COBEQUID PROJECT
URANIUM ASSESSMENT REPORT
COBEQUID IV
NOVA SCOTIA
- 1979 -
NTS: PART OF 11E/11a, 11b, 11c
PART 1 OF 2

11E/11B 54-D-16(03)
433420

Gulf Minerals Canada Limited

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A REPORT ON

GEOLOGICAL MAPPING
GEOCHEMISTRY
PLEISTOCENE GEOLOGY
PROSPECTING
REVERSE CIRCULATION DRILLING

by Neil Downey
1979

TABLE OF CONTENTS

PART I

1.0	INTRODUCTION	1
	1.1 SUMMARY	1
	1.2 PERSONNEL	3
2.0	GEOLOGY	5
	2.1 INTRODUCTION	5
	2.2 GENERAL GEOLOGY	5
	2.3 ROCK UNITS	8
	2.4 STRUCTURE	12
3.0	PLEISTOCENE GEOLOGY	16
	3.1 INTRODUCTION	16
	3.2 PROCEDURE	16
	3.3 CONCLUSIONS	17
	3.4 RECOMMENDATIONS	19
4.0	GEOCHEMISTRY	20
	4.1 SOILS	20
	4.2 ROCK GEOCHEMISTRY	21
5.0	PROSPECTING	24
6.0	REVERSE CIRCULATION DRILLING	25
	6.1 INTRODUCTION	25
	6.2 PURPOSE	25
	6.3 PROCEDURE	26
	6.4 CONCLUSIONS AND RECOMMENDATIONS	26

TABLE OF CONTENTS (Cont'd)

PART I (cont'd)

7.0	GEOPHYSICAL SURVEY	27
	7.1 INTRODUCTION	27
	7.2 PROCEDURE	27
	7.3 RESULTS AND INTERPRETATIONS	28
	7.4 RECOMMENDATIONS	29
8.0	CONCLUSIONS AND RECOMMENDATIONS	30

TABLE I	LAND STATUS	2a
TABLE II	LEGEND OF FORMATIONS	7a
TABLE III	COBEQUID LEGEND	7b
TABLE IV	TYPICAL CHEMICAL COMPOSITIONS	23a

APPENDIX I - RESULTS OF ANALYSIS

A) WHOLE ROCK AND TRACE ELEMENT GEOCHEMISTRY

B) SOIL TRACE ELEMENT SURVEY

ILLUSTRATIONS

PART I

BOUND IN REPORT

✓ Figure 1	Index Map	i
✓ Figure 2	Location Map	ii

ENCLOSED IN POCKETS

✓ Plate E 26 gb	Prospecting	1 In. = 1/4 Mi.
✓ Plate III g	Geological Compilation	1 In. = 400 Ft.

PART II

Geophysical Survey

✓ Plate III aa	V.L.F. (EM-16 & TX-27)	1 In. = 400 Ft.

Geochemical Survey

✓ Plate III fa	Copper Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fa	Copper Values-C Horizon	1 In. = 400 Ft.
✓ Plate III fb	Uranium Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fb	Uranium Values-C Horizon	1 In. = 400 Ft.

MM

ILLUSTRATIONS (Cont'd)

PART II (cont'd)

✓ Plate III fc	Lead Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fc	Lead Values-C Horizon	1 In. = 400 Ft.
✓ Plate III fd	Zinc Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fd	Zinc Values-C Horizon	1 In. = 400 Ft.
✓ Plate III fr	Whole Rock Location	1 In. = 400 Ft.

MOM

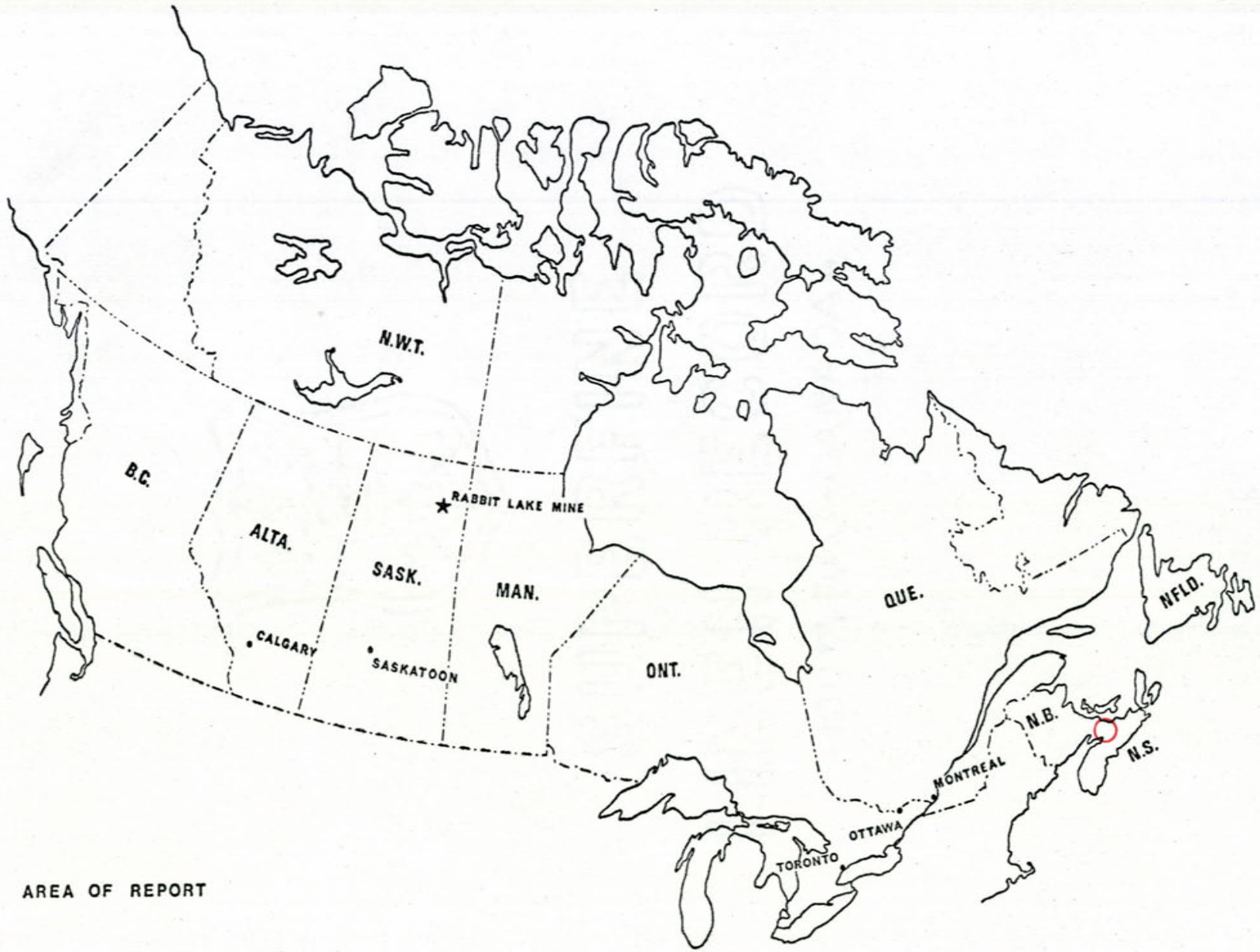
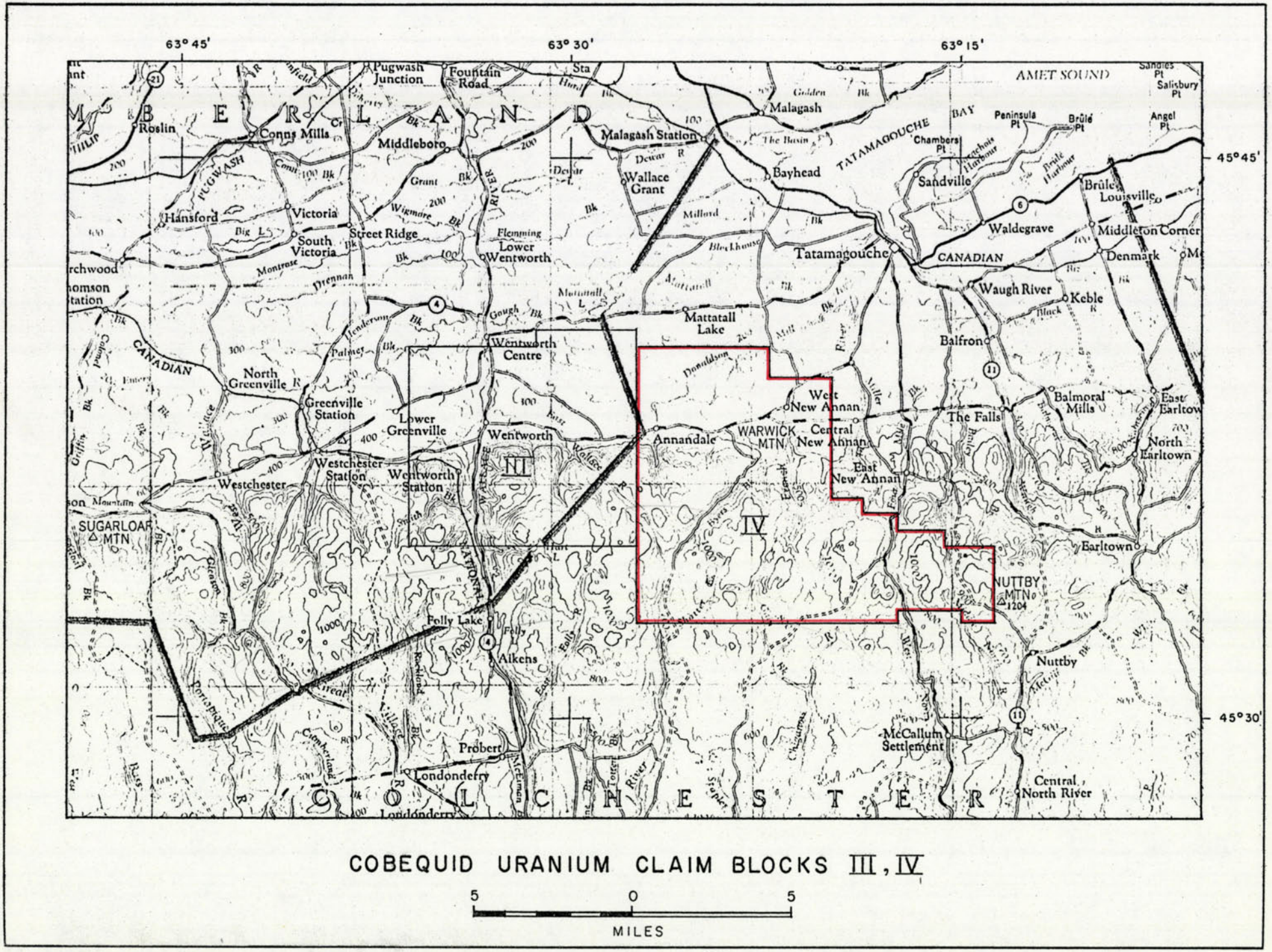

N.W.T.
B.C.
ALTA.
SASK.
MAN.
ONT.
QUE.
NFLD.
N.B.
N.S.
RABBIT LAKE MINE
CALGARY
SASKATOON
TORONTO
OTTAWA
MONTREAL
AREA OF REPORT

FIGURE 1



COBEQUID URANIUM CLAIM BLOCKS III, IV

Figure - 2

COBEQUID IV EXPLORATION PROGRAM
1978 - 79

1.0 INTRODUCTION

1.1 SUMMARY

On December 14, 1976, Gulf Minerals acquired 2,688 claims centered on Byers Lake, Colchester County, Nova Scotia. This block of land has been referred to as Cobequid IV. Table I lists the claim blocks and exploration licenses retained by Gulf for the 1979 season.

Early in May 1977, helicopter-borne radiometric, magnetic and electromagnetic surveys were conducted over the property. These were followed by prospecting, geological mapping, geochemistry and ground geophysics. A diamond drilling program was initiated in the Debert Lake area in early November and terminated later that month. On the basis of work carried out in 1977, Gulf Minerals retained 1,854 claims for future work.

During the period of December, 1977 to February, 1978, Gulf undertook a diamond drilling program near Annandale to investigate the unconformity between carboniferous Boss Point sediments and Devonian River John basalt. The program was also to evaluate a magnetic low. During the 1978 summer field season reconnaissance prospecting continued on the property. Regional and detailed geological mapping and whole rock sampling continued from the 1977 program on a scale of 1 in. to 1/4 mi. and 1 in. to 400 ft. A soil sampling program was initiated on the Swan Brook grid in early July and continued until September. The 1977 Debert Lake diamond drilling program was continued during September and October of 1978. An evaluation of results from the 1978 program was undertaken that winter and during early 1979.

During the 1979 field season, the rock analysis continued with additional detailed mapping and ground geophysics. The soil geochem program was completed as was the EM-16 and magnetometer work. A reverse circulation drilling program was carried out in the fall.

TABLE I

COBEQUID IV

LAND RETAINED FOR 1979

MAP	LICENCE NO.	TRACTS	CLAIMS
11E 11C	1329	5	A-Q
11E 11C	1330	6, 7, 8, 9, 10	A-Q
11E 11A	1334	37	A-Q
11E 11A	1335	60	A-Q
11E 11A	1336	61	A-H
11E 11B	1348	26	N-O
11E 11B	1348	27	N-Q
11E 11B	1350	44, 45, 46, 47	A-Q
11E 11B	1350	48	J-Q
11E 11B	1351	49, 50, 51, 52, 53	A-Q
11E 11B	1352	68, 69, 70, 71	A-Q
11E 11B	1352	72	A-H, L-O
11E 11B	1353	75	A-H
11E 11B	1353	76, 77	A-Q
11E 11B	1354	92	A-Q
11E 11B	1355	101	A-Q
11E 11B	1356	39, 40, 41, 42, 43	A-Q
11E 11B	1357	54, 55, 56, 57, 58	A-Q
11E 11B	1358	63, 64, 65, 66, 67	A-Q
11E 11B	1359	78, 79, 80, 81, 82	A-Q
11E 11B	1360	87, 88, 89, 90, 91	A-Q
11E 11B	1361	102, 103, 104, 105, 106,	A-Q

1.2 PERSONNEL

For the 1979 field season, Gulf personnel employed on the property were:

B. Alexander	Geologist
S. Barron	Junior
D. Bird	Junior
S. Bradley	Pleistocene Geologist
I. Campbell	Junior
P. Cashin	Geologist
S. Chambers	Junior
R. Charnuski	Junior
M. Cullen	Senior Geologist
G. Davison	Geologist
M. DeBriske	Geophysist
N. Downey	Project Geologist
B. Dutton	Junior
H. Faukes	Geologist
W. France	Prospector
B. Geddes	Pleistocene Geologist
P. Gertzbien	Junior
D. Gower	Junior
J. Halonen	Prospector
S. Heyworth	Junior
S. Martin	Geophysics Operator
J. Michelson	Geologist
B. Naylor	Geophysist
J. Owen	Geologist
J. Petrie	Geologist
R. Rintamaki	Prospector

A. Seguin	Prospector
J. Scott	Junior
R. Snow	Junior
L. Strom	Camp Manager
C. Thomson	Junior
J. Welykochy	Junior
D. Westcott	Junior
A. Workman	Assistant Porject Geologist

Contractors employed on the property were:

C. Weatherbee	Backhoe Operator, Wentworth, Nova Scotia
St. Lambert Drilling Co.	Valleyfield, Quebec
J. Stirling	Fredericton, New Brunswick
H. C. Teng	Fredericton, New Brunswick

All work was done under the supervision of Mr. C. R. Burkhart and Mr. G. I. Pearson, of Gulf's Toronto office.

2.0 GEOLOGY

2.1 INTRODUCTION

Geological mapping was conducted by two-man crews consisting of a geologist and a junior assistant or a prospector. All personnel were equipped with a Scintrex BGS-1SL scintillometer for measuring radioactivity. Mapping was mainly confined to stream valleys, road cuts and the Swan Brook grid. Air photos at a scale of 4 inches to one mile and 6 inches to one mile were used for control. Results were plotted on 1/4 mile to the inch Dept. of Lands and Forests base maps. Results from the Swan Brook grid were plotted on one inch to 400 foot base maps.

All outcrop shown on the geological compilation maps were examined in the field by Gulf personnel. Geological Survey of Canada maps by Fletcher, and work by Wallace and Donohoe reported in Nova Scotia Department of Mines publication 77-1, and preliminary map 78-1 were used as reference for field work and interpretation.

2.2 GENERAL GEOLOGY

The Cobequid Mountains form a resistant upland ridge feature trending east-west across north central Nova Scotia for over 200 km. Gulf Minerals Canada Limited's Cobequid IV property occupies the central region of this upland and extends from the Trans-Canada Highway in the west to near Nuttby Mountain in the east.

The mountains are formed of variably deformed volcanic and sedimentary sequences which have been affected by numerous stages of granitic and dioritic intrusion. The oldest intrusive body in the area is the Jeffers Brook Pluton near Parrsboro which has been dated as late Precambrian to early Cambrian in age (Wanless et al, 1972). The youngest intrusives are diabasic dykes probably associated with basaltic volcanic activity in the Triassic.

At present, exploration efforts are being concentrated upon the Siluro-Devonian volcanic, intrusive and sedimentary rocks of the Earltown Sequence.

Structural and lithologic discontinuities within the highland prevent widespread correlation of stratigraphic or lithologic units and locally results in complex and/or ambiguous relationships between sequences.

Interpretation of data presently available indicates that poly-deformed sedimentary and volcanic sequences such as the Bass River Complex may represent the basement material of the highland that predates the known late Precambrian near Parrsboro. Since all occurrences of this material are fault bounded, the true stratigraphic relationship of the Silurian and older rocks to it is unknown.

Multiple intrusions of granitic and dioritic bodies into the sedimentary and volcanic sequences probably coincided with the waning stages of the Late-Mid Devonian Acadian Orogeny and these now form a core system to the highland. A distinction among these intrusives is the presence or absence of a tectonic fabric which thusly defines relative age relationships. Recent age dating indicates that some degree of granitic intrusive activity continued into lower Mississippian times (See Wallace & Donohoe, 1977, pp. 174).

Late Devonian basaltic volcanics outcrop in the eastern highlands and are associated with conglomeratic terrestrial red beds. Subsequent sedimentation was confined generally to the basins skirting the upland on the north and south with the Cobequids supplying clastic material in response to continued erosion.

TABLE II

LEGEND - COBEQUID PROJECT

(after Wallace & Donohoe, 1977)

MESOZOIC	XVIII	Triassic
PALAEOZOIC	XVII	Permian
		Pennsylvanian
	XVI	Pictou Group
	XV	Cumberland Group Riversdale Group
	XIV	Boss Point Formation - alternating sequences of red to green sandstone, grey to red conglomerate, siltstone and mudstone, in part calcareous (undivided).
	XVII	Clairmount Formation
		Mississippian
	XII	Middleborough Formation
	XI	Windsor Group
	X	Nuttby Sequences - grey to red siltstone to argillite, reddish-grey lithic wackes and green conglomerates.
		Devonian
	IX	River John Group (Upper) - purple to red conglomerates.
	VIII	River John Group (Lower) - black to green basalt, grey, red, to black siltstones, argillites and mudstones; red, grey and green wackes and green conglomerates.
	VII	Non-foliated Plutonic Rock. a) granite b) diorite
	VI	Foliated Plutonic Rock a) granite
		Silurian to Devonian
	V	Portapique Parrsboro Succession
	IV	Earltown Sequence a) dark grey to black siltstone to argillite. b) red, pink, green to grey rhyolite and ignimbrite felsic agglomerate, rhyolitic and dacitic tuffs. c) grey-green dacites, pink to grey rhyolites and ignimbrites, green quartz wackes, shale and mudstone with interbedded dacitic to rhyolite tuffs and argillite.
PALAEOZOIC OR OLDER		Silurian or Older
	III	Granite Gneiss - of Bass River Complex
	II	Bass River Complex - green metavolcanics, grey to white quartzite, dark green to black argillites, quartz-feldspar-biotite gneiss and pink granite.
	I	Mt. Thom Complex
		Cambrian or Older
		Jeffers Brook Pluton

TABLE III

COBEQUID PROJECT

Legend - Sept. 1978

		prismacolour no.
Extrusive Volcanics:		
7	Mafic Volcanics	909
	7a - andesite	
	7b - basalt	
8	Felsic Volcanics - dacite, rhyolite	
	8a - ignimbrite	913
	8b - ash fall tuff, crystal tuff	946
	8c - flow banded rhyolite	942
	8d - massive or undetermined	
	8e - breccia	931
9	Agglomerates	921
	9Mx - mafic fragments in mafic matrix	
	9Fx - felsic fragments in felsic matrix	
	9M - mixed	
Sediments:		936
10	(a) argillite (b) quartzite (c) conglomerate	
	(d) sandstone (e) siltstone (f) mudstone	
	(g) phyllite	
	bedding or foliation: D - distinct	
	I - indistinct	
Intrusives Volcanics:		929
11	Granite	
	11a - pink leucocratic granite	
	11b - pink mesocratic granite	
	11c - white-grey granite-granodiorite	
12	Diorite	903
	12a - unaltered diorite	
	12b - altered/metamorphosed diorite	
13	Diabase	935
	13a - unaltered diabase	
	13b - "spotted" diabase	
	13c - aphanitic altered diabase	
14	Gabbro, Pyroxenite-Peridotite	901
15	Felsic and Porphyritic Intrusives	924

2.3 ROCK UNITS

UNIT: II BASE RIVER COMPLEX

Unit II consists of a metavolcanic-metasedimentary sequence which has been intensely deformed by at least two deformational events. Dating of the unit is somewhat vague and has resulted in its designation as Silurian or older in age. Generally, the unit is composed of dark green, very fine grained metavolcanics, dark grey to white, fine grained quartzite, dark green to black, well foliated argillitic metasediment (phyllitic to schistose), well foliated quartz-feldspar-biotite gneiss and fine to coarse grained, pink deformed granite. Minor acidic volcanics are also present.

UNIT: IV EARLTOWN SEQUENCE

The Earltown Sequence, Unit IV, of Silurian age is made up of three mappable sub-units, briefly described as follows:

a) Located near Wentworth Station is the oldest unit (Unit IVa) in this sequence dated at Middle to Upper Llandoverian age (Wallace and Donohoe, 1977). This unit consists of dark grey to black fine grained, well laminated, fossiliferous siltstone to argillite with minor amounts of green conglomerate and greywacke.

b) Overlying Unit IVa are red, pink, green to grey, aphanitic and porphyritic rhyolite, ignimbrite, felsic agglomerate and intermediate to acid tuffs. Flow banding within lavas is intermittently but widely evident. Fiammi, or squashed pumice fragments, are common in ignimbrite sheets and give the rock a pseudo-banded appearance. Tuffs are both waterlain and aerial in deposition. Some are reworked and deposited in what were probably

small enclosed basins within the volcanic terrain. Locally, some agglomeratic flows have developed and consist of large numbers of welded blocks within lavas probably travelling down steep slopes. Minor amounts of basalt are found within the volcanogenic sequence. They are commonly vesicular and fine grained.

c) This unit is made up of grey-green dacites, pink to grey flow-banded rhyolites with minor concentrations of massive sulphides (pyrite, chalcopyrite), green quartz wacke and fine grained laminated shale and mudstone with interbedded dacitic to rhyolitic tuffs. In the northern section, well foliated argillitic metasediments (phyllite) predominte. These metasediments have been labelled as Unit IV 10.

They are believed to be older than the Silurian volcanics. The volcanic sequence to the south has been termed Unit IV 8. Lack of outcrop prevents any determination of the nature of the contact between the two units. However, topography would suggest fault blocks.

UNIT: VI FOLIATED GRANITE

Map Unit VI is composed of fine to coarse grained white to pink foliated hornblende granite. Along Shatter Brook, quartz and orthoclase crystals are stretched and aligned along a strong foliation (Cataclasis?).

UNIT: VII NON-FOLIATED PLUTONIC ROCKS

This unit is composed of diorites and granitic rocks. Small dioritic intrusions are common throughout the Silurian Earltown Sequence. Large bodies occur in the area of Folly Lake and Sugarloaf Mountain.

Intrusive into the diorites are non-foliated leuco-granites and hornblende granites of Lower Middle Devonian age (Donohoe and Wallace, 1977) which are, for the most part, fine to coarse grained and pink in colour. Numerous dark red aphanitic to fine grained porphyritic granophyres are found locally as narrow intrusive phases of the granite.

Fine grained, black diabase dykes, some exhibiting good texture and glossy margins, are very common within the highland proper. More than one generation of diabase must be present as some are deformed while others are relatively fresh. The fresh undeformed diabase dykes may be of Triassic age.

UNIT: VIII RIVER JOHN GROUP - LOWER UNIT

Map Unit VIII is the lower unit of the Devonian River John Group. It consists of fine grained to aphanitic, black to dark green vesicular to amygdaloidal basalt with calcite and zeolite infillings. Calcite, epidote stringers and traces of disseminated sulphides are evident. The unit appears to be younging north with individual flows distinguishable in some localities by the presence of red, brecciated (fragmental?) basalt occurring at the flow interfaces. Interbedded with the basalt are dark grey, red to black, fine grained siltstones, argillites and mudstones; red, green and grey wackes with abundant volcanic fragments and well bedded, grey conglomerates.

UNIT: IX RIVER JOHN GROUP - UPPER UNIT

Map Unit IX is the upper unit of the River John Group and consists of purple to red conglomerates carrying fragments of basic volcanics, grey quartzite and rhyolite. The fragments are 0.5 mm. - 150 mm. in size, poorly sorted and well bedded with numerous carbonate stringers.

UNIT: X NUTTBY SEQUENCE

The Nuttby Sequence, Map Unit X of Late Devonian to Early Mississippian age is composed of grey to red, foliated siltstone to argillite, reddish grey lithic wackes and green to red conglomerates. The conglomerates are typified by subrounded to subangular fragments of rhyolite, granite, phyllite and tuff in a fine to medium grained silty matrix.

UNIT: XIV BOSS POINT FORMATION

Map Unit XIV is the Pennsylvanian Boss Point Formation, consisting of alternating sequences of red, white to green sandstones, grey to red conglomerate, red siltstone and red to grey mudstone, in part calcareous. The sandstones encountered varied from red, greenish-red to white, commonly feldspathic to arkosic with interbedded lenses of grey calcerous conglomerate. Numerous green reduction zones, variable organics, fine laminations and trough cross-bedding, and limonitic-specks are also prevelant. Locally, organic trash and plant remains accumulate in the depressions in cross-beds, often with black carbonaceous material (coal). Minor copper (malachite) and radioactivity may also be present.

2.4 STRUCTURE

The southern extreme of Cobequid .IV is underlain by highly deformed metasedimentary and volcanic rocks of the Bass River Complex. Wallace and Donohoe (1977) have tentatively dated these as Silurian or Pre-Silurian in age, making them the oldest encountered on the property. Compositional banding trends generally E-W with minor folds being recorded in a number of localities. Regional fold geometry was not discerned from the exposures mapped on Cobequid 1BM.

Foliated granite is known to intrude the Bass River Complex and is exposed on both the Chiganois River and West North River, as well as on Farm Lake Road.

Wallace and Donohoe (1977) cite a late Mid-Devonian date for the deformation of these rocks with a possible correlation of the second folding phase to fold geometrics seen in the Pennsylvanian Londonderry Sequence of the southern Cobequids.

Silurian volcanics and interbedded sediments of the Earltown Sequence have been mapped in the eastern property area and also occur along the western boundary. The western exposures are predominantly rhyolitic in nature with some basalt whereas the eastern zone has a higher percentage of tuffaceous and agglomeratic volcanic units. Some folding has been mapped in the tuffs and sediments with a synform above the main rhyolitic sequence on Bailey Brook being the largest structure identified. Geometry of the folding is unclear but the axis is trending approximately East-West and plunging to the east.

A large southwesterly trending block of Lower River John Group, dated as Devonian (Gillis, 1964 in Wallace and Donohoe, 1977), transects the Earltown sequence and is known to be in unconformable contact with the volcanics. These rocks are predominantly basaltic flows and interbedded sediments believed to be younging to the north.

The Balmoral Brook fault displaces the Silurian and Devonian sequences of the central property area with the River John Group to the east of the fault consisting of primarily fanglomerate deposits dipping to the north and coarse clastic sediments. Good sections of these Upper River John are exposed on Balmoral Brook and also on the Waugh River.

A second southeasterly trending fault has been proposed based upon interpretation of airborne geophysical data. Magnetic signatures define a movement zone between Farm Lake and the Chiganois River which has been tentatively termed the Chiganois Fault.

Definition of the Chiganois fault on the ground has been inconclusive as a result of overburden.

Devonian undeformed hornblende granite intrudes the volcanic pile in the western property area. Granites of the same granitic complex also intrude the Earltown Sequence in the southerly extent of Cobequid IV claim block.

The Nuttby Sequence of fine to coarse clastic sediments is known to be Mississippian in age based upon palynological data.

The units of this sequence are exposed south of Farm Lake, in good sections on the Chiganois River, in the Gain Brook area and along the West North River.

A synform has been mapped in Nuttby sediments on the McCallum Settlement Road with an ENE trending axis plunging to the east. A low angle southerly dipping thrust fault cuts this structure in the closure zone but its importance as to the overall fold geometry or regional geology is minimal. The fault trace is defined by a topographic lineament for a short distance in the form of a stream valley.

Riversdale Group and possibly Pictou Group sediments of Pennsylvanian age occupy the northern property extremes adjoining the Cobequid Highland proper. Boss Point sediments predominate although in the northeastern property corner some sediments have been tentatively mapped as Pictou Group.

Structure within these bedded sequences is generally north dipping at a relatively low angle (30°), this being controlled somewhat by the basement rise to the upland and the Claremount Synclinal structure to the north. This major syncline trends generally east-west and plunges to the southwest but its axial trace and closure zone is not covered by the Cobequid IV claim group.

The nature of the Carboniferous contact with the highland complex in this area is believed to be unconformable but exposures in a definitive section have not been found. Further to the west, near Westchester, on Caldwell Brook, this contact is clearly an unconformity.

Pre-Carboniferous north-south faulting occurred along the northern boundary of the Cobequids in this area, but none of those structures appear to be major in extent. Differential movement between fault blocks has juxtaposed overlying phyllite with the Silurian rhyolite sequence in the Baily Brook area as well as in the Six Mile Brook area. Airborne geophysical data indicated the existence of such faulting but ground work has accurately defined movement zones in only a few cases. This is, of course, a result of bedrock exposure being limited to stream valleys and its discontinuous nature in these valleys.

3.0 PLEISTOCENE GEOLOGY

3.1 INTRODUCTION

Beginning in late May, 1979, and ending on August 26, 1979, a three-man Pleistocene mapping crew consisting of a Pleistocene geologist and two juniors were employed on the property. Their objective was to outline the glacial and glacio-fluvial stratigraphy of the Cobequid Highlands in the vicinity of the Swan Brook grid. The areas of greatest interest were in the central grid areas around Swan Brook and in the Juniper-Debert Lakes gap. The Pleistocene crew was assisted in their work by a backhoe, capable of digging trenches to a depth of 15-18 feet. For safety reasons, however, most trenches were limited in depth to 6-8 feet.

3.2 PROCEDURE

Trenches were dug along roads within the Cobequid Highlands because of ease of access and because damage to the woodlands could be kept to a minimum.

Initially, the surficial lithologies exposed in the trenches were studied, and an effort was made to categorize them in terms of colour, texture and major rock components. Till sheets were then traced from one trench to another to establish the continuity of till stratigraphy. It was hoped that this would lead to an understanding of transport direction. Pebble imbrications were measured using pebbles of 1-3 cm. length with axial ratios of at least 3:1:1. Rose diagrams were plotted to establish average pebble orientation and the degree of scatter of these orientations. Samples for geochemical study were obtained along vertical sections in each trench.

Laboratory work consisted of drying each sample and then hand or pedestal crushing to eliminate lumps and coagulated grains. A 500 gm. sample was then dry seived through a 1/2 Ø seive series from -2 Ø to +4 Ø, (i.e. -2 Ø, -1 1/2 Ø, -1 Ø, -1/2 Ø.....4 Ø),

The sieve results were plotted as % weight histograms and cumulative % curves with regard to sand, silt and clay fractions.

3.3 CONCLUSIONS

As a result of the 1979 program, it has been shown that the character of glacial and glacio-fluvial deposition in the Cobequids is more complex than originally anticipated. Previously, it had been demonstrated that intermontane glaciation was of a different type and was more complex than the glaciation experienced by the lowlands north of the mountain belt. Continental glaciation was of little impact on the interior parts of the central and eastern highlands. Differing imbrications within upper and lower till sheets from one locale to another, the development of eskers by drainage towards the northeast, the distribution of rock lithologies seemingly irrespective of contact areas and source locations, and, the presence of east-west striations (albiet localized), all point to radial ice movement at some time. However, the differences in Pleistocene stratigraphy from one point to another, even within the grid area, point to many localized variations. The stratigraphy of the J-Zone (Swan Brook and Juniper Lake area) and the stratigraphy of the DF-Zone (Debert-Big Snare Lake area) show enough variation to support this concept.

The J-Zone is overlain by two or three till sheets and possibly some localized lacustrine material. The valley or the mid-branch of Wallace River is filled with what seems to be lacustrine deposits to a depth in excess of 100'. The general stratigraphy of the J-Zone consists of an ablation till of variable thickness overlying a brown surface till less than 18 cm. in thickness. This overlies a grey till, 6-8 cm. in thickness which, in turn, rests upon a 2 metre thick red-brown till. This sequence is underlain by a rubble zone of unknown thickness which, in part, resembles weathered bedrock and, in part, resembles outwash.

The DF-Zone is overlain by four till sheets and has several localized eskers. The uppermost horizon is an 18 cm. thick brown surface till. Locally, it is underlain by glacio-fluvial and outwash deposits - often of esker morphology. The next unit is a 6-8 cm. grey till horizon which may reach thicknesses of up to 25 cm. locally. The grey till is underlain by 1.5 to 2 metres of red till which in turn is underlain by either a grey till or an outwash horizon of unknown thickness.

The red to pink till and the overlying thin grey till (from which only a small sample was obtained), are found in both zones. Pebble imbrications in both tills are towards the N to NW, thus indicating an ice movement direction towards the SSE. The overlying brown till, also found in both zones, contains pebbles which are imbricated to the SE. The ice movement direction at the time this till was deposited was thus towards the NW. The former ice movement is thought to reflect initial continental type glaciation while the latter was deposited by alpine type glaciation at a later date.

3.4 RECOMMENDATIONS

It is apparent from the somewhat limited examination of the Cobequid Highlands that no simple assumptions can be made with regards to upland glaciation. Indeed, one can only assume that complications exist which might not be apparent from a more cursory study. This may not be true, however, for the western part of the Cobequid Mountains. In this part, no sharp increase in relief is present which might interfere with continental ice sheets. In this regard, further work is deemed necessary on the eastern half of the Uplands.

Perhaps some additional work on the western portion is justified in order to support or negate the continental glaciation hypothesis. This work should consist of trenching and detailed quaternary study in the same fashion as work already performed.

4.0 GEOCHEMISTRY

4.1 SOILS

Introduction

From May to September, two two-man sampling crews collected C-Horizon soil samples on the Swan Brook Grid. Over 5,000 samples were collected.

All analytical services were performed by X-Ray Assay Laboratories, Don Mills, Ontario. The minus 80 mesh fraction was assayed for copper, lead, silver, zinc and uranium. Uranium was detected by delayed neutron activation with a minimum threshold of .1 ppm. The base metals and silver were detected fluorimetrically at minimum detection limits of 5 ppm and 1 ppm, respectively.

Conclusions

The soil sampling program in the Cobequid IV area has been successful in locating base metal and uranium anomalies. The occurrence of uranium concentrations appears to be independent of other geochemical associations, i.e. the base metals and silver.

Further study of the anomalies areas is currently in progress. A detailed statistical analysis relating geochemistry to rock types is planned. The geochemical data will be used to plan the 1980 exploration program.

4.2 ROCK GEOCHEMISTRY

Rock samples collected from outcrop, boulders and core were analyzed for major oxides and trace elements (U, Th, Sn, F, W, Mo, Cu, Pb, Zn, Ag). In addition, samples of bedrock were obtained through reverse circulation drilling. The results are tabulated in Appendix A. The purpose of the whole rock geochemical program is to identify alteration patterns, to select samples for geochronology, to help match boulders with bedrock, and to develop structural, lithological and genetic models for the concentration of base metals and uranium.

The samples collected were analyzed for the following major oxides: SiO_2, Al_2O_3, Na_2O, K_2O, CaO, MgO, FeO, MnO, TiO_2, and P_2O_5. The major oxides and W were analyzed by a fully automated sequential x-ray spectrometer using a poured glass disc sample preparation method. U and Th were determined by neutron activation. Cu, Pb, Zn and Ag were extracted by a hot acid method, and their concentration determined by Atomic Absorption. Sn was analyzed by emission spectrometry. A specific ion electrode method was used for the F- analyses. A hot acid digestion and titration method was used to determine Fe^{+2}. Total iron is reported as FeO. The contribution of total iron to the sum is calculated as Fe_2O_3.

The detection limits for some of the trace elements are:

Ag	1 ppm
W	20 ppm
Sn	3 ppm
U	10 ppm with high Th
U	1 ppm
Tg	1 ppm

The normative calculation is based on a CIPW norm as modified by Irvine and Baragar (1971).

Three splits of a control sample were analyzed. The triplicate results give a measure of the variation caused by analytical precision, sample preparation and sample homogeneity.

Conclusions

Analytical results from the 1979 sampling program are not yet available in any quantity for study. However, the 1978 data has been studied in some detail. Table IV gives the normal chemical and trace element compositions for "type" Cobequid rocks. Normative mineralogy (Irvine and Baragar, 1971) is also included in the table.

Noticeable in the results of the analyses, is the lack of any strong correlation of trace elements. Localized affinities exist; however, their significance is unknown. High fluorine is often related to zinc anomalies and intermittently with high lead and tin values. Copper values tend to be somewhat erratic in distribution and in relationship to other trace elements. Tin and tungsten are often spatially related to granite contact zones, but no anomalies of any extent were found. Uranium shows no strong affinity for any single trace element. Some strong but localized associations between uranium, tin, tungsten and zinc can be found - especially near Debert Lake. A uranium-silver relationship can be found locally in the J. Zone near Swan Brook.

The whole rock program for major oxides indicates that three different types of alteration are operative within the Earltown volcanics. The first type is indicated by depletion of silica, and sodium enrichment. This is commonly found near mafic intrusives and is referred to as J-Zone type - first identified near Juniper Lake. The second type is identified by weak to moderate potassium enrichment of unknown origin. The third type is typified by enrichment of silica and potassium, and some increase in tin-tungsten levels.

Zones of chemical alteration appear to be related to intrusives, stratigraphic horizons and faults. Locally, trace element concentrations and chemical alteration appear to be related. This is suspected to be related to faulting and movement of granitic or dioritic fluids along these channelways. These elements include zinc, lead, silver and fluorine. Some high rare earth levels have also been noted in fault zones near granite contacts.

TABLE IV

TYPICAL CHEMICAL COMPOSITION FOR
THE COMMON ROCK UNITS IN THE AREA

	FRENCH RIVER DIAMOND BROOK BASALTS				FLOW LAYERED RHYOLITE	IGNIMBRITES		TUFF (ASH FALL)
SAMPLE #	B3021	B3022	B3023	B3024	C6672	C6756	C6757	C6751
SiO_2	46.87	5.51	44.94	49.31	78.39	78.8	78.5	65.5
Al_2O_3	13.39	12.44	14.56	15.62	12.62	11.3	10.1	15.5
CaO	9.37	6.39	10.55	9.79	0.22	0.59	0.78	0.22
MgO	4.77	4.21	6.11	5.98	0.28	0.22	0.13	2.39
Na_2O	3.49	4.01	2.76	2.62	1.21	4.62	0.36	0.28
K_2O	1.00	0.25	0.63	0.41	5.68	0.67	6.99	9.64
FeO	15.69	16.19	16.47	12.82	1.44	3.38	2.79	5.49
MnO	0.27	0.27	0.24	0.27	0.02	0.08	0.03	0.15
TiO_2	4.37	4.22	3.42	2.98	0.12	0.27	0.22	0.37
P_2O_5	0.81	0.51	0.32	0.20	0.01	0.01	0.02	0.09
LOI	3.80	3.35	3.16	3.02	1.18	0.53	1.80	5.00
SUM	97.60	97.77	98.25	96.56	99.61	98.6	100.9	100.5
U	0	0	0	0	5	9	6	6
Th	0	20	0	0	12	22	21	18
Cu	30	10	40	40	19	24	15	17
Zn	180	150	190	110	46	92	53	120
Ag	-	-	-	-	0	1	1	1
Pb	60	0	180	0	5	5	5	10
F-	-	-	-	-	260	150	140	870
Sn	-	-	-	-	0	3	3	3
W	-	-	-	-	0	20	20	20
Zr	460	420	220	240	-	-	-	-
Qtz	-	7.53	-	3.46	48.65	47.04	47.59	21.45
Cor	-	-	-	-	4.09	1.95	0.62	4.42
Or	5.83	1.46	3.66	2.41	33.57	3.98	41.23	56.68
Ab	28.90	33.39	22.98	21.87	10.20	39.01	3.00	2.36
An	17.64	14.98	25.13	29.18	1.03	2.85	3.70	0.52
Rn	3.49	4.86	0.17	7.69	0.66	0.28	0.11	4.63
Fs	5.64	9.43	0.25	8.39	0.04	1.73	0.75	5.04
Mt	8.54	8.33	7.18	6.57	-	2.62	2.52	3.33
Il	8.15	7.89	6.40	5.57	0.05	0.52	0.42	1.37
Ap	1.85	1.16	0.74	0.46	0.03	0.02	0.05	0.20
Di	7.96	4.08	9.00	7.38	-	-	-	-
He	11.22	6.90	11.41	7.02	-	-	-	-
Fo	0.29	-	5.02	-	-	-	-	-
Fa	0.51	-	8.05	-	-	-	-	-
Hm	-	-	-	-	1.60	-	-	-
Ru	-	-	-	-	0.10	-	-	-

TABLE IV (CONT'D)

	DEBERT LAKE GRANITES				BYERS LAKE GRANITES		
SAMPLE #	B3001	B3002	B3003	B3077	C5221	C5223	C6760
SiO_2	71.64	71.42	74.96	70.42	74.6	74.3	76.6
Al_2O_3	14.75	14.42	13.26	14.82	11.0	13.0	11.5
CaO	2.23	2.47	1.18	2.72	0.42	0.51	0.14
MgO	0.71	0.93	0.40	0.81	0.08	0.13	0.04
Na_2O	4.05	3.96	4.13	3.66	4.35	4.15	4.16
K_2O	3.28	2.60	4.43	2.91	4.07	4.80	4.29
FeO	2.89	3.43	1.25	3.91	3.93	2.40	3.10
MnO	0.06	0.08	0.03	0.10	0.08	0.04	0.06
TiO_2	0.33	0.58	0.34	0.59	0.21	0.24	0.14
P_2O_5	0.04	0.07	0.03	0.07	0.00	0.02	0.00
LOI	0.98	1.04	0.61	1.32	0.75	0.36	0.29
SUM	98.13	98.86	98.97	98.30	100.0	100.2	98.2
U	0	0	0	0	-	-	9
Th	0	0	0	10	-	-	39
Cu	40	10	0	10	-	-	20
Zn	40	120	20	50	-	-	53
Ag	-	-	-	-	-	-	1
Pb	40	20	20	10	-	-	45
F-	-	-	-	-	-	-	570
Sn	-	-	-	-	-	-	15
W	-	-	-	-	-	-	20
Zr	160	300	240	310	-	-	-
Qtz	-	11.75	-	20.55	32.5	30.6	35.03
Cor	0.58	0.78	-	0.87	0.0	0.1	
Or	19.34	15.31	-	17.14	24.4	28.4	25.34
Ab	34.15	33.30	-	30.78	34.4	35.2	35.14
An	10.72	11.70	-	12.99	0.0	2.4	-
En	0.96	1.26	-	1.16	0.1	0.1	0.04
Fs	1.23	1.59	-	2.17	2.6	0.3	1.16
Mt	2.72	3.05	-	3.09	1.2	2.1	2.41
Il	0.63	1.09	-	1.12	0.4	0.5	0.26
Ap	0.10	0.17	-	0.15	0.0	0.0	0.01

TABLE IV (CONT'D)

DIORITES

SAMPLE #	B3134	B3278	C5200	C5193
SiO_2	48.08	53.26	47.2	48.9
Al_2O_3	12.76	20.33	12.9	14.5
CaO	8.84	8.70	8.93	9.22
MgO	5.40	1.51	5.94	5.75
Na_2O	3.01	5.31	3.80	3.09
K_2O	2.30	1.93	0.91	1.14
FeO	15.20	3.61	13.7	12.0
MnO	0.36	0.28	0.34	0.26
TiO_2	3.43	1.54	2.86	2.23
P_2O_5	0.62	0.22	0.51	0.33
LOI	1.67	3.13	2.58	1.42
SUM	97.36	97.84	101.2	100.1
U	-	-	-	-
Th	-	-	-	-
Cu	-	-	-	-
Zn	-	-	-	-
Ag	-	-	-	-
Pb	-	-	-	-
F-	-	-	-	-
Sn	-	-	-	-
W	-	-	-	-
Zr	-	-	-	-
Qtz	-	-	0.0	0.0
Cor	-	-	0.0	0.0
Or	13.39	11.34	5.4	6.8
Ab	25.13	37.89	32.6	26.5
An	14.28	25.75	15.6	22.6
En	1.45	-	0.0	6.7
Fs	2.17	-	0.0	7.5
Mt	7.18	4.51	6.4	5.5
Il	6.42	2.90	5.5	4.3
Ap	1.42	0.51	1.2	0.8

5.0 PROSPECTING

A prospecting program is being carried out on Cobequid IV. It began in May, 1979; its purpose to evaluate the potential of the Earlton Sequence. Crews consisted of two-man teams of senior prospectors, each equipped with Scintrex BGS-1SL scintillometers for measuring radioactivity.

Anomalous areas were covered by closely-spaced traverses until a source of radioactivity was isolated. Samples were collected and evaluated with a discriminating scintillometer (Scintrex GAD-6 and McPhar TV-1) to determine the nature of the radioactivity. Field observations and sample locations were plotted on Lands and Forests 1 in:1/4 mi. maps and 1 in:400 feet maps of the Swan Brook grid.

Anomalies were associated with felsic volcanics and granites with high background radioactivity.

Additional work is being carried out over the Whirleywaugh-Johnston Lake area.

6.0 REVERSE CIRCULATION DRILLING

6.1 INTRODUCTION

A deep overburden drilling program was started in the Highlands during September, 1979, and is continuing at this moment. A total of 200 holes are planned to be completed along already existing roads in the uplands bush. This drilling is being performed by St. Lambert Drilling Co. Ltd. from Valleyfield, Quebec, using an ACKER drill, converted to dual-tube reverse circulation.

6.2 PURPOSE

The purposes of the 1979 reverse circulation program are:

(1) to determine whether trace element anomalies are associated with recently defined north-south conductors in the Cobequid Highlands; and,

(2) to act as a means of obtaining bedrock samples, while at the same time geochemically investigating for the source area of radioactive boulders found on surface. Because of low cost per hole, a maximum amount of coverage can be attained.

6.3 PROCEDURE

Overburden samples are obtained at 5' intervals, and are initially put through a +10 seive. The coarser fraction is examined and an effort is made to determine the dominant rock lithology. The -10 fraction is later seived and the -80 fraction sent for analysis. When bedrock is reached, three samples are obtained, each of about 3' intervals. These samples are also put through a +10 seive initially. The coarser fraction is retained for microscope examination as to lithology and degree of alteration. The fraction less than +10 is analysed for major oxides and the trace element suite normally used on outcrop samples, (U, Th, Sn, F, W, Mo, Cu, Pb, Zn, and Ag).

6.4 CONCLUSIONS AND RECOMMENDATIONS

Because the program is continuing at the moment of the writing of this report, no comments are possible at this time. They will follow in a supplementary report, to be submitted later.

7.0 GEOPHYSICAL SURVEY

7.1 INTRODUCTION

Geological mapping in the Cobequids has indicated that rock units are often discontinuous along strike. Several known contacts are off-set along what are apparently north-south faults. These presumed faults usually correspond to pronounced topographic features such as valleys. Many such valleys are found to cut the mountains at random orientations. A great number of north-south trending faults have been suspected, but because of the location of V.L.F. transmitter stations, surveys have been performed only on the north-south lines of the Swan Brook grid, and these faults have never been geophysically substantiated. An EM-16 survey was carried out over the grid area on east-west traverses using a portable long-wire transmitter. In an effort to substantiate these proposed faults, a portable transmitter was set up (in 1979) and E-W, pace and compass lines were surveyed across the grid.

7.2 PROCEDURE

A V.L.F. (TX-27) transmitter was deployed utliizing a north-south orientation of the antenna wire along existing grid lines. Two geophysical operators each equipped with an EM-16 traversed, via pace and compass, east-west on lines spaced 400' apart. They commenced their survey no closer than 2,000' from the long-wire antenna and maintained readings until resolution of the in-phase and out of phase signals exceeded $\pm$ 5%, usually at about 7,000' distance.

Readings were taken on 100' paced intervals using the grid lines as tie in points. As each block of ground was completed, the transmitter and antenna were moved to an adjacent site with care taken to effectively "block in" the effective working area. All information was plotted on 1" = 400' base maps of the grid.

7.3 RESULTS AND INTERPRETATIONS

The survey did not effectively delineate the many presumed north-south conductive zones cutting the Earltown Sequence in the Cobequid Highlands. However, some conductors were found which may or may not have any topographical expression. Often they are found in swams of many parallel conductors. Grouping of conductors may be related to parasitic-type faulting. However, because all stations were paced between lines, and because some reference lines were missed during any given east-west traverse, it is apparent that data points are shifted somewhat with respect to each other. They can be in error by as much as $\pm$ 50' - possibly even 100' in extreme cases. This necessitated our shifting the data points, as plotted, so as to best fit our grid base map. As a result, conductors are not precisely fixed on the grid map, but are instead either transposed slightly east or west of their actual location. By using two or more lines as reference, conductors may be more satifactorily located in the field.

7.4 RECOMMENDATIONS

Due to the effort required in laying out the long line antenna, this is a procedure which is valid only for running a multiple of traverses from each transmitter location, (i.e. otherwise one would use portable EM loops such as Max Min II or Crone E.M.). In addition, it appears that power requirements have proven insufficient for both resolution of the sub surface features, and the distance that can be surveyed away from each transmitter set up. As such, shortening the length of the antenna wire to provide more power would likewise reduce the width of the block to be surveyed. Simultaneously, this would require more transmitter set ups and hence, a heavier cost in time and moving. Thus, this type of survey is not feasable in the authors opinion, unless (1) there is minimal overburden cover in the area to be surveyed, or (2) the Navey's V.L.F. transmitters are too remote to provide resolution at any orientation, or (3) one is looking for some very generalized feature such as a geological contact between rock types to two very different resistivities (it is here noteworthy to say that this procedure did not distinguish the contacts between granite, rhyolite, and diabase in the Cobequids).

8.0 CONCLUSIONS AND RECOMMENDATIONS

With much data, particularly analytical data, outstanding at this time, a certain amount of speculation is required to arrive at any conclusions with regard to this years work. Hence, current thinking is tempered by thoughts drawn from the 1978 program.

It is at once apparent that geological mapping, in fine detail (1" = 100'), is the only form of mapping in the Highlands able to give any reflection of the complexity of the geology. Mapping should concentrate on limited areas (say, 1 square mile blocks), and movement to other areas allowed only when the "picture" of the first block is complete. Reconnaissance mapping, 1/4 mile mapping and even 1" = 400' mapping of large areas do not provide adequate information for initiating precision-type follow-up work such as diamond drilling or for geophysical interpretation.

Soil geochemistry and trace element study continues to provide uranium and base metal anomalies. Because these are transported anomalies, difficulty arises in fully evaluating their meaning. It is evident that, to a moderate degree, mineralized boulder fields are reflected by soil anomalies.

Pleistocene mapping has been extremely successful in determining till stratigraphy and transport direction. Because this program is somewhat long range, it remains to be seen whether it will pay off. However, we now have an understanding of Cobequid glaciation which was completely lacking prior to 1979.

Prospecting continues to be a reliable exploration tool in that our prospectors are able to outline new mineralized boulder-fields. These areas give us targets around which to concentrate our mapping and geochem surveys.

The reverse circulation program is still in progress. Comment at this time would be inappropriate.

The 1979 field season has certainly been a successful one for Gulf Minerals. Our knowledge of bedrock geology, pleistocene geology, and rock geochemistry has expanded many fold. Our work has eliminated some ground as being of low priority while stirring interest in adjacent areas. We remain convinced of the probability of economic mineralization in the Cobequid Uplands.

APPENDIX I

"A"

SAMPLE	RR0201MT	RR0202MT	RR0875MT	RR0876MT	RR0877MT	RR0878MT	RR0879MT	RR0880MT	RR0881MT	RR0882MT
SIO2	92.5	76.9	73.1	75.4	77.3	75.8	-1000.00	51.8	73.9	74.9
AL203	2.05	9.35	11.1	11.1	10.6	10.6	-1000.00	13.0	11.3	11.0
CAO	0.19	0.17	0.59	0.36	0.33	0.42	-1000.00	5.69	0.34	0.20
MGO	0.00	0.00	0.71	0.42	0.23	0.30	-1000.00	6.45	0.83	0.96
NA20	0.01	0.00	1.19	2.33	3.20	3.06	-1000.00	1.86	2.44	0.18
K20	1.42	6.21	5.43	4.64	3.53	3.59	-1000.00	2.66	3.24	6.70
FEO	0.76	3.14	3.12	2.75	2.59	2.39	305.9	11.8	3.62	1.94
MNO	0.11	0.15	0.16	0.14	0.13	0.14	-1000.00	0.34	0.13	0.15
TIO2	0.07	0.36	0.36	0.26	0.17	0.16	-1000.00	2.02	0.32	0.07
P205	0.02	0.02	0.06	0.03	0.02	0.02	-1000.00	0.28	0.05	0.01
L.O.I.	0.31	1.85	1.23	0.69	0.46	0.62	100.00	2.85	1.08	1.54
SUM	97.5	98.5	97.4	98.5	98.9	97.4	440.0	100.0	97.7	97.9
FEO/MGO	--	--	4.42	6.62	11.05	7.99	--	1.83	4.37	2.02
K20/K20+NA20	0.99	1.00	0.82	0.67	0.52	0.54	--	0.59	0.57	0.97

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	89.1	54.4	44.5	43.5	44.4	44.3	0.0	6.9	46.3	48.0
C	0.2	2.5	2.5	1.7	0.9	1.0	0.0	0.0	3.4	3.3
OR	8.7	39.1	33.4	28.1	21.2	22.0	0.0	16.2	19.9	41.0
AB	0.1	0.0	10.5	20.1	27.6	26.7	0.0	16.3	21.4	1.6
AN	0.9	0.7	2.6	1.6	1.8	2.0	0.0	19.8	1.4	0.9
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
HE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0
EN	0.0	0.0	1.1	0.5	0.3	0.3	0.0	12.3	1.5	1.8
FS	0.0	0.9	1.8	1.2	1.0	0.8	0.0	12.5	2.8	0.9
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.2	2.8	2.8	2.6	2.5	2.5	0.0	5.3	2.7	2.8
IL	0.1	0.7	0.7	0.5	0.3	0.3	0.0	4.0	0.6	0.1
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
AP	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.7	0.1	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	1	0	23	40	54	53	0	31	50	4
OR	90	98	72	56	42	43	0	31	47	94
AN	9	2	6	3	4	4	0	38	3	2
RECAST TO 100%										
Q	90	58	49	47	47	47	0	12	52	52
OR	9	41	37	30	22	23	0	27	22	45
AN+AB	1	1	14	23	31	30	0	61	26	3

SAMPLE	RR0201MT	RR0202MT	RR0875MT	RR0876MT	RR0877MT	RR0878MT	RR0879MT	RR0880MT	RR0881MT	RR0882MT
F	140	190	690	520	630	360	---	940	480	590
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	13	180	28	6	7	7	7	9	6	5
ZN	9	150	170	150	180	110	200	84	95	100
MO	0	12	0	0	0	0	0	0	0	0
AG	0	1	0	0	0	0	0	0	0	0
SN	0	3	3	5	5	5	25	0	5	5
SB	1.8	1.6	0.5	1.0	0.8	1.2	49.0	0.4	0.9	4.9
W	1	2	5	0	3	4	1	0	0	3
BI	0.3	0.4	0.8	0.6	0.4	0.2	0.8	0.1	0.3	-0.1
PB	0	3	4	2	0	2	420	1	3	3
U	4.9	26.0	8.9	14.0	14.0	9.8	---	1.7	11.0	13.0
TH	5	16	30	34	36	39	---	190	39	47

SAMPLE	RR0883MT	RR0884MT	RR0885MT	RR0886MT	RR0887MT	RR0888MT
SIO2	74.9	78.4	75.8	73.3	74.6	76.3
AL203	11.1	9.68	11.0	11.6	10.7	9.27
CAO	0.17	0.68	0.17	0.82	0.49	0.64
MGO	0.21	0.18	0.53	0.15	0.00	0.76
NA2O	0.00	2.65	0.00	0.43	2.05	1.88
K2O	7.70	2.25	6.68	5.99	5.50	1.54
FEO	1.64	2.38	1.47	3.32	2.79	5.59
MNO	0.14	0.14	0.14	0.13	0.14	0.26
TIO2	0.06	0.43	0.06	0.27	0.23	0.33
P2O5	0.00	0.05	0.01	0.02	0.02	0.11
L.O.I.	1.00	0.62	1.15	1.00	0.15	1.00
SUM	97.1	98.0	97.2	97.4	97.0	98.3
FEO/MGO	7.98	13.02	2.77	22.49	—	7.31
K2O/K2O+NA2O	1.00	0.44	1.00	0.93	0.73	0.45

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8, 523(1971)]

Q	46.5	53.1	51.1	47.1	41.7	56.5
C	2.5	1.5	3.6	3.0	0.5	3.7
OR	47.4	13.6	41.1	36.8	33.6	9.4
AB	0.0	24.7	0.0	3.8	18.0	16.4
AN	0.9	3.2	0.8	4.1	2.4	2.5
LC	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0
HE	0.0	0.0	0.0	0.0	0.0	0.0
EN	0.3	0.1	1.1	0.2	0.0	1.6
FS	0.4	0.4	0.3	1.7	0.7	6.3
FO	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0
MT	1.1	1.3	0.5	2.7	2.6	2.7
IL	0.1	0.8	0.1	0.5	0.5	0.6
CR	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.9	1.1	1.3	0.0	0.0	0.0
AP	0.0	0.1	0.0	0.1	0.0	0.3
PY	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%						
AB	0	60	0	8	33	58
OR	98	33	98	82	62	33
AN	2	8	2	9	4	9
RECAST TO 100%						
Q	49	56	55	51	44	67
OR	50	14	44	40	35	11
AN+AB	1	30	1	9	21	22

SAMPLE	RR0883MT	RR0884MT	RR0885MT	RR0886MT	RR0887MT	RR0888MT
F	470	290	450	280	260	320
CO	---	---	---	---	---	---
NI	---	---	---	---	---	---
CU	4	21	27	17	17	20
ZN	27	87	59	180	64	110
MO	0	0	0	0	0	0
AG	0	0	0	0	0	0
SN	15	0	20	15	3	8
SB	8.0	1.4	1.8	0.9	0.3	0.6
W	3	4	0	3	0	3
BI	-0.1	0.5	0.2	0.5	0.2	0.6
PB	3	2	4	2	2	4
U	16.0	130.0	13.0	320.0	18.0	85.0
TH	46	100	41	24	34	30

SAMPLE	RF000100	RA000600	RA000700	RX000800	RD000900	RD001200	RD001300	RD001400	RC001500	RC001600
SIO2	43.4	73.7	59.2	59.9	75.0	74.1	76.2	60.3	87.3	87.9
AL203	36.4	10.0	17.8	16.5	10.1	12.6	12.8	18.1	3.97	4.16
CAO	0.04	2.52	1.24	0.54	0.18	0.44	0.48	1.36	0.01	0.01
MGO	0.00	0.21	1.19	0.61	0.06	0.45	0.20	0.66	0.19	0.16
NA20	0.00	0.75	1.70	1.79	0.59	3.89	4.42	0.97	0.00	0.00
K20	4.09	4.54	11.9	9.85	6.55	4.60	3.83	12.4	2.39	2.00
FEO	7.08	3.18	3.09	4.30	3.63	1.51	1.41	2.96	2.00	1.68
MNO	0.06	0.09	0.19	0.07	0.08	0.12	0.09	0.08	0.03	0.03
TIO2	0.61	0.22	0.18	0.76	0.21	0.18	0.17	0.17	0.28	0.15
P205	0.06	0.02	0.03	0.25	0.03	0.03	0.03	0.05	0.12	0.05
L.O.I.	6.90	1.42	1.20	2.44	0.42	0.77	0.63	1.02	1.52	0.91
SUM	99.4	97.0	98.0	97.4	97.3	98.8	100.4	98.4	98.0	97.2
FEO/MGO	---	14.80	2.60	7.04	65.62	3.34	6.98	4.47	19.40	10.59
K20/K20+NA20	1.00	0.86	0.88	0.85	0.92	0.54	0.46	0.93	1.00	1.00

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	26.8	48.2	0.0	10.4	46.7	32.9	34.6	2.8	80.7	83.0
C	34.8	0.0	0.0	2.6	1.8	0.5	0.5	0.6	1.4	2.1
OR	26.3	28.1	72.6	61.4	40.1	27.7	22.7	75.6	14.6	12.3
AB	0.0	6.7	14.8	15.9	5.2	33.6	37.5	8.4	0.0	0.0
AN	0.0	11.1	5.9	1.1	0.8	2.1	2.2	6.6	0.0	0.0
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HE	0.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EN	0.0	0.2	0.1	0.8	0.1	1.0	0.4	1.1	0.1	0.2
FS	7.4	1.0	0.1	2.2	2.3	0.2	0.1	1.9	0.2	0.2
FO	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	3.3	2.6	2.5	3.4	2.6	0.0	0.0	2.5	0.6	0.3
IL	1.3	0.4	0.4	1.5	0.4	0.3	0.2	0.3	0.5	0.3
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.0	0.0	0.0	0.0	1.7	1.6	0.0	1.4	1.5
AP	0.1	0.0	0.1	0.6	0.1	0.1	0.1	0.1	0.3	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	15	16	20	11	53	60	9	0	0
OR	100	61	78	78	87	44	36	83	100	100
AN	0	24	6	1	2	3	4	7	0	0
RECAST TO 100%										
Q	50	51	0	12	50	34	36	3	65	87
OR	50	30	78	69	43	29	23	81	15	13
AN+AB	0	19	22	19	6	37	41	16	0	0

SAMPLE	F000100	RA000600	RA000700	RX000800	RD000900	RD001200	RD001300	RD001400	RC001500	RC001600
F	530	9700	250	410	150	150	130	150	140	130
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	6	20	29	62	22	42	88	22	40	52
ZN	38	120	70	320	140	110	140	72	14	10
MO	0	0	3	2020	6	3	0	4	11	4
AG	0	0	47	3	0	0	0	0	0	0
SN	10	8	0	3	3	0	0	0	0	0
SB	---	---	---	---	---	---	---	---	---	---
W	22	2	0	4	1	0	2	2	2	2
BI	---	---	---	---	---	---	---	---	---	---
PB	9	46	150	1130	180	270	321	46	100	85
U	13.0	8.0	1380.0	560.0	680.0	340.0	230.0	720.0	41.0	19.0
TH	78	30	23	17	12	36	25	4	110	36

SAMPLE	RC001700	RD085100	RA085200	RA085300	RA085400	RB250100	RB250200	RA250300	RA250700	RD251000
SIO2	86.0	84.2	76.7	78.0	76.4	72.2	76.6	74.6	74.4	58.5
AL203	3.44	6.68	10.4	6.44	10.2	11.7	9.94	8.42	10.4	17.1
CAO	0.01	0.08	0.09	3.65	0.35	0.14	0.53	0.52	0.53	1.47
MGO	0.34	0.23	0.18	0.89	0.05	0.03	0.30	0.01	0.19	1.13
NA20	0.00	0.00	0.00	0.47	1.81	0.00	1.92	1.05	1.80	0.97
K20	1.54	2.09	4.26	1.80	4.90	8.75	4.39	4.83	4.71	11.7
FEO	3.09	1.66	3.84	2.33	2.33	2.74	2.69	5.28	3.42	3.79
MNO	0.03	0.05	0.04	0.06	0.07	0.05	0.05	0.10	0.05	0.23
TIO2	0.29	0.13	0.29	0.36	0.21	0.24	0.23	0.18	0.34	0.18
P205	0.13	0.05	0.03	0.11	0.02	0.07	0.08	0.50	0.05	0.05
L.O.I.	1.83	1.78	2.25	2.67	0.49	1.12	1.03	1.08	0.75	1.98
SUM	97.0	97.2	98.5	97.0	97.1	97.3	98.1	97.2	97.1	97.6
FEO/MGO	9.19	7.13	21.21	2.61	42.79	93.40	8.86	---	18.13	3.34
K20/K20+NA20	1.00	1.00	1.00	0.79	0.73	1.00	0.70	0.82	0.72	0.92

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8, 523(1971)]

Q	83.1	79.5	61.4	64.7	48.0	39.9	48.6	49.6	45.8	2.0
C	1.9	4.6	6.0	0.0	1.4	2.2	1.3	1.5	1.6	0.3
OR	9.5	13.0	26.2	11.3	30.0	53.8	26.7	29.8	28.9	72.5
AB	0.0	0.0	0.0	4.2	15.9	0.0	16.7	9.3	15.9	8.6
AN	0.0	0.1	0.3	10.7	1.7	0.2	2.2	0.0	2.4	7.3
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0
HE	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
EN	0.4	0.4	0.3	0.0	0.0	0.0	0.3	0.0	0.2	2.4
FS	1.4	0.3	2.5	0.0	0.2	0.5	1.0	5.6	1.6	3.8
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	2.7	0.4	2.7	1.3	2.2	2.6	2.6	2.6	2.8	2.5
IL	0.6	0.3	0.6	0.7	0.4	0.5	0.4	0.4	0.7	0.4
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	1.4	0.0	1.1	0.3	0.0	0.0	0.0	0.0	0.0
AP	0.3	0.1	0.1	0.3	0.0	0.2	0.2	1.2	0.1	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	0	0	16	33	0	37	24	34	10
OR	100	99	99	43	63	100	59	76	61	82
AN	0	1	1	41	4	0	5	0	5	8
RECAST TO 100%										
Q	90	86	70	71	50	42	52	56	49	2
OR	10	14	30	12	31	57	28	34	31	80
AN+AB	0	0	0	16	18	0	20	10	20	18

SAMPLE	C001700	RD085100	RA085200	RA085300	RA085400	RB250100	RB250200	RA250300	RA250700	RD251000
F	140	340	250	19000	170	340	140	270	210	280
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	55	8	8	10	10	25	14	18	22	34
ZN	15	34	77	82	56	95	200	140	110	81
MO	5	0	3	640	0	12	14	29	6	3
AG	0	0	0	4	0	0	0	0	0	55
SN	0	8	15	3	5	5	3	8	15	0
SB	---	---	---	---	---	---	---	---	---	---
W	2	1	2	3	1	3	2	8	4	0
BI	---	---	---	---	---	---	---	---	---	---
PB	71	18	77	56	29	210	270	180	34	150
U	83.0	130.0	19.0	110.0	20.0	35.0	9.0	98.0	69.0	1760.0
TH	210	9	37	24	34	110	130	890	37	23

SAMPLE	RR001800	RR002000	RR002100	RC002200	RC002300	RR027100	RF027300	RR027600	RE028400	RE028600
SIO2	75.1	76.8	45.7	78.1	73.7	47.9	-1000.00	76.3	79.6	68.2
AL203	11.8	11.8	18.7	8.74	8.75	14.1	-1000.00	11.7	9.36	15.1
CAO	0.52	0.88	2.55	0.22	0.14	7.52	-1000.00	0.28	1.69	0.96
MGO	0.50	0.59	4.63	0.50	0.60	5.67	-1000.00	0.11	1.14	2.02
NA20	4.29	1.14	0.86	1.29	0.64	4.05	-1000.00	2.59	2.55	3.34
K20	2.56	5.10	6.13	4.96	5.63	1.02	-1000.00	5.50	0.85	2.55
FEO	2.48	1.42	12.8	2.41	2.26	12.1	1259.7	1.31	1.61	3.77
MNO	0.30	0.10	0.98	0.04	0.04	0.36	-1000.00	0.05	0.11	0.14
TIO2	0.10	0.11	3.75	0.12	0.12	2.50	-1000.00	0.17	0.51	0.75
P205	0.02	0.02	0.56	0.02	0.02	0.34	-1000.00	0.03	0.07	0.15
L.O.I.	1.08	1.08	2.85	0.54	0.77	3.08	100.00	0.31	1.08	2.46
SUM	99.1	99.1	100.9	97.2	92.9	100.0	1500.0	98.5	98.7	99.9
FEO/MGO	4.94	2.41	2.77	4.82	3.78	2.13	—	11.64	1.42	1.81
K20/K20+NA20	0.37	0.82	0.98	0.79	0.90	0.20	—	0.68	0.25	0.43

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	38.9	48.8	3.8	52.0	51.2	0.0	1.7	40.2	57.7	34.9
C	1.1	2.9	7.5	0.9	1.5	0.0	0.3	1.0	1.4	5.6
OR	15.5	30.8	36.9	30.3	36.1	6.2	0.0	33.1	5.1	15.4
AB	37.0	9.8	7.4	11.3	5.8	35.4	0.0	22.3	22.1	28.9
AN	2.5	4.3	9.1	1.0	0.6	17.8	0.0	1.2	8.1	3.9
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	7.7	7.4	0.0	0.0	0.0
HE	0.0	0.0	0.0	0.0	0.0	7.6	29.2	0.0	0.0	0.0
EN	0.8	1.4	7.8	0.7	0.9	2.0	22.3	0.2	2.8	3.7
FS	1.6	0.2	11.2	1.0	0.9	2.3	0.0	0.1	0.2	2.4
FO	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0
MT	2.4	0.0	7.7	2.4	2.5	6.0	3.2	0.0	0.0	3.3
IL	0.2	0.2	7.2	0.2	0.2	4.9	4.3	0.1	0.2	1.5
CR	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0
HM	0.0	1.6	0.0	0.0	0.0	0.0	5.4	1.5	1.8	0.0
AP	0.1	0.0	1.3	0.0	0.0	0.8	7.5	0.1	0.2	0.4
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.1	0.4	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	67	22	14	26	14	60	0	39	63	60
OR	28	69	69	71	85	10	0	58	15	32
AN	5	10	17	2	1	30	0	2	23	8
RECAST TO 100%										
Q	41	52	7	55	55	0	100	42	62	42
OR	16	33	64	32	39	10	0	34	6	19
AN+AB	42	15	29	13	7	90	0	24	32	39

SAMPLE	R001800	RR002000	RR002100	RC002200	RC002300	RR027100	RF027300	RR027600	RE028400	RE028600
F	280	580	1500	260	360	560	---	210	380	640
CO	---	---	---	---	---	29	---	0	11	30
NI	---	---	---	---	---	15	---	6	17	24
CU	22	31	59	9	11	50	15	10	11	13
ZN	220	47	250	74	87	180	77	36	17	39
MO	---	---	---	---	---	0	0	0	0	0
AG	10	2	0	0	0	0	1	0	1	0
SN	0	0	0	3	3	0	0	0	0	0
SB	---	---	---	---	---	---	---	---	---	---
W	0	0	17	3	0	0	1	0	0	7
BI	---	---	---	---	---	-0.1	---	0.1	0.2	1.1
PB	220	76	41	3	3	6	3	34	9	29
U	1390.0	2060.0	187.0	5.8	4.6	0.9	1.4	7.1	26.0	355.0
TH	0	0	0	25	27	0	7	27	8	0

SAMPLE	RE028800	RC028900	RA029000	RR029100	RE029400	RR029500	RR029600	RR029700	RR029800	RR029900
SIO2	68.1	45.7	45.9	75.1	64.8	-1000.00	80.5	76.6	43.8	75.3
AL203	14.2	14.7	15.9	12.5	12.4	-1000.00	8.86	10.9	15.2	12.4
CAO	0.65	6.22	9.71	0.28	7.31	-1000.00	0.06	0.77	7.15	3.11
MGO	2.02	6.39	8.23	0.22	1.74	-1000.00	0.52	0.56	5.87	1.15
NA2O	1.93	3.34	2.21	2.50	1.22	-1000.00	0.60	2.97	3.69	1.08
K2O	3.41	1.21	0.88	5.32	1.99	-1000.00	1.73	2.22	0.37	2.13
FEO	2.96	14.6	10.7	1.57	2.72	305.9	2.44	1.32	11.5	1.65
MNO	0.07	0.25	0.25	0.04	0.11	-1000.00	0.04	0.05	0.61	0.06
TIO2	0.77	2.66	1.81	0.25	0.84	-1000.00	0.57	0.10	3.95	0.17
P2O5	0.11	0.35	0.24	0.05	0.16	-1000.00	0.07	0.03	2.15	0.03
L.O.I.	2.62	2.69	3.00	0.46	6.23	100.00	3.15	1.69	3.15	1.77
SUM	97.2	99.8	100.0	98.5	99.8	440.0	98.8	97.3	98.7	99.1
FEO/MGO	1.47	2.29	1.30	7.26	1.56	--	4.73	2.37	1.97	1.44
K2O/K2O+NA2O	0.64	0.27	0.28	0.68	0.62	--	0.74	0.43	0.09	0.66

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	41.9	0.0	0.0	40.1	37.4	1.6	72.7	50.6	2.0	54.0
C	6.8	0.0	0.0	2.3	0.0	0.1	6.3	2.3	0.9	2.8
OR	21.2	7.4	5.3	32.1	12.5	0.0	10.7	13.7	2.3	12.9
AB	17.2	29.2	19.3	21.6	11.0	0.0	5.3	26.3	32.4	9.4
AN	2.7	22.3	31.8	1.1	24.0	0.0	0.0	3.8	22.2	15.6
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	41.1	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
DI	0.0	2.9	8.2	0.0	8.1	33.0	0.0	0.0	0.0	0.0
HE	0.0	3.2	5.0	0.0	2.2	19.5	0.0	0.0	0.0	0.0
EN	4.2	4.3	7.2	0.5	0.0	0.9	0.8	1.4	10.0	2.7
FS	1.5	5.5	5.1	0.1	0.0	0.0	0.7	0.1	9.1	0.4
FO	0.0	5.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	7.5	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ND	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	1.0	6.2	4.9	0.0	0.0	0.0	0.3	0.0	8.2	0.2
IL	1.5	5.2	3.5	0.1	1.6	1.0	1.1	0.1	7.8	0.3
CR	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
HM	1.7	0.0	0.0	1.8	2.5	0.0	1.9	1.5	0.0	1.6
AP	0.3	0.8	0.6	0.1	0.4	0.0	0.2	0.1	5.2	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	42	50	34	39	23	0	33	60	57	25
OR	52	13	9	59	26	0	67	31	4	34
AN	6	38	56	2	50	0	0	9	39	41
RECAST TO 100%										
Q	51	0	0	42	44	100	82	54	3	59
OR	26	13	9	34	15	0	12	15	4	14
AN+AB	24	87	91	24	41	0	6	32	93	27

SAMPLE	E028900	RC028900	RA029000	RR029100	RE029400	RR029500	RR029600	RR029700	RR029800	RR029900
F	640	890	420	210	670	340	260	260	1600	350
CO	20	30	23	2	12	---	6	0	27	2
NI	20	36	41	3	26	---	19	5	2	3
CU	10	42	87	14	13	4	19	7	11	19
ZN	25	37	630	23	29	45	22	17	140	20
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	0	0	0	0	2	0	1	0
SN	0	0	0	0	0	0	3	0	0	3
SB	---	---	---	---	---	---	---	---	---	---
W	0	5	0	0	9	2	0	0	0	0
BI	0.8	0.2	-0.1	0.2	0.6	---	0.3	-0.1	-0.1	0.3
PB	7	0	69	60	4	15	2	0	0	0
U	83.0	0.8	0.4	5.6	45.0	3.5	2.4	4.1	1.2	6.0
TH	14	0	0	30	18	21	12	18	9	37

SAMPLE	RR030000	RR051600	RR051700	RR085500	RR085600	RR085700	RR085800	RR085900	RR086000	NC215100
SIO2	74.1	60.9	56.6	62.9	76.0	36.7	77.0	73.1	71.4	68.8
AL2O3	12.0	17.6	16.9	18.7	9.22	7.53	9.13	13.6	12.5	13.6
CAO	0.23	0.52	0.41	1.73	0.23	24.6	0.18	0.33	0.18	0.12
MGO	0.40	0.62	0.52	0.33	0.75	0.73	0.17	0.26	0.28	0.38
NA2O	2.22	1.57	1.13	7.53	0.47	0.92	0.64	6.44	1.31	1.60
K2O	5.37	12.1	11.5	4.13	6.45	1.40	6.50	1.28	7.50	5.10
FEO	1.52	2.06	1.78	2.10	3.22	3.36	2.36	2.12	2.96	1.04
MNO	0.04	0.07	0.06	0.18	0.38	0.20	0.09	0.20	0.34	0.04
TIO2	0.21	0.16	0.13	0.21	0.10	0.51	0.10	0.16	0.15	0.10
P2O5	0.04	0.17	0.18	0.05	0.02	7.86	0.04	0.03	0.02	0.01
L.O.I.	0.77	1.23	1.46	0.92	1.31	12.23	0.85	1.15	1.08	1.62
SUM	97.0	97.2	90.8	99.0	98.5	96.4	97.3	98.9	98.1	92.6
FEO/MGO	3.79	3.33	3.41	6.32	4.31	4.60	14.02	8.10	10.45	2.77
K2O/K2O+NA2O	0.71	0.88	0.91	0.35	0.93	0.60	0.91	0.17	0.85	0.76

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	41.1	4.2	5.3	0.0	47.2	7.9	49.4	30.4	34.6	43.1
C	2.3	1.5	2.5	0.0	1.1	0.0	0.8	1.1	2.0	5.8
OR	33.0	74.2	76.1	24.9	39.3	9.8	39.9	7.7	45.8	33.2
AB	19.5	13.8	10.7	64.6	4.1	9.2	5.7	55.7	11.5	14.8
AN	0.9	1.5	0.9	5.2	1.0	14.6	0.6	1.5	0.8	0.6
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.8	0.0	2.6	0.0	0.0	0.0	0.0
HE	0.0	0.0	0.0	1.2	0.0	3.9	0.0	0.0	0.0	0.0
EN	1.0	1.0	1.0	0.0	1.5	0.0	0.2	0.2	0.4	1.0
FS	0.1	0.8	0.5	0.0	3.1	0.0	0.7	0.6	2.1	0.1
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.4	0.0	25.7	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.0	1.6	0.9	1.8	2.4	3.5	2.4	2.2	2.5	0.0
IL	0.1	0.3	0.3	0.4	0.2	1.2	0.2	0.3	0.3	0.1
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	1.8	0.6	1.2	0.5	0.0	0.0	0.0	0.2	0.0	1.3
AP	0.1	0.4	0.5	0.1	0.1	21.7	0.1	0.1	0.1	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	37	15	12	68	9	27	12	86	20	31
OR	62	83	87	26	88	29	86	12	79	68
AN	2	2	1	5	2	43	1	2	1	1
RECAST TO 100%										
Q	43	4	6	0	52	19	52	32	37	47
OR	35	79	82	26	43	24	42	8	49	36
AN+AB	22	16	12	74	6	57	7	60	13	17

SAMPLE	R030000	RR051600	RR051700	RR085500	RR085600	RD085700	RR085800	RR085900	RR086000	RC215100
F	410	200	220	180	150	7000	140	110	0	580
CO	2	---	---	---	---	---	---	---	---	---
NI	4	---	---	---	---	---	---	---	---	---
CU	7	690	1700	180	110	74	22	81	72	7
ZN	6	710	1100	110	580	28	130	230	190	21
MO	0	---	---	---	---	---	---	---	---	---
AG	0	36	98	0	11	0	7	0	0	0
SN	0	3	3	0	0	0	0	0	0	3
SB	---	---	---	---	---	---	---	---	---	---
W	4	0	0	12	0	14	0	0	13	4
BI	-0.1	---	---	---	---	---	---	---	---	---
PB	0	1400	1900	72	360	21	220	260	240	2
U	5.0	8710.0	15160.0	360.0	3850.0	83.0	2320.0	305.0	515.0	4.6
TH	25	---	---	36	0	18	0	9	0	36

SAMPLE	RR215200	RR215300	RR215400	RR002700	RR002800	RR007000	RR007200	RR007300	RR007400	RR007500
SIO2	84.9	79.0	68.1	44.6	73.9	80.2	72.5	74.9	46.1	77.2
AL203	8.31	8.70	18.5	7.11	12.4	9.45	12.1	10.9	14.6	12.3
CAO	0.04	0.02	0.36	21.2	2.45	0.07	0.41	0.46	9.85	0.61
MGO	0.28	0.00	1.98	0.98	1.26	0.11	0.11	0.03	6.43	0.30
NA2O	0.32	0.00	0.41	1.22	3.04	0.00	0.08	2.33	2.06	3.56
K2O	2.80	6.52	5.76	1.36	2.54	3.51	6.81	3.91	0.67	3.43
FEO	1.89	3.03	2.77	3.03	3.44	3.08	3.65	3.33	13.5	1.76
MNO	0.06	0.05	0.08	0.29	0.00	0.00	0.00	0.00	0.16	0.00
TIO2	0.21	0.38	0.30	0.40	0.37	0.20	0.35	0.22	2.79	0.20
P2O5	0.03	0.02	0.04	0.11	0.43	0.04	0.04	0.14	0.56	0.05
L.O.I.	1.23	1.69	2.92	17.31	0.62	1.85	1.31	1.15	2.00	0.85
SUM	100.2	99.8	101.5	98.0	100.8	98.8	97.8	97.8	100.2	100.5
FEO/MGO	6.54	--	1.40	3.08	2.72	27.47	33.64	121.81	2.10	5.91
K2O/K2O+NA2O	0.90	1.00	0.93	0.53	0.46	1.00	0.99	0.63	0.25	0.49

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	72.6	55.0	40.4	7.2	40.0	68.2	46.1	46.8	1.7	41.9
C	4.8	1.7	11.1	0.0	1.2	5.8	4.1	2.4	0.0	1.8
OR	16.7	39.4	34.5	10.0	15.0	21.4	41.8	24.0	4.0	20.3
AB	2.8	0.0	3.5	12.7	25.6	0.0	0.7	20.4	17.8	30.2
AN	0.0	0.0	1.5	12.3	9.3	0.1	1.9	1.4	29.1	2.7
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	7.2	0.0
HE	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	7.0	0.0
EN	0.4	0.0	3.8	0.0	2.2	0.1	0.1	0.0	9.6	0.5
FS	0.4	0.4	1.7	0.0	2.2	1.3	1.8	1.5	10.6	0.3
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HO	0.0	0.0	0.0	44.7	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.4	2.8	2.6	3.4	2.7	2.5	2.8	2.6	6.3	0.2
IL	0.4	0.7	0.6	0.9	0.7	0.4	0.7	0.4	5.4	0.4
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
AP	0.1	0.1	0.1	0.3	1.0	0.1	0.1	0.3	1.3	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	14	0	9	36	51	0	2	45	35	57
OR	86	100	87	29	30	99	94	52	8	38
AN	0	0	4	35	19	1	4	3	57	5
RECAST TO 100%										
Q	79	58	51	17	45	76	51	51	3	44
OR	18	42	43	24	17	24	46	26	8	21
AN+AB	3	0	6	59	39	0	3	24	89	35

SAMPLE	RR215200	RR215300	RR215400	RR002700	RR002800	RR007000	RR007200	RR007300	RR007400	RR007500
F	280	150	930	350	6700	240	200	210	570	230
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	12	11	26	28	66	16	14	16	68	12
ZN	14	18	25	62	45	110	97	180	72	50
MO	---	---	---	0	6	88	4	6	0	0
AG	0	0	0	1	0	1	1	0	1	0
SN	0	0	3	0	0	0	0	0	0	0
SB	---	---	---	---	---	---	---	---	---	---
W	0	0	4	0	16	1	2	0	0	0
BI	---	---	---	---	---	---	-0.1	---	---	---
PB	2	0	47	55	25	13	12	14	7	11
U	5.8	13.0	2.9	39.0	69.0	4.1	6.9	2.8	0.5	2.9
TH	24	17	43	7	31	18	22	24	0	24

SAMPLE	RR007600	RR017800	RR017900	RR018100	RR018200	RR027300	RR029500	RR030600	RR086100	RR096200
SIO2	47.6	78.3	76.3	47.6	44.0	49.7	74.6	69.0	60.0	64.5
AL2O3	14.7	10.8	11.5	13.1	16.1	15.6	13.2	14.6	18.2	18.8
CAO	10.8	0.66	0.25	9.00	8.67	6.47	0.21	3.31	0.39	0.30
MGO	7.15	0.41	0.00	5.50	5.39	4.07	0.23	2.83	0.98	0.09
NA2O	2.23	0.88	2.82	2.68	2.95	2.34	2.24	1.64	0.04	11.4
K2O	0.62	5.13	5.83	1.07	1.10	2.14	3.46	3.01	13.6	0.17
FEO	12.0	0.92	1.04	13.6	14.1	11.0	1.69	7.39	2.77	3.24
MNO	0.17	0.00	0.00	0.18	0.11	0.12	0.00	0.08	0.00	0.00
TIO2	2.32	0.10	0.12	2.99	2.95	2.61	0.17	0.75	0.18	0.16
P2O5	0.31	0.03	0.03	0.49	0.55	0.73	0.04	0.22	0.06	0.12
L.O.I.	0.54	1.23	0.38	1.62	2.15	3.54	1.62	0.77	1.23	1.00
SUM	99.8	98.6	98.4	99.4	99.6	99.6	97.7	95.3	97.8	100.1
FEO/MGO	1.68	2.24	---	2.47	2.62	2.71	7.39	2.61	2.83	35.53
K2O/K2O+NA2O	0.22	0.85	0.67	0.29	0.27	0.48	0.61	0.65	1.00	0.01

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	0.3	53.0	37.9	2.2	0.0	8.0	49.6	26.6	5.4	0.0
C	0.0	2.7	0.1	0.0	0.0	0.0	5.7	3.3	2.9	0.0
OR	3.7	31.2	35.2	6.5	6.7	13.2	21.3	18.9	83.2	1.0
AB	19.0	7.7	24.3	23.2	25.7	20.6	19.7	14.8	0.4	90.3
AN	28.6	3.2	1.1	21.2	28.2	26.7	0.8	15.9	1.6	0.0
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
DI	10.8	0.0	0.0	8.4	4.7	0.7	0.0	0.0	0.0	0.0
HE	8.4	0.0	0.0	9.4	5.6	0.8	0.0	0.0	0.0	0.6
EN	9.8	1.0	0.0	6.8	1.0	7.2	0.4	6.3	1.7	0.0
FS	8.7	0.0	0.0	8.7	1.3	9.6	0.2	8.8	1.6	0.0
FO	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.1
FA	0.0	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	1.2
ND	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	5.6	0.0	0.0	6.7	6.6	6.2	0.1	3.5	2.5	2.1
IL	4.4	0.0	0.0	5.8	5.8	5.2	0.3	1.5	0.4	0.3
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	1.0	1.2	0.0	0.0	0.0	1.7	0.0	0.0	0.0
AP	0.7	0.1	0.1	1.2	1.3	1.8	0.1	0.5	0.1	0.3
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	37	18	40	46	42	34	47	30	0	99
OR	7	74	58	13	11	22	51	38	98	1
AN	56	8	2	42	47	44	2	32	2	0
RECAST TO 100%										
Q	1	56	38	4	0	12	54	35	6	0
OR	7	33	36	12	11	19	23	25	92	1
AN+AB	92	11	26	84	89	69	22	40	2	99

SAMPLE	R007600	RR017800	RR017900	RR018100	RR018200	RR027300	RR029500	RR030600	RR036100	RR036200
F	880	460	100	580	700	1400	---	200	170	310
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	96	6	9	53	51	---	---	7	47	120
ZN	70	21	23	110	120	---	---	85	210	250
MO	0	0	0	0	0	---	---	0	130	170
AG	1	1	1	1	0	---	---	0	0	1
SN	0	0	0	0	0	---	---	5	5	10
SB	---	---	---	---	---	---	---	---	---	---
W	2	0	0	0	0	---	---	3	0	0
BI	---	---	---	---	---	---	---	---	---	---
PB	73	28	36	10	0	---	---	10	120	500
U	0.7	160.0	4.7	0.9	0.5	---	---	10.0	500.0	1100.0
TH	0	21	36	3	0	---	---	28	22	0

SAMPLE	RR086300	RR086400	RR086500	RR086600	RR086700	RR002900	RR003000	RR007700	RR007800	RR007700
SIO2	70.3	59.5	70.0	65.9	66.2	60.3	80.0	71.6	49.5	52.3
AL203	13.8	19.5	13.7	15.4	13.2	17.4	8.70	9.33	13.7	14.4
CAO	2.82	1.50	0.46	0.49	0.81	1.70	0.09	4.94	8.39	7.23
MGO	0.08	0.67	0.07	1.26	0.30	0.17	0.51	1.53	5.53	5.21
NA2O	7.85	3.47	6.52	3.25	1.24	9.72	0.47	1.63	3.69	5.17
K2O	0.18	8.52	2.07	6.66	3.92	0.13	4.60	3.00	1.34	1.30
FEO	2.18	2.50	5.14	3.72	6.05	4.32	1.41	4.56	12.5	9.44
MNO	0.00	0.00	0.09	0.00	0.00	0.02	0.06	0.17	0.30	0.19
TIO2	0.15	0.30	0.24	0.59	1.01	0.13	0.10	0.91	2.52	1.81
P2O5	1.49	1.09	0.09	0.10	0.29	1.32	0.03	0.14	0.35	0.32
L.O.I.	0.69	2.15	0.62	1.62	4.92	2.00	1.15	0.38	1.12	0.94
SUM	99.8	99.5	99.4	99.3	98.6	97.7	97.3	98.7	100.3	99.5
FEO/MGO	25.86	3.71	70.45	2.95	19.90	24.81	2.79	2.98	2.27	1.81
K2O/K2O+NA2O	0.02	0.71	0.24	0.67	0.76	0.01	0.91	0.65	0.27	0.20

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	22.7	5.7	21.5	18.8	44.1	1.4	61.1	41.4	0.0	0.0
C	0.0	4.6	0.1	2.2	6.6	1.3	3.0	0.0	0.0	0.0
OR	1.1	51.7	12.4	40.3	24.8	0.8	28.3	18.0	8.0	7.8
AB	67.1	30.1	56.1	28.1	11.2	86.2	4.1	14.0	31.5	43.5
AN	1.9	0.3	1.7	1.8	2.3	0.0	0.3	9.4	17.0	12.5
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.3	9.2	10.0
HE	0.4	0.0	0.0	0.0	0.0	0.0	0.0	5.7	9.7	8.2
EN	0.0	1.0	0.1	2.0	0.4	0.3	1.2	0.0	3.6	0.0
FS	0.0	1.0	4.8	2.2	3.9	4.0	0.1	0.0	4.4	0.0
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	4.1
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	4.3
WO	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	1.8	2.0	2.6	3.1	3.9	2.5	0.0	3.5	5.9	4.9
IL	0.3	0.6	0.5	1.1	2.0	0.2	0.1	1.8	4.8	3.5
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.4	0.5	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0
AP	3.5	2.6	0.2	0.2	0.7	3.2	0.1	0.3	0.8	0.8
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	96	37	80	40	29	99	13	34	56	68
OR	1	63	18	57	65	1	86	44	14	12
AN	3	0	2	3	6	0	1	23	30	20
RECAST TO 100%										
Q	24	7	23	21	53	2	65	50	0	0
OR	1	59	14	45	30	1	30	22	14	12
AN+AB	74	35	63	34	16	97	5	28	86	88

SAMPLE	RR086300	RR086400	RR086500	RR086600	RR086700	RR002900	RR003000	RR007700	RR007800	RR007900
F	1400	900	150	280	850	---	---	---	---	---
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	41	210	54	9	20	150	13	12	41	5
ZN	100	200	58	82	47	200	75	45	75	110
MO	18	1200	22	380	130	---	---	---	---	---
AG	0	8	12	0	1	---	---	---	---	---
SN	50	10	5	3	5	---	---	---	---	---
SB	---	---	---	---	---	---	---	---	---	---
W	0	0	10	2	5	---	---	---	---	---
BI	---	---	---	---	---	---	---	---	---	---
PB	140	810	320	34	440	440	120	34	54	0
U	600.0	480.0	2900.0	36.0	4.7	4050.0	280.0	3.6	1.1	2.6
TH	0	19	0	28	15	---	---	---	---	---

SAMPLE	RR018300	RR018400	RR018500	RR018600	RR018700	RR018800	RR018900	RR019000	RR019100	RR019200
SIO2	77.1	80.3	56.6	47.5	69.0	75.4	45.1	77.5	51.1	75.6
AL203	9.86	9.32	10.5	15.6	11.4	10.8	12.7	10.5	15.1	10.6
CAO	0.21	0.82	0.07	9.31	0.07	0.05	7.94	0.52	5.48	0.42
MGO	0.00	0.58	0.00	4.98	0.19	0.06	4.56	0.07	5.26	0.00
NA20	0.00	0.94	0.02	2.06	0.06	0.00	3.08	2.44	3.37	2.88
K20	7.15	2.90	6.00	1.03	7.15	7.92	1.06	4.35	1.29	4.10
FEO	1.84	2.41	20.3	10.8	6.93	2.72	14.8	2.25	12.5	3.53
MNO	0.04	0.07	0.05	0.23	0.05	0.04	0.53	0.05	0.26	0.03
TIO2	0.29	0.36	0.17	2.24	0.22	0.17	3.83	0.23	2.59	0.22
P205	0.07	0.05	0.04	0.31	0.04	0.02	0.77	0.03	0.47	0.01
L.O I.	1.02	1.08	1.37	1.00	1.62	1.15	1.87	0.90	1.68	0.31
SUM	97.8	99.1	97.4	96.3	97.5	98.6	97.8	99.1	100.5	98.1
FEO/MGO	—	4.18	—	2.18	36.25	47.12	3.25	33.40	2.38	—
K20/K20+NA20	1.00	0.76	1.00	0.33	0.99	1.00	0.26	0.64	0.28	0.59

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	51.1	62.4	19.9	5.1	39.1	45.8	1.3	46.4	4.7	42.4
C	2.0	3.3	4.2	0.0	3.7	2.3	0.0	0.9	0.0	0.7
OR	43.7	17.5	37.9	6.4	44.4	48.1	6.5	26.2	7.8	24.8
AB	0.0	8.1	0.2	18.3	0.5	0.0	27.2	21.0	28.9	25.0
AN	0.6	3.8	0.1	31.7	0.1	0.1	18.4	2.4	22.6	2.1
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	6.2	0.0	0.0	5.9	0.0	0.7	0.0
HE	0.0	0.0	0.0	6.1	0.0	0.0	8.7	0.0	0.8	0.0
EN	0.0	0.8	0.0	7.2	0.4	0.0	5.3	0.0	9.9	0.0
FS	0.0	0.8	34.8	8.2	8.6	0.8	9.0	0.2	12.5	1.9
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.0	1.6	2.6	5.7	2.6	2.5	8.1	1.7	6.0	2.6
IL	0.6	0.7	0.3	4.5	0.4	0.3	7.6	0.4	5.0	0.4
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
AP	0.2	0.1	0.1	0.7	0.1	0.1	1.9	0.1	1.1	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	28	0	32	1	0	52	42	49	49
OR	99	59	99	11	99	100	13	53	13	48
AN	1	13	0	56	0	0	35	5	38	4
RECAST TO 100%										
Q	54	68	34	8	47	49	2	48	7	45
OR	46	19	65	10	53	51	12	27	12	26
AN+AB	1	13	0	81	1	0	85	24	81	29

SAMPLE	RR018300	RR018400	RR018500	RR018600	RR018700	RR018800	RR018900	RR019000	RR019100	RR019200
F	---	---	---	---	---	---	---	---	---	---
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	16	15	44	35	15	10	20	8	46	17
ZN	20	56	32	48	48	28	290	40	96	26
MO	---	---	---	---	---	---	---	---	---	---
AG	---	---	---	---	---	---	---	---	---	---
SN	---	---	---	---	---	---	---	---	---	---
SB	---	---	---	---	---	---	---	---	---	---
W	---	---	---	---	---	---	---	---	---	---
BI	---	---	---	---	---	---	---	---	---	---
PB	16	18	44	12	32	20	80	40	17	26
U	7.7	15.0	400.0	5.7	310.0	38.0	1.1	5.6	2.2	7.0
TH	---	---	---	---	---	---	---	---	---	---

SAMPLE	RR030800	RR030900	RR031000	RR086900	RR087000	RR087100	RR087200	RR087400	RR215500	RR215600
SIO2	76.6	75.2	75.9	82.7	56.0	76.5	78.4	64.7	71.6	82.7
AL203	8.72	10.8	8.59	8.34	14.1	8.69	11.9	9.92	10.2	8.40
CAO	0.25	0.08	0.05	0.29	3.40	2.46	0.03	2.89	0.20	0.18
MGO	0.04	0.00	0.01	0.07	2.53	0.70	0.22	0.98	0.01	0.09
NA2O	0.00	0.00	0.06	0.00	2.18	1.85	0.00	1.79	0.30	0.00
K2O	7.14	9.42	6.76	2.60	2.07	1.40	4.02	2.16	6.92	2.70
FEO	3.45	1.72	3.47	2.43	10.2	3.42	1.55	8.16	3.04	2.31
MNO	0.07	0.01	0.03	0.03	0.23	0.07	0.02	0.10	0.04	0.03
TIO2	0.22	0.15	0.20	0.19	2.50	0.25	0.07	0.56	0.20	0.19
P205	0.03	0.03	0.04	0.02	0.62	0.20	0.01	0.29	0.08	0.02
L.O.I.	1.13	0.54	0.62	2.33	3.69	1.78	2.08	1.69	0.77	1.74
SUM	98.0	98.2	96.2	99.3	98.7	97.7	98.5	94.2	93.7	98.6
FEO/MGO	83.91	--	251.52	35.90	4.06	4.89	7.32	8.36	221.81	25.71
K2O/K2O+NA2O	1.00	1.00	0.99	1.00	0.49	0.43	1.00	0.55	0.96	1.00

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	49.6	40.0	51.2	74.4	25.0	56.2	65.0	38.2	45.9	74.2
C	0.6	0.6	1.2	5.2	3.7	0.1	7.8	0.1	2.2	5.4
OR	43.7	57.1	42.0	15.9	12.9	8.7	24.7	13.9	44.1	16.5
AB	0.0	0.0	0.5	0.0	19.5	16.3	0.0	16.5	2.8	0.0
AN	1.1	0.2	0.0	1.3	13.5	11.4	0.1	13.5	0.5	0.8
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EN	0.1	0.0	0.0	0.0	4.3	1.2	0.4	2.2	0.0	0.0
FS	1.9	0.0	1.9	0.2	8.5	2.5	0.2	10.4	1.2	0.3
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	2.6	0.4	2.6	2.5	6.1	2.6	0.4	3.3	2.7	2.1
IL	0.4	0.3	0.4	0.4	5.0	0.5	0.1	1.2	0.4	0.4
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	1.4	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.3
AP	0.1	0.1	0.1	0.0	1.5	0.5	0.0	0.7	0.2	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	0	1	0	42	45	0	38	6	0
OR	98	100	99	92	28	24	100	32	93	95
AN	2	0	0	8	29	31	0	31	1	5
RECAST TO 100%										
Q	53	41	55	81	35	61	72	47	49	81
OR	46	59	45	17	18	9	27	17	47	18
AN+AB	1	0	1	1	47	30	0	37	4	1

SAMPLE	R030800	RR030900	RR031000	RR086900	RR087000	RR087100	RR087200	RR087400	RR215500	RR215600
F	---	---	---	---	---	---	---	---	---	---
CO	---	---	---	---	---	---	---	---	---	---
NI	---	---	---	---	---	---	---	---	---	---
CU	95	35	20	11	18	8	8	31	36	23
ZN	79	65	49	66	190	51	8	50	120	90
MO	---	---	---	---	---	---	---	---	---	---
AG	---	---	---	---	---	---	---	---	---	---
SN	---	---	---	---	---	---	---	---	---	---
SB	---	---	---	---	---	---	---	---	---	---
W	---	---	---	---	---	---	---	---	---	---
BI	---	---	---	---	---	---	---	---	---	---
PB	220	130	190	100	42	46	40	140	250	82
U	1260.0	480.0	540.0	47.0	67.0	18.0	8.7	53.0	32.0	26.0
TH	---	---	---	---	---	---	---	---	---	---

SAMPLE	C5315	C5316	C5317	C5318	C5319	C5320	C5321	C5322	C5323	C5324
SIO2	74.7	44.4	46.7	69.9	76.2	74.6	45.2	74.1	77.0	74.7
AL2O3	11.9	15.7	16.0	10.5	12.1	12.6	13.9	12.6	11.8	12.2
CAO	1.15	7.16	8.32	7.93	0.54	0.68	7.52	1.07	0.43	0.52
MGO	0.18	7.66	8.10	0.00	0.13	0.03	6.74	0.05	0.16	0.14
NA2O	1.13	2.52	2.20	2.17	3.18	3.37	2.54	2.49	2.68	0.98
K2O	6.86	1.23	1.77	4.83	5.15	5.09	1.74	6.38	5.55	8.46
FEO	1.49	13.3	10.4	0.78	1.59	1.61	13.5	1.31	1.18	1.15
MNO	0.15	0.46	0.42	0.13	0.12	0.13	0.57	0.13	0.14	0.13
TIO2	0.12	2.57	1.83	0.11	0.17	0.18	2.69	0.12	0.13	0.12
P2O5	0.02	0.40	0.32	0.02	0.02	0.02	0.39	0.02	0.02	0.02
L.O.I.	1.23	3.85	2.92	3.23	0.62	0.69	3.08	0.38	0.33	0.46
SUM	99.1	100.7	100.2	98.6	99.9	99.2	99.4	98.8	99.6	98.9
FEO/MGO	8.21	1.73	1.29	—	11.95	48.79	2.00	26.70	7.51	8.48
K2O/K2O+NA2O	0.86	0.33	0.45	0.69	0.62	0.60	0.41	0.72	0.67	0.90

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	40.0	0.0	0.0	29.6	37.0	34.6	0.0	33.6	39.4	35.8
C	0.6	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.6	0.5
OR	41.4	7.5	10.8	30.0	30.7	30.6	10.7	38.3	33.1	50.8
AB	9.7	22.1	19.1	19.3	27.1	28.9	22.4	21.4	22.8	8.5
AN	5.7	28.9	29.3	4.8	2.6	3.3	22.3	4.4	2.0	2.5
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	2.3	5.6	0.0	0.0	0.0	5.8	0.1	0.0	0.0
HE	0.0	1.9	3.4	0.0	0.0	0.0	5.7	0.2	0.0	0.0
EN	0.3	6.4	7.7	0.0	0.2	0.0	5.1	0.0	0.3	0.2
FS	0.2	6.2	5.4	0.0	0.1	0.1	5.7	0.0	0.2	0.2
FO	0.0	6.1	5.3	0.0	0.0	0.0	4.4	0.0	0.0	0.0
FA	0.0	6.5	4.1	0.0	0.0	0.0	5.4	0.0	0.0	0.0
WO	0.0	0.0	0.0	15.2	0.0	0.0	0.0	0.2	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.3	6.1	5.0	0.1	0.0	0.2	6.3	0.1	0.1	0.1
IL	0.2	5.0	3.6	0.2	0.3	0.3	5.3	0.2	0.2	0.2
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	1.4	0.0	0.0	0.8	1.7	1.5	0.0	1.4	1.3	1.3
AP	0.0	1.0	0.8	0.0	0.0	0.0	0.9	0.0	0.0	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	17	38	32	36	45	46	40	33	39	14
OR	73	13	18	55	51	49	19	60	57	82
AN	10	49	49	9	4	5	40	7	3	4
RECAST TO 100%										
Q	41	0	0	35	38	35	0	34	40	37
OR	43	13	18	36	32	31	19	39	34	52
AN+AB	16	87	82	29	30	33	81	26	26	11

SAMPLE	C5315	C5316	C5317	C5318	C5319	C5320	C5321	C5322	C5323	C5324
F	440	1900	860	32000	310	1600	1100	160	190	130
CO	2	29	32	4	3	3	32	3	4	4
NI	3	53	89	5	3	3	35	3	2	2
CU	8	7	110	16	10	16	63	23	20	13
ZN	82	210	430	180	73	33	570	32	75	79
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	0	1	0	0	0	0	0	0
SN	0	0	0	0	5	3	0	0	0	0
SB	0.2	1.9	0.8	0.4	0.5	0.7	1.0	0.6	0.6	0.6
W	4	8	3	0	0	2	3	0	0	0
BI	0.4	0.8	0.3	0.4	1.6	0.2	0.8	0.4	0.7	1.6
PB	52	0	400	3	22	10	180	19	55	30
U	6.9	9.5	0.6	12.0	8.5	8.9	0.8	18.0	22.0	16.0
TH	32	7	0	23	39	36	0	27	29	30

SAMPLE	C5325	C5326	C5327	C5328	C5329	C5330	C5331	C5332	C5333	C5334
SIO2	47.0	44.3	47.7	45.6	78.9	72.1	49.9	72.6	76.9	79.2
AL2O3	14.5	14.7	14.7	13.4	11.1	12.4	14.7	13.2	10.8	9.78
CAO	6.78	7.92	8.44	6.96	0.57	1.53	4.95	0.98	0.56	1.37
MGO	6.09	7.04	6.90	4.69	0.10	0.31	5.77	0.12	0.00	0.15
NA2O	3.21	2.27	2.49	3.77	3.18	1.23	4.45	2.08	2.95	2.36
K2O	1.37	1.34	1.46	0.81	4.07	7.68	1.02	7.81	4.36	3.56
FEO	14.3	13.9	12.0	15.7	1.16	1.59	12.3	1.27	2.13	1.49
MNO	0.71	0.49	0.32	0.47	0.14	0.14	0.48	0.13	0.11	0.10
TIO2	3.15	2.93	2.27	4.15	0.12	0.14	2.71	0.14	0.21	0.09
P2O5	0.46	0.38	0.29	0.79	0.02	0.02	0.39	0.02	0.01	0.02
L.O.I.	2.15	2.31	1.92	1.69	0.46	1.15	2.69	0.62	0.38	0.62
SUM	101.3	99.1	99.9	99.8	100.0	98.5	100.7	99.2	98.6	98.9
FEO/MGO	2.34	1.97	1.74	3.35	11.64	5.04	2.14	10.31	---	10.13
K2O/K2O+NA2O	0.30	0.37	0.37	0.18	0.56	0.86	0.19	0.79	0.60	0.60

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	0.0	0.0	0.0	0.0	43.7	33.1	0.0	29.0	42.7	49.8
C	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2	0.0
OR	8.2	8.2	8.8	4.9	24.2	46.6	6.1	46.9	26.3	21.4
AB	27.4	19.9	21.5	32.5	27.0	10.7	38.4	17.8	25.4	20.3
AN	21.4	26.8	25.3	17.7	2.7	5.7	17.5	3.8	2.8	5.7
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	3.7	4.8	7.0	4.1	0.0	1.1	2.1	0.4	0.0	0.5
HE	4.2	4.5	5.8	6.2	0.0	0.5	2.1	0.3	0.0	0.4
EN	6.7	6.9	9.5	5.6	0.1	0.1	9.1	0.0	0.0	0.0
FS	8.7	7.4	9.0	9.6	0.1	0.0	10.3	0.0	0.0	0.0
FO	2.3	3.8	1.2	0.4	0.0	0.0	0.9	0.0	0.0	0.0
FA	3.3	4.5	1.2	0.7	0.0	0.0	1.2	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	6.8	6.6	5.6	8.4	0.1	0.4	6.2	0.0	1.6	0.3
IL	6.0	5.8	4.4	8.0	0.2	0.3	5.2	0.3	0.4	0.2
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.0	0.0	0.0	1.2	1.4	0.0	1.4	0.6	1.4
AP	1.1	0.9	0.7	1.9	0.0	0.1	0.9	0.0	0.0	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	48	36	39	59	50	17	62	26	47	43
OR	14	15	16	9	45	74	10	68	48	45
AN	38	49	45	32	5	9	28	6	5	12
RECAST TO 100%										
Q	0	0	0	0	45	34	0	30	44	51
OR	14	15	16	9	25	49	10	48	27	22
AN+AB	86	85	84	91	30	17	90	22	29	27

SAMPLE.	5325	C5326	C5327	C5328	C5329	C5330	C5331	C5332	C5333	C5334
F	1300	1200	640	2100	520	130	1800	150	130	200
CO	25	24	16	20	2	2	27	2	0	5
NI	24	30	19	14	2	3	42	2	2	3
CU	19	72	29	5	69	8	4	7	5	5
ZN	210	200	130	120	390	34	170	19	18	22
MO	0	0	0	0	0	0	0	44	0	0
AG	1	1	0	0	0	0	0	0	0	0
SN	0	3	15	0	0	0	0	0	5	0
SB	0.2	0.6	1.0	2.2	0.5	0.6	0.9	0.6	0.3	0.5
W	2	0	0	5	0	0	11	0	4	2
BI	1.1	14.0	2.7	0.5	0.2	0.1	0.3	0.5	-0.1	0.3
PB	88	120	84	0	160	3	0	6	0	0
U	1.5	0.5	0.9	4.5	21.0	7.0	1.4	47.0	8.3	7.9
TH	0	5	5	5	24	29	7	24	28	21

SAMPLE	C5335	C5336	C5337	C5338	C5339	C5340	C5341	C5342	C5343	C5344
SIO2	77.1	38.6	78.8	72.5	73.4	62.9	80.0	79.0	49.1	76.0
AL203	9.81	17.0	10.3	11.9	12.5	17.4	9.05	10.0	13.4	11.4
CAO	2.51	10.3	1.18	3.69	1.41	0.64	0.84	0.40	7.30	0.51
MGO	0.30	5.67	0.36	0.15	0.03	0.05	0.01	0.08	4.76	0.02
NA20	2.73	1.86	3.90	3.26	3.49	1.31	0.52	2.23	3.74	4.26
K20	3.35	0.43	1.69	4.37	5.00	12.2	6.30	4.85	1.53	2.97
FEO	1.66	16.8	1.66	1.26	1.58	1.65	1.21	1.24	12.2	2.24
MNO	0.13	0.50	0.12	0.12	0.13	0.12	0.11	0.11	0.55	0.11
TI02	0.09	3.32	0 10	0.18	0.19	0.22	0.08	0.16	3.20	0.10
P205	0.02	0.45	0.02	0.02	0.02	0.03	0.01	0.03	0.61	0.01
L.O.I.	1.69	4.08	0.77	1.46	1.00	0.69	0.46	0.15	1.23	0.54
SUM	99.6	100.9	99.1	99.1	99.0	97.4	98.7	98.5	98.9	98.4
FEO/MGO	5.56	2.97	4.61	8.24	50.10	30.18	—	15.27	2.56	116.26
K20/K20+NA20	0.55	0.19	0.30	0.57	0.59	0.90	0.92	0.69	0.29	0.41

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	45.2	0.0	47.4	32.3	32.3	7.6	52.0	47.4	1.4	39.6
C	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.5	0.0	0.3
OR	20.2	2.7	10.2	26.5	30.2	74.4	37.9	29.2	9.3	17.9
AB	23.6	14.4	33.5	28.3	30.2	11.4	4.5	19.1	32.3	36.9
AN	4.7	38.2	5.7	5.1	3.7	3.1	3.8	1.8	15.5	2.5
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	1.0	4.0	0.1	0.6	0.0	0.0	0.0	0.0	6.8	0.0
HE	0.8	5.9	0.0	0.3	0.2	0.0	0.0	0.0	7.7	0.0
EN	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.1	5.4	0.0
FS	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.1	7.0	0.2
FO	0.0	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MO	2.4	0.0	0.0	5.2	1.3	0.0	0.1	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.9	7.3	0.8	0.0	0.0	0.1	0.1	0.0	7.0	2.4
IL	0.2	6.6	0.2	0.3	0.4	0.4	0.2	0.2	6.2	0.2
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	1.0	0.0	1.1	1.4	1.7	1.7	1.3	1.4	0.0	0.0
AP	0.0	1.1	0.1	0.0	0.0	0.1	0.0	0.1	1.4	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	49	26	69	47	47	13	10	38	57	64
OR	42	5	21	44	47	84	82	58	16	31
AN	10	69	12	8	6	3	8	4	27	4
RECAST TO 100%										
Q	48	0	49	35	34	8	53	49	2	41
OR	22	5	11	29	31	77	39	30	16	19
AN+AB	30	95	40	36	35	15	8	21	82	41

SAMPLE	5335	C5336	C5337	C5338	C5339	C5340	C5341	C5342	C5343	C5344
F	240	2000	170	19500	480	440	170	190	2100	260
CO	5	31	3	3	2	5	3	3	12	0
NI	3	47	5	3	2	4	2	3	8	2
CU	48	12	9	19	7	270	36	28	230	18
ZN	45	310	34	32	44	100	37	30	240	67
MO	0	0	0	0	0	20	0	12	16	0
AG	0	0	0	0	0	0	0	0	0	0
SN	0	3	3	5	3	15	0	0	15	5
SB	0.4	1.8	0.6	0.3	-0.2	36.7	0.4	0.3	1.0	0.5
W	0	8	0	0	0	0	1	0	7	0
BI	2.1	1.8	0.4	0.2	-0.1	0.9	0.4	0.3	1.0	0.6
PB	100	170	8	2	22	320	11	16	140	21
U	7.3	3.1	4.9	9.6	8.6	9.3	3.9	4.7	1.7	11.0
TH	24	3	21	41	43	33	22	25	5	35

SAMPLE	C5345	C5346	C5347	C5348	C5349	C5350	C5351	C5352	C5353	C5354
SIO2	64.4	63.9	47.6	78.2	75.9	75.7	76.1	78.5	76.3	77.1
AL203	12.4	12.7	12.7	10.7	11.9	11.9	11.6	11.2	11.9	10.1
CAO	2.52	2.26	5.54	0.63	0.41	0.57	0.42	0.58	0.69	2.16
MGO	0.90	0.90	4.16	0.02	0.04	0.07	0.00	0.00	0.00	0.03
NA20	3.87	3.92	2.56	3.23	3.31	3.12	3.37	3.71	3.48	2.08
K20	3.43	3.59	2.33	4.23	5.11	5.29	4.57	3.64	4.66	4.49
FEO	6.02	6.19	13.6	1.17	1.50	1.50	1.09	0.67	1.27	1.04
MNO	0.34	0.29	0.32	0.12	0.12	0.13	0.12	0.11	0.11	0.12
TIO2	1.09	1.14	3.39	0.14	0.16	0.17	0.10	0.11	0.14	0.12
P205	0.32	0.33	1.22	0.02	0.02	0.03	0.01	0.01	0.02	0.03
L.O.I.	2.08	1.77	3.46	0.69	0.69	0.46	0.31	0.38	0.46	1.15
SUM	98.1	97.7	98.4	99.3	99.3	99.1	97.8	99.0	99.2	98.5
FEO/MGO	6.68	6.88	3.27	66.28	40.91	20.03	--	--	--	30.72
K20/K20+NA20	0.47	0.48	0.48	0.57	0.61	0.63	0.58	0.50	0.57	0.68

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	23.2	22.1	6.7	42.6	36.7	36.6	39.1	42.4	37.3	45.6
C	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.1	0.0	0.0
OR	21.2	22.2	14.5	25.4	30.6	31.7	27.7	21.8	27.9	27.3
AB	34.2	34.6	22.9	27.7	28.4	26.7	29.3	31.8	29.8	18.0
AN	6.6	6.7	17.3	2.2	1.9	2.6	2.1	2.8	3.1	5.2
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.9	0.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
HE	2.7	1.8	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.1
EN	1.0	1.1	7.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
FS	3.3	3.8	11.7	0.0	0.1	0.1	0.0	0.0	0.0	0.0
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1	2.3
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	3.9	4.0	7.5	0.0	0.0	0.0	0.1	0.1	0.0	0.0
IL	2.2	2.3	6.8	0.3	0.3	0.3	0.2	0.2	0.2	0.2
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.0	0.0	1.3	1.7	1.7	1.2	0.7	1.4	1.2
AP	0.8	0.8	3.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	55	55	42	50	47	44	50	56	49	36
OR	34	35	27	46	50	52	47	39	46	54
AN	11	11	32	4	3	4	3	5	5	10
RECAST TO 100%										
Q	27	26	11	43	38	37	40	43	38	47
OR	25	26	24	26	31	32	28	22	29	28
AN+AB	48	48	65	31	31	30	32	35	34	24

SAMPLE	C5345	C5346	C5347	C5348	C5349	C5350	C5351	C5352	C5353	C5354
F	650	730	1600	360	370	1100	210	400	700	400
CO	6	3	20	2	0	3	0	2	2	2
NI	3	3	6	3	2	3	1	2	2	5
CU	5	11	19	10	10	12	9	22	55	48
ZN	300	470	520	30	52	31	63	21	23	86
MO	0	0	12	0	0	0	0	0	0	0
AG	0	0	0	0	1	0	0	1	0	0
SN	3	3	0	0	3	5	3	3	0	0
SB	0.4	0.4	0.5	0.2	0.5	0.3	-0.2	-0.2	0.4	0.4
W	2	0	6	2	3	3	0	0	0	2
BI	0.1	0.4	0.7	0.1	0.2	0.2	0.2	0.4	-0.1	0.3
PB	3	9	35	8	8	15	23	5	2	2
U	4.2	9.1	1.6	4.2	8.6	11.0	7.3	8.6	7.6	11.0
TH	23	18	7	29	35	39	36	37	38	23

SAMPLE	C5355	C5356	C5357	C5358	C5359	C5360	C5361	C5362	C5363	C5364
SIO2	40.3	72.1	75.7	70.3	71.3	60.1	75.9	79.9	76.1	76.6
AL203	17.1	13.5	11.1	14.0	13.4	17.4	11.3	9.80	10.7	10.7
CAO	7.64	1.07	0.72	0.49	0.40	3.80	0.47	0.33	0.77	0.59
MGO	5.36	0.22	0.21	0.23	0.14	0.00	0.00	0.08	0.00	0.07
NA2O	2.55	3.06	1.31	1.88	1.46	3.06	1.82	1.56	3.26	2.00
K2O	0.93	5.93	6.31	8.77	8.66	10.2	6.60	5.64	3.80	5.43
FEO	15.4	1.78	1.89	1.48	1.59	1.11	0.90	1.05	2.10	2.42
MNO	0.49	0.13	0.13	0.14	0.13	0.12	0.11	0.12	0.13	0.11
TIO2	3.26	0.12	0.12	0.17	0.15	0.16	0.11	0.10	0.21	0.21
P2O5	0.61	0.03	0.03	0.03	0.02	0.03	0.02	0.02	0.01	0.00
L.O.I.	4.00	0.92	0.85	0.38	0.46	1.31	0.23	0.23	0.38	0.38
SUM	99.4	99.1	98.6	98.1	97.9	97.4	97.5	98.9	97.7	98.7
FEO/MGO	2.88	8.02	9.13	6.43	11.63	--	--	12.89	--	33.42
K2O/K2O+NA2O	0.27	0.66	0.83	0.82	0.86	0.77	0.78	0.78	0.54	0.73

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	0.0	29.6	43.1	25.0	29.4	0.0	40.1	49.1	42.2	43.5
C	0.0	0.2	0.9	0.6	0.9	0.0	0.3	0.6	0.0	0.5
OR	5.8	35.7	38.1	53.1	52.5	62.9	40.1	33.8	23.1	32.7
AB	22.7	26.3	11.3	16.3	12.7	23.3	15.9	13.3	28.3	17.2
AN	34.1	5.2	3.5	2.3	1.9	3.5	2.2	1.5	3.5	3.0
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HE	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EN	1.3	0.3	0.2	0.4	0.2	0.0	0.0	0.1	0.0	0.0
FS	2.0	0.4	0.4	0.2	0.2	0.0	0.0	0.1	0.0	0.2
FO	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO	0.0	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.1	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	7.3	1.1	1.5	0.0	0.3	0.0	0.0	0.1	1.7	2.5
IL	6.5	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.4	0.4
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.9	0.6	1.7	1.5	1.3	1.0	1.1	0.6	0.0
AP	1.5	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	36	39	21	23	19	26	27	27	52	33
OR	9	53	72	74	78	70	69	69	42	62
AN	55	8	7	3	3	4	4	3	6	6
RECAST TO 100%										
Q	0	31	45	26	30	0	41	50	43	45
OR	9	37	40	55	54	70	41	35	24	34
AN+AB	91	33	15	19	15	30	18	15	33	21

SAMPLE	5355	05356	05357	05358	05359	05360	05361	05362	05363	05364
F	1900	270	420	340	260	19000	250	150	240	170
CD	40	4	3	4	2	2	0	2	0	0
NI	34	3	2	3	2	3	4	3	2	3
CU	15	9	13	15	11	6	12	12	25	7
ZN	290	63	150	44	120	95	22	72	77	33
MO	0	80	230	0	100	0	0	0	0	0
AG	0	2	1	0	1	1	0	1	1	1
SN	0	0	0	0	0	0	0	0	3	3
SB	1.0	0.9	0.7	0.6	0.7	0.4	0.8	1.0	0.2	0.3
W	8	0	3	2	3	0	2	4	2	2
BI	0.5	1.7	1.6	0.2	0.4	0.3	0.2	0.2	0.1	0.1
PB	0	18	110	10	180	60	12	30	57	9
U	1.1	9.0	16.0	10.0	9.3	13.0	14.0	28.0	7.3	7.1
TH	4	25	24	28	41	34	32	21	23	28

SAMPLE	C5365	C5366	C5367	C5368	C5369	C5370	C5371	C5372	C5373	C5374
SIO2	49.0	76.1	74.4	44.7	44.9	79.2	73.5	75.1	79.7	76.0
AL203	13.1	11.7	9.62	13.3	14.1	5.55	12.2	11.8	9.39	10.8
CAO	6.44	0.96	3.79	8.25	6.23	5.14	0.90	0.45	0.37	0.47
MGO	5.88	0.37	0.43	6.02	6.77	0.12	0.11	0.11	0.00	0.16
NA2O	3.87	4.73	0.00	2.92	3.45	2.52	0.56	0.18	0.35	0.27
K2O	1.60	2.40	5.92	1.03	1.09	0.63	9.28	8.69	7.50	8.06
FEO	11.9	1.64	2.12	14.0	14.4	0.87	1.02	1.40	0.56	1.72
MNO	0.51	0.13	0.14	0.32	0.55	0.13	0.11	0.13	0.11	0.15
TIO2	2.33	0.14	0.11	3.28	2.50	0.07	0.14	0.12	0.09	0.18
P2O5	0.29	0.04	0.03	0.57	0.36	0.01	0.02	0.02	0.01	0.03
L.O.I.	2.46	0.69	1.62	3.00	3.54	3.77	0.46	0.38	0.31	0.46
SUM	98.7	99.1	98.5	98.9	99.5	98.1	98.4	98.5	98.4	98.4
FEO/MGO	2.02	4.42	4.95	2.32	2.13	7.27	8.90	13.10	—	10.86
K2O/K2O+NA2O	0.29	0.34	1.00	0.26	0.24	0.20	0.94	0.98	0.96	0.97

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8, 523(1971)]

Q	0.0	37.6	46.6	0.0	0.0	59.4	33.5	40.4	49.0	43.3
C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.8
OR	9.8	14.4	36.1	6.4	6.7	3.9	56.0	52.3	45.2	48.6
AB	34.1	40.7	0.0	25.7	30.5	22.6	4.8	1.6	3.0	2.3
AN	14.1	3.7	9.0	21.1	20.6	2.1	3.5	2.2	1.8	2.1
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	7.2	0.5	1.2	7.1	3.8	0.4	0.4	0.0	0.0	0.0
HE	7.0	0.2	1.4	7.6	4.0	0.3	0.3	0.0	0.0	0.0
EN	5.1	0.4	0.0	5.5	2.2	0.0	0.0	0.2	0.0	0.2
FS	5.7	0.2	0.0	6.6	2.7	0.0	0.0	0.1	0.0	0.3
FO	2.7	0.0	0.0	2.1	7.4	0.0	0.0	0.0	0.0	0.0
FA	3.3	0.0	0.0	2.8	10.1	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	3.0	0.0	0.0	10.0	0.1	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	5.8	0.6	2.4	7.2	6.1	0.2	0.0	0.1	0.1	0.6
IL	4.6	0.3	0.2	6.5	5.0	0.1	0.3	0.2	0.2	0.3
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NM	0.0	1.3	0.0	0.0	0.0	0.9	1.2	1.5	0.6	1.3
AP	0.7	0.1	0.1	1.4	0.9	0.0	0.1	0.0	0.0	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	59	69	0	48	53	79	8	3	6	4
OR	17	25	80	12	12	14	87	93	90	92
AN	24	6	20	40	36	7	5	4	4	4
RECAST TO 100%										
Q	0	39	51	0	0	67	34	42	49	45
OR	17	15	39	12	12	4	57	54	46	50
AN+AB	83	46	10	88	88	28	9	4	5	5

SAMPLE	5365	C5366	C5367	C5368	C5369	C5370	C5371	C5372	C5373	C5374
F	1600	800	7100	1500	2300	200	1400	330	180	410
CO	19	5	3	35	28	3	5	5	3	4
NI	18	6	4	34	42	7	3	4	2	5
CU	88	20	13	90	13	44	17	27	31	13
ZN	710	47	61	270	250	28	28	26	30	30
MO	0	0	0	0	0	0	0	0	0	0
AG	1	1	0	0	0	0	0	0	0	0
SN	0	0	0	0	0	3	0	0	0	0
SB	1.6	1.2	1.2	1.2	1.0	1.4	0.3	0.6	0.4	0.5
W	5	0	4	5	9	0	0	2	4	6
BI	1.2	0.3	0.6	0.1	0.4	0.4	0.2	0.2	0.3	0.1
PB	450	12	12	390	26	33	10	7	23	4
U	1.0	11.0	5.2	0.4	0.4	3.5	4.7	6.2	4.2	4.8
TH	3	22	16	0	0	7	20	32	23	26

SAMPLE	C5375	C5376	C5377	C5378	C5379	C5380	C5381	C5382	C5383	C5384
SIO2	75.1	58.3	64.1	45.2	45.6	70.0	74.0	43.5	79.9	43.2
AL203	10.5	17.1	13.0	12.8	12.9	12.3	10.7	18.0	11.7	14.9
CAO	0.65	4.74	5.35	7.44	6.91	0.56	0.67	16.7	0.42	8.92
MGO	0.02	0.16	0.29	6.63	5.95	0.62	1.07	1.55	0.59	5.46
NA2O	2.78	1.93	0.83	2.94	2.56	0.00	0.00	0.00	0.00	2.13
K2O	4.03	9.91	8.40	1.34	1.95	3.90	3.00	0.64	3.70	1.17
FEO	2.21	3.85	3.19	13.6	14.0	5.19	4.59	11.7	1.37	13.8
MNO	0.18	0.26	0.26	0.34	0.39	0.13	0.15	0.35	0.14	0.34
TIO2	0.20	0.30	0.18	3.28	3.29	0.21	0.28	1.86	0.30	3.61
P2O5	0.00	0.05	0.03	0.60	0.59	0.01	0.02	0.25	0.03	1.11
L.O.I	1.23	0.77	1.31	3.77	2.69	3.62	2.77	2.54	2.08	2.62
SUM	97.1	97.8	97.3	99.5	98.4	97.1	97.8	98.4	100.4	98.7
FEO/MGO	128.38	24.00	10.93	2.06	2.36	8.42	4.29	7.54	2.31	2.52
K2O/K2O+NA2O	0.59	0.84	0.91	0.31	0.43	1.00	1.00	1.00	1.00	0.35

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	43.9	0.8	19.4	0.0	0.0	54.3	61.0	6.5	65.1	1.0
C	0.4	0.0	0.0	0.0	0.0	7.6	6.6	0.0	7.0	0.0
OR	24.9	60.6	51.8	8.3	12.0	24.7	18.7	4.0	22.3	7.2
AB	24.6	16.9	7.3	26.0	22.7	0.0	0.0	0.0	0.0	18.7
AN	3.4	8.9	7.2	18.5	18.8	2.9	3.3	49.6	2.0	28.6
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.5	1.0	6.8	5.2	0.0	0.0	6.4	0.0	3.9
HE	0.0	5.4	4.3	6.3	5.6	0.0	0.0	23.5	0.0	4.3
EN	0.0	0.0	0.0	6.8	8.9	1.3	2.2	0.0	1.3	8.2
FS	0.1	0.0	0.0	7.2	11.0	5.9	4.8	0.0	0.2	10.5
FO	0.0	0.0	0.0	2.2	0.3	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	2.6	0.3	0.0	0.0	0.0	0.0	0.0
WO	0.0	3.5	5.9	0.0	0.0	0.0	0.0	0.6	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	2.3	2.7	2.5	7.2	7.3	2.7	2.7	5.1	0.0	7.7
IL	0.4	0.6	0.4	6.5	6.5	0.4	0.6	3.7	0.3	7.1
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
AP	0.0	0.1	0.1	1.5	1.4	0.0	0.1	0.6	0.1	2.7
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	47	20	11	49	42	0	0	0	0	34
OR	47	70	78	16	22	89	85	7	92	13
AN	6	10	11	35	35	11	15	93	8	52
RECAST TO 100%										
Q	45	1	23	0	0	66	73	11	73	2
OR	26	69	69	16	22	30	23	7	25	13
AN+AB	29	30	17	84	78	4	4	83	2	85

SAMPLE	C5375	C5376	C5377	C5378	C5379	C5380	C5381	C5382	C5383	C5384
F	770	620	1200	1000	740	480	700	1200	620	1800
CO	5	10	7	36	35	5	6	13	3	40
NI	3	6	5	30	30	5	3	29	3	42
CU	19	8	7	13	43	35	21	16	8	43
ZN	180	61	41	480	330	210	120	120	71	130
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	0	0	0	0	0	0	0	1
SN	3	3	3	0	0	22	25	8	3	0
SB	0.4	1.3	0.6	1.0	1.3	3.0	1.1	10.8	0.5	1.7
W	2	0	0	3	4	0	2	7	3	0
BI	0.2	1.1	0.6	1.3	0.3	1.0	0.5	1.5	0.4	0.1
PB	45	36	8	230	380	140	49	230	22	0
U	5.2	11.0	6.8	0.6	0.5	11.0	14.0	0.4	4.2	0.5
TH	19	36	31	0	3	54	52	0	15	8

SAMPLE	C5385	C5386	C5387	C5388	C5389	C5390	C5391	C5392	C5393	C5394
SIO2	76.6	76.2	75.0	42.4	79.0	77.9	76.8	78.2	62.9	65.1
AL203	10.9	10.4	9.77	14.6	8.49	8.25	9.10	8.82	18.0	18.4
CAO	1.28	0.39	0.47	7.43	0.31	0.46	0.42	0.46	0.50	0.56
MGO	0.25	0.00	0.10	6.29	0.05	0.02	0.04	0.15	2.63	2.07
NA2O	0.00	0.00	0.00	2.63	0.00	0.00	0.00	0.00	0.00	0.00
K2O	3.16	6.71	5.35	1.08	5.17	5.44	5.86	5.64	6.21	5.88
FEO	2.89	2.49	3.84	14.2	2.42	3.20	3.67	3.04	3.68	2.44
MNO	0.13	0.11	0.14	0.39	0.14	0.14	0.20	0.15	0.25	0.20
TIO2	0.30	0.27	0.31	3.64	0.27	0.29	0.34	0.31	0.29	0.15
P2O5	0.02	0.02	0.04	1.12	0.02	0.02	0.02	0.01	0.10	0.03
L.O.I.	2.31	1.62	2.23	3.23	1.62	2.00	1.69	1.46	4.00	4.15
SUM	98.2	98.5	97.7	98.6	97.8	98.0	98.5	98.6	98.9	99.2
FEO/MGO	11.75	--	39.89	2.26	47.70	202.49	93.15	19.90	1.40	1.18
K2O/K2O+NA2O	1.00	1.00	1.00	0.29	1.00	1.00	1.00	1.00	1.00	1.00

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	63.9	51.4	55.1	0.0	60.9	58.0	54.4	56.7	35.1	40.0
C	5.4	2.5	3.4	0.0	2.5	1.7	2.1	2.0	11.1	11.6
OR	19.5	41.1	33.2	6.7	31.8	33.6	35.9	34.4	38.7	36.5
AB	0.0	0.0	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0
AN	6.5	1.8	2.2	25.9	1.4	2.2	2.0	2.2	2.0	2.8
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
HE	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
EN	0.3	0.0	0.1	7.9	0.0	0.0	0.1	0.2	5.8	4.4
FS	1.1	0.0	2.5	9.1	0.2	1.3	2.1	1.2	3.8	1.8
FO	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	2.7	2.5	2.8	7.8	2.4	2.7	2.8	2.7	2.7	2.5
IL	0.6	0.5	0.6	7.2	0.5	0.6	0.7	0.6	0.6	0.3
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
AP	0.1	0.1	0.1	2.7	0.1	0.1	0.1	0.0	0.2	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	0	0	42	0	0	0	0	0	0
OR	75	96	94	12	96	94	95	94	95	93
AN	25	4	6	46	4	6	5	6	5	7
RECAST TO 100%										
Q	71	55	61	0	65	62	59	61	46	50
OR	22	44	37	12	34	36	39	37	51	46
AN+AB	7	2	2	88	2	2	2	2	3	3

SAMPLE	5385	C5386	C5387	C5388	C5389	C5390	C5391	C5392	C5393	C5394
F	400	200	280	1600	310	190	170	270	2000	3800
CO	3	3	4	42	2	3	3	3	5	2
NI	3	2	2	45	5	3	5	3	6	2
CU	46	48	16	38	8	12	26	23	5	6
ZN	130	570	690	160	520	350	410	91	210	160
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	0	0	0	0	0	0	0	0
SN	3	0	0	0	0	0	3	3	5	3
SB	3.0	2.4	3.4	1.2	3.3	2.5	4.0	8.7	0.6	0.8
W	7	3	4	0	3	2	1	2	2	2
BI	0.2	-0.1	-0.1	-0.1	0.3	0.1	0.3	0.3	0.3	1.0
PB	220	400	240	5	190	160	280	46	100	22
U	39.0	71.0	37.0	0.6	9.7	5.1	3.8	5.0	2.0	1.4
TH	12	7	7	0	16	17	18	25	33	42

SAMPLE	C5395	C5396	C5397	C5398	C5399	C5400	C5401	C5402	C5403	C5404
SIO2	73.7	79.6	72.6	75.8	77.2	76.4	75.6	43.1	75.5	73.3
AL2O3	13.5	10.9	12.7	12.3	11.3	11.6	12.4	14.5	12.4	11.8
CAO	0.37	0.30	0.78	0.32	0.31	0.34	0.48	8.73	0.34	0.62
MGO	0.56	0.29	0.36	0.06	0.00	0.00	0.00	5.24	0.00	0.00
NA2O	0.00	0.00	0.17	0.00	0.11	0.00	0.03	2.34	0.00	0.00
K2O	7.67	5.36	8.84	8.81	8.96	9.01	9.54	1.20	9.47	9.52
FEO	0.58	0.60	1.88	1.31	0.92	0.85	1.45	14.2	0.76	2.07
MNO	0.15	0.11	0.16	0.14	0.12	0.13	0.14	0.36	0.12	0.16
TIO2	0.10	0.09	0.42	0.10	0.09	0.13	0.30	3.80	0.11	0.34
P2O5	0.02	0.02	0.09	0.01	0.02	0.02	0.08	1.12	0.02	0.12
L.O.I.	1.23	1.46	0.69	0.31	0.38	0.38	0.38	2.23	0.38	0.54
SUM	98.2	98.8	98.9	99.3	99.5	99.0	100.6	98.5	99.2	98.7
FEO/MGO	1.57	2.04	5.16	21.40	--	--	--	2.72	--	--
K2O/K2O+NA2O	1.00	1.00	0.98	1.00	0.99	1.00	1.00	0.34	1.00	1.00

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	44.0	59.7	36.4	41.8	42.0	41.8	38.0	0.5	39.0	36.5
C	4.7	4.8	1.7	2.3	0.9	1.3	1.3	0.0	1.6	0.6
OR	46.8	32.3	53.2	52.6	53.5	54.0	56.3	7.4	56.7	57.4
AB	0.0	0.0	1.5	0.0	0.9	0.0	0.3	20.5	0.0	0.0
AN	1.7	1.4	3.3	1.5	1.4	1.5	1.8	26.6	1.6	2.4
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0
HE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.0
EN	1.3	0.6	0.6	0.1	0.0	0.0	0.0	7.5	0.0	0.0
FS	0.3	0.2	0.4	0.1	0.0	0.0	0.0	10.3	0.0	0.0
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	0.2	0.1	0.0	0.2	0.1	0.1	0.0	8.0	0.1	0.9
IL	0.2	0.2	0.7	0.2	0.2	0.2	0.3	7.5	0.2	0.7
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.9	0.6	2.0	1.2	0.9	0.9	1.6	0.0	0.8	1.3
AP	0.1	0.1	0.2	0.0	0.0	0.1	0.2	2.7	0.0	0.3
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	0	3	0	2	0	0	38	0	0
OR	96	96	92	97	96	97	96	14	97	96
AN	4	4	6	3	3	3	3	49	3	4
RECAST TO 100%										
Q	48	64	39	44	43	43	39	1	40	38
OR	51	35	56	55	55	55	59	13	58	60
AN+AB	2	2	5	2	2	2	2	86	2	2

SAMPLE	5395	C5396	C5397	C5398	C5399	C5400	C5401	C5402	C5403	C5404
F	600	460	440	140	100	110	170	1400	130	170
CO	0	0	2	0	0	0	0	35	0	0
NI	2	2	4	2	1	1	3	37	2	3
CU	10	8	9	7	10	6	28	33	10	14
ZN	23	8	41	35	18	16	32	130	19	30
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	0	0	0	0	0	0	0	0
SN	3	3	0	0	0	0	0	0	0	0
SB	1.9	2.3	1.1	1.7	0.3	1.7	1.3	1.7	1.5	3.3
W	0	0	2	2	18	2	2	2	0	4
BI	0.3	0.2	0.2	0.1	-0.1	-0.1	0.2	-0.1	-0.1	-0.1
PB	7	10	12	15	12	6	10	17	4	4
U	125.0	20.0	5.8	6.3	5.4	6.9	8.1	0.7	8.3	3.6
TH	25	21	20	26	35	27	19	0	26	23

SAMPLE	C5405	C5406	C5407	C5408	C5409	C5410	C5411	C5412	C5413	C5414
SIO2	70.2	63.4	78.1	48.6	79.6	78.6	45.8	76.0	77.4	79.0
AL203	13.5	16.2	11.4	14.2	9.13	9.69	17.4	10.4	9.97	9.83
CAO	0.78	1.30	0.69	8.06	0.55	0.60	6.76	1.05	0.66	0.49
MGO	0.03	0.32	0.00	6.34	0.34	0.12	5.97	0.08	0.10	0.04
NA2O	0.00	0.00	3.22	2.97	0.00	0.00	2.58	0.23	0.49	0.67
K2O	9.88	8.79	4.86	1.19	5.35	5.57	1.85	5.41	5.19	5.21
FEO	2.54	4.95	1.49	11.7	2.58	2.89	11.6	3.25	2.97	2.36
MNO	0.18	0.24	0.12	0.42	0.14	0.14	0.48	0.16	0.16	0.15
TIO2	0.55	1.17	0.10	2.35	0.19	0.19	2.23	0.23	0.23	0.25
P2O5	0.15	0.41	0.01	0.31	0.02	0.00	0.32	0.01	0.01	0.01
L.O.I.	0.54	1.31	-0.46	1.85	0.77	0.69	3.38	0.69	0.46	0.31
SUM	98.6	98.7	99.6	99.3	99.0	98.8	99.6	97.8	98.0	98.6
FEO/MGO	97.47	15.47	--	1.85	7.54	24.87	1.94	41.21	31.16	56.87
K2O/K2O+NA2O	1.00	1.00	0.60	0.29	1.00	1.00	0.42	0.96	0.91	0.89

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	31.7	28.0	39.5	0.4	58.3	56.4	0.0	52.4	54.1	55.0
C	1.8	5.5	0.0	0.0	2.4	2.6	0.0	2.3	2.4	2.3
OR	59.6	53.4	28.7	7.3	32.2	33.6	11.4	33.0	31.5	31.4
AB	0.0	0.0	27.2	25.7	0.0	0.0	22.7	2.0	4.3	5.8
AN	2.9	3.9	2.2	22.5	2.7	3.0	31.6	5.3	3.3	2.4
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	7.3	0.0	0.0	0.5	0.0	0.0	0.0
HE	0.0	0.0	0.0	6.3	0.0	0.0	0.4	0.0	0.0	0.0
EN	0.0	0.3	0.0	9.7	0.4	0.1	7.2	0.1	0.1	0.0
FS	0.1	1.7	0.0	9.7	1.1	1.3	7.7	1.8	1.3	0.1
FO	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0
WO	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	1.3	4.0	0.3	5.7	2.5	2.5	5.6	2.6	2.6	2.3
IL	1.1	2.3	0.2	4.6	0.4	0.4	4.4	0.4	0.4	0.5
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	1.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2
AP	0.4	1.0	0.0	0.7	0.0	0.0	0.8	0.0	0.0	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	0	0	47	46	0	0	35	5	11	15
OR	95	93	49	13	92	92	17	82	81	79
AN	5	7	4	41	8	8	48	13	8	6
RECAST TO 100%										
Q	34	33	40	1	63	61	0	56	58	58
OR	63	63	29	13	35	36	17	36	34	33
AN+AB	3	5	30	86	3	3	83	8	8	9

SAMPLE	5405	C5406	C5407	C5408	C5409	C5410	C5411	C5412	C5413	C5414
F	260	680	110	900	290	250	870	2200	190	220
CO	2	7	0	20	1	0	34	2	0	0
NI	2	3	2	22	2	2	42	4	2	2
CU	41	2	5	100	5	8	48	7	9	6
ZN	130	68	64	890	130	89	230	140	210	46
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	1	0	0	0	0	0	0	0
SN	0	0	0	0	10	8	0	10	8	5
SB	0.9	0.8	-0.2	0.8	0.3	0.2	0.7	0.8	1.2	0.6
W	2	3	0	0	2	2	4	2	2	3
BI	0.4	0.1	0.6	0.1	0.2	0.3	0.1	0.5	0.4	0.4
PB	69	6	23	540	10	84	28	110	170	24
U	8.3	3.6	5.2	0.5	9.4	7.7	0.3	13.0	24.0	28.0
TH	20	15	28	4	25	31	0	39	32	36

SAMPLE	C5415	C5416	C5417	C5418	C5419	C5420	C5421	C5422	C5423	C5424
SIO2	77.3	77.5	45.3	50.3	47.6	78.2	75.1	47.3	70.8	75.3
AL203	9.88	10.5	16.1	14.6	14.7	10.2	10.6	17.8	13.1	10.5
CAO	0.57	0.51	8.64	9.47	8.89	0.53	2.39	9.56	1.17	1.12
MGO	0.06	0.12	3.80	3.82	6.40	0.24	0.84	5.24	1.64	0.00
NA2O	0.50	0.30	3.97	2.23	2.03	1.99	2.10	2.50	1.29	2.95
K2O	5.15	4.72	1.17	0.75	2.38	2.16	1.87	2.06	2.86	3.76
FEO	2.92	2.67	11.5	10.1	11.6	2.70	3.28	9.13	5.03	2.59
MNO	0.13	0.15	0.41	0.29	0.40	0.13	0.20	0.31	0.18	0.13
TIO2	0.24	0.24	2.93	2.17	2.33	0.23	0.34	1.71	0.94	0.17
P2O5	0.01	0.01	0.43	0.33	0.29	0.02	0.03	0.22	0.05	0.00
L.O.I.	0.62	1.23	3.69	3.62	1.54	0.92	1.00	2.38	2.03	0.46
SUM	97.7	98.2	99.2	98.8	99.4	97.7	98.1	99.3	99.7	97.3
FEO/MGO	49.58	22.46	3.01	2.65	1.81	11.06	3.91	1.74	3.07	--
K2O/K2O+NA2O	0.91	0.94	0.23	0.25	0.54	0.52	0.47	0.45	0.69	0.56

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	54.7	58.0	0.0	10.8	0.0	58.7	50.3	0.0	47.7	42.7
C	2.5	4.1	0.0	0.0	0.0	3.8	0.9	0.0	6.1	0.0
OR	31.4	28.8	7.3	4.6	14.4	13.2	11.4	12.6	17.3	23.0
AB	4.3	2.6	30.9	19.8	17.6	17.4	18.3	21.8	11.2	25.8
AN	2.9	2.5	23.7	28.9	24.4	2.5	12.0	32.4	5.6	4.5
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	6.6	7.0	8.4	0.0	0.0	6.9	0.0	0.0
HE	0.0	0.0	8.7	8.3	7.1	0.0	0.0	5.5	0.0	1.0
EN	0.1	0.1	0.0	4.2	7.1	0.3	1.4	2.4	2.8	0.0
FS	1.0	0.7	0.0	5.7	7.0	1.0	2.2	2.2	3.8	0.0
FO	0.0	0.0	2.6	0.0	1.5	0.0	0.0	3.7	0.0	0.0
FA	0.0	0.0	4.3	0.0	1.6	0.0	0.0	3.8	0.0	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	2.6	2.6	6.7	5.6	5.7	2.6	2.7	4.8	3.6	2.5
IL	0.5	0.5	5.8	4.3	4.5	0.5	0.7	3.3	1.8	0.3
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AP	0.0	0.0	1.1	0.8	0.7	0.1	0.1	0.5	0.1	0.0
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	11	8	50	37	31	52	44	33	33	48
OR	81	85	12	9	25	40	27	19	51	43
AN	7	7	38	54	43	8	29	48	16	8
RECAST TO 100%										
Q	59	63	0	17	0	64	55	0	58	44
OR	34	31	12	7	25	14	12	19	21	24
AN+AB	8	6	88	76	75	22	33	81	20	32

SAMPLE	5415	C5416	C5417	C5418	C5419	C5420	C5421	C5422	C5423	C5424
F	220	270	1300	1800	360	230	900	800	660	100
CO	1	0	34	36	30	1	4	24	11	1
NI	3	2	44	43	37	5	6	25	23	3
CU	13	9	4	4	87	28	3	35	10	6
ZN	160	93	310	160	300	95	76	210	69	210
MO	0	0	0	0	0	0	0	0	0	0
AG	0	0	0	0	1	0	0	0	0	0
SN	5	8	0	0	0	8	8	0	0	3
SB	1.0	0.6	2.1	2.6	0.9	0.5	0.6	1.5	0.4	-0.2
W	2	1	5	4	0	3	2	3	2	3
BI	0.5	0.4	0.2	-0.1	-0.1	0.3	0.4	-0.1	0.2	0.3
PB	11	39	55	20	19	22	5	83	5	22
U	6.7	7.5	0.7	1.6	0.2	6.8	6.2	0.4	3.0	5.9
TH	27	35	0	12	9	28	30	0	16	32

SAMPLE	C5425	C5426	C5427	C5428	C5429	C5430	C5431	C5432	C5433	C5434
SIO2	75.4	75.7	75.4	76.6	50.7	76.6	76.0	74.6	46.2	67.3
AL203	10.8	10.0	10.5	9.98	14.2	10.5	11.4	10.6	15.1	12.4
CAO	0.54	0.57	0.49	2.07	6.01	0.37	0.52	0.44	7.81	1.80
MGO	0.00	0.23	0.15	0.08	4.48	0.17	0.16	0.28	7.41	0.14
NA20	3.09	1.20	1.24	1.50	2.44	0.66	0.00	0.00	2.60	0.39
K20	3.71	4.75	4.68	3.91	2.44	5.35	4.73	4.42	2.03	6.99
FEO	2.56	3.95	3.40	2.60	12.1	3.70	3.33	4.05	11.3	4.37
MNO	0.15	0.17	0.16	0.15	0.31	0.17	0.13	0.14	0.32	0.18
TIO2	0.17	0.35	0.28	0.24	2.55	0.29	0.29	0.29	1.95	0.36
P205	0.01	0.03	0.01	0.01	0.49	0.00	0.01	0.01	0.32	0.02
L.O.I.	0.46	0.92	0.92	0.38	2.31	0.54	1.69	1.85	2.85	1.15
SUM	97.1	98.3	97.7	97.8	99.4	98.8	98.6	97.2	99.0	95.6
FEO/MGO	--	16.97	22.38	33.65	2.71	21.35	21.34	14.25	1.52	30.70
K20/K20+NA20	0.55	0.80	0.80	0.72	0.50	0.89	1.00	1.00	0.44	0.95

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	43.3	49.4	49.1	49.8	6.6	51.3	57.8	58.0	0.0	34.9
C	0.7	2.0	2.4	0.0	0.0	3.0	5.5	5.3	0.0	1.1
OR	22.7	28.9	29.9	23.8	14.9	32.3	28.9	27.5	12.5	43.9
AB	27.1	10.4	10.9	13.1	21.3	5.7	0.0	0.0	22.9	3.5
AN	2.7	2.7	2.4	9.2	21.3	1.8	2.6	2.2	24.4	9.3
LC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.1	2.3	0.0	0.0	0.0	6.6	0.0
HE	0.0	0.0	0.0	1.0	2.9	0.0	0.0	0.0	4.8	0.0
EN	0.0	0.4	0.2	0.0	7.6	0.3	0.2	0.5	2.6	0.2
FS	0.6	2.7	1.9	0.0	10.9	2.4	1.7	3.2	2.2	3.5
FO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0
FA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0
WO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MT	2.5	2.8	2.7	2.6	6.1	2.6	2.7	2.7	5.2	2.9
IL	0.3	0.7	0.5	0.5	5.0	0.6	0.6	0.6	3.8	0.7
CR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AP	0.0	0.1	0.0	0.0	1.2	0.0	0.0	0.0	0.8	0.1
PY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RECAST TO 100%										
AB	52	25	25	28	37	14	0	0	38	6
OR	43	69	69	52	26	81	92	93	21	77
AN	5	6	6	20	37	5	8	7	41	16
RECAST TO 100%										
Q	45	54	53	52	10	56	65	66	0	32
OR	24	32	32	25	23	35	32	31	21	48
AN+AB	31	14	14	23	66	8	3	3	79	14

SAMPLE	C5425	C5426	C5427	C5428	C5429	C5430	C5431	C5432	C5433	C5434
F	200	290	180	130	770	180	340	430	930	510
CO	0	2	2	1	24	0	0	0	34	0
NI	3	5	3	4	17	4	2	4	68	3
CU	4	4	5	3	22	47	5	23	60	4
ZN	71	110	64	87	210	220	43	220	170	170
MO	0	44	28	12	0	0	20	16	0	0
AG	0	0	0	0	0	0	0	1	1	0
SN	3	5	3	3	0	8	8	10	0	0
SB	0.5	0.9	1.2	0.6	1.6	0.4	0.4	0.9	1.3	0.9
W	0	1	0	0	3	2	1	2	0	0
BI	0.2	1.0	0.5	0.3	0.3	0.4	0.6	0.6	0.3	0.3
PB	17	10	47	7	93	160	41	150	48	11
U	6.7	6.1	3.0	3.3	1.1	3.6	6.5	6.4	0.2	4.7
TH	24	30	31	24	6	25	29	24	0	25

SAMPLE	C5435	C5436	C5437	C5438
SIO2	68.0	74.4	75.5	76.3
AL2O3	12.7	12.2	10.3	9.32
CAO	2.22	0.64	0.42	0.88
MGO	0.33	0.09	0.14	0.26
NA2O	0.48	3.76	0.00	0.00
K2O	7.18	4.62	4.03	3.80
FEO	4.81	1.73	4.40	4.28
MNO	0.20	0.12	0.15	0.14
TIO2	0.41	0.18	0.23	0.20
P2O5	0.03	0.01	0.01	0.01
L.O.I.	1.23	0.00	1.46	1.77
SUM	98.1	97.9	97.2	97.5
FEO/MGO	14.51	19.96	30.60	16.75
K2O/K2O+NA2O	0.94	0.55	1.00	1.00

NORMATIVE MINERAL COMPOSITION (WEIGHT PERCENT)
[IRVINE & BARAGAR, CAN. JOUR. EARTHSCI. 8,523(1971)]

Q	31.9	34.2	60.0	60.7
C	0.2	0.0	5.5	3.8
OR	43.9	27.9	25.0	23.5
AB	4.2	32.4	0.0	0.0
AN	11.2	2.7	2.2	4.5
LC	0.0	0.0	0.0	0.0
NE	0.0	0.0	0.0	0.0
KP	0.0	0.0	0.0	0.0
AC	0.0	0.0	0.0	0.0
DI	0.0	0.1	0.0	0.0
HE	0.0	0.2	0.0	0.0
EN	0.6	0.0	0.3	0.5
FS	4.2	0.1	4.0	4.0
FO	0.0	0.0	0.0	0.0
FA	0.0	0.0	0.0	0.0
WO	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0
MT	2.9	0.6	2.6	2.6
IL	0.8	0.4	0.5	0.4
CR	0.0	0.0	0.0	0.0
HM	0.0	1.3	0.0	0.0
AP	0.1	0.0	0.0	0.0
PY	0.0	0.0	0.0	0.0
NS	0.0	0.0	0.0	0.0
KS	0.0	0.0	0.0	0.0
RU	0.0	0.0	0.0	0.0
CC	0.0	0.0	0.0	0.0
RECAST TO 100%				
AB	7	51	0	0
OR	74	44	92	84
AN	19	4	8	16
RECAST TO 100%				
Q	35	35	69	68
OR	48	29	29	27
AN+AB	17	36	2	5

SAMPLE	5435	C5436	C5437	C5438
F	450	470	400	300
CO	0	1	1	2
NI	3	3	2	2
CU	4	5	19	16
ZN	100	70	50	160
MO	0	0	0	0
AG	0	1	0	0
SN	3	0	23	20
SB	0.8	-0.2	0.7	1.9
W	0	0	2	2
BI	0.4	0.2	0.7	0.9
PB	20	42	20	42
U	5.5	8.8	9.0	10.0
TH	31	34	53	48

APPENDIX I

"B"

GULF

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1074	11	140	32	3.0
W1075	10	130	44	3.2
W1076	7	110	50	3.1
W1077	12	130	53	3.2
W1079	11	87	32	3.4
W1080	10	110	31	3.1
W1081	10	67	27	3.0
W1082	12	110	27	3.4
W1083	12	79	29	3.4
W1084	12	99	33	3.7
W1085	17	110	47	3.0
W1086	12	130	35	2.7
W1087	19	120	35	3.4
W1088	15	120	26	3.0
W1089	12	110	34	2.7
W1090	18	120	44	2.8
W1091	12	100	36	3.0
W1092	20	130	50	2.7
W1093	8	73	24	2.9
W1094	16	120	52	2.5
W1095	22	120	35	3.2
W1096	12	110	34	3.0
W1097	15	89	23	2.8
W1098	15	92	32	2.8
W1099	12	162	28	3.3
W1100	5	35	11	5.2
W1101	17	140	58	3.4
W1102	8	68	18	2.7
W1103	11	99	19	2.6
W1104	9	62	41	4.3
W1105	10	77	22	2.8
W1106	11	61	30	2.4
W1107	14	58	12	2.5
W1108	7	29	9	2.9
W1109	14	88	15	2.3
W1110	15	53	17	2.6
W1111	10	44	18	2.9
W1112	10	54	12	2.6
W1113	11	89	30	2.6
W1114	7	46	18	3.1
W1115	11	92	15	3.0
W1116	20	75	17	2.7
W1117	22	100	55	2.5
W1118	18	100	17	2.5
W1119	15	73	17	2.6
W1120	24	95	19	2.5
W1121	15	53	16	2.2
W1123	10	54	11	2.4
W1124	18	95	20	2.4
W1125	17	88	16	2.0
W1126	10	81	11	2.3
W1127	13	72	11	2.3
W1128	18	89	17	2.3
W1129	15	106	13	2.4
W1130	15	70	17	2.3

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1131	19	61	17	2.6
W1132	10	68	13	2.4
W1133	11	60	12	2.5
W1134	18	88	22	2.5
W1135	13	98	35	2.5
W1136	10	73	21	2.5
W1137	8	80	17	2.5
W1180	12	81	23	2.1
W1181	11	94	21	2.7
W1182	15	99	25	2.4
W1183	18	85	29	2.9
W1184	13	96	30	2.5
W1185	10	95	27	2.5
W1186	10	68	32	2.9
W1187	10	66	29	3.3
W1188	14	69	27	2.6
W1189	12	78	34	2.8
W1190	6	38	25	2.9
W1191	13	90	27	2.8
W1192	16	91	32	3.1
W1193	10	72	43	3.4
W1194	12	80	30	3.1
W1195	11	100	52	3.1
W1196	7	77	32	3.4
W1197	11	100	35	2.6
W1198	8	82	29	2.9
W1199	15	110	40	3.1
W1201	7	120	29	2.6
W1202	4	94	16	3.0
W1203	8	110	23	2.5
W1204	15	190	69	3.1
W1205	10	200	31	2.7
W1206	17	240	52	3.1
W1207	10	180	34	2.5
W1208	11	230	47	3.3
W1209	16	250	48	3.6
W1210	6	160	38	3.2
W1211	9	160	36	4.4
W1212	7	94	29	3.6
W1213	9	170	44	2.9
W1214	15	160	38	2.3
W1215	8	160	47	2.7
W1216	16	170	49	2.5
W1217	8	140	31	2.9
W1218	7	130	31	2.9
W1219	12	160	42	3.0
W1220	11	150	29	2.7
W1221	8	130	28	3.0
W1222	9	140	24	3.1
W1223	8	91	31	3.7
W1224	5	45	21	3.6
W1225	6	82	25	3.7
W1226	8	120	28	3.1
W1227	8	110	28	2.9
W1228	13	270	45	3.8
W1229	11	120	33	3.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1230	10	185	36	3.0
W1231	10	110	30	3.6
W1232	10	68	23	3.6
W1233	10	180	33	3.7
W1234	6	110	19	3.2
W1235	7	71	23	3.9
W1236	7	130	20	3.3
W1237	8	100	24	3.6
W1238	10	99	25	2.8
W1239	11	74	27	2.7
W1240	8	120	26	3.6
W1241	6	97	18	2.8
W1242	10	130	31	2.9
W1243	8	83	22	3.3
W1244	13	170	43	2.9
W1245	15	170	63	4.9
W1246	13	130	44	3.7
W1247	8	95	29	2.9
W1248	12	120	32	2.6
W1249	19	180	40	4.2
W1250	10	130	28	3.3
W1251	8	100	28	3.4
W1252	8	200	36	3.9
W1253	10	210	49	3.6
W1254	11	220	43	3.3
W1255	12	290	43	3.2
W1256	11	260	42	3.2
W1257	9	280	46	3.7
W1258	10	200	63	3.4
W1259	8	140	41	2.9
W1260	10	190	36	3.1
W1261	11	180	28	5.0
W1262	8	120	25	2.8
W1263	12	210	35	2.5
W1264	8	220	35	2.8
W1265	13	160	35	2.8
W1266	9	110	24	2.5
W1267	10	120	26	2.5
W1268	15	160	36	2.5
W1269	8	120	24	2.5
W1270	11	170	90	3.6
W1271	16	340	66	4.1
W1272	8	140	30	2.8
W1273	8	120	31	2.7
W1274	10	120	37	2.7
W1275	16	170	57	2.6
W1276	8	100	24	2.6
W1277	6	99	23	2.3
W1278	5	55	17	2.5
W1279	8	110	23	2.3
W1280	7	100	23	2.5
W1281	3	66	34	2.6
W1282	8	58	38	2.7
W1283	8	83	13	2.0
W1284	12	120	30	2.6
W1327	9	96	23	3.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1328	10	100	27	2.7
W1329	11	76	46	3.1
W1330	8	95	30	3.2
W1331	10	110	59	4.2
W1332	8	130	35	3.4
W1333	12	160	40	2.8
W1334	7	150	46	2.9
W1335	10	130	35	3.2
W1336	10	130	68	3.5
W1337	6	130	39	3.2
W1338	6	89	40	3.1
W1339	7	130	48	3.1
W1340	9	110	78	3.7
W1341	8	180	46	3.1
W1342	8	140	37	3.2
W1343	13	220	38	3.0
W1344	13	250	43	2.4
W1345	10	97	29	2.7
W1346	15	150	56	3.5
W1347	11	220	47	3.4
W1348	11	140	49	3.2
W1349	10	170	23	2.3
W1350	10	120	27	2.2
W1351	7	85	19	1.5
W1352	1	11	5	2.3
W1353	10	57	19	2.6
W1354	6	50	12	2.0
W1355	5	70	20	2.8
W1356	12	110	24	2.4
W1357	13	120	23	2.9
W1358	11	140	17	2.4
W1359	3	51	13	2.9
W1360	14	330	140	4.4
W1361	10	280	79	4.5
W1362	10	290	79	4.1
W1363	11	400	53	3.0
W1364	6	100	29	2.7
W1365	6	170	24	3.7
W1366	5	210	56	3.0
W1367	5	190	26	2.8
W1368	3	110	15	2.4
W2032	14	94	39	3.6
W2033	15	110	41	3.0
W2034	10	72	34	2.7
W2035	17	123	52	3.7
W2036	10	120	35	3.1
W2037	11	100	58	3.8
W2038	10	70	46	19.0
W2039	13	130	51	15.0
W2040	4	61	32	9.2
W2041	7	130	55	0.1
W2042	8	69	48	1.3
W2043	15	69	37	14.0
W2044	12	100	66	3.3
W2045	11	96	46	3.9
W2046	20	110	47	3.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2047	7	80	31	3.3
W2048	10	98	33	3.6
W2049	10	150	58	5.1
W2050	10	120	40	3.4
W2051	7	82	32	3.6
W2052	13	82	34	3.3
W2053	14	96	35	3.3
W2054	16	140	55	2.7
W2055	10	78	31	3.6
W2056	9	71	35	2.9
W2057	11	82	36	2.5
W2058	5	31	23	3.0
W2059	10	60	34	3.1
W2060	5	24	25	2.7
W2061	17	110	64	3.1
W2062	5	34	34	2.9
W2063	15	150	51	2.7
W2064	12	94	36	2.6
W2065	12	120	49	2.7
W2066	16	140	46	2.7
W2067	10	120	41	2.2
W2068	12	150	56	2.7
W2069	11	110	30	2.9
W2070	10	57	22	3.2
W2071	9	79	29	3.2
W2072	20	200	94	2.7
W2073	10	100	42	2.9
W2074	8	55	58	4.7
W2075	16	160	92	9.0
W2076	31	170	36	NSS
W2077	23	66	30	NSS
W2078	24	53	18	NSS
W2079	22	160	46	2.7
W2080	17	84	44	2.7
W2081	22	160	60	3.1
W2082	11	120	32	2.5
W2083	18	128	43	3.0
W2084	10	94	24	2.7
W2085	15	100	35	3.0
W2086	9	94	32	3.0
W2087	12	90	53	3.3
W2088	11	66	32	4.2
W2089	16	120	34	3.2
W2090	17	120	58	2.6
W2091	9	86	30	3.0
W2092	15	120	56	3.0
W2093	15	120	29	2.5
W2094	7	78	24	2.6
W2095	33	140	32	2.1
W2096	14	60	44	2.8
W2097	20	92	34	2.5
W2098	37	126	46	2.5
W2099	17	79	41	2.1
W2100	14	110	23	2.8
W2101	21	100	45	2.4
W2102	29	160	41	2.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2103	14	95	32	2.5
W2104	16	110	53	3.1
W2105	16	130	58	2.8
W2106	8	47	48	3.7
W2107	20	91	61	3.1
W2108	14	69	22	2.9
W2109	13	110	50	2.8
W2110	9	76	44	3.0
W2111	15	100	40	2.5
W2112	9	79	29	2.8
W2113	25	170	54	2.6
W2114	12	92	23	2.5
W2115	12	110	43	2.9
W2116	14	110	53	2.7
W2117	11	82	25	2.6
W2118	11	75	27	2.5
W2119	11	35	16	NSS
W2120	25	50	50	NSS
W2121	11	99	37	2.9
W2122	12	100	32	2.3
W2123	16	130	58	2.1
W2124	16	98	57	3.0
W2125	23	500	96	9.5
W2126	16	75	58	NSS
W2127	17	160	55	NSS
W2128	11	94	42	2.7
W2129	14	91	43	2.9
W2130	9	49	50	3.9
W2131	19	31	25	0.2
W2132	13	91	60	3.3
W2133	12	116	52	2.7
W2134	16	92	58	3.4
W2135	13	120	53	2.9
W2136	23	160	94	3.3
W2137	15	110	72	2.8
W2138	16	130	60	3.7
W2139	9	58	44	4.7
W2140	17	112	76	3.2
W2141	9	42	75	3.5
W2142	9	25	9	NSS
W2143	13	22	9	NSS
W2144	14	16	23	NSS
W2145	11	88	66	2.7
W2146	8	70	39	2.7
W2147	8	66	40	3.0
W2148	12	100	65	3.1
W2149	13	82	60	4.3
W2150	18	120	58	2.5
W2151	18	160	91	2.9
W2152	8	39	26	2.6
W2153	5	18	10	3.1
W2154	11	58	22	2.3
W2155	16	83	160	3.1
W2156	23	110	49	2.7
W2156A	19	110	29	2.7
W2157	17	470	150	3.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2158	14	280	89	3.7
W2159	11	137	43	2.6
W2160	15	230	72	4.0
W2165	5	58	25	2.7
W2166	8	92	30	3.1
W2167	11	130	36	3.2
W2168	14	110	47	6.9
W2169	9	130	43	5.9
W2170	12	120	50	6.1
W2171	13	87	47	6.3
W2172	7	75	44	6.1
W2173	10	83	43	5.5
W2174	13	96	54	6.3
W2175	9	76	34	4.7
W2176	18	130	65	5.9
W2177	11	95	56	4.2
W2178	16	72	53	5.3
W2179	10	100	26	2.5
W2180	10	73	22	2.3
W2181	10	120	30	2.5
W2182	7	68	34	2.8
W2183	15	163	55	3.5
W2184	10	98	48	3.2
W2185	10	83	59	5.2
W2186	17	130	51	8.6
W2187	8	80	47	6.5
W2188	15	240	70	4.3
W2189	10	120	54	4.6
W2190	8	110	46	3.7
W2191	18	400	100	11.0
W2192	8	110	30	2.7
W2193	4	25	18	3.5
W2194	9	61	36	3.2
W2195	10	100	32	2.9
W2196	13	137	71	3.6
W2197	10	150	38	3.2
W2198	10	95	34	2.8
W2199	11	150	39	4.1
W2200	20	170	25	4.3
W2201	12	120	23	2.4
W2202	6	75	23	2.7
W2203	12	110	40	2.7
W2204	11	130	31	2.6
W2205	8	50	27	2.8
W2206	8	39	22	2.1
W2207	10	53	37	3.1
W2208	13	110	54	3.9
W2209	9	120	43	4.0
W2210	5	32	26	2.7
W2211	11	130	58	3.0
W2212	12	71	54	2.7
W2213	11	110	42	2.4
W2214	10	77	31	3.0
W2215	9	91	24	2.4
W2216	8	100	29	2.7
W2217	9	86	35	3.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2218	12	91	24	2.9
W2219	5	28	18	2.9
W2220	7	75	25	2.7
W2221	15	130	39	2.6
W2222	9	180	34	3.1
W2223	6	78	31	3.0
W2224	6	110	30	3.0
W2225	6	66	33	2.4
W2226	7	59	37	2.7
W2227	7	25	23	2.6
W2228	7	42	27	3.4
W2229	10	65	40	2.9
W2230	9	92	38	2.9
W2231	9	77	41	2.9
W2232	11	78	37	3.1
W2233	8	120	27	2.4
W2234	6	82	26	2.8
W2235	7	110	36	3.4
W2236	9	91	34	2.7
W2237	8	82	32	2.9
W2238	8	61	31	2.8
W2239	10	88	43	2.4
W2240	9	92	32	3.0
W2241	7	96	24	2.5
W2242	11	98	36	3.3
W2243	14	140	41	2.6
W2244	12	170	60	3.4
W2245	10	93	52	4.1
W2246	7	83	63	3.5
W2247	12	110	150	4.3
W2248	10	110	59	3.0
W2249	6	99	39	3.2
W2250	8	110	43	3.0
W2251	9	130	46	3.5
W2252	21	210	94	4.3
W2253	11	86	40	3.7
W2254	8	52	27	3.0
W2255	12	78	36	2.9
W2256	12	89	36	2.7
W2257	13	142	53	4.7
W2258	10	130	33	3.8
W2259	8	95	37	3.1
W2260	6	72	32	2.8
W2261	7	76	27	3.2
W2262	10	79	30	2.8
W2263	12	89	27	3.2
W2264	10	69	31	2.5
W2265	10	88	31	2.8
W2266	11	95	29	2.6
W2267	10	90	20	2.5
W2268	16	240	66	5.7
W2269	16	180	69	NSS
W2270	11	130	60	3.6
W2271	9	130	42	3.0
W2272	15	68	25	2.6
W2273	8	65	33	2.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2274	10	70	28	2.4
W2275	7	47	24	2.6
W2276	7	81	23	2.7
W2277	6	97	28	2.7
W2278	5	29	22	3.2
W2279	5	82	22	2.5
W2280	1	7	5	3.0
W2281	4	41	9	2.5
W2282	6	70	19	3.2
W2283	7	70	19	2.6
W2284	5	71	13	3.1

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1062	15	280	99	3.7
W1063	16	200	44	3.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1034	11	110	33	2.6
W1035	12	120	44	3.1
W1036	18	160	35	3.0
W1037	13	170	46	2.9
W1038	17	170	38	2.6
W1039	18	120	37	3.1
W1040	16	130	44	3.5
W1041	18	160	82	5.0
W1042	11	130	27	3.6
W1043	10	78	23	2.6
W1044	19	190	42	3.2
W1045	12	100	29	2.8
W1046	10	170	29	2.7
W1047	10	130	37	3.6
W1048	11	140	25	3.1
W1049	11	130	27	2.7
W1050	14	140	37	2.7
W1051	17	160	46	2.7
W1052	15	150	41	3.2
W1053	12	140	46	2.6
W1054	17	130	34	2.8
W1055	19	140	59	2.8
W1056	16	100	38	3.0
W1057	12	100	22	2.8
W1059	12	160	23	2.8
W1060	17	190	23	2.5
W1061	18	180	19	2.3
W1063	17	58	12	1.8
W1064	20	100	21	1.8
W1065	16	86	22	2.1
W1066	23	100	18	2.4
W1067	18	100	17	2.7
W1068	22	98	20	2.9
W1069	15	110	22	2.4
W1070	11	97	18	2.7
W1071	16	100	20	2.8
W1072	31	120	20	2.6
W1073	13	100	26	2.2
W1285	11	190	65	2.2
W1286	8	110	27	2.7
W1287	8	92	27	3.5
W1288	7	88	36	3.1
W1289	10	170	52	2.3
W1290	10	170	44	3.0
W1291	13	160	59	3.0
W1292	8	96	46	2.2
W1293	16	190	70	3.2
W1294	16	220	56	3.3
W1295	20	150	54	3.2
W1296	10	240	60	3.3
W1297	8	140	35	2.2
W1298	10	200	48	3.2
W1299	7	140	39	2.9
W1300	8	190	51	2.3
W1301	8	150	43	3.1
W1302	8	130	29	3.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1303	10	160	42	2.3
W1304	6	150	39	2.9
W1305	9	190	49	2.7
W1306	18	130	24	2.7
W1307	6	190	34	3.0
W1308	8	180	32	2.5
W1309	3	150	35	2.8
W1310	7	150	24	2.3
W1311	5	80	42	3.7
W1312	3	74	77	3.3
W1313	9	190	43	3.3
W1314	8	110	42	3.2
W1316	4	150	96	4.2
W1317	9	120	108	4.5
W1318	10	140	61	3.4
W1319	9	110	50	3.8
W1320	11	90	39	3.5
W1321	5	60	22	2.6
W1322	8	90	38	2.9
W1323	12	120	36	3.4
W1324	7	83	32	2.5
W1325	11	130	49	2.9
W1326	8	90	37	3.1
W1569	8	120	40	2.5
W1570	7	68	27	2.5
W1571	11	140	41	2.7
W1572	8	110	23	3.4
W1573	8	140	42	2.7
W1574	11	150	44	2.7
W1575	10	190	35	2.5
W1576	10	140	52	3.5
W1577	11	160	36	2.1
W1578	9	130	23	2.2
W1579	12	140	39	2.3
W1580	17	170	41	2.0
W1581	15	180	52	2.3
W1582	17	180	50	3.7
W1583	13	100	19	2.9
W1584	11	120	35	3.5
W1585	13	160	40	2.7
W1586	13	240	44	2.9
W1587	16	180	36	3.1
W1588	16	200	52	1.8
W1589	15	160	54	3.6
W1590	8	66	31	2.3
W1591	26	460	444	4.9
W1592	11	150	160	3.6
W1593	12	170	142	3.2
W1594	10	160	121	3.7
W1595	8	100	26	2.3
W1596	11	100	34	2.6
W1597	11	150	35	2.2
W1598	7	88	35	2.2
W1599	11	93	33	2.8
W1600	8	97	22	2.5
W1601	9	60	35	2.9

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1602	9	90	38	2.5
W1603	15	140	41	2.6
W1604	12	120	39	2.5
W1605	11	100	34	2.9
W1606	14	150	49	2.8
W1607	11	100	29	3.3
W1608	18	130	50	2.4
W1609	13	110	46	2.3
W1610	8	62	29	2.7
W1611	13	102	41	2.3
W1612	13	80	30	2.6
W1613	13	100	49	2.1
W1614	11	110	39	2.6
W1615	13	97	43	2.5
W1616	15	110	50	3.6
W1617	12	73	51	2.9
W1618	15	130	49	2.7
W1619	10	74	37	3.0
W1620	19	160	48	2.8
W1621	15	120	53	2.1
W1622	12	170	42	2.9
W1623	7	48	27	3.3
W1624	14	110	49	2.8
W1625	19	130	47	2.3
W1626	17	110	46	2.2
W1627	16	90	41	2.3
W1628	35	190	110	2.3
W1629	13	120	44	2.3
W1630	18	210	65	2.3
W1631	13	160	81	2.8
W1632	16	170	46	2.7
W1633	19	140	52	3.4
W1634	14	120	41	2.3
W1635	38	270	83	4.3
W1636	31	130	41	2.4
W1637	9	67	29	2.9
W1638	15	100	41	2.4
W1639	14	92	33	2.5
W1640	16	120	45	2.4
W1641	21	104	51	2.3
W1642	8	63	35	2.6
W1643	17	130	59	2.3
W1644	11	71	46	2.7
W1645	11	100	51	2.9
W1646	12	96	51	2.2
W1647	8	92	48	2.3
W1648	13	110	51	1.9
W1649	10	120	68	3.3
W1650	21	170	80	3.3
W1651	9	100	45	2.7
W1652	8	100	61	2.8
W1653	21	110	104	8.2
W1654	9	28	55	2.9
W1655	10	110	44	3.0
W1656	13	230	55	2.9
W1657	14	110	47	2.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1658	18	100	172	4.7
W1659	16	120	42	2.5
W1660	10	100	34	2.3
W1661	18	160	48	2.3
W1662	16	130	41	2.1
W1663	13	110	36	2.6
W1664	14	120	45	2.6
W1665	16	120	40	2.8
W1666	10	76	26	2.4
W1667	16	120	39	2.6
W1668	19	120	40	2.8
W1669	12	130	33	2.8
W1670	12	130	28	3.1
W1671	16	140	29	2.3
W1672	13	120	26	2.4
W1673	14	130	38	2.2
W1674	10	100	29	2.8
W1675	10	120	28	2.8
W1676	12	140	40	3.1
W1677	11	60	34	2.3
W1678	15	98	38	1.9
W1679	17	84	45	2.7
W1680	14	69	32	3.0
W1681	12	70	35	3.0
W1682	11	60	32	2.4
W1683	8	49	32	3.1
W1684	11	53	38	2.4
W1685	11	100	43	2.5
W1686	18	97	31	2.7
W1687	11	80	41	3.7
W1688	12	34	23	2.9
W1689	16	100	64	3.0
W1690	13	95	56	2.8
W1691	16	200	380	3.3
W1692	18	240	74	3.0
W1693	13	200	42	3.2
W1694	12	140	64	3.9
W1696	12	140	51	3.0
W1697	14	140	40	2.5
W1698	13	130	34	2.6
W1699	14	170	58	2.9
W1700	13	140	37	2.2
W1701	12	140	40	2.6
W1702	13	230	48	3.5
W1703	11	130	35	3.0
W1704	8	110	27	3.6
W1705	11	190	44	2.4
W1706	12	200	55	2.0
W1707	11	150	54	2.0
W1708	10	150	45	2.8
W1709	8	120	63	2.6
W1710	11	150	82	2.8
W1711	12	180	114	2.2
W1712	9	130	66	2.7
W1713	9	160	55	2.5
W1714	11	160	54	3.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1788	15	150	31	2.6
W1789	8	65	34	2.7
W1790	17	210	63	3.0
W1791	12	130	35	3.0
W1792	7	92	29	2.7
W1793	8	150	26	3.9
W1794	8	100	29	2.2
W1795	9	59	35	3.2
W1796	8	33	43	3.0
W1797	6	80	27	4.0
W1798	10	96	40	3.1
W1799	8	80	25	2.4
W1800	6	93	22	3.0
W1801	8	97	17	2.4
W1802	7	65	22	3.3
W1803	8	33	39	2.9
W1804	11	60	42	2.4
W1806	13	180	38	3.3
W1807	9	150	42	3.8
W1808	8	88	44	3.3
W1809	5	35	22	3.6
W1810	7	62	30	3.2
W1811	8	80	58	3.5
W1812	10	140	53	3.0
W1813	22	430	51	4.0
W1814	15	200	36	3.1
W1816	16	88	20	2.6
W1817	16	110	30	3.1
W1818	24	270	56	2.5
W1819	15	130	34	2.9
W1820	9	93	34	3.0
W1821	19	140	47	2.8
W1822	25	220	76	2.7
W1823	12	170	40	2.0
W1824	27	140	110	2.9
W1825	19	160	67	2.2
W1826	14	150	32	2.3
W1827	14	120	35	2.4
W1828	11	100	87	3.8
W1829	15	100	43	2.4
W1830	14	120	41	2.7
W2285	14	100	37	2.3
W2286	11	100	36	2.6
W2287	8	60	32	2.6
W2288	11	110	35	2.8
W2289	18	110	54	3.0
W2290	9	76	20	2.4
W2291	13	120	53	2.5
W2292	20	130	59	2.5
W2293	12	32	20	5.4
W2294	12	80	36	2.5
W2295	12	81	35	3.4
W2296	15	93	41	2.3
W2297	10	49	31	2.8
W2298	15	78	86	3.9
W2299	12	69	34	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2300	13	94	46	2.7
W2301	17	68	49	2.2
W2302	16	110	87	3.7
W2303	9	55	43	3.2
W2304	15	120	56	3.0
W2305	16	130	60	2.9
W2306	19	140	54	2.4
W2307	11	93	44	2.9
W2309	10	78	44	2.6
W2309	11	66	54	2.7
W2310	11	88	48	3.3
W2311	11	78	40	3.5
W2312	9	54	36	3.1
W2313	16	120	54	3.1
W2314	13	82	46	3.2
W2315	13	79	35	3.7
W2316	15	130	19	2.2
W2317	16	110	17	2.5
W2318	19	190	144	3.0
W2319	11	150	51	2.4
W2320	16	160	37	2.3
W2321	17	140	37	2.3
W2322	17	160	48	3.0
W2323	11	88	34	3.4
W2324	10	86	17	2.6
W2325	10	150	32	2.6
W2326	12	150	39	2.8
W2327	10	170	30	3.8
W2328	12	87	48	2.5
W2329	5	69	17	2.7
W2330	6	70	19	3.0
W2331	8	140	43	4.6
W2332	14	130	24	3.0
W2333	8	100	29	2.7
W2334	9	80	20	3.2
W2335	8	69	15	2.6
W2336	8	77	22	3.3
W2337	5	67	17	2.6
W2338	8	80	23	2.5
W2339	7	97	22	2.7
W2340	5	40	15	3.1
W2241	6	59	34	3.5
W2342	9	100	31	2.5
W2343	10	76	24	2.6
W2344	6	48	22	3.1
W2345	8	81	17	3.3
W2346	11	79	24	2.7
W2347	10	76	27	3.0
W2348	12	80	23	2.9
W2349	12	86	29	2.6
W2350	15	110	28	2.4
W2351	16	94	35	2.3
W2352	14	120	38	2.8
W2353	8	72	30	2.8
W2354	12	78	31	3.5
W2355	13	110	34	3.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
WZ356	11	84	40	3.0
WZ357	12	94	30	2.6
WZ358	9	65	30	2.7
WZ359	13	100	48	3.0
WZ360	12	83	39	2.1
WZ361	13	28	44	3.7
WZ362	13	77	39	2.8
WZ363	11	72	55	2.5
WZ364	6	53	28	3.5
WZ365	11	79	25	1.8
WZ366	8	73	20	2.4
WZ367	8	56	18	2.6
WZ368	13	86	26	2.3
WZ369	13	140	30	2.3
WZ370	16	86	25	2.3
WZ371	19	100	20	1.9
WZ372	20	130	28	2.3
WZ373	8	98	20	2.5
WZ374	8	63	24	2.6
WZ375	6	50	34	2.5
WZ376	12	88	29	2.3
WZ377	10	95	47	2.9
WZ378	8	80	27	2.7
WZ379	7	110	35	3.5
WZ380	12	100	35	5.0
WZ381	12	100	46	3.9
WZ382	7	88	42	3.9
WZ383	9	98	42	5.3
WZ384	14	110	46	4.5
WZ385	20	130	53	2.6
WZ386	12	110	64	3.7
WZ387	10	120	30	3.8
WZ388	9	78	25	3.4
WZ389	9	72	29	2.6
WZ390	8	130	23	3.2
WZ391	10	150	37	3.0
WZ392	10	110	44	3.0
WZ393	8	58	31	0.2
WZ394	10	80	25	2.7
WZ395	8	85	19	2.8
WZ396	14	100	25	2.6
WZ397	19	130	34	2.1
WZ398	18	93	31	2.2
WZ399	12	100	28	2.4
WZ400	14	110	19	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
WI715	9	85	28	2.2
WI716	8	78	30	2.3
WI717	14	110	42	2.5
WI718	8	92	39	2.7
WI719	17	160	41	2.5
WI720	8	95	33	3.3
WI721	17	140	50	2.9
WI722	19	170	65	4.1
WI723	18	170	77	2.7
WI724	24	250	76	2.8
WI725	12	170	65	2.9
WI726	15	85	47	2.5
WI727	9	82	43	2.8
WI728	10	100	40	2.5
WI729	12	130	35	2.7
WI730	23	160	42	1.6
WI731	12	110	47	2.9
WI732	15	170	53	2.7
WI733	13	140	39	2.5
WI734	15	130	49	2.3
WI735	11	110	40	2.9
WI736	14	140	37	2.6
WI737	13	110	35	2.1
WI738	14	120	30	2.1
WI739	12	110	28	2.0
WI740	13	90	26	2.5
WI741	13	120	32	2.3
WI742	11	110	33	2.6
WI743	10	100	25	2.4
WI744	12	120	24	2.7
WI745	13	130	40	2.8
WI746	11	110	23	2.5
WI747	12	110	35	2.8
WI748	18	140	49	2.7
WI749	9	80	42	2.7
WI750	8	89	31	2.1
WI751	18	150	66	2.7
WI752	10	140	39	2.6
WI753	28	360	54	3.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1754	12	200	35	2.5
W1755	19	120	30	2.3
W1756	25	140	46	2.0
W1757	18	230	41	2.2
W1758	44	190	56	1.5
W1759	19	86	13	2.8
W1760	12	120	19	3.0
W1761	13	99	33	2.7
W1762	17	210	65	2.6
W1763	18	260	49	3.2
W1764	10	170	44	3.2
W1765	14	200	36	2.7
W1766	15	270	39	3.4
W1767	14	170	46	2.8
W1768	12	180	50	3.3
W1769	12	160	54	4.5
W1770	9	190	32	3.6
W1771	9	230	38	4.0
W1772	7	170	34	2.5
W1773	6	120	40	2.5
W1774	10	220	90	5.9
W1775	8	170	69	2.7
W1776	7	64	48	1.9
W1777	12	120	34	2.2
W1778	11	110	35	2.1
W1779	9	120	17	2.3
W1780	10	160	45	2.2
W1781	5	110	30	2.5
W1782	12	210	65	2.7
W1783	14	190	82	2.1
W1784	16	240	86	3.6
W1785	7	150	57	2.8
W1786	11	220	70	2.3
W1787	8	130	36	2.2
W1831	15	110	54	1.9
W1833	12	83	27	1.9
W1834	11	86	36	2.3
W1835	13	120	32	2.3
W1836	18	92	56	2.0
W1837	15	120	47	2.3
W1838	32	170	53	3.0
W1839	23	250	58	3.0
W1840	14	170	39	2.5
W1841	13	130	40	2.4
W1842	17	200	56	3.1
W1843	14	150	38	2.9
W1844	18	180	85	3.1
W1846	9	110	19	3.0
W1847	12	190	54	3.0
W1848	8	170	53	4.0
W1849	4	34	13	4.2
W1850	8	100	25	2.9
W1851	18	580	180	4.9
W1852	4	58	4	3.0
W1853	5	44	22	6.5
W1854	14	140	34	2.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1855	8	87	35	2.7
W1856	4	25	27	3.2
W1857	7	97	24	2.3
W1858	13	170	70	2.4
W1859	6	93	23	2.5
W1860	11	94	58	4.9
W1861	9	79	27	2.2
W1862	12	130	28	2.5
W1863	8	77	33	2.9
W1864	5	42	19	2.3
W1865	4	53	28	2.3
W1866	8	70	26	2.9
W1867	9	61	37	3.4
W1868	12	67	22	2.1
W1869	15	180	61	2.8
W1870	16	130	27	2.0
W1871	16	120	34	2.4
W1872	8	120	46	3.4
W1873	8	100	31	2.5
W1874	24	140	87	2.2
W1875	16	120	36	1.7
W1876	12	110	32	2.2
W1877	11	140	41	2.1
W1878	15	140	43	2.1
W1879	13	150	54	2.4
W1880	25	270	72	2.3
W1881	10	170	33	2.2
W1882	13	210	60	3.2
W1883	18	350	65	3.5
W1884	22	120	28	2.7
W1885	19	130	61	2.2
W1886	16	150	50	2.5
W1887	18	170	58	2.9
W1888	12	150	42	2.5
W1891	3	24	8	3.3
W1892	5	34	32	2.8
W1893	10	110	71	3.6
W1894	18	95	8	3.7
W1895	7	120	26	2.4
W1896	10	76	45	2.6
W1898	9	78	36	2.3
W1899	11	84	28	2.4
W1900	8	58	26	2.4
W1901	6	44	19	2.1
W1902	8	83	20	1.9
W1903	6	75	18	2.0
W1904	8	50	26	2.5
W1905	9	75	18	2.4
W1907	14	95	23	2.1
W1908	7	93	16	2.2
W1909	10	97	20	2.6
W1910	15	48	54	3.5
W1911	12	140	23	2.3
W1912	11	120	33	2.8
W1913	14	290	41	2.5
W1914	16	160	44	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1915	12	190	29	2.2
W1916	11	160	20	2.2
W1960	10	190	90	2.9
W1961	8	130	60	3.1
W1962	7	140	42	2.6
W1963	12	180	60	2.6
W1964	15	160	41	2.9
W1965	6	160	44	3.1
W1966	15	130	63	2.4
W1967	26	220	75	4.2
W1968	25	150	42	3.7
W1969	9	160	32	2.4
W1970	16	160	42	3.0
W1971	27	390	120	3.1
W1972	15	190	42	1.3
W1973	12	170	50	1.9
W1974	31	94	22	1.7
W1975	13	120	35	2.7
W1976	6	40	19	3.6
W1977	5	81	36	3.6
W1978	9	100	38	3.4
W1979	5	83	37	3.0
W1980	16	150	39	2.8
W1981	13	160	29	2.8
W1982	16	160	57	2.6
W1983	43	330	110	1.6
W1984	19	140	34	2.0
W1985	13	84	30	2.1
W1986	12	120	27	2.5
W1987	8	100	33	2.2
W1988	7	97	23	2.3
W1989	5	58	20	2.6
W1990	6	86	25	2.5
W1991	4	100	20	2.5
W1992	7	110	22	2.4
W1993	8	120	44	2.8
W1994	5	130	27	2.2
W1995	7	94	22	3.0
W1997	5	120	23	3.3
W1998	12	130	18	2.8
W1999	3	89	22	2.5
W3000	4	89	20	2.8
W3001	6	160	39	3.0
W2002	12	160	26	4.0
W3046	32	310	88	3.2
W3047	10	180	50	3.4
W3048	8	150	31	3.1
W3049	9	160	43	2.3
W3050	12	140	56	2.8
W3052	13	100	50	2.1
W3053	6	140	79	3.9
W3054	11	170	55	2.5
W3055	12	240	49	2.6
W2056	8	88	36	4.9
W3057	15	110	32	2.2
W3058	15	69	52	2.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3059	4	53	34	2.9
W3060	8	110	48	2.6
W3061	11	190	55	3.1
W3062	4	85	21	2.7
W3063	3	100	23	2.1
W3064	7	100	34	2.8
W3065	6	62	22	2.9
W3066	7	58	34	2.6
W3067	6	63	34	2.9
W3068	5	32	23	3.2
W3069	8	120	32	2.5
W3070	4	65	41	5.1
W3071	6	85	27	2.8
W3072	9	130	22	2.3
W3073	6	60	29	2.3
W3074	6	110	17	2.4
W3075	24	200	69	4.1
W3076	18	130	40	2.4
W3077	8	110	25	2.1
W3078	7	66	34	1.9
W3079	12	120	27	2.4
W3080	14	140	39	2.4
W3081	8	150	25	2.4
W3082	11	60	54	2.5
W3083	6	38	23	2.4

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M1917	9	33	22	2.7
M1918	14	120	29	3.1
M1919	8	93	19	2.9
M1920	8	85	17	2.9
M1921	8	100	22	2.3
M1923	13	97	18	2.7
M1924	74	700	150	6.0
M1925	7	83	24	3.0
M1926	11	110	32	2.7
M1927	7	130	29	3.3
M1928	16	240	39	3.0
M1929	11	190	35	2.7
M1930	4	55	24	2.3
M1931	9	97	32	2.2
M1932	6	81	28	3.1
M1933	12	88	42	3.0
M1934	8	48	50	2.7
M1935	12	60	37	2.3
M1936	8	48	35	2.8
M1937	4	35	47	3.8
M1939	7	68	35	2.8
M1940	7	44	80	2.4
M1941	6	66	48	3.1
M1942	5	110	51	3.2
M1943	7	110	88	4.4
M1944	9	140	34	2.4
M1945	2	32	10	3.5
M1946	12	140	42	3.0
M1947	11	180	47	3.4
M1948	7	100	42	3.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1949	18	130	46	2.9
W1951	8	130	38	2.7
W1952	7	160	71	2.8
W1953	18	330	110	3.4
W1954	14	270	69	2.9
W1955	12	200	93	3.1
W1956	10	150	36	2.7
W1957	8	100	45	3.1
W1958	18	160	60	2.4
W1959	5	45	23	2.9
W3003	8	140	17	2.5
W3004	7	150	13	2.4
W3006	7	100	24	2.9
W3007	5	130	13	2.4
W3008	15	230	47	3.3
W3009	12	130	33	2.1
W3010	10	100	19	2.7
W3011	8	100	34	3.5
W3012	14	120	30	2.5
W3013	8	96	22	2.8
W3014	12	130	70	2.6
W3015	11	90	35	2.1
W3016	11	160	55	2.6
W3017	17	190	60	2.2
W3019	13	140	36	2.3
W3020A	11	130	38	2.7
W3020B	9	120	43	2.3
W3021	7	59	37	2.9
W3022	3	25	21	3.2
W3023	6	61	31	2.9
W3024	6	43	37	3.1
W3025	8	85	40	3.0
W3026	5	82	35	3.3
W3027	8	42	29	6.4
W3028	5	67	37	3.4
W3029	5	75	34	2.6
W3030	14	61	34	1.8
W3031	23	150	80	1.4
W3032	19	220	77	1.8
W3035	10	180	58	2.7
W3036	10	120	53	3.0
W3037	12	190	50	2.5
W3038	8	200	36	3.2
W3039	16	210	58	3.4
W3040	22	240	65	5.2
W3041	10	120	46	3.0
W3042	9	130	54	3.1
W3043	13	200	66	3.1
W3044	11	180	72	3.0
W3045	11	170	63	2.9
W3089	18	140	27	1.2
W3090	28	290	67	3.6
W3091	7	82	20	2.3
W3092	8	75	15	3.1
W3093	12	75	20	2.0
W3094	4	120	6	1.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3098	2	76	29	2.8
W3099	8	230	29	2.4
W3100	11	180	54	4.2
W3101	14	200	43	2.0
W3102	10	110	45	2.5
W3103	7	78	24	2.9
W3104	12	150	30	2.6
W3105	8	120	31	3.3
W3106	10	200	69	1.7
W3107	8	140	34	2.7
W3108	7	110	51	2.9
W3109	11	120	36	2.5
W3110	6	60	31	2.8
W3111	6	110	39	2.4
W3112	15	160	45	2.5
W3113	10	110	31	2.5
W3114	11	82	28	2.2
W3115	5	46	26	4.3
W3116	13	120	33	2.0
W3117	5	62	23	2.3
W3118	18	100	44	2.0
W3119	8	87	30	3.1
W3120	8	45	27	3.0
W3121	14	130	70	9.9
W3122	12	75	49	10.9
W3123	8	58	33	2.8
W3124	8	68	32	2.7
W3125	7	80	30	2.2
W3127	8	94	64	2.5
W3128	7	96	53	4.8
W3129	16	140	70	3.8
W3130	5	130	43	3.4
W3131	8	380	53	3.6
W3132	9	120	57	2.8
W3133	11	150	60	3.5
W3134	7	110	46	4.0
W3135	6	85	37	5.4
W3136	7	70	27	0.2
W3137	5	43	24	2.5
W3138	11	63	32	3.3
W3139	13	54	33	2.8
W3140	12	59	31	3.2
W3141	11	81	28	3.1
W3142	11	74	79	4.9
W3143	15	110	42	2.8
W3144	6	95	23	2.3
W3145	9	100	33	3.1
W3146	5	37	23	2.7
W3147	13	100	28	2.6
W3148	24	77	26	2.3
W3149	7	50	22	2.2
W3150	8	70	26	2.5
W3151	12	130	36	2.4
W3152	8	130	23	3.3
W3153	8	180	27	2.5
W3154	7	82	22	2.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3155	16	130	40	2.4
W3156	6	80	24	3.2
W3157	9	76	22	2.4
W3158	19	130	36	3.0
W3159	13	140	15	2.5
W3160	12	190	18	2.5
W3161	5	75	9	2.4
W3162	8	79	22	3.1
W3163	8	58	58	1.2
W3164	5	57	22	2.5
W3165	4	24	22	2.8
W3166	7	52	59	2.6
W3167	8	42	63	2.3
W3168	10	57	58	2.6
W3169	8	57	23	2.9
W3170	6	32	19	3.2
W3171	11	130	42	2.6
W3172	16	230	16	1.6
W3173	8	110	19	2.4
W3174	10	96	32	3.1
W3175	12	84	28	3.2
W3176	10	77	30	2.9
W3177	15	140	34	3.2
W3178	10	110	28	2.8
W3179	12	140	35	3.2
W3180	10	85	50	2.9
W3181	12	110	31	3.0
W3182	12	150	23	3.7
W3183	13	200	38	3.3
W3184	17	130	30	2.0
W3185	18	180	43	3.3
W3186	12	120	34	2.2
W3187	13	110	24	2.2
W3188	10	94	17	2.3
W3189	8	92	23	2.6
W3190	8	88	20	2.5
W3191	7	51	22	3.2
W3192	6	77	22	2.2
W3193	7	110	30	2.4
W3194	8	90	53	2.8
W3195	7	67	23	2.4
W3196	3	17	36	3.8
W3197	6	41	51	2.6
W3198	8	75	71	2.6
W3199	9	56	56	3.4
W3200	7	45	37	2.6
W3201	5	38	43	3.1
W3202	15	110	28	2.6
W3203	9	120	37	3.2
W3204	13	210	51	2.4
W3205	11	170	27	2.7
W3206	12	170	12	2.3
W3207	15	90	48	3.6
W3208	12	190	58	2.9
W3209	14	280	50	4.1
W3210	12	210	45	2.9

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3211	18	250	53	3.0
W3212	8	110	18	4.1
W3213	8	88	19	2.6
W3214	10	80	44	2.6
W3215	5	65	53	3.0
W3216	6	45	35	2.8
W3217	15	58	16	2.8
W3218	4	16	14	2.9
W3219	9	45	12	3.5
W3220	7	40	18	2.4
W3221	8	50	23	2.2
W3222	5	18	13	2.4
W3223	12	95	43	2.3
W3224	8	90	34	2.7
W3225	10	120	24	2.0
W3226	13	170	38	2.1
W3227	8	83	18	2.2
W3228	7	52	21	2.8
W3229	8	72	26	2.5
W3230	6	68	35	0.3
W3231	6	80	25	0.2
W3232	10	120	33	2.6
W3233	12	120	43	2.6
W3234	5	54	25	2.4
W3235	8	160	59	2.3
W3236	8	60	34	2.3
W3237	9	90	24	2.9
W3238	7	62	31	3.1
W3239	11	110	29	2.8
W3240	5	53	15	2.7
W3241	8	120	37	2.2
W3242	22	380	130	2.7
W3243	6	62	25	1.9
W3244	8	82	38	2.7
W3245	12	100	57	2.6
W3246	14	160	56	3.0
W3247	7	90	32	2.9
W3248	8	65	33	1.5
W3249	7	55	35	3.5
W3250	8	33	26	3.2
W3251	12	50	34	2.7
W3252	12	72	34	2.5
W3253	8	56	37	2.9
W3254	12	95	36	2.5
W3255	12	80	23	1.9

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3256	11	110	34	2.9
W3257	11	150	31	2.8
W3258	17	150	48	2.7
W3259	7	64	35	3.1
W3260	18	190	48	2.3
W3261	12	110	39	3.1
W3262	18	120	27	1.9
W3263	6	65	27	3.3
W3264	6	79	40	5.8
W3265	7	66	55	4.1
W3266	5	82	62	4.5
W3267	11	67	32	2.6
W3268	11	87	24	3.2
W3269	7	54	27	2.9
W3270	7	79	23	3.0
W3271	10	100	42	3.3
W3272	5	77	26	3.5
W3273	9	130	16	2.9
W3274	9	110	23	3.7
W3275	12	88	18	3.0
W3276	8	120	24	2.5
W3277	6	55	16	2.5
W3278	8	93	17	2.4
W3279	10	58	18	2.0
W3280	5	37	18	4.8
W3281	8	64	15	1.9
W3282	5	54	24	2.5
W3283	8	70	30	2.1
W3284	7	93	40	3.2
W3285	6	73	28	2.3
W3286	5	42	41	2.2
W3287	7	86	46	2.4
W3288	14	82	30	2.3
W3289	14	240	34	2.9
W3290	12	160	34	3.1
W3291	12	190	62	2.8
W3292	13	78	33	2.1
W3293	12	81	42	2.2
W3294	8	150	40	3.1
W3295	18	230	41	3.5
W3296	20	120	31	1.4
W3297	8	73	20	4.1
W3298	13	100	25	2.9
W3299	8	69	24	2.9
W3300	8	47	26	2.4
W3301	19	58	54	1.6
W3302	8	82	17	2.4
W3303	12	89	26	3.0
W3304	11	91	25	2.3
W3305	24	58	26	1.8
W3306	12	120	44	2.6
W3307	10	48	31	2.3
W3308	14	100	27	2.5
W3309	7	100	28	4.8
W3310	7	47	28	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3311	4	30	19	2.7
W3312	8	41	29	2.2
W3313	6	32	29	2.6
W3314	5	41	8	0.2
W3315	11	83	13	0.2
W3316	9	73	23	2.3
W3317	8	54	18	2.1
W3318	10	90	22	2.8
W3319	9	65	39	2.9
W3320	9	56	20	2.4
W3321	12	52	28	3.2
W3322	4	42	10	1.6
W3323	8	83	32	6.5
W3324	11	100	30	2.8
W3325	7	59	28	2.8
W3326	10	110	20	3.0
W3327	8	130	35	3.1
W3328	8	90	24	2.9
W3329	15	160	37	2.8
W3330	12	110	35	2.5
W3331	5	47	27	3.4
W3332	12	120	35	2.4
W3333	14	170	52	3.7
W3334	6	62	32	3.9
W3335	16	160	49	3.3
W3336	11	120	43	4.5
W3337	8	97	38	3.4
W3338	9	76	35	2.5
W3339	10	74	40	2.0
W3340	5	72	29	3.7
W3341	13	92	37	2.5
W3342	13	87	35	2.7
W3343	13	120	38	2.8
W3344	8	64	36	3.2
W3345	9	110	58	4.1
W3346	8	85	29	3.2
W3347	7	88	24	2.6
W3348	8	130	46	3.7
W3349	8	75	20	2.6
W3350	5	70	16	2.6
W3351	10	64	22	2.3
W3352	8	73	20	2.1
W3353	9	44	25	2.4
W3354	7	66	22	2.6
W3355	18	110	61	2.6
W3356	9	150	22	2.5
W3357	5	73	20	2.1
W3358	9	110	24	2.4
W3359	9	110	26	2.0
W3360	6	62	17	2.2
W3361	5	40	20	1.9
W3362	8	92	27	2.2
W3363	7	51	21	2.3
W3364	5	39	31	2.3
W3365	7	69	20	2.3
W3366	9	78	23	2.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3367	14	190	27	2.0
W3368	8	87	20	2.7
W3369	8	90	20	2.3
W3370	4	68	15	2.4
W3371	6	48	19	2.6
W3372	11	47	11	2.6
W3373	7	64	30	2.6
W3374	9	65	20	2.5
W3375	13	100	27	2.4
W3376	7	91	17	2.4
W3377	7	81	42	3.4
W3378	8	56	84	4.1
W3379	7	65	55	3.3
W3380	8	62	24	3.1
W3381	8	65	22	2.6
W3382	17	130	32	1.6
W3383	14	96	21	2.2
W3384	8	65	15	2.3
W3385	8	100	21	2.2
W3386	12	70	16	1.8
W3387	12	61	10	2.0
W3388	11	110	20	2.4
W3389	8	95	30	2.2
W3390	8	72	40	2.3
W3391	8	86	31	2.3
W3392	6	85	34	2.4
W3393	11	92	40	2.1
W3394	9	190	37	2.6
W3395	5	120	19	2.4
W3396	6	48	24	3.4
W3397	15	56	13	2.8
W3398	9	130	19	2.6
W3399	8	84	20	2.8
W3400	6	86	21	2.4
W3401	7	53	31	2.8
W3402	8	100	22	2.3
W3403	5	24	18	3.5
W3404	8	67	36	4.7
W3405	6	34	37	3.3
W3406	7	73	50	10.1
W3407	6	58	29	3.0
W3408	6	74	20	2.6
W3409	6	45	23	2.5
W3410	8	92	26	2.3
W3411	8	94	34	2.6
W3412	9	64	27	2.7
W3414	8	51	31	2.0
W3415	6	44	32	2.6
W3416	10	54	31	2.8
W3417A	8	61	19	2.4
W3417B	15	100	22	2.9
W3418	8	67	24	2.5
W3419	8	59	28	2.3
W3420	8	39	60	2.2
W3421	4	32	30	2.7
W3422	7	42	32	2.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3423	3	34	23	3.1
W3424	7	54	47	3.1
W3425	9	53	25	2.7
W3426	8	84	24	2.9
W3427	8	160	30	3.1
W3428	4	47	20	2.7
W3429	6	54	26	2.7
W3430	9	170	40	2.7
W3431	13	90	24	2.3
W3432	12	92	22	2.6
W3433	12	47	11	2.6
W3434	5	67	17	2.7
W3435	10	110	30	2.2
W3436	8	120	28	2.7
W3437	18	200	23	2.4
W3438	7	180	29	2.1
W3439	4	91	15	2.3
W3440	9	89	30	2.9
W3441	7	170	32	2.4
W3442	11	270	40	2.4
W3443	7	110	29	2.7
W3444	6	80	19	2.3
W3445	12	160	23	2.3
W3446	14	180	14	2.6
W3447	16	150	23	2.1
W3448	7	87	16	2.3
W3449	5	78	19	2.5
W3450	5	76	17	2.7
W3451	5	78	18	2.5
W3452	3	49	11	2.3
W3453	6	70	15	2.1
W3454	4	59	31	2.6
W3455	15	280	120	4.6
W3456	10	110	31	2.8
W3457	17	570	78	5.1
W3458	11	140	29	2.7
W3459	8	75	15	2.1
W3460	11	150	24	2.5
W3461	27	610	63	3.4
W3462	13	160	56	2.8
W3463	13	220	26	2.5
W3464	8	110	30	2.9
W3465	14	73	33	1.9
W3466	4	66	23	2.8
W3467	3	39	17	2.3
W3468	5	56	23	2.3
W3469	6	53	19	2.6
W3470	6	79	20	2.6
W3471	7	59	23	2.1
W3472	4	53	18	2.4
W3473	9	79	52	2.9
W3474	9	76	33	3.8
W3475	12	77	22	2.9
W3476	12	210	23	2.3
W3477	6	140	30	2.3
W3478	9	170	44	2.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M3479	11	93	49	2.9
M3480	6	56	20	2.3
M3481	4	52	14	1.9
M3482	8	77	13	2.1
M3483	5	47	18	2.3
M3484	7	70	18	2.2
M3485	5	100	29	3.6
M3486	NSS	NSS	NSS	4.8
M3487	16	132	38	4.8
M3488	5	48	27	2.6
M3489	4	41	17	2.4
M3490	11	58	27	2.5
M3491	2	19	12	2.6
M3492	4	29	22	2.5
M3493	4	41	19	2.7
M3494	5	54	23	3.2
M3495	5	60	24	2.6
M3496	4	30	22	2.2
M3497	8	84	56	2.2
M3498	6	75	77	3.3
M3499	5	54	37	3.1
M3500	6	85	66	5.0
M3501	11	93	53	2.6
M3502	4	32	26	3.3
M3503	6	59	23	2.1
M3504	4	42	18	3.2
M3505	10	73	26	2.1
M3506	7	48	18	2.2
M3507	7	62	22	2.1
M3508	5	31	25	2.9
M3509	4	38	16	2.6
M3510	6	63	19	2.2
M3511	4	40	18	2.5
M3512	12	63	20	2.2
M3513	3	30	16	2.8
M3514	7	78	27	2.4
M3515	3	58	18	2.5
M3516	5	100	24	2.6
M3517	5	87	19	2.3
M3518	6	63	24	2.4
M3519	6	70	24	3.4
M3520	14	110	34	2.0
M3521	6	68	17	2.7
M3522	12	74	20	2.7
M3523	8	85	23	2.6
M3524	12	63	28	2.0
M3525	8	45	22	2.4
M3526	5	37	19	2.9
M3527	9	75	20	2.4
M3528	7	53	23	2.5
M3529	5	34	25	2.5
M3530	6	65	21	2.8
M3531	5	38	27	2.3
M3532	4	34	24	2.9
M3533	7	54	30	2.6
M3534	7	56	31	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M3535	3	23	22	3.4
M3536	3	20	11	3.3
M3537	6	30	11	2.4
M3538	8	29	16	2.6
M3539	14	88	17	2.4
M3540	7	46	11	2.2
M3541	8	66	15	2.1
M3542	18	73	14	2.2
M3543	12	76	10	2.2
M3544	13	73	19	1.8
M3545	15	73	13	2.0
M3546	11	65	18	2.0
M3547	17	77	22	1.7
M3548	11	36	15	2.1
M3549	4	32	10	2.4
M3550	7	100	15	2.2
M3551	10	73	15	2.1
M3552	16	79	15	1.9
M3553	9	53	15	2.1
M3554	15	62	19	2.4
M3555	4	14	20	2.2
M3556	8	46	29	2.3
M3557	10	11	14	2.6
M3558	20	79	24	2.5
M3559	10	46	22	2.5
M3560	13	39	17	2.5
M3561	18	71	22	1.9
M3562	6	34	18	2.4
M3563	8	45	25	2.4
M3564	4	17	15	2.7
M3565	7	37	15	2.4
M3566	14	64	18	2.3
M3567	6	50	16	2.1
M3568	15	71	25	2.2
M3569	11	57	28	2.4
M3570	19	110	29	2.2
M3571	14	59	23	2.0
M3572	8	47	26	2.6
M3573	7	55	43	2.5
M3574	8	49	34	3.4
M3575	14	64	95	2.5
M3576	20	100	38	1.7
M3577	12	82	79	3.8
M3578	12	94	57	2.8
M3579	12	93	32	2.8
M3580	16	36	11	2.1
M3581	19	38	12	1.8
M3582	19	56	20	1.9
M3583	8	39	10	2.0
M3584	8	52	11	2.5
M3585	24	50	8	1.6
M3586	18	67	15	1.8
M3587	11	84	17	2.0
M3588	13	82	16	2.9
M3589	4	22	17	2.4
M3590	20	63	22	2.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3591	12	49	13	2.5
W3592	11	45	18	2.1
W3593	17	58	14	2.2
W3594	15	44	11	2.1
W3595	20	57	14	1.7
W3596	7	23	20	3.0
W3597	27	69	14	1.9
W3598	9	19	24	2.5
W3599	10	39	24	2.1
W3600	18	54	17	2.0
W3601	10	28	15	1.9
W3602	2	15	15	2.7
W3603	12	33	26	2.2
W3604	7	11	18	2.2
W3605	20	77	23	1.9
W3606	11	76	17	2.0
W3607	29	85	26	2.0
W3608	12	44	18	2.3
W3609	19	63	18	2.0
W3610	17	65	20	2.4
W3611	13	49	19	2.2
W3612	8	56	19	2.2
W3613	12	64	17	1.9
W3614	15	70	26	1.8
W3615	8	41	22	2.3
W3616	12	66	22	1.9
W3619	24	87	27	1.6
W3620	7	55	18	2.3
W3621	25	130	36	1.8
W3622	17	150	72	2.2
W3623	5	39	20	2.7
W3624	15	96	38	1.8
W3625	9	63	27	1.6
W3626	15	77	22	2.2
W3627	22	74	26	1.8
W3628	11	64	21	1.8
W3629	10	40	22	1.9
W3630	8	46	15	2.3
W3631	20	110	65	2.2
W3632	18	84	43	2.8
W3633	26	75	22	1.8
W3634	16	71	37	3.8
W3635	19	36	20	2.0
W3636	30	72	24	2.1
W3637	78	100	58	1.9
W3638	47	68	26	1.8
W3639	59	71	24	3.1
W3640	5	51	26	1.8
W3641	5	62	18	2.2
W3642	18	34	25	1.7
W3643	3	14	14	1.6
W3644	6	29	29	1.9
W3645	12	36	16	1.4
W3647	3	18	18	2.3
W3648	14	43	13	1.8
W3649	15	41	13	1.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3650	11	35	24	1.4
W3651	34	78	23	1.9
W3652	11	60	19	1.9
W3653	8	40	12	1.8
W3654	16	60	18	2.0
W3655	7	31	14	2.0
W3656	12	44	28	2.0
W3657	11	46	17	2.2
W3658	12	51	17	2.1
W3659	11	53	14	1.8
W3660	11	50	19	2.2
W3661	13	69	20	1.4
W3662	13	59	12	2.3
W3663	11	43	12	2.3
W3664	23	78	22	2.2
W3665	8	42	9	2.2
W3666	5	30	21	1.7
W3667	18	64	28	1.9
W3668	33	93	36	2.9
W3669	10	39	29	2.8
W3670	40	63	32	2.1
W3671	12	54	23	1.9
W3672	63	130	36	1.9
W3673	9	55	16	2.1
W3674	15	52	30	2.4
W3675	17	100	38	2.7
W3676	12	54	30	2.1
W3677	4	33	12	2.5
W3678	29	83	39	2.0
W3679	6	51	23	2.1
W3680	8	61	18	2.1
W3681	11	59	22	2.6
W3682	14	92	35	2.3
W3683	6	36	13	2.7
W3684	18	78	37	1.6
W3685	9	12	19	1.4
W3686	12	24	20	1.4
W3687	12	25	24	1.6
W3688	8	34	22	1.6
W3689	4	24	10	1.9
W3690	14	35	20	1.7
W3691	7	24	20	2.0
W3692	9	25	19	1.6
W3693	9	40	27	1.7
W3694	5	15	43	2.0
W3695	9	36	36	2.3
W3696	9	43	30	1.7
W3697	13	39	24	2.3
W3698	12	34	23	1.8
W3699	8	49	26	1.8
W3700	17	60	27	1.9
W3701	17	30	11	2.1
W3702	14	54	11	2.1
W3703	4	57	10	1.8
W3704	7	45	20	2.3
W3705	14	66	22	2.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3706	5	34	25	2.0
W3707	17	67	29	2.4
W3708	14	59	8	2.0
W3709	15	58	14	1.6
W3710	30	110	19	1.7
W3711	25	83	20	2.7
W3712	10	35	12	2.1
W3713	4	28	15	2.3
W3714	12	44	23	2.7
W3715	9	46	14	2.1
W3716	13	42	17	2.1
W3717	13	43	20	2.0
W3718	11	22	17	1.8
W3719	11	31	25	1.8
W3720	16	43	24	1.7
W3721	13	58	16	2.0
W3722	15	56	16	2.0
W3723	10	37	17	2.0
W3724	22	48	22	1.4
W3725	17	36	22	1.5
W3726	9	28	16	1.6
W3727	11	32	13	1.7
W3728	16	42	17	1.1
W3729	10	50	24	1.8
W3730	20	140	30	1.3
W3731	16	130	78	2.4
W3732	9	120	53	1.9
W3733	12	68	14	1.6
W3734	13	48	18	1.6
W3735	32	110	23	1.0
W3736	52	94	29	1.5
W3737	18	84	28	1.2
W3738	5	29	22	1.3
W3739	18	55	21	1.4
W3740	22	56	25	1.6
W3741	33	49	35	0.9
W3742	28	94	32	2.1
W3743	12	30	23	2.2
W3744	11	71	21	2.1
W3745	12	56	20	2.6
W3746	15	37	22	2.1
W3747	21	84	28	1.5
W3748	16	72	25	1.8
W3749	8	65	22	1.9
W3750	32	98	46	1.1
W3751	7	58	28	2.3
W3752	8	73	31	2.2
W3753	6	72	29	1.8
W3754	12	91	27	2.2
W3755	9	77	29	2.8
W3756	10	90	29	1.9
W3757	12	63	47	2.0
W3758	11	82	30	2.2
W3759	12	72	31	1.9
W3760	9	120	30	2.0
W3761	12	93	35	2.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3762	7	75	33	2.0
W3763	8	94	38	2.3
W3764	11	110	35	2.0
W3765	8	110	36	2.3
W3766	18	100	51	4.5
W3767	23	190	55	1.9
W3768	13	79	38	1.9
W3769	12	100	52	2.3
W3770	8	110	30	2.5
W3771	NSS	NSS	NSS	0.2
W3772	NSS	NSS	NSS	0.2
W3773	18	200	130	2.8
W3774	12	91	95	2.8
W3775	15	96	52	2.0
W3776	8	100	25	2.4
W3777	7	100	26	2.1
W3778	6	98	37	2.2
W3779	7	59	35	2.4
W3780	13	130	44	1.6
W3781	13	46	28	1.9
W3782	10	86	24	1.9
W3783	26	91	28	2.1
W3784	18	83	26	1.6
W3785	8	42	16	1.4
W3786	12	55	22	1.9
W3787	14	78	19	1.8
W3788	16	98	17	1.7
W3789	14	83	21	1.4
W3790	16	78	21	2.1
W3791	5	28	15	2.4
W3792	15	110	12	1.9
W3793	8	100	34	4.1
W3794	5	76	12	2.6
W3795	4	53	12	2.5
W3796	6	92	15	3.0
W3797	5	58	18	3.0
W3798	6	63	20	2.5
W3799	13	83	22	2.5
W3800	8	77	30	2.8
W3801	4	84	25	2.3
W3802	6	73	24	2.9
W3803	10	100	38	2.3
W3805	12	94	28	2.1
W3806	5	100	35	2.2
W3807	12	160	47	2.4
W3808	19	180	48	2.0
W3809	20	150	72	2.6
W3810	15	60	27	2.2
W3812	7	130	54	2.9
W3813	8	68	33	2.4
W3814	16	140	48	2.4
W3815	10	110	36	2.3
W3816	13	120	66	3.3
W3817	7	50	37	2.7
W3818	NSS	NSS	NSS	2.3
W3820A	15	150	73	2.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3820	13	110	44	2.7
W3821	24	270	130	5.2
W3822	22	140	96	3.6
W3823	12	69	48	2.4
W3824	18	160	110	2.7
W3825	4	51	35	3.4
W3826	12	180	34	2.5
W3827	12	160	69	3.3
W3829	17	130	66	2.5
W3830	13	60	49	2.2
W3831	8	54	40	2.5
W3832	69	200	120	15.1
W3833	8	93	44	2.9
W3834	4	46	33	2.5
W3835	17	130	45	3.3
W3836	12	210	93	2.8

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3837	65	650	530	2.6
W3838	25	250	52	2.8
W3839	NSS	NSS	NSS	4.9
W3840	13	87	26	2.6
W3841	5	39	13	2.9
W3842	8	92	25	2.6
W3843	12	180	37	2.3
W3844	8	75	22	2.6
W3845	13	89	28	2.3
W3846	8	54	23	2.7
W3847	10	75	15	2.3
W3848	8	56	15	2.8
W3849	14	72	24	2.3
W3850	12	67	22	2.3
W3851	8	44	18	2.8
W3852	14	72	23	2.7
W3853	10	66	23	2.2
W3854	13	63	20	2.2
W3855	8	44	16	2.6
W3856	12	70	23	2.2
W3857	6	40	14	2.1
W3858	12	58	18	2.4
W3859	12	82	20	2.3
W3860	15	65	18	2.5
W3861	12	76	20	2.7
W3862	13	100	24	2.4
W3863	11	110	32	2.9
W3864	9	96	22	3.2
W3865	4	22	14	3.5
W3866	6	37	17	3.3
W3867	8	51	17	2.5
W3868	11	76	19	3.0
W3869	12	92	19	2.2
W3870	12	87	20	2.4
W3871	9	66	11	2.5
W3872	8	60	15	2.2
W3873	7	70	19	2.3
W3874	15	130	32	2.5
W3875	15	110	16	2.0
W3876	8	80	12	2.3
W3877	7	44	11	2.5
W3878	7	53	12	2.1
W3879	9	100	15	2.2
W3880	7	50	12	2.1
W3881	6	34	17	2.9
W3882	13	75	13	2.3
W3883	9	61	18	2.3
W3884	15	73	22	2.4
W3885	12	79	19	2.9
W3886	8	59	18	2.5
W3887	9	59	17	2.1
W3888	8	65	11	2.3
W3889	13	140	20	2.9
W3890	12	60	14	2.5
W3891	5	23	17	3.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3892	4	18	9	2.5
W3893	4	42	10	2.4
W3894	11	75	22	3.1
W3895	5	27	13	2.4
W3896	5	38	11	2.4
W3897	10	89	20	2.7
W3898	5	58	18	3.4
W3899	4	85	22	3.0
W3900	8	60	34	2.6
W3901	6	46	16	3.8
W3902	6	72	22	2.8
W3903	12	120	33	3.5
W3904	8	79	20	3.1
W3905	4	12	12	3.6
W3906	5	59	21	3.2
W3907	8	55	24	3.5
W3908	6	74	25	3.5
W3909	9	99	31	2.9
W3910	4	56	16	3.5
W3911	7	77	21	3.4
W3912	5	32	22	4.4
W3913	7	66	30	3.6
W3914	8	49	17	3.0
W3915	5	42	14	2.6
W3916	4	50	8	2.8
W3917	38	140	55	2.7
W3918	5	48	15	3.0
W3919	8	54	24	4.5
W3920	7	62	28	3.8
W3921	6	46	20	3.4
W3922	7	43	19	3.2
W3923	5	36	18	3.3
W3924	12	79	25	2.9
W3925	2	7	9	5.7
W3926	4	27	14	4.4
W3927	7	53	20	3.0
W3928	9	89	37	3.1
W3929	6	39	17	2.2
W3930	6	51	14	2.5
W3931	5	44	12	3.0
W3932	5	30	11	3.2
W3933	6	60	18	2.5
W3934	6	56	13	2.7
W3935	9	93	18	2.4
W3936	6	19	17	6.7
W3937	6	27	14	2.3
W3938	8	48	18	2.4
W3939	7	31	13	2.8
W3940	5	42	14	2.3
W3941	7	48	12	2.5
W3942	8	53	11	2.4
W3943	6	36	11	2.7
W3944	7	55	15	2.7
W3945	12	50	21	2.5
W3946	10	51	13	2.7
W3947	5	29	13	2.9

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W3948	7	49	11	2.6
W3949	7	60	13	2.0
W3950	2	17	10	2.3
W3951	5	110	45	1.1
W3952	6	42	9	2.3
W3953	3	42	11	2.1
W3954	5	35	11	2.0
W3955	3	36	13	2.5
W3956	8	64	10	2.3
W3957	4	22	8	2.4
W3958	8	56	9	2.4
W3959	7	34	12	2.5
W3960	9	25	13	2.7
W3961	9	31	20	2.4
W3962	12	42	18	2.4
W3963	8	41	23	3.2
W3964	14	47	14	2.2
W3965	10	54	23	2.6
W3966	7	41	43	2.6
W3967	9	41	18	2.5
W3968	8	48	17	2.2
W3969	10	58	26	2.6
W3970	5	29	25	3.3
W3971	6	32	19	3.8
W3972	11	64	24	2.3
W3973	6	29	16	2.5
W3974	6	39	15	2.6
W3975	9	58	19	2.6
W3976	8	45	17	2.3
W3977	11	70	29	2.7
W3978	4	31	13	2.7
W3979	6	30	17	3.1
W3980	6	59	17	2.4
W3981	8	54	20	2.3
W3982	6	55	21	2.7
W3983	8	59	19	2.6
W3984	12	75	30	2.5
W3985	5	37	18	2.8
W3986	4	29	16	2.8
W3987	6	52	24	3.1
W3988	15	120	31	3.1
W3989	11	71	35	2.8
W3990	8	63	27	2.7
W3991	7	56	19	2.6
W3992	8	55	23	2.3
W3993	14	82	25	3.0
W3994	12	82	37	2.9
W3995	5	56	20	2.9
W3996	5	48	25	2.8
W3997	8	72	27	3.1
W3998	15	100	38	3.1
W3999	7	55	26	3.2
W4000	6	38	17	2.8
W4001	7	53	20	2.6
W4002	8	41	23	2.7
W4003	5	45	19	2.9

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4004	6	54	27	2.4
W4005	8	63	14	2.4
W4006	6	68	16	2.5
W4007	7	55	20	2.3
W4008	7	58	22	2.4
W4009	7	55	14	2.3
W4010	5	58	19	2.3
W4011	7	54	18	2.5
W4012	6	52	12	2.7
W4013	6	57	13	2.5
W4014	3	37	13	2.8
W4015	8	61	19	2.7
W4016	9	63	19	2.6
W4017	9	53	22	2.4
W4018	6	61	19	2.5
W4019	8	72	23	2.3
W4020	6	51	18	2.1
W4021	6	74	19	2.6
W4022	3	47	28	2.9
W4023	7	140	34	2.8
W4024	5	49	32	3.0
W4025	28	140	110	2.4
W4026	24	68	9	1.6
W4027	21	68	11	1.9
W4028	20	50	17	2.0
W4029	13	74	18	2.2
W4030	19	78	17	2.0
W4031	17	83	20	2.3
W4032	8	35	20	2.6
W4033	8	94	28	2.7
W4034	10	50	16	2.5
W4035	12	100	21	2.3
W4036	9	90	21	2.6
W4037	8	58	18	2.3
W4038	15	84	21	2.3
W4039	9	84	18	2.9
W4040	12	120	21	2.6
W4041	12	92	25	2.2
W4042	14	140	16	2.1
W4043	15	69	15	2.0
W4044	9	46	14	2.7
W4045	12	69	20	2.6
W4046	12	73	17	2.6
W4047	11	61	17	2.4
W4048	6	49	12	2.6
W4049	8	74	23	3.1
W4050	6	50	22	2.3
W4051	14	110	36	2.8
W4052	10	65	25	2.9
W4053	10	99	24	3.0
W4054	5	30	18	3.3
W4055	9	46	30	2.9
W4056	12	73	23	2.1
W4057	7	63	24	3.2
W4058	10	63	29	2.6
W4059	8	58	24	2.9

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4060	14	180	42	3.3
W4061	9	190	59	2.9
W4062	12	99	26	2.6
W4063	15	67	28	2.5
W4064	12	70	22	2.4
W4065	12	80	12	2.2
W4066	11	67	22	2.3
W4067	14	72	30	2.9
W4068	11	66	22	2.4
W4069	12	62	20	2.3
W4070	13	63	30	2.6
W4071	8	42	20	3.1
W4072	8	47	18	2.9
W4073	10	51	22	2.6
W4074	8	58	16	2.6
W4075	5	34	17	2.6
W4076	13	66	28	2.7
W4077	8	60	27	2.7
W4078	4	43	17	2.5
W4079	5	52	20	2.8
W4080	3	26	12	3.5
W4081	9	77	35	2.4
W4082	6	52	23	2.8
W4083	8	63	33	2.3
W4084	9	75	30	2.3
W4085	12	70	37	3.0
W4086	8	56	32	3.1
W4087	11	78	35	3.3
W4088	9	90	31	2.7
W4089	12	75	37	2.8
W4090	16	95	41	2.5
W4091	10	65	32	2.6
W4092	5	45	25	2.6
W4093	8	59	28	3.4
W4094	10	79	27	2.7
W4095	13	78	27	2.7
W4096	9	55	18	2.2
W4097	16	86	29	2.7
W4098	8	82	22	2.2
W4099	20	100	27	2.1
W4100	6	47	25	2.3
W4101	13	81	22	2.2
W4102	11	60	20	2.2
W4103	15	53	20	2.6
W4104	8	58	21	2.3
W4105	14	93	25	2.3
W4106	13	77	24	2.5
W4107	3	29	12	2.7
W4108	9	65	22	2.4
W4109	6	44	16	2.3
W4110	10	65	30	2.4
W4111	8	55	21	2.8
W4112	11	73	22	2.2
W4113	7	58	18	2.1
W4114	4	33	11	2.6
W4115	12	66	23	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4116	6	42	17	2.5
W4117	4	49	17	2.5
W4118	6	48	34	2.4
W4119	10	50	15	2.5
W4120	8	44	22	3.0
W4121	5	22	30	3.3
W4122	6	63	20	2.6
W4123	7	64	19	2.4
W4124	9	62	24	2.8
W4125	7	43	20	3.0
W4126	12	100	17	2.8
W4127	12	140	32	2.6
W4128	9	84	39	3.2
W4130	8	52	47	3.1
W4131	8	46	27	3.0
W4133	5	26	12	2.8
W4134	12	52	20	2.6
W4135	8	63	26	2.8
W4136	10	85	20	2.6
W4137	8	63	20	2.0
W4138	5	45	13	2.2
W4139	6	60	15	2.7
W4140	12	73	18	2.5
W4141	6	49	24	3.0
W4142	15	75	49	3.0
W4143	9	87	33	3.2
W4144	6	75	42	2.9
W4145	9	48	29	2.5
W4146	8	48	24	2.4
W4147	9	42	28	2.4
W4148	8	40	30	2.3
W4149	8	47	20	3.4
W4150	6	34	16	3.1
W4151	8	36	19	2.8
W4152	7	49	22	3.0
W4153	6	37	19	2.8
W4154	10	63	41	5.5
W4155	11	54	23	2.6
W4156	9	58	24	2.7
W4157	5	32	15	3.0
W4158	6	38	18	2.6
W4159	5	35	17	2.8
W4160	8	62	28	2.5
W4161	9	63	27	2.5
W4162	7	43	30	2.6
W4163	8	58	35	2.7
W4164	3	39	16	3.1
W4165	6	34	22	2.4
W4166	8	36	18	2.4
W4167	11	67	30	2.7
W4168	7	63	21	2.2
W4169	6	52	19	3.0
W4170	9	90	28	2.7
W4171	6	47	28	2.6
W4172	6	54	17	2.9
W4173	8	45	20	2.3

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4174	8	54	20	2.2
W4175	6	43	17	2.9
W4176	18	180	95	1.7
W4177	6	48	22	2.4
W4178	9	50	29	2.3
W4179	9	52	32	3.2
W4180	9	110	38	4.4
W4181	8	45	25	3.1
W4182	7	56	73	3.0
W4183	6	44	42	2.8
W4184	10	54	59	3.1
W4185	9	52	32	2.4
W4186	8	55	31	2.3
W4187	15	120	79	2.7
W4188	8	62	28	2.1
W4189	6	48	65	2.9
W4190	11	53	30	2.5
W4191	12	48	29	2.4
W4192	10	69	18	2.0
W4193	8	62	31	2.7
W4194	8	56	14	2.2
W4195	12	75	29	2.7
W4196	17	55	27	2.7
W4197	4	35	19	2.9
W4198	12	66	17	2.7
W4199	9	49	22	2.1
W4200	12	80	30	2.7
W4201	12	68	28	2.9
W4202	6	54	19	2.6
W4203	9	65	32	2.4
W4204	11	67	25	2.4
W4205	10	67	24	2.4
W4206	6	83	37	3.1
W4207	12	88	32	3.1
W4208	5	36	24	2.1
W4209	15	74	22	2.6
W4210	12	36	19	2.7
W4211	7	42	12	2.5
W4212	8	59	23	2.9
W4213	8	58	11	2.5
W4214	8	56	16	2.6
W4215	5	27	11	2.6
W4216	5	58	12	2.7
W4217	7	44	17	3.0
W4218	8	70	24	2.6
W4219	6	52	15	2.4
W4220	9	51	26	2.8
W4221	8	47	17	2.2
W4222	7	66	22	2.6
W4223	8	40	13	2.2
W4224	8	50	22	2.5
W4225	6	44	20	2.4
W4226	8	47	21	2.5
W4227	5	53	15	2.3
W4228	8	56	19	2.3
W4229	6	40	17	2.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4230	8	55	25	2.5
W4231	2	23	7	2.9
W4232	5	31	15	2.4
W4233	3	26	11	2.8
W4234	6	60	20	2.5
W4235	5	51	20	2.5
W4236	5	55	19	2.5
W4237	6	58	22	2.1
W4238	6	40	20	2.7
W4239	8	55	21	2.3
W4240	5	60	19	2.4
W4241	7	46	20	2.3
W4242	4	58	26	2.2
W4244	8	88	29	2.3
W4245	2	42	23	2.7
W4246	5	110	32	2.2
W4247	26	200	30	1.2
W4248	5	65	17	2.2
W4249	12	120	28	4.0
W4250	18	110	31	1.8
W4251	4	48	35	3.2
W4252	8	66	19	2.8
W4253	5	73	18	2.3
W4254	7	77	15	2.4
W4255	5	94	18	2.7
W4256	5	86	18	2.4
W4257	3	87	13	2.2
W4258	3	62	11	2.1
W4259	3	58	10	2.6
W4260	6	55	15	2.4
W4261	3	58	10	2.3
W4262	5	52	12	3.1
W4263	10	58	11	3.2
W4264	9	58	12	3.3
W4265	9	100	20	2.7
W4266	14	120	25	2.6
W4267	8	100	22	2.0
W4269	16	160	20	1.7
W4270	15	190	36	2.3
W4271	18	110	28	2.1
W4272	15	100	14	2.3
W4273	11	150	24	2.7
W4274	12	140	29	2.8
W4275	12	110	28	3.1
W4276	7	66	22	2.3
W4277	13	210	160	2.7
W4278	4	59	100	4.9
W4280	3	49	33	2.8
W4281	5	79	31	2.6
W4282	4	80	32	2.4
W4283	6	87	24	2.4
W4284	2	80	34	2.9
W4285	4	49	35	2.8
W4286	4	75	33	2.7
W4287	11	98	29	2.3
W4289	12	120	35	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4289	8	80	30	2.7
W4290	9	87	29	2.5
W4291	5	82	39	2.3
W4292	5	80	30	2.7
W4293	7	93	30	2.8
W4294	16	150	40	2.4
W4295	14	95	42	2.6
W4296	13	95	35	2.5
W4297	13	82	31	2.3
W4298	10	98	35	2.0
W4299	6	78	35	2.7
W4300	2	39	30	2.6
W4301	5	46	44	2.0
W4302	8	100	52	2.9
W4303	3	74	32	2.7
W4304	8	150	41	2.2
W4305	10	120	40	2.7
W4306	9	91	32	2.6
W4307	14	130	40	2.4
W4308	3	20	16	3.4
W4309	8	120	36	3.0
W4310	4	58	32	2.9
W4311	12	87	34	2.5
W4312	4	83	22	2.8
W4313	13	100	55	3.0
W4314	17	120	100	2.8
W4315	3	32	23	2.9
W4316	5	75	48	3.2
W4317	7	84	22	2.5
W4318	14	81	41	2.6
W4319	7	60	22	2.6
W4320	8	64	29	2.2
W4321	8	47	25	2.0
W4322	3	39	22	2.8
W4323	4	59	21	3.0
W4324	6	62	32	3.1
W4325	11	99	34	2.7
W4326	2	46	13	2.8
W4327	5	58	22	2.8
W4328	4	63	29	2.7
W4329	5	44	31	1.6

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4330	8	59	23	3.8
W4331	8	46	13	2.9
W4332	4	26	14	2.7
W4333	8	58	23	2.8
W4334	6	59	14	2.6
W4335	3	46	11	2.4
W4336	7	69	16	2.8
W4337	5	40	15	2.9
W4338	8	65	17	3.0
W4339	8	48	25	3.0
W4340	3	28	19	4.0
W4341	2	18	8	7.8
W4342	5	39	14	2.7
W4343	9	59	17	2.8
W4344	8	51	14	2.8
W4345	6	45	24	4.5
W4346	6	40	27	4.5
W4347	6	59	16	3.0
W4348	6	67	20	2.8
W4349	4	34	10	3.8
W4350	2	22	16	5.3
W4351	3	58	15	3.0
W4352	4	91	18	2.6
W4353	3	29	8	3.0
W4354	5	46	9	3.2
W4355	8	69	15	2.5
W4356	7	71	29	3.3
W4357	8	82	20	2.7
W4358	3	35	11	3.3
W4359	3	24	8	3.2
W4360	7	41	20	2.9
W4361	8	75	19	2.7
W4363	2	17	12	6.2
W4364	3	16	18	6.2
W4365	7	48	17	2.9
W4366	4	28	12	5.5
W4367	2	15	9	4.2
W4368	6	38	18	3.4
W4369	3	34	11	3.0
W4370	4	41	10	2.6
W4371	6	53	13	2.4
W4372	5	31	17	2.5
W4373	7	37	16	2.7
W4374	8	56	17	3.0
W4375	9	71	22	2.7
W4376	3	35	17	3.0
W4377	4	34	19	5.8
W4378	8	67	23	2.5
W4379	7	52	16	3.0
W4380	6	44	19	3.2
W4381	3	35	17	2.9
W4382	3	39	16	2.8
W4383	5	64	28	2.9
W4384	3	48	15	2.9
W4385	11	62	24	2.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4386	4	25	25	3.4
W4387	11	46	41	3.0
W4388	9	61	34	3.4
W4389	5	92	33	3.0
W4390	8	65	30	3.0
W4391	8	54	42	3.8
W4392	5	16	10	3.0
W4393	8	47	34	3.5
W4394	5	34	31	3.3
W4395	4	36	19	2.9
W4396	6	60	23	3.0
W4397	4	36	13	3.1
W4398	7	55	20	3.0
W4399	6	47	16	2.9
W4400	24	220	65	4.7
W4401	8	92	23	3.0
W4402	9	110	29	3.1
W4403	7	71	18	2.8
W4404	5	52	19	2.7
W4405	4	29	16	3.2
W4406	7	43	18	2.4
W4407	5	44	16	2.6
W4408	4	51	20	2.5
W4409	6	53	27	3.3
W4410	12	68	22	2.6
W4411	10	69	21	2.5
W4412	9	58	11	3.7
W4413	3	31	12	2.7
W4414	4	43	11	2.8
W4415	15	180	51	3.5
W4416	7	72	23	2.9
W4417	5	67	21	3.3
W4418	6	80	46	2.6
W4420	3	19	7	4.0
W4421	4	44	16	2.5
W4422	2	33	11	2.5
W4423	3	39	15	2.9
W4424	2	10	6	3.2
W4425	2	17	12	3.2
W4426	5	41	24	3.1
W4427	8	42	43	2.8
W4428	9	73	84	0.5
W4432	11	72	32	2.0
W4433	3	22	12	3.2
W4434	9	57	19	2.9
W4435	7	59	12	2.6
W4436	6	58	17	2.4
W4437	8	53	21	2.7
W4438	11	77	17	2.7
W4439	3	27	15	3.8
W4440	14	110	23	2.5
W4441	11	110	52	3.1
W4442	13	170	25	3.3
W4443	12	92	32	3.1
W4444	9	56	23	2.4
W4445	4	36	28	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4446	2	11	2	8.0
W4447	7	67	19	2.5
W4448	13	80	18	1.9
W4449	10	74	22	2.4
W4450	4	49	14	3.1
W4451	12	100	55	3.8
W4451A	5	54	25	3.3
W4452	8	71	20	2.8
W4453	4	47	11	2.4
W4453A	NSS	NSS	NSS	NSS
W4454	6	61	19	2.3
W4455	5	65	14	2.3
W4456	3	38	10	3.5
W4457	8	52	20	3.8
W4458	5	29	11	3.6
W4459	4	64	24	2.7
W4460	12	100	37	3.2
W4461	20	210	35	3.0
W4462	370	220	1400	5.6
W4463	10	86	27	2.7
W4464	6	70	22	2.7
W4465	6	45	15	3.0
W4466	8	43	17	3.3
W4467	8	63	16	2.3
W4468	8	54	22	2.5
W4469	15	72	30	3.4
W4470	8	44	25	3.7
W4471	9	50	35	4.1
W4472	16	92	47	2.7
W4473	4	34	16	3.1
W4474	5	36	27	3.6
W4475	6	55	28	3.0
W4476	3	30	13	2.9
W4477	6	38	19	3.1
W4478	NSS	NSS	NSS	NSS
W4479	5	47	18	2.5
W4480	6	53	22	2.8
W4481	3	44	14	2.8
W4482	6	64	21	2.5
W4483	2	26	16	2.6
W4483A	11	68	42	3.3
W4484	6	76	24	2.6
W4485	16	120	65	2.4
W4486	10	83	45	2.8
W4487	8	83	35	3.0
W4488	8	85	23	2.9
W4489	3	60	19	3.0
W4490	6	56	23	2.3
W4491	8	110	24	2.6
W4492	22	110	39	3.4
W4493	7	110	47	3.0
W4494	8	66	24	2.6
W4495	15	110	35	2.6
W4496	2	13	22	3.7
W4497	5	24	20	2.8
W4498	7	41	12	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4499	3	24	12	3.8
W4500	5	47	11	2.4
W4501	6	49	19	2.8
W4502	9	68	16	3.1
W4503	5	55	12	2.4
W4504	13	59	18	2.7
W4505	6	54	12	2.7
W4506	11	50	9	2.7
W4507	17	68	12	2.3
W4508	6	48	13	2.5
W4509	16	63	21	2.7
W4510	18	220	61	3.3
W4511	13	110	17	3.0
W4512	7	77	13	2.3
W4513	3	74	15	2.7
W4514	20	230	22	2.7
W4515	2	19	7	3.0
W4516	8	51	21	2.3
W4517	3	17	17	3.1
W4518	18	80	20	3.1
W4519	28	130	29	4.0
W4520	16	98	17	3.4
W4521	20	96	26	3.4
W4522	8	76	22	3.8
W4523	12	90	20	2.8
W4524	12	59	16	2.6
W4525	9	81	15	3.2
W4526	8	91	19	3.2
W4527	5	69	14	2.8
W4528	9	110	15	2.4
W4529	12	98	14	2.8
W4530	3	31	10	4.3
W4531	6	59	13	2.7
W4532	7	59	15	2.4
W4533	7	86	25	3.0
W4534	5	60	11	2.9
W4535	8	68	12	2.8
W4536	7	60	12	2.2
W4537	3	51	11	2.2
W4538	8	88	29	2.1
W4539	10	82	27	2.4
W4540	7	76	55	2.7
W4541	15	130	42	2.3
W4542	8	100	32	2.9
W4543	8	100	34	2.9
W4544	8	93	25	2.3
W4545	8	66	27	2.8
W4546	3	100	37	2.8
W4547	10	94	43	2.9
W4548	12	76	66	3.4
W4549	9	77	29	2.7
W4550	20	130	77	6.9
W4551	15	68	34	4.1
W4552	16	130	46	4.7
W4553	18	160	81	2.8
W4553A	33	350	160	5.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4554	18	230	80	3.5
W4555	13	160	100	4.0
W4556	5	37	23	3.4
W4557	8	67	32	2.6
W4558	NSS	NSS	NSS	NSS
W4559	14	98	85	2.8
W4560	9	90	59	2.6
W4561	15	90	110	2.9
W4562	20	80	69	NSS
W4563	78	35	370	10.3
W4564	6	51	66	2.7
W4565	8	98	52	2.5
W4566	8	92	46	2.8
W4567	10	59	56	2.5
W4568	8	51	31	2.4
W4569	11	41	30	2.3
W4570	13	71	29	2.1
W4571	16	140	62	3.2
W4572	15	65	55	2.8
W4573	9	99	44	3.0
W4574	10	76	31	4.6
W4575	16	78	88	2.9
W4576	8	48	33	3.0
W4577	11	81	53	3.0
W4578	6	44	31	2.6
W4579	10	100	54	3.1
W4580	10	68	60	3.4
W4581	27	190	160	2.9
W4582	12	74	72	2.5
W4583	6	70	31	3.1
W4584	11	110	36	2.9
W4585	12	140	53	3.1
W4586	15	110	39	3.0
W4587	22	78	59	3.6
W4588	12	84	35	2.6
W4589	40	400	120	2.8
W4590	8	83	24	2.6
W4591	12	140	27	2.6
W4592	5	62	16	2.6
W4593	14	78	260	2.7
W4594	18	430	56	3.4
W4595	5	95	24	2.7
W4596	13	82	66	0.7
W4597	9	110	49	3.2
W4598	22	100	80	3.6
W4633	14	110	34	3.3
W4634	9	60	16	2.5
W4635	8	82	20	2.2
W4636	16	94	46	2.7
W4637	8	67	29	2.7
W4638	7	39	38	2.7
W4639	7	52	60	2.5
W4640	8	58	54	2.4
W4641	14	160	160	2.6
W4642	6	100	95	2.5
W4643	7	66	50	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4644	6	67	62	2.3
W4645	16	140	100	3.0
W4646	7	51	27	3.0
W4647	NSS	NSS	NSS	NSS
W4648	17	95	45	3.1
W4649	31	280	590	3.3
W4650	14	130	68	2.7
W4651	22	190	220	2.1
W4652	26	170	260	2.4
W4653	8	28	8	3.2
W4654	9	27	7	3.0
W4655	14	72	43	2.6
W4656	13	54	28	3.0
W4657	17	68	21	2.8
W4658	16	100	37	2.2
W4659	13	39	23	2.2
W4660	5	16	11	2.8
W4661	8	49	16	2.6
W4662	9	57	20	2.3
W4663	10	47	20	2.7
W4664	9	31	15	3.0
W4665	8	26	8	3.0
W4666	8	32	11	3.2
W4667	9	57	20	2.5
W4668	8	43	18	2.7
W4669	7	39	15	2.8
W4670	8	35	24	2.4
W4671	23	110	28	NSS
W4672	15	25	18	NSS
W4673	7	17	8	NSS
W4674	6	55	31	3.6
W4675	12	55	17	2.5
W4676	12	60	20	3.0
W4677	9	62	29	3.0
W4678	14	69	34	2.7
W4679	7	22	9	2.7
W4680	13	71	28	2.6
W4681	15	71	34	3.4
W4682	20	94	40	3.7
W4683	11	37	22	2.6
W4684	13	61	37	2.9
W4685	29	48	59	2.7
W4686	15	72	30	2.3
W4687	12	62	35	2.8
W4688	16	90	54	3.0
W4689	14	77	40	2.5
W4690	16	96	53	3.1
W4691	11	81	35	2.3
W4692	14	65	20	2.8
W4693	NSS	NSS	NSS	NSS
W4694	14	59	11	2.6
W4695	12	56	8	2.5
W4696	14	37	34	2.8
W4697	9	32	6	2.5
W4698	10	38	2	2.8
W4699	12	45	12	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4700	8	23	13	3.3
W4701	6	38	15	3.3
W4702	10	45	20	2.8
W4702A	NSS	NSS	NSS	NSS
W4703	8	29	9	3.3
W4707	14	61	27	2.9
W4708	12	66	23	2.7
W4709	8	42	15	2.5
W4710	12	46	19	2.6
W4711	12	56	15	2.7
W4712	7	46	12	3.1
W4713	7	12	7	3.0
W4714	19	82	33	3.0
W4715	13	58	26	2.7
W4716	12	60	21	2.8
W4717	14	66	20	2.5
W4718	9	41	18	2.3
W4719	13	41	17	3.0
W4720	17	74	23	2.8
W4721	13	65	17	2.7
W4722	14	59	14	2.8
W4723	12	67	18	2.3
W4724	9	58	20	2.3
W4725	12	58	12	2.5
W4726	5	5	3	2.7
W4727	12	36	10	2.6
W4728	6	19	5	2.4
W4729	10	50	9	2.5
W4730	13	46	9	2.1
W4731	15	60	9	2.7
W4732	12	51	12	2.7
W4733	14	38	8	2.2
W4734	10	41	14	2.5
W4735	18	94	23	2.7
W4736	14	55	23	2.6
W4737	8	30	11	2.5
W4738	10	24	29	3.1
W4739	13	60	25	3.1
W4740	14	67	23	2.9
W4741	11	44	31	3.5
W4742	7	25	17	3.8
W4743	20	70	26	3.0
W4744	8	44	26	3.2
W4745	12	70	27	1.0
W4746	13	65	32	2.8
W4747	12	55	23	3.0
W4748	13	60	25	3.2
W4749	6	29	15	3.0
W4750	9	51	22	3.1
W4751	9	46	24	2.9
W4752	15	61	15	2.7
W4753	25	45	29	2.8
W4754	8	52	23	2.8
W4755	8	73	30	2.8
W4756	8	55	28	3.5
W4757	8	42	18	3.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4758	11	69	30	3.2
W4759	NSS	NSS	NSS	NSS
W4760	NSS	NSS	NSS	NSS
W4761	NSS	NSS	NSS	NSS
W4762	6	20	17	4.3
W4763	8	54	22	3.1
W4764	NSS	NSS	NSS	NSS
W4765	9	55	32	3.1
W4765A	8	37	20	2.8
W4766	11	67	33	2.9
W4767	13	77	20	3.2
W4768	14	130	95	3.9
W4769	23	140	68	3.1
W4770	12	110	43	4.3
W4771	10	92	20	2.9
W4772	9	62	20	2.9
W4773	19	130	50	3.0
W4774	52	490	240	3.5
W4775	51	460	270	3.8
W4776	58	380	300	3.6
W4777	13	110	33	2.9
W4778	8	46	20	2.7
W4779	20	110	55	3.0
W4780	14	65	40	2.7
W4781	19	100	70	2.8
W4782	10	65	24	2.9
W4783	15	80	35	3.0
W4784	20	88	42	2.5
W4785	9	42	33	3.0
W4786	17	77	46	2.8
W4787	18	92	47	2.9
W4788	16	76	38	2.5
W4789	13	110	43	2.6
W4790	14	78	42	2.9
W4791	17	150	50	4.2
W4792	12	31	44	5.5
W4793	16	94	44	2.9
W4794	19	98	56	3.0
W4795	17	110	47	2.7
W4796	15	55	44	3.2
W4797	13	68	65	2.9
W4798	16	85	49	3.1
W4799	16	88	48	2.7
W4800	12	52	27	2.8
W4801	15	66	44	NSS
W5000	16	77	21	2.8
W5001	14	91	13	2.9
W5002	16	75	10	2.3
W5003	14	56	11	2.3
W5004	19	71	15	2.2
W5005	33	110	30	1.9
W5006	15	53	47	4.3
W5007	25	78	29	2.3
W5008	30	71	35	1.9
W5009	30	110	39	2.1
W5010	13	53	33	2.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5011	29	110	53	2.2
W5012	30	99	39	2.4
W5013	18	70	89	3.5
W5014	45	130	45	2.1
W5015	28	92	35	2.0
W5016	29	120	39	2.8
W5017	14	33	28	3.0
W5018	18	56	47	3.3
W5019	18	82	39	2.4
W5020	13	75	29	2.5
W5021	48	160	78	2.2
W5022	22	120	63	3.3
W5023	31	170	78	3.9
W5024	14	67	27	2.6
W5025	11	41	31	5.6
W5026	15	89	83	2.3
W5027	15	82	37	3.0
W5028	14	80	36	2.5
W5029	19	110	43	3.5
W5030	18	60	20	2.1
W5031	22	71	53	2.7
W5032	30	160	36	NSS
W5033	6	9	38	4.8
W5034	NSS	NSS	NSS	NSS
W5035	13	78	43	3.2
W5036	12	64	55	2.8
W5037	18	100	65	5.2
W5038	14	62	24	2.8
W5039	30	130	65	3.1
W5040	21	58	27	3.1
W5041	20	110	31	2.6
W5042	18	100	57	3.6
W5043	29	140	58	2.6
W5043A	28	95	47	NSS
W5044	NSS	NSS	NSS	NSS
W5045	22	120	57	2.9
W5046	20	90	17	2.0
W5047	19	89	20	2.7
W5048	10	60	12	2.3
W5049	16	63	22	2.8
W5050	19	130	27	2.7
W5051	12	56	27	3.5
W5052	24	36	10	NSS
W5053	29	130	38	2.4
W5054	28	130	34	2.0
W5055	12	100	32	2.7
W5056	54	150	41	2.1
W5057	32	93	28	1.9
W5058	13	52	20	2.4
W5059	46	130	47	1.9
W5060	19	58	28	2.5
W5061	48	83	35	1.9
W5062	56	130	33	1.6
W5063	43	110	36	1.3
W5064	52	120	29	1.1
W5065	8	34	32	3.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5066	14	53	27	3.0
W5067	8	34	21	3.2
W5068	12	68	32	2.9
W5069	8	16	18	3.2
W5070	20	130	55	2.9
W5071	12	84	21	2.5
W5072	10	51	29	3.4
W5073	18	81	48	2.7
W5074	15	66	20	2.3
W5075	14	59	27	1.9
W5076	9	75	29	2.3
W5077	19	96	70	2.3
W5078	15	190	81	2.5
W5079	18	83	28	2.9
W5080	25	330	86	2.7
W5081	12	73	19	2.2
W5082	22	160	170	2.7
W5083	9	47	46	2.6
W5084	15	120	62	2.8
W5085	9	84	24	2.2
W5086	53	130	77	2.0
W5087	25	140	76	2.2
W5088	9	50	26	2.3
W5089	18	130	64	2.1
W5090	12	69	32	2.4
W5091	15	110	46	2.1
W5092	8	56	15	2.6
W5093	16	78	47	2.3
W5094	60	140	130	5.9
W5095	12	52	42	2.8
W5157	12	68	24	2.7
W5158	9	53	18	2.3
W5159	13	91	35	2.8
W5160	12	80	21	2.8
W5161	10	59	20	2.8
W5162	11	52	22	2.7
W5163	13	54	29	3.2
W5164	14	64	18	3.0
W5165	14	72	23	2.8
W5166	14	88	28	2.3
W5167	10	75	32	2.8
W5168	14	71	14	2.8
W5169	12	64	26	2.8
W5170	12	63	22	2.8
W5171	9	70	24	3.0
W5172	14	84	33	3.4
W5173	11	75	22	3.4
W5174	14	94	29	3.0
W5175	9	58	31	3.0
W5176	8	42	18	2.6
W5177	6	46	20	2.8
W5178	8	46	14	2.6
W5179	12	72	34	2.4
W5180	12	72	29	2.9
W5181	12	76	30	3.1
W5182	8	39	18	3.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5183	6	35	15	3.2
W5184	7	43	20	3.0
W5185	10	59	23	2.7
W5186	12	74	22	2.8
W5187	13	75	17	2.5
W5188	9	80	12	2.2
W5189	8	54	13	2.4
W5190	12	75	20	2.5
W5191	12	72	21	2.5
W5192	11	75	25	2.8
W5193	14	130	55	3.5
W5194	12	78	45	3.4
W5195	8	79	36	2.8
W5196	8	50	39	3.0
W5197	9	44	25	3.0
W5198	8	83	67	3.3
W5199	7	70	55	3.0
W5200	8	67	62	3.6
W5201	8	58	46	2.9
W5202	5	46	32	2.9
W5203	6	50	24	3.0
W5204	8	64	35	3.3
W5205	10	68	36	3.9
W5206	13	60	35	3.2
W5207	15	85	42	3.4
W5208	12	71	34	3.2
W5209	12	60	25	2.9
W5210	8	57	35	2.9
W5211	9	54	27	2.5
W5212	7	36	20	2.9
W5213	14	85	42	2.8
W5214	13	81	37	2.5
W5215	13	80	58	2.9
W5216	3	42	17	2.6
W5217	9	51	29	3.4
W5218	5	40	17	3.5
W5219	8	65	27	4.2
W5220	4	35	22	3.3
W5221	10	74	29	2.8
W5222	10	69	22	3.4
W5223	7	55	16	2.4

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4599	11	49	18	2.7
W4600	12	54	15	2.3
W4601	9	53	25	2.5
W4602	12	64	28	2.6
W4603	8	37	22	2.8
W4604	7	39	22	3.3
W4605	7	63	23	2.7
W4606	12	65	22	2.7
W4607	12	58	29	2.7
W4608	15	100	30	2.8
W4609	12	120	35	3.0
W4610	14	100	28	2.9
W4611	16	110	26	3.1
W4612	14	50	32	3.1
W4613	14	65	23	2.5
W4614	17	85	29	3.0
W4615	14	73	26	2.4
W4616	37	140	400	3.7
W4617	13	110	67	2.5
W4618	12	60	53	2.8
W4619	14	86	34	2.4
W4620	14	69	47	2.2
W4621	20	120	80	2.4
W4622	13	130	36	2.4
W4623	15	110	22	2.4
W4624	15	110	78	2.8
W4625	13	84	80	3.0
W4626	12	79	54	2.0
W4627	14	65	63	2.5
W4628	18	90	56	2.5
W4629	13	60	43	2.5
W4630	17	80	45	2.6
W4631	17	86	48	2.5
W4632	13	76	51	2.4
W4802	17	89	40	2.7
W4803	18	120	48	2.9
W4804	13	59	30	2.7
W4805	14	77	46	2.5
W4806	33	320	75	1.3
W4807	14	66	37	2.3
W4808	59	380	170	1.2
W4809	12	69	34	1.9
W4810	16	110	48	2.0
W4811	17	130	73	3.0
W4812	21	100	42	2.3
W4813	15	90	18	2.2
W4814	16	100	46	2.1
W4815	22	140	55	2.2
W4816	15	120	78	2.5
W4817	13	71	39	2.1
W4818	10	90	59	2.7
W4819	20	160	65	2.2
W4820	18	140	60	2.4
W4821	19	170	63	2.5
W4822	18	170	49	2.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4823	16	160	58	2.4
W4824	19	230	53	3.6
W4825	16	200	52	2.7
W4826	15	120	53	2.4
W4827	16	140	73	3.0
W4828	17	130	92	2.6
W4829	20	84	110	3.7
W4830	8	71	52	4.3
W4831	18	160	66	2.7
W4832	14	70	57	3.5
W4833	22	120	110	10.4
W4834	14	100	94	4.3
W4835	8	79	63	3.2
W4836	18	170	110	2.8
W4837	8	94	44	2.9
W4838	8	54	42	3.3
W4839	12	83	59	3.0
W4840	17	130	71	2.1
W4841	17	90	110	3.2
W4842	33	290	130	1.7
W4843	12	130	54	2.9
W4844	15	110	78	2.8
W4845	13	93	66	2.9
W4846	14	110	68	3.4
W4847	8	73	59	3.7
W4848	20	210	110	2.8
W4849	38	220	170	3.6
W4850	13	94	83	3.2
W4851	28	140	140	2.8
W4852	20	110	55	2.7
W4853	36	280	240	3.3
W4854	16	130	53	2.2
W4855	16	120	43	2.6
W4856	27	170	95	2.1
W4857	14	100	42	2.4
W4858	13	110	52	2.9
W4859	9	59	25	4.7
W4860	10	130	34	2.7
W4861	12	94	46	3.0
W4862	11	91	59	3.3
W4863	16	160	130	3.2
W4865	11	110	63	2.9
W4866	15	160	100	3.0
W4867	18	140	180	4.6
W4868	22	210	290	8.4
W4869	13	110	78	4.9
W4870	35	350	100	5.4
W4871	13	120	50	2.7
W4872	42	290	87	2.8
W4873	17	110	53	3.2
W4874	16	120	69	2.5
W4875	13	110	54	2.3
W4876	20	160	73	2.4
W4877	26	200	92	2.2
W4878	24	290	150	2.3
W4879	24	220	71	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4880	13	100	60	2.5
W4881	16	120	83	2.7
W4882	33	180	170	3.8
W4883	21	100	120	2.7
W4884	17	130	71	2.4
W4885	15	110	82	3.0
W4886	12	100	60	3.0
W4887	16	130	77	2.7
W4888	28	210	140	2.3
W4889	12	89	76	2.4
W4890	12	120	71	2.4
W4891	10	110	72	2.4
W4892	15	220	95	2.6
W4893	8	70	55	3.2
W4894	8	75	62	3.1
W4895	19	120	47	3.2
W4896	28	180	63	4.3
W4897	10	190	61	3.0
W4898	13	190	58	2.8
W4899	11	170	65	2.9
W4900	27	250	69	2.9
W4901	13	200	50	2.9
W4902	17	140	48	2.6
W4903	14	160	52	2.8
W4904	11	120	59	2.6
W4905	15	140	110	2.6
W4906	21	230	80	3.3
W4907	15	130	68	2.4
W4908	14	96	98	4.2
W4909	11	140	55	3.3
W4910	12	58	40	4.1
W4911	13	64	44	3.0
W4912	16	110	58	2.7
W4913	22	110	93	2.8
W4914	18	82	69	2.8
W4915	14	65	52	2.7
W4916	15	87	66	2.7
W4917	20	140	68	3.2
W4918	21	120	82	2.8
W4919	14	100	70	2.8
W4920	16	120	66	2.8
W4921	10	62	56	2.6
W4922	14	81	52	3.1
W4923	17	110	80	2.8
W4924	12	80	67	3.1
W4925	18	160	69	2.8
W4926	12	60	90	3.1
W4927	12	65	43	2.5
W4929	10	49	37	2.8
W4930	15	110	68	2.5
W4931	9	40	40	3.2
W4933	21	110	48	2.8
W4934	18	130	43	2.3
W4935	14	97	43	3.0
W4936	15	100	42	2.8
W4937	16	110	40	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W4938	15	110	40	2.2
W4939	13	82	48	2.8
W4940	15	95	41	2.2
W4941	15	97	51	2.7
W4942	11	55	31	2.8
W4943	17	94	43	2.6
W4944	18	130	57	2.3
W4945	15	96	43	2.6
W4946	22	160	52	2.9
W4947	18	150	54	2.6
W4948	20	190	63	3.2
W4949	15	92	52	2.5
W4950	19	150	83	3.2
W4951	15	140	140	2.7
W4952	16	120	53	2.5
W4954	19	130	61	3.0
W4956	18	140	55	2.3
W4957	16	120	53	2.5
W4957A	15	110	56	2.9
W4959	13	120	98	2.3
W4960	17	130	120	1.1
W4961	23	170	95	2.0
W4964	12	89	71	2.2
W4965	18	110	58	1.9
W4965A	15	100	49	2.4
W4967	16	95	47	2.5
W4968	15	120	54	2.0
W4969	9	72	85	2.5
W4971	15	120	56	2.5
W4973	19	260	75	2.3
W4974	16	140	63	2.5
W4975	30	140	250	2.3
W4976	13	120	55	2.4
W4977	16	140	83	3.1
W4978	22	140	79	2.7
W4979	13	70	84	3.5
W4980	19	110	77	2.8
W4981	10	64	32	2.7
W4982	17	120	78	2.5
W4983	12	73	40	3.3
W4985	15	120	74	2.7
W4986	15	110	53	2.3
W4987	10	140	55	3.1
W5096	18	180	110	3.9
W5097	15	130	180	2.3
W5098	12	100	150	2.4
W5099	19	210	76	2.7
W5100	16	130	110	2.6
W5101	14	99	160	2.6
W5102	14	130	110	2.2
W5103	19	170	170	2.9
W5104	8	53	44	3.7
W5105	10	96	93	2.4
W5106	10	94	100	2.8
W5107	17	150	98	2.6
W5108	16	240	250	3.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M5109	15	170	58	2.7
M5110	15	160	65	3.1
M5111	23	200	180	2.6
M5112	12	82	30	3.1
M5113	8	80	35	3.3
M5114	20	150	180	2.7
M5115	11	56	36	2.7
M5117	16	140	44	2.4
M5119	17	150	37	3.4
M5120	12	270	49	3.6
M5121	14	140	52	4.0
M5122	8	80	28	2.3
M5123	8	41	25	2.5
M5124	8	59	26	2.8
M5125	9	89	27	2.3
M5126	18	200	54	2.4
M5127	10	78	29	2.5
M5128	11	75	35	2.6
M5129	7	58	22	2.6
M5130	8	78	18	2.4
M5131	15	120	41	2.9
M5132	7	74	28	2.9
M5133	17	130	29	3.3
M5134	25	150	32	4.0
M5137	14	120	28	2.9
M5138	18	97	42	2.8
M5139	14	80	63	2.4
M5140	18	82	270	4.4
M5141	20	140	94	3.5
M5142	9	50	85	5.0
M5143	12	110	32	2.4
M5144	8	68	35	3.0
M5145	7	72	35	1.9
M5146	15	120	55	2.8
M5147	9	97	38	2.5
M5148	8	74	27	2.7
M5149	8	83	46	3.0
M5150	13	110	54	3.0
M5151	8	80	35	3.0
M5152	11	88	58	3.0
M5153	8	100	22	2.1
M5154	17	96	24	2.4
M5155	7	75	28	3.0
M5156	8	110	47	3.6
M5157	7	100	29	3.4
M5224	20	130	53	2.4
M5225	25	190	150	2.2
M5226	18	170	92	2.3
M5227	10	100	28	1.9
M5228	10	69	30	2.5
M5229	12	79	36	2.6
M5230	14	97	53	2.3
M5231	9	71	31	2.7
M5232	11	83	28	2.3
M5233	12	100	36	2.7
M5234	10	120	49	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M5235	12	100	54	2.5
M5236	17	130	80	3.1
M5237	14	110	63	2.7
M5238	15	120	57	2.4
M5239	19	130	63	2.3
M5240	12	120	58	2.3
M5241	19	160	95	7.6
M5242	6	60	46	3.1
M5245	13	150	69	3.0
M5246	22	180	140	9.2
M5247	59	250	270	19.0
M5248	12	180	59	2.9
M5249	24	200	98	5.7
M5250	54	270	670	14.7
M5251	14	94	46	2.6
M5252	6	82	41	4.5
M5253	8	85	33	3.7
M5254	9	73	83	3.3
M5255	7	95	36	4.7
M5256	7	80	35	3.6
M5257	9	62	44	2.2
M5258	13	98	62	3.4
M5259	16	170	100	7.2
M5260	8	66	58	2.8
M5261	8	80	82	2.6
M5262	8	46	29	3.3
M5263	14	90	91	6.3
M5264	8	85	43	3.2
M5265	16	140	70	2.2
M5266	28	170	68	1.8
M5267	6	65	39	3.5
M5268	6	56	27	3.2
M5269	20	160	66	2.6
M5270	12	110	55	2.3
M5271	12	110	46	2.1
M5272	10	93	33	2.6
M5273	8	90	46	2.2
M5274	9	140	43	2.5
M5275	18	130	72	2.1
M5276	22	160	77	2.6
M5277	14	120	52	2.1
M5278	12	82	42	2.2
M5279	12	100	41	2.3
M5280	16	110	170	4.6
M5281	7	86	65	3.8
M5282	8	120	44	2.6
M5283	8	85	49	2.7
M5284	12	150	130	3.2
M5286	12	98	46	2.7
M5287	28	210	71	1.2
M5288	13	130	37	2.3
M5289	28	150	77	1.6
M5290	27	160	59	2.9
M5291	18	120	42	2.6
M5292	10	68	35	2.8
M5293	11	59	65	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M5294	17	76	47	2.2
M5295	13	94	52	2.5
M5296	15	140	45	2.4
M5297	9	69	38	2.8
M5298	16	140	56	2.6
M5299	12	110	49	2.6
M5300	16	150	58	2.2
M5301	17	120	47	1.5
M5302	22	150	59	2.4
M5303	15	220	66	1.7
M5304	11	140	64	2.3
M5305	13	140	54	2.8
M5306	12	220	120	3.7
M5307	11	200	130	3.9
M5308	10	190	65	3.1
M5309	8	160	82	3.4
M5310	3	34	38	2.4
M5311	5	59	45	2.2
M5312	8	120	46	3.1
M5313	8	110	39	2.7
M5314	7	110	30	5.8
M5315	6	42	36	3.4
M5316	18	94	36	1.8
M5317	12	160	46	2.2
M5318	6	46	29	2.5
M5319	18	130	72	2.6
M5320	15	180	60	2.4
M5321	22	180	95	2.5
M5322	12	120	60	3.3
M5323	29	260	83	5.0
M5324	15	220	50	3.4
M5325	7	120	31	2.6
M5326	5	27	22	2.3
M5327	10	130	30	2.6
M5328	10	180	43	1.9
M5329	22	190	23	2.5
M5330	18	84	23	2.5
M5332	6	120	33	2.5
M5333	8	110	36	2.7
M5334	7	70	41	2.3
M5335	11	98	36	3.0
M5336	13	99	47	2.1
M5337	10	110	45	2.4
M5338	11	100	40	2.3
M5339	12	78	43	1.9
M5340	12	83	42	2.6
M5341	6	45	27	2.8
M5342	10	80	24	2.3
M5343	11	83	34	2.0
M5344	6	54	23	2.6
M5345	11	84	33	2.6
M5346	10	90	34	2.5
M5347	8	64	44	2.5
M5348	7	59	43	2.4
M5349	8	78	49	2.6
M5350	5	42	51	5.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
M5351	10	97	33	3.8
M5352	10	91	51	2.5
M5353	14	140	59	2.9
M5354	8	81	39	3.1
M5355	6	47	28	3.3
M5356	7	70	39	2.5
M5357	8	89	37	2.6
M5358	11	120	44	2.5
M5359	6	100	27	2.6
M5360	17	190	51	2.7
M5361	7	71	40	2.2
M5362	13	140	34	2.6
M5363	20	350	120	3.8
M5364	23	280	700	6.0
M5365	9	110	65	3.3
M5367	10	100	43	2.5
M5368	5	73	34	2.9
M5369	7	110	26	2.2
M5370	5	68	29	2.9
M5372	7	130	31	3.5
M5373	6	65	39	3.2
M5374	7	96	39	2.3
M5375	7	110	68	2.9
M5376	5	82	32	2.9
M5377	11	100	44	2.6
M5378	16	180	44	3.1
M5379	6	98	27	2.2
M5380	7	110	26	2.4
M5381	8	82	43	2.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5400	5	37	24	4.2
W5401	14	85	66	3.0
W5402	6	79	40	3.1
W5403	13	98	59	3.3
W5404	6	110	34	2.7
W5405	14	170	47	NSS
W5406	8	120	42	3.4
W5407	2	32	20	3.9
W5408	19	200	270	11.5
W5409	13	120	82	5.4
W5410	8	90	77	4.0
W5412	17	120	50	3.0
W5413	6	69	40	2.7
W5414	12	140	37	2.7
W5460	4	52	34	5.6
W5461	26	100	200	5.3
W5462	13	160	140	3.2
W5463	7	100	57	7.1
W5464	5	84	56	10.8
W5465	8	130	52	8.2
W5466	8	84	55	11.0
W5467	12	120	60	20.3
W5468	18	110	71	15.0
W5469	22	160	230	4.5
W5470	8	110	29	2.5
W5471	6	93	28	2.6
W5472	10	130	39	2.7
W5473	7	86	35	2.6
W5474	9	82	27	2.4
W5475	8	60	33	3.4
W5476	5	40	30	4.1
W5477	8	61	31	2.1
W5478	12	86	52	2.9
W5479	12	140	44	2.8
W5480	20	140	87	5.7
W5481	7	76	53	6.9
W5482	5	70	120	5.3
W5483	8	100	91	6.8
W5484	7	42	67	9.1
W5485	13	150	77	9.4
W5486	14	69	66	6.7
W5487	4	30	43	7.4
W5490	15	63	100	NSS
W5491	13	74	87	3.8
W5492	26	140	82	3.7
W5494	6	73	26	3.2
W5495	8	96	26	2.6
W5496	6	51	26	2.9
W5497	10	67	20	2.7
W5498	11	95	30	2.5
W5499	3	24	22	3.3
W5500	6	100	18	2.6
W5501	8	120	29	2.0
W5502	15	80	37	2.7
W5503	4	75	20	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5504	8	78	28	1.8
W5505	12	69	34	2.7
W5506	12	63	30	2.5
W5507	8	55	27	2.6
W5508	11	94	42	3.0
W5509	9	80	32	2.5
W5510	6	48	22	3.1
W5511	12	120	42	3.4
W5512	12	90	37	3.2
W5513	14	82	37	3.0
W5514	6	50	27	3.1
W5515	8	52	32	2.6
W5516	7	68	28	2.8
W5517	13	90	32	2.6
W5518	11	56	43	2.8
W5519	15	92	35	3.3
W5520	16	85	37	2.9
W5521	10	62	27	2.2
W5522	14	75	33	2.5
W5523	13	97	30	2.8
W5524	9	68	27	2.6
W5525	14	75	36	2.4
W5526	6	55	34	2.8
W5527	16	120	47	NSS
W5528	12	87	28	2.4
W5529	15	86	140	2.5
W5530	7	40	34	3.5
W5531	6	42	35	2.9
W5532	8	63	29	2.2
W5533	5	30	19	3.7
W5534	5	35	31	3.1
W5535	7	43	30	2.9
W5536	4	48	25	3.7
W5537	16	120	63	2.0
W5538	4	54	34	3.3
W5539	8	80	41	2.8
W5540	12	73	55	2.9
W5541	13	85	45	2.6
W5542	5	43	29	2.7
W5543	8	110	76	3.5
W5544	5	64	31	2.6
W5545	6	65	36	3.1
W5546	6	53	43	3.2
W5547	6	67	40	2.7
W5548	9	87	51	2.9
W5549	7	73	47	2.8
W5550	4	60	44	2.0
W5551	7	84	47	2.6
W5554	9	78	42	2.8
W5556	7	110	42	3.1
W5557	13	590	800	NSS
W5559	9	200	190	2.5
W5560	6	190	47	2.4
W5561	8	80	66	3.1
W5562	8	110	78	2.3
W5563	17	270	310	NSS

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5564	5	200	84	3.1
W5565	7	110	51	2.6
W5566	8	50	58	2.7
W5568	6	70	44	2.5
W5569	8	81	35	2.8
W5570	18	72	84	3.3
W5571	13	58	92	2.8
W5572	16	200	130	2.9
W5573	10	190	120	3.0
W5574	7	82	54	2.5
W5575	7	110	79	2.4
W5579	43	510	510	NSS
W5580	9	200	89	2.7
W5582	11	110	69	2.7
W5583	5	50	58	2.3
W5584	14	63	62	2.5
W5585	14	83	34	3.0
W5586	9	78	45	3.0
W5587	3	60	30	3.3
W5588	5	67	28	2.2
W5589	9	73	44	2.6
W5590	7	74	39	2.7
W5591	6	91	36	3.0
W5592	6	55	39	3.4
W5593	6	62	26	2.8
W5594	5	62	30	3.1
W5595	7	59	28	2.9
W5596	7	49	32	2.8
W5597	8	67	28	2.5
W5598	7	60	45	2.5
W5599	6	61	29	2.5
W5600	4	52	32	3.4
W5601	8	91	35	3.0
W5602	4	47	34	3.7
W5603	5	52	31	3.0
W5604	9	84	27	2.7
W5605	8	64	38	2.3
W5606	6	60	29	2.6
W5607	8	83	34	2.7
W5608	6	60	33	2.7
W5609	17	140	55	NSS
W5610	12	92	50	2.6
W5611	5	57	35	3.2
W5612	11	110	52	3.0
W5613	6	70	41	3.3
W5614	7	75	35	3.0
W5615	6	49	40	2.7
W5616	8	72	33	2.5
W5617	17	94	48	3.0
W5618	8	62	43	2.7
W5619	9	85	39	2.8
W5620	4	48	27	2.7
W5621	5	44	25	2.7
W5622	8	140	43	3.0
W5623	7	130	40	2.7
W5624	10	100	76	3.1

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5625	6	70	51	3.2
W5626	13	94	99	2.4
W5627	13	140	100	NSS
W5628	5	91	68	2.6
W5636	7	79	46	2.7
W5637	7	87	51	2.8
W5638	4	72	50	3.0
W5639	11	94	58	2.5
W5640	4	48	55	3.3
W5641	14	160	72	2.7
W5642	8	92	48	2.5
W5644	12	160	55	3.0
W5645	7	77	42	2.5
W5646	6	73	65	3.1
W5647	8	41	41	1.9
W5648	8	75	43	2.9
W5649	6	80	36	2.9
W5650	4	55	30	2.9
W5651	6	72	51	3.0
W5652	9	110	46	NSS
W5653	4	43	25	3.4
W5654	3	57	22	2.6
W5655	6	67	42	2.3
W5656	4	58	43	3.7
W5657	8	100	43	2.7
W5659	4	49	35	3.5
W5660	3	75	27	2.5
W5661	7	90	35	2.6
W5662	9	100	50	2.3
W5663	8	89	52	2.6
W5664	6	67	28	2.5
W5665	28	180	110	NSS
W5667	4	93	25	3.5
W5668	3	43	22	4.0
W5669	3	46	35	6.1
W5671	11	120	52	2.9
W5672	5	60	34	3.4
W5673	7	60	37	3.2
W5674	15	130	58	2.3
W5675	9	87	38	2.7
W5676	3	43	43	3.1
W5677	4	49	34	2.7
W5678	8	84	45	2.7
W5679	5	55	39	3.0
W5680	8	42	44	2.6
W5681	9	83	43	2.9
W5682	10	110	34	2.8
W5683	5	78	32	3.1
W5684	9	110	40	2.7
W5685	8	88	48	2.7
W5686	9	52	28	2.6
W5687	8	77	34	3.2
W5688	14	120	44	2.9
W5690	7	58	35	2.8
W5691	6	78	42	3.3
W5692	2	32	37	4.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5693	7	72	44	3.5
W5694	8	78	36	3.7
W5695	8	73	33	2.8
W5696	5	58	29	3.1
W5697	5	49	26	3.2
W5698	7	53	23	2.9
W5699	7	100	37	2.8
W5700	8	91	50	2.9
W5701	11	100	40	3.0
W5702	7	73	47	3.0
W5703	16	170	39	3.0
W5704	9	92	34	2.5
W5705	5	68	34	2.8
W5706	15	110	48	3.2
W5707	8	48	28	3.0
W5708	11	85	32	2.4
W5709	12	93	36	2.8
W5710	8	46	28	2.3
W5711	10	58	30	2.7
W5712	11	150	52	2.9
W5713	13	290	58	3.5
W5714	12	160	44	2.6
W5715	7	97	39	2.6
W5716	7	63	33	3.3
W5717	7	110	32	2.4
W5718	11	130	43	2.8
W5719	8	110	55	2.9
W5720	8	66	48	2.7
W5721	13	57	43	3.6
W5722	9	75	42	2.8
W5723	15	140	54	NSS
W5724	8	72	37	2.6
W5725	7	37	32	3.5
W5726	8	76	35	3.0
W5727	14	83	45	2.6
W5728	10	80	38	2.9
W5729	9	60	41	2.8
W5730	11	89	48	3.0
W5731	6	55	38	2.4
W5732	8	70	34	3.9
W5733	13	110	42	2.4
W5734	7	56	35	3.0
W5735	8	61	35	2.4
W5736	12	98	43	2.9
W5737	8	78	32	2.0
W5738	9	84	44	2.8
W5739	10	110	39	3.3
W5740	5	55	40	2.7
W6000	10	97	46	2.9
W6001	10	110	40	2.8
W6002	8	88	48	3.3
W6003	13	190	60	2.8
W6004	15	200	63	3.3
W6005	12	180	42	3.5
W6006	15	200	65	7.9
W6008	22	280	100	11.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6009	11	160	56	4.8
W6010	20	340	220	6.9
W6011	14	180	77	2.7
W6012	14	100	78	2.8
W6013	5	56	38	2.7
W6014	7	92	61	3.2
W6015	5	80	35	2.9
W6016	6	77	34	2.5
W6017	6	45	30	2.2
W6018	14	130	53	2.7
W6019	10	150	58	3.1
W6020	13	200	69	4.7
W6021	6	44	34	3.6
W6022	28	250	95	NSS
W6023	19	230	78	12.8
W6024	12	110	54	7.4
W6025	16	180	88	4.8
W6026	15	140	66	4.0
W6027	22	240	600	7.4
W6028	17	190	330	5.5
W6029	11	130	65	4.9
W6030	10	78	35	2.8
W6031	10	120	42	2.9
W6032	6	71	31	3.3
W6033	46	250	100	10.2
W6034	9	84	33	3.1
W6035	13	110	47	3.0
W6036	18	170	62	3.3
W6037	14	180	51	2.7
W6038	33	370	220	16.4
W6039	13	140	87	9.3
W6039A	19	240	140	40.6
W6040	11	230	82	7.6
W6041	10	140	130	5.5
W6042	29	280	380	9.3
W6043	9	67	100	10.5
W6044	10	110	70	3.9
W6045	7	27	47	11.6
W6046	18	230	80	NSS
W6047	7	140	53	10.7
W6048	8	91	73	6.4
W6049	17	170	100	8.9
W6050	13	170	68	7.2
W6051	18	140	75	12.2
W6052	19	170	82	9.3
W6053	12	160	78	10.4
W6054	14	140	41	3.3
W6055	12	160	35	2.3
W6056	23	240	62	3.2
W6057	10	130	43	2.7
W6058	16	170	66	3.1
W6059	11	98	34	3.3
W6060	18	150	53	2.7
W6062	12	130	46	2.5
W6063	5	82	30	2.8
W6064	23	230	61	3.3

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6065	9	84	55	7.8
W6066	15	110	91	16.1
W6067	20	210	74	8.1
W6068	22	170	57	14.1
W6069	13	99	46	9.3
W6070	6	87	42	9.6
W6071	18	210	93	NSS
W6072	9	180	53	4.4
W6073	9	64	46	11.5
W6074	14	110	87	6.4
W6075	15	110	83	4.2
W6077	13	150	53	3.8
W6078	21	210	82	2.9
W6079	12	150	36	3.2
W6080	8	110	54	4.1
W6081	14	140	210	7.4
W6082	9	110	65	5.3
W6083	12	160	37	5.0
W6084	9	110	35	2.8
W6085	11	130	82	2.6
W6086	18	130	65	4.2
W6087	10	93	37	2.5
W6088	8	82	36	3.7
W6089	10	110	35	2.9
W6090	6	55	35	3.7
W6091	6	65	56	3.8
W6092	12	100	38	3.5
W6093	9	100	34	3.3
W6094	8	140	30	1.9
W6095	7	90	36	3.4
W6096	12	150	47	NSS
W6097	8	89	44	2.8
W6098	5	68	27	2.4
W6099	10	94	40	2.5
W6100	7	77	29	2.4
W6101	7	80	35	3.0
W6102	6	100	34	2.6
W6103	12	94	34	2.9
W6104	10	75	42	2.7
W6105	8	53	43	3.7
W6106	21	120	53	2.7
W6107	9	55	34	2.9
W6108	12	100	28	2.6
W6109	15	110	42	3.0
W6110	12	130	100	4.0
W6111	6	87	32	3.1
W6112	10	120	34	2.5
W6113	13	130	47	NSS
W6114	13	110	47	2.5
W6115	14	110	48	2.8
W6116	12	91	40	2.5
W6117	9	55	35	2.5
W6118	13	98	49	3.4
W6119	10	200	34	2.0
W6120	8	69	31	2.9
W6121	15	92	48	2.7

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6122	9	73	42	3.4
W6123	10	82	47	3.3
W6124	13	120	35	2.4
W6125	14	96	47	3.0
W6126	17	87	38	4.0
W6127	12	88	25	2.8
W6128	7	59	29	2.9
W6129	11	77	27	2.4
W6130	12	110	34	2.9
W6131	15	97	35	2.5
W6133	6	50	70	3.1
W6134	10	87	110	3.3
W6135	14	58	110	3.6
W6136	5	39	53	3.4
W6137	4	46	39	2.5
W6138	6	46	29	2.6
W6139	5	45	40	3.0
W6140	14	90	61	2.3
W6141	13	83	65	3.1
W6142	5	40	37	2.7
W6143	5	78	31	2.9
W6144	12	110	56	2.2
W6145	9	78	59	2.7
W6146	14	120	45	2.6
W6147	5	67	30	2.4
W6148	7	63	41	2.4
W6149	7	83	32	2.6
W6150	12	96	43	2.1
W6151	8	63	46	2.4
W6152	7	80	37	2.8
W6153	10	75	46	2.6
W6154	9	62	26	2.3
W6155	8	84	32	2.5
W6156	16	110	55	2.9
W6157	10	90	32	2.1
W6158	13	95	43	2.7
W6159	12	91	37	2.4
W6160	8	100	33	2.3
W6161	5	54	30	2.3
W6162	13	93	48	2.5
W6163	5	70	25	2.5
W6164	9	89	44	2.3
W6165	9	55	32	2.1
W6166	8	66	27	2.4
W6167	15	55	20	2.0
W6168	7	63	32	2.4
W6169	8	100	33	2.1
W6171	13	84	30	2.3
W6172	11	79	30	2.5
W6173	8	68	39	2.5
W6174	5	60	110	2.3
W6175	12	100	43	2.5
W6176	5	43	28	2.2
W6177	5	42	37	2.7
W6178	8	74	32	1.9
W6179	7	57	25	2.3

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6180	8	71	29	2.2
W6181	12	90	41	2.3
W6182	13	80	36	2.6
W6183	7	66	20	2.5
W6184	7	65	27	2.2
W6185	6	42	29	2.9
W6186	8	52	37	2.4
W6187	12	94	34	2.2
W6188	8	71	34	5.1
W6189	6	50	34	2.5
W6190	8	60	34	2.6
W6191	8	96	35	2.0
W6192	8	75	40	2.5
W6193	6	47	35	2.7
W6194	6	59	32	2.6
W6195	12	75	82	3.3
W6196	8	88	130	3.2
W6197	11	120	140	2.8
W6198	8	82	86	2.8
W6199	10	110	79	2.5
W6200	6	45	120	5.8
W6201	3	26	54	3.3
W6202	15	140	100	3.2
W6203	8	54	73	2.6
W6204	17	120	94	2.1
W6205	8	63	44	2.9
W6206	5	46	51	2.6
W6207	7	70	47	2.3
W6208	20	100	90	NSS
W6209	6	42	46	3.3
W6210	15	160	80	2.6
W6211	7	56	120	3.3
W6213	18	200	150	2.8
W6214	7	61	70	3.3
W6215	6	57	32	2.3
W6216	6	57	34	2.2
W6217	8	58	43	2.3
W6218	8	63	34	2.9
W6219	13	100	38	2.4
W6220	8	58	26	4.2
W6221	9	60	31	2.3
W6222	10	80	49	2.4
W6223	5	38	23	2.5
W6224	9	71	27	2.6
W6225	6	53	23	2.5
W6226	12	87	34	2.6
W6227	7	72	32	2.5
W6228	7	53	27	2.6
W6229	11	72	46	2.1
W6230	12	120	39	2.4
W6231	9	74	27	2.2
W6232	7	56	40	2.2
W6233	3	22	19	3.3
W6234	10	100	35	2.9
W6235	8	79	34	2.5
W6236	10	110	42	2.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6237	12	110	58	2.7
W6238	8	63	45	2.7
W6239	9	73	34	2.7
W6240	9	71	43	3.1
W6241	13	88	50	2.9
W6242	11	91	53	2.6
W6243	12	110	43	2.2
W6244	6	53	44	3.0
W6245	10	86	49	2.9
W6246	14	100	54	2.8
W6247	8	56	33	2.8
W6248	11	110	56	2.8
W6249	15	140	100	3.8
W6250	22	310	140	3.3
W6251	9	120	48	NSS
W6252	13	130	40	2.7
W6253	10	83	58	3.0
W6254	12	160	46	2.4
W6255	9	110	65	2.8
W6256	7	72	45	3.7
W6257	10	80	48	2.5
W6258	8	88	35	2.2
W6259	9	110	43	2.4
W6260	14	110	51	2.3
W6261A	12	69	46	2.5
W6261B	12	61	66	1.7
W6263	14	96	59	2.8
W6264	12	77	39	2.7
W6265	14	85	35	2.2
W6266	9	100	37	2.6
W6267	8	80	50	2.6
W6268	8	82	37	2.4
W6269	4	27	30	3.3
W6270	9	78	47	2.7
W6271	8	68	31	2.3
W6272	5	80	27	3.0
W6273	8	100	33	2.2
W6274	9	110	31	2.3
W6275	9	120	47	2.9
W6276	11	200	76	3.5
W6277	9	120	36	2.9
W6278	4	66	34	3.1
W6279	7	110	36	2.6
W6280	6	95	31	3.1
W6281	10	110	26	2.1
W6282	9	96	38	2.3
W6283	7	94	28	2.6
W6284	12	120	35	2.6
W6285	8	130	37	3.0
W6286	6	74	58	3.4
W6287	9	100	58	2.5
W6288	10	110	66	2.9
W6289	9	79	43	2.7
W6290	7	100	44	3.0
W6291	9	85	46	2.7
W6292	6	82	25	3.0

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6293	5	70	31	2.8
W6294	6	90	36	2.8
W6295	11	99	59	2.9
W6296	4	38	19	2.9
W6297	5	64	34	2.7
W6298	8	61	34	2.7
W6299	12	110	50	2.5
W6300	13	160	41	2.5
W6301	12	120	34	2.5
W6302	8	110	36	2.4
W6303	12	78	35	3.3
W6304	12	100	46	3.1
W6305	13	120	45	2.6
W6306	10	200	41	NSS
W6307	7	100	23	2.6
W6308	10	130	39	2.9
W6309	8	200	28	2.7
W6310	8	180	33	2.2
W6311	7	110	29	2.8
W6312	15	260	67	2.8
W6313	6	94	61	3.5
W6314	5	88	27	2.9
W6315	6	120	39	3.2
W6317	16	180	76	2.4
W6318	7	88	42	3.6
W6319	8	90	46	3.3
W6320	7	67	34	2.7
W6321	7	58	42	3.1
W6322	8	99	31	2.8
W6323	15	120	37	3.3
W6324	15	140	48	2.5
W6325	14	64	56	2.8
W6326	15	91	51	2.6
W6327	14	120	47	2.8
W6328	10	110	36	2.5
W6329	8	79	35	2.5
W6330	5	77	32	2.9
W6331	8	100	35	2.6
W6332	7	78	35	2.5
W6333	8	62	36	2.6
W6334	6	66	31	2.7
W6335	11	110	51	2.5
W6336	11	140	47	2.9
W6337	12	110	48	2.8
W6338	7	90	37	2.9
W6339	10	100	39	2.6
W6340	9	100	52	3.2

NSS - NOT SUFFICIENT SAMPLE

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W1001	16	140	50	4.2
W1002	12	58	35	4.4
W1003	12	69	51	3.8
W1004	12	94	56	4.0
W1005	15	82	55	3.9
W1006	15	100	72	3.4
W1007	22	160	80	2.6
W1008	16	120	58	3.2
W1009	38	220	76	4.6
W1010	19	210	60	2.8
W1011	19	150	50	3.4
W1012	18	160	58	3.1
W1013	15	110	52	3.0
W1014	17	160	43	3.1
W1015	24	240	80	4.5
W1016	13	100	62	4.3
W1017	13	100	58	4.6
W1018	22	170	60	3.5
W1019	17	190	35	3.6
W1020	14	140	40	3.1
W1021	18	120	32	2.9
W1022	23	260	80	5.1
W1023	10	160	36	3.0
W1024	19	310	100	5.8
W1025	16	170	44	4.0
W1026	27	160	55	3.3
W1027	15	170	32	2.6
W1028	17	210	46	2.8
W1029	18	250	80	3.4
W1030	13	130	43	3.6
W1031	18	220	71	2.8
W2001	20	160	72	3.6
W2002	18	120	45	3.3
W2003	15	140	34	2.3
W2004	16	110	20	3.5
W2005	NSS	NSS	NSS	3.0
W2006	20	100	30	3.0
W2007	18	82	45	3.3
W2008	26	160	90	3.1
W2009	16	120	35	3.2
W2010	25	150	60	2.7
W2011	14	66	42	4.0
W2012	19	120	36	3.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W2013	17	100	39	3.3
W2014	19	110	34	3.2
W2015	13	110	22	4.2
W2016	22	120	32	3.5
W2017	18	75	34	3.0
W2018	16	87	60	3.5
W2019	13	61	44	3.5
W2020	16	110	50	4.5
W2021	18	120	70	3.0
W2022	19	110	60	3.2
W2023	34	280	210	8.6
W2024	25	240	100	12.0
W2025	20	240	46	3.7
W2026	14	130	40	3.4
W2027	15	91	44	3.2
W2028	14	110	30	3.3
W2029	24	160	35	3.6
W2030	27	230	55	3.8
W5430	12	150	42	3.3
W5431	17	170	45	2.9
W5433	18	210	72	6.6
W5434	15	200	70	6.9
W5435	12	160	41	3.3
W5436	14	120	44	6.1
W5437	15	140	50	5.6
W5438	19	160	42	2.9
W5439	12	75	40	3.0
W5440	20	88	44	2.1
W5442	12	58	23	3.1
W5443	12	68	24	2.9
W5444	15	120	31	2.7
W5445	13	80	25	3.4
W5446	16	160	51	2.7
W5447	15	160	30	3.3
W5448	19	97	28	2.7
W5449	14	100	40	5.5
W5450	14	130	27	2.7
W5451	10	92	25	3.0
W5452	18	190	80	12.0
W5453	27	170	62	12.0
W5453A	26	150	120	44.0
W5455	22	200	82	10.0
W5456	30	200	110	8.1
W5457	19	90	46	7.5
W5458	30	170	66	8.0
W5459	18	100	48	4.3
W5743	25	340	42	2.6
W5745	19	160	30	2.9
W5746	41	170	22	1.8
W5747	21	240	55	1.9
W5748	18	150	23	1.8
W5749	17	190	54	2.7
W5750	21	240	60	3.3
W5751	18	72	22	3.9
W5752	15	90	23	3.4
W5753	13	59	40	3.3

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W5754	15	91	20	2.4
W5759	16	100	19	2.7
W5760	18	130	34	2.8
W5761	18	92	40	3.3
W5765	17	43	22	3.0
W5766	17	34	41	2.5
W5767	18	60	12	2.6
W5768	15	52	20	2.7
W5769	12	130	28	2.5
W5770	18	96	21	2.6
W5771	15	91	32	3.0
W5772	9	81	40	2.5
W5773	12	83	17	3.2
W5774	10	94	40	2.4
W5775	11	79	70	3.7
W5776	8	69	23	4.3
W5778	13	130	20	2.7
W5779	6	52	5	2.6
W5784	18	94	13	1.6
W5785	12	70	30	3.1
W5786	13	110	24	2.7
W5787	13	64	17	2.4
W5789	15	79	13	2.6
W5790	20	80	20	2.9
W5792	12	55	12	3.6
W5796	10	63	11	1.8
W5797	14	120	40	2.4
W5804	13	110	11	2.7
W5807	12	110	22	2.6
W5808	15	93	30	2.7
W5812	13	130	30	2.7
W5814	12	72	20	4.2
W5815	11	43	20	4.4
W6341	13	140	25	2.8
W6342	13	98	22	3.0
W6343	17	170	24	2.4
W6344	20	380	70	4.8
W6345	15	170	22	2.4
W6346	17	150	30	2.4
W6347	15	200	20	2.9
W6348	10	94	25	2.6
W6350	16	210	50	3.3
W6351	13	110	22	2.7
W6352	12	90	31	1.8
W6353	13	67	33	2.4
W6355	12	67	20	1.6
W6356	17	154	28	2.5
W6357	11	74	26	3.5
W6358	15	100	30	2.7
W6359	16	120	29	2.3
W6360	12	59	18	3.0
W6361	12	80	33	2.2
W6362	12	82	64	3.9
W6363	13	49	30	2.6
W6364	15	66	22	2.1
W6367	16	96	24	2.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6368	12	54	10	2.4
W6369	19	110	22	2.9
W6370	16	91	28	2.6
W6371	13	83	40	3.2
W6374	13	120	41	3.2
W6375	12	47	15	4.6
W6376	12	87	30	3.1
W6379	28	180	32	2.4
W6380	15	120	37	3.0
W6381	12	160	28	3.0
W6384	16	170	26	2.5
W6385	15	110	24	2.4
W6386	12	54	23	3.2
W6388	12	98	18	2.4
W6389	16	100	12	2.0
W6390	17	43	14	2.1
W6392	12	72	25	4.1
W6393	12	130	28	3.2
W6394	9	70	19	3.4
W6395	6	11	<2	6.9
W6398	9	30	19	2.7
W6399	9	67	17	2.5
W6400	14	69	32	2.3
W6402	11	44	19	2.6
W6403	15	240	65	2.6
W6404	10	65	20	2.3
W6405	12	160	22	2.3
W6406	9	79	15	2.1
W6407	13	110	16	3.0
W6408	7	47	17	3.2
W6409	13	100	34	2.2
W6410	11	110	20	2.8
W6412	10	80	14	2.4
W6413	18	130	31	2.4
W6414	12	140	13	2.5
W6415	16	140	35	2.5
W6416	9	36	16	3.9
W6417	19	100	23	2.4
W6418	15	95	18	2.5
W6419	13	91	22	2.5
W6420	12	83	25	2.5
W6421	13	66	20	4.1
W6424	8	30	22	3.0
W6425	8	35	30	4.5
W6426	11	90	40	2.4
W6427	9	67	43	1.9
W6431	7	43	22	2.9
W6433	9	49	31	4.0
W6436	12	58	22	3.0
W6437	13	45	15	1.9
W6438	22	150	45	2.7
W6441	7	32	10	1.1
W6442	10	36	31	3.3
W6443	14	68	29	1.9
W6444	12	51	22	2.7
W6445	18	53	8	1.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6446	8	38	38	2.8
W6447	11	52	29	2.6
W6448	10	40	23	3.3
W6449	8	14	19	3.1
W6450	10	40	18	2.7
W6451	7	54	23	2.2
W6452	7	44	13	3.0
W6453	8	56	21	3.1
W6454	19	280	74	4.2
W6455	5	10	18	3.0
W6456	9	58	24	2.7
W6457	10	52	18	3.2
W6458	7	64	18	2.6
W6459	13	160	20	1.9
W6460	17	120	20	1.7
W6461	9	100	17	1.9
W6462	10	52	3	1.8
W6464	10	95	34	2.0
W6465	10	35	15	1.9
W6466	11	64	24	4.6
W6467	8	57	18	2.5
W6468	7	56	22	3.1
W6469	10	59	54	2.4
W6470	6	29	27	3.5
W6471	5	12	7	4.4
W6472	8	35	20	3.2
W6473	7	40	13	2.5
W6474	6	29	24	2.2
W6475	11	76	30	2.8
W6476	5	18	5	3.8
W6477	8	66	22	2.9
W6478	10	80	30	2.7
W6479	9	130	48	2.7
W6480	24	270	60	3.2
W6481	9	48	26	2.7
W6482	9	56	22	2.7
W6483	7	45	24	2.9
W6484	12	91	26	1.9
W6485	15	69	22	2.9
W6486	12	69	24	3.0
W6487	15	67	23	1.7
W6488	6	52	15	2.7
W6489	14	100	43	2.1
W6490	8	52	16	4.2
W6491	7	34	21	4.7
W6492	13	86	33	2.6
W6493	8	39	23	3.5
W6494	11	93	33	2.4
W6495	18	130	22	2.9
W6496	11	65	25	2.7
W6497	7	17	15	3.1
W6498	10	70	29	2.1
W6499	8	77	47	2.1
W6500	10	89	32	2.9
W6501	12	47	23	3.3
W6502	12	73	38	2.3

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6503	8	27	22	3.4
W6504	7	48	21	2.2
W6505	5	12	11	5.2
W6506	7	61	30	2.1
W6507	8	35	27	1.8
W6508	9	53	26	1.8
W6509	8	48	28	2.6
W6511	13	96	19	2.4
W6512	7	31	14	2.7
W6513	12	71	25	1.9
W6514	14	62	12	1.9
W6515	8	44	23	2.3
W6520	10	160	95	2.5
W6521	9	190	82	2.2
W6522	9	82	42	2.0
W6523	18	130	44	2.0
W6524	14	150	30	1.5
W6525	10	40	34	5.4
W6531	8	55	32	2.0
W6532	12	70	35	2.3
W6533	9	50	20	3.1
W6534	6	32	19	4.2
W6535	12	81	22	2.4
W6536	18	63	14	2.6
W6537	11	39	22	3.7
W6538	10	70	26	2.9
W6539	10	77	14	2.2
W6540	8	37	16	2.7
W6541	18	130	42	2.4
W6542	9	71	29	2.4
W6544	10	58	22	2.4
W6545	8	36	20	2.5
W6546	6	24	19	3.3
W6547	6	47	28	2.7
W6548	8	82	22	1.5
W6549	4	36	17	2.4
W6550	4	14	22	2.5
W6551	13	86	24	2.1
W6552	9	70	26	2.2
W6553	17	130	43	2.2
W6554	7	41	23	3.0
W6555	6	29	28	4.5
W6556	4	27	20	3.3
W6557	6	32	22	2.9
W6558	8	100	24	2.5
W6559	7	48	27	2.9
W6560	8	66	33	2.6
W6561	10	93	30	2.4
W6562	16	130	46	2.5
W6563	14	94	38	2.5
W6564	12	82	32	2.8
W6565	12	92	29	2.6
W6566	8	58	32	2.3
W6567	6	29	24	3.7
W6568	12	69	29	2.7
W6569	9	71	20	3.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6571	7	38	25	2.9
W6572	11	47	30	1.9
W6573	7	55	21	2.6
W6574	7	47	30	2.4
W6575	10	88	22	2.1
W6576	11	95	32	2.4
W6577	12	120	23	1.9
W6578	15	94	25	2.6
W6579	13	57	21	2.5
W6580	10	52	30	2.2
W6581	9	57	34	1.7
W6582	14	150	33	2.2
W6583	13	80	34	2.2
W6584	14	92	40	2.2
W6585	10	67	22	1.8
W6586	11	93	27	1.8
W6587	10	73	32	2.6
W6591	16	67	19	1.9
W6592	10	23	18	2.5
W6593	13	34	13	1.6
W6594	9	45	21	2.7
W6595	12	40	32	4.0
W6596	14	51	40	3.2
W6597	17	76	20	2.1
W6599	18	72	18	1.7
W6600	15	50	22	1.5
W6601	12	54	20	1.9
W6602	14	76	22	1.6
W6603	16	95	21	2.2
W6604	11	46	37	1.8
W6605	8	34	18	2.1
W6606	7	48	23	2.4
W6607	15	92	30	2.1
W6608	4	17	8	3.3
W6609	11	42	34	1.2
W6611	9	37	22	2.9
W6612	8	130	73	3.3
W6614	13	73	36	2.4
W6615	7	41	25	3.4
W6616	9	72	27	2.3
W6617	8	73	28	2.4
W6618	10	63	26	2.1
W6619	8	47	23	2.1
W6620	15	49	32	2.1
W6621	8	39	24	2.9
W6622	7	81	23	2.6
W6623	13	150	32	2.4
W6624	8	38	23	2.8
W6625	7	41	19	4.2
W6626	6	40	21	2.6
W6627	13	130	33	3.3
W6628	7	30	48	3.3
W6630	14	130	44	3.6
W6631	15	180	30	3.2
W6632	7	55	35	3.5
W6633	10	69	41	2.4

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6634	5	79	40	4.0
W6635	18	800	72	2.7
W6636	27	1200	140	5.0
W6637	12	260	110	3.9
W6638	10	160	58	4.3
W6639	21	280	280	4.7
W6640	11	96	47	3.9
W6641	7	97	44	3.0
W6642	11	160	55	3.0
W6643	25	250	120	6.0
W6644	12	120	50	2.6
W6645	12	210	41	3.0
W6646	9	170	34	2.7
W6647	13	180	120	3.9
W6648	8	130	34	2.8
W6649	7	160	25	3.0
W6650	6	98	54	2.4
W6651	9	110	52	2.2
W6652	13	150	43	2.8
W6653	7	95	27	2.4
W6654	9	180	42	3.1
W6655	13	220	36	2.4
W6656	10	140	14	2.5
W6657	12	88	24	2.3
W6658	9	250	46	3.4
W6659	12	120	42	2.6
W6660	12	77	24	2.8
W6661	9	58	79	2.2
W6662	13	130	66	2.5
W6663	12	100	85	3.1
W6664	9	95	47	2.3
W6665	11	140	34	2.4
W6666	15	170	43	2.4
W6667	11	91	23	2.6
W6668	12	140	22	2.6
W6669	19	260	70	3.5
W6670	NSS	NSS	NSS	2.3
W5671	12	82	16	2.1
W6672	14	150	42	2.6
W6673	12	72	34	2.4
W6674	8	74	43	2.5
W6675	19	80	27	2.3
W6676	14	140	53	2.3
W6677	8	70	13	2.4
W6678	13	190	45	2.5
W6679	6	75	15	2.8
W6680	9	91	43	2.2
W6681	5	82	13	2.3
W6682	6	97	32	3.0
W6683	13	88	18	2.6
W6684	8	82	22	2.4
W6685	9	120	24	2.7
W6686	8	90	16	2.6
W6687	5	94	25	4.3
W6688	4	57	20	3.2
W6689	7	94	18	2.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6690	5	71	18	2.8
W6691	6	56	19	2.3
W6692	7	87	22	2.1
W6693	5	44	18	3.7
W6694	8	87	25	2.5
W6695	6	76	13	2.9
W6696	4	41	22	3.1
W6697	5	55	17	2.7
W6698	5	57	23	3.6
W6699	16	220	59	2.2
W6700	8	72	35	3.1
W6701	5	35	26	3.0
W6702	5	62	31	3.1
W6703	9	140	36	2.6
W6704	5	41	24	4.0
W6705	8	79	35	3.2
W6706	10	120	43	2.9
W6707	14	130	51	3.4
W6708	8	220	44	3.0
W6709	7	130	42	4.4
W6710	9	94	43	3.0
W6711	12	220	33	2.7
W6712	7	76	45	4.3
W6713	8	130	37	2.8
W6714	7	120	22	2.6
W6715	4	110	29	2.8
W6716	9	160	27	2.6
W6717	6	150	32	3.2
W6718	4	96	25	3.1
W6719	8	220	52	3.6
W6720	7	82	22	2.9
W6721	6	130	36	3.4
W6722	5	65	16	3.1
W6723	9	120	27	2.7
W6724	7	110	15	2.1
W6725	4	57	13	2.6
W6726	8	100	20	2.4
W6727	6	87	22	2.2
W6728	17	140	39	3.2
W6729	6	64	12	2.1
W6730	12	83	16	2.9
W6732	5	33	12	2.6
W6733	12	70	14	2.6
W6734	4	36	11	2.7
W6735	7	130	13	2.4
W6736	6	85	43	1.9
W6737	8	260	130	2.3
W6738	12	120	39	2.4
W6739	9	89	57	2.9
W6740	14	150	43	2.7
W6741	9	45	27	2.2
W6742	9	60	12	2.8
W6743	5	56	15	2.2
W6746	5	72	13	2.2
W6747	9	370	71	2.9
W6748	8	180	42	2.2

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6749	13	120	22	2.1
W6750	9	150	30	2.7
W6751	7	100	20	2.6
W6752	8	98	22	2.7
W6753	8	68	23	2.7
W6754	9	180	19	2.7
W6755	10	140	32	3.0
W6756	7	180	12	2.6
W6757	8	170	28	2.5
W6758	8	140	18	2.9
W6759	11	210	30	3.4
W6760	22	320	100	5.2
W6761	12	190	36	2.9
W6763	8	120	30	2.8
W6764	9	210	34	2.9
W6765	13	310	52	3.2
W6766	15	370	48	2.7
W6767	12	140	40	2.0
W6768	10	150	35	2.8
W6769	6	130	23	4.2
W6770	16	600	120	3.8
W6771	9	250	68	4.0
W6772	8	170	40	2.8
W6773	17	310	72	3.6
W6774	12	290	51	3.4
W6775	13	180	65	2.9
W6776	8	170	37	2.7
W6779	5	46	31	2.4
W6780	5	16	30	3.0
W6781	8	96	31	2.5
W6782	7	78	29	2.6
W6783	5	58	32	3.1
W6784	2	20	15	3.0
W6785	5	60	27	NSS
W6786	8	87	32	2.8
W6787	8	97	35	2.8
W6788	12	87	33	2.9
W6791	3	48	30	2.7
W6793	3	90	31	2.7
W6794	2	40	18	4.4
W6795	5	120	34	2.8
W6796	6	80	32	3.0
W6797	6	81	31	2.6
W6798	3	37	22	2.4
W6800	6	96	15	2.7
W6801	3	38	13	2.0
W6802	11	130	23	2.5
W6803	8	67	30	2.4
W6804	8	93	32	2.4
W6805	5	140	22	2.9
W6806	7	98	32	2.2
W6807	13	210	43	3.1
W6808	10	150	27	3.0
W6809	5	63	16	4.0
W6810	10	150	38	2.9
W6811	4	30	22	2.5

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6812	8	94	31	2.7
W6813	5	160	27	2.8
W6814	6	68	18	2.9
W6815	6	97	24	2.7
W6816	7	140	35	2.7
W6817	8	55	48	2.4
W6818	6	90	30	2.3
W6819	5	89	32	2.4
W6820	17	84	26	2.6
W6822	15	200	39	3.6
W6823	12	220	50	2.5
W6824	8	240	35	3.2
W6825	4	57	20	2.8
W6826	6	80	23	2.3
W6827	7	120	25	2.6
W6828	10	150	32	2.7
W6829	7	79	24	2.4
W6830	5	63	20	3.1
W6832	7	130	32	2.4
W6835	4	55	20	3.2
W6836	4	98	34	3.2
W6837	8	83	38	2.9
W6838	12	200	62	3.4
W6839	8	190	46	3.1
W6840	10	130	32	2.9
W6841	6	93	26	3.1
W6842	8	130	31	2.9
W6844	9	130	38	2.7
W6845	9	120	33	3.0
W6846	7	120	28	2.8
W6848	6	61	31	2.8
W6849	9	89	27	2.8
W6850	6	92	22	2.9
W6851	5	90	24	2.6
W6852	7	80	38	2.5
W6853	8	130	33	2.8
W6854	8	120	25	2.4
W6855	6	94	26	3.2
W6856	10	130	32	2.6
W6857	5	49	24	2.9
W6858	8	98	38	2.3
W6859	10	120	47	2.6
W6860	11	140	27	2.6
W6861	8	110	25	2.8
W6862	4	58	20	3.2
W6863	7	66	19	2.7
W6864	5	65	23	3.4
W6865	9	120	40	3.1
W6866	3	35	29	3.1
W6867	3	25	19	3.4
W6868	5	80	23	2.6
W6869	4	120	22	3.3
W6870	5	130	29	2.8
W6871	7	88	22	3.0
W6872	5	100	20	3.1
W6873	4	58	28	2.8

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6874	8	85	19	3.1
W6875	12	160	38	2.8
W6876	10	190	27	2.7
W6877	9	120	44	2.9
W6878	5	65	32	2.6
W6879	7	96	29	2.6
W6880	7	69	33	2.5
W6881	15	140	28	2.7
W6882	14	130	56	3.0
W6883	14	140	30	3.5
W6884	12	120	51	2.4
W6885	4	78	24	3.3
W6886	6	77	53	3.5
W6887	8	120	31	2.7
W6888	5	67	36	2.8
W6889	10	96	25	2.6
W6890	11	140	38	3.1
W6891	7	94	23	2.7
W6892	4	49	18	2.5
W6893	4	53	25	3.1
W6894	17	210	84	3.9
W6895	8	170	43	2.7
W6896	9	110	32	2.7
W6897	7	130	34	2.5
W6898	11	130	36	2.6
W6899	7	110	37	2.3
W6900	3	68	27	3.1
W6901	8	120	32	2.7
W6902	5	75	27	2.9
W6903	6	88	30	2.7
W6904	6	84	16	2.8
W6905	5	55	22	2.9
W6906	5	63	20	2.5
W6907	4	51	22	2.8
W6908	4	45	15	3.8
W6909	5	93	24	1.6
W6910	6	130	22	1.7
W6911	7	160	36	3.4
W6912	6	62	23	1.6
W6914	6	56	19	2.1
W6915	7	82	24	2.9
W6916	5	70	26	2.8
W6917	3	55	17	2.8
W6918	9	120	24	2.7
W6919	8	95	28	3.1
W6920	12	66	23	2.4
W6921	9	100	44	2.2
W6922	7	70	20	2.6
W6923	4	37	16	3.1
W6924	7	70	20	2.3
W6925	11	84	26	2.8
W6926	7	71	25	2.6
W6927	6	47	22	2.6
W6928	7	89	28	2.4
W6929	6	35	21	2.8
W6930	3	32	23	4.6

SAMPLE	CU PPM	ZN PPM	PB PPM	U PPM
W6931	4	35	24	3.2
W6932	NSS	NSS	NSS	3.0
W6933	4	38	20	2.9
W6934	7	110	29	2.6
W6935	6	48	21	2.7
W6936	8	78	27	2.9
W6937	8	73	31	2.7
W6938	12	85	22	2.0
W6939	8	95	32	2.1
W6940	3	34	14	2.9
W6942	6	92	35	2.3
W6944	7	110	42	2.0
W6945	2	20	20	3.3
W6946	5	94	35	2.2
W6947	4	54	22	2.7
W6948	4	64	21	2.6
W6949	7	62	30	2.7
W6950	7	100	23	2.8
W6951	8	110	30	2.6
W6952	9	110	32	2.1
W6953	5	34	23	2.2
W6954	5	55	16	2.8
W6955	8	95	32	2.7

NSS - NOT SUFFICIENT SAMPLE

11/E-11 WEST

63° 22' 30" — 22' E 1,290,000 — 21' E 1,295,000 — 20' E 1,300,000 — 19' E 1,305,000 — 18' E 1,310,000 — 17' E 1,315,000 — 16' — 63° 15' 00"

45° 37' 30" — N 16,580,000 — 37' — N 16,575,000 — 36' — N 16,570,000 — 35' — N 16,565,000 — 34' — N 16,560,000 — 33' — N 16,555,000 — 32' — N 16,550,000 — 31' — N 16,545,000 — 45° 30' 00" — N 16,540,000

ra 150 rhyolite
ra 40, 50
ra 150 rhyolite
ra 40, 50 basalt
ra 30, 40 basalt
ra 120 rhyolite
ra 170 rhyolite
ra 150 rhyolite
ra 150 rhyolite
French Brook
Basalt
Rhyolite
Sutherland Brook
Munroe Brook
Gravel Pit
GP
Gravel Pit
ra 80 gray sediment
EAST NEW ANNAN
basalt
ra 40 basalt
ra 40 basalt
ra 40 quarry basalt
Brook
ra 30, 40 basalt
Cabin
basalt
Gravel Pit
ra 30, 40 basalt
sediments
Porter Brook
River
ra 150, rhyolite
ra 250, rhyolite
ra 150 rhyolite
ra 90, 100 rhyolite
SB
Basalt
Rhyolite
Cavanagh
ra 80, 90 rhyolite
ra 30, 40 basalt
ra 30, 40, basalt
ra 40 basalt
ra 200 rhyolite
Whippey Lake
ra 90, 100 rhyolite
ra 150 rhyolite
ra 100, 120 rhyolite
sulphide bearing boulders: rhyolite
Clear Lake
ra 20, 40, basalt
ra 90, 100 rhyolite
sulphide bearing boulders of rhyolite
E-170
Black Lake
ra 40, 60
ra 90, 100 rhyolite
ra 150 rhyolite
ra 90, 100 rhyolite
Little Lake
Johnston Lake
ra 90, 100 granite
ra 30, 40
ra 30, 40 basalt
ra 150 rhyolite
ra 90, 100 granite
ra 90, 100 granite
ra 100, 150, granite
ra 90, 100 granite
E-164
ra 100 sediment
E 161, 162 ra 250, rhyolite
West Branch
ra 300 rhyolite
C-1168
C-1169
C-1170
C-1171
C-1172
C-1173
340
339
341
338
343
342
E 165, ra 300
E 166, ra 220
rhyolite
magnetic
River
North Branch of
R-891 ra 2000
R-890
R-892
R-889 ra 1500
R-893 ra 700
R-886
R-894
R-887
R-888
200/250
200/250
200/250
magnetic
magnetic
magnetic
River
ra 100, 130 granite
Farm Lake
ra 90, 100 granite
ra 90, 100 granite
ra 90, 100 granite
ra 120, 140
ra 100, 120 granite
granite
ra 120, 140 granite cgl.
Chiganois
Gain Brook
ra 100, 120 granite
LIMIT OF PROSPECTING
LIMIT OF PROSPECTING
347
347
281
280
282

LEGEND

- Major traverse
- Boulder, area of boulders
- Outcrop, area of outcrop
- Fault zone
- 80/60 ra 50 — Radioactivity (ra) in counts per second - high/background, spot reading
- Airborne anomaly

21 22 23 24 25 26 27 28 29
C
D
E
F
45° 30'
64° 00'
63° 00'
KEY

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COBEQUID PROJECT

PROSPECTING

433420

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: E-26 gb
OCTOBER 1979	1 IN. = 1/4 MI.		NTS. 11E/11 PT.

To accompany "Cobequid IV and 1BM Reports", October 1979.

63°28' 27' 26' 63°25'
45°37'30"

L-80+00 E
TL-72+00 N
L-100+00 E
L-120+00 E
L-140+00 E
L-160+00 E
L-180+00 E
TL-30+00 N
BL-0+00
TL-40+00 S
TL-120+00 S
L-80+00 E
L-180+00 E

37' 36' 35'

Ridge
esker
esker?
crevasse?
Cliff
TRAIL
Debert Lake
Big Snare Lake
Little Snare Lake
DL-1 DL-2 DL-3 DL-4 DL-5 DL-6 DL-7 DL-8 DL-9 DL-10 DL-12 DL-13 DL-14 DL-15 DL-16 DL-17 DL-18 DL-19 DL-20 DL-21 DL-22

NOTE : For legend see sheet 2

KEY

11E/12d		11E/11c	
63°34'00"			63°22'00"
45°37'30"	1	2	3	4
45°34'00"			
11E/12a		11E/11b	

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOLOGICAL COMPILATION

433420

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III g
OCTOBER 1979	1 INCH = 400 FEET	D.A.G	N.T.S. 11E/11 PT.

To accompany "Cobequid III and IBM Reports", October 1979

COBEQUID PROJECT
URANIUM ASSESSMENT REPORT
COBEQUID IV
NOVA SCOTIA
- 1979 -
NTS: PART OF 11E/11a, 11b, 11c
PART 2 OF 2

11E/11B 54-D-16(03)
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NOVA SCOTIA

COBEQUID PROJECT
URANIUM ASSESSMENT REPORT
COBEQUID IV
NOVA SCOTIA
- 1979 -
NTS: PART OF 11E/11a, 11b, 11c
PART 2 OF 2

11E/11B 54-D-16(03)

433420
433420
433420

A REPORT ON

GEOLOGICAL MAPPING

GEOCHEMISTRY

PLEISTOCENE GEOLOGY

PROSPECTING

REVERSE CIRCULATION DRILLING

TABLE OF CONTENTS

PART I

1.0	INTRODUCTION	1
	1.1 SUMMARY	1
	1.2 PERSONNEL	3
2.0	GEOLOGY	5
	2.1 INTRODUCTION	5
	2.2 GENERAL GEOLOGY	5
	2.3 ROCK UNITS	8
	2.4 STRUCTURE	12
3.0	PLEISTOCENE GEOLOGY	16
	3.1 INTRODUCTION	16
	3.2 PROCEDURE	16
	3.3 CONCLUSIONS	17
	3.4 RECOMMENDATIONS	19
4.0	GEOCHEMISTRY	20
	4.1 SOILS	20
	4.2 ROCK GEOCHEMISTRY	21
5.0	PROSPECTING	24
6.0	REVERSE CIRCULATION DRILLING	25
	6.1 INTRODUCTION	25
	6.2 PURPOSE	25
	6.3 PROCEDURE	26
	6.4 CONCLUSIONS AND RECOMMENDATIONS	26

TABLE OF CONTENTS (Cont'd)

PART I (cont'd)

7.0	GEOPHYSICAL SURVEY	27
	7.1 INTRODUCTION	27
	7.2 PROCEDURE	27
	7.3 RESULTS AND INTERPRETATIONS	28
	7.4 RECOMMENDATIONS	29
8.0	CONCLUSIONS AND RECOMMENDATIONS	30

TABLE I	LAND STATUS	2a
TABLE II	LEGEND OF FORMATIONS	7a
TABLE III	COBEQUID LEGEND	7b
TABLE IV	TYPICAL CHEMICAL COMPOSITIONS	23a

APPENDIX I - RESULTS OF ANALYSIS

A) WHOLE ROCK AND TRACE ELEMENT GEOCHEMISTRY

B) SOIL TRACE ELEMENT SURVEY

ILLUSTRATIONS

PART I
BOUND IN REPORT

Figure 1	Index Map	i
Figure 2	Location Map	ii

ENCLOSED IN POCKETS

Plate E 26 gb	Prospecting	1 In. = 1/4 Mi.
Plate III g	Geological Compilation	1 In. = 400 Ft.

PART II

Geophysical Survey

✓ Plate III aa	V.L.F. (EM-16 & TX-27)	1 In. = 400 Ft.

Geochemical Survey

✓ Plate III fa	Copper Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fa	Copper Values-C Horizon	1 In. = 400 Ft.
✓ Plate III fb	Uranium Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fb	Uranium Values-C Horizon	1 In. = 400 Ft.

ILLUSTRATIONS (Cont'd)

PART II (cont'd)

✓ Plate III fc	Lead Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fc	Lead Values-C Horizon	1 In. = 400 Ft.
✓ Plate III fd	Zinc Values-C Horizon	1 In. = 400 Ft.
✓ Plate IV fd	Zinc Values-C Horizon	1 In. = 400 Ft.
✓ Plate III fr	Whole Rock Location	1 In. = 400 Ft.

MV

63°28' 27' 26' 63°25'

45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

BL - 0 + 00

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

Debert Lake

Big Snare Lake

Little Snare Lake

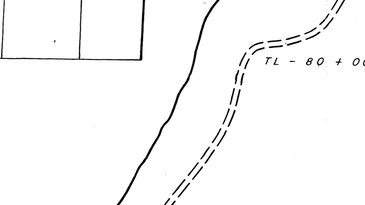
LEGEND

Instrument:	Ronka EM-16 TX-27
Station:	TX-27
Operators:	Various
In - Phase:	———
Out - of - Phase:	— —
EM Conductor:	- - - - -
Direction Faced:	Towards Transmitter
Profile Scale 1 Inch = 40%	Left Wave and Right Wave Crossovers. +20% 0 -20%

Stations every 100 feet.

Compass and pace lines only.

Long Wire Tx location, Direction of surveyed block indicated by arrow



KEY

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COBEQUID PROJECT

ELECTROMAGNETIC SURVEY

433420

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To accompany "Cobequid III, IV and IBM Reports", October 1979.

63°28'
45°37'30"
27'
26'
63°25'
45°37'30"
37'
36'
35'
45°34'
63°28'
27'
26'
63°25'
45°34'

L - 80 + 00 E
L - 100 + 00 E
L - 120 + 00 E
L - 140 + 00 E
L - 160 + 00 E
L - 180 + 00 E

TL - 72 + 00 N
TL - 30 + 00 N
BL 0 + 00
TL - 40 + 00 S
TL - 80 + 00 S

Depert Lake
Big Snare Lake
Little Snare Lake

LEGEND

- o Soil sample location
- 8 "C" Horizon value in p.p.m.
- - Insufficient sample

KEY

11E/12d	11E/11c
63°34'00"	63°22'00"
45°37'30"	
1	2
3	4
45°34'00"	
11E/12a	11E/11b

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COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

COPPER

CLAIM BLOCK III, IV & IBM

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			N.T.S. 11E/11 PT

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63°25 | 24' | 23' | 63°22'

45°37'30"

37'

L - 200 + 00 E

L - 220 + 00 E

TL - 30 + 00 N

Brook

Byers

BL - 0 + 00

36'

35'

Whirleywaugh Lake

Round Lake

Long Lake

Shatter Lake

Irvine Lake

Rocky Lake

Musquash Lake

Johnston Lake

45°34'

63°25' | 24' | 23' | 63°22'

LEGEND

° Soil sample location

8 "C" Horizon value in p.p.m.

– Insufficient sample



KEY

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GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

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63°28' 27' 26' 63°25'

45°37'30"

45°34'

37'

36'

35'

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

BL - 0 + 00

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

Debert Lake

Big Snare Lake

Little Snare Lake

LEGEND

° Soil sample location

6/4 "A" Horizon value in p.p.m. / "C" Horizon value in p.p.m.

– Assay value < 0.1 p.p.m.

NOTE: Sample values are X 10

ie: 1.8 = 18

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MINES
NOVA SCOTIA

11E/12d		11E/11c	
63°34'00"			63°22'00"
45°37'30"	1	2	3	4
45°34'00"			
11E/12a		11E/11b	

KEY

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COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

URANIUM

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NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: IIIfb
OCTOBER 1979	1 INCH = 400 FEET		N.T.S. 11E/11 PT.

To accompany "Cobequid III and IV Reports," October 1979.

63°25 | 24' | 23' | 63°22'

45°37'30"

37'

L - 200 + 00 E

L - 220 + 00 E

TL - 30 + 00 N

Brook

2.2	3.0	—	3.6	2.4	—	2.6
2.7	3.1	—	2.1	2.0	—	2.7
3.1	4.2	—	—	3.0	3.1	—
3.3	3.0	3.4	—	—	4.6	1.6
2.6	2.7	—	3.3	2.5	3.2	3.1
2.8	3.2	3.3	2.3	2.3	—	4.3
1.4	2.6	3.8	2.7	—	—	2.7
2.7	1.9	1.9	—	3.2	3.2	2.4
1.9	1.7	1.8	3.1	—	2.6	3.2
3.9	1.9	—	2.7	2.4	2.9	2.6
1.1	1.8	—	2.3	2.0	2.4	2.5
—	—	2.2	—	2.1	2.8	3.0
—	2.0	—	3.9	—	—	2.6
2.7	1.9	—	—	4.1	2.1	2.5
1.9	4.6	2.3	—	3.2	2.6	3.0
—	2.5	4.2	—	3.4	3.9	—
3.0	2.1	—	—	6.9	—	—
—	2.4	—	5.4	—	2.2	3.3
—	3.5	—	4.1	2.7	3.0	2.8
4.0	4.4	—	2.2	2.5	2.3	2.7
—	3.2	3.1	—	2.3	2.7	—
2.9	2.5	4.1	—	—	3.5	2.7
—	2.2	2.9	—	2.6	2.5	—
—	2.8	2.8	3.4	2.6	1.6	—
1.9	3.8	2.2	—	2.3	—	2.6
2.9	2.9	2.6	—	2.3	2.4	2.4
1.9	2.7	1.7	—	2.1	1.8	2.7
2.4	2.7	—	—	3.0	2.7	3.3
4.5	3.2	—	2.8	3.2	3.3	—
3.0	2.7	3.2	2.6	2.2	—	2.6
4.1	2.7	3.4	3.6	2.8	2.6	2.7
2.5	2.9	1.4	1.8	—	2.9	—
2.5	1.9	2.3	1.9	2.4	2.4	4.2
2.5	2.9	2.3	1.7	2.4	2.4	4.4
2.4	3.0	—	—	2.5	4.8	—
3.9	1.7	—	3.9	2.5	2.4	—
	2.7				3.0	—
					2.8	—

BL - 0 + 00

Byers

L - 220 + 00 E

L - 200 + 00 E

Whirleywaugh Lake

Round Lake

Long Lake

Shatter Lake

Irvine Lake

Rocky Lake

Musquash Lake

Johnston Lake

36'

35'

45°34'

63°25' | 24' | 23' | 63°22'

45°34'

11E / 12d | 11E / 11c

63°34'00" | 63°22'00"

45°37'30"

1 | 2 | 3 | 4

45°34'00"

11E / 12a | 11E / 11b

KEY

433420

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

URANIUM

CLAIM BLOCK IV

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: IVfb
OCTOBER 1979	1 INCH=400 FEET		N.T.S. 11E/11 PT.

To accompany "Cobequid IV Report," October 1979.

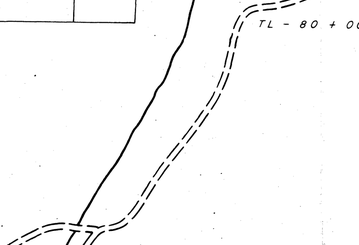
RECEIVED
FEB 8 14 48 '80
MINES
NOVA SCOTIA

63°28'
45°37'30"
27'
26'
63°25'
37'
36'
35'
45°34'
L - 80 + 00 E
L - 100 + 00 E
L - 120 + 00 E
L - 140 + 00 E
L - 160 + 00 E
L - 180 + 00 E
TL - 72 + 00 N
TL - 30 + 00 N
BL 0 + 00
TL - 40 + 00 S
TL - 80 + 00 S
TL - 120 + 00 S
Debert Lake
Big Snare Lake
Little Snare Lake

LEGEND

- ° Soil sample location
- 8 "C" Horizon value in p.p.m.
- – Insufficient sample

KEY



433420

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

LEAD

CLAIM BLOCK III, IV & IBM

NOVA SCOTIA

DATE	SCALE	DRAWN BY	PLATE III fc
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63°25' 24' 23' 63°22'
45°37'30"

37'

36'

35'

45°34'

L - 200 + 00 E

L - 220 + 00 E

TL - 30 + 00 N

BL - 0 + 00

Brook

Byers

Whirleywaugh Lake

Round Lake

Long Lake

Shatter Lake

Irvine Lake

Rocky Lake

Musquash Lake

Johnston Lake

LEGEND

- Soil sample location
- 8 "C" Horizon value in p.p.m.
- – Insufficient sample

KEY



433420

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COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

LEAD

CLAIM BLOCK IV & IBM

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DATE:	SCALE:	DRAWN BY:	PLATE: IVfc
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To accompany "Cobequid IV and IBM Reports", October 1979.

63°28'
45°37'30"
27'
26'
63°25'
45°37'30"

0 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 30 + 00 N

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

BL - 0 + 00

36'

35'

Debert Lake

Big Snare Lake

Little Snare Lake

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

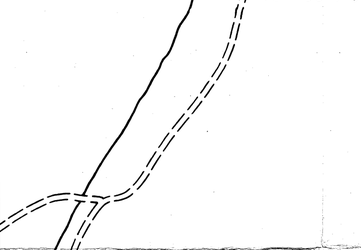
L - 140 + 00 E

L - 160 + 00 E

45°34'
63°28'
27'
26'
63°25'
45°34'

LEGEND

- ° Soil sample location
- 8 "C" Horizon value in p.p.m.
- – Insufficient sample



KEY

433420

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

ZINC

CLAIM BLOCK III, IV & IBM

NOVA SCOTIA

DATE	SCALE	DRAWN BY	PLATE III fd
OCTOBER 1979	1 INCH = 400 FEET		N.T.S. 11E/11 PT

To accompany "Cobequid III, IV and IBM Reports", October 1979.

63°25 | 24' | 23' | 63°22'

45°37'30"

37'

L - 200 + 00 E

L - 220 + 00 E

TL - 30 + 00 N

Brook

Byers

BL - 0 + 00

Whirleywaugh Lake

Round Lake

Long Lake

Shatter Lake

Irvine Lake

Rocky Lake

Musquash Lake

Johnston Lake

36'

35'

45°34'

63°25' | 24' | 23' | 63°22'

LEGEND

- Soil sample location
- 8 "C" Horizon value in p.p.m.
- ¬ Insufficient sample

KEY

11E/12d	11E/11c
11E/12a	11E/11b

63°34'00" | 63°22'00" | 45°37'30" | 45°34'00"

1 | 2 | 3 | 4

233420

Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(SAMPLE LOCATION AND VALUE)

Zn

CLAIM BLOCK IV & IBM

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: IVfd
OCTOBER 1979	1"INCH=400 FEET		N.T.S. 11E/11 PT.

To accompany "Cobequid IV and IBM Reports," October 1979.

63°28' 27' 26' 63°25'

45°37'30"

37'

36'

35'

45°34'

L - 80 + 00 E

L - 100 + 00 E

L - 120 + 00 E

L - 140 + 00 E

L - 160 + 00 E

L - 180 + 00 E

TL - 72 + 00 N

TL - 30 + 00 N

BL - 0 + 00

TL - 40 + 00 S

TL - 80 + 00 S

TL - 120 + 00 S

Debert Lake

Big Snare Lake

Little Snare Lake

R-321 R-329 R-330 R-320 R-332 R-319 R-318 R-317 R-333 R-200 R-199 R-198 R-311 R-312 R-310 R-313 R-315 R-307 R-308 R-316 R-328 R-309 R-324 R-326 R-322 R-327 R-314 R-195 R-196 R-201 R-192 R-197 R-194 R-193 R-191 R-190 R-189 R-186 R-187 R-185 R-183 R-75 R-81 R-82 R-63 R-76 R-65 R-64 R-88 R-89 R-87 R-86 R-80 R-91 R-90 R-78 R-77 R-79

LEGEND

x R-321 Whole rock sample location and number

11E/12d		11E/11c	
63°34'00"			63°22'00"
45°37'30"			
	1	2	3	4
45°34'00"			
11E/12a		11E/11b	

KEY

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Gulf Minerals Canada Limited

COBEQUID PROJECT

GEOCHEMICAL SURVEY

(WHOLE ROCK - LOCATION AND NUMBERS)

CLAIM BLOCK III, IV & IBM

NOVA SCOTIA

DATE:	SCALE:	DRAWN BY:	PLATE: III fr
OCTOBER 1979	1 INCH = 400 FEET		N.T.S. 11E/11 P.T.

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