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GEOCHEMISTRY OF GLACIAL SEDIMENTS IN THE CLYDE FORKS - WESTPORT AREA, ONTARIO: APPLICATIONS TO MINERAL EXPLORATION AND ACID RAIN RESEARCH*

I.M. KETTLES

*Contribution to Canada-Ontario Mineral Development Agreement 1985-1990

INTRODUCTION

In 1986, as part of the Canada-Ontario Mineral Development Agreement 1985-1990, a program of surficial geologic mapping and systematic glacial sediment sampling was undertaken in eastern Ontario over four 1: 50 000 NTS map sheets - Clyde Forks (31F/02), Sharbot Lake (31C/15), Perth (31 C/16), and Westport (31C/09). The systematic glacial sediment sampling program (Fig. 1, 2, 3) was the second carried out within the past 10 years. During the initial phase, drift samples were collected from over 2500 sites on the Canadian Shield between Ottawa and Georgian Bay in Ontario and in the Gatineau valley region of southwestern Quebec (Kettles and Shilts, 1983; Kettles 1988a, 1988b). Data from over 400 of the original samples collected over the present study region and surrounding areas of Tichborne (31C/10) and Carleton Place (31F/01) have been incorporated into the database generated as part of this study. For purposes of discussion, the Tichborne and Carleton Place map-areas are included in the study region. Since 1986 an additional 520 samples, most composed of glacial till, have been collected and analyzed. The total number of samples in the database for this report is 920.

The objective of the initial sampling program was to quantify regional variation in drift composition in order to provide baseline data for use in assessing the sensitivity of the terrain to the effects of acid rain (Shilts, 1980; Shilts, 1984a; Kettles and Shilts, 1989). For this purpose, two groups of compositional characteristics in glacial sediments were determined: (1) texture and carbonate content (the buffering components) and (2) concentrations of naturally occurring trace and minor elements (potential sources of environmental contamination if released by acid leaching or by exchange reactions with groundwaters). In addition, the information obtained from the first study was utilized for mineral exploration purposes (Kettles and Shilts, 1989).

The Clyde Forks- Westport area in eastern Ontario was selected for more detailed investigations for a number of reasons. Results of the first till sampling study showed that drift in this area contains high concentrations of many trace elements. Many mineralized occurrences of Au, U, Fe, and base metals have also been discovered (Fig. 4). In addition, as part of the Rideau Canal system, it is one of eastern Ontario's most popular recreational areas. One of the main objectives of this second study phase is to map out, in more detail, distribution patterns of trace elements, and the buffering components. The information obtained from the detailed mapping of surficial deposits is used to provide a framework within which compositional data

can be interpreted (Richard, 1990; Kettles, in press; Kettles, in press; Henderson, in press; Kettles et al., in press; Henderson, 1973).

Because the original project was designed for environmental purposes, sampling strategies were different than they would have been, had the projects been designed for drift prospecting purposes alone (Kettles and Shilts, 1989). The rationale behind the samplng plan was to collect, wherever possible, the surficial sediments most representative of the debris load carried by the last glacier to pass over the sample site, and, where true glacial sediments are covered by a mantle of late or postglacial sediments, to sample those sediments which have the greatest influence on the near-surface environment (Shilts, 1984a).

As a result of these sampling strategies, the database generated during the study is composed of information for disparate sample populations. Till comprises 85% of the sample database and glaciofluvial sand and gravels and glaciolacustrine or marine silty clays, 12% and 3%, respectively. Tills were sampled wherever possible because, being transported only by ice, they are considered most representative of the glacial load (Shilts, 1975). In upland areas, till was generally readily available for sampling, but where absent or inaccessible, glaciofluvial sands and gravels were collected.

Glaciolacustrine and marine silty clays form the predominant surface cover in some parts of the study area. It is important to recognize their areal extent for a number of reasons. First, because silty clay sediments are formed, for the most part, from reworked till, their composition is more chemically homogeneous than that of the till cover. Their composition is frequently chemically dissimilar from that of the underlying till and bedrock. In most cases, also, silty clay sediments have enhanced buffering capacity due to their fine-grained texture.

BEDROCK GEOLOGY

Regional bedrock mapping in the study area and surrounding areas was undertaken at a scale of 1: 1,000,000 by Baer et al. (1977) and at 1: 800,000 by Freeman (1979). At a scale of 1 : 50,000 or less, the following compilations are available:

(1) Clyde Forks - Easton (1987, 1988); Pauk (1984a); Lumbers (1982); Karboski (1980); Rivers (1976); Gleeson et al. (1989).

(2) Sharbot Lake - Pauk (1982, 1984b, 1987), Wolff (1982 a and b, 1985); Harding (1942, 1947); Hewitt (1964), Easton (1987).

(3) Perth - Wilson and Ducas (1961).
(4) Westport - Wynne-Edwards (1967).
(5) Carleton Place - Rheinhardt (1973).
(6) Tichborne - Wolfe (1982a,b).
A summary of the bedrock geology, much of it based on Easton's work (1987a,b; 1988), is presented below and in Figure 5a.

There are two main types of bedrock terrane in the study region. To the east are flat-lying, unmetamorphosed Ordivician limestones, dolomites, shales and sandstones. The remaining area is underlain by middle to late Proterozoic rocks of the Central Metasedimentary Belt of the Grenville Province. These are characterized by massive outcrops and sharp but low relief. Included in the Central Metasedimentary Belt, is the Frontenac Arch which encompasses the southeastern part of the study area. This prominent geologic structure connects the main body of the Canadian Shield in the north to the Adirondack Mountains south of the St. Lawrence River.

Three metamorphic terrains within the Central Metasedimentary Belt have been recognized in the study area (Moore, 1982) (Fig. 5b). The Elzivir terrane, in the west, is separated from the Sharbot Lake terrane by the Robertson Lake Mylonite Zone (RLMZ). The Sharbot Lake terrane is characterized by a series of mafic flows and pyroclastic rocks, minor pyritiferous metasedimentary rocks and marbles, all intruded by gabbro, diorite and tonalite of the Lavant Igneous Complex. Rocks are generally preserved at the lower amphibolite facies. The Elzivir Terrane consists of a series of mafic to felsic volcanic rocks, metasedimentary rocks (some of volcanic origin) and marbles preserved at middle and upper amphibolite facies. Also present between Ompah and Clyde Forks are distinctive clastic metasedimentary rocks, many of which are muscovite-bearing. The RLMZ, a major shear zone, includes highly sheared and fractured gabbro, metavolcanic, clastic metasedimentary and carbonate rocks. The rocks are strongly carbonatized and chloritized and in places, pyritization, silicification and sericitization are common.

The Frontenac Terrane which comprises the eastern parts of the Perth and Westport map-areas, consists of upper amphibolite to granulite facies migmatites and gabbroic-anorthositic intrusions with minor marble, clastic metasedimentary rocks and granites. These rocks are separated from rocks of the adjacent Sharbot Lake Terrane by a deformation zone.

According to Sangster (1982), Carter et al. (1980) and Gleeson et al. (1989), the important mineral deposit types are:

(1) carbonate-hosted Pb and Zn deposits.
(2) carbonate-hosted Cu-Sb-Au-Ag and Cu-Sb-Au-Hg deposits and volcanic-hosted Cu-Zn deposits.
(3) gabbro-hosted Cu-Ni deposits.
(4) gabbro-hosted Au in quartz-ferroan dolomite veins.
(5) altered trondhjemite-hosted Au in quartz veins.
(6) mafic mylonite-hosted gold in massive sulphide zones.
(7) carbonate-skarn- and volcanic-hosted Fe in magnetite deposits.
(8) carbonate-hosted Fe in fault related hematite deposits.
(9) pyrite deposits with no consistent geological association.
(10) skarn-, pegmatite- and paragneiss-hosted Mo deposits.

Locations of the known mineral showings listed in Canmindex (Picklyk et al., 1978) are shown in Figure 4.

SURFICIAL GEOLOGY

The dominant ice flow direction during the Late Wisconsinan was south-southwestwards in the Clyde Forks, Perth, and Westport areas (Fig. 6). Locally, there was westerly as well as southwesterly flow both along the Clyde River valley west of Perth and in low lying areas south of Westport. South of the map area, a lobe of ice flowed southwestward retreating from Lake Ontario towards the St. Lawrence Valley. During the last stages of glaciation in the Ottawa valley, north of the map area, another lobe of ice flowed south-southeast and retreated up the Ottawa valley.

Till is the most widespread glacial deposit, forming a thin cover (0-3 m) over both Precambrian and Paleozoic bedrock of the region (Fig. 5). The till is stony and sandy, similar to Canadian Shield till in many other areas. The average texture of the < 2 mm fraction of 665 samples identified as till is 68% sand (2 mm - .063 mm), 25% silt (.063 mm - .004 mm), and 7% clay (< .004 mm) with ranges of 8 - 96 %, 4 - 53%, and 1-40 %, respectively. Stratgraphically, only one unit of till, which is associated with the last (Late Wisconsinan) glacial expansion of the Laurentide Ice Sheet, has been recognized. The till was referred to as Fort Covington till in the Merrickville map area east of Perth (Sharpe, 1979).

Locally, thicker till deposits can be found in depressions, along valley walls, and on both the up-ice and down-ice sides of bedrock ridges. Regionally, it is thicker (> 2 m), though still discontinuous, over an area north of Perth ("D" on Figure 6). North of Perth, thicker till overlies Paleozoic sandstones and dolomites which have an outcrop area that takes the form of an embayment surrounded by more rugged Precambrian bedrock on the north, west and south sides. Increased drift thickness in this area likely

reflects the low resistance of the Paleozoic lithologies to glacial erosion compared to the nearby Precambrian lithologies. Erosional processes here may have been even more effective due to the configuration of the Precambrian and Paleozoic outcrop areas. After crossing the shield terrane immediately to the north, the debris load of the overriding glacier would be composed, in part, of massive, hard, coarsely crystalline erratics well suited for grinding the underlying Paleozoic bedrock. (Similar thickening of the till cover can be observed on and immediately down-ice of Paleozoic outliers on the Canadian Shield near Queensborough west of the study region.)

Till is also thicker in, at least, two belts which trend approximately east-west across the study region ("B" and "C" on Fig. 6). The northernmost belt is located south of Perth and extends to the eastern edge of the map area and continues eastward across the Merrickville map-area. The more southerly one, extends through the northern part of the Tichborne map-area, the low lying area south of Westport, and continues east-southeastwards to Charleston Lake. Southwest of the map area around Tamworth, a third more prominent east-westerly trending belt ("A" on Fig. 6) is composed of sediments associated with the Dummer Moraine. The origin and significance of the two belts of thicker till in the study region are uncertain. It is possible, however, that they represent weakly developed end moraines. They are parallel to nearly parallel in orientation to the more prominent Dummer Moraine. They are also perpendicular to nearly perpendicular in orientation to prominent long esker and subaqeous outwash systems described in more detail below, and to the predominant direction of regional ice flow as determined from glacial striae .

Over the Perth, Sharbot Lake, Westport, and parts of the Clyde Forks map areas, sand and gravel deposits associated with esker and ice marginal subaqueous outwash systems are widely distributed. Henderson (1987) and Gorrell (1986) have described in detail two large deposits of this type located near Charleston Lake (31C/09) and Lanark (31F/01), respectively. One well developed, long but discontinuous network of esker and subaqueous outwash deposits extends northeastwards from the Tamworth area to the southeastern part of the Clyde Forks map-area. A second group of similar deposits extends from the Robertsonville area eastwards along the Mississippi valley in the northwestern part of the Perth map-area. Rhythmically bedded silty clay and fine sand are also commonly found in low-lying areas in the Sharbot Lake, Perth, and Westport map-areas.

There is evidence to suggest that most lacustrine sediments found in the study region were deposited in a proglacial lake which originated in the Lake Ontario basin. First, laminated fine sands and silty clay are widely

distributed over the study region. If the laterally extensive belts of thicker till found in the study region reliably outline a former position of the retreating ice front, there are no topographic barriers between the study area and the Lake Ontario basin to prevent waters impounded in the isostatically depressed present day Lake Ontario basin from ponding against the retreating ice front.

Second, results of paleontological work suggest that the presence of Candona subtriangulata, a fresh water ostracode, in glaciolacustrine sediments indicates that they were deposited in a large oligotropic lake having few dissolved solids (Anderson et al., 1980). Candona subtriangulata has been identified in laminated silty clay sediments associated with subaqueous outwash fan deposits at numerous locations within the study region (C. Rodgrigues, University of Windsor, pers. comm.)(Fig. 6). Candona subtriangulata-bearing sediment was collected between 950 to 1000 feet (315 and 333 metres) in the Ompah area, at approximately 500 feet near Lanark, between 750 and 800 feet at Clarendon Station and at 575 feet in the Mississippi valley west of Fallbrook (C. Rodriguez, Univ. of Windsor, pers. comm.). They were also found in sediment collected between 650 and 700 feet (228 and 245 metres) near French Line. Topset beds at Joe's Lake, about 5 kilometres east of the Candona site near French Line, indicate that water was ponded in the Clyde River Valley to levels of between 650 and 700 feet.

Mysis relicta, a fresh water crustacean, which evolved in brackish arctic seas, is postulated to have invaded eastern North American fresh water either by marine inundations or by transportation inland by proglacial waters ponded in front of the advancing ice sheet. During late and post-glacial times, it is then thought to have been redispersed from a number of refugia south of the Great Lakes in the proglacial lakes that developed in the depressed Great Lake basins (Dadswell, 1974). Mysis relicta, has been identified in Mackie, Palmerston, Crotch and Plevna lakes in the Clyde Forks-Ompah area, and in Wolfe, Big Rideau, Clear, Buck, Indian, Devil, Charleston, and Sharbot lakes in the Perth-Westport area (Dadswell, 1974).

If the assumptions made concerning the configuration of the former ice margin and the depositional environments of Candona subtriangulata and Mysis relicta are correct, it is possible that the minimum 950 foot lake level recogized at Ompah represents the maximum extent of Lake Iroquois in this area, and the approximate 650 foot level near Clyde Forks a later post-Iroquois phase.

As the ice retreated further east in the lower St. Lawrence valley, parts of eastern Ontario were inundated by the Champlain Sea. As a result, some of the clayey silt

deposits in the Perth- Smith Falls area may be of marine origin. Except for marine shells identified in an aggregate deposit near Smith Falls (E.P. Henderson, pers. comm.) little paleontological or sedimentological evidence was discovered with which to establish reliably the limits of marine incursion. On the basis of the presence of laminated sediment, the elevations of shell site locations near Carleton Place (Richard, 1990), Merrickville (Sharpe, 1979), and by using the N110oE isobase trend noted by Prest (Muller and Prest, 1985), a marine limit has been delimited that crosses the Perth area at approximately 450 feet (158 metres).

FIELD AND LABORATORY METHODS

Samples were hand-dug from natural or man-made exposures along roads and streams as well as from sand and gravel pits. Sample locations and types are shown in Fig. 2. Care was taken to collect materials from below the solum, except in the best exposures of till and other sediments, where samples were collected in profile through the entire sequence.

In this, as in earlier studies, emphasis was put on studying the fine (silt plus clay (< .063 mm) and clay (< .002 mm)) fractions of the sample matrix. Results of experiments undertaken to study chemical partitioning in till (Shilts, 1975, 1984) indicate that there is a disproportionate amount of metal in clay-sized compared to coarser parts of the till. This phenomena occurs because the phyllosilicates which compose most of the clay-size fraction are enriched in primary metals and adsorb secondary metals released from labile minerals, such as the sulphides, during weathering. Because the fine component has a much greater internal surface area than the coarser fractions, it is likely that clay-sized materials react preferentially with solutions passing through the drift; even small amounts of clay-sized detritus could have a major effect on the chemistry of the ground or surface waters (Shilts, 1984).

The clay-sized (< .002 mm) fraction of till, silty clay and some sand and gravel samples was separated by centrifugation and decantation and analyzed for selected trace and minor elements - Cu, Pb, Zn, Co, Ni, Ag, Cr, U, Mo, Mn, Fe, Cd, As, and Hg, after treatment with a hot nitric-hydrochloric leach. All elements were analyzed using atomic absorption techniques, except for uranium and arsenic, which were analyzed using fluorimetric and colorimetric methods, respectively. Samples collected between 1980 and 1982 and in 1986 and 1989 were analyzed by Bondar-Clegg and Co. Ltd, Ottawa, while those collected in 1987 and 1988 were analyzed by Chemex Labs Ltd., Vancouver.

Au, Pd, and Pt content in the silt plus clay (< .063 mm) was determined by fire assay followed by analysis using ICP-atomic fluorescence spectroscopy. All precious metal analyses were conducted by Chemex Labs Ltd..

The carbonate content of the silt plus clay (< .063 mm) and fine sand (.125-.250 mm) size fractions was determined using a Leco carbon analyzer to measure carbon concentrations, which were converted to per cent $CaCO_3$ equivalent (Foscolos and Barefoot, 1970). Cabonate determinations on around 20 samples were carried out using the Chittick method (Dreimanis, 1962). Grain size analyses were performed using standard ASTM methods.

Selected Precambrian and Paleozoic lithologies were separated from the granule-small pebble fraction (2 - 6 mm) of 112 samples collected in 1980 and 1981 and of 251 samples collected after 1986. The weight per cent of each lithologic group in the total fraction was calculated.

Results of analyses along with sample locations and descriptions were stored on computer files. Geochemical and pebble lithology data for a representative sample from each site were plotted using a computer program, Lazerdot, developed by Wyatt Geoscience, Ottawa.

GLACIAL DISPERSAL

Glacial dispersal can be mapped at two scales in the study region - regional (10 's of kilometres) and local (1 - 2 kilometres). The distribution of Paleozoic carbonate in drift reflects the effects of glacial transport on a regional scale (Fig. 7). Granules of Paleozoic limestone from the eastern part of the study area have been transported southwestwards at least 70 kilometres over areas underlain by Precambrian bedrock, much of which is carbonate-poor. In addition, the distribution patterns of drift with high concentrations of silt plus clay-sized (<.063 mm) carbonate (Fig. 8) and clay-sized (< .004 mm) detritus (Fig. 9) correspond closely to the distribution pattern of drift with high concentrations of Paleozoic clasts.

Unlike the Paleozoic clasts, the dispersal trains of Precambrian marbles, mafic, and felsic clasts are largely confined to the outcrop areas of each bedrock type (Fig. 10, 11, 12). Detailed dispersal studies of Precambrian marble and other lithologies in till in the Clyde Forks area consistently show that glacial transport distances are on the order of 1-2 km (Sinclair, 1979; DiLabio et al., 1982; and Gleeson et al., 1989)

The distribution patterns of trace elements in drift, in most cases, reflect most strongly the composition of the

underlying bedrock. Trace element levels in drift are uniformly low in drift overlying Paleozoic sedimentary bedrock. In contrast, with the exception of the areas of clay-rich drift near Paleozoic terrane previously mentioned, trace element concentrations are generally much higher in drift overlying Canadian Shield terrane. Over Precambrian bedrock, drift with high Zn levels, for example, usually is enriched in marble eratics and is found overlying marble bedrock (Fig. 10 and 13). Sphalerite mineralization is known to occur in marbles of this area (Carter et al., 1980; Sangster, 1982).

The arsenic and mafic clast contents of drift are high overlying mafic and some volcanic-derived metasedimentary and RLMZ bedrock (Fig. 14 and 11). Known sources of arsenic in these rocks are quartz vein-hosted deposits in metavolcanic and clastic metasedimentary rocks and arsenic-enriched pyrite in sulphide iron formation in clastic metasedimentary rocks (Carter et al., 1980; Sangster, 1982).

The strong influence of Paleozoic lithologies on glacial sediment composition over a wide area can be attributed to physical characteristics of these strata (Shilts, 1984a). Paleozoic sedimentary rocks, composed predominantly of fine-grained "soft minerals", calcite and dolomite, are jointed and thinly bedded and consequently highly susceptible to plucking, the most effective form of glacial erosion. Precambrian lithologies, in contrast, are massive, and are not so susceptible to glacial erosion by plucking.

DRIFT COMPOSITION

Geochemical and textural data for samples of till and other glacial sediments collected during the reconnaissance and present study are listed and explained in Appendix A. These data have also been released in the following computer files: (1) SAMPLOC.ASC and SAMPLEG.ASC - sample locations and descriptions and sample list legend; (2) TRACE.ASC and TRACLEG.ASC - trace element data list and legend; and (3) CARBTX.ASC and CARBLEG.ASC - carbonate and textural data lists and legends. Maps showing the regional distribution patterns of: (i) trace elements in representative surficial sediment; (ii) silt plus clay-sized as well as fine sand-sized carbonate in representative surficial sediments; and (iii) sand-, silt-, and clay-sized detritus in the till cover are shown in Appendix B. Statistical information has been generated for representative samples from all sites and for each of three separate sample groups composed of till, glaciofluvial sand and/or gravel, and marine or glaciolacustrine silty clay sediments, one per site where data are available (Appendix C). Appendix C also contains: (i) frequency histograms and normal probability curves for trace element, carbonate, and textural data for all

representative samples and for till samples only; (ii) scattergrams showing results of the first versus second run of trace element analysis; and (iii) a correlation matrix for trace element data.

Nearly 85% of the samples analyzed for Pt and 98% analyzed for Pd content had concentrations below the minimum detection limit of 2 ppb. When those samples with detectable or higher concentrations of these two elements were reanalyzed, the same high levels were very rarely reproduced, with the exception of samples collected in two small areas. One area is located northeast of Clyde Forks and immediately east of the RLMZ, overlying gabbroic bedrock, and a second is found south of Pennick Lake near Sharbot Lake. Because results of analysis for Pt and Pd could not reproduced satisfactorily, data for these two elements are not included in the data lists in Appendix A.

As demonstrated in the earlier study (Kettles and Shilts, 1989), the data for this study also show that drift composition is controlled by: (1) glacial transport processes; (2) composition of the underlying and up-ice bedrock; (3) sediment facies sampled and (4) degree of weathering. For individual samples, one or more of these factors may affect composition; some examples are presented in the discussions which follow.

Carbonate Content

Although care was taken to sample glacial sediments that were as unweathered as possible, it is possible that low carbonate concentrations in some individual samples may reflect weathering rather than inherent provenance-related composition of the sediment. Glacial sediments of this area are generally severely leached at depths of one metre or less. Below one metre, there is usually little or no depletion of carbonate, even in drift which shows signs of weathering (Shilts, 1984; Kettles and Shilts, 1989). Indications of weathering include colour changes from grey to grey brown, precipitation of oxides, and the presence of chemically disaggregated, coarsely crystalline clasts.

Carbonate measurements on sample profiles through some of the best exposures of both carbonate-rich and carbonate-poor till are shown in Table 1. In some cases, where carbonate content of the unweathered or less weathered samples is low (< 1%), concentrations of carbonate may appear to increase to levels of 1-2% in the samples collected in the A and B horizons of the solum (for example, 88KAR3517 and KAR3534, Table 1). When the fine fractions of the same samples were x-rayed no carbonate minerals were detected. In the exposures where increased carbonate levels in the solum are observed, A and B soil horizon samples invariably contain high levels of non-carbonate

carbon. It is likely that these apparent increases in carbonate content reflect some loss of precision associated with the analytical method used. Analyses carried out using the Leco carbon analyzer and the Chittick apparatus are accurate only to within 1-2% and errors of this type may be compounded further as number values generated at several stages of the carbonate calculation are rounded off.

Regional patterns of silt plus clay-sized (< .063 mm) carbonate content in drift, first delineated as part of the reconnaissance sampling program (Fig. 13), were mapped out in more detail as part of the present study (Fig. 9). Highest concentrations of carbonate (>5% and frequently >15% $CaCO_3$ equivalent) in the silt-plus clay-sized fraction of samples from this study and sand-sized fraction of samples collected during the earlier study, are found in glacial sediments overlying Paleozoic bedrock and also over Precambrian crystalline rocks west of the boundary between Paleozoic and Precambrian bedrock. Drift over a variety of bedrock types in the Clyde Forks-Westport area is generally more carbonate-rich than drift overlying lithologically similar bedrock of the Central Metasedimentary Belt farther west in the Minden-Haliburton region (Shilts, 1984; Kettles and Shilts, 1989) (Fig. 15).

Carbonate minerals in drift over the Frontenac Arch come from at least two sources - Paleozoic limestones and dolomites and Precambrian marbles. As previously discussed, Paleozoic carbonate from the eastern part of the study area, has been glacially transported at least 70 kilometres over the Precambrian rocks in the western part of the study area (Fig. 7). In contrast, high concentrations of marble clasts are largely confined to the areas underlain by marble bedrock (Fig. 10).

The highest concentrations of carbonate in drift in the silt plus clay-sized fraction are in drift overlying two large marble belts, one north and west of Perth and the other northwest of Ompah (Fig. 9). Although there are also elevated concentrations of granule-size Paleozoic clasts in drift samples collected over the two marble belts (Fig. 7), the distribution of granule-sized marble clasts seems to mimic particularily well the distribution of carbonate in the silt plus clay size fraction (Fig. 10,9). The effect of marble lithologies on the carbonate content of the fine fraction of drift is much more pronounced in this part of the Central Metasedimentary Belt than it is farther west. Carbonate concentrations in drift overlying the large marble belts in the Bancroft and Haliburton areas are consistently low (less than 5% $CaCO_3$ equivalent) (Fig. 15)(Shilts, 1984; Kettles and Shilts, 1989). The reasons for the differing patterns of carbonate enrichment from Precambrian marbles are at present unknown.

Textural composition of till

Regional distribution patterns of different textural components in till are influenced strongly by glacial transport (Shilts, 1984; Kettles and Shilts, 1989). As would be expected, tills overlying Paleozoic sedimentary rocks are enriched in clay-sized detritus (Fig. 8). Also clay-rich, however, are tills overlying calcareous and non-calcareous Shield rocks which have both high concentrations of both Paleozoic clasts and fine-sized carbonate (Fig. 7 and 9). shield tills in the Westport map-area are particularly fine-grained.

Farther west in the present study area, outside the zone of carbonate enrichment, the sand content in the matrix of shield tills is generally greater than 75 %. For unknown reasons, tills are consistently silty (30 - 50%) overlying Precambrian bedrock of diverse lithologies in the southern part of the Clyde Forks map-area.

Trace Element Composition:

The distribution patterns of most trace elements in drift in the study area (see Appendix B) can be related to composition of underlying or nearby bedrock and, in some areas, to the effects of glacial transport. Trace elements levels are uniformly low overlying Paleozoic bedrock in the eastern part of the study area and in the clay-enriched and Paleozoic carbonate-enriched shield tills of the Westport map-area.

Highest concentrations of most trace elements are found in drift overlying those parts of the Central Metasedimentary Belt within the Clyde Forks and Sharbot Lake map-areas. Some enrichment likely reflects high background concentrations of trace elements in the average composition of the underlying bedrock. The Clyde Forks-Ompah area, for example, forms the eastern extension of large areas of As- (Fig. 16), Hg-, Cu-, and Fe-rich (not shown) drift which broadly outline the belts of metavolcanic and metasedimentary rocks of this area (Kettles and Shilts, 1989).

Distribution patterns of Co, Zn, and Cd (Appendix B) can also be readily related to underlying bedrock composition. Almost all areas of Co-enriched drift are found overlying RLMZ, or mafic intrusive or metavolcanic rocks and areas of high Co correspond well to areas with high concentrations of mafic clasts in glacial sediments (Fig. 11). In contrast, the patterns of Zn and Cd correspond closely to each other and to patterns of marble outcrop areas and marble clasts in drift (Fig. 10).

For unknown reasons, the pattern of Ni-rich drift in the McDonalds Corners area corresponds closely to the distribution pattern of drift enriched in marble clasts. Rock sequences in most parts of the study area are complexly interbedded and it is possible that small metavolcanic units interbedded with marble in the McDonalds Corners area are Ni-enriched.

Some As, Au, Hg, Ag, Cu, and Fe enrichment in drift in the Clyde Forks and Sharbot Lake map-areas likely reflects mineralization in the underlying bedrock. Many known showings of gold and other sulphide minerals are associated with rocks of the RLMZ (Carter et al., 1980; Sangster, 1982; Gleeson et al., 1989)(Fig. 4). In the study region, mineralized occurrences have been discovered of Cu-Sb-Au-Ag and Cu-Sb-Au-Hg, containing tetrahedrite, chalcopyrite, pyrite and gold, but they are generally carbonate-hosted whereas drift with high concentrations of the above elements more frequently overlies mafic bedrock. Gold, pyrite, and arsenopyrite are also known in gabbro-hosted quartz-ferroan carbonate veins, in trondhjemite-hosted quartz veins, and in mafic mylonite-hosted massive sulphide zones.

In contrast to the other trace elements, the content of Au in drift was determined for the silt plus clay fraction. In some parts of the study area, the true pattern of Au distribution in drift may be suppressed by the presence of large concentrations of silt-sized Paleozoic carbonate debris. The distribution pattern of glacial sediments with low levels of Au seems to mimic particularly well the distribution pattern of drift with high levels of fine-sized carbonate. Concentrations of gold, for example, are low where carbonate concentrations are uniformly very high (> 40% in the silt-plus clay) overlying belts of marble northeast and southwest of McDonalds Corners. Elsewhere, concentrations of gold in drift are high (> 10 ppb) in the southern part of the Sharbot Lake map areas, where concentrations of fine-sized carbonate are generally low. Results of fractionation studies of till indicate that carbonate minerals tend to be glacially comminuted to fine sand and silt-sized particles (Dreimanis and Vagners, 1971).

Some chemical variation in trace element composition of glacial sediments may also be attributed to postglacial weathering (Kettles and Shilts, 1989). In individual samples, concentrations of iron, sometimes manganese, and frequently other trace elements, tend to be high in samples of glacial sediments that were described in the field as being highly weathered. High concentrations of iron and other trace elements most likely indicate the presence of secondary alteration products in the clay-sized fraction of the sample. Some compositional variation is also present in samples collected in the same exposure. In the study area, samples were collected from till sections with well exposed

weathering profiles at sites 88KAR3517, 88KAR3534 and 80AR0052. Data for these profiles are given in Appendix A and Table 1 .

Another cause of variation in chemical composition of drift can be related to sediment facies sampled (Kettles and Shilts, 1989). Frequency histograms for Zn and Co data for samples of the different sediment groups, which typify results for most trace elements, are shown in Figure 17. There is a narrow range of trace element concentrations in glaciolacustrine and glaciomarine samples compared to till and glaciofluvial or outwash sand and gravel. The wide range of concentrations levels for samples collected in till and sand or gravel likely represents local variabiltiy in bedrock lithologies either at the sample site or just up-ice from it. The lack of compositional variation in glaciolacustrine or marine sediments is thought to reflect the homogenizing processes associated with their deposition (Kettles and Shilts, 1989).

A larger number of glaciofluvial samples have higher trace element concentrations in clay, on average, than do samples of till. Because the fines have been removed from these sediments by fluvial reworking prior to deposition, it is likely that a high proportion of the clay-sized detritus in these sediments is composed of weathering artifacts, many of which are metal-enriched (Shilts, 1973; Kettles and Shilts, 1989).

CONCLUSIONS and RECOMMENDATIONS

1. As demonstrated by results of the present and also the first glacial sediment sampling program (Shilts, 1984; Kettles and Shilts, 1989), regional variations in carbonate content of all glacial sediments and texture of till are influenced most strongly by glacial transport. Paleozoic carbonate has been carried at least 70 kilometres southwestward from the Paleozoic bedrock which underlies the eastern part of the study area. Dispersal patterns of silt plus clay-sized and also fine sand-sized carbonate in all glacial sediments and clay-sized detritus in the till cover mimic the dispersal patterns of Paleozoic clasts in drift.

2. With the more detailed mapping of carbonate dispersal in the Clyde Forks-Westport areas undertaken as part of this study, the influence of the marble lithologies on carbonate concentrations in drift was shown more clearly. The distribution pattern of drift with very high concentrations of fine-sized carbonate (>40%) seem to mimic particularly well the distribution pattern of drift enriched in granule-size marble clasts. Highest concentrations of carbonate in drift are present in the McDonalds Corners areas in glacial sediments that overlie marble bedrock and that have high concentrations of granule-size marble clasts. For unknown

reasons, the marbles contribute more carbonate minerals to the drift in the Clyde Forks-Westport area than they do farther west in the Central Metasedimentary Belt in the Haliburton-Minden region.

2. Precambrian lithologies produce weak dispersal trains here. Studies of dispersal patterns of selected Precambrian clasts in drift at a regional scale indicate that Precambrian clasts are largely confined to their outcrop areas. These findings are consistent with results of some detailed dispersal studies carried out earlier in the Clyde Forks area which indicate that dispersal trains of selected Precambrian lithologies are in the order of 1-2 kilometres (Sinclair, 1979; DiLabio, et al. 1982; Gleeson, et al., 1989). The lack of effect of glacial processes on Precambrian bedrock likely reflects low sediment production in the hard crystalline shield terrane in this area (Kettles and Shilts, 1989).

3. Regional dispersal patterns of trace elements in the clay-sized fraction of glacial sediments can generally be related most strongly to the composition of the underlying or nearby bedrock. The trace element content of drift overlying Paleozoic rock is unformly low compared to concentration levels in drift overlying the Canadian Shield. Concentrations of Zn, for example, are highest in marble-enriched drift found overlying the marble belts themselves while concentrations of As are highest in drift enriched in mafic rocks found overlying mafic intrusive or metavolcanic rocks or metasedimentary rocks of volcanic origin.

In some areas, however, with the more detailed mapping of trace element dispersal patterns carried out as part of this project, the effects of glacial transport on distribution patterns of trace elements in drift can be discerned. For example, on Precambrian bedrock west of the Paleozoic terrane near Westport, trace element levels are generally low in tills with high concentrations of both clay-sized detritus and granule-sized Paleozoic clasts.

4. Highest concentrations of Au, As, Hg and other trace elements in drift occur over or close to rocks of the RLMZ. High levels of these and other trace elements were also found in glacial sediments underlain by Elzivir and Sharbot Lake terrane bedrock over a wide area located north of Sharbot Lake and south of Clyde Forks. Unfortunately, few samples were collected in these regions because road access is poor. More detailed drift sampling work is needed in the vicinity of the RLMZ, to better delineate areas of metal-rich drift.

ACKNOWLEDGMENTS

The author wishes to thank Julie Cousineau for her able assistance in the field in 1987 and 1988, C. Rodrigues (Univ. of Windsor) for his paleontological work on many samples collected in the study area, K. Laurus was carrying out pebble lithology work, P. Higgins and M. Wygergangs for laboratory assistance, S. Courtney and P. Wyatt for computer assistance, R. Easton for information pertaining to the bedrock of the area, and the following for helpful discussions - P.J. Henderson, C. Kaszycki, R.N.W. DiLabio, R. Fulton, W.W. Shilts, V.K. Prest, D. Sharpe, and G. Gorrell, V. Rampton, and T. Anderson.

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FIGURE CAPTIONS

1. Location of the present study area. Also shown are areas covered by other glacial and lacustrine sediment and lake water sampling programmes (Kettles and Shilts, 1983; Hornbrook et al., 1984a and 1984b; Geological Survey of Canada, Mineral Resources Division, 1981).

2. Glacial sediment sample locations in the Clyde Forks-Westport study area.

3. Geography of the Clyde Forks-Westport study area.

4. Locations of mineral occurrences in the Clyde Forks-Westport area, from Camindex (Picklyck et al., 1973)

5. (a) Bedrock geology of the Clyde Forks-Westport area, modified after Easton (1987a, b), Baer et al., (1977), and Freeman (1979); (b) metamorphic terranes of the Clyde Forks-Westport areas. (RLMZ - Robertson Lake Mylonite Zone, LGC - Lavant Gabbro Complex, SLT - Sharbot Lake Terrane)

6. Surficial deposits and ice flow direction indicators in the Clyde Forks-Westport area, modified from Kettles (in press a,b), Henderson (in press), Kettles, et al. (in press), Richard (in press) and Henderson (1973). Occurences of Mysis relicta (Dadswell, 1974)and Candona subtriangulata (C. Rodrigues, Univ. of Windsor, pers. comm.) are also shown.

7. The distribution of Paleozoic carbonate clasts in the granule-small pebble (2.0-5.6 mm) fraction of glacial sediments, and areas of Paleozic bedrock in the Clyde Forks-Westport area.

8. The distribuiton of clay-sized detritus in <2 mm fraction of glacial sediments, and areas of Paleozoic bedrock in the Clyde Forks-Westport area.

9. The distribution of silt plus clay-sized carbonate (< .063 mm) in glacial sediments, and areas of Paleozoic sedimentary and Precambrian marble bedrock in the Clyde Forks-Westport area.

10. The distribution of Precambrian marble clasts in the granule-small pebble (2.0-5.6 mm) fraction of glacial sediments, and areas of Precambrian marble bedrock in the Clyde Forks-Westport area.

11. The distribution of Precambrian mafic intrusive amd mafic metavolcanic clasts in the granule-small pebble (2.0-5.6 mm) fraction of glacial sediments, and areas of mafic intrusive and metavolcanic bedrock in the Clyde Forks-Westport area.

12. The distribution of Precambrian felsic intrusive or felsic gneiss clasts in the granule-small pebble (2.0-5.6 mm) fraction of glacial sediments, and areas of felsic intrusive, gneissic and felsic metavolcanic bedrock in the Clyde Forks-Westport area.

13. Distribution of Zn in the clay-sized (<.002 mm) fraction of glacial sediments, and areas of Precambrian marble bedrock in the Clyde Forks-Westport area.

14. Distribution of As in the clay-sized (<.002 mm) fraction of glacial sediments, and areas of mafic intrusive and metavolcanic bedrock in the Clyde Forks-Westport area.

15. Distribution of carbonate in the silt plus clay-sized (<.063 mm fraction) of glacial sediments over southeastern Ontario after Kettles and Shilts (1983 and 1989).

16. Distribution of As in the clay-sized (< .002 mm) fraction of glacial sediments over southeastern Ontario, after Kettles and Shilts (1983 and 1989).

17. Frequency histograms of As and Co abundances in all representative samples, as well as in separate groups comprised of till, glaciofluvial sand and gravel and glaciolacustrine or marine silty clay samples.

TABLES

1. Carbonate abundances in samples collected from exposures of weathered and less weathered till, Clyde Forks-Westport area.

APPENDICES

A. Sample descriptions and lists of trace element, carbonate and texture data.

B. Distribution maps of trace elements, carbonate content, and textural composition in samples from the Clyde Forks-Westport area.

C. (i) Summary statistical information for sediment analyses.
(ii) Frequency historgrams and normal probability plots of trace element, carbonate and textural data for all representative samples and for till samples only.
(iii) Scattergram plots of trace element data for samples that were analyzed twice.
(iv) Correlation matrix of trace element data.

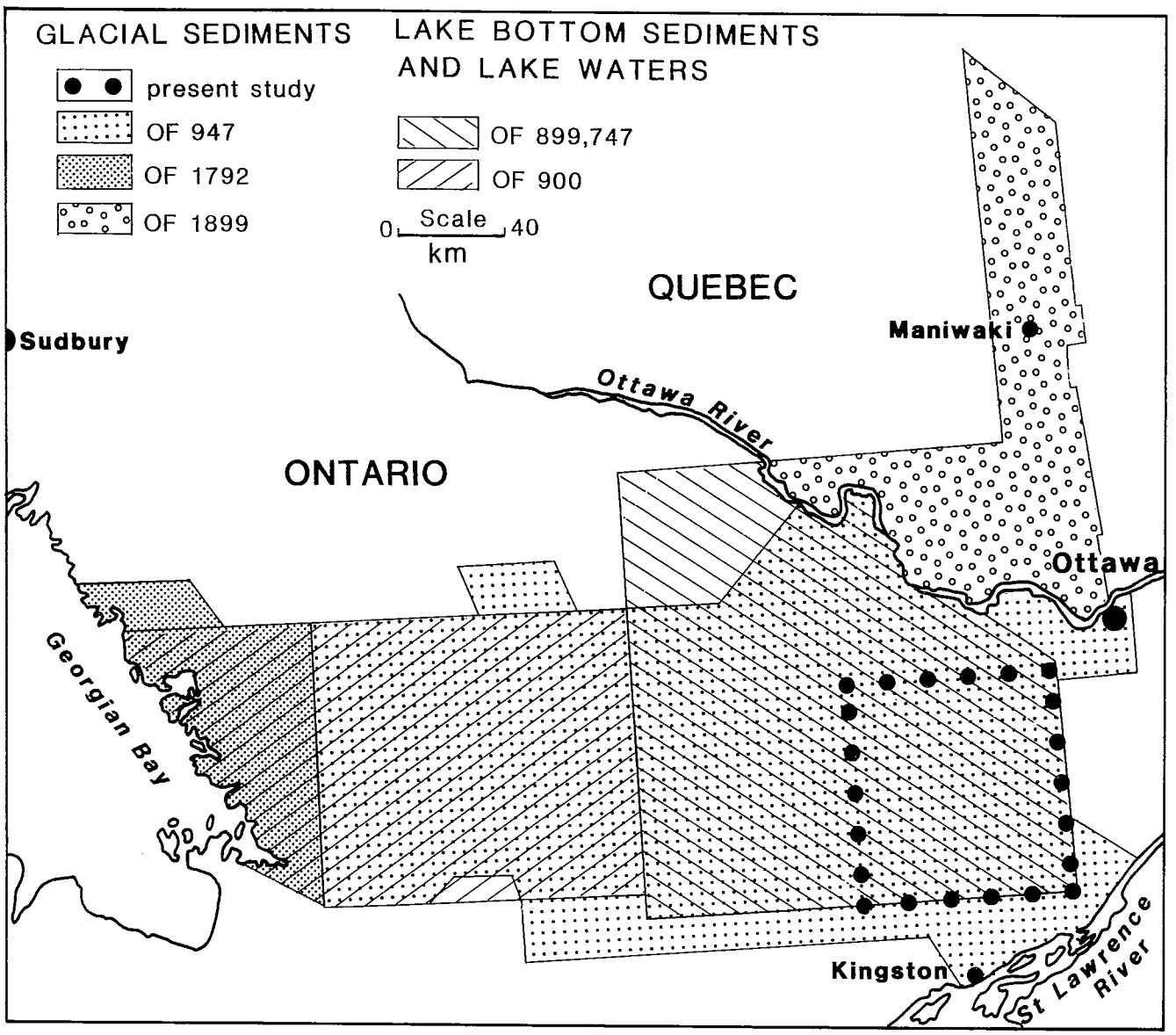
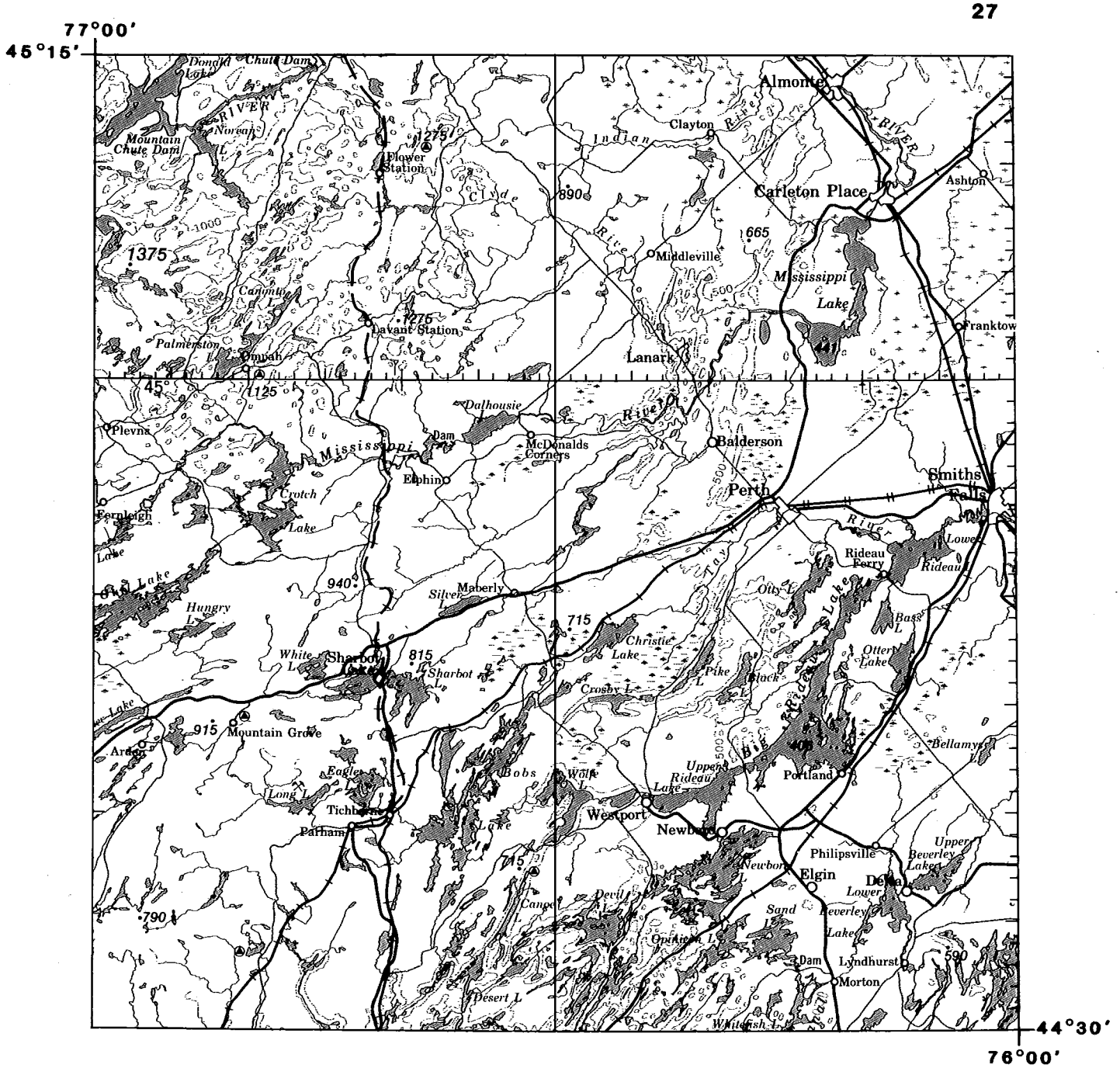

GLACIAL SEDIMENTS
present study
OF 947
OF 1792
OF 1899
LAKE BOTTOM SEDIMENTS
AND LAKE WATERS
OF 899,747
OF 900
0 Scale 40
km
QUEBEC
Sudbury
Maniwaki
Ottawa River
ONTARIO
Ottawa
Georgian Bay
Kingston
St Lawrence
River

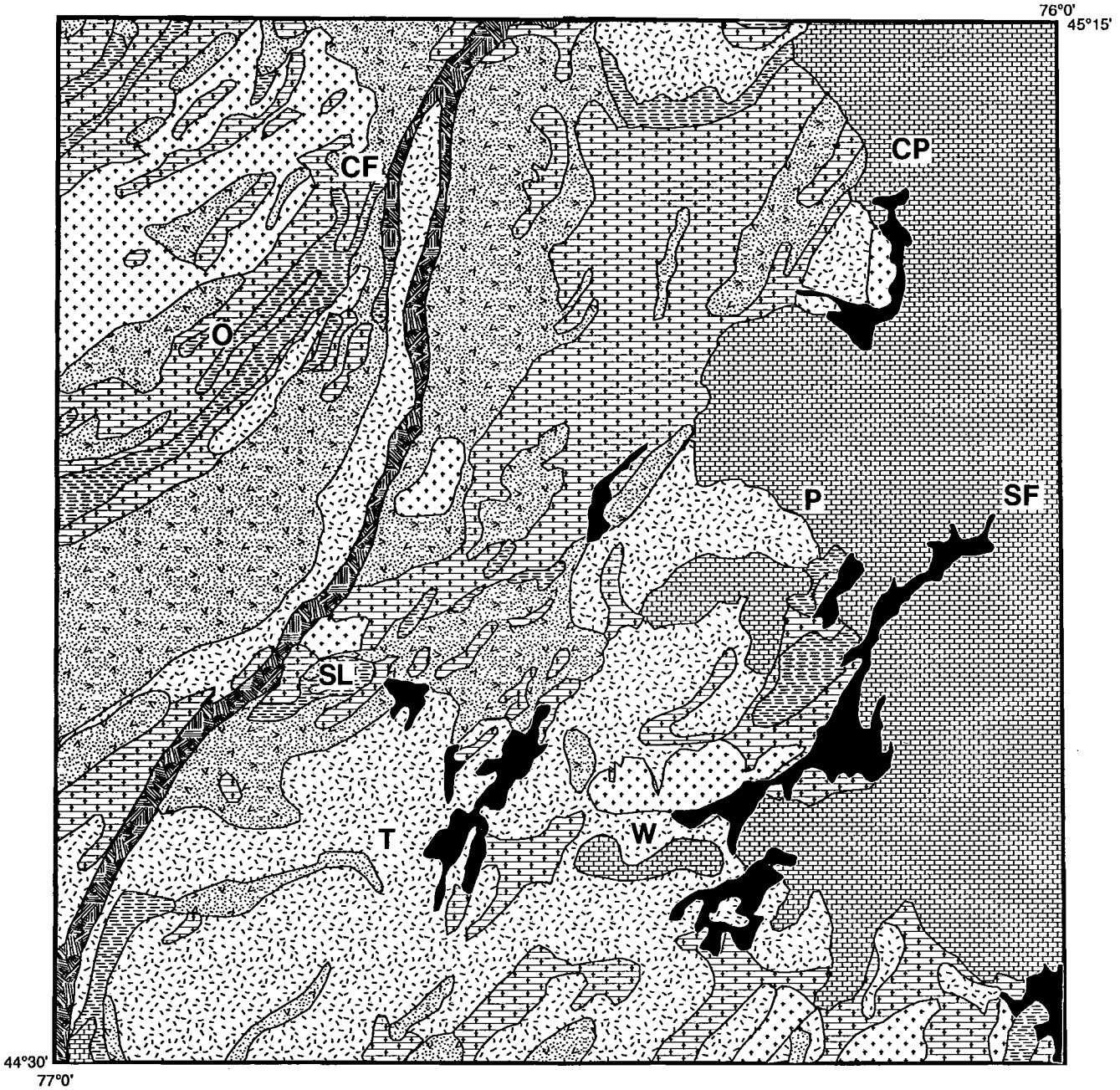
Figure 1.

REPRODUCE THIS SHEET AS A TRANSPARENCY



10 0 10km

Figure 3.



Paleozoic

limestones, dolostones, sandstones, shales

Precambrian

Roberston Lake Mylonite Zone mylonites and protomylonites

marbles

non-carbonate metasediments

mafic intrusives and mafic metavolcanics

medium to high grade gneiss

felsic intrusives and felsic metavolcanics

CP	Carleton Place
CF	Clyde Forks
O	Ompah
P	Perth
SL	Sharbot Lake
SF	Smiths Falls
T	Tichborne
W	Westport

Figure 5a.

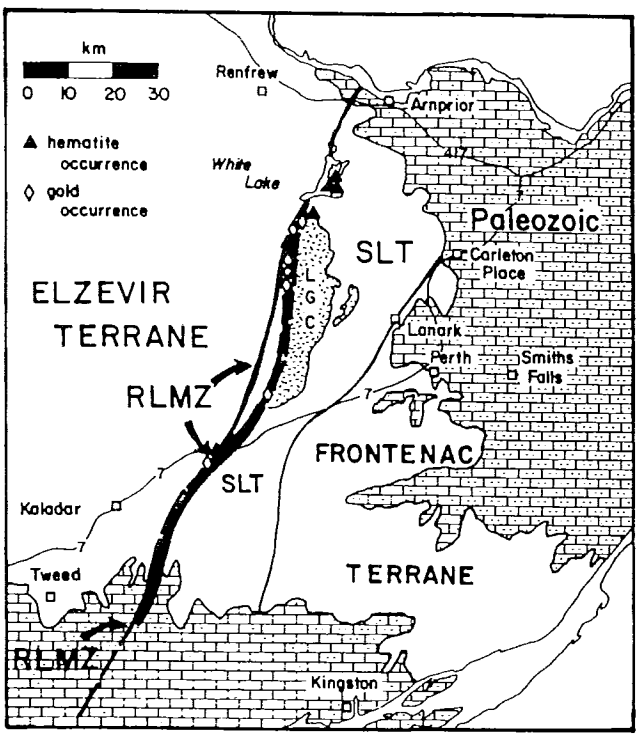

km
0 10 20 30
hematite occurrence
gold occurrence
Renfrew
Arnprior
White Lake
417
Paleozoic
SLT
Carleton Place
L
G
C
ELZEVIR TERRANE
Lanark
Perth
Smiths Falls
RLMZ
FRONTENAC
SLT
Kaladar
Tweed
TERRANE
RLMZ
Kingston

Figure 5b.

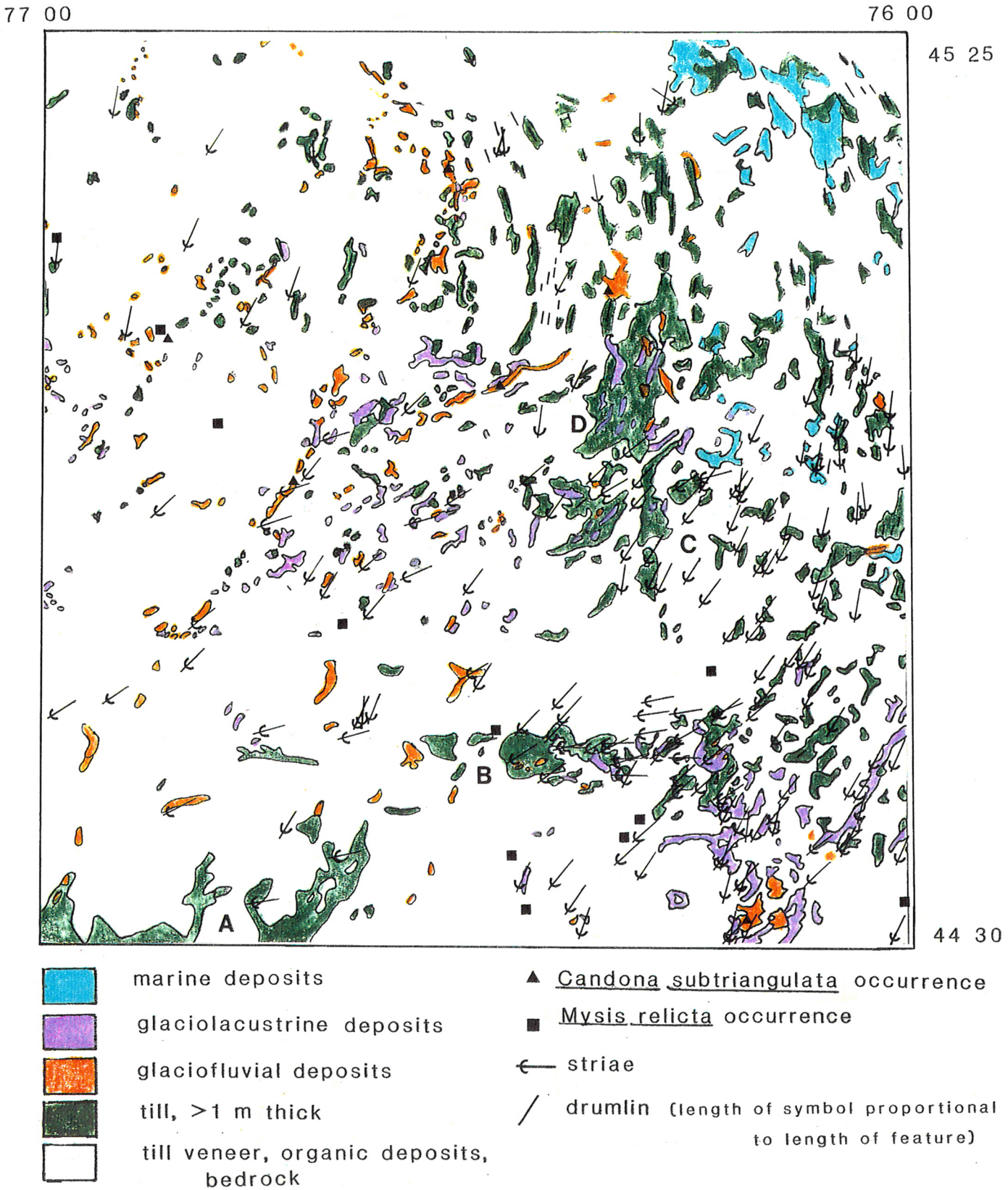

77 00
76 00
45 25
44 30
A
B
C
D
marine deposits
glaciolacustrine deposits
glaciofluvial deposits
till, >1 m thick
till veneer, organic deposits, bedrock
Candona subtriangulata occurrence
Mysis relicta occurrence
striae
drumlin (length of symbol proportional to length of feature)

Figure 6.

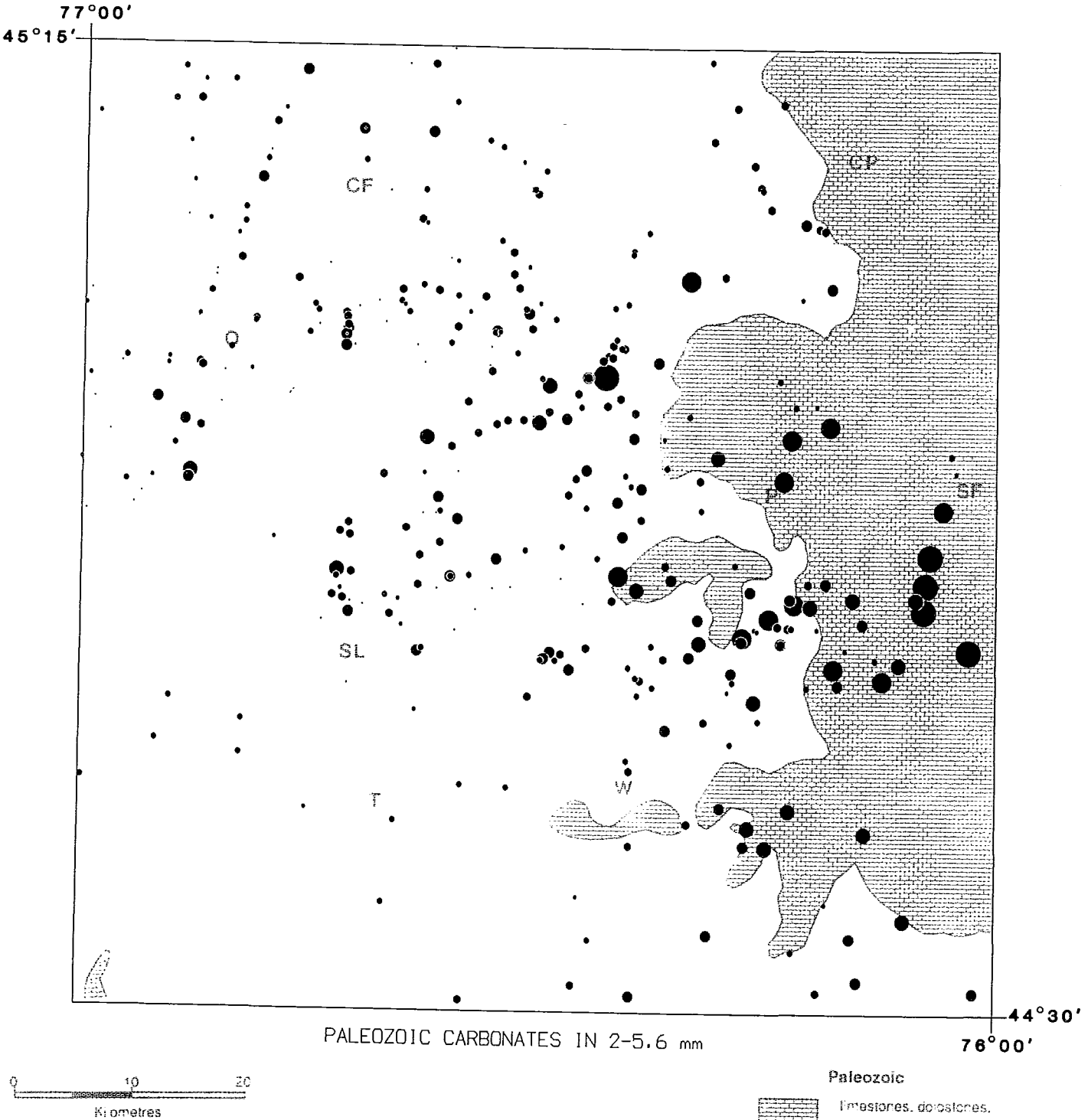
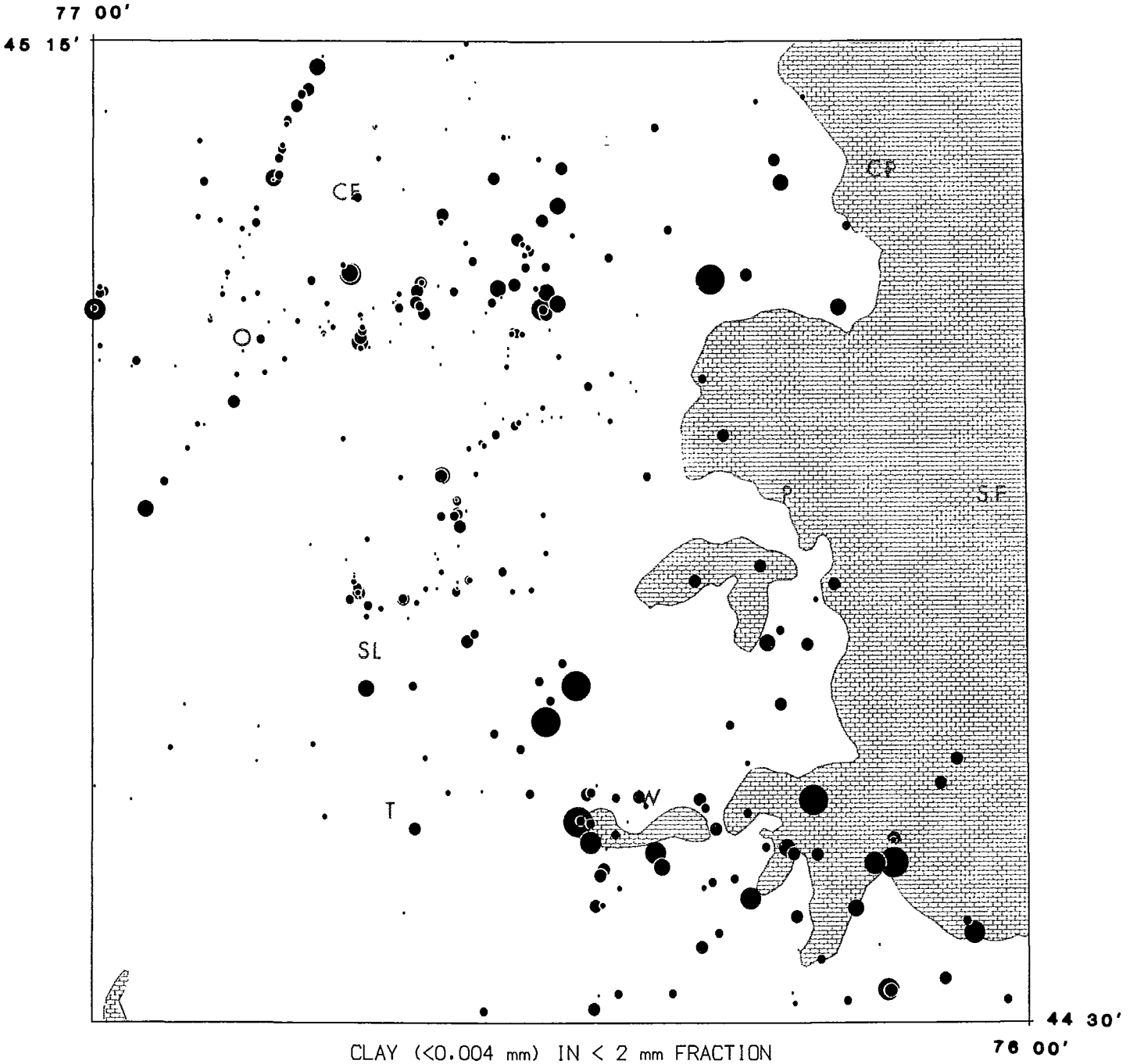

77°00'
45°15'
CF
CP
O
SF
SL
W
T
44°30'
76°00'
PALEOZOIC CARBONATES IN 2-5.6 mm
0
10
20
Kilometres
Paleozoic carbonates
RANGE (pct)
SIZE LOW HIGH OBS. %TILE
0.00 .01 50 14
.010 1.96 41 25.5
1.96 18.85 88 50.1
18.85 45.36 89 75.1
45.36 63.87 55 90.5
63.87 73.43 18 95.5
73.43 82.94 11 98.6
82.94 91.77 5 100
Paleozoic
limestones, dolostones, sandstones, shales
Precambrian
felsic intrusive and felsic metavolcanic rocks
CP Carleton Place
CF Clyde Forks
O Ompah
P Perth
SL Sharbot Lake
SF Smiths Falls
T Tichborne
W Westport

Figure 7.



0 10 20
Kilometres

CLAY

SIZE	RANGE (%) LOW	HIGH	OBS.	%TILE
·	0.6	4.3	84	25.8
•	4.3	6.8	86	52.3
•	6.8	10	75	75.4
●	10	14.7	48	90.2
●	14.7	17.9	17	95.4
●	17.9	22.8	9	98.2
●	22.8	39.5	6	100

Paleozoic

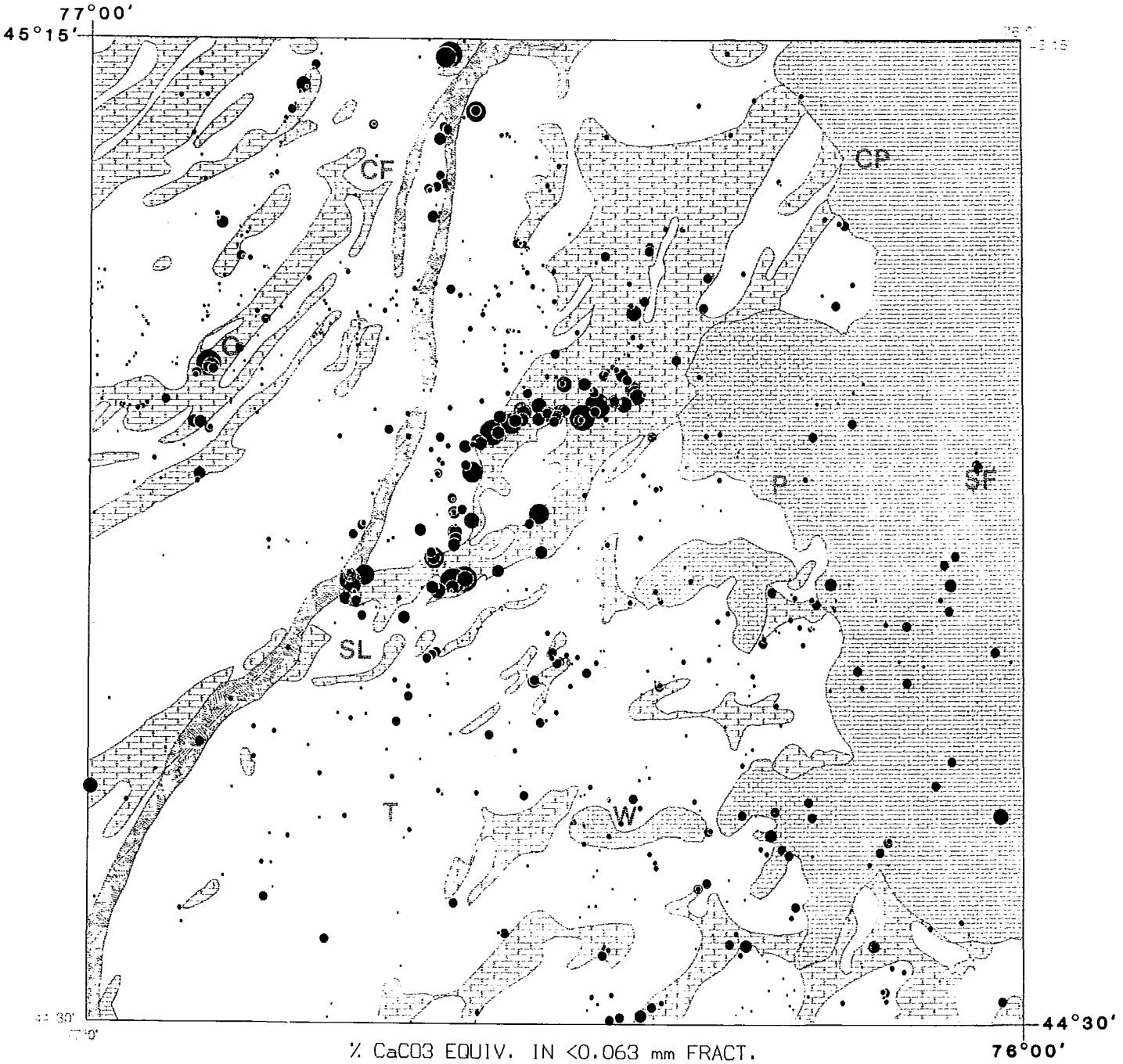
limestones, dolostones, sandstones, shales

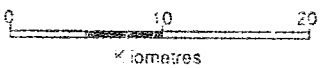
Precambrian

felsic intrusive and felsic metavolcanic rocks

CP	Carleton Place	SL	Sharbot Lake
CF	Clyde Forks	SF	Smiths Falls
O	Ompan	T	Tichborne
P	Perth	W	Westport

Figure 8.





CaCO3 equiv.

SIZE	RANGE (Weight %) LOW	HIGH	OBS.	%TILE
·	0.001	0.8	220	28
·	0.8	11.1	174	50.1
•	11.1	26.8	196	75.1
●	26.8	41.0	118	90.1
●	41.0	53.3	41	95.3
●	53.3	62.5	22	98.1
●	62.5	69.8	8	99.1
●	69.8	82.5	7	100

Paleozoic

Limestones, dolostones, sandstones, shales

Precambrian

Robertson Lake

Mylonite zone

Marbles

CP	Carleton Place
CF	Clyde Forks
O	Ompah
P	Perth
SL	Sharbot Lake
SF	Smiths Falls
T	Tichborne
W	Westport

Figure 9.

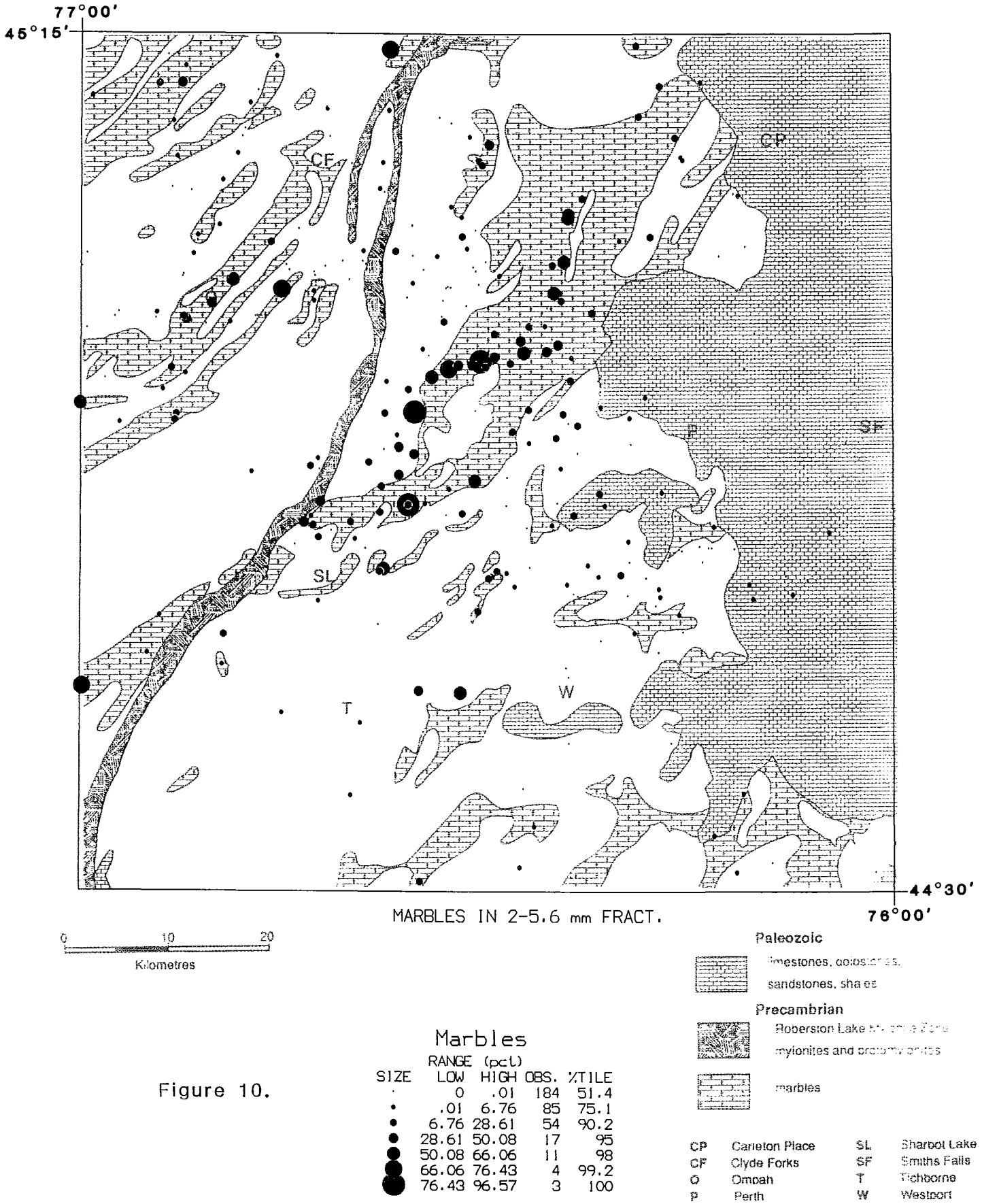
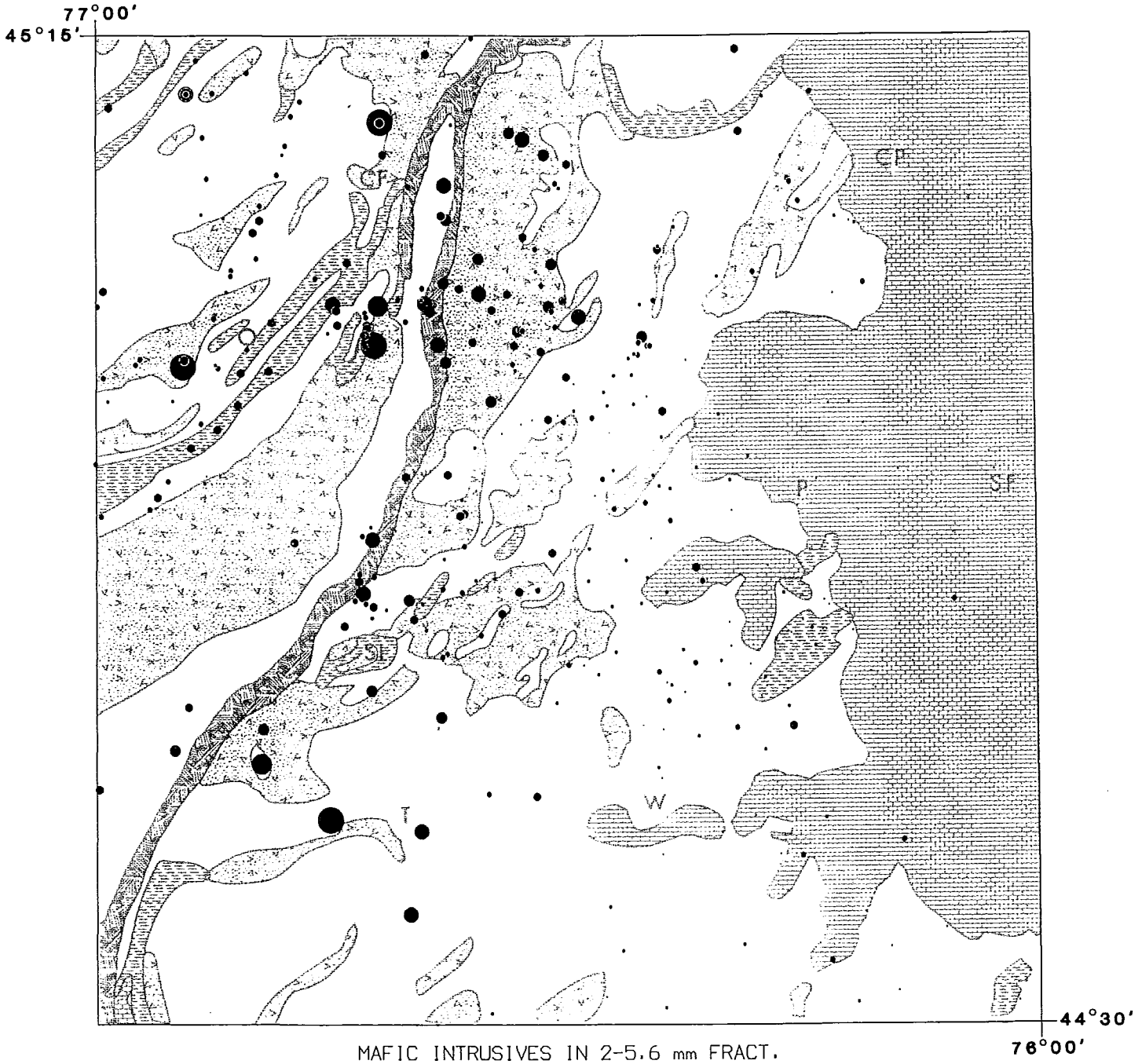

77°00'
45°15'
CF
CP
P
SF
SL
T
W
44°30'
76°00'
MARBLES IN 2-5.6 mm FRACT.
0
10
20
Kilometres
Paleozoic
limestones, dolostones, sandstones, shales
Precambrian
Roberston Lake Mylonite Zone mylonites and protomylonites
marbles
Marbles
RANGE (pct)
SIZE LOW HIGH OBS. %TILE
0 .01 184 51.4
.01 6.76 85 75.1
6.76 28.61 54 90.2
28.61 50.08 17 95
50.08 66.06 11 98
66.06 76.43 4 99.2
76.43 96.57 3 100
CP Carleton Place
CF Clyde Forks
O Ompah
P Perth
SL Sharbot Lake
SF Smiths Falls
T Tichborne
W Westport

Figure 10.



Mafic Intrusives

SIZE	RANGE (pct) LOW	HIGH	OBS.	%TILE
·	0.00	1.91	89	24.9
·	1.91	5.41	90	50
•	5.41	12.56	89	74.9
•	12.56	22.23	54	89.9
●	22.23	28.33	18	95
●	28.33	48.82	12	98.3
●	48.82	55.00	2	98.9
●	55.00	67.27	4	100

Figure 11.

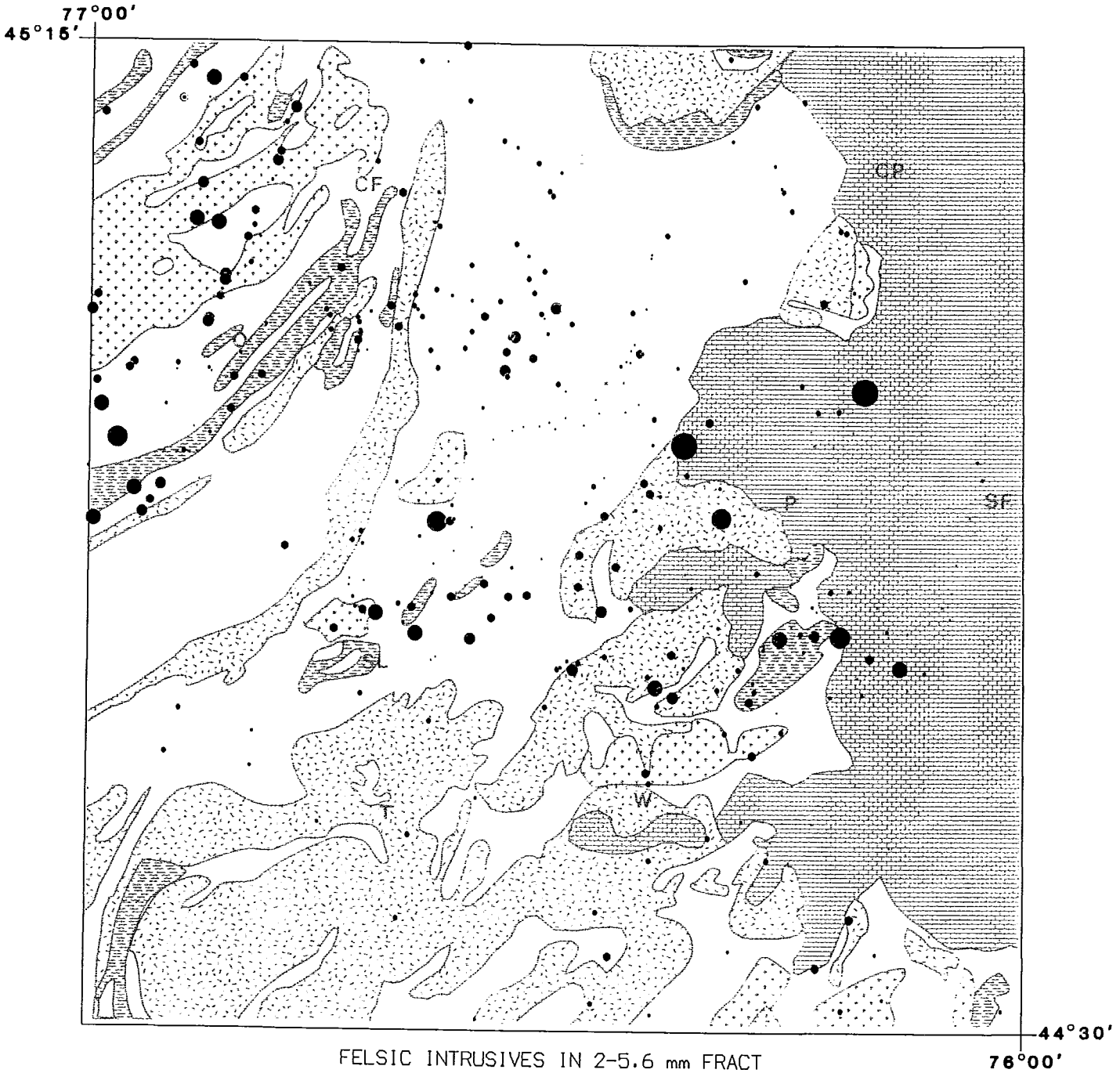


Figure 12.

Felsic Intrusives

SIZE	RANGE (pct) LOW	HIGH	OBS.	%TILE
·	3.22	32.12	91	25.4
•	32.12	51.20	83	48.6
•	51.20	77.95	94	74.9
•	77.95	90.02	55	90.2
•	90.02	92.93	18	95.3
•	92.93	97.60	11	98.3
•	97.60	98.20	4	99.4
•	98.20	100.00	2	100

Paleozoic

limestones, dolostones, sandstones, shales

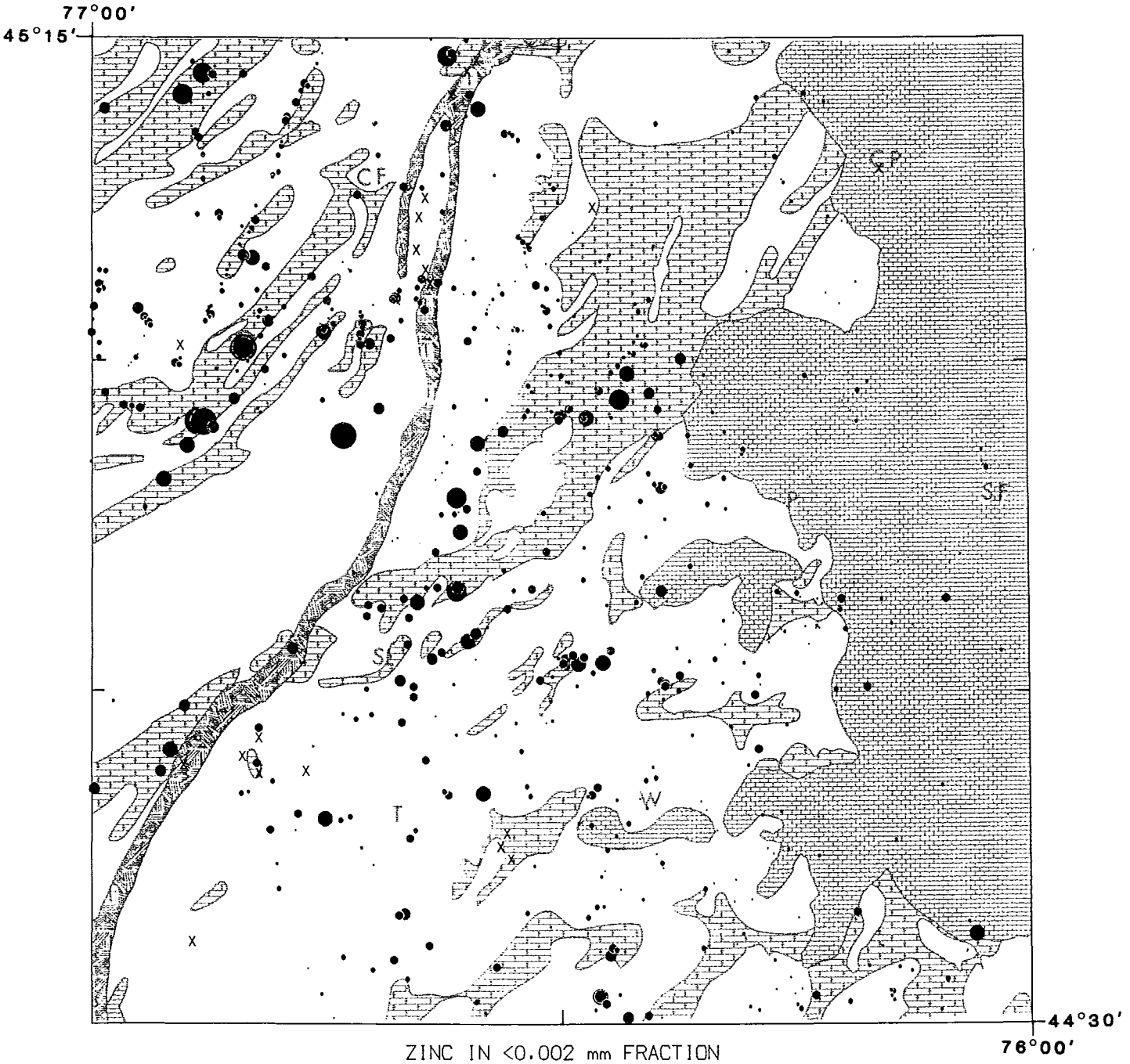
Precambrian

medium to high grade gneiss

felsic intrusives and felsic metavolcanics

non-carbonate metasediments

CP	Carleton Place	SL	Sharbot Lake
CF	Clyde Forks	SF	Smiths Falls
O	Ompah	T	Tichborne
P	Perth	W	Westport



Paleozoic

limestones, dolostones, sandstones, shales

Precambrian

Robertson Lake Mylonite Zone mylonites and protomylonites

marbles

CP	Carleton Place	SL	Sharbot Lake
CF	Clyde Forks	SF	Smiths Falls
O	Ompah	T	Tichborne
P	Perth	W	Westport

Zn

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	6	115	161	25.3
·	115	150	159	50.2
•	150	201	159	75.2
•	201	298	98	90.6
●	298	340	30	95.3
●	340	500	19	98.3
●	500	820	7	99.4
●	820	1120	4	100

x Known Zn showing

Figure 13.

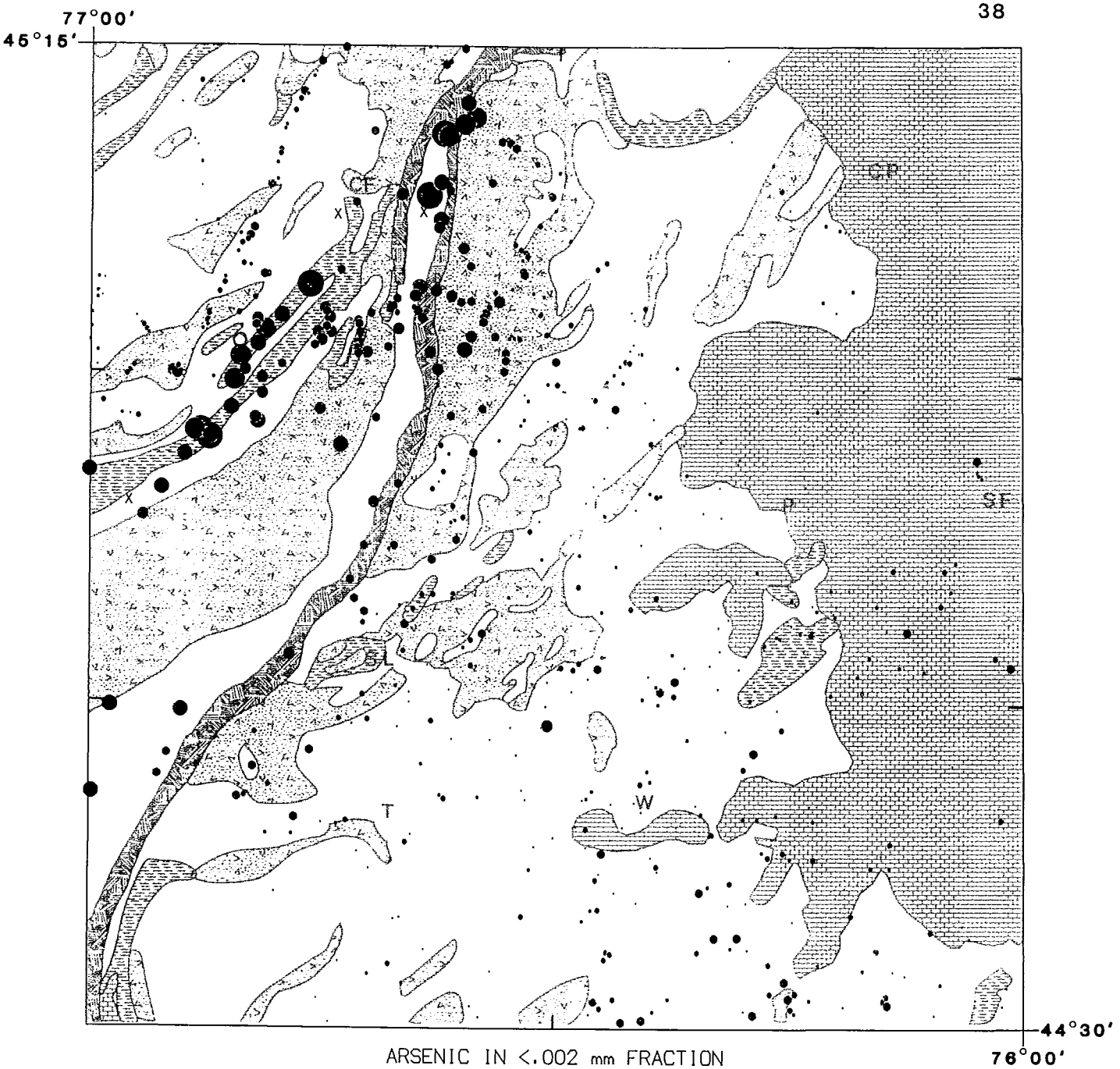


Figure 14.

As

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	1	4	221	34.5
·	4	6	141	56.6
•	6	10	123	75.8
•	10	19	92	90.2
●	19	32	32	95.2
●	32	100	19	98.1
●	100	200	7	99.2
●	200	536	5	100

x Known As showing

Paleozoic

limestones, dolostones, sandstones, shales

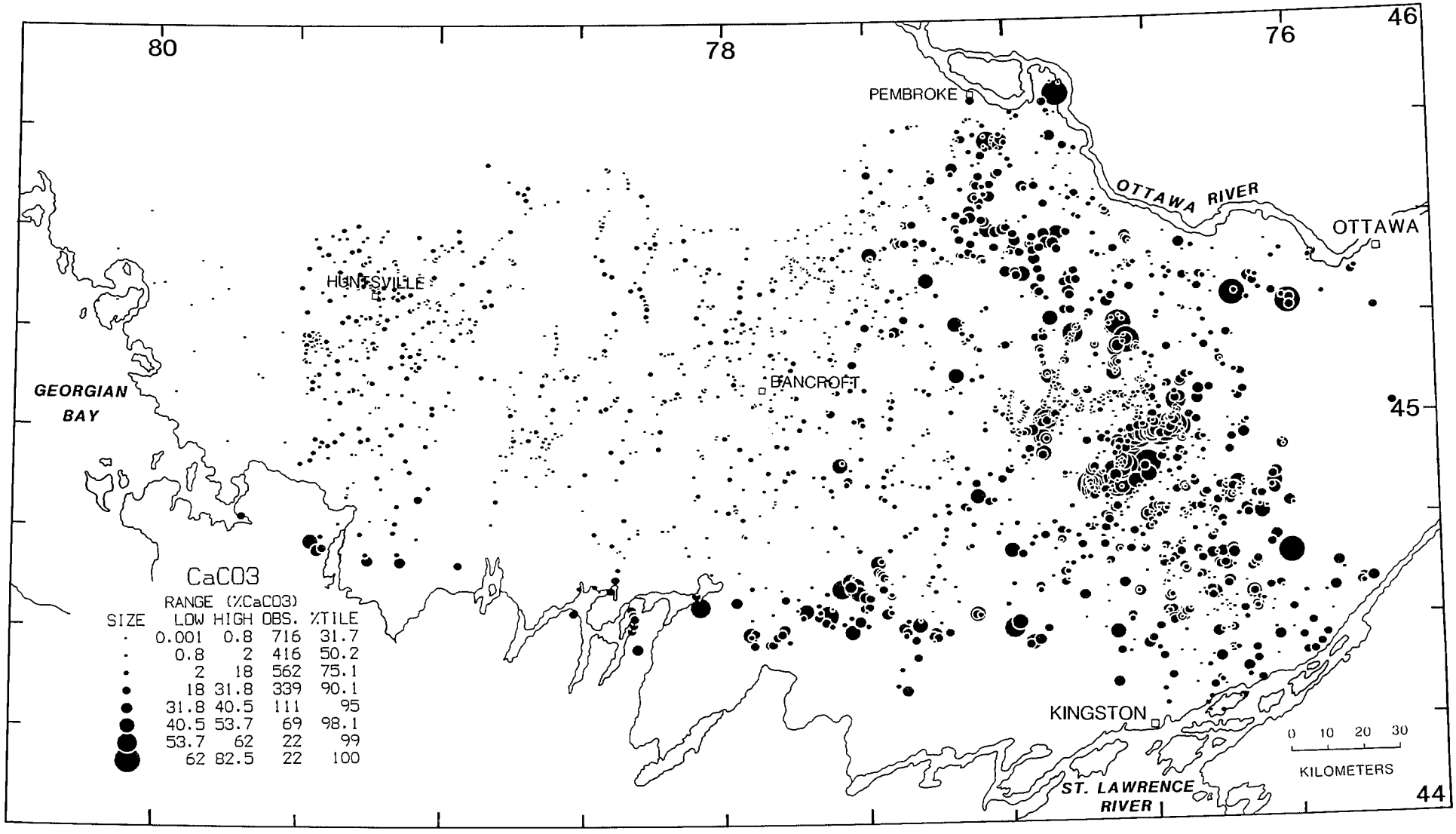
Precambrian

Roberston Lake Mylonite Zone mylonites and protomylonites

mafic intrusives and mafic metavolcanics

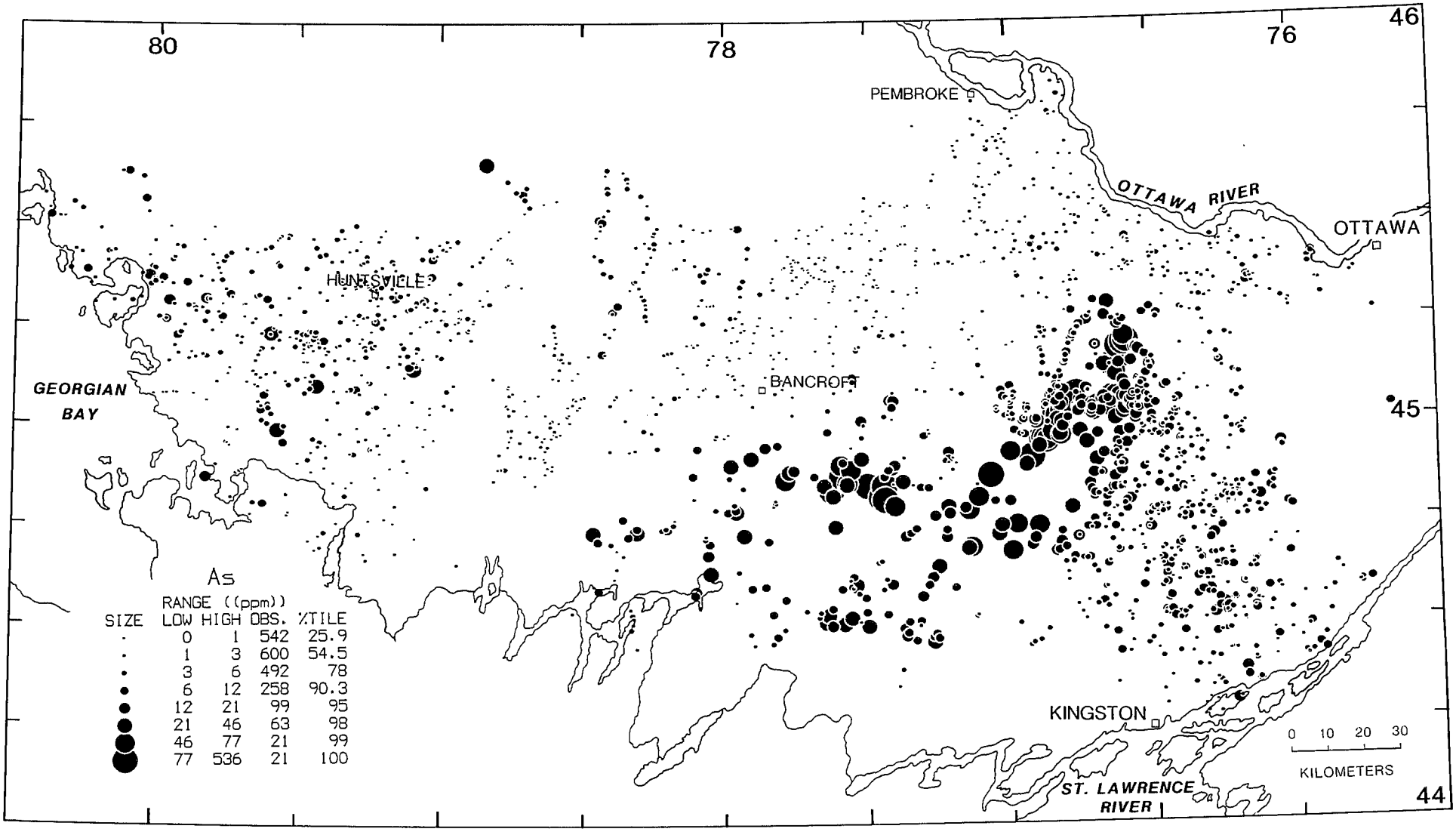
non-carbonate metasediments

SL	Sharbot Lake	CP	Carleton Place
SF	Smiths Falls	CF	Clyde Forks
T	Tichborne	O	Ompah
W	Westport	P	Perth



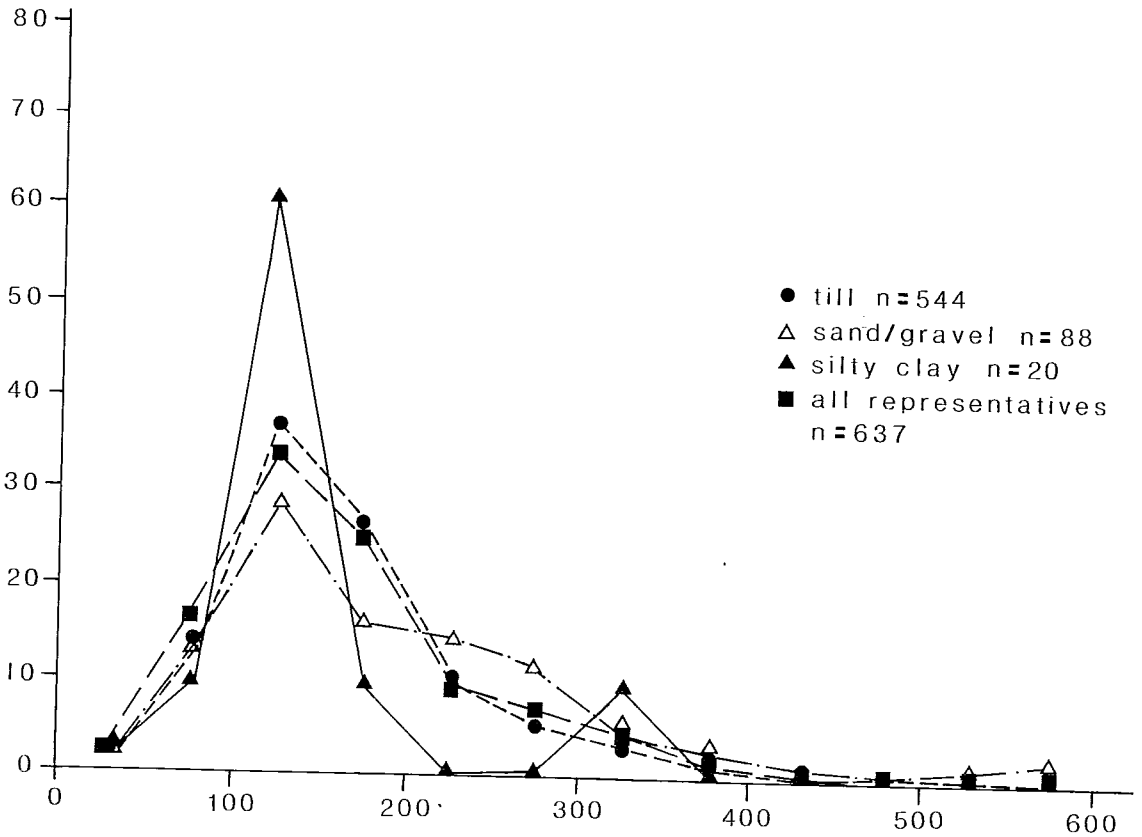
% CARBONATE (<0.063 mm)

Figure 15.

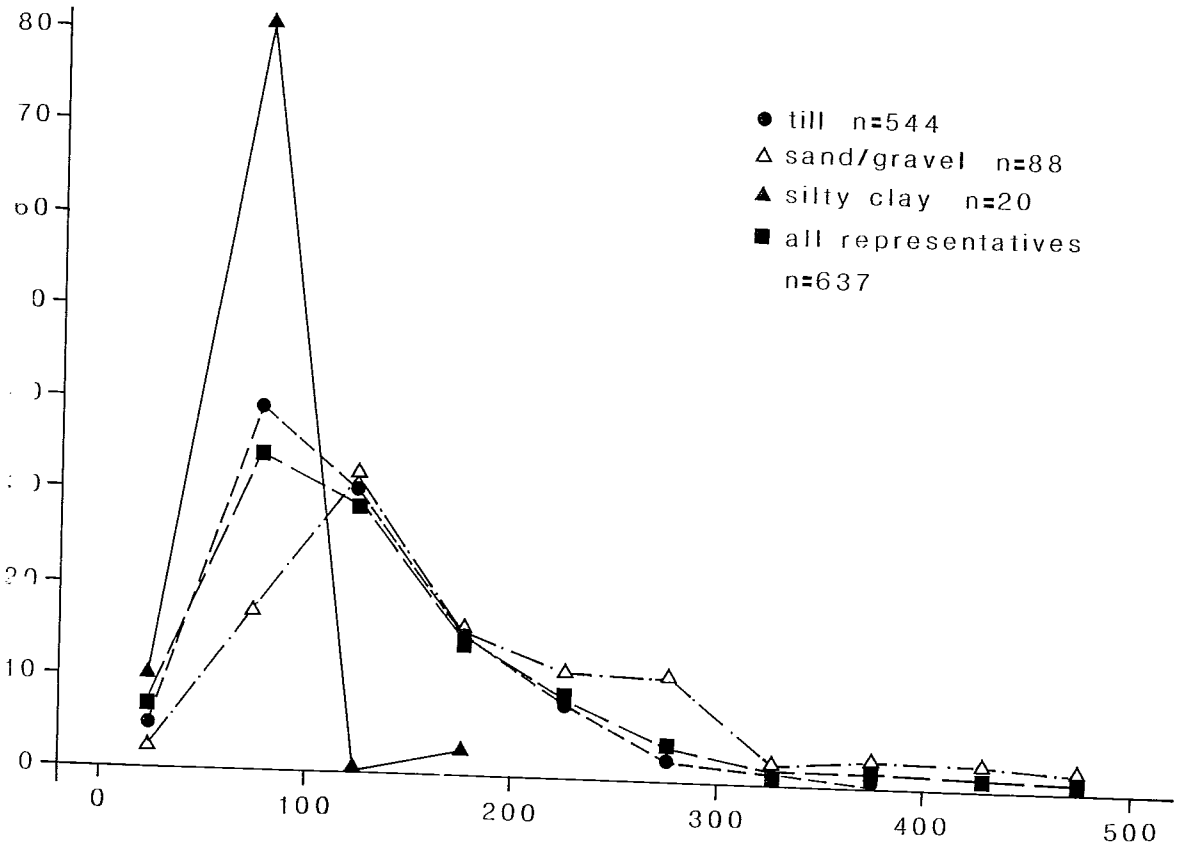


ARSENIC IN <0.002 mm FRACTION

Figure 16.



ZN (ppm) <0.002 mm



17. CO (ppm) < 0.002 mm

Table 1.

Till sample no	Notes, location	% $CaCO_3$ equiv. silt plus clay (Leco)	%$CaCO_3$ equiv. fine sand (Leco)	% carbonate* silt plus clay (Chittick)	Sample depth (m)
SAR0023A	highly oxidized	1.4	0.0	28.1	0.5
SAR0023	thin till on weathered marble	16.0	10.2	29.3	1.5
80AR 0001A	oxidized till	15.9	5.9	19.6	1.0
80AR 0001B	till	26.6	6.7	24.7	2.0
80AR 0001	till	26.3	7.3	23.6	2.0
80AR 0013C	oxidized till	13.1	9.1		1.5
80AR 0013B	unoxidized till	21.7	14.5		3.0
80AR 0013A	unoxidized till	21.1	13.1		3.0
80AR 0013	unoxidized till	21.8	13.8		3.0
80AR 0014E	oxidized till in	18.9	8.3	16.5	2.0
80AR 0014D	marble quarry	16.3	6.9	13.2	3.0
80AR 0014C	till	16.8	8.3	14.0	4.0
80AR 0014B	till	15.1	6.9	13.8	6.0
80AR 0014A	till	17.3	9.3	16.5	7.0
80AR 0014	till on marble	17.4	8.8		8.0
80AR 0023B	till	25.6	10.2	25.0	0.5
80AR 0023	till	31.9	12.6	29.3	4.0
88KAR3517F	A horizon in till	0.8		1.0	0.05
88KAR3517E	B horizon in till	0.8		1.0	0.15
88KAR3517D	B horizon in till	0.8		1.6	0.5
88KAR3517C	till	1.7		0.3	1.0
88KAR3517B	till	0.0		0.3	1.3
88KAR3517A	till	0.0		0.3	1.6
88KAR3517	till	0.0			2.0
88KAR3534E	humus-rich till	1.7		0.8	0.1
88KAR3534D	red brown till	0.8		0.8	0.3
88KAR3534C	till on flute	0.8		0.9	0.75
88KAR3534B	till	18.3		15.6	1.0
88KAR3534A	till	24.2		21.7	1.25
88KAR3534	blue grey till	31.7		28.5	2.0
88KAR5009D	till	0.8			
88KAR5009C	till	2.5			
88KAR5009B	till	20.0			
88KAR5009A	till	36.7			

*** total % carbonate minerals**

APPENDIX A

1. Sample description legend and list.
2. Trace element data legend and list.
3. Carbonate and textural data legend and list.

SAMPLE DESCRIPTION LIST LEGEND*

SAMPLE - sample number (fist 2 digits give year of sampling)
NTS - National Topographic System 1:50 000 map sheet number
ZONE - UTM grid zone
EAST - UTM easting in metres
NORTH - UTM northing in metres
LAT - latitude in decimal degrees
LONG - longitude in decimal degrees
S - sediment type of sample
- T - till
- F - glaciofluvial sand and/or gravel
- V - glaciolacustrine silty clay
- M - marine silty clay
- A - aeolian sand
- C - colluvium
- R - rock

OX STATE - oxidation state of sample
- ox - oxidized
- unox - unoxidized
- mild ox - mildly oxidized

DEPTH - depth of the sample from surface in metres
R - representivity of sample
- 1 - representative sample for site
- 0 - less or non-representative sample for site

ROCK - type of bedrock underlying sample site

anrs - anorthosite	mwac - metawacke
ampb - amphibolite	mpel - metapelite
cglm - conglomerate	midr - metadiorite
dlmt - dolomite	mmyl - mafic ultramylonite
dmlm - dolomitic limestone	mrbl - marble
dibs - diabase	migm - migmatite
dort - diorite	mmvc - mafic metavolcanic
figm - felsic intrusives	mvcc - meta-volcanic
fmyl - felsic ultramylonite	mfin - mafic intrusive
fmvc - felsic metavolcanic	mnzn - monzonite
gbbr - gabbro	prgs - paragneiss
gnss - gneiss	pgnt - megmatite
grnl - granulite	pegm - pegmatite
grnt - granite	pmyl - protomylonite
grdr - granodiorite	pxsy - pyroxene syenite
hbld - hornblenite	qrtz - quartzite
lmst - limestone	scst - schist
lmmg - limestone migmatite	shle - shale
marn - meta-arenite	snds - sandstone
mdbs - meta-diabase	synt - syenite
mgbr - meta-gabbro	tonl - tonalite
msis - meta-siltstone	

COMMENTS - further descriptive notes pertaining to the sample or sample site.

*legend and data list released as computer files entitled "SAMPLEG.ASC" and "SAMPLOC.ASC"

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
80AR 0001	31C16	18	392920	4965475	44.83660	76.35474	T	ox	1	2	migm	
80AR 0001A	31C16	18	392920	4965475	44.83660	76.35474	T	ox	0	1	migm	
80AR 0001B	31C16	18	392920	4965475	44.83660	76.35474	T	ox	0	2.25	migm	
80AR 0002	31C16	18	385996	4968648	44.86409	76.44302	F	ox	1	2	migm	
80AR 0003	31C16	18	389076	4974434	44.91664	76.40531	T	ox	1	1.5	mrbl	
80AR 0005	31F01	18	400909	4999260	45.14182	76.26033	T	unox	1	5	ampb	
80AR 0005A	31F01	18	400909	4999260	45.14182	76.26033	T	unox	0	5	ampb	
80AR 0005B	31F01	18	400909	4999260	45.14182	76.26033	F	mild ox	0		ampb	
80AR 0006	31F01	18	406435	4995442	45.10821	76.18935	T	ox	1	1.5	migm	
80AR 0007	31F01	18	397791	4991509	45.07162	76.29839	T	ox	1	1.5	mrbl	
80AR 0008	31F01	18	394756	4991172	45.06814	76.33687	F	ox	0	4	mrbl	
80AR 0008A	31F01	18	394756	4991172	45.06814	76.33687	C	ox	0		mrbl	
80AR 0008B	31F01	18	394756	4991172	45.06814	76.33687	T	ox	1		mrbl	
80AR 0008C	31F01	18	394756	4991172	45.06814	76.33687	C	ox	0		mrbl	
80AR 0009	31F01	18	394395	4988557	45.04455	76.34090	F	ox	1	3	mrbl	
80AR 0010	31F01	18	388181	4990792	45.06371	76.42028	F	ox	1	4	mrbl	
80AR 0011	31F01	18	402960	5006498	45.20724	76.23566	T	ox	1		grdr	
80AR 0012	31F01	18	398982	5006194	45.20395	76.28624	T	ox	1		ampb	
80AR 0013	31F01	18	391268	4995395	45.10562	76.38208	T	mild ox	1	3	mrbl	
80AR 0013A	31F01	18	391268	4995395	45.10562	76.38208	T	mild ox	0	3	mrbl	
80AR 0013B	31F01	18	391268	4995395	45.10562	76.38208	T	mild ox	0	3	mrbl	
80AR 0013C	31F01	18	391268	4995395	45.10562	76.38208	T	ox	0	2	mrbl	
80AR 0014	31F01	18	382425	5000822	45.15304	76.49572	T	ox	1	6	mrbl	
80AR 0014A	31F01	18	382425	5000822	45.15304	76.49572	T	ox	0	5	mrbl	
80AR 0014B	31F01	18	382425	5000822	45.15304	76.49572	T	ox	0	4	mrbl	
80AR 0014C	31F01	18	382425	5000822	45.15304	76.49572	T	ox	0	2	mrbl	
80AR 0014D	31F01	18	382425	5000822	45.15304	76.49572	T	ox	0	1.5	mrbl	
80AR 0014E	31F01	18	382425	5000822	45.15304	76.49572	T	ox	0	0.5	mrbl	
80AR 0015	31C16	18	386735	4980766	44.97326	76.43639	F	unox	1		mrbl	
80AR 0016	31C09	18	397411	4950866	44.70578	76.29499	F	ox	1		dlmt	
80AR 0017	31C09	18	388325	4948780	44.68565	76.40919	F	ox	0		snds	
80AR 0017A	31C09	18	388325	4948780	44.68565	76.40919	C	ox	1	1.5	snds	
80AR 0018	31C09	18	381441	4954539	44.73637	76.49737	F	mild ox	1		gnss	
80AR 0019	31C16	18	382684	4956732	44.75631	76.48218	T	mild ox	1	1.6	migm	
80AR 0019A	31C16	18	382684	4956732	44.75631	76.48218	F	ox	0	1.3	migm	
80AR 0020	31F02	18	381855	4991894	45.07260	76.50086	F	mild ox	1	2	gbbr	
80AR 0020A	31F02	18	381855	4991894	45.07260	76.50086	F	mild ox	0		gbbr	
80AR 0021	31F02	18	372784	4999532	45.13976	76.61800	F	mild ox	1		tonl	
80AR 0022	31F02	18	361440	4986757	45.02268	76.75867	F	mild ox	1		mrbl	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
80AR 0022A	31F02	18	361440	4986757	45.02268	76.75867	F	mild ox	0		mrbl	
80AR 0023	31C09	18	400887	4942196	44.62824	76.24944	T	ox	1	3.75	snds	
80AR 0023A	31C09	18	400887	4942196	44.62824	76.24944	T	ox	0	2	snds	
80AR 0023B	31C09	18	400887	4942196	44.62824	76.24944	T	ox	0	0.5	snds	
80AR 0024	31C09	18	402771	4939701	44.60604	76.22523	R		0		snds	
80AR 0025	31C09	18	405257	4929726	44.51659	76.19207	T	ox	1		mnzn	
80AR 0025A	31C09	18	405257	4929726	44.51659	76.19207	F	mild ox	0	2	mnzn	
80AR 0026	31C09	18	408731	4930600	44.52490	76.14852	T	mild ox	0		mnzn	
80AR 0026A	31C09	18	408731	4930600	44.52490	76.14852	F	mild ox	0		mnzn	
80AR 0026B	31C09	18	408731	4930600	44.52490	76.14852	T	mild ox	0		mnzn	
80AR 0026C	31C09	18	408731	4930600	44.52490	76.14852	T	mild ox	1		mnzn	
80AR 0027	31C09	18	418826	4929571	44.51685	76.02135	T	unox	1	1.5	pgmt	
80AR 0028	31C09	18	409525	4932582	44.54284	76.13889	F	ox	1	2	dort	
80AR 0029	31C09	18	406967	4932721	44.54377	76.17110	V	ox	1	1.5	mnzn	
80AR 0029A	31C09	18	406967	4932721	44.54377	76.17110	F	ox	0	2	mnzn	
80AR 0030	31C15	18	364551	4964172	44.82006	76.71316	F	mild ox	1		mrbl	
80AR 0031	31C15	18	364382	4965004	44.82752	76.71552	T	mild ox	1	1.5	mrbl	
80AR 0033	31C15	18	364032	4966621	44.84200	76.72038	F	ox	1		mmyl	
80AR 0034	31C15	18	365346	4970754	44.87944	76.70485	F	ox	1	5	mmyl	
80AR 0035	31C15	18	368230	4964372	44.82255	76.66669	T	unox	1	2.5	mrbl	
80AR 0036	31C15	18	371730	4974865	44.91761	76.62510	T	ox	1		grdr	
80AR 0037	31C15	18	371864	4975984	44.92770	76.62369	F	ox	1		grdr	
80AR 0038	31C15	18	371201	4976860	44.93547	76.63231	F	mild ox	1		grdr	
80AR 0039	31C15	18	369252	4977999	44.94535	76.65730	F	mild ox	1		pmyl	
80AR 0040	31C15	18	367608	4978629	44.95072	76.67828	F	mild ox	1		gnss	
80AR 0041	31C15	18	369239	4979962	44.96302	76.65797	F	mild ox	1	3	pmyl	
80AR 0042	31C15	18	370650	4981920	44.98089	76.64059	F	mild ox	1		gbbr	
80AR 0043	31C15	18	375552	4980963	44.97316	76.57820	T	mild ox	1	2	gbbr	
80AR 0044	31C15	18	377784	4981606	44.97933	76.55006	F	mild ox	1	1	mrbl	
80AR 0045	31C15	18	379078	4979948	44.96464	76.53326	F	ox	1		mrbl	
80AR 0046	31C15	18	374730	4977269	44.93977	76.58770	F	ox	1		mrbl	
80AR 0047	31C15	18	374063	4976916	44.93648	76.59606	F		1	4.5	gnss	
80AR 0047A	31C15	18	374063	4976916	44.93648	76.59606	F		0	1.5	gnss	
80AR 0048	31C15	18	374109	4975542	44.92412	76.59514	F		1	1.5	gnss	
80AR 0049	31C15	18	374659	4974937	44.91877	76.58802	T	ox	1		mrbl	
80AR 0050	31C15	18	380209	4978201	44.94910	76.51851	F		1		ampb	
80AR 0050A	31C15	18	380209	4978201	44.94910	76.51851	F		0		ampb	
80AR 0051	31C15	18	373033	4971547	44.88798	76.60777	T	ox	1	2.5	gnss	
80AR 0051A	31C15	18	373033	4971547	44.88798	76.60777	T	ox	0		gnss	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
80AR 0051B	31C15	18	373033	4971547	44.88798	76.60777	T	ox	0		gnss	
80AR 0052	31C15	18	380385	4968105	44.85828	76.51389	T	ox	1	1.5	mrbl	
80AR 0052A	31C15	18	373033	4971547	44.88798	76.60777	T	ox	0	1.25	mrbl	
80AR 0052B	31C15	18	373033	4971547	44.88798	76.60777	T	ox	0	0.5	mrbl	
80AR 0054	31C15	18	373862	4965941	44.83769	76.59588	T	mild ox	1		mrbl	
80AR 0055	31C15	18	357213	4968762	44.85993	76.80721	F		1		tonl	
80AR 0056	31C15	18	345209	4981081	44.96825	76.96283	F		1		fmvc	
80AR 0057	31C15	18	347126	4981218	44.96991	76.93858	F		1		mrbl	
80AR 0058	31C15	18	346772	4980923	44.96717	76.94297	F		1		mrbl	
80AR 0059	31C15	18	351321	4983543	44.99171	76.88609	F		1		mrbl	
80AR 0060	31C15	18	351391	4983711	44.99324	76.88525	F		1	8	mrbl	
80AR 0061	31C15	18	352371	4978966	44.95075	76.87144	C	mild ox	1		mmvc	
80AR 0062	31C15	18	358769	4960342	44.78448	76.78519	F		1		mmvc	
80AR 0063	31C10	18	355703	4953744	44.72450	76.82206	T	ox	1		gbbr	
80AR 0064	31C10	18	348225	4952111	44.70826	76.91595	T	ox	1		mrbl	
80AR 0065	31C10	18	341775	4948916	44.67812	76.99633	T	mild ox	1		mrbl	
80AR 0066	31C10	18	349497	4955738	44.74117	76.90096	T	ox	1		mrbl	
80AR 0067	31C10	18	353814	4956063	44.74498	76.84656	F		1	2.5	ampb	
80AR 0068	31C10	18	357421	4953309	44.72093	76.80025	F		1	3	gbbr	
80AR 0069	31C15	18	364916	4956792	44.75372	76.70658	T	ox	1		mmvc	
80AR 0070	31C15	18	379092	4964984	44.82998	76.52950	T	ox	1		migm	
80AR 0071	31C15	18	380833	4961237	44.79655	76.50661	F		1		migm	
80AR 0072	31C15	18	381203	4959569	44.78160	76.50154	F		1	1.5	gnss	
80AR 0073	31C16	18	381561	4958690	44.77375	76.49682	T	mild ox	1		cglm	
80AR 0073A	31C16	18	381561	4958690	44.77375	76.49682	T	ox	0		cglm	
80AR 0074	31C15	18	379632	4957323	44.76113	76.52087	F	mild ox	1		mrbl	
80AR 0074A	31C15	18	379632	4957323	44.76113	76.52087	F	mild ox	0		mrbl	
80AR 0075	31C10	18	380515	4955490	44.74478	76.50928	T	ox	1		mrbl	
80AR 0076	31C10	18	380096	4953705	44.72865	76.51415	T	mild ox	1	3.5	gnss	
80AR 0076A	31C10	18	380096	4953705	44.72865	76.51415	F	mild ox	0	1.5	gnss	
80AR 0077	31C15	18	376965	4963278	44.81426	76.55598	F	mild ox	1	3	gnss	
80AR 0078	31C15	18	374889	4961693	44.79964	76.58184	F	mild ox	1		gnss	
80AR 0079	31C15	18	372261	4957949	44.76548	76.61412	F	mild ox	1		gnss	
80AR 0084	31C10	18	374350	4929359	44.50857	76.58073	T	mild ox	1		migm	
80AR 0085	31C10	18	376286	4936049	44.56911	76.55799	F	ox	1		mrbl	
80AR 0086	31C10	18	376798	4935982	44.56859	76.55153	F	ox	1		mrbl	
80AR 0087	31C10	18	378851	4941647	44.61992	76.52702	F	ox	0		gnss	
80AR 0087A	31C10	18	378851	4941647	44.61992	76.52702	F	ox	1		gnss	
80AR 0087B	31C10	18	378851	4941647	44.61992	76.52702	F	ox	0		gnss	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
80AR 0088	31C10	18	372478	4938599	44.59139	76.60656	F	ox	1		gnss	
80AR 0089	31C10	18	367904	4933365	44.54346	76.66281	F	ox	1		gnss	
80AR 0090	31C10	18	367771	4937814	44.58348	76.66563	T	ox	1		migm	
80AR 0091	31C10	18	372414	4942560	44.62703	76.60835	F		1		migm	
80AR 0091A	31C10	18	372414	4942560	44.62703	76.60835	F		0		migm	
80AR 0092	31C10	18	368315	4944175	44.64082	76.66041	F		0		migm	
80AR 0092A	31C10	18	368315	4944175	44.64082	76.66041	F		1		migm	
80AR 0093	31C10	18	367417	4949371	44.68741	76.67307	F		1		migm	
80AR 0094	31C10	18	366983	4951683	44.70814	76.67915	F	ox	1		migm	
80AR 0095	31C10	18	361236	4949712	44.68931	76.75113	F		1		gbbr	
80AR 0096	31C10	18	363287	4946123	44.65741	76.72430	F		0		ampb	
80AR 0096A	31C10	18	363287	4946123	44.65741	76.72430	F		1		ampb	
80AR 0097	31C10	18	360320	4952130	44.71089	76.76334	C	mot	0		ampb	
80AR 0097A	31C10	18	360320	4952130	44.71089	76.76334	F		1		ampb	
80AR 0098	31C10	18	361564	4929141	44.50426	76.74146	F	ox	1		migm	
80AR 0099	31C10	18	361421	4935719	44.56343	76.74502	F		1		migm	
80AR 0100	31C10	18	357121	4940132	44.60230	76.80036	F		1	1.25	migm	
80AR 0101	31C10	18	356996	4942214	44.62101	76.80252	F		1		migm	
80AR 0101A	31C10	18	356996	4942214	44.62101	76.80252	F		0		migm	
80AR 0101B	31C10	18	356996	4942214	44.62101	76.80252	F		0		migm	
80AR 0102	31C10	18	358439	4944512	44.64198	76.78497	F		1		ampb	
80AR 0103	31C10	18	361182	4946000	44.65590	76.75080	T	ox	1		migm	
80AR 0104	31C10	18	356884	4944677	44.64315	76.80462	F		1		ampb	
80AR 0105	31C10	18	353774	4948681	44.67855	76.84496	F		1		migm	
80AR 0106	31C10	18	355482	4950817	44.69812	76.82402	T	ox	1	1.3	gbbr	
80AR 0107	31C10	18	355656	4951220	44.70178	76.82194	F		1		gbbr	
80AR 0108	31C10	18	351112	4952565	44.71295	76.87965	F		1		migm	
80AR 0109A	31C10	18	347360	4950330	44.69205	76.92633	T	ox	1		mrbl	
80AR 0773	31C15	18	347690	4976536	44.92790	76.93002	F		1		scst	
80AR 0774	31C15	18	342172	4976360	44.92512	76.99984	T	ox	1		mrbl	
80AR 0788	31C10	18	356153	4942266	44.62131	76.81316	F		1		ampb	
80AR 0789	31C10	18	352909	4941214	44.61119	76.85372	F	ox	1		migm	
80AR 0790	31C10	18	349208	4938510	44.58609	76.89954	F		1		migm	
80AR 0791	31C10	18	349340	4937337	44.57557	76.89754	F		1		migm	
80AR 0800	31C10	18	342000	4939527	44.59369	76.99060	F	ox	1		migm	
80AR 0801	31C10	18	344805	4947761	44.66839	76.95777	T	ox	1		migm	
80SAR0001	31F01	18	396893	5003281	45.17743	76.31223	T	ox	1	4	mrbl	
80SAR0001A	31F01	18	396893	5003281	45.17743	76.31223	T	ox	0	1.5	mrbl	
80SAR0001B	31F01	18	396893	5003281	45.17743	76.31223	T	ox	0		mrbl	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
80SAR0002	31F01	18	394290	5005795	45.19967	76.34588	F		1		migm	
80SAR0003	31F01	18	386496	5003287	45.17589	76.44451	F		1		mrbl	
80SAR0004	31F01	18	396763	5010202	45.23970	76.31532	T	mild ox	1		migm	
80SAR0004A	31F01	18	396763	5010202	45.23970	76.31532	F		0		migm	
80SAR0017	31F01	18	392691	4995321	45.10517	76.36398	F		1		mrbl	
80SAR0018	31F01	18	392786	4995239	45.10444	76.36275	V	ox	1		mrbl	
80SAR0019	31F01	18	389945	4993811	45.09116	76.39854	T	ox	1		mrbl	
80SAR0020	31F01	18	389873	4993509	45.08843	76.39939	T	unox	1		mrbl	
80SAR0021	31F01	18	389431	4989235	45.04990	76.40407	T	ox	1		mgbr	
80SAR0021A	31F01	18	389431	4989235	45.04990	76.40407	T	ox	0		mgbr	
80SAR0022	31F01	18	388264	4988900	45.04670	76.41881	T	ox	1		mrbl	
80SAR0023	31F01	18	388366	4986160	45.02206	76.41690	T	ox	1		mrbl	
80SAR0023A	31F01	18	388366	4986160	45.02206	76.41690	T	ox	0		mrbl	
80SAR0024	31F01	18	383765	4986625	45.02550	76.47539	F		1		midr	
80SAR0025	31F01	18	383144	4987954	45.03736	76.48357	T	ox	1	2	midr	
80SAR0041	31F02	18	353139	5009015	45.22127	76.87051	T	ox	1	4	mrbl	
80SAR0041A	31F02	18	353139	5009015	45.22127	76.87051	T	ox	0	3	mrbl	
80SAR0041B	31F02	18	353139	5009015	45.22127	76.87051	C	ox	0	2	mrbl	
80SAR0042	31F02	18	350560	5007382	45.20603	76.90285	T	unox	1		mrbl	
80SAR0042A	31F02	18	350560	5007382	45.20603	76.90285	T	unox	0		mrbl	
80SAR0042B	31F02	18	350560	5007382	45.20603	76.90285	F	ox	0		mrbl	
80SAR0042C	31F02	18	350560	5007382	45.20603	76.90285	T	unox	0		mrbl	
80SAR0042D	31F02	18	350560	5007382	45.20603	76.90285	A	ox	0		mrbl	
80SAR0043	31F02	18	352773	5007369	45.20638	76.87469	T	unox	1		gnss	
81KAR0001	31C16	18	395600	4977820	44.94810	76.32338	T	mot	1		snds	
81KAR0002	31C16	18	394450	4977680	44.94667	76.33793	T	unox	1		snds	
81KAR0002A	31C16	18	394450	4977680	44.94667	76.33793	T	mot	0		snds	
81KAR0003	31C16	18	386025	4979250	44.95950	76.44505	T	ox	1		mrbl	
81KAR0004	31C16	18	383750	4979200	44.95869	76.47386	F		1		mrbl	
81KAR0005	31C15	18	381075	4979850	44.96409	76.50792	T	ox	1		mrbl	
81KAR0006	31C16	18	382600	4980000	44.96569	76.48862	T	ox	1		migm	
81KAR0007	31C16	18	381825	4979475	44.96084	76.49833	T	ox	1		migm	
81KAR0008	31C15	18	379430	4981560	44.97920	76.52918	T	ox	1		mrbl	
81KAR0009	31C15	18	381125	4982950	44.99200	76.50802	T	ox	1	2	mrbl	
81KAR0009A	31C15	18	381125	4982950	44.99200	76.50802	T	ox	0	1.5	mrbl	
81KAR0009B	31C15	18	381125	4982950	44.99200	76.50802	T	ox	0	0.5	mrbl	
81KAR0010	31F01	18	381840	4984830	45.00903	76.49939	T	ox	1		gbbr	
81KAR0011	31F02	18	380520	4988920	45.04562	76.51711	T	ox	1		gbbr	
81KAR0012	31C15	18	379175	4982075	44.98379	76.53254	T	ox	1		mrbl	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
81KAR0013	31F02	18	376750	4987075	45.02837	76.56451	T	ox	1		gbbr	
81KAR0014	31F02	18	374690	4987110	45.02832	76.59065	T	ox	1		mfin	
81KAR0015	31F02	18	375750	4988300	45.03922	76.57750	F	ox	1		mfin	
81KAR0016	31F02	18	376000	4989060	45.04610	76.57452	T	ox	1		gbbr	
81KAR0017	31F02	18	378270	4991030	45.06422	76.54618	T	ox	1		gbbr	
81KAR0018	31F02	18	379300	4992270	45.07555	76.53340	T	ox	1		gbbr	
81KAR0019	31F02	18	379640	4993920	45.09046	76.52948	T	ox	1		mmvc	
81KAR0019A	31F02	18	379640	4993920	45.09046	76.52948	T	mot	0		mmvc	
81KAR0019B	31F02	18	379640	4993920	45.09046	76.52948	T	ox	0		mmvc	
81KAR0020	31F01	18	383230	4995060	45.10132	76.48414	T	ox	1		mrbl	
81KAR0021	31F02	18	373150	4999520	45.13971	76.61333	T	ox	1		tonl	
81KAR0022	31C16	18	393925	4982700	44.99178	76.34563	T	ox	1		dlmt	
81KAR0022A	31C16	18	393925	4982700	44.99178	76.34563	T	ox	0		dlmt	
81KAR0022B	31C16	18	393925	4982700	44.99178	76.34563	T	ox	0		dlmt	
81KAR0023	31F01	18	386190	4993140	45.08453	76.44609	T	ox	1		mrbl	
81KAR0024	31F01	18	382030	4997650	45.12443	76.50000	T	ox	1		ampb	
81KAR0025	31F02	18	381600	4998825	45.13493	76.50574	T	ox	1		mmvc	
81KAR0026	31F02	18	378310	5003410	45.17563	76.54868	T	ox	1		gbbr	
81KAR0027	31F02	18	375450	5005700	45.19574	76.58564	F		1		gbbr	
81KAR0029	31F02	18	373375	5010510	45.23865	76.61327	T	unox	1		mrbl	
81KAR0030	31F02	18	371650	5011760	45.24958	76.63556	T	ox	1		mmvc	
81KAR0032	31F02	18	364500	5011850	45.24905	76.72665	F		1		mmvc	
81KAR0033	31F02	18	362450	5010710	45.23840	76.75245	T	ox	1		migm	
81KAR0034	31F02	18	361740	5009430	45.22674	76.76114	T	ox	1		mrbl	
81KAR0035	31F02	18	374460	5005100	45.19016	76.59808	T	ox	1		gbbr	
81KAR0036	31F02	18	373100	5004130	45.18119	76.61514	F		1		gbbr	
81KAR0037	31F02	18	372380	5000200	45.14570	76.62330	F	mild ox	1		mmyl	
81KAR0038	31F02	18	349700	4984400	44.99908	76.90691	T	ox	1		mmvc	
81KAR0039	31F02	18	352000	4988100	45.03286	76.87883	T	ox	1		mmvc	
81KAR0040	31F02	18	352500	4988500	45.03656	76.87260	T	ox	1		mmvc	
81KAR0041	31F02	18	352400	4988840	45.03960	76.87397	T	ox	1		mmvc	
81KAR0042	31F02	18	352540	4989380	45.04448	76.87235	F		1		mmvc	
81KAR0043	31F02	18	353950	4992470	45.07258	76.85535	T	ox	1		migm	
81KAR0044	31F02	18	355500	4993600	45.08307	76.83600	T	ox	1		migm	
81KAR0045	31F02	18	357430	4992640	45.07481	76.81122	F	ox	1		mrbl	
81KAR0046	31F02	18	357210	4992670	45.07504	76.81402	T	ox	1		migm	
81KAR0047	31F02	18	355400	4995330	45.09861	76.83777	T	ox	1		mrbl	
81KAR0048	31F02	18	356080	4995950	45.10432	76.82931	T	ox	1		mrbl	
81KAR0049	31F02	18	356500	4997850	45.12150	76.82452	T	ox	1		mmvc	

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81KAR0050	31F02	18	358800	5003200	45.17010	76.79681	T	ox	1		mrbl	
81KAR0051	31F02	18	360550	5007500	45.20914	76.77575	T	ox	1		mrbl	
81KAR0052	31F02	18	360880	5008120	45.21479	76.77172	F		1		mrbl	
81KAR0053	31F02	18	378100	5003600	45.17730	76.55140	T	ox	1		gbbr	
81KAR0054	31F01	18	390350	5004120	45.18399	76.39566	T	ox	1		ampb	
81KAR0055	31F02	18	376720	5000100	45.14557	76.56809	T	ox	1		tonl	
81KAR0056	31F02	18	371450	4999000	45.13473	76.63482	F		1		gnss	
81KAR0056A	31F02	18	371450	4999000	45.13473	76.63482	F	ox	0		gnss	
81KAR0057	31F02	18	370620	4999140	45.13584	76.64540	T	ox	1		gnss	
81KAR0058	31F02	18	366800	5004650	45.18471	76.69543	T	ox	1		fmvc	
81KAR0059	31F01	18	385450	4992600	45.07955	76.45537	T	ox	1		mrbl	
81KAR0060	31F02	18	376940	4990720	45.06120	76.56299	T	ox	1		mrbl	
81KAR0060A	31F02	18	376940	4990720	45.06120	76.56299	T	ox	0		mrbl	
81KAR0060B	31F02	18	376940	4990720	45.06120	76.56299	T	mild ox	0		mrbl	
81KAR0060C	31F02	18	376940	4990720	45.06120	76.56299	T	mild ox	0		mrbl	
81KAR0061	31F02	18	372300	4997060	45.11743	76.62351	T	ox	1		pmyl	
81KAR0062	31F02	18	374750	4990090	45.05515	76.59064	T	ox	1		mrbl	
81KAR0063	31F02	18	373880	4990000	45.05418	76.60166	T	unox	1		mrbl	
81KAR0064	31F02	18	370300	4991330	45.06551	76.64745	T	ox	1		pmyl	
81KAR0065	31F02	18	368430	4989220	45.04617	76.67064	T	ox	1		gnss	
81KAR0066	31F02	18	367910	4989700	45.05039	76.67737	T	ox	1		gnss	
81KAR0067	31F02	18	364950	4986400	45.02015	76.71405	T	ox	1		msis	
81KAR0067A	31F02	18	364950	4986400	45.02015	76.71405	T	ox	0		msis	
81KAR0068	31F02	18	361360	4986575	45.02103	76.75964	T	ox	1		mrbl	
81KAR0069	31C15	18	378750	4979500	44.96055	76.53731	T	ox	1		mrbl	
81KAR0070	31C15	18	376900	4978250	44.94898	76.56045	T	ox	1		mrbl	
81KAR0071	31C15	18	372890	4980390	44.96753	76.61180	T	unox	1		gbbr	
81KAR0071A	31C15	18	372890	4980390	44.96753	76.61180	T	unox	0		gbbr	
81KAR0072	31C15	18	372620	4977180	44.93860	76.61441	T	ox	1		grdr	
81KAR0073	31C15	18	372150	4975680	44.92502	76.61999	T	ox	1		grdr	
81KAR0074	31C15	18	371200	4974260	44.91207	76.63166	T	ox	1		grdr	
81KAR0075	31C15	18	366150	4973200	44.90160	76.69532	F		1		mmyl	
81KAR0076	31C15	18	367370	4969230	44.86611	76.67884	T	ox	1		gbbr	
81KAR0077	31C15	18	367800	4969470	44.86834	76.67346	T	ox	1		gbbr	
81KAR0078	31C15	18	371050	4968250	44.85796	76.63203	T	unox	1		mrbl	
81KAR0079	31C15	18	373150	4969900	44.87318	76.60587	T	unox	1		gbbr	
81KAR0080	31C15	18	373725	4971800	44.89038	76.59907	T	unox	1		gbbr	
81KAR0080R	31C15	18	373725	4971800	44.89038	76.59907	R		0		gbbr	
81KAR0081	31C15	18	379400	4970500	44.87967	76.52692	T	ox	1		mrbl	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
81KAR0082	31C15	18	380240	4971320	44.88719	76.51648	T	mild ox	1		mrbl	
81KAR0083	31C15	18	366500	4980370	44.96618	76.69279	F		1		gnss	
81KAR0084	31C15	18	363440	4978100	44.94518	76.73096	T	ox	1		mrbl	
81KAR0085	31C15	18	361750	4981170	44.97247	76.75321	F	ox	1		tonl	
81KAR0086	31F02	18	355130	4985760	45.01245	76.83844	T	ox	1		marn	
81KAR0087	31F02	18	357250	4988000	45.03303	76.81219	T	ox	1		marn	
81KAR0088	31F02	18	355050	4989420	45.04536	76.84051	F		1		mmvc	
81KAR0089	31F02	18	358660	4989200	45.04411	76.79463	T	ox	1		marn	
81KAR0090	31F02	18	361075	4991720	45.06726	76.76468	T	ox	1		marn	
81KAR0091	31F02	18	364290	4992225	45.07243	76.72400	T	ox	1		mmvc	
81KAR0092	31F02	18	362420	4989400	45.04665	76.74696	T	ox	1		gnss	
81KAR0093	31C15	18	367780	4957500	44.76063	76.67060	T	mild ox	1		migm	
81KAR0094	31C10	18	365290	4954670	44.73470	76.70130	T	ox	1		migm	
81KAR0095	31C10	18	363950	4954300	44.73112	76.71812	T	ox	1		ampb	
81KAR0096	31C10	18	362850	4954750	44.73495	76.73212	T	ox	1		ampb	
81KAR0097	31C10	18	360300	4952130	44.71089	76.76360	T	ox	1		migm	
81KAR0098	31C15	18	368900	4956950	44.75589	76.65631	T	ox	1		gnss	
81KAR0099	31C10	18	368900	4956100	44.74824	76.65610	T	mild ox	1		migm	
81KAR0100	31C10	18	367850	4954000	44.72915	76.66881	T	mild ox	1		migm	
81KAR0101	31C10	18	370750	4954450	44.73373	76.63232	T	ox	1		migm	
81KAR0102	31C10	18	369800	4950800	44.70071	76.64338	T	ox	1		migm	
81KAR0103	31C10	18	371680	4947820	44.67423	76.61891	T	ox	1		migm	
81KAR0104	31C10	18	371350	4948130	44.67696	76.62315	T	ox	1		migm	
81KAR0105	31C10	18	368830	4944880	44.64725	76.65410	T	ox	1		migm	
81KAR0106	31C15	18	368450	4960500	44.78775	76.66291	T	ox	1		migm	
81KAR0107	31C15	18	376960	4963360	44.81500	76.55607	T	mild ox	1		gbbr	
81KAR0108	31C15	18	375230	4961840	44.80102	76.57757	T	ox	1		gbbr	
81KAR0109	31C15	18	374170	4959150	44.77663	76.59030	T	ox	1		migm	
81KAR0110	31C15	18	371350	4959800	44.78198	76.62609	T	mild ox	1		gbbr	
81KAR0111	31C15	18	370530	4959280	44.77715	76.63632	T	mild ox	1		migm	
81KAR0112	31C15	18	372330	4957110	44.75794	76.61304	T	ox	1		migm	
81KAR0113	31C10	18	372470	4952900	44.72009	76.61021	V	ox	1		mrbl	
81KAR0114	31C10	18	377500	4953750	44.72861	76.54694	V	ox	1		migm	
81KAR0115	31C10	18	375730	4952760	44.71940	76.56904	T	ox	1		migm	
81KAR0115A	31C10	18	375730	4952760	44.71940	76.56904	T	ox	0		migm	
81KAR0116	31C15	18	380650	4957600	44.76379	76.50807	V	ox	1		migm	
81KAR0117	31C15	18	379610	4957190	44.75993	76.52111	T	ox	1		mrbl	
81KAR0118	31C10	18	380590	4953890	44.73039	76.50796	F	ox	1		gnss	
81KAR0119	31C10	18	377930	4951420	44.70771	76.54095	T	unox	1		gnss	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
81KAR0120	31C10	18	378310	4948430	44.68087	76.53545	T	ox	1		gnss	
81KAR0121	31C10	18	378620	4947600	44.67345	76.53133	T	ox	1		gnss	
81KAR0122	31C10	18	374580	4947900	44.67546	76.58236	T	ox	1		mrbl	
81KAR0217	31C10	18	343520	4956250	44.74449	76.97657	F	ox	1		grdr	
81SAR0042A	31F02	18	350560	5007382	45.20603	76.90285	T	unox	0		mrbl	
81SAR0043	31F02	18	352773	5007369	45.20638	76.87469	T	unox	1		gnss	
81SAR0044	31C16	18	390375	4963750	44.82069	76.38655	T	unox	1		migm	
81SAR0044A	31C16	18	390375	4963750	44.82069	76.38655	M	mild ox	0		migm	
81SAR0049	31C09	18	395800	4934750	44.56050	76.31205	T	ox	1		gnss	
81SAR0050	31C09	18	396700	4933850	44.55254	76.30054	F		1		gnss	
81SAR0051	31C09	18	403100	4933250	44.54802	76.21986	T	ox	1		pgmt	
81SAR0052	31C09	18	403101	4933251	44.54803	76.21986	T	ox	1		pgmt	
81SAR0065	31C09	18	410550	4932220	44.53971	76.12592	V	unox	1		mrbl	
81SAR0085	31C09	18	389100	4929550	44.51270	76.39527	F		1		mrbl	
81SAR0098	31C09	18	412800	4935850	44.57267	76.09822	T	ox	0		gnss	
81SAR0098A	31C09	18	412800	4935850	44.57267	76.09822	F	ox	1		gnss	
81SAR0109	31C09	18	402375	4930300	44.52137	76.22843	F	ox	1		mrbl	
81SAR0109A	31C09	18	402375	4930300	44.52137	76.22843	F	ox	0		mrbl	
81SAR0110	31C09	18	399050	4942360	44.62946	76.27263	T	ox	1		snds	
81SAR0111	31C09	18	399390	4943920	44.64355	76.26865	T	ox	1		grnl	
81SAR0126	31F02	18	381700	4998830	45.13499	76.50447	T	unox	1		mmvc	
81SAR0127	31F02	18	381430	4999220	45.13845	76.50800	T	ox	1		mrbl	
81SAR0127A	31F02	18	381430	4999220	45.13845	76.50800	T	ox	0		mrbl	
81SAR0128	31F02	18	378775	5003000	45.17202	76.54267	T	ox	1	2	gbbr	
81SAR0178	31F02	18	344000	5006340	45.19524	76.98601	T	ox	1		mrbl	
81SAR0222	31C09	18	384100	4930520	44.52065	76.45837	T	mild ox	1		gnss	
81SAR0223	31C09	18	385550	4934440	44.55616	76.44100	F		1		gnss	
81SAR0224	31C09	18	394125	4944300	44.64621	76.33510	T	ox	1		migm	
81SAR0226	31F01	18	404460	4989540	45.05483	76.21333	T	ox	1		migm	
81SAR0227	31F01	18	405580	4988630	45.04679	76.19893	T	mild ox	1		synt	
81SAR0228	31F01	18	407000	4990425	45.06313	76.18124	T	ox	1		synt	
81SAR0228A	31F01	18	407000	4990425	45.06313	76.18124	T	ox	0		synt	
81SAR0229	31F01	18	405940	4995650	45.11002	76.19568	T	ox	1		migm	
81SAR0230	31F01	18	404775	4996050	45.11346	76.21056	T	ox	1	3	migm	
81SAR0231	31F01	18	401800	4997375	45.12498	76.24863	T	ox	1		ampb	
81SAR0232	31F01	18	401075	4999000	45.13950	76.25817	T	ox	1		mrbl	
81SAR0233	31F01	18	400400	5001200	45.15921	76.26719	T	ox	1		migm	
81SAR0234	31F01	18	404660	5005750	45.20074	76.21387	M	ox	1		mrbl	
81SAR0235	31C16	18	398500	4966680	44.84827	76.28439	T	ox	1	1	snds	

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81SAR0236	31C16	18	400110	4961160	44.79881	76.26294	T	mild ox	1		gnss	
81SAR0237	31C16	18	402100	4961400	44.80125	76.23784	T	ox	1		gnss	
81SAR0238	31C16	18	398950	4960100	44.78911	76.27740	T	ox	1		gnss	
81SAR0239	31C16	18	402380	4959905	44.78783	76.23401	T		1		gnss	
81SAR0240	31C16	18	402375	4959900	44.78779	76.23407	T	mild ox	1		gnss	
81SAR0241	31C16	18	402975	4961250	44.80002	76.22675	T	mild ox	1		gnss	
81SAR0242	31C16	18	404750	4965025	44.83423	76.20502	T	ox	1		snds	
81SAR0243	31C16	18	403170	4963720	44.82228	76.22475	T	ox	1		gnss	
81SAR0244	31C16	18	398175	4956600	44.75750	76.28649	T	ox	1		mrbl	
81SAR0245	31C09	18	400025	4954850	44.74201	76.26278	T	unox	1		mrbl	
81SAR0246	31C09	18	400380	4953170	44.72694	76.25797	F	ox	1		mnzn	
81SAR0247	31C09	18	397950	4951225	44.70909	76.28826	F		1		mnzn	
81SAR0248	31C09	18	392375	4952475	44.71953	76.35888	T	mild ox	1		mnzn	
81SAR0249	31C09	18	395630	4953150	44.72608	76.31793	T	ox	1		mrbl	
81SAR0250	31C09	18	408150	4934370	44.55877	76.15651	T	mild ox	1		mrbl	
81SAR0250A	31C09	18	408150	4934370	44.55877	76.15651	F		0		mrbl	
81SAR0250B	31C09	18	408150	4934370	44.55877	76.15651	V	ox	0		mrbl	
81SAR0251	31C09	18	406025	4937325	44.58509	76.18379	T	ox	1		mrbl	
81SAR0252	31C09	18	408650	4942360	44.63074	76.15163	V	unox	1		mrbl	
81SAR0253	31C09	18	409450	4943350	44.63976	76.14172	T	unox	1		snds	
81SAR0254	31C09	18	402900	4945380	44.65717	76.22468	T	ox	1		snds	
81SAR0255	31C09	18	397025	4945680	44.65905	76.29881	T	ox	1		snds	
81SAR0256	31C09	18	389100	4942475	44.62903	76.39805	T	ox	1		gnss	
81SAR0257	31C09	18	384550	4938170	44.58957	76.45442	T	ox	1		mrbl	
81SAR0258	31C09	18	389180	4948960	44.68740	76.39845	T	ox	1		mnzn	
81SAR0259	31C09	18	388950	4949860	44.69547	76.40154	T	ox	1		mnzn	
81SAR0260	31C09	18	389950	4955500	44.74638	76.39014	T	ox	1		migm	
81SAR0261	31C16	18	390200	4956675	44.75700	76.38724	F		1		migm	
81SAR0262	31C16	18	390190	4956800	44.75812	76.38739	T	ox	1		mrbl	
81SAR0263	31C16	18	392220	4958630	44.77489	76.36214	T	ox	1		mrbl	
82KAR0764	31C15	18	346350	4980810	44.96607	76.94829	F	ox	1		mrbl	
82KAR0765	31C15	18	345675	4981010	44.96772	76.95690	F	ox	1		fmvc	
82KAR0766	31C15	18	345025	4981100	44.96839	76.96516	T	ox	1		fmvc	
82KAR0767	31C15	18	343450	4982200	44.97794	76.98547	C	ox	1		fmvc	
82KAR0768	31F02	18	346850	4986950	45.02142	76.94382	C	ox	1		migm	
82KAR0769	31F02	18	347400	4987875	45.02985	76.93712	T	ox	1		migm	
82KAR0770	31F02	18	347200	4988100	45.03184	76.93973	F	ox	1		migm	
82KAR0771	31F02	18	346950	4988500	45.03538	76.94302	F	ox	1		gnss	
82KAR0772	31F02	18	346870	4988600	45.03627	76.94407	T	ox	1		gnss	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
82KAR0773	31F02	18	346380	4989310	45.04255	76.95050	F	unox	1		gnss	
82KAR0774	31F02	18	346275	4985350	45.00689	76.95062	T	ox	1		mmvc	
82KAR0775	31C15	18	345500	4984400	44.99818	76.96016	T	ox	1		fmvc	
82KAR0782	31F02	18	343300	4991500	45.06157	76.99026	T	ox	1		mvcc	
82KAR0783	31F02	18	343750	4992575	45.07134	76.98489	T	ox	1		mvcc	
82KAR0784	31F02	18	343275	4992650	45.07191	76.99094	T	ox	1		mvcc	
82KAR0790	31F02	18	342600	4988460	45.03407	76.99820	T	ox	1		gnss	
82KAR0791	31C15	18	352360	4984160	44.99748	76.87310	F	ox	1		mrbl	
82KAR0792	31F02	18	355470	4984600	45.00208	76.83379	F	ox	1		mrbl	
82KAR0793	31C15	18	356880	4982570	44.98410	76.81534	T	ox	1		mpel	
82KAR0794	31C15	18	356240	4980540	44.96571	76.82287	C	ox	1		fmvc	
82KAR0795	31C15	18	356450	4980210	44.96278	76.82011	T	ox	1		fmvc	
86KAR3000	31C09	18	388370	4946400	44.66424	76.40810	T		1		shle	
86KAR3001	31C09	18	387800	4947200	44.67135	76.41547	T		1		shle	
86KAR3002	31C09	18	385260	4948250	44.68024	76.46035	T		1		mnzn	
86KAR3003	31C09	18	408800	4930140	44.52077	76.14758	F		1		mrbl	
86KAR3004	31C09	18	403050	4949400	44.55902	76.15777	T		1		dlmt	
86KAR3005	31C09	18	406070	4937540	44.58703	76.18327	T		1		mrbl	
86KAR3005A	31C09	18	406070	4937540	44.58703	76.18327	F		1		mrbl	
86KAR3006	31C09	18	402650	4946650	44.66857	76.22807	T	unox	1		dlmt	
86KAR3007	31C09	18	402900	4942100	44.62765	76.22405	T	mot	1		dlmt	
86KAR3008	31C09	18	409000	4929800	44.51773	76.14500	F		0		mrbl	
86KAR3008B	31C09	18	409000	4929800	44.51773	76.14500	F		1		mrbl	
86KAR3008C	31C09	18	409000	4929800	44.51773	76.14500	F		0		mrbl	
86KAR3009	31C09	18	408950	4930500	44.52403	76.14575	T		1		mrbl	
86KAR3010	31C09	18	400320	4942730	44.63297	76.25669	T	mot	1		snds	
86KAR3011	31C09	18	398520	4942800	44.63334	76.27940	T	ox	1		grnl	
86KAR3012	31C09	18	395780	4940200	44.60955	76.31340	T	ox	1		grnl	
86KAR3013	31C09	18	393200	4939500	44.60287	76.34576	F		1		gnss	
86KAR3013A	31C09	18	393200	4939500	44.60287	76.34576	T		1		gnss	
86KAR3014	31C09	18	393900	4939920	44.60676	76.33703	T	unox	1		grnl	
86KAR3015	31C09	18	383650	4943430	44.63676	76.46695	T	unox	1		grnl	
86KAR3016	31C09	18	383250	4937250	44.58108	76.47059	F	ox	1		mrbl	
86KAR3018	31C09	18	384420	4940650	44.61187	76.45662	T	ox	1		gnss	
86KAR3019	31C09	18	384700	4941160	44.61650	76.45321	T	ox	1		grnl	
86KAR3020	31C09	18	384950	4942900	44.63220	76.45045	T		1		grnl	
86KAR3021	31C09	18	385750	4944100	44.64313	76.44064	T	ox	1		snds	
86KAR3022	31C09	18	386800	4945125	44.65252	76.42762	T	ox	1		dlmt	
86KAR3022A	31C09	18	386800	4945125	44.65252	76.42762	T	ox	0		dlmt	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
86KAR3023	31C09	18	383950	4938100	44.58884	76.46197	T	ox	1		mrbl	
86KAR3024	31C09	18	386000	4939570	44.60240	76.43648	T		1		gnss	
86KAR3024A	31C09	18	386000	4939570	44.60240	76.43648	F		0		gnss	
86KAR3025	31C09	18	389560	4941725	44.62235	76.39209	F		1		gnss	
86KAR3026	31C09	18	389650	4941280	44.61836	76.39086	T	unox	1		gnss	
86KAR3027	31C09	18	387850	4938700	44.59486	76.41298	M	ox	1		gnss	
86KAR3029	31C09	18	388150	4928850	44.50626	76.40707	F		1		mrbl	
86KAR3029A	31C09	18	388150	4928850	44.50626	76.40707	M		0		mrbl	
86KAR3030	31C09	18	389050	4929580	44.51297	76.39590	F		1		mrbl	
86KAR3031	31C09	18	389900	4929940	44.51633	76.38529	F		1		mrbl	
86KAR3032	31C09	18	390380	4930600	44.52235	76.37939	T		1		mrbl	
86KAR3033	31C09	18	392920	4934470	44.55756	76.34824	T	ox	1		mrbl	
86KAR3034	31C09	18	394400	4935640	44.56831	76.32985	T	ox	1		mrbl	
86KAR3035	31C09	18	395630	4938380	44.59315	76.31493	M	ox	1		gnss	
86KAR3036	31C09	18	397150	4938520	44.59463	76.29581	T	ox	1		gnss	
86KAR3037	31C09	18	396350	4935650	44.56868	76.30531	F		1		snds	
86KAR3038	31C09	18	403075	4933250	44.54802	76.22018	T	ox	1		pgmt	
86KAR3038A	31C09	18	403075	4933250	44.54802	76.22018	V	ox	0		pgmt	
86KAR3039	31C09	18	400280	4931880	44.53531	76.25510	F	ox	1		gnss	
86KAR3040	31C09	18	400620	4930470	44.52266	76.25054	T	ox	1		gbbr	
86KAR3041	31C09	18	400800	4929550	44.51440	76.24810	M	unox	1		grnl	
86KAR3042	31C09	18	401100	4929200	44.51130	76.24426	F	ox	1		grnl	
86KAR3043	31C09	18	400800	4929550	44.51440	76.24810	T	ox	1		pgmt	
86KAR3044	31C09	18	401200	4930850	44.52617	76.24332	F	ox	1		gnss	
86KAR3045	31C09	18	401050	4936900	44.58060	76.24637	T	unox	1		mrbl	
86KAR3045A	31C09	18	401050	4936900	44.58060	76.24637	T	mild ox	0		mrbl	
86KAR3045DU	31C09	18	401050	4936900	44.58060	76.24637	T	mild ox	0		mrbl	
86KAR3046	31C09	18	401400	4937780	44.58856	76.24213	F		1		snds	
86KAR3047	31C09	18	386400	4928725	44.50486	76.42905	M	unox	1		gnss	
86KAR3048	31C09	18	385550	4928500	44.50270	76.43968	F		1		gnss	
86KAR3048	31C09	18	385540	4928500	44.50270	76.43968	F		1		gnss	
86KAR3048	31C09	18	385550	4928500	44.50270	76.43981	F		1		gnss	
86KAR3048	31C09	18	385540	4928500	44.50270	76.43981	F		1		gnss	
86KAR3049	31C09	18	383700	4929400	44.51050	76.46315	T	ox	1		gnss	
86KAR3050	31C09	18	385750	4930650	44.52208	76.43764	T	mild ox	1		gnss	
86KAR3051	31C09	18	384580	4929900	44.51514	76.45219	F	ox	1		gnss	
86KAR3052	31C09	18	384080	4930500	44.52046	76.45862	F	ox	1		mrbl	
86KAR3053	31C09	18	385050	4933950	44.55167	76.44719	F		1		mrbl	
86KAR3054	31C09	18	385220	4934600	44.55755	76.44519	F		1		mrbl	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
86KAR3055	31C09	18	383650	4945000	44.65089	76.46731	T	ox	1		snds	
86KAR3056	31C09	18	382630	4945200	44.65252	76.48021	T	ox	1		gnss	
86KAR3057	31C09	18	382830	4945280	44.65328	76.47771	T	ox	1		gnss	
86KAR3058	31C09	18	383420	4947470	44.67308	76.47077	T	ox	1		snds	
86KAR3059	31C09	18	383780	4947600	44.67431	76.46626	T	ox	1		snds	
86KAR3060	31C09	18	385850	4947130	44.67041	76.44005	T	ox	1		snds	
86KAR3060A	31C09	18	385850	4947130	44.67041	76.44005	M	unox	1		snds	
86KAR3061	31C09	18	394290	4944400	44.64713	76.33304	T	ox	1		migm	
86KAR3062	31C09	18	413450	4947900	44.68120	76.09206	T	unox	1		dlmt	
86KAR3063	31C09	18	414850	4949950	44.69982	76.07475	T	mot	1		dlmt	
86KAR3064	31C09	18	407750	4941300	44.62109	76.16278	T	ox	1		snds	
86KAR3065	31C09	18	408650	4942450	44.63155	76.15165	F	ox	1		dlmt	
86KAR3066	31C09	18	409350	4941300	44.62129	76.14262	T	ox	1		gnss	
86KAR3067	31C09	18	409360	4943175	44.63817	76.14282	T	ox	1		snds	
86KAR3067A	31C09	18	409360	4943175	44.63817	76.14282	F		0		snds	
86KAR3068	31C09	18	413550	4931430	44.53297	76.08804	T	ox	1		qrtz	
86KAR3069	31C09	18	413000	4928920	44.51031	76.09453	V		1		mrbl	
86KAR3070	31C09	18	415460	4936320	44.57721	76.06480	T	unox	1	1.5	mrbl	
86KAR3070A	31C09	18	415460	4936320	44.57721	76.06480	T	unox	0	1.75	mrbl	
86KAR3070B	31C09	18	415460	4936320	44.57721	76.06480	T	unox	0	2	mrbl	
86KAR3071	31C09	18	416080	4935260	44.56774	76.05682	T	unox	1		mrbl	
86KAR3072	31C09	18	393000	4946900	44.66945	76.34982	T	ox	1		snds	
86KAR3073	31C09	18	393450	4946170	44.66294	76.34399	T	mild ox	1		snds	
86KAR3074	31C09	18	397080	4949900	44.69704	76.29897	T	ox	1		snds	
86KAR3075	31C09	18	398930	4933330	44.54817	76.27237	F		1		gnss	
86KAR3077	31C09	18	397170	4934620	44.55953	76.29478	T	ox	1		gnss	
86KAR3078	31C09	18	396800	4929460	44.51303	76.29840	T	ox	1		migm	
86KAR3079	31C09	18	397570	4929150	44.51035	76.28865	T	ox	1		migm	
86KAR3080	31C09	18	399050	4930875	44.52609	76.27038	T	ox	1		gnss	
87KAR3200	31C15	18	380350	4979330	44.95929	76.51698	T	ox	1		mrbl	
87KAR3201	31C15	18	381150	4979700	44.96275	76.50694	T	ox	1		mrbl	
87KAR3202	31C16	18	382775	4978900	44.95583	76.48615	F		1		mrbl	
87KAR3203	31C16	18	385100	4979875	44.96498	76.45691	T	mild ox	1		mrbl	
87KAR3204	31C16	18	385050	4981575	44.98027	76.45793	T	mild ox	0		migm	
87KAR3205	31C16	18	384250	4982250	44.98621	76.46823	T	ox	1		mrbl	
87KAR3206	31C16	18	386250	4983270	44.99572	76.44310	T	mild ox	1		mrbl	
87KAR3207	31C16	18	386950	4983425	44.99722	76.43426	F		1		mrbl	
87KAR3208	31C16	18	387850	4982500	44.98904	76.42263	T		1		mrbl	
87KAR3209	31C16	18	388300	4981750	44.98236	76.41676	T	ox	1		mrbl	

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87KAR3210	31C16	18	382000	4979760	44.96343	76.49618	T	ox	1		migm	
87KAR3211	31C16	18	381900	4979650	44.96243	76.49741	T	ox	1		dmlm	
87KAR3211A	31C16	18	381900	4979650	44.96243	76.49741	T	ox	0		dmlm	
87KAR3211B	31C16	18	381900	4979650	44.96243	76.49741	T	ox	0		dmlm	
87KAR3212	31C15	18	380400	4980500	44.96983	76.51663	T		1		mrbl	
87KAR3213	31C15	18	381150	4979670	44.96248	76.50693	T	ox	1		mrbl	
87KAR3214	31C15	18	379000	4979600	44.96149	76.53416	F		1		mrbl	
87KAR3215	31C15	18	379100	4979950	44.96466	76.53297	T	ox	1		mrbl	
87KAR3216	31C15	18	378900	4980160	44.96651	76.53556	F		1		mrbl	
87KAR3217	31C15	18	378960	4979300	44.95879	76.53460	F		1		mrbl	
87KAR3218	31C15	18	378400	4979260	44.95833	76.54169	T		1		mrbl	
87KAR3219	31C15	18	377060	4979600	44.96116	76.55875	T		1		mrbl	
87KAR3220	31C15	18	378030	4979000	44.95592	76.54631	T		1		mrbl	
87KAR3221	31C15	18	376400	4978250	44.94889	76.56679	T		1		mrbl	
87KAR3222	31C15	18	375400	4977325	44.94040	76.57922	T	ox	1		mrbl	
87KAR3223	31C15	18	375100	4977625	44.94304	76.58310	T		1		mrbl	
87KAR3224	31C15	18	364540	4964550	44.82346	76.71339	T	ox	1		mrbl	
87KAR3225	31C15	18	363700	4964400	44.82195	76.72398	T	mild ox	1		grdr	
87KAR3226	31C15	18	363950	4964470	44.82262	76.72083	T		1		grdr	
87KAR3227	31C15	18	364450	4964950	44.82704	76.71464	T	ox	1		mrbl	
87KAR3228	31C15	18	364320	4965420	44.83124	76.71641	T	ox	1		mrbl	
87KAR3229	31C15	18	364050	4965920	44.83569	76.71996	T		1		fmyl	
87KAR3230	31C15	18	364100	4966340	44.83948	76.71944	T	ox	1		pmyl	
87KAR3231	31C15	18	364100	4966575	44.84159	76.71950	T		1		gnss	
87KAR3232	31C15	18	364050	4966650	44.84226	76.72015	T		1		pmyl	
87KAR3233	31C15	18	363450	4967825	44.85272	76.72806	T		1		gnss	
87KAR3234	31C15	18	363180	4969750	44.86999	76.73199	F		1		mmyl	
87KAR3235	31C15	18	360450	4969140	44.86397	76.76637	T		1		tonl	
87KAR3236	31C15	18	358850	4969310	44.86518	76.78666	F		1		tonl	
87KAR3237	31C15	18	357200	4969460	44.86620	76.80757	F		1		tonl	
87KAR3238	31C15	18	365200	4969400	44.86723	76.70634	F	ox	1		mmyl	
87KAR3239	31C15	18	368200	4964400	44.82279	76.66708	T	mild ox	1		mrbl	
87KAR3240	31C15	18	372850	4965750	44.83578	76.60863	T	mild ox	1		mrbl	
87KAR3241	31C15	18	371520	4966640	44.84355	76.62567	T	ox	1		mrbl	
87KAR3242	31C15	18	371230	4967750	44.85349	76.62962	T		1		mrbl	
87KAR3243	31C15	18	373000	4968850	44.86371	76.60751	T	ox	1		mrbl	
87KAR3244	31C15	18	373150	4969310	44.86787	76.60572	F		1		gbbr	
87KAR3245	31C15	18	373150	4969900	44.87318	76.60587	F		1		gbbr	
87KAR3246	31C15	18	373150	4970475	44.87836	76.60602	T	ox	1		gbbr	

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87KAR3247	31C15	18	373000	4971550	44.88800	76.60818	T	ox	1		gbbr	
87KAR3248	31C15	18	373000	4972650	44.89790	76.60846	T		1		gbbr	
87KAR3249	31C15	18	371650	4974800	44.91701	76.62610	T	mild ox	1		grdr	
87KAR3250	31C15	18	374100	4977100	44.93814	76.59564	T	mild ox	1		gbbr	
87KAR3371	31F02	18	356600	4986750	45.02165	76.82008	T	ox	1		mrbl	
87KAR3372	31F02	18	357300	4988200	45.03484	76.81161	T	ox	1		mrbl	
87KAR3373	31F02	18	356480	4988350	45.03603	76.82205	F		1		mrbl	
87KAR3374	31F02	18	356600	4988900	45.04100	76.82069	F		1		synt	
87KAR3375	31F02	18	356300	4939340	44.59501	76.81049	F		1		mrbl	
87KAR3376	31F02	18	355250	4990200	45.05242	76.83820	T	ox	1		mrbl	
87KAR3377	31F02	18	356400	4990650	45.05670	76.82373	T	ox	1		mrbl	
87KAR3378	31F02	18	357600	4992530	45.07386	76.80903	F		1		mrbl	
87KAR3379	31F02	18	362400	4988130	45.03522	76.74687	T	ox	1		mrbl	
87KAR3380	31F02	18	359770	4988220	45.03551	76.78027	T	ox	1		mpel	
87KAR3381	31F02	18	361700	4987680	45.03104	76.75563	T	ox	1		mrbl	
87KAR3382	31F02	18	361050	4991650	45.06663	76.76498	T	mild ox	1		mam	
87KAR3383	31F02	18	363750	4992900	45.07840	76.73103	T	ox	1		mpel	
87KAR3384	31F02	18	364340	4992150	45.07177	76.72334	T	unox	1		mmvc	
87KAR3385	31F02	18	365830	4985900	45.01581	76.70275	T	mild ox	1		mmvc	
87KAR3386	31F02	18	365000	4986350	45.01970	76.71340	T	ox	1		msis	
87KAR3387	31F02	18	377600	4985000	45.00985	76.55322	T	ox	1		gbbr	
87KAR3388	31F02	18	376590	4987200	45.02946	76.56657	F		1		gbbr	
87KAR3389	31F02	18	375800	4988300	45.03923	76.57687	F		1		gbbr	
87KAR3390	31F02	18	375800	4988720	45.04300	76.57697	T	ox	1		gbbr	
87KAR3391	31F02	18	376320	4989520	45.05030	76.57056	T	ox	1		synt	
87KAR3392	31F02	18	377130	4990000	45.05475	76.56040	T	unox	1		gbbr	
87KAR3393	31F02	18	376850	4990750	45.06145	76.56414	T	mild ox	1		dort	
87KAR3394	31F02	18	374750	4993050	45.08178	76.59138	T	ox	1		gbbr	
87KAR3395	31F02	18	374200	4994600	45.09563	76.59875	T	ox	1		gbbr	
87KAR3396	31F02	18	372120	4996400	45.11146	76.62563	T	ox	1		dort	
87KAR3397	31F02	18	372000	4997700	45.12314	76.62749	F		1		pmyl	
87KAR3398	31F02	18	371340	4999120	45.13579	76.63625	F		1		gnss	
88AR 0025Y	31C09	18	405250	4929726	44.51659	76.19216	F		1		mnzn	
88KAR3399	31C15	18	377650	4983550	44.99680	76.55223	F		1		gbbr	pit, pebbly sand
88KAR3400	31F02	18	377450	4984080	45.00154	76.55489	T	ox	1		gbbr	
88KAR3401	31F02	18	377620	4985650	45.01569	76.55312	T	ox	1		gbbr	
88KAR3402	31F02	18	379610	4991880	45.07210	76.52937	F		1		tonl	pit, ice contact
88KAR3403	31F02	18	379210	4992460	45.07725	76.53459	T	mild ox	1		gbbr	
88KAR3404	31F02	18	379150	4993500	45.08660	76.53560	T	unox	1		gbbr	

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88KAR3405	31F02	18	379590	4993800	45.08937	76.53008	T	unox	1		mrbl	
88KAR3406	31F02	18	377930	4986870	45.02673	76.54948	T	unox	1		dort	drumlin
88KAR3407	31F02	18	378110	4986990	45.02784	76.54723	T	unox	1		gbbr	drumlin, silty
88KAR3408	31F02	18	378350	4986910	45.02716	76.54417	T	mild ox	1		gbbr	
88KAR3409	31F02	18	378800	4986830	45.02652	76.53844	T	ox	1		gbbr	
88KAR3410	31F02	18	378990	4984990	45.00999	76.53558	F	ox	1		gbbr	
88KAR3411	31F02	18	379860	4985110	45.01122	76.52457	T	mild ox	1		gbbr	
88KAR3412	31F02	18	380580	4988850	45.04500	76.51633	T	ox	1		mmvc	drumlin
88KAR3413	31F02	18	380830	4988460	45.04153	76.51306	T	ox	1	0.5	mmvc	drumlin
88KAR3414	31F02	18	381140	4987150	45.02979	76.50882	T	ox	1		mrbl	sandy
88KAR3415	31F02	18	381860	4989350	45.04971	76.50020	T	unox	1		gbbr	good, chunky
88KAR3416	31F02	18	380940	4990360	45.05864	76.51212	T	mild ox	1	2	mmvc	
88KAR3417	31F02	18	380040	4990650	45.06110	76.52361	T	mild ox	1		gbbr	
88KAR3418	31F02	18	374700	4987410	45.03102	76.59061	F		1		gbbr	pit, sand to gravel
88KAR3420	31F02	18	374100	4986000	45.01823	76.59786	F	ox	1		dort	
88KAR3421	31F02	18	370560	4988690	45.04180	76.64347	T	ox	1		gbbr	
88KAR3422	31F02	18	370190	4989350	45.04767	76.64833	T	mild ox	1		gbbr	drumlin, silty
88KAR3423	31F02	18	369880	4989640	45.05022	76.65234	T	mild ox	1		pmyl	drumlin, silty
88KAR3424	31F02	18	370000	4990620	45.05906	76.65108	T	unox	1		pmyl	drumlin, good sample
88KAR3425	31F02	18	370400	4991350	45.06570	76.64619	T	ox	1		pmyl	fine textured
88KAR3426	31F02	18	371770	4991020	45.06298	76.62871	T	ox	1		gbbr	sandy
88KAR3427	31F02	18	373100	4990550	45.05899	76.61170	T	mild ox	1		gbbr	sandy
88KAR3428	31F02	18	380710	4996400	45.11296	76.51648	T	ox	1		gbbr	
88KAR3429	31F02	18	378560	4994810	45.09829	76.54341	T	ox	1		dort	
88KAR3430	31F02	18	378770	4994400	45.09463	76.54065	F		1		mrbl	pit, esker
88KAR3431	31F02	18	379050	4994380	45.09450	76.53709	T		1		gbbr	
88KAR3432	31F02	18	379360	4994340	45.09419	76.53313	F		1		tonl	esker
88KAR3433	31F02	18	379450	4994140	45.09241	76.53194	T	unox	1		tonl	fine grained
88KAR3434	31F02	18	380900	4992475	45.07767	76.51313	T	ox	1		mmvc	
88KAR3435	31F02	18	371700	4996750	45.11453	76.63106	F		1		pmyl	ice contact
88KAR3436	31F02	18	372050	4999300	45.13754	76.62727	F		1		tonl	pit
88KAR3437	31F02	18	372410	5003330	45.17387	76.62372	F	mild ox	1		pmyl	
88KAR3438	31F02	18	366750	5004600	45.18425	76.69606	T	unox	1		fmvc	
88KAR3439	31F02	18	366950	5001930	45.16026	76.69280	T	ox	1		fmvc	
88KAR3440	31F02	18	369040	4999250	45.13654	76.66552	T	ox	1		fmyl	gravelly
88KAR3441	31F02	18	365100	4998650	45.13039	76.71544	T	ox	1		mrbl	
88KAR3442	31F02	18	380550	5001650	45.16018	76.51977	T	ox	1		mrbl	sandy,loose
88KAR3443	31F02	18	377630	5003550	45.17677	76.55737	T	mild ox	1		mrbl	
88KAR3444	31F02	18	372750	5004330	45.18293	76.61965	T		1		mrbl	

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88KAR3445	31F02	18	375510	5005600	45.19485	76.58485	F		1		gbbr	
88KAR3446	31F02	18	374800	5006950	45.20687	76.59422	T	unox	1		gbbr	gravelly
88KAR3447	31F02	18	373010	5010240	45.23615	76.61785	T		1		mrbl	
88KAR3448	31F02	18	374610	5011590	45.24859	76.59782	T		1		mrbl	
88KAR3449	31F02	18	352410	4984490	45.00046	76.87257	F		1		mrbl	pit
88KAR3450	31F02	18	355090	4985750	45.01235	76.83894	T		1		mam	gravelly diamicton
88KAR3451	31F02	18	356900	4983900	44.99607	76.81546	T	ox	1		mrbl	
88KAR3452	31F02	18	358550	4985000	45.00630	76.79485	T	ox	1		mrbl	
88KAR3453	31F02	18	361950	4987000	45.02496	76.75227	T	mild ox	1		mrbl	
88KAR3454	31F02	18	349360	4984600	45.00081	76.91127	T	ox	1		mmvc	
88KAR3455	31F02	18	349810	4984940	45.00396	76.90567	T		1		mmvc	
88KAR3456	31F02	18	352380	4988430	45.03590	76.87410	T	ox	1		mmvc	
88KAR3457	31F02	18	352450	4988670	45.03808	76.87328	T	ox	1		mmvc	gravelly
88KAR3458	31F02	18	352140	4989350	45.04413	76.87742	F		1		mmvc	pit,cobbley sand
88KAR3459	31F02	18	353460	4990630	45.05592	76.86104	T	ox	1		migm	stoney
88KAR3460	31F02	18	353440	4991250	45.06149	76.86147	T	ox	1		migm	gravelly
88KAR3461	31F02	18	353880	4992010	45.06842	76.85611	T	ox	1		migm	
88KAR3462	31F02	18	355310	4993670	45.08365	76.83843	T		1		migm	diamict, ablation
88KAR3463	31F02	18	356070	4993440	45.08174	76.82872	F		1		migm	pit,gravelly diamict
88KAR3464	31F02	18	355050	4994590	45.09188	76.84200	T	ox	1		mrbl	gravelly diamict
88KAR3465	31F02	18	355270	4996160	45.10604	76.83966	T	ox	1		mrbl	
88KAR3466	31F02	18	353820	4996500	45.10881	76.85818	F		1		mmvc	pit,sand,gravel
88KAR3467	31F02	18	353440	4996880	45.11214	76.86312	T		1		migm	fresh,sandy
88KAR3468	31F02	18	353370	4997260	45.11555	76.86412	F		1		migm	pit,diamict
88KAR3469	31F02	18	352430	5000180	45.14163	76.87693	F		1		migm	
88KAR3470	31F02	18	351850	5003710	45.17327	76.88535	T	ox	1		mrbl	
88KAR3471	31F02	18	352140	5002230	45.16002	76.88122	F		1		migm	gravelly
88KAR3472	31F02	18	352110	5000240	45.14210	76.88101	T	mild ox	1		migm	
88KAR3473	31F02	18	351540	4997210	45.11472	76.88736	T	ox	1		mrbl	gravelly
88KAR3474	31F02	18	355870	4995610	45.10122	76.83188	T	ox	1		synt	
88KAR3475	31F02	18	356440	4996610	45.11033	76.82493	T	ox	1		mrbl	
88KAR3476	31F02	18	357950	5000280	45.14367	76.80679	T	ox	1		tonl	
88KAR3477	31F02	18	358000	5000420	45.14493	76.80619	T	unox	1		tonl	grey, chunky
88KAR3478	31F02	18	358460	5000670	45.14727	76.80041	T	unox	1		tonl	silt layer, v. good sample
88KAR3479	31F02	18	358510	5002070	45.15988	76.80017	T		1		tonl	
88KAR3480	31F02	18	358760	5002860	45.16704	76.79722	T	mild ox	1		migm	
88KAR3481	31F02	18	359180	5004960	45.18602	76.79247	T	ox	1		mrbl	
88KAR3482	31F02	18	359340	5005290	45.18902	76.79053	T	mild ox	1		mrbl	
88KAR3483	31F02	18	359860	5006040	45.19587	76.78412	F		1		mrbl	pit, sand to boulders

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
88KAR3484	31F02	18	360090	5006540	45.20041	76.78133	T		1		mrbl	
88KAR3485	31F02	18	361150	5007890	45.21277	76.76822	T	mild ox	1		mrbl	
88KAR3486	31F02	18	361960	5009800	45.23011	76.75844	T	unox	1		mrbl	v. good sample
88KAR3487	31F02	18	370780	5010290	45.23619	76.64626	F		1		tonl	pit, gravel bouldery
88KAR3488	31F02	18	343010	4985220	45.00501	76.99199	T		1		migm	
88KAR3489	31F02	18	343040	4986460	45.01617	76.99199	T	mild ox	1		migm	
88KAR3491	31F02	18	342450	4987350	45.02405	76.99976	T	ox	1		migm	
88KAR3494	31F02	18	342640	4989650	45.04478	76.99806	T	unox	1		gnss	
88KAR3495	31F02	18	343510	4991060	45.05766	76.98746	T	mild ox	1		gnss	
88KAR3496	31F02	18	343150	4991480	45.06136	76.99216	T	mild ox	1		gnss	flow
88KAR3496A	31F02	18	343150	4991480	45.06136	76.99216	T	mild ox	0		gnss	
88KAR3497	31F02	18	343160	4990920	45.05632	76.99186	T	unox	1		gnss	good sample
88KAR3498	31F02	18	342700	4989540	45.04381	76.99727	T	mild ox	1		gnss	pit,chunky, silty
88KAR3501	31F02	18	345700	4984650	45.00047	76.95770	T	ox	1		mmvc	
88KAR3502	31F02	18	346100	4985100	45.00461	76.95277	T		1		mmvc	
88KAR3503	31F02	18	361950	4987150	45.02631	76.75231	T		1		fmvc	
88KAR3504	31F02	18	362740	4988890	45.04213	76.74277	F	mild ox	1		gnss	gravelly diamicton
88KAR3505	31F02	18	362300	4989670	45.04906	76.74857	T	ox	1		mmvc	
88KAR3506	31F02	18	362800	4987650	45.03098	76.74167	T		1		marn	
88KAR3507	31F02	18	365120	4988660	45.04051	76.71250	T	ox	1		migm	
88KAR3508	31F02	18	366230	4989210	45.04567	76.69856	T	mild ox	1		mmvc	
88KAR3509	31F02	18	367450	4988750	45.04176	76.68295	F		1		gnss	
88KAR3510	31F02	18	361290	4986640	45.02160	76.76054	F		1		mrbl	pit
88KAR3511	31F02	18	365200	4988290	45.03720	76.71139	T	mild ox	1		migm	good sample
88KAR3512	31F02	18	365270	4987620	45.03118	76.71032	T	ox	1		mmvc	drumlin
88KAR3513	31F02	18	365250	4987300	45.02830	76.71049	T	mild ox	1		gbbr	drumlin, silty
88KAR3514	31F02	18	365060	4986750	45.02332	76.71275	T		1		mrbl	drumlin
88KAR3515	31F02	18	365070	4985820	45.01495	76.71237	T	ox	1		gbbr	drumlin
88KAR3516	31F02	18	367940	4989710	45.05049	76.67699	T		1		mrbl	fresh exposure
88KAR3517	31F02	18	368110	4989780	45.05115	76.67485	T	mild ox	1	2	gnss	
88KAR3517A	31F02	18	368110	4989780	45.05115	76.67485	T	mild ox	0	1.6	gnss	
88KAR3517B	31F02	18	368110	4989780	45.05115	76.67485	T	ox	0	1.3	gnss	
88KAR3517C	31F02	18	368110	4989780	45.05115	76.67485	T	ox	0	1	gnss	
88KAR3517D	31F02	18	368110	4989780	45.05115	76.67485	T	ox	0	0.5	gnss	Lower B-horizon
88KAR3517E	31F02	18	368110	4989780	45.05115	76.67485	T	ox	0	0.15	gnss	Upper B-horizon
88KAR3517F	31F02	18	368110	4989780	45.05115	76.67485	T	ox	0	0.05	gnss	A-horizon
88KAR3518	31F02	18	367600	4986340	45.02011	76.68041	T	ox	1		dort	
88KAR3519	31F02	18	368530	4987840	45.03377	76.66901	T	ox	1		dort	
88KAR3520	31F02	18	368460	4990410	45.05689	76.67057	T	mild ox	1	1	dort	

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88KAR3521	31F02	18	371840	4984350	45.00298	76.62611	T	ox	1		gbbr	
88KAR3522	31F02	18	371240	4985860	45.01646	76.63411	T	ox	1		gbbr	
88KAR3523	31C16	18	388690	4981090	44.97649	76.41167	F		1		mrbl	pit, sand granules
88KAR3524	31C16	18	388520	4988250	45.04089	76.41541	T		1		mrbl	
88KAR3525	31C16	18	384040	4979390	44.96044	76.47023	F		1		mrbl	pit, subaqueous fan
88KAR3525A	31C16	18	384040	4979390	44.96044	76.47023	V		0		mrbl	pit, kettle fill
88KAR3526	31C16	18	385340	4980410	44.96983	76.45399	F		1		mrbl	pit, subaqueous fan
88KAR3527	31C16	18	387570	4980480	44.97082	76.42574	F		1		mrbl	pit, subaqueous fan
88KAR3528	31C16	18	389260	4981270	44.97819	76.40448	V	unox	1		mrbl	laminates, field surface
88KAR3529	31C16	18	386760	4980760	44.97321	76.43607	F		1		mrbl	subaqueous fan, diamict
88KAR3530	31C16	18	388450	4981420	44.97941	76.41479	T	mild ox	1		mrbl	
88KAR3531	31C16	18	387450	4982970	44.99321	76.42781	T	unox	1		mrbl	stoney
88KAR3532	31C16	18	386670	4983640	44.99911	76.43785	T	ox	1	1	mrbl	
88KAR3533	31C16	18	386050	4983080	44.99397	76.44559	T	unox	1	1.25	mrbl	silty
88KAR3534	31C16	18	385910	4982960	44.99287	76.44734	T	unox	1	2	mrbl	drumlin, blue grey
88KAR3534A	31C16	18	385910	4982960	44.99287	76.44734	T	mild ox	0	1.25	dmlm	drumlin
88KAR3534B	31C16	18	385910	4982960	44.99287	76.44734	T	mild ox	0	1	mrbl	drumlin
88KAR3534C	31C16	18	385910	4982960	44.99287	76.44734	T	mild ox	0	0.75	mrbl	drumlin
88KAR3534D	31C16	18	385910	4982960	44.99287	76.44734	T	ox	0	0.3	mrbl	drumlin,reddish brown
88KAR3534E	31C16	18	385910	4982960	44.99287	76.44734	T	ox	0	0.1	mrbl	drumlin, humus-rich
88KAR3535	31F01	18	387180	4984350	45.00558	76.43154	T		1		mrbl	
88KAR3536	31F01	18	387670	4984730	45.00908	76.42542	T	ox	1		mrbl	
88KAR3537	31F016	18	388020	4984660	45.00850	76.42096	T	ox	1		mrbl	
88KAR3538	31F01	18	388060	4985670	45.01760	76.42068	T	ox	1		mrbl	
88KAR3539	31F01	18	388810	4985400	45.01529	76.41110	T		1		mrbl	drumlin,silty
88KAR3540	31F01	18	389040	4985400	45.01532	76.40818	T	ox	1		mrbl	v. silty, between drumlins
88KAR3541	31C16	18	384810	4981710	44.98145	76.46101	T	ox	1		migm	
88KAR3542	31C16	18	385050	4981540	44.97995	76.45792	T	unox	1		migm	
88KAR3543	31C16	18	383960	4979240	44.95908	76.47121	F		1		mrbl	pit
88KAR3544	31C16	18	381930	4982890	44.99159	76.49780	T	mild ox	1		mrbl	
88KAR3545	31C16	18	382410	4982320	44.98654	76.49158	T	unox	1		migm	
88KAR3546	31C16	18	382550	4982290	44.98629	76.48979	T	unox	1		mrbl	silty
88KAR3547	31C16	18	381700	4979360	44.95979	76.49989	T	mild ox	1		migm	
88KAR3548	31C16	18	382530	4980040	44.96604	76.48952	T	unox	1		migm	
88KAR3549	31C16	18	381640	4979100	44.95744	76.50058	F		1		mrbl	pebbley diamicton
88KAR3551	31C16	18	389950	4979860	44.96561	76.39542	T	ox	1		mrbl	
88KAR3552	31C16	18	389730	4977750	44.94659	76.39775	T		1		hbld	
88KAR3553	31C16	18	389860	4977670	44.94589	76.39609	T		1		hbld	diamict
88KAR3553A	31C16	18	389860	4977670	44.94589	76.39609	V		0		hbld	silt/clay,massive

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88KAR3554	31C16	18	390110	4977590	44.94521	76.39291	T	unox	1		ampb	
88KAR3555	31C16	18	385710	4974940	44.92066	76.44806	T	unox	1	2	mrbl	
88KAR3556	31C16	18	384780	4974220	44.91403	76.45967	T	ox	1		mrbl	pit, till at base
88KAR3557	31C16	18	387800	4963700	44.81984	76.41910	T	ox	1		migm	reddish,diamict
88KAR3558	31C16	18	385560	4959650	44.78304	76.44651	T	mild ox	1		migm	
88KAR3559	31C16	18	385280	4959690	44.78336	76.45006	T	mild ox	1		migm	
88KAR3560	31C16	18	383350	4959140	44.77810	76.47432	F		1		lmmg	pit
88KAR3561	31C16	18	382850	4958620	44.77333	76.48051	T	ox	1		mrbl	
88KAR3562	31C16	18	381150	4959100	44.77737	76.50211	F		1		mrbl	subaqueous outwash
88KAR3563	31C16	18	381840	4958780	44.77460	76.49331	T	mild ox	1	2.5	mrbl	stoney
88KAR3564	31C16	18	382390	4959340	44.77974	76.48650	T		1		mrbl	flow
88KAR3565	31C16	18	384920	4958640	44.77385	76.45437	F		1	2	migm	pit, fine facies
88KAR3566	31C16	18	384060	4957800	44.76615	76.46504	T	unox	1		migm	pit, v. good till at base
88KAR3567	31C16	18	392460	4966640	44.84702	76.36080	T		1		snds	
88KAR3568	31C16	18	389950	4964620	44.82846	76.39211	T	mottled	1	2	snds	silty
88KAR3569	31C16	18	390190	4964010	44.82301	76.38895	T	unox	1		mrbl	silty
88KAR3570	31C16	18	388340	4965810	44.83892	76.41273	T	unox	1		snds	drumlin, subdued
88KAR3571	31C16	18	385340	4963500	44.81765	76.45016	T	ox	1		migm	
88KAR3572	31C16	18	383400	4965670	44.83686	76.47518	T		1		mrbl	George King yard
88KAR3573	31C16	18	386570	4967330	44.85232	76.43546	T	unox	1		migm	gravelly
88KAR3574	31C16	18	388740	4969200	44.86949	76.40842	T	unox	1	0.5	hbld	some secondary carbonates
88KAR3575	31C16	18	389540	4973560	44.90885	76.39925	T	ox	1		hbld	red, clay-rich till
88KAR3576	31C16	18	390090	4973260	44.90623	76.39221	T	unox	1		migm	pit, good grey
88KAR3577	31C16	18	390450	4973340	44.90701	76.38767	T	unox	1	2.5	migm	pit, good greytill at base
88KAR3578	31C16	18	384140	4972860	44.90169	76.46747	T		1		ampb	
88KAR3579	31C16	18	385670	4971700	44.89150	76.44783	T	mild ox	1		ampb	pit, sample from base
88KAR3580	31C16	18	388340	4972170	44.89616	76.41414	T		1		mrbl	silty
88KAR3581	31C16	18	383540	4968370	44.86119	76.47403	T		1		synt	
88KAR3582	31C16	18	396030	4962650	44.81164	76.31482	T	ox	1		migm	clay-rich, green
88KAR3582X	31C16	18	396030	4962650	44.81164	76.31482	R		0		migm	rotten rock
88KAR3583	31C16	18	395160	4962000	44.80566	76.32568	T		1		migm	
88KAR3584	31C16	18	395250	4959990	44.78759	76.32413	T	ox	1		migm	
88KAR3585	31C16	18	396860	4958450	44.77396	76.30347	T	ox	1		synt	
88KAR3586	31C16	18	395030	4956760	44.75848	76.32625	T	mild ox	1		migm	
88KAR3587	31C16	18	394380	4958770	44.77648	76.33488	T	mild ox	1	3	migm	compact
88KAR3588	31C16	18	391290	4956210	44.75298	76.37337	T	ox	1		synt	
88KAR3589	31C16	18	389190	4957960	44.76840	76.40028	T	mild ox	1		migm	
88KAR3590	31C16	18	390160	4956620	44.75650	76.38773	F		1		mrbl	
88KAR3591	31C16	18	389800	4957020	44.76004	76.39236	T		1		migm	pit, cobbley gravel

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88KAR3592	31C16	18	388650	4956010	44.75077	76.40667	T	mild ox	1		mrbl	silty
88KAR3593	31C16	18	391370	4957490	44.76451	76.37263	T	ox	1		mrbl	
88KAR3594	31C16	18	391200	4959760	44.78491	76.37527	T	ox	1		migm	
88KAR3595	31C16	18	399070	4960460	44.79237	76.27595	T		1		gnss	
88KAR3596	31C16	18	398080	4957360	44.76432	76.28784	T	0-	1		mrbl	pit, large till
88KAR3597	31C16	18	397760	4955750	44.74979	76.29156	T	ox	1		mrbl	
88KAR3598	31C16	18	411120	4956590	44.75914	76.12297	T	mild ox	1		mrbl	pit,large till
88KAR3599	31C16	18	407290	4956230	44.75541	76.17129	T	mild ox	1		snds	
88KAR3600	31C16	18	406910	4957660	44.76823	76.17635	T		1		mrbl	Pz-rich
88KAR3601	31C16	18	404610	4956070	44.75362	76.20511	T	ox	1		snds	poor
88KAR3602	31C16	18	407950	4959270	44.78286	76.16350	T	mild ox	1		snds	Pz-rich
88KAR3603	31C16	18	410460	4958400	44.77534	76.13163	T	ox	1		mrbl	Pz-rich
88KAR3604	31C16	18	409440	4961540	44.80348	76.14507	T	mild ox	1		snds	Pz-rich
88KAR3605	31C16	18	411160	4961360	44.80207	76.12330	T	mild ox	1		snds	Pz-rich
88KAR3606	31C16	18	408610	4963630	44.82218	76.15594	T	mild ox	1		dlmt	Pz-rich
88KAR3607	31C16	18	414060	4963560	44.82223	76.08701	T	unox	1		mrbl	Pz-rich
88KAR3608	31C16	18	414780	4962590	44.81359	76.07774	T	unox	1		dlmt	silty
88KAR3608A	31C16	18	414780	4962590	44.81359	76.07774	T		0		dmlt	
88KAR3609	31C16	18	412540	4958000	44.77200	76.10528	T	mild ox	1		mrbl	
88KAR3610	31C16	18	419960	4958240	44.77503	76.01156	T	ox	1		dmlm	
88KAR3611	31C16	18	418670	4959060	44.78226	76.02799	T	unox	1		dmlm	
88KAR3612	31C16	18	400360	4961000	44.79741	76.25975	T	ox	1		gnss	
88KAR3613	31C16	18	401330	4962050	44.80699	76.24770	T	mild ox	1		gnss	
88KAR3614	31C16	18	401700	4963890	44.82361	76.24337	T	unox	1		gnss	good sample
88KAR3615	31C16	18	399780	4964390	44.82784	76.26775	T	unox	1		mrbl	good sample
88KAR3616	31C16	18	403310	4961240	44.79998	76.22251	T	ox	1		gnss	
88KAR3617	31C16	18	403540	4963300	44.81854	76.21999	T	mild ox	1		gnss	
88KAR3618	31C16	18	405070	4962780	44.81407	76.20055	T	mild ox	1	0.75	gnss	auger sample
88KAR3619	31C16	18	404940	4963060	44.81657	76.20225	T	mild ox	1		gnss	brick red colour
88KAR3620	31C16	18	405210	4963710	44.82246	76.19895	T	mild ox	1		gnss	silty, auger sample
88KAR3621	31C16	18	403060	4961420	44.80156	76.22570	T	ox	1		gnss	
88KAR3622	31C16	18	406310	4965040	44.83458	76.18529	T	ox	1		snds	
88KAR3623	31C16	18	405520	4961140	44.79937	76.19456	T	mild ox	1		cglm	Pz-rich, red brown
88KAR3624	31C16	18	397130	4976320	44.93483	76.30369	T		1		snds	auger sample
88KAR3625	31C16	18	405630	4980340	44.97219	76.19674	T		1		dlmt	auger sample
88KAR3626	31C16	18	406940	4981210	44.98019	76.18029	T	ox	1		dmlt	
88KAR3627	31C16	18	407810	4981960	44.98705	76.16940	T		1		dmlt	
88KAR3628	31C16	18	403450	4977450	44.94588	76.22383	T	mild ox	1		dmlt	Pz-rich
88KAR3629	31C16	18	402750	4973900	44.91384	76.23202	T	mild ox	1		snds	Pz-rich

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
88KAR3630	31C16	18	395580	4971390	44.89023	76.32231	T		1		migm	sandy
88KAR3631	31C16	18	394030	4971830	44.89396	76.34203	T		1		migm	
88KAR3632	31C16	18	390390	4970660	44.88288	76.38786	T	mild ox	1		migm	
88KAR3633	31C16	18	397060	4975940	44.93140	76.30450	T	unox	1		snds	
88KAR3634	31C16	18	395490	4973960	44.91335	76.32397	F		1		migm	
88KAR3634A	31C16	18	395490	4973960	44.91335	76.32397	V		0		migm	
88KAR3635	31C16	18	392460	4977580	44.94548	76.36312	T	unox	1		synt	
88KAR3639	31F02	18	355700	5009020	45.22184	76.83791	T		1		mrbl	
88KAR3640	31F02	18	352290	5009180	45.22257	76.88137	F		1		mrbl	
88KAR3640A	31F02	18	352290	5009180	45.22257	76.88137	F		0		mrbl	diamicton
88KAR3641	31F02	18	351540	5004160	45.17725	76.88943	F		1		migm	gravel to fine sand
88KAR3642	31F02	18	352140	5010340	45.23298	76.88363	F		1		mrbl	
88KAR3642A	31F02	18	352140	5010340	45.23298	76.88363	F		0		mrbl	fine
88KAR3642B	31F02	18	352140	5010340	45.23298	76.88363	F		0		mrbl	fine
88KAR3643	31F02	18	351460	5010160	45.23122	76.89223	T	ox	1		mam	
88KAR3644	31C16	18	400670	4969750	44.87620	76.25755	V		1		mrbl	
88KAR3644A	31C16	18	400670	4969750	44.87620	76.25755	V		0		mrbl	silt/clay
88KAR3644B	31C16	18	400670	4969750	44.87620	76.25755	V		0		mrbl	silt/clay
88KAR3645	31C16	18	392940	4965430	44.83620	76.35447	T	mild ox	1		migm	
88KAR3646	31C16	18	390310	4968610	44.86442	76.38842	V	unox	1		mrbl	silt/clay
88KAR3646	31C16	18	390310	4968610	44.86442	76.38842	V	unox	1		dmlm	
88KAR3649	31C16	18	401310	4965490	44.83796	76.24862	T	mild ox	1		mrbl	
88KAR3650	31C16	18	401410	4964240	44.82672	76.24711	T	unox	1		mrbl	silty
88KAR3651	31C16	18	392690	4975090	44.92310	76.35968	T		1		snds	loose
88KAR3652	31F01	18	392000	4984150	45.00454	76.37036	T	unox	1		mrbl	good sample
88KAR3653	31C16	18	394630	4979500	44.96308	76.33603	T	mottled	1		snds	
88KAR3654	31C16	18	403860	4980280	44.97141	76.21917	T	ox	1		dlmt	
88KAR3655	31C16	18	402500	4982510	44.99129	76.23685	T	ox	1		dmlt	very oxidized
88KAR3656	31C16	18	406310	4979460	44.96436	76.18796	T		1		dlmt	
88KAR3657	31C16	18	406810	4978540	44.95614	76.18145	T	unox	1		dlmt	
88KAR3658	31C16	18	417700	4974460	44.92076	76.04275	T	mottled	1		dlmt	
88KAR3659	31C16	18	417450	4974720	44.92307	76.04596	T	unox	1		dlmt	drumlin,silty
88KAR3660	31C16	18	417340	4974900	44.92468	76.04738	T	mild ox	1		dlmt	drumlin
88KAR3661	31C16	18	417310	4975930	44.93395	76.04793	T	ox	1		snds	drumlin
88KAR3662	31C16	18	416550	4971210	44.89138	76.05678	T	mild ox	1	1.75	dlmt	Pz-rich
88KAR3662A	31C16	18	416550	4971210	44.89138	76.05678	T	mild ox	0	1.25	dlmt	Pz-rich
88KAR3662B	31C16	18	416550	4971210	44.89138	76.05678	T		0		dlmt	
88KAR3663	31C16	18	415340	4967260	44.85569	76.07144	T	unox	1		dmlm	drumlin, chunks
88KAR3664	31C16	18	414410	4966540	44.84909	76.08308	T	mottled	1		dlmt	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
88KAR3665	31C16	18	414910	4964800	44.83349	76.07647	T	unox	1		dlmt	Pz-rich
88KAR3667	31C09	18	418910	4945260	44.65808	76.02277	T	mottled	1		dlmt	
88KAR3668	31C09	18	398170	4945660	44.65904	76.28437	T	mild ox	1		snds	
88KAR3669	31C09	18	399760	4945930	44.66169	76.26437	T	mild ox	1		snds	
88KAR3670X	31F02	18	378960	4999160	45.13750	76.53938	V	unox	1		gbbr	kettle fill
88KAR3670Y	31F02	18	378960	4999160	45.13750	76.53938	V		0		gbbr	kettle fill
88KAR3670Z	31F02	18	378960	4999160	45.13750	76.53938	V		0		gbbr	kettle fill
88KAR5001	31C15	18	377860	4967370	44.85124	76.54565	F		1		mwac	
88KAR5002	31C15	18	368640	4962730	44.80785	76.66109	T		1		fmvc	
88KAR5003	31C15	18	369370	4964040	44.81977	76.65220	T	ox	1		gbbr	red-brown
88KAR5004	31C15	18	371110	4965270	44.83115	76.63051	T	unox	1		mrbl	till flow
88KAR5005	31C15	18	371270	4967740	44.85341	76.62911	F		1		mrbl	pit,gravel
88KAR5006	31C15	18	370140	4970110	44.87453	76.64401	F		1		gbbr	gravel
88KAR5007	31C15	18	371590	4971360	44.88604	76.62598	T	ox	1		gbbr	
88KAR5008	31C15	18	372710	4971380	44.88642	76.61181	T	ox	1		gbbr	
88KAR5009A	31C15	18	372900	4972760	44.89888	76.60976	T	mild ox	1		grdr	
88KAR5009B	31C15	18	372900	4972760	44.89888	76.60976	T		0		grdr	
88KAR5009C	31C15	18	372900	4972760	44.89888	76.60976	T		0		grdr	
88KAR5009D	31C15	18	372900	4972760	44.89888	76.60976	T		0		grdr	
88KAR5010	31C15	18	365040	4962930	44.80898	76.70664	T	mild ox	1		gbbr	
88KAR5011	31C15	18	364560	4964130	44.81969	76.71303	F		1		mrbl	pit
88KAR5012	31C15	18	365350	4966360	44.83990	76.70364	F		1		mmyl	
88KAR5013	31C15	18	365250	4969510	44.86822	76.70573	T	ox	1		mmyl	pit
88KAR5014	31C15	18	365140	4970590	44.87792	76.70741	F		1		mmyl	pit
88KAR5015	31C15	18	366700	4974270	44.91133	76.68864	T	ox	1		gnss	pit
88KAR5016	31C15	18	368240	4974760	44.91602	76.66927	T	ox	1		gbbr	
88KAR5017	31C15	18	374520	4970860	44.88206	76.58878	F		1		mrbl	
88KAR5018	31C15	18	369630	4961820	44.79984	76.64834	F	ox	1		grdr	
88KAR5019	31C15	18	370940	4959560	44.77974	76.63121	F		1		gbbr	
88KAR5021	31C15	18	373590	4960690	44.79039	76.59801	T	ox	1		mrbl	poor
88KAR5022	31C15	18	374230	4961340	44.79635	76.59009	T	ox	1		mrbl	
88KAR5023	31C15	18	376060	4963090	44.81242	76.56738	T	mild ox	1		mrbl	ice contact
88KAR5024	31C15	18	377510	4964890	44.82887	76.54948	T	mild ox	1		gnss	
88KAR5025	31C15	18	376720	4966600	44.84411	76.55989	T	mild ox	1		grdr	
88KAR5026	31C15	18	375500	4966020	44.83868	76.57518	F		1		grdr	sandy gravel
88KAR5027	31C15	18	373840	4965940	44.83768	76.59615	T	mild ox	1		mrbl	
88KAR5028	31C15	18	372700	4964920	44.82829	76.61031	T	ox	1		grdr	
88KAR5029	31C15	18	372800	4965240	44.83119	76.60913	T	ox	1		mwac	pit,flow
88KAR5030	31C15	18	371560	4964940	44.82827	76.62474	F	ox	1		mwac	pit,sandy gravel

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
88KAR5031	31C15	18	370150	4965240	44.83072	76.64264	T	ox	1		mrbl	
88KAR5032	31C15	18	366310	4963590	44.81516	76.69077	T	ox	1		grdr	leeside
88KAR5033	31C15	18	365210	4963860	44.81738	76.70474	T	ox	1		grdr	
88KAR5034	31C15	18	364070	4966000	44.83641	76.71973	F	ox	1		mmyl	pebbley sand
88KAR5035	31C15	18	364400	4969820	44.87085	76.71658	F	ox	1		gnss	
88KAR5036	31C15	18	358690	4969410	44.86605	76.78871	T	ox	1		tonl	
88KAR5037	31C15	18	351490	4975150	44.91623	76.88148	T	mild ox	1		fmvc	
88KAR5038	31C15	18	348740	4981540	44.97315	76.91822	F		1		mrbl	sandy gravel
88KAR5039	31C15	18	343300	4981580	44.97233	76.98717	F	ox	1		mrbl	sandy gravel
88KAR5040	31C15	18	342950	4983610	44.99051	76.99225	F		1		gnss	sandy gravel
88KAR5041	31C15	18	344640	4978750	44.94716	76.96932	F		1		gbbr	pebbley sand
88KAR5042	31C15	18	345960	4974480	44.90903	76.95130	F		1		mrbl	cs sand, pebbles
88KAR5043	31C15	18	342030	4971090	44.87767	76.99999	F		1		mrbl	pit
88KAR5044	31C15	18	342510	4971960	44.88560	76.99419	F		1		mrbl	pit,gravelly sand
88KAR5045	31C15	18	348210	4974760	44.91203	76.92290	T	ox	1		mrbl	
88KAR5046	31C15	18	346600	4972450	44.89090	76.94258	T	ox	1		mrbl	
88KAR5047	31C15	18	347300	4973430	44.89987	76.93401	T	ox	1		mrbl	
88KAR5048	31C15	18	352650	4984220	44.99808	76.86945	F		1		mrbl	pit
88KAR5049	31C15	18	354550	4983760	44.99434	76.84521	T	ox	1		mrbl	
88KAR5050	31C15	18	354260	4981440	44.97340	76.84822	T	ox	1		mpel	
88KAR5051	31C15	18	354240	4981070	44.97007	76.84837	F	ox	1		mrbl	pebbley sand
88KAR5052	31C15	18	351090	4979570	44.95592	76.88785	T	mild ox	1		mrbl	
88KAR5053	31C15	18	351650	4979540	44.95577	76.88074	T	mild ox	1		mmvc	leeside
88KAR5054	31C15	18	352460	4979020	44.95126	76.87033	F	mild ox	1		mmvc	
88KAR5055	31C15	18	350230	4977540	44.93747	76.89815	T	mild ox	1		mmvc	
88KAR5056	31C15	18	351320	4974560	44.91089	76.88346	F	ox	1		tonl	
88KAR5057	31C15	18	348310	4968200	44.85303	76.91966	F	mild ox	1		mmvc	
88KAR5058	31C15	18	362740	4962300	44.80287	76.73554	F	ox	1		grdr	
88KAR5059	31C15	18	352800	4984000	44.99614	76.86748	V		1		mrbl	
88KAR5059A	31C15	18	352800	4984000	44.99614	76.86748	V		0		mrbl	
88KAR5060	31C15	18	371980	4977930	44.94523	76.62271	F		1		grdr	
89KAR3674	31C16	18	410050	4966650	44.84954	76.13827	T		1		dlmt	
89KAR3683	31C10	18	380930	4944340	44.64450	76.50144	T		1		gnss	
89KAR3684	31C10	18	379300	4943600	44.63757	76.52182	T		1		mrbl	
89KAR3685	31C10	18	378140	4937720	44.58446	76.53504	T		1		gnss	
89KAR3686	31C10	18	375400	4933180	44.54313	76.56845	T		1		mrbl	
89KAR3687	31C10	18	373650	4930270	44.51664	76.58975	T		1		mrbl	
89KAR3688	31C10	18	367870	4932300	44.53388	76.66297	T		1		ampb	
89KAR3689	31C10	18	369780	4935100	44.55942	76.63965	F		1		migm	

SAMPLE	NTS	ZONE	EAST	NORTH	LAT	LONG	S	OX STATE	R	DEPTH	ROCK	COMMENTS
89KAR3690	31C10	18	360550	4931150	44.52215	76.75475	V		1		migm	
89KAR3691	31C10	18	359450	4933320	44.54146	76.76917	T		1		migm	
89KAR3692	31C10	18	362450	4934230	44.55023	76.73167	T		1		migm	
89KAR3693	31C10	18	364950	4933100	44.54053	76.69991	T		1		migm	
89KAR3694	31C10	18	366750	4933930	44.54834	76.67748	F		1		migm	
89KAR3695	31C10	18	367230	4937720	44.58253	76.67242	T		1		migm	
89KAR3696	31C10	18	365200	4942000	44.62067	76.69910	T		1		migm	
89KAR3697	31C10	18	364200	4943450	44.63353	76.71208	T		1		migm	
89KAR3698	31C10	18	362500	4945820	44.65453	76.73414	T		1		migm	
89KAR3699	31C10	18	358900	4946450	44.65950	76.77969	F		1		migm	
89KAR3700	31C10	18	358650	4945050	44.64685	76.78246	T		1		migm	
89KAR3701	31C10	18	356480	4945150	44.64732	76.80984	T		1		migm	
89KAR3702	31C10	18	354100	4948300	44.67519	76.84074	T		1		migm	
89KAR3703	31C10	18	354700	4948400	44.67621	76.83320	T		1		migm	
89KAR3704	31C10	18	356780	4949250	44.68428	76.80721	T		1		gbbr	

TRACE ELEMENT DATA LIST LEGEND**

SAMPLE - sample number
nts - National Topographic System 1:50 000 map sheet number
zo - UTM grid zone
east- UTM easting in metres
north- UTM northing in metres
r- representivity of the sample
   1- representative sample for site
   0- less or non-representative sample for site
s- sediment type
   T-till, F-glaciofluvial sand and/or gravel
   V-glaciolacustrine silty clay
   M-marine silty clay
   R-rock C-colluvium A-aeolian sand
a- analytical run - 1-first, 2-second, etc.

AG- ppm in < 2 micron fraction - atomic absorption - 0.1*
AS- ppm in < 2 micron fraction - colourimetry - 2
CD- ppm in < 2 micron fraction - atomic absorption - 0.2
CO- ppm in < 2 micron fraction - atomic absorption - 1
CR- ppm in < 2 micron fraction - atomic absorption - 2
CU- ppm in < 2 micron fraction - atomic absorption - 1
FE- percent in < 2 micron fraction - atomic absorption- 0.1
HG- ppb in < 2 micron fraction - atomic absorption - 5
MN- ppm in < 2 micron fraction - atomic absorption - 1
MO- ppm in < 2 micron fraction - atomic absorption - 1
NI- ppm in < 2 micron fraction - atomic absorption - 2
PB- ppm in < 2 micron fraction - atomic absorption - 2
U- ppm in < 2 micron fraction - fluorimetry - 0.1
ZN- ppm in < 2 micron fraction - atomic absorption - 1
AU- ppb in < 63 micron fraction - fire assay and atomic absorption - 2

* detection limit - for samples with trace element concentrations below the minimum detection level, the trace element value is set at half the minimum detection level.

**legend and data list released as computer files entitled "TRACLEG.ASC" and "TRACE.ASC"

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
								<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<63um
80AR 0001	31C16	18	392920	4965475	1	T	1	0.2	1	0.5	7	35	34	1.85	70	650	7	23	6	0.7	63	
80AR 0001	31C16	18	392920	4965475	1	T	2	0.05	1	0.6	8	36	35	1.8		625	2	13	4	0.4	55	
80AR 0001A	31C16	18	392920	4965475	0	T	1	0.4	1	0.3	12	51	33	2.75	75	750	5	31	5	0.8	65	
80AR 0001B	31C16	18	392920	4965475	0	T	1	0.3	1	0.4	6	34	32	1.8	40	640	5	23	4	0.3	60	
80AR 0003	31C16	18	389076	4974434	1	T	1	0.3	3	0.3	17	60	85	4.75	60	850	5	53	10	0.8	188	
80AR 0005	31F01	18	400909	4999260	1	T	1	0.3	1	0.5	12	38	32	1.95	15	750	7	24	5	0.8	80	
80AR 0005A	31F01	18	400909	4999260	0	T	1	0.2	1	0.4	12	36	30	1.9	30	750	6	23	5	0.9	77	
80AR 0006	31F01	18	406435	4995442	1	T	1	0.05	4	0.6	11	22	47	1.55	135	850	7	23	8	0.5	49	
80AR 0007	31F01	18	397791	4991509	1	T	1	0.05	1	0.5	12	46	58	2.35	65	550	6	33	6	0.8	98	
80AR 0008B	31F01	18	394756	4991172	1	T	1	0.05	3	0.3	14	57	50	2.85	45	400	3	62	9	0.8	88	
80AR 0011	31F01	18	402960	5006498	1	T	1	0.6	4	0.5	28	62	100	6.25	95	1200	3	70	16	0.8	185	
80AR 0012	31F01	18	398982	5006194	1	T	1	0.4	4	0.4	16	60	130	5.4	65	750	1	62	11	0.8	200	
80AR 0013	31F01	18	391268	4995395	1	T	1	0.1	1	0.5	12	42	43	2.6	10	625	4	30	8	0.8	105	
80AR 0013A	31F01	18	391268	4995395	0	T	1	0.05	1	0.5	12	42	48	2.65	30	650	4	33	8	0.8	110	
80AR 0013B	31F01	18	391268	4995395	0	T	1	0.05	1	0.5	12	41	42	2.5	30	650	3	32	7	0.5	100	
80AR 0013C	31F01	18	391268	4995395	0	T	1	0.4	1	0.5	19	58	75	4.75	45	800	3	50	11	0.8	155	
80AR 0014	31F01	18	382425	5000822	1	T	1	0.05	6	0.5	17	47	54	3.3	30	750	4	36	8	0.5	105	
80AR 0014A	31F01	18	382425	5000822	0	T	1	0.05	7	0.7	13	50	60	3.2	30	700	5	38	7	0.6	108	
80AR 0014B	31F01	18	382425	5000822	0	T	1	0.05	6	0.6	12	51	55	3.4	30	650	6	38	8	0.8	120	
80AR 0014C	31F01	18	382425	5000822	0	T	1	0.05	7	0.5	14	50	53	3.15	25	750	6	38	7	0.5	108	
80AR 0014D	31F01	18	382425	5000822	0	T	1	0.2	5	0.6	12	46	52	2.9	30	650	6	34	6	0.8	105	
80AR 0014E	31F01	18	382425	5000822	0	T	1	0.3	5	0.6	10	46	60	2.95	30	600	5	36	8	0.8	108	
80AR 0017A	31C09	18	388325	4948780	1	C	1	0.5	8	0.6	27	76	150	8.7	230	4150	4	60	28	2.2	170	
80AR 0019	31C16	18	382684	4956732	1	T	1	0.3	1	4.3	21	67	50	3.6	65	700	2	48	8	0.6	140	
80AR 0019A	31C16	18	382684	4956732	0	F	1	0.4	1	6	19	65	45	3.25	50	850	3	43	9	0.8	130	
80AR 0023	31C09	18	400887	4942196	1	T	1	0.05	5	0.4	10	30	48	2	20	775	7	28	11	0.8	105	
80AR 0023A	31C09	18	400887	4942196	0	T	1	0.05	5	0.4	9	31	55	2.35	50	800	6	29	11	0.8	97	
80AR 0023B	31C09	18	400887	4942196	0	T	1	0.3	7	0.5	12	37	88	3.4	75	1000	4	37	14	0.8	118	
80AR 0024	31C09	18	402771	4939701	0	R	1	0.4	1	0.1	34	19	425	1.2	170	50	4	24	3	0.3	14	
80AR 0025	31C09	18	405257	4929726	1	T	1	0.6	2	0.4	18	69	83	5.35	50	750	6	63	12	0.6	185	
80AR 0026	31C09	18	408731	4930600	0	T	1	0.05	2	0.4	16	58	62	4.5	30	625	6	45	8	0.5	143	
80AR 0026B	31C09	18	408731	4930600	0	T	1	0.05	4	1.2	17	40	58	3.75	50	575	5	38	40	0.5	133	
80AR 0026C	31C09	18	408731	4930600	1	T	1	0.05	1	0.4	16	56	55	4.3	40	650	3	45	9	0.6	143	
80AR 0027	31C09	18	418826	4929571	1	T	1	0.05	4	0.6	10	28	45	2.55	40	600	4	30	9	0.6	85	

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
80AR 0028	31C09	18	409525	4932582	1	F	1	0.05	3	0.4	16	66	52	4.85	40	600	3	42	8	0.5	138	
80AR 0029	31C09	18	406967	4932721	1	V	1	0.05	5	0.2	15	65	45	4.4	90	675	2	43	9	0.5	135	
80AR 0031	31C15	18	364382	4965004	1	T	1	0.3	12	0.6	45	83	575	9.7	230	2250	5	75	7	0.8	125	16
80AR 0033	31C15	18	364032	4966621	1	F	1	0.05	17	1.4	90	60	500	9.85		4000	5	102	8	0.9	145	
80AR 0035	31C15	18	368230	4964372	1	T	1	0.05	6	1	18	56	70	3.9	10	700	6	47	7	0.8	275	
80AR 0036	31C15	18	371730	4974865	1	T	1	0.05	4	0.5	24	67	85	6.2	20	900	11	63	8	2.2	103	
80AR 0043	31C15	18	375552	4980963	1	T	1	0.05	15	1	45	47	160	5	20	1200	8	60	13	1.5	150	
80AR 0045	31C15	18	379078	4979948	1	F	1	0.05	6	1.2	36	60	180	4.4	115	725	7	87	20	0.5	190	
80AR 0046	31C15	18	374730	4977269	1	F	1	0.3	19	1.9	145	78	250	13.5		2375	20	90	43	3.4	395	
80AR 0049	31C15	18	374659	4974937	1	T	1	0.2	2	1	16	72	50	1.7	35	500	5	55	18	0.5	210	
80AR 0051	31C15	18	373033	4971547	1	T	1	0.05	6	0.2	23	56	118	6.3	40	550	4	57	6	2.2	105	
80AR 0051	31C15	18	373033	4971547	1	T	2	0.05	6	0.8	12	43	105	2.5		550	6	53	7	0.8	125	
80AR 0052	31C15	18	380385	4968105	1	T	1	0.05	5	1	20	28	88	2.35	45	700	8	45	11	0.5	205	
80AR 0052A	31C15	18	373033	4971547	0	T	1	0.05	4	0.8	12	46	118	2.9		575	5	60	10	0.8	170	
80AR 0052B	31C15	18	373033	4971547	0	T	1	0.4	7	0.7	25	90	145	9.25		1500	5	84	20	1.4	215	
80AR 0054	31C15	18	373862	4965941	1	T	1	0.05	3	0.8	11	25	38	1.2	25	400	8	43	6	0.5	83	
80AR 0061	31C15	18	352371	4978966	1	C	1	0.7	245	1.2	24	40	210	4.5	345	500	7	65	43	0.3	190	
80AR 0062	31C15	18	358769	4960342	1	F	1	0.4	29	1.6	100	73	300	9		2700	4	98	38	0.5	300	
80AR 0063	31C10	18	355703	4953744	1	T	1	0.05	8	1.1	36	78	225	6.8	2	1275	9	133	16	2	290	
80AR 0064	31C10	18	348225	4952111	1	T	1	0.6	14	0.8	25	72	195	7.9	415	1475	6	74	23	2.4	350	
80AR 0065	31C10	18	341775	4948916	1	T	1	0.4	55	1.6	43	46	128	3.75	75	1100	7	83	20	0.5	320	6
80AR 0065	31C10	18	341775	4948916	1	T	2															1
80AR 0066	31C10	18	349497	4955738	1	T	1	0.4	61	1	65	88	250	10.3	220	2350	9	115	73	18.3	300	4
80AR 0067	31C10	18	353814	4956063	1	F	1															1
80AR 0068	31C10	18	357421	4953309	1	F	1															1
80AR 0069	31C15	18	364916	4956792	1	T	1	0.05	7	0.5	28	135	135	6.5	170	975	6	95	16	2.7	190	
80AR 0070	31C15	18	379092	4964984	1	T	1	0.2	3	0.3	43	60	110	8.5	120	1550	4	53	14	2.4	210	
80AR 0073	31C16	18	381561	4958690	1	T	1	0.2	4	1	14	48	145	5.45	20	700	3	73	16	0.8	270	
80AR 0073A	31C16	18	381561	4958690	0	T	1	0.2	3	0.8	13	44	115	4.5	190	750	6	65	14	0.8	265	
80AR 0074	31C15	18	379632	4957323	1	F	1	0.3	4	1.5	37	57	135	3.55		1075	7	85	24	0.9	220	
80AR 0075	31C10	18	380515	4955490	1	T	1	0.2	2	0.4	19	50	105	4.6	25	1000	5	55	12	0.8	137	1
80AR 0076	31C10	18	380096	4953705	1	T	1	0.05	1	13	8	33	30	1.9	45	600	7	23	8	0.5	65	
80AR 0076A	31C10	18	380096	4953705	0	F	2	0.05	1	4.5	8	42	25	1.6		550	5	20	6	0.6	58	
80AR 0076A	31C10	18	380096	4953705	0	F	1	0.05	1	1.4	8	34	26	1.8	45	575	4	21	6	0.8	60	

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
80AR 0084	31C10	18	374350	4929359	1	T	1	0.05	3	0.5	16	86	125	4.8	45	600	4	65	8	0.8	150	
80AR 0087A	31C10	18	378851	4941647	1	F	1	0.2	6	0.5	58	81	225	10.25		7500	5	58	35	6.2	145	
80AR 0089	31C10	18	367904	4933365	1	F	1															1
80AR 0090	31C10	18	367771	4937814	1	T	1	0.2	3	0.5	23	97	250	7.65	100	1050	4	115	15	1.5	310	1
80AR 0092A	31C10	18	368315	4944175	1	F	1	0.5	7	0.6	85	76	170	12.5		12000	15	75	50	16	260	
80AR 0093	31C10	18	367417	4949371	1	F	1															2
80AR 0095	31C10	18	361236	4949712	1	F	1															6
80AR 0096A	31C10	18	363287	4946123	1	F	1	0.4	8	1	73	75	180	5.55		2500	5	100	20	1.5	200	1
80AR 0097A	31C10	18	360320	4952130	1	F	1	0.05	2	2.6	13	60	40	4		550	4	36	7	0.7	115	
80AR 0098	31C10	18	361564	4929141	1	F	1	0.3	3	0.4	30	68	42	6.2		700	4	42	12	1.2	90	1
80AR 0100	31C10	18	357121	4940132	1	F	1	0.05	2	0.2	20	52	124	4.2		690	5	50	12	3.1	152	1
80AR 0101	31C10	18	356996	4942214	1	F	1	0.2	2	0.4	26	80	83	5.65	50	450	7	60	10	0.5	135	2
80AR 0101A	31C10	18	356996	4942214	0	F	1															4
80AR 0101B	31C10	18	356996	4942214	0	F	1															2
80AR 0102	31C10	18	358439	4944512	1	F	1															1
80AR 0103	31C10	18	361182	4946000	1	T	1	0.2	4	0.5	60	105	550	8.25	165	1425	3	104	14	0.5	380	
80AR 0104	31C10	18	356884	4944677	1	F	1															1
80AR 0105	31C10	18	353774	4948681	1	F	1															1
80AR 0105	31C10	18	353774	4948681	1	F	2															1
80AR 0106	31C10	18	355482	4950817	1	T	1	0.8	19	1	83	84	385	12.75		5500	7	180	65	8.6	265	2
80AR 0109A	31C10	18	347360	4950330	1	T	1	1.6	17	2	48	83	195	8.6		3750	5	98	60	6.4	315	
80AR 0774	31C15	18	342172	4976360	1	T	1	0.05	62	0.2	31	80	103	10.6		2300	7	37	48	7.8	146	
80AR 0789	31C10	18	352909	4941214	1	F	1															1
80AR 0789	31C10	18	352909	4941214	1	F	2															1
80AR 0791	31C10	18	349340	4937337	1	F	1															6
80AR 0801	31C10	18	344805	4947761	1	T	1															6
80SAR0001	31F01	18	396893	5003281	1	T	1	0.05	1	0.5	13	48	65	3.1		600	8	40	8	0.5	125	
80SAR0001A	31F01	18	396893	5003281	0	T	1	0.05	1	0.5	14	52	70	2.9		650	6	45	10	0.8	125	
80SAR0001B	31F01	18	396893	5003281	0	T	1	0.2	2	0.4	20	62	59	4.3		800	5	45	9	0.6	140	
80SAR0004	31F01	18	396763	5010202	1	T	1	0.05	2	0.6	15	49	85	3.36		750	6	43	9	0.3	130	
80SAR0019	31F01	18	389945	4993811	1	T	1	0.05	2	0.5	14	40	85	3.15	55	1000	6	35	9	0.6	122	
80SAR0020	31F01	18	389873	4993509	1	T	1	0.05	2	0.4	10	32	45	1.6	25	650	7	23	7	0.5	73	
80SAR0021	31F01	18	389431	4989235	1	T	1	0.05	9	0.6	20	57	165	3.9		900	4	57	14	0.5	175	
80SAR0021A	31F01	18	389431	4989235	0	T	1	0.05	7	1.5	23	47	148	3.85	40	950	5	58	15	0.5	220	

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
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80SAR0022	31F01	18	388264	4988900	1	T	1	0.05	3	1	17	54	125	3.75		800	4	55	11	0.7	134	
80SAR0023	31F01	18	388366	4986160	1	T	1	0.3	1	1	33	95	235	6.4		1110	3	63	8	0.05	150	
80SAR0023A	31F01	18	388366	4986160	0	T	1	0.05	12	0.4	35	86	90	9.9		1500	7	47	10	1.5	110	
80SAR0025	31F01	18	383144	4987954	1	T	1	0.3	7	0.9	20	59	105	4.9		1800	5	57	16	2.7	135	
80SAR0041	31F02	18	353139	5009015	1	T	1	0.2	3	0.3	16	64	158	6	65	700	5	63	14	2.3	230	
80SAR0041A	31F02	18	353139	5009015	0	T	1	0.2	2	0.3	16	68	123	5.65	55	800	3	55	12	2.1	185	
80SAR0041B	31F02	18	353139	5009015	0	C	1	0.3	2	0.3	16	93	103	5.75		300	7	50	15	3.8	120	
80SAR0042	31F02	18	350560	5007382	1	T	1	0.05	2	2.4	19	59	110	4.8	25	600	9	77	27	1.4	700	
81KAR0001	31C16	18	395600	4977820	1	T	1	0.05	3	0.1	16	62	50	4.2	45	675	2	36	7	0.6	123	
81KAR0002	31C16	18	394450	4977680	1	T	1	0.05	1	0.3	10	42	44	2.5	35	655	4	31	7	0.6	94	
81KAR0002A	31C16	18	394450	4977680	0	T	1	0.05	2	0.1	12	91	54	4.5	150	430	2	44	8	1	104	
81KAR0003	31C16	18	386025	4979250	1	T	1	0.05	4	0.5	16	60	82	3	40	740	3	62	8	0.8	119	
81KAR0004	31C16	18	383750	4979200	1	F	1	0.05	5	0.5	35	72	76	4.3	95	1600	3	70	16	0.8	160	
81KAR0005	31C15	18	381075	4979850	1	T	1	0.05	3	0.3	20	104	84	4	125	760	5	81	10	1	134	
81KAR0006	31C16	18	382600	4980000	1	T	1	0.05	4	0.5	35	106	126	4.5	50	740	7	92	11	1.2	200	
81KAR0007	31C16	18	381825	4979475	1	T	1	0.05	5	0.5	29	183	170	3.5	50	500	5	340	10	0.6	310	
81KAR0008	31C15	18	379430	4981560	1	T	1	0.05	5	0.5	14	53	86	3.4	20	850	5	50	7	0.6	130	
81KAR0009	31C15	18	381125	4982950	1	T	1	0.05	5	0.5	16	54	78	3.3	35	850	4	44	7	0.7	121	
81KAR0009A	31C15	18	381125	4982950	0	T	1	0.05	5	0.3	17	58	88	3.9	40	830	2	48	8	0.6	130	
81KAR0009B	31C15	18	381125	4982950	0	T	1	0.05	5	0.5	17	84	112	3.4	35	875	2	60	8	0.6	145	
81KAR0010	31F01	18	381840	4984830	1	T	1	0.05	11	0.5	21	54	124	3.5	50	860	5	60	8	0.6	160	
81KAR0011	31F02	18	380520	4988920	1	T	1	0.05	4	0.3	16	84	102	4.6	110	875	2	50	12	1.4	130	
81KAR0012	31C15	18	379175	4982075	1	T	1	0.05	3	0.1	28	112	68	5	45	845	3	60	10	0.8	173	
81KAR0013	31F02	18	376750	4987075	1	T	1	0.05	17	0.5	35	70	56	5.5	355	1775	4	50	27	3.4	93	
81KAR0014	31F02	18	374690	4987110	1	T	1	0.05	26	0.5	40	50	162	4.6	75	1645	2	62	12	0.6	160	2
81KAR0015	31F02	18	375750	4988300	1	F	1	0.05	17	0.3	23	42	150	4.9	85	1120	3	43	20	0.8	141	
81KAR0016	31F02	18	376000	4989060	1	T	1	0.05	19	0.3	33	74	80	6.1	198	2995	5	50	18	4.2	89	
81KAR0017	31F02	18	378270	4991030	1	T	1	0.05	6	0.1	23	82	80	4.6	175	1450	3	50	14	2.2	97	
81KAR0018	31F02	18	379300	4992270	1	T	1	0.05	16	0.5	43	92	90	5.7	255	3065	4	58	24	3.1	97	
81KAR0019	31F02	18	379640	4993920	1	T	1	0.05	8	0.5	18	64	82	4.7	25	775	3	50	8	0.8	143	
81KAR0019A	31F02	18	379640	4993920	0	T	1	0.05	13	0.5	30	84	98	5.9	75	2070	3	58	10	0.3	153	
81KAR0019B	31F02	18	379640	4993920	0	T	1	0.05	14	0.3	35	66	143	5.4	55	1645	3	65	12	0.6	157	
81KAR0020	31F01	18	383230	4995060	1	T	1	0.05	6	0.3	18	80	107	4.6	200	1600	2	58	14	2.1	111	
81KAR0021	31F02	18	373150	4999520	1	T	1	0.05	15	0.5	21	84	119	4.5	115	1225	3	69	14	2.2	138	4

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
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81KAR0022	31C16	18	393925	4982700	1	T	1	0.05	3	0.8	16	45	62	3.2	25	775	4	43	8	0.3	130	
81KAR0022A	31C16	18	393925	4982700	0	T	1	0.05	2	0.5	14	49	74	3.7	30	660	3	44	8	0.3	149	
81KAR0022B	31C16	18	393925	4982700	0	T	1	0.05	2	7	13	50	79	4	95	725	3	52	6	0.3	7470	
81KAR0023	31F01	18	386190	4993140	1	T	1	0.05	9	0.5	20	36	88	2.9	25	840	6	44	10	0.3	127	
81KAR0024	31F01	18	382030	4997650	1	T	1	0.05	6	0.1	18	69	94	4.5	110	740	4	52	12	1.2	147	
81KAR0025	31F01	18	381600	4998825	1	T	1	0.05	6	0.5	20	64	80	4.1	165	1450	3	46	20	1.4	115	
81KAR0026	31F02	18	378310	5003410	1	T	1	0.05	14	0.5	30	64	122	4.9	160	2925	2	68	15	0.8	153	
81KAR0027	31F02	18	375450	5005700	1	F	1	0.05	126	2.5	134	78	425	16		8380	12	198	75	1	360	
81KAR0029	31F02	18	373375	5010510	1	T	1	0.4	8	3.5	10	30	61	1.7	55	675	4	32	40	0.6	210	
81KAR0030	31F02	18	371650	5011760	1	T	1	0.6	6	4.5	64	88	1000	6	265	1800	7	100	15	3.3	130	6
81KAR0032	31F02	18	364500	5011850	1	F	1	0.3	14	0.5	30	118	129	7.6	280	3100	4	52	33	5.8	145	
81KAR0033	31F02	18	362450	5010710	1	T	1	0.05	12	0.5	33	122	184	7.8	230	880	8	60	22	15.1	97	
81KAR0034	31F02	18	361740	5009430	1	T	1	0.05	6	0.3	23	118	100	6.5	390	1875	10	62	18	10	115	
81KAR0035	31F02	18	374460	5005100	1	T	1	0.6	145	0.5	134	80	460	20	435	6650	5	58	12	1	127	16
81KAR0036	31F02	18	373100	5004130	1	F	1	0.7	195	1	160	100	450	9	120	6600	4	100	12	0.05	149	
81KAR0037	31F02	18	372380	5000200	1	F	1	0.05	100	1	92	108	320	8.5	75	4750	3	92	10	0.05	180	
81KAR0038	31F02	18	349700	4984400	1	T	1	0.5	26	1	64	108	153	17	200	2600	11	46	61	4	180	
81KAR0039	31F02	18	352000	4988100	1	T	1	0.05	5	0.5	43	90	134	5.4	170	1950	5	94	20	6.1	175	
81KAR0040	31F02	18	352500	4988500	1	T	1	0.05	5	0.5	56	110	250	13.8	275	1750	6	165	14	2.1	100	1
81KAR0041	31F02	18	352400	4988840	1	T	1	0.6	9	1	28	58	280	6.4	260	5900	5	96	33	9.4	220	
81KAR0042	31F02	18	352540	4989380	1	F	1	0.05	7	0.1	20	98	102	6.3	350	1775	3	60	24	16	143	
81KAR0043	31F02	18	353950	4992470	1	T	1	0.4	5	0.5	18	116	134	7.1	335	1275	3	56	27	8.3	132	
81KAR0044	31F02	18	355500	4993600	1	T	1	0.4	8	0.5	18	114	132	6.9	290	1225	5	54	28	5	130	
81KAR0045	31F02	18	357430	4992640	1	F	1	0.05	13	0.8	59	180	50	5.3	330	3300	5	88	29	6.8	100	
81KAR0046	31F02	18	357210	4992670	1	T	1	0.05	14	1.3	40	106	110	6.3	340	3150	5	76	33	7.2	210	
81KAR0047	31F02	18	355400	4995330	1	T	1	0.3	8	0.5	38	100	220	6.4	510	2560	7	64	27	9.6	110	
81KAR0048	31F02	18	356080	4995950	1	T	1	0.4	11	0.5	30	112	280	7.8	575	2520	5	70	29	50	155	
81KAR0049	31F02	18	356500	4997850	1	T	1	0.05	5	0.1	28	80	80	5.2	365	2480	3	56	23	6.2	119	
81KAR0050	31F02	18	358800	5003200	1	T	1	0.3	8	0.1	41	96	78	5.9	285	1775	5	58	29	7.6	123	
81KAR0051	31F02	18	360550	5007500	1	T	1	0.3	8	0.5	35	82	162	7.6	460	3150	5	114	23	8.5	183	
81KAR0052	31F02	18	360880	5008120	1	F	1	0.05	12	0.8	51	68	155	5.5	120	2850	4	82	20	1	220	
81KAR0053	31F02	18	378100	5003600	1	T	1	0.4	16	0.3	36	60	190	5		1220	0.5	69	10	0.05	160	
81KAR0054	31F01	18	390350	5004120	1	T	1	0.4	2	0.1	24	82	164	4.8	270	1345	0.5	92	13	1.4	160	
81KAR0055	31F02	18	376720	5000100	1	T	1	0.05	15	0.1	51	78	117	5.6	110	1220	0.5	72	11	1.6	150	12

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
81KAR0057	31F02	18	370620	4999140	1	T	1	0.05	3	0.1	13	46	61	3.1	40	645	6	40	7	0.3	160	
81KAR0058	31F02	18	366800	5004650	1	T	1	0.3	14	0.3	46	82	78	8	240	1760	6	72	26	3.5	130	
81KAR0059	31F01	18	385450	4992600	1	T	1	0.05	7	0.1	21	66	80	4.4	55	860	0.5	56	8	0.5	133	
81KAR0060	31F02	18	376940	4990720	1	T	1	0.05	3	0.1	14	54	66	4	25	645	5	40	5	0.3	113	
81KAR0060A	31F02	18	376940	4990720	0	T	1	0.2	6	0.1	20	64	76	4.6	50	715	5	52	6	0.3	130	
81KAR0060B	31F02	18	376940	4990720	0	T	1	0.05	5	0.1	16	58	60	3.7	15	600	6	43	8	0.2	126	
81KAR0060C	31F02	18	376940	4990720	0	T	1	0.05	5	0.1	16	58	60	3.5	20	645	6	40	4	0.3	100	
81KAR0061	31F02	18	372300	4997060	1	T	1	0.2	50	0.1	33	80	119	7.3	50	1220	0.5	69	9	0.05	164	
81KAR0062	31F02	18	374750	4990090	1	T	1	0.4	19	0.1	22	64	240	6.5	200	1600	5	84	11	1.4	169	4
81KAR0063	31F02	18	373880	4990000	1	T	1	0.05	19	0.1	22	54	88	5.2	30	810	3	49	3	0.05	107	8
81KAR0064	31F02	18	370300	4991330	1	T	1	0.2	24	0.1	29	74	138	6.7	65	1440	5	60	4	0.05	136	6
81KAR0065	31F02	18	368430	4989220	1	T	1	0.05	7	0.1	20	74	98	4.8	165	1220	0.5	43	10	2.7	97	
81KAR0066	31F02	18	367910	4989700	1	T	1	0.4	17	0.5	42	68	76	4.9	2	1895	6	81	18	2.5	130	14
81KAR0067	31F02	18	364950	4986400	1	T	1	0.3	8	0.1	21	68	86	5.2	85	1000	5	46	9	0.5	136	
81KAR0067A	31F02	18	364950	4986400	0	T	1	0.4	14	0.1	22	82	99	5.4	245	1220	6	57	12	1.7	130	
81KAR0068	31F02	18	361360	4986575	1	T	1	0.05	14	0.1	38	78	107	6.2	140	2305	4	64	20	1.6	100	
81KAR0069	31C15	18	378750	4979500	1	T	1	0.05	5	0.5	35	100	80	2.3	130	635	5	200	11	0.05	200	
81KAR0070	31C15	18	376900	4978250	1	T	1	0.05	5	0.5	24	200	138	3	50	440	6	175	13	0.05	315	
81KAR0071	31C15	18	372890	4980390	1	T	1	0.05	13	0.1	19	50	141	5.6	20	625	8	58	4	0.3	160	
81KAR0071A	31C15	18	372890	4980390	0	T	1	0.05	5	0.1	14	56	50	3.9	25	740	0.5	40	6	0.05	97	
81KAR0072	31C15	18	372620	4977180	1	T	1	0.05	6	0.1	35	58	126	6.6	35	930	16	57	5	1.4	112	
81KAR0073	31C15	18	372150	4975680	1	T	1	0.05	7	0.1	19	60	96	4.9	25	645	6	52	6	0.3	123	
81KAR0074	31C15	18	371200	4974260	1	T	1	0.2	7	0.1	31	73	52	6.2	115	1095	0.5	55	13	2.2	75	
81KAR0075	31C15	18	366150	4973200	1	F	1	0.3	25	0.1	52	80	164	8.7	385	3340	6	63	23	3.5	126	
81KAR0076	31C15	18	367370	4969230	1	T	1	0.3	6	0.1	25	52	49	6.6		420	7	43	20	2.5	100	
81KAR0077	31C15	18	367800	4969470	1	T	1	0.05	12	0.1	45	100	129	6.5	330	2000	4	89	16	3.5	94	
81KAR0078	31C15	18	371050	4968250	1	T	1	0.4	17	0.5	42	78	164	6	295	1815	4	122	11	0.5	275	
81KAR0079	31C15	18	373150	4969900	1	T	1	0.05	18	1	71	56	220	3.5	100	1680	6	130	28	0.8	455	2
81KAR0080	31C15	18	373725	4971800	1	T	1	0.05	9	0.3	38	74	117	4.4	75	835	0.5	113	11	0.2	255	
81KAR0080R	31C15	18	373725	4971800	0	R	1	0.2	3	0.3	39	56	103	5.7		1060	0.5	50	3	0.5	94	
81KAR0081	31C15	18	379400	4970500	1	T	1	0.6	8	1	45	84	78	6.5	2	4640	4	98	44	0.9	1190	
81KAR0082	31C15	18	380240	4971320	1	T	1	0.05	2	0.5	14	54	54	1.9	50	2120	6	46	10	1.1	182	
81KAR0083	31C15	18	366500	4980370	1	F	1	0.05	15	0.1	75	66	145	7.3		6025	9	54	40	9.8	300	
81KAR0084	31C15	18	363440	4978100	1	T	1	0.2	38	1	31	80	173	5.4	240	1345	4	111	50	0.6	840	4

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
								<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<63um
81KAR0085	31C15	18	361750	4981170	1	F	1	0.05	30	0.1	45	72	189	7.4	195	3405	6	75	28	10.2	173	
81KAR0086	31F02	18	355130	4985760	1	T	1	0.05	60	0.5	20	60	143	5.6	55	765	5	69	80	0.5	930	
81KAR0087	31F02	18	357250	4988000	1	T	1	0.05	200	0.5	42	38	180	4.8	35	880	6	78	24	0.6	300	
81KAR0088	31F02	18	355050	4989420	1	F	1	0.4	9	0.1	58	112	122	9.7	355	3710	8	66	38	7.2	164	
81KAR0089	31F02	18	358660	4989200	1	T	1	0.2	51	0.1	52	78	260	9.5	350	2425	6	104	26	1.8	182	
81KAR0090	31F02	18	361075	4991720	1	T	1	0.05	235	0.5	47	48	305	6		2000	6	98	20	0.05	290	
81KAR0091	31F02	18	364290	4992225	1	T	1	0.05	4	0.3	15	47	64	3.3	90	765	4	38	8	0.6	126	
81KAR0092	31F02	18	362420	4989400	1	T	1	0.4	13	0.3	38	82	90	6.2	225	3035	6	57	22	2.6	120	
81KAR0093	31C15	18	367780	4957500	1	T	1	0.05	5	0.1	42	46	138	5.2	35	715	6	92	10	0.6	325	
81KAR0094	31C10	18	365290	4954670	1	T	1	0.05	8	0.1	57	90	98	6.6	180	2670	0.5	92	23	2.6	186	1
81KAR0095	31C10	18	363950	4954300	1	T	1	0.05	2	0.1	17	44	119	4.3	40	400	0.5	55	4	0.3	153	1
81KAR0095	31C10	18	363950	4954300	1	T	1	0.05	2	0.1	17	44	119	4.3	40	400	0.5	55	4	0.3	153	1
81KAR0096	31C10	18	362850	4954750	1	T	1	0.05	9	0.1	45	104	97	5.8	230	715	8	86	22	8.2	140	1
81KAR0097	31C10	18	360300	4952130	1	T	1	0.05	15	0.1	40	78	68	7.9		715	12	70	38	8.4	130	
81KAR0098	31C10	18	368900	4956950	1	T	1	0.05	2	0.1	12	30	76	3.1	130	500	0.5	40	8	0.05	250	1
81KAR0098	31C10	18	368900	4956950	1	T	2															1
81KAR0099	31C10	18	368900	4956100	1	T	1	0.05	3	0.1	10	36	131	3.5	130	440	6	60	10	0.05	225	1
81KAR0100	31C10	18	367850	4954000	1	T	1	0.05	3	0.1	13	32	80	2.5	45	380	5	72	5	0.05	255	1
81KAR0101	31C10	18	370750	4954450	1	T	1	0.05	7	0.1	38	74	64	4.3	2	370	7	55	14	3.4	54	4
81KAR0102	31C10	18	369800	4950800	1	T	1	0.05	5	0.1	29	116	158	6.9	165	1440	6	109	18	1.5	255	1
81KAR0103	31C10	18	371680	4947820	1	T	1	0.3	7	0.1	45	102	114	9.2	240	2365	6	84	24	3	205	
81KAR0104	31C10	18	371350	4948130	1	T	1	0.05	6	0.1	28	88	117	5.2	30	715	4	89	8	0.5	170	1
81KAR0105	31C10	18	368830	4944880	1	T	1	0.05	3	0.1	27	84	70	4.5	45	600	6	69	4	0.05	157	1
81KAR0106	31C15	18	368450	4960500	1	T	1	0.05	8	0.1	59	124	148	8.7	255	2915	8	143	25	4.7	255	
81KAR0107	31C15	18	376960	4963360	1	T	1	0.05	3	0.1	52	46	129	5.2	2	790	6	81	10	0.05	235	
81KAR0108	31C15	18	375230	4961840	1	T	1	0.05	13	0.1	76	70	96	9.4	420	3160	6	95	24	6.6	118	
81KAR0109	31C15	18	374170	4959150	1	T	1	0.2	8	0.1	59	76	74	7.2	275	2185	6	84	20	3.3	104	
81KAR0110	31C15	18	371350	4959800	1	T	1	0.05	2	0.5	11	24	70	2.6	45	420	7	55	10	0.05	230	
81KAR0111	31C15	18	370530	4959280	1	T	1	0.05	1	0.5	14	28	83	2.6	45	500	0.5	57	6	0.05	315	
81KAR0112	31C15	18	372330	4957110	1	T	1	0.4	4	0.1	42	98	44	6.6	250	490	5	55	20	1.9	142	
81KAR0113	31C10	18	372470	4952900	1	V	1	0.05	2	0.1	18	62	44	4.8	35	580	0.5	46	8	2.1	128	1
81KAR0114	31C10	18	377500	4953750	1	V	1	0.05	3	0.1	17	70	47	4.5	35	625	0.5	46	10	0.05	123	1
81KAR0115	31C10	18	375730	4952760	1	T	1	0.4	3	0.5	10	51	78	3	10	560	6	79	6	0.05	150	1
81KAR0115A	31C10	18	375730	4952760	0	T	2															1

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
81KAR0115A	31C10	18	375730	4952760	0	T	2															1
81KAR0115A	31C10	18	375730	4952760	0	T	1	0.05	4	0.1	11	54	88	3	15	625	5	60	6	0.3	140	
81KAR0116	31C15	18	380650	4957600	1	V	1	0.05	4	0.1	16	64	62	4.7	55	670	6	46	8	0.5	120	
81KAR0117	31C15	18	379610	4957190	1	T	1	0.05	4	0.3	10	96	100	2.5	15	520	6	84	6	0.05	56	
81KAR0118	31C10	18	380590	4953890	1	F	1	0.4	20	0.5	40	104	62	7.5	305	4000	0.5	60	26	1.4	130	4
81KAR0119	31C10	18	377930	4951420	1	T	1	0.05	3	0.1	16	62	98	4	35	580	4	66	6	0.3	160	1
81KAR0120	31C10	18	378310	4948430	1	T	1	0.05	3	0.1	20	70	52	4.4	60	950	0.5	43	9	0.3	178	1
81KAR0121	31C10	18	378620	4947600	1	T	1	0.05	2	0.1	12	70	76	3.7	35	360	6	66	6	0.05	153	1
81KAR0122	31C10	18	374580	4947900	1	T	1	0.05	5	0.5	20	40	141	3.9	35	625	8	67	14	0.05	470	2
81KAR0217	31C10	18	343520	4956250	1	F	1	0.05	49	0.5	34	74	124	7.1		2000	11	43	49	34	118	
81SAR0042A	31F02	18	350560	5007382	0	T	1	0.05	1	8.5	16	56	95	3.9	2	550	8	65	23	1.5	650	
81SAR0043	31F02	18	352773	5007369	1	T	1	0.05	2	0.6	22	43	153	3.55	25	600	7	73	12	1.1	200	
81SAR0044	31C16	18	390375	4963750	1	T	1	0.05	2	0.1	11	40	40	2.3	50	695	8	28	6	0.05	113	
81SAR0049	31C09	18	395800	4934750	1	T	1	0.05	6	0.1	10	30	48	1.9	40	560	7	23	6	0.3	74	
81SAR0051	31C09	18	403100	4933250	1	T	1	0.05	6	0.1	16	30	48	2.8	15	240	0.5	38	4	0.3	40	
81SAR0052	31C09	18	403101	4933251	1	T	1	0.05	7	0.1	15	28	45	2.8	2	400	0.5	38	4	0.3	38	
81SAR0065	31C09	18	410550	4932220	1	V	1	0.05	1	0.1	15	64	60	4.5	20	645	0.5	43	9	1	132	
81SAR0085	31C09	18	389100	4929550	1	F	1	0.5	6	0.1	24	38	58	2.5	35	1245	8	38	14	1.9	95	
81SAR0098	31C09	18	412800	4935850	0	T	1	0.05	9	0.1	10	22	42	1.9	55	840	8	18	8	0.6	58	
81SAR0098A	31C09	18	412800	4935850	1	F	1	0.4	8	0.1	16	22	77	3.1	50	775	8	28	10	1.6	76	
81SAR0109	31C09	18	402375	4930300	1	F	1	0.05	5	0.1	18	88	47	5.2	70	820	4	43	20	1.2	210	
81SAR0109A	31C09	18	402375	4930300	0	F	1	0.05	4	0.1	16	80	58	4.7	65	690	4	43	10	1	585	
81SAR0110	31C09	18	399050	4942360	1	T	1	0.4	9	0.3	20	60	75	5.2	105	1080	8	46	16	1.1	108	
81SAR0111	31C09	18	399390	4943920	1	T	2	0.05	1	0.05	7	27	31	1.7	55	610	6	20	8	0.3	53	
81SAR0126	31F02	18	381700	4998830	1	T	1	0.05	13	0.3	36	49	160	4.2	75	1100	2	76	12	0.1	196	
81SAR0127	31F02	18	381430	4999220	1	T	1	0.05	3	0.1	14	36	48	3	10	780	2	36	5	0.05	128	
81SAR0127A	31F02	18	381430	4999220	0	T	1	0.05	8	0.1	18	36	95	3	15	940	4	54	10	0.2	160	
81SAR0128	31F02	18	378775	5003000	1	T	1	0.05	18	0.1	24	56	200	5.7	2	2200	3	56	20	2.1	160	
81SAR0178	31F02	18	344000	5006340	1	T	1	0.3	1	0.6	32	87	220	7	110	2200	4	93	47	2.5	340	
81SAR0222	31C09	18	384100	4930520	1	T	1	0.05	8	0.5	28	74	167	5.6	135	1800	1	68	20	0.3	310	
81SAR0223	31C09	18	385550	4934440	1	F	1	0.3	10	0.6	34	111	167	8	125	7000	2	82	30	0.8	200	
81SAR0224	31C09	18	394125	4944300	1	T	1	0.05	5	0.3	8	40	52	2.5	15	690	3	30	10	0.5	82	
81SAR0226	31F01	18	404460	4989540	1	T	1	0.05	6	0.1	36	90	40	7	185	980	4	54	31	1.6	105	
81SAR0227	31F01	18	405580	4988630	1	T	1	0.05	4	0.1	13	38	52	3.2	40	780	3	35	14	3.4	84	

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
81SAR0228	31F01	18	407000	4990425	1	T	1	0.05	6	0.1	13	37	55	2.8	35	950	4	38	15	0.3	86	
81SAR0228A	31F01	18	407000	4990425	0	T	1	0.05	4	0.1	10	37	77	4	35	590	4	40	14	0.6	115	
81SAR0229	31F01	18	405940	4995650	1	T	1	0.05	5	0.1	9	28	55	2	35	950	3	30	12	0.8	60	
81SAR0230	31F01	18	404775	4996050	1	T	1	0.05	5	0.1	17	47	80	5.2	35	730	2	48	12	0.6	130	
81SAR0231	31F01	18	401800	4997375	1	T	1	0.05	3	0.1	14	62	76	4.7	25	520	4	48	13	0.9	150	
81SAR0232	31F01	18	401075	4999000	1	T	1	0.05	7	0.1	19	72	95	5.7	60	950	4	54	13	1.2	150	
81SAR0233	31F01	18	400400	5001200	1	T	1	0.05	6	0.1	18	89	117	5.5	65	814	4	84	18	1	176	
81SAR0234	31F01	18	404660	5005750	1	M	1	0.05	3	0.1	17	76	41	5	40	610	2	44	10	0.8	150	
81SAR0235	31C16	18	398500	4966680	1	T	1	0.05	5	0.1	13	61	55	4.4	115	830	2	48	12	1.4	82	
81SAR0236	31C16	18	400110	4961160	1	T	1	0.05	5	0.1	16	71	36	3.4	115	1050	2	44	10	1.6	48	
81SAR0237	31C16	18	402100	4961400	1	T	1	0.05	5	0.05	10	72	31	3.7	35	440	2	50	6	0.9	56	
81SAR0238	31C16	18	398950	4960100	1	T	1	0.05	2	0.05	12	64	40	3.2	30	600	4	40	12	0.8	73	
81SAR0239	31C16	18	402380	4959905	1	T	1	0.05	1	0.1	10	50	53	2.8	30	500	2	38	9	0.6	113	
81SAR0240	31C16	18	402375	4959900	1	T	1	0.05	3	0.1	10	52	42	3.3	30	450	2	36	8	1	80	
81SAR0241	31C16	18	402975	4961250	1	T	1	0.05	8	0.1	14	50	92	5.1	70	1350	2	58	9	0.6	95	
81SAR0242	31C16	18	404750	4965025	1	T	1	0.05	6	0.1	14	94	34	4.2	60	1700	2	72	7	0.8	34	
81SAR0243	31C16	18	403170	4963720	1	T	1	0.05	3	0.1	10	71	60	3.3	50	710	4	56	10	0.8	60	
81SAR0244	31C16	18	398175	4956600	1	T	1	0.05	4	0.1	25	108	60	6	220	1300	2	72	20	1.6	100	
81SAR0245	31C09	18	400025	4954850	1	T	1	0.05	1	0.1	13	48	50	3.1	40	570	2	42	10	0.7	95	
81SAR0246	31C09	18	400380	4953170	1	F	1	0.3	8	0.1	22	140	52	7.1	195	1550	3	72	20	1.6	132	
81SAR0247	31C09	18	397950	4951225	1	F	1	1.2	14	0.4	130	105	240	9.5	440	9900	8	108	59	14.8	250	
81SAR0248	31C09	18	392375	4952475	1	T	1	0.05	5	0.1	19	73	90	5.2	45	740	4	60	12	0.3	140	
81SAR0249	31C09	18	395630	4953150	1	T	1	0.05	1	0.1	27	89	35	6.1	225	2175	3	56	23	1.6	150	
81SAR0250	31C09	18	408150	4934370	1	T	1	0.05	7	0.1	13	30	52	3.9	50	418	4	32	11	0.8	78	
81SAR0250A	31C09	18	408150	4934370	0	F	1	0.05	6	0.1	38	52	88	4.2		818	4	60	18	1	98	
81SAR0250B	31C09	18	408150	4934370	0	V	1	0.05	5	0.1	8	35	38	3	30	500	4	30	10	0.6	75	
81SAR0251	31C09	18	406025	4937325	1	T	1	0.05	7	0.1	13	69	70	5.5	230	610	4	56	11	1.3	210	
81SAR0252	31C09	18	408650	4942360	1	V	1	0.05	4	0.1	5	30	30	2	35	620	4	22	16	0.8	62	
81SAR0253	31C09	18	409450	4943350	1	T	1	0.05	7	0.1	14	57	90	4.7	75	718	3	58	16	0.8	126	
81SAR0254	31C09	18	402900	4945380	1	T	1	0.05	6	0.3	10	24	52	2	60	1075	5	30	20	0.3	115	
81SAR0255	31C09	18	397025	4945680	1	T	1	0.05	6	0.2	5	30	32	1.8	35	770	4	22	13	0.05	95	
81SAR0256	31C09	18	389100	4942475	1	T	1	0.05	3	0.1	10	69	35	3.4	40	590	4	40	9	0.4	55	
81SAR0257	31C09	18	384550	4938170	1	T	1	0.05	8	0.1	32	120	84	7.2	255	2300	4	70	33	2.7	125	
81SAR0258	31C09	18	389180	4948960	1	T	1	0.05	6	0.1	18	90	63	5.3	160	490	4	60	15	2.1	160	

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
81SAR0259	31C09	18	388950	4949860	1	T	1	0.05	5	0.1	17	80	73	5.7	65	660	3	62	13	0.8	138	
81SAR0260	31C09	18	389950	4955500	1	T	1	0.05	5	0.1	13	81	62	5.2	115	378	4	56	13	2.8	128	
81SAR0262	31C16	18	390190	4956800	1	T	1	0.05	5	0.1	18	110	250	5.3	25	705	4	112	19	0.3	240	
81SAR0263	31C16	18	392220	4958630	1	T	1	0.05	4	0.1	14	66	90	3.2	25	700	4	76	14	0.3	150	
82KAR0764	31C15	18	346350	4980810	1	F	1	0.05	7	0.05	36	62	193	5.3	260	1700	6	76	23	0.6	237	
82KAR0765	31C15	18	345675	4981010	1	F	1	1.2	1	0.05	50	76	179	6.9		3932	3	78	32	5.6	201	
82KAR0766	31C15	18	345025	4981100	1	T	1	0.05	6	0.05	25	57	181	4.7	135	960	4	67	17	0.8	249	
82KAR0767	31C15	18	343450	4982200	1	C	1	0.2	7	0.05	38	95	95	7.4	155	2000	5	72	23	5.1	208	
82KAR0768	31F02	18	346850	4986950	1	C	1	0.2	1	0.05	11	54	21	4.7		301	5	23	23	7.8	114	
82KAR0769	31F02	18	347400	4987875	1	T	1	0.1	6	0.2	16	74	28	5.5		480	8	20	37	11	184	
82KAR0770	31F02	18	347200	4988100	1	F	1	0.7	8	0.05	32	90	128	8.9		550	17	44	82	26	243	
82KAR0771	31F02	18	346950	4988500	1	F	1	0.05	8	0.05	55	99	38	6.5	305	1100	8	48	53	17.8	116	
82KAR0772	31F02	18	346870	4988600	1	T	1	0.05	8	0.05	45	94	105	6.1		2400	3	77	50	22	212	
82KAR0773	31F02	18	346380	4989310	1	F	1	0.5	1	0.4	49	67	370	6.7		6100	7	79	53	4.6	299	
82KAR0774	31F02	18	346275	4985350	1	T	1	0.4	1	0.05	38	70	41	6.1		800	5	42	28	8.6	109	
82KAR0775	31C15	18	345500	4984400	1	T	1	0.05	8	0.05	19	81	59	6.4		850	6	38	35	6.6	91	
82KAR0782	31F02	18	343300	4991500	1	T	1	0.05	3	0.05	21	82	93	4.6	140	640	1	47	19	8.6	283	
82KAR0783	31F02	18	343750	4992575	1	T	1	0.05	4	0.05	24	85	166	4.9	215	1100	5	56	29	26	169	
82KAR0784	31F02	18	343275	4992650	1	T	1	0.05	5	0.05	25	92	204	6.6	280	1900	2	56	24	12	184	
82KAR0790	31F02	18	342600	4988460	1	T	1	0.2	6	0.3	19	76	44	4.8	200	1300	0.5	53	25	2	127	
82KAR0792	31F02	18	355470	4984600	1	F	1	0.6	26	0.05	27	106	142	7.3	555	3000	4	49	34	7.1	129	
82KAR0793	31C15	18	356880	4982570	1	T	1	0.05	20	0.05	26	93	115	5.8	320	2100	1	51	25	3.6	105	
82KAR0794	31C15	18	356240	4980540	1	C	1	0.05	30	0.05	28	93	144	7.8	435	1900	3	61	28	2.7	145	
82KAR0795	31C15	18	356450	4980210	1	T	1	0.05	54	0.05	26	88	163	7.2	300	3450	3	51	29	5.4	134	
86KAR3000	31C09	18	388370	4946400	1	T	1	0.1	2	0.1	11	42	54	2.9	15	840	2	36	12	1.1	123	
86KAR3000	31C09	18	388370	4946400	1	T	2	0.05	1	0.05	11	46	54	3.1	15	840	2	31	11	2.2	124	
86KAR3001	31C09	18	387800	4947200	1	T	1	0.05	3	0.1	9	30	44	2.4	15	1100	3	25	9	1.8	94	
86KAR3001	31C09	18	387800	4947200	1	T	2	0.05	3	0.05	9	30	41	2.4	15	1000	2	26	13	1	92	
86KAR3002	31C09	18	384260	4948250	1	T	1	0.1	5	0.1	31	36	97	5.3	30	2200	1	38	15	2	231	
86KAR3003	31C09	18	408800	4930140	1	F	1	0.05	11	0.1	27	60	56	5.9	150	2600	1	41	28	1.4	148	
86KAR3004	31C09	18	408050	4934400	1	T	1	0.05	5	0.1	18	28	54	2.6	20	1900	3	32	12	0.5	109	
86KAR3005	31C09	18	406070	4937540	1	T	1	0.05	2	0.1	12	46	38	3.4	35	340	0.5	29	8	1	37	
86KAR3005A	31C09	18	406070	4937540	1	F	1	0.3	4	0.1	23	64	32	4.4	105	1100	1	38	18	2	92	
86KAR3006	31C09	18	402650	4946650	1	T	1	0.05	3	0.1	16	42	40	3.2	15	1000	2	32	14	0.8	101	

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
86KAR3007	31C09	18	402900	4942100	1	T	1	0.1	10	0.1	19	60	65	5	65	1200	1	43	22	1.2	145	
86KAR3008	31C09	18	409000	4929800	0	F	2	0.05	8	0.05	34	40	75	4	40	1300	3	49	17	1.4	159	
86KAR3008	31C09	18	409000	4929800	0	F	1	0.05	7	0.1	29	32	64	3.6	55	1100	2	42	17	1.5	143	4
86KAR3008B	31C09	18	409000	4929800	1	F	1	0.05	12	0.1	25	32	65	3.6	25	1100	3	31	18	2	122	
86KAR3008C	31C09	18	409000	4929800	0	F	1	0.3	9	0.1	45	56	78	4.9	40	1350	1	46	28	1	204	
86KAR3009	31C09	18	408950	4930500	1	T	1	0.05	7	0.1	15	36	55	3.5	20	800	2	27	12	0.5	161	1
86KAR3010	31C09	18	400320	4942730	1	T	1	0.4	8	0.1	11	42	43	3.5	30	640	2	27	18	0.5	125	
86KAR3011	31C09	18	398520	4942800	1	T	1	0.05	5	0.1	9	32	51	3.1	15	860	2	25	11	0.3	88	1
86KAR3012	31C09	18	395780	4940200	1	T	1	0.2	9	0.1	18	52	77	4.8	110	1200	0.5	37	17	1	90	1
86KAR3013A	31C09	18	393200	4939500	1	T	1	0.3	12	0.1	31	66	90	5.8	110	2600	1	51	29	0.1	182	
86KAR3014	31C09	18	393900	4939920	1	T	1	0.05	5	0.1	11	58	41	2.5	15	900	2	33	12	0.3	80	1
86KAR3014	31C09	18	393900	4939920	1	T	2	0.05	5	0.05	11	60	39	2.8	20	960	2	34	10	0.3	82	
86KAR3015	31C09	18	383650	4943430	1	T	1	0.05	2	0.1	13	48	32	3.2	5	900	2	28	12	1.6	113	1
86KAR3015	31C09	18	383650	4943430	1	T	2	0.1	2	0.05	14	52	42	3.4	5	940	2	33	12	1.6	118	
86KAR3016	31C09	18	383250	4937250	1	F	1	0.3	6	0.1	23	142	90	7.8	235	1400	2	82	34	1.8	189	
86KAR3018	31C09	18	384420	4940650	1	T	1	0.2	9	0.1	23	96	36	5.9	260	540	2	43	22	2.3	121	1
86KAR3019	31C09	18	384700	4941160	1	T	1	0.05	3	0.1	15	68	18	4.3	50	440	1	34	11	1.8	115	1
86KAR3020	31C09	18	384950	4942900	1	T	1	0.4	16	0.1	42	68	128	6.9	385	9200	1	65	30	1.2	163	4
86KAR3021	31C09	18	385750	4944100	1	T	1	0.05	4	0.1	15	62	61	4.2	25	860	1	44	12	1.2	134	
86KAR3022	31C09	18	386800	4945125	1	T	1	0.1	3	1.7	19	36	45	2.6	15	900	2	29	14	1.8	159	1
86KAR3022A	31C09	18	386800	4945125	0	T	1	0.05	2	0.1	11	60	20	3.2	10	600	1	35	9	1.2	75	
86KAR3023	31C09	18	383950	4938100	1	T	1	0.3	6	0.1	27	130	39	6.4	110	1550	1	58	33	1.2	180	1
86KAR3024	31C09	18	386000	4939570	1	T	1	0.05	1	0.1	29	128	33	4.6	65	200	0.5	77	19	1	81	1
86KAR3024A	31C09	18	386000	4939570	0	F	1	0.05	2	0.1	23	84	70	4.2	40	205	0.5	46	10	0.05	93	1
86KAR3025	31C09	18	389560	4941725	1	F	1	0.1	7	0.1	24	76	83	5.4	45	760	1	64	13	0.3	163	4
86KAR3026	31C09	18	389650	4941280	1	T	1	0.05	2	0.1	12	48	34	2.7	20	640	2	33	7	0.05	96	1
86KAR3027	31C09	18	387850	4938700	1	M	1	0.05	2	0.1	14	60	28	3.8	20	390	1	34	10	2.4	122	
86KAR3029	31C09	18	388150	4928850	1	F	1	0.5	13	0.1	50	50	95	4.7	155	3800	2	45	26	0.1	204	6
86KAR3029A	31C09	18	388150	4928850	0	M	2	0.3	4	0.05	18	64	48	4.6	50	680	0.5	42	12	3.8	152	
86KAR3029A	31C09	18	388150	4928850	0	M	1	0.05	3	0.1	16	66	46	4.6	45	680	0.5	41	16	1.1	154	1
86KAR3029A	31C09	18	388150	4928850	0	M	2	0.05	3	0.05	17	66	38	4.2	45	660	1	41	14	1	149	
86KAR3030	31C09	18	389050	4929580	1	F	1															1
86KAR3032	31C09	18	390380	4930600	1	T	1	0.05	5	0.1	17	44	49	4.9	210	1200	1	30	22	3.8	107	1
86KAR3033	31C09	18	392920	4934470	1	T	1	0.05	7	0.1	23	68	50	5	100	1300	1	50	27	1.6	151	1

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
86KAR3034	31C09	18	394400	4935640	1	T	1	0.05	12	0.1	29	60	60	5.8	345	2300	3	35	34	4.6	110	1
86KAR3035	31C09	18	395630	4938380	1	M	1	0.05	3	0.1	18	60	34	3.9	65	960	1	36	17	1	114	
86KAR3036	31C09	18	397150	4938520	1	T	1	0.05	3	0.1	20	54	23	3.8	85	1050	1	28	22	1.8	88	1
86KAR3036	31C09	18	397150	4938520	1	T	2	0.4	5	0.05	20	52	23	3.9	90	1000	0.5	30	24	3.8	82	
86KAR3037	31C09	18	396350	4935650	1	F	1	0.2	18	0.1	30	62	100	5.6	130	2000	1	53	30	3.5	135	1
86KAR3038	31C09	18	403075	4933250	1	T	1	0.05	4	0.1	26	48	24	3.9	110	1050	1	25	19	2.4	78	1
86KAR3038A	31C09	18	403075	4933250	0	V	1	0.05	3	0.1	15	60	49	3.9	45	640	0.5	34	15	3.3	119	
86KAR3039	31C09	18	400280	4931880	1	F	1	0.05	13	0.1	52	60	48	6.9	245	1400	2	38	29	3.5	98	
86KAR3039	31C09	18	400280	4931880	1	F	2	0.05	11	0.05	52	60	58	6.6	250	1400	2	39	28	3.5	99	
86KAR3040	31C09	18	400620	4930470	1	T	1	0.1	12	0.1	24	56	57	5.3	240	820	1	47	22	3.3	98	1
86KAR3041	31C09	18	400800	4929550	1	M	1	0.05	2	0.1	15	60	103	4	20	660	0.5	37	13	0.3	131	
86KAR3042	31C09	18	401100	4929200	1	F	1	0.05	5	0.1	27	64	52	5.9	270	640	1	37	32	3.5	194	1
86KAR3043	31C09	18	400800	4929550	1	T	1	0.05	9	0.1	30	64	46	5	245	620	1	48	29	3.1	134	1
86KAR3043	31C09	18	400800	4929550	1	T	2	0.2	9	0.05	32	60	64	5.3	255	640	2	49	30	3.4	140	
86KAR3044	31C09	18	401200	4930850	1	F	1	0.05	7	0.1	24	68	66	4.8	235	440	1	38	29	4.6	89	1
86KAR3045	31C09	18	401050	4936900	1	T	1	0.05	3	0.1	12	40	37	3	20	740	1	32	14	0.3	100	1
86KAR3045A	31C09	18	401050	4936900	0	T	1															1
86KAR3045DU	31C09	18	401050	4936900	0	T	1															1
86KAR3046	31C09	18	401400	4937780	1	F	1															4
86KAR3047	31C09	18	386400	4928725	1	M	1	0.2	12	0.1	100	84	241	6.2	170	7200	2	83	45	1.2	311	
86KAR3048	31C09	18	385550	4928500	1	F	1															4
86KAR3048	31C09	18	385540	4928500	1	F	1															4
86KAR3048	31C09	18	385540	4928500	1	F	1															4
86KAR3048	31C09	18	385550	4928500	1	F	1															4
86KAR3049	31C09	18	383700	4929400	1	T	1	0.05	3	0.1	45	66	31	4.1	70	960	2	54	23	1.4	138	6
86KAR3049	31C09	18	383700	4929400	1	T	2	0.05	3	0.05	47	68	33	4	70	950	2	59	24	1.6	137	
86KAR3050	31C09	18	385750	4930650	1	T	1	0.05	7	0.1	16	60	84	4.2	45	1200	1	58	17	0.7	131	
86KAR3051	31C09	18	384580	4929900	1	F	2															1
86KAR3051	31C09	18	384580	4929900	1	F	1	0.6	8	0.1	20	74	39	5.8	175	2200	2	38	33	1.4	205	31
86KAR3052	31C09	18	384080	4930500	1	F	1	0.05	11	0.1	26	60	162	5.1	100	1850	1	72	21	0.7	348	1
86KAR3053	31C09	18	385050	4933950	1	F	1	0.05	8	0.1	54	90	156	5.4	55	1900	3	150	26	0.6	330	4
86KAR3054	31C09	18	385220	4934600	1	F	1	0.05	8	0.1	49	108	147	5.3	55	2100	2	104	24	0.3	298	1
86KAR3055	31C09	18	383650	4945000	1	T	1	0.1	9	0.1	23	62	56	4.8	170	1600	2	43	29	0.7	158	1
86KAR3056	31C09	18	382630	4945200	1	T	1	0.05	3	0.1	16	60	54	4	45	740	1	45	14	0.05	133	4

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
86KAR3056	31C09	18	382630	4945200	1	T	2	0.05	4	0.05	16	52	48	4.4	40	700	0.5	42	13	0.7	124	
86KAR3057	31C09	18	382830	4945280	1	T	1	0.05	1	0.1	12	38	25	32.5	15	680	1	25	8	1	57	1
86KAR3058	31C09	18	383420	4947470	1	T	1	0.05	3	0.1	24	50	25	4	80	760	1	32	21	1	150	
86KAR3059	31C09	18	383780	4947600	1	T	1	0.05	6	0.1	22	58	88	4.6	150	1000	1	43	21	3.5	225	1
86KAR3060	31C09	18	385850	4947130	1	T	1	0.05	3	0.1	12	36	55	2.7	20	860	2	33	14	0.6	120	1
86KAR3060A	31C09	18	385850	4947130	1	M	1	0.05	2	0.1	15	60	40	3.2	15	400	0.5	42	14	0.05	143	1
86KAR3061	31C09	18	394290	4944400	1	T	1	0.05	7	0.1	13	42	55	2.9	20	780	2	40	14	0.3	107	1
86KAR3062	31C09	18	413450	4947900	1	T	1	0.05	3	0.1	18	46	64	3.7	80	1400	1	41	18	0.6	129	1
86KAR3062	31C09	18	413450	4947900	1	T	2	0.05	4	0.05	19	44	64	4.4	65	1300	0.5	40	14	0.6	123	
86KAR3063	31C09	18	414850	4949950	1	T	1	0.05	2	0.1	10	20	29	1.7	25	1200	3	20	20	1	53	6
86KAR3064	31C09	18	407750	4941300	1	T	1	0.05	6	0.1	18	62	49	4.3	85	940	1	53	17	0.3	110	1
86KAR3065	31C09	18	408650	4942450	1	F	1	0.05	2	0.1	9	24	34	2	15	820	1	23	13	0.8	71	1
86KAR3065	31C09	18	408650	4942450	1	F	2	0.05	1	0.05	8	24	34	2	15	780	1	22	12	1	69	
86KAR3066	31C09	18	409350	4941300	1	T	1	0.05	6	0.1	43	64	259	4.3	125	660	1	62	18	1.2	110	1
86KAR3067	31C09	18	409360	4943175	1	T	1	0.05	4	0.1	18	26	67	2.2	25	1100	2	36	13	0.3	85	1
86KAR3067A	31C09	18	409360	4943175	0	F	1	0.05	9	0.1	90	64	149	4.3	75	2600	3	85	31	0.7	163	8
86KAR3068	31C09	18	413550	4931430	1	T	1	0.05	6	0.1	20	64	77	5.4	215	1300	1	46	21	1.4	174	6
86KAR3069	31C09	18	413000	4928920	1	V	1	0.05	2	0.1	14	60	40	3.9	30	520	1	37	12	0.6	138	1
86KAR3070	31C09	18	415460	4936320	1	T	1	0.05	4	0.1	13	40	57	4	35	520	1	42	16	0.6	121	1
86KAR3070A	31C09	18	415460	4936320	0	T	1	0.05	2	0.1	11	30	57	2.9	25	840	1	31	11	0.05	98	1
86KAR3070B	31C09	18	415460	4936320	0	T	1	0.05	3	0.1	13	36	72	3.2	25	800	1	39	17	1.6	105	1
86KAR3071	31C09	18	416080	4935260	1	T	2	0.05	3	0.05	20	60	94	5	35	680	1	64	16	1	391	
86KAR3071	31C09	18	416080	4935260	1	T	1	0.05	3	0.1	19	72	92	5	40	680	1	63	14	0.8	396	1
86KAR3072	31C09	18	393000	4946900	1	T	2	0.05	2	0.05	8	26	36	2.5	20	640	1	20	9	1	47	
86KAR3072	31C09	18	393000	4946900	1	T	1	0.05	2	0.1	8	30	37	2.3	20	600	2	22	11	0.6	48	1
86KAR3073	31C09	18	393450	4946170	1	T	1	0.1	6	0.1	24	56	42	3.9	105	1700	1	42	25	1.6	82	4
86KAR3074	31C09	18	397080	4949900	1	T	1	0.1	8	0.1	21	40	76	3.6	30	1200	2	51	17	0.3	142	1
86KAR3075	31C09	18	398930	4933330	1	F	1	0.3	8	0.1	15	42	27	5.6	200	310	2	19	25	1.8	120	1
86KAR3077	31C09	18	397170	4934620	1	T	1	0.1	4	0.1	14	22	37	2.5	30	840	1	29	13	0.6	63	4
86KAR3078	31C09	18	396800	4929460	1	T	1	0.05	4	0.1	21	56	52	4.5	120	580	1	40	22	2.2	146	1
86KAR3079	31C09	18	397570	4929150	1	T	1	0.05	16	0.1	49	52	76	7	240	1850	2	47	32	4	138	4
86KAR3080	31C09	18	399050	4930875	1	T	2	0.05	9	0.05	19	48	66	4.9	135	940	0.5	51	19	2.2	77	
86KAR3080	31C09	18	399050	4930875	1	T	3	0.05	9	0.05	19	52	67	4.9	145	960	1	51	19	3.8	77	
86KAR3080	31C09	18	399050	4930875	1	T	1	0.2	8	0.1	20	60	65	4.9	135	940	1	52	19	2.2	79	1

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
								<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<63um
87KAR3200	31C15	18	380350	4979330	1	t	1															1
87KAR3201	31C15	18	381150	4979700	1	t	1															1
87KAR3203	31C16	18	385100	4979875	1	t	1															2
87KAR3204	31C16	18	385050	4981575	0	t	1															4
87KAR3205	31C16	18	384250	4982250	1	T	1															8
87KAR3206	31C16	18	386250	4983270	1	T	1															2
87KAR3207	31C16	18	386950	4983425	1	F	1															4
87KAR3208	31C16	18	387850	4982500	1	T	1															8
87KAR3209	31C16	18	388300	4981750	1	T	1															4
87KAR3210	31C16	18	382000	4979760	1	T	1															1
87KAR3211	31C16	18	381900	4979650	1	T	1															1
87KAR3211	31C16	18	381900	4979650	1	T	2															4
87KAR3211A	31C16	18	381900	4979650	0	T	1															4
87KAR3211B	31C16	18	381900	4979650	0	T	1															2
87KAR3212	31C15	18	380400	4980500	1	T	1															2
87KAR3213	31C15	18	381150	4979670	1	T	1															1
87KAR3215	31C15	18	379100	4979950	1	T	1															1
87KAR3216	31C15	18	378900	4980160	1	F	1															1
87KAR3217	31C15	18	378960	4979300	1	F	1															4
87KAR3217	31C15	18	378960	4979300	1	F	2															2
87KAR3218	31C15	18	378400	4979260	1	T	1															2
87KAR3219	31C15	18	377060	4979600	1	T	1															1
87KAR3220	31C15	18	378030	4979000	1	T	1															2
87KAR3221	31C15	18	376400	4978250	1	T	1															1
87KAR3222	31C15	18	375400	4977325	1	T	1															1
87KAR3223	31C15	18	375100	4977625	1	T	1															4
87KAR3225	31C15	18	363700	4964400	1	T	1															8
87KAR3225	31C15	18	363700	4964400	1	T	1															12
87KAR3227	31C15	18	364450	4964950	1	T	1															4
87KAR3228	31C15	18	364320	4965420	1	T	1															52
87KAR3228	31C15	18	364320	4965420	1	T	1															10
87KAR3228	31C15	18	364320	4965420	1	T	2															12
87KAR3229	31C15	18	364050	4965920	1	T	1															4
87KAR3229	31C15	18	364050	4965920	1	T	2															1

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
87KAR3230	31C15	18	364100	4966340	1	T	2															20
87KAR3230	31C15	18	364100	4966340	1	T	1															8
87KAR3230	31C15	18	364100	4966340	1	T	3															12
87KAR3231	31C15	18	364100	4966575	1	T	2															6
87KAR3231	31C15	18	364100	4966575	1	T	1															6
87KAR3232	31C15	18	364050	4966650	1	T	1															4
87KAR3233	31C15	18	363450	4967825	1	T	1															2
87KAR3235	31C15	18	360450	4969140	1	T	1															2
87KAR3236	31C15	18	358850	4969310	1	F	1															8
87KAR3237	31C15	18	357200	4969460	1	F	1															4
87KAR3238	31C15	18	365200	4969400	1	F	1															2
87KAR3239	31C15	18	368200	4964400	1	T	1															4
87KAR3240	31C15	18	372850	4965750	1	T	1															4
87KAR3241	31C15	18	371520	4966640	1	T	1															4
87KAR3242	31C15	18	371230	4967750	1	T	1															8
87KAR3243	31C15	18	373000	4968850	1	T	1															2
87KAR3244	31C15	18	373150	4969310	1	F	1															2
87KAR3245	31C15	18	373150	4969900	1	F	1															4
87KAR3246	31C15	18	373150	4970475	1	T	1															1
87KAR3246	31C15	18	373150	4970475	1	T	2															1
87KAR3247	31C15	18	373000	4971550	1	T	1															4
87KAR3248	31C15	18	373000	4972650	1	T	1															1
87KAR3249	31C15	18	371650	4974800	1	T	1															4
87KAR3250	31C15	18	374100	4977100	1	T	1															1
87KAR3371	31F02	18	356600	4986750	1	T	1	0.2	72		31	67	138	6.5	268	1500	1	60	23	2.5	183	11
87KAR3372	31F02	18	357300	4988200	1	T	1	0.1	74		25	58	170	3.9	54	726	1	74	17	1	237	11
87KAR3373	31F02	18	356480	4988350	1	F	1	0.05	13		28	71	65	4.9	134	1940	3	41	24	12.4	117	1
87KAR3374	31F02	18	356600	4988900	1	F	1	0.3	30		59	64	261	5.6	109	7080	1	73	37	1.6	186	1
87KAR3375	31F02	18	356300	4939340	1	F	1															1
87KAR3376	31F02	18	355250	4990200	1	T	1															1
87KAR3377	31F02	18	356400	4990650	1	T	1	0.1	10		27	79	57	4.5	250	577	1	47	27	1.3	182	1
87KAR3379	31F02	18	362400	4988130	1	T	1	0.1	12		37	89	122	5.6	150	2180	3	62	24	3.4	109	1
87KAR3380	31F02	18	359770	4988220	1	T	1															1
87KAR3381	31F02	18	361700	4987680	1	T	1	0.2	28		36	92	119	6.7	211	2680	3	62	31	8.6	113	1

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
87KAR3382	31F02	18	361050	4991650	1	T	2	0.05	7		3.7	52	124	3.7	45	834	2	57	11	1	149	
87KAR3382	31F02	18	361050	4991650	1	T	1	0.05	6		19	54	124	3.5	43	831	2	51	12	1	146	1
87KAR3383	31F02	18	363750	4992900	1	T	1	0.05	16		36	101	146	6.7	193	1700	3	61	24	4	101	16
87KAR3384	31F02	18	364340	4992150	1	T	1	0.05	3		15	52	71	4	43	689	3	38	13	0.8	125	18
87KAR3384	31F02	18	364340	4992150	1	T	2															22
87KAR3385	31F02	18	365830	4985900	1	T	1	0.7	25		74	88	1115	6.9	143	2440	2	156	145	1.2	340	1
87KAR3386	31F02	18	365000	4986350	1	T	1	0.1	15		26	82	98	5.1	121	1220	1	59	18	1.8	131	1
87KAR3387	31F02	18	377600	4985000	1	T	1	0.1	15		37	87	103	6	186	2460	3	57	28	3.1	178	1
87KAR3388	31F02	18	376590	4987200	1	F	1	0.05	4		24	76	68	4.1	93	1220	1	46	18	2.5	92	1
87KAR3389	31F02	18	375800	4988300	1	F	1		14						27					1		6
87KAR3390	31F02	18	375800	4988720	1	T	1	0.05	17		38	78	108	6.8	218	2520	4	60	26	3.8	114	1
87KAR3390	31F02	18	375800	4988720	1	T	2		16						214					3.8		
87KAR3391	31F02	18	376320	4989520	1	T	1	0.2	10		21	71	137	4.4	23	1057	1	55	12	2.3	147	1
87KAR3392	31F02	18	377130	4990000	1	T	1	0.05	29		43	63	175	4.2	64	1540	2	56	18	0.5	186	1
87KAR3393	31F02	18	376850	4990750	1	T	1	0.05	7		21	71	84	4.4	36	674	1	50	13	1	132	10
87KAR3394	31F02	18	374750	4993050	1	T	1	0.05	13		23	75	122	5.1	107	1160	2	60	13	2.1	141	6
87KAR3395	31F02	18	374200	4994600	1	T	1	0.05	21		35	104	91	5.9	134	733	2	63	14	2.3	92	10
87KAR3396	31F02	18	372120	4996400	1	T	1	0.1	26		40	84	83	5.4	129	1600	2	52	19	1.2	101	1
87KAR3397	31F02	18	372000	4997700	1	F	1															16
87KAR3398	31F02	18	371340	4999120	1	F	1		536											0.5		
88KAR3399	31C15	18	377650	4983550	1	F	1															4
88KAR3400	31F02	18	377450	4984080	1	T	1		14		48	80	96	7.4	360	1640		62	30	2	162	12
88KAR3401	31F02	18	377620	4985650	1	T	1		18		46	96	66	6.6	240	1540		54	33	0.05	84	8
88KAR3402	31F02	18	379610	4991880	1	F	1															16
88KAR3403	31F02	18	379210	4992460	1	T	1		15		37	68	89	7.1	220	1900		54	17	1.2	100	6
88KAR3404	31F02	18	379150	4993500	1	T	1		6		40	70	111	7.3	160	2000		52	17	0.8	141	6
88KAR3405	31F02	18	379590	4993800	1	T	1		10		26	58	112	5.8	70	840		57	8	0.05	153	4
88KAR3406	31F02	18	377930	4986870	1	T	1		6		36	74	97	6.6	140	1900		59	14	0.8	132	6
88KAR3407	31F02	18	378110	4986990	1	T	1		9		32	78	83	7.3	170	1700		65	18	1.6	152	4
88KAR3408	31F02	18	378350	4986910	1	T	1		6		24	66	189	6.5	140	1100		74	10	0.4	186	6
88KAR3409	31F02	18	378800	4986830	1	T	1		9		44	72	114	6.6	340	1050		66	22	1	95	6
88KAR3410	31F02	18	378990	4984990	1	F	2															10
88KAR3410	31F02	18	378990	4984990	1	F	1															4
88KAR3411	31F02	18	379860	4985110	1	T	1															6

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3412	31F02	18	380580	4988850	1	T	1		9		26	78	174	7.3	170	1400		76	15	1.2	195	6
88KAR3413	31F02	18	380830	4988460	1	T	2															16
88KAR3413	31F02	18	380830	4988460	1	T	1		4		38	78	73	7	200	1500		49	15	0.6	208	6
88KAR3414	31F02	18	381140	4987150	1	T	1		7		38	68	99	6.6	260	2100		64	20	1.1	161	28
88KAR3414	31F02	18	381140	4987150	1	T	2															6
88KAR3415	31F02	18	381860	4989350	1	T	1		2		17	54	81	3.8	50	700		48	7	0.05	131	6
88KAR3416	31F02	18	380940	4990360	1	T	1		5		27	84	122	7.2	60	970		73	5	0.2	178	6
88KAR3417	31F02	18	380040	4990650	1	T	1		5		21	56	196	5.9	70	950		75	11	0.2	242	4
88KAR3418	31F02	18	374700	4987410	1	F	1															6
88KAR3420	31F02	18	374100	4986000	1	F	1		35		41	58	280	9.3	260	3700		106	23	1.6	203	66
88KAR3421	31F02	18	370560	4988690	1	T	1		16		28	78	53	12	200	1600		52	23	0.05	281	8
88KAR3422	31F02	18	370190	4989350	1	T	1		15		40	74	86	7.7	170	1700		66	15	0.2	201	6
88KAR3423	31F02	18	369880	4989640	1	T	1		9		26	68	110	7.1	110	1050		68	8	0.05	180	14
88KAR3424	31F02	18	370000	4990620	1	T	1		29		22	62	138	7.2	100	830		57	5	0.05	190	22
88KAR3424	31F02	18	370000	4990620	1	T	2		25		24	64	135	7	70	810		57	5	0.6	182	12
88KAR3425	31F02	18	370400	4991350	1	T	1		38		41	78	246	10	190	2100		83	11	0.8	235	8
88KAR3426	31F02	18	371770	4991020	1	T	1		30		39	54	234	8.4	220	1900		80	15	0.4	253	16
88KAR3426	31F02	18	371770	4991020	1	T	2															20
88KAR3427	31F02	18	373100	4990550	1	T	1		25		19	48	201	5.6	100	650		64	6	0.05	184	4
88KAR3428	31F02	18	380710	4996400	1	T	1		9		24	90	129	9.1	140	1000		71	7	0.4	185	4
88KAR3429	31F02	18	378560	4994810	1	T	1		9		27	78	102	7.8	240	1800		61	20	1.8	182	4
88KAR3430	31F02	18	378770	4994400	1	F	1															10
88KAR3431	31F02	18	379050	4994380	1	T	1		7		26	82	143	8.2	150	980		76	8	0.2	189	6
88KAR3432	31F02	18	379360	4994340	1	F	1															6
88KAR3433	31F02	18	379450	4994140	1	T	1		7		25	80	213	7.2	200	1200		87	13	1.6	173	8
88KAR3434	31F02	18	380900	4992475	1	T	1		4		34	80	70	6.2	380	580		62	16	0.8	114	6
88KAR3435	31F02	18	371700	4996750	1	F	1															20
88KAR3436	31F02	18	372050	4999300	1	F	1															28
88KAR3436	31F02	18	372050	4999300	1	F	2															44
88KAR3437	31F02	18	372410	5003330	1	F	1															150
88KAR3437	31F02	18	372410	5003330	1	F	2															78
88KAR3438	31F02	18	366750	5004600	1	T	1		2		26	46	158	4.1	140	800		53	9	0.2	151	4
88KAR3439	31F02	18	366950	5001930	1	T	1		2		31	66	192	8.5	130	1300		77	10	0.8	180	6
88KAR3440	31F02	18	369040	4999250	1	T	1		22		38	76	230	8	210	1800		88	25	3.2	298	8

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3441	31F02	18	365100	4998650	1	T	1		11		26	70	109	9.3	780	2300		55	30	1.2	254	6
88KAR3442	31F02	18	380550	5001650	1	T	1		9		27	78	163	9.1	300	1400		74	14	1	176	6
88KAR3443	31F02	18	377630	5003550	1	T	1		15		34	74	212	8.4	180	1100		92	10	0.2	235	6
88KAR3444	31F02	18	372750	5004330	1	T	2															42
88KAR3444	31F02	18	372750	5004330	1	T	1		260		186	68	512	11.4	520	6600		102	32	0.05	318	100
88KAR3445	31F02	18	375510	5005600	1	F	2															440
88KAR3445	31F02	18	375510	5005600	1	F	1															110
88KAR3446	31F02	18	374800	5006950	1	T	1		69		48	64	323	10	140	2600		107	14	0.6	240	20
88KAR3446	31F02	18	374800	5006950	1	T	2															10
88KAR3447	31F02	18	373010	5010240	1	T	1		18		26	40	100	4.2	140	1360		48	48	0.05	535	10
88KAR3448	31F02	18	374610	5011590	1	T	1		12		32	70	135	8.8	240	2400		66	26	2.6	183	6
88KAR3449	31F02	18	352410	4984490	1	F	1															8
88KAR3450	31F02	18	355090	4985750	1	T	1		170		41	58	258	10	160	1100		90	29	0.6	510	6
88KAR3451	31F02	18	356900	4983900	1	T	1		23		24	80	91	10	190	1200		59	33	1.4	241	4
88KAR3452	31F02	18	358550	4985000	1	T	1		11		28	100	175	10	360	1900		83	22	2.6	158	6
88KAR3453	31F02	18	361950	4987000	1	T	1		28		44	60	252	8	440	1800		76	40	1.6	396	2
88KAR3454	31F02	18	349360	4984600	1	T	1		20		60	116	236	7.6	280	1960		74	42	4.8	248	10
88KAR3455	31F02	18	349810	4984940	1	T	1		10		45	96	190	10	200	1700		88	40	2.1	144	1
88KAR3456	31F02	18	352380	4988430	1	T	1		6		43	80	152	13.2	350	1900		50	22	7.4	129	1
88KAR3457	31F02	18	352450	4988670	1	T	1		4		45	70	200	11.8	370	850		102	22	4	264	1
88KAR3458	31F02	18	352140	4989350	1	F	1															4
88KAR3459	31F02	18	353460	4990630	1	T	1		3		28	84	130	10	410	2200		68	21	4.3	180	1
88KAR3460	31F02	18	353440	4991250	1	T	1		8		40	64	116	7.3		2160		48	16	3.2	120	1
88KAR3461	31F02	18	353880	4992010	1	T	1		8		34	96	68	7.6	340	940		72	56	4	134	1
88KAR3462	31F02	18	355310	4993670	1	T	1		4		23	60	169	5.9	80	830		76	15	0.4	304	2
88KAR3463	31F02	18	356070	4993440	1	F	2															1
88KAR3463	31F02	18	356070	4993440	1	F	1		5		24	58	209	6.9	80	1300		80	20	0.8	358	30
88KAR3464	31F02	18	355050	4994590	1	T	1		5		26	98	188	12.4	110	1100		70	19	2.8	143	2
88KAR3465	31F02	18	355270	4996160	1	T	1		5		25	70	153	8.2	160	980		51	30	2.4	132	2
88KAR3466	31F02	18	353820	4996500	1	F	1															4
88KAR3467	31F02	18	353440	4996880	1	T	1		4		26	72	92	10.8	240	1300		56	23	3	170	1
88KAR3468	31F02	18	353370	4997260	1	F	1		6		24	52	240	5.4	120			70	12	0.8	280	2
88KAR3469	31F02	18	352430	5000180	1	F	1															2
88KAR3470	31F02	18	351850	5003710	1	T	1		3		28	70	105	9.8	220	1900		62	31	1.6	295	2

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
								<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<2um	<63um
88KAR3471	31F02	18	352140	5002230	1	F	1		6		24	60	38	7.4	200	1260		40	28	1.2	184	2
88KAR3472	31F02	18	352110	5000240	1	T	1		4		28	72	69	7.8	130	2100		54	20	3	192	1
88KAR3473	31F02	18	351540	4997210	1	T	1		4		30	72	95	8.5	160	2000		59	29	5.2	197	4
88KAR3474	31F02	18	355870	4995610	1	T	1		9		26	68	241	9.2	230	1100		44	36	3	135	1
88KAR3475	31F02	18	356440	4996610	1	T	1		11		22	72	110	11	140	1900		58	20	1.2	205	2
88KAR3476	31F02	18	357950	5000280	1	T	1		12		20	96	176	8	480	900		62	26	24	148	1
88KAR3477	31F02	18	358000	5000420	1	T	1		5		15	56	66	4.7	80	560		45	9	0.8	171	1
88KAR3478	31F02	18	358460	5000670	1	T	1		6		16	48	112	4.9	60	780		49	9	0.6	199	4
88KAR3479	31F02	18	358510	5002070	1	T	1		6		25	82	81	8.7	180	1300		58	30	3.2	165	1
88KAR3480	31F02	18	358760	5002860	1	T	1		7		29	74	112	8.4	230	1700		64	30	3.8	155	4
88KAR3481	31F02	18	359180	5004960	1	T	1		6		26	66	154	10.2	200	2600		86	19	2	275	4
88KAR3482	31F02	18	359340	5005290	1	T	1		6		26	62	170	7.1	100	1100		81	16	0.6	280	4
88KAR3483	31F02	18	359860	5006040	1	F	1															2
88KAR3484	31F02	18	360090	5006540	1	T	1		7		24	70	129	8.3	210	1400		61	24	0.9	207	2
88KAR3485	31F02	18	361150	5007890	1	T	1		6		25	78	96	7.3	250	1800		63	27	1	165	2
88KAR3486	31F02	18	361960	5009800	1	T	1		4		10	46	53	3.2	70	640		35	9	0.05	146	2
88KAR3487	31F02	18	370780	5010290	1	F	1															16
88KAR3488	31F02	18	343010	4985220	1	T	1		4		35	92	59	8.4	220	1300		66	20	4	153	6
88KAR3489	31F02	18	343040	4986460	1	T	1		5		27	62	73	6.7	90	1300		48	19	0.6	188	4
88KAR3491	31F02	18	342450	4987350	1	T	1		6		37	68	115	6.9	240	1600		57	27	1.8	218	2
88KAR3494	31F02	18	342640	4989650	1	T	1		5		28	76	122	7.1	100	1300		83	11	1.6	283	1
88KAR3494	31F02	18	342640	4989650	1	T	2		5		28	76	125	7	110	1200		82	11	2.8	270	
88KAR3495	31F02	18	343510	4991060	1	T	1		4		26	66	102	6.1	140	640		48	19	2.8	174	4
88KAR3496	31F02	18	343150	4991480	1	T	1		5		23	60	97	7.2	80	1050		48	9	1	228	2
88KAR3496A	31F02	18	343150	4991480	0	T	1		4		20	62	86	6.5	90	850		46	7	0.6	202	1
88KAR3497	31F02	18	343160	4990920	1	T	1		5		29	68	53	6.1	120	1400		50	10	1.2	157	2
88KAR3498	31F02	18	342700	4989540	1	T	1		4		23	68	57	6.4	80	980		54	4	0.6	204	2
88KAR3498	31F02	18	342700	4989540	1	T	2		4		24	70	78	6.5	80	1000		56	11	0.8	207	
88KAR3501	31F02	18	345700	4984650	1	T	1		8		24	72	74	7	600	840		42	26	4.4	92	6
88KAR3502	31F02	18	346100	4985100	1	T	1		7		29	70	106	9	260	960		57	33	11	191	4
88KAR3503	31F02	18	361950	4987150	1	T	1		23		32	78	127	10.4	350	2000		48	23	6.8	167	6
88KAR3504	31F02	18	362740	4988890	1	F	1		22		38	74	126	8.6	420	2400		47	25	1.6	133	8
88KAR3505	31F02	18	362300	4989670	1	T	1		22		37	84	115	12	380	2100		54	31	7.4	210	4
88KAR3506	31F02	18	362800	4987650	1	T	1		32		40	80	161	11.2	300	2600		71	25	3.4	174	8

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3507	31F02	18	365120	4988660	1	T	1		14		28	68	58	6	600	380		46	22	2.8	144	6
88KAR3508	31F02	18	366230	4989210	1	T	1		18		66	76	166	8	480	1300		52	20	2	102	2
88KAR3509	31F02	18	367450	4988750	1	F	1															4
88KAR3510	31F02	18	361290	4986640	1	F	1															8
88KAR3511	31F02	18	365200	4988290	1	T	1		12		36	68	94	6.4	360	1600		60	16	4	182	4
88KAR3512	31F02	18	365270	4987620	1	T	1		16		31	68	79	7.2	240	1100		55	28	1.2	232	4
88KAR3513	31F02	18	365250	4987300	1	T	1		7		23	70	82	6.1	120	1100		50	13	1	158	30
88KAR3513	31F02	18	365250	4987300	1	T	2															1
88KAR3514	31F02	18	365060	4986750	1	T	1		15		27	72	142	7.3	180	1100		60	14	0.3	208	4
88KAR3515	31F02	18	365070	4985820	1	T	1		18		34	72	78	7.4	200	1260		58	28	1.4	262	8
88KAR3516	31F02	18	367940	4989710	1	T	1		20		32	76	186	8.2	220	2000		76	22	5.2	296	6
88KAR3517	31F02	18	368110	4989780	1	T	1		18		32	76	176	7.6	180	1880		78	22	3.2	312	6
88KAR3517A	31F02	18	368110	4989780	0	T	1		14		38	80	110	7.4	140	2000		84	22	1.6	174	6
88KAR3517B	31F02	18	368110	4989780	0	T	1		20		42	88	98	7.2	200	2200		70	26	0.4	146	1
88KAR3517C	31F02	18	368110	4989780	0	T	1		12		34	76	44	6.6		1000		46	24	0.6	228	4
88KAR3517D	31F02	18	368110	4989780	0	T	1		16		12	48	24	4.4		760		24	20	0.05	236	1
88KAR3517E	31F02	18	368110	4989780	0	T	1		16		12	48	20	4.8		320		12	12	0.05	210	4
88KAR3517F	31F02	18	368110	4989780	0	T	1		16		2	24	20	2		480		12	48	0.8	224	6
88KAR3518	31F02	18	367600	4986340	1	T	1		14		28	68	132	7.4	400	400		46	40	4.8	298	4
88KAR3519	31F02	18	368530	4987840	1	T	1		30		40	84	104	8	400	1160		56	38	2.4	164	4
88KAR3520	31F02	18	368460	4990410	1	T	1		17		30	70	106	7.4	200	1500		56	15	1.8	162	4
88KAR3521	31F02	18	371840	4984350	1	T	1		24		62	48	108	7.2	440	1600		48	22	1.8	134	6
88KAR3522	31F02	18	371240	4985860	1	T	1		24		62	52	108	7.4	420	1380		52	26	1.8	100	10
88KAR3523	31C16	18	388690	4981090	1	F	1															4
88KAR3524	31C16	18	388520	4988250	1	T	1		4		32	46	242	6.8	80	1200		67	11	0.4	185	2
88KAR3525	31C16	18	384040	4979390	1	F	1															1
88KAR3526	31C16	18	385340	4980410	1	F	1															1
88KAR3526	31C16	18	385340	4980410	1	F	2															6
88KAR3528	31C16	18	389260	4981270	1	V	1		3		33	82	54	6.4	60	510		71	11	0.2	330	6
88KAR3529	31C16	18	386760	4980760	1	F	1		12		66	80	276	7.6		960		194	16	0.05	570	4
88KAR3530	31C16	18	388450	4981420	1	T	1															4
88KAR3531	31C16	18	387450	4982970	1	T	1		6		20	88	62	3.2		400		74	2	0.4	466	4
88KAR3532	31C16	18	386670	4983640	1	T	1		5		26	64	120	5.9	60	910		68	10	0.4	180	8
88KAR3533	31C16	18	386050	4983080	1	T	1		6		18	68	126	5	40	540		60	6	0.05	166	6

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3534	31C16	18	385910	4982960	1	T	1		3		9	36	53	2.5	20	460		28	2	0.05	85	8
88KAR3534A	31C16	18	385910	4982960	0	T	1		4		16	56	108	4.8	40	600		58	4	0.05	150	4
88KAR3534B	31C16	18	385910	4982960	0	T	1		8		22	72	146	6.4	40	640		76	6	0.05	206	6
88KAR3534C	31C16	18	385910	4982960	0	T	1		6		22	76	66	6	70	1000		52	6	0.05	136	6
88KAR3534D	31C16	18	385910	4982960	0	T	1		12		20	72	36	5.6		1040		48	4	0.8	156	1
88KAR3534E	31C16	18	385910	4982960	0	T	1															2
88KAR3535	31F01	18	387180	4984350	1	T	1		5		23	68	66	6.7	160	1000		56	9	1	126	4
88KAR3536	31C16	18	387670	4984730	1	T	1		8		34	80	40	8.8	120	2000		52	16	1.2	144	4
88KAR3537	31C16	18	388020	4984660	1	T	1		9		27	62	107	7.7	150	1700		67	11	0.2	158	1
88KAR3538	31C16	18	388060	4985670	1	T	1		4		24	68	39	6.8	100	1200		49	10	0.4	142	2
88KAR3539	31F01	18	388810	4985400	1	T	1		3		28	62	60	6.1	110	1500		49	16	1.2	168	4
88KAR3540	31F01	18	389040	4985400	1	T	1		6		24	72	88	6	110	1060		96	14	0.05	164	4
88KAR3541	31C16	18	384810	4981710	1	T	1		3		24	60	70	5.9	110	1000		60	9	0.8	125	4
88KAR3542	31C16	18	385050	4981540	1	T	1		8		32	92	140	5.8	100	940		94	14	0.4	234	2
88KAR3543	31C16	18	383960	4979240	1	F	1		8		72	80	174	7.8		2200		102	14	0.05	350	6
88KAR3544	31C16	18	381930	4982890	1	T	1		7		27	70	90	8.4	160	1200		69	11	1.2	183	4
88KAR3545	31C16	18	382410	4982320	1	T	1		3		16	54	74	4.2	40	700		45	7	0.05	140	6
88KAR3546	31C16	18	382550	4982290	1	T	1		3		13	60	65	3.1	50	490		49	5	0.6	140	4
88KAR3547	31C16	18	381700	4979360	1	T	1		8		42	144	314	5.2		580		416	8	0.05	336	2
88KAR3548	31C16	18	382530	4980040	1	T	1		4		17	80	110	5.1	70	440		97	12	0.2	255	4
88KAR3549	31C16	18	381640	4979100	1	F	1		6		30	64	68	5.2		1400		68	56	0.6	260	2
88KAR3551	31C16	18	389950	4979860	1	T	1		4		29	68	35	7.8	170	1800		54	23	0.9	290	2
88KAR3552	31C16	18	389730	4977750	1	T	1		8		30	60	134	11	120	1040		58	8	0.05	156	4
88KAR3553	31C16	18	389860	4977670	1	T	1		4		21	80	124	5.5	60	710		92	10	0.2	300	6
88KAR3554	31C16	18	390110	4977590	1	T	1		3		20	74	88	5.5	50	590		66	19	0.2	216	4
88KAR3555	31C16	18	385710	4974940	1	T	1		4		14	52	77	4.3	50	600		52	7	0.2	160	2
88KAR3556	31C16	18	384780	4974220	1	T	1		4		24	70	46	7	110	1000		53	15	0.2	190	2
88KAR3557	31C16	18	387800	4963700	1	T	1		8		32	72	44	7	240	720		60	24	1.6	156	1
88KAR3558	31C16	18	385560	4959650	1	T	1		3		19	80	155	9	80	700		75	7	0.4	205	6
88KAR3559	31C16	18	385280	4959690	1	T	1		6		36	68	80	5.4	300	840		92	10	1.6	94	8
88KAR3560	31C16	18	383350	4959140	1	F	1		10		36	76	108	9.8		6000		64	62	1.2	236	1
88KAR3561	31C16	18	382850	4958620	1	T	1		7		16	66	120	10.2	170	1200		63	33	0.8	500	
88KAR3562	31C16	18	381150	4959100	1	F	1		4		18	60	58	5	40	650		45	7	0.05	150	4
88KAR3563	31C16	18	381840	4958780	1	T	2		5		16	48	164	6.4	60	550		86	12	0.2	485	

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3563	31C16	18	381840	4958780	1	T	1		7		16	50	165	6.4	70	550		85	14	0.05	430	2
88KAR3564	31C16	18	382390	4959340	1	T	1		4		16	50	80	4.7	40	570		53	10	0.05	230	2
88KAR3565	31C16	18	384920	4958640	1	F	1		12		64	80	152	8.4		6000		80	48	0.05	408	
88KAR3566	31C16	18	384060	4957800	1	T	1		4		18	78	48	6.4	110	490		57	11	0.5	160	4
88KAR3567	31C16	18	392460	4966640	1	T	1		3		18	50	61	3.9	50	760		40	9	0.4	172	4
88KAR3568	31C16	18	389950	4964620	1	T	1		7		21	64	58	6.4	150	1400		50	75	0.4	305	2
88KAR3569	31C16	18	390190	4964010	1	T	1		3		10	36	48	2.3	50	590		30	6	0.05	93	4
88KAR3570	31C16	18	388340	4965810	1	T	1		3		17	70	36	5.1	130	880		48	8	0.2	178	4
88KAR3571	31C16	18	385340	4963500	1	T	1		6		25	72	114	9	300	1700		76	22	1.6	139	2
88KAR3572	31C16	18	383400	4965670	1	T	1		9		31	74	75	8.8	250	1900		64	25	1.6	185	1
88KAR3573	31C16	18	386570	4967330	1	T	1		6		42	112	40	8	200	2400		82	16	0.8	110	4
88KAR3574	31C16	18	388740	4969200	1	T	1		4		18	62	88	5.1	60	680		53	8	0.2	148	2
88KAR3575	31C16	18	389540	4973560	1	T	1		5		23	88	75	8.2	120	1100		68	15	1	172	4
88KAR3576	31C16	18	390090	4973260	1	T	1		8		24	72	152	6.4	140	760		84	12	0.05	316	4
88KAR3577	31C16	18	390450	4973340	1	T	1		6		22	64	88	4.6	80	580		52	10	0.05	156	2
88KAR3578	31C16	18	384140	4972860	1	T	1		4		19	66	116	5.6	70	620		68	7	0.05	158	4
88KAR3579	31C16	18	385670	4971700	1	T	1		5		35	174	78	8.2	150	1600		143	15	0.6	140	2
88KAR3580	31C16	18	388340	4972170	1	T	1		3		16	52	82	4.1	60	610		45	7	0.05	158	6
88KAR3581	31C16	18	383540	4968370	1	T	1		5		53	60	69	8.3	240	2000		58	28	1.6	122	32
88KAR3582	31C16	18	396030	4962650	1	T	1		3		3	34	1	3.2	20	60		4	1	0.05	6	2
88KAR3582	31C16	18	396030	4962650	1	T	2		2		3	30	2	2.9	10	50		3	1	0.4	8	
88KAR3582X	31C16	18	396030	4962650	0	R	1		3		15	40	56	2.9	50	820		35	6	0.05	87	1
88KAR3583	31C16	18	395160	4962000	1	T	1		3		13	62	58	3.8	30	540		53	6	0.05	123	6
88KAR3584	31C16	18	395250	4959990	1	T	1		3		12	58	19	3.2	80	600		28	5	0.05	46	2
88KAR3585	31C16	18	396860	4958450	1	T	1		4		17	88	41	7	100	550		51	8	0.8	118	4
88KAR3586	31C16	18	395030	4956760	1	T	1		4		28	74	46	6.7	130	1700		58	17	0.8	135	2
88KAR3587	31C16	18	394380	4958770	1	T	1		4		16	60	72	4.3	50	660		48	9	0.05	160	4
88KAR3588	31C16	18	391290	4956210	1	T	1		8		34	60	26	9.2		400		34	36	0.05	184	2
88KAR3589	31C16	18	389190	4957960	1	T	1		4		26	76	145	6.5	50	880		67	13	0.2	200	4
88KAR3590	31C16	18	390160	4956620	1	F	1		12		104	80	200	6.4		2520		112	52	0.05	280	
88KAR3591	31C16	18	389800	4957020	1	T	1		6		36	88	46	8.8	100	1480		72	34	0.05	210	6
88KAR3592	31C16	18	388650	4956010	1	T	1		5		29	68	25	6.6		1700		43	16	0.4	180	4
88KAR3593	31C16	18	391370	4957490	1	T	1		12		24	88	36	6.8		1200		44	36	0.05	268	2
88KAR3594	31C16	18	391200	4959760	1	T	1		6		30	74	40	8	180	1800		52	43	0.6	133	1

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3594	31C16	18	391200	4959760	1	T	2															4
88KAR3595	31C16	18	399070	4960460	1	T	6															1
88KAR3595	31C16	18	399070	4960460	1	T	1		5		19	64	107	4.5	60	730		45	7	0.05	103	8
88KAR3595	31C16	18	399070	4960460	1	T	2		4		19	64	115	4.9	80	740		48	9	0.4	110	6
88KAR3596	31C16	18	398080	4957360	1	T	1		4		20	112	140	6		490		114	11	0.2	200	4
88KAR3597	31C16	18	397760	4955750	1	T	1		6		40	100	46	8	160	1740		86	24	0.4	210	2
88KAR3598	31C16	18	411120	4956590	1	T	1		4		7	36	53	2.4	40	550		29	6	0.2	74	4
88KAR3599	31C16	18	407290	4956230	1	T	1		5		15	62	88	5	40	480		57	10	0.05	237	4
88KAR3600	31C16	18	406910	4957660	1	T	1		5		13	58	67	3.9	40	480		48	9	0.05	112	6
88KAR3601	31C16	18	404610	4956070	1	T	1		5		19	62	60	5.6	80	800		44	18	0.2	178	2
88KAR3602	31C16	18	407950	4959270	1	T	1		5		30	62	45	5.4	180	2100		48	21	0.2	75	4
88KAR3603	31C16	18	410460	4958400	1	T	1		5		24	68	47	6	130	1200		51	17	0.2	100	4
88KAR3604	31C16	18	409440	4961540	1	T	1		4		19	52	54	4.2	50	760		47	11	0.2	116	4
88KAR3604	31C16	18	409440	4961540	1	T	2		4		19	54	57	4.3	40	750		46	10	0.4	118	
88KAR3605	31C16	18	411160	4961360	1	T	1		14		17	58	100	4.2	60	700		58	22	0.2	70	4
88KAR3606	31C16	18	408610	4963630	1	T	1		5		32	62	48	6.8	60	510		51	15	0.4	134	2
88KAR3607	31C16	18	414060	4963560	1	T	1		8		16	64	56	4.6		1480		48	34	0.4	212	4
88KAR3608	31C16	18	414780	4962590	1	T	1		4		9	36	58	2.7	50	700		32	9	0.05	87	4
88KAR3608A	31C16	18	414780	4962590	0		1		7		25	64	46	6.5	200	1800		45	23	0.8	115	18
88KAR3609	31C16	18	412540	4958000	1	T	1		6		23	62	27	5.8	180	1000		43	28	0.4	97	4
88KAR3610	31C16	18	419960	4958240	1	T	1		12		32	80	44	7.6		4000		48	12	1.6	108	6
88KAR3611	31C16	18	418670	4959060	1	T	1		7		19	54	93	5.8	120	1000		60	17	0.4	138	8
88KAR3612	31C16	18	400360	4961000	1	T	1		5		24	76	69	7.5	190	1500		60	14	0.8	150	14
88KAR3613	31C16	18	401330	4962050	1	T	1		4		14	70	96	5	40	440		59	7	0.1	115	4
88KAR3614	31C16	18	401700	4963890	1	T	1		3		11	46	52	3	40	640		33	6	1.2	82	4
88KAR3615	31C16	18	399780	4964390	1	T	1		3		18	68	92	5	30	560		50	5	0.2	153	6
88KAR3616	31C16	18	403310	4961240	1	T	1		4		11	58	52	5	160	460		40	9	0.6	75	6
88KAR3617	31C16	18	403540	4963300	1	T	1		5		14	94	58	4.9	40	530		56	5	0.1	70	6
88KAR3618	31C16	18	405070	4962780	1	T	1		6		22	84	56	6.4	80	940		54	12	0.4	176	22
88KAR3619	31C16	18	404940	4963060	1	T	1		3		13	88	43	5.5	60	400		49	3	0.6	55	8
88KAR3620	31C16	18	405210	4963710	1	T	1		3		19	70	41	6	60	860		47	9	1	205	8
88KAR3621	31C16	18	403060	4961420	1	T	1		8		16	64	56	6.4	140	440		40	8	0.8	120	2
88KAR3622	31C16	18	406310	4965040	1	T	1		4		18	70	55	5.6	100	1600		50	12	0.4	85	4
88KAR3623	31C16	18	405520	4961140	1	T	1		4		18	60	48	7.4	110	1500		48	15	0.6	157	1

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR3624	31C16	18	397130	4976320	1	T	1		3		18	74	45	6.7	100	570		52	16	0.6	185	6
88KAR3625	31C16	18	405630	4980340	1	T	1		4		20	84	37	7.6	160	360		53	10	0.2	113	4
88KAR3626	31C16	18	406940	4981210	1	T	1		3		20	80	81	7	90	540		55	11	0.4	153	10
88KAR3627	31C16	18	407810	4981960	1	T	1		3		20	72	57	6.3	90	510		49	7	0.4	118	8
88KAR3628	31C16	18	403450	4977450	1	T	1		3		11	58	46	2.8	30	570		39	7	0.05	65	4
88KAR3629	31C16	18	402750	4973900	1	T	1		3		13	40	69	3.1	20	710		35	9	0.2	88	4
88KAR3630	31C16	18	395580	4971390	1	T	1		4		17	72	110	6.6		970		60	11	0.8	123	4
88KAR3631	31C16	18	394030	4971830	1	T	1		3		17	66	63	5.7	30	550		45	6	0.2	180	2
88KAR3632	31C16	18	390390	4970660	1	T	1		3		19	70	60	5.3	110	990		60	9	0.5	142	4
88KAR3633	31C16	18	397060	4975940	1	T	1		3		23	62	34	5.7	80	1300		44	11	0.6	138	4
88KAR3634	31C16	18	395490	4973960	1	F	1		4		16	60	80	4.4	40	700		46	6	0.2	154	4
88KAR3634A	31C16	18	395490	4973960	0	V	1		5		17	82	56	5.6	20	590		47	4	0.2	158	4
88KAR3634A	31C16	18	395490	4973960	0	V	2															4
88KAR3635	31C16	18	392460	4977580	1	T	1		3		28	88	150	6.3	110	330		58	11	0.6	168	4
88KAR3639	31F02	18	355700	5009020	1	T	2															4
88KAR3639	31F02	18	355700	5009020	1	T	1		5		29	100	103	8.9	110	1300		74	22	1.2	230	4
88KAR3640	31F02	18	352290	5009180	1	F	1		8		104	80	406	10.8		3800		176	76	0.4	540	1
88KAR3640	31F02	18	352290	5009180	1	F	2															1
88KAR3640A	31F02	18	352290	5009180	0	F	2															1
88KAR3640A	31F02	18	352290	5009180	0	F	1		6		45	62	338	9.2		1300		100	30	1	440	1
88KAR3641	31C16	18	351540	5004160	1	F	1		4		23	50	332	7.5		1500		80	20	0.05	282	1
88KAR3641	31C16	18	351540	5004160	1	F	2															1
88KAR3643	31F02	18	351460	5010160	1	T	2															4
88KAR3643	31F02	18	351460	5010160	1	T	1		4		23	88	170	6.2	100	980		84	15	5.6	169	4
88KAR3645	31C16	18	392940	4965430	1	T	2															6
88KAR3645	31C16	18	392940	4965430	1	T	1		4		11	52	40	3.1	30	690		31	4	0.05	74	6
88KAR3649	31C16	18	401310	4965490	1	T	1		3		14	114	35	4.3	120	620		48	4	0.6	49	8
88KAR3649	31C16	18	401310	4965490	1	T	2															8
88KAR3650	31C16	18	401410	4964240	1	T	1		5		20	98	107	6.1	70	830		64	9	0.05	182	6
88KAR3650	31C16	18	401410	4964240	1	T	2															6
88KAR3651	31C16	18	392690	4975090	1	T	1		5		21	82	96	6	90	920		62	12	0.05	164	10
88KAR3651	31C16	18	392690	4975090	1	T	2															10
88KAR3652	31F01	18	392000	4984150	1	T	1		6		43	70	162	6.4		1100		88	17	0.2	325	1
88KAR3652	31F01	18	392000	4984150	1	T	2															1

SAMPLE	nts	zo	east	north	r	s	a	AG	AS	CD	CO	CR	CU	FE	HG	MN	MO	NI	PB	U	ZN	AU
								ppm	ppm	ppm	ppm	ppm	ppm	pct	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb
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88KAR3653	31C16	18	394630	4979500	1	T	1		4		30	96	54	6	160	2100		53	18	0.8	118	6
88KAR3653	31C16	18	394630	4979500	1	T	2															6
88KAR3654	31C16	18	403860	4980280	1	T	1		6		20	78	88	6.2	180	890		70	17	0.05	114	4
88KAR3654	31C16	18	403860	4980280	1	T	2															4
88KAR3655	31C16	18	402500	4982510	1	T	1		4		22	110	63	7.1	100	1000		60	12	0.2	163	4
88KAR3655	31C16	18	402500	4982510	1	T	2															4
88KAR3656	31C16	18	406310	4979460	1	T	2															6
88KAR3656	31C16	18	406310	4979460	1	T	1		4		20	48	48	2.1	60	670		37	10	0.05	58	6
88KAR3657	31C16	18	406810	4978540	1	T	2															6
88KAR3657	31C16	18	406810	4978540	1	T	1		4		46	128	28	4.4	50	330		55	21	0.05	148	6
88KAR3658	31C16	18	417700	4974460	1	T	1		5		25	108	37	7.6	160	410		39	21	0.4	196	2
88KAR3658	31C16	18	417700	4974460	1	T	2															2
88KAR3659	31C16	18	417450	4974720	1	T	1		6		10	44	63	3.2	90	650		32	9	0.05	69	1
88KAR3659	31C16	18	417450	4974720	1	T	2															1
88KAR3660	31C16	18	417340	4974900	1	T	1		6		10	44	55	2.9	50	650		31	10	0.05	61	1
88KAR3660	31C16	18	417340	4974900	1	T	2															1
88KAR3661	31C16	18	417310	4975930	1	T	1		14		23	86	37	7.2	200	3000		40	31	0.4	148	1
88KAR3661	31C16	18	417310	4975930	1	T	2															1
88KAR3662A	31C16	18	416550	4971210	0	T	1		5		11	42	65	2.9	50	730		33	10	0.05	78	1
88KAR3662A	31C16	18	416550	4971210	0	T	2															1
88KAR3662B	31C16	18	416550	4971210	0		1		6		11	42	59	2.8	50	730		33	9	0.05	76	4
88KAR3662B	31C16	18	416550	4971210	0		2															4
88KAR3663	31C16	18	415340	4967260	1	T	1		5		11	46	50	3	40	800		29	10	0.05	84	6
88KAR3663	31C16	18	415340	4967260	1	T	2															6
88KAR3664	31C16	18	414410	4966540	1	T	1		10		23	78	61	5.2	70	830		59	17	0.05	103	4
88KAR3664	31C16	18	414410	4966540	1	T	2															4
88KAR3665	31C16	18	414910	4964800	1	T	1		6		8	42	44	2	30	700		26	9	0.05	55	4
88KAR3665	31C16	18	414910	4964800	1	T	2															4
88KAR3667	31C09	18	418910	4945260	1	T	2															6
88KAR3667	31C09	18	418910	4945260	1	T	1		10		15	42	65	3	50	1100		33	17	0.2	60	6
88KAR3668	31C09	18	398170	4945660	1	T	2															4
88KAR3668	31C09	18	398170	4945660	1	T	1		6		22	94	62	5.9	100	1200		57	18	0.05	135	4
88KAR3669	31C09	18	399760	4945930	1	T	2															4
88KAR3669	31C09	18	399760	4945930	1	T	1		6		10	56	56	3.2	40	590		39	9	0.05	122	4

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR5001	31C15	18	377860	4967370	1	F	1															2
88KAR5002	31C15	18	368640	4962730	1	T	1		11		39	82	206	10.6	150	1500		145	30	0.4	214	4
88KAR5003	31C15	18	369370	4964040	1	T	1		10		50	88	72	11.2	240	2400		81	64	1.2	346	2
88KAR5004	31C15	18	371110	4965270	1	T	1		10		47	56	170	4.8	120	1000		178	15	0.8	250	4
88KAR5005	31C15	18	371270	4967740	1	F	1															2
88KAR5006	31C15	18	370140	4970110	1	F	1															4
88KAR5007	31C15	18	371590	4971360	1	T	1		4		19	80	56	6	110	580		56	4	1.6	162	4
88KAR5008	31C15	18	372710	4971380	1	T	1		6		36	70	143	10	190	1600		69	19	1.4	191	2
88KAR5009A	31C15	18	372900	4972760	1	T	1		7		28	52	88	8.4	70	1000		56	22	1.7	820	2
88KAR5009B	31C15	18	372900	4972760	0		1		4		16	36	50	9.5	80	950		64	6	2	195	6
88KAR5009C	31C15	18	372900	4972760	0		1		10		38	40	64	20		13000		54	4	2.4	168	4
88KAR5009D	31C15	18	372900	4972760	0		1		10		38	62	56	20	430	5100		42	22	2.6	326	4
88KAR5010	31C15	18	365040	4962930	1	T	1		9		27	64	133	4.7	130	800		72	18	0.6	255	4
88KAR5011	31C15	18	364560	4964130	1	F	1															4
88KAR5012	31C15	18	365350	4966360	1	F	1															4
88KAR5013	31C15	18	365250	4969510	1	T	1		14		54	80	134	9.6	280	3800		70	12	3.6	112	6
88KAR5014	31C15	18	365140	4970590	1	F	1															12
88KAR5015	31C15	18	366700	4974270	1	T	1															6
88KAR5016	31C15	18	368240	4974760	1	T	1		16		53	68	248	10.2	280	2000		66	6	2.4	138	6
88KAR5017	31C15	18	374520	4970860	1	F	1															2
88KAR5018	31C15	18	369630	4961820	1	F	1															2
88KAR5019	31C15	18	370940	4959560	1	F	1															14
88KAR5021	31C15	18	373590	4960690	1	T	1		6		33	70	58	10	250	2100		63	30	1.6	381	8
88KAR5022	31C15	18	374230	4961340	1	T	1		9		33	68	59	9.4	240	1800		61	30	1.6	305	4
88KAR5023	31C15	18	376060	4963090	1	T	1															2
88KAR5024	31C15	18	377510	4964890	1	T	2															12
88KAR5024	31C15	18	377510	4964890	1	T	1		5		30	64	158	7.3	160	950		61	11	0.8	201	6
88KAR5025	31C15	18	376720	4966600	1	T	1		4		14	50	101	3.5	50	500		44	6	0.6	178	6
88KAR5026	31C15	18	375500	4966020	1	F	1															8
88KAR5027	31C15	18	373840	4965940	1	T	2		5		9	36	46	1.7	80	370		43	3	0.2	102	
88KAR5027	31C15	18	373840	4965940	1	T	1		4		10	38	47	1.7	60	370		42	5	0.8	93	2
88KAR5028	31C15	18	372700	4964920	1	T	1		6		48	90	107	11.4	180	1900		106	74	2.4	510	4
88KAR5029	31C15	18	372800	4965240	1	T	1		7		35	74	137	6.5	110	800		123	39	0.8	337	4
88KAR5030	31C15	18	371560	4964940	1	F	1															6

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR5031	31C15	18	370150	4965240	1	T	1		10		46	108	80	8.6	200	2400		90	28	4	192	1
88KAR5032	31C15	18	366310	4963590	1	T	1		4		39	98	44	7.2	160	1500		66	18	44	285	4
88KAR5033	31C15	18	365210	4963860	1	T	1		11		38	72	77	10	190	2200		76	26	0.8	257	1
88KAR5034	31C15	18	364070	4966000	1	F	1															4
88KAR5035	31C15	18	364400	4969820	1	F	1															6
88KAR5036	31C15	18	358690	4969410	1	T	1															10
88KAR5037	31C15	18	351490	4975150	1	T	1															6
88KAR5038	31C15	18	348740	4981540	1	F	1															10
88KAR5039	31C15	18	343300	4981580	1	F	1															12
88KAR5040	31C15	18	342950	4983610	1	F	1															4
88KAR5041	31C15	18	344640	4978750	1	F	1															4
88KAR5042	31C15	18	345960	4974480	1	F	1															8
88KAR5042	31C15	18	345960	4974480	1	F	2															34
88KAR5043	31C15	18	342030	4971090	1	F	1															8
88KAR5044	31C15	18	342510	4971960	1	F	1															18
88KAR5045	31C15	18	348210	4974760	1	T	1		100		43	68	152	11.2	280	2400		81	40	1.8	394	10
88KAR5046	31C15	18	346600	4972450	1	T	1		32		28	76	306	15	240	1600		83	29	1.2	199	10
88KAR5047	31C15	18	347300	4973430	1	T	1															4
88KAR5048	31C15	18	352650	4984220	1	F	1															8
88KAR5049	31C15	18	354550	4983760	1	T	1		154		44	84	226	8.4		800		80	24	2.4	122	6
88KAR5050	31C15	18	354260	4981440	1	T	2															34
88KAR5050	31C15	18	354260	4981440	1	T	1		50		28	84	203	15.2	360	1300		77	42	3.2	321	22
88KAR5051	31C15	18	354240	4981070	1	F	1															10
88KAR5052	31C15	18	351090	4979570	1	T	1		190		30	50	223	8.5	510	960		71	33	0.4	860	8
88KAR5053	31C15	18	351650	4979540	1	T	1		400		36	48	417	10	930	1000		84	57	0.8	1100	8
88KAR5054	31C15	18	352460	4979020	1	F	1		57		36	62	239	9.8	230	1100		79	17	0.8	320	10
88KAR5055	31C15	18	350230	4977540	1	T	1		36		24	66	199	8	200	1000		80	19	0.8	500	4
88KAR5056	31C15	18	351320	4974560	1	F	1															22
88KAR5057	31C15	18	348310	4968200	1	F	1															8
88KAR5058	31C15	18	362740	4962300	1	F	1															32
88KAR5058	31C15	18	362740	4962300	1	F	2															20
88KAR5059	31C15	18	352800	4984000	1	V	2															1
88KAR5059	31C15	18	352800	4984000	1	V	1		5		17	54	74	4.9	40	730		37	10	0.05	142	1
88KAR5059A	31C15	18	352800	4984000	0		1		23		19	54	183	5.8	90	700		51	22	0.2	230	4

SAMPLE	nts	zo	east	north	r	s	a	AG ppm <2um	AS ppm <2um	CD ppm <2um	CO ppm <2um	CR ppm <2um	CU ppm <2um	FE pct <2um	HG ppb <2um	MN ppm <2um	MO ppm <2um	NI ppm <2um	PB ppm <2um	U ppm <2um	ZN ppm <2um	AU ppb <63um
88KAR5059A	31C15	18	352800	4984000	0		2															4
88KAR5060	31C15	18	371980	4977930	1	F	1		7		41	48	100	5.5	140	1300		48	14	1.2	102	1
88KAR5060	31C15	18	371980	4977930	1	F	2															
89KAR3674	31C16	18	410050	4966650	1	T	1	0.1	9		27	77	52	4.4	100	812	2	48	38	1.2	85	
89KAR3683	31C10	18	380930	4944340	1	T	2	0.1	2	0.05	13	66	44	3.7	16	624	4	35	12	0.5	82	1
89KAR3683	31C10	18	380930	4944340	1	T	1	0.1	2	0.1	12	65	43	3.6	16	610	4	34	9	0.5	82	18
89KAR3684	31C10	18	379300	4943600	1	T	1	0.1	4	0.1	34	110	313	8.5	80	934	4	53	19	1.6	108	18
89KAR3685	31C10	18	378140	4937720	1	T	2															1
89KAR3685	31C10	18	378140	4937720	1	T	1	0.2	8	0.1	34	245	50	9.2	128	1300	5	79	40	2.2	152	1
89KAR3686	31C10	18	375400	4933180	1	T	1	0.05	4	0.1	23	112	33	7.4	96	1360	4	42	33	0.9	230	1
89KAR3687	31C10	18	373650	4930270	1	T	1	0.1	3	0.1	20	96	70	5.5	112	1420	3	50	15	1.4	172	4
89KAR3687	31C10	18	373650	4930270	1	T	2	0.2	4	0.05	23	91	63	5.7	125	1440	4	54	15	1.4	157	
89KAR3688	31C10	18	367870	4932300	1	T	1	0.05	5	0.1	19	87	87	6.7	147	1580	4	46	21	0.7	160	12
89KAR3689	31C10	18	369780	4935100	1	F	1	0.05	4	0.1	16	89	102	3.9	16	921	4	58	16	0.5	263	1
89KAR3690	31C10	18	360550	4931150	1	V	1	0.05	3	0.1	19	82	48	4.3	10	579	3	44	12	0.7	141	1
89KAR3691	31C10	18	359450	4933320	1	T	2															1
89KAR3691	31C10	18	359450	4933320	1	T	1	0.05	3	0.1	18	121	146	5.6	332	272	4	60	10	2.5	87	22
89KAR3692	31C10	18	362450	4934230	1	T	1	0.05	2	0.1	20	94	187	4.6	10	579	4	69	9	0.3	176	4
89KAR3692	31C10	18	362450	4934230	1	T	2	0.05	2	0.05	22	93	184	4.9	10	570	4	71	11	0.3	177	
89KAR3693	31C10	18	364950	4933100	1	T	1	0.05	5	0.1	37	103	97	7.9	144	2400	5	66	27	2.7	165	1
89KAR3693	31C10	18	364950	4933100	1	T	2															1
89KAR3694	31C10	18	366750	4933930	1	F	1	0.2	8	0.1	27	112	119	7.8	128	2880	4	73	37	0.9	207	1
89KAR3695	31C10	18	367230	4937720	1	T	1	0.05	4	0.1	28	85	146	3.7	19	665	5	99	15	0.6	287	4
89KAR3696	31C10	18	365200	4942000	1	T	1	0.05	4	0.1	16	84	71	3.7	13	649	4	50	10	0.7	113	2
89KAR3697	31C10	18	364200	4943450	1	T	1	0.05	4	0.1	52	68	217	4.7	109	949	4	88	17	2.2	129	1
89KAR3697	31C10	18	364200	4943450	1	T	2															1
89KAR3698	31C10	18	362500	4945820	1	T	1	0.05	5	0.1	27	62	160	3.1	18	759	4	78	12	0.8	195	1
89KAR3699	31C10	18	358900	4946450	1	F	1	0.4	11	0.1	19	75	145	4.5	227	2600	6	55	25	0.7	258	14
89KAR3700	31C10	18	358650	4945050	1	T	2	0.1	5	0.05	30	77	53	6.4	38	333	4	46	17	0.7	102	
89KAR3700	31C10	18	358650	4945050	1	T	1	0.05	5	0.1	28	82	56	6.8	35	355	4	49	19	0.8	111	8
89KAR3701	31C10	18	356480	4945150	1	T	1	0.1	6	0.1	19	52	124	3.9	35	932	3	61	11	0.8	284	1
89KAR3702	31C10	18	354100	4948300	1	T	1	0.05	16	0.1	50	70	89	7.4	128	2340	6	72	31	3.9	154	1
89KAR3703	31C10	18	354700	4948400	1	T	1	0.05	9	0.1	35	63	47	6.1	198	1780	5	43	37	2.8	142	10
89KAR3704	31C10	18	356780	4949250	1	T	1	0.05	9	0.1	98	68	68	8.2	61	2200	5	62	24	1.8	163	1

CARBONATE AND TEXTURAL DATA LIST LEGEND*

SAMPLE- sample number
nts- National Topographic System 1:50 000 map sheet number
zo- UTM grid zone
east- UTM easting in metres
north- UTM northing in metres
s- sample sediment type
    T- till, F-glaciofluvial sand and/or gravel
    V- glaciolacustrine silty clay
    M- marine silty clay A-aeolian sand
    C- colluvium R- rock
r- representivity of the site
    1- representative sample at site
    0- less or non-representative sample at site
a- analytical run - 1-first, 2-second, etc.
NON-CB- pct - <.063 mm - per cent non-carbonate carbon in the < .063 mm fraction
CACO3- pct - <.063 mm - per cent carbonate calculated as per cent CaCO3 equivalent in < .063 mm fraction
NON-CB - percent - .125-.250 mm - per cent non-carbonate carbon in the .125-.250 mm fraction
CACO3 -pct - .125-.250 mm- per cent carbonate calculated as per cent CaCO3 equivalent in the .125-.250 mm fraction
% SAND - pct - <2 mm-per cent sand-sized (.063-2.0 mm) detritus in < 2 mm fraction
% SILT - pct - <2 mm - per cent silt-sized (.004 - .063 mm) detritus in < 2 mm fraction
% CLAY - pct - <2 mm -per cent clay-sized (<.004 mm) detritus in < 2 mm fraction

*legend and data list released on computer files entitled "CARBLEG.ASC" and "CARBTX.ASC"

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
80AR 0001	31C16	18	392920	4965475	T	1	1	0.10	26.60	0.00	6.70	64.40	22.30	13.30
80AR 0001A	31C16	18	392920	4965475	T	0	1	0.10	15.90	0.00	5.90	64.90	20.90	14.30
80AR 0001B	31C16	18	392920	4965475	T	0	1	0.10	26.30	0.00	7.30	64.90	23.30	11.80
80AR 0002	31C16	18	385996	4968648	F	1	1	0.10	14.70	0.00	11.80	90.60	8.20	1.30
80AR 0003	31C16	18	389076	4974434	T	1	1	0.20	21.30	0.00	19.30	54.90	36.20	8.90
80AR 0005	31F01	18	400909	4999260	T	1	1	0.10	18.80	0.00	10.50	60.30	25.00	14.80
80AR 0005A	31F01	18	400909	4999260	T	0	1	0.10	21.30	0.00	10.40	60.80	24.40	14.70
80AR 0005B	31F01	18	400909	4999260	F	0	1			0.00	7.90	99.00	0.40	0.60
80AR 0006	31F01	18	406435	4995442	T	1	1	0.10	28.40	0.00	8.40	72.60	18.40	9.10
80AR 0007	31F01	18	397791	4991509	T	1	1	0.10	21.60	0.00	14.80	55.90	31.70	12.40
80AR 0008	31F01	18	394756	4991172	F	0	1			0.10	22.90	94.70	3.40	1.90
80AR 0008A	31F01	18	394756	4991172	C	0	1					6.10	44.60	49.30
80AR 0008B	31F01	18	394756	4991172	T	1	1	0.20	37.40	0.10	28.60	46.90	27.40	25.80
80AR 0008C	31F01	18	394756	4991172	C	0	1					51.40	33.90	14.70
80AR 0009	31F01	18	394395	4988557	F	1	1	0.20	39.30	0.00	18.40	98.50	1.00	0.50
80AR 0010	31F01	18	388181	4990792	F	1	1	0.00	15.30	0.00	10.40	97.40	1.70	0.90
80AR 0011	31F01	18	402960	5006498	T	1	1	0.20	20.90	0.00	9.60	81.60	12.40	6.00
80AR 0012	31F01	18	398982	5006194	T	1	1	0.10	12.00	0.00	8.50	66.70	26.90	6.40
80AR 0013	31F01	18	391268	4995395	T	1	1	0.10	21.80	0.00	13.80	59.60	31.10	9.30
80AR 0013A	31F01	18	391268	4995395	T	0	1	0.10	21.10	0.00	13.10	58.40	32.50	9.10
80AR 0013B	31F01	18	391268	4995395	T	0	1	0.10	21.70	0.00	14.50	54.90	33.80	11.30
80AR 0013C	31F01	18	391268	4995395	T	0	1	0.10	13.10	0.00	9.10	58.30	31.40	10.30
80AR 0014	31F01	18	382425	5000822	T	1	1	0.10	17.40	0.00	8.80	47.00	41.80	11.20
80AR 0014A	31F01	18	382425	5000822	T	0	1	0.10	17.30	0.00	9.30	55.70	35.50	8.80
80AR 0014B	31F01	18	382425	5000822	T	0	1	0.10	15.10	0.00	6.90	57.50	33.80	8.70
80AR 0014C	31F01	18	382425	5000822	T	0	1	0.10	16.80	0.00	8.30	61.30	30.70	8.10
80AR 0014D	31F01	18	382425	5000822	T	0	1	0.10	16.30	0.00	6.90	62.40	29.90	7.70
80AR 0014E	31F01	18	382425	5000822	T	0	1	0.10	18.90	0.00	8.30	65.10	26.10	8.90
80AR 0015	31C16	18	386735	4980766	F	1	1	0.30	31.80	0.10	43.90	96.50	3.30	0.20
80AR 0016	31C09	18	397411	4950866	F	1	1	0.10	0.30	0.00	1.30	95.20	3.70	1.10
80AR 0017	31C09	18	388325	4948780	F	0	1	0.10	20.70	0.00	6.10	89.70	8.30	2.00

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
80AR 0017A	31C09	18	388325	4948780	C	1	1	0.20	6.70	0.30	0.00	89.90	6.60	3.40
80AR 0018	31C09	18	381441	4954539	F	1	1	0.00	16.10	0.00	8.60	95.10	4.00	1.00
80AR 0019	31C16	18	382684	4956732	T	1	1	0.20	12.90			34.60	25.90	39.50
80AR 0019A	31C16	18	382684	4956732	F	0	1	0.20	20.70	0.10	10.10	27.90	33.20	38.90
80AR 0020	31F02	18	381855	4991894	F	1	1	2.20	24.30	0.20	13.80	95.40	3.40	1.20
80AR 0020A	31F02	18	381855	4991894	F	0	1	0.00	17.70	0.00	15.70	95.60	3.60	0.80
80AR 0021	31F02	18	372784	4999532	F	1	1	0.20	27.90	0.10	21.30	94.10	4.50	1.40
80AR 0022	31F02	18	361440	4986757	F	1	1	0.40	22.20	0.10	7.40	94.70	4.10	1.20
80AR 0022A	31F02	18	361440	4986757	F	0	1	0.00	14.80	0.00	8.90	72.30	25.50	1.30
80AR 0023	31C09	18	400887	4942196	T	1	1	0.10	31.90	0.00	12.60	62.70	25.80	11.50
80AR 0023A	31C09	18	400887	4942196	T	0	1					68.00	23.80	8.20
80AR 0023B	31C09	18	400887	4942196	T	0	1	0.10	25.60	0.00	10.20	75.10	18.60	6.40
80AR 0024	31C09	18	402771	4939701	R	0	1	0.10	0.30	0.00	0.00	82.80	12.50	4.70
80AR 0025	31C09	18	405257	4929726	T	1	1	0.20	23.50	0.10	14.90	82.80	8.60	8.60
80AR 0025A	31C09	18	405257	4929726	F	0	1	0.20	37.10	0.10	18.10	95.50	3.20	1.30
80AR 0026	31C09	18	408731	4930600	T	0	1	0.10	19.80	0.00	12.30	34.00	37.40	28.60
80AR 0026A	31C09	18	408731	4930600	F	0	1	0.10	32.30	0.10	18.60	91.50	6.30	2.30
80AR 0026B	31C09	18	408731	4930600	T	0	1	0.10	34.00	0.00	14.10	73.70	16.70	9.60
80AR 0026C	31C09	18	408731	4930600	T	1	1	0.10	22.30	0.00	15.00	41.00	38.20	20.80
80AR 0027	31C09	18	418826	4929571	T	1	1	0.10	29.80	0.00	10.20	65.70	25.00	9.40
80AR 0028	31C09	18	409525	4932582	F	1	1	0.10	15.30	0.00	6.60	36.70	44.80	18.60
80AR 0029	31C09	18	406967	4932721	V	1	1	0.20	0.50	0.10	0.50	36.40	24.40	39.20
80AR 0029A	31C09	18	406967	4932721	F	0	1	0.00	18.40	0.10	4.80	53.90	43.60	2.40
80AR 0030	31C15	18	364551	4964172	F	1	1	0.50	33.60	0.00	27.00	88.40	9.30	2.30
80AR 0031	31C15	18	364382	4965004	T	1	1	0.30	8.20	0.00	11.30	71.80	22.80	5.40
80AR 0033	31C15	18	364032	4966621	F	1	1	0.10	14.70	0.00	12.20	71.30	26.50	2.30
80AR 0034	31C15	18	365346	4970754	F	1	1	0.20	18.30	0.10	17.40	95.30	3.80	0.90
80AR 0035	31C15	18	368230	4964372	T	1	1	0.10	22.70	0.00	13.90	63.40	24.70	11.90
80AR 0036	31C15	18	371730	4974865	T	1	1	0.20	29.70	0.00	23.80	48.20	34.60	17.20
80AR 0037	31C15	18	371864	4975984	F	1	1	0.30	15.70	0.00	16.80	89.70	9.00	1.30
80AR 0038	31C15	18	371201	4976860	F	1	1	0.60	25.80	0.10	15.30	96.00	2.80	1.20

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
80AR 0039	31C15	18	369252	4977999	F	1	1	0.60	14.90	0.10	7.60	95.90	3.10	1.00
80AR 0040	31C15	18	367608	4978629	F	1	1	0.20	29.50	0.10	41.30	97.50	1.80	0.80
80AR 0041	31C15	18	369239	4979962	F	1	1	0.30	15.80	0.10	9.30	77.20	21.00	1.80
80AR 0042	31C15	18	370650	4981920	F	1	1	0.60	0.80	0.10	0.40	93.00	5.40	1.60
80AR 0043	31C15	18	375552	4980963	T	1	1	0.00	22.00	0.00	10.60	86.10	11.70	2.20
80AR 0044	31C15	18	377784	4981606	F	1	1	0.10	19.20	0.00	14.50	92.40	6.90	0.70
80AR 0045	31C15	18	379078	4979948	F	1	1	0.80	47.30	0.20	57.70	78.00	19.00	3.00
80AR 0046	31C15	18	374730	4977269	F	1	1	0.60	15.30	0.00	26.30			
80AR 0047	31C15	18	374063	4976916	F	1	1			0.00	29.10	98.90	0.40	0.70
80AR 0047A	31C15	18	374063	4976916	F	0	1	0.10	29.50	0.10	23.60	83.00	16.00	1.00
80AR 0048	31C15	18	374109	4975542	F	1	1	0.10	31.60	0.10	23.80	98.70	0.90	0.40
80AR 0049	31C15	18	374659	4974937	T	1	1	0.40	62.90	0.20	86.20	70.70	23.10	6.20
80AR 0050	31C15	18	380209	4978201	F	1	1			0.10	39.30	98.50	1.00	0.60
80AR 0050A	31C15	18	380209	4978201	F	0	1	0.30	40.10	0.10	42.30	94.30	5.00	0.70
80AR 0051	31C15	18	373033	4971547	T	1	1	0.20	43.40			70.80	20.10	9.10
80AR 0051A	31C15	18	373033	4971547	T	0	1	0.20	41.20	0.20	26.30	70.50	20.60	8.90
80AR 0051B	31C15	18	373033	4971547	T	0	1	0.80	16.40	0.00	13.30	74.60	16.20	9.30
80AR 0052	31C15	18	380385	4968105	T	1	1	0.30	44.50	0.00	31.30	74.20	19.90	5.90
80AR 0052A	31C15	18	373033	4971547	T	0	1	0.20	41.20	0.20	26.30			
80AR 0052B	31C15	18	373033	4971547	T	0	1	0.80	16.40	0.00	13.30			
80AR 0054	31C15	18	373862	4965941	T	1	1	0.50	62.30	0.20	55.20	75.90	18.60	5.50
80AR 0055	31C15	18	357213	4968762	F	1	1	0.40	2.30	0.00	0.00	96.70	2.10	1.20
80AR 0056	31C15	18	345209	4981081	F	1	1	0.20	1.20	0.10	0.60	81.30	14.90	3.80
80AR 0057	31C15	18	347126	4981218	F	1	1	0.20	22.70	0.00	10.30	95.40	3.40	1.20
80AR 0058	31C15	18	346772	4980923	F	1	1	0.10	21.30	0.00	9.30	84.90	12.40	2.80
80AR 0059	31C15	18	351321	4983543	F	1	1	0.10	23.30	0.10	20.80	95.90	3.60	0.90
80AR 0060	31C15	18	351391	4983711	F	1	1	0.90	34.60	0.10	29.80	97.70	1.20	1.10
80AR 0061	31C15	18	352371	4978966	C	1	1	0.20	35.40	0.00	35.10			
80AR 0062	31C15	18	358769	4960342	F	1	1	1.40	15.90	0.10	9.80	91.30	5.60	3.10
80AR 0063	31C10	18	355703	4953744	T	1	1	0.10	18.50	0.10	15.40	74.30	23.20	2.50
80AR 0064	31C10	18	348225	4952111	T	1	1	0.20	6.90	0.00	13.60	78.10	15.40	6.50

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
80AR 0065	31C10	18	341775	4948916	T	1	1	0.30	53.70	0.10	54.20	87.00	10.20	2.90
80AR 0066	31C10	18	349497	4955738	T	1	1	0.10	0.80	0.00	0.00	89.90	7.50	2.60
80AR 0067	31C10	18	353814	4956063	F	1	1	0.10	15.90	0.10	13.50	77.80	20.40	1.80
80AR 0068	31C10	18	357421	4953309	F	1	1	0.10	15.30	0.10	14.10	83.80	14.70	1.50
80AR 0069	31C15	18	364916	4956792	T	1	1	0.50	1.10	0.10	0.20	58.10	25.70	16.20
80AR 0070	31C15	18	379092	4964984	T	1	1	0.20	1.10	0.00	0.00	75.60	18.50	5.90
80AR 0071	31C15	18	380833	4961237	F	1	1	0.10	17.70	0.00	11.40	96.10	2.90	1.00
80AR 0072	31C15	18	381203	4959569	F	1	1	0.10	33.90	0.00	21.80	94.40	4.40	1.10
80AR 0073	31C16	18	381561	4958690	T	1	1	0.20	35.90	0.00	25.50	76.50	16.30	7.20
80AR 0073A	31C16	18	381561	4958690	T	0	1	0.20	38.60	0.00	15.20	78.00	15.70	6.20
80AR 0074	31C15	18	379632	4957323	F	1	1	0.10	30.90	0.00	15.20	80.50	17.30	2.20
80AR 0074A	31C15	18	379632	4957323	F	0	1	0.10	31.80	0.00	11.40	98.40	1.00	0.60
80AR 0075	31C10	18	380515	4955490	T	1	1	0.10	8.80	0.00	6.10	63.10	28.60	8.40
80AR 0076	31C10	18	380096	4953705	T	1	1	0.10	28.80			7.70	53.30	39.00
80AR 0076A	31C10	18	380096	4953705	F	0	1	0.10	27.90					
80AR 0077	31C15	18	376965	4963278	F	1	1	0.20	0.80	0.00	0.10	91.80	7.20	1.00
80AR 0078	31C15	18	374889	4961693	F	1	1	0.10	0.80	0.00	0.60	84.30	14.50	1.20
80AR 0079	31C15	18	372261	4957949	F	1	1	0.10	0.30	0.00	0.20	94.40	5.00	0.70
80AR 0084	31C10	18	374350	4929359	T	1	1	0.10	21.30	0.00	13.30	71.40	20.80	7.80
80AR 0085	31C10	18	376286	4936049	F	1	1	0.80	1.50	0.10	0.10	84.50	10.90	4.60
80AR 0086	31C10	18	376798	4935982	F	1	1	0.10	33.40	0.00	8.50	98.10	1.10	0.80
80AR 0087	31C10	18	378851	4941647	F	0	1	0.30	27.40	0.00	4.70			
80AR 0087A	31C10	18	378851	4941647	F	1	1	0.30	1.90	0.10	0.00	97.30	2.10	0.70
80AR 0087B	31C10	18	378851	4941647	F	0	1	0.30	1.40	0.00	0.30	98.00	1.20	0.80
80AR 0088	31C10	18	372478	4938599	F	1	1	0.20	32.30	0.00	15.20	99.10	0.50	0.40
80AR 0089	31C10	18	367904	4933365	F	1	1	0.10	0.60	0.00	0.20	91.90	7.30	0.90
80AR 0090	31C10	18	367771	4937814	T	1	1	0.10	0.10	0.00	0.20	77.20	18.70	4.20
80AR 0091	31C10	18	372414	4942560	F	1	1			0.00	23.40	99.40	0.30	0.30
80AR 0091A	31C10	18	372414	4942560	F	0	1			0.10	23.80	98.70	0.90	0.40
80AR 0092	31C10	18	368315	4944175	F	0	1	0.10	16.80	0.00	11.80	98.80	0.80	0.40
80AR 0092A	31C10	18	368315	4944175	F	1	1	0.20	0.70	0.00	0.40	94.30	4.90	0.80

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
80AR 0093	31C10	18	367417	4949371	F	1	1	0.20	22.70	0.10	17.30	91.80	7.20	1.10
80AR 0094	31C10	18	366983	4951683	F	1	1	0.40	1.60	0.10	0.10	93.60	5.10	1.30
80AR 0095	31C10	18	361236	4949712	F	1	1	0.20	26.80	0.00	11.60	94.10	4.70	1.20
80AR 0096	31C10	18	363287	4946123	F	0	1	0.20	36.60	0.10	18.70	99.30	0.70	0.00
80AR 0096A	31C10	18	363287	4946123	F	1	1	0.10	17.10	0.00	15.40	93.20	6.00	0.80
80AR 0097	31C10	18	360320	4952130	C	0	1	0.20	22.80			14.50	46.60	38.90
80AR 0098	31C10	18	361564	4929141	F	1	1	0.20	0.70	0.00	0.00	80.40	16.10	3.60
80AR 0099	31C10	18	361421	4935719	F	1	1	0.40	33.10	0.00	13.20	98.90	0.50	0.70
80AR 0100	31C10	18	357121	4940132	F	1	1	0.30	0.50	0.00	0.10	57.30	25.40	17.40
80AR 0101	31C10	18	356996	4942214	F	1	1	0.20	6.30	0.00	4.70	54.30	31.90	13.80
80AR 0101A	31C10	18	356996	4942214	F	0	1	0.50	0.10	0.00	0.10	61.80	24.00	14.20
80AR 0101B	31C10	18	356996	4942214	F	0	1	1.10	2.70	0.20	0.70	88.10	9.20	2.70
80AR 0102	31C10	18	358439	4944512	F	1	1	0.10	15.50	0.00	15.90	97.70	1.40	0.90
80AR 0103	31C10	18	361182	4946000	T	1	1	0.10	6.30	0.00	5.30	73.70	20.70	5.60
80AR 0104	31C10	18	356884	4944677	F	1	1	0.30	2.00	0.00	0.00	94.80	3.30	2.00
80AR 0105	31C10	18	353774	4948681	F	1	1	0.70	1.20	0.00	0.40	90.30	7.70	2.00
80AR 0106	31C10	18	355482	4950817	T	1	1	0.70	0.80	0.10	0.10	81.60	16.90	1.50
80AR 0107	31C10	18	355656	4951220	F	1	1	1.10	19.10	0.40	17.80			
80AR 0108	31C10	18	351112	4952565	F	1	1	0.50	27.80	0.10	17.90	97.10	2.10	0.80
80AR 0109A	31C10	18	347360	4950330	T	1	1	1.00	6.10	0.00	8.80			
80AR 0773	31C15	18	347690	4976536	F	1	1	0.60	18.70	0.20	16.90	91.70	8.20	0.10
80AR 0774	31C15	18	342172	4976360	T	1	1	0.50	1.80	0.10	0.70	88.50	8.80	2.70
80AR 0788	31C10	18	356153	4942266	F	1	1	1.10	20.30	0.10	16.00	96.80	3.10	0.10
80AR 0789	31C10	18	352909	4941214	F	1	1	0.10	0.90	0.00	0.00	76.20	22.90	0.90
80AR 0790	31C10	18	349208	4938510	F	1	1	0.30	18.40	0.10	14.10	98.70	0.90	0.40
80AR 0791	31C10	18	349340	4937337	F	1	1	0.40	2.90	0.10	0.10	96.30	2.60	1.10
80AR 0800	31C10	18	342000	4939527	F	1	1	1.80	3.00	0.30	2.30	94.50	4.30	1.20
80AR 0801	31C10	18	344805	4947761	T	1	1	0.20	25.80	0.00	21.30	89.10	9.90	0.90
80AR 0801	31C10	18	344805	4947761	T	1	1	0.20	25.80	0.00	21.30			
80SAR0001	31F01	18	396893	5003281	T	1	1	0.10	21.60	0.00	10.50			
80SAR0001A	31F01	18	396893	5003281	T	0	1	0.10	17.70	0.00	13.70			

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
80SAR0002	31F01	18	394290	5005795	F	1	1	0.20	16.10	0.00	9.80			
80SAR0003	31F01	18	386496	5003287	F	1	1	0.10	18.50	0.00	9.80			
80SAR0004	31F01	18	396763	5010202	T	1	1	0.10	17.30	0.00	10.10			
80SAR0004A	31F01	18	396763	5010202	F	0	1	0.00	12.70	0.00	9.30			
80SAR0017	31F01	18	392691	4995321	F	1	1	0.00	12.90	0.00	9.10			
80SAR0018	31F01	18	392786	4995239	V	1	1	0.10	9.80	0.00	11.40			
80SAR0019	31F01	18	389945	4993811	T	1	1	0.10	27.70	0.10	21.90			
80SAR0020	31F01	18	389873	4993509	T	1	1	0.20	33.20	0.10	20.00			
80SAR0021	31F01	18	389431	4989235	T	1	1	0.20	34.90	0.00	65.30			
80SAR0021A	31F01	18	389431	4989235	T	0	1	0.30	33.70	0.00	69.30			
80SAR0022	31F01	18	388264	4988900	T	1	1	0.10	20.60	0.00	15.40			
80SAR0023	31F01	18	388366	4986160	T	1	1	0.10	13.30	0.00	50.20			
80SAR0023A	31F01	18	388366	4986160	T	0	1	0.30	1.40	0.10	0.00			
80SAR0024	31F01	18	383765	4986625	F	1	1	0.10	16.00	0.00	10.20			
80SAR0025	31F01	18	383144	4987954	T	1	1	0.10	0.80	0.00	0.00			
80SAR0041	31F02	18	353139	5009015	T	1	1	0.10	0.40	0.00	0.00			
80SAR0041A	31F02	18	353139	5009015	T	0	1	0.10	0.30	0.00	0.00			
80SAR0041B	31F02	18	353139	5009015	C	0	1	0.20	1.80	0.00	0.20			
80SAR0042	31F02	18	350560	5007382	T	1	1	0.10	20.20	0.00	13.00			
80SAR0042A	31F02	18	350560	5007382	T	0	1	0.10	21.00	0.00	12.90			
80SAR0042B	31F02	18	350560	5007382	F	0	1	0.00	15.30	0.00	12.50			
80SAR0042C	31F02	18	350560	5007382	T	0	1	0.10	22.30	0.00				
80SAR0042D	31F02	18	350560	5007382	A	0	1	0.30	1.30	0.00				
80SAR0043	31F02	18	352773	5007369	T	1	1	0.10	22.50	0.00	13.80			
81KAR0001	31C16	18	395600	4977820	T	1	1	0.10	17.20			55.30	31.70	13.10
81KAR0002	31C16	18	394450	4977680	T	1	1	0.10	20.40					
81KAR0002A	31C16	18	394450	4977680	T	0	1	0.30	0.70					
81KAR0003	31C16	18	386025	4979250	T	1	1	0.10	26.20			68.20	25.80	6.00
81KAR0004	31C16	18	383750	4979200	F	1	1	0.20	28.10					
81KAR0005	31C15	18	381075	4979850	T	1	1	0.60	34.80					
81KAR0006	31C16	18	382600	4980000	T	1	1	0.20	37.80					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81KAR0007	31C16	18	381825	4979475	T	1	1	0.10	37.70					
81KAR0008	31C15	18	379430	4981560	T	1	1	0.10	28.60					
81KAR0009	31C15	18	381125	4982950	T	1	1	0.00	15.20					
81KAR0009A	31C15	18	381125	4982950	T	0	1	0.10	14.50					
81KAR0009B	31C15	18	381125	4982950	T	0	1	0.10	20.10					
81KAR0010	31F01	18	381840	4984830	T	1	1	0.10	28.00			75.90	19.30	4.80
81KAR0011	31F02	18	380520	4988920	T	1	1	0.20	1.30			51.30	30.40	18.30
81KAR0012	31C15	18	379175	4982075	T	1	1	0.10	8.80					
81KAR0013	31F02	18	376750	4987075	T	1	1	0.40	2.30					
81KAR0014	31F02	18	374690	4987110	T	1	1	0.10	21.20			80.60	16.50	2.90
81KAR0015	31F02	18	375750	4988300	F	1	1	0.10	15.40					
81KAR0016	31F02	18	376000	4989060	T	1	1	0.50	2.30					
81KAR0017	31F02	18	378270	4991030	T	1	1	0.30	1.50			51.40	36.50	12.10
81KAR0018	31F02	18	379300	4992270	T	1	1	0.40	2.10					
81KAR0019	31F02	18	379640	4993920	T	1	1	0.10	16.40			56.60	35.40	8.00
81KAR0019A	31F02	18	379640	4993920	T	0	1	0.20	7.50					
81KAR0019B	31F02	18	379640	4993920	T	0	1	0.10	13.40					
81KAR0020	31F01	18	383230	4995060	T	1	1	0.10	1.50			63.80	30.70	5.50
81KAR0021	31F02	18	373150	4999520	T	1	1	0.40	2.10					
81KAR0022	31C16	18	393925	4982700	T	1	1	0.10	20.70			58.60	34.10	7.30
81KAR0022A	31C16	18	393925	4982700	T	0	1	0.10	18.80					
81KAR0022B	31C16	18	393925	4982700	T	0	1	0.10	16.30					
81KAR0023	31F01	18	386190	4993140	T	1	1	0.30	28.00			68.40	24.70	6.90
81KAR0024	31F01	18	382030	4997650	T	1	1	0.20	1.00			50.50	34.00	15.50
81KAR0025	31F01	18	381600	4998825	T	1	1	0.30	1.30					
81KAR0026	31F02	18	378310	5003410	T	1	1	0.30	6.90					
81KAR0027	31F02	18	375450	5005700	F	1	1	2.50	33.70					
81KAR0029	31F02	18	373375	5010510	T	1	1	0.40	71.80			72.60	21.50	5.90
81KAR0030	31F02	18	371650	5011760	T	1	1	0.30	1.00					
81KAR0032	31F02	18	364500	5011850	F	1	1	0.20	0.50					
81KAR0033	31F02	18	362450	5010710	T	1	1	0.30	0.50			81.20	14.70	4.10

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81KAR0034	31F02	18	361740	5009430	T	1	1	0.30	0.80					
81KAR0035	31F02	18	374460	5005100	T	1	1	0.50	1.40					
81KAR0036	31F02	18	373100	5004130	F	1	1	0.30	40.00					
81KAR0037	31F02	18	372380	5000200	F	1	1	0.20	27.40					
81KAR0038	31F02	18	349700	4984400	T	1	1	0.80	1.30					
81KAR0039	31F02	18	352000	4988100	T	1	1	0.40	2.20					
81KAR0040	31F02	18	352500	4988500	T	1	1	0.60	1.60					
81KAR0041	31F02	18	352400	4988840	T	1	1	0.30	1.80			76.10	20.20	3.80
81KAR0042	31F02	18	352540	4989380	F	1	1	0.00	0.60					
81KAR0043	31F02	18	353950	4992470	T	1	1	0.10	0.30			58.60	36.20	5.20
81KAR0044	31F02	18	355500	4993600	T	1	1	0.40	0.80					
81KAR0045	31F02	18	357430	4992640	F	1	1	0.50	4.70					
81KAR0046	31F02	18	357210	4992670	T	1	1	0.40	2.30					
81KAR0047	31F02	18	355400	4995330	T	1	1	0.30	2.40					
81KAR0048	31F02	18	356080	4995950	T	1	1	0.50	1.80					
81KAR0049	31F02	18	356500	4997850	T	1	1	0.20	0.70			64.30	30.30	5.40
81KAR0050	31F02	18	358800	5003200	T	1	1	0.50	1.00			72.10	21.90	6.00
81KAR0051	31F02	18	360550	5007500	T	1	1	0.50	2.10			70.20	20.30	9.40
81KAR0052	31F02	18	360880	5008120	F	1	1	0.50	57.20					
81KAR0053	31F02	18	378100	5003600	T	1	1	0.10	19.90			77.80	18.30	3.90
81KAR0054	31F01	18	390350	5004120	T	1	1	0.20	0.80			59.60	31.80	8.70
81KAR0055	31F02	18	376720	5000100	T	1	1	0.30	1.40			61.20	27.30	11.50
81KAR0056	31F02	18	371450	4999000	F	1	1	0.40	21.30					
81KAR0056A	31F02	18	371450	4999000	F	0	1	0.20	21.60					
81KAR0058	31F02	18	366800	5004650	T	1	1	0.20	1.70			72.00	23.70	4.30
81KAR0059	31F01	18	385450	4992600	T	1	1	0.30	1.20					
81KAR0060	31F02	18	376940	4990720	T	1	1	0.10	15.90					
81KAR0060A	31F02	18	376940	4990720	T	0	1	0.20	10.70					
81KAR0060B	31F02	18	376940	4990720	T	0	1	0.10	13.70					
81KAR0060C	31F02	18	376940	4990720	T	0	1	0.10	9.30					
81KAR0061	31F02	18	372300	4997060	T	1	1	0.10	9.70			49.30	37.60	13.10

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81KAR0062	31F02	18	374750	4990090	T	1	1	0.10	0.70					
81KAR0063	31F02	18	373880	4990000	T	1	1	0.10	13.50					
81KAR0064	31F02	18	370300	4991330	T	1	1	0.10	7.90			46.00	41.50	12.50
81KAR0065	31F02	18	368430	4989220	T	1	1	0.10	0.90			47.40	43.90	8.70
81KAR0066	31F02	18	367910	4989700	T	1	1	0.20	2.20					
81KAR0067	31F02	18	364950	4986400	T	1	1	0.20	0.30					
81KAR0067A	31F02	18	364950	4986400	T	0	1	0.20	0.50					
81KAR0068	31F02	18	361360	4986575	T	1	1	0.30	2.60					
81KAR0069	31C15	18	378750	4979500	T	1	1	0.70	54.50					
81KAR0070	31C15	18	376900	4978250	T	1	1	0.40	44.50					
81KAR0071	31C15	18	372890	4980390	T	1	1	0.10	16.10					
81KAR0071A	31C15	18	372890	4980390	T	0	1	0.30	17.80					
81KAR0072	31C15	18	372620	4977180	T	1	1	0.10	25.00					
81KAR0073	31C15	18	372150	4975680	T	1	1	0.10	15.80					
81KAR0074	31C15	18	371200	4974260	T	1	1	0.60	3.00					
81KAR0075	31C15	18	366150	4973200	F	1	1	0.40	1.80					
81KAR0076	31C15	18	367370	4969230	T	1	1	1.70	7.70					
81KAR0077	31C15	18	367800	4969470	T	1	1	0.30	1.30					
81KAR0078	31C15	18	371050	4968250	T	1	1	0.80	40.30			74.00	21.80	4.20
81KAR0079	31C15	18	373150	4969900	T	1	1	0.30	53.30					
81KAR0080	31C15	18	373725	4971800	T	1	1	0.30	41.00			81.30	14.70	4.00
81KAR0080R	31C15	18	373725	4971800	R	0	1	0.50	1.90					
81KAR0081	31C15	18	379400	4970500	T	1	1	1.70	27.20					
81KAR0082	31C15	18	380240	4971320	T	1	1	0.40	69.80			74.60	21.00	4.40
81KAR0083	31C15	18	366500	4980370	F	1	1	0.10	1.40					
81KAR0084	31C15	18	363440	4978100	T	1	1	0.90	21.00			66.60	28.20	5.20
81KAR0085	31C15	18	361750	4981170	F	1	1	0.20	0.80			83.50	13.90	2.70
81KAR0086	31F02	18	355130	4985760	T	1	1	0.10	21.40			74.30	19.40	6.40
81KAR0087	31F02	18	357250	4988000	T	1	1	0.10	26.50					
81KAR0088	31F02	18	355050	4989420	F	1	1	0.20	1.60					
81KAR0089	31F02	18	358660	4989200	T	1	1	0.30	1.10			80.50	15.50	4.10

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81KAR0090	31F02	18	361075	4991720	T	1	1	0.10	16.80					
81KAR0091	31F02	18	364290	4992225	T	1	1	0.20	19.40			56.20	26.00	17.90
81KAR0092	31F02	18	362420	4989400	T	1	1	0.30	1.50					
81KAR0093	31C15	18	367780	4957500	T	1	1	0.10	22.70					
81KAR0094	31C10	18	365290	4954670	T	1	1	0.30	1.30					
81KAR0095	31C10	18	363950	4954300	T	1	1	0.20	18.30					
81KAR0096	31C10	18	362850	4954750	T	1	1	0.60	3.60					
81KAR0097	31C10	18	360300	4952130	T	1	1	0.90	5.20			75.40	19.30	5.30
81KAR0098	31C10	18	368900	4956950	T	1	1	1.00	23.30			75.00	18.10	6.90
81KAR0099	31C10	18	368900	4956100	T	1	1	0.10	31.60					
81KAR0100	31C10	18	367850	4954000	T	1	1	0.20	28.80					
81KAR0101	31C10	18	370750	4954450	T	1	1	0.80	8.60					
81KAR0102	31C10	18	369800	4950800	T	1	1	0.30	0.80			71.20	22.80	6.00
81KAR0103	31C10	18	371680	4947820	T	1	1	0.40	1.60			77.10	16.40	6.50
81KAR0104	31C10	18	371350	4948130	T	1	1	0.30	21.70					
81KAR0105	31C10	18	368830	4944880	T	1	1	0.20	20.60			59.60	30.30	10.20
81KAR0106	31C15	18	368450	4960500	T	1	1	0.30	0.70					
81KAR0107	31C15	18	376960	4963360	T	1	1	0.10	13.20					
81KAR0108	31C15	18	375230	4961840	T	1	1	0.10	0.60					
81KAR0109	31C15	18	374170	4959150	T	1	1	0.30	1.80					
81KAR0110	31C15	18	371350	4959800	T	1	1	0.30	31.40					
81KAR0111	31C15	18	370530	4959280	T	1	1	0.20	27.90					
81KAR0112	31C15	18	372330	4957110	T	1	1	0.50	0.90					
81KAR0113	31C10	18	372470	4952900	V	1	1	1.00	1.80					
81KAR0114	31C10	18	377500	4953750	V	1	1	0.40	0.50					
81KAR0115	31C10	18	375730	4952760	T	1	1	0.10	27.80			61.20	31.10	7.70
81KAR0115A	31C10	18	375730	4952760	T	0	1	0.10	25.80					
81KAR0116	31C15	18	380650	4957600	V	1	1	0.40	0.50					
81KAR0117	31C15	18	379610	4957190	T	1	1	0.20	44.90			70.10	20.10	9.80
81KAR0118	31C10	18	380590	4953890	F	1	1	0.40	2.00			84.90	9.70	5.40
81KAR0119	31C10	18	377930	4951420	T	1	1	0.20	16.20			67.30	25.10	7.60

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81KAR0120	31C10	18	378310	4948430	T	1	1	0.20	0.70					
81KAR0121	31C10	18	378620	4947600	T	1	1	0.20	30.30			72.50	19.10	8.30
81KAR0122	31C10	18	374580	4947900	T	1	1	0.10	20.80			81.10	15.20	3.70
81KAR0217	31C10	18	343520	4956250	F	1	1	0.90	4.50					
81SAR0044	31C16	18	390375	4963750	T	1	1	0.10	20.40					
81SAR0044A	31C16	18	390375	4963750	M	0	1	0.10	11.20					
81SAR0049	31C09	18	395800	4934750	T	1	1	0.10	32.80					
81SAR0050	31C09	18	396700	4933850	F	1	1	0.10	20.80					
81SAR0051	31C09	18	403100	4933250	T	1	1	0.10	6.70					
81SAR0052	31C09	18	403101	4933251	T	1	1	0.10	10.00					
81SAR0065	31C09	18	410550	4932220	V	1	1	0.10	11.70					
81SAR0085	31C09	18	389100	4929550	F	1	1	0.10	29.80					
81SAR0098	31C09	18	412800	4935850	T	0	1	0.10	45.70			60.50	27.20	12.40
81SAR0098A	31C09	18	412800	4935850	F	1	1	0.00	19.80					
81SAR0109	31C09	18	402375	4930300	F	1	1	0.60	1.20					
81SAR0109A	31C09	18	402375	4930300	F	0	1	0.30	0.70					
81SAR0110	31C09	18	399050	4942360	T	1	1	0.20	23.30					
81SAR0111	31C09	18	399390	4943920	T	1	1	0.20	44.40					
81SAR0126	31F02	18	381700	4998830	T	1	1	0.10	4.20					
81SAR0127	31F02	18	381430	4999220	T	1	1	0.10	15.60					
81SAR0127A	31F02	18	381430	4999220	T	0	1	0.10	22.40					
81SAR0128	31F02	18	378775	5003000	T	1	1	0.10	0.20					
81SAR0178	31F02	18	344000	5006340	T	1	1	0.10	0.20			82.70	13.70	3.60
81SAR0222	31C09	18	384100	4930520	T	1	1	0.10	25.10			80.80	16.60	2.70
81SAR0223	31C09	18	385550	4934440	F	1	1	0.20	12.80					
81SAR0224	31C09	18	394125	4944300	T	1	1	0.20	29.80					
81SAR0226	31F01	18	404460	4989540	T	1	1	0.40	1.90					
81SAR0227	31F01	18	405580	4988630	T	1	1	0.10	26.90			39.60	43.60	16.80
81SAR0228	31F01	18	407000	4990425	T	1	1	0.10	26.10					
81SAR0228A	31F01	18	407000	4990425	T	0	1	0.10	26.80					
81SAR0229	31F01	18	405940	4995650	T	1	1	0.10	23.00					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81SAR0230	31F01	18	404775	4996050	T	1	1	0.10	16.30					
81SAR0231	31F01	18	401800	4997375	T	1	1	0.10	6.30					
81SAR0232	31F01	18	401075	4999000	T	1	1	0.10	0.50					
81SAR0233	31F01	18	400400	5001200	T	1	1	0.10	3.40			54.00	34.10	11.90
81SAR0234	31F01	18	404660	5005750	M	1	1	0.20	0.30					
81SAR0235	31C16	18	398500	4966680	T	1	1	0.10	0.80			65.70	22.10	12.20
81SAR0236	31C16	18	400110	4961160	T	1	1	0.20	0.80			71.90	19.60	8.60
81SAR0237	31C16	18	402100	4961400	T	1	1	0.10	20.90					
81SAR0238	31C16	18	398950	4960100	T	1	1	0.10	30.30			60.30	23.70	16.00
81SAR0239	31C16	18	402380	4959905	T	1	1	0.10	25.80			57.10	32.70	10.20
81SAR0240	31C16	18	402375	4959900	T	1	1	0.10	21.90					
81SAR0241	31C16	18	402975	4961250	T	1	1	0.10	19.90					
81SAR0242	31C16	18	404750	4965025	T	1	1	0.10	41.80			58.20	28.80	13.10
81SAR0243	31C16	18	403170	4963720	T	1	1	0.10	25.50			74.10	19.90	6.00
81SAR0244	31C16	18	398175	4956600	T	1	1	0.50	1.20					
81SAR0245	31C09	18	400025	4954850	T	1	1	0.10	22.90			54.40	32.50	13.10
81SAR0246	31C09	18	400380	4953170	F	1	1	1.00	2.30					
81SAR0247	31C09	18	397950	4951225	F	1	1	1.20	5.40					
81SAR0248	31C09	18	392375	4952475	T	1	1	0.10	10.50					
81SAR0249	31C09	18	395630	4953150	T	1	1	0.30	1.00			66.10	24.00	10.00
81SAR0250	31C09	18	408150	4934370	T	1	1	0.10	28.50					
81SAR0250A	31C09	18	408150	4934370	F	0	1	0.10	19.90					
81SAR0250B	31C09	18	408150	4934370	V	0	1	0.10	25.80					
81SAR0251	31C09	18	406025	4937325	T	1	1	0.30	0.80					
81SAR0252	31C09	18	408650	4942360	V	1	1	0.10	34.60					
81SAR0253	31C09	18	409450	4943350	T	1	1	0.20	22.40			62.70	27.00	10.30
81SAR0254	31C09	18	402900	4945380	T	1	1	0.10	35.30					
81SAR0255	31C09	18	397025	4945680	T	1	1	0.10	32.10			52.20	38.70	9.10
81SAR0256	31C09	18	389100	4942475	T	1	1	0.10	19.30			57.30	20.30	22.40
81SAR0257	31C09	18	384550	4938170	T	1	1	0.20	1.10			80.10	13.10	6.80
81SAR0258	31C09	18	389180	4948960	T	1	1	0.30	1.20					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
81SAR0259	31C09	18	388950	4949860	T	1	1	0.10	0.50					
81SAR0260	31C09	18	389950	4955500	T	1	1	0.20	0.80					
81SAR0261	31C16	18	390200	4956675	F	1	1	0.10	18.00					
81SAR0262	31C16	18	390190	4956800	T	1	1	0.20	21.90					
81SAR0263	31C16	18	392220	4958630	T	1	1	0.10	22.70					
82KAR0764	31C15	18	346350	4980810	F	1	1	0.10	16.20					
82KAR0765	31C15	18	345675	4981010	F	1	1	0.40	3.80					
82KAR0766	31C15	18	345025	4981100	T	1	1	0.10	20.10					
82KAR0767	31C15	18	343450	4982200	C	1	1	0.30	0.10					
82KAR0768	31F02	18	346850	4986950	C	1	1	3.20	4.30					
82KAR0769	31F02	18	347400	4987875	T	1	1	1.20	3.80					
82KAR0770	31F02	18	347200	4988100	F	1	1	0.90	3.00					
82KAR0771	31F02	18	346950	4988500	F	1	1	0.80	2.30					
82KAR0772	31F02	18	346870	4988600	T	1	1	0.20	0.50					
82KAR0773	31F02	18	346380	4989310	F	1	1	0.10	3.30					
82KAR0774	31F02	18	346275	4985350	T	1	1	2.10	4.00					
82KAR0775	31C15	18	345500	4984400	T	1	1	1.60	3.40					
82KAR0782	31F02	18	343300	4991500	T	1	1	1.00	2.40					
82KAR0783	31F02	18	343750	4992575	T	1	1	0.40	1.20					
82KAR0784	31F02	18	343275	4992650	T	1	1	0.10	0.40					
82KAR0790	31F02	18	342600	4988460	T	1	1	0.60	1.30					
82KAR0791	31C15	18	352360	4984160	F	1	1	0.20	38.80					
82KAR0791	31C15	18	352360	4984160	F	1	1	0.10	38.70					
82KAR0792	31F02	18	355470	4984600	F	1	1	0.10	0.50					
82KAR0793	31C15	18	356880	4982570	T	1	1	0.50	1.80					
82KAR0794	31C15	18	356240	4980540	C	1	1	0.60	1.50					
82KAR0795	31C15	18	356450	4980210	T	1	1	0.50	1.50					
86KAR3000	31C09	18	388370	4946400	T	1	1	0.00	25.00			64.10	29.80	6.10
86KAR3001	31C09	18	387800	4947200	T	1	1	0.00	30.80			65.00	24.60	10.50
86KAR3002	31C09	18	384260	4948250	T	1	1	0.00	21.20			86.20	12.00	1.80
86KAR3003	31C09	18	408800	4930140	F	1	1	0.50	6.80			86.60	8.80	4.70

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
86KAR3004	31C09	18	408050	4934400	T	1	1	0.00	49.60			77.80	17.90	4.30
86KAR3005	31C09	18	406070	4937540	T	1	1	0.20	0.00			62.60	21.70	15.80
86KAR3005A	31C09	18	406070	4937540	F	1	1	0.50	0.50					
86KAR3006	31C09	18	402650	4946650	T	1	1	0.10	38.70			43.10	33.80	23.20
86KAR3007	31C09	18	402900	4942100	T	1	1	0.50	0.90			62.00	23.70	14.30
86KAR3008	31C09	18	409000	4929800	F	0	1	0.10	33.30					
86KAR3008B	31C09	18	409000	4929800	F	1	1	0.00	24.30			73.00	23.60	3.40
86KAR3008C	31C09	18	409000	4929800	F	0	1	0.10	20.30					
86KAR3009	31C09	18	408950	4930500	T	1	1	0.00	33.90			63.30	25.70	11.00
86KAR3010	31C09	18	400320	4942730	T	1	1	0.10	27.80			60.00	23.90	16.10
86KAR3011	31C09	18	398520	4942800	T	1	1	0.00	24.70			68.00	22.40	9.70
86KAR3012	31C09	18	395780	4940200	T	1	1	0.20	0.20			66.20	23.80	10.00
86KAR3013	31C09	18	393200	4939500	F	1	1	0.00	31.50					
86KAR3013A	31C09	18	393200	4939500	T	1	1	0.20	15.60			73.90	21.60	4.50
86KAR3014	31C09	18	393900	4939920	T	1	1	0.00	31.40			63.50	27.80	8.80
86KAR3015	31C09	18	383650	4943430	T	1	1	0.10	22.90			54.90	24.70	20.40
86KAR3016	31C09	18	383250	4937250	F	1	1	0.40	0.00					
86KAR3018	31C09	18	384420	4940650	T	1	1	1.30	0.60			69.90	19.80	10.30
86KAR3019	31C09	18	384700	4941160	T	1	1	0.20	0.20			66.30	22.60	11.20
86KAR3020	31C09	18	384950	4942900	T	1	1	0.00	0.70			87.30	10.40	2.30
86KAR3021	31C09	18	385750	4944100	T	1	1	0.10	17.10			70.80	21.20	8.00
86KAR3022	31C09	18	386800	4945125	T	1	1	0.00	23.80			89.80	6.60	3.70
86KAR3022A	31C09	18	386800	4945125	T	0	1	0.20	20.30			59.40	19.50	21.10
86KAR3023	31C09	18	383950	4938100	T	1	1	1.10	3.30			72.30	15.80	11.90
86KAR3024	31C09	18	386000	4939570	T	1	1	0.40	0.00			76.20	18.40	5.40
86KAR3024A	31C09	18	386000	4939570	F	0	1	0.40	0.00					
86KAR3025	31C09	18	389560	4941725	F	1	1	0.00	16.40			78.40	17.70	3.90
86KAR3026	31C09	18	389650	4941280	T	1	1	0.10	26.30			52.20	30.70	17.00
86KAR3027	31C09	18	387850	4938700	M	1	1	0.30	0.00			13.90	19.60	66.50
86KAR3029	31C09	18	388150	4928850	F	1	1	1.50	43.00					
86KAR3029A	31C09	18	388150	4928850	M	0	1	0.50	0.00			55.40	11.30	33.40

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
86KAR3030	31C09	18	389050	4929580	F	1	1	0.00	39.10					
86KAR3031	31C09	18	389900	4929940	F	1	1	0.00	26.80					
86KAR3032	31C09	18	390380	4930600	T	1	1	0.30	0.00			77.10	14.20	8.80
86KAR3033	31C09	18	392920	4934470	T	1	1	1.40	0.00			65.70	21.10	13.30
86KAR3034	31C09	18	394400	4935640	T	1	1	0.30	0.00			67.40	25.40	7.20
86KAR3035	31C09	18	395630	4938380	M	1	1	0.90	0.20			33.10	31.50	35.50
86KAR3036	31C09	18	397150	4938520	T	1	1	0.50	0.10			36.80	41.60	21.60
86KAR3037	31C09	18	396350	4935650	F	1	1	0.10	20.10			91.30	6.00	2.80
86KAR3038	31C09	18	403075	4933250	T	1	1	0.40	0.00			73.10	19.30	7.60
86KAR3038A	31C09	18	403075	4933250	V	0	1	0.10	0.00			5.80	63.50	30.70
86KAR3039	31C09	18	400280	4931880	F	1	1	0.30	0.00					
86KAR3040	31C09	18	400620	4930470	T	1	1	0.20	0.00			81.80	14.20	4.00
86KAR3041	31C09	18	400800	4929550	M	1	1	0.00	6.70					
86KAR3042	31C09	18	401100	4929200	F	1	1	0.20	0.00					
86KAR3043	31C09	18	400800	4929550	T	1	1	1.90	0.00			80.80	13.10	6.00
86KAR3044	31C09	18	401200	4930850	F	1	1	1.00	0.00			63.60	29.40	7.00
86KAR3045	31C09	18	401050	4936900	T	1	1	0.10	20.70			59.50	28.10	12.40
86KAR3045	31C09	18	401050	4936900	T	1	1	0.00	21.80			59.50	28.10	12.40
86KAR3046	31C09	18	401400	4937780	F	1	1	0.00	37.00					
86KAR3047	31C09	18	386400	4928725	M	1	1	0.00	33.10					
86KAR3048	31C09	18	385550	4928500	F	1	1	0.20	29.00			86.40	10.60	3.00
86KAR3048	31C09	18	385540	4928500	F	1	1	0.20	29.00			86.40	10.60	3.00
86KAR3048	31C09	18	385540	4928500	F	1	1	0.20	29.00			86.40	10.60	3.00
86KAR3048	31C09	18	385550	4928500	F	1	1	0.20	29.00			86.40	10.60	3.00
86KAR3049	31C09	18	383700	4929400	T	1	1	0.20	0.30			54.30	31.10	14.60
86KAR3050	31C09	18	385750	4930650	T	1	1	0.10	19.30			48.90	42.50	8.60
86KAR3051	31C09	18	384580	4929900	F	1	1	0.00	11.10					
86KAR3052	31C09	18	384080	4930500	F	1	1	0.10	21.00					
86KAR3053	31C09	18	385050	4933950	F	1	1	0.10	32.50					
86KAR3054	31C09	18	385220	4934600	F	1	1	0.90	20.10					
86KAR3055	31C09	18	383650	4945000	T	1	1	0.90	0.90			69.30	20.80	9.80

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
86KAR3056	31C09	18	382630	4945200	T	1	1	0.20	1.00			38.60	25.90	35.50
86KAR3057	31C09	18	382830	4945280	T	1	1	0.10	15.40			74.30	15.70	10.00
86KAR3058	31C09	18	383420	4947470	T	1	1	0.60	0.80			75.40	14.30	10.40
86KAR3059	31C09	18	383780	4947600	T	1	1	0.00	0.60			68.50	22.30	9.10
86KAR3060	31C09	18	385850	4947130	T	1	1	0.00	16.30			80.10	12.90	7.00
86KAR3060A	31C09	18	385850	4947130	M	1	1	0.10	0.20					
86KAR3061	31C09	18	394290	4944400	T	1	1	0.10	25.90			63.60	22.10	14.30
86KAR3062	31C09	18	413450	4947900	T	1	1	0.10	29.30			47.40	38.50	14.10
86KAR3063	31C09	18	414850	4949950	T	1	1	0.10	39.10			45.70	40.80	13.50
86KAR3064	31C09	18	407750	4941300	T	1	1	0.20	20.20			53.40	23.70	22.80
86KAR3065	31C09	18	408650	4942450	F	1	1	0.00	31.10			15.60	61.80	22.60
86KAR3066	31C09	18	409350	4941300	T	1	1	0.80	0.10			37.90	32.10	30.00
86KAR3067	31C09	18	409360	4943175	T	1	1	0.00	33.80			76.70	16.50	6.80
86KAR3067A	31C09	18	409360	4943175	F	0	1	0.00	16.40					
86KAR3068	31C09	18	413550	4931430	T	1	1	0.40	0.10			63.80	24.50	11.70
86KAR3069	31C09	18	413000	4928920	V	1	1	0.30	0.30			6.20	34.30	59.50
86KAR3070	31C09	18	415460	4936320	T	1	1	0.10	18.90			58.50	31.80	9.70
86KAR3070A	31C09	18	415460	4936320	T	0	1	0.00	25.60			62.40	28.60	9.00
86KAR3070B	31C09	18	415460	4936320	T	0	1	0.00	23.90			60.40	31.40	8.30
86KAR3071	31C09	18	416080	4935260	T	1	1	0.00	0.40			54.70	27.10	18.30
86KAR3072	31C09	18	393000	4946900	T	1	1	0.00	19.80			65.30	20.00	14.70
86KAR3073	31C09	18	393450	4946170	T	1	1	0.30	0.00			70.50	19.90	9.60
86KAR3074	31C09	18	397080	4949900	T	1	1	0.00	19.50			71.50	23.50	5.10
86KAR3075	31C09	18	398930	4933330	F	1	1	0.60	0.10					
86KAR3077	31C09	18	397170	4934620	T	1	1	0.10	51.80					
86KAR3078	31C09	18	396800	4929460	T	1	1	0.40	0.80					
86KAR3079	31C09	18	397570	4929150	T	1	1	0.30	0.60					
86KAR3080	31C09	18	399050	4930875	T	1	1	0.20	0.20					
87KAR3200	31C15	18	380350	4979330	t	1	1	0.31	42.33			79.26	17.40	3.34
87KAR3201	31C15	18	381150	4979700	t	1	1	0.20	55.25			78.73	17.90	3.37
87KAR3202	31C16	18	382775	4978900	f	1	1					96.32	2.90	0.78

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
87KAR3203	31C16	18	385100	4979875	t	1	1	0.50	37.80			85.38	12.91	1.71
87KAR3204	31C16	18	385050	4981575	t	0	1	0.11	31.08			78.26	18.89	2.65
87KAR3205	31C16	18	384250	4982250	T	1	1	0.38	41.83			67.12	25.18	7.70
87KAR3206	31C16	18	386250	4983270	T	1	1	0.03	14.67			73.17	22.09	4.74
87KAR3207	31C16	18	386950	4983425	F	1	1	0.26	14.67			82.96	15.36	1.68
87KAR3208	31C16	18	387850	4982500	T	1	1	0.13	30.42			77.03	20.11	2.86
87KAR3209	31C16	18	388300	4981750	T	1	1	0.26	54.42			80.18	17.22	2.60
87KAR3210	31C16	18	382000	4979760	T	1	1	0.08	55.17			70.29	26.79	2.92
87KAR3211	31C16	18	381900	4979650	T	1	1	0.11	32.67			78.16	19.20	2.64
87KAR3211A	31C16	18	381900	4979650	T	0	0	0.14	28.50			72.30	24.40	3.30
87KAR3211B	31C16	18	381900	4979650	T	0	0	0.09	31.17			75.19	22.45	2.36
87KAR3212	31C15	18	380400	4980500	T	1	1	0.44	53.75			76.33	18.73	4.94
87KAR3213	31C15	18	381150	4979670	T	1	1	0.12	46.58			72.22	24.72	3.06
87KAR3214	31C15	18	379000	4979600	F	1	1					96.87	1.91	1.22
87KAR3215	31C15	18	379100	4979950	T	1	1	0.12	54.83			89.29	9.52	1.19
87KAR3216	31C15	18	378900	4980160	F	1	1	0.26	57.67			86.60	9.92	3.48
87KAR3217	31C15	18	378960	4979300	F	1	1	0.57	51.33			66.61	26.39	7.00
87KAR3218	31C15	18	378400	4979260	T	1	1	0.18	45.25			72.01	22.34	5.65
87KAR3219	31C15	18	377060	4979600	T	1	1	0.40	49.33			87.96	9.80	3.14
87KAR3220	31C15	18	378030	4979000	T	1	1	0.46	64.17			65.75	26.29	7.96
87KAR3221	31C15	18	376400	4978250	T	1	1	0.25	71.17			65.70	26.54	7.67
87KAR3222	31C15	18	375400	4977325	T	1	1	0.18	42.92			65.17	28.34	6.59
87KAR3223	31C15	18	375100	4977625	T	1	1	0.19	47.75			60.05	35.48	4.47
87KAR3224	31C15	18	364540	4964550	T	1	1					84.09	13.75	2.16
87KAR3225	31C15	18	363700	4964400	T	1	1	0.71	49.08			67.05	25.16	7.79
87KAR3227	31C15	18	364450	4964950	T	1	1	1.07	1.17			61.26	27.50	11.24
87KAR3228	31C15	18	364320	4965420	T	1	1	0.78	55.33			67.45	25.08	7.47
87KAR3229	31C15	18	364050	4965920	T	1	1	0.11	69.17			79.99	15.47	4.54
87KAR3230	31C15	18	364100	4966340	T	1	1	0.04	42.67			73.92	22.65	3.43
87KAR3231	31C15	18	364100	4966575	T	1	1	0.09	29.75			72.57	23.53	3.93
87KAR3232	31C15	18	364050	4966650	T	1	1	0.00	25.58			57.02	40.83	2.15

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
87KAR3233	31C15	18	363450	4967825	T	1	1	0.25	0.00			57.83	39.66	2.51
87KAR3234	31C15	18	363180	4969750	F	1	1					93.11	5.47	1.42
87KAR3235	31C15	18	360450	4969140	T	1	1	0.25	0.00			62.40	34.68	2.92
87KAR3236	31C15	18	358850	4969310	F	1	1	0.20	1.83			96.69	2.16	1.15
87KAR3237	31C15	18	357200	4969460	F	1	1	0.00	15.08			95.72	3.03	1.25
87KAR3238	31C15	18	365200	4969400	F	1	1	0.56	0.17			88.40	9.81	1.79
87KAR3239	31C15	18	368200	4964400	T	1	1	0.07	25.33			69.66	21.44	8.90
87KAR3240	31C15	18	372850	4965750	T	1	1	0.27	74.42			83.58	12.74	3.68
87KAR3241	31C15	18	371520	4966640	T	1	1	0.25	0.17			54.03	39.19	6.78
87KAR3242	31C15	18	371230	4967750	T	1	1	0.07	51.92			90.15	7.58	2.27
87KAR3243	31C15	18	373000	4968850	T	1	1	0.13	44.92			82.29	15.13	2.58
87KAR3244	31C15	18	373150	4969310	F	1	1	0.07	46.42			94.09	4.96	0.95
87KAR3245	31C15	18	373150	4969900	F	1	1	0.19	62.42			96.62	2.20	1.18
87KAR3246	31C15	18	373150	4970475	T	1	1	1.67	0.50			65.34	24.64	10.02
87KAR3247	31C15	18	373000	4971550	T	1	1	0.20	18.08			60.67	27.66	11.67
87KAR3248	31C15	18	373000	4972650	T	1	1	1.25	0.00			57.88	33.98	8.14
87KAR3249	31C15	18	371650	4974800	T	1	1	0.12	21.42			45.90	40.33	13.77
87KAR3250	31C15	18	374100	4977100	T	1	1	0.07	41.25			75.45	18.37	6.18
87KAR3371	31F02	18	356600	4986750	T	1	1	1.10	0.20			71.60	20.06	8.34
87KAR3372	31F02	18	357300	4988200	T	1	1	0.20	30.00			76.44	20.89	2.67
87KAR3373	31F02	18	356480	4988350	F	1	1	0.10	0.00			66.38	27.80	5.82
87KAR3374	31F02	18	356600	4988900	F	1	1	0.00	12.00			84.40	14.10	1.50
87KAR3375	31F02	18	356300	4939340	F	1	1	0.10	29.40			87.81	11.41	0.78
87KAR3376	31F02	18	355250	4990200	T	1	1	1.30	0.00			58.95	35.45	5.60
87KAR3377	31F02	18	356400	4990650	T	1	1	0.70	0.00			64.43	29.13	6.44
87KAR3378	31F02	18	357600	4992530	F	1	1	1.80	0.50			97.52	1.65	0.83
87KAR3379	31F02	18	362400	4988130	T	1	1	0.20	0.00			75.97	21.26	2.77
87KAR3380	31F02	18	359770	4988220	T	1	1	1.00	0.00			59.06	34.73	6.21
87KAR3381	31F02	18	361700	4987680	T	1	1	0.20	0.50			70.24	25.47	4.29
87KAR3382	31F02	18	361050	4991650	T	1	1	0.00	19.00			60.74	29.94	9.59
87KAR3383	31F02	18	363750	4992900	T	1	1	0.30	0.10			76.15	19.52	4.33

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
87KAR3384	31F02	18	364340	4992150	T	1	1	0.20	19.20			50.93	29.37	19.70
87KAR3385	31F02	18	365830	4985900	T	1	1	0.10	0.00			81.94	15.42	2.64
87KAR3386	31F02	18	365000	4986350	T	1	1	0.30	0.00			52.84	31.87	15.29
87KAR3387	31F02	18	377600	4985000	T	1	1	1.10	0.00			79.76	16.26	3.98
87KAR3388	31F02	18	376590	4987200	F	1	1	0.10	0.00			63.51	26.08	10.41
87KAR3389	31F02	18	375800	4988300	F	1	1	1.20	18.10			95.87	3.12	1.01
87KAR3390	31F02	18	375800	4988720	T	1	1	0.20	0.00			79.22	16.93	3.85
87KAR3391	31F02	18	376320	4989520	T	1	1	0.20	0.20			61.33	29.83	8.84
87KAR3392	31F02	18	377130	4990000	T	1	1	0.00	14.50			74.43	23.64	1.93
87KAR3393	31F02	18	376850	4990750	T	1	1	0.20	1.00			54.89	28.51	16.60
87KAR3394	31F02	18	374750	4993050	T	1	1	0.40	0.00			62.55	27.79	9.66
87KAR3395	31F02	18	374200	4994600	T	1	1	0.40	0.00			68.23	25.49	6.28
87KAR3396	31F02	18	372120	4996400	T	1	1	0.20	0.00			66.79	26.77	6.44
87KAR3397	31F02	18	372000	4997700	F	1	1	0.60	0.30			78.33	18.37	3.30
87KAR3398	31F02	18	371340	4999120	F	1	1	0.20	39.80			97.60	1.43	0.87
88KAR3399	31C15	18	377650	4983550	F	1	1	0.70	18.30					
88KAR3400	31F02	18	377450	4984080	T	1	1	0.90	1.70			74.20	21.30	4.50
88KAR3401	31F02	18	377620	4985650	T	1	1	0.40	1.70			76.40	20.20	3.40
88KAR3402	31F02	18	379610	4991880	F	1	1	0.10	24.20					
88KAR3403	31F02	18	379210	4992460	T	1	1	0.40	0.80			48.80	43.70	7.50
88KAR3404	31F02	18	379150	4993500	T	1	1	0.40	0.80			68.20	25.00	6.80
88KAR3405	31F02	18	379590	4993800	T	1	1	0.10	0.80			58.50	32.10	9.40
88KAR3406	31F02	18	377930	4986870	T	1	1	0.01	17.50			60.30	34.10	5.60
88KAR3407	31F02	18	378110	4986990	T	1	1	0.20	0.80			57.40	34.50	8.10
88KAR3408	31F02	18	378350	4986910	T	1	1	0.40	1.70			64.50	27.80	7.80
88KAR3409	31F02	18	378800	4986830	T	1	1	0.90	1.70			66.70	28.40	4.50
88KAR3410	31F02	18	378990	4984990	F	1	1	1.10	1.70					
88KAR3411	31F02	18	379860	4985110	T	1		0.20	0.80					
88KAR3412	31F02	18	380580	4988850	T	1	1	0.20	0.80			66.20	25.50	8.30
88KAR3413	31F02	18	380830	4988460	T	1	1	0.60	0.80			54.90	33.40	11.70
88KAR3414	31F02	18	381140	4987150	T	1	1	0.40	0.80			74.10	23.50	2.40

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3415	31F02	18	381860	4989350	T	1	1	0.01	18.30			55.30	29.70	15.00
88KAR3416	31F02	18	380940	4990360	T	1	1	0.10	0.80			52.00	31.90	16.10
88KAR3417	31F02	18	380040	4990650	T	1	1	0.01	17.50			69.90	25.00	5.10
88KAR3420	31F02	18	374100	4986000	F	1	1	0.01	0.80			84.20	14.10	1.70
88KAR3421	31F02	18	370560	4988690	T	1	1	2.00	1.70			45.80	40.60	13.60
88KAR3422	31F02	18	370190	4989350	T	1	1	0.10	5.00			52.20	38.50	9.30
88KAR3423	31F02	18	369880	4989640	T	1	1	0.10	0.80			50.60	39.10	10.30
88KAR3424	31F02	18	370000	4990620	T	1	1	0.01	16.70			53.20	35.50	11.30
88KAR3425	31F02	18	370400	4991350	T	1	1	0.20	0.80			62.10	31.10	6.80
88KAR3426	31F02	18	371770	4991020	T	1	1	0.30	13.30			79.90	16.70	3.40
88KAR3427	31F02	18	373100	4990550	T	1	1	0.01	30.00			60.00	32.60	7.40
88KAR3428	31F02	18	380710	4996400	T	1	1	0.30	0.80			42.70	45.10	12.20
88KAR3429	31F02	18	378560	4994810	T	1	1	0.30	0.80			48.90	40.60	10.50
88KAR3430	31F02	18	378770	4994400	F	1	1	0.30	30.00					
88KAR3431	31F02	18	379050	4994380	T	1	1	0.30	1.70			60.30	33.20	6.50
88KAR3432	31F02	18	379360	4994340	F	1	1	0.50	20.80					
88KAR3433	31F02	18	379450	4994140	T	1	1	0.10	15.00			67.40	26.80	5.80
88KAR3434	31F02	18	380900	4992475	T	1	1	2.40	2.50			57.60	34.90	7.50
88KAR3435	31F02	18	371700	4996750	F	1	1	0.20	46.70					
88KAR3436	31F02	18	372050	4999300	F	1	1	0.20	31.70					
88KAR3437	31F02	18	372410	5003330	F	1	1	0.10	42.50					
88KAR3438	31F02	18	366750	5004600	T	1	1	0.40	31.70			77.60	17.40	5.00
88KAR3439	31F02	18	366950	5001930	T	1	1	0.40	3.30			69.70	23.50	6.80
88KAR3440	31F02	18	369040	4999250	T	1	1	0.60	1.70			77.20	19.20	3.60
88KAR3441	31F02	18	365100	4998650	T	1	1	0.60	1.70			60.50	31.00	8.50
88KAR3442	31F02	18	380550	5001650	T	1	1	0.70	3.30			66.00	27.60	6.40
88KAR3443	31F02	18	377630	5003550	T	1	1	0.50	15.80			69.50	24.70	5.80
88KAR3444	31F02	18	372750	5004330	T	1	1	0.40	40.80			89.90	8.60	1.40
88KAR3445	31F02	18	375510	5005600	F	1	1	0.30	65.00					
88KAR3446	31F02	18	374800	5006950	T	1	1	0.10	0.80			73.20	23.60	3.20
88KAR3447	31F02	18	373010	5010240	T	1	1	0.10	66.60			95.60	3.80	0.60

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3448	31F02	18	374610	5011590	T	1	1	0.90	1.70			76.00	18.70	5.30
88KAR3449	31F02	18	352410	4984490	F	1	1	0.20	70.00					
88KAR3450	31F02	18	355090	4985750	T	1	1	0.01	40.00			80.60	17.00	2.40
88KAR3451	31F02	18	356900	4983900	T	1	1	0.50	1.70			63.80	29.40	6.80
88KAR3452	31F02	18	358550	4985000	T	1	1	0.40	0.80			69.00	25.60	5.30
88KAR3453	31F02	18	361950	4987000	T	1	1	0.40	20.00			76.10	22.70	1.20
88KAR3454	31F02	18	349360	4984600	T	1	1	0.60	0.80			75.70	20.40	3.80
88KAR3455	31F02	18	349810	4984940	T	1	1	0.40	0.80					
88KAR3456	31F02	18	352380	4988430	T	1	1	0.50	1.70			72.50	23.00	4.50
88KAR3457	31F02	18	352450	4988670	T	1	1	1.10	1.70			83.30	13.60	3.10
88KAR3458	31F02	18	352140	4989350	F	1	1	2.50	2.50					
88KAR3459	31F02	18	353460	4990630	T	1	1	0.20	0.80			41.50	53.30	5.20
88KAR3460	31F02	18	353440	4991250	T	1	1	1.20	1.70			91.20	7.10	1.70
88KAR3461	31F02	18	353880	4992010	T	1	1	0.60	1.70			53.50	42.20	4.30
88KAR3462	31F02	18	355310	4993670	T	1	1	0.01	27.50			89.70	7.80	2.50
88KAR3463	31F02	18	356070	4993440	F	1	1	0.01	24.20			81.20	15.20	3.60
88KAR3464	31F02	18	355050	4994590	T	1	1	0.30	1.70			76.30	19.90	3.80
88KAR3465	31F02	18	355270	4996160	T	1	1	0.70	0.80			67.70	25.60	6.70
88KAR3466	31F02	18	353820	4996500	F	1	1	0.10	42.50					
88KAR3467	31F02	18	353440	4996880	T	1	1	0.40	0.80			75.20	19.90	4.90
88KAR3468	31F02	18	353370	4997260	F	1	1	0.01	22.50			79.60	18.60	1.80
88KAR3469	31F02	18	352430	5000180	F	1	1	1.00	15.00					
88KAR3470	31F02	18	351850	5003710	T	1	1	0.70	2.50			65.60	29.10	5.30
88KAR3471	31F02	18	352140	5002230	F	1	1	2.70	2.50			89.70	7.60	2.70
88KAR3472	31F02	18	352110	5000240	T	1	1	0.30	0.80			53.70	38.20	8.10
88KAR3473	31F02	18	351540	4997210	T	1	1	0.50	0.80			76.60	18.80	4.60
88KAR3474	31F02	18	355870	4995610	T	1	1	0.50	1.70			78.00	17.80	4.20
88KAR3475	31F02	18	356440	4996610	T	1	1	0.50	0.80			59.80	32.90	7.30
88KAR3476	31F02	18	357950	5000280	T	1	1	0.60	0.80			69.50	28.70	1.80
88KAR3477	31F02	18	358000	5000420	T	1	1	0.20	22.50			53.50	31.70	14.80
88KAR3478	31F02	18	358460	5000670	T	1	1	0.01	25.00			63.00	29.40	7.60

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3479	31F02	18	358510	5002070	T	1	1	0.10	0.80			63.60	28.30	8.10
88KAR3480	31F02	18	358760	5002860	T	1	1	0.40	0.80			68.00	24.70	7.30
88KAR3481	31F02	18	359180	5004960	T	1	1	0.50	1.70			74.80	19.50	5.70
88KAR3482	31F02	18	359340	5005290	T	1	1	0.40	15.00			68.60	24.20	7.20
88KAR3483	31F02	18	359860	5006040	F	1	1	0.01	30.00					
88KAR3484	31F02	18	360090	5006540	T	1	1	0.70	0.80			67.50	22.40	10.20
88KAR3485	31F02	18	361150	5007890	T	1	1	0.40	0.80			59.10	29.30	11.70
88KAR3486	31F02	18	361960	5009800	T	1	1	0.01	31.70			50.30	32.80	16.90
88KAR3487	31F02	18	370780	5010290	F	1	1	0.10	1.70					
88KAR3488	31F02	18	343010	4985220	T	1	1	0.60	1.70			80.20	16.80	3.00
88KAR3489	31F02	18	343040	4986460	T	1	1	0.60	0.80			70.60	23.60	5.80
88KAR3491	31F02	18	342450	4987350	T	1	1	0.60	0.80			83.90	13.40	2.70
88KAR3494	31F02	18	342640	4989650	T	1	1	0.20	0.01			70.60	23.50	5.90
88KAR3495	31F02	18	343510	4991060	T	1	1	0.80	1.70			67.20	25.70	7.10
88KAR3496	31F02	18	343150	4991480	T	1	1	0.01	0.01			72.20	23.40	4.40
88KAR3496A	31F02	18	343150	4991480	T	0	1	0.01	0.80			63.20	27.00	9.80
88KAR3497	31F02	18	343160	4990920	T	1	1	0.10	0.80			60.10	30.00	9.90
88KAR3498	31F02	18	342700	4989540	T	1	1	0.30	1.70			56.60	25.10	18.30
88KAR3501	31F02	18	345700	4984650	T	1	1	1.90	1.70			76.50	20.20	3.30
88KAR3502	31F02	18	346100	4985100	T	1	1	0.90	0.80			58.30	34.00	7.70
88KAR3503	31F02	18	361950	4987150	T	1	1	0.20	0.80			67.40	27.20	5.40
88KAR3504	31F02	18	362740	4988890	F	1	1	0.50	1.70			74.40	22.00	3.60
88KAR3505	31F02	18	362300	4989670	T	1	1	2.00	2.50			60.20	35.20	4.60
88KAR3506	31F02	18	362800	4987650	T	1	1	0.80	1.70			69.50	24.70	5.80
88KAR3507	31F02	18	365120	4988660	T	1	1	1.50	1.70			61.20	33.10	5.80
88KAR3508	31F02	18	366230	4989210	T	1	1	0.70	1.70			62.80	34.10	3.10
88KAR3509	31F02	18	367450	4988750	F	1	1	0.01	13.30					
88KAR3510	31F02	18	361290	4986640	F	1	1	0.01	5.80					
88KAR3511	31F02	18	365200	4988290	T	1	1	0.30	1.70			71.10	25.80	3.10
88KAR3512	31F02	18	365270	4987620	T	1	1	0.50	1.70			70.00	24.90	5.10
88KAR3513	31F02	18	365250	4987300	T	1	1	0.20	0.01			56.40	34.30	9.30

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3514	31F02	18	365060	4986750	T	1	1	0.30	0.80			54.60	32.10	13.20
88KAR3515	31F02	18	365070	4985820	T	1	1	1.70	1.70			64.90	28.50	6.60
88KAR3516	31F02	18	367940	4989710	T	1	1	0.20	0.80			71.10	25.50	3.40
88KAR3517	31F02	18	368110	4989780	T	1	1	0.20	1.70			65.70	31.50	2.80
88KAR3517A	31F02	18	368110	4989780	T	0	0	0.30	1.70			68.50	28.60	2.90
88KAR3517B	31F02	18	368110	4989780	T	0	0	0.50	1.70			63.90	32.50	3.60
88KAR3517C	31F02	18	368110	4989780	T	0	0	1.60	1.70			68.40	28.20	3.40
88KAR3517D	31F02	18	368110	4989780	T	0	0	2.80	4.20			63.80	32.70	3.50
88KAR3517E	31F02	18	368110	4989780	T	0	0	4.20	4.20			52.30	39.00	8.70
88KAR3517F	31F02	18	368110	4989780	T	0	0	6.20	5.00			49.40	42.40	8.20
88KAR3518	31F02	18	367600	4986340	T	1	1	1.20	2.50			70.20	25.80	4.00
88KAR3519	31F02	18	368530	4987840	T	1	1	0.80	0.80			63.80	32.60	3.60
88KAR3520	31F02	18	368460	4990410	T	1	1	0.10	1.70			68.60	25.60	5.80
88KAR3521	31F02	18	371840	4984350	T	1	1	1.00	0.80			83.90	15.20	0.90
88KAR3522	31F02	18	371240	4985860	T	1	1	1.90	0.80			69.60	26.70	3.70
88KAR3523	31C16	18	388690	4981090	F	1	1	0.01	62.50					
88KAR3524	31C16	18	388520	4988250	T	1	1	0.20	57.50			79.30	18.00	2.70
88KAR3525	31C16	18	384040	4979390	F	1	1	0.01	82.50					
88KAR3526	31C16	18	385340	4980410	F	1	1	0.01	75.00					
88KAR3527	31C16	18	387570	4980480	F	1	1	0.80	54.10					
88KAR3528	31C16	18	389260	4981270	V	1	1	0.30	1.70					
88KAR3529	31C16	18	386760	4980760	Gla	1	1	0.01	46.60					
88KAR3530	31C16	18	388450	4981420	T	1	1	0.10	57.50					
88KAR3531	31C16	18	387450	4982970	T	1	1	0.00	44.10					
88KAR3532	31C16	18	386670	4983640	T	1	1	0.10	12.50					
88KAR3533	31C16	18	386050	4983080	T	1	1	0.01	12.50					
88KAR3534	31C16	18	385910	4982960	T	1	1	0.01	32.50					
88KAR3534A	31C16	18	385910	4982960	T	0	0	0.01	24.20					
88KAR3534B	31C16	18	385910	4982960	T	0	0	0.01	19.20					
88KAR3534C	31C16	18	385910	4982960	T	0	0	0.60	0.80					
88KAR3534D	31C16	18	385910	4982960	T	0	0	2.10	0.80					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3534E	31C16	18	385910	4982960	T	0	0	4.50	4.20					
88KAR3535	31F01	18	387180	4984350	T	1	1	0.40	0.80					
88KAR3536	31C16	18	387670	4984730	T	1	1	0.60	0.80					
88KAR3537	31C16	18	388020	4984660	T	1	1	0.60	1.70					
88KAR3538	31C16	18	388060	4985670	T	1	1	0.40	0.80					
88KAR3539	31F01	18	388810	4985400	T	1	1	0.40	0.80					
88KAR3540	31F01	18	389040	4985400	T	1	1	0.70	15.00					
88KAR3541	31C16	18	384810	4981710	T	1	1	0.40	0.80					
88KAR3542	31C16	18	385050	4981540	T	1	1	0.01	32.50					
88KAR3543	31C16	18	383960	4979240	F	1	1	0.20	25.00					
88KAR3544	31C16	18	381930	4982890	T	1	1	0.80	1.70					
88KAR3545	31C16	18	382410	4982320	T	1	1	0.10	18.30					
88KAR3546	31C16	18	382550	4982290	T	1	1	0.10	59.10					
88KAR3547	31C16	18	381700	4979360	T	1	1	0.01	55.80					
88KAR3548	31C16	18	382530	4980040	T	1	1	0.20	48.30					
88KAR3549	31C16	18	381640	4979100	F	1	1	1.10	40.80					
88KAR3551	31C16	18	389950	4979860	T	1	1	0.60	0.70					
88KAR3552	31C16	18	389730	4977750	T	1	1	0.01	1.70					
88KAR3553	31C16	18	389860	4977670	T	1	1	0.30	30.00					
88KAR3554	31C16	18	390110	4977590	T	1	1	0.01	1.70					
88KAR3555	31C16	18	385710	4974940	T	1	1	1.00	1.70					
88KAR3556	31C16	18	384780	4974220	T	1	1	0.80	0.80					
88KAR3557	31C16	18	387800	4963700	T	1	1	0.01	26.70					
88KAR3558	31C16	18	385560	4959650	T	1	1	0.10	0.80					
88KAR3559	31C16	18	385280	4959690	T	1	1	1.40	0.80					
88KAR3560	31C16	18	383350	4959140	F	1	1	0.70	20.00					
88KAR3561	31C16	18	382850	4958620	T	1	1	0.20	0.01					
88KAR3562	31C16	18	381150	4959100	F	1	1	0.01	21.70					
88KAR3563	31C16	18	381840	4958780	T	1	1	0.10	36.70					
88KAR3564	31C16	18	382390	4959340	T	1	1	0.01	23.30					
88KAR3565	31C16	18	384920	4958640	F	1	1	0.60	17.50					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3566	31C16	18	384060	4957800	T	1	1	0.01	28.30					
88KAR3567	31C16	18	392460	4966640	T	1	1	2.40	5.00					
88KAR3568	31C16	18	389950	4964620	T	1	1	0.01	18.30					
88KAR3569	31C16	18	390190	4964010	T	1	1	0.50	0.80					
88KAR3570	31C16	18	388340	4965810	T	1	1	0.20	0.80					
88KAR3571	31C16	18	385340	4963500	T	1	1	0.10	0.80					
88KAR3572	31C16	18	383400	4965670	T	1	1	0.30	0.80					
88KAR3573	31C16	18	386570	4967330	T	1	1	0.20	0.01					
88KAR3574	31C16	18	388740	4969200	T	1	1	0.01	15.80					
88KAR3575	31C16	18	389540	4973560	T	1	1	0.40	0.80					
88KAR3576	31C16	18	390090	4973260	T	1	1	0.01	15.80					
88KAR3577	31C16	18	390450	4973340	T	1	1	0.01	14.20					
88KAR3578	31C16	18	384140	4972860	T	1	1	0.01	24.20					
88KAR3579	31C16	18	385670	4971700	T	1	1	0.20	1.70					
88KAR3580	31C16	18	388340	4972170	T	1	1	0.01	25.80					
88KAR3581	31C16	18	383540	4968370	T	1	1	0.60	0.80					
88KAR3582	31C16	18	396030	4962650	T	1	1	0.01	20.80					
88KAR3582X	31C16	18	396030	4962650	R	0	1	0.01	17.50					
88KAR3583	31C16	18	395160	4962000	T	1	1	0.01	22.50					
88KAR3584	31C16	18	395250	4959990	T	1	1	0.10	0.80					
88KAR3585	31C16	18	396860	4958450	T	1	1	0.30	0.80					
88KAR3586	31C16	18	395030	4956760	T	1	1	0.20	0.01					
88KAR3587	31C16	18	394380	4958770	T	1	1	0.01	23.30					
88KAR3588	31C16	18	391290	4956210	T	1	1	2.60	0.80					
88KAR3589	31C16	18	389190	4957960	T	1	1	0.20	6.70					
88KAR3590	31C16	18	390160	4956620	F	1	1	0.01	29.20					
88KAR3591	31C16	18	389800	4957020	T	1	1	1.10	0.01					
88KAR3592	31C16	18	388650	4956010	T	1	1	0.70	0.80					
88KAR3593	31C16	18	391370	4957490	T	1	1	1.90	0.01					
88KAR3594	31C16	18	391200	4959760	T	1	1	0.50	0.80					
88KAR3595	31C16	18	399070	4960460	T	1	1	0.01	26.70					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3596	31C16	18	398080	4957360	T	1	1	0.00	21.66					
88KAR3597	31C16	18	397760	4955750	T	1	1	0.50	0.80					
88KAR3598	31C16	18	411120	4956590	T	1	1	0.00	40.80					
88KAR3599	31C16	18	407290	4956230	T	1	1	0.10	24.20					
88KAR3600	31C16	18	406910	4957660	T	1	1	0.10	33.30					
88KAR3601	31C16	18	404610	4956070	T	1	1	1.20	5.00					
88KAR3602	31C16	18	407950	4959270	T	1	1	0.20	0.80					
88KAR3603	31C16	18	410460	4958400	T	1	1	0.60	1.70					
88KAR3604	31C16	18	409440	4961540	T	1	1	0.30	22.50					
88KAR3605	31C16	18	411160	4961360	T	1	1	0.10	29.20					
88KAR3606	31C16	18	408610	4963630	T	1	1	0.30	0.80					
88KAR3607	31C16	18	414060	4963560	T	1	1	1.90	17.50					
88KAR3608	31C16	18	414780	4962590	T	1	1	0.00	34.20					
88KAR3608A	31C16	18	414780	4962590		0	1	0.50	0.80					
88KAR3609	31C16	18	412540	4958000	T	1	1	1.10	1.70					
88KAR3610	31C16	18	419960	4958240	T	1	1	1.10	1.70					
88KAR3611	31C16	18	418670	4959060	T	1	1	0.00	35.80					
88KAR3612	31C16	18	400360	4961000	T	1	1	0.40	0.00					
88KAR3613	31C16	18	401330	4962050	T	1	1	0.00	24.20					
88KAR3614	31C16	18	401700	4963890	T	1	1	0.20	18.30					
88KAR3615	31C16	18	399780	4964390	T	1	1	0.10	29.20					
88KAR3616	31C16	18	403310	4961240	T	1	1	0.60	0.80					
88KAR3617	31C16	18	403540	4963300	T	1	1	0.20	32.50					
88KAR3618	31C16	18	405070	4962780	T	1	1	1.20	1.70					
88KAR3619	31C16	18	404940	4963060	T	1	1	0.20	3.30					
88KAR3620	31C16	18	405210	4963710	T	1	1	0.50	0.80					
88KAR3621	31C16	18	403060	4961420	T	1	1	2.10	0.00					
88KAR3622	31C16	18	406310	4965040	T	1	1	0.80	0.00					
88KAR3623	31C16	18	405520	4961140	T	1	1	2.30	0.80					
88KAR3624	31C16	18	397130	4976320	T	1	1	1.50	0.80					
88KAR3625	31C16	18	405630	4980340	T	1	1	0.50	0.00					

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3626	31C16	18	406940	4981210	T	1	1	0.60	10.00					
88KAR3627	31C16	18	407810	4981960	T	1	1	0.10	4.20					
88KAR3628	31C16	18	403450	4977450	T	1	1	0.00	30.80					
88KAR3629	31C16	18	402750	4973900	T	1	1	0.00	26.70					
88KAR3630	31C16	18	395580	4971390	T	1	1	0.10	0.00					
88KAR3631	31C16	18	394030	4971830	T	1	1	0.20	0.00					
88KAR3632	31C16	18	390390	4970660	T	1	1	0.60	0.00					
88KAR3633	31C16	18	397060	4975940	T	1	1	0.30	0.00					
88KAR3634	31C16	18	395490	4973960	F	1	1	0.10	15.00					
88KAR3634A	31C16	18	395490	4973960	Silt/	0	1	0.20	0.00					
88KAR3635	31C16	18	392460	4977580	T	1	1	0.20	0.80					
88KAR3639	31F02	18	355700	5009020	T	1	1	0.60	0.80					
88KAR3640	31F02	18	352290	5009180	F	1	1	0.10	12.50					
88KAR3640A	31F02	18	352290	5009180	F	0	1	0.00	23.30					
88KAR3641	31C16	18	351540	5004160	F	1	1	0.00	20.00					
88KAR3645	31C16	18	392940	4965430	T	1	1	0.10	24.20					
88KAR3649	31C16	18	401310	4965490	T	1	1	0.60	0.80					
88KAR3650	31C16	18	401410	4964240	T	1	1	0.10	0.00					
88KAR3651	31C16	18	392690	4975090	T	1	1	0.90	0.80					
88KAR3652	31F01	18	392000	4984150	T	1	1	0.00	30.80					
88KAR3653	31C16	18	394630	4979500	T	1	1	0.20	0.80					
88KAR3654	31C16	18	403860	4980280	T	1	1	0.30	1.70					
88KAR3655	31C16	18	402500	4982510	T	1	1	0.90	0.80					
88KAR3657	31C16	18	406810	4978540	T	1	1	0.00	35.00					
88KAR3658	31C16	18	417700	4974460	T	1	1	0.40	0.00					
88KAR3659	31C16	18	417450	4974720	T	1	1	0.00	33.30					
88KAR3660	31C16	18	417340	4974900	T	1	1	0.10	35.80					
88KAR3661	31C16	18	417310	4975930	T	1	1	1.40	0.80					
88KAR3662A	31C16	18	416550	4971210	T	0	1	0.00	29.20					
88KAR3662B	31C16	18	416550	4971210		0	1	0.00	32.50					
88KAR3663	31C16	18	415340	4967260	T	1	1	0.00	37.50					

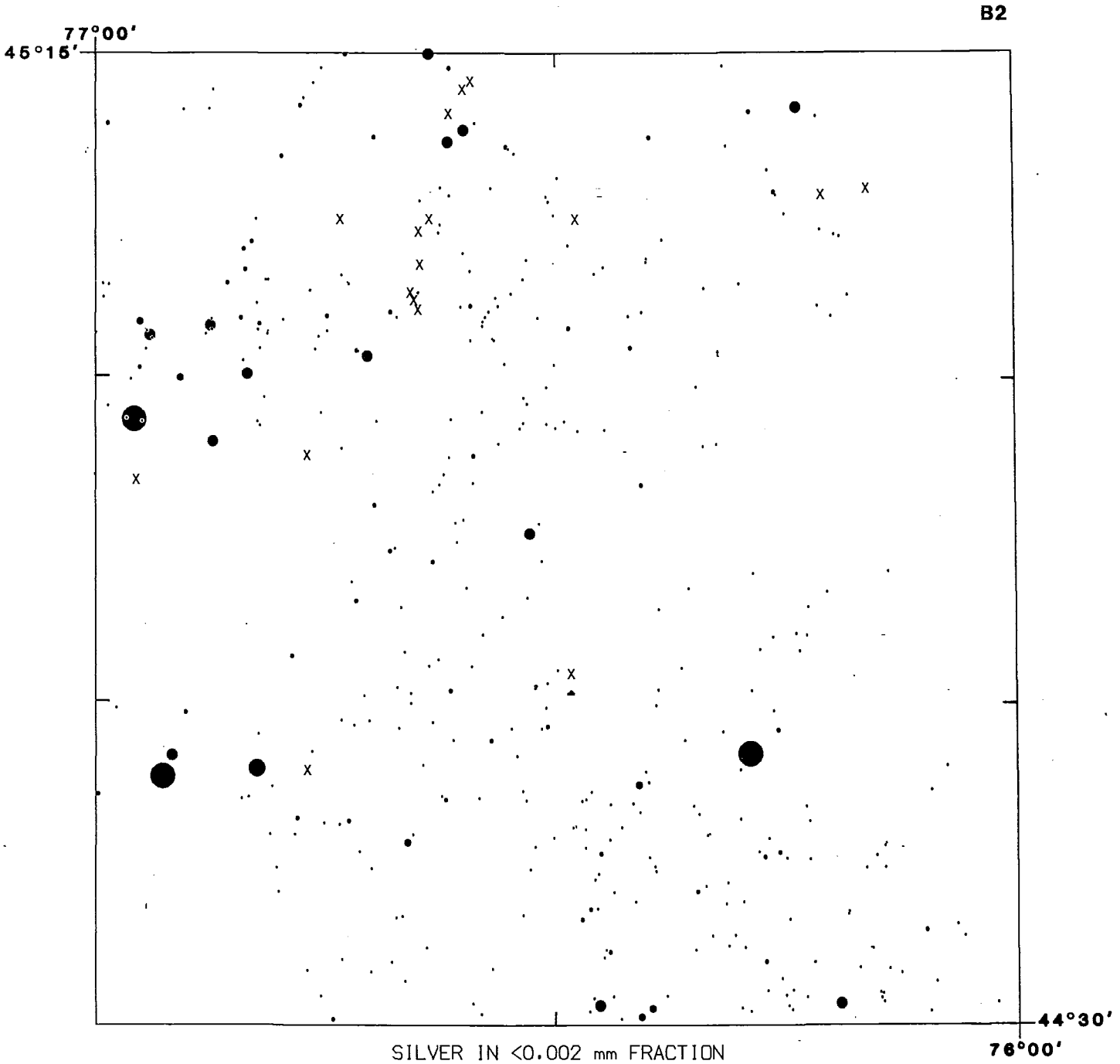
SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR3664	31C16	18	414410	4966540	T	1	1	0.20	30.80					
88KAR3665	31C16	18	414910	4964800	T	1	1	0.00	43.30					
88KAR3667	31C09	18	418910	4945260	T	1	1	0.20	62.50					
88KAR3668	31C09	18	398170	4945660	T	1	1	0.30	0.80					
88KAR3669	31C09	18	399760	4945930	T	1	1	0.00	35.00					
88KAR5002	31C15	18	368640	4962730	T	1	1	0.30	16.70			71.60	25.40	3.00
88KAR5003	31C15	18	369370	4964040	T	1	1	0.90	0.80			73.30	21.20	5.50
88KAR5004	31C15	18	371110	4965270	T	1	1	0.10	41.70			84.80	13.40	1.80
88KAR5005	31C15	18	371270	4967740	F	1	1	0.10	69.10					
88KAR5006	31C15	18	370140	4970110	F	1	1	0.10	50.00					
88KAR5007	31C15	18	371590	4971360	T	1	1	0.70	0.00			48.00	44.50	7.50
88KAR5008	31C15	18	372710	4971380	T	1	1	1.20	0.80			72.20	20.10	7.70
88KAR5009A	31C15	18	372900	4972760	T	1	1	0.10	35.80			75.40	21.80	2.80
88KAR5009B	31C15	18	372900	4972760		0	1	0.30	19.20			68.40	26.20	5.40
88KAR5009C	31C15	18	372900	4972760		0	1	1.10	1.70			63.30	32.10	4.60
88KAR5009D	31C15	18	372900	4972760		0	1	1.20	0.80			67.60	26.10	6.30
88KAR5010	31C15	18	365040	4962930	T	1	1	0.80	28.30			73.90	19.40	6.70
88KAR5011	31C15	18	364560	4964130	F	1	1	0.20	51.60					
88KAR5012	31C15	18	365350	4966360	F	1	1	0.10	64.10					
88KAR5013	31C15	18	365250	4969510	T	1	1	1.20	0.00			60.00	34.60	5.40
88KAR5014	31C15	18	365140	4970590	F	1	1	0.10	38.30					
88KAR5015	31C15	18	366700	4974270	T	1	1	1.50	0.00					
88KAR5016	31C15	18	368240	4974760	T	1	1	0.90	0.70			68.70	25.50	5.80
88KAR5017	31C15	18	374520	4970860	F	1	1	0.20	55.80					
88KAR5018	31C15	18	369630	4961820	F	1	1	0.30	0.80					
88KAR5019	31C15	18	370940	4959560	F	1	1	0.10	37.50					
88KAR5021	31C15	18	373590	4960690	T	1	1	1.70	0.80			61.40	27.10	11.50
88KAR5022	31C15	18	374230	4961340	T	1	1	0.80	0.00			62.40	28.90	8.70
88KAR5023	31C15	18	376060	4963090	T	1	1	0.20	0.00					
88KAR5024	31C15	18	377510	4964890	T	1	1	0.10	0.80			70.20	23.70	6.10
88KAR5025	31C15	18	376720	4966600	T	1	1	0.30	53.30			68.50	23.50	8.00

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR5027	31C15	18	373840	4965940	T	1	1	0.50	73.30			65.20	25.70	9.10
88KAR5028	31C15	18	372700	4964920	T	1	1	0.90	0.00			69.60	22.50	7.90
88KAR5029	31C15	18	372800	4965240	T	1	1	0.10	41.70			58.40	37.40	4.20
88KAR5030	31C15	18	371560	4964940	F	1	1	0.40	54.10					
88KAR5031	31C15	18	370150	4965240	T	1	1	0.80	0.80			65.80	27.40	6.80
88KAR5032	31C15	18	366310	4963590	T	1	1	1.10	0.00			76.10	19.20	4.70
88KAR5033	31C15	18	365210	4963860	T	1	1	1.40	0.00			69.50	21.50	9.00
88KAR5034	31C15	18	364070	4966000	F	1	1	0.50	0.00					
88KAR5035	31C15	18	364400	4969820	F	1	1	0.10	35.80					
88KAR5036	31C15	18	358690	4969410	T	1	1	0.50	0.00					
88KAR5037	31C15	18	351490	4975150	T	1	1	0.20	53.30					
88KAR5038	31C15	18	348740	4981540	F	1	1	0.30	37.50					
88KAR5039	31C15	18	343300	4981580	F	1	1	1.00	2.50					
88KAR5040	31C15	18	342950	4983610	F	1	1	0.50	1.70					
88KAR5041	31C15	18	344640	4978750	F	1	1	0.70	0.80					
88KAR5042	31C15	18	345960	4974480	F	1	1	2.00	4.20					
88KAR5043	31C15	18	342030	4971090	F	1	1	0.60	24.20					
88KAR5044	31C15	18	342510	4971960	F	1	1	1.10	1.70					
88KAR5045	31C15	18	348210	4974760	T	1	1	1.30	1.70			59.20	33.80	7.00
88KAR5046	31C15	18	346600	4972450	T	1	1	0.60	0.00			63.90	21.10	15.00
88KAR5047	31C15	18	347300	4973430	T	1	1	0.60	0.00					
88KAR5048	31C15	18	352650	4984220	F	1	1	0.10	61.60					
88KAR5049	31C15	18	354550	4983760	T	1	1	1.60	0.00			69.40	25.60	5.00
88KAR5050	31C15	18	354260	4981440	T	1	1	1.00	0.00			66.20	19.90	13.90
88KAR5051	31C15	18	354240	4981070	F	1	1	0.90	0.00			78.70	17.40	3.90
88KAR5052	31C15	18	351090	4979570	T	1	1	0.40	45.00			67.80	27.30	4.90
88KAR5053	31C15	18	351650	4979540	T	1	1	0.20	42.50			78.90	18.20	2.90
88KAR5054	31C15	18	352460	4979020	F	1	1	0.20	12.50			73.20	22.00	4.80
88KAR5055	31C15	18	350230	4977540	T	1	1	0.20	1.70			73.80	20.50	5.70
88KAR5056	31C15	18	351320	4974560	F	1	1	0.90	25.80			87.50	10.60	1.90
88KAR5057	31C15	18	348310	4968200	F	1	1	3.10	0.00			82.70	13.30	4.00

SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
88KAR5058	31C15	18	362740	4962300	F	1	1	2.00	0.80			72.10	22.50	5.40
88KAR5059	31C15	18	352800	4984000	V	1	1	0.00	30.00					
88KAR5059A	31C15	18	352800	4984000		0	1	0.10	38.30					
88KAR5060	31C15	18	371980	4977930	F	1	1	0.10	38.30					
SAMPLE	nts	zo	east	north	s	r	a	NON-CB pct <.063mm	CaCO3 pct <.063mm	NON-CB pct .125-.25 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm

APPENDIX B

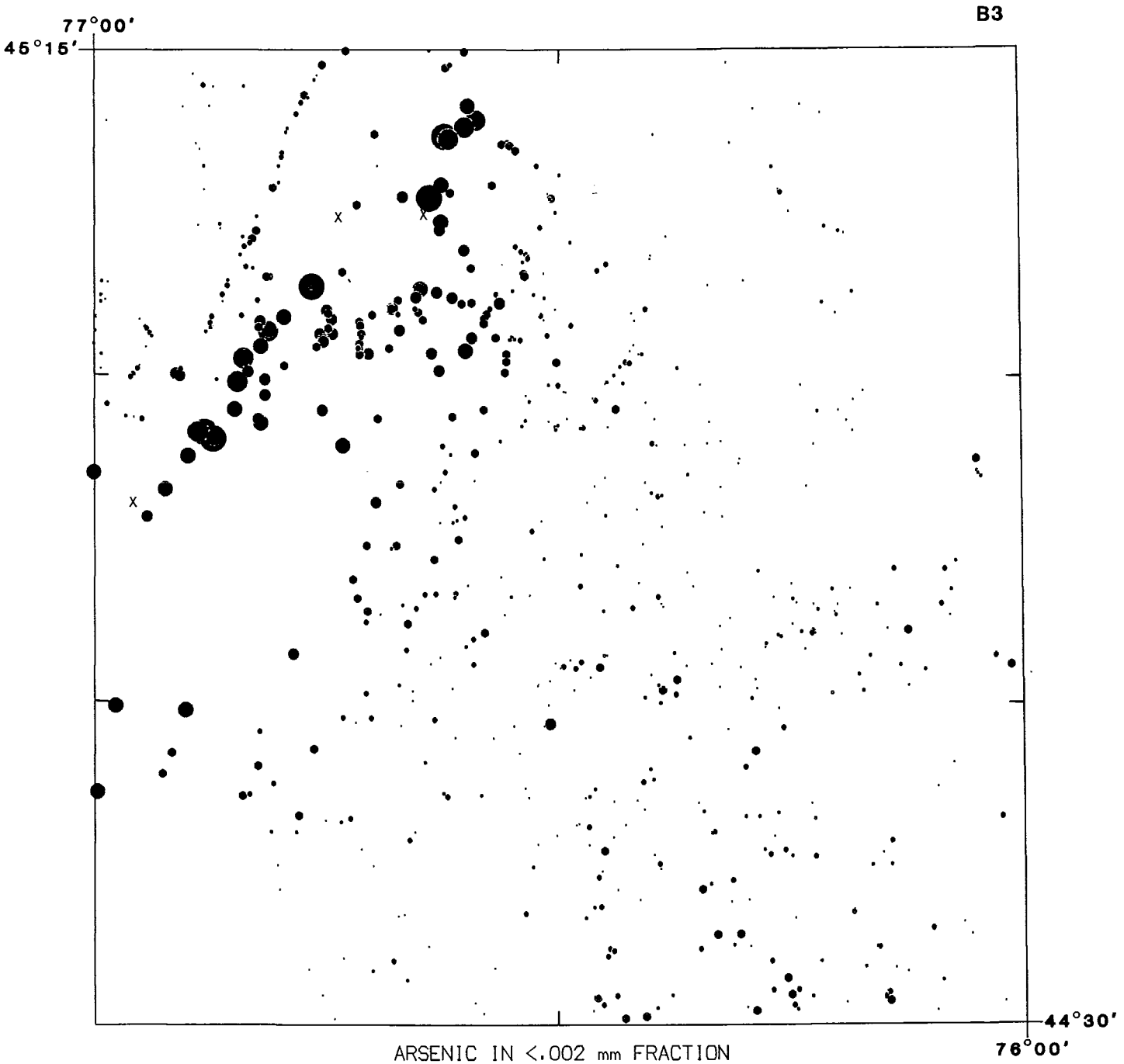
Maps showing the trace element and carbonate content and textural composition of glacial sediments in the Clyde Forks-Westport area.



Ag

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	.05	0.2	304	80.2
•	0.2	0.4	52	93.9
•	0.4	0.5	6	95.5
●	0.5	0.7	13	98.9
●	0.7	0.8	1	99.2
●	0.8	1.6	3	100

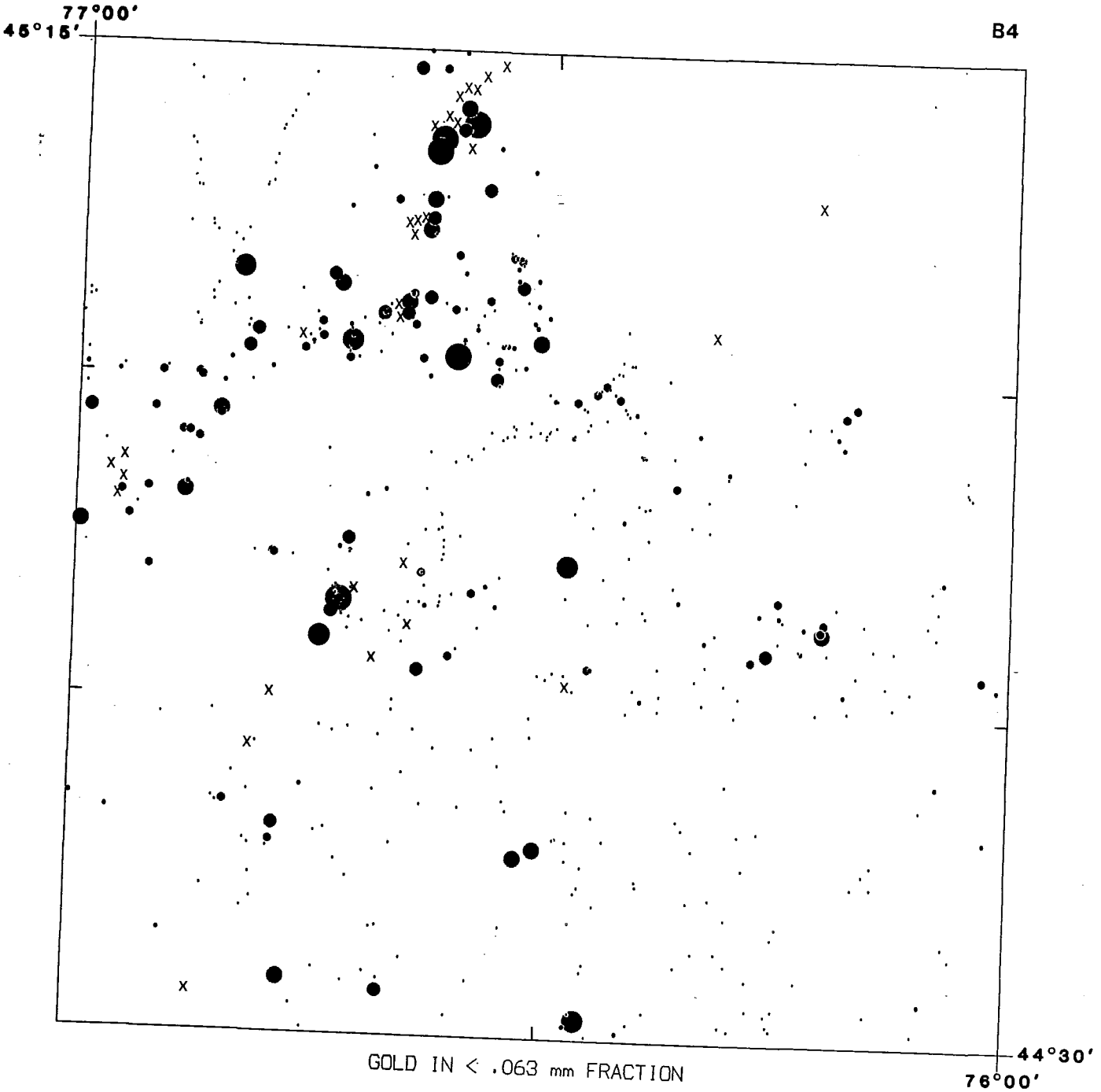
x Known Ag showing



As

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	1	4	221	34.5
•	4	6	141	56.6
•	6	10	123	75.8
●	10	19	92	90.2
●	19	32	32	95.2
●	32	100	19	98.1
●	100	200	7	99.2
●	200	536	5	100

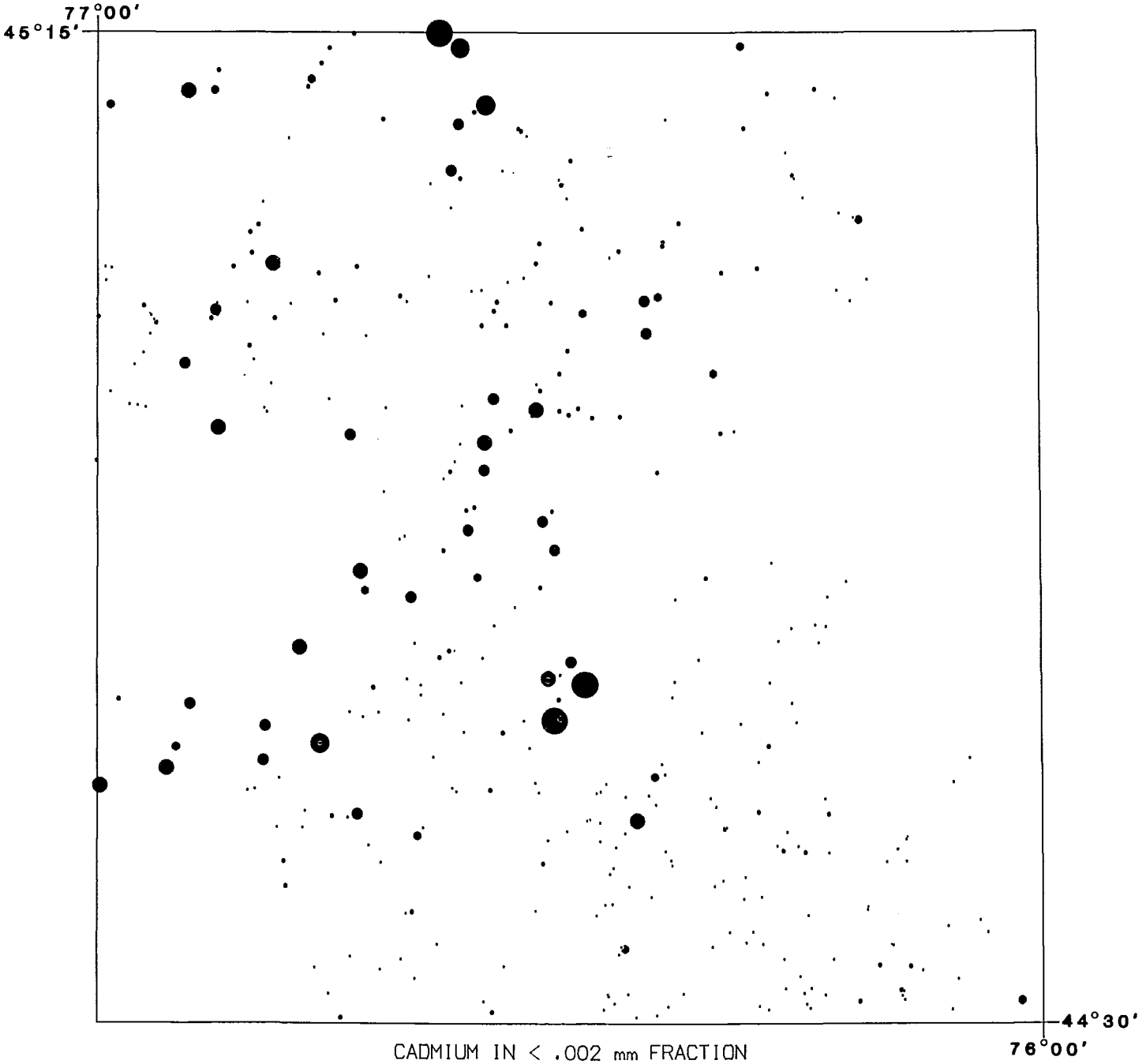
x Known As showing



Au

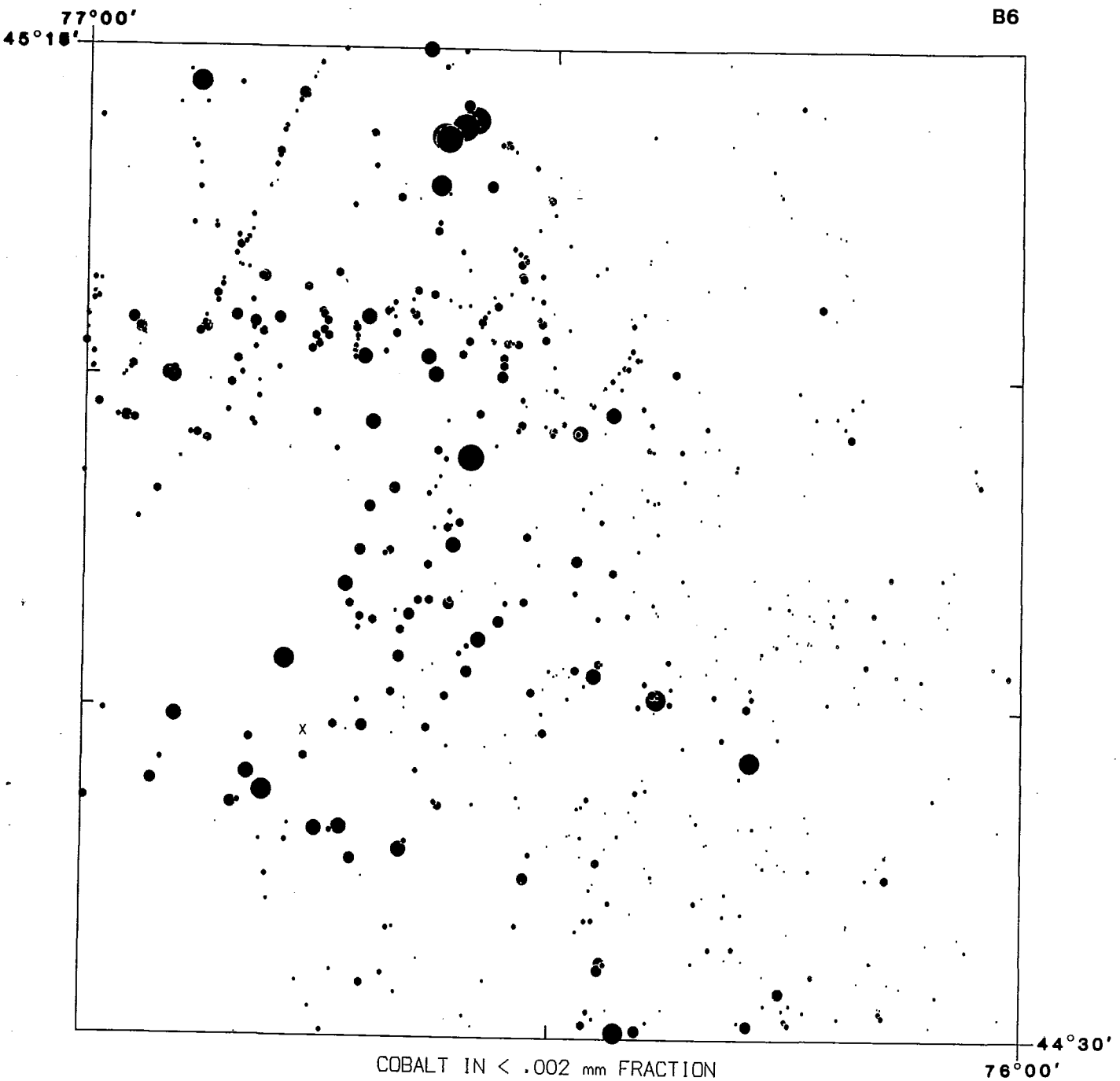
SIZE	RANGE (ppb) LOW	HIGH	OBS.	%TILE
·	1	4	350	67.8
•	4	6	73	82
●	6	10	50	91.7
●	10	16	20	95.5
●	16	28	13	98.1
●	28	32	5	99
●	32	150	5	100

x Known Au showing



Cd

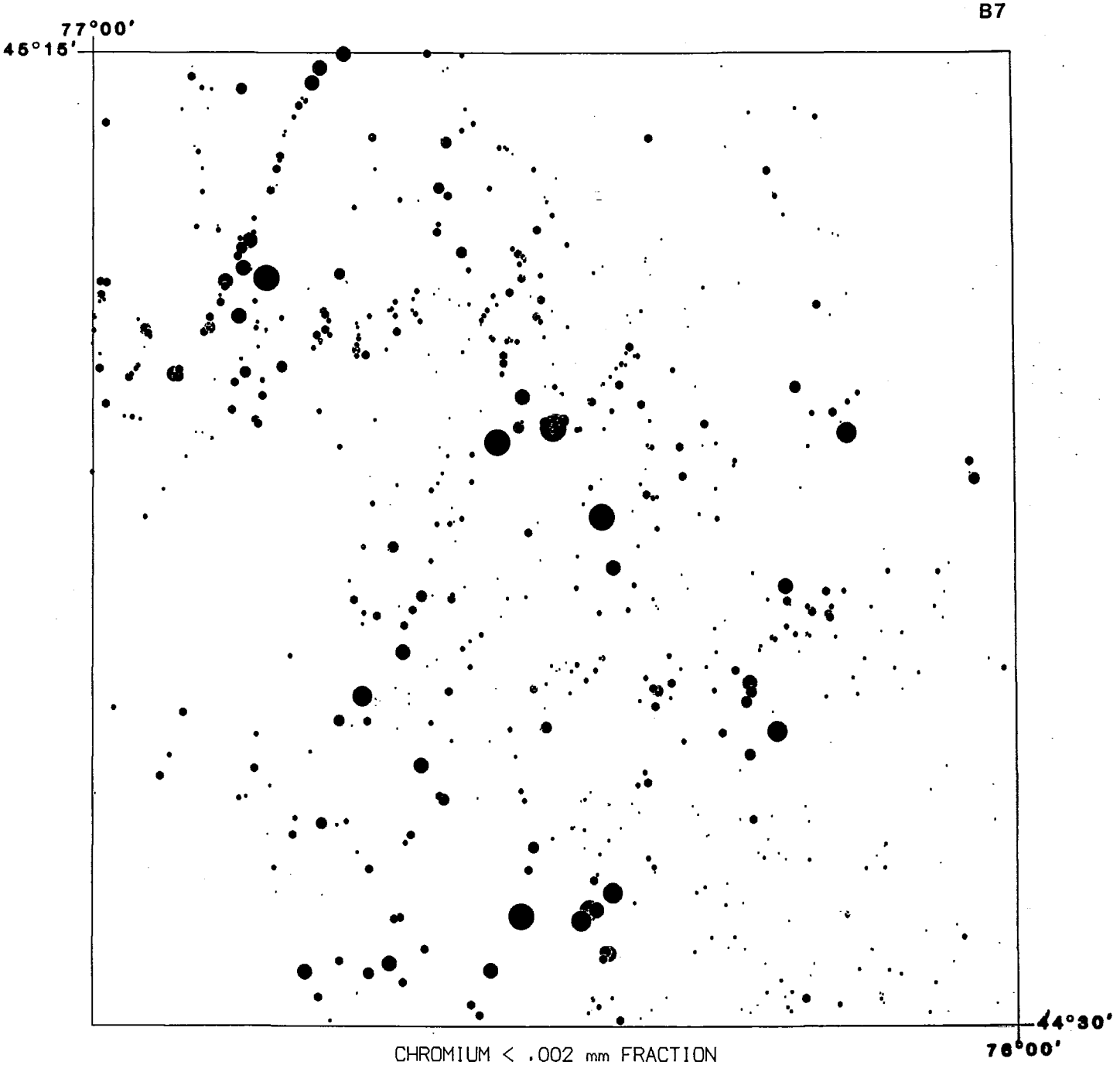
SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	.05	.1	213	59.7
•	.1	.5	93	85.7
●	.5	.9	16	90.2
●	.90	1.10	18	95.2
●	1.1	2.4	11	98.3
●	2.4	3.5	3	99.2
●	3.5	13	3	100



Co

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	3	17	168	26.3
•	17	24	162	51.7
•	24	35	154	75.9
•	35	47	92	90.3
●	47	59	31	95.1
●	59	90	19	98.1
●	90	130	7	99.2
●	130	186	5	100

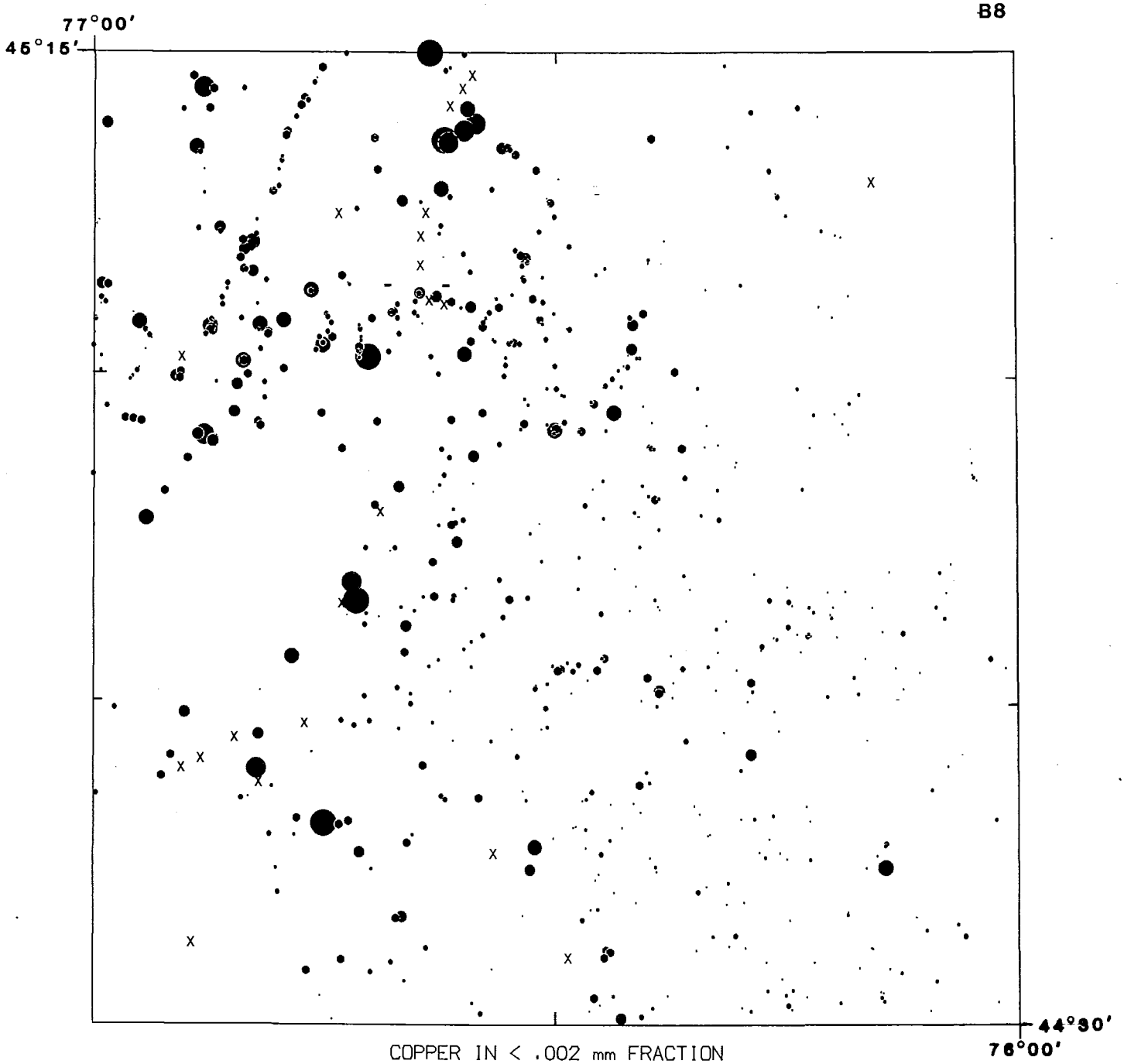
X Known Co showing



CHROMIUM < .002 mm FRACTION

Cr

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	20	56	163	25.5
•	56	68	164	51.3
•	68	80	152	75.1
●	80	98	98	90.4
●	98	110	30	95.1
●	110	124	19	98.1
●	124	142	6	99.1
●	142	245	6	100

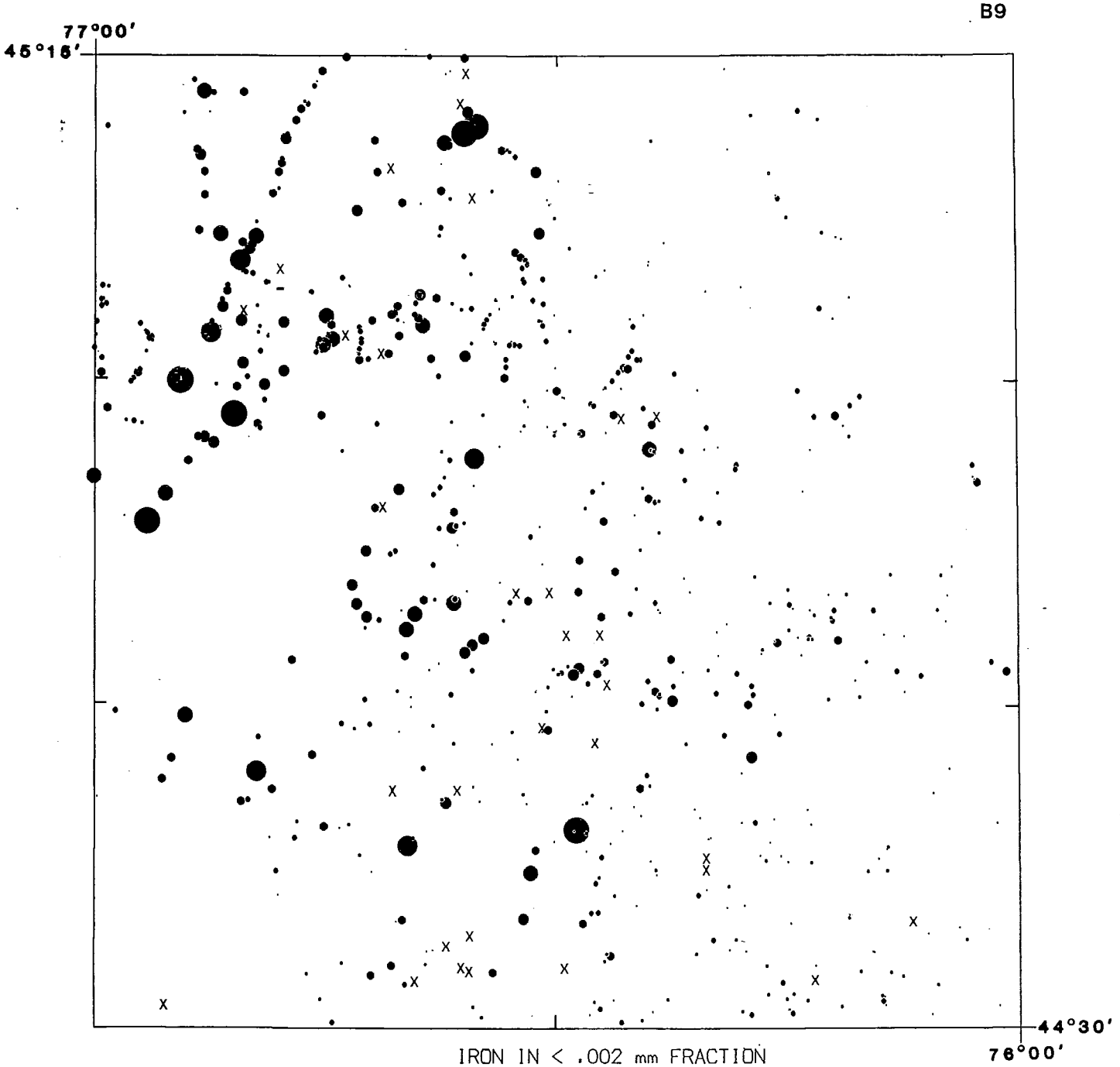


COPPER IN < .002 mm FRACTION

Cu

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	1	55	165	25.9
•	55	88	164	51.6
•	88	138	153	75.5
•	138	201	93	90.1
●	201	250	33	95.3
●	250	370	18	98.1
●	370	500	7	99.2
●	500	1115	5	100

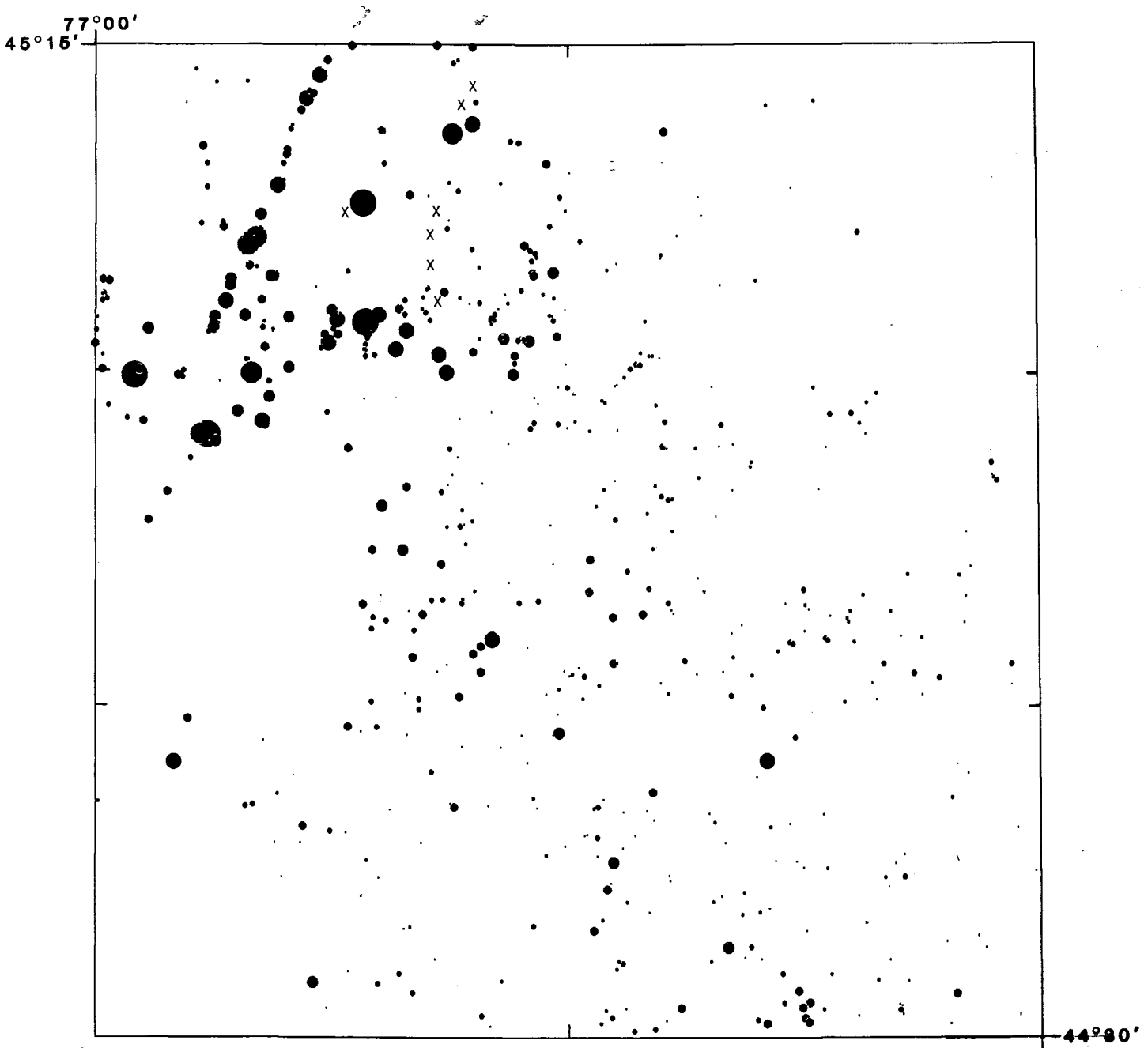
x Known Cu showing



Fe

SIZE	RANGE (pct) LOW	HIGH	OBS.	%TILE
·	1.2	4.2	162	25.4
•	4.2	5.6	160	50.5
•	5.6	7.3	164	76.2
•	7.3	9.0	90	90.3
•	9.0	10.2	33	95.5
•	10.2	12.0	17	98.1
•	12.0	13.8	6	99.1
•	13.8	32.5	6	100

x Known Fe showing

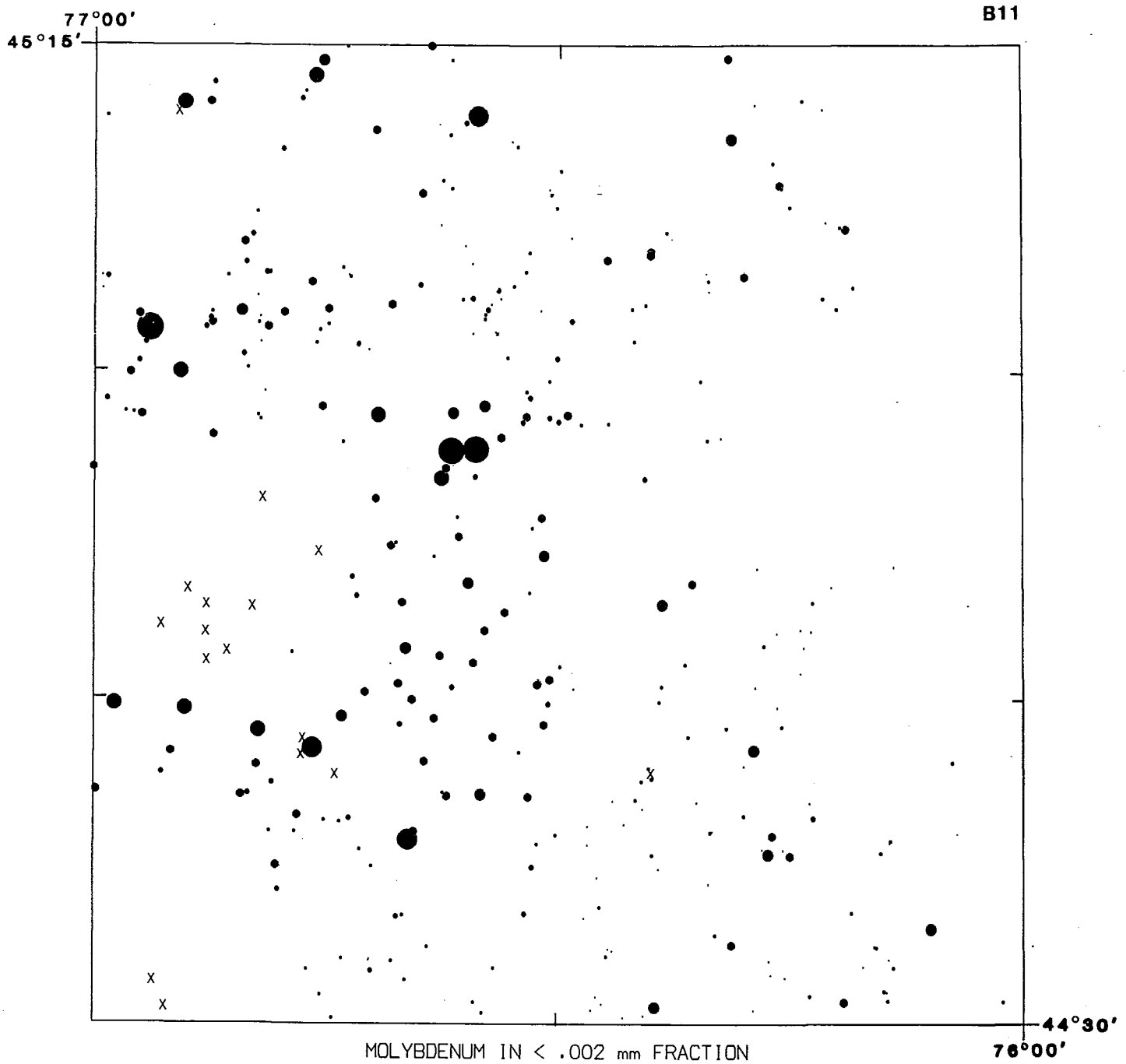


MERCURY IN < .002 mm FRACTION

Hg

SIZE	RANGE (ppb) LOW	HIGH	OBS.	%TILE
·	2	50	151	28.2
•	50	110	123	51.1
•	110	200	134	76.1
●	200	300	75	90.1
●	300	385	28	95.3
●	385	480	16	98.3
●	480	575	5	99.3
●	575	930	4	100

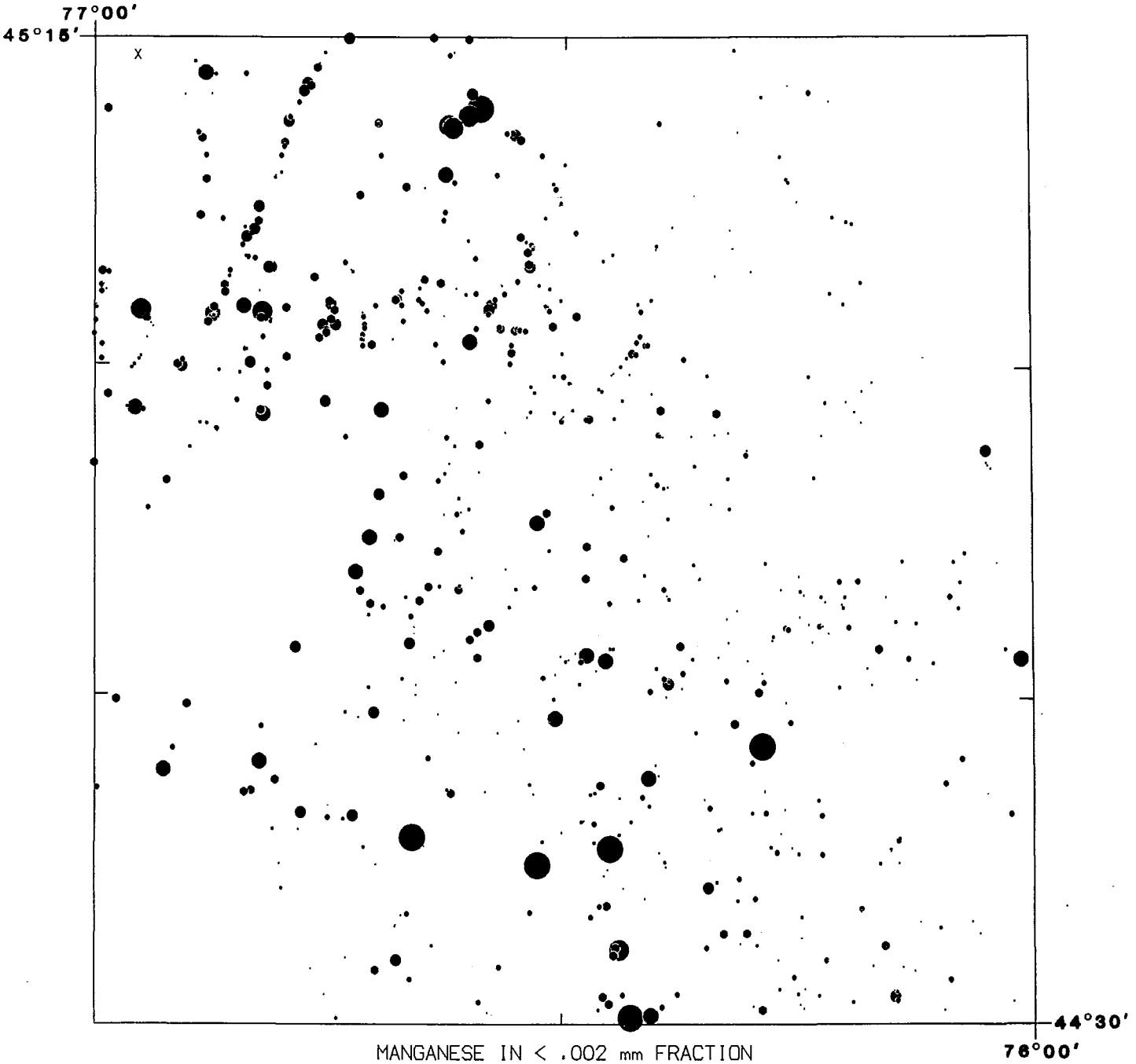
x Known Hg showing



Mo

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	1	2	66	21
•	2	4	113	57
•	4	5	43	70.7
●	5	7	61	90.1
●	7	8	17	95.5
●	8	11	8	98.1
●	11	15	3	99
●	15	20	3	100

x Known Mo showing

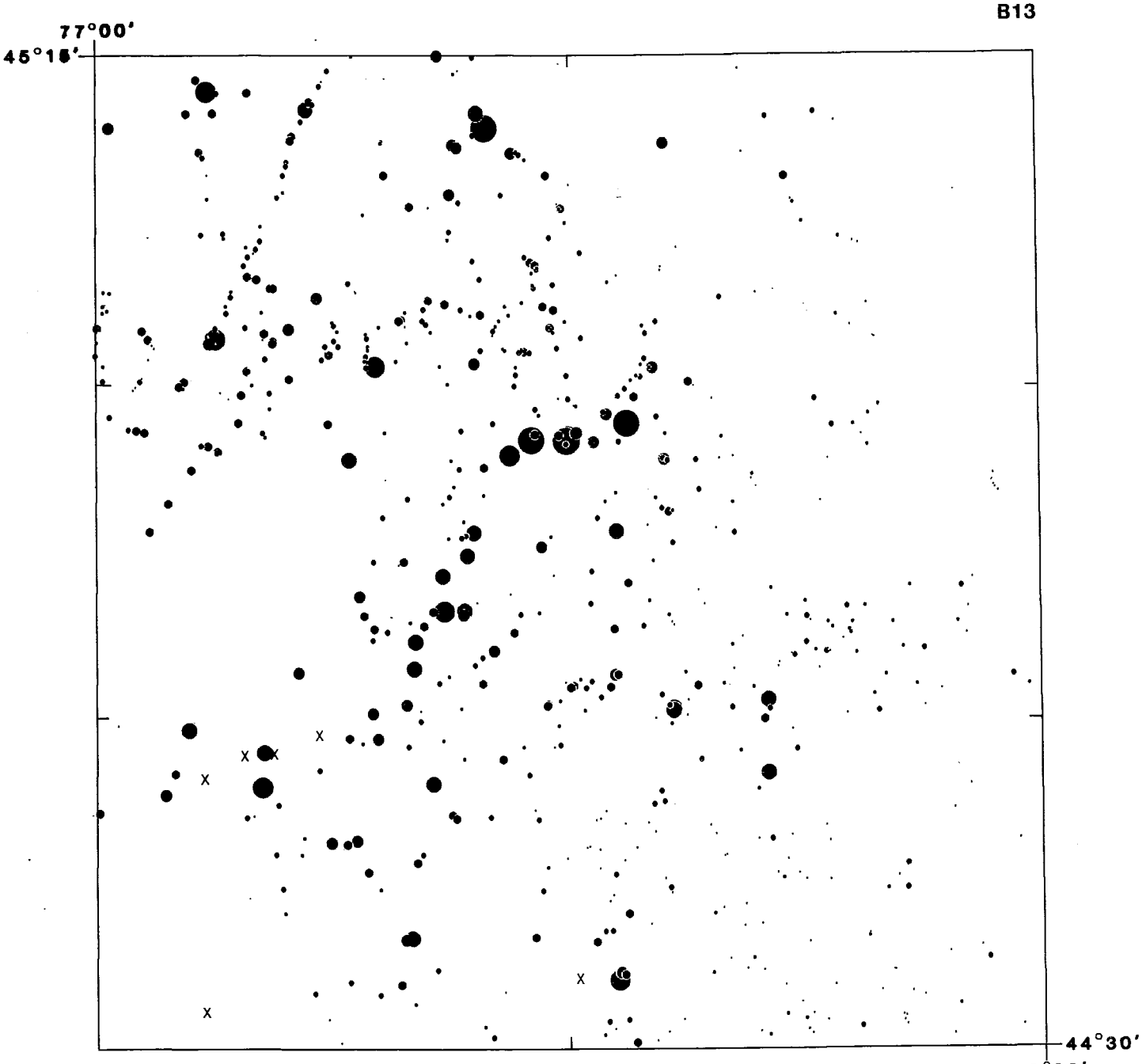


MANGANESE IN < .002 mm FRACTION

Mn

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	60	680	160	25.1
•	680	1000	167	51.3
•	1000	1700	153	75.4
●	1700	2460	94	90.1
●	2460	3405	32	95.1
●	3405	6025	19	98.1
●	6025	7080	6	99.1
●	7080	12000	6	100

X Known Mn showing

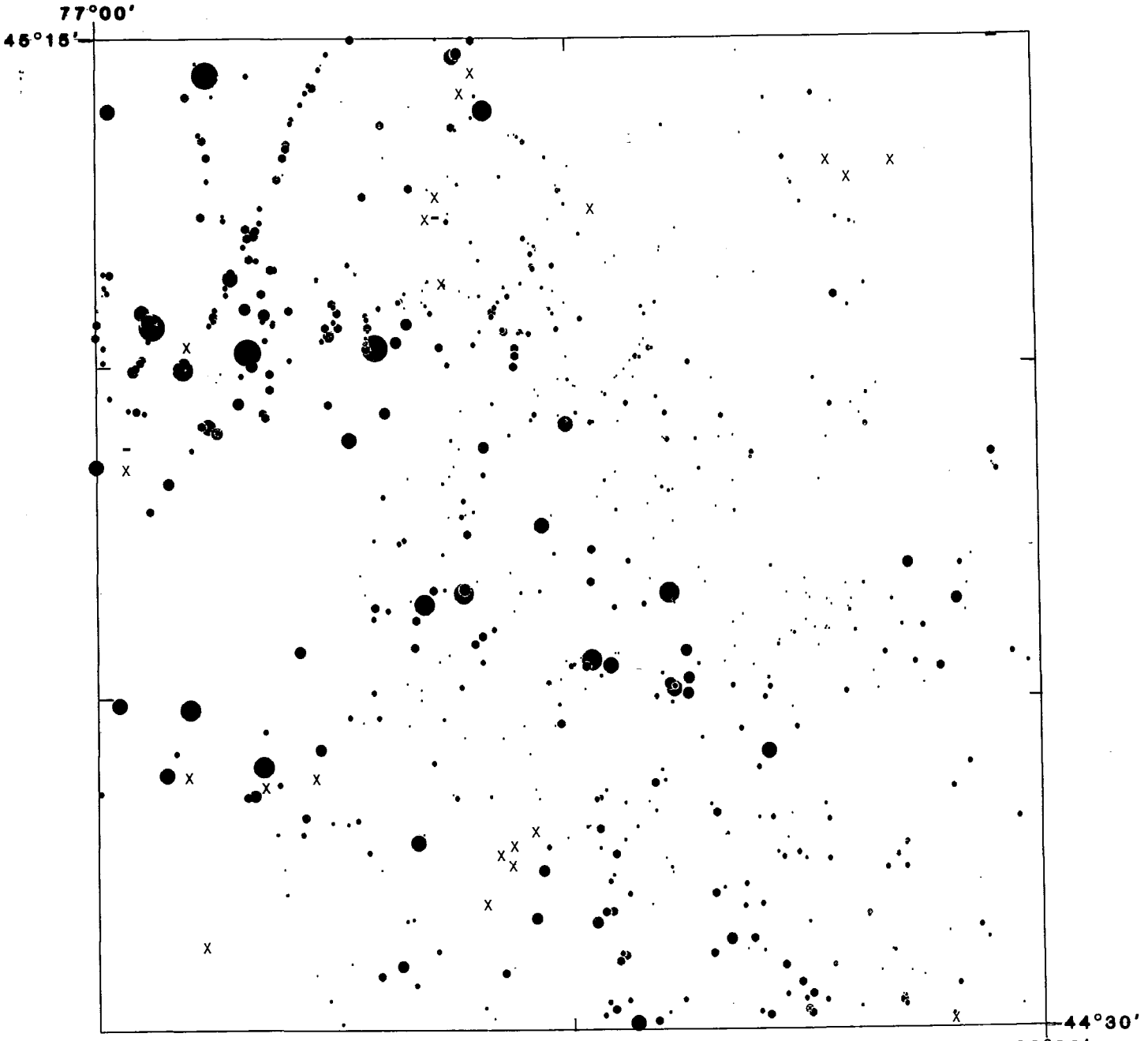


NICKEL IN < .002 mm FRACTION

Ni

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	4	45	166	26
•	45	56	154	50.2
•	56	72	167	76.3
•	72	90	88	90.1
•	90	106	33	95.3
•	106	145	18	98.1
•	145	180	7	99.2
•	180	416	5	100

x Known Ni showing

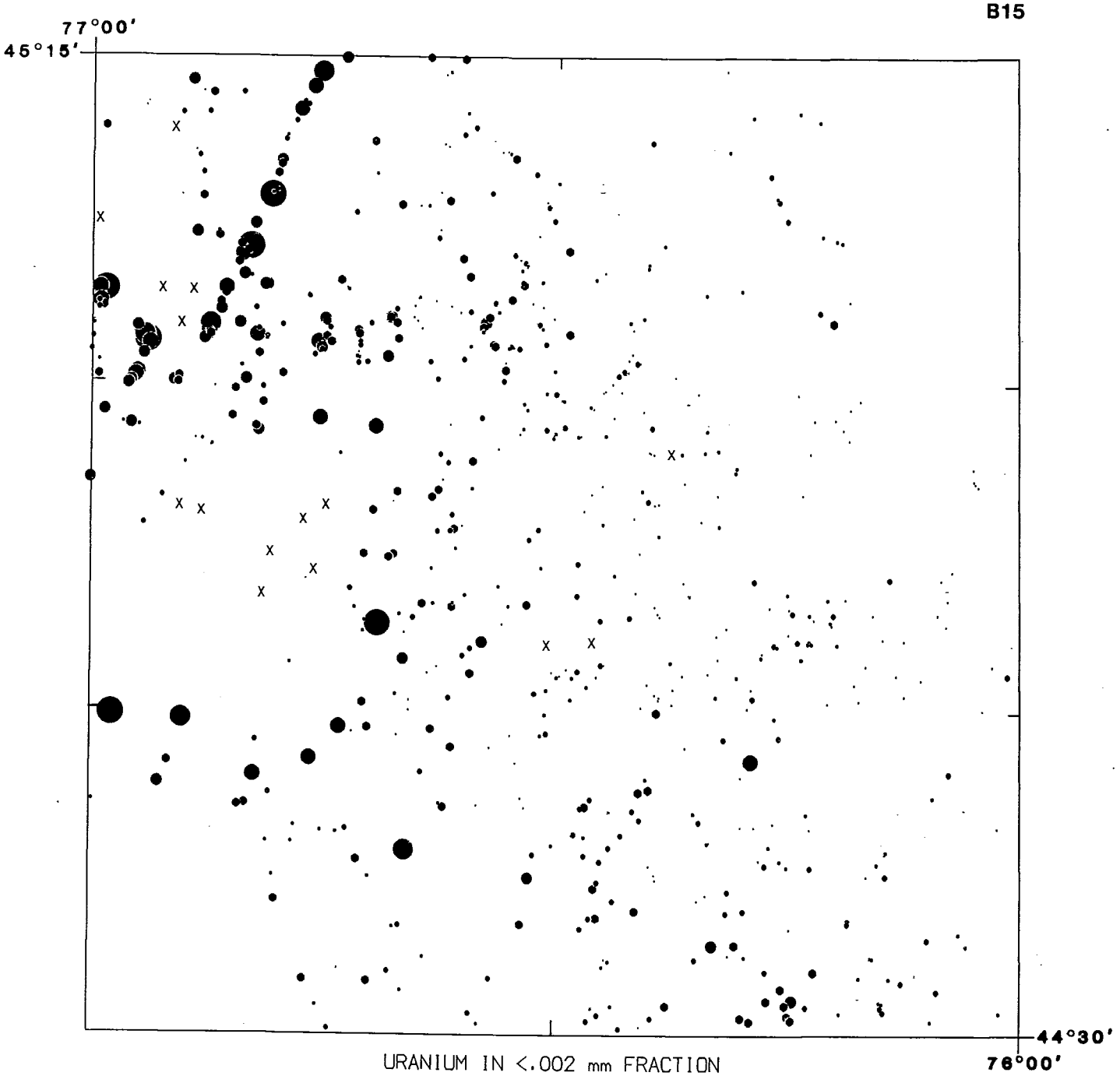


LEAD IN < .002 mm FRACTION

Pb

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	1	10	182	28.5
•	10	15	140	50.5
•	15	24	164	76.2
•	24	33	90	90.3
•	33	43	32	95.3
•	43	60	18	98.1
•	60	75	8	99.4
•	75	145	4	100

X Known Pb showing

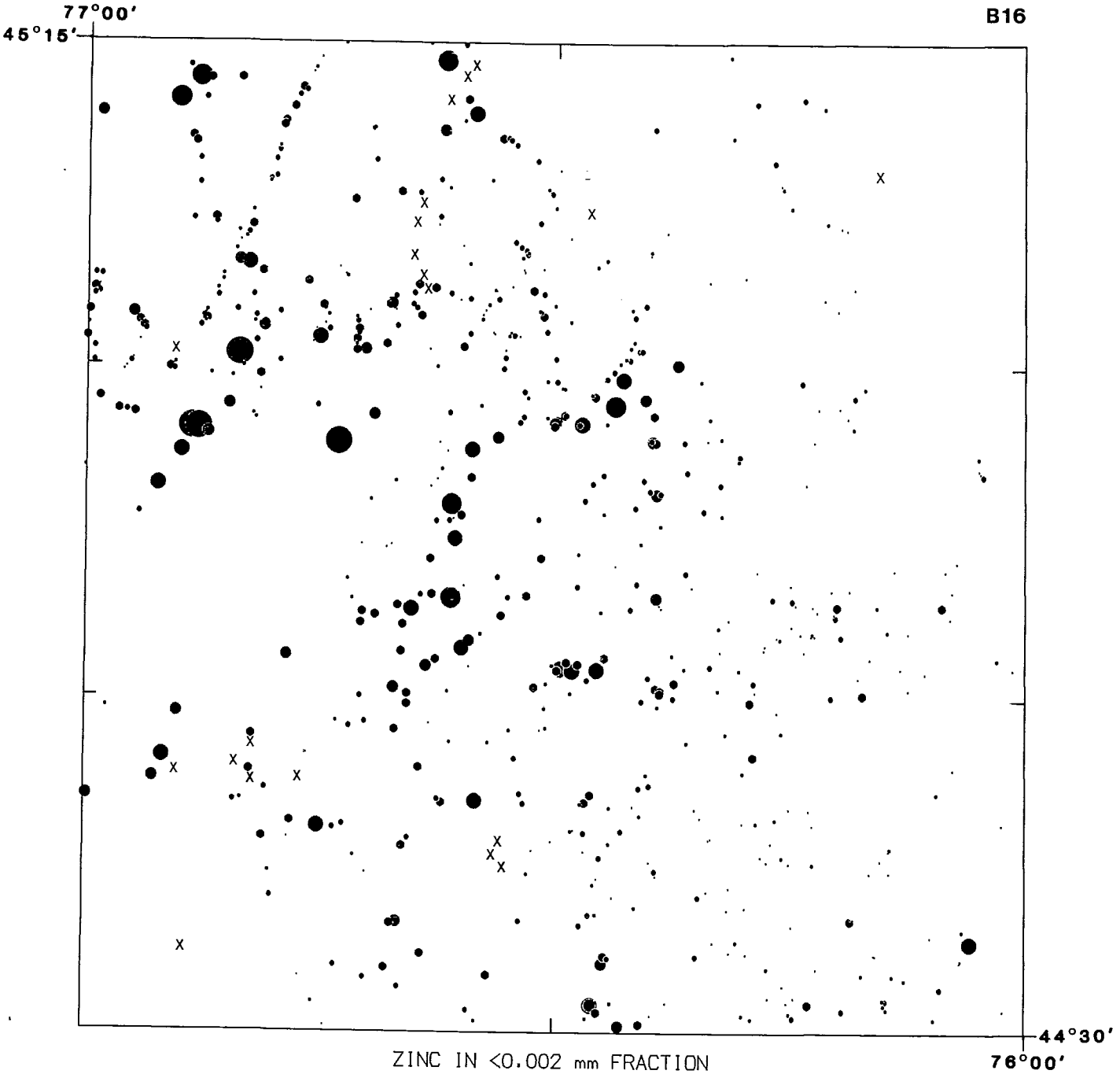


URANIUM IN <.002 mm FRACTION

U

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	.05	.4	180	28.1
•	.4	.8	156	52.5
•	.8	2	147	75.5
●	2	4	94	90.2
●	4	7.8	33	95.3
●	7.8	14.8	18	98.1
●	14.8	22	6	99.1
●	22	50	6	100

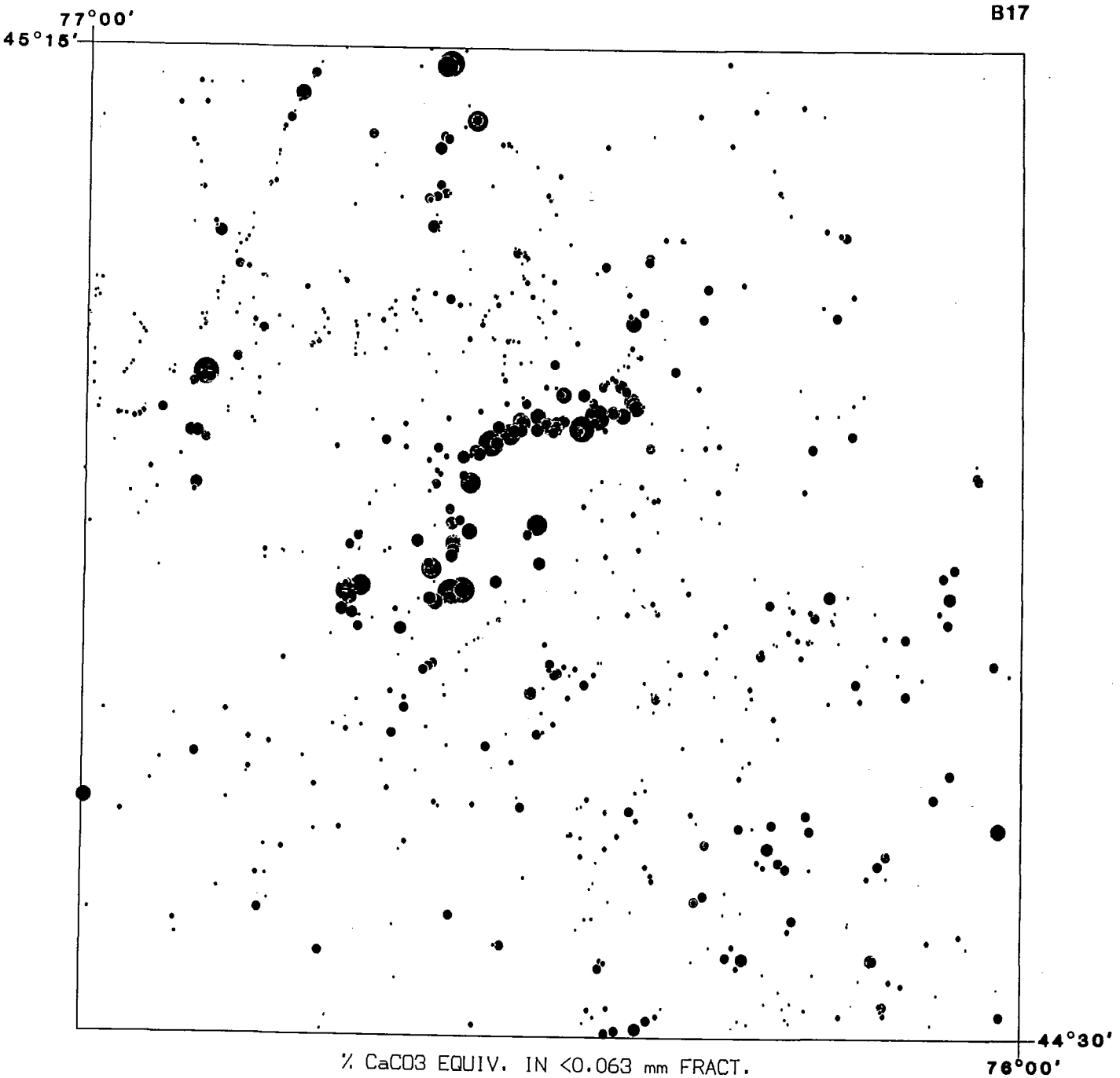
x Known U showing



Zn

SIZE	RANGE (ppm) LOW	HIGH	OBS.	%TILE
·	6	115	161	25.3
·	115	150	159	50.2
•	150	201	159	75.2
•	201	298	98	90.6
●	298	340	30	95.3
●	340	500	19	98.3
●	500	820	7	99.4
●	820	1120	4	100

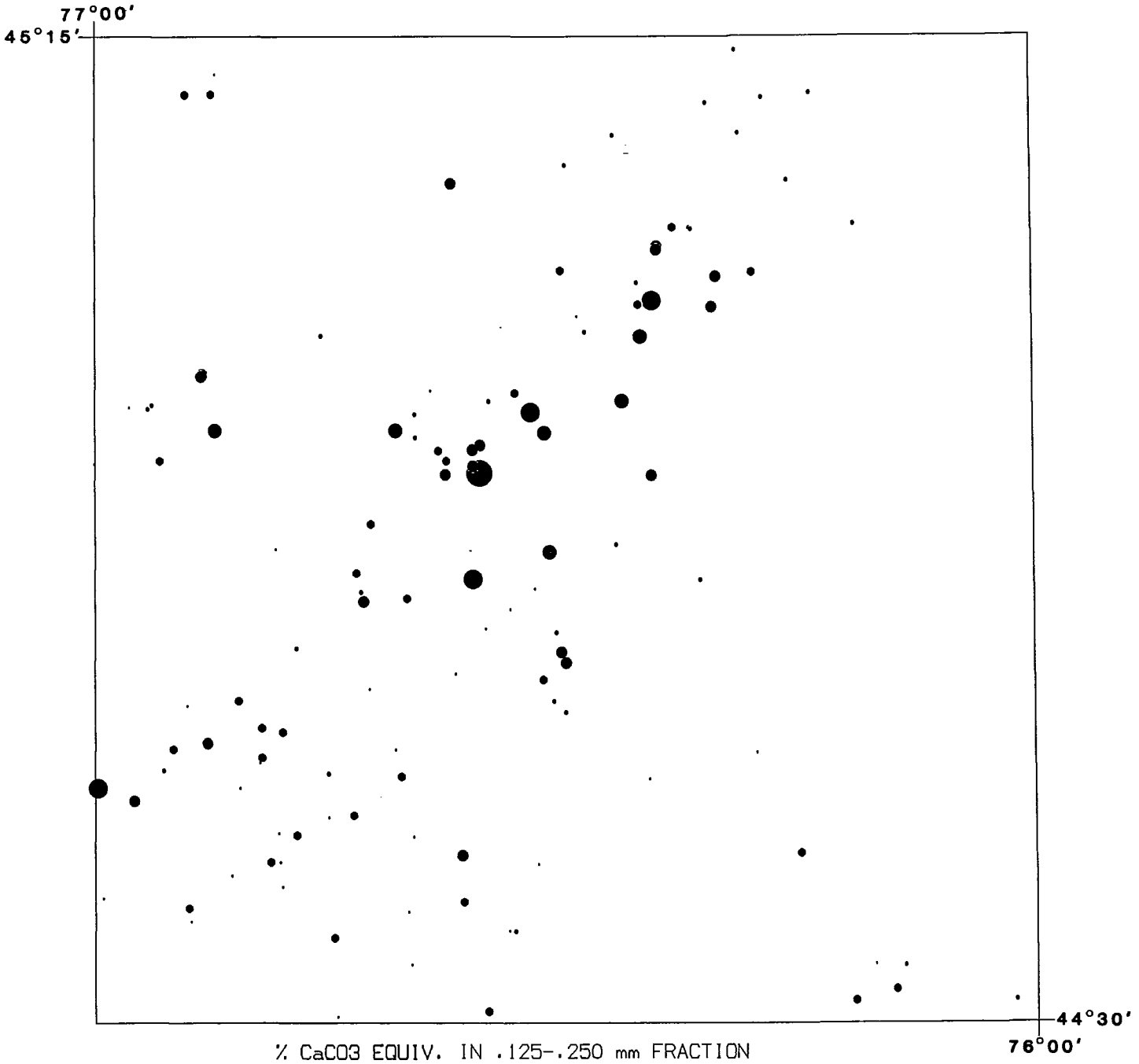
x Known Zn showing



CaCO3 equiv.

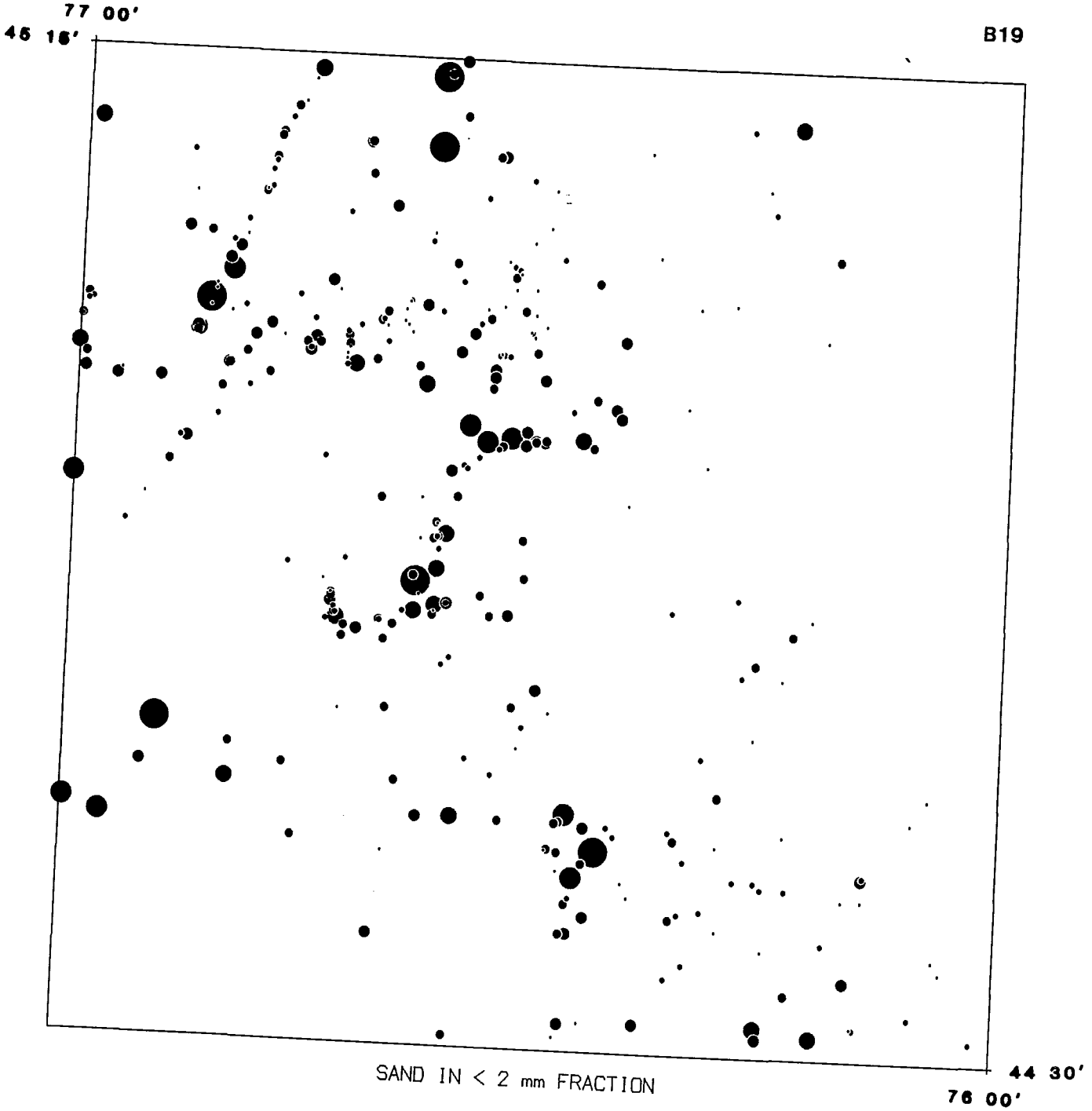
SIZE	RANGE (Weight %) LOW	HIGH	OBS.	%TILE
·	0.001	0.8	220	28
·	0.8	11.1	174	50.1
•	11.1	26.8	196	75.1
●	26.8	41.0	118	90.1
●	41.0	53.3	41	95.3
●	53.3	62.5	22	98.1
●	62.5	69.8	8	99.1
●	69.8	82.5	7	100

B18



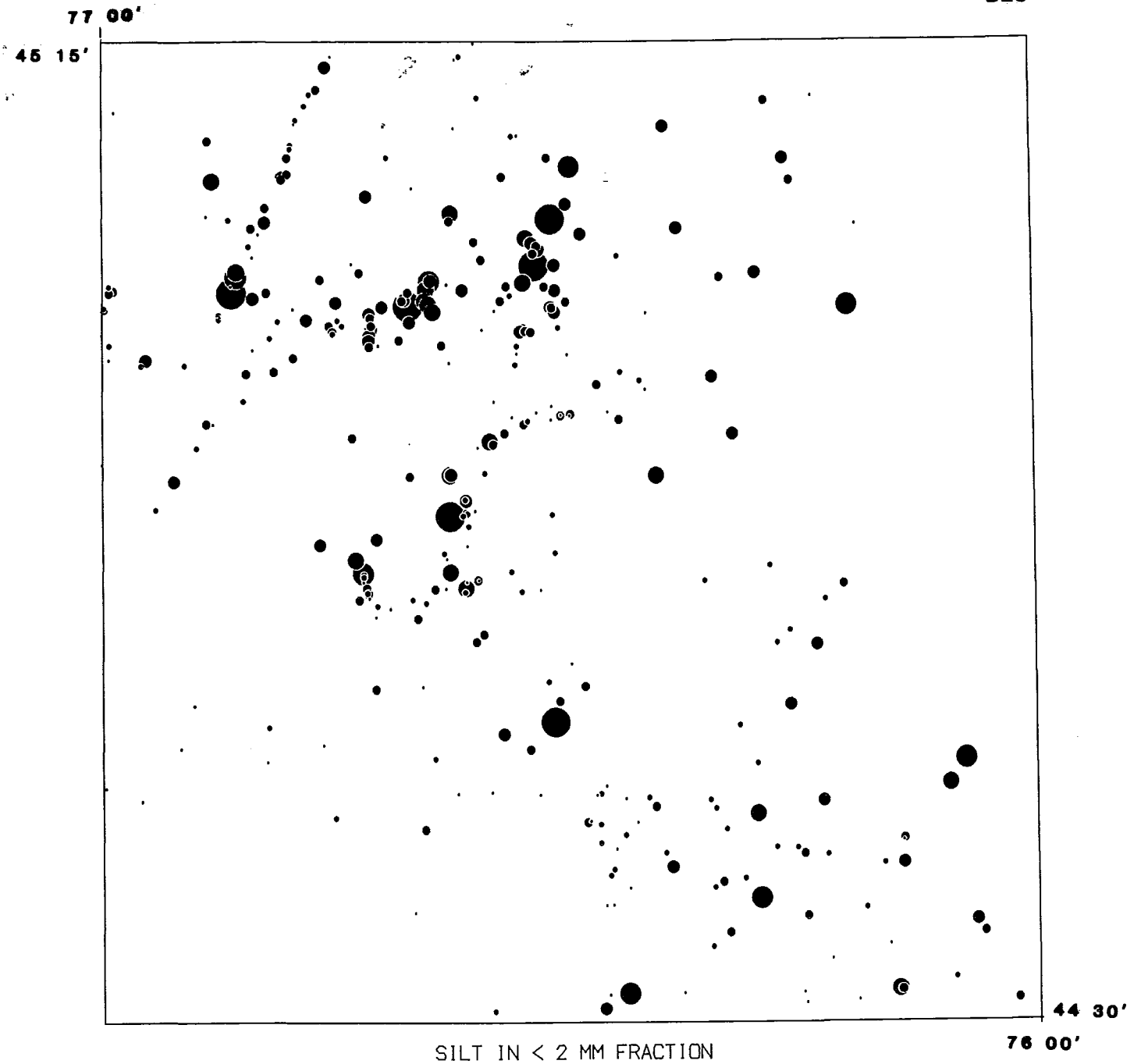
CaCO3 equiv.

SIZE	RANGE (pct) LOW	HIGH	OBS.	%TILE
·	.001	5.3	31	25.4
•	5.3	11.8	31	50.8
•	11.8	17.8	30	75.4
●	17.8	29.8	19	91
●	29.8	50.2	6	95.9
●	50.2	65.3	4	99.2
●	65.3	86.2	1	100



SAND

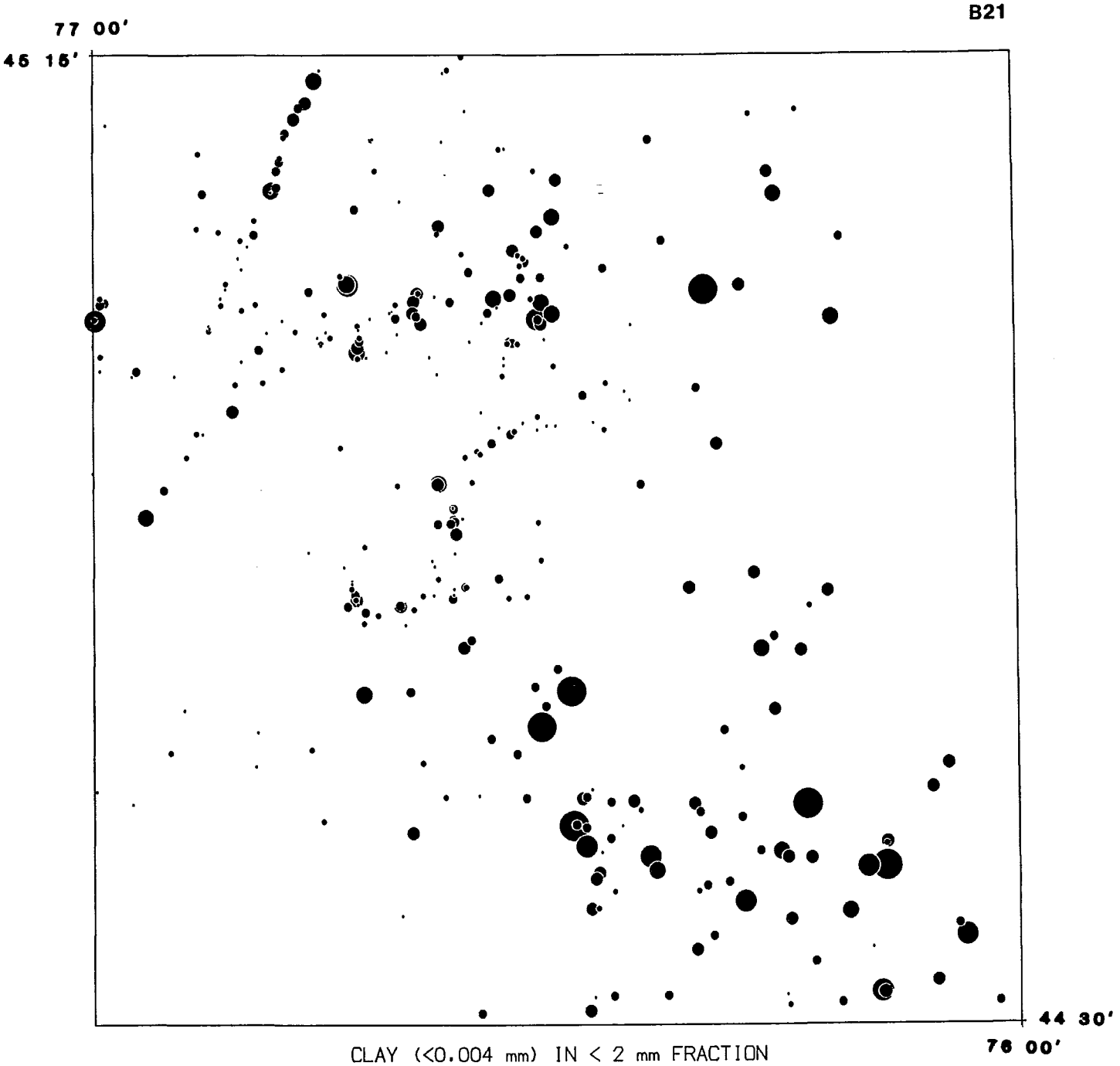
SIZE	RANGE (%) LOW	HIGH	OBS.	%TILE
	7.4	59.8	82	25.2
	59.8	68	82	50.5
	68	75.4	81	75.4
	75.4	80.8	48	90.2
	80.8	85.38	17	95.4
	85.38	89.7	9	98.2
	89.7	95.6	6	100



SILT IN < 2 MM FRACTION

SILT

SIZE	RANGE (%) LOW	HIGH	OBS.	%TILE
·	3.8	19.52	82	25.2
•	19.52	24.7	85	51.4
●	24.7	30.3	79	75.7
●	30.3	35.45	47	90.2
●	35.45	40.6	18	95.7
●	40.6	43.6	8	98.2
●	43.6	53.3	6	100



CLAY

SIZE	RANGE (%) LOW	HIGH	OBS.	%TILE
·	0.6	4.3	84	25.8
•	4.3	6.8	86	52.3
●	6.8	10	75	75.4
●	10	14.7	48	90.2
●	14.7	17.9	17	95.4
●	17.9	22.8	9	98.2
●	22.8	39.5	6	100

APPENDIX C

1. Summary statistics for representative samples from all sites and for samples of each of three separate groups - till, glaciofluvial sand and/or gravel, and marine or glaciolacustrine silty clay sediments.
2. Frequency histograms and normal probability plots for trace element, carbonate and textural data for all representative samples and for till samples only.
3. Scattergrams of trace element data for samples that were analyzed twice.
4. Correlation matrix for trace element data.

REPRESENTATIVE SAMPLES one per site	AG ppm < 2 um	AS ppm < 2 um	CD ppm < 2 um	CO ppm < 2 um	CR ppm < 2 um	CU ppm < 2 um	FE pct < 2 um	HG ppb < 2 um	MO ppm < 2 um	MN ppm < 2 um	NI ppm < 2 um	PB ppm < 2 um	U ppm < 2 um	ZN ppm < 2 um	AU ppb < 63 um
number of samples	378	639	356	637	637	637	637	584	378	636	637	637	639	637	517
average	0.14	13.4	0.38	28.6	70.1	111.1	6	137.3	3.9	1401.1	61.7	19	2	177.7	5.6
median	0.05	6	0.1	24	68	88	5.6	109.5	4	1000	56	15	0.8	150	4
mode	0.05	4	0.1	16	60	52	6.4	40	4	1100	60	10	0.05	160	1
geometric mean	0.089	6.66	0.2	24.5	66.12	88.8	5.4	90.4	3	1097.1	56.5	15.5	0.77	154.8	3.2
variance	0.04	1327	0.72	374.2	580.7	8800.7	7.2	14712	7.4	1.6	978.2	185.2	17.2	13308	115
standard deviation	0.187	36.4	0.85	19.3	24.1	93.8	2.7	121.3	2.7	1269	31.3	13.6	4.15	115.4	10.7
standard error	0.01	1.44	0.05	0.77	0.95	3.72	0.12	5.02	0.14	50.3	1.2	0.5	0.17	4.6	0.5
minimum	0.05	1	0.05	3	20	1	1.2	2	0.5	60	4	1	0.05	6	1
maximum	1.6	536	13	186	245	1115	32.5	930	20	12000	416	145	50	1190	150
skewness	3.15	8.7	10.2	3.2	1.5	4.5	2.3	1.77	1.6	3.6	4.4	2.7	6.4	3.8	8.6
standardized skewness	24.98	90.5	78.9	33	14.9	46	23.8	17.53	12.4	36.8	45.1	28	65.9	39.4	79.8
kurtosis	14.63	96.6	140.5	16.3	6.8	35.3	16.3	5.07	15.2	17.9	37.1	14.4	54.8	23.2	94
standardized kurtosis	58.08	498.6	540.9	83.7	35	181.8	83.8	25.03	20.56	92.4	191.4	74.3	282.9	119.6	436.5
99th percentile	0.8	195	3.5	104	142	460	13.8	555	15	7080	178	74	22	700	32
98th percentile	0.7	100	2	90	124	370	12	460	11	6025	145	60	14.8	500	18
95th percentile	0.5	32	1.1	59	110	250	10.2	370	8	3405	106	43	7.8	340	16
90th percentile	0.4	19	0.9	47	98	201	9	295	7	2460	90	33	4	298	10
75th percentile	0.2	10	0.5	35	80	138	7.3	200	5	1700	72	24	2	201	6
50th percentile	0.05	6	0.1	24	68	88	5.6	109.5	4	1000	56	15	0.8	150	4
25th percentile	0.05	4	0.1	17	56	55	4.2	45	2	685	46	10	0.4	115	1
10th percentile	0.05	3	0.1	13	42	40	3	25	1	520	35	7	0.05	87	1
5th percentile	0.05	2	0.05	10	35	34	2.5	16	0.5	440	29	6	0.05	71	1
1st percentile	0.05	1	0.05	8	24	25	1.7	2	0.5	330	22	4	0.05	48	1

TILL SAMPLES one per site	AG ppm < 2 um	AS ppm < 2 um	CD ppm < 2 um	CO ppm < 2 um	CR ppm < 2 um	CU ppm < 2 um	FE pct < 2 um	HG ppb < 2 um	MO ppm < 2 um	MN ppm < 2 um	NI ppm <2um	PB ppm < 2 um	U ppm < 2 um	ZN ppm < 2 um	AU ppb < 63 um
number of samples	303	544	284	544	544	544	544	511	303	544	544	544	544	544	401
average	0.12	11.7	0.38	26	69.1	103.4	5.86	133.3	3.7	1202	58.3	17	1.7	187.7	4.84
median	0.05	6	0.1	23	68	86	5.6	100	4	955	56	14	0.8	150	4
mode	0.05	4	0.1	16	68	88	6.4	40	4	1000	48	10	0.05	160	1
geometric mean	0.08	6.4	0.2	23.3	66.2	87.5	5.43	88	2.9	1015.4	56.2	14.2	0.74	155.2	3.15
variance	0.02	833	0.65	209.1	426.7	5846	5.43	14274	5.3	705991	262.7	119.2	13.93	110767	47.38
standard deviation	0.15	28.9	0.81	14.5	20.7	76.5	2.33	119.5	2.3	840.2	16.2	10.9	3.73	332.8	6.88
standard error	0.01	1.2	0.05	0.62	0.89	3.3	0.1	5.3	0.13	36.02	0.7	0.47	0.16	14.27	0.34
minimum	0.05	1	0.05	3.7	24	18	1.2	2	0.5	200	32	2	0.05	34	1
maximum	1.6	400	8.5	186	245	1000	20	930	16	9200	109	80	50	7470	100
skewness	4.1	8.3	6.83	3.9	1.46	4.7	1.2	2	0.94	3.5	0.7	1.9	8.19	19.5	8.1
standardized skewness	29.2	79.4	46.96	37.5	13.9	45.1	11.4	18	6.69	33.3	6.68	18.1	77.97	185.9	66.2
kurtosis	28.8	85	56.32	33.3	9.3	41.1	3.5	6.3	2.36	22.5	0.11	5.8	87.72	424.2	97.4
standardized kurtosis	102.4	404.6	193.7	158.8	44.3	195.5	16.8	29	8.38	107.3	0.5	27.6	417.6	2019.6	398
99th percentile	0.6	170	4.5	64	122	417	12.4	520	11	4000	102	60	15.1	820	28
98th percentile	0.6	72	2.4	60	116	280	11.4	440	8	3150	98	48	9.4	510	22
95th percentile	0.4	28	1	47	104	220	10	360	8	2460	90	36	6.1	325	12
90th percentile	0.3	18	0.7	43	94	175	8.8	280	6	2160	83	30	3.5	275	8
75th percentile	0.1	9	0.5	32	80	125	7.1	190	5	1540	68	22	1.8	191	6
50th percentile	0.05	6	0.1	23	68	86	5.6	100	4	955	56	14	0.8	150	4
25th percentile	0.05	4	0.1	17	56	58	4.2	45	2	675	47	9	0.4	118	1
10th percentile	0.05	3	0.1	13	46	44	3.2	25	1	540	39	7	0.05	94	1
5th percentile	0.05	2	0.05	11	40	37	2.8	18	0.5	430	35	6	0.05	80	1
1st percentile	0.05	1	0.05	10	28	27	1.9	2	0.5	333	32	4	0.05	54	1

SAND and GRAVEL SAMPLES one per site	AG ppm < 2 um	AS ppm < 2 um	CD ppm < 2 um	CO ppm < 2 um	CR ppm < 2 um	CU ppm < 2 um	FE pct < 2 um	HG ppb < 2 um	MO ppm < 2 um	MN ppm < 2 um	NI ppm < 2 um	PB ppm < 2 um	U ppm < 2 um	ZN ppm < 2 um	AU ppb < 63 um
number of samples	70	90	67	88	88	88	88	63	70	87	88	88	90	88	116
average	0.23	20.8	0.52	43.8	73.6	143.7	6.43	155	4.5	2492	67.7	26.9	3.2	203.8	8.3
median	0.05	8	0.1	34	71.5	123	5.7	120	4	1700	60	24	1	176.5	4
mode	0.05	8	0.1	24	60	52	5.3	40	4	1100	38	20	0.05	145	1
geometric mean	0.13	8.9	0.23	35.8	69.4	112.3	6	111.8	3.3	1757	61	22.7	1.14	180.5	3.7
variance	0.06	3708	0.8	975.5	645.9	10969	6.16	14681	14	5182190	1127.3	262.6	31.14	11830	341.6
standard deviation	0.25	60.9	0.89	31.2	25.4	104.7	2.48	121.2	3.7	2276	33.6	16.2	5.58	108.7	18.5
standard error	0.03	6.4	0.11	3.3	2.7	11.2	0.265	15.3	0.45	244.1	3.6	1.7	0.59	11.6	1.7
minimum	0.05	1	0.05	8	22	26	1.8	15	0.5	205	19	6	0.05	60	1
maximum	1.2	536	6	160	180	500	16	555	20	12000	198	82	34	585	150
skewness	1.9	7.3	4.09	1.8	1.2	1.4	1.038	1.1	2	1.9	1.8	1.3	3.37	1.5	5.8
standardized skewness	6.6	28.3	13.67	6.7	4.4	5.3	3.974	3.7	6.8	7.2	6.7	5.1	13.04	5.7	25.4
kurtosis	4.8	59.5	21.71	3.1	3.2	1.7	1.953	0.9	5.1	3.9	4.4	1.9	13.13	2.5	38
standardized kurtosis	8.1	115.1	36.2	5.9	6.2	3.2	3.74	1.5	8.7	7.5	8.5	3.5	25.42	4.9	83.5
99th percentile	1.2	536	6	160	180	500	16	555	20	12000	198	82	34	585	110
98th percentile	1.2	195	2.6	145	142	450	13.5	440	17	9900	194	76	26	570	66
95th percentile	0.7	57	1.9	104	112	370	10.25	385	12	7080	112	59	16	408	30
90th percentile	0.5	29.5	1.4	90	108	300	9.7	330	8	6025	102	52	8.5	350	16
75th percentile	0.3	13	0.5	53	80	180	7.8	235	6	3300	82	33	3.1	259	8
50th percentile	0.05	8	0.1	34	72	123	5.73	120	4	1700	60	24	1	177	4
25th percentile	0.05	5	0.1	24	60	65	4.75	55	2	921	43	16	0.6	130	1
10th percentile	0.05	2.5	0.1	16	48	42	3.9	40	1	640	38	10	0.07	95	1
5th percentile	0.05	2	0.05	16	34	38	3.25	27	1	550	31	8	0.05	90	1
1st percentile	0.05	1	0.05	8	22	26	1.8	15	0.5	250	19	6	0.05	60	1

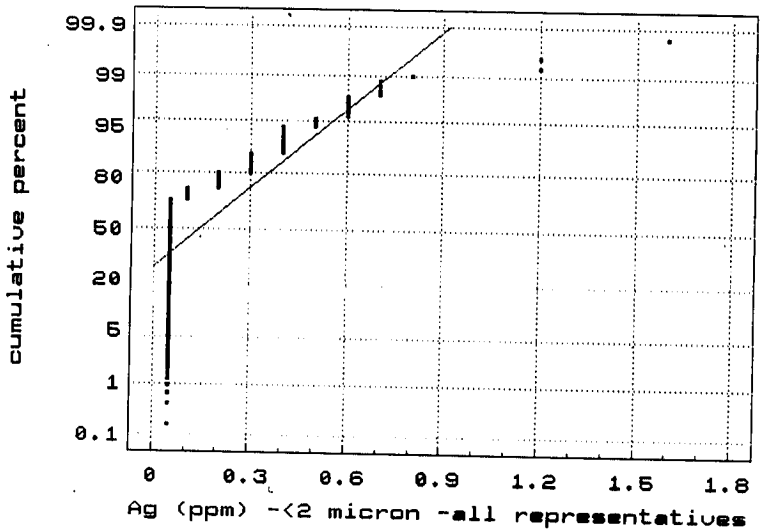
SILTY CLAY SAMPLES one per site	AG ppm < 2 um	AS ppm < 2 um	CD ppm < 2 um	CO ppm < 2 um	CR ppm < 2 um	CU ppm < 2 um	FE pct < 2 um	HG ppb < 2 um	MO ppm < 2 um	MN ppm < 2 um	NI ppm < 2 um	PB ppm < 2 um	U ppm < 2 um	ZN ppm < 2 um	AU ppb < 63 um
sample size	17	20	17	20	20	20	20	20	17	20	20	20	20	20	8
average	0.06	3.6	0.106	20.2	63.8	59	4.38	44	1.7	939.2	43.2	13	0.87	146.4	2
median	0.05	3	0.1	16	63	46.5	4.45	35	1	622.5	42.5	10.5	0.65	133.5	1
mode	0.05	3	0.1	15	60	40	3.9	20	0.5	620	37	10	0.05	132	1
geometric mean	0.05	3.1	0.104	16.6	62	51.1	4.25	35.5	1.2	677	41.5	11.5	0.51	136.5	1.5
variance	0.001	5.3	0.001	379.5	197.5	2115.7	1.05	1251.6	2.7	2186330	177	67.2	0.72	4100.6	3.7
standard deviation	0.036	2.3	0.024	19.5	14.1	45.9	1.03	35.4	1.6	1478.6	13.3	8.2	0.85	64	1.9
standard error	0.009	0.5	0.01	4.4	3.1	10.3	0.23	7.9	0.4	330.6	3	1.8	0.19	14.3	0.7
minimum	0.05	1	0.1	5	30	28	2	10	0.5	390	22	4	0.05	62	1
maximum	0.2	12	0.2	100	84	241	6.4	170	6	7200	83	45	3.3	330	6
skewness	4.12	2.7	4.123	4	-0.75	3.6	-0.094	2.6	1.4	4.4	1.8	3.4	1.65	2.1	1.8
standardized skewness	6.94	4.9	6.94	7.3	-1.36	6.6	-0.172	4.8	2.4	8.1	3.2	6.2	3.01	3.9	2
kurtosis	17	9.5	17	16.9	1.13	14.3	0.88	8.5	1.5	19.7	4.2	13.5	2.67	4.8	2
standardized kurtosis	14.3	8.7	14.31	15.4	1.03	13	0.806	7.7	1.3	18	3.9	12.3	2.44	4.4	1.2
99th percentile	0.2	12	0.2	100	84	241	6.4	170	6	7200	83	45	3.3	330	6
98th percentile	0.2	12	0.2	100	84	241	6.4	170	6	7200	83	45	3.3	330	6
95th percentile	0.2	8.5	0.2	66.5	83	172	6.3	130	6	4000	77	31	2.85	320.5	6
90th percentile	0.5	5	0.1	26	82	88.5	5.9	77.5	4	845	59	16.5	2.25	234.5	6
75th percentile	0.5	4.5	0.1	17.5	73	58	4.85	50	2	672.5	46	14.5	1.05	146.5	2.5
50th percentile	0.5	3	0.1	16	63	46.5	4.45	35	1	622.5	42.5	10.5	0.65	133.5	1
25th percentile	0.5	2	0.1	15	60	40	3.9	20	0.5	549.5	36.5	9.5	0.25	121	1
10th percentile	0.5	2	0.1	11	44.5	32	3.1	17.5	0.5	450	32	8	0.05	94.5	1
5th percentile	0.5	1.5	0.1	6.5	32.5	29	2.5	12.5	0.5	395	26	6	0.05	68.5	1
1st percentile	0.5	1	0.1	5	30	28	2	10	0.5	390	22	4	0.05	62	1

REPRESENTATIVE SAMPLES one per site	CaCO3 pct <.063 mm	CaCO3 pct .125-.25 mm
number of samples	786	122
average	15.88	14.39
median	10.8	11.7
mode	0.8	0.001
geometric mean	3.28	3.79
variance	309.52	211.9
standard deviation	17.59	14.56
standard error	0.628	1.32
minimum	0.001	0.001
maximum	82.5	86.2
skewness	1.09	2.09
standardized skewness	12.46	9.41
kurtosis	0.59	6.04
standardized kurtosis	3.4	13.61
99th percentile	69.8	65.3
98th percentile	62.5	57.7
95th percentile	53.3	43.9
90th percentile	40.8	29.1
75th percentile	26.8	17.8
50th percentile	10.8	11.7
25th percentile	0.8	5.3
10th percentile	0.2	0.1
5th percentile	0.001	0.001
1st percentile	0.001	0.001

TILL SAMPLES one per site	CaCO3 pct <.063 mm	CaCO3 pct .125-.25 mm	SAND pct <2 mm	SILT pct <2 mm	CLAY pct <2 mm
number of samples	565	48	325	325	325
average	14.54	17.09	67.08	24.95	7.99
median	3.4	13.15	68	24.7	6.78
mode	0.8	0.001	65.7	19.9	5.8
geometric mean	2.58	5.03	65.82	23.44	6.5
variance	295.72	317.64	136.65	68.71	30.6
standard deviation	17.2	17.82	11.69	8.29	5.53
standard error	0.7	2.57	0.65	0.46	0.31
minimum	0.001	0.001	7.7	3.8	0.6
maximum	74.42	86.2	95.6	53.3	39.5
skewness	1.16	2.13	-0.59	0.35	2.21
standardized skewness	11.23	6.02	-4.37	2.58	16.23
kurtosis	0.67	5	1.54	0.32	7.96
standardized kurtosis	3.25	7.07	5.67	1.18	29.29
99th percentile	69.17	86.2	89.9	44.5	30
98th percentile	59.1	86.2	89.7	43.6	22.8
95th percentile	49.6	55.2	84.8	40.33	17.2
90th percentile	40.3	50.2	80.8	35.45	14.7
75th percentile	25.3	20.65	75.4	30	10
50th percentile	3.4	13.15	68	24.7	6.78
25th percentile	0.8	8.45	59.8	19.52	4.3
10th percentile	0.1	0.1	52.2	15.13	2.7
5th percentile	0.001	0.001	47.7	12.4	2.27
1st percentile	0.001	0.001	37.9	7.5	1.19

SAND and GRAVEL SAMPLES one per site	CaCO3 pct <.063 mm	CaCO3 pct .125-.25 mm
number of samples	210	80
average	20.66	12.94
median	18.3	11.7
mode	0.001	0.1
geometric mean	7.28	4.64
variance	322.015	119.31
standard deviation	17.94	10.92
standard error	1.24	1.22
minimum	0.001	0.001
maximum	82.5	57.7
skewness	0.89	1.44
standardized skewness	5.28	5.24
kurtosis	0.52	3.4
standardized kurtosis	1.52	6.2
99th percentile	70	57.7
98th percentile	65	34.55
95th percentile	57.2	25.05
90th percentile	44.7	17.6
75th percentile	31.5	11.7
50th percentile	18.3	5.45
25th percentile	2.5	0.1
10th percentile	0.6	0.05
5th percentile	0.1	0.001
1st percentile	0.001	0.001

SILTY CLAY SAMPLES one per site	CaCO3 pct <.063 mm	CaCO3 pct .125-.25 mm
number of samples	21	2
average	10.26	
median	1.7	
mode	0.001	
geometric mean	0.967	
variance	211.4	
standard deviation	14.5	
standard error	3.17	
minimum	0.001	
maximum	46.6	
skewness	46.59	
standardized skewness	2.5	
kurtosis	0.55	
standardized kurtosis	0.52	
99th percentile	46.6	
98th percentile	46.6	
95th percentile	34.6	
90th percentile	33.1	
75th percentile	11.7	
50th percentile	1.7	
25th percentile	0.3	
10th percentile	0.001	
5th percentile	0.001	
1st percentile	0.001	


cumulative percent
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99
95
80
50
20
5
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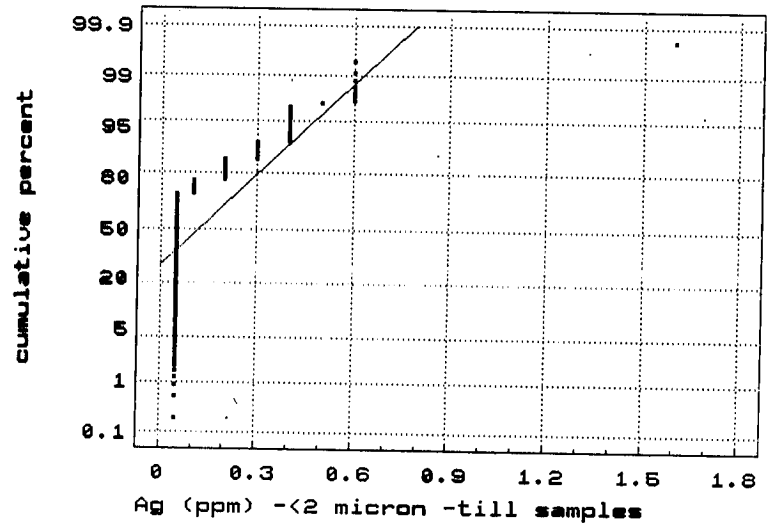
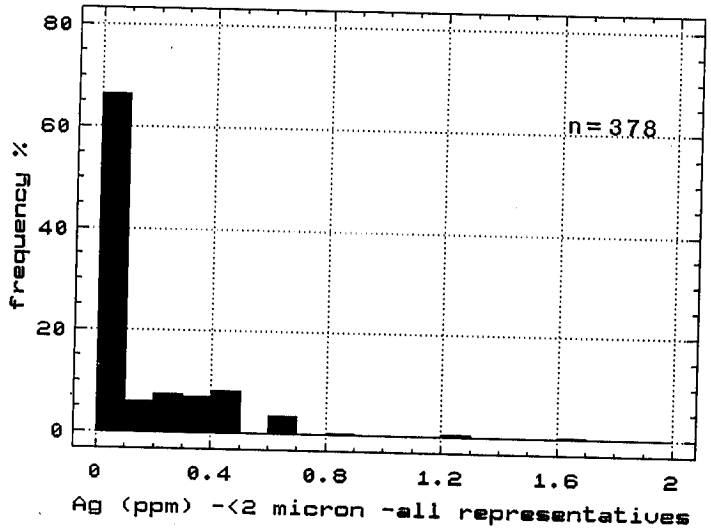
0.1
0
0.3
0.6
0.9
1.2
1.5
1.8
Ag (ppm) -<2 micron -all representatives


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
0.3
0.6
0.9
1.2
1.5
1.8
Ag (ppm) -<2 micron -till samples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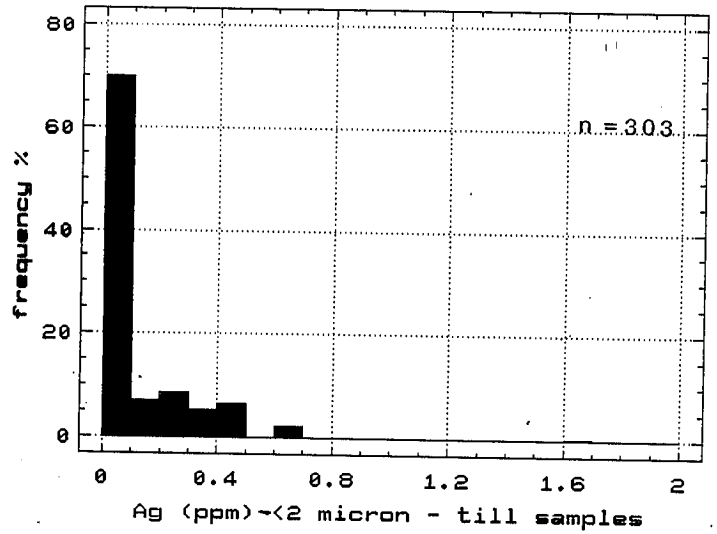
0.4
0.8
1.2
1.6
2
Ag (ppm) -<2 micron -all representatives


frequency %
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60
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n=303
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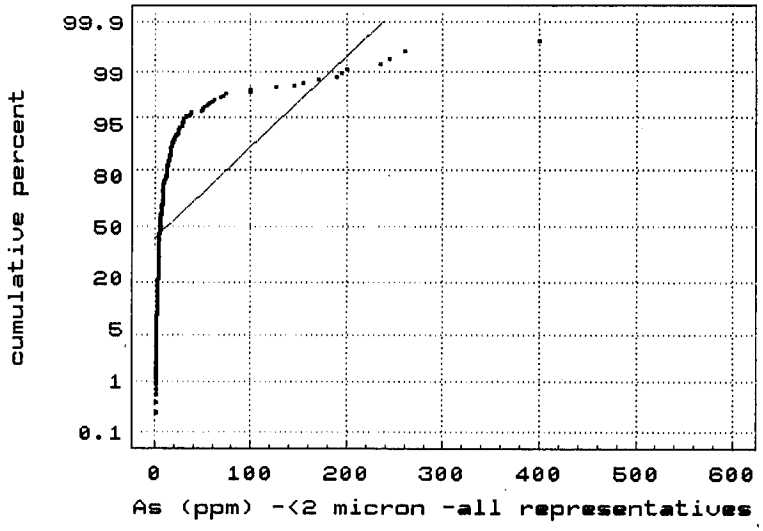
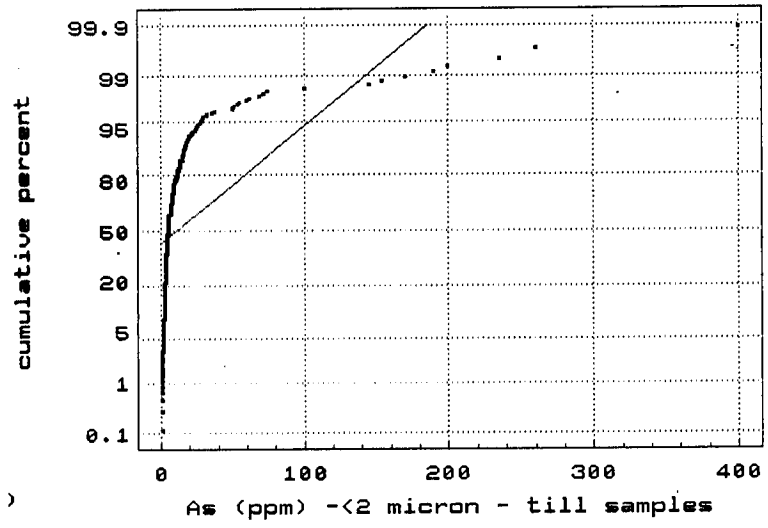
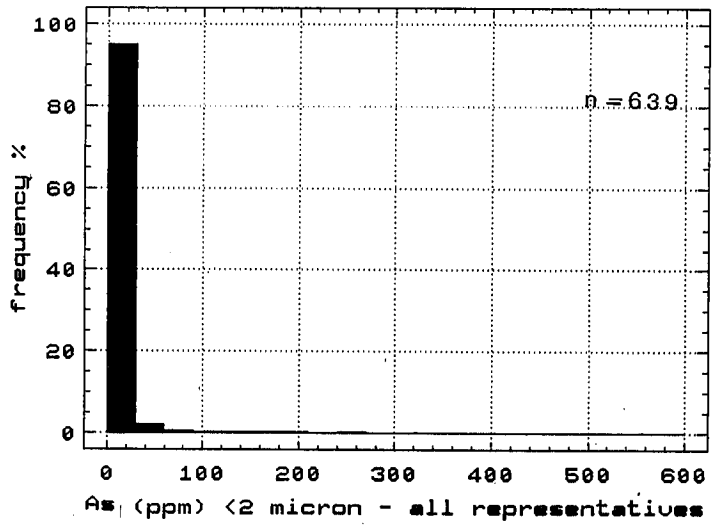
0.4
0.8
1.2
1.6
2
Ag (ppm)-<2 micron - till samples


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
100
200
300
400
500
600
As (ppm) -<2 micron -all representatives


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
100
200
300
400
As (ppm) -<2 micron - till samples


frequency %
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300
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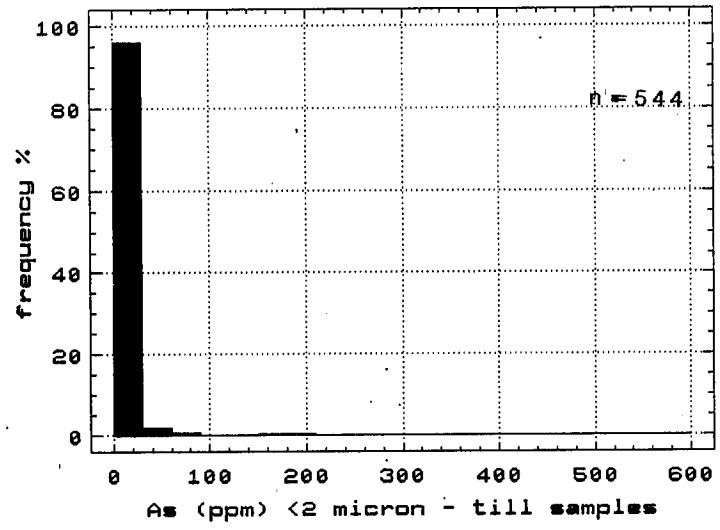
500
600
As (ppm) <2 micron - all representatives


frequency %
100
80
60
40
20
0
n = 544
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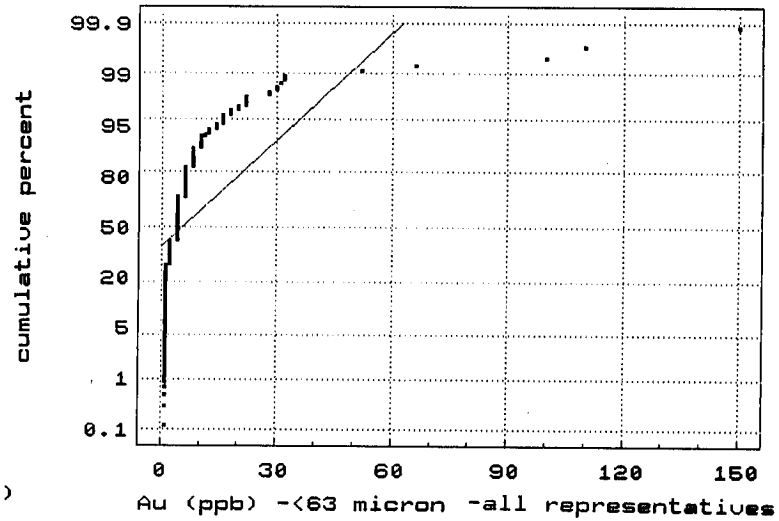
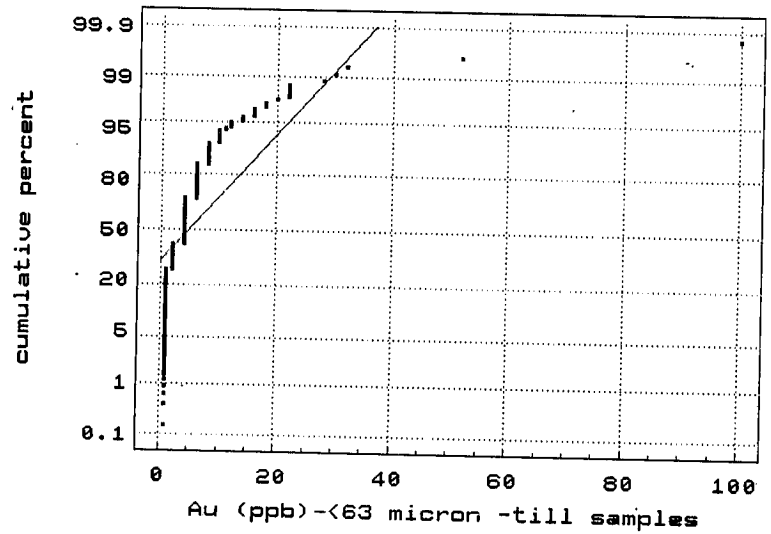
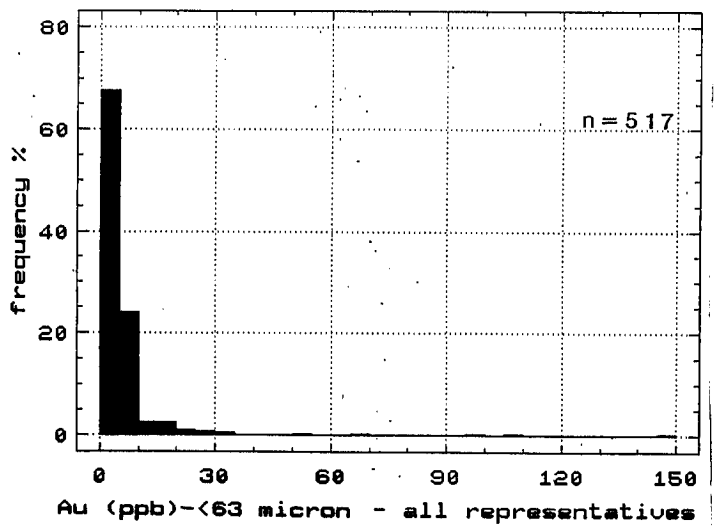
100
200
300
400
500
600
As (ppm) <2 micron - till samples


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
30
60
90
120
150
Au (ppb) -<63 micron -all representatives


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
100
Au (ppb)-<63 micron -till samples


frequency %
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60
40
20
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n = 517
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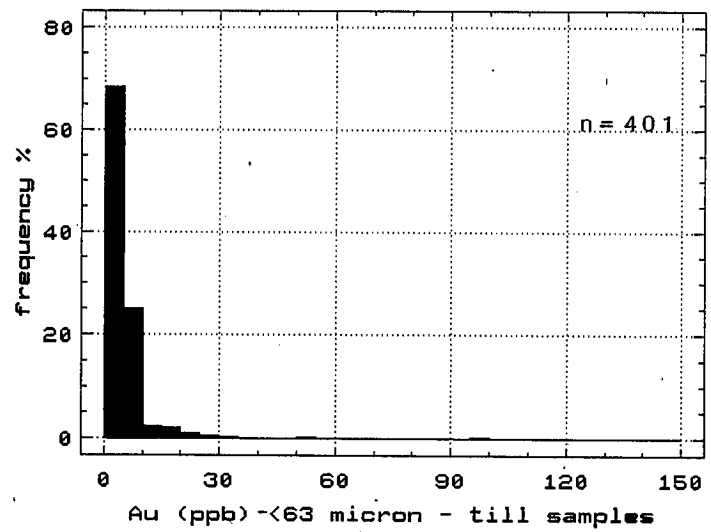
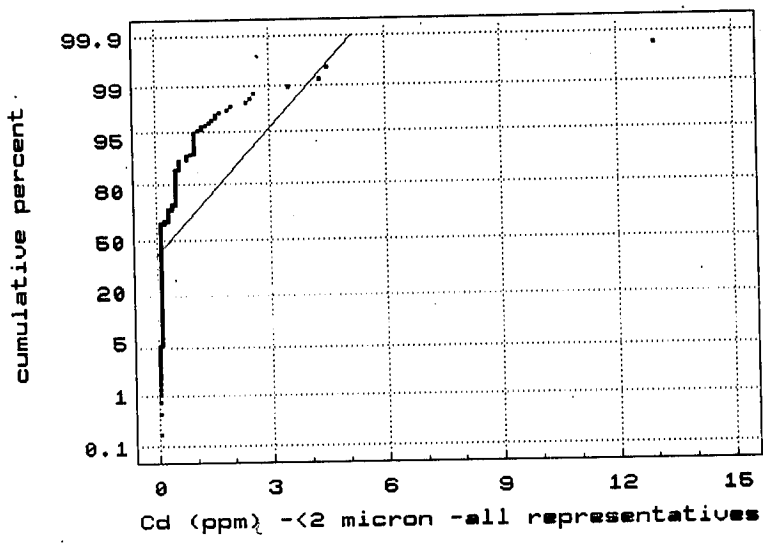
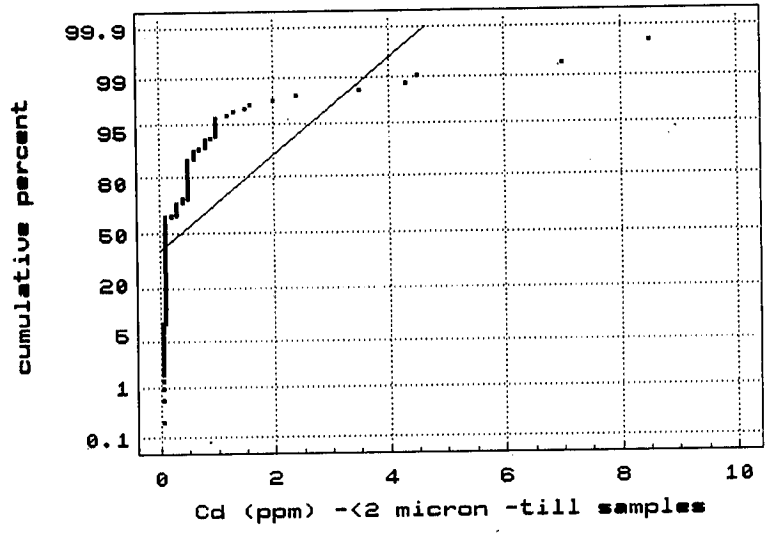
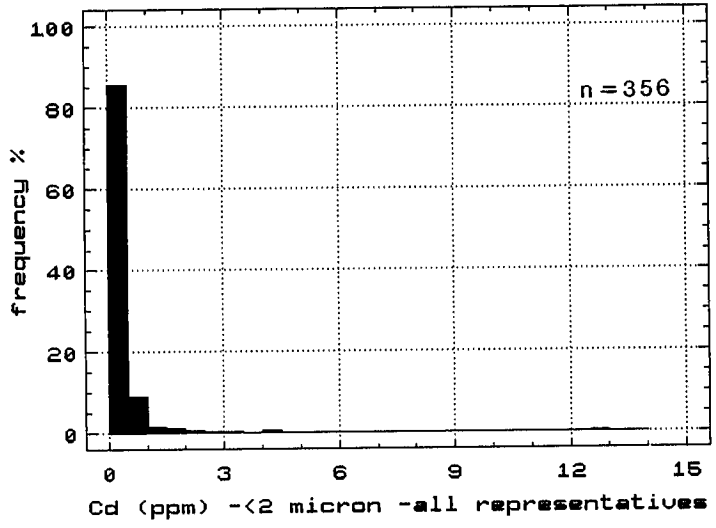
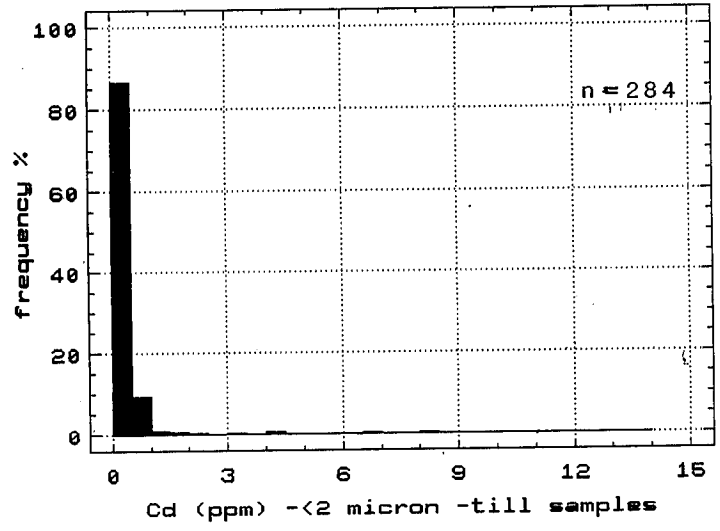
30
60
90
120
150
Au (ppb)-<63 micron - all representatives


frequency %
80
60
40
20
0
n = 401
0
30
60
90
120
150
Au (ppb)-<63 micron - till samples


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
3
6
9
12
15
Cd (ppm) -<2 micron -all representatives


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
Cd (ppm) -<2 micron -till samples


frequency %
100
80
60
40
20
0
n = 356
0
3
6
9
12
15
Cd (ppm) -<2 micron -all representatives


frequency %
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60
40
20
0
n = 284
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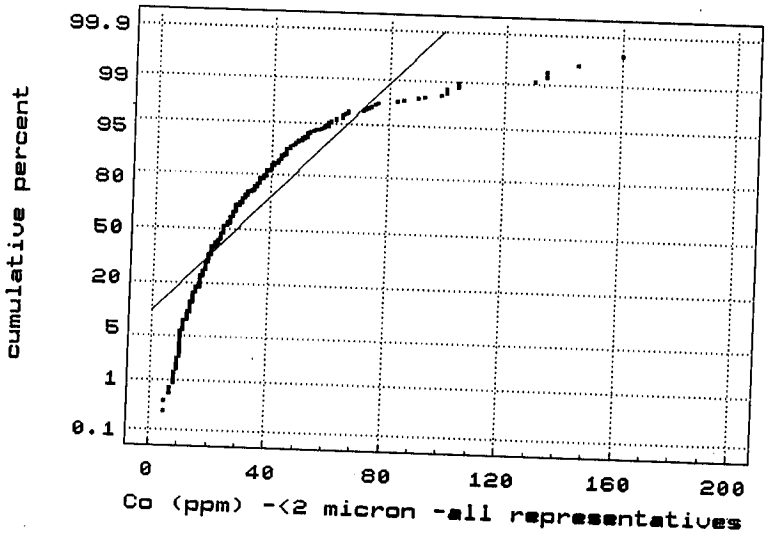
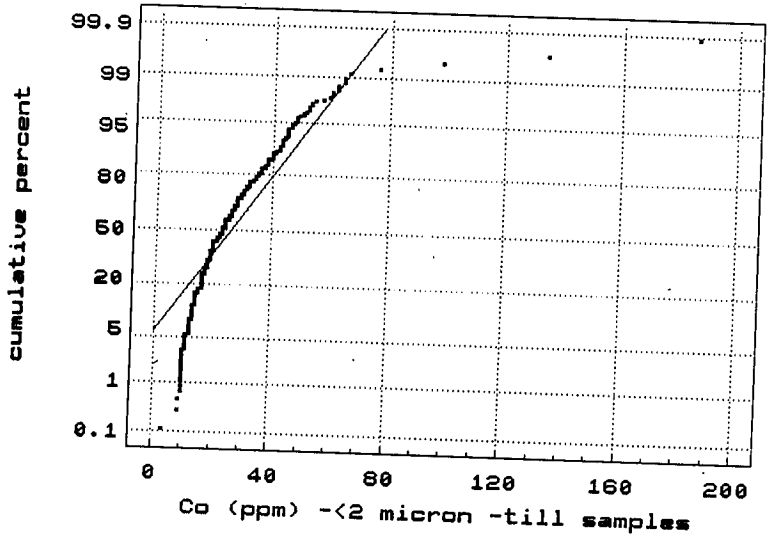
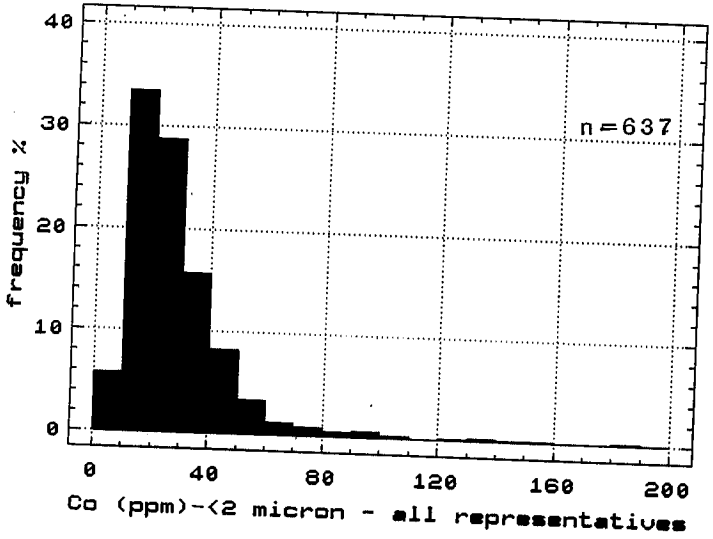
3
6
9
12
15
Cd (ppm) -<2 micron -till samples


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
40
80
120
160
200
Co (ppm) -<2 micron -all representatives


cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
40
80
120
160
200
Co (ppm) -<2 micron -till samples


frequency %
40
30
20
10
0
n=637
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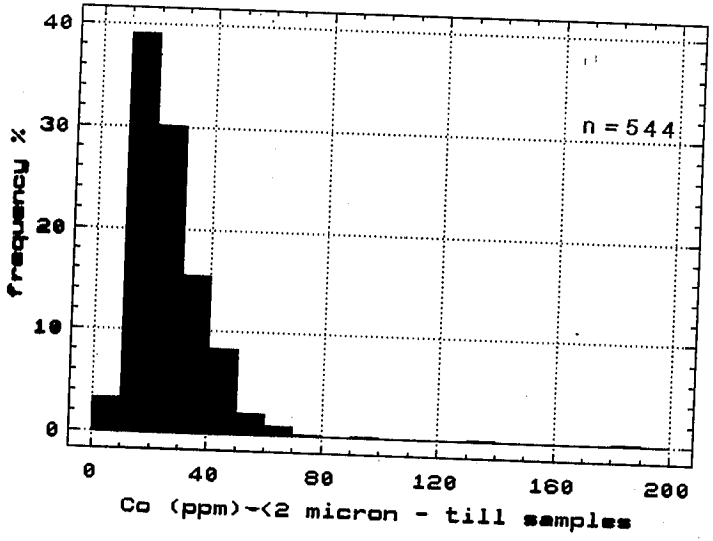
40
80
120
160
200
Co (ppm)-<2 micron - all representatives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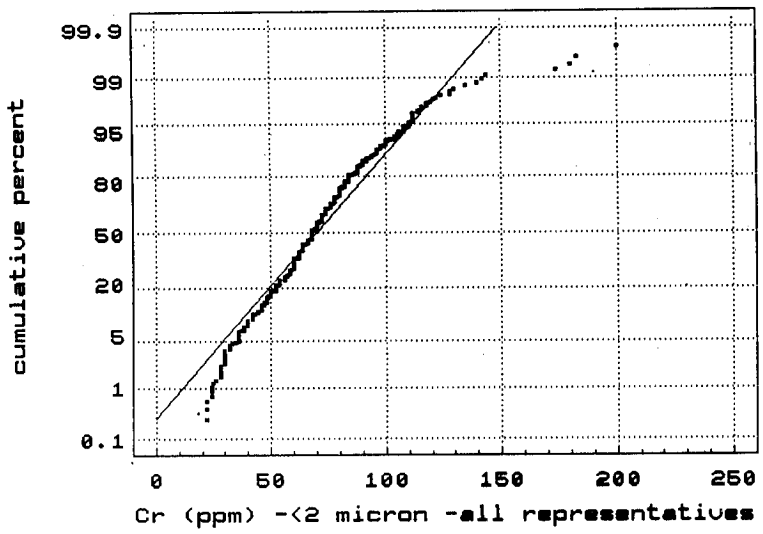
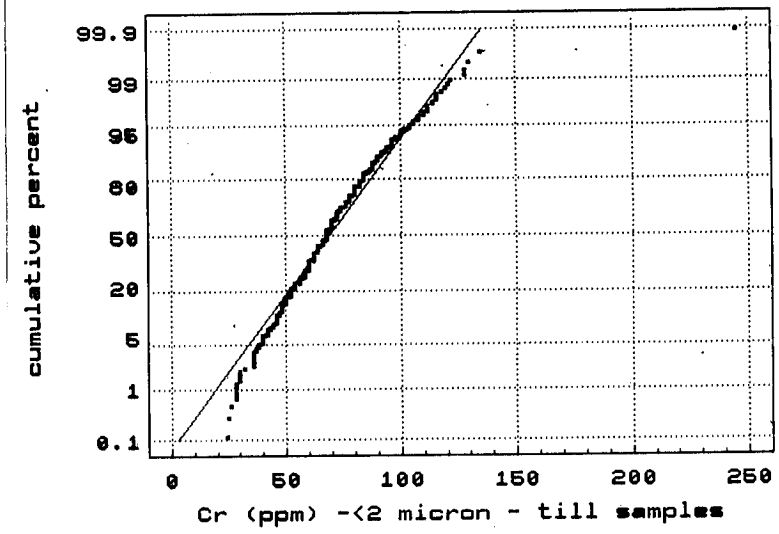
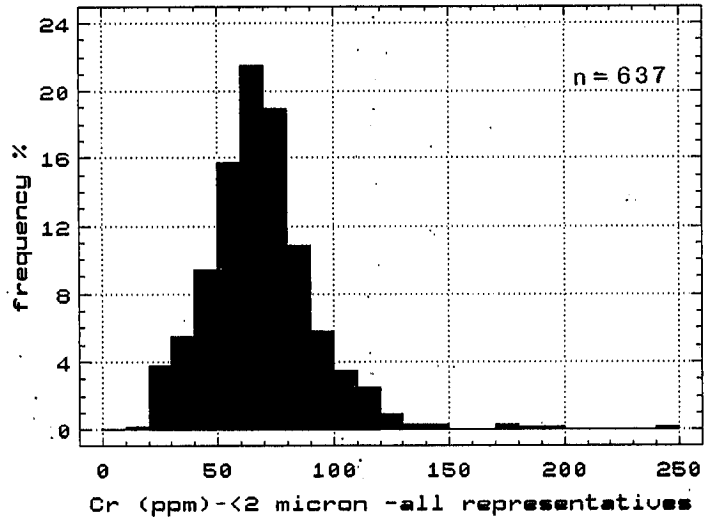
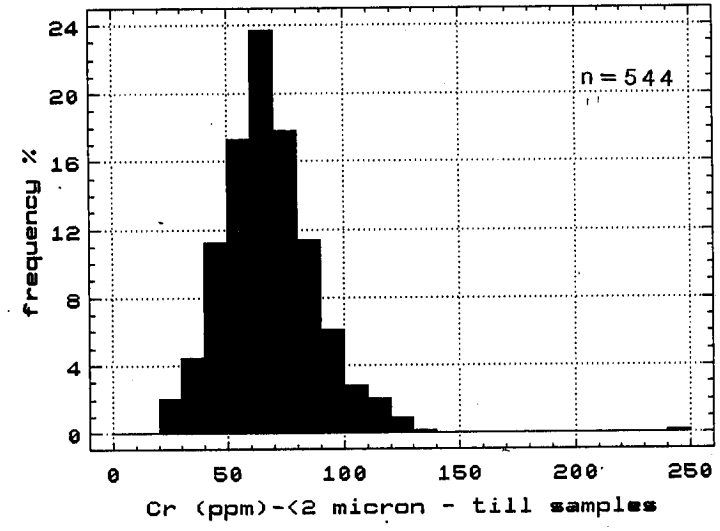
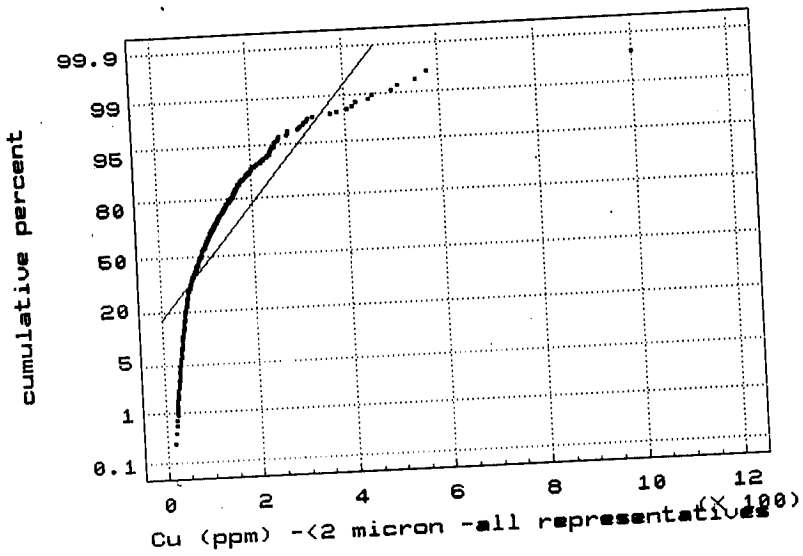
30
20
10
0
n=544
0
40
80
120
160
200
Co (ppm)-<2 micron - till samples

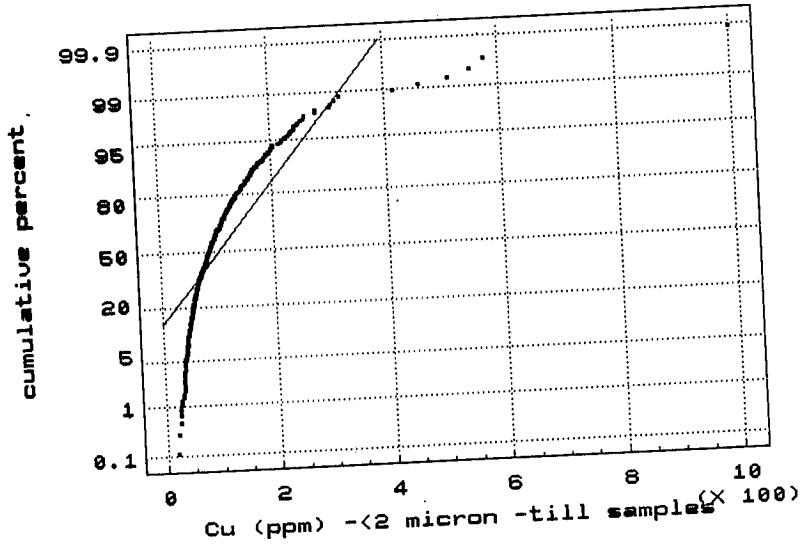

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
50
100
150
200
250
Cr (ppm) -<2 micron -all representatives

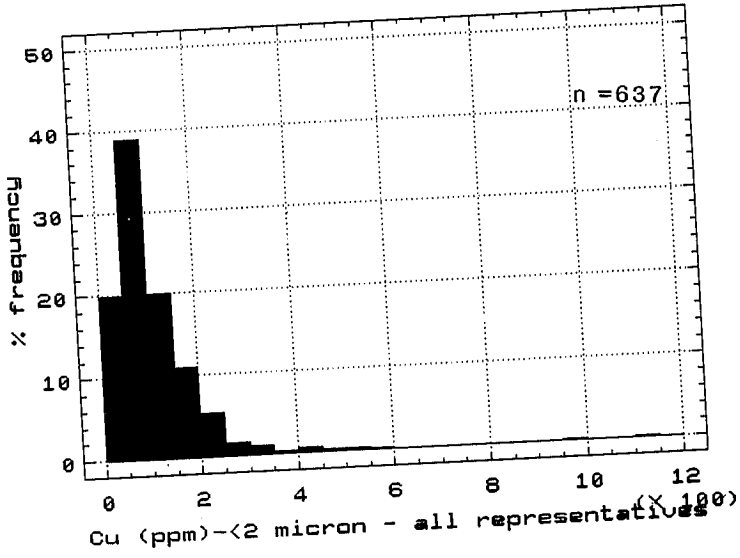

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
50
100
150
200
250
Cr (ppm) -<2 micron - till samples

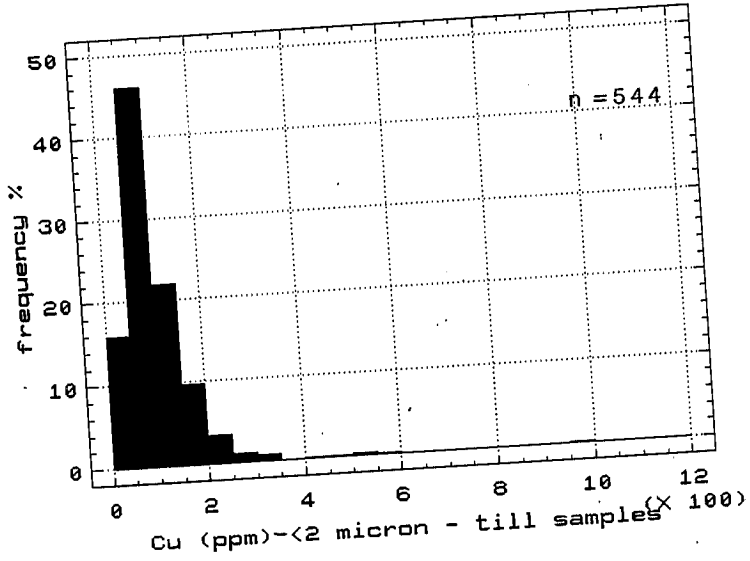

frequency %
24
20
16
12
8
4
0
n = 637
0
50
100
150
200
250
Cr (ppm)-<2 micron -all representatives

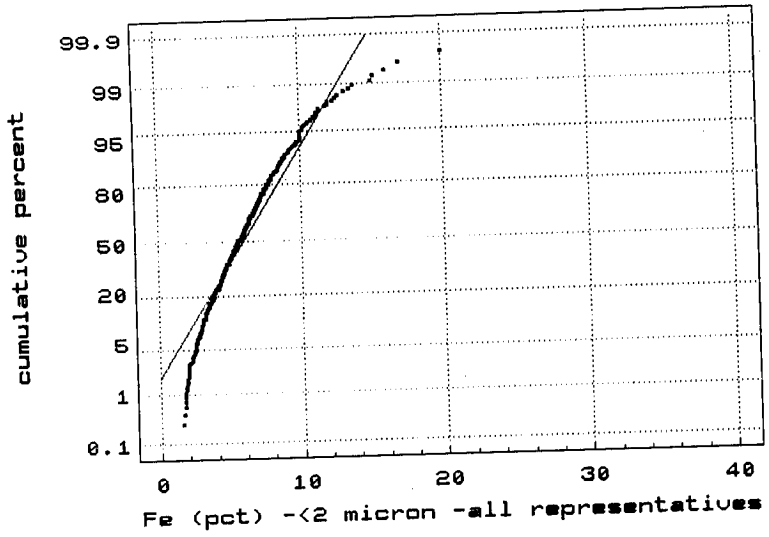

frequency %
24
20
16
12
8
4
0
n = 544
0
50
100
150
200
250
Cr (ppm)-<2 micron - till samples

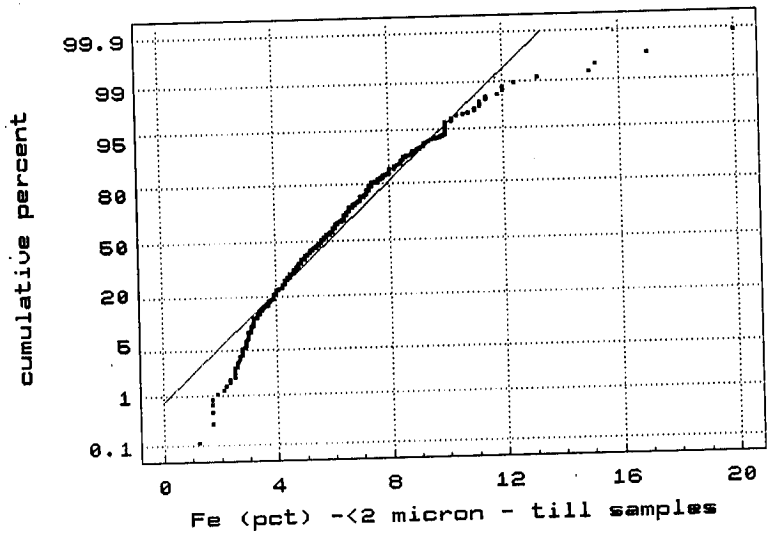

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
12
(X 100)
Cu (ppm) -<2 micron -all representatives

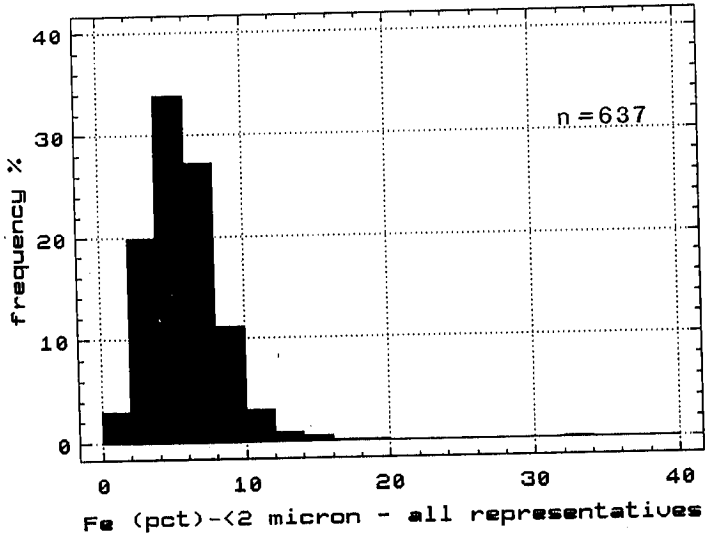

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
(X 100)
Cu (ppm) -<2 micron -till samples

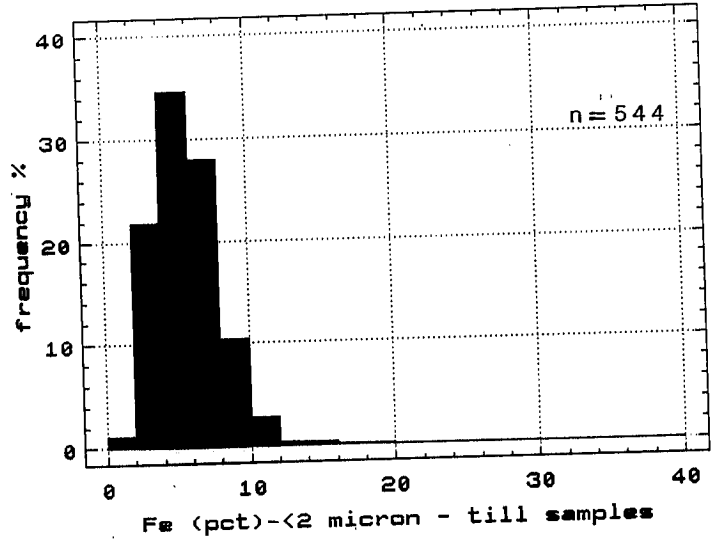

% frequency
50
40
30
20
10
0
n =637
0
2
4
6
8
10
12
(X 100)
Cu (ppm)-<2 micron - all representatives

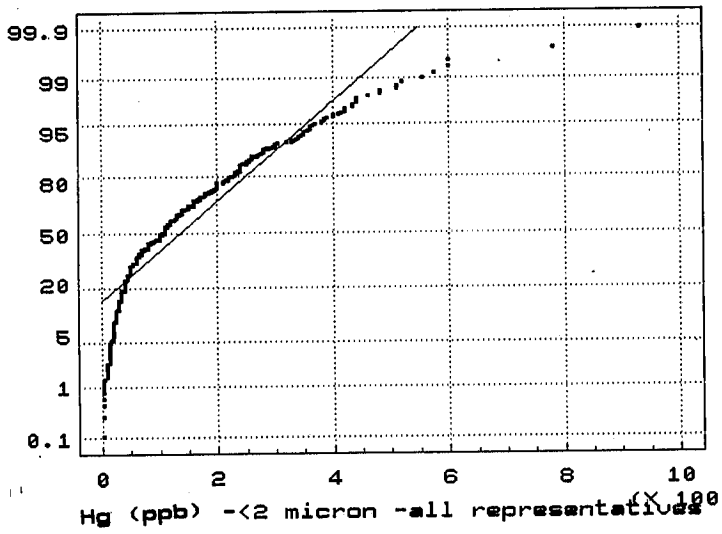

frequency %
50
40
30
20
10
0
n =544
0
2
4
6
8
10
12
(X 100)
Cu (ppm)-<2 micron - till samples

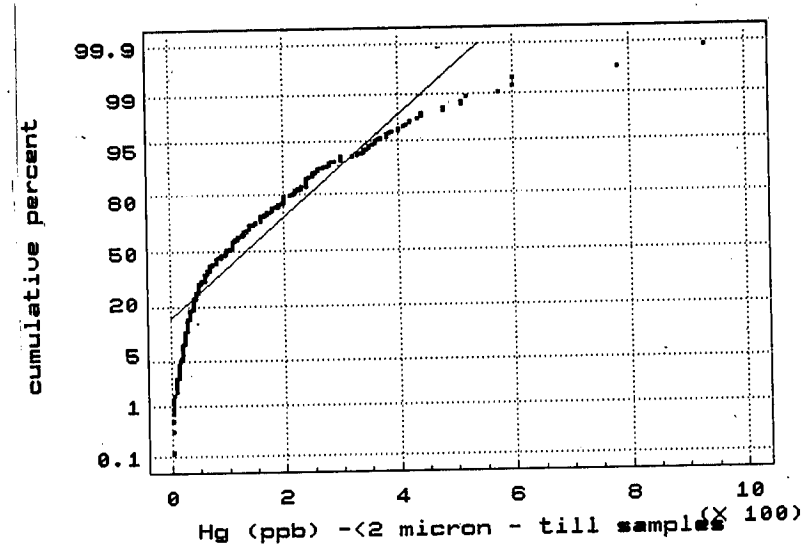

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
10
20
30
40
Fe (pct) -<2 micron -all representatives

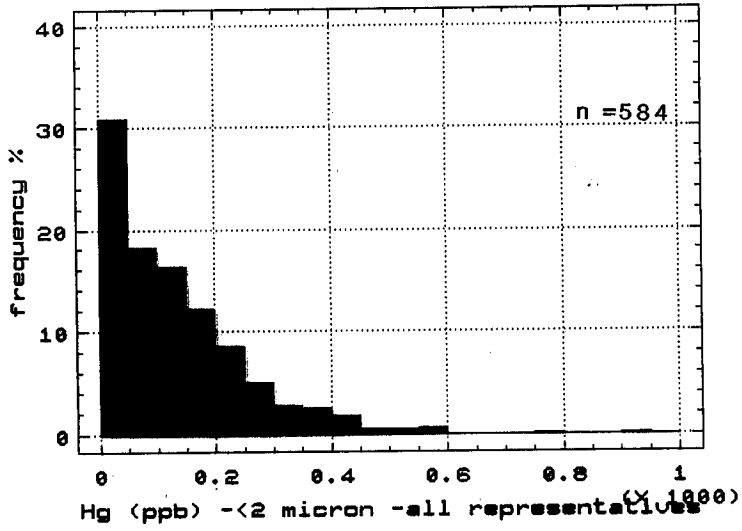

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
4
8
12
16
20
Fe (pct) -<2 micron - till samples

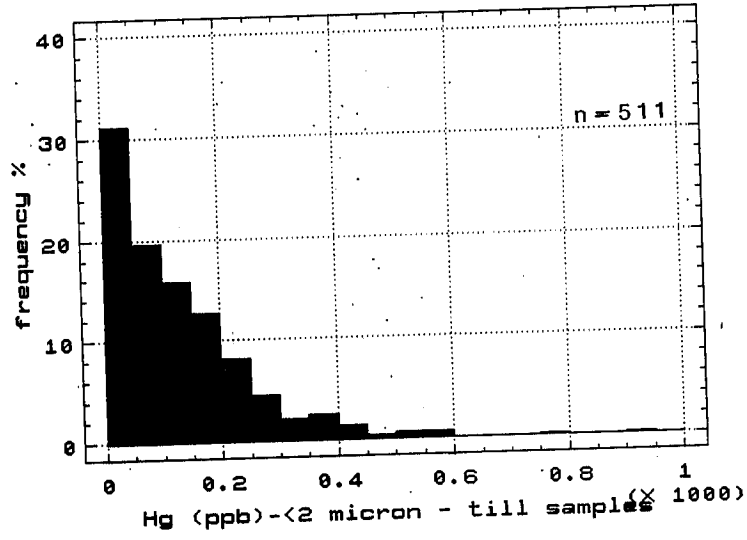

frequency %
40
30
20
10
0
n=637
0
10
20
30
40
Fe (pct)-<2 micron - all representatives

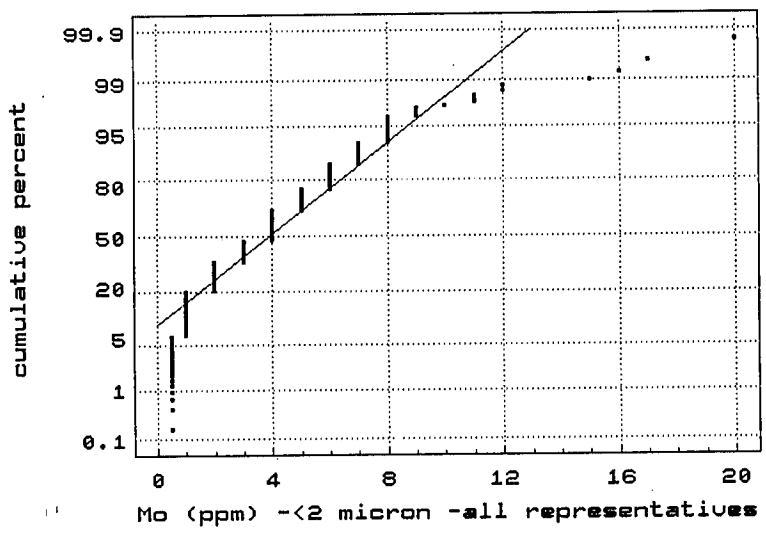

frequency %
40
30
20
10
0
n=544
0
10
20
30
40
Fe (pct)-<2 micron - till samples

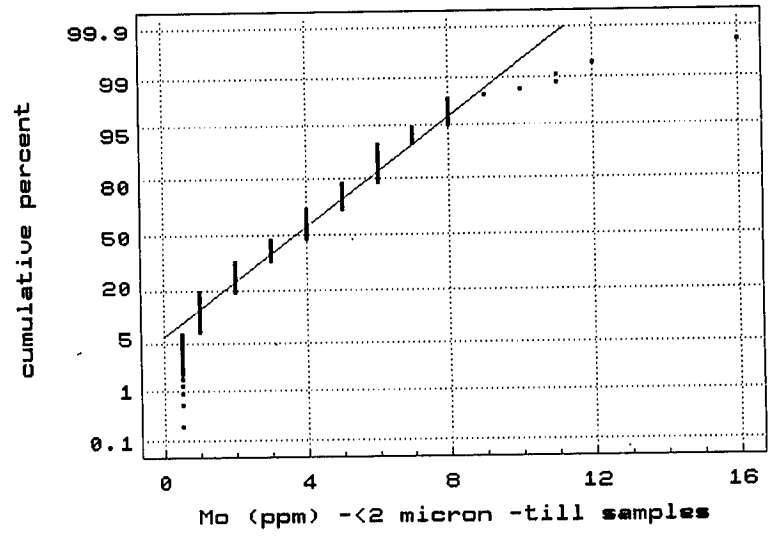

99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
(X 100)
Hg (ppb) -<2 micron -all representatives

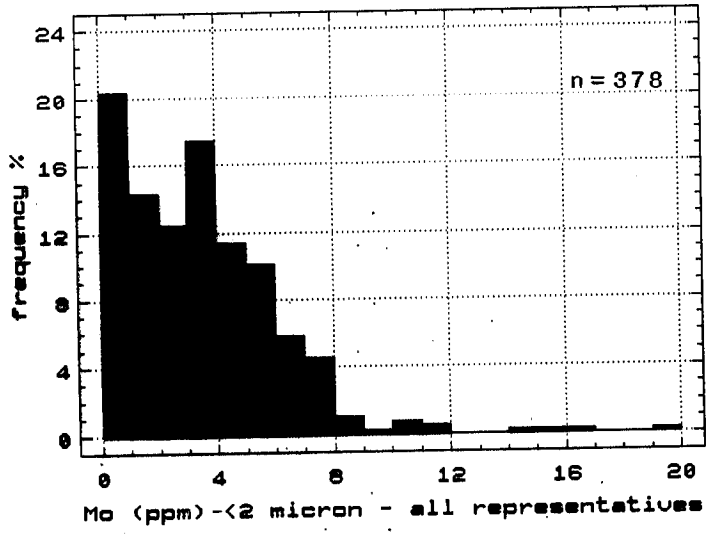

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
(X 100)
Hg (ppb) -<2 micron - till samples

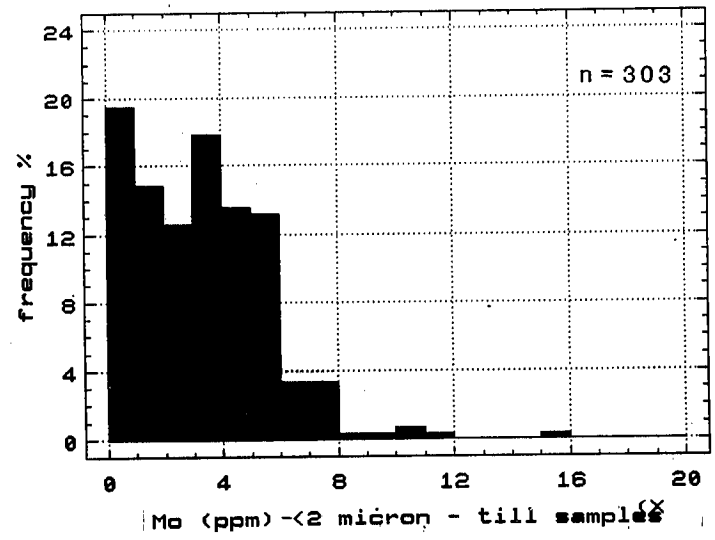

frequency %
40
30
20
10
0
n =584
0
0.2
0.4
0.6
0.8
1
(X 1000)
Hg (ppb) -<2 micron -all representatives

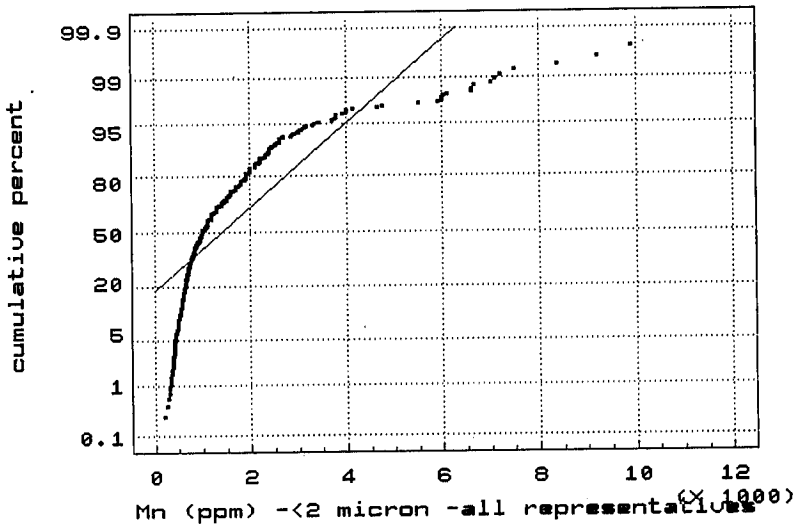

frequency %
40
30
20
10
0
n = 511
0
0.2
0.4
0.6
0.8
1
(X 1000)
Hg (ppb)-<2 micron - till samples

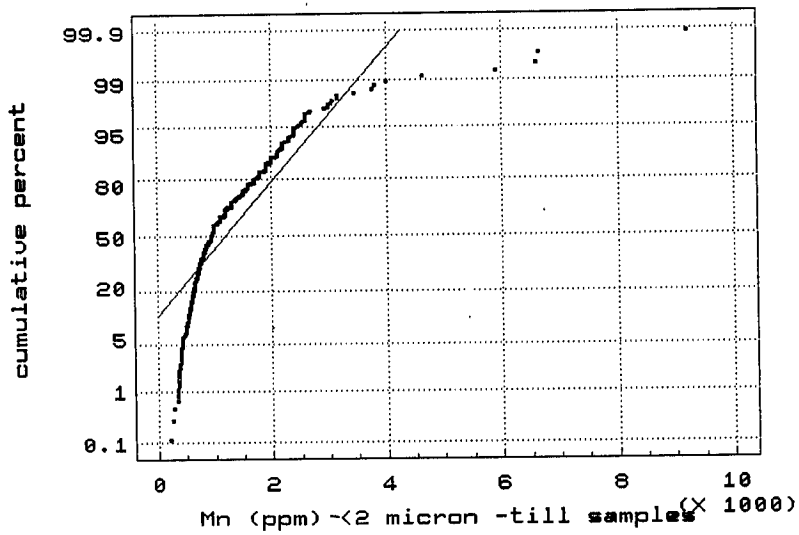

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
4
8
12
16
20
Mo (ppm) -<2 micron -all representatives

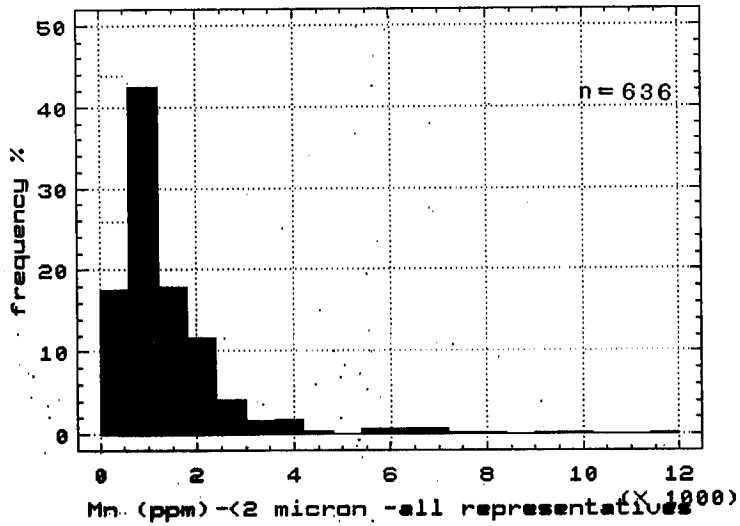

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
4
8
12
16
Mo (ppm) -<2 micron -till samples

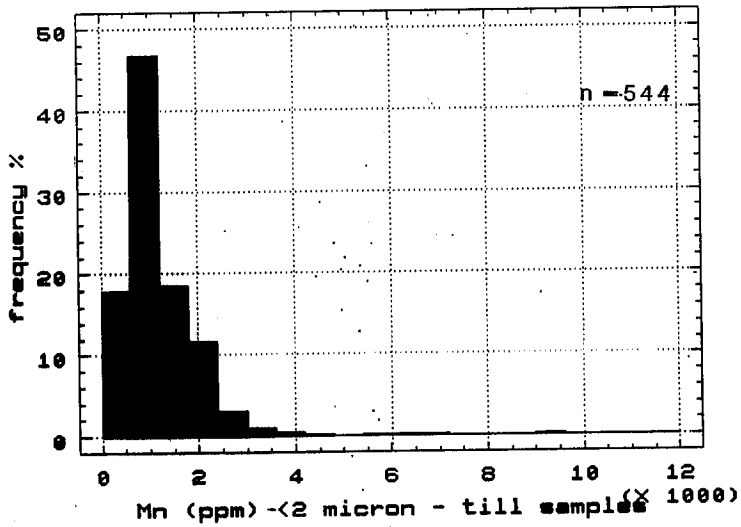

frequency %
24
20
16
12
8
4
0
n = 378
0
4
8
12
16
20
Mo (ppm) -<2 micron - all representatives

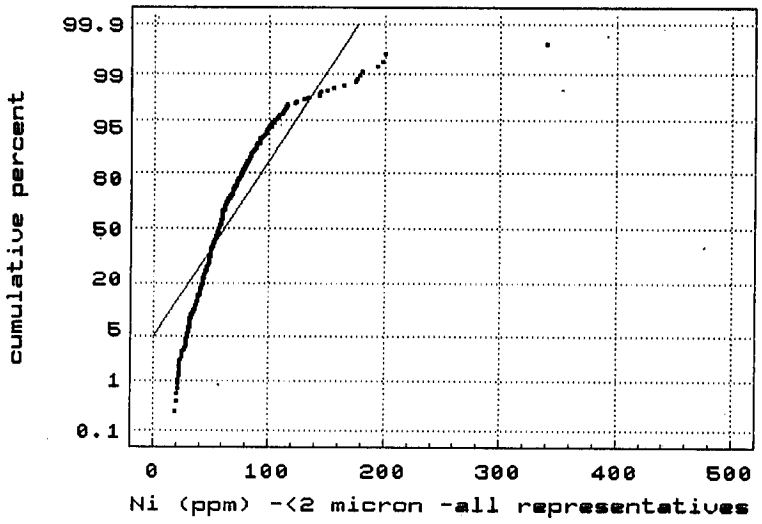

frequency %
24
20
16
12
8
4
0
n = 303
0
4
8
12
16
20
Mo (ppm) -<2 micron - till samples

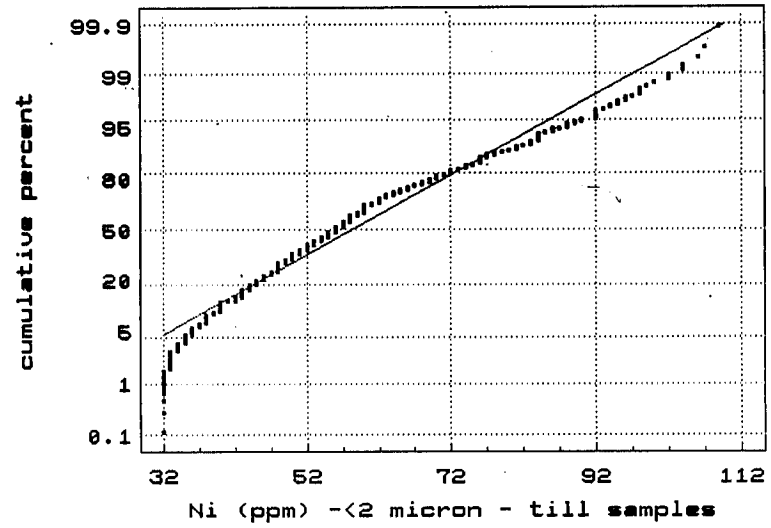

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
12
(X 1000)
Mn (ppm) -<2 micron -all representatives

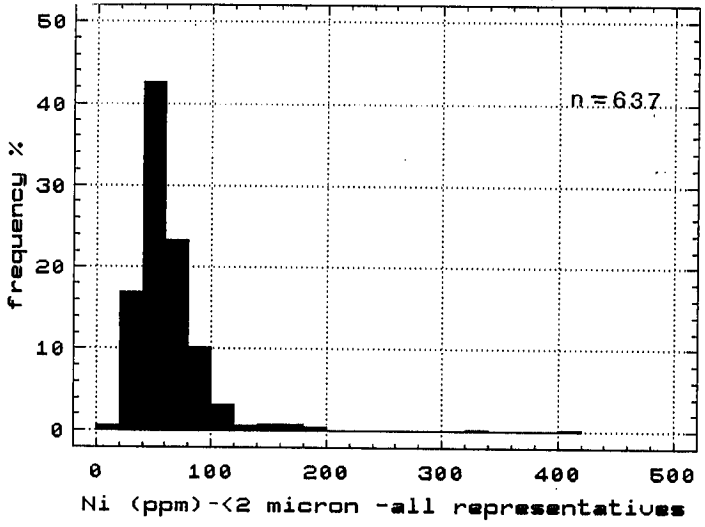

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
(X 1000)
Mn (ppm) -<2 micron -till samples

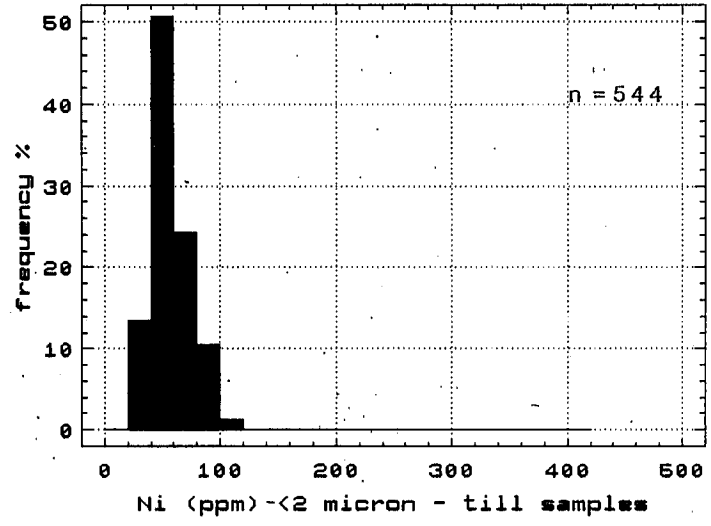

frequency %
50
40
30
20
10
0
n = 636
0
2
4
6
8
10
12
(X 1000)
Mn (ppm) -<2 micron -all representatives

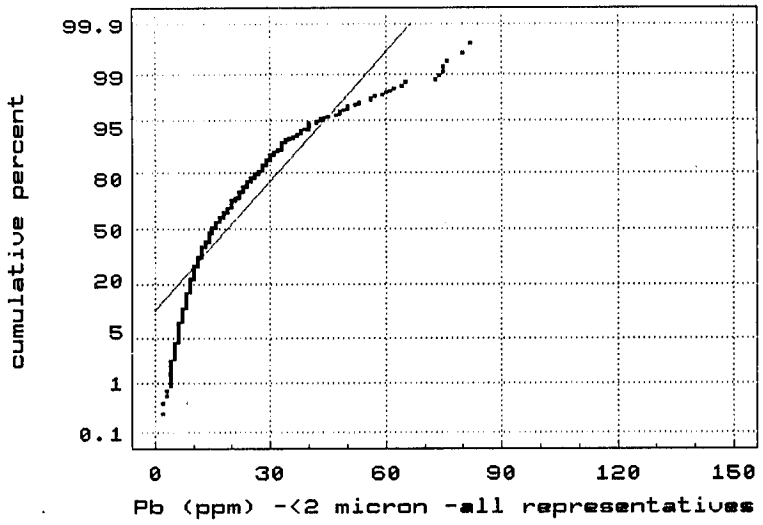

frequency %
50
40
30
20
10
0
n = 544
0
2
4
6
8
10
12
(X 1000)
Mn (ppm) -<2 micron - till samples

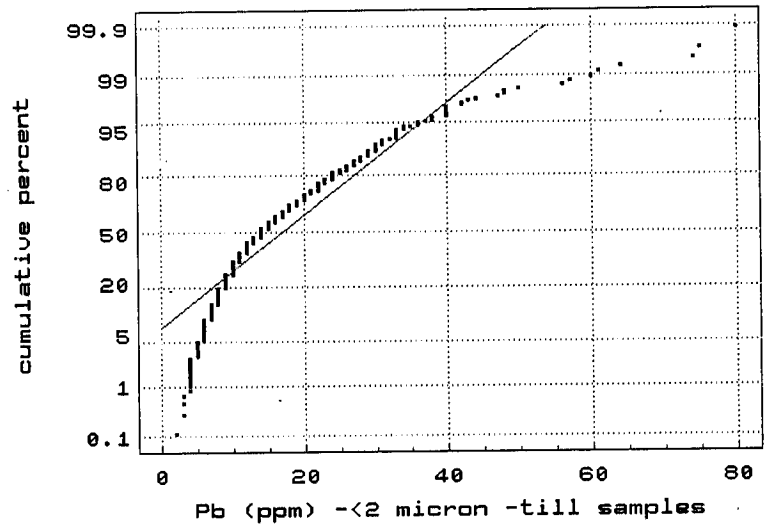

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
100
200
300
400
500
Ni (ppm) -<2 micron -all representatives

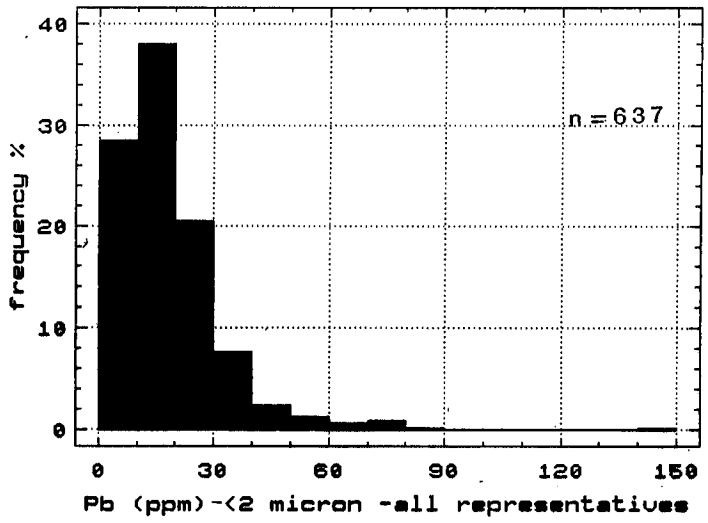

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
32
52
72
92
112
Ni (ppm) -<2 micron - till samples

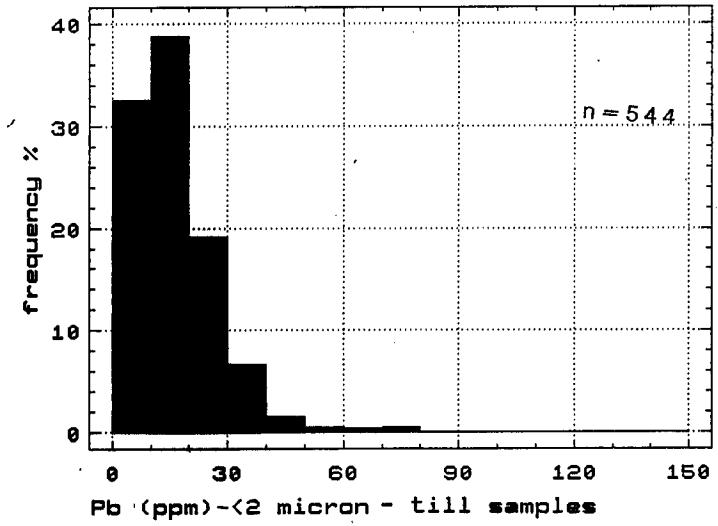

frequency %
50
40
30
20
10
0
n = 637
0
100
200
300
400
500
Ni (ppm)-<2 micron -all representatives

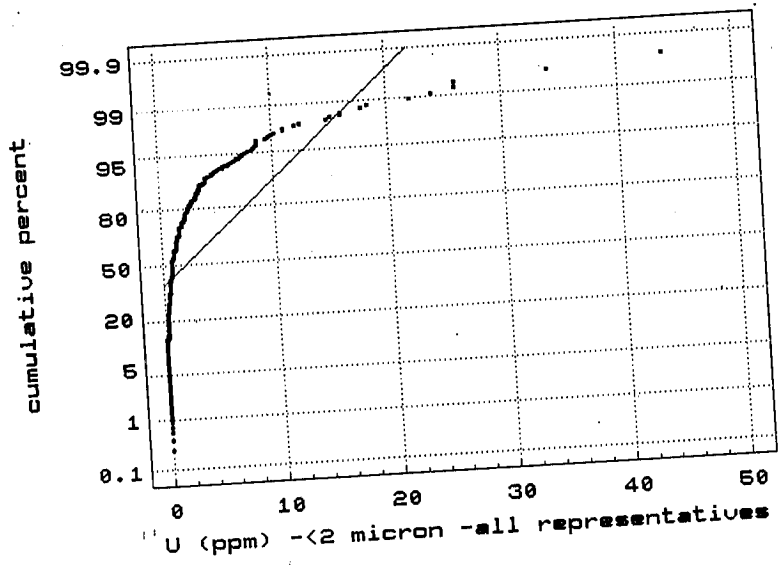

frequency %
50
40
30
20
10
0
n = 544
0
100
200
300
400
500
Ni (ppm)-<2 micron - till samples

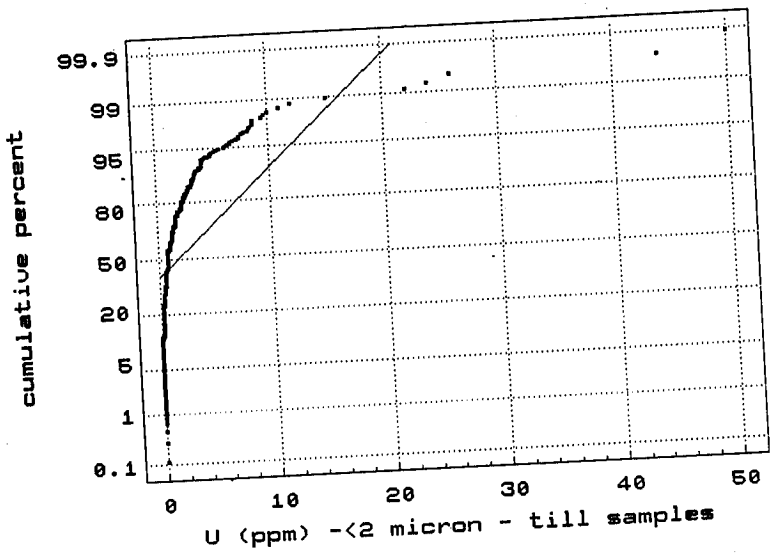

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
30
60
90
120
150
Pb (ppm) -<2 micron -all representatives

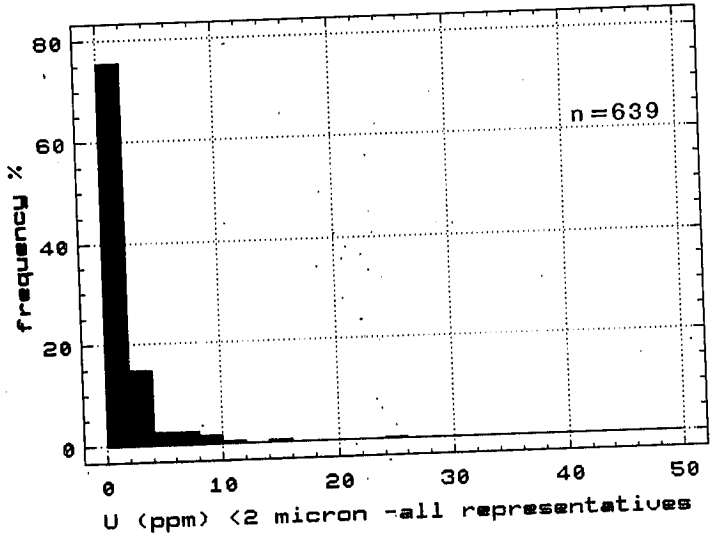

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
Pb (ppm) -<2 micron -till samples

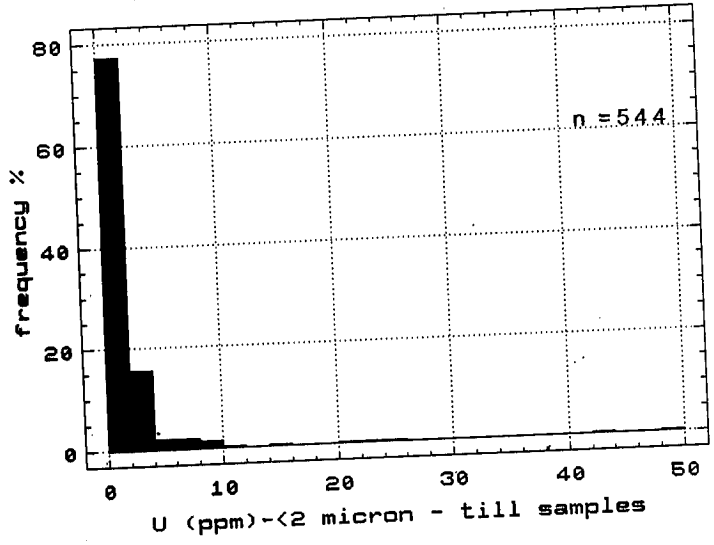

frequency %
40
30
20
10
0
n = 637
0
30
60
90
120
150
Pb (ppm)-<2 micron -all representatives

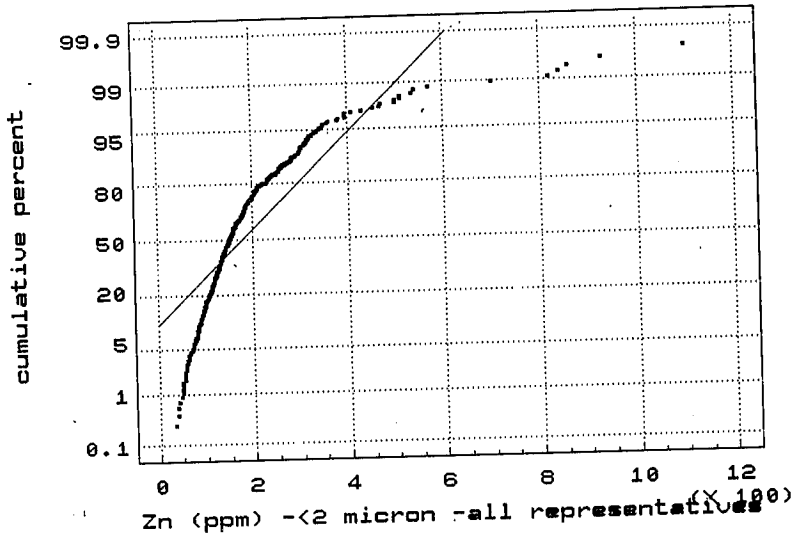

frequency %
40
30
20
10
0
n = 544
0
30
60
90
120
150
Pb (ppm)-<2 micron - till samples

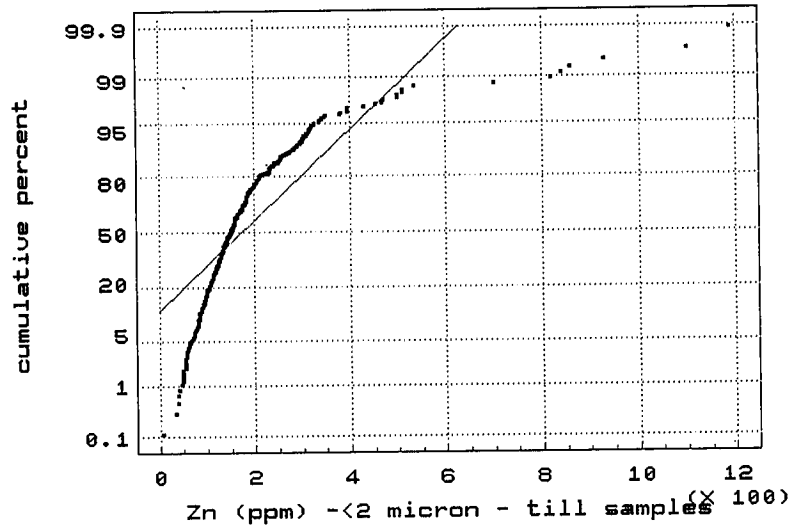

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
10
20
30
40
50
U (ppm) -<2 micron -all representatives

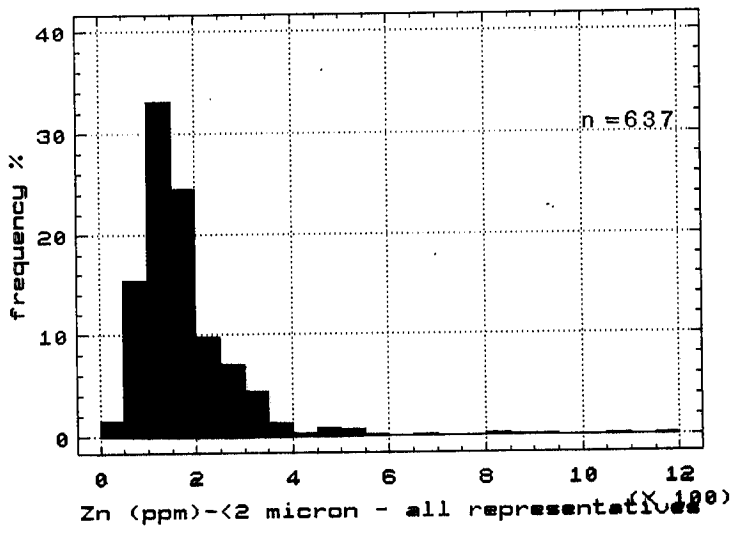

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
10
20
30
40
50
U (ppm) -<2 micron - till samples

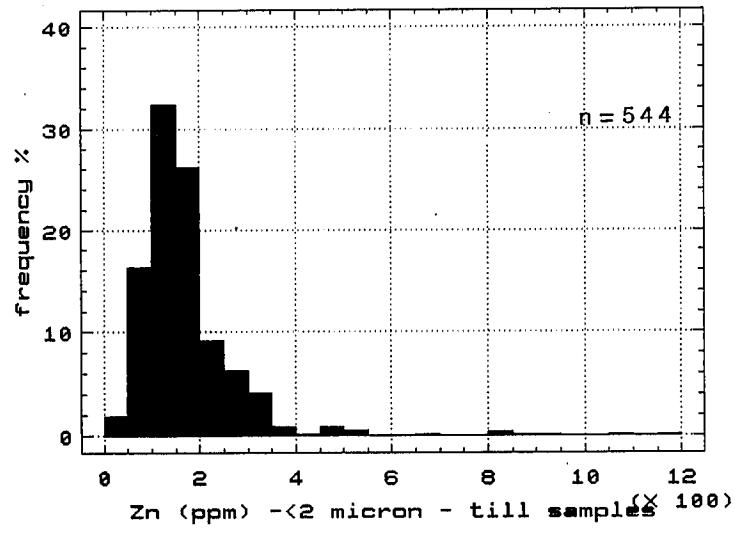

frequency %
80
60
40
20
0
n=639
0
10
20
30
40
50
U (ppm) <2 micron -all representatives

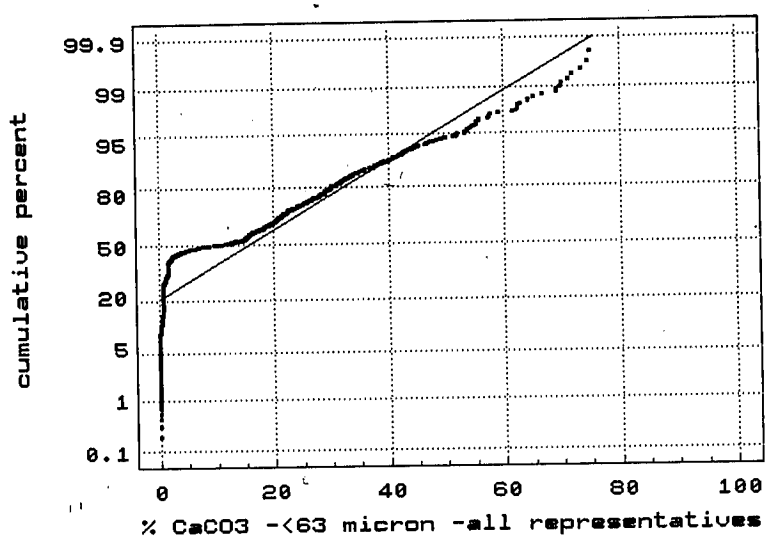

frequency %
80
60
40
20
0
n=544
0
10
20
30
40
50
U (ppm)-<2 micron - till samples

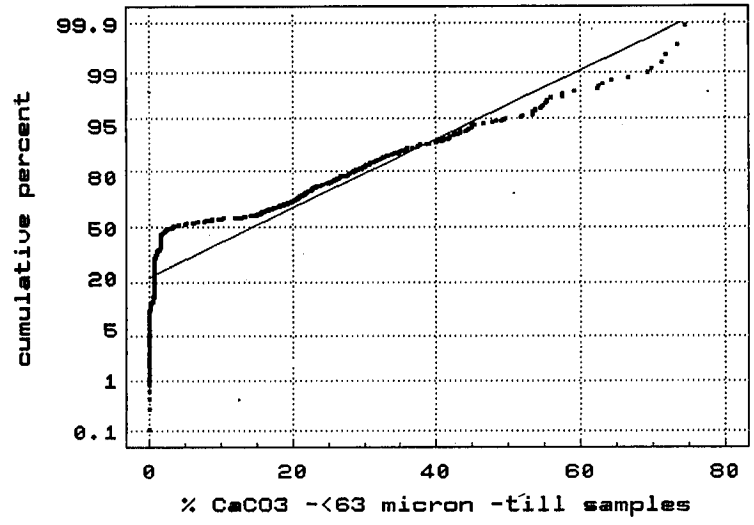

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
12
(X 100)
Zn (ppm) -<2 micron -all representatives

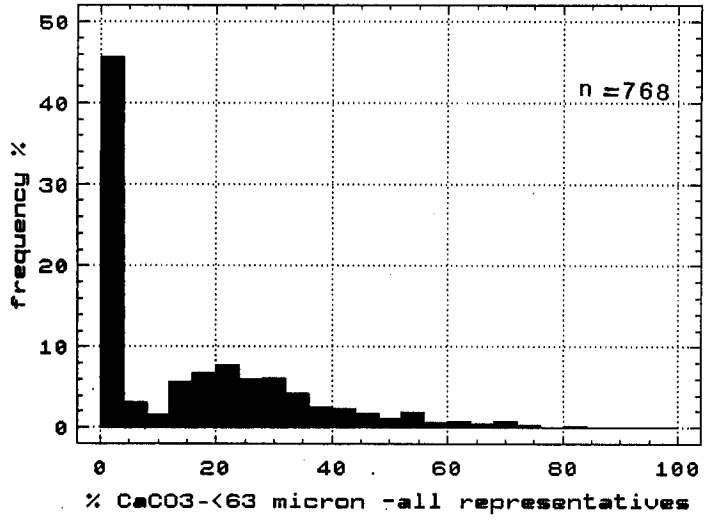

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
2
4
6
8
10
12
(X 100)
Zn (ppm) -<2 micron - till samples

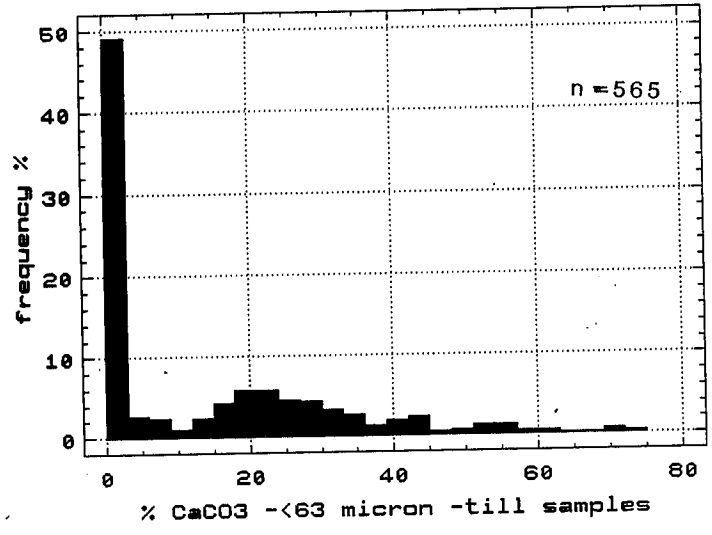

frequency %
40
30
20
10
0
n =637
0
2
4
6
8
10
12
(X 100)
Zn (ppm)-<2 micron - all representatives

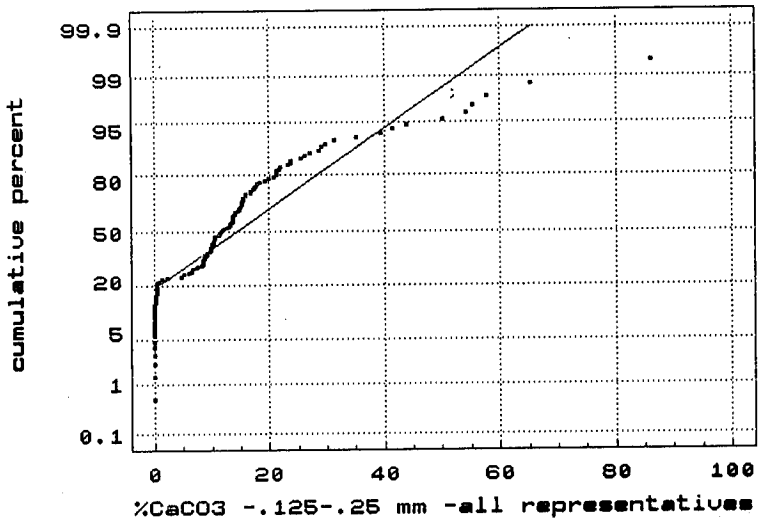

frequency %
40
30
20
10
0
n = 544
0
2
4
6
8
10
12
(X 100)
Zn (ppm) -<2 micron - till samples

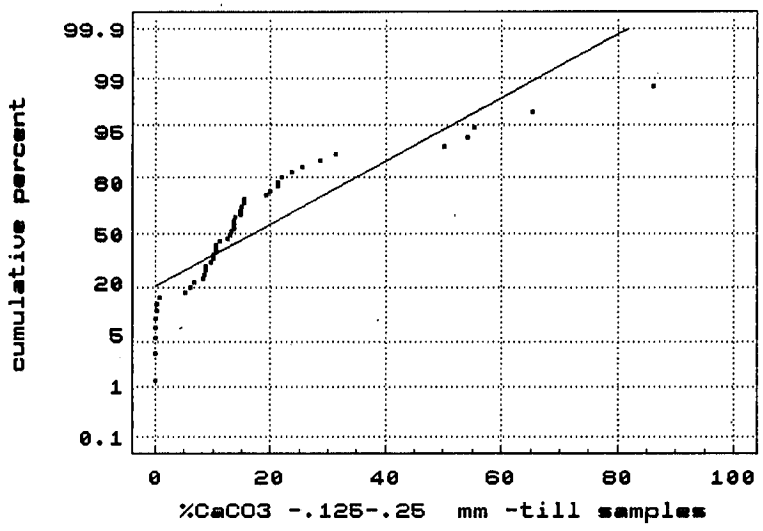

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
100
% CaCO3 -<63 micron -all representatives

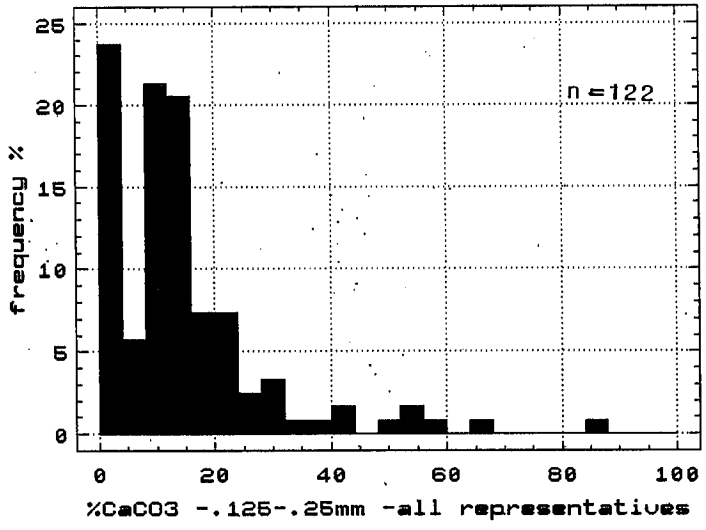

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
% CaCO3 -<63 micron -till samples

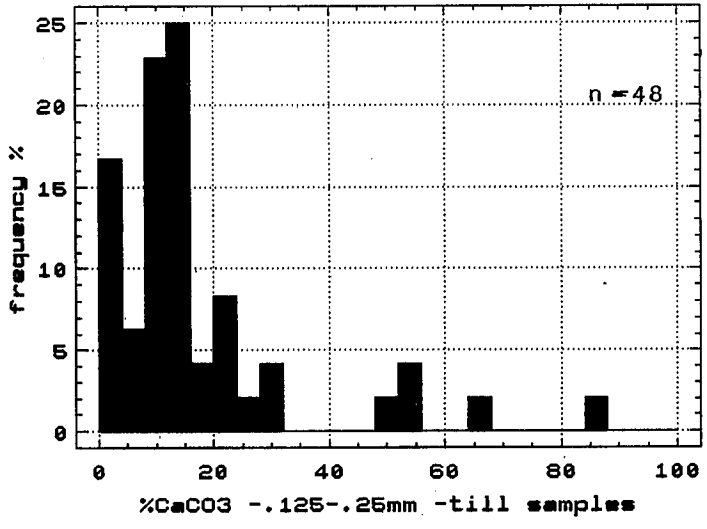

frequency %
50
40
30
20
10
0
n =768
0
20
40
60
80
100
% CaCO3-<63 micron -all representatives

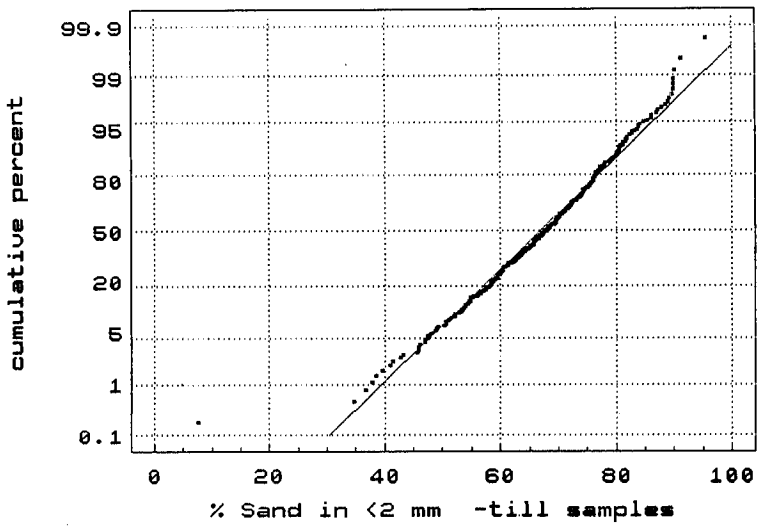

frequency %
50
40
30
20
10
0
n =565
0
20
40
60
80
% CaCO3 -<63 micron -till samples

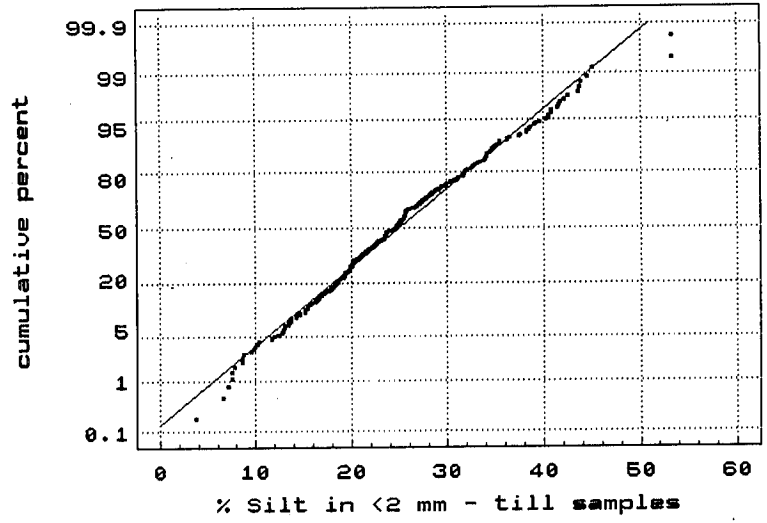

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
100
%CaCO3 -.125-.25 mm -all representatives

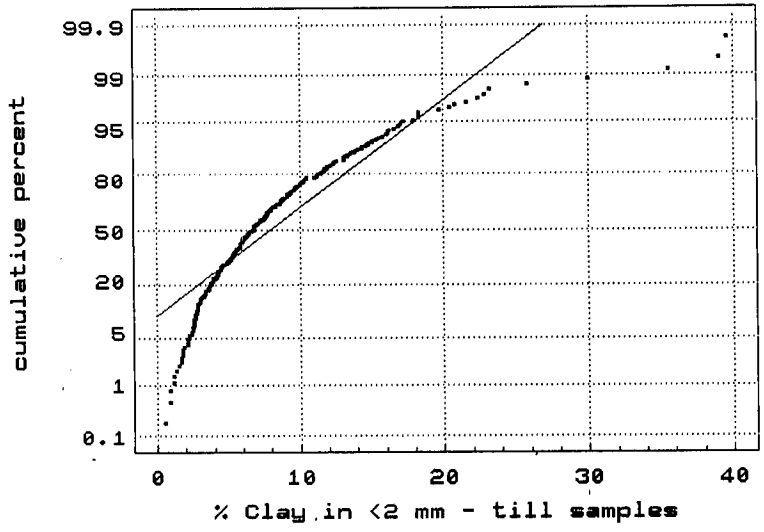

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
100
%CaCO3 -.125-.25 mm -till samples

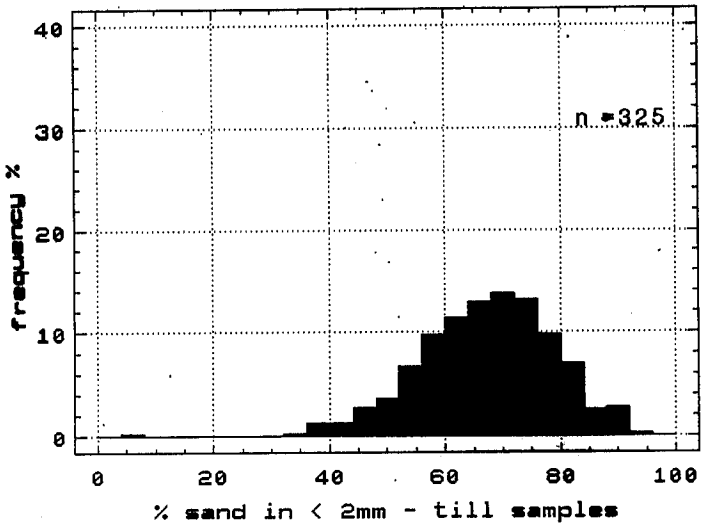

frequency %
25
20
15
10
5
0
n =122
0
20
40
60
80
100
%CaCO3 -.125-.25mm -all representatives

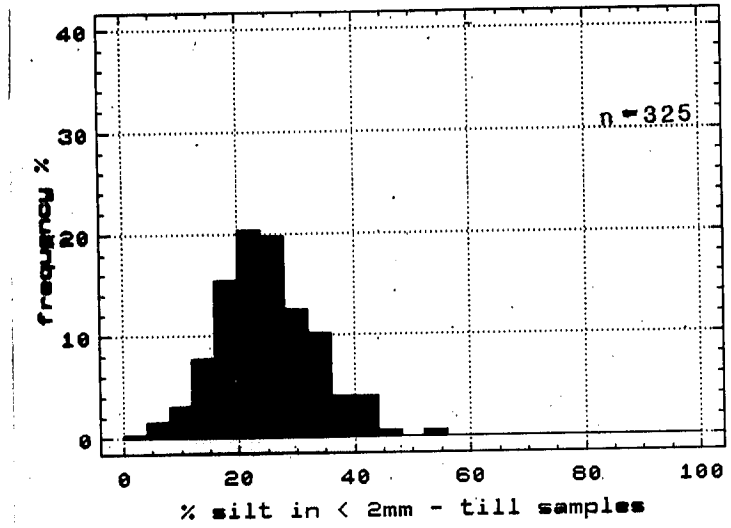

frequency %
25
20
15
10
5
0
n =48
0
20
40
60
80
100
%CaCO3 -.125-.25mm -till samples

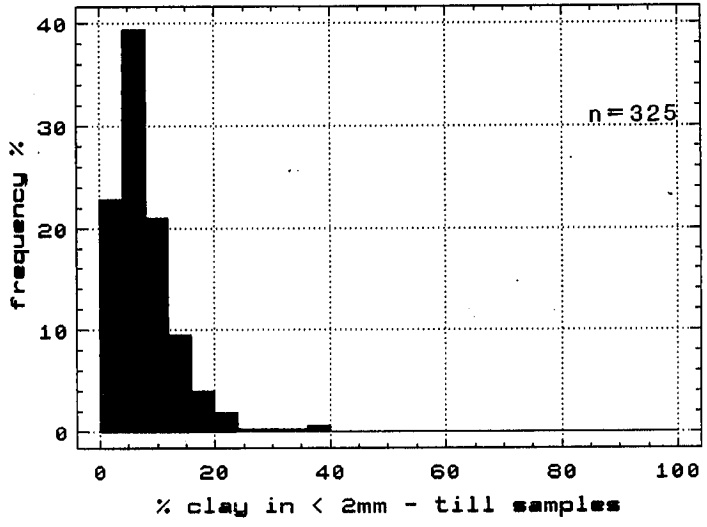

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
20
40
60
80
100
% Sand in <2 mm -till samples

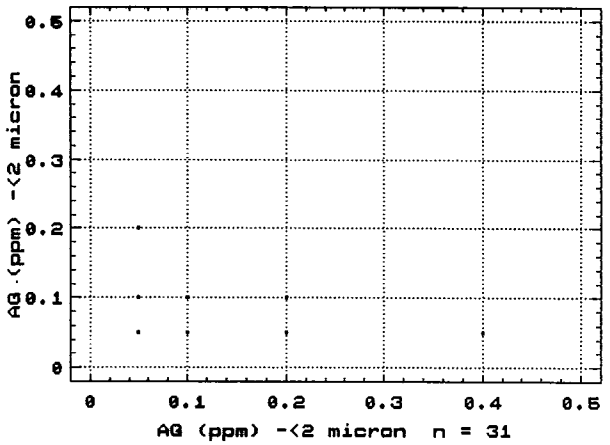

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
10
20
30
40
50
60
% Silt in <2 mm - till samples

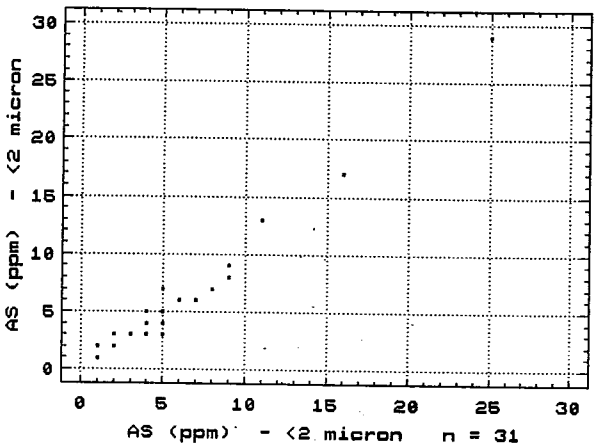

cumulative percent
99.9
99
95
80
50
20
5
1
0.1
0
10
20
30
40
% Clay in <2 mm - till samples

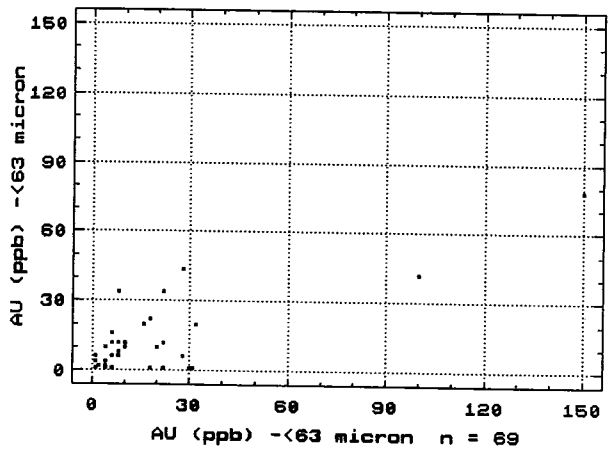

n =325
frequency %
% sand in < 2mm - till samples

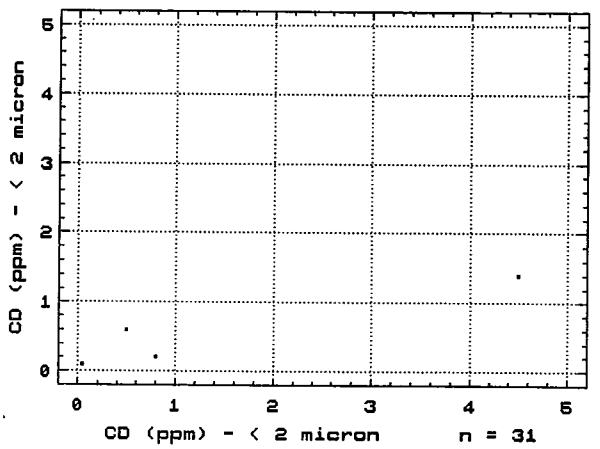

n =325
frequency %
% silt in < 2mm - till samples

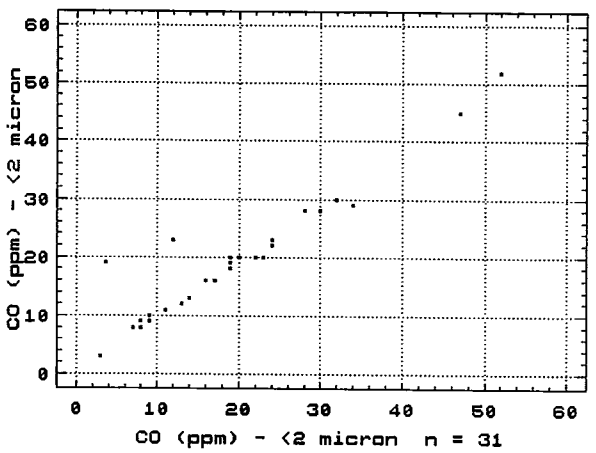

n=325
frequency %
% clay in < 2mm - till samples

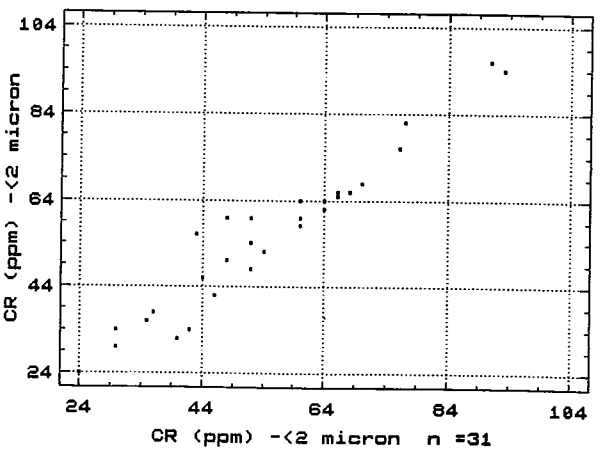

AG (ppm) -<2 micron
0
0.1
0.2
0.3
0.4
0.5
AG (ppm) -<2 micron n = 31

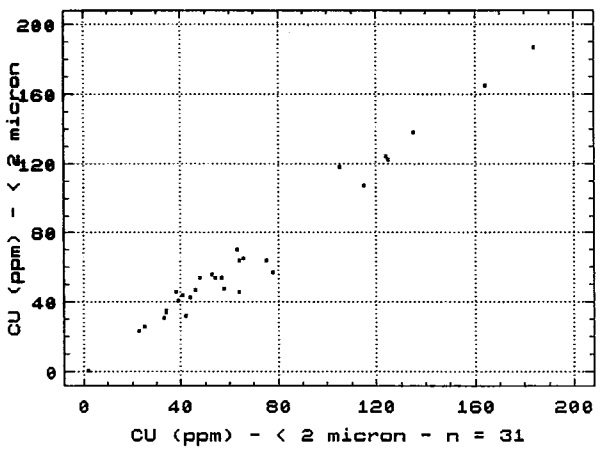

AS (ppm) - <2 micron
0
5
10
15
20
25
30
AS (ppm) - <2 micron n = 31

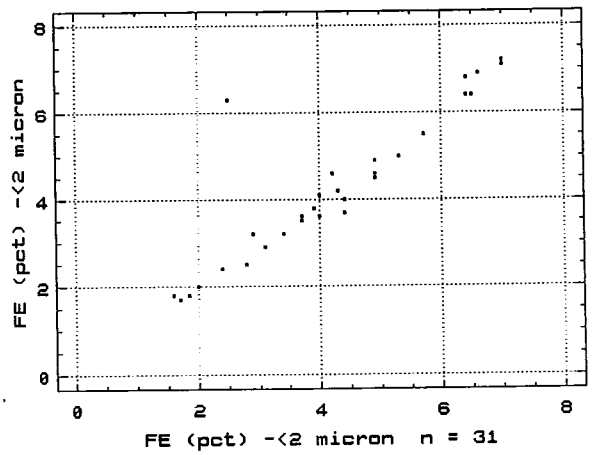

AU (ppb) -<63 micron
0
30
60
90
120
150
AU (ppb) -<63 micron n = 69

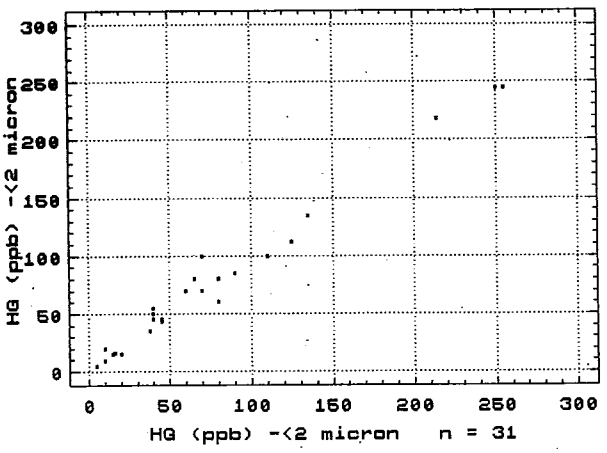

CD (ppm) - < 2 micron
0
1
2
3
4
5
CD (ppm) - < 2 micron n = 31

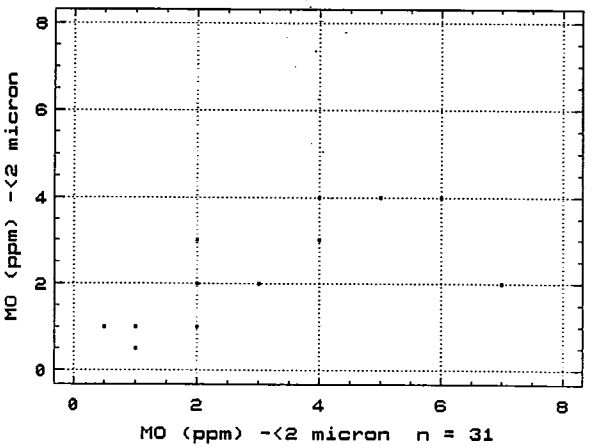

CO (ppm) - <2 micron
0
10
20
30
40
50
60
CO (ppm) - <2 micron n = 31

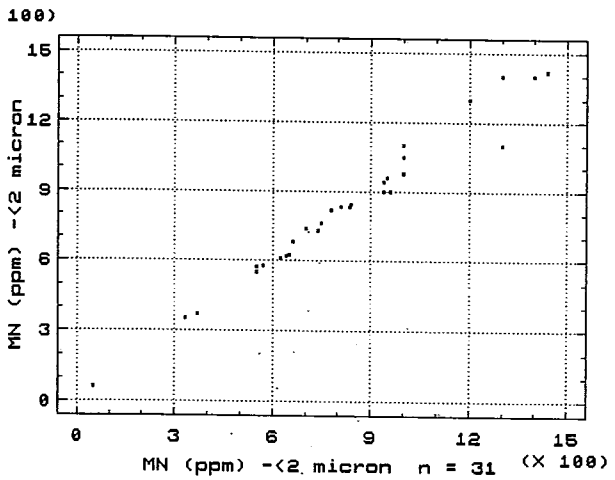

CR (ppm) -<2 micron
24
44
64
84
104
CR (ppm) -<2 micron n =31

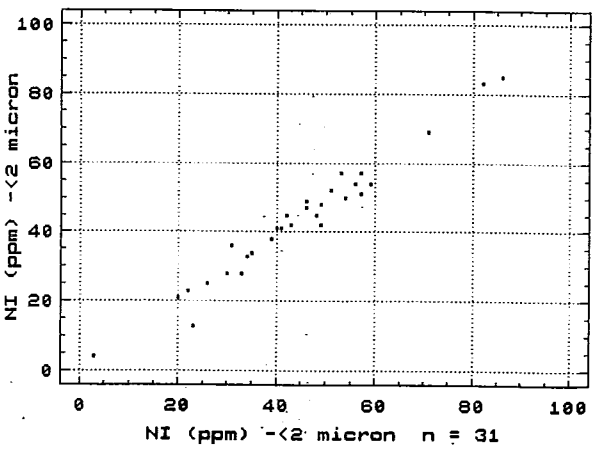

CU (ppm) - < 2 micron
0
40
80
120
160
200
CU (ppm) - < 2 micron - n = 31

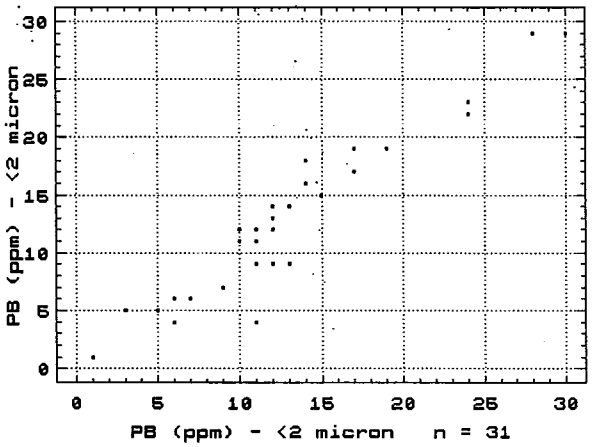

FE (pct) -<2 micron
0
2
4
6
8
FE (pct) -<2 micron n = 31

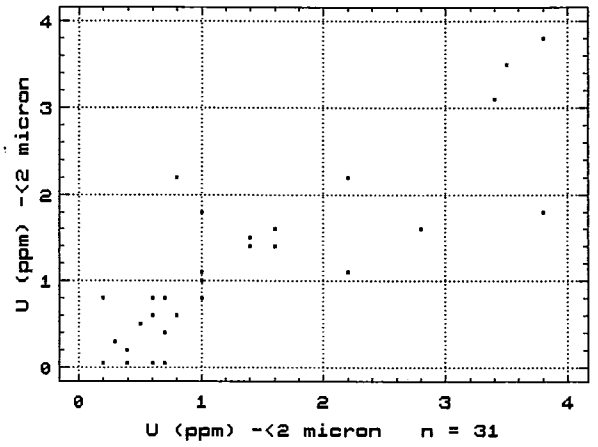

HG (ppb) -<2 micron
0
50
100
150
200
250
300
HG (ppb) -<2 micron n = 31

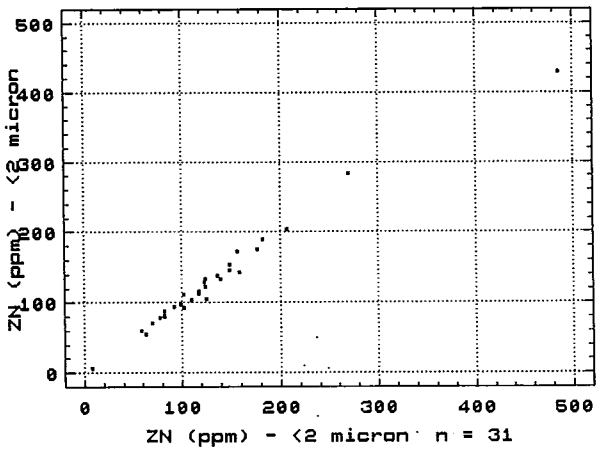

MO (ppm) -<2 micron
0
2
4
6
8
MO (ppm) -<2 micron n = 31


100)
MN (ppm) -<2 micron
0
3
6
9
12
15
MN (ppm) -<2 micron n = 31
(X 100)


NI (ppm) -<2 micron
0
20
40
60
80
100
NI (ppm) -<2 micron n = 31


PB (ppm) - <2 micron
PB (ppm) - <2 micron n = 31
0
5
10
15
20
25
30


U (ppm) -<2 micron
U (ppm) -<2 micron n = 31
0
1
2
3
4


ZN (ppm) - <2 micron
ZN (ppm) - <2 micron n = 31
0
100
200
300
400
500

CORRELATION MATRIX n = 394

	Ag	As	Cd	Co	Cr	Cu	Fe	Hg	Mo	Mn	Ni	Pb	U	Zn
Ag	1.0000													
As	0.3001	1.0000												
Cd	0.1163	0.0390	1.0000											
Co	0.3615	0.4548	0.0030	1.0000										
Cr	0.1617	0.0634	-0.0573	0.3909	1.0000									
Cu	0.3496	0.3440	0.1391	0.5366	0.2701	1.0000								
Fe	0.2975	0.2627	-0.0640	0.5351	0.4627	0.3627	1.0000							
Hg	0.3985	0.2349	-0.0320	0.4497	0.4607	0.3385	0.4859	1.0000						
Mo	0.1849	0.1218	0.2069	0.1803	0.1051	0.2370	0.0986	0.1161	1.0000					
Mn	0.4876	0.3155	-0.0073	0.6880	0.3120	0.3739	0.4582	0.5358	0.0647	1.0000				
Ni	0.1323	0.1613	0.0376	0.4696	0.6048	0.4676	0.2932	0.2528	0.2390	0.2732	1.0000			
Pb	0.3420	0.2514	0.0061	0.4456	0.3627	0.1596	0.3997	0.5384	0.0649	0.4922	0.2212	1.0000		
U	0.1966	0.0342	-0.0189	0.2294	0.2969	0.1871	0.2650	0.5655	0.1597	0.2710	0.1120	0.4112	1.0000	
Zn	0.0164	0.0212	0.3727	0.0241	0.0222	0.0580	0.0217	0.0007	0.0279	0.0248	0.1146	0.0662	-0.0223	1.0000