr	10%	Beige to cream, dull, worn.
MAGNETITE				
MICA		Tr	Tr	Rare, brown, white, platy.
MN OXIDE				
MONAZITE			Tr	Red-orange, resinous, worn, opaque.
PHOSPHATES				
PREHNITE				
PYROXENE		Tr		Pale brown, moderately fresh, semi-opaque.
RUTILE			Tr	Rounded to elongate, silvery-black to cherry red, worn.
SPHENE				
SPINEL				
STAUROLITE				
SULPHIDES			Tr	1 + 0.20mm, pyrite, fine granular cluster.
TOURMALINE	Tr	80%	90%	Well rounded, black-brown, broken, worn, rarely greenish-blue.
XENOTIME				
ZIRCON		Tr	Tr	Colourless, pale orange, well rounded, near spherical.
ROCK FRAGMENTS				

COMMENTS:

Observed by: L.F.
Date: Sept. 1996

Kee: 42

DIATECH
HEAVY MINERAL SERVICES
15 Sandra Place, WELSHPOOL, WESTERN AUSTRALIA, 6106
Telephone 61 9 361 2596 Facsimile 61 9 470 1504

10-May-96

LABORATORY DATA SUMMARY

Job Number: 96-039

Company: ZEPHYR MINERALS

Order No.: VERBAL-A DRUMMOND

Project: ORD RIVER WA

Date Received: 01-Jan-98

No. of Samples: 16

Job Description

1. Mill each sample for approx 1 hour.
2. Wet screen off the +1.2mm.
3. Deslime at 100 micron.
4. Wilfley table the -1.2m +100 micron
5. MI separate as required
6. Observe for diamonds and indicators

Lab No.	Sample Number	Type of Sample	Wet Weight (kg)	Head Weight (kg)	T.B.E. Conc. Weight (grams) -1.2+0.25mm	M.I. Conc. Weight (grams) -1.2+0.25mm
1	B✓	LOAM		22.56	13.45	
2	F✓	LOAM		28.58	18.25	
3	F1 ✓	LOAM		21.04	2.88	
4	GS✓	LOAM		23.56	1.55	
5	I✓	LOAM		26.28	1.05	0.21
6	K✓	LOAM		21.38	3.77	
7	M✓	LOAM		18.42	5.85	
8	P✓	LOAM		32.12	1.81	0.46
9	P1✓	LOAM		30.36	4.84	0.81
10	P2✓	LOAM		30.58	3.55	0.66
11	Q✓	LOAM		37.20	1.65	0.45
12	Q1✓	LOAM		30.04	17.12	
13	T1✓	LOAM		41.30	4.06	1.18
14	U✓	LOAM		29.20	5.00	0.14
15	V✓	LOAM		40.50	8.82	2.32
16	VIP✓	LOAM		37.48	0.87	0.33
	TOTAL			470.600	94.52	6.56

HEAVY MINERAL ANALYSIS SHEET

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SAMPLE NO KE64

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	17.96	kgs
Conc Weight -1.2+0.25mm	0.8	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			10%		Grey, blue, opaque, subtranslucent, sub/anhedral, blocky, moderately worn.
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE					
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE					
KYANITE					
LEUCOXENE			74%		Creamy beige, sub/anhedral, blocky, worn.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES			2%		Reddish-brown, resinous, anhedral, worn, opaque.
PREHNITE					
PYROXENE					
RUTILE			12%		Cherry red, orange-red, silvery-black, subtranslucent, opaque, worn.
SPHENE					
SPINEL			Tr		Rare. Gahnite, bottle green, anhedral, transparent, worn.
STAUROLITE					
SULPHIDES					
TOURMALINE					
XENOTIME					
ZIRCON			2%		Colourless, Fe-stained, anhedral, transparent, worn.
ROCK FRAGMENTS					

COMMENTS: Conc MI Separated.

Observed by: S.M.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

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File: 96-056.doc

SAMPLE NO **KE63**

ASSESSMENT	PROB KIMB	
Type of sample	LOAM	
Head Weight	24.50	kgs
Conc Weight -1.2+0.25mm	1.8	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		9 + 0.20mm, sub-euhedral, slightly cokey, silvery-black to black, some anhedral, cokey, often friable. (1 + 0.20mm prob kimb)
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Cream, blue-grey, blue, sub/anhedral, opaque.
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE			Tr		Yellow-green, transparent laths.
FE OXIDE/HYDROXIDE	95%	Tr	Tr		Brown, dull, rounded, fragments.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE					
KYANITE			Tr		Colourless, tabular.
LEUCOXENE			Tr		Cream, opaque, rounded, dull.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		5%	5%		Brown, orange, resinous, rounded.
PREHNITE					
PYROXENE					
RUTILE		Tr	1%		Red-black, cherry red, black, rounded, subhedral.
SPHENE					
SPINEL			Tr		Gahnite - dark blue-green, subhedral.
STAUROLITE		Tr	Tr		Orange-brown, blocky, tabular.
SULPHIDES					
TOURMALINE	5%	95%	92%		Brown, black, orange, blue, green, rounded.
XENOTIME					
ZIRCON		Tr	2%		Honey brown, orange, colourless, rounded, subhedral.
ANDALUSITE			Tr		Pale pink, black inclusions, blocky.
ROCK FRAGMENTS					

COMMENTS: The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. All 9 recovered were microprobed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: J.D.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
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Fx 61 9 470 1504

File: 96-056.doc

SAMPLE NO KE60

ASSESSMENT NEGATIVE

Type of sample	LOAM	
Head Weight	16.24	kgs
Conc Weight -1.2+0.25mm	0.0	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE		1%			White, opaque, anhedral, blocky, worn.
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE		1%			Yellow-green, subtranslucent, anhedral, blocky.
FE OXIDE/HYDROXIDE	100%	98%	100%		Orange-brown, flaky, moderately worn, brown, rounded, worn.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE					
KYANITE					
LEUCOXENE					
MAGNETITE					
MICA			Tr		Brown, translucent, anhedral flake.
MN OXIDE					
MONAZITE					
PHOSPHATES			Tr		Creamy white, opaque, anhedral, worn.
PREHNITE					
PYROXENE					
RUTILE					
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE					
XENOTIME					
ZIRCON					
ROCK FRAGMENTS					

COMMENTS:

Observed by: S.M.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

SAMPLE NO KE59

ASSESSMENT **NEGATIVE**

Type of sample	LOAM	
Head Weight	9.44	kgs
Conc Weight -1.2+0.25mm	0.01	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	100%				Brown, rounded, blocky, moderately worn.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE					
KYANITE					
LEUCOXENE					
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES					
PREHNITE					
PYROXENE					
RUTILE					
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE					
XENOTIME					
ZIRCON					
ROCK FRAGMENTS					

COMMENTS: Sample not screened into fraction size.

Observed by: J.D.
Date: June, 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO KE29

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

ASSESSMENT NEGATIVE

Type of sample	LOAM	
Head Weight	18.04	kgs
Conc Weight -1.2+0.25mm	14.7	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 +0.25 Cr spinel, 3 + 0.25mm Chromite, (from ½ split), black, fine pitting, rounded, subhedral. Not kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ¼ split) is 2 grains in a ¼ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE		20%	30%	Black, bottle green, tabular, elongate, laths.
ANATASE				
APATITE				
BARITE	30%	40%	15%	Cream, white, granular, rounded.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE	Tr	15%	20%	Yellow-green, orange, moss green subhedral, opaques, blocky, radiating structure.
FE OXIDE/HYDROXIDE	70%	25%	10%	Brown, black, well rounded.
GARNET			10%	Almandine - candy pink, Spessartine - orange fragment, Grossular - rounded, yellow.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE		Tr	15%	Silvery-black, tabular, blocky.
KYANITE				
LEUCOXENE		Tr	Tr	Grey, brown, cream, opaque, rounded.
MAGNETITE				
MICA		Tr	Tr	Black, dark brown, tan, opaque, flakes.
MN OXIDE				
MONAZITE				
PHOSPHATES				
PREHNITE				
PYROXENE		Tr	Tr	Pale brown, dark green, fibrous, finely pitted.
RUTILE		Tr	Tr	Red-brown, cherry red, opaque, subhedral.
SPHENE			Tr	Grey-black, opaque, subhedral, black.
SPINEL				
STAUROLITE		Tr	Tr	Orange-brown, frosted, blocky.
SULPHIDES				
TOURMALINE	Tr	Tr	Tr	Black, brown, rounded, subhedral.
XENOTIME				
ZIRCON		Tr	Tr	Colourless, Fe-stained, rounded.
SILLIMANITE	Tr	Tr	Tr	Colourless, Fe-stained, elongate, fibrous.
ROCK FRAGMENTS				

COMMENTS: 0.25mm, ½ split observed.

Observed by: J.D.
Date: June, 1996

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO KE28

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	16.36	kgs
Conc Weight -1.2+0.25mm	1.4	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		1 + 0.25mm, black, rounded. Not kimb
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ¼ split) is 2 grains in a ¼ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE		10%	35%		Moss green yellow-green, opaque, blocky, subhedral.
FE OXIDE/HYDROXIDE	100%	70%	5%		Brown, black, red-brown, rounded.
GARNET		20%	30%		Almandine - pale pink, orange-pink, blocky.
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			30%		Silvery-black, rounded, blocky, tabular, rounded.
KYANITE		Tr			Colourless, Fe-stained, tabular.
LEUCOXENE			Tr		Cream, opaque, rounded.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES					
PREHNITE					
PYROXENE		Tr			Pale brown, surface striate, translucent laths.
RUTILE					
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE			Tr		Black, well rounded.
XENOTIME					
ZIRCON		Tr	Tr		Orange, colourless, rounded, subhedral. Rare.
SILLIMANITE		Tr			White, elongate, fibrous. Rare.
ROCK FRAGMENTS					

COMMENTS: Conc has been MI separated

Observed by: J.D.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET \

DIATECH
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Fx 61 9 470 1504

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SAMPLE NO **KE18**

ASSESSMENT **NEGATIVE**

Type of sample	LOAM	
Head Weight	11.80	kgs
Conc Weight -1.2+0.25mm	0.1	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE			Tr	Black-green, elongate, blocky, sub-translucent, moderately worn.
ANATASE				
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE		13%	40%	Pale yellow-green, creamy, sub-translucent, tabular, worn.
FE OXIDE/HYDROXIDE	100%	87%	25%	Brown, orange-brown, grey-black, dull, fragmented
GARNET		Tr	10%	Almandine, Spessartine - pale pink, pale orange-pink, orange, colourless, subangular, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Silvery-black, moderately worn.
KYANITE				
LEUCOXENE		Tr	Tr	Creamy, dull.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES			Tr	Orange, well rounded, resinous, opaque.
PREHNITE				
PYROXENE			Tr	Pale brown, grey-green, striate laths, blocky, moderately worn.
RUTILE			25%	Silvery-black, sub/anhedra, moderately worn.
SPHENE			Tr	Rare. Creamy beige, subhedral, moderately worn.
SPINEL				
STAUROLITE			Tr	Rare. Orange-brown, blocky to rounded, moderately worn.
SULPHIDES				
TOURMALINE				
XENOTIME				
ZIRCON			Tr	Rare. Colourless, well rounded.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.

Observed by: B.G.
Date: June, 1996.

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SAMPLE NO KE17

ASSESSMENT NEGATIVE

Type of sample	LOAM	
Head Weight	19.80	kgs
Conc Weight -1.2+0.25mm	0.6	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			9%	Golden yellow, grey-blue, sub/anhedral, moderately worn.
APATITE				
BARITE	35%	48%	Tr	Creamy white, globular, granular opaques.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	1 + 0.25mm, pale yellow, translucent, moderately worn.
FE OXIDE/HYDROXIDE	65%	26%	Tr	Orange-brown, dull, pisolitic.
GARNET			Tr	Almandine. Pale orange-pink, subangular to blocky, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE		13%	82%	Beige, cream, grey, sub/anhedral, generally dull.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		13%	Tr	Orange, orange-brown, resinous, opaque.
PREHNITE				
PYROXENE				
RUTILE			9%	Cherry red, orange-red, black, sub/anhedral, moderately worn.
SPHENE				
SPINEL			Tr	Gahnite - Rare. Aqua green, well rounded.
STAUROLITE				
SULPHIDES				
TOURMALINE		Tr	Tr	Black-brown, generally well rounded.
XENOTIME				
ZIRCON			Tr	Pale pink, colourless, Fe-stained, well rounded.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.

Observed by: B.G.
Date: June, 1996.

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SAMPLE NO: KE16

ASSESSMENT: NEGATIVE

Type of sample	LOAM	
Head Weight	21.62	kgs
Conc Weight -1.2+0.25mm	1.3	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.25mm, black, cokey, anhedral, worn. Not kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			5%	Blue, yellow, translucent, opaque, sub/anhedral, slightly to moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE			2%	Brown, blocky, rounded.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			1%	Silvery-black, anhedral, worn.
KYANITE				
LEUCOXENE			75%	Creamy, beige, sub/anhedral, moderately worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES			Tr	Orange-brown, brown, resinous, well rounded.
PREHNITE				
PYROXENE				
RUTILE			Tr	Rare. Black, opaque, subhedral, worn.
SPHENE				
SPINEL				
STAUROLITE				
SULPHIDES				
TOURMALINE			1%	Brown-black, anhedral, well rounded.
XENOTIME				
ZIRCON			1%	Colourless, pink, purple, subangular, blocky, slightly worn to worn, well rounded.
ROCK FRAGMENTS			15%	Leucoxene/Anatase

COMMENTS: Conc has been MI separated.

Observed by: S.M.
Date: June, 1996

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SAMPLE NO KE15

ASSESSMENT NEGATIVE

Type of sample	LOAM	
Head Weight	21.10	kgs
Conc Weight -1.2+0.25mm	1.2	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ¼ split) is 2 grains in a ¼ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			3%	Pale yellow, slate blue, subtranslucent, opaque, anhedral, moderately worn.
APATITE				
BARITE	Tr	20%	7%	Colourless, white, translucent, opaque, sub/anhedral, slightly to moderately worn.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Yellow, translucent, anhedral, blocky, moderately worn.
FE OXIDE/HYDROXIDE	100%	62%	12%	Brown, anhedral, blocky, well rounded.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			3%	Silvery-black, anhedral, blocky, tabular, worn.
KYANITE				
LEUCOXENE		1%	25%	Creamy, beige, grey, anhedral, rounded, tabular, worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		15%	7%	Brown, orange-brown, resinous, anhedral, rounded.
PREHNITE				
PYROXENE				
RUTILE			30%	Cherry red, orange-red, silvery-black, anhedral, blocky, rounded, worn.
SPHENE				
SPINEL			Tr	Pale bottle green, bottle green, translucent, anhedral, blocky, rounded.
STAUROLITE			Tr	Brown, translucent, anhedral, blocky, moderately worn.
SULPHIDES				
TOURMALINE			6%	Brown-black, anhedral, well rounded.
XENOTIME				
ZIRCON		2%	7%	Colourless, pink, purple, some Fe-stained, blocky, well rounded, worn.
ROCK FRAGMENTS				

COMMENTS: Conc has been Mi separated.

Observed by: S.M.
Date: June, 1996

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SAMPLE NO KE14

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	23.43	kgs
Conc Weight -1.2+0.25mm	2.6	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	2 + 0.25mm, black, dull, slightly cokey surfaces. One is subhedral, the other anhedral, moderately worn to worn. Not kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE		3%	Tr	Palest blue-beige, blue, golden yellow, grey, sub/anhedral, moderately worn.
APATITE				
BARITE	50%	Tr	Tr	Sugary aggregates.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE		7%	Tr	Dull red-brown, pisolitic.
GARNET			Tr	Almandine, Spessartine - pale pink, orange-pink, colourless, subangular to rounded, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE		64%	80%	Creamy beige, tan, sub/anhedra, generally dull.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES	50%	18%	5%	Orange-brown, orange, resinous, opaque.
PREHNITE				
PYROXENE				
RUTILE		3%	10%	Cherry red, black, orange sub/anhedral, moderately worn.
SPHENE				
SPINEL				
STAUROLITE			Tr	Rare. Orange-brown, blocky, moderately worn.
SULPHIDES				
TOURMALINE		5%	5%	Black-brown, rarely coloured, subangular to well rounded.
XENOTIME				
ZIRCON			Tr	Colourless, orange, palest pink, subhedral to well rounded.
AI SILICATES			Tr	Palest grey, blue-grey, subangular, transparent to translucent, moderately worn.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.

Observed by: B.G.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO KE13

DIATECH
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ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	21.80	kgs
Conc Weight -1.2+0.25mm	1.9	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL				
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Yellow-grey, yellow, blue-grey, translucent, sub/anhedral.
APATITE				
BARITE		40%	10%	White, cream, rounded, granular.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Yellow-green, subhedral.
FE OXIDE/HYDROXIDE	100%	30%	25%	Brown, blocky, fractured.
GARNET			Tr	Almandine - pale pink, low Mg. Rare.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			10%	Silvery-black, rounded, tabular, grooved.
KYANITE				
LEUCOXENE		Tr	5%	Cream, grey, opaque, rounded.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		30%	25%	Brown, opaque, rounded.
PREHNITE				
PYROXENE				
RUTILE			15%	Black, red-black, opaque, subhedral, cherry red.
SPHENE				
SPINEL			Tr	Gahnite- green, blue-green, subhedral.
STAUROLITE		Tr		Orange-brown, blocky, subhedral.
SULPHIDES				
TOURMALINE			Tr	Black, opaque, well rounded.
XENOTIME				
ZIRCON		Tr	10%	Colourless, honey brown, black, orange, pink, sub/anhedral.
ROCK FRAGMENTS				

COMMENTS: Conc MI separated.

Observed by: J.D.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

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SAMPLE NO KE12

ASSESSMENT **NEGATIVE**

Type of sample	LOAM	
Head Weight	23.16	kgs
Conc Weight -1.2+0.25mm	0.8	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Pale yellow, subtranslucent, anhedral, moderately worn.
APATITE					
BARITE	5%	2%	Tr		White, opaque, granular, anhedral, moderately worn.
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	95%	71%	35%		Black, anhedral, flaky, dull
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, anhedral, tabular, moderately worn.
KYANITE					
LEUCOXENE		2%	20%		Cream, beige, grey, anhedral, blocky, tabular, worn.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		25%	15%		Brown, orange-brown, blocky, rounded, worn.
PREHNITE					
PYROXENE					
RUTILE			15%		Dark cherry red, silvery-black, blocky, rounded, moderately worn to worn.
SPHENE					
SPINEL			Tr		Bottle green, blue-green, translucent, anhedral, well rounded.
STAUROLITE					
SULPHIDES					
TOURMALINE			5%		Brown-black, anhedral, rounded.
XENOTIME					
ZIRCON			10%		Colourless, pale pink, transparent, anhedral, well rounded.
ROCK FRAGMENTS					

COMMENTS: Conc has been MI separated.
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. No chromite were recovered

Observed by: S.M.
Date: June, 1996

HEAVY MINERAL ANALYSIS SHEET

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SAMPLE NO **KE11**

ASSESSMENT **NEGATIVE**

Type of sample	LOAM	
Head Weight	18.32	kgs
Conc Weight -1.2+0.25mm	0.7	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE			Tr		Rare. Colourless, transparent, subhedral, tabular.
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE		80%	69%		Brown, anhedral, irregular, dull.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, anhedral, rounded.
KYANITE					
LEUCOXENE		10%	15%		Creamy, beige, subangular, blocky, worn.
MAGNETITE					
MICA					
MN OXIDE			Tr		Black, acicular aggregate, moderately fresh.
MONAZITE					
PHOSPHATES		10%	5%		Reddish-brown, sub-resinous, anhedral, opaque, worn.
PREHNITE					
PYROXENE					
RUTILE		Tr	8%		Cherry red, orange, silvery-black, opaque, subtranslucent, blocky, worn.
SPHENE					
SPINEL			Tr		Pale bottle green, transparent, anhedral, worn.
STAUROLITE					
SULPHIDES					
TOURMALINE					
XENOTIME					
ZIRCON			3%		Colourless, some Fe-stained, sub/anhedral, transparent, worn.
ROCK FRAGMENTS					

COMMENTS: Conc MI Separated.
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. No chromite were recovered

Observed by: S.M.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

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SAMPLE NO **KE10**

ASSESSMENT **NEGATIVE**

Type of sample	LOAM	
Head Weight	21.86	kgs
Conc Weight -1.2+0.25mm	0.7	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.25mm, black, dull, well rounded, anhedral, slightly cokey surface. Not kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Rare. Grey, tabular, subtranslucent, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	25%	Tr	Red-brown, orange-brown, dull, pisolitic, flaky, fragmented.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE			20%	Beige, grey, grey-green, dull to porcelain-like.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES	Tr	75%	45%	Orange-brown, resinous, opaque.
PREHNITE				
PYROXENE				
RUTILE		Tr	20%	Cherry red, orange-red, black, sub/anhedral, moderately worn.
SPHENE				
SPINEL			Tr	Gahnite. Rare. Aqua-green, well rounded.
STAUROLITE				
SULPHIDES				
TOURMALINE			Tr	Black-brown, well rounded.
XENOTIME				
ZIRCON			15%	Orange-brown, palest pink, colourless, Fe-stained, sub/anhedral, moderately worn.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. No further chromite were recovered down to 0.20mm.

Observed by: B.G.
Date: June, 1996.

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SAMPLE NO **KE09**

ASSESSMENT **NEGATIVE**

Type of sample	LOAM	
Head Weight	17.48	kgs
Conc Weight -1.2+0.25mm	1.0	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	100%	60%	28%		Brown, black, anhedral, blocky, moderately worn.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, anhedral, tabular, moderately worn.
KYANITE					
LEUCOXENE		Tr	15%		Creamy, beige, grey, dull, blocky, tabular, worn.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		40%	35%		Brown, orange-brown, resinous, blocky, rounded.
PREHNITE					
PYROXENE					
RUTILE		Tr	10%		Dark cherry red.
SPHENE					
SPINEL			Tr		Bottle green, transparent, anhedral, moderately worn, 1 + 0.25mm
STAUROLITE					
SULPHIDES					
TOURMALINE			4%		Brown-black, anhedral, rounded.
XENOTIME					
ZIRCON			8%		Colourless, Fe-stained, anhedral, blocky to well rounded, worn.
ROCK FRAGMENTS					

COMMENTS: Conc as been MI separated.
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. Nochromite were recovered down to 0.20mm

Observed by: S.M.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

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SAMPLE NO **KE08**

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	16.50	kgs
Conc Weight -1.2+0.25mm	0.6	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE			Tr		Grey-blue, yellow, sub/anhedra, moderately worn.
APATITE					
BARITE	16%	Tr	Tr		Rare. Creamy white, sugary opaques
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	50%	Tr	Tr		Red-brown, dull, fragmented.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, sub/anhedral, moderately worn.
KYANITE					
LEUCOXENE		15%	25%		Beige, grey, dull to porcelain-like.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES	34%	75%	40%		Creamy brown, orange-brown, resinous opaques.
PREHNITE					
PYROXENE			Tr		1 + 0.25mm, pale yellow-brown, striate, lath-like moderately worn.
RUTILE		10%	25%		Cherry red, orange-red, black sub/anhedra, moderately worn.
SPHENE					
SPINEL			Tr		Gahnite - Rare. Aqua-green, anhedral.
STAUROLITE					
SULPHIDES					
TOURMALINE			Tr		Black-brown, well rounded.
XENOTIME					
ZIRCON			10%		Colourless, orange, sub/anhedral, moderately worn to worn.
ANDALUSITE			Tr		Colourless, translucent, moderately worn.
ROCK FRAGMENTS					

COMMENTS: Conc has been MI separated. The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. Chromite were recovered down to 0.20mm

Observed by: B.G.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE7**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-053.doc

ASSESSMENT	PROB KIMB	
Type of sample	LOAM	
Head Weight	16.86	kgs
Conc Weight -1.2+0.25mm	1.7	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		4 + 0.20mm, one is euhedral, slightly cokey, the others anhedral, rounded, cokey. (1 + 0.20mm prob kimb)
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ¼ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	100%	100%	65%		Brown, red-brown, rounded, blocky.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE		Tr	1%		Silvery-black, blocky, pitted.
KYANITE					
LEUCOXENE			2%		Cream, grey, rounded.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES			20%		Orange, brown, opaque, rounded.
PREHNITE					
PYROXENE					
RUTILE		Tr	10%		Red-black, cherry red, opaque, subhedral.
SPHENE					
SPINEL			Tr		Gahnite - blue-green, transparent, subhedral.
STAUROLITE			Tr		Orange-brown, rounded, frosted.
SULPHIDES					
TOURMALINE			Tr		Black, well rounded,.
XENOTIME					
ZIRCON		Tr	2%		Colourless, brown, orange, rounded, subhedral.
ROCK FRAGMENTS					

COMMENTS: Conc MI Separated
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. All 4 recovered were microprobed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: J.D.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

SAMPLE NO KE06

ASSESSMENT	POSITIVE	
Type of sample	LOAM	
Head Weight	17.98	kgs
Conc Weight -1.2+0.25mm	0.7	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	2 + 0.25mm, 3 + 0.20mm, black, dull, subhedral, rounded, moderately worn. (1 + 0.20mm kimberlitic)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE			Tr	Rare. Black-green, lath-like, moderately worn.
ANATASE			Tr	Golden yellow, sub/anhedra, moderately worn.
APATITE				
BARITE	13%	7%	Tr	Creamy white, granular, blocky to rounded, opaques.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	87%	67%	13%	Orange-brown, red-brown, dull, pisolitic, fragmented.
GARNET				
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE		15%	26%	Beige, tan, cream, generally dull, rarely porcelain-like.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		7%	13%	Orange-brown, resinous, opaque.
PREHNITE				
PYROXENE				
RUTILE		4%	26%	Orange-red, black, cherry red, sub/anhedra, moderately worn.
SPHENE				
SPINEL				
STAUROLITE			Tr	Orange-brown, rounded, etched, moderately worn.
SULPHIDES				
TOURMALINE			Tr	Black-brown, well rounded.
XENOTIME				
ZIRCON		Tr	22%	Colourless, pale pink, orange, Fe-stained, sub/anhedral, moderately worn to worn.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. All 3 recovered were microprobed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: B.G.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

SAMPLE NO **KE05**

ASSESSMENT **POS KIMB**

Type of sample	LOAM	
Head Weight	19.36	kgs
Conc Weight -1.2+0.25mm	50.8	grams

Size fractions observed -1.2+0.20 mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	4 + 0.20mm, three are sub-euhedral, slightly cokey, silvery-black, one is anhedral, cokey. (2 + 0.20mm poss kimb)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Yellow-blue, translucent, blocky, worn. Rare
APATITE				
BARITE	92%	92%	84%	White, opaque, crypto-crystalline aggregates, worn, many with moderately worn grains of quartz inclusions.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Yellow, transparent, anhedral, blocky, moderately worn.
FE OXIDE/HYDROXIDE	8%	8%	5%	Brown, dull, angular, rounded, moderately worn.
GARNET			Tr	Almandine, pale pink, subangular, blocky, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Silvery-black, anhedral, blocky, subangular, moderately worn.
KYANITE				
LEUCOXENE			1%	Cream, opaque, anhedral, blocky.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Yellow, resinous, translucent, anhedral, worn.
PHOSPHATES			Tr	Orange, resinous, opaque, blocky, worn.
PREHNITE				
PYROXENE			Tr	Pale olive green, translucent, anhedral, worn, frosted, Ca Si Trace Fe Mg Al.
RUTILE			Tr	Cherry red, orange, silvery-black, subtranslucent, anhedral, moderately worn.
SPHENE				
TOURMALINE	Tr	Tr	10%	Blue, green, brown, black, anhedral, well rounded.
XENOTIME				
ZIRCON			Tr	Pale brown, pale pink, purple, subhedral, moderately worn, transparent, well rounded.
ROCK FRAGMENTS				

COMMENTS: The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. All 4 recovered were microprobed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: S.M.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-053.doc

SAMPLE NO KE4

ASSESSMENT **POSITIVE**

Type of sample	LOAM	
Head Weight	22.14	kgs
Conc Weight -1.2+0.25mm	0.9	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL			Tr		6 + 0.25mm, 17 + 0.20mm, black, sub/anhedral, pitted, slightly to moderately worn. 1+0.25mm and 3+0.20mm kimberlitic. 1+0.25mm and 6+0.20mm probably kimberlitic.
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE		89%	5%		Brown, anhedral, blocky, rounded.
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			5%		Silvery-black, anhedral, blocky, rounded.
KYANITE					
LEUCOXENE		5%	25%		Creamy, beige, tan, sub/anhedral, worn.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES		5%	48%		Reddish-brown, resinous, opaque, rounded.
PREHNITE					
PYROXENE					
RUTILE			5%		Dark cherry red, opaque, subtranslucent, blocky, rounded.
SPHENE					
SPINEL			Tr		Bottle green, transparent, subhedral, worn, Gahnite.
STAUROLITE					
SULPHIDES					
TOURMALINE			2%		Brown-black, anhedral, well rounded.
XENOTIME					
ZIRCON		1%	10%		Colourless, transparent, some Fe-staining, sub/anhedral, moderately worn to well rounded.
ROCK FRAGMENTS					

COMMENTS: Conc MI separated.
The -0.25+0.20mm fraction has been TBE separated, MI separated, then observed for chromite only. All 17 were probed
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: S.M.
Date: June, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **KE02**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

ASSESSMENT	POSS KIMB	
Type of sample	LOAM	
Head Weight	28.40	kgs
Conc Weight -1.2+0.25mm	1.4	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	*mm* *BRIEF DESCRIPTION*
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	6 + 0.20mm, most are sub-euhedral, slightly cokey, silvery-black, one is anhedral, cokey, friable. (1 + 0.20mm poss kimb, 5 + 0.20mm not kimb)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	*mm* *BRIEF DESCRIPTION*
AMPHIBOLE				
ANATASE			Tr	Grey-blue, golden yellow, anhedral, moderately worn to worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	60%	10%	Orange-brown, dull, pisolitic.
GARNET			Tr	Rare. Almandine - pale pink, subangular, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE		Tr	Tr	Silvery-black, tabular, moderately worn.
KYANITE				
LEUCOXENE		4%	20%	Beige, grey, generally dull, opaque, rarely porcelain-like.
MAGNETITE				
PHOSPHATES	Tr	32%	30%	Orange-brown, cream, resinous, opaque.
PYROXENE				
RUTILE		4%	15%	Cherry red, black, orange, sub/anhedral, moderately worn.
SPHENE				
SPINEL			Tr	Gahnite - Rare. Aqua-green, rounded.
STAUROLITE			Tr	Dark orange-brown, frosted, moderately worn.
TOURMALINE			Tr	Black-brown, well rounded.
ZIRCON			25%	Colourless, orange, Fe-stained, sub/anhedral, moderately worn, some well rounded.
ANDALUSITE			Tr	Colourless, palest pink, blocky, moderately worn.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.
The -0.25mm fraction was TBE separated, then the -0.25 + 0.20mm observed for chromite. All 6 recovered were microprobed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: B.G.
Date: June 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-056.doc

SAMPLE NO KE01

ASSESSMENT	PROB KIMB	
Type of sample	LOAM	
Head Weight	19.50	kgs
Conc Weight -1.2+0.25mm	0.5	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL		Tr	Tr	1 + 0.4mm, 3 + 0.25mm, 9 + 0.20mm black, dull, sub/anhedra, moderately worn. (1 + 0.20mm probably kimberlitic 1+ 0.4mm, 3 + 0.25mm and 4 + 0.20mm possibly kimberlitic)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE		10%	Tr	Blue, grey, golden orange, sub/anhedra, moderately worn to worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	Tr	Tr	Orange-brown, dull, pisolitic, also black, flattened fragments.
GARNET			Tr	Spessartine, Almandine - pale orange-pink, grey, colourless, pink, subhedral, some subangular to rounded, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			Tr	Silvery-black, dull, moderately worn.
KYANITE				
LEUCOXENE		10%	20%	Beige, grey, generally dull, rounded.
MONAZITE				
PHOSPHATES	Tr	35%	5%	Orange-brown, red-brown, resinous opaques.
PREHNITE				
PYROXENE				
RUTILE		20%	35%	Cherry red, black, sub/anhedra, moderately worn.
SPHENE				
SPINEL			Tr	Gahnite - aqua-green, anhedral, moderately worn.
STAUROLITE		10%	Tr	Orange-brown, greyish-brown, blocky, moderately worn.
SULPHIDES				
TOURMALINE			Tr	Black-brown, rarely coloured, rounded.
XENOTIME				
ZIRCON		15%	40%	Colourless, Fe-stained, pinkish-orange, orange, sub/anhedral, transparent to translucent, moderately worn.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.
The -0.25+0.20mm fraction has been TBE and MI separated, then observed for chromite only. All 9 were probed
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: B.G.
Date: June, 1996.

KGG : 4

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO B

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	22.56	kgs
Conc Weight -1.2+0.25mm	13.5	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	3 +0.25mm, black, finely pitted, subhedral. Not Kimb.
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE	5%	15%	10%	Bottle green, black, Fe-stained, subtranslucent to opaque, cream, fibrous laths, subhedral.
ANATASE				
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE	10%	10%	15%	Moss green, black-green, yellow-green, subhedral, radiating structure.
FE OXIDE/HYDROXIDE	84%	40%	10%	Brown, red-brown, well rounded.
GARNET	Tr	20%	20%	Pink, orange-pink, subhedral, angular fragments, Almandine, Trace Mg, Grossular.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE		10%	40%	Silvery-black, tabular, subrounded.
KYANITE				
LEUCOXENE		Tr	Tr	Cream, beige, opaque, moderately worn.
MAGNETITE				
MICA		Tr		Black-brown, thick, tabular, thin flakes.
MN OXIDE				
MONAZITE			Tr	Orange, opaque, anhedral, rounded.
PHOSPHATES				
PREHNITE				
PYROXENE				
RUTILE		Tr		Red-black, translucent, subhedral.
SPHENE				
SPINEL				
STAUROLITE				
SULPHIDES				
TOURMALINE	1%	5%	5%	Brown, transparent, rounded, subhedral.
XENOTIME				
ZIRCON				
ROCK FRAGMENTS				

COMMENTS:

Observed by: J.D.
Date: May 1996.

HEAVY MINERAL ANALYSIS SHEET (Pre probe)

SAMPLE NO GS

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	23.56	kgs
Conc Weight -1.2+0.25mm	1.6	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ¼ split) is 2 grains in a ¼ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE		Tr	5%		Greenish-black, fibrous, elongate laths.
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE		Tr	2%		Yellow-green, opaque, anhedral.
FE OXIDE/HYDROXIDE	90%	90%	73%		Red-brown, rounded.
GARNET			Tr		Pale pink, anhedral, Almandine.
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE			Tr		Silvery-black, tabular, subrounded.
KYANITE					
LEUCOXENE					
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES					
PREHNITE					
PYROXENE					
RUTILE					
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE		5%	20%		Black, brown, orange, blue, well rounded, subhedral.
XENOTIME					
ZIRCON			Tr		Pale pink, colourless, transparent, subhedral.
ROCK FRAGMENTS	10%	5%			Fe-oxide/quartz aggregates.

COMMENTS:

Observed by: J.D.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

SAMPLE NO P

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	32.12	kgs
Conc Weight -1.2+0.25mm	1.8	grams
Size fractions observed	-1.2+0.2	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.25mm, black, dull, subhedral, moderately worn. Not kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE		Tr	3%	Blue-grey, silvery-grey, golden yellow, subtranslucent to opaque, tabular, subhedral.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	100%	5%	Brown, well rounded.
GARNET			Tr	Almandine, pink, angular fragment (Rare).
GOLD				
GORCEIXITE			15%	Red-brown, opaque, rounded.
HAEMATITE				
ILMENITE			2%	Silvery-black, blocky, rounded.
KYANITE			Tr	Colourless, tabular, Fe-stained. (Rare)
LEUCOXENE		Tr	60%	Cream, opaque, blocky, grey, rounded, dull altered, Ti mineral.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PYROXENE				
RUTILE			10%	Cherry red, black, opaque, rounded, subhedral.
SPHENE				
SPINEL			Tr	Very dark green, subhedral, moderately worn, Gahnite.
STAUROLITE				
SULPHIDES				
TOURMALINE		Tr	Tr	Brown, black, well rounded.
XENOTIME				
ZIRCON			5%	Colourless, honey brown, well rounded, subhedral.
ANDALUSITE			Tr	Colourless, Fe-stained, blocky, sharp, angular fragments.
ROCK FRAGMENTS				

COMMENTS: Sample has gone through MI.
The -0.25 + 0.20 fraction was TBE separated, then observed for chromite only. No further chromite were recovered

Observed by: J.D.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

SAMPLE NO P1

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	30.36	kgs
Conc Weight -1.2+0.25mm	4.8	grams
Size fractions observed	-1.2+0.2	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	2 + 0.25mm, 3 + 0.20mm, one broken fragment, the other anhedral, very finely cokey, brownish. Not kimb.
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Pale yellow, greyish, well worn, rounded.
APATITE				
BARITE		Tr		Creamy-white, colourless, moderately worn.
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	100%	15%	Dull, red-brown.
GARNET				
GOLD				
GORCEIXITE		Tr	65%	Resinous, red-brown, pitted, worn.
HAEMATITE				
ILMENITE			Tr	Well rounded, silvery-black.
KYANITE				
LEUCOXENE			20%	Beige, grey, dull, Fe-stained, well rounded.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES				
PREHNITE				
PYROXENE				
RUTILE			Tr	Dark cherry red, silvery-black, well worn.
SPHENE				
SPINEL			Tr	Gahnite, brown, opaque, worn octahedra.
STAUROLITE				
SULPHIDES			Tr	2 + 0.25mm, finely crystalline.
TOURMALINE			Tr	Well rounded, near spherical, black-brown grain.
XENOTIME				
ZIRCON			Tr	Mostly colourless, well rounded, Fe-stained.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.
The -0.25 + 0.20 fraction was TBE separated, then observed for chromite only. All 3 recovered were probed.

Observed by: L.F.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

SAMPLE NO P2

ASSESSMENT	PROB KIMB	
Type of sample	LOAM	
Head Weight	30.58	kgs
Conc Weight -1.2+0.25mm	3.6	grams
Size fractions observed	-1.2+0.2	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	4 + 0.20mm, Sub-euhedral, slightly cokey, silvery-black, rounded edged. (1 + 0.20mm prob kimb 1 + 0.20mm poss kimb)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Yellow, subtranslucent, subhedral, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	90%	10%	Reddish-brown, well rounded, black, flaky, moderately worn.
GARNET			Tr	Almandine, pink, subangular, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE		5%	45%	Cream, beige, pale grey, sub/anhedral, blocky, tabular, moderately worn to worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES	Tr	5%	20%	Tan, orange, opaque, well rounded.
PREHNITE				
PYROXENE				
RUTILE		Tr	15%	Cherry red, orange-red, silvery-black, anhedral, blocky, rounded, moderately worn.
SPHENE				
SPINEL			Tr	Bottle green, Gahnite, translucent, blocky, well rounded.
STAUROLITE				
SULPHIDES				
TOURMALINE			5%	Black, anhedral, well rounded.
XENOTIME				
ZIRCON			5%	Colourless, some Fe-staining, anhedral, well rounded, transparent.
ROCK FRAGMENTS				

COMMENTS: Conc has been MI separated.
The -0.25 + 0.20 fraction was TBE separated, then observed for chromite only. All 4 recovered were probed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: S.M.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO Q

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	37.20	kgs
Conc Weight -1.2+0.25mm	1.7	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	1 + 0.25mm, subhedra, cokey, soft, dull sheen. Not Kimb
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute** number in the fraction noted unless otherwise stated ie 2-0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Rare, grey, blue-grey, worn subhedra.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE			Tr	Rare, yellow-green, well worn.
FE OXIDE/HYDROXIDE	100%	70%	15%	Red-brown, polished to dull, rounded.
GARNET			Tr	Almandine, moderately fresh, palest pink, pinkish-orange, moderately fresh.
GOLD				
GORCEIXITE		30%	68%	Rich red-brown, rounded, resinous opaques.
HAEMATITE				
ILMENITE			Tr	Silvery-black, well worn.
KYANITE				
LEUCOXENE		Tr	5%	Beige, cream, well rounded, porcelain-like.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE			Tr	Orange-red, near spherical, resinous lustre.
PHOSPHATES				
PREHNITE		Tr		1 + 0.4mm, broken, rounded fragment, finely fibrous aggregate, dark green.
PYROXENE				
RUTILE		Tr	10%	Silvery-black, well rounded.
SPHENE				
SPINEL				
STAUROLITE				
SULPHIDES			Tr	1 + 0.25mm, fresh pyrite cube, broken.
TOURMALINE				
XENOTIME				
ZIRCON			2%	Mainly colourless, some Fe-stained, near spherical.
ROCK FRAGMENTS				

COMMENTS: Sample has been MI separated.

Observed by: L.F.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO **T1**

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	POSITIVE	
Type of sample	LOAM	
Head Weight	41.30	kgs
Conc Weight -1.2+0.25mm	4.1	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.20	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	2 + 0.20mm, sub-euhedral, slightly cokey, silvery-black. (1 + 0.20mm kimberlitic)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Yellow, translucent, subhedral, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	100%	81%	Reddish-brown, rounded, black, flaky, moderately worn.
GARNET		Tr		1 x +0.4mm, Almandine, pink, blocky, moderately worn, contains trace Mg.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE				
KYANITE				
LEUCOXENE		Tr	5%	Creamy, beige, opaque, anhedral, blocky, tabular, moderately worn.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES		Tr	3%	Reddish-brown, orange, opaque, well rounded.
PREHNITE				
PYROXENE				
RUTILE		Tr	4%	Cherry red, orange-red, silvery-black, subtranslucent, anhedral, blocky, moderately worn.
SPHENE				
SPINEL			Tr	Bottle green, translucent, blocky, moderately worn.
STAUROLITE		Tr	Tr	Brown, translucent, anhedral, blocky, moderately worn.
SULPHIDES				
TOURMALINE			2%	Black, brown-black, anhedral, well rounded.
XENOTIME				
ZIRCON			5%	Colourless, purple, pale brown, eu/sub/anhedral, transparent, slightly to well worn.
ROCK FRAGMENTS				

COMMENTS: CONC HAS BEEN MI SEPARATED.
The -0.25 + 0.20 fraction was TBE separated, then observed for chromite only. 2 recovered were probed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: S.M.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO U

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	POSS KIMB	
Type of sample	LOAM	
Head Weight	29.20	kgs
Conc Weight -1.2+0.25mm	5.0	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	4 + 0.25mm, 16 + 0.20mm, brown-black, black, sub/anhedral, slightly cokey and some vitreous fractures. (2 + 0.25mm and 2 + 0.20mm possibly kimberlitic)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the **absolute number** in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE			Tr	Grey, opaque, subhedral, moderately worn.
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE			5%	Brown, anhedral, well rounded and flaky.
GARNET				
GOLD				
GORCEIXITE			5%	Reddish-brown, anhedral, well rounded.
HAEMATITE				
ILMENITE			10%	Silvery-black, anhedral, blocky, rounded, moderately worn.
KYANITE				
LEUCOXENE				
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES				
PREHNITE				
PYROXENE				
RUTILE			30%	Dark cherry red, silvery-black, anhedral, subtranslucent to opaque, blocky, rounded, worn.
SPHENE				
SPINEL				
STAUROLITE				
SULPHIDES				
TOURMALINE			Tr	Black, anhedral, well rounded.
XENOTIME				
ZIRCON			50%	Colourless, some Fe-staining, transparent, well rounded.
AIS:			Tr	Translucent, strongly dichroic, grey/purple, blocky, moderately worn.
ROCK FRAGMENTS				

COMMENTS: CONC HAS BEEN MI SEPARATED.
The -0.25+0.20mm fraction was TBE separated, MI separated, then observed for chromite only. All 16 were probed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: S.M.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO V

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	POSS KIMB	
Type of sample	LOAM	
Head Weight	40.50	kgs
Conc Weight -1.2+0.25mm	8.8	grams
Size fractions observed	-1.2+0.20	mm

KEY MINERALS	% +0.8	% +0.4	% +0.2	mm BRIEF DESCRIPTION
DIAMOND				
PYROPE				
CHROMITE/CR SPINEL			Tr	7 + 0.20mm, sub-euhedral, slightly cokey, silvery-black. (1 + 0.20mm poss kimb)
CHROME DIOPSIDE				
PICROILMENITE				
PHLOGOPITE				
OTHER				

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm BRIEF DESCRIPTION
AMPHIBOLE				
ANATASE				
APATITE				
BARITE				
CALCITE				
CASSITERITE				
CORUNDUM				
EPIDOTE				
FE OXIDE/HYDROXIDE	100%	100%	50%	Reddish-brown, subangular, blocky, rounded.
GARNET			Tr	Almandine, pink, subangular, moderately worn.
GOLD				
GORCEIXITE				
HAEMATITE				
ILMENITE			1%	Silvery-black, anhedral, well rounded.
KYANITE				
LEUCOXENE		Tr	30%	Cream, beige, pale grey, anhedral, opaque, well rounded.
MAGNETITE				
MICA				
MN OXIDE				
MONAZITE				
PHOSPHATES			Tr	Orange, opaque, well rounded.
PREHNITE				
PYROXENE				
RUTILE			12%	Cherry red, orange-red, silvery-black, subtranslucent to opaque, anhedral, well rounded.
SPHENE				
SPINEL			Tr	Bottle green, translucent, blocky, worn.
SULPHIDES				
TOURMALINE			5%	Brown-black, blue, black, anhedral, well rounded.
XENOTIME				
ZIRCON			2%	Colourless, some Fe-staining, well rounded.
ROCK FRAGMENTS				

COMMENTS: CONC HAS BEEN MI SEPARATED
The -0.25 + 0.20 fraction was TBE separated, then observed for chromite only. All 7 recovered were probed.
All -0.25mm was fused and observed for microdiamonds. No microdiamonds were recovered.

Observed by: S.M.
Date: May, 1996.

HEAVY MINERAL ANALYSIS SHEET

SAMPLE NO VI

DIATECH
Ph 61 9 361 2596
Fx 61 9 470 1504

File: 96-039.doc

ASSESSMENT	NEGATIVE	
Type of sample	LOAM	
Head Weight	37.48	kgs
Conc Weight -1.2+0.25mm	0.9	grams
Size fractions observed	-1.2+0.25	mm

KEY MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
DIAMOND					
PYROPE					
CHROMITE/CR SPINEL					
CHROME DIOPSIDE					
PICROILMENITE					
PHLOGOPITE					
OTHER					

Note: The number of key minerals is the absolute number in the fraction noted unless otherwise stated ie 2+0.25mm (in a ½ split) is 2 grains in a ½ split of the +0.25mm fraction

OTHER MINERALS	% +0.8	% +0.4	% +0.25	mm	BRIEF DESCRIPTION
AMPHIBOLE					
ANATASE					
APATITE					
BARITE					
CALCITE					
CASSITERITE					
CORUNDUM					
EPIDOTE					
FE OXIDE/HYDROXIDE	100%	100%	75%		Reddish-brown, brown, rounded and flaky
GARNET					
GOLD					
GORCEIXITE					
HAEMATITE					
ILMENITE					
KYANITE					
LEUCOXENE			10%		Cream, beige, pale grey, opaque, well rounded.
MAGNETITE					
MICA					
MN OXIDE					
MONAZITE					
PHOSPHATES					
PREHNITE					
PYROXENE					
RUTILE			5%		Orange-red, silvery-black, subtranslucent, opaque, anhedral, blocky, worn.
SPHENE					
SPINEL					
STAUROLITE					
SULPHIDES					
TOURMALINE			Tr		Brown-black, anhedral, well rounded.
XENOTIME					
ZIRCON			10%		Colourless, transparent, anhedral, well rounded.
ROCK FRAGMENTS					

COMMENTS: CONC HAS BEEN MI SEPARATED.

Observed by: S.M.
Date: May, 1996.

APPENDIX 3

CHROMITE MICROPROBE RESULTS

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25
Desc	19C	19R	20C	21C	21R	22C	22R	23C	23R	24C	24R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4
TIO2	2.99	2.68	0.37	0.69	0.61	0.31	0.17	0.46	0.50	0.16	0.22
Al2O3	14.49	15.15	15.40	24.75	26.12	16.97	17.97	16.81	16.70	36.86	37.15
Cr2O3	46.84	46.25	54.81	38.75	37.63	53.95	51.79	49.76	49.42	30.51	30.38
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.43	0.38	0.00	0.22	0.00	0.00	0.18	0.00	0.00	0.50	0.42
FeO	28.57	30.55	19.04	23.47	23.74	15.83	19.41	18.11	20.89	22.92	22.71
MnO	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	5.41	4.42	10.64	10.50	10.94	11.99	9.83	13.94	11.36	8.51	8.35
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00
NIO	0.36	0.00	0.24	0.41	0.00	0.00	0.00	0.31	0.23	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.09	99.82	100.50	98.79	99.04	99.05	99.35	99.39	99.10	99.92	99.23
Fe2O3*	0.46	0.95	0.60	4.05	4.40	0.00	0.00	5.23	3.94	0.00	0.00
FeO*	28.16	29.70	18.50	19.82	19.78	15.83	19.41	13.41	17.34	22.92	22.71
Total*	99.14	99.91	100.56	99.20	99.48	99.05	99.35	99.91	99.50	99.92	99.23
Ti	0.08	0.07	0.01	0.02	0.01	0.01	0.00	0.01	0.01	0.00	0.01
Al	0.58	0.60	0.58	0.91	0.95	0.64	0.68	0.62	0.63	1.29	1.31
Cr	1.25	1.23	1.39	0.96	0.92	1.36	1.32	1.23	1.25	0.72	0.72
Fe3+	0.01	0.02	0.01	0.10	0.10	0.00	0.00	0.12	0.10	0.00	0.00
V	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01
Fe2+	0.79	0.84	0.50	0.52	0.51	0.42	0.52	0.35	0.46	0.57	0.57
Mn	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.27	0.22	0.51	0.49	0.50	0.57	0.47	0.65	0.54	0.38	0.37
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Ni	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.98
Mg No	25.51	20.96	50.61	48.55	49.64	57.44	47.44	64.94	53.86	39.82	39.58
Ulvospinel	7.58	6.78	0.89	1.62	1.42	0.74	0.41	1.08	1.20	0.35	0.48
Spinel	28.81	30.03	29.05	45.54	47.54	31.69	33.88	31.07	31.51	63.70	63.95
Chromite	62.45	61.48	69.34	47.81	45.93	67.57	65.48	61.68	62.53	35.36	35.07
Magnetite	1.16	1.71	0.72	5.03	5.11	0.00	0.23	6.17	4.75	0.59	0.49
100Cr/(Cr+Al)	68.40	67.20	70.50	51.20	49.10	68.10	65.90	66.50	66.50	35.70	35.40
100Fe/(Fe+Mg)	74.50	79.00	49.40	51.40	50.40	42.60	52.60	35.10	46.10	60.20	60.40

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25	KE 84 +0.25
Desc	36C	36R	37C	37R	38C	38R	39C	39R	17C	17R	18C	18R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.00	0.00	0.26	0.30	0.00	0.13	0.39	0.26	0.57	0.71	0.31	0.43
Al2O3	3.60	3.36	39.84	40.12	23.45	22.49	11.63	12.55	27.79	26.04	12.12	11.16
Cr2O3	67.77	66.56	29.15	28.70	48.69	48.28	42.52	43.79	41.21	41.05	59.68	60.73
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.21	0.21	0.00	0.15	0.36	0.43	0.22	0.20	0.32	0.00
FeO	25.43	25.88	13.41	13.25	12.32	13.51	41.97	38.88	17.74	24.63	12.62	15.02
MnO	0.00	0.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	2.81	1.61	16.87	16.71	15.36	15.09	0.70	0.88	12.09	6.55	14.28	11.44
ZnO	0.50	1.37	0.35	0.00	0.00	0.00	1.52	1.77	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.38	0.34	0.00	0.24
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	100.11	99.37	100.09	99.69	99.81	99.65	99.09	98.56	100.00	99.52	99.33	99.02
Fe2O3*	0.00	0.00	1.00	0.69	0.10	1.05	11.40	8.74	0.00	0.00	0.45	0.00
FeO*	25.43	25.88	12.51	12.63	12.23	12.56	31.71	31.02	17.74	24.63	12.22	15.02
Total*	100.11	99.37	100.19	99.76	99.82	99.76	100.23	99.43	100.00	99.52	99.37	99.02
Ti	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.01
Al	0.15	0.14	1.32	1.33	0.84	0.81	0.48	0.52	0.99	0.97	0.46	0.43
Cr	1.90	1.91	0.65	0.64	1.16	1.16	1.18	1.22	0.99	1.03	1.51	1.57
Fe3+	0.00	0.00	0.02	0.02	0.00	0.02	0.30	0.23	0.00	0.00	0.01	0.00
V	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00
Fe2+	0.76	0.78	0.29	0.30	0.31	0.32	0.93	0.92	0.45	0.65	0.33	0.41
Mn	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.15	0.09	0.71	0.70	0.69	0.68	0.04	0.05	0.55	0.31	0.68	0.56
Zn	0.01	0.04	0.01	0.00	0.00	0.00	0.04	0.05	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.97	2.98	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.98	3.00	2.99
Mg No	16.45	9.98	70.62	70.21	69.10	68.16	3.78	4.81	54.84	32.15	67.56	57.58
Ulvospinel	0.00	0.00	0.55	0.63	0.00	0.30	1.03	0.69	1.29	1.66	0.75	1.05
Spinel	7.34	7.00	65.85	66.50	41.75	40.30	24.15	26.08	49.36	47.68	22.85	21.28
Chromite	92.66	93.00	32.31	31.90	58.14	58.02	59.20	61.03	49.08	50.41	75.46	77.67
Magnetite	0.00	0.00	1.29	0.96	0.11	1.39	15.62	12.20	0.27	0.25	0.95	0.00
100Cr/(Cr+Al)	92.70	93.00	32.90	32.40	58.20	59.00	71.00	70.10	49.90	51.40	76.80	78.50
100Fe/(Fe+Mg)	83.50	90.00	29.40	29.80	30.90	31.80	96.20	95.20	45.20	67.80	32.40	42.40

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20
Desc	30C	30R	31C	31R	32C	32R	33C	33R	34C	34R	35C	35R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.31	0.27	2.32	2.32	1.00	1.07	0.24	0.25	0.58	0.20	0.00	0.00
Al2O3	13.17	12.45	24.16	24.16	13.40	14.84	20.52	20.35	9.52	13.21	29.52	29.09
Cr2O3	57.94	56.24	34.93	34.93	41.79	39.72	48.97	48.67	51.46	47.68	42.50	43.07
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.18	0.00	0.20	0.20	0.00	0.00	0.00	0.16	0.32	0.22	0.00	0.00
FeO	17.59	21.57	23.75	23.75	35.79	35.77	15.30	15.61	36.46	35.95	11.66	13.21
MnO	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.50	0.00	0.00
MgO	10.16	9.50	14.14	14.14	6.56	7.03	14.09	13.64	0.20	0.86	15.96	14.55
ZnO	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	1.23	1.10	0.00	0.00
NiO	0.38	0.25	0.35	0.35	0.24	0.25	0.40	0.32	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.73	100.28	99.85	99.85	99.12	99.13	99.52	99.00	99.77	99.72	99.64	99.92
Fe2O3*	0.00	2.15	8.50	8.50	12.64	13.17	2.04	1.74	4.20	4.92	0.00	0.00
FeO*	17.59	19.64	16.10	16.10	24.42	23.92	13.47	14.04	32.68	31.52	11.66	13.21
Total*	99.73	100.49	100.70	100.70	100.39	100.45	99.72	99.17	100.19	100.21	99.64	99.92
Ti	0.01	0.01	0.05	0.05	0.03	0.03	0.01	0.01	0.02	0.01	0.00	0.00
Al	0.51	0.48	0.86	0.86	0.53	0.58	0.75	0.75	0.40	0.54	1.02	1.01
Cr	1.49	1.45	0.84	0.84	1.10	1.04	1.20	1.20	1.45	1.31	0.99	1.01
Fe3+	0.00	0.05	0.19	0.19	0.32	0.33	0.05	0.04	0.11	0.13	0.00	0.00
V	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Fe2+	0.48	0.54	0.41	0.41	0.68	0.66	0.35	0.37	0.97	0.92	0.29	0.33
Mn	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Mg	0.49	0.46	0.64	0.64	0.33	0.35	0.65	0.63	0.01	0.05	0.70	0.64
Zn	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.03	0.00	0.00
Ni	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.99	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99
Mg No	50.72	46.29	61.01	61.01	32.37	34.37	65.09	63.38	1.08	4.64	70.92	66.25
Ulvospinel	0.75	0.66	5.28	5.28	2.51	2.66	0.56	0.58	1.55	0.52	0.00	0.00
Spinel	25.07	24.00	43.06	43.06	26.39	28.96	37.33	37.32	19.97	27.11	50.88	50.18
Chromite	73.95	72.70	41.75	41.75	55.20	51.98	59.74	59.86	72.39	65.61	49.12	49.82
Magnetite	0.23	2.64	9.92	9.92	15.89	16.40	2.37	2.24	6.08	6.76	0.00	0.00
100Cr/(Cr+Al)	74.70	75.20	49.20	49.20	67.70	64.20	61.50	61.60	78.40	70.80	49.10	49.80
100Fe/(Fe+Mg)	49.30	53.70	39.00	39.00	67.60	65.60	34.90	36.60	98.90	95.40	29.10	33.80

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 80 +0.25	KE 80 +0.25	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20	KE 82 +0.20
Desc	16C	16R	25C	25R	26C	26R	27C	27R	28C	28R	29C	29R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.48	0.45	2.64	2.73	0.38	0.60	0.46	0.29	0.34	0.24	0.15	0.15
Al2O3	26.41	26.24	14.18	14.50	17.75	15.33	13.46	13.51	13.27	12.89	28.27	28.68
Cr2O3	38.17	38.68	48.12	48.43	51.13	52.12	57.92	57.56	59.12	59.50	43.14	43.20
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.37	0.34	0.18	0.38	0.10	0.25	0.00	0.21	0.00	0.21	0.15	0.00
FeO	26.30	25.88	25.94	25.84	17.92	23.06	16.04	16.82	18.74	19.07	13.41	13.45
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	8.40	7.67	8.23	8.31	12.52	7.28	11.13	11.29	7.77	7.55	14.19	14.10
ZnO	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.31	0.00
NiO	0.00	0.00	0.00	0.29	0.11	0.22	0.00	0.00	0.29	0.00	0.26	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	100.13	99.26	99.29	100.48	99.91	99.39	99.01	99.68	99.53	99.46	99.88	99.58
Fe2O3*	2.65	1.33	2.25	2.02	2.17	0.05	0.00	0.00	0.00	0.00	0.00	0.00
FeO*	23.92	24.68	23.92	24.02	15.97	23.01	16.04	16.82	18.74	19.07	13.41	13.45
Total*	100.39	99.39	99.51	100.68	100.13	99.40	99.01	99.68	99.53	99.46	99.88	99.58
Ti	0.01	0.01	0.07	0.07	0.01	0.02	0.01	0.01	0.01	0.01	0.00	0.00
Al	0.97	0.98	0.55	0.56	0.66	0.60	0.52	0.52	0.52	0.50	0.99	1.01
Cr	0.94	0.96	1.26	1.25	1.27	1.36	1.49	1.47	1.54	1.55	1.02	1.02
Fe3+	0.06	0.03	0.06	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00
Fe2+	0.62	0.65	0.66	0.66	0.42	0.64	0.44	0.46	0.52	0.53	0.33	0.34
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.39	0.36	0.41	0.40	0.59	0.36	0.54	0.54	0.38	0.37	0.63	0.63
Zn	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00
Ni	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	2.99	3.00	2.97	2.96	2.99	2.99
Mg No	38.49	35.64	38.01	38.13	58.28	36.05	55.29	54.46	42.49	41.37	65.35	65.13
Ulvospinel	1.12	1.07	6.56	6.70	0.90	1.49	1.11	0.70	0.81	0.58	0.33	0.33
Spinel	48.41	48.74	27.60	27.88	32.89	29.91	25.45	25.67	24.87	24.21	49.17	49.58
Chromite	46.92	48.18	62.81	62.45	63.53	68.20	73.44	73.35	74.31	74.95	50.32	50.09
Magnetite	3.56	2.01	3.03	2.97	2.69	0.40	0.00	0.27	0.00	0.27	0.18	0.00
100Cr/(Cr+Al)	49.20	49.70	69.50	69.10	65.90	69.50	74.30	74.10	74.90	75.60	50.60	50.30
100Fe/(Fe+Mg)	61.50	64.40	62.00	61.90	41.70	63.90	44.70	45.50	57.50	58.60	34.70	34.90

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 79 +.20	KE 79 +.20
Desc	46C	46R	47C	47R	48C	48R	49C	49R	50C	50R	7C	7R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.22	0.30	2.48	2.22	0.00	0.00	0.48	0.68	0.20	0.00	0.49	0.37
Al2O3	29.17	30.04	15.43	13.91	6.44	5.62	34.67	35.23	40.25	41.15	31.74	31.63
Cr2O3	32.65	33.13	46.34	48.32	69.17	69.55	34.12	32.74	29.87	29.35	35.68	35.20
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.31	0.34	0.21	0.29	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00
FeO	29.88	28.87	24.72	27.61	15.01	16.89	15.07	15.75	11.34	12.30	22.09	22.33
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	6.80	6.52	9.56	6.15	9.10	7.33	15.35	13.33	17.46	17.10	10.21	10.13
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.38	0.55	0.00	0.00	0.25
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.03	99.20	98.74	98.82	99.72	99.39	99.69	98.11	99.87	99.90	100.21	99.91
Fe2O3*	4.05	2.19	3.27	1.56	0.00	0.00	0.74	0.00	0.03	0.00	0.12	0.76
FeO*	26.24	26.90	21.78	26.21	15.01	16.89	14.41	15.75	11.31	12.30	21.98	21.65
Total*	99.44	99.42	99.07	98.98	99.72	99.39	99.76	98.11	99.87	99.90	100.22	99.99
Ti	0.01	0.01	0.06	0.06	0.00	0.00	0.01	0.02	0.00	0.00	0.01	0.01
Al	1.08	1.11	0.60	0.55	0.25	0.23	1.18	1.23	1.33	1.35	1.13	1.13
Cr	0.81	0.82	1.20	1.29	1.83	1.87	0.78	0.76	0.66	0.65	0.85	0.84
Fe3+	0.10	0.05	0.08	0.04	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02
V	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe2+	0.69	0.70	0.60	0.74	0.42	0.48	0.36	0.39	0.27	0.29	0.55	0.55
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.32	0.30	0.47	0.31	0.45	0.37	0.66	0.59	0.73	0.71	0.46	0.46
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	2.96	2.95	3.00	2.99	3.00	3.00	3.00	3.00
Mg No	31.59	30.16	43.89	29.49	51.93	43.61	65.50	60.13	73.33	71.24	45.29	45.47
Ulvospinel	0.52	0.71	6.10	5.63	0.00	0.00	1.04	1.49	0.42	0.00	1.11	0.84
Spinel	53.88	55.35	29.73	27.63	12.19	10.75	59.13	60.69	66.32	67.64	56.31	56.29
Chromite	40.44	40.94	59.88	64.37	87.81	89.25	39.02	37.82	33.01	32.36	42.45	42.01
Magnetite	5.16	3.00	4.30	2.37	0.00	0.00	0.80	0.00	0.25	0.00	0.14	0.86
100Cr/(Cr+Al)	42.90	42.50	66.80	70.00	87.80	89.20	39.80	38.40	33.20	32.40	43.00	42.70
100Fe/(Fe+Mg)	68.40	69.80	56.10	70.50	48.10	56.40	34.50	39.90	26.70	28.80	54.70	54.50

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Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25
Desc	40C	40R	41C	41R	42C	42R	43C	43R	44C	44R	45C	45R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.00	0.22	1.68	1.63	0.00	0.00	0.37	0.36	2.97	3.32	0.00	0.00
Al2O3	30.40	29.28	22.43	22.04	33.61	33.14	14.83	14.98	27.15	26.16	42.92	44.41
Cr2O3	36.81	37.01	41.78	42.02	34.64	35.09	56.44	56.13	27.04	26.53	23.55	21.79
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.34	0.23	0.30	0.00	0.00	0.17	0.23	0.18	0.00	0.00	0.25
FeO	22.83	23.03	21.90	23.80	20.24	20.94	15.31	16.54	28.20	30.49	23.57	21.66
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	9.50	9.27	11.36	9.84	11.04	10.73	11.50	10.96	13.81	12.97	10.03	10.76
ZnO	0.48	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.25	0.25	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.46
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	100.02	99.15	99.63	99.88	99.53	99.90	99.36	99.20	99.35	99.47	100.07	99.33
Fe2O3*	1.00	0.64	2.74	2.30	0.00	0.09	0.00	0.00	11.46	12.34	0.04	0.00
FeO*	21.93	22.46	19.44	21.73	20.24	20.86	15.31	16.54	17.89	19.39	23.53	21.66
Total*	100.12	99.21	99.90	100.11	99.53	99.91	99.36	99.20	100.50	100.71	100.07	99.33
Ti	0.00	0.01	0.04	0.04	0.00	0.00	0.01	0.01	0.07	0.08	0.00	0.00
Al	1.09	1.06	0.82	0.82	1.18	1.17	0.56	0.57	0.96	0.93	1.46	1.51
Cr	0.89	0.90	1.03	1.04	0.82	0.83	1.43	1.43	0.64	0.64	0.54	0.50
Fe3+	0.02	0.02	0.06	0.05	0.00	0.00	0.00	0.00	0.26	0.28	0.00	0.00
V	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
Fe2+	0.56	0.58	0.51	0.57	0.51	0.52	0.41	0.45	0.45	0.49	0.57	0.52
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.43	0.43	0.53	0.46	0.49	0.48	0.55	0.53	0.62	0.59	0.43	0.46
Zn	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.99	3.00	3.00	3.00	3.00
Mg No	43.57	42.38	51.02	44.66	49.29	47.82	57.24	54.14	57.90	54.38	43.17	46.96
Ulvospinel	0.00	0.51	3.93	3.85	0.00	0.00	0.89	0.86	6.71	7.56	0.00	0.00
Spinel	54.55	53.22	41.16	40.84	59.13	58.42	27.84	28.14	48.05	46.66	73.07	75.03
Chromite	44.30	45.11	51.41	52.21	40.87	41.48	71.06	70.71	32.09	31.73	26.89	24.69
Magnetite	1.15	1.16	3.49	3.10	0.00	0.10	0.22	0.29	13.16	14.05	0.05	0.29
100Cr/(Cr+Al)	44.80	45.90	55.50	56.10	40.90	41.50	71.80	71.50	40.00	40.50	26.90	24.80
100Fe/(Fe+Mg)	56.40	57.60	49.00	55.30	50.70	52.20	42.80	45.90	42.10	45.60	56.80	53.00

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25
Desc	34C	34R	35C	35R	36C	36R	37C	37R	38C	38R	39C	39R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	1.23	1.21	3.66	3.49	2.17	2.40	1.46	1.43	1.85	1.98	0.69	0.79
Al2O3	22.22	22.57	18.19	18.17	13.03	12.86	33.23	34.74	26.10	26.47	22.04	28.07
Cr2O3	47.14	46.58	41.28	41.36	48.79	49.99	28.71	27.91	32.87	31.41	37.02	29.08
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.17	0.24	0.00	0.25	0.21	0.19	0.20	0.00	0.37	0.34	0.00	0.27
FeO	16.23	16.20	27.23	27.69	25.53	28.23	22.65	22.80	28.01	29.70	27.16	28.74
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	12.92	12.27	8.83	8.24	9.89	4.31	12.14	12.45	10.45	8.30	12.00	12.58
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.00	0.00	0.00	0.41	0.33	0.00	0.00	0.23	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.91	99.07	99.19	99.20	99.62	98.39	98.72	99.33	99.65	98.43	98.91	99.53
Fe2O3*	0.00	0.00	3.00	2.68	5.12	0.00	3.62	3.51	6.81	5.54	10.57	11.91
FeO*	16.23	16.20	24.53	25.28	20.93	28.23	19.39	19.64	21.88	24.71	17.65	18.02
Total*	99.91	99.07	99.49	99.47	100.13	98.39	99.08	99.68	100.33	98.99	99.97	100.72
Ti	0.03	0.03	0.09	0.09	0.05	0.06	0.03	0.03	0.04	0.05	0.02	0.02
Al	0.81	0.82	0.69	0.70	0.50	0.52	1.17	1.21	0.95	0.98	0.81	1.00
Cr	1.15	1.14	1.06	1.06	1.26	1.36	0.68	0.65	0.80	0.78	0.91	0.69
Fe3+	0.00	0.00	0.07	0.07	0.13	0.00	0.08	0.08	0.16	0.13	0.25	0.27
V	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01
Fe2+	0.42	0.42	0.66	0.69	0.57	0.81	0.48	0.49	0.56	0.65	0.46	0.45
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.59	0.57	0.43	0.40	0.48	0.22	0.54	0.55	0.48	0.39	0.56	0.56
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.99	2.99	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	58.65	57.44	39.08	36.75	45.72	21.39	52.73	53.04	45.98	37.44	54.79	55.43
Ulvospinel	2.83	2.78	8.90	8.52	5.33	6.18	3.28	3.17	4.28	4.69	1.62	1.79
Spinel	40.02	40.66	34.68	34.78	25.09	25.94	58.51	60.40	47.37	49.17	40.44	49.80
Chromite	56.94	56.27	52.77	53.09	63.01	67.62	33.90	32.54	40.00	39.13	45.56	34.60
Magnetite	0.21	0.29	3.65	3.60	6.56	0.26	4.31	3.89	8.35	7.00	12.38	13.81
100Cr/(Cr+Al)	58.70	58.10	60.30	60.40	71.50	72.30	36.70	35.00	45.80	44.30	53.00	41.00
100Fe/(Fe+Mg)	41.30	42.60	60.90	63.30	54.30	78.60	47.30	47.00	54.00	62.60	45.20	44.60

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25
Desc	28C	28R	29C	29R	30C	30R	31C	31R	32C	32R	33C	33R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.49	0.54	0.00	0.17	0.00	0.00	0.00	0.20	1.07	0.96	0.19	0.23
Al2O3	27.11	27.59	44.89	46.17	40.84	40.16	31.93	32.31	22.52	22.63	17.68	17.68
Cr2O3	38.10	37.16	25.17	23.95	26.90	27.82	36.80	37.06	32.81	33.07	54.59	54.23
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.15	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.49	0.42	0.00	0.00
FeO	22.37	22.96	12.11	11.84	15.35	19.89	18.29	17.81	36.69	36.17	16.35	15.97
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	11.29	11.34	17.05	17.53	15.82	11.25	12.97	12.73	6.16	5.96	10.81	11.09
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00
NiO	0.26	0.34	0.41	0.35	0.21	0.22	0.00	0.00	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.77	99.93	99.63	100.01	99.31	99.34	99.99	100.11	99.74	99.21	100.00	99.20
Fe2O3*	3.46	4.08	0.00	0.00	1.59	0.00	1.11	0.00	10.47	9.84	0.00	0.00
FeO*	19.26	19.29	12.11	11.84	13.92	19.89	17.29	17.81	27.27	27.32	16.35	15.97
Total*	100.12	100.34	99.63	100.01	99.47	99.34	100.10	100.11	100.79	100.20	100.00	99.20
Ti	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.02	0.01	0.01
Al	0.98	0.99	1.46	1.49	1.36	1.38	1.11	1.13	0.85	0.86	0.66	0.66
Cr	0.92	0.89	0.55	0.52	0.60	0.64	0.86	0.87	0.83	0.84	1.37	1.36
Fe3+	0.08	0.09	0.00	0.00	0.03	0.00	0.03	0.00	0.25	0.24	0.00	0.00
V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Fe2+	0.49	0.49	0.28	0.27	0.33	0.48	0.43	0.44	0.73	0.74	0.43	0.43
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.51	0.51	0.70	0.71	0.67	0.49	0.57	0.56	0.29	0.29	0.51	0.53
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Ni	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00	2.98	2.98
Mg No	51.09	51.17	71.50	72.51	66.95	50.20	57.21	56.02	28.70	28.00	54.09	55.31
Ulvospinel	1.12	1.23	0.00	0.35	0.00	0.00	0.00	0.44	2.58	2.33	0.44	0.54
Spinel	48.76	49.44	72.67	73.93	68.04	68.28	55.71	56.27	42.57	43.02	32.42	32.54
Chromite	45.96	44.65	27.33	25.72	30.05	31.72	43.05	43.28	41.59	42.16	67.13	66.92
Magnetite	4.15	4.67	0.00	0.00	1.91	0.00	1.24	0.00	13.26	12.48	0.00	0.00
100Cr/(Cr+Al)	48.50	47.50	27.30	25.80	30.60	31.70	43.60	43.50	49.40	49.50	67.40	67.30
100Fe/(Fe+Mg)	48.90	48.80	28.50	27.50	33.00	49.80	42.80	44.00	71.30	72.00	45.90	44.70

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25
Desc	22C	22R	23C	23R	24C	24R	25C	25R	26C	26R	27C	27R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	5.60	5.11	0.78	0.59	2.60	2.35	0.15	0.00	0.63	0.47	1.14	1.35
Al2O3	13.85	13.98	32.98	32.02	11.83	11.51	38.42	37.75	37.50	37.97	25.54	23.38
Cr2O3	39.39	40.06	34.70	34.82	32.90	33.57	26.88	28.08	27.99	27.48	27.34	28.10
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.22	0.00	0.29	0.15	0.38	0.17	0.23	0.21	0.15	0.00	0.20	0.34
FeO	33.11	33.15	17.69	20.01	43.57	43.77	24.57	24.86	15.62	15.60	31.83	32.74
MnO	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33
MgO	7.33	7.26	13.90	12.37	7.38	7.55	8.93	8.96	17.98	17.94	12.71	11.42
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.50	0.35
NiO	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.23
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.50	99.89	100.34	100.27	98.66	98.92	99.18	99.86	99.87	100.09	99.26	98.24
Fe2O3*	5.64	6.24	0.94	1.63	20.72	21.44	0.24	0.63	5.03	5.59	16.19	16.00
FeO*	28.03	27.53	16.84	18.54	24.92	24.48	24.36	24.30	11.09	10.57	17.26	18.34
Total*	100.06	100.52	100.43	100.43	100.74	101.07	99.20	99.92	100.37	100.65	100.88	99.84
Ti	0.14	0.13	0.02	0.01	0.07	0.06	0.00	0.00	0.01	0.01	0.03	0.03
Al	0.54	0.55	1.14	1.12	0.47	0.45	1.36	1.32	1.24	1.25	0.92	0.86
Cr	1.03	1.05	0.80	0.82	0.87	0.89	0.63	0.66	0.62	0.61	0.66	0.69
Fe3+	0.14	0.16	0.02	0.04	0.52	0.54	0.01	0.01	0.11	0.12	0.37	0.38
V	0.01	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01
Fe2+	0.78	0.76	0.41	0.46	0.70	0.68	0.61	0.60	0.26	0.25	0.44	0.48
Mn	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mg	0.36	0.36	0.61	0.55	0.37	0.38	0.40	0.40	0.75	0.75	0.58	0.53
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
Ni	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	31.78	31.97	59.52	54.32	34.54	35.47	39.51	39.66	74.28	75.16	56.75	52.60
Ulvospinel	13.97	12.70	1.71	1.31	6.54	5.90	0.34	0.00	1.33	0.99	2.61	3.17
Spinel	27.07	27.23	56.82	55.91	23.33	22.65	67.47	66.08	62.10	62.69	45.77	42.98
Chromite	51.63	52.32	40.09	40.77	43.52	44.30	31.66	32.97	31.08	30.43	32.86	34.64
Magnetite	7.33	7.76	1.37	2.00	26.60	27.15	0.54	0.95	5.49	5.89	18.76	19.21
100Cr/(Cr+Al)	65.60	65.80	41.40	42.20	65.10	66.20	31.90	33.30	33.40	32.70	41.80	44.60
100Fe/(Fe+Mg)	68.20	68.00	40.50	45.70	65.50	64.50	60.50	60.30	25.70	24.80	43.30	47.40

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25	KE 78 +0.25
Desc	6C	6R	7C	7R	8C	8R	9C	9R	20C	20R	21C	21R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	7.24	7.34	0.00	0.00	0.00	0.00	2.30	2.31	0.16	0.00	1.37	1.33
Al2O3	13.78	13.68	48.35	48.15	48.82	49.18	10.78	9.93	34.95	34.89	25.74	24.89
Cr2O3	29.80	29.49	22.33	22.86	19.63	20.30	53.54	55.11	35.22	34.41	25.93	25.86
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.27	0.19	0.00	0.00	0.00	0.00	0.16	0.00	0.00	0.00	0.34	0.29
FeO	35.75	36.55	11.77	11.69	10.66	11.80	23.51	26.52	12.66	16.86	34.08	35.25
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	12.16	11.88	17.11	17.64	19.34	18.11	9.77	5.21	16.09	13.51	11.71	11.07
ZnO	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.00	0.00	0.42	0.29	0.00	0.00	0.33	0.24	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.00	99.13	99.56	100.34	99.24	99.68	100.06	99.08	99.41	99.91	99.17	98.69
Fe2O3*	15.16	15.44	0.00	0.00	1.60	0.07	2.82	0.00	0.06	0.23	16.24	16.80
FeO*	22.10	22.65	11.77	11.69	9.22	11.74	20.98	26.52	12.61	16.65	19.47	20.13
Total*	100.52	100.68	99.56	100.34	99.40	99.69	100.34	99.08	99.42	99.93	100.80	100.37
Ti	0.18	0.18	0.00	0.00	0.00	0.00	0.06	0.06	0.00	0.00	0.03	0.03
Al	0.52	0.52	1.55	1.53	1.55	1.57	0.42	0.40	1.19	1.20	0.93	0.91
Cr	0.76	0.75	0.48	0.49	0.42	0.43	1.39	1.50	0.80	0.79	0.63	0.63
Fe3+	0.37	0.37	0.00	0.00	0.03	0.00	0.07	0.00	0.00	0.01	0.37	0.39
V	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Fe2+	0.59	0.61	0.27	0.26	0.21	0.27	0.58	0.76	0.30	0.41	0.50	0.52
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.58	0.57	0.69	0.71	0.78	0.73	0.48	0.27	0.69	0.59	0.53	0.51
Zn	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	2.99	2.99	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00
Mg No	49.50	48.31	72.15	72.89	78.90	73.33	45.36	25.93	69.46	59.11	51.74	49.49
Ulvospinel	17.47	17.73	0.00	0.00	0.00	0.00	5.70	5.91	0.35	0.00	3.15	3.09
Spinel	26.07	25.90	76.35	75.85	77.48	78.27	20.92	19.93	59.43	60.04	46.40	45.38
Chromite	37.80	37.45	23.65	24.15	20.89	21.66	69.68	74.16	40.16	39.71	31.35	31.62
Magnetite	18.66	18.91	0.00	0.00	1.63	0.07	3.70	0.00	0.06	0.25	19.10	19.91
100Cr/(Cr+Al)	59.20	59.10	23.60	24.10	21.20	21.70	76.90	78.80	40.30	39.80	40.30	41.10
100Fe/(Fe+Mg)	50.50	51.70	27.90	27.10	21.10	26.70	54.60	74.10	30.50	40.90	48.30	50.50

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25
Desc	18C	18R	19C	19R	2C	2R	3C	3R	4C	4R	5C	5R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.73	3.43	0.48	0.31	6.79	5.98	2.36	2.13	0.16	0.00	0.14	0.14
Al2O3	10.29	8.87	30.31	29.35	16.97	17.49	20.27	21.52	45.49	47.83	30.74	30.89
Cr2O3	51.18	50.02	33.68	34.44	23.38	24.97	24.61	24.00	22.71	20.68	39.85	40.02
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.21	0.21	0.00	0.14	0.38	0.29	0.31	0.38	0.23	0.00	0.00	0.14
FeO	34.83	34.49	26.42	26.77	38.86	39.82	41.05	40.24	12.44	11.34	13.41	13.30
MnO	0.73	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	0.39	0.41	8.33	8.90	11.63	10.70	9.79	10.36	18.52	19.11	15.55	15.01
ZnO	1.23	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.00	0.00	0.30	0.30	0.21	0.00	0.26	0.40	0.00	0.26
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.59	99.75	99.22	99.91	98.31	99.55	98.60	98.63	99.81	99.36	99.69	99.76
Fe2O3*	3.33	0.87	2.31	3.73	18.13	17.89	21.03	20.87	1.85	1.70	0.27	0.00
FeO*	31.83	33.70	24.34	23.41	22.55	23.72	22.13	21.46	10.78	9.81	13.17	13.30
Total*	99.92	99.84	99.45	100.28	100.12	101.34	100.71	100.72	100.00	99.53	99.72	99.76
Ti	0.02	0.09	0.01	0.01	0.16	0.14	0.06	0.05	0.00	0.00	0.00	0.00
Al	0.43	0.37	1.10	1.06	0.64	0.65	0.76	0.80	1.46	1.52	1.06	1.07
Cr	1.44	1.41	0.82	0.84	0.59	0.63	0.62	0.60	0.49	0.44	0.92	0.93
Fe3+	0.09	0.02	0.05	0.09	0.44	0.43	0.50	0.49	0.04	0.04	0.01	0.00
V	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Fe2+	0.95	1.01	0.63	0.60	0.60	0.63	0.59	0.57	0.25	0.22	0.32	0.33
Mn	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.02	0.02	0.38	0.41	0.55	0.51	0.46	0.49	0.75	0.77	0.68	0.66
Zn	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	2.14	2.12	37.88	40.39	47.89	44.56	44.08	46.25	75.39	77.63	67.79	66.79
Ulvospinel	1.95	9.21	1.11	0.71	16.30	14.27	5.64	5.04	0.33	0.00	0.31	0.31
Spinel	21.52	18.68	55.13	53.06	31.93	32.70	37.94	39.91	73.06	76.18	53.17	53.26
Chromite	71.79	70.63	41.08	41.75	29.50	31.31	30.89	29.85	24.46	22.09	46.22	46.27
Magnetite	4.74	1.48	2.68	4.48	22.26	21.72	25.52	25.19	2.15	1.73	0.30	0.16
100Cr/(Cr+Al)	76.90	79.10	42.70	44.00	48.00	48.90	44.90	42.80	25.10	22.50	46.50	46.50
100Fe/(Fe+Mg)	97.90	97.90	62.10	59.60	52.10	55.40	55.90	53.80	24.60	22.40	32.20	33.20

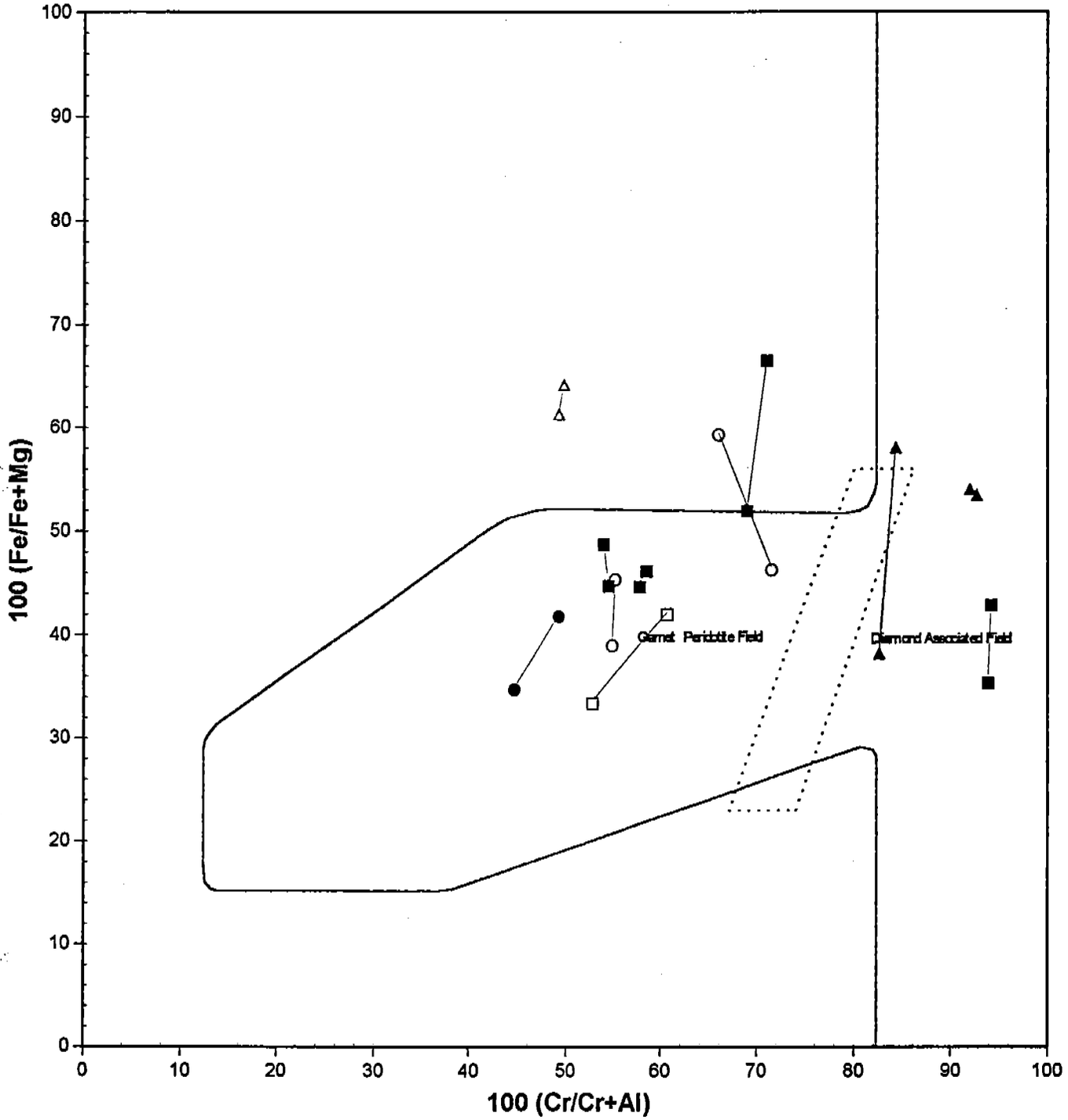
Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25
Desc	12C	12R	13C	13R	14C	14R	15C	15R	16C	16R	17C	17R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TIO2	0.17	0.24	0.00	0.00	0.51	0.37	3.34	6.76	0.00	0.00	0.00	0.00
Al2O3	38.41	37.79	30.59	29.74	27.74	28.00	18.21	15.78	2.04	2.08	47.34	47.71
Cr2O3	31.47	31.72	37.48	37.85	39.04	38.28	40.55	39.38	63.59	62.64	22.72	22.85
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.17	0.28	0.24	0.18	0.00
FeO	11.55	11.89	21.55	22.10	22.70	22.91	27.21	29.57	31.49	31.12	10.95	10.11
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.00	0.00	0.00	0.00
MgO	18.10	18.22	10.25	9.98	9.15	9.53	10.31	4.70	1.66	2.41	17.75	18.49
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.78	0.48	0.41	0.39	0.00
NIO	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.45	0.30
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.70	99.86	99.87	99.91	99.14	99.09	99.85	99.12	99.54	98.90	99.78	99.46
Fe2O3*	1.15	1.70	0.40	0.68	0.06	1.04	5.77	0.00	2.40	3.40	0.00	0.00
FeO*	10.52	10.36	21.19	21.49	22.64	21.98	22.01	29.57	29.33	28.06	10.95	10.11
Total*	99.81	100.03	99.91	99.98	99.15	99.19	100.43	99.12	99.78	99.24	99.78	99.46
TI	0.00	0.01	0.00	0.00	0.01	0.01	0.08	0.17	0.00	0.00	0.00	0.00
Al	1.27	1.25	1.09	1.07	1.02	1.02	0.68	0.63	0.09	0.09	1.52	1.52
Cr	0.70	0.70	0.90	0.91	0.96	0.94	1.02	1.05	1.84	1.81	0.49	0.49
Fe3+	0.02	0.04	0.01	0.02	0.00	0.02	0.14	0.00	0.07	0.09	0.00	0.00
V	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00
Fe2+	0.25	0.24	0.54	0.55	0.59	0.57	0.59	0.83	0.90	0.86	0.25	0.23
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
Mg	0.76	0.76	0.46	0.45	0.42	0.44	0.49	0.24	0.09	0.13	0.72	0.75
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01	0.01	0.01	0.00
NI	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	3.00	3.00	3.00	2.99
Mg No	75.41	75.81	46.29	45.28	41.86	43.59	45.49	22.07	9.16	13.27	74.28	76.52
Ulvospinel	0.36	0.51	0.00	0.00	1.19	0.86	7.99	16.93	0.00	0.00	0.00	0.00
Spinel	63.53	62.51	54.65	53.37	50.80	51.09	34.13	30.98	4.40	4.48	75.50	75.69
Chromite	34.90	35.19	44.90	45.55	47.94	46.84	50.97	51.85	91.89	90.49	24.30	24.31
Magnetite	1.21	1.80	0.46	1.07	0.07	1.21	6.91	0.23	3.71	5.03	0.20	0.00
100Cr/(Cr+Al)	35.50	36.00	45.10	46.00	48.60	47.80	59.90	62.60	95.40	95.30	24.30	24.30
100Fe/(Fe+Mg)	24.60	24.20	53.70	54.70	58.10	56.40	54.50	77.90	90.80	86.70	25.70	23.50

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 70 +0.20	KE 70 +0.20	KE 73 +0.25	KE 73 +0.25	KE 74 +0.25	KE 74 +0.25	KE 74 +0.25	KE 74 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25	KE 75 +0.25
Desc	13C	13R	1C	1R	14C	14R	15C	15R	10C	10R	11C	11R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	1.24	1.27	0.35	0.00	0.31	0.34	0.00	0.18	0.28	0.36	0.89	0.73
Al2O3	21.91	21.33	22.26	27.21	8.80	7.85	3.91	3.54	12.77	12.73	13.51	14.12
Cr2O3	44.70	44.85	50.95	45.39	62.07	62.60	67.47	66.56	58.98	58.66	55.07	53.95
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.39	0.22	0.13	0.00	0.15	0.00	0.00	0.26	0.17	0.30
FeO	19.46	19.76	14.30	13.07	15.26	20.18	11.58	11.36	13.87	14.96	20.87	20.66
MnO	0.00	0.00	0.00	0.00	0.00	0.00	10.62	11.12	0.00	0.00	0.00	0.00
MgO	12.25	11.82	10.98	14.48	12.65	8.10	5.47	5.49	13.85	12.64	9.27	8.97
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.04	0.00	0.00	0.00	0.36
NiO	0.00	0.00	0.24	0.00	0.22	0.00	0.00	0.00	0.00	0.23	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.56	99.03	99.47	100.37	99.44	99.07	100.16	99.29	99.75	99.84	99.78	99.09
Fe2O3*	1.84	1.71	0.00	0.00	1.37	0.00	0.00	0.00	0.87	0.17	0.11	0.04
FeO*	17.80	18.22	14.30	13.07	14.03	20.18	11.58	11.36	13.09	14.80	20.77	20.62
Total*	99.74	99.20	99.47	100.37	99.58	99.07	100.16	99.29	99.84	99.86	99.79	99.09
Ti	0.03	0.03	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.02	0.02
Al	0.80	0.79	0.81	0.95	0.34	0.32	0.16	0.15	0.48	0.48	0.52	0.55
Cr	1.10	1.11	1.25	1.07	1.61	1.68	1.86	1.86	1.49	1.49	1.43	1.41
Fe3+	0.04	0.04	0.00	0.00	0.03	0.00	0.00	0.00	0.02	0.00	0.00	0.00
V	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Fe2+	0.46	0.48	0.37	0.33	0.38	0.57	0.34	0.34	0.35	0.40	0.57	0.57
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.33	0.00	0.00	0.00	0.00
Mg	0.57	0.55	0.51	0.64	0.62	0.41	0.28	0.29	0.66	0.61	0.45	0.44
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.00	0.00	0.00	0.01
Ni	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	2.96	2.99	3.00	2.99	2.99	2.99	3.00	3.00	3.00	3.00
Mg No	55.08	53.61	57.77	66.38	61.64	41.70	45.70	46.27	65.34	60.34	44.30	43.66
Ulvospinel	2.90	2.99	0.78	0.00	0.76	0.86	0.00	0.47	0.67	0.87	2.19	1.81
Spinel	40.10	39.41	38.96	47.08	16.99	15.62	7.94	7.31	23.99	24.10	26.10	27.44
Chromite	54.86	55.58	59.80	52.66	80.38	83.52	91.86	92.21	74.30	74.48	71.34	70.31
Magnetite	2.15	2.01	0.46	0.26	1.86	0.00	0.21	0.00	1.04	0.54	0.36	0.44
100Cr/(Cr+Al)	57.80	58.50	60.60	52.80	82.50	84.20	92.00	92.70	75.60	75.60	73.20	71.90
100Fe/(Fe+Mg)	44.90	46.40	42.20	33.60	38.40	58.30	54.30	53.70	34.70	39.70	55.70	56.30

Job	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078	96-078
Sample	KE 67 +0.20	KE 67 +0.20	KE 68 +0.20	KE 68 +0.20	KE 68 +0.20	KE 68 +0.20	KE 70 +0.20	KE 70 +0.20	KE 70 +0.20	KE 70 +0.20	KE 70 +0.20	KE 70 +0.20
Desc	40C	40R	41C	41R	42C	42R	10C	10R	11C	11R	12C	12R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	1.55	1.30	0.46	0.68	0.18	0.31	0.00	0.00	0.26	0.30	0.53	0.54
Al2O3	27.47	29.97	15.31	18.73	24.90	24.46	3.05	2.93	24.95	25.04	16.74	15.29
Cr2O3	39.63	35.96	57.31	53.86	45.20	44.88	70.61	71.22	44.49	43.91	55.23	55.89
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.16	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.00	0.65	0.52
FeO	17.80	16.05	15.80	19.09	15.40	17.51	12.63	14.64	17.22	19.19	17.42	21.10
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	13.39	15.04	10.20	7.30	13.39	11.72	12.75	10.83	11.81	11.10	8.95	5.90
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.25	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.84	98.72	99.08	99.66	99.07	99.06	99.41	99.62	99.02	99.79	99.52	99.24
Fe2O3*	0.58	1.89	0.00	0.00	0.02	0.00	0.11	0.00	0.00	0.20	0.00	0.00
FeO*	17.28	14.35	15.80	19.09	15.39	17.51	12.53	14.64	17.22	19.01	17.42	21.10
Total*	99.90	98.91	99.08	99.66	99.07	99.06	99.42	99.62	99.02	99.81	99.52	99.24
Ti	0.04	0.03	0.01	0.02	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01
Al	0.97	1.05	0.58	0.71	0.90	0.89	0.12	0.12	0.91	0.91	0.63	0.60
Cr	0.94	0.85	1.46	1.36	1.09	1.10	1.88	1.91	1.09	1.07	1.40	1.46
Fe3+	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
V	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01
Fe2+	0.44	0.36	0.43	0.51	0.39	0.45	0.35	0.42	0.45	0.49	0.47	0.58
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.60	0.67	0.49	0.35	0.61	0.54	0.64	0.55	0.54	0.51	0.43	0.29
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	2.97	2.95	3.00	3.00	3.00	2.99	3.00	3.00	2.96	2.95
Mg No	58.00	65.12	53.50	40.53	60.80	54.39	64.46	56.86	55.00	50.99	47.79	33.26
Ulvospinel	3.51	2.91	1.08	1.56	0.41	0.72	0.00	0.00	0.60	0.70	1.23	1.28
Spinel	48.71	52.53	28.18	33.62	44.90	44.41	6.04	5.78	45.27	45.53	30.49	28.41
Chromite	47.13	42.27	70.74	64.83	54.66	54.65	93.82	94.22	54.13	53.54	67.47	69.65
Magnetite	0.65	2.30	0.00	0.00	0.02	0.22	0.14	0.00	0.00	0.23	0.81	0.66
100Cr/(Cr+Al)	49.20	44.60	71.50	65.90	54.90	55.20	93.90	94.20	54.50	54.00	68.90	71.00
100Fe/(Fe+Mg)	42.00	34.90	46.50	59.50	39.20	45.60	35.50	43.10	45.00	49.00	52.20	66.70

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)

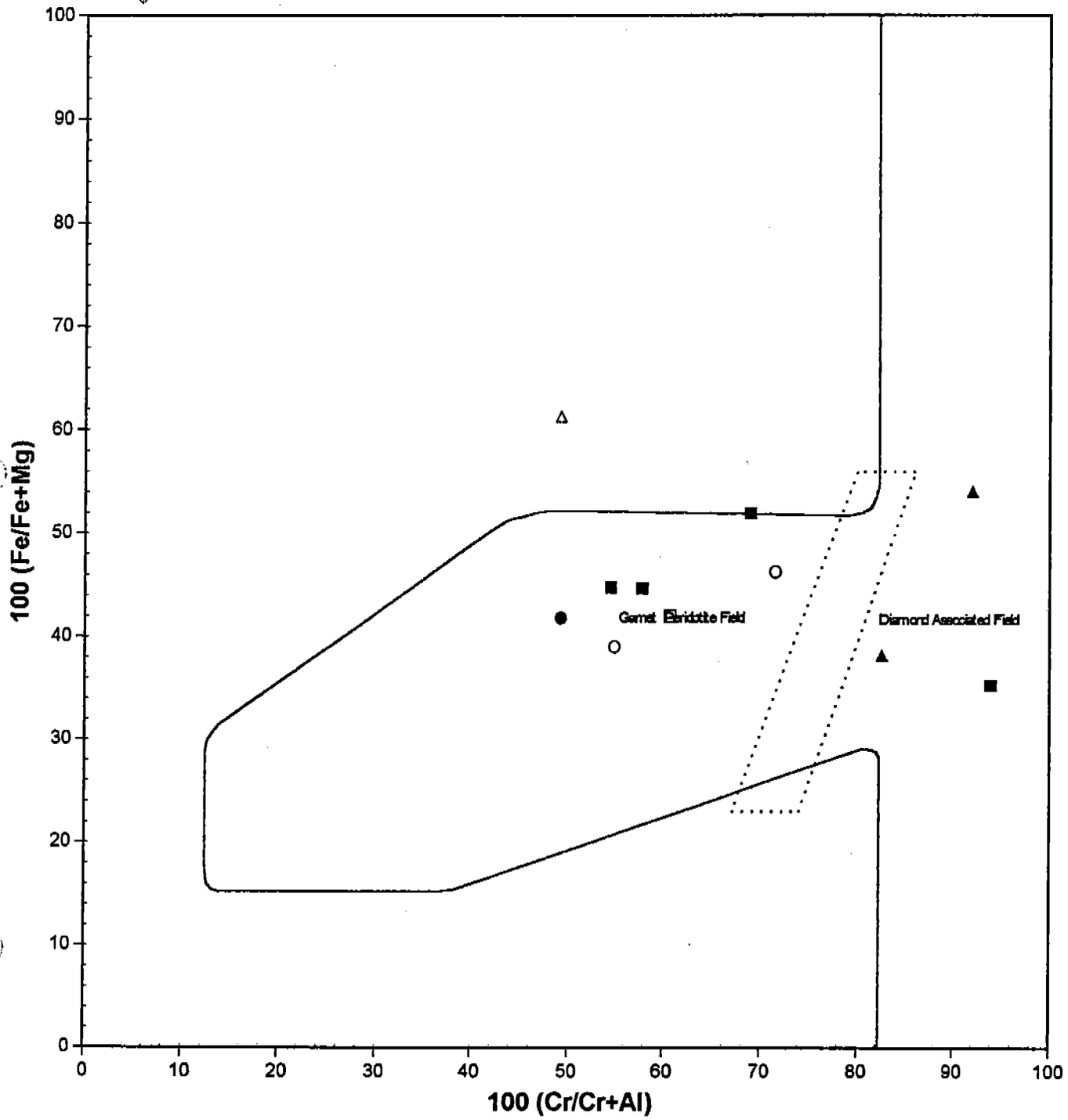


LEGEND

Sobolevs line
96-078:KE 67 +0.20
96-078:KE 70 +0.20
96-078:KE 74 +0.25
Transition Field
96-078:KE 68 +0.20
96-078:KE 73 +0.25
96-078:KE 80 +0.25

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

Sobolevs line

Transition Field

96-078:KE 67 +0.20

96-078:KE 68 +0.20

96-078:KE 70 +0.20

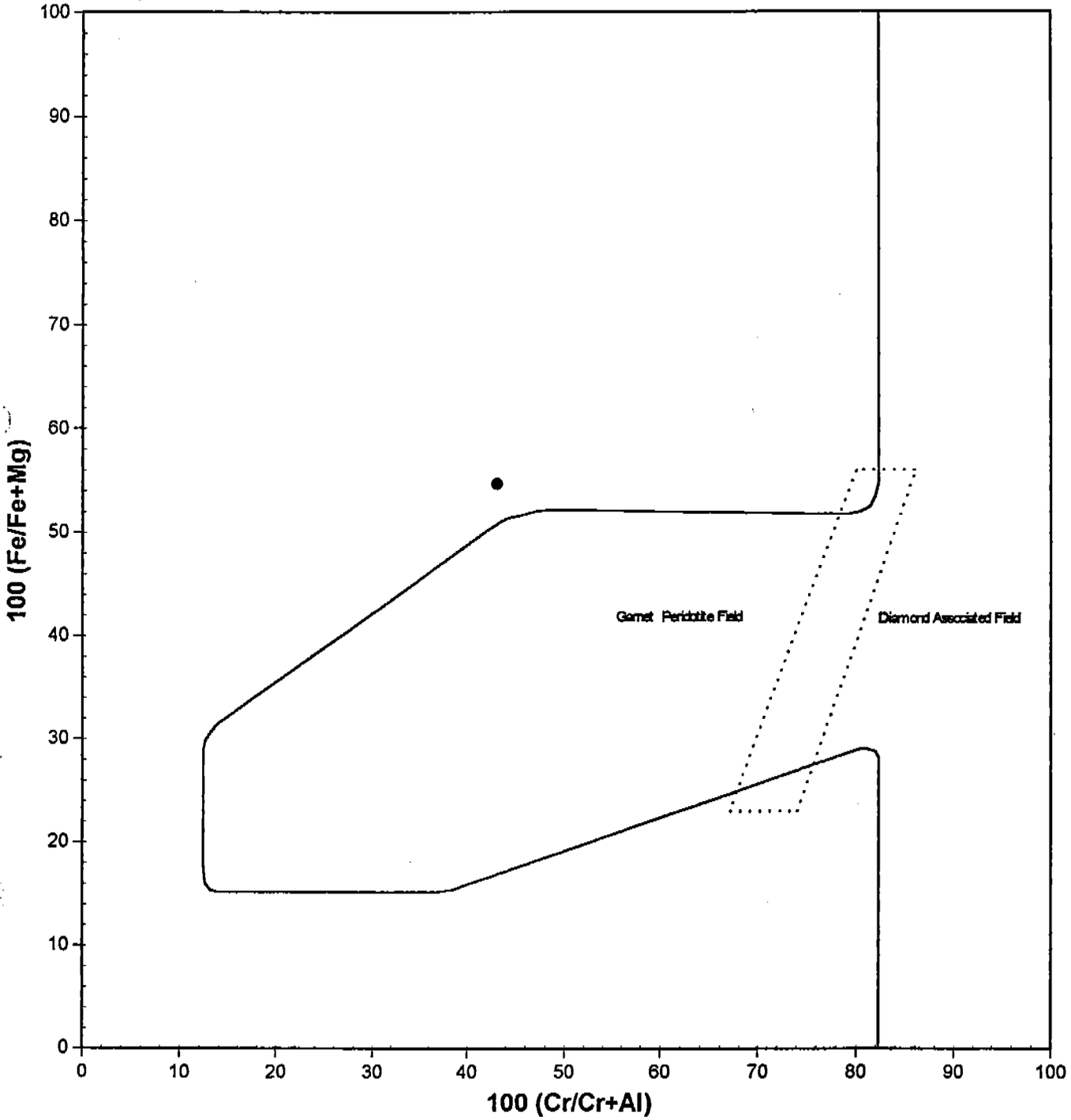
96-078:KE 73 +0.25

96-078:KE 74 +0.25

96-078:KE 80 +0.25

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core data)

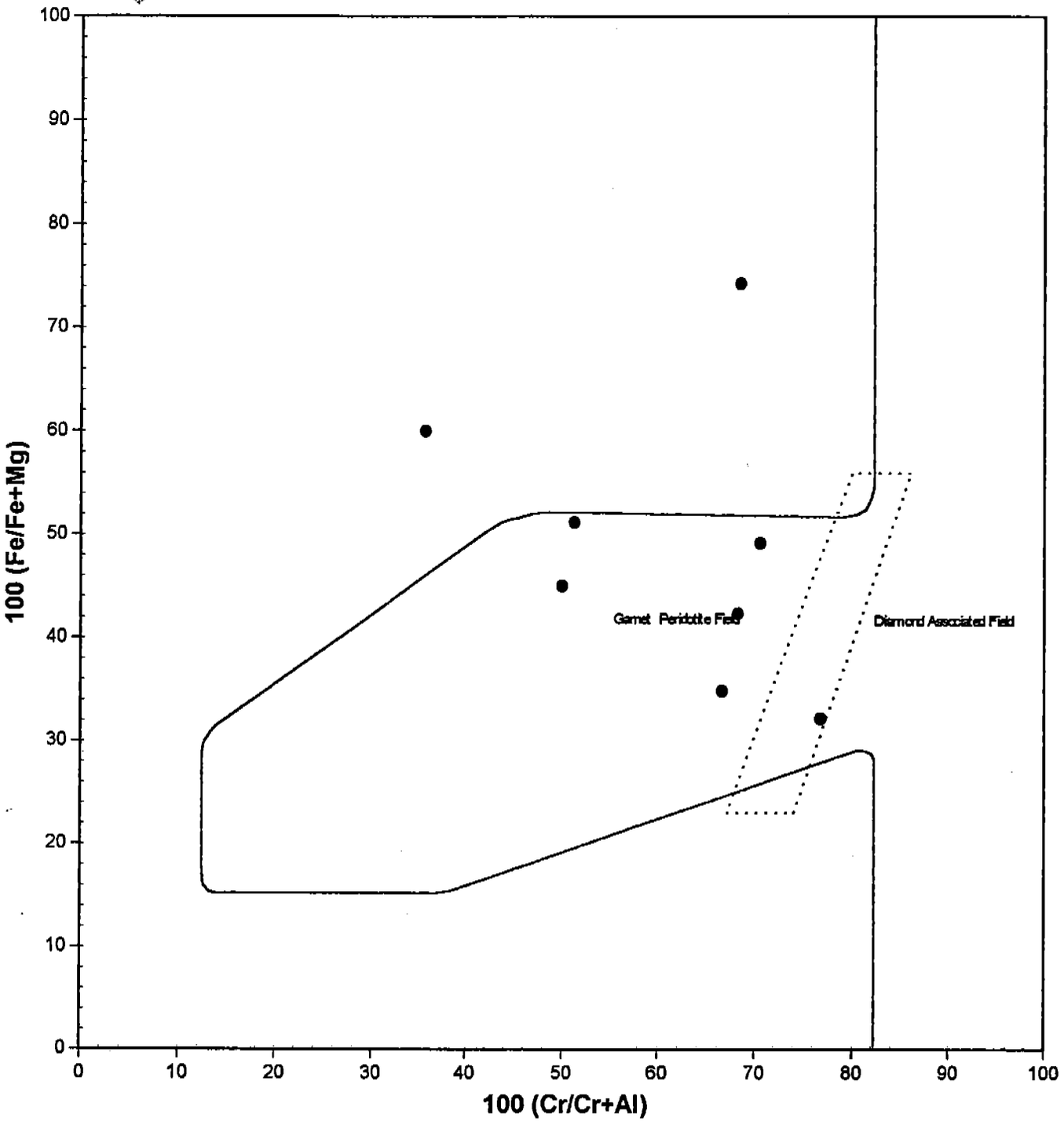


LEGEND

—— Sobolevs line · · · · Transition Field ● 96-078:KE 79 +.20

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

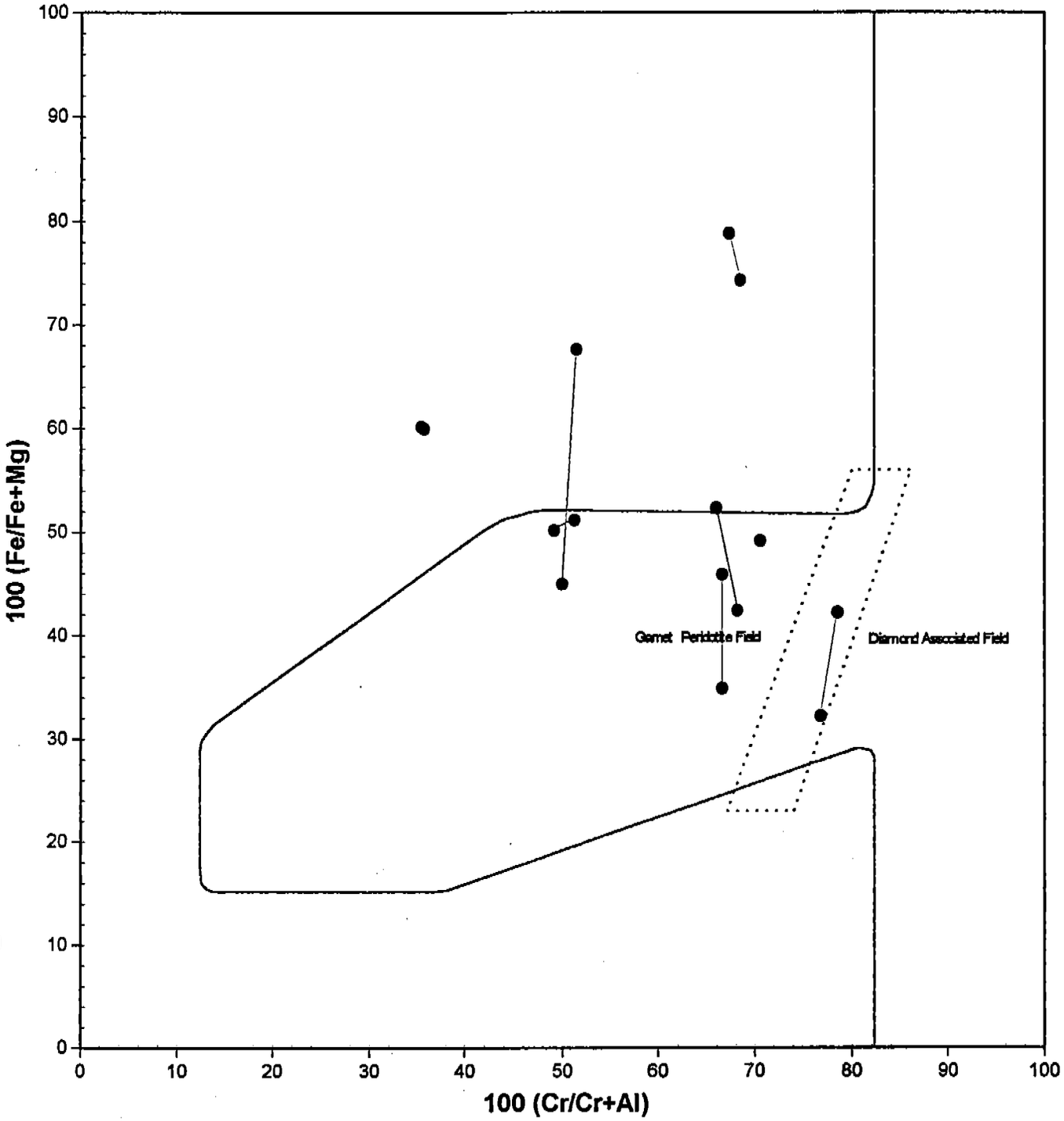
Sobolevs line

Transition Field

96-078:KE 84 +0.25

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

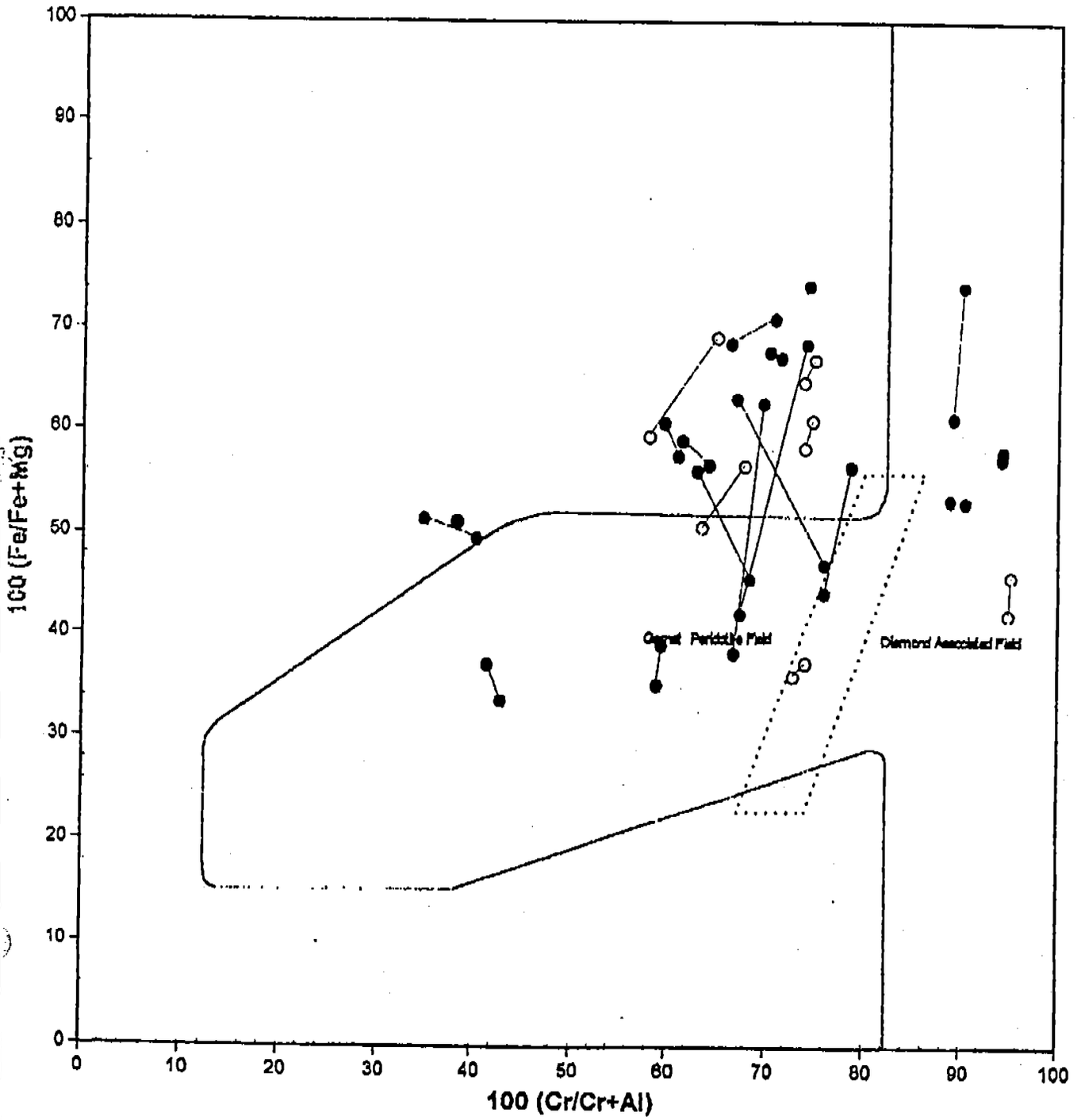
Sobolevs line

Transition Field

96-078:KE 84 +0.25

CHROMITE PLOT (Core/Rim data)

DATECH
Ph 361 2596
Fx470 1504

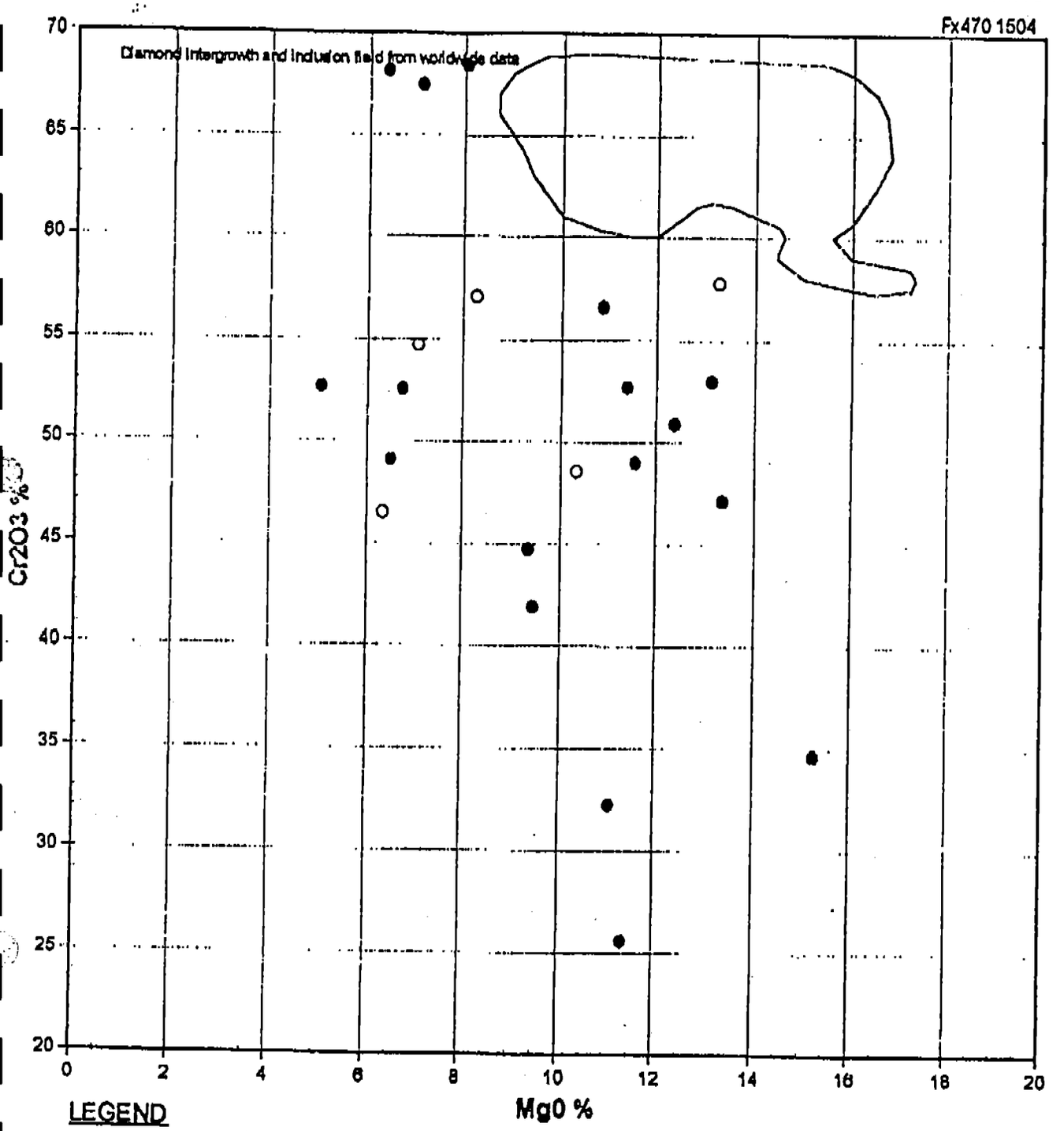


LEGEND

Soboleve line Transition Field 98-053:KE-4 +.2 98-053:KE-4 +.25

CHROMITE PLOT MgO_o vs Cr_2O_3

DIATECH
Ph 361 2596
Fx470 1504



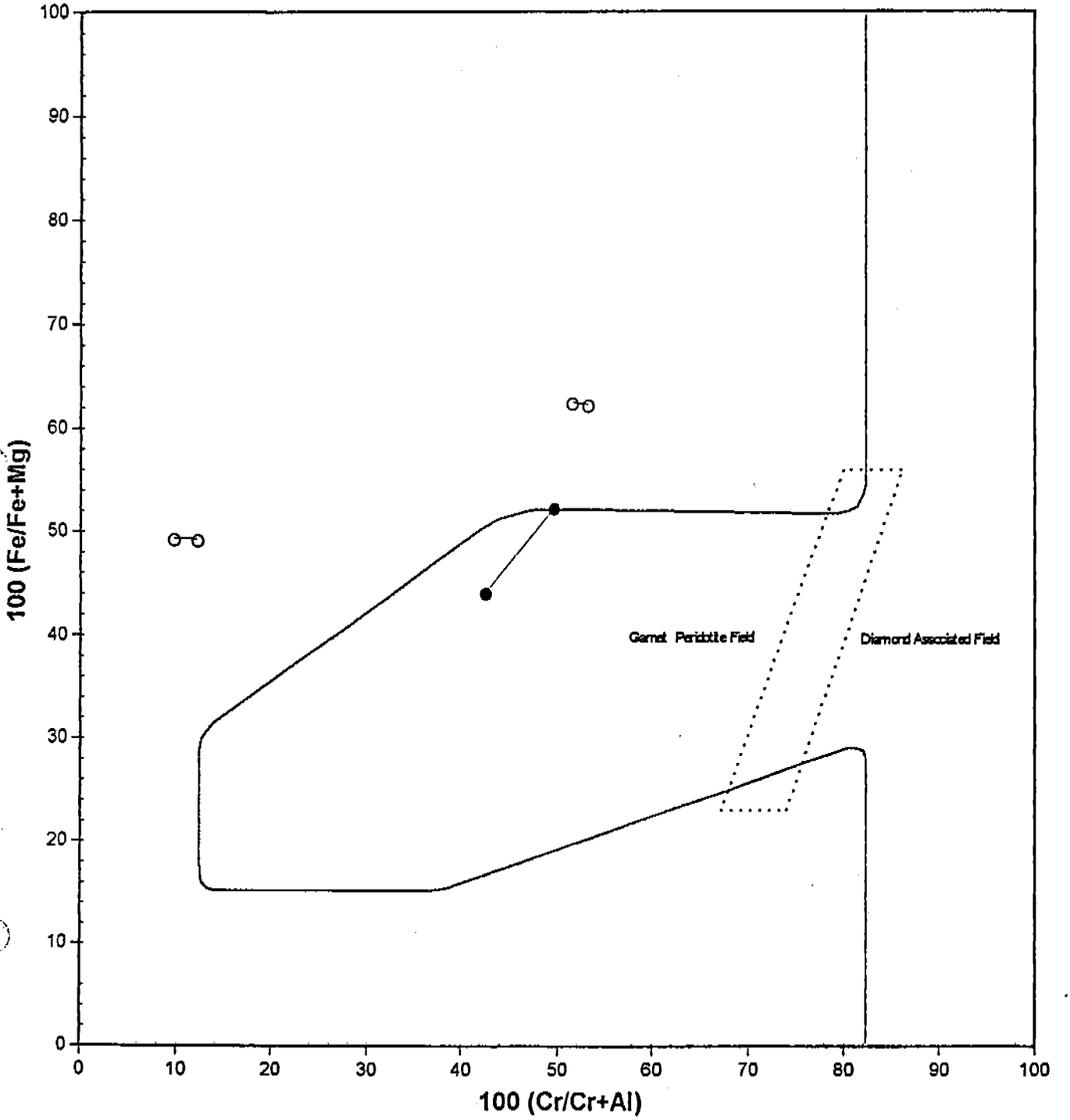
LEGEND

96-053:KE-4 +.2

96-053:KE-4 +.25

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)

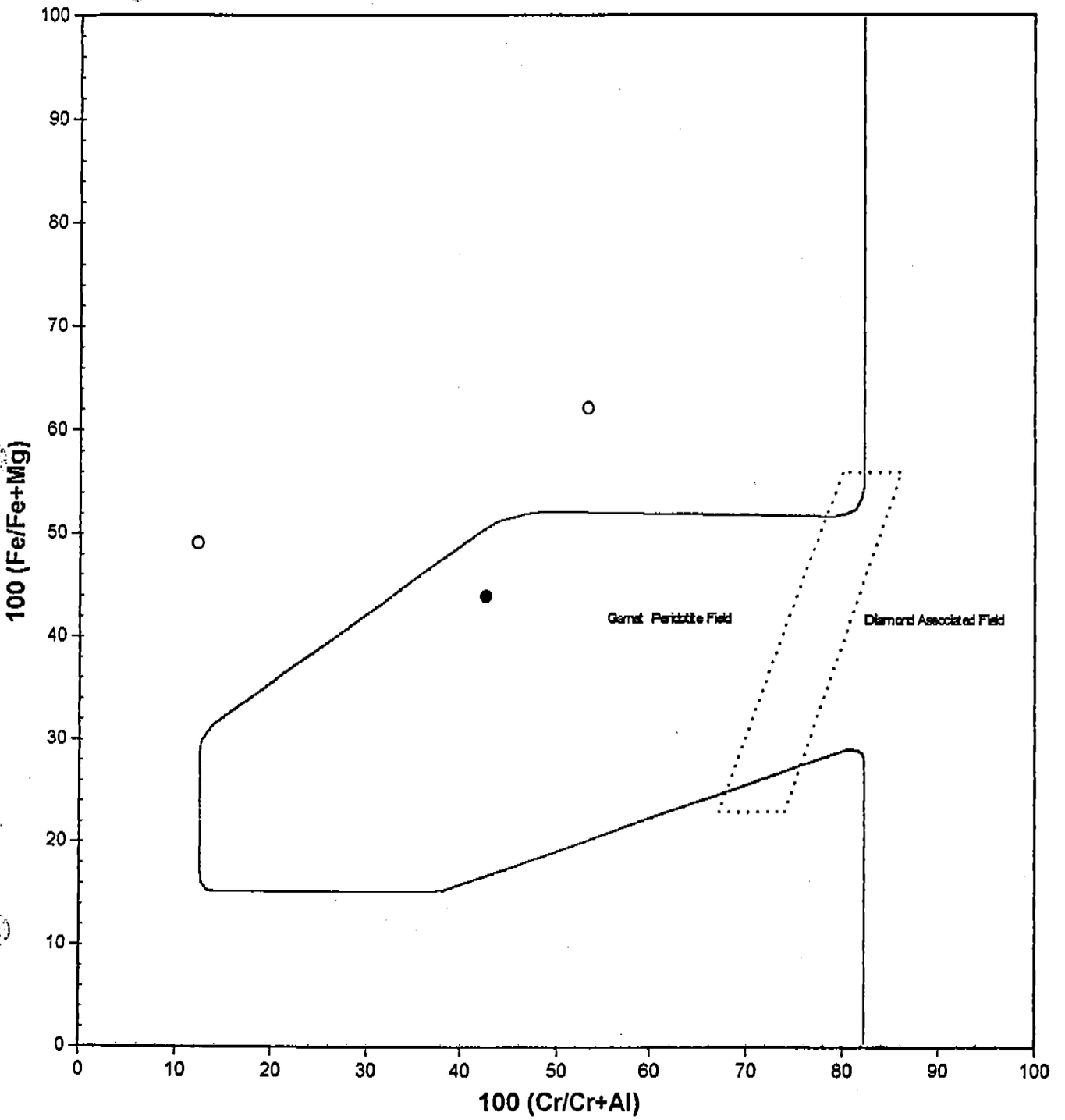


LEGEND

Sobolevs line Transition Field 96-056:KE-28 +.25 96-056:KE-30 +.25

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

Sobolevs line Transition Field 96-056:KE-28 +.25 96-056:KE-30 +.25

DIATECH
HEAVY MINERAL SERVICES
15 Sandra Place, WELSHPOOL, WESTERN AUSTRALIA 6106
Telephone 61 9 361 2698 Facsimile 61 9 470 1604

facsimile transmittal

To: Andrew Drummond Fax:

From: Lynda Frewer Date: 2 July 1996

Re: Plot Pages: 2

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

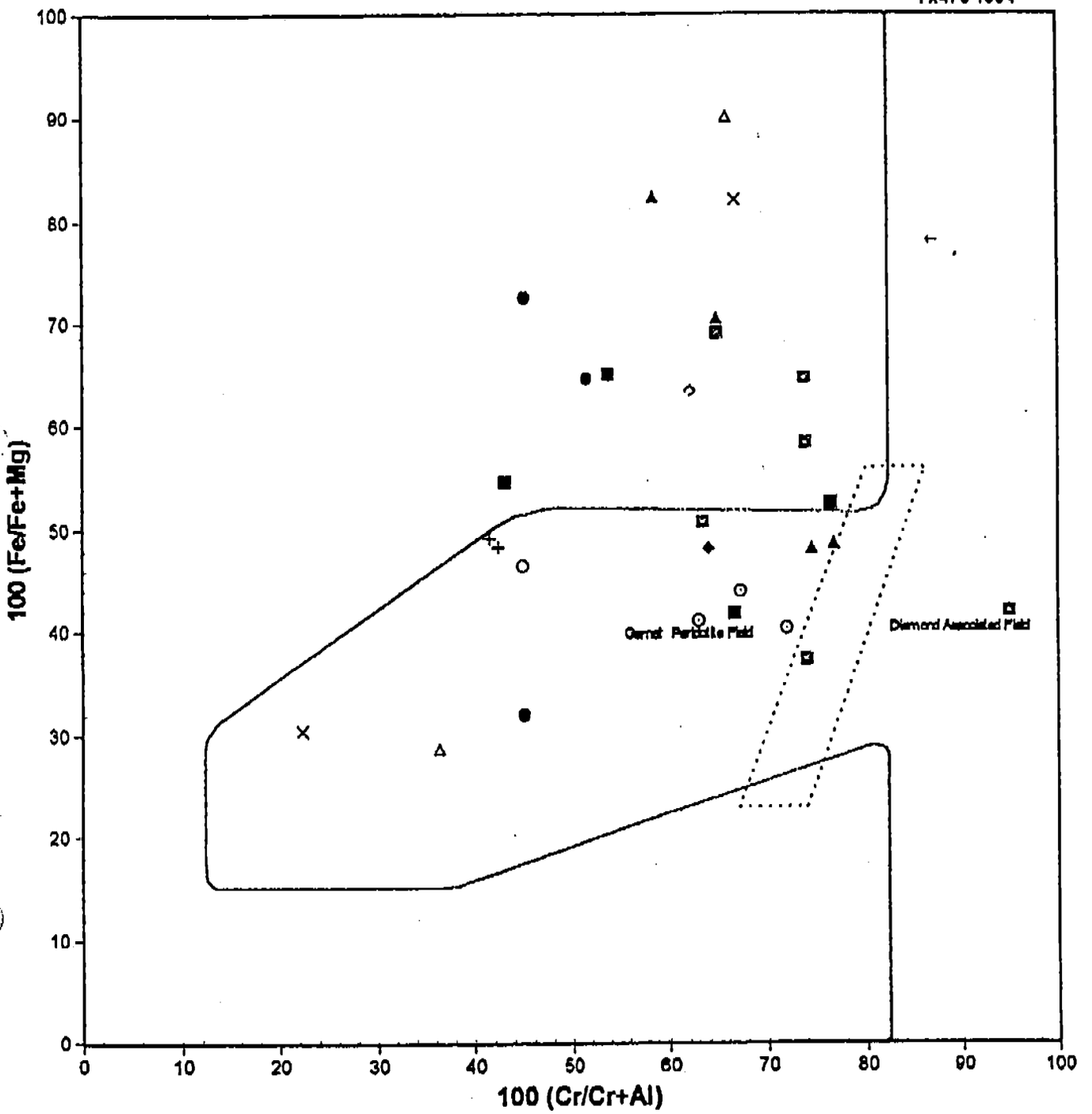
Notes: Dear Andrew,

Please find attached the chromite plot showing those samples underlined.

Regards

DIATECH
Ph 361 2598
Fx470 1504

CHROMITE PLOT (Core data)

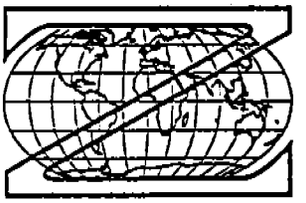


LEGEND

Sobolevs line	96-039:P +.25	96-053:KE-4 +.25	96-056:KE-10 +.25
Transition Field	96-039:P1 +.25	96-056:KE-1 +.25	96-056:KE-14 +.25
96-039:B +.25	96-039:Q +.25	96-056:KE-1 +.4	96-056:KE-16 +.25
96-039:F +.25	96-039:U +.25		

ZEPHYR MINERALS N.L.

(Incorporated in Western Australia)



A.C.N. 008 894 442

4th Floor, Wesfarmers Building, 40 The Esplanade, Perth, Western Australia 6000
lephone 61 9 322 5945, Facsimile 61 9 481 0663. Postal Address: P.O. Box 7365, Perth, Cloisters Square, WA 6850

TO: DIATECH

ATTN: LYNDA

RE: NEW PLOTS

FROM: ANDREW

DATE: 2 JULY

FAX NO: 470 1504

NO. OF PAGES: 2
(including cover sheet)

Please advise by return fascimile if any part of this transmission failed or was misdirected

---

Lynda,

Thanks for the composited data plot.

Would you kindly do me another using only the samples I have underlined on the attached. They all come from one geological field & may help us to establish some trends

Cheers & thanks,

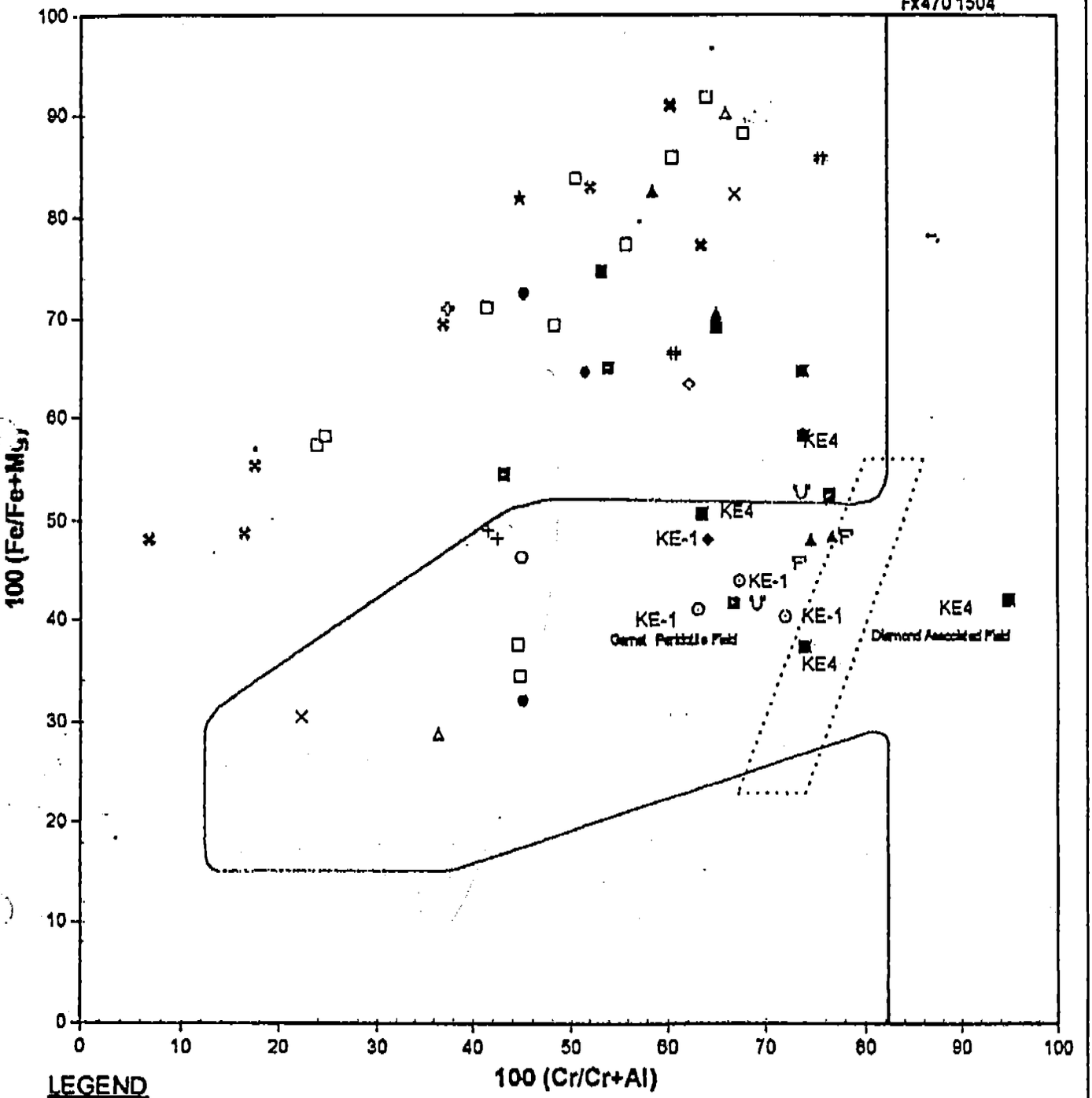
Andrew

DIATECH

Ph 361 2598

Fx470 1504

CHROMITE PLOT (Core data)



LEGEND

Sobolevs line	96-039:P +.25	96-056:KE-1 +.4	96-056:KE-23 +.25
Transition Field	96-039:P1 +.25	96-056:KE-10 +.25	96-056:KE-25 +.25
96-039:B +.25	96-039:Q +.25	96-056:KE-14 +.25	96-056:KE-29 +.25
96-039:F +.25	96-039:U +.25	96-056:KE-16 +.25	96-056:KE-34 +.25
96-039:I +.25	96-053:KE-4 +.25	96-056:KE-21 +.25	96-056:KE-6 +.25
96-039:M +.25	96-056:KE-1 +.25	96-056:KE-22 +.25	

——— = UNDERLINE!

01 JUL 1996

DIATECH

HEAVY MINERAL SERVICES

15 Sandra Place, WELSHPOOL, WESTERN AUSTRALIA 6106
Telephone 61 9 361 2566 Facsimile 61 9 470 1504

facsimile transmittal

To: ANDREW DRUMMOND Fax:

From: LYNDA FREWER Date: 1 July 1996

Re: PLOTS Pages: 3

CC:

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Notes: Dear Andrew,

Please find attached the plots showing all of the Keep River microprobe data to date. 3 grains were sent off today (KE 28 1 grain, and KE 30 2 grains), these are the last of them to go. I have not plotted the core/rim data onto a separate Sobolevs plot as I think it may be too 'busy' with so many grains, but instead I have spent the time labelling the core data on the core plot. Hope this is OK.

Cheers

DIATECH

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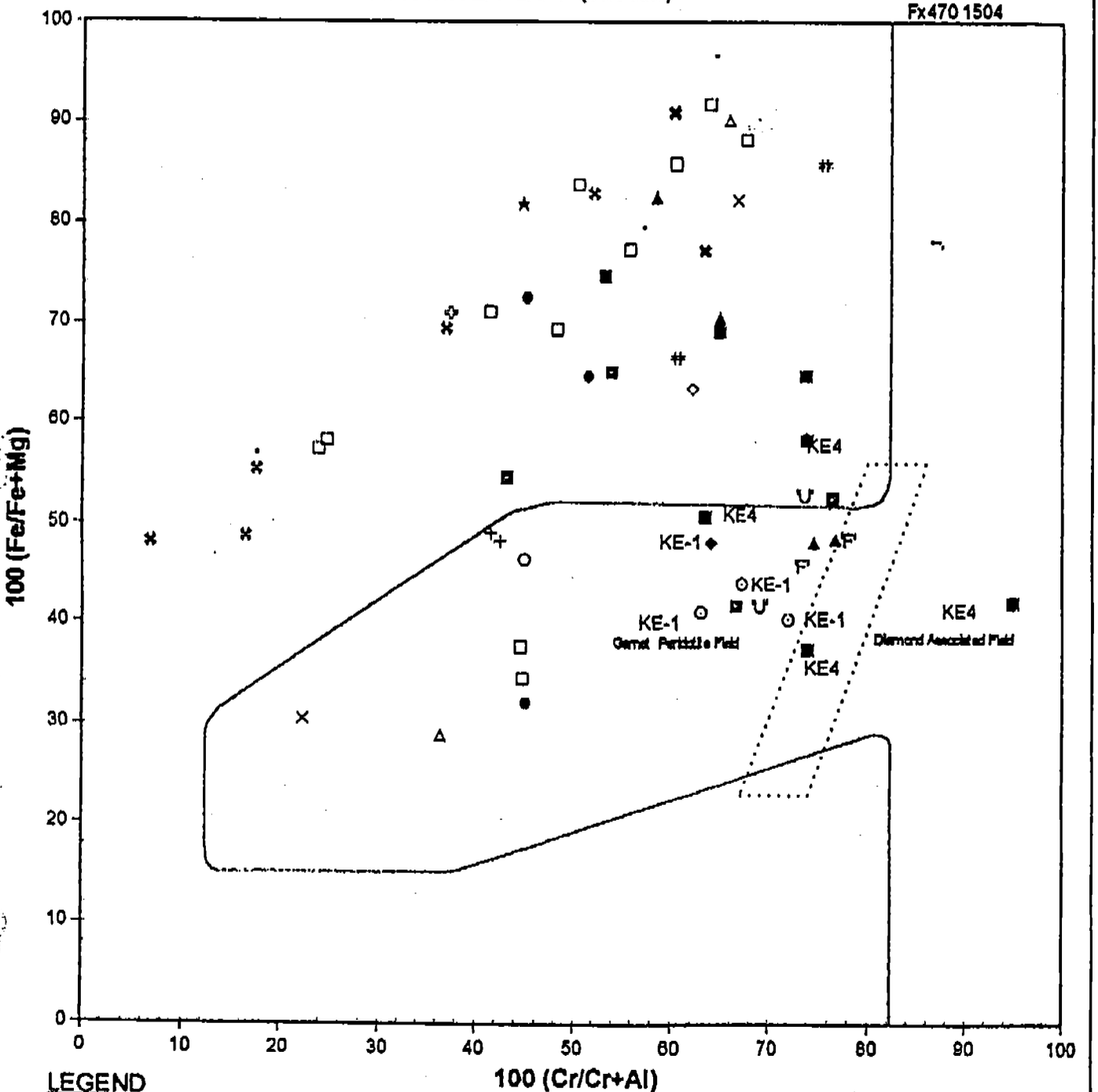
Fx470 1504

CHROMITE PLOT (Core data)



LEGEND

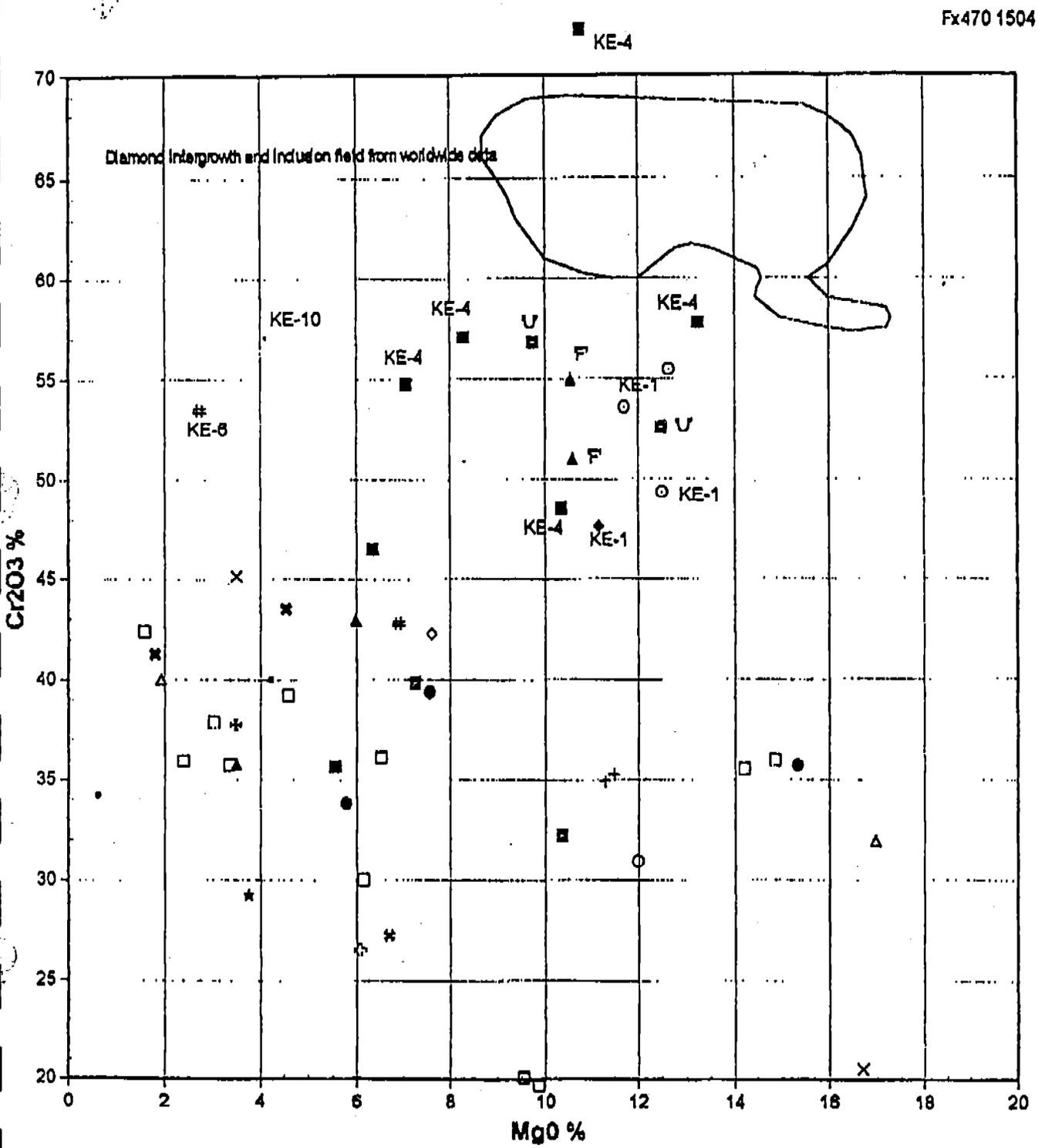
—— Soboleva line	○ 96-039:P +.25	◆ 96-056:KE-1 +.4	▪ 96-056:KE-23 +.25
···· Transition Field	△ 96-039:P1 +.25	⁃ 96-056:KE-10 +.25	✱ 96-056:KE-25 +.25
● 96-039:B +.25	◇ 96-039:Q +.25	× 96-056:KE-14 +.25	✱ 96-056:KE-29 +.25
▲ 96-039:F +.25	◘ 96-039:U +.25	+ 96-056:KE-16 +.25	★ 96-056:KE-34 +.25
■ 96-039:I +.25	■ 96-053:KE-4 +.25	⟆ 96-056:KE-21 +.25	# 96-056:KE-6 +.25
□ 96-039:M +.25	⊙ 96-056:KE-1 +.25	✱ 96-056:KE-22 +.25	

DIATECH

Ph 361 2596

Fx470 1504

CHROMITE PLOT MgO vs Cr2O3



LEGEND

● 96-039:B +.25	◇ 96-039:Q +.25	× 96-056:KE-14 +.25	✣ 96-056:KE-25 +.25
▲ 96-039:F +.25	⊠ 96-039:U +.25	+ 96-056:KE-16 +.25	✲ 96-056:KE-29 +.25
■ 96-039:I +.25	■ 96-053:KE-4 +.25	✣ 96-056:KE-21 +.25	★ 96-056:KE-34 +.25
□ 96-039:M +.25	⊙ 96-056:KE-1 +.25	✖ 96-056:KE-22 +.25	# 96-056:KE-6 +.25
○ 96-039:P +.25	◆ 96-056:KE-1 +.4		
△ 96-039:P1 +.25	· 96-056:KE-10 +.25	• 96-056:KE-23 +.25	

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-1 +.25	KE-1 +.25	KE-1 +.25	KE-1 +.25	KE-1 +.25	KE-1 +.25	KE-1 +.4	KE-1 +.4	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200
Desc	2C	2R	3C	3R	4C	4R	1C	1R	39C	39R	40C	40R	41C	41R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.27	0.38	0.00	0.20	0.38	0.27	0.96	0.73	0.00	0.00	0.30	0.18	0.40	0.28
Al2O3	19.45	18.68	17.54	16.42	14.47	16.84	18.00	14.07	2.45	2.48	24.49	30.41	17.20	13.75
Cr2O3	49.46	50.75	53.69	55.11	55.55	50.79	47.76	52.08	72.23	71.13	44.00	37.25	54.27	54.06
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.14	0.00	0.00	0.17	0.21	0.27	0.00	0.00	0.00	0.00	0.00	0.00
FeO	17.00	19.14	16.49	17.01	16.85	23.17	21.79	21.96	10.90	11.28	22.34	20.46	19.81	25.76
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.85	2.02	0.33	0.00	0.00	0.00
MgO	12.50	10.62	11.70	10.66	12.63	8.59	11.16	9.84	12.27	11.88	9.27	11.18	8.86	4.81
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.35
NiO	0.33	0.23	0.00	0.00	0.00	0.00	0.00	0.24	0.00	0.27	0.00	0.00	0.00	0.23
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.01	99.80	99.56	99.40	99.88	99.83	99.88	99.19	99.70	99.06	100.73	99.97	100.54	99.24
Fe2O3*	1.50	0.33	0.00	0.00	1.64	1.51	3.40	2.78	0.00	0.00	0.44	1.07	0.00	0.00
FeO*	15.65	18.84	16.49	17.01	15.37	21.81	18.73	19.46	10.90	11.28	21.94	19.49	19.81	25.76
Total*	99.16	99.83	99.56	99.40	100.04	99.98	100.22	99.47	99.70	99.06	100.77	100.08	100.54	99.24
Ti	0.01	0.01	0.00	0.01	0.01	0.01	0.02	0.02	0.00	0.00	0.01	0.00	0.01	0.01
Al	0.72	0.70	0.66	0.62	0.54	0.64	0.67	0.54	0.10	0.10	0.90	1.08	0.65	0.55
Cr	1.23	1.27	1.35	1.40	1.40	1.30	1.20	1.35	1.92	1.91	1.08	0.89	1.37	1.45
Fe3+	0.04	0.01	0.00	0.00	0.04	0.04	0.08	0.07	0.00	0.00	0.01	0.02	0.00	0.00
V	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Fe2+	0.41	0.50	0.44	0.46	0.41	0.59	0.50	0.53	0.31	0.32	0.57	0.49	0.53	0.73
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.06	0.01	0.00	0.00	0.00
Mg	0.59	0.50	0.55	0.51	0.60	0.42	0.53	0.48	0.62	0.60	0.43	0.50	0.42	0.24
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01
Ni	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00	2.99	3.00	3.00	3.00	2.98	2.99
Mg No	58.73	50.11	55.84	52.76	59.42	41.23	51.50	47.40	66.73	65.24	42.95	50.54	44.35	24.97
Ulvospinel	0.64	0.91	0.00	0.48	0.91	0.66	2.29	1.80	0.00	0.00	0.70	0.41	0.94	0.71
Spinel	36.07	34.97	32.70	30.62	27.17	32.19	33.60	27.12	4.81	4.94	44.80	54.01	31.79	27.30
Chromite	61.52	63.72	67.12	68.91	69.95	65.10	59.79	67.32	95.19	95.06	53.98	44.37	67.27	71.99
Magnetite	1.77	0.40	0.18	0.00	1.97	2.06	4.32	3.77	0.00	0.00	0.51	1.22	0.00	0.00
100Cr/(Cr+Al)	63.00	64.60	67.20	69.20	72.00	66.90	64.00	71.30	95.20	95.10	54.60	45.10	67.90	72.50
100Fe/(Fe+Mg)	41.30	49.90	44.20	47.20	40.60	58.80	48.50	52.60	33.30	34.80	57.10	49.50	55.60	75.00

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-1 +200	KE-10 +.25	KE-10 +.25
Desc	42C	42R	43C	43R	44C	44R	45C	45R	46C	46R	47R	47R	7C	7R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.00	0.18	0.36	0.29	0.29	0.19	1.00	1.17	0.42	0.43	0.89	0.91	0.37	0.70
Al2O3	13.20	12.83	15.99	20.47	14.94	14.06	17.92	17.34	20.77	11.89	12.59	12.94	5.78	7.24
Cr2O3	58.23	58.74	54.65	47.52	54.22	55.29	36.35	36.38	46.10	45.05	38.18	39.05	57.18	48.19
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.16	0.00	0.00	0.21	0.14	0.00	0.24	0.41	0.17	0.00	0.00	0.00	0.22	0.20
FeO	14.94	17.23	17.58	18.40	20.46	20.37	33.30	34.34	20.00	38.24	41.84	42.81	31.77	37.88
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.30	0.60	0.61	0.00	0.00
MgO	13.53	11.11	11.71	12.25	10.11	10.07	10.07	9.49	12.15	2.47	1.52	1.57	4.15	4.45
ZnO	0.00	0.00	0.00	0.35	0.00	0.00	0.34	0.00	0.00	0.56	0.83	0.85	0.00	0.46
NiO	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	100.06	100.09	100.29	99.73	100.16	99.98	99.22	99.45	99.61	98.94	96.45	98.74	99.47	99.38
Fe2O3*	1.59	0.00	0.52	2.41	1.28	1.43	14.68	14.71	3.25	9.63	12.87	13.16	5.40	12.76
FeO*	13.51	17.23	17.11	16.23	19.31	19.08	20.09	21.10	17.08	29.58	30.26	30.97	26.91	26.39
Total*	100.22	100.09	100.34	99.97	100.29	100.12	100.69	100.92	99.94	99.90	97.74	100.06	100.01	100.66
Ti	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.03	0.01	0.01	0.02	0.02	0.01	0.02
Al	0.50	0.49	0.60	0.75	0.57	0.54	0.68	0.66	0.76	0.49	0.53	0.53	0.24	0.30
Cr	1.46	1.50	1.37	1.17	1.38	1.42	0.92	0.92	1.14	1.24	1.08	1.08	1.59	1.33
Fe3+	0.04	0.00	0.01	0.06	0.03	0.04	0.35	0.36	0.08	0.25	0.35	0.35	0.14	0.33
V	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01
Fe2+	0.36	0.47	0.45	0.42	0.52	0.52	0.54	0.57	0.45	0.86	0.90	0.90	0.79	0.77
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.02	0.00	0.00
Mg	0.64	0.54	0.55	0.57	0.49	0.49	0.48	0.45	0.57	0.13	0.08	0.08	0.22	0.23
Zn	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.02	0.00	0.01
Ni	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	64.09	53.47	54.94	57.36	48.27	48.46	47.18	44.49	55.90	12.95	8.22	8.29	21.56	23.10
Ulvospinel	0.00	0.44	0.86	0.68	0.70	0.46	2.40	2.82	0.98	1.12	2.39	2.38	0.98	1.83
Spinel	24.73	24.46	29.93	37.63	28.41	26.89	33.74	32.78	38.17	24.37	26.48	26.58	11.99	14.86
Chromite	73.16	75.10	68.59	58.59	69.15	70.91	45.90	46.12	56.82	61.92	53.85	53.79	79.56	66.31
Magnetite	2.11	0.00	0.62	3.09	1.74	1.74	17.96	18.28	4.02	12.59	17.28	17.25	7.47	17.00
100Cr/(Cr+Al)	74.70	75.40	69.60	60.90	70.90	72.50	57.60	58.50	59.80	71.80	67.00	66.90	86.90	81.70
100Fe/(Fe+Mg)	35.90	46.50	45.10	42.60	51.70	51.50	52.80	55.50	44.10	87.00	91.80	91.70	78.40	76.90

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-14 +.25	KE-14 +.25	KE-14 +.25	KE-14 +.25	KE-16 +.25	KE-16 +.25	KE-2 +200	KE-2 +200	KE-2 +200	KE-2 +200	KE-2 +200	KE-2 +200	KE-2 +200
Desc	8C	8R	9C	9R	12AC	12BC	1C	1R	2C	2R	3C	3R	4C
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	1.53	1.59	0.00	0.00	0.00	0.00	0.48	0.30	1.14	1.01	0.00	0.00	0.14
Al2O3	15.15	14.72	48.26	50.15	32.15	33.03	14.24	13.44	23.17	22.85	23.86	22.49	26.45
Cr2O3	45.28	45.58	20.64	19.34	35.39	35.04	57.52	57.17	45.89	45.08	45.28	44.98	45.77
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.32	0.21	0.21	0.00	0.00	0.28	0.00	0.00	0.18	0.25	0.14	0.18	0.00
FeO	32.35	34.71	13.23	11.89	20.19	19.99	15.42	21.77	20.32	21.83	21.43	23.27	13.35
MnO	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	3.49	2.64	16.69	17.78	11.49	11.29	11.96	5.45	9.46	8.74	9.17	7.54	14.05
ZnO	0.58	0.60	0.36	0.00	0.00	0.00	0.00	0.73	0.00	0.00	0.00	0.40	0.00
NiO	0.23	0.00	0.38	0.29	0.00	0.28	0.29	0.34	0.00	0.00	0.00	0.27	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.31	100.05	99.77	99.45	99.22	99.91	99.91	99.20	100.16	99.76	99.88	99.13	99.76
Fe2O3*	3.48	3.75	0.00	0.00	0.95	0.30	0.00	0.00	0.00	0.00	0.00	0.09	0.00
FeO*	29.22	31.33	13.23	11.89	19.34	19.72	15.42	21.77	20.32	21.83	21.43	23.19	13.35
Total*	99.66	100.43	99.77	99.45	99.31	99.94	99.91	99.20	100.16	99.76	99.88	99.14	99.76
Ti	0.04	0.04	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.02	0.00	0.00	0.00
Al	0.61	0.59	1.55	1.60	1.14	1.16	0.54	0.53	0.85	0.85	0.88	0.85	0.94
Cr	1.22	1.23	0.45	0.41	0.84	0.83	1.45	1.52	1.13	1.12	1.12	1.14	1.09
Fe3+	0.09	0.10	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00
Fe2+	0.83	0.89	0.30	0.27	0.49	0.49	0.41	0.61	0.53	0.58	0.56	0.62	0.34
Mn	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.18	0.13	0.68	0.72	0.51	0.50	0.57	0.27	0.44	0.41	0.43	0.36	0.63
Zn	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00
Ni	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.97	2.98	2.99	3.00	3.00	2.99
Mg No	17.55	13.05	69.21	72.71	51.43	50.50	58.02	30.85	45.34	41.64	43.26	36.68	65.22
Ulvospinel	3.91	4.07	0.00	0.00	0.00	0.00	1.15	0.73	2.62	2.36	0.00	0.00	0.31
Spinel	30.36	29.53	77.53	79.45	56.92	58.04	26.65	25.77	41.73	41.90	43.92	42.57	46.14
Chromite	60.84	61.31	22.24	20.55	42.02	41.29	72.20	73.50	55.43	55.43	55.90	57.09	53.55
Magnetite	4.89	5.09	0.23	0.00	1.07	0.67	0.00	0.00	0.22	0.31	0.18	0.34	0.00
100Cr/(Cr+Al)	66.70	67.50	22.30	20.50	42.50	41.60	73.00	74.00	57.00	57.00	56.00	57.30	53.70
100Fe/(Fe+Mg)	82.40	86.90	30.80	27.30	48.60	49.50	42.00	69.20	54.70	58.40	56.70	63.30	34.80

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-2 +200	KE-2 +200	KE-2 +200	KE-2 +200	KE-2 +200	KE-21 +.25	KE-21 +.25	KE-22 +.25	KE-22 +.25	KE-22 +.25	KE-22 +.25	KE-23 +.25	KE-23 +.25
Desc	4R	5C	5R	6C	6R	13C	13R	18C	18R	19C	19R	14C	14R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.32	0.24	0.25	0.18	0.25	0.15	0.00	0.51	0.74	1.92	0.00	2.31	0.54
Al2O3	25.52	29.96	26.88	49.01	46.61	29.90	40.13	16.97	12.61	18.26	19.09	12.65	10.93
Cr2O3	45.10	34.23	38.16	20.30	21.33	26.62	19.68	43.58	43.72	41.40	45.57	34.32	32.11
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.20	0.00	0.00	0.00	0.26	0.00	0.26	0.31	0.41	0.26	0.30	0.35
FeO	15.67	27.99	28.89	12.91	15.73	35.25	30.09	33.19	38.24	35.38	32.34	47.53	52.66
MnO	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.53	0.00	0.37	0.48
MgO	12.51	5.75	4.42	17.33	15.29	6.06	8.84	4.55	3.04	1.81	1.76	0.63	0.74
ZnO	0.33	0.58	0.51	0.00	0.00	0.47	0.38	0.40	0.00	0.40	0.43	0.49	0.00
NiO	0.25	0.23	0.00	0.30	0.54	0.28	0.23	0.00	0.00	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.70	99.66	99.11	100.03	99.75	98.99	99.35	99.46	99.08	100.11	99.45	98.60	97.81
Fe2O3*	0.00	1.21	0.00	0.00	0.08	9.40	6.53	5.96	9.67	2.52	0.55	14.83	22.55
FeO*	15.67	26.90	28.89	12.91	15.66	26.80	24.22	27.82	29.54	33.11	31.85	34.18	32.36
Total*	99.70	99.78	99.11	100.03	99.76	99.93	100.00	100.06	100.05	100.36	99.50	100.09	100.07
Ti	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.02	0.05	0.00	0.06	0.01
Al	0.92	1.11	1.02	1.56	1.52	1.11	1.40	0.67	0.51	0.73	0.76	0.52	0.46
Cr	1.09	0.85	0.97	0.43	0.47	0.66	0.46	1.15	1.19	1.10	1.22	0.95	0.90
Fe3+	0.00	0.03	0.00	0.00	0.00	0.22	0.15	0.15	0.25	0.06	0.01	0.39	0.60
V	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Fe2+	0.40	0.71	0.78	0.29	0.36	0.70	0.60	0.78	0.85	0.93	0.90	1.00	0.96
Mn	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.01	0.01
Mg	0.57	0.27	0.21	0.70	0.63	0.28	0.39	0.23	0.16	0.09	0.09	0.03	0.04
Zn	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00
Ni	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.99	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	58.72	27.58	21.42	70.52	63.51	28.72	39.41	22.56	15.50	8.88	8.96	3.18	3.91
Ulvospinel	0.73	0.57	0.60	0.37	0.52	0.35	0.00	1.28	1.92	4.86	0.00	6.10	1.44
Spinel	45.43	55.35	50.92	77.98	76.05	55.25	69.80	33.39	25.60	36.26	38.05	26.20	22.67
Chromite	53.84	42.41	48.48	21.66	23.34	32.99	22.95	57.50	59.52	55.13	60.91	47.66	45.06
Magnetite	0.00	1.68	0.00	0.00	0.09	11.41	7.25	7.84	12.96	3.75	1.05	20.03	30.63
100Cr/(Cr+Al)	54.20	43.40	48.80	21.70	23.50	37.40	24.70	63.30	69.90	60.30	61.60	64.50	66.30
100Fe/(Fe+Mg)	41.30	72.40	78.60	29.50	36.50	71.30	60.60	77.40	84.50	91.10	91.00	96.80	96.10

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-23 +.25	KE-23 +.25	KE-23 +.25	KE-23 +.25	KE-25 +.25	KE-25 +.25	KE-26 +.25	KE-26 +.25	KE-28 +.25	KE-28 +.25	KE-29 +.25	KE-29 +.25	KE-29 +.25
Desc	15C	15R	16C	16R	10C	10R	11C	11R	1C	1R	20C	20R	21C
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4
TIO2	0.00	0.00	0.70	0.25	0.19	0.00	0.00	0.00	0.40	0.41	0.71	0.29	0.14
Al2O3	46.41	52.07	20.02	20.95	23.46	39.06	57.87	59.95	30.52	25.08	31.24	34.69	46.92
Cr2O3	14.84	9.34	40.12	40.09	37.88	23.11	6.32	4.22	33.57	36.84	27.35	25.12	14.97
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.40	0.31	0.55	0.00	0.00	0.00	0.18	0.33	0.25	0.00	0.00
FeO	27.67	26.65	34.57	33.54	33.89	30.72	22.46	21.88	22.00	25.97	33.21	32.30	26.27
MnO	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
MgO	9.95	10.71	4.23	4.00	3.47	6.28	12.73	13.61	12.56	10.36	6.67	7.12	10.30
ZnO	0.54	0.55	0.00	0.42	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.37
NiO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.41	99.32	100.04	99.56	99.75	99.17	99.76	99.66	99.44	98.99	99.43	99.52	99.39
Fe2O3*	4.56	3.78	5.62	4.98	3.96	2.56	1.26	1.39	4.74	6.26	6.48	6.03	3.69
FeO*	23.57	23.25	29.51	29.06	30.33	28.42	21.32	20.62	17.73	20.34	27.37	26.87	22.95
Total*	99.87	99.70	100.60	100.06	100.15	99.43	99.89	99.80	99.91	99.62	100.08	100.12	99.76
Ti	0.00	0.00	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.00
Al	1.57	1.71	0.78	0.81	0.90	1.39	1.84	1.88	1.08	0.92	1.14	1.24	1.58
Cr	0.34	0.21	1.04	1.04	0.98	0.55	0.14	0.09	0.79	0.91	0.67	0.60	0.34
Fe3+	0.10	0.08	0.14	0.12	0.10	0.06	0.03	0.03	0.11	0.15	0.15	0.14	0.08
V	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Fe2+	0.56	0.54	0.81	0.80	0.83	0.72	0.48	0.46	0.44	0.53	0.71	0.68	0.55
Mn	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mg	0.42	0.45	0.21	0.20	0.17	0.28	0.51	0.54	0.56	0.48	0.31	0.32	0.44
Zn	0.01	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	42.93	45.08	20.34	19.70	16.94	28.25	51.55	54.04	55.79	47.58	30.27	32.07	44.43
Ulvospinel	0.00	0.00	1.73	0.62	0.47	0.00	0.00	0.00	0.90	0.96	1.65	0.66	0.30
Spinel	78.30	85.72	38.74	40.64	45.11	69.51	91.98	94.16	53.84	46.00	57.01	62.22	78.87
Chromite	16.79	10.31	52.06	52.16	48.85	27.58	6.74	4.44	39.71	45.31	33.47	30.21	16.87
Magnetite	4.91	3.97	7.47	6.58	5.58	2.91	1.28	1.40	5.55	7.74	7.86	6.91	3.96
100Cr/(Cr+Al)	17.70	10.70	57.30	56.20	52.00	28.40	6.80	4.50	42.50	49.60	37.00	32.70	17.60
100Fe/(Fe+Mg)	57.10	54.90	79.70	80.30	83.10	71.70	48.50	46.00	44.20	52.40	69.70	67.90	55.60

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-29 +.25	KE-29 +.25	KE-29 +.25	KE-30 +.25	KE-30 +.25	KE-30 +.25	KE-30 +.25	KE-34 +.25	KE-34 +.25	KE-5 +200	KE-5 +200	KE-5 +200	KE-5 +200
Desc	21R	22C	22R	2C	2R	3C	3R	17C	17R	10C	10R	7C	7R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.00	0.65	0.00	0.00	0.13	0.58	0.59	1.39	0.36	0.38	0.60	0.30	0.48
Al2O3	51.54	46.41	43.04	52.65	54.76	20.58	21.50	24.32	23.08	15.95	15.86	14.99	14.31
Cr2O3	10.92	13.64	16.32	10.81	8.79	34.91	34.06	29.33	29.28	54.83	55.53	59.91	60.40
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.00	0.00	0.00	0.27	0.15	0.36	0.31	0.00	0.16	0.16	0.23
FeO	24.46	25.79	28.36	23.86	23.51	35.07	34.43	39.63	41.44	17.92	18.31	13.82	13.58
MnO	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00
MgO	11.81	11.98	10.69	12.30	12.46	7.99	7.94	3.74	2.66	10.49	9.37	10.82	10.33
ZnO	0.63	0.46	0.71	0.00	0.00	0.00	0.00	0.67	1.11	0.00	0.00	0.00	0.39
NiO	0.00	0.31	0.30	0.27	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.36	99.54	99.42	99.89	99.65	99.40	98.67	99.73	98.60	99.57	99.83	100.00	99.72
Fe2O3*	3.39	5.79	7.61	2.83	2.02	12.69	12.00	9.99	12.31	0.00	0.00	0.00	0.00
FeO*	21.41	20.58	21.51	21.31	21.69	23.65	23.63	30.64	30.36	17.92	18.31	13.82	13.58
Total*	99.70	100.12	100.18	100.17	99.85	100.67	99.87	100.73	99.83	99.57	99.83	100.00	99.72
Ti	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.03	0.01	0.01	0.02	0.01	0.01
Al	1.69	1.55	1.46	1.71	1.76	0.78	0.81	0.93	0.90	0.61	0.60	0.56	0.54
Cr	0.24	0.30	0.37	0.24	0.19	0.88	0.86	0.75	0.77	1.39	1.41	1.51	1.53
Fe3+	0.07	0.12	0.17	0.06	0.04	0.31	0.29	0.24	0.31	0.00	0.00	0.00	0.00
V	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01
Fe2+	0.50	0.49	0.52	0.49	0.50	0.63	0.63	0.83	0.84	0.48	0.49	0.37	0.36
Mn	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Mg	0.49	0.50	0.46	0.50	0.51	0.38	0.38	0.18	0.13	0.50	0.45	0.51	0.49
Zn	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.02	0.03	0.00	0.00	0.00	0.01
Ni	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.98	2.96	2.95
Mg No	49.57	50.92	46.97	50.70	50.58	37.58	37.45	17.87	13.50	51.06	47.70	58.25	57.55
Ulvospinel	0.00	1.38	0.00	0.00	0.27	1.40	1.42	3.39	0.90	0.91	1.42	0.69	1.10
Spinel	84.46	77.24	73.14	85.32	88.17	38.82	40.68	46.42	45.04	29.98	29.38	26.93	25.74
Chromite	12.00	15.22	18.60	11.75	9.49	44.16	43.22	37.55	38.32	69.11	69.00	72.18	72.87
Magnetite	3.54	6.15	8.26	2.93	2.08	15.63	14.68	12.64	15.75	0.00	0.20	0.20	0.28
100Cr/(Cr+Al)	12.40	16.50	20.30	12.10	9.70	53.20	51.50	44.70	46.00	69.70	70.10	72.80	73.90
100Fe/(Fe+Mg)	50.40	49.10	53.00	49.30	49.40	62.40	62.60	82.10	86.50	48.90	52.30	41.80	42.50

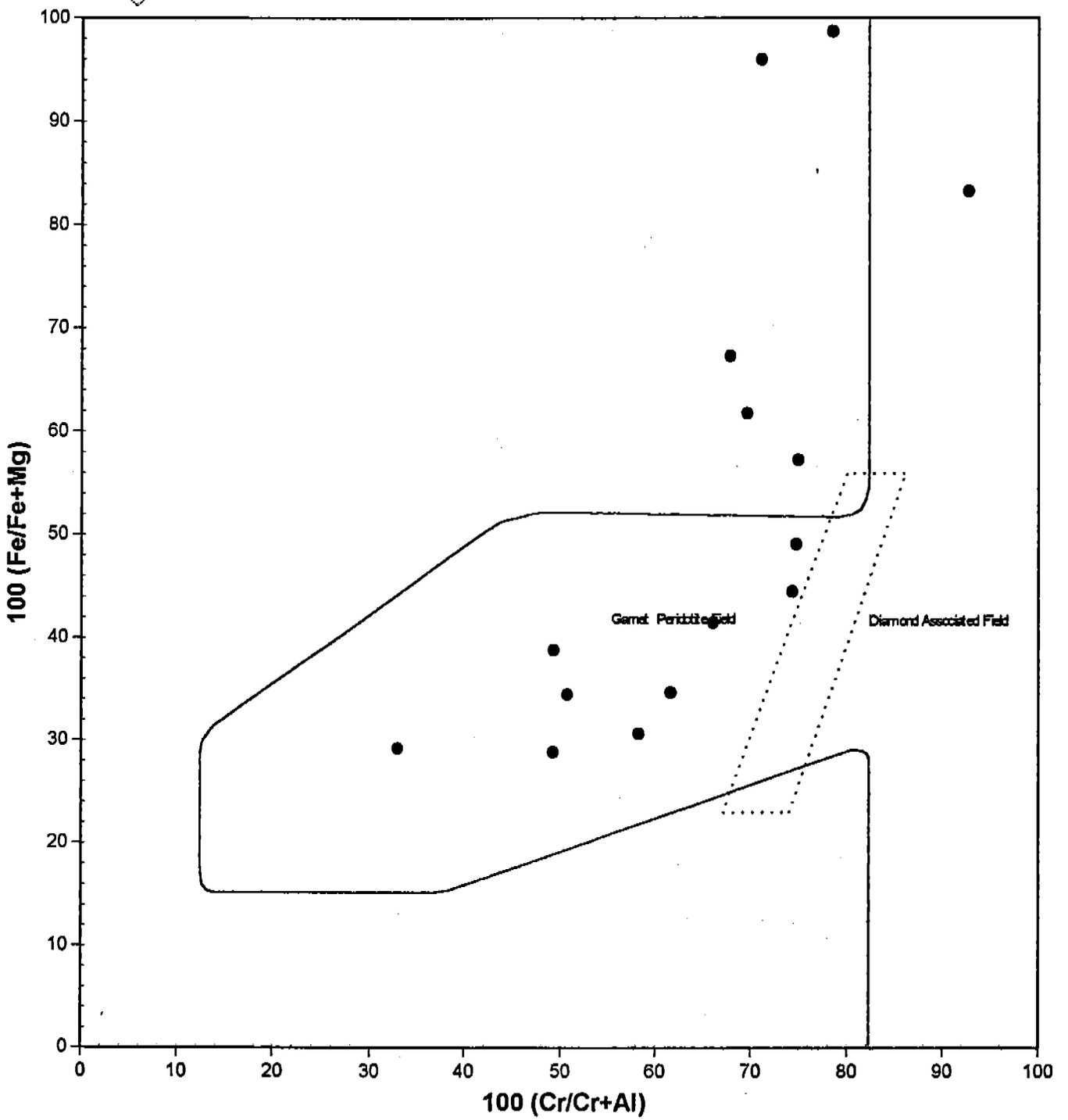
Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE-5 +200	KE-5 +200	KE-5 +200	KE-5 +200	KE-6 +.25	KE-6 +.25	KE-6 +.25	KE-6 +.25	KE-6 +200	KE-6 +200	KE-6 +200	KE-6 +200	KE-6 +200	KE-6 +200
Desc	8C	8R	9C	9R	5C	5R	6C	6R	11C	11R	12C	12R	13C	13R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.38	0.46	0.00	0.00	0.80	0.95	0.44	0.36	0.69	0.87	2.44	2.65	0.00	0.00
Al2O3	9.90	9.53	43.84	39.39	18.70	17.49	11.57	10.90	13.72	12.33	32.82	32.27	3.03	2.60
Cr2O3	61.78	60.86	27.58	30.85	42.89	43.09	53.57	52.84	51.42	47.39	23.55	23.26	69.64	72.01
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.17	0.40	0.16	0.17	0.34	0.46	0.18	0.23	0.20	0.28	0.00	0.17	0.00	0.00
FeO	23.28	23.87	10.92	12.37	29.14	30.58	30.87	30.99	27.06	32.65	25.93	26.10	13.97	14.77
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.77	0.32	0.00	0.00	0.00	0.00	0.00
MgO	3.99	3.74	16.90	16.32	6.88	6.53	2.71	1.11	5.78	5.31	14.67	14.32	12.39	10.09
ZnO	0.00	0.85	0.00	0.00	0.00	0.00	0.00	1.96	0.00	0.45	0.00	0.00	0.77	0.00
NiO	0.00	0.00	0.21	0.31	0.36	0.00	0.00	0.00	0.24	0.00	0.00	0.48	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.50	99.71	99.61	99.41	99.11	99.10	99.76	99.16	99.43	99.28	99.41	99.25	99.80	99.47
Fe2O3*	0.00	0.00	0.00	0.00	4.96	5.62	1.31	1.53	1.93	7.20	9.94	10.00	1.24	0.00
FeO*	23.28	23.87	10.92	12.37	24.68	25.52	29.69	29.62	25.32	26.17	16.98	17.11	12.85	14.77
Total*	99.50	99.71	99.61	99.41	99.61	99.66	99.89	99.31	99.62	100.00	100.41	100.25	99.92	99.47
Ti	0.01	0.01	0.00	0.00	0.02	0.02	0.01	0.01	0.02	0.02	0.05	0.06	0.00	0.00
Al	0.40	0.39	1.43	1.31	0.72	0.68	0.47	0.46	0.54	0.49	1.13	1.12	0.12	0.10
Cr	1.67	1.65	0.60	0.69	1.11	1.12	1.47	1.48	1.37	1.27	0.54	0.54	1.85	1.94
Fe3+	0.00	0.00	0.00	0.00	0.12	0.14	0.03	0.04	0.05	0.18	0.22	0.22	0.03	0.00
V	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
Fe2+	0.67	0.69	0.25	0.29	0.68	0.70	0.86	0.88	0.71	0.74	0.42	0.42	0.36	0.42
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00
Mg	0.20	0.19	0.70	0.69	0.34	0.32	0.14	0.06	0.29	0.27	0.64	0.63	0.62	0.51
Zn	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.01	0.00	0.00	0.02	0.00
Ni	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.95	2.96	2.98	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.98
Mg No	23.40	21.83	73.39	70.16	33.19	31.32	13.99	6.26	28.91	26.56	60.62	59.87	63.21	54.90
Ulvospinel	0.93	1.15	0.00	0.00	1.97	2.35	1.15	0.96	1.74	2.22	5.36	5.85	0.00	0.00
Spinel	19.06	18.61	70.21	65.44	36.05	33.96	23.60	22.74	27.20	24.66	56.52	55.88	6.00	5.11
Chromite	79.78	79.71	29.62	34.37	55.44	56.11	73.29	73.94	68.35	63.55	27.20	27.01	92.43	94.89
Magnetite	0.22	0.53	0.17	0.19	6.55	7.58	1.96	2.36	2.71	9.57	10.93	11.25	1.57	0.00
100Cr/(Cr+Al)	80.70	81.10	29.70	34.40	60.60	62.30	75.60	76.50	71.50	72.00	32.50	32.60	93.90	94.90
100Fe/(Fe+Mg)	76.60	78.20	26.60	29.80	66.80	68.70	86.00	93.70	71.10	73.40	39.40	40.10	36.80	45.10

Job	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056	96-056
Sample	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200
Desc	18C	18R	19C	19R	20C	20R	21C	21R	22C	22R	23C	23R	24C
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	1.19	1.11	0.80	0.84	0.59	0.49	0.33	0.48	0.18	0.24	0.56	0.64	0.59
Al2O3	16.95	18.97	13.23	11.11	17.45	19.28	11.24	11.75	12.40	12.08	27.10	26.30	15.54
Cr2O3	54.09	50.33	53.14	54.76	54.96	53.23	59.87	58.73	57.11	57.46	37.47	38.34	51.72
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.00	0.17	0.22	0.00	0.00	0.00	0.00	0.00	0.18	0.19	0.18
FeO	18.85	22.95	23.21	25.87	16.22	18.34	17.55	20.02	26.41	26.10	25.80	26.88	23.67
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.00	0.00
MgO	9.15	5.91	8.97	6.51	10.17	7.91	11.34	8.13	3.87	3.68	8.09	7.52	7.93
ZnO	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.23	0.00	0.00	0.00	0.26	0.00	0.25	0.00	0.23	0.00	0.58
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	100.23	99.27	99.91	99.26	99.61	99.25	100.59	99.11	100.22	99.56	99.75	99.87	100.21
Fe2O3*	0.00	0.00	2.83	1.60	0.00	0.00	0.88	0.00	0.00	0.00	2.12	1.76	1.34
FeO*	18.85	22.95	20.66	24.43	16.22	18.34	16.75	20.02	26.41	26.10	23.90	25.29	22.46
Total*	100.23	99.27	100.19	99.42	99.61	99.25	100.68	99.11	100.22	99.56	99.96	100.05	100.34
Ti	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
Al	0.64	0.73	0.51	0.44	0.65	0.73	0.43	0.46	0.50	0.49	1.00	0.97	0.60
Cr	1.37	1.30	1.38	1.47	1.38	1.35	1.53	1.55	1.53	1.55	0.92	0.95	1.34
Fe3+	0.00	0.00	0.07	0.04	0.00	0.00	0.02	0.00	0.00	0.00	0.05	0.04	0.03
V	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
Fe2+	0.50	0.63	0.57	0.69	0.43	0.49	0.45	0.56	0.75	0.75	0.62	0.66	0.61
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
Mg	0.44	0.29	0.44	0.33	0.48	0.38	0.55	0.40	0.20	0.19	0.38	0.35	0.39
Zn	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.02
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.97	2.96	3.00	3.00	2.97	2.95	3.00	2.98	2.98	2.98	3.00	3.00	3.00
Mg No	46.38	31.45	43.62	32.20	52.77	43.46	54.67	41.98	20.71	20.08	37.63	34.63	38.62
Ulvospinel	2.77	2.62	1.97	2.14	1.36	1.12	0.80	1.18	0.45	0.60	1.31	1.51	1.45
Spinel	30.96	35.04	25.59	22.20	31.61	34.68	21.46	22.71	24.35	23.72	49.80	48.63	29.91
Chromite	66.26	62.34	68.93	73.36	66.76	64.20	76.66	76.11	75.20	75.68	46.18	47.54	66.76
Magnetite	0.00	0.00	3.50	2.28	0.27	0.00	1.08	0.00	0.00	0.00	2.71	2.32	1.88
100Cr/(Cr+Al)	68.20	64.00	72.90	76.80	67.90	64.90	78.10	77.00	75.50	76.10	48.10	49.40	69.10
100Fe/(Fe+Mg)	53.60	68.50	56.40	67.80	47.20	56.50	45.30	58.00	79.30	79.90	62.40	65.40	61.40

Job	96-056	96-056	96-056	96-056	96-056
Sample	KE63 +200	KE63 +200	KE63 +200	KE63 +200	KE63 +200
Desc	24R	25C	25R	26C	26R
Mineral	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4
TiO2	0.66	0.29	0.36	0.51	0.47
Al2O3	16.87	14.64	16.34	28.61	30.65
Cr2O3	49.89	58.72	55.60	37.23	34.95
Fe2O3	0.00	0.00	0.00	0.00	0.00
V2O3	0.22	0.00	0.34	0.00	0.19
FeO	24.11	16.91	17.97	25.25	23.61
MnO	0.00	0.00	0.00	0.00	0.00
MgO	7.34	8.72	8.14	7.88	8.92
ZnO	0.00	0.41	0.46	0.00	0.45
NiO	0.34	0.00	0.00	0.00	0.22
CoO	0.00	0.00	0.00	0.00	0.00
Oxide total	99.43	99.69	99.21	99.48	99.46
Fe2O3*	0.56	0.00	0.00	0.45	0.78
FeO*	23.61	16.91	17.97	24.84	22.91
Total*	99.49	99.69	99.21	99.53	99.54
Ti	0.02	0.01	0.01	0.01	0.01
Al	0.65	0.56	0.63	1.05	1.11
Cr	1.30	1.51	1.43	0.92	0.85
Fe3+	0.01	0.00	0.00	0.01	0.02
V	0.01	0.00	0.01	0.00	0.01
Fe2+	0.65	0.46	0.49	0.65	0.59
Mn	0.00	0.00	0.00	0.00	0.00
Mg	0.36	0.42	0.39	0.37	0.41
Zn	0.00	0.01	0.01	0.00	0.01
Ni	0.01	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	2.96	2.96	3.00	3.00
Mg No	35.65	47.89	44.67	36.11	40.96
Ulvospinel	1.63	0.68	0.85	1.19	1.08
Spinel	32.65	26.92	30.08	52.48	55.41
Chromite	64.75	72.40	68.65	45.80	42.37
Magnetite	0.98	0.00	0.43	0.53	1.14
100Cr/(Cr+Al)	66.50	72.90	69.50	46.60	43.30
100Fe/(Fe+Mg)	64.30	52.10	55.30	63.90	59.00

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

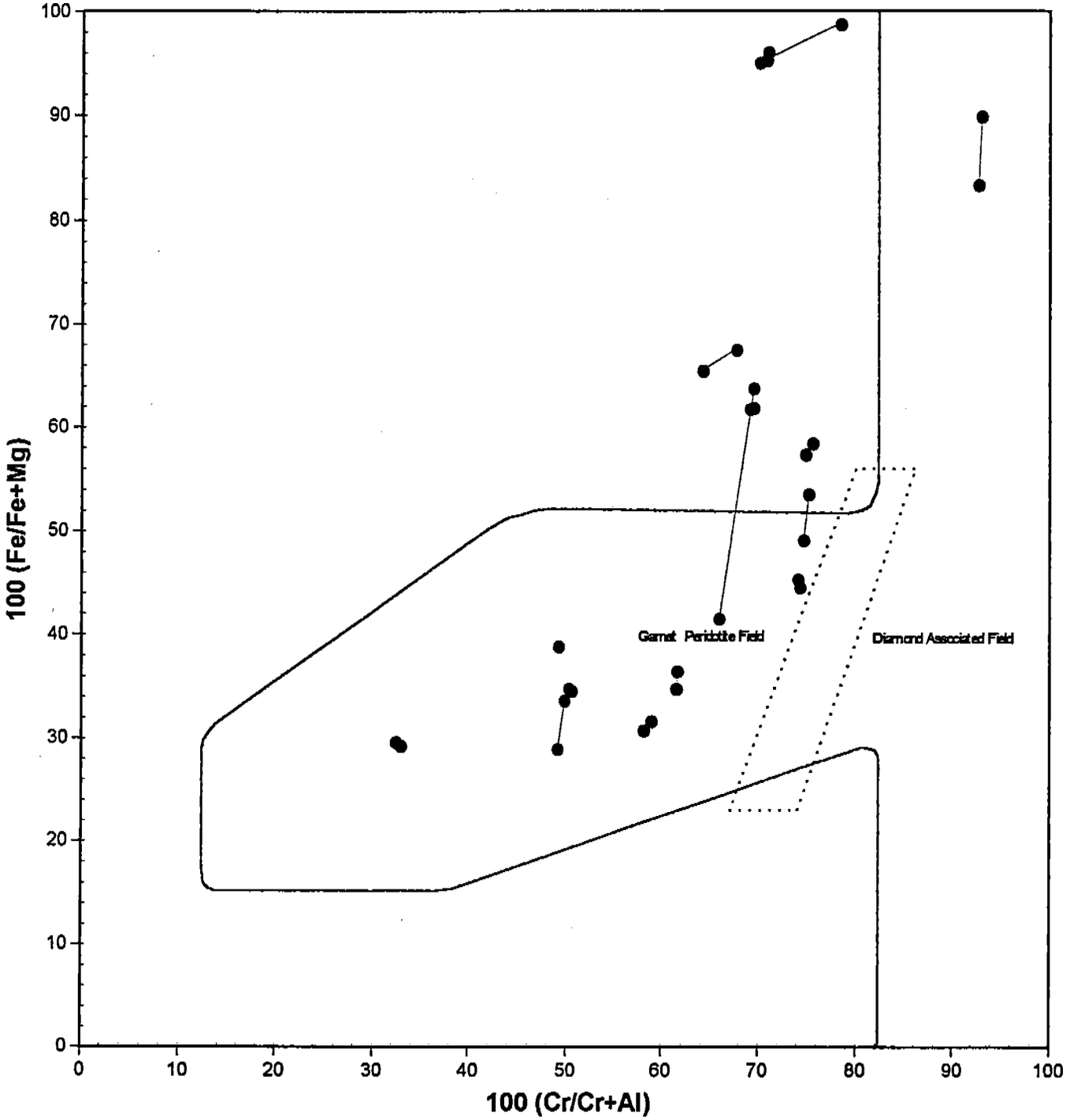
Sobolevs line

Transition Field

96-078:KE 82 +0.20

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

Sobolevs line

Transition Field

96-078:KE 82 +0.20

CHROMITE PLOT (Core data)

DIATECH
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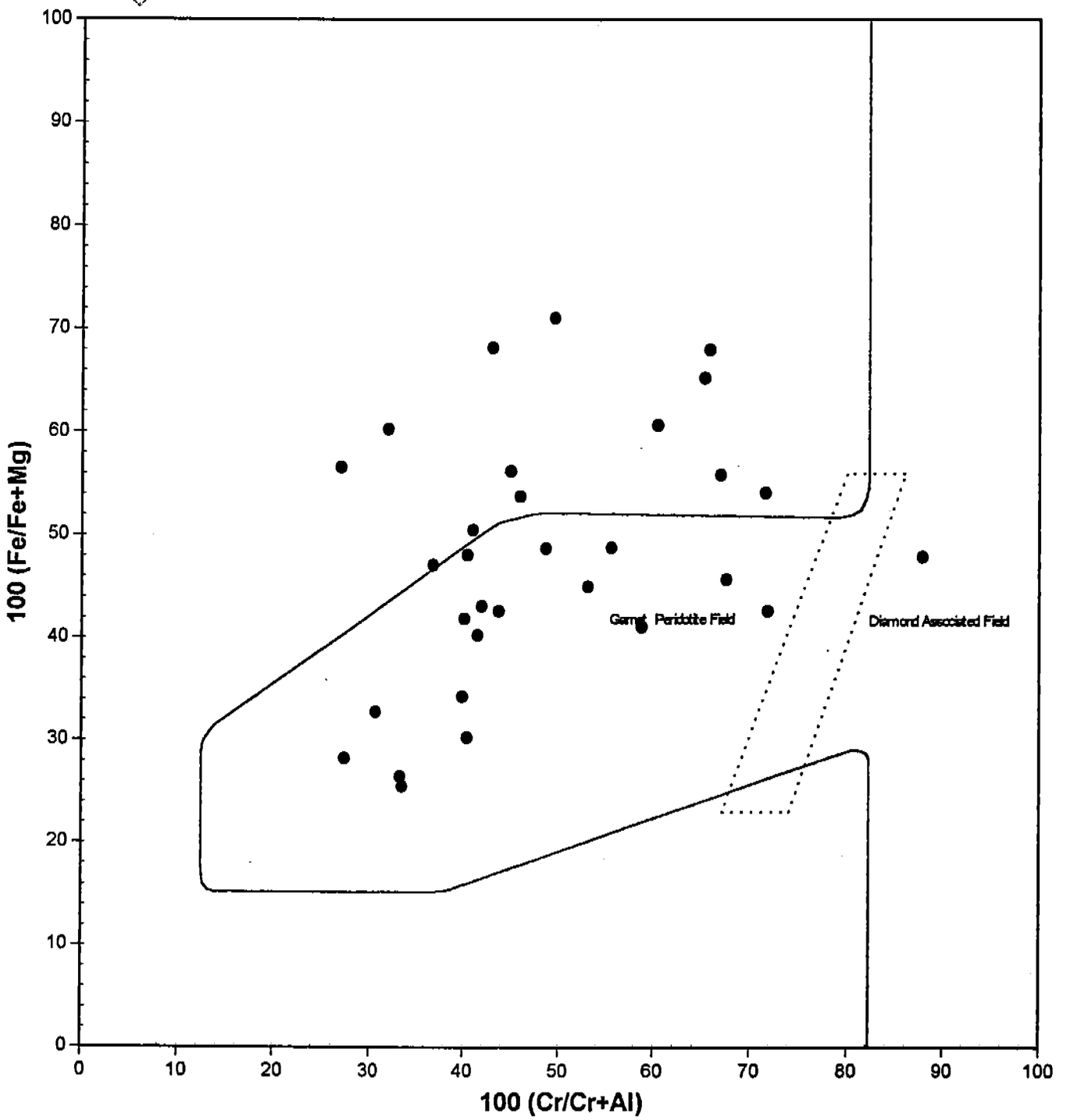
Fx470 1504



LEGEND

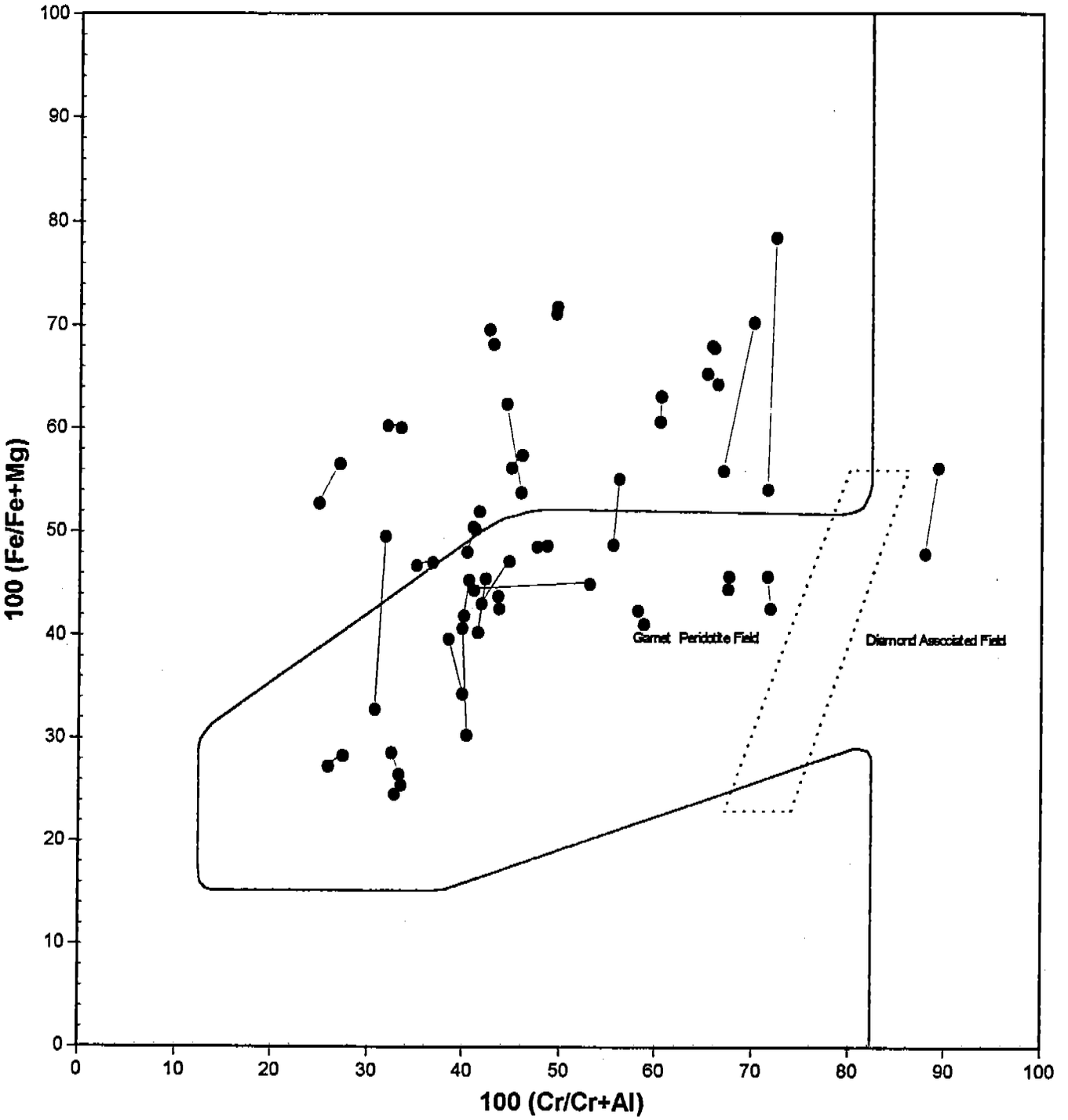
—— Sobolevs line

···· Transition Field

● 96-078:KE 78 +0.25

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

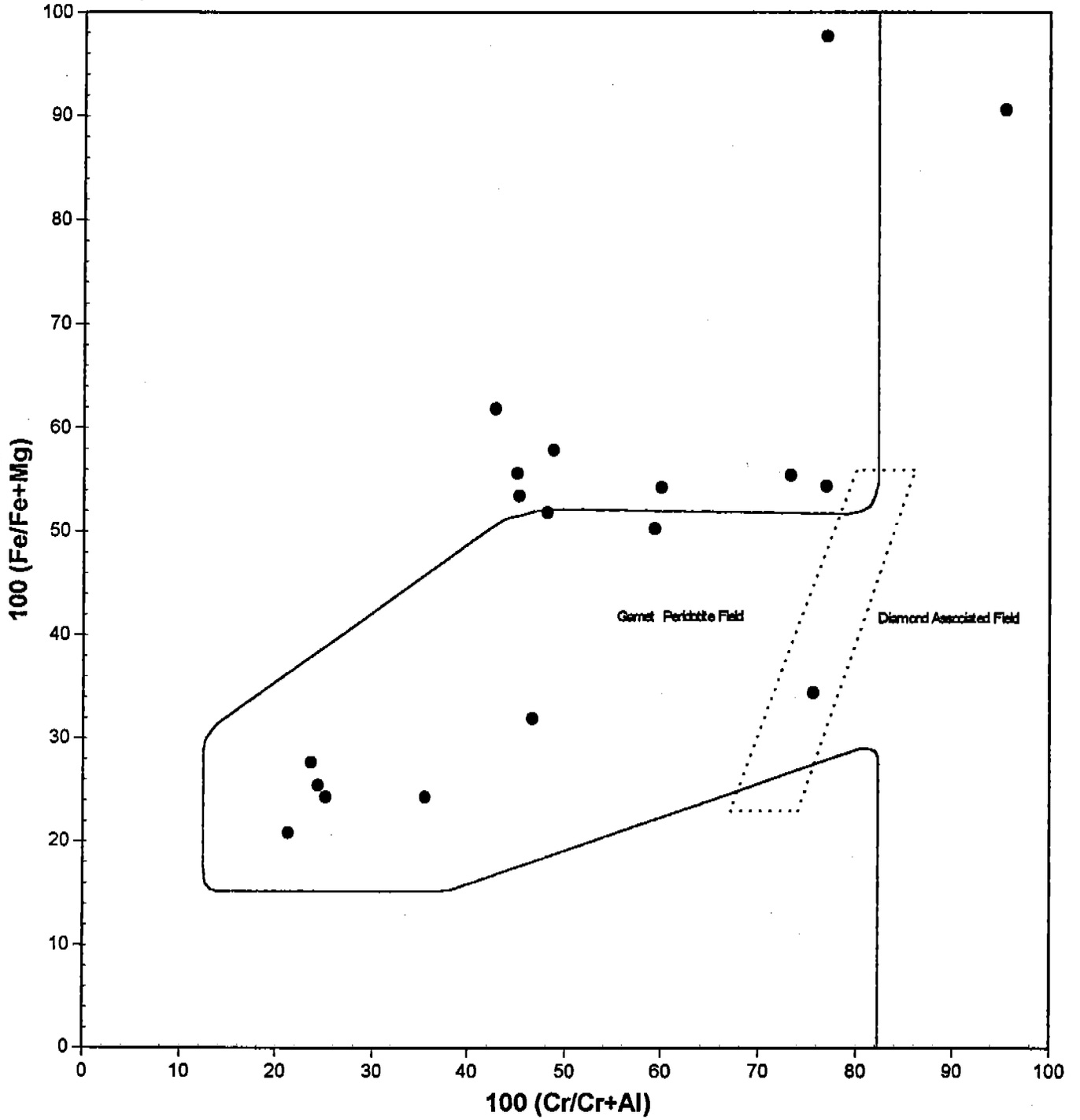
Sobolevs line

Transition Field

96-078:KE 78 +0.25

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504

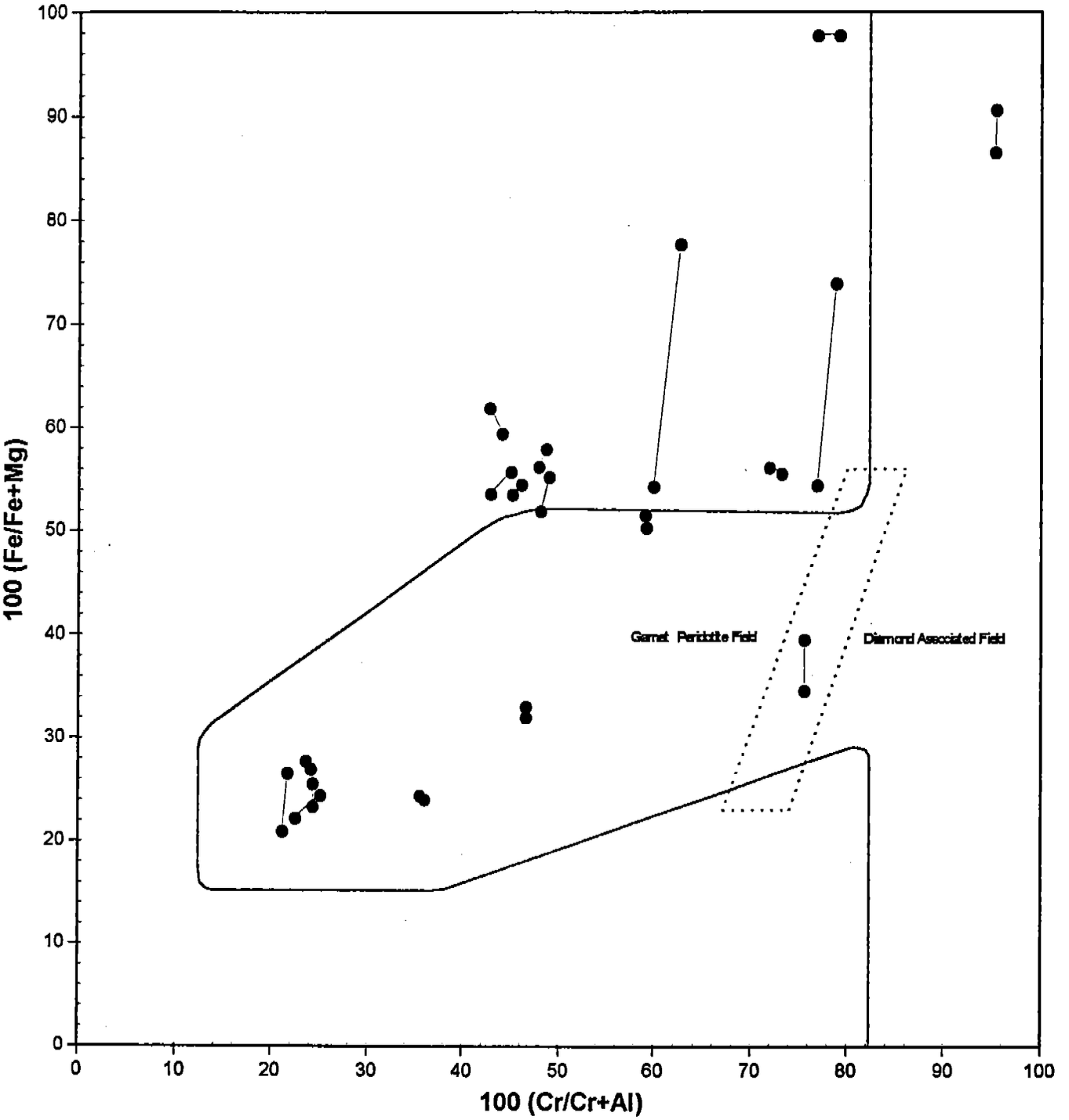


LEGEND

Sobolevs line Transition Field 96-078:KE 75 +0.25

CHROMITE PLOT (Core/Rim data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

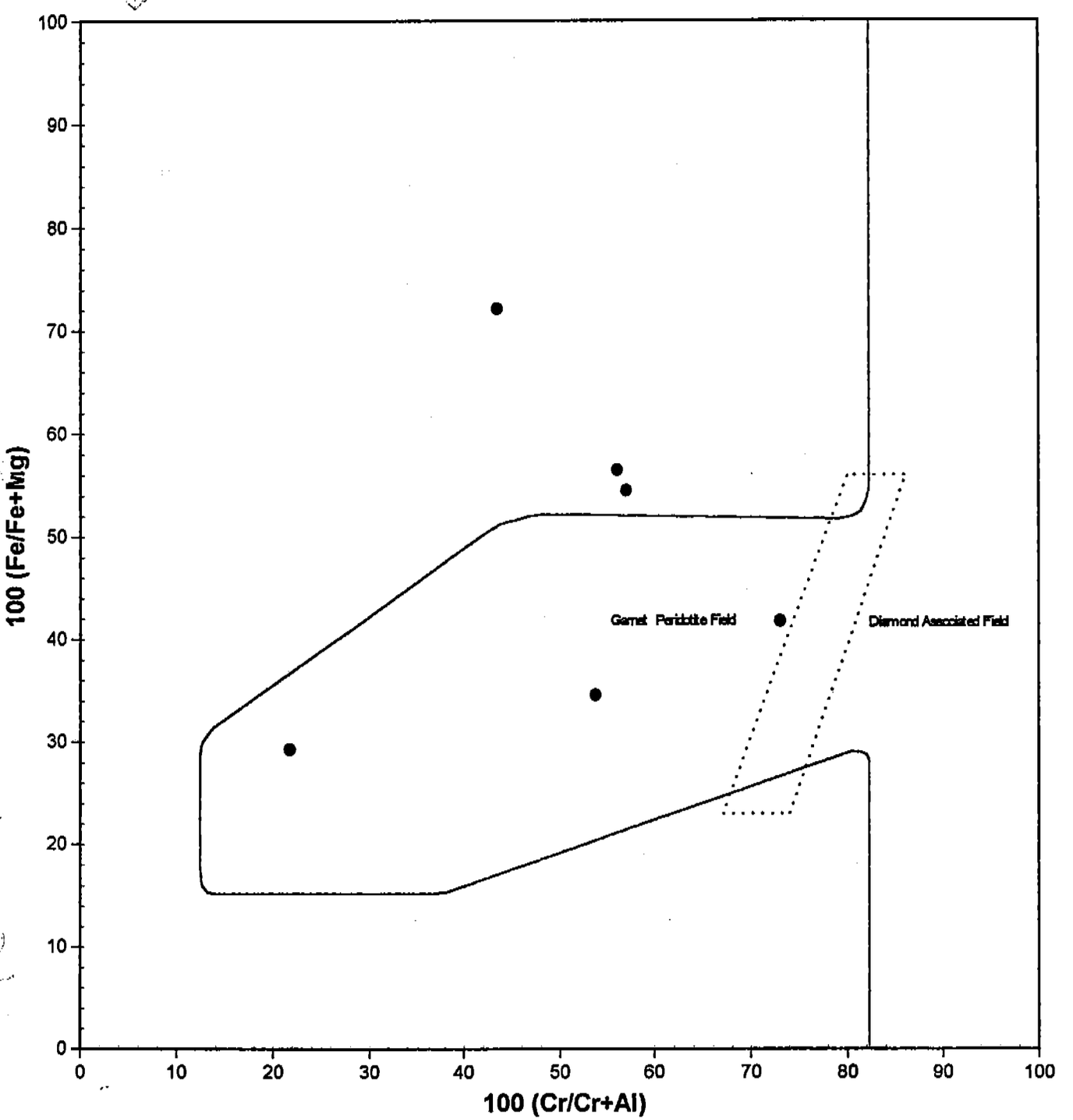
Sobolevs line

Transition Field

96-078:KE 75 +0.25

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core data)



LEGEND

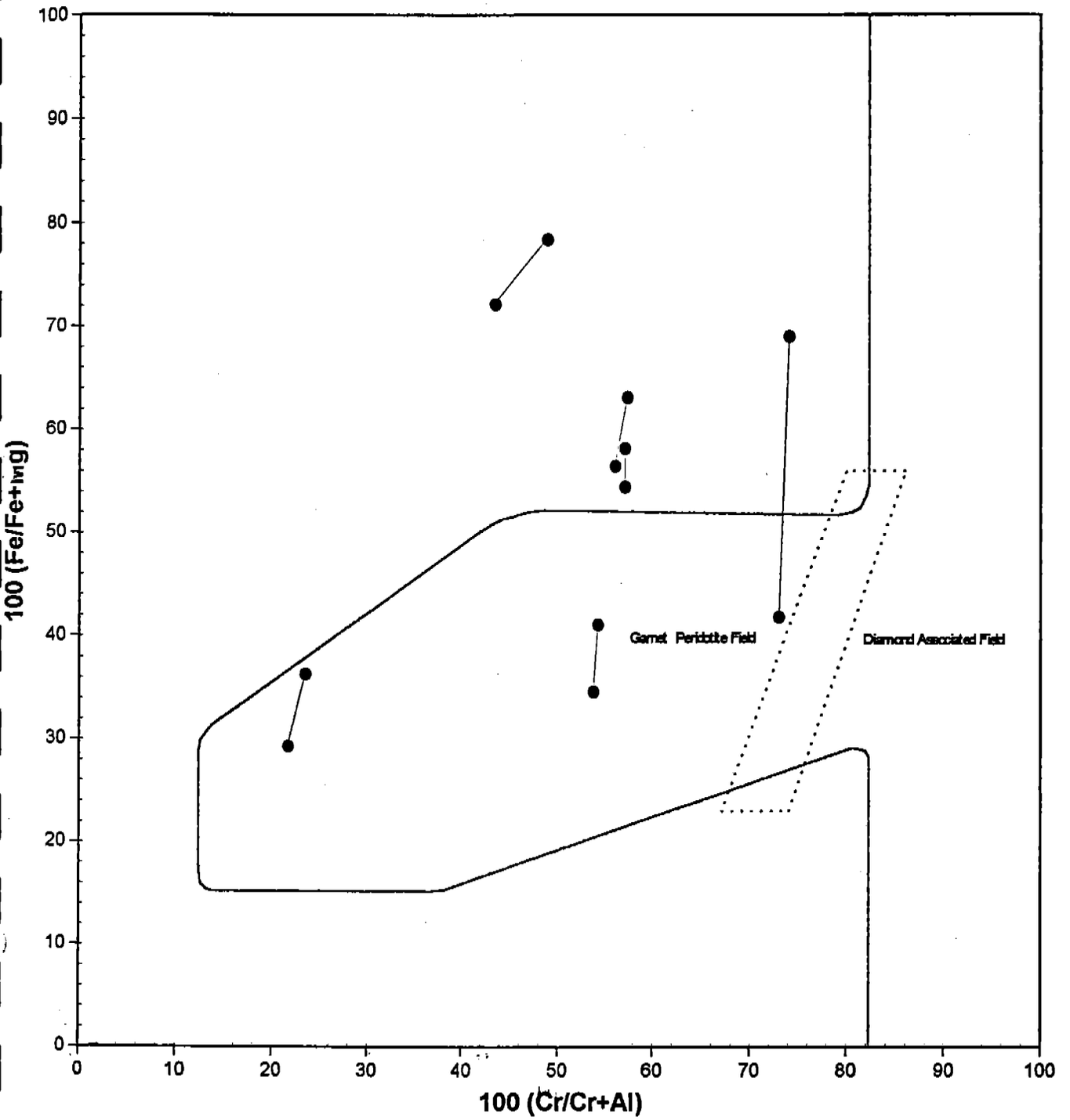
—— Sobolevs line

···· Transition Field

● 96-056:KE-2 +200

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

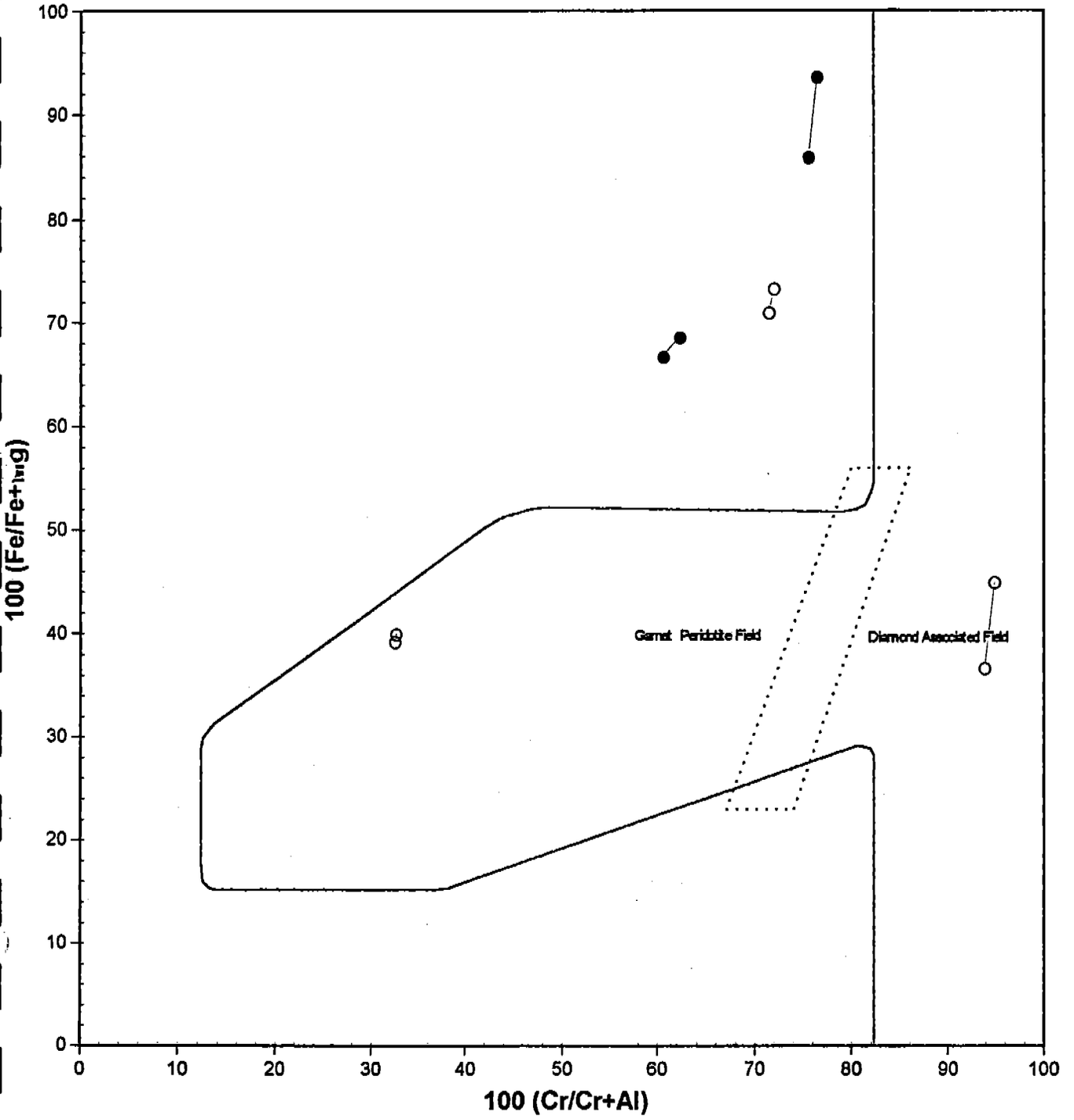
Sobolevs line

Transition Field

96-056:KE-2 +200

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)

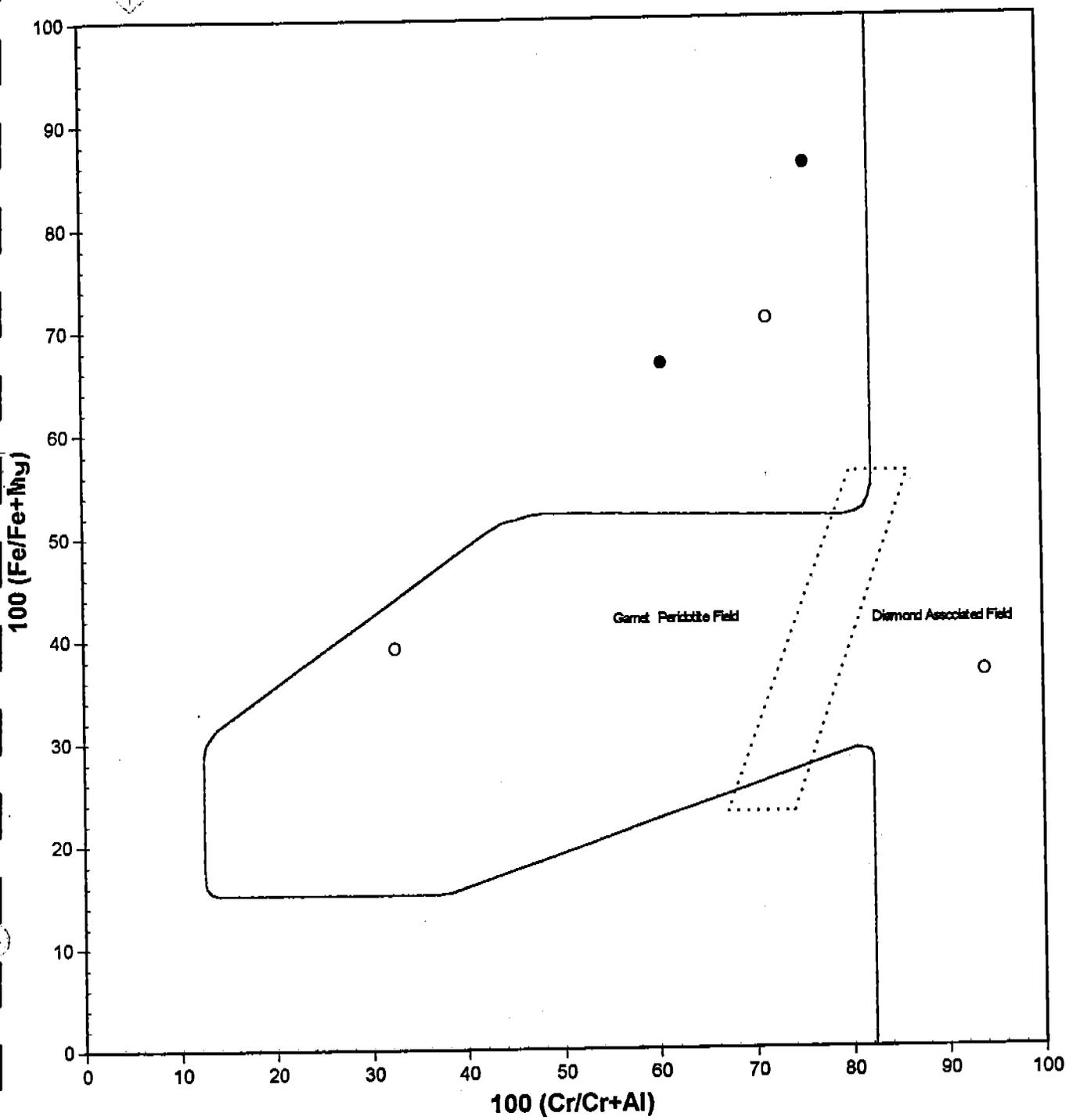


LEGEND

Sobolevs line Transition Field 96-056:KE-6 +.25 96-056:KE-6 +200

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core data)

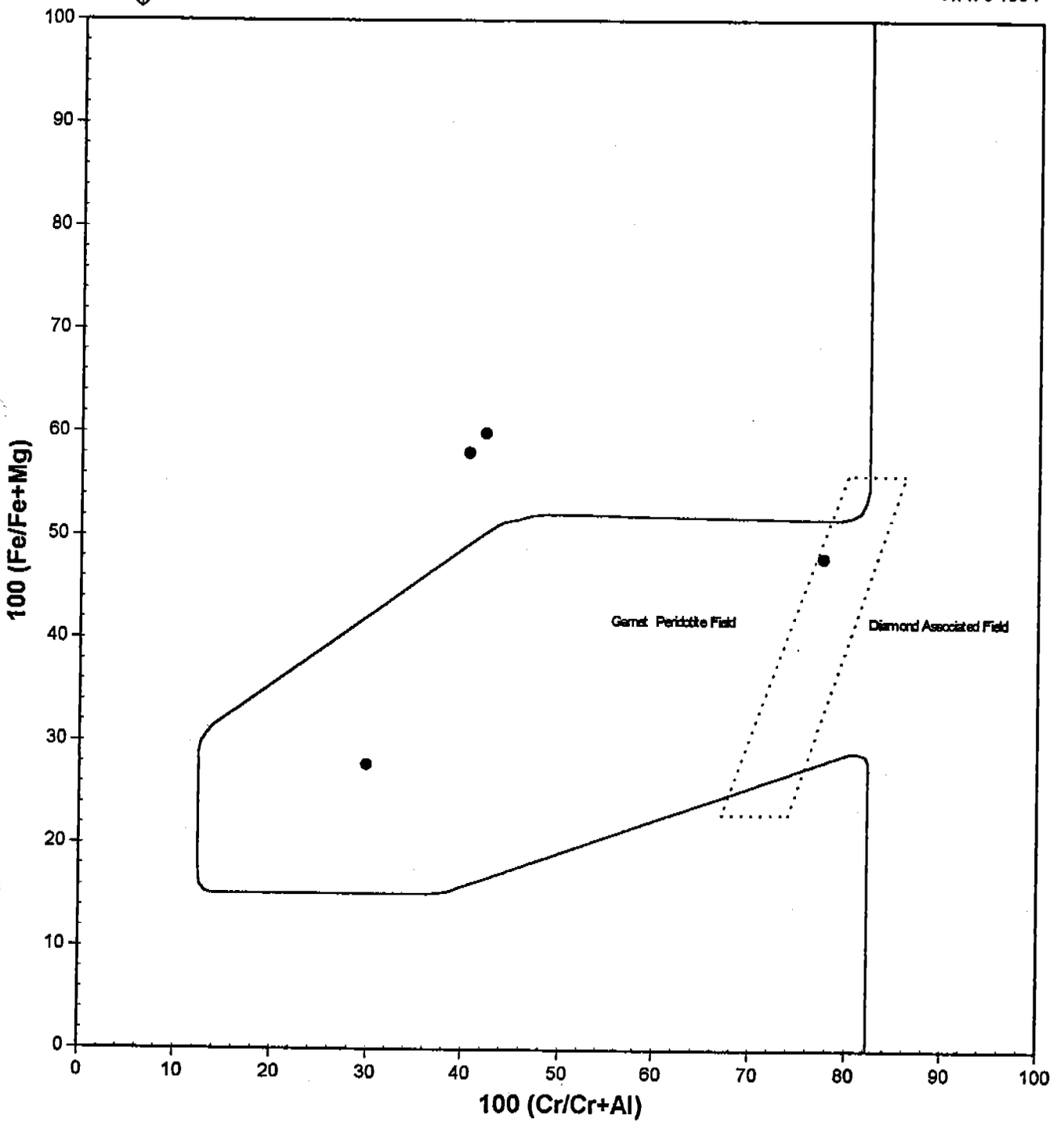


LEGEND

—— Sobolevs line · · · · Transition Field ● 96-056:KE-6 +.25 ○ 96-056:KE-6 +200

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

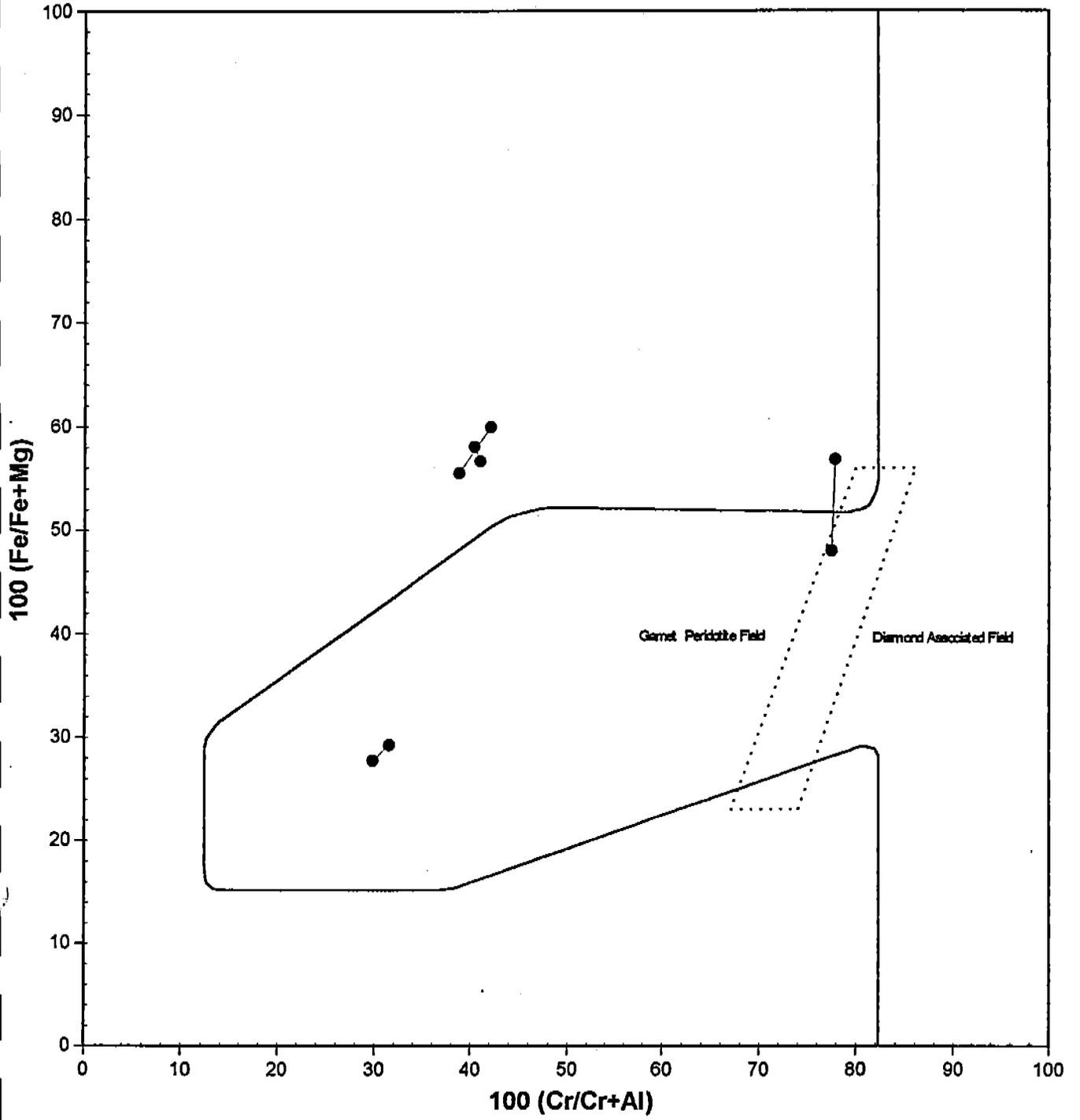
—— Sobolevs line

···· Transition Field

● 96-053:KE-7 +200

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

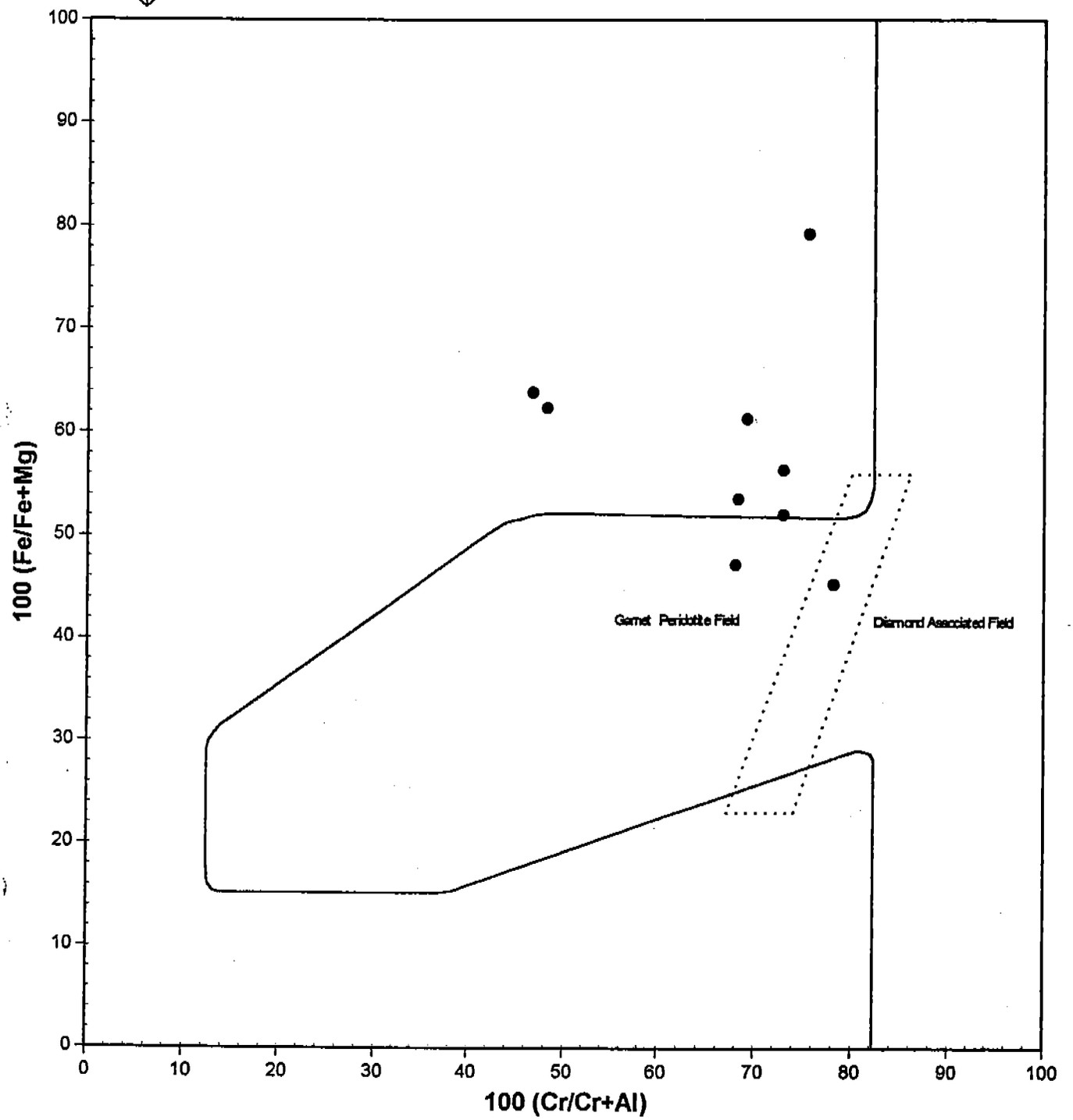
Sobolevs line

Transition Field

96-053:KE-7 +200

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

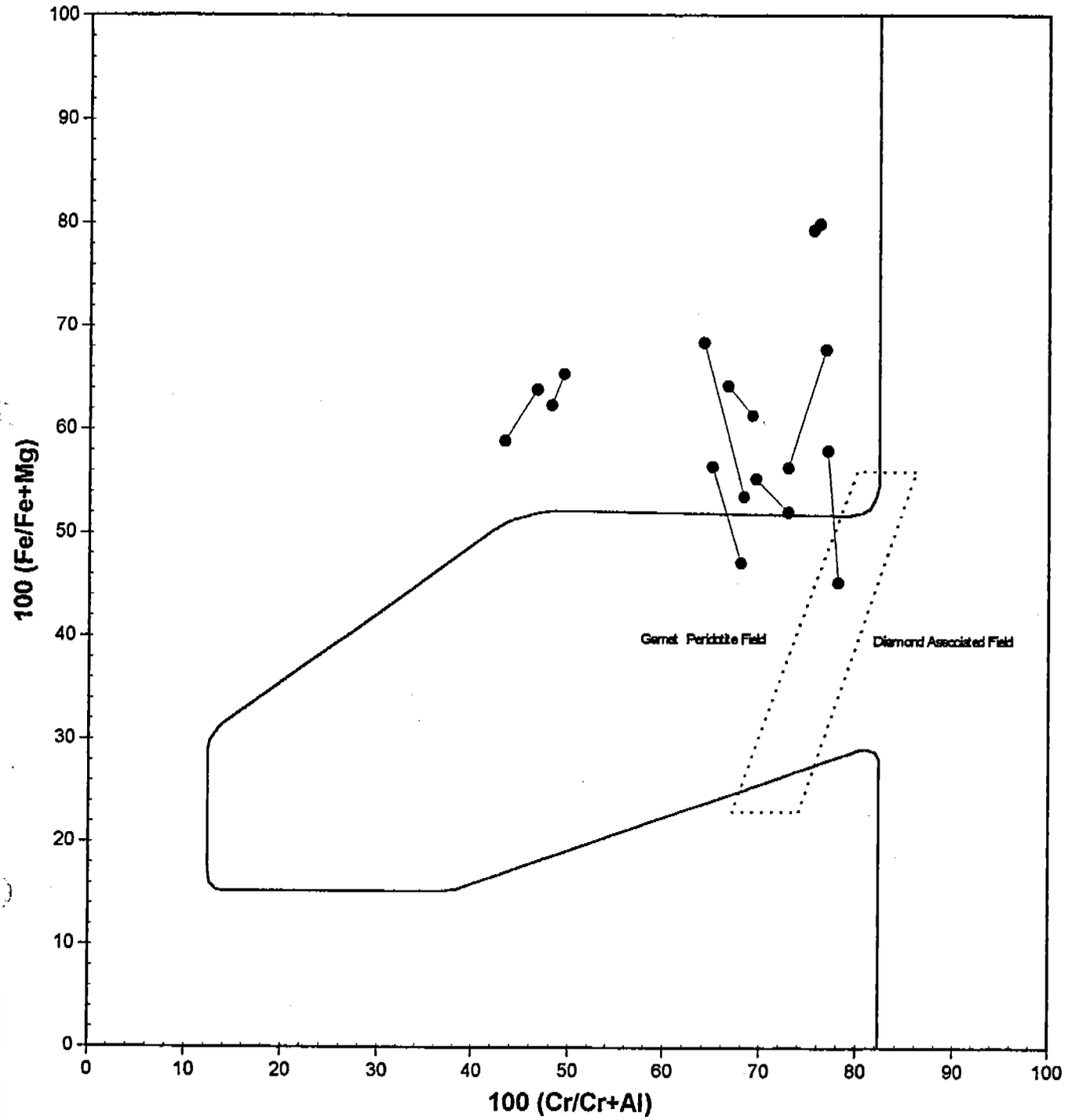
—— Sobolevs line

···· Transition Field

● 96-056:KE63 +200

CHROMITE PLOT (Core/Rim data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

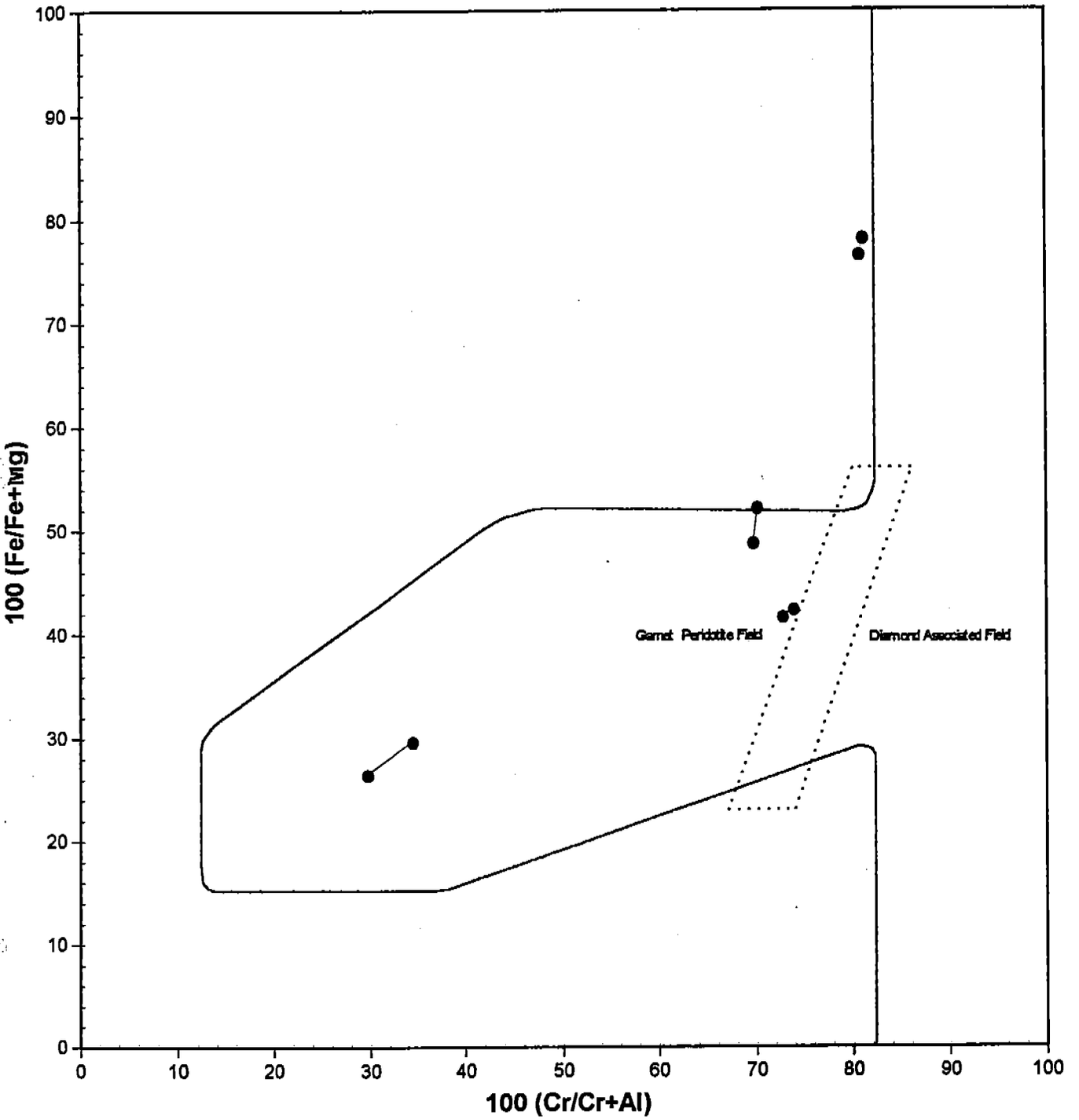
Sobolevs line

Transition Field

96-056:KE63 +200

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

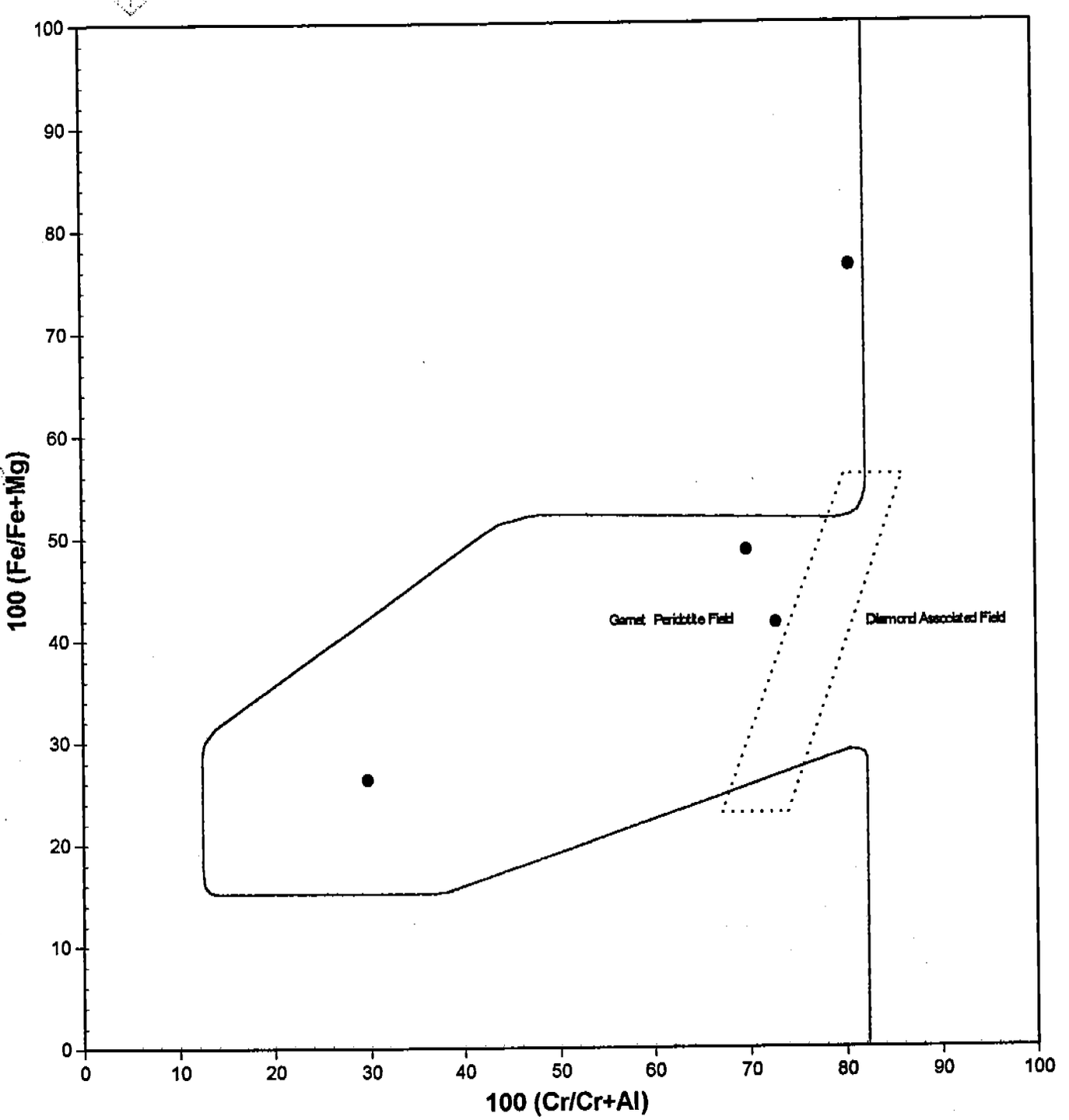
Sobolevs line

Transition Field

96-056:KE-5 +200

CHROMITE PLOT (Core data)

DIATECH
Ph 361 2596
Fx470 1504



LEGEND

—— Sobolevs line

···· Transition Field

● 96-056:KE-5 +200

15 JUL 1996

DIATECH

HEAVY MINERAL SERVICES

15 Sandra Place, WELSHPOOL, WESTERN AUSTRALIA 6106
Telephone 61 9 361 2696 Facsimile 61 9 470 1604

facsimile transmittal

To:	Andrew Drummond	Fax:	
From:	Lynda Frewer	Date:	15 July 1996
Re:	Probe Results	Pages:	7
CC:			

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Notes: Dear Andrew,

Please find attached the microprobe results for sample KE-4. The results are very good, and give a much clearer overall pattern for the chromite. The morphology of the grains matches very well with the chemistry.

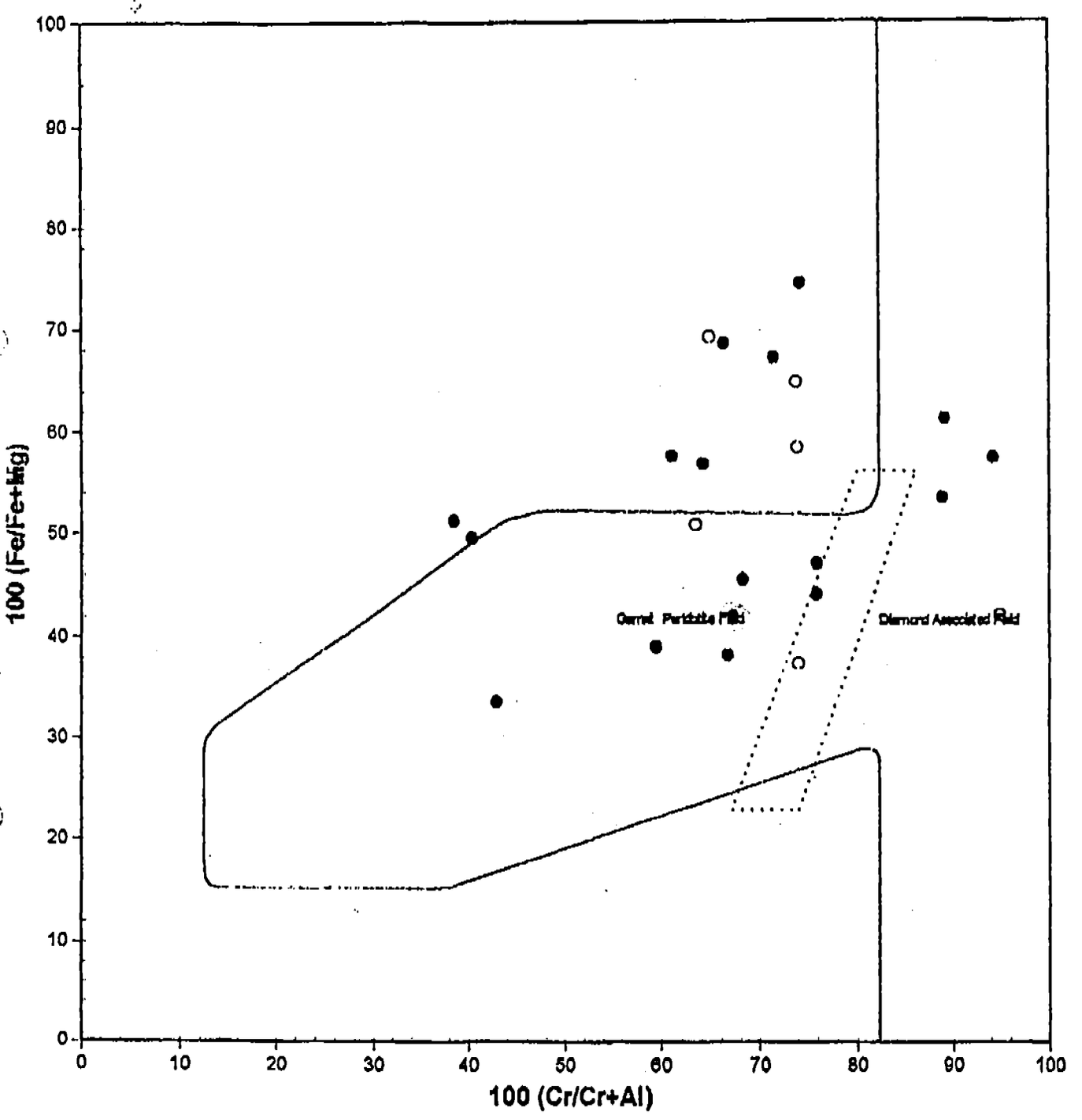
Regards

Job	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053
Sample	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2
Desc	10C	10R	11C	11R	12C	12R	13C	13R	14C	14R	15C	15R	16C	16R	17C	17R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	2.22	2.23	2.77	2.57	0.36	0.21	0.75	0.62	0.00	0.00	0.67	0.70	0.17	0.19	0.74	0.79
Al2O3	16.84	17.87	18.04	18.81	21.66	21.84	16.69	12.62	2.81	2.84	16.53	18.47	5.79	4.94	14.17	14.61
Cr2O3	44.85	42.36	41.99	41.31	47.23	46.61	51.02	53.46	68.24	70.50	52.82	46.78	68.54	69.26	52.68	51.40
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.25	0.23	0.21	0.22	0.14	0.00	0.19	0.38	0.00	0.00	0.15	0.22	0.00	0.21	0.00	0.00
FeO	25.79	27.61	27.70	27.52	17.18	16.59	18.83	25.04	15.47	18.60	17.40	24.00	16.52	16.21	25.92	26.22
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	9.35	8.90	9.45	8.54	13.34	14.16	12.37	6.23	6.38	7.46	11.36	9.25	8.04	7.95	6.73	6.54
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.02	0.00	0.47	0.00	0.00	0.76	0.00	0.00
NiO	0.35	0.00	0.00	0.34	0.00	0.00	0.44	0.29	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.30
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.65	99.22	100.16	99.31	99.91	99.41	100.29	98.64	99.92	99.40	99.65	99.42	99.06	99.52	100.24	99.86
Fe2O3*	4.15	4.98	5.11	4.11	1.96	2.98	2.95	0.71	0.00	0.00	0.31	2.96	0.00	0.00	1.25	1.59
FeO*	22.05	23.13	23.10	23.82	15.42	13.91	16.18	24.40	15.47	18.60	17.12	21.34	16.52	16.21	24.79	24.79
Total*	100.07	99.72	100.67	99.72	100.11	99.71	100.58	98.71	99.92	99.40	99.66	99.72	99.06	99.52	100.37	100.02
Ti	0.05	0.05	0.07	0.06	0.01	0.01	0.02	0.02	0.00	0.00	0.02	0.02	0.00	0.01	0.02	0.02
Al	0.64	0.68	0.68	0.72	0.79	0.79	0.62	0.51	0.12	0.12	0.62	0.70	0.23	0.20	0.55	0.57
Cr	1.14	1.08	1.06	1.05	1.15	1.13	1.27	1.44	1.90	1.93	1.33	1.19	1.84	1.87	1.38	1.35
Fe3+	0.10	0.12	0.12	0.10	0.05	0.07	0.07	0.02	0.00	0.00	0.01	0.07	0.00	0.00	0.03	0.04
V	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Fe2+	0.60	0.63	0.62	0.64	0.40	0.36	0.43	0.69	0.46	0.54	0.46	0.57	0.47	0.46	0.69	0.69
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.45	0.43	0.45	0.41	0.61	0.65	0.58	0.32	0.34	0.39	0.54	0.44	0.41	0.40	0.33	0.32
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.01	0.00	0.00	0.02	0.00	0.00
Ni	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.98	3.00	3.00	2.96	2.96	3.00	3.00
Mg No	43.04	40.68	42.16	38.98	50.66	54.46	57.67	31.27	42.36	41.68	54.22	43.58	46.45	46.84	32.60	31.98
Ulvospinel	5.39	5.42	6.65	6.24	0.83	0.48	1.78	1.58	0.00	0.00	1.61	1.89	0.42	0.47	1.84	1.97
Spinel	32.03	34.05	33.95	35.78	39.28	39.52	30.98	25.25	5.79	5.67	31.13	35.00	11.14	9.54	27.65	28.59
Chromite	57.21	54.16	52.99	52.70	57.44	56.56	63.51	71.74	94.21	94.33	66.70	59.45	86.44	89.71	68.94	67.45
Magnetite	5.37	6.36	6.40	5.28	2.44	3.44	3.73	1.42	0.00	0.00	0.57	3.86	0.00	0.28	1.56	1.99
100Cr/(Cr+Al)	64.10	61.40	61.00	59.60	59.40	58.90	57.20	74.00	94.20	94.30	68.20	62.90	88.80	90.40	71.40	70.20
100Fe/(Fe+Mg)	57.00	59.30	57.80	61.00	39.30	35.50	42.30	68.70	57.60	58.30	45.80	56.40	53.60	53.40	67.40	68.00

Job	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053
Sample	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2
Desc	18C	18R	19C	19R	20C	21C	21R	22C	22R	23C	23R	24C	24R	25C	25R	26C
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.83	0.87	1.37	1.38	0.52	0.57	0.67	0.39	0.90	0.83	0.37	0.22	0.23	0.29	0.45	0.00
Al2O3	31.11	31.62	25.57	28.00	12.28	16.87	13.62	12.06	15.99	10.47	9.51	34.80	34.67	17.87	15.51	5.53
Cr2O3	34.75	33.25	25.75	22.24	52.79	49.20	49.06	56.70	48.05	49.06	52.17	32.33	32.02	53.15	52.86	67.56
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.16	0.00	0.26	0.24	0.16	0.30	0.25	0.19	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00
FeO	16.95	19.03	35.16	35.68	28.26	27.00	29.82	19.28	27.12	26.94	27.98	21.52	21.13	14.83	22.34	20.27
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00
MgO	15.27	14.52	11.35	10.77	5.06	6.49	5.82	10.87	7.66	11.57	8.61	11.06	10.98	13.10	7.38	7.11
ZnO	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00
NiO	0.27	0.00	0.00	0.31	0.00	0.00	0.00	0.32	0.00	0.27	0.00	0.00	0.00	0.42	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.34	99.29	99.48	99.00	99.07	100.43	99.24	99.81	99.72	99.31	99.04	99.93	99.03	99.06	99.10	100.47
Fe2O3*	3.33	3.95	16.76	16.79	1.97	1.67	4.50	2.12	3.83	11.61	8.67	0.76	0.53	0.25	0.00	0.00
FeO*	13.95	15.47	20.10	20.57	26.49	25.50	25.77	17.37	23.67	16.49	20.18	20.84	20.66	14.60	22.34	20.27
Total*	99.67	99.69	101.16	100.68	99.27	100.60	99.69	100.02	100.10	100.47	99.91	100.01	99.08	99.69	99.10	100.47
Ti	0.02	0.02	0.03	0.03	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00
Al	1.08	1.10	0.92	1.01	0.49	0.65	0.54	0.46	0.62	0.40	0.38	1.22	1.22	0.66	0.61	0.22
Cr	0.81	0.78	0.62	0.54	1.42	1.27	1.31	1.46	1.24	1.27	1.39	0.76	0.76	1.32	1.39	1.82
Fe3+	0.07	0.09	0.39	0.39	0.05	0.04	0.11	0.05	0.09	0.29	0.22	0.02	0.01	0.01	0.00	0.00
V	0.00	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe2+	0.34	0.38	0.51	0.53	0.76	0.70	0.73	0.47	0.65	0.45	0.57	0.52	0.52	0.38	0.62	0.58
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Mg	0.67	0.64	0.52	0.49	0.26	0.32	0.29	0.53	0.37	0.56	0.43	0.49	0.49	0.61	0.36	0.36
Zn	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Ni	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.98
Mg No	56.11	62.58	50.16	48.26	25.40	31.20	28.70	52.72	36.57	55.56	43.19	48.61	48.64	61.51	37.05	38.46
Ulvospinel	1.83	1.93	3.15	3.17	1.33	1.40	1.70	0.96	2.22	2.04	0.93	0.49	0.52	0.88	1.11	0.00
Spinel	53.91	54.94	46.10	50.40	24.70	32.53	27.01	23.16	30.87	20.15	18.83	50.79	61.07	33.07	30.06	10.88
Chromite	40.38	36.74	31.14	26.85	71.22	63.62	55.25	73.03	62.20	63.35	69.28	37.87	37.82	65.95	68.83	89.12
Magnetite	3.87	4.38	19.61	19.58	2.75	2.45	6.04	2.85	4.72	14.46	10.96	0.85	0.59	0.30	0.00	0.00
100Cr/(Cr+Al)	42.80	41.40	40.30	34.80	74.20	66.20	70.70	75.90	66.80	75.90	78.60	38.40	38.20	66.60	69.60	89.10
100Fe/(Fe+Mg)	33.90	37.40	49.80	51.70	74.60	68.80	71.30	47.30	63.40	44.40	56.80	51.40	51.40	39.50	62.90	51.50

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT (Core data)



LEGEND

Sobolevs line — Transition Field — 96-053:KE-4 +.2 — 96-053:KE-4 +.25

Job	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053
Sample	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2
Desc	10C	10R	11C	11R	12C	12R	13C	13R	14C	14R	15C	15R	16C	16R	17C	17R	18C	18R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	2.22	2.23	2.77	2.57	0.36	0.21	0.75	0.62	0.00	0.00	0.67	0.70	0.17	0.19	0.74	0.79	0.83	0.87
Al2O3	16.84	17.87	18.04	18.81	21.66	21.84	16.69	12.62	2.81	2.84	16.53	18.47	5.79	4.94	14.17	14.61	31.11	31.62
Cr2O3	44.85	42.38	41.99	41.31	47.23	46.61	51.02	53.46	68.24	70.50	52.82	46.78	68.54	69.26	52.68	51.40	34.75	33.25
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.25	0.23	0.21	0.22	0.14	0.00	0.19	0.38	0.00	0.00	0.15	0.22	0.00	0.21	0.00	0.00	0.16	0.00
FeO	25.79	27.61	27.70	27.52	17.18	16.59	18.83	25.04	15.47	18.60	17.40	24.00	16.52	16.21	25.92	26.22	16.95	19.03
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	9.35	8.90	9.45	8.54	13.34	14.16	12.37	6.23	6.38	7.46	11.38	9.25	8.04	7.95	6.73	6.54	15.27	14.52
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.02	0.00	0.47	0.00	0.00	0.76	0.00	0.00	0.00	0.00
NiO	0.35	0.00	0.00	0.34	0.00	0.00	0.44	0.29	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.30	0.27	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.65	99.22	100.16	99.31	99.91	99.41	100.29	98.64	99.92	99.40	99.65	99.42	99.06	99.52	100.24	99.86	99.34	99.29
Fe2O3*	4.15	4.98	5.11	4.11	1.96	2.98	2.95	0.71	0.00	0.00	0.31	2.96	0.00	0.00	1.25	1.59	3.33	3.95
FeO*	22.05	23.13	23.10	23.82	15.42	13.91	16.18	24.40	15.47	18.60	17.12	21.34	16.52	16.21	24.79	24.79	13.95	15.47
Total*	100.07	99.72	100.67	99.72	100.11	99.71	100.58	98.71	99.92	99.40	99.68	99.72	99.06	99.52	100.37	100.02	99.67	99.69
Ti	0.05	0.05	0.07	0.06	0.01	0.01	0.02	0.02	0.00	0.00	0.02	0.02	0.00	0.01	0.02	0.02	0.02	0.02
Al	0.64	0.68	0.68	0.72	0.79	0.79	0.62	0.51	0.12	0.12	0.62	0.70	0.23	0.20	0.55	0.57	1.08	1.10
Cr	1.14	1.08	1.06	1.05	1.15	1.13	1.27	1.44	1.90	1.93	1.33	1.19	1.84	1.87	1.38	1.35	0.81	0.78
Fe3+	0.10	0.12	0.12	0.10	0.05	0.07	0.07	0.02	0.00	0.00	0.01	0.07	0.00	0.00	0.03	0.04	0.07	0.09
V	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Fe2+	0.60	0.63	0.62	0.64	0.40	0.36	0.43	0.69	0.46	0.54	0.46	0.57	0.47	0.46	0.69	0.69	0.34	0.38
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.45	0.43	0.45	0.41	0.61	0.65	0.58	0.32	0.34	0.39	0.54	0.44	0.41	0.40	0.33	0.32	0.67	0.64
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Ni	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.98	3.00	3.00	2.96	2.96	3.00	3.00	3.00	3.00
Mg No	43.04	40.68	42.16	38.98	60.66	64.46	57.67	31.27	42.36	41.68	54.22	43.58	46.45	46.64	32.60	31.98	66.11	62.58
Ulvospinel	5.39	5.42	6.65	6.24	0.83	0.48	1.78	1.58	0.00	0.00	1.61	1.69	0.42	0.47	1.84	1.97	1.83	1.93
Spinel	32.03	34.06	33.95	35.78	39.28	39.52	30.98	25.25	5.79	5.67	31.13	35.00	11.14	9.54	27.65	28.59	53.91	54.94
Chromite	57.21	54.16	52.99	52.70	57.44	56.56	63.51	71.74	94.21	94.33	66.70	59.45	88.44	89.71	68.94	67.45	40.38	38.74
Magnetite	5.37	6.36	6.40	5.28	2.44	3.44	3.73	1.42	0.00	0.00	0.57	3.86	0.00	0.28	1.56	1.99	3.87	4.38
100Cr/(Cr+Al)	64.10	61.40	61.00	59.60	59.40	58.90	67.20	74.00	94.20	94.30	68.20	62.90	88.80	90.40	71.40	70.20	42.80	41.40
100Fe/(Fe+Mg)	57.00	59.30	57.80	61.00	39.30	35.50	42.30	68.70	57.60	58.30	45.80	56.40	53.60	53.40	67.40	68.00	33.90	37.40

Job	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053
Sample	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.2	KE-4 +.25	KE-4 +.25
Desc	19C	19R	20C	21C	21R	22C	22R	23C	23R	24C	24R	25C	25R	26C	26R	1C	1R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	1.37	1.38	0.52	0.57	0.67	0.39	0.90	0.83	0.37	0.22	0.23	0.29	0.45	0.00	0.00	0.30	0.00
Al2O3	25.57	28.00	12.28	16.87	13.62	12.06	15.99	10.47	9.51	34.80	34.67	17.87	15.51	5.53	4.95	13.62	14.19
Cr2O3	25.75	22.24	52.79	49.20	49.06	56.70	48.05	49.08	52.17	32.33	32.02	53.15	52.96	67.56	67.34	57.86	56.53
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.26	0.24	0.16	0.30	0.25	0.19	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FeO	35.18	35.68	28.26	27.00	29.82	19.28	27.12	26.94	27.98	21.52	21.13	14.83	22.34	20.27	22.78	14.86	15.25
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	11.35	10.77	5.06	6.49	5.82	10.87	7.66	11.57	8.61	11.06	10.98	13.10	7.38	7.11	4.35	13.23	13.41
ZnO	0.60	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00
NiO	0.00	0.31	0.00	0.00	0.00	0.32	0.00	0.27	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.48	99.00	99.07	100.43	99.24	99.81	99.72	99.31	99.04	99.93	99.03	99.66	99.10	100.47	99.42	99.87	99.38
Fe2O3*	16.76	16.79	1.97	1.67	4.50	2.12	3.83	11.61	8.67	0.76	0.53	0.25	0.00	0.00	0.00	0.70	1.80
FeO*	20.10	20.57	26.49	25.50	25.77	17.37	23.67	16.49	20.18	20.84	20.66	14.60	22.34	20.27	22.78	14.23	13.63
Total*	101.16	100.68	99.27	100.60	99.69	100.02	100.10	100.47	99.91	100.01	99.06	99.69	99.10	100.47	99.42	99.94	99.56
Ti	0.03	0.03	0.01	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00
Al	0.92	1.01	0.49	0.65	0.54	0.46	0.62	0.40	0.38	1.22	1.22	0.66	0.61	0.22	0.20	0.51	0.53
Cr	0.62	0.54	1.42	1.27	1.31	1.46	1.24	1.27	1.39	0.76	0.76	1.32	1.39	1.82	1.87	1.46	1.42
Fe3+	0.39	0.39	0.05	0.04	0.11	0.05	0.09	0.29	0.22	0.02	0.01	0.01	0.00	0.00	0.00	0.02	0.04
V	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe2+	0.51	0.53	0.76	0.70	0.73	0.47	0.65	0.45	0.57	0.52	0.52	0.38	0.62	0.58	0.67	0.38	0.36
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.52	0.49	0.26	0.32	0.29	0.53	0.37	0.56	0.43	0.49	0.49	0.61	0.36	0.36	0.23	0.63	0.64
Zn	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Ni	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	2.98	2.97	3.00	3.00
Mg No	50.16	48.26	25.40	31.20	28.70	52.72	36.57	55.56	43.19	48.61	48.64	61.51	37.05	38.46	25.39	62.36	63.67
Ulvospinel	3.15	3.17	1.33	1.40	1.70	0.96	2.22	2.04	0.93	0.49	0.52	0.68	1.11	0.00	0.00	0.72	0.00
Spinel	46.10	50.40	24.70	32.53	27.01	23.16	30.87	20.15	18.83	60.79	61.07	33.07	30.06	10.88	9.88	25.58	26.65
Chromite	31.14	26.85	71.22	63.62	65.25	73.03	62.20	63.35	69.28	37.87	37.82	65.95	68.83	89.12	90.12	72.86	71.20
Magnetite	19.61	19.58	2.75	2.45	6.04	2.85	4.72	14.46	10.96	0.85	0.59	0.30	0.00	0.00	0.00	0.84	2.15
100Cr/(Cr+Al)	40.30	34.80	74.20	66.20	70.70	75.90	66.80	75.90	78.60	38.40	38.20	66.60	69.60	89.10	90.10	74.00	72.80
100Fe/(Fe+Mg)	49.80	51.70	74.60	68.80	71.30	47.30	63.40	44.40	56.80	51.40	51.40	38.50	62.90	61.50	74.60	37.60	36.30

Job	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053	96-053
Sample	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-4 +.25	KE-7 +200	KE-7 +200	KE-7 +200	KE-7 +200	KE-7 +200
Desc	2C	2R	3C	3R	4C	4R	5C	5R	6C	6R	14C	14R	15C	15R	16C
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.00	0.00	0.00	0.14	0.75	0.42	0.61	0.50	0.77	1.13	0.42	0.45	0.00	0.00	0.25
Al2O3	2.62	2.43	13.56	12.86	18.85	16.59	13.04	12.58	17.01	20.41	11.80	11.48	43.54	42.32	33.12
Cr2O3	72.28	72.07	57.19	56.73	48.64	51.82	54.84	55.95	46.61	42.18	60.72	60.28	27.62	29.05	33.44
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.23	0.18	0.00	0.26	0.21	0.16	0.21
FeO	14.05	15.03	20.83	21.65	20.85	21.57	23.34	23.80	28.18	27.08	16.25	17.88	11.47	12.04	23.47
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	10.75	9.86	8.27	7.71	10.33	8.99	7.05	6.51	6.33	8.70	9.89	7.60	16.75	16.27	9.38
ZnO	0.69	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.00	0.00	0.00
NiO	0.00	0.27	0.00	0.00	0.44	0.00	0.31	0.00	0.00	0.00	0.00	0.25	0.25	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	100.39	99.68	99.85	99.60	100.37	99.39	99.37	99.34	99.13	99.68	99.08	99.24	99.84	99.84	99.87
Fe2O3*	0.00	0.00	0.00	0.00	1.86	0.48	0.00	0.00	2.92	4.55	0.00	0.00	0.00	0.00	0.36
FeO*	14.05	15.03	20.83	21.65	19.18	21.14	23.34	23.80	25.55	22.99	16.25	17.88	11.47	12.04	23.15
Total*	100.39	99.68	99.85	99.60	100.56	99.44	99.37	99.34	99.42	100.14	99.08	99.24	99.84	99.84	99.91
Ti	0.00	0.00	0.00	0.00	0.02	0.01	0.02	0.01	0.02	0.03	0.01	0.01	0.00	0.00	0.01
Al	0.10	0.10	0.53	0.51	0.70	0.64	0.52	0.50	0.66	0.77	0.46	0.45	1.42	1.39	1.18
Cr	1.93	1.94	1.49	1.49	1.22	1.33	1.45	1.49	1.22	1.06	1.58	1.59	0.60	0.64	0.80
Fe3+	0.00	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.07	0.11	0.00	0.00	0.00	0.00	0.01
V	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01
Fe2+	0.40	0.43	0.57	0.60	0.51	0.58	0.65	0.67	0.71	0.61	0.45	0.50	0.27	0.28	0.58
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.54	0.50	0.41	0.38	0.49	0.44	0.35	0.33	0.31	0.41	0.48	0.38	0.69	0.67	0.42
Zn	0.02	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00
Ni	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.99	2.98	2.99	3.00	3.00	3.00	3.00	2.99	3.00	3.00	2.97	2.97	2.99	2.99	3.00
Mg No	57.69	53.95	41.43	38.82	48.97	43.11	34.99	32.77	30.63	40.28	52.03	43.10	72.24	70.66	41.93
Ulvospinel	0.00	0.00	0.00	0.35	1.78	1.03	1.53	1.26	1.92	2.71	1.01	1.09	0.00	0.00	0.57
Spinel	5.13	4.79	26.12	25.17	35.16	31.79	25.71	24.79	33.18	38.39	22.24	21.80	69.99	68.36	58.89
Chromite	94.87	95.21	73.88	74.48	60.84	66.59	72.51	73.95	60.96	53.21	76.75	76.77	29.78	31.47	39.88
Magnetite	0.00	0.00	0.00	0.00	2.21	0.59	0.24	0.00	3.94	5.69	0.00	0.34	0.23	0.18	0.66
100Cr/(Cr+Al)	94.90	95.20	73.90	74.70	63.40	67.70	73.80	74.90	64.80	58.10	77.50	77.90	29.80	31.50	40.40
100Fe/(Fe+Mg)	42.30	46.10	58.60	61.20	51.00	56.90	65.00	67.20	69.40	59.70	48.00	56.90	27.80	29.30	58.10

Job	96-053	96-053	96-053
Sample	KE-7 +200	KE-7 +200	KE-7 +200
Desc	16R	17C	17R
Mineral	SP	SP	SP
Ox no	4	4	4
TiO2	0.27	0.49	0.50
Al2O3	32.48	31.66	34.27
Cr2O3	33.68	34.29	32.34
Fe2O3	0.00	0.00	0.00
V2O3	0.16	0.20	0.00
FeO	23.83	23.94	23.05
MnO	0.00	0.00	0.00
MgO	9.72	8.88	10.14
ZnO	0.00	0.00	0.00
NiO	0.00	0.00	0.00
CoO	0.00	0.00	0.00
Oxide total	100.14	99.46	100.30
Fe2O3*	1.32	0.20	0.58
FeO*	22.65	23.76	22.53
Total*	100.27	99.48	100.36
Ti	0.01	0.01	0.01
Al	1.15	1.14	1.20
Cr	0.80	0.83	0.76
Fe3+	0.03	0.00	0.01
V	0.00	0.01	0.00
Fe2+	0.57	0.61	0.56
Mn	0.00	0.00	0.00
Mg	0.44	0.40	0.45
Zn	0.00	0.00	0.00
Ni	0.00	0.00	0.00
Co	0.00	0.00	0.00
Cation total	3.00	3.00	3.00
Mg No	43.34	39.97	44.51
Ulvospinel	0.61	1.13	1.12
Spinel	57.63	57.00	60.16
Chromite	40.08	41.40	38.07
Magnetite	1.68	0.47	0.65
100Cr/(Cr+Al)	41.00	42.10	38.80
100Fe/(Fe+Mg)	56.70	60.00	55.50

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	B +.25	B +.25	B +.25	B +.25	B +.25	B +.25	F +.25	F +.25	F +.25	F +.25	F +.25	F +.25	F +.25	F +.25	F +200	F +200	F +200	F +200	F +200	F +200
Desc	1C	1R	2C	2R	3C	3R	4C	4R	5C	5R	6C	6R	7C	7R	1C	1R	10C	10R	11C	11R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.29	0.38	0.41	0.26	0.00	0.24	0.49	0.54	0.41	0.00	0.25	0.90	0.55	0.34	0.82	5.49	0.56	0.62	0.00	0.00
Al2O3	29.34	28.13	24.91	25.29	27.71	39.38	15.71	17.16	17.09	23.78	11.66	10.56	11.18	13.96	19.45	23.65	30.87	29.32	40.00	41.91
Cr2O3	35.84	36.46	39.52	39.49	33.93	22.71	43.07	41.42	35.92	31.00	51.13	47.37	55.09	51.65	32.75	29.10	31.25	32.27	20.98	16.20
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.29	0.22	0.00	0.00	0.74	0.35	0.30	0.33	0.31	0.15	0.00	0.30	0.15	0.14	0.00	0.00	0.27	0.25	0.00	0.00
FeO	17.76	23.55	27.56	27.69	31.43	27.89	34.07	32.51	41.97	39.51	25.30	32.38	22.04	23.56	40.99	34.36	29.11	30.78	30.07	32.05
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	1.45	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.32
MgO	15.34	10.56	7.55	6.62	5.78	8.66	5.96	6.01	3.48	4.55	10.58	3.51	10.53	10.12	5.02	6.57	6.97	6.10	7.78	7.52
ZnO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	2.55	0.00	0.00	0.00	0.00	0.36	0.39	1.02	1.22
NiO	0.24	0.00	0.00	0.00	0.00	0.23	0.00	0.29	0.26	0.00	0.00	0.00	0.31	0.00	0.00	0.25	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.10	99.30	99.95	99.35	99.59	99.46	99.62	98.72	99.44	99.25	98.92	99.02	99.85	99.77	99.03	99.82	99.39	99.73	99.85	99.22
Fe2O3*	5.22	3.35	2.99	1.87	4.30	3.30	9.09	8.23	13.71	12.15	8.38	7.97	4.54	4.94	14.28	4.75	3.10	3.59	4.98	7.15
FeO*	13.06	20.54	24.87	26.00	27.56	24.92	25.89	25.11	29.63	28.58	17.75	25.21	17.96	19.12	28.14	30.08	26.32	27.55	25.59	25.61
Total*	99.62	99.64	100.25	99.54	100.02	99.79	100.53	99.54	100.81	100.47	99.76	99.82	100.30	100.26	100.46	100.30	99.70	100.09	100.35	99.94
Ti	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.02	0.13	0.01	0.02	0.00	0.00
Al	1.03	1.02	0.93	0.95	1.03	1.38	0.61	0.67	0.68	0.91	0.45	0.43	0.43	0.53	0.75	0.89	1.13	1.08	1.40	1.46
Cr	0.84	0.88	0.98	0.99	0.85	0.53	1.13	1.09	0.95	0.79	1.33	1.30	1.43	1.33	0.85	0.73	0.77	0.80	0.49	0.38
Fe3+	0.12	0.08	0.07	0.05	0.10	0.07	0.23	0.21	0.35	0.30	0.21	0.21	0.11	0.12	0.35	0.11	0.07	0.08	0.11	0.16
V	0.01	0.01	0.00	0.00	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Fe2+	0.32	0.53	0.66	0.69	0.73	0.62	0.72	0.70	0.83	0.77	0.49	0.73	0.49	0.52	0.77	0.80	0.68	0.72	0.63	0.63
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01
Mg	0.68	0.48	0.35	0.31	0.27	0.38	0.30	0.30	0.17	0.22	0.52	0.18	0.51	0.49	0.25	0.31	0.32	0.28	0.34	0.33
Zn	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03
Ni	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	67.66	47.81	35.11	31.21	27.21	38.24	29.16	29.90	17.31	22.10	51.50	19.88	51.10	48.54	24.12	28.01	32.06	28.29	35.14	34.35
Ulvospinel	0.65	0.88	0.97	0.62	0.00	0.53	1.22	1.35	1.03	0.00	0.62	2.35	1.35	0.83	2.03	13.17	1.31	1.46	0.00	0.00
Spinel	51.23	50.82	46.26	47.45	51.59	68.77	30.67	33.58	33.73	45.36	22.59	21.65	21.57	26.70	37.71	44.45	56.43	54.08	69.87	73.09
Chromite	41.96	44.17	49.22	49.69	42.36	26.60	56.38	54.36	47.54	39.65	66.43	65.14	71.29	66.26	42.59	36.68	38.31	39.92	24.58	18.95
Magnetite	6.16	4.13	3.55	2.24	6.05	4.09	11.73	10.71	17.69	14.99	10.37	10.85	5.78	6.21	17.67	5.70	3.95	4.54	5.55	7.96
100Cr/(Cr+Al)	45.00	46.50	51.50	51.20	45.10	27.90	64.80	61.80	58.50	46.60	74.60	75.10	76.80	71.30	53.00	45.20	40.40	42.50	26.00	20.60
100Fe/(Fe+Mg)	32.30	52.20	64.90	68.80	72.80	61.80	70.80	70.10	82.70	77.90	48.50	80.10	48.90	51.50	75.90	72.00	67.90	71.70	64.90	65.70

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200
Desc	12C	12R	13C	13R	14C	14R	15C	15R	16C	16R	17C	17R	18C	18R	19C	19R	2C	2R	20C	20R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.36	0.18	2.46	2.36	0.53	0.61	0.40	0.17	0.28	0.15	2.03	0.80	0.56	0.49	0.47	0.36	0.30	0.00	0.30	0.14
Al2O3	19.35	22.98	0.31	0.15	15.77	14.80	19.36	19.55	13.81	13.43	5.44	8.08	20.37	18.47	9.15	8.47	32.86	43.80	20.97	22.16
Cr2O3	38.62	36.47	36.64	31.35	42.47	42.39	46.43	44.34	38.72	39.64	44.16	49.37	39.52	40.55	57.07	55.62	30.27	19.01	41.55	41.34
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.26	0.29	0.26	0.51	0.34	0.30	0.00	0.00	0.56	0.58	0.44	0.26	0.28	0.16	0.00	0.18	0.32	0.00	0.36	0.38
FeO	32.95	31.13	56.88	62.17	37.90	38.43	10.69	13.40	44.31	43.64	44.58	38.58	33.69	35.41	25.07	30.49	30.89	27.93	34.79	33.17
MnO	0.28	0.00	0.00	0.00	0.53	0.57	0.00	0.00	0.00	0.00	0.42	0.00	0.63	0.58	0.00	0.66	0.00	0.00	0.00	0.00
MgO	7.55	8.29	0.95	0.55	1.76	0.88	21.67	21.01	0.94	1.11	1.77	1.99	4.07	3.06	8.03	2.76	5.53	8.63	2.17	2.16
ZnO	0.00	0.00	0.00	0.00	0.42	1.04	0.00	0.00	0.41	0.00	0.36	0.00	0.68	0.74	0.00	0.95	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.37	99.34	97.50	97.09	99.72	99.02	98.82	98.47	99.03	98.55	99.20	99.08	100.10	99.46	99.79	99.49	100.17	99.37	100.14	99.35
Fe2O3*	10.39	8.89	27.03	32.40	7.14	7.25	9.82	11.70	12.99	12.50	14.75	8.54	6.14	6.64	3.79	2.91	1.91	2.56	2.61	1.06
FeO*	23.60	23.13	32.56	33.01	31.47	31.91	1.85	2.87	32.62	32.39	31.31	30.89	28.16	29.44	21.66	27.88	29.17	25.63	32.44	32.22
Total*	100.41	100.23	100.21	100.33	100.43	99.75	99.80	99.64	100.33	99.80	100.68	99.94	100.72	100.12	100.17	99.78	100.36	99.63	100.40	99.46
Ti	0.01	0.00	0.07	0.07	0.01	0.02	0.01	0.00	0.01	0.00	0.06	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00
Al	0.74	0.86	0.01	0.01	0.63	0.61	0.68	0.69	0.57	0.55	0.23	0.34	0.79	0.73	0.36	0.35	1.20	1.51	0.82	0.87
Cr	0.99	0.91	1.08	0.93	1.15	1.16	1.09	1.04	1.06	1.09	1.25	1.38	1.03	1.07	1.52	1.55	0.74	0.44	1.09	1.09
Fe3+	0.25	0.21	0.76	0.92	0.18	0.19	0.22	0.26	0.34	0.33	0.40	0.23	0.15	0.17	0.10	0.08	0.04	0.06	0.07	0.03
V	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.01
Fe2+	0.64	0.61	1.02	1.04	0.90	0.93	0.05	0.07	0.95	0.95	0.94	0.92	0.77	0.83	0.61	0.82	0.75	0.63	0.90	0.90
Mn	0.01	0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.02	0.02	0.00	0.02	0.00	0.00	0.00	0.00
Mg	0.36	0.39	0.05	0.03	0.09	0.05	0.96	0.93	0.05	0.06	0.09	0.11	0.20	0.15	0.40	0.15	0.25	0.38	0.11	0.11
Zn	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.00	0.01	0.00	0.01	0.00	0.02	0.02	0.00	0.03	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	36.31	38.96	4.94	2.88	9.06	4.68	95.42	92.88	4.88	5.75	9.15	10.30	20.48	15.63	39.78	15.00	25.25	37.50	10.65	10.67
Ulvospinel	0.87	0.43	6.91	6.66	1.36	1.59	0.89	0.38	0.73	0.39	5.47	2.13	1.38	1.23	1.19	0.95	0.70	0.00	0.75	0.35
Spinel	36.85	42.92	0.68	0.33	31.72	30.30	33.80	34.32	28.29	27.65	11.49	16.89	39.40	36.48	18.14	17.57	59.77	75.28	41.01	43.46
Chromite	49.32	45.68	54.06	46.50	57.29	58.21	54.36	52.19	53.20	54.72	62.53	69.21	51.26	53.70	75.88	77.38	36.92	21.91	54.50	54.37
Magnetite	12.96	10.97	38.35	46.51	9.63	9.89	10.94	13.11	17.77	17.23	20.51	11.77	7.95	8.58	4.79	4.10	2.62	2.81	3.74	1.83
100Cr/(Cr+Al)	57.20	51.60	98.80	99.30	64.40	65.80	61.70	60.30	65.30	66.40	84.50	80.40	56.50	59.60	80.70	81.50	38.20	22.50	57.10	55.60
100Fe/(Fe+Mg)	63.70	61.00	95.10	97.10	90.90	95.30	4.60	7.10	95.10	94.20	90.80	89.70	79.50	84.40	60.20	85.00	74.70	62.50	89.30	89.30

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	F +200	I +.25	I +.25
Desc	21C	21R	22C	22R	3C	3R	4C	4R	5C	5R	6C	6R	7C	7R	8C	8R	9C	9R	8C	8R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.88	0.77	0.62	0.71	1.44	1.72	1.63	0.37	0.00	0.00	0.29	0.00	0.00	0.00	0.42	0.43	0.47	0.48	3.41	0.36
Al2O3	17.59	16.49	13.52	13.42	12.05	12.16	16.27	22.39	58.59	60.20	24.66	58.47	53.38	54.97	31.69	32.03	28.99	26.72	21.12	20.86
Cr2O3	41.72	42.53	41.95	40.54	38.55	34.93	41.97	37.22	4.89	3.19	39.78	7.17	10.17	9.64	25.52	25.76	36.36	37.68	35.77	37.28
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.27	0.26	0.39	0.17	0.52	0.65	0.41	0.37	0.00	0.00	0.18	0.00	0.00	0.00	0.22	0.22	0.16	0.31	0.00	0.24
FeO	33.84	34.76	40.16	41.24	43.56	46.13	35.49	34.23	22.10	21.02	31.04	19.43	24.24	22.85	33.46	33.77	20.73	21.11	33.47	34.96
MnO	0.41	0.29	0.00	0.31	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.39	0.54
MgO	4.55	3.98	2.19	1.82	2.63	2.51	4.01	5.21	13.67	14.56	4.46	14.23	11.51	11.25	6.49	6.56	13.68	12.55	5.56	4.86
ZnO	0.45	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.31	0.39	0.00	0.42	0.78	0.62	0.90	0.90	0.00	0.00	0.00	0.00
NiO	0.24	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.23	0.25	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.95	99.08	98.83	98.21	99.11	98.71	99.78	99.79	99.79	99.61	100.43	99.95	100.08	99.33	98.70	99.67	100.39	98.85	99.72	99.12
Fe2O3*	6.79	6.60	9.93	10.98	14.08	16.83	6.08	6.89	2.48	2.68	1.62	0.58	2.23	0.11	7.82	7.87	4.86	4.31	4.33	8.20
FeO*	27.73	28.82	31.22	31.36	30.89	30.98	30.02	28.03	19.87	18.61	29.59	18.91	22.23	22.75	26.42	26.69	16.35	17.23	29.57	27.58
Total*	100.63	99.74	99.82	99.31	100.52	100.40	100.39	100.48	100.04	99.88	100.59	100.01	100.30	99.34	99.48	100.46	100.88	99.28	100.15	99.94
Ti	0.02	0.02	0.02	0.02	0.04	0.05	0.04	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.08	0.01
Al	0.69	0.66	0.55	0.55	0.49	0.50	0.64	0.85	1.85	1.88	0.93	1.84	1.73	1.79	1.16	1.16	1.01	0.96	0.81	0.81
Cr	1.09	1.13	1.15	1.12	1.05	0.96	1.11	0.95	0.10	0.07	1.01	0.15	0.22	0.21	0.63	0.63	0.85	0.91	0.92	0.97
Fe3+	0.17	0.17	0.26	0.29	0.37	0.44	0.15	0.17	0.05	0.05	0.04	0.01	0.05	0.00	0.18	0.18	0.11	0.10	0.11	0.20
V	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.01
Fe2+	0.77	0.81	0.90	0.92	0.89	0.90	0.84	0.76	0.44	0.41	0.79	0.42	0.51	0.53	0.69	0.69	0.41	0.44	0.80	0.76
Mn	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
Mg	0.23	0.20	0.11	0.10	0.14	0.13	0.20	0.25	0.55	0.58	0.21	0.57	0.47	0.46	0.30	0.30	0.61	0.57	0.27	0.24
Zn	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.01	0.02	0.02	0.00	0.00	0.00	0.00
Ni	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	22.62	19.75	11.11	9.37	13.17	12.62	19.23	24.88	55.08	58.23	21.17	57.28	47.98	46.84	30.45	30.46	59.85	56.48	25.10	23.90
Ulvospinel	2.19	1.95	1.61	1.86	3.74	4.48	4.11	0.90	0.00	0.00	0.70	0.00	0.00	0.00	0.98	1.00	1.05	1.10	8.33	0.89
Spinel	34.35	32.73	27.57	27.59	24.55	24.83	32.12	42.67	92.34	93.99	46.67	91.87	86.62	89.38	58.16	58.21	50.69	48.09	40.44	40.36
Chromite	54.64	56.61	57.36	55.90	52.67	47.84	55.57	47.57	5.17	3.34	50.45	7.55	11.07	10.51	31.41	31.39	42.64	45.48	45.93	48.32
Magnetite	8.82	8.72	13.46	14.65	19.04	22.85	8.21	8.86	2.49	2.67	2.18	0.58	2.31	0.11	9.44	9.40	5.62	5.33	5.29	10.43
100Cr/(Cr+Al)	61.40	63.40	67.50	67.00	68.20	65.80	63.40	52.70	5.30	3.40	51.90	7.60	11.30	10.50	35.10	35.00	45.70	48.60	53.20	54.50
100Fe/(Fe+Mg)	77.40	80.30	88.90	90.60	86.80	87.40	80.80	75.10	44.90	41.80	78.80	42.70	52.00	53.20	69.60	69.50	40.10	43.50	74.90	76.10

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25	M +.25
Desc	10C	10R	11C	11R	12C	12R	13C	13R	14C	14R	15C	15R	16C	16R	17C	17R	18C	18R	19C	19R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	3.06	3.24	0.42	0.42	0.71	0.00	3.36	0.00	0.33	0.52	0.70	0.19	0.68	0.65	0.33	0.00	0.81	0.00	0.24	0.00
Al2O3	11.61	10.67	29.77	28.65	20.87	25.91	16.68	25.72	29.97	28.06	41.37	44.33	28.57	27.96	16.19	21.77	23.66	28.37	42.30	43.35
Cr2O3	36.06	36.42	35.65	35.23	39.32	33.50	38.01	36.34	36.06	38.04	20.19	16.13	30.13	30.19	42.52	42.13	35.84	33.45	19.79	17.83
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.68	0.44	0.00	0.20	0.38	0.17	0.53	0.18	0.19	0.19	0.26	0.18	0.22	0.21	0.35	0.23	0.33	0.26	0.00	0.14
FeO	44.83	45.39	19.63	22.45	32.90	34.35	38.33	32.91	17.93	18.76	27.23	28.14	33.07	34.71	38.28	32.79	35.61	34.12	27.54	27.88
MnO	0.36	0.50	0.00	0.00	0.29	0.00	0.28	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.52	0.46	0.00	0.00	0.00	0.00
MgO	2.37	1.84	14.20	12.75	4.58	4.61	3.00	4.34	14.86	14.18	9.53	9.71	6.13	5.41	1.58	1.87	3.33	2.94	9.85	9.69
ZnO	0.53	0.00	0.00	0.00	0.58	0.67	0.00	0.00	0.00	0.00	0.71	0.58	0.56	0.62	0.00	0.50	0.37	0.69	0.00	0.00
NiO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.50	98.50	99.67	99.70	99.63	99.21	100.19	99.49	99.65	99.75	100.24	99.50	99.36	99.75	99.77	99.75	99.95	99.83	99.72	99.14
Fe2O3*	13.95	13.63	4.70	5.54	5.27	6.65	5.88	3.89	4.32	3.88	3.71	5.10	6.51	7.15	6.93	1.23	4.92	2.99	4.07	4.70
FeO*	32.28	33.12	15.40	17.47	28.16	28.36	33.04	29.41	14.05	15.26	23.89	23.55	27.22	28.28	32.05	31.68	31.18	31.43	23.88	23.65
Total*	100.90	99.87	100.14	100.25	100.16	99.88	100.78	99.88	100.08	100.14	100.61	100.01	100.01	100.47	100.46	99.87	100.44	100.13	100.13	99.61
Ti	0.08	0.09	0.01	0.01	0.02	0.00	0.09	0.00	0.01	0.01	0.02	0.00	0.02	0.02	0.01	0.00	0.02	0.00	0.01	0.00
Al	0.47	0.44	1.04	1.01	0.81	0.98	0.66	0.98	1.04	0.99	1.42	1.51	1.06	1.04	0.65	0.85	0.91	1.07	1.45	1.49
Cr	0.99	1.01	0.84	0.84	1.02	0.85	1.01	0.93	0.84	0.90	0.46	0.37	0.75	0.75	1.15	1.11	0.92	0.85	0.45	0.41
Fe3+	0.36	0.36	0.11	0.13	0.13	0.16	0.15	0.09	0.10	0.09	0.08	0.11	0.15	0.17	0.18	0.03	0.12	0.07	0.09	0.10
V	0.02	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Fe2+	0.93	0.97	0.38	0.44	0.77	0.76	0.93	0.79	0.35	0.38	0.58	0.57	0.72	0.75	0.91	0.86	0.85	0.84	0.58	0.58
Mn	0.01	0.02	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00
Mg	0.12	0.10	0.63	0.57	0.22	0.22	0.15	0.21	0.65	0.63	0.41	0.42	0.29	0.26	0.08	0.09	0.16	0.14	0.43	0.42
Zn	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.02	0.00	0.00
Ni	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	11.57	9.01	62.17	56.53	22.47	22.46	13.93	20.82	65.34	62.34	41.55	42.36	28.64	25.43	8.08	9.52	15.99	14.29	42.37	42.20
Ulvospinel	7.96	8.57	0.94	0.95	1.75	0.00	8.48	0.00	0.73	1.17	1.53	0.41	1.61	1.54	0.85	0.00	1.96	0.00	0.52	0.00
Spinel	23.66	22.12	52.03	50.72	40.32	49.13	32.98	48.81	52.15	49.36	70.90	75.43	52.96	52.03	32.52	42.72	45.42	53.64	72.34	74.23
Chromite	49.29	50.64	41.79	41.83	50.94	42.60	50.40	46.25	42.10	44.88	23.21	18.41	37.46	37.67	57.27	55.44	46.14	42.41	22.70	20.47
Magnetite	19.09	18.66	5.24	6.50	7.00	8.27	8.14	4.95	5.02	4.59	4.36	5.75	7.98	8.76	9.36	1.85	6.46	3.94	4.44	5.30
100Cr/(Cr+Al)	67.60	69.60	44.50	45.20	55.80	46.40	60.40	48.70	44.70	47.60	24.70	19.60	41.40	42.00	63.80	56.50	50.40	44.20	23.90	21.60
100Fe/(Fe+Mg)	88.40	91.00	37.80	43.50	77.50	77.50	86.10	79.20	34.70	37.70	58.50	57.60	71.40	74.60	91.90	90.50	84.00	85.70	57.60	57.80

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	M +.25	M +.25	P +.25	P +.25	P1 +.25	P1 +.25	P1 +.25	P1 +.25	P1 +200	P1 +200	P1 +200	P1 +200	P1 +200	P1 +200	P2 +200	P2 +200	P2 +200	P2 +200	P2 +200
Desc	9C	9R	20C	20R	21C	21R	22C	22R	27C	27R	28C	28R	29C	29R	30C	30R	31C	31R	32C
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.51	0.45	1.09	1.19	0.40	0.21	1.82	0.75	0.27	0.30	0.26	0.00	2.06	2.27	0.00	0.26	0.23	0.24	0.55
Al2O3	26.09	24.27	25.56	29.78	37.50	37.89	13.97	15.10	31.66	30.59	26.16	39.42	15.45	15.78	11.32	10.74	15.03	13.29	24.84
Cr2O3	36.24	37.10	31.03	24.94	32.05	31.98	40.13	44.82	39.51	40.44	36.77	24.29	46.77	46.54	61.09	61.07	59.24	61.17	45.50
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.18	0.34	0.16	0.18	0.36	0.34	0.20	0.00	0.00	0.15	0.18	0.00	0.16	0.21	0.00	0.28	0.00
FeO	30.29	30.86	29.46	29.69	12.76	12.38	40.45	36.16	11.55	11.79	29.52	24.90	24.08	24.77	14.82	18.45	14.22	13.76	17.17
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	6.50	5.98	11.99	12.85	16.95	17.73	1.92	1.61	16.58	16.36	6.98	10.79	10.92	9.38	12.42	8.32	10.63	9.30	11.81
ZnO	0.34	0.61	0.00	0.00	0.00	0.00	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00
NiO	0.00	0.00	0.00	0.31	0.00	0.27	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.37	0.00	0.43	0.00	0.33	0.00
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.97	99.27	99.31	99.10	99.82	100.64	99.73	99.25	99.77	99.74	99.69	99.55	99.46	99.11	99.81	99.48	99.35	99.30	99.87
Fe2O3*	4.25	4.89	11.93	13.19	0.44	1.44	9.36	4.57	0.00	0.00	4.20	3.55	5.00	3.44	0.02	0.00	0.00	0.00	0.00
FeO*	26.47	26.46	18.73	17.82	12.37	11.08	32.02	32.05	11.55	11.79	25.74	21.71	19.58	21.68	14.81	18.45	14.22	13.76	17.17
Total*	100.40	99.76	100.50	100.42	99.86	100.78	100.67	99.71	99.77	99.74	100.11	99.91	99.96	99.45	99.81	99.48	99.35	99.30	99.87
Ti	0.01	0.01	0.03	0.03	0.01	0.00	0.05	0.02	0.01	0.01	0.01	0.00	0.05	0.06	0.00	0.01	0.01	0.01	0.01
Al	0.97	0.92	0.92	1.05	1.25	1.25	0.57	0.61	1.08	1.05	0.97	1.36	0.59	0.61	0.43	0.42	0.57	0.51	0.90
Cr	0.90	0.94	0.75	0.59	0.72	0.71	1.09	1.22	0.91	0.93	0.92	0.56	1.19	1.20	1.56	1.61	1.50	1.57	1.10
Fe3+	0.10	0.12	0.27	0.30	0.01	0.03	0.24	0.12	0.00	0.00	0.10	0.08	0.12	0.08	0.00	0.00	0.00	0.00	0.00
V	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.01	0.00
Fe2+	0.70	0.71	0.48	0.45	0.29	0.26	0.92	0.92	0.28	0.29	0.68	0.53	0.53	0.59	0.40	0.51	0.38	0.37	0.44
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.31	0.29	0.55	0.57	0.72	0.74	0.10	0.08	0.72	0.71	0.33	0.47	0.52	0.46	0.60	0.41	0.51	0.45	0.54
Zn	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Ni	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.98	2.96	2.95	2.99
Mg No	30.44	28.71	53.29	56.24	70.95	74.03	9.65	8.22	71.89	71.20	32.58	46.97	49.85	43.54	59.92	44.55	57.12	54.64	55.07
Ulvospinel	1.21	1.09	2.51	2.68	0.85	0.44	4.70	1.94	0.59	0.66	0.62	0.00	4.98	5.56	0.00	0.64	0.53	0.56	1.25
Spinel	48.53	45.93	46.06	52.55	62.61	62.48	28.26	30.65	53.99	52.66	48.60	67.88	29.28	30.30	21.60	20.59	27.30	24.25	44.31
Chromite	45.21	47.08	37.50	29.51	35.89	35.36	54.45	61.02	45.19	46.68	45.81	28.05	59.45	59.93	78.17	78.50	72.16	74.85	54.43
Magnetite	5.05	5.91	13.94	15.27	0.65	1.72	12.59	6.39	0.23	0.00	4.98	4.08	6.28	4.21	0.23	0.27	0.00	0.35	0.00
100Cr/(Cr+Al)	48.20	50.60	44.90	36.00	36.40	36.10	65.80	66.60	45.60	47.00	48.50	29.20	67.00	66.40	78.40	79.20	72.60	75.50	55.10
100Fe/(Fe+Mg)	69.60	71.30	46.70	43.80	29.10	26.00	90.30	91.80	28.10	28.80	67.40	53.00	50.20	56.50	40.10	55.40	42.90	45.40	44.90

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	P2 +200	P2 +200	P2 +200	Q +.25	Q +.25	T1 +200	T1 +200	T1 +200	T1 +200	U +.25	U +.25	U +.25	U +.25	U +.25	U +.25	U +.25	U +.25	U +200	U +200
Desc	32R	33C	33R	23C	23R	34C	34R	35C	35R	24C	24R	25C	25R	26C	26R	27C	27R	23C	23R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.63	2.37	2.36	1.44	1.32	0.20	0.00	0.29	0.41	2.17	2.11	0.47	0.43	0.42	0.33	0.35	0.44	0.00	0.14
Al2O3	24.97	14.97	15.00	17.38	18.51	3.79	3.50	18.24	17.79	28.58	25.04	11.75	10.31	22.94	23.03	17.73	17.74	18.64	19.70
Cr2O3	44.69	46.29	46.01	42.40	42.84	70.87	70.31	51.82	50.96	32.31	35.75	56.92	56.73	39.99	40.21	52.69	52.18	52.41	50.75
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.21	0.24	0.00	0.26	0.16	0.00	0.00	0.00	0.26	0.24	0.18	0.15	0.18	0.26	0.20	0.00	0.00	0.19	0.00
FeO	17.01	24.40	26.13	29.73	29.56	13.63	14.40	19.62	20.12	25.67	26.13	20.77	22.25	28.37	28.31	16.77	16.56	15.42	17.55
MnO	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	12.25	11.46	9.82	7.60	7.01	11.43	10.87	9.67	9.64	10.34	9.46	9.73	9.60	7.25	7.82	12.48	12.73	12.58	10.72
ZnO	0.00	0.00	0.00	0.00	0.37	0.00	0.38	0.00	0.00	0.00	0.69	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.33	0.38	0.34	0.34	0.00	0.29	0.27	0.00	0.00	0.00	0.44	0.25
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.76	99.73	99.68	99.53	99.77	99.92	99.46	99.97	99.56	99.65	99.70	99.79	99.79	99.90	99.90	100.02	99.65	99.68	99.11
Fe2O3*	0.00	5.94	5.49	6.65	4.91	0.00	0.00	0.00	0.13	3.70	4.07	1.49	3.48	4.41	4.68	0.72	0.95	0.19	0.00
FeO*	17.01	19.06	21.19	23.74	25.14	13.63	14.40	19.62	20.00	22.34	22.47	19.43	19.12	24.40	24.10	16.12	15.70	15.25	17.55
Total*	99.76	100.32	100.23	100.20	100.26	99.92	99.46	99.97	99.57	100.02	100.11	99.94	100.14	100.34	100.37	100.09	99.75	99.70	99.11
Ti	0.01	0.06	0.06	0.04	0.03	0.01	0.00	0.01	0.01	0.05	0.05	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Al	0.90	0.57	0.57	0.67	0.71	0.15	0.14	0.69	0.68	1.03	0.92	0.46	0.40	0.86	0.86	0.66	0.66	0.69	0.74
Cr	1.08	1.17	1.18	1.09	1.10	1.88	1.88	1.31	1.30	0.78	0.88	1.48	1.49	1.01	1.01	1.31	1.30	1.30	1.27
Fe3+	0.00	0.14	0.13	0.16	0.12	0.00	0.00	0.00	0.00	0.09	0.10	0.04	0.09	0.11	0.11	0.02	0.02	0.01	0.00
V	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00
Fe2+	0.44	0.51	0.57	0.65	0.68	0.38	0.41	0.52	0.54	0.57	0.59	0.54	0.53	0.65	0.64	0.42	0.41	0.40	0.47
Mn	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.56	0.55	0.47	0.37	0.34	0.57	0.55	0.46	0.46	0.47	0.44	0.48	0.47	0.34	0.37	0.59	0.60	0.59	0.51
Zn	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	2.99	3.00	3.00	3.00	3.00	2.98	2.99	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99
Mg No	56.20	51.73	45.23	36.32	33.20	59.91	57.36	46.76	46.20	45.19	42.87	47.15	47.22	34.62	36.64	57.98	59.09	59.52	52.12
Ulvospinel	1.44	5.71	5.75	3.53	3.23	0.49	0.00	0.69	0.99	4.96	4.95	1.16	1.07	1.01	0.79	0.83	1.04	0.00	0.33
Spinel	44.68	28.25	28.64	33.38	35.48	7.35	6.91	34.18	33.73	51.46	46.01	22.78	20.12	43.05	43.01	32.85	32.91	34.49	36.54
Chromite	53.63	58.58	58.92	54.60	55.07	92.16	93.09	65.12	64.79	39.01	44.05	74.02	74.24	50.33	50.36	65.47	64.92	65.04	63.13
Magnetite	0.26	7.46	6.69	8.49	6.22	0.00	0.00	0.00	0.49	4.54	5.00	2.04	4.57	5.61	5.83	0.86	1.13	0.47	0.00
100Cr/(Cr+Al)	54.60	67.50	67.30	62.10	60.80	92.60	93.10	65.60	65.80	43.10	48.90	76.50	78.70	53.90	53.90	66.60	66.40	65.30	63.30
100Fe/(Fe+Mg)	43.80	48.30	54.80	63.70	66.80	40.10	42.60	53.20	53.80	54.80	57.10	52.80	52.80	65.40	63.40	42.00	40.90	40.50	47.90

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200
Desc	24C	24R	25C	25R	26C	26R	27C	27R	28C	28R	29C	29R	30C	30R	31C	31R	32C	32R	33C	34C	34R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.00	0.00	0.00	0.17	0.46	0.32	0.27	0.00	0.26	0.00	0.30	0.18	0.43	0.14	0.00	0.00	0.27	0.41	0.43	0.00	0.00
Al2O3	44.10	43.22	8.84	8.37	28.91	32.54	4.50	4.12	28.61	26.77	32.40	38.48	33.71	34.49	46.43	45.93	17.68	19.66	23.49	28.39	28.68
Cr2O3	24.53	25.56	60.90	61.82	34.38	30.36	54.51	55.07	40.33	41.74	37.50	29.64	31.87	32.34	24.21	24.32	52.58	49.14	41.16	42.65	41.73
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.17	0.17	0.22	0.00	0.27	0.25	0.22	0.28	0.17	0.00	0.35	0.23	0.00	0.00	0.00	0.00	0.16	0.15	1.14	0.00	0.00
FeO	13.74	14.40	22.31	23.00	23.63	23.15	36.14	36.10	19.36	22.34	16.40	12.94	23.02	22.63	10.88	10.83	20.90	21.66	31.30	18.26	18.86
MnO	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	17.14	16.01	6.74	5.76	11.42	12.48	0.49	0.23	10.31	8.89	13.13	17.15	9.31	9.59	18.00	18.11	8.25	8.36	2.25	10.55	9.63
ZnO	0.00	0.00	0.46	0.00	0.00	0.00	2.16	1.69	0.00	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NiO	0.00	0.26	0.25	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.37	0.33	0.32	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.23
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.68	99.62	99.72	99.12	99.07	99.42	99.21	98.92	99.04	99.74	100.45	98.95	99.24	99.19	99.52	99.48	99.84	99.38	99.77	99.85	99.13
Fe2O3*	1.13	0.41	0.00	0.00	4.74	5.72	7.65	7.69	0.00	0.00	0.00	1.67	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FeO*	12.72	14.03	22.31	23.00	19.37	18.01	29.26	29.18	19.36	22.34	16.40	11.44	22.46	22.63	10.88	10.83	20.90	21.66	31.30	18.26	18.86
Total*	99.79	99.66	99.72	99.12	99.54	99.99	99.98	99.69	99.04	99.74	100.45	99.12	99.30	99.19	99.52	99.48	99.84	99.38	99.77	99.85	99.13
Ti	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00
Al	1.44	1.42	0.36	0.34	1.04	1.14	0.19	0.18	1.03	0.98	1.12	1.29	1.20	1.23	1.49	1.48	0.67	0.75	0.91	1.02	1.04
Cr	0.54	0.56	1.64	1.68	0.83	0.71	1.58	1.60	0.98	1.03	0.87	0.67	0.76	0.77	0.52	0.53	1.34	1.25	1.07	1.02	1.01
Fe3+	0.02	0.01	0.00	0.00	0.11	0.13	0.21	0.21	0.00	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fe2+	0.29	0.33	0.64	0.66	0.49	0.45	0.89	0.90	0.50	0.58	0.40	0.27	0.57	0.57	0.25	0.25	0.56	0.58	0.86	0.46	0.48
Mn	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.71	0.67	0.34	0.30	0.52	0.55	0.03	0.01	0.47	0.41	0.58	0.73	0.42	0.43	0.73	0.74	0.40	0.40	0.11	0.48	0.44
Zn	0.00	0.00	0.01	0.00	0.00	0.00	0.06	0.05	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ni	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	2.98	3.00	3.00	3.00	3.00	2.99	3.00	2.99	3.00	3.00	3.00	2.99	3.00	2.99	2.99	2.99	2.98	2.98
Mg No	70.59	67.03	34.99	30.86	51.24	55.26	2.90	1.39	48.69	41.49	58.79	72.76	42.48	43.02	74.67	74.87	41.29	40.75	11.36	50.73	47.64
Ulvospinel	0.00	0.00	0.00	0.43	1.05	0.71	0.74	0.00	0.59	0.00	0.66	0.38	0.98	0.32	0.00	0.00	0.65	0.98	1.05	0.00	0.00
Spinel	71.84	71.16	17.74	16.73	51.85	56.96	9.69	8.93	51.00	48.88	55.70	64.34	60.17	61.20	74.09	73.80	33.11	36.93	44.81	49.81	50.61
Chromite	26.80	28.22	81.96	82.84	41.35	35.64	78.73	80.02	48.21	51.12	43.23	33.23	38.15	38.48	25.91	26.20	66.04	61.90	52.66	50.19	49.39
Magnetite	1.36	0.62	0.30	0.00	5.75	6.68	10.84	11.05	0.21	0.00	0.41	2.04	0.70	0.00	0.00	0.00	0.20	0.19	1.48	0.00	0.00
100Cr/(Cr+Al)	27.20	28.40	82.20	83.20	44.40	38.50	89.00	90.00	48.60	51.10	43.70	34.10	38.80	38.60	25.90	26.20	66.60	62.60	54.00	50.20	49.40
100Fe/(Fe+Mg)	29.40	33.00	65.00	69.10	48.80	44.70	97.10	98.60	51.30	58.50	41.20	27.20	57.50	57.00	25.30	25.10	58.70	59.20	88.60	49.30	52.40

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	U +200	U +200	U +200	U +200	U +200	U +200	U +200	U +200	V +200	V +200	V +200	V +200	V +200	V +200	V +200	V +200	V +200	V +200	V +200
Desc	35C	35R	36C	36R	37C	37R	38C	38R	36C	36R	37C	37R	38C	38R	39C	39R	40C	40R	41C	41R
Mineral	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP
Ox no	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
TiO2	0.41	0.62	1.48	1.37	1.06	0.53	0.24	0.19	0.24	0.32	0.29	0.34	0.44	0.46	0.33	0.37	0.88	1.17	0.69	0.67
Al2O3	28.97	29.30	13.26	14.46	20.74	16.13	14.43	11.87	36.44	36.17	25.96	23.31	30.76	29.17	32.62	30.49	11.03	10.58	30.06	30.00
Cr2O3	36.94	36.35	53.03	51.46	40.52	51.59	56.28	59.02	32.60	33.15	43.72	43.22	36.14	39.12	34.92	37.21	50.27	50.09	35.60	34.26
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
V2O3	0.00	0.00	0.17	0.00	0.17	0.00	0.00	0.00	0.18	0.00	0.00	0.25	0.00	0.26	0.15	0.21	0.00	0.18	0.00	0.21
FeO	23.80	24.33	22.99	26.27	25.59	23.43	15.30	20.07	12.38	14.11	14.53	17.81	20.11	21.57	19.42	21.17	26.17	27.84	24.27	24.75
MnO	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MgO	9.25	8.97	7.88	5.00	10.86	7.44	13.30	8.08	17.10	15.66	15.34	14.44	11.29	9.25	12.08	10.41	10.73	9.40	9.36	9.06
ZnO	0.00	0.00	0.00	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
NiO	0.31	0.00	0.24	0.00	0.36	0.29	0.00	0.00	0.27	0.00	0.00	0.33	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.24
CoO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oxide total	99.68	99.57	99.05	99.85	99.32	99.41	99.55	99.23	99.61	99.41	99.84	99.70	98.98	99.83	99.52	99.86	99.08	99.26	99.98	99.72
Fe2O3*	1.46	1.01	0.08	0.00	7.07	0.19	1.33	0.00	1.41	0.21	1.76	4.64	0.67	0.00	0.58	0.00	9.02	8.35	1.25	2.18
FeO*	22.49	23.42	22.92	26.27	19.22	23.26	14.10	20.07	11.11	13.93	12.94	13.63	19.51	21.57	18.90	21.17	18.06	20.33	23.14	22.78
Total*	99.83	99.67	99.06	99.85	100.03	99.43	99.68	99.23	99.75	99.43	100.02	100.17	99.05	99.83	99.58	99.86	99.96	100.10	100.11	99.94
Ti	0.01	0.01	0.04	0.04	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.02	0.02
Al	1.05	1.06	0.52	0.57	0.77	0.63	0.54	0.47	1.22	1.23	0.91	0.84	1.10	1.05	1.15	1.09	0.43	0.41	1.08	1.08
Cr	0.90	0.89	1.40	1.37	1.01	1.34	1.42	1.55	0.73	0.75	1.03	1.04	0.87	0.95	0.82	0.89	1.31	1.31	0.86	0.83
Fe3+	0.03	0.02	0.00	0.00	0.17	0.01	0.03	0.00	0.03	0.00	0.04	0.11	0.02	0.00	0.01	0.00	0.22	0.21	0.03	0.05
V	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01
Fe2+	0.58	0.60	0.64	0.74	0.51	0.64	0.38	0.56	0.26	0.34	0.32	0.35	0.49	0.55	0.47	0.54	0.50	0.56	0.59	0.58
Mn	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mg	0.42	0.41	0.39	0.25	0.51	0.37	0.63	0.40	0.73	0.67	0.68	0.65	0.51	0.42	0.54	0.47	0.53	0.47	0.43	0.41
Zn	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Ni	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Co	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cation total	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00	3.00	2.99	3.00	3.00	3.00	3.00	3.00	3.00
Mg No	42.29	40.57	37.99	25.33	50.17	36.31	62.69	41.77	73.28	66.71	67.87	65.37	50.77	43.32	53.25	46.70	51.43	45.17	41.89	41.47
Ulvospinel	0.95	1.44	3.71	3.45	2.51	1.31	0.57	0.47	0.51	0.69	0.65	0.78	1.00	1.04	0.74	0.84	2.17	2.92	1.58	1.54
Spinel	52.49	53.16	26.06	28.51	38.48	31.30	27.06	22.96	61.11	61.37	45.72	41.73	54.94	51.93	57.30	54.39	21.37	20.70	54.05	54.18
Chromite	44.88	44.23	69.90	68.04	50.42	67.14	70.77	76.57	36.66	37.72	51.64	51.88	43.29	46.71	41.13	44.51	65.31	65.72	42.93	41.50
Magnetite	1.68	1.17	0.33	0.00	8.59	0.24	1.59	0.00	1.72	0.22	1.98	5.61	0.76	0.31	0.83	0.25	11.15	10.66	1.44	2.78
100Cr/(Cr+Al)	46.10	45.40	72.80	70.50	56.70	68.20	72.30	76.90	37.50	38.10	53.00	55.40	44.10	47.40	41.80	45.00	75.30	76.00	44.30	43.40
100Fe/(Fe+Mg)	57.70	59.40	62.00	74.70	49.80	63.70	37.30	58.20	26.70	33.30	32.10	34.60	49.20	56.70	46.70	53.30	48.60	54.80	58.10	58.50

Job	96-039	96-039
Sample	V +200	V +200
Desc	42C	42R
Mineral	SP	SP
Ox no	4	4
TiO2	0.55	0.59
Al2O3	38.44	36.46
Cr2O3	29.58	30.96
Fe2O3	0.00	0.00
V2O3	0.00	0.16
FeO	14.83	15.58
MnO	0.00	0.00
MgO	16.75	15.37
ZnO	0.00	0.00
NiO	0.00	0.44
CoO	0.00	0.00
Oxide total	100.15	99.56
Fe2O3*	1.94	1.42
FeO*	13.09	14.30
Total*	100.34	99.70
Ti	0.01	0.01
Al	1.28	1.24
Cr	0.66	0.70
Fe3+	0.04	0.03
V	0.00	0.00
Fe2+	0.31	0.34
Mn	0.00	0.00
Mg	0.70	0.66
Zn	0.00	0.00
Ni	0.00	0.01
Co	0.00	0.00
Cation total	3.00	3.00
Mg No	69.52	65.70
Ulvospinel	1.17	1.28
Spinel	63.84	61.80
Chromite	32.94	35.19
Magnetite	2.05	1.73
100Cr/(Cr+Al)	34.00	36.30
100Fe/(Fe+Mg)	30.50	34.30

Job	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039	96-039
Sample	F +.4	F +.4	F +.4	F +.4	F +.4	F +.4	F1 +.25	F1 +.25	M +.25	M +.25	M +.25
Desc	25C	26C	27C	28C	29C	30C	31C	32C	33C	34C	35C
Mineral	PX	PX	PX	PX	PX	PX	PX	PX	PX	PX	PX
Ox no	6	6	6	6	6	6	6	6	6	6	6
SiO2	54.46	54.68	53.85	51.28	53.86	54.59	54.23	54.20	54.11	51.99	53.33
TiO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.20
Al2O3	1.86	1.21	1.41	2.53	0.45	0.52	2.86	1.09	3.45	1.63	0.93
Cr2O3	0.00	0.18	0.31	0.00	0.00	0.00	0.51	0.00	0.26	0.13	0.00
Fe2O3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FeO	13.84	15.41	15.99	6.33	2.88	16.35	10.81	16.38	11.94	23.02	19.83
MnO	0.21	0.32	0.32	0.22	0.35	0.26	0.19	0.29	0.00	0.32	0.32
MgO	28.78	26.58	25.05	13.40	16.93	26.82	29.86	24.29	28.44	20.28	21.86
CaO	0.44	2.16	2.78	25.34	24.95	0.60	1.41	3.68	1.38	3.16	3.19
Na2O	0.24	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.18	0.00
Oxide total	99.83	100.54	99.71	99.37	99.42	99.14	99.87	100.29	99.58	100.71	99.66
Fe2O3*	2.11	0.54	0.14	3.15	0.70	0.00	1.31	0.00	0.00	2.45	0.00
FeO*	11.94	14.92	15.86	3.50	2.25	16.35	9.63	16.38	11.94	20.82	19.83
Total*	100.04	100.59	99.72	99.69	99.49	99.14	100.00	100.29	99.58	100.96	99.66
Si	1.94	1.97	1.96	1.91	1.98	1.99	1.92	1.97	1.93	1.94	1.98
Ti	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01
Al	0.08	0.05	0.06	0.11	0.02	0.02	0.12	0.05	0.15	0.07	0.04
Cr	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00
Fe3+	0.06	0.02	0.00	0.09	0.02	0.00	0.04	0.00	0.00	0.07	0.00
Fe2+	0.36	0.45	0.48	0.11	0.07	0.50	0.29	0.50	0.36	0.65	0.62
Mn	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01
Mg	1.53	1.42	1.36	0.74	0.93	1.46	1.57	1.32	1.51	1.13	1.21
Ca	0.02	0.08	0.11	1.01	0.98	0.02	0.05	0.14	0.05	0.13	0.13
Na	0.02	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Cation total	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.99
Mg No	81.11	76.04	73.78	87.23	93.07	74.51	84.67	72.55	80.93	63.45	66.27
Other	7.56	3.55	3.67	10.94	1.95	1.22	8.41	2.86	7.92	7.84	2.82
Quad	92.44	96.45	96.33	89.06	98.05	98.78	91.59	97.14	92.08	92.16	97.18
Wollastonite	0.88	4.25	5.56	54.25	49.65	1.18	2.79	7.32	2.75	6.64	6.50
Enstatite	80.39	72.81	69.68	39.90	46.86	73.63	82.30	67.23	78.71	59.24	61.96
Ferrosilite	18.72	22.94	24.76	5.84	3.49	25.19	14.90	25.44	18.54	34.13	31.54

CHROMITE PLOT (Core data)

DIATECH
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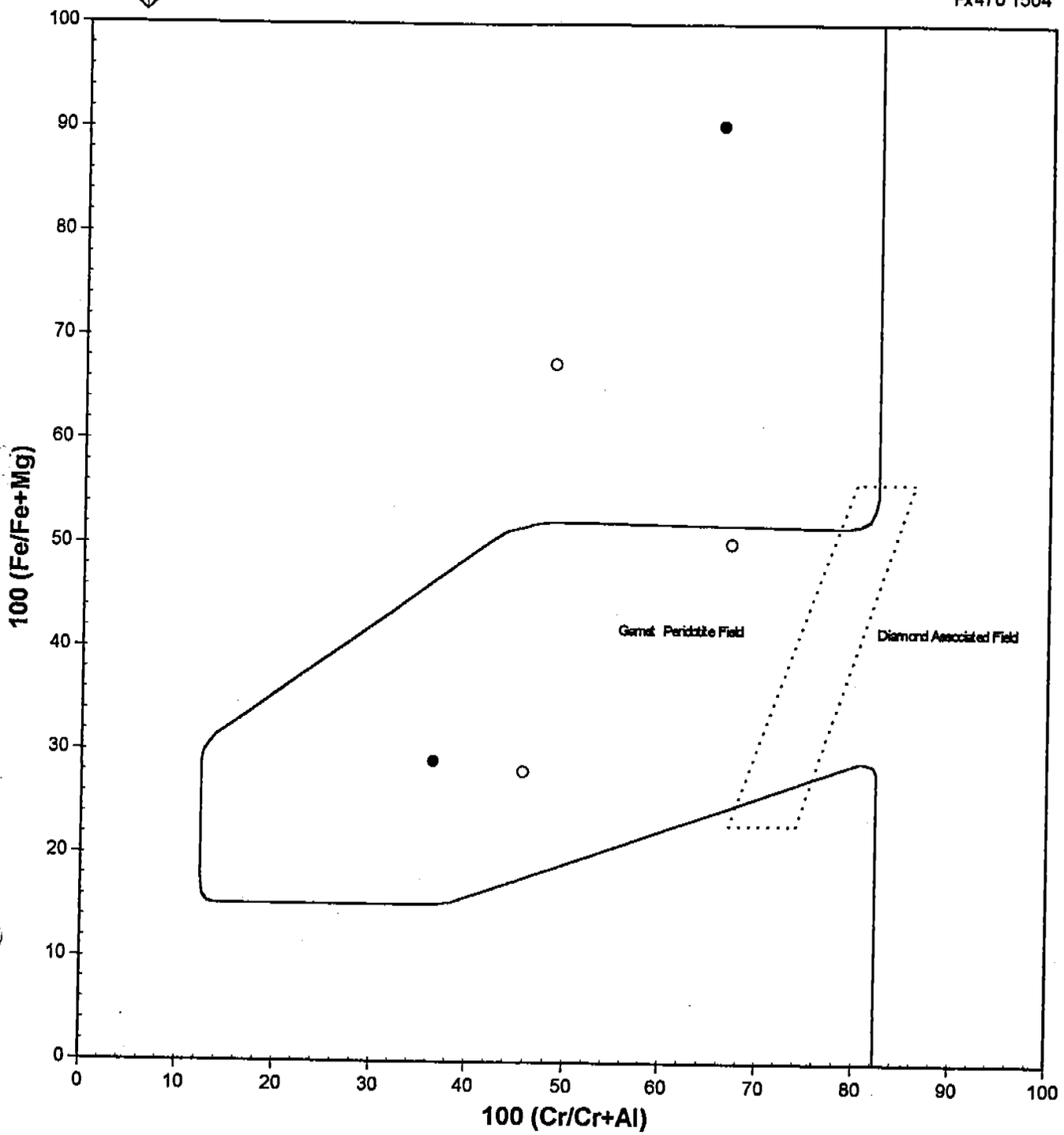
Fx470 1504



LEGEND

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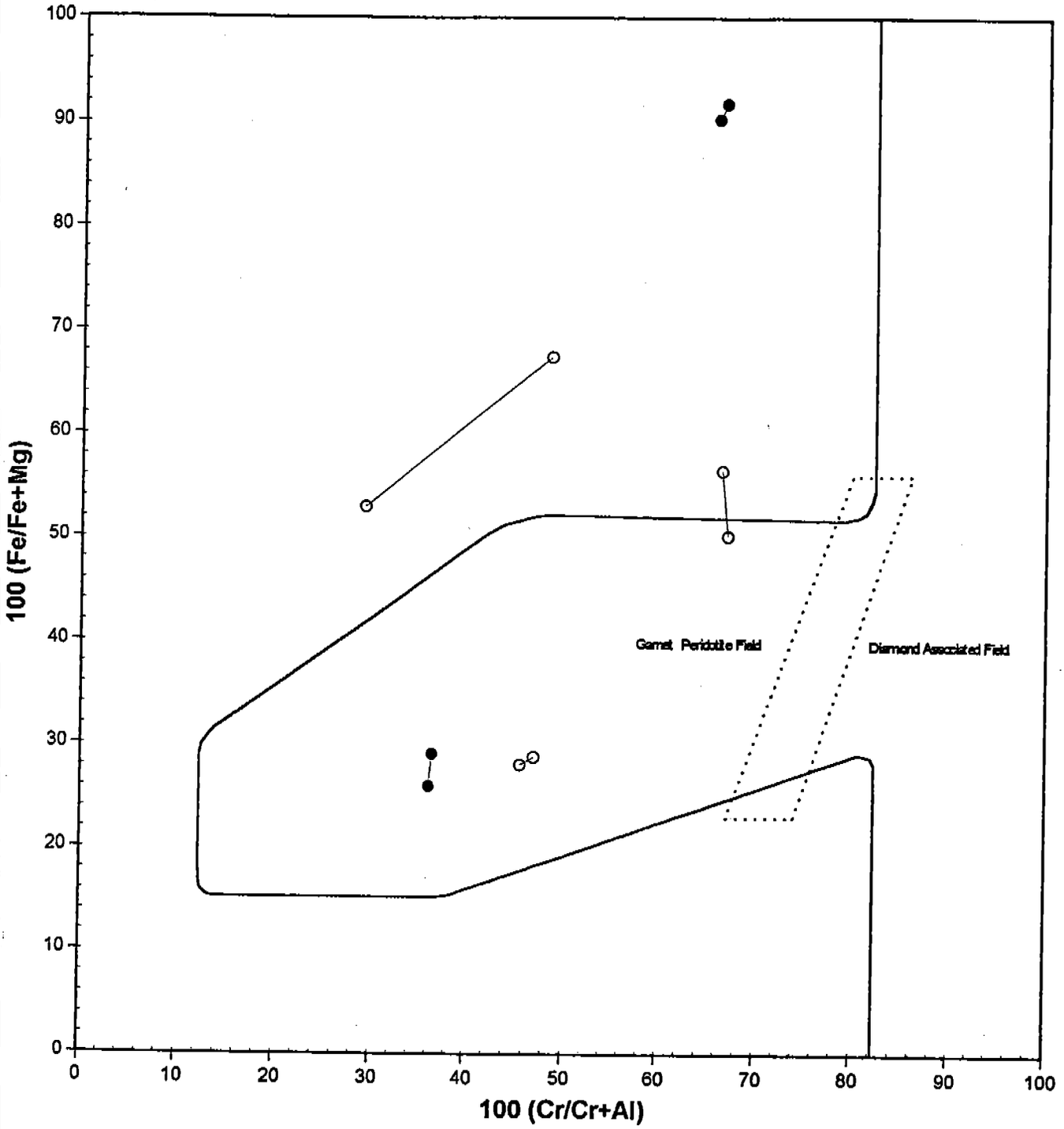

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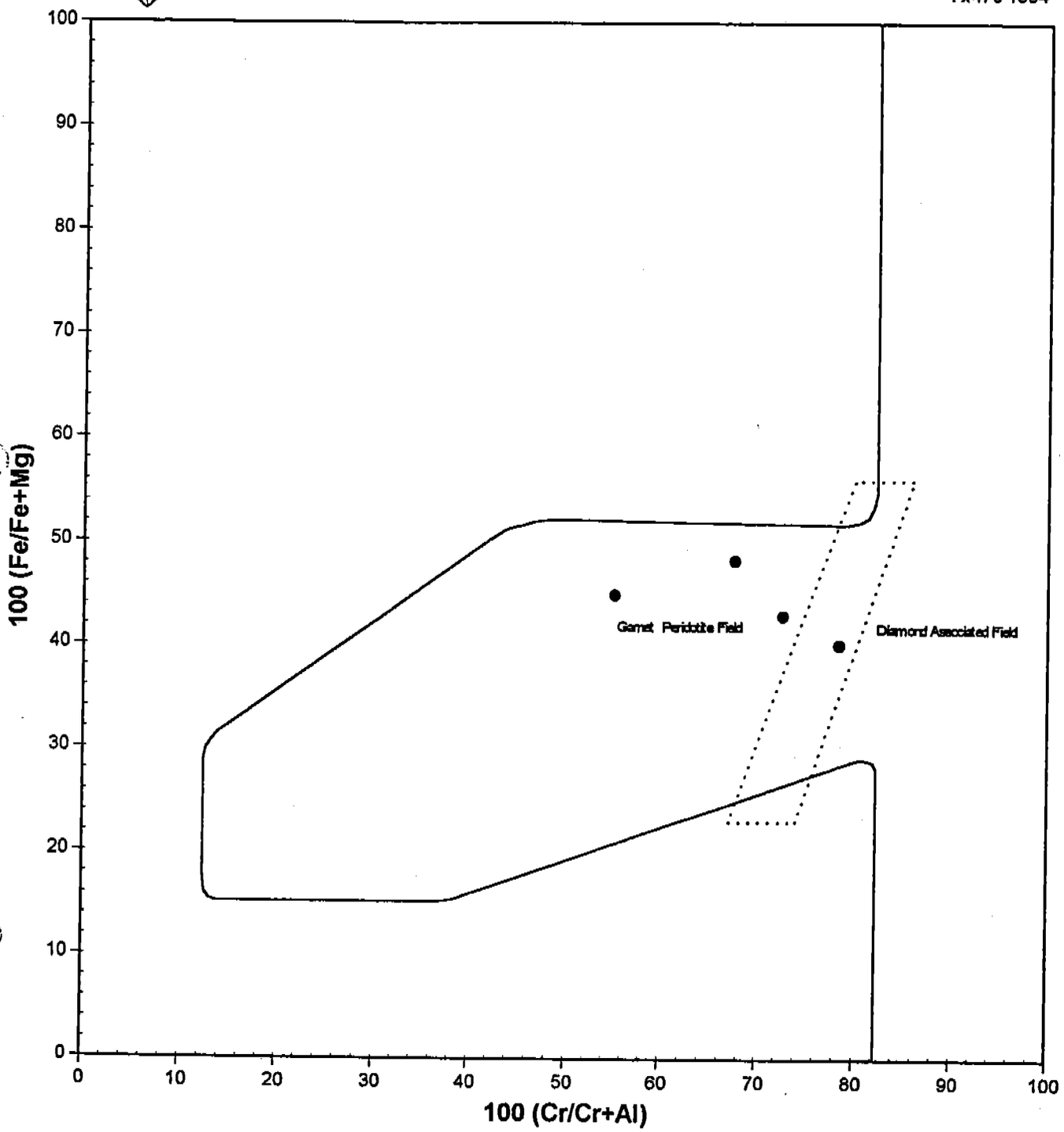

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—— Sobolevs line

···· Transition Field

● 96-039:P2 +200

DIATECH
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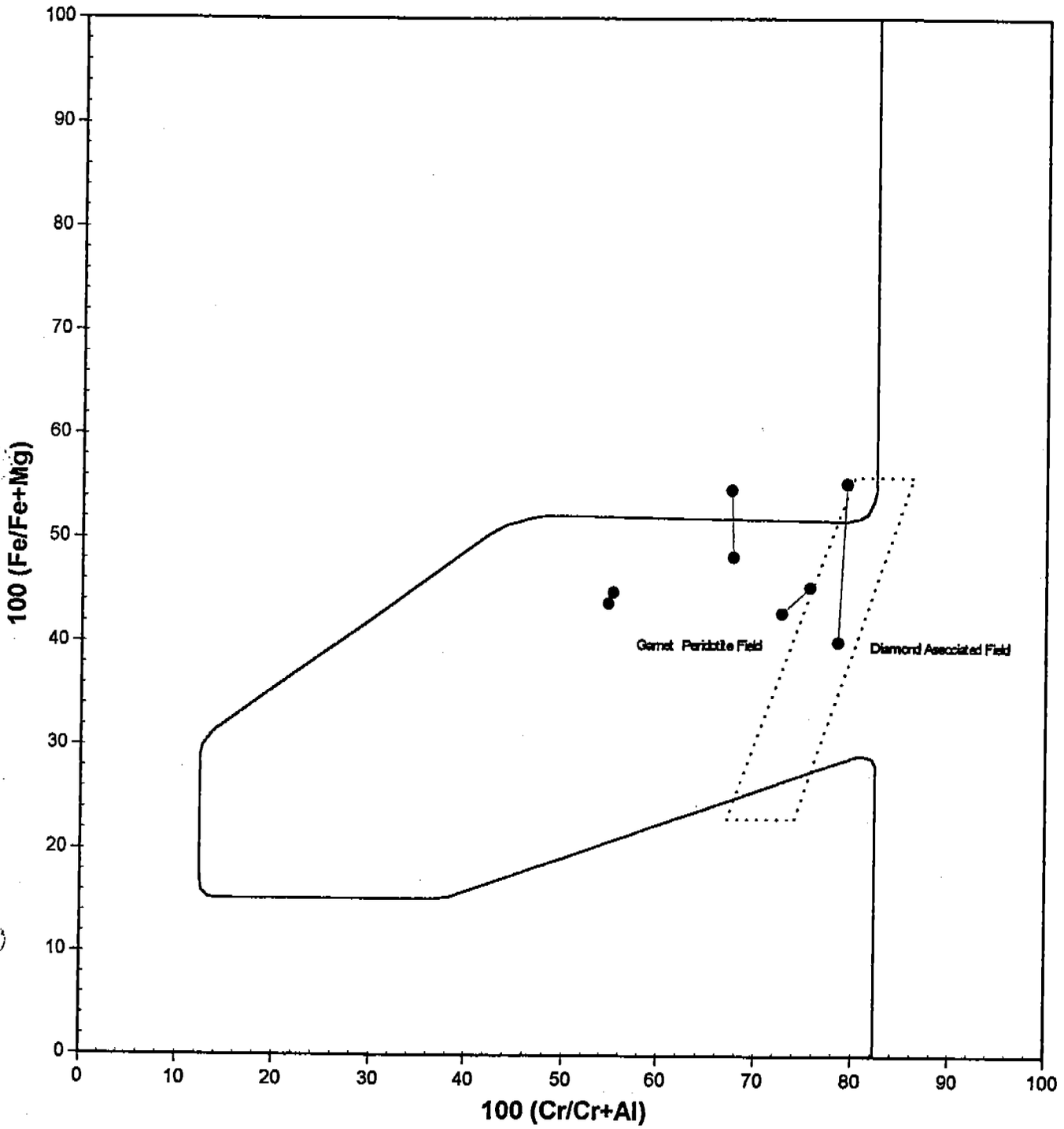

LEGEND

Sobolevs line

Transition Field

96-039:P2 +200

CHROMITE PLOT (Core data)

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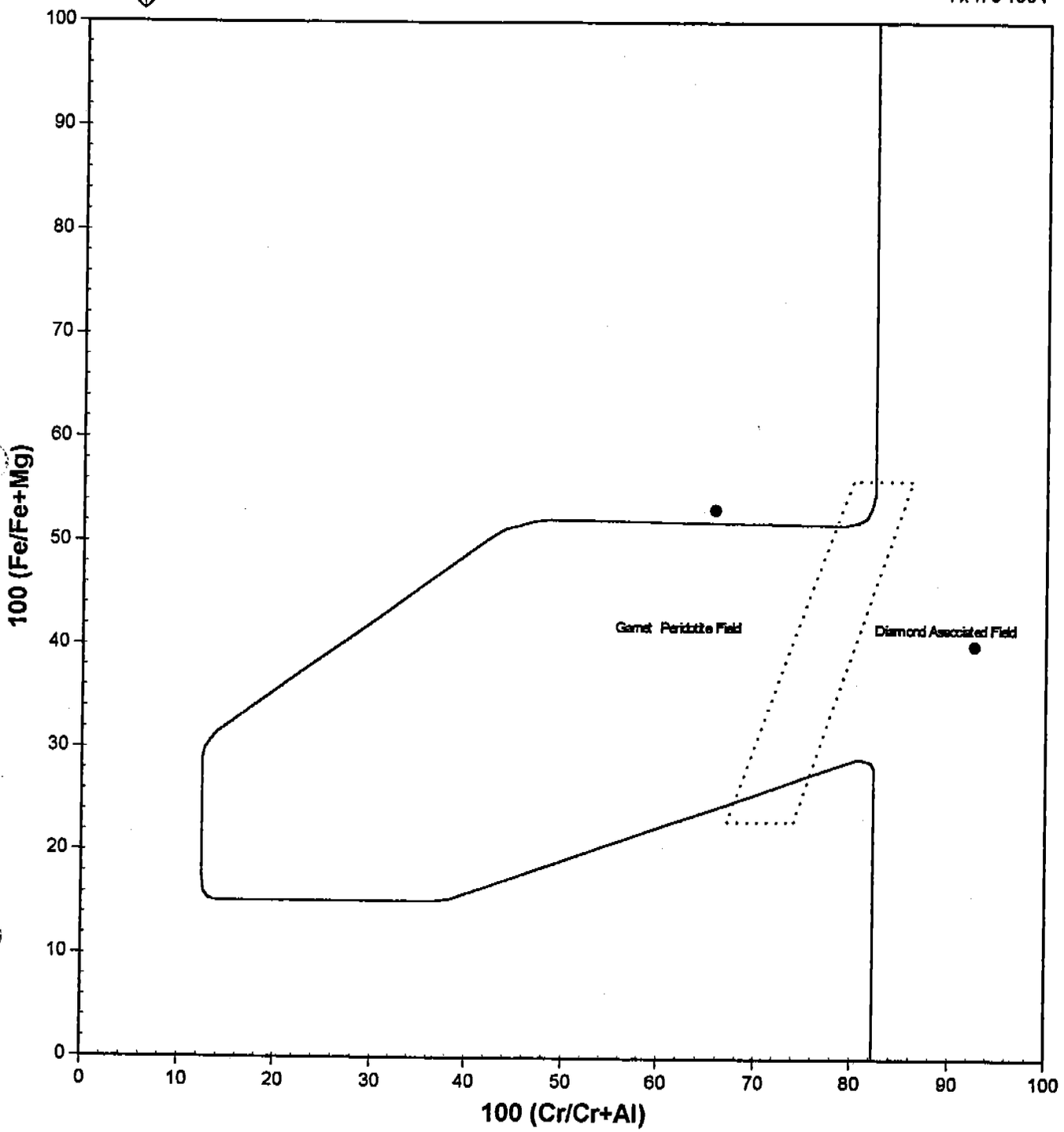

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—— Sobolevs line

···· Transition Field

● 96-039:T1 +200

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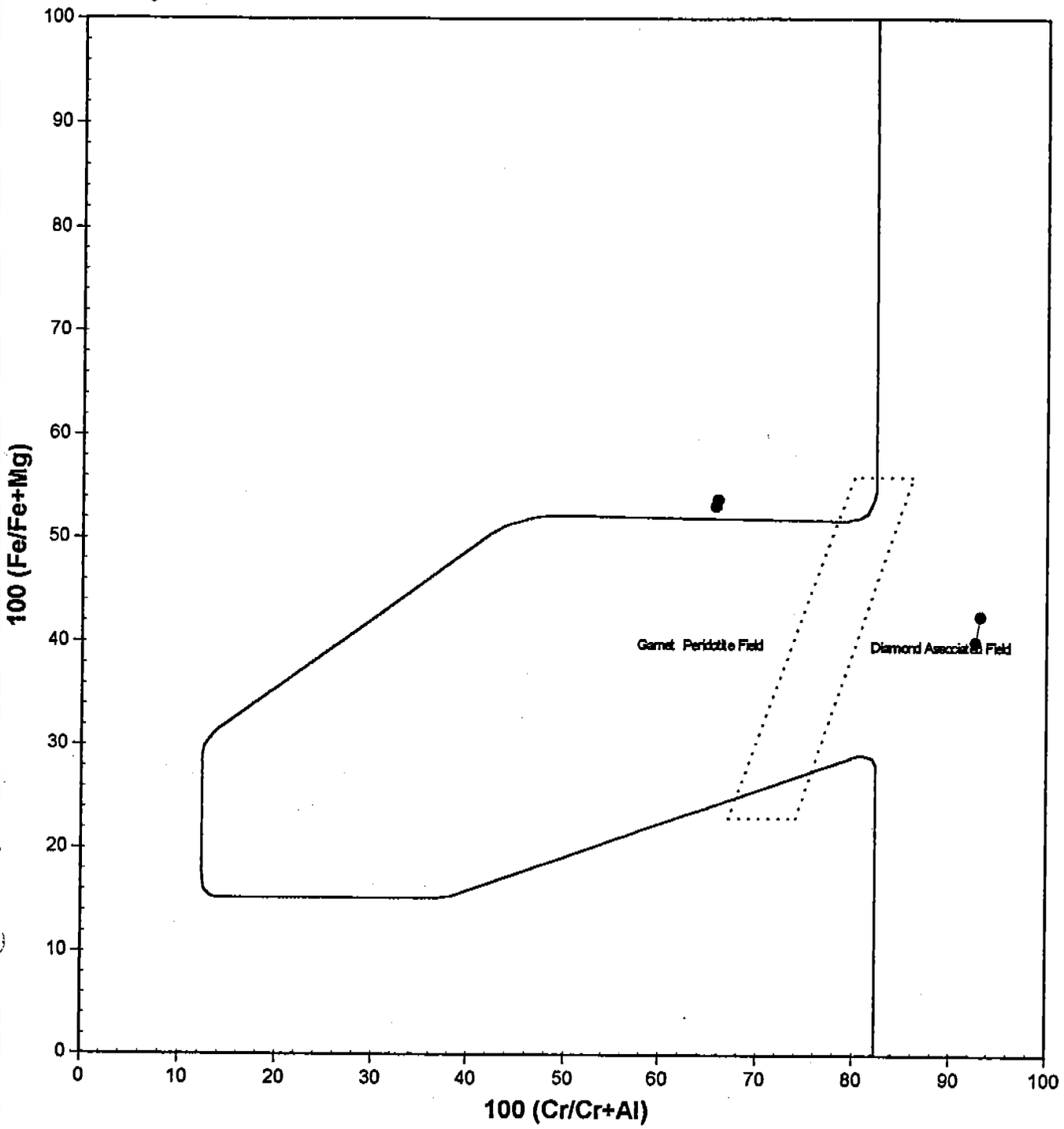

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Sobolevs line

Transition Field

96-039:T1 +200

CHROMITE PLOT (Core data)

DIATECH
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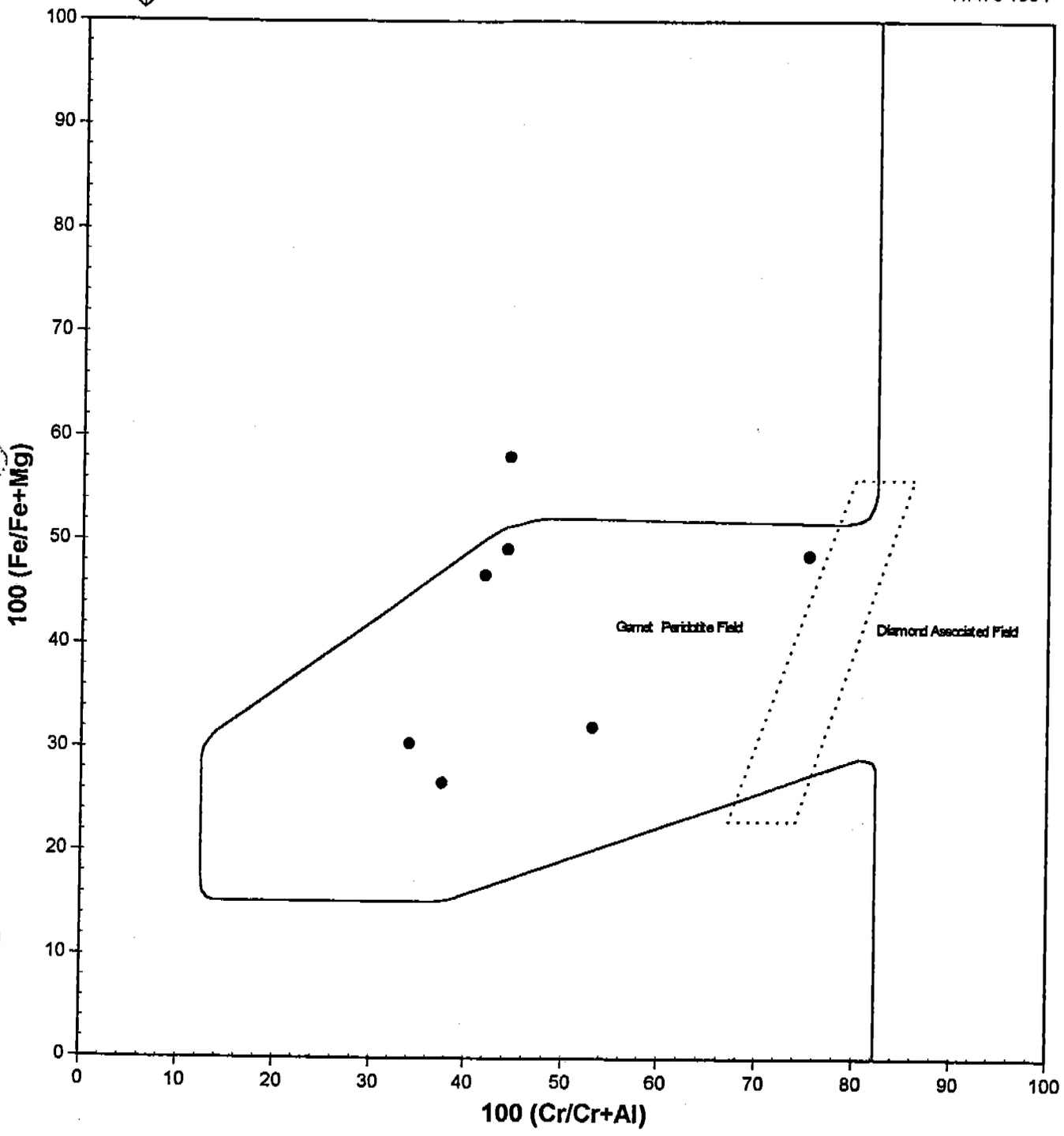

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Fx470 1504

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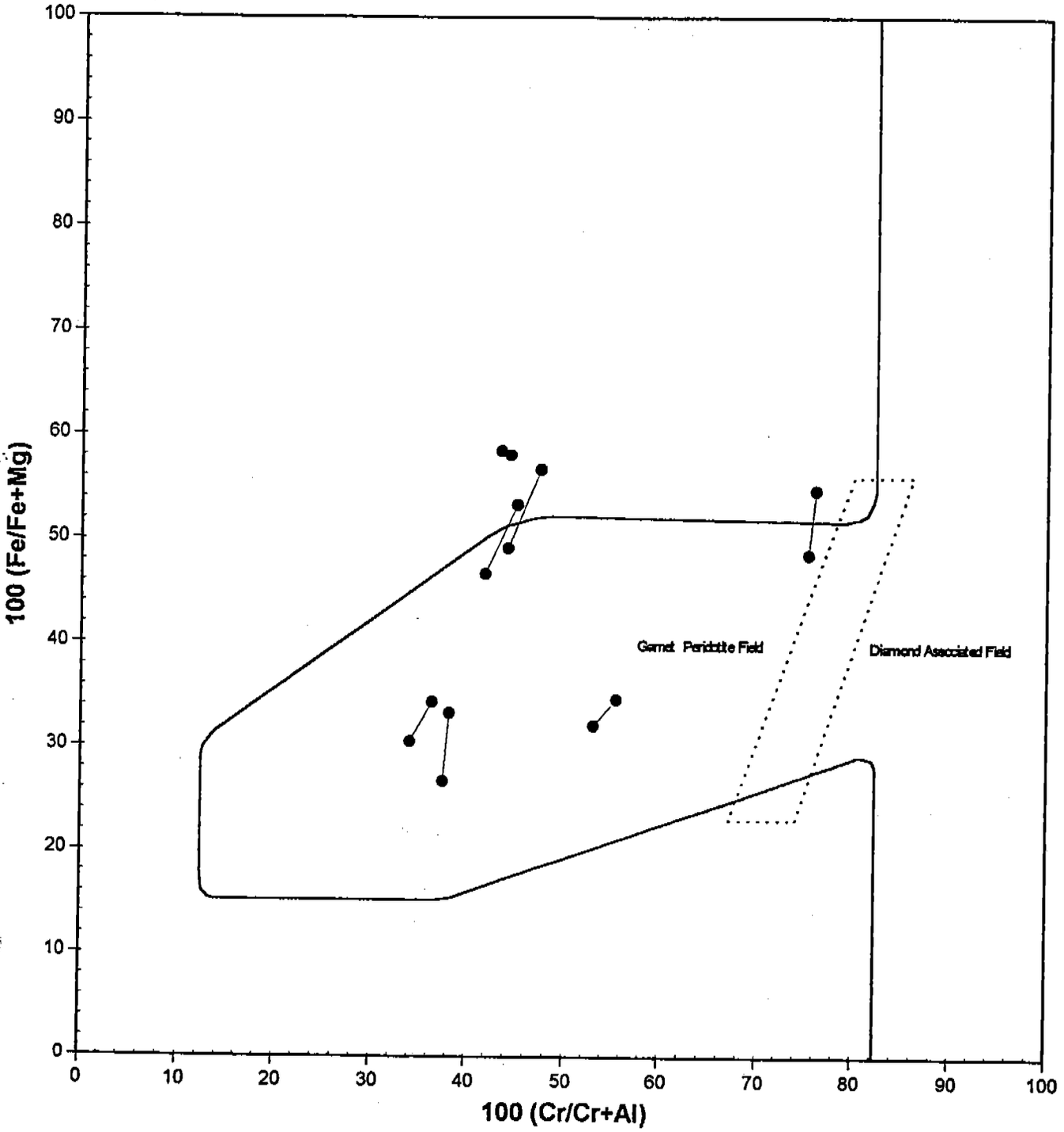

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Sobolevs line

Transition Field

96-039:V +200

DIATECH
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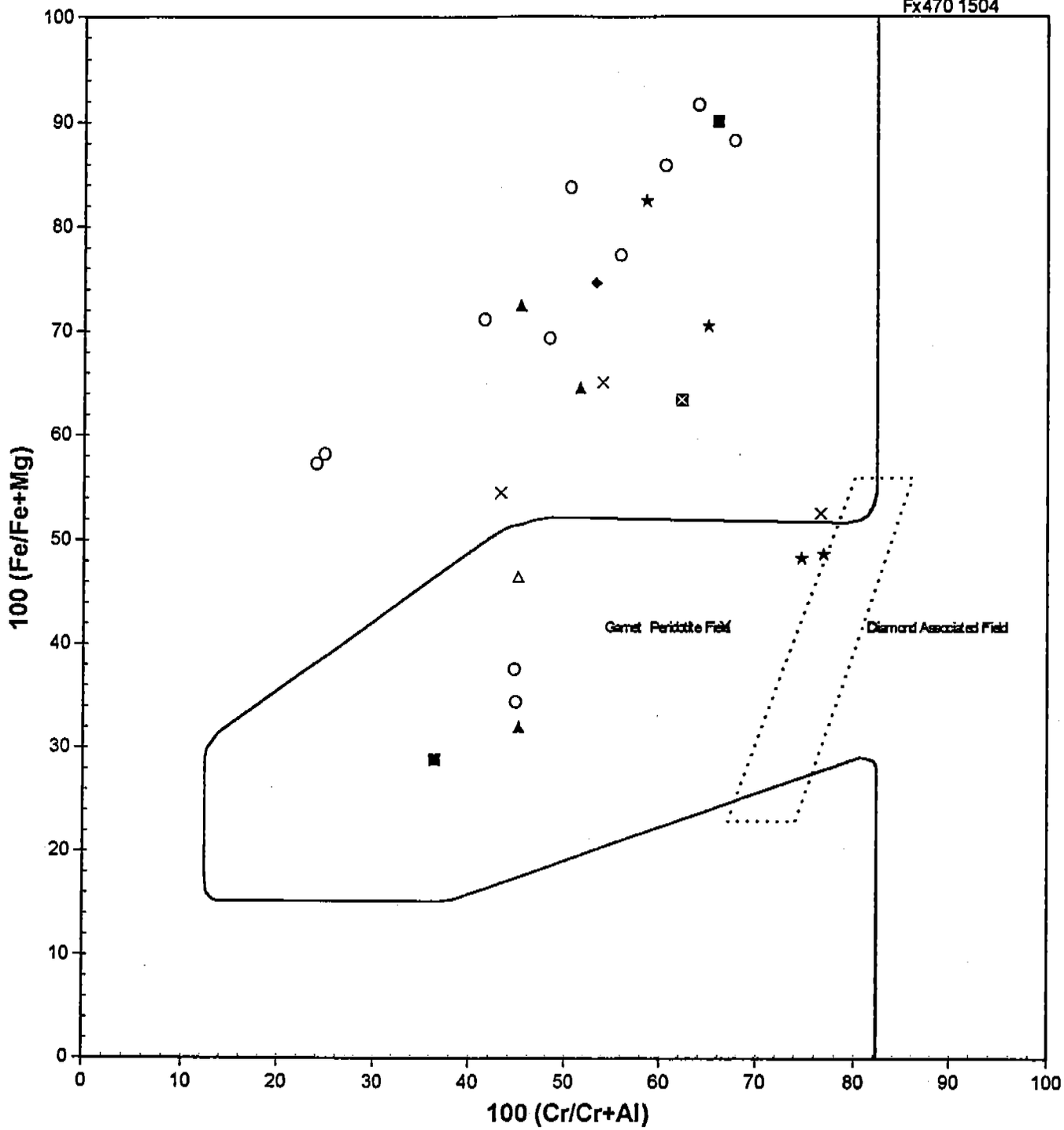
Fx470 1504

CHROMITE PLOT (Core data)



LEGEND

- Sobolevs line
- Transition Field
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- 96-039:F +.25
- 96-039:I +.25
- 96-039:M +.25
- 96-039:P +.25
- 96-039:P1 +.25
- 96-039:Q +.25
- 96-039:U +.25

DIATECH
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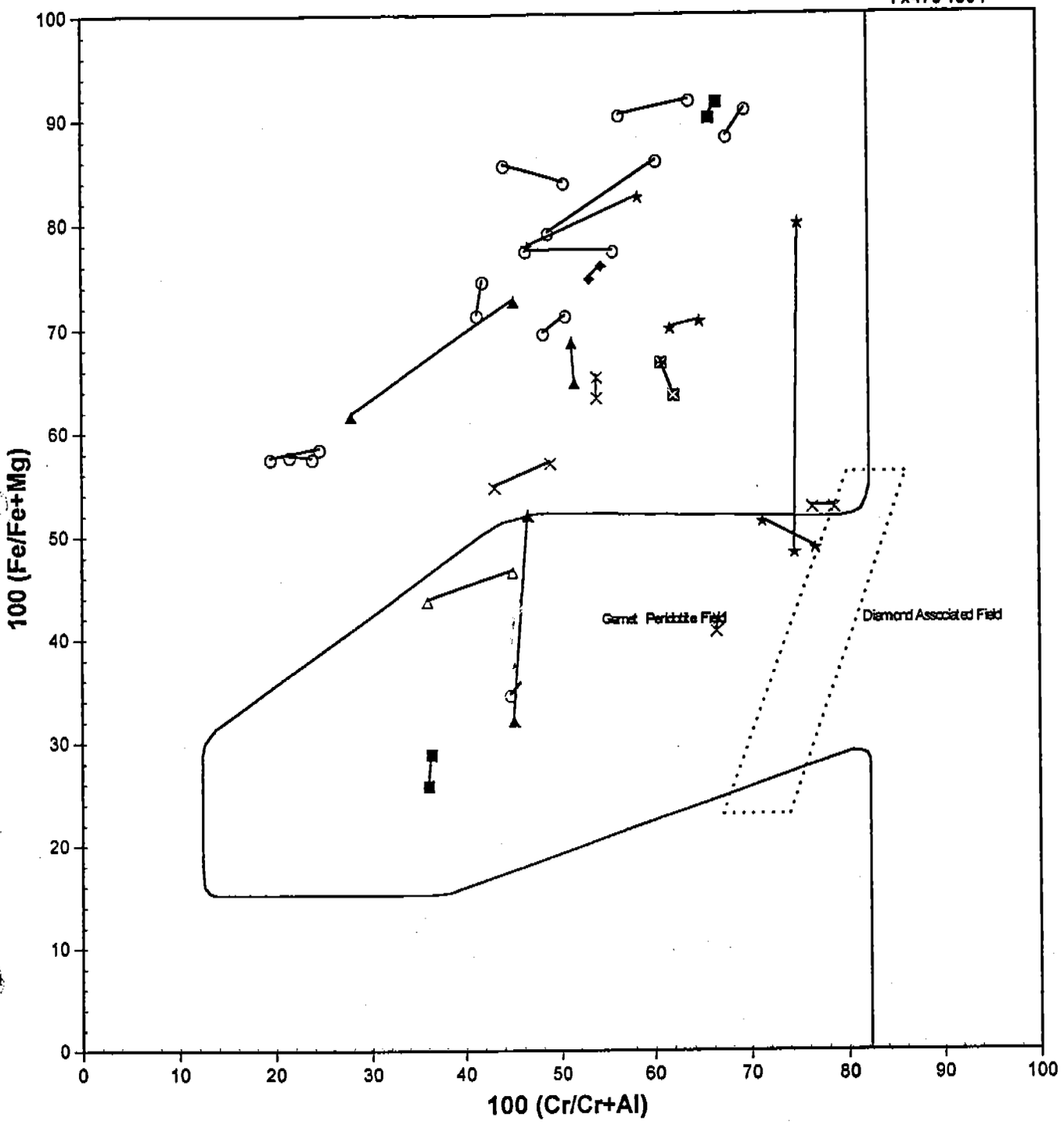
Fx470 1504

CHROMITE PLOT (Core/Rim data)



LEGEND

- Sobolevs line
- Transition Field
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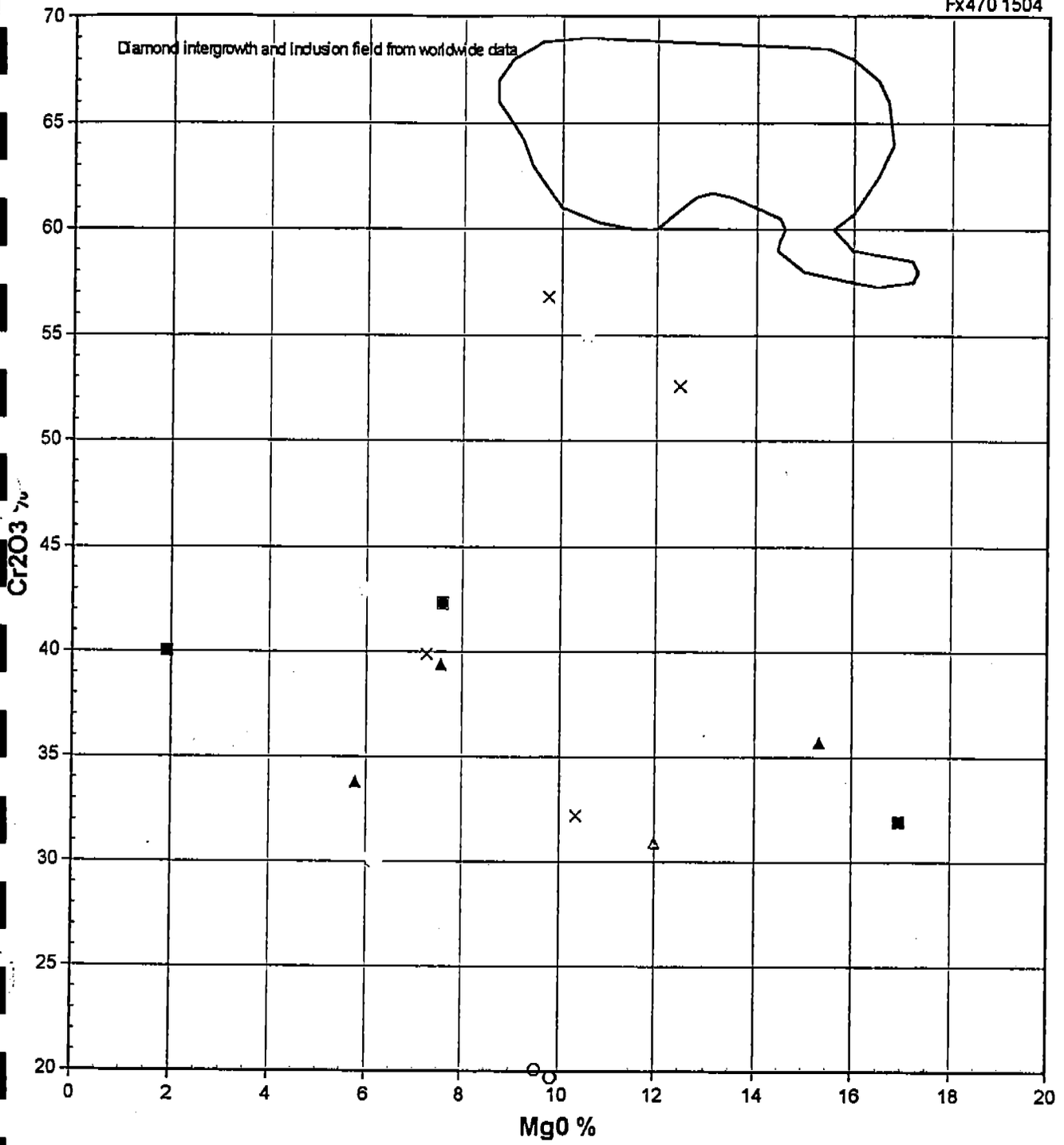
- 96-039:I +.25
- 96-039:M +.25
- 96-039:P +.25
- 96-039:P1 +.25
- 96-039:Q +.25
- 96-039:U +.25

DIATECH
Ph 361 2596
Fx470 1504

CHROMITE PLOT MgO vs Cr2O3



LEGEND

—— 96-039:P1 +.25 × 96-039:U +.25

▲ 96-039:B +.25 △ 96-039:P +.25 ■ 96-039:Q +.25

APPENDIX 4

Aboriginal Site Clearance Certificate and Registered sites

ABORIGINAL AREAS PROTECTION AUTHORITY

GPO BOX 1890
DARWIN NT 0801
TELEPHONE: (089) 81 4700
FACSIMILE: (089) 81 4169

16 AUG 1996

File: D89/199;90/715 ***In reply please quote:*** *20494*

12 August, 1996

Zephyr Minerals N.L.
4th Floor, Wesfarmers Building
40 The Esplanade
PERTH W.A. 6000

ATTENTION: GREG BEILBY

RE: ISSUE OF AUTHORITY CERTIFICATE FOR EXPLORATION DRILLING, KEEP RIVER LEASE

I refer to your application for an Authority Certificate, received on the 19 July 1996, for the above works.

Accordingly, under the powers delegated to me under Section 19 of the *Aboriginal Sacred Sites Act 1989* I am pleased to issue the attached Authority Certificate.

Please note carefully the conditions outlined in the Certificate. If you have any further queries regarding this Authority Certificate please contact Dr Andrew McWilliam at this office.

Yours faithfully

DAVID RITCHIE
Chief Executive Officer

encl.

ABORIGINAL AREAS PROTECTION AUTHORITY

AUTHORITY CERTIFICATE

Issued in accordance with Section 22 of the Aboriginal Sacred Sites Act

REFERENCE: D89/199;90/715 (Doc:20494) C96/145

APPLYING TO: Keep River Lease, as shown on the attached map.

PROPOSED WORK OR USE: Exploration drilling (to 50m)

ISSUED TO: Zephyr Minerals N.L.
4th Floor, Wesfarmers Building
40 The Esplanade
PERTH W.A. 6000

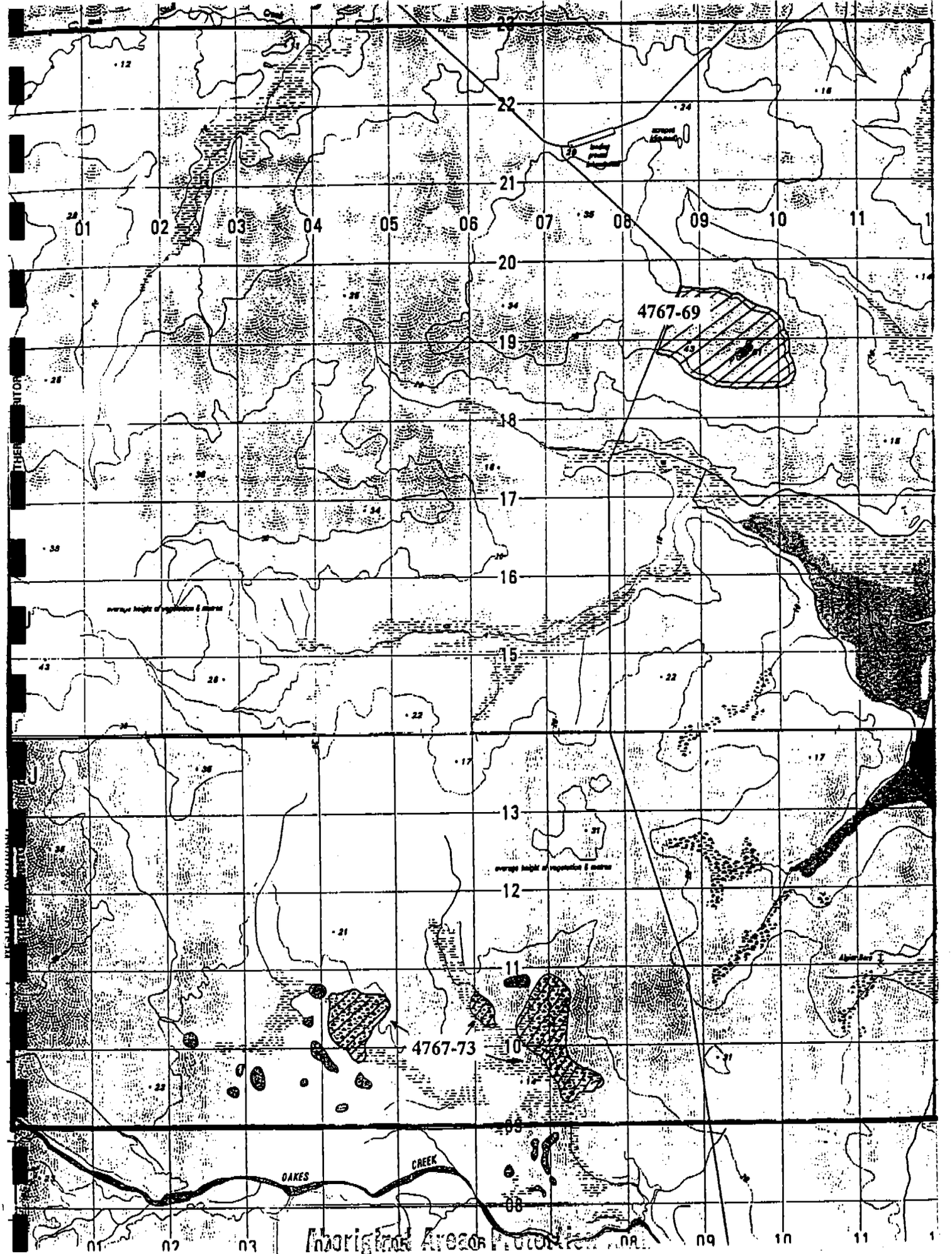
CONDITIONS:

1. It is the responsibility of the recipient of this Certificate to:
   (i) Include the conditions of this Certificate in any subsequent contract or tender document commissioning works described in this Certificate.
   (ii) Otherwise inform agents and employees of the conditions of this Certificate and obligations under the *Aboriginal Sacred Sites (NT) Act 1989.*
2. The proposed use or works covered by this Certificate must commence within 24 months of the date of issue.
3. The information on the map relates specifically to the area of the Certificate as marked and the fact that sites are not shown in other areas should not be taken as a definitive indication of the existence or lack of existence of sites in these areas.
4. The map attached to the Certificate forms part of the Certificate.
5. No drilling or related earthworks within the areas marked on the accompanying map.

The COMMON SEAL of the
ABORIGINAL AREAS PROTECTION AUTHORITY
was hereto affixed on the 12th day of
August 1996

ABORIGINAL AREAS PROTECTION AUTHORITY
COMMON SEAL

DAVID RITCHIE
Chief Executive Officer



Aboriginal Areas Protection Act

MAP FORMING PART OF AUTHORITY CERTIFICATE C96/145

ISSUED TO Zephyr Minerals Ltd 12 8 96

ABORIGINAL AREAS PROTECTION AUTHORITY

GPO BOX 1890
DARWIN NT 0801
TELEPHONE: (089) 81 4700
FACSIMILE: (089) 81 4169

File: 90/709

In Reply Please Quote: 19958 03 JUL 1996

27 June, 1996

Zephyr Minerals NL
Post Office Box 7365
CLOISTERS SQUARE WA 6850

ATTENTION: B.S. KWIECIEN

RE: FAX DATED 20 JUNE, 1996 - EXPLORATION LICENCES IN KEEP RIVER AREA.

In addition to an earlier request regarding sites in the Keep River area, I have provided the following:

1. 2 x 1:100,000 copies of Keep and Legune transparent overlay.

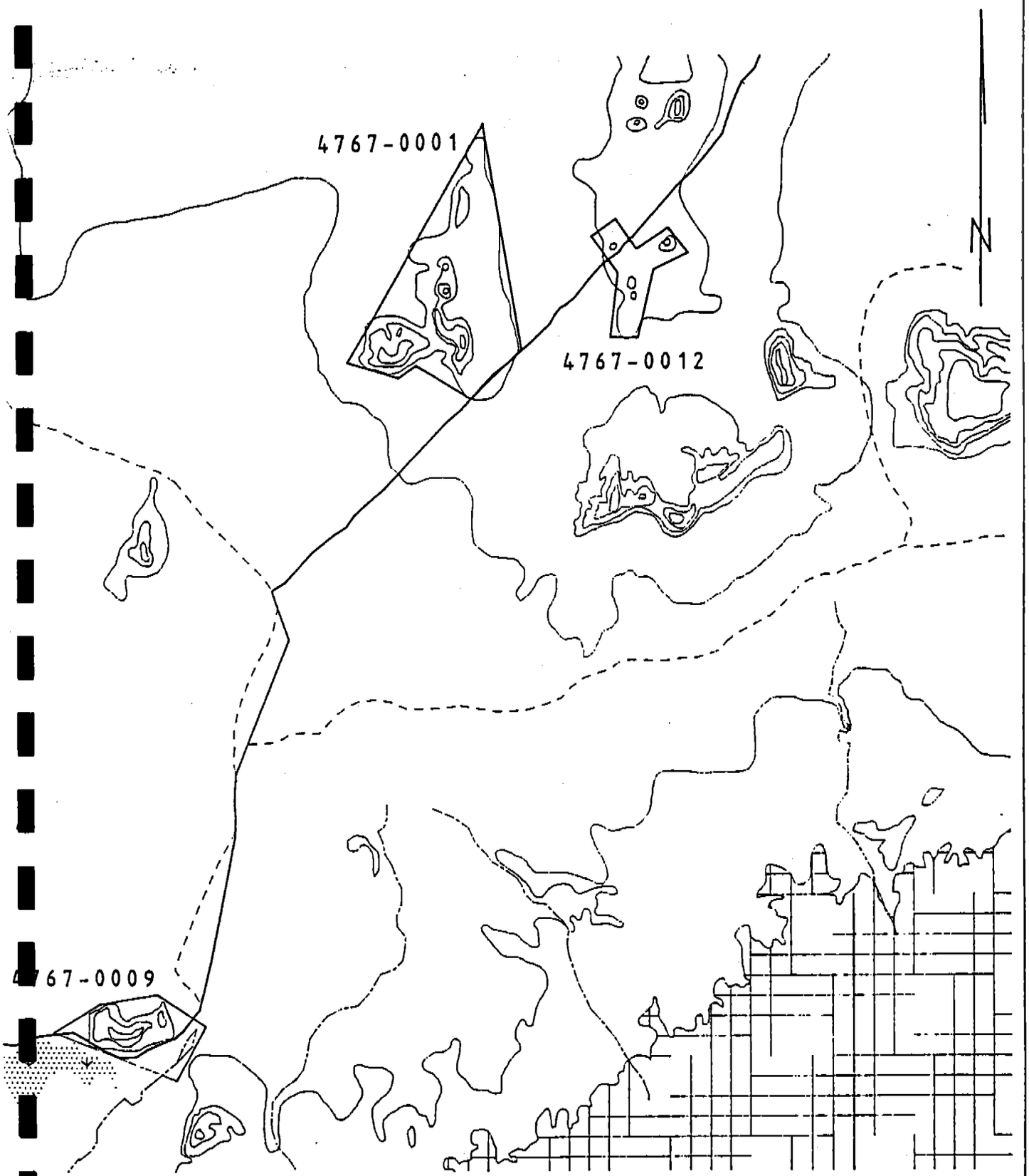
2. Digitised A4 copies of plans as depicted on overlays.

If you have any queries, please do not hesitate to contact Mr Barry Renshaw on 89 814700.

Yours faithfully

DAVID RITCHIE
Chief Executive Officer

Greg -
As requested.
The next phase is
the Aboriginal clearance
certificate at greater
cost -
B.



SITE CENTROID COORDINATES
4767-0001 530200E 8307400N
4767-0009 526250E 8298400N
4767-0012 532400E 8307800N
ZONE 52

SCALE 1:50000
1250 0 1250 2500 3750

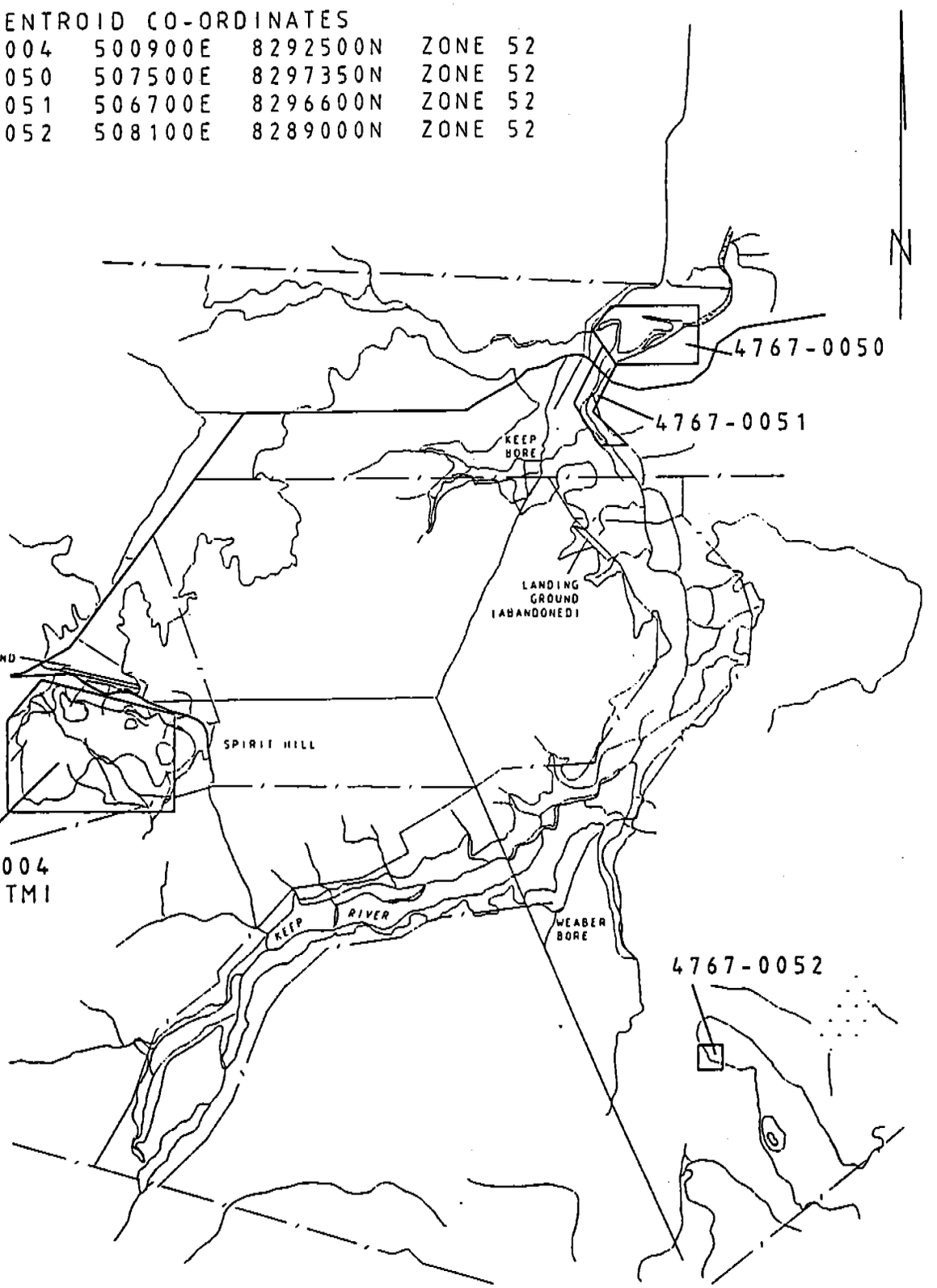
ABORIGINAL AREAS PROTECTION AUTHORITY

P92/63
LEGUNE SITES

4767-1,9,12

SITE CENTROID CO-ORDINATES

4767-0004	500900E	8292500N	ZONE 52
4767-0050	507500E	8297350N	ZONE 52
4767-0051	506700E	8296600N	ZONE 52
4767-0052	508100E	8289000N	ZONE 52



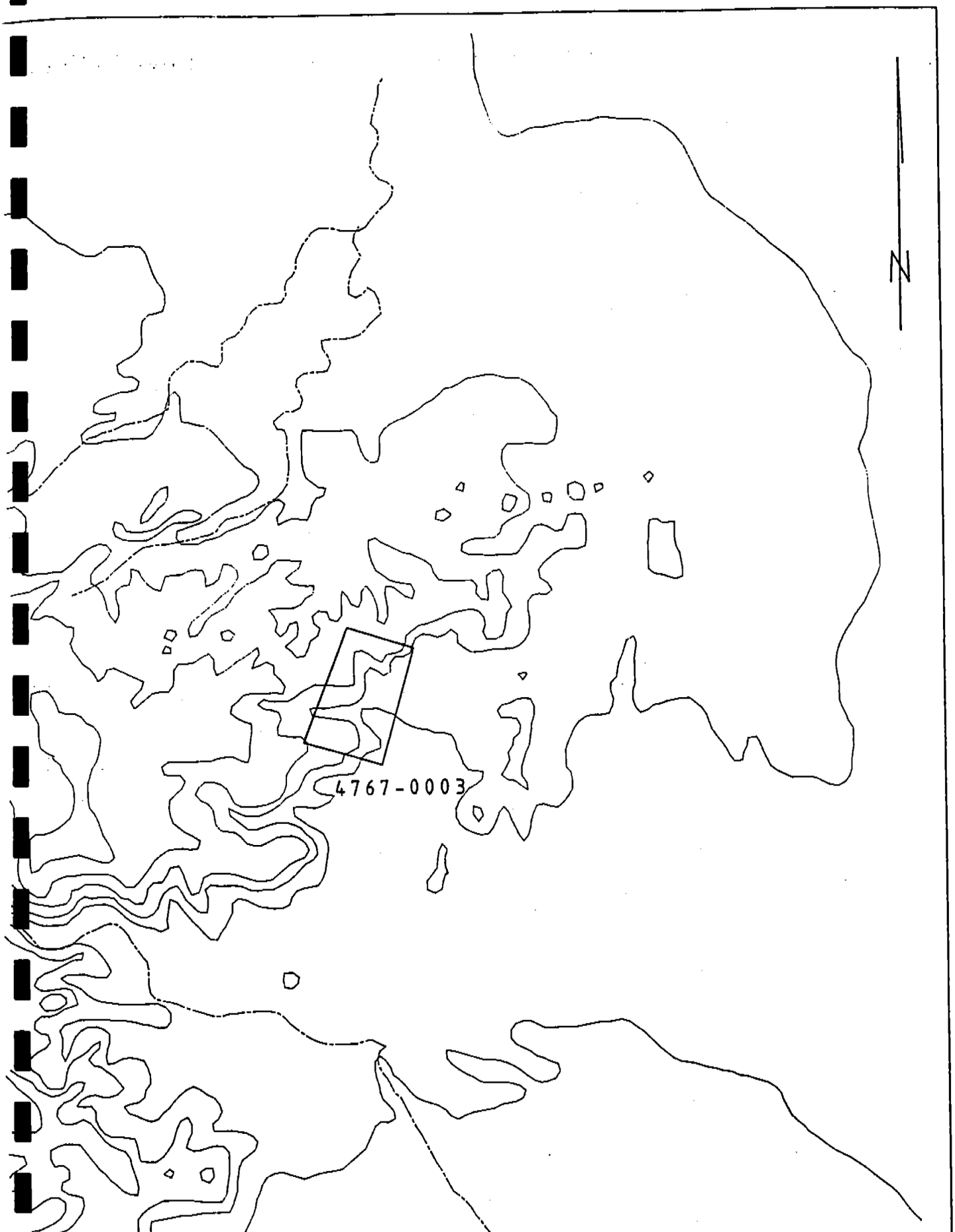
SCALE 1:50000

1250 0 1250 2500 3750

ABORIGINAL AREAS PROTECTION AUTHORITY

P94/075

4767-4,50,51,52



SITE CENTROID CO-ORDINATES
501800E 8300950N ZONE 52

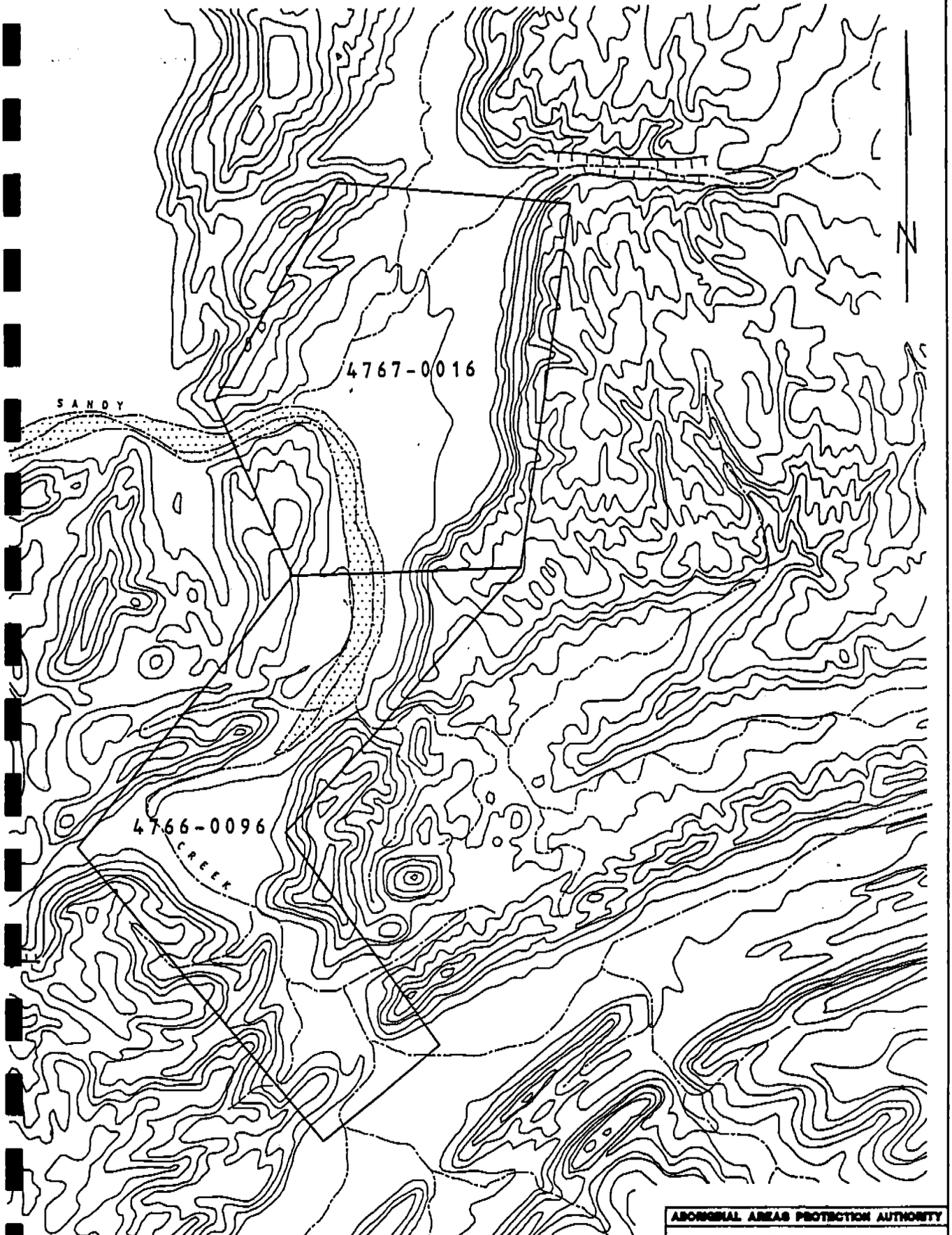
SCALE 1:20000
500 0 500 1000 1500

ABORIGINAL AREAS PROTECTION AUTHORITY

P92/109

KARLINGA

4767-0003



SITE CENTROID CO-ORDINATES
4767-0016 535550E 8287900N ZONE 52
4766-0096 534000E 8284200N ZONE 52

SCALE 1:30000

750 0 750 1500 2250

ABORIGINAL AREAS PROTECTION AUTHORITY

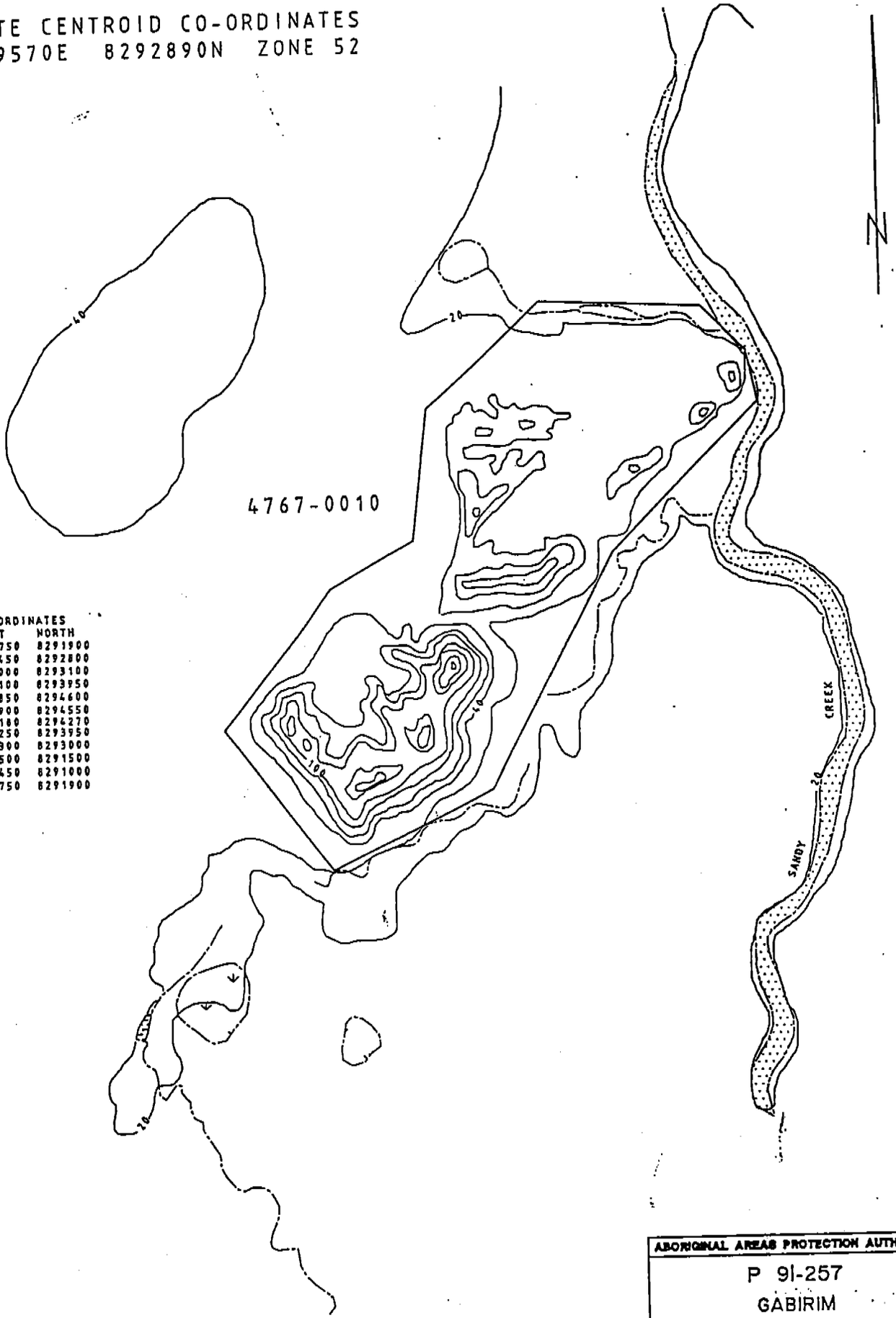
P92/110

LARRIN

KALWAJAPI

4767-0016,4766-0096

SITE CENTROID CO-ORDINATES
519570E 8292890N ZONE 52



CO-ORDINATES

EAST	NORTH
517750	8291900
518450	8292800
519000	8293100
519100	8293950
519850	8294600
520900	8294550
521180	8294270
521250	8293950
520300	8293000
519500	8291500
518450	8291000
517750	8291900

SCALE 1:25000

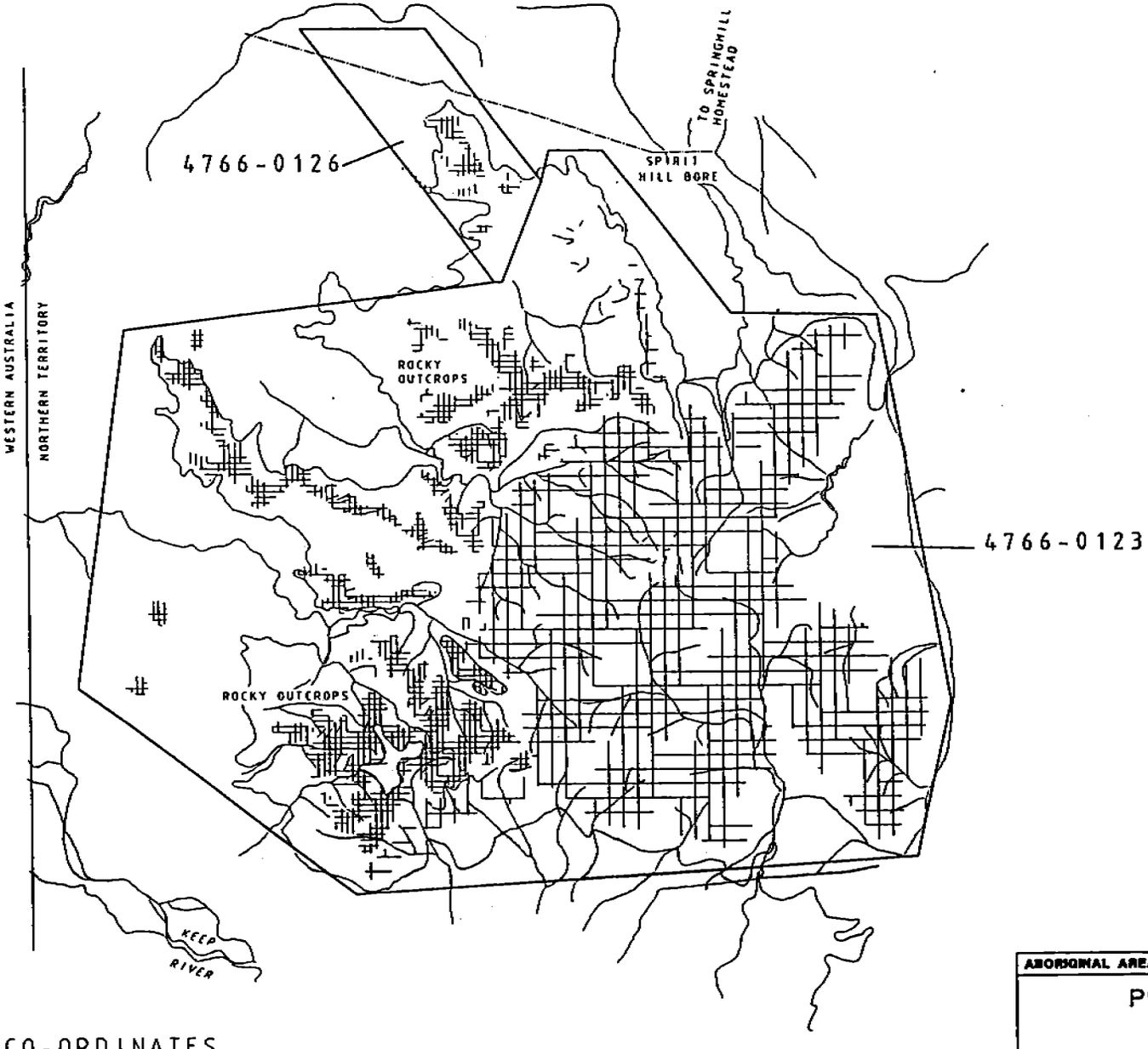
625 0 625 1250 1875

ABORIGINAL AREAS PROTECTION AUTHORITY

P 91-257

GABIRIM

4767-0010



SITE CENTROID CO-ORDINATES

4766-0123	505300E	8281300N	ZONE 52
4766-0126	505000E	8285600N	ZONE 52

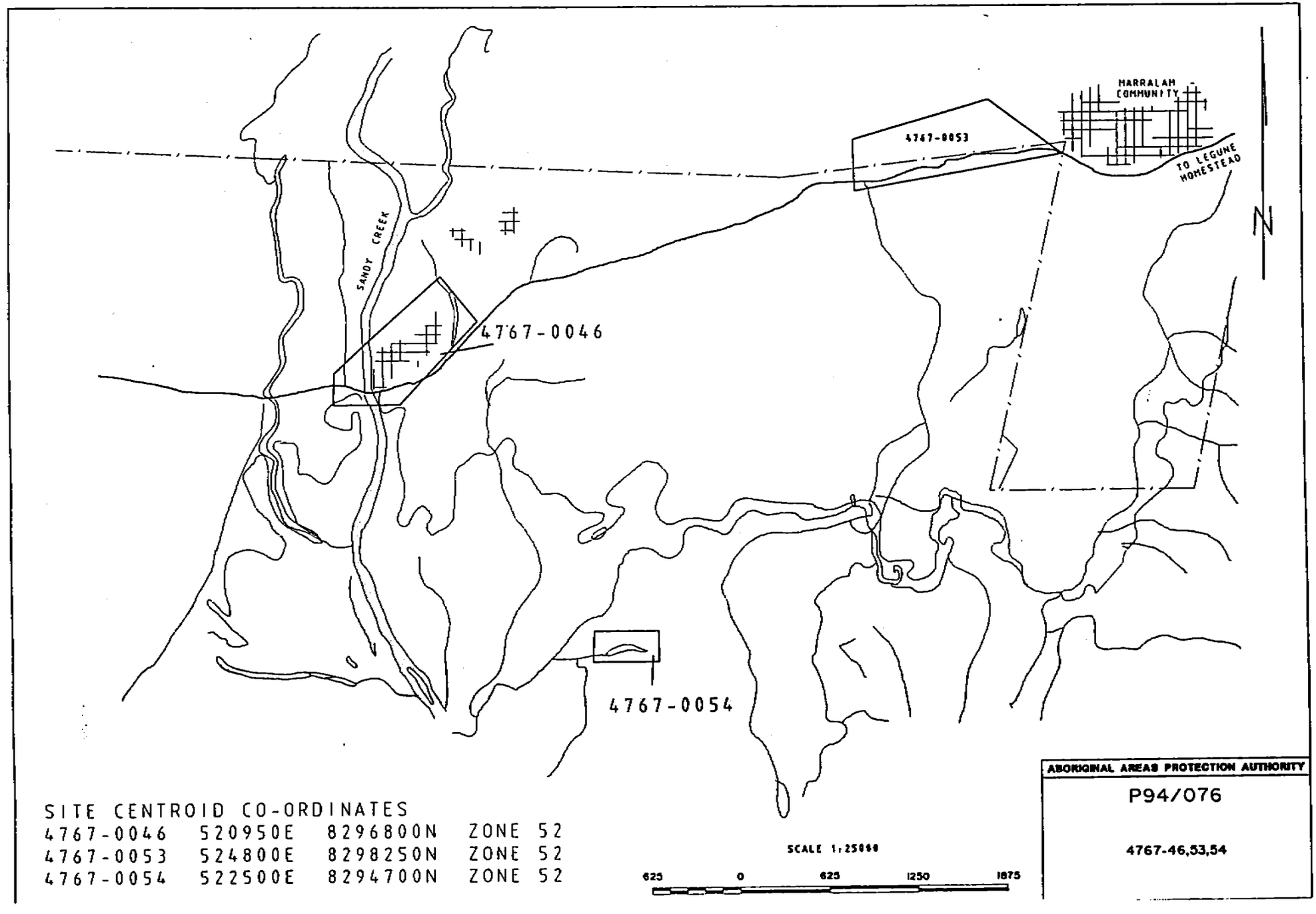
SCALE 1:50000

1250 0 1250 2500 3750

ABORIGINAL AREAS PROTECTION AUTHORITY

P94/078

4766-123,126



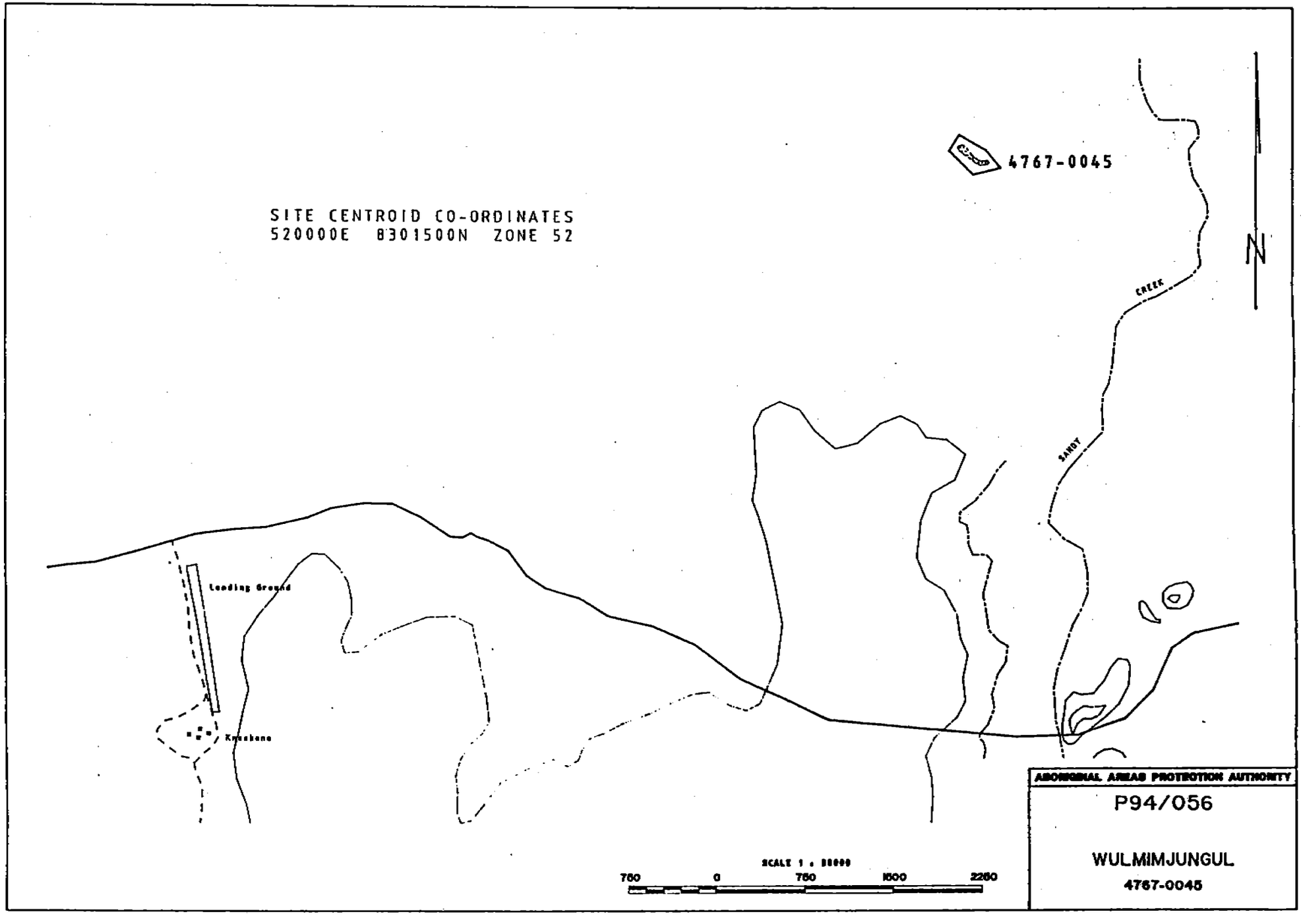
SITE CENTROID CO-ORDINATES

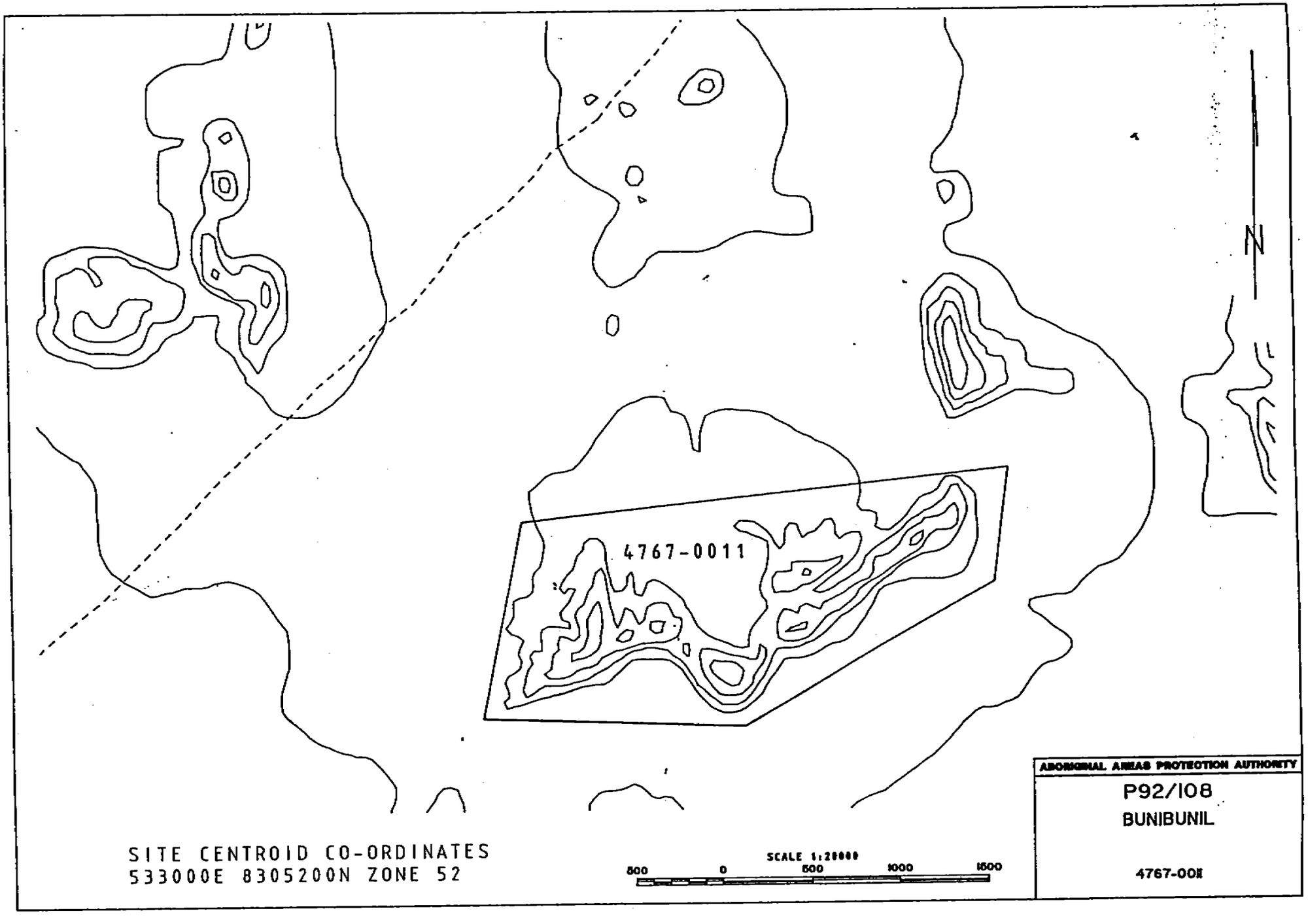
4767-0046	520950E	8296800N	ZONE 52
4767-0053	524800E	8298250N	ZONE 52
4767-0054	522500E	8294700N	ZONE 52

ABORIGINAL AREAS PROTECTION AUTHORITY

P94/076

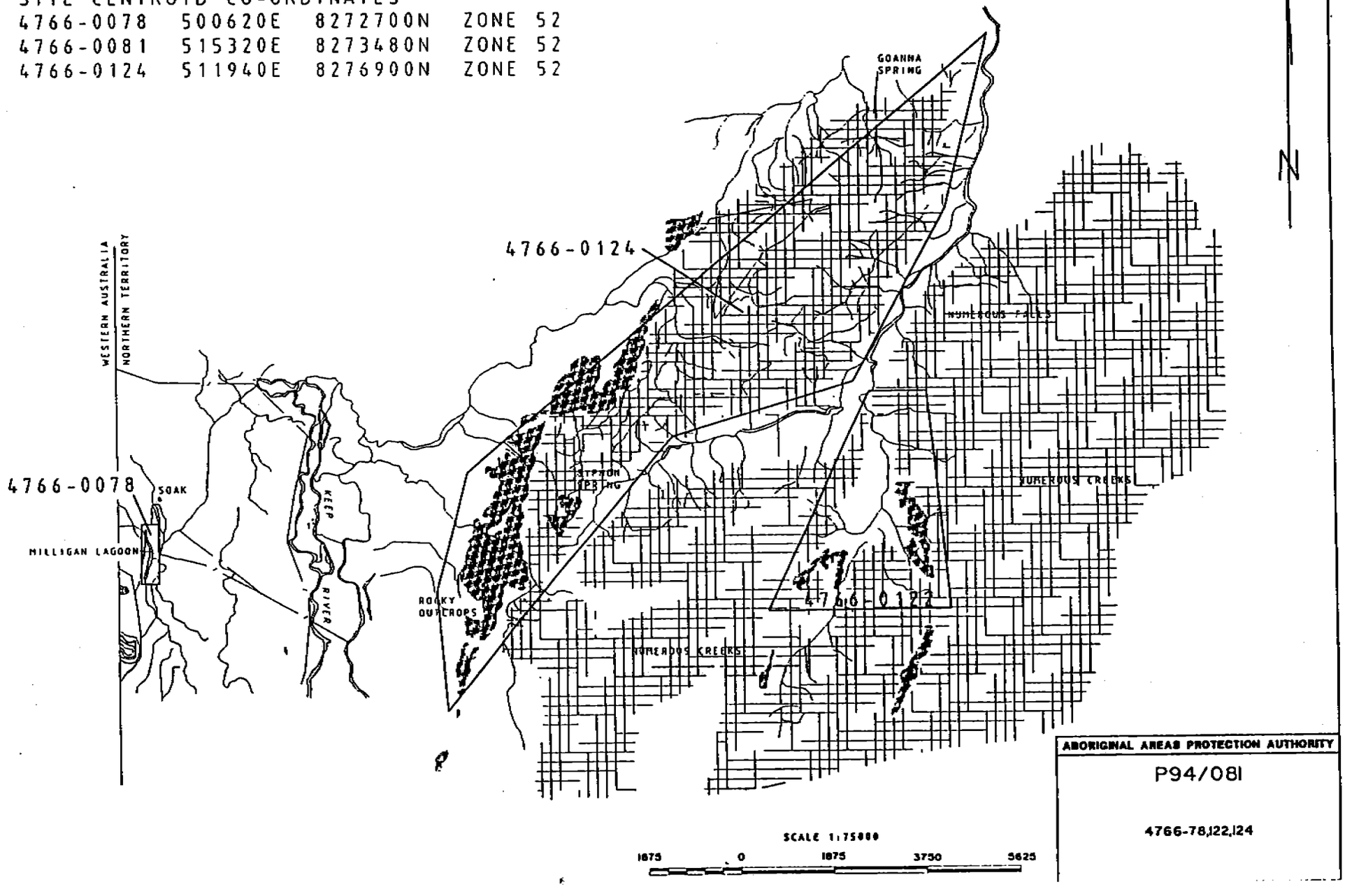
4767-46,53,54


4767-0045
SITE CENTROID CO-ORDINATES
520000E 8301500N ZONE 52
N
CREEK
SANDY
Loading Ground
Kunabana
SCALE 1 : 50000
750 0 750 1500 2250
ABORIGINAL AREAS PROTECTION AUTHORITY
P94/056
WULMIMJUNGUL
4767-0045


N
4767-0011
SCALE 1:20000
500 0 500 1000 1500
SITE CENTROID CO-ORDINATES
533000E 8305200N ZONE 52
ABORIGINAL AREAS PROTECTION AUTHORITY
P92/108
BUNIBUNIL
4767-001

SITE CENTROID CO-ORDINATES

4766-0078	500620E	8272700N	ZONE 52
4766-0081	515320E	8273480N	ZONE 52
4766-0124	511940E	8276900N	ZONE 52



ABORIGINAL AREAS PROTECTION AUTHORITY

P94/081

4766-78,122,124

APPENDIX 5

Ground Magnetic Survey sheets

TESLA - 10

A.C.N. 009 039 918

JOB NO.	CLIENT NAME	PROSPECT NAME	OPERATOR
	ZEPHYR MINERALS N.L.	KEEP RIVER	GB

READING INTERVAL	MAGNETOMETER SERIAL NO.	SENSOR HT.	BASE STATION COORD. N	BASE STATION COORD. E	GRID ORIENTATION

DATE	COMMENTS
25/8/96	SPOT MAGNETOMETER SURVEY

LINE COORD		G856 LINE	STARTING COORD		REC. NO	FINISHING COORD		REC. NO.	COMMENTS
5063500 ~~8322800~~	N		22800	N	0	23000	N	8	Area V
8322900	N		6325	E	9	6250	E	12	
8322900	N		6375	E	13	6450	E	16	
5097000 ~~8321800~~	N		21800	N	17	22000	N	25	Area KE 1
8321900	N		9675	E		9600	E	29	
8321900	N		9725	E	30	9800	E	33	
5090000 ~~8318600~~	E N		18600	N	34	18775	N	41	Area TI / KE-3
8318700	N		9025	E	42	9100	E	45	
8318700	N		8975	E	46	8900	E	49	
5057000 ~~8316400~~	N		16400	N	50	16600	N	58	Area KE-6
8316500	N		5675	E	59	5600	E	62	
8316500	N		5725	E	63	5800	E	66	

41 Kishorn Road, Applecross, Western Australia 6153
Telephone (09) 364 8444 Fcx (09) 364 6575

25/08/96

AREA V

0	238 071805	0	485702
0	238 071848	1	485185
0	238 071925	2	485288
0	238 071947	3	485360
0	238 072015	4	485273
0	238 072100	5	485257
0	238 072128	6	485260
0	238 072200	7	485330
0	238 072236	8	485337
0	238 072520	9	485168
0	238 072549	10	485486
0	238 072614	11	485296
0	238 072642	12	485267
0	238 072914	13	485404
0	238 072942	14	485067
0	238 073007	15	485272
0	238 073036	16	485254

AREA KE I

0	238 075803	17	486673
0	238 075847	18	485265
0	238 075917	19	485301
0	238 075947	20	485275
0	238 080015	21	485247
0	238 080105	22	485137
0	238 080131	23	485189
0	238 080156	24	485267
0	238 080223	25	485267
0	238 080510	26	485220
0	238 080542	27	485199
0	238 080613	28	485136
0	238 080643	29	485273
0	238 080917	30	485346
0	238 080944	31	485277
0	238 081016	32	485250
0	238 081043	33	485203

AREA T1/KE-3

0	238 083340	34	486434
0	238 083428	35	485288
0	238 083500	36	485350
0	238 083531	37	485356
0	238 083554	38	485358
0	238 083633	39	485326
0	238 083745	40	485331
0	238 083811	41	485352
0	238 084042	42	485417
0	238 084113	43	485373
0	238 084140	44	485382
0	238 084206	45	485365
0	238 084430	46	485486
0	238 084503	47	485373
0	238 084544	48	485405
0	238 084613	49	485375

AREA KE-6

0	238 090558	50	486635
0	238 090630	51	485537
0	238 090657	52	485531
0	238 090723	53	485571
0	238 090752	54	485569
0	238 090827	55	485583
0	238 090851	56	485575
0	238 090920	57	485564
0	238 090946	58	485574
0	238 091203	59	485577
0	238 091230	60	485551
0	238 091255	61	485556
0	238 091322	62	485534
0	238 091536	63	485630

0 238 091603 64 485563
0 238 091630 65 485592
0 238 091700 66 485604

TESLA - 10

A.C.N. 009 039 918

JOB NO.	CLIENT NAME	PROSPECT NAME	OPERATOR
	ZEPHYR MINERALS N.L.	KEEP RIVER	SFD

READING INTERVAL	MAGNETOMETER SERIAL NO.	SENSOR HT.	BASE STATION COORD.	BASE STATION COORD.	GRID ORIENTATION
20M.			831,800N	512000E	N-S

DATE	COMMENTS
23/08/96	

LINE COORD		G856 LINE	STARTING COORD	STARTING REC. NO	FINISHING COORD	FINISHING REC. NO.	COMMENTS
512,000	E		7980	1	6500	75	Base Station - Rec. No. 0
511,800	E		6500	76	8000N	151	Base Station - Rec. No. 152
511,800	E		8025N	153	8500	177	
511,700	E		8500N	178	8000	203	Base Station - Rec. No. 204
511,700	E		7980	205	6500	279	
511,600	E		6500	280	8000	355	
511,600	E		8020	356	8500N	380	Base Station - Rec. No. 381

41 Kishorn Road, Applecross, Western Australia 6153
Telephone (09) 364 8444 Fax (09) 364 6575

23/08/96

LINE 12000S (7980N - 6500N)

Baseline Stn. Reading - 0

Every 20 M. - interval

0	236	064223	0	485370
	236	064603	1	485635
	236	064643	2	485395
0	236	064728	3	485495
	236	064814	4	485279
	236	065404	5	485302
0	236	065452	6	485498
	236	065538	7	485367
	236	065628	8	485574
0	236	065709	9	485401
0	236	065739	10	485453
	236	065819	11	485341
	236	065843	12	485130
0	236	065910	13	485227
	236	065938	14	485122
	236	070011	15	485327
0	236	070221	16	485250
	236	070332	17	485537
	236	070429	18	485487
	236	070456	19	485327
0	236	070521	20	485481
	236	070606	21	484650
	236	070640	22	485726
0	236	070702	23	485264
	236	070731	24	485524
	236	070756	25	485630
0	236	070841	26	485228
	236	070901	27	485400
	236	070938	28	485642
	236	071058	29	485591
0	236	071124	30	485623
	236	071256	31	485329
	236	071341	32	485425
0	236	071434	33	485399
	236	071517	34	485582
	236	071547	35	485395
0	236	071640	36	485475
	236	071711	37	485422
	236	071736	38	485426
	236	071801	39	485451
0	236	071827	40	485563
	236	071924	41	485514
	236	072009	42	485465
0	236	072048	43	485487
	236	072144	44	485667
	236	072234	45	485478
	236	072405	46	485459
	236	072443	47	485397
	236	072532	48	485411
	236	072620	49	485466
0	236	072649	50	485373
	236	072737	51	485342
	236	072812	52	485722
0	236	072841	53	485422
	236	072925	54	485415
	236	072956	55	485157
	236	073025	56	485556
0	236	073126	57	485404
	236	073402	58	485827
	236	073432	59	485476
0	236	073454	60	485581
	236	073521	61	485488
	236	073548	62	485461
0	236	073613	63	485519

0	236	073634	64?483634/
	236	073753	65 485551/
0	236	073849	66?484714/
0	236	073922	67?485365/
	236	074012	68 485483/
	236	074147	69 485595/
0	236	074241	70 485515/
0	236	074413	71 485504/
	236	074443	72 485441/
0	236	074522	73 485456/
0	236	074603	74 485756//
	236	074700	75 485464/
0	236	075639	76?485380
0	236	080233	77?485378
	236	080326	78?485345
	236	080353	79?485356
0	236	080425	80?485334
0	236	080507	81?485366
	236	080533	82 485432
0	236	080614	83?485268
0	236	080637	84?485262
	236	080727	85 485459
	236	081428	86 485507
0	236	081602	87 485428
	236	081629	88?485333
	236	081657	89?485367
0	236	081716	90?485420
0	236	081746	91?485358
	236	081817	92?485377
0	236	081837	93?485379
0	236	081945	94 485501
	236	082008	95?485427
	236	082031	96?485375
0	236	082052	97?485366
0	236	082119	98?485425
	236	082148	99 485637
0	236	082256	100 485292
0	236	082325	101?485387
	236	082410	102?485284
0	236	082447	103?485436
0	236	082502	104?485322
	236	082541	105 485533
	236	082604	106?485365
0	236	082726	107 485690
0	236	082753	108 485485
	236	082848	109 485419
0	236	082915	110?485650
0	236	082956	111?485452
	236	083046	112?485352
	236	083113	113?485468
0	236	083157	114 486225
	236	083242	115 485699
	236	083306	116?485554
0	236	083414	117?485478
0	236	083539	118?485059
	236	083602	119?485262
0	236	083626	120?485364
0	236	083645	121?485338
	236	083933	122 485480
	236	084006	123 486147
0	236	084046	124?485396
0	236	084127	125?485344
	236	084150	126?485511
0	236	084230	127 487891

LINE 11800 S (6500N → 8000N)

0 236 084254 128?485295
0 236 084342 129?485328
0 236 084409 130?485442
0 236 084453 131?485071
0 236 084625 132 485366
0 236 084653 133 485493
0 236 084741 134 485490
0 236 084809 135 485510
0 236 084836 136 485534
0 236 085024 137 485567
0 236 085059 138 485704
0 236 085137 139 485629
0 236 085201 140 485539
0 236 085222 141?485431
0 236 085406 142?485349
0 236 085431 143?485123
0 236 085456 144?485184
0 236 085535 145 486202
0 236 085604 146 485509
0 236 085736 147 485226
0 236 085814 148 485281
0 236 085839 149 485687
0 236 085901 150 485710
0 236 085927 151 484872
0 236 090331 152?485222 - Base Line Stn. Reading

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0 236 092157 153 485563 LINE 11800 N (8025N → 8500N)
0 236 092306 154 485567
0 236 092347 155 485191
0 236 092430 156 485443
0 236 092452 157 486323
0 236 092530 158 486379
0 236 093028 159 485638
0 236 093124 160 485343
0 236 093224 161 485414
0 236 093253 162?485373
0 236 094018 163 485149
0 236 094054 164 485862
0 236 094122 165 485799
0 236 094157 166?485315
0 236 094222 167 485359
0 236 094331 168 485481
0 236 094353 169 485484
0 236 094421 170 485457
0 236 094533 171 485510
0 236 094628 172 485464
0 236 094713 173?485365
0 236 094742 174?485312
0 236 094819 175 485453
0 236 094853 176 485522
0 236 095033 177?485272

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0 236 100836 178 485477 LINE 11700 N (8500N → 8000N)
0 236 101146 179 485581
0 236 101230 180 485569
0 236 101312 181 485487
0 236 101414 182?485414
0 236 101531 183?485431
0 236 101604 184?485601
0 236 101627 185?485410
0 236 101652 186 485610
0 236 101822 187 485386
0 236 101916 188 485619
0 236 101946 189 485438
0 236 102012 190 485592
0 236 102139 191 485800

0	236	102234	192	485531
0	236	102305	193	485266
0	236	102330	194	485387
0	236	102352	195	485198
0	236	102417	196	485603
0	236	102447	197	485612
0	236	102509	198	485675
0	236	102632	199	486190
0	236	102659	200?	485415
0	236	102734	201	485605
0	236	102814	202	485465
0	236	103043	203	485680
0	236	103740	204?	485423
0	236	105431	205	485694
0	236	105519	206	485344
0	236	105539	207	485582
0	236	105601	208	485549
0	236	105648	209	485514
0	236	105819	210	485448
0	236	105909	211	485626
0	236	110004	212	485675
0	236	110119	213	485410
0	236	110146	214	485447
0	236	110546	215	485652
0	236	110634	216	485600
0	236	110731	217	485817
0	236	110758	218	485570
0	236	110845	219	485664
0	236	110942	220	485569
0	236	111010	221	485635
0	236	111035	222	485563
0	236	111100	223	485414
0	236	111122	224	485475
0	236	111328	225	485606
0	236	111354	226	485344
0	236	111419	227	485794
0	236	111504	228	485324
0	236	111528	229	485212
0	236	111551	230	485625
0	236	111617	231	485741
0	236	111644	232	485426
0	236	111712	233	485669
0	236	111822	234	485570
0	236	111856	235	485326
0	236	111928	236	485560
0	236	111948	237	485191
0	236	112012	238	485643
0	236	112045	239	485548
0	236	112446	240	485732
0	236	112542	241	485569
0	236	112600	242	485418
0	236	112641	243	485455
0	236	112716	244	485550
0	236	112852	245	485172
0	236	112940	246	485629
0	236	113006	247	485543
0	236	113053	248	485590
0	236	113122	249	485494
0	236	113233	250	485506
0	236	113302	251	485546
0	236	113325	252	485517
0	236	113405	253	485513
0	236	113721	254	485600
0	236	114609	255	485597

- Base Line Stn. Reading

LINE 11700 (S) (7950N – 6500N)

0	236	114637	256	485612
	236	114720	257	485583
0	236	114751	258	485612
0	236	114840	259	485587
	236	114907	260	485557
0	236	114938	261	485524
0	236	115048	262	485643
	236	115115	263	485591
	236	115141	264	485557
0	236	115833	265?	485436
0	236	115906	266	485461
	236	120019	267	485529
0	236	120046	268	485469
0	236	120144	269	485616
	236	120241	270	485514
	236	120332	271	485529
0	236	120401	272	485522
	236	120452	273	485547
	236	120542	274	485577
0	236	120652	275	485495
0	236	120743	276	485650
	236	120852	277	485643
0	236	120948	278	485526
0	236	121136	279	485710
	236	122442	280	485485
	236	122617	281	485337
0	236	122717	282	485341
	236	122744	283	485352
	236	122833	284	485371
0	236	122923	285	485346
0	236	123013	286	485399
	236	123059	287	485368
0	236	123149	288	485362
0	236	123216	289	485393
	236	123313	290	485386
	236	123341	291	485343
0	236	123431	292	485399
0	236	123520	293	485373
	236	123558	294	485401
0	236	123634	295	485435
0	236	123808	296	485370
	236	123841	297	485381
	236	123910	298	485380
0	236	123957	299?	485185
	236	124031	300?	485286
	236	124142	301	485304
0	236	124237	302	485277
0	236	124312	303?	485238
	236	124405	304?	485233
0	236	124458	305?	485180
0	236	124539	306?	485192
	236	124607	307	485305
	236	124648	308	485286
0	236	124717	309	485296
0	236	124804	310	485327
	236	124834	311	485314
0	236	124920	312?	485290
0	236	124944	313?	485213
	236	125402	314	485316
	236	125430	315	486111
0	236	125525	316	485406
	236	125550	317	485465
	236	125649	318?	485350
0	236	125736	319?	485292

LINE 116005 (6500N → 8000N)

0 236 125804 320?485196
0 236 125836 321?484587
0 236 125927 322?485160
0 236 130013 323?485350
0 236 130040 324?485281
0 236 130106 325?485317
0 236 130145 326?485277
0 236 130225 327?485244
0 236 130253 328?485268
0 236 130347 329?485208
0 236 130414 330?485002
0 236 130600 331 485093
0 236 130633 332 485353
0 236 130716 333?484825
0 236 130742 334?485256
0 236 130812 335 485267
0 236 130840 336 485348
0 236 130927 337 485356
0 236 130955 338 485273
0 236 131041 339?485230
0 236 131113 340 485306
0 236 131222 341 485199
0 236 131313 342 485239
0 236 131400 343?485314
0 236 131436 344 485214
0 236 131701 345 485326
0 236 131833 346 485359
0 236 131941 347 485216
0 236 132046 348 485465
0 236 132112 349 485248
0 236 133011 350 484937
0 236 133558 351 485143
0 236 133630 352?484921
0 236 133657 353 485474
0 236 133744 354?485250
0 236 133952 355?484761

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0 236 134508 356?484968
0 236 134624 357 485008 LINE 11600 N (8020 N → 8500N)
0 236 134705 358?484880
0 236 134744 359 485353
0 236 134828 360?484827
0 236 134902 361 484779
0 236 134930 362 485092
0 236 135017 363?484627
0 236 135144 364 485290
0 236 135219 365?484934
0 236 135252 366?485137
0 236 135342 367?484971
0 236 135425 368?485072
0 236 135543 369 485046
0 236 135632 370?484897
0 236 135712 371 484913
0 236 135748 372?484915
0 236 135820 373?484955
0 236 135900 374 484920
0 236 135942 375?484972
0 236 140057 376 484863
0 236 140136 377?484981
0 236 140202 378 484935
0 236 140309 379?484871
0 236 140346 380 484963
0 236 141750 381 484918 - Base Line Stn. Reading

TESLA - 10

A.C.N. 009 039 918

JOB NO.	CLIENT NAME	PROSPECT NAME	OPERATOR
	ZEPHYR MINERALS N.L.	KEEP RIVER	SFD

READING INTERVAL	MAGNETOMETER SERIAL NO.	SENSOR Ht.	BASE STATION COORD.	BASE STATION COORD.	GRID ORIENTATION
20 m.			8318000N	512000E	N-S

DATE	COMMENTS
22/08/96	

LINE COORD		G856 LINE	STARTING COORD		STARTING REC. NO	FINISHING COORD		FINISHING REC. NO.	COMMENTS
512000	E		8000	N	1	8500	N	26	
511900	E		8500	N	27	8000	N	52	Base Station - Rec. No. 53
511900	E		7980		54	6500		128	Rec. Nos. 129 & 130 = 128
									Base Station - Rec. No. 131

41 Kishorn Road, Applecross, Western Australia 6153
Telephone (09) 364 8444 Fax (09) 364 6575

22/08/95

LINE 12000-N (8000N → 8500N)

Every 20 M. - interval

0	228	090551	0	666667
0	235	114358	1	485217
0	235	114454	2	485248
0	235	114627	3	485253
0	235	114718	4	484898
0	235	114930	5	485256
0	235	115107	6	485320
0	235	115706	7	485224
0	235	115817	8	485127
0	235	115914	9	484950
0	235	120012	10	484944
0	235	120110	11	485086
0	235	120217	12	485120
0	235	120511	13	485093
0	235	120604	14	485625
0	235	120743	15	485114
0	235	120847	16	485062
0	235	120947	17	485141
0	235	121039	18	485086
0	235	121142	19	485035
0	235	121250	20	485159
0	235	121449	21	485173
0	235	121556	22	485212
0	235	121717	23	485106
0	235	121836	24	485139
0	235	121949	25	485115
0	235	122120	26	485177

LINE 11900-N (8500N → 8000N)

0	235	124230	27	485179
0	235	124549	28	485263
0	235	124714	29	485229
0	235	124839	30	485164
0	235	124948	31	485199
0	235	125106	32	485235
0	235	125225	33	485210
0	235	125324	34	485191
0	235	125438	35	485151
0	235	125624	36	485185
0	235	125717	37	485123
0	235	125808	38	485224
0	235	125927	39	485319
0	235	130043	40	485234
0	235	131148	41	484884
0	235	131241	42	485439
0	235	131345	43	485214
0	235	131530	44	485359
0	235	131638	45	485998
0	235	131746	46	485025
0	235	131906	47	485148
0	235	132029	48	485166
0	235	132134	49	485412
0	235	132300	50	485369
0	235	132359	51	485189
0	235	132441	52	485132
0	235	132659	53	485196 Base Reading

LINE 11900-S (7950N → 6500N)

0	235	134348	54	485148
0	235	134449	55	485201
0	235	134606	56	485055
0	235	134701	57	485154
0	235	134800	58	485199
0	235	134903	59	485174
0	235	135003	60	485388
0	235	135104	61	485221
0	235	135200	62	485304
0	235	135303	63	485285

[redacted]	235	135612	64	485058
[redacted]	235	135657	65	485167
[redacted]	235	135753	66	485215
[redacted]	235	135851	67	485247
[redacted]	235	140001	68	485254
[redacted]	235	140118	69	485162
[redacted]	235	140218	70	485343
[redacted]	235	140335	71	484976
[redacted]	235	140425	72	485337
[redacted]	235	140516	73	485162
[redacted]	235	140729	74	484906
[redacted]	235	140826	75	485372
[redacted]	235	140910	76	485263
[redacted]	235	141026	77	485172
[redacted]	235	141130	78	485194
[redacted]	235	141208	79	485802
[redacted]	235	141252	80	485265
[redacted]	235	141348	81	485581
[redacted]	235	141427	82	485123
[redacted]	235	141507	83	485896
[redacted]	235	141609	84	485653
[redacted]	235	141648	85	485322
[redacted]	235	141750	86	485018
[redacted]	235	141855	87	485142
[redacted]	235	141949	88	485119
[redacted]	235	142054	89	485198
[redacted]	235	142145	90	485339
[redacted]	235	142228	91	485290
[redacted]	235	142347	92	485152
[redacted]	235	142503	93	485084
[redacted]	235	142654	94	485347
[redacted]	235	142806	95	485151
[redacted]	235	142931	96	485308
[redacted]	235	143048	97	485357
[redacted]	235	143206	98	485244
[redacted]	235	143307	99	485049
[redacted]	235	143419	100	485118
[redacted]	235	143501	101	485238
[redacted]	235	143559	102	485203
[redacted]	235	143709	103	485155
[redacted]	235	143826	104	485166
[redacted]	235	144031	105	485266
[redacted]	235	144124	106	485351
[redacted]	235	144218	107	485310
[redacted]	235	144329	108	485338
[redacted]	235	144443	109	484951
[redacted]	235	144632	110	485231
[redacted]	235	144737	111	485180
[redacted]	235	144842	112	484999
[redacted]	235	144932	113	485145
[redacted]	235	145041	114	485201
[redacted]	235	145150	115	485123
[redacted]	235	145300	116	485301
[redacted]	235	145357	117	485344
[redacted]	235	145451	118	485193
[redacted]	235	145604	119	485167
[redacted]	235	145730	120	485155
[redacted]	235	145830	121	485131
[redacted]	235	145909	122	485142
[redacted]	235	150008	123	485173
[redacted]	235	150123	124	485234
[redacted]	235	150207	125	485174
[redacted]	235	150301	126	485270
[redacted]	235	150353	127	485211

[redacted]

0 235 150437 128 485143
0 235 150446 129 485142 } 3X Readings
0 235 150518 130 485157
0 235 153449 131?486560 Baseline Reading

TESLA - 10

A.C.N. 009 039 918

JOB NO.	CLIENT NAME	PROSPECT NAME	OPERATOR
	ZEPHYR MINERALS N.L.	KEEP RIVER	SED/GB

READING INTERVAL	MAGNETOMETER SERIAL NO.	SENSOR HT.	BASE STATION COORD.	BASE STATION COORD.	GRID ORIENTATION
25 M.			8318000N	512000E	N-S

DATE	COMMENTS
24/8/96	

LINE COORD		G856 LINE	STARTING COORD	STARTING REC. NO	FINISHING COORD	FINISHING REC. NO.	COMMENTS
511500	E		7975	1	6500	60	Base Station - Rec. No. 0
511400	E		6500	61	8000	121	
511300	E		8000	122	6500	182	
511200	E		6500	183	8000	243	
511100	E		8000	244	6500	304	
511000	E		6500	305	8002	365	
511000	E		8025N	366	8502N	385	
511100	E		8500	386	8025	405	Baseline Stn. - Rec. No. 406
511200	E		8025N	407	8500N	426	
511300	E		8500N	427	8025N	446	
511400	E		8025N	447	8500N	466	
511500	E		8500N	467	8025	486	

41 Kishorn Road, Applecross, Western Australia 6153
Telephone (09) 364 8444 Fax (09) 364 6575

LINE 11500-S (7975N → 6500N)

Every 25-M interval

Base Line Stn. Reading - 0

0	237 065219	0	485579
	237 065635	1	485567
0	237 065706	2	485290
0	237 065736	3	484995
	237 065805	4	485247
	237 065940	5	485481
0	237 070008	6	485541
	237 070105	7	485417
	237 070154	8	485293
0	237 070222	9	485012
0	237 070304	10	484988
	237 070346	11	485465
0	237 070614	12	485363
0	237 070642	13	484537
	237 070733	14?	484497
	237 070843	15	485260
0	237 070928	16	485136
0	237 070957	17	485524
	237 071027	18	485537
0	237 071055	19?	485213
0	237 071153	20	485295
	237 071222	21	485201
0	237 071303	22	485192
0	237 071346	23	485324
	237 071415	24	485410
	237 071506	25	485248
0	237 071536	26?	485230
0	237 071615	27	485362
	237 071644	28	485278
0	237 071820	29	485337
0	237 071849	30	485289
	237 071931	31	485320
0	237 071959	32	485266
0	237 072039	33	485469
	237 072248	34	485310
	237 072326	35	485339
0	237 072356	36	485318
0	237 072440	37	485344
	237 072522	38	485401
0	237 072554	39	485273
0	237 072626	40	485333
	237 072818	41	485422
	237 072901	42	485382
0	237 072932	43	485333
	237 073020	44	485337
	237 073051	45	485343
0	237 073150	46	485301
0	237 073219	47	485722
	237 074020	48	485306
0	237 074232	49	485349
0	237 074341	50	485364
	237 074423	51?	483990
	237 074456	52?	484759
0	237 074631	53	485327
0	237 074721	54	485298
	237 074809	55	485373
0	237 074839	56	485368
0	237 074928	57	485285
	237 075126	58	485271
0	237 075303	59	485485
0	237 075335	60	485378
	237 075943	61	485303
	237 080413	62?	485150
0	237 080504	63?	485226

LINE 11400-N (6500N → 8000N)

0	237	080601	64 485252
	237	080644	65?485197
0	237	080746	66?485163
0	237	080817	67 485294
	237	080932	68?485189
	237	081003	69?485128
0	237	081057	70 485234
	237	081224	71 485224
	237	081345	72 485203
0	237	081434	73 485189
0	237	081610	74 485228
	237	081704	75 485217
0	237	081806	76?485176
0	237	081837	77 485266
	237	081925	78?485157
	237	082000	79?485108
0	237	082032	80?485057
0	237	082111	81?485013
	237	082157	82?485063
0	237	082236	83?484911
0	237	082306	84?484962
	237	082337	85?484910
0	237	082405	86?484956
0	237	082433	87?484933
	237	082521	88?485107
	237	082550	89?485120
0	237	082644	90 485206
0	237	082711	91 485230
	237	082757	92?485153
0	237	082825	93?485234
0	237	082927	94 485295
	237	082956	95?485286
0	237	083023	96?485179
0	237	083048	97?484755
	237	083120	98?485174
	237	083410	99?485334
0	237	083451	100?485191
0	237	083541	101?485002
	237	083733	102?485214
0	237	083828	103?485311
0	237	083901	104 485559
	237	083951	105?485091
	237	084030	106 485321
0	237	084212	107 485087
	237	084238	108 485432
	237	084426	109 485151
0	237	084530	110 485132
0	237	084559	111 485199
	237	084649	112 485202
0	237	084722	113?484937
0	237	084751	114?485305
	237	084815	115 485049
	237	084903	116?485149
0	237	085435	117?485287
0	237	085503	118?485114
	237	085541	119?484105
0	237	085637	120?485330
0	237	085723	121 485182
	237	091459	122 485367
	237	091735	123 485337
0	237	091901	124 485332
	237	091956	125 485205
	237	092042	126 485295
0	237	092209	127 485303

LINE 11300-S (5000N → 6500N)

0	237	092250	128	485498
	237	092400	129	485244
0	237	092430	130	?485163
0	237	092532	131	485380
	237	092556	132	485372
0	237	092631	133	485296
0	237	092654	134	484938
	237	092718	135	485381
	237	092747	136	485275
0	237	092817	137	485368
0	237	092844	138	485282
	237	093018	139	485308
0	237	093053	140	?485158
0	237	093138	141	?485254
	237	093210	142	?484936
	237	093310	143	485413
0	237	093340	144	485451
	237	093405	145	485258
	237	093437	146	485157
0	237	093547	147	485269
0	237	093615	148	485344
	237	093643	149	485342
0	237	093733	150	485300
0	237	093854	151	485204
	237	093927	152	485259
	237	094009	153	485363
0	237	094035	154	485408
0	237	094158	155	485264
	237	094241	156	485356
0	237	094304	157	485440
0	237	094514	158	485412
	237	094557	159	485342
0	237	094643	160	485333
0	237	094729	161	485719
	237	094801	162	485552
	237	094918	163	485276
0	237	094949	164	?485253
0	237	095035	165	485335
	237	095108	166	485355
0	237	095239	167	?485536
0	237	095325	168	?485201
	237	095355	169	485347
	237	095445	170	485399
0	237	095557	171	485398
	237	095650	172	485408
	237	095720	173	485387
0	237	095809	174	485625
0	237	095844	175	485349
	237	095921	176	485348
0	237	100011	177	485344
0	237	100038	178	485367
	237	100123	179	485407
	237	100202	180	?484672
0	237	100232	181	?485427
0	237	100321	182	485526
	237	101749	183	485328
0	237	101846	184	?485189
0	237	101921	185	?485238
	237	101948	186	?485248
0	237	102028	187	485280
0	237	103523	188	?484880
	237	103554	189	485307
	237	103656	190	485325
0	237	103748	191	?485218

LINE 11200-S (6500N → 8000N)

0 237 103825 192?485146
0 237 103930 193?485103
0 237 104045 194?485132
0 237 104110 195?485210
0 237 104153 196 485198
0 237 104218 197 485203
0 237 104341 198 485212
0 237 104414 199?485165
0 237 104506 200?485133
0 237 104537 201?485112
0 237 104621 202?485125
0 237 104657 203?485096
0 237 104840 204?485147
0 237 104910 205?485161
0 237 104939 206?485168
0 237 105010 207?485182
0 237 105058 208?485112
0 237 105126 209?485041
0 237 105311 210 485175
0 237 105400 211?485134
0 237 105457 212?485169
0 237 105525 213?485088
0 237 105555 214?485292
0 237 105647 215?485097
0 237 105734 216?485258
0 237 105803 217?485064
0 237 105832 218?484984
0 237 105901 219?485200
0 237 110026 220?485164
0 237 110104 221 485226
0 237 110150 222?485178
0 237 110222 223?485456
0 237 110249 224?485117
0 237 110425 225 485242
0 237 110544 226 484967
0 237 110605 227 485149
0 237 110657 228?485098
0 237 110728 229?485164
0 237 110818 230?484776
0 237 110847 231?485038
0 237 110927 232?484908
0 237 110959 233?484859
0 237 111051 234?485185
0 237 111137 235 485253
0 237 111248 236?485064
0 237 111318 237?485008
0 237 111358 238?485029
0 237 111441 239?484926
0 237 111510 240?484923
0 237 111547 241?484739
0 237 111653 242 485151
0 237 111748 243?485058
0 237 113036 244 485458
0 237 113413 245 485345
0 237 113448 246 485131
0 237 113531 247 485220
0 237 113559 248 485380
0 237 113639 249 485295
0 237 113734 250 485366
0 237 113912 251 485236
0 237 113945 252 485051
0 237 114117 253 485378
0 237 114150 254 485653
0 237 114219 255 485380

LINE 11100-S (8000N → 6500N)

237 114256 256 485167
237 114915 257 485368
237 114943 258 485254
237 115018 259 485259
237 115124 260?485384
237 115243 261 485378
237 115307 262 485381
237 115347 263 485274
237 115441 264 485172
237 115544 265 485264
237 115622 266 485346
237 115656 267 485617
237 115728 268 485259
237 115855 269 485851
237 115924 270 485285
237 120012 271 485284
237 120103 272 485015
237 120133 273 485251
237 120204 274?484413
237 120232 275?485206
237 120301 276?485228
237 120357 277 485116
237 120515 278 485270
237 120541 279 485265
237 120615 280 485201
237 120732 281 485254
237 120812 282?484823
237 120842 283?485114
237 120911 284?485145
237 120959 285?485229
237 121042 286?485082
237 121135 287?485171
237 121228 288?485053
237 121431 289 485270
237 121505 290 485219
237 121623 291 485269
237 121736 292 485226
237 121822 293 485262
237 121900 294 485257
237 122030 295 485280
237 122059 296 485224
237 122154 297 485359
237 122230 298 485317
237 122313 299 485456
237 122344 300 485537
237 122517 301 485333
237 122547 302 485304
237 122917 303 485334
237 122955 304 485313

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237 123933 305 485491
237 124051 306 485412
237 124128 307 485451
237 124205 308 485459
237 124235 309 485456
237 124306 310 485454
237 124337 311 485470
237 124409 312 485453
237 124439 313 485438
237 124510 314 485441
237 124540 315 485419
237 124611 316 485433
237 124640 317 485422
237 124704 318 485425
237 124732 319 485435

LINE 11000-S (6500 N - 8000 N)

0	237	124804	320	485434
	237	124836	321	485431
0	237	124909	322	485409
0	237	124936	323	485406
	237	125013	324	485419
0	237	125052	325	485422
0	237	125345	326	485409
	237	125413	327	485433
	237	125436	328	485406
0	237	125502	329	485414
0	237	125528	330	485370
	237	125556	331	485445
0	237	125624	332	484598
0	237	125652	333	485388
	237	125720	334	485415
0	237	125746	335	485364
0	237	125813	336	485291
	237	125842	337	485495
	237	125913	338	485398
0	237	125941	339	485433
0	237	130010	340	485414
	237	130040	341	485507
0	237	130112	342	485425
0	237	130138	343	485359
	237	130206	344	485463
0	237	130236	345	485480
0	237	130257	346	485470
	237	130331	347	485384
	237	130358	348	485410
0	237	130425	349	485334
0	237	130456	350	485391
	237	130526	351	485383
0	237	130600	352	485364
0	237	130632	353	485317
	237	130707	354	485323
	237	130740	355	485196
0	237	130810	356	485066
0	237	130837	357	485432
	237	130908	358	485348
0	237	130940	359	485261
0	237	131012	360	485491
	237	131043	361	485361
0	237	131115	362	485298
0	237	131150	363	485395
	237	131227	364	485416
	237	131303	365	485433
0	237	131653	366	485419
0	237	131720	367	485348
	237	131749	368	485370
0	237	131817	369	485371
0	237	131843	370	485398
	237	131910	371	485356
	237	131939	372	485400
0	237	132008	373	485344
0	237	132037	374	485383
	237	132103	375	485325
0	237	132134	376	485299
0	237	132206	377	485306
	237	132232	378	485368
0	237	132305	379	485350
0	237	132336	380	485361
	237	132410	381	485353
	237	132450	382	485382
0	237	132521	383	485346

LINE 11000-N (8025N → 8500N)

0 237 132552 384 485380
0 237 132637 385 485370
0 237 132952 386 485395
0 237 133148 387 485417 LINE 11100-N (8500N → 8025N)
0 237 133217 388 485384
0 237 133253 389 485362
0 237 133324 390 485379
0 237 133356 391 485565
0 237 133443 392 485400
0 237 133640 393 485393
0 237 134021 394 485332
0 237 134052 395 485378
0 237 134127 396 485342
0 237 134159 397 485362
0 237 134224 398 485404
0 237 134251 399 485367
0 237 134322 400 485400
0 237 134352 401 485354
0 237 134418 402 485304
0 237 134451 403 485368
0 237 134521 404 485264
0 237 134557 405 485432
0 237 134636 406 485459 - Base Line Stn. Reading
0 237 135040 407 485398
0 237 135208 408 485283 LINE 11200-N (8025N → 8500N)
0 237 135246 409 485244
0 237 135315 410 485418
0 237 135338 411 485351
0 237 135404 412 485280
0 237 135434 413 485324
0 237 135506 414 485271
0 237 135534 415 485317
0 237 135601 416 485381
0 237 135638 417 485419
0 237 135710 418 485284
0 237 135741 419 485294
0 237 135815 420 485344
0 237 135847 421 485288
0 237 135918 422 485467
0 237 140002 423 485268
0 237 140049 424 485341
0 237 140118 425 485311
0 237 140158 426 485327
0 237 140529 427 485365
0 237 140656 428 485417 LINE 11300-N (8500N → 8025N)
0 237 140740 429 485530
0 237 140815 430 485135
0 237 140845 431 485394
0 237 140919 432 485320
0 237 140949 433 485190
0 237 141028 434 485295
0 237 141107 435 485307
0 237 141140 436 485231
0 237 141215 437 485228
0 237 141243 438 485349
0 237 141318 439 485247
0 237 141349 440 485324
0 237 141408 441 485017
0 237 141436 442 485327
0 237 141504 443 485309
0 237 141532 444 485301
0 237 141558 445 485226
0 237 141637 446 485288
0 237 142318 447 485420 LINE 11400-N (8025N → 8500N)

0	237	142350	448	485322
0	237	142422	449	485178
0	237	142452	450	485252
0	237	142523	451	485263
0	237	142553	452	484942
0	237	142623	453	485378
0	237	142651	454	485379
0	237	142723	455	485173
0	237	142751	456	485289
0	237	143411	457	485336
0	237	143450	458	485214
0	237	143521	459	485211
0	237	143545	460	485247
0	237	143610	461	485201
0	237	143643	462	485257
0	237	143710	463	485236
0	237	143739	464	485245
0	237	143815	465	485239
0	237	143847	466	485145
0	237	144248	467	485188
0	237	144502	468	485411
0	237	144546	469	485237
0	237	144619	470	485331
0	237	144649	471	485267
0	237	144713	472	485218
0	237	144737	473	485269
0	237	144809	474	485200
0	237	144840	475	485303
0	237	144912	476	485442
0	237	144937	477	485316
0	237	144956	478	485234
0	237	145027	479	485170
0	237	145053	480	485064
0	237	145121	481	485071
0	237	145144	482	485151
0	237	145204	483	485307
0	237	145225	484	485140
0	237	145246	485	485086
0	237	145311	486	485394

LINE 11500-N (8500N - 8025N)

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EASTING	NORTHING	GAMMA
511000.000	8316500.000	485491
511000.000	8316525.000	485412
511000.000	8316550.000	485451
511000.000	8316575.000	485459
511000.000	8316600.000	485456
511000.000	8316625.000	485454
511000.000	8316650.000	485470
511000.000	8316675.000	485453
511000.000	8316700.000	485438
511000.000	8316725.000	485441
511000.000	8316750.000	485419
511000.000	8316775.000	485433
511000.000	8316800.000	485422
511000.000	8316825.000	485425
511000.000	8316850.000	485435
511000.000	8316875.000	485434
511000.000	8316900.000	485431
511000.000	8316925.000	485409
511000.000	8316950.000	485406
511000.000	8316975.000	485419
511000.000	8317000.000	485422
511000.000	8317025.000	485409
511000.000	8317050.000	485433
511000.000	8317075.000	485406
511000.000	8317100.000	485414
511000.000	8317125.000	485370
511000.000	8317150.000	485445
511000.000	8317175.000	484598
511000.000	8317200.000	485388
511000.000	8317225.000	485415
511000.000	8317250.000	485364
511000.000	8317275.000	485291
511000.000	8317300.000	485495
511000.000	8317325.000	485398
511000.000	8317350.000	485433
511000.000	8317375.000	485414
511000.000	8317400.000	485507
511000.000	8317425.000	485425
511000.000	8317450.000	485359
511000.000	8317475.000	485463
511000.000	8317500.000	485480
511000.000	8317525.000	485470
511000.000	8317550.000	485384
511000.000	8317575.000	485410
511000.000	8317600.000	485334
511000.000	8317625.000	485391
511000.000	8317650.000	485383
511000.000	8317675.000	485364
511000.000	8317700.000	485317
511000.000	8317725.000	485323
511000.000	8317750.000	485196
511000.000	8317775.000	485066
511000.000	8317800.000	485432
511000.000	8317825.000	485348
511000.000	8317850.000	485261
511000.000	8317875.000	485491
511000.000	8317900.000	485361
511000.000	8317925.000	485298
511000.000	8317950.000	485395
511000.000	8317975.000	485416
511000.000	8318000.000	485433

EASTING	NORTHING	GAMMA
511000.000	8318025.000	485419
511000.000	8318050.000	485348
511000.000	8318075.000	485370
511000.000	8318100.000	485371
511000.000	8318125.000	485398
511000.000	8318150.000	485356
511000.000	8318175.000	485400
511000.000	8318200.000	485344
511000.000	8318225.000	485383
511000.000	8318250.000	485325
511000.000	8318275.000	485299
511000.000	8318300.000	485306
511000.000	8318325.000	485368
511000.000	8318350.000	485350
511000.000	8318375.000	485361
511000.000	8318400.000	485353
511000.000	8318425.000	485382
511000.000	8318450.000	485346
511000.000	8318475.000	485380
511000.000	8318500.000	485370
511100.000	8316500.000	485313
511100.000	8316525.000	485334
511100.000	8316550.000	485304
511100.000	8316575.000	485333
511100.000	8316600.000	485537
511100.000	8316625.000	485456
511100.000	8316650.000	485317
511100.000	8316675.000	485359
511100.000	8316700.000	485224
511100.000	8316725.000	485280
511100.000	8316750.000	485257
511100.000	8316775.000	485262
511100.000	8316800.000	485226
511100.000	8316825.000	485269
511100.000	8316850.000	485219
511100.000	8316875.000	485270
511100.000	8316900.000	485053
511100.000	8316925.000	485171
511100.000	8316950.000	485082
511100.000	8316975.000	485229
511100.000	8317000.000	485145
511100.000	8317025.000	485114
511100.000	8317050.000	484823
511100.000	8317075.000	485254
511100.000	8317100.000	485201
511100.000	8317125.000	485265
511100.000	8317150.000	485270
511100.000	8317175.000	485116
511100.000	8317200.000	485228
511100.000	8317225.000	485206
511100.000	8317250.000	484413
511100.000	8317275.000	485251
511100.000	8317300.000	485015
511100.000	8317325.000	485284
511100.000	8317350.000	485285
511100.000	8317375.000	485851
511100.000	8317400.000	485259
511100.000	8317425.000	485617
511100.000	8317450.000	485346
511100.000	8317475.000	485264
511100.000	8317500.000	485172

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EASTING	NORTHING	GAMMA
511100.000	8317525.000	485274
511100.000	8317550.000	485381
511100.000	8317575.000	485378
511100.000	8317600.000	485384
511100.000	8317625.000	485259
511100.000	8317650.000	485254
511100.000	8317675.000	485368
511100.000	8317700.000	485167
511100.000	8317725.000	485380
511100.000	8317750.000	485653
511100.000	8317775.000	485378
511100.000	8317800.000	485051
511100.000	8317825.000	485236
511100.000	8317850.000	485366
511100.000	8317875.000	485295
511100.000	8317900.000	485380
511100.000	8317925.000	485220
511100.000	8317950.000	485131
511100.000	8317975.000	485345
511100.000	8318000.000	485458
511100.000	8318025.000	485432
511100.000	8318050.000	485264
511100.000	8318075.000	485368
511100.000	8318100.000	485304
511100.000	8318125.000	485354
511100.000	8318150.000	485400
511100.000	8318175.000	485367
511100.000	8318200.000	485404
511100.000	8318225.000	485362
511100.000	8318250.000	485342
511100.000	8318275.000	485378
511100.000	8318300.000	485332
511100.000	8318325.000	485393
511100.000	8318350.000	485400
511100.000	8318375.000	485565
511100.000	8318400.000	485379
511100.000	8318425.000	485362
511100.000	8318450.000	485384
511100.000	8318475.000	485417
511100.000	8318500.000	485395
511200.000	8316500.000	485328
511200.000	8316525.000	485189
511200.000	8316550.000	485238
511200.000	8316575.000	485248
511200.000	8316600.000	485280
511200.000	8316625.000	484880
511200.000	8316650.000	485307
511200.000	8316675.000	485325
511200.000	8316700.000	485218
511200.000	8316725.000	485146
511200.000	8316750.000	485103
511200.000	8316775.000	485132
511200.000	8316800.000	485210
511200.000	8316825.000	485198
511200.000	8316850.000	485203
511200.000	8316875.000	485212
511200.000	8316900.000	485165
511200.000	8316925.000	485133
511200.000	8316950.000	485112
511200.000	8316975.000	485125
511200.000	8317000.000	485096

EASTING	NORTHING	GAMMA
511200.000	8317025.000	485147
511200.000	8317050.000	485161
511200.000	8317075.000	485168
511200.000	8317100.000	485182
511200.000	8317125.000	485112
511200.000	8317150.000	485041
511200.000	8317175.000	485175
511200.000	8317200.000	485134
511200.000	8317225.000	485169
511200.000	8317250.000	485088
511200.000	8317275.000	485292
511200.000	8317300.000	485097
511200.000	8317325.000	485258
511200.000	8317350.000	485064
511200.000	8317375.000	484984
511200.000	8317400.000	485200
511200.000	8317425.000	485164
511200.000	8317450.000	485226
511200.000	8317475.000	485178
511200.000	8317500.000	485456
511200.000	8317525.000	485117
511200.000	8317550.000	485242
511200.000	8317575.000	484967
511200.000	8317600.000	485149
511200.000	8317625.000	485098
511200.000	8317650.000	485164
511200.000	8317675.000	484776
511200.000	8317700.000	485038
511200.000	8317725.000	484908
511200.000	8317750.000	484859
511200.000	8317775.000	485185
511200.000	8317800.000	485253
511200.000	8317825.000	485064
511200.000	8317850.000	485008
511200.000	8317875.000	485029
511200.000	8317900.000	484926
511200.000	8317925.000	484923
511200.000	8317950.000	484739
511200.000	8317975.000	485151
511200.000	8318000.000	485058
511200.000	8318025.000	485398
511200.000	8318050.000	485283
511200.000	8318075.000	485244
511200.000	8318100.000	485418
511200.000	8318125.000	485351
511200.000	8318150.000	485280
511200.000	8318175.000	485324
511200.000	8318200.000	485271
511200.000	8318225.000	485317
511200.000	8318250.000	485381
511200.000	8318275.000	485419
511200.000	8318300.000	485284
511200.000	8318325.000	485294
511200.000	8318350.000	485344
511200.000	8318375.000	485288
511200.000	8318400.000	485467
511200.000	8318425.000	485268
511200.000	8318450.000	485341
511200.000	8318475.000	485311
511200.000	8318500.000	485327
511300.000	8316500.000	485526

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EASTING	NORTHING	GAMMA
511300.000	8316525.000	485427
511300.000	8316550.000	484672
511300.000	8316575.000	485407
511300.000	8316600.000	485367
511300.000	8316625.000	485344
511300.000	8316650.000	485348
511300.000	8316675.000	485349
511300.000	8316700.000	485625
511300.000	8316725.000	485387
511300.000	8316750.000	485408
511300.000	8316775.000	485398
511300.000	8316800.000	485399
511300.000	8316825.000	485347
511300.000	8316850.000	485201
511300.000	8316875.000	485536
511300.000	8316900.000	485355
511300.000	8316925.000	485335
511300.000	8316950.000	485253
511300.000	8316975.000	485276
511300.000	8317000.000	485552
511300.000	8317025.000	485719
511300.000	8317050.000	485333
511300.000	8317075.000	485342
511300.000	8317100.000	485412
511300.000	8317125.000	485440
511300.000	8317150.000	485356
511300.000	8317175.000	485264
511300.000	8317200.000	485408
511300.000	8317225.000	485363
511300.000	8317250.000	485259
511300.000	8317275.000	485204
511300.000	8317300.000	485300
511300.000	8317325.000	485342
511300.000	8317350.000	485344
511300.000	8317375.000	485269
511300.000	8317400.000	485157
511300.000	8317425.000	485258
511300.000	8317450.000	485451
511300.000	8317475.000	485413
511300.000	8317500.000	484936
511300.000	8317525.000	485254
511300.000	8317550.000	485158
511300.000	8317575.000	485308
511300.000	8317600.000	485282
511300.000	8317625.000	485368
511300.000	8317650.000	485275
511300.000	8317675.000	485381
511300.000	8317700.000	484938
511300.000	8317725.000	485296
511300.000	8317750.000	485372
511300.000	8317775.000	485380
511300.000	8317800.000	485163
511300.000	8317825.000	485244
511300.000	8317850.000	485498
511300.000	8317875.000	485303
511300.000	8317900.000	485295
511300.000	8317925.000	485205
511300.000	8317950.000	485332
511300.000	8317975.000	485337
511300.000	8318000.000	485367
511300.000	8318025.000	485288

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EASTING	NORTHING	GAMMA
511300.000	8318050.000	485226
511300.000	8318075.000	485301
511300.000	8318100.000	485309
511300.000	8318125.000	485327
511300.000	8318150.000	485017
511300.000	8318175.000	485324
511300.000	8318200.000	485247
511300.000	8318225.000	485349
511300.000	8318250.000	485228
511300.000	8318275.000	485231
511300.000	8318300.000	485307
511300.000	8318325.000	485295
511300.000	8318350.000	485190
511300.000	8318375.000	485320
511300.000	8318400.000	485394
511300.000	8318425.000	485135
511300.000	8318450.000	485530
511300.000	8318475.000	485417
511300.000	8318500.000	485365
511400.000	8316500.000	485303
511400.000	8316525.000	485150
511400.000	8316550.000	485226
511400.000	8316575.000	485252
511400.000	8316600.000	485197
511400.000	8316625.000	485163
511400.000	8316650.000	485294
511400.000	8316675.000	485189
511400.000	8316700.000	485128
511400.000	8316725.000	485234
511400.000	8316750.000	485224
511400.000	8316775.000	485203
511400.000	8316800.000	485189
511400.000	8316825.000	485228
511400.000	8316850.000	485217
511400.000	8316875.000	485176
511400.000	8316900.000	485266
511400.000	8316925.000	485157
511400.000	8316950.000	485108
511400.000	8316975.000	485057
511400.000	8317000.000	485013
511400.000	8317025.000	485063
511400.000	8317050.000	484911
511400.000	8317075.000	484962
511400.000	8317100.000	484910
511400.000	8317125.000	484956
511400.000	8317150.000	484933
511400.000	8317175.000	485107
511400.000	8317200.000	485120
511400.000	8317225.000	485206
511400.000	8317250.000	485230
511400.000	8317275.000	485153
511400.000	8317300.000	485234
511400.000	8317325.000	485295
511400.000	8317350.000	485286
511400.000	8317375.000	485179
511400.000	8317400.000	484755
511400.000	8317425.000	485174
511400.000	8317450.000	485334
511400.000	8317475.000	485191
511400.000	8317500.000	485002
511400.000	8317525.000	485214

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EASTING	NORTHING	GAMMA
511400.000	8317550.000	485311
511400.000	8317575.000	485559
511400.000	8317600.000	485091
511400.000	8317625.000	485321
511400.000	8317650.000	485087
511400.000	8317675.000	485432
511400.000	8317700.000	485151
511400.000	8317725.000	485132
511400.000	8317750.000	485199
511400.000	8317775.000	485202
511400.000	8317800.000	484937
511400.000	8317825.000	485305
511400.000	8317850.000	485049
511400.000	8317875.000	485149
511400.000	8317900.000	485287
511400.000	8317925.000	485114
511400.000	8317950.000	484105
511400.000	8317975.000	485330
511400.000	8318000.000	485182
511400.000	8318025.000	485420
511400.000	8318050.000	485322
511400.000	8318075.000	485178
511400.000	8318100.000	485252
511400.000	8318125.000	485263
511400.000	8318150.000	484942
511400.000	8318175.000	485378
511400.000	8318200.000	485379
511400.000	8318225.000	485173
511400.000	8318250.000	485289
511400.000	8318275.000	485336
511400.000	8318300.000	485214
511400.000	8318325.000	485211
511400.000	8318350.000	485247
511400.000	8318375.000	485201
511400.000	8318400.000	485257
511400.000	8318425.000	485236
511400.000	8318450.000	485245
511400.000	8318475.000	485239
511400.000	8318500.000	485145
511500.000	8316500.000	485378
511500.000	8316525.000	485485
511500.000	8316550.000	485271
511500.000	8316575.000	485285
511500.000	8316600.000	485368
511500.000	8316625.000	485373
511500.000	8316650.000	485298
511500.000	8316675.000	485327
511500.000	8316700.000	484759
511500.000	8316725.000	483990
511500.000	8316750.000	485364
511500.000	8316775.000	485349
511500.000	8316800.000	485306
511500.000	8316825.000	485722
511500.000	8316850.000	485301
511500.000	8316875.000	485343
511500.000	8316900.000	485337
511500.000	8316925.000	485333
511500.000	8316950.000	485382
511500.000	8316975.000	485422
511500.000	8317000.000	485333
511500.000	8317025.000	485273

EASTING	NORTHING	GAMMA
511500.000	8317050.000	485401
511500.000	8317075.000	485344
511500.000	8317100.000	485318
511500.000	8317125.000	485339
511500.000	8317150.000	485310
511500.000	8317175.000	485469
511500.000	8317200.000	485266
511500.000	8317225.000	485320
511500.000	8317250.000	485289
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511500.000	8317325.000	485362
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511500.000	8317400.000	485410
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511500.000	8317575.000	485524
511500.000	8317600.000	485136
511500.000	8317625.000	485260
511500.000	8317650.000	484497
511500.000	8317675.000	484537
511500.000	8317700.000	485363
511500.000	8317725.000	485465
511500.000	8317750.000	484988
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511500.000	8318225.000	485234
511500.000	8318250.000	485316
511500.000	8318275.000	485442
511500.000	8318300.000	485303
511500.000	8318325.000	485200
511500.000	8318350.000	485269
511500.000	8318375.000	485218
511500.000	8318400.000	485267
511500.000	8318425.000	485331
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511500.000	8318475.000	485411
511500.000	8318500.000	485188
511600.000	8316500.000	485485
511600.000	8316520.000	485337
511600.000	8316540.000	485341

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EASTING	NORTHING	GAMMA
511600.000	8316560.000	485352
511600.000	8316580.000	485371
511600.000	8316600.000	485346
511600.000	8316620.000	485399
511600.000	8316640.000	485368
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511600.000	8316700.000	485386
511600.000	8316720.000	485343
511600.000	8316740.000	485399
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511600.000	8317320.000	484587
511600.000	8317340.000	485160
511600.000	8317360.000	485350
511600.000	8317380.000	485281
511600.000	8317400.000	485317
511600.000	8317420.000	485277
511600.000	8317440.000	485244
511600.000	8317460.000	485268
511600.000	8317480.000	485208
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511600.000	8317540.000	485353
511600.000	8317560.000	484825
511600.000	8317580.000	485256
511600.000	8317600.000	485267
511600.000	8317620.000	485348
511600.000	8317640.000	485356
511600.000	8317660.000	485273
511600.000	8317680.000	485230
511600.000	8317700.000	485306
511600.000	8317720.000	485199
511600.000	8317740.000	485239
511600.000	8317760.000	485314

EASTING	NORTHING	GAMMA
511600.000	8317780.000	485214
511600.000	8317800.000	485326
511600.000	8317820.000	485359
511600.000	8317840.000	485216
511600.000	8317860.000	485465
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511600.000	8318000.000	484761
511600.000	8318020.000	484968
511600.000	8318040.000	485008
511600.000	8318060.000	484880
511600.000	8318080.000	485353
511600.000	8318100.000	484827
511600.000	8318120.000	484779
511600.000	8318140.000	485092
511600.000	8318160.000	484627
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511600.000	8318200.000	484934
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511700.000	8316860.000	485524
511700.000	8316880.000	485557
511700.000	8316900.000	485587
511700.000	8316920.000	485612
511700.000	8316940.000	485583
511700.000	8316960.000	485612

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EASTING	NORTHING	GAMMA
511700.000	8316980.000	485597
511700.000	8317000.000	485600
511700.000	8317020.000	485513
511700.000	8317040.000	485517
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511700.000	8317080.000	485506
511700.000	8317100.000	485494
511700.000	8317120.000	485590
511700.000	8317140.000	485543
511700.000	8317160.000	485629
511700.000	8317180.000	485172
511700.000	8317200.000	485550
511700.000	8317220.000	485455
511700.000	8317240.000	485418
511700.000	8317260.000	485569
511700.000	8317280.000	485732
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511700.000	8317320.000	485643
511700.000	8317340.000	485191
511700.000	8317360.000	485560
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511700.000	8317440.000	485426
511700.000	8317460.000	485741
511700.000	8317480.000	485625
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511700.000	8317520.000	485324
511700.000	8317540.000	485794
511700.000	8317560.000	485344
511700.000	8317580.000	485606
511700.000	8317600.000	485475
511700.000	8317620.000	485414
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511700.000	8318080.000	486190
511700.000	8318100.000	485675
511700.000	8318120.000	485612
511700.000	8318140.000	485603
511700.000	8318160.000	485198
511700.000	8318180.000	485387

EASTING	NORTHING	GAMMA
511700.000	8318200.000	485266
511700.000	8318220.000	485531
511700.000	8318240.000	485800
511700.000	8318260.000	485592
511700.000	8318280.000	485438
511700.000	8318300.000	485619
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511700.000	8318380.000	485601
511700.000	8318400.000	485431
511700.000	8318420.000	485414
511700.000	8318440.000	485487
511700.000	8318460.000	485569
511700.000	8318480.000	485581
511700.000	8318500.000	485477
511800.000	8316500.000	485380
511800.000	8316520.000	485378
511800.000	8316540.000	485345
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511800.000	8316860.000	485501
511800.000	8316880.000	485427
511800.000	8316900.000	485375
511800.000	8316920.000	485366
511800.000	8316940.000	485425
511800.000	8316960.000	485637
511800.000	8316980.000	485292
511800.000	8317000.000	485387
511800.000	8317020.000	485284
511800.000	8317040.000	485436
511800.000	8317060.000	485322
511800.000	8317080.000	485533
511800.000	8317100.000	485365
511800.000	8317120.000	485690
511800.000	8317140.000	485485
511800.000	8317160.000	485419
511800.000	8317180.000	485650
511800.000	8317200.000	485452
511800.000	8317220.000	485352
511800.000	8317240.000	485468
511800.000	8317260.000	486225
511800.000	8317280.000	485699
511800.000	8317300.000	485554
511800.000	8317320.000	485478
511800.000	8317340.000	485059
511800.000	8317360.000	485262
511800.000	8317380.000	485364

EASTING	NORTHING	GAMMA
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511800.000	8317420.000	485480
511800.000	8317440.000	486147
511800.000	8317460.000	485396
511800.000	8317480.000	485344
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511800.000	8318060.000	485191
511800.000	8318080.000	485443
511800.000	8318100.000	486323
511800.000	8318120.000	486379
511800.000	8318140.000	485638
511800.000	8318160.000	485343
511800.000	8318180.000	485414
511800.000	8318200.000	485373
511800.000	8318220.000	485149
511800.000	8318240.000	485862
511800.000	8318260.000	485799
511800.000	8318280.000	485315
511800.000	8318300.000	485359
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511800.000	8318500.000	485272
511900.000	8316500.000	485143
511900.000	8316520.000	485211
511900.000	8316540.000	485270
511900.000	8316560.000	485174
511900.000	8316580.000	485234

EASTING	NORTHING	GAMMA
511900.000	8316600.000	485173
511900.000	8316620.000	485142
511900.000	8316640.000	485131
511900.000	8316660.000	485155
511900.000	8316680.000	485167
511900.000	8316700.000	485193
511900.000	8316720.000	485344
511900.000	8316740.000	485301
511900.000	8316760.000	485123
511900.000	8316780.000	485201
511900.000	8316800.000	485145
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511900.000	8316860.000	485231
511900.000	8316880.000	484951
511900.000	8316900.000	485338
511900.000	8316920.000	485310
511900.000	8316940.000	485351
511900.000	8316960.000	485266
511900.000	8316980.000	485166
511900.000	8317000.000	485155
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511900.000	8317760.000	485167
511900.000	8317780.000	485058
511900.000	8317800.000	485285

EASTING	NORTHING	GAMMA
511900.000	8317820.000	485304
511900.000	8317840.000	485221
511900.000	8317860.000	485388
511900.000	8317880.000	485174
511900.000	8317900.000	485199
511900.000	8317920.000	485154
511900.000	8317940.000	485055
511900.000	8317960.000	485201
511900.000	8317980.000	485148
511900.000	8318000.000	485132
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511900.000	8318340.000	485151
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511900.000	8318440.000	485164
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511900.000	8318480.000	485263
511900.000	8318500.000	485179
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512000.000	8316660.000	485365
512000.000	8316680.000	484714
512000.000	8316700.000	485551
512000.000	8316720.000	483634
512000.000	8316740.000	485519
512000.000	8316760.000	485461
512000.000	8316780.000	485488
512000.000	8316800.000	485581
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512000.000	8316960.000	485722
512000.000	8316980.000	485342
512000.000	8317000.000	485373

EASTING	NORTHING	GAMMA
512000.000	8317020.000	485466
512000.000	8317040.000	485411
512000.000	8317060.000	485397
512000.000	8317080.000	485459
512000.000	8317100.000	485478
512000.000	8317120.000	485667
512000.000	8317140.000	485487
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512000.000	8317520.000	485524
512000.000	8317540.000	485264
512000.000	8317560.000	485726
512000.000	8317580.000	484650
512000.000	8317600.000	485481
512000.000	8317620.000	485327
512000.000	8317640.000	485487
512000.000	8317660.000	485537
512000.000	8317680.000	485250
512000.000	8317700.000	485327
512000.000	8317720.000	485122
512000.000	8317740.000	485227
512000.000	8317760.000	485130
512000.000	8317780.000	485341
512000.000	8317800.000	485453
512000.000	8317820.000	485401
512000.000	8317840.000	485574
512000.000	8317860.000	485367
512000.000	8317880.000	485498
512000.000	8317900.000	485302
512000.000	8317920.000	485279
512000.000	8317940.000	485495
512000.000	8317960.000	485395
512000.000	8317980.000	485635
512000.000	8318000.000	485217
512000.000	8318020.000	485248
512000.000	8318040.000	485253
512000.000	8318060.000	484898
512000.000	8318080.000	485256
512000.000	8318100.000	485320
512000.000	8318120.000	485224
512000.000	8318140.000	485127
512000.000	8318160.000	484950
512000.000	8318180.000	484944
512000.000	8318200.000	485086
512000.000	8318220.000	485120

EASTING	NORTHING	GAMMA
512000.000	8318240.000	485093
512000.000	8318260.000	485625
512000.000	8318280.000	485114
512000.000	8318300.000	485062
512000.000	8318320.000	485141
512000.000	8318340.000	485086
512000.000	8318360.000	485035
512000.000	8318380.000	485159
512000.000	8318400.000	485173
512000.000	8318420.000	485212
512000.000	8318440.000	485106
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512000.000	8318480.000	485115
512000.000	8318500.000	485177

Chart11

LINE 512000E

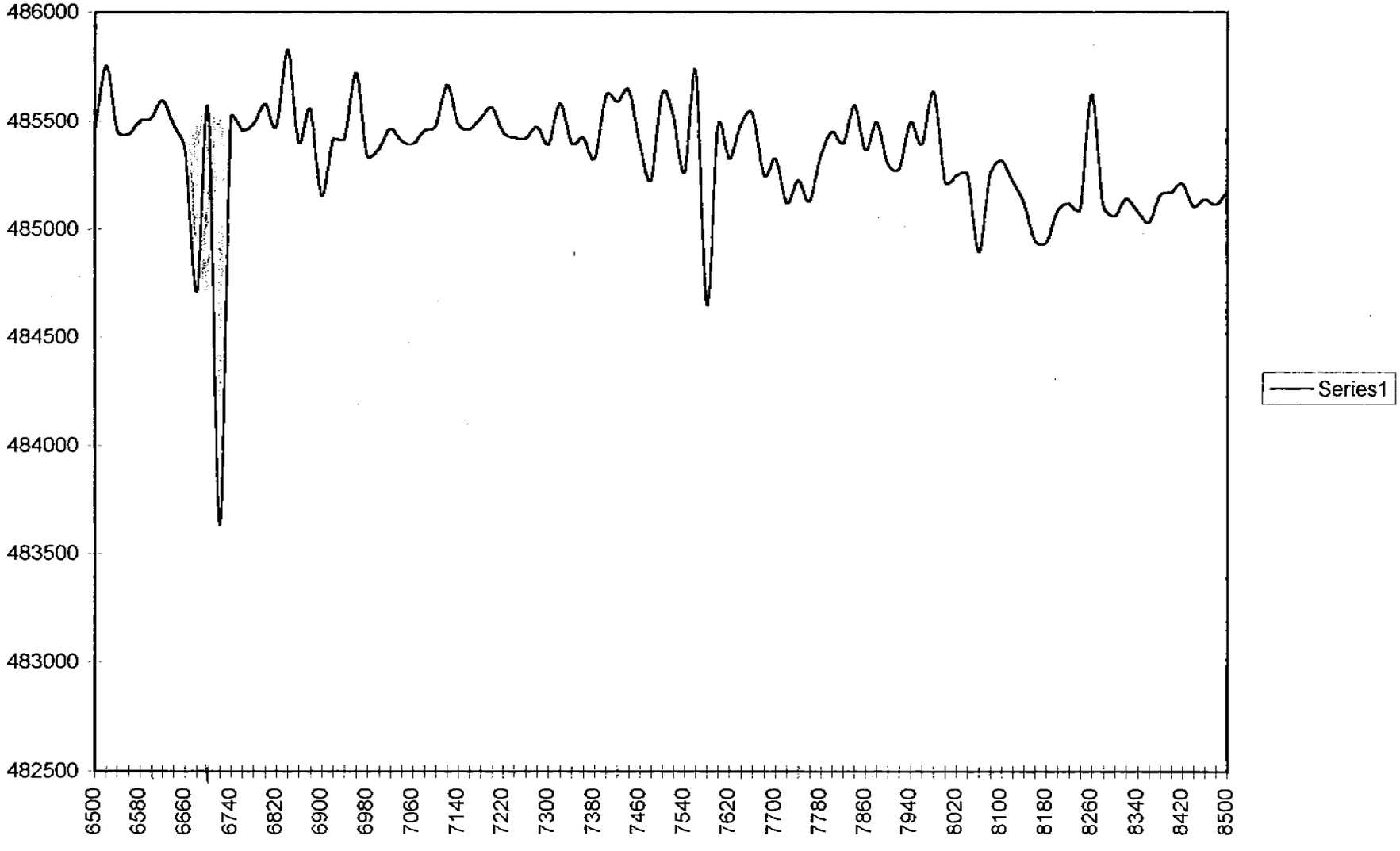
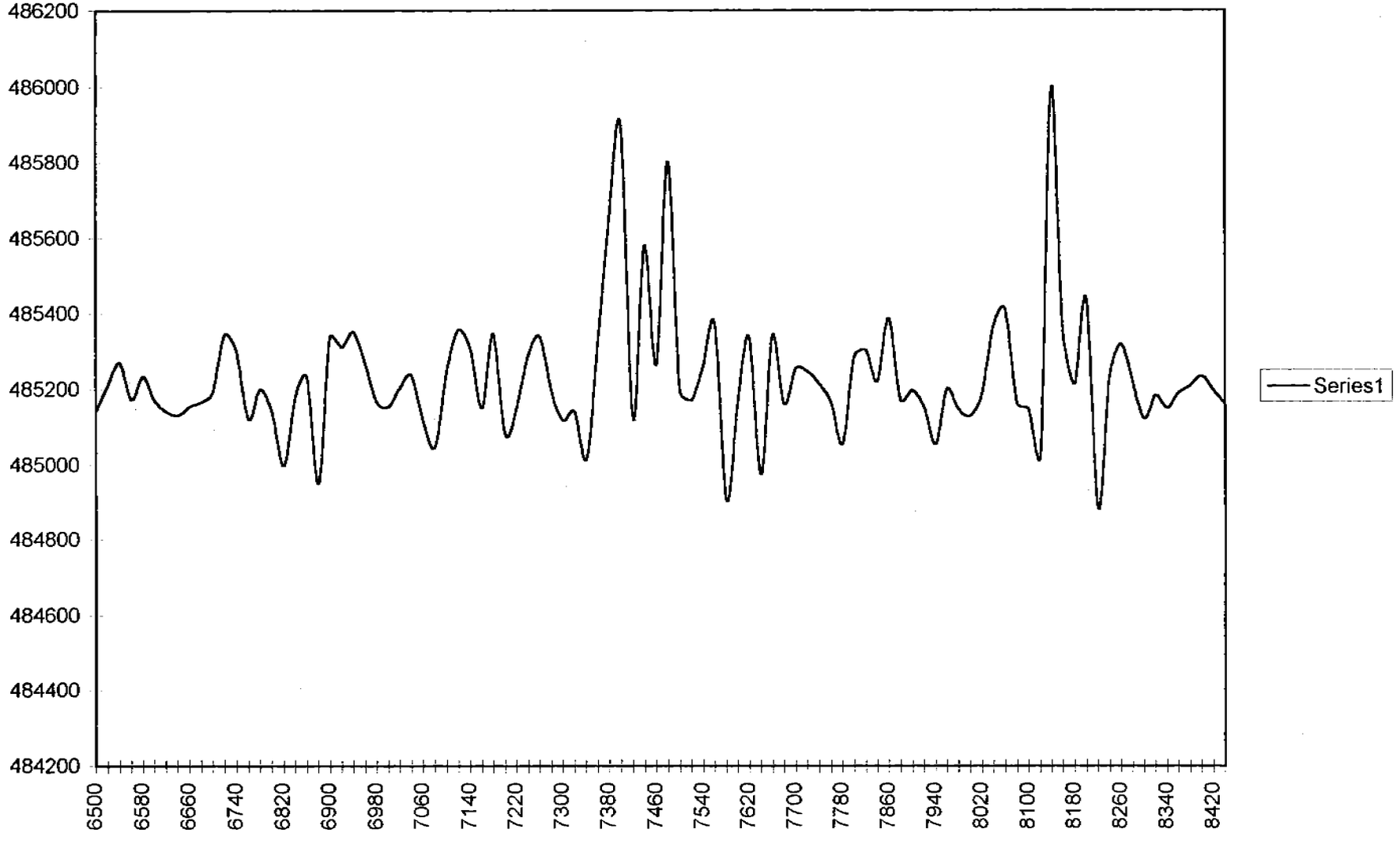


Chart10

LINE 511900E



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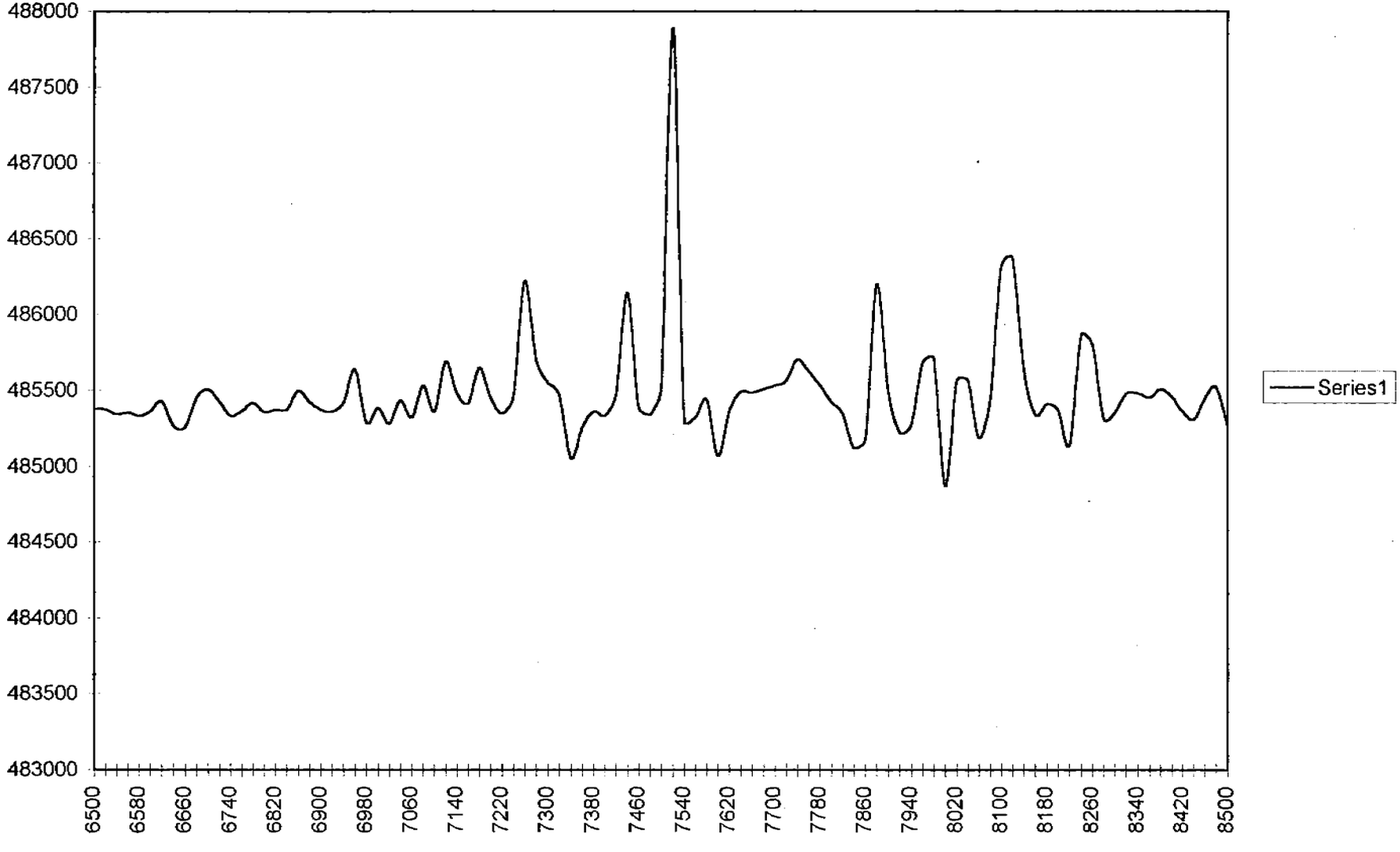
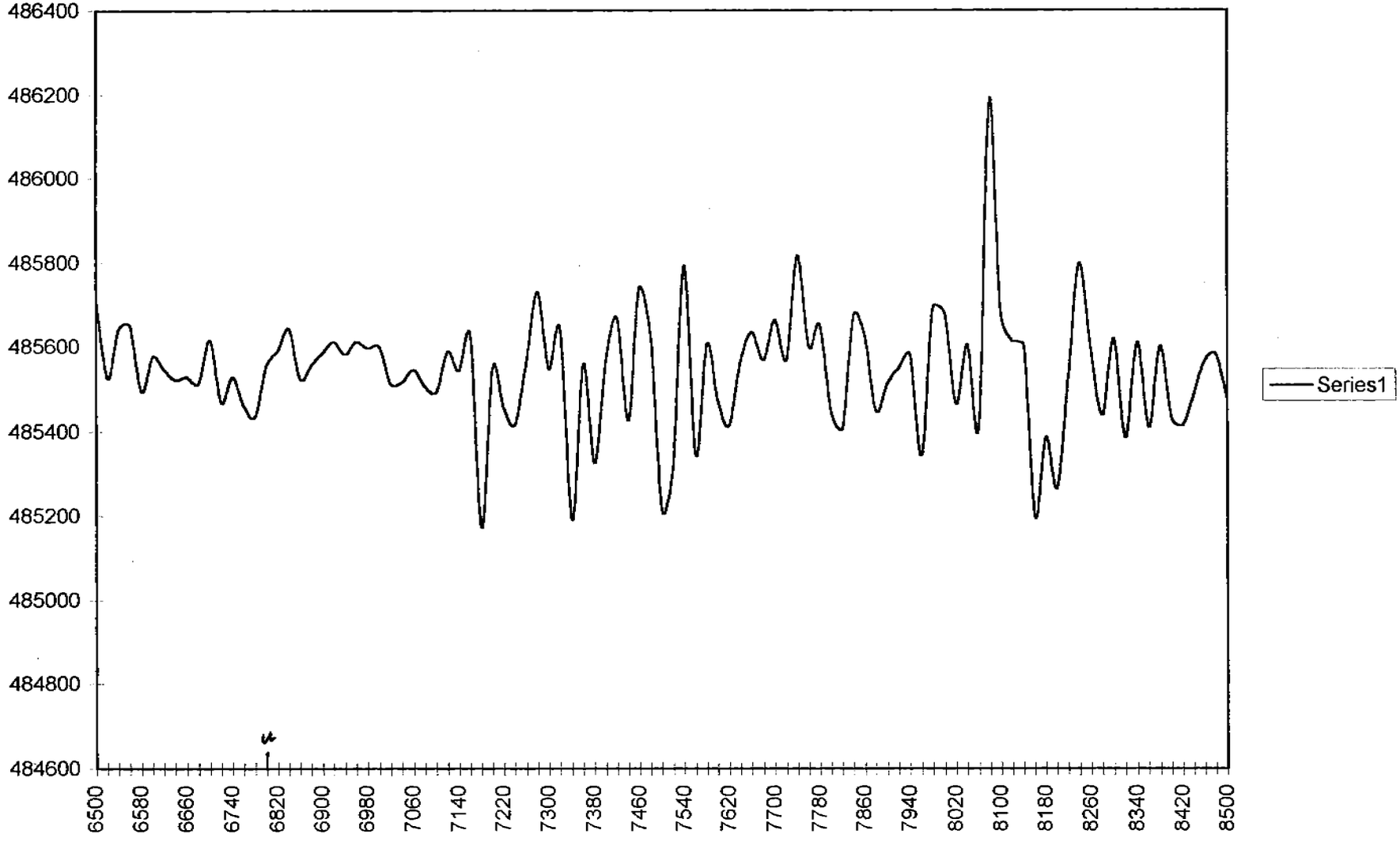
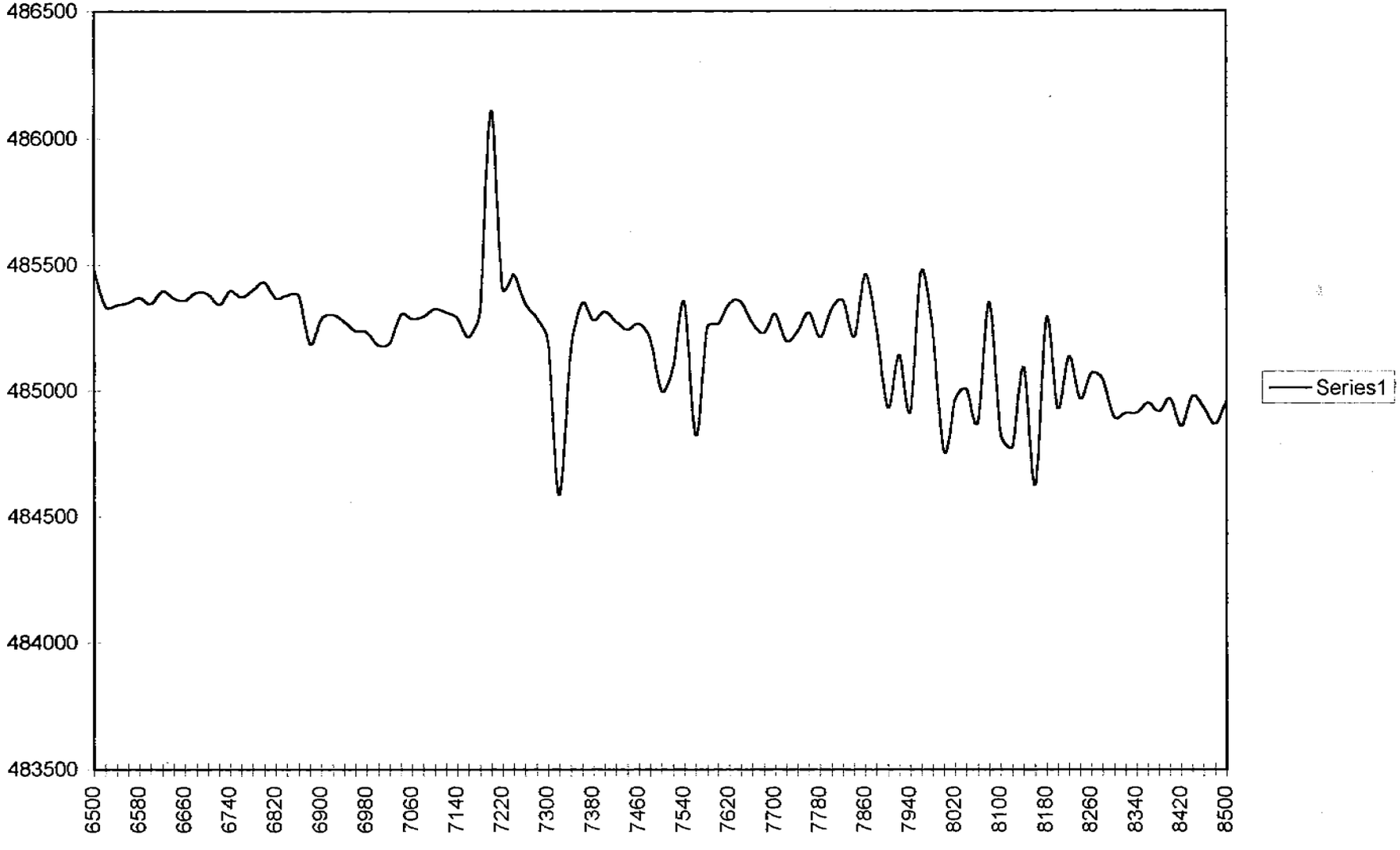


LINE 511700E



LINE 511600E



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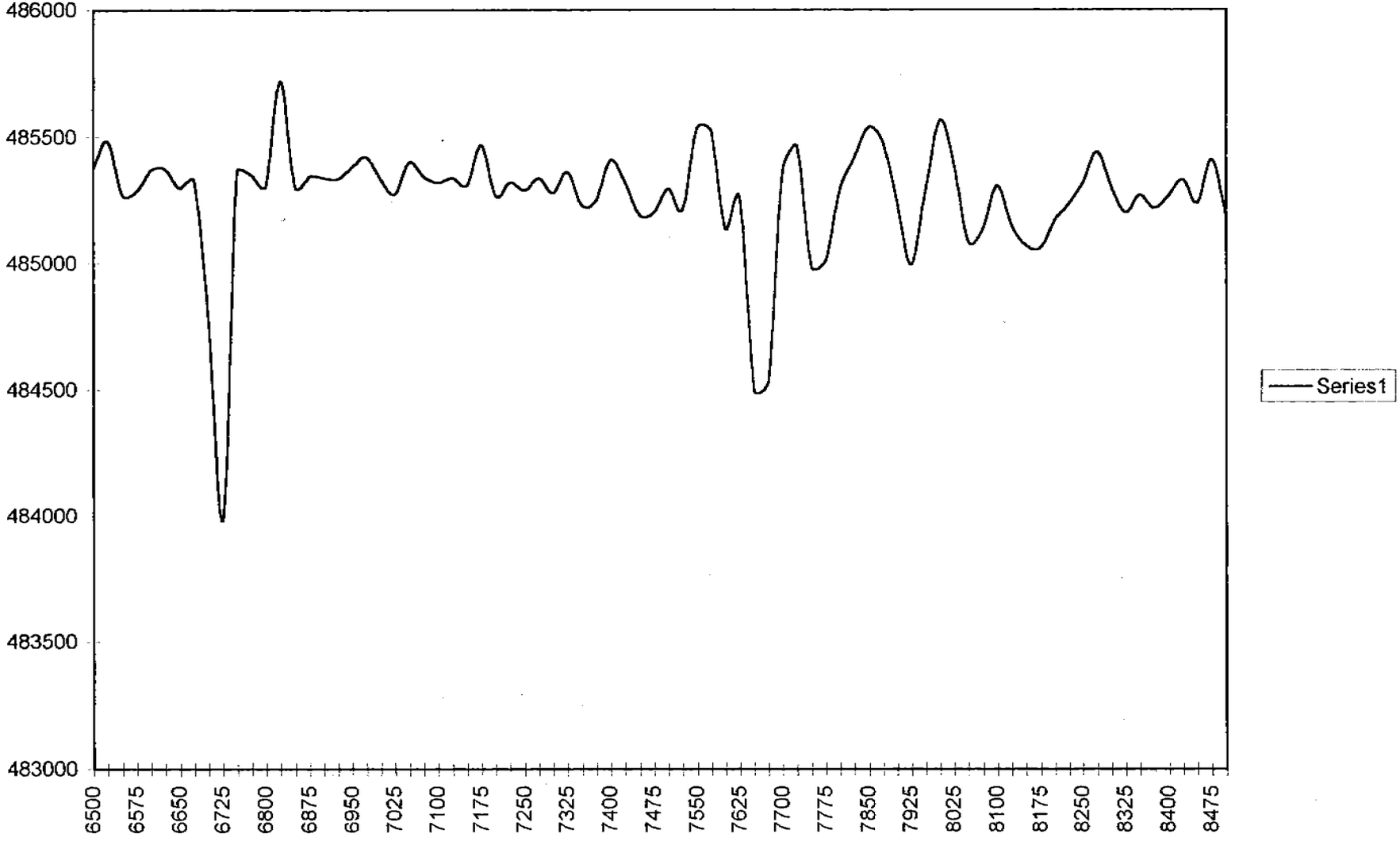

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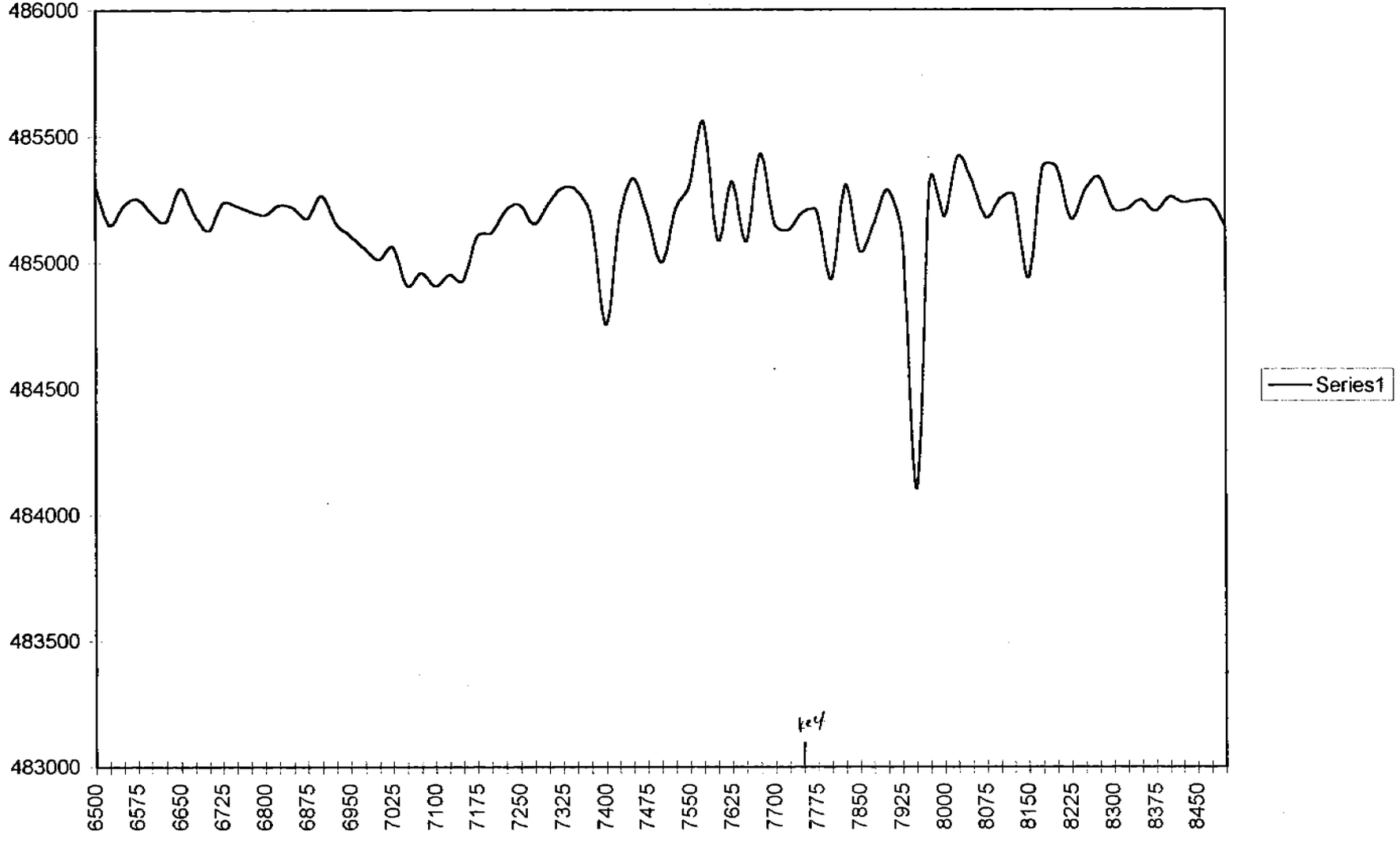
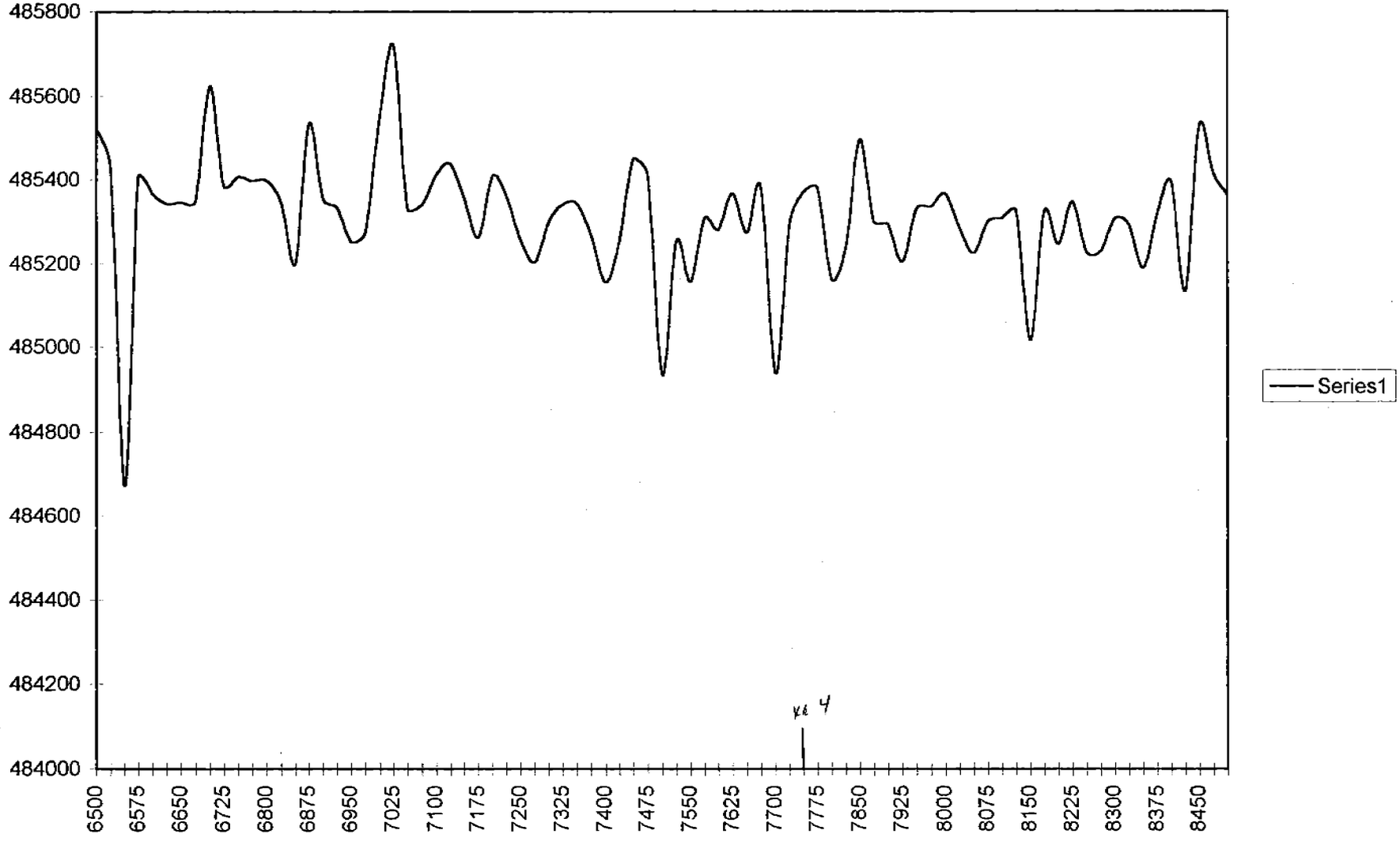


LINE 511300E



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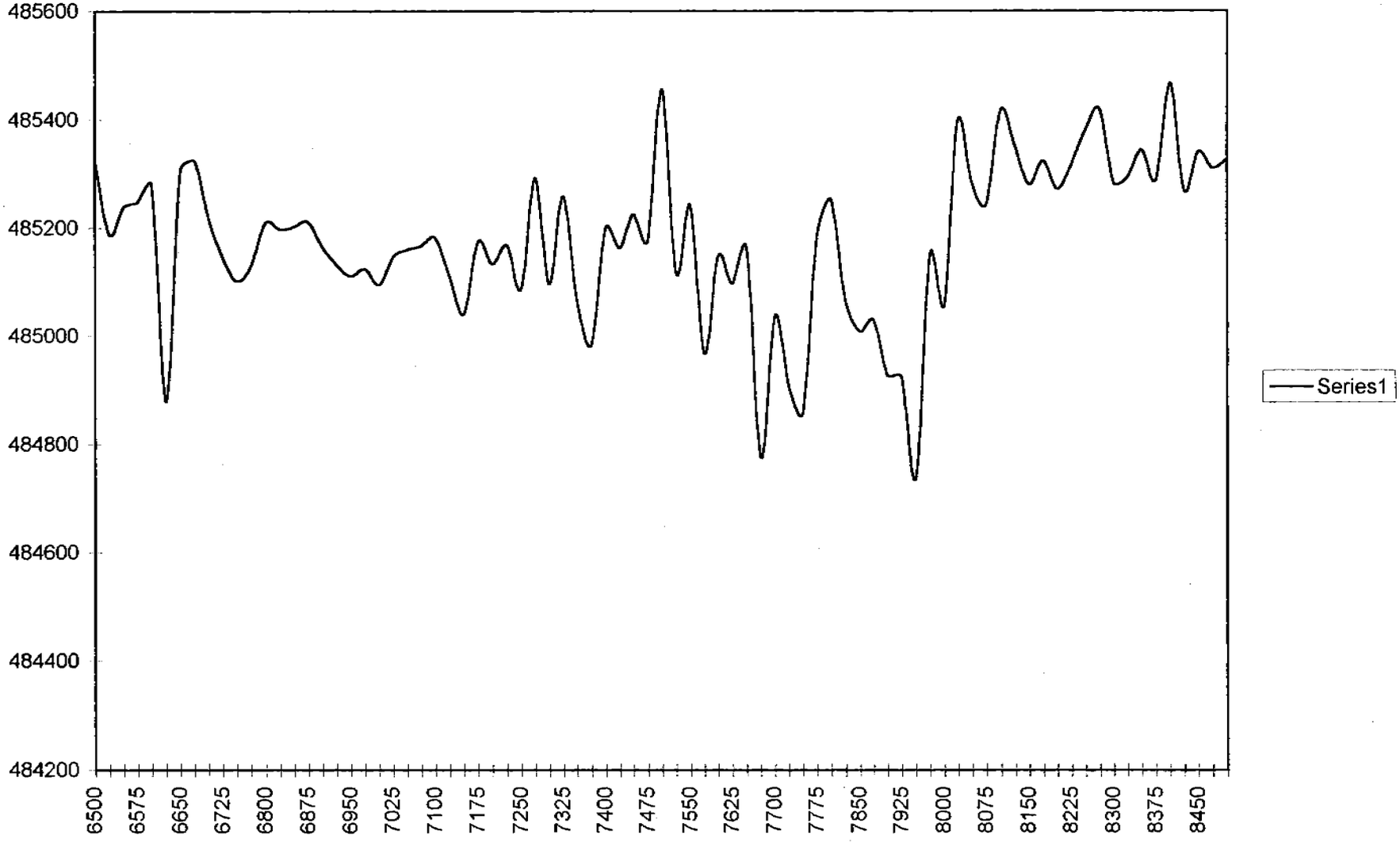

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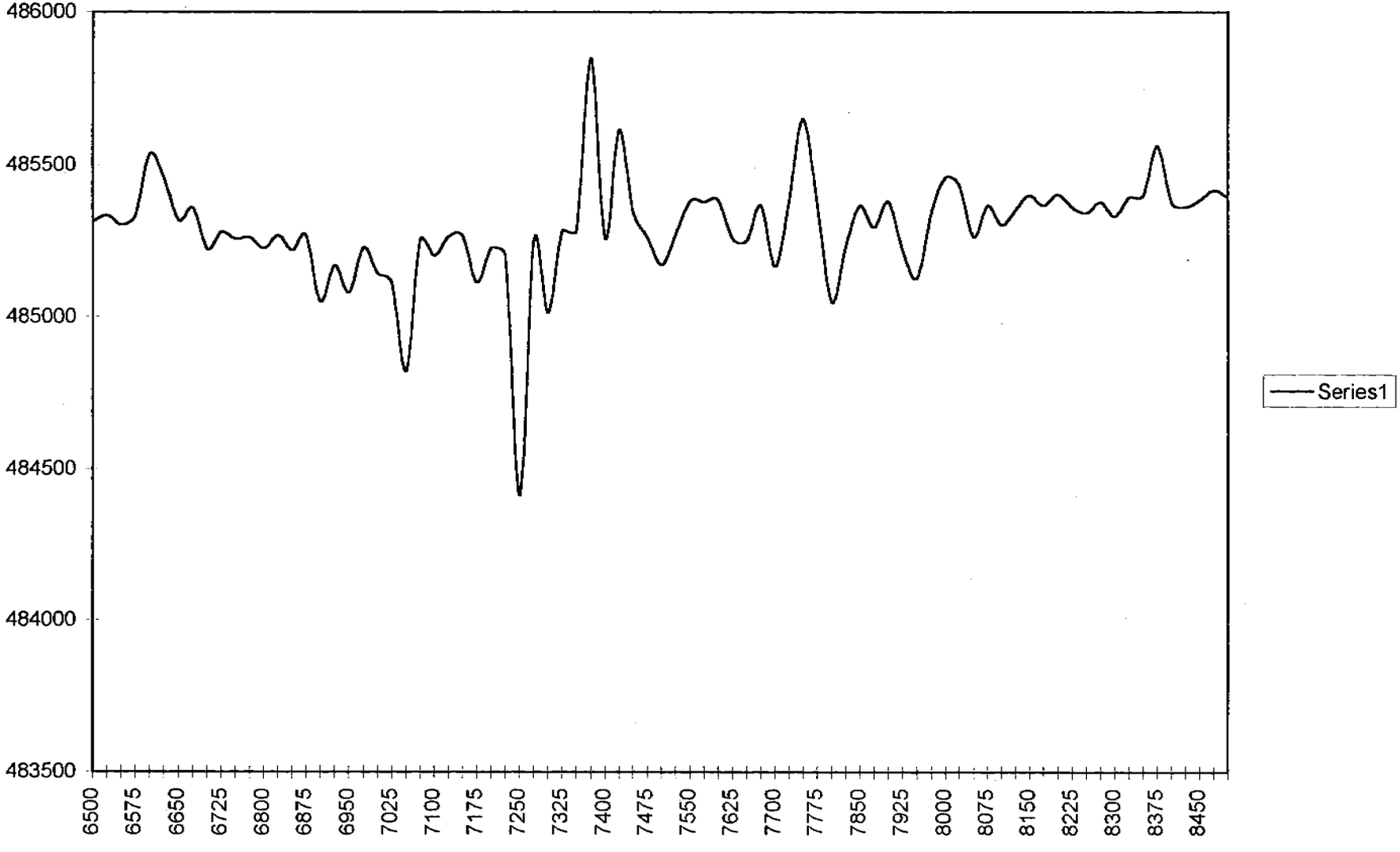

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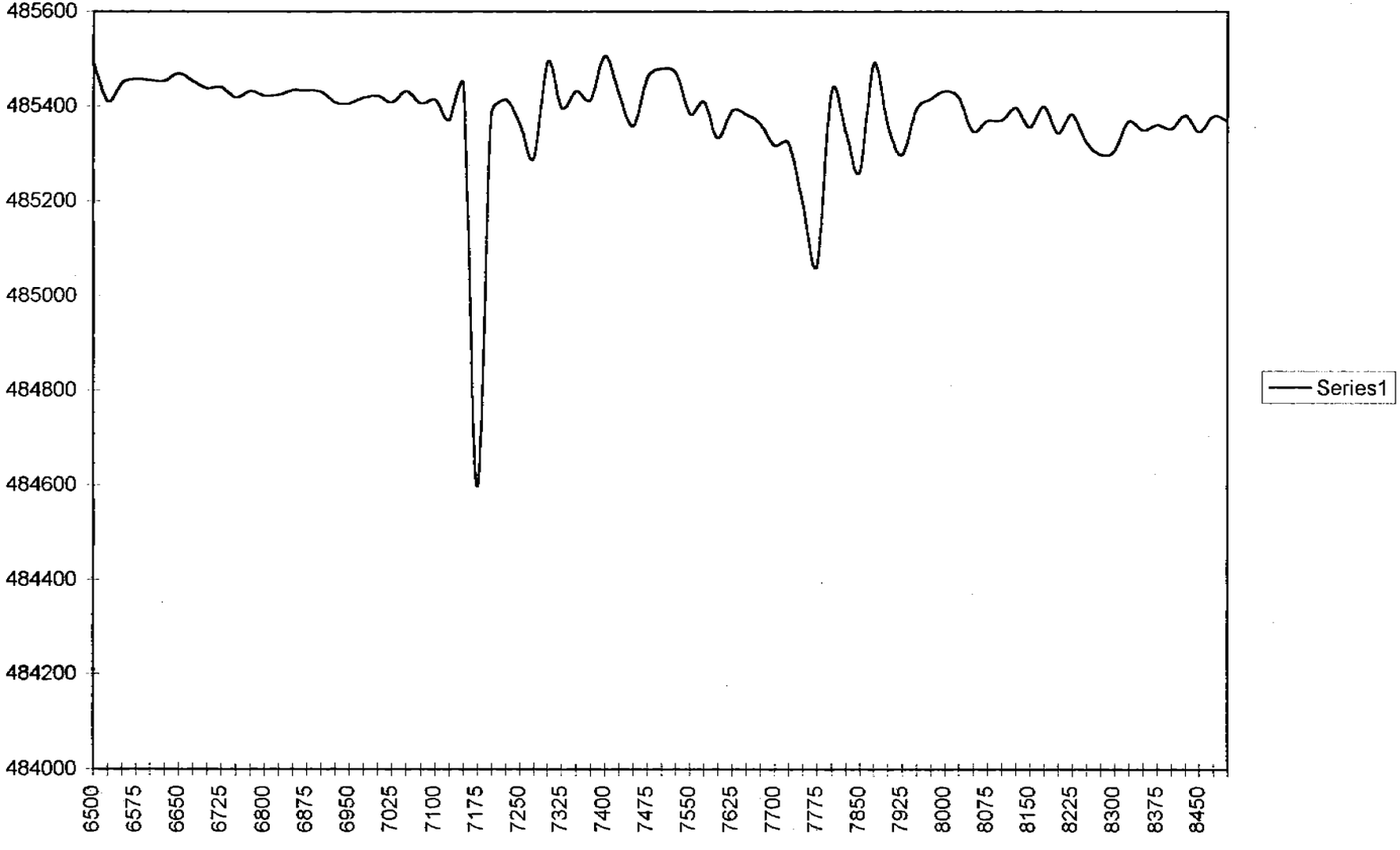
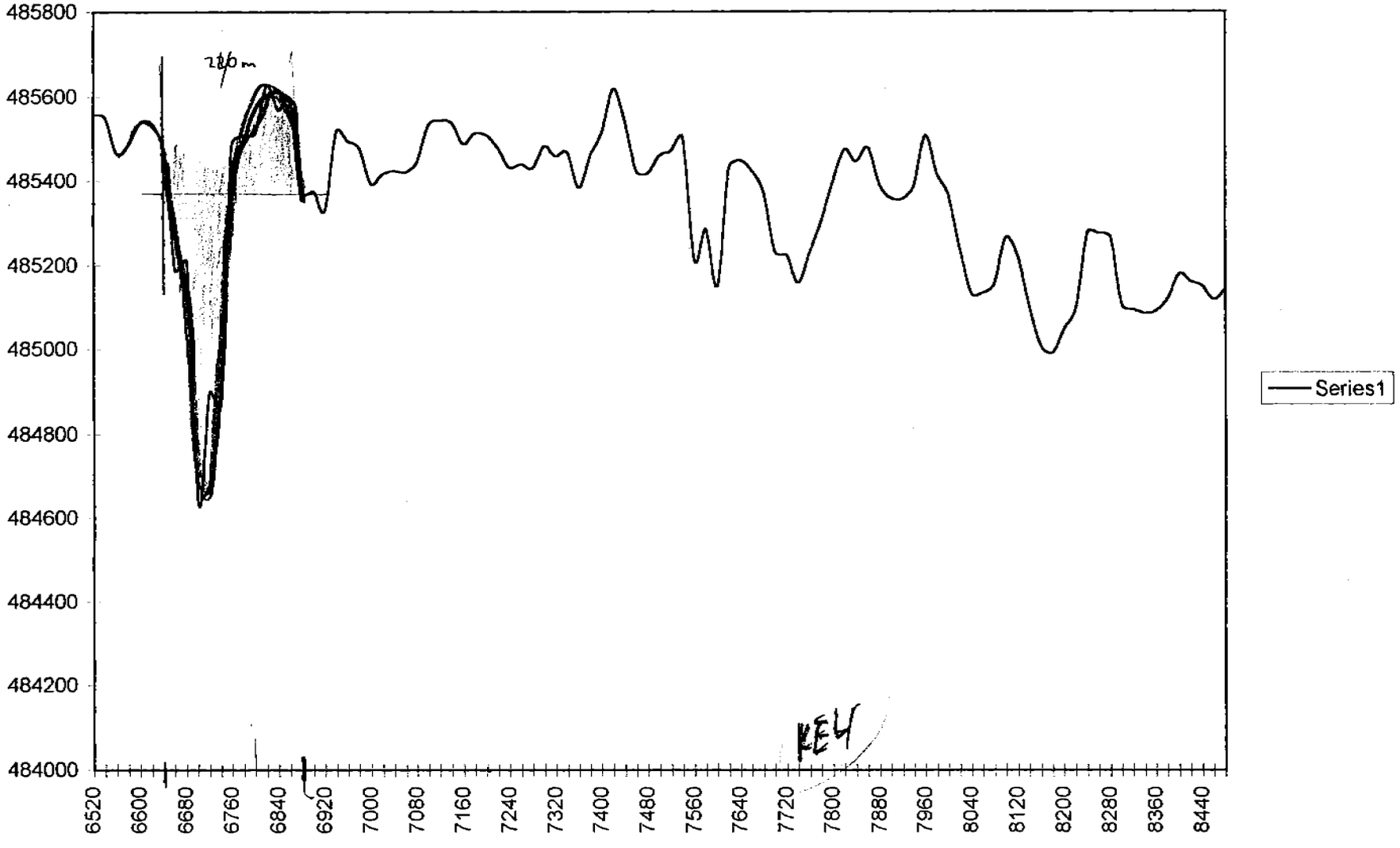


3 Point LINE 512000E



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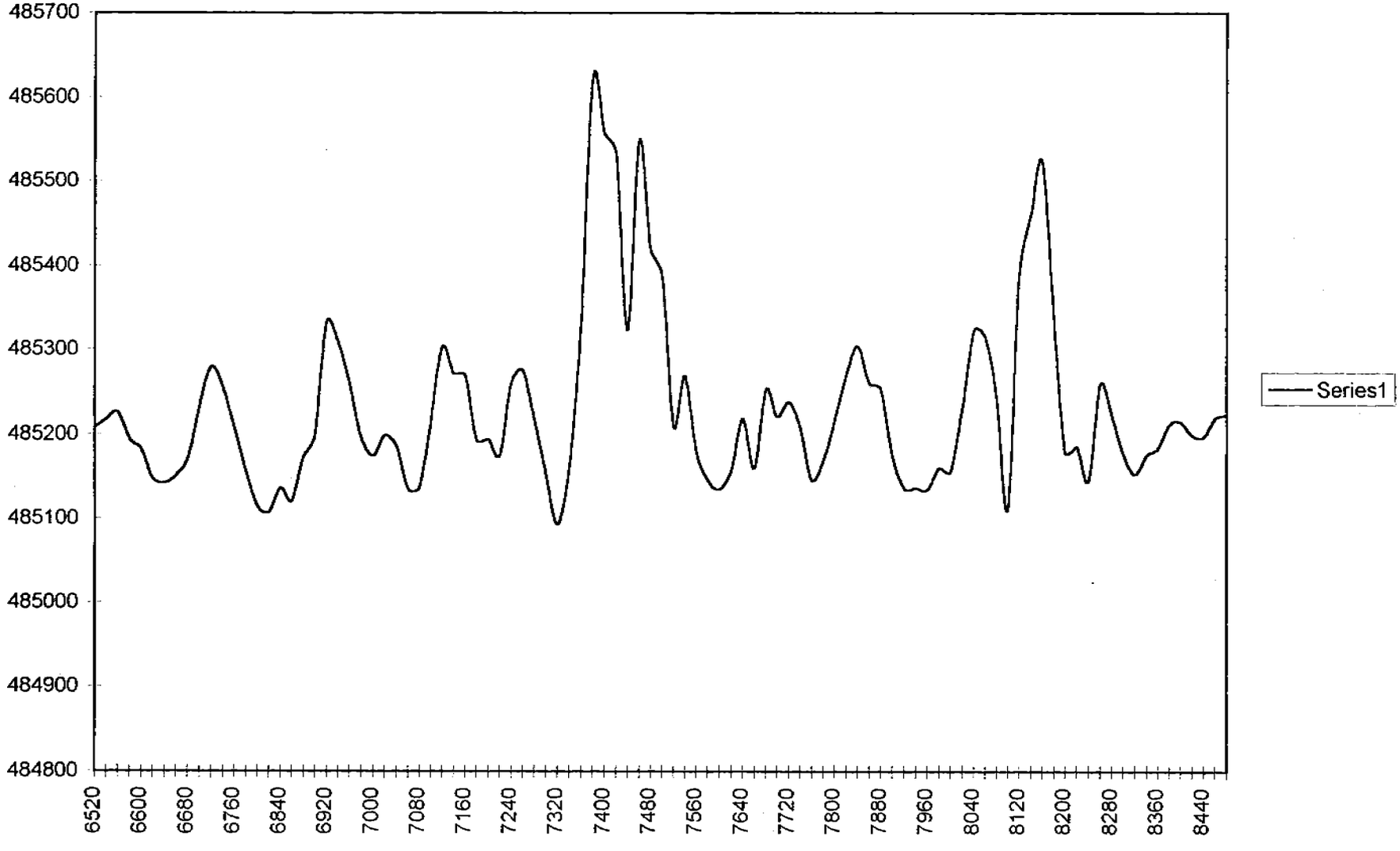

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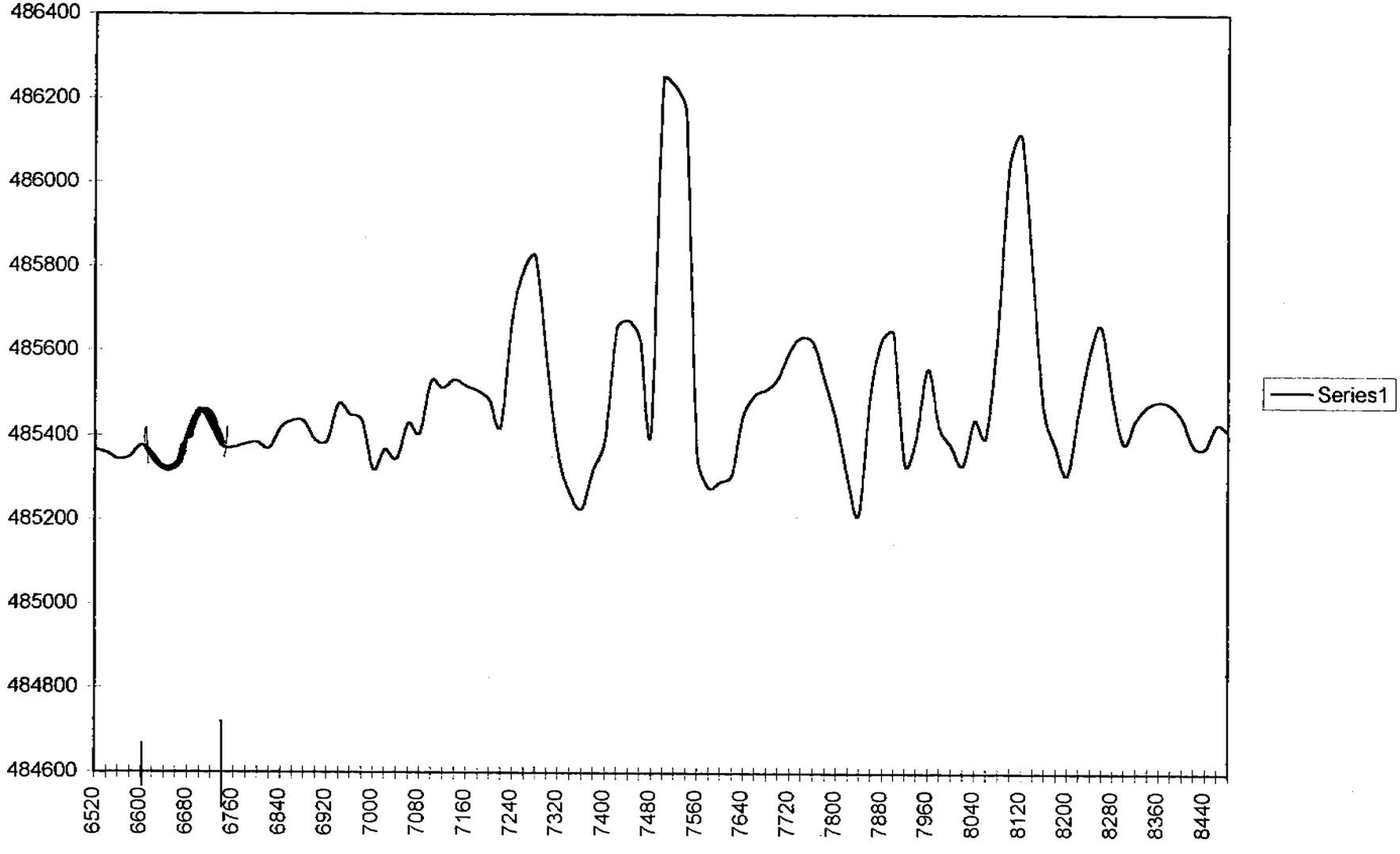

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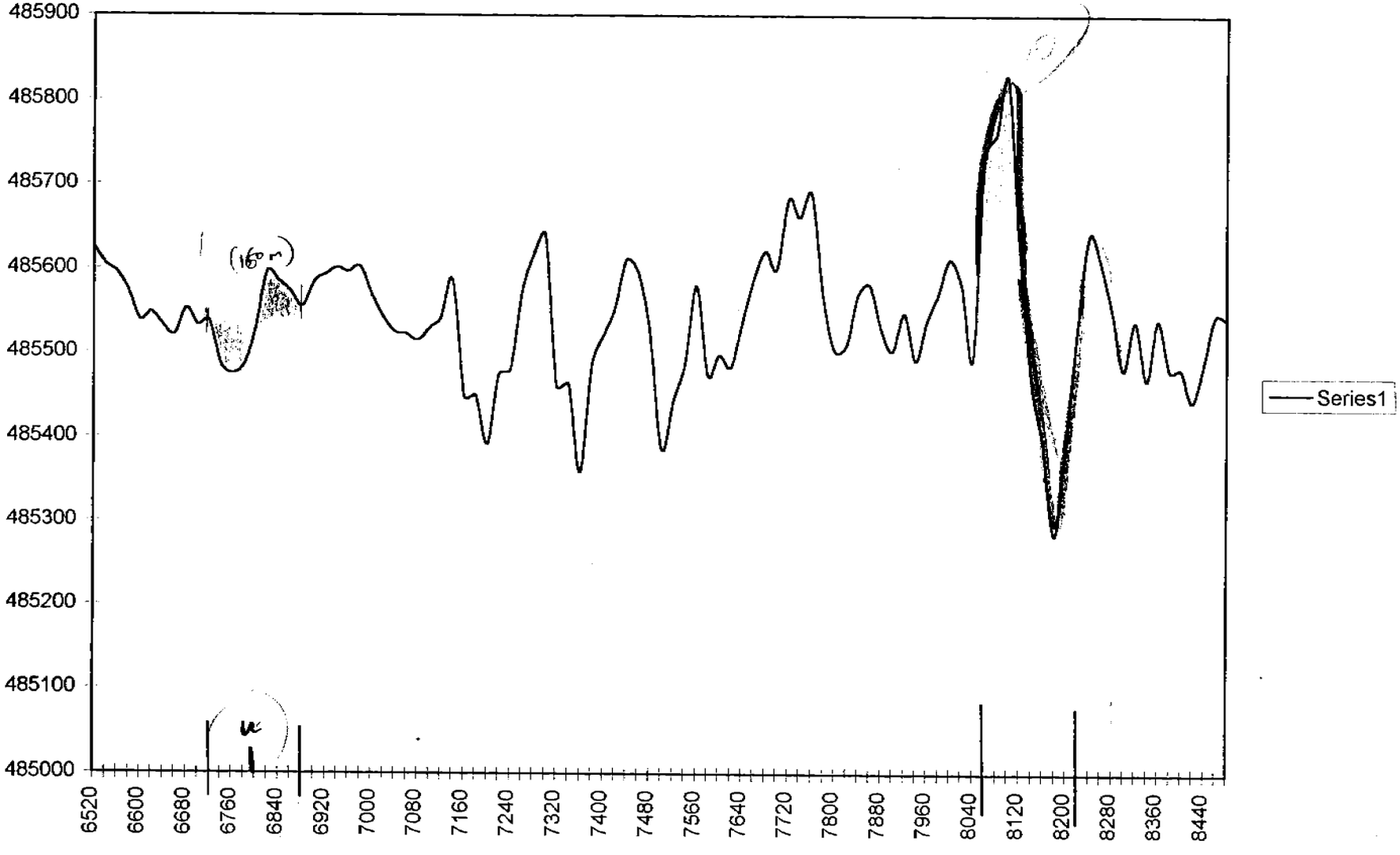

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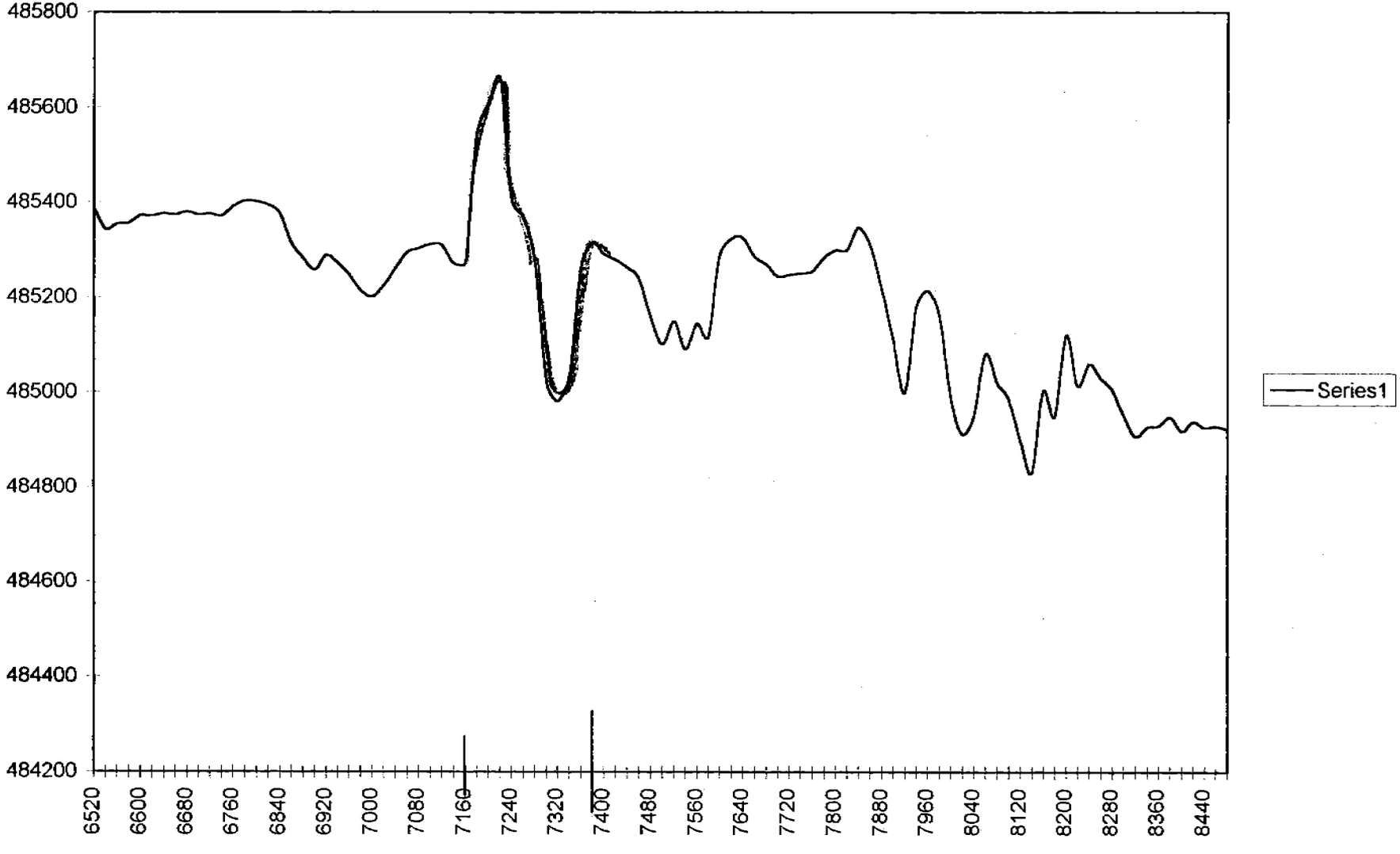

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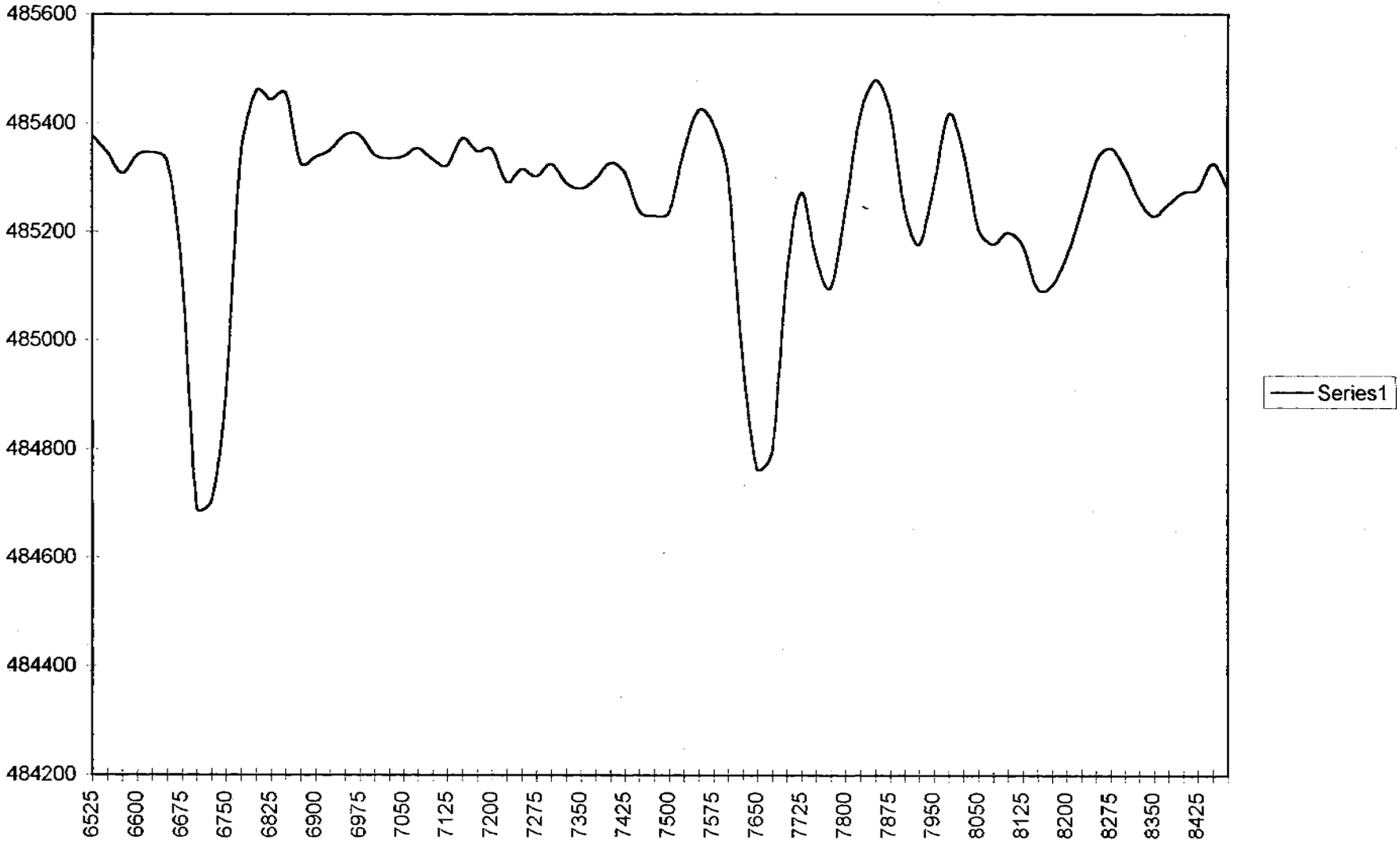
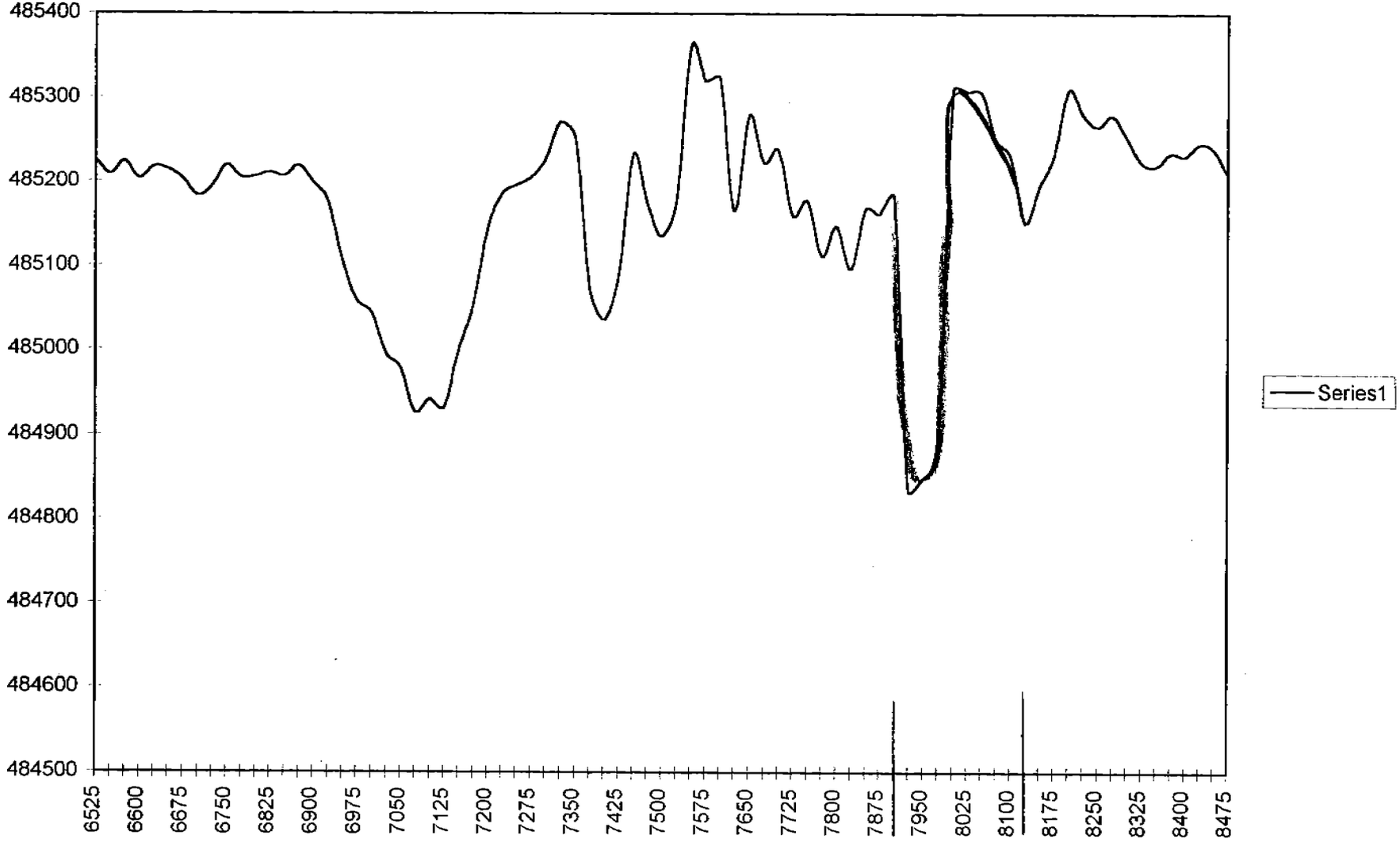
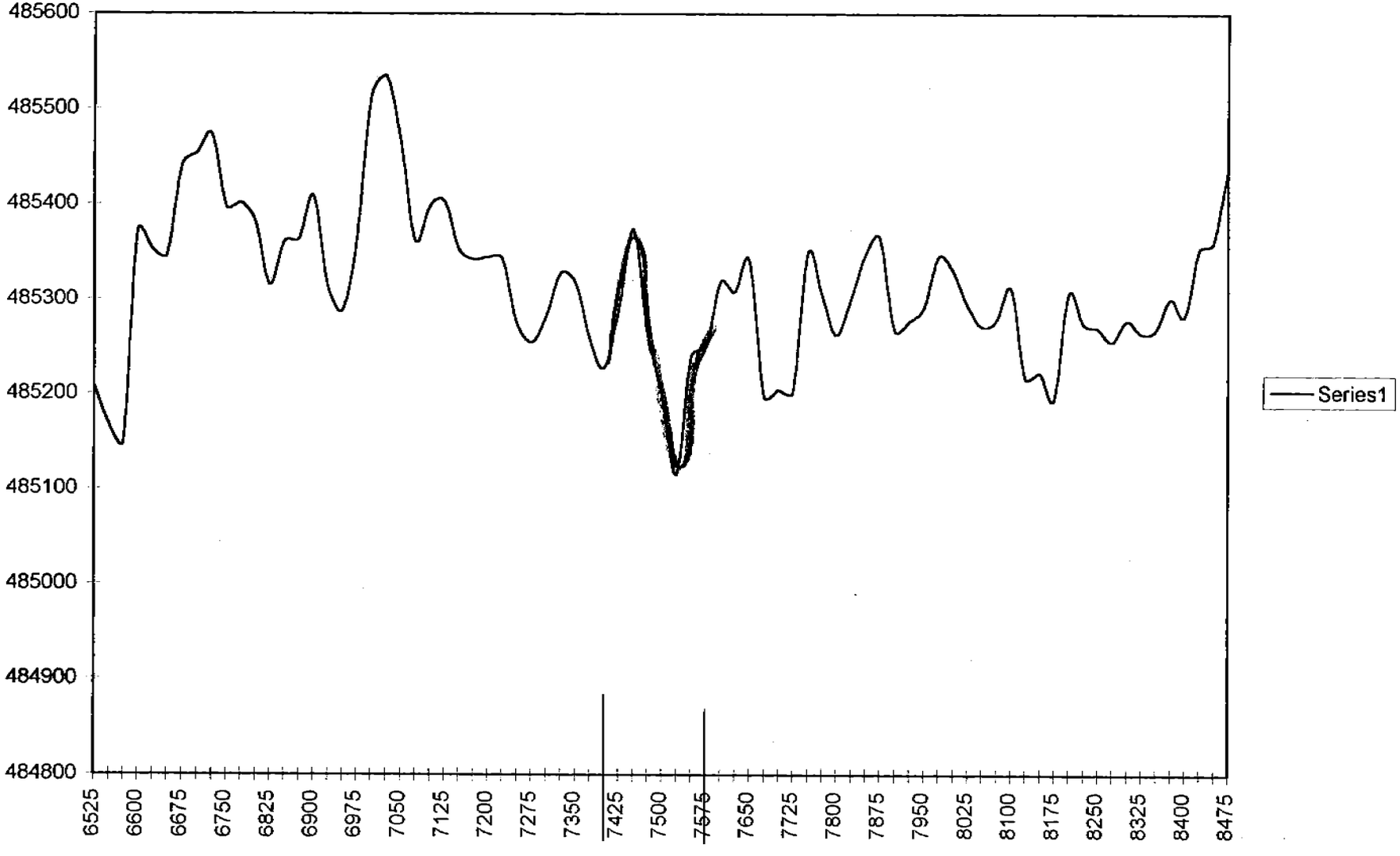


3 Point LINE 511400E



3 Point LINE 511300E



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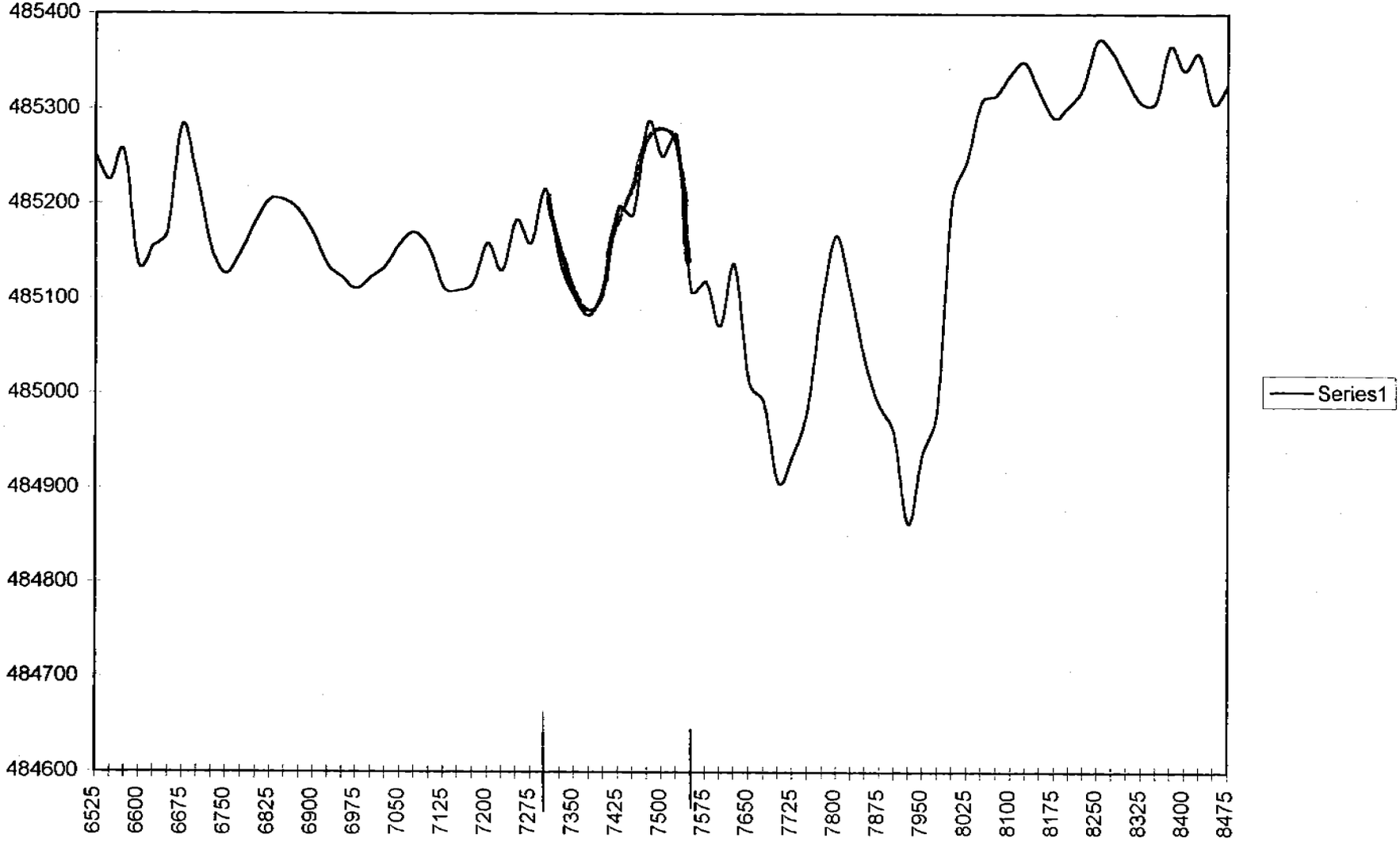


3 Point LINE 511100E

3 Point LINE 511000E

KEEP RIVER

TENEMENT OUTLINES

Scale	DATE	SHEET
1:100000	23/10/96	1 of 1
	REF No. plan 1	
	Plotted with MICROMINE	

500000E
510000E
520000E
530000E
540000E
8350000N
8340000N
8330000N
8320000N
8310000N
8300000N
8290000N

KEEP RIVER

DIAMOND SAMPLING LOCATIONS

Scale	DATE	SHEET
1:100000	23/10/96	1 of 1
	REF No. plan 2	
	Plotted with MICROMINE	

500000E 510000E 520000E 530000E

8350000N 8340000N 8330000N 8320000N 8310000N 8300000N 8290000N

EL8676

EL8678

EL8677

V V1 KE1 KE2 KE84 KE63 T1 KE4 KE5 U KE6 KE7 KE76 KE78 KE79 KE80 KE81 KE8 KE9 KE75 KE10 KE13 KE82 KE72 KE70 KE71 P KE73 KE74 KE64 Q KE11 P1 KE12 P2 KE14 KE15 KE66 KE16 KE65 KE67 KE17 KE18 GS KE69 KE68 B KE29 KE28 KE59 KE60

LEGEND

- POSITIVE CHROMITE
- POSS/PROB CHROMITE
- NEGATIVE

6800N

7200N

7600N

8000N

8400N

511200E

511600E

512000E

6800N

7200N

7600N

8000N

LEGEND

5631	5481	5316	5151	4931	4691	4930	4690
9999	5630	5480	5315	5150	4930	4690	0

ZEPHYR MINERALS N.L.

NOTES :

NOTES :

Scale	DATE	SHEET
1: 2500	24/10/96	1 of 1
	REF No. plan 3	

0 100 200

KEEP RIVER
GROUND MAGNETIC SURVEY

CR96/835

ONSHORE NT / BONAPARTE BASIN

SP 132			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	3139	136
300	3000	3544	449
640	3300	4537	1061
900	3700	6115	1641
1080	4200	4916	2191
1800	4600	5867	3961
2460	4900	5877	5868
4000	5300		10429

SP 148			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2700	2900	0
290	2900	3396	406
700	3200	5282	1117
870	3700	5708	1566
1100	4200	4867	2222
1760	4500	5842	3836
2400	4900	5848	5736
4000	5300		10414

SP 163			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2824	136
500	2900	3962	700
720	3200	4538	1136
1080	3700	4862	1962
1700	4200	6500	3400
2290	4900	5793	5400
4000	5300		10360

SP 183			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
60	2700	2810	68
560	2800	3962	784
810	3200	4766	1278
1110	3700	4364	1987
1560	3800	5604	2967
2250	4500	6178	4919
4000	5300		10325

SP 203			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	3087	136
200	2900	3308	289
380	3100	3826	587
800	3600	4512	1381
1260	3800	5493	2428
1900	4630	5615	4186
2860	4900	6181	6853
4000	5300		10407

SP 223			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2960	135
240	2800	3267	336
640	3100	4862	988
820	3600	5410	1408
1200	4200	4871	2436
2100	4500	5814	4628
2820	4900	6151	6757
4000	5300		10386

SP 243			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	3045	136
230	2900	3646	333
400	3200	4056	636
900	3700	5644	1650
1150	4200	4925	2366
1900	4500	5849	4202
2600	4900	5872	6250
4000	5300		10430

SP 263			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2964	136
400	2900	3768	580
700	3300	3927	1145
1000	3600	5008	1734
1300	3800	4721	2486
1900	4200	6390	4080
2760	4900	6087	6662
4000	5300		10342

SP 283			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	3087	136
200	2900	3187	289
640	3100	3747	980
900	3300	4076	1478
1150	3700	4736	2087
2100	4200	5298	4336
2800	4600	6811	6191
4000	5300		10277

SP 303			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2976	135
360	2900	3774	507
510	3200	3420	808
920	3300	5665	1510
1060	3700	4344	1907
1600	3900	5303	2862
2460	4500	6373	5408
4000	5300		10315

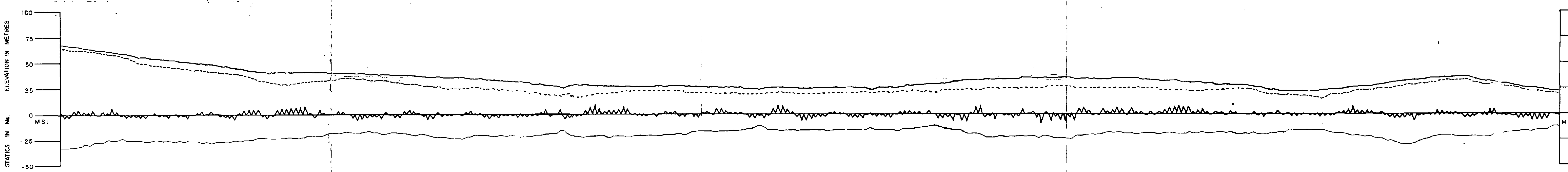
SP 323			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
200	2700	3087	270
400	2900	3900	579
820	3500	4502	1416
1300	3900	6742	2497
1560	4500	5785	3373
2180	4900	5743	5167
4000	5300		10392

SP 343			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2996	135
300	2900	5358	434
370	3500	3853	622
830	3700	4674	1508
1020	3900	6059	1962
1150	4200	5938	2346
1350	4500	5510	2940
2150	4900	5730	5144
4000	5300		10444

SP 363			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2849	135
300	2800	3277	420
500	3000	4758	748
550	3200	3643	867
700	3300	4683	1140
1150	3900	4722	2193
1750	4200	5344	3610
2300	4500	6221	5080
4000	5300		10367

SP 383			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2849	135
300	2800	4243	420
530	3500	3789	908
800	3600	3871	1419
1250	3700	5073	2290
1860	4200	6082	3838
2150	4500	6099	4719
4000	5300		10361

SP 403			
TIME (MS)	VRMS (MPS)	VINT (MPS)	DEPTH (M)
0	2600	2700	0
100	2700	2833	135
400	2800	3053	560
650	2900	4652	942
800	3300	4984	1290
1200	3900	4846	2267
1700	4200	6004	3478
2600	4900	5972	6180
4000	5300		10360



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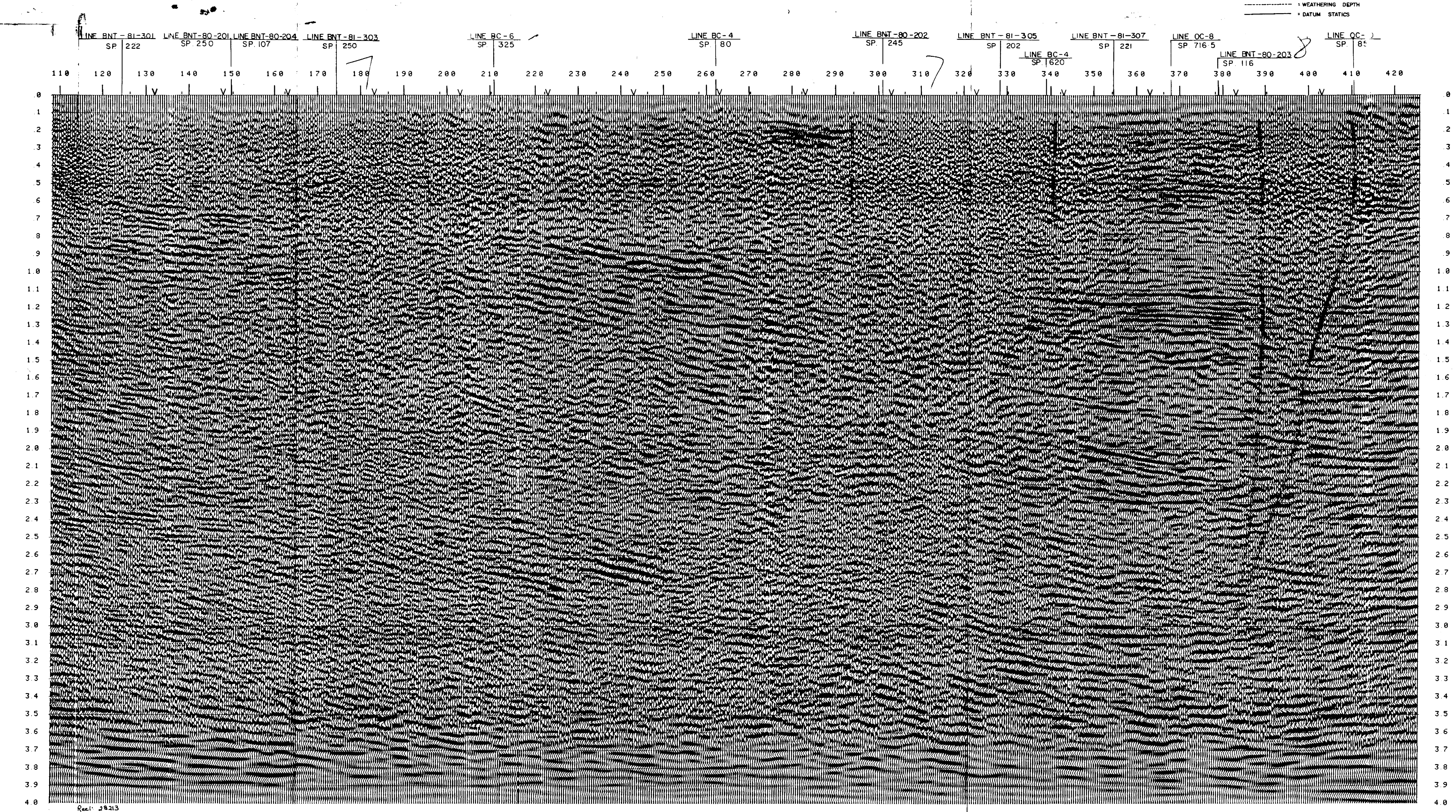


AUSTRALIAN AQUITAINE PET. PTY. LTD.

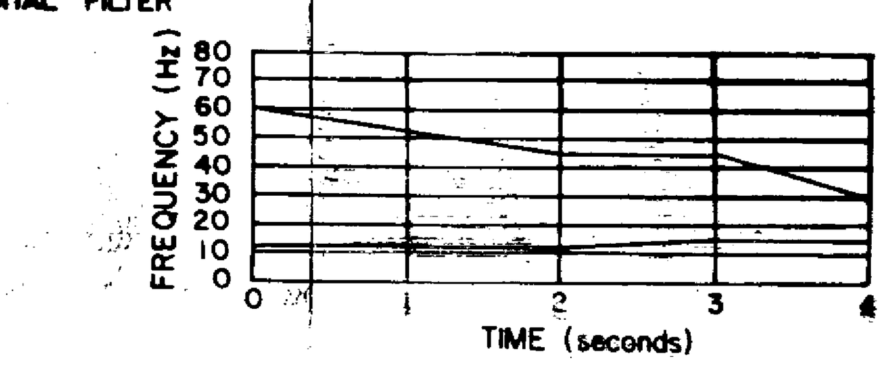
AREA : BONAPARTE GULF BASIN
LINE : BNT 81-302
SHOTPOINTS : 429–106 WAVE EQUATION MIGRATION

FIELD DATA

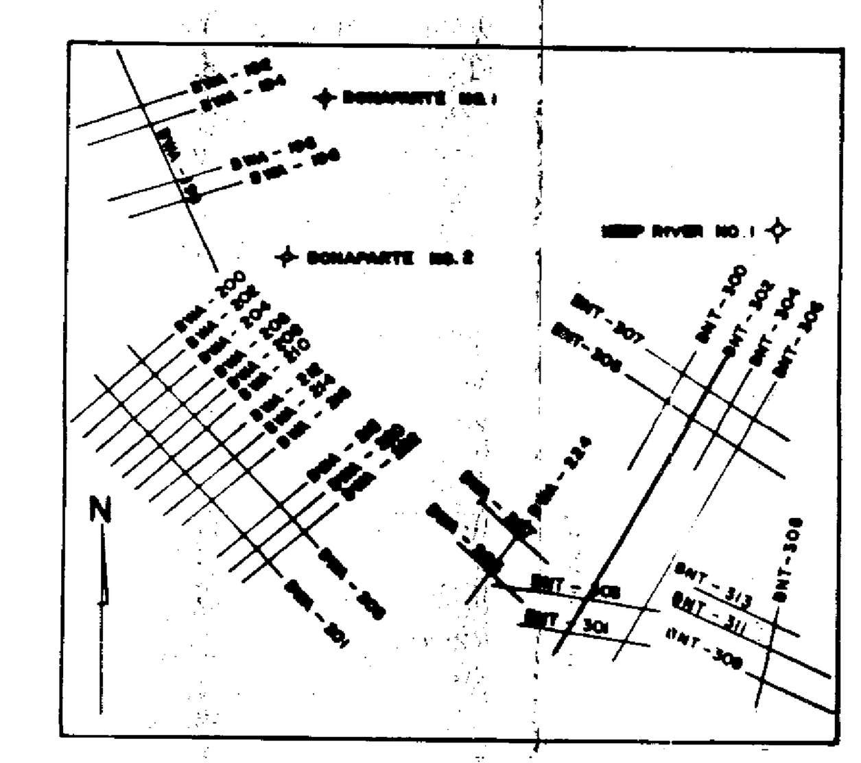
DATE – 24 TH AUGUST – SEPTEMBER 1981.
CREW – HORIZON EXPLORATION LTD.
FIELD REEL – 006–013
RECORDING INST – MDS 10 / SMM-1
RECORDING FILTER – 9 – 62.5 Hz
RECORD LENGTH – 19 sec SAMPLE RATE – 4 ms.
GAIN – I.F.P.
SPREAD CONFIGURATION – 1425 275-0-275-1425 M.
GROUP INTERVAL – 50 M GEO. PATTERN – 24 PHONES IN LINE 3.3 m SPACING
SP INTERVAL – 50 M
GEOPHONES – SM 4 (10 Hz.)
POLARITY – NORMAL
SWEEP LIMITS – 12–60 Hz
NR OF SWEEP / VP – 12

PROCESSING

1. BINARY GAIN RECOVERY EXPONENTIAL RATE 3 db / sec. GATE 0 – 3.0 sec
2. EDITING AND COMMON DEPTH POINT GATHER
3. FIELD STATICS APPLIED DATUM – MEAN SEA LEVEL
4. DECONVOLUTION BEFORE STACK
   NO. OF FILTER 1, WHITE NOISE 1 % FILTER LENGTH 120 ms. GAP LENGTH 16 ms.
5. NORMAL MOVEOUT – INITIAL FUNCTION
6. 24 FOLD INITIAL STACK, FILTER
7. N.M.O CORRECTED C.D.P. GATHER DISPLAY
8. VELOCITY ANALYSIS BEFORE RESIDUAL STATICS
9. RESIDUAL STATICS & 24 FOLD AUTOSTATICS STACK
10. VELOCITY ANALYSIS AFTER RESIDUAL STATICS
11. 24 FOLD STACK
12. DIGITAL FILTER



13. TIME VARIANT SCALING
14. WAVE EQUATION MIGRATION (USING 0.95 OF DIP – CORRECTED STACKING VELOCITIES)



DISPLAY HORIZONTAL SCALE : 22 trace / inch
VERTICAL SCALE : 3.75 inch / sec.
POLARITY : NEGATIVE NUMBER AS WHITE TROUGH
REEL : T - 28213
RECORD : 1-27

DATE 2 ND APRIL 1982

PROCESSED BY
digicon b.v.
SINGAPORE

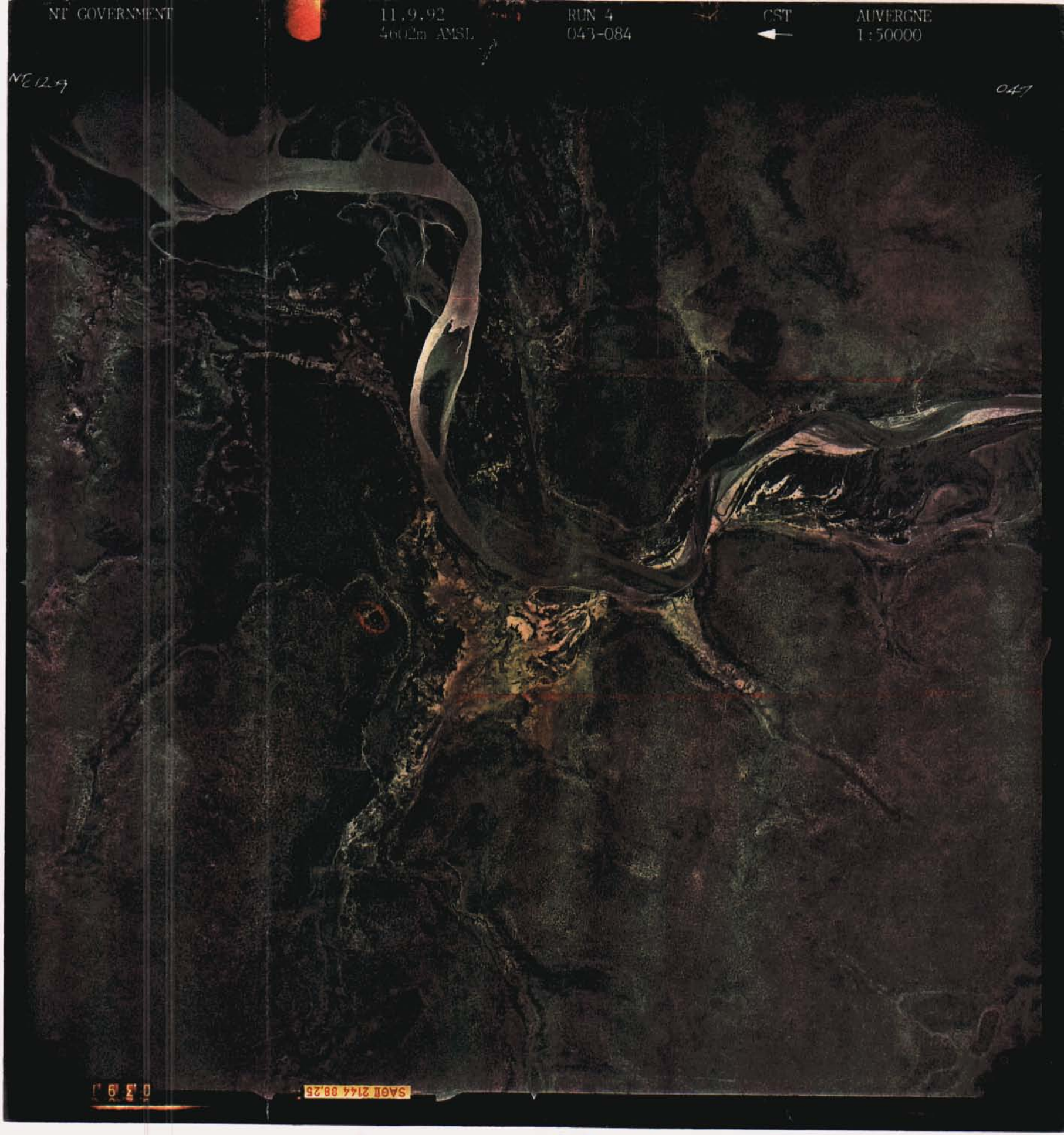
QUALITY CONTROL CHECK	
DISPLAY & DRAFTING	[illegible]
SEISMIC	JCB
PARTY CHIEF	[illegible]
SUPERVISOR	[illegible]

CR96/…

BNT 81 302 35-4-C

FP82

PLAN 4



PLAN 5