Natural Environment Research Council

Institute of Geological Sciences

Mineral Reconnaissance Programme Report

A report prepared for the Department of Industry

This report relates to work carried out by the Institute of Geological Sciences on behalf of the Department of Industry. The information contained herein must not be published without reference to the Director, Institute of Geological Sciences.

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No.62

Mineral reconnaissance in the Northumberland Trough

INSTITUTE OF GEOLOGICAL SCIENCES

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Mineral reconnaissance in the Northumberland Trough

Geology and geochemistry
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London 1983

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Bibliographic reference
Bateson, J. H. and others. 1983. Mineral reconnaissance in the Northumberland Trough *Mineral Reconnaissance Programme Rep. Inst. Geol. Sci.*, No. 62

Printed in England for the Institute of Geological Sciences by Imediaprint

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SUMMARY

A geochemical and geophysical reconnaissance programme was commenced in 1978 to investigate the favourability of the large Carboniferous depositional trough underlying Northumberland for the discovery of new metalliferous mineral deposits and/or new styles of mineralisation. The long historical association of the southern part of the area with successful mining ventures indicated that a more comprehensive evaluation of potential was justified. The importance of the Whin Sill as a host lithology had long been recognised and the disposition of the Sill played a significant part in determining the direction of effort in the area.

The association of mineral deposits with faulting in the Whin Sill was considered to justify an airborne magnetic survey for mapping such structures in that part of the basin underlain by the sill at shallow depth. The main geochemical effort involved a drainage reconnaissance of the entire Lower Carboniferous trough area.

The geochemical data obtained from stream sediments and panned concentrates were processed by computer, employing simple statistical techniques from which a number of anomalous areas were defined which are not attributable to either the known ore bodies or artificial contamination. The data derived from the regional geochemical survey identified not only the known (and now largely worked out) mining areas but also a number of other areas with anomalously high metal values. Barium, in stream sediments and panned concentrates, was a reliable indicator of mineralisation and identified the Settlingstones–Whinnetley–Fallowfield area. High barium values in concentrates were also obtained from an area to the south of Rothbury (Ewesley Farm) which is geographically remote from any known mineralisation. Soil samples subsequently collected in this area also contained elevated barium values, and it is considered that unexposed barium mineralisation exists in the area, probably associated with a fracture cutting the Whin Sill.

From the airborne geophysical data a number of linear magnetic anomalies were identified, several of which can be equated with known fault structures or their probable extensions. Of the faults thus indicated, some have carried significant mineralisation, and apparently related magnetic anomalies in their vicinity were thus identified as of possible mineral exploration significance. Several of these linear magnetic anomalies were further examined by geochemical (soil sampling) and ground-geophysical techniques. The geochemical data obtained from the soil traverses in the areas examined did not provide unequivocal information, values for the ore elements being generally low.

One magnetic anomaly indicating an eastward extension of the Sun Vein near to Newbrough was identified as a drilling target, and four inclined boreholes were drilled from two sites to test the fault structure affecting the Whin Sill as interpreted from the magnetic data. Three of the holes were continued to sufficient depth to pass through the Whin Sill and into the sediments beneath. Sufficient information was obtained from the holes to permit stratigraphic correlation between them and also to establish structural relationships, while considerable variation in the texture and degree of alteration of the quartz-dolerite was apparent in the cores. Base metal mineralisation associated with the alteration of the Sill, and also in some of the carbonate sediments, was identified.

Chemical analyses of samples from the Whin Sill quantify the changes in composition effected by the process of hydrothermal alteration.

Magnetic susceptibility values determined on the Whin Sill core show great variability, consistent with the variation in the degree of alteration to White Whin.

INTRODUCTION

The area under investigation occupies some 4500 km^2 in Northumberland, extending from Bewcastle in the southwest to the North Sea coast near Berwick-on-Tweed. The area is covered by Ordnance Survey 1:50 000 topographic sheets 75, 80, 81, 85, 86, 87 and by the published Geological Sheets 1 and 2, 3 and 4 at a scale of 4 miles to 1" in addition to the one-inch to one mile Geological Sheets 1, 2, 3, 4, 6, 8, 9, 13, 14, 18, 19 and 20 (Figure 1).

The area ranges in elevation from sea level to >500 m. There is a wide range of terrain, from the gently rolling, largely glacial drift-covered, intensely farmed coastal area to upland moorland and forest. The glacial deposits are of different types, mainly derived from the west and northwest by movement of the Western Ice from the

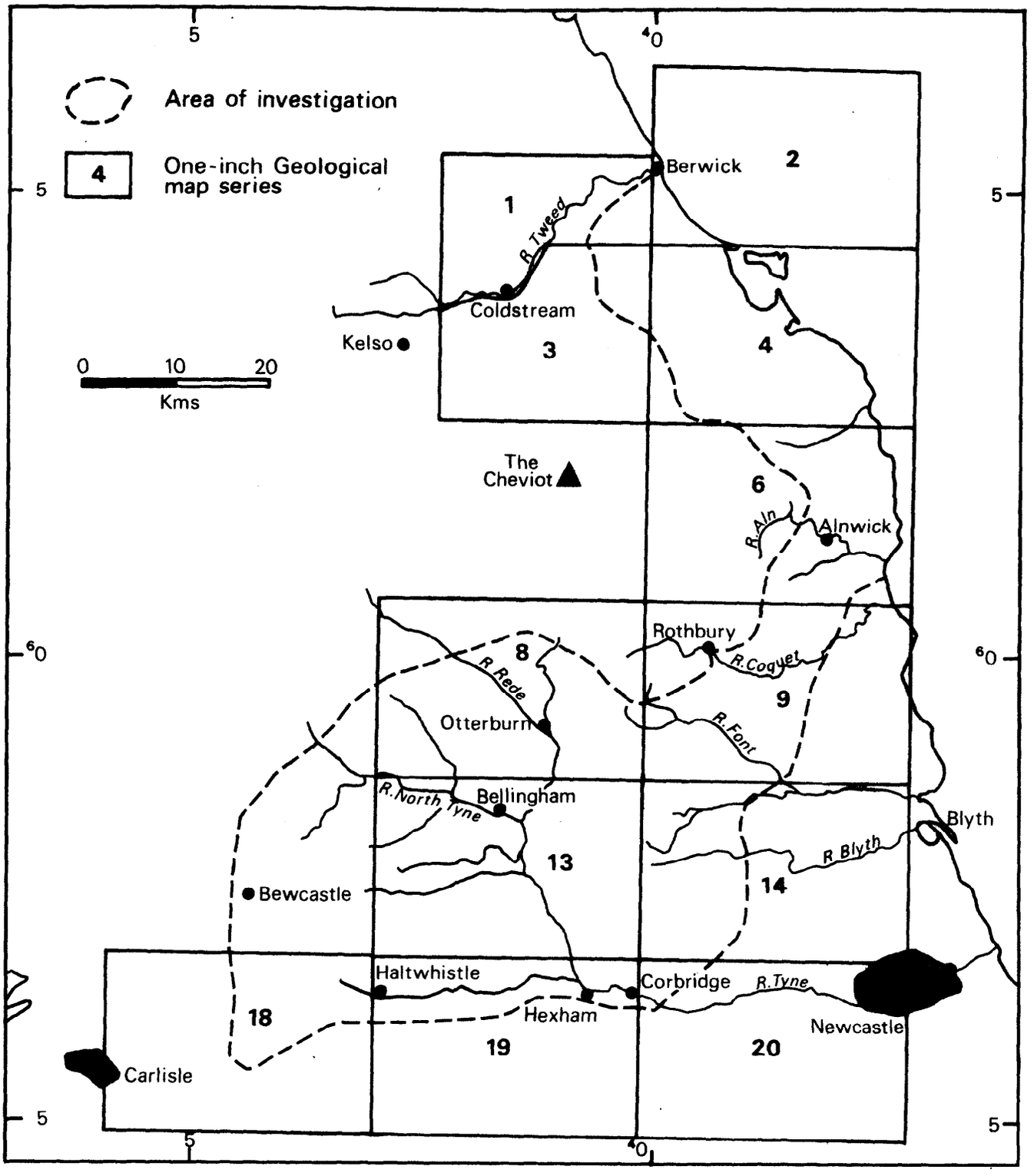


Figure 1. Area of investigation

Southern Uplands and Cheviots. Boulder clay, 6–9 m thick, is widespread over many parts of the area, with drumlin fields and areas of glacial outwash.

Little regional mineral exploration had been undertaken prior to this reconnaissance, except in the area bordering the Cheviot Complex (Haslam, 1975; Leake and Haslam, 1978). Information from the two earlier investigations has been incorporated into the report. Sampling in the Bewcastle area was undertaken by field parties engaged in the compilation of the Lake District sheet in the Regional Geochemical Atlas, and some data obtained from this source have also been incorporated.

GEOLOGY

INTRODUCTION

The present structural framework of Northern England was initiated by the northward movement of the upper crust towards the rising Caledonides (Leeder, 1974). This resulted in tensional stress which was relieved by linear zones of brittle fracture; differential movement along these resulted in the establishment of basin and block structures (Figure 2). By Upper Palaeozoic time these elements of the structure were well established, the rapid development of the basins being reflected in the great accumulation of sediments within them.

The Northumberland Trough is a Caledonoid downwarp in which some 2500 m of sediments accumulated during the Visean. It is bounded to north and south by the stable areas of the Southern Uplands and the Alston Block respectively. The former probably remained as a topographically positive area (indeed it provided much of the sedimentary infill of the trough) throughout the Carboniferous while the Alston Block survived as a land barrier until the last of the Visean transgressions (Figure 3). The Alston Block has a Visean sequence of strata from the Melmerby Scar Limestone to the Great Limestone.

STRATIGRAPHY

Within the trough, Carboniferous sediments from Tournaisian to Westphalian age are recognised (Taylor and others, 1971). The Lower Carboniferous sedimentary succession is conveniently subdivided into five main groups covering the Tournaisian and Visean as shown in Figure 4. The Tournaisian succession (Figure 5), represented by the Lower Border Group and equivalents, is exposed in several areas: at Bewcastle in the southwest, at Kielder and Redesdale in the centre, and in an arc surrounding the Cheviot massif northwards from Rothbury.

Approximately 500 m of alternating mudstones, limestones and subordinate sandstones are known from the Bewcastle–Canonbie area, resulting from deposition under shallow marine conditions; many of the limestones are algal.

To the northeast, conditions became progressively less marine, and the succession thins and is more arenaceous. The occurrence of algal limestones in the top 40 m of the succession (here about 220 m in total thickness) allows correlation to be made with the succession in the Bewcastle area; but the general characteristics of the sedimentary rocks show close similarity to the Cementstones Group which is 700 m thick in the Rothbury–Cheviot area. The succession in the most northeasterly area consists of a sequence of mudstones, sandstones and cementstones with algal limestones occurring locally.

As in the Tournaisian, the sediments of the Visean (Figure 6) vary in thickness as well as lithology when traced from southwest to northeast through the trough. The Middle Border Group, near to the base of the Visean, comprises 250 m of deltaic sandstones in the northeast but laterally is represented by a thicker succession including more argillaceous and calcareous strata to the southwest. Lithologically the succession here is similar to the Border Group of similar age on the southern flanks of the Southern Uplands.

The lithologies of the succeeding Upper Border Group (Scremerston Coal Group) indicate rhythmic sedimentation throughout the area, thin limestones alternating with thin coals, thick seatearths and mudstones, and grit/sandstone units; they yield only a restricted marine fauna. The increasing amount of Yoredale cyclic sedimentation (repeated limestone–mudstone–sandstone units) indicates more widespread marine transgressions, followed by delta progradation during regression periods, over large areas of the trough. Terrigenous detritus was still available from the Cheviot mass to the north and is recognised in the sandstones. South of Cheviot, the beds are thinner and more calcareous, and form the Liddesdale Group, the upper parts of which are associated with the known mineralisation. The thickness of this Group ranges from approximately 900 m in the northeast to more than 2000 m in the axial part of the trough.

Sedimentation continued into the Namurian and Westphalian with decreasing marine influence, these shallower water deposits being preserved in synclines mainly along the Stublick Fault Zone.

IGNEOUS ACTIVITY

The most important igneous event of the region was emplacement of the Whin Sill, there being only a thin group of submarine basalts in the Tournaisian of Redesdale. With a probable average thickness of some 30 m, the Sill generally lies in the middle of the Upper Liddesdale Group, though it also occurs at higher horizons.

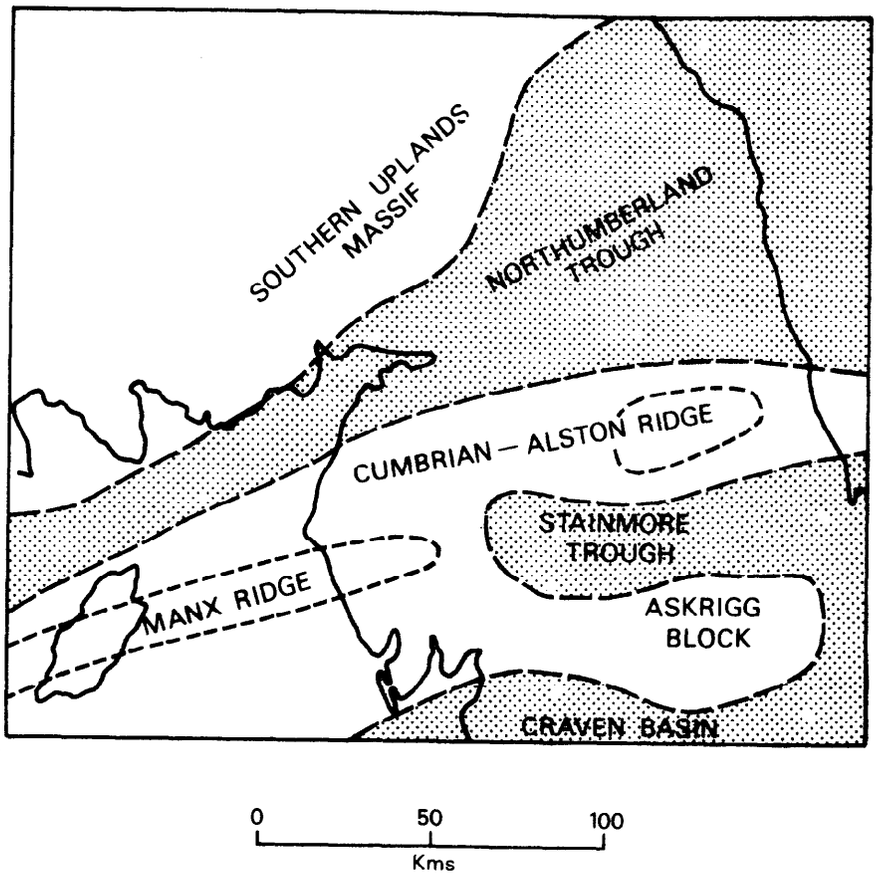


Figure 2. Geography of Lower Carboniferous (from Taylor and others, 1971)

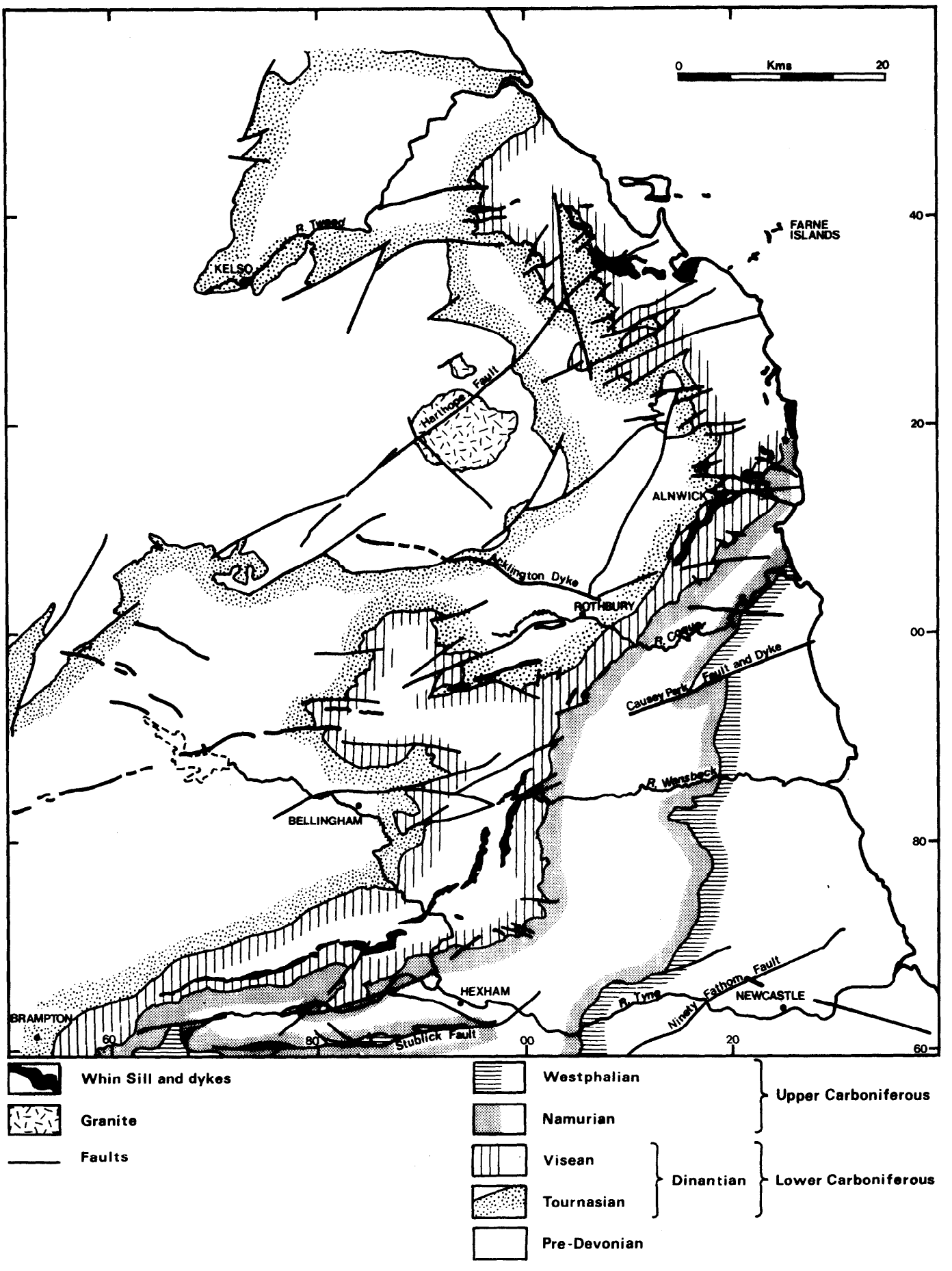


Figure 3. Geological map of Northumberland

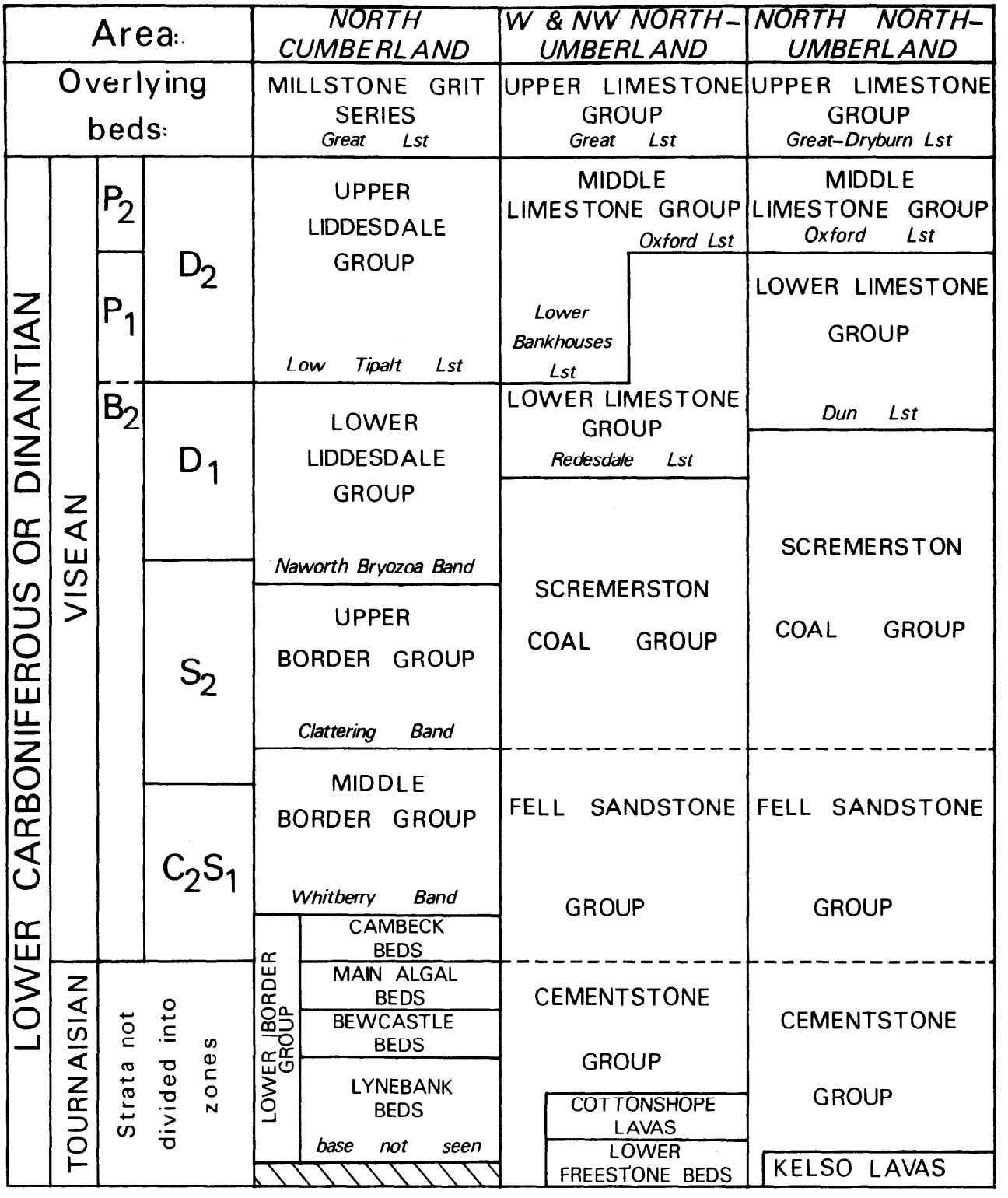


Figure 4. Dinantian succession in Northumberland (from Taylor and others, 1971)

ROTHBURY and east of LOWER TWEED

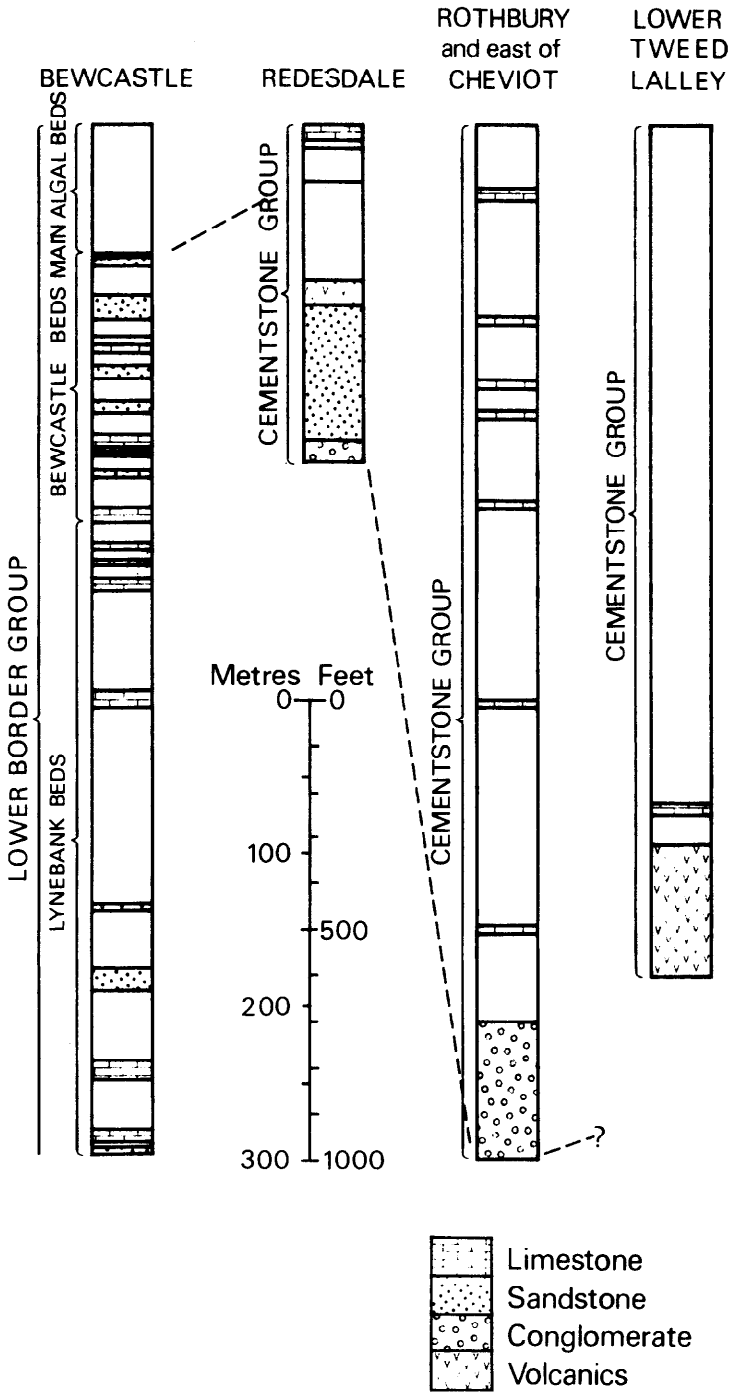


Figure 5. Comparative Tournaisian succession (from Taylor and others, 1971)

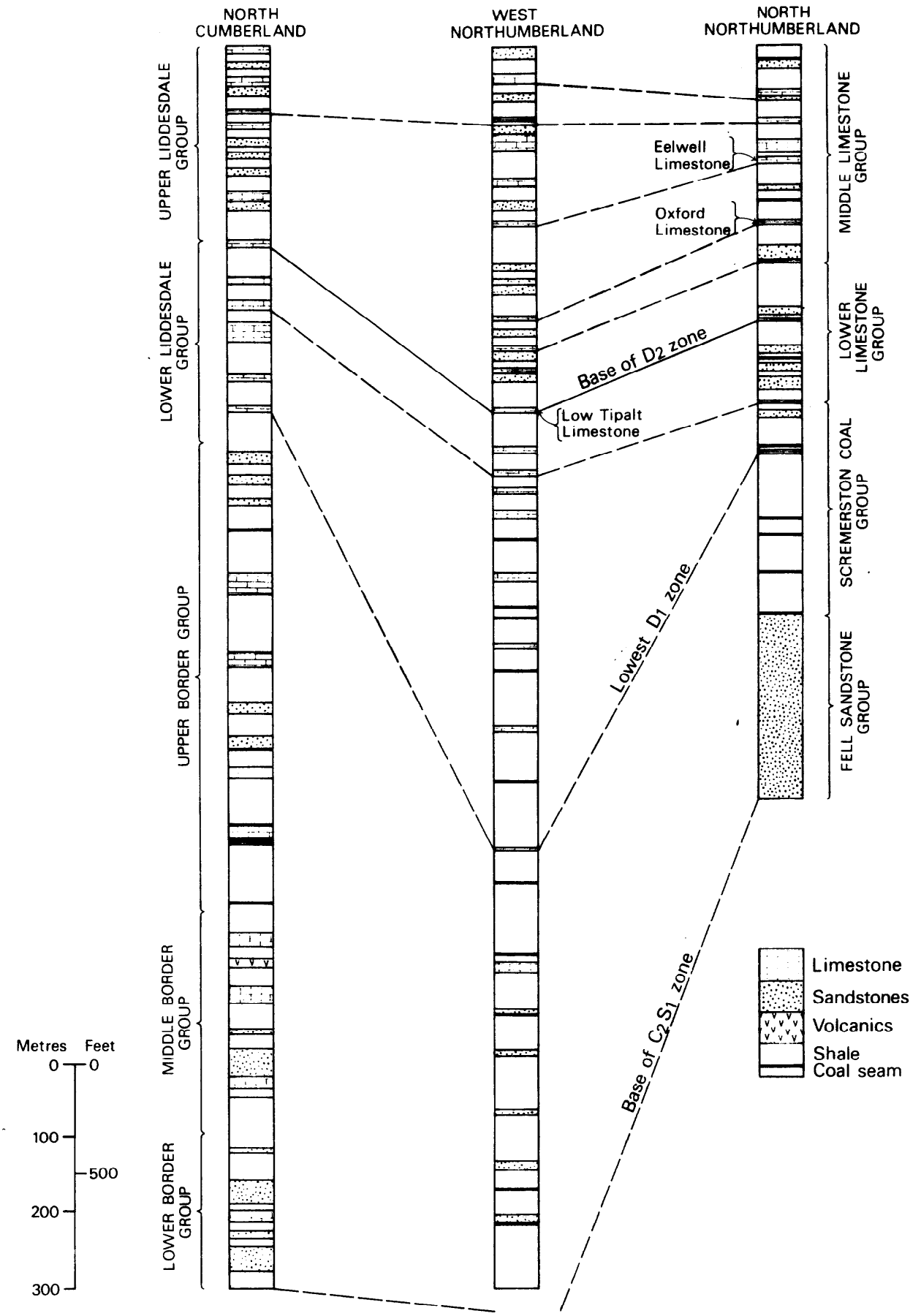


Figure 6. Comparative Visean succession (from Taylor and others, 1971)

In the northeastern part of the trough, the intrusion is seen locally as a pair of sills at different horizons. Dykes of similar quartz-doleritic composition also occur in the area, two of which (St Oswald's Chapel and Lewisburn-High Green dykes) are of considerable length. At a number of locations in the trough there are also northwest-southeast trending basic dykes, for example the Acklington dyke [NU 230020], which are related to a Tertiary event.

Fitch and Miller (1967) obtained an age of 295 ± 6 Ma for the Whin intrusion; recalculation using new constants gives 301 ± 6 Ma.

The Whin Sill is of considerable importance to the economic geology of the area, since when hydrothermally altered it is a favoured host for mineralisation. A number of the most productive orebodies in the area (Settlingstones, Stonecroft and Greyside) occupy positions within the Whin Sill.

STRUCTURE

The composition and structure of the Lower Palaeozoic basement beneath the Northumberland Trough can only be inferred by extrapolation of the Lower Palaeozoic features of the Southern Uplands. There, the main structural trend is north-eastwards and it may reasonably be assumed that this Caledonide direction dominates the grain of the basement of the Northumberland Trough.

Emplacement of the granitic masses of Cheviot and Weardale during Lower Old Red Sandstone times gave rise to slow isostatic uplift which was responsible for the initiation of the Stublick–Ninety Fathom Fault system close to the northern margin of the Weardale intrusion, and for the similar Alwinton–Ridlees Fault system south of the Cheviot mass. Continuing uplift led to erosion of the sedimentary cover of both granites, basal Carboniferous conglomerates containing boulders derived from these granites.

During the Carboniferous, the structural depression bounded by the fault systems activated during the emplacement of the granites was the site of the accumulation of a considerable (up to 2000 m) thickness of sediment.

The effects of Hercynian movements in the area are identified by the formation of the Bewcastle and Lemmington anticlinal structures, the result of generally west–east compression. There followed a period of wrench faulting, and the continuing build-up of stress within the hitherto stable Cheviot Granite was dissipated by the development of major dextral wrench faults. The intrusion of the Whin Sill and associated dykes is related to this phase of movement.

Renewed compression after the intrusion, and renewed movement along pre-existing fractures, was an important part of the later structural history of the region, since all the major, and most of the minor ore bodies are spatially related to faults.

HISTORY OF MINING

Documentary evidence indicates that mining, particularly of lead ore (Smith, 1923), was a widespread commercial occupation, within the area of the Northumberland Trough, by the end of the eighteenth century (Figure 7). At least two of the better known mines of the area, Settlingstones and Fallowfield, have documented history back into the 17th century. During the 18th and 19th centuries and early years of the 20th, a number of relatively small mines and trials were opened with varying economic success, and exploitation of some of the established mines continued well into the 20th century, finally ceasing with the closure of the mine at Settlingstones in 1968.

During the latter part of the 19th century the mines northeast of Morralee, including Waterhouse, Whinnetley, Langley Barony, Settlingstones and Stonecroft/Greyside, were at their maximum production and collectively produced some 132 700 tons of lead concentrate and 364 000 tons of witherite, the latter entirely from the Settlingstones mine. Silver is recorded from all the mines, in concentrations varying from 2.3 oz to 7 oz per ton of lead concentrate. The above mines fall along a pronounced northeast-trending system of sub-parallel faults that has been invaded by mineralising solutions.

Outside this mineralised zone, the mineral occurrences are small and many were not economically viable, the exception being at Fallowfield (on another approximately northeasterly-trending structure) which during the 19th century produced an estimated 105 000 tons of witherite and more than 10 000 tons of lead concentrate containing an average of 4 oz per ton silver.

PREVIOUS EXPLORATION

Prior to the work under review, there had been no attempt to investigate this large Lower Carboniferous sedimentary basin on a regional scale. The Cheviot area was examined by Leake and Haslam (1978) who carried out a geochemical study using panned concentrates from stream sediments. An earlier study of stream waters and stream sediments from the Cheviot area was reported by Haslam (1975).

A small suite of panned concentrates had also been collected from the Kelso map sheet (Smith, R. T., oral communication, 1980) in the course of a geochemical survey of the Lower Carboniferous rocks at the southern boundary of the Southern Uplands. Information relating to the Carboniferous areas from these surveys has been considered in the results obtained in the recent survey. In addition, material collected in the area of the Bewcastle anticline for ultimate inclusion in the Lake District sheet of the Geochemical Atlas of Great Britain, has also been used.

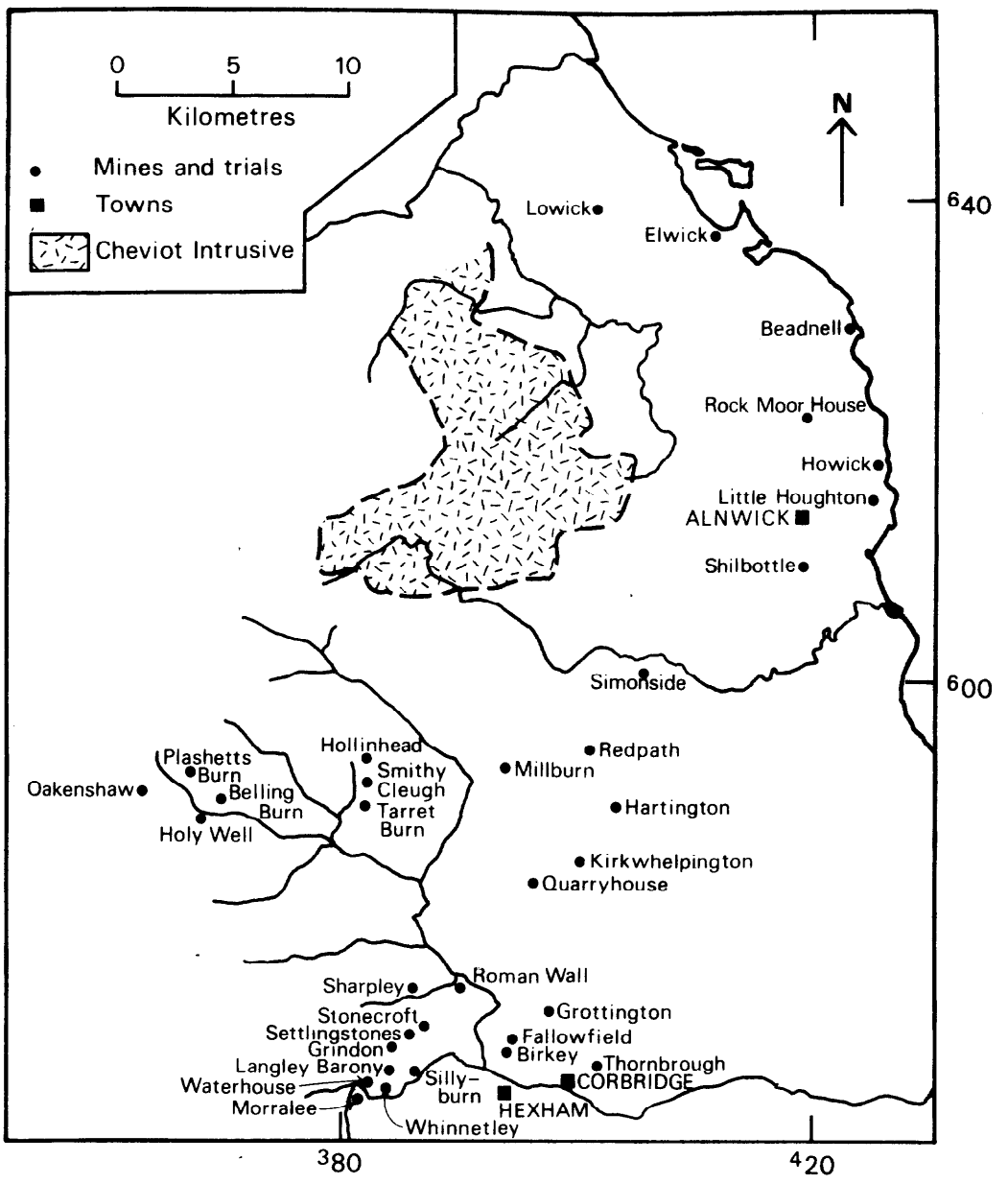


Figure 7. Mines, trails and mineral shows in Northumberland

LANDSAT IMAGERY

The literature search that preceded the field-work indicated that there was a strong spatial relationship betwen the location of known mineralisation and mapped faults. At an early stage of the investigation it was, therefore, decided to examine Landsat images in order to investigate the possibility that some major structural control could be identified. The study was undertaken on 1:250 000 prints of bands 5, 6 and 7 of the Landsat image taken on 8 June, 1975. Geographical and geological control was based on the published 4 mile to 1 inch geological sheeets 1, 2 and 4.

Linear features were identified by eye or with a 5 inch hand lens, but no attempt was made at the plotting stage of the investigation to differentiate between or to identify the origin of the lineations.

This Landsat analysis shows (Figure 8) that there are 4 main directions of linear features: NE–SW, NW–SE, N–S and E–W. No attempt has been made statistically to evaluate their directional frequency, but the NE and NW directions appear to occur most frequently. The lineaments vary in length from 0.5 km to more than 25 kms. Their density is not uniform, there being a less dense pattern in the area to the south-west of the Cheviot complex (which may reflect the dominantly moorland characteristics of the area). By contrast, a high density of fractures occurs in the southeast, despite the fact that much of this area has been subject, for a considerable period, to agricultural development, a factor that in many areas results in the suppression of all but the strongest linear features.

Of the features shown on Figure 8, three sets of fractures are most prominent.

1 an E–W system to the south of the S. Tyne River.

2 a pair of long (in excess of 40 km) features trending NE–SW lying to the north and south of the Cheviot complex and extending SW as far as the E–W system referred to in 1.

3 a series of approximately NW–SE features on the eastern side of the Vale of Eden.

The interpretation of the features referred to in 1 and 3 is relatively straightforward, since the former is clearly the Stublick–Ninety Fathom Fault zone and its extensions beneath younger cover to east and west, while the latter is the Pennine Fault system.

The cause of the NE–SW, approximately parallel, features referred to in 2, is less apparent. The most northerly of the pair coincides approximately with the boundary between the Lower Palaeozoic (mainly Silurian) rocks of the Southern Uplands and the Carboniferous sediments at the margin of the Northumberland Trough. The parallel linear feature some 30 km to the SE lies along the line of an intra-Carboniferous Fault at its northeastern end; but to the SW it coincides in part with the mapped boundary between the D_2 and D_3 sediments in the Carboniferous succession. This feature also coincides, in its middle section, with a zone where the Whin intrusion is represented by two sills.

The main lineaments as outlined (1 and 3) above seem to define clearly the margins of the Alston Block, being equated to the Stublick–Ninety Fathom and the Pennine Fault zones, while the NE–SW lineaments (2) may, by virtue of their similar characteristics, be regarded as defining a block extending SW from the Cheviot mass which could be interpreted as a marginal downfaulted segment of the Southern Uplands massif. It also seems probable that these bounding fractures played a role in (a) generally delimiting the northward extent of the Northumberland Carboniferous trough and (b) exerting some specific control on the size of the Upper Carboniferous basin in particular.

The significance of the remote sensing work is that it helps to determine a three-dimensional structural model of the region, of value in delineating the areas in which mineralisation is most likely to be found. Using a working hypothesis of migrating fluids being expelled from deeper parts of a sedimentary basin, then this simple structural analysis identifies, in broadest terms, the area likely to be the locus of mineral deposition. The area of mineralisation in the Haltwhistle–Corbridge–Hallington triangle coincides with the junction of two 'lines of least resistance', the northern margin of the Alston Block and a major NE–SW lineament.

GEOCHEMICAL SURVEY

INTRODUCTION

The reconnaissance geochemical sampling was based on stream sediments and panned concentrates. Descriptions of the sample collection techniques and methods of chemical analysis are given in Appendices 1 and 2.

Sample sites for the stream sediments (approximately 2000) were selected to give an average sampling density of 1 sample per 2–2.5 km^2 (Figure 9). Panned concentrates, although collected only from selected sites, were obtained in sufficient numbers to represent all the main drainage basins.

Soil sampling was restricted to six relatively small areas, five of which were defined from the examination of data from the airborne geophysical survey. The sixth area, at Ewesley, was selected on the basis of high barium values obtained from panned concentrates. The soil samples were taken by hand auger from depths varying from 0.5 to 1.0 m beneath surface. Spacing between samples varied from area to area depending upon local conditions and the overall

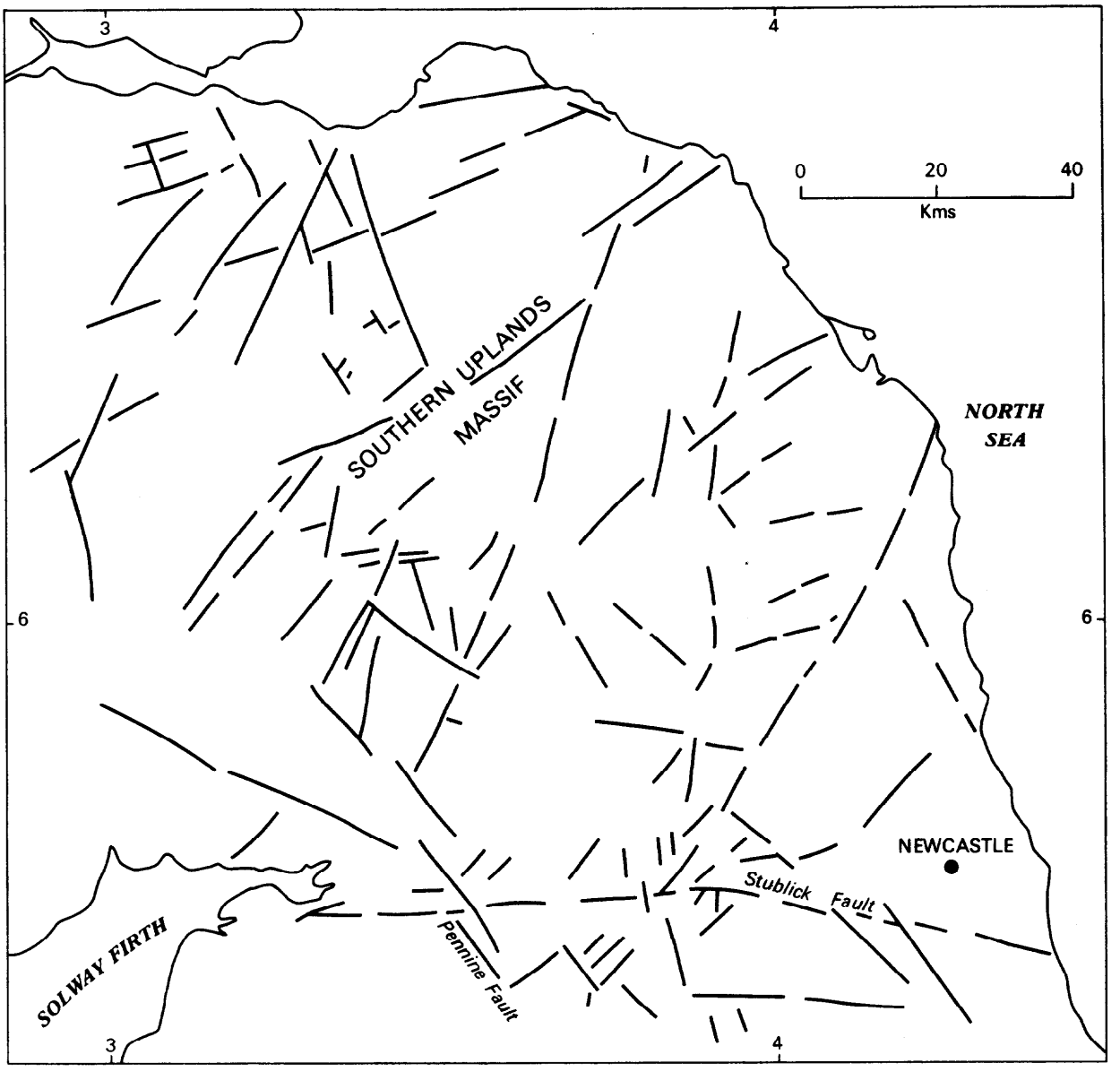


Figure 8. Main elements of structure from Landsat imagery

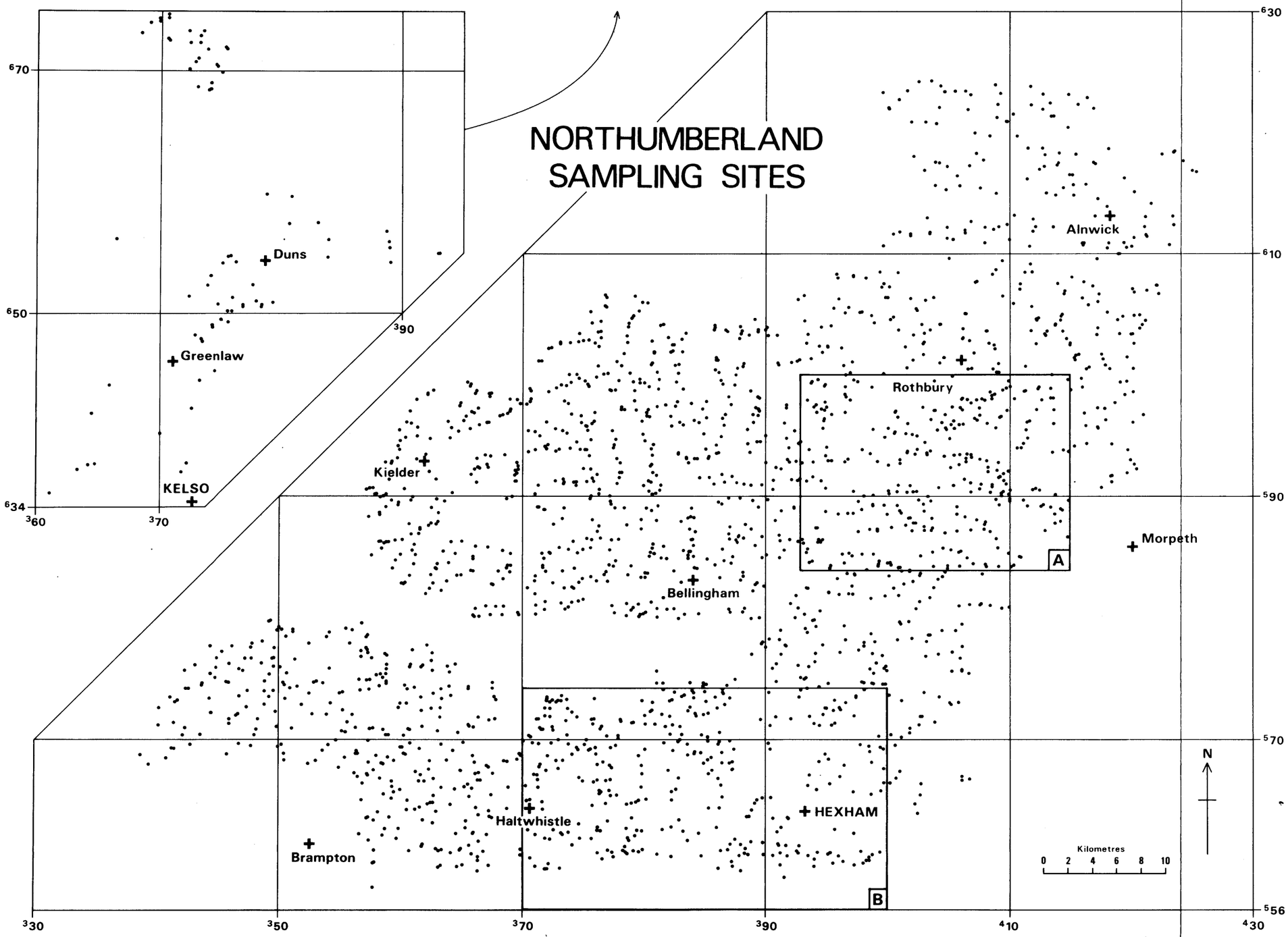


Figure 9. Sample sites for stream sediment samples
Sub-areas A and B are shown on a larger scale in figures 18—21 and 22—25 respectively

size of the area being investigated. In two of the areas, additional deep till samples were collected using a power auger in order to investigate further the possibility that better geochemical contrast could be obtained from the deeper samples.

DRAINAGE BASIN RECONNAISSANCE

Data from the geochemical reconnaissance were processed using the G-EXEC system on an IBM 360/195 computer at the Rutherford Laboratory. The data for the stream sediments and panned concentrates are presented in the following way:

1 Raw analytical and locational data are listed, by sample number, on microfiche as Appendix 4.

2 A cumulative frequency graph for each element is plotted and four class intervals selected at 50% 75%, 92.5% and 97.5% of the number of samples in the data set. This is a less rigourous definition of class intervals than that of taking the mean ± n standard deviations, or the method of cumulative probability plots described by Sinclair (1976). The method employed, considering the quality of the data used, achieves the objective of defining anomalous samples without recourse to the more rigid statistical treatment of the alternative methods and the assumptions that they involve.

3 Sixteen elements were determined on all the panned concentrate samples, but for the purpose of this report only results from the four main elements of economic interest, barium, copper, lead and zinc, are reproduced and discussed (Figures 10–13). The same suite of elements is considered from the stream sediment survey (Figures 14–17). In order to achieve graphical resolution, only the two top classes as defined above are plotted with proportional symbol size, all the remaining classes being depicted at a single smaller, symbol size.

4 Areas of significant anomalies are presented on a larger scale to show the drainage pattern (Figures 18–25).

5 The logarithmic means, along with some basic statistical parameters, are calculated and presented in Figure 26, and element correlation coefficients are shown in Tables 1 and 2.

The raw data, as listed in Appendix 4, were subjected to simple statistical treatment. The mean value and range (defined as the mean ± two standard deviations) for each element are summarised in Figure 26. Anomalous samples (i.e. those in the highest class interval) were checked for possible contamination and those considered to be contaminated are identified on the geochemical maps of panned concentrates. Contamination of two types has been recognised, that by artifacts identifiable by sample site inspection (when the samples were taken), and that attributable to high values of Sn recorded in the chemical analyses. In the case of the panned concentrates, values in excess of 82 ppm Sn (equivalent to the 92.5% value) are regarded as indicative of contamination by non-geological materials, since samples derived from the rocks of the area would not be expected to contain more than a few ppm of tin. Anomalously high values due to mining activity have also been identified and are indicated on Figures 22–25.

Samples containing anomalous levels of one or more of the ore elements (Cu, Ba, Pb and Zn) are listed in Appendix 3. The results presented below pay particular attention to areas where several anomalies occur in a single drainage system (i.e. a train of anomalies). For this interpretation all samples falling in the two top classes (i.e. the top 7.5% of each data set) are considered to be anomalous.

Panned concentrates

Copper values are generally low, ranging from <3 ppm to 263 ppm. The range is greater than that described by Leake and Haslam (1978) for Lower Carboniferous panned concentrates collected from an area adjacent to the northwest of the survey area. However, the range of values for the copper content of the panned concentrates is narrow compared with that of the other ore elements. Many of the samples in the highest class (≥140 ppm) are considered to be contaminated, leaving a fairly even distribution of 'non-contaminated', anomalous values.

There are no significantly anomalous groups of samples in drainage basins, most of the high values occurring in isolated samples. The high copper in two streams draining Harden Edge (NT 792 066) confirm the observation of Leake and Haslam (1978) that copper occurs as chalcopyrite in concentrates derived from the Silurian sediments near Thirl Moor.

Lead reports in a wide range of values between <8 ppm and 977 ppm, with a logarithmic mean of 27 ppm. The anomalously high samples (≥1250 ppm) occur in two well defined zones, the southern part of the area and the region in the east (see Figures 24 and 20).

In the south, the disused mining localities are readily identified at Acomb [NY 9367] and along a line from north of Newbrough [NY 8668] south-westwards to Morralee Wood [NY 8063]. The anomalous samples collected from streams to the south of Dipton Wood [NY 9760] contained yellow lead-bearing glass (Haslam, 1978).

A number of drainage basins in the southern area contain high lead values not readily explained. These are Beltingham Burn and Kingswood Burn, draining eastwards from Ridley Common [NY 7761]; Howden Burn [NY 7462]; northwest of Vindolanda [NY 7566]; and to the south of Plenmeller Common [NY 7259].

High lead contents of panned concentrates from the east of the survey area tend to be isolated, and many of them are interpreted as being due to contamination.

Zinc content ranges between 12 and 2042

ppm, with a logarithmic mean of 155 ppm. Anomalously high zinc values indicate the disused mining localities described above, though there are values in the upper class (≥2100 ppm) distributed across the entire survey area. An area of high zinc values west of Spadeadam Forest [NY 6070] is unusual in that none of the other ore elements is high.

Barium exhibits a range of values from 19 ppm to nearly 6.5% (logarithmic mean is 1122 ppm). The higher values tend to occur in the northeast (Figure 18) and the south (Figure 22). Like lead and zinc, barium distribution reflects the old mining localities to the west of Hexham, but high values are found in streams draining eastwards off Ridley Common [NY 7761], in an area with no known mineralisation.

Figure 18 shows the large number of anomalously high barium samples (≥66670 ppm) located in several drainage basins in the area to the south of Rothbury. The existence of these high values is not attributable to mining activity, or contamination, and the area was further examined by means of a soil sampling grid.

Sediments

Copper values form a good single lognormal population with a logarithmic mean of 11 ppm and a narrow range from 3 to 41 ppm. There is a concentration of the higher values in the south of the area, with values from both the top (≥27 ppm) and second class interval (20–26 ppm). The known mineralised localities to the north and west of Hexham are more clearly defined by the sediment samples than by the corresponding panned concentrates. Anomalous stream basins identified from the sediment sample data (but not from the panned concentrates) occur near Newbiggin [NY 944607] and Dipton Mill [NY 930610] 3 km south of Hexham. Sediments collected from the area north of Otterburn Camp [NY 8996] contain high copper attributed to military debris.

Lead concentration has a logarithmic mean of 48 ppm, with a range from 13 to 174 ppm. The distribution is lognormal with a slight positive skew caused by a small number of very high lead values from the disused mining localities in the south. Figure 6 shows that, apart from a few isolated occurrences, the majority of the anomalous values are in the south. Although broader, these correspond to those identified by the panned concentrate data. Sediment samples with anomalous lead values, collected 3 km south of Hexham, also have high copper values.

Zinc values have a logarithmic mean of 135 ppm, with a range from 31 to 589 ppm. High zinc values are found predominantly in the south, in a zone displaced to the west from the zone of high lead. There are a number of streams where anomalous values for zinc are more abundant in sediments than in the corresponding panned concentrates: King Water [NY 5969] southwest of RAF Spadeadam; Red Beck [NY 6267] south of RAF Spadeadam; Haining Burn and Hartley Burn [NY 6459] 6 km southwest of Haltwhistle; the stream draining north off Plenmeller Common [NY 7261] 3 km southeast of Haltwhistle; the stream draining northwards off Ridley Common [NY 7662] 3 km southwest of Bardon Mill; the stream draining Haughton Common [NY 8072] 9 km northwest of Haydon Bridge; Otterburn Camp [NY 8996]; and Raylees Burn [NY 9291] 4 km southeast of Otterburn. It is likely that the anomalies around RAF Spadeadam and Otterburn Camp are the result of contamination from military debris.

Barium content of the sediments ranges between 155 and 1413 ppm with a logarithmic mean value of 468 ppm. The distribution of high values is similar to that seen from the panned concentrates, namely zones of high barium in the south and in the northeast.

Discussion of results

The analytical data from the drainage basin reconnaissance survey suggests that a large number of sites can be considered as anomalously high in one or more of the significant elements, barium, lead, zinc and copper. The sites indicated by the panned concentrate samples are listed in Appendix 3 with an indication (where known) of the source of the anomaly. High copper and zinc, in particular, can in many instances be attributed to contamination and it is also noted that contamination of this type produces a long train of anomaly, an observation well shown by King Water draining southwestwards from RAF Spadeadam [NY 6170].

With the exception of several areas listed above, prospective drainage basins are indicated by the existence of both panned concentrate and sediment anomalies in barium, lead and zinc. High copper values in sediment identify areas of known mineralisation. The presence of high barium values in both sediments and panned concentrates give a particularly good indication of areas of mineralisation.

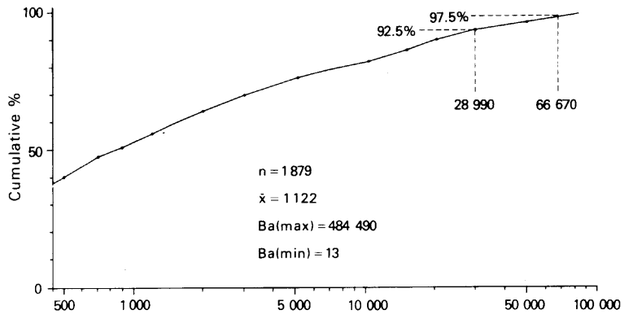
Uncontaminated samples high in Ba, Pb, Zn and Cu come from two distinct areas, namely, in the south, between Hexham and Haltwhistle, and further to the northeast, approximately 11 km to the south of Rothbury. The analytical data from the panned concentrate samples collected from these areas are shown in Figures 18–25.

The 76 panned concentrate samples from the area to the north of Kelso do not indicate any anomalous metal concentrations.

The southern part of the Northumberland Basin contains several abandoned mining localities, all of which are well clarified by the Ba, Pb and Zn distributions. The anomalies to the south of Bardon Mill [NY 782645], around Ridley Common, could reflect an extension of the mineral deposits mined at several places along a

BARIUM

(concentrate)



• < 28 990

○ 28 990 - 66 669

◯ ⩾ 66 ppm Ba

▨ Sample probably contaminated (determined for top class only-see text)

Alnwick

Rothbury

Kielder

Morpeth

Bellingham

HEXHAM

Haltwhistle

Brampton

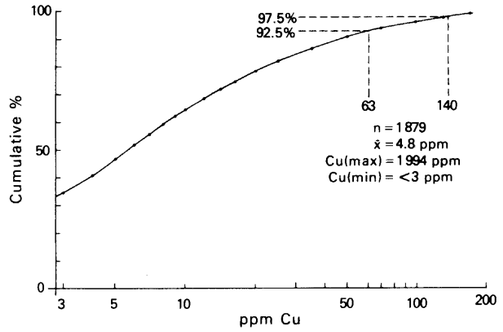
Kilometres
0 2 4 6 8 10

N

630
610
590
570
330
350
370
390
410

Figure 10. Panned concentrate data - Barium

COPPER (concentrate)



ppm Cu
- < 63
- 63-139
- ≥ 140
- Sample probably contaminated (determined for top class only-see text)

Alnwick
Rothbury
Kielder
Morpeth
Bellingham
HEXHAM
Haltwhistle
Brampton

6 30
6 10
5 90
5 70
5 56
3 30
3 50
3 70
3 90
4 10
4 30

N

Kilometres
0 2 4 6 8 10

Figure 11. Panned concentrate data - Copper

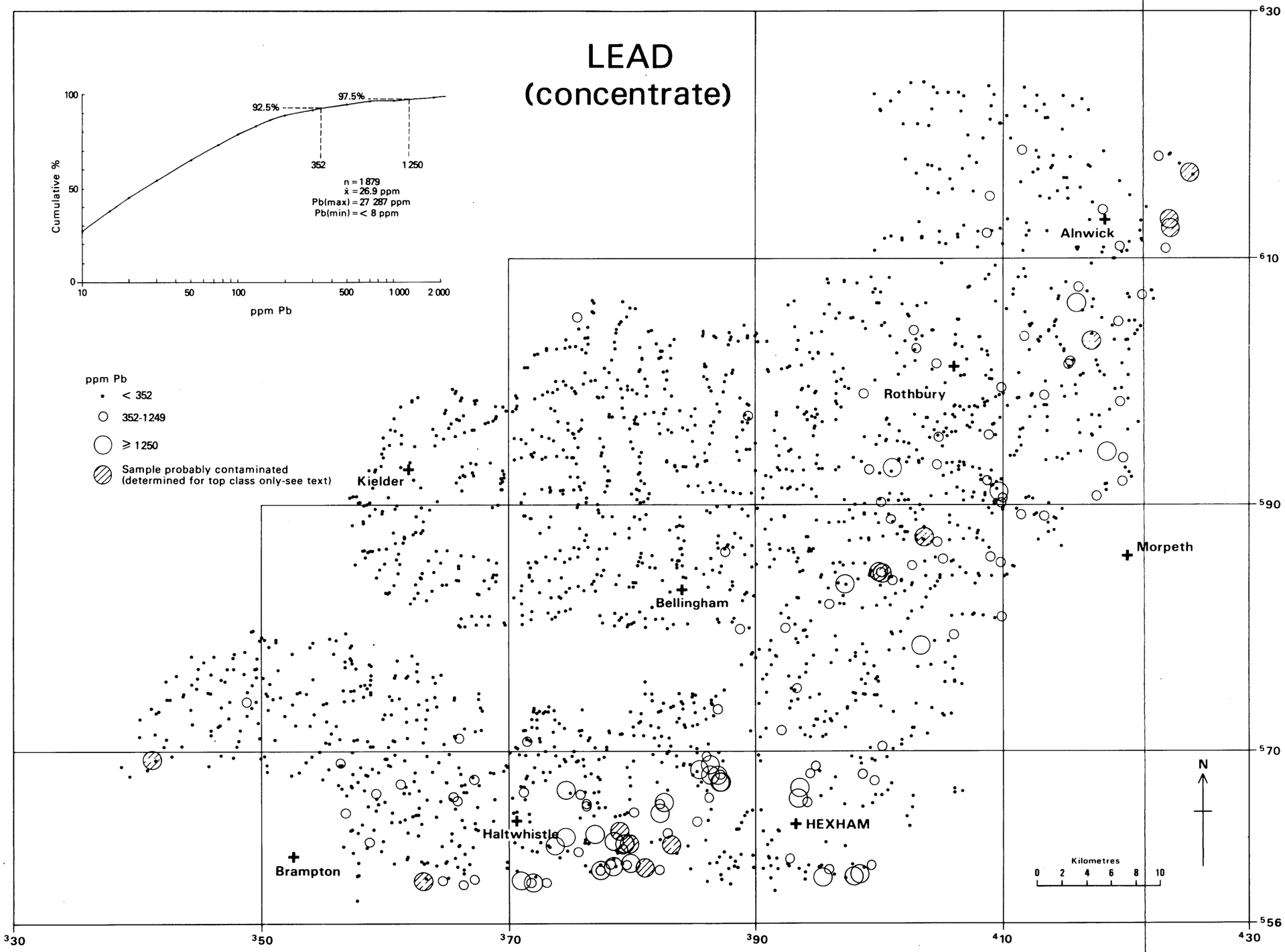
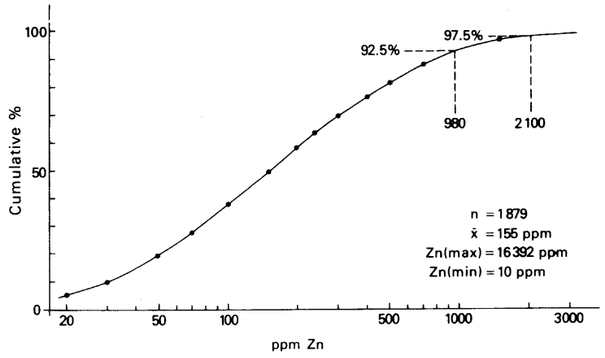


Figure 12. Panned concentrate data - Lead

ZINC (concentrate)



ppm Zn

- < 980
- 980-2099
- ⩾2100
- Sample probably contaminated (determined for top class only-see text)

Alnwick
Rothbury
Kielder
Morpeth
Bellingham
HEXHAM
Haltwhistle
Brampton

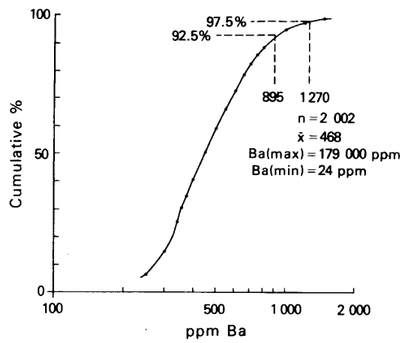
630
610
590
570
556
330
350
370
390
410
430

N

Kilometres
0 2 4 6 8 10

Figure 13. Panned concentrate data - Zinc

BARIUM (sediment)



ppm Ba
- < 895
- 895-1269
- ⩾1270

Alnwick
Rothbury
Kielder
Morpeth
Bellingham
Haltwhistle
HEXHAM
Brampton

630
610
590
570
556
330
350
370
390
410
430

N

Kilometres
0 2 4 6 8 10

Figure 14. Stream sediment data - Barium

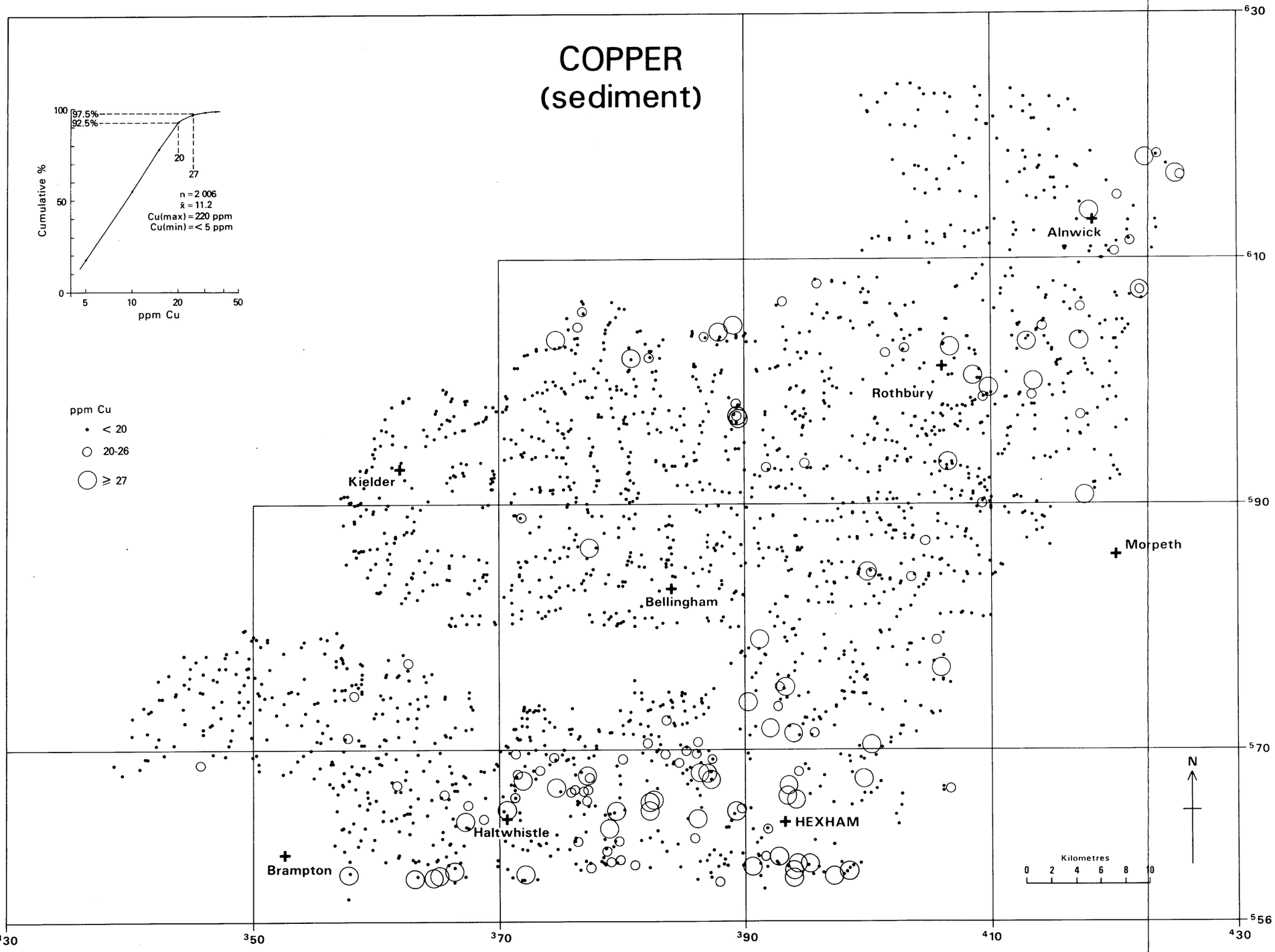
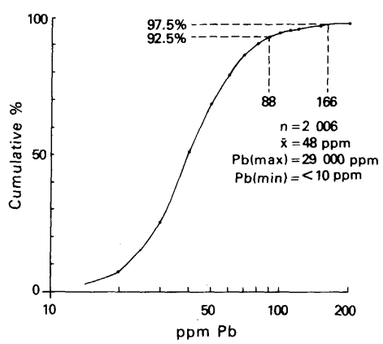


Figure 15. Stream sediment data - Copper

LEAD (sediment)



ppm Pb
- • < 88
- ○ 88-165
- ◯ ⩾ 166

Alnwick
Rothbury
Kielder
Morpeth
Bellingham
HEXHAM
Haltwhistle
Brampton

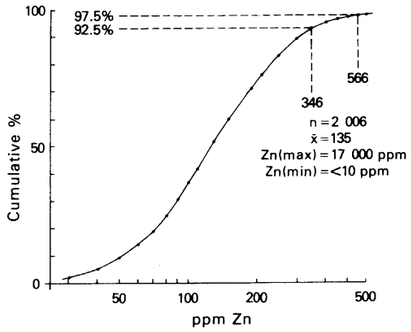
630
610
590
570
556
330
350
370
390
410
430

N

Kilometres
0 2 4 6 8 10

Figure 16. Stream sediment data - Lead

ZINC (sediment)



ppm Zn

- • < 346
- ○ 346-565
- ◯ ⩾ 566

Alnwick
Rothbury
Kielder
Morpeth
Bellingham
HEXHAM
Haltwhistle
Brampton

Kilometres 0 2 4 6 8 10

N

$^{6}30$ $^{6}10$ $^{5}90$ $^{5}70$ $^{5}56$

$^{3}30$ $^{3}50$ $^{3}70$ $^{3}90$ $^{4}10$ $^{4}30$

Figure 17. Stream sediment data - Zinc

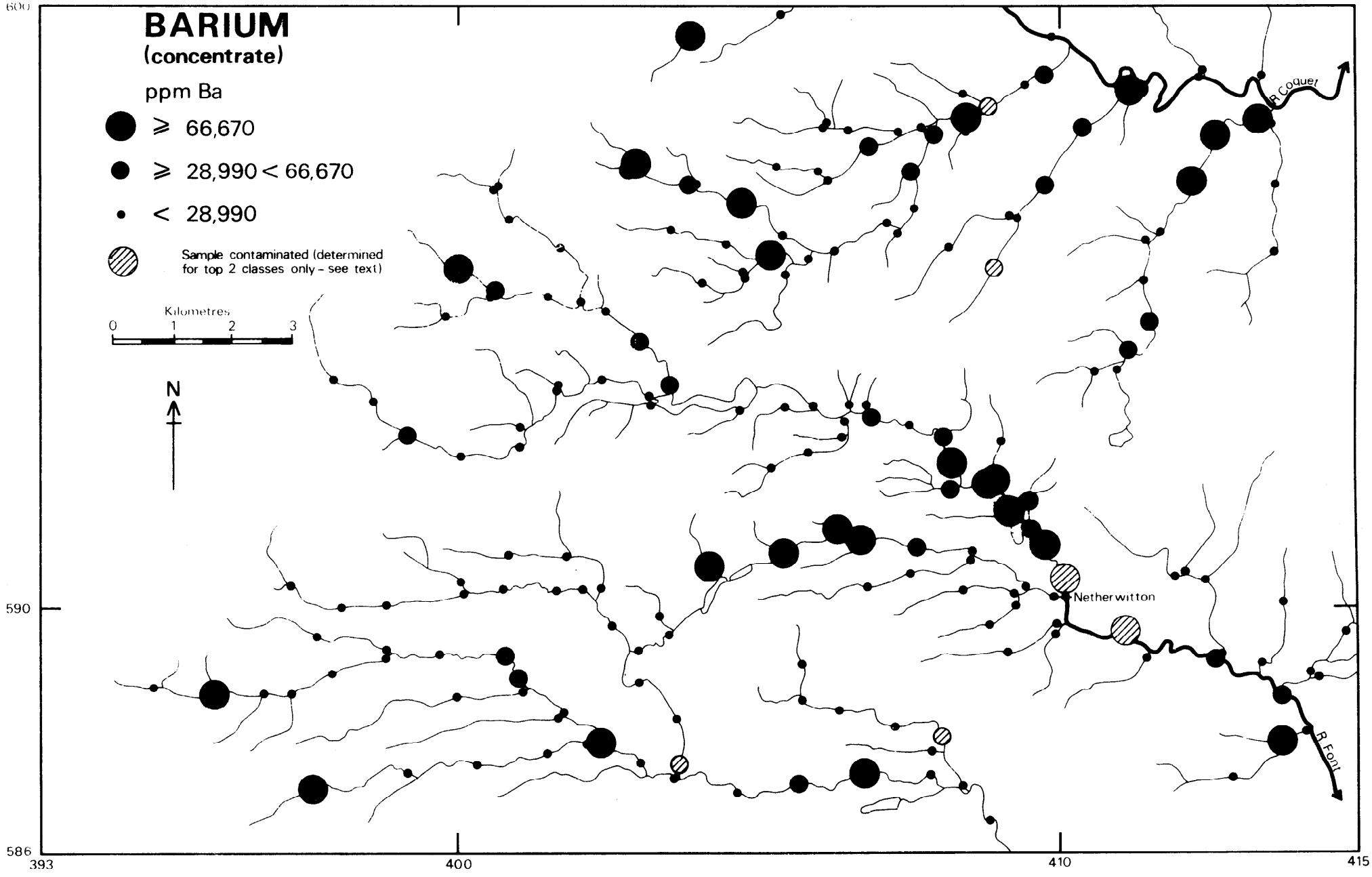


Figure 18. Barium contents of panned concentrates from the northeastern part of the survey area

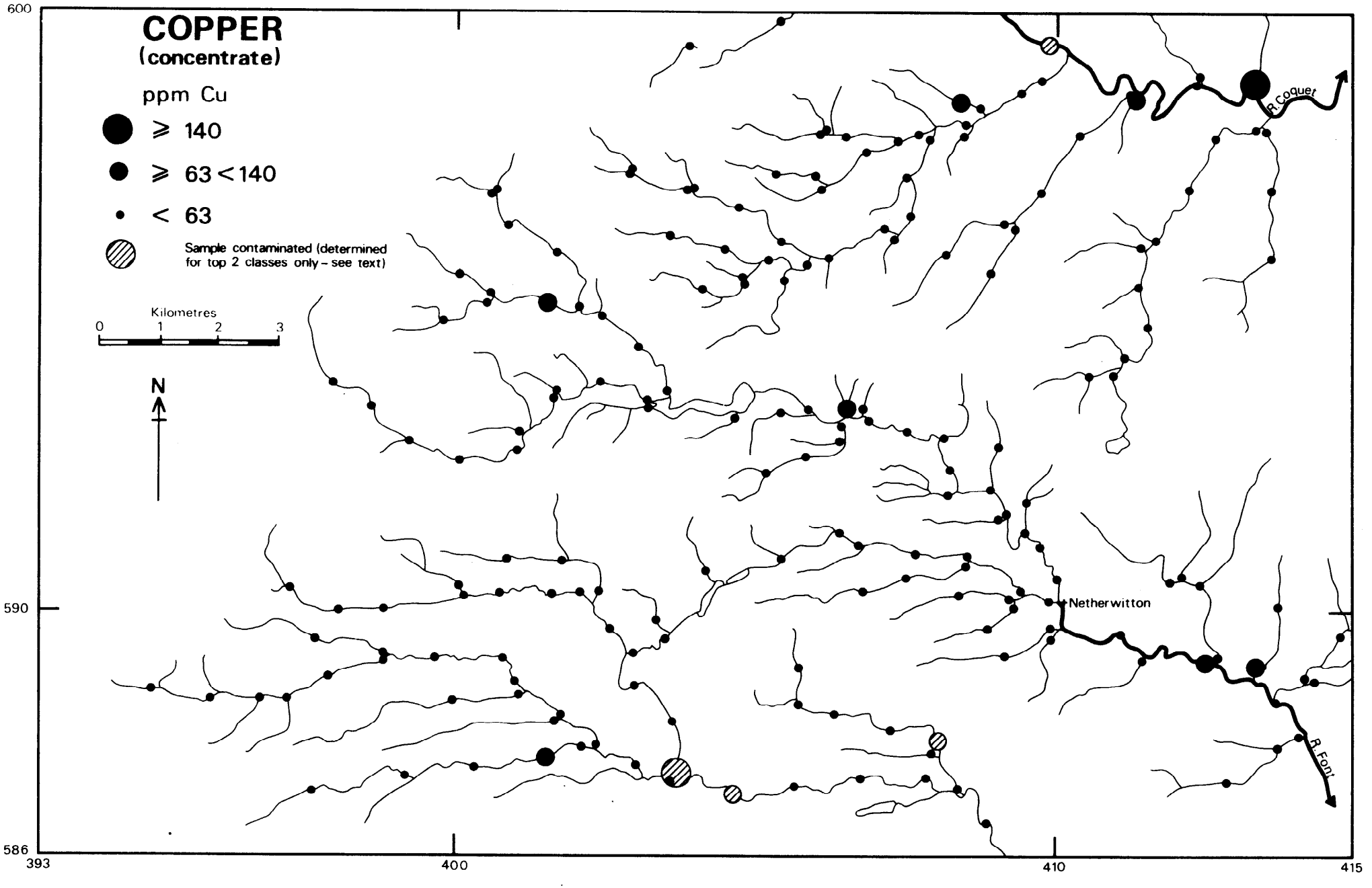


Figure 19. Copper contents of panned concentrates from the northeastern part of the survey area

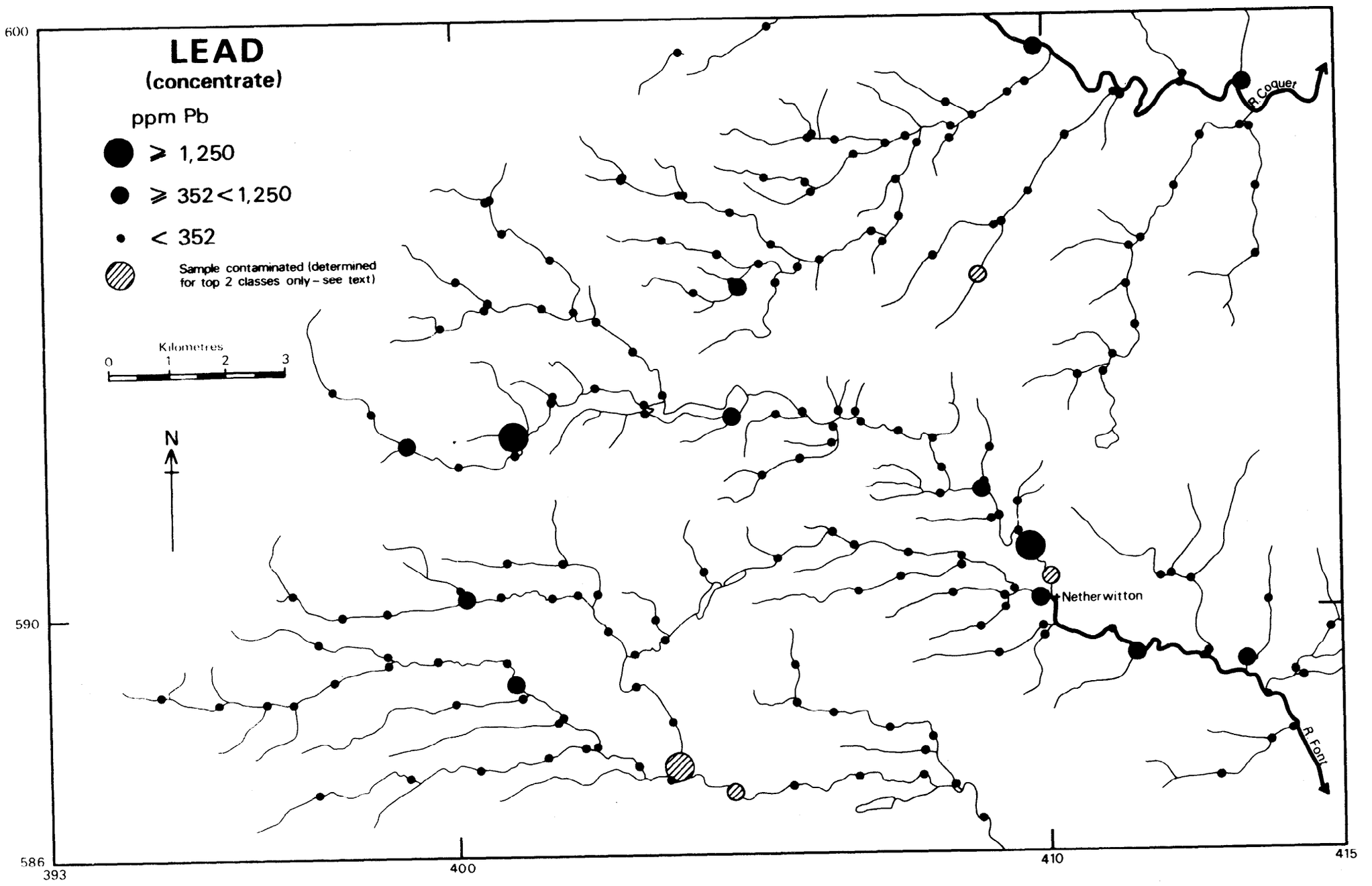


Figure 20. Lead contents of panned concentrates from the northeastern part of the survey area

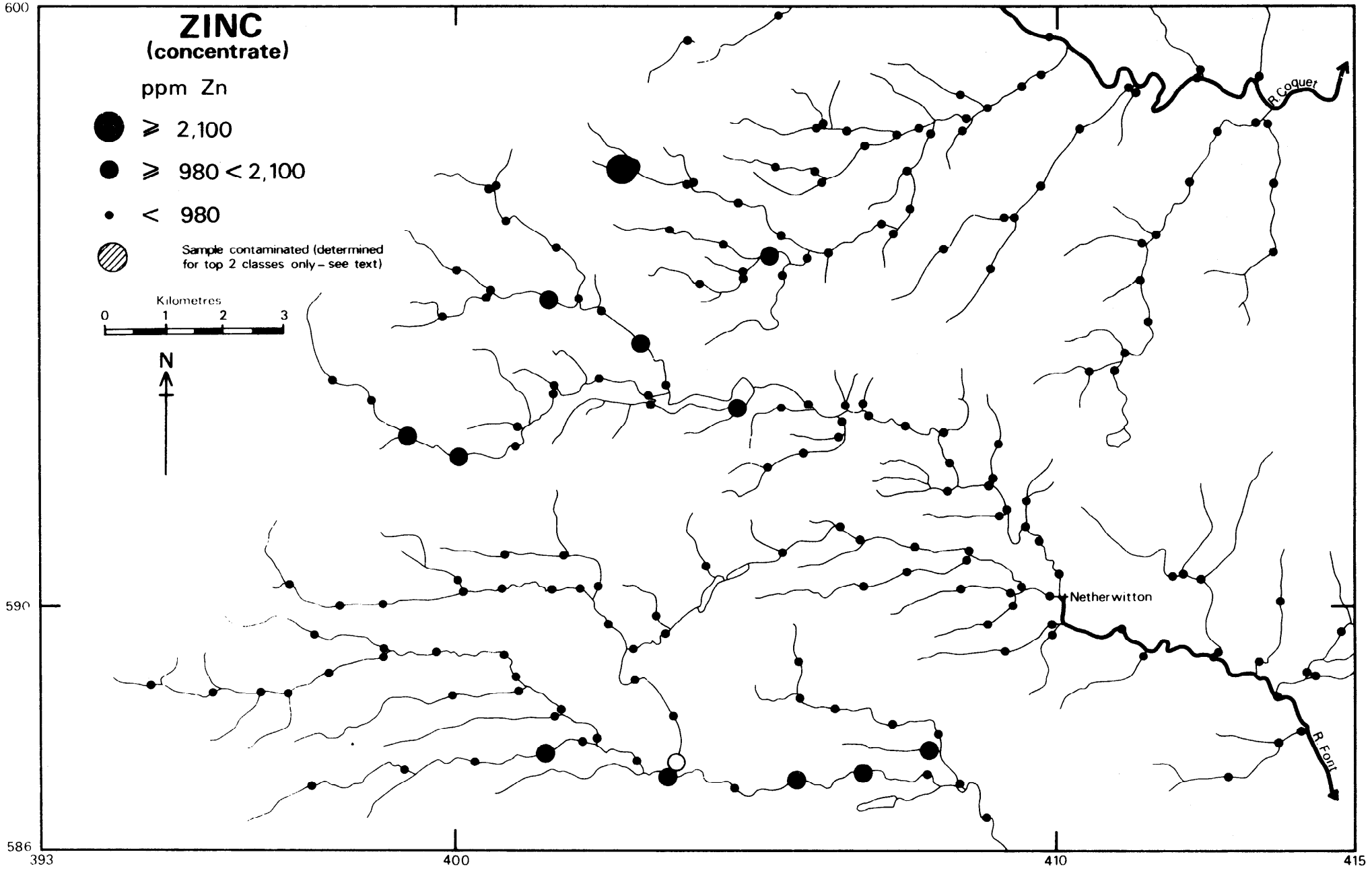


Figure 21. Zinc contents of panned concentrates from the northeastern part of the survey area

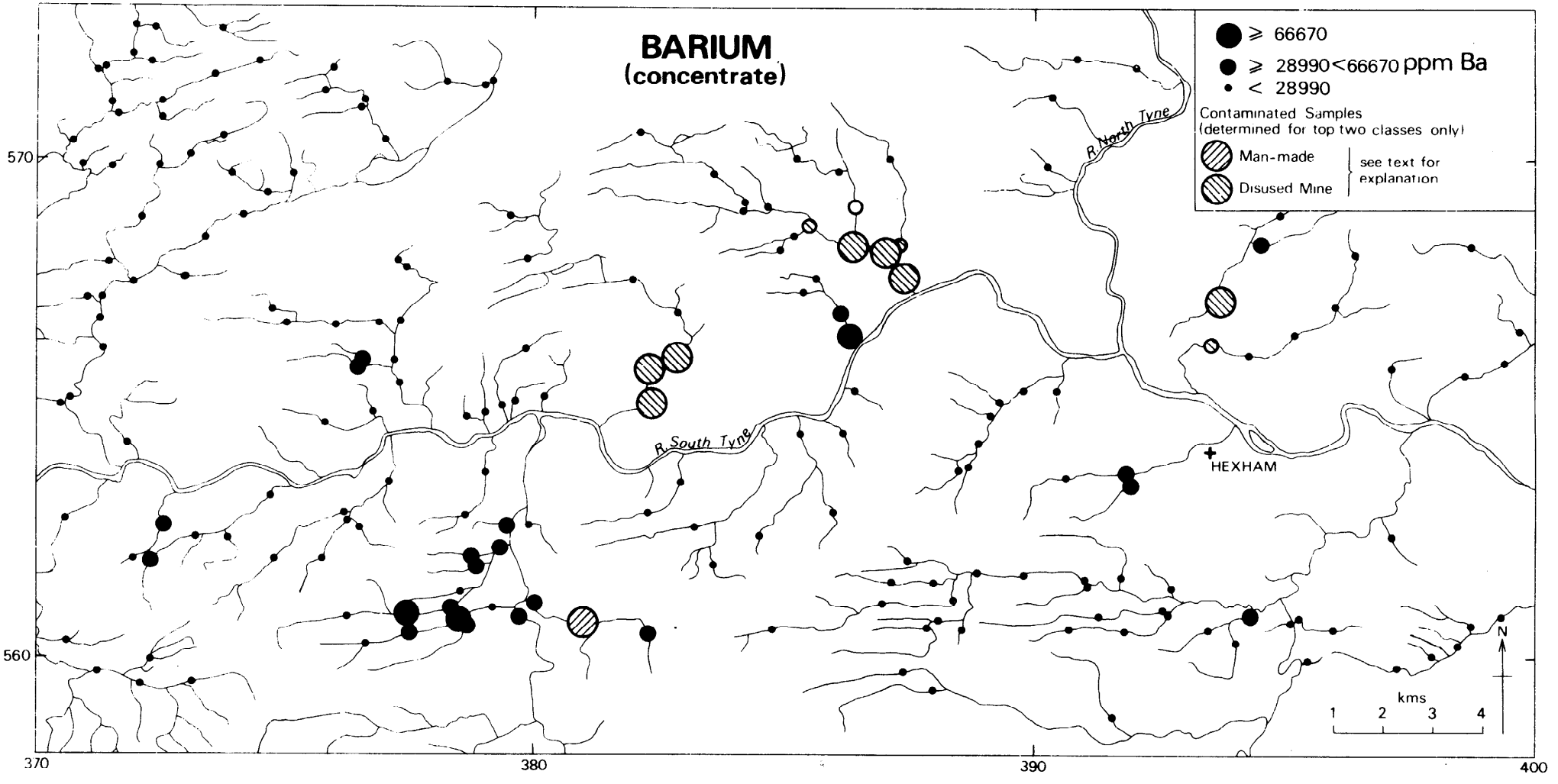


Figure 22. Barium contents of panned concentrates from the southern part of the survey area

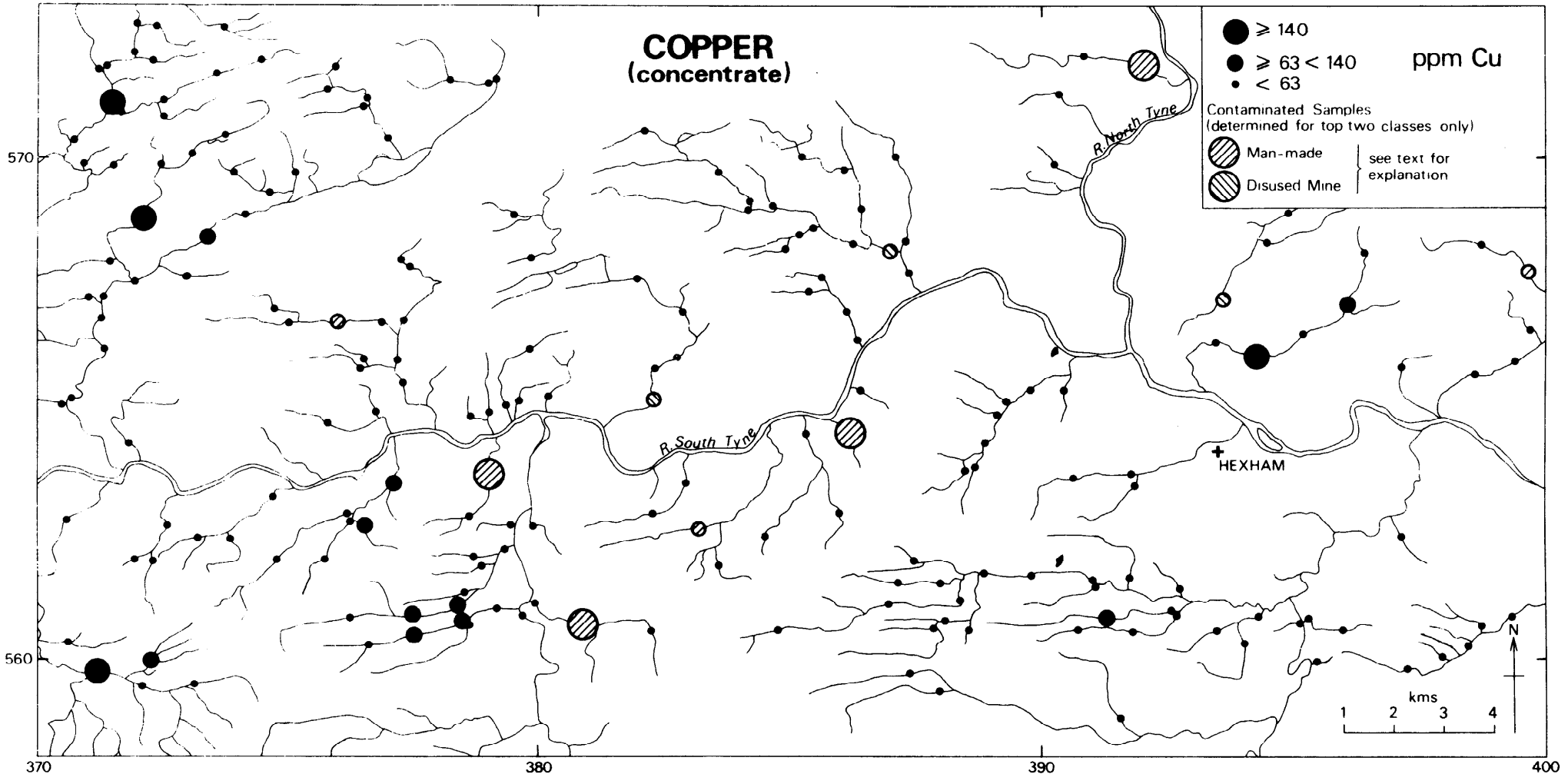


Figure 23. Copper contents of panned concentrates from the southern part of the survey area

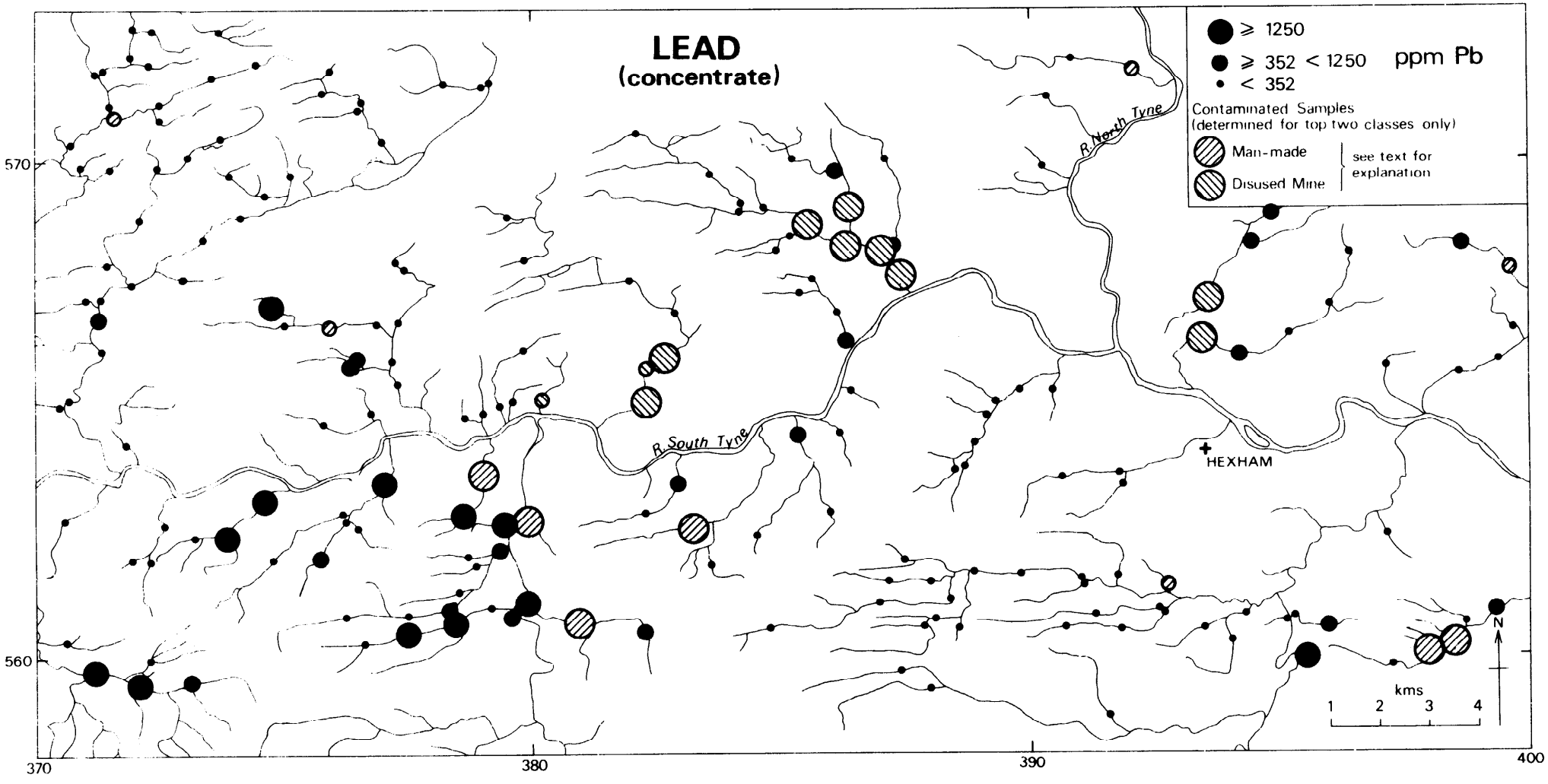


Figure 24. Lead contents of panned concentrates from the southern part of the survey area

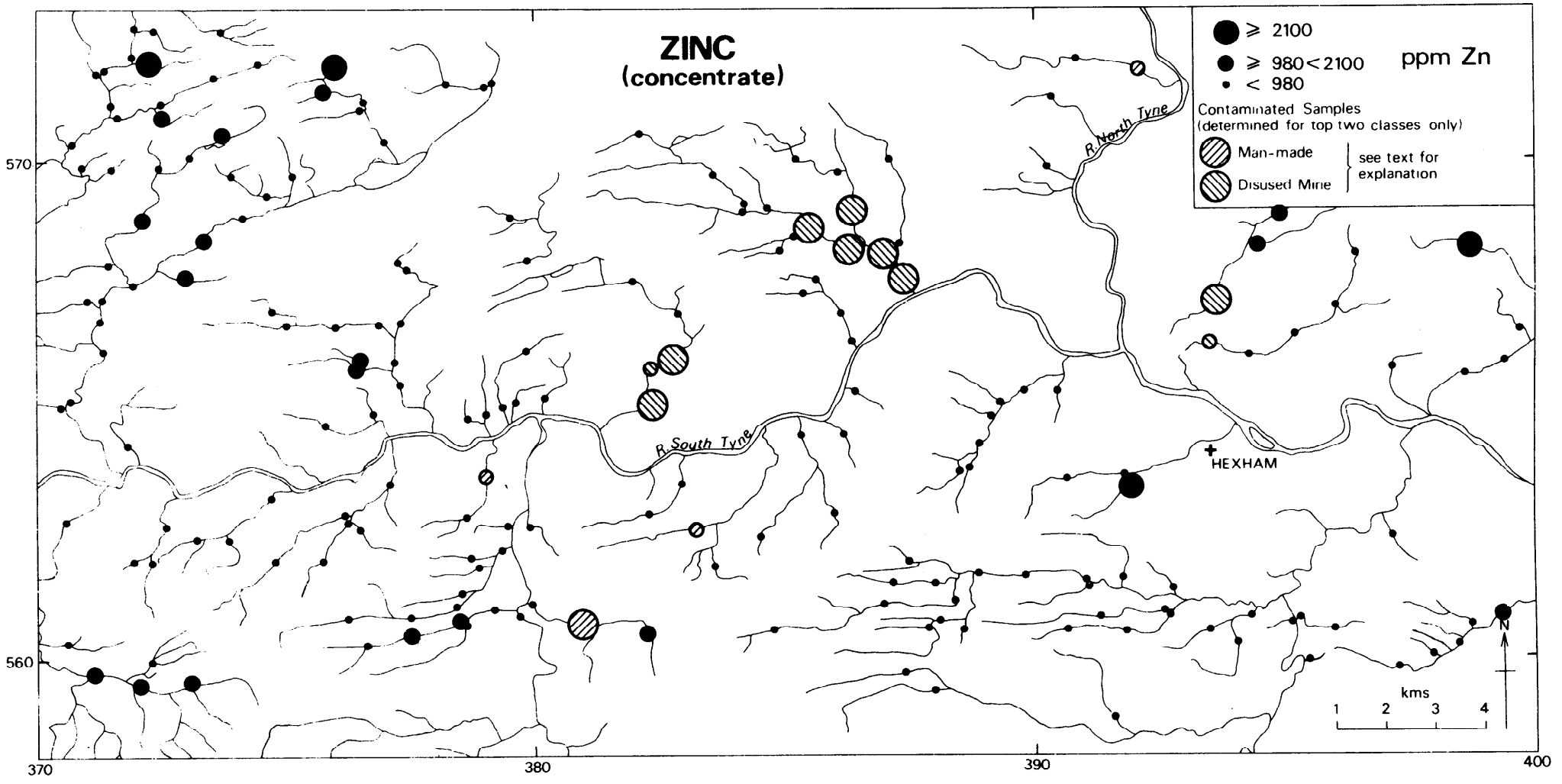


Figure 25. Zinc contents of panned concentrates from the southern part of the survey area

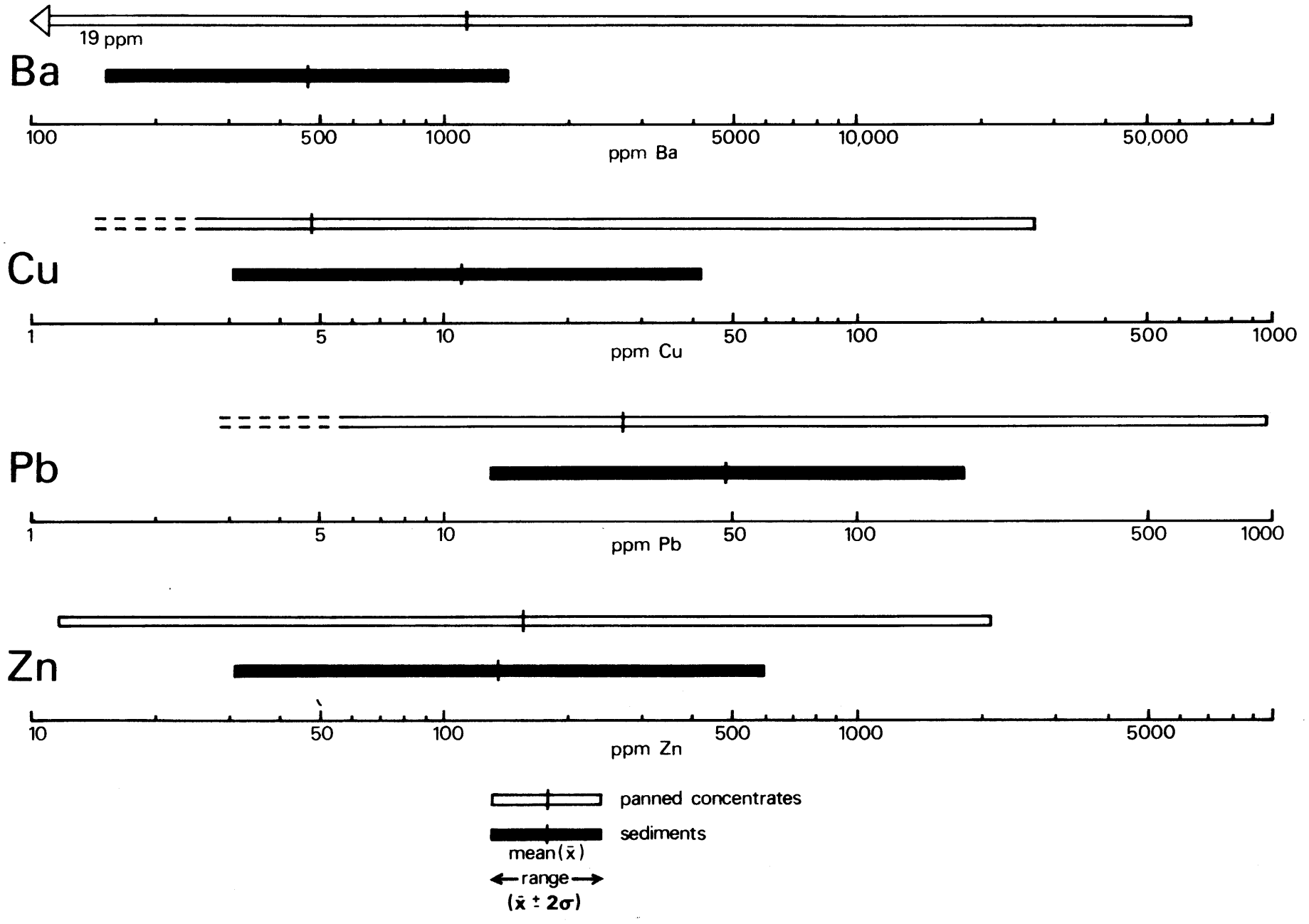


Figure 26. Means and ranges for Ba, Cu, Pb and Zn in panned concentrates and stream sediments

line between Morralee and Stonecroft (Figure 7). To the south and southwest of Haltwhistle, stream sediments are derived from Upper Carboniferous rocks and it is possible that some of the high metal values are associated with bands of coal (Mason, 1966).

Streams draining the Alston Block were not sampled, but it is unlikely that any of the anomalous areas in the south of the trough are related to mineralisation in this area. There is some evidence, however, that Dipton Mill [NY 930610] and Dipton Wood [NY 9760] were on a route along which ore, either raw or part processed, was transported from the North Pennine orefield to the River Tyne. In the streams draining Dipton Wood lead glass was observed in the panned concentrate samples. Zinc, barium and copper values are not high in these concentrates but are high in the respective sediments. The difference in the recorded values is clearly related to the grain size of the analysed material, the metallic elements being identified with the finer (-100 BS) material which could have been introduced into the sedimentary cycle from ore processing procedures.

The northeastern part of the trough is characterised by very high levels of barium in both sediments and panned concentrates. Threshold values for the upper class interval in the sediments and concentrates are 1270 ppm Ba and 66670 ppm Ba respectively. These compare with an average barium abundance of 100 ppm in limestones and 700 ppm in shales (Levinson, 1974). An uncontaminated concentrate sample from the River Font, to the north of Netherwitton, contains nearly 13% Ba. Many samples with high Ba values are recorded from a number of stream basins in this area, but there are no recorded occurrences of barium mineralisation. Smith (1923) reports several small isolated lead veins in the area, including those at Redpath mine in the Harwood Forest south of Simonside [NZ 010930]; Hartington Farm in Hartington [NZ 0288]; and Whitton Dene south of Rothbury [NZ 055999].

Haslam (1975) reports high barium in stream sediments from localities underlain by Lower Carboniferous rocks in the area to the south of the Cheviots. As there are no barium minerals reported to occur in the sandstone (Robson, 1956), he suggests that the barium in the sediments could be derived from micas in the glacial drift, a tentative suggestion supported by the observation that high barium values occur in other areas of the Cheviots where widespread boulder clay (with micas) has been mapped. However, this is not supported by the high Ba values from panned concentrates obtained in the present study, which are due to the presence of baryte.

Pearson correlation coefficients for elements determined in the panned concentrates are given in Table 1. There is a good correlation between barium and strontium which can be attributed to the presence of strontium in baryte. Other heavy minerals observed in the concentrates, such as garnets, hornblende and metallic oxides, account for the good correlations found with Mn, Fe, Ti

Table 1 Inter-element correlation coefficients significant at the 99% confidence limit for 1875 panned concentrates (data log transformed)

Element	*Correlation coefficient*					
	0.30–0.40	*0.41–0.50*	*0.51–0.60*	*0.61–0.70*	*0.71–0.80*	*0.81–0.90*
Ce	-Ba, Ti					
Ba	-Ce, Cu, Ca, Ti	Fe	Pb, Zn, Ni, Mn			Sr
Sb	Sn					
Sn	Sb, Ni	Pb, Fe, Mn, Ti				
Pb	Cu	Sn, Ti	Ba, Zn, Ca	Ni, Fe, Mn, Sr		
Zn	Cu, Ca	Mn	Ba, Pb, Ni, Fe, Sr			
Cu	Ba, Pb, Zn, Ca Fe, Mn, Ti	Sr	Ni			
Ca	Ba, Zn, Cu	Ti	Sr, Pb, Ni	Fe, Mn		
Ni	Sn		Sr, Ba, Zn, Cu, Ca	Pb, Ti	Fe, Mn	
Fe	Cu	Ba, Sn	Zn	Sr, Pb, Ca, Ti	Ni	Mn
Mn	Cu	Sn, Zn	Ba	Sr, Pb, Ca, Ti	Ni	Fe
Ti	Ce, Ba, Cu	Sn, Pb, Ca, Sr		Ni, Fe, Mn		
Sr*		Cu, Ti	Zn, Ca, Ni	Pb, Fe, Mn		Ba

*Based on 1471 samples

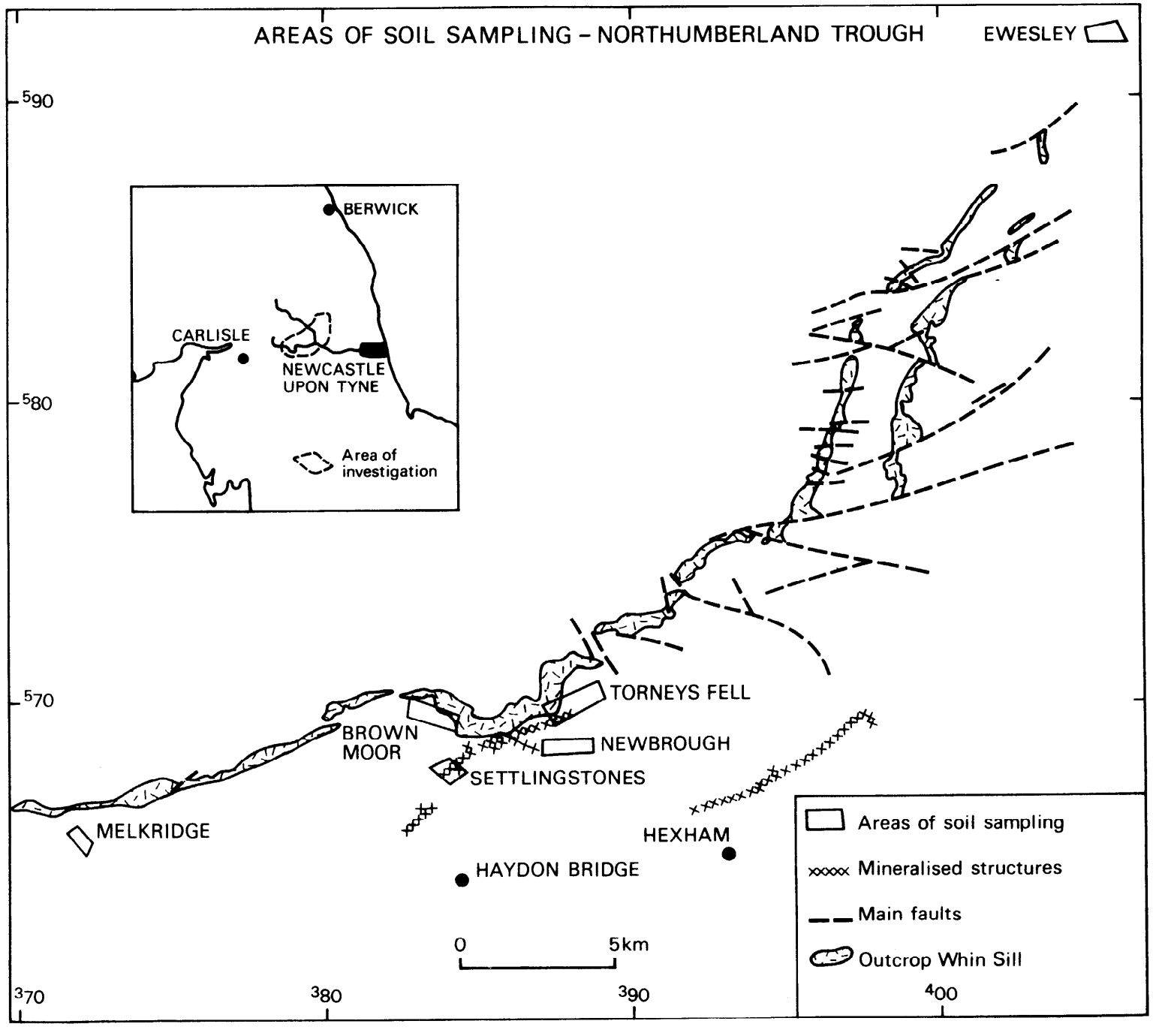


Figure 27. Six areas of soil sampling in the Northumberland Trough

and Ni. Barium, zinc and lead show good correlation with each other, but poor correlation with copper. In the stream sediments (Table 2) the copper shows a better correlation with lead and zinc than is found in the panned concentrates.

Table 2 A correlation coefficient matrix based on 2002 stream sediment samples (all significant at the 99% confidence limit)

	Cu	Pb	Zn	Ba
Cu	–	0.42	0.51	0.32
Pb	0.42	–	0.60	0.49
Zn	0.51	0.60	–	0.54
Ba	0.32	0.49	0.54	–

SOIL SAMPLING

Soil sampling was undertaken in six areas (Figure 27):

		Grid reference of area centre
1	Melkridge	NY 720658
2	Brown Moor	NY 840695
3	Newbrough	NY 872685
4	Torneys Fell	NY 870700
5	Settlingstones	NY 844680
6	Ewesley	NZ 062922

Of these areas 1–4 were located on linear geophysical anomalies and area 5 was regarded as a 'control' area over a known vein system. Sampling at locality 6 (Ewesley) was undertaken following the discovery of anomalous Ba values in the panned concentrates.

The samples collected from areas 1–5 were analysed by AAS (Appendix 1). Five elements (Pb, Zn, Ba, Mn and Sr) were determined by Mather Research Ltd, Rothbury. Soils from Ewesley (area 6) were analysed for Cu, Pb, Zn and Ba by XRF at the IGS laboratories. The untreated data were plotted graphically (Figures 28–33). Data for area 6 are shown in contoured format in Figure 34. Background values were taken from simple cumulative frequency curves at the 50 percentile level.

Table 3 summarises background, maximum and minimum values of the elements in soils from areas 1–6. An examination of the data in this Table and the accompanying figures shows that the background values at Settlingstones (mineralised structure) are not higher than those reported for the other five areas. In fact, the background data show them to be significantly lower than comparable values at Brown Moor and Newbrough. The maximum recorded values for the individual elements Pb, Zn and Ba occur at Newbrough.

Table 4 shows the percentage of samples that were obtained from depths shallower than 1 m (which was the preferred depth of sampling).

Table 4 Soil sample depths

	% shallower than 1 m	*Range of depth (cm)*
Melkridge	66	10–130
Brown Moor	64	20–120
Newbrough	24	55–110
Torneys Fell	27	20–120
Settlingstones	34	75–120
Ewesley	100	10–90

The greater difficulty of achieving the preferred sampling depth in the Melkridge and Brown Moor areas was due to the characteristics of the overburden. At Melkridge, although glacial drift is believed to be relatively thin, it is commonly of a 'tight' clay with lithic fragments, whilst in the Brown Moor area the thicker superficial deposits contain a high proportion of large boulders, which impede penetration by hand auger.

In order to test whether deeper sampling would have a significant effect on geochemical contrast, a limited number of holes was put down at Melkridge and Newbrough using a Cobra power auger. A comparison of the analyses obtained from the two sample types is shown in Table 5, and plotted in Figure 28. In general, the data indicate that the values obtained from deeper samples enhance the contrast. Barium, zinc and strontium well illustrate this improvement, although the Cobra data for iron and lead show only minor advantages over the shallower sampling.

Table 3 Values of lead, zinc and barium in soils (ppm)

Area	1	2	3	4	5	6
Pb	*30* 5–235	*46* 25–1000	*50* 10–1150	*30* 20–45	*35* 25–150	*40* 19–136
Zn	*40* 6–350	*86* 40–210	*80* 34–2850	*72* 32–102	*60* 18–440	*56* 7–196
Ba	*100* 20–1760	*260* 80–720	*330* 140–6000	*185* 60–300	*215* 80–1760	*426* 215–12400

The median (in italic) is followed by the minimum and maximum

Soils from areas 1–5 analysed by AAS, those from area 6 by XRF

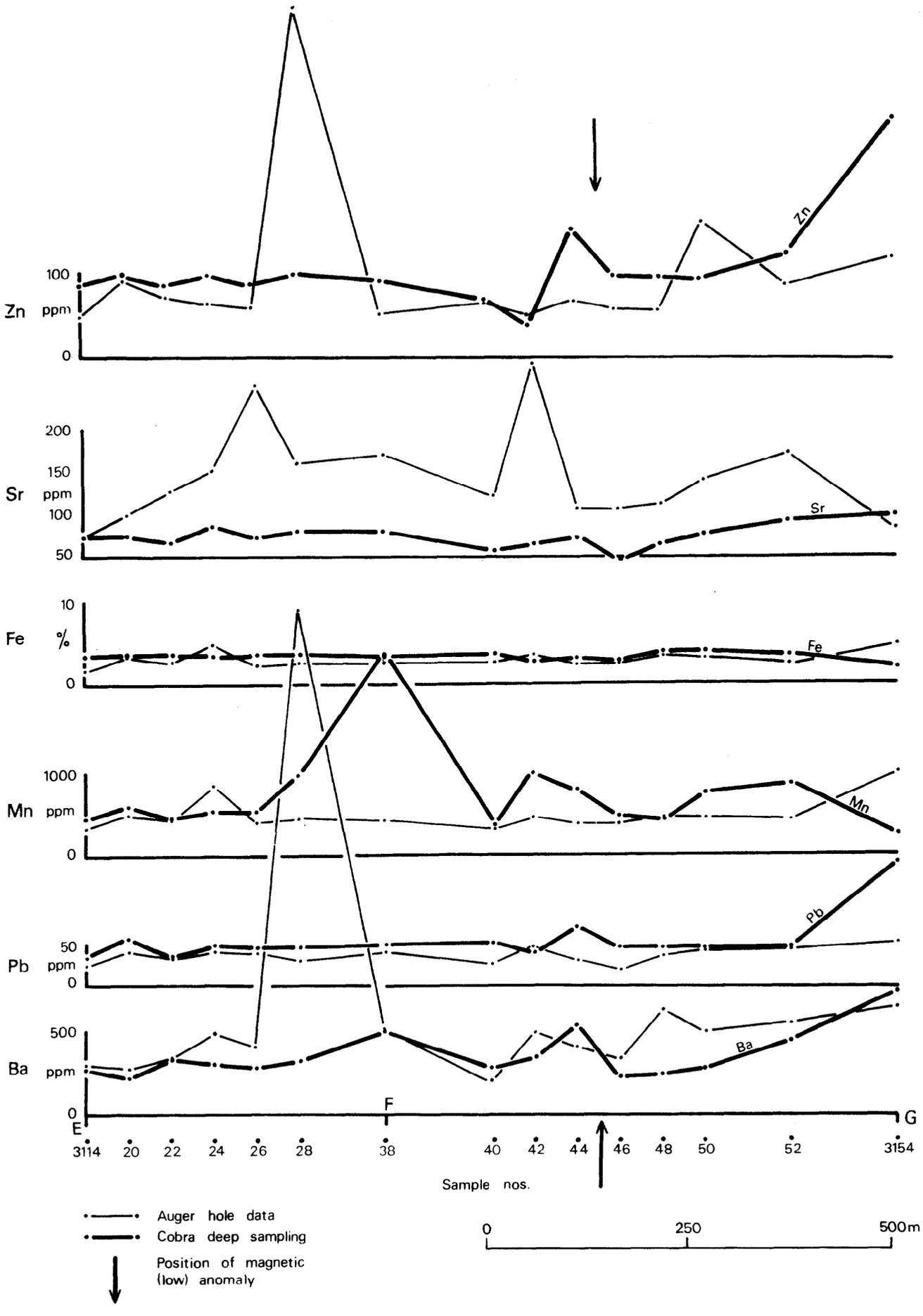


Figure 28. Comparative values between shallow auger and deeper cobra sampling in Area 3 (Newbrough)
The location of line EFG is indicated on Figure 31

Table 5 Comparison of deep (Cobra) and shallow (hand auger) soil samples (Newbrough)

	Cobra		*Hand auger*	
	Median	*Min.–Max.*	*Median*	*Min.–Max.*
Pb	35	10–55	45	10–1451
Zn	63	34–420	98	34–280
Ba	360	200–3200	290	200–720
Sr	135	36–280	72	36–110
Mn	440	280–1150	600	250–2400
Fe%	2.8	1.9–7.0	3.3	2.0–4.4

All values in ppm, except Fe

Melkridge
Values are generally low. Peaks are dispersed about the geophysical anomaly, Pb and Ba showing a sympathetic relationship (Figure 29). The geophysical data and some field observations suggest that the magnetic anomaly is caused by an unexposed Tertiary dyke at shallow depth.

Brown Moor
The distribution of geochemical values does not identify an unequivocal trend (Figure 30). The eastern end of the area shows greater geochemical contrasts (particularly in Ba), which may relate to local mineralisation, to the effect of decreasing overburden thickness, or to a combination of both these factors. The interpretation of geochemical data in this area is not conclusive, but if faulting in the Whin Sill is responsible for the magnetic anomaly, then the geochemical values may reflect mineralisation of the type known locally.

Newbrough
The aeromagnetic anomaly in this area indicates a continuation of the Stonecroft Sun Vein. The geochemical values, higher than those obtained elsewhere, indicate a zone which follows the same trend as that identified by the geophysics (Figure 31). These combined data were considered of sufficient interest to warrant a small scout drilling programme.

Torneys Fell
There is no clear relationship in this location between the geochemical data and the geophysical anomaly (Figure 32).

Settlingstones
The main vein system is delineated reasonably closely by peaking of the values for Pb, Zn and Ba in the soils (Figure 33). Additionally, each of the elements shows a small peak in values some 300 m to the NW of the veins, peaks which do not obviously reflect any mapped mineralised structure. Values in the soils here are not markedly different from those obtained from the other areas.

Ewesley
Unlike any of the other areas, Ewesley was sampled on the evidence of anomalous Ba values obtained from the stream sediment reconnaissance. The geology of the area is of poorly exposed sandstones and shales of the Upper Limestone Group striking NE–SW and dipping gently to the SE. Several coal bands occur in the southeast corner of the area. Evidence of Ba mineralisation in the area is known from joints and small veinlets in the bedrock.

The distribution of barium, lead, zinc and copper in the soils from this area is shown in Figure 34. Analytical data have been examined on cumulative plots (Sinclair, 1976), from which were calculated the parameters given in Table 6. *Barium* There are two distinct populations, which can be described as background and anomalous. The anomalous samples lie along an approximate NE–SW line, the highest values being where the soil is shallowest, in the southwest corner of the area. To the north of Rothley Shield East one

Table 6 Summary statistics for soil samples from Ewesley area (calculations made on log-transformed data)

Element	*Number of samples*	*Population*	*Proportion of population (%)*	*Mean (b)*	*Mean + 2 standard deviations ($b+2S_L$)*	*Mean - 2 standard deviations ($b-2S_L$)*
Barium	169	A	95	390	700	215
		B	5	1200	2000	690
Lead	169	A	80	35	50	24
		B	20	62	118	32
Zinc	169	A	95	55	98	30
		B	5	114	145	91
Copper	169	A	73	5.5	10.5	*
		B	27	11.5	20.0	6.5

*Below detection limit

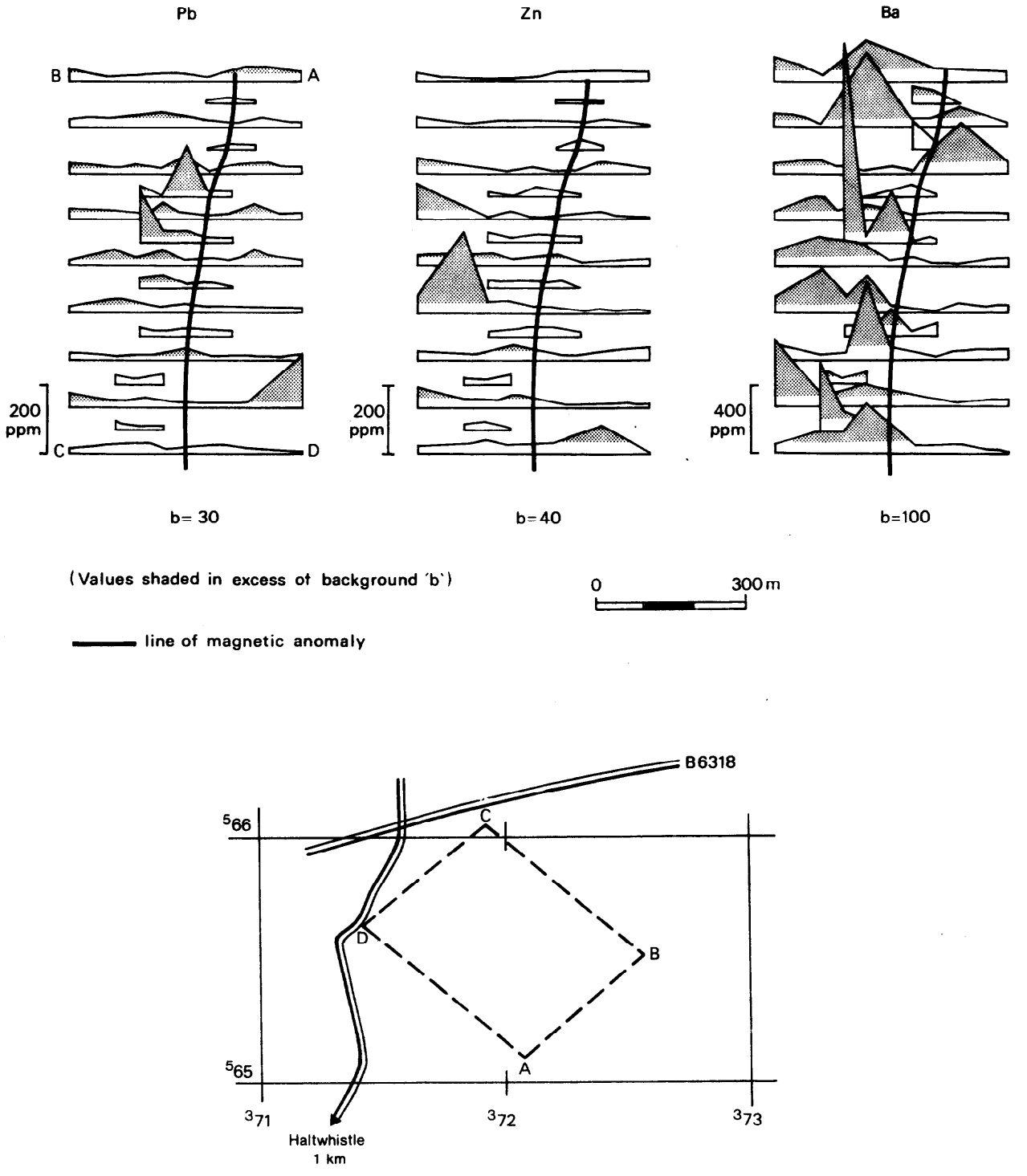


Figure 29. Pb, Zn and Ba in soils from Area 1 (Melkridge)

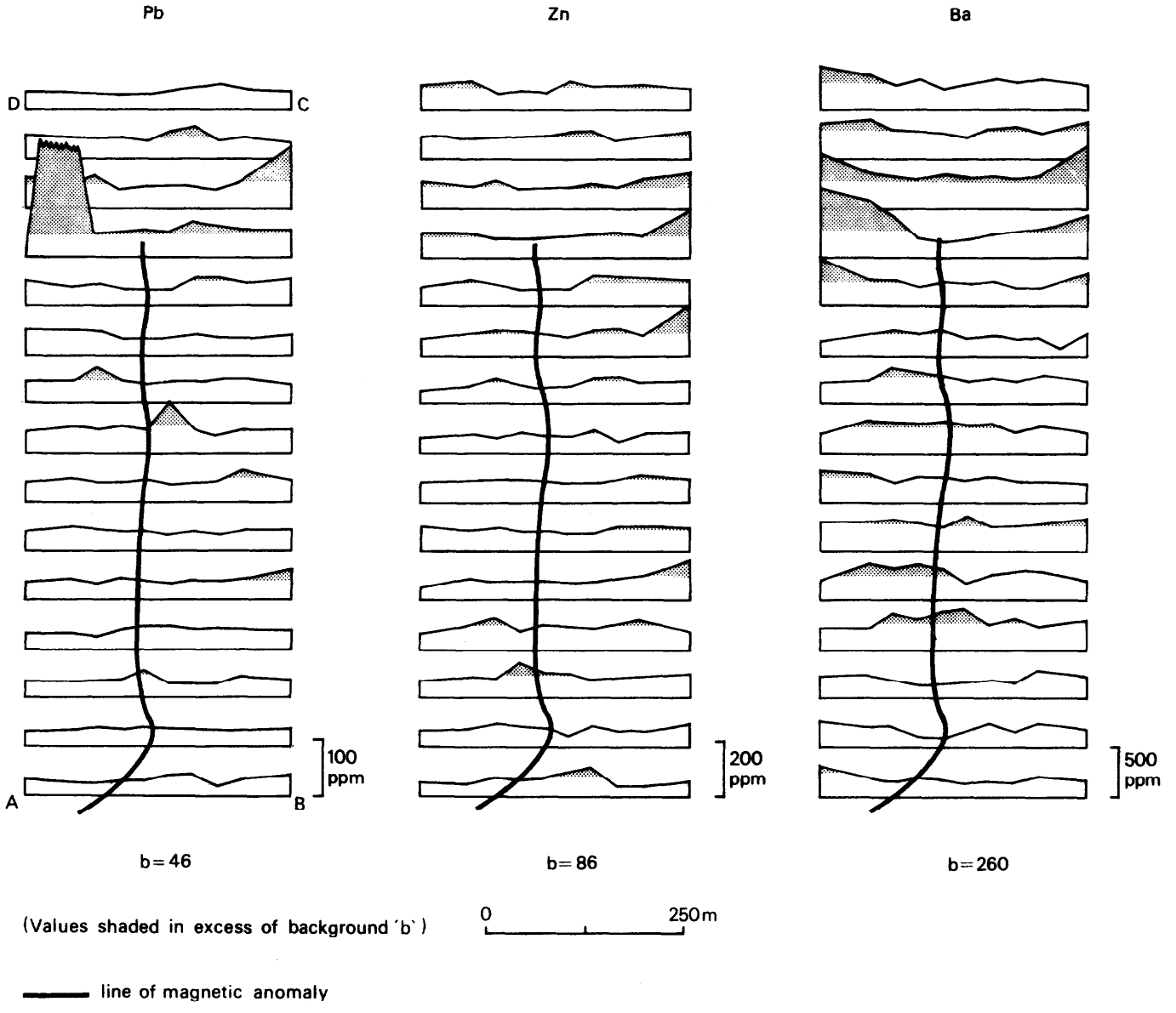


Figure 30. Pb, Zn and Ba in soils from Area 2 (Brown Moor)

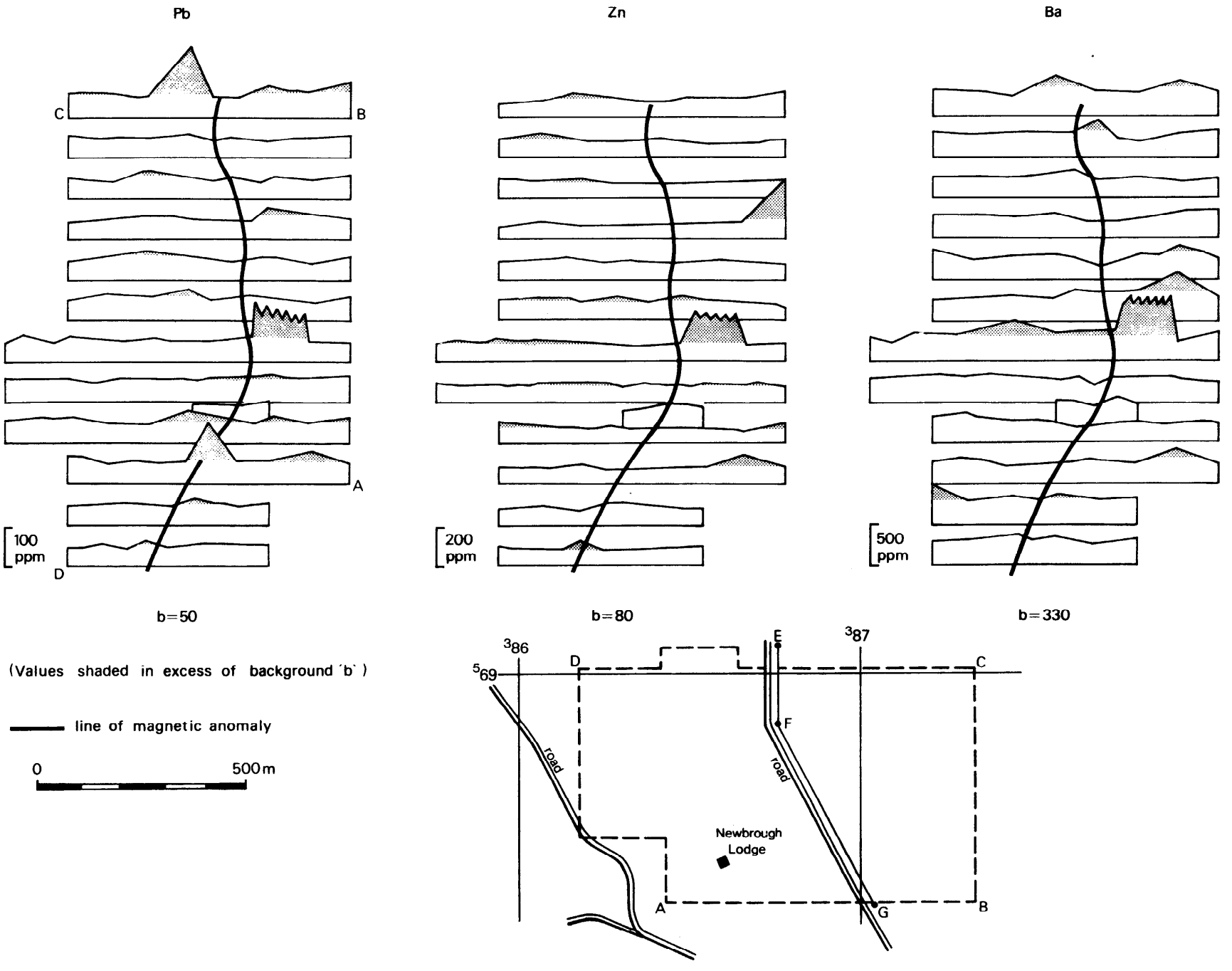


Figure 31. Pb, Zn and Ba in soils from Area 3 (Newbrough)
Line EFG refers to Figure 28

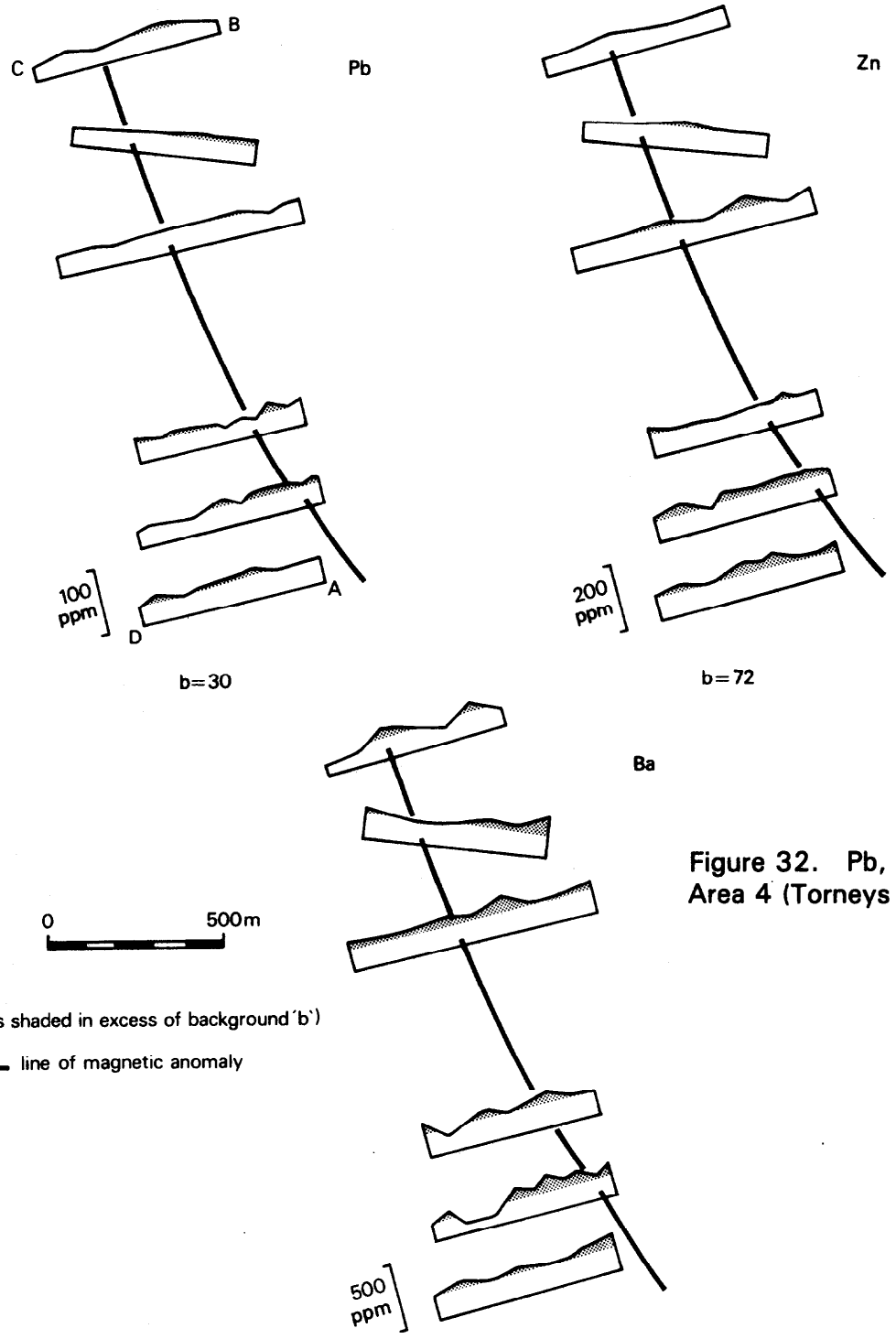


Figure 32. Pb, Zn and Ba in soils from Area 4 (Torneys Fell)

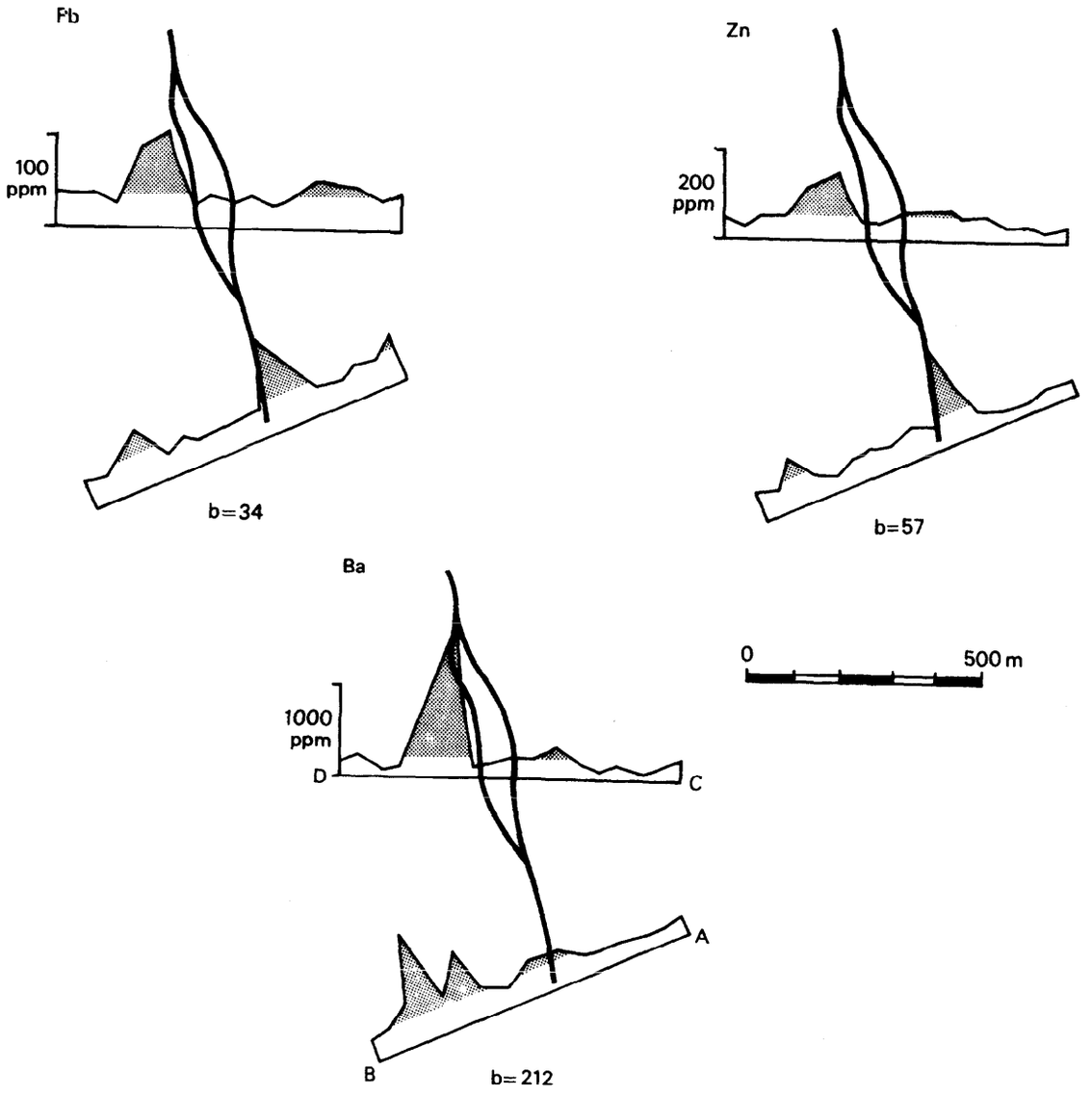


Figure 33. Pb, Zn and Ba in soils from Area 5 (Settlingstones)

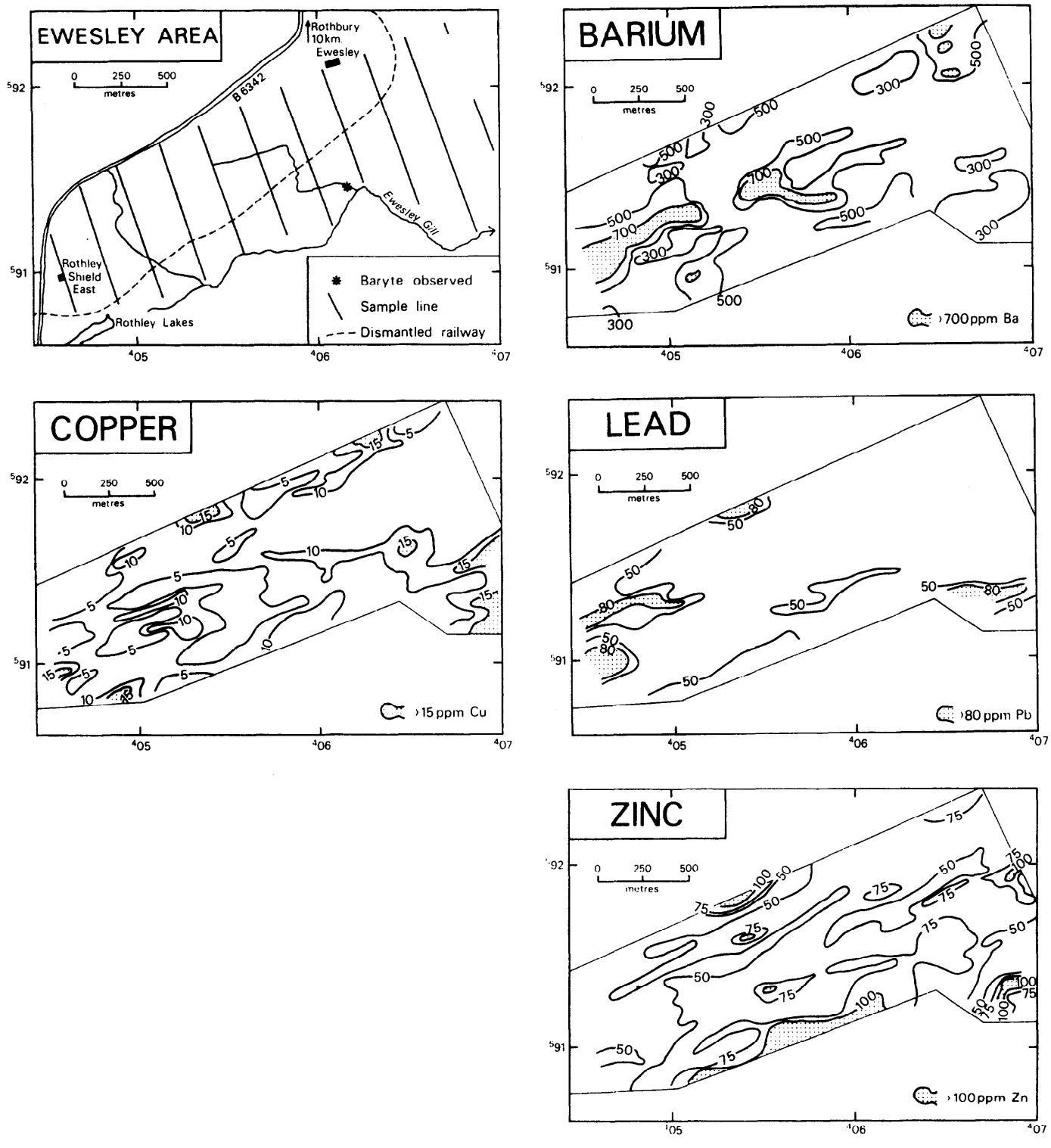


Figure 34. Results from soil survey in Area 6 (Ewesley)

sample in a group of anomalous samples contains 1.24% Ba, a highly significant enrichment.

Lead Although there are two populations for the lead distribution, the highest (mean 62 ppm) is not considered to be particularly anomalous. However, three areas of 'high' lead in soils are indicated on Figure 34, which shows the most extensive area to be in the southwest, corresponding to the area of high barium. The isolated high sample at [40536 59179] is also high in other heavy metals and, with an Fe content of nearly 20% (approximately 15% higher than the average), is undoubtedly contaminated.

Zinc The zinc data can be partitioned into two populations, neither of which is high enough to be associated with any zinc mineralisation.

Copper The contour data show that soils over much of the area sampled contain less than 10 ppm Cu, confirming the reports of several farmers than animals show symptoms of Cu deficiency. Samples with values in excess of 10 ppm occur as isolated samples, and in the southeast of the area where coal bands are known to occur.

Discussion

The soil data for all the areas except Ewesley allow few conclusions to be drawn because of the thick and variable cover of glacial deposits in the area sampled. At Newbrough, for example, drilling proved a thickness of 13 m of glacial material. Under such conditions it is not expected that elements such as Pb, Zn and Ba would provide more than general pointers to mineralisation. The soil sampling at Ewesley, however, confirms the presence of barium-enriched soils in that area.

The orientation of the soil anomalies for Ba suggests a lithological control of mineralisation, as they lie along the line of strike (NE–SW). However, the balance of field observations seems not to support the concept of a baryte-enriched lithologic unit. It seems more likely that barium mineralisation is associated with a fracture that cuts the Whin Sill. More geochemical and geophysical work would be required southwest of the Ewesley area to identify this fracture and examine the continuation of the barium anomalies shown in Figure 34. Such a fracture would lie on a continuation of the line along which the Causey Dyke is recorded (1″ Geological Map Sheet 9, Rothbury) and which intersects the Whin-front outcrop at Gallows Hill [NZ 0289].

GEOPHYSICAL SURVEYS

The geophysical contribution to the mineral reconnaissance of the Northumberland Trough comprised an airborne survey of the southern part of the trough (Evans and Cornwell, 1981) and subsequent ground follow-up of selected anomalies.

AIRBORNE SURVEY

The emplacement of Ba–Pb–Zn orebodies, as at the Settlingstones and Stonecroft–Greyside mines along faults of large displacement in the Whin Sill, invited a geophysical programme which would identify comparable structural settings elsewhere within areas underlain by the Whin Sill, and particularly within the area of mineral potential (Haltwhistle–Corbridge–Hallington) identified from Landsat data. Thus, the principal objective of the airborne survey was the identification of structure in the Whin Sill.

The conventional geophysical approach, involving the direct detection of orebodies, was considered unsuitable, first because of the likelihood that a substantial Ba orebody (as at Settlingstones) would remain undetected from a lack of conductivity constrast and secondly because of the masking effect expected from the widespread drift deposits known to occur in the area. The opportunity to adopt an indirect approach with a chance of success was afforded by the magnetic properties of the Whin Sill. Key factors were the strong remanent magnetisation of the sill; the absence (apart from minor Tertiary dykes) of other magnetic rocks in the area and the generally gentle dip of the sill, ensuring its presence at depths of less than 300 m over a considerable area. No particular locality recommended itself for immediate detailed ground survey, and so an airborne survey was considered a cost-effective method of identifying target areas.

In addition to identifying structural features, it was considered possible that the magnetic data might indicate zones of alteration in the sill. Alteration of the sill to 'White Whin', as at the Settlingstones mine, can be attributed to hydrothermal solutions, and is detectable geophysically because of the partial or complete demagnetisation of the sill. Thus, for example, a fracture zone or fault in the sill, with too little displacement to provide a magnetic anomaly, may nevertheless be detectable if there is a sufficient degree of alteration across the structure to affect the magnetic properties.

The airborne survey also employed VLF–EM and radiometric systems. The VLF–EM system was chosen in preference to moving-source EM as it offers advantages for the location of weaker conductors of large extent, such as major fault planes. This again is an indirect exploration approach, the nature of the previously mined orebodies in the area having discouraged the use of the Slingram system (Burley and others, 1978) which is suited to the detection of discrete and substantial sulphide orebodies.

The geophysical data were presented by the survey contractor (Sander Geophysics Limited) as three sets of maps at a scale of 1:10 560, showing (a) total magnetic field anomaly contours, (b) contours of the normalised intensity of the horizontal component of the VLF field, and

(c) stacked profiles of the normalised in-phase and out-of-phase values of the vertical component of the VLF field. The geophysical data are superimposed on a subdued topographic base. Photographic reductions of the maps have been made to a scale of 1:25 000, and single-sheet compilations of the contoured magnetic and VLF data at a scale of 1:50 000. All data and maps are deposited with the Applied Geophysics Unit of IGS and are available for inspection by arrangement with the Head of Unit. Dyeline copies of all maps are available.

Results

The aeromagnetic map shows a large number of anomalies of which the more prominent are in most cases of geological origin. Many of the anomalies are considered structurally significant, and some of these are clearly related to the distribution of certain of the mineral deposits of the area.

The airborne VLF profile and contour maps both show many anomalies. However, artificial and topographic effects contribute to the anomaly pattern and significant anomalies of geological origin are not readily discernible.

The flight records of the radiometric data were inspected during the course of the survey, but no significant anomalies were evident and these data have not been compiled into map form.

Magnetic interpretation

The aeromagnetic maps were compared with geological maps at the same scale, to segregate the anomalies into those attributable to known geological features and those indicating the presence of previously unrecorded features. The topographic base to the maps afforded ready identification of those anomalies caused by man-made sources such as road and railway bridges and agricultural installations (e.g. silos, steel-framed barns). In some localities, manual re-contouring of the data was necessary because of the bias of the automated system.

VLF–EM interpretation

Comparison of the VLF–EM data with geological maps showed little correlation between the two. However, the topographic base to the VLF contour maps prompted recognition of a frequent correlation between the courses of streams and the axes of linear 'lows' in the in-phase horizontal component, particularly in the western part of the survey area. This suggested a strong topographic influence on the VLF data, and this was confirmed by comparison with Ordnance Survey maps at the 1:25 000 scale, on which the contour intervals of 5 m provides excellent control of the local topography. Several anomalies of interest were evident in areas of lesser relief, suggesting the possible presence of geological conductors, but comparison with local electricity distribution line maps showed that these anomalies could be attributed to the effects of local 11 kV power lines.

Report

A detailed account of the airborne survey, including instrumentation, survey procedure, data processing and presentation is provided by Evans and Cornwell (1981). The survey results are examined and the significant anomalies identified and discussed.

GROUND SURVEYS

Ground geophysical surveys were commenced in the south Northumberland area prior to the airborne survey, with several test traverses using the magnetic and VLF–EM methods over the known mineral veins of the Langley Barony and Settlingstones mines.

Further ground surveys, normally limited to isolated traverses, were carried out concurrently with the airborne survey, as a number of well-defined anomalies were apparent on the in-flight records, and it was considered desirable to check these at the earliest opportunity to assess the significance of their surface expression. The data are not presented or discussed here, as the significant airborne anomalies were all subsequently covered by more detailed ground surveys.

Following preliminary interpretation of the compiled airborne survey maps, priority was given to follow-up of several anomalies (all magnetic) which were considered attractive exploration targets and which were also further examined by geochemical soil sampling. Four areas, totalling approximately 6.5 km^2 were examined in this way, and subsequently drilling was carried out in one of the four areas, Newbrough. The original geophysical survey here was supplemented with a closer grid of more detailed traverses.

The geophysical programme was extended to investigate several other airborne magnetic anomalies, which were not considered to justify the detailed, integrated coverage applied to the four areas referred to above. Of this additional geophysical work, this report covers only those sites where the data have a direct bearing on possible mineralisation, or structure closely related to mineralisation. At several sites the geophysical surveys were used to investigate features of structural interest only (though possibly of interest to any broader examination of the controls to mineralisation in the region). It is intended to describe this work in a separate report. Figure 35 shows the area within which are the surveys described in the present report.

Ground geophysical surveys were mainly limited to the follow-up of aeromagnetic anomalies, though a few airborne VLF–EM anomalies were checked by ground VLF traverses, in most cases during the course of the airborne survey. None of the anomalies seen on the airborne VLF maps is considered to indicate economic mineralisation.

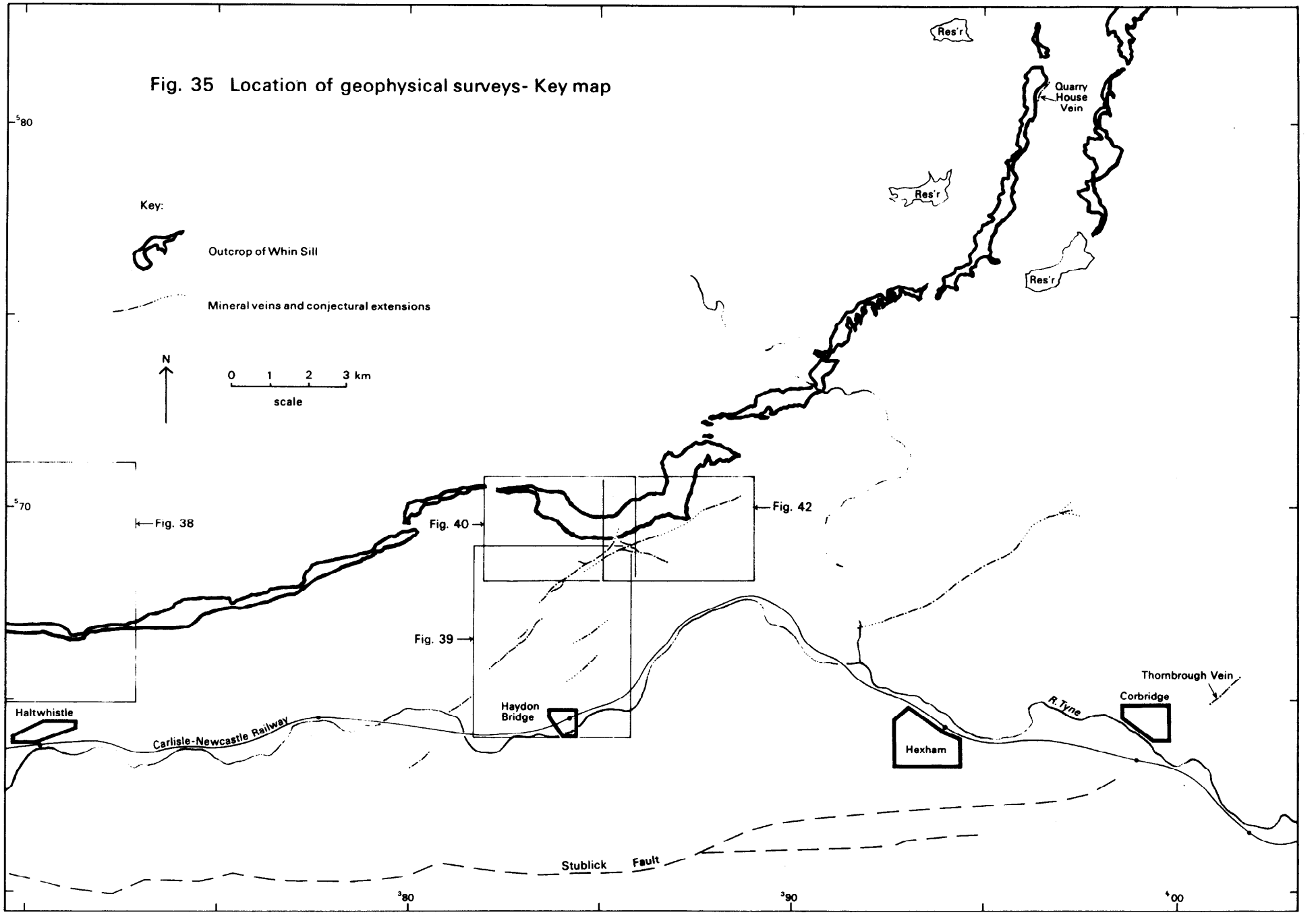


Fig. 35 Location of geophysical surveys- Key map
Key:
Outcrop of Whin Sill
Mineral veins and conjectural extensions
N
0 1 2 3 km
scale
Res'r
Res'r
Res'r
Quarry House Vein
5 80
5 70
Fig. 38
Fig. 40
Fig. 42
Fig. 39
Haltwhistle
Carlisle-Newcastle Railway
Haydon Bridge
Hexham
R. Tyne
Corbridge
Thornbrough Vein
Stublick Fault
3 80
3 90
4 00

However, some VLF measurements were made at some of the sites of magnetic surveys described in the present report, to determine whether any of the probable fault structures under investigation were detectable by this method. The incidence of any anomalies would provide an appreciation of the effectiveness of the airborne VLF method for locating such VLF anomalies as are detectable on the ground.

No electrical surveys (e.g. IP, resistivity) were carried out, since witherite, a common constituent of recorded orebodies would not be expected to provide any detectable electrical response. Also, the very variable drift thicknesses would have hindered satisfactory interpretation of electrical survey data, a problem which would not affect the magnetic method in its use for locating faults in the Whin Sill.

A proton precession magnetometer was used for the ground magnetic surveys, measuring the earth's total magnetic field. Measurements were made along traverses, generally at intervals of 10 m, and were repeatable usually to ± 1 nT. Values recorded were corrected to an arbitrary datum for each area, so as to remove the effects of diurnal variation, which was determined by taking approximately hourly readings at the selected datum station. The variation was usually fairly small (maximum ~10 nT/hour), there being no evidence of magnetic storm activity, and was assumed to be linear over the intervals between datum station readings. Any errors resulting from this assumption will be small in relation to the magnitude of most of the anomalies observed.

A Geonics EM-16 instrument was used for ground VLF surveys, measuring the in-phase and out-of-phase components of the VLF field of a selected transmitting station. For the surveys described (except Settlingstones), the instrument was tuned to the station at Maine, USA (NAA, 17.8 kHz), this station being suitably located for investigation of the approximately east-west magnetic features. At Settlingstones the Oswestry transmitter was used (GBZ, 19.6 kHz).

Topographic control was easily maintained from the features on the Ordnance Survey 1:10 000 or 1:10 560 scale maps. Traverses were laid out with tape and compass.

Three of the sites selected for the ground surveys covered magnetic anomalies within 5 km of the Settlingstones mine and were examined by combined geophysical and geochemical methods. The general area was of prime interest for three reasons:

i there is a clear correlation between the axis of the principal aeromagnetic anomaly and the fault system occupied by the Settlingstones–Stonecroft veins (Figure 36);

ii the magnetic anomalies extend beyond the limits of the mine workings;

iii there is potential for the discovery of economic mineral deposits.

Melkridge

The aeromagnetic anomaly extending north-west from the village of Melkridge is of interest because its nature and setting are comparable in some respects to the anomalies investigated in the Settlingstones area. The geophysical survey was carried out along eight parallel traverse lines, ranging in length from 500 m to 800 m, spaced at 100 m intervals. Magnetic measurements were made on each traverse at 10 m intervals throughout. VLF–EM measurements were also made, initially at 10 m spacing (traverse 200 W) but at 20 m intervals thereafter. There was no evidence of any artificial features in the area which could have affected the results from either method.

The magnetic results are shown in profile form in Figure 37. The magnetic readings have been reduced to a datum of 48802 nT at 100 S on traverse 700 W. The magnetic anomaly is clearly seen on all traverses, though on traverse 200 W it is less well defined. Background values are notably uniform. The anomaly is considered to be due to a Tertiary dyke, as the profiles are comparable with others across the Tertiary dyke at Bingfield [NY 9772] (Frost and Holliday, 1980). Day (1970) reports exposure of Tertiary dykes in the River Irthing [NY 6515 7020] and in the Tipalt Burn 250 yards west of Low Tipalt. The former is reported to strike SE, thus aligning approximately with the latter exposure and with the anomaly at Melkridge. A series of traverses measured (Figure 38) to test this possible continuity shows comparable negative magnetic anomalies with amplitudes ranging from ~10 nT to ~150 nT. The presence of two anomalies on traverses 2 and 7 suggests an en-echelon group rather than a single dyke, and this would account for the presence of dolerite (mapped as a dyke) in a stream section some 750 m to the west of the Melkridge anomaly (Figure 38). Small quantities of sulphides are seen in limestones adjacent to this latter exposure. No previous reference has been made to any possible correlation between mineralisation and the Tertiary intrusion.

The VLF–EM profiles show only weak east-west features, reflecting the strike of the sedimentary rocks.

Settlingstones

A series of test geophysical traverses was conducted across the known mineral veins in the area around Settlingstones and Langley Barony prior to the airborne survey, in order to assess any anomalies associated with the known geological features. The results of this work were of use in considering the suitability of the area for airborne exploration. Magnetic and VLF–EM measurements were made along seven traverses totalling 15 km, at intervals of 25 m.

The magnetic profiles are shown in Figure 39. The magnetic values are corrected to an arbitrary base value. The profiles show several features of

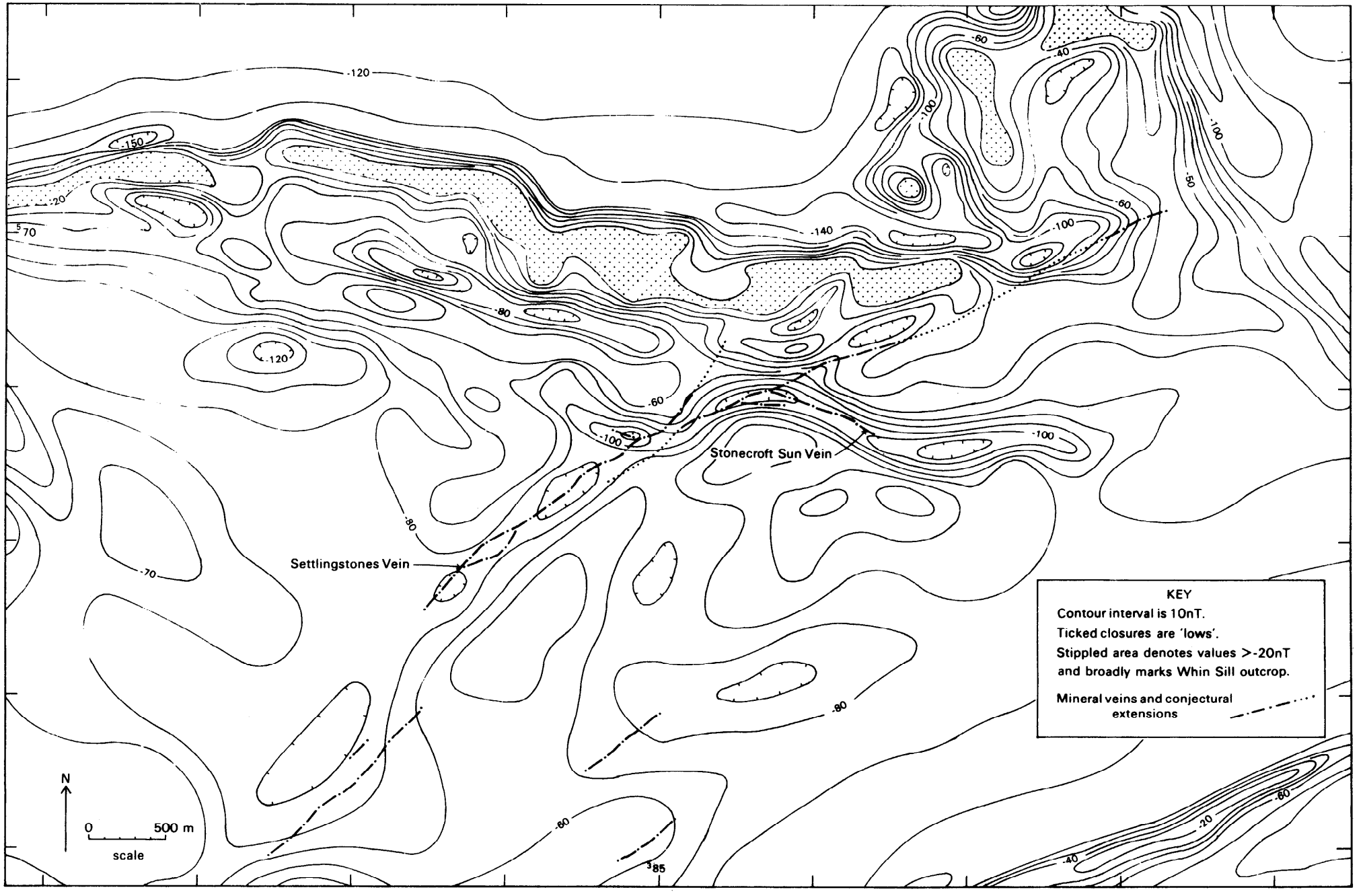


Figure 36. Aeromagnetic contour map: Settlingstones Mine and surrounding area.

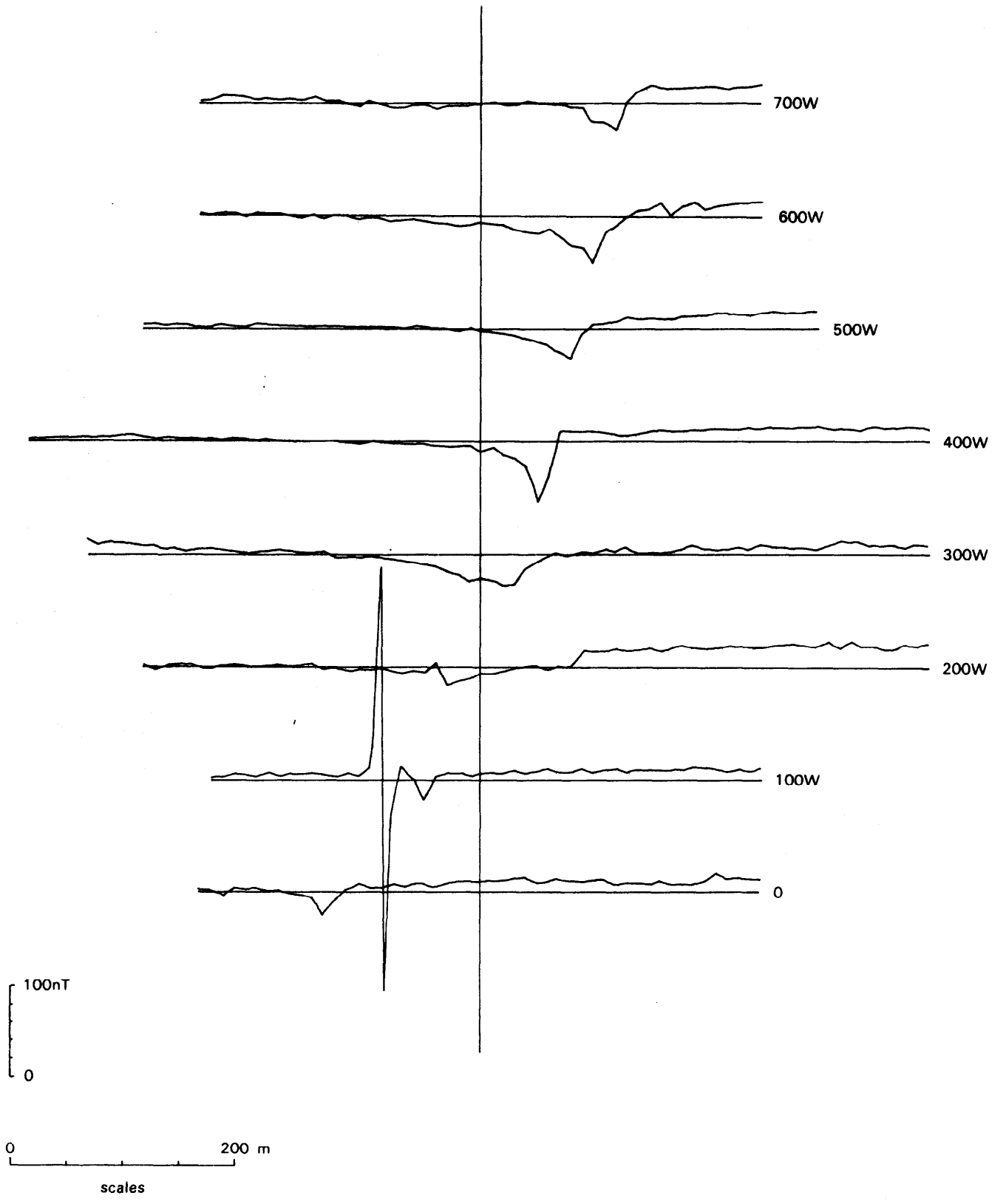


Figure 37. Total magnetic field profiles at Melkridge

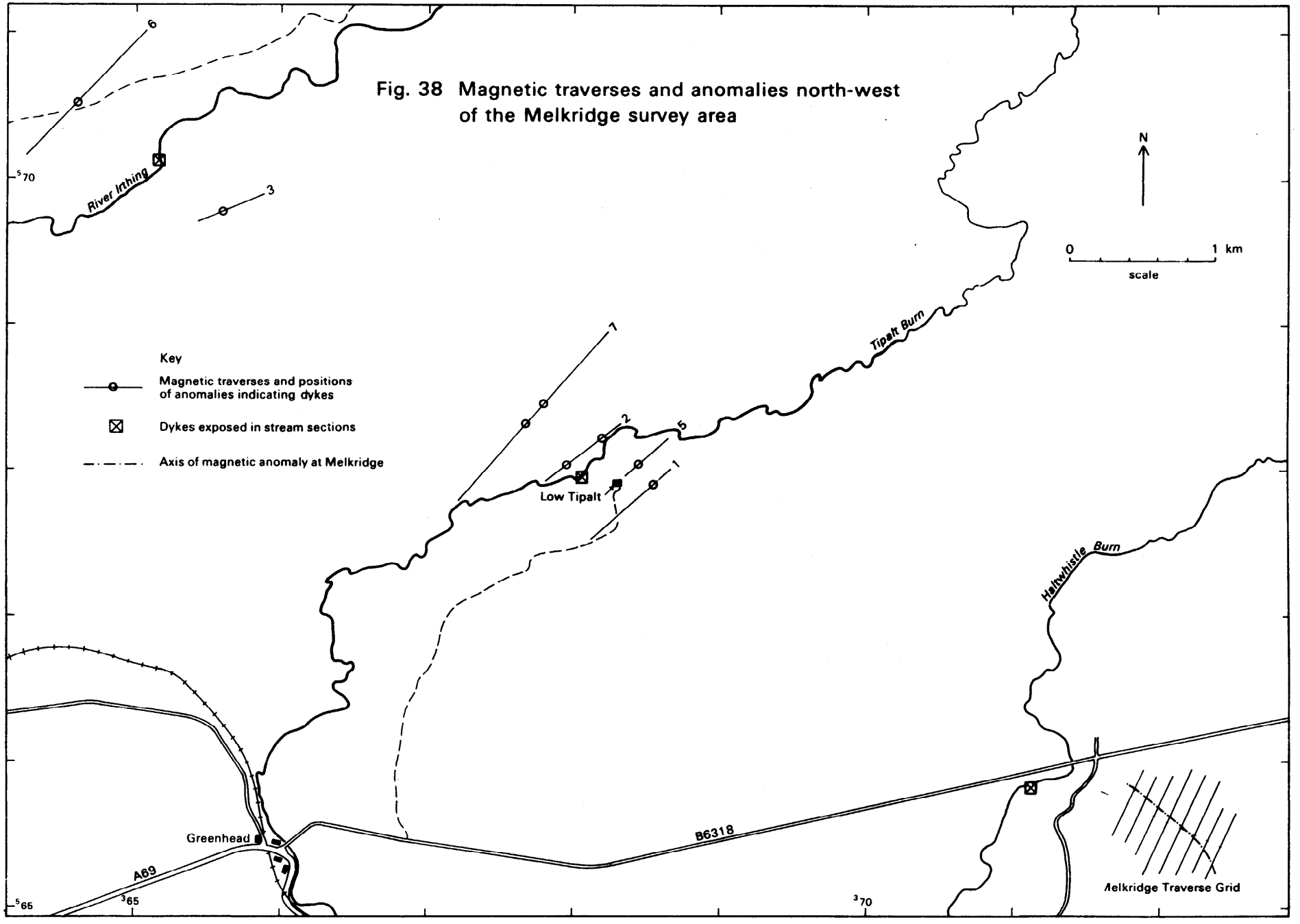


Fig. 38 Magnetic traverses and anomalies north-west of the Melkridge survey area
N
0
1 km
scale
Key
Magnetic traverses and positions of anomalies indicating dykes
Dykes exposed in stream sections
Axis of magnetic anomaly at Melkridge
River Irthing
Tipalt Burn
Low Tipalt
Hallywhistle Burn
Greenhead
A69
B6318
Melkridge Traverse Grid
570
365
370
565
6
3
1
2
5
1

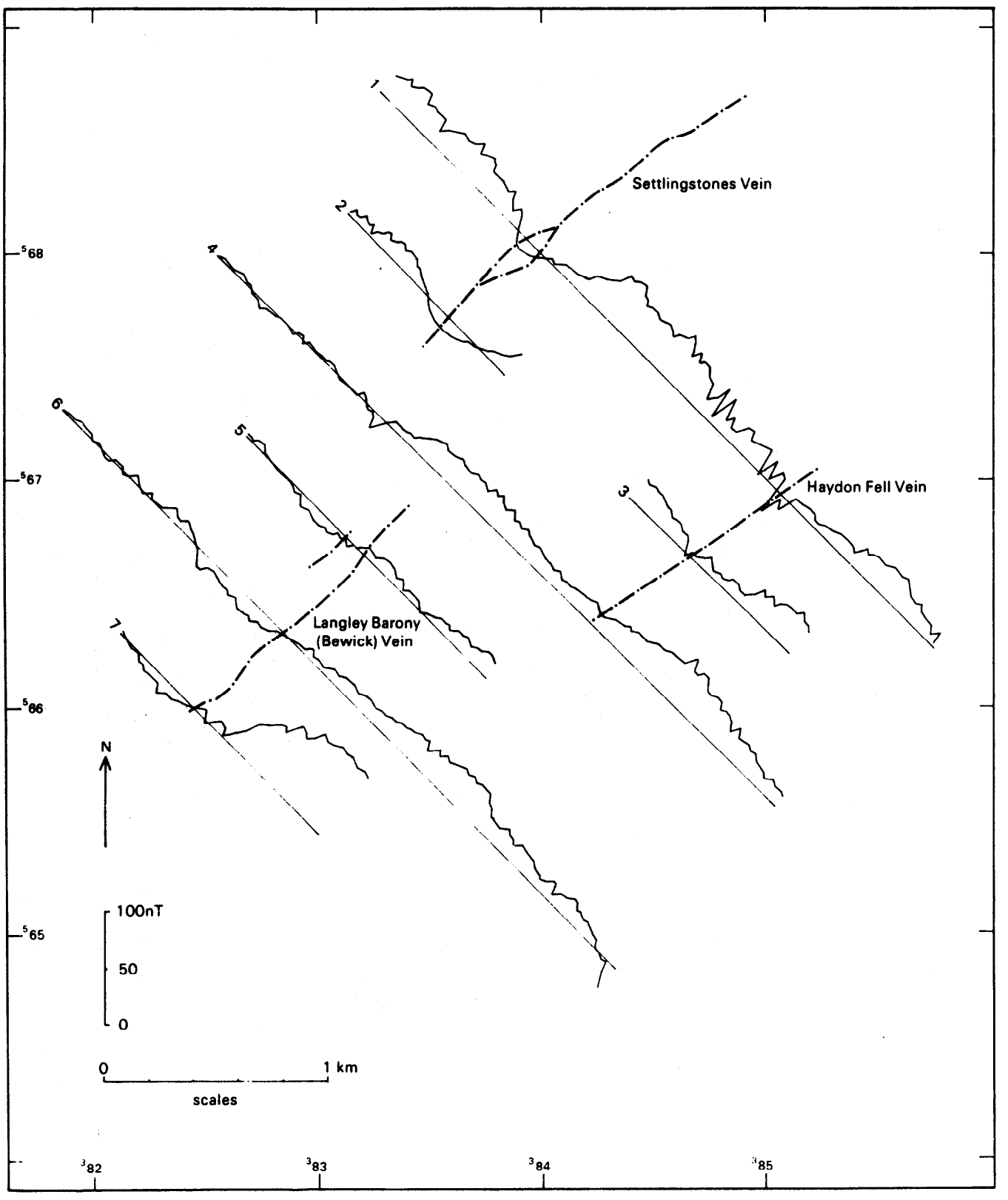


Figure 39. Traverse locations and total magnetic field profiles in the Settlingstones area

interest:

i A clearly-defined low occurs over the Settlingstones Vein. The Whin Sill is known to be downfaulted to the southeast along the vein, by an estimated 25—30 m in the vicinity of traverses 1 and 2 where the depth to the top of the sill on the upthrow side is estimated to be 115 and 150 m respectively (Dunham, 1949). Model anomalies derived as part of the interpretation of the Newbrough data show that the anomalies observed over the Settlingstones Vein are approximately consistent with the known displacement of the sill along the vein.

ii The known position of the Langley Barony Vein is reflected in the shape of the profiles on traverses 5, 6 and 7.

iii The profiles for traverses 5, 6 and 7 each show a broad low to the northwest of the Langley Barony Vein, approximately in alignment with the low over the Settlingstones Vein. However, on traverse 4, which crosses the unmined ground between the two veins, the relatively undisturbed profile gives no indication of any link between the respective lows. Dunham (1949) reports that the Settlingstones Vein is terminated against a northwest cross-course. This is consistent with the magnetic data, although a more closely spaced series of traverses would be required to demonstrate this more clearly.

iv Traverses 1, 2, 4 and 5 cross the line of the Grindon Hill fault as indicated on the Bellingham geological map. This fault is indicated as having a down-throw to the southeast of perhaps 50 m. The absence of any anomalies on the corresponding portions of the magnetic profiles supports the indication from the airborne data (Evans and Cornwell, 1981) that this fault does not exist.

v The course of the Haydon Fell Vein appears to be reflected in the magnetic profiles, coincident with the centre of a low on traverses 1 and 3. Although Dunham (1949) reports that this vein occupies a fault of only 6 m throw it is possible that it represents a more substantial feature in the Whin Sill, which is estimated to be at a depth of almost 200 m in this area.

vi The VLF—EM data, although much affected by artificial anomalies, show a well defined anomaly running parallel to the Langley Barony Vein, about 200 m to the south-east of the vein. The anomaly, however, indicates a shallow-dipping conductor and is probably due to a shale band rather than a mineralised feature. There is no indication of a conductor on the line of the magnetic anomaly observed over the Settlingstones Vein.

Brown Moor

The magnetic anomaly at Brown Moor ([NY 843 695], Figure 36) is of interest because its position and orientation indicate that its cause may be an extension of the WNW—ESE structure along which the Stonecroft Sun Vein is emplaced. The continuity of the anomaly over some 2 km is clearly seen in Figure 36, and was investigated by means of sixteen traverses spaced 125 m apart, and in most cases 800 m in length (Figure 40). Magnetic measurements were made at intervals of 10 m on all traverses, and VLF—EM measurements were made at intervals of 20 m on alternate traverses 250 W – 1000 E and on each of the four easternmost traverses. Four additional traverses were measured, by the magnetic method only, to the southwest of the principal traverse grid, near to Grindon Farm, to cover a subsidiary broad magnetic anomaly ([NY 824 693], Figure 36).

The magnetic profiles for the Brown Moor area are shown in Figure 41. The data are reduced to a base value of 48871 nT at Station 0 on traverse 0. The very disturbed pattern of several of the profiles precludes satisfactory contouring of the data for the area as a whole. However, a series of 'lows' is evident close to the mid-point of each traverse. These are identified in Figure 41 by shading those portions of the profiles below the arbitrary line of 48800 nT, demonstrating that a nominal 48800 nT contour would outline a negative anomaly extending over the length of the survey area, branching into a double feature at the eastern end. This anomaly is considered to be the surface expression of the feature identified from the airborne data.

It is difficult to suggest a source for the anomaly. Quantitative interpretation is not possible because of the gradually changing nature of the 'low' itself, and the variety of other features in close proximity to it. The Whin Sill is at, or close to, surface across the area; the strong short-wavelength anomalies at the northern ends of traverses 125 W to 500 E are typical of data recorded over outcrops of the sill (compare Torney's Fell and Quarry House areas, described below). There are, however, no surface features to suggest a source for the anomaly. Comparison of the approximately symmetrical anomaly on traverse 375 W with the strongly asymmetrical anomaly on traverse 125 E indicates some change in the source, though its persistence and almost straight course across the area are well defined. It is unfortunately not possible to test any link between the anomaly and the 'low' over the Stonecroft Sun Vein with which it is aligned, because of the 275 kV power line which crosses the important area east of traverse 1500 E (Figure 40).

The VLF—EM data provide no clue as to the source of the magnetic anomaly. In-phase anomalies were observed on all traverses measured and on traverses west of 1000 E the amplitudes of these exceed ± 20% in several instances. However, these anomalies are clearly a topographic effect as the profiles correlate closely with the change in ground slope on each traverse.

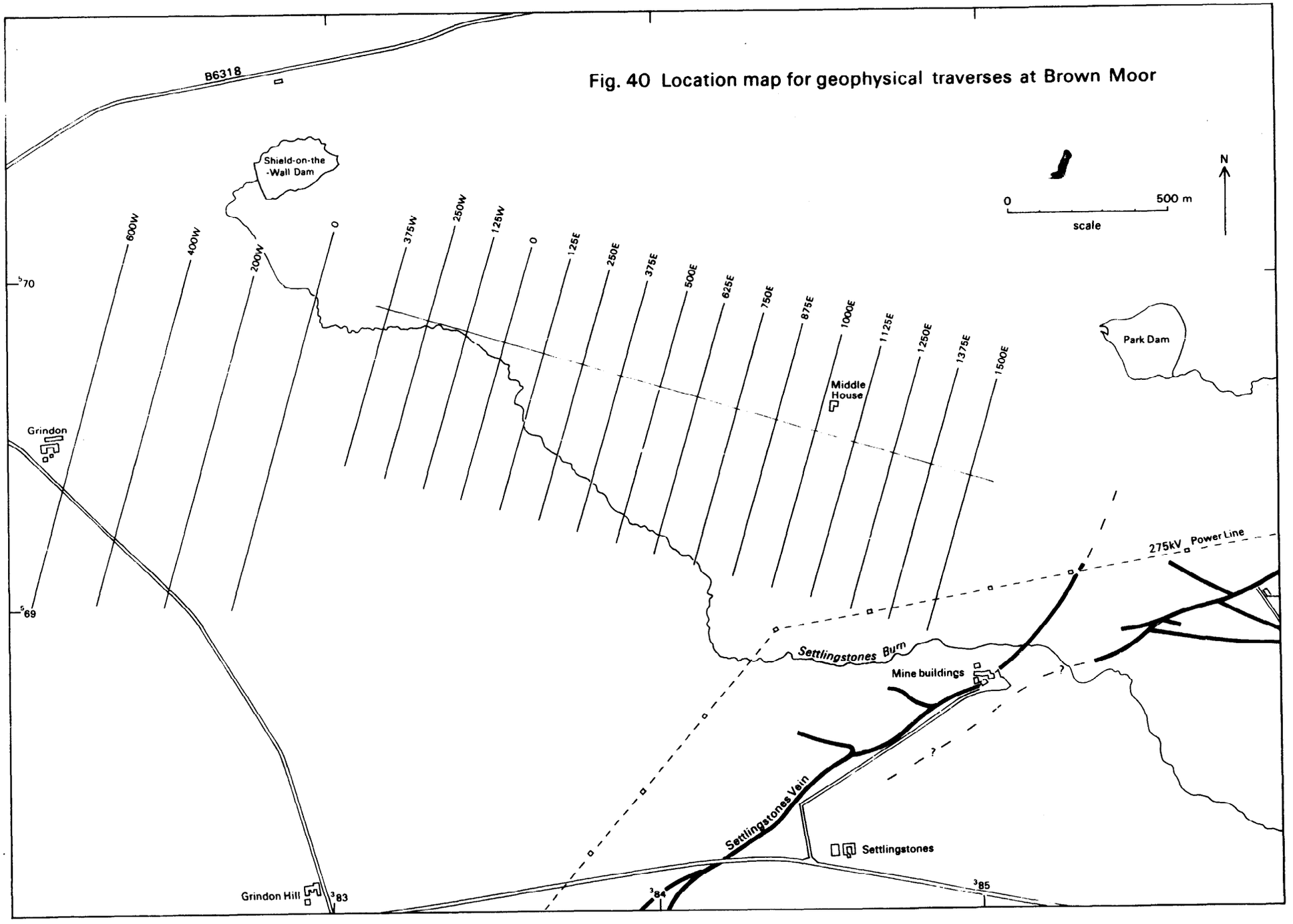


Fig. 40 Location map for geophysical traverses at Brown Moor

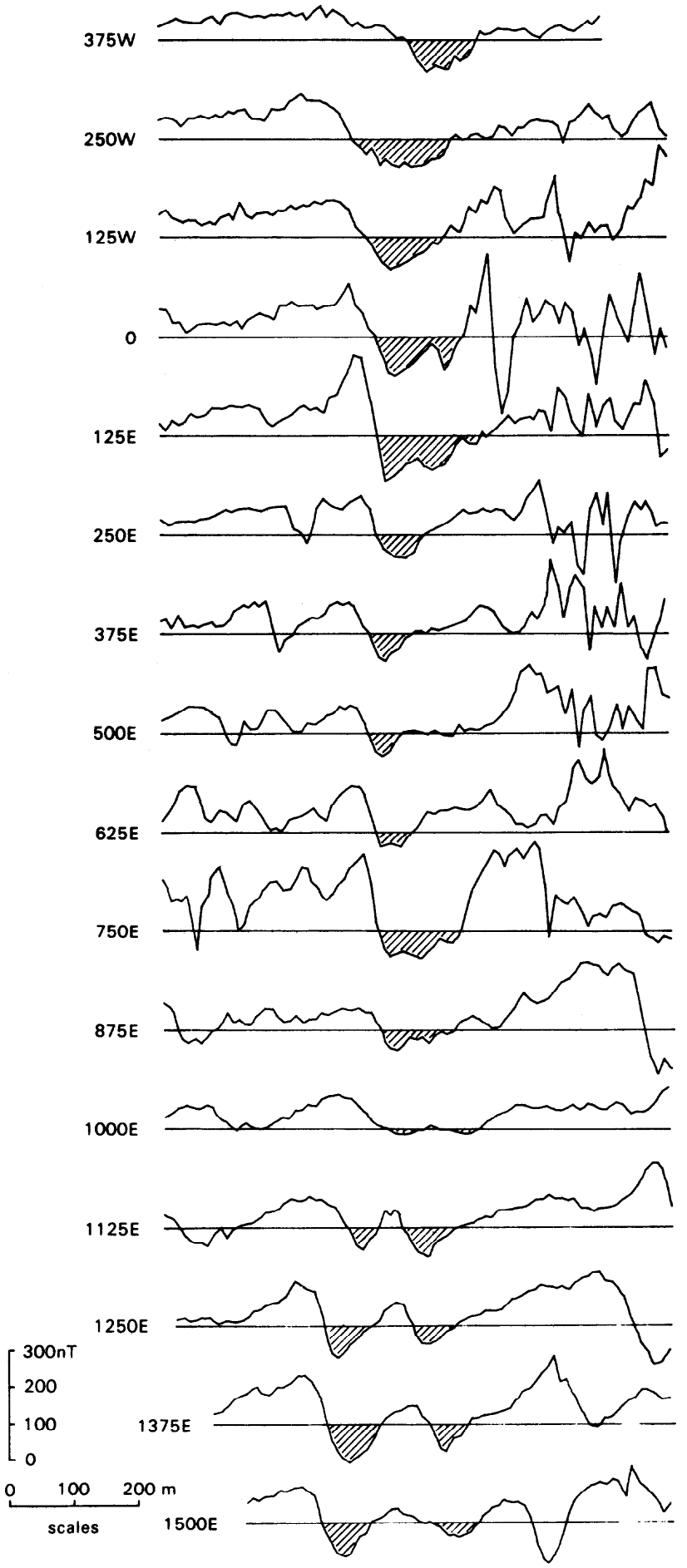


Figure 41. Total magnetic field profiles at Brown Moor

Hatching denotes principal negative anomaly with observations below 48800nT

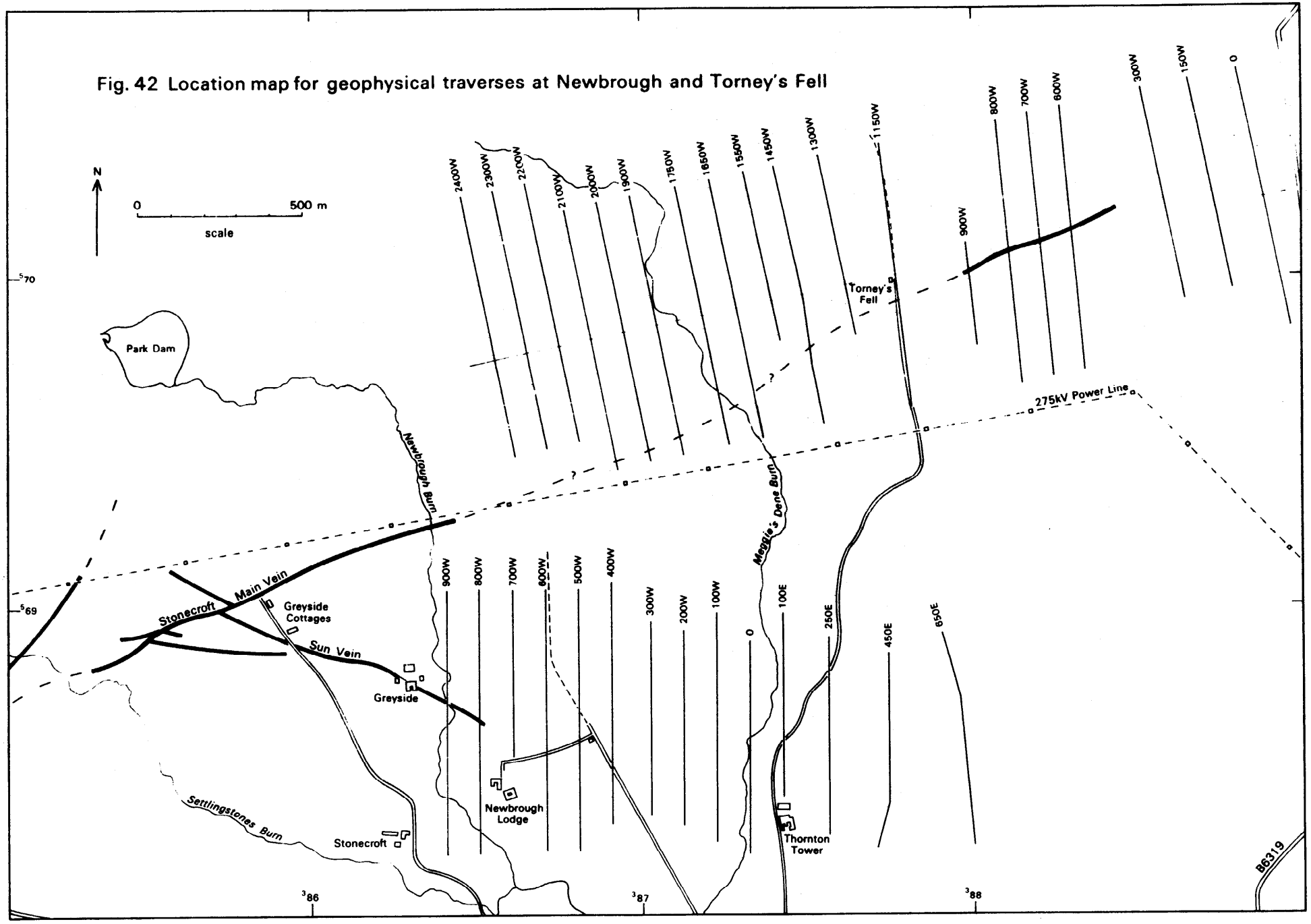


Fig. 42 Location map for geophysical traverses at Newbrough and Torney's Fell

Torney's Fell

The airborne magnetic anomaly in the Torney's Fell area ([NY 874 698], Figure 36) is of interest because the axis of the eastern part of the anomaly is approximately coincident with a vein which has been worked for barytes at the horizon of the Whin Sill. The geological map indicates a conjectural WSW extension to this vein, to link it to the eastern limit of the Stonecroft Main Vein some 1.6 km distant. However, the airborne magnetic contours indicate that the structure carrying the vein at Torney's Fell turns to a more E–W line, and continues until it reaches the outcrop of the sill.

Twenty traverses were measured across the area of of interest (Figure 42). Magnetic measurements were made at intervals of 10 m on all traverses, and VLF–EM measurements were made at intervals of 20 m on all traverses. Traverse lengths and spacings varied considerably because of the need to avoid crossing certain fields which were under crop.

The magnetic profiles for traverses west of 1300 W are shown in Figure 43. Those for the remaining traverses to the east show no anomalies. As at Settlingstones, very strong anomalies occur in part of the area, and satisfactory contouring of the data is not possible. However, it is apparent from the profiles that a magnetic low can be traced across the area, its course indicating that it is the surface expression of the feature observed from the airborne data. This 'low' is well defined and, while its axis is seen to coincide with the known vein east of Torney's Fell, further west it clearly diverges from the course of the conjectural vein, assuming an E–W trend. There is no magnetic evidence to support a structural link between the vein at Torney's Fell with the Stonecroft Main Vein.

The VLF–EM profiles show no features indicative of a conductor on the line of the magnetic low.

Newbrough

The survey at Newbrough covered the easternmost part of a negative magnetic anomaly [NY 869 686] of total length ~5 km, the axis being closely coincident with the course of, successively, the Settlingstones Vein, the Stonecroft Main Vein, and the Stonecroft Sun Vein. The persistence of the anomaly eastwards towards Newbrough is shown in Figure 36.

Fourteen traverses were measured across the area (Figure 42), irregularly spaced in the east because of crops, and spaced approximately 100 m apart in the west. The approximate average traverse length was 800 m. Magnetic measurements were made at intervals of 10 m on all traverses, and VLF–EM measurements were made at intervals of 20 m on alternative traverses from 800 W to 250 E.

The magnetic profiles are shown in Figure 44. The data are reduced to a base value of 48784 nT at Station 350 N on traverse 0. The magnetic 'low' is clearly seen on all traverses west of 100 E, and reaches a maximum amplitude of approximately 150 nT between traverses 400 W and 700 W. There are many sources of artificial anomalies in the area (fences, water pipes and tanks) but the effects of these are limited and readily identifiable locally, and therefore omitted from the profiles in the figure.

The VLF–EM data are much affected by artificial sources – an 11 kV power line runs across the area, above and below ground, linking Greyside and Thornton Tower Farms. The undisturbed portions of the profiles show no significant variation in either in-phase or out-of-phase values, and there is no indication of an EM conductor on the line of the magnetic anomaly.

It is known from the account by Dunham (1949) that the Stonecroft Sun Vein occupies a normal fault with a downthrow to the south of approximately 30 m. Geophysical modelling, using reported values for the depth of the Whin Sill and for its thickness and magnetisation, showed that the anomaly observed over the vein near Greyside Farm could be satisfactorily accounted for by the known structure. The extension of the anomaly in the Newbrough area appears to be a continuation of the approximately symmetrical 'low' observed over the Sun Vein. Interpretation of the anomaly was based, therefore, on the assumption that its cause is an extension of the known fault but with some changes in the depth and thickness of the sill and the throw of the fault to account for the increased amplitude and wavelength of the anomaly east of the known limit of the Sun Vein. Modelling was based on an average profile, derived from the profiles for traverses 400 W, 500 W and 600 W, as these are notably similar.

This initial interpretation showed that the observed anomaly could be accounted for by assuming an increase in the throw of the fault to 80 m, an increase in the depth to the top of the sill on the upthrow side to 100 m, and an increase in the thickness of the sill to 60 m. Furthermore, it was observed that the model anomaly could be more closely fitted to the observed anomaly by assuming some horizontal separation of the respective portions of the sill. This would be equivalent to assuming a southerly hade to the fault, or assuming some alteration (and demagnetisation) of the sill adjacent to the fault, or a combination of these factors. Figure 45a shows how the symmetry of an anomaly due to a southerly downthrow fault is changed according to the width of an assumed zone of alteration either side of the fault. The results from drilling boreholes 1 and 2 showed that the initial interpretation was in error, and suggested that the anomaly was due to a broader zone of displacement and alteration of the sill at rather shallower depth. A re-interpretation of the magnetic data (Figure 45b) was used to site boreholes 3 and 4.

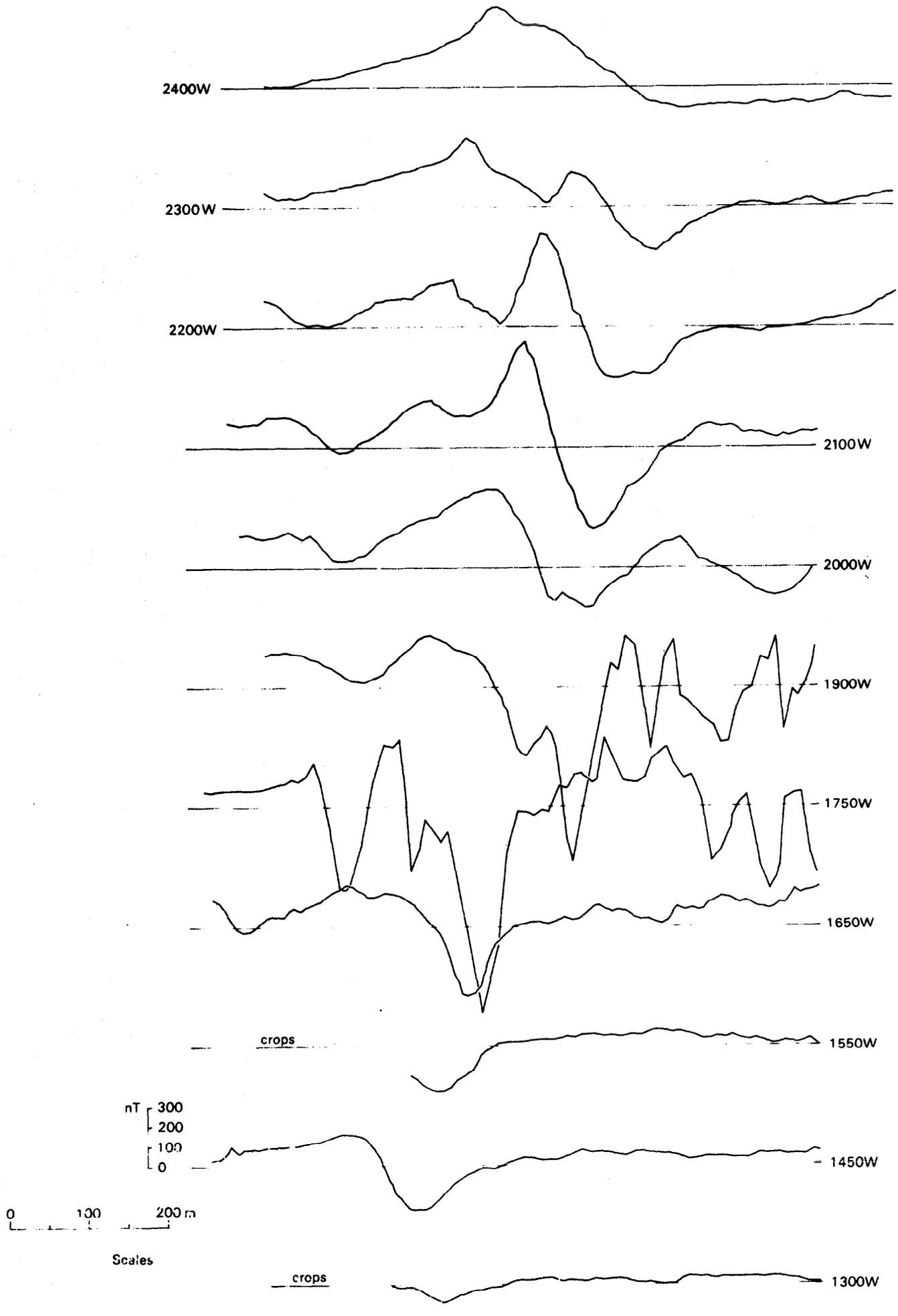


Figure 43. Total magnetic field profiles at Torney's Fell

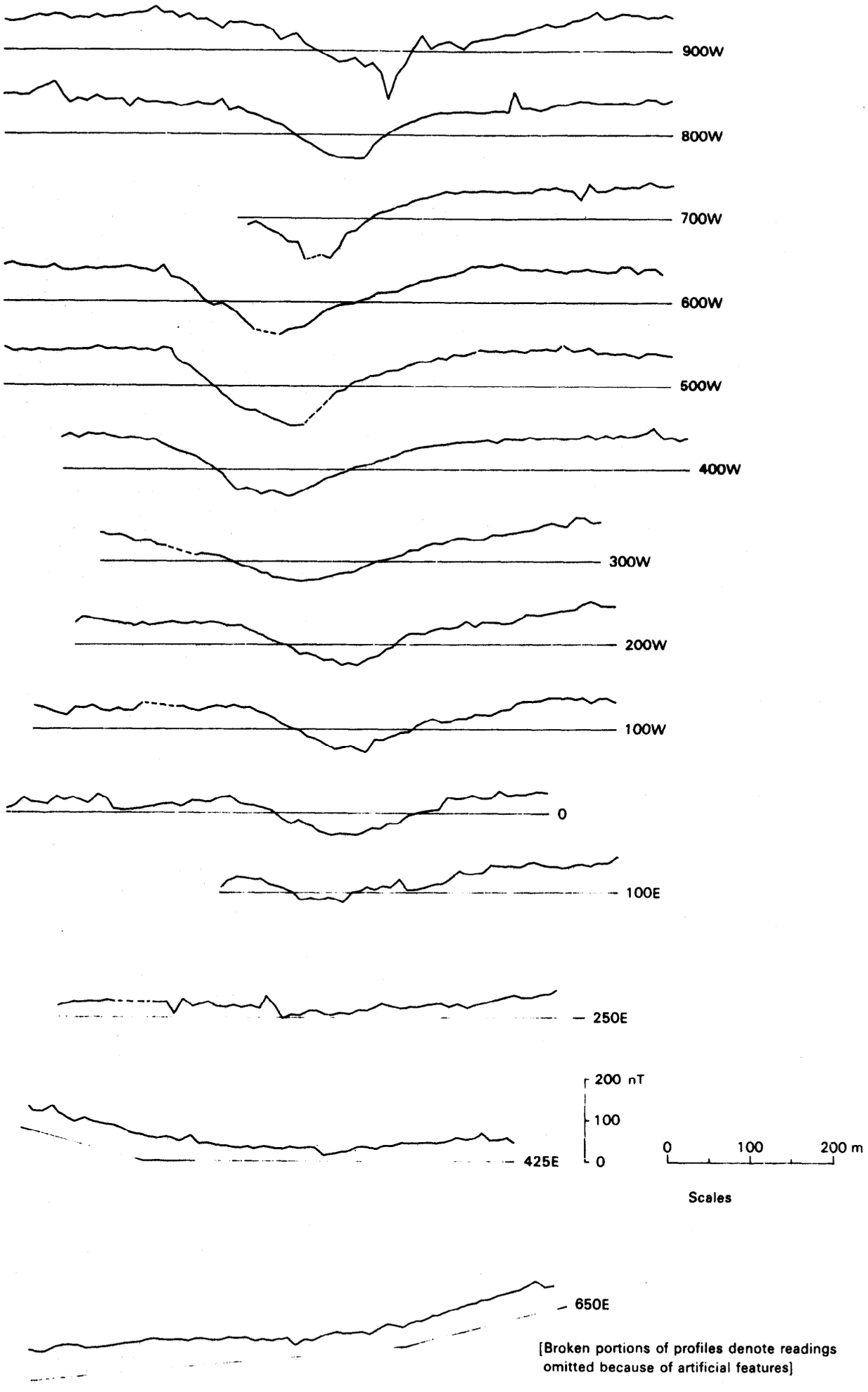


Figure 44. Total magnetic field profiles at Newbrough

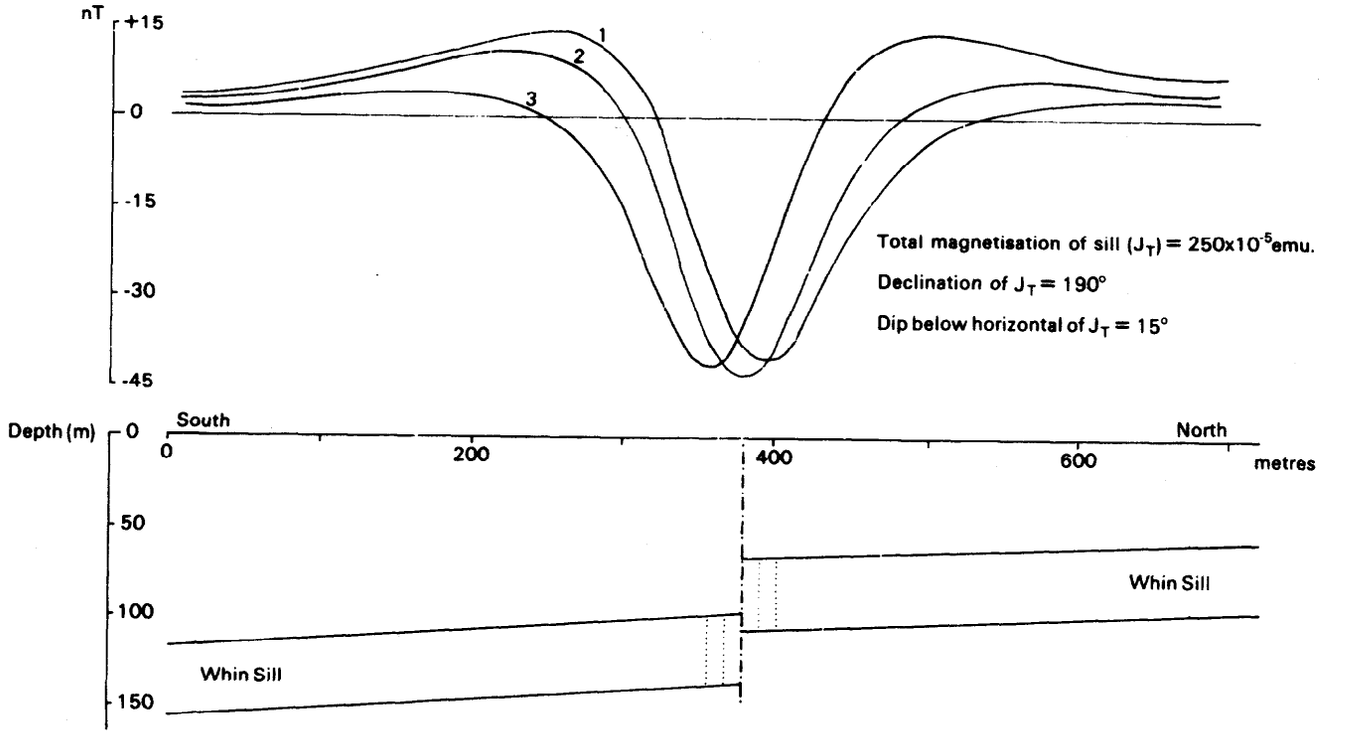
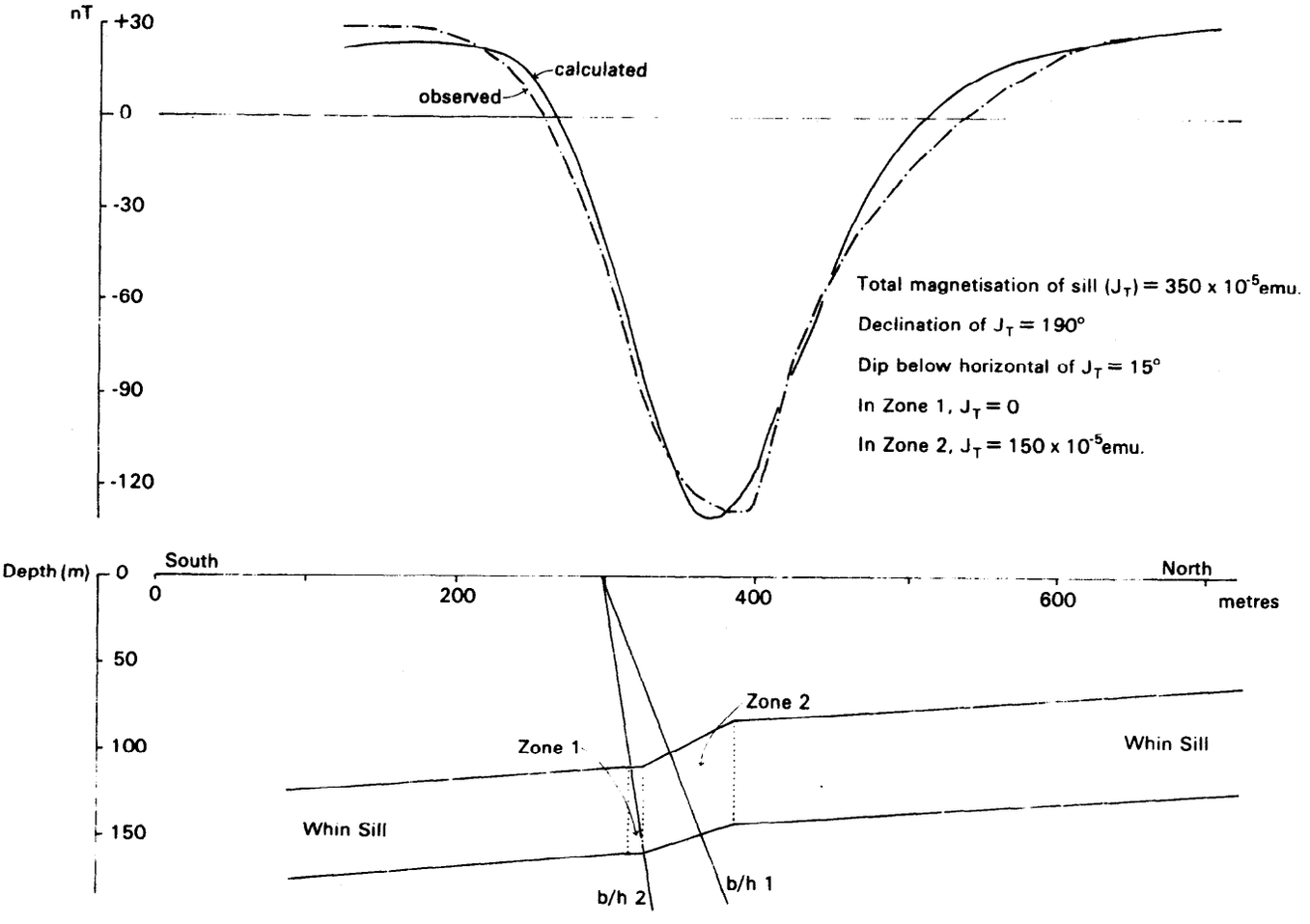


Figure 45. a) Model profiles of total magnetic field anomaly across a fault in the Whin Sill.

[Profile 1 assumes demagnetisation of the sill to 20m either side of the fault; Profile 2 demagnetisation to 10m either side; Profile 3 no demagnetisation]



b) An interpretation of the Newbrough magnetic anomaly

[The observed total magnetic anomaly on a traverse through the drill site is superimposed on the calculated anomaly for the model shown]

Quarry House

At Quarry House a lead vein (Figure 35) has been worked over a distance of perhaps 200 m at the level of the Whin Sill, here only a few metres below surface. Four east-west magnetic traverses were measured across the vein to determine whether a magnetic feature was coincident with the vein, as at Settlingstones. Three further north-south magnetic traverses were measured to determine the surface expression of an east-west negative anomaly seen on the aeromagnetic map. The magnetic profiles from both sets of traverses are much disturbed by short wavelength anomalies of amplitudes up to 400 nT over, and close to, the outcrop of the Whin Sill, though it is clear that there is no recognisable magnetic feature over the vein. VLF–EM profiles on the east-west traverses give no indication of a conductor on the line of the vein. The apparent aeromagnetic low cannot be recognised from the north-south magnetic profiles. It appears, as at Brown Moor, that the aeromagnetic method, removed from the source of high-frequency anomalies, is better able to define anomalies at, or close to, the outcrop of the Whin Sill than ground survey.

Thornbrough

At Thornbrough, lead was worked from a vein (Figure 35) in the Thornbrough Limestone, some 400 m above the Whin Sill. It is reported (Smith, 1923) that a basaltic intrusion occupies the fault carrying the vein, and a series of magnetic traverses was measured to determine the nature of this intrusion. Siting of the traverses was restricted by roads, a railway line, the River Tyne, forestry plantations and many fields under crop. However, anomalies observed at several locations between [NY 965 617] and [NZ 024 664] indicate that the intrusion is a Whin dyke. The trend of the dyke suggests that it is continuous with intrusions indicated at [NY 899 555] and ,[NY 910 567] (1:50 000 Geological Map sheet 19, Hexham). Further west, in Allendale, the Esp Vein lies on the same alignment. This is a further indication of the association between mineralisation and extensive NE-trending structures.

DRILLING

From a consideration of the data obtained from both the geological and geophysical investigations, it was concluded that drilling was the only means of obtaining confirmatory information from depth. Two of the areas which had been soil sampled, Brown Moor and Newbrough, were potential drill targets but logistical considerations and the evidence of a magnetic low along the line of a possible extension of a worked mineralised vein (Sun Vein), identified Newbrough as the prime target.

Table 7 Details of boreholes at Newbrough

	Azimuth	*True depth*	*Inclination*	*Recovery (%)*	*Deviation*
1	345	252.07 m	60°	88	348°–65°
2	344	195.68 m	75°	75.6	349°–75°
3	344	100.58 m	60°	68.5	not tested
4	344	150.57 m	80°	81.3	not tested

The objective of the drilling was to investigate the structure in the Whin Sill, which was indicated from the geophysical data to lie some 100 m below land surface, and particularly, to study the extent of any possible alteration of the dolerite.

Site accessibility determined the actual location of the four boreholes in an area just to the north of Back Lane Wood. Drilling was by the IGS JKS 300 rig which has sufficient capacity (maximum 300 m) to reach the target zone, estimated to be between 100 and 200 m. Computer modelling of the geophysical data had indicated that a fault affecting the Whin Sill was a possible cause of the magnetic anomaly, and the drill programme was designed to test this hypothesis.

Figure 46 shows the location of the two sites from each of which two holes were drilled. Details of the holes are shown in Table 7. All of the holes were commenced in BQ (36.5 mm core) and completed to final depth at the reduced AQ (28 mm) core size.

The instability of the borehole walls, due to a considerable depth of weathering (particularly of the argillaceous sediments) precluded the use of down-the-hole probes to measure *in situ* geophysical properties. However, magnetic susceptability measurements were made in the laboratory on Whin Sill core obtained from the four holes and were compared with values for unaltered Whin Sill obtained on core from a hole at Throckley [NZ 160676] from a depth of 504.75 m–541.93 m.

The core was examined in the laboratory, and from these observations the logs were constructed (Figures 47–50). Sections of core which displayed alteration and/or visible mineralisation were split and crushed for analysis by XRF. Eighteen elements, Ce, Ba, Sb, Sn, Pb, Zn, Cu, Ca, Ni, Fe, Mn, Ti, Ag, U, Rb, Sr, Zr and Mo were determined and are listed at the end of Appendix 4.

Figure 51 shows the relationships between the four boreholes and the proposed correlation between the main lithological units. It also shows the approximate dip of the bedding planes in the sedimentary part of the succession as deduced from the recovered core. A general southerly direction of dip has been assumed for the interpretation, in accord with the published geological maps of the immediate area. (Frost and Holliday, 1980).

The geological succession shows broadly similar features in each borehole, consisting of alternating

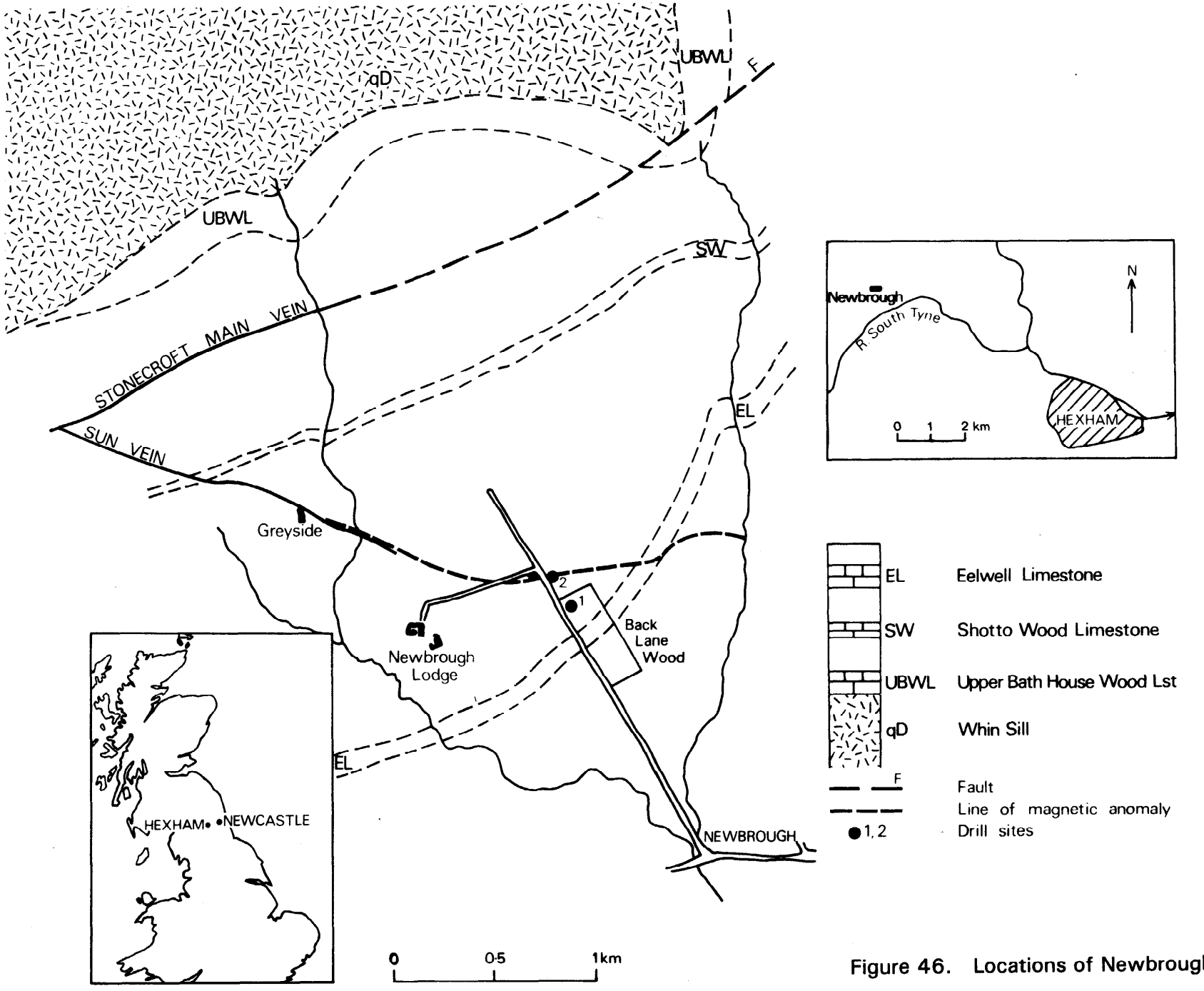


Figure 46. Locations of Newbrough boreholes

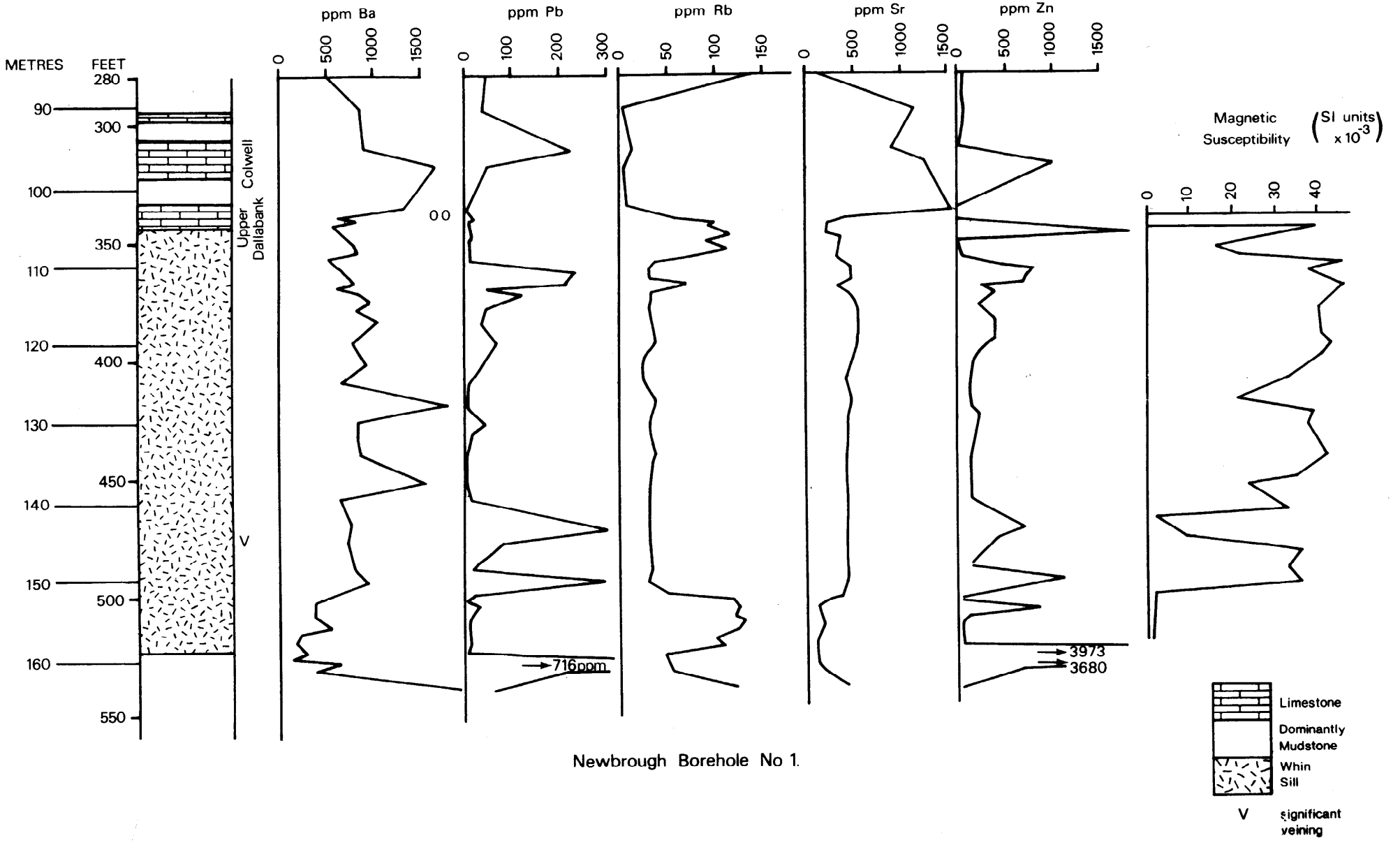


Figure 47. Element distributions and magnetic susceptibility measurements for Newbrough borehole 1

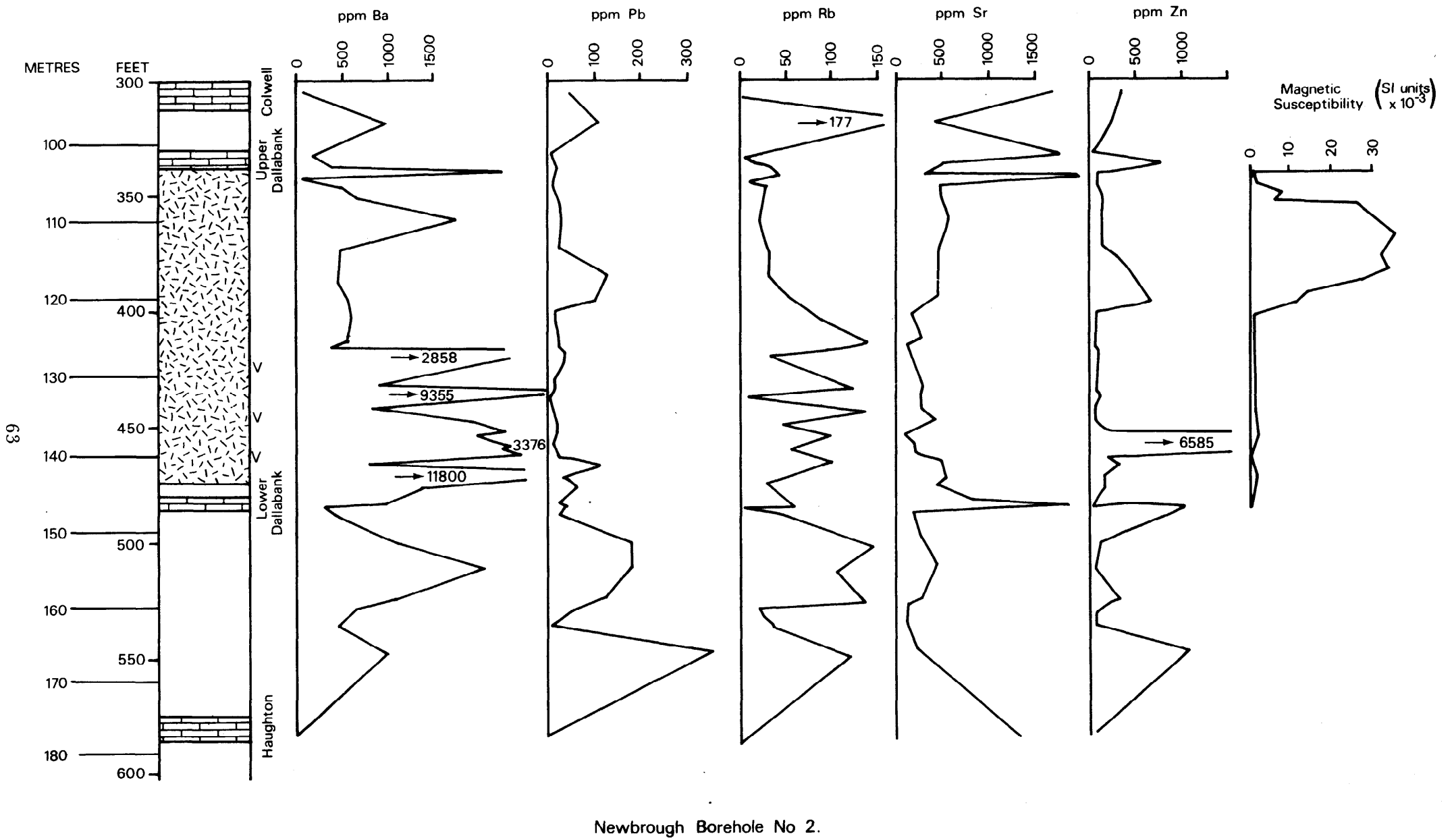


Figure 48. Element distributions and magnetic susceptibility measurements for Newbrough borehole 2

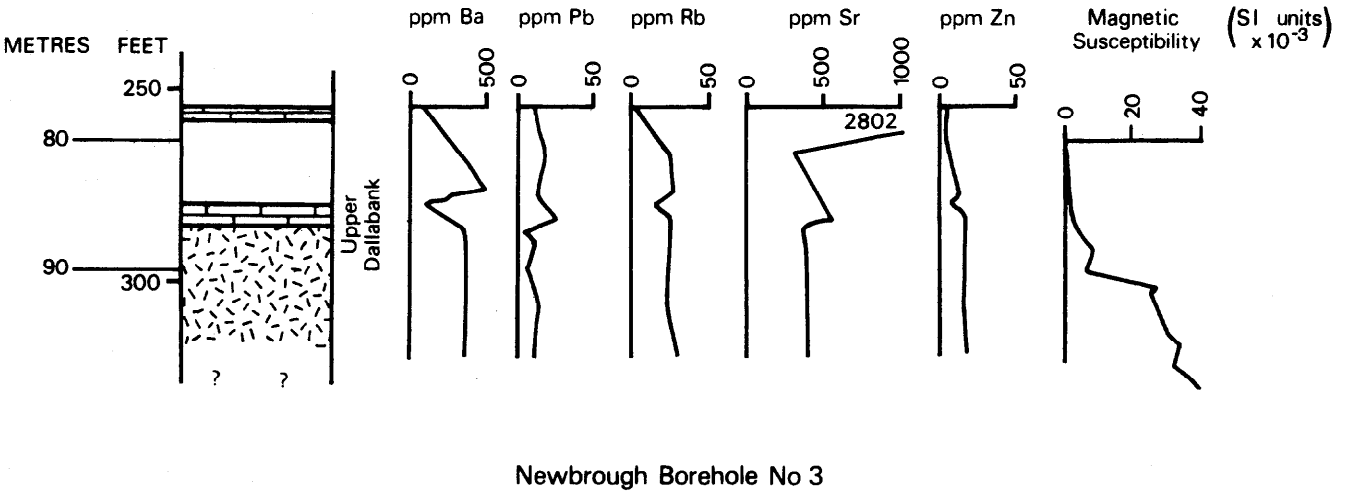


Figure 49. Element distributions and magnetic susceptibility measurements for Newbrough borehole 3

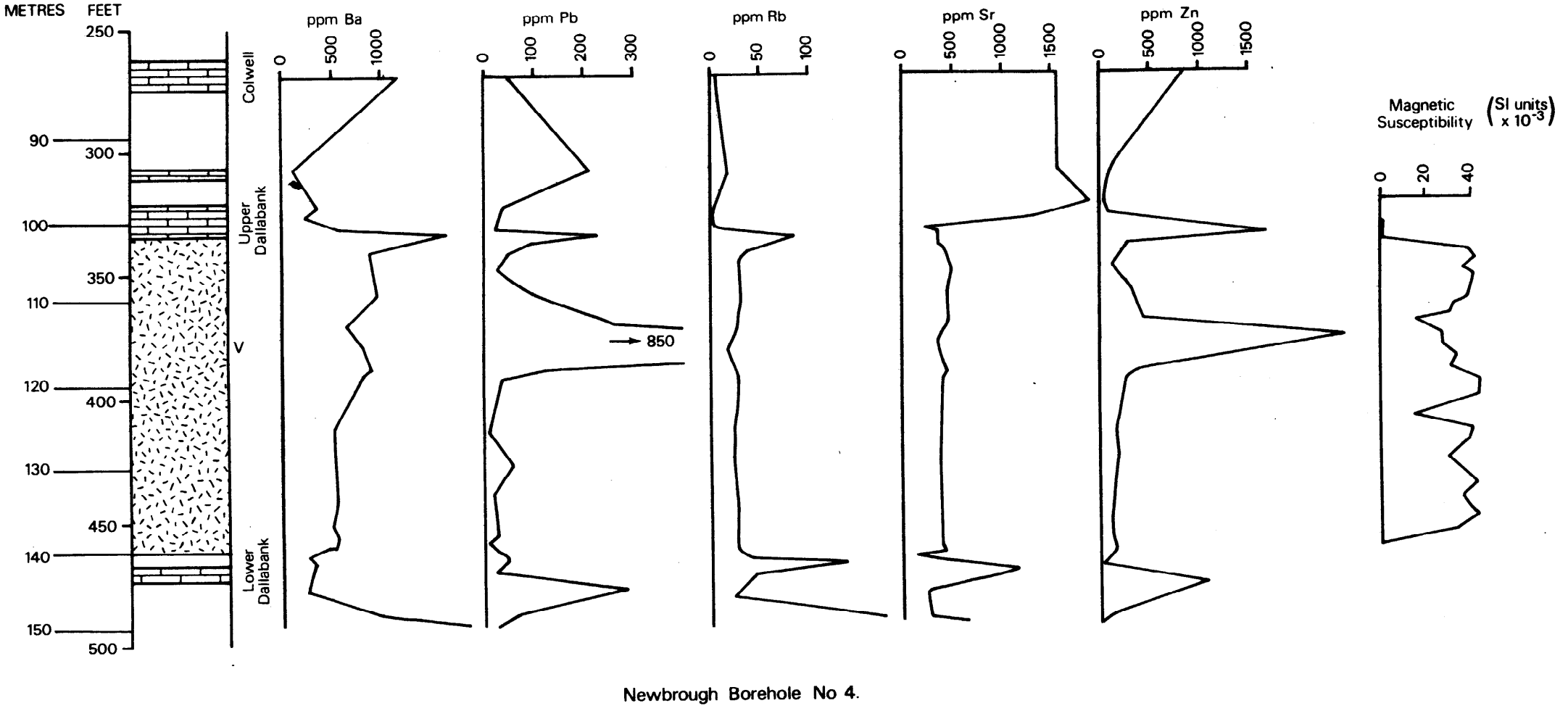


Figure 50. Element distributions and magnetic susceptibility measurements for Newbrough borehole 4

shales or mudstones and sandstones, with important limestone units. It is the latter which are of major significance in the correlation from borehole to borehole.

Boreholes 1 and 2 passed through 4 main limestone units above the Whin Sill, identified as the Shotto Wood, Bath-House Wood, Colwell and Dallabank limestones. The sediments intersected beneath the Sill differ from those overlying it in that the proportion of arenaceous material is higher and that of the mudstone and carbonate facies lower. Boreholes 1 and 2 probably intersected the local equivalents of the Haughton and Barrasford Limestones beneath the Whin Sill and borehole 1 also intersected the Oxford Limestone.

Sections of core were selected for chemical analysis and the results are illustrated in Figures 47–50. These results, together with comparable Whin Sill analyses, are also given in Table 8. With the exception of Ba and Rb, alteration of the quartz dolerite at Newbrough has led to a depletion in trace elements.

Different facies occurring as bands can readily be identified within the Whin Sill, in addition to the zones of alteration, but for clarity these have been omitted in Figures 45–48. The altered zones correspond well with the low magnetic susceptibility values shown on these figures. Greater detail of the lithological and chemical variations in the Whin Sill from the Newbrough investigation are to be discussed elsewhere.

Most of the core submitted for analysis had been taken from the Whin Sill but sections of visibly mineralised sedimentary rocks were also analysed. Material selected from the Whin Sill included samples of each of the identifiable facies of the intrusion. In each case bulk samples representative of 1 m lengths of core were submitted for analysis. Vein material was not included in the bulk samples but was submitted for analysis separately. The plots of all the analyses show quite clearly that the highest values of Pb, Zn and Ba are in the Whin Sill. Copper values almost without exception, are low, the lowest values occurring in the more altered sections of the Whin Sill (chemical depletion due to the hydrothermal alteration of the Whin Sill, as reported by Ineson, 1972).

A close correlation is noted between the values of Sr and lithology, a plateau of low Sr values identifying the Whin, in contrast to the higher, though somewhat erratic, levels recorded from the sediments both from above and below the Sill.

High Rb values (in excess of 75 ppm) occur in marginal facies at the top and base of the Sill in boreholes 1 and 4. In borehole 2, values in the lower half of the Sill, covering a zone some 30 m wide, are similarly high, frequently in excess of 100 ppm. In all these instances the high Rb correlates closely with zones of alteration in the Sill.

Similarly, the distribution of metals, Pb, Zn and Ba is seen to have a generally close spatial association with the zones of alteration noted during the visual examination of the core.

It is possible to examine some of the chemical differences between the fresh intrusion and the altered facies by reference to the analysis of that part of the Whin obtained from borehole 3. In this, the range of values recorded for Ba, Pb, Zn and Cu from the four samples of unaltered dolerite are comparable with the levels obtained from samples of the Throckley borehole core (Table 8).

The geochemical data and the magnetic susceptibility logs from each hole are indicated in Figures 47–50 from which the relationships between altered Whin Sill (identified by the lower susceptibility values) and the metal element values can be seen. The higher values for Ba, Pb and Zn in the Whin generally occur in the alteration zones. In borehole 1 the highest values for Pb and Zn in the Whin occur at the margins of the sill, while Ba, with values in excess of background, has peak values towards the centre (the highest recorded values for Pb and Zn – 0.7% and 0.39% – are from the sediments immediately beneath the sill).

In borehole 2 there is more intense alteration of the dolerite to 'White Whin'. The lower half of the sill has a noticeably lower susceptibility and is also enriched in metals, particularly Ba, one sample at the base of the intrusion giving values in excess of 1.1% Ba and 0.5% Zn. Isolated, relatively high values for these elements also occur in the sediments beneath the sill. Lead is not enriched in the sill in borehole 2 but several values to a maximum of 350 ppm are recorded in the sediments below.

Values from the Whin in borehole 3 show it to be of 'normal' type.

Borehole 4 is in many respects similar to borehole 1, with distinct zones of alteration identifiable by low susceptibility and increased metal values. Peak values for Pb and Zn occur in the alteration zones, 849 and 2415 ppm respectively.

A number of thin sections have been examined of the Whin Sill to investigate the mineralogy of the altered and unaltered lithologies (Haslam, 1981, 1982). In the altered quartz dolerite the most significant changes are to be seen in the sericitisation of the plagioclases and the alteration of the clino- and orthopyroxenes, to total destruction in some examples. Ilmenite, a common constituent of the fresh quartz dolerite, shows variable degrees of alteration to leucoxene and, in some instances, to goethite. Pyrite as platelets, discrete particles and veinlets is a relatively common constituent of all phases of the dolerite. In the altered dolerite the matrix contains variable amounts of secondary carbonates, of which calcite is the most readily identifiable, together with disseminated pyrite, iron oxides and some interstitial quartz. Ore minerals are difficult to determine in thin sections of the altered rocks.

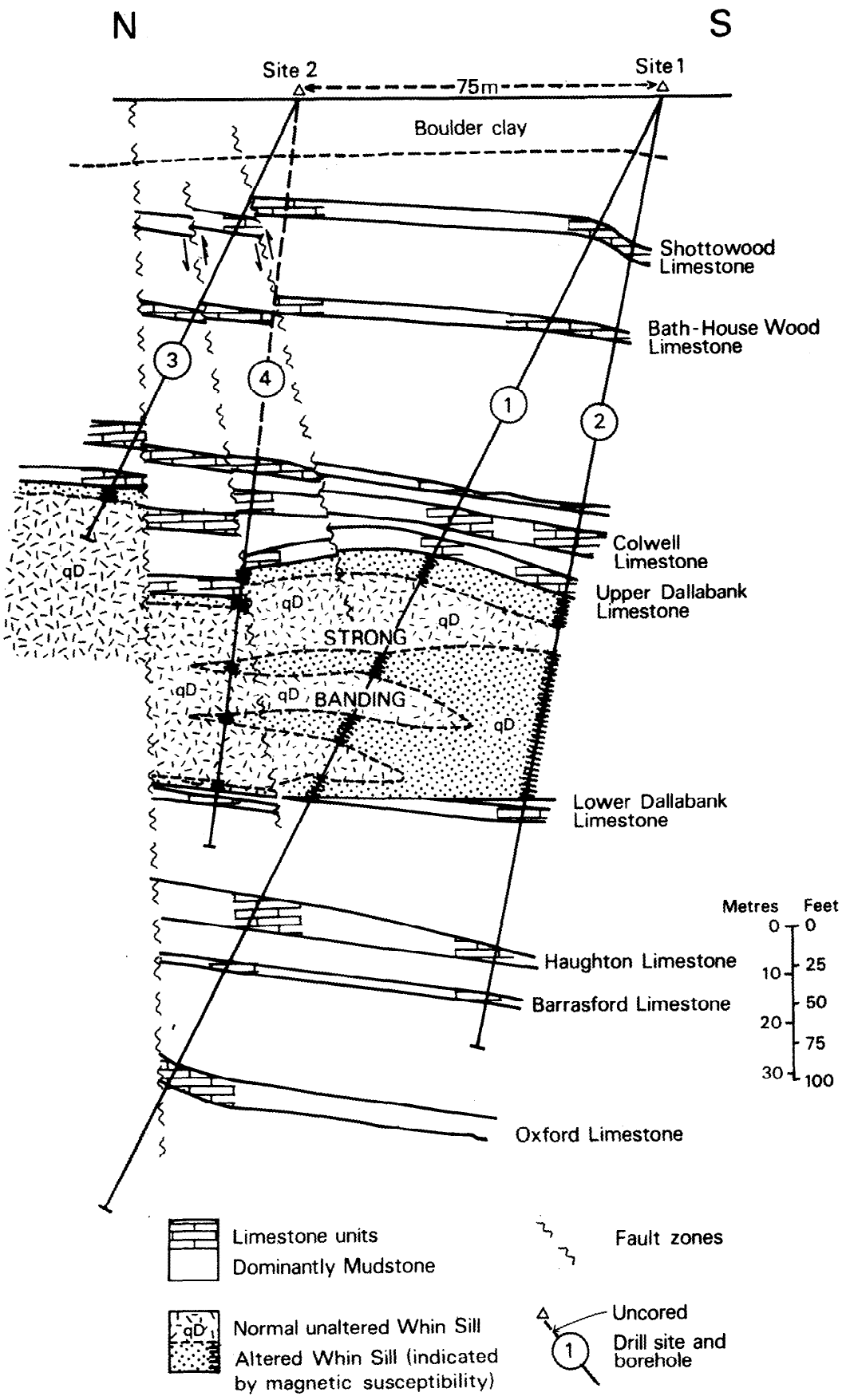


Figure 51. Interpretation of Newbrough borehole data

Table 8 Some trace element data for samples of unaltered and altered Whin Sill

Whin sample	*n	Zn	Ba	Pb	Sr	Rb	Cu
			(concentrations in ppm)				
[1] Unaltered Whin Sill	53	129	380	4.5	389	–	59
Unaltered Whin Sill from Newbrough boreholes	31	186	676	19	427	28	68
Altered Whin Sill from Newbrough boreholes	43	63	724	10	224	69	37
[2] Unaltered Whin Sill from Settlingstones	150	145	870	17	495	20	68
[2] Altered Whin Sill from Settlingstones	80	4410	8700	15	320	92	55

*n = number of different samples used to calculate mean
[1] Samples collected from outcrop between Haltwhistle [371 566] and Great Swinburn [393 575]
[2] Ineson (1972)

Chalcopyrite and arsenopyrite have been identified but discrete minerals of lead, zinc and barium were only occasionally recognised. The analyses of the core, however, indicate high values of Zn and Ba which suggests that mineral phases containing these elements exist in the fabric of the rock.

The factors controlling the distribution of the White Whin facies in the four boreholes are not evident from the data available. An alteration margin to the Sill has been developed to a varying degree, but the amount of White Whin observed in the mass of the sill is not constant, considerable variation being observed between boreholes. The degree of alteration appears to increase in a southerly direction (Figure 51), with some 90% of the Sill in borehole 2 showing the characteristics of alteration, compared with only about 5% of the sill in borehole 4.

The structure deduced from the drilling provides no clear evidence that the mineralisation and alteration are related directly to the faulting. It would seem from the evidence (displacement of Whin Sill, Figure 51) that faulting has occurred after emplacement of the sill but prior to its alteration and mineralisation. Both the degree of alteration and that of mineralisation increase away from the zone of disruption and it may be significant that the Whin at the bottom of borehole 3 is relatively fresh (apart from the thin upper surface alteration) and unmineralised. The evidence would seem to indicate that the solutions responsible for the alteration and mineralisation originated via an unidentified pathway somewhere to the south. An open fracture a short distance south of borehole 2, although possibly the main passageway for fluids, would remain unidentified from the geophysical data unless it had a significant throw. Attempts to locate a suitable fault structure to the south, using radon and soil air were unsuccessful.

At this location, it is suggested, the identified faults may have acted more as a barrier to the progress of migrating fluids than a passageway; and the migrating fluids may have gained access along the same plane as that followed by the intrusion itself.

The evidence from the mines at Stonecroft and Greyside, approximately 1 km WNW of the drilling sites, indicates that there the mineralisation and alteration are closely associated with a fault structure which provided the access route for the migrating fluids.

There is some indication that the fault structure at Newbrough is beginning to die out. A displacement of 27.4 m at Greyside Mine, on the same structure, compares with a figure of approximately 19.8 m, indicated by the drilling. The decrease in the amount of movement on the fault may well be accompanied by an increase in the tightness of the fault structure.

CONCLUSIONS AND RECOMMENDATIONS

The investigations undertaken in the Northumberland Trough have highlighted the value of integrated surveys using both geophysical and geochemical techniques.

The pattern of linear magnetic features identified from the airborne survey data has shown a broad correlation with known faulting, and by extrapolation has provided new information on

this aspect of structure. This correlation is of particular interest where the magnetic features show a close relationship to fault zones which are mineralised, notably in the area to the north-east of Haydon Bridge. Extensions to these magnetic features naturally suggest the possibility of extension to the mineralisation. This has been tested in one area by core drilling with results that offer some encouragement to the investigation of similar magnetic features elsewhere as a means of discovering hidden orebodies.

Reconnaissance geochemical investigations successfuly identified the known areas of mineralisation. Interpretation of the barium data has been particularly useful in the identification of mineralisation. In the Ewesley area the panned concentrates, and to a lesser degree the stream sediments, contain anomalous levels of Ba which led to a limited follow-up soil survey.

Geochemical soil sampling in other areas overlying geophysical anomalies showed only low values for the metals determined but geochemical patterns, although poorly developed, were shown to have a recognisable relationship with geophysical data. Data from a control area overlying the Settlingstones vein also showed relatively low values, which seems to indicate that, in this region generally, the thickness of glacial material inhibits the migration of the commonly sought elements into the upper parts of the soil profile. Samples from a few sites taken with a power auger at deeper levels show some enhancement of peak values from which it would seem that, particularly in areas of drift cover, this method would allow easier identification of geochemical trends.

It is concluded that data available from this region do not indicate extensive areas of mineralisation. However, the anomalous data from the pan concentrates in the Ewesley Fell area and the subsequent soil geochemical data show that there is in this area some barium mineralisation. Examination of the rock outcrops of the area (almost entirely sandstones) indicates that some baryte occurs in the form of thin veins and coatings on joint surfaces.

This investigation has also indicated possible extensions to other known vein systems from both geochemical and geophysical techniques. For example high values in stream sediment data may be indicative of a southwesterly continuation of the Morralee vein system and the geophysical (magnetic) evidence shows a linear anomaly extending the strike of the Fallowfield veins.

The cause of at least some of the linear magnetic 'lows' is still not completely resolved. At Newbrough faulting and alteration of the Whin Sill causes the low; the presence of associated mineralisation shows that other lows must present potential targets for exploration. In the absence of other remote techniques, either geochemical or geophysical, capable of defining more precisely the nature of these features, their exploration will depend upon core drilling programmes. It is recommended that those linear geophysical features that trend either NE–SW (equivalent to the Settlingstones mineralisation direction) or those approximately WNW should be given priority in any future exploration.

ACKNOWLEDGEMENTS

The Institute is indebted to all the landowners within the area surveyed for permitting access whilst the samples were collected. Particular thanks are due to Mr Nichols, on behalf of the Newbrough Estate, and Mr Gibson for their co-operation when the drilling at Newbrough was in progress.

The authors would also like to thank the staff of the Analytical Chemistry Unit who analysed most of the reconnaissance samples; Dr D. V. Frost for identifying the limestones in the cores from Newbrough and establishing the local stratigraphy; and staff of the Drawing Office for the preparation of the text figures and maps. Most of the sampling for the geochemical drainage and soil surveys was organised by Mr M. McGlashan. Messrs R. Falconer and H. Wilson undertook the drilling programme at Newbrough.

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APPENDIX 1

GEOCHEMICAL SAMPLING METHODS

Stream sediments

Sediment samples were collected by the method described by Plant (1971) using the minimum of water in the sieving process so that finer material was not lost. Care was taken not to sample 'bank-fall' material. The sediments were placed in high wet-strength, metal-free Kraft paper bags and a standard IGS field data sheet was completed for each site. Drying of the sediment was completed in an oven and the sediment was then seived to minus 100 BSI mesh prior to chemical analysis.

Panned concentrates

When enough material was available at a sediment sampling site approximately 2 to 3 kg of sediment was collected and panned by the classical gold panning technique to produce about 30 g of concentrate. This material was prepared for chemical analysis using the method described by Leake and Aucott (1973).

Soils

Soils were collected by hand auger from depths between 0.5 and 1.0 m, which in all cases was considered to be beneath the humus-rich levels in the soil profile. Sampling grids were set out on a regular pattern; the precise spacing between lines and sample points varied from area to area and was dependent upon local conditions. The soils were collected in high wet-strength, metal-free Kraft paper bags and then oven dried. Following disaggregation in a mortar, samples were sieved to -80 mesh BSI prior to chemical analysis.

Deep till samples

These samples were collected from a small number of the soil sample sites using a petrol powered auger (Cobra Drill). The samples were treated in a similar manner to the soil samples, and the analyses obtained were used to investigate the relative merits of the deep samples and those obtained using shallow hand auger techniques.

APPENDIX 2

METHODS OF CHEMICAL ANALYSIS

The stream sediment and panned concentrate samples and the soils from the Ewesley area were analysed at the IGS chemical laboratories in Gray's Inn Road, London. The soils and deep till samples from the other five areas were analysed at the commercial laboratory of Mather Research Limited, Rothbury.

Cu, Pb, Zn and Ag were determined on the sediment samples by AAS following a hot nitric acid extraction. Ba was determined on these samples by XRF. The panned concentrates were also analysed by XRF for the following elements: Ce, Ba, Sb, Sn, Pb, Zn, Cu, Ca, Ni, Fe, Mn, Ti, U, Sr, Zr and Mo. The soils and deep till samples were analysed for Pb, Zn, Fe, Mn and Sr by AAS techniques following a hot perchloric acid extraction. Ba was also determined by AAS following total dissolution of barium sulphate.

APPENDIX 3

TABLE OF ANOMALOUS PANNED CONCENTRATE SAMPLES

Listed below are those panned concentrate samples in which one or more of the elements, Ba, Pb, Zn or Cu are found to occur in anomalous concentration (indicated by 'X' in the table).

The anomaly thresholds are:

Barium	66 670 ppm
Lead	1250 ppm
Zinc	2100 ppm
Copper	140 ppm

Two types of contamination are indicated in the table. Where the anomaly is thought to be associated with man-made contamination the sample number is underlined. Those anomalies found near disused mining localities are shown by an underlined grid reference.

Sample No.	*Ba*	*Pb*	*Zn*	*Cu*	*Grid reference*
HBP 595	X	X	X	X	38108 56059
HBP 1120		X	X	X	40000 58451
HBP 505	X	X	X		38264 56590
HBP 514	X	X	X		38640 56812
HBP 522	X	X	X		38702 56808
HBP 586	X	X	X		38730 56757
HBP 599	X	X	X		38229 56504
HBP 883	X	X	X		39360 56708
HBP 546		X		X	37110 55960
HBP 549	X	X			37853 56072
HBP 577		X	X		38638 56894
HBP 579		X		X	37902 56359
HBP 589		X	X		38551 56855
HBP 766			X	X	36727 56777
HBP 1081		X	X		36317 55952
HBP 1149		X	X		39730 58358
HBP 1275		X		X	40370 58736
HBP 1282	X	X			40967 59104
HBP 1430			X	X	39244 58000
HBP 1681	X		X		41174 60365
HBP 1713		X		X	42507 61685
HBP 1860		X		X	42340 61308
HBP 2123	X			X	37921 60650
34 1886			X	X	34890 57399
34 2068			X	X	34966 57672
34 2217		X		X	34125 56932
HBP 1160	X			X	36516 55974
HBP 527		X			37381 56240
HBP 536		X			37750 56039
HBP 539		X			37470 56690
HBP 540				X	38618 56440
HBP 543		X			37468 56309
HBP 547		X			38322 56248
HBP 551	X				37741 56073
HBP 559		X			37990 56100
HBP 565		X			37705 56334
HBP 566		X			37858 56273
HBP 569	X				38230 56573
HBP 585		X			37207 55940
HBP 630				X	37211 56868
HBP 631				X	38641 57386
HBP 669				X	37158 57084
HBP 696	X				38630 56627
HBP 713		X			39800 55991
HBP 717			X		37585 57170
HBP 771			X		37228 57191
HBP 817				X	39212 57172
HBP 822			X		39190 56352
HBP 835		X			37983 56254
HBP 840				X	39420 56589
HBP 858		X			37943 56255
HBP 874		X			39349 56623
HBP 903	X				36647 56167
HBP 905			X		39870 56814
HBP 935		X			39848 56009
HBP 942		X			39550 55982
HBP 946			X		36607 57109
HBP 947			X		35953 56829
HBP 954				X	36257 56485
HBP 987			X		36480 56881
HBP 991				X	35932 56660
HBP 1086	X				35859 56217
HBP 1093	X				36495 56098
HBP 1122	X				39760 58708
HBP 1142	X				40230 58777
HBP 1147		X			40025 58443
HBP 1177		X			40340 57861
HBP 1210	X				40680 58724
HBP 1211	X				40893 59215
HBP 1225	X				40914 59162
HBP 1240	X				40677 59110
HBP 1250	X				40999 59052
HBP 1251	X				39595 58854
HBP 1276	X				40540 59089
HBP 1279	X				40820 59240
HBP 1288	X				40990 58531
HBP 1300	X				40627 59140
HBP 1307	X				40291 59734
HBP 1308	X				40850 59829
HBP 1318	X				40416 59072
HBP 1320	X				40520 59590
HBP 1339	X				40470 59672
HBP 1390			X		40290 59731
HBP 1399		X			40101 59300
HBP 1417	X				41110 58970
HBP 1444	X				41262 59792
HBP 1454	X				41222 59713
HBP 1462	X				41370 58777
HBP 1473	X				41334 59806
HBP 1482	X				40004 59560
HBP 1508				X	41482 59368
HBP 1512	X				41118 59865
HBP 1514				X	41969 59380
HBP 1533				X	40300 60270
HBP 1537		X			40838 59430
HBP 1559			X		40642 60503
HBP 1570				X	39720 60818
HBP 1580				X	40085 60843
HBP 1594	X				40383 59950
HBP 1603				X	39870 59900
HBP 1694				X	40241 60531
HBP 1714		X			41595 60633
HBP 1726		X			41714 60330
HBP 1746				X	41723 60604

Sample No.	*Ba*	*Pb*	*Zn*	*Cu*	*Grid reference*
HBP 1767				X	41332 59888
HBP 1775				X	42127 60696
HBP 1780				X	42021 60260
HBP 1781				X	41731 60665
HBP 1784				X	41464 60299
HBP 1819		X			42350 61327
HBP 1847			X		41938 61090
HBP 1861				X	42255 61820
HBP 1882				X	41800 61388
HBP 2016				X	38763 60053
HBP 2029				X	38790 60402
HBP 2061				X	38948 59700
HBP 2158				X	37920 60647
HBP 2161	X				37979 60598
HBP 2174	X				38758 59111
HBP 2203			X		39009 58517
HBP 2232				X	39314 60654
HBP 2242			X		38194 60310
HBP 2280			X		38430 58405
HBP 2379			X		37567 60428
HBP 2426			X		36904 58432
HBP 2491			X		37917 59787
HBP 2623				X	37731 58640
HBP 2679				X	37180 58890
HBP 2750			X		36208 58201
34 1838			X		35876 57705
34 1869				X	34963 57603
34 1896			X		35770 57670
34 2022			X		36280 57380
34 2044			X		36270 57571
34 2080			X		36457 57619
34 2090			X		36032 57038
34 2055			X		34590 57470
34 2071			X		34487 57595
BF 5565				X	37339 64781
34 1871			X		35063 57848

DATE 03NOV81 TIME 08 36 28 ****

G-EXEC/GTRAN/GTRANG ON FILE PA08ANEC N.ENGLAND SEDIMENT DATA
****

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81
SUB-COMMANDS LISTED IN SYSTEM JOURNAL

MAKE TEMPFILE

MAKE WORKFILE

G-EXEC/G-UTIL/GPRJCT ON FILE TEMPFILE
****

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN P

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1171.	39519.	58213.	468.	40.	180.	20.	1.
HB	1172.	40667.	57545.	311.	30.	80.	10.	0.
HB	1173.	40170.	58820	383.	40.	150.	10.	1.
HB	1174.	39925.	58442.	310.	50.	270.	20.	1.
HB	1175.	40149.	58760.	420.	40.	280.	15.	0.
HB	1176.	39885.	58523.	406.	30.	150.	10.	0.
HB	1177.	40340.	57861.	373.	50.	110.	15.	1.
HB	1180.	40608.	57564.	442.	50.	160.	15.	1.
HB	1183.	40137.	58278.	389.	70.	220.	20.	1.
HB	1186.	39528.	58410.	888.	70.	310.	15.	1.
HB	1190.	40312.	57683.	417.	40.	80.	10.	0.
HB	1191.	39603.	58193.	401.	50.	230.	15.	1.
HB	1192.	40284.	57190.	256.	50.	110.	10.	1.
HB	1193.	39589.	58323.	921.	60.	240.	15.	1.
HB	1197.	39655.	57820.	248.	50.	220.	10.	0.
HB	1199.	39790.	58524.	620.	30.	200.	10.	1.
HB	1201.	40360.	58719.	219.	40.	180.	10.	1.
HB	1202.	40568.	58713.	347.	30.	140.	10.	0.
HB	1203.	40180.	58390.	280.	50.	130.	15.	1.
HB	1204.	39880.	58922.	713.	80.	420.	20.	1.
HB	1205.	40100.	58412.	347.	50.	200.	20.	0.
HB	1206.	41011.	58421.	607.	40.	120.	15.	1.
HB	1207.	40558.	57894.	346.	40.	90.	10.	1.
HB	1208.	40378.	58423.	218.	60.	200.	20.	1.
HB	1209.	39327.	57908.	222.	30.	110.	10.	1.
HB	1210.	40680.	58724.	451.	50.	180.	20.	1.
HB	1211.	40893.	59215.	727.	50.	170.	15.	1.
HB	1215.	39470.	57778.	295.	50.	140.	20.	1.
HB	1216.	40588.	58095.	377.	60.	140.	15.	1.
HB	1217.	40841.	58102.	524.	60.	150.	20.	0.
HB	1218.	39675.	58860.	664.	80.	260.	20.	1.
HB	1219.	41091.	58499.	316.	60.	130.	15.	1.
HB	1221.	40469.	58698.	938.	140.	470.	25.	1.
HB	1222.	40905.	59198.	629.	70.	170.	20.	1.
HB	1223.	40700.	58445.	383.	70.	140.	20.	0.
HB	1224.	40776.	58362.	625.	40.	170.	15.	1.
HB	1225.	40914.	59162.	725.	60.	240.	15.	1.
HB	1226.	40232.	58995.	621.	50.	230.	10.	1.
HB	1227.	39720.	58858.	1150.	110.	620.	15.	1.
HB	1228.	39400.	57582.	349.	40.	300.	10.	1.
HB	1229.	40904.	59280.	297.	30.	70.	15.	1.
HB	1230.	41032.	58435.	271.	50.	130.	15.	0.
HB	1231.	40491.	58410.	348.	50.	190.	15.	0.
HB	1232.	40885.	59209.	687.	70.	210.	20.	1.
HB	1237.	40927.	59025.	641.	50.	180.	20.	1.
HB	1234.	39344.	57880.	191.	40.	100.	10.	1.
HB	1235.	40990.	58531.	604.	50.	130.	20.	1.
HB	1236.	40270.	58363.	354.	60.	190.	15.	1.
HB	1238.	40810.	58423.	480.	50.	150.	10.	0.
HB	1239.	40750.	59205.	751.	70.	200.	20.	1.
HB	1240.	40677.	59110.	340.	30.	80.	10.	0.
HB	1241.	40945.	59189.	506.	60.	160.	15.	1.
HB	1243.	40886.	58974.	507.	60.	180.	15.	0.
HB	1244.	40936.	59008.	632.	70.	140.	25.	1.
HB	1245.	40940.	59039.	411.	60.	130.	15.	0.
HB	1246.	39387.	57977.	331.	70.	340.	20.	0.
HB	1248.	40299.	58935.	745.	80.	400.	20.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	1249.	40925.	58082.	330.	40.	70.	10.	1.
NB	1250.	40939.	59052.	1170.	120.	230.	20.	1.
NB	1251.	39595.	58854.	1220.	40.	270.	5.	0.
NB	1252.	40908.	58423.	445.	60.	160.	20.	1.
NB	1253.	40995.	58975.	785.	40.	100.	10.	0.
NB	1254.	40354.	58960.	692.	70.	340.	10.	1.
NB	1255.	40808.	59292.	1070.	40.	120.	20.	1.
NB	1256.	40947.	59129.	1070.	40.	140.	10.	0.
NB	1258.	39470.	57778.	595.	30.	160.	10.	0.
NB	1259.	40568.	58912.	575.	40.	80.	5.	0.
NB	1260.	40821.	59200.	455.	40.	110.	10.	0.
NB	1261.	40908.	58423.	446.	40.	140.	15.	1.
NB	1262.	40680.	59035.	590.	30.	110.	5.	0.
NB	1264.	40470.	58976.	393.	30.	90.	5.	0.
NB	1266.	40788.	58728.	639.	30.	150.	10.	0.
NB	1267.	40995.	58090.	331.	20.	70.	10.	0.
NB	1268.	40180.	58382.	478.	30.	140.	10.	0.
NB	1269.	40752.	59060.	615.	20.	60.	5.	0.
NB	1271.	40672.	58102.	496.	30.	80.	10.	0.
NB	1272.	40803.	58439.	563.	40.	130.	10.	1.
NB	1273.	40854.	59095.	942.	20.	70.	0.	1.
NB	1274.	40369.	58821.	852.	40.	300.	10.	1.
NB	1275.	40370.	58736.	866.	80.	240.	20.	0.
NB	1276.	40540.	59089.	4640.	50.	260.	15.	1.
NB	1277.	39790.	58892.	496.	50.	310.	10.	0.
NB	1278.	40590.	58426.	404.	50.	170.	45.	1.
NB	1279.	40820.	59240.	1140.	90.	290.	20.	1.
NB	1280.	39415.	57928.	237.	20.	70.	10.	0.
NB	1281.	40853.	59082.	454.	40.	90.	10.	1.
NB	1282.	40967.	59104.	786.	60.	180.	10.	1.
NB	1283.	40995.	58959.	527.	40.	160.	5.	0.
NB	1284.	40413.	58317.	276.	30.	60.	5.	1.
NB	1285.	40765.	59101.	1210.	40.	110.	5.	0.
NB	1286.	40491.	58428.	286.	40.	110.	5.	1.
NB	1287.	40888.	58652.	507.	30.	120.	15.	0.
NB	1288.	40990.	58531.	634.	40.	130.	15.	1.
NB	1289.	41080.	58504.	529.	40.	110.	15.	1.
NB	1290.	40756.	58105.	302.	20.	50.	5.	1.
NB	1291.	40839.	59033.	485.	40.	80.	10.	1.
NB	1292.	40450.	58340.	290.	30.	160.	10.	1.
NB	1293.	40915.	58930.	314.	40.	70.	5.	1.
NB	1294.	40765.	58112.	681.	40.	220.	10.	1.
NB	1295.	40113.	58386.	224.	40.	60.	10.	1.
NB	1296.	40300.	58879.	611.	40.	350.	10.	1.
NB	1297.	40989.	59015.	619.	50.	140.	15.	1.
NB	1298.	40904.	58578.	760.	60.	120.	10.	1.
NB	1299.	39880.	58931.	1850.	40.	420.	10.	1.
NB	1300.	40627.	59140.	2120.	50.	190.	10.	0.
NB	1301.	40161.	59034.	533.	80.	350.	10.	0.
NB	1302.	40202.	59510.	603.	100.	206.	10.	0.
NB	1303.	40640.	59287.	423.	60.	160.	15.	0.
NB	1307.	40291.	59734.	1190.	50.	150.	10.	0.
NB	1308.	40850.	59829.	1890.	40.	160.	15.	0.
NB	1309.	40380.	59706.	946.	70.	180.	10.	0.
NB	1310.	40222.	59347.	321.	50.	40.	5.	0.
NB	1312.	39880.	59009.	526.	70.	210.	5.	0.
NB	1313.	40540.	59622.	736.	40.	210.	20.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2207.	38517.	58482.	276.	60.	60.	10.	0.
HB	2208.	37267.	58630.	287.	30.	80.	10.	0.
HB	2209.	38304.	60292.	405.	40.	110.	20.	1.
HB	2210.	38972.	58660.	471.	50.	200.	10.	1.
HB	2211.	38875.	59864.	393.	100.	120.	10.	0.
HB	2212.	37973.	58807.	546.	50.	180.	10.	0.
HB	2213.	39346.	58567.	564.	70.	190.	5.	0.
HB	2214.	38797.	58310.	468.	40.	240.	15.	0.
HB	2215.	38381.	58831.	301.	60.	60.	10.	1.
HB	2216.	39411.	58736.	172.	20.	10.	5.	0.
HB	2217.	39425.	58738.	908.	60.	570.	10.	1.
HB	2218.	39153.	58558.	439.	70.	240.	15.	1.
HB	2219.	39376.	58540.	599.	40.	150.	10.	0.
HB	2220.	39457.	59127.	391.	50.	740.	15.	1.
HB	2221.	38386.	58903.	378.	40.	100.	10.	1.
HB	2222.	39384.	58466.	406.	80.	130.	15.	0.
HB	2223.	38916.	58596.	413.	30.	160.	15.	0.
HB	2224.	39318.	60447.	233.	30.	30.	5.	0.
HB	2225.	38655.	58473.	316.	30.	100.	10.	0.
HB	2226.	39113.	58679.	569.	40.	270.	15.	0.
HB	2227.	38358.	58514.	595.	40.	180.	10.	0.
HB	2228.	38160.	58587.	405.	50.	170.	10.	0.
HB	2229.	38814.	58375.	296.	40.	120.	15.	0.
HB	2230.	39336.	59126.	676.	50.	460.	20.	1.
HB	2231.	38135.	59088.	906.	50.	580.	20.	1.
HB	2232.	39314.	60654.	641.	30.	70.	25.	0.
HB	2233.	38935.	59820.	661.	110.	510.	25.	1.
HB	2234.	38971.	58496.	326.	60.	150.	15.	0.
HB	2235.	39200.	58645.	411.	30.	140.	10.	0.
HB	2236.	38016.	58904.	517.	40.	270.	10.	0.
HB	2237.	38415.	58412.	453.	40.	200.	15.	0.
HB	2238.	38816.	58343.	428.	40.	120.	15.	0.
HB	2241.	38098.	58799.	677.	40.	230.	10.	1.
HB	2242.	38194.	60310.	693.	60.	250.	15.	1.
HB	2243.	38580.	58436.	390.	40.	200.	20.	0.
HB	2244.	38319.	58552.	362.	60.	120.	10.	0.
HB	2245.	38727.	58498.	397.	50.	120.	10.	0.
HB	2246.	38930.	58286.	340.	30.	100.	20.	1.
HB	2247.	38897.	58220.	393.	30.	190.	15.	0.
HB	2250.	39212.	59157.	464.	40.	240.	15.	0.
HB	2251.	39064.	59131.	517.	40.	150.	15.	1.
HB	2252.	38620.	58933.	517.	50.	140.	10.	1.
HB	2253.	38642.	58565.	663.	50.	140.	15.	0.
HB	2254.	37993.	59088.	356.	50.	150.	10.	0.
HB	2255.	38184.	59480.	294.	30.	120.	15.	0.
HB	2256.	39467.	58643.	570.	60.	130.	10.	0.
HB	2258.	39453.	60394.	152.	30.	20.	5.	0.
HB	2259.	39478.	59620.	454.	70.	90.	10.	0.
HB	2260.	39430.	58625.	392.	70.	120.	10.	1.
HB	2261.	38421.	58758.	739.	40.	250.	10.	0.
HB	2262.	39311.	58618.	554.	60.	250.	10.	0.
HB	2263.	38405.	58505.	397.	30.	100.	10.	0.
HB	2264.	38151.	57725.	374.	30.	200.	15.	1.
HB	2266.	39265.	60620.	619.	30.	70.	10.	0.
HB	2267.	38946.	59811.	778.	60.	470.	15.	1.
HB	2268.	38131.	60405.	431.	70.	130.	10.	1.
HB	2269.	38361.	58012.	164.	80.	90.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2140.	38657.	59115.	712.	70.	120.	10.	1.
HB	2141.	38692.	58987.	398.	70.	120.	5.	0.
HB	2142.	38895.	58964.	341.	90.	170.	20.	1.
HB	2143.	38278.	59352.	519.	70.	250.	10.	1.
HB	2144.	38694.	58986.	471.	50.	160.	10.	0.
HB	2145.	38606.	59357.	551.	50.	250.	15.	0.
HB	2146.	38583.	59352.	336.	70.	90.	15.	1.
HB	2147.	38936.	60360.	620.	40.	370.	15.	0.
HB	2148.	38773.	58666.	395.	40.	200.	10.	0.
HB	2150.	38174.	59748.	196.	80.	250.	10.	0.
HB	2151.	38630.	58938.	[illegible]	30.	60.	5.	1.
HB	2152.	38878.	58728.	[illegible]	30.	80.	10.	0.
HB	2153.	38344.	59316.	382.	60.	140.	5.	0.
HB	2154.	39018.	58972.	394.	30.	140.	15.	0.
HB	2155.	39259.	60112.	487.	60.	170.	15.	0.
HB	2156.	38[illegible].	58645.	532.	30.	90.	15.	0.
HB	2157.	39482.	59708.	542.	40.	160.	10.	0.
HB	2158.	37920.	60647.	630.	30.	160.	20.	0.
HB	2159.	38534.	59154.	525.	50.	240.	10.	1.
HB	2160.	38523.	59311.	428.	30.	90.	5.	0.
HB	2161.	37979.	60598.	855.	40.	230.	20.	0.
HB	2162.	38530.	59323.	222.	60.	40.	5.	0.
HB	2163.	38360.	59272.	448.	[illegible].	200.	15.	0.
HB	2164.	39508.	59280.	593.	[illegible].	300.	20.	1.
HB	2165.	39819.	60333.	321.	60.	70.	15.	0.
HB	2167.	38970.	59094.	[illegible].	30.	180.	10.	0.
HB	2168.	38700.	58744.	[illegible].	60.	130.	10.	0.
HB	2172.	38572.	59098.	236.	70.	80.	10.	0.
HB	2173.	38635.	59176.	622.	40.	210.	15.	0.
HB	2174.	38758.	59111.	1067.	50.	200.	10.	0.
HB	2175.	38317.	59583.	276.	50.	80.	10.	0.
HB	2176.	38410.	59305.	240.	50.	80.	15.	1.
HB	2177.	39463.	60186.	613.	60.	270.	15.	0.
HB	2178.	38448.	59606.	889.	70.	390.	15.	0.
HB	2179.	38252.	59738.	400.	90.	300.	10.	0.
HB	2181.	38777.	58675.	345.	30.	80.	10.	0.
HB	2182.	38223.	59578.	426.	50.	120.	5.	1.
HB	2183.	38407.	59624.	385.	50.	130.	10.	0.
HB	2184.	38454.	59152.	438.	50.	200.	10.	0.
HB	2185.	37860.	60260.	552.	40.	130.	15.	1.
HB	2186.	39211.	60102.	475.	60.	200.	10.	0.
HB	2188.	39472.	59558.	569.	40.	100.	10.	0.
HB	2189.	38606.	59357.	475.	50.	200.	15.	0.
HB	2190.	38763.	58620.	598.	40.	120.	10.	0.
HB	2192.	39107.	60082.	638.	80.	310.	20.	1.
HB	2195.	38476.	59718.	445.	70.	150.	10.	0.
HB	2196.	38270	59774.	630.	120.	270.	10.	0.
HB	2197.	38765.	59273.	482.	100.	190.	10.	0.
HB	2198.	38720.	59162.	531.	40.	140.	10.	0.
HB	2199.	39130.	60097.	445.	60.	170.	15.	1.
HB	2200.	38279.	59357.	343.	240.	110.	10.	0.
HB	2201.	39488.	59772.	469.	30.	170.	15.	1.
HB	2202.	38409.	58824.	369.	70.	30.	15.	1.
HB	2203.	39009.	58517.	290.	50.	200.	15.	1.
HB	2204.	39119.	58636.	416.	50.	210.	15.	1.
HB	2205.	38712.	58450.	516.	40.	140	15.	1.
HB	2206.	39282.	59142.	507.	60.	300.	15.	0.

H.THUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
34	341892.	35809.	57532.	293.	30.	30.	10.	1.
34	341893.	34950.	57670.	369.	40.	20.	10.	0.
34	341894.	34740.	57270.	382.	20.	80.	10.	0.
34	341895.	35882.	57546.	277.	40.	120.	15.	1.
34	341896.	35770.	57670.	386.	40.	190.	15.	1.
34	341897.	35681.	57663.	306.	30.	70.	10.	1.
34	341898.	35281.	57211.	220.	30.	90.	10.	1.
34	341900.	34890.	57290.	321.	30.	90.	5.	0.
34	342001.	36566.	57436.	236.	70.	230.	15.	0.
34	342002.	36340.	57417.	331.	70.	260.	10.	0.
34	342003.	36183.	57408.	241.	50.	270.	5.	0.
34	342004.	36001.	57301.	500.	110.	500.	10.	1.
34	342005.	34620.	57770.	333.	40.	170.	10.	0.
34	342006.	35740.	56991.	292.	40.	140.	10.	1.
34	342007.	36181.	57237.	405.	50.	940.	10.	1.
34	342008.	35885.	57040.	296.	30.	170.	5.	1.
34	342011.	34870.	57808.	266.	30.	110.	5.	1.
34	342012.	36270.	57708.	299.	40.	210.	25.	1.
34	342013.	36068.	57090.	342.	40.	1250.	10.	0.
34	342014.	35029.	56963.	404.	30.	60.	10.	0.
34	342015.	36562.	57123.	284.	50.	120.	10.	0.
34	342016.	1657.	56888.	274.	50.	130.	10.	0.
34	342017.	34397.	57625.	193.	20.	40.	5.	1.
34	342018.	35752.	57091.	202.	20.	50.	5.	1.
34	342019.	35120.	57890.	370.	40.	210.	15.	0.
34	342020.	35609.	57205.	236.	20.	70.	5.	0.
34	342021.	36334.	57260.	221.	20.	60.	5.	0.
34	342022.	36280.	57380.	285.	50.	260.	10.	1.
34	342023.	36561.	57422.	343.	50.	270.	10.	0.
34	2024.	35861.	57085.	284.	30.	130.	15.	1.
34	342025.	35412.	56960.	305.	20.	60.	5.	1.
34	342026.	36409.	57440.	276.	60.	230.	10.	1.
34	342027.	35906.	57040.	214.	10.	120.	5.	0.
34	342028.	36082.	57085.	332.	1050.	60.	15.	1.
34	342029.	36393.	57602.	227.	40.	80.	5.	0.
34	342030.	36105.	57737.	314.	50.	300.	10.	1.
34	342034.	36177.	57347.	281.	60.	400.	5.	1.
34	342035.	35252.	57792.	307.	50.	100.	10.	0.
34	342036.	36331.	57185.	339.	40.	360.	10.	1.
34	342037.	36760.	57424.	281.	60.	310.	10.	1.
34	342038.	35522.	57072.	305.	30.	170.	5.	1.
34	342039.	35477.	56998.	236.	20.	90.	5.	1.
34	342040.	35365.	56912.	325.	20.	90.	10.	1.
34	342042.	35052.	56887.	332.	20.	90.	10.	1.
34	342043.	36060.	57416.	350.	50.	330.	10.	1.
34	342044.	36270.	57571.	375.	60.	260.	15.	1.
34	342045.	36412.	57554.	242.	40.	60.	10.	1.
34	342046.	35002.	56946.	306.	10.	20.	5.	0.
34	342047.	36734.	57161.	236.	30.	80.	5.	0.
34	342049.	37759.	57470.	312.	40.	170.	15.	0.
34	342050.	36260.	57255.	234.	30.	90.	10.	0.
34	342051.	35530.	57245.	279.	20.	60.	10.	0.
34	342052.	36120.	57431.	303.	50.	190.	15.	1.
34	342053.	36780.	57179.	241.	40.	80.	15.	1.
34	342054.	34444.	57223.	366.	30.	110.	10.	0.
34	342055.	34590.	57470.	379.	50.	160.	15.	0.
34	342056.	35248.	56805.	336.	10.	30.	5.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
34	342058.	36058.	57299.	259.	50.	310.	10.	1.
34	342059.	35970.	57146.	234.	30.	110.	15.	1.
34	342061.	34572.	57477.	421.	30.	120.	10.	0.
34	342063.	34536.	57724.	386.	30.	90.	10.	0.
34	342064.	36178.	57600.	272.	50.	90.	5.	0.
34	342065.	35053.	56837.	359.	20.	50.	5.	0.
34	342066.	35761.	57263.	309.	50.	300.	15.	1.
34	342067.	35754.	56854.	311.	50.	310.	15.	1.
34	342068.	34966.	57672.	347.	40.	200.	15.	0.
34	342070.	36773.	57354.	338.	40.	120.	15.	1.
34	342071.	34487.	57595.	269.	50.	130.	20.	1.
34	342072.	36643.	57184.	270.	60.	200.	10.	1.
34	342073.	35557.	57065.	219.	30.	70.	10.	1.
34	342075.	36356.	57338.	293.	60.	70.	10.	0.
34	342076.	35121.	57902.	283.	40.	130.	5.	0.
34	342077.	35505.	56775.	266.	20.	60.	5.	0.
34	342079.	36310.	57070.	260.	40.	130.	5.	1.
34	342080.	36457.	57619.	303.	50.	120.	10.	1.
34	342081.	34478.	57509.	360.	20.	70.	10.	1.
34	342082.	36789.	57330.	271.	30.	60.	5.	1.
34	342083.	36040.	57447.	323.	95.	370.	10.	0.
34	342085.	34990.	57104.	380.	20.	90.	5.	1.
34	342088.	35780.	57097.	248.	90.	320.	25.	0.
34	342089.	36780.	57173.	249.	40.	70.	10.	0.
34	342090.	36032.	57038.	299.	40.	170.	10.	1.
34	342091.	36188.	57613.	326.	40.	170.	15.	1.
34	342092.	36420.	57365.	291.	60.	270.	10.	1.
34	342093.	35113.	57095.	415.	40.	120.	10.	1.
34	342094.	36569.	57111.	284.	60.	170.	10.	1.
34	342095.	36261.	57649.	242.	30.	170.	10.	1.
34	342096.	36226.	57775.	266.	40.	120.	10.	1.
34	342097.	35647.	56908.	284.	70.	110.	10.	0.
34	342098.	36087.	57616.	255.	50.	320.	10.	0.
34	342099.	34430.	57339.	307.	20.	70.	10.	0.
34	342100.	36081.	57600.	434.	70.	320.	10.	0.
34	342207.	34146.	56929.	294.	20.	40.	5.	0.
34	342210.	34357.	57043.	366.	20.	80.	5.	1.
34	342214.	34239.	57421.	406.	20.	90.	10.	1.
34	342216.	34492.	57672.	344.	40.	90.	10.	1.
34	342217.	34125.	56932.	418.	90.	100.	20.	0.
34	342218.	34140.	57140.	357.	20.	70.	10.	0.
34	342220.	34439.	57770.	428.	40.	70.	10.	0.
34	342233.	34438.	57543.	374.	40.	60.	15.	0.
34	342234.	34367.	57448.	356.	30.	30.	10.	0.
34	342242.	34210.	57038.	328.	30.	30.	10.	0.
34	342251.	34231.	57099.	474.	40.	80.	10.	0.
34	342252.	34089.	56851.	314.	30.	70.	10.	1.
34	342256.	34110.	57348.	421.	20.	60.	5.	1.
34	342261.	34315.	57615.	231.	10.	40.	10.	1.
34	342266.	34373.	57465.	373.	20.	60.	10.	1.
34	342270.	34015.	57126.	345.	20.	40.	5.	0.
34	342271.	33870.	56879.	315.	40.	100.	15.	0.
34	342276.	34150.	57310.	404.	30.	60.	5.	0.
34	342278.	34262.	57421.	346.	20.	50.	5.	0.
34	342280.	34229.	57569.	41.	30.	70.	15.	1.
34	342288.	34020.	57260.	326.	20.	40.	10.	1.
34	342297.	34280.	56961.	319.	20.	50.	5.	0.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	991.	35932.	56660.	252.	531.	133.	170.	24.	302.
HB	992.	39644.	56792.	4091.	15.	575.	0.	17.	2.
HB	993.	36203.	56659.	365.	27.	398.	1.	8.	82.
HB	994.	36173.	56713.	241.	19.	87.	0.	8.	5.
HB	998.	39526.	56637.	2195.	87.	99.	0.	3.	46.
HB	999.	36570.	56533.	3550.	92.	87.	19.	13.	3.
HB	1000.	36621.	56723.	2240.	44.	126.	4.	50.	12.
HB	1003.	40268.	56544.	908.	86.	50.	1.	3.	0.
HB	1004.	40224.	56472.	968.	44.	117.	0.	11.	1.
HB	1005.	40425.	57351.	146.	43.	311.	2.	8.	15.
HB	1007.	39928.	57027.	68.	16.	15.	0.	1.	7.
HB	1009.	36063.	56505.	599.	35.	235.	5.	4.	6.
HB	1010.	35737.	55710.	381.	112.	99.	0.	13.	52.
HB	1011.	36592.	56600.	2774.	612.	164.	26.	11.	133.
HB	1014.	35836.	56683.	224.	50.	84.	3.	6.	19.
HB	1015.	35915.	56368.	483.	45.	56.	0.	2.	4.
HB	1018.	35745.	56176.	52780.	67.	799.	4.	8.	3.
HB	1020.	35670.	56227.	24020.	158.	158.	77.	29.	72.
HB	1021.	39968.	56763.	14530.	53.	617.	98.	21.	191.
HB	1025.	36504.	56106.	30360.	47.	121.	0.	12.	100.
HB	1026.	40100.	56743.	1665.	54.	210.	0.	23.	36.
HB	1027.	36640.	56668.	22290.	257.	677.	18.	39.	195.
HB	1030.	35787.	56340.	17790.	198.	443.	87.	18.	231.
HB	1034.	35990.	56270.	44470.	24.	35.	0.	16.	0.
HB	1036.	36730.	55965.	18940.	1009.	618.	129.	16.	114.
HB	1038.	35975.	56190.	1102.	82.	16.	6.	3.	2.
HB	1040.	40245.	56394.	821.	49.	63.	0.	11.	6.
HB	1042.	40300.	57388.	320.	21.	76.	0.	6.	0.
HB	1043.	36470.	55958.	12160.	659.	1181.	27.	14.	94.
HB	1044.	39981.	57460.	1400.	51.	229.	37.	9.	14.
HB	1046.	40670.	56678.	325.	9.	41.	1.	2.	3.
HB	1050.	40068.	56602.	272.	12.	43.	0.	5.	5.
HB	1053.	39742.	57353.	952.	73.	267.	57.	17.	3.
HB	1054.	36418.	56072.	1444.	15.	47.	0.	5.	5.
HB	1056.	39943.	56578.	11700.	97.	315.	0.	15.	25.
HB	1059.	36687.	56082.	63310.	36.	82.	0.	34.	0.
HB	1060.	39865.	56350.	3414.	52.	138.	2.	13.	37.
HB	1062.	35780.	55590.	23254.	51.	58.	0.	14.	23.
HB	1063.	35732.	56720.	1015.	61.	454.	9.	22.	9.
HB	1064.	36650.	56730.	2589.	37.	212.	23.	41.	4.
HB	1067.	40115.	57020.	85.	5.	65.	0.	2.	0.
HB	1071.	40581.	57306.	334.	135.	52.	2.	7.	61.
HB	1072.	40389.	57144.	1061.	223.	301.	6.	9.	63.
HB	1073.	36320.	56090.	28830.	21.	96.	0.	6.	3.
HB	1078.	36934.	56519.	397.	31.	193.	9.	11.	3.
HB	1080.	35821.	56410.	615.	98.	56.	2.	6.	18.
HB	1081.	36317.	55952.	7559.	3016.	5143.	136.	19.	191.
HB	1082.	36639.	56009.	56910.	83.	521.	62.	15.	6.
HB	1083.	40036.	57040.	172.	588.	153.	42.	4.	259.
HB	1084.	40509.	57304.	287.	31.	170.	0.	7.	0.
HB	1085.	39969.	56644.	478.	35.	140.	3.	11.	6.
HB	1086.	35859.	56217.	154780.	170.	91.	0.	17.	44.
HB	1088.	35693.	56644.	455.	17.	178.	13.	6.	6.
HB	1089.	36640.	56040.	10920.	41.	69.	0.	5.	23.
HB	1090.	39812.	57410.	724.	237.	24.	0.	21.	86.
HB	1091.	35748.	56180.	45020.	61.	73.	40.	18.	19.
HB	1092.	35880.	56270.	15840.	427.	340.	6.	31.	229.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	893.	39569.	57135.	247.	40.	181.	60.	13.	8.
HB	894.	39277.	57350.	333.	111.	55.	9.	7.	28.
HB	897.	38730.	55960.	244.	0.	20.	0.	2.	0.
HB	898.	36879.	54435.	5064.	210.	91.	2.	19.	32.
HB	899.	39063.	56352.	1449.	42.	349.	0.	7.	36.
HB	901.	39937.	56076.	4975.	355.	1857.	2.	33.	14.
HB	903.	36647.	56167.	73680.	90.	296.	6.	19.	2.
HB	904.	36662.	57167.	1486.	140.	97.	4.	17.	48.
HB	905.	39870.	56814.	21850.	416.	4314.	29.	20.	76.
HB	908.	39608.	56696.	14490.	86.	205.	130.	9.	34.
HB	909.	36131.	56738.	187.	359.	285.	6.	13.	2.
HB	910.	35629.	56728.	332.	160.	168.	0.	17.	24.
HB	911.	36559.	56634.	1148.	670.	287.	59.	13.	95.
HB	912.	39723.	56229.	181.	11.	58.	0.	4.	0.
HB	915.	35140.	56362.	11470.	99.	333.	60.	10.	128.
HB	917.	36604.	56239.	42920.	48.	91.	0.	11.	0.
HB	918.	35746.	56818.	584.	10.	32.	39.	2.	0.
HB	919.	36600.	56231.	65510.	230.	295.	0.	15.	2.
HB	920.	38975.	57797.	103.	11.	122.	4.	5.	7.
HB	924.	36165.	56448.	56090.	91.	422.	41.	21.	1.
HB	925.	36498.	56753.	169.	7.	31.	0.	1.	1.
HB	926.	35804.	56805.	888.	30.	802.	5.	8.	9.
HB	927.	36060.	56430.	2780.	29.	110.	8.	6.	5.
HB	928.	36280.	56542.	2063.	23.	82.	2.	8.	13.
HB	929.	38968.	57790.	77.	14.	45.	0.	3.	0.
HB	931.	39718.	56570.	844.	70.	95.	0.	7.	101.
HB	933.	39598.	56045.	490.	1051.	115.	0.	11.	6.
HB	935.	39848.	56009.	1087.	1852.	270.	0.	23.	18.
HB	938.	36006.	56943.	784.	8.	1051.	15.	12.	3.
HB	940.	36230.	56475.	2359.	22.	37.	0.	1.	5.
HB	941.	36503.	56747.	291.	12.	701.	4.	3.	12.
HB	942.	39550.	55982.	455.	15728.	218.	0.	10.	8.
HB	943.	35686.	56506.	656.	813.	462.	51.	29.	374.
HB	946.	36607.	57109.	1288.	603.	2776.	72.	28.	0.
HB	947.	35950.	56829.	3711.	120.	2928.	107.	33.	35.
HB	952.	39115.	57823.	3350.	41.	1003.	25.	28.	0.
HB	954.	36257.	56485.	19940.	22.	773.	23.	17.	0.
HB	955.	39153.	55868.	3051.	120.	48.	2.	5.	17.
HB	956.	35787.	56753.	492.	34.	713.	12.	11.	2.
HB	957.	35640.	56806.	125.	21.	158.	0.	4.	11.
HB	960.	36626.	56440.	9960.	100.	781.	0.	16.	0.
HB	961.	36480.	57059.	99.	79.	178.	11.	13.	4.
HB	962.	35903.	56858.	133.	10.	27.	0.	4.	0.
HB	963.	36397.	56834.	3044.	66.	1287.	0.	2.	2.
HB	964.	39849.	56947.	420.	24.	522.	0.	10.	16.
HB	966.	36292.	56680.	842.	51.	604.	0.	11.	9.
HB	969.	35730.	56358.	259.	16.	43.	0.	3.	10.
HB	972.	36647.	56384.	25200.	136.	776.	0.	23.	4.
HB	973.	39031.	57827.	481.	21.	191.	34.	16.	13.
HB	977.	36274.	56920.	2867.	15.	121.	0.	11.	5.
HB	978.	36462.	56230.	1167.	5.	22.	9.	2.	1.
HB	980.	36541.	56278.	16160.	19.	142.	0.	7.	1.
HB	982.	36300.	56414.	3165.	42.	345.	16.	12.	7.
HB	983.	36247.	56828.	109.	19.	62.	28.	2.	0.
HB	984.	36342.	56608.	1233.	65.	235.	0.	8.	90.
HB	987.	36048.	56881.	1440.	38.	7462.	11.	10.	1.
HB	990.	36190.	56342.	9750.	23.	386.	0.	2.	0.

NORTHUMBERLAND STREAM SEDIMENT CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2043.	38626.	59954.	2087.	5.	589.	4.	4.	2.
HB	2044.	38804.	60358.	145.	1.	60.	2.	2.	5.
HB	2045.	38928.	59448.	871.	6.	134.	7.	9.	0.
HB	2046.	38261.	59940.	380.	20.	83.	3.	5.	9.
HB	2047.	38218.	60191.	85.	20.	49.	9.	9.	0.
HB	2048.	38588.	60140.	2105.	9.	669.	0.	6.	2.
HB	2049.	39420.	59692.	955.	108.	165.	8.	18.	0.
HB	2050.	38999.	59499.	27.	0.	18.	2.	4.	0.
HB	2051.	38693.	59816.	8076.	19.	812.	11.	20.	24.
HB	2052.	38577.	60393.	312.	6.	204.	1.	3.	2.
HB	2053.	38279.	60013.	4163.	18.	1687.	25.	21.	37.
HB	2054.	38570.	60371.	1216.	30.	218.	15.	28.	4.
HB	2055.	38607.	60018.	4546.	13.	861.	7.	12.	1.
HB	2056.	38316.	59881.	697.	242.	59.	9.	12.	1083.
HB	2057.	39415.	59751.	5829.	17.	71.	10.	18.	23.
HB	2058.	38120.	59940.	1580.	29.	422.	14.	23.	0.
HB	2059.	39489.	59[illegible].	1694.	14.	485.	16.	23.	0.
HB	2060.	39126.	59227.	90.	6.	27.	3.	4.	9.
HB	2061.	38948.	59700.	16100.	42.	1492.	197.	41.	84.
HB	2062.	39372.	59935.	4442.	23.	455.	19.	26.	1.
HB	2063.	39[illegible].	59641.	625.	12.	473.	9.	13.	8.
HB	2064.	38936.	59662.	257.	9.	102.	2.	5.	6.
HB	2065.	38781.	60299.	1850.	17.	738.	[illegible].	22.	2.
HB	2066.	38740.	599[illegible].	1645.	[illegible].	647.	11.	28.	11.
HB	2067.	37865.	60359.	2324.	35.	135.	12.	12.	2.
HB	2068.	37856.	60323.	2011.	29.	63.	6.	9.	2.
HB	2069.	39379.	59942.	2256.	42.	257.	22.	26.	1.
HB	2070.	39356.	59382.	3685.	102.	1242.	21.	24.	22.
HB	2071.	39250.	59288.	2187.	47.	1335.	29.	25.	18.
HB	2072.	39237.	59541.	3681.	14.	345.	9.	13.	0.
HB	2073.	38630.	59488.	64400.	57.	330.	16.	32.	4.
HB	2075.	39076.	60188.	481.	7.	301.	9.	2.	2.
HB	2078.	38939.	59720.	15600.	587.	977.	80.	47.	6.
HB	2079.	38099.	60020.	1002.	13.	316.	6.	15.	0.
HB	2080.	38062.	60097.	323.	19.	123.	2.	3.	40.
HB	2081.	37268.	59454.	813.	10.	131.	6.	7.	0.
HB	2083.	38573.	60408.	357.	33.	[illegible].	12.	15.	0.
HB	2084.	38075.	60180.	404.	7.	154.	9.	3.	2.
HB	2085.	39194.	59282.	692.	23.	592.	14.	22.	15.
HB	2086.	38270.	60083.	1705.	41.	907.	19.	42.	0.
HB	2087.	39172.	59750.	500.	17.	175.	37.	15.	0.
HB	2088.	38384.	59263.	1279.	9.	196.	1.	14.	0.
HB	2089.	38711.	59755.	1532.	6.	249.	22.	11.	0.
HB	2091.	38338.	60341.	35.	7.	859.	1.	5.	0.
HB	2092.	38579.	60039.	1084.	6.	406.	3.	4.	3.
HB	2094.	38600.	60122.	209.	10.	29.	3.	4.	2.
HB	2095.	38850.	59547.	173.	5.	65.	0.	2.	9.
HB	2096.	39179.	59300.	619.	85.	543.	27.	28.	88.
HB	2097.	39342.	59791.	936.	17.	299.	15.	26.	8.
HB	2098.	38102.	60023.	445.	19.	187.	11.	17.	3.
HB	2100.	38810.	60068.	2216.	18.	774.	16.	28.	3.
HB	2101.	38937.	60368.	271.	10.	143.	11.	10.	4.
HB	2102.	39456.	59719.	323.	32.	85.	10.	9.	13.
HB	2105.	38435.	59309.	645.	7.	123.	3.	8.	4.
HB	2107.	39437.	60238.	833.	1.	117.	3.	4.	8.
HB	2108.	38942.	58910.	22300.	157.	526.	20.	29.	[illegible].
HB	2109.	38[illegible]0.	59090.	1843.	37.	267.	6.	13.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1857.	42357.	61847.	275.	47.	86.	5.	10.	7.
HB	1859.	42350.	61839.	2331.	41.	153.	17.	23.	29.
HB	1860.	42340.	61308.	758.	2405.	383.	329.	73.	1173.
HB	1861.	42255.	61820.	450.	415.	693.	141.	25.	23.
HB	1865.	41143.	61616.	135.	46.	99.	11.	27.	9.
HB	1866.	41690.	61752.	246.	19.	107.	9.	11.	0.
HB	1868.	41442.	61543.	934.	239.	149.	51.	44.	6.
HB	1869.	41399.	61748.	393.	32.	101.	32.	25.	7.
HB	1870.	41526.	61481.	20800.	177.	131.	13.	21.	0.
HB	1871.	41244.	61694.	322.	37.	330.	12.	27.	5.
HB	1872.	42121.	61154.	15100.	103.	589.	48.	[illegible]	93.
HB	1875.	41060.	61970.	607.	218.	197.	113.	41.	238.
HB	1876.	40836.	61970.	274.	19.	39.	5.	15.	13.
HB	1877.	41388.	61730.	205.	65.	160.	7.	12.	0.
HB	1880.	41375.	61483.	386.	20.	45.	7.	18.	7.
HB	1882.	41800.	61288.	35800.	489.	271.	156.	86.	704.
HB	1884.	42314.	61073.	1365.	398.	363.	95.	51.	62.
HB	1885.	41814.	61867.	429.	22.	94.	16.	[illegible]	5.
HB	1887.	41703.	61308.	14100.	95.	955.	125.	52.	95.
HB	1890.	41271.	61870.	3813.	49.	569.	54.	26.	8.
HB	1891.	41522.	61568.	2599.	99.	223.	22.	48.	50.
HB	1893.	41525.	61572.	4350.	72.	206.	32.	34.	28.
HB	1894.	41149.	61870.	1896.	370.	277.	42.	73.	138.
HB	1900.	42108.	61222.	11100.	157.	613.	52.	34.	142.
HB	2002.	39171.	59728.	1515.	25.	312.	15.	21.	0.
HB	2003.	38228.	60248.	1169.	24.	468.	6.	11.	5.
HB	2004.	38228.	60196.	1836.	11.	613.	4.	7.	24.
HB	2005.	39154.	59603.	11300.	19.	395.	27.	17.	0.
HB	2006.	38310.	60190.	2383.	12.	308.	16.	13.	14.
HB	2008.	39429.	59962.	593.	83.	458.	9.	20.	33.
HB	2009.	38864.	60331.	2493.	185.	727.	36.	25.	5.
HB	2010.	38025.	60590.	1070.	68.	320.	18.	26.	0.
HB	2013.	38750.	59998.	1048.	33.	132.	12.	18.	0.
HB	2014.	38590.	60125.	56.	1.	22.	0.	3.	4.
HB	2015.	38858.	59430.	4617.	99.	278.	47.	10.	48.
HB	2016.	38763.	60053.	11600.	28.	819.	149.	25.	1.
HB	2017.	38954.	59450.	654.	30.	120.	5.	[illegible]	0
HB	2018.	38919.	59730.	120.	17.	18.	2.	[illegible]	18.
HB	2021.	38060.	60280.	49.	53.	22.	1.	[illegible]	2.
HB	2022.	39394.	59734.	633.	13.	96.	4.	8.	229.
HB	2023.	38643.	59995.	17200.	90.	1493.	29.	40.	166.
HB	2024.	39287.	59450.	10600.	46.	1001.	13.	24.	2.
HB	2025.	39298.	59274.	145.	65.	103.	8.	12.	5.
HB	2026.	37828.	60173.	2100.	39.	106.	15.	10.	0.
HB	2027.	38251.	60077.	108.	0.	35.	[illegible]	1.	1.
HB	2028.	38796.	60339.	140.	6.	178.	12.	2.	0.
HB	2029.	38790.	60402.	5305.	21.	862.	594.	13.	0.
HB	2030.	37853.	60322.	517.	10.	149.	6.	[illegible]	0.
HB	2031.	38662.	59668.	2539.	31.	240.	8.	14.	4.
HB	2033.	38240.	60245.	1691.	11.	175.	4.	6.	0.
HB	2034.	38668.	60365.	555.	7.	820.	12.	4.	4.
HB	2036.	39000.	59276.	5322.	22.	982.	27.	49.	4.
HB	2037.	39192.	59399.	82.	57.	66.	5.	8.	40.
HB	2038.	38678.	60358.	397.	4.	50.	5.	2.	0.
HB	2040.	38898.	59611.	102.	67.	108.	6.	5.	190.
HB	2041.	38651.	60584.	3297.	51.	428.	30.	23.	6.
HB	2042.	39480.	59909.	119.	7.	119.	3.	9.	0

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2800.	38486.	59513.	255.	7.	233.	2.	9.	0.
HB	2801.	37323.	57319.	93.	9.	55.	1.	10.	0.
HB	2802.	35743.	59068.	1207.	5.	27.	3.		0.
HB	2803.	36364.	58960.	196.	6.	14.	3.	5.	0.
HB	2804.	36293.	58773.	212.	20.	182.	7.	12.	1.
HB	2807.	41330.	62244.	245.	125.	302.	8.	10.	0.
HB	2810.	35738.	58837.	58.	2.	10.	0.		0.
HB	2819.	35829.	58850.	129.	12.	161.	7.	6.	5.
HB	2821.	36160.	58732.	680.	6.	143.	3.	4.	0.
HB	2822.	35979.	58932.	504.	9.	230.	7.	4.	2.
HB	2824.	41270.	62192.	488.	39.	565.	6.	14.	4.
HB	2825.	36088.	58690.	515.	4.	96.	3.	4.	4.
HB	2828.	35720.	59060.	111.	7.	19.	1.	5.	7.
HB	2829.	37247.	57328.	157.	9.	873.	5.	10.	2.
HB	2831.	37593.	57338.	1093.	5.	936.	1.	6.	4.
HB	2832.	36309.	58797.	975.	12.	90.	0.	5.	0.
HB	2834.	41480.	62043.	127.	8.	38.	2.	7.	0.
HB	2839.	36072.	58773.	38.	1.	16.	1.	1.	0.
HB	2841.	36232.	58759.	2246.	10.	206.	7.	6.	0.
HB	2845.	40403.	62073.	733.	258.	116.	13.	35.	212.
HB	2849.	35859.	59006.	756.	25.	498.	30.	39.	0.
HB	2855.	35831.	59022.	70.	0.	25.	0.	4.	0.
HB	2857.	37229.	57259.	164.	23.	98.	6.	7.	12.
HB	2858.	41478.	62040.	167.	12.	53.	1.	8.	0.
HB	2861.	35982.	58947.	2612.	17.	147.	42.	12.	0.
HB	2866.	35820.	58864.	235.	11.	372.	28.	9.	3.
HB	2867.	36148.	58693.	214.	0.	33.	3.	5.	4.
HB	2869.	40311.	62087.	2064.	110.	139.	92.	44.	58.
HB	2871.	35835.	58993.	919.	7.	96.	2.	4.	0.
HB	2874.	36252.	58779.	896.	10.	85.	8.	7.	3.
HB	2875.	35926.	58969.	1582.	8.	44.	3.	4.	0.
HB	2879.	36161.	58737.	1241.	4.	63.	1.	3.	0.
HB	2880.	40893.	62121.	275.	11.	115.	3.	11.	4.
HB	2881.	35788.	59021.	84.	6.	67.	2.	4.	0.
HB	2883.	37373.	57257.	1255.	30.	893.	31.	69.	30.
HB	2885.	41358.	62137.	282.	216.	189.	111.	13.	13.
HB	2889.	40194.	62087.	508.	41.	80.	11.	21.	22.
HB	2892.	35880.	58912.	1041.	20.	231.	7.	8.	6.
HB	2894.	36315.	58866.	245.	10.	40.	2.	4.	4.
HB	2898.	41340.	62133.	169.	4.	53.	1.	4.	0.
HB	2899.	37200.	57346.	61.	1.	70.	1.	4.	5.
HB	2900.	40424.	62209.	620.	43.	107.	19.	36.	11.
34	341801.	34711.	57567.	343.	14.	77.	0.	5.	5.
34	341803.	35506.	57184.	1204.	10.	123.	6.	7.	0.
34	341804.	35139.	57660.	108.	59.	93.	1.	8.	210.
34	341805.	35089.	57477.	234.	29.	131.	9.	16.	0.
34	341806.	35678.	57101.	92.	67.	375.	123.	7.	41.
34	341808.	35687.	57957.	121.	10.	31.	4.	6.	0.
34	341809.	35531.	57392.	473.	7.	174.	2.	4.	0.
34	341810.	35281.	57211.	4845.	52.	59.	12.	21.	2.
34	341811.	34970.	57754.	176.	34.	1674.	7.	10.	3.
34	341812.	34991.	57899.	640.	24.	169.	6.	20.	0.
34	341813.	34890.	57480.	653.	53.	1092.	9.	14.	9.
34	341814.	35675.	57408.	1649.	25.	54.	8.	10.	11.
34	341815.	35682.	57730.	121.	52.	52.	20.	23.	1.
34	341816.	35723.	57613.	122.	21.	1209.	24.	22.	0.
34	341817.	34866.	57632.	603.	93.	300.	13.	8.	7.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJECT	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
34	341819.	34579.	56885.	119.	8.	31.	3.	9.	0.
34	341821.	34925.	57355.	707.	20.	502.	13.	13.	2.
34	341823.	35042.	57319.	12900.	72.	495.	24.	40.	2.
34	341825.	34780.	57670.	180.	14.	91.	1.	8.	0.
34	341826.	35029.	57905.	117.	8.	30.	0.	3.	4.
34	341827.	34775.	57760.	219.	17.	182.	9.	8.	5.
34	341828.	35832.	57441.	422.	7.	26.	4.	5.	1.
34	341829.	35665.	57495.	371.	69.	217.	78.	19.	262.
34	341830.	34670.	57210.	140.	30.	57.	19.	19.	5.
34	341831.	35737.	57715.	1088.	65.	1711.	26.	33.	0.
34	341832.	34821.	57695.	139.	35.	47.	5.	12.	2.
34	341833.	35316.	57491.	122.	21.	354.	4.	11.	3.
34	341835.	35430.	57301.	1815.	22.	610.	11.	8.	0.
34	341836.	35611.	57900.	134.	14.	59.	4.	8.	4.
34	341837.	35893.	57697.	508.	41.	209.	21.	35.	2.
34	341838.	35876.	57705.	5461.	101.	9680.	35.	38.	0.
34	341839.	34960.	57405.	17300.	84.	1185.	28.	24.	239.
34	341841.	35730.	57488.	359.	7.	37.	1.	5.	88.
34	341842.	35888.	57465.	500.	45.	516.	33.	22.	0.
34	341844.	35396.	57845.	164.	8.	30.	4.	5.	9.
34	341848.	35732.	57856.	104.	11.	60.	4.	6.	5.
34	341849.	35731.	57740.	244.	39.	180.	9.	18.	0.
34	341850.	35052.	57454.	1330.	111.	1167.	10.	13.	0.
34	341851.	34745.	57403.	1988.	55.	1605.	45.	34.	2.
34	341852.	34924.	57969.	1007.	24.	322.	4.	9.	0.
34	341853.	35423.	57569.	2416.	77.	299.	7.	22.	0.
34	341854.	35009.	57925.	239.	20.	286.	4.	11.	0.
34	341855.	34779.	56954.	420.	53.	100.	12.	22.	159.
34	341856.	35099.	57426.	696.	15.	1173.	4.	10.	0.
34	341857.	34656.	57201.	1375.	24.	210.	12.	17.	18.
34	341858.	35556.	57913.	716.	14.	181.	2.	5.	0.
34	341859.	35017.	57517.	1010.	14.	345.	13.	8.	2.
34	341860.	34727.	57669.	669.	11.	105.	1.	4.	2.
34	341862.	[illegible]	5746[illegible].	51.	9.	64.	0.	3.	0.
34	341863.	[illegible]	57791.	335.	46.	447.	5.	9.	0.
34	341864.	34640.	57580.	336.	1.	17.	0.	2.	1.
34	341865.	34938.	57975.	2947.	52.	1361.	10.	21.	7.
34	341866.	34598.	57132.	130.	35.	85.	2.	11.	3.
34	341869.	34963.	57603.	4081.	29.	886.	331.	22.	8.
34	341870.	34835.	57170.	246.	11.	51.	10.	10.	4.
34	341871.	35063.	57648.	2657.	55.	5947.	101.	30.	0.
34	341872.	35299.	57209.	148.	9.	29.	1.	6.	1.
34	341873.	34680.	56969.	198.	92.	63.	17.	24.	86.
34	341874.	35071	57549.	2145.	129.	1502.	29.	26.	210.
34	341875.	35090.	57619.	25200.	60.	1749.	42.	31.	0.
34	341876.	35840.	57539.	1019.	36.	318.	17.	22.	1.
34	341877.	35888.	57583.	130.	15.	156.	6.	6.	3.
34	341878.	35159.	57438.	193.	4.	10.	0.	0.	0.
34	341879.	35750.	57493.	122.	2.	23.	0.	1.	1.
34	341880.	34599.	57169.	205.	14.	46.	2.	13.	0.
34	341881.	35721.	57753.	240.	11.	122.	9.	11.	1.
34	341882.	35060.	57339.	12400.	80.	1601.	14.	29.	47.
34	341883.	35253.	57380.	131.	86.	136.	21.	5.	12.
34	341884.	34808.	57037.	275.	15.	22.	2.	6.	2.
34	341885.	34930.	57540.	1090.	20.	156.	8.	21.	0.
34	341886.	34890.	57399.	28100.	463.	4117.	261.	39.	708.
34	341887.	34680.	57360.	757.	18.	128.	5.	7.	18.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1093.	36495.	56098.	650.	99700.	1320.	11020.	-1.
HB	1094.	36590.	56065.	810.	66090.	780.	6750.	-1.
HB	1095.	40019.	56645.	1270.	38320.	470.	2980.	-1.
HB	1096.	36640.	55920.	1160.	47100.	460.	5580.	-1.
HB	1101.	40263.	58134.	3410.	34130.	300.	3290.	40.
HB	1103.	40533.	57720.	2350.	57870.	1040.	19890.	40.
HB	1104.	39646.	58452.	1490.	38500.	790.	6510.	200.
HB	1108.	40210.	58778.	1000.	46250.	440.	3570.	40.
HB	1109.	40110.	58862.	1190.	25530.	330.	3550.	110.
HB	1110.	39930.	58466.	1610.	43000.	520.	9930.	30.
HB	1111.	40448.	57895.	2460.	30910.	350.	6100.	30.
HB	1112.	40609.	57947.	3450.	106130.	1270.	11750.	90.
HB	1116.	40032.	58743.	560.	29020.	430.	7250.	40.
HB	1117.	39916.	58728.	400.	35640.	410.	3530.	30.
HB	1118.	39734.	58352.	350.	22350.	270.	1330.	10.
HB	1119.	40610.	57764.	2390.	91920.	970.	10580.	40.
HB	1120.	40000.	58451.	5150.	216720.	2720.	17410.	250.
HB	1121.	39866.	57868.	4310.	71020.	510.	6890.	40.
HB	1122.	39760.	58708.	3120.	13070.	210.	3640.	350.
HB	1123.	39810.	57767.	2990.	21530.	220.	3140.	30.
HB	1125.	40022.	58453.	1250.	35760.	280.	3970.	30.
HB	1129.	39830.	58397.	2600.	96220.	710.	14320.	40.
HB	1130.	39709.	58260.	350.	18460.	170.	3430.	10.
HB	1131.	40210.	58300.	3220.	26540.	250.	3120.	30.
HB	1132.	39589.	58323.	1050.	45660.	380.	1090.	20.
HB	1133.	40080.	58925.	1110.	32540.	320.	3510.	230.
HB	1134.	39646.	57933.	1790.	27730.	300.	3350.	30.
HB	1135.	40418.	57700.	770.	28600.	250.	5420.	30.
HB	1136.	39669.	58364.	610.	13970.	160.	1850.	10.
HB	1137.	40235.	58073.	13420.	32700.	210.	2020.	80.
HB	1138.	40175.	57968.	10750.	25300.	190.	3200.	130.
HB	1139.	40609.	57570.	1010.	28030.	260.	5920.	30.
HB	1140.	39710.	58515.	1140.	17440.	250.	3400.	20.
HB	1141.	39628.	58524.	7530.	36500.	470.	3580.	80.
HB	1142.	40230.	58777.	4870.	20240.	340.	5140.	220.
HB	1143.	39980.	58181.	2840.	52040.	640.	7890.	90.
HB	1144.	39924.	58431.	1100.	47990.	350.	2760.	30.
HB	1146.	40050.	58243.	3320.	32720.	500.	2610.	30.
HB	1147.	40025.	58443.	4070.	88040.	550.	11330.	180.
HB	1148.	40010.	58346.	2610.	36710.	270.	2280.	30.
HB	1149.	39730.	58358.	3960.	101770.	1170.	1880.	40.
HB	1150.	39693.	58532.	800.	26650.	260.	6040.	40.
HB	1152.	40347.	58169.	1460.	43430.	250.	4400.	30.
HB	1153.	40380.	58247.	710.	10440.	110.	2520.	20.
HB	1154.	39867.	58160.	8070.	47970.	420.	4350.	70.
HB	1156.	39682.	58197.	540.	31250.	250.	2590.	20.
HB	1157.	39533.	58430.	1060.	31920.	530.	6600.	120.
HB	1160.	36516.	55974.	1560.	62480.	800.	6750.	250.
HB	1162.	4018.	58824.	780.	29240.	280.	2220.	30.
HB	1163.	40558.	57894.	3040.	85760.	780.	10510.	40.
HB	1164.	39765.	57735.	1690.	26120.	310.	5890.	20.
HB	1165.	40595.	57668.	1220.	17100.	190.	2710.	20.
HB	1166.	40300.	58747.	1690.	40010.	405.	5500.	80.
HB	1167.	40100.	58880.	1110.	36880.	390.	3180.	240.
HB	1169.	40091.	58186.	6030.	33080.	280.	1660.	40.
HB	1170.	40530.	57561.	1130.	24810.	270.	6220.	20.
HB	1171.	39519.	58213.	180.	32120.	150.	1840.	20.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1172.	40667.	57545.	1300.	45710.	420.	8150.	40.
HB	1173.	40170.	58820.	540.	24760.	310.	3460.	30.
HB	1174.	39925.	58442.	2380.	38650.	330.	4010.	40.
HB	1175.	40149.	58760.	2640.	138270.	1760.	9760.	180.
HB	1176.	39885.	58523.	2660.	33410.	370.	3830.	70.
HB	1177.	40240.	57861.	4280.	119480.	1990.	35360.	140.
HB	1180.	40608.	57564.	750.	27110.	310.	5620.	20.
HB	1183.	40137.	58278.	14240.	40700.	460.	3420.	90.
HB	1186.	39528.	58410.	2020.	58240.	520.	6740.	90.
HB	1191.	39603.	57193.	300.	36380.	200.	5300.	90.
HB	1192.	40284.	57190.	6420.	69120.	950.	6230.	80.
HB	1197.	39655.	57820.	2420.	42750.	420.	5910.	30.
HB	1199.	39790.	58524.	710.	30110.	430.	7340.	40.
HB	1201.	40360.	58719.	4630.	95330.	1070.	7300.	130.
HB	1202.	40568.	58713.	3120.	31070.	980.	7920.	210.
HB	1203.	40180.	58390.	2700.	38380.	290.	2100.	30.
HB	1204.	39880.	58922.	580.	67190.	640.	3680.	70.
HB	1205.	40100.	58412.	5460.	124420.	1410.	21660.	60.
HB	1206.	41011.	58421.	1750.	40210.	380.	2550.	20.
HB	1208.	40378.	58423.	1930.	47930.	450.	9510.	40.
HB	1209.	39327.	57908.	3290.	31230.	360.	2740.	30.
HB	1210.	40680.	58724.	4750.	78400.	1140.	6950.	480.
HB	1211.	40893.	59215.	2170.	52470.	1050.	9950.	670.
HB	1216.	40588.	58095.	1070.	26010.	280.	4990.	20.
HB	1217.	40841.	58102.	2220.	47360.	560.	6700.	30.
HB	1218.	39675.	58860.	610.	25980.	270.	1640.	30.
HB	1219.	41091.	58499.	2000.	61460.	540.	5050.	100.
HB	1221.	40469.	58698.	3370.	77910.	950.	8410.	180.
HB	1222.	40905.	59158.	1080.	50400.	800.	6820.	40.
HB	1223.	40700.	58445.	1430.	37200.	340.	2950.	20.
HB	1224.	40776.	58362.	670.	24850.	300.	3000.	20.
HB	1225.	40914.	59162.	1070.	49760.	550.	6740.	490.
HB	1226.	40332.	58995.	200.	11630.	130.	1930.	10.
HB	1227.	39720.	58858.	430.	25030.	380.	2010.	30.
HB	1228.	39400.	57982.	620.	32860.	630.	3860.	30.
HB	1229.	40904.	59280.	11150.	277470.	4560.	3420.	130.
HB	1230.	41032.	58435.	1780.	20850.	440.	6650.	30.
HB	1231.	40421.	58410.	1710.	38970.	390.	4120.	20.
HB	1232.	40885.	59209.	2210.	71900.	1000.	10090.	560.
HB	1233.	40927.	59025.	710.	13020.	180.	2100.	40.
HB	1234.	39344.	57880.	560.	15520.	130.	2630.	20.
HB	1236.	40270.	58363.	2240.	45770.	410.	7520.	40.
HB	1238.	40810.	58423.	550.	5830.	90.	1060.	20.
HB	1239.	40750.	59305.	1570.	58170.	520.	4180.	130.
HB	1240.	40677.	59110.	220.	7950.	310.	2540.	460.
HB	1241.	40945.	59189.	1780.	30320.	340.	5960.	210.
HB	1243.	40886.	58974.	190.	4860.	50.	2730.	40.
HB	1244.	40930.	59008.	610.	13670.	290.	9010.	70.
HB	1245.	40940.	59039.	290.	21650.	230.	2160.	30.
HB	1246.	39307.	57977.	260.	17950.	260.	1970.	20.
HB	1248.	40299.	58935.	350.	16810.	430.	1060.	30.
HB	1249.	40935.	58082.	2480.	60310.	880.	9560.	30.
HB	1250.	40999.	59052.	1950.	42010.	620.	8490.	670.
HB	1251.	39595.	58854.	1460.	54160.	1360.	3020.	120.
HB	1253.	40995.	58975.	1360.	43380.	560.	5820.	70.
HB	1254.	40354.	58960.	340.	15340.	240.	1050.	10.
KE	1255.	40808.	59292.	5670.	22370.	320.	1760.	280.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2110.	37092.	60466.	830.	40250.	380.	6110.	[illegible]
HB	2111.	39278.	60126.	150.	[illegible]440.	120.	8080.	10.
HB	2112.	39372.	60135.	200.	15[illegible]0.	120.	3060.	30.
HB	2113.	38345.	59310.	310.	6760.	110.	5200.	10.
HB	2114.	38635.	59176.	1700.	45930.	320.	6500.	110.
HB	2115.	38755.	59634.	530.	35630.	270.	4970.	60.
HB	2116.	38818.	58653.	180.	9460.	60.	2460.	20.
HB	2118.	38508.	59347.	240.	17290.	200.	2460.	30.
HB	2119.	38822.	59096.	250.	10670.	120.	4510.	20.
HB	2120.	39061.	59057.	500.	31260.	450.	5200.	50.
HB	2123.	37921.	60650.	3060.	85030.	480.	9370.	1200.
HB	2124.	38693.	58690.	180.	13450.	60.	2230.	20.
HB	2125.	39080.	53800.	2690.	33630.	920.	1760.	130.
HB	2126.	37905.	60485.	3480.	87920.	510.	6780.	330.
HB	2127.	37952.	60525.	2960.	65430.	380.	6900.	270.
HB	2128.	38607.	58954.	130.	15520.	70.	2450.	10.
HB	2129.	38288.	59606.	260.	20810.	240.	1750.	10.
HB	2130.	39008.	60387.	140.	9050.	90.	4410.	10.
HB	2131.	38789.	58984.	190.	10840.	120.	2130.	10.
HB	2132.	37869.	60425.	340.	10800.	170.	4440.	40.
HB	2133.	38590.	59350.	380.	26020.	240.	4290.	20.
HB	2134.	38999.	60377.	170.	17920.	90.	4010.	30.
HB	2135.	38835.	58766.	190.	18100.	140.	5490.	30.
HB	2137.	30508.	59780.	130.	13530.	340.	3070.	20.
HB	2138.	38910.	60457.	180.	18440.	190.	4190.	30.
HB	2139.	39131.	58880.	330.	61930.	940.	1420.	[illegible]
HB	2140.	38657.	59115.	120.	6220.	120.	3370.	280.
HB	2141.	38692.	58987.	120.	9860.	170.	1680.	10.
HB	2142.	38895.	58964.	920.	21750.	450.	3030.	[illegible]
HB	2143.	38278.	59352.	110.	12140.	130.	720.	10.
HB	2144.	38694.	58986.	160.	9090.	100.	3130.	10.
HB	2145.	3[illegible]6.	59357.	300.	24000.	170.	2680.	20.
HB	2146.	38583.	59352.	130.	22750.	70.	3710.	10.
HB	2147.	38936.	60360.	200.	12870.	270.	1700.	20.
HB	2148.	38773.	58666.	220.	17930.	230.	1680.	20.
HB	2150.	38174.	59748.	210.	35490.	190.	5180.	110.
HB	2151.	38638.	58938.	110.	10820.	50.	2770.	20.
HB	2152.	38878.	58728.	340.	41910.	390.	4170.	110.
HB	2153.	38344.	59316.	100.	15730.	150.	980.	10.
HB	2154.	39018.	58972.	350.	13070.	160.	2220.	20.
HB	2155.	39259.	60112.	310.	34190.	200.	5860.	50.
HB	2156.	38696.	58645.	770.	54060.	290.	4130.	140.
HB	2157.	39482.	59708.	2460.	123970.	1990.	42100.	40.
HB	2158.	37920.	60647.	2670.	30190.	450.	4360.	270.
HB	2159.	38534.	59154.	300.	12700.	130.	1840.	10.
HB	2160.	38523.	59311.	270.	60770.	280.	1530.	50.
HB	2161.	37979.	60598.	2450.	94900.	460.	6100.	780.
HB	2162.	38530.	59323.	110.	7690.	70.	4530.	10.
HB	2163.	38360.	59272.	220.	15200.	150.	920.	10.
HB	2164.	39388.	59280.	800.	34590.	490.	17050.	50.
HB	2165.	39019.	60323.	110.	12560.	50.	1550.	20.
HB	2167.	38970.	59374.	1130.	49370.	510.	12770.	70.
HB	2168.	38700.	60744.	200.	22380.	90.	1740.	40.
HB	2172.	38572.	59098.	220.	10270.	60.	3210.	10.
HB	2174.	38758.	59111.	3070.	70300.	1060.	25750.	560.
HB	2175.	38317.	59583.	130.	22110.	110.	1900.	20.
HB	2176.	38410.	59305.	520.	32700.	350.	3620.	10.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2177.	39463.	59186.	340.	16040.	160.	3480.	20.
HB	2178.	38448.	59506.	180.	7270.	210.	836.	10.
HB	2179.	38252.	59738.	3[illegible].	55530.	630.	3270.	40.
HB	2[illegible].	38777.	58673.	280.	22630.	180.	3370.	20.
HB	2182.	38223.	59578.	170.	29770.	250.	2710.	10.
HB	2183.	38407.	59624.	190.	22850.	190.	3550.	20.
HB	2184.	38454.	59152.	2180.	24740.	280.	2540.	60.
HB	2185.	37960.	59268.	720.	36960.	200.	2870.	50.
HB	2186.	39211.	60102.	480.	25260.	240.	4810.	30.
HB	2188.	39472.	59558.	170.	29260.	410.	3360.	20.
HB	2189.	38763.	59120.	460.	42790.	270.	4560.	160.
HB	2192.	39107.	60082.	890.	54880.	390.	[illegible].	30.
HB	2195.	38478.	59718.	270.	20170.	140.	[illegible].	10.
HB	2196.	38270.	59774.	360.	35740.	350.	[illegible].	20.
HB	2197.	38365.	59273.	230.	16740.	210.	6170.	20.
HB	2198.	38720.	59162.	1320.	56060.	550.	13810.	110.
HB	2199.	39100.	60097.	280.	29880.	150.	4530.	20.
HB	2200.	38279.	59357.	110.	7370.	150.	2880.	10.
HB	2201.	39488.	59772.	660.	29210.	370.	2761.	270.
HB	2202.	39309.	58824.	310.	51040.	170.	2940.	240.
HB	2203.	39009.	58517.	420.	38620.	210.	2120.	20.
HB	2204.	39119.	58636.	460.	34110.	230.	2260.	30.
HB	2205.	39112.	58450.	890.	64830.	440.	4700.	80.
HB	2206.	39282.	59142.	400.	26920.	240.	6460.	70.
HB	2207.	39517.	58482.	150.	18680.	90.	2240.	20.
HB	2208.	39267.	58630.	190.	11740.	90.	3280.	10.
HB	2209.	38504.	60292.	150.	17770.	70.	3730.	20.
HB	2210.	38972.	58665.	290.	18160.	220.	1660.	20.
HB	2211.	38875.	59864.	140.	7720.	80.	2450.	10.
HB	2212.	37973.	58807.	120.	10120.	90.	2040.	20.
HB	2213.	39317.	58567.	310.	[illegible].	110.	2340.	10.
HB	2214.	38757.	58310.	310.	15[illegible].	190.	3600.	20.
HB	2215.	38381.	58831.	130.	14620.	60.	2270.	20.
HB	2216.	39411.	58736.	80.	3680.	30.	1970.	10.
HB	2217.	39425.	58738.	750.	66430.	510.	1260.	30.
HB	2218.	39153.	58558.	270.	11490.	140.	2540.	10.
HB	2219.	39336.	58540.	300.	27040.	210.	990.	20.
HB	2220.	39453.	59127.	390.	21570.	230.	4290.	20.
HB	2221.	38388.	58903.	240.	18520.	90.	1950.	20.
HB	2222.	39384.	58466.	640.	18010.	90.	2050.	20.
HB	2223.	38916.	58596.	590.	63380.	430.	4390.	40.
HB	2224.	39318.	60447.	90.	1700.	20.	1750.	0.
HB	2225.	38655.	58473.	270.	21800.	150.	3300.	20.
HB	2226.	39113.	58679.	630.	58630.	280.	2070.	50.
HB	2227.	38358.	58514.	400.	53950.	630.	10970.	70.
HB	2228.	38160.	58587.	460.	24290.	550.	2460.	40.
HB	2229.	38814.	58375.	520.	29520.	270.	3150.	30.
HB	2230.	39336.	59126.	650.	35250.	680.	2410.	30.
HB	2231.	38135.	59088.	6510.	87080.	2180.	22480.	70.
HB	2232.	39314.	60654.	1520.	33130.	240.	8730.	460.
HB	2233.	38935.	59820.	130.	9020.	210.	6230.	10.
HB	2234.	38971.	58496.	360.	49400.	210.	2410.	20.
HB	2235.	39200.	58645.	690.	47600.	380.	2350.	40.
HB	2236.	38016.	58904.	460.	28280.	370.	5230.	30.
HB	2237.	38415.	58412.	610.	45150.	350.	7480.	80.
HB	2238.	38816.	58343.	990.	43650.	370.	4360.	50.
HB	2241.	38098.	5[illegible].	970.	80760.	1410.	1570.	13.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
34	342055.	34590.	57470.	1530.	200740.	1080.	2730.	100.
34	342058.	36058.	57299.	6990.	24450.	200.	1370.	30.
34	342059.	35570.	57146.	16070.	24480.	130.	1800.	60.
34	342061.	34572.	57477.	880.	56220.	260.	2050.	50.
34	342063.	34536.	57724.	2980.	47010.	310.	1780.	50.
34	342064.	36178.	57600.	1850.	15910.	230.	920.	20.
34	342066.	35988.	57263.	4220.	32440.	170.	990.	30.
34	342067.	35550.	56854.	1420.	101470.	420.	1080.	40.
34	342068.	34966.	57672.	1640.	118030.	530.	2530.	120.
34	[illegible]	36773.	57354.	2360.	30660.	150.	3940.	40.
34	342071.	34487.	57595.	1310.	97130.	450.	2370.	70.
34	342072.	36643.	57184.	2420.	24540.	110.	1260.	40.
34	342073.	35557.	57065.	7390.	44920.	160.	1130.	50.
34	342075.	36350.	57338.	1110.	22370.	100.	1150.	30.
34	342077.	35505.	56775.	570.	8260.	40.	900.	30.
34	342079.	36310.	57070.	670.	8890.	60.	1430.	30.
34	342080.	36457.	57619.	2220.	49500.	130.	1370.	70.
34	342081.	34478.	57509.	790.	96680.	340.	3090.	80.
34	342082.	36789.	57330.	670.	9530.	50.	1320.	30.
34	342093.	36040.	57447.	5900.	46370.	500.	990.	40.
34	342085.	34990.	57104.	1090.	61630.	240.	1960.	50.
34	342089.	35780.	57097.	93620.	51350.	500.	2620.	250.
34	342090.	36032.	57058.	15170.	72701.	510.	1110.	50.
34	342091.	36188.	57613.	5810.	21680.	230.	1210.	30.
34	342092.	36420.	57365.	31650.	76400.	400.	1880.	80.
34	342093.	35113.	57095.	570.	19500.	150.	3360.	40.
34	342094.	36569.	57111.	1610.	12180.	70.	1180.	40.
34	342095.	36261.	57649.	20700.	47340.	280.	1240.	60.
34	342096.	36226.	57775.	2940.	12510.	110.	830.	30.
34	342097.	35647.	56908.	900.	32550.	180.	1170.	30.
34	342098.	36087.	57616.	3570.	53820.	320.	1480.	40.
34	342099.	34430.	57339.	770.	27930.	150.	3060.	30.
34	342100.	36081.	57600.	1970.	35150.	1210.	1520.	30.
34	342204.	33939.	56800.	530.	16040.	80.	1390.	30.
34	342207.	34142.	56929.	700.	39810.	170.	4340.	40.
34	342214.	34239.	57421.	2540.	80080.	370.	3490.	80.
34	342216.	34492.	57672.	1280.	37210.	260.	1110.	40.
34	342217.	34125.	56932.	820.	34130.	150.	1750.	40.
34	342218.	34140.	57140.	620.	13520.	60.	3240.	40.
34	342220.	34429.	57770.	2010.	70610.	319.	2400.	50.
34	342234.	34367.	57448.	1030.	180160.	850.	3260.	60.
34	342242.	34210.	57038.	870.	23250.	140.	5310.	40.
34	342251.	34231.	57099.	570.	13060.	70.	1650.	30.
34	342252.	34080.	56851.	780.	22660.	100.	1810.	30.
34	342257.	34110.	57348.	1630.	52560.	310.	2820.	60.
34	342261.	34315.	57615.	530.	45410.	160.	2390.	30.
34	342266.	34373.	57465.	1550.	70580.	340.	2070.	50.
34	342270.	34015.	57120.	770.	100710.	480.	1760.	40.
34	342271.	33870.	56879.	860.	50660.	160.	3550.	40.
34	342276.	34150.	57310.	1040.	142300.	670.	3030.	60.
34	342278.	34262.	57421.	1500.	46690.	220.	3170.	40.
34	342280.	34229.	57569.	1140.	229990.	2920.	3940.	100.
34	342288.	34024.	57260.	2510.	24700.	200.	2050.	50.
34	342297.	34281.	56961.	860.	38270.	190.	3850.	40.
34	342299.	34170.	57323.	1700.	25410.	180.	2160.	50.
	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

MAKE TEMPFILE

G-EXEC/G-UTIL/GPRJCT ON FILE WORKFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
34	341888.	35588.	57792.	29460.	56130.	240.	1150.	40.
34	341889.	35861.	57509.	20270.	12510.	150.	910.	40.
34	341890.	35420.	57882.	2500.	32170.	500.	2700.	50.
34	341891.	35745.	57415.	13390.	25620.	180.	860.	40.
34	341892.	35809.	57532.	30500.	25880.	140.	1140.	50.
34	341893.	34950.	57670.	5300.	45770.	430.	1520.	50.
34	341894.	34440.	57270.	1080.	273910.	1770.	5360.	140.
34	341895.	35882.	57540.	16960.	59410.	250.	1010.	80.
34	341896.	35770.	57670.	27150.	152910.	570.	1190.	60.
34	341897.	35681.	57683.	32830.	31520.	350.	1620.	110.
34	341900.	34890.	57290.	1270.	203930.	1150.	2650.	100.
34	342001.	36566.	57436.	11740.	38880.	130.	1060.	40.
34	342002.	36340.	57417.	5420.	57210.	220.	1590.	50.
34	342003.	36183.	57108.	840.	14120.	100.	1290.	20.
34	342004.	36001.	57301.	930.	10930.	140.	980.	20.
34	342005.	34620.	57770.	4840.	38890.	320.	1580.	50.
34	342006.	35740.	56991.	50780.	17350.	250.	980.	90.
34	342007.	36181.	57237.	1720.	17550.	210.	1660.	50.
34	342008.	35885.	57040.	7290.	43000.	310.	1080.	30.
34	342011.	34870.	57808.	6670.	32440.	190.	1170.	50.
34	342012.	36270.	57708.	5240.	26530.	150.	1270.	50.
34	342013.	36068.	57090.	2880.	95170.	450.	2240.	50.
34	342014.	35029.	56963.	900.	10400.	60.	1820.	30.
34	342015.	36562.	57123.	690.	14980.	90.	1350.	30.
34	342016.	35657.	56888.	1600.	106140.	560.	1570.	60.
34	342017.	34597.	57625.	1650.	94710.	630.	1370.	30.
34	342018.	35752.	57091.	35810.	28910.	180.	1370.	60.
34	342019.	35120.	57890.	1630.	36860.	270.	5870.	40.
34	342020.	35609.	57265.	2310.	22090.	120.	1410.	40.
34	342021.	36334.	57260.	560.	8100.	40.	1330.	20.
34	342022.	36280.	57380.	2880.	28190.	180.	770.	70.
34	342023.	36561.	57422.	1580.	13790.	180.	1000.	30.
34	342024.	35961.	57085.	13650.	20720.	140.	1230.	50.
34	342025.	35412.	56960.	3730.	18770.	120.	1530.	40.
34	342026.	36409.	57440.	1110.	38560.	240.	810.	30.
34	342027.	35906.	57240.	590.	21410.	300.	950.	30.
34	342028.	36082.	57085.	10900.	22610.	180.	1170.	40.
34	342029.	36392.	57092.	670.	10040.	70.	1360.	30.
34	342030.	36105.	57737.	4220.	25410.	170.	970.	40.
34	342034.	36177.	57347.	7850.	33240.	260.	1220.	40.
34	342035.	35252.	57792.	580.	24260.	210.	1660.	20.
34	342036.	36331.	57185.	1410.	29810.	640.	1470.	40.
34	342037.	36760.	57424.	1700.	103160.	420.	1980.	40.
34	342038.	35522.	57072.	680.	19910.	110.	2470.	30.
34	342039.	35477.	56994.	29100.	61960.	390.	1220.	100.
34	342040.	35383.	56912.	20100.	61380.	310.	1320.	90.
34	342043.	36060.	57416.	24800.	16540.	250.	1090.	50.
34	342044.	36270.	57521.	4500.	53590.	270.	1120.	20.
34	342045.	35412.	57554.	920.	8430.	60.	1290.	30.
34	342046.	35302.	56946.	910.	13350.	110.	3850.	50.
34	342047.	35134.	57161.	2940.	19830.	120.	1410.	50.
34	342048.	35759.	57470.	4850.	53230.	220.	1994.	40.
34	342050.	36260.	57255.	1070.	12410.	110.	1600.	40.
34	342051.	35530.	57245.	1160.	13260.	90.	-120.	30.
34	342052.	36120.	57431.	500.	17180.	100.	620.	20.
34	342053.	36780.	57173.	3310.	29090.	160.	4880.	40.
34	342054.	34444.	57223.	1040.	127710.	560.	2390.	80.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1256.	40947.	59129.	0.	0.	0.	1250.	4.
HB	1258.	39470.	57778.	40.	7.	0.	1320.	3.
HB	1259.	40568.	58912.	313.	0.	10.	10470.	5.
HB	1260.	40821.	59200.	17.	0.	0.	4818.	2.
HB	1261.	40908.	58423.	35.	0.	0.	1560.	2.
HB	1262.	40680.	59035.	0.	7.	0.	2460.	2.
HB	1264.	40470.	58376.	52.	4.	10.	2660.	2.
HB	1266.	40788.	58728.	22.	4.	0.	530.	1.
HB	1267.	40995.	58090.	241.	2.	20.	7470.	3.
HB	1268.	40180.	58382.	99.	0.	0.	3250.	2.
HB	1269.	40752.	59060.	68.	0.	0.	5420.	4.
HB	1271.	40672.	58109.	101.	0.	10.	3790.	2.
HB	1272.	40803.	58439.	13.	5.	0.	530.	2.
HB	1273.	40854.	59095.	18.	3.	0.	380.	0.
HB	1274.	40365.	58821.	6.	0.	10.	1720.	3.
HB	1275.	40370.	58736.	0.	4.	0.	1750.	2.
HB	1276.	40540.	59089.	0.	0.	0.	3460.	7.
HB	1277.	39790.	58892.	108.	9.	10.	5070.	0.
HB	1278.	40590.	58426.	56.	10.	0.	1600.	1.
HB	1279.	40620.	59240.	0.	0.	0.	680.	3.
HB	1280.	39415.	57928.	30.	3.	0.	1110.	1.
HB	1281.	40853.	59082.	17.	5.	0.	1790.	5.
HB	1282.	40967.	59104.	0.	0.	0.	2280.	5.
HB	1283.	40995.	58959.	97.	8.	0.	2270.	2.
HB	1284.	40413.	58317.	57.	2.	0.	2900.	0.
HB	1285.	40765.	59101.	0.	6.	0.	2320.	5.
HB	1286.	40491.	58428.	18.	6.	0.	1570.	1.
HB	1287.	40888.	58652.	12.	4.	0.	750.	2.
HB	1288.	40990.	58531.	0.	8.	0.	3510.	7.
HB	1289.	41080.	58504.	0.	1.	0.	1030.	8.
HB	1290.	40756.	58105.	150.	0.	0.	4090.	0.
HB	1291.	40839.	59053.	111.	4.	10.	3990.	2.
HB	1292.	40450.	58340.	44.	0.	10.	1720.	0.
HB	1293.	40915.	58930.	54.	0.	0.	1380.	1.
HB	1294.	40765.	58112.	265.	4.	10.	6750.	1.
HB	1295.	40113.	58386.	0.	2.	0.	940.	3.
HB	1296.	40300.	58879.	1.	0.	0.	600.	0.
HB	1297.	40989.	59015.	38.	0.	0.	2040.	5.
HB	1298.	40904.	58578.	0.	0.	0.	1130.	4.
HB	1299.	39880.	58931.	4.	0.	10.	1350.	4.
HB	1300.	40627.	59140.	1.	0.	0.	1440.	4.
HB	1301.	40161.	59034.	75.	0.	0.	3360.	3.
HB	1302.	40202.	59510.	0.	0.	0.	920.	1.
HB	1303.	40640.	59267.	61.	0.	0.	2320.	.
HB	1307.	40291.	59734.	5.	0.	10.	9470.	.
HB	1308.	40850.	59829.	2.	0.	0.	2480.	.
HB	1309.	40380.	59706.	0.	1.	0.	2040.	.
HB	1312.	39880.	59005.	20.	6.	0.	2220.	.
HB	1313.	40540.	59622.	0.	5.	0.	1470.	2.
HB	1314.	40618.	59593.	11.	3.	0.	5510.	5.
HB	1315.	40240.	59496.	0.	0.	0.	590.	3.
HB	1316.	40837.	58708.	20.	0.	0.	1040.	2.
HB	1318.	40416.	59072.	4.	0.	0.	3270.	7.
HB	1319.	40100.	59270.	22.	3.	0.	1860.	1.
HB	1320.	40520.	59590.	64.	0.	10.	4470.	7.
HB	1321.	0652.	58491.	62.	13.	0.	2240.	1.
HB	1322.	40890.	60023.	113.	0.	10.	7230.	4.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1323.	40479.	59545.	38.	2.	0.	2140.	0.
HB	1324.	40770.	59802.	0.	3.	0.	990.	3.
HB	1326.	40752.	59718.	55.	0.	0.	6300.	3.
HB	1327.	40446.	59667.	0.	0.	0.	2490.	1.
HB	1328.	41433.	58887.	20.	1.	0.	1150.	1.
HB	1330.	40477.	59721.	41.	0.	0.	2400.	0.
HB	1331.	40321.	59759.	51.	3.	10.	2290.	0.
HB	1332.	39742.	58959.	0.	3.	10.	920.	2.
HB	1333.	40241.	59040.	23.	0.	0.	1080.	1.
HB	1334.	40939.	59872.	21.	0.	0.	1600.	2.
HB	1335.	40584.	59559.	17.	0.	0.	3390.	2.
HB	1336.	40794.	59756.	0.	1.	10.	3260.	7.
HB	1337.	40685.	59321.	6.	1.	0.	1730.	6.
HB	1338.	40544.	59338.	61.	1.	0.	2820.	2.
HB	1339.	40170.	59672.	0.	0.	0.	5210.	8.
HB	1340.	40304.	59444.	0.	0.	0.	830.	5.
HB	1341.	40728.	59792.	64.	2.	10.	8690.	5.
HB	1342.	40164.	59369.	70.	4.	10.	5970.	1.
HB	1343.	40009.	59024.	39.	3.	0.	3630.	3.
HB	1344.	40388.	59708.	0.	1.	0.	4220.	5.
HB	1345.	40568.	60852.	45.	2.	0.	1980.	2.
HB	1346.	40583.	58538.	42.	0.	0.	2190.	2.
HB	1347.	40184.	59087.	95.	0.	0.	3700.	1.
HB	1348.	40752.	59728.	0.	1.	0.	1780.	1.
HB	1349.	40545.	59558.	94.	2.	0.	4850.	2.
HB	1351.	41210.	59063.	54.	3.	0.	2090.	0.
HB	1352.	39720.	59040.	18.	12.	0.	1150.	2.
HB	1353.	40837.	59860.	118.	3.	10.	6570.	4.
HB	1354.	40368.	58540.	58.	0.	0.	1880.	0.
HB	1355.	40075.	59038.	55.	0.	0.	1930.	0.
HB	1356.	40649.	59797.	0.	0.	0.	2950.	0.
HB	1357.	40240.	59383.	47.	1.	0.	1540.	0.
HB	1359.	40209.	59031.	0.	0.	10.	610.	3.
HB	1361.	40583.	59260.	17.	0.	0.	2450.	2.
HB	1362.	40323.	59341.	0.	8.	0.	390.	2.
HB	1363.	39996.	58852.	47.	1.	0.	3450.	2.
HB	1364.	40160.	59360.	0.	1.	0.	940.	1.
HB	1365.	40085.	59090.	23.	3.	0.	2210.	3.
HB	1366.	40612.	59806.	15.	0.	0.	1940.	1.
HB	1367.	40005.	59046.	66.	3.	10.	3000.	0.
HB	1368.	40464.	59338.	0.	0.	0.	2480.	5.
HB	1369.	40479.	59552.	46.	3.	10.	3140.	2.
HB	1370.	40272.	58508.	113.	8.	0.	5660.	6.
HB	1371.	39970.	58959.	9.	0.	0.	2820.	1.
HB	1372.	40649.	59947.	2.	4.	0.	1300.	3.
HB	1373.	40521.	58559.	64.	1.	0.	1000.	3.
HB	1374.	40350.	59377.	8.	0.	10.	820.	7.
HB	1375.	40680.	59341.	5.	3.	0.	1300.	4.
HB	1376.	40801.	58710.	5.	1.	0.	2110.	7.
HB	1379.	40710.	59642.	0.	1.	0.	4920.	1.
HB	1380.	40517.	59234.	0.	4.	0.	350.	0.
HB	1381.	40985.	59950.	74.	14.	10.	7410.	11.
HB	1382.	40730.	59628.	53.	0.	10.	4250.	4.
HB	1383.	40598.	58545.	0.	1.	0.	1160.	2.
HB	1384.	39805.	59003.	23.	0.	0.	3420.	4.
HB	1385.	40255.	58970.	0.	10.	0.	850.	2.
HB	1386.	40590.	59340.	13.	3.	0.	630.	3.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2242.	38194.	60310.	328.	0.	20.	21310.	3.
HB	2243.	39580.	58436.	47.	2.	0.	2710.	0.
HB	2244.	30319.	58552.	56.	0.	0.	3320.	0.
HB	2245.	38727.	58498.	82.	0.	0.	4210.	0.
HB	2246.	38930.	58286.	43.	2.	0.	1840.	0.
HB	2247.	38897.	58220.	18.	6.	0.	1150.	1.
HB	2250.	39212.	59137.	130.	0.	10.	7090.	1.
HB	2252.	38620.	58331.	12.	0.	0.	1170.	0.
HB	2253.	38642.	58565.	0.	0.	0.	1570.	3.
HB	2254.	37993.	59088.	84.	3.	10.	4310.	0.
HB	2255.	38184.	58488.	49.	5.	10.	6890.	2.
HB	2256.	39467.	58643.	234.	4.	20.	12130.	0.
HB	2258.	39453.	60294.	118.	7.	20.	10110.	1.
HB	2259.	39478.	59620.	4.	0.	0.	380.	3.
HB	2260.	39430.	59625.	87.	4.	10.	4280.	0.
HB	2261.	38421.	58708.	20.	0.	0.	1590.	2.
HB	2262.	39311.	58618.	12.	0.	0.	480.	0.
HB	2263.	38405.	58505.	12.	0.	0.	710.	0.
HB	2264.	38111.	58925.	20.	3.	0.	1190.	0.
HB	2266.	39265.	60620.	120.	0.	10.	5960.	8.
HB	2267.	38946.	59011.	152.	0.	0.	5910.	0.
HB	2268.	38131.	60405.	325.	3.	0.	13050.	0.
HB	2269.	38361.	58818.	53.	0.	10.	2360.	1.
HB	2271.	38060.	58881.	29.	1.	0.	660.	1.
HB	2272.	38243.	58330.	435.	0.	40.	38390.	10.
HB	2275.	38360.	58495.	0.	0.	0.	630.	0.
HB	2278.	38916.	58274.	54.	0.	0.	2750.	1.
HB	2280.	38430.	58405.	10.	0.	0.	5810.	4.
HB	2281.	39386.	59158.	21.	0.	0.	1650.	0.
HB	2282.	38157.	60416.	91.	0.	0.	3690.	0.
HB	2284.	38372.	58728.	21.	4.	0.	1770.	0.
HB	2285.	39360.	58455.	0.	0.	0.	370.	0.
HB	2286.	39301.	58643.	2.	0.	0.	620.	1.
HB	2287.	38141.	58492.	0.	0.	0.	4290.	2.
HB	2288.	39494.	58874.	140.	1.	10.	7950.	1.
HB	2289.	38300.	59795.	17.	3.	0.	2060.	0.
HB	2291.	39445.	58628.	214.	2.	10.	10070.	0.
HB	2293.	39436.	58642.	46.	4.	0.	2490.	1.
HB	2294.	39346.	60335.	293.	3.	20.	24430.	0.
HB	2297.	39336.	60260.	42.	6.	0.	2790.	0.
HB	2298.	39491.	59068.	112.	0.	0.	5670.	0.
HB	2299.	38871.	59357.	54.	0.	10.	3230.	0.
HB	2300.	39482.	59036.	6.	0.	0.	420.	0.
HB	2301.	38063.	59016.	71.	1.	0.	4190.	1.
HB	2302.	38055.	59387.	19.	2.	0.	1720.	0.
HB	2303.	38387.	58641.	18.	1.	0.	1680.	0.
HB	2304.	37463.	60340.	7.	4.	0.	1670.	1.
HB	2305.	38046.	59247.	62.	1.	0.	2620.	0.
HB	2308.	37540.	60285.	26.	2.	0.	740.	0.
HB	2310.	37677.	60568.	0.	0.	0.	3760.	0.
HB	2311.	38007.	58337.	35.	4.	0.	1600.	0.
HB	2312.	37454.	60272.	26.	0.	0.	960.	0.
HB	2313.	37712.	58436.	35.	0.	0.	1940.	0.
HB	2314.	38447.	58033.	35.	0.	0.	3060.	0.
HB	2315.	39190.	59333.	144.	1.	0.	8870.	0.
HB	2318.	37685.	60561.	25.	6.	0.	850.	0.
HB	2319.	38367.	58547.	27.	0.	0.	960.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES: (G) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2321.	37767.	58469.	15.	0.	0.	900.	1.
HB	2322.	37420.	58244.	29.	0.	0.	1450.	0.
HB	2323.	38104.	58076.	42.	0.	0.	3830.	0.
HB	2324.	37974.	58332.	7.	0.	0.	1000.	0.
HB	2325.	37129.	60113.	42.	0.	10.	3730.	2.
HB	2326.	37491.	58322.	37.	0.	0.	1720.	0.
HB	2327.	38828.	58078.	11.	0.	0.	670.	1.
HB	2328.	37975.	58729.	0.	0.	0.	660.	1.
HB	2332.	37986.	59506.	20.	0.	0.	2490.	0.
HB	2333.	37388.	60265.	530.	0.	50.	30890.	3.
HB	2331.	37892.	58427.	11.	2.	0.	1410.	0.
HB	2339.	38106.	58005.	52.	9.	0.	4880.	0.
HB	2336.	37697.	58372.	32.	0.	0.	3280.	1.
HB	2337.	38333.	58029.	13.	0.	0.	1240.	0.
HB	2339.	37562.	58337.	4.	0.	0.	1110.	0.
HB	2340.	37341.	58248.	21.	0.	0.	410.	0.
HB	2341.	38059.	59261.	47.	2.	0.	4300.	0.
HB	2342.	38205.	57995.	28.	2.	0.	3410.	0.
HB	2344.	38246.	58072.	29.	8.	0.	2340.	0.
HB	2345.	38034.	59125.	26.	2.	0.	530.	0.
HB	2347.	38053.	59115.	8.	2.	0.	970.	0.
HB	2348.	37461.	58291.	119.	1.	10.	13760.	1.
HB	2349.	38062.	59336.	30.	5.	0.	1970.	0.
HB	2350.	37706.	58384.	19.	0.	0.	1460.	0.
HB	2351.	37495.	58255.	29.	5.	0.	2890.	0.
HB	2352.	37715.	58559.	9.	0.	0.	520.	1.
HB	2354.	36067.	59196.	10.	3.	0.	710.	1.
HB	2355.	37494.	60282.	12.	3.	0.	840.	0.
HB	2356.	37675.	60655.	35.	3.	0.	660.	2.
HB	2357.	37609.	58305.	2.	5.	0.	1660.	1.
HB	2358.	37424.	58409.	29.	1.	0.	870.	1.
HB	2359.	38705.	58050.	21.	0.	0.	1950.	2.
HB	2360.	37673.	58355.	9.	0.	0.	1980.	2.
HB	2361.	36394.	58645.	2.	0.	0.	580.	0.
HB	2362.	38405.	58596.	10.	0.	0.	660.	2.
HB	2363.	38079.	58528.	36.	3.	10.	4070.	0.
HB	2364.	38097.	59170.	15.	0.	0.	460.	0.
HB	2365.	38006.	58370.	11.	0.	0.	880.	1.
HB	2366.	37582.	60520.	21.	0.	0.	1420.	1.
HB	2368.	37685.	60639.	13.	0.	0.	890.	2.
HB	2369.	38377.	58545.	17.	1.	0.	1010.	1.
HB	2371.	37304.	60258.	0.	0.	0.	430.	0.
HB	2372.	38071.	58607.	0.	0.	0.	270.	0.
HB	2373.	37304.	60264.	12.	0.	0.	460.	0.
HB	2374.	39260.	59131.	45.	1.	0.	2110.	1.
HB	2375.	38656.	58072.	32.	1.	0.	950.	1.
HB	2376.	38048.	58538.	19.	1.	0.	1240.	2.
HB	2377.	38811.	58050.	16.	0.	0.	970.	0.
HB	2378.	38025.	58367.	27.	0.	0.	1940.	0.
HB	2379.	37567.	60428.	22.	2.	0.	2910.	3.
HB	2381.	37864.	58355.	0.	0.	0.	770.	1.
HB	2382.	37638.	60357.	55.	0.	10.	3670.	1.
HB	2384.	37149.	60113.	56.	2.	10.	4000.	0.
HB	2386.	38036.	59043.	91.	0.	10.	4410.	0.
HB	2387.	38072.	59422.	26.	0.	0.	2130.	0.
HB	2388.	38126.	59048.	86.	0.	0.	3930.	0.
HB	2389.	38058.	58128.	33.	0.	0.	1720.	0.

I.G.S. G-EXEC/G-UTIL/GXEROX ON FILE TEMPFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

DATA DESCRIPTION

FILE TITLE :TEMPFILE

NO. OF FIELDS : 10 NO. OF RECORDS : 77 WORDS PER RECORD : 10

CARD INPUT FORMAT

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
FIELD LENGTH	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
FIELD TYPE	A	F	F	F	F	F	F	F	F	
UPPER LIMIT										
LOWER LIMIT	BF	5817.	39349.	67457.	32040.	576.	394.	342.	97.	40.
ABSENT DATA VALUE	BF	5236.	36150.	63512.	116.	10.	28.	0.	12.	0.
DICTIONARY SEGMENT IDENTIFIER		-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TI
BF	5236.	37516.	65405.	724.	66.	146.	0.	45.	7.
BF	5238.	37562.	65458.	3472.	51.	150.	0.	48.	4.
BF	5239.	37580.	65465.	303.	41.	54.	0.	18.	6.
BF	5246.	37877.	65974.	743.	36.	93.	0.	34.	5.
BF	5249.	37623.	65412.	191.	87.	120.	0.	48.	8.
BF	5519.	36590.	64998.	159.	17.	150.	0.	28.	3.
BF	5544.	37238.	65130.	17243.	24.	107.	0.	45.	0.
BF	5549.	37417.	65300.	365.	65.	170.	0.	37.	8.
	5550.	37309.	65222.	598.	48.	189.	0.	68.	12.
BF	5555.	37061.	67457.	3464.	576.	230.	64.	45.	3.
BF	5556.	37059.	67429.	1484.	260.	353.	0.	59.	3.
BF	5557.	36988.	67420.	3474.	543.	329.	4.	44.	5.
BF	5558.	36988.	67403.	3121.	93.	254.	54.	60.	6.
BF	5559.	36911.	67389.	1160.	112.	361.	6.	68.	16.
BF	5560.	36842.	67303.	10619.	72.	264.	1.	62.	11.
BF	5561.	37502.	64944.	200.	80.	345.	9.	83.	13.
BF	5562.	37425.	64874.	273.	209.	274.	3.	72.	10.
BF	5563.	37430.	64782.	174.	87.	259.	8.	70.	7.
BF	5564.	37347.	64762.	144.	49.	195.	1.	46.	5.
BF	5565.	37339.	64781.	216.	56.	128.	342.	35.	11.
BF	5566.	37289.	64812.	240.	217.	304.	4.	66.	8.
BF	5575.	38896.	65412.	228.	40.	148.	2.	47.	7.
BF	5576.	37501.	66970.	166.	28.	65.	1.	21.	2.
BF	5577.	37410.	66891.	124.	69.	231.	0.	50.	2.
BF	5580.	37392.	66832.	623.	38.	161.	0.	33.	9.
BF	5581.	37408.	66842.	158.	30.	155.	2.	32.	0.
BF	5582.	37301.	66858.	174.	24.	97.	2.	30.	4.
BF	5584.	38385.	65598.	116.	145.	169.	9.	75.	11.
BF	5599.	38889.	65533.	503.	98.	200.	80.	32.	8.
BF	5600.	38881.	65580.	313.	28.	134.	20.	19.	2.
BF	5640.	36646.	65600.	259.	50.	147.	2.	60.	1.
BF	5648.	38081.	65951.	243.	19.	42.	9.	14.	5.
BF	5650.	38061.	65726.	593.	16.	90.	3.	24.	3.
BF	5652.	38300.	65738.	203.	27.	94.	0.	34.	3.
BF	5663.	37347.	67321.	655.	39.	81.	12.	27.	5.
BF	5664.	37320.	67280.	156.	13.	28.	9.	22.	1.
BF	5665.	37229.	67321.	9360.	68.	179.	11.	48.	40.
BF	5667.	37068.	67241.	7227.	45.	141.	16.	55.	2.
BF	5669.	37058.	67252.	3069.	28.	117.	5.	35.	3.
BF	5670.	37476.	65067.	1718.	25.	86.	18.	28.	3.
BF	5671.	37596.	65122.	341.	46.	270.	2.	41.	10.
BF	5673.	37603.	65060.	312.	29.	76.	25.	24.	9.
BF	5674.	37680.	65046.	205.	52.	193.	2.	32.	4.
BF	5675.	37589.	65011.	183.	46.	98.	0.	36.	0.
BF	5683.	37232.	67005.	463.	12.	58.	10.	38.	2.
BF	5685.	37282.	67063.	1305.	91.	149.	14.	41.	16.
BF	5686.	37305.	67095.	6562.	114.	334.	4.	53.	11.
BF	5688.	37468.	67028.	491.	45.	220.	30.	39.	6.
BF	5689.	37454.	67030.	864.	43.	87.	11.	31.	12.
BF	5695.	38380.	65453.	1931.	88.	229.	31.	60.	18.
BF	5697.	37554.	65011.	175.	27.	33.	1.	14.	2.
BF	5698.	37559.	64921.	213.	10.	28.	2.	12.	0.
BF	5759.	37240.	67223.	32040.	87.	180.	29.	59.	4.
BF	5760.	37320.	67223.	10920.	36.	127.	6.	46.	2.
BF	5761.	37383.	67168.	335.	30.	93.	1.	25.	6.
BF	5763.	37532.	67102.	144.	48.	113.	0.	32.	28.
BF	5764.	37543.	67171.	126.	25.	84.	0.	32.	0.

I.G.S. G-EXEC/G-UTIL/GXEROX ON FILE TEMPFILE
****

C.C.JOHNSON IGS KEYWORTH PAGE 3 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 10 NO. OF RECORDS : 125 WORDS PER RECORD : 10

CARD INPUT FORMAT

BOREHOLE NUMBER	CERIUM	CALCIUM	IRON	MN	TITANIUM	RUBIDIUM	ZR	TIN
FIELD LENGTH								
** **	** **	** **	** **	** **	** **	** **	** **	** **
FIELD TYPE								
F F	F	F	F	F	F	F	F	F
UPPER LIMIT								
4.	2426.	114.	447990.	110340.	4680.	15910.	177.	492.	18.
LOWER LIMIT								
1.	2000.	0.	1570.	3970.	60.	50.	0.	0.	0.
ABSENT DATA VALUE								
-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.
DICTIONARY SEGMENT IDENTIFIER								

CHEMICAL ANALYSES FOR NEWBROUGH BOREHOLES (DEPTHS IN METRES): LIST A

BOREHOLE	NUMBER	DEPTH1	DEPTH2	BARIUM	LEAD	ZINC	COPPER	NICKEL	SR
4.	2417.	137.	137.	525.	20.	115.	73.	51.	371.
4.	2418.	138.	139.	556.	23.	121.	85.	50.	380.
4.	2419.	139.	140.	512.	7.	114.	76.	50.	376.
4.	2420.	140.	141.	395.	21.	160.	79.	52.	400.
4.	2421.	141.	141.	264.	46.	152.	44.	23.	121.
4.	2422.	141.	142.	337.	44.	69.	29.	63.	370.
4.	2423.	142.	143.	342.	21.	24.	96.	13.	1142.
4.	2424.	145.	146.	278.	288.	1057.	15.	11.	228.
4.	2425.	148.	149.	1055.	64.	202.	29.	72.	257.
4.	2426.	149.	151.	1885.	24.	31.	29.	70.	563.
-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

MAKE TEMPFILE

G-EXEC/G-UTIL/GPROJECT ON FILE WORKFILE
****

C.C.JOHNSON IGS KEYWORTH PAGE 3 03NOV8:
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

I.G.S. G-EXEC/G-UTIL/GXEROX ON FILE WORKFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

DATA DESCRIPTION

FILE TITLE :WORKFILE

NO. OF FIELDS : 9 NO. OF RECORDS : 1997 WORDS PER RECORD : 9

CARD INPUT FORMAT

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
FIELD LENGTH								
I ** **	** **	** **	** **	** **	** **	** **	** **	** ** ** ** **
FIELD TYPE								
A	F	F	F	F	F	F	F	
UPPER LIMIT								
ZZ	342299.	42540.	62428.	179000.	29000.	17000.	220.	18.
LOWER LIMIT								
HB	500.	33870.	55868.	24.	10.	16.	0.	0.
ABSENT DATA VALUE								
	-1.	-1.	1.	-1.	-1.	-1.	-1.	-1.

DICTIONARY SEGMENT IDENTIFIER

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	500.	37111.	56222.	785.	90.	300.	20.	1.
NB	502.	37832.	56088.	1358.	140.	360.	15.	1.
NB	503.	37321.	55983.	866.	50.	230.	30.	0.
NB	504.	38722.	56753.	1373.	150.	280.	20.	0.
NB	505.	38264.	56650.	34000.	4300.	3800.	40.	4.
NB	507.	38610.	56966.	665.	70.	250.	25.	1.
NB	509.	37881.	56174.	965.	90.	180.	25.	0.
NB	510.	37869.	56966.	889.	60.	230.	20.	1.
NB	511.	38418.	56900.	380.	60.	270.	15.	0.
NB	512.	37500.	56660.	512.	100.	510.	20.	0.
NB	513.	38050.	56566.	114.	70.	240.	10.	1.
NB	514.	38640.	56812.	162200.	26000.	15000.	220.	5.
NB	515.	38800.	56136.	528.	100.	170.	15.	0.
NB	518.	38450.	56231.	429.	100.	140.	20.	1.
NB	519.	38058.	56103.	2381.	150.	440.	20.	1.
NB	520.	37320.	56234.	569.	90.	90.	10.	1.
NB	521.	38650.	56095.	1468.	100.	430.	20.	0.
NB	522.	38702.	56808.	106600.	21000.	12000.	110.	18.
NB	523.	38066.	56569.	868.	70.	230.	15.	1.
NB	524.	37658.	56029.	720.	100.	160.	20.	0.
NB	525.	38704.	56930.	970.	80.	180.	20.	1.
NB	526.	37644.	56250.	799.	100.	180.	25.	1.
NB	527.	37381.	56240.	474.	520.	30.	20.	1.
NB	528.	37.53.	56039.	472.	110.	120.	25.	1.
NB	529.	38914.	56478.	629.	160.	340.	20.	0.
NB	531.	37310.	55943.	848.	100.	130.	20.	1.
NB	532.	38031.	56067.	356.	100.	140.	15.	1.
NB	535.	38550.	56436.	560.	70.	160.	20.	1.
NB	536.	37450.	56039.	852.	110.	110.	25.	1.
NB	537.	37589.	56651.	533.	100.	350.	25.	1.
NB	538.	38890.	56420.	1023.	140.	260.	20.	1.
NB	539.	37470.	56696.	829.	130.	280.	25.	1.
NB	540.	38618.	56440.	860.	100.	320.	30.	1.
NB	541.	37190.	56190.	728.	380.	1200.	20.	1.
NB	543.	37468.	56309.	511.	1400.	160.	20.	1.
NB	544.	38284.	56682.	408.	60.	140.	10.	1.
NB	546.	37119.	55960.	829.	350.	310.	20.	0.
NB	547.	38322.	56248.	869.	129.	150.	20.	0.
NB	548.	37870.	56193.	974.	80.	90.	10.	0.
NB	549.	37853.	56072.	930.	120.	210.	20.	1.
NB	550.	38725.	56818.	536.	90.	160.	20.	0.
NB	551.	37741.	56073.	1646.	90.	440.	20.	0.
NB	552.	38468.	56891.	482.	60.	180.	25.	0.
NB	553.	37931.	56211.	808.	140.	200.	20.	0.
NB	556.	38978.	56521.	1429.	50.	140.	25.	1.
NB	557.	38412.	56885.	637.	80.	200.	20.	0.
NB	558.	38224.	56041.	903.	110.	250.	20.	0.
NB	559.	37990.	56100.	716.	80.	90.	25.	1.
NB	560.	38200.	56746.	-1.	110.	170.	10.	1.
NB	561.	37260.	56259.	1029.	120.	1200.	20.	0.
NB	562.	37690.	56660.	463.	90.	130.	25.	0.
NB	563.	38291.	56340.	618.	70.	120.	20.	0.
NB	565.	37705.	56334.	1303.	170.	220.	25.	1.
NB	566.	37658.	56233.	469.	2600.	320.	10.	1.
NB	567.	37623.	56280.	820.	140.	400.	10.	1.
NB	568.	37705.	56090.	592.	100.	120.	15.	1.
NB	569.	38230.	56573.	6055.	370.	330.	40.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	570.	37571.	56180.	1641.	120.	610.	10.	1.
NB	571.	37619.	56256.	895.	210.	400.	15.	1.
NB	572.	37476.	56192.	765.	210.	160.	15.	1.
NB	573.	38885.	56160.	835.	110.	260.	15.	1.
NB	574.	37050.	56260.	1021.	140.	700.	15.	1.
NB	575.	38722.	56753.	915.	110.	190.	20.	1.
NB	576.	38529.	56836.	614.	60.	140.	20.	1.
NB	577.	38638.	56894.	965.	150.	250.	20.	1.
NB	579.	37902.	56359.	649.	2300.	340.	30.	0.
NB	580.	37620.	56670.	522.	70.	310.	25.	1.
NB	581.	38525.	56988.	602.	60.	240.	25.	1.
NB	583.	38359.	56172.	474.	330.	220.	20.	1.
NB	584.	37847.	56120.	668.	110.	170.	20.	1.
NB	585.	37207.	55940.	862.	320.	390.	20.	1.
NB	586.	38730.	56757.	85200.	11500.	14500.	110.	15.
NB	587.	37070.	56030.	587.	80.	220.	20.	1.
NB	588.	38932.	56502.	597.	80.	240.	30.	0.
NB	589.	38551.	56455.	179000.	29000.	17000.	20.	14.
NB	590.	37189.	55940.	702.	160.	2000.	25.	0.
NB	591.	37915.	56090.	674.	80.	150.	25.	0.
NB	592.	38595.	56280.	1114.	90.	300.	25.	1.
NB	593.	38471.	56046.	764.	110.	220.	15.	0.
NB	594.	37230.	56184.	1322.	120.	960.	15.	0.
NB	595.	38108.	56059.	1085.	140.	200.	25.	0.
NB	596.	37207.	55940.	874.	330.	400.	20.	1.
NB	597.	37620.	56076.	1066.	110.	350.	20.	1.
NB	598.	38738.	56920.	469.	70.	160.	25.	1.
NB	599.	38229.	56504.	43800.	7000.	12000.	120.	12.
NB	600.	38750.	56180.	459.	160.	130.	20.	1.
NB	601.	37370.	57040.	476.	60.	180.	10.	1.
NB	602.	39041.	56922.	390.	30.	110.	20.	1.
NB	603.	37749.	56770.	502.	40.	210.	25.	1.
NB	604.	37780.	56545.	361.	50.	300.	20.	1.
NB	605.	38500.	57395.	537.	40.	300.	20.	1.
NB	6 6.	37637.	56577.	534.	60.	120.	20.	1.
NB	6 7.	38400.	57400.	344.	40.	110.	15.	0.
NB	608.	38645.	57405.	464.	70.	260.	20.	1.
NB	610.	38607.	56680.	2061.	80.	130.	20.	1.
NB	611.	38650.	57380.	402.	30.	190.	25.	1.
NB	612.	37300.	56998.	520.	30.	220.	20.	1.
NB	613.	38300.	57260.	794.	40.	280.	15.	1.
NB	615.	38238.	56910.	577.	60.	220.	20.	1.
NB	616.	37979.	56609.	374.	60.	110.	20.	1.
NB	617.	37958.	56500.	906.	80.	600.	30.	1.
NB	618.	37986.	57319.	470.	70.	270.	20.	0.
NB	620.	38490.	57467.	442.	70.	300.	20.	0.
NB	623.	37982.	56790.	604.	50.	260.	20.	0.
NB	624.	37089.	56975.	398.	40.	180.	20.	1.
NB	626.	37143.	56785.	577.	60.	310.	20.	1.
NB	628.	37956.	56870.	353.	90.	220.	20.	0.
NB	629.	38559.	56748.	518.	60.	180.	10.	1.
NB	630.	37211.	56860.	560.	40.	270.	20.	1.
NB	631.	38641.	57306.	483.	40.	240.	20.	1.
NB	632.	38705.	57243.	530.	40.	280.	20.	1.
NB	633.	38012.	57130.	428.	50.	460.	15.	1.
NB	634.	37300.	56760.	511.	30.	220.	20.	1.
NB	635.	38422.	57213.	1000.	50.	410.	20.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1314.	40618.	59599.	672.	50.	150.	15.	0.
HB	1315.	40240.	59436.	617.	80.	170.	10.	0.
HB	1316.	40037.	58708.	544.	40.	90.	20.	0.
HB	1318.	40416.	59072.	4420.	50.	270.	15.	0.
HB	1319.	40100.	59270.	489.	40.	230.	10.	0.
HB	1320.	40520.	59590.	1100.	50.	360.	10.	0.
HB	1321.	40652.	59491.	417.	40.	70.	10.	0.
HB	1322.	40890.	60023.	590.	50.	140.	20.	0.
HB	1323.	40409.	59545.	372.	80.	115.	0.	0.
HB	1324.	40770.	59802.	639.	40.	150.	15.	1.
HB	1325.	40545.	59558.	638.	60.	170.	10.	0.
HB	1326.	40752.	59668.	705.	50.	230.	20.	0.
HB	1327.	40446.	59607.	602.	40.	260.	10.	0.
HB	1328.	41433.	58887.	377.	50.	90.	15.	0.
HB	1330.	40473.	59561.	578.	30.	80.	10.	0.
HB	1331.	40321.	59353.	836.	90.	250.	15.	1.
HB	1332.	39762.	58959.	790.	90.	180.	10.	1.
HB	1333.	40241.	59040.	383.	60.	420.	10.	0.
HB	1334.	40959.	59872.	798.	40.	170.	25.	0.
HB	1335.	40584.	59588.	645.	40.	200.	20.	1.
HB	1336.	40794.	59790.	1170.	30.	160.	15.	1.
HB	1337.	40685.	59361.	794.	40.	300.	15.	1.
HB	1338.	40544.	59338.	505.	30.	140.	10.	0.
HB	1339.	40470.	59672.	875.	70.	200.	10.	1.
HB	1340.	40304.	59444.	1050.	70.	290.	20.	0.
HB	1341.	40728.	59792.	569.	40.	200.	29.	1.
HB	1342.	40164.	59369.	512.	80.	120.	5.	0.
HB	1343.	40009.	59024.	627.	90.	280.	15.	1.
HB	1344.	40336.	59708.	707.	60.	130.	20.	1.
HB	1345.	40568.	58852.	703.	70.	140.	10.	0.
HB	1346.	40583.	58538.	449.	50.	100.	10.	0.
HB	1347.	40184.	59087.	437.	120.	260.	10.	0.
HB	1348.	40752.	59728.	637.	60.	90.	15.	0.
HB	1349.	40545.	59558.	454.	70.	150.	10.	1.
HB	1351.	41310.	59063.	715.	30.	100.	10.	1.
HB	1352.	39720.	59040.	504.	60.	150.	15.	0.
HB	1353.	40837.	59860.	550.	40.	120.	10.	0.
HB	1354.	40360.	58540.	318.	20.	70.	0.	0.
HB	1355.	40075.	59038.	651.	70.	210.	10.	0.
HB	1356.	40649.	59797.	690.	40.	140.	10.	1.
HB	1357.	40210.	59383.	597.	70.	220.	5.	0.
HB	1358.	40304.	59444.	897.	70.	210.	15.	0.
HB	1359.	40209.	59039.	670.	40.	150.	5.	0.
HB	1361.	40583.	59260.	821.	50.	180.	10.	0.
HB	1362.	40323.	59341.	1130.	80.	240.	20.	1.
HB	1363.	39996.	58852.	428.	20.	140.	0.	0.
HB	1364.	40160.	59360.	915.	60.	210.	5.	0.
HB	1365.	40085.	59090.	797.	80.	140.	15.	0.
HB	1366.	40612.	59802.	894.	60.	180.	5.	0.
HB	1367.	40005.	59046.	439.	60.	150.	10.	0.
HB	1368.	40464.	59330.	674.	70.	220.	10.	0.
HB	1369.	40479.	59552.	845.	50.	200.	5.	0.
HB	1370.	40272.	58508.	387.	60.	110.	15.	0.
HB	1371.	39970.	58925.	715.	30.	210.	0.	0.
HB	1372.	40649.	59347.	530.	40.	250.	35.	1.
HB	1373.	40521.	59559.	389.	30.	90.	10.	0.
HB	1374.	40350.	59373.	921.	30.	90.	0.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1375.	40480.	59741.	506.	40.	110.	10.	0.
HB	1376.	40801.	58790.	495.	30.	90.	10.	1.
HB	1377.	40509.	59474.	579.	50.	90.	0.	0.
HB	1379.	40710.	59642.	573.	50.	170.	15.	1.
HB	1380.	40517.	59234.	565.	60.	70.	10.	1.
HB	1381.	40985.	59950.	633.	70.	160.	30.	0.
HB	1382.	40730.	59628.	642.	60.	160.	15.	0.
HB	1383.	40558.	59545.	957.	30.	70.	10.	0.
HB	1384.	39805.	59005.	781.	80.	210.	5.	0.
HB	1385.	40939.	59872.	677.	40.	140.	20.	0.
HB	1386.	40255.	58970.	576.	50.	300.	5.	0.
HB	1388.	40590.	59340.	842.	90.	360.	20.	0.
HB	1389.	40305.	60020.	1100.	60.	350.	15.	1.
HB	1390.	40290.	59751.	653.	80.	200.	10.	1.
HB	1391.	40730.	58807.	413.	50.	140.	10.	1.
HB	1392.	40876.	59842.	723.	50.	130.	10.	0.
HB	1394.	40641.	59312.	464.	40.	110.	10.	0.
HB	1395.	40635.	58830.	446.	30.	110.	5.	0.
HB	1396.	40791.	58766.	364.	40.	80.	10.	0.
HB	1397.	40603.	59770.	1280.	30.	100.	5.	0.
HB	1398.	40355.	59632.	348.	50.	110.	5.	0.
HB	1399.	40101.	59300.	834.	270.	200.	15.	0.
HB	1400.	40853.	59804.	601.	40.	80.	20.	0.
HB	1403.	41113.	59433.	441.	20.	50.	10.	0.
HB	1405.	40884.	59564.	960.	50.	140.	15.	0.
HB	1407.	40976.	59707.	698.	40.	120.	15.	0.
HB	1408.	40065.	59700.	345.	10.	10.	0.	0.
HB	1409.	39880.	59550.	441.	20.	50.	10.	0.
HB	1411.	41373.	59014.	444.	40.	90.	20.	0.
HB	1413.	41140.	59608.	613.	30.	130.	10.	0.
HB	1414.	39337.	58247.	373.	40.	120.	10.	0.
HB	1415.	40813.	59601.	438.	40.	150.	10.	0.
HB	1416.	39976.	59487.	391.	30.	30.	5.	1.
HB	1417.	41110.	58970.	1150.	40.	140.	10.	1.
HB	1419.	40060.	59692.	551.	60.	40.	5.	1.
HB	1421.	41060.	59398.	397.	20.	100.	5.	0.
HB	1423.	39858.	59350.	699.	40.	150.	10.	0.
HB	1425.	40059.	59529.	586.	40.	50.	5.	0.
HB	1427.	41352.	59867.	474.	20.	60.	15.	1.
HB	1429.	41243.	59051.	531.	20.	50.	5.	0.
HB	1430.	39244.	58000.	204.	20.	80.	5.	0.
HB	1432.	39206.	58118.	212.	20.	150.	10.	0.
HB	1434.	40150.	59517.	790.	50.	120.	10.	0.
HB	1435.	41478.	58966.	507.	20.	90.	10.	0.
HB	1436.	41163.	59620.	763.	20.	70.	10.	0.
HB	1438.	41417.	58895.	319.	20.	140.	10.	0.
HB	1440.	41416.	58796.	491.	10.	80.	10.	0.
HB	1441.	39447.	58055.	224.	20.	160.	10.	0.
HB	1444.	41262.	59792.	651.	20.	50.	10.	0.
HB	1446.	40610.	59710.	582.	20.	80.	10.	0.
HB	1450.	41475.	58664.	368.	10.	80.	10.	0.
HB	1451.	40595.	59728.	505.	20.	60.	5.	0.
HB	1452.	40084.	59646.	595.	50.	100.	10.	0.
HB	1453.	39916.	59287.	869.	70.	290.	10.	0.
HB	1454.	41222.	59713.	1280.	30.	100.	15.	0.
HB	1457.	39270.	58090.	200.	20.	100.	10.	0.
HB	1459.	40006.	59254.	760.	40.	330.	5.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1460.	39348.	58243.	502.	60.	390.	10.	0.
HB	1462.	41370.	58777.	392.	10.	80.	10.	0.
HB	1463.	39792.	59383.	502.	30.	80.	5.	0.
HB	1464.	39321.	58028.	270.	40.	180.	10.	0.
HB	1465.	41288.	58718.	222.	30.	80.	10.	0.
HB	1466.	41256.	58919.	655.	30.	100.	10.	0.
HB	1467.	41358.	59598.	292.	50.	110.	15.	0.
HB	1469.	40051.	59520.	430.	50.	80.	10.	0.
HB	1471.	40165.	59600.	478.	80.	110.	10.	0.
HB	1472.	41272.	58930.	573.	40.	100.	10.	0.
HB	1473.	41334.	59806.	524.	20.	80.	10.	1.
HB	1474.	39252.	58183.	611.	60.	430.	10.	1.
HB	1475.	40606.	59800.	533.	30.	220.	10.	1.
HB	1476.	40530.	59732.	359.	30.	50.	5.	1.
HB	1477.	40928.	59656.	434.	40.	110.	15.	1.
HB	1478.	41367.	58852.	692.	20.	90.	10.	1.
HB	1479.	41359.	59712.	646.	40.	80.	10.	0.
HB	1480.	41146.	59479.	362.	20.	90.	0.	0.
HB	1482.	40004.	59560.	632.	20.	30.	0.	0.
HB	1485.	41335.	58909.	282.	20.	50.	5.	0.
HB	1487.	41136.	59547.	273.	10.	40.	0.	0.
HB	1489.	41145.	58920.	429.	30.	120.	15.	1.
HB	1491.	39858.	59350.	661.	50.	200.	10.	1.
HB	1492.	41417.	58895.	426.	20.	70.	10.	0.
HB	1494.	40914.	59653.	506.	40.	180.	15.	1.
HB	1496.	41095.	59400.	235.	30.	90.	5.	1.
HB	1500.	41192.	59054.	692.	40.	140.	15.	1.
HB	1501.	40207.	60123.	467.	40.	90.	10.	0.
HB	1502.	42040.	59227.	659.	30.	110.	10.	0.
HB	1503.	41348.	59361.	856.	40.	120.	10.	1.
HB	1504.	40278.	60416.	628.	50.	70.	10.	1.
HB	1505.	39591.	60798.	795.	60.	180.	25.	1.
HB	1506.	41628.	59452.	704.	40.	100.	15.	1.
HB	1507.	40878.	60215.	857.	30.	200.	5.	0.
HB	1508.	41482.	59368.	734.	50.	160.	15.	1.
HB	1509.	41780.	59722.	279.	40.	120.	15.	1.
HB	1510.	41723.	59728.	656.	50.	130.	25.	1.
HB	1511.	39937.	60848.	906.	70.	240.	20.	1.
HB	1512.	41118.	59865.	862.	50.	170.	20.	1.
HB	1513.	42013.	59608.	193.	50.	100.	20.	1.
HB	1514.	41969.	59380.	692.	40.	100.	20.	1.
HB	1515.	41612.	59686.	753.	70.	140.	20.	1.
HB	1516.	41237.	59896.	725.	50.	150.	20.	1.
HB	1517.	41038.	59801.	728.	50.	180.	20.	1.
HB	1518.	40145.	60232.	664.	50.	150.	25.	1.
HB	1519.	39950.	60722.	858.	50.	130.	20.	1.
HB	1520.	41232.	59887.	680.	60.	260.	20.	1.
HB	1521.	40868.	60245.	1480.	40.	80.	10.	1.
HB	1522.	40827.	60262.	1130.	70.	440.	15.	1.
HB	1523.	40427.	60098.	463.	40.	140.	10.	1.
HB	1524.	40207.	60123.	539.	30.	70.	10.	1.
HB	1526.	41960.	59946.	409.	40.	100.	10.	1.
HB	1527.	41790.	59630.	718.	40.	140.	20.	1.
HB	1528.	40970.	59890.	685.	30.	120.	20.	1.
HB	1529.	41440.	59380.	760.	40.	150.	15.	1.
HB	1530.	40045.	60477.	661.	40.	120.	15.	0.
HB	1531.	41836.	59121.	551.	70.	190.	20.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	2343.	38062.	59336.	350.	60.	80.	10.	1.
NB	2344.	38242.	58875.	339.	60.	50.	10.	1.
NB	2345.	38034.	59122.	645.	30.	220.	5.	0.
NB	2347.	38053.	59115.	494.	70.	500.	10.	1.
NB	2348.	37461.	58291.	390.	50.	220.	15.	0.
NB	2349.	38062.	59336.	301.	70.	100.	5.	0.
NB	2350.	37352.	58324.	208.	40.	60.	10.	0.
NB	2351.	37489.	58855.	232.	100.	70.	10.	1.
NB	2352.	37715.	58859.	341.	60.	120.	5.	1.
NB	2353.	37414.	58409.	349.	60.	120.	10.	0.
NB	2354.	38062.	59336.	301.	60.	90.	5.	0.
NB	2355.	37494.	60282.	463.	40.	210.	20.	0.
NB	2356.	37675.	60655.	295.	50.	130.	20.	0.
NB	2357.	37609.	58305.	463.	60.	210.	15.	0.
NB	2358.	37414.	58409.	331.	60.	90.	5.	0.
NB	2359.	38705.	58050.	535.	40.	90.	15.	0.
NB	2360.	37673.	59355.	491.	40.	130.	15.	0.
NB	2362.	38394.	58645.	380.	40.	120.	10.	0.
NB	2363.	38405.	58596.	333.	40.	110.	5.	0.
NB	2364.	38079.	58528.	340.	30.	140.	10.	0.
NB	2364.	38097.	59170.	302.	20.	120.	10.	0.
NB	2365.	38006.	58370.	451.	40.	150.	10.	0.
NB	2366.	37552.	60520.	485.	150.	220.	15.	1.
NB	2368.	37688.	60639.	408.	50.	270.	20.	1.
NB	2369.	38377.	58545.	405.	30.	110.	10.	0.
NB	2371.	37304.	60258.	527.	40.	190.	20.	1.
NB	2372.	38071.	58607.	415.	30.	190.	10.	0.
NB	2373.	37304.	60264.	559.	40.	250.	20.	1.
NB	2374.	39260.	59131.	895.	50.	590.	15.	1.
NB	2375.	38696.	58072.	464.	40.	660.	10.	1.
NB	2376.	38048.	58538.	310.	30.	150.	10.	0.
NB	2377.	38811.	58050.	396.	30.	170.	15.	1.
NB	2378.	38025.	58367.	514.	50.	180.	15.	1.
NB	2379.	37567.	60428.	549.	80.	430.	20.	1.
NB	2381.	37864.	58355.	531.	40.	220.	15.	0.
NB	2382.	37618.	60357.	488.	40.	220.	20.	1.
NB	2384.	37149.	60113.	268.	40.	90.	15.	0.
NB	2386.	38036.	59045.	308.	60.	110.	15.	1.
NB	2387.	38072.	59422.	447.	60.	100.	20.	1.
NB	2388.	38126.	59048.	747.	40.	280.	15.	1.
NB	2389.	38058.	58128.	335.	20.	60.	10.	0.
NB	2390.	37207.	60214.	478.	50.	280.	20.	1.
NB	2391.	38007.	59456.	258.	40.	50.	10.	0.
NB	2392.	37232.	60224.	413.	40.	200.	20.	1.
NB	2393.	37698.	58302.	309.	50.	90.	10.	0.
NB	2394.	38883.	57995.	864.	160.	770.	10.	0.
NB	2395.	37659.	60307.	506.	50.	270.	20.	1.
NB	2396.	38091.	59022.	563.	30.	200.	20.	1.
NB	2397.	37619.	60353.	511.	70.	350.	20.	1.
NB	2398.	37641.	60442.	507.	50.	190.	25.	1.
NB	2400.	37249.	58288.	317.	50.	100.	10.	1.
NB	2401.	36848.	58896.	239.	40.	55.	10.	1.
NB	2402.	38038.	59900.	276.	20.	40.	10.	1.
NB	2404.	37929.	59712.	325.	50.	110.	10.	0.
NB	2405.	37748.	59420.	313.	40.	60.	5.	1.
NB	2407.	37175.	58491.	317.	40.	80.	10.	1.
NB	2408.	37272.	59892.	334.	40.	90.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	2271.	38060.	58801.	246.	30.	100.	15.	1.
NB	2273.	38243.	58307.	274.	30.	60.	10.	0.
NB	2274.	38989.	58260.	463.	30.	150.	10.	0.
NB	2276.	38360.	58495.	433.	30.	150.	10.	0.
NB	2277.	38971.	58496.	284.	50.	140.	15.	0.
NB	2278.	38911.	58574.	363.	30.	150.	15.	1.
NB	2280.	38430.	58405.	425.	30.	140.	15.	1.
NB	2281.	39306.	59158.	697.	50.	300.	15.	1.
NB	2282.	38157.	60416.	492.	40.	180.	15.	0.
NB	2284.	38172.	58728.	419.	60.	130.	15.	0.
NB	2285.	39360.	58455.	639.	60.	180.	10.	0.
NB	2286.	39501.	58633.	487.	20.	130.	15.	0.
NB	2287.	38141.	58492.	450.	40.	130.	15.	0.
NB	2288.	39494.	58074.	484.	70.	240.	15.	1.
NB	2289.	38300.	58795.	593.	50.	250.	10.	0.
NB	2291.	39445.	58629.	569.	70.	[illegible]	10.	0.
NB	2292.	38119.	58552.	377.	60.	110.	15.	0.
NB	2293.	39436.	58642.	722.	50.	320.	15.	0.
NB	2294.	39146.	60335.	184.	30.	10.	5.	0.
NB	2295.	38304.	60292.	391.	20.	80.	15.	0.
NB	2297.	39336.	60260.	283.	40.	60.	10.	0.
NB	2298.	39491.	59060.	1260.	70.	610.	10.	1.
NB	2299.	38071.	59357.	443.	50.	280.	20.	1.
NB	2300.	39402.	59636.	457.	50.	60.	10.	1.
NB	2301.	38063.	59016.	563.	90.	250.	10.	0.
NB	2302.	38055.	59387.	257.	50.	80.	10.	1.
NB	2303.	38387.	58641.	370.	50.	160.	10.	0.
NB	2304.	37463.	60340.	526.	30.	300.	40.	1.
NB	2305.	38046.	59247.	381.	40.	120.	5.	0.
NB	2308.	37540.	60285.	510.	40.	150.	10.	0.
NB	2310.	37677.	60560.	531.	20.	110.	25.	0.
NB	2311.	38007.	58337.	497.	40.	160.	10.	1.
NB	2312.	37454.	60272.	697.	50.	250.	10.	0.
NB	2313.	37712.	58436.	547.	130.	340.	10.	1.
NB	2314.	38047.	58039.	305.	40.	120.	10.	0.
NB	2315.	39490.	59333.	535.	30.	210.	25.	0.
NB	2318.	37605.	60561.	557.	80.	150.	10.	0.
NB	2319.	38367.	58547.	479.	50.	190.	10.	0.
NB	2321.	37767.	58469.	642.	100.	190.	10.	0.
NB	2322.	37420.	58244.	363.	60.	180.	10.	0.
NB	2323.	38104.	58076.	283.	60.	160.	10.	0.
NB	2324.	37974.	58332.	272.	50.	80.	10.	0.
NB	2325.	37129.	60113.	498.	50.	80.	5.	0.
NB	2326.	37491.	58322.	367.	70.	140.	10.	0.
NB	2327.	38828.	58078.	399.	30.	130.	10.	0.
NB	2328.	37975.	58729.	451.	30.	100.	15.	1.
NB	2329.	37232.	60224.	429.	50.	180.	20.	1.
NB	2331.	37745.	58425.	514.	70.	370.	10.	1.
NB	2333.	37388.	60265.	359.	40.	120.	15.	1.
NB	2334.	37892.	58427.	489.	40.	160.	10.	0.
NB	2335.	38106.	58005.	534.	70.	430.	15.	1.
NB	2336.	37697.	58372.	444.	50.	150.	10.	0.
NB	2337.	38133.	58029.	384.	50.	150.	10.	0.
NB	2339.	37562.	58337.	480.	60.	260.	15.	1.
NB	2340.	37341.	58248.	334.	50.	110.	10.	1.
NB	2341.	38059.	59261.	225.	30.	40.	5.	1.
NB	2342.	38285.	57995.	394.	50.	230.	15.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2410.	36805.	58388.	286.	50.	80.	10.	1.
HB	2411.	37158.	58531.	497.	40.	110.	5.	1.
HB	2412.	37313.	59918.	319.	30.	40.	5.	1.
HB	2414.	37184.	58135.	355.	50.	100.	10.	1.
HB	2415.	37165.	58415.	241.	50.	50.	5.	1.
HB	2416.	37960.	59953.	330.	60.	130.	10.	1.
HB	2417.	37763.	59468.	216.	30.	70.	5.	1.
HB	2418.	37455.	58533.	369.	50.	100.	5.	1.
HB	2419.	36754.	58282.	255.	140.	120.	5.	1.
HB	2420.	36607.	58012.	220.	40.	60.	5.	0.
HB	2422.	37737.	59539.	355.	30.	30.	5.	1.
HB	2423.	36598.	58020.	281.	40.	50.	5.	1.
HB	2424.	37807.	59712.	290.	40.	50.	10.	0.
HB	2425.	37210.	59060.	269.	40.	60.	5.	1.
HB	2426.	36904.	58432.	299.	70.	90.	10.	1.
HB	2428.	37348.	58074.	269.	60.	125.	5.	1.
HB	2429.	37802.	59273.	330.	40.	100.	10.	1.
HB	2430.	36703.	58097.	225.	40.	50.	5.	0.
HB	2431.	36845.	58324.	317.	40.	80.	10.	1.
HB	2432.	37979.	59618.	305.	30.	30.	5.	1.
HB	2433.	36785.	58096.	196.	40.	30.	5.	0.
HB	2435.	37716.	59876.	287.	30.	50.	5.	1.
HB	2436.	38016.	59665.	410.	60.	120.	10.	1.
HB	2437	36967.	58049.	306.	50.	90.	5.	1.
HB	2438.	36761.	58275.	222.	40.	60.	5.	0.
HB	2439.	37393.	59941.	275.	30.	50.	5.	1.
HB	2441.	37853.	58764.	471.	70.	200.	10.	1.
HB	2442.	37458.	58140.	1661.	60.	40.	5.	1.
HB	2443.	37188.	58386.	353.	50.	70.	5.	1.
HB	2444.	36835.	58024.	281.	40.	60.	5.	1.
HB	2446.	37041.	58247.	279.	90.	130.	5.	1.
HB	2447.	37918.	59871.	283.	50.	60.	5.	1.
HB	2448.	37404.	58130.	398.	50.	130.	5.	1.
HB	2449.	37165.	58431.	254.	50.	60.	5.	1.
HB	2450.	36882.	58431.	270.	50.	70.	10.	1.
HB	2451.	36895.	58379.	302.	30.	90.	10.	1.
HB	2452.	36973.	58025.	373.	40.	110.	5.	1.
HB	2453.	37832.	59716.	271.	40.	40.	5.	1.
HB	2454.	38101.	59739.	269.	50.	110.	5.	1.
HB	2455.	37438.	60003.	274.	40.	90.	5.	1.
HB	2456.	37316.	58121.	253.	50.	70.	5.	1.
HB	2457.	37458.	59970.	335.	30.	80.	5.	1.
HB	2458.	37556.	58574.	315.	20.	80.	5.	1.
HB	2459.	37104.	58196.	229.	20.	30.	5.	1.
HB	2460.	38010.	58044.	312.	40.	100.	10.	1.
HB	2461.	37109.	58101.	310.	50.	90.	5.	1.
HB	2462.	37105.	58343.	267.	60.	90.	5.	1.
HB	2463.	38040.	59656.	216.	40.	40.	10.	1.
HB	2464.	37373.	58090.	383.	40.	120.	10.	1.
HB	2465.	37355.	59913.	341.	40.	70.	5.	1.
HB	2466.	38017.	59690.	293.	40.	100.	10.	1.
HB	2467.	38030.	59718.	256.	50.	80.	5.	1.
HB	2468.	37772.	59310.	291.	30.	50.	5.	1.
HB	2469.	37757.	58905.	281.	30.	70.	5.	1.
HB	2470.	37218.	58535.	377.	40.	90.	5.	1.
HB	2471.	37378.	60002.	138.	30.	30.	10.	1.
HB	2472.	37758.	59877.	212.	30.	30.	5.	1.

DATA DESCRIPTION

FILE TITLE : PAOBANEP N.ENGLAND CONCENTRATE DATA

NO. OF FIELDS : 20 NO. OF RECORDS : 1880 WORDS PER RECORD : 20

CARD INPUT FORMAT
(3F10.2,A4,4F10.2/8F10.2/8F10.2)

SAMPNUMB	EASTING	NORTHING	PROJCODE	CEP	XRF	BAP	XRF	SBP	XRF	SNP	XRF	PBP	XRF	ZNP	XRF
FIELD LENGTH															
1	** **	** **	** **	** **		** **		** **		** **		** **		** **	
FIELD TYPE															
F	F	F	A	F		F		F		F		F			
UPPER LIMIT															
	342299.00	42540.00	82428.00	34		1864.00	484490.00	204.00		4752.00		27287.00		16392.00	
LOWER LIMIT															
	500.00	33870.00	58000.00	HB		0.10	13.00	0.10		0.10		0.10		1.00	
ABSENT DATA VALUE															
	-1.00	-1.00	-1.00			-1.00	-1.00	-1.00		-1.00		-1.00		-1.00	
DICTIONARY SEGMENT IDENTIFIER															

CUP	XRF	CAP	XRF	NIP	XRF	FEP	XRF	MNP	XRF	TIP	XRF	U P	XRF	SRP	XRF	ZRP	XRF	MOP	XRF
FIELD LENGTH																			
1	** **	** **		** **		** **		** **		** **		** **		** **		** **		** **	
FIELD TYPE																			
F	F	F		F		F		F		F		F		F		F			
UPPER LIMIT																			
	1994.00	177210.00		210.00		289050.00		7310.00		99700.00		120.00		1200.00		73340.00		75.00	
LOWER LIMIT																			
	0.10	40.00		2.10		1700.00		20.00		260.00		0.20		0.20		50.00		0.20	
ABSENT DATA VALUE																			
	-1.00	-1.00		-1.00		-1.00		-1.00		-1.00		-1.00		-1.00		-1.00		-1.00	
DICTIONARY SEGMENT IDENTIFIER																			

%-EXEC/G-UTIL/GUTL02 ON FILE PAOBANEP N.ENGLS.O CONCENTRATE DATA
****

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
34	342799.	34170.	57323.	223.	20.	50.	5.	0.
	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

MAKE TEMPFILE

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1172.	40667.	57545.	282.	47.	258.	12.	9.	17.
HB	1173.	40170.	58820.	1303.	29.	97.	12.	3.	6.
HB	1174.	39925.	58442.	586.	66.	266.	46.	9.	0.
HB	1175.	40149.	58760.	15050.	147.	1041.	64.	26.	21.
HB	1176.	39885.	58525.	153.	7.	68.	9.	5.	0.
HB	1177.	40340.	57861.	19160.	1355.	844.	0.	37.	61.
HB	1180.	40608.	57554.	228.	9.	115.	7.	4.	5.
HB	1183.	40137.	58278.	629.	110.	168.	14.	11.	43.
HB	1186.	39520.	58410.	15510.	83.	491.	12.	28.	0.
HB	1191.	39603.	58193.	2881.	355.	201.	11.	12.	24.
HB	1193.	40284.	57190.	1676.	273.	158.	11.	16.	29.
HB	1197.	39655.	57920.	810.	501.	146.	8.	9.	0.
HB	1199.	39790.	57524.	2059.	97.	147.	1.	6.	9.
HB	1201.	40360.	57719.	17000.	111.	1414.	24.	40.	53.
HB	1202.	40560.	58113.	29560.	120.	1239.	37.	31.	48.
HB	1203.	40180.	58390.	319.	72.	105.	15.	9.	14.
HB	1204.	39880.	58922.	6626.	162.	103.	7.	20.	0.
HB	1205.	40100.	58412.	4167.	164.	479.	7.	37.	156.
HB	1206.	41011.	58421.	414.	2.	76.	6.	6.	4.
HB	1208.	40378.	57123.	1783.	1.	132.	0.	10.	13.
HB	1209.	39227.	57908.	131.	0.	43.	2.	6.	0.
HB	1210.	40680.	58727.	68700.	73.	911.	2.	29.	46.
HB	1211.	40893.	59218.	146310.	68.	718.	8.	24.	0.
HB	1216.	40568.	58695.	434.	8.	59.	1.	4.	0.
HB	1217.	40841.	58102.	948.	112.	339.	50.	12.	139.
HB	1218.	39675.	58860.	2554.	111.	120.	2.	7.	0.
HB	1219.	41091.	58429.	12710.	160.	306.	7.	14.	18.
HB	1221.	40446.	58698.	23660.	104.	424.	10.	22.	196.
HB	1222.	40905.	59158.	3993.	39.	69.	6.	13.	1.
HB	1223.	40700.	58445.	375.	42.	51.	3.	6.	3.
HB	1224.	40776.	58362.	671.	10.	38.	3.	2.	0.
HB	1225.	40914.	59162.	102620.	224.	569.	3.	24.	13.
HB	1226.	40332.	58995.	354.	3.	47.	5.	1.	3.
HB	1227.	39720.	58658.	1531.	37.	206.	7.	3.	0.
HB	1228.	39400.	57982.	587.	17.	533.	6.	5.	0.
HB	1229.	40904.	59280.	25670.	50.	102.	5.	17.	54.
HB	1230.	41032.	58435.	138.	15.	94.	1.	5.	1.
HB	1231.	40491.	58410.	160.	12.	57.	2.	7.	0.
HB	1232.	40885.	59209.	129010.	389.	1495.	26.	38.	39.
HB	1233.	40927.	59025.	2761.	14.	33.	4.	1.	0.
HB	1234.	39544.	57880.	276.	19.	233.	5.	2.	0.
HB	1236.	40270.	58363.	1178.	114.	94.	8.	10.	20.
HB	1238.	40810.	58423.	164.	5.	15.	6.	0.	2.
HB	1239.	40750.	59305.	20560.	20.	255.	4.	17.	23.
HB	1240.	40677.	59110.	165890.	17.	34.	0.	8.	0.
HB	1241.	40945.	59189.	37560.	93.	329.	5.	9.	0.
HB	1243.	40866.	58974.	1307.	6.	5.	5.	0.	2.
HB	1244.	40930.	59008.	10660.	27.	27.	0.	4.	0.
HB	1245.	40949.	59039.	1888.	14.	59.	4.	3.	0.
HB	1246.	39587.	57977.	107.	7.	63.	6.	3.	0.
HB	1248.	40229.	58935.	2007.	27.	54.	6.	4.	0.
HB	1249.	40935.	58082.	855.	19.	206.	9.	14.	56.
HB	1250.	40999.	59052.	141500.	551.	447.	17.	20.	89.
HB	1251.	39555.	58854.	69220.	67.	207.	11.	27.	0.
HB	1253.	40997.	58975.	11460.	153.	167.	13.	12.	4.
HB	1254.	40324.	58960.	251.	11.	32.	5.	1.	0.
HB	1255.	40804.	59292.	45260.	97.	61.	5.	8.	25.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PLANNED CONCENTRATES, BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
MB	1256.	40947.	59129.	53210.	92.	251.	1.	11.	0.
MB	1258.	39470.	57778.	322.	25.	219.	8.	5.	7.
MB	1259.	40568.	58912.	2700.	37.	176.	8.	9.	17.
MB	1260.	40821.	59200.	50730.	132.	107.	2.	25.	0.
MB	1261.	40908.	58423.	282.	35.	95.	3.	11.	0.
MB	1262.	40680.	59035.	19720.	78.	262.	5.	8.	0.
MB	1264.	40470.	58376.	2405.	22.	338.	4.	11.	42.
MB	1266.	40788.	58728.	24520.	74.	674.	7.	32.	25.
MB	1267.	40995.	58090.	2342.	427.	559.	37.	16.	37.
MB	1268.	40180.	58382.	571.	27.	132.	4.	16.	2.
MB	1269.	40752.	59060.	22550.	89.	442.	6.	11.	0.
MB	1271.	40672.	58109.	316.	44.	98.	25.	4.	0.
MB	1272.	40803.	58439.	1152.	10.	27.	5.	4.	0.
MB	1273.	40854.	59095.	140.	1.	25.	8.	1.	2.
MB	1274.	40365.	58855.	11200.	50.	780.	5.	10.	0.
MB	1275.	40370.	58756.	33720.	1407.	1065.	186.	21.	101.
MB	1276.	40540.	59089.	113140.	21.	165.	3.	14.	0.
MB	1277.	39790.	58892.	3034.	130.	230.	1.	5.	3.
MB	1278.	40590.	58426.	1156.	35.	126.	6.	10.	2.
MB	1279.	40820.	59240.	85140.	149.	536.	24.	25.	21.
MB	1280.	39415.	57928.	1707.	56.	64.	2.	13.	16.
MB	1281.	40853.	59002.	16540.	33.	130.	6.	13.	4.
MB	1282.	40967.	59160.	114900.	1427.	272.	38.	19.	2.
MB	1285.	40995.	58957.	3201.	30.	36.	6.	7.	2.
MB	1284.	40413.	58317.	2451.	88.	238.	10.	9.	0.
MB	1285.	40765.	59161.	65270.	40.	97.	2.	34.	0.
MB	1286.	40491.	58428.	297.	22.	33.	5.	6.	0.
MB	1287.	40888.	58852.	18990.	56.	393.	0.	20.	0.
MB	1288.	40990.	58531.	99180.	501.	711.	31.	30.	141.
MB	1289.	41080.	58504.	41050.	248.	395.	17.	18.	39.
MB	1290.	40754.	58165.	403.	31.	49.	4.	3.	6.
MB	1291.	40879.	59033.	9565.	55.	223.	3.	7.	0.
MB	1292.	40454.	58340.	611.	20.	20.	23.	3.	5.
MB	1293.	40912.	58930.	395.	223.	2.	4.	0.	11.
MB	1294.	40765.	58112.	1278.	71.	2.	0.	6.	76.
MB	1295.	40113.	58586.	15970.	422.	352.	13.	37.	152.
MB	1296.	40300.	58879.	4763.	9.	68.	4.	3.	0.
MB	1297.	40989.	59015.	19080.	485.	117.	14.	7.	43.
MB	1298.	40904.	58578.	51120.	747.	97.	18.	21.	136.
MB	1299.	39880.	58931.	21810.	28.	376.	23.	13.	0.
MB	1300.	40627.	59140.	153890.	53.	16.	3.	6.	0.
MB	1301.	40161.	59034.	1150.	11.	95.	1.	0.	0.
MB	1302.	40202.	59510.	16100.	39.	803.	3.	12.	0.
MB	1303.	40640.	59287.	7519.	27.	218.	3.	15.	9.
MB	1307.	40291.	59734.	86770.	86.	1122.	1.	14.	0.
MB	1308.	40850.	59829.	117880.	139.	812.	27.	35.	10.
MB	1309.	40380.	59706.	63990.	79.	861.	1.	12.	0.
MB	1312.	39880.	59209.	3921.	17.	95.	2.	1.	0.
MB	1313.	40540.	59622.	20580.	19.	220.	2.	6.	0.
MB	1314.	40618.	59593.	21800.	48.	167.	5.	10.	4.
MB	1315.	40240.	59496.	6805.	37.	275.	9.	7.	0.
MB	1316.	40837.	58700.	11990.	30.	112.	5.	15.	4.
MB	1318.	40416.	59072.	244970.	28.	513.	3.	17.	44.
MB	1319.	40100.	59270.	9803.	100.	177.	1.	6.	0.
MB	1320.	40520.	59590.	87060.	60.	1118.	0.	23.	0.
MB	1321.	40652.	58231.	1282.	68.	62.	15.	5.	151.
MB	1322.	40890.	60023.	957.	122.	73.	5.	26.	132.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1093.	36495.	56090.	113840.	48.	170.	9.	22.	76.
HB	1094.	36590.	56065.	42570.	46.	121.	2.	12.	113.
HB	1095.	40019.	56645.	8940.	29.	608.	0.	14.	2.
HB	1096.	36640.	55920.	17100.	396.	237.	35.	12.	34.
HB	1101.	40263.	58134.	1690.	119.	557.	8.	7.	2.
HB	1103.	40533.	57720.	485.	210.	447.	0.	20.	25.
HB	1104.	39646.	58452.	36900.	23.	808.	1.	12.	0.
HB	1108.	40210.	58778.	2179.	146.	225.	7.	5.	6.
HB	1109.	40110.	58062.	15330.	171.	410.	14.	9.	14.
HB	1110.	39930.	58466.	1196.	120.	324.	19.	10.	94.
HB	1111.	40448.	57892.	430.	162.	96.	7.	7.	0.
HB	1112.	40609.	57947.	8696.	1137.	1432.	44.	41.	0.
HB	1116.	40032.	58743.	2581.	18.	192.	1.	4.	1.
HB	1117.	39916.	58728.	2327.	11.	78.	4.	5.	0.
HB	1118.	39234.	58952.	70.	42.	109.	8.	5.	3.
HB	1119.	40610.	57764.	677.	50.	252.	14.	20.	14.
HB	1120.	40000.	58451.	26170.	7187.	3041.	1994.	83.	7752.
HB	1121.	39866.	57868.	164.	88.	204.	19.	14.	40.
HB	1122.	39760.	58708.	83240.	82.	90.	0.	11.	3.
HB	1123.	39810.	57767.	94.	9.	31.	6.	4.	4.
HB	1125.	40022.	58453.	1565.	516.	156.	22.	8.	83.
HB	1129.	39830.	58397.	488.	200.	141.	16.	23.	18.
HB	1130.	39709.	58260.	79.	111.	400.	23.	2.	16.
HB	1131.	40010.	58300.	137.	17.	86.	4.	4.	1.
HB	1132.	39589.	58323.	414.	14.	333.	8.	16.	1.
HB	1133.	40080.	58925.	31520.	94.	750.	8.	8.	0.
HB	1134.	39646.	57933.	133.	126.	163.	6.	6.	3.
HB	1135.	40418.	57700.	228.	7.	51.	4.	5.	0.
HB	1136.	39669.	58364.	97.	1.	236.	6.	3.	3.
HB	1137.	40235.	58073.	651.	106.	220.	35.	13.	0.
HB	1138.	40175.	57968.	2395.	2.	56.	5.	5.	4.
HB	1139.	40609.	57570.	532.	12.	156.	7.	3.	2.
HB	1140.	39710.	58515.	299.	1.	42.	3.	7.	1.
HB	1141.	39628.	58524.	238.	44.	191.	14.	12.	3.
HB	1142.	40230.	58777.	69790.	262.	501.	3.	16.	0.
HB	1143.	39980.	58181.	10613.	250.	470.	40.	13.	36.
HB	1144.	39924.	58431.	224.	116.	1619.	18.	11.	135.
HB	1146.	40050.	58243.	407.	114.	504.	9.	7.	5.
HB	1147.	40025.	58443.	32270.	147.	926.	71.	30.	712.
HB	1148.	40010.	58346.	83.	14.	52.	39.	5.	3.
HB	1149.	39730.	58358.	477.	1251.	4349.	114.	5.	27.
HB	1150.	39683.	58532.	2174.	38.	280.	2.	6.	11.
HB	1152.	40347.	58169.	1597.	83.	402.	125.	10.	47.
HB	1153.	40380.	58247.	151.	5.	90.	9.	1.	1.
HB	1154.	39867.	58160.	589.	61.	687.	9.	13.	0.
HB	1156.	39682.	58197.	291.	124.	257.	8.	4.	7.
HB	1157.	39533.	58430.	46170.	22.	193.	27.	18.	0.
HB	1160.	36516.	55974.	66670.	316.	579.	151.	15.	84.
HB	1162.	40180.	58024.	2708.	8.	106.	4.	5.	7.
HB	1163.	40558.	57894.	909.	55.	229.	6.	23.	7.
HB	1164.	39765.	57735.	193.	16.	73.	7.	5.	0.
HB	1165.	40595.	57660.	169.	68.	40.	10.	2.	68.
HB	1166.	40300.	58747.	8216.	55.	414.	13.	8.	61.
HB	1167.	40100.	58080.	31020.	392.	668.	7.	12.	0.
HB	1169.	40091.	58106.	119.	10.	194.	6.	5.	4.
HB	1170.	40530.	57561.	537.	16.	87.	5.	4.	11.
HB	1171.	39519.	58215.	3050.	10.	74.	7.	5.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2242.	38124.	60310.	3276.	244.	2101.	46.	25.	24.
HB	2243.	38580.	58436.	431.	33.	64.	4.	10.	1.
HB	2244.	38319.	58552.	982.	1.	1[illegible].	4.	7.	2.
HB	2245.	38727.	58498.	935.	7.	[illegible]	5.	7.	2.
HB	2246.	38930.	58286.	2198.	59.	110.	80.	30.	3.
HB	2247.	38897.	58220.	131.	71.	169.	6.	17.	7.
HB	2250.	39212.	59137.	5091.	74.	622.	16.	19.	1.
HB	2252.	38620.	58331.	242.	0.	12.	1.	3.	0.
HB	2253.	38642.	58565.	13000.	20.	2[illegible]	15.	24.	0.
HB	2254.	37993.	59088.	161.	7.	4[illegible]	3.	5.	0.
HB	2255.	38104.	58488.	1029.	27.	61.	4.	11.	143.
HB	2256.	39467.	58643.	3848.	15.	135.	9.	11.	1.
HB	2258.	39453.	60394.	421.	3.	64.	2.	5.	2.
HB	2259.	39[illegible].	57620.	3953.	33.	435.	12.	30.	3.
HB	2260.	39450.	58625.	223.	5.	20.	2.	5.	0.
HB	2261.	38421.	58708.	10300.	21.	653.	23.	39.	6.
HB	2262.	39311.	58618.	2362.	12.	97[illegible].	9.	9.	0.
HB	2263.	39465.	58505.	1880.	10.	247.	6.	13.	14.
HB	2264.	38111.	58926.	5589.	14.	495.	14.	14.	14.
HB	2266.	39265.	60620.	10500.	157.	164.	31.	131.	72.
HB	2267.	38946.	59011.	116.	11.	253.	42.	12.	0.
HB	2268.	38131.	60405.	796.	127.	470.	8.	14.	3.
HB	2269.	38361.	58818.	244.	5.	123.	1.	2.	1.
HB	2271.	38060.	58881.	5888.	24.	221.	17.	5.	0.
HB	2273.	38243.	58387.	84.	21.	42.	12.	15.	9.
HB	2276.	38360.	58495.	2106.	3.	277.	2.	10.	0.
HB	2278.	38916.	58274.	240.	15.	200.	9.	2.	2.
HB	2280.	38430.	58405.	32600.	113.	25[illegible].	72.	5[illegible]	[illegible]
HB	2281.	39386.	59158.	5722.	22.	3[illegible].	8.	11.	[illegible]
HB	2282.	38157.	60416.	619.	27.	167.	5.	9.	0.
HB	2284.	38372.	58728.	1026.	7.	132.	4.	7.	9.
HB	2285.	39360.	58455.	15500.	54.	1408.	12.	11.	17.
HB	2286.	39301.	58643.	10900.	45.	848.	22.	40.	8.
HB	2287.	38141.	58492.	26200.	19.	61.	34.	19.	[illegible]
HB	2288.	39496.	59074.	3254.	80.	29.	14.	12.	[illegible]
HB	2289.	38300.	58795.	118.	2.	33.	24.	6.	1.
HB	2291.	39245.	58628.	4526.	10.	32.	4.	9.	0.
HB	2293.	39436.	58642.	1961.	52.	713.	24.	16.	25.
HB	2294.	39346.	60335.	13.	15.	37.	5.	9.	10.
HB	2297.	39336.	60260.	49.	3.	62.	5.	1.	[illegible]
HB	2298.	39491.	59068.	91.	17.	59.	2.	4.	[illegible]
HB	2299.	38811.	59357.	1410.	16.	173.	4.	10.	0.
HB	2300.	39481.	59636.	3006.	6.	44.	3.	6.	1.
HB	2301.	38067.	59016.	4531.	23.	1050.	6.	7.	9.
HB	2302.	38055.	59387.	371.	1.	32.	0.	5.	0.
HB	2303.	38387.	58641.	2460.	6.	786.	6.	9.	1.
HB	2304.	37463.	60340.	565.	14.	65.	74.	6.	[illegible]
HB	2305.	37346.	59247.	49.	2.	27.	1.	3.	2.
HB	2308.	37540.	60285.	226.	7.	18.	2.	2.	1.
HB	2310.	37677.	60568.	56800.	40.	133.	71.	24.	0.
HB	2311.	38017.	58337.	2053.	4.	31.	3.	6.	0.
HB	2312.	37454.	60272.	105.	7.	100.	3.	5.	3.
HB	2313.	37712.	58436.	226.	10.	99.	2.	7.	2.
HB	2314.	38447.	58033.	114.	26.	41.	12.	5.	34.
HB	2315.	39490.	57353.	3591.	63.	466.	26.	[illegible]	61.
HB	2318.	37605.	60561.	2500.	44.	111.	8.	7.	6.
HB	2319.	38367.	58547.	3089.	15.	325.	7.	14.	0.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2110.	37892.	60466.	4048.	217.	656.	31.	19.	33.
HB	2111.	39270.	60126.	2357.	12.	111.	5.	8.	2.
HB	2112.	39372.	60135.	5070.	14.	194.	5.	8.	10.
HB	2113.	38345.	59310.	178.	18.	174.	77.	6.	0.
HB	2114.	38635.	59176.	12000.	20.	297.	25.	22.	0.
HB	2115.	38755.	58634.	5612.	15.	618.	11.	14.	0.
HB	2116.	38818.	58553.	244.	0.	28.	1.	4.	10.
HB	2118.	38508.	59647.	1642.	85.	231.	6.	8.	0.
HB	2119.	38022.	59096.	80.	3.	20.	3.	4.	1.
HB	2120.	39061.	59057.	2845.	33.	398.	9.	11.	0.
HB	2123.	37921.	60650.	109200.	124.	171.	447.	10.	0.
HB	2124.	38693.	58690.	1254.	7.	113.	4.	4.	5.
HB	2125.	39080.	58800.	7570.	11.	150.	5.	18.	0.
HB	2126.	37905.	60485.	29000.	198.	582.	61.	37.	2.
HB	2127.	37955.	60525.	24900.	109.	312.	54.	27.	0.
HB	2128.	38607.	58954.	130.	96.	219.	5.	4.	0.
HB	2129.	38288.	59606.	384.	8.	95.	4.	9.	2.
HB	2130.	39008.	60387.	143.	3.	33.	4.	5.	9.
HB	2131.	38789.	58964.	348.	12.	44.	2.	4.	0.
HB	2132.	37869.	60425.	1386.	16.	240.	5.	5.	0.
HB	2133.	38590.	59350.	1143.	15.	349.	9.	17.	15.
HB	2134.	38999.	60377.	1077.	9.	76.	41.	8.	5.
HB	2135.	38835.	58766.	1220.	10.	351.	8.	11.	0.
HB	2137.	38508.	59780.	209.	11.	301.	5.	6.	0.
HB	2138.	38910.	60457.	970.	9.	288.	35.	9.	4.
HB	2139.	39131.	58880.	183.	9.	178.	1.	8.	0.
HB	2140.	38657.	59115.	21200.	1.	76.	9.	6.	0.
HB	2141.	38692.	58987.	567.	6.	135.	1.	3.	4.
HB	2142.	38895.	58964.	1018.	16.	336.	7.	12.	2.
HB	2143.	38774.	59352.	319.	2.	249.	2.	3.	0.
HB	2144.	39[illegible]	58986.	534.	6.	51.	1.	4.	3.
HB	2145.	39[illegible]	59357.	973.	6.	117.	7.	12.	2.
HB	2146.	38[illegible]	59352.	101.	4.	54.	6.	11.	1.
HB	2147.	38526.	60360.	238.	4.	57.	3.	5.	4.
HB	2148.	38773.	58666.	783.	51.	069.	4.	6.	0.
HB	2150.	38174.	59748.	13700.	13.	873.	8.	15.	0.
HB	2151.	38638.	58938.	1056.	8.	29.	3.	5.	0.
HB	2152.	38878.	58728.	17000.	29.	353.	15.	20.	13.
HB	2153.	38344.	59316.	69.	2.	39.	2.	2.	0.
HB	2154.	39018.	58972.	526.	16.	3[illegible]	2.	5.	0.
HB	2155.	39259.	60112.	14900.	45.	967.	18.	16.	82.
HB	2156.	38698.	58645.	20200.	29.	925.	20.	32.	0.
HB	2157.	39482.	59708.	3272.	38.	587.	31.	33.	4.
HB	2158.	37920.	60647.	34500.	33.	210.	150.	23.	0.
HB	2159.	38534.	59154.	465.	4.	105.	4.	5.	4.
HB	2160.	38523.	59311.	6271.	18.	691.	14.	27.	0.
HB	2161.	37979.	60598.	83600.	55.	245.	108.	46.	0.
HB	2162.	38530.	59323.	134.	3.	32.	4.	7.	0.
HB	2163.	38360.	59272.	197.	7.	150.	1.	5.	0.
HB	2164.	39388.	59280.	1222.	99.	456.	19.	17.	11.
HB	2165.	39019.	60[illegible]23.	1386.	8.	328.	2.	5.	0.
HB	2167.	38970.	5[illegible]794.	1162.	19.	190.	6.	12.	4.
HB	2168.	38700.	56744.	2961.	7.	440.	6.	9.	0.
HB	2172.	38572.	59398.	78.	1.	62.	3.	4.	2.
HB	2174.	38758.	59111.	75200.	10.	467.	27.	37.	0.
HB	2175.	38317.	59583.	1[illegible].	13.	369.	20.	7.	2.
HB	2176.	38410.	59305.	241.	22.	162.	19.	10.	148.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2177.	39465.	60186.	2216.	21.	[illegible]	9.	8.	6.
HB	2178.	38448.	59406.	611.	5.	44.	0.	2.	0.
HB	2179.	38252.	59738.	5924.	25.	576.	12.	20.	0.
HB	2181.	38777.	58653.	1463.	19.	94.	7.	10.	6.
HB	2182.	38223.	59578.	505.	9.	438.	6.	11.	0.
HB	2183.	38407.	59624.	804.	11.	125.	6.	10.	2.
HB	2184.	38454.	59152.	5462.	10.	800.	5.	11.	0.
HB	2185.	37860.	60208.	2518.	48.	232.	13.	12.	5.
HB	2186.	39211.	60102.	1414.	55.	327.	15.	15.	3.
HB	2188.	39472.	59556.	703.	70.	267.	17.	15.	3.
HB	2190.	38765.	58620.	22300.	97.	737.	30.	22.	7.
HB	2192.	39107.	60082.	1107.	26.	470.	21.	26.	0.
HB	2195.	38478.	59118.	627.	14.	136.	4.	8.	3.
HB	2196.	38270.	59774.	1140.	38.	369.	10.	17.	3.
HB	2197.	38365.	59275.	556.	23.	191.	4.	7.	2.
HB	2198.	38720.	59162.	1655.	25.	410.	26.	23.	5.
HB	2199.	39100.	60097.	567.	17.	420.	9.	20.	1.
HB	2200.	38279.	59357.	31.	8.	71.	2.	5.	4.
HB	2201.	39488.	59772.	16[illegible]0.	14.	537.	12.	14.	3.
HB	2202.	38409.	58824.	44[illegible].	97.	1293.	21.	19.	22.
HB	2203.	39009.	58517.	533.	133.	2263.	36.	19.	252.
HB	2204.	39119.	58636.	2149.	72.	193.	22.	15.	18.
HB	2205.	38712.	58450.	10707.	31.	572.	24.	26.	10.
HB	2206.	39282.	59142.	5342.	103.	549.	11.	13.	12.
HB	2207.	38517.	58482.	19.	9.	79.	0.	5.	2.
HB	2208.	39567.	58630.	11.	0.	49.	5.	6.	0.
HB	2209.	38304.	60292.	11.	9.	52.	4.	7.	0.
HB	2210.	38972.	59668.	981.	12.	178.	4.	6.	2.
HB	2211.	38875.	59864.	74.	0.	110.	2.	4.	58.
HB	2212.	37973.	58807.	241.	10.	275.	1.	4.	0.
HB	2213.	39346.	58567.	151.	3.	93.	1.	4.	2.
HB	2214.	38797.	58510.	158.	8.	50.	1.	2.	2.
HB	2215.	38581.	58831.	1474.	8.	277.	2.	9.	4.
HB	2216.	37411.	58736.	35.	2.	77.	4.	4.	0.
HB	2217.	39425.	58738.	2904.	23.	295.	9.	19.	2.
HB	2218.	39153.	58558.	68.	3.	47.	0.	5.	1.
HB	2219.	39336.	58540.	966.	12.	288.	2.	8.	2.
HB	2220.	39453.	59127.	404.	7.	605.	4.	7.	0.
HB	2221.	38388.	58903.	656.	6.	375.	3.	7.	0.
HB	2222.	39384.	58466.	252.	89.	44.	10.	6.	65.
HB	2223.	38916.	58596.	1772.	78.	1066.	24.	25.	115.
HB	2224.	39218.	60447.	33.	5.	8.	1.	1.	0.
HB	2225.	38655.	58473.	399.	8.	82.	5.	10.	10.
HB	2226.	39113.	58679.	1875.	52.	791.	43.	17.	119.
HB	2227.	38358.	58514.	5831.	12.	1223.	12.	17.	0.
HB	2228.	38160.	58587.	695.	11.	123.	4.	10.	0.
HB	2229.	38814.	58375.	287.	8.	157.	5.	12.	0.
HB	2230.	39336.	59126.	981.	316.	565.	11.	15.	8.
HB	2231.	38135.	59088.	492.	29.	454.	17.	29.	0.
HB	2232.	39314.	60654.	49700.	58.	69.	182.	19.	23.
HB	2233.	38935.	59820.	353.	4.	62.	4.	7.	19.
HB	2234.	38971.	58496.	589.	161.	585.	18.	22.	87.
HB	2235.	39200.	58645.	4230.	326.	1329.	12.	22.	17.
HB	2236.	38016.	58904.	944.	11.	126.	4.	12.	6.
HB	2237.	38415.	58412.	8244.	51.	193.	12.	18.	8.
HB	2238.	38816.	58343.	1464.	26.	134.	25.	20.	12.
HB	2241.	38098.	58799.	1221.	30.	560.	23.	40.	2.

I.G.S. 6 EXEC/G-UTIL/GXEROX ON FILE TEMPFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 9 NO. OF RECORDS : 1880 WORDS PER RECORD : 9

CARD INPUT FORMAT

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	SV	TITANIUM	SR
FIELD LENGTH								
	** **	** **	** **	** **	** **	** **	** **	** ** ** ** **
FIELD TYPE								
A	I	F	F	F	F	F	F	
UPPER LIMIT								
ZZ	342299.	42540.	62428.	177210.	289050.	7210.	99700.	1200.
LOWER LIMIT								
HB	500.	33870.	55860.	40.	1700.	20.	260.	0.
ABSENT DATA VALUE								
	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.
DICTIONARY SEGMENT IDENTIFIER								

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
34	342055.	34590.	57470.	32.	92.	6140.	21.	25.	17.
34	342058.	36058.	57299.	264.	52.	803.	5.	7.	1.
34	342059.	35570.	57146.	154.	11.	153.	4.	6.	2.
34	342061.	34572.	57477.	1270.	56.	253.	72.	11.	1.
34	342063.	34536.	57724.	458.	18.	514.	7.	14.	3.
34	342064.	36178.	57600.	67.	10.	33.	3.	4.	8.
34	342066.	35988.	57263.	213.	27.	540.	12.	10.	0.
34	342067.	35556.	56854.	151.	100.	66.	4.	10.	29.
34	342068.	34966.	57672.	6267.	1 0.	3642.	266.	32.	182.
34	342070.	36775.	57354.	263.	19.	149.	4.	8.	2.
34	342071.	34487.	57595.	2794.	60.	2485.	91.	27.	5.
34	342072.	36643.	57184.	125.	22.	482.	7.	9.	2.
34	342073.	35557.	57065.	136.	12.	69.	4.	7.	5.
34	342075.	36350.	57330.	164.	11.	1326.	6.	5.	3.
34	342077.	35505.	56775.	202.	5.	14.	0.	3.	0.
34	342079.	36310.	57070.	81.	1.	40.	1.	5.	2.
34	342080.	36457.	57619.	1719.	70.	2757.	17.	15.	1.
34	342081.	34478.	57509.	824.	55.	326.	9.	15.	61.
34	342082.	36789.	57330.	80.	2.	19.	0.	4.	0.
34	342083.	36040.	57447.	292.	37.	252.	6.	1.	0.
34	342085.	34990.	57104.	216.	14.	29.	5.	17.	3.
34	342088.	35780.	57097.	143.	67.	666.	24.	14.	0.
34	342090.	36052.	57038.	1229.	200.	2530.	53.	15.	6.
34	342091.	36188.	57615.	88.	18.	280.	3.	5.	0.
34	342092.	36420.	57365.	940.	63.	677.	22.	18.	0.
34	342093.	35119.	57095.	128.	16.	50.	4.	3.	7.
34	342094.	36367.	57111.	106.	12.	520.	2.	4.	5.
34	342095.	36261.	57649.	1519.	45.	1257.	50.	17.	2.
34	342096.	36226.	57775.	110.	15.	1209.	5.	5.	0.
34	342097.	35647.	56908.	124.	514.	24.	8.	5.	14.
34	342098.	36087.	57616.	226.	36.	594.	8.	11.	1.
34	342099.	34430.	57339.	262.	13.	69.	2.	7.	0.
34	342100.	36081.	57600.	182.	26.	106.	1.	8.	3.
34	342204.	33939.	56800.	90.	8.	25.	1.	5.	0.
34	342207.	34146.	56929.	82.	9.	45.	1.	10.	0.
34	342214.	34259.	57421.	2104.	23.	42.	8.	21.	3.
34	342216.	34492.	57672.	168.	15.	156.	8.	8.	34.
34	342217.	34125.	56952.	207.	2445.	82.	937.	16.	490.
34	342218.	34140.	57140.	123.	13.	32.	3.	7.	0.
34	342220.	34429.	57770.	256.	22.	42.	6.	9.	0.
34	342234.	34367.	57448.	1670.	58.	60.	10.	23.	2.
34	342242.	34210.	57038.	120.	8.	79.	86.	12.	8.
34	342251.	34231.	57059.	99.	8.	22.	0.	5.	3.
34	342252.	34080.	56851.	129.	25.	72.	1.	7.	2.
34	342256.	34110.	57348.	532.	24.	49.	9.	16.	17.
34	342261.	34315.	57615.	174.	16.	41.	4.	6.	0.
34	342266.	34373.	57465.	401.	24.	42.	6.	10.	2.
34	342270.	34015.	57120.	152.	198.	42.	11.	20.	30.
34	342271.	33870.	56879.	116.	51.	165.	8.	14.	313.
34	342276.	34150.	57310.	263.	32.	37.	6.	20.	4.
34	342278.	34262.	57421.	524.	24.	49.	5.	10.	2.
34	342280.	34229.	57569.	355.	126.	41.	82.	18.	23.
34	342288.	34020.	57260.	105.	11.	31.	6.	7.	0.
34	342297.	34280.	56961.	134.	7.	45.	4.	9.	6.
34	342299.	34170.	57323.	221.	15.	23.	3.	10.	6.
	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

TAKE TEMPFILE

G-EXEC/G-UTIL/GPRJCT %% FILE WORKFILE
****

C.G.JOHNSON IGS KEYWORTH PAGE 03NOV81
*** RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
34	341888.	35588.	57792.	938.	16.	101.	10.	14.	15.
34	341889.	35861.	57509.	524.	10.	37.	9.	3.	3.
34	341890.	35420.	57802.	1787.	13.	204.	6.	9.	3.
34	341891.	35745.	57415.	109.	15.	40.	1.	4.	0.
34	341892.	35809.	57532.	689.	16.	164.	7.	7.	0.
34	341893.	34950.	57670.	698.	16.	366.	8.	12.	0.
34	341894.	34740.	57270.	4465.	97.	238.	37.	30.	270.
34	341895.	35802.	57540.	2091.	151.	1618.	55.	26.	1.
34	341896.	35770.	57670.	3978.	210.	2549.	115.	99.	10.
34	341897.	35681.	57683.	640.	33.	93.	15.	24.	0.
34	341900.	34890.	57290.	1606.	60.	63.	25.	26.	0.
34	342001.	36566.	57436.	85.	71.	581.	16.	16.	4.
34	342002.	36340.	57417.	575.	31.	727.	17.	14.	0.
34	342003.	36183.	57108.	73.	13.	412.	0.	2.	4.
34	342004.	36001.	57301.	85.	22.	138.	0.	0.	0.
34	342005.	34620.	57770.	635.	15.	566.	17.	12.	6.
34	342006.	35740.	56991.	228.	13.	335.	4.	6.	1.
34	342007.	36181.	57257.	189.	8.	295.	4.	5.	4.
34	342008.	35885.	57040.	273.	65.	1352.	69.	23.	2.
34	342011.	34870.	57808.	131.	15.	872.	7.	9.	6.
34	342012.	36270.	57708.	1831.	6.	124.	10.	5.	5.
34	342013.	36068.	57090.	1478.	56.	1279.	15.	19.	0.
34	342014.	35029.	56963.	127.	7.	18.	1.	4.	6.
34	342015.	36562.	57123.	105.	8.	119.	1.	2.	0.
34	342016.	35657.	56888.	202.	36.	20.	6.	13.	38.
34	342017.	34597.	57625.	110.	27.	65.	36.	10.	5.
34	342018.	35752.	57091.	114.	69.	111.	6.	9.	1.
34	342019.	35120.	57890.	160.	40.	139.	54.	10.	61.
34	342020.	35609.	57205.	93.	0.	78.	0.	4.	0.
34	342021.	36334.	57260.	76.	12.	82.	7.	3.	0.
34	342022.	36280.	57380.	156.	24.	266.	16.	5.	4.
34	342023.	36561.	57422.	115.	33.	341.	3.	5.	7.
34	342024.	35861.	57085.	85.	10.	284.	4.	9.	0.
34	342025.	35412.	56960.	166.	12.	25.	0.	5.	3.
34	342026.	36405.	57440.	150.	10.	735.	7.	4.	0.
34	342027.	35906.	57040.	660.	101.	137.	0.	2.	3.
34	342028.	36082.	57085.	447.	20.	874.	8.	6.	0.
34	342029.	36393.	57602.	79.	9.	54.	2.	3.	0.
34	342030.	36105.	57737.	666.	25.	1800.	29.	10.	0.
34	342034.	36177.	57347.	317.	47.	1093.	7.	8.	0.
34	342035.	35252.	57702.	77.	12.	38.	2.	6.	0.
34	342036.	36331.	57105.	139.	19.	257.	4.	11.	3.
34	342037.	36760.	57424.	926.	124.	1555.	27.	26.	2.
34	342038.	35522.	57072.	246.	9.	64.	1.	4.	4.
34	342039.	35477.	56998.	155.	17.	62.	4.	12.	2.
34	342040.	35365.	56912.	529.	20.	64.	6.	14.	0.
34	342043.	36060.	57416.	436.	14.	408.	19.	5.	0.
34	342044.	36270.	57521.	1211.	45.	2119.	82.	20.	0.
34	342045.	36412.	57554.	125.	10.	221.	3.	2.	0.
34	342046.	35002.	56946.	162.	2.	41.	2.	7.	5.
34	342047.	36754.	57161.	135.	8.	88.	3.	6.	3.
34	342049.	36759.	57470.	793.	25.	531.	7.	14.	1.
34	342050.	36260.	57255.	423.	6.	50.	2.	4.	4.
34	342051.	35530.	57245.	204.	34.	34.	4.	5.	13.
34	342052.	36120.	57431.	113.	15.	773.	2.	5.	9.
34	342053.	36780.	57173.	125.	12.	150.	6.	7.	6.
34	342054.	34444.	57225.	908.	51.	150.	8.	15.	35.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN P.P.M.)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TI	SR
[illegible]	1389.	[illegible]05.	60020.	1470.	16240.	280.	3210.	40.
HB	1390.	40290.	59731.	1010.	57320.	630.	11530.	40.
HB	1391.	40730.	58807.	1280.	51610.	440.	2800.	30.
HB	1392.	40076.	59842.	1730.	54740.	640.	13420.	200.
HB	1393.	40455.	58574.	720.	28850.	370.	3200.	20.
HB	1394.	40641.	59312.	1310.	28100.	270.	3880.	90.
HB	1395.	40[illegible].	58830.	400.	11450.	150.	2520.	10.
HB	1396.	40741.	58746.	4930.	188560.	2490.	7410.	120.
HB	1397.	40511.	59770.	864.	28840.	490.	9230.	410.
HB	1398.	40359.	59632.	240.	11070.	170.	3000.	30.
HB	1399.	40101.	59300.	590.	10670.	200.	2040.	80.
HB	1400.	40853.	59864.	1570.	23820.	170.	3110.	70.
HB	1403.	41113.	59433.	1060.	6570.	140.	3910.	380.
HB	1405.	40884.	59564.	1630.	58670.	690.	11900.	200.
HB	1407.	40976.	59707.	1220.	58920.	730.	8770.	200.
HB	1408.	40065.	59700.	170.	2880.	40.	2050.	10.
HB	1409.	39953.	59550.	460.	55140.	390.	15600.	60.
HB	1411.	41373.	59014.	890.	47750.	520.	1670.	30.
HB	1413.	41140.	59608.	700.	30700.	360.	10050.	100.
HB	1414.	39337.	58247.	150.	19500.	660.	2400.	30.
HB	1415.	40813.	59601.	700.	21970.	240.	3730.	31.
HB	1417.	39976.	59487.	210.	9220.	80.	5100.	20.
HB	1418.	41110.	58970.	2840.	107310.	1870.	20520.	5[illegible].
HB	1419.	40960.	59692.	130.	3400.	40.	2180.	[illegible].
HB	1421.	41060.	59398.	560.	24530.	290.	7050.	160.
HB	1425.	40059.	59529.	380.	24000.	220.	6550.	160.
HB	1427.	41352.	59807.	1830.	62570.	580.	4680.	30.
HB	1429.	41243.	59051.	610.	33390.	440.	5100.	1[illegible].
HB	1430.	39244.	58000.	1170.	60000.	530.	10210.	24[illegible].
HB	1432.	39206.	58118.	680.	71200.	410.	1570.	20.
HB	1434.	40150.	59517.	730.	70940.	610.	5330.	170.
HB	1435.	41478.	58966.	410.	21430.	190.	2890.	30.
HB	1436.	41163.	59620.	960.	25960.	310.	5070.	140.
HB	1438.	41417.	58895.	620.	32060.	350.	4750.	40.
HB	1440.	41416.	58796.	1100.	40980.	350.	4300.	130.
HB	1441.	39447.	58055.	960.	15270.	120.	2050.	20.
HB	1444.	41262.	59792.	2690.	92390.	1630.	26360.	430.
HB	1446.	40610.	59710.	350.	12660.	150.	4780.	80.
HB	1450.	41475.	58664.	950.	32900.	380.	3230.	60.
HB	1451.	40595.	59728.	350.	15450.	200.	4920.	70.
HB	1452.	40084.	59646.	280.	11580.	140.	8730.	20.
HB	1453.	39916.	59287.	3550.	157650.	1740.	14280.	200.
HB	1454.	41222.	59713.	2400.	60840.	1200.	18850.	710.
HB	1457.	39270.	58080.	820.	24960.	260.	7870.	30.
HB	1459.	40006.	59354.	600.	28650.	500.	4990.	120.
HB	1460.	39348.	58249.	270.	21860.	410.	4650.	20.
HB	1462.	41370.	58777.	2480.	71260.	1030.	6350.	650.
HB	1463.	39792.	59383.	1210.	19190.	240.	11760.	100.
HB	1464.	39921.	58028.	320.	20460.	170.	4350.	20.
HB	1465.	41288.	58718.	1220.	55180.	950.	11450.	30.
HB	1466.	41256.	58919.	1990.	109960.	1370.	8420.	220.
HB	1467.	41353.	59[illegible].	810.	21550.	200.	3730.	20.
HB	1469.	40051.	59[illegible].	270.	25930.	180.	2590.	30.
HB	1471.	40165.	59[illegible].	300.	27750.	170.	3750.	80.
HB	1472.	41272.	58[illegible].	1080.	47240.	740.	10270.	90.
HB	1473.	41334.	59806.	2940.	[illegible]360.	1990.	32530.	400.
HB	1474.	39252.	58123.	1460.	15811.	330.	[illegible]0.	30.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1256.	40947.	59129.	1350.	29300.	200.	4110.	290.
HB	1258.	39470.	57778.	1080.	34300.	320.	4910.	20.
HB	1259.	40568.	58912.	760.	32780.	210.	5930.	30.
HB	1260.	40821.	59200.	990.	60440.	810.	6460.	300.
HB	1261.	40908.	58423.	10850.	56030.	740.	5730.	70.
HB	1262.	40680.	59035.	640.	37600.	380.	4070.	140.
HB	1264.	40470.	58776.	1880.	77310.	690.	8970.	40.
HB	1266.	40708.	58728.	5330.	217000.	3720.	5165.	140.
HB	1267.	40995.	58090.	2470.	62520.	270.	13680.	40.
HB	1268.	40180.	58382.	2130.	70180.	580.	8580.	40.
HB	1269.	40752.	59060.	1010.	32460.	420.	6320.	160.
HB	1271.	40672.	58109.	1090.	26530.	290.	6300.	20.
HB	1272.	40803.	58439.	280.	18070.	200.	1250.	20.
HB	1273.	40854.	59095.	2090.	16820.	190.	1560.	20.
HB	1274.	40365.	58821.	1770.	49130.	570.	3130.	90.
HB	1275.	40370.	58736.	3180.	70480.	870.	7320.	260.
HB	1276.	40540.	59089.	370.	14780.	780.	3200.	480.
HB	1277.	39790.	58892.	440.	21170.	410.	6200.	40.
HB	1278.	40590.	58426.	2120.	47000.	390.	5640.	30.
HB	1279.	40820.	59240.	1680.	76540.	810.	4190.	310.
HB	1280.	39415.	57920.	570.	22060.	240.	2330.	20.
HB	1281.	40855.	59082.	1150.	44910.	480.	4150.	130.
HB	1282.	40967.	59104.	1620.	37950.	550.	7210.	570.
HB	1283.	40995.	58959.	430.	24090.	390.	4150.	40.
HB	1284.	40413.	58317.	2160.	57700.	660.	9730.	60.
HB	1285.	40765.	59101.	630.	84520.	1170.	4970.	250.
HB	1286.	40491.	58426.	1910.	32140.	280.	4490.	30.
HB	1287.	40888.	58652.	3840.	178290.	2400.	5280.	110.
HB	1288.	40990.	58531.	5130.	126340.	2470.	13040.	540.
HB	1289.	41080.	58504.	4630.	123260.	1630.	5440.	250.
HB	1290.	40756.	58105.	1260.	28200.	490.	7370.	20.
HB	1291.	40839.	59033.	760.	51390.	430.	6950.	70.
HB	1292.	40450.	58340.	1060.	16190.	210.	3900.	20.
HB	1293.	40915.	58930.	440.	11830.	170.	2740.	20.
HB	1294.	40765.	58112.	1050.	32680.	730.	10710.	20.
HB	1295.	40113.	58366.	2160.	103770.	600.	2630.	80.
HB	1296.	40300.	58879.	960.	16080.	300.	1380.	80.
HB	1297.	40989.	59015.	510.	29860.	300.	2590.	120.
HB	1298.	40904.	58578.	4160.	162370.	2730.	6750.	250.
HB	1299.	39880.	58931.	1300.	46580.	930.	2470.	190.
HB	1300.	40627.	59140.	190.	5600.	340.	2100.	400.
HB	1301.	40161.	59074.	360.	10720.	190.	3260.	20.
HB	1302.	40202.	59510.	630.	42790.	280.	3020.	90.
HB	1303.	40640.	59707.	1370.	48840.	420.	3910.	60.
HB	1307.	40291.	59734.	790.	34560.	440.	12540.	560.
HB	1308.	40850.	57820.	2790.	76130.	1260.	20199.	780.
HB	1309.	40380.	59706.	960.	40550.	470.	10900.	440.
HB	1312.	39880.	62009.	560.	14030.	330.	3690.	40.
HB	1313.	40540.	59622.	480.	28430.	600.	4760.	160.
HB	1314.	40618.	59593.	570.	25030.	260.	5090.	140.
HB	1315.	40240.	59496.	690.	25490.	270.	2510.	60.
HB	1316.	40837.	58708.	3700.	87460.	910.	4280.	70.
HB	1318.	40416.	59072.	780.	21330.	800.	4000.	1040.
HB	1319.	40100.	59270.	460.	23630.	230.	4140.	70.
HB	1320.	40520.	59590.	960.	54710.	880.	15480.	470.
HB	1321.	40622.	58491.	1320.	25200.	210.	3560.	30.
HB	1322.	40890.	60023.	1750.	55410.	420.	16570.	50.

CHEMICAL OF PANNED CONCENTRATES (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJECT	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1323.	40405.	59545.	220.	9070.	70.	2770.	20.
HB	1324.	39770.	59802.	2170.	24610.	330.	5970.	120.
HB	1326.	39752.	59668.	1240.	30800.	400.	6510.	150.
HB	1327.	40646.	59607.	890.	41960.	530.	9550.	180.
HB	1328.	41433.	58887.	610.	17610.	190.	2060.	30.
HB	1330.	40473.	59261.	250.	11720.	130.	3960.	40.
HB	1331.	40321.	59353.	300.	14050.	200.	1760.	50.
HB	1332.	39762.	59959.	290.	9720.	210.	2390.	9.
HB	1333.	40581.	59040.	590.	37060.	370.	1340.	30.
HB	1334.	40919.	59072.	1680.	24900.	210.	3470.	70.
HB	1335.	40984.	59288.	990.	35900.	430.	4630.	110.
HB	1336.	40794.	59790.	1780.	57590.	670.	12340.	450.
HB	1337.	40685.	59321.	1300.	48850.	670.	10020.	340.
HB	1338.	40544.	59358.	1020.	41330.	430.	7320.	220.
HB	1339.	40470.	59472.	710.	32020.	530.	12070.	830.
HB	1310.	40304.	59444.	890.	46620.	590.	5310.	360.
HB	1311.	40728.	59792.	1610.	53570.	730.	10810.	220.
HB	1342.	40164.	59369.	530.	16370.	280.	8000.	100.
HB	1343.	40009.	59024.	1890.	40980.	540.	5700.	90.
HB	1344.	40388.	59209.	390.	30950.	290.	6680.	90.
HB	1345.	40568.	58852.	420.	16240.	220.	2560.	30.
HB	1346.	40583.	58538.	1810.	39380.	380.	5040.	60.
HB	1347.	40184.	59087.	390.	12250.	140.	3670.	20.
HB	1348.	40752.	59728.	940.	37050.	320.	5470.	220.
HB	1349.	40545.	59558.	440.	16300.	200.	5980.	20.
HB	1351.	41210.	59063.	510.	34060.	360.	3000.	30.
HB	1352.	39720.	59040.	460.	21870.	270.	2670.	20.
HB	1353.	40837.	58860.	860.	41050.	370.	10850.	80.
HB	1354.	40368.	58540.	550.	22200.	200.	3370.	20.
HB	1355.	40075.	59038.	590.	17380.	330.	3480.	30.
HB	1356.	40649.	59797.	1480.	18290.	210.	5270.	140.
HB	1357.	40240.	59383.	240.	15290.	230.	1720.	20.
HB	1359.	40209.	59039.	550.	18150.	290.	4410.	150.
HB	1361.	40583.	59260.	390.	23280.	300.	2660.	140.
HB	1362.	40323.	59341.	450.	19240.	250.	1760.	40.
HB	1363.	39996.	58852.	570.	31330.	410.	3820.	60.
HB	1364.	40160.	59360.	360.	13400.	230.	2390.	80.
HB	1365.	40085.	59090.	760.	55990.	570.	3270.	140.
HB	1366.	40612.	58806.	550.	7620.	160.	2410.	50.
HB	1367.	40005.	59046.	480.	12800.	190.	2190.	20.
HB	1368.	40464.	59228.	2840.	87040.	1170.	6390.	180.
HB	1369.	40479.	59552.	740.	31360.	290.	4770.	70.
HB	1370.	40272.	58508.	5620.	95220.	1170.	19660.	60.
HB	1371.	39970.	59925.	870.	26030.	430.	5090.	140.
HB	1372.	40649.	59347.	1180.	18160.	350.	3180.	70.
HB	1373.	40521.	59059.	2150.	69740.	540.	3880.	50.
HB	1374.	40350.	59273.	780.	93680.	1250.	5610.	360.
HB	1375.	40680.	59341.	650.	17130.	280.	3000.	70.
HB	1376.	40801.	58790.	4180.	114680.	1700.	11560.	220.
HB	1378.	40710.	59612.	1200.	29440.	350.	5370.	150.
HB	1380.	40517.	59234.	180.	20080.	190.	1180.	20.
HB	1381.	40985.	59950.	2140.	177310.	1960.	61330.	100.
HB	1382.	40730.	59628.	1770.	27940.	770.	5730.	90.
HB	1383.	40598.	58545.	4260.	21870.	360.	9230.	540.
HB	1384.	39805.	59093.	850.	15710.	310.	1760.	100.
HB	1386.	40255.	59[illegible].	710.	18720.	270.	1160.	60.
HB	1761.	40590.	59[illegible].	2030.	10190.	580.	6140.	70.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCORE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
[illegible]	2390.	37207.	60214.	200.	11270.	80.	3870.	30.
HB	[illegible]	38007.	59456.	100.	7330.	30.	1050.	10.
HB	[illegible]	37232.	60224.	580.	18270.	130.	3660.	40.
HB	2393.	37698.	58302.	160.	7780.	60.	1210.	10.
HB	2394.	38063.	57995.	610.	25510.	840.	2140.	30.
HB	2395.	37659.	60307.	790.	19130.	160.	2840.	60.
HB	2396.	38011.	59922.	801.	30610.	360.	9330.	50.
HB	2397.	37619.	60355.	690.	17580.	130.	2860.	40.
HB	2398.	37641.	60442.	530.	20[illegible]61.	260.	2600.	130.
HB	2400.	37249.	58208.	230.	[illegible]	60.	1460.	50.
HB	[illegible]	36848.	58096.	460.	[illegible]840.	70.	1390.	40.
HB	[illegible]	38038.	59900.	390.	19560.	70.	1030.	10.
HB	2404.	37929.	59712.	650.	39020.	350.	1790.	30.
HB	2405.	37748.	59420.	330.	12[illegible]2.	90.	1610.	10.
HB	2407.	37175.	58491.	470.	19[illegible].	320.	1800.	20.
HB	2408.	37272.	58592.	600.	23[illegible].	110.	2390.	20.
HB	2410.	36805.	58388.	750.	24310.	110.	3960.	30.
HB	2411.	37158.	58531.	720.	29740.	840.	1650.	20.
HB	2414.	37184.	58155.	370.	[illegible]70.	100.	1140.	20.
HB	2415.	37165.	58415.	310.	1429[illegible]	90.	2270.	40.
HB	2416.	37960.	59935.	510.	249[illegible]0	540.	1270.	10.
HB	2417.	37763.	59468.	110.	877[illegible]	30.	2250.	10.
HB	2418.	37455.	58533.	340.	22560.	170.	2470.	20.
HB	2419.	[illegible]754.	58282.	280.	14880.	170.	770.	10.
HB	2420.	[illegible]607.	58012.	570.	15310.	140.	740.	10.
HB	2422.	37737.	59539.	110.	7570.	[illegible].	1730.	20.
HB	2423.	36598.	58020.	170.	[illegible]93[illegible]	[illegible].	730.	30.
HB	2424.	37807.	59712.	250.	19720.	60.	2350.	30.
HB	2425.	37210.	59860.	190.	12190.	50.	1950.	10.
HB	2426.	3697[illegible].	58432.	730.	34230.	340.	3500.	30.
HB	2428.	373[illegible].	58074.	390.	16070.	[illegible].	1180.	10.
HB	2429.	37802.	59573.	560.	25850.	2[illegible].	1920.	20.
HB	2430.	36703.	58097.	480.	17[illegible]0.	70.	1360.	20.
HB	2431.	368[illegible]5.	58324.	680.	2[illegible].	140.	2160.	40.
HB	2432.	37[illegible].	59618.	160.	16240.	50.	3790.	20.
HB	2433.	3678[illegible].	58096.	170.	9170.	40.	1140.	10.
HB	2435.	3771[illegible].	59876.	100.	6330.	30.	910.	10.
HB	2436.	38016.	59665.	550.	36560.	460.	2430.	40.
HB	2437.	36967.	58040.	730.	356[illegible].	190.	3650.	40.
HB	2438.	36761.	58275.	290.	140[illegible].	60.	1520.	20.
HB	2439.	37395.	59941.	1[illegible].	73820.	650.	3310.	10.
HB	2441.	378[illegible].	58764.	18[illegible].	100230.	800.	12830.	60.
HB	2442.	3745[illegible].	58140.	190.	9210.	60.	1130.	140.
HB	2443.	37188.	58386.	710.	30830.	160.	2740.	40.
HB	2444.	36835.	58024.	460.	22112.	100.	2460.	70.
HB	2446.	37041.	58247.	340.	14490.	110.	1620.	20.
HB	2447.	379[illegible].	59871.	4[illegible].	32730.	200.	1600.	10.
HB	2448.	37404.	58130.	230.	6980.	160.	690.	30.
HB	2449.	37165.	58431.	420.	21800.	160.	2280.	30.
HB	2450.	36882.	58431.	430.	24720.	1[illegible].	5480.	40.
HB	2451.	36895.	58379.	900.	43920.	44[illegible].	2250.	40.
HB	2452.	36973.	58022.	620.	34050.	1[illegible].	1990.	40.
HB	2453.	37832.	59716.	120.	23130.	[illegible].	2360.	10.
HB	2454.	38101.	59739.	270.	34530.	21[illegible].	2250.	20.
HB	2455.	37478.	60003.	360.	20700.	290.	2[illegible].	20.
HB	2456.	37316.	58121.	190.	15870.	60.	16[illegible].	20.
HB	[illegible]57.	374[illegible].	59970.	270.	19530.	110.	2090.	10.

CHEMICAL DATA FOR PANNED CONCENTRATES: (8) CALCIUM, IRON, MANGANESE, TITANIUM (%) STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2321.	37767.	58069.	140.	46740.	350.	1790.	10.
HB	2322.	37420.	58244.	300.	30630.	320.	1820.	30.
HB	2323.	38104.	58076.	250.	16160.	180.	2170.	20.
HB	2324.	37974.	58332.	110.	22250.	100.	1310.	20.
HB	2325.	37129.	60113.	140.	12780.	120.	5780.	70.
HB	2326.	37491.	58335.	200.	13960.	240.	2020.	20.
HB	2327.	38828.	58[illegible].	540.	38370.	200.	1450.	20.
HB	2328.	37975.	58[illegible].	1490.	68770.	460.	8220.	140.
HB	2332.	37986.	59506.	160.	8780.	180.	1780.	10.
HB	2333.	37388.	60265.	480.	43960.	310.	11110.	30.
HB	2334.	37992.	58435.	450.	19020.	240.	2230.	50.
HB	2335.	38[illegible].	58005.	350.	22670.	300.	1550.	20.
HB	2336.	37[illegible].	58372.	370.	34560.	230.	1720.	60.
HB	2337.	37953.	58029.	280.	11900.	170.	1750.	20.
HB	2339.	37562.	58337.	420.	32650.	230.	2090.	30.
HB	2340.	37341.	58248.	220.	28311.	150.	1270.	40.
HB	2341.	38059.	59261.	100.	19290.	80.	2710.	10.
HB	2342.	38285.	57995.	240.	18370.	200.	2380.	20.
HB	2344.	38246.	58072.	550.	15460.	110.	1550.	20.
HB	2345.	38034.	59125.	100.	6090.	130.	1550.	10.
HB	2347.	38053.	59115.	270.	24170.	290.	1750.	20.
HB	2348.	37461.	58291.	200.	13680.	170.	5260.	0.
HB	2349.	38062.	59536.	160.	21790.	70.	1960.	10.
HB	2350.	37326.	58384.	110.	8820.	40.	1570.	10.
HB	2351.	37595.	58225.	130.	8450.	60.	2010.	20.
HB	2352.	37715.	57959.	170.	19340.	100.	1060.	10.
HB	2354.	38067.	57196.	90.	12470.	80.	1770.	10.
HB	2355.	37494.	58[illegible].	270.	11130.	130.	1810.	20.
HB	2356.	37575.	58[illegible].	710.	42620.	390.	3650.	40.
HB	2357.	37409.	58305.	440.	57260.	310.	2840.	50.
HB	2358.	37424.	58409.	80.	11600.	90.	1390.	10.
HB	2359.	38705.	58050.	1070.	53320.	240.	2640.	60.
HB	2360.	37673.	58[illegible].	1940.	72450.	380.	3110.	80.
HB	2361.	38394.	57[illegible].	1340.	59730.	260.	2190.	50.
HB	2362.	38405.	57[illegible].	360.	57510.	420.	2820.	40.
HB	2363.	38079.	58528.	190.	27720.	250.	5540.	50.
HB	2364.	38097.	58170.	150.	21310.	140.	1280.	80.
HB	2365.	38006.	58370.	240.	19000.	120.	1630.	30.
HB	2366.	37552.	60520.	520.	13250.	150.	1920.	70.
HB	2368.	37685.	60639.	200.	21550.	300.	2260.	20.
HB	2369.	38377.	58545.	970.	56620.	250.	1890.	60.
HB	2371.	37304.	60248.	130.	7250.	[illegible].	1070.	30.
HB	2372.	38071.	58607.	4[illegible].	45770.	270.	2260.	70.
HB	2373.	37304.	60264.	2[illegible].	7450.	80.	2020.	30.
HB	2374.	39260.	59131.	1619.	55190.	610.	3750.	40.
HB	2375.	38696.	58072.	220.	27760.	180.	1320.	20.
HB	2376.	38048.	58538.	270.	42690.	390.	2240.	60.
HB	2377.	38811.	58050.	300.	48640.	260.	1670.	40.
HB	2378.	38025.	58367.	300.	19120.	220.	1910.	30.
HB	2379.	37567.	60428.	240.	38820.	260.	2410.	190.
HB	2381.	37864.	58355.	550.	55210.	300.	2060.	110.
HB	2382.	37638.	60357.	1120.	22040.	130.	3220.	100.
HB	2384.	37149.	60113.	231.	20770.	60.	5050.	20.
HB	2386.	38036.	59043.	290.	15260.	0.	7460.	0.
HB	2387.	38072.	59422.	70.	6360.	60.	1500.	0.
HB	2[illegible].	38126.	59048.	12[illegible].	49940.	75[illegible].	12110.	50.
HB	2[illegible].	38058.	58118.	270.	19340.	160.	1740.	20.

CHEMICAL DATA FOR PANNED CONCENTRATES, (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2242.	38194.	60310.	1370.	42790.	590.	6750.	80.
HB	2243.	38580.	58436.	330.	23120.	210.	2160.	20.
HB	2244.	38319.	58552.	210.	26190.	220.	3470.	20.
HB	2245.	38737.	58498.	260.	20900.	180.	2740.	20.
HB	2246.	38930.	58286.	4020.	65260.	580.	2390.	80.
HB	2247.	38897.	58220.	490.	53400.	500.	2580.	46.
HB	2250.	39212.	57957.	860.	43330.	350.	7690.	70.
HB	2252.	38720.	58031.	120.	12490.	210.	1730.	10.
HB	2253.	38642.	58565.	510.	45410.	260.	2670.	30.
HB	2254.	37993.	59088.	240.	12560.	240.	2720.	10.
HB	2255.	38184.	58968.	160.	20150.	230.	6750.	20.
HB	2256.	39467.	58643.	200.	11710.	120.	4300.	30.
HB	2258.	39453.	60394.	50.	4280.	40.	3530.	10.
HB	2259.	39478.	59740.	10220.	139770.	1870.	35900.	60.
HB	2260.	39430.	58625.	160.	14980.	130.	1940.	10.
HB	2261.	38421.	58708.	1450.	72510.	410.	3200.	70.
HB	2262.	39311.	58418.	240.	26270.	210.	1500.	40.
HB	2263.	38405.	58405.	670.	29980.	180.	2130.	30.
HB	2264.	38111.	58625.	550.	30940.	590.	1910.	50.
HB	2266.	39265.	60410.	3060.	157320.	2020.	55800.	160.
HB	2267.	38946.	59241.	300.	20520.	360.	4670.	30.
HB	2268.	38131.	58645.	910.	27720.	240.	5220.	30.
HB	2269.	38361.	58018.	140.	11360.	50.	1960.	10.
HB	2271.	38060.	58781.	5452.	80130.	570.	2780.	90.
HB	2273.	38243.	58787.	180.	9270.	180.	10740.	10.
HB	2276.	38360.	58705.	210.	29140.	280.	1850.	30.
HB	2278.	38916.	58274.	770.	51980.	660.	3380.	50.
HB	2280.	38430.	58415.	860.	95[illegible].	910.	10590.	141.
HB	2281.	39386.	59153.	70[illegible].	22[illegible].	290.	2650.	100.
HB	2282.	38157.	60417.	1260.	16560.	160.	2800.	70.
HB	2284.	38372.	58726.	280.	20870.	110.	2970.	20.
HB	2285.	39360.	58455.	540.	37990.	270.	1410.	140.
HB	2286.	39301.	58643.	1630.	64080.	350.	1510.	70.
HB	2287.	38141.	58492.	370.	39660.	360.	4770.	40.
HB	2288.	39494.	58874.	1610.	14[illegible].	130.	4260.	70.
HB	2289.	38300.	58795.	200.	1[illegible].	260.	1720.	10.
HB	2291.	39445.	58628.	360.	13190.	200.	4520.	30.
HB	2293.	39436.	58642.	1500.	37950.	390.	3290.	40.
HB	2294.	39346.	60335.	100.	2840.	60.	6910.	0.
HB	2297.	39336.	59260.	80.	4070.	[illegible].	1620.	0.
HB	2298.	39491.	59068.	480.	[illegible].	370.	3880.	10.
HB	2299.	38871.	59357.	700.	24460.	180.	4060.	30.
HB	2300.	39482.	59624.	140.	13[illegible].	[illegible].	1850.	30.
HB	2301.	38063.	59[illegible].	400.	19726.	20[illegible].	7130.	90.
HB	2302.	38055.	59[illegible].	110.	22230.	70.	1690.	10.
HB	2303.	38387.	58641.	220.	25960.	140.	3640.	40.
HB	2304.	37462.	60340.	420.	12[illegible].	180.	2060.	20.
HB	2305.	38046.	59[illegible].	140.	7[illegible].	80.	2350.	10.
HB	2308.	37649.	60[illegible].	270.	6440.	80.	2480.	40.
HB	2310.	37677.	60568.	580.	19[illegible].	220.	3680.	450.
HB	2311.	38007.	58337.	200.	12[illegible].	150.	2250.	30.
HB	2312.	37454.	60272.	240.	9920.	180.	1070.	10.
HB	2313.	37712.	58436.	230.	23[illegible].	240.	2170.	20.
HB	2314.	38447.	58033.	300.	17750.	130.	3410.	20.
HB	2315.	39490.	59[illegible].	520.	25490.	300.	8590.	40.
HB	2316.	37685.	60[illegible].	580.	10860.	140.	1950.	99.
HB	2319.	38367.	58547.	370.	41870.	350.	3100.	49.

CHEMICAL DATA : 92 PANNED CONCENTRATES (C) CESIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJ CODE	NUMBER	EASTING	NORTHING	CESIUM	ANTIMONY	URANIUM	ZR	MO
HB	572.	37476.	56145.	14.	4.	-1.	-1.	-1.
HB	573.	38085.	56125.	69.	12.	-1.	-1.	-1.
HB	574.	37930.	56210.	36.	6.	-1.	-1.	-1.
HB	575.	38022.	56255.	0.	3.	-1.	-1.	-1.
HB	576.	38523.	56836.	0.	0.	-1.	-1.	-1.
HB	577.	38530.	56894.	0.	2.	-1.	-1.	-1.
HB	579.	37702.	56370.	153.	86.	-1.	-1.	-1.
HB	580.	37620.	56610.	25.	0.	-1.	-1.	-1.
HB	581.	38025.	56980.	82.	5.	-1.	-1.	-1.
HB	583.	38360.	56172.	69.	1.	-1.	-1.	-1.
HB	584.	37847.	56120.	127.	1.	-1.	-1.	-1.
HB	585.	37207.	55940.	0.	11.	-1.	-1.	-1.
HB	586.	38730.	56757.	0.	64.	-1.	-1.	-1.
HB	587.	37070.	56030.	77.	9.	-1.	-1.	-1.
HB	588.	38932.	56502.	181.	9.	-1.	-1.	-1.
HB	589.	38551.	56855.	0.	204.	-1.	-1.	-1.
HB	590.	37189.	55940.	35.	3.	-1.	-1.	-1.
HB	591.	37915.	56090.	3.	5.	-1.	-1.	-1.
HB	592.	38595.	56780.	72.	0.	-1.	-1.	-1.
HB	593.	38471.	57046.	73.	0.	-1.	-1.	-1.
HB	594.	37230.	56184.	0.	4.	-1.	-1.	-1.
HB	595.	38108.	56059.	0.	65.	-1.	-1.	-1.
HB	596.	37207.	55940.	49.	8.	-1.	-1.	-1.
HB	597.	37620.	56070.	0.	10.	-1.	-1.	-1.
HB	598.	38738.	56920.	26.	0.	-1.	-1.	-1.
HB	599.	38229.	56504.	0.	34.	-1.	-1.	-1.
HB	600.	38750.	56180.	86.	7.	-1.	-1.	-1.
HB	601.	37370.	57040.	16.	0.	-1.	-1.	-1.
HB	603.	37740.	56770.	26.	2.	-1.	-1.	-1.
HB	604.	37780.	56545.	35.	6.	-1.	-1.	-1.
HB	605.	38500.	57395.	13.	1.	-1.	-1.	-1.
HB	606.	37637.	56577.	0.	6.	-1.	-1.	-1.
HB	607.	38430.	57400.	101.	1.	-1.	-1.	-1.
HB	608.	38645.	57405.	8.	1.	-1.	-1.	-1.
HB	610.	32607.	56680.	0.	6.	-1.	-1.	-1.
HB	611.	38650.	57380.	16.	1.	-1.	-1.	-1.
HB	612.	37300.	56998.	20.	1.	-1.	-1.	-1.
HB	613.	38600.	57260.	23.	1.	-1.	-1.	-1.
HB	616.	37979.	56609.	159.	4.	-1.	-1.	-1.
HB	617.	37958.	56503.	22.	0.	-1.	-1.	-1.
HB	618.	37986.	57519.	21.	8.	-1.	-1.	-1.
HB	620.	38490.	57467.	39.	5.	-1.	-1.	-1.
HB	623.	37982.	56790.	25.	1.	-1.	-1.	-1.
HB	624.	37089.	56395.	51.	0.	-1.	-1.	-1.
HB	626.	37143.	56413.	30.	7.	-1.	-1.	-1.
HB	628.	37956.	56970.	33.	6.	-1.	-1.	-1.
HB	629.	38559.	56748.	50.	1.	-1.	-1.	-1.
HB	630.	37211.	56368.	16.	1.	-1.	-1.	-1.
HB	631.	38641.	57456.	26.	2.	-1.	-1.	-1.
HB	632.	38705.	57450.	0.	10.	-1.	-1.	-1.
HB	633.	38012.	57100.	33.	6.	-1.	-1.	-1.
HB	634.	37509.	56760.	0.	0.	-1.	-1.	-1.
HB	635.	38422.	57213.	23.	0.	-1.	-1.	-1.
HB	636.	37336.	56850.	9.	3.	-1.	-1.	-1.
HB	637.	37199.	56750.	22.	1.	-1.	-1.	-1.
HB	638.	37450.	56937.	44.	0.	-1.	-1.	-1.
HB	639.	38482.	57463.	5.	0.	-1.	-1.	-1.

I.G.S. G-EXEC 6 UTIL/GXEROX ON FILE TEMPFILE

C.C.JOHNSON IGS KEYWORTH PAGE 3 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 9 NO. OF RECORDS : 1880 WORDS PER RECORD : 9

CARD INPUT FORMAT

	PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM		
FIELD LENGTH	** **	** **	** **	** **	** **	** **	** **	** **	** ** ** ** **
FIELD TYPE	A	F	F	F	F	F	F	F	
UPPER LIMIT	ZZ	342299.	42540.	624[illegible]8	1864.	204.	1[illegible]0.	340.	75.
LOWER LIMIT	AB	500.	338[illegible].	559[illegible].	0.	0.	0.	50.	0.
ABSENT DATA VALUE		-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.
DICTIONARY SEGMENT IDENTIFIER									

CHEMICAL DATA FOR PANNED CONCENTRATES (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	500.	37111.	56222.	82.	2.	-1.	-1.	-1.
HB	502.	37032.	56088.	0.	0.	-1.	-1.	-1.
HB	503.	37221.	55983.	41.	1.	-1.	-1.	-1.
HB	505.	38264.	55590.	9.	6.	-1.	-1.	-1.
HB	507.	38610.	55966.	16.	1.	-1.	-1.	-1.
HB	509.	37881.	56174.	14.	2.	-1.	-1.	-1.
HB	510.	37860.	56006.	0.	5.	-1.	-1.	-1.
HB	511.	38418.	56000.	309.	3.	-1.	-1.	-1.
HB	512.	37500.	56666.	270.	1.	-1.	-1.	-1.
HB	513.	38050.	56[illegible].	384.	0.	-1.	-1.	-1.
HB	514.	38640.	56012.	0.	114.	-1.	-1.	-1.
HB	515.	38800.	56136.	109.	0.	-1.	-1.	-1.
HB	516.	38450.	56231.	107.	0.	-1.	-1.	-1.
HB	517.	38038.	56103.	60.	1.	-1.	-1.	-1.
HB	518.	37720.	56234.	47.	1.	-1.	-1.	-1.
HB	521.	38[illegible]90.	56095.	34.	8.	-1.	-1.	-1.
HB	522.	3[illegible]70.	56809.	0.	95.	-1.	-1.	-1.
HB	523.	38866.	56361.	164.	2.	-1.	-1.	-1.
HB	524.	37658.	56020.	6.	5.	-1.	-1.	-1.
HB	525.	38704.	56990.	24.	1.	-1.	-1.	-1.
HB	526.	37644.	56250.	42.	3.	-1.	-1.	-1.
HB	527.	37381.	56240.	38.	6.	-1.	-1.	-1.
HB	528.	37[illegible]5.	56039.	23.	2.	-1.	-1.	-1.
HB	529.	38[illegible]4.	56478.	439.	2.	-1.	-1.	-1.
HB	531.	37319.	55943.	63.	0.	-1.	-1.	-1.
HB	532.	38031.	56067.	115.	2.	-1.	-1.	-1.
HB	533.	38530.	56436.	46.	6.	-1.	-1.	-1.
HB	536.	37750.	56039.	55.	6.	-1.	-1.	-1.
HB	537.	37589.	56657.	14.	1.	-1.	-1.	-1.
HB	538.	38890.	56420.	24.	1.	-1.	-1.	-1.
HB	539.	37470.	56690.	29.	18.	-1.	-1.	-1.
HB	540.	38618.	56440.	439.	5.	-1.	-1.	-1.
HB	541.	37190.	56190.	32.	0.	-1.	-1.	-1.
HB	543.	37468.	56309.	37.	0.	-1.	-1.	-1.
HB	544.	38284.	56702.	19.	0.	-1.	-1.	-1.
HB	546.	37110.	55926.	4.	15.	-1.	-1.	-1.
HB	547.	38322.	56248.	61.	47.	-1.	-1.	-1.
HB	548.	37870.	56193.	84.	0.	-1.	-1.	-1.
HB	549.	37853.	56072.	7.	19.	-1.	-1.	-1.
HB	550.	38725.	56[illegible]0.	7.	17.	-1.	-1.	-1.
HB	551.	37741.	56075.	0.	9.	-1.	-1.	-1.
HB	552.	38460.	56091.	19.	0.	-1.	-1.	-1.
HB	553.	37931.	56211.	0.	0.	-1.	-1.	-1.
HB	556.	38978.	56521.	25.	3.	-1.	-1.	-1.
HB	557.	38412.	56085.	29.	0.	-1.	-1.	-1.
HB	558.	38224.	56041.	0.	37.	-1.	-1.	-1.
HB	559.	37990.	56100.	0.	1.	-1.	-1.	-1.
HB	560.	38200.	56246.	72.	9.	-1.	-1.	-1.
HB	561.	37560.	56259.	0.	0.	-1.	-1.	-1.
HB	562.	37690.	56660.	0.	0.	-1.	-1.	-1.
HB	563.	[illegible]391.	56340.	82.	5.	-1.	-1.	-1.
HB	565.	[illegible]705.	56334.	66.	8.	-1.	-1.	-1.
HB	566.	37858.	56273.	78.	12.	-1.	-1.	-1.
HB	567.	37623.	56280.	67.	1.	-1.	-1.	-1.
HB	569.	38230.	56573.	0.	0.	-1.	-1.	-1.
HB	570.	37571.	56188.	37.	2.	-1.	-1.	-1.
HB	571.	[illegible].	56256.	61.	5.	-1.	-1.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM IN PPM

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1547.	42013.	59860.	96.	5.	0.	2640	0.
HB	1548.	40668.	60282.	112.	5.	0.	5725	0.
HB	1549.	41830.	59167.	663.	1.	20.	11485.	6.
HB	1550.	41720.	59369.	533.	1.	20.	11300.	6.
HB	1551.	41908.	59940.	120.	1.	0.	4750.	4.
HB	1553.	40905.	60094.	175.	5.	10.	12080.	2.
HB	1554.	40609.	60298.	94.	4.	10.	6820.	3.
HB	1555.	42013.	60053.	420.	4.	20.	12650.	4.
HB	1556.	41127.	59867.	278.	1.	10.	8670.	7.
HB	1557.	40642.	60503.	67.	1.	0.	4220.	4.
HB	1560.	41944.	59837.	1285.	6.	50.	28850.	13.
HB	1561.	40154.	60058.	87.	0.	10.	13520.	1.
HB	1562.	41990.	59300.	608.	0.	30.	13520.	9.
HB	1563.	41964.	59193.	522.	0.	20.	14060.	1.
HB	1564.	40459.	60142.	324.	0.	20.	20420.	18.
HB	1565.	42021.	57265.	979.	11.	30.	20150.	8.
HB	1566.	39968.	60749.	140.	1.	10.	11340.	13.
HB	1568.	40660.	60047.	154.	2.	10.	10820.	2.
HB	1569.	40434.	60418.	247.	2.	10.	10850.	1.
HB	1570.	39720.	60818.	73.	0.	10.	3210.	0.
HB	1571.	40687.	60053.	193.	1.	10.	11700.	3.
HB	1572.	40707.	60180.	65.	0.	0.	5220.	2.
HB	1573.	40812.	60364.	0.	0.	10.	3630.	0.
HB	1574.	39825.	60799.	0.	0.	0.	2480.	4.
HB	1575.	41097.	59670.	0.	0.	0.	2190.	1.
HB	1576.	39502.	60830.	250.	0.	0.	6660.	0.
HB	1577.	41964.	59150.	0.	13.	0.	1260.	5.
HB	1578.	41596.	59889.	102.	0.	0.	3860.	2.
HB	1580.	40005.	60843.	1145.	1.	30.	31440.	14.
HB	1582.	40429.	60420.	149.	0.	10.	6880.	1.
HB	1583.	40206.	60764.	82.	0.	0.	4400.	2.
HB	1585.	41725.	59562.	1039.	0.	40.	20040.	6.
HB	1586.	40274.	60169.	56.	0.	0.	2150.	2.
HB	1587.	40658.	60051.	252.	0.	10.	14640.	1.
HB	1590.	40350.	60372.	187.	2.	10.	10940.	4.
HB	1591.	41753.	59075.	195.	0.	10.	5270.	7.
HB	1592.	41500.	59876.	190.	0.	10.	6080.	2.
HB	1593.	40532.	59988.	129.	0.	10.	5350.	1.
HB	1594.	40383.	59950.	285.	0.	20.	23850.	7.
HB	1595.	40013.	60723.	107.	0.	0.	4930.	2.
HB	1597.	40616.	60380.	131.	0.	10.	3430.	0.
HB	1598.	40858.	60049.	177.	0.	10.	11140.	4.
HB	1600.	41624.	59582.	415.	0.	20.	10670.	4.
HB	1601.	39559.	60625.	323.	0.	10.	8110.	0.
HB	1602.	40995.	61117.	149.	0.	10.	10660.	3.
HB	1603.	39870.	59900.	47.	0.	0.	3570.	3.
HB	1604.	39557.	60550.	105.	0.	0.	6350.	0.
HB	1605.	41036.	61317.	108.	0.	0.	3450.	0.
HB	1606.	40538.	61116.	76.	0.	0.	4890.	0.
HB	1607.	40424.	61749.	46.	0.	10.	2190.	0.
HB	1608.	39869.	60489.	59.	0.	0.	2710.	0.
HB	1609.	39508.	60239.	124.	0.	0.	6020.	4.
HB	1610.	40098.	61179.	104.	0.	0.	3030.	3.
HB	1611.	40889.	61498.	137.	10.	10.	3560.	3.
HB	1612.	40940.	60648.	102.	0.	0.	6360.	3.
HB	1614.	39711.	60107.	41.	0.	0.	520.	3.
HB	1615.	39510.	60232.	66.	3.	0.	3650.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES; (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1389.	40905.	60020.	20.	0.	0.	2640.	1.
HB	1390.	40290.	59731.	0.	0.	10.	4430.	6.
HB	1391.	40730.	58807.	41.	2.	10.	1910.	0.
HB	1392.	40076.	59842.	0.	0.	0.	3130.	1.
HB	1393.	40455.	59574.	36.	0.	0.	1790.	2.
HB	1394.	40641.	59312.	28.	0.	0.	2230.	1.
HB	1395.	40635.	56830.	109.	0.	10.	4520.	2.
AT	1396.	40791.	56766.	23.	0.	0.	2100.	2.
HB	1397.	40683.	56478.	0.	0.	10.	7250.	6.
HB	1398.	40355.	55632.	0.	0.	0.	2440.	0.
HB	1399.	40101.	59300.	0.	0.	10.	750.	3.
HB	1400.	40851.	59804.	16.	0.	0.	1490.	1.
HB	1403.	41113.	59433.	0.	0.	10.	3610.	3.
HB	1405.	40884.	59566.	51.	0.	10.	6320.	3.
HB	1407.	40976.	59[illegible].	46.	0.	0.	5770.	6.
HB	1408.	40065.	59[illegible].	14.	0.	0.	5760.	4.
HB	1409.	39880.	59[illegible].	206.	0.	10.	8420.	8.
HB	1411.	41373.	59018.	51.	0.	0.	940.	0.
HB	1413.	41140.	59608.	33.	3.	10.	6170.	3.
HB	1414.	39337.	58247.	77.	0.	10.	3210.	0.
HB	1415.	40813.	59601.	81.	4.	10.	3600.	2.
HB	1416.	39976.	59489.	91.	9.	10.	3310.	1.
HB	1417.	41110.	58970.	39.	10.	10.	8380.	9.
HB	1419.	40060.	59692.	65.	0.	10.	5300.	0.
HB	1421.	41060.	59298.	9.	3.	0.	3640.	4.
HB	1425.	40059.	59529.	31.	0.	10.	6170.	2.
HB	1427.	41352.	59807.	69.	0.	0.	1520.	2.
HB	1429.	41243.	59051.	205.	0.	10.	6060.	2.
HB	1430.	39244.	58000.	161.	5.	10.	10460.	5.
HB	1432.	39296.	58118.	5.	2.	0.	580.	2.
HB	1434.	40150.	59517.	0.	2.	0.	2720.	4.
HB	1435.	41478.	58966.	114.	10.	0.	2440.	1.
HB	1436.	41163.	59220.	0.	2.	0.	1150.	3.
HB	1438.	41417.	58895.	196.	5.	10.	4830.	3.
HB	1440.	41416.	58756.	7.	0.	0.	1400.	3.
HB	1441.	39447.	58055.	34.	0.	0.	1750.	1.
HB	1444.	41262.	59792.	0.	0.	10.	6000.	9.
HB	1446.	40610.	59710.	41.	4.	10.	3890.	0.
HB	1450.	41475.	58564.	2.	2.	10.	810.	1.
HB	1451.	40595.	59722.	36.	0.	0.	2720.	3.
HB	1452.	40084.	59646.	294.	2.	10.	19680.	6.
HB	1453.	39916.	59297.	0.	6.	0.	880.	5.
HB	1454.	41252.	59711.	0.	0.	10.	5840.	11.
HB	1457.	39270.	58080.	194.	0.	20.	11110.	2.
HB	1459.	40006.	59254.	0.	0.	0.	1890.	3.
HB	1460.	39348.	58243.	149.	2.	10.	6770.	2.
HB	1462.	41370.	58777.	0.	0.	0.	1720.	7.
HB	1463.	39792.	57383.	25.	0.	10.	4850.	3.
HB	1464.	39321.	58028.	107.	2.	10.	6560.	0.
HB	1465.	41288.	58718.	291.	6.	10.	9440.	4.
HB	1466.	41328.	58719.	0.	0.	0.	2600.	5.
HB	1469.	41328.	59598.	54.	0.	0.	1560.	1.
HB	1471.	40165.	59520.	62.	3.	0.	3580.	1.
HB	1472.	41272.	59600.	5.	1.	0.	1700.	1.
HB	1473.	41334.	59806.	6.	1.	20.	12100.	4.
HB	1474.	39252.	58183.	50.	0.	10.	6890.	10.
						5	1800.	3.

CHEMICAL DATA FOR PANNED CONCENTRATES, (C) CERIUM, [illegible], URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZI	MO	
HB	1475.	40606.	59800.	259.	0.	20.	12720.		1.
HB	1476.	40530.	59732.	101.	0.	10.	2540.		2.
HB	1477.	40928.	59656.	114.	2.	10.	6780.		3.
HB	1478.	41367.	58852.	40.	0.	10.	3510.		4.
HB	1479.	41359.	59712.	95.	5.	20.	12340.		5.
HB	1480.	41146.	59479.	2.	5.	0.	3230.		5.
HB	1482.	40104.	59560.	1.	0.	10.	4830.		6.
HB	1485.	41335.	58909.	14.	0.	10.	4910.		3.
HB	1487.	41136.	59547.	0.	0.	0.	1750.		0.
HB	1489.	41145.	58920.	45.	0.	20.	12050.		6.
HB	1491.	40958.	59350.	245.	0.	10.	7670.		3.
HB	1494.	40910.	59633.	206.	4.	10.	8140.		4.
HB	1496.	41099.	59490.	207.	4.	10.	5030.		3.
HB	1500.	41192.	59054.	182.	5.	10.	4830.		3.
HB	1502.	42046.	59327.	1026.	1.	40.	23080.	10.	
HB	1503.	41348.	59361.	460.	2.	10.	10130.		3.
HB	1504.	40270.	60416.	83.	12.	10.	6080.		2.
HB	1505.	39591.	60798.	55.	0.	10.	3230.		2.
HB	1506.	41628.	59432.	379.	0.	10.	7240.		3.
HB	1507.	40878.	60215.	7.	0.	10.	5580.		1.
HB	1508.	41402.	59768.	1.	7.	10.	4100.		2.
HB	1509.	41780.	59722.	810.	4.	20.	16560.		6.
HB	1510.	41723.	59723.	853.	3.	30.	21390.	13.	
HB	1511.	39957.	60848.	1.	5.	10.	900.		8.
HB	1512.	41118.	59865.	45.	0.	10.	5490.		8.
HB	1513.	42015.	59608.	205.	1.	10.	5780.		7.
HB	1514.	41969.	59380.	1065.	12.	40.	27360.	1.	
HB	1515.	41612.	59686.	143.	5.	10.	4330.		3.
HB	1516.	41237.	59856.	80.	0.	0.	5250.		3.
HB	1518.	41038.	59801.	56.	0.	10.	4420.		5.
HB	1518.	40145.	59232.	38.	4.	0.	1120.		4.
HB	1519.	39950.	60722.	114.	3.	0.	3970.		4.
HB	1520.	41252.	59887.	4.	0.	0.	5580.		1.
HB	1521.	40868.	60245.	21.	0.	0.	4630.		2.
HB	1522.	40827.	60262.	91.	0.	10.	4[illegible].		5.
HB	1523.	40427.	60098.	181.	0.	10.	8[illegible].		5.
HB	1524.	40207.	60123.	49.	0.	10.	8590.		3.
HB	1526.	41960.	59946.	501.	0.	20.	11[illegible].		4.
HB	1527.	41790.	59630.	741.	4.	20.	14[illegible].		6.
HB	1528.	41970.	59890.	35.	0.	10.	5110.		2.
HB	1529.	41440.	59380.	574.	0.	20.	12[illegible].		6.
HB	1530.	40045.	60477.	129.	0.	0.	[illegible].		6.
HB	1531.	41836.	59713.	258.	0.	10.	6850.		3.
HB	1532.	37981.	60637.	174.	0.	10.	8170.		3.
HB	1533.	40300.	61270.	187.	12.	10.	10680.		6.
HB	1534.	41127.	60070.	61.	0.	0.	2730.		2.
HB	1535.	40634.	60502.	60.	0.	0.	5060.		2.
HB	1536.	41837.	59170.	194.	0.	10.	5600.		0.
HB	1537.	41838.	59430.	285.	0.	10.	8310.		2.
HB	1538.	40615.	60306.	79.	5.	0.	4440.		2.
HB	1539.	40158.	60058.	994.	0.	70.	44260.	17.	
HB	1540.	41824.	59725.	432.	0.	20.	12570.		8.
HB	1541.	41[illegible].	59411.	958.	0.	30.	19150.		2.
HB	1542.	41[illegible].	59430.	411.	1.	10.	8850.		2.
HB	1543.	43300.	60343.	183.	1.	10.	9120.		2.
HB	1544.	39997.	60635.	107.	0.	10.	2150.		2.
HB	1545.	41720.	60816.	71.	0.	0.	2360.		4.

CHEMICAL DATA FOR PANNED CONCENTRATES, (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2458.	37556.	58574.	13.	0.	0.	360.	0.
HB	2459.	37104.	58196.	24.	0.	0.	1630.	2.
HB	2460.	38010.	58044.	12.	3.	0.	580.	4.
HB	2461.	37109.	58101.	15.	2.	0.	2150.	1.
HB	2462.	37105.	58343.	23.	0.	0.	1010.	0.
HB	2463.	38040.	59656.	23.	0.	0.	1030.	0.
HB	2464.	37373.	58090.	7.	0.	0.	400.	1.
HB	2465.	37355.	59913.	37.	1.	0.	2150.	1.
HB	2466.	38017.	59690.	45.	1.	0.	2880.	0.
HB	2467.	38030.	59718.	20.	0.	0.	1570.	0.
HB	2468.	37773.	59210.	22.	1.	0.	1020.	2.
HB	2469.	37757.	58905.	22.	9.	0.	480.	1.
HB	2470.	37718.	58553.	7.	1.	0.	1340.	3.
HB	2471.	37578.	60015.	34.	6.	0.	2200.	1.
HB	2472.	37758.	59819.	15.	9.	0.	980.	0.
HB	2474.	36752.	58277.	0.	0.	0.	360.	1.
HB	2477.	36652.	58011.	10.	0.	0.	2420.	1.
HB	2478.	37107.	58030.	24.	4.	0.	610.	2.
HB	2479.	36872.	58413.	24.	4.	0.	3570.	1.
HB	2480.	37497.	58156.	7.	2.	0.	350.	1.
HB	2482.	37510.	59950.	13.	2.	0.	1170.	1.
HB	2483.	37225.	58530.	4.	1.	0.	1110.	1.
HB	2484.	37492.	58562.	10.	1.	0.	230.	1.
HB	2485.	37788.	59951.	16.	1.	0.	720.	1.
HB	2486.	37724.	59870.	20.	1.	0.	420.	0.
HB	2487.	37541.	59904.	45.	1.	0.	1760.	1.
HB	2489.	37297.	59577.	11.	1.	0.	450.	1.
HB	2491.	37917.	59787.	9.	1.	0.	760.	1.
HB	2492.	37098.	58304.	20.	2.	0.	1359.	2.
HB	2493.	38113.	59841.	11.	0.	0.	1140.	2.
HB	2494.	36742.	58027.	21.	1.	0.	1310.	1.
HB	2495.	37745.	59376.	54.	5.	0.	2120.	0.
HB	2496.	36620.	58025.	0.	1.	0.	570.	1.
HB	2498.	37514.	59519.	103.	0.	15.	6990.	3.
HB	2499.	37181.	58870.	25.	11.	0.	1860.	1.
HB	2500.	37530.	59958.	18.	11.	0.	690.	1.
HB	2501.	36904.	59711.	44.	0.	0.	4520.	2.
HB	2504.	37441.	59217.	0.	2.	0.	290.	2.
HB	2505.	37097.	59532.	3.	2.	0.	690.	2.
HB	2506.	37138.	59497.	20.	2.	0.	850.	2.
HB	2507.	36896.	59778.	116.	0.	10.	10530.	3.
HB	2508.	37759.	58174.	11.	0.	0.	190.	1.
HB	2510.	37340.	59114.	8.	0.	0.	220.	1.
HB	2511.	36610.	59844.	53.	3.	10.	12150.	0.
HB	2515.	37856.	58118.	30.	3.	0.	1170.	0.
HB	2516.	36565.	59905.	30.	3.	0.	2920.	0.
HB	2517.	37588.	58032.	16.	0.	0.	1450.	0.
HB	2518.	36953.	59797.	30.	0.	0.	5830.	0.
HB	2521.	37522.	55383.	0.	0.	0.	224.	0.
HB	2522.	37720.	58560.	11.	0.	0.	953.	0.
HB	2523.	36622.	59868.	99.	0.	20.	17520.	0.
HB	2524.	37142.	59498.	8.	0.	0.	490.	0.
HB	2527.	37752.	58113.	29.	0.	0.	2760.	0.
HB	2529.	37101.	59530.	36.	0.	0.	3460.	0.
HB	2530.	37497.	58229.	42.	0.	0.	3590.	0.
HB	2531.	37135.	58978.	15.	1.	1.	1240.	0.
HB	2533.	37316.	59103.	37.	6.	2.	960.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES, (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJECT	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2534.	37591.	59687.	17.	0.	0.	1120.	0.
HB	2535.	37183.	59405.	49.	0.	10.	4430.	0.
HB	2536.	37480.	59505.	30.	0.	0.	1720.	0.
HB	2537.	37472.	59661.	32.	0.	0.	6260.	1.
HB	2538.	37812.	59195.	11.	0.	0.	670.	0.
HB	2539.	37435.	59725.	7.	0.	0.	950.	0.
HB	2540.	36525.	59224.	9.	0.	0.	490.	0.
HB	2542.	37050.	59750.	25.	0.	0.	2700.	0.
HB	2543.	37490.	59116.	10.	0.	0.	480.	0.
HB	2544.	37814.	58813.	7.	0.	0.	700.	0.
HB	2545.	37415.	59093.	7.	0.	0.	700.	0.
HB	2546.	37394.	59105.	26.	0.	0.	960.	0.
HB	2547.	37717.	59003.	15.	0.	0.	1270.	0.
HB	2548.	37266.	59356.	17.	0.	0.	620.	0.
HB	2549.	36876.	59684.	20.	0.	0.	430.	2.
HB	2550.	37284.	58993.	10.	0.	0.	690.	0.
HB	2552.	37202.	59422.	25.	0.	0.	1250.	0.
HB	2553.	37066.	59800.	28.	0.	0.	1210.	0.
HB	2554.	37045.	59362.	10.	0.	0.	480.	0.
HB	2555.	37523.	59576.	16.	0.	0.	1130.	0.
HB	2556.	37193.	59390.	26.	0.	0.	1030.	0.
HB	2557.	37610.	59020.	63.	0.	0.	5980.	0.
HB	2558.	36587.	59665.	6.	0.	0.	240.	0.
HB	2560.	37057.	59060.	50.	0.	0.	2530.	0.
HB	2561.	36730.	59820.	11.	0.	0.	2070.	0.
HB	2562.	37581.	59611.	4.	0.	0.	1010.	2.
HB	2563.	37965.	58[illegible].	31.	0.	0.	980.	0.
HB	2564.	37515.	59755.	22.	0.	0.	1470.	0.
HB	2565.	36600.	59687.	44.	0.	0.	3270.	2.
HB	2566.	37629.	59046.	23.	0.	0.	2110.	0.
HB	2567.	37440.	59116.	45.	0.	0.	2730.	0.
HB	2568.	37045.	59359.	6.	0.	0.	4250.	0.
HB	2569.	36530.	59940.	19.	0.	0.	1830.	2.
HB	2570.	37103.	59383.	12.	0.	0.	1220.	0.
HB	2572.	36977.	59760.	41.	0.	0.	2670.	0.
HB	2573.	36813.	59660.	31.	0.	0.	[illegible].	0.
HB	2574.	37859.	59780.	34.	0.	0.	1450.	0.
HB	2575.	37056.	59884.	58.	0.	0.	3220.	0.
HB	2576.	37511.	59385.	68.	0.	0.	7560.	0.
HB	2577.	37776.	59106.	9.	0.	0.	670.	0.
HB	2578.	37192.	59388.	17.	0.	0.	1020.	0.
HB	2579.	37430.	59386.	15.	0.	0.	920.	0.
HB	2580.	37[illegible].	58009.	27.	0.	0.	810.	0.
HB	2581.	37[illegible].	59680.	68.	0.	0.	5390.	2.
HB	2582.	37956.	59964.	4.	0.	0.	530.	0.
HB	2583.	36742.	59850.	50.	0.	14.	2920.	0.
HB	2584.	37551.	58982.	13.	0.	0.	[illegible].	0.
HB	2585.	37893.	58062.	34.	0.	0.	700.	0.
HB	2586.	36726.	59847.	20.	0.	0.	600.	0.
HB	2587.	[illegible].	59140.	8.	0.	0.	1430.	0.
HB	2588.	[illegible].	58040.	14.	0.	0.	620.	0.
HB	2590.	[illegible].	59465.	5.	0.	0.	350.	0.
HB	2591.	[illegible].	58084.	52.	0.	0.	1760.	0.
HB	2594.	[illegible].	59702.	32.	0.	0.	[illegible].	0.
HB	2595.	[illegible].	59339.	4.	0.	0.	[illegible].	0.
HB	2596.	37266.	59129.	36.	1.	1.	990.	0.
HB	2597.	37533.	59545.	36.	1.	1.	756.	0.

CHEMICAL DATA FOR PANNLE CONCENTRATES, (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZIRCONIUM	MOLYBDENUM
HB	2390.	37207.	60214.	60.	1.	0.	3910.	1.
HB	2391.	38007.	59456.	29.	0.	0.	830.	1.
HB	2392.	37232.	60224.	52.	2.	0.	3560.	1.
HB	2393.	37698.	58302.	4.	0.	0.	910.	1.
HB	2394.	38093.	57995.	24.	0.	0.	1[illegible].	1.
HB	2395.	37639.	60307.	61.	6.	0.	2[illegible].	0.
HB	2396.	38091.	59022.	98.	5.	0.	3980.	0.
HB	2397.	37615.	60355.	49.	1.	0.	2500.	0.
HB	2399.	37641.	60442.	21.	0.	1.	1370.	1.
HB	2400.	37249.	58288.	16.	8.	0.	470.	0.
HB	2401.	36748.	58096.	16.	1.	0.	420.	1.
HB	[illegible]	[illegible]	59900.	11.	1.	0.	590.	1.
HB	[illegible]	[illegible]	59712.	4.	0.	0.	790.	0.
HB	2405.	37748.	59420.	29.	1.	0.	950.	0.
HB	2407.	37177.	58491.	27.	2.	0.	1650.	1.
HB	2408.	37272.	58422.	54.	0.	0.	3180.	1.
HB	2410.	36805.	58[illegible].	18.	0.	0.	580.	1.
HB	2411.	37156.	58531.	22.	0.	0.	1190.	1.
HB	2414.	37184.	58135.	0.	2.	0.	350.	1.
HB	2415.	37165.	58[illegible].	17.	0.	0.	1620.	2.
HB	2416.	37960.	59[illegible].	26.	0.	0.	1450.	2.
HB	2417.	37763.	59468.	52.	0.	0.	1580.	2.
HB	24[illegible].	37455.	58539.	14.	2.	0.	1000.	3.
HB	2419.	36784.	58282.	2.	0.	0.	160.	2.
HB	[illegible]	36607.	58012.	[illegible].	0.	0.	470.	0.
HB	2422.	37737.	59559.	23.	0.	0.	680.	2.
HB	2423.	36598.	58020.	6.	0.	0.	880.	1.
HB	2424.	37807.	59712.	55.	2.	0.	1960.	2.
HB	2425.	37210.	59860.	48.	4.	0.	1930.	0.
HB	2426.	36994.	58432.	27.	0.	10.	[illegible]20.	0.
HB	2428.	37548.	58078.	16.	8.	0.	750.	2.
HB	[illegible]27.	37802.	59273.	21.	9.	0.	570.	0.
HB	2430.	36703.	58097.	12.	7.	0.	440.	2.
HB	2431.	36845.	58324.	23.	1.	0.	320.	0.
HB	24[illegible].	37979.	59618.	159.	4.	10.	7240.	1.
HB	2432.	36795.	58096.	3.	6.	0.	680.	1.
HB	2433.	37716.	59876.	3.	0.	0.	420.	2.
HB	2436.	38016.	59665.	91.	4.	0.	4480.	2.
HB	2437.	36967.	58046.	11.	0.	0.	1530.	2.
HB	2438.	36761.	58275.	16.	4.	0.	790.	1.
HB	2439.	37393.	59941.	132.	9.	10.	9500.	1.
HB	2441.	37853.	58764.	4.	0.	0.	620.	1.
HB	2442.	37458.	58140.	4.	0.	0.	890.	4.
HB	[illegible]3.	37188.	58386.	1[illegible].	0.	0.	2570.	2.
HB	2444.	36895.	58024.	27.	2.	0.	2320.	1.
HB	2446.	37041.	58247.	18.	10.	0.	680.	1.
HB	2447.	37918.	59871.	18.	0.	0.	1430.	1.
HB	2448.	37404.	58130.	9.	0.	0.	150.	2.
HB	2449.	37165.	58431.	52.	6.	0.	3000.	0.
HB	2450.	36802.	58471.	17.	0.	0.	2570.	0.
HB	2451.	36852.	58379.	18.	1.	0.	400.	1.
HB	2452.	36933.	58025.	12.	2.	0.	1110.	1.
HB	2453.	37072.	59716.	66.	3.	0.	3520.	2.
HB	2454.	38101.	59739.	45.	1.	0.	2650.	1.
HB	2455.	37438.	59003.	29.	0.	0.	2140.	3.
HB	2456.	37316.	58121.	31.	0.	0.	940.	0.
HB	2457.	37458.	59970.	38.	2.	0.	1800.	0.

CHEMICAL DATA FOR N.KELSO CONCENTRATES:(I) CALCIUM, IRON, MANGANESE, TITANIUM AND (IN PPM)

PROJCOD	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM
BF	5236.	37516.	65405.	1800.	131000.	700.	20300.
BF	5238.	37562.	65458.	1800.	114400.	800.	15000.
BF	5239.	37580.	65465.	1500.	46100.	400.	9900.
BF	5240.	37877.	65974.	1500.	44200.	700.	12900.
BF	5249.	37625.	65412.	1500.	162400.	1300.	13200.
BF	5519.	36570.	64798.	2000.	42000.	800.	33100.
BF	5544.	37298.	65130.	1100.	139900.	1200.	1400.
BF	5549.	37417.	65300.	1100.	107600.	800.	19900.
BF	5550.	37389.	65322.	1000.	112600.	900.	30800.
BF	5555.	37061.	67457.	4900.	166800.	1900.	33400.
BF	5556.	37059.	67429.	2800.	166300.	1500.	23300.
BF	5557.	36988.	67420.	2300.	92900.	900.	14600.
BF	5558.	36988.	67433.	5600.	154200.	1300.	17500.
BF	5559.	36911.	67389.	2400.	211300.	2100.	26300.
BF	5560.	36842.	67303.	2900.	109100.	900.	16300.
BF	5561.	37502.	64941.	4300.	171000.	2400.	57100.
BF	5562.	37425.	64894.	3000.	161600.	1800.	41000.
BF	5563.	37430.	64882.	3300.	166500.	1900.	46000.
BF	5564.	37347.	64762.	1800.	92200.	1100.	48200.
BF	5565.	37329.	64781.	3900.	70500.	800.	29700.
BF	5566.	37289.	64812.	2900.	132800.	1900.	35900.
BF	5575.	38096.	65412.	1200.	94100.	1200.	38000.
BF	5576.	37501.	66978.	2600.	68000.	600.	9800.
BF	5577.	37410.	66891.	2900.	226000.	2600.	35800.
BF	5580.	37392.	66835.	2500.	185300.	1100.	13500.
BF	5581.	37408.	66842.	3300.	141000.	900.	18300.
BF	5582.	37301.	66859.	1200.	91500.	500.	10300.
BF	5584.	38385.	65598.	4700.	160500.	2500.	65000.
BF	5599.	38089.	65553.	3600.	75200.	500.	17600.
BF	5600.	38081.	65580.	4300.	47900.	400.	14700.
BF	5640.	36646.	65690.	1000.	116300.	800.	11400.
BF	5648.	38081.	65951.	1900.	71200.	300.	6800.
BF	5650.	38061.	65726.	3100.	52200.	600.	20000.
BF	5652.	38500.	65538.	3400.	56900.	1000.	22100.
BF	5663.	37317.	67321.	600.	75800.	400.	10500.
BF	5664.	37320.	67280.	500.	17900.	200.	10500.
BF	5665.	37229.	67221.	2900.	106400.	900.	10900.
BF	5667.	37068.	67241.	1900.	87900.	800.	8200.
BF	5669.	37058.	67252.	920.	50800.	300.	8400.
BF	5670.	37476.	65067.	2100.	63200.	500.	15500.
BF	5671.	37596.	65122.	2000.	82500.	700.	25600.
BF	5673.	37683.	65060.	3100.	50200.	500.	12200.
BF	5674.	37680.	65046.	2600.	66200.	500.	12900.
BF	5675.	37589.	65011.	1900.	73200.	500.	22100.
BF	5683.	37252.	67005.	900.	50000.	300.	5300.
BF	5685.	37282.	67063.	1300.	89000.	700.	8100.
BF	5686.	37305.	67095.	2400.	128100.	1300.	22900.
BF	5688.	37468.	67028.	4700.	135600.	1300.	24000.
BF	5689.	37454.	67038.	3800.	71700.	500.	9500.
BF	5695.	38333.	65453.	11000.	107500.	2100.	49000.
BF	5697.	37554.	64911.	1400.	29300.	300.	6600.
BF	5698.	37559.	64935.	1400.	52400.	200.	11100.
BF	5759.	37240.	67223.	1400.	64100.	500.	6800.
BF	5760.	37320.	67225.	1600.	64100.	500.	7400.
BF	5761.	37383.	67168.	1100.	76000.	600.	12500.
BF	5763.	37533.	67182.	1400.	84500.	700.	12800.
BF	5764.	37491.	67171.	1500.	67700.	500.	9000.

NORTH KELSO AREA CHEMICAL DATA FOR PANNED CONCENTRATES (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
BF	5767.	37765.	65225.	747.	71.	120.	0.	55.	24.
BF	5769.	37790.	65093.	258.	75.	206.	0.	64.	19.
BF	5770.	37838.	65059.	184.	51.	198.	0.	55.	9.
BF	5771.	37833.	65048.	203.	31.	97.	0.	32.	9.
BF	5772.	37928.	65083.	507.	68.	256.	0.	26.	11.
BF	5780.	38909.	63670.	395.	55.	82.	0.	78.	9.
BF	5781.	37267.	63761.	139.	109.	276.	0.	26.	0.
BF	5785.	39335.	65485.	451.	70.	41.	0.	83.	20.
BF	5786.	39349.	65488.	31680.	266.	91.	94.	19.	0.
BF	5789.	37225.	63689.	1090.	63.	258.	46.	43.	22.
BF	5792.	36518.	63752.	204.	13.	56.	0.	97.	18.
BF	5796.	36462.	63746.	447.	26.	294.	0.	16.	7.
BF	5798.	36779.	63708.	170.	25.	207.	3.	32.	13.
BF	5803.	37048.	64006.	220.	31.	210.	9.	34.	5.
BF	5805.	37327.	64442.	259.	55.	127.	0.	70.	8.
BF	5806.	36150.	63512.	243.	41.	64.	3.	40.	3.
BF	5815.	37310.	64210.	199.	37.	216.	1.	15.	15.
BF	5816.	37497.	64530.	166.	29.	150.	6.	60.	16.
BF	5817.	36492.	64170.	186.	52.	50.	0.	46.	11.
	-1.	-1.	-1.	-1.	-1.	-1.	2.	25.	3.
							-1.	-1.	-1.

MAKE TEMPFILE

G:EXEC/G:UTIL/GPROJECT ON FILE WORKFILE
****

C.C.JOHNSON IGS KEYWORTH P463 03NOV81
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

I.G.S. G-EXEC/G-UTIL/GXEROX ON FILE TEMPFILE

C.C.JOHNSON IGS KEYWORTH PAGE 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMP FILE

NO. OF FIELDS : 8 NO. OF RECORDS : 77 WORDS PER RECORD : 8

CARD INPUT FORMAT

PROJCODE	NUMBER	CASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM
FIELD LENGTH	** **	** **	** **	** **	** **	** **	** **	** ** ** ** ** ** ** **
FIELD TYPE	A	F	F	F	F	F	F	
UPPER LIMIT	BF	5817.	39549.	67457.	11000.	226000.	4300.	31[illegible].
LOWER LIMIT	BF	5236.	36150.	6[illegible]512.	500.	17900.	200.	1400.
ABSENT DATA VALUE		-1	-1	-1.	-1.	-1.	-1.	-1.

DICTIONARY SEGMENT IDENTIFIER

BOREHOLE	NUMBER	CERT	CALCIUM	IRON	MN	TITANIUM	RUBIDIUM	ZR	TIN
2.	2208.	12.	422870.	5150.	650.	110.	1.	6.	3.
2.	2209.	27.	185210.	9320.	620.	1220.	59.	0.	3.
2.	2210.	43.	86510.	6020.	1200.	13020.	57.	152.	5.
2.	2211.	21.	61050.	9021O.	1100.	13490.	30.	196.	0.
2.	2212.	42.	97950.	4361O.	1110.	12890.	88.	205.	5.
2.	2213.	0.	115640.	21480.	1210.	12690.	101.	212.	5.
2.	2214.	50.	198020.	20770.	2050.	6590.	52.	115.	2.
2.	2215.	35.	208390.	5002O.	3660.	4770.	34.	78.	2.
2.	2216.	43.	89630.	3444O.	1380.	14320.	81.	216.	0.
2.	2217.	49.	84160.	3536O.	1440.	15880.	0.	237.	5.
2.	2218.	45.	92840.	3219O.	1470.	12430.	96.	155.	0.
2.	2219.	53.	104550.	5762O.	1490.	11920.	147.	152.	0.
2.	2220.	23.	377980.	7719O.	5240.	850.	7.	20.	0.
2.	2221.	46.	94200.	3374O.	1180.	13120.	126.	207.	0.
2.	2222.	39.	245070.	2116O.	2420.	4580.	34.	86.	0.
2.	2223.	39.	104530.	5461O.	2390.	13210.	155.	195.	2.
2.	2224.	55.	102240.	2807O.	1250.	14000.	137.	207.	4.
2.	2225.	43.	164900.	1474O.	1420.	7640.	82.	132.	4.
2.	2226.	43.	82250.	6804O.	1240.	12610.	57.	202.	0.
2.	2227.	50.	60720.	9182O.	989.	12640.	34.	197.	1.
2.	2228.	37.	47650.	9843O.	1000.	13900.	31.	207.	2.
2.	2229.	37.	38010.	11034O.	880.	13150.	24.	188.	2.
2.	2230.	48.	43240.	10481O.	940.	13990.	25.	193.	2.
2.	2231.	35.	113920.	5628O.	1240.	12210.	27.	194.	4.
2.	2232.	1.	563210.	10040.	520.	110.	2.	12.	0.
2.	2233.	39.	90170.	6560O.	1100.	13590.	42.	205.	1.
2.	2234.	22.	130210.	2994O.	550.	2070.	33.	115.	1.
2.	2235.	14.	374220.	1745O.	530.	130.	3.	0.	1.
2.	2236.	70.	5930.	6 0O.	700.	6250.	177.	169.	1.
2.	2237.	0.	447990.	3970.	360.	140.	0.	0.	3.
2.	2300.	0.	427050.	5460.	450.	100.	0.	0.	2.
3.	2301.	26.	2640.	38120.	490.	1900.	25.	151.	1.
3.	2302.	43.	100540.	6569O.	1040.	14170.	26.	208.	5.
3.	2303.	17.	139530.	3273O.	270.	1770.	15.	121.	2.
3.	2304.	11.	91010.	6956O.	420.	4450.	28.	119.	6.
3.	2305.	46.	59850.	10445O.	1220.	14570.	23.	196.	0.
3.	2306.	51.	48470.	16132O.	1160.	14960.	24.	193.	5.
3.	2307.	41.	48360.	10029O.	1120.	14190.	24.	196.	3.
3.	2308.	46.	48750.	9700O.	1090.	13630.	11.	194.	3.
3.	2309.	48.	48750.	9577O.	1110.	13440.	28.	193.	3.
4.	2400.	6.	402910.	580O.	510.	320.	8.	0.	4.
4.	2401.	10.	368020.	8259O.	980.	190.	17.	21.	0.
4.	2402.	1.	420780.	7130.	1060.	30.	0.	0.	3.
4.	2403.	15.	399930.	6760.	1530.	30.	5.	0.	2.
4.	2404.	59.	206890.	14599.	1540.	1140.	17.	17.	3.
4.	2405.	6.	98090.	15542O.	1460.	11600.	83.	18.	0.
4.	2406.	26.	83430.	5970O.	1090.	14510.	44.	216.	2.
4.	2407.	58.	51920.	9969O.	860.	14600.	29.	224.	3.
4.	2408.	43.	44780.	10109O.	730.	15460.	30.	213.	3.
4.	2409.	45.	38560.	10503O.	880.	15910.	21.	234.	6.
4.	2410.	24.	64530.	8622O.	1270.	12940.	21.	184.	3.
4.	2411.	32.	78390.	9070O.	1420.	9310.	17.	142.	6.
4.	2412.	51.	45980.	9877O.	1010.	13960.	27.	201.	3.
4.	2413.	42.	52840.	9521O.	1040.	13559.	27.	186.	1.
4.	2414.	30.	51690.	9150O.	1070.	13150.	24.	184.	6.
4.	2415.	43.	49140.	9454O.	1040.	13560.	25.	188.	3.
4.	2416.	42.	46720.	9530.	1030.	13680.	29.	195.	3.

CHEMICAL ANALYSES FOR NEWBOROUGH BOREHOLES (DEPTHS GIVEN IN LIST A); LIST B

BOREHOLE	NUMBER	CERIUM	CALCIUM	IRON	MN	TITANIUM	RUBIDIUM	ZR	TIN
1.	2000.	89.	7120.	89270.	850.	7190.	143.	26.	1.
1.	2001.	0.	335520.	27820.	1850.	370.	0.	5.	0.
1.	2002.	16.	387150.	10470.	750.	340.	6.	6.	0.
1.	2003.	6.	451780.	5720.	910.	170.	1.	9.	0.
1.	2004.	0.	426640.	5340.	1110.	90.	3.	2.	3.
1.	2005.	38.	129230.	54780.	600.	3810.	59.	96.	0.
1.	2006.	41.	84900.	64950.	1320.	13440.	98.	197.	2.
1.	2007.	50.	104410.	55850.	1770.	12660.	92.	193.	0.
1.	2008.	42.	94100.	65160.	2340.	13940.	113.	217.	1.
1.	2009.	39.	80840.	78400.	1710.	14010.	86.	211.	1.
1.	2010.	56.	84250.	59920.	1560.	13770.	111.	213.	5.
1.	2011.	49.	77240.	79820.	1350.	12310.	77.	190.	2.
1.	2012.	56.	73590.	93340.	920.	12630.	53.	201.	3.
1.	2013.	58.	64980.	86420.	900.	12590.	26.	205.	1.
1.	2014.	53.	63400.	90180.	880.	11690.	25.	193.	0.
1.	2015.	33.	108120.	56540.	1110.	8670.	67.	143.	3.
1.	2016.	43.	61380.	49990.	850.	11480.	25.	186.	2.
1.	2017.	38.	57030.	94460.	800.	11730.	26.	190.	0.
1.	2018.	28.	46230.	93450.	780.	12010.	32.	186.	0.
1.	2019.	52.	49380.	91060.	810.	10820.	30.	182.	1.
1.	2020.	43.	45000.	95490.	730.	11540.	34.	191.	1.
1.	2021.	40.	41100.	99780.	740.	12560.	27.	203.	1.
1.	2022.	32.	47990.	90970.	880.	13030.	24.	196.	0.
1.	2023.	44.	56130.	94870.	780.	13770.	31.	246.	2.
1.	2024.	49.	43580.	96640.	890.	13990.	28.	213.	1.
1.	2025.	54.	40020.	97810.	860.	13280.	26.	206.	0.
1.	2026.	40.	43640.	92150.	980.	12190.	29.	198.	1.
1.	2027.	50.	47130.	90940.	930.	12490.	25.	193.	1.
1.	2028.	35.	51230.	90740.	900.	12610.	24.	192.	0.
1.	2029.	57.	57630.	98350.	970.	13550.	25.	196.	0.
1.	2030.	44.	56690.	93920.	940.	13740.	25.	197.	2.
1.	2031.	49.	49340.	90520.	840.	12760.	26.	194.	0.
1.	2032.	46.	62300.	86960.	950.	11410.	24.	190.	0.
1.	2033.	43.	64460.	83080.	1100.	12760.	46.	198.	5.
1.	2034.	60.	90840.	36500.	1500.	14190.	110.	213.	1.
1.	2035.	51.	362710.	13200.	3200.	16520.	26.	31.	2.
1.	2036.	47.	85840.	48070.	1820.	13940.	119.	211.	1.
1.	2037.	48.	79960.	57400.	1520.	13515.	114.	212.	2.
1.	2038.	39.	89110.	67820.	2470.	13380.	125.	188.	0.
1.	2039.	50.	96230.	47700.	2000.	14590.	117.	199.	3.
1.	2040.	53.	122980.	50120.	2510.	12430.	4.	181.	0.
1.	2041.	62.	106020.	36850.	1560.	15310.	102.	220.	1.
1.	2042.	59.	143270.	31310.	4680.	4170.	36.	99.	0.
1.	2043.	0.	28530.	20820.	420.	3160.	46.	413.	1.
1.	2044.	83.	3260.	72890.	640.	6140.	169.	169.	3.
1.	2045.	114.	8560.	83860.	740.	6740.	113.	339.	0.
1.	2047.	29.	1570.	94120.	160.	3130.	23.	156.	2.
1.	2049.	65.	5710.	72970.	610.	6590.	153.	238.	7.
1.	2050.	53.	4690.	81100.	730.	7360.	150.	282.	5.
2.	2200.	0.	432660.	6930.	780.	60.	0.	6.	1.
2.	2201.	60.	5740.	61000.	460.	6120.	0.	365.	2.
2.	2202.	22.	4720.	5920.	80.	3080.	0.	492.	1.
2.	2203.	27.	11380.	78430.	360.	2360.	11.	111.	1.
2.	2204.	54.	20160.	36620.	380.	5470.	135.	288.	3.
2.	2205.	66.	3040.	93850.	160.	7510.	104.	408.	2.
2.	2[illegible].	57.	4250.	45770.	270.	5170.	140.	293.	5.
2.	22[illegible].	24.	3320.	11470.	60.	2150.	46.	246.	5.

CHEMICAL ANALYSES FOR NEWBOROUGH BOREHOLES (DEPTHS GIVEN IN LIST A); LIST B

BOREHOLE NUMBER	CERIUM	CALCIUM	IRON	MN	TITANIUM	RUBIDIUM	ZR	TIN
4. 2417.	42.	47700.	97650.	1040.	13880.	28.	198.	2.
4. 2418.	45.	49570.	99300.	1250.	14050.	27.	198.	4.
4. 24 ..	46.	50670.	99380.	1090.	14380.	26.	198.	0.
4. 2420.	37.	53540.	96030.	1030.	13920.	33.	196.	3.
4. 2421.	25.	15240.	26170.	180.	3320.	42.	441.	7.
4. 2422.	98.	7020.	53900.	180.	6190.	139.	320.	4.
4. 2423.	21.	247990.	19390.	370.	980.	45.	35.	3.
4. 2424.	11.	29310.	23220.	290.	2300.	22.	365.	2.
4. 2425.	81.	3910.	74450.	670.	6360.	172.	181.	5.
4. 2426.	86.	3900.	58650.	230.	7350.	106.	276.	7.
-1. -1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	709.	37173.	57010.	345.	90.	120.	20.	0.
HB	710.	37298.	57321.	494.	40.	120.	10.	1.
HB	711.	37653.	57110.	442.	60.	140.	20.	1.
HB	712.	37408.	57227.	426.	40.	180.	15.	1.
HB	713.	39800.	56991.	452.	1200.	160.	20.	1.
HB	714.	37254.	57080.	264.	60.	100.	20.	0.
HB	715.	37120.	57169.	292.	30.	110.	10.	1.
HB	717.	37585.	57170.	427.	70.	140.	15.	1.
HB	718.	39782.	56080.	724.	80.	130.	20.	1.
HB	719.	38750.	57493.	540.	50.	140.	15.	0.
HB	722.	39170.	56130.	703.	130.	210.	25.	1.
HB	723.	39530.	56072.	587.	1500.	1100.	30.	1.
HB	724.	37789.	57070.	578.	60.	380.	20.	1.
HB	725.	38710.	56141.	329.	90.	150.	15.	1.
HB	727.	37722.	56787.	829.	70.	180.	50.	1.
HB	728.	39828.	56006.	601.	1600.	190.	20.	1.
HB	729.	39122.	56069.	671.	80.	250.	2v.	1.
HB	732.	39178.	56044.	529.	80.	220.	15.	1.
HB	733.	38980.	56153.	629.	100.	370.	15.	1.
HB	734.	36962.	56842.	350.	40.	110.	10.	1.
HB	735.	36854.	56829.	313.	60.	130.	10.	1.
HB	737.	39270.	56077.	558.	70.	130.	20.	1.
HB	739.	38360.	56874.	383.	60.	110.	20.	1.
HB	740.	37231.	57314.	500.	80.	290.	10.	1.
HB	741.	37900.	57140.	511.	70.	310.	15.	1.
HB	742.	39402.	56017.	330.	350.	190.	30.	1.
HB	743.	37135.	57170.	310.	70.	490.	10.	1.
HB	744.	39105.	56142.	607.	130.	310.	15.	1.
HB	745.	37772.	56950.	592.	70.	320.	15.	0.
HB	746.	37513.	56960.	668.	60.	410.	15.	1.
HB	747.	37812.	57150.	428.	60.	240.	15.	1.
HB	751.	37580.	57130.	575.	100.	180.	10.	0.
HB	753.	37698.	57030.	536.	70.	200.	20.	1.
HB	754.	36883.	56820.	450.	40.	310.	15.	1.
HB	755.	36720.	56547.	191.	70.	340.	25.	1.
HB	756.	38298.	56997.	379.	60.	310.	15.	1.
HB	759.	36763.	56721.	522.	60.	80.	15.	1.
HB	760.	37207.	57333.	355.	40.	240.	15.	1.
HB	761.	39874.	56057.	386.	150.	110.	15.	1.
HB	762.	38490.	56806.	983.	70.	200.	20.	1.
HB	763.	39330.	56047.	407.	50.	120.	15.	0.
HB	764.	37570.	57166.	302.	50.	100.	15.	0.
HB	765.	39513.	56058.	599.	80.	140.	20.	0.
HB	766.	36727.	56777.	487.	50.	380.	15.	1.
HB	767.	38214.	57050.	481.	80.	380.	25.	1.
HB	768.	39263.	56082.	589.	80.	340.	20.	1.
HB	769.	39110.	56134.	1013.	90.	410.	20.	1.
HB	770.	38490.	56806.	690.	60.	170.	15.	0.
HB	771.	37228.	57191.	408.	60.	200.	10.	1.
HB	772.	39849.	56030.	234.	350.	120.	20.	1.
HB	774.	37732.	56938.	1434.	60.	310.	20.	1.
HB	775.	38960.	57167.	284.	50.	100.	15.	1.
HB	776.	37204.	57326.	608.	60.	420.	15.	1.
HB	777.	37610.	56882.	573.	60.	300.	15.	1.
HB	780.	37248.	57105.	507.	50.	160.	15.	1.
HB	782.	38357.	56963.	444.	60.	390.	25.	1.
HB	783.	38680.	57447.	355.	40.	90.	10.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	636.	37336.	56830.	583.	30.	270.	25.	0.
HB	637.	37199.	56750.	546.	60.	360.	30.	0.
HB	638.	37450.	56957.	773.	40.	370.	25.	0.
HB	639.	38482.	57463.	457.	60.	260.	20.	1.
HB	641.	37061.	56472.	772.	80.	190.	15.	0.
HB	642.	37147.	57100.	729.	80.	590.	15.	1.
HB	643.	38004.	57199.	409.	60.	410.	10.	1.
HB	644.	37935.	56490.	645.	60.	240.	20.	1.
HB	646.	38428.	57198.	520.	70.	370.	20.	1.
HB	647.	37729.	56541.	528.	70.	150.	20.	1.
HB	648.	38662.	57292.	610.	50.	340.	20.	1.
HB	649.	38510.	57456.	499.	40.	170.	20.	1.
HB	650.	37128.	56710.	526.	60.	340.	20.	1.
HB	651.	37383.	56963.	516.	50.	220.	15.	1.
HB	652.	39025.	56971.	380.	60.	140.	20.	1.
HB	653.	39210.	57192.	563.	80.	340.	15.	1.
HB	657.	38010.	56921.	403.	70.	220.	25.	1.
HB	658.	38530.	56722.	1739.	80.	250.	15.	1.
HB	661.	38053.	57234.	583.	80.	330.	20.	1.
HB	662.	38364.	57238.	1008.	60.	580.	25.	1.
HB	663.	37688.	56475.	494.	50.	210.	15.	1.
HB	664.	37039.	56502.	438.	40.	80.	15.	1.
HB	665.	37717.	56582.	518.	60.	190.	25.	1.
HB	666.	37152.	56798.	793.	50.	260.	25.	1.
HB	667.	37099.	56715.	471.	60.	180.	20.	0.
HB	668.	38510.	57456.	456.	40.	160.	15.	0.
HB	669.	37158.	57084.	409.	70.	140.	20.	1.
HB	670.	38065.	57240.	544.	80.	630.	10.	1.
HB	671.	37577.	56458.	-1.	80.	210.	20.	1.
HB	673.	37070.	57025.	412.	50.	250.	10.	1.
HB	674.	38378.	57467.	369.	120.	280.	15.	1.
HB	675.	37649.	56572.	543.	40.	80.	20.	0.
HB	677.	38065.	57240.	514.	60.	560.	10.	1.
HB	678.	37968.	56509.	882.	70.	360.	35.	1.
HB	679.	38233.	57123.	356.	200.	450.	20.	1.
HB	680.	37900.	56480.	1201.	60.	280.	15.	1.
HB	682.	37460.	56920.	905.	60.	380.	15.	1.
HB	685.	37134.	56610.	514.	50.	190.	25.	1.
HB	686.	38410.	57390.	404.	50.	240.	15.	1.
HB	689.	37726.	56670.	463.	50.	140.	25.	1.
HB	690.	37171.	56428.	715.	50.	370.	15.	0.
HB	691.	38071.	57207.	471.	60.	360.	15.	0.
HB	692.	37138.	56967.	543.	90.	230.	25.	1.
HB	694.	38619.	56510.	851.	100.	230.	20.	1.
HB	695.	37717.	56582.	334.	60.	190.	25.	0.
HB	696.	38630.	56627.	2560.	90.	390.	15.	0.
HB	697.	38090.	57159.	870.	60.	280.	10.	1.
HB	698.	37130.	56673.	535.	60.	130.	20.	1.
HB	699.	37241.	56973.	471.	40.	130.	20.	1.
HB	700.	38490.	57208.	362.	40.	90.	20.	1.
HB	701.	36712.	56788.	417.	40.	180.	15.	1.
HB	702.	39063.	56048.	647.	70.	150.	30.	1.
HB	703.	37277.	56129.	656.	100.	230.	30.	1.
HB	704.	38985.	56056.	560.	110.	280.	15.	1.
HB	705.	37412.	56880.	926.	50.	360.	10.	1.
HB	707.	38525.	57218.	518.	40.	300.	10.	1.
HB	708.	37290.	57310.	480.	90.	240.	15.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1598.	40858.	60049.	771.	60.	490.	35.	0.
HB	1600.	41624.	59582.	723.	40.	110.	15.	0.
HB	1601.	39599.	60625.	654.	30.	60.	5.	0.
HB	1602.	40995.	61117.	690.	20.	120.	10.	0.
HB	1603.	39870.	59900.	567.	70.	320.	20.	1.
HB	1604.	39557.	60550.	640.	20.	50.	5.	1.
HB	1605.	41036.	61317.	873.	40.	90.	10.	0.
HB	1606.	40538.	61116.	620.	70.	140.	15.	0.
HB	1607.	40424.	61749.	866.	50.	140.	10.	0.
HB	1608.	39869.	60489.	619.	30.	RU.	10.	1.
HB	1609.	39508.	60239.	473.	160.	310.	15.	1.
HB	1610.	40998.	61179.	924.	40.	70.	5.	0.
HB	1611.	40889.	61498.	589.	60.	90.	15.	1.
HB	1612.	40940.	60648.	1120.	40.	130.	5.	1.
HB	1614.	39711.	60107.	689.	60.	130.	15.	1.
HB	1615.	39510.	60232.	541.	50.	260.	15.	1.
HB	1616.	40188.	61148.	619.	30.	60.	10.	1.
HB	1617.	40234.	60542.	6[illegible].	30.	50.	5.	1.
HB	1618.	40020.	60456.	1[illegible].	40.	90.	15.	1.
HB	1620.	40718.	60765.	1[illegible].	30.	90.	5.	0.
HB	1621.	40884.	60867.	652.	30.	70.	5.	0.
HB	1622.	40292.	60260.	573.	40.	80.	15.	0.
HB	1623.	41220.	60452.	843.	50.	120.	10.	0.
HB	1624.	39649.	60510.	709.	20.	50.	10.	1.
HB	1625.	40488.	61720.	629.	20.	60.	5.	0.
HB	1626.	40635.	61173.	587.	20.	50.	10.	0.
HB	1628.	40727.	61828.	535.	40.	70.	10.	0.
HB	1629.	39649.	59839.	762.	40.	140.	5.	0.
HB	1630.	40392.	61565.	860.	30.	70.	5.	0.
HB	1631.	39652.	59903.	587.	40.	210.	5.	0.
HB	1632.	40187.	60630.	504.	40.	40.	10.	1.
HB	1633.	39790.	60511.	595.	20.	40.	5.	0.
HB	1634.	40302.	61688.	653.	50.	160.	15.	1.
HB	1635.	40326.	61294.	776.	30.	80.	5.	0.
HB	1636.	39622.	60222.	707.	50.	140.	10.	0.
HB	1637.	39652.	59690.	466.	40.	120.	10.	0.
HB	1638.	40728.	60770.	468.	30.	50.	5.	0.
HB	1639.	40088.	60370.	800.	40.	100.	15.	1.
HB	1641.	40487.	61216.	865.	50.	100.	15.	1.
HB	1642.	40392.	61754.	835.	40.	110.	15.	1.
HB	1643.	39965.	61063.	638.	30.	60.	10.	0.
HB	1644.	41358.	61220.	774.	60.	720.	20.	1.
HB	1645.	41217.	60460.	1130.	30.	90.	5.	0.
HB	1647.	41039.	60588.	866.	70.	140.	15.	0.
HB	1648.	40477.	61529.	961.	30.	50.	5.	0.
HB	1649.	39723.	59958.	753.	40.	60.	10.	0.
HB	1650.	40908.	61220.	777.	80.	120.	15.	1.
HB	1652.	40977.	61243.	691.	20.	70.	15.	0.
HB	1653.	39539.	59674.	490.	40.	120.	5.	0.
HB	1654.	39693.	60018.	835.	70.	200.	20.	1.
HB	1655.	40503.	60959.	799.	60.	120.	15.	1.
HB	1656.	40345.	61164.	-1.	40.	90.	15.	0.
HB	1658.	40796.	61219.	681.	20.	40.	5.	0.
HB	1659.	40485.	61125.	696.	40.	70.	15.	0.
HB	1661.	39756.	59946.	977.	[illegible].	220.	10.	0.
HB	1662.	39775.	60513.	741.	20.	50.	5.	0.
HB	1663.	40591.	61562.	710.	20.	40.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1532.	39981.	60637.	551.	20.	50.	5.	0.
HB	1533.	40300.	60270.	417.	70.	110.	25.	0.
HB	1534.	41127.	57470.	630.	50.	90.	20.	0.
HB	1535.	40634.	6[illegible]02.	543.	50.	260.	15.	0.
HB	1536.	41037.	59.70.	523.	[illegible]	90.	15.	1.
HB	1537.	41038.	59430.	709.	90.	90.	15.	1.
HB	1538.	40615.	60306.	577.	80.	230.	15.	1.
HB	1539.	40158.	60058.	527.	50.	110.	15.	1.
HB	1540.	41865.	59770.	474.	50.	120.	20.	1.
HB	1541.	41532.	59411.	383.	20.	50.	5.	0.
HB	1542.	41631.	59430.	545.	50.	260.	20.	1.
HB	1543.	40300.	60343.	497.	30.	70.	10.	1.
HB	1544.	39997.	60635.	515.	40.	110.	10.	0.
HB	1545.	39720.	60809.	682.	50.	160.	15.	1.
HB	1547.	42013.	59860.	482.	60.	160.	20.	1.
HB	1548.	40668.	60282.	806.	80.	280.	30.	1.
HB	1549.	41830.	59167.	675.	60.	130.	20.	1.
HB	1550.	41720.	59569.	622.	40.	100.	15.	1.
HB	1551.	41908.	59240.	554.	50.	110.	15.	1.
HB	1553.	40905.	60094.	420.	40.	160.	10.	0.
HB	1554.	40609.	60298.	699.	170.	250.	15.	1.
HB	1555.	42013.	60053.	787.	50.	90.	15.	1.
HB	1556.	41127.	59867.	594.	40.	90.	15.	1.
HB	1559.	40642.	60503.	805.	80.	140.	10.	1.
HB	1560.	41944.	59837.	727.	50.	90.	15.	1.
HB	1561.	40154.	60058.	628.	40.	110.	10.	1.
HB	1562.	41990.	59300.	579.	40.	80.	10.	1.
HB	1563.	41964.	59193.	662.	60.	120.	20.	1.
HB	1564.	40459.	60142.	614.	50.	110.	10.	0.
HB	1565.	42021.	59265.	529.	40.	130.	15.	1.
HB	1566.	39968.	60747.	786.	50.	210.	15.	1.
HB	1568.	40660.	60047.	811.	50.	230.	10.	0.
HB	1569.	40434.	60418.	607.	50.	200.	10.	0.
HB	1570.	39720.	60818.	782.	30.	110.	10.	1.
HB	1571.	40687.	60055.	652.	70.	180.	15.	1.
HB	1572.	40707.	60180.	944.	50.	200.	15.	1.
HB	1573.	40812.	60364.	892.	80.	410.	5.	0.
HB	1574.	39822.	60799.	957.	40.	130.	10.	0.
HB	1575.	42097.	59670.	640.	40.	100.	15.	0.
HB	1576.	39582.	60830.	1220.	70.	230.	15.	0.
HB	1577.	41964.	59190.	832.	60.	130.	15.	0.
HB	1578.	41596.	59899.	1010.	60.	90.	20.	1.
HB	1580.	40085.	60843.	869.	40.	100.	10.	1.
HB	1582.	40429.	60420.	890.	50.	90.	15.	0.
HB	1583.	40006.	60564.	1150.	80.	290.	5.	1.
HB	1584.	42020.	59262.	624.	30.	60.	5.	0.
HB	1585.	41725.	59565.	812.	40.	110.	15.	0.
HB	1586.	40294.	60169.	989.	50.	130.	15.	1.
HB	1587.	39591.	60798.	772.	30.	100.	10.	0.
HB	1588.	41000.	59903.	1330.	30.	140.	10.	0.
HB	1589.	40658.	60051.	646.	40.	110.	10.	0.
HB	1590.	40350.	60372.	610.	40.	100.	10.	1.
HB	1591.	41753.	59073.	956.	80.	200.	55.	1.
HB	1592.	41500.	59876.	751.	50.	80.	15.	1.
HB	1593.	40522.	59988.	412.	40.	120.	10.	0.
HB	1594.	40383.	59950.	5660.	90.	170.	10.	1.
HB	1595.	40013.	60723.	760.	30.	80.	15.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2473.	36652.	58011.	211.	30.	40.	5.	1.
HB	2474.	36752.	58277.	218.	50.	90.	5.	1.
HB	2475.	37541.	59904.	337.	40.	50.	10.	1.
HB	2477.	36652.	58011.	166.	20.	30.	5.	1.
HB	2478.	37107.	58030.	329.	50.	80.	5.	1.
HB	2479.	36072.	58419.	248.	30.	40.	5.	1.
HB	2480.	37497.	58156.	423.	50.	120.	10.	1.
HB	2482.	37510.	59950.	341.	50.	90.	10.	1.
HB	2483.	37225.	58520.	580.	40.	280.	5.	1.
HB	2484.	37492.	58562.	335.	50.	110.	5.	1.
HB	2485.	37788.	59951.	301.	40.	40.	5.	1.
HB	2486.	37724.	59870.	258.	30.	20.	5.	0.
HB	2487.	37541.	59904.	361.	40.	60.	5.	1.
HB	2489.	37297.	58577.	364.	50.	100.	5.	2.
HB	2491.	37917.	59787.	327.	50.	60.	5.	1.
HB	2492.	37098.	58304.	240.	50.	100.	5.	1.
HB	2493.	38113.	59883.	256.	40.	50.	5.	1.
HB	2494.	36742.	58027.	323.	50.	110.	10.	1.
HB	2495.	37745.	59398.	303.	40.	60.	10.	1.
HB	2496.	36620.	58075.	225.	30.	40.	5.	1.
HB	2498.	37314.	59919.	310.	30.	50.	5.	1.
HB	2499.	37181.	58870.	337.	40.	90.	10.	0.
HB	2500.	37530.	59920.	309.	30.	50.	10.	0.
HB	2501.	36984.	59716.	367.	30.	100.	10.	1.
HB	2502.	36730.	59820.	497.	30.	120.	20.	1.
HB	2504.	37441.	59447.	268.	40.	80.	5.	1.
HB	2505.	37097.	59532.	268.	30.	50.	5.	1.
HB	2506.	37138.	59497.	334.	50.	90.	5.	1.
HB	2507.	36896.	59714.	298.	20.	30.	5.	1.
HB	2508.	37739.	58100.	405.	40.	110.	10.	1.
HB	2510.	37340.	59114.	294.	60.	60.	5.	1.
HB	2511.	36610.	59844.	299.	20.	40.	5.	0.
HB	2515.	37856.	58118.	216.	30.	50.	5.	1.
HB	2516.	36565.	59905.	347.	40.	90.	10.	1.
HB	2517.	37988.	58032.	326.	40.	50.	5.	1.
HB	2518.	36953.	59797.	269.	60.	100.	10.	1.
HB	2521.	37522.	59383.	364.	40.	120.	10.	1.
HB	2522.	37720.	58960.	295.	30.	90.	10.	1.
HB	2523.	36622.	59868.	207.	20.	40.	5.	0.
HB	2524.	37142.	59490.	318.	40.	60.	5.	1.
HB	2527.	37952.	58115.	347.	50.	120.	10.	1.
HB	2528.	37523.	59120.	443.	30.	80.	10.	1.
HB	2529.	37101.	59530.	327.	50.	110.	5.	1.
HB	2530.	37497.	59227.	172.	30.	30.	5.	1.
HB	2531.	37725.	58938.	460.	40.	130.	10.	1.
HB	2533.	37338.	59783.	297.	40.	60.	5.	1.
HB	2534.	37591.	59697.	1202.	100.	330.	5.	1.
HB	2535.	37103.	59405.	226.	30.	30.	5.	0.
HB	2536.	37480.	59605.	299.	50.	80.	5.	1.
HB	2537.	37476.	59661.	791.	50.	400.	5.	1.
HB	2538.	37012.	59195.	357.	30.	80.	10.	1.
HB	2539.	36635.	59725.	513.	30.	150.	10.	1.
HB	2540.	36575.	59924.	255.	20.	30.	5.	1.
HB	2542.	37030.	59758.	533.	20.	20.	0.	1.
HB	2543.	37419.	59116.	295.	60.	50.	5.	1.
HB	2544.	37854.	58017.	279.	40.	60.	5.	1.
HB	2545.	37435.	59093.	332.	40.	50.	5.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2546.	37334.	59105.	307.	70.	30.	5.	0.
HB	2547.	37717.	59003.	330.	40.	100.	10.	1.
HB	2548.	37266.	59556.	329.	50.	100.	5.	1.
HB	2549.	36876.	59684.	271.	40.	60.	5.	1.
HB	2550.	37834.	58903.	374.	50.	80.	5.	1.
HB	2552.	37202.	59432.	341.	50.	100.	5.	1.
HB	2553.	37046.	59800.	314.	20.	70.	5.	1.
HB	2554.	37045.	59962.	198.	40.	20.	5.	1.
HB	2555.	37523.	59576.	837.	70.	340.	5.	0.
HB	2556.	37193.	59390.	287.	40.	80.	5.	0.
HB	2557.	37650.	59020.	280.	40.	50.	5.	1.
HB	2558.	36507.	59695.	352.	40.	60.	5.	1.
HB	2560.	37067.	59867.	333.	30.	30.	0.	0.
HB	2561.	36730.	59820.	471.	40.	160.	20.	1.
HB	2562.	37581.	59611.	495.	70.	110.	5.	1.
HB	2563.	37965.	58027.	365.	40.	110.	5.	0.
HB	2564.	37373.	59765.	288.	40.	40.	5.	0.
HB	2565.	36600.	59687.	418.	40.	90.	5.	0.
HB	2566.	37629.	59054.	326.	50.	100.	5.	0.
HB	2567.	37440.	59116.	211.	20.	20.	5.	0.
HB	2568.	37045.	59359.	331.	40.	50.	0.	0.
HB	2569.	36550.	59540.	257.	40.	50.	5.	0.
HB	2570.	37103.	59383.	272.	50.	50.	5.	0.
HB	2572.	36977.	59760.	428.	40.	70.	5.	0.
HB	2573.	36813.	59660.	378.	30.	70.	5.	0.
HB	2574.	37059.	59780.	248.	30.	30.	5.	0.
HB	2575.	37056.	59884.	329.	60.	70.	5.	0.
HB	2576.	37511.	59383.	273.	40.	60.	5.	1.
HB	2577.	37776.	59[illegible].	385.	30.	110.	15.	1.
HB	2578.	37192.	596[illegible].	241.	50.	120.	5.	1.
HB	2579.	37470.	59386.	318.	40.	90.	10.	0.
HB	2580.	37955.	58009.	285.	50.	110.	10.	0.
HB	2581.	37298.	59680.	308.	40.	70.	5.	0.
HB	2582.	37956.	59964.	247.	30.	20.	5.	0.
HB	2583.	36742.	59850.	387.	50.	80.	10.	0.
HB	2584.	37551.	58982.	289.	40.	50.	10.	0.
HB	2585.	37893.	58062.	299.	50.	90.	5.	0.
HB	2586.	36726.	59847.	443.	20.	40.	5.	1.
HB	2587.	37331.	59140.	275.	40.	40.	5.	1.
HB	2588.	37756.	58040.	302.	50.	70.	5.	1.
HB	2589.	37511.	59383.	255.	30.	50.	5.	0.
HB	2590.	37559.	59463.	295.	30.	120.	5.	1.
HB	2591.	37909.	58084.	282.	30.	90.	5.	0.
HB	2594.	36895.	59702.	375.	20.	100.	10.	1.
HB	2595.	37547.	59333.	262.	20.	40.	5.	1.
HB	2596.	37266.	59129.	255.	20.	20.	0.	0.
HB	2597.	37533.	59545.	392.	30.	70.	5.	0.
HB	2598.	36835.	59670.	141.	20.	30.	10.	0.
HB	2599.	37523.	59120.	433.	40.	100.	10.	0.
HB	2600.	37047.	59540.	260.	20.	30.	5.	0.
HB	2601.	37269.	59376.	291.	30.	40.	5.	1.
HB	2602.	36290.	59138.	370.	30.	90.	10.	1.
HB	2603.	36389.	59617.	260.	20.	80.	5.	0.
HB	2604.	36473.	59532.	421.	50.	140.	10.	0.
HB	2605.	36482.	59745.	365.	30.	60.	5.	0.
HB	2606.	36493.	59766.	500.	40.	50.	5.	0.
HB	2607.	36708.	59606.	423.	60.	170.	5.	1.

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 20 NO. OF RECORDS : 1880 WORDS PER RECORD : 20

CARD INPUT FORMAT
(3F10.2,A4,4F10.2/8F10.2/8F10.2)

SAMPNUMB	EASTING	NORTHING	PROJCODE	CEP XRF	BAP XRF	SBP XRF	SNP XRF	PBP XRF	ZNP XRF
FIELD LENGTH									
** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
FIELD TYPE									
F	F	A	F	F	F	F	F	F	
UPPER LIMIT									
342299.00	42540.00	62428.00	94	1864.00	484490.00	204.00	4752.00	27287.00	1630[illegible].00
LOWER LIMIT									
500.00	33870.00	55868.00	HB	0.10	13.00	0.10	0.10	0.10	1.00
ABSENT DATA VALUE									
-1.00	-1.00	-1.00		-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
DICTIONARY SEGMENT IDENTIFIER									

CUP XRF	CAP XRF	MIP XRF	FEP XRF	MNP XRF	TIP XRF	U P XRF	SRP XRF	ZRP XRF	MOP XRF
FIELD LENGTH									
** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
FIELD TYPE									
F	F	F	F	F	F	F	F	F	
UPPER LIMIT									
1994.00	177210.00	210.00	289050.00	7310.00	99700.00	120.00	1200.00	73340.00	75.00
LOWER LIMIT									
0.10	40.00	0.10	1700.00	20.00	260.00	0.20	0.20	50.00	0.20
ABSENT DATA VALUE									
-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
DICTIONARY SEGMENT IDENTIFIER									

G-EXEC/GTRAN/GTRANG ON FILE TEMPFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81
SUB-COMMANDS LISTED IN SYSTEM JOURNAL

MAKE WORKFILE

MAKE TEMPFILE

G-EXEC/G-UTIL/GPRJCT ON FILE WORKFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

I.G.S. G-EXEC/G-UTIL/GXEPOX ON FILE TEMPFILE
****

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 10 NO. OF RECORDS : 1880 WORDS PER RECORD : 10

CARD INPUT FORMAT

	PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
FIELD LENGTH										
	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
FIELD TYPE										
	A	F	F	F	F	F	F	F	F	
UPPER LIMIT										
	34	342299.	42540.	62478.	484490.	27287.	16392.	1994.	210.	4752.
LOWER LIMIT										
	HB	500.	33870.	55868.	13.	0.	1.	0.	0.	0.
ABSENT DATA VALUE										
		-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

DICTIONARY SEGMENT IDENTIFIER

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1323.	40409.	59545.	2649.	80.	117.	12.	1.	3.
HB	1324.	40770.	59802.	16580.	48.	228.	14.	10.	0.
HB	1326.	40752.	59668.	24820.	39.	170.	1.	11.	11.
HB	1327.	40446.	59607.	28090.	26.	763.	16.	10.	0.
HB	1328.	41433.	58887.	1861.	37.	92.	6.	3.	0.
HB	1330.	40473.	59561.	4312.	6.	85.	4.	2.	0.
HB	1331.	40321.	59353.	974.	15.	50.	4.	2.	0.
HB	1332.	39762.	58959.	11780.	18.	41.	3.	3.	0.
HB	1333.	40241.	59040.	1864.	11.	97.	5.	5.	2.
HB	1334.	40939.	59072.	7174.	26.	91.	6.	7.	2.
HB	1335.	40584.	59588.	18070.	157.	478.	8.	10.	34.
HB	1336.	40794.	59790.	61790.	166.	581.	35.	22.	8.
HB	1337.	40685.	59321.	59550.	148.	472.	9.	20.	24.
HB	1338.	40544.	59338.	6306.	22.	262.	1.	7.	0.
HB	1339.	40470.	59672.	127240.	47.	359.	0.	12.	0.
HB	1340.	40304.	59444.	65330.	76.	1456.	35.	20.	9.
HB	1341.	40728.	59792.	28110.	67.	369.	6.	15.	0.
HB	1342.	40164.	59369.	16450.	15.	780.	3.	4.	0.
HB	1343.	40009.	59024.	10860.	593.	593.	23.	16.	2.
HB	1344.	40388.	59708.	15030.	22.	267.	9.	11.	2.
HB	1345.	40568.	58852.	1444.	8.	86.	5.	4.	1.
HB	1346.	40583.	58538.	4712.	110.	496.	11.	10.	6.
HB	1347.	40184.	59087.	1019.	6.	73.	5.	2.	0.
HB	1348.	40752.	59728.	30040.	143.	408.	5.	12.	2.
HB	1349.	40545.	59558.	1222.	16.	44.	1.	3.	0.
HB	1351.	41210.	59063.	1631.	26.	82.	8.	5.	0.
HB	1352.	39720.	59040.	616.	190.	36.	20.	5.	24.
HB	1353.	40837.	59860.	7271.	76.	107.	70.	11.	9.
HB	1354.	40368.	58540.	643.	14.	58.	12.	6.	3.
HB	1355.	40075.	59038.	1510.	28.	161.	6.	3.	8.
HB	1356.	40649.	59797.	16490.	37.	109.	6.	4.	0.
HB	1357.	40240.	59383.	884.	16.	44.	6.	2.	1.
HB	1359.	40209.	59039.	19450.	45.	494.	7.	4.	0.
HB	1361.	40583.	59260.	24780.	11.	181.	2.	8.	0.
HB	1362.	40320.	59341.	3813.	10.	100.	6.	3.	2.
HB	1363.	39996.	58852.	4897.	196.	801.	5.	9.	0.
HB	1364.	40160.	59360.	11440.	18.	111.	18.	2.	0.
HB	1365.	40085.	59090.	16370.	30.	114.	4.	7.	1.
HB	1366.	40612.	59806.	4962.	13.	42.	5.	0.	0.
HB	1367.	40005.	59046.	970.	13.	50.	6.	2.	0.
HB	1368.	40464.	59328.	28910.	366.	1788.	24.	32.	0.
HB	1369.	40479.	59552.	11060.	488.	459.	62.	19.	0.
HB	1370.	40272.	58508.	3318.	988.	289.	99.	33.	116.
HB	1371.	39970.	58925.	16810.	45.	374.	5.	7.	0.
HB	1372.	40649.	59347.	12780.	25.	107.	67.	16.	0.
HB	1373.	40521.	58559.	5416.	809.	889.	17.	35.	18.
HB	1374.	40350.	59375.	66120.	96.	878.	12.	3.	0.
HB	1375.	40600.	59341.	13620.	37.	25.	2.	6.	26.
HB	1376.	40801.	58790.	45630.	319.	699.	66.	39.	121.
HB	1379.	40710.	59642.	24390.	75.	201.	5.	10.	0.
HB	1380.	40517.	59234.	1096.	12.	22.	6.	2.	0.
HB	1381.	40985.	59950.	10360.	547.	253.	13.	96.	884.
HB	1382.	40730.	59628.	17800.	25.	89.	5.	21.	4.
HB	1383.	40598.	58545.	55170.	351.	366.	9.	3.	90.
HB	1384.	39805.	59003.	14840.	64.	72.	24.	3.	0.
HB	1386.	40255.	58970.	5362.	48.	153.	11.	4.	6.
HB	1388.	40590.	59340.	6241.	40.	292.	14.	19.	0.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1389.	40905.	60020.	4224.	76.	58.	7.	5.	10.
HB	1390.	40290.	59731.	49830.	91.	2117.	7.	27.	0.
HB	1391.	40730.	58807.	777.	39.	67.	7.	10.	61.
HB	1392.	40876.	59842.	31820.	266.	399.	6.	17.	105.
HB	1393.	40455.	58574.	490.	159.	57.	25.	6.	7.
HB	1394.	40641.	59312.	13090.	113.	181.	6.	7.	14.
HB	1395.	40635.	58830.	230.	9.	27.	4.	1.	0.
HB	1396.	40791.	58766.	18900.	212.	2010.	9.	40.	45.
HB	1397.	40680.	59770.	59420.	66.	410.	0.	10.	0.
HB	1398.	40355.	59632.	1772.	12.	103.	4.	1.	0.
HB	1399.	40101.	59300.	26000.	1254.	153.	4.	1.	0.
HB	1400.	40853.	59804.	7957.	24.	81.	9.	8.	0.
HB	1403.	41115.	59453.	44340.	6.	55.	12.	3.	0.
HB	1405.	40884.	59564.	44040.	531.	595.	48.	24.	87.
HB	1407.	40976.	59707.	30530.	76.	450.	10.	20.	0.
HB	1408.	40065.	59700.	877.	1.	133.	6.	0.	1.
HB	1409.	39880.	59550.	4235.	45.	663.	4.	20.	0.
HB	1411.	41373.	59014.	1012.	15.	47.	4.	8.	3.
HB	1413.	41140.	59608.	19250.	60.	106.	8.	6.	0.
HB	1414.	39337.	58247.	3650.	9.	793.	15.	5.	0.
HB	1415.	40813.	59601.	2854.	11.	137.	4.	6.	0.
HB	1416.	39976.	59407.	445.	8.	40.	5.	1.	0.
HB	1417.	41110.	58970.	122230.	255.	765.	44.	46.	181.
HB	1419.	40060.	59692.	111.	4.	5.	4.	0.	0.
HB	1421.	41060.	59398.	25560.	17.	182.	2.	7.	0.
HB	1425.	40059.	59529.	42420.	11.	237.	0.	5.	0.
HB	1427.	41352.	59807.	1223.	70.	683.	11.	21.	47.
HB	1429.	41243.	59051.	23400.	37.	229.	11.	9.	0.
HB	1430.	39244.	58000.	9257.	745.	2162.	207.	22.	131.
HB	1432.	39206.	58118.	1180.	51.	342.	8.	13.	17.
HB	1434.	40150.	59517.	25600.	69.	1536.	71.	18.	0.
HB	1435.	41478.	58966.	1903.	10.	47.	6.	3.	8.
HB	1436.	41163.	59620.	27180.	61.	195.	5.	7.	0.
HB	1438.	41417.	58895.	3540.	40.	258.	14.	7.	5.
HB	1440.	41416.	58796.	15710.	25.	71.	24.	9.	20.
HB	1441.	39447.	58055.	555.	44.	71.	5.	1.	3.
HB	1444.	41262.	59792.	92450.	97.	441.	4.	30.	0.
HB	1446.	40610.	59710.	11480.	9.	320.	2.	2.	0.
HB	1450.	41475.	58664.	5954.	30.	104.	5.	6.	11.
HB	1451.	40595.	59728.	11050.	9.	37.	3.	2.	0.
HB	1452.	40084.	59646.	2703.	23.	359.	0.	8.	0.
HB	1453.	39916.	59287.	33090.	1059.	1456.	43.	47.	0.
HB	1454.	41222.	59713.	173860.	192.	422.	14.	29.	4.
HB	1457.	39279.	58080.	704.	27.	184.	13.	7.	9.
HB	1459.	40006.	59254.	17840.	36.	1110.	9.	10.	0.
HB	1460.	39348.	58243.	215.	152.	484.	8.	4.	164.
HB	1462.	41370.	58777.	109020.	240.	353.	22.	24.	12.
HB	1463.	39792.	59383.	10360.	12.	54.	4.	4.	0.
HB	1464.	39321.	58028.	1218.	74.	433.	6.	8.	82.
HB	1465.	41288.	58718.	991.	38.	85.	8.	10.	7.
HB	1466.	41256.	58919.	36230.	110.	644.	64.	30.	36.
HB	1467.	41358.	59598.	459.	10.	22.	5.	2.	0.
HB	1469.	40051.	59520.	3365.	13.	192.	2.	4.	0.
HB	1471.	40165.	59600.	11340.	18.	138.	6.	4.	9.
HB	1472.	41272.	58930.	15710.	45.	287.	0.	18.	2.
HB	1473.	41334.	59806.	82140.	127.	489.	4.	36.	12.
HB	1474.	39252.	58183.	946.	6.	59.	5.	1.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES; (2) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2321.	37767.	58469.	50.	100.	42.	2.	11.	1.
HB	2322.	37420.	58244.	526.	10.	187.	3.	9.	0.
HB	2323.	38104.	58076.	169.	8.	60.	2.	6.	18.
HB	2324.	37974.	58332.	132.	9.	86.	1.	5.	0.
HB	2325.	37129.	60113.	4761.	4.	285.	5.	9.	0.
HB	2326.	37491.	58322.	147.	4.	60.	1.	5.	2.
HB	2327.	38828.	58078.	225.	8.	83.	51.	11.	48.
HB	2328.	37975.	58729.	24400.	49.	444.	24.	37.	20.
HB	2332.	37986.	59506.	34.	7.	22.	1.	2.	1.
HB	2333.	37388.	60265.	953.	23.	112.	13.	13.	0.
HB	2334.	37892.	58427.	4392.	25.	362.	8.	18.	6.
HB	2335.	38106.	58005.	208.	12.	89.	5.	8.	6.
HB	2336.	37697.	58372.	7864.	11.	369.	14.	13.	0.
HB	2337.	38333.	58029.	90.	7.	156.	4.	4.	3.
HB	2339.	37562.	58337.	1217.	63.	200.	11.	10.	84.
HB	2340.	37341.	58248.	1367.	5.	210.	4.	7.	0.
HB	2341.	38059.	59261.	313.	9.	63.	3.	4.	0.
HB	2342.	38285.	57995.	166.	10.	127.	12.	5.	6.
HB	2344.	38246.	58072.	187.	9.	139.	5.	7.	1.
HB	2345.	38034.	59125.	175.	3.	27.	0.	2.	6.
HB	2347.	38053.	59115.	4396.	14.	469.	11.	8.	6.
HB	2348.	37461.	58293.	1934.	5.	305.	6.	9.	4.
HB	2349.	38367.	59336.	290.	3.	198.	4.	7.	6.
HB	2350.	37328.	58384.	41.	1.	16.	0.	2.	5.
HB	2351.	37400.	58255.	121.	5.	138.	2.	5.	0.
HB	2352.	37715.	58559.	204.	5.	100.	2.	6.	0.
HB	2354.	38067.	59196.	110.	2.	32.	1.	2.	0.
HB	2355.	37494.	60282.	151.	6.	22.	1.	4.	0.
HB	2356.	37675.	60655.	267.	58.	94.	44.	45.	0.
HB	2357.	37609.	58305.	5819.	156.	861.	11.	16.	35.
HB	2358.	37424.	58409.	64.	2.	182.	1.	3.	2.
HB	2359.	38705.	58050.	3049.	85.	260.	105.	20.	2.
HB	2360.	37673.	58355.	11200.	25.	462.	29.	40.	0.
HB	2361.	38394.	58645.	6047.	35.	680.	31.	34.	7.
HB	2362.	38405.	58596.	3156.	16.	522.	7.	18.	4.
HB	2363.	38079.	58528.	4544.	15.	773.	9.	14.	9.
HB	2364.	38097.	59170.	5106.	10.	653.	10.	10.	3.
HB	2365.	38006.	58270.	1354.	7.	422.	3.	6.	3.
HB	2366.	37552.	60520.	3579.	375.	1964.	28.	5.	0.
HB	2368.	37685.	60639.	223.	26.	91.	5.	10.	0.
HB	2369.	38377.	58545.	7495.	19.	758.	13.	32.	0.
HB	2371.	37304.	60258.	1545.	8.	98.	1.	1.	2.
HB	2372.	38071.	58607.	11400.	26.	421.	11.	20.	91.
HB	2373.	37304.	60264.	548.	12.	83.	1.	3.	1.
HB	2374.	39260.	59131.	2268.	99.	779.	12.	29.	61.
HB	2375.	38696.	58072.	85.	21.	52.	1.	7.	8.
HB	2376.	38048.	58538.	552.	9.	78.	48.	14.	3.
HB	2377.	38811.	58050.	803.	15.	131.	9.	15.	3.
HB	2378.	38025.	58367.	1375.	39.	548.	4.	8.	1.
HB	2379.	37567.	60428.	15900.	189.	2219.	45.	60.	0.
HB	2381.	37864.	58355.	19200.	48.	1092.	18.	24.	3.
HB	2382.	37638.	60357.	4508.	259.	297.	17.	12.	0.
HB	2384.	37149.	60113.	358.	6.	89.	4.	7.	0.
HB	2386.	38036.	59043.	429.	18.	119.	5.	5.	4.
HB	2387.	38072.	59422.	1600.	4.	7.	1.	3.	0.
HB	2388.	38126.	59046.	2261.	40.	960.	8.	15.	0.
HB	2389.	38058.	58128.	183.	39.	598.	3.	6.	5.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2390.	37207.	60214.	1016.	3.	27.	3.	4.	0.
HB	2391.	38007.	59454.	43.	0.	13.	0.	2.	0.
HB	2392.	37232.	60224.	950.	15.	123.	7.	7.	0.
HB	2393.	37698.	58302.	77.	5.	200.	2.	2.	0.
HB	2394.	38883.	57995.	197.	605.	121.	5.	9.	94.
HB	2395.	37639.	60307.	1411.	25.	413.	9.	9.	2.
HB	2396.	38091.	59022.	703.	11.	111.	6.	11.	4.
HB	2397.	37619.	60355.	1223.	22.	547.	14.	7.	2.
HB	2398.	37641.	60442.	9248.	43.	160.	13.	18.	0.
HB	2400.	37249.	58289.	65.	4.	34.	3.	2.	3.
HB	2401.	36848.	58096.	126.	7.	120.	3.	4.	0.
HB	2402.	38038.	59900.	345.	10.	60.	5.	6.	0.
HB	2404.	37929.	59712.	1503.	16.	441.	5.	12.	1.
HB	2405.	37748.	59420.	110.	7.	54.	0.	3.	6.
HB	2407.	37175.	58491.	101.	10.	37.	2.	7.	2.
HB	2408.	37272.	59892.	186.	16.	358.	7.	10.	0.
HB	2410.	36805.	58388.	1737.	11.	274.	9.	7.	0.
HB	2411.	37158.	58531.	365.	6.	101.	0.	11.	4.
HB	2414.	37184.	58135.	4358.	6.	947.	3.	7.	1.
HB	2415.	37165.	58415.	126.	8.	29.	5.	35.	2.
HB	2416.	37960.	59953.	96.	12.	60.	3.	9.	0.
HB	2417.	37763.	59468.	67.	0.	19.	0.	3.	2.
HB	2418.	37455.	58539.	894.	4.	440.	5.	7.	0.
HB	2419.	36754.	58202.	35.	11.	45.	0.	2.	1.
HB	2420.	36607.	58012.	153.	10.	103.	0.	2.	2.
HB	2422.	37737.	59539.	271.	1.	6.	1.	3.	2.
HB	2423.	36598.	58020.	690.	0.	121.	1.	3.	3.
HB	2424.	37807.	59712.	864.	3.	257.	3.	4.	1.
HB	2425.	37210.	59860.	87.	0.	20.	0.	4.	4.
HB	2426.	36904.	58432.	2739.	10.	2509.	7.	13.	0.
HB	2428.	37348.	58074.	108.	5.	120.	4.	3.	7.
HB	2429.	37802.	59273.	335.	3.	323.	3.	7.	0.
HB	2430.	36703.	58097.	46.	3.	93.	1.	3.	7.
HB	2431.	36845.	58324.	104.	9.	497.	2.	8.	0.
HB	2432.	37929.	59618.	76.	5.	215.	5.	9.	4.
HB	2433.	36785.	58096.	42.	1.	57.	1.	3.	6.
HB	2435.	37716.	59876.	45.	3.	15.	1.	2.	5.
HB	2436.	38016.	59665.	2666.	12.	312.	9.	14.	3.
HB	2437.	36967.	58040.	1725.	22.	895.	12.	13.	0.
HB	2438.	36761.	58275.	165.	4.	534.	0.	4.	0.
HB	2439.	37393.	59941.	80.	16.	37.	5.	8.	50.
HB	2441.	37853.	58764.	2006.	149.	334.	30.	30.	227.
HB	2442.	37458.	58140.	26900.	4.	19.	7.	5.	0.
HB	2443.	37188.	58386.	4347.	7.	377.	5.	11.	0.
HB	2444.	36835.	58024.	4129.	16.	1045.	7.	8.	36.
HB	2446.	37041.	58247.	165.	3.	200.	6.	3.	5.
HB	2447.	37918.	59871.	389.	13.	367.	1.	6.	5.
HB	2448.	37404.	58130.	70.	7.	29.	2.	4.	3.
HB	2449.	37165.	58431.	547.	8.	105.	8.	8.	4.
HB	2450.	36882.	58431.	2250.	11.	91.	6.	9.	3.
HB	2451.	36095.	58379.	385.	21.	480.	11.	14.	1.
HB	2452.	36973.	58025.	1524.	14.	688.	5.	10.	0.
HB	2453.	37032.	59716.	268.	4.	44.	5.	7.	4.
HB	2454.	38101.	59739.	233.	13.	146.	2.	7.	4.
HB	2455.	37438.	60003.	1146.	8.	85.	5.	8.	0.
HB	2456.	37316.	58121.	785.	2.	364.	1.	4.	2.
HB	2457.	37458.	59970.	107.	6.	133.	1.	5.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	572.	37476.	56192.	220.	59790.	1500.	1780.	-1.
HB	573.	38885.	56160.	530.	117410.	1680.	6560.	-1.
HB	574.	37050.	56560.	480.	80780.	1010.	3500.	-1.
HB	575.	38722.	56753.	2520.	74930.	1090.	5030.	-1.
HB	576.	38523.	56836.	3260.	76920.	550.	3930.	-1.
HB	577.	38638.	56894.	4950.	116510.	2250.	27150.	-1.
HB	579.	37902.	56559.	1890.	95360.	1180.	6120.	-1.
HB	580.	37620.	56770.	1800.	49830.	450.	8600.	-1.
HB	581.	38525.	56988.	6730.	98130.	1580.	32910.	-1.
HB	583.	38559.	56172.	570.	74570.	720.	4240.	-1.
HB	584.	37847.	56120.	390.	41620.	410.	4940.	-1.
HB	585.	37207.	55940.	570.	62410.	710.	1740.	-1.
HB	586.	38730.	56757.	1180.	12990.	330.	2050.	-1.
HB	587.	37070.	56030.	590.	58390.	290.	3770.	-1.
HB	588.	38932.	56502.	1170.	108450.	1120.	8260.	-1.
HB	589.	38551.	56855.	490.	3100.	320.	260.	-1.
HB	590.	37189.	55940.	680.	38250.	320.	3150.	-1.
HB	591.	37915.	56590.	2040.	119180.	1430.	3020.	-1.
HB	592.	38595.	56280.	410.	59410.	480.	3070.	-1.
HB	593.	38471.	56046.	360.	19330.	590.	3280.	-1.
HB	594.	37230.	56184.	880.	86150.	1130.	5920.	-1.
HB	595.	38108.	56059.	1830.	77440.	1080.	2260.	-1.
HB	596.	37207.	55940.	460.	46530.	500.	2860.	-1.
HB	597.	37620.	56070.	650.	70540.	690.	2420.	-1.
HB	598.	39738.	56920.	9690.	98860.	1640.	37220.	-1.
HB	599.	38229.	56504.	1240.	15349.	450.	1190.	-1.
HB	600.	38750.	56180.	360.	19740.	150.	2930.	-1.
HB	601.	37270.	57040.	910.	78650.	340.	2140.	-1.
HB	603.	37740.	56770.	18150.	146340.	3750.	52240.	-1.
HB	604.	37780.	56545.	370.	33910.	260.	4150.	-1.
HB	605.	38500.	57395.	210.	22490.	420.	1210.	-1.
HB	606.	37637.	56577.	1000.	63310.	580.	5410.	-1.
HB	607.	38400.	57400.	540.	22090.	200.	4460.	-1.
HB	608.	38645.	57405.	840.	124950.	890.	5110.	-1.
HB	610.	38607.	56680.	710.	26790.	340.	3810.	-1.
HB	611.	38650.	57380.	2930.	75060.	490.	3540.	-1.
HB	612.	37300.	56998.	450.	21200.	300.	1630.	-1.
HB	613.	38600.	57260.	2040.	38000.	620.	6060.	-1.
HB	616.	37979.	56609.	270.	17270.	170.	4330.	-1.
HB	617.	37958.	56500.	740.	67410.	790.	3730.	-1.
HB	618.	37986.	57319.	540.	22410.	200.	2230.	-1.
HB	620.	38490.	57467.	2690.	31750.	410.	8090.	-1.
HB	623.	37982.	56790.	590.	37030.	270.	3650.	-1.
HB	624.	37089.	56975.	560.	16710.	230.	3100.	-1.
HB	626.	37143.	56703.	980.	51320.	440.	4740.	-1.
HB	628.	37956.	56870.	3640.	31670.	320.	10040.	-1.
HB	629.	38559.	56748.	620.	20220.	270.	3360.	-1.
HB	630.	37211.	56868.	1530.	65180.	620.	5030.	-1.
HB	631.	38641.	57386.	1610.	86380.	480.	3160.	-1.
HB	632.	38705.	57343.	1270.	77850.	930.	3600.	-1.
HB	633.	38012.	57130.	820.	24830.	230.	1780.	-1.
HB	634.	37300.	56760.	680.	22190.	280.	2520.	-1.
HB	635.	38422.	57213.	21640.	40720.	980.	4660.	-1.
HB	636.	37336.	56830.	730.	65880.	640.	2170.	-1.
HB	637.	37199.	56750.	1540.	48110.	340.	3960.	-1.
HB	638.	37450.	56937.	680.	17960.	380.	2760.	-1.
HB	639.	38482.	57463.	300.	29210.	150.	2280.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (4) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	500.	37111.	56222.	1260.	156530.	1910.	9360.	-1.
HB	502.	37852.	56088.	1240.	105540.	1280.	7380.	-1.
HB	503.	37221.	55983.	610.	55390.	520.	3110.	-1.
HB	505.	38264.	56590.	480.	22430.	490.	1550.	-1.
HB	507.	38610.	56966.	7340.	83830.	1220.	22960.	-1.
HB	509.	37881.	56174.	1480.	109490.	1270.	4440.	-1.
HB	510.	37860.	56066.	2400.	126800.	1790.	3840.	-1.
HB	511.	38418.	56900.	5700.	113990.	1650.	35880.	-1.
HB	512.	37500.	56660.	2530.	63180.	980.	11280.	-1.
HB	513.	38850.	56366.	1290.	30190.	570.	10130.	-1.
HB	514.	38640.	56812.	570.	7400.	270.	750.	-1.
HB	515.	38800.	56136.	200.	9030.	100.	3500.	-1.
HB	518.	38450.	56231.	350.	59200.	440.	3360.	-1.
HB	519.	38838.	56103.	420.	38680.	650.	4020.	-1.
HB	520.	37520.	56234.	430.	22970.	310.	5830.	-1.
HB	521.	38690.	56095.	350.	42820.	960.	1580.	-1.
HB	522.	38702.	56308.	620.	10050.	290.	1120.	-1.
HB	523.	38866.	56369.	850.	32730.	450.	8830.	-1.
HB	524.	37658.	56020.	200.	106360.	4820.	1960.	-1.
HB	525.	38704.	56990.	6020.	79820.	1020.	33680.	-1.
HB	526.	37644.	56250.	400.	49520.	370.	3490.	-1.
HB	527.	37381.	56240.	310.	14270.	100.	2600.	-1.
HB	528.	37750.	56039.	560.	56220.	530.	3080.	-1.
HB	529.	38914.	56478.	640.	54050.	510.	8950.	-1.
HB	531.	37310.	55943.	930.	162260.	1610.	3950.	-1.
HB	532.	38031.	56067.	440.	20930.	250.	3650.	-1.
HB	533.	38550.	56436.	1420.	103430.	1240.	4370.	-1.
HB	536.	37750.	56039.	700.	77140.	1030.	4370.	-1.
HB	537.	37589.	56654.	3820.	86990.	1000.	11440.	-1.
HB	538.	38890.	56420.	950.	35860.	390.	3230.	-1.
HB	539.	37470.	56690.	11240.	116810.	2130.	36880.	-1.
HB	540.	38618.	56440.	650.	56020.	600.	14020.	-1.
HB	541.	37190.	56190.	510.	13240.	430.	1620.	-1.
HB	543.	37468.	56309.	510.	56930.	510.	4420.	-1.
HB	544.	38284.	56682.	580.	34330.	450.	5300.	-1.
HB	546.	37110.	55960.	930.	84670.	950.	4660.	-1.
HB	547.	38322.	56248.	1690.	88180.	1170.	6660.	-1.
HB	548.	37870.	56193.	1720.	73500.	810.	5290.	-1.
HB	549.	37853.	56072.	3160.	193590.	3810.	4700.	-1.
HB	550.	38725.	56818.	12060.	198910.	5250.	66330.	-1.
HB	551.	37741.	56073.	1250.	119960.	1650.	3400.	-1.
HB	552.	38468.	56891.	6420.	91250.	1290.	34650.	-1.
HB	553.	37931.	56211.	1510.	121740.	1630.	3630.	-1.
HB	556.	38978.	56521.	820.	65310.	630.	4330.	-1.
HB	557.	38412.	56885.	3480.	90420.	1050.	14510.	-1.
HB	558.	38224.	56041.	1100.	27380.	470.	2500.	-1.
HB	559.	37990.	56100.	1130.	61480.	930.	2110.	-1.
HB	560.	38209.	56746.	840.	17430.	230.	5640.	-1.
HB	561.	37260.	56259.	880.	70830.	1270.	6490.	-1.
HB	562.	37690.	56660.	1710.	74360.	710.	8280.	-1.
HB	563.	38291.	56340.	680.	40440.	380.	3470.	-1.
HB	565.	37705.	56334.	840.	83670.	1220.	8880.	-1.
HB	566.	37858.	56273.	300.	8660.	130.	2740.	-1.
HB	567.	37623.	56280.	320.	23020.	340.	4240.	-1.
HB	569.	38230.	56573.	290.	13230.	270.	2620.	-1.
HB	570.	37571.	56188.	580.	43620.	610.	4100.	-1.
HB	571.	37619.	56256.	580.	53580.	520.	5980.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (D) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1475.	40606.	59800.	580.	10410.	170.	5150.	40.
HB	1476.	40530.	59732.	260.	11560.	140.	5070.	60.
HB	1477.	40920.	59656.	1620.	48650.	780.	10370.	150.
HB	1478.	41367.	58852.	1350.	70360.	880.	9710.	230.
HB	1479.	41359.	59712.	1280.	67900.	850.	17060.	50.
HB	1480.	41146.	59479.	410.	17920.	190.	5960.	140.
HB	1482.	[illegible].	59560.	620.	15730.	260.	7140.	370.
HB	1485.	41335.	58909.	1600.	80210.	890.	8870.	150.
HB	1487.	41136.	59547.	490.	16880.	190.	5020.	70.
HB	1489.	41135.	58920.	1790.	64570.	850.	10150.	170.
HB	1491.	39858.	59350.	4190.	49440.	370.	10450.	70.
HB	1494.	40814.	59653.	770.	41030.	490.	9190.	60.
HB	1496.	41055.	59400.	200.	7230.	170.	5920.	10.
HB	1500.	41192.	59054.	2660.	58510.	930.	6330.	150.
HB	1502.	42[illegible].	59227.	2710.	100620.	2740.	37820.	190.
HB	1503.	41348.	59361.	800.	35980.	690.	9820.	40.
HB	1504.	40278.	60416.	1170.	34570.	280.	11800.	30.
HB	1505.	39591.	60798.	1640.	69510.	630.	20920.	70.
HB	1506.	41620.	59432.	1280.	50870.	640.	10810.	50.
HB	1507.	40878.	60215.	860.	18880.	240.	7490.	40.
HB	1508.	41482.	59368.	1410.	80560.	770.	8340.	50.
HB	1509.	41780.	59722.	2680.	119840.	2380.	30640.	70.
HB	1510.	41723.	59728.	3820.	177450.	3460.	48350.	210.
HB	1511.	39937.	60848.	5870.	270160.	2830.	70500.	60.
HB	1512.	41118.	59865.	2310.	93280.	1150.	15550.	530.
HB	1513.	42013.	59608.	3200.	110340.	1470.	19350.	120.
HB	1514.	41962.	59380.	3220.	121860.	2920.	45550.	40.
HB	1515.	42612.	59686.	2460.	55180.	500.	6930.	100.
HB	1516.	41237.	59896.	1350.	39940.	320.	8070.	100.
HB	1517.	41038.	59801.	2370.	94260.	940.	12980.	260.
HB	1518.	40145.	60232.	1660.	59670.	260.	14480.	50.
HB	1519.	39950.	60722.	3950.	163610.	1630.	37300.	90.
HB	1520.	41232.	59887.	2500.	91870.	720.	26010.	130.
HB	1521.	40868.	60245.	420.	18230.	140.	7070.	130.
HB	1522.	40827.	60262.	6280.	63260.	720.	23160.	80.
HB	1523.	40427.	60098.	2750.	83980.	920.	32090.	50.
HB	1524.	40207.	60123.	800.	17660.	150.	6060.	20.
HB	1526.	41960.	59946.	2230.	103750.	1520.	23540.	40.
HB	1527.	41790.	59630.	3250.	130740.	2620.	32760.	120.
HB	1528.	40970.	59890.	2500.	77610.	830.	13900.	280.
HB	1529.	41440.	59380.	1880.	78500.	1150.	14740.	60.
HB	1530.	40045.	60477.	3700.	156120.	1480.	40100.	70.
HB	1531.	41836.	59121.	1020.	50950.	590.	9040.	50.
HB	1532.	39981.	60637.	1670.	28230.	310.	10510.	90.
HB	1533.	40300.	60270.	1930.	113550.	910.	32590.	40.
HB	1534.	41127.	60070.	1160.	49290.	420.	3270.	120.
HB	1535.	40634.	60502.	410.	52660.	300.	4460.	40.
HB	1536.	41857.	59170.	1160.	37510.	320.	6750.	60.
HB	1537.	41830.	59430.	2340.	55850.	890.	15870.	150.
HB	1538.	40615.	60306.	1120.	49130.	220.	6600.	30.
HB	1539.	40150.	60056.	1350.	33460.	770.	15350.	90.
HB	1540.	41865.	59770.	4020.	134790.	2210.	34770.	150.
HB	1541.	41532.	59411.	670.	24060.	390.	12570.	30.
HB	1542.	41631.	59430.	4140.	140540.	2490.	20060.	90.
HB	1543.	40300.	60343.	2540.	50390.	940.	17790.	40.
HB	1544.	39997.	60435.	4022.	201310.	2030.	74450.	70.
HB	1545.	39720.	60039.	4720.	115390.	1080.	42190.	90.

CHEMICAL DATA FOR PANNED CONCENTRATES (8) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1547.	42013.	59460.	910.	15070.	140.	3830.	20.
HB	1548.	40665.	60282.	1830.	38980.	540.	5050.	30.
HB	549.	41830.	59167.	5250.	187450.	5240.	22530.	80.
HB	1550.	41720.	59569.	3440.	126090.	2030.	28270.	90.
HB	1551.	41908.	59940.	1460.	45600.	500.	9940.	30.
HB	1553.	40905.	60094.	560.	24940.	240.	10100.	70.
HB	1554.	39609.	60298.	200.	20210.	120.	4850.	60.
HB	1555.	42013.	60053.	960.	40460.	520.	17000.	30.
HB	1556.	41127.	59867.	4180.	153760.	1900.	27170.	300.
HB	1559.	40642.	60503.	670.	53070.	190.	4110.	70.
HB	1560.	41944.	59837.	5050.	178600.	5780.	48100.	120.
HB	1561.	41154.	60058.	2380.	93230.	230.	8600.	60.
HB	1562.	41990.	59300.	2750.	86240.	1470.	26500.	40.
HB	1563.	41900.	59193.	5400.	172690.	4730.	39560.	330.
HB	1564.	40457.	60192.	3170.	105910.	2250.	59700.	40.
HB	1565.	42021.	59265.	3180.	137980.	3130.	49080.	70.
HB	1566.	39960.	60745.	6190.	289050.	3510.	87200.	60.
HB	1568.	40660.	60047.	1010.	30800.	330.	11590.	50.
HB	1569.	40434.	60418.	1250.	38470.	280.	12800.	40.
HB	1570.	39720.	60818.	2060.	76210.	300.	14600.	60.
HB	1571.	40687.	60053.	1260.	34450.	490.	12260.	30.
HB	1572.	40707.	60180.	1180.	47570.	480.	12730.	140.
HB	1573.	40812.	60364.	490.	17160.	300.	4480.	20.
HB	1574.	39822.	60799.	3760.	60820.	470.	21060.	90.
HB	1575.	42097.	59670.	1240.	34420.	260.	5210.	30.
HB	1576.	39502.	60830.	1500.	40560.	466.	9040.	40.
HB	1577.	41964.	59190.	8950.	348910.	1830.	37300.	270.
HB	1578.	41596.	59899.	2800.	55680.	480.	10040.	80.
HB	1580.	40065.	60413.	5450.	192240.	3800.	73200.	43.
HB	1582.	40429.	60420.	2160.	42060.	340.	13580.	40.
HB	1583.	40806.	60364.	370.	17440.	250.	4190.	10.
HB	1585.	41725.	59563.	1830.	70220.	1440.	22310.	220.
HB	1586.	40294.	60169.	1160.	19680.	120.	5740.	20.
HB	1589.	40658.	60051.	930.	22960.	280.	10780.	40.
HB	1590.	40350.	60572.	1730.	56770.	460.	15850.	40.
HB	1591.	41753.	59073.	3810.	137120.	1640.	8040.	220.
HB	1592.	41500.	59876.	2330.	55050.	560.	13870.	100.
HB	1593.	40532.	59988.	860.	19290.	160.	5480.	90.
HB	1594.	40383.	59950.	370.	26200.	250.	12920.	610.
HB	1595.	40013.	60723.	3310.	72340.	550.	23170.	70.
HB	1597.	40616.	60380.	290.	18760.	130.	5140.	30.
HB	1598.	40058.	60049.	640.	18000.	200.	6130.	90.
HB	1600.	41624.	59582.	3730.	121590.	2100.	27690.	350.
HB	1601.	39599.	60625.	2040.	24130.	300.	13210.	80.
HB	1602.	40995.	61117.	680.	40260.	430.	33310.	70.
HB	1603.	39870.	59900.	1160.	56570.	440.	7250.	190.
HB	1604.	39557.	60550.	9800.	17720.	240.	8460.	180.
HB	1605.	41036.	61317.	1390.	30500.	380.	11380.	50.
HB	1606.	40530.	61116.	750.	20630.	130.	6050.	30.
HB	1607.	40424.	61749.	1840.	33310.	360.	10790.	70.
HB	1608.	39869.	60489.	920.	23750.	130.	4290.	50.
HB	1609.	39508.	60239.	270.	30890.	190.	2370.	20.
HB	1610.	40098.	61179.	3920.	122270.	1350.	48220.	130.
HB	1611.	40889.	61498.	1330.	79630.	790.	11390.	70.
HB	1612.	40940.	60648.	880.	33970.	420.	12870.	60.
HB	1614.	39711.	60107.	1780.	74850.	260.	12660.	60.
HB	1615.	39510.	60232.	290.	26550.	130.	2660.	20.

CHEMICAL DATA FOR PANNED CONCENTRATES; (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROVINCE CODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2458.	37556.	58554.	750.	41130.	890.	1460.	20.
HB	2459.	37104.	58196.	310.	9090.	60.	2560.	20.
HB	2460.	38010.	58044.	390.	12840.	140.	1070.	20.
HB	2461.	37109.	58101.	310.	13640.	110.	1840.	20.
HB	2462.	37105.	58343.	160.	10040.	60.	1480.	20.
HB	2463.	38040.	59656.	80.	11570.	40.	1560.	10.
HB	2464.	37373.	58099.	680.	46260.	280.	1580.	40.
HB	2465.	37355.	59913.	240.	10670.	70.	1960.	10.
HB	2466.	38017.	59690.	270.	27300.	170.	3010.	20.
HB	2467.	38030.	59718.	1900.	17600.	110.	1410.	10.
HB	2468.	37772.	59310.	280.	13920.	60.	1520.	10.
HB	2469.	37757.	58505.	200.	20580.	160.	2100.	10.
HB	2470.	37218.	58535.	560.	40011.	330.	2310.	40.
HB	2471.	37378.	60002.	90.	21710.	40.	3170.	7.
HB	2472.	37758.	59877.	100.	11090.	30.	1240.	10.
HB	2474.	36752.	58277.	590.	29570.	190.	1280.	20.
HB	2477.	36652.	58011.	320.	10640.	80.	1460.	20.
HB	2478.	37107.	58030.	280.	19450.	90.	1320.	20.
HB	2479.	36872.	58413.	390.	17560.	120.	4510.	30.
HB	2480.	37497.	58156.	500.	7240.	140.	1010.	20.
HB	2482.	37510.	59950.	200.	10090.	70.	1380.	10.
HB	2483.	37225.	58530.	650.	50390.	460.	2870.	40.
HB	2484.	37492.	58542.	220.	26790.	170.	1320.	20.
HB	2485.	37788.	59041.	140.	13330.	50.	1000.	20.
HB	2486.	37724.	59870.	110.	6490.	50.	880.	10.
HB	2487.	37541.	59904.	210.	20060.	70.	2100.	10.
HB	2489.	37297.	58577.	570.	58200.	390.	1790.	30.
HB	2491.	37917.	59787.	370.	49800.	220.	1570.	20.
HB	2492.	37098.	58304.	390.	16850.	110.	2210.	20.
HB	2493.	38113.	59883.	210.	8140.	40.	650.	10.
HB	2494.	36742.	58027.	610.	26770.	130.	2380.	30.
HB	2495.	37745.	59398.	230.	9970.	100.	2370.	10.
HB	2496.	36620.	58075.	190.	13780.	150.	1070.	20.
HB	2498.	37314.	59919.	200.	4080.	50.	1980.	10.
HB	2499.	37181.	58070.	540.	28150.	170.	2760.	40.
HB	2500.	37530.	59920.	90.	8320.	40.	1690.	20.
HB	2501.	36904.	59716.	810.	42650.	170.	4480.	30.
HB	2504.	37441.	59447.	240.	20330.	90.	840.	10.
HB	2505.	37097.	59532.	150.	15090.	80.	1260.	10.
HB	2506.	37138.	59497.	230.	16150.	170.	1360.	10.
HB	2507.	36896.	59714.	210.	9700.	70.	3540.	10.
HB	2508.	37739.	58100.	730.	42200.	200.	1530.	20.
HB	2510.	37340.	59114.	110.	11170.	70.	1100.	10.
HB	2511.	36619.	59844.	240.	6870.	90.	4120.	10.
HB	2515.	37856.	58118.	630.	19140.	90.	2260.	20.
HB	2516.	36565.	59905.	210.	9190.	60.	1810.	10.
HB	2517.	37988.	58032.	700.	17530.	190.	1980.	30.
HB	2518.	36953.	59297.	140.	17080.	80.	4980.	10.
HB	2521.	37620.	59281.	160.	17390.	130.	740.	10.
HB	2522.	37729.	58950.	470.	38670.	230.	4360.	20.
HB	2523.	36622.	59869.	160.	4660.	70.	4510.	10.
HB	2524.	37142.	59495.	180.	12850.	120.	1030.	10.
HB	2527.	37952.	58113.	310.	15590.	200.	1860.	20.
HB	2529.	37101.	59530.	150.	4860.	80.	2320.	10.
HB	2530.	37427.	59227.	90.	9620.	40.	2230.	10.
HB	2531.	37725.	58953.	730.	37420.	240.	3880.	30.
HB	2553.	37338.	59752.	340.	31710.	80.	2040.	20.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	[illegible]	TITANIUM	SR
HB	2534.	37591.	59687.	410.	15280.	440.	1360.	10.
HB	2535.	37183.	59405.	130.	10580.	50.	2730.	10.
HB	2536.	37480.	59605.	470.	20190.	90.	2640.	20.
HB	2537.	37476.	59661.	260.	27770.	150.	4290.	70.
HB	2538.	37812.	59195.	70.	6090.	55.	1530.	10.
HB	2539.	36635.	59725.	100.	4290.	40.	1510.	10.
HB	2540.	36575.	59[illegible].	170.	12590.	50.	870.	10.
HB	2542.	37030.	59758.	340.	29140.	190.	3490.	40.
HB	2543.	37419.	59116.	360.	22050.	110.	1270.	20.
HB	2544.	37854.	58817.	230.	26060.	130.	1180.	10.
HB	2545.	37435.	59093.	500.	28110.	150.	1960.	30.
HB	2546.	37334.	59105.	170.	9670.	40.	1720.	10.
HB	2547.	37717.	59003.	820.	44480.	270.	5530.	30.
HB	2548.	37266.	59556.	190.	15420.	140.	1360.	10.
HB	2549.	36876.	59684.	520.	44610.	470.	1740.	20.
HB	2550.	37834.	58903.	720.	20760.	180.	2400.	10.
HB	2552.	37202.	59422.	160.	10020.	90.	1460.	10.
HB	2553.	37066.	59800.	220.	15580.	[illegible]	2050.	20.
HB	2554.	37045.	59362.	110.	3910.	[illegible]	1360.	10.
HB	2555.	37529.	59576.	220.	12780.	240.	950.	10.
HB	2556.	37[illegible].	59390.	120.	10890.	80.	1560.	10.
HB	2557.	37630.	59020.	280.	19850.	150.	3830.	20.
HB	2558.	36587.	59695.	150.	6320.	70.	2440.	10.
HB	[illegible]	37067.	59867.	110.	11210.	[illegible]	1140.	10.
HB	[illegible]	36730.	59820.	590.	36690.	2[illegible]	2510.	40.
HB	2562.	37581.	59611.	150.	12060.	[illegible]	1700.	10.
HB	2563.	37965.	58027.	470.	24250.	170.	2010.	30.
HB	2564.	37373.	59765.	140.	16250.	50.	1750.	10.
HB	[illegible]	36600.	59687.	110.	3350.	[illegible]	1430.	10.
HB	[illegible]	37629.	59056.	450.	24080.	170.	5330.	10.
HB	2567.	37440.	59116.	150.	8150.	60.	1950.	10.
HB	[illegible]	37045.	59359.	90.	3870.	[illegible]	1930.	10.
HB	2569.	36550.	59940.	140.	10320.	40.	3520.	10.
HB	2570.	37103.	59303.	170.	13790.	40.	1680.	10.
HB	2572.	36977.	59760.	190.	11760.	90.	1490.	20.
HB	2573.	36813.	59660.	190.	24810.	570.	2540.	20.
HB	2574.	37059.	59780.	170.	27350.	100.	1350.	20.
HB	2575.	37056.	59884.	610.	14780.	150.	2010.	30.
HB	2576.	37511.	59589.	260.	13200.	50.	2970.	10.
HB	2577.	37776.	59196.	120.	2650.	60.	8400.	30.
HB	2578.	37192.	59611.	130.	6710.	40.	1250.	10.
HB	2579.	37470.	59586.	270.	8610.	70.	1535.	20.
HB	2580.	37955.	58009.	240.	5610.	80.	2205.	20.
HB	2581.	37398.	59680.	500.	6550.	110.	1560.	20.
HB	2582.	37956.	59964.	210.	7200.	50.	3290.	10.
HB	2583.	36742.	59850.	240.	6830.	60.	1380.	10.
HB	2584.	37551.	58902.	160.	15670.	110.	2750.	20.
HB	2585.	37893.	58062.	280.	15170.	160.	2530.	30.
HB	[illegible]	36726.	59847.	300.	4500.	60.	1090.	20.
HB	[illegible]	37331.	59140.	90.	12570.	50.	1170.	[illegible]
HB	2588.	37756.	58040.	190.	15030.	130.	2000.	[illegible]
HB	2590.	37559.	59463.	510.	25910.	140.	1490.	10.
HB	2591.	37909.	58084.	300.	15810.	210.	1070.	20.
HB	2594.	36595.	59702.	430.	35970.	340.	4620.	40.
HB	2595.	37547.	59333.	210.	21110.	130.	1890.	10.
HB	2596.	37266.	59129.	100.	3510.	40.	1230.	10.
HB	2597.	37533.	59545.	130.	18270.	170.	1280.	10.

CHEMICAL DATA FOR PANNED CONCENTRATES; (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	ROLLER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	725.	38710.	56141.	94.	0.	-1.	-1.	-1.
HB	727.	37722.	56787.	0.	0.	-1.	-1.	-1.
HB	729.	40122.	56069.	118.	4.	-1.	-1.	-1.
HB	732.	39178.	56044.	313.	0.	-1.	-1.	-1.
HB	733.	38980.	56153.	161.	6.	-1.	-1.	-1.
HB	734.	36962.	56042.	14.	12.	-1.	-1.	-1.
HB	735.	36854.	56029.	52.	1.	-1.	-1.	-1.
HB	737.	39270.	56077.	58.	0.	-1.	-1.	-1.
HB	740.	37231.	57514.	12.	4.	-1.	-1.	-1.
HB	741.	37900.	57140.	59.	0.	-1.	-1.	-1.
HB	742.	39402.	56017.	403.	0.	-1.	-1.	-1.
HB	743.	37133.	57170.	11.	5.	-1.	-1.	-1.
HB	744.	39105.	56142.	93.	4.	-1.	-1.	-1.
HB	745.	37772.	56950.	191.	1.	-1.	-1.	-1.
HB	746.	37513.	56960.	32.	8.	-1.	-1.	-1.
HB	747.	37812.	57150.	27.	0.	-1.	-1.	-1.
HB	751.	37580.	57130.	19.	0.	-1.	-1.	-1.
HB	753.	37600.	57030.	0.	0.	-1.	-1.	-1.
HB	754.	36852.	56820.	30.	7.	-1.	-1.	-1.
HB	755.	36750.	56547.	69.	0.	-1.	-1.	-1.
HB	756.	36998.	56997.	54.	8.	-1.	-1.	-1.
HB	760.	37207.	57322.	21.	8.	-1.	-1.	-1.
HB	761.	39874.	56053.	231.	2.	-1.	-1.	-1.
HB	765.	39510.	56058.	208.	7.	-1.	-1.	-1.
HB	766.	37727.	56777.	33.	5.	-1.	-1.	-1.
HB	767.	38214.	57050.	12.	7.	-1.	-1.	-1.
HB	768.	38263.	56082.	72.	1.	-1.	-1.	-1.
HB	769.	39110.	56134.	57.	0.	-1.	-1.	-1.
HB	770.	38490.	56806.	172.	5.	-1.	-1.	-1.
HB	771.	37228.	57191.	25.	4.	-1.	-1.	-1.
HB	774.	37732.	56938.	41.	3.	-1.	-1.	-1.
HB	776.	37204.	57320.	25.	9.	-1.	-1.	-1.
HB	777.	37610.	56882.	69.	5.	-1.	-1.	-1.
HB	780.	37248.	57105.	6.	8.	-1.	-1.	-1.
HB	782.	38357.	56963.	55.	2.	-1.	-1.	-1.
HB	783.	38680.	57447.	24.	0.	-1.	-1.	-1.
HB	784.	38620.	57060.	31.	6.	-1.	-1.	-1.
HB	785.	36991.	56873.	17.	17.	-1.	-1.	-1.
HB	788.	39728.	55570.	97.	3.	-1.	-1.	-1.
HB	789.	37642.	57090.	13.	8.	-1.	-1.	-1.
HB	790.	37359.	57156.	30.	5.	-1.	-1.	-1.
HB	791.	38253.	57389.	78.	6.	-1.	-1.	-1.
HB	792.	36982.	56889.	40.	2.	-1.	-1.	-1.
HB	795.	39350.	56047.	170.	3.	-1.	-1.	-1.
HB	796.	39430.	56073.	271.	3.	-1.	-1.	-1.
HB	797.	37451.	57189.	47.	0.	-1.	-1.	-1.
HB	798.	37910.	57142.	45.	0.	-1.	-1.	-1.
HB	799.	37280.	57307.	49.	3.	-1.	-1.	-1.
HB	803.	39086.	57186.	31.	7.	-1.	-1.	-1.
HB	804.	37190.	57258.	29.	8.	-1.	-1.	-1.
HB	805.	36785.	56054.	40.	2.	-1.	-1.	-1.
HB	806.	39657.	57304.	23.	14.	-1.	-1.	-1.
HB	807.	39516.	57463.	27.	0.	-1.	-1.	-1.
HB	808.	38159.	57464.	38.	0.	-1.	-1.	-1.
HB	809.	39605.	57252.	1.	10.	-1.	-1.	-1.
HB	811.	39125.	57897.	24.	2.	-1.	-1.	-1.
HB	814.	39443.	57117.	133.	7.	-1.	-1.	-1.

CHEMICAL DATA FOR [illegible] CONCENTRATES, (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCOD	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	M
HB	641.	37861.	56972.	77.	6.	-1.	-1.	-1.
HB	642.	37787.	[illegible]	21.	0.	-1.	-1.	-1.
HB	643.	38004.	57199.	24.	0.	-1.	-1.	-1.
HB	644.	37935.	56490.	24.	10.	-1.	-1.	1.
HB	646.	38428.	57198.	0.	3.	-1.	-1.	-1.
HB	647.	37729.	56541.	0.	0.	-1.	-1.	-1.
HB	648.	38662.	57[illegible].	0.	0.	-1.	-1.	-1.
HB	650.	37128.	567[illegible].	20.	57.	-1.	-1.	-1.
HB	651.	37383.	56965.	34.	6.	-1.	-1.	-1.
HB	652.	39025.	56971.	[illegible]	1.	-1.	-1.	-1.
HB	653.	38210.	57192.	6.	2.	-1.	-1.	-1.
HB	658.	38530.	56722.	32.	0.	-1.	-1.	-1.
HB	662.	38364.	57238.	20.	0.	-1.	-1.	-1.
HB	663.	37688.	56475.	76.	5.	-1.	-1.	-1.
HB	664.	37039.	56502.	69.	7.	-1.	-1.	-1.
HB	666.	37152.	56799.	0.	0.	-1.	-1.	-1.
HB	667.	37099.	56715.	33.	5.	-1.	-1.	-1.
HB	668.	38510.	57456.	13.	0.	-1.	-1.	-1.
HB	669.	37158.	57084.	100.	13.	-1.	-1.	-1.
HB	671.	37577.	56458.	49.	1.	-1.	-1.	-1.
HB	673.	37070.	57025.	31.	6.	-1.	-1.	-1.
HB	674.	38378.	57467.	64.	8.	-1.	-1.	-1.
HB	675.	37649.	56572.	26.	1.	-1.	-1.	-1.
HB	676.	38065.	57249.	11.	0.	-1.	-1.	-1.
HB	678.	370[illegible].	56509.	36.	58.	-1.	-1.	-1.
HB	679.	382[illegible].	57123.	12.	6.	-1.	-1.	-1.
HB	680.	37900.	56480.	36.	9.	-1.	-1.	-1.
HB	682.	37460.	56920.	54.	1.	-1.	-1.	-1.
HB	685.	37134.	56610.	33.	1.	-1.	-1.	-1.
HB	689.	37726.	56570.	19.	0.	-1.	-1.	-1.
HB	690.	37171.	56428.	27.	3.	-1.	-1.	-1.
HB	691.	38071.	57307.	12.	3.	-1.	-1.	-1.
HB	692.	37138.	56967.	2.	6.	-1.	-1.	-1.
HB	694.	38019.	56510.	[illegible].	0.	-1.	-1.	-1.
HB	695.	37717.	56582.	56.	5.	-1.	-1.	-1.
HB	696.	38630.	56627.	0.	0.	-1.	-1.	-1.
HB	697.	38090.	57129.	110.	3.	-1.	-1.	-1.
HB	698.	37130.	56673.	1[illegible].	9.	-1.	-1.	-1.
HB	699.	37241.	56973.	9[illegible].	10.	-1.	-1.	-1.
HB	700.	38490.	57208.	99.	2.	-1.	-1.	-1.
HB	[illegible]1.	36712.	56788.	14.	2.	-1.	-1.	-1.
HB	702.	39063.	56048.	37.	2.	-1.	-1.	-1.
HB	703.	39277.	56129.	71.	6.	-1.	-1.	-1.
HB	705.	37412.	56680.	13.	7.	-1.	-1.	-1.
HB	707.	38525.	57218.	57.	7.	-1.	-1.	-1.
HB	708.	37290.	57310.	33.	7.	-1.	-1.	-1.
HB	709.	37173.	57090.	38.	1.	-1.	-1.	-1.
HB	710.	37298.	57321.	35.	5.	-1.	-1.	-1.
HB	711.	37653.	57110.	0.	0.	-1.	-1.	-1.
HB	713.	39800.	55991.	65.	12.	-1.	-1.	-1.
HB	714.	37254.	57080.	[illegible].	1.	-1.	-1.	-1.
HB	715.	37120.	57169.	40.	0.	-1.	-1.	-1.
HB	717.	37585.	57170.	38.	2.	-1.	-1.	-1.
HB	719.	38750.	57493.	47.	6.	-1.	-1.	-1.
HB	722.	39170.	56130.	6[illegible].	1.	-1.	-1.	-1.
HB	7[illegible]1.	39530.	56072.	5[illegible].	4.	-1.	-1.	-1.
HB	724.	37789.	57030.	9.	9.	-1.	-1.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C, CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1688.	39937.	60404.	33.	4.	0.	460.	3.
HB	1689.	40015.	60830.	137.	3.	0.	11330.	3.
HB	1691.	39[illegible].	60078.	118.	0.	0.	7900.	3.
HB	1692.	39[illegible].	60[illegible].	104.	2.	10.	7620.	0.
HB	1693.	39[illegible].	60[illegible].	[illegible].	0.	20.	16720.	0.
HB	1694.	40241.	60[illegible].	1[illegible].	4.	100.	63980.	39.
HB	1695.	40046.	61162.	138.	0.	10.	3400.	5.
HB	1696.	40570.	61643.	131.	13.	10.	5[illegible].	15.
HB	[illegible]97.	40347.	61170.	[illegible]66.	0.	0.	1750.	2.
HB	[illegible]28.	39680.	60556.	[illegible]22.	2.	0.	840.	1.
HB	1699.	40936.	60940.	10[illegible]2.	5.	80.	64020.	37.
HB	1700.	40216.	61802.	[illegible]52.	7.	3.	940.	1.
HB	[illegible]01.	41288.	60536.	[illegible]97.	0.	[illegible].	75[illegible].	2.
HB	[illegible]02.	41681.	60730.	459.	4.	20.	12000.	8.
HB	[illegible]03.	41964.	60147.	171.	0.	[illegible].	5970.	3.
HB	1704.	41721.	60386.	375.	0.	0.	8680.	4.
HB	1705.	42208.	60737.	102.	5.	10.	2150.	4.
HB	1706.	[illegible]216.	60256.	405.	0.	20.	24270.	10.
HB	1707.	41802.	61047.	[illegible]9.	6.	0.	4110.	5.
HB	1708.	41753.	60170.	[illegible]27.	0.	10.	7760.	4.
HB	1709.	41423.	60487.	180.	0.	[illegible]0.	6371.	4.
HB	1710.	41082.	60705.	121.	0.	[illegible]0.	7450.	5.
HB	1712.	41370.	60410.	[illegible]40.	0.	[illegible].	2890.	3.
HB	1713.	42507.	61685.	[illegible]6[illegible].	25.	10.	3600.	5.
HB	1714.	41595.	60633.	[illegible]73.	1.	0.	3080.	6.
HB	1715.	41860.	60516.	[illegible]83.	0.	0.	2540.	3.
HB	1716.	41163.	61060.	141.	0.	[illegible]0.	7400.	2.
HB	1719.	41544.	60162.	[illegible]9.	11.	10.	6210.	2.
HB	1720.	41434.	60360.	[illegible]7.	1.	[illegible].	4090.	2.
HB	1721.	39646.	59283.	[illegible]39.	[illegible].	[illegible].	1800.	0.
HB	1723.	42065.	60494.	257.	0.	10.	6310.	2.
HB	1724.	41885.	60454.	[illegible]0.	2.	10.	2710.	4.
HB	1725.	39512.	59296.	[illegible]0.	0.	10.	4440.	5.
HB	1726.	41714.	60530.	277.	14.	10.	7190.	5.
HB	1727.	41450.	60696.	[illegible]85.	[illegible].	0.	3[illegible].	1.
HB	1728.	41[illegible].	60325.	232.	[illegible].	10.	101[illegible].	4.
HB	1729.	41821.	60050.	376.	0.	10.	11510.	4.
HB	1730.	41476.	59960.	178.	[illegible].	0.	5210.	2.
HB	1731.	41608.	61092.	104.	[illegible].	0.	3690.	1.
HB	1732.	41814.	61087.	240.	12.	10.	6490.	9.
HB	1733.	41493.	60245.	209.	0.	[illegible]0.	8990.	4.
HB	1734.	41210.	61222.	271.	6.	1[illegible].	13130.	1.
HB	1735.	42068.	60384.	201.	[illegible].	10.	5120.	2.
HB	1736.	41183.	60840.	54.	0.	10.	5460.	3.
HB	1737.	41429.	60498.	91.	0.	0.	3120.	2.
HB	1738.	41945.	61622.	64.	4.	0.	2590.	5.
HB	1739.	41744.	60001.	166.	[illegible].	10.	5150.	4.
HB	1740.	41600.	61[illegible].	111.	[illegible].	0.	4670.	4.
HB	1741.	41782.	60[illegible].	704.	[illegible].	30.	18950.	6.
HB	1742.	41765.	60133.	237.	[illegible].	10.	6020.	3.
HB	1744.	41417.	60450.	58.	[illegible].	0.	2810.	2.
HB	1745.	41530.	60140.	135.	[illegible].	10.	4170.	5.
HB	1746.	41723.	606[illegible].	34.	0.	10.	2770.	5.
HB	1747.	39540.	59293.	45.	0.	10.	3700.	0.
HB	1748.	[illegible]006.	60338.	288.	0.	10.	6080.	3.
HB	1749.	[illegible]085.	60750.	60.	0.	10.	5670.	5.
HB	1750.	[illegible]1190.	61183.	370.	4.	20.	19170.	11.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, (A) ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1616.	40188.	61148.	93.	0.	10.	2870.	6.
HB	1617.	40234.	60542.	86.	0.	0.	2150.	1.
HB	1618.	40020.	60456.	181.	3.	10.	7400.	3.
HB	1620.	40718.	60763.	77.	2.	0.	6520.	0.
HB	1621.	40884.	60867.	467.	0.	30.	23350.	6.
HB	1622.	40292.	60260.	223.	0.	10.	8150.	2.
HB	1623.	41220.	60452.	151.	0.	10.	5280.	2.
HB	1624.	39649.	60510.	314.	0.	20.	17760.	3.
HB	1625.	40488.	61720.	81.	0.	0.	1090.	2.
HB	1626.	40635.	61172.	549.	1.	30.	23350.	7.
HB	1628.	40727.	61828.	87.	2.	10.	3770.	7.
HB	1629.	39649.	59839.	90.	0.	0.	4080.	0.
HB	1630.	40392.	61565.	64.	1.	0.	1760.	7.
HB	1631.	39652.	59903.	71.	0.	0.	1000.	1.
HB	1632.	40187.	60630.	107.	0.	10.	6980.	1.
HB	1633.	39790.	60517.	164.	0.	10.	4850.	0.
HB	1634.	40302.	61688.	125.	2.	10.	3700.	4.
HB	1635.	40326.	61[illegible].	77.	0.	0.	1270.	5.
HB	1636.	39622.	[illegible]322.	21.	0.	0.	2200.	5.
HB	1637.	39652.	[illegible]790.	68.	0.	0.	7[illegible]0.	9.
HB	1638.	40728.	60770.	300.	0.	40.	35[illegible]0.	9.
HB	1639.	40088.	60370.	165.	2.	10.	2200.	6.
HB	1641.	40487.	61[illegible]6.	145.	4.	10.	2760.	1.
HB	1642.	40392.	61[illegible]54.	114.	4.	10.	3530.	1.
HB	1643.	39965.	61065.	199.	0.	10.	5270.	0.
HB	1644.	41358.	61220.	36.	0.	0.	1780.	1.
HB	1645.	41217.	60460.	35.	0.	10.	5510.	2.
HB	1648.	40477.	61529.	30.	0.	10.	1260.	2.
HB	1649.	39723.	59958.	210.	0.	10.	13370.	4.
HB	1650.	40908.	61220.	57.	4.	0.	3[illegible]0.	1.
HB	1652.	40977.	61243.	348.	0.	20.	21170.	1.
HB	1653.	39539.	59674.	88.	0.	10.	7460.	0.
HB	1654.	39693.	60018.	49.	8.	10.	1670.	3.
HB	1655.	40503.	60959.	244.	5.	10.	11650.	4.
HB	1656.	40345.	61164.	152.	2.	10.	2020.	4.
HB	1658.	40770.	61219.	180.	0.	10.	6220.	2.
HB	1659.	40482.	61125.	194.	0.	10.	5380.	1.
HB	1661.	39756.	59946.	91.	1.	10.	6[illegible].	1.
HB	1662.	39772.	60513.	[illegible].	1.	30.	14200.	2.
HB	1663.	40591.	61562.	272.	5.	20.	8[illegible]30.	5.
HB	1664.	40671.	61726.	93.	0.	0.	[illegible]200.	2.
HB	1665.	40185.	61162.	89.	5.	0.	2310.	5.
HB	1667.	39695.	59792.	0.	0.	0.	2850.	2.
HB	1668.	41030.	60587.	159.	0.	10.	6110.	4.
HB	1669.	40632.	61194.	127.	7.	10.	2740.	5.
HB	1670.	40210.	60330.	157.	0.	10.	5350.	1.
HB	1671.	40865.	61199.	1525.	1.	120.	73240.	75.
HB	1674.	41177.	60561.	69.	0.	0.	4240.	2.
HB	1676.	41233.	60468.	238.	0.	20.	15520.	6.
HB	1677.	40309.	60613.	229.	4.	10.	12650.	5.
HB	1678.	39660.	59817.	39.	0.	0.	3050.	1.
HB	1679.	41356.	61218.	81.	0.	0.	4910.	4.
HB	1680.	40682.	61264.	145.	7.	0.	2930.	0.
HB	1681.	41174.	60365.	0.	6.	0.	2460.	8.
HB	1682.	39891.	[illegible]427.	122.	1.	0.	5000.	1.
HB	1646.	40795.	[illegible]790.	483.	1.	20.	29750.	6.
HB	1647.	40377.	66636.	158.	4.	10.	8[illegible].	3.

(C) MICAL DATA [illegible] PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2598.	36835.	59670.	17.	5.	0.	2980.	0.
HB	2599.	37525.	59120.	32.	0.	0.	3760.	0.
HB	2600.	37021.	59540.	16.	1.	0.	920.	0.
HB	2601.	37269.	59376.	21.	5.	0.	1640.	1.
HB	2602.	36290.	59138.	24.	5.	0.	2340.	0.
HB	2603.	36389.	59617.	0.	1.	0.	400.	0.
HB	2604.	36473.	59532.	14.	0.	0.	7210.	0.
HB	2605.	36483.	59745.	12.	1.	0.	970.	1.
HB	2607.	36209.	59606.	26.	0.	0.	2080.	1.
HB	2608.	36357.	58550.	34.	0.	0.	1930.	0.
HB	2609.	36034.	59060.	18.	1.	0.	2870.	0.
HB	2610.	36717.	57242.	17.	1.	0.	650.	0.
HB	2611.	36048.	59612.	30.	1.	0.	4610.	0.
HB	2613.	36519.	59623.	0.	1.	0.	220.	0.
HB	2616.	37360.	59520.	17.	1.	0.	900.	0.
HB	2618.	36948.	59196.	43.	2.	0.	2870.	0.
HB	2619.	37242.	59478.	79.	2.	0.	10460.	0.
HB	2620.	36766.	59327.	13.	0.	0.	360.	0.
HB	2621.	36695.	59340.	19.	0.	0.	210.	0.
HB	2622.	36085.	59601.	15.	0.	0.	1110.	1.
HB	2623.	37731.	58440.	15.	1.	0.	770.	1.
HB	2624.	36939.	59212.	19.	1.	0.	3260.	0.
HB	2625.	36852.	59240.	10.	1.	0.	150.	0.
HB	2626.	37558.	59220.	47.	1.	0.	2790.	0.
HB	2627.	37382.	59120.	29.	1.	0.	1610.	1.
HB	2628.	37414.	58627.	0.	1.	0.	320.	2.
HB	2629.	37100.	59020.	44.	3.	0.	2290.	0.
HB	2630.	36798.	59258.	15.	4.	0.	1110.	0.
HB	2632.	36960.	59251.	57.	0.	0.	2390.	0.
HB	2633.	34962.	59223.	17.	0.	0.	4350.	0.
HB	2634.	36579.	59180.	17.	3.	0.	1940.	0.
HB	2635.	35598.	58504.	12.	1.	0.	250.	0.
HB	2636.	37213.	58764.	8.	1.	0.	280.	0.
HB	2637.	37664.	60002.	19.	3.	0.	320.	0.
HB	2638.	36100.	58995.	23.	10.	0.	1660.	0.
HB	2639.	36076.	59704.	12.	0.	0.	1500.	0.
HB	2640.	37610.	59180.	100.	0.	0.	8730.	0.
HB	2641.	37174.	58891.	68.	2.	0.	4300.	0.
HB	2642.	37093.	59149.	25.	0.	0.	1960.	0.
HB	2643.	36924.	59588.	118.	6.	10.	15320.	1.
HB	2644.	37622.	60237.	21.	0.	0.	1070.	0.
HB	2645.	37340.	58504.	66.	0.	0.	2170.	0.
HB	2646.	37126.	59090.	7.	0.	0.	580.	2.
HB	2647.	36298.	58977.	17.	3.	0.	1210.	0.
HB	2648.	36423.	59028.	19.	0.	0.	2550.	2.
HB	2649.	36938.	59656.	77.	1.	0.	9830.	0.
HB	2650.	36939.	59124.	51.	1.	10.	3210.	0.
HB	2652.	37639.	58655.	5.	0.	0.	760.	2.
HB	2653.	37325.	58818.	5.	0.	0.	1280.	0.
HB	2654.	37602.	59981.	3.	3.	0.	1500.	0.
HB	2655.	36507.	58629.	3.	4.	0.	1000.	0.
HB	2656.	36951.	59278.	150.	0.	10.	6050.	0.
HB	2657.	37625.	58757.	0.	0.	0.	420.	0.
HB	2658.	36138.	59565.	66.	4.	10.	10030.	0.
HB	2660.	36941.	59102.	11.	4.	10.	11620.	0.
HB	2661.	36618.	58588.	14.	0.	0.	550.	0.
HB	2664.	36570.	59559.	112.	0.	10.	16540.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJECT	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2666.	37701.	60012.	8.	3.	0.	910.	1.
HB	2667.	36455.	58510.	4.	2.	0.	1190.	0.
HB	2668.	37511.	58641.	5.	1.	0.	620.	0.
HB	2669.	36722.	59607.	39.	0.	0.	5490.	0.
HB	2670.	37390.	59394.	9.	1.	0.	900.	1.
HB	2671.	37128.	58910.	109.	1.	10.	5940.	0.
HB	2673.	36607.	59223.	20.	2.	0.	1820.	0.
HB	2675.	37527.	58652.	5.	2.	0.	1340.	0.
HB	2677.	37809.	60075.	126.	3.	10.	8320.	1.
HB	2678.	37788.	58646.	24.	3.	0.	530.	0.
HB	2679.	37180.	58890.	71.	0.	10.	5320.	0.
HB	2680.	36947.	59125.	41.	0.	0.	2520.	0.
HB	2681.	37123.	58910.	81.	1.	1.	7620.	0.
HB	2682.	36417.	58626.	21.	0.	1.	1920.	0.
HB	2684.	36086.	58928.	12.	0.	0.	1420.	1.
HB	2685.	37618.	60015.	44.	2.	0.	4430.	0.
HB	2686.	36633.	59235.	15.	0.	0.	1960.	0.
HB	2687.	36872.	58980.	44.	1.	10.	3430.	0.
HB	2688.	36646.	59231.	11.	0.	0.	650.	2.
HB	2690.	37878.	60013.	39.	1.	0.	2670.	0.
HB	2691.	36622.	59114.	16.	5.	0.	2040.	0.
HB	2693.	36255.	58706.	0.	0.	0.	1380.	2.
HB	2694.	36053.	59766.	8.	0.	0.	800.	0.
HB	2695.	37264.	57760.	4.	0.	0.	330.	1.
HB	2696.	37771.	60108.	20.	1.	0.	1560.	0.
HB	2697.	37572.	58506.	31.	7.	0.	1110.	1.
HB	2699.	36595.	59180.	15.	0.	0.	1370.	0.
HB	2700.	37245.	59286.	25.	1.	0.	1000.	1.
HB	2701.	37164.	59140.	0.	0.	0.	1710.	0.
HB	2702.	41020.	62150.	22.	0.	0.	780.	0.
HB	2703.	35926.	59288.	50.	5.	0.	2470.	1.
HB	2704.	35842.	58572.	56.	5.	0.	2270.	1.
HB	2705.	35952.	58475.	18.	0.	0.	850.	0.
HB	2706.	40977.	62089.	85.	0.	0.	3200.	0.
HB	2707.	35872.	59284.	9.	0.	0.	1590.	2.
HB	2708.	36016.	58644.	10.	11.	0.	1000.	2.
HB	2710.	35956.	58638.	26.	1.	0.	2150.	1.
HB	2711.	36270.	58289.	17.	2.	0.	1120.	1.
HB	2712.	36109.	58445.	15.	0.	0.	490.	3.
HB	2713.	36464.	58351.	27.	0.	0.	1770.	1.
HB	2714.	36112.	58605.	9.	5.	0.	760.	3.
HB	2715.	35762.	58518.	41.	0.	0.	1320.	0.
HB	2716.	36268.	59873.	28.	0.	0.	1150.	0.
HB	2718.	40110.	62345.	60.	0.	1.	1760.	4.
HB	2719.	41562.	62232.	41.	1.	0.	990.	5.
HB	2720.	36838.	58556.	11.	2.	0.	470.	1.
HB	2721.	36302.	58302.	14.	0.	0.	370.	0.
HB	2722.	36500.	58353.	19.	0.	0.	670.	0.
HB	2725.	36205.	59345.	23.	7.	0.	2050.	1.
HB	2724.	40903.	62233.	20.	0.	0.	610.	1.
HB	2726.	36398.	58454.	20.	0.	2.	1850.	2.
HB	2106.	41407.	62316.	63.	0.	0.	2050.	0.
HB	2728.	36295.	58405.	20.	7.	0.	670.	2.
HB	2729.	36096.	58558.	32.	1.	0.	1630.	1.
HB	2731.	36307.	58446.	10.	1.	0.	740.	1.
HB	2732.	36018.	58289.	24.	1.	0.	420.	4.
HB	2733.	35917.	59416.	18.	1.	0.	380.	2.

I.G.S. G-EXEC/G-UTIL/GXEROX ON FILE ISTEMPFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 6 NO. OF RECORDS : 77 WORDS PER RECORD : 6

CARD INPUT FORMAT

	PROJCODE	NUMBER	EASTING	NORTHING	DEPTH	ANTIMONY
FIELD LENGTH	** **	** **	** **	** **	** **	** ** ** ** ** ** ** ** ** ** ** ** ** **
FIELD TYPE		F	F	F	F	
UPPER LIMIT OF		5817.	39349.	67457.	331.	108.
LOWER LIMIT OF		5236.	36150.	63512.	8.	0.
ABSENT DATA VALUE		-1.	-1.	-1.	-1.	-1.
DICTIONARY SEGMENT IDENTIFIER						

CHEMICAL DATA FOR N.KELSO CONCENTRATES;(B) CALCIUM, IRON, MANGANESE, TITANIUM AND (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM
BF	5767.	37765.	65227.	2000.	156300.	1000.	20800.
BF	5769.	37790.	65093.	2600.	142700.	1600.	34790.
BF	5770.	37838.	65059.	2900.	114900.	1300.	30600.
BF	5771.	37833.	65048.	2000.	48300.	500.	18600.
BF	5772.	37928.	65083.	2600.	154500.	2200.	52700.
BF	5780.	38909.	65670.	4200.	68800.	700.	23200.
BF	5781.	37267.	63761.	5200.	199200.	3200.	81400.
BF	5785.	39335.	65485.	10000.	53900.	4000.	14100.
BF	5786.	39349.	65488.	6400.	99000.	800.	16900.
BF	5789.	37225.	63689.	8100.	215300.	3300.	60100.
BF	5795.	36518.	63752.	2000.	38900.	600.	16400.
BF	5796.	36462.	63746.	3500.	109500.	1000.	23100.
BF	5798.	36379.	63708.	3400.	68000.	900.	23600.
BF	5803.	37048.	64006.	4900.	117300.	2400.	73900.
BF	5805.	37377.	64442.	3400.	83400.	1100.	37100.
BF	5806.	36150.	63512.	4600.	36500.	300.	9700.
BF	5815.	37310.	64210.	4100.	140100.	1600.	34800.
BF	5816.	37497.	64520.	4700.	90100.	1100.	30400.
BF	5817.	36492.	64170.	3400.	102000.	500.	15500.
	-1.	-1.	-1.	-1.	-1.	-1.	-1.

MAKE TEMPFILE

G-EXEC/G-UTIL/GPROJECTION FILE WORKFILE
****

C.C.JOHNSON IGS KEYWORTH PAGE 03NOV81
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

DATE 03NOV81 TIME 07 37 58 ****

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	784.	38620.	57060.	412.	70.	150.	25.	1.
NB	785.	36991.	56873.	407.	50.	220.	15.	0.
NB	787.	37304.	57320.	772.	60.	500.	15.	1.
NB	788.	39728.	55970.	919.	350.	1050.	45.	3.
NB	789.	37642.	57090.	263.	90.	120.	20.	1.
NB	790.	37359.	57156.	383.	70.	120.	10.	1.
NB	791.	38253.	57389.	685.	90.	360.	10.	0.
NB	792.	36982.	56880.	329.	40.	130.	10.	0.
NB	793.	39350.	56047.	531.	90.	180.	20.	1.
NB	796.	39430.	56073.	591.	130.	140.	30.	1.
NB	797.	37451.	57189.	392.	60.	130.	15.	1.
NB	798.	37910.	57142.	411.	60.	210.	10.	0.
NB	799.	37280.	57307.	490.	60.	190.	15.	1.
NB	802.	39129.	56280.	409.	90.	130.	15.	1.
NB	803.	39086.	57186.	266.	70.	70.	10.	1.
NB	804.	37190.	57258.	350.	50.	220.	10.	1.
NB	805.	36985.	56054.	506.	60.	90.	20.	1.
NB	806.	39657.	57304.	352.	90.	80.	20.	0.
NB	807.	39516.	57463.	293.	50.	200.	20.	0.
NB	808.	38159.	57464.	671.	70.	700.	10.	0.
NB	809.	39605.	57262.	216.	30.	60.	10.	0.
NB	811.	39125.	57097.	338.	40.	40.	30.	0.
NB	813.	39518.	56840.	519.	60.	[illegible]	15.	0.
NB	814.	39447.	57117.	375.	50.	90.	20.	0.
NB	815.	38165.	57410.	432.	60.	90.	10.	1.
NB	817.	39212.	57172.	349.	90.	300.	40.	1.
NB	818.	39356.	57600.	329.	40.	170.	20.	1.
NB	819.	37367.	57333.	293.	50.	130.	10.	0.
NB	820.	38224.	57336.	451.	50.	300.	15.	1.
NB	821.	36750.	56417.	225.	110.	360.	45.	1.
NB	822.	39190.	56352.	1164.	80.	810.	25.	1.
NB	823.	37957.	56080.	1164.	70.	80.	20.	1.
NB	824.	39489.	56880.	511.	60.	130.	15.	1.
NB	825.	38408.	57345.	470.	50.	360.	10.	0.
NB	826.	39568.	57322.	214.	30.	70.	15.	0.
NB	827.	39163.	56358.	647.	80.	200.	15.	1.
NB	828.	38102.	57563.	391.	70.	120.	15.	1.
NB	829.	38162.	57776.	406.	50.	150.	15.	1.
NB	830.	39290.	57405.	295.	30.	120.	10.	0.
NB	831.	39405.	57640.	526.	30.	130.	15.	0.
NB	832.	38641.	56526.	878.	80.	370.	20.	1.
NB	833.	39169.	57770.	491.	50.	260.	20.	0.
NB	834.	36716.	56220.	578.	40.	110.	20.	0.
NB	835.	37985.	56254.	701.	180.	250.	25.	1.
NB	837.	38988.	57706.	397.	50.	130.	15.	0.
NB	838.	38412.	57340.	437.	40.	210.	15.	0.
NB	839.	37224.	57363.	355.	40.	130.	10.	0.
NB	840.	39420.	56589.	1024.	260.	430.	30.	1.
NB	841.	39557.	57240.	330.	40.	80.	15.	0.
NB	844.	39335.	57510.	216.	150.	340.	30.	1.
NB	846.	39410.	57708.	373.	50.	220.	15.	0.
NB	847.	39002.	57758.	346.	50.	240.	20.	1.
NB	848.	38330.	57367.	743.	60.	390.	10.	1.
NB	849.	39730.	57196.	304.	40.	90.	15.	1.
NB	851.	39162.	57776.	435.	40.	170.	15.	1.
NB	853.	36736.	56370.	350.	40.	120.	15.	1.
NB	854.	39044.	56523.	539.	80.	160.	20.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	856.	36757.	56359.	495.	50.	200.	20.	0.
HB	857.	39289.	57513.	494.	40.	170.	25.	0.
HB	858.	37943.	56255.	551.	170.	70.	15.	0.
HB	859.	39277.	57350.	335.	60.	200.	25.	1.
HB	860.	37190.	57198.	674.	40.	500.	10.	0.
HB	861.	39343.	57424.	394.	50.	190.	20.	1.
HB	862.	39030.	57387.	365.	40.	160.	30.	1.
HB	863.	38310.	57353.	400.	40.	180.	15.	0.
HB	864.	37230.	57260.	667.	70.	130.	20.	1.
HB	865.	39440.	57435.	164.	30.	100.	15.	0.
HB	866.	39400.	57152.	452.	50.	140.	35.	1.
HB	867.	38584.	57250.	413.	40.	240.	20.	0.
HB	868.	39090.	57624.	335.	40.	130.	15.	0.
HB	869.	38783.	56048.	187.	40.	20.	10.	0.
HB	870.	38510.	57315.	388.	30.	150.	15.	0.
HB	871.	39130.	57?0?.	404.	40.	160.	10.	0.
HB	872.	39544.	57119.	289.	30.	70.	15.	0.
HB	873.	39472.	57210.	357.	40.	90.	20.	0.
HB	874.	39349.	56625.	3591.	1300.	500.	30.	0.
HB	875.	39195.	56558.	637.	80.	250.	15.	0.
HB	876.	39058.	57505.	356.	50.	100.	20.	0.
HB	878.	39363.	57190.	269.	30.	70.	15.	0.
HB	879.	39320.	57400.	347.	30.	150.	20.	1.
HB	880.	38860.	56053.	383.	80.	100.	20.	1.
HB	881.	38799.	55922.	324.	70.	90.	25.	1.
HB	883.	39360.	56708.	40800.	4100.	3000.	65.	1.
HB	884.	39442.	56921.	1467.	320.	340.	25.	1.
HB	885.	39269.	57610.	330.	20.	80.	15.	0.
HB	886.	38510.	57310.	580.	40.	220.	15.	0.
HB	887.	38213.	57321.	543.	60.	460.	15.	0.
HB	888.	39615.	57245.	448.	40.	120.	20.	0.
HB	891.	39040.	57115.	329.	40.	190.	20.	0.
HB	892.	38225.	56280.	325.	80.	160.	15.	0.
HB	893.	39369.	57135.	356.	40.	190.	25.	1.
HB	894.	39277.	57350.	538.	40.	140.	20.	1.
HB	897.	38730.	55960.	1024.	70.	370.	20.	1.
HB	898.	36078.	56436.	423.	55.	310.	25.	1.
HB	899.	39063.	56352.	424.	100.	240.	15.	0.
HB	901.	39937.	56076.	569.	420.	540.	20.	1.
HB	903.	36647.	56167.	1069.	80.	570.	15.	1.
HB	904.	36662.	56627.	535.	30.	150.	10.	1.
HB	905.	39070.	56814.	586.	80.	350.	15.	1.
HB	908.	39608.	56696.	814.	100.	380.	15.	1.
HB	909.	36131.	56738.	557.	60.	170.	10.	1.
HB	910.	35629.	56728.	319.	40.	420.	10.	1.
HB	911.	36359.	56654.	456.	80.	260.	25.	1.
HB	912.	35723.	56329.	271.	80.	440.	20.	1.
HB	915.	35740.	56362.	651.	60.	310.	20.	1.
HB	916.	35049.	56809.	326.	30.	110.	10.	1.
HB	917.	36604.	56639.	739.	70.	120.	10.	1.
HB	918.	35746.	56818.	352.	30.	80.	10.	1.
HB	919.	36600.	56511.	1306.	40.	220.	10.	1.
HB	920.	38975.	57797.	343.	30.	160.	10.	1.
HB	922.	36300.	56414.	463.	40.	140.	20.	1.
HB	924.	36165.	56448.	550.	40.	240.	20.	1.
HB	925.	36478.	56753.	398.	40.	240.	10.	1.
HB	926.	35864.	56805.	104.	60.	740.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	927.	36060.	56430.	548.	40.	250.	10.	1.
NB	928.	36280.	56542.	477.	40.	160.	10.	1.
NB	929.	38960.	57790.	308.	40.	150.	10.	1.
NB	931.	39718.	56570.	480.	80.	170.	15.	1.
NB	933.	39598.	56045.	429.	80.	170.	15.	1.
NB	935.	39848.	56009.	645.	3550.	970.	30.	1.
NB	936.	36006.	56943.	342.	30.	180.	10.	1.
NB	940.	36230.	56475.	531.	50.	180.	10.	1.
NB	941.	36503.	56747.	419.	40.	140.	20.	1.
NB	942.	39550.	55982.	747.	1400.	180.	10.	1.
NB	943.	35606.	56506.	370.	80.	130.	15.	1.
NB	945.	36570.	56533.	463.	50.	100.	10.	1.
NB	946.	36607.	57109.	259.	40.	190.	10.	1.
NB	947.	35953.	56829.	397.	80.	850.	10.	1.
NB	952.	39115.	57023.	452.	50.	170.	20.	1.
NB	954.	36257.	56485.	558.	40.	210.	10.	1.
NB	955.	39153.	55068.	242.	110.	170.	15.	1.
NB	956.	35787.	56753.	340.	60.	720.	20.	1.
NB	957.	35640.	56886.	368.	50.	250.	15.	1.
NB	960.	36626.	56440.	550.	50.	150.	10.	1.
NB	961.	36460.	57059.	316.	60.	290.	15.	1.
NB	962.	35903.	56858.	301.	30.	80.	10.	1.
NB	963.	36387.	56834.	343.	60.	200.	10.	1.
NB	964.	39849.	56947.	399.	60.	180.	20.	1.
NB	966.	36282.	56680.	430.	50.	600.	10.	0.
NB	968.	36239.	56756.	323.	90.	600.	10.	0.
NB	969.	35750.	56358.	189.	50.	200.	10.	1.
NB	970.	39399.	55956.	466.	900.	230.	30.	1.
NB	972.	36647.	56384.	542.	40.	110.	10.	1.
NB	973.	39031.	57027.	333.	40.	130.	10.	1.
NB	974.	36633.	56889.	358.	60.	1000.	15.	1.
NB	975.	35656.	56699.	286.	50.	160.	15.	1.
NB	977.	36274.	56320.	494.	70.	120.	10.	0.
NB	978.	36462.	56230.	721.	110.	230.	10.	0.
NB	980.	36541.	56278.	481.	40.	60.	5.	1.
NB	982.	36300.	56414.	447.	30.	180.	10.	1.
NB	983.	36247.	56828.	327.	90.	540.	10.	0.
NB	984.	36342.	56608.	437.	40.	150.	10.	0.
NB	986.	36203.	56659.	380.	30.	140.	10.	0.
NB	987.	36048.	56881.	295.	80.	490.	10.	0.
NB	989.	36021.	56942.	110.	70.	2000.	10.	0.
NB	990.	36190.	56342.	607.	70.	160.	10.	0.
NB	991.	35932.	56660.	417.	50.	150.	10.	0.
NB	992.	39644.	56792.	1170.	90.	600.	10.	0.
NB	993.	36203.	56659.	357.	20.	110.	10.	0.
NB	994.	36173.	56713.	537.	30.	120.	25.	0.
NB	997.	36615.	56815.	247.	20.	60.	20.	0.
NB	998.	39536.	56537.	400.	220.	470.	20.	0.
NB	999.	36670.	56533.	503.	90.	200.	20.	1.
NB	1000.	36621.	56723.	420.	40.	220.	10.	1.
NB	1003.	40268.	56544.	519.	80.	140.	15.	1.
NB	1004.	40224.	56472.	775.	60.	110.	15.	1.
NB	1005.	40425.	57351.	127.	40.	80.	10.	1.
NB	1007.	39926.	57027.	190.	40.	60.	10.	1.
NB	1009.	36063.	56505.	543.	40.	240.	10.	0.
NB	1010.	35737.	56710.	312.	30.	100.	5.	1.
NB	1011.	36592.	56600.	495.	70.	330.	15.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1664.	40671.	61726.	648.	40.	90.	10.	0.
HB	1665.	40185.	61162.	815.	30.	90.	10.	0.
HB	1667.	39695.	59792.	1930.	30.	90.	5.	0.
HB	1668.	41030.	60587.	1030.	50.	140.	10.	0.
HB	1669.	40632.	61194.	928.	40.	90.	10.	0.
HB	1670.	40210.	60330.	815.	50.	90.	15.	0.
HB	1671.	40865.	61199.	581.	20.	40.	10.	0.
HB	1674.	41177.	60561.	1160.	70.	520.	10.	0.
HB	1675.	40758.	61545.	472.	40.	80.	10.	1.
HB	1677.	41233.	60468.	863.	30.	160.	5.	0.
HB	1677.	40309.	60615.	583.	30.	70.	10.	1.
HB	1678.	39660.	59817.	718.	40.	140.	5.	0.
HB	1679.	41356.	61218.	655.	40.	240.	10.	0.
HB	1680.	40682.	61264.	504.	30.	70.	10.	1.
HB	1681.	41174.	60365.	901.	70.	260.	10.	1.
HB	1683.	40728.	60770.	374.	40.	30.	5.	0.
HB	1684.	40635.	61173.	344.	30.	60.	10.	0.
HB	1685.	39891.	60427.	977.	50.	90.	10.	1.
HB	1686.	40795.	61090.	442.	20.	30.	5.	0.
HB	1687.	40777.	60656.	443.	25.	90.	10.	0.
HB	1688.	39537.	60404.	713.	40.	200.	10.	0.
HB	1689.	40055.	60330.	603.	50.	120.	5.	0.
HB	1691.	39639.	60078.	470.	45.	180.	10.	0.
HB	1692.	39658.	60001.	625.	70.	110.	5.	0.
HB	1693.	39968.	60010.	501.	40.	200.	10.	0.
HB	1694.	40241.	60531.	488.	20.	40.	10.	0.
HB	1695.	40046.	61162.	838.	30.	70.	10.	0.
HB	1696.	40570.	61643.	1090.	50.	90.	10.	0.
HB	1697.	40347.	61170.	883.	30.	60.	10.	0.
HB	1698.	39680.	60556.	610.	20.	60.	15.	1.
HB	1699.	40936.	60940.	650.	30.	170.	5.	0.
HB	1700.	40216.	61802.	545.	30.	40.	10.	0.
HB	1701.	41288.	60336.	676.	40.	270.	10.	0.
HB	1702.	41681.	60730.	609.	90.	330.	20.	0.
HB	1703.	41964.	60147.	567.	30.	50.	10.	0.
HB	1704.	41721.	60386.	460.	30.	60.	10.	0.
HB	1705.	42208.	60737.	539.	50.	190.	25.	1.
HB	1706.	41216.	60256.	700.	50.	160.	10.	0.
HB	1707.	41802.	61047.	530.	40.	100.	15.	0.
HB	1708.	41753.	60170.	716.	40.	70.	15.	0.
HB	1709.	41423.	60487.	595.	50.	120.	15.	1.
HB	1710.	41082.	60705.	787.	50.	160.	10.	1.
HB	1712.	41370.	60410.	890.	40.	170.	20.	1.
HB	1713.	42507.	61685.	868.	370.	440.	50.	1.
HB	1714.	41595.	60633.	1070.	60.	180.	15.	1.
HB	1715.	41800.	60516.	511.	40.	100.	15.	1.
HB	1716.	41163.	61060.	573.	30.	140.	10.	1.
HB	1717.	41287.	60336.	1070.	60.	320.	20.	1.
HB	1719.	41544.	60162.	563.	30.	40.	10.	0.
HB	1720.	41434.	60360.	673.	30.	110.	15.	1.
HB	1721.	39646.	59283.	537.	50.	230.	10.	1.
HB	1723.	42065.	60494.	570.	50.	130.	15.	1.
HB	1724.	41885.	60454.	446.	50.	130.	20.	1.
HB	1725.	39512.	59296.	893.	50.	340.	15.	1.
HB	1726.	41714.	60330.	464.	70.	210.	40.	1.
HB	1727.	41450.	60690.	[illegible]	30.	90.	5.	0.
HB	1729.	41291.	60325.	618.	50.	220.	30.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1729.	41821.	63050.	450.	30.	50.	10.	0.
HB	1730.	41472.	57960.	486.	40.	70.	20.	1.
HB	1731.	41608.	61092.	611.	70.	400.	20.	1.
HB	1732.	41814.	61087.	709.	60.	450.	20.	1.
HB	1733.	41493.	60245.	539.	20.	30.	5.	0.
HB	1734.	41210.	61242.	656.	40.	150.	10.	1.
HB	1735.	42068.	60384.	500.	40.	70.	15.	1.
HB	1736.	41183.	60848.	1080.	50.	80.	10.	1.
HB	1737.	41429.	60498.	782.	60.	200.	20.	1.
HB	1738.	41945.	61622.	495.	30.	50.	10.	1.
HB	1739.	41344.	60001.	633.	90.	190.	35.	1.
HB	1740.	41600.	61088.	583.	80.	450.	15.	1.
HB	1741.	41702.	60083.	569.	40.	80.	15.	1.
HB	1742.	41765.	60133.	427.	40.	90.	20.	1.
HB	1744.	41417.	60450.	736.	60.	100.	25.	1.
HB	1745.	41530.	60140.	509.	30.	50.	10.	0.
HB	1746.	41723.	60604.	641.	60.	220.	25.	1.
HB	1747.	39560.	59293.	887.	50.	210.	10.	1.
HB	1748.	42006.	60338.	641.	30.	70.	15.	1.
HB	1749.	41085.	60750.	779.	40.	260.	15.	0.
HB	1750.	41190.	61183.	765.	40.	190.	10.	1.
HB	1752.	41997.	60326.	620.	40.	110.	15.	1.
HB	1753.	41902.	60359.	493.	50.	120.	20.	1.
HB	1754.	42204.	60737.	398.	50.	120.	35.	1.
HB	1755.	42020.	60490.	561.	20.	40.	5.	0.
HB	1756.	41389.	60752.	452.	30.	50.	5.	0.
HB	1757.	42164.	61413.	692.	40.	100.	15.	1.
HB	1758.	42431.	61766.	632.	50.	150.	20.	1.
HB	1761.	41168.	60913.	740.	50.	260.	15.	1.
HB	1762.	42118.	61704.	348.	20.	50.	10.	1.
HB	1765.	41510.	60884.	412.	50.	140.	10.	1.
HB	1764.	41496.	60765.	680.	30.	80.	10.	0.
HB	1765.	41610.	60764.	482.	60.	110.	15.	0.
HB	1766.	42025.	60690.	521.	40.	90.	15.	1.
HB	1767.	41532.	59980.	734.	60.	110.	25.	1.
HB	1768.	42224.	60670.	470.	50.	190.	20.	1.
HB	1769.	41939.	60483.	485.	30.	60.	10.	0.
HB	1770.	41537.	60125.	402.	30.	50.	10.	1.
HB	1771.	41604.	61077.	597.	70.	330.	15.	1.
HB	1772.	41446.	60667.	571.	30.	100.	10.	0.
HB	1773.	40785.	61272.	691.	20.	70.	5.	0.
HB	1775.	42127.	60696.	515.	60.	110.	20.	1.
HB	1776.	41814.	61087.	514.	60.	400.	15.	1.
HB	1777.	39675.	59304.	1030.	40.	150.	10.	1.
HB	1778.	41575.	60417.	578.	70.	150.	20.	1.
HB	1779.	41516.	60957.	555.	40.	80.	10.	0.
HB	1780.	42021.	60260.	548.	30.	80.	15.	1.
HB	1781.	41731.	60665.	721.	50.	190.	20.	1.
HB	1782.	41192.	61283.	719.	40.	120.	15.	1.
HB	1783.	41645.	60575.	642.	50.	100.	15.	1.
HB	1784.	41464.	60279.	892.	30.	50.	15.	0.
HB	1785.	42089.	60415.	508.	40.	80.	15.	1.
HB	1786.	41587.	59973.	1440.	30.	70.	10.	0.
HB	1787.	41565.	60168.	722.	30.	100.	10.	0.
HB	1788.	42540.	61676.	854.	110.	160.	25.	1.
HB	1789.	42026.	61510.	718.	50.	160.	25.	1.
HB	1790.	39502.	59733.	446.	50.	340.	15.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1791.	39500.	59400.	1170.	60.	310.	15.	1.
HB	1792.	41628.	60048.	617.	40.	80.	15.	1.
HB	1794.	41305.	60361.	1380.	50.	230.	15.	1.
HB	1796.	42009.	60708.	670.	50.	100.	15.	1.
HB	1797.	39540.	59293.	783.	50.	230.	10.	1.
HB	1798.	41651.	60062.	1170.	40.	130.	15.	1.
HB	1799.	42117.	60449.	525.	90.	140.	20.	1.
HB	1800.	41125.	60846.	502.	30.	50.	10.	1.
HB	1812.	41406.	61829.	536.	30.	70.	10.	1.
HB	1817.	42004.	61059.	408.	50.	90.	25.	1.
HB	1819.	42300.	61257.	439.	60.	90.	15.	1.
HB	1820.	41493.	61655.	706.	40.	230.	15.	1.
HB	1821.	41894.	60998.	429.	53.	100.	20.	1.
HB	1822.	40715.	61996.	611.	40.	110.	15.	1.
HB	1823.	41301.	61500.	670.	40.	130.	15.	1.
HB	1825.	41290.	61814.	765.	40.	230.	15.	0.
HB	1836.	41513.	61650.	592.	30.	80.	15.	1.
HB	1837.	41544.	61818.	536.	40.	140.	20.	1.
HB	1838.	41962.	61051.	640.	40.	110.	20.	1.
HB	1839.	42129.	61142.	605.	50.	140.	25.	1.
HB	1840.	41703.	61743.	1330.	50.	200.	15.	1.
HB	1847.	41930.	61090.	600.	50.	180.	20.	1.
HB	1851.	41950.	60595.	528.	60.	190.	20.	1.
HB	1852.	41283.	61720.	749.	60.	150.	10.	1.
HB	1857.	42357.	61847.	758.	60.	240.	25.	1.
HB	1859.	42350.	61839.	635.	40.	90.	15.	1.
HB	1860.	42340.	61308.	610.	40.	70.	10.	0.
HB	1861.	42255.	61020.	509.	80.	150.	35.	1.
HB	1862.	41724.	61452.	636.	50.	140.	20.	1.
HB	1865.	41143.	61616.	536.	20.	50.	5.	0.
HB	1866.	41690.	61752.	537.	50.	100.	15.	1.
HB	1868.	41442.	61543.	547.	40.	90.	15.	1.
HB	1869.	41399.	61748.	598.	40.	180.	10.	1.
HB	1870.	41526.	61481.	1170.	40.	90.	10.	0.
HB	1871.	41244.	61694.	756.	50.	200.	15.	1.
HB	1872.	42121.	61154.	615.	40.	150.	20.	1.
HB	1875.	41060.	61570.	682.	50.	120.	19.	0.
HB	1876.	40836.	61970.	1010.	40.	110.	10.	1.
HB	1877.	41388.	61730.	767.	50.	180.	20.	1.
HB	1880.	41375.	61483.	563.	30.	90.	5.	0.
HB	1882.	41800.	61388.	744.	50.	170.	30.	1.
HB	1884.	42314.	61073.	709.	50.	80.	15.	1.
HB	1885.	41814.	61867.	415.	40.	90.	10.	1.
HB	1887.	41703.	61308.	495.	40.	140.	15.	0.
HB	1888.	41388.	61730.	956.	40.	220.	15.	1.
HB	1890.	[illegible]771.	61870.	653.	40.	120.	15.	1.
HB	1891.	[illegible]522.	61568.	1400.	30.	110.	5.	0.
HB	1893.	41625.	61572.	650.	40.	120.	15.	1.
HB	1894.	41149.	61870.	805.	50.	170.	15.	1.
HB	1899.	42023.	61132.	903.	50.	140.	20.	1.
HB	2001.	38055.	60087.	393.	70.	100.	10.	1.
HB	2002.	39171.	59728.	432.	60.	250.	15.	0.
HB	2003.	38228.	60248.	564.	40.	220.	10.	0.
HB	2004.	38228.	60196.	566.	70.	370.	20.	0.
HB	2005.	39154.	59603.	492.	30.	290.	10.	0.
HB	2006.	38310.	60190.	348.	40.	140.	15.	0.
HB	2008.	39429.	59962.	476.	30.	210.	15.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2608.	36357.	58550.	250.	50.	70.	5.	1.
HB	2609.	36034.	59060.	325.	50.	70.	10.	0.
HB	2610.	36717.	59242.	305.	50.	80.	10.	0.
HB	2611.	36048.	59612.	494.	30.	100.	10.	0.
HB	2613.	36519.	59623.	613.	30.	80.	5.	0.
HB	2616.	37360.	59520.	293.	40.	120.	5.	0.
HB	2618.	36948.	59196.	267.	20.	30.	5.	0.
HB	2619.	36242.	59478.	333.	20.	50.	10.	0.
HB	2620.	36736.	59327.	332.	20.	20.	5.	0.
HB	2621.	36691.	59340.	527.	30.	60.	5.	0.
HB	2622.	36085.	59601.	479.	30.	120.	10.	0.
HB	2623.	37731.	58640.	461.	70.	160.	45.	0.
HB	2624.	36939.	59212.	257.	30.	30.	5.	0.
HB	2625.	36852.	59340.	251.	40.	40.	0.	0.
HB	2626.	37558.	59224.	280.	30.	70.	5.	0.
HB	2627.	37502.	59120.	387.	40.	70.	10.	0.
HB	2628.	37414.	58629.	539.	40.	220.	10.	0.
HB	2629.	37100.	59020.	252.	30.	40.	5.	0.
HB	2630.	36708.	59258.	272.	30.	50.	5.	0.
HB	2631.	36290.	59138.	303.	30.	80.	10.	0.
HB	2632.	36960.	59251.	296.	20.	40.	5.	0.
HB	2633.	36962.	59223.	261.	30.	40.	5.	0.
HB	2634.	36579.	59180.	338.	40.	50.	5.	0.
HB	2635.	36598.	58506.	248.	50.	50.	5.	0.
HB	2636.	37613.	58708.	335.	40.	130.	10.	0.
HB	2637.	37664.	60008.	367.	70.	100.	10.	0.
HB	2638.	36100.	58993.	357.	40.	70.	10.	0.
HB	2639.	36076.	59704.	466.	40.	140.	15.	0.
HB	2640.	37610.	59180.	261.	40.	100.	5.	0.
HB	2641.	37174.	58891.	583.	40.	260.	10.	0.
HB	2642.	37569.	59149.	212.	30.	30.	5.	0.
HB	2643.	36644.	59588.	391.	30.	140.	10.	0.
HB	2644.	37622.	60237.	479.	50.	180.	20.	0.
HB	2645.	37340.	58904.	323.	30.	70.	5.	0.
HB	2646.	37126.	59090.	253.	30.	20.	0.	0.
HB	2647.	36298.	58977.	337.	40.	50.	10.	0.
HB	2648.	36423.	59028.	342.	50.	70.	10.	0.
HB	2649.	36538.	59658.	352.	20.	40.	5.	0.
HB	2650.	36939.	59124.	286.	40.	40.	5.	0.
HB	2652.	37699.	58655.	415.	40.	170.	10.	0.
HB	2653.	37325.	58818.	365.	40.	110.	10.	0.
HB	2654.	37602.	59981.	423.	40.	50.	10.	0.
HB	2655.	36507.	58629.	286.	40.	60.	5.	0.
HB	2656.	36951.	59278.	303.	20.	30.	5.	0.
HB	2657.	37625.	58753.	327.	40.	60.	10.	0.
HB	2658.	36138.	59565.	489.	40.	160.	10.	0.
HB	2660.	36941.	59182.	297.	30.	50.	5.	0.
HB	2661.	36618.	58588.	328.	40.	100.	10.	0.
HB	2664.	36570.	59559.	355.	40.	120.	10.	0.
HB	2666.	37701.	60012.	355.	50.	80.	10.	0.
HB	2667.	36453.	58530.	221.	40.	50.	5.	0.
HB	2668.	37571.	58641.	367.	40.	100.	10.	0.
HB	2669.	36722.	59607.	296.	60.	110.	10.	1.
HB	2670.	37390.	59394.	329.	30.	90.	5.	1.
HB	2671.	37128.	58910.	267.	30.	50.	5.	1.
HB	2672.	37340.	58904.	384.	50.	90.	10.	1.
HB	2673.	36607.	59223.	267.	40.	80.	5.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	2675.	37527.	58652.	445.	30.	100.	10.	1.
NB	2677.	37809.	60075.	367.	30.	40.	5.	1.
NB	2678.	37788.	58646.	316.	30.	120.	5.	1.
NB	2679.	37180.	58820.	288.	30.	130.	25.	1.
NB	2680.	36947.	59125.	317.	30.	50.	5.	1.
NB	2681.	37123.	58910.	313.	50.	50.	5.	0.
NB	2682.	36417.	58626.	245.	70.	70.	5.	0.
NB	2684.	36086.	58960.	407.	60.	160.	10.	1.
NB	2685.	37218.	60075.	365.	40.	70.	10.	0.
NB	2686.	36693.	59239.	322.	60.	80.	10.	0.
NB	2687.	36872.	58980.	347.	40.	50.	5.	1.
NB	2688.	36646.	59221.	321.	50.	70.	10.	1.
NB	2690.	37878.	60015.	267.	40.	40.	5.	1.
NB	2691.	36622.	59114.	446.	50.	140.	5.	1.
NB	2693.	36255.	58466.	506.	50.	100.	10.	1.
NB	2694.	36493.	59766.	454.	40.	60.	5.	0.
NB	2695.	37254.	58768.	264.	40.	120.	10.	0.
NB	2696.	37771.	60108.	520.	40.	110.	15.	1.
NB	2697.	37572.	58856.	337.	40.	70.	10.	0.
NB	2699.	36593.	59180.	344.	30.	70.	5.	0.
NB	2700.	37295.	59386.	313.	40.	80.	5.	0.
NB	2701.	35404.	59140.	236.	30.	40.	10.	0.
NB	2702.	41028.	62150.	251.	20.	70.	10.	0.
NB	2703.	35926.	59288.	305.	30.	30.	5.	0.
NB	2704.	35842.	58572.	291.	60.	260.	15.	1.
NB	2705.	35965.	58415.	268.	30.	90.	10.	0.
NB	2706.	40977.	62089.	422.	30.	170.	10.	1.
NB	2707.	35872.	59284.	284.	30.	60.	10.	0.
NB	2708.	36016.	58444.	238.	40.	60.	10.	0.
NB	2709.	41635.	62209.	426.	30.	110.	15.	1.
NB	2710.	35956.	58638.	233.	30.	80.	10.	0.
NB	2711.	36270.	58289.	215.	30.	80.	10.	0.
NB	2712.	36109.	58445.	379.	30.	100.	10.	0.
NB	2713.	36464.	58351.	202.	50.	60.	5.	0.
NB	2714.	36112.	58605.	195.	40.	70.	10.	0.
NB	2715.	35762.	58518.	24.	50.	160.	15.	0.
NB	2716.	36268.	58873.	250.	20.	40.	10.	0.
NB	2718.	40160.	62245.	544.	30.	100.	15.	0.
NB	2719.	41562.	62232.	435.	20.	60.	10.	0.
NB	2720.	36838.	58556.	261.	40.	120.	10.	0.
NB	2721.	36382.	58302.	288.	60.	140.	10.	0.
NB	2722.	36500.	58553.	332.	30.	100.	10.	0.
NB	2724.	49903.	62355.	552.	30.	110.	10.	0.
NB	2725.	36378.	58454.	234.	30.	70.	10.	0.
NB	2726.	41407.	62316.	402.	30.	100.	15.	0.
NB	2728.	36215.	58405.	194.	30.	60.	10.	0.
NB	2729.	36066.	58558.	300.	30.	90.	10.	0.
NB	2731.	36307.	58446.	224.	30.	140.	10.	0.
NB	2732.	36010.	58289.	272.	40.	150.	15.	0.
NB	2733.	35917.	58416.	395.	40.	120.	10.	0.
NB	2734.	35824.	58630.	181.	40.	50.	10.	0.
NB	2735.	35584.	58390.	246.	50.	70.	10.	0.
NB	2736.	36916.	59000.	288.	30.	70.	10.	0.
NB	2738.	35989.	59546.	513.	40.	240.	15.	0.
NB	2740.	40010.	62200.	626.	60.	170.	15.	1.
NB	2741.	35837.	58670.	194.	30.	50.	10.	0.
NB	2745.	35956.	58412.	309.	30.	100.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	2744.	35769.	59070.	200.	30.	40.	10.	0.
NB	2745.	40434.	62386.	551.	30.	100.	15.	0.
NB	2746.	41691.	62199.	471.	40.	100.	10.	1.
NB	2748.	36209.	58190.	264.	30.	100.	10.	0.
NB	2749.	41270.	62310.	371.	40.	140.	15.	0.
NB	2750.	36208.	58201.	301.	20.	90.	15.	1.
NB	2751.	36130.	59798.	448.	30.	140.	20.	1.
NB	2752.	36122.	58525.	265.	30.	80.	5.	0.
NB	2753.	41177.	62229.	336.	40.	130.	10.	0.
NB	2754.	36598.	58481.	270.	50.	100.	10.	0.
NB	2755.	36592.	58388.	290.	50.	100.	5.	0.
NB	2757.	36037.	59484.	448.	50.	190.	15.	1.
NB	2758.	35922.	59275.	269.	50.	60.	10.	1.
NB	2759.	35974.	59316.	261.	30.	60.	5.	0.
NB	2760.	36288.	58411.	181.	30.	20.	5.	0.
NB	2762.	40006.	62205.	712.	50.	280.	15.	0.
NB	2763.	40924.	62323.	380.	40.	80.	5.	1.
NB	2764.	36000.	58524.	287.	60.	100.	5.	0.
NB	2765.	40658.	62190.	466.	40.	90.	10.	0.
NB	2766.	36242.	58242.	196.	40.	80.	5.	0.
NB	2767.	36026.	57284.	311.	70.	150.	10.	1.
NB	2768.	40679.	62312.	483.	30.	140.	10.	1.
NB	2769.	40638.	62362.	445.	30.	60.	5.	0.
NB	2770.	35998.	59384.	300.	60.	70.	5.	0.
NB	2771.	39960.	62330.	412.	30.	60.	5.	1.
NB	2772.	40359.	62428.	570.	50.	130.	15.	0.
NB	2774.	36037.	58293.	257.	40.	80.	5.	1.
NB	2775.	40355.	62419.	591.	50.	130.	15.	0.
NB	2776.	35992.	59456.	495.	60.	170.	10.	0.
NB	2777.	35883.	58622.	192.	20.	40.	5.	0.
NB	2778.	35802.	59020.	272.	30.	40.	10.	0.
NB	2779.	41169.	62382.	296.	30.	60.	5.	1.
NB	2780.	36235.	59203.	315.	40.	60.	5.	1.
NB	2781.	36718.	58583.	246.	70.	70.	10.	0.
NB	2782.	35902.	58626.	285.	50.	150.	15.	0.
NB	2783.	36076.	58350.	424.	40.	100.	10.	1.
NB	2784.	36222.	59848.	440.	40.	230.	20.	0.
NB	2785.	36220.	59841.	485.	30.	110.	15.	0.
NB	2786.	36592.	58388.	281.	50.	100.	5.	0.
NB	2787.	40255.	62419.	547.	40.	130.	15.	0.
NB	2788.	36253.	58356.	258.	40.	80.	5.	1.
NB	2789.	36339.	58226.	178.	50.	60.	5.	0.
NB	2790.	40092.	62274.	438.	20.	60.	10.	1.
NB	2791.	40468.	62337.	536.	30.	90.	15.	1.
NB	2792.	35864.	58616.	242.	30.	60.	5.	0.
NB	2793.	36135.	59497.	490.	40.	180.	10.	0.
NB	2794.	40970.	62088.	284.	20.	50.	5.	0.
NB	2795.	35764.	58514.	383.	60.	130.	5.	0.
NB	2796.	40881.	62396.	384.	30.	80.	5.	0.
NB	2797.	40552.	62340.	420.	40.	80.	10.	0.
NB	2798.	41635.	62289.	429.	40.	100.	15.	1.
NB	2799.	36130.	59305.	297.	40.	70.	10.	1.
NB	2800.	36486.	59513.	417.	20.	80.	10.	0.
NB	2801.	37323.	57319.	274.	30.	60.	10.	1.
NB	2802.	35743.	59068.	363.	50.	80.	10.	1.
NB	2803.	36364.	58960.	287.	30.	50.	10.	1.
NB	2804.	36293.	58773.	305.	40.	160.	10.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	500.	37111.	56222.	11500.	245.	227.	63.	30.	39.
HB	502.	37032.	56088.	33460.	1090.	427.	125.	20.	0.
HB	503.	37221.	55983.	16200.	26.	233.	132.	10.	21.
HB	505.	38264.	56590.	413010.	1465.	4773.	12.	24.	4.
HB	507.	38610.	56966.	6303.	385.	749.	12.	20.	6.
HB	509.	37881.	56174.	41690.	294.	197.	1.	25.	45.
HB	510.	37860.	56066.	48410.	217.	489.	60.	37.	4.
HB	511.	38418.	56900.	1058.	145.	351.	0.	22.	44.
HB	512.	37500.	56660.	937.	176.	344.	0.	12.	21.
HB	513.	38850.	56366.	199.	20.	48.	0.	6.	5.
HB	514.	38640.	56812.	240340.	26361.	9919.	50.	128.	5.
HB	515.	38800.	56136.	150.	21.	22.	1.	0.	5.
HB	518.	38450.	56231.	399.	50.	80.	9.	19.	55.
HB	519.	38038.	56103.	331.	73.	72.	2.	4.	1.
HB	520.	37320.	56234.	6516.	13.	29.	0.	2.	1.
HB	521.	38690.	56095.	135.	18.	78.	0.	6.	0.
HB	522.	38702.	56808.	310540.	25540.	10071.	74.	135.	25.
HB	523.	38866.	56369.	2855.	138.	94.	0.	8.	21.
HB	524.	37658.	56020.	1200.	40.	145.	0.	19.	4.
HB	525.	38704.	56990.	1845.	161.	222.	51.	16.	2.
HB	526.	37644.	56250.	1977.	45.	97.	97.	6.	15.
HB	527.	37381.	56240.	1451.	1317.	86.	0.	2.	0.
HB	528.	37750.	56039.	13790.	728.	702.	88.	13.	0.
HB	529.	38914.	56478.	3312.	263.	73.	0.	9.	62.
HB	531.	37310.	55943.	19830.	449.	1321.	0.	32.	51.
HB	532.	38831.	56067.	231.	11.	17.	0.	2.	2.
HB	533.	38530.	56436.	22490.	357.	115.	8.	20.	33.
HB	536.	37750.	56039.	31050.	1297.	1678.	77.	49.	4.
HB	537.	37589.	56654.	8376.	864.	826.	66.	17.	133.
HB	538.	38830.	56420.	4427.	92.	62.	0.	4.	0.
HB	539.	37470.	56690.	8436.	1349.	650.	1.	31.	23.
HB	540.	38618.	56440.	3531.	171.	115.	255.	13.	193.
HB	541.	37190.	56190.	151.	50.	158.	5.	5.	0.
HB	543.	37468.	56309.	4058.	1838.	239.	0.	7.	3.
HB	544.	38284.	56682.	1720.	43.	265.	0.	4.	4.
HB	546.	37110.	55960.	28960.	2717.	1299.	242.	16.	49.
HB	547.	38322.	56248.	20410.	4184.	981.	109.	18.	278.
HB	548.	37870.	56193.	32110.	82.	95.	0.	26.	4.
HB	549.	37853.	56072.	90960.	2468.	1069.	123.	77.	13.
HB	550.	38725.	56818.	32600.	882.	903.	0.	51.	306.
HB	551.	37741.	56073.	72420.	197.	527.	103.	21.	1.
HB	552.	38468.	56891.	1773.	61.	352.	0.	21.	10.
HB	553.	37931.	56211.	47780.	606.	216.	19.	24.	29.
HB	556.	38978.	56521.	20870.	56.	89.	0.	10.	37.
HB	557.	38412.	56885.	1180.	82.	596.	0.	17.	22.
HB	558.	38224.	56041.	58570.	1176.	993.	26.	14.	131.
HB	559.	37990.	56100.	63940.	1504.	179.	49.	28.	17.
HB	560.	38200.	56746.	1429.	82.	381.	0.	2.	48.
HB	561.	37260.	56259.	63750.	45.	205.	0.	20.	4.
HB	562.	37690.	56660.	28970.	133.	610.	5.	28.	0.
HB	563.	38291.	56340.	4599.	556.	88.	2.	9.	79.
HB	565.	37705.	56334.	25790.	1581.	171.	75.	17.	63.
HB	566.	37858.	56273.	356.	7809.	178.	0.	2.	3.
HB	567.	37623.	56280.	1731.	39.	38.	0.	3.	0.
HB	569.	38230.	56573.	185980.	604.	1917.	0.	13.	5.
HB	570.	37571.	56188.	17510.	483.	216.	0.	10.	0.
HB	571.	37619.	56256.	9430.	100.	68.	25.	7.	16.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	572.	37476.	56192.	640.	26.	75.	2.	7.	6.
HB	573.	38885.	56160.	2753.	245.	175.	0.	17.	69.
HB	574.	37050.	56260.	594.	105.	133.	19.	12.	13.
HB	575.	38722.	56753.	18390.	1669.	1251.	0.	20.	0.
HB	576.	38523.	56836.	15360.	151.	530.	17.	28.	9.
HB	577.	38638.	56894.	54980.	4265.	3112.	5.	37.	0.
HB	579.	37902.	56359.	5701.	16052.	2096.	226.	31.	211.
HB	580.	37620.	56670.	5420.	151.	126.	4.	9.	0.
HB	581.	38525.	56988.	1204.	145.	246.	0.	22.	6.
HB	583.	38359.	57172.	4031.	116.	304.	20.	20.	3.
HB	584.	37847.	56120.	4480.	57.	118.	0.	8.	0.
HB	585.	37207.	55940.	13600.	1938.	1228.	24.	18.	11.
HB	586.	38730.	56757.	407150.	22815.	13239.	62.	139.	20.
HB	587.	37070.	56030.	2433.	117.	92.	0.	6.	1.
HB	588.	38932.	56502.	15200.	97.	116.	48.	16.	0.
HB	589.	38551.	56855.	64530.	27287.	7007.	0.	99.	6.
HB	590.	37189.	55940.	8507.	1222.	656.	31.	6.	156.
HB	591.	37915.	56090.	19490.	156.	519.	43.	26.	4.
HB	592.	38595.	56280.	6087.	189.	246.	0.	10.	0.
HB	593.	38471.	56046.	575.	34.	54.	0.	4.	0.
HB	594.	37230.	56184.	63980.	161.	469.	0.	36.	0.
HB	595.	38108.	56059.	69330.	10513.	2279.	258.	49.	354.
HB	596.	37287.	55940.	17200.	1805.	1056.	45.	17.	6.
HB	597.	37620.	56070.	21729.	332.	409.	1.	13.	4.
HB	598.	38718.	56920.	526.	56.	188.	0.	22.	2.
HB	599.	38229.	56504.	434590.	12286.	14023.	65.	28.	7.
HB	600.	38750.	56180.	229.	20.	21.	0.	2.	17.
HB	601.	37370.	57040.	272.	25.	1250.	0.	18.	0.
HB	603.	37740.	56770.	1111.	73.	324.	0.	40.	14.
HB	604.	37780.	56545.	2907.	96.	118.	15.	8.	92.
HB	605.	38509.	57295.	115.	4.	37.	22.	4.	4.
HB	606.	37637.	56537.	46060.	940.	1080.	0.	18.	40.
HB	607.	38400.	57400.	752.	12.	22.	3.	3.	0.
HB	608.	38645.	57405.	11550.	193.	434.	40.	26.	9.
HB	610.	38607.	57626.	47039.	85.	67.	0.	8.	0.
HB	611.	38650.	57380.	4335.	35.	226.	3.	20.	5.
HB	612.	37300.	56998.	521.	9.	237.	2.	4.	1.
HB	613.	38600.	57260.	25890.	75.	471.	0.	9.	0.
HB	616.	37979.	56609.	202.	30.	44.	0.	2.	8.
HB	617.	37950.	56500.	9702.	180.	142.	33.	20.	88.
HB	618.	37986.	57317.	2765.	12.	140.	0.	2.	0.
HB	620.	38490.	57467.	1520.	153.	.	2.	7.	0.
HB	623.	37982.	56790.	599.	18.	.	2.	7.	7.
HB	624.	37089.	56975.	146.	6.	93.	0.	5.	1.
HB	626.	37143.	56780.	728.	23.	176.	0.	7.	0.
HB	628.	37926.	56870.	988.	134.	100.	2.	8.	210.
HB	629.	38559.	56748.	2070.	89.	134.	0.	4.	2.
HB	630.	37211.	56860.	9920.	200.	1341.	185.	19.	69.
HB	631.	38641.	57388.	6751.	41.	244.	141.	21.	7.
HB	632.	38703.	57343.	30060.	703.	243.	18.	25.	287.
HB	633.	38012.	57130.	217.	55.	134.	4.	3.	4.
HB	634.	37300.	56760.	7459.	168.	1063.	33.	7.	1.
HB	635.	38422.	57213.	6203.	21.	561.	0.	16.	1.
HB	636.	37336.	56830.	7048.	54.	1424.	75.	14.	34.
HB	637.	37199.	56750.	821.	32.	123.	4.	8.	28.
HB	638.	37450.	56957.	303.	15.	139.	4.	6.	5.
HB	639.	38482.	57463.	8304.	15.	60.	4.	8.	0.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	641.	37861.	56472.	1803.	170.	112.	1.	10.	41.
HB	642.	37147.	57100.	396.	10.	413.	2.	6.	0.
HB	643.	38004.	57199.	2758.	54.	83.	0.	12.	47.
HB	644.	37935.	56490.	1416.	10.	587.	5.	5.	0.
HB	646.	38428.	57198.	3878.	15.	144.	0.	10.	0.
HB	647.	37729.	56541.	22190.	85.	197.	40.	16.	48.
HB	648.	38662.	57292.	17960.	160.	309.	4.	11.	3.
HB	650.	37128.	56719.	423.	32.	82.	0.	11.	73.
HB	651.	37383.	56963.	348.	7.	92.	0.	2.	4.
HB	652.	39025.	56971.	172.	46.	55.	6.	8.	23.
HB	653.	38210.	57192.	3539.	37.	216.	0.	8.	18.
HB	658.	38530.	56722.	7046.	35.	47.	0.	4.	0.
HB	662.	38364.	57236.	1181.	15.	101.	53.	4.	2.
HB	663.	37688.	56475.	6433.	48.	103.	2.	9.	74.
HB	664.	37039.	56502.	644.	44.	143.	0.	20.	14.
HB	666.	37152.	56798.	546.	21.	43.	35.	6.	29.
HB	667.	37099.	56715.	725.	51.	257.	0.	15.	44.
HB	668.	38510.	57456.	4077.	20.	122.	0.	9.	0.
HB	669.	37158.	57084.	584.	1071.	176.	411.	16.	259.
HB	671.	37577.	56458.	641.	71.	32.	0.	5.	156.
HB	673.	37070.	57025.	574.	17.	267.	0.	16.	4.
HB	674.	38378.	57467.	93.	10.	19.	0.	4.	0.
HB	675.	37649.	56512.	9950.	96.	525.	6.	19.	1.
HB	676.	38065.	57240.	184.	6.	55.	0.	4.	1.
HB	678.	37068.	56509.	14630.	198.	396.	20.	120.	82.
HB	679.	38233.	57123.	129.	10.	11.	0.	0.	0.
HB	680.	37900.	56480.	10546.	44.	105.	42.	11.	45.
HB	682.	37460.	56920.	169.	13.	697.	7.	13.	4.
HB	685.	37134.	56610.	5957.	85.	672.	21.	55.	69.
HB	689.	37726.	56670.	8763.	175.	351.	7.	17.	54.
HB	690.	37171.	56428.	1233.	17.	56.	0.	9.	26.
HB	691.	38071.	57307.	617.	7.	459.	9.	7.	0.
HB	692.	37138.	56967.	498.	280.	360.	47.	44.	30.
HB	694.	38019.	56510.	20190.	454.	176.	22.	26.	22.
HB	695.	37717.	56582.	15580.	328.	248.	8.	18.	66.
HB	696.	38630.	56627.	91700.	535.	292.	0.	11.	0.
HB	697.	38090.	57129.	619.	25.	344.	0.	10.	13.
HB	698.	37130.	56673.	5276.	581.	339.	0.	24.	66.
HB	699.	37241.	56973.	178.	11.	480.	1.	3.	3.
HB	700.	38490.	57208.	181.	44.	149.	0.	6.	0.
HB	701.	36712.	56788.	1795.	32.	194.	1.	16.	5.
HB	702.	39065.	56048.	326.	42.	13.	25.	3.	0.
HB	703.	39277.	56129.	5638.	664.	96.	28.	9.	165.
HB	705.	37412.	56880.	1025.	11.	631.	54.	6.	4.
HB	707.	38525.	57218.	2675.	11.	200.	10.	7.	6.
HB	708.	37290.	57510.	166.	17.	279.	0.	7.	0.
HB	709.	37173.	57090.	253.	7.	56.	0.	3.	0.
HB	710.	37298.	57321.	112.	4.	65.	0.	3.	1.
HB	711.	37653.	57110.	5855.	13.	137.	0.	7.	0.
HB	713.	39500.	55991.	6263.	1266.	116.	0.	11.	58.
HB	714.	37254.	57080.	464.	17.	1234.	27.	9.	5.
HB	716.	37120.	57169.	72.	9.	45.	0.	4.	0.
HB	717.	37585.	57170.	193.	12.	7050.	46.	11.	4.
HB	719.	38750.	57493.	389.	83.	91.	0.	14.	48.
HB	722.	39170.	56130.	2362.	93.	75.	0.	6.	44.
HB	723.	39530.	56072.	3517.	211.	165.	0.	18.	2.
HB	724.	37789.	57030.	86.	4.	64.	0.	0.	1.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1616.	40188.	61148.	1869.	102.	92.	9.	44.	65.
HB	1617.	40234.	60542.	358.	11.	120.	9.	12.	4.
HB	1618.	40020.	60456.	3676.	44.	78.	12.	19.	43.
HB	1620.	40718.	60763.	516.	9.	29.	1.	5.	12.
HB	1621.	40884.	60867.	2171.	41.	60.	7.	21.	3.
HB	1622.	40292.	60260.	862.	117.	215.	17.	151.	34.
HB	1623.	41220.	60452.	26800.	73.	1125.	109.	27.	1.
HB	1624.	39649.	60510.	2242.	49.	137.	55.	26.	10.
HB	1625.	40488.	61720.	334.	18.	41.	6.	13.	0.
HB	1626.	40635.	61173.	654.	78.	110.	15.	45.	27.
HB	1628.	40727.	61028.	345.	36.	86.	15.	42.	39.
HB	1629.	39649.	59839.	10600.	215.	125.	71.	11.	47.
HB	1630.	40392.	61565.	16800.	89.	172.	135.	81.	50.
HB	1631.	39652.	59903.	1929.	6.	135.	5.	8.	14.
HB	1632.	40187.	60650.	424.	43.	103.	37.	26.	15.
HB	1633.	39790.	60517.	329.	22.	50.	4.	9.	2.
HB	1634.	40302.	61688.	363.	101.	155.	47.	65.	84.
HB	1635.	40326.	61294.	2021.	55.	98.	11.	55.	9.
HB	1636.	39622.	60222.	1110.	49.	99.	19.	49.	18.
HB	1637.	39652.	59690.	1419.	9.	51.	2.	6.	4.
HB	1638.	40728.	60770.	1185.	43.	66.	14.	19.	20.
HB	1639.	40088.	60370.	1150.	77.	153.	17.	112.	18.
HB	1641.	40487.	61216.	1544.	232.	117.	95.	72.	27.
HB	1642.	40392.	61754.	869.	61.	129.	13.	46.	44.
HB	1643.	39965.	61063.	352.	27.	46.	10.	17.	30.
HB	1644.	41358.	61220.	343.	9.	40.	0.	4.	0.
HB	1645.	41217.	60460.	38900.	20.	32.	13.	8.	0.
HB	1648.	40477.	61529.	2011.	57.	139.	9.	27.	42.
HB	1649.	39723.	59958.	2499.	82.	71.	8.	14.	67.
HB	1650.	40908.	61220.	111.	14.	15.	3.	5.	8.
HB	1652.	40977.	61243.	228.	18.	36.	12.	15.	7.
HB	1653.	39539.	59674.	652.	11.	24.	3.	5.	1.
HB	1654.	39693.	60018.	537.	57.	105.	14.	55.	17.
HB	1655.	40503.	60959.	126.	9.	14.	4.	7.	6.
HB	1656.	40345.	61164.	844.	129.	133.	39.	66.	21.
HB	1658.	40796.	61219.	541.	27.	34.	9.	19.	9.
HB	1659.	40485.	61125.	589.	22.	86.	15.	11.	2.
HB	1661.	39756.	59946.	18000.	30.	609.	17.	15.	0.
HB	1662.	39775.	60513.	663.	22.	66.	4.	19.	11.
HB	1663.	40591.	61562.	1435.	117.	122.	37.	47.	48.
HB	1664.	40671.	61726.	419.	34.	65.	7.	19.	11.
HB	1665.	40185.	61162.	3100.	105.	192.	14.	89.	13.
HB	1667.	39695.	59792.	36100.	6.	23.	11.	7.	0.
KB	1668.	41030.	60587.	7929.	37.	285.	14.	17.	3.
HB	1669.	40632.	61194.	566.	89.	133.	15.	105.	35.
HB	1670.	40210.	60330.	572.	57.	117.	13.	58.	13.
HB	1671.	40865.	61199.	510.	613.	254.	87.	210.	113.
HB	1674.	41177.	60561.	18800.	14.	80.	8.	10.	0.
HB	1676.	41233.	60468.	18800.	72.	111.	13.	20.	8.
HB	1677.	40309.	60613.	990.	111.	218.	37.	32.	97.
HB	1678.	39660.	59817.	5790.	7.	41.	5.	5.	0.
HB	1679.	41356.	61218.	7513.	28.	180.	10.	10.	92.
HB	1680.	40682.	61264.	462.	36.	42.	4.	13.	15.
HB	1681.	41174.	60365.	87900.	390.	3282.	61.	55.	0.
HB	1685.	39891.	60427.	764.	45.	19.	4.	8.	0.
HB	1686.	40795.	61090.	125.	30.	56.	13.	20.	10.
HB	1687.	40377.	60636.	659.	14.	47.	10.	12.	2.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
NB	1475.	40606.	59800.	2165.	3.	43.	7.	4.	60.
NB	1476.	40530.	59732.	5145.	12.	24.	2.	3.	0.
NB	1477.	40928.	59656.	24100.	218.	260.	2.	14.	35.
NB	1478.	41367.	58852.	40570.	134.	270.	19.	18.	78.
NB	1479.	41359.	59712.	9683.	79.	98.	25.	15.	0.
NB	1480.	41146.	59479.	31190.	32.	73.	3.	4.	0.
NB	1482.	40004.	59560.	108380.	65.	356.	0.	8.	0.
NB	1485.	41335.	58909.	19300.	407.	602.	124.	24.	54.
NB	1487.	41136.	59547.	13930.	19.	91.	2.	4.	9.
NB	1489.	41145.	58920.	23800.	460.	552.	3.	26.	0.
NB	1491.	39058.	59350.	3562.	8.	121.	2.	5.	0.
NB	1494.	40914.	59653.	11240.	22.	210.	0.	12.	0.
NB	1496.	41095.	59400.	486.	1.	24.	1.	0.	1.
NB	1500.	41192.	59054.	14180.	19.	55.	35.	18.	0.
NB	1502.	42040.	59227.	28700.	201.	783.	33.	40.	86.
NB	1503.	41348.	59361.	2154.	31.	50.	3.	14.	21.
NB	1504.	40278.	60416.	488.	924.	280.	29.	18.	10.
NB	1505.	39591.	60798.	457.	234.	471.	122.	35.	188.
NB	1506.	41628.	59432.	4152.	16.	352.	9.	14.	5.
NB	1507.	40878.	60215.	2424.	12.	44.	3.	7.	1.
NB	1508.	41482.	59368.	7460.	83.	704.	177.	22.	78.
NB	1509.	41780.	59722.	11600.	116.	508.	27.	35.	26.
NB	1510.	41723.	59728.	32600.	247.	826.	120.	60.	102.
NB	1511.	39937.	60848.	492.	180.	263.	102.	152.	71.
NB	1512.	41118.	59865.	80600.	287.	562.	53.	56.	22.
NB	1513.	42013.	59608.	12100.	334.	646.	84.	29.	3.
NB	1514.	41969.	59380.	3008.	597.	236.	241.	42.	147.
NB	1515.	41612.	59606.	14600.	158.	190.	19.	16.	2.
NB	1516.	41237.	59896.	12900.	93.	88.	13.	16.	134.
NB	1517.	41038.	59801.	36300.	101.	644.	54.	45.	11.
NB	1518.	40145.	60232.	288.	48.	65.	10.	29.	55.
NB	1519.	39950.	60722.	4015.	172.	788.	46.	104.	109.
NB	1520.	41232.	59887.	16000.	282.	203.	22.	45.	395.
NB	1521.	40860.	60245.	15500.	15.	48.	9.	8.	0.
NB	1522.	40827.	60262.	3796.	20.	150.	8.	17.	1.
NB	1523.	40427.	60098.	684.	87.	328.	9.	22.	25.
NB	1524.	40207.	60123.	209.	18.	35.	5.	8.	3.
NB	1526.	41960.	59946.	2065.	214.	175.	73.	28.	91.
NB	1527.	41799.	59630.	17000.	68.	255.	21.	34.	8.
NB	1528.	40970.	59890.	40700.	148.	725.	34.	37.	13.
NB	1529.	41440.	59380.	5621.	58.	334.	45.	21.	107.
NB	1530.	40045.	60477.	744.	101.	134.	41.	80.	14.
NB	1531.	41836.	59121.	2009.	102.	227.	79.	13.	7.
NB	1532.	39981.	60637.	599.	44.	288.	6.	16.	6.
NB	1533.	40300.	60270.	1265.	895.	243.	472.	59.	210.
NB	1534.	41127.	60070.	5734.	25.	38.	19.	36.	0.
NB	1535.	40634.	60502.	2386.	16.	640.	14.	19.	1.
NB	1536.	41837.	59170.	2860.	164.	40.	8.	11.	0.
NB	1537.	41038.	59430.	27300.	2642.	175.	20.	22.	15.
NB	1538.	40615.	60306.	2850.	59.	736.	30.	23.	42.
NB	1539.	40158.	60058.	2375.	92.	160.	25.	31.	5.
NB	1540.	41865.	59770.	28600.	68.	774.	56.	40.	12.
NB	1541.	41532.	59411.	2263.	44.	113.	21.	16.	7.
NB	1542.	41631.	59430.	10500.	57.	438.	22.	34.	13.
NB	1543.	40300.	60343.	431.	169.	72.	15.	25.	21.
NB	1544.	39997.	60635.	51000.	88.	168.	12.	115.	22.
NB	1545.	39720.	60809.	1795.	90.	128.	15.	75.	40.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
NB	1547.	42013.	59960.	177.	10.	37.	3.	5.	4.
NB	1548.	40668.	60282.	2529.	66.	97.	62.	20.	27.
NB	1549.	41830.	59167.	9775.	149.	421.	54.	37.	37.
NB	1550.	41720.	59569.	11100.	51.	416.	29.	38.	57.
NB	1551.	41908.	59940.	1886.	30.	103.	11.	14.	34.
NB	1553.	40905.	60094.	7052.	156.	63.	18.	13.	5.
NB	1554.	40609.	60298.	10600.	44.	707.	19.	13.	0.
NB	1555.	42013.	60053.	1296.	140.	67.	21.	19.	23.
NB	1556.	41127.	59867.	44600.	115.	849.	67.	42.	17.
NB	1559.	40642.	60503.	6904.	23.	3858.	20.	17.	78.
NB	1560.	41944.	59837.	17900.	404.	994.	96.	61.	101.
NB	1561.	40154.	60058.	1449.	34.	118.	8.	12.	8.
NB	1562.	41590.	59300.	1939.	137.	184.	27.	27.	53.
NB	1563.	41964.	59199.	51100.	565.	1144.	66.	44.	220.
NB	1564.	40459.	60172.	558.	45.	297.	36.	144.	388.
NB	1565.	42021.	59765.	8370.	128.	179.	22.	48.	76.
NB	1566.	39968.	59749.	836.	190.	307.	32.	167.	87.
NB	1568.	40660.	60047.	5204.	67.	110.	18.	12.	11.
NB	1569.	40434.	60418.	179.	23.	82.	9.	21.	8.
NB	1570.	39720.	60818.	502.	50.	86.	463.	20.	1.
NB	1571.	40687.	60053.	5358.	206.	136.	11.	17.	21.
NB	1572.	40707.	60180.	17100.	131.	159.	12.	17.	13.
NB	1573.	40812.	60264.	386.	12.	108.	2.	8.	0.
NB	1574.	39822.	60793.	1206.	52.	116.	19.	35.	26.
NB	1575.	42097.	59670.	541.	8.	92.	6.	7.	0.
NB	1576.	39582.	60830.	2023.	16.	132.	3.	11.	2.
NB	1577.	41564.	59190.	24000.	381.	267.	32.	120.	233.
NB	1579.	41496.	59899.	7255.	82.	203.	22.	18.	16.
NB	1580.	42085.	60843.	485.	197.	1212.	150.	152.	25.
NB	1582.	40422.	60420.	319.	63.	59.	74.	21.	22.
NB	1583.	40806.	60364.	217.	10.	70.	1.	6.	4.
NB	1585.	41725.	59563.	37300.	162.	159.	30.	27.	7.
NB	1586.	40294.	60169.	151.	28.	29.	2.	10.	5.
NB	1589.	40658.	60051.	294.	59.	66.	4.	13.	9.
NB	1590.	40356.	60372.	401.	53.	73.	11.	30.	15.
NB	1591.	41753.	59073.	32200.	660.	1782.	55.	56.	150.
NB	1592.	41500.	59876.	12100.	76.	227.	119.	19.	0.
NB	1593.	40532.	59988.	430.	37.	57.	5.	8.	8.
NB	1594.	40383.	59959.	79500.	116.	102.	27.	21.	1.
NB	1595.	40013.	60229.	401.	42.	95.	10.	33.	7.
NB	1597.	40616.	60308.	3543.	27.	769.	12.	10.	3.
NB	1598.	40858.	60049.	1675.	32.	54.	58.	10.	5.
NB	1600.	41624.	59502.	25900.	253.	941.	108.	49.	55.
NB	1601.	39599.	60625.	500.	29.	39.	5.	18.	32.
NB	1602.	40995.	60117.	4397.	82.	339.	28.	21.	6.
NB	1603.	39870.	59900.	17900.	566.	147.	152.	119.	169.
NB	1604.	39557.	60550.	13200.	17.	25.	8.	19.	125.
NB	1605.	41036.	61077.	257.	39.	30.	2.	15.	34.
NB	1606.	40530.	61116.	493.	26.	87.	5.	15.	19.
NB	1607.	40424.	61747.	304.	27.	54.	23.	16.	5.
NB	1608.	39869.	60489.	3383.	12.	152.	15.	9.	0.
NB	1609.	39508.	60239.	1226.	95.	217.	43.	18.	99.
NB	1610.	40098.	61179.	3329.	73.	145.	14.	61.	177.
NB	1611.	40849.	61498.	667.	828.	72.	62.	53.	142.
NB	1612.	40940.	60648.	13700.	47.	206.	6.	19.	27.
NB	1614.	39711.	60107.	303.	29.	67.	7.	33.	7.
NB	1615.	39510.	60232.	1513.	12.	68.	12.	10.	7.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2534.	37591.	59687.	195.	17.	136.	3.	6.	1.
HB	2535.	37143.	59405.	118.	8.	58.	1.	4.	0.
HB	2536.	37480.	59605.	707.	7.	66.	3.	5.	4.
HB	2537.	37476.	59661.	5485.	8.	1345.	10.	14.	0.
HB	2538.	37315.	59192.	45.	7.	12.	0.	2.	1.
HB	2539.	36635.	59725.	71.	1.	21.	1.	2.	1.
HB	2540.	36575.	59924.	32.	6.	44.	0.	2.	0.
HB	2542.	37030.	59758.	2080.	9.	339.	8.	11.	2.
HB	2543.	37419.	59114.	77.	14.	440.	2.	3.	2.
HB	2544.	37854.	58017.	317.	6.	64.	2.	6.	2.
HB	2545.	37435.	59095.	762.	16.	271.	4.	8.	3.
HB	2546.	37334.	59105.	87.	6.	53.	2.	4.	0.
HB	2547.	37717.	59007.	1117.	13.	143.	8.	16.	0.
HB	2548.	37269.	59756.	130.	5.	114.	3.	5.	0.
HB	2549.	36876.	59744.	112.	17.	99.	8.	16.	0.
HB	2550.	37034.	58903.	120.	8.	56.	28.	5.	2.
HB	2552.	37202.	59422.	169.	8.	40.	1.	2.	0.
HB	2553.	37068.	59800.	341.	6.	162.	3.	4.	0.
HB	2554.	37045.	59362.	32.	2.	4.	0.	1.	0.
HB	2555.	37523.	59576.	433.	0.	36.	2.	4.	0.
HB	2556.	37193.	59590.	70.	4.	22.	2.	2.	1.
HB	2557.	37630.	59020.	110.	5.	26.	2.	4.	1.
HB	2558.	36507.	59695.	204.	5.	17.	2.	4.	0.
HB	2560.	37067.	59867.	41.	0.	55.	1.	3.	2.
HB	2561.	36730.	59820.	530.	45.	908.	8.	16.	0.
HB	2562.	37501.	59611.	237.	6.	129.	2.	4.	0.
HB	2563.	37965.	58927.	1195.	6.	256.	4.	11.	0.
HB	2564.	37373.	59765.	185.	13.	47.	4.	3.	0.
HB	2565.	36690.	59687.	58.	4.	9.	1.	2.	0.
HB	2566.	37629.	59056.	78.	0.	32.	4.	6.	3.
HB	2567.	37440.	59116.	33.	3.	8.	2.	1.	1.
HB	2568.	37045.	59359.	65.	0.	279.	2.	2.	4.
HB	2569.	36550.	59940.	62.	3.	11.	2.	4.	4.
HB	2570.	37103.	59583.	48.	3.	20.	2.	4.	5.
HB	2572.	36977.	59760.	177.	2.	21.	2.	3.	1.
HB	2573.	36913.	59660.	143.	8.	58.	2.	3.	0.
HB	2574.	37059.	59780.	1317.	8.	875.	6.	8.	1.
HB	2575.	37056.	59884.	213.	15.	111.	5.	8.	1.
HB	2576.	37511.	59583.	294.	0.	24.	4.	5.	1.
HB	2577.	37776.	59106.	45.	0.	10.	2.	3.	1.
HB	2578.	37192.	59611.	69.	4.	55.	2.	3.	0.
HB	2579.	37470.	59586.	273.	4.	128.	3.	5.	0.
HB	2580.	37955.	58809.	1499.	4.	389.	6.	9.	0.
HB	2581.	37398.	59680.	477.	7.	43.	3.	6.	0.
HB	2582.	37756.	59964.	63.	10.	15.	4.	4.	0.
HB	2583.	36742.	59850.	72.	4.	13.	2.	2.	0.
HB	2584.	37551.	59982.	200.	6.	128.	4.	4.	0.
HB	2585.	37893.	58865.	638.	9.	158.	7.	5.	0.
HB	2586.	36726.	59847.	117.	6.	110.	3.	3.	0.
HB	2587.	37331.	59140.	170.	6.	158.	3.	3.	0.
HB	2588.	37756.	58040.	596.	5.	318.	6.	4.	0.
HB	2590.	37559.	59463.	99.	3.	63.	4.	4.	0.
HB	2591.	37989.	58084.	126.	2.	49.	3.	4.	2.
HB	2594.	36895.	59702.	362.	15.	946.	23.	17.	0.
HB	2595.	37547.	59333.	114.	0.	28.	2.	6.	0.
HB	2596.	37266.	59129.	39.	2.	3.	0.	1.	2.
HB	2597.	37533.	59545.	336.	4.	79.	2.	6.	0.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2458.	37556.	58572.	86.	10.	174.	2.	11.	0.
HB	2459.	37104.	58196.	68.	1.	60.	4.	3.	0.
HB	2460.	38010.	58044.	523.	3.	95.	3.	6.	1.
HB	2461.	37109.	58101.	520.	5.	342.	2.	4.	2.
HB	2462.	37105.	58343.	328.	3.	159.	1.	3.	4.
HB	2463.	38040.	59658.	47.	1.	8.	2.	2.	0.
HB	2464.	37373.	52090.	3418.	20.	841.	12.	18.	1.
HB	2465.	37355.	59913.	441.	4.	238.	1.	3.	10.
HB	2466.	38017.	59690.	492.	9.	110.	2.	9.	2.
HB	2467.	38030.	59718.	79.	3.	151.	0.	2.	0.
HB	2468.	37772.	59310.	51.	7.	16.	2.	2.	0.
HB	2469.	37757.	58905.	49.	4.	25.	2.	4.	3.
HB	2470.	37218.	58535.	2046.	10.	220.	2.	14.	3.
HB	2471.	37378.	60002.	56.	4.	17.	5.	6.	0.
HB	2472.	37758.	59877.	40.	3.	5.	3.	3.	0.
HB	2474.	36752.	58277.	124.	6.	491.	4.	7.	0.
HB	2477.	36652.	58011.	406.	6.	248.	2.	5.	2.
HB	2478.	37107.	58030.	429.	5.	307.	5.	7.	0.
HB	2479.	36872.	58413.	1175.	16.	69.	4.	7.	3.
HB	2480.	37497.	58156.	378.	5.	114.	2.	4.	1.
HB	2482.	37510.	59950.	113.	0.	42.	2.	3.	7.
HB	2483.	37225.	58530.	1044.	15.	588.	6.	15.	1.
HB	2484.	37492.	58562.	510.	11.	169.	1.	7.	1.
HB	2485.	37788.	59951.	1153.	0.	69.	0.	4.	2.
HB	2486.	37724.	59870.	118.	2.	73.	3.	4.	2.
HB	2487.	37541.	59904.	203.	4.	67.	1.	6.	2.
HB	2489.	37297.	58577.	2249.	17.	484.	4.	17.	0.
HB	2491.	37917.	59707.	1900.	12.	4494.	34.	19.	1.
HB	2492.	37098.	58304.	246.	5.	292.	5.	4.	0.
HB	2493.	38113.	59883.	133.	2.	288.	0.	3.	6.
HB	2494.	36742.	58027.	960.	12.	1044.	5.	8.	1.
HB	2495.	37745.	59398.	52.	2.	38.	2.	3.	5.
HB	2496.	36620.	58075.	605.	4.	286.	3.	3.	0.
HB	2498.	37314.	59919.	60.	8.	9.	2.	4.	1.
HB	2499.	37181.	58070.	2521.	7.	932.	7.	9.	3.
HB	2500.	37530.	59920.	122.	0.	95.	14.	2.	4.
HB	2501.	36904.	59716.	1732.	13.	147.	13.	25.	3.
HB	2504.	37441.	59447.	218.	4.	61.	3.	4.	1.
HB	2505.	37097.	59532.	235.	0.	438.	3.	4.	0.
HB	2506.	37130.	59497.	97.	9.	81.	3.	4.	4.
HB	2507.	36896.	59714.	89.	7.	24.	2.	5.	0.
HB	2508.	37739.	58100.	3635.	19.	1033.	9.	16.	0.
HB	2510.	37340.	59114.	57.	5.	42.	2.	2.	0.
HB	2511.	36610.	59844.	95.	6.	11.	6.	7.	0.
HB	2515.	37856.	58118.	36.	11.	53.	1.	3.	0.
HB	2516.	36565.	59905.	100.	2.	10.	4.	3.	2.
HB	2517.	37986.	58032.	328.	8.	215.	5.	5.	2.
HB	2518.	36953.	59797.	110.	10.	21.	1.	5.	0.
HB	2521.	37522.	59383.	134.	6.	33.	2.	5.	3.
HB	2522.	37720.	58960.	363.	12.	82.	6.	10.	7.
HB	2523.	36622.	59868.	57.	7.	17.	4.	8.	0.
HB	2524.	37142.	59498.	58.	0.	309.	2.	3.	0.
HB	2527.	37952.	58113.	194.	8.	158.	4.	7.	0.
HB	2529.	37101.	59530.	44.	0.	40.	0.	1.	0.
HB	2530.	37497.	59227.	107.	1.	20.	3.	3.	3.
HB	2531.	37725.	58938.	1081.	17.	166.	31.	13.	0.
HB	2533.	37338.	59783.	100.	4.	84.	2.	9.	3.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
NB	2598.	36835.	59670.	75.	9.	31.	7.	7.	1.
NB	2599.	37523.	59120.	2377.	11.	230.	17.	11.	0.
NB	2600.	37047.	59540.	85.	3.	33.	2.	4.	2.
NB	2601.	37269.	59376.	152.	0.	88.	2.	2.	0.
NB	2602.	36290.	59138.	90.	4.	33.	11.	4.	4.
NB	2603.	36389.	59617.	29.	2.	17.	0.	1.	0.
NB	2604.	36473.	59532.	370.	14.	36.	7.	6.	24.
NB	2605.	36482.	59745.	287.	7.	29.	3.	2.	2.
NB	2607.	36708.	59606.	88.	1.	29.	11.	5.	2.
NB	2608.	36357.	58550.	50.	9.	82.	4.	3.	0.
NB	2609.	36054.	59060.	193.	5.	74.	1.	5.	3.
NB	2610.	36717.	59242.	141.	0.	94.	1.	2.	0.
NB	2611.	36048.	59612.	233.	15.	50.	4.	8.	8.
NB	2615.	36514.	59623.	790.	0.	12.	2.	1.	3.
NB	2616.	37360.	59520.	183.	6.	198.	0.	5.	0.
NB	2618.	36948.	59196.	67.	1.	12.	1.	2.	1.
NB	2619.	36242.	59478.	124.	13.	18.	4.	6.	4.
NB	2620.	36736.	59327.	95.	3.	131.	8.	14.	0.
NB	2621.	36693.	59540.	63.	2.	6.	0.	1.	4.
NB	2622.	36085.	59601.	125.	10.	19.	2.	5.	0.
NB	2623.	37731.	58640.	4689.	263.	467.	279.	24.	74.
NB	2624.	36939.	59212.	77.	0.	30.	0.	2.	0.
NB	2625.	36852.	59340.	37.	6.	8.	3.	2.	6.
NB	2626.	37558.	59224.	349.	1.	78.	7.	9.	0.
NB	2627.	37582.	59120.	378.	9.	67.	4.	7.	2.
NB	2628.	37414.	58629.	13100.	21.	141.	7.	8.	16.
NB	2629.	37100.	59020.	70.	5.	179.	3.	3.	1.
NB	2630.	36708.	59258.	61.	2.	19.	0.	2.	1.
NB	2632.	36960.	59251.	59.	3.	13.	2.	3.	0.
NB	2633.	36962.	59223.	53.	8.	56.	2.	4.	2.
NB	2634.	36579.	59180.	67.	0.	6.	1.	2.	3.
NB	2635.	36598.	58506.	227.	3.	56.	4.	3.	0.
NB	2636.	37613.	58708.	1219.	5.	139.	1.	5.	0.
NB	2637.	37664.	60008.	184.	8.	57.	0.	2.	0.
NB	2638.	36100.	58993.	262.	4.	63.	3.	5.	4.
NB	2639.	36076.	59704.	71.	12.	50.	5.	5.	0.
NB	2640.	37610.	59180.	438.	6.	68.	5.	9.	7.
NB	2641.	37174.	58891.	47.	4.	41.	2.	6.	1.
NB	2642.	37569.	59149.	41.	0.	9.	2.	3.	1.
NB	2643.	36644.	59588.	379.	12.	134.	9.	13.	6.
NB	2644.	37622.	60237.	200.	12.	38.	2.	5.	3.
NB	2645.	37340.	58904.	68.	1.	30.	1.	4.	3.
NB	2646.	37126.	59090.	31.	0.	6.	1.	0.	0.
NB	2647.	36298.	58977.	198.	3.	58.	8.	8.	0.
NB	2648.	36423.	59020.	1460.	16.	246.	10.	13.	15.
NB	2649.	36538.	59659.	356.	5.	37.	3.	5.	0.
NB	2650.	36939.	59127.	329.	3.	12.	1.	2.	2.
NB	2652.	37639.	58655.	9600.	66.	1360.	13.	20.	102.
NB	2653.	37325.	58818.	1086.	9.	217.	6.	10.	2.
NB	2654.	37602.	59981.	99.	3.	171.	2.	5.	6.
NB	2655.	36507.	58629.	440.	7.	75.	2.	4.	2.
NB	2656.	36951.	59278.	44.	1.	28.	2.	2.	1.
NB	2657.	37625.	58753.	840.	6.	134.	3.	6.	0.
NB	2658.	36138.	59565.	53.	30.	29.	2.	6.	9.
NB	2660.	36941.	59102.	39.	7.	24.	3.	6.	0.
NB	2661.	36618.	58588.	1179.	15.	642.	9.	10.	0.
NB	2664.	36570.	59559.	246.	14.	42.	2.	8.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	815.	38163.	57410.	240.	10550.	60.	1970.	-1.
HB	817.	39212.	57172.	5090.	80160.	890.	8560.	-1.
HB	818.	39356.	57600.	1690.	42390.	290.	2750.	-1.
HB	819.	37367.	57933.	530.	15140.	90.	1820.	-1.
HB	820.	38224.	57330.	570.	25810.	270.	2810.	-1.
HB	821.	36730.	56417.	2990.	94370.	690.	3950.	-1.
HB	822.	39191.	56352.	640.	45360.	840.	4480.	-1.
HB	823.	37957.	56000.	2350.	129030.	1770.	3140.	-1.
HB	824.	39489.	56889.	3000.	107920.	3170.	19280.	-1.
HB	825.	38408.	57345.	460.	29430.	250.	3310.	-1.
HB	826.	38102.	57563.	380.	23230.	130.	2410.	-1.
HB	830.	39290.	57405.	2780.	30490.	420.	6310.	-1.
HB	832.	38641.	57226.	690.	27890.	390.	3460.	-1.
HB	833.	39169.	57770.	460.	13770.	310.	3220.	-1.
HB	834.	36716.	56220.	980.	22220.	220.	1830.	-1.
HB	835.	37983.	56254.	1180.	81490.	1140.	2210.	-1.
HB	837.	38888.	57706.	1130.	98200.	730.	3290.	-1.
HB	838.	38412.	57340.	3700.	67980.	540.	1850.	-1.
HB	839.	37324.	57963.	890.	37260.	230.	3220.	-1.
HB	840.	39420.	56589.	930.	42720.	520.	6050.	-1.
HB	841.	39557.	57240.	1130.	81490.	690.	4680.	-1.
HB	844.	39335.	57510.	5790.	118040.	1500.	24530.	-1.
HB	846.	39410.	57708.	960.	24950.	190.	3170.	-1.
HB	847.	39002.	57758.	750.	64730.	550.	2960.	-1.
HB	848.	38330.	57367.	560.	36190.	340.	3050.	-1.
HB	849.	39730.	57196.	3180.	47590.	390.	4030.	-1.
HB	851.	39162.	57776.	950.	44370.	400.	3700.	-1.
HB	853.	36736.	56576.	1850.	102390.	1240.	4940.	-1.
HB	854.	39044.	56523.	370.	26570.	270.	4110.	-1.
HB	856.	36757.	56359.	1120.	112200.	1170.	9570.	-1.
HB	857.	39289.	57512.	9430.	54590.	880.	12530.	-1.
HB	858.	37945.	56255.	3600.	95620.	1100.	4630.	-1.
HB	860.	37190.	57198.	1010.	30570.	280.	2810.	-1.
HB	861.	39343.	57424.	1210.	23180.	190.	3840.	-1.
HB	863.	39310.	57353.	1150.	48510.	330.	1950.	-1.
HB	864.	37230.	57260.	630.	11830.	100.	2710.	-1.
HB	865.	39440.	57435.	1260.	12990.	150.	2720.	-1.
HB	866.	39400.	57132.	1270.	71040.	530.	7640.	-1.
HB	867.	38584.	57350.	900.	47140.	450.	2500.	-1.
HB	868.	39090.	57624.	1110.	79030.	580.	7420.	-1.
HB	869.	38703.	56048.	120.	1880.	40.	4360.	-1.
HB	870.	38510.	57315.	890.	51480.	550.	2090.	-1.
HB	871.	39130.	57703.	410.	30290.	330.	3460.	-1.
HB	872.	39544.	57119.	1210.	60830.	560.	5070.	-1.
HB	874.	39349.	56623.	3030.	37590.	420.	4600.	-1.
HB	875.	39183.	56358.	890.	95880.	1320.	14260.	-1.
HB	876.	39058.	57585.	3610.	101930.	820.	3770.	-1.
HB	879.	39320.	57500.	3680.	39510.	540.	11190.	-1.
HB	880.	38860.	56053.	210.	8010.	60.	2510.	-1.
HB	881.	38799.	55922.	310.	45870.	350.	5690.	-1.
HB	883.	39360.	56708.	790.	3170.	230.	3040.	-1.
HB	884.	39442.	56821.	760.	23880.	360.	5640.	-1.
HB	885.	39269.	57610.	800.	28580.	220.	1870.	-1.
HB	887.	38213.	57321.	780.	22570.	280.	2950.	-1.
HB	888.	39615.	57245.	4040.	44310.	320.	3190.	-1.
HB	891.	39040.	57115.	1650.	50250.	460.	2980.	-1.
HB	892.	38225.	56260.	490.	24090.	220.	6170.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES; (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	725.	38710.	56141.	450.	25970.	310.	4070.	-1.
HB	727.	37722.	56787.	9690.	52440.	900.	13460.	-1.
HB	729.	39122.	56069.	370.	33800.	640.	5410.	-1.
HB	732.	39178.	56044.	320.	27520.	510.	7030.	-1.
HB	733.	38980.	56153.	370.	18660.	490.	3090.	-1.
HB	734.	36962.	56042.	560.	12070.	110.	1460.	-1.
HB	735.	36854.	56029.	910.	67910.	500.	6500.	-1.
HB	737.	39210.	56077.	510.	42610.	400.	2850.	-1.
HB	740.	37231.	57314.	640.	20250.	160.	2240.	-1.
HB	741.	37900.	57140.	420.	16480.	310.	2770.	-1.
HB	742.	39402.	56017.	780.	74670.	880.	13000.	-1.
HB	743.	37133.	57170.	640.	28080.	210.	2110.	-1.
HB	744.	39105.	56142.	550.	32810.	770.	3420.	-1.
HB	745.	37772.	56950.	980.	19520.	260.	6560.	-1.
HB	746.	37513.	56960.	7050.	26750.	430.	3560.	-1.
HB	747.	37812.	57150.	440.	16180.	240.	1670.	-1.
HB	751.	37580.	57130.	390.	13820.	80.	1500.	-1.
HB	753.	37698.	57030.	410.	27600.	250.	2000.	-1.
HB	754.	36883.	56820.	1040.	66500.	540.	5100.	-1.
HB	755.	36750.	56547.	2070.	26720.	480.	10160.	-1.
HB	756.	38278.	56997.	1810.	21610.	330.	6590.	-1.
HB	760.	37207.	57333.	1890.	21850.	250.	2070.	-1.
HB	761.	39874.	56053.	150.	9870.	70.	1210.	-1.
HB	765.	39513.	56058.	1100.	48990.	540.	6790.	-1.
HB	766.	36727.	56777.	2580.	35690.	380.	8110.	-1.
HB	767.	38214.	57050.	860.	56960.	510.	3850.	-1.
HB	768.	39269.	56082.	520.	38770.	470.	3540.	-1.
HB	769.	39110.	56134.	400.	27650.	650.	3780.	-1.
HB	770.	38490.	56806.	1520.	49910.	420.	11270.	-1.
HB	771.	37228.	57191.	1330.	56740.	200.	2110.	-1.
HB	774.	37732.	56938.	20330.	67180.	440.	12170.	-1.
HB	776.	37204.	57320.	1200.	38040.	360.	3640.	-1.
HB	777.	37610.	56882.	560.	15190.	350.	2830.	-1.
HB	780.	37248.	57105.	570.	30510.	350.	2980.	-1.
HB	782.	38357.	56963.	4810.	55610.	720.	19390.	-1.
HB	783.	38680.	57447.	560.	35350.	240.	2870.	-1.
HB	784.	38620.	57060.	4250.	35770.	450.	9910.	-1.
HB	785.	36991.	56873.	790.	50180.	420.	4010.	-1.
HB	788.	39728.	55970.	630.	27660.	540.	3810.	-1.
HB	789.	37642.	57099.	570.	14420.	90.	1310.	-1.
HB	790.	37359.	57156.	920.	17740.	190.	4660.	-1.
HB	791.	38253.	57369.	680.	49899.	360.	5410.	-1.
HB	792.	36882.	56888.	670.	49700.	390.	5900.	-1.
HB	793.	39358.	56041.	570.	87000.	830.	6070.	-1.
HB	796.	39430.	56073.	2220.	156030.	2880.	12170.	-1.
HB	797.	37451.	57109.	1330.	10520.	130.	3510.	-1.
HB	798.	37910.	57142.	470.	24930.	510.	2400.	-1.
HB	799.	37260.	57301.	1280.	61520.	560.	4680.	-1.
HB	803.	39086.	57186.	5690.	65080.	530.	10030.	-1.
HB	804.	37190.	57258.	560.	14730.	130.	2320.	-1.
HB	805.	36985.	56854.	350.	22090.	220.	1820.	-1.
HB	806.	39657.	57304.	1780.	53280.	550.	2450.	-1.
HB	807.	39516.	57463.	3940.	33670.	320.	7080.	-1.
HB	808.	38159.	57464.	640.	28500.	710.	3530.	-1.
HB	809.	39605.	57262.	4210.	64040.	680.	5630.	-1.
HB	811.	39125.	57897.	1260.	102900.	400.	2020.	-1.
HB	814.	39443.	57117.	1260.	82760.	800.	11780.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES; (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	641.	37861.	56472.	1490.	52940.	620.	8410.	-1.
HB	642.	37147.	57100.	640.	22810.	190.	3220.	-1.
HB	643.	38004.	57199.	1700.	57919.	1470.	4380.	-1.
HB	644.	37935.	56490.	340.	25730.	260.	1720.	-1.
HB	646.	38428.	57198.	11400.	40320.	540.	2590.	-1.
HB	647.	37729.	56541.	1480.	63400.	550.	4970.	-1.
HB	648.	38662.	57292.	8130.	36420.	510.	2520.	-1.
HB	650.	37128.	56710.	1150.	89100.	750.	6790.	-1.
HB	651.	37383.	56963.	580.	15780.	210.	2770.	-1.
HB	652.	39025.	56971.	1790.	44750.	400.	6560.	-1.
HB	653.	38215.	57192.	1930.	58950.	710.	920.	-1.
HB	658.	38530.	56722.	470.	20760.	460.	3500.	-1.
HB	662.	38364.	57238.	520.	34240.	420.	2560.	-1.
HB	663.	37688.	56475.	650.	51480.	450.	7940.	-1.
HB	664.	37039.	56502.	1260.	136910.	1550.	14530.	-1.
HB	666.	37152.	56798.	780.	44960.	380.	2980.	-1.
HB	667.	37099.	56715.	1610.	94970.	1030.	12780.	-1.
HB	668.	38510.	57456.	490.	41610.	220.	2560.	-1.
HB	669.	37158.	57084.	900.	57060.	350.	7270.	-1.
HB	671.	37577.	56458.	400.	54410.	410.	4130.	-1.
HB	673.	37070.	57025.	1470.	57010.	340.	3090.	-1.
HB	674.	38376.	57467.	370.	22390.	160.	3270.	-1.
HB	675.	37649.	56572.	1320.	44600.	330.	2550.	-1.
HB	676.	38065.	57240.	550.	32040.	250.	1560.	-1.
HB	678.	37068.	56509.	20520.	271810.	3990.	54360.	-1.
HB	679.	38233.	57123.	150.	6240.	60.	490.	-1.
HB	680.	37900.	56480.	663.	56900.	520.	4760.	-1.
HB	682.	37460.	56920.	880.	33780.	490.	2550.	-1.
HB	685.	37134.	56610.	25100.	179590.	3560.	64400.	-1.
HB	689.	37726.	56670.	1790.	74080.	650.	7240.	-1.
HB	690.	37171.	56428.	820.	55220.	560.	5260.	-1.
HB	691.	38071.	57307.	480.	35430.	390.	1520.	-1.
HB	692.	37138.	56967.	5040.	123870.	830.	7270.	-1.
HB	694.	38019.	56510.	1480.	132840.	1310.	5670.	-1.
HB	695.	37717.	56582.	2270.	65040.	670.	9420.	-1.
HB	696.	38630.	56627.	1330.	28210.	360.	4510.	-1.
HB	697.	38090.	57129.	900.	38740.	700.	11730.	-1.
HB	698.	37130.	56673.	2200.	115770.	1680.	21460.	-1.
HB	699.	37241.	56973.	700.	21060.	260.	2260.	-1.
HB	700.	38490.	57208.	1450.	29230.	550.	8440.	-1.
HB	701.	36712.	56788.	2090.	84520.	740.	6770.	-1.
HB	702.	39063.	56048.	240.	13070.	470.	2260.	-1.
HB	703.	39277.	56129.	500.	40340.	540.	3180.	-1.
HB	705.	37412.	56880.	530.	54720.	760.	1940.	-1.
HB	707.	39525.	57218.	1260.	42890.	880.	9110.	-1.
HB	708.	37490.	57310.	710.	42200.	240.	3150.	-1.
HB	709.	37173.	57090.	880.	18700.	120.	2940.	-1.
HB	710.	37298.	57321.	690.	14130.	210.	2850.	-1.
HB	711.	37653.	57110.	340.	33780.	180.	1420.	-1.
HB	713.	39890.	55991.	300.	26000.	250.	13850.	-1.
HB	714.	37251.	57080.	1220.	32750.	220.	5870.	-1.
HB	715.	37120.	57169.	720.	35290.	190.	2860.	-1.
HB	717.	37585.	57170.	570.	34140.	210.	2630.	-1.
HB	719.	38750.	57493.	700.	92520.	700.	4600.	-1.
HB	722.	39170.	56130.	460.	30590.	460.	3000.	-1.
HB	723.	39530.	56072.	390.	24120.	540.	3600.	-1.
HB	724.	37789.	57030.	310.	7440.	120.	1630.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1752.	41997.	60356.	5940.	191730.	2790.	45440.	230.
HB	1753.	41902.	60339.	5120.	136860.	1670.	30300.	130.
HB	1754.	42264.	60737.	3420.	126010.	1190.	18530.	50.
HB	1755.	42020.	60490.	1460.	101510.	880.	17020.	30.
HB	1756.	41989.	60752.	1130.	21950.	220.	9420.	30.
HB	1757.	42164.	61413.	2370.	79880.	1200.	25430.	40.
HB	1758.	42451.	61766.	6620.	243700.	3690.	42460.	60.
HB	1761.	41168.	60913.	1280.	56180.	600.	16290.	80.
HB	1762.	42110.	61304.	2840.	80210.	970.	19710.	40.
HB	1763.	41510.	60804.	4380.	84510.	1210.	36380.	80.
HB	1764.	41496.	60265.	1320.	51710.	520.	14010.	140.
HB	1765.	41610.	60764.	10820.	153940.	3070.	54100.	170.
HB	1766.	42023.	60680.	2900.	79730.	970.	25310.	50.
HB	1767.	41332.	59888.	2670.	106720.	1080.	13500.	150.
HB	1768.	42224.	60679.	4130.	145130.	2500.	36640.	50.
HB	1769.	41929.	60483.	2590.	116020.	1530.	29290.	50.
HB	1770.	41537.	60123.	2000.	64670.	620.	15550.	70.
HB	1771.	41604.	61070.	5260.	128230.	2810.	40200.	70.
HB	1772.	41446.	60667.	2130.	42290.	430.	17340.	40.
HB	1773.	40785.	61773.	2310.	173690.	4510.	55100.	40.
HB	1775.	42127.	60696.	5260.	191250.	3140.	48540.	90.
HB	1777.	39675.	59304.	1520.	54870.	720.	4830.	270.
HB	1778.	41372.	60417.	840.	46380.	370.	0510.	70.
HB	1779.	41716.	60957.	4380.	55.50.	720.	21410.	40.
HB	1780.	42021.	60260.	6030.	158000.	2480.	44330.	150.
HB	1781.	41731.	60665.	15700.	25[illegible]	7310.	95700.	160.
HB	1782.	41192.	61289.	1970.	[illegible]	1530.	35730.	50.
HB	1783.	41645.	60575.	1350.	[illegible]460.	640.	18710.	40.
HB	1784.	41464.	60299.	2170.	64950.	890.	18800.	150.
HB	1785.	42089.	60415.	1240.	74440.	660.	14780.	20.
HB	1786.	41587.	59973.	1880.	45690.	420.	12860.	60.
HB	1787.	41565.	60168.	1970.	61450.	620.	14000.	350.
HB	1788.	42540.	61676.	6630.	154680.	2210.	34470.	70.
HB	1789.	42026.	61510.	1410.	24020.	300.	7560.	20.
HB	1790.	39502.	59733.	870.	44800.	280.	8770.	30.
HB	1791.	39500.	59400.	360.	18320.	370.	4190.	240.
HB	1794.	41305.	60361.	580.	36480.	430.	11510.	80.
HB	1796.	42009.	60708.	3010.	102710.	1140.	20350.	50.
HB	1798.	41651.	60062.	2340.	103890.	1300.	20790.	390.
HB	1799.	42117.	60449.	4190.	102680.	830.	15100.	60.
HB	1800.	41125.	60846.	1610.	52160.	630.	16590.	70.
HB	1812.	41406.	61429.	2250.	78310.	1140.	27230.	40.
HB	1817.	42004.	61059.	6210.	242950.	2370.	34750.	120.
HB	1819.	42350.	61257.	6530.	164660.	4020.	41500.	50.
HB	1820.	41493.	61652.	1300.	76560.	920.	20180.	40.
HB	1821.	41894.	60996.	5290.	119510.	960.	16030.	150.
HB	1822.	40715.	61996.	4330.	95910.	4010.	49200.	70.
HB	1823.	41301.	61500.	990.	28310.	270.	9040.	20.
HB	1825.	41290.	61814.	850.	55700.	810.	21430.	30.
HB	1836.	41413.	61630.	[illegible]240.	184190.	1600.	22230.	70.
HB	1837.	41544.	61818.	[illegible]100.	180640.	1780.	27580.	170.
HB	1838.	41962.	61051.	5220.	88900.	610.	10680.	50.
HB	1839.	42129.	61142.	2660.	55120.	450.	8720.	40.
HB	1840.	41703.	61745.	1810.	55680.	440.	10040.	40.
HB	1847.	41958.	61090.	5570.	168970.	2620.	46710.	300.
HB	1851.	41960.	60995.	5050.	140020.	1240.	21360.	170.
HB	1852.	41283.	61720.	870.	21570.	430.	11160.	40.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1616.	40188.	61140.	2100.	91140.	730.	29520.	70.
HB	1617.	40234.	60542.	2530.	25310.	190.	7320.	50.
HB	1618.	40020.	60456.	2400.	39700.	310.	8680.	80.
HB	1620.	40718.	60763.	130.	6960.	120.	3340.	10.
HB	1621.	40884.	60867.	440.	24100.	500.	11610.	30.
HB	1622.	40292.	60260.	4920.	242000.	2040.	73400.	50.
HB	1623.	41220.	60452.	1150.	61320.	620.	9810.	20.
HB	1624.	39649.	60510.	2510.	28800.	430.	16780.	80.
HB	1625.	40488.	61720.	2290.	23370.	250.	8280.	90.
HB	1626.	40635.	61173.	1490.	63700.	790.	29000.	50.
HB	1628.	40727.	61828.	2210.	98990.	1890.	38860.	50.
HB	1629.	39649.	59839.	590.	24450.	330.	8900.	120.
HB	1630.	40392.	61565.	3350.	122230.	1360.	39200.	230.
HB	1631.	39652.	59903.	230.	12840.	180.	4480.	30.
HB	1632.	40187.	60630.	8660.	43790.	350.	16660.	60.
HB	1633.	39790.	60517.	2170.	12710.	170.	7830.	60.
HB	1634.	40302.	61688.	5540.	134930.	5440.	54500.	100.
HB	1635.	40326.	61294.	3230.	83330.	870.	40320.	120.
HB	1636.	39622.	60222.	1900.	90890.	630.	31710.	50.
HB	1637.	39652.	59690.	270.	14990.	90.	4870.	20.
HB	1638.	40728.	60770.	80.	11620.	120.	11800.	10.
HB	1639.	40088.	60370.	4190.	205380.	1920.	52600.	70.
HB	1641.	40487.	61216.	3250.	147020.	1170.	46050.	80.
HB	1642.	40392.	61754.	3270.	85590.	2510.	43090.	100.
HB	1643.	39965.	61063.	1430.	36960.	430.	14720.	70.
HB	1644.	41358.	61220.	350.	9510.	290.	2370.	10.
HB	1645.	41217.	60460.	300.	8230.	110.	3240.	180.
HB	1648.	40477.	61529.	2200.	52180.	500.	19770.	110.
HB	1649.	39723.	59958.	220.	20770.	210.	6560.	30.
HB	1650.	40908.	61220.	900.	9390.	100.	2620.	30.
HB	1652.	40977.	61243.	320.	14970.	280.	8340.	10.
HB	1653.	39539.	59674.	310.	11900.	90.	6390.	10.
HB	1654.	39693.	60018.	2370.	95650.	620.	28080.	70.
HB	1655.	40503.	60959.	410.	6390.	80.	4450.	20.
HB	1656.	40345.	61164.	3070.	128750.	1130.	46220.	90.
HB	1658.	40796.	61219.	1730.	38490.	270.	12800.	70.
HB	1659.	40485.	61125.	3160.	22060.	200.	7810.	50.
HB	1661.	39756.	59946.	240.	34310.	220.	4460.	160.
HB	1662.	39775.	60513.	1660.	20180.	370.	14660.	70.
HB	1663.	40591.	61562.	3050.	82450.	1460.	39720.	90.
HB	1664.	40671.	61726.	2730.	47040.	610.	19010.	60.
HB	1665.	40185.	61162.	3670.	177640.	1830.	42200.	100.
HB	1667.	39695.	59792.	130.	5180.	140.	2500.	400.
HB	1668.	41030.	60587.	910.	46160.	470.	12920.	70.
HB	1669.	40632.	61194.	3430.	192010.	1840.	49200.	60.
HB	1670.	40210.	60330.	3010.	109240.	830.	38300.	60.
HB	1671.	40865.	61199.	1490.	62950.	1590.	39170.	30.
HB	1674.	41177.	60561.	770.	24450.	240.	7700.	150.
HB	1676.	41233.	60468.	540.	32480.	630.	16150.	160.
HB	1677.	40303.	60613.	3030.	56070.	480.	18920.	50.
HB	1678.	39660.	59817.	330.	11660.	90.	2680.	50.
HB	1679.	41356.	61218.	470.	22810.	190.	4620.	50.
HB	1680.	40682.	61264.	1930.	24110.	310.	12300.	70.
HB	1681.	41174.	60765.	1910.	93970.	1360.	13690.	530.
HB	1685.	39891.	60427.	3810.	17120.	220.	3360.	30.
HB	1686.	40795.	61090.	540.	21600.	340.	8040.	20.
HB	1687.	40377.	60636.	2090.	16320.	180.	6100.	40.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1688.	39537.	60404.	1980.	52410.	540.	1072.	70.
HB	1689.	40055.	60830.	210.	11760.	160.	5460.	20.
HB	1691.	39659.	60078.	170.	15660.	120.	5350.	20.
HB	1692.	39658.	60001.	100.	3250.	70.	2940.	10.
HB	1693.	39960.	60010.	480.	19780.	190.	6610.	40.
HB	1694.	40241.	60531.	2200.	57040.	1190.	37100.	40.
HB	1695.	40044.	61162.	2670.	131030.	1590.	46630.	70.
HB	1696.	40570.	61643.	5610.	155680.	4260.	56500.	80.
HB	1697.	40347.	61170.	3460.	61050.	460.	22660.	90.
HB	1698.	39680.	60556.	3150.	15640.	110.	4140.	70.
HB	1699.	40936.	60940.	770.	35990.	1200.	25380.	60.
HB	1700.	40216.	61802.	3890.	54920.	390.	16120.	80.
HB	1701.	41288.	60336.	1740.	36610.	390.	8460.	310.
HB	1702.	41681.	60750.	10300.	202450.	5090.	76670.	150.
HB	1703.	41764.	60147.	2970.	58730.	610.	13160.	110.
HB	1704.	41721.	60386.	2020.	83995.	1100.	24340.	60.
HB	1705.	42200.	59757.	2070.	53150.	380.	6720.	70.
HB	1706.	41316.	60256.	990.	49680.	720.	19210.	210.
HB	1707.	41802.	61047.	9550.	181950.	2720.	49970.	70.
HB	1708.	41753.	60179.	1880.	71220.	710.	16180.	60.
HB	1709.	41427.	60487.	1600.	64150.	580.	13830.	80.
HB	1710.	41082.	60705.	1250.	67030.	790.	20200.	100.
HB	1712.	41370.	60410.	680.	31150.	290.	5540.	70.
HB	1713.	42507.	61665.	5680.	174510.	2540.	25810.	70.
HB	1714.	41595.	60653.	7850.	146470.	2540.	39000.	250.
HB	1715.	41800.	60516.	2330.	63110.	590.	15670.	50.
HB	1716.	41165.	61060.	1600.	60490.	630.	18220.	90.
HB	1719.	41544.	60162.	2250.	82920.	780.	17570.	100.
HB	1720.	41434.	60360.	1890.	55720.	560.	14100.	230.
HB	1721.	39646.	59283.	34110.	29960.	400.	3470.	240.
HB	1723.	42065.	60454.	1440.	43350.	380.	8050.	30.
HB	1724.	41885.	60454.	5770.	103120.	1210.	29090.	130.
HB	1725.	39512.	59296.	1060.	95520.	990.	4970.	50.
HB	1726.	41714.	60330.	2840.	104600.	1800.	29290.	70.
HB	1727.	41450.	60650.	2120.	50300.	980.	19510.	50.
HB	1728.	41271.	60325.	5070.	25220.	280.	7140.	50.
HB	1729.	41821.	60050.	3160.	97590.	1420.	30630.	60.
HB	1730.	41472.	59960.	860.	54890.	320.	8110.	30.
HB	1731.	41608.	61092.	980.	34020.	270.	7700.	20.
HB	1732.	41814.	61087.	8700.	230490.	6630.	78700.	110.
HB	1733.	41493.	60245.	2820.	89610.	1580.	28270.	300.
HB	1734.	41210.	61222.	1140.	28490.	560.	11540.	30.
HB	1735.	42068.	60384.	2460.	78190.	720.	15050.	70.
HB	1736.	41183.	60848.	520.	25060.	250.	9180.	160.
HB	1737.	41429.	60498.	1680.	54530.	500.	16040.	100.
HB	1738.	41945.	61622.	3920.	100200.	980.	19150.	130.
HB	1739.	41344.	60001.	2990.	71250.	590.	14170.	50.
HB	1740.	41600.	61088.	540.	22450.	260.	5670.	20.
HB	1741.	41782.	60083.	3190.	125110.	2390.	36640.	90.
HB	1742.	41765.	60133.	3190.	122110.	1520.	22770.	90.
HB	1744.	41417.	60450.	550.	15590.	140.	4100.	20.
HB	1745.	41530.	60140.	1890.	63150.	540.	11460.	90.
HB	1746.	41723.	60604.	4200.	115250.	740.	24200.	50.
HB	1747.	39540.	59293.	570.	21060.	240.	3120.	30.
HB	1748.	42006.	60338.	3560.	110200.	1400.	30650.	80.
HB	1749.	41085.	60750.	970.	43520.	440.	11410.	80.
HB	1750.	41190.	61183.	2240.	152310.	2760.	35300.	80.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2734.	35824.	58630.	100.	6480.	30.	2810.	10.
HB	2735.	36584.	58390.	240.	43100.	150.	1460.	10.
HB	2736.	36916.	59000.	330.	15240.	80.	1090.	10.
HB	2738.	35989.	59546.	1250.	27590.	430.	2140.	50.
HB	2740.	40010.	62200.	4720.	62700.	1120.	19220.	170.
HB	2741.	35837.	58630.	200.	14690.	70.	3610.	10.
HB	2743.	35936.	58412.	400.	14960.	120.	1200.	10.
HB	2744.	35769.	59070.	250.	19420.	130.	3270.	10.
HB	2745.	40434.	62386.	4400.	166640.	3830.	43500.	70.
HB	2746.	41691.	62199.	1100.	26540.	410.	5130.	20.
HB	2748.	36209.	58198.	340.	15810.	70.	1310.	20.
HB	2749.	41270.	62310.	180.	13020.	110.	2650.	10.
HB	2750.	36208.	58201.	890.	34910.	220.	940.	60.
HB	2751.	36130.	59798.	530.	16430.	160.	4770.	30.
HB	2752.	36152.	58525.	450.	13440.	120.	1960.	10.
HB	2753.	41177.	62229.	310.	32740.	220.	2240.	10.
HB	2754.	36598.	58485.	460.	14340.	130.	2140.	20.
HB	2755.	36592.	58388.	250.	17570.	170.	2720.	40.
HB	2757.	36037.	59484.	980.	15720.	360.	1770.	20.
HB	2758.	35922.	59275.	170.	4610.	50.	1500.	10.
HB	2759.	35974.	59316.	2030.	5050.	60.	1770.	10.
HB	2760.	36288.	58411.	120.	2090.	20.	1380.	10.
HB	2762.	40006.	62205.	4210.	87480.	1220.	24350.	110.
HB	2763.	40724.	62323.	400.	16700.	140.	4460.	10.
HB	2764.	36000.	58524.	160.	4470.	60.	1210.	10.
HB	2765.	40658.	62190.	900.	38500.	280.	7980.	30.
HB	2766.	36242.	58242.	380.	10900.	80.	1300.	20.
HB	2767.	36026.	58284.	360.	9330.	120.	1040.	20.
HB	2768.	40679.	62312.	550.	18350.	220.	6820.	20.
HB	2769.	40638.	62342.	1020.	54690.	860.	23940.	40.
HB	2770.	35990.	59384.	230.	3950.	40.	1800.	10.
HB	2771.	39960.	62330.	2240.	23350.	300.	10930.	80.
HB	2772.	40359.	62428.	3200.	73940.	790.	19450.	90.
HB	2774.	36037.	58293.	200.	8830.	140.	970.	10.
HB	2775.	40255.	62419.	3950.	99820.	1130.	22350.	100.
HB	2776.	35992.	59456.	400.	5920.	100.	1360.	30.
HB	2777.	35883.	58622.	260.	12060.	60.	2800.	10.
HB	2778.	35882.	59020.	120.	8200.	40.	1480.	10.
HB	2779.	41169.	62382.	410.	16980.	100.	4820.	10.
HB	2780.	36235.	59203.	100.	5380.	40.	1140.	10.
HB	2781.	36718.	58583.	220.	16690.	120.	2140.	10.
HB	2782.	35902.	58626.	1860.	45610.	450.	15090.	50.
HB	2783.	36076.	58350.	570.	35750.	250.	1000.	110.
HB	2784.	36222.	59840.	200.	13910.	180.	1990.	10.
HB	2785.	36220.	59841.	240.	6080.	100.	2770.	20.
HB	2788.	36253.	58336.	260.	9560.	70.	1480.	30.
HB	2789.	36339.	58226.	220.	10020.	60.	1040.	20.
HB	2790.	40092.	62254.	2270.	25610.	250.	6750.	80.
HB	2791.	40468.	62357.	5650.	129830.	6110.	43900.	60.
HB	2792.	35864.	58616.	170.	12480.	70.	1730.	20.
HB	2793.	36135.	59497.	700.	18390.	170.	2940.	40.
HB	2794.	40970.	62088.	320.	15650.	120.	4540.	20.
HB	2795.	35764.	58514.	820.	24000.	210.	5660.	30.
HB	2796.	40801.	62396.	510.	19520.	210.	6160.	20.
HB	2797.	40552.	62340.	320.	8180.	80.	1370.	20.
HB	2798.	41635.	62207.	490.	9460.	120.	1990.	20.
HB	2799.	36130.	59395.	200.	4790.	40.	920.	10.

CHEMICAL DATA FOR PANNED CONCENTRATES; (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2666.	37701.	60012.	130.	10480.	50.	1230.	10.
HB	2667.	36457.	58530.	280.	7220.	50.	1870.	10.
HB	2668.	37571.	58641.	440.	40860.	150.	1685.	60.
HB	2669.	36722.	59607.	170.	11870.	120.	4010.	10.
HB	2670.	37390.	59374.	180.	25460.	100.	1280.	10.
HB	2671.	37126.	58910.	190.	9520.	70.	5090.	20.
HB	2673.	36607.	59223.	220.	5619.	90.	1940.	10.
HB	2675.	37527.	58652.	420.	21430.	200.	1570.	20.
HB	2677.	37809.	60075.	400.	6650.	70.	3760.	20.
HB	2678.	37788.	58646.	190.	10870.	110.	1020.	10.
HB	2679.	37180.	58990.	540.	20980.	220.	3870.	30.
HB	2680.	36947.	59225.	170.	6830.	50.	2080.	20.
HB	2681.	37123.	58910.	210.	8630.	60.	4360.	20.
HB	2682.	36417.	58826.	220.	5470.	60.	1990.	10.
HB	2684.	36086.	58968.	370.	28020.	160.	1970.	40.
HB	2685.	37619.	60075.	340.	6330.	90.	2720.	20.
HB	2686.	36653.	59239.	210.	5250.	60.	2060.	10.
HB	2687.	36872.	58880.	110.	5070.	40.	2080.	10.
HB	2688.	36646.	59251.	180.	10970.	90.	1130.	10.
HB	2690.	37078.	60015.	580.	9790.	70.	3170.	20.
HB	2691.	36622.	59114.	240.	12490.	170.	1880.	70.
HB	2693.	36255.	58906.	280.	39570.	160.	2150.	70.
HB	2694.	36493.	59766.	220.	5270.	90.	710.	20.
HB	2695.	37254.	58768.	180.	23280.	230.	1910.	20.
HB	2696.	37771.	60108.	390.	6590.	150.	1410.	30.
HB	2697.	37572.	58896.	240.	26870.	180.	3390.	20.
HB	2699.	36593.	59180.	160.	7750.	60.	1520.	10.
HB	2700.	37295.	59386.	210.	21770.	110.	1700.	10.
HB	2701.	35904.	59140.	100.	6290.	40.	1450.	10.
HB	2702.	41028.	62150.	140.	16800.	70.	2080.	10.
HB	2703.	35926.	58288.	90.	2340.	30.	1770.	10.
HB	2704.	35842.	58572.	3240.	60860.	700.	25100.	90.
HB	2705.	35962.	58475.	150.	5850.	40.	1430.	10.
HB	2706.	40977.	62089.	330.	20140.	250.	6320.	10.
HB	2707.	35873.	59284.	110.	3880.	40.	2380.	10.
HB	2708.	37019.	59644.	140.	10410.	40.	2220.	10.
HB	2710.	35926.	58630.	570.	16590.	90.	3460.	20.
HB	2711.	36270.	58289.	340.	17590.	360.	1200.	10.
HB	2712.	36109.	58445.	350.	10870.	90.	1220.	20.
HB	2713.	36464.	58351.	210.	5720.	30.	1440.	10.
HB	2714.	36112.	58605.	1960.	43040.	470.	16900.	90.
HB	2715.	35762.	58518.	1470.	54670.	440.	20500.	70.
HB	2716.	36268.	58875.	50.	13680.	50.	2370.	10.
HB	2718.	40169.	62345.	3800.	50960.	820.	16270.	140.
HB	2719.	41152.	62352.	410.	6480.	90.	1800.	10.
HB	2720.	36088.	58956.	600.	20370.	430.	3560.	20.
HB	2721.	36382.	58962.	450.	9990.	130.	1830.	20.
HB	2722.	36500.	58953.	310.	16290.	170.	1070.	20.
HB	2723.	36705.	58955.	200.	6820.	70.	1790.	10.
HB	2724.	41093.	62253.	260.	13160.	100.	1790.	10.
HB	2725.	36398.	58854.	340.	9360.	70.	3110.	20.
HB	2726.	41487.	62316.	2480.	17130.	180.	3930.	20.
HB	2728.	36295.	58885.	260.	6430.	64.	1670.	10.
HB	2729.	36096.	58858.	560.	10250.	100.	2760.	10.
HB	2731.	36307.	58846.	210.	5880.	40.	1740.	10.
HB	2732.	36010.	58289.	7750.	15450.	200.	1160.	30.
HB	2733.	35977.	59416.	200.	6170.	120.	1060.	20.

GEOCHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2598.	36835.	59670.	150.	13060.	80.	3970.	10.
HB	2599.	37523.	59120.	270.	31460.	170.	4010.	40.
HB	2600.	37047.	59540.	140.	10330.	40.	1750.	10.
HB	2601.	37269.	59376.	120.	8250.	40.	1680.	10.
HB	2602.	36290.	59138.	260.	7750.	70.	1700.	10.
HB	2603.	36389.	59617.	150.	4470.	50.	840.	10.
HB	2604.	36473.	59532.	320.	7930.	130.	3860.	20.
HB	2605.	36482.	59745.	190.	7260.	60.	970.	10.
HB	2607.	36708.	59606.	230.	10040.	110.	2130.	10.
HB	2608.	36357.	58550.	270.	7010.	50.	2130.	10.
HB	2609.	36034.	59060.	200.	10330.	80.	3100.	10.
HB	2610.	36717.	59242.	250.	8530.	40.	990.	10.
HB	2611.	36048.	59612.	1080.	21720.	170.	4590.	40.
HB	2613.	36519.	59623.	230.	3850.	60.	910.	30.
HB	2616.	37360.	59520.	170.	16110.	90.	1640.	20.
HB	2618.	36948.	59176.	150.	7600.	50.	2310.	10.
HB	2619.	36242.	59478.	240.	7230.	80.	4640.	10.
HB	2620.	36736.	59327.	40.	33290.	50.	1270.	10.
HB	2621.	36693.	59340.	180.	3760.	40.	790.	10.
HB	2622.	36085.	59601.	430.	5076.	100.	1330.	20.
HB	2623.	37731.	58640.	545.	56730.	340.	1970.	60.
HB	2624.	36939.	59212.	220.	10490.	130.	2760.	10.
HB	2625.	36852.	59340.	230.	9310.	40.	790.	10.
HB	2626.	37558.	59224.	160.	29690.	140.	1960.	20.
HB	2627.	37582.	59120.	160.	27790.	120.	2020.	20.
HB	2628.	37414.	58629.	630.	19386.	270.	1230.	80.
HB	2629.	37100.	59020.	170.	9510.	50.	2550.	20.
HB	2630.	36708.	59258.	150.	5810.	50.	1250.	10.
HB	2632.	36960.	59251.	220.	11390.	100.	2820.	20.
HB	2633.	36962.	59223.	180.	10440.	60.	3110.	10.
HB	2634.	36579.	59180.	240.	3360.	40.	1610.	10.
HB	2635.	36598.	58504.	170.	13570.	60.	2230.	10.
HB	2636.	37613.	58700.	210.	14270.	170.	1180.	20.
HB	2637.	37664.	60000.	260.	6400.	40.	760.	10.
HB	2638.	36100.	58953.	240.	11940.	80.	2150.	10.
HB	2639.	36076.	59704.	190.	10690.	110.	1830.	10.
HB	2640.	37610.	59110.	230.	17690.	150.	4450.	20.
HB	2641.	37174.	58891.	1440.	7520.	230.	2940.	20.
HB	2642.	37569.	59149.	180.	11770.	40.	1950.	10.
HB	2643.	36644.	59588.	1030.	15350.	370.	6690.	20.
HB	2644.	37622.	60237.	370.	10160.	100.	1880.	40.
HB	2645.	37248.	58904.	160.	10170.	110.	2650.	20.
HB	2646.	37126.	59090.	100.	2690.	20.	1270.	10.
HB	2647.	36230.	58977.	330.	14050.	60.	1950.	10.
HB	2648.	36423.	59028.	350.	31670.	150.	2780.	20.
HB	2649.	36538.	59658.	260.	7620.	120.	3100.	10.
HB	2650.	36939.	59124.	240.	7310.	80.	3280.	20.
HB	2652.	37639.	58655.	530.	50020.	390.	1780.	80.
HB	2653.	37325.	58818.	320.	23830.	180.	2150.	20.
HB	2654.	37202.	59981.	280.	16110.	80.	1830.	10.
HB	2655.	36507.	58629.	520.	12780.	90.	3030.	10.
HB	2656.	36951.	59278.	150.	10980.	70.	4490.	20.
HB	2657.	37625.	58753.	210.	21050.	110.	1860.	30.
HB	2658.	36138.	59565.	250.	3780.	120.	3280.	10.
HB	2660.	36941.	59182.	240.	8410.	100.	7650.	10.
HB	2661.	36616.	58588.	710.	39450.	320.	6650.	30.
HB	2664.	36570.	59559.	280.	9110.	250.	5010.	10.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	991.	35932.	56660.	87.	6.	-1.	-1.	-1.
HB	992.	39644.	56792.	52.	2.	-1.	-1.	-1.
HB	993.	36203.	56659.	30.	4.	-1.	-1.	-1.
HB	994.	36173.	56713.	47.	0.	-1.	-1.	-1.
HB	998.	39526.	56637.	13.	7.	-1.	-1.	-1.
HB	999.	36570.	56533.	19.	9.	-1.	-1.	-1.
HB	1000.	36621.	56723.	65.	7.	-1.	-1.	-1.
HB	1003.	40268.	56544.	21.	0.	-1.	-1.	-1.
HB	1004.	40224.	56472.	105.	0.	-1.	-1.	-1.
HB	1005.	40425.	57351.	12.	8.	-1.	-1.	-1.
HB	1007.	39920.	57027.	116.	6.	-1.	-1.	-1.
HB	1009.	36063.	56505.	32.	2.	-1.	-1.	-1.
HB	1010.	35737.	56710.	73.	9.	-1.	-1.	-1.
HB	1011.	36552.	56660.	7.	10.	-1.	-1.	-1.
HB	1014.	35836.	56603.	36.	1.	-1.	-1.	-1.
HB	1015.	35915.	56365.	17.	5.	-1.	-1.	-1.
HB	1016.	35745.	56176.	0.	0.	-1.	-1.	-1.
HB	1020.	35670.	56227.	0.	37.	-1.	-1.	-1.
HB	1021.	39968.	56765.	57.	8.	-1.	-1.	-1.
HB	1025.	36504.	56106.	131.	1.	-1.	-1.	-1.
HB	1026.	40100.	56743.	488.	3.	-1.	-1.	-1.
HB	1027.	36640.	56668.	0.	3.	-1.	-1.	-1.
HB	1030.	35787.	56340.	21.	9.	-1.	-1.	-1.
HB	1034.	35990.	56770.	0.	3.	-1.	-1.	-1.
HB	1036.	36730.	55965.	4.	5.	-1.	-1.	-1.
HB	1038.	35975.	56190.	37.	5.	-1.	-1.	-1.
HB	1040.	40245.	56394.	100.	7.	-1.	-1.	-1.
HB	1042.	40300.	57388.	61.	2.	-1.	-1.	-1.
HB	1043.	36470.	55958.	30.	9.	-1.	-1.	-1.
HB	1044.	39981.	57460.	79.	2.	-1.	-1.	-1.
HB	1046.	40670.	56678.	70.	1.	-1.	-1.	-1.
HB	1050.	40068.	56682.	90.	10.	-1.	-1.	-1.
HB	1053.	39742.	57353.	47.	4.	-1.	-1.	-1.
HB	1054.	36418.	56072.	99.	2.	-1.	-1.	-1.
HB	1056.	39943.	56578.	7.	0.	-1.	-1.	-1.
HB	1059.	36607.	56082.	0.	0.	-1.	-1.	-1.
HB	1060.	39865.	56550.	36.	4.	-1.	-1.	-1.
HB	1062.	35780.	55990.	0.	6.	-1.	-1.	-1.
HB	1063.	35732.	56720.	38.	9.	-1.	-1.	-1.
HB	1064.	36650.	56730.	5.	3.	-1.	-1.	-1.
HB	1067.	40115.	57020.	29.	4.	-1.	-1.	-1.
HB	1071.	40581.	57306.	23.	3.	-1.	-1.	-1.
HB	1072.	40389.	57144.	50.	0.	-1.	-1.	-1.
HB	1073.	36520.	56090.	0.	0.	-1.	-1.	-1.
HB	1078.	35934.	56519.	56.	4.	-1.	-1.	-1.
HB	1080.	35821.	56410.	0.	2.	-1.	-1.	-1.
HB	1081.	36317.	55952.	18.	27.	-1.	-1.	-1.
HB	1082.	36639.	56009.	0.	6.	-1.	-1.	-1.
HB	1083.	40030.	57040.	167.	3.	-1.	-1.	-1.
HB	1084.	40509.	57304.	30.	0.	-1.	-1.	-1.
HB	1085.	39969.	56644.	85.	1.	-1.	-1.	-1.
HB	1086.	35859.	56217.	0.	2.	-1.	-1.	-1.
HB	1088.	35693.	56644.	13.	3.	-1.	-1.	-1.
HB	1089.	36640.	56040.	18.	0.	-1.	-1.	-1.
HB	1090.	39812.	57410.	15.	0.	-1.	-1.	-1.
HB	1091.	35778.	56180.	0.	4.	-1.	-1.	-1.
HB	1092.	35880.	56270.	141.	10.	-1.	-1.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CESIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CESIUM	ANTIMONY	URANIUM	ZR	MO
HB	815.	38163.	57415.	45.	4.	-1.	-1.	-1.
HB	817.	39212.	57172.	6.	8.	-1.	-1.	-1.
HB	818.	39356.	57600.	25.	3.	-1.	-1.	-1.
HB	819.	37367.	57333.	17.	4.	-1.	-1.	-1.
HB	820.	38224.	57330.	47.	0.	-1.	-1.	-1.
HB	821.	36730.	56417.	37.	0.	-1.	-1.	-1.
HB	822.	39190.	56352.	73.	12.	-1.	-1.	-1.
HB	823.	37957.	56080.	0.	3.	-1.	-1.	-1.
HB	824.	39289.	56880.	1007.	0.	-1.	-1.	-1.
HB	825.	38408.	57345.	38.	2.	-1.	-1.	-1.
HB	828.	38102.	57563.	46.	10.	-1.	-1.	-1.
HB	830.	39290.	57405.	31.	0.	-1.	-1.	-1.
HB	832.	38641.	56526.	110.	0.	-1.	-1.	-1.
HB	833.	39169.	57770.	53.	8.	-1.	-1.	-1.
HB	834.	36716.	56220.	24.	5.	-1.	-1.	-1.
HB	835.	37983.	56254.	10.	20.	-1.	-1.	-1.
HB	837.	38888.	57706.	48.	0.	-1.	-1.	-1.
HB	838.	38412.	57340.	22.	0.	-1.	-1.	-1.
HB	839.	37324.	57363.	6.	7.	-1.	-1.	-1.
HB	840.	39420.	56589.	67.	0.	-1.	-1.	-1.
HB	841.	39557.	57240.	66.	7.	-1.	-1.	-1.
HB	844.	39335.	57510.	89.	17.	-1.	-1.	-1.
HB	846.	39410.	57708.	0.	4.	-1.	-1.	-1.
HB	847.	39002.	57758.	17.	9.	-1.	-1.	-1.
HB	848.	38330.	57367.	39.	0.	-1.	-1.	-1.
HB	849.	39730.	57196.	32.	0.	-1.	-1.	-1.
HB	851.	39162.	57776.	64.	1.	-1.	-1.	-1.
HB	855.	36736.	56370.	105.	10.	-1.	-1.	-1.
HB	856.	39044.	56523.	91.	9.	-1.	-1.	-1.
HB	857.	36757.	55359.	94.	5.	-1.	-1.	-1.
HB	858.	39289.	57512.	80.	3.	-1.	-1.	-1.
HB	860.	37942.	56255.	0.	5.	-1.	-1.	-1.
HB	861.	37190.	57198.	4.	1.	-1.	-1.	-1.
HB	863.	39343.	57424.	47.	5.	-1.	-1.	-1.
HB	864.	38310.	57353.	14.	0.	-1.	-1.	-1.
HB	865.	37230.	57260.	14.	5.	-1.	-1.	-1.
HB	866.	39440.	57435.	51.	6.	-1.	-1.	-1.
HB	867.	39400.	57132.	113.	0.	-1.	-1.	-1.
HB	868.	38584.	57350.	39.	5.	-1.	-1.	-1.
HB	869.	39090.	57624.	55.	1.	-1.	-1.	-1.
HB	870.	38783.	56[illegible].	196.	5.	-1.	-1.	-1.
HB	871.	38510.	57[illegible].	0.	0.	-1.	-1.	-1.
HB	872.	39130.	57[illegible].	42.	0.	-1.	-1.	-1.
HB	874.	39544.	57119.	62.	8.	-1.	-1.	-1.
HB	875.	39349.	56623.	0.	10.	-1.	-1.	-1.
HB	876.	39183.	56358.	287.	2.	-1.	-1.	-1.
HB	879.	39058.	57[illegible].	[illegible]	0.	-1.	-1.	-1.
HB	880.	39320.	52500.	6.	1.	-1.	-1.	-1.
HB	881.	[illegible]0260.	56053.	21.	1.	-1.	-1.	-1.
HB	883.	38799.	55922.	196.	0.	-1.	-1.	-1.
HB	884.	39360.	56708.	0.	10.	-1.	-1.	-1.
HB	885.	39442.	56821.	0.	0.	-1.	-1.	-1.
HB	887.	[illegible]2269.	57610.	37.	9.	-1.	-1.	-1.
HB	888.	[illegible]9213.	57321.	[illegible]9.	5.	-1.	-1.	-1.
HB	891.	39615.	57245.	31.	0.	-1.	-1.	-1.
HB	892.	[illegible]0[illegible].	57[illegible].	6.	5.	-1.	-1.	-1.
HB	892.	[illegible]0[illegible].	56[illegible].	177.	6.	-1.	-1.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	893.	39569.	57135.	151.	0.	-1.	-1.	-1.
HB	894.	39277.	57356.	61.	1.	-1.	-1.	-1.
HB	897.	38730.	55960.	60.	0.	-1.	-1.	-1.
HB	898.	36878.	55435.	90.	4.	-1.	-1.	-1.
HB	899.	39067.	56952.	92.	0.	-1.	-1.	-1.
HB	901.	39937.	56076.	1864.	1.	-1.	-1.	-1.
HB	903.	39647.	56167.	0.	0.	-1.	-1.	-1.
HB	904.	39662.	56667.	21.	9.	-1.	-1.	-1.
HB	905.	39870.	56814.	0.	8.	-1.	-1.	-1.
HB	907.	39608.	56696.	6.	1.	-1.	-1.	-1.
HB	909.	36131.	56738.	33.	5.	-1.	-1.	-1.
HB	910.	35529.	56728.	43.	0.	-1.	-1.	-1.
HB	911.	3[illegible].	56654.	55.	13.	-1.	-1.	-1.
HB	912.	39725.	56229.	16.	1.	-1.	-1.	-1.
HB	915.	35740.	56372.	22.	8.	-1.	-1.	-1.
HB	917.	36604.	56239.	0.	0.	-1.	-1.	-1.
HB	918.	35746.	56018.	0.	8.	-1.	-1.	-1.
HB	919.	36600.	56231.	2.	4.	-1.	-1.	-1.
HB	920.	38975.	57797.	48.	0.	-1.	-1.	-1.
HB	924.	37165.	56448.	0.	0.	-1.	-1.	-1.
HB	925.	36498.	56753.	24.	6.	-1.	-1.	-1.
HB	926.	35941.	56805.	22.	0.	-1.	-1.	-1.
HB	927.	36066.	56430.	46.	2.	-1.	-1.	-1.
HB	928.	36280.	56542.	26.	0.	-1.	-1.	-1.
HB	929.	38968.	57790.	70.	0.	-1.	-1.	-1.
HB	931.	39718.	56570.	55.	5.	-1.	-1.	-1.
HB	933.	39598.	56045.	705.	5.	-1.	-1.	-1.
HB	935.	39848.	56009.	1566.	11.	-1.	-1.	-1.
HB	936.	36006.	56943.	44.	5.	-1.	-1.	-1.
HB	940.	36239.	56475.	41.	6.	-1.	-1.	-1.
HB	941.	36503.	56747.	29.	4.	-1.	-1.	-1.
HB	942.	39550.	55982.	241.	34.	-1.	-1.	-1.
HB	943.	35686.	56506.	30.	3.	-1.	-1.	-1.
HB	946.	36607.	57109.	34.	7.	-1.	-1.	-1.
HB	947.	35953.	56829.	40.	7.	-1.	-1.	-1.
HB	952.	3[illegible].	57823.	22.	1.	-1.	-1.	-1.
HB	954.	3[illegible].	56485.	0.	0.	-1.	-1.	-1.
HB	955.	39152.	55868.	162.	11.	-1.	-1.	-1.
HB	956.	35787.	56753.	0.	1.	-1.	-1.	-1.
HB	957.	35640.	56886.	7.	6.	-1.	-1.	-1.
HB	960.	36626.	56440.	50.	0.	-1.	-1.	-1.
HB	961.	36480.	57059.	33.	4.	-1.	-1.	-1.
HB	962.	35903.	56851.	13.	5.	-1.	-1.	-1.
HB	963.	36387.	56834.	78.	0.	-1.	-1.	-1.
HB	964.	39849.	56947.	48.	4.	-1.	-1.	-1.
HB	966.	36282.	57080.	14.	2.	-1.	-1.	-1.
HB	969.	35730.	56358.	44.	2.	-1.	-1.	-1.
HB	972.	36647.	56384.	0.	2.	-1.	-1.	-1.
HB	973.	39031.	57827.	87.	2.	-1.	-1.	-1.
HB	977.	36271.	56320.	617.	0.	-1.	-1.	-1.
HB	978.	36462.	56270.	15.	2.	-1.	-1.	-1.
HB	980.	36541.	56278.	5.	0.	-1.	-1.	-1.
HB	982.	36309.	56414.	108.	0.	-1.	-1.	-1.
HB	983.	36247.	56828.	23.	2.	-1.	-1.	-1.
HB	984.	36[illegible].	56600.	15.	1.	-1.	-1.	-1.
HB	987.	36088.	56801.	11.	1.	-1.	-1.	-1.
HB	990.	36190.	56342.	42.	4.	-1.	-1.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2043.	38676.	59954.	18.	0.	0.	1670.	0.
HB	2044.	38804.	60358.	39.	1.	0.	1920.	1.
HB	2045.	38928.	59448.	11.	0.	0.	680.	2.
HB	2046.	38261.	59940.	23.	3.	0.	1240.	0.
HB	2047.	38218.	60191.	45.	0.	0.	2220.	2.
HB	2048.	38588.	60140.	24.	0.	0.	1100.	0.
HB	2049.	39420.	59692.	201.	0.	10.	8270.	1.
HB	2050.	38949.	59499.	6.	0.	0.	720.	0.
HB	2051.	38693.	59816.	65.	0.	0.	4350.	2.
HB	2052.	38577.	60393.	42.	0.	0.	2970.	0.
HB	2053.	38279.	60015.	21.	0.	0.	1980.	1.
HB	2054.	38570.	60371.	58.	0.	0.	3650.	0.
HB	2055.	38607.	60010.	86.	0.	0.	6580.	3.
HB	2056.	38318.	59881.	22.	0.	0.	1520.	0.
HB	2057.	39415.	59751.	89.	0.	10.	4250.	1.
HB	2058.	38120.	59960.	18.	4.	0.	1740.	3.
HB	2059.	39489.	59921.	218.	4.	10.	10840.	1.
HB	2060.	39126.	59224.	42.	1.	0.	3320.	0.
HB	2061.	38948.	59700.	194.	0.	10.	10680.	2.
HB	2062.	39372.	59935.	252.	0.	20.	9460.	1.
HB	2063.	38639.	59641.	108.	7.	10.	4850.	0.
HB	2064.	38936.	59662.	9.	2.	0.	690.	3.
HB	2065.	38781.	60298.	49.	7.	0.	2840.	0.
HB	2066.	38740.	59916.	269.	0.	10.	11810.	1.
HB	2067.	37865.	60395.	24.	3.	0.	3210.	1.
HB	2068.	37856.	60325.	35.	9.	0.	1780.	0.
HB	2069.	39379.	59942.	56.	0.	0.	2380.	1.
HB	2070.	39356.	59302.	109.	1.	10.	5140.	1.
HB	2071.	39250.	59288.	152.	0.	10.	7980.	4.
HB	2072.	39237.	59541.	60.	0.	0.	2120.	2.
HB	2073.	38630.	59488.	0.	4.	0.	4500.	6.
HB	2075.	38076.	60188.	19.	7.	0.	1490.	0.
HB	2078.	38939.	59720.	281.	26.	10.	10530.	4.
HB	2079.	38099.	60020.	33.	0.	0.	1510.	1.
HB	2080.	38062.	60097.	16.	3.	0.	1510.	1.
HB	2081.	39268.	59434.	112.	1.	0.	3930.	0.
HB	2083.	38573.	60208.	214.	0.	20.	23980.	1.
HB	2084.	38075.	60180.	17.	0.	0.	2160.	0.
HB	2085.	39194.	59282.	209.	2.	10.	9200.	1.
HB	2086.	38280.	60083.	4.	5.	0.	280.	1.
HB	2087.	39172.	59750.	95.	5.	0.	3210.	0.
HB	2088.	38304.	59763.	4.	2.	0.	520.	0.
HB	2089.	38711.	59755.	51.	4.	10.	3510.	0.
HB	2091.	38238.	60341.	9.	5.	0.	1000.	0.
HB	2092.	38579.	60039.	0.	0.	0.	1290.	0.
HB	2094.	38600.	60122.	17.	0.	0.	1400.	0.
HB	2095.	38850.	59547.	41.	5.	0.	1340.	0.
HB	2096.	39179.	59300.	45.	3.	0.	1430.	1.
HB	2097.	39342.	59791.	106.	0.	10.	2870.	2.
HB	2098.	38102.	60023.	0.	0.	0.	310.	1.
HB	2100.	38810.	60068.	107.	0.	10.	8260.	0.
HB	2101.	38937.	60[illegible].	34.	5.	0.	2360.	0.
HB	2102.	39456.	59719.	55.	0.	0.	2660.	1.
HB	2105.	38435.	59309.	26.	3.	0.	1370.	0.
HB	2107.	39437.	60238.	61.	2.	0.	4590.	0.
HB	210[illegible].	38942.	58910.	150.	0.	10.	8970.	3.
HB	210[illegible].	38880.	59090.	30.	0.	0.	1980.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1752.	41997.	60336.	66.	0.	0.	2000.	7.
HB	1753.	41902.	60339.	191.	3.	10.	4670.	4.
HB	1754.	42204.	60737.	72.	0.	[illegible]	1950.	[illegible]
HB	1755.	42020.	60490.	135.	6.	[illegible]	3510.	[illegible]
HB	1756.	41389.	60752.	164.	3.	10.	5690.	2.
HB	1757.	42164.	61417.	366.	9.	20.	11300.	7.
HB	1758.	42431.	61766.	489.	7.	20.	8310.	8.
HB	1761.	41168.	60913.	118.	1.	10.	7230.	2.
HB	1762.	42118.	61304.	119.	0.	10.	4170.	3.
HB	1763.	41510.	60704.	150.	0.	10.	5210.	2.
HB	1764.	41456.	60265.	147.	0.	10.	5[illegible].	6.
HB	1765.	41610.	60764.	285.	7.	0.	8.[illegible].	5.
HB	1766.	42023.	60680.	212.	0.	10.	5870.	3.
HB	1767.	41332.	60888.	178.	0.	10.	6110.	6.
HB	1768.	42224.	60670.	607.	10.	20.	13440.	8.
HB	1769.	41929.	60483.	271.	1.	10.	7566.	4.
HB	1770.	41537.	60[illegible].	184.	2.	10.	5710.	2.
HB	1771.	41604.	61070.	299.	5.	10.	9110.	5.
HB	1772.	41446.	60667.	93.	0.	0.	3470.	1.
HB	1773.	40785.	61773.	671.	1.	30.	28400.	19.
HB	1775.	42127.	61096.	344.	10.	0.	7530.	7.
HB	1777.	39675.	59304.	0.	1.	0.	1970.	3.
HB	1778.	41372.	60477.	106.	7.	10.	4410.	3.
HB	1779.	41716.	60957.	130.	8.	10.	4160.	1.
HB	1780.	42021.	60260.	230.	2.	10.	5170.	8.
HB	1781.	41731.	60665.	261.	7.	10.	6150.	13.
HB	1782.	41170.	61203.	515.	8.	30.	21260.	9.
HB	1783.	41665.	60575.	190.	5.	0.	5980.	6.
HB	1784.	41464.	60299.	167.	0.	10.	6610.	5.
HB	1785.	42069.	60415.	441.	0.	20.	10910.	1.
HB	1786.	41587.	59973.	214.	9.	10.	9980.	0.
HB	1787.	41565.	60168.	0.	8.	0.	3040.	2.
HB	1788.	42510.	61676.	629.	1.	20.	9960.	8.
HB	1789.	42026.	61510.	193.	0.	[illegible]	58[illegible].	1.
HB	1790.	39502.	59733.	57.	0.	0.	2300.	2.
HB	1791.	39509.	59400.	25.	0.	0.	5320.	3.
HB	1794.	41305.	60361.	170.	0.	10.	10370.	3.
HB	1796.	42009.	60708.	164.	1.	10.	4590.	1.
HB	1798.	41651.	60062.	77.	0.	0.	4620.	2.
HB	1799.	42117.	60449.	128.	5.	10.	3040.	2.
HB	1800.	41125.	60041.	158.	6.	0.	6030.	4.
HB	1812.	41406.	61829.	564.	0.	20.	16360.	2.
HB	1817.	42004.	61059.	185.	11.	0.	3900.	11.
HB	1819.	42350.	61237.	424.	6.	10.	12880.	7.
HB	1820.	41493.	61[illegible].	95.	7.	10.	4780.	4.
HB	1821.	41894.	60956.	199.	3.	10.	[illegible]90.	6.
HB	1822.	40715.	61956.	293.	5.	20.	18[illegible].	11.
HB	1823.	41301.	61500.	52.	1.	0.	28[illegible].	1.
HB	1825.	41290.	61814.	215.	0.	20.	10950.	2.
HB	1836.	41513.	61650.	177.	0.	10.	5220.	10.
HB	1837.	41544.	61818.	170.	2.	10.	6960.	10.
HB	1838.	41962.	61051.	93.	5.	0.	2[illegible]0.	3.
HB	1839.	42129.	61142.	75.	0.	0.	1[illegible].	0.
HB	1840.	41703.	61743.	84.	9.	0.	36[illegible].	1.
HB	1847.	41938.	61090.	55.	7.	0.	2610.	9.
HB	1851.	41900.	60995.	177.	6.	10.	4460.	5.
HB	1852.	41[illegible].	61720.	207.	0.	1[illegible].	8010.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES; (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1857.	42357.	61847.	111.	0.	0.	3200.	1.
HB	1859.	42350.	61839.	255.	0.	16.	5220.	5.
HB	1860.	42340.	61368.	168.	40.	10.	3380.	9.
HB	1861.	42255.	61870.	54.	5.	0.	970.	3.
HB	1865.	41143.	61695.	559.	0.	30.	20100.	6.
HB	1866.	41690.	61752.	173.	0.	10.	5800.	1.
HB	1868.	41442.	61543.	34.	0.	0.	2280.	4.
HB	1869.	41299.	61740.	146.	0.	0.	6540.	5.
HB	1870.	41526.	61481.	146.	5.	10.	9890.	3.
HB	1871.	41244.	61694.	220.	4.	10.	7960.	6.
HB	1872.	42121.	61154.	120.	1.	0.	2720.	6.
HB	1875.	41060.	61970.	296.	5.	20.	11080.	0.
HB	1876.	40836.	61970.	216.	1.	10.	9570.	2.
HB	1877.	41388.	61730.	79.	1.	0.	2150.	1.
HB	1880.	41575.	61403.	384.	1.	10.	12130.	0.
HB	1882.	41800.	61308.	45.	16.	0.	2210.	9.
HB	1884.	42314.	61073.	730.	2.	30.	18130.	0.
HB	1885.	41814.	61867.	104.	0.	0.	3300.	2.
HB	1887.	41703.	61308.	46.	0.	0.	1830.	2.
HB	1890.	41221.	61110.	166.	0.	10.	6010.	2.
HB	1891.	41222.	61068.	124.	5.	10.	4640.	7.
HB	1893.	41625.	61017.	150.	7.	0.	5080.	7.
HB	1894.	41149.	61070.	337.	7.	20.	13620.	12.
HB	1900.	42108.	61222.	172.	3.	10.	4950.	6.
HB	2002.	39171.	59728.	115.	2.	10.	5560.	1.
HB	2003.	38228.	60219.	69.	2.	0.	5620.	3.
HB	2004.	38228.	60191.	53.	1.	0.	2460.	3.
HB	2005.	39154.	59603.	87.	0.	0.	3970.	1.
HB	2006.	38310.	60190.	15.	1.	0.	1030.	0.
HB	2008.	39429.	59962.	61.	1.	0.	2530.	0.
HB	2009.	38864.	60351.	69.	11.	0.	4200.	2.
HB	2010.	38025.	60590.	68.	0.	10.	6900.	2.
HB	2013.	38750.	59598.	104.	0.	10.	4900.	1.
HB	2014.	38590.	60225.	16.	1.	0.	210.	0.
HB	2015.	38858.	59430.	19.	1.	0.	730.	0.
HB	2016.	38765.	60053.	140.	0.	10.	8230.	2.
HB	2017.	38954.	59450.	21.	5.	0.	890.	0.
HB	2018.	38919.	59730.	119.	0.	0.	7930.	2.
HB	2021.	38060.	60280.	55.	1.	0.	5040.	0.
HB	2022.	39594.	59734.	113.	0.	10.	4130.	0.
HB	2023.	38643.	59923.	36.	2.	10.	4440.	0.
HB	2024.	39207.	59448.	41.	0.	0.	2270.	5.
HB	2025.	39298.	59274.	161.	4.	10.	6720.	3.
HB	2026.	37828.	60173.	55.	0.	10.	5060.	2.
HB	2027.	38251.	60077.	1.	0.	0.	470.	0.
HB	2028.	38796.	60329.	6.	0.	0.	620.	0.
HB	2029.	38790.	60402.	61.	0.	10.	6440.	0.
HB	2030.	37853.	60322.	82.	0.	0.	6700.	0.
HB	2031.	38662.	59668.	161.	4.	10.	7270.	0.
HB	2033.	38240.	60245.	73.	0.	0.	4990.	0.
HB	2034.	38668.	60365.	28.	0.	0.	3970.	0.
HB	2035.	39000.	59276.	58.	0.	0.	2010.	0.
HB	2037.	39192.	59399.	85.	0.	0.	4530.	0.
HB	2038.	38678.	60358.	33.	0.	0.	1780.	0.
HB	2040.	38898.	59611.	63.	0.	0.	3570.	0.
HB	2041.	38651.	59584.	299.	0.	10.	14550.	3.
HB	2042.	39480.	59909.	120.	6.	0.	5840.	0.

PROJCODE	SAMPLE NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2800.	38486.	59513.	30.	0.	0.	1390.	3.
HB	2801.	37323.	57319.	18.	0.	0.	1150.	0.
HB	2802.	39743.	59068.	26.	0.	0.	4240.	1.
HB	2803.	36364.	58960.	11.	0.	0.	1260.	0.
HB	2804.	36293.	58773.	0.	5.	0.	390.	0.
HB	2807.	41330.	62244.	10.	0.	0.	770.	2.
HB	2815.	35738.	58837.	0.	0.	0.	990.	0.
HB	2817.	35829.	58850.	23.	4.	0.	350.	2.
HB	2821.	36160.	58732.	20.	0.	0.	2140.	2.
HB	2822.	35979.	58955.	13.	3.	0.	1170.	0.
HB	2824.	41270.	62192.	24.	1.	0.	580.	3.
HB	2825.	36080.	58690.	13.	2.	0.	290.	2.
HB	2828.	35720.	59060.	29.	2.	0.	3010.	2.
HB	2829.	37247.	57328.	24.	0.	0.	650.	1.
HB	2831.	37593.	57338.	55.	7.	0.	1150.	1.
HB	2832.	36309.	58797.	0.	4.	0.	100.	1.
HB	2834.	41480.	62043.	68.	3.	0.	1650.	1.
HB	2839.	36072.	58775.	5.	0.	0.	250.	0.
HB	2841.	36232.	58759.	13.	0.	0.	4180.	0.
HB	2845.	40400.	62073.	89.	7.	0.	2430.	5.
HB	2849.	35859.	59006.	11.	0.	0.	1050.	4.
HB	2855.	35801.	59022.	26.	2.	0.	2360.	0.
HB	2857.	37229.	57259.	30.	4.	0.	1900.	1.
HB	2858.	41470.	62040.	42.	0.	0.	1440.	0.
HB	2861.	35902.	58947.	15.	6.	0.	460.	2.
HB	2866.	35820.	58864.	22.	9.	0.	620.	0.
HB	2867.	36140.	58693.	7.	2.	0.	190.	4.
HB	2869.	40311.	62007.	85.	4.	10.	430.	5.
HB	2871.	35835.	58993.	17.	0.	0.	1310.	0.
HB	2874.	36252.	58779.	16.	0.	0.	2790.	4.
HB	2875.	35926.	58969.	2.	0.	0.	680.	0.
HB	2879.	36161.	58737.	3.	0.	0.	1440.	3.
HB	2880.	40893.	62121.	41.	7.	0.	1820.	2.
HB	2881.	39708.	59021.	25.	6.	0.	2760.	2.
HB	2883.	37373.	57257.	57.	6.	0.	1370.	5.
HB	2885.	41358.	62137.	45.	9.	0.	1160.	2.
HB	2889.	40194.	62007.	74.	2.	0.	1030.	3.
HB	2892.	35880.	58912.	19.	6.	0.	570.	2.
HB	2894.	36315.	58866.	14.	7.	0.	180.	2.
HB	2898.	41340.	62133.	23.	3.	0.	320.	2.
HB	2899.	37200.	57346.	27.	0.	0.	850.	2.
HB	2900.	40424.	62204.	109.	1.	10.	2510.	2.
34	341801.	34711.	57527.	51.	2.	0.	100.	0.
34	341803.	35506.	57784.	35.	2.	0.	60.	0.
34	341804.	35139.	57660.	55.	5.	0.	3030.	0.
34	341805.	35083.	57617.	40.	4.	0.	140.	1.
34	341806.	35658.	57101.	21.	0.	0.	190.	0.
34	341808.	35687.	57957.	34.	3.	0.	110.	0.
34	341809.	35551.	57352.	30.	0.	0.	80.	1.
34	341810.	35580.	57214.	12.	0.	0.	520.	6.
34	341811.	34970.	57754.	9.	0.	0.	150.	0.
34	341812.	34991.	57899.	55.	0.	0.	2920.	2.
34	341813.	34890.	57480.	32.	5.	0.	400.	0.
34	341814.	35675.	57408.	12.	0.	0.	260.	2.
34	341815.	35582.	57730.	10.	0.	0.	110.	2.
34	341816.	35723.	57843.	31.	7.	0.	100.	0.
34	341817.	34866.	57632.	10.	6.	0.	1010.	2.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
34	341819.	34579.	56885.	18.	1.	0.	690.	0.
34	341821.	34925.	57355.	42.	5.	0.	550.	1.
34	341823.	35042.	57469.	0.	3.	0.	130.	3.
34	341825.	34780.	57670.	32.	1.	0.	350.	0.
34	341826.	35029.	57985.	14.	6.	0.	70.	0.
34	341827.	34775.	57760.	72.	4.	0.	3860.	1.
34	341828.	35032.	57441.	24.	0.	0.	80.	0.
34	341829.	35665.	57495.	21.	6.	0.	180.	0.
34	341830.	34670.	57210.	23.	6.	0.	1530.	2.
34	341831.	35737.	57715.	52.	3.	0.	100.	2.
34	341832.	34821.	57085.	31.	0.	0.	690.	2.
34	341833.	35316.	57481.	37.	0.	0.	80.	0.
34	341835.	35430.	57381.	30.	2.	0.	160.	1.
34	341836.	35611.	57500.	21.	6.	0.	310.	0.
34	341837.	35093.	57691.	32.	0.	0.	130.	0.
34	341838.	35076.	57705.	2.	0.	0.	130.	1.
34	341839.	34960.	57405.	27.	19.	0.	710.	7.
34	341841.	35730.	57488.	18.	2.	0.	500.	0.
34	341842.	35088.	57465.	36.	0.	0.	130.	2.
34	341844.	35596.	57845.	11.	4.	0.	260.	0.
34	341848.	35732.	57856.	4.	5.	0.	540.	0.
34	341849.	35731.	57740.	40.	0.	0.	120.	0.
34	341850.	35052.	57454.	33.	0.	0.	160.	2.
34	341851.	34745.	57403.	22.	5.	0.	100.	3.
34	341852.	34924.	57969.	17.	5.	0.	540.	0.
34	341853.	35423.	57589.	24.	0.	0.	120.	2.
34	341854.	35009.	57925.	27.	0.	0.	340.	1.
34	341855.	34779.	56954.	60.	1.	0.	4580.	4.
34	341856.	35099.	57426.	13.	4.	0.	450.	0.
34	341857.	34656.	57201.	22.	6.	0.	260.	3.
34	341858.	35556.	57913.	20.	4.	0.	190.	1.
34	341859.	35017.	57599.	19.	4.	0.	230.	1.
34	341860.	34727.	57669.	24.	5.	0.	250.	2.
34	341862.	35370.	57468.	28.	2.	0.	60.	1.
34	341863.	34785.	57791.	17.	0.	0.	450.	0.
34	341864.	34680.	57580.	10.	0.	0.	470.	0.
34	341865.	34938.	57975.	27.	6.	0.	580.	2.
34	341866.	34598.	57132.	39.	2.	0.	270.	1.
34	341869.	34963.	57603.	15.	4.	0.	80.	3.
34	341870.	34835.	57170.	19.	4.	0.	500.	0.
34	341871.	35063.	57848.	42.	3.	0.	2050.	3.
34	341872.	35399.	57209.	4.	4.	0.	600.	1.
34	341873.	34680.	56569.	36.	0.	0.	1180.	1.
34	341874.	35071.	57549.	2.	8.	0.	180.	3.
34	341875.	35090.	57619.	-1.	0.	0.	70.	4.
34	341876.	35040.	57559.	41.	7.	0.	70.	3.
34	341877.	35088.	57503.	25.	12.	0.	130.	0.
34	341878.	35159.	57438.	4.	3.	0.	340.	0.
34	341879.	35750.	57493.	29.	0.	0.	130.	0.
34	341880.	34599.	57169.	17.	0.	0.	280.	0.
34	341881.	35721.	57753.	33.	0.	0.	170.	0.
34	341882.	35060.	57339.	10.	1.	0.	140.	10.
34	341885.	35259.	57380.	32.	7.	0.	250.	0.
34	341884.	34800.	57037.	31.	0.	0.	430.	0.
34	341885.	34930.	57540.	29.	3.	0.	90.	2.
34	341886.	34890.	57399.	-1.	8.	0.	1520.	8.
34	341887.	34680.	57360.	14.	2.	0.	250.	1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	[illegible]	MO
HB	2734.	35824.	58630.	17.	0.	0.	1970.	2.
HB	2735.	36584.	58390.	26.	0.	0.	1190.	2.
HB	2736.	36916.	59000.	17.	0.	0.	280.	0.
HB	2738.	35989.	59546.	26.	0.	0.	370.	1.
HB	2740.	40010.	62200.	86.	7.	0.	1450.	3.
HB	2741.	35837.	58630.	22.	0.	0.	2530.	0.
HB	2743.	35936.	58412.	14.	0.	0.	420.	1.
HB	2744.	35769.	59070.	41.	12.	10.	7690.	2.
HB	2745.	40434.	62386.	134.	12.	10.	6010.	10.
HB	2746.	41691.	62199.	120.	0.	10.	2800.	0.
HB	2748.	36209.	58198.	25.	3.	0.	660.	0.
HB	2749.	41270.	62318.	28.	0.	0.	750.	1.
HB	2750.	36208.	58201.	0.	9.	0.	540.	2.
HB	2751.	36130.	59798.	77.	3.	10.	12430.	3.
HB	2752.	36122.	58525.	0.	1.	0.	910.	0.
HB	2753.	41177.	62229.	31.	0.	0.	610.	0.
HB	2754.	36598.	58483.	23.	0.	0.	400.	0.
HB	2755.	36592.	58380.	12.	0.	0.	2000.	1.
HB	2757.	36037.	59484.	10.	0.	0.	450.	1.
HB	2758.	35922.	59275.	3.	0.	0.	610.	1.
HB	2759.	35974.	59516.	17.	0.	0.	990.	2.
HB	2760.	36288.	58411.	10.	0.	0.	1180.	1.
HB	2762.	40006.	62205.	53.	2.	0.	1970.	6.
HB	2763.	40924.	62323.	46.	2.	0.	1610.	5.
HB	2764.	36000.	58574.	6.	6.	0.	960.	1.
HB	2765.	40658.	62190.	28.	6.	10.	1480.	1.
HB	2766.	36242.	58242.	15.	2.	0.	790.	2.
HB	2767.	36026.	58230.	19.	0.	0.	220.	3.
HB	2768.	40679.	62312.	71.	0.	0.	3070.	2.
HB	2769.	40638.	62342.	97.	4.	10.	7090.	4.
HB	2770.	35990.	59384.	21.	4.	0.	1690.	1.
HB	2771.	39960.	62330.	34.	2.	0.	1070.	1.
HB	2772.	40359.	62428.	64.	0.	0.	1210.	1.
HB	2774.	36037.	58293.	13.	3.	0.	550.	0.
HB	2775.	40255.	62419.	60.	8.	0.	1090.	7.
HB	2776.	35992.	59456.	13.	9.	0.	860.	5.
HB	2777.	35883.	58622.	29.	2.	0.	2130.	0.
HB	2778.	35802.	59020.	9.	3.	0.	1120.	1.
HB	2779.	41169.	62382.	28.	7.	0.	1410.	2.
HB	2780.	36235.	59263.	20.	2.	0.	570.	1.
HB	2781.	36718.	58583.	21.	0.	0.	510.	4.
HB	2782.	35902.	58626.	2.	0.	0.	580.	3.
HB	2783.	36076.	58350.	0.	0.	0.	260.	0.
HB	2784.	36222.	59848.	26.	0.	0.	2500.	2.
HB	2785.	36220.	59841.	24.	1.	0.	5210.	2.
HB	2788.	36253.	58356.	19.	0.	0.	980.	0.
HB	2789.	36310.	58226.	24.	3.	0.	690.	1.
HB	2791.	40092.	62274.	37.	1.	0.	1000.	3.
HB	2792.	40468.	62337.	196.	13.	20.	6700.	7.
HB	2792.	35864.	58616.	3.	0.	0.	720.	2.
HB	2793.	36135.	59497.	36.	5.	0.	3800.	3.
HB	2794.	40970.	62088.	47.	3.	0.	2450.	1.
HB	2795.	35764.	58514.	32.	1.	0.	2080.	0.
HB	2796.	40881.	62396.	52.	0.	0.	2100.	2.
HB	2797.	40552.	62340.	10.	0.	0.	80.	1.
HB	2798.	41635.	62289.	60.	1.	0.	1830.	1.
HB	2799.	36130.	59305.	4.	1.	0.	270.	0.

I.G.S. G-EXEC/G-UTIL/GXEROX ON FILE TEMPFILE

C.C.JOHNSON IGS KEYWORTH PA63 03NOV81

DATA DESCRIPTION

FILE TITLE : TEMPFILE

NO. OF FIELDS : 10 NO. OF RECORDS : 125 WORDS PER RECORD : 10

CARD INPUT FORMAT

BOREHOLE	NUMBER	DEPTH1	DEPTH2	BARIUM	LEAD	ZINC	COPPER	NICKEL	SR
FIELD LENGTH									
1 ** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
FIELD TYPE									
F	F	F	F	F	F	F	F	F	
UPPER LIMIT									
4.	2426.	176.	177.	11800.	849.	6585.	255.	148.	2802.
LOWER LIMIT									
1.	2000.	77.	78.	24.	0.	3.	1.	3.	95.
ABSENT DATA VALUE									
-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.
DICTIONARY SEGMENT IDENTIFIER									

CHEMICAL DATA FOR N.KELSO CONCENTRATES;(C) CERIUM AND ANTIMONY

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY
BF	5767.	37765.	65227.	66.	12.
BF	5769.	37790.	65093.	72.	12.
BF	5770.	37838.	65059.	199.	5.
BF	5771.	37853.	65048.	82.	5.
BF	5772.	37928.	65003.	186.	11.
BF	5780.	38909.	63770.	113.	7.
BF	5781.	37267.	63761.	130.	0.
BF	5785.	39335.	65485.	58.	5.
BF	5786.	39349.	65488.	55.	8.
BF	5789.	37225.	63689.	56.	6.
BF	5795.	36518.	63752.	38.	4.
BF	5797.	36462.	63742.	58.	0.
BF	5798.	36379.	63708.	136.	0.
BF	5803.	37048.	64006.	126.	3.
BF	5805.	37377.	64442.	68.	2.
BF	5806.	36150.	63512.	49.	4.
BF	5815.	37310.	64210.	35.	5.
BF	5816.	37497.	64520.	15.	4.
BF	5817.	36492.	64170.	24.	2.
	-1.	-1.	-1.	-1.	-1.

G-EXEC/GTRAN/GTRANG ON FILE PADBANER N.ENGLAND ROCK DATA
****

C.C.JOHNSON IGS KEYWORTH
SUB-COMMANDS LISTED IN SYSTEM JOURNAL

03NOV81

MAKE WORKFILE

MAKE TEMPFILE

G-EXEC/G-UTIL/GPRJCT ON FILE WORKFILE
****

C.C.JOHNSON IGS KEYWORTH

03NOV81

ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

CHEMICAL DATA FOR N.WELSO CONCENTRATES,(C) CERIUM AND ANTIMONY

PROJ CODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY
BF	5236.	37516.	65405.	83.	12.
BF	5238.	37562.	65450.	54.	15.
BF	5239.	37580.	65455.	51.	3.
BF	5249.	37877.	65974.	51.	4.
BF	5268.	37623.	65412.	80.	100.
BF	5519.	36590.	64398.	102.	1.
BF	5544.	37238.	65130.	52.	3.
BF	5549.	37417.	65300.	88.	13.
BF	5550.	37289.	65222.	95.	8.
BF	5555.	37061.	67457.	252.	5.
BF	5556.	37059.	67429.	254.	18.
BF	5557.	36988.	67420.	101.	17.
BF	5558.	36988.	67403.	259.	7.
BF	5559.	36911.	67389.	88.	19.
BF	5560.	36842.	67303.	137.	7.
BF	5561.	37502.	64941.	128.	8.
BF	5562.	37425.	64894.	87.	11.
BF	5563.	37430.	64882.	87.	7.
BF	5564.	37347.	64762.	62.	1.
BF	5565.	37339.	64781.	81.	8.
BF	5566.	37289.	64812.	88.	7.
BF	5575.	35896.	65412.	117.	5.
BF	5576.	37501.	66970.	54.	5.
BF	5577.	37410.	66891.	133.	3.
BF	5580.	37392.	66832.	103.	5.
BF	5581.	37408.	66842.	118.	0.
BF	5582.	37301.	66858.	85.	7.
BF	5584.	38385.	65598.	66.	4.
BF	5649.	38089.	65573.	228.	5.
BF	5650.	38088.	65580.	177.	2.
BF	5640.	36646.	65600.	63.	3.
BF	5648.	38081.	65951.	8.	7.
BF	5650.	38061.	65726.	180.	2.
BF	5652.	38300.	65738.	236.	2.
BF	5663.	37347.	67521.	121.	4.
BF	5664.	37320.	67280.	89.	0.
BF	5665.	37329.	67321.	226.	14.
BF	5667.	37008.	67241.	140.	0.
BF	5669.	37058.	67252.	78.	2.
BF	5670.	37476.	65067.	41.	5.
BF	5671.	37596.	65122.	78.	4.
BF	5673.	37693.	65060.	50.	6.
BF	5674.	37600.	65046.	86.	4.
BF	5675.	37589.	65011.	83.	4.
BF	5683.	37232.	67005.	65.	4.
BF	5685.	37285.	67063.	141.	4.
BF	5686.	37305.	67095.	220.	4.
BF	5688.	37468.	67020.	175.	2.
BF	5689.	37454.	67038.	119.	9.
BF	5695.	38380.	65453.	125.	2.
BF	5697.	37524.	65011.	46.	3.
BF	5698.	37559.	64921.	43.	2.
BF	5759.	37240.	67223.	60.	3.
BF	5760.	37320.	67223.	90.	4.
BF	5761.	37383.	67168.	137.	16.
BF	5763.	37532.	67182.	351.	0.
BF	5764.	37543.	67171.	185.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1096.	36640.	55920.	695.	70.	230.	20.	1.
HB	1099.	39994.	57565.	330.	20.	80.	15.	1.
HB	1101.	40263.	58134.	239.	50.	110.	15.	1.
HB	1103.	40533.	57720.	291.	40.	90.	10.	0.
HB	1104.	39646.	58452.	767.	40.	280.	10.	1.
HB	1106.	36340.	55960.	745.	80.	500.	10.	0.
HB	1108.	40210.	58778.	616.	70.	260.	10.	0.
HB	1109.	40110.	58862.	696.	50.	260.	15.	0.
HB	1110.	39930.	58466.	502.	60.	220.	20.	0.
HB	1111.	40443.	57095.	446.	70.	150.	15.	1.
HB	1112.	40609.	57947.	462.	70.	170.	20.	1.
HB	1116.	40632.	58743.	720.	70.	340.	15.	1.
HB	1117.	39916.	58728.	552.	60.	350.	10.	1.
HB	1118.	39734.	58352.	399.	40.	320.	15.	0.
HB	1119.	40610.	57764.	227.	40.	100.	10.	1.
HB	1120.	40000.	58451.	597.	210.	360.	65.	0.
HB	1121.	39166.	57868.	318.	70.	180.	20.	1.
HB	1122.	39760.	58708.	3260.	80.	300.	10.	1.
HB	1123.	39810.	57767.	351.	50.	160.	20.	1.
HB	1125.	40022.	58453.	232.	60.	130.	15.	1.
HB	1129.	39830.	58391.	465.	40.	200.	15.	0.
HB	1130.	39709.	58260.	351.	50.	350.	10.	1.
HB	1131.	40210.	58300.	392.	80.	240.	20.	0.
HB	1132.	39589.	58323.	299.	50.	330.	10.	1.
HB	1133.	40080.	58925.	563.	30.	220.	10.	0.
HB	1134.	39646.	57933.	428.	140.	740.	15.	1.
HB	1135.	40410.	57700.	395.	60.	140.	15.	0.
HB	1136.	39669.	58364.	925.	60.	290.	15.	0.
HB	1137.	40235.	58073.	342.	40.	165.	20.	1.
HB	1138.	40175.	57968.	428.	40.	70.	10.	1.
HB	1139.	40609.	57570.	380.	50.	140.	10.	0.
HB	1140.	35710.	58515.	572.	40.	230.	10.	0.
HB	1141.	39628.	58524.	811.	50.	280.	5.	1.
HB	1142.	40230.	58777.	499.	50.	210.	20.	0.
HB	1143.	39980.	58181.	460.	80.	310.	20.	1.
HB	1144.	39924.	58431.	380.	50.	140.	20.	1.
HB	1146.	40650.	59243.	373.	40.	240.	15.	1.
HB	1147.	40825.	58443.	585.	110.	360.	25.	1.
HB	1148.	40810.	58144.	405.	80.	220.	20.	1.
HB	1149.	39730.	58353.	224.	40.	130.	15.	1.
HB	1150.	39683.	58532.	487.	90.	230.	10.	1.
HB	1151.	39628.	59524.	799.	50.	340.	10.	1.
HB	1152.	40341.	58167.	279.	40.	80.	10.	0.
HB	1153.	40380.	58247.	284.	40.	70.	10.	0.
HB	1154.	39827.	58159.	399.	60.	290.	20.	1.
HB	1156.	39682.	58197.	250.	50.	350.	15.	1.
HB	1157.	39535.	58410.	743.	60.	450.	10.	1.
HB	1158.	40263.	58174.	350.	40.	100.	10.	1.
HB	1160.	36516.	55974.	795.	190.	1120.	35.	1.
HB	1162.	40180.	58024.	444.	20.	170.	10.	0.
HB	1163.	40558.	57894.	465.	60.	190.	25.	1.
HB	1164.	39765.	57735.	300.	50.	160.	15.	1.
HB	1165.	40595.	57668.	318.	80.	340.	30.	0.
HB	1166.	40300.	587 .	531.	40.	170.	10.	0.
HB	1167.	40100.	58090.	587.	40.	260.	10.	1.
HB	1169.	40091.	58186.	241.	40.	90.	15.	1.
HB	1170.	40530.	57561.	352.	40.	120.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	1012.	40607.	56700.	549.	60.	130.	15.	1.
HB	1013.	39960.	57690.	220.	20.	70.	15.	0.
HB	1014.	35836.	56683.	358.	40.	120.	0.	0.
HB	1015.	35915.	56365.	426.	110.	120.	15.	1.
HB	1016.	36470.	55950.	726.	450.	2650.	50.	1.
HB	1018.	35745.	56176.	845.	470.	250.	20.	1.
HB	1020.	35670.	56227.	1087.	30.	250.	10.	1.
HB	1021.	39968.	56765.	526.	50.	210.	30.	1.
HB	1024.	39910.	57628.	321.	70.	250.	10.	1.
HB	1025.	36504.	56106.	695.	80.	110.	10.	0.
HB	1026.	40150.	56743.	343.	30.	80.	10.	0.
HB	1027.	36640.	56668.	542.	50.	350.	15.	1.
HB	1030.	35787.	56340.	716.	60.	280.	20.	0.
HB	1031.	39868.	57468.	333.	40.	100.	20.	0.
HB	1032.	36320.	56090.	965.	80.	190.	10.	1.
HB	1034.	35990.	56270.	574.	50.	120.	10.	0.
HB	1035.	36346.	56049.	422.	60.	190.	10.	0.
HB	1036.	36730.	55965.	836.	100.	330.	20.	1.
HB	1038.	35975.	56190.	403.	30.	60.	5.	0.
HB	1040.	40245.	56394.	635.	50.	100.	10.	1.
HB	1041.	39742.	57351.	394.	30.	80.	10.	0.
HB	1042.	40300.	57308.	258.	30.	70.	10.	1.
HB	1043.	36470.	55950.	652.	365.	2100.	45.	1.
HB	1044.	39981.	57460.	280.	40.	130.	20.	1.
HB	1045.	39872.	57463.	341.	40.	100.	15.	0.
HB	1046.	40670.	56678.	593.	70.	170.	25.	1.
HB	1050.	40068.	56602.	554.	70.	160.	15.	1.
HB	1053.	39742.	57353.	369.	40.	100.	15.	1.
HB	1054.	36418.	56072.	667.	80.	310.	10.	1.
HB	1056.	39945.	56578.	624.	40.	140.	10.	1.
HB	1058.	40260.	57120.	375.	60.	140.	20.	1.
HB	1059.	36607.	56082.	644.	40.	90.	20.	1.
HB	1060.	39865.	56550.	574.	50.	140.	15.	0.
HB	1062.	35780.	55990.	657.	70.	340.	30.	1.
HB	1063.	35732.	56720.	317.	60.	1150.	15.	0.
HB	1064.	36650.	56730.	436.	40.	280.	20.	0.
HB	1067.	40115.	57020.	476.	50.	150.	15.	0.
HB	1065.	35790.	55994.	1463.	80.	270.	20.	0.
HB	1071.	40581.	57306.	317.	40.	100.	10.	0.
HB	1072.	40389.	57144.	233.	40.	90.	10.	1.
HB	1073.	36320.	56090.	1020.	100.	240.	10.	1.
HB	1078.	35934.	56519.	501.	50.	230.	10.	1.
HB	1080.	35821.	56410.	579.	70.	170.	20.	1.
HB	1081.	36317.	55952.	1086.	1600.	5000.	140.	3.
HB	1082.	36639.	56009.	953.	240.	1500.	35.	1.
HB	1083.	40030.	57040.	367.	100.	230.	30.	1.
HB	1084.	40509.	57104.	276.	50.	130.	20.	1.
HB	1085.	39769.	56644.	501.	70.	210.	10.	0.
HB	1086.	35859.	56217.	1536.	50.	140.	10.	0.
HB	1088.	35693.	56644.	324.	50.	150.	10.	0.
HB	1089.	36640.	56040.	783.	40.	270.	15.	0.
HB	1090.	39812.	57410.	330.	40.	110.	15.	0.
HB	1091.	35748.	56180.	1249.	30.	190.	10.	0.
HB	1092.	35880.	56270.	631.	20.	150.	5.	0.
HB	1093.	36495.	56098.	1418.	100.	460.	10.	1.
HB	1094.	36590.	56063.	953.	40.	280.	10.	1.
HB	1095.	40019.	56645.	476.	20.	110.	0.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2072.	39237.	59541.	568.	30.	280.	10.	0.
HB	2073.	38630.	59488.	465.	30.	190.	15.	0.
HB	2075.	38076.	60188.	430.	60.	100.	35.	0.
HB	2076.	38251.	60077.	450.	50.	180.	15.	1.
HB	2078.	39939.	59720.	716.	100.	360.	25.	0.
HB	2079.	38099.	60020.	460.	30.	70.	10.	0.
HB	2080.	38062.	60077.	398.	70.	140.	15.	0.
HB	2081.	39268.	59434.	377.	30.	120.	10.	1.
HB	2083.	38573.	59408.	298.	30.	60.	10.	0.
HB	2084.	38075.	60180.	995.	120.	270.	20.	0.
HB	2085.	39194.	59282.	458.	90.	170.	15.	0.
HB	2086.	38280.	60083.	389.	30.	140.	15.	0.
HB	2087.	39172.	59750.	465.	40.	250.	20.	0.
HB	2088.	38384.	59763.	474.	20.	190.	15.	0.
HB	2089.	38711.	59755.	914.	40.	410.	10.	0.
HB	2070.	38939.	59720.	792.	120.	460.	30.	1.
HB	2091.	38338.	60341.	361.	80.	170.	15.	1.
HB	2092.	38579.	60039.	307.	50.	50.	10.	0.
HB	2094.	38600.	60122.	357.	70.	90.	10.	0.
HB	2095.	38850.	59547.	569.	50.	330.	10.	0.
HB	2096.	39179.	59300.	457.	60.	180.	25.	0.
HB	2097.	39342.	59791.	476.	50.	150.	20.	0.
HB	2098.	38102.	60023.	347.	50.	150.	15.	1.
HB	2100.	38810.	60068.	687.	50.	470.	20.	0.
HB	2101.	38937.	60368.	486.	40.	300.	15.	0.
HB	2102.	39456.	59719.	407.	40.	170.	10.	0.
HB	2105.	38435.	59309.	507.	50.	200.	10.	1.
HB	2107.	39437.	60238.	410.	50.	130.	5.	0.
HB	2108.	38942.	58910.	812.	40.	190.	15.	1.
HB	2109.	38800.	59020.	469.	20.	110.	5.	0.
HB	2110.	37892.	60466.	419.	70.	430.	20.	0.
HB	2111.	39278.	60126.	413.	60.	80.	5.	0.
HB	2112.	39372.	60135.	504.	60.	180.	10.	1.
HB	2113.	38345.	59310.	266.	50.	120.	5.	0.
HB	2114.	38655.	59176.	693.	40.	220.	10.	1.
HB	2115.	38755.	58654.	617.	70.	330.	15.	0.
HB	2116.	38818.	58659.	354.	40.	130.	10.	0.
HB	2118.	38508.	59647.	515.	70.	210.	10.	0.
HB	2119.	38822.	59096.	420.	50.	130.	10.	0.
HB	2120.	39361.	59057.	255.	40.	170.	15.	0.
HB	2123.	37921.	60650.	843.	20.	180.	15.	0.
HB	2124.	38699.	58650.	550.	20.	40.	5.	0.
HB	2125.	39080.	58800.	412.	30.	270.	5.	1.
HB	2126.	37905.	60485.	614.	60.	220.	20.	1.
HB	2127.	37952.	60525.	676.	60.	190.	20.	1.
HB	2128.	38607.	58954.	255.	20.	50.	5.	0.
HB	2129.	38288.	59606.	514.	70.	230.	10.	1.
HB	2130.	39008.	60307.	375.	40.	200.	15.	0.
HB	2131.	38769.	58984.	531.	70.	230.	10.	0.
HB	2132.	37869.	60425.	550.	60.	440.	10.	0.
HB	2133.	38590.	59250.	428.	60.	220.	15.	0.
HB	2134.	38999.	60377.	215.	10.	50.	10.	0.
HB	2135.	38835.	58766.	275.	20.	80.	5.	0.
HB	2136.	38799.	60377.	230.	50.	50.	10.	0.
HB	2137.	38508.	59780.	632.	70.	210.	5.	1.
HB	2138.	38910.	60457.	866.	100.	530.	55.	0.
HB	2139.	39131.	58880.	1751.	110.	620.	10.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
NB	2009.	38864.	60331.	571.	60.	260.	15.	0.
NB	2010.	38025.	60590.	507.	130.	490.	20.	1.
NB	2013.	38750.	59998.	556.	40.	210.	15.	1.
NB	2014.	38590.	60125.	292.	30.	60.	5.	0.
NB	2015.	38858.	59430.	558.	40.	280.	15.	0.
NB	2016.	38763.	60053.	688.	50.	260.	15.	1.
NB	2017.	38954.	59450.	743.	40.	260.	10.	0.
NB	2018.	38919.	59730.	360.	50.	90.	5.	0.
NB	2021.	38060.	60280.	431.	60.	80.	10.	0.
NB	2022.	39394.	59734.	590.	40.	180.	15.	0.
NB	2023.	38643.	59923.	639.	60.	230.	15.	0.
NB	2024.	39287.	59448.	410.	30.	200.	10.	0.
NB	2025.	39298.	59274.	378.	40.	110.	15.	1.
NB	2026.	37828.	60173.	499.	40.	160.	20.	1.
NB	2027.	38251.	60077.	429.	50.	210.	15.	1.
NB	2028.	38796.	60339.	382.	60.	90.	10.	0.
NB	2029.	38790.	60402.	811.	50.	920.	50.	1.
NB	2030.	37855.	60322.	502.	50.	190.	15.	0.
NB	2031.	38662.	59668.	515.	40.	230.	10.	0.
NB	2033.	38240.	60245.	623.	20.	300.	20.	0.
NB	2034.	38660.	60366.	469.	80.	200.	25.	1.
NB	2036.	39000.	59276.	446.	30.	150.	15.	0.
NB	2037.	39192.	59399.	389.	40.	100.	15.	0.
NB	2038.	38678.	60358.	255.	60.	90.	10.	0.
NB	2039.	39298.	59277.	406.	40.	120.	20.	1.
NB	2040.	38898.	59611.	861.	130.	720.	20.	1.
NB	2041.	38651.	59984.	410.	20.	110.	10.	0.
NB	2042.	39446.	59909.	457.	40.	110.	15.	0.
NB	2045.	38626.	59954.	335.	90.	100.	10.	0.
NB	2044.	38804.	60358.	229.	20.	40.	5.	0.
NB	2045.	38928.	59448.	436.	30.	120.	15.	0.
NB	2046.	38261.	59940.	457.	40.	200.	10.	0.
NB	2047.	38218.	60191.	371.	90.	210.	25.	1.
NB	2048.	38588.	60140.	368.	60.	90.	10.	0.
NB	2049.	39420.	59692.	470.	30.	160.	15.	1.
NB	2050.	38799.	59499.	319.	30.	80.	10.	0.
NB	2051.	38693.	59816.	618.	40.	270.	10.	0.
NB	2052.	38577.	60393.	406.	50.	150.	10.	0.
NB	2053.	38279.	60013.	473.	30.	160.	10.	0.
NB	2054.	38570.	60371.	346.	30.	110.	10.	0.
NB	2055.	38607.	60018.	539.	80.	280.	10.	1.
NB	2056.	38318.	59881.	404.	40.	160.	15.	0.
NB	2057.	39415.	59751.	554.	40.	160.	15.	0.
NB	2058.	38120.	59960.	423.	40.	170.	15.	0.
NB	2059.	39489.	59921.	595.	30.	260.	15.	0.
NB	2060.	39126.	59224.	488.	30.	140.	15.	0.
NB	2061.	38948.	59700.	641.	80.	370.	55.	0.
NB	2062.	39372.	59935.	682.	30.	280.	10.	0.
NB	2063.	38639.	59641.	505.	40.	170.	10.	0.
NB	2064.	38936.	59662.	537.	40.	286.	10.	0.
NB	2065.	38781.	60298.	470.	40.	210.	10.	0.
NB	2066.	38740.	59916.	683.	40.	330.	15.	1.
NB	2067.	37865.	60395.	589.	60.	250.	20.	1.
NB	2068.	37856.	60323.	570.	50.	200.	15.	1.
NB	2069.	39376.	59942.	445.	20.	150.	10.	0.
NB	2070.	39356.	59382.	529.	30.	270.	10.	0.
NB	2071.	39250.	59288.	339.	30.	100.	10.	1.

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PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
34	341828.	35832.	57441.	287.	30.	100.	25.	1.
34	341829.	35665.	57495.	337.	30.	70.	20.	0.
34	341830.	34670.	57210.	566.	40.	80.	15.	0.
34	341831.	35737.	57715.	287.	40.	220.	10.	1.
34	341832.	34821.	57085.	325.	30.	40.	5.	1.
34	341833.	35516.	57481.	298.	40.	120.	10.	1.
34	341835.	35430.	57301.	340.	30.	80.	10.	1.
34	341836.	35611.	57900.	391.	40.	250.	15.	1.
34	341837.	35893.	57691.	293.	20.	120.	20.	0.
34	341838.	35876.	57705.	442.	70.	510.	15.	1.
34	341839.	34960.	57405.	457.	50.	160.	10.	1.
34	341841.	35730.	57488.	300.	40.	70.	15.	1.
34	341842.	35888.	57465.	321.	30.	140.	15.	1.
34	341843.	34981.	57230.	329.	30.	80.	10.	0.
34	341844.	35396.	57845.	369.	50.	140.	100.	0.
34	341846.	35294.	57472.	294.	40.	90.	100.	1.
34	341848.	35732.	57856.	233.	40.	160.	15.	1.
34	341849.	35731.	57740.	269.	50.	180.	15.	1.
34	341850.	35052.	57454.	324.	30.	70.	20.	1.
34	341851.	34745.	57403.	386.	50.	210.	20.	1.
34	341852.	34924.	57969.	299.	50.	100.	100.	0.
34	341853.	35423.	57589.	282.	40.	100.	100.	1.
34	341854.	35009.	57925.	306.	50.	100.	100.	1.
34	341855.	34779.	56954.	331.	20.	70.	100.	1.
34	341856.	35099.	57426.	320.	40.	100.	100.	0.
34	341857.	34656.	57201.	451.	40.	100.	200.	1.
34	341858.	35556.	57913.	311.	40.	120.	200.	1.
34	341859.	35017.	57599.	375.	40.	160.	150.	1.
34	341860.	34727.	57669.	359.	50.	190.	100.	1.
34	341862.	35370.	57468.	255.	30.	70.	100.	0.
34	341863.	34785.	57791.	651.	50.	220.	150.	0.
34	341864.	34680.	57580.	245.	30.	80.	150.	0.
34	341865.	34930.	57975.	554.	60.	120.	150.	0.
34	341866.	34598.	57752.	341.	30.	100.	200.	0.
34	341869.	34963.	57603.	392.	40.	190.	150.	1.
34	341870.	34835.	57770.	344.	20.	50.	150.	0.
34	341871.	35063.	57848.	369.	50.	230.	150.	0.
34	341872.	35399.	57209.	375.	30.	100.	150.	0.
34	341873.	34680.	56969.	329.	20.	60.	100.	0.
34	341874.	35071.	57749.	292.	40.	90.	100.	0.
34	341875.	35890.	57619.	1451.	40.	90.	200.	2.
34	341876.	35840.	57539.	340.	30.	90.	200.	1.
34	341877.	35888.	57583.	275.	40.	120.	150.	1.
34	341878.	35159.	57438.	295.	30.	60.	100.	1.
34	341879.	35750.	57492.	545.	30.	120.	50.	1.
34	341880.	34599.	57169.	311.	30.	80.	100.	1.
34	341881.	35721.	57753.	293.	40.	200.	150.	1.
34	341882.	35060.	57339.	371.	40.	120.	150.	1.
34	341883.	35253.	57380.	309.	30.	90.	150.	1.
34	341884.	34808.	57037.	334.	20.	40.	50.	0.
34	341885.	34950.	57540.	602.	40.	120.	100.	1.
34	341886.	34890.	57399.	392.	50.	140.	150.	0.
34	341887.	34680.	57160.	275.	30.	60.	100.	0.
34	341888.	35588.	57792.	282.	30.	60.	200.	0.
34	341889.	35061.	57509.	292.	30.	70.	200.	0.
34	341890.	35420.	57782.	410.	60.	140.	200.	1.
34	341891.	35745.	57415.	292.	30.	60.	100.	1.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR STREAM SEDIMENTS (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	SILVER
HB	2805.	35859.	59006.	365.	30.	80.	10.	0.
HB	2807.	41330.	62244.	520.	30.	230.	10.	1.
HB	2810.	35738.	58837.	232.	30.	40.	5.	0.
HB	2815.	35029.	58850.	291.	30.	70.	15.	0.
HB	2821.	36160.	59732.	234.	50.	60.	10.	1.
HB	2822.	35979.	58932.	282.	50.	90.	5.	0.
HB	2824.	41270.	62192.	261.	20.	50.	5.	0.
HB	2825.	36088.	58690.	262.	40.	60.	5.	0.
HB	2828.	35720.	59060.	302.	40.	60.	5.	0.
HB	2829.	37247.	57328.	443.	40.	280.	5.	0.
HB	2831.	37593.	57338.	432.	50.	120.	10.	0.
HB	2832.	36309.	58797.	324.	40.	120.	10.	1.
HB	2834.	41480.	62043.	472.	30.	110.	10.	0.
HB	2839.	36072.	58773.	202.	20.	40.	5.	0.
HB	2841.	36232.	58759.	315.	50.	80.	5.	0.
HB	2845.	40400.	62079.	453.	30.	110.	10.	1.
HB	2849.	35859.	59006.	317.	30.	90.	10.	0.
HB	2855.	35801.	59022.	408.	70.	130.	5.	0.
HB	2857.	37229.	57259.	511.	60.	120.	5.	1.
HB	2858.	41478.	62040.	441.	30.	100.	10.	1.
HB	2861.	35982.	58947.	429.	30.	80.	10.	0.
HB	2866.	35828.	58864.	278.	30.	70.	10.	0.
HB	2867.	36148.	58693.	235.	40.	60.	5.	0.
HB	2869.	40311.	62087.	658.	40.	180.	15.	1.
HB	2871.	35835.	58993.	333.	60.	90.	5.	0.
HB	2874.	36252.	58779.	349.	70.	110.	10.	0.
HB	2875.	35926.	58969.	326.	50.	90.	5.	0.
HB	2879.	36161.	58737.	282.	70.	70.	5.	0.
HB	2880.	40893.	62121.	410.	40.	140.	5.	1.
HB	2881.	35788.	59021.	300.	40.	50.	5.	1.
HB	2883.	37373.	57257.	440.	40.	120.	5.	0.
HB	2885.	41358.	62137.	409.	30.	90.	5.	0.
HB	2889.	40194.	62087.	363.	20.	110.	5.	0.
HB	2892.	35880.	58912.	306.	50.	100.	10.	1.
HB	2894.	36313.	58866.	259.	40.	110.	10.	1.
HB	2898.	41340.	62133.	257.	20.	90.	5.	0.
HB	2899.	37200.	57346.	246.	70.	220.	5.	0.
34	341801.	34711.	57567.	384.	40.	180.	10.	1.
34	341803.	35506.	57384.	-1.	20.	80.	15.	1.
34	341805.	35889.	57477.	327.	40.	220.	15.	1.
34	341806.	35638.	57101.	200.	50.	150.	15.	2.
34	341808.	35687.	57957.	301.	40.	170.	15.	0.
34	341809.	35531.	57392.	270.	20.	80.	10.	0.
34	341810.	35281.	57211.	298.	30.	90.	10.	1.
34	341811.	34970.	57754.	278.	40.	160.	10.	0.
34	341812.	34991.	57899.	347.	40.	170.	10.	0.
34	341813.	34890.	57480.	329.	20.	130.	10.	0.
34	341814.	35675.	57408.	227.	30.	80.	5.	0.
34	341815.	35682.	57730.	252.	30.	100.	15.	1.
34	341816.	35723.	57843.	234.	30.	190.	10.	1.
34	341817.	34866.	57622.	380.	30.	210.	10.	0.
34	341819.	34579.	56805.	316.	20.	50.	25.	1.
34	341821.	34925.	57395.	314.	20.	80.	10.	1.
34	341823.	35042.	57469.	335.	30.	130.	20.	1.
34	341825.	34780.	57670.	273.	40.	160.	10.	0.
34	341826.	35029.	57905.	263.	50.	90.	10.	0.
34	341827.	34775.	57760.	318.	30.	140.	10.	0.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	815.	38163.	57410.	63.	9.	5.	0.	1.	5.
HB	817.	39212.	57172.	9866.	881.	1156.	236.	17.	267.
HB	818.	39356.	57600.	185.	9.	44.	25.	10.	10.
HB	819.	37367.	57333.	101.	9.	51.	0.	1.	5.
HB	820.	38224.	57330.	508.	77.	219.	5.	8.	17.
HB	821.	36730.	56417.	1392.	68.	74.	7.	23.	24.
HB	822.	39190.	56952.	31320.	207.	16392.	56.	56.	42.
HB	823.	37957.	56080.	48370.	578.	255.	33.	36.	0.
HB	824.	39489.	56080.	5903.	951.	1394.	58.	21.	36.
HB	825.	38408.	57345.	225.	6.	142.	1.	5.	2.
HB	828.	38102.	57563.	140.	20.	87.	0.	2.	2.
HB	830.	39290.	57405.	133.	29.	105.	5.	8.	36.
HB	832.	38641.	56526.	2526.	27.	96.	0.	12.	6.
HB	833.	39169.	57770.	83.	5.	74.	0.	2.	5.
HB	834.	36716.	56220.	829.	58.	23.	0.	4.	3.
HB	835.	37983.	56254.	17440.	2213.	539.	12.	17.	578.
HB	837.	38888.	57706.	520.	45.	152.	0.	19.	13.
HB	838.	38412.	57340.	5692.	174.	814.	16.	26.	0.
HB	839.	37324.	57363.	116.	15.	72.	0.	6.	0.
HB	840.	39420.	56589.	19240.	692.	384.	268.	14.	39.
HB	841.	39557.	57240.	407.	66.	788.	0.	24.	12.
HB	844.	39335.	57510.	508.	799.	192.	13.	28.	689.
HB	846.	39410.	57708.	313.	8.	113.	0.	5.	2.
HB	847.	39002.	57758.	860.	27.	154.	20.	17.	44.
HB	848.	38330.	57367.	943.	13.	485.	0.	6.	3.
HB	849.	39750.	57196.	278.	15.	156.	4.	9.	15.
HB	851.	39162.	57776.	952.	19.	144.	0.	13.	5.
HB	853.	36736.	56320.	2168.	30.	95.	0.	17.	35.
HB	854.	39044.	56523.	693.	65.	56.	0.	6.	18.
HB	856.	36757.	56759.	10660.	69.	97.	5.	10.	9.
HB	857.	39289.	57512.	121.	12.	75.	5.	10.	2.
HB	858.	37943.	56255.	45410.	3481.	142.	4.	26.	0.
HB	860.	37190.	57198.	2186.	22.	591.	11.	7.	6.
HB	861.	39343.	57424.	41.	19.	66.	6.	4.	5.
HB	863.	38310.	57353.	2590.	29.	978.	4.	15.	0.
HB	864.	37230.	57260.	116.	13.	152.	12.	2.	1.
HB	865.	39440.	57435.	45.	6.	32.	68.	1.	0.
HB	866.	39400.	57132.	650.	102.	304.	135.	16.	36.
HB	867.	38584.	57350.	3702.	21.	360.	3.	13.	10.
HB	868.	39090.	57624.	2698.	26.	390.	22.	19.	6.
HB	869.	38783.	56048.	39.	1.	1.	0.	0.	2.
HB	870.	38510.	57315.	13910.	60.	1451.	17.	34.	27.
HB	871.	39130.	57703.	276.	22.	116.	0.	8.	20.
HB	872.	39544.	57119.	1056.	40.	381.	27.	14.	15.
HB	874.	39349.	56623.	31620.	7669.	1720.	15.	15.	51.
HB	875.	39183.	56358.	29110.	160.	610.	0.	19.	75.
HB	876.	39058.	57585.	10110.	52.	159.	0.	28.	20.
HB	879.	39320.	57500.	127.	28.	68.	0.	8.	36.
HB	880.	38860.	56059.	179.	8.	50.	0.	0.	1.
HB	881.	38799.	55932.	2040.	117.	283.	0.	13.	0.
HB	883.	39360.	56700.	484493.	22866.	3349.	76.	25.	16.
HB	884.	39442.	56821.	58010.	441.	1330.	7.	10.	5.
HB	885.	39269.	57610.	184.	3.	39.	0.	6.	2.
HB	887.	38213.	57321.	1923.	28.	396.	0.	5.	0.
HB	888.	39216.	57246.	149.	26.	210.	9.	9.	4.
HB	891.	39040.	57115.	9318.	28.	225.	41.	10.	15.
HB	897.	38225.	56780.	565.	148.	55.	0.	3.	26.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
NB	725.	38710.	56141.	332.	12.	17.	10.	2.	0.
NB	727.	37722.	56707.	11770.	20.	81.	10.	16.	0.
NB	729.	39122.	56069.	400.	18.	41.	66.	6.	1.
NB	732.	39178.	56044.	88.	21.	34.	0.	7.	10.
NB	733.	38980.	56153.	365.	55.	77.	2.	5.	0.
NB	734.	36962.	56842.	150.	17.	84.	0.	1.	8.
NB	735.	36854.	56829.	342.	27.	365.	0.	10.	4.
NB	737.	39270.	56077.	3871.	35.	45.	2.	8.	0.
NB	740.	37231.	57314.	162.	10.	258.	9.	2.	3.
NB	741.	37900.	57140.	286.	15.	279.	20.	5.	0.
NB	742.	39402.	56017.	217.	287.	135.	0.	17.	90.
NB	743.	37133.	57170.	120.	14.	297.	21.	4.	0.
NB	744.	39105.	56142.	508.	133.	112.	0.	7.	29.
NB	745.	37772.	56950.	203.	25.	396.	0.	6.	0.
NB	746.	37513.	56960.	1023.	21.	498.	11.	8.	3.
NB	747.	37812.	57150.	292.	10.	76.	4.	4.	0.
NB	751.	37580.	57130.	78.	8.	1033.	1.	0.	0.
NB	753.	37698.	57030.	9912.	19.	956.	3.	7.	15.
NB	754.	36887.	56820.	1618.	25.	413.	19.	13.	7.
NB	755.	36750.	56547.	173.	13.	61.	0.	5.	5.
NB	756.	38298.	56997.	97.	10.	64.	0.	4.	13.
NB	760.	37207.	57333.	190.	16.	1989.	8.	18.	2.
NB	761.	39874.	56053.	445.	12.	12.	0.	2.	0.
NB	765.	39513.	56050.	4998.	236.	119.	2.	10.	4.
NB	766.	36727.	56777.	12460.	376.	2272.	153.	21.	30.
NB	767.	38214.	57050.	2267.	36.	148.	7.	10.	13.
NB	768.	39263.	56082.	3283.	30.	125.	17.	9.	14.
NB	769.	39110.	56154.	231.	16.	85.	22.	6.	0.
NB	770.	39490.	56006.	4541.	38.	681.	0.	22.	5.
NB	771.	37228.	57191.	1693.	23.	3553.	0.	14.	0.
NB	774.	37732.	56928.	269.	10.	137.	16.	23.	2.
NB	776.	37204.	57320.	241.	91.	338.	1.	7.	2.
NB	777.	37610.	56802.	275.	7.	58.	0.	3.	0.
NB	780.	37248.	57105.	4052.	17.	379.	2.	17.	0.
NB	782.	38357.	56963.	191.	153.	100.	0.	12.	5.
NB	785.	38680.	57447.	198.	8.	37.	0.	4.	2.
NB	794.	38620.	57060.	188.	32.	51.	0.	8.	22.
NB	785.	36991.	56873.	419.	12.	94.	0.	7.	3.
NB	788.	39720.	55970.	191.	242.	141.	0.	11.	21.
NB	789.	37642.	57090.	478.	10.	224.	1.	3.	3.
NB	790.	37359.	57156.	204.	8.	407.	0.	3.	1.
NB	791.	38253.	57389.	1962.	23.	369.	10.	9.	5.
NB	792.	36982.	56880.	615.	20.	323.	0.	8.	14.
NB	795.	39350.	56047.	7030.	223.	63.	9.	13.	25.
NB	796.	39430.	56073.	30490.	337.	275.	37.	41.	44.
NB	797.	37451.	57189.	137.	61.	65.	3.	3.	0.
NB	798.	37910.	57142.	817.	10.	722.	0.	5.	0.
NB	799.	37280.	57307.	609.	31.	1190.	4.	15.	4.
NB	803.	39086.	57186.	259.	30.	58.	13.	10.	43.
NB	804.	37190.	57258.	99.	16.	316.	0.	2.	2.
NB	805.	36905.	56054.	730.	39.	24.	1.	4.	0.
NB	806.	39657.	57304.	171.	108.	78.	1.	9.	6.
NB	807.	39516.	57465.	41.	40.	71.	0.	8.	4.
NB	808.	38159.	57464.	154.	17.	191.	13.	5.	0.
NB	809.	39605.	57262.	115.	50.	146.	110.	9.	29.
NB	811.	39125.	57097.	85.	33.	198.	17.	68.	65.
NB	814.	39443.	57117.	265.	51.	154.	0.	20.	26.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	1688.	39537.	60404.	1298.	42.	98.	18.	26.	33.
HB	1689.	40855.	60830.	1861.	27.	107.	6.	10.	6.
HB	1691.	39639.	60070.	1884.	11.	247.	8.	8.	17.
HB	1692.	39658.	60001.	236.	28.	15.	3.	4.	3.
HB	1693.	39968.	60010.	2159.	25.	82.	30.	13.	16.
HB	1694.	40241.	60591.	348.	160.	233.	1297.	73.	29.
HB	1695.	40046.	61162.	608.	11.	169.	32.	67.	51.
HB	1696.	40570.	61645.	410.	105.	214.	18.	29.	78.
HB	1697.	40347.	61130.	630.	48.	113.	10.	31.	61.
HB	1698.	39680.	60556.	500.	29.	101.	49.	7.	3.
HB	1699.	40936.	60940.	5559.	111.	247.	25.	57.	15.
HB	1700.	40216.	61802.	374.	91.	64.	19.	25.	11.
HB	1701.	41288.	60336.	40700.	30.	434.	27.	17.	0.
HB	1702.	41601.	60730.	1352.	143.	629.	22.	70.	9.
HB	1703.	41964.	60147.	11400.	152.	254.	22.	24.	14.
HB	1704.	41721.	60386.	2990.	51.	140.	13.	31.	28.
HB	1705.	42208.	60737.	198.	13.	53.	12.	18.	3.
HB	1706.	41216.	60256.	27500.	70.	904.	37.	34.	24.
HB	1707.	41802.	61047.	842.	171.	308.	20.	43.	60.
HB	1708.	41753.	60170.	3955.	120.	338.	11.	21.	2.
HB	1709.	41423.	60407.	6881.	72.	282.	8.	21.	13.
HB	1710.	41082.	60705.	8149.	40.	278.	21.	30.	0.
HB	1712.	41570.	60410.	6098.	6.	236.	5.	11.	0.
HB	1713.	42507.	61685.	5100.	2400.	420.	171.	41.	833.
HB	1714.	41595.	60633.	22200.	1574.	1219.	32.	48.	8.
HB	1715.	41800.	60516.	2012.	79.	238.	17.	22.	21.
HB	1716.	41163.	61060.	5733.	104.	92.	10.	28.	94.
HB	1719.	41544.	60162.	8434.	595.	463.	28.	29.	18.
HB	1720.	41434.	60360.	29100.	109.	406.	32.	22.	4.
HB	1721.	39646.	59203.	14500.	24.	695.	12.	17.	0.
HB	1723.	42065.	60494.	369.	16.	86.	9.	14.	0.
HB	1724.	41885.	60454.	11400.	266.	255.	37.	35.	39.
HB	1725.	39512.	59296.	445.	13.	471.	9.	18.	2.
HB	1726.	41714.	60330.	567.	1610.	253.	63.	32.	361.
HB	1727.	41450.	60690.	1174.	34.	132.	8.	17.	187.
HB	1728.	41291.	60325.	3452.	17.	195.	52.	18.	2.
HB	1729.	41021.	60050.	3175.	207.	288.	63.	34.	61.
HB	1730.	41476.	59960.	2117.	18.	96.	50.	15.	2.
HB	1731.	41608.	61092.	107.	9.	62.	8.	14.	0.
HB	1732.	41814.	61087.	1095.	150.	755.	22.	62.	48.
HB	1733.	41493.	60245.	40200.	154.	416.	23.	34.	165.
HB	1734.	41210.	61222.	327.	24.	46.	8.	15.	8.
HB	1735.	42068.	60384.	4516.	223.	129.	20.	20.	4.
HB	1736.	41103.	60048.	18000.	52.	57.	16.	11.	.
HB	1737.	41429.	60498.	10700.	47.	385.	11.	19.	11.
HB	1738.	41945.	61622.	11300.	166.	273.	27.	29.	95.
HB	1739.	41344.	60001.	1999.	129.	122.	13.	27.	124.
HB	1740.	41600.	61023.	329.	14.	54.	4.	10.	2.
HB	1741.	41702.	60083.	5745.	110.	497.	22.	41.	21.
HB	1742.	41765.	60133.	7016.	115.	488.	123.	30.	19.
HB	1744.	41417.	60450.	203.	5.	43.	3.	7.	3.
HB	1745.	41530.	60140.	9657.	602.	270.	40.	21.	2.
HB	1746.	41723.	60604.	620.	279.	230.	540.	32.	2.
HB	1747.	39540.	59293.	858.	7.	176.	2.	7.	1.
HB	1748.	42006.	60338.	6420.	67.	196.	15.	31.	11.
HB	1749.	41085.	60750.	10800.	34.	125.	20.	20.	2.
HB	1750.	41190.	61183.	3765.	148.	266.	28.	76.	72.

NORTHUMBERLAND BASIN CHEMICAL DATA FOR PANNED CONCENTRATES: (A) BARIUM, LEAD, ZINC, COPPER, NICKEL AND TIN (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
NB	1752.	41997.	60336.	18600.	111.	703.	64.	63.	65.
NB	1753.	41902.	60339.	11800.	68.	403.	26.	39.	28.
NB	1754.	42204.	60737.	1630.	142.	219.	48.	29.	64.
NB	1755.	42020.	60490.	396.	165.	89.	47.	25.	163.
NB	1756.	41389.	60752.	373.	17.	55.	2.	10.	3.
NB	1757.	42164.	61413.	559.	139.	178.	17.	32.	45.
NB	1758.	42431.	61766.	1334.	150.	376.	36.	51.	53.
NB	1761.	41168.	60913.	4262.	210.	114.	74.	27.	47.
NB	1762.	42118.	61304.	938.	20.	316.	21.	22.	27.
NB	1763.	41510.	60804.	189.	42.	224.	12.	22.	4.
NB	1764.	41496.	60265.	16600.	49.	277.	12.	19.	0.
NB	1765.	41610.	60764.	997.	671.	490.	86.	52.	53.
NB	1766.	42023.	60680.	2400.	99.	204.	73.	25.	7.
NB	1767.	41332.	59888.	24100.	1086.	624.	199.	44.	73.
NB	1768.	42224.	60670.	393.	160.	310.	66.	54.	73.
NB	1769.	41929.	60483.	1955.	572.	257.	136.	38.	125.
NB	1770.	41537.	60123.	5468.	211.	132.	19.	19.	50.
NB	1771.	41604.	61070.	1035.	60.	481.	18.	39.	17.
NB	1772.	41446.	60667.	1204.	37.	144.	12.	14.	0.
NB	1773.	40785.	61773.	663.	118.	231.	68.	96.	44.
NB	1775.	42127.	60696.	4362.	524.	373.	146.	50.	294.
NB	1777.	39675.	59304.	34800.	228.	1143.	48.	21.	255.
NB	1778.	41372.	60417.	7139.	46.	148.	9.	14.	3.
NB	1779.	41716.	60957.	339.	27.	132.	7.	16.	4.
NB	1780.	42021.	60260.	23600.	119.	1030.	151.	48.	9.
NB	1781.	41731.	60665.	1414.	114.	589.	463.	64.	10.
NB	1782.	41192.	61283.	1316.	73.	180.	18.	51.	63.
NB	1783.	41645.	60575.	1195.	68.	192.	15.	23.	93.
NB	1784.	41464.	60299.	18900.	115.	329.	172.	24.	26.
NB	1785.	42089.	60415.	210.	192.	109.	19.	20.	104.
NB	1786.	41505.	59973.	3648.	49.	75.	11.	19.	32.
NB	1787.	41565.	60160.	45100.	112.	248.	32.	23.	11.
NB	1788.	42540.	61676.	3577.	257.	393.	30.	40.	115.
NB	1789.	42026.	61510.	236.	37.	91.	4.	19.	25.
NB	1790.	39502.	59733.	1192.	46.	230.	12.	13.	32.
NB	1791.	39500.	59400.	62200.	16.	399.	22.	14.	10.
NB	1794.	41505.	60361.	8042.	29.	176.	10.	15.	34.
NB	1796.	42009.	60708.	2577.	101.	207.	17.	24.	52.
NB	1798.	41651.	60062.	50300.	131.	425.	53.	35.	32.
NB	1799.	42117.	60447.	1153.	63.	361.	13.	23.	39.
NB	1800.	41125.	60846.	1298.	139.	70.	7.	24.	55.
NB	1812.	41406.	61829.	1622.	48.	299.	22.	32.	6.
NB	1817.	42004.	61059.	7242.	141.	514.	63.	92.	76.
NB	1819.	42350.	61252.	926.	2373.	297.	26.	56.	257.
NB	1820.	41493.	61652.	630.	110.	149.	44.	28.	27.
NB	1821.	41894.	60996.	11700.	159.	310.	74.	32.	13.
NB	1822.	40715.	61996.	268.	63.	178.	104.	49.	65.
NB	1823.	41301.	61500.	169.	9.	36.	4.	11.	2.
NB	1825.	41290.	61814.	322.	61.	98.	11.	29.	20.
NB	1836.	41513.	61650.	3619.	50.	119.	36.	44.	13.
NB	1837.	41544.	61810.	20400.	141.	562.	44.	57.	40.
NB	1838.	41962.	61051.	1903.	20.	219.	21.	18.	9.
NB	1839.	42129.	61142.	801.	23.	116.	7.	18.	14.
NB	1840.	41703.	61741.	646.	12.	72.	8.	17.	3.
NB	1847.	41930.	61090.	35300.	597.	3158.	61.	54.	69.
NB	1851.	41900.	60995.	15800.	65.	302.	31.	35.	4.
NB	1852.	41283.	61720.	244.	11.	43.	2.	15.	0.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
HB	2734.	35824.	58630.	60.	4.	21.	0.	4.	0.
HB	2735.	36584.	58390.	645.	31.	476.	8.	21.	0.
HB	2736.	36916.	59000.	164.	6.	18.	1.	5.	1.
HB	2738.	35989.	59546.	485.	54.	151.	3.	11.	9.
HB	2740.	40010.	62200.	626.	58.	98.	11.	31.	22.
HB	2741.	35837.	58650.	16.7.	7.	281.	7.	7.	2.
HB	2745.	35936.	58412.	270.	8.	21.	0.	4.	0.
HB	2744.	35769.	59070.	532.	11.	96.	11.	11.	7.
HB	2745.	40434.	62386.	739.	79.	210.	19.	83.	34.
HB	2746.	41691.	62199.	322.	46.	320.	9.	12.	2.
HB	2748.	36209.	58198.	199.	1.	379.	2.	5.	0.
HB	2749.	41270.	62518.	48.	5.	21.	0.	4.	0.
HB	2750.	36208.	58201.	7500.	16.	2193.	9.	18.	0.
HB	2751.	36130.	59798.	366.	8.	235.	19.	12.	1.
HB	2752.	36122.	58525.	62.	0.	23.	2.	8.	1.
HB	2753.	41177.	62229.	346.	8.	220.	6.	8.	0.
HB	2754.	36598.	58483.	420.	6.	51.	3.	4.	2.
HB	2755.	36592.	58388.	3380.	5.	735.	10.	7.	0.
HB	2757.	36037.	59484.	180.	12.	52.	2.	6.	0.
HB	2758.	35922.	59275.	70.	0.	8.	2.	2.	1.
HB	2759.	35974.	59316.	74.	4.	53.	11.	3.	0.
HB	2760.	36288.	59411.	24.	7.	2.	3.	1.	1.
HB	2762.	40006.	62205.	1238.	52.	119.	15.	34.	13.
HB	2763.	40924.	62323.	77.	9.	114.	3.	6.	2.
HB	2764.	36000.	58524.	39.	2.	25.	2.	2.	0.
HB	2765.	40658.	62190.	201.	41.	53.	10.	11.	44.
HB	2766.	36242.	58242.	60.	3.	356.	12.	5.	2.
HB	2767.	36026.	58284.	701.	9.	68.	3.	4.	0.
HB	2768.	40679.	62312.	322.	12.	26.	2.	8.	1.
HB	2769.	40638.	62342.	997.	34.	174.	17.	27.	15.
HB	2770.	35990.	59384.	70.	5.	10.	0.	2.	1.
HB	2771.	39960.	62330.	286.	31.	51.	7.	13.	13.
HB	2772.	40359.	62428.	489.	42.	71.	10.	28.	5.
HB	2774.	36037.	58293.	217.	5.	126.	2.	9.	1.
HB	2775.	40255.	62419.	889.	125.	100.	16.	36.	44.
HB	2776.	35992.	59456.	672.	8.	155.	0.	2.	5.
HB	2777.	35883.	58622.	87.	4.	25.	2.	6.	3.
HB	2778.	35882.	59020.	71.	2.	27.	3.	5.	1.
HB	2779.	41169.	62382.	286.	7.	118.	2.	5.	4.
HB	2780.	36234.	59203.	69.	2.	27.	0.	2.	4.
HB	2781.	36718.	58583.	344.	10.	37.	0.	4.	0.
HB	2782.	35902.	58626.	294.	29.	221.	11.	13.	0.
HB	2783.	36076.	58350.	14500.	18.	1664.	16.	14.	0.
HB	2784.	36222.	59048.	102.	5.	206.	5.	7.	0.
HB	2785.	36220.	59047.	125.	8.	25.	1.	5.	0.
HB	2788.	36253.	58356.	942.	6.	259.	0.	4.	0.
HB	2789.	36339.	58226.	279.	7.	896.	6.	4.	2.
HB	2790.	40092.	62274.	381.	21.	41.	8.	13.	0.
HB	2791.	40468.	62337.	675.	90.	175.	21.	50.	54.
HB	2792.	35864.	58616.	1044.	3.	434.	52.	6.	2.
HB	2793.	36135.	59497.	1117.	19.	202.	8.	7.	20.
HB	2794.	40970.	62088.	89.	7.	26.	20.	6.	4.
HB	2795.	35764.	59514.	63.	9.	46.	1.	5.	1.
HB	2796.	40881.	62396.	100.	14.	26.	0.	7.	0.
HB	2797.	40552.	62340.	100.	6.	10.	1.	2.	0.
HB	2798.	41635.	62289.	109.	7.	14.	2.	4.	1.
HB	2799.	36130.	59305.	80.	1.	13.	3.	2.	1.

PROJCODE	NUMBER	EASTING	NORTHING	BARIUM	LEAD	ZINC	COPPER	NICKEL	TIN
NB	2666.	37701.	60012.	297.	0.	34.	3.	4.	9.
NB	2667.	36453.	58530.	139.	4.	49.	0.	2.	0.
NB	2668.	37571.	58641.	4682.	25.	194.	3.	11.	2.
NB	2669.	36722.	59607.	96.	13.	23.	2.	7.	0.
NB	2670.	37390.	59394.	418.	4.	89.	3.	8.	7.
NB	2671.	37128.	58910.	457.	0.	332.	9.	5.	0.
NB	2673.	36607.	59223.	107.	0.	14.	0.	2.	2.
NB	2675.	37527.	58652.	116.	7.	28.	17.	6.	1.
NB	2677.	37809.	60075.	105.	2.	11.	3.	5.	3.
NB	2678.	37788.	58646.	114.	1.	77.	0.	4.	18.
NB	2679.	37180.	58890.	607.	4.	63.	285.	7.	1.
NB	2680.	36947.	59125.	136.	11.	11.	3.	2.	2.
NB	2681.	37123.	58910.	112.	2.	17.	0.	5.	0.
NB	2682.	36417.	58626.	181.	2.	36.	2.	2.	9.
NB	2684.	36086.	58968.	3283.	18.	193.	14.	10.	6.
NB	2685.	37618.	60075.	207.	6.	198.	0.	3.	0.
NB	2686.	36633.	59239.	208.	3.	10.	2.	2.	1.
NB	2687.	36872.	58980.	36.	0.	8.	1.	2.	4.
NB	2688.	36646.	59231.	156.	9.	39.	1.	3.	0.
NB	2690.	37878.	60013.	122.	9.	10.	4.	3.	1.
NB	2691.	36622.	59114.	1905.	24.	254.	7.	10.	1.
NB	2693.	36255.	58906.	10700.	21.	403.	15.	14.	0.
NB	2694.	36493.	59766.	447.	2.	24.	1.	1.	0.
NB	2695.	37254.	58760.	616.	15.	112.	2.	9.	3.
NB	2696.	37771.	60108.	596.	10.	61.	2.	3.	5.
NB	2697.	37572.	58806.	481.	9.	378.	5.	7.	4.
NB	2699.	36595.	59180.	337.	6.	21.	1.	2.	1.
NB	2700.	37295.	59386.	533.	6.	224.	3.	8.	6.
NB	2701.	35904.	59140.	22.	2.	4.	5.	4.	0.
NB	2702.	41028.	62150.	104.	9.	20.	4.	6.	0.
NB	2703.	35926.	59288.	67.	6.	3.	0.	1.	4.
NB	2704.	35842.	58572.	92.	46.	406.	9.	14.	1.
NB	2705.	35962.	58475.	29.	0.	113.	1.	2.	0.
NB	2706.	40977.	62089.	273.	4.	136.	5.	9.	6.
NB	2707.	35872.	59284.	59.	4.	25.	2.	1.	0.
NB	2708.	36016.	58644.	215.	8.	84.	3.	4.	4.
NB	2710.	35956.	58638.	174.	12.	69.	3.	7.	4.
NB	2711.	36270.	58289.	245.	10.	524.	11.	6.	2.
NB	2712.	36109.	58445.	176.	7.	94.	0.	5.	0.
NB	2713.	36464.	58351.	48.	7.	20.	2.	2.	7.
NB	2714.	36112.	58605.	61.	16.	119.	10.	6.	6.
NB	2715.	35762.	58518.	84.	30.	173.	5.	11.	0.
NB	2716.	36268.	59873.	50.	2.	15.	3.	2.	1.
NB	2718.	40160.	62345.	568.	40.	82.	11.	24.	4.
NB	2719.	41562.	62232.	98.	10.	6.	2.	3.	4.
NB	2720.	36838.	58556.	517.	8.	439.	15.	10.	4.
NB	2721.	36382.	58302.	890.	10.	304.	2.	4.	0.
NB	2722.	36500.	58353.	415.	10.	128.	3.	5.	0.
NB	2723.	36205.	59345.	235.	8.	44.	3.	3.	3.
NB	2724.	40903.	62233.	167.	10.	124.	0.	3.	0.
NB	2725.	36398.	58454.	608.	1.	219.	6.	3.	0.
NB	2726.	41487.	62316.	105.	346.	53.	2.	7.	0.
NB	2728.	36295.	58405.	56.	2.	42.	0.	3.	1.
NB	2729.	36096.	58558.	208.	9.	30.	4.	5.	6.
NB	2731.	36307.	58446.	137.	7.	63.	0.	2.	2.
NB	2732.	36010.	58289.	429.	9.	87.	2.	6.	0.
NB	2733.	35977.	59416.	104.	5.	29.	0.	1.	6.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	991.	35932.	56660.	1320.	127810.	1470.	13930.	-1.
HB	992.	39644.	56792.	470.	53730.	810.	4110.	-1.
HB	993.	36203.	56659.	1110.	59860.	430.	3860.	-1.
HB	994.	36173.	56713.	930.	31140.	280.	5950.	-1.
HB	998.	39526.	56637.	390.	17700.	200.	2030.	-1.
HB	999.	36670.	56533.	3560.	77430.	680.	4690.	-1.
HB	1000.	36621.	56723.	1270.	172090.	1260.	8680.	-1.
HB	1003.	40268.	56544.	1640.	26840.	250.	1710.	-1.
HB	1004.	40224.	56472.	1970.	62080.	500.	4740.	-1.
HB	1005.	40425.	57351.	26000.	36100.	400.	3210.	-1.
HB	1007.	39928.	57027.	45880.	10120.	180.	3770.	-1.
HB	1009.	36063.	56505.	840.	44730.	430.	3070.	-1.
HB	1010.	35737.	56710.	1010.	67790.	560.	7250.	-1.
HB	1011.	36592.	56600.	1320.	53220.	620.	2190.	-1.
HB	1014.	35836.	56683.	860.	40560.	300.	4470.	-1.
HB	1015.	35915.	56365.	460.	23260.	190.	1930.	-1.
HB	1018.	35745.	56176.	880.	33230.	430.	3390.	-1.
HB	1020.	35670.	56227.	1800.	142860.	1870.	7400.	-1.
HB	1021.	35968.	56763.	1650.	63320.	1030.	13580.	-1.
HB	1025.	36504.	56106.	780.	32760.	350.	8580.	-1.
HB	1026.	40100.	56743.	770.	69600.	710.	9670.	-1.
HB	1027.	36640.	56660.	2790.	184830.	1940.	10720.	-1.
HB	1030.	35787.	56340.	1120.	116070.	1480.	9890.	-1.
HB	1034.	35990.	56270.	1110.	52250.	300.	2850.	-1.
HB	1036.	36730.	55965.	3020.	85440.	860.	5540.	-1.
HB	1038.	35975.	56190.	500.	24190.	170.	2710.	-1.
HB	1040.	40245.	56394.	1080.	91080.	950.	9440.	-1.
HB	1042.	40300.	57308.	6460.	24250.	240.	3160.	-1.
HB	1043.	36470.	55958.	800.	71260.	920.	9980.	-1.
HB	1044.	39981.	57460.	2100.	37720.	280.	3700.	-1.
HB	1046.	40670.	56678.	740.	23940.	230.	2740.	-1.
HB	1050.	40068.	56682.	1010.	25000.	260.	2170.	-1.
HB	1053.	39742.	57353.	2540.	84100.	930.	7670.	-1.
HB	1054.	36418.	56072.	510.	40110.	340.	5060.	-1.
HB	1056.	39947.	56578.	1690.	56410.	660.	4070.	-1.
HB	1059.	36687.	56082.	1240.	72080.	790.	4500.	-1.
HB	1060.	39865.	56550.	3640.	57210.	500.	5160.	-1.
HB	1062.	35780.	55990.	1120.	95560.	760.	5740.	-1.
HB	1063.	35732.	56720.	910.	145580.	940.	5000.	-1.
HB	1064.	36650.	56759.	14700.	106400.	730.	1980.	-1.
HB	1067.	40115.	57920.	540.	10730.	240.	2010.	-1.
HB	1071.	40581.	57306.	9070.	42390.	310.	2400.	-1.
HB	1072.	40389.	57144.	10980.	38480.	360.	4410.	-1.
HB	1075.	36320.	56090.	1070.	40880.	590.	8580.	-1.
HB	1078.	35934.	56519.	1090.	66290.	620.	5580.	-1.
HB	1080.	35821.	56410.	760.	39980.	400.	2030.	-1.
HB	1081.	36317.	55952.	1040.	62350.	620.	2950.	-1.
HB	1082.	36659.	56009.	1490.	65760.	650.	6615.	-1.
HB	1083.	40056.	57040.	9920.	30600.	350.	6180.	-1.
HB	1084.	40509.	57304.	7290.	57510.	420.	6690.	-1.
HB	1085.	39969.	56644.	970.	51520.	380.	5560.	-1.
HB	1086.	35859.	56217.	1050.	70520.	1030.	7510.	-1.
HB	1088.	35693.	56644.	470.	25930.	150.	2610.	-1.
HB	1089.	36640.	56040.	500.	35950.	350.	3100.	-1.
HB	1090.	39812.	57410.	5940.	120690.	1480.	11940.	-1.
HB	1091.	35748.	56180.	1270.	59000.	640.	6000.	-1.
HB	1092.	35880.	56270.	2140.	89820.	1290.	11230.	-1.

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	893.	39569.	57135.	1100.	61240.	540.	7560.	-1.
HB	894.	39277.	57350.	2170.	34760.	320.	5060.	-1.
HB	897.	38730.	55960.	140.	9880.	2160.	2640.	-1.
HB	898.	36878.	56495.	1200.	143580.	1570.	11060.	-1.
HB	899.	39063.	56352.	780.	26500.	220.	5140.	-1.
HB	901.	39937.	56076.	980.	46440.	1470.	39860.	-1.
HB	903.	36647.	56167.	1020.	81700.	1170.	8740.	-1.
HB	904.	36662.	56667.	2790.	92130.	910.	7240.	-1.
HB	905.	39870.	56814.	1590.	66950.	670.	9630.	-1.
HB	908.	39608.	56696.	420.	29480.	540.	3490.	-1.
HB	909.	36131.	56738.	960.	77710.	570.	5440.	-1.
HB	910.	35629.	56728.	940.	127610.	770.	5480.	-1.
HB	911.	36559.	56634.	2180.	51590.	350.	3810.	-1.
HB	912.	39723.	56229.	450.	20370.	230.	2520.	-1.
HB	915.	35740.	56362.	1020.	70350.	730.	5180.	-1.
HB	917.	36604.	56239.	780.	63090.	570.	5760.	-1.
HB	918.	35746.	56018.	1940.	13930.	100.	1160.	-1.
HB	919.	36600.	56231.	1250.	79970.	1190.	6650.	-1.
HB	920.	38975.	57797.	480.	27500.	280.	2740.	-1.
HB	924.	36165.	56448.	1590.	65450.	530.	6390.	-1.
HB	925.	36498.	56753.	460.	11340.	140.	2620.	-1.
HB	926.	35864.	56805.	560.	27700.	260.	3680.	-1.
HB	927.	36960.	56430.	780.	45080.	420.	5880.	-1.
HB	928.	36298.	56542.	1020.	59080.	570.	7400.	-1.
HB	929.	38960.	57790.	540.	40100.	250.	3290.	-1.
HB	931.	39718.	56570.	560.	31570.	310.	3790.	-1.
HB	933.	39599.	56045.	160.	5370.	110.	10170.	-1.
HB	935.	39848.	56009.	513.	23940.	840.	21290.	-1.
HB	936.	36006.	56943.	500.	19080.	150.	2090.	-1.
HB	940.	36230.	56475.	740.	15600.	170.	3770.	-1.
HB	941.	36503.	56747.	470.	15970.	220.	1690.	-1.
HB	942.	39550.	55782.	490.	27990.	370.	6930.	-1.
HB	943.	35606.	56506.	2940.	151930.	850.	7300.	-1.
HB	946.	36607.	57109.	5080.	83960.	370.	3270.	-1.
HB	947.	35953.	56829.	1340.	144730.	960.	4360.	-1.
HB	952.	39115.	57823.	7000.	70780.	430.	2440.	-1.
HB	954.	36257.	56485.	1980.	61960.	750.	3950.	-1.
HB	955.	39153.	55868.	300.	39710.	440.	4600.	-1.
HB	956.	35707.	56753.	2070.	41320.	260.	1480.	-1.
HB	957.	35640.	56886.	970.	33110.	220.	2240.	-1.
HB	960.	36626.	56440.	1760.	104960.	1140.	10300.	-1.
HB	961.	36480.	57059.	8300.	74600.	340.	3690.	-1.
HB	962.	35903.	56858.	420.	18980.	140.	1740.	-1.
HB	963.	36387.	56834.	1270.	142830.	1100.	8690.	-1.
HB	964.	39849.	56947.	470.	50040.	290.	3720.	-1.
HB	966.	36282.	56680.	1150.	64110.	470.	4290.	-1.
HB	969.	35730.	56358.	380.	42630.	450.	4040.	-1.
HB	972.	36647.	56384.	1350.	123880.	1440.	6810.	-1.
HB	973.	39031.	57827.	840.	127670.	630.	3750.	-1.
HB	977.	36274.	56320.	720.	30670.	510.	10230.	-1.
HB	978.	36462.	56230.	920.	26860.	320.	6570.	-1.
HB	980.	36541.	56278.	440.	52040.	350.	4490.	-1.
HB	982.	36309.	56414.	3060.	43710.	450.	9640.	-1.
HB	983.	36247.	56028.	530.	12900.	120.	2900.	-1.
HB	984.	36342.	56608.	830.	52320.	550.	5390.	-1.
HB	987.	36048.	56881.	840.	60740.	170.	1740.	-1.
HB	990.	36190.	56342.	470.	66530.	360.	3660.	-1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	1057.	42357.	61847.	1890.	42600.	370.	8420.	20.
HB	1059.	42350.	61839.	4110.	100060.	1230.	25100.	50.
HB	1060.	42340.	61308.	7820.	261030.	4740.	45630.	70.
HB	1061.	42255.	61020.	14940.	73790.	570.	4460.	70.
HB	1065.	41143.	61616.	920.	44990.	750.	21580.	30.
HB	1066.	41690.	61752.	1110.	28010.	270.	9020.	20.
HB	1068.	41443.	61545.	1460.	86580.	440.	11740.	40.
HB	1069.	41399.	61748.	900.	56060.	760.	19710.	30.
HB	1070.	41526.	61401.	680.	43990.	360.	11700.	70.
HB	1071.	41244.	61694.	1200.	59200.	760.	21610.	40.
HB	1072.	42121.	61154.	5950.	215810.	3150.	39590.	140.
HB	1075.	41060.	61970.	2180.	102300.	1480.	28200.	40.
HB	1076.	40836.	61970.	830.	28990.	550.	13320.	40.
HB	1077.	41388.	61730.	690.	26750.	220.	5490.	40.
HB	1080.	41575.	61405.	1050.	23790.	350.	10990.	40.
HB	1082.	41800.	61308.	3500.	202920.	5900.	34930.	280.
HB	1084.	42314.	61073.	4480.	130680.	2220.	42770.	50.
HB	1085.	41814.	61067.	1750.	35570.	380.	7320.	20.
HB	1087.	41703.	61308.	2620.	122410.	1190.	12090.	110.
HB	1090.	41271.	61070.	1100.	66090.	590.	12020.	50.
HB	1091.	41522.	61560.	2150.	167820.	2000.	31600.	60.
HB	1093.	41625.	61572.	1960.	151170.	1120.	15500.	50.
HB	1094.	41149.	61070.	1080.	160880.	2220.	35100.	50.
HB	1900.	42108.	61222.	3490.	103910.	1040.	20400.	110.
HB	2002.	39171.	59728.	520.	44310.	410.	6220.	40.
HB	2003.	38228.	60248.	660.	27930.	240.	3208.	40.
HB	2004.	38228.	60196.	460.	18300.	210.	1970.	40.
HB	2005.	39154.	59603.	340.	46260.	260.	3940.	130.
HB	2006.	38310.	60190.	130.	49010.	310.	1290.	40.
HB	2008.	39429.	59962.	340.	51210.	350.	3080.	10.
HB	2009.	38864.	60331.	900.	52790.	810.	5020.	40.
HB	2010.	38925.	60590.	1900.	50900.	360.	11090.	50.
HB	2013.	38750.	59998.	940.	26250.	260.	5960.	30.
HB	2014.	38590.	60125.	120.	11230.	100.	720.	10.
HB	2015.	38858.	59430.	590.	33100.	240.	1900.	70.
HB	2016.	38763.	60053.	1140.	42350.	360.	7900.	130.
HB	2017.	38954.	59450.	530.	26700.	260.	1390.	20.
HB	2018.	38919.	59730.	800.	15190.	150.	7620.	10.
HB	2021.	38060.	60280.	140.	4960.	70.	1780.	0.
HB	2022.	39294.	59734.	320.	16360.	140.	3150.	20.
HB	2023.	38643.	59923.	940.	81520.	630.	4780.	140.
HB	2024.	39287.	59448.	1980.	53720.	350.	4860.	110.
HB	2025.	39298.	59274.	2020.	32060.	320.	11130.	50.
HB	2026.	37028.	60173.	1270.	42750.	390.	5540.	60.
HB	2027.	38251.	60077.	150.	6110.	90.	570.	10.
HB	2028.	38796.	60339.	90.	10000.	80.	1150.	10.
HB	2029.	38790.	60402.	480.	21420.	520.	6310.	80.
HB	2030.	37853.	60322.	430.	11620.	260.	2860.	30.
HB	2031.	38662.	59668.	450.	33070.	370.	6280.	40.
HB	2033.	38240.	60245.	740.	19250.	210.	3520.	60.
HB	2034.	38668.	60365.	270.	10700.	100.	3820.	20.
HB	2036.	39000.	59276.	10750.	211650.	4460.	65100.	420.
HB	2037.	39192.	59399.	540.	33890.	250.	9360.	50.
HB	2038.	38678.	60358.	150.	6730.	60.	1860.	10.
HB	2040.	38858.	59611.	180.	10840.	160.	2130.	10.
HB	2041.	38651.	59584.	610.	44910.	450.	9660.	50.
HB	2042.	39480.	59909.	160.	18370.	200.	3330.	20.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2043.	38626.	59954.	120.	10940.	60.	1610.	30.
HB	2044.	38804.	60358.	150.	6950.	60.	2060.	10.
HB	2045.	38928.	59448.	610.	21890.	230.	1160.	20.
HB	2046.	38261.	59940.	230.	15290.	160.	1380.	10.
HB	2047.	38218.	60191.	410.	26220.	260.	1930.	10.
HB	2048.	38588.	60140.	120.	23030.	140.	2690.	30.
HB	2049.	39420.	59692.	590.	27140.	380.	5990.	30.
HB	2050.	38599.	59499.	80.	13420.	80.	990.	10.
HB	2051.	38693.	59816.	620.	47700.	300.	5610.	90.
HB	2052.	38577.	60393.	180.	11642.	90.	2470.	10.
HB	2053.	38279.	60013.	260.	53260.	540.	1570.	50.
HB	2054.	38570.	60371.	700.	51650.	180.	3720.	30.
HB	2055.	38607.	60018.	340.	31750.	360.	5300.	60.
HB	2056.	35318.	59881.	820.	32930.	130.	1980.	20.
HB	2057.	39415.	59751.	740.	40560.	780.	5280.	120.
HB	2058.	38120.	59960.	380.	55680.	220.	2040.	30.
HB	2059.	39459.	59921.	300.	42870.	470.	6520.	30.
HB	2060.	39126.	59224.	340.	12460.	130.	3530.	10.
HB	2061.	37948.	59700.	710.	65100.	440.	9550.	230.
HB	2062.	37372.	59935.	440.	44140.	570.	7380.	70.
HB	2063.	38639.	59641.	500.	37310.	350.	6040.	20.
HB	2064.	38936.	59662.	300.	15430.	200.	1570.	10.
HB	2065.	38781.	60298.	950.	48560.	740.	3410.	40.
HB	2066.	38740.	59916.	660.	49740.	420.	12860.	50.
HB	2067.	37865.	60395.	1340.	32770.	180.	4340.	50.
HB	2068.	37856.	60323.	1010.	25570.	160.	3400.	50.
HB	2069.	39379.	59942.	500.	54360.	320.	3020.	40.
HB	2070.	39356.	59381.	710.	42900.	400.	6570.	50.
HB	2071.	39250.	59208.	2310.	79770.	540.	16600.	110.
HB	2072.	39237.	59541.	870.	36480.	300.	2530.	80.
HB	2073.	38630.	59488.	770.	53860.	470.	5100.	520
HB	2074.	38076.	60188.	160.	9840.	60.	1130.	30.
HB	2078.	38939.	59720.	910.	74130.	570.	8950.	210.
HB	2079.	38099.	60020.	470.	28740.	140.	2150.	20.
HB	2080.	38062.	60097.	140.	11400.	90.	1080.	10.
HB	2081.	39268.	59434.	380.	15480.	130.	4010.	20.
HB	2083.	38577.	60408.	440.	20400.	270.	13080.	20.
HB	2084.	38075.	60180.	200.	9180.	250.	1260.	10.
HB	2085.	39194.	59282.	1090.	58920.	460.	10450.	70.
HB	2086.	38200.	60083.	820.	87070.	440.	820.	30.
HB	2087.	39172.	59750.	4130.	20340.	430.	4050.	50.
HB	2088.	38384.	59763.	340.	25850.	340.	840.	30.
HB	2089.	38711.	59755.	500.	23730.	724.	3050.	40.
HB	2091.	38338.	60341.	150.	15690.	70.	1420.	10.
HB	2092.	38579.	60039.	100.	12340.	60.	1030.	20.
HB	2094.	38660.	60122.	200.	16280.	160.	1860.	20.
HB	2095.	38850.	59547.	190.	8420.	180.	2070.	10.
HB	2096.	39179.	59300.	3260.	90020.	690.	16680.	80.
HB	2097.	39342.	59791.	510.	91040.	300.	4260.	30.
HB	2098.	38102.	60023.	230.	32710.	100.	580.	10.
HB	2100.	38818.	60068.	520.	47400.	500.	11610.	50.
HB	2101.	38937.	60168.	430.	23270.	280.	3220.	50.
HB	2102.	39456.	59719.	540.	20110.	210.	2540.	20.
HB	2105.	38435.	59309.	190.	26660.	200.	1600.	20.
HB	2107.	39457.	60238.	140.	8980.	110.	2560.	20.
HB	2108.	38942.	58910.	1710.	58870.	470.	11340.	230.
HB	2109.	38880.	59096.	1760.	66490.	720.	15750.	110.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
34	341819.	34579.	56805.	900.	20160.	130.	3040.	30.
34	341821.	34925.	57355.	820.	108870.	500.	2900.	60.
34	341823.	35042.	57469.	4530.	133370.	620.	1410.	180.
34	341825.	34780.	57670.	1030.	29190.	330.	2390.	40.
34	341826.	35029.	57905.	750.	15140.	80.	1770.	40.
34	341827.	34775.	57760.	1260.	30520.	380.	6920.	40.
34	341828.	35032.	57441.	23060.	14950.	220.	860.	60.
34	341829.	35665.	57495.	1120.	42820.	130.	1350.	20.
34	341830.	34670.	57210.	1140.	120660.	460.	5320.	70.
34	341831.	35737.	57715.	91060.	42510.	570.	1950.	130.
34	341832.	34821.	57085.	1520.	29630.	500.	3120.	60.
34	341833.	35316.	57481.	1350.	66230.	500.	1000.	30.
34	341835.	35430.	57301.	2180.	55600.	180.	2210.	50.
34	341836.	35611.	57900.	1710.	23830.	260.	2050.	30.
34	341837.	35893.	57691.	47220.	56010.	640.	2650.	120.
34	341838.	35876.	57705.	17740.	55800.	830.	1680.	90.
34	341839.	34960.	57405.	1580.	148470.	880.	4080.	230.
34	341841.	35730.	57488.	5240.	24190.	160.	2020.	40.
34	341842.	35888.	57465.	20210.	48320.	280.	1360.	40.
34	341844.	35396.	57845.	1240.	13760.	110.	1430.	40.
34	341848.	35732.	57856.	2060.	23860.	170.	1740.	20.
34	341849.	35731.	57740.	31070.	34190.	180.	1080.	40.
34	341850.	35052.	57454.	6080.	45050.	250.	1630.	60.
34	341851.	34745.	57403.	1470.	112990.	810.	2150.	60.
34	341852.	34924.	57969.	1120.	55190.	340.	5440.	50.
34	341853.	35423.	57589.	6950.	93760.	630.	1920.	90.
34	341854.	35009.	57925.	1780.	55360.	350.	7780.	50.
34	341855.	34779.	56954.	1480.	99110.	410.	9020.	90.
34	341856.	35099.	57426.	2650.	53380.	360.	1910.	40.
34	341857.	34656.	57201.	3150.	113260.	600.	2140.	70.
34	341858.	35556.	57913.	1240.	19860.	170.	2310.	40.
34	341859.	35017.	57599.	3590.	29750.	190.	1720.	50.
34	341860.	34727.	57669.	629.	17110.	110.	2300.	40.
34	341862.	35770.	57468.	600.	15170.	110.	730.	30.
34	341863.	34785.	57791.	1750.	39660.	280.	4970.	100.
34	341864.	34680.	57580.	440.	11280.	50.	1610.	20.
34	341865.	34938.	57975.	2700.	109750.	790.	14300.	120.
34	341866.	34598.	57132.	880.	29830.	130.	2270.	50.
34	341869.	34965.	57603.	5540.	82250.	560.	2180.	90.
34	341870.	34835.	57176.	3350.	27700.	160.	2340.	60.
34	341871.	35063.	57848.	1660.	96070.	620.	10750.	80.
34	341872.	35399.	57209.	6780.	19050.	270.	1900.	40.
34	341873.	34680.	56969.	1020.	53760.	210.	4200.	50.
34	341874.	35071.	57549.	2890.	116670.	310.	1430.	70.
34	341875.	35890.	57619.	177210.	42990.	470.	1120.	690.
34	341876.	35640.	57539.	163500.	33660.	540.	1110.	270.
34	341877.	36388.	57583.	37240.	19680.	210.	860.	60.
34	341878.	35159.	57438.	350.	2970.	30.	815.	20.
34	341879.	35750.	57493.	14186.	8990.	60.	780.	30.
34	341880.	34599.	57169.	1590.	67150.	290.	2040.	50.
34	341881.	35721.	57753.	13850.	16110.	280.	1920.	70.
34	341882.	35060.	57339.	2420.	245820.	1710.	2440.	180.
34	341883.	35253.	57380.	880.	33180.	170.	1120.	30.
34	341884.	34808.	57037.	940.	17150.	90.	1850.	50.
34	341885.	34930.	57540.	3910.	43810.	410.	1660.	60.
34	341886.	34890.	57399.	1130.	205620.	1150.	5760.	360.
34	341887.	34680.	57360.	960.	47780.	150.	1770.	50.

CHEMICAL DATA FOR PANNED CONCENTRATES: (B) CALCIUM, IRON, MANGANESE, TITANIUM AND STRONTIUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CALCIUM	IRON	MN	TITANIUM	SR
HB	2800.	38486.	59513.	390.	20630.	100.	2840.	30.
HB	2801.	37323.	57319.	420.	27140.	180.	2150.	30.
HB	2802.	35743.	59066.	150.	12510.	70.	3060.	20.
HB	2803.	36364.	58960.	400.	15430.	180.	1980.	10.
HB	2804.	36293.	58775.	2670.	43420.	510.	12780.	50.
HB	2807.	41330.	62244.	1020.	44550.	490.	3790.	20.
HB	2818.	35738.	58837.	180.	4750.	40.	1260.	10.
HB	2819.	35829.	58850.	320.	14360.	100.	1530.	10.
HB	2821.	36160.	58732.	110.	7640.	40.	2080.	20.
HB	2822.	35979.	58932.	200.	9790.	50.	1800.	10.
HB	2824.	41270.	62192.	460.	36190.	250.	3500.	20.
HB	2825.	36088.	58690.	150.	11600.	50.	1320.	20.
HB	2828.	35720.	59060.	140.	11590.	360.	2630.	10.
HB	2829.	37247.	57328.	1480.	23770.	390.	1880.	40.
HB	2831.	37593.	57338.	540.	19510.	120.	1690.	30.
HB	2832.	36309.	58797.	620.	15880.	140.	2410.	20.
HB	2834.	41480.	62043.	710.	17080.	370.	3980.	20.
HB	2839.	36072.	58775.	120.	6610.	20.	1260.	10.
HB	2841.	36222.	58759.	260.	15100.	80.	3040.	30.
HB	2845.	40400.	62073.	1780.	29660.	1860.	24000.	80.
HB	2849.	35859.	59006.	390.	55760.	180.	1220.	10.
HB	2855.	35801.	59023.	320.	10240.	60.	1940.	10.
HB	2857.	37229.	57259.	930.	20470.	130.	3410.	30.
HB	2858.	41478.	62040.	605.	19550.	220.	3390.	20.
HB	2861.	35982.	58947.	2390.	29350.	160.	1880.	40.
HB	2866.	35828.	58864.	530.	25000.	100.	2040.	10.
HB	2867.	36148.	58693.	170.	8020.	30.	880.	10.
HB	2869.	40311.	62087.	4020.	92190.	2400.	24190.	150.
HB	2871.	35835.	58993.	260.	15360.	150.	1640.	20.
HB	2874.	36252.	58779.	360.	16340.	120.	2220.	20.
HB	2875.	35926.	58965.	250.	14310.	90.	1480.	20.
HB	2879.	36161.	58737.	140.	6970.	40.	2100.	20.
HB	2880.	40893.	62121.	360.	35590.	300.	6480.	20.
HB	2881.	35788.	59021.	190.	8680.	60.	2190.	10.
HB	2883.	37373.	57257.	6700.	88730.	400.	2570.	90.
HB	2885.	41358.	62137.	930.	42350.	430.	5340.	20.
HB	2889.	40194.	62087.	2640.	44910.	1200.	14870.	90.
HB	2892.	35880.	58912.	420.	18690.	140.	1670.	20.
HB	2894.	36315.	58866.	380.	10700.	100.	1430.	10.
HB	2898.	41340.	62133.	450.	21300.	150.	2340.	10.
HB	2899.	37200.	57346.	650.	11330.	110.	1450.	20.
HB	2900.	40424.	62209.	3430.	74870.	1740.	23110.	100.
34	341801.	34711.	57567.	740.	16340.	150.	1400.	30.
34	341803.	35506.	57364.	6650.	28050.	120.	1140.	70.
34	341804.	35139.	57660.	900.	28530.	160.	4850.	20.
34	341805.	35089.	57477.	12290.	36700.	340.	1760.	40.
34	341806.	35630.	57101.	103340.	15460.	160.	600.	180.
34	341808.	35687.	57957.	1130.	20810.	200.	1200.	30.
34	341809.	35531.	57392.	21250.	18080.	90.	960.	60.
34	341810.	35201.	57211.	3430.	184320.	840.	4170.	110.
34	341811.	34970.	57754.	1600.	31330.	160.	2320.	30.
34	341812.	34991.	57399.	1780.	46870.	480.	7390.	60.
34	341813.	34890.	57480.	1040.	81940.	300.	2770.	50.
34	341814.	35675.	57408.	11530.	57010.	230.	1760.	70.
34	341815.	35602.	57730.	1550.	80660.	400.	1280.	30.
34	341816.	35723.	57843.	9740.	46970.	570.	1630.	30.
34	341817.	34866.	57632.	1010.	30520.	290.	4700.	30.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1172.	40667.	57545.	114.	11.	10.	4630.	1.
HB	1173.	40170.	58020.	24.	4.	0.	1240.	3.
HB	1174.	39925.	58442.	70.	3.	0.	1630.	2.
HB	1175.	40149.	58760.	42.	0.	0.	3330.	7.
HB	1176.	39885.	58523.	17.	3.	0.	710.	0.
HB	1177.	40340.	57861.	516.	0.	30.	19440.	9.
HB	1180.	40608.	57564.	99.	2.	0.	3030.	2.
HB	1185.	40137.	58270.	43.	3.	0.	1010.	6.
HB	1186.	39528.	58410.	26.	0.	0.	3020.	2.
HB	1191.	39603.	58193.	89.	6.	0.	6250.	3.
HB	1192.	40284.	57190.	67.	3.	0.	1840.	1.
HB	1197.	39655.	57820.	44.	0.	0.	1270.	3.
HB	1199.	39790.	58524.	67.	8.	10.	4940.	0.
HB	1201.	40360.	58719.	36.	0.	0.	2830.	2.
HB	1202.	40568.	58713.	0.	0.	0.	1640.	4.
HB	1203.	40180.	51390.	31.	0.	0.	770.	0.
HB	1204.	39880.	51922.	13.	3.	0.	1520.	2.
HB	1205.	40100.	54412.	57.	8.	0.	2220.	4.
HB	1206.	41011.	5842.	36.	4.	0.	1160.	1.
HB	1208.	40379.	58425.	79.	3.	0.	3930.	0.
HB	1209.	39527.	57908.	45.	0.	0.	2250.	2.
HB	1210.	40680.	58724.	0.	0.	0.	1180.	4.
HB	1211.	40893.	59215.	0.	0.	0.	4590.	7.
HB	1216.	40508.	58095.	60.	1.	0.	2470.	3.
HB	1217.	40841.	58102.	102.	9.	0.	2259.	2.
HB	1218.	39675.	58869.	23.	2.	0.	900.	1.
HB	1219.	41091.	58499.	53.	6.	0.	2350.	4.
HB	1221.	40469.	58698.	0.	0.	0.	1350.	5.
HB	1222.	40905.	59150.	55.	5.	0.	2120.	2.
HB	1223.	40700.	58445.	95.	3.	0.	2880.	3.
HB	1224.	40776.	58362.	88.	0.	10.	3240.	1.
HB	1225.	40914.	59162.	0.	0.	0.	1240.	6.
HB	1226.	40332.	58995.	46.	5.	0.	1920.	0.
HB	1227.	39720.	58858.	40.	0.	0.	1580.	3.
HB	1228.	39400.	57982.	51.	0.	0.	3110.	0.
HB	1229.	40904.	59280.	58.	14.	0.	1640.	4.
HB	1230.	41032.	58435.	104.	0.	0.	3940.	1.
HB	1231.	40491.	58410.	64.	0.	0.	2120.	2.
HB	1232.	40885.	59209.	0.	0.	0.	2740.	8.
HB	1233.	40927.	59025.	26.	2.	0.	1030.	2.
HB	1234.	39544.	57880.	25.	4.	0.	2380.	1.
HB	1236.	40270.	58363.	80.	3.	10.	3060.	5.
HB	1238.	40810.	58423.	0.	0.	10.	720.	0.
HB	1239.	40750.	59305.	0.	0.	0.	900.	3.
HB	1240.	40677.	59110.	0.	0.	0.	1680.	9.
HB	1241.	40945.	59189.	0.	0.	0.	1480.	5.
HB	1243.	40886.	58974.	65.	0.	0.	1190.	0.
HB	1244.	40930.	59008.	421.	4.	10.	7000.	0.
HB	1245.	40940.	59039.	58.	0.	0.	2040.	1.
HB	1246.	39387.	57977.	31.	5.	0.	1150.	0.
HB	1248.	40299.	58335.	0.	7.	0.	550.	0.
HB	1249.	40935.	58082.	76.	2.	0.	2230.	3.
HB	1250.	40999.	59052.	0.	0.	0.	2020.	7.
HB	1251.	39595.	58854.	0.	1.	0.	1220.	7.
HB	1252.	40995.	58975.	131.	0.	0.	3600.	1.
HB	1254.	40354.	58960.	39.	1.	0.	800.	2.
HB	1255.	40808.	59292.	0.	0.	0.	1360.	1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	1093.	36495.	56094.	0.	0.	-1.	-1.	-1.
HB	1094.	36590.	56065.	0.	0.	-1.	-1.	-1.
HB	1095.	40019.	56645.	27.	0.	-1.	-1.	-1.
HB	1096.	36640.	55920.	61.	1.	-1.	-1.	-1.
HB	1101.	40263.	58134.	50.	2.	10.	1440.	0.
HB	1102.	40533.	57720.	1055.	4.	50.	22560.	5.
HB	1104.	35546.	58452.	39.	0.	0.	5850.	5.
HB	1108.	40210.	58778.	29.	4.	0.	1950.	0.
HB	1109.	40110.	58862.	6.	0.	10.	2310.	1.
HB	1110.	39930.	58466.	154.	6.	10.	5410.	2.
HB	1111.	40448.	57895.	63.	3.	0.	2320.	4.
HB	1113.	40609.	57947.	91.	0.	10.	3440.	5.
HB	1116.	40032.	58743.	187.	0.	10.	0 00.	2.
HB	1117.	39916.	58728.	82.	7.	0.	2570.	0.
HB	1118.	39754.	58352.	19.	12.	0.	630.	1.
HB	1119.	40610.	57764.	234.	0.	10.	7170.	4.
HB	1120.	40000.	58451.	63.	117.	10.	3960.	15.
HB	1121.	39866.	57868.	29.	1.	0.	990.	1.
HB	1122.	39760.	58708.	0.	0.	0.	2600.	4.
HB	1123.	39810.	57767.	14.	3.	0.	500.	0.
HB	1125.	40022.	58453.	54.	9.	10.	2110.	4.
HB	1129.	39830.	58397.	74.	0.	0.	1300.	3.
HB	1130.	39709.	58260.	75.	0.	10.	3720.	1.
HB	1131.	40210.	58300.	52.	8.	0.	1100.	0.
HB	1132.	39589.	58323.	23.	1.	0.	700.	1.
HB	1133.	40080.	58925.	0.	0.	0.	1830.	3.
HB	1134.	39646.	57933.	37.	6.	0.	1690.	1.
HB	1135.	40418.	57700.	180.	3.	10.	4660.	2.
HB	1136.	39669.	58364.	74.	2.	10.	3260.	1.
HB	1137.	40235.	58073.	30.	7.	0.	350.	1.
HB	1138.	40175.	57968.	54.	0.	0.	2310.	1.
HB	1139.	40609.	57570.	55.	0.	0.	2420.	0.
HB	1140.	39710.	58515.	107.	0.	10.	4270.	1.
HB	1141.	39628.	58524.	45.	0.	0.	940.	2.
HB	1142.	40230.	58777.	0.	0.	0.	4020.	4.
HB	1143.	39980.	58181.	27.	0.	0.	1520.	2.
HB	1144.	39924.	58421.	14.	3.	0.	810.	0.
HB	1146.	40050.	58243.	44.	2.	0.	1050.	0.
HB	1147.	40025.	58443.	0.	6.	0.	640.	4.
HB	1148.	40010.	58346.	38.	7.	0.	680.	0.
HB	1149.	39730.	58358.	22.	0.	0.	590.	1.
HB	1150.	39683.	58532.	166.	0.	10.	7400.	2.
HB	1152.	40347.	58169.	56.	0.	0.	2000.	4.
HB	1153.	40380.	58247.	58.	1.	0.	1640.	0.
HB	1154.	39867.	58160.	22.	0.	0.	530.	5.
HB	1156.	39682.	58197.	39.	2.	10.	1800.	0.
HB	1157.	39533.	58430.	28.	0.	0.	5840.	5.
HB	1160.	36516.	55974.	0.	8.	0.	810.	7.
HB	1162.	40180.	58824.	31.	0.	0.	1590.	0.
HB	1163.	40558.	57894.	54.	7.	0.	2250.	4.
HB	1164.	39765.	57735.	37.	1.	0.	1910.	2.
HB	1165.	40595.	57668.	35.	3.	0.	1250.	2.
HB	1166.	40300.	58747.	26.	4.	0.	1860.	5.
HB	1167.	40100.	58880.	0.	0.	0.	1470.	1.
HB	1169.	40091.	58186.	24.	9.	0.	380.	0.
HB	1170.	40530.	57561.	73.	0.	10.	3170.	2.
HB	1171.	39519.	58213.	11.	1.	0.	1020.	1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2177.	39463.	60186.	70.	3.	0.	4610.	0.
HB	2178.	38448.	59606.	22.	2.	10.	960.	0.
HB	2179.	38252.	59738.	78.	0.	0.	6290.	2.
HB	2181.	38777.	60673.	111.	6.	10.	4550.	1.
HB	2182.	38223.	59578.	57.	0.	10.	5680.	0.
HB	2183.	38407.	59624.	85.	11.	0.	6680.	0.
HB	2184.	38454.	59152.	26.	5.	0.	1820.	2.
HB	2185.	37860.	60268.	12.	2.	10.	2260.	0.
HB	2186.	39211.	60102.	19.	0.	0.	5300.	0.
HB	2188.	39472.	59558.	1.	2.	0.	2700.	0.
HB	2190.	38763.	58620.	17.	0.	0.	4070.	3.
HB	2192.	39107.	60082.	99.	0.	0.	3910.	2.
HB	2195.	38478.	59718.	17.	3.	0.	1290.	0.
HB	2196.	38270.	59774.	142.	0.	10.	8930.	3.
HB	2197.	38365.	59273.	147.	3.	10.	7850.	0.
HB	2198.	38720.	59162.	279.	5.	10.	11100.	2.
HB	2199.	39100.	60097.	160.	3.	0.	4670.	0.
HB	2200.	38279.	59357.	73.	1.	0.	5950.	1.
HB	2201.	39488.	59772.	0.	1.	0.	1140.	2.
HB	2202.	38409.	58824.	0.	2.	0.	1760.	2.
HB	2203.	39009.	58517.	26.	10.	0.	820.	1.
HB	2204.	39119.	58636.	23.	0.	0.	1300.	1.
HB	2205.	38712.	58450.	52.	0.	0.	4230.	2.
HB	2206.	39202.	59142.	164.	0.	10.	10550.	0.
HB	2207.	38517.	58402.	40.	0.	0.	2890.	0.
HB	2208.	39267.	58630.	47.	0.	10.	3290.	0.
HB	2209.	38304.	60292.	67.	0.	0.	4570.	0.
HB	2210.	38972.	58668.	14.	10.	0.	950.	0.
HB	2211.	38875.	59864.	27.	0.	0.	1740.	0.
HB	2212.	37973.	58807.	40.	2.	0.	2480.	0.
HB	2213.	39346.	58567.	25.	7.	0.	1720.	0.
HB	2214.	38797.	58310.	78.	1.	10.	3620.	0.
HB	2215.	38301.	58031.	44.	1.	0.	2560.	0.
HB	2216.	39411.	58736.	27.	0.	0.	2050.	0.
HB	2217.	39425.	58738.	13.	3.	0.	910.	2.
HB	2218.	39153.	58558.	57.	0.	0.	2730.	0.
HB	2219.	39336.	58540.	10.	0.	0.	450.	0.
HB	2220.	39453.	59127.	97.	0.	10.	6090.	6.
HB	2221.	38388.	58902.	49.	1.	0.	1570.	0.
HB	2222.	39384.	58466.	20.	0.	0.	1010.	0.
HB	2223.	38916.	58576.	76.	8.	10.	4990.	3.
HB	2224.	39310.	60417.	35.	1.	0.	3280.	0.
HB	2225.	38655.	58473.	97.	3.	0.	3940.	0.
HB	2226.	39113.	58679.	22.	7.	0.	1140.	0.
HB	2227.	38358.	58714.	13.	0.	10.	4180.	1.
HB	2228.	38160.	58587.	38.	0.	0.	2140.	0.
HB	2229.	38814.	58775.	52.	0.	0.	2150.	1.
HB	2230.	39336.	57126.	53.	4.	0.	1990.	0.
HB	2231.	38135.	57088.	64.	1.	0.	1320.	0.
HB	2232.	39314.	60654.	0.	0.	0.	1000.	3.
HB	2233.	38935.	59820.	181.	0.	10.	7480.	1.
HB	2234.	38471.	58496.	27.	9.	0.	1890.	2.
HB	2235.	39200.	58645.	18.	7.	0.	1110.	0.
HB	2236.	38016.	58904.	56.	1.	10.	3260.	0.
HB	2237.	38415.	58412.	66.	0.	10.	5880.	1.
HB	2238.	38816.	58343.	77.	0.	10.	5240.	1.
HB	2241.	38098.	58799.	11.	1.	0.	300.	1.

CHEMICAL DATA FOR PANNED CONCENTRATES: (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
HB	2110.	37892.	60466.	220.	0.	10.	9900.	0.
HB	2111.	39278.	60126.	244.	1.	10.	12710.	0.
HB	2112.	39572.	60135.	45.	0.	0.	3350.	1.
HB	2113.	38345.	59310.	154.	0.	10.	9530.	0.
HB	2114.	38635.	59176.	64.	2.	0.	3100.	1.
HB	2115.	38755.	58634.	59.	0.	0.	3730.	0.
HB	2116.	38810.	58653.	66.	5.	0.	3360.	0.
HB	2118.	38508.	59647.	41.	3.	0.	4480.	0.
HB	2119.	38822.	59096.	121.	0.	10.	6460.	0.
HB	2120.	39061.	59057.	31.	0.	0.	1920.	0.
HB	2123.	37921.	60650.	0.	22.	10.	9030.	5.
HB	2124.	38693.	58690.	29.	1.	0.	1270.	0.
HB	2125.	39080.	58800.	6.	0.	0.	880.	0.
HB	2126.	37905.	60485.	11.	0.	0.	6590.	3.
HB	2127.	37952.	60525.	0.	18.	10.	7000.	3.
HB	2128.	38607.	58954.	125.	0.	10.	4800.	0.
HB	2129.	38288.	59606.	50.	1.	0.	3190.	1.
HB	2130.	39008.	59387.	48.	7.	0.	4200.	0.
HB	2131.	38709.	58984.	85.	0.	0.	3200.	0.
HB	2132.	37869.	60425.	42.	4.	0.	3540.	0.
HB	2133.	38590.	59350.	156.	1.	10.	11030.	2.
HB	2134.	38999.	60377.	46.	0.	10.	4400.	0.
HB	2135.	38835.	58766.	213.	4.	10.	8410.	0.
HB	2137.	38508.	59780.	55.	0.	0.	5200.	0.
HB	2138.	38910.	60457.	24.	0.	0.	3150.	0.
HB	2139.	39131.	58980.	26.	0.	0.	1170.	0.
HB	2140.	38657.	59115.	119.	3.	10.	7660.	1.
HB	2141.	38692.	58987.	47.	2.	0.	1940.	0.
HB	2142.	38695.	58964.	115.	6.	0.	4020.	0.
HB	2143.	38278.	59352.	8.	0.	0.	520.	0.
HB	2144.	38694.	58986.	123.	7.	10.	5160.	1.
HB	2145.	38606.	59357.	81.	3.	10.	5280.	0.
HB	2146.	38583.	59352.	105.	2.	10.	8920.	0.
HB	2147.	38936.	60360.	12.	1.	0.	930.	0.
HB	2148.	38773.	58666.	20.	0.	0.	1080.	0.
HB	2150.	38174.	59748.	94.	0.	0.	9190.	6.
HB	2151.	38638.	58938.	134.	0.	0.	3740.	0.
HB	2152.	38878.	58728.	58.	0.	0.	4430.	0.
HB	2153.	38344.	59316.	23.	0.	0.	1000.	0.
HB	2154.	39018.	58972.	45.	0.	0.	2130.	0.
HB	2155.	39259.	60112.	60.	5.	0.	4220.	1.
HB	2156.	38698.	58645.	4.	1.	0.	2610.	3.
HB	2157.	39482.	59708.	222.	6.	10.	12650.	7.
HB	2158.	37920.	60647.	0.	3.	0.	7050.	3.
HB	2159.	38534.	59154.	32.	10.	0.	1500.	0.
HB	2160.	38323.	59311.	22.	0.	0.	1270.	1.
HB	2161.	37979.	60598.	0.	13.	0.	5230.	6.
HB	2162.	38530.	59322.	111.	0.	10.	10690.	6.
HB	2163.	38360.	59272.	14.	5.	0.	640.	0.
HB	2164.	39388.	59200.	324.	0.	20.	19890.	2.
HB	2165.	39019.	60323.	11.	0.	0.	650.	0.
HB	2167.	38970.	59094.	180.	8.	10.	8920.	0.
HB	2168.	38700.	58744.	9.	4.	0.	1100.	0.
HB	2172.	38572.	59090.	114.	2.	10.	5930.	0.
HB	2174.	38758.	59111.	23.	0.	0.	6980.	6.
HB	2175.	38317.	59505.	44.	5.	0.	3310.	0.
HB	2176.	38410.	59305.	114.	6.	10.	7700.	0.

CHEMICAL DATA FOR PANNED CONCENTRATES; (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
34	342055.	34590.	57470.	16.	12.	0.	150.	11.
34	342058.	36058.	57299.	31.	4.	0.	530.	0.
34	342059.	35570.	57146.	21.	0.	0.	400.	0.
34	342071.	34572.	57477.	8.	0.	0.	390.	1.
34	342063.	34536.	57724.	20.	4.	0.	330.	0.
34	342064.	36178.	57600.	37.	6.	0.	540.	0.
34	342066.	35988.	57263.	21.	0.	0.	320.	1.
34	342067.	35550.	56854.	24.	1.	0.	300.	2.
34	342068.	34962.	57672.	7.	13.	0.	180.	5.
34	342070.	36775.	57354.	15.	0.	0.	330.	0.
34	342071.	34487.	57595.	15.	10.	0.	260.	6.
34	342072.	36643.	57184.	26.	7.	0.	110.	0.
34	342073.	35557.	57065.	32.	5.	0.	80.	2.
34	342075.	36350.	57338.	43.	0.	0.	140.	1.
34	342077.	35505.	56775.	8.	2.	0.	200.	0.
34	342079.	36310.	57070.	21.	16.	0.	720.	0.
34	342080.	36457.	57619.	10.	2.	0.	140.	0.
34	342081.	34478.	57509.	48.	6.	10.	570.	5.
34	342082.	36789.	57530.	11.	0.	0.	200.	0.
34	342083.	36040.	57447.	0.	-1.	0.	90.	1.
34	342085.	34990.	57104.	28.	1.	0.	220.	2.
34	342088.	35700.	57097.	59.	0.	0.	90.	4.
34	342090.	36032.	57058.	32.	0.	0.	340.	3.
34	342091.	36188.	57613.	22.	6.	0.	190.	0.
34	342092.	36420.	57365.	43.	0.	0.	270.	4.
34	342093.	35113.	57095.	25.	4.	0.	3840.	0.
34	342094.	36569.	57111.	8.	0.	0.	200.	1.
34	342095.	36261.	57649.	16.	2.	0.	160.	1.
34	342096.	36226.	57775.	26.	1.	0.	160.	1.
34	342097.	35647.	56908.	29.	0.	0.	170.	1.
34	342098.	36087.	57616.	12.	4.	0.	110.	0.
34	342099.	34430.	57339.	11.	0.	0.	1280.	2.
34	342100.	36081.	57600.	21.	4.	0.	190.	0.
34	342204.	33939.	56800.	23.	0.	0.	120.	0.
34	342207.	34146.	56929.	29.	5.	0.	990.	0.
34	342214.	34239.	57421.	25.	7.	0.	540.	2.
34	342216.	34492.	57672.	31.	2.	0.	160.	2.
34	342217.	34125.	56932.	14.	1.	0.	140.	2.
34	342218.	34140.	57140.	30.	3.	0.	1020.	0.
34	342220.	34439.	57770.	26.	0.	0.	720.	0.
34	342234.	34367.	57448.	53.	2.	0.	490.	6.
34	342242.	34210.	57638.	33.	4.	0.	2180.	0.
34	342251.	34231.	57099.	33.	0.	0.	200.	0.
34	342252.	34080.	56851.	25.	4.	0.	190.	1.
34	342256.	34110.	57348.	31.	3.	0.	290.	2.
34	342261.	34315.	57615.	35.	0.	0.	340.	1.
34	342266.	34373.	57465.	29.	0.	0.	170.	3.
34	342270.	34015.	57120.	44.	10.	0.	690.	2.
34	342271.	33870.	56879.	27.	6.	0.	540.	2.
34	342276.	34150.	57510.	32.	0.	0.	150.	5.
34	342278.	34262.	57421.	39.	0.	0.	990.	1.
34	342280.	34229.	57569.	45.	34.	0.	230.	1.
34	342288.	34920.	57260.	15.	1.	0.	200.	4.
34	342297.	34280.	56961.	29.	0.	0.	570.	4.
34	342299.	34170.	57323.	6.	0.	0.	520.	0.
	-1.	-1.	-1.	-1.	-1.	-1.	-1.	-1.

G:EXEC/GIRAN/GIRANG ON FILE PAGBAPIW PROJECT 1 WORKSPACE
****

C.C.JOHNSON IGS KEYWORTH PAGJ 03NOV81
SUB-COMMANDS LISTED IN SYSTEM JOURNAL

MAKE WORKFILE

MAKE TEMPFILE

G:EXEC/G:UTIL/GPRJCT ON FILE WORKFILE
****

C.C.JOHNSON IGS KEYWORTH PAGJ 03NOV81
ANY RECORDS LISTED BELOW HAVE DUPLICATE KEYS AND HAVE NOT BEEN COPIED TO OUTPUT FILE

CHEMICAL DATA FOR PANNED CONCENTRATES. (C) CERIUM, ANTIMONY, URANIUM, ZIRCONIUM AND MOLYBDENUM (IN PPM)

PROJCODE	NUMBER	EASTING	NORTHING	CERIUM	ANTIMONY	URANIUM	ZR	MO
34	341888.	35508.	57792.	28.	1.	0.	80.	3.
34	341889.	35861.	57509.	25.	5.	0.	240.	0.
34	341890.	35420.	57882.	18.	0.	0.	700.	1.
34	341891.	35745.	57415.	24.	9.	0.	120.	1.
34	341892.	35809.	57552.	10.	1.	0.	130.	0.
34	341893.	34950.	57670.	21.	0.	0.	100.	0.
34	341894.	34740.	57270.	56.	6.	0.	403.	11.
34	341895.	35082.	57540.	-1.	0.	0.	380.	2.
34	341896.	35770.	57670.	13.	0.	0.	130.	5.
34	341897.	35681.	57683.	31.	0.	0.	120.	3.
34	341900.	34890.	57290.	30.	2.	0.	160.	7.
34	342001.	36566.	57456.	27.	0.	0.	90.	0.
34	342002.	36340.	57417.	14.	0.	0.	130.	2.
34	342003.	36103.	57109.	37.	2.	0.	610.	0.
34	342004.	36001.	57301.	9.	19.	0.	210.	0.
34	342005.	34620.	57770.	13.	5.	0.	170.	1.
34	342006.	35740.	56991.	29.	1.	0.	190.	0.
34	342007.	36181.	57237.	38.	6.	0.	410.	1.
34	342008.	35885.	57040.	13.	1.	0.	220.	0.
34	342011.	34870.	57808.	17.	11.	0.	340.	0.
34	342012.	34770.	57708.	25.	9.	0.	380.	1.
34	342013.	35069.	57090.	19.	2.	0.	350.	2.
34	342014.	35029.	56963.	11.	0.	0.	800.	0.
34	342015.	36562.	57123.	31.	3.	0.	240.	2.
34	342016.	35657.	56888.	27.	0.	0.	160.	1.
34	342017.	34597.	57625.	25.	0.	0.	380.	4.
34	342018.	35752.	57091.	13.	1.	0.	230.	0.
34	342019.	35120.	57890.	32.	0.	0.	780.	1.
34	342020.	35609.	57205.	19.	3.	0.	180.	0.
34	342021.	36334.	57260.	20.	2.	0.	460.	1.
34	342022.	36280.	57380.	24.	17.	0.	50.	0.
34	342023.	36561.	57422.	8.	10.	0.	140.	1.
34	342024.	35861.	57085.	30.	0.	0.	150.	0.
34	342025.	35412.	56960.	28.	1.	0.	370.	2.
34	342026.	36409.	57440.	20.	0.	0.	60.	0.
34	342027.	35906.	57040.	10.	8.	0.	150.	1.
34	342028.	36082.	57085.	26.	0.	0.	400.	1.
34	342029.	36393.	57602.	33.	0.	0.	720.	0.
34	342030.	36105.	57737.	21.	0.	0.	360.	0.
34	342034.	36177.	57347.	14.	0.	0.	280.	2.
34	342035.	35252.	57792.	18.	5.	0.	880.	0.
34	342036.	36331.	57185.	20.	3.	0.	110.	0.
34	342037.	36760.	57424.	36.	1.	0.	290.	2.
34	342038.	35522.	57072.	27.	4.	0.	920.	0.
34	342039.	35477.	56998.	33.	1.	0.	60.	2.
34	342040.	35365.	56912.	33.	0.	0.	100.	2.
34	342043.	36060.	57416.	13.	0.	0.	280.	1.
34	342044.	36270.	57571.	32.	0.	0.	80.	1.
34	342045.	36412.	57554.	17.	0.	0.	480.	0.
34	342046.	35002.	56946.	41.	0.	0.	2040.	1.
34	342047.	36734.	57161.	16.	5.	0.	220.	0.
34	342049.	36759.	57470.	45.	3.	0.	180.	1.
34	342050.	36260.	57255.	15.	3.	0.	680.	0.
34	342051.	35530.	57245.	42.	5.	0.	2600.	0.
34	342052.	36120.	57431.	11.	0.	0.	80.	0.
34	342053.	36780.	57173.	9.	7.	0.	260.	0.
34	342054.	34444.	57223.	46.	2.	0.	80.	2.

CHEMICAL ANALYSES FOR NEWBROUGH BOREHOLES (DEPTHS IN METRES); LIST A

BOREHOLE	NUMBER	DEPTH1	DEPTH2	BARIUM	LEAD	ZINC	COPPER	NICKEL	SR
1.	2000.	86.	87.	244.	41.	97.	36.	69.	247.
1.	2001.	90.	91.	875.	38.	80.	3.	9.	1123.
1.	2002.	95.	96.	947.	226.	15.	7.	9.	899.
1.	2003.	97.	98.	1666.	41.	1035.	1.	5.	1269.
1.	2004.	102.	103.	1335.	5.	6.	3.	3.	1572.
1.	2005.	104.	104.	648.	23.	36.	15.	41.	666.
1.	2006.	104.	105.	785.	10.	21.	57.	39.	377.
1.	2007.	105.	106.	576.	9.	573.	44.	62.	247.
1.	2008.	106.	107.	665.	12.	1792.	54.	81.	222.
1.	2009.	107.	108.	795.	10.	25.	59.	30.	365.
1.	2010.	108.	109.	836.	9.	16.	65.	22.	343.
1.	2011.	109.	109.	518.	11.	31.	57.	28.	320.
1.	2012.	109.	110.	546.	61.	249.	54.	33.	363.
1.	2013.	110.	111.	645.	231.	992.	59.	36.	459.
1.	2014.	111.	112.	779.	211.	740.	51.	45.	466.
1.	2015.	112.	113.	601.	43.	233.	42.	45.	345.
1.	2016.	113.	114.	866.	118.	586.	55.	55.	500.
1.	2017.	114.	115.	981.	82.	295.	55.	57.	513.
1.	2018.	115.	116.	848.	42.	203.	57.	52.	521.
1.	2019.	117.	118.	1002.	77.	370.	49.	45.	549.
1.	2020.	119.	120.	783.	66.	376.	56.	48.	522.
1.	2021.	122.	123.	910.	35.	156.	63.	50.	475.
1.	2022.	124.	126.	673.	3.	111.	63.	47.	424.
1.	2023.	128.	128.	1759.	4.	123.	61.	33.	460.
1.	2024.	129.	130.	813.	42.	248.	62.	37.	444.
1.	2025.	131.	132.	829.	10.	162.	63.	41.	435.
1.	2026.	134.	135.	882.	0.	107.	60.	50.	437.
1.	2027.	137.	138.	1047.	0.	112.	60.	52.	454.
1.	2028.	140.	141.	646.	11.	148.	59.	50.	410.
1.	2029.	143.	144.	765.	293.	707.	52.	48.	419.
1.	2030.	145.	146.	729.	77.	372.	61.	48.	404.
1.	2031.	148.	149.	775.	17.	162.	60.	50.	424.
1.	2032.	150.	151.	927.	291.	1064.	54.	45.	448.
1.	2033.	152.	153.	556.	29.	231.	60.	45.	367.
1.	2034.	153.	154.	375.	7.	25.	28.	120.	117.
1.	2035.	153.	153.	77.	0.	10.	4.	24.	116.
1.	2036.	154.	155.	368.	26.	835.	31.	33.	120.
1.	2037.	155.	155.	366.	11.	142.	49.	33.	160.
1.	2038.	156.	157.	529.	10.	16.	35.	28.	179.
1.	2039.	157.	158.	208.	12.	4.	21.	82.	117.
1.	2040.	158.	159.	196.	12.	6.	15.	114.	102.
1.	2041.	159.	159.	281.	6.	5.	17.	61.	141.
1.	2042.	159.	160.	131.	107.	3923.	32.	66.	101.
1.	2043.	160.	160.	616.	716.	5690.	5.	18.	137.
1.	2044.	162.	162.	390.	212.	652.	20.	61.	230.
1.	2045.	164.	165.	1924.	57.	45.	33.	88.	450.
1.	2047.	169.	170.	579.	18.	8.	11.	14.	137.
1.	2048.	176.	177.	1024.	22.	88.	33.	49.	318.
1.	2049.	81.	82.	608.	34.	102.	42.	60.	262.
2.	2200.	176.	177.	24.	1.	3.	3.	4.	1280.
2.	2201.	165.	166.	942.	358.	1015.	13.	43.	220.
2.	2202.	162.	163.	429.	17.	10.	4.	4.	115.
2.	2203.	160.	161.	630.	57.	8.	4.	19.	143.
2.	2204.	158.	159.	1010.	125.	272.	43.	49.	264.
2.	2205.	155.	155.	1976.	172.	24.	33.	63.	428.
2.	2206.	151.	152.	1040.	177.	86.	27.	42.	262.
2.	2207.	148.	149.	379.	22.	7.	40.	17.	170.

CHEMICAL ANALYSES FOR NEWBROUGH BOREHOLES (DEPTHS IN METRES); LIST A

BOREHOLE	NUMBER	DEPTH1	DEPTH2	BARIUM	LEAD	ZINC	COPPER	NICKEL	SR
2.	2208.	147.	148.	282.	33.	982.	35.	6.	1980.
2.	2209.	146.	147.	928.	16.	46.	34.	8.	777.
2.	2210.	144.	144.	1314.	54.	123.	82.	47.	431.
2.	2211.	142.	144.	11800.	26.	114.	105.	44.	499.
2.	2212.	141.	142.	791.	103.	200.	83.	45.	460.
2.	2213.	140.	141.	3478.	21.	194.	72.	65.	216.
2.	2214.	139.	140.	3376.	18.	1936.	45.	114.	198.
2.	2215.	138.	139.	2176.	6.	6585.	22.	125.	107.
2.	2216.	137.	138.	1949.	12.	2350.	20.	120.	97.
2.	2217.	136.	137.	2210.	11.	140.	18.	139.	147.
2.	2218.	135.	136.	1857.	17.	21.	43.	46.	400.
2.	2219.	134.	134.	804.	2.	10.	30.	22.	234.
2.	2220.	133.	134.	9355.	0.	85.	13.	29.	230.
2.	2221.	130.	132.	860.	8.	25.	31.	20.	256.
2.	2222.	127.	127.	2889.	21.	78.	74.	101.	141.
2.	2223.	126.	127.	392.	19.	15.	52.	148.	95.
2.	2224.	125.	126.	535.	20.	19.	61.	22.	227.
2.	2225.	121.	122.	587.	9.	3.	63.	59.	133.
2.	2226.	119.	120.	518.	99.	604.	255.	51.	404.
2.	2227.	116.	117.	471.	125.	425.	98.	49.	416.
2.	2228.	113.	114.	465.	10.	114.	60.	49.	438.
2.	2229.	109.	110.	1223.	21.	103.	62.	49.	514.
2.	2230.	106.	107.	630.	14.	121.	60.	48.	451.
2.	2231.	105.	106.	480.	3.	68.	57.	46.	432.
2.	2232.	104.	105.	45.	4.	5.	5.	6.	1945.
2.	2233.	103.	104.	2176.	8.	21.	51.	39.	298.
2.	2234.	102.	103.	347.	12.	743.	7.	25.	465.
2.	2235.	101.	102.	155.	3.	7.	6.	5.	1721.
2.	2236.	96.	97.	1013.	103.	212.	19.	52.	328.
2.	2237.	93.	94.	65.	40.	341.	3.	5.	1672.
3.	2300.	77.	78.	54.	8.	4.	6.	10.	2802.
3.	2301.	81.	82.	225.	15.	7.	1.	6.	290.
3.	2302.	84.	85.	406.	9.	94.	61.	43.	432.
3.	2303.	85.	86.	85.	12.	36.	20.	31.	475.
3.	2304.	86.	87.	249.	22.	106.	19.	47.	543.
3.	2305.	87.	88.	530.	3.	110.	58.	47.	361.
3.	2306.	88.	89.	336.	8.	115.	62.	51.	954.
3.	2307.	90.	91.	334.	3.	104.	66.	50.	559.
3.	2308.	93.	94.	545.	10.	110.	67.	50.	761.
3.	2309.	97.	98.	340.	9.	114.	65.	50.	766.
4.	2400.	82.	83.	1156.	47.	850.	44.	8.	1585.
4.	2401.	94.	94.	92.	206.	104.	57.	5.	1580.
4.	2402.	98.	99.	304.	36.	30.	26.	8.	1860.
4.	2403.	99.	101.	229.	29.	59.	10.	5.	1326.
4.	2404.	101.	102.	561.	19.	216.	23.	9.	203.
4.	2405.	102.	102.	1614.	230.	1571.	68.	53.	148.
4.	2406.	102.	104.	1120.	100.	264.	110.	7.	329.
4.	2407.	104.	104.	864.	44.	231.	106.	14.	431.
4.	2408.	105.	106.	886.	26.	135.	77.	46.	463.
4.	2409.	108.	110.	913.	80.	305.	139.	38.	444.
4.	2410.	112.	113.	643.	247.	417.	81.	56.	414.
4.	2411.	115.	116.	781.	849.	2415.	103.	4.	343.
4.	2412.	118.	119.	886.	111.	472.	99.	50.	412.
4.	2413.	122.	123.	755.	35.	268.	76.	49.	385.
4.	2414.	125.	126.	512.	7.	162.	60.	54.	370.
4.	2415.	129.	130.	552.	55.	179.	86.	51.	365.
4.	2416.	133.	134.	557.	12.	115.	87.	50.	384.