GEOLOGICAL SURVEY OF CANADA
OPEN FILE 6288

Chemical fingerprinting of detrital minerals in the Upper Jurassic–Lower Cretaceous sandstones, Scotian Basin

G. Pe-Piper, B. Tsikouras, D. J.W. Piper and S. Triantaphyllidis

2009

Natural Resources Canada
Ressources naturelles Canada

Canada

GEOLOGICAL SURVEY OF CANADA
OPEN FILE 6288

Chemical fingerprinting of detrital minerals in the Upper Jurassic–Lower Cretaceous sandstones, Scotian Basin

G. Pe-Piper, B. Tsikouras, D. J.W. Piper and S. Triantaphyllidis

2009

©Her Majesty the Queen in Right of Canada 2009
Available from
Geological Survey of Canada
615 Booth Street
Ottawa, Ontario K1A 0E8

Pe-Piper, G., Tsikouras, B., Piper, D.J.W., Triantaphyllidis, S.
2009: Chemical fingerprinting of detrital minerals in the Upper Jurassic–Lower Cretaceous sandstones, Scotian Basin, Geological Survey of Canada, Open File 6288, 150 p.

Open files are products that have not gone through the GSC formal publication process.

Preface

This Open File provides the results of a study of detrital mineralogy in Upper Jurassic–Lower Cretaceous rocks from 26 wells in the Scotian Basin. It provides a database for understanding the provenance of sandstones in different parts of the Scotian Basin, which can be used as an exploration tool for sandstone reservoir distribution. Detrital minerals play an important role in influencing diagenesis and hence reservoir quality.

Acknowledgments

Early data collection was funded by Petroleum-Research Atlantic Canada and Exxon-Mobil, but most of this work was funded by the Nova Scotia OETR Association. DJWP's work was through the ECOSEA project of the Secure Canadian Energy Supply Program of the Geological Survey of Canada. Open file reviewed by Michael Parsons.

Authors' addresses:

GEORGIA PE-PIPER, B. TSIKOURAS, S. TRIANTAPHYLLIDIS: Department of Geology, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3, Canada

gpiper@smu.ca

B. Tsikouras (permanent address): Department of Geology, University of Patras, Patras, Greece.

DAVID J.W. PIPER: Geological Survey of Canada (Atlantic), Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, Nova Scotia, B2Y 4A2, Canada

dpiper@nrcan.gc.ca

ABSTRACT

Understanding the provenance of sandstones in the Scotian basin using detrital petrology is a petroleum exploration tool because of the importance of Upper Jurassic–Lower Cretaceous sandstone reservoirs. Furthermore, detrital petrology is an important influence on diagenesis and thus reservoir quality. The chemistry of 25 types of detrital minerals (excluding quartz) has been determined by electron microprobe using samples from the Upper Jurassic – Lower Cretaceous interval in 26 wells across the full extent of the Scotian basin. Variations in mineral chemistry that can be related to provenance have been analysed for tourmaline, garnet, spinel/chromite, feldspar, muscovite, biotite, amphibole, clinopyroxene, chlorite, epidote and apatite. These mineral chemical compositions are compared with analyses from rocks in the Appalachians and Grenville province and where necessary the wider literature. Identification of sources for most of the minerals is tentative, due to insufficient analytical data from potential sources on land. Differences in mineral assemblages are found between the following groups of wells: La Have platform, extreme western Sable sub-basin, main Sable sub-basin, western Abenaki sub-basin, eastern Abenaki sub-basin and SW Grand Banks. Stratigraphic variation is less prominent than geographic variation and is partly masked by diagenetic loss of minerals at burial depths > 2.7 km.

TABLE OF CONTENTS

1. INTRODUCTION 8
2. METHODS 9
3. CHEMICAL COMPOSITION OF INDIVIDUAL DETRITAL MINERALS 11
3.1 Introduction 11
3.2 Tourmaline (Figs. 2 and 3) 12
3.3 Garnet (Figs. 4, 5, and 6) 13
3.4 Spinels/Chromites (Figs. 7, 8, 9 and 10) 16
3.5 Feldspars (Fig. 11) 17
3.6 Muscovite (Figs. 12, 13, 14) 18
3.7 Biotite/Phlogopite (Fig. 15) 20
3.8 Amphibole (Fig.16) 20
3.9 Clinopyroxene (Figs. 17, 18) 20
3.10 Chlorite (Figs. 19, 20, 21) 21
3.11 Apatite (Fig. 22) 21
3.12 Epidote (Fig. 23) 22
4. DISCUSSION 22
4.1 Introduction 22
4.2 La Have platform 22
4.3 Sable sub-basin 23
4.4 Abenaki sub-basin 25
4.5 Orpheus graben 25
4.6 Laurentian sub-basin 26
4.7 Interpretation of hinterland source and dispersal patterns 27
5. CONCLUSIONS 28
6. REFERENCES 29

Figures

Fig. 1. Location map showing wells from which samples were studied. 35
Fig. 2. Chemical variation in tourmaline on Ca–Mg–Fe_2 plot and general legend 36
Fig. 3. Chemical variation in tourmaline on Al–Mg–Fe_2 plot 37
Fig. 4a. Chemical variation in garnet on Alm–Gross–Pyr plot 38
Fig. 4b. Chemical variation in garnet on Alm–Gross–Spess plot 39
Fig. 5. Chemical variation in garnet of potential source rocks 40
Fig. 6. FeO+MgO vs CaO+MnO variation in garnet 41
Fig. 7. Chemical variation in spinel/chromite 42
Fig. 8. Chemical variation in spinel/chromite 43
Fig. 9. Chemical variation in spinel/chromite 44
Fig. 10. Chemical variation in spinel/chromite from the Scotian basin and source areas. 45
Fig. 11. Chemical variation in feldspars 46
Fig. 12. Al^t a.f.u. vs K a.f.u. variation in muscovite 47
Fig. 13. Al^t-Fe^{2+}-Mg chemical variation in muscovite 48
Fig. 14. Na–Mg–Ti variation in possible igneous muscovite 49
Fig. 15. Chemical variation in biotite and phlogopite 50
Fig. 16. Nomenclature of amphibole based on the classification system of Leake et al., 1997 . 51
Fig. 17. Ti vs Ca+Na variation in clinopyroxene 52
Fig. 18. Classification diagram for pyroxenes (after Morimoto et al., 1988) 53
Fig. 19. Nomenclature of chlorite based on the classification system of Hey (1984) 54
Fig. 20. FeO/MgO vs MgO variation in chlorite 55
Fig. 21. FeO_t/MgO vs SiO_2/Al_2O_3 variation in chlorite 56
Fig. 22. Chemical variation in apatite 57
Fig. 23. Chemical variation in epidote 58

Tables

Table 1. Acceptable limits of analyses 59
Table 2. Types of minerals 60
Table 3. Geographic distribution of selected detrital minerals across the Scotian basin 61

Table 4. Representative electron microprobe analyses for the types of tourmaline identified . . 62
Table 5. Representative electron microprobe analyses for the types of garnet identified 63
Table 6. Chemical garnet types from potential source rocks 64
Table 7. Representative electron microprobe analyses for the types of spinel and chromite identified 65

Appendices

Appendix 1. Location of samples. 66
Appendix 2. Electron microprobe analyses of detrital minerals 71

1. INTRODUCTION

Upper Jurassic–Lower Cretaceous sandstones host the currently producing gas fields of the Scotian basin. Understanding the provenance of sandstones is an important exploration tool for identifying reservoirs. Furthermore, detrital petrology is an important influence on diagenesis and thus reservoir quality. This Open File provides a database of detrital mineral compositions relating to the provenance of sandstones in different parts of the Scotian basin.

Petrographic studies have been carried out on Upper Jurassic–Lower Cretaceous sandstones from twenty six wells from the Scotian basin (Fig. 1, Appendix 1):

La Have platform: Sambro I-29, Naskapi N-30,

Sable sub-basin: (from west to east) Alma K-85, Musquodoboit E-23, Thebaud 3, Thebaud C-74, Thebaud I-93, Glenelg N-49, Glenelg E-58, Glenelg E-58A, Glenelg H-59, North Triumph B-52, North Triumph G-43, Chebucto K-90, Venture 1, Venture 3, Venture 4,

Abenaki sub-basin: Peskowesk A-99, Louisbourg J-47, Dauntless D-36,

Orpheus graben: Fox I-22, Crow F-52, Argo F-38, Jason C-20,

Laurentian sub-basin: Emerillon C-56 and Hermine E-94.

All sandstones studied classify as quartz arenites or subarkoses, generally with 1–3% feldspar, but exceptionally as much as 10% feldspar. Lithic rock fragments are present only in small amounts, except for polycrystalline quartz, which makes up generally 2–10 % and exceptionally as much as 25 % of the grains. Mica is a common component of sandstones of all the grain sizes, comprising principally muscovite, which generally makes up 2–4% of the grains. Most sandstones have a small percentage of muddy matrix and a variety of cements.

Abundance of minerals in sandstone is influenced by sorting by both grain size and density. Thus relative abundance of minerals is of limited value in interpreting provenance. The chemical composition of minerals is a much more effective provenance tool, a method that we refer to as chemical fingerprinting. This report presents data on the chemical composition of the more important detrital minerals (excluding quartz, which shows little chemical variability) in Upper Jurassic – Lower Cretaceous sandstones from the Scotian Basin. Observed chemical variability is displayed on a variety of binary and ternary element plots. In order to better understand the provenance of the minerals, comparison is made with minerals of similar

chemical composition from bedrock in the hinterland. This report focusses on data presentation. Interpretations that are presented are preliminary.

The Lower Cretaceous rocks of the Scotian Basin comprise the Logan Canyon Formation (Aptian-Albian) and the Missisauga Formation (Berriasian-Barremian). The Missisauga Formation was subdivided by Wade and MacLean (1990) into three informal members: the upper and middle members appear to be of Early Cretaceous age, whereas the lower member is principally or entirely Upper Jurassic and is recognised only in the Sable sub-basin. Elsewhere, Upper Jurassic sandstones are assigned to the MicMac Formation. In our plots, we have distinguished by colour between minerals from the Logan Canyon Formation (blue), upper and middle Missisauga Formation (red), lower Missisauga Formation (green), and MicMac Formation (black) (Fig. 2).

2. METHODS

The petrographic studies were carried out on: a) Polished thin sections from available cores, using closely spaced thin sections to achieve representative samples of minor minerals. b) Polished thin sections from heavy mineral separates from representative intervals of available cores. c) Polished thin sections from heavy "mineral" separates of available cuttings for wells that do not have cores.

A few friable sandstones could be broken up using fingertips. However, most core samples were cut into centimetre-sized pieces that were were brushed vigorously with a toothbrush, rinsed in deionised water and dried with Kimwipes. These pieces were then crushed by using a pestle and mortar with crushing rather than a grinding action, using a 0.5 mm sieve to remove the material that did not need further crushing. The >0.5 mm material was further crushed. After everything had passed through the 0.5 mm sieve, the fines were removed by using a 63 μm sieve. The fraction >63 μm <0.5 mm was then washed with distilled water to remove dust and was dried. From this material the 63-177 μm fraction was used for heavy mineral separation. The liquid used for the heavy mineral separation was an aqueous solution of sodium polytungstate prepared to a specific gravity of 2.9. Samples containing heavy minerals were added to approximately a 40 ml volume of the solution in a 50 ml conical tube and stirred

thoroughly. The solution and suspended minerals were centrifuged at 4000 rpm (3270 rcf at an 18.3 cm radius) for 15 minutes. After removal from centrifuge, the base of tubes containing heavy fraction was immersed in a liquid nitrogen bath to freeze. The upper layer containing the lighter fraction (<2.9 SG) was poured off into reinforced paper filter and vacuum filtered to recover heavy liquid for possible reuse. The filter paper was transferred to a second vaccum flask for washing with pure water (reverse osmosis filtered lab water) and then the filter and its washed contents were placed in a drying oven. When the lower layer containing the heavy minerals >2.9 SG fraction thawed, this was transferred into a reinforced paper filter and vacuum filtered, and the heavy liquid was retained. The filtered paper was transferred to a second vacuum flask for washing with pure water, and the filter paper and the washed contents were transferred to a drying oven. When the filters were dry, the two fractions were transferred to vials and the dry weight was recorded.

The cutting samples were washed with warm tap water through a 63 μm sieve to remove fine material (mud and oil from the drilling). Some samples had to be soaked in soapy water for a short period of time to facilitate the washing procedure. Samples were then sieved at 2 mm, allowing the separation of the grains into two classes: >63 μm to <2 mm and >2 mm. Heavy "mineral" separation was performed on all sub-samples for the >63 μm to <2 mm fraction using the heavy liquid tetrabromoethane, which has a density of 2.95 g/mL. The heavy "mineral" separates of this fraction were then used to make polished thin sections. Polished thin sections were also made for selected chips from the fraction >2 mm.

All the mineral chemical analyses in this report were made by electron microprobe at the Dalhousie University Regional Electron Microprobe and Image Analysis Facility using a JEOL-8200 electron microprobe with five wavelength dispersive spectrometers and a Noran 133 eV energy dispersion detector. The beam was operated at 15 kV and 20 nA, using a beam diameter of about 1 micron. The energy dispersive spectrometer (EDS) was used for quick recognition of minerals, and for identifying minerals that contain elements not being analysed, such as sulfur and barium, found in drilling mud contaminant containing barium sulphate (barite). Back-scattered electron images and X-ray maps were useful in investigating issues such as first cycle or polycyclic origin, type of inclusions, alteration etc. of detrital minerals.

Atomic formula calculations were made with macros provided with MinPet software

(Richard, 1997). All used a fixed number of anions, in the case of micas and feldspars with Si = 8. For amphibole the average of the 15-NK and 13-CNK methods was used. Iron (Fe) was distributed in pyroxenes by charge balancing. For garnet, the Knowles method was used to distribute Fe and the Rickwood method to determine end members. Tourmaline was calculated on the basis of 23.5 O. Chromite was calculated on the basis of 32 O, with Fe distributed stoichiometrically.

Variations in relative abundance of minerals in different wells must be treated with caution. In general, all "heavy" minerals in a particular thin section or area of a thin section were analysed. Whether feldspar and micas were analysed depends in part on whether the thin section was of rock or a heavy mineral separate. In general, variations in relative abundance of "heavy" minerals are most systematic. Most minerals that have been analysed are individual detrital grains, but a few occur in lithic clasts. In wells in which cuttings have been analysed (Sambro I-29, Musquodoboit E-23, the Orpheus graben wells, Dauntless D-35 (in part), Emerillon C-56 and Hermine E-94), there is the possibility that analysed minerals may be cavings from higher in the well.

3. CHEMICAL COMPOSITION OF INDIVIDUAL DETRITAL MINERALS

3.1 Introduction

Heavy mineral assemblages have been widely used to identify and characterise sediment source area. The variation in chemical composition of a single mineral species is a particularly useful tool in provenance analyses (Morton, 1985), because it is insensitive to modification during weathering, diagenesis, and sedimentation (Pettijohn, 1941; Morton, 1984; Morton and Hallsworth, 1999). Three groups of minerals are recognised in terms of stability in sedimentary environments (Morton and Hallsworth, 1999): the high stability group of minerals includes zircon, rutile, tourmaline, andalusite, kyanite and sillimanite; the intermediate group includes garnet, calcic amphibole, staurolite and epidote; and the low stability group includes apatite, olivine and pyroxenes.

In the last seven years we have made more than 4,000 electron microprobe chemical analyses of detrital minerals from the Scotian basin (Appendix 2). The well name, depth, formation, lithology and geographic area of the studied samples are given in Appendix 1. Depths are reported relative to rotary table (RT) and for older wells have been converted from feet to metres. Only those chemical analyses that fall within the acceptable limits listed in Table 1 are used. In this report, we examine the chemical variation of the following detrital minerals listed in Appendix 2: tourmaline, garnet, spinel, feldspars, muscovite, biotite, amphibole, pyroxene, chlorite, apatite, and epidote. For each of these minerals we have identified various groups. Depending on the mineral, these groups may be based either on published classification diagrams, discrimination diagrams, or diagrams based on the chemical compositional ranges shown by our analyses. Thus, for most of these minerals we have identified different types based on a combination of the literature and our analyses (Table 2). A summary of important geographic variations of the various detrital mineral types within Lower Cretaceous sandstones of the Scotian basin is given in Table 3.

3.2 Tourmaline (Figs. 2 and 3)

Representative analyses of the chemical variation of the analysed tourmaline are given in Table 4 and are plotted in Figures 2 and 3. Henry and Guidotti (1985) and Kassoli-Fournaraki and Michailidis (1994) defined several types of tourmaline based on chemical composition that were interpreted in terms of different types of sources. We have used these fields in combination with natural clusters in chemical composition of the tourmalines we have analysed from the Lower Cretaceous sandstones from Scotian Basin to identify four types of tourmaline (Fig. 3). Type 1 suggests a granitic source, type 2 a metapelitic and calc-silicate rock source, type 3 a meta-ultramafic source, and type 4 a metapelitic and psammitic source. Tourmaline is a rather common detrital mineral in the Lower Cretaceous of the Scotian Basin and we have analyses from most of the studied wells (Appendix 1).

The important observations based on Table 3 can be summarised as follows:

1. The overall dominant tourmaline type is type 4 which, based on the discrimination diagrams used suggests an origin from metapelitic and metapsammitic rocks.
2. Detrital tourmaline is not common in the Peskowesk A-99 well despite very detailed

provenance work there. The rare tourmaline grains analysed from this well are of type 1, which based on the discrimination diagrams suggests an origin from granitoid rocks.

3. Type 1 tourmaline, with a suggested origin from granitoid rocks, is the most common type of tourmaline in the Musquodoboit E-23 and Alma K-85 wells, but it is present in small amounts in all studied wells. In general it is an important tourmaline type for the Lower Cretaceous sandstones from the Sable sub-basin wells.

4. Type 3 tourmaline is found in Naskapi N-30 and in small amounts in the Glenelg, Thebaud and Venture fields.

5. Type 2 tourmaline is rare, occurring principally in Musquodoboit E-23 and Argo F-38, but with small amounts in the Glenelg and North Triumph fields.

3.3 Garnet (Figs. 4, 5, and 6)

Representative analyses of the chemical variation of the analysed garnet types are given in Table 5. The advantages of using garnet for provenance analysis are: (i) this mineral is relatively stable in diagenesis and (ii) it has a wide compositional range and particular compositions can be correlated with general P-T conditions and to the whole-rock chemistry of the host rock (Miyashiro, 1953, 1955; Engel and Engel, 1960; Sturt, 1962; Coleman et al., 1965; Nandi, 1967; Deer et al., 1982; Arai 1992). However there may also be two disadvantages: (i) since garnet is a relatively stable mineral, it may also be of second cycle; (ii) detrital garnet becomes more corroded as burial depth increases. According to Morton and Hallsworth (1999) garnet does not disappear entirely, but declines markedly in abundance relative to the stable mineral zircon. Also according to Morton (1987) the garnet compositions become less diverse due to preferential dissolution of the more calcium-rich garnets and in his study garnet disappeared completely below about 3500 m. In our studies, some of the studied wells are deep and garnet dissolution may be the reason that garnet has not been found in such wells, e.g. Venture field (depths 4614-5341 m).

The garnet group has the general formula $X_3Y_2Z_3O_{12}$. Six common end-member species are recognised: pyrope ($Mg_3Al_2Si_3O_{12}$), almandine ($Fe_3Al_2Si_3O_{12}$), spessartine ($Mn_3Al_2Si_3O_{12}$), grossular ($Ca_3Al_2Si_3O_{12}$), andradite ($Ca_3Fe^{3+}{}_2Si_3O_{12}$), and uvarovite ($Ca_3Cr_2Si_3O_{12}$). Fairly complete and continuous compositional variation occurs between two groups of end-members:

pyrope-almandine-spessartine and uvarovite-grossular-andradite. There is also a third group: grossular-andradite. For the classification of the garnets analysed in this study we have used two ternary diagrams: almandine-pyrope-grossular (Fig. 4a) and almandine-spessartine-grossular (Fig. 4b). Figure 4a is used to show the pyrope component participation in the chemical composition of the analysed garnets: many of these analyses are almandine with prominent pyrope and grossularite substitutions (Type 1 in Table 2). There may be two sub-types: 1A with almost no grossular substitution and 1B with significant grossular and pyrope substitution. Figure 4b discriminates the analysed garnets into four types that better suits the chemical compositions (high concentration of FeO and/or MnO) of the analysed garnets (Table 2): almandine with prominent spessartine and grossular substitutions (Type 2), almandine with prominent grossular substitutions (Type 3), almandine with prominent spessartine substitutions (Type 4) and spessartine with prominent almandine substitutions (Type 5).

In general, low grade metamorphic rocks have higher Ca and Mn components which tend to be replaced by Fe and Mg at higher grades (Deer et al., 1982), although garnet geochemistry also depends on the chemistry of the metamorphic protolith. Garnets also occur in some granites and other felsic igneous rocks. More specifically, significant amounts of spessartine may occur in almandine garnets from felsic igneous rocks and from metamorphic rocks, especially those in thermal aureoles (Miyashiro, 1955; Deer et al., 1982) (Types 1A, 4). In metamorphic rocks spessartine-rich almandine are known to originate from low-grade regionally metamorphosed rocks such as metapelites, metacherts, and blue schists (Type 5). Metamorphic rocks derived from calcareous or mafic rocks and high-P/T metamorphic rocks contain considerable amounts of grossular content together with almandine, pyrope, and spessartine content (Type 1B or 4). In igneous rocks, spessartine-rich garnets are known mainly from granitic pegmatites and aplites, but these lack other components such as pyrope or grossular (Miyashiro, 1955) (Type 5). Grossular garnets are characteristically found in both thermally and regionally metamorphosed impure calcareous rocks. They also occur in rocks that have undergone calcium metasomatism and are commonly found in skarn deposits (Deer et al., 1982). Andradite garnet typically occurs in metasomatic skarn deposits (Seki, 1965; Einaudi et al., 1981; Deer et al., 1982; Newberry, 1991). Grossular and andradite garnets are absent from the garnet analyses of this study of the Scotian basin (Fig. 4). High-pyrope content almandine is typical of granulite-facies gneisses

(Miyashiro, 1953; Coleman et al., 1965). Pyrope-rich almandine garnets in charnockites and granulites have an appreciable grossular content (Coleman et al., 1965) (Type 1). Complete grossular-almandine solid solution occurs at high pressure (Hariya and Nakano, 1972). Grossular-rich almandine garnet occurs in high-P/T crystalline schists (Type 3).

We have both analysed a number of garnets and collected such analyses from literature for potential souce rocks (Fig. 5). Garnet analyses are available for the following (with sources listed in the legend to Figure 5): Meguma terrane granitoids and metasediments, the Clark Head orthogneiss (Cobequid Highlands), Avalon terrane plutons (SE Cobequid Highlands), Grenville metagabbro from Labrador, and the Grenville anorthosite-charnockite suite (Fig. 5).

The dominant garnet compositions of the western Scotian Basin (Naskapi N-30 and Sambro I-29 wells) are types 5 and 4 (Fig. 4b). They also contain a few grains of type 1 garnet. From the central Scotian basin, significant number of garnets have been found and analysed from the Musquodoboit E-23 and Alma K-85 wells. The dominant garnet types present in these sandstones are type 1 and 3, with minor amounts of type 2, 4 and 5 garnets. Few garnets have been found and analyzed in the other studied wells from the central Scotian basin (Glenelg, North Triumph, Thebaud and Venture fields and Chebucto K-90 well). Available grains are type 1A, 4 or 5. The garnet compositions in the Peskowesk A-99 well are type 1, 3 and 4. Likewise, in the Dauntless D-35 well, types 1 and 3 predominate, with minor type 2. Garnets are not common in the studied wells from the Orpheus Graben, where the analyzed compositions include types 1, 4, and 5. On the SW Grand Banks, the studied wells Hermine E-94 and Emerillon C-56 wells belong to types 3 and 1, with one grain to type 4.

Type 4 garnet is abundant in Meguma terrane metasedimentary rocks and is perhaps characteristic of other metasedimentary rocks, for example in the Gander terrane. Peraluminous granites of the Meguma terrane contain either type 4 or type 1A. Spessartine-rich garnet of type 5 has been analysed from some Meguma terrane metasediments, but may also be found in other Mn-rich metasedimentary rocks. Type 3 is found in Grenville province anorthosites and metagabbros. Type 1B is similar but has more pyrope substitution: is is also found in Grenville metagabbro and in the Clark Head orthogneiss. Both types 1B and 3 may be more generally characteristic of meta-mafic rocks. Type 2, which is uncommon, has only been matched on land in the Wedgeport granite pluton of the western Meguma terrane.

The dominant garnet compositions in the western Scotian basin are types 4 and 5, reasonably derived from metasedimentary rocks of the Meguma terrane and type 1A, likely derived from peraluminous granite. In the central and eastern Scotian basin, types 4 (metasedimentary rocks) and type 3 + 1B (metamafic rocks) predominate. The paucity of garnets in many of the deep wells of the central Scotian basin may be the result of diagenetic breakdown.

3.4 Spinels/Chromites (Figs. 7, 8, 9 and 10)

The advantages of using spinel/chromite for provenance studies are the same as of garnet: (i) relatively stable in diagenesis and (ii) wide compositional range and particular compositions that can be correlated with particular rock lithologies and tectonic environments. The spinel/chromite, in contrast to the garnet, lacks evidence for surface corrosion even at considerable depths (Morton and Hallsworth 1999) and therefore is better preserved than garnet in deep wells. At the same time, it is more prone to be polycyclic. Pe-Piper et al. (2008), using bulk chemical analysis of sandstones from the Scotian basin, showed that Cr in chromite and Zr in zircon were concentrated together as a result of polycyclic processes, but that in sandstones with < 100 ppm Cr the chromite could be predominantly first cycle.

Important chemical parameters for the classification of spinels/chromites are: the Cr#, Mg#, Fe^{3+}#, and Ti content. Using combinations of these parameters authors in the past have produced various discrimination diagrams. Such diagrams may help to establish if the detrital spinels/chromites come from volcanic rocks (high Ti), such as MORB or boninites, or from peridotites and the type of peridotite, lherzolite (lower Cr#) or harzburgite (higher Cr#). Chemical composition also varies with the tectonic evironment where the primary source rocks formed, if, for example they are from mid-ocean basalts, or island-arc basalts, or boninites.

The analysed spinels/chromites in this study are classified into four groups (Table 3): Al-spinel, Cr-spinel, chromite, and chromite (boninitic-type) using classification criteria similar to those of Deer et al. (1992) and Dick and Bullen (1984). In order to compare our detrital spinels/chromites with both source rock lithologies and tectonic environments, all our analyses are plotted in the discrimination diagrams of Cameron et al. (1979), Dick and Bryan (1979), Dick and Bullen (1984) (Fig. 7), Stevens (1944) (Fig. 8), Arai (1992) (Fig. 9), and Pearce et al. (2000) (Fig. 10).

Spinels/chromites have not been found in the wells Naskapi N-30, Sambro I-29, Chebucto K-90, Emerillon C-56 and Hermine E-94 (Table 5). This suggests that this detrital mineral is either absent from these wells or very rare. The overall content of the spinels/chromites is also very variable: they are most abundant in the Musquodoboit E-23 well and the Glenelg and Thebaud fields (Fig. 7, Table 5) and less common in the Orpheus Graben and the Peskowesk A-99 well.

The various spinel/chromite fields of Fig. 7 include all ophiolitic spinels worldwide and these fields are usually used as criterion for reliable analyses, although at the same time it also gives inferences for source rock lithologies. Based on this figure, the most commonly suggested source rock lithology is that of peridotite, with harzburgite more common than lherzolite. There are also analyses suggesting boninitic sources. Figures 9 and 10 also suggest variable origin for these spinels/chromites: MORB, IAB, and boninites and their overall compositional variation compares better with that of the Newfoundland rather than that of the Quebec Appalachian (Fig. 10). Chromites of MORB-like chemistry are relatively abundant in the western Sable sub-basin (Alma, Glenelg and Thebaud fields and Musquodoboit E-23) and are also present in Dauntless D-35, but are absent in our data from the eastern Sable sub-basin and the western Abenaki sub-basin.

In the nomenclature of Stevens (1944) (Fig. 8) all analysed spinels/chromite of this study are either Al-chromites or chromian spinel with variable abundance for these two types in different wells (Table 5). Ferrian chromites have only been found in the Dauntless D-35 well and their textures are very similar to chromite grains from contact metamorphosed ultramafic rocks in the western Sierra Nevada Foothills, California (Springer 1974, his Plates 1E and F).

3.5 Feldspars (Fig. 11)

Both K-feldpar and plagioclase are relatively common in the studied wells, making up a few percent of the grains in most sandstones. Important observations derived from Fig. 11 are as follows:

1. The dominant plagioclase compositions are that of albite and oligoclase with only rare andesine grains. Such compositions suggest origin from felsic igneous rocks and low to medium grade metamorphic rocks. Exception to this are the plagioclase analyses from the wells Argo

F–38 and Jason C-20 which are mostly andesine and labradorite, but all these analyses are from basaltic clasts/cuttings in the studied samples. This presence of calcic plagioclase in Orpheus graben and the lack of calcic plagioclase in shallow samples from other wells suggests that the lack of calcic plagioclase is not the result of diagenetic loss.

2. K-feldspar is the dominant feldspar for the sandstones from the wells: Naskapi N-30, Sambro I-29, Peskowesk A-99, Dauntless J-35, and Louisbourg J-47, whereas plagioclase is dominant feldpar for the wells Alma K-85, the Orpheus graben wells, and the North Triumph field. Plagioclase is also common in the Glenelg field.

3. K-feldspars are rare in the deep samples from the Venture and Thebaud fields, probably due to K-feldspar dissolution.

4. For wells with large numbers of K-feldspar analyses, three types of compositional ranges are recognised. Type A, predominantly $Or_{92–98}$, is found in the Missisauga Formation of the western Sable sub-basin and in the Sambro I-29 and Naskapi N-30 wells. This type is also found in the only part of the Chaswood Formation with well preserved feldspars, unit L1 of borehole RR-97-23 (Pe-Piper et al., 2004). Type B, predominantly $Or_{81–99}$, is found in the Logan Canyon Formation of the western Sable sub-basin, and throughout wells in the Abenaki sub-basin and in detrital grains in the Orpheus graben. Type C consists of K-feldspar with Or<80 (sanidine–anorthoclase) and significant numbers are found in the Logan Canyon Formation in the Alma field and in volcanic successions in the Orpheus graben wells, with two such grains in the Logan Canyon Formation of Peskowesk A-99. The evidence from the Orpheus graben suggests that Type C may be associated with Cretaceous felsic volcanism. The significance of the differences between Types A and B is unclear.

3.6 Muscovite (Figs. 12, 13, 14)

The sandstones from all wells studied contain common muscovite and lesser biotite. Muscovite is particular common in Sambro I-29, and Naskapi N-30 wells and the North Triumph field. The diagenetic alteration of muscovite to hydromuscovite and kaolinite has commonly progressed so far that it is difficult to obtain good chemical analyses of primary detrital muscovite. This is particularly the case for the deep wells of the Venture and Thebaud fields.

Single-grain muscovite dating from the eastern Sable sub-basin and the Naskapi N-30

well (Reynolds et al., 2009) has shown that most of the muscovite in the eastern Sable sub-basin is of metamorphic origin, whereas most of the muscovite analysed from the Naskapi N-30 well is of igneous origin. Using analyses from the literature, the best discrimination between muscovite of igneous and of metamorphic origin from the Meguma terrane is based on total Al and total K (expressed as atomic formula units [a.f.u.] calculated on the basis of Si = 8 (Fig. 12). Muscovites from a range of peraluminous granites plot in a relatively tight field centred on K = 1.8 a.f.u. and Al = 5.5 a.f.u., with late leucogranites showing lower Al. About 5% of the literature analyses from Meguma Group metasediments (almost all from metasandstones) fall in this field of igneous muscovites, but the great majority have K of 1.0–1.6 a.f.u.

In the western Scotian basin, the Naskapi N-30 and Alma K-85 wells and the Glenelg field contain predominantly igneous muscovites, whereas many of the muscovites from Sambro I-29 are of metamorphic origin on the basis of the Al vs. K plot (Fig. 12). The North Triumph field has both metamorphic and igneous muscovites. Most or all muscovites from the Thebaud and Venture fields, Peskowesk A-99 and Dauntless D-35 appear to be of metamorphic origin. In the Orpheus graben wells, the majority of the muscovites appear to be metamorphic, but about 30% appear to be of igneous origin.

A plot of Al–Fe^{2+}–Mg shows a disproportionate abundance of low Al muscovites in deep samples from the Venture and Thebaud fields and in the Orpheus graben wells, with lesser abundance in wells of the western Scotian basin (Fig. 13). Generally, such muscovites result from higher metamorphic pressures (Guidotti, 1984).

If analysed muscovites with K > 1.6 a.f.u. are regarded as igneous (and it is likely that many but not all are), then the ternary diagram Ti-Mg-Na (Fig. 14) is useful for distinguishing primary and secondary igneous muscovite (Miller et al. 1981). Furthermore, on such a plot, the more sodic muscovites of the South Mountain Batholith (Ham and Kontak, 1988) can be distinguished from muscovites with higher Ti and Mg and relatively lower Na from the plutons of the eastern Meguma terrane (Fig. 14). This diagram does not appear to provide a useful means of discriminating different metamorphic muscovites. More sodic muscovite is most common at Naskapi N-30, Sambro I-29 and Fox I-22.

3.7 Biotite/Phlogopite (Fig. 15)

Biotite/Phlogopite is not a common detrital mineral in the studied wells and thus our chemical data are limited. Most of the analyses plot in the biotite field (nomenclature after Deer et al., 1962), whereas all the analyses from the Musquodoboit E-23 and Emerillon C-56 wells and one analysis from the Dauntless D-35 well plot in the phlogopite field (Fig. 15B). Most analyses have high Al_2O_3 and relatively low TiO_2, characteristics of a metamorphic source (Fig. 15C). Biotites from Dauntless D-35 appear to be exclusively of metamorphic origin. A few analyses from Argo F-38, Emerillon C-56, Peskowesk A-99, Alma K-85 and the Glenelg field are clearly of igneous origin (Fig. 15C, D). These analyses, according to the discrimination diagram of Abdel-Rahmen (1994), represent both peraluminous and calc-alkaline igneous rocks (Fig. 15E).

3.8 Amphibole (Fig.16)

Detrital amphiboles have only been found in two wells: Fox I-22 in the Orpheus Graben and Musquodoboit E-23 (western Sable sub-basin). Based on chemical composition the amphiboles from these two wells are very different. The amphiboles analysed from the Fox well, based on the classification of Leake et al. (1997), are tchermakite and ferro-pargasite, whereas those from the Musquodoboit well are all tremolite (Fig. 16). The amphiboles from the Fox well are probably derived from igneous rocks. Their Al^{VI} content is highly variable, suggesting a wide range of pressures of formation (Hammarstrom and Zen, 1986). Those from the Musquodoboit well are probably the product of the thermal metamorphism of impure carbonate rocks or greenschist to epidote- amphibolite facies regional metamorphic rocks.

3.9 Clinopyroxene (Figs. 17, 18)

Clinopyroxene has been found only in the wells Argo F-38, Jason C-20 and Crow F-52 in the Orpheus graben and in the Musquodoboit E-23 well. The clinopyroxenes in the Musquodoboit well are chemically very different from those in the Orpheus graben wells (Figs. 17, 18). The TiO_2, Al_2O_3, and FeO_t concentrations are much higher in clinopyroxenes in the Orpheus graben wells, whereas MgO and CaO concentrations are much higher in the clinopyroxenes in the Musquodoboit well. The Orpheus graben clinopyroxenes are very similar

to the clinopyroxenes from the Cretaceous alkaline mafic rocks from the same wells (e.g. Pe-Piper and Jansa 1987), whereas the Musquodoboit clinopyroxenes are in general chemically similar to the clinopyroxenes from thermal metamorphic rocks (e.g. Deer et al., 1992). The Orpheus graben clinopyroxenes may be largely from basalt cuttings: only one in the Marmora Member in Crow F-52 is unequivocally detrital. The clinopyroxenes in the Musquodoboit E-23 well are probably derived from the same general source as the tremolite.

3.10 Chlorite (Figs. 19, 20, 21)

Chlorite is a very common mineral in all the studied wells. However it is generally difficult to distinguish detrital from diagenetic chlorite. The types and chemistry of all chlorites analysed in this work, based on the classification system of Hey (1984), are shown in Figure 19. Chlorites with a high FeO/MgO ratio (Fig. 20) are commonly demonstrably of diagenetic origin (e.g. Pe-Piper and Weir-Murphy, 2008; Gould et al., 2009), consistent with literature information on such compositions (Figs. 19, 21). If the rest of the analysed chlorites are of detrital origin both figures 19 and 21 indicate that the majority of the chlorites from the Orpheus Graben wells (Argo, Jason, Crow and Fox) are of igneous origin, although at least some are likely cuttings from altered in-situ basalt. Several chlorites from the Orpheus Graben wells and almost all those analysed from other wells originated from metamorphic rocks (Figs. 19, 21).

3.11 Apatite (Fig. 22)

Apatite is a common accessory mineral and has been analysed in several wells (Appendix 2). Based on its mode of occurrence, optical properties, texture and chemistry, both detrital and diagenetic apatite have been identified. The detrital apatite is colourless, mostly subhedral and occasionally associated with quartz and chlorite in the matrix of the samples. For this report we have omitted all apatite analyses with low totals (<98%) hoping in this way to eliminate most of the diagenetic apatites (cf. Pe-Piper and Weir-Murphy, 2008; Pe-Piper et al., submitted). The plotted analyses seem to form three clusters or fields in Fig. 22 which we named for convenience Na-rich (Type-1), Ca-rich (Type-2) and Ca-and Na-poor (Type-3). All the analyses from the Dauntless D-35 well and one from Alma K-85 are of the Na-rich Type-1. The analyses from the wells Alma K-85, and the Venture and North Triumph fields seem to plot in both Type-2 and

Type-3 fields. The analyses from all the other wells plot in the field of Type-3. At this stage we do not have chemical data of apatites from potential sources and thus we can not evaluate further the significance of the three groups of apatite we have seen in the studied wells.

3.12 Epidote (Fig. 23)

Epidote has been identified only in two wells, Sambro I-29 and Fox I-22. It has a limited range of chemical compositions (Fig. 23). The epidote from the Sambro well is pistacitic epidote, whereas the composition of the epidote from the Fox well ranges from that of clinozoisite to that of pistacitic epidote. Epidote is widespread in metasedimentary and metamorphosed mafic igneous rocks and the few analyses that we have are not particularly diagnostic of source.

4. DISCUSSION

4.1 Introduction

The Upper Jurassic–Lower Cretaceous sandstones of the Scotian basin contain detrital monazite that indicate a source from the Appalachian and Grenville rocks of Atlantic Canada (Pe-Piper and MacKay, 2006). The general southward dispersion of fluvial and deltaic sediments is also confirmed by facies patterns in deltaic sediments on the Scotian Shelf (Jansa and Wade, 1975; Cummings and Arnott, 2005) and paleocurrents in the Chaswood Formation on land (Gobeil et al., 2006; Piper et al., 2007). Studies of bulk geochemistry of Scotian basin rocks suggest that at least three discrete sources can be identified: to the wells of the La Have platform, to the Sable sub-basin and to the Abenaki sub-basin (Pe-Piper et al., 2008). These previous interpretations thus provide a framework for interpreting the detrital mineralogy and also provide hypotheses to test.

4.2 La Have platform

On the La Have platform, samples from Naskapi N-30 are all from one conventional core near the top of the Missisauga Formation. Detrital muscovite from this core gives single-grain ages that suggest derivation from the South Mountain batholith (Reynolds et al., 2009). The lack

of sediment supply corresponding to the fluvial deposits of the Chaswood Formation farther north is shown by the lack of Lower Paleozoic monazite that is dominant in the Chaswood Formation (Pe-Piper and MacKay, 2006) and a Gondwanan signature to the detrital zircons (G. Pe-Piper, unpublished data).

In this conventional core from Naskapi N-30, distinctive features include:

- Type 3 tourmaline, rare in other wells except for parts of the Sable sub-basin
- Type 4 and 5 garnets, characteristic of both Meguma Group metasediments and peraluminous granites of the Meguma terrane.
- A lack of spinel/chromite.
- Subequal abundances of metamorphic and igneous muscovite; the igneous muscovite includes both Na-poor types, like the South Mountain batholith and eastern Meguma terrane plutons, and types with Na = 70% on a Na–Mg–Ti plot, similar to the East Kemptville leucogranite.
- The two biotite analyses are typically metamorphic in composition.

The muscovite and monazite geochronology show no evidence for supply of sediment similar to that in the Chaswood Formation of central Nova Scotia, derived from the inboard Applachian terranes of New Brunswick. Both geochronology and chemical mineralogy point to a dominant sediment supply from the Meguma terrane. Monazites in the range of 300–340 Ma and Na-rich muscovite suggest derivation of some sediment from the inner shelf where there was Alleghanian resetting (Reynolds et al., 2009; Pe-Piper et al., 2009).

Rather few mineral analyses are available from the cuttings samples at Sambro I-29. Neither tourmaline nor garnet were found. Some biotite resembles that at Naskapi, but some is lower in Al_2O_3 and a little higher in TiO_2, on the boundary of the igneous and metamorphic fields in Fig. 15c. Muscovite is similar to that in Naskapi. This data does not resolve the question as to whether, at some stratigraphic levels, there was supply of more distant sediment to the La Have platform, similar to that in the Chaswood Formation of central Nova Scotia.

4.3 Sable sub-basin

Detrital minerals in the Upper Jurassic Lower Missisauga Formation have been analyzed from the Thebaud and Venture fields. Samples are from depths of 3850–3920 in Thebaud and

4605–5380 m in Venture. Garnet has not been analyzed in Venture nor biotite in either field, probably because they have been destroyed by diagenetic processes. Geochronology of detrital monazite and zircon (Pe-Piper and MacKay, 2006, and G. Pe-Piper, unpublished data) indicate derivation of sediment from inboard terranes of the Appalachians and the Grenville province. Geochronology of detrital muscovite in the Venture field and some nearby wells indicates a predominant (93 %) source of muscovite from metasediments reset during the Alleghanian orogeny on the inner shelf (Reynolds et al., 2009).

At Venture, tourmaline is predominantly Type 4 (metamorphic), with minor Types 1 and 3. Thebaud has a similar assemblage, except that Type 1 is more abundant than at Venture, but still subordinate to Type 4. In this regard, Thebaud resembles Lower Cretaceous sandstones at Alma K-85 and Musquodoboit E-23. Garnets preserved in Thebaud are principally Type 4. Few chromite/spinel grains have been analyzed from Venture, but abundant chomite/spinel in Thebaud includes MORB, IAT and boninitic types. This same assemblage is seen in all other wells in the Sable sub-basin for which abundant data is available, such as Musquodoboit E-23 and the Glenelg field. All analysed muscovites appear to be of metamorphic origin, as also inferred from geochronology by Reynolds et al. (2009).

Most data from the Lower Cretaceous Missisauga Formation in the Sable sub-basin is from the Upper Member and several of these wells have also been sampled from the Cree Member of the Logan Canyon Formation. In the western part, at Musquodoboit E-23 and Alma K-85, about 30% of the tourmaline is Type 1 and the remainder almost all Type 4, with very minor Type 2. Similar tourmaline abundances are found in the Logan Canyon Formation. Garnets are abundant in the Logan Canyon Formation in the western Sable sub-basin: at Musquodoboit E-23, these are principally of Type 1, with minor Type 3, whereas at Alma K-85 Type 3 predominates with lesser amounts of Types 1, 2, 4 and 5. Garnet is less common in the Missisauga Formation at Alma K-85, perhaps because of deep burial (2850–3000 m), whereas at Musquodoboit E-23 where the Missisauga Formation is shallower (2500–2800 m) it is more abundant. As noted above, the chromite/spinel assemblage at Musquodoboit E-23, in both the Upper Member and the Cree Member, is similar to that in the Lower Member at Thebaud. Muscovite from the Cree Member at Alma K-85 is predominantly igneous. Musquodoboit E-23 contains tremolite and/or Mg-, Ca-rich clinopyroxene at three stratigraphic levels in the Logan

Canyon and Missisauga formations: these minerals appear to be derived from thermally metamorphosed impure carbonate rocks. The most likely source is from the George River Group of Cape Breton Island, although a source on the inner shelf cannot be ruled out.

Farther east, the Glenelg and North Triumph fields and the Chebucto K-90 well have similar mineral assemblages in the Upper Member of the Missisauga Formation and the Cree Member of the Logan Canyon Formation, that are slightly different from those at Alma K-85 and Musquodoboit E-23. Most of the tourmalines are Type 4, with very minor amounts of Types 1, 2 and 3. Very little garnet is present. The chromite/spinel assemblage is similar to that elsewhere in the Sable sub-basin. Igneous and metamorphic muscovites are of sub-equal abundance, with the igneous muscovites similar to those at Alma K-85.

4.4 Abenaki sub-basin

Three wells have been studied in the Abenaki sub-basin: they differ in detail among themselves and are generally different from the Sable sub-basin wells. Tourmaline is uncommon, with Types 1 and 4 in subequal abundance. Garnet has been found in Peskowesk A-99 and Dauntless D-35 only from the Cree Member and is principally of Type 1, with less Type 3. This stratigraphic distribution of garnet corresponds in the Peskowesk A-99 well to a substantial increase in detrital muscovite and metamorphic clasts in the Upper Member of the Missisauga Formation and more prominently in the upper part of the Cree Member of the Logan Canyon Formation (Pe-Piper et al., 2006). Samples from the Middle Member of the Missisauga Formation in Peskowesk and the Upper Member at Dauntless are at ~3 km, depths at which garnet appears to be lost diagenetically in the Sable sub-basin. Chromite/spinel at Louisbourg J–47 and Peskowesk A-99 is less abundant than in the Sable sub-basin and of IAT to boninite composition; at Dauntless D-35 it appears more abundant and of MORB–IAT composition. Insufficient muscovite has been analyzed to draw conclusions. Biotite is more abundant and principally of metamorphic origin. Dauntless D-35 contains an unusual high-Ca apatite (Type 2).

4.5 Orpheus graben

Mineral assemblages in Orpheus graben are known only from cuttings. The thick volcanic interval in the Cree Member of Argo F-38 and Jason C-20 has a distinctive mineralogy

and cavings may have contaminated horizons within the Missisauga Formation (or less probably, there may be volcanic horizons within the Missisauga Formation). Samples from Fox I-22 and Crow F-52, located on the Canso Ridge, may contain transported volcanic detritus, but no in-situ volcanic successions have been recognised.

Tourmaline is rare in the Orpheus graben wells and includes Types 4 and 3/4 boundary (in Crow F-52 and Fox I-22) and Types 1 and 2 (in Argo and Jason). In this respect, Crow and Fox resemble wells in the central Sable sub-basin (e.g the Glenelg field). Garnet is rare: in Argo and Jason it is of Types 1 and 5 and includes a Pyrope-rich Spessartine, otherwise known only from Glenelg. Few spinel/chromite grains have been analysed and are entirely of boninite composition. There are also few muscovite analyses: about 40% appear to be igneous and a high proportion of these are Na-rich.

In the volcanic horizons, clinopyroxene, olivine and stilpnomelane are present both in chips of volcanic rocks and apparently as individual grains. Plagioclase of andesine to labradorite composition and alkali feldspars with 10–80% Or (anorthoclase and sanidine) are common in volcanic rocks and a few occur as detrital grains.

In the Cree Member at Alma K-85, in the western Sable sub-basin, sanidine and anorthoclase alkali feldspars and andesine plagioclase of probable volcanic origin are common. Also in the Cree Member, one anorthoclase has been analyzed at Glenelg and three at Peskowesk, in the western Abenaki sub-basin and two andesines were analyzed at Glenelg. Although the distribution of reworked volcanic feldspars may be stratigraphically variable, at face value it appears that they are most common at Alma K-85.

4.6 Laurentian sub-basin

Detrital minerals are available only from cuttings in the Laurentian sub-basin of the SW Grand Banks, at Emerillon C-56 and Hermine E-94 and only a few minerals have been analysed. Tourmaline is abundant, principally of Type 4, with minor Types 1 and 3. Garnets are less common, mostly of Type 1, with some Types 3 and 4. Chromite/spinel and muscovite have not been analysed and rare biotite is of igneous composition. Overall, the heavy mineral assemblage is different from areas of the Scotian basin to the west.

4.7 Interpretation of hinterland source and dispersal patterns

The interpretation of the provenance of the mineral assemblages in the Scotian basin is strongly limited by the lack of information on mineral compositions in potential source areas on land. There are also important uncertainties about which minerals are first cycle and which are polycyclic.

Systematic differences in mineral assemblages through multiple samples at different stratigraphic levels suggest that each of the following groups of wells received sediment from different sources in the Early Cretaceous:

- Naskapi N-30 and Sambro I-29
- Alma K-85 and Musquodoboit E-23
- Glenelg and North Triumph fields and Chebucto K-90
- Peskowesk A-99
- Dauntless D-35
- Emerillon C-56 and Hermine E-94

Alma and Musquodoboit show considerable similarities to the Glenelg group. The closest similarities between the Orpheus graben wells and more outboard wells is with Alma K-85 (feldspar) and Glenelg (tourmaline, garnet).

In the Lower Cretaceous of the Sable sub-basin, no pronounced differences were seen between the Upper Missisauga and Logan Canyon formations in mineral assemblages. Few data are available here from the Middle Member of the Missisauga Formation. The Upper Jurassic Lower Member of the Missisauga Formation at Thebaud shows some similarities in mineral assemblage to the Lower Cretaceous at Alma, but has principally metamorphic muscovites. The Upper Jurassic at Venture shows similarities to the Lower Cretaceous of the Glenelg group of wells.

In contrast, in the Abenaki sub-basin, there are striking differences between the Middle Member of the Missisauga Formation and the upper part of the Cree Member, with the Upper Member of the Missisauga Formation and the lower Cree Member being transitional in character. This change is best documented in the Peskowesk A-99 well (Pe-Piper et al., 2006).

5. CONCLUSIONS

1. Electron microprobe analysis of the widespread detrital minerals tourmaline, garnet, spinel/chromite, feldspar, muscovite and biotite allows identification for each mineral of different types that are diagnostic of a particular bedrock source lithology. Available mineral chemistry data from potential source areas in the Appalachians and Grenville province has been compiled for comparison.
2. In particular wells, the composition of minor amphibole, clinopyroxene, chlorite, epidote and apatite has been a useful indicator of provenance.
3. Paucity of detrital garnet at burial depths > 2.7 km are likely related to diagenetic loss.
4. Reworking of volcanic rocks in the Orpheus graben supplied feldspar to the Alma field and likely to the central Sable sub-basin.
5. Differences in mineral assemblages are found between the following groups of wells: La Have platform, extreme western Sable sub-basin, main Sable sub-basin, western Abenaki sub-basin, eastern Abenaki sub-basin and SW Grand Banks.
6. Stratigraphic variation is less prominent than geographic variation and is partly masked by diagenetic loss of minerals at burial depths > 2.7 km. There appear to be no major changes in the Sable sub-basin through the Lower Cretaceous, but there may be increased metamorphic supply to the Abenaki sub-basin in the Logan Canyon Formation.

6. REFERENCES

Abdel-Rahmen, A.-F.M., 1994. Nature of biotites from alkaline, calc-alkaline and peraluminous magmas. Journal of Petrology, 35, 525-541.

Allan, B.D. and Clarke, D.B., 1981. Occurrence and origin of garnet in the South Mountain Batholith, Nova Scotia. Canadian Mineralogist, 19, 19-24.

Arai, S., 1992. Chemistry of chromian spinel in volcanic rocks as a potential guide to magma chemistry. Mineralogical Magazine, 56, 173-184.

Bédard, J.H. and Hebert, R., 1998. Formation of chromitites by assimilation of crustal pyroxenites and gabbros into peridotitic intrusions: North Arm Mountain massif, Bay of Islands ophiolite, Newfoundland, Canada. Journal of Geophysical Research, 103, p, 5165–5184.

Cameron, W.E., Nisbet, E.G., and Dietrich, V.J., 1979. Boninites, komatiites and ophiolitic basalts. Nature, 280, 550-553.

Coleman, R.G., Lee, D.E., Beatty, L.B. and Brannock, W.W., 1965. Eclogites and eclogites: their differences and similarities. Bulletin of the Geological Society of America, 76, 483-508.

Coish, R.A., 1989: Boninitic lavas in Appalachian ophiolites: a review. In: Boninites and related rocks, 264-. Edited by A.J. Crawford. Unwin Hyman, London.

Cummings, D.I. and Arnott, R.W.C. 2005. Shelf margin deltas: a new (but old) play type offshore Nova Scotia. Bulletin of Canadian Petroleum Geology, 53, 211-236.

Deer, W., Howie, R.A. and Zussman, J., 1982. Rock-forming minerals vol. 1A, Orthosilicates, 2nd ed. Longman Group Limited, England, 919 pp.

Deer, W.A., Howie, R.A., and Zussman, J., 1992. An introduction to the rock-forming minerals. 2nd ed. Pearson/Prentice Hall, 696 pp.

Deer, W.A., Howie, R.A., and Zussman, J, 1962. Rock-forming minerals, vol. 3, Sheet Silicates. Longmans, London, England, 270 pp.

Dick, H.J.B. and Bryan, W.B., 1979. Variation of basalt phenocryst mineralogy and rock composition in DSDP hole 396B. Initial Reports DSDP, 46, 215-225.

Dick, H.J.B. and Bullen, T., 1984. Chromium spinel as a petrogenetic indicator in abyssal and alpine-type peridotites and spatially associated lavas. Conrtibutions to Mineralogy and Petrology, 86, 54-76.

Einaudi, M.T., Meinert, I.D., and Newberry, R.J., 1981. Skarn deposits. Economic Geology, 75th Anniversary Volume, 317-391.

Engel, A.E.J. and Engel, G.G., 1960. Progressive metamorphism and granitization of the major paragneiss, northwest Adirondack Mountains, New York, Part: Mineralogy. Bulletin of the

Geological Society of America, 71, 1-58.

Feetham, M., 1995. Lithogeochemistry of the Goldenville-Halifax Transition Zone (GHT) at North Beaverbank, Nova Sco

Fleet, M.E., 2003. Rock-forming minerals, vol. 3A, Micas, 2nd ed. The Geological Society, London, England, 758 pp.

Gobeil, J.-P., Pe-Piper, G., and Piper, D.J.W. 2006. The Early Cretaceous Chaswood Formation in the West Indian Road pit, central Nova Scotia. Canadian Journal of Earth Sciences, 43, 391-403.

Gould, K., Pe-Piper, G. and Piper, D.J.W., 2009. Relationship of diagenetic chlorite rims to depositional facies in Lower Cretaceous reservoir sandstones of the Scotian Basin. Sedimentology, in press.

Guidotti, C.V., 1984. Micas in metamorphic rocks. Reviews in Mineralogy, 13, 357–467.

Ham, L., 1988. The mineralogy, petrology, and geochemistry of the Halfway Cove-Queensport pluton, Nova Scotia, Canad

Ham, L.J. and Kontak, D.J. 1988. A textural and chemical study of white mica in the South Mountain Batholith, Nova Scotia: primary versus secondary origin. Maritime Sediments and Atlantic Geology, 24, 111-121.

Hammarstrom, J.M., and Zen, E., 1986. Aluminium in hornblende: an empirical igneous geobarometer. American Mineralogist, 71, 1297-1313.

Hariya, Y. and Nakano, S., 1972. Experimental study of the solid solution between the grossular-almandine series. Journal of the Faculty of Science of Hokkaido University, series IV, 15, 173-178.

Haysom, S.J., 1994. The opaque mineralogy, petrology, and geochemistry of the Meguma Group metasediments, Rawdon area, Nova Scotia. Honours thesis, Saint Mary's University, Halifax, N.S., Canada.

Hebert, R., and Laurent, R.,1989: Mineral chemistry of ultramafic and mafic plutonic rocks of the Appalachian ophiolites, Quebec, Canada. Chemical Geology, 77, 265–285.

Henry, D. J., and Guidotti, C. V. 1985. Tourmaline as a petrogenetic indicator mineral: an example from the staurolite-grade metapelites of NW Maine. American Mineralogist, 70, 1-15.

Hey, M.H., 1954. A new review on the chlorites. Mineralogical Magazine, 224, 277-298.

Hicks, R.J., 1996. Low-grade metamorphism in the Meguma Group, southern Nova Scotia. M.Sc. thesis, Dalhousie University, Halifax, N.S.

Indares, A., 1992. Eclogitized gabbros from the eastern Grenville Province: textures, metamorphic context, and implications. Canadian Journal of Earth Sciences, 30, 159-173.

Jansa, L.F. and Wade, J.A., 1975. Paleogeography and sedimentation in the Mesozoic and Cenozoic, southeastern Canada. Canadian Society of Petroleum Geologists, Memoir 4, 79-102.

Kassoli-Fournaraki, A. and Michailidis, K., 1994. Chemical composition of tourmaline in quartz veins from Nea Roda and Thasos areas in Macedonia, Northern Greece. Canadian Mineralogist, 32, 607-615.

Kontak, D.J. and Corey, M., 1988. Metasomatic origin of spessartine-rich garnet in the South Mountain Batholith, Nova Scotia. Canadian Mineralogist, 26, 315-334.

Laurent, R., and Kacira, N., 1987: Chromite deposits in the Appalachian Ophiolites. In: Evolution of chromium ore fields, 169–193. Edited by C.W. Stowe. Van Nostrand Reinhold Co., New York.

Leake, B.E., Wooley, A.R., Arps, C.E.S., Birch, W.D., Gilbert, M.C., Grice, J.D., Hawthorne, F.C., Kato, A., Kisch, H.J., Krivovichev, V.G., Linthout, K., Laird, J., Mandarino, J.A., Maresch, W.V., Nickel, E.H., Rock, N.M.S., Schumacher, J.C., Smith, D.C., Stephenson, N.C.N., Ungaretti, L., Whittaker, E.J.W., and Guo, Y., 1997. Nomenclature of amphiboles: report of the subcommittee on amphiboles of the International Mineralogical Association, Commission on New Minerals and Mineral Names. American Mineralogist, 82, 1019-1032.

Leterrier, J., Maury, R.C., Thonon, P., Girad, D., and Marchal, M., 1982. Clinopyroxene composition as a method of idenfication of the magmatic affinities of paleovolcanic series. Earth and Planetary Science Letters, 59, 139-154.

Liew, M.Y.C., 1979. Geochemical studies of the Goldenville Formation at Taylor Head, Nova Scotia. M.Sc. thesis, Dalhousie University, Halifax, N.S.

Malpas, J., and Strong, D.F., 1975. A comparison of chrome-spinels in ophiolites and mantle diapirs of Newfoundland. Geochimica et Cosmochimica Acta, 39, 1045–1060.

Meagher, C., 1994. Geology of the Mount Thom complex, Cobequid Highlands, Nova Scotia. Honours thesis, Saint Francis Xavier University, Antigonish, Nova Scotia.

Miller, C.F., Stoddard, E.F., Bradfish, L.J., and Dollase, W.A., 1981. Composition of plutonic muscovite: genetic implications. Canadian Mineralogist, 19, 25-34.

Miyashiro, A., 1953. Calcium-poor garnet in relation to metamorphism. Geochimica et Cosmochimica Acta, 4, 179-208.

Miyashiro, A., 1955. Pyralspite garnets in volcanic rocks. Journal of the Geological Society of Japan, 61, 463-470.

Morimoto, N., Fabries, J., Ferguson, A.K., Ginzburg, I.V., Ross, M., Seifert, F.A., Zussman, J., Aoki, K., Gottardi, G., 1988. Nomenclature of pyroxenes. American Mineralogist, 73, 1123-1133.

Morton, A.C., 1984. Stability of detrital heavy minerals in Tertiary sandstones of the North Sea Basin. Clay Minerals, 19, 287-308.

Morton, A.C., 1985. Heavy minerals in provenance studies. In: Zuffa, G.G. (Ed.), Provenance of Arenites, Reidel, Dordrect, 249-277.

Morton, A.C., 1987. Influences of provenance and diagenesis on detrital garnet suites in the Forties sandstone, Paleocene, central North Sea. Journal of Sedimentary Petrology, 57, 1027-1032.

Morton, A., and Hallsworth C.R., 1999. Processes controlling the composition of heavy mineral assemblages in sandstones. Sedimentary Geology, 124, 3-29.

Muir, C.M., 2000. An $^{40}Ar/^{39}Ar$ study of the Goldenville, Halifax, White Rock and Torbrook formations of the Digby area, southwest Nova Scotia. B.Sc. honours thesis, Dalhousie University, Halifax, N.S.

Nandi, K., 1967. Garnets as indices of progressive regional metamorphism. Mineralogical Magazine, 36, 89-93.

Newberry, R., 1991. Scheelite-bearing skarns in the Sierra Nevada region, California: contrasts in zoning and mineral compositions and tests of infiltration metasomatism theory. In: Aksyuk, A.M., Collins, L.G., Dobrovolskaya, M., Hu, L.C., Lowell, G.R., van Marcke de Lummen, G. Shimazaki, H., Wu, L., Zarikov, V.A., Augustidis, S.S. (Eds.), Skarns–Their Genesis and Metallogeny. Theophrastus Publications S.A., Athens, Greece, 343-383.

O'Reilly, G.A. 1988. Geology and geochemistry of the Sangster Lake and Larrys River plutons, Guysborough County, Nova Scotia. M.Sc. thesis, Dalhousie University, Halifax, N.S.

Page, P., Bedard, J.H., Schroetter, J.-M and Tremblay, A., 2008. Mantle petrology and mineralogy of the Thetford Mines ophiolite complex. Lithos, 100, 255-292.

Pearce, J.A., Barker, P.F., Edwards, S.J., Parkinson, I.J., and Leat, P.T., 2000. Geochemistry and tectonic significance of peridotites from the South Sandwich arc-basin system. Contibutions to Mineralogy and Petrology, 139, 36-53.

Pe-Piper, G. and Ingram, S., 2001. The New Cornwall syenogranite, Nova Scotia: petrology and geochemistry. Atlantic Geology, 37, 133-151.

Pe-Piper, G. and Dessureau, G., 2002. The West Moose River anorthosites. Avalon zone, Nova Scotia. Geological Survey of Canada Open File Report #4188.

Pe-Piper, G. and Jansa, L.F., 1987. Geochemistry of the late Middle Jurassic-Early Cretaceous igneous rocks on the eastern North American margin. Bulletin of the Geological Society of America, 99, 803-813.

Pe-Piper, G. and Mackay, R.M. 2006. Provenance of Lower Cretaceous sandstones onshore and offshore Nova Scotia from electron microprobe geochronology and chemical variation of detrital

monazite. Bulletin of Canadian Petroleum Geology, 54, 366-379.

Pe-Piper, G. and Weir-Murphy, S., 2008: Early diagenesis of inner shelf phosphorite and iron-silicate minerals, Lower Cretaceous of Orpheus graben, southeastern Canada: implications for the origin of chlorite rims. Bulletin of the American Association of Petroleum Geologists, 92, 1153–1168.

Pe-Piper, G., Dolansky, L., and Piper, D.J.W. 2004. Petrography of the mid-Cretaceous Chaswood Formation in borehole RR-97-23, Elmsvale Basin, Nova Scotia: sedimentary environment, detrital mineralogy and diagenesis. Geological Survey of Canada Open File 4837, 231 pp.

Pe-Piper, G., Kamo, S.L., and McCall, C., 2009. The German Bank pluton, offshore SW Nova Scotia: petrology, age and regional significance for Alleghanian plutonism. Geological Society of America Bulletin (in press).

Pe-Piper, G., Piper, D.J.W., Gould, K.M. and Shannon, J. 2006. Depositional environment and provenance analysis of the Lower Cretaceous sedimentary rocks at the Peskowesk A-99 well, Scotian Basin. Geological Survey of Canada, Open File 5383, 171 pp.

Pe-Piper, G., Triantafyllidis, S. and Piper, D.J.W., 2008: Geochemical identification of clastic sediment provenance from unknown sources of similar geology: the Cretaceous Scotian basin, Canada. Journal of Sedimentary Research, 78, 595-607.

Pe-Piper, G., Karim, A. and Piper, D.J.W., submitted. Authigenesis of titania minerals in pro-deltaic sandstones, Cretaceous Scotian Basin. Journal of Sedimentary Research

Pettijohn, F.J. 1941. Persistence of heavy minerals and geologic age. Journal of Geology, 46, 610-625.

Piper, D.J.W., Pe-Piper, G., Hundert, T. and Venugopal, D.K., 2007. The Lower Cretaceous Chaswood Formation in southern New Brunswick: provenance and tectonics. Canadian Journal of Earth Sciences, 44, 665-677.

Reynolds, P.H., Pe-Piper, G., Piper, D.J.W. and Grist, A.M., 2009. Single-grain detrital muscovite ages from Lower Cretaceous sandstones, Scotian basin, and their implications for provenance: Bulletin of Canadian Petroleum Geology, 57: 63–80.

Richard, L.R., 1997. MinPet. Software Program, MinPet Geological Software, Gatineau, Quebec.

Rivers, T. and Mengel, F.C., 1988. Contrasting assemblages and petrogenetic evolution of corona and non-corona gabbros in the Grenville Province of western Labrador. Canadian Journal of Earth Sciences, 25, 1629-1648.

Schrijver, K., 1973. Compositions of garnet in anorthosite-charnockite suites: bias and precision in electron-probe microan

Seki, Y., 1965. Chemical characters of the grossularite-andradite mineral series in rodingites. Japanese Journal of Geology and Geography, 36, 1-16.

Springer, R.K., 1974. Contact metamorphosed ultramafic rocks in the western Sierra Nevada Foothills, California. Journal of Petrology, 15, 160-195.

Stevens, R.E., 1944. Composition of some chromites of the western Hemisphere. American Mineralogist, 29, 1-34.

Sturt, B.A., 1962. The composition of garnets from pelitic schists in relation to the grade of regional metamorphism. Journal of Petrology, 3, 181-191.

Suhr, G., and Robinson, P.T., 1994. Origin of mineral chemical stratification in the mantle section of the Table Mountain massif (Bay of Islands Ophiolite, Newfoundland, Canada). Lithos, 31, 81–102.

Varfalvy, V. and Hebert, R., 1997. Petrology and geochemistry of pyroxenite dykes in upper mantle peridotites of the North Arm Mountain massif, Bay of Islands ophiolite, Newfoundland: implications for the genesis of boninitic and related magmas. Canadian Mineralogist, 35, 543-570.

Wade, J.A. and MacLean, B.C. 1990. Aspects of the geology of the Scotian Basin from recent seismic and well data. Geology of Canada, 2, 190-238.

Williams, H. and Grant, A.C., 1998. Tectonic assemblages, Atlantic region, Canada. [1:3m map]. Geological Survey of Canada Open File 3657, 1 sheet.

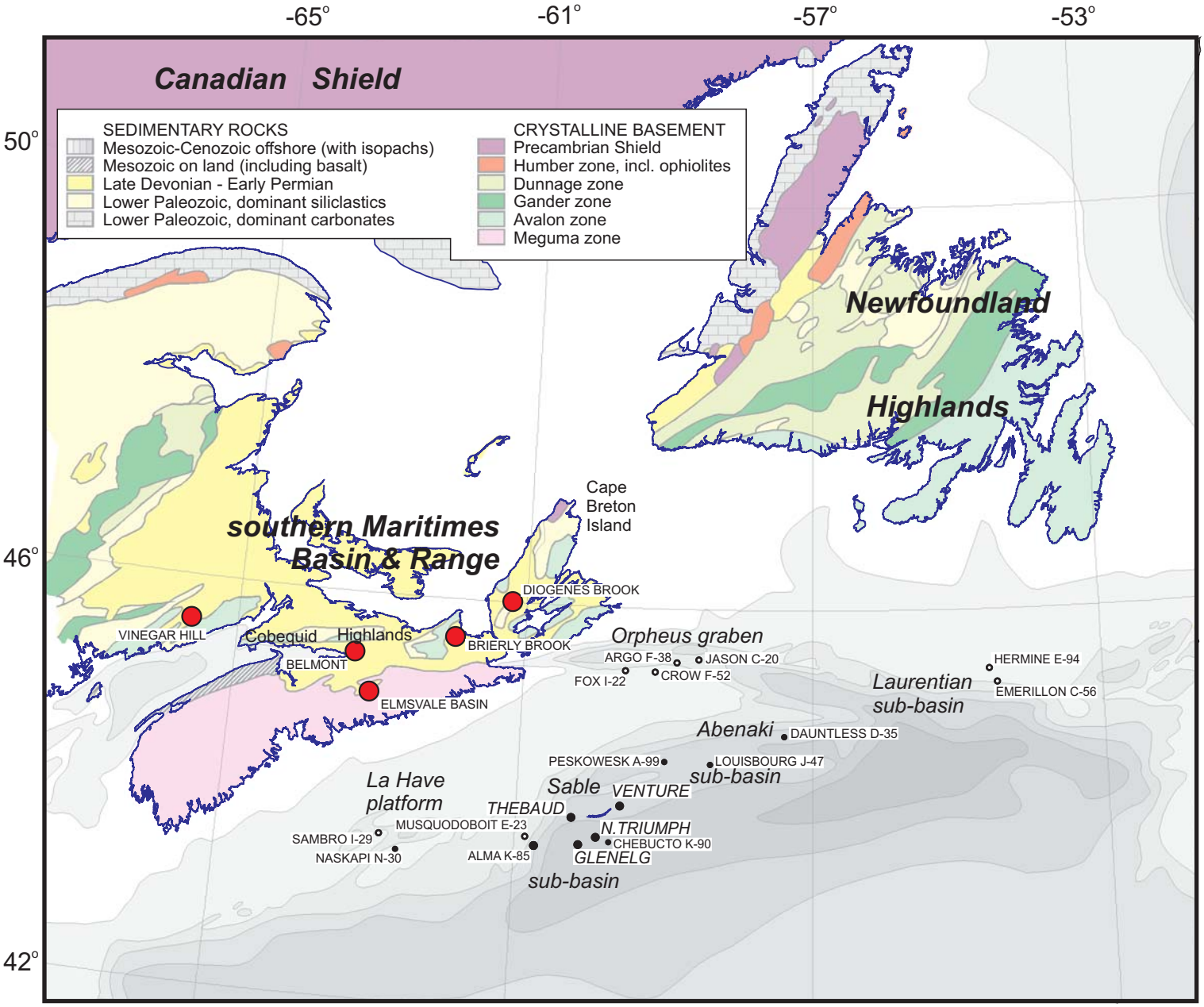


Fig. 1: Location map showing wells from which samples were studied. Also shows principal areas of Chaswood Formation on land (red dots). 2 km isopachs of offshore basins and principal rock types on land from Williams and Grant (1998).

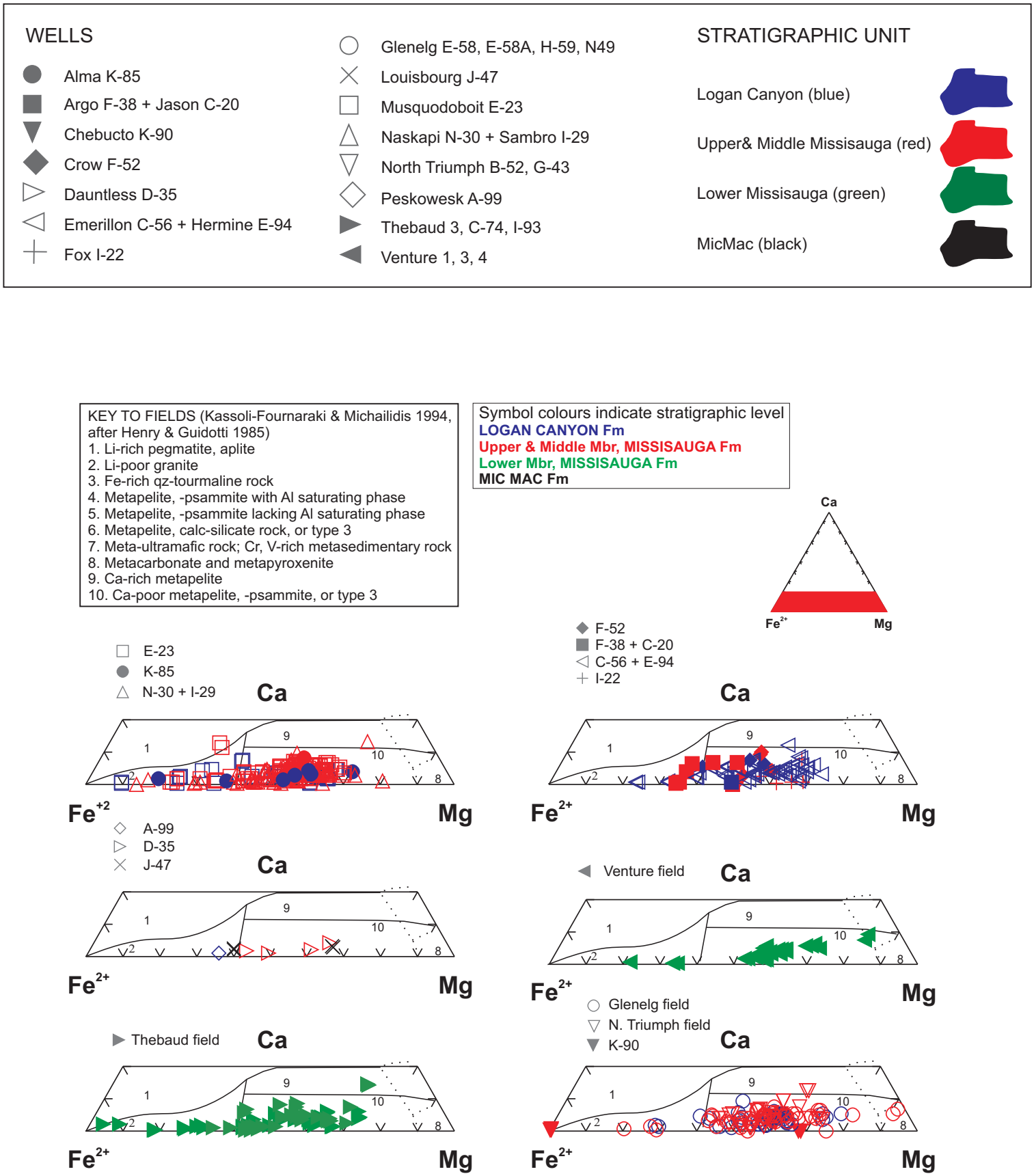


Fig. 2: Chemical variation in tourmaline based on Ca - Mg - Fe^{2+}. Legend for wells and stratigraphic units applies to all geochemical plots in this report.

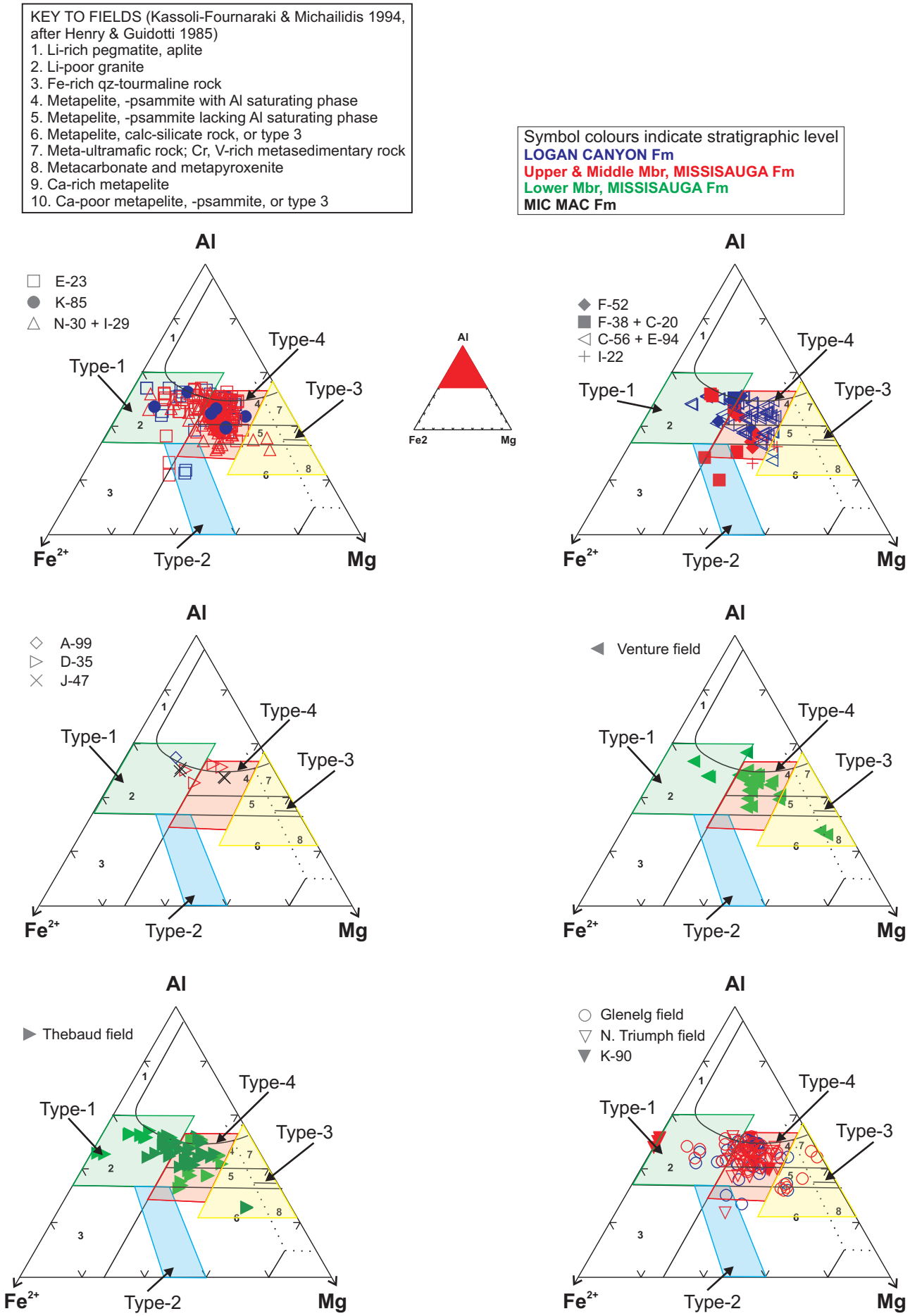


Fig. 3: Chemical variation in tourmaline based on Al - Mg - Fe^{2+} showing definition of types (Table 2).

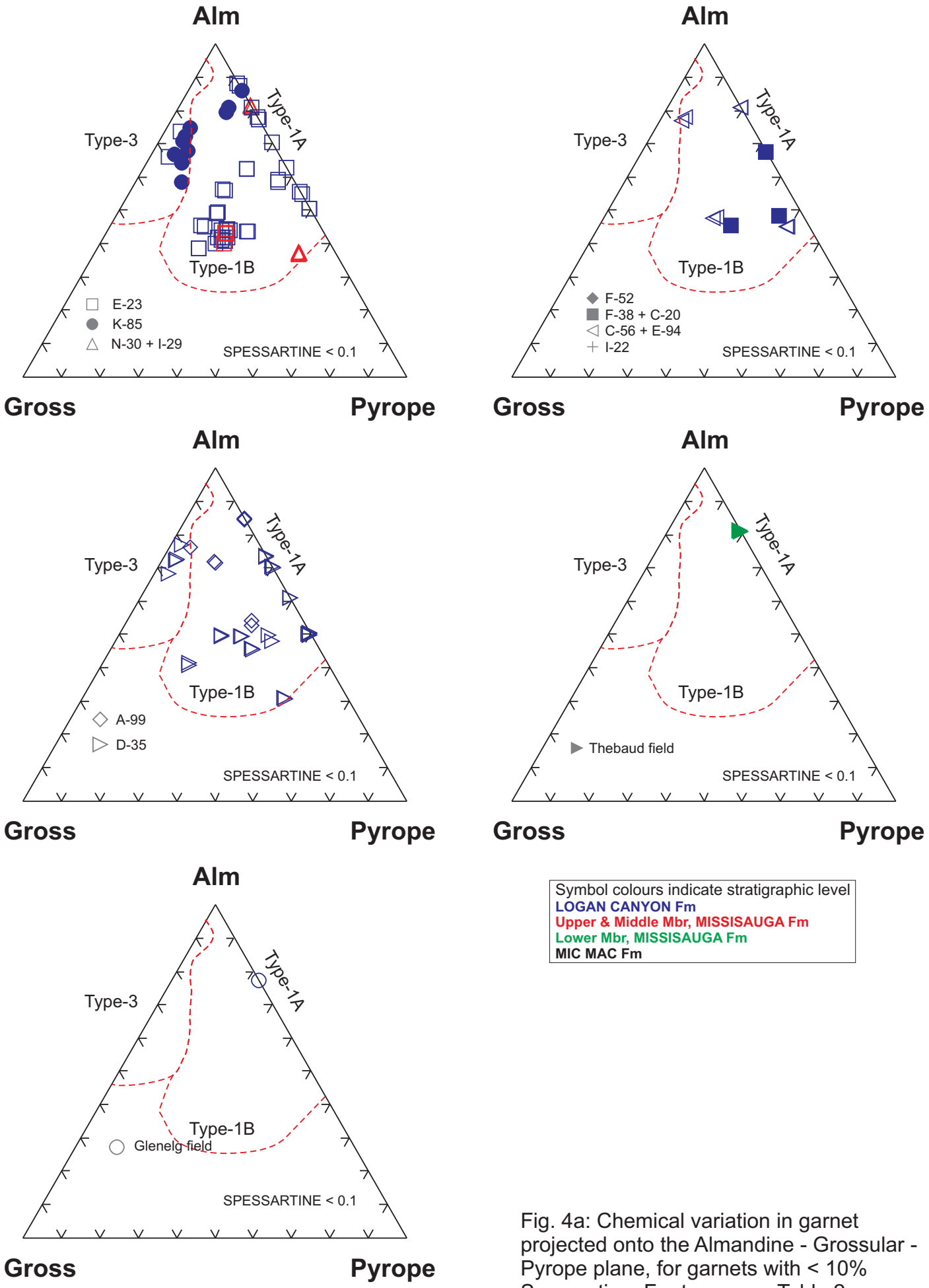


Fig. 4a: Chemical variation in garnet projected onto the Almandine - Grossular - Pyrope plane, for garnets with < 10% Spessartine. For types see Table 2

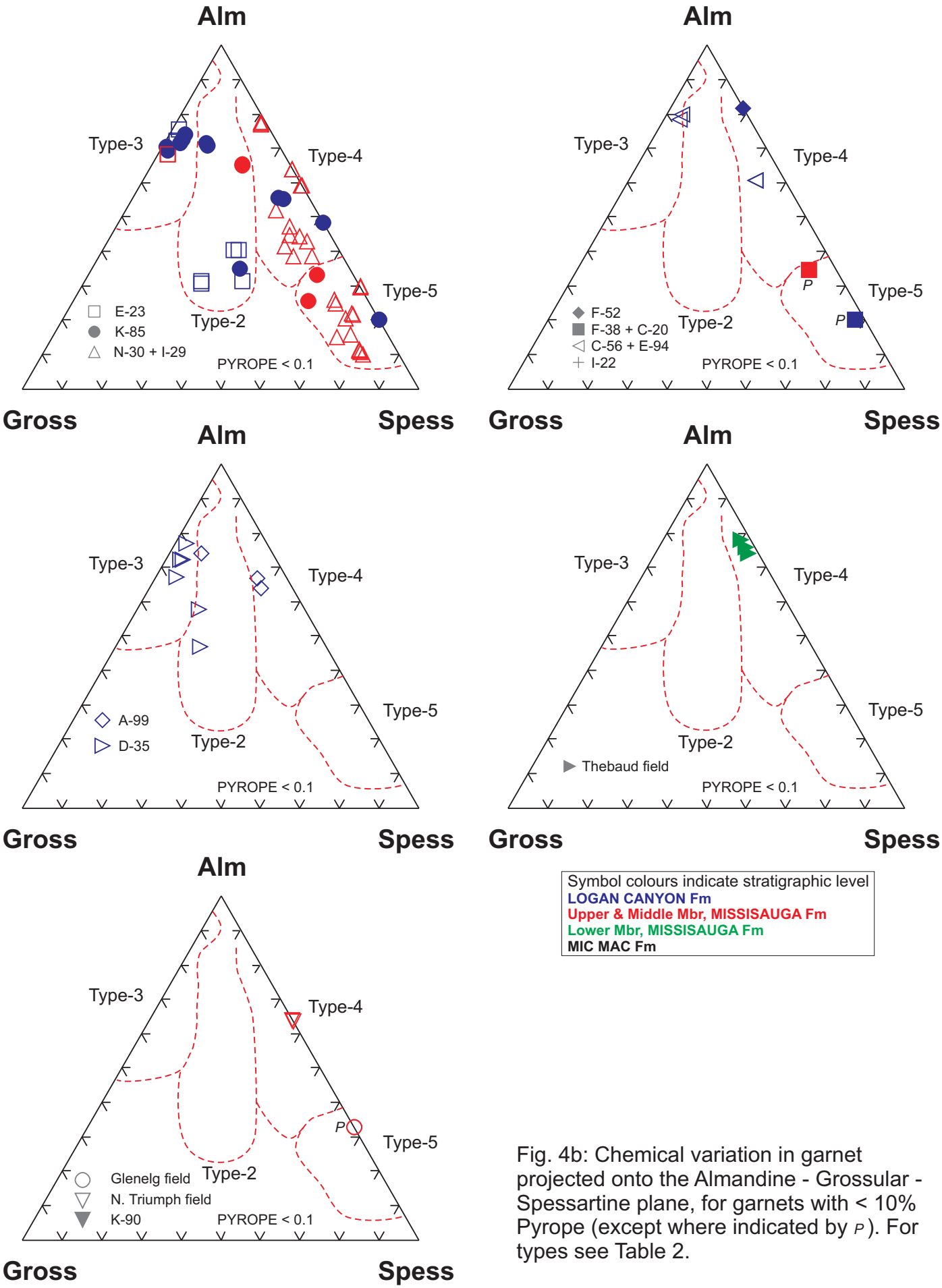
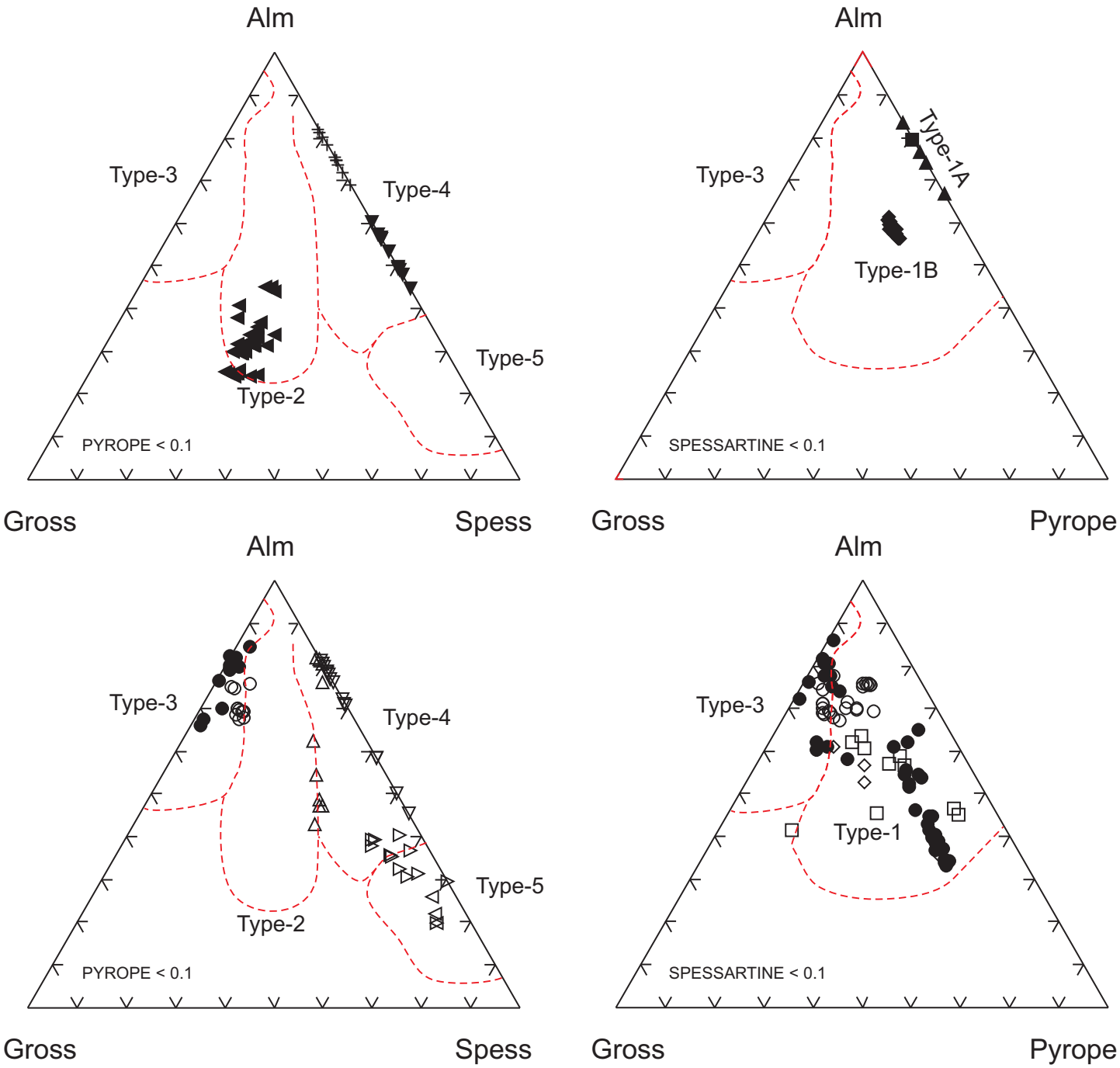


Fig. 4b: Chemical variation in garnet projected onto the Almandine - Grossular - Spessartine plane, for garnets with < 10% Pyrope (except where indicated by *P*). For types see Table 2.



- ○ Anorthosite (QC) (Schrijver, 1973)
- ● Anorthosite (Nfld) (Pe-Piper & Dessureau, 2002)
- ◇ Grenville metagabbro (Rivers & Mengel, 1988)
- □ Grenville metagabbro (Indares, 1992)
- ▷ Meguma Group, Beaverbank (Feetham, 1995)
- △ Meguma Group, Naskapi (Pe-Piper, unpublished)
- ▽ Meguma Group, Halfway Cove (Ham, 1988)
- ◁ Meguma Group, Rawdon (Haysom, 1994)
- ▲ South Mountain Batholith (Allan & Clarke, 1981)
- + metasomatic, South Mountain Bath. (Kontak & Corey, 1988)
- ▼ Halfway Cove granite (Ham, 1988)
- ▶ New Cornwall granite (Pe-Piper & Ingram, 2001)
- ◀ Wedgeport pluton (Pe-Piper, unpublished)
- ■ Avalonian plutons, SE Cobequid Highlands (Meagher, 1994)
- ◆ Clark Head orthogneiss (Pe-Piper, unpublished)

Fig. 5: Chemical variation in garnets from known sources in Appalachian and Grenville bedrock.

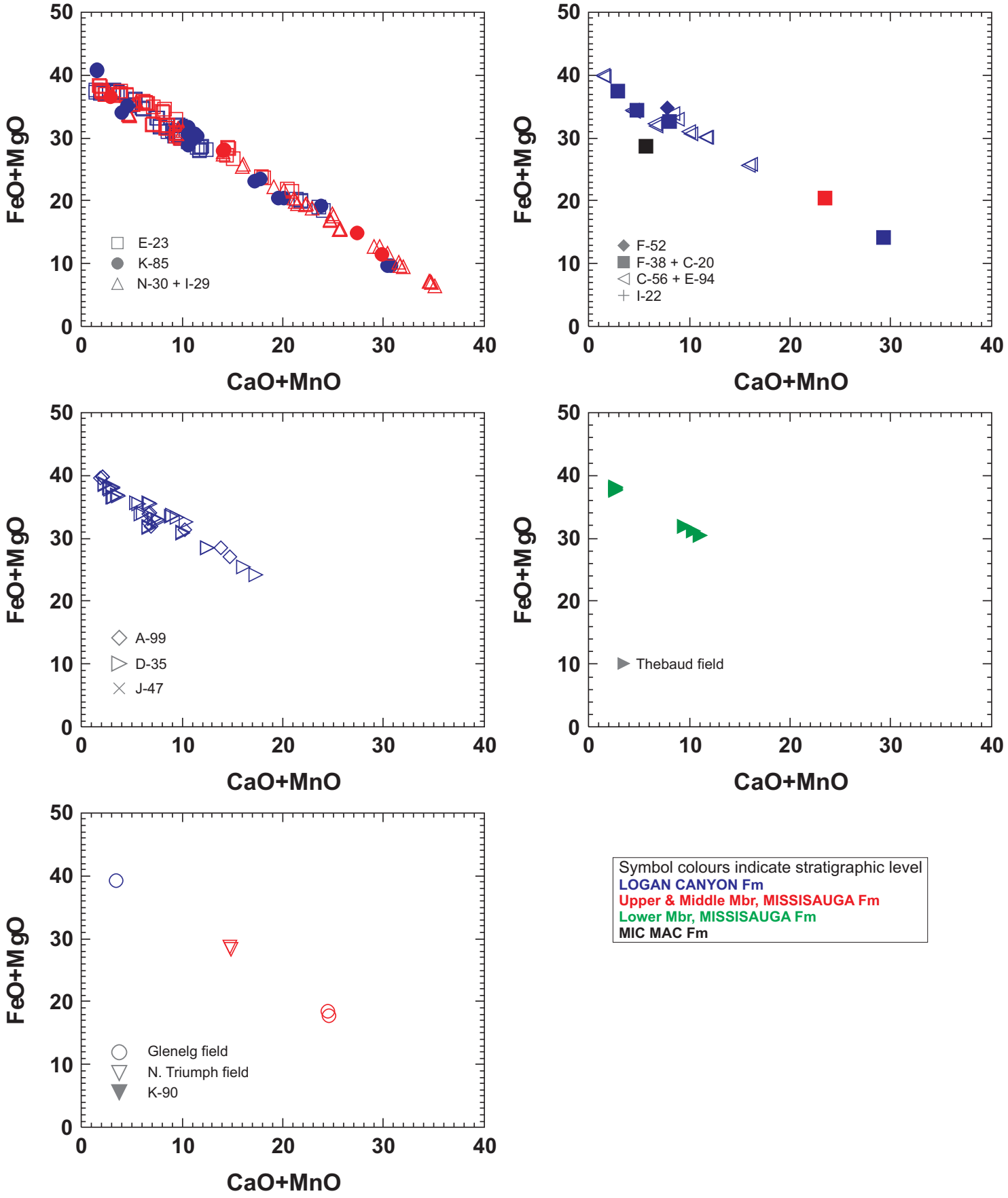


Fig. 6: FeO + MgO vs CaO + MnO variation in garnet

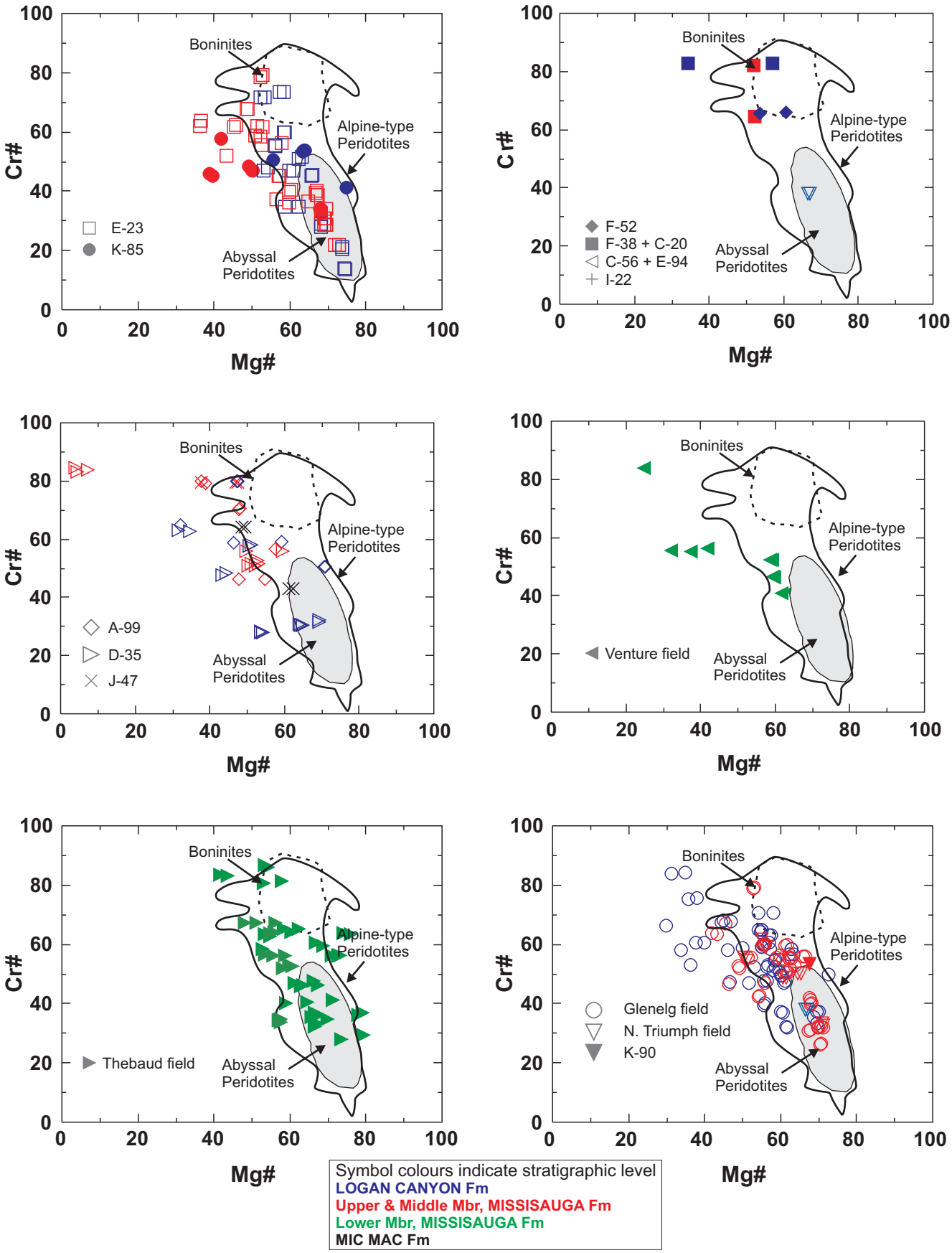


Fig. 7: Chemical variation in spinel/chromite. The fields are after Cameron et al. (1979), Dick and Bryan (1979) and Dick and Bullen (1984)

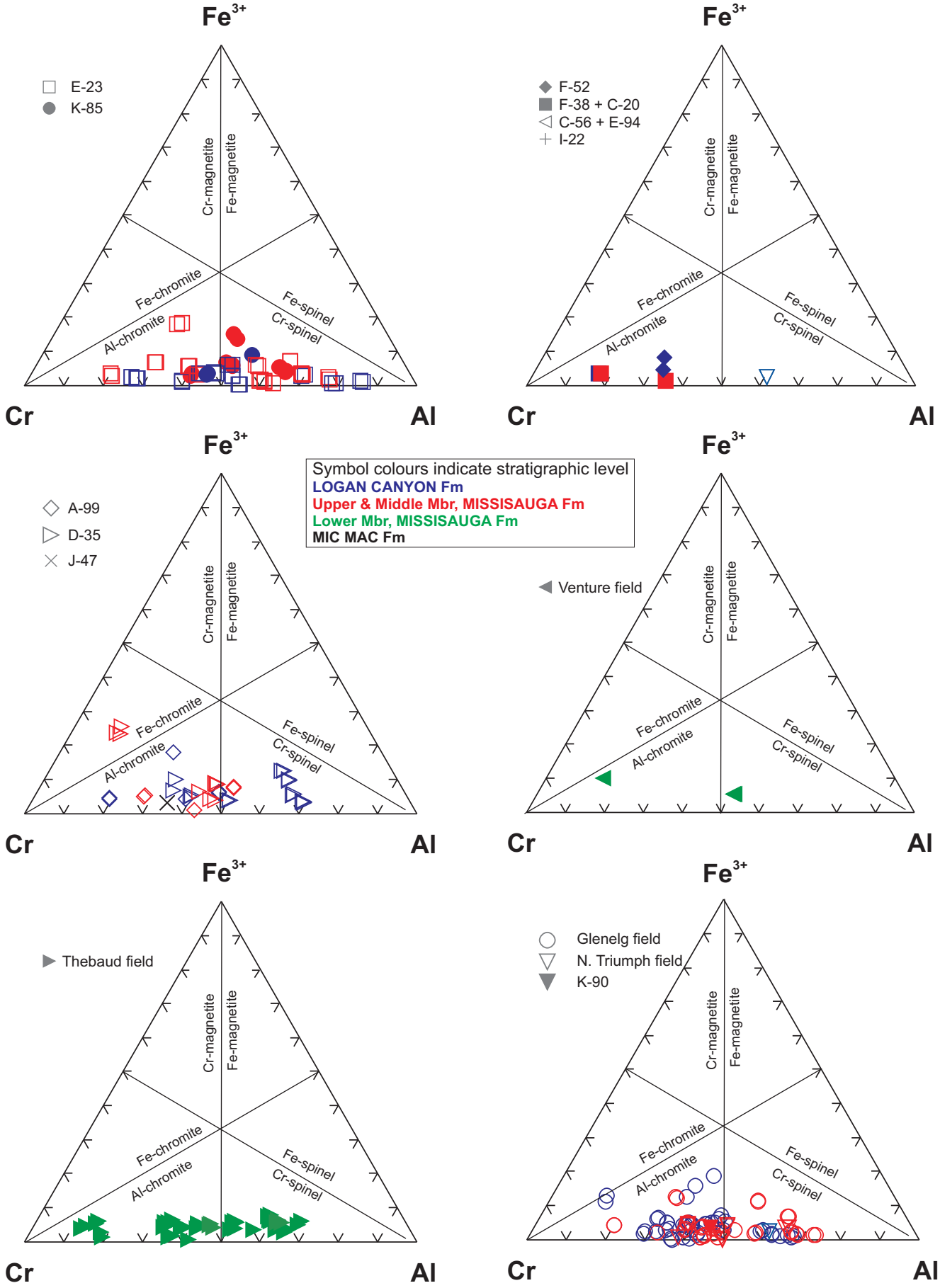


Fig. 8: Chemical variation in spinel/chromite. The fields are after Stevens (1944)

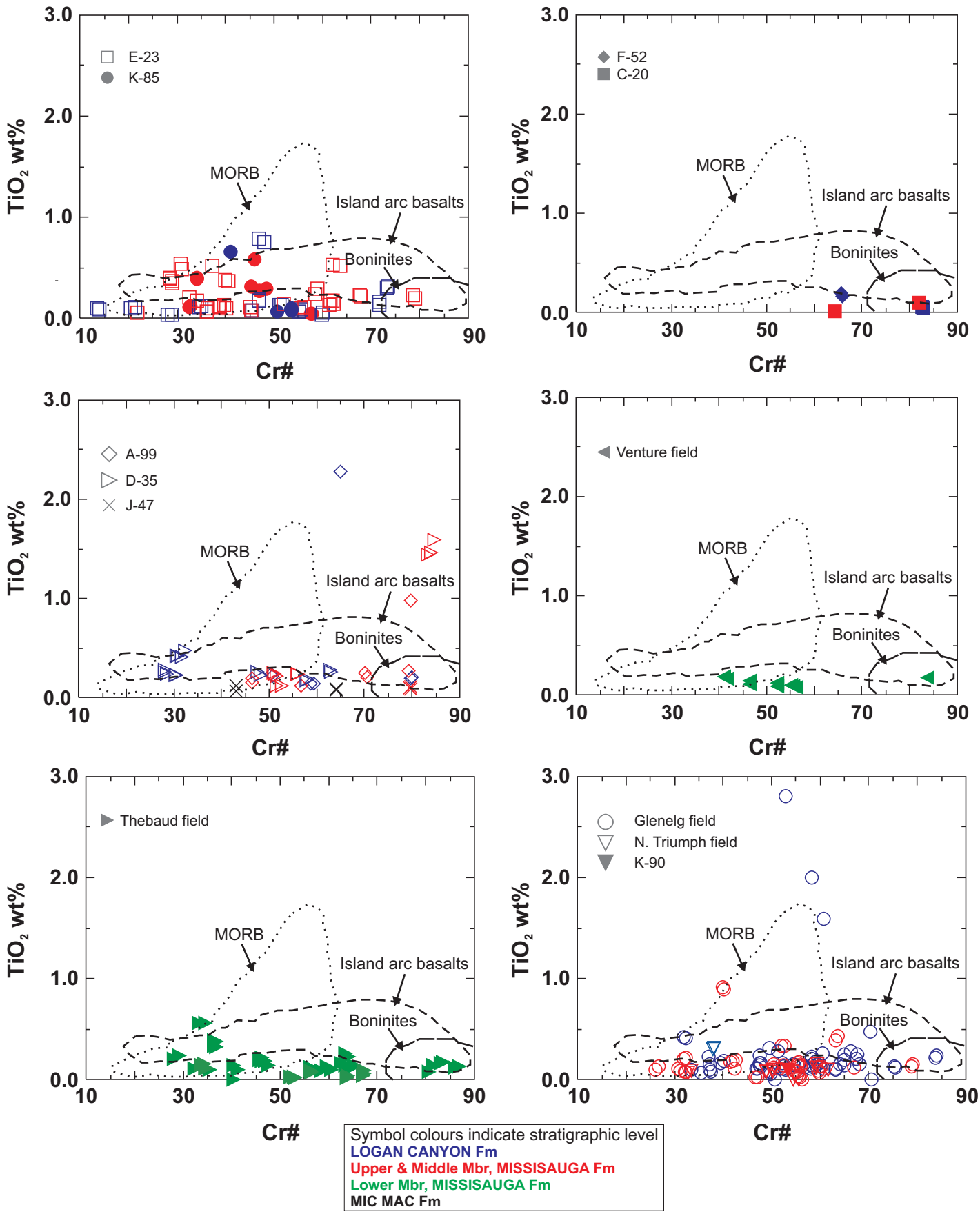
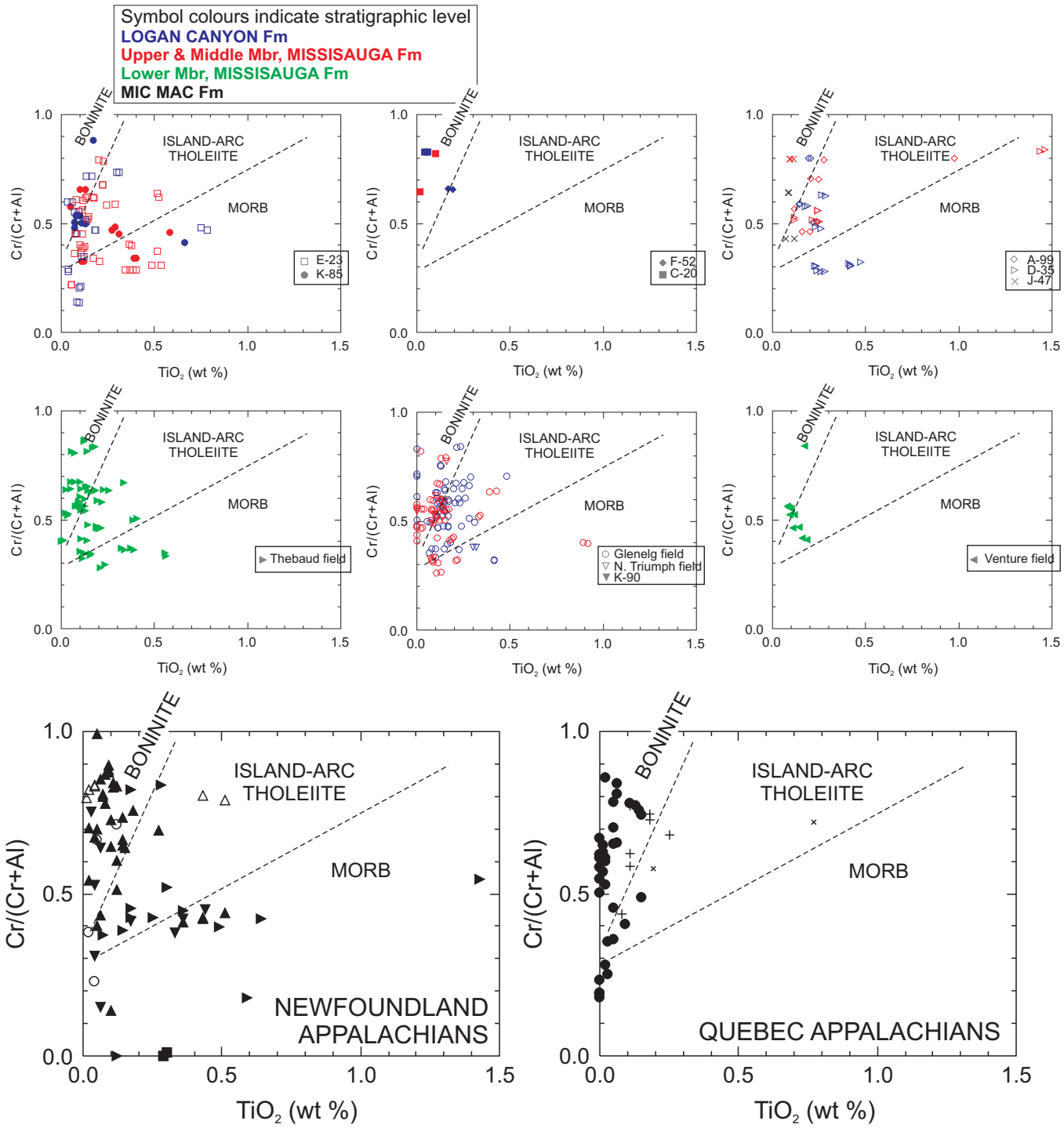


Fig. 9: Chemical variation in spinel/chromite. The fields are after Arai (1992)



POTENTIAL SOURCE AREAS

Newfoundland Appalachians

- ■ Newfoundland Anorthosite (Pe-Piper and Dessureau, 2002)
- △ Betts Cove Ophiolite (Coish, 1989)
- ▲ Bay of Islands Ophiolite (Malpas and Strong, 1975)
- ◀ Bay of Islands Ophiolite (Suhr and Robinson, 1994)
- ▶ Bay of Islands Ophiolite (Bédard and Hébert, 1998)
- ○ Bay of Islands Ophiolite (Varfalvy and Hébert, 1997)

Quebec Appalachians

- + Thetford Mines Ophiolite (Laurent and Kacira, 1987)
- × Quebec Appalachian Ophiolites (Hébert and Laurent, 1989)
- ● Thetford Mines Ophiolite (Pagé et al., 2008)

Fig. 10: Chemical variation in spinel in wells of the Scotian Basin (above) and for potential source rocks (below). Fields after Pearce et al. (2000). Compare with Fig. 9.

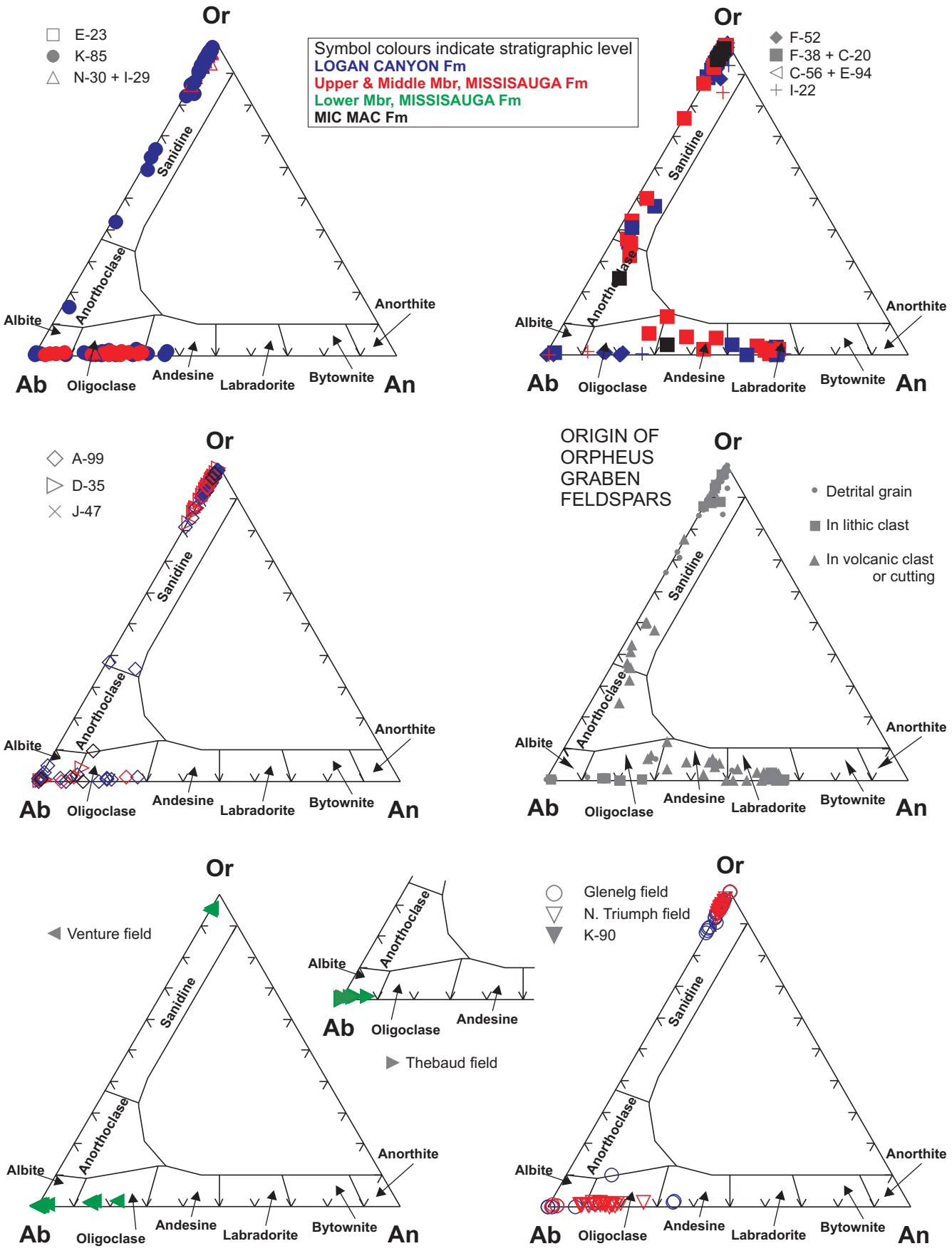


Fig. 11: Chemical variation in feldspars. Also shows setting of analysed feldspars for the Orpheus graben wells

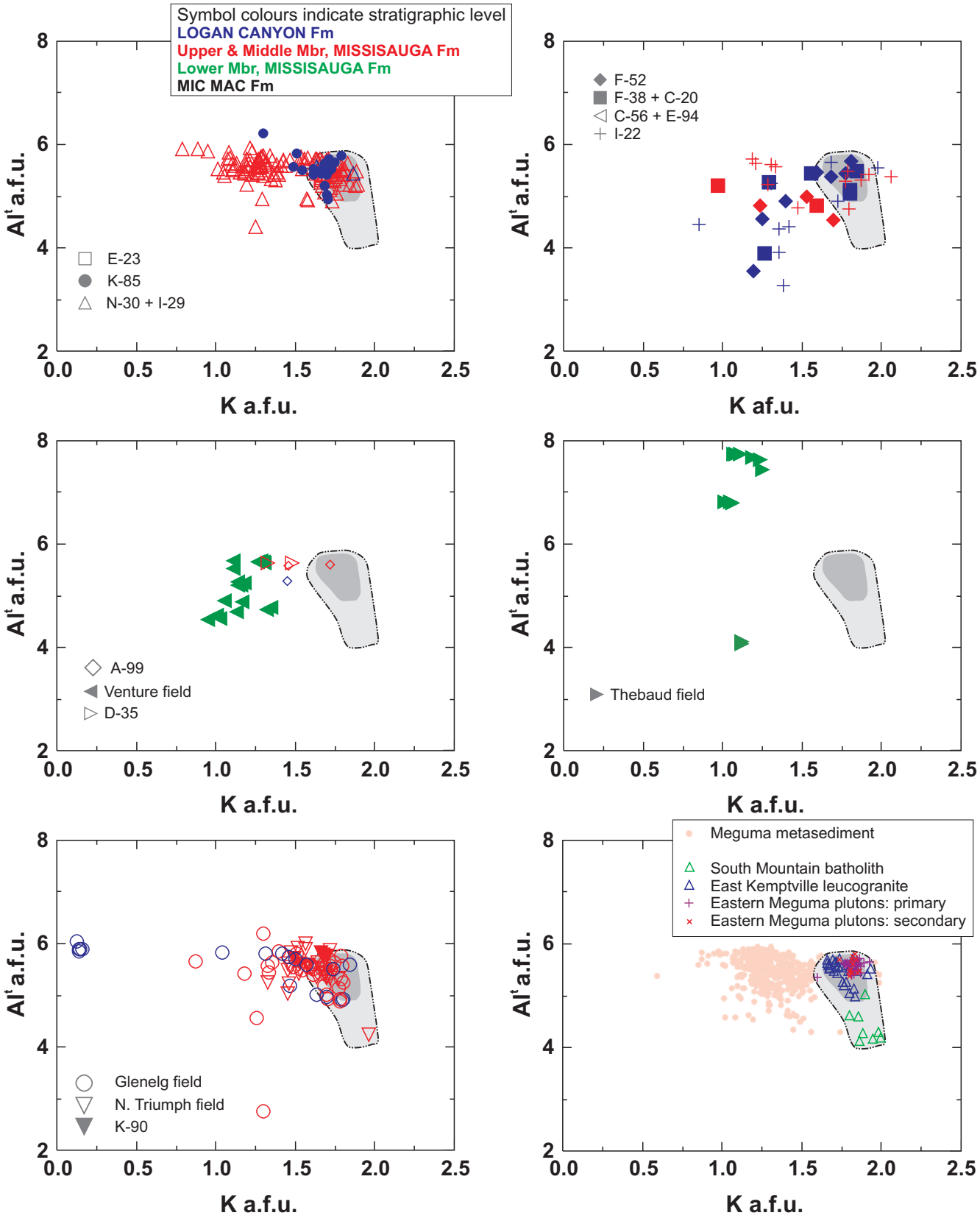


Fig. 12: Al^t a.f.u. vs K a.f.u. variation in muscovite. Grey field shows Meguma terrane pluton muscovites, with the dark grey indicating where most analyses cluster. Data for South Mountain batholith and eastern Meguma plutons from Ham and Kontak (1988) and O'Reilly (1988). Data for Meguma metasedimentary rocks from Liew (1979), Hicks (1996) and Muir (2000).

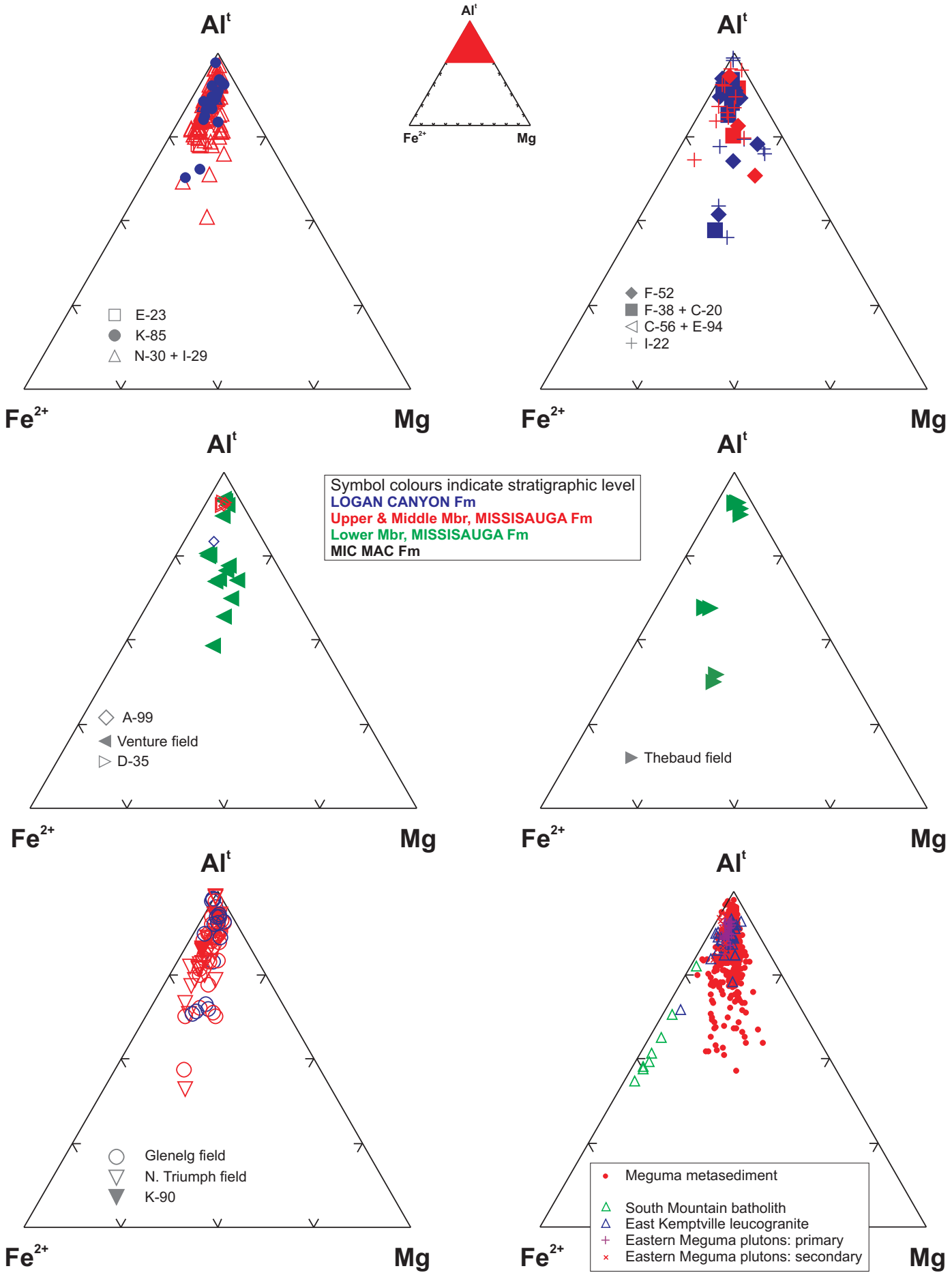


Fig. 13: Al^t - Fe^{2+} - Mg chemical variation in muscovite. Data sources as for Fig. 12.

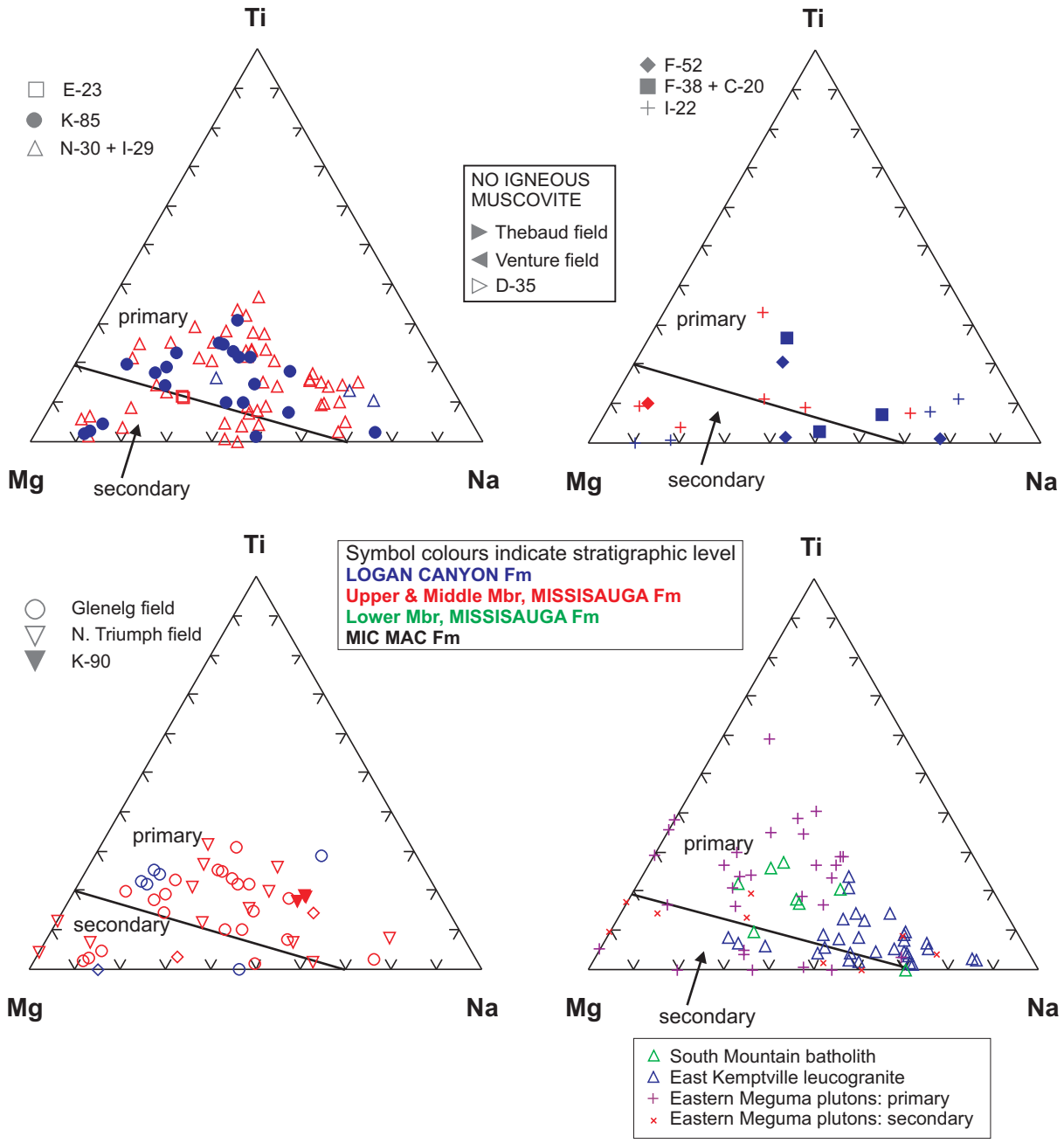


Fig. 14: Chemical variation in Ti, Mg and Na in muscovite. Only muscovite analyses with K > 1.6 a.f.u. are plotted; many of such analyses are of igneous origin. The line separating primary from secondary igneous muscovite is from Miller et al. (1981). Data sources as in Fig. 12.

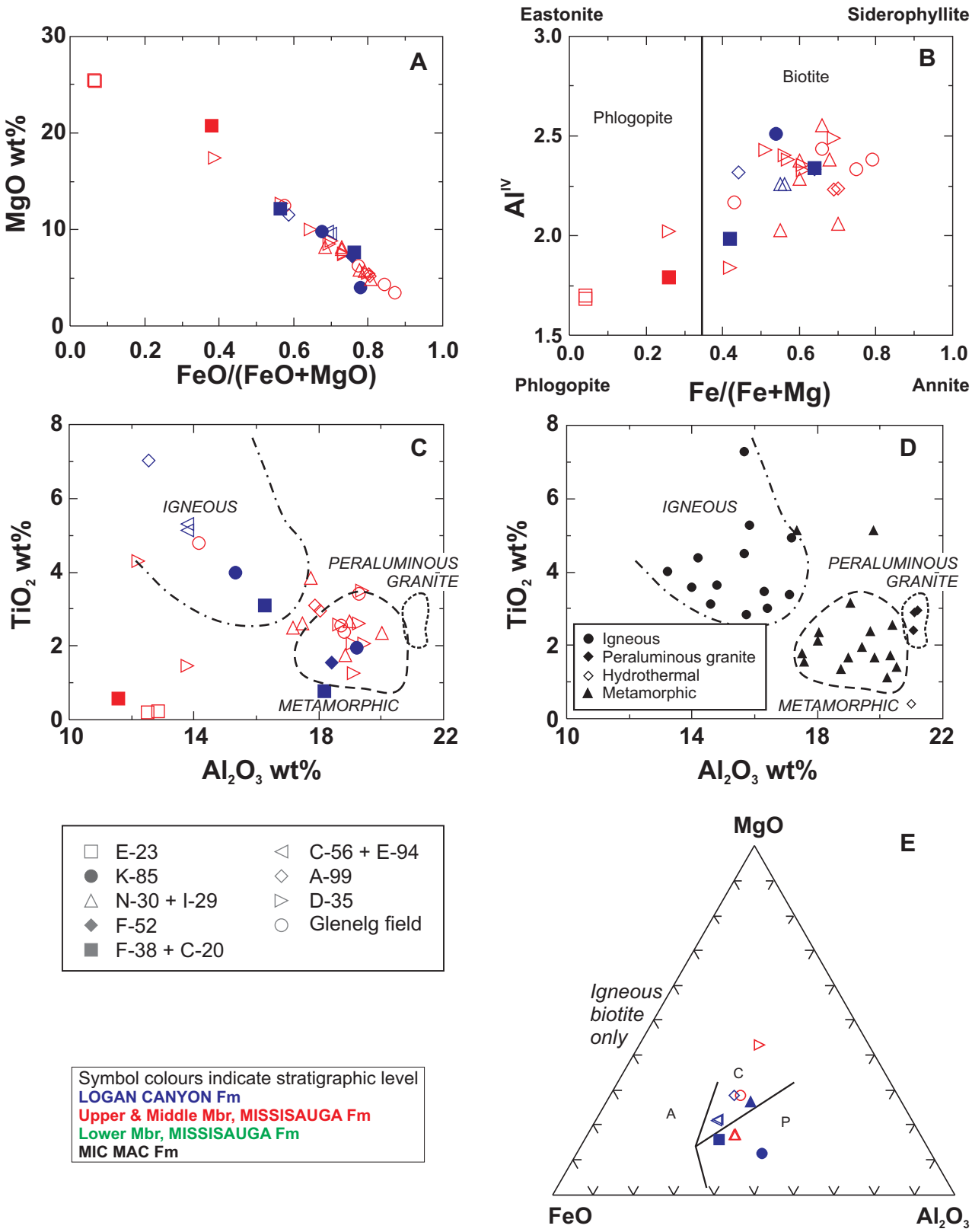


Fig. 15: Chemical variation in biotite and phlogopite. Nomenclature in (B) from Deer et al. (1992). Data in (D) from Fleet (2003), fields based on this data are also shown in (C). Fields in (E) apply to igneous biotite only (from Abdel Rahmen, 1994): A = alkali, C = calcalkali, P = peraluminous.

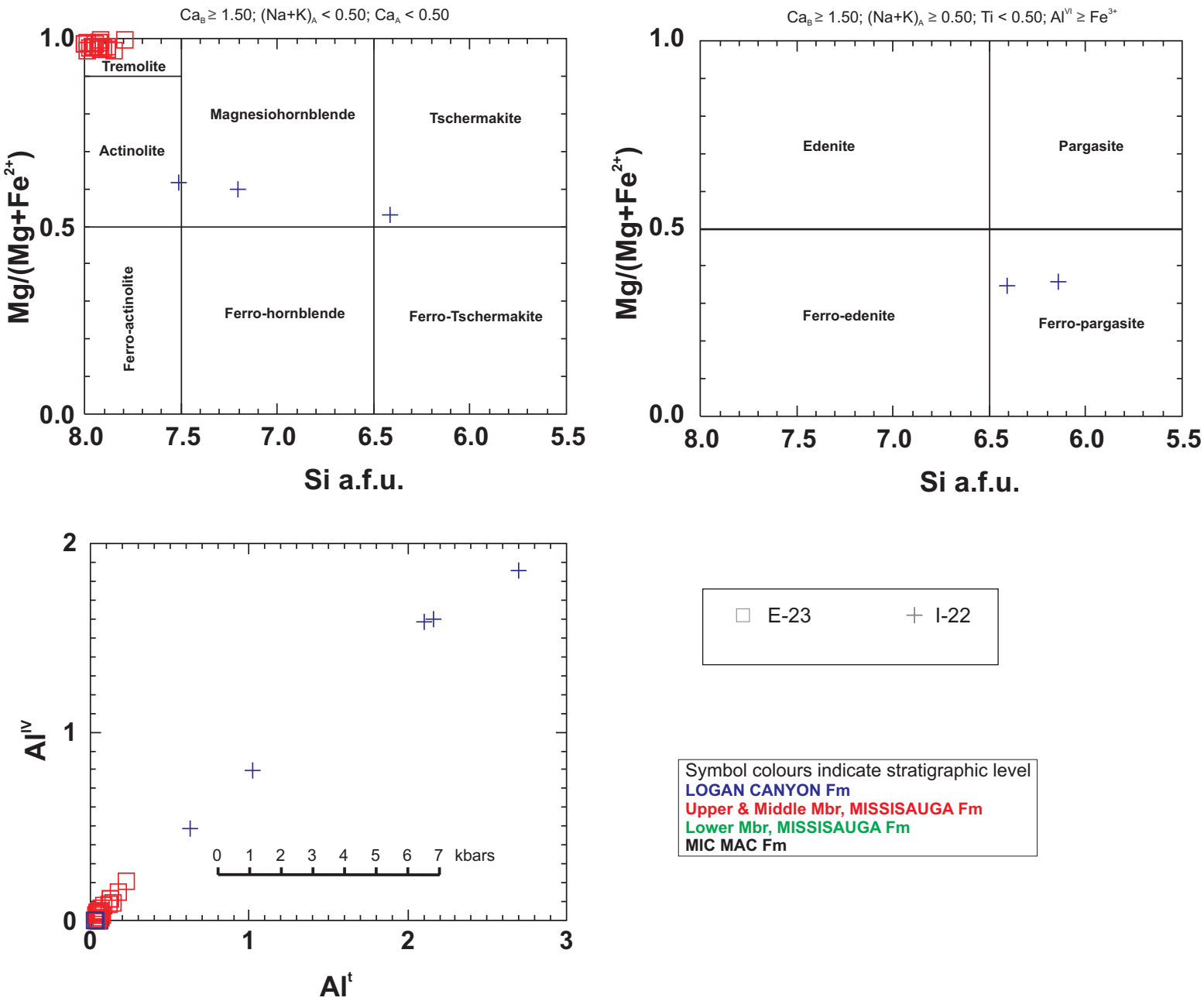


Fig. 16: Nomenclature of amphibole based on the classification system of Leake et al. (1997). The indicated geobarometer is from Hammarstrom and Zen (1986)

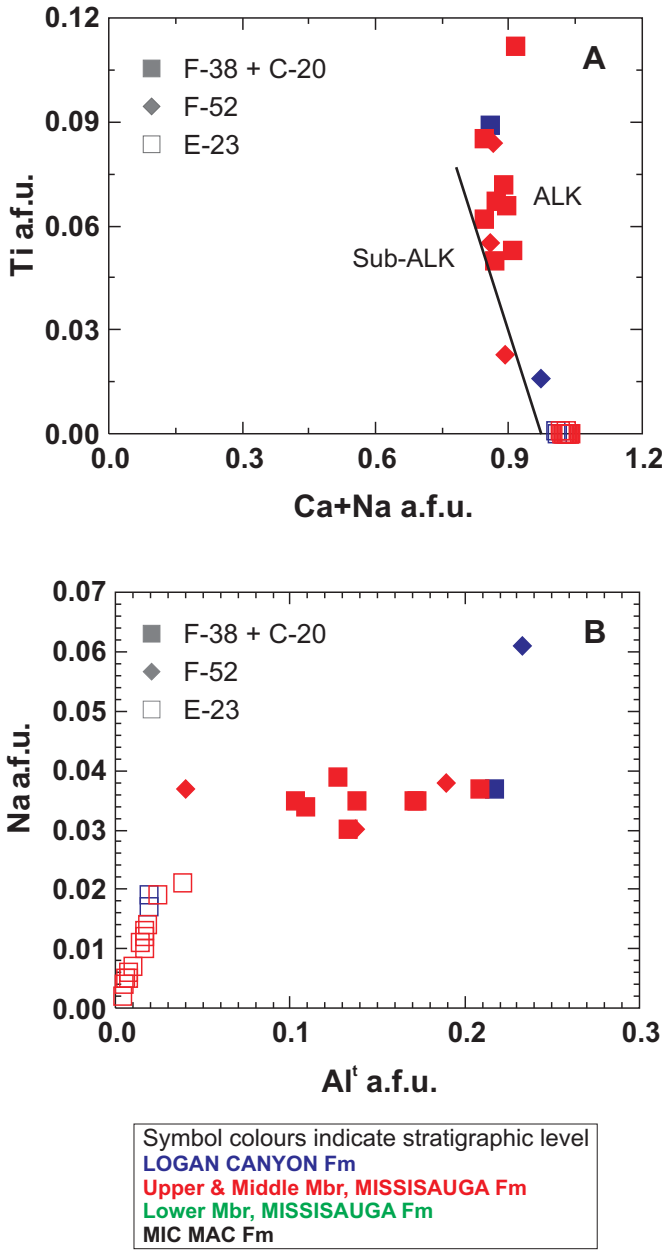


Fig. 17: Ti vs Ca + Na variation in clinopyroxene. The line separating alkaline and sub-alkaline clinopyroxenes is from Leterrier et al. (1982).

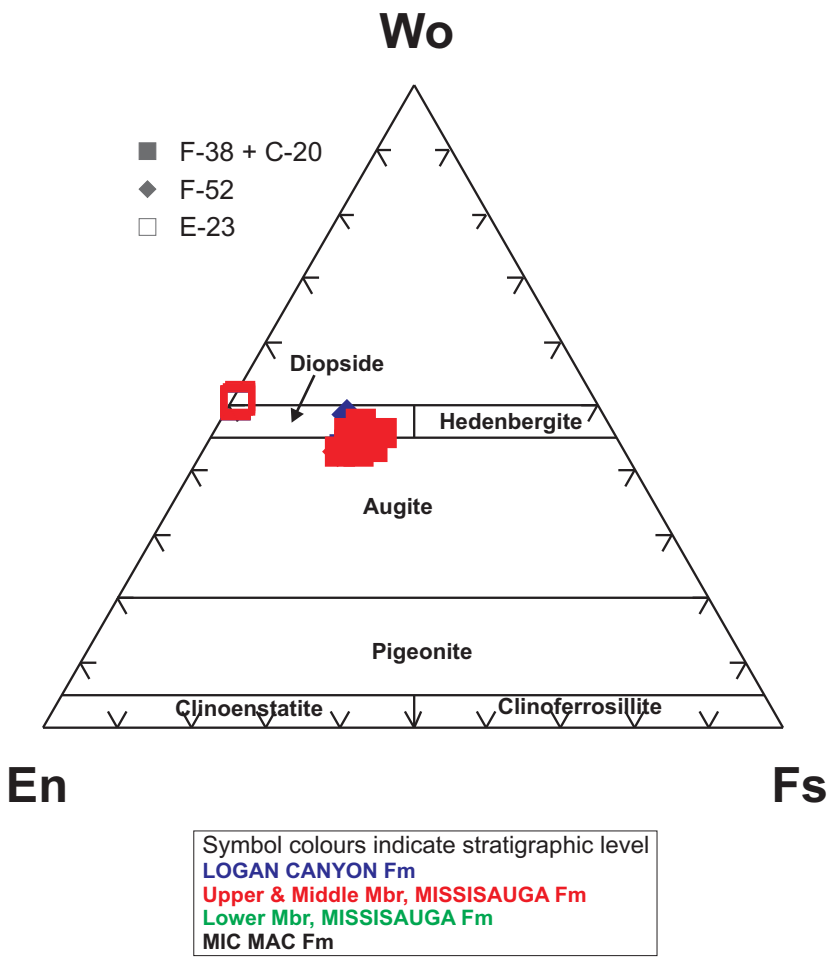


Fig. 18: Classification diagram for pyroxenes (after Morimoto et al., 1988).

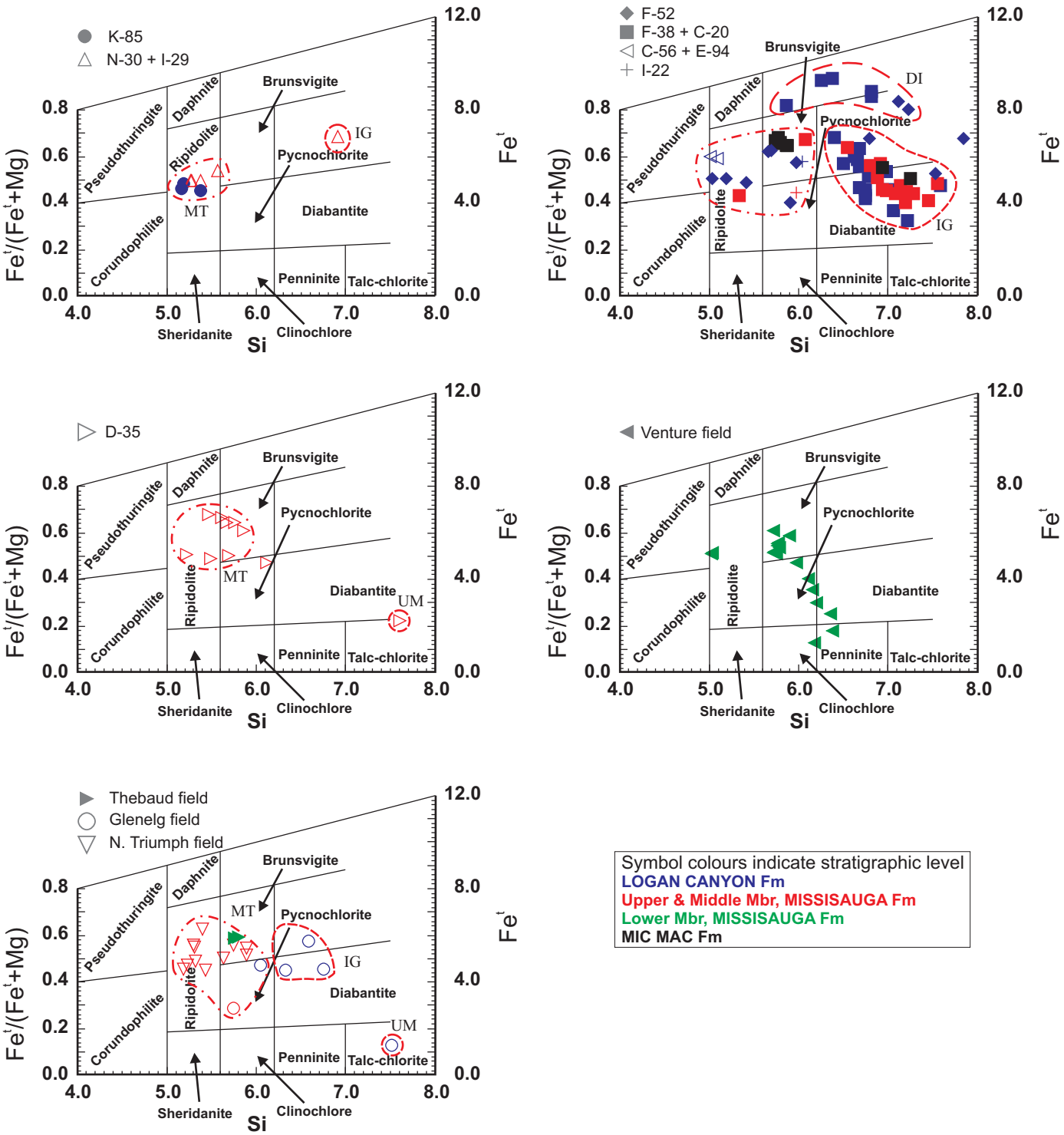


Fig. 19: Nomenclature of chlorite based on the classification system of Hey (1954). DI = diagenetic; IG = igneous; MT = metamorphic.

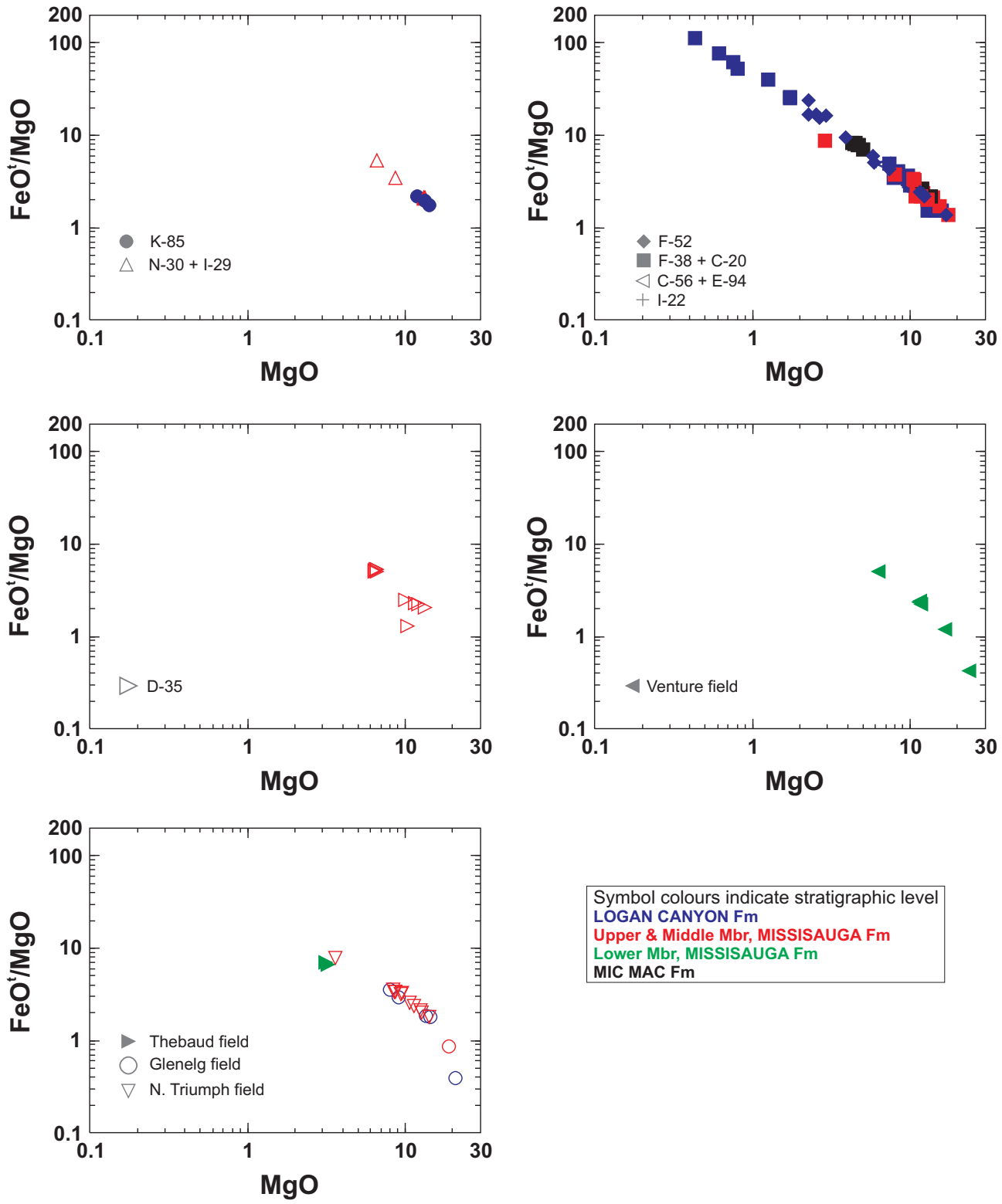


Fig. 20: FeO^t/MgO vs MgO variation in chlorite.

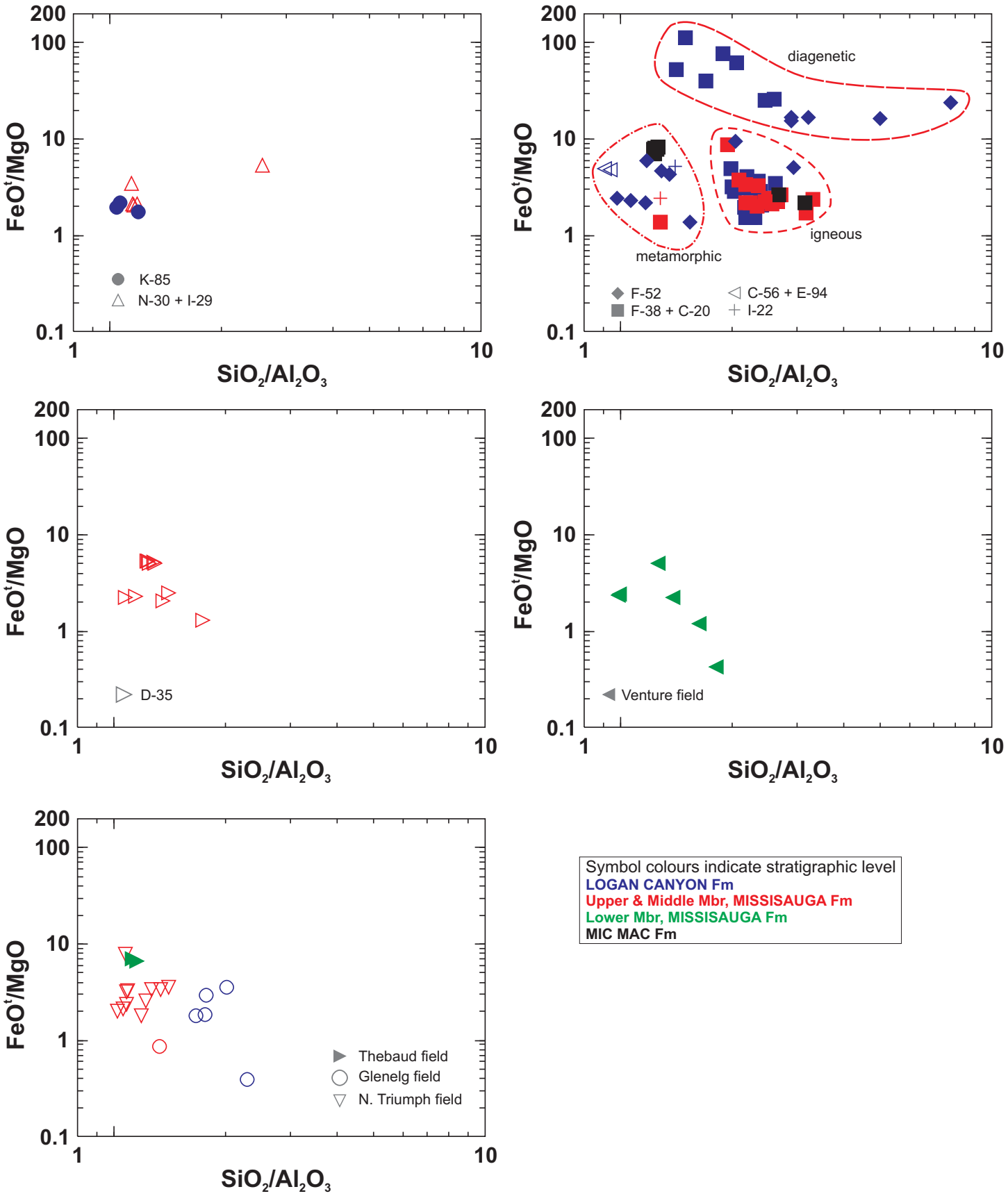


Fig. 21: FeO^t/MgO vs SiO_2/Al_2O_3 variation in chlorite.

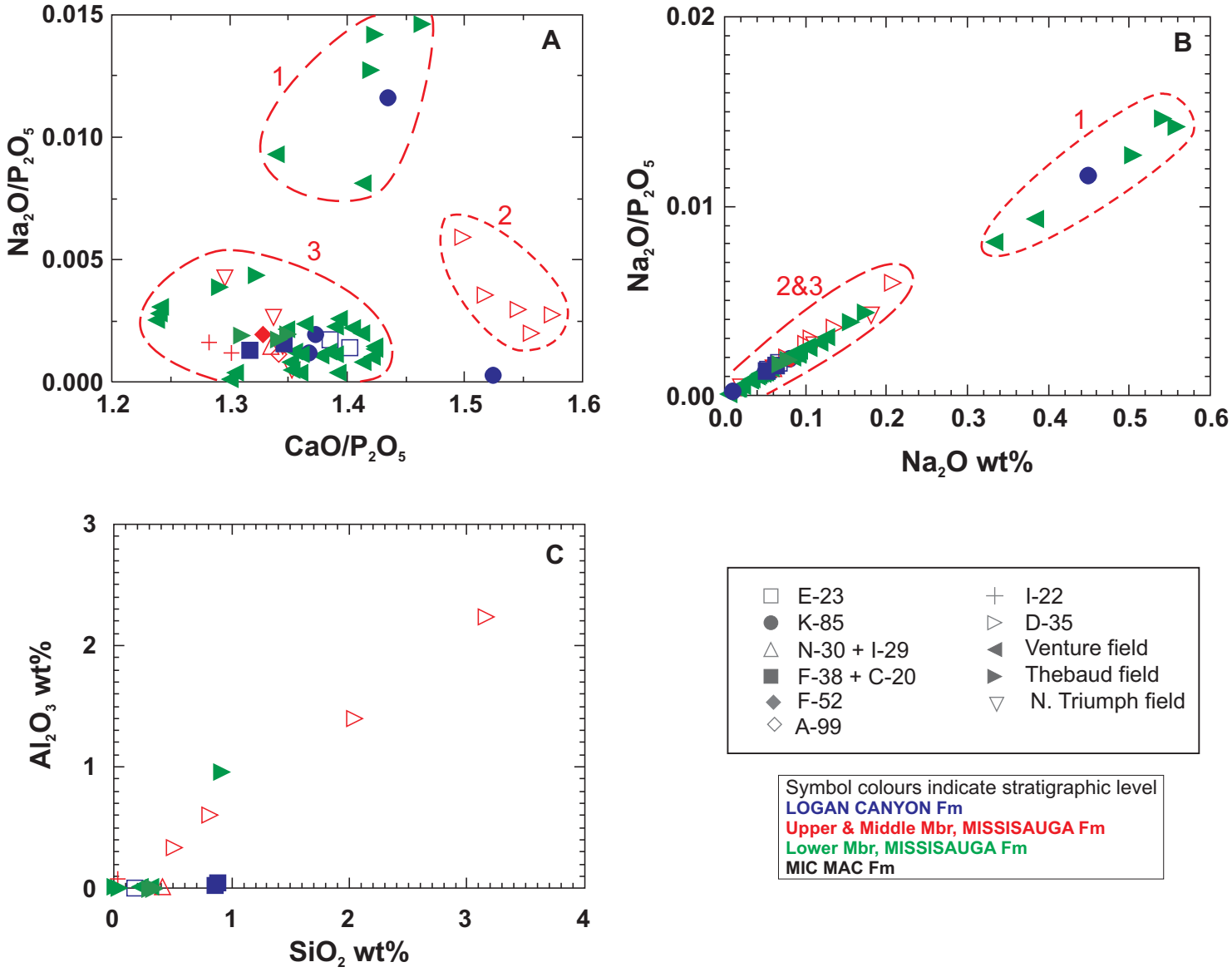


Fig. 22: Chemical variation in apatite; for fields see Table 2.

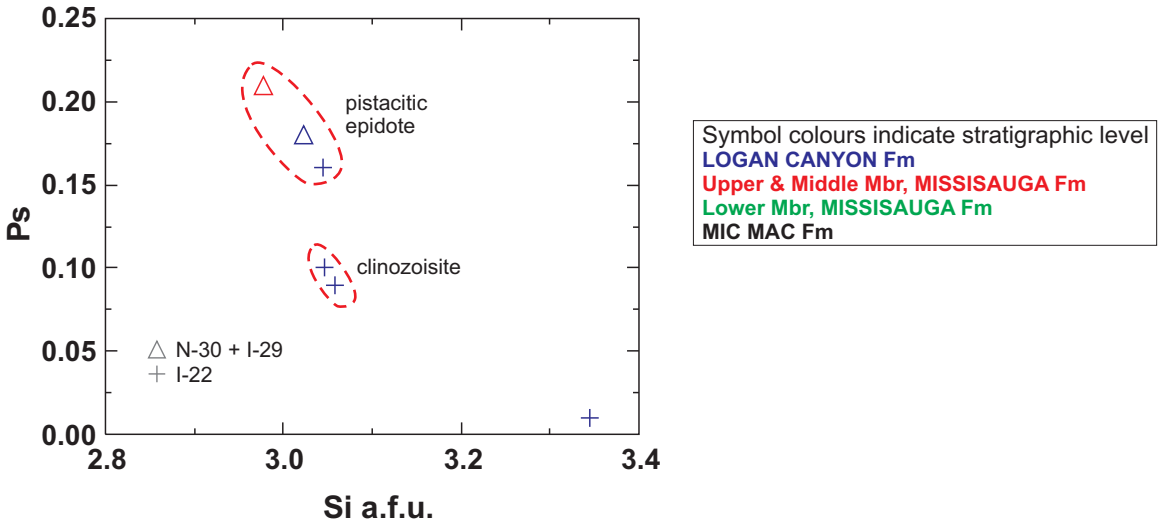


Fig. 23: Chemical variation in epidote.

Table 1: Acceptable limits of analyses

Mineral group	**Mineral name**	**Acceptable analysis total**
Amphibole		95-99 %
Chlorite		85-91%
Chloritoid		92-94 %
Chromite[2]	chromite	97-101%
	chromian spinel	97-101%
Clinopyroxene		97-101%
Feldspars	K-feldspar	98-101%
	albite	98-101%
Ilmenite/ Rutile	ilmenite	97-101%
	rutile	98-101%
Magnetite		99-101%
Mica[1]	biotite	95-98%
	muscovite	95-96%
Phosphates	apatite	98-101%
	francolite	94-96%
Tourmaline		82-88%

NOTES: 1 - Mica analyses as low as 91% were kept because their structural formulae correspond well to the rest of the analyses in the plots.
2 - Spinel/chromite analyses as low as 95 % were kept because their structural formulae correspond well to the rest of the analyses in the plots.

Table 2: Types of Minerals

Mineral	Types	References
Garnet	Type-1: Almandine with prominent pyrope and grossular substitutions Type-2: Almandine with prominent spessartine and grossular substitutions Type-3: Almandine with prominent grossular substitutions Type-4: Almandine with prominent spessartine substitutions Type-5: Spessartine with prominent almandine substitution	This study
Tourmaline	Type-1: Granitic rocks Type-2: Metapelitic and calc-silicate rocks Type-3: Metaultramafic rocks Type-4: Metapelitic and psammitic rocks	This study, modified after Henry and Guidotti (1985)
Spinel	Type-1: Al-spinel (Cr# $\leq$ 20) Type-2: Cr-spinel (20 < Cr# $\leq$ 50) Type-3: Chromite (50 < Cr# < 75) Type-4: Chromite (boninitic-type) Cr$\geq$ 75	Deer et al. (1992) Dick and Bullen (1984), and this study
Apatite	Type-1: Na-rich Type-2: Ca-rich Type-3: Ca- and Na-poor	This study

Table 3: Geographic Distribution of Selected Detrital Minerals Across the Scotian Basin

Mineral	N-30+ I-29	E-23+ K-85	Glenelg Field	N.Triumph Field	K-90	Thebaud Field	Venture Field	A-99	D-35+ J-47	C-20+ F-38+ I-52	I-22	C-56+ E-94
Tourmaline	4, 1, 3	1, 4, 2	4, 3, 1, 2	4, 1, 2	1, 4	4, 1, 3	4, 1, 3	1 (only one analysis)	4, 1	4, 2, 1	3?	4, 3, 1
Garnet	4, 5, 1	1, 3, 2, 4, 5	1, 5 (very few analyses)	4 (only one analysis)	N.F.	4, 1 (few analyses)	N.F.	1, 4, 3 (few analyses)	1, 3, 2 N.F. in J-47	1, 5, 4 (few analyses)	N.F.	1, 3, 4
Amphibole	N.F.	Tremolite N.F. in K-85	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	Tsermack Magnesio-Hornblende	N.F.
Biotite Phlogopite	Biotite	Biotite (E-23) Phlogopite (K-85)	Biotite	N.F.	N.F.	N.F.	N.F.	Biotite	Biotite Phlogopite (1)	Phlogopite (UM) Biotite(MM)	N.F.	N.F.
Clinopyroxene	N.F.	Diopside	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	Diopside Augite	N.F.	N.F.
Spinel Chromite	N.F.	L, H, B, AlChr CrSpl	H, L, B AlChr CrSpl	L, H ?AlChr CrSpl	N.F.	H, L, B AlChr CrSpl	H AlChr CrSpl	H, ?B (only a few analyses) AlChr	D-35: L(LCC), H(UM) J-47: H, ?B AlChr CrSpl Ferrian Chr (D-35)	B AlChr	N.F.	N.F.
Feldspar	K-feld Olig(1) K-feld > Pl	E-23:N.A. K-85:K-feld Ab, Olig, And K-feld≈Pl	K-feld Ab, And, Olig K-feld≈Pl	K-feld Ab, Olig K-feld≈Pl	N.A.	Ab, Pl	K-feld Ab, Olig Pl>K-feld	K-feld Ab, Olig K-feld>Pl	K-feld Ab K-feld>Pl	K-feld Ab, Olig, And, Labr Pl>K-feld	K-feld Ab, Olig K-feld≈Pl	N.A.
Muscovite	pr (most)	E-23: sec (only 2) K-85: N.A.	pr (most)	pr (most)	pr (2) sec(2)	pr, sec	pr, sec	N.A.	N.A.	pr, sec	pr, sec	N.A.
Apatite	N.A.	E-23:3 K-85:3	N.A.	N.A.	N.A.	3, 1	3, 1	N.A.	D-35:3,2 J-47: N.A.	3	3	N.A.
Epidote	Pistacitic Epidote	N.A.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	N.F.	Clinozoisite (2) Pistacitic Epidote (1)	N.F.
Chlorite	Met Ign (1)	E-23:N.A. K-85:Met	Met, Ign, Um (LCC)	Met	N.A.	Met (2)	Met, Ign, Um (LM)	N.A.	D-35:Met, Um (1) (UM)	Fe-rich (Diag.) Met, Ign (most)	Met	Met

1. Abbreviations: N.F. = not found; N.A. = not analyzed routinely; LCC = Logan Canyon Cree Member; UM = Upper Missisauga; LM = Lower Missisauga; MM = Mic Mac; L = Lherzolite; H = Harzburgite; B = Boninite; Chr = Chromite; Spl = Spinel; Pl = Plagioclase; K-feld = K-feldspar; Ab = Albite; Olig = Oligioclase; And = Andesine; Labr = Labradorite; pr = primary; sec = secondary; met = metamorphic; Ign = Igneous; Um = ultramafic; Diag = Diagenetic

2. For Tourmaline, Garnet, and Apatite, the numbers used indicate types (see Table 2). The order of numbers indicates relative abundance and underlining indicates significant number of analyses. In this table if only a very small number exists for a particular mineral and well(s), the analysis number is shown in parenthesis e.g. (x)

Table 4: Representative electron microprobe analyses (wt %) for the types of tourmaline identified

Type	1		2		3		4	
Well	Chebucto K-90	Crow F-52	Argo F-38	Jason C-20	Glenelg E-58	Naskapi N-30	Alma K-85	Emerillon C-56
Depth (m)	4286.07	1430	4865	4910	2994.33	1467.96	2465	1828.8
Formation	UM	LCM	MM	MM	LCC	UM	LCC	LCE
Analysis No	381	2	4	3	335	477	156	78
Sample	106	114	16	277	186	381	3	129
SiO_2	34.36	35.65	35.95	34.93	36.06	36.58	36.95	36.32
TiO_2	0.10	0.78	0.38	0.13	0.64	0.63	0.62	0.66
Al_2O_3	34.61	31.39	28.33	27.27	30.27	30.38	32.51	33.41
Cr_2O_3	-	-	-	-	-	0.07	0.22	-
FeO_t	16.09	10.70	14.01	14.34	5.08	5.41	4.79	5.27
MnO	0.10	0.10	0.29	0.12	-	-	0.04	-
MgO	0.05	4.20	4.59	6.32	8.80	8.53	7.37	7.25
CaO	0.06	0.78	0.72	1.44	0.91	0.45	0.58	0.72
Na_2O	2.05	1.88	2.38	1.97	2.26	2.65	2.10	1.95
K_2O	0.07	0.04	0.07	-	0.02	-	0.02	-
P_2O_5	0.01	-	0.07	-	-	-	-	-
ZrO_2	-	-	-	-	-	-	-	-
NiO	-	-	-	-	-	-	-	-
BaO	-	0.08	0.09	-	-	-	-	-
SrO	0.11	-	-	-	0.15	-	-	-
Total	87.62	85.60	86.89	86.52	84.21	84.70	85.20	85.58
Si	5.535	5.738	5.839	5.731	5.755	5.800	5.778	5.668
Al	6.567	5.950	5.419	5.269	5.689	5.673	5.987	6.139
Cr	-	-	-	-	-	0.009	0.027	-
Ti	0.012	0.095	0.046	0.017	0.076	0.075	0.073	0.077
Mg	0.012	1.008	1.111	1.545	2.094	2.016	1.718	1.688
Fe^{2+}	2.168	1.440	1.904	1.967	0.678	0.717	0.626	0.688
Mn	0.013	0.013	0.040	0.017	-	-	0.005	-
Ca	0.011	0.135	0.125	0.253	0.156	0.076	0.097	0.120
Na	0.641	0.587	0.750	0.628	0.701	0.815	0.637	0.590
K	0.014	0.009	0.015	-	0.004	-	0.004	-
Sum_cat	14.973	14.975	15.249	15.427	15.153	15.181	14.952	14.970

Table 5: Representative electron microprobe analyses (wt %) for the types of garnet identified

	Almandine (Ca-Mg-bearing)		Almandine (Ca-Mn-bearing)		Almandine (Ca-bearing)		Almandine (Mn-bearing)		Spessartine (Ca-bearing)	
Type	***1***		***2***		***3***		***4***		***5***	
Well	Musquodoboit E-23	Musquodoboit E-23	Alma K-85	Musquodoboit E-23	Alma K-85	Musquodoboit E-23	Naskapi N-30	Alma K-85	Alma K-85	Naskapi N-30
Depth (m)	2190.00	2500.00	2465.00	1800.00	2473.70	2190.00	1473.81	2468.95	2469.30	1473.81
Formation	LCCl	UM	LCC	LCC	LCC	LCCl	UM	LCC	LCC	UM
Analysis No.	28	12	195	17	275	4	17	267	271	34
Sample	188	194	1	156	14	166	251	5	10	268
SiO_2	37.26	37.56	37.82	35.61	38.08	36.44	35.75	36.67	36.52	35.24
TiO_2	0.09	0.06	0.09	0.27	*	0.10	0.05	*	0.10	0.28
Al_2O_3	20.56	20.42	19.28	18.25	20.03	20.44	20.43	19.76	19.08	20.21
Cr_2O_3	0.07	0.02	0.04	0.03	0.02	0.05	*	*	0.02	*
FeO_t	23.37	23.61	18.16	18.28	29.26	31.06	29.49	22.21	8.35	6.06
MnO	1.02	0.78	14.37	10.95	0.41	0.75	7.86	14.43	30.00	31.89
MgO	5.97	6.39	1.07	0.68	1.43	0.95	1.71	1.26	1.27	0.47
CaO	9.64	9.00	9.45	12.65	10.51	8.82	2.13	3.28	0.45	3.24
Na_2O	0.00	*	0.04	0.02	0.01	0.02	0.05	*	0.02	0.01
K_2O	0.03	0.03	0.02	0.03	*	0.03	0.02	*	0.03	0.03
P_2O_5	0.03	*	*	0.03	*	*	0.02	*	*	0.00
ZrO_2	*	*	*	*	*	*	*	*	*	*
NiO	0.31	0.23	*	0.27	*	0.28	0.01	*	*	*
BaO	*	*	*	0.06	*	*	*	*	*	*
SrO	0.01	*	*	0.05	*	0.04	0.17	*	*	0.18
Total	98.36	98.09	100.34	97.18	99.75	98.99	97.69	97.61	95.84	97.60
Si	2.945	2.969	3.032	2.953	3.049	2.970	2.976	3.052	3.112	2.952
Al^{IV}	0.055	0.031	0.000	0.047	0.000	0.030	0.024	0.000	0.000	0.048
Sum_T	3.000	3.000	3.032	3.000	3.049	3.000	3.000	3.052	3.112	3.000
Al^{VI}	1.858	1.869	1.820	1.734	1.889	1.932	1.979	1.937	1.915	1.946
Cr	0.004	0.001	0.003	0.002	0.001	0.003	0.000	0.000	0.001	0.000
Fe^{3+}	0.077	0.078	0.061	0.063	0.098	0.106	0.103	0.077	0.030	0.021
Ti	0.005	0.004	0.005	0.017	0.000	0.006	0.003	0.000	0.006	0.018
Sum_A	1.945	1.951	1.889	1.817	1.988	2.047	2.085	2.014	1.952	1.985
Mg	0.703	0.752	0.128	0.084	0.171	0.116	0.213	0.156	0.161	0.058
Fe^{2+}	1.467	1.482	1.157	1.204	1.861	2.011	1.951	1.468	0.565	0.403
Mn	0.068	0.052	0.976	0.769	0.028	0.052	0.554	1.017	2.165	2.262
Ca	0.816	0.762	0.812	1.124	0.902	0.770	0.190	0.292	0.041	0.291
Na	0.000	0.000	0.006	0.003	0.002	0.004	0.007	0.000	0.003	0.001
Sum_B	3.055	3.049	3.079	3.183	2.963	2.953	2.915	2.934	2.936	3.015
Sum_cat	8.000	8.000	8.000	8.000	8.000	8.000	8.000	8.000	8.000	8.000
Alm	37.152	37.416	32.276	28.735	62.852	68.203	67.092	50.043	18.804	9.560
And	4.59	4.68	3.23	3.43	4.96	5.38	5.30	3.95	1.34	1.10
Pyrope	27.85	30.06	4.52	3.01	5.76	3.93	7.32	5.33	5.53	2.01
Spess	2.70	2.08	34.50	27.73	0.94	1.77	19.07	34.66	74.26	78.35
Uvaro	0.27	0.06	0.13	0.12	0.06	0.18	0.00	0.00	0.07	0.00
Gross	27.46	25.72	25.34	36.98	25.42	20.55	1.23	6.02	0.00	8.98

Table 6: Chemical Garnet Types from Potential Source Rocks

Area	Terrane and major unit	Locality and Lithology	Garnet Type (Table 2, Fig. 5)	Source
Nova Scotia	Meguma terrane pluton	Wedgeport granite	2	This study
Nova Scotia	Meguma terrane pluton	New Cornwall syenogranite	4	Pe-Piper & Ingram, 2001
Nova Scotia	Meguma terrane pluton	Halfway Cove granite	4	Ham, 1988
Nova Scotia	Meguma terrane pluton	South Mountain Batholith (SMB) granite	4	Allan & Clarke, 1981
Nova Scotia	Meguma terrane pluton	Metasomatic garnet in SMB	4	Kontak & Corey, 1988
Nova Scotia	Meguma Group	Halfway Cove metasediment	4	Ham, 1988
Nova Scotia	Meguma Group	Metasediment, Halifax-Goldenville transition at Beaverbank	5	Feetham, 1995
Nova Scotia	Meguma Group	metasediment, Halifax-Goldenville transition at Rawdon	5	Haysom, 1994
Quebec	Grenville Province	Anorthitosite- Charmockite Suite	2	Schrijver, 1973
Nova Scotia	Precambrian plutons, Avalon terrane	Mount Thom Pluton, granodiorite	4	Meagher, 1994
Nova Scotia	Late Paleozoic plutons, Avalon terrane	Clark Head Granulite (orthogneiss)	1	This study
Newfoundland	Grenville Province	Metagabbro (greenschist to amphibolite facies)	1	Rivers & Mengel, 1988
Newfoundland	Grenville Province	Eclogitized gabbro	1	Indares, 1992
Newfoundland	Grenville Province	Anorthosite	3	Pe-Piper & Dessureau, 2002

Table 7: Representative electron microprobe analyses (wt %) for the types of spinel and chromite identified

Type	1		2		3		4	
Well	Musquodoboit E-23		Alma K-85	Thebaud 3	Dauntless D-35	Glenelg E-58	Peskowesk A-99	Thebaud 3
Depth (m)	1800	1800	3075.96	3915.04	2709.67	2993.62	2470.66	3915.96
Formation	LCC	LCC	UM	LM	LCC	LCC	UM	LM
Analysis No	33	34	303	13	12	273	159	18
Sample	262	263	23	363	78	110	315	349
SiO_2	-	-		0.05	0.04	0.06		0.10
TiO_2	0.08	0.10	0.29	0.19	0.18	0.25	0.98	0.12
Al_2O_3	55.53	55.85	26.99	29.75	21.92	16.65	10.61	6.67
Cr_2O_3	13.36	13.11	37.72	38.23	44.95	51.85	62.28	61.40
FeO_t	12.54	12.10	24.03	15.79	21.96	20.48	17.17	18.51
MnO	0.14	0.14	0.44	0.35	0.33	0.74	1.59	0.49
MgO	18.82	18.88	10.36	14.86	10.52	9.26	6.91	10.25
CaO	0.05	0.04	0.25	0.03	0.05	0.10	0.09	0.09
Na_2O	0.03	0.02	0.02	0.04	0.03	0.06	0.37	0.05
K_2O	0.02	0.01	0.01	0.05	0.04	0.07	-	0.05
P_2O_5	0.00	-	-	0.05	-	0.03	-	0.04
ZrO_2	-	-	-		-	-	-	-
NiO	-	-	-	0.22	-	0.23	-	0.17
BaO	-	-	-	0.06	-	0.18	-	0.18
SrO	0.29	0.32	-	0.21	-	0.20	-	0.41
Total	100.88	100.56	100.11	99.87	100.02	100.17	100.00	98.54
Si	-	-	-	0.012	0.010	0.016	-	0.027
Ti	0.013	0.015	0.054	0.034	0.033	0.048	0.195	0.025
Al	13.669	13.750	7.879	8.334	6.513	5.075	3.317	2.152
Fe^{2+}	2.016	1.997	3.962	2.569	3.873	4.059	4.546	3.548
Fe^{3+}	0.195	0.131	1.133	0.637	0.845	0.417	-	0.765
Cr	2.205	2.165	7.384	7.183	8.955	10.599	13.056	13.276
Mn	0.025	0.024	0.092	0.070	0.071	0.162	0.358	0.114
Mg	5.866	5.883	3.828	5.271	3.958	3.574	2.734	4.185
Ca	0.012	0.009	0.066	0.009	0.013	0.028	0.025	0.026
Na	0.011	0.008	0.010	0.019	0.013	0.032	0.192	0.029
K	0.005	0.003	0.003	0.014	0.014	0.023	-	0.019
Cations	24.018	23.985	24.411	24.152	24.298	24.033	23.606	24.167
Mg#	74.421	74.658	49.142	67.232	50.543	46.825	37.553	54.116
Cr#	13.891	13.604	48.378	46.291	57.894	67.622	79.741	86.051

APPENDIX 1: SAMPLES ANALYSED IN THIS STUDY

Well	Latitude (N)	Longitude (W)	Depth (m below RT)	Sample	Other sample number	Cuttings (X) or core (O)	Lithostrati-graphy
Alma K-85	43.579047	-60.7164	2465	2465		O	LCC
Alma K-85	43.579047	-60.7164	2465.9	2465.9		O	LCC
Alma K-85	43.579047	-60.7164	2466.1	2466.07		O	LCC
Alma K-85	43.579047	-60.7164	2466.7	2466.65		O	LCC
Alma K-85	43.579047	-60.7164	2467.6	2467.55		O	LCC
Alma K-85	43.579047	-60.7164	2469	2468.95		O	LCC
Alma K-85	43.579047	-60.7164	2469.3	2469.3		O	LCC
Alma K-85	43.579047	-60.7164	2473.7	2473.703		O	LCC
Alma K-85	43.579047	-60.7164	2474.2	2474.15		O	LCC
Alma K-85	43.579047	-60.7164	2502	2502		O	LCC
Alma K-85	43.579047	-60.7164	2861.1	2861.1		O	UM
Alma K-85	43.579047	-60.7164	2862.2	2862.24		O	UM
Alma K-85	43.579047	-60.7164	2872.1	2872.1		O	UM
Alma K-85	43.579047	-60.7164	2885.7	2885.71		O	UM
Alma K-85	43.579047	-60.7164	3045.2	3045.23		O	UM
Alma K-85	43.579047	-60.7164	3051.7	3051.65		O	UM
Alma K-85	43.579047	-60.7164	3073.6	3073.6		O	UM
Alma K-85	43.579047	-60.7164	3076	3075.96		O	UM
Alma K-85	43.579047	-60.7164	3081.1	3081.07		O	UM
Argo F-38	45.456489	-58.839325	519.7	1690-1720A		O	LCM
Argo F-38	45.456489	-58.839325	583.7	1900-1930A		O	LCM
Argo F-38	45.456489	-58.839325	858.0	2800-2830		O	LCM
Argo F-38	45.456489	-58.839325	928.1	3030-3060A		O	LCC
Argo F-38	45.456489	-58.839325	937.3	3060-3090A		O	LCC
Argo F-38	45.456489	-58.839325	1037.8	3400-3410B		O	LCC
Argo F-38	45.456489	-58.839325	1059.2	3470-3480H		O	LCC
Argo F-38	45.456489	-58.839325	1333.5	4360-4390H		O	MM
Argo F-38	45.456489	-58.839325	1429.5	4680-4700B		O	MM
Argo F-38	45.456489	-58.839325	1482.9	4850-4880		O	MM
Chebucto K-90	43.662494	-59.713539	4283.7	4283.72	3	O	UM
Chebucto K-90	43.662494	-59.713539	4286.1	4286.07	1	O	UM
Crow F-52	45.356764	-59.1389	435.9	1430A		X	LCM
Crow F-52	45.356764	-59.1389	490.7	1610		X	LCM
Crow F-52	45.356764	-59.1389	600.5	1970A		X	LCS
Crow F-52	45.356764	-59.1389	691.9	2270B		X	LCC
Crow F-52	45.356764	-59.1389	746.8	2450F		X	LCC
Crow F-52	45.356764	-59.1389	755.9	2480A		X	LCC
Crow F-52	45.356764	-59.1389	845.2	2766-2780H		X	MM
Crow F-52	45.356764	-59.1389	856.5	2810H		X	MM
Crow F-52	45.356764	-59.1389	966.2	3170F		X	MM
Dauntless D-35	44.735675	-57.345461	2554.2	2554.22		X	LCC
Dauntless D-35	44.735675	-57.345461	2651.8	2651.76		X	LCC
Dauntless D-35	44.735675	-57.345461	2705.7	2705.67		X	LCC
Dauntless D-35	44.735675	-57.345461	2709.7	2709.67		X	LCC
Dauntless D-35	44.735675	-57.345461	2935.2	2935.22		X	UM
Dauntless D-35	44.735675	-57.345461	2980.9	2980.94		X	UM
Dauntless D-35	44.735675	-57.345461	3005.3	3005.33		X	UM
Dauntless D-35	44.735675	-57.345461	3023.6	3023.62		X	UM

Well	Latitude (N)	Longitude (W)	Depth (m below RT)	Sample	Other sample number	Cuttings (X) or core (O)	Lithostrati-graphy
Dauntless D-35	44.735675	-57.345461	3145.5	3145.54		X	UM
Dauntless D-35	44.735675	-57.345461	3157.7	3157.72		X	UM
Dauntless D-35	44.735675	-57.345461	3162.8	3162.76		O	UM
Dauntless D-35	44.735675	-57.345461	3164.4	3164.43		O	UM
Dauntless D-35	44.735675	-57.345461	3165	3165.04		O	UM
Dauntless D-35	44.735675	-57.345461	3165.7	3165.65		O	UM
Dauntless D-35	44.735675	-57.345461	3267.2	3267.16		X	MM
Dauntless D-35	44.735675	-57.345461	3279.7	3279.65		X	MM
Dauntless D-35	44.735675	-57.345461	3304	3304.03		X	MM
Dauntless D-35	44.735675	-57.345461	3368	3368.04		X	MM
Dauntless D-35	44.735675	-57.345461	3493	3493.01		X	MM
Emerillon C-56	45.251331	-54.387069	1828.8	1828.8		X	LCE
Emerillon C-56	45.251331	-54.387069	1950.7	1950.72		X	LCN
Fox I-22	45.359378	-59.553692	257.6	830-860H		X	LCM
Fox I-22	45.359378	-59.553692	275.8	890-920B		X	LCM
Fox I-22	45.359378	-59.553692	321.6	1040-1070		X	LCM
Fox I-22	45.359378	-59.553692	339.9	1100-1130		X	LCM
Fox I-22	45.359378	-59.553692	367.3	1190-1220		X	LCS
Fox I-22	45.359378	-59.553692	486.2	1580-1610		X	LCC
Fox I-22	45.359378	-59.553692	595.9	1940-1970C		X	UM
Fox I-22	45.359378	-59.553692	605.0	1970-2000C		X	UM
Fox I-22	45.359378	-59.553692	623.3	2030-2060		X	MM
Fox I-22	45.359378	-59.553692	632.5	2060-2090F		X	MM
Fox I-22	45.359378	-59.553692	641.6	2090-2120C		X	MM
Fox I-22	45.359378	-59.553692	650.7	2120-2150C		X	MM
Fox I-22	45.359378	-59.553692	687.3	2240-2270		X	MM
Glenelg E-58	43.621683	-60.146964	2993.6	2993.62	1	O	LCC
Glenelg E-58	43.621683	-60.146964	2994.3	2994.33	3	O	LCC
Glenelg E-58	43.621683	-60.146964	3006	3006.02	8	O	LCC
Glenelg E-58	43.621683	-60.146964	3443.9	3443.86	9	O	UM
Glenelg E-58	43.621683	-60.146964	3529.3	3529.32	16	O	UM
Glenelg E-58A	43.621683	-60.146964	3731.1	3731.1	1	O	UM
Glenelg E-58A	43.621683	-60.146964	3736.5	3736.53	3	O	UM
Glenelg E-58A	43.621683	-60.146964	3737.8	3737.82	4	O	UM
Glenelg E-58A	43.621683	-60.146964	3745.8	3745.77	6	O	UM
Glenelg H-59	43.637752	-60.129006	3882.9	3882.93	3	O	UM
Glenelg H-59	43.637752	-60.129006	3885.4	3885.38	14	O	UM
Glenelg H-59	43.637752	-60.129006	3889	3888.99	6	O	UM
Glenelg H-59	43.637752	-60.129006	3896.5	3896.53	9	O	UM
Glenelg N-49	43.649906	-60.116464	2981.4	2981.36		O	LCC
Glenelg N-49	43.649906	-60.116464	2983.2	2983.18		O	LCC
Glenelg N-49	43.649906	-60.116464	2987.3	2987.28		O	LCC
Glenelg N-49	43.649906	-60.116464	2988.5	2988.51		O	LCC
Glenelg N-49	43.649906	-60.116464	3001.8	3001.84		O	LCC
Glenelg N-49	43.649906	-60.116464	3576.8	3576.78		O	UM
Glenelg N-49	43.649906	-60.116464	3582	3581.99		O	UM
Glenelg N-49	43.649906	-60.116464	3596.4	3596.43		O	UM
Glenelg N-49	43.649906	-60.116464	3603.1	3603.05		O	UM

Well	Latitude (N)	Longitude (W)	Depth (m below RT)	Sample	Other sample number	Cuttings (X) or core (O)	Lithostrati-graphy
Glenelg N-49	43.649906	-60.116464	3608.6	3608.55		O	UM
Glenelg N-49	43.649906	-60.116464	3609.6	3609.63		O	UM
Glenelg N-49	43.649906	-60.116464	3613.6	3613.6		O	UM
Glenelg N-49	43.649906	-60.116464	3626.9	3626.94		O	UM
Glenelg N-49	43.649906	-60.116464	3641.5	3641.5		O	UM
Glenelg N-49	43.649906	-60.116464	3648.1	3648.12		O	UM
Glenelg N-49	43.649906	-60.116464	3652.3	3652.3		O	UM
Glenelg N-49	43.649906	-60.116464	3656.9	3656.94		O	UM
Glenelg N-49	43.649906	-60.116464	3660.9	3660.91		O	UM
Glenelg N-49	43.649906	-60.116464	3667.3	3667.33		O	UM
Glenelg N-49	43.649906	-60.116464	3675.2	3675.22		O	UM
Hermine E-94	45.391464	-54.497592	1484.4	1484.38		X	LCE
Hermine E-94	45.391464	-54.497592	1505.7	1505.71		X	LCE
Jason C-20	45.484881	-58.540408	1060.7	3480		X	LCC
Jason C-20	45.484881	-58.540408	1075.9	3530		X	LCC
Jason C-20	45.484881	-58.540408	1200.9	3940H		X	LCC
Jason C-20	45.484881	-58.540408	1286.3	4220		X	LCN
Jason C-20	45.484881	-58.540408	1365.5	4480H		X	LCNV
Jason C-20	45.484881	-58.540408	1432.6	4700F		X	MM
Jason C-20	45.484881	-58.540408	1496.6	4910H		X	MM
Jason C-20	45.484881	-58.540408	1731.3	5680F		X	MM
Jason C-20	45.484881	-58.540408	1920.2	6300H		X	MMC
Jason C-20	45.484881	-58.540408	1975.1	6480H		X	MMC
Louisbourg J-47	44.44535	-58.356414	4074.4	4074.39	2	O	MM
Louisbourg J-47	44.44535	-58.356414	4408.9	4408.9	15	O	MMC
Louisbourg J-47	44.44535	-58.356414	5451.2	5451.23	26	O	MMC
Musquodoboit E-23	43.704471	-60.818704	960	960		X	Bqr
Musquodoboit E-23	43.704471	-60.818704	1270	1270		X	DC
Musquodoboit E-23	43.704471	-60.818704	1375	1375		X	LCM
Musquodoboit E-23	43.704471	-60.818704	1800	1800		X	LCC
Musquodoboit E-23	43.704471	-60.818704	2190	2190		X	LCC
Musquodoboit E-23	43.704471	-60.818704	2500	2500, 2500A		X	UM
Musquodoboit E-23	43.704471	-60.818704	2600	2600		X	MM
Musquodoboit E-23	43.704471	-60.818704	2800	2800		X	MM
Naskapi N-30	43.496261	-62.566139	1468	1467.96		O	UM
Naskapi N-30	43.496261	-62.566139	1468.7	1468.65		O	UM
Naskapi N-30	43.496261	-62.566139	1469	1469		O	UM
Naskapi N-30	43.496261	-62.566139	1469.9	1469.89L		O	UM
Naskapi N-30	43.496261	-62.566139	1470.5	1470.5		O	UM
Naskapi N-30	43.496261	-62.566139	1471.8	1471.75		O	UM
Naskapi N-30	43.496261	-62.566139	1472.3	1472.25		O	UM
Naskapi N-30	43.496261	-62.566139	1472.4	1472.36		O	UM
Naskapi N-30	43.496261	-62.566139	1473.5	1473.51		O	UM
Naskapi N-30	43.496261	-62.566139	1473.6	1473.61		O	UM
Naskapi N-30	43.496261	-62.566139	1473.8	1473.81L&H		O	UM
North Triumph B-52	43.684081	-59.881744	3771.3	3771.3		O	UM

Well	Latitude (N)	Longitude (W)	Depth (m below RT)	Sample	Other sample number	Cuttings (X) or core (O)	Lithostrati-graphy
North Triumph B-52	43.684081	-59.881744	3776.6	3776.62		O	UM
North Triumph B-52	43.684081	-59.881744	3780.2	3780.21		O	UM
North Triumph B-52	43.684081	-59.881744	3783.6	3783.6		O	UM
North Triumph B-52	43.684081	-59.881744	3784.4	3784.4		O	UM
North Triumph B-52	43.684081	-59.881744	3786.1	3786.07		O	UM
North Triumph B-52	43.684081	-59.881744	3788.5	3788.5		O	UM
North Triumph B-52	43.684081	-59.881744	3792	3791.95		O	UM
North Triumph B-52	43.684081	-59.881744	3799.6	3799.62		O	UM
North Triumph B-52	43.684081	-59.881744	3803.5	3803.5		O	UM
North Triumph B-52	43.684081	-59.881744	3808.4	3808.44		O	UM
North Triumph B-52	43.684081	-59.881744	3814.1	3814.05		O	UM
North Triumph G-43	43.705364	-59.855631	3278.1	3278.12	4	O	LCC
North Triumph G-43	43.705364	-59.855631	3803.6	3803.56	22	O	UM
North Triumph G-43	43.705364	-59.855631	4050.7	4050.67	50	O	UM
Peskowesk A-99	44.470567	-58.977256	2208.1	2208.09		O	LCC
Peskowesk A-99	44.470567	-58.977256	2210.4	2210.37		O	LCC
Peskowesk A-99	44.470567	-58.977256	2211.5	2211.47		O	LCC
Peskowesk A-99	44.470567	-58.977256	2212.2	2212.2		O	LCC
Peskowesk A-99	44.470567	-58.977256	2212.9	2212.91		O	LCC
Peskowesk A-99	44.470567	-58.977256	2217.6	2217.57		O	LCC
Peskowesk A-99	44.470567	-58.977256	2218	2217.96		O	LCC
Peskowesk A-99	44.470567	-58.977256	2222.6	2222.59		O	LCC
Peskowesk A-99	44.470567	-58.977256	2227.3	2227.34		O	LCC
Peskowesk A-99	44.470567	-58.977256	2228.4	2228.42		O	LCC
Peskowesk A-99	44.470567	-58.977256	2230.6	2230.62		O	LCC
Peskowesk A-99	44.470567	-58.977256	2233.6	2233.62B		O	LCC
Peskowesk A-99	44.470567	-58.977256	2237.2	2237.16		O	LCC
Peskowesk A-99	44.470567	-58.977256	2238.7	2238.65		O	LCC
Peskowesk A-99	44.470567	-58.977256	2243.1	2243.12		O	LCC
Peskowesk A-99	44.470567	-58.977256	2250.2	2250.17		O	LCC
Peskowesk A-99	44.470567	-58.977256	2267	2266.99		O	LCC
Peskowesk A-99	44.470567	-58.977256	2470.7	2470.66		O	UM
Peskowesk A-99	44.470567	-58.977256	2933.6	2933.62		O	MM
Peskowesk A-99	44.470567	-58.977256	2936.1	2936.06		O	MM
Peskowesk A-99	44.470567	-58.977256	2950.5	2950.54		O	MM
Peskowesk A-99	44.470567	-58.977256	3793.4	3793.4		O	MMC
Peskowesk A-99	44.470567	-58.977256	3794.2	3794.17		O	MMC
Peskowesk A-99	44.470567	-58.977256	3796.3	3796.33		O	MMC
Sambro I-29	43.643142	-62.804036	966.2	3170A		X	LC
Sambro I-29	43.643142	-62.804036	1140.0	3740		X	UM
Sambro I-29	43.643142	-62.804036	1182.6	3880		X	UM
Sambro I-29	43.643142	-62.804036	1219.2	4000		X	UM
Sambro I-29	43.643142	-62.804036	1243.6	4080		X	MM
Sambro I-29	43.643142	-62.804036	1280.2	4200		X	MM

Well	Latitude (N)	Longitude (W)	Depth (m below RT)	Sample	Other sample number	Cuttings (X) or core (O)	Lithostrati-graphy
Thebaud 3	43.891214	-60.199222	3911.2	3911.16	4	O	LM
Thebaud 3	43.891214	-60.199222	3913.5	3913.54L	7	O	LM
Thebaud 3	43.891214	-60.199222	3914.6	3914.57L&H	8	O	LM
Thebaud 3	43.891214	-60.199222	3915	3915.04L&H	9	O	LM
Thebaud 3	43.891214	-60.199222	3916	3915.96L&H	11	O	LM
Thebaud I-93	43.879108	-60.230058	3361.9	3361.87	7	O	MM
Thebaud C-74	43.884886	-60.192469	3865.7	3865.56-3865.75	P3	O	LM
Thebaud C-74	43.884886	-60.192469	3911.7	3911.66-3911.82	P20	O	LM
Thebaud C-74	43.884886	-60.192469	3920.2	3920.04-3920.25	P27	O	LM
Venture 1	44.033225	-59.581773	4606.5	4606.32-4606.72	SP51	O	LM
Venture 1	44.033225	-59.581773	4615	4614.81-4615.17	SP76	O	LM
Venture 3	44.03325	-59.581776	4882.5	4882.37-4882.68	SP38	O	LM
Venture 3	44.03325	-59.581776	4885.8	4885.62-4885.108	SP49	O	LM
Venture 4	44.033261	-59.581729	5341.4	5341.32-5341.52	SP2	O	LM
Venture 4	44.033261	-59.581729	5371.9	5371.77-5371.97	SP22	O	LM
Venture 4	44.033261	-59.581729	5384.8	5384.68-5384.98	SP61	O	LM

Lithostratigraphy

Bqr	basal Banquereau Formation	
DC	Dawson Canyon Formation	
LCC	Logan Canyon Formation	Cree Member
LCE	Logan Canyon Formation	Eider Member
LCM	Logan Canyon Formation	Marmora Member
LCN	Logan Canyon Formation	Naskapi Member
LCV	Logan Canyon Formation	Volcanic interval, Cree Member
LCS	Logan Canyon Formation	Sable Member
LM	Missisauga Formation	Lower Member
MM	Missisauga Formation	Middle Member
MMC	MicMac Formation	
UM	Missisauga Formation	Upper Member

In sample number A, B are different splits of the same sample
H is a heavy mineral separation
L is a light mineral separation
F is fine fraction
C is coarse fraction

Most analyses were made on polished thin sections of the original rock or cuttings
Some analyses were made on polished thin sections of grain mounts of the heavy or light fraction

Appendix 2

Electron microprobe analyses of detrital minerals

These tables of data include only analyses that are within the acceptable limits listed in Table 1

0.00 indicates values below detection limit

blank cells indicate not analysed

the number of decimal places is for convenience only and does not imply analytical precision

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Fox I-22	905.00	890-920B	LCM	1	Actinolite	51.49	1.25	3.64	0.00	14.72	0.38	13.26	13.39	0.47	0.16	0.06			0.18		99.00
Fox I-22	905.00	890-920B	LCM	11	Actinolite	47.72	0.45	5.76	0.00	15.38	0.39	12.14	12.71	0.67	0.25	0.06			0.17		95.69
Fox I-22	905.00	890-920B	LCM	2	Hornblende	39.48	0.36	14.75	0.00	20.55	0.45	5.93	12.11	1.85	0.51	0.05			0.19		96.22
Fox I-22	905.00	890-920B	LCM	10	Hornblende	42.45	0.35	11.82	0.00	19.29	0.40	8.66	11.78	1.23	0.49	0.06			0.26		96.78
Fox I-22	905.00	890-920B	LCM	12	Hornblende	41.72	0.65	11.97	0.00	22.39	0.49	6.20	12.37	1.57	0.68	0.07			0.27		98.37
Musquodoboit E-23	1375.00	1375.00	TLC	1	Tremolite	57.21	0.00	0.15	0.00	1.12	0.01	23.01	13.81	0.04	0.02	0.00		0.36	0.00	0.00	95.73
Musquodoboit E-23	1375.00	1375.00	TLC	2	Tremolite	57.11	0.00	0.17	0.00	1.19	0.00	22.75	13.86	0.02	0.02	0.02		0.34	0.00	0.00	95.47
Musquodoboit E-23	1375.00	1375.00	TLC	5	Tremolite	57.03	0.00	0.33	0.00	0.61	0.00	23.23	13.95	0.05	0.04	0.01		0.30	0.00	0.00	95.55
Musquodoboit E-23	1375.00	1375.00	TLC	6	Tremolite	56.96	0.00	0.24	0.00	0.61	0.00	23.18	14.01	0.02	0.02	0.01		0.36	0.00	0.00	95.40
Musquodoboit E-23	1375.00	1375.00	TLC	7	Tremolite	56.68	0.00	0.28	0.00	0.68	0.00	23.16	13.89	0.05	0.02	0.00		0.35	0.00	0.00	95.11
Musquodoboit E-23	1375.00	1375.00	TLC	8	Tremolite	56.55	0.00	0.36	0.00	0.66	0.00	23.05	13.83	0.05	0.05	0.02		0.34	0.00	0.00	94.92
Musquodoboit E-23	2600.00	2600.00	MM	8	Tremolite	56.89	0.00	0.32	0.00	1.34	0.00	22.93	13.71	0.08	0.05	0.01		0.31	0.00	0.00	95.64
Musquodoboit E-23	2600.00	2600.00	MM	9	Tremolite	56.22	0.00	0.71	0.00	1.20	0.00	22.99	13.62	0.19	0.13	0.00		0.33	0.00	0.00	95.40
Musquodoboit E-23	2600.00	2600.00	MM	13	Tremolite	56.56	0.00	0.32	0.00	0.96	0.01	23.26	13.07	0.43	0.16	0.00		0.31	0.00	0.00	95.10
Musquodoboit E-23	2600.00	2600.00	MM	14	Tremolite	56.03	0.04	0.77	0.00	0.90	0.00	23.26	12.96	0.65	0.29	0.00		0.33	0.00	0.00	95.22
Musquodoboit E-23	2600.00	2600.00	MM	15	Tremolite	56.81	0.00	0.27	0.00	0.56	0.00	23.29	13.92	0.11	0.05	0.00		0.31	0.00	0.00	95.33
Musquodoboit E-23	2600.00	2600.00	MM	16	Tremolite	56.48	0.00	0.39	0.00	0.56	0.00	23.47	13.69	0.24	0.10	0.00		0.31	0.00	0.00	95.24
Musquodoboit E-23	2600.00	2600.00	MM	17	Tremolite	56.32	0.00	0.46	0.00	1.08	0.01	22.86	13.72	0.12	0.04	0.00		0.35	0.00	0.00	94.96
Musquodoboit E-23	2600.00	2600.00	MM	18	Tremolite	56.19	0.00	0.86	0.00	1.05	0.01	23.02	13.89	0.17	0.07	0.02		0.36	0.00	0.00	95.63
Musquodoboit E-23	2600.00	2600.00	MM	21	Tremolite	56.65	0.00	0.25	0.00	0.46	0.00	23.85	13.72	0.07	0.04	0.00		0.35	0.00	0.00	95.40
Musquodoboit E-23	2600.00	2600.00	MM	22	Tremolite	56.90	0.00	0.40	0.00	0.42	0.00	23.43	13.73	0.08	0.04	0.00		0.32	0.00	0.00	95.30
Musquodoboit E-23	2600.00	2600.00	MM	25	Tremolite	56.16	0.00	0.30	0.00	0.86	0.01	23.39	13.67	0.25	0.15	0.03		0.32	0.00	0.00	95.16
Musquodoboit E-23	2600.00	2600.00	MM	26	Tremolite	56.27	0.00	0.18	0.00	0.86	0.01	23.48	13.73	0.17	0.06	0.03		0.33	0.00	0.00	95.11
Musquodoboit E-23	2600.00	2600.00	MM	27	Tremolite	55.86	0.00	0.77	0.00	1.28	0.00	22.99	13.75	0.24	0.14	0.00		0.30	0.00	0.00	95.32
Musquodoboit E-23	2600.00	2600.00	MM	28	Tremolite	55.43	0.00	1.05	0.00	1.32	0.00	22.83	13.53	0.24	0.19	0.01		0.32	0.00	0.00	94.93
Musquodoboit E-23	2600.00	2600.00	MM	33	Tremolite	57.18	0.00	0.25	0.00	0.91	0.01	23.55	14.00	0.06	0.03	0.00		0.31	0.00	0.00	96.31
Musquodoboit E-23	2600.00	2600.00	MM	35	Tremolite	57.12	0.00	0.28	0.00	0.92	0.02	23.57	13.91	0.10	0.05	0.00		0.29	0.00	0.00	96.26
Musquodoboit E-23	2600.00	2600.00	MM	37	Tremolite	56.97	0.01	0.41	0.00	0.50	0.03	23.88	13.86	0.12	0.11	0.00		0.29	0.00	0.00	96.18
Musquodoboit E-23	2600.00	2600.00	MM	46	Tremolite	57.33	0.01	0.48	0.00	0.22	0.01	24.18	13.69	0.21	0.10	0.00		0.28	0.00	0.00	96.50
Musquodoboit E-23	2600.00	2600.00	MM	47	Tremolite	56.10	0.07	1.40	0.00	0.23	0.01	23.90	13.54	0.44	0.18	0.01		0.29	0.00	0.00	96.16

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2466.07	2466.07	LCC	42	Apatite	0.10	0.06		0.02	0.07	0.13		57.05	0.08	0.02	41.54					99.07
Alma K-85	2466.65	2466.65	LCC	43	Apatite				0.02		0.06	0.02	55.64	0.45		38.79					94.98
Alma K-85	2468.95	2468.95	LCC	3	Apatite								57.09			40.30					97.39
Alma K-85	2468.95	2468.95	LCC	4	Apatite						0.04		57.52			39.74					97.30
Alma K-85	2469.30	2469.30	LCC	5	Apatite	0.22			0.02	0.13	0.13	0.01	56.98	0.05	0.03	41.68					99.25
Alma K-85	2469.30	2469.30	LCC	6	Apatite		0.04			0.10	0.09	0.01	58.46	0.01	0.01	38.36					97.08
Argo F-38	3475.00	3470-3480H	LCC	4	Apatite	0.88	0.00	0.04	0.00	0.66	0.03	0.28	53.67	0.05	0.00	40.75			0.00		96.38
Argo F-38	3475.00	3470-3480H	LCC	5	Apatite	0.86	0.00	0.02	0.00	0.46	0.01	0.29	53.87	0.06	0.00	40.01			0.00		95.57
Argo F-38	4375.00	4360-4390H	MM	2	Apatite	0.00	0.03	0.11	0.00	0.86	0.08	0.04	55.06	0.00	0.00	40.69			0.00		96.87
Crow F-52	3170.00	3170F	MM	3	Apatite	0.00	0.00	0.07	0.00	0.95	0.33	0.04	55.73	0.08	0.00	41.96			0.20		99.37
Dauntless D-35	3493.01	3493.01	MM	245	Apatite	0.00	0.00	0.01	0.02	0.19	0.02	b.d	59.23	0.08	0.00	38.06	0.00		0.00		97.60
Dauntless D-35	3493.01	3493.01	MM	249	Apatite	0.81	0.02	0.61	0.03	0.27	0.00	0.04	57.96	0.10	0.04	36.82	0.00		0.01		96.71
Dauntless D-35	3493.01	3493.01	MM	251	Apatite	2.05	0.00	1.40	0.03	0.82	0.00	0.29	55.32	0.11	0.12	35.79	0.00		0.03		95.94
Dauntless D-35	3493.01	3493.01	MM	185	Apatite	3.17	0.05	2.23	0.03	0.37	0.03	0.20	52.62	0.21	0.38	35.11	0.00		0.03		94.41
Dauntless D-35	3493.01	3493.01	MM	188	Apatite	0.51	0.02	0.34	0.02	0.15	0.04	0.03	57.35	0.13	0.00	37.80	0.00		0.03		96.41
Fox I-22	2105.00	2090-2120C	MM	5	Apatite	0.00	0.00	0.06	0.00	0.80	0.22	0.01	55.84	0.05	0.02	42.89			0.00		99.88
Fox I-22	2135.00	2120-2150C	MM	8	Apatite	0.04	0.00	0.08	0.00	0.82	0.09	0.00	56.29	0.07	0.00	43.88			0.00		101.27
Glenelg N-49	2981.36	2981.36	LCC	166	Apatite	0.00	0.00	0.00	0.00	0.63	0.00	0.42	54.70	0.00	0.00	41.66	0.00	0.00	0.00	0.00	97.42
Glenelg N-49	3660.91	3660.91	UM	106	Apatite	0.00	0.00	0.00	0.00	0.36	0.00	0.00	55.80	0.00	0.00	43.12	0.00	0.00	0.00	0.00	99.28
Jason C-20	4700.00	4700F	MM	5	Apatite	0.63	0.10	0.00	0.00	1.03	0.07	0.22	54.61	0.00	0.04	39.53			0.05		96.28
Musquodoboit E-23	1800.00	1800.00	LCC	42	Apatite	0.16	0.00	0.00	0.03	0.19	0.07	0.04	54.78	0.05	0.02	39.08		0.35	0.01	0.05	94.83
Musquodoboit E-23	1800.00	1800.00	LCC	43	Apatite	0.17	0.00	0.01	0.03	0.19	0.10	0.07	54.06	0.07	0.02	39.02		0.32	0.00	0.05	94.10
Naskapi N-30	1472.36	1472.36	UM	1	Apatite	0.41	0.00	0.01	0.00	0.04	0.36	0.03	55.16	0.06	0.00	41.33	0.11	0.00			97.51
North Triumph B-52	3776.62	3776.62	UM	5	Apatite	0.45			0.04	0.44	0.05	0.16	55.48	0.06	0.01	41.26		0.05			98.00
North Triumph B-52	3786.07	3786.07	UM	57	Apatite	0.01				0.27	0.08	0.35	54.86	0.18		42.32		0.08			98.15
North Triumph B-52	3799.62	3799.62	UM	1	Apatite	0.20	0.03		0.03	0.16	0.04	0.01	56.86	0.02		42.04	0.22				99.61
North Triumph B-52	3799.62	3799.62	UM	2	Apatite	0.23			0.05	0.18	0.13	0.01	55.44	0.11		41.46	0.24				97.85
Peskowesk A-99	2933.62	2933.62	MM	43	Apatite	0.00	0.00	0.00	0.03	0.05	0.06	0.00	58.02	0.05	0.00	43.25			0.06		101.52
Thebaud C-74	3920.15	3920.04-3920.25	LM	5	Apatite	0.32	0.00	0.01	0.04	0.26	0.08	0.13	56.71	0.08	0.02	42.01		0.06	0.00	0.44	100.16
Thebaud C-74	3920.15	3920.04-3920.25	LM	6	Apatite	0.32	0.00	0.02	0.05	0.23	0.09	0.14	56.62	0.08	0.03	43.21		0.06	0.00	0.41	101.27
Thebaud C-74	3920.15	3920.04-3920.25	LM	7	Apatite	0.29	0.00	0.01	0.01	0.23	0.07	0.14	56.66	0.07	0.03	42.21		0.08	0.01	0.39	100.22
Thebaud 3	3911.16	4	LM	17	Apatite	0.92	0.04	0.96	0.07	1.18	0.07	0.18	54.26	0.54	0.03	37.06		0.07	0.00	0.18	95.56
Thebaud 3	3911.16	4	LM	18	Apatite	0.05	0.03	0.00	0.09	0.15	0.06	0.01	56.37	0.50	0.04	39.70		0.06	0.00	0.17	97.23
Thebaud 3	3911.16	4	LM	19	Apatite	0.01	0.01	0.01	0.05	0.14	0.07	0.01	56.13	0.56	0.04	39.44		0.06	0.00	0.22	96.76
Thebaud 3	3914.57	8 (HMS)	LM	5	Apatite	0.56	0.05	0.00	0.09	0.44	0.13	0.14	52.92	0.17	0.03	40.01		0.05	0.06	0.95	95.60
Thebaud 3	3914.57	8 (HMS)	LM	6	Apatite	0.55	0.02	0.00	0.10	0.48	0.13	0.13	52.13	0.16	0.04	40.35		0.05	0.05	0.93	95.10
Venture 1	4606.47	4606.32-4606.61	LM	5	Apatite	0.26	0.00	0.00	0.05	0.10	0.02	0.00	55.71	0.00	0.04	42.84		0.02	0.06	0.97	100.07
Venture 1	4606.47	4606.32-4606.62	LM	6	Apatite	0.17	0.03	0.00	0.08	0.09	0.05	0.00	55.40	0.02	0.05	42.44		0.05	0.04	1.07	99.49
Venture 1	4606.47	4606.32-4606.63	LM	7	Apatite	0.87	0.03	0.00	0.13	0.08	0.07	0.00	50.74	0.10	0.04	41.00		0.08	0.07	2.96	96.17

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Venture 1	4606.47	4606.32-4606.64	LM	8	Apatite	0.77	0.04	0.00	0.12	0.09	0.09	0.00	51.27	0.12	0.06	41.35		0.06	0.08	2.83	96.86
Venture 1	4606.47	4606.32-4606.65	LM	9	Apatite	0.94	0.04	0.00	0.13	0.13	0.04	0.00	50.68	0.13	0.04	40.82		0.02	0.08	2.78	95.83
Venture 3	4885.76	4885.62-4885.90	LM	51	Apatite	0.39	0.01	0.00	0.03	0.07	0.03	0.00	53.34	0.02	0.03	39.23		0.05	0.03	0.81	94.04
Venture 3	4885.76	4885.62-4885.91	LM	52	Apatite	0.52	0.00	0.00	0.00	0.09	0.05	0.00	54.27	0.02	0.03	38.97		0.04	0.00	0.76	94.76
Venture 3	4885.76	885.62-4885.102	LM	63	Apatite	1.02	0.00	0.00	0.03	0.26	0.04	0.02	53.02	0.09	0.04	38.88		0.02	0.04	0.85	94.30
Venture 3	4885.76	885.62-4885.103	LM	64	Apatite	1.02	0.00	0.00	0.03	0.17	0.03	0.02	53.05	0.05	0.05	39.15		0.05	0.06	0.81	94.49
Venture 4	5341.42	5341.32-5341.52	LM	187	Apatite	0.76	0.01	0.00	0.04	0.05	0.04	0.02	58.12	0.08	0.02	41.16		0.07	0.00	0.73	101.10
Venture 4	5341.42	5341.32-5341.52	LM	188	Apatite	0.81	0.00	0.00	0.08	0.03	0.03	0.01	56.09	0.09	0.03	40.35		0.04	0.00	0.70	98.27
Venture 4	5341.42	5341.32-5341.52	LM	189	Apatite	0.81	0.00	0.00	0.04	0.06	0.05	0.01	56.19	0.09	0.04	41.66		0.03	0.01	0.72	99.70
Venture 4	5341.42	5341.32-5341.52	LM	190	Apatite	0.22	0.01	0.01	0.05	0.05	0.03	0.00	55.03	0.38	0.07	41.09		0.05	0.00	0.29	97.28
Venture 4	5341.42	5341.32-5341.52	LM	191	Apatite	0.32	0.04	0.02	0.07	0.07	0.04	0.00	58.01	0.33	0.10	41.03		0.10	0.00	0.22	100.35
Venture 4	5371.87	5371.77-5371.97	LM	32	Apatite	0.25	0.00	0.00	0.05	0.06	0.03	0.00	54.64	0.03	0.03	40.41		0.04	0.00	0.83	96.39
Venture 4	5371.87	5371.77-5371.97	LM	33	Apatite	0.19	0.01	0.00	0.06	0.08	0.04	0.00	55.19	0.02	0.03	40.78		0.07	0.00	0.77	97.26
Venture 4	5371.87	5371.77-5371.97	LM	40	Apatite	1.00	0.02	0.00	0.03	0.06	0.03	0.00	54.64	0.10	0.04	39.22		0.08	0.00	0.50	95.72
Venture 4	5371.87	5371.77-5371.97	LM	41	Apatite	0.99	0.00	0.00	0.06	0.04	0.02	0.01	54.75	0.09	0.03	38.99		0.04	0.00	0.50	95.52
Venture 4	5371.87	5371.77-5371.97	LM	43	Apatite	1.07	0.00	0.00	0.06	0.09	0.02	0.02	55.36	0.06	0.03	38.91		0.06	0.00	0.48	96.16
Venture 4	5371.87	5371.77-5371.97	LM	44	Apatite	1.06	0.02	0.00	0.05	0.08	0.03	0.02	55.47	0.05	0.03	38.97		0.07	0.01	0.48	96.33
Venture 4	5384.83	5384.68-5384.98	LM	100	Apatite	0.82	0.01	0.00	0.19	0.12	0.04	0.02	55.94	0.05	0.04	40.40		0.06	0.03	0.52	98.24
Venture 4	5384.83	5384.68-5384.98	LM	101	Apatite	0.73	0.02	0.00	0.09	0.08	0.03	0.00	55.28	0.05	0.03	40.63		0.07	0.04	0.73	97.78

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2467.55	2467.55	LCC	200	Biotite	48.98	3.98	15.34	0.02	14.05	0.02	3.99	1.12	0.16	6.59						94.25
Alma K-85	2467.55	2467.55	LCC	201	Biotite	34.33	1.96	19.23	0.05	20.36	1.44	9.80	0.04	0.14	8.13						95.48
Argo F-38	1915.00	1900-1930A	LCM	5	Biotite	39.30	0.77	18.18	0.00	15.75	0.45	12.21	0.11	0.22	9.54	0.05			0.22		96.79
Argo F-38	1915.00	1900-1930B	LCM	11	Biotite	34.61	3.09	16.28	0.00	24.78	0.71	7.69	0.04	0.08	7.96	0.00			0.00		95.24
Crow F-52	1970.00	1970A	LCS	4	Biotite	33.22	1.39	18.51	0.00	22.76	0.08	7.28	0.00	0.19	7.52	0.00			0.01		90.97
Crow F-52	1970.00	1970A	LCS	10	Biotite	33.87	1.57	18.42	0.00	22.61	0.09	7.23	0.11	0.23	7.15	0.03			0.09		91.39
Dauntless D-35	3162.76	3162.76	UM	65	Biotite	33.58	3.51	19.37	0.00	21.73	0.40	5.45	0.01	0.26	10.21	0.00	0.00		0.00		94.52
Dauntless D-35	3162.76	3162.76	UM	66	Biotite	35.21	2.61	19.27	0.00	20.61	0.20	7.43	0.00	0.19	9.91	0.00	0.00		0.00		95.43
Dauntless D-35	3162.76	3162.76	UM	67	Biotite	35.18	2.59	18.66	0.00	20.90	0.22	7.57	0.00	0.24	9.74	0.00	0.00		0.00		95.10
Dauntless D-35	3162.76	3162.76	UM	68	Biotite	35.48	2.06	19.44	0.00	20.66	0.15	8.86	0.00	0.36	9.18	0.00	0.00		0.00		96.19
Dauntless D-35	3162.76	3162.76	UM	69	Biotite	34.13	2.07	19.07	0.00	19.55	0.14	8.51	0.00	0.42	8.74	0.00	0.00		0.00		92.63
Dauntless D-35	3164.43	3164.43	UM	70	Biotite	38.47	1.48	13.79	0.00	16.75	1.08	12.74	0.02	0.09	9.41	0.00	0.00		0.00		93.83
Dauntless D-35	3164.43	3164.43	UM	71	Biotite	37.81	4.30	12.22	0.00	11.06	0.39	17.41	0.02	0.79	8.59	0.00	0.00		0.00		92.59
Dauntless D-35	3165.65	3165.65	UM	73	Biotite	33.73	1.26	19.13	0.00	18.31	0.15	10.04	0.01	0.10	8.76	0.00	0.00		0.00		91.49
Emerillon C-56	1950.72	1950.72	LCN	91	Biotite	34.90	5.14	13.77	0.00	22.14	0.04	9.62	0.00	0.25	7.47						93.34
Emerillon C-56	1950.72	1950.72	LCN	92	Biotite	35.15	5.29	13.80	0.00	21.77	0.03	9.85	0.01	0.22	7.82						93.93
Glenelg N-49	3596.43	3596.43	UM	7	Biotite	34.22	3.41	19.29	0.00	21.56	0.51	6.28	0.00	0.00	9.32	0.00	0.00	0.00	0.00	0.00	94.60
Glenelg N-49	3608.55	3608.55	UM	89	Biotite	32.92	2.54	18.71	0.00	24.07	0.73	3.50	0.00	0.00	9.45	0.00	0.00	0.00	0.00	0.00	91.93
Glenelg N-49	3608.55	3608.55	UM	91	Biotite	33.47	2.39	18.81	0.00	23.13	0.40	4.30	0.00	0.00	9.40	0.00	0.00	0.00	0.00	0.00	91.89
Glenelg N-49	3660.91	3660.91	UM	98	Biotite	36.59	4.78	14.16	0.00	16.92	0.00	12.48	0.00	0.00	9.62	0.00	0.00	0.00	0.00	0.00	94.54
Jason C-20	5680.00	5680F	MM	3	Phlogopite	41.13	0.57	11.58	0.00	12.67	1.01	20.76	0.00	0.28	9.48	0.00			0.00		97.49
Musquodoboit E-23	2600.00	2600.00	MM	48	Phlogopite	41.47	0.21	12.52	0.00	1.71	0.01	25.43	0.02	0.16	9.33	0.00		0.00	0.35	0.00	91.21
Musquodoboit E-23	2600.00	2600.00	MM	49	Phlogopite	41.59	0.23	12.83	0.00	1.81	0.00	25.38	0.00	0.17	9.26	0.00		0.00	0.42	0.00	91.70
Naskapi N-30	1469.00	1469.00	UM	545	Biotite	34.09	2.68	18.97	0.02	21.75	0.36	5.76	0.02	0.10	10.36						94.11
Naskapi N-30	1473.81	1473.81L	UM	6	Biotite	32.12	2.35	20.02	0.00	20.13	0.89	5.80	0.00	0.03	9.25	0.04		0.04	0.13	0.26	91.07
Peskowesk A-99	2230.62	2230.62	LCC	165	Biotite	34.44	7.02	12.53	0.01	16.45	0.36	11.54	0.04	0.77	9.09						92.25
Peskowesk A-99	2933.62	2933.62	MM	166	Biotite	35.40	3.10	17.87	0.02	21.57	0.99	5.37	0.02	0.04	11.10						95.48
Peskowesk A-99	2933.62	2933.62	MM	167	Biotite	35.26	2.97	18.03	0.01	21.44	1.06	5.20	0.02	0.05	11.21						95.25
Sambro I-29	1178.74	3880	UM	25	Biotite	36.00	3.85	17.74	0.00	20.32	0.29	4.85	0.09	0.16	8.68						91.98
Sambro I-29	1178.74	3880	UM	79	Biotite	34.95	2.50	17.18	0.00	21.48	0.32	7.99	0.05	0.03	9.94						94.44
Sambro I-29	1178.74	3880	UM	80	Biotite	34.60	2.62	17.46	0.00	21.95	0.33	8.19	0.04	0.04	10.22						95.45
Sambro I-29	1239.50	4080	MM	24	Biotite	37.07	1.75	18.86	0.00	17.66	0.10	8.16	0.36	0.09	7.96						92.01

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2465.90	2465.90	LCC	207	Chlorite	23.78	0.10	22.35	0.03	26.34	0.33	12.00	0.50	0.04	0.00						85.47
Alma K-85	2466.07	2466.07	LCC	202	Chlorite	24.56	0.13	23.49	0.03	26.03	0.26	13.26	0.00	0.01	0.04						87.81
Alma K-85	2466.07	2466.07	LCC	204	Chlorite	37.43	0.11	14.82	0.00	15.78	0.17	14.28	1.71	0.21	0.18						84.69
Alma K-85	2467.55	2467.55	LCC	210	Chlorite	24.90	0.05	20.88	0.02	25.06	0.32	14.19	0.03	0.01	0.00						85.46
Argo F-38	3405.00	3400-3410B	LCC	4	Chlorite	30.14	0.40	13.73	0.00	34.72	0.17	8.43	0.25	0.18	0.11	0.09			0.32		88.54
Argo F-38	3475.00	3470-3480H	LCC	6	Chlorite	28.07	0.44	14.15	0.00	36.03	0.00	7.34	0.13	0.23	0.00	0.01			0.00		86.41
Argo F-38	4690.00	4680-4700A	MM	5	Chlorite	34.53	0.11	15.88	0.00	23.39	0.12	10.83	0.18	1.41	0.00	0.00			0.01		86.46
Argo F-38	4690.00	4680-4700B	MM	4	Chlorite	33.27	0.21	13.23	0.00	26.78	0.17	10.93	0.39	1.26	0.05	0.00			0.12		86.41
Argo F-38	4690.00	4680-4700B	MM	14	Chlorite	35.32	0.79	13.30	0.00	25.80	0.14	11.57	1.02	0.75	0.17	0.00			0.11		88.98
Argo F-38	4690.00	4680-4700B	MM	15	Chlorite	31.51	0.13	12.80	0.00	25.09	0.14	11.11	0.40	3.60	0.10	0.02			0.09		85.01
Argo F-38	4690.00	4680-4700B	MM	16	Chlorite	34.19	0.08	14.59	0.00	25.60	0.16	12.83	0.27	0.24	0.17	0.00			0.08		88.22
Argo F-38	4690.00	4680-4700B	MM	17	Chlorite	32.39	0.06	14.43	0.00	25.30	0.16	11.64	0.27	0.89	0.15	0.00			0.05		85.32
Argo F-38	1915.00	1900-1930B	LCM	3	Chlorite	28.99	0.05	11.14	0.00	44.94	0.15	1.74	0.60	0.61	0.00	0.07			0.00		88.29
Argo F-38	1915.00	1900-1930B	LCM	5	Chlorite	20.35	0.13	12.39	0.00	49.75	0.21	0.80	0.40	0.06	0.00	0.33			0.14		84.56
Argo F-38	1915.00	1900-1930B	LCM	6	Chlorite	21.19	0.03	14.10	0.00	48.29	0.08	0.43	0.32	0.01	0.00	0.51			0.11		85.07
Argo F-38	1915.00	1900-1930B	LCM	7	Chlorite	26.31	0.00	12.83	0.00	46.41	0.03	0.76	0.28	0.03	0.00	0.13			0.06		86.84
Argo F-38	1915.00	1900-1930B	LCM	25	Chlorite	26.32	0.00	13.91	0.00	47.00	0.03	0.62	0.26	0.03	0.00	0.19			0.04		88.39
Argo F-38	1915.00	1900-1930B	LCM	32	Chlorite	25.48	0.00	18.04	0.00	42.79	0.00	0.81	0.41	0.15	0.00	0.76			0.00		88.42
Argo F-38	1915.00	1900-1930B	LCM	42	Chlorite	21.32	0.45	9.24	0.00	50.15	0.28	1.25	0.81	0.38	0.00	0.20			0.05		84.13
Argo F-38	1915.00	1900-1930B	LCM	43	Chlorite	19.63	0.80	11.53	0.00	50.09	0.33	1.26	0.50	0.28	0.59	0.45			0.06		85.54
Argo F-38	1915.00	1900-1930B	LCM	46	Chlorite	28.82	0.02	11.77	0.00	43.59	0.18	1.74	0.50	0.51	0.01	0.02			0.00		87.16
Crow F-52	1430.00	1430B	LCM	4	Chlorite	27.53	0.34	20.28	0.00	31.89	0.09	7.41	0.15	0.04	0.13	0.00			0.10		87.95
Crow F-52	1430.00	1430B	LCM	9	Chlorite	26.22	0.10	20.37	0.00	34.67	0.08	7.40	0.09	0.36	0.15	0.01			0.12		89.57
Crow F-52	1430.00	1430B	LCM	10	Chlorite	26.35	0.09	22.38	0.00	34.80	0.06	5.83	0.09	0.18	0.11	0.00			0.12		90.01
Crow F-52	1430.00	1430B	LCM	4	Chlorite	28.07	0.06	18.26	0.00	23.11	0.29	16.83	0.17	0.03	0.13	0.00			0.04		87.00
Crow F-52	1430.00	1430B	LCM	7	Chlorite	30.23	0.52	14.78	0.00	36.31	0.00	3.88	0.45	0.13	1.29	0.05			0.00		87.63
Crow F-52	1970.00	1970A	LCS	6	Chlorite	24.83	0.15	21.18	0.00	27.02	0.06	12.25	0.29	0.07	0.12	0.00			0.12		86.10
Crow F-52	1970.00	1970A	LCS	9	Chlorite	23.95	0.07	22.49	0.00	28.03	0.21	12.17	0.00	0.01	0.00	0.03			0.02		86.99
Crow F-52	1970.00	1970A	LCS	11	Chlorite	23.14	0.08	23.69	0.00	28.00	0.22	11.47	0.03	0.01	0.00	0.02			0.04		86.70
Crow F-52	2270.00	2270B	LCC	7	Chlorite	24.70	0.33	13.67	0.00	41.35	0.10	1.61	1.71	0.18	0.13	1.00			0.11		84.90
Crow F-52	2480.00	2480A	LCC	1	Chlorite	30.36	0.07	10.51	0.00	42.88	0.19	2.55	0.26	0.19	0.00	0.06			0.00		87.08
Crow F-52	2480.00	2480A	LCC	2	Chlorite	31.23	0.01	10.81	0.00	41.79	0.15	2.68	0.24	0.19	0.18	0.06			0.02		87.35
Crow F-52	2480.00	2480A	LCC	11	Chlorite	36.18	0.13	11.29	0.00	37.47	0.10	2.26	0.13	0.14	2.73	0.06			0.00		90.47
Crow F-52	2480.00	2480A	LCC	13	Chlorite	29.33	0.11	12.13	0.00	39.34	0.18	2.28	0.14	0.46	0.22	0.04			0.00		84.24
Crow F-52	2480.00	2480A	LCC	14	Chlorite	27.47	0.05	9.49	0.00	44.48	0.30	2.38	0.16	0.34	0.00	0.05			0.00		84.72
Crow F-52	1430.00	1430B	LCM	20	Chlorite	22.79	0.14	4.54	0.00	48.59	0.14	2.94	2.18	0.64	1.03	2.18			0.20		85.37
Crow F-52	1430.00	1430B	LCM	25	Chlorite	22.88	0.06	2.94	0.00	54.54	0.07	2.27	1.86	1.35	0.00	1.88			0.07		87.90
Crow F-52	1430.00	1430B	LCM	26	Chlorite	34.89	0.02	11.90	0.00	29.50	0.04	5.87	1.40	0.64	2.31	1.04			0.00		87.61

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Dauntless D-35	3145.54	3145.54	UM	196	Chlorite	41.29	0.08	23.72	0.04	13.35	0.05	10.31	0.28	0.23	0.51	0.02	0.00		0.00		89.89
Dauntless D-35	3164.43	3164.43	UM	81	Chlorite	27.73	0.07	19.07	0.00	22.80	0.23	12.85	0.27	0.18	0.00	0.00	0.00		0.00		83.20
Dauntless D-35	3164.43	3164.43	UM	82	Chlorite	26.86	0.77	17.58	0.00	27.83	0.16	11.42	0.16	0.19	0.00	0.00	0.00		0.00		84.97
Dauntless D-35	3164.43	3164.43	UM	83	Chlorite	28.33	0.49	20.20	0.00	25.22	0.05	9.98	0.12	0.08	0.84	0.00	0.00		0.00		85.31
Dauntless D-35	3165.04	3165.04	UM	85	Chlorite	26.37	0.00	19.37	0.00	26.95	0.54	13.24	0.01	0.02	0.00	0.00	0.00		0.00		86.50
Dauntless D-35	3165.65	3165.65	UM	86	Chlorite	23.99	0.05	22.39	0.00	26.99	0.44	12.07	0.02	0.04	0.00	0.00	0.00		0.00		85.99
Dauntless D-35	3165.65	3165.65	UM	87	Chlorite	25.87	0.03	22.66	0.00	26.70	0.40	11.57	0.06	0.11	0.06	0.00	0.00		0.00		87.46
Dauntless D-35	3368.04	3368.04	MM	272	Chlorite	26.08	0.17	20.83	0.02	29.54	0.06	7.04	0.55	0.06	0.00	0.37	0.10		0.10		84.92
Dauntless D-35	3493.01	3493.01	MM	244	Chlorite	25.31	0.06	20.33	0.05	33.59	0.03	6.65	0.13	0.02	0.00	0.03	0.04		0.02		86.26
Dauntless D-35	3493.01	3493.01	MM	248	Chlorite	26.73	0.13	20.67	0.08	32.35	0.01	6.40	0.13	0.59	0.31	0.00	0.00		0.05		87.43
Dauntless D-35	3493.01	3493.01	MM	250	Chlorite	25.59	0.06	19.95	0.08	33.39	0.03	6.43	0.21	0.03	0.15	0.03	0.00		0.00		85.97
Dauntless D-35	3493.01	3493.01	MM	186	Chlorite	24.46	0.84	19.86	0.06	35.45	0.06	6.62	0.14	0.20	0.00	0.03	0.02		0.08		87.81
Dauntless D-35	3493.01	3493.01	MM	189	Chlorite	24.81	0.06	20.06	0.04	34.40	0.04	6.51	0.12	0.02	0.00	0.03	0.00		0.03		86.13
Emerillon C-56	1950.72	1950.72	LCN	95	Chlorite	22.96	0.00	25.23	0.00	33.14	0.50	6.78	0.09	0.00	0.00						88.70
Emerillon C-56	1950.72	1950.72	LCN	96	Chlorite	23.39	0.00	24.93	0.00	32.85	0.58	6.85	0.06	0.00	0.00						88.66
Fox I-22	845.00	830-860H	LCM	5	Chlorite	27.14	0.14	19.32	0.00	31.38	0.14	6.09	0.85	0.13	0.18	0.43			0.06		85.85
Fox I-22	1955.00	1940-1970C	UM	6	Chlorite	28.28	0.06	22.07	0.00	25.33	0.19	10.54	0.08	0.06	0.17	0.00			0.00		86.78
Glenelg N-49	2981.36	2981.36	LCC	140	Chlorite	39.95	0.00	17.41	0.00	8.16	0.00	20.86	0.30	0.00	0.46	0.00	0.00	0.00	0.00	0.00	87.15
Glenelg N-49	2988.51	2988.51	LCC	108	Chlorite	32.52	0.00	18.36	0.00	26.41	0.28	9.02	0.17	1.87	0.00	0.00	0.00	0.00	0.00	0.00	88.62
Jason C-20	4220.00	4220	LCN	2	Chlorite	29.40	0.26	14.74	0.00	30.99	0.40	9.82	0.67	0.15	0.05	0.02			0.04		86.54
Jason C-20	4220.00	4220	LCN	4	Chlorite	35.91	0.18	16.50	0.00	19.53	0.31	12.84	1.78	0.77	0.14	0.03			0.05		88.05
Jason C-20	4220.00	4220	LCN	7	Chlorite	31.56	0.12	14.63	0.00	25.87	0.44	13.19	0.43	0.07	0.05	0.02			0.01		86.40
Jason C-20	4220.00	4220	LCN	4	Chlorite	31.55	0.42	14.29	0.00	26.67	0.23	13.55	0.59	0.25	0.09	0.01			0.11		87.76
Jason C-20	4220.00	4220	LCN	3	Chlorite	34.76	0.22	15.47	0.00	21.85	0.11	14.35	0.51	0.37	0.34	0.04			0.07		88.09
Jason C-20	4220.00	4220	LCN	6	Chlorite	32.24	0.36	14.12	0.00	24.83	0.16	14.90	0.54	0.50	0.13	0.02			0.09		87.90
Jason C-20	4220.00	4220	LCN	3	Chlorite	32.01	0.24	13.89	0.00	23.92	0.28	15.85	0.15	0.15	0.06	0.04			0.07		86.67
Jason C-20	4480.00	4480H	LCNV	4	Chlorite	36.26	0.14	13.89	0.00	27.45	0.06	7.84	0.91	0.31	0.00	0.44			0.00		87.29
Jason C-20	4480.00	4480H	LCNV	4	Chlorite	37.04	0.12	14.59	0.00	23.01	0.05	8.76	0.64	0.26	0.00	0.01			0.13		84.61
Jason C-20	4480.00	4480H	LCNV	1	Chlorite	30.70	0.01	13.01	0.00	35.22	0.09	9.73	0.51	0.14	0.00	0.01			0.04		89.44
Jason C-20	4480.00	4480H	LCNV	7	Chlorite	30.92	0.29	14.46	0.00	32.93	0.00	9.76	0.27	0.14	0.00	0.00			0.02		88.79
Jason C-20	4480.00	4480H	LCNV	8	Chlorite	31.74	0.05	15.65	0.00	28.97	0.05	10.06	0.64	0.34	0.00	0.00			0.00		87.49
Jason C-20	4480.00	4480H	LCNV	7	Chlorite	31.50	0.00	15.25	0.00	31.65	0.11	10.25	0.47	0.16	0.00	0.01			0.02		89.41
Jason C-20	4480.00	4480H	LCNV	5	Chlorite	33.44	0.04	14.05	0.00	30.76	0.08	10.69	0.46	0.46	0.00	0.00			0.00		89.98
Jason C-20	4480.00	4480H	LCNV	1	Chlorite	30.81	0.01	13.64	0.00	33.62	0.06	10.71	0.51	0.19	0.00	0.00			0.00		89.55
Jason C-20	4480.00	4480	LCNV	1	Chlorite	33.34	0.03	13.91	0.00	26.32	0.20	12.86	0.61	0.06	0.00	0.02			0.00		87.36
Jason C-20	4700.00	4700C	MM	12	Chlorite	36.79	0.02	11.15	0.00	28.49	0.19	12.09	0.86	0.38	0.00	0.03			0.00		90.00
Jason C-20	4700.00	4700F	MM	6	Chlorite	30.66	0.19	14.66	0.00	30.39	0.05	7.99	0.98	0.39	0.09	0.05			0.10		85.56
Jason C-20	4700.00	4700F	MM	2	Chlorite	24.49	0.66	10.54	0.00	35.84	0.31	9.77	0.64	0.04	0.08	0.11			0.11		82.60

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Jason C-20	4700.00	4700F	MM	2	Chlorite	31.87	0.05	11.72	0.00	31.58	0.16	11.83	0.57	0.11	0.00	0.03			0.06		87.98
Jason C-20	4700.00	4700F	MM	3	Chlorite	32.80	0.07	12.78	0.00	29.24	0.14	13.88	0.04	0.15	0.00	0.02			0.00		89.11
Jason C-20	4700.00	4700F	MM	4	Chlorite	31.92	0.10	10.78	0.00	25.76	0.38	15.17	0.23	0.30	0.04	0.00			0.00		84.68
Jason C-20	4700.00	4700F	MM	2	Chlorite	34.25	0.13	10.84	0.00	25.81	0.39	15.31	0.49	0.32	0.05	0.00			0.02		87.61
Jason C-20	4700.00	4700F	MM	3	Chlorite	37.04	3.58	18.99	0.00	24.76	0.23	2.87	0.51	0.54	0.31	0.02			0.24		89.08
Jason C-20	5680.00	5680F	MM	4	Chlorite	24.83	0.00	19.31	0.00	24.34	0.40	17.58	0.07	0.02	0.00	0.00			0.00		86.54
Jason C-20	6300.00	6300H	MMC	4	Chlorite	26.55	0.03	20.98	0.00	35.29	0.56	4.32	0.20	0.07	0.00	0.00			0.03		88.04
Jason C-20	6300.00	6300H	MMC	13	Chlorite	26.04	0.00	21.06	0.00	35.70	0.11	4.45	0.19	0.05	0.00	0.00			0.01		87.61
Jason C-20	6300.00	6300H	MMC	11	Chlorite	26.41	0.11	20.94	0.00	37.53	0.31	4.49	0.22	0.06	0.00	0.00			0.00		90.07
Jason C-20	6300.00	6300H	MMC	1	Chlorite	27.39	0.03	21.76	0.00	36.51	0.30	4.67	0.20	0.07	0.00	0.00			0.04		90.97
Jason C-20	6300.00	6300H	MMC	12	Chlorite	26.42	0.04	21.47	0.00	36.94	0.20	4.70	0.16	0.07	0.00	0.05			0.00		90.05
Jason C-20	6300.00	6300H	MMC	10	Chlorite	26.42	0.02	21.41	0.00	36.08	0.10	5.07	0.08	0.04	0.00	0.00			0.05		89.27
Jason C-20	6480.00	6480H	MMC	11	Chlorite	32.32	0.08	12.07	0.00	30.96	0.45	11.84	0.65	0.08	0.00	0.00			0.00		88.45
Jason C-20	6480.00	6480H	MMC	10	Chlorite	35.01	0.06	11.14	0.00	29.38	0.33	13.55	0.46	0.10	0.00	0.03			0.00		90.08
Jason C-20	4910.00	4910H	MM	6	Chlorite	29.18	0.09	12.38	0.00	34.25	0.08	10.59	0.15	0.11	0.00	0.00			0.12		86.94
North Triumph B-52	3771.30	3771.30	UM	721	Chlorite	24.32	0.12	22.40	0.04	26.79	0.29	11.44	0.01	0.00	0.02						85.43
North Triumph B-52	3771.30	3771.30	UM	722	Chlorite	25.54	0.12	20.90	0.06	27.25	0.25	10.60	0.09	0.04	0.05						84.90
North Triumph B-52	3771.30	3771.30	UM	723	Chlorite	24.07	0.17	23.47	0.04	25.44	0.18	12.73	0.01	0.02	0.02						86.15
North Triumph B-52	3776.62	3776.62	UM	714	Chlorite	25.50	0.05	21.53	0.06	25.57	0.27	14.12	0.02	0.00	0.00						87.12
North Triumph B-52	3776.62	3776.62	UM	715	Chlorite	24.37	0.11	22.94	0.05	26.56	0.43	12.58	0.01	0.00	0.00						87.05
North Triumph B-52	3776.62	3776.62	UM	716	Chlorite	26.97	0.08	21.26	0.04	28.33	0.18	8.49	0.18	0.13	0.09						85.75
North Triumph B-52	3786.07	3786.07	UM	717	Chlorite	24.24	0.09	22.46	0.01	30.18	0.54	9.43	0.10	0.05	0.02						87.12
North Triumph B-52	3786.07	3786.07	UM	718	Chlorite	24.34	0.10	22.35	0.00	30.76	0.64	9.50	0.11	0.03	0.02						87.85
North Triumph B-52	3786.07	3786.07	UM	719	Chlorite	26.61	1.48	18.92	0.03	29.66	0.17	8.34	0.31	0.03	0.32						85.87
North Triumph B-52	3803.50	3803.50	UM	720	Chlorite	25.46	1.01	19.04	0.04	29.67	0.14	8.73	0.09	0.03	0.19						84.40
Sambro I-29	1178.74	3880	UM	82	Chlorite	24.53	0.25	21.05	0.00	27.49	0.59	13.21	0.03	0.00	0.03						87.18
Sambro I-29	1178.74	3880	UM	83	Chlorite	24.61	0.18	21.32	0.00	27.49	0.60	13.02	0.03	0.00	0.09						87.34
Sambro I-29	1215.20	4000	UM	50	Chlorite	30.29	0.07	11.77	0.05	35.70	0.22	6.59	0.54	0.38	0.00						85.61
Sambro I-29	1215.20	4000	UM	51	Chlorite	25.59	0.00	21.58	0.00	27.99	0.05	13.38	0.03	0.05	0.00						88.67
Sambro I-29	1215.20	4000	UM	52	Chlorite	25.74	0.00	22.48	0.00	29.62	0.07	8.65	0.08	0.07	0.00						86.71
Venture 1	4606.47	606.32-4606.6	LM	12	Chlorite	22.90	0.08	23.26	0.05	27.19	0.17	11.41	0.00	0.00	0.01	0.07		0.00	0.02	0.06	85.22
Venture 1	4606.47	606.32-4606.6	LM	13	Chlorite	23.19	0.08	23.26	0.06	27.73	0.18	11.56	0.01	0.00	0.03	0.05		0.01	0.03	0.04	86.24
Venture 1	4614.99	4.81-4615.17	LM	196	Chlorite	28.63	0.07	20.59	0.01	26.19	0.12	11.75	0.13	0.08	0.22	0.00		0.02	0.00	0.13	87.93
Venture 1	4614.99	4.81-4615.17	LM	203	Chlorite	29.85	0.50	18.31	0.01	20.01	0.41	16.73	0.37	0.18	0.07	0.00		0.00	0.00	0.16	86.58
Venture 1	4614.99	4.81-4615.17	LM	204	Chlorite	29.33	0.61	17.52	0.00	16.27	0.51	18.05	0.33	0.12	0.06	0.00		0.00	0.00	0.16	82.94
Venture 1	4614.99	4.81-4615.17	LM	205	Chlorite	28.11	0.38	17.72	0.00	21.39	0.40	14.53	0.33	0.07	0.07	0.00		0.00	0.00	0.08	83.06
Venture 1	4614.99	4.81-4615.17	LM	206	Chlorite	25.51	0.24	18.40	0.00	26.47	0.24	11.25	0.54	0.12	0.05	0.00		0.03	0.00	0.17	83.01
Venture 1	4614.99	4.81-4615.17	LM	210	Chlorite	32.10	0.00	17.74	0.00	10.10	0.85	23.50	0.43	0.27	0.05	0.00		0.00	0.00	0.15	85.18

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Venture 1	4614.99	4.81-4615.17	LM	211	Chlorite	30.86	0.03	17.55	0.00	14.07	0.64	19.99	0.44	0.13	0.17	0.00		0.00	0.00	0.15	84.02
Venture 1	4614.99	4.81-4615.17	LM	212	Chlorite	25.92	0.45	19.12	0.00	28.69	0.15	9.72	0.37	0.07	0.03	0.00		0.06	0.00	0.17	84.76
Venture 1	4614.99	4.81-4615.17	LM	213	Chlorite	25.65	0.40	18.82	0.01	29.04	0.17	9.25	0.42	0.04	0.04	0.00		0.03	0.01	0.16	84.05
Venture 1	4614.99	4.81-4615.17	LM	214	Chlorite	25.38	0.36	19.42	0.04	28.45	0.14	8.61	0.36	0.05	0.05	0.00		0.04	0.00	0.14	83.02
Venture 1	4614.99	4.81-4615.17	LM	215	Chlorite	25.62	0.45	19.10	0.03	27.73	0.14	9.45	0.32	0.06	0.05	0.00		0.06	0.00	0.14	83.14
Venture 3	4885.76	5.62-4885.99	LM	60	Chlorite	24.89	0.36	14.01	0.00	29.08	0.40	11.21	0.92	0.09	0.07	0.12		0.02	0.01	0.08	81.26
Venture 4	5371.87	5371.77-537	LM	27	Chlorite	25.60	0.74	20.24	0.06	31.91	0.11	6.33	0.33	0.04	0.14	0.01		0.07	0.06	0.14	85.78

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Musquodoboit E-23	960.00	960.00	Bqr	1	Chloritoid	24.03	0.00	40.88	0.06	19.85	3.91	3.31	0.00	0.00	0.01	0.00		0.11	0.02	0.00	92.18
Musquodoboit E-23	960.00	960.00	Bqr	2	Chloritoid	24.08	0.00	40.79	0.02	19.97	3.92	3.17	0.00	0.00	0.01	0.00		0.09	0.00	0.00	92.07

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Argo F-38	3475.00	3470-3480H	LCC	4	Clinopyroxene	45.62	3.06	4.77	0.00	10.99	0.16	12.42	19.87	0.49	0.00	0.00			0.00		97.39
Argo F-38	4690.00	4680-4700A	MM	4	Clinopyroxene	48.80	2.26	2.78	0.00	12.64	0.33	9.93	20.40	0.52	0.00	0.00			0.02		97.67
Argo F-38	4690.00	4680-4700A	MM	7	Clinopyroxene	48.84	2.36	3.10	0.00	11.31	0.33	12.46	20.66	0.47	0.00	0.05			0.10		99.67
Argo F-38	4690.00	4680-4700A	MM	6	Clinopyroxene	48.38	2.50	3.76	0.00	10.30	0.26	11.51	20.65	0.47	0.00	0.03			0.05		97.91
Argo F-38	4690.00	4680-4700B	MM	21	Clinopyroxene	48.07	2.97	3.86	0.00	12.11	0.34	11.98	19.88	0.47	0.00	0.05			0.12		99.85
Argo F-38	4690.00	4680-4700B	MM	1	Clinopyroxene	47.10	3.95	4.71	0.00	11.16	0.29	11.03	21.71	0.51	0.05	0.00			0.21		100.72
Argo F-38	4690.00	4680-4700B	MM	11	Clinopyroxene	50.16	1.87	2.45	0.00	11.86	0.35	11.61	21.67	0.47	0.02	0.00			0.02		100.47
Argo F-38	4690.00	4680-4700B	MM	13	Clinopyroxene	49.15	2.17	2.98	0.00	10.88	0.29	12.93	20.00	0.40	0.13	0.10			0.10		99.14
Argo F-38	4690.00	4680-4700B	MM	21	Clinopyroxene	49.58	1.72	2.30	0.00	13.12	0.36	11.16	20.23	0.47	0.11	0.09			0.13		99.28
Crow F-52	1610.00	1610	LCM	3	Clinopyroxene	47.97	0.56	5.20	0.00	9.84	0.08	11.48	22.44	0.83	0.00	0.00			0.14		98.53
Jason C-20	4700.00	4700C	MM	4	Clinopyroxene	49.19	1.96	3.10	0.00	10.92	0.29	13.30	20.50	0.42	0.00	0.00			0.00		99.67
Jason C-20	4700.00	4700F	MM	6	Clinopyroxene	49.86	0.79	0.89	0.00	11.38	0.34	12.76	20.71	0.50	0.40	0.10			0.01		97.74
Jason C-20	4700.00	4700F	MM	8	Clinopyroxene	45.82	2.86	4.12	0.00	11.39	0.28	12.07	19.86	0.50	0.00	0.02			0.15		97.07
Musquodoboit E-23	1800.00	1800.00	LCC	27	Clinopyroxene	54.52	0.02	0.44	0.00	0.70	0.01	17.90	25.48	0.24	0.00	0.00		0.36	0.00	0.00	99.66
Musquodoboit E-23	1800.00	1800.00	LCC	28	Clinopyroxene	54.61	0.00	0.45	0.00	0.68	0.00	17.79	25.54	0.27	0.00	0.00		0.38	0.00	0.00	99.73
Musquodoboit E-23	2600.00	2600.00	MM	3	Clinopyroxene	53.88	0.00	0.15	0.00	0.46	0.02	17.80	25.98	0.07	0.00	0.01		0.34	0.00	0.00	98.71
Musquodoboit E-23	2600.00	2600.00	MM	4	Clinopyroxene	53.70	0.00	0.16	0.00	0.40	0.00	18.05	26.39	0.07	0.02	0.02		0.33	0.00	0.02	99.17
Musquodoboit E-23	2600.00	2600.00	MM	10	Clinopyroxene	48.08	0.02	0.73	0.00	0.97	0.02	15.10	28.85	0.37	0.03	0.02		0.30	0.00	0.01	94.48
Musquodoboit E-23	2600.00	2600.00	MM	11	Clinopyroxene	53.87	0.00	0.11	0.00	0.69	0.02	17.65	26.13	0.05	0.03	0.03		0.35	0.00	0.00	98.93
Musquodoboit E-23	2600.00	2600.00	MM	12	Clinopyroxene	53.53	0.00	0.08	0.00	0.65	0.00	17.65	26.43	0.03	0.01	0.01		0.34	0.00	0.01	98.75
Musquodoboit E-23	2600.00	2600.00	MM	19	Clinopyroxene	53.82	0.00	0.41	0.00	0.40	0.00	17.54	26.04	0.20	0.01	0.01		0.34	0.00	0.01	98.79
Musquodoboit E-23	2600.00	2600.00	MM	20	Clinopyroxene	53.65	0.00	0.56	0.00	0.37	0.01	17.61	25.87	0.26	0.02	0.03		0.36	0.00	0.00	98.74
Musquodoboit E-23	2600.00	2600.00	MM	23	Clinopyroxene	53.14	0.02	0.88	0.00	0.58	0.00	17.59	25.73	0.29	0.01	0.00		0.36	0.00	0.01	98.62
Musquodoboit E-23	2600.00	2600.00	MM	24	Clinopyroxene	54.01	0.00	0.38	0.00	0.54	0.01	17.38	26.19	0.17	0.02	0.00		0.36	0.00	0.00	99.07
Musquodoboit E-23	2600.00	2600.00	MM	29	Clinopyroxene	53.66	0.00	0.32	0.00	0.44	0.03	17.72	25.93	0.15	0.01	0.04		0.35	0.00	0.00	98.64
Musquodoboit E-23	2600.00	2600.00	MM	30	Clinopyroxene	54.31	0.01	0.39	0.02	0.42	0.04	17.93	25.90	0.18	0.02	0.00		0.34	0.00	0.01	99.56
Musquodoboit E-23	2600.00	2600.00	MM	34	Clinopyroxene	54.07	0.03	0.41	0.00	0.52	0.03	18.14	25.90	0.14	0.03	0.00		0.30	0.00	0.00	99.56
Musquodoboit E-23	2600.00	2600.00	MM	36	Clinopyroxene	54.05	0.00	0.16	0.00	0.48	0.03	18.16	26.29	0.09	0.01	0.00		0.34	0.00	0.00	99.61
Musquodoboit E-23	2600.00	2600.00	MM	38	Clinopyroxene	54.20	0.00	0.23	0.00	0.42	0.03	18.10	26.11	0.10	0.03	0.00		0.35	0.00	0.03	99.61

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Fox I-22	905.00	890-920B	LCM	3	Epidote	45.11	0.15	31.96	0.00	0.27	0.09	0.06	18.10	1.68	0.06	0.03			0.10		97.59
Fox I-22	905.00	890-920B	LCM	5	Epidote	39.10	0.02	27.89	0.00	4.52	0.23	0.09	24.83	0.05	0.08	0.07			0.13		97.00
Fox I-22	905.00	890-920B	LCM	7	Epidote	39.22	0.19	26.48	0.00	6.96	0.19	0.07	24.53	0.03	0.15	0.03			0.16		98.00
Fox I-22	905.00	890-920B	LCM	8	Epidote	39.90	0.28	28.65	0.00	4.09	0.24	0.10	24.73	0.05	0.06	0.06			0.14		98.28
Sambro I-29	963.05	3170A	LC	58	Epidote	37.21	0.14	25.28	0.00	7.70	0.11	0.05	23.08	0.01	0.00						93.58
Sambro I-29	1178.74	3880	UM	78	Epidote	37.49	0.15	25.23	0.00	9.40	0.19	0.04	23.87	0.00	0.01						96.38

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2465.00	2465.00	LCC	18	K-feldspar	64.86	0.00	19.06	0.01	0.15	0.00	0.00	0.00	0.20	16.74						101.02
Alma K-85	2465.00	2465.00	LCC	19	K-feldspar	65.35	0.00	18.61	0.00	0.00	0.03	0.00	0.00	0.55	16.35						100.89
Alma K-85	2465.00	2465.00	LCC	20	K-feldspar	64.65	0.02	18.83	0.01	0.00	0.00	0.00	0.01	0.39	16.33						100.24
Alma K-85	2465.00	2465.00	LCC	21	K-feldspar	65.12	0.01	18.59	0.01	0.00	0.00	0.00	0.00	0.65	16.08						100.46
Alma K-85	2465.00	2465.00	LCC	23	K-feldspar	64.68	0.02	18.66	0.00	0.04	0.07	0.00	0.00	0.76	15.93						100.16
Alma K-85	2465.00	2465.00	LCC	25	K-feldspar	65.01	0.05	18.71	0.01	0.00	0.10	0.00	0.00	0.56	16.21						100.65
Alma K-85	2465.00	2465.00	LCC	27	K-feldspar	65.57	0.00	18.78	0.00	0.00	0.04	0.00	0.01	0.61	16.02						101.03
Alma K-85	2465.00	2465.00	LCC	28	K-feldspar	65.50	0.00	18.82	0.00	0.20	0.00	0.00	0.02	0.79	15.63						100.96
Alma K-85	2465.00	2465.00	LCC	29	K-feldspar	65.12	0.01	18.70	0.01	0.09	0.04	0.00	0.02	0.33	16.60						100.92
Alma K-85	2465.00	2465.00	LCC	30	K-feldspar	64.83	0.00	18.54	0.00	0.00	0.04	0.00	0.00	0.60	16.24						100.25
Alma K-85	2465.00	2465.00	LCC	31	K-feldspar	64.72	0.00	18.55	0.00	0.00	0.04	0.00	0.00	0.32	16.68						100.31
Alma K-85	2465.00	2465.00	LCC	32	K-feldspar	65.88	0.00	18.61	0.00	0.00	0.02	0.00	0.08	0.84	15.77						101.20
Alma K-85	2465.00	2465.00	LCC	33	K-feldspar	66.06	0.00	19.07	0.01	0.00	0.06	0.00	0.17	3.78	11.26						100.41
Alma K-85	2465.00	2465.00	LCC	34	K-feldspar	65.14	0.05	19.03	0.00	0.00	0.01	0.00	0.00	0.82	15.60						100.65
Alma K-85	2465.90	2465.90	LCC	74	K-feldspar	62.96	0.01	19.03	0.00	0.29	0.04	0.05	0.06	0.99	15.73						99.16
Alma K-85	2465.90	2465.90	LCC	75	K-feldspar	63.09	0.03	18.76	0.00	0.00	0.01	0.05	0.00	0.41	16.60						98.95
Alma K-85	2465.90	2465.90	LCC	76	K-feldspar	64.11	0.04	18.34	0.00	0.22	0.02	0.05	0.00	0.67	16.05						99.50
Alma K-85	2465.90	2465.90	LCC	77	K-feldspar	64.79	0.02	17.99	0.00	0.02	0.02	0.05	0.00	0.61	16.17						99.67
Alma K-85	2465.90	2465.90	LCC	78	K-feldspar	65.36	0.03	18.51	0.00	0.40	0.02	0.05	0.11	1.87	14.15						100.50
Alma K-85	2465.90	2465.90	LCC	79	K-feldspar	64.92	0.03	17.98	0.00	0.16	0.03	0.05	0.00	0.58	16.22						99.97
Alma K-85	2465.90	2465.90	LCC	80	K-feldspar	64.40	0.03	17.93	0.00	0.27	0.04	0.05	0.00	0.48	16.47						99.67
Alma K-85	2465.90	2465.90	LCC	81	K-feldspar	65.47	0.03	18.31	0.00	0.38	0.03	0.05	0.02	0.79	15.22						100.30
Alma K-85	2465.90	2465.90	LCC	82	K-feldspar	65.11	0.01	17.82	0.00	0.33	0.07	0.04	0.00	0.57	16.45						100.40
Alma K-85	2465.90	2465.90	LCC	83	K-feldspar	64.78	0.06	18.11	0.00	0.20	0.00	0.05	0.03	0.80	16.01						100.04
Alma K-85	2465.90	2465.90	LCC	84	K-feldspar	64.76	0.00	18.72	0.00	0.40	0.00	0.06	0.00	0.25	14.96						99.15
Alma K-85	2465.90	2465.90	LCC	85	K-feldspar	65.30	0.05	18.72	0.00	0.47	0.00	0.05	0.46	1.55	13.97						100.57
Alma K-85	2465.90	2465.90	LCC	86	K-feldspar	65.32	0.01	17.96	0.00	0.16	0.01	0.05	0.00	0.86	15.96						100.33
Alma K-85	2465.90	2465.90	LCC	87	K-feldspar	65.06	0.02	18.13	0.00	0.05	0.08	0.05	0.00	0.62	16.25						100.26
Alma K-85	2465.90	2465.90	LCC	88	K-feldspar	64.64	0.02	17.66	0.00	0.04	0.04	0.05	0.00	0.64	15.97						99.06
Alma K-85	2465.90	2465.90	LCC	89	K-feldspar	64.74	0.05	18.30	0.00	0.33	0.05	0.06	0.00	0.32	16.72						100.57
Alma K-85	2465.90	2465.90	LCC	91	K-feldspar	63.44	0.04	18.49	0.00	0.42	0.08	0.04	0.00	0.36	16.63						99.50
Alma K-85	2465.90	2465.90	LCC	92	K-feldspar	64.26	0.05	18.54	0.00	0.15	0.07	0.05	0.11	1.06	15.21						99.50
Alma K-85	2465.90	2465.90	LCC	93	K-feldspar	64.34	0.07	18.58	0.00	0.34	0.03	0.05	0.03	1.04	15.34						99.82
Alma K-85	2465.90	2465.90	LCC	94	K-feldspar	64.95	0.04	19.09	0.02	0.07	0.04	0.00	0.06	0.90	14.53						99.70
Alma K-85	2465.90	2465.90	LCC	130	K-feldspar	63.52	0.11	19.61	0.00	0.24	0.00	0.10	0.33	4.43	10.22						98.56
Alma K-85	2465.90	2465.90	LCC	132	K-feldspar	65.83	0.00	18.39	0.00	0.29	0.01	0.04	0.17	4.11	11.01						99.85
Alma K-85	2466.07	2466.07	LCC	1	K-feldspar	65.51	0.02	18.70	0.00	0.05	0.00	0.00	0.00	0.60	16.24						101.12
Alma K-85	2466.07	2466.07	LCC	3	K-feldspar	64.32	0.01	23.41	0.00	0.04	0.00	0.00	4.03	9.47	0.14						101.42
Alma K-85	2466.07	2466.07	LCC	4	K-feldspar	65.52	0.05	18.72	0.00	0.00	0.00	0.00	0.00	0.82	15.96						101.07
Alma K-85	2466.07	2466.07	LCC	5	K-feldspar	65.57	0.06	18.75	0.00	0.00	0.03	0.00	0.00	0.85	15.98						101.24

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2466.07	2466.07	LCC	6	K-feldspar	65.25	0.03	18.76	0.00	0.20	0.02	0.00	0.00	0.65	16.13						101.04
Alma K-85	2466.07	2466.07	LCC	9	K-feldspar	64.41	0.10	18.98	0.00	0.00	0.00	0.00	0.06	0.29	16.28						100.12
Alma K-85	2466.07	2466.07	LCC	10	K-feldspar	64.85	0.06	18.96	0.01	0.00	0.00	0.00	0.00	0.59	16.11						100.58
Alma K-85	2466.07	2466.07	LCC	11	K-feldspar	64.43	0.12	19.00	0.00	0.00	0.00	0.00	0.06	1.49	14.44						99.54
Alma K-85	2466.07	2466.07	LCC	12	K-feldspar	65.63	0.02	18.69	0.00	0.07	0.00	0.00	0.00	0.42	16.39						101.22
Alma K-85	2466.07	2466.07	LCC	15	K-feldspar	64.84	0.01	19.08	0.00	0.45	0.01	0.00	0.00	0.43	16.18						101.00
Alma K-85	2466.07	2466.07	LCC	16	K-feldspar	64.84	0.03	18.69	0.00	0.15	0.00	0.00	0.01	0.57	16.24						100.53
Alma K-85	2466.07	2466.07	LCC	17	K-feldspar	65.48	0.01	18.91	0.00	0.00	0.00	0.00	0.00	1.07	15.72						101.19
Alma K-85	2466.65	2466.65	LCC	35	K-feldspar	63.52	0.01	18.23	0.02	0.00	0.04	0.00	0.00	0.60	15.94						98.36
Alma K-85	2466.65	2466.65	LCC	36	K-feldspar	63.80	0.07	18.06	0.00	0.13	0.00	0.00	0.00	0.57	16.24						98.87
Alma K-85	2466.65	2466.65	LCC	37	K-feldspar	64.05	0.00	18.62	0.01	0.09	0.00	0.00	0.10	0.91	15.52						99.30
Alma K-85	2466.65	2466.65	LCC	38	K-feldspar	62.53	0.03	19.11	0.01	0.16	0.00	0.01	0.01	0.43	16.36						98.65
Alma K-85	2466.65	2466.65	LCC	39	K-feldspar	62.75	0.02	18.93	0.01	0.33	0.04	0.00	0.00	0.43	16.66						99.17
Alma K-85	2466.65	2466.65	LCC	40	K-feldspar	63.59	0.00	18.10	0.00	0.00	0.00	0.00	0.01	0.27	16.83						98.80
Alma K-85	2466.65	2466.65	LCC	41	K-feldspar	64.17	0.03	18.47	0.00	0.00	0.02	0.00	0.02	0.69	15.78						99.18
Alma K-85	2466.65	2466.65	LCC	42	K-feldspar	64.75	0.03	18.45	0.02	0.40	0.00	0.00	0.00	0.72	16.10						100.47
Alma K-85	2466.65	2466.65	LCC	43	K-feldspar	64.80	0.01	17.99	0.02	0.00	0.00	0.00	0.02	0.51	16.09						99.44
Alma K-85	2466.65	2466.65	LCC	45	K-feldspar	64.18	0.00	19.00	0.00	0.20	0.02	0.00	0.00	0.41	16.21						100.02
Alma K-85	2466.65	2466.65	LCC	47	K-feldspar	63.12	0.00	19.20	0.00	0.00	0.00	0.00	0.08	0.82	15.81						99.03
Alma K-85	2466.65	2466.65	LCC	48	K-feldspar	63.66	0.01	18.30	0.00	0.00	0.00	0.00	0.12	0.73	16.05						98.87
Alma K-85	2466.65	2466.65	LCC	49	K-feldspar	64.30	0.03	18.02	0.00	0.00	0.00	0.00	0.00	0.69	16.05						99.09
Alma K-85	2466.65	2466.65	LCC	50	K-feldspar	63.10	0.00	18.38	0.02	0.18	0.00	0.01	0.03	0.52	15.71						97.95
Alma K-85	2466.65	2466.65	LCC	52	K-feldspar	64.12	0.00	18.52	0.00	0.09	0.00	0.00	0.05	0.59	16.25						99.62
Alma K-85	2466.65	2466.65	LCC	53	K-feldspar	63.08	0.04	18.95	0.00	0.00	0.06	0.00	0.04	0.70	15.80						98.67
Alma K-85	2466.65	2466.65	LCC	54	K-feldspar	64.44	0.01	18.20	0.00	0.31	0.02	0.00	0.02	0.99	15.61						99.60
Alma K-85	2466.65	2466.65	LCC	56	K-feldspar	64.06	0.09	18.68	0.00	0.00	0.00	0.01	0.12	1.36	14.77						99.09
Alma K-85	2466.65	2466.65	LCC	57	K-feldspar	63.73	0.04	19.22	0.01	0.47	0.02	0.00	0.05	0.40	16.30						100.24
Alma K-85	2466.65	2466.65	LCC	58	K-feldspar	63.89	0.04	18.87	0.00	0.25	0.03	0.00	0.02	0.62	16.08						99.80
Alma K-85	2466.65	2466.65	LCC	59	K-feldspar	64.41	0.00	18.63	0.01	0.00	0.00	0.00	0.05	0.70	15.90						99.70
Alma K-85	2466.65	2466.65	LCC	60	K-feldspar	63.86	0.02	18.55	0.00	0.13	0.00	0.00	0.06	0.67	15.84						99.13
Alma K-85	2466.65	2466.65	LCC	61	K-feldspar	64.84	0.03	17.84	0.02	0.33	0.07	0.01	0.03	0.91	15.54						99.62
Alma K-85	2466.65	2466.65	LCC	62	K-feldspar	64.72	0.06	18.84	0.00	0.42	0.01	0.00	0.02	0.80	15.22						100.09
Alma K-85	2466.65	2466.65	LCC	63	K-feldspar	64.73	0.02	17.89	0.01	0.13	0.01	0.00	0.06	0.62	16.12						99.59
Alma K-85	2466.65	2466.65	LCC	64	K-feldspar	65.01	0.03	18.12	0.00	0.00	0.09	0.00	0.06	0.68	16.03						100.02
Alma K-85	2466.65	2466.65	LCC	66	K-feldspar	64.40	0.01	18.20	0.00	0.13	0.00	0.00	0.08	0.46	16.36						99.64
Alma K-85	2466.65	2466.65	LCC	67	K-feldspar	64.22	0.03	18.20	0.00	0.00	0.00	0.00	0.04	0.29	16.10						98.88
Alma K-85	2466.65	2466.65	LCC	68	K-feldspar	65.03	0.03	17.87	0.00	0.00	0.00	0.00	0.01	0.51	16.09						99.54
Alma K-85	2466.65	2466.65	LCC	69	K-feldspar	65.25	0.00	19.05	0.00	0.00	0.00	0.00	0.01	0.33	14.45						99.09
Alma K-85	2466.65	2466.65	LCC	70	K-feldspar	65.03	0.00	18.20	0.00	0.42	0.01	0.00	0.02	0.63	16.23						100.54
Alma K-85	2466.65	2466.65	LCC	71	K-feldspar	64.04	0.03	18.23	0.01	0.40	0.00	0.01	0.06	0.29	16.14						99.21

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2466.65	2466.65	LCC	72	K-feldspar	63.93	0.00	18.34	0.01	0.05	0.00	0.00	0.09	0.45	16.44						99.31
Alma K-85	2466.65	2466.65	LCC	73	K-feldspar	64.32	0.06	18.32	0.03	0.27	0.13	0.00	0.06	0.84	15.75						99.78
Alma K-85	2467.55	2467.55	LCC	96	K-feldspar	64.14	0.00	18.25	0.01	0.08	0.00	0.00	0.00	0.21	16.94						99.63
Alma K-85	2467.55	2467.55	LCC	97	K-feldspar	62.78	0.00	19.28	0.00	0.09	0.00	0.00	0.05	1.04	15.62						98.86
Alma K-85	2467.55	2467.55	LCC	98	K-feldspar	64.35	0.04	18.63	0.00	0.30	0.00	0.00	0.03	0.45	16.45						100.25
Alma K-85	2467.55	2467.55	LCC	100	K-feldspar	63.55	0.11	19.11	0.00	0.00	0.11	0.00	0.02	0.74	15.70						99.34
Alma K-85	2467.55	2467.55	LCC	101	K-feldspar	63.32	0.01	18.60	0.00	0.02	0.00	0.00	0.04	0.59	16.47						99.05
Alma K-85	2467.55	2467.55	LCC	102	K-feldspar	64.85	0.00	18.48	0.01	0.00	0.00	0.00	0.00	0.65	16.35						100.34
Alma K-85	2467.55	2467.55	LCC	103	K-feldspar	64.46	0.16	19.21	0.00	0.11	0.02	0.00	0.12	1.39	15.07						100.54
Alma K-85	2467.55	2467.55	LCC	104	K-feldspar	65.48	0.01	18.12	0.00	0.06	0.00	0.00	0.01	0.55	16.55						100.78
Alma K-85	2467.55	2467.55	LCC	105	K-feldspar	65.34	0.01	18.41	0.00	0.02	0.04	0.00	0.00	0.56	16.37						100.75
Alma K-85	2467.55	2467.55	LCC	106	K-feldspar	65.18	0.04	17.40	0.03	0.15	0.00	0.00	0.02	0.50	16.25						99.57
Alma K-85	2467.55	2467.55	LCC	107	K-feldspar	65.32	0.01	17.81	0.00	0.02	0.00	0.00	0.00	0.41	16.46						100.03
Alma K-85	2467.55	2467.55	LCC	108	K-feldspar	65.02	0.01	17.86	0.00	0.07	0.06	0.00	0.00	0.48	16.11						99.61
Alma K-85	2468.95	2468.95	LCC	219	K-feldspar	65.23	0.00	17.52	0.00	0.00	0.00	0.00	0.03	0.71	14.74						98.23
Alma K-85	2474.15	2474.15	LCC	222	K-feldspar	63.97	0.06	18.50	0.00	0.07	0.01	0.00	0.06	0.57	16.22						99.46
Alma K-85	2474.15	2474.15	LCC	223	K-feldspar	66.32	0.01	18.87	0.00	0.56	0.02	0.00	0.25	6.02	6.90						98.95
Alma K-85	2474.15	2474.15	LCC	340	K-feldspar	65.55	0.05	20.77	0.00	0.97	0.00	0.90	0.35	7.36	2.10						98.05
Alma K-85	3081.07	3081.07	UM	341	K-feldspar	63.83	0.00	18.70	0.00	0.01	0.01	0.00	0.00	0.85	15.71						99.11
Alma K-85	3081.07	3081.07	UM	342	K-feldspar	64.66	0.00	18.40	0.00	0.17	0.01	0.00	0.06	0.42	16.67						100.39
Alma K-85	3081.07	3081.07	UM	343	K-feldspar	64.61	0.00	18.50	0.00	0.15	0.00	0.00	0.09	0.37	16.73						100.45
Alma K-85	2465.00	2465.00	LCC	22	Plagioclase	65.17	0.00	22.62	0.00	0.00	0.06	0.00	3.24	9.92	0.14						101.15
Alma K-85	2465.00	2465.00	LCC	24	Plagioclase	68.95	0.00	20.17	0.00	0.00	0.00	0.00	0.04	11.49	0.19						100.84
Alma K-85	2465.00	2465.00	LCC	26	Plagioclase	66.04	0.00	22.17	0.00	0.00	0.00	0.00	2.83	10.34	0.07						101.45
Alma K-85	2465.00	2465.00	LCC	118	Plagioclase	66.36	0.00	21.43	0.00	0.00	0.05	0.00	1.83	10.75	0.07						100.49
Alma K-85	2465.00	2465.00	LCC	119	Plagioclase	69.40	0.00	20.19	0.00	0.00	0.01	0.00	0.09	11.84	0.03						101.56
Alma K-85	2465.00	2465.00	LCC	120	Plagioclase	68.00	0.00	19.78	0.00	0.00	0.02	0.00	0.09	11.17	0.02						99.08
Alma K-85	2465.90	2465.90	LCC	90	Plagioclase	62.73	0.02	23.36	0.00	0.49	0.01	0.04	4.46	9.37	0.14						100.62
Alma K-85	2465.90	2465.90	LCC	131	Plagioclase	62.44	0.03	23.33	0.00	0.35	0.05	0.04	5.01	8.91	0.19						100.35
Alma K-85	2465.90	2465.90	LCC	133	Plagioclase	60.46	0.00	24.93	0.00	0.00	0.00	0.03	6.49	7.95	0.11						99.97
Alma K-85	2466.07	2466.07	LCC	110	Plagioclase	62.00	0.00	24.54	0.00	0.04	0.00	0.00	5.73	8.26	0.38						100.95
Alma K-85	2466.07	2466.07	LCC	112	Plagioclase	64.54	0.01	23.03	0.00	0.00	0.00	0.00	3.86	9.59	0.13						101.16
Alma K-85	2466.07	2466.07	LCC	113	Plagioclase	60.10	0.02	25.90	0.00	0.00	0.00	0.00	7.17	7.67	0.19						101.05
Alma K-85	2466.07	2466.07	LCC	115	Plagioclase	67.08	0.01	21.75	0.00	0.00	0.00	0.00	2.15	10.44	0.06						101.49
Alma K-85	2466.07	2466.07	LCC	117	Plagioclase	66.66	0.00	22.38	0.00	0.05	0.00	0.03	1.03	10.43	0.81						101.39
Alma K-85	2466.65	2466.65	LCC	121	Plagioclase	67.61	0.00	20.61	0.01	0.00	0.03	0.00	0.31	10.42	0.11						99.10
Alma K-85	2466.65	2466.65	LCC	122	Plagioclase	60.21	0.00	24.52	0.01	0.00	0.00	0.00	6.30	8.13	0.16						99.33
Alma K-85	2466.65	2466.65	LCC	123	Plagioclase	61.33	0.02	23.67	0.00	0.11	0.00	0.00	5.95	8.30	0.15						99.53
Alma K-85	2466.65	2466.65	LCC	124	Plagioclase	59.15	0.00	25.13	0.00	0.09	0.05	0.00	7.63	7.29	0.22						99.56
Alma K-85	2466.65	2466.65	LCC	125	Plagioclase	66.99	0.02	21.64	0.00	0.16	0.02	0.00	1.15	10.54	0.12						100.64

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2466.65	2466.65	LCC	126	Plagioclase	58.31	0.00	25.58	0.00	0.00	0.00	0.00	7.68	7.55	0.04						99.16
Alma K-85	2466.65	2466.65	LCC	127	Plagioclase	66.42	0.00	21.78	0.00	0.36	0.00	0.00	2.08	10.27	0.11						101.02
Alma K-85	2466.65	2466.65	LCC	128	Plagioclase	63.68	0.00	22.44	0.01	0.31	0.01	0.00	4.10	9.18	0.21						99.94
Alma K-85	2466.65	2466.65	LCC	129	Plagioclase	64.96	0.03	22.12	0.01	0.22	0.01	0.00	3.00	9.83	0.14						100.32
Alma K-85	2467.55	2467.55	LCC	135	Plagioclase	61.30	0.00	24.74	0.00	0.01	0.00	0.00	5.69	8.87	0.15						100.76
Alma K-85	2467.55	2467.55	LCC	136	Plagioclase	63.54	0.01	23.16	0.00	0.11	0.02	0.00	3.35	10.19	0.09						100.47
Alma K-85	2468.95	2468.95	LCC	344	Plagioclase	64.88	0.00	21.63	0.00	0.00	0.00	0.00	3.46	9.50	0.04						99.51
Alma K-85	2468.95	2468.95	LCC	345	Plagioclase	62.58	0.00	22.85	0.00	0.00	0.00	0.00	5.51	8.18	0.05						99.17
Alma K-85	2469.30	2469.30	LCC	347	Plagioclase	59.68	0.00	24.01	0.00	0.00	0.00	0.00	5.74	8.45	0.21						98.09
Alma K-85	2469.30	2469.30	LCC	348	Plagioclase	64.09	0.00	21.89	0.00	0.04	0.00	0.00	3.36	9.61	0.24						99.23
Alma K-85	2469.30	2469.30	LCC	349	Plagioclase	61.90	0.00	23.01	0.00	0.04	0.00	0.00	4.18	9.08	0.30						98.51
Alma K-85	2469.30	2469.30	LCC	350	Plagioclase	63.58	0.00	22.12	0.00	0.06	0.00	0.00	3.74	9.20	0.20						98.90
Alma K-85	2473.70	2473.70	LCC	226	Plagioclase	61.82	0.00	22.91	0.00	0.00	0.00	0.00	6.03	8.03	0.21						99.00
Alma K-85	2473.70	2473.70	LCC	227	Plagioclase	62.62	0.00	22.16	0.00	0.00	0.00	0.00	3.88	9.47	0.03						98.16
Alma K-85	2473.70	2473.70	LCC	229	Plagioclase	63.41	0.00	21.75	0.00	0.00	0.00	0.00	3.87	9.30	0.02						98.35
Alma K-85	2473.70	2473.70	LCC	228	Plagioclase	63.54	0.00	21.62	0.00	0.00	0.00	0.00	3.36	9.35	0.16						98.03
Alma K-85	2474.15	2474.15	LCC	230	Plagioclase	63.34	0.00	22.68	0.00	0.09	0.00	0.00	3.93	8.47	0.19						98.70
Alma K-85	2474.15	2474.15	LCC	231	Plagioclase	62.46	0.00	23.25	0.00	0.08	0.00	0.00	4.46	8.52	0.06						98.83
Alma K-85	2474.15	2474.15	LCC	232	Plagioclase	63.43	0.00	22.97	0.00	0.01	0.00	0.00	4.32	8.69	0.15						99.57
Alma K-85	2502.00	2502.00	LCC	261	Plagioclase	63.68	0.00	21.59	0.01	0.15	0.00	0.00	2.74	9.76	0.14						98.07
Alma K-85	2861.10	2861.10	UM	241	Plagioclase	62.64	0.00	23.31	0.00	0.03	0.00	0.00	4.49	8.58	0.13						99.18
Alma K-85	2861.10	2861.10	UM	242	Plagioclase	60.62	0.00	24.47	0.00	0.11	0.00	0.00	5.73	7.80	0.08						98.81
Alma K-85	2862.24	2862.24	UM	255	Plagioclase	59.54	0.00	24.43	0.00	0.00	0.00	0.00	5.90	8.12	0.13						98.12
Alma K-85	2862.24	2862.24	UM	256	Plagioclase	61.66	0.00	22.78	0.00	0.03	0.00	0.00	4.48	9.04	0.18						98.17
Alma K-85	2862.24	2862.24	UM	257	Plagioclase	61.76	0.00	23.24	0.00	0.02	0.00	0.00	4.28	9.11	0.02						98.43
Alma K-85	2872.10	2872.10	UM	243	Plagioclase	63.38	0.00	22.75	0.00	0.07	0.00	0.00	4.31	8.86	0.11						99.48
Alma K-85	2872.10	2872.10	UM	244	Plagioclase	62.06	0.00	23.33	0.00	0.05	0.00	0.00	4.79	8.31	0.09						98.63
Alma K-85	2885.71	2885.71	UM	254	Plagioclase	62.73	0.00	22.41	0.00	0.00	0.00	0.00	3.32	9.62	0.09						98.17
Alma K-85	3045.23	3045.23	UM	262	Plagioclase	61.63	0.00	22.90	0.00	0.00	0.00	0.00	4.35	8.98	0.11						97.97
Alma K-85	3045.23	3045.23	UM	263	Plagioclase	65.07	0.00	21.09	0.00	0.00	0.00	0.00	1.62	10.30	0.18						98.26
Alma K-85	3045.23	3045.23	UM	265	Plagioclase	61.94	0.00	22.60	0.00	0.06	0.03	0.00	4.07	8.65	0.56						97.91
Alma K-85	3051.65	3051.65	UM	245	Plagioclase	61.24	0.00	24.37	0.00	0.11	0.00	0.00	5.92	7.75	0.18						99.57
Alma K-85	3051.65	3051.65	UM	246	Plagioclase	67.49	0.00	20.11	0.00	0.00	0.00	0.00	0.60	10.74	0.02						98.96
Alma K-85	3073.60	3073.60	UM	237	Plagioclase	61.33	0.00	24.06	0.00	0.00	0.00	0.00	5.12	8.20	0.17						98.88
Alma K-85	3073.60	3073.60	UM	238	Plagioclase	62.27	0.00	23.41	0.00	0.02	0.00	0.00	4.41	8.40	0.11						98.62
Alma K-85	3073.60	3073.60	UM	239	Plagioclase	60.26	0.00	24.29	0.00	0.05	0.00	0.00	5.68	7.68	0.17						98.13
Alma K-85	3073.60	3073.60	UM	240	Plagioclase	62.62	0.00	23.48	0.00	0.02	0.00	0.01	4.75	8.40	0.03						99.31
Alma K-85	3075.96	3075.96	UM	247	Plagioclase	62.35	0.00	23.57	0.00	0.01	0.00	0.00	4.75	8.38	0.25						99.31
Alma K-85	3075.96	3075.96	UM	248	Plagioclase	63.60	0.00	22.81	0.00	0.02	0.03	0.00	4.14	8.86	0.22						99.68
Alma K-85	3081.07	3081.07	UM	233	Plagioclase	63.78	0.00	22.51	0.00	0.23	0.00	0.00	3.75	8.87	0.08						99.22

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	3081.07	3081.07	UM	234	Plagioclase	64.25	0.00	21.90	0.00	0.34	0.00	0.00	3.16	9.27	0.05						98.97
Alma K-85	3081.07	3081.07	UM	235	Plagioclase	67.31	0.00	20.04	0.00	0.00	0.00	0.00	0.87	10.64	0.08						98.94
Alma K-85	3081.07	3081.07	UM	236	Plagioclase	69.12	0.00	20.89	0.00	0.06	0.00	0.00	0.83	7.08	0.09						98.07
Argo F-38	1705.00	1690-1720A	LCM	1	K-feldspar	64.83	0.11	18.29	0.00	0.70	0.00	0.00	0.04	1.46	14.67	0.00			1.00		101.10
Argo F-38	1705.00	1690-1720A	LCM	2	K-feldspar	63.47	0.08	18.14	0.00	0.53	0.00	0.00	0.20	0.45	16.24	0.00			0.79		99.91
Argo F-38	1705.00	1690-1720A	LCM	6	K-feldspar	64.70	0.03	17.99	0.00	0.58	0.01	0.00	0.00	0.74	16.09	0.01			0.24		100.39
Argo F-38	1705.00	1690-1720C	LCM	6	K-feldspar	63.25	0.04	17.50	0.00	0.59	0.03	0.00	0.02	0.29	18.16	0.00			0.76		100.63
Argo F-38	1705.00	1690-1720C	LCM	10	K-feldspar	61.56	0.05	17.18	0.00	0.51	0.01	0.00	0.00	0.68	17.59	0.00			0.49		98.08
Argo F-38	1915.00	1900-1930A	LCM	2	K-feldspar	65.25	0.00	18.34	0.00	0.17	0.00	0.02	0.00	1.17	14.80	0.00			1.20		100.94
Argo F-38	1915.00	1900-1930A	LCM	3	K-feldspar	64.85	0.17	17.72	0.00	0.27	0.09	0.04	0.08	0.76	16.79	0.03			0.26		101.05
Argo F-38	1915.00	1900-1930A	LCM	4	K-feldspar	64.49	0.17	17.51	0.00	0.56	0.08	0.05	0.12	1.25	15.92	0.04			0.22		100.41
Argo F-38	1915.00	1900-1930A	LCM	3	K-feldspar	64.06	0.00	17.42	0.00	1.19	0.00	0.01	0.00	0.37	16.45	0.00			0.18		99.68
Argo F-38	1915.00	1900-1930A	LCM	2	K-feldspar	63.87	0.18	17.61	0.00	0.29	0.09	0.04	0.07	0.79	16.62	0.03			0.55		100.14
Argo F-38	1915.00	1900-1930B	LCM	1	K-feldspar	63.29	0.04	17.55	0.00	0.94	0.00	0.00	0.00	0.58	16.72	0.02			0.58		99.72
Argo F-38	1915.00	1900-1930B	LCM	2	K-feldspar	62.18	0.08	17.48	0.00	1.01	0.02	0.00	0.02	0.87	16.03	0.01			1.16		98.85
Argo F-38	2815.00	2800-2830	LCM	2	K-feldspar	64.91	0.07	18.07	0.00	0.29	0.04	0.00	0.03	0.66	16.17	0.05			0.50		100.78
Argo F-38	2815.00	2800-2830	LCM	5	K-feldspar	64.44	0.07	17.78	0.00	0.28	0.02	0.00	0.03	0.77	16.17	0.03			0.49		100.08
Argo F-38	3045.00	3030-3060A	LCC	6	K-feldspar	63.40	0.01	17.82	0.00	0.11	0.00	0.01	0.02	0.93	17.33	0.02			0.29		99.93
Argo F-38	3045.00	3030-3060A	LCC	6	K-feldspar	63.06	0.05	17.47	0.00	0.12	0.00	0.05	0.03	0.30	18.33	0.00			0.53		99.94
Argo F-38	3075.00	3060-3090A	LCC	1	K-feldspar	64.25	0.05	17.35	0.00	0.05	0.02	0.00	0.00	0.66	17.83	0.01			0.82		101.05
Argo F-38	3075.00	3060-3090A	LCC	2	K-feldspar	62.05	0.11	17.61	0.00	0.07	0.02	0.00	0.00	0.88	17.21	0.02			1.23		99.20
Argo F-38	3475.00	3470-3480H	LCC	5	K-feldspar	63.80	0.01	19.07	0.00	1.09	0.00	0.01	1.01	6.85	6.31	0.00			0.00		98.16
Argo F-38	4375.00	4360-4390	MM	17	K-feldspar	68.10	0.08	17.38	0.00	0.04	0.00	0.01	0.00	0.06	13.67	0.00			0.00		99.34
Argo F-38	4690.00	4680-4700B	MM	15	K-feldspar	65.22	0.04	17.96	0.00	0.01	0.01	0.03	0.09	2.81	13.53	0.00			0.00		99.70
Argo F-38	4690.00	4680-4700A	MM	2	K-feldspar	65.40	0.17	19.47	0.00	1.27	0.00	0.19	1.45	6.81	5.40	0.01			0.00		100.17
Argo F-38	4690.00	4680-4700A	MM	10	K-feldspar	66.28	0.13	18.58	0.00	0.36	0.01	0.00	0.50	6.24	7.46	0.00			0.00		99.56
Argo F-38	4690.00	4680-4700B	MM	12	K-feldspar	65.49	0.26	19.93	0.00	0.58	0.00	0.01	0.70	5.87	5.64	0.00			0.93		99.41
Argo F-38	4690.00	4680-4700B	MM	18	K-feldspar	63.75	0.19	20.33	0.00	0.45	0.00	0.00	1.09	6.19	5.76	0.00			1.30		99.06
Argo F-38	3045.00	3030-3060A	LCC	7	Plagioclase	67.65	0.03	18.62	0.00	0.21	0.00	0.02	0.44	11.30	0.12	0.00			0.11		98.50
Argo F-38	3405.00	3400-3410B	LCC	11	Plagioclase	50.15	0.35	30.92	0.00	0.82	0.12	0.14	13.47	4.21	0.42	0.06			0.26		100.92
Argo F-38	4690.00	4680-4700A	MM	6	Plagioclase	53.11	0.13	28.06	0.00	0.76	0.05	0.08	11.65	4.58	0.45	0.02			0.04		98.95
Argo F-38	4690.00	4680-4700A	MM	9	Plagioclase	52.44	0.15	28.72	0.00	0.82	0.02	0.09	12.37	4.20	0.35	0.00			0.04		99.20
Argo F-38	4690.00	4680-4700A	MM	3	Plagioclase	52.49	0.09	28.70	0.00	0.79	0.00	0.11	12.40	4.23	0.04	0.03			0.00		98.87
Argo F-38	4690.00	4680-4700B	MM	2	Plagioclase	53.45	0.19	28.70	0.00	0.75	0.03	0.11	12.72	4.62	0.43	0.00			0.11		101.11
Argo F-38	4690.00	4680-4700B	MM	8	Plagioclase	51.29	0.20	29.75	0.00	1.03	0.04	0.15	13.04	3.98	0.32	0.00			0.10		99.90
Argo F-38	4690.00	4680-4700B	MM	8	Plagioclase	66.01	0.20	20.41	0.00	0.12	0.63	0.02	0.01	1.44	7.19	5.24			0.00		101.27
Argo F-38	4690.00	4680-4700B	MM	19	Plagioclase	57.96	0.17	25.78	0.00	0.55	0.01	0.04	7.35	6.58	1.00	0.00			0.15		99.59
Crow F-52	1430.00	1430A	LCM	1	K-feldspar	65.86	0.00	17.89	0.00	0.35	0.00	0.00	0.03	0.54	15.67	0.02			0.11		100.47
Crow F-52	1430.00	1430B	LCM	1	K-feldspar	66.59	0.03	18.45	0.00	0.12	0.01	0.00	0.02	1.70	13.97	0.00			0.50		101.38
Crow F-52	1430.00	1430B	LCM	6	K-feldspar	65.54	0.04	18.23	0.00	0.07	0.00	0.00	0.02	1.26	14.96	0.00			0.54		100.65

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Crow F-52	1430.00	1430B	LCM	2	K-feldspar	64.91	0.09	18.15	0.00	0.19	0.01	0.00	0.05	1.09	14.89	0.01			0.61		100.00
Crow F-52	1430.00	1430B	LCM	9	K-feldspar	64.00	0.01	17.55	0.00	0.12	0.02	0.00	0.07	0.05	16.98	0.02			0.00		98.82
Crow F-52	1430.00	1430B	LCM	12	K-feldspar	65.45	0.01	16.85	0.00	0.09	0.03	0.00	0.29	0.20	15.51	0.03			0.03		98.48
Crow F-52	1430.00	1430B	LCM	13	K-feldspar	62.26	0.02	17.99	0.00	0.08	0.02	0.00	0.07	0.34	17.02	0.02			0.28		98.10
Crow F-52	1430.00	1430B	LCM	14	K-feldspar	64.23	0.00	17.88	0.00	0.09	0.02	0.02	0.15	0.06	16.94	0.01			0.00		99.40
Crow F-52	1430.00	1430B	LCM	22	K-feldspar	63.63	0.05	17.52	0.00	0.23	0.03	0.08	0.14	0.16	16.85	0.01			0.07		98.75
Crow F-52	1430.00	1430B	LCM	8	K-feldspar	65.13	0.00	18.31	0.00	0.36	0.00	0.00	0.07	0.78	14.48	0.17			0.62		99.93
Crow F-52	1610.00	1610	LCM	2	K-feldspar	61.58	0.00	18.22	0.00	0.10	0.00	0.00	0.07	0.56	18.42	0.00			0.50		99.45
Crow F-52	1610.00	1610	LCM	5	K-feldspar	62.05	0.00	18.41	0.00	0.05	0.00	0.00	0.08	1.61	17.26	0.00			0.00		99.46
Crow F-52	1610.00	1610	LCM	2	K-feldspar	61.96	0.00	17.98	0.00	0.10	0.00	0.00	0.00	0.83	17.14	0.00			0.16		98.17
Crow F-52	1610.00	1610	LCM	3	K-feldspar	61.94	0.00	18.74	0.00	0.18	0.00	0.00	0.03	1.42	17.43	0.00			0.21		99.95
Crow F-52	1610.00	1610	LCM	7	K-feldspar	61.60	0.00	17.74	0.00	0.15	0.00	0.00	0.00	0.00	18.14	0.42			0.00		98.03
Crow F-52	1610.00	1610	LCM	4	K-feldspar	61.52	0.00	18.72	0.00	0.51	0.00	0.16	0.94	0.99	17.86	0.00			0.19		100.89
Crow F-52	1970.00	1970A	LCS	3	K-feldspar	64.19	0.04	18.87	0.00	0.03	0.00	0.04	0.14	0.35	16.10	0.00			0.18		99.93
Crow F-52	1970.00	1970A	LCS	1	K-feldspar	65.33	0.00	18.12	0.00	0.02	0.01	0.00	0.01	0.64	15.79	0.02			0.00		99.95
Crow F-52	2480.00	2480	LCC	20	K-feldspar	64.74	0.00	18.32	0.00	0.87	0.00	0.00	0.00	0.33	16.33	0.01			0.38		100.97
Crow F-52	1430.00	1430B	LCM	7	Plagioclase	64.23	0.01	22.49	0.00	0.11	0.00	0.00	4.24	8.72	0.13	0.00			0.03		99.96
Crow F-52	1610.00	1610	LCM	1	Plagioclase	48.11	0.00	34.19	0.00	0.16	0.00	0.01	13.21	4.18	0.00	0.00			0.00		99.86
Crow F-52	1610.00	1610	LCM	2	Plagioclase	52.61	0.00	30.25	0.00	0.20	0.00	0.00	12.96	4.32	0.46	0.00			0.00		100.80
Crow F-52	1970.00	1970A	LCS	2	Plagioclase	67.15	0.00	19.66	0.00	0.00	0.00	0.04	0.47	11.97	0.00	0.00			0.02		99.31
Crow F-52	1970.00	1970A	LCS	4	Plagioclase	67.70	0.02	20.35	0.00	0.11	0.00	0.18	0.08	11.87	0.02	0.00			0.00		100.33
Crow F-52	1970.00	1970A	LCS	2	Plagioclase	63.09	0.00	23.09	0.00	0.00	0.00	0.00	4.46	9.37	0.00	0.00			0.00		100.01
Crow F-52	1970.00	1970A	LCS	7	Plagioclase	62.16	0.00	22.56	0.00	0.02	0.00	0.00	4.48	9.59	0.00	0.01			0.00		98.81
Crow F-52	1970.00	1970A	LCS	3	Plagioclase	62.99	0.00	21.91	0.00	0.00	0.00	0.00	3.50	9.95	0.12	0.00			0.00		98.46
Crow F-52	1970.00	1970A	LCS	8	Plagioclase	62.69	0.00	21.96	0.00	0.11	0.00	0.00	3.39	10.11	0.12	0.00			0.00		98.37
Dauntless D-35	2651.76	2651.76	LCC	228	K-feldspar	63.27	0.00	17.82	0.00	0.44	0.01	0.00	0.00	0.89	17.89	0.00	0.00		0.64		100.95
Dauntless D-35	3005.33	3005.33	UM	181	K-feldspar	64.09	0.00	17.60	0.00	0.01	0.00	0.00	0.01	0.56	18.54	0.02	0.00		0.09		100.91
Dauntless D-35	3023.62	3023.62	UM	217	K-feldspar	61.67	0.00	17.51	0.02	0.76	0.01	0.00	0.03	0.20	17.68	0.00	0.00		0.20		98.08
Dauntless D-35	3023.62	3023.62	UM	224	K-feldspar	61.77	0.00	17.83	0.01	0.38	0.00	0.00	0.00	0.54	18.30	0.00	0.00		0.58		99.41
Dauntless D-35	3023.62	3023.62	UM	226	K-feldspar	63.08	0.00	17.96	0.01	0.31	0.00	0.00	0.00	0.37	18.90	0.00	0.00		0.46		101.10
Dauntless D-35	3145.54	3145.54	UM	194	K-feldspar	63.37	0.03	18.14	0.00	0.32	0.01	0.01	0.05	1.53	16.15	0.00	0.00		0.42		100.01
Dauntless D-35	3145.54	3145.54	UM	195	K-feldspar	64.05	0.00	17.78	0.00	0.62	0.01	0.00	0.00	0.03	16.58	0.04	0.00		0.00		99.11
Dauntless D-35	3162.76	3162.76	UM	1	K-Feldspar	62.76	0.00	17.57	0.00	0.18	0.00	0.00	0.00	0.33	17.64	0.00	0.00		0.00		98.48
Dauntless D-35	3162.76	3162.76	UM	2	K-Feldspar	64.03	0.00	18.17	0.00	0.00	0.00	0.00	0.01	1.11	16.94	0.00	0.00		0.00		100.26
Dauntless D-35	3162.76	3162.76	UM	4	K-Feldspar	61.98	0.21	19.01	0.00	0.12	0.00	0.00	0.00	1.06	15.58	0.00	0.00		0.00		97.96
Dauntless D-35	3162.76	3162.76	UM	5	K-Feldspar	62.38	0.00	17.90	0.00	0.05	0.00	0.01	0.06	1.32	17.35	0.00	0.00		0.00		99.07
Dauntless D-35	3162.76	3162.76	UM	6	K-Feldspar	63.73	0.00	18.02	0.00	0.06	0.00	0.01	0.00	0.70	17.43	0.00	0.00		0.00		99.95
Dauntless D-35	3162.76	3162.76	UM	7	K-Feldspar	64.57	0.00	18.12	0.00	0.03	0.00	0.00	0.13	2.09	15.24	0.00	0.00		0.00		100.18
Dauntless D-35	3162.76	3162.76	UM	8	K-Feldspar	62.19	0.00	17.73	0.00	0.08	0.00	0.01	0.00	0.20	18.02	0.00	0.00		0.00		98.23
Dauntless D-35	3164.43	3164.43	UM	9	K-Feldspar	65.18	0.00	18.12	0.00	0.11	0.00	0.00	0.01	1.50	15.63	0.00	0.00		0.00		100.55

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Dauntless D-35	3164.43	3164.43	UM	10	K-Feldspar	64.16	0.00	17.64	0.00	0.07	0.00	0.00	0.04	0.41	16.15	0.00	0.00		0.00		98.47
Dauntless D-35	3164.43	3164.43	UM	11	K-Feldspar	63.85	0.03	17.78	0.00	0.19	0.00	0.00	0.00	0.45	16.60	0.00	0.00		0.00		98.90
Dauntless D-35	3164.43	3164.43	UM	12	K-Feldspar	64.23	0.03	18.23	0.00	0.00	0.00	0.00	0.01	0.81	16.12	0.00	0.00		0.00		99.43
Dauntless D-35	3164.43	3164.43	UM	14	K-Feldspar	64.36	0.05	18.06	0.00	0.15	0.00	0.00	0.00	0.34	16.75	0.00	0.00		0.00		99.71
Dauntless D-35	3164.43	3164.43	UM	15	K-Feldspar	64.01	0.04	18.17	0.00	0.13	0.00	0.00	0.01	0.94	15.90	0.00	0.00		0.00		99.20
Dauntless D-35	3165.04	3165.04	UM	16	K-Feldspar	62.30	0.03	17.84	0.00	1.20	0.00	0.10	0.00	1.66	15.17	0.00	0.00		0.00		98.30
Dauntless D-35	3165.04	3165.04	UM	17	K-Feldspar	63.36	0.00	18.10	0.00	0.11	0.00	0.00	0.00	0.88	17.27	0.00	0.00		0.00		99.72
Dauntless D-35	3165.04	3165.04	UM	18	K-Feldspar	61.61	0.00	17.82	0.00	0.78	0.00	0.05	0.03	0.61	17.12	0.00	0.00		0.00		98.02
Dauntless D-35	3165.04	3165.04	UM	19	K-Feldspar	63.12	0.05	18.10	0.00	0.11	0.00	0.00	0.01	0.85	16.70	0.00	0.00		0.00		98.94
Dauntless D-35	3165.04	3165.04	UM	20	K-Feldspar	63.18	0.00	18.03	0.00	0.01	0.00	0.00	0.00	0.74	17.66	0.00	0.00		0.00		99.62
Dauntless D-35	3165.04	3165.04	UM	21	K-Feldspar	63.78	0.00	17.88	0.00	0.02	0.00	0.00	0.00	0.80	17.42	0.00	0.00		0.00		99.90
Dauntless D-35	3165.04	3165.04	UM	22	K-Feldspar	64.19	0.00	18.10	0.00	0.04	0.00	0.01	0.00	0.39	15.98	0.00	0.00		0.00		98.71
Dauntless D-35	3165.04	3165.04	UM	23	K-Feldspar	63.40	0.00	18.34	0.00	0.01	0.00	0.00	0.01	1.57	15.77	0.00	0.00		0.00		99.10
Dauntless D-35	3165.65	3165.65	UM	25	K-Feldspar	62.10	0.00	18.75	0.00	0.00	0.00	0.00	0.00	0.61	17.76	0.00	0.00		0.00		99.22
Dauntless D-35	3165.65	3165.65	UM	26	K-Feldspar	62.87	0.00	18.83	0.00	0.02	0.00	0.01	0.00	0.83	17.60	0.00	0.00		0.00		100.16
Dauntless D-35	3165.65	3165.65	UM	27	K-Feldspar	62.02	0.00	18.76	0.00	0.04	0.01	0.01	0.00	0.38	17.91	0.00	0.00		0.00		99.13
Dauntless D-35	3165.65	3165.65	UM	28	K-Feldspar	62.61	0.00	18.62	0.00	0.06	0.00	0.01	0.03	0.42	18.02	0.00	0.00		0.00		99.77
Dauntless D-35	3165.65	3165.65	UM	29	K-Feldspar	63.17	0.00	18.77	0.00	0.30	0.00	0.00	0.01	1.50	14.62	0.00	0.00		0.00		98.37
Dauntless D-35	3165.65	3165.65	UM	32	K-Feldspar	62.67	0.00	18.57	0.00	0.07	0.00	0.00	0.00	0.70	17.76	0.00	0.00		0.00		99.77
Dauntless D-35	3165.65	3165.65	UM	33	K-Feldspar	62.21	0.00	18.93	0.00	0.00	0.00	0.00	0.00	1.25	16.24	0.00	0.00		0.00		98.63
Dauntless D-35	3165.65	3165.65	UM	34	K-Feldspar	61.96	0.00	18.73	0.00	0.03	0.00	0.00	0.02	0.73	17.66	0.00	0.00		0.00		99.13
Dauntless D-35	2709.67	2709.67	LCC	1	Plagioclase	63.61	0.00	23.80	0.00	0.18	0.00	0.00	4.29	9.19	0.27						101.36
Dauntless D-35	2935.22	2935.22	UM	180	Plagioclase	68.13	0.00	20.58	0.00	0.16	0.00	0.00	0.39	11.60	0.12	0.01					100.97
Dauntless D-35	3164.43	3164.43	UM	60	Plagioclase	68.65	0.00	19.22	0.00	0.04	0.00	0.00	0.12	11.94	0.04	0.00	0.00		0.00		100.01
Dauntless D-35	3164.43	3164.43	UM	61	Plagioclase	64.23	0.00	21.57	0.00	0.50	0.00	0.19	2.05	9.43	0.69	0.00	0.00		0.00		98.66
Dauntless D-35	3165.65	3165.65	UM	62	Plagioclase	66.17	0.00	20.09	0.00	0.02	0.00	0.00	0.30	11.93	0.02	0.00	0.00		0.00		98.53
Dauntless D-35	3279.65	3279.65	MM	202	Plagioclase	68.82	0.00	19.92	0.00	0.11	0.00	0.02	0.31	10.71	0.09	0.01	0.00		0.00		99.99
Fox I-22	1055.00	1040-1070	LCM	2	K-feldspar	63.79	0.17	18.83	0.00	0.06	0.02	0.00	0.06	0.70	15.43	0.06			1.63		100.74
Fox I-22	1055.00	1040-1070	LCM	4	K-feldspar	64.44	0.06	18.79	0.00	0.07	0.03	0.00	0.03	0.80	15.96	0.00			0.31		100.48
Fox I-22	1055.00	1040-1070	LCM	2	K-feldspar	65.53	0.03	18.31	0.00	0.15	0.03	0.00	0.08	0.78	16.39	0.00			0.19		101.48
Fox I-22	1115.00	1100-1130	LCM	1	K-feldspar	64.43	0.04	18.12	0.00	0.30	0.00	0.00	0.01	0.40	17.04	0.00			0.00		100.34
Fox I-22	1115.00	1100-1130	LCM	4	K-feldspar	64.80	0.00	18.10	0.00	0.94	0.00	0.00	0.01	0.54	16.84	0.01			0.14		101.38
Fox I-22	1115.00	1100-1130	LCM	1	K-feldspar	64.43	0.00	18.00	0.00	0.86	0.00	0.00	0.01	0.44	16.66	0.00			0.27		100.66
Fox I-22	1205.00	1190-1220	LCS	4	K-feldspar	64.85	0.00	18.27	0.00	0.84	0.00	0.00	0.00	0.66	15.37	0.00			0.63		100.62
Fox I-22	1205.00	1190-1220	LCS	9	K-feldspar	63.60	0.00	18.71	0.00	2.62	0.00	0.42	0.16	0.13	14.04	0.00			0.01		99.69
Fox I-22	1205.00	1190-1220	LCS	11	K-feldspar	64.42	0.00	17.48	0.00	0.78	0.00	0.00	0.78	0.36	15.55	0.40			0.00		99.77
Fox I-22	1205.00	1190-1220	LCS	5	K-feldspar	65.25	0.00	18.40	0.00	1.50	0.03	0.00	0.00	0.16	15.88	0.00			0.00		101.21
Fox I-22	1595.00	1580-1610	LCC	3	K-feldspar	64.85	0.00	17.94	0.00	0.03	0.00	0.00	0.00	0.62	15.48	0.00			0.19		99.10
Fox I-22	1955.00	1940-1970	UM	1	K-feldspar	65.43	0.08	17.76	0.00	0.06	0.04	0.00	0.03	0.84	15.87	0.04			0.32		100.46
Fox I-22	1955.00	1940-1970	UM	4	K-feldspar	65.18	0.04	17.82	0.00	0.05	0.05	0.00	0.04	1.18	15.55	0.08			0.28		100.25

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Fox I-22	1955.00	1940-1970	UM	1	K-feldspar	63.99	0.10	17.98	0.00	0.96	0.05	0.00	0.04	0.80	15.48	0.08			1.30		100.78
Fox I-22	1955.00	1940-1970	UM	2	K-feldspar	64.36	0.07	17.81	0.00	0.09	0.05	0.00	0.05	0.63	15.93	0.11			0.87		99.96
Fox I-22	1955.00	1940-1970	UM	3	K-feldspar	64.23	0.09	18.11	0.00	0.10	0.05	0.02	0.06	0.83	15.53	0.04			0.96		100.01
Fox I-22	1955.00	1940-1970C	UM	3	K-feldspar	62.05	0.03	17.51	0.00	0.92	0.00	0.00	0.00	0.63	18.02	0.00			0.83		99.99
Fox I-22	1955.00	1940-1970C	UM	9	K-feldspar	62.32	0.00	17.13	0.00	1.43	0.00	0.00	0.00	0.55	18.51	0.04			0.00		99.98
Fox I-22	1955.00	1940-1970C	UM	3	K-feldspar	62.00	0.00	17.13	0.00	1.58	0.00	0.00	0.00	0.26	18.67	0.00			0.28		99.92
Fox I-22	1955.00	1940-1970F	UM	1	K-feldspar	65.22	0.00	17.73	0.00	0.15	0.00	0.00	0.00	0.79	16.14	0.00			0.26		100.29
Fox I-22	1955.00	1940-1970F	UM	4	K-feldspar	66.21	0.00	17.48	0.00	0.17	0.01	0.00	0.00	0.64	16.17	0.00			0.29		100.97
Fox I-22	1985.00	1970-2000C	UM	6	K-feldspar	65.89	0.02	17.62	0.00	0.07	0.00	0.00	0.02	0.19	17.28	0.00			0.02		101.11
Fox I-22	1985.00	1970-2000F	UM	2	K-feldspar	62.42	0.00	17.94	0.00	0.82	0.00	0.00	0.00	0.23	16.52	0.00			0.00		97.93
Fox I-22	1985.00	1970-2000F	UM	3	K-feldspar	62.52	0.00	17.91	0.00	1.14	0.00	0.00	0.00	0.26	16.39	0.00			0.00		98.22
Fox I-22	2045.00	2030-2060	MM	1	K-feldspar	64.59	0.05	18.86	0.00	0.06	0.03	0.00	0.02	0.57	16.30	0.00			0.42		100.90
Fox I-22	2045.00	2030-2060	MM	5	K-feldspar	63.52	0.04	18.80	0.00	0.72	0.02	0.00	0.00	0.75	15.85	0.00			0.25		99.94
Fox I-22	2045.00	2030-2060	MM	1	K-feldspar	63.74	0.10	18.48	0.00	0.53	0.02	0.00	0.03	1.31	14.73	0.00			0.91		99.85
Fox I-22	2045.00	2030-2060	MM	7	K-feldspar	65.22	0.06	18.47	0.00	0.02	0.03	0.00	0.00	0.35	16.63	0.00			0.17		100.94
Fox I-22	2075.00	2060-2090F	MM	1	K-feldspar	63.93	0.00	17.75	0.00	0.29	0.02	0.00	0.00	0.40	16.55	0.01			0.23		99.17
Fox I-22	2075.00	2060-2090F	MM	6	K-feldspar	64.36	0.00	17.50	0.00	0.81	0.02	0.00	0.00	0.02	17.41	0.02			0.00		100.14
Fox I-22	2105.00	2090-2120F	MM	1	K-feldspar	65.22	0.00	17.90	0.00	0.12	0.00	0.00	0.01	1.45	15.65	0.00			0.24		100.59
Fox I-22	2105.00	2090-2120F	MM	1	K-feldspar	64.25	0.00	17.25	0.00	1.22	0.04	0.00	0.00	0.27	17.21	0.02			0.04		100.30
Fox I-22	2135.00	2120-2150F	MM	6	K-feldspar	64.18	0.00	17.89	0.00	0.00	1.07	0.02	0.00	0.39	15.92	0.00			0.52		99.99
Fox I-22	2255.00	2240-2270	MM	2	K-feldspar	63.30	0.17	18.32	0.00	0.16	0.09	0.11	0.07	0.48	14.96	0.36			0.78		98.80
Fox I-22	2255.00	2240-2270	MM	2	K-feldspar	63.31	0.15	18.17	0.00	0.30	0.13	0.08	0.11	0.08	1.16	14.51			0.46		98.46
Fox I-22	905.00	890-920B	LCM	4	Plagioclase	60.37	0.10	23.16	0.00	0.19	0.08	0.06	6.01	9.18	0.07	0.03			0.09		99.33
Fox I-22	905.00	890-920B	LCM	13	Plagioclase	50.50	0.10	29.39	0.00	0.32	0.07	0.06	14.37	4.10	0.04	0.02			0.16		99.12
Fox I-22	1055.00	1040-1070	LCM	3	Plagioclase	61.94	0.01	24.45	0.00	0.06	0.01	0.00	5.60	8.84	0.17	0.00			0.04		101.11
Fox I-22	1955.00	1940-1970	UM	2	Plagioclase	66.01	0.01	21.01	0.00	0.09	0.04	0.00	2.44	10.55	0.17	0.09			0.05		100.45
Fox I-22	2135.00	2120-2150F	MM	3	Plagioclase	67.01	0.00	19.10	0.00	1.46	0.00	0.00	0.24	12.16	0.00	0.00			0.00		99.97
Glenelg E-58	3529.32	3529.32	UM	327	Plagioclase	66.68	0.00	19.88	0.00	0.00	0.00	0.00	0.46	11.07	0.06	0.00		0.00	0.00	0.37	98.51
Glenelg E-58	3529.32	3529.32	UM	328	Plagioclase	66.77	0.00	19.88	0.00	0.00	0.00	0.00	0.51	11.00	0.06	0.00		0.00	0.00	0.36	98.58
Glenelg E-58	3529.32	3529.32	UM	329	Plagioclase	67.15	0.00	19.83	0.00	0.00	0.00	0.00	0.23	11.21	0.09	0.00		0.00	0.00	0.32	98.83
Glenelg N-49	2981.36	2981.36	LCC	147	K-feldspar	64.25	0.00	17.92	0.00	0.00	0.00	0.00	0.00	0.38	15.94	0.00	0.00	0.00	0.00	0.00	98.48
Glenelg N-49	2981.36	2981.36	LCC	158	K-feldspar	63.84	0.00	18.50	0.00	0.00	0.00	0.00	0.00	1.22	14.62	0.00	0.00	0.00	0.66	0.00	98.83
Glenelg N-49	2981.36	2981.36	LCC	146	K-feldspar	64.20	0.00	18.27	0.00	0.00	0.00	0.00	0.00	0.46	16.24	0.00	0.00	0.00	0.00	0.00	99.17
Glenelg N-49	2981.36	2981.36	LCC	169	K-feldspar	64.34	0.00	18.15	0.00	0.00	0.00	0.00	0.00	0.56	16.19	0.00	0.00	0.00	0.00	0.00	99.25
Glenelg N-49	2981.36	2981.36	LCC	164	K-feldspar	64.23	0.00	18.19	0.00	0.00	0.00	0.00	0.00	0.00	16.90	0.00	0.00	0.00	0.00	0.00	99.31
Glenelg N-49	2981.36	2981.36	LCC	168	K-feldspar	63.77	0.00	18.33	0.00	0.00	0.00	0.00	0.00	0.35	16.14	0.00	0.00	0.00	0.77	0.00	99.35
Glenelg N-49	2981.36	2981.36	LCC	154	K-feldspar	63.63	0.00	18.88	0.00	0.00	0.00	0.00	0.00	1.27	14.13	0.00	0.00	0.00	1.62	0.00	99.53
Glenelg N-49	2981.36	2981.36	LCC	273	K-feldspar	65.03	0.00	17.95	0.00	0.00	0.00	0.00	0.00	0.00	16.67	0.00	0.00	0.00	0.00	0.00	99.65
Glenelg N-49	2981.36	2981.36	LCC	159	K-feldspar	64.71	0.00	18.27	0.00	0.00	0.00	0.00	0.00	0.79	16.10	0.00	0.00	0.00	0.00	0.00	99.87
Glenelg N-49	2981.36	2981.36	LCC	161	K-feldspar	64.04	0.00	18.39	0.00	0.00	0.00	0.00	0.00	0.47	16.30	0.00	0.00	0.00	0.70	0.00	99.89

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Glenelg N-49	2981.36	2981.36	LCC	172	K-feldspar	62.01	0.00	17.42	0.00	1.89	0.00	0.00	0.00	1.11	13.02	0.00	0.00	0.00	0.00	0.00	100.32
Glenelg N-49	2983.18	2983.18	LCC	214	K-feldspar	64.96	0.00	18.48	0.00	0.00	0.00	0.00	0.00	0.19	12.64	0.00	0.00	0.00	1.63	0.00	97.90
Glenelg N-49	2983.18	2983.18	LCC	217	K-feldspar	63.87	0.00	18.35	0.00	0.32	0.00	0.24	0.00	0.55	15.26	0.00	0.00	0.00	0.61	0.00	99.21
Glenelg N-49	2983.18	2983.18	LCC	215	K-feldspar	64.45	0.00	18.24	0.00	0.00	0.00	0.00	0.00	0.56	16.08	0.00	0.00	0.00	0.00	0.00	99.33
Glenelg N-49	2983.18	2983.18	LCC	26	K-feldspar	64.44	0.00	18.75	0.00	0.00	0.00	0.00	0.00	0.49	15.69	0.00	0.00	0.00	0.00	0.00	99.37
Glenelg N-49	2983.18	2983.18	LCC	21	K-feldspar	64.06	0.00	18.85	0.00	0.00	0.00	0.00	0.00	0.68	14.85	0.00	0.00	0.00	1.03	0.00	99.47
Glenelg N-49	2983.18	2983.18	LCC	226	K-feldspar	64.46	0.00	18.30	0.00	0.00	0.00	0.00	0.00	0.59	16.14	0.00	0.00	0.00	0.00	0.00	99.49
Glenelg N-49	2983.18	2983.18	LCC	210	K-feldspar	64.28	0.00	18.26	0.00	0.00	0.00	0.00	0.00	0.57	16.09	0.00	0.00	0.00	0.56	0.00	99.75
Glenelg N-49	2983.18	2983.18	LCC	202	K-feldspar	64.21	0.00	18.48	0.00	0.00	0.00	0.00	0.00	0.87	15.32	0.00	0.00	0.00	0.93	0.00	99.81
Glenelg N-49	2987.28	2987.28	LCC	3	K-feldspar	63.70	0.00	18.55	0.00	0.00	0.00	0.00	0.00	0.28	16.36	0.00	0.00	0.00	0.00	0.00	98.89
Glenelg N-49	2987.28	2987.28	LCC	1	K-feldspar	65.56	0.00	18.88	0.00	0.00	0.00	0.00	0.00	0.74	15.04	0.00	0.00	0.00	0.00	0.00	100.22
Glenelg N-49	2987.28	2987.28	LCC	5	K-feldspar	64.62	0.00	18.75	0.00	0.00	0.00	0.00	0.00	0.47	16.42	0.00	0.00	0.00	0.00	0.00	100.25
Glenelg N-49	2988.51	2988.51	LCC	124	K-feldspar	65.00	0.00	18.16	0.00	0.00	0.00	0.00	0.00	0.00	15.94	0.00	0.00	0.00	0.00	0.00	99.10
Glenelg N-49	2988.51	2988.51	LCC	138	K-feldspar	64.92	0.00	18.38	0.00	0.00	0.00	0.00	0.00	1.42	14.76	0.00	0.00	0.00	0.00	0.00	99.48
Glenelg N-49	2988.51	2988.51	LCC	270	K-feldspar	64.94	0.00	18.37	0.00	0.00	0.00	0.00	0.00	0.90	15.60	0.00	0.00	0.00	0.00	0.00	99.81
Glenelg N-49	2988.51	2988.51	LCC	135	K-feldspar	64.64	0.00	18.55	0.00	0.00	0.00	0.00	0.00	0.43	16.20	0.00	0.00	0.00	0.00	0.00	99.81
Glenelg N-49	2988.51	2988.51	LCC	137	K-feldspar	64.66	0.00	18.30	0.00	0.00	0.00	0.00	0.00	0.30	16.77	0.00	0.00	0.00	0.00	0.00	100.02
Glenelg N-49	2988.51	2988.51	LCC	118	K-feldspar	64.53	0.00	18.44	0.00	0.00	0.00	0.00	0.00	0.49	15.98	0.00	0.00	0.00	0.60	0.00	100.04
Glenelg N-49	2988.51	2988.51	LCC	115	K-feldspar	63.65	0.00	18.86	0.00	0.00	0.00	0.00	0.00	0.48	15.81	0.00	0.00	0.00	1.31	0.00	100.11
Glenelg N-49	2988.51	2988.51	LCC	136	K-feldspar	65.19	0.00	18.48	0.00	0.00	0.00	0.00	0.23	0.97	15.59	0.00	0.00	0.00	0.00	0.00	100.45
Glenelg N-49	2988.51	2988.51	LCC	114	K-feldspar	64.01	0.00	18.89	0.00	0.00	0.00	0.00	0.00	0.41	15.77	0.00	0.00	0.00	1.62	0.00	100.69
Glenelg N-49	3001.84	3001.84	LCC	260	K-feldspar	64.78	0.00	18.45	0.00	0.00	0.00	0.00	0.00	0.73	15.83	0.00	0.00	0.00	0.53	0.00	100.32
Glenelg N-49	3001.84	3001.84	LCC	257	K-feldspar	65.14	0.00	18.43	0.00	0.00	0.00	0.00	0.00	0.72	16.07	0.00	0.00	0.00	0.00	0.00	100.36
Glenelg N-49	3576.78	3576.78	UM	197	K-feldspar	64.75	0.00	18.12	0.00	0.00	0.00	0.00	0.00	0.00	16.81	0.00	0.00	0.00	0.00	0.00	99.67
Glenelg N-49	3581.99	3581.99	UM	30	K-feldspar	64.25	0.00	18.65	0.00	0.00	0.00	0.00	0.00	0.60	15.52	0.00	0.00	0.00	0.56	0.00	99.57
Glenelg N-49	3603.05	3603.05	UM	236	K-feldspar	65.23	18.28	0.00	0.00	0.00	0.00	0.00	0.00	0.53	16.47	0.00	0.00	0.00	0.00	0.00	100.50
Glenelg N-49	3613.60	3613.60	UM	66	K-feldspar	63.80	0.00	18.31	0.00	0.00	0.00	0.00	0.00	0.42	16.14	0.00	0.00	0.00	0.00	0.00	98.66
Glenelg N-49	3613.60	3613.60	UM	61	K-feldspar	63.88	0.00	18.48	0.00	0.00	0.00	0.00	0.00	0.58	15.77	0.00	0.00	0.00	0.00	0.00	98.71
Glenelg N-49	3656.94	3656.94	UM	53	K-feldspar	64.01	0.00	18.59	0.00	0.00	0.00	0.00	0.00	0.39	16.02	0.00	0.00	0.00	0.00	0.00	99.00
Glenelg N-49	2981.36	2981.36	LCC	174	Plagioclase	64.96	0.00	21.50	0.00	0.00	0.00	0.00	2.71	9.21	0.21	0.00	0.00	0.00	0.00	0.00	98.61
Glenelg N-49	2983.18	2983.18	LCC	209	Plagioclase	65.10	0.00	20.72	0.00	0.00	0.00	0.00	2.41	8.20	1.60	0.00	0.00	0.00	0.00	0.00	98.02
Glenelg N-49	2983.18	2983.18	LCC	216	Plagioclase	68.52	0.00	19.42	0.00	0.00	0.00	0.00	0.00	10.28	0.00	0.00	0.00	0.00	0.00	0.00	98.22
Glenelg N-49	2987.28	2987.28	LCC	6	Plagioclase	68.21	0.00	19.65	0.00	0.00	0.00	0.00	0.00	10.43	0.00	0.00	0.00	0.00	0.00	0.00	98.29
Glenelg N-49	2988.51	2988.51	LCC	125	Plagioclase	65.53	0.00	21.33	0.00	0.00	0.00	0.00	2.45	9.61	0.19	0.00	0.00	0.00	0.00	0.00	99.10
Glenelg N-49	2988.51	2988.51	LCC	110	Plagioclase	68.67	0.00	19.60	0.00	0.00	0.00	0.00	0.26	10.82	0.00	0.00	0.00	0.00	0.00	0.00	99.34
Glenelg N-49	2988.51	2988.51	LCC	111	Plagioclase	60.34	0.00	24.94	0.00	0.00	0.00	0.00	6.81	7.16	0.26	0.00	0.00	0.00	0.00	0.00	99.51
Glenelg N-49	2988.51	2988.51	LCC	112	Plagioclase	60.57	0.00	24.82	0.00	0.00	0.00	0.00	6.88	7.33	0.21	0.00	0.00	0.00	0.00	0.00	99.81
Glenelg N-49	2988.51	2988.51	LCC	107	Plagioclase	65.76	0.00	19.49	0.00	2.38	0.00	0.89	1.53	10.14	0.00	0.00	0.00	0.00	0.00	0.00	100.19
Glenelg N-49	3603.05	3603.05	UM	245	Plagioclase	68.93	0.00	19.43	0.00	0.00	0.00	0.00	0.21	10.72	0.00	0.00	0.00	0.00	0.00	0.00	99.29
Jason C-20	3530.00	3530	LCC	3	K-feldspar	62.27	0.00	17.53	0.00	0.27	0.00	0.00	0.00	0.06	18.98	0.00			0.00		99.11

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Jason C-20	3530.00	3530	LCC	9	K-feldspar	63.79	0.00	17.94	0.00	0.52	0.00	0.00	0.01	0.74	17.36	0.00			0.00		100.36
Jason C-20	4220.00	4220	LCN	3	K-feldspar	64.00	0.29	18.14	0.00	0.00	0.00	0.00	0.00	0.17	16.87	0.00			0.00		99.46
Jason C-20	4220.00	4220	LCN	1	K-feldspar	62.75	0.00	18.59	0.00	0.43	0.00	0.01	0.02	0.53	16.52	0.25			0.00		99.10
Jason C-20	4220.00	4220	LCN	1	K-feldspar	62.70	0.00	18.53	0.00	0.31	0.00	0.00	0.00	0.99	16.18	0.04			0.00		98.74
Jason C-20	4220.00	4220	LCN	2	K-feldspar	62.64	0.00	18.34	0.00	0.74	0.00	0.00	0.00	0.63	16.56	0.00			0.01		98.92
Jason C-20	4220.00	4220	LCN	1	K-feldspar	64.83	0.02	18.56	0.00	0.57	0.02	0.00	0.00	0.43	16.13	0.01			0.04		100.61
Jason C-20	4220.00	4220	LCN	2	K-feldspar	63.64	0.05	18.56	0.00	0.37	0.00	0.00	0.00	0.73	16.72	0.01			0.14		100.22
Jason C-20	4220.00	4220	LCN	3	K-feldspar	63.66	0.03	18.40	0.00	0.74	0.02	0.00	0.01	0.28	17.49	0.01			0.05		100.69
Jason C-20	4480.00	4480H	LCNV	10	K-feldspar	65.52	0.24	18.99	0.00	1.36	0.01	0.04	1.14	4.63	7.29	0.04			0.08		99.33
Jason C-20	4480.00	4480H	LCNV	5	K-feldspar	62.34	0.15	18.89	0.00	4.46	0.00	0.53	0.55	5.29	5.89	0.00			0.13		98.23
Jason C-20	4700.00	4700F	MM	1	K-feldspar	63.34	0.29	18.51	0.00	0.30	0.18	0.11	0.12	0.90	16.88	0.06			0.30		100.99
Jason C-20	4700.00	4700F	MM	7	K-feldspar	63.36	0.19	19.06	0.00	0.60	0.02	0.00	0.58	5.67	9.23	0.00			0.02		98.73
Jason C-20	4700.00	4700F	MM	1	K-feldspar	69.00	0.00	18.47	0.00	0.68	0.00	0.00	0.02	0.05	12.31	0.03			0.02		100.59
Jason C-20	4700.00	4700F	MM	3	K-feldspar	66.72	0.05	17.99	0.00	0.73	0.00	0.00	0.00	0.05	15.02	0.03			0.07		100.65
Jason C-20	4700.00	4700F	MM	1	K-feldspar	63.78	0.03	18.14	0.00	0.26	0.01	0.00	0.00	0.60	16.84	0.00			0.00		99.65
Jason C-20	5680.00	5680	MM	2	K-feldspar	66.42	0.02	17.89	0.00	0.17	0.00	0.00	0.00	0.23	16.55	0.01			0.00		101.29
Jason C-20	5680.00	5680	MM	5	K-feldspar	68.31	0.01	17.48	0.00	0.08	0.00	0.00	0.04	0.45	14.22	0.00			0.00		100.60
Jason C-20	5680.00	5680	MM	7	K-feldspar	65.50	0.02	17.71	0.00	0.00	0.00	0.00	0.00	0.78	15.80	0.13			0.00		99.95
Jason C-20	5680.00	5680F	MM	1	K-feldspar	65.32	0.00	18.80	0.00	0.35	0.00	0.00	0.00	1.46	14.75	0.01			0.78		101.47
Jason C-20	5680.00	5680F	MM	5	K-feldspar	64.94	0.00	18.17	0.00	0.45	0.00	0.00	0.00	0.30	16.61	0.00			0.00		100.47
Jason C-20	5680.00	5680F	MM	6	K-feldspar	65.46	0.03	18.64	0.00	0.55	0.04	0.01	0.01	1.40	14.41	0.28			0.11		100.94
Jason C-20	6300.00	6300H	MMC	1	K-feldspar	65.19	0.00	17.76	0.00	0.04	0.00	0.02	0.00	0.39	16.49	0.00			0.10		99.99
Jason C-20	6300.00	6300H	MMC	1	K-feldspar	65.45	0.00	18.32	0.00	0.00	0.00	0.02	0.00	0.33	16.13	0.00			0.16		100.42
Jason C-20	6480.00	6480H	MMC	2	K-feldspar	64.50	0.00	17.86	0.00	0.86	0.03	0.00	0.00	0.54	16.60	0.00			0.17		100.56
Jason C-20	6480.00	6480H	MMC	3	K-feldspar	64.17	0.00	17.81	0.00	1.36	0.07	0.00	0.01	0.60	16.14	0.01			0.36		100.54
Jason C-20	6480.00	6480H	MMC	1	K-feldspar	63.99	0.06	18.27	0.00	0.30	0.02	0.00	0.01	0.55	16.35	0.00			0.84		100.38
Jason C-20	6480.00	6480H	MMC	2	K-feldspar	63.51	0.00	17.95	0.00	0.40	0.00	0.01	0.00	0.21	16.96	0.00			0.02		99.05
Jason C-20	6480.00	6480H	MMC	3	K-feldspar	65.15	0.00	19.75	0.00	0.58	0.00	0.00	1.64	7.32	4.03	0.00			0.00		98.47
Jason C-20	6480.00	6480H	MMC	9	K-feldspar	66.69	0.11	19.36	0.00	0.91	0.00	0.03	0.57	5.28	8.47	0.00			0.00		101.41
Jason C-20	4220.00	4220	LCN	1	Plagioclase	53.86	0.18	27.68	0.00	0.95	0.00	0.12	10.36	5.41	0.58	0.00			0.03		99.17
Jason C-20	4480.00	4480H	LCNV	10	Plagioclase	54.46	0.06	28.59	0.00	1.05	0.00	0.13	10.93	4.84	0.00	0.00			0.00		100.06
Jason C-20	4480.00	4480	LCNV	2	Plagioclase	53.21	0.10	28.65	0.00	0.67	0.00	0.14	12.48	3.96	0.01	0.01			0.00		99.22
Jason C-20	4700.00	4700C	MM	10	Plagioclase	62.31	0.02	23.26	0.00	0.76	0.00	0.06	4.73	7.15	1.10	0.00			0.41		99.81
Jason C-20	4700.00	4700C	MM	13	Plagioclase	57.57	0.04	26.31	0.00	0.59	0.00	0.04	8.41	6.05	0.27	0.01			0.00		99.28
Jason C-20	4700.00	4700F	MM	1	Plagioclase	52.92	0.11	29.22	0.00	0.82	0.00	0.12	12.18	4.39	0.25	0.02			0.03		100.04
Jason C-20	4700.00	4700F	MM	4	Plagioclase	52.34	0.24	29.24	0.00	0.80	0.00	0.13	12.47	4.24	0.23	0.02			0.00		99.70
Jason C-20	4700.00	4700F	MM	3	Plagioclase	54.97	0.18	26.20	0.00	1.50	0.00	0.12	9.40	5.86	0.92	0.03			0.02		99.22
Jason C-20	4700.00	4700F	MM	5	Plagioclase	54.34	0.21	26.06	0.00	1.09	0.01	0.09	9.45	5.70	0.94	0.03			0.03		97.94
Jason C-20	4700.00	4700F	MM	7	Plagioclase	58.78	0.13	23.22	0.00	1.23	0.00	0.09	5.75	6.98	2.16	0.02			0.03		98.39
Jason C-20	6480.00	6480H	MMC	13	Plagioclase	60.54	0.15	24.63	0.00	1.11	0.00	0.04	6.21	7.01	0.55	0.00			0.15		100.39

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Naskapi N-30	1472.36	1472.36	UM	608	Plagioclase	58.58	0.12	26.95	0.00	0.00	0.01	0.00	8.82	6.67	0.05						101.20
North Triumph B-52	3771.30	3771.30	UM	580	K-Feldspar	65.08	0.02	18.07	0.01	0.11	0.04	0.00	0.04	0.68	16.39						100.44
North Triumph B-52	3780.21	3780.21	UM	758	K-Feldspar	64.25	0.00	17.90	0.00	0.03	0.00	0.00	0.04	0.49	16.46						99.17
North Triumph B-52	3780.21	3780.21	UM	759	K-Feldspar	64.14	0.03	18.38	0.00	0.00	0.00	0.00	0.07	0.86	15.80						99.28
North Triumph B-52	3783.60	3783.60	UM	581	K-Feldspar	63.90	0.00	18.50	0.01	0.00	0.00	0.00	0.01	0.52	16.53						99.47
North Triumph B-52	3786.07	3786.07	UM	574	K-Feldspar	65.63	0.00	18.40	0.00	0.00	0.03	0.00	0.12	0.65	16.08						100.91
North Triumph B-52	3788.50	3788.50	UM	582	K-Feldspar	64.04	0.00	18.11	0.00	0.00	0.00	0.01	0.00	0.32	16.89						99.37
North Triumph B-52	3788.50	3788.50	UM	583	K-Feldspar	64.87	0.04	18.67	0.00	0.00	0.00	0.00	0.02	0.76	16.22						100.58
North Triumph B-52	3788.50	3788.50	UM	584	K-Feldspar	65.08	0.01	18.47	0.00	0.04	0.00	0.01	0.04	0.63	16.34						100.62
North Triumph B-52	3788.50	3788.50	UM	585	K-Feldspar	64.80	0.00	18.38	0.00	0.00	0.00	0.01	0.00	0.35	16.87						100.41
North Triumph B-52	3791.95	3791.95	UM	578	K-Feldspar	65.15	0.00	18.45	0.00	0.04	0.05	0.00	0.01	0.48	16.78						100.96
North Triumph B-52	3791.95	3791.95	UM	579	K-Feldspar	64.87	0.01	18.12	0.02	0.22	0.04	0.00	0.01	0.57	16.51						100.37
North Triumph B-52	3799.62	3799.62	UM	586	K-Feldspar	64.09	0.00	18.01	0.00	0.20	0.00	0.00	0.00	0.25	16.68						99.23
North Triumph B-52	3799.62	3799.62	UM	587	K-Feldspar	65.08	0.00	18.38	0.00	0.08	0.00	0.01	0.00	0.69	16.42						100.66
North Triumph B-52	3799.62	3799.62	UM	588	K-Feldspar	64.68	0.00	17.93	0.00	0.08	0.00	0.01	0.00	0.45	16.93						100.08
North Triumph B-52	3803.50	3803.50	UM	576	K-Feldspar	64.61	0.00	17.66	0.00	0.17	0.00	0.00	0.00	0.56	16.07						99.07
North Triumph B-52	3814.05	3814.05	UM	577	K-Feldspar	66.03	0.00	18.12	0.00	0.09	0.00	0.00	0.00	0.47	16.46						101.17
North Triumph B-52	3771.30	3771.30	UM	609	Plagioclase	64.45	0.03	22.33	0.00	0.17	0.05	0.00	3.74	8.91	0.18						99.86
North Triumph B-52	3771.30	3771.30	UM	610	Plagioclase	66.62	0.00	20.89	0.00	0.23	0.00	0.00	1.78	9.90	0.05						99.47
North Triumph B-52	3771.30	3771.30	UM	611	Plagioclase	64.74	0.00	22.35	0.00	0.16	0.00	0.00	3.76	9.29	0.07						100.37
North Triumph B-52	3776.62	3776.62	UM	590	Plagioclase	65.41	0.00	21.54	0.00	0.29	0.00	0.00	2.95	8.87	0.12						99.18
North Triumph B-52	3776.62	3776.62	UM	591	Plagioclase	65.26	0.00	21.43	0.00	0.28	0.00	0.00	2.95	8.91	0.18						99.01
North Triumph B-52	3784.40	3784.40	UM	745	Plagioclase	64.44	0.00	22.29	0.00	0.05	0.00	0.00	3.79	10.18	0.00						100.75
North Triumph B-52	3784.40	3784.40	UM	746	Plagioclase	65.94	0.00	20.98	0.00	0.13	0.00	0.00	2.05	11.19	0.12						100.41
North Triumph B-52	3784.40	3784.40	UM	747	Plagioclase	65.47	0.00	21.83	0.00	0.02	0.00	0.00	3.19	10.53	0.02						101.06
North Triumph B-52	3786.07	3786.07	UM	592	Plagioclase	65.94	0.00	21.59	0.00	0.00	0.05	0.00	3.03	8.99	0.11						99.71
North Triumph B-52	3786.07	3786.07	UM	593	Plagioclase	66.55	0.00	20.91	0.00	0.03	0.01	0.00	2.28	9.37	0.19						99.34
North Triumph B-52	3788.50	3788.50	UM	617	Plagioclase	64.11	0.00	22.57	0.00	0.00	0.00	0.01	3.86	9.90	0.13						100.58
North Triumph B-52	3791.95	3791.95	UM	604	Plagioclase	65.64	0.00	21.91	0.00	0.09	0.00	0.00	2.92	9.81	0.12						100.49
North Triumph B-52	3791.95	3791.95	UM	605	Plagioclase	67.36	0.00	20.98	0.00	0.11	0.00	0.00	1.68	10.02	0.12						100.27
North Triumph B-52	3791.95	3791.95	UM	606	Plagioclase	64.67	0.00	22.03	0.00	0.10	0.01	0.00	3.46	9.22	0.11						99.60
North Triumph B-52	3791.95	3791.95	UM	607	Plagioclase	66.33	0.00	21.29	0.00	0.00	0.00	0.00	2.17	10.04	0.12						99.95
North Triumph B-52	3791.95	3791.95	UM	608	Plagioclase	67.45	0.00	21.58	0.00	0.03	0.00	0.00	2.22	7.10	0.12						98.50
North Triumph B-52	3799.62	3799.62	UM	618	Plagioclase	66.40	0.00	20.71	0.00	0.07	0.00	0.00	1.73	9.86	0.11						98.88
North Triumph B-52	3799.62	3799.62	UM	619	Plagioclase	65.54	0.00	22.55	0.00	0.24	0.00	0.00	3.35	9.45	0.12						101.25
North Triumph B-52	3799.62	3799.62	UM	620	Plagioclase	63.80	0.00	21.78	0.00	0.12	0.00	0.00	3.05	9.17	0.09						98.01
North Triumph B-52	3808.44	3808.44	UM	612	Plagioclase	64.18	0.00	21.79	0.00	0.01	0.00	0.00	3.19	9.39	0.14						98.70
North Triumph B-52	3808.44	3808.44	UM	613	Plagioclase	66.23	0.00	21.58	0.00	0.00	0.00	0.00	2.53	9.67	0.10						100.11
North Triumph B-52	3808.44	3808.44	UM	614	Plagioclase	65.94	0.00	21.46	0.00	0.00	0.00	0.00	2.58	9.62	0.09						99.69
North Triumph B-52	3808.44	3808.44	UM	616	Plagioclase	66.40	0.00	21.13	0.00	0.00	0.00	0.00	2.27	10.03	0.06						99.89

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
North Triumph B-52	3814.05	3814.05	UM	599	Plagioclase	65.17	0.00	21.95	0.00	0.13	0.06	0.00	3.40	8.90	0.08						99.69
North Triumph B-52	3814.05	3814.05	UM	601	Plagioclase	66.12	0.00	21.49	0.00	0.10	0.00	0.00	2.71	9.28	0.21						99.91
North Triumph B-52	3814.05	3814.05	UM	602	Plagioclase	64.54	0.00	22.14	0.00	0.09	0.00	0.00	3.66	8.28	0.16						98.87
North Triumph B-52	3814.05	3814.05	UM	603	Plagioclase	66.27	0.00	22.44	0.00	0.08	0.00	0.00	3.72	5.82	0.15						98.48
Peskowesk A-99	2208.09	2208.09	LCC	42	K-feldspar	65.43	0.04	18.54	0.00	0.03	0.00	0.00	0.01	0.08	16.09						100.22
Peskowesk A-99	2208.09	2208.09	LCC	43	K-feldspar	64.92	0.04	18.09	0.00	0.05	0.01	0.00	0.01	0.11	16.16						99.39
Peskowesk A-99	2208.09	2208.09	LCC	44	K-feldspar	65.03	0.05	18.23	0.00	0.07	0.01	0.00	0.00	0.11	16.00						99.50
Peskowesk A-99	2208.09	2208.09	LCC	45	K-feldspar	65.13	0.04	18.18	0.00	0.09	0.00	0.00	0.01	0.12	16.23						99.80
Peskowesk A-99	2208.09	2208.09	LCC	46	K-feldspar	64.59	0.04	18.21	0.00	0.10	0.01	0.00	0.03	0.17	15.90						99.05
Peskowesk A-99	2210.37	2210.37	LCC	90	K-feldspar	64.38	0.00	18.41	0.00	0.09	0.00	0.01	0.05	0.50	16.46						99.90
Peskowesk A-99	2210.37	2210.37	LCC	47	K-feldspar	63.64	0.00	18.06	0.02	0.06	0.00	0.00	0.00	0.52	16.41						98.71
Peskowesk A-99	2210.37	2210.37	LCC	48	K-feldspar	65.99	0.00	16.54	0.00	0.06	0.00	0.00	0.00	0.10	15.97						98.66
Peskowesk A-99	2210.37	2210.37	LCC	49	K-feldspar	63.39	0.02	17.93	0.01	0.02	0.00	0.00	0.00	0.80	15.93						98.10
Peskowesk A-99	2210.37	2210.37	LCC	50	K-feldspar	64.09	0.02	17.35	0.03	0.04	0.00	0.03	0.02	0.09	16.67						98.34
Peskowesk A-99	2210.37	2210.37	LCC	51	K-feldspar	65.49	0.00	16.45	0.00	0.07	0.00	0.00	0.02	0.32	15.57						97.92
Peskowesk A-99	2210.37	2210.37	LCC	52	K-feldspar	64.20	0.04	17.95	0.03	0.04	0.00	0.00	0.05	0.86	15.62						98.79
Peskowesk A-99	2211.47	2211.47	LCC	117	K-feldspar	62.81	0.00	17.33	0.00	0.00	0.00	0.00	0.00	0.52	18.34						99.00
Peskowesk A-99	2211.47	2211.47	LCC	75	K-feldspar	64.29	0.00	18.06	0.00	0.05	0.00	0.00	0.01	0.15	15.77						98.33
Peskowesk A-99	2212.20	2212.20	LCC	53	K-feldspar	64.60	0.02	18.16	0.01	0.00	0.00	0.01	0.00	0.33	16.56						99.69
Peskowesk A-99	2212.20	2212.20	LCC	55	K-feldspar	64.86	0.00	18.62	0.02	0.07	0.00	0.03	0.04	0.53	15.65						99.82
Peskowesk A-99	2212.20	2212.20	LCC	56	K-feldspar	67.77	0.00	16.78	0.00	0.10	0.00	0.07	0.03	0.27	14.40						99.42
Peskowesk A-99	2212.20	2212.20	LCC	58	K-feldspar	68.04	0.00	16.63	0.00	0.11	0.00	0.03	0.05	0.37	14.67						99.90
Peskowesk A-99	2212.91	2212.91	LCC	91	K-feldspar	63.27	0.02	17.50	0.00	0.00	0.00	0.01	0.02	1.18	16.68						98.68
Peskowesk A-99	2212.91	2212.91	LCC	92	K-feldspar	67.92	0.00	18.75	0.00	0.00	0.00	0.00	0.18	6.73	6.35						99.93
Peskowesk A-99	2212.91	2212.91	LCC	93	K-feldspar	63.32	0.01	17.27	0.00	0.00	0.02	0.00	0.02	0.44	18.16						99.24
Peskowesk A-99	2212.91	2212.91	LCC	94	K-feldspar	62.46	0.00	17.69	0.00	0.01	0.02	0.00	0.06	0.89	17.36						98.49
Peskowesk A-99	2212.91	2212.91	LCC	95	K-feldspar	62.39	0.00	17.69	0.00	0.00	0.02	0.01	0.06	0.87	17.24						98.28
Peskowesk A-99	2212.91	2212.91	LCC	59	K-feldspar	64.19	0.04	18.08	0.02	0.05	0.03	0.00	0.04	0.36	16.41						99.22
Peskowesk A-99	2212.91	2212.91	LCC	61	K-feldspar	64.16	0.00	17.89	0.00	0.04	0.00	0.01	0.07	0.30	16.67						99.14
Peskowesk A-99	2212.91	2212.91	LCC	83	K-feldspar	65.54	0.05	18.02	0.01	0.09	0.01	0.02	0.01	0.19	16.38						100.32
Peskowesk A-99	2212.91	2212.91	LCC	84	K-feldspar	65.62	0.04	18.10	0.03	0.07	0.02	0.02	0.01	0.17	16.40						100.48
Peskowesk A-99	2212.91	2212.91	LCC	85	K-feldspar	64.83	0.00	17.86	0.02	0.08	0.03	0.00	0.04	0.27	16.12						99.25
Peskowesk A-99	2212.91	2212.91	LCC	86	K-feldspar	65.74	0.02	18.20	0.02	0.06	0.01	0.00	0.01	0.17	16.53						100.76
Peskowesk A-99	2212.91	2212.91	LCC	87	K-feldspar	65.29	0.02	18.03	0.01	0.05	0.01	0.00	0.02	0.17	16.49						100.09
Peskowesk A-99	2212.91	2212.91	LCC	88	K-feldspar	64.88	0.03	17.75	0.01	0.08	0.01	0.01	0.02	0.46	15.55						98.80
Peskowesk A-99	2217.57	2217.57	LCC	80	K-feldspar	65.14	0.03	18.64	0.00	0.17	0.02	0.00	0.02	0.21	15.72						99.95
Peskowesk A-99	2217.57	2217.57	LCC	81	K-feldspar	65.01	0.01	18.38	0.00	0.24	0.02	0.00	0.00	0.18	15.81						99.65
Peskowesk A-99	2217.57	2217.57	LCC	82	K-feldspar	64.96	0.05	18.21	0.01	0.19	0.01	0.01	0.00	0.27	15.75						99.46
Peskowesk A-99	2217.96	2217.96	LCC	89	K-feldspar	65.08	0.03	18.29	0.00	0.19	0.00	0.00	0.00	0.31	16.31						100.21
Peskowesk A-99	2217.96	2217.96	LCC	90	K-feldspar	65.86	0.00	17.74	0.01	0.61	0.01	0.00	0.12	1.62	13.31						99.28

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Peskowesk A-99	2222.59	2222.59	LCC	96	K-feldspar	63.40	0.00	17.38	0.00	0.06	0.00	0.00	0.01	1.04	17.24						99.13
Peskowesk A-99	2222.59	2222.59	LCC	97	K-feldspar	63.62	0.00	17.25	0.00	0.02	0.00	0.00	0.00	0.59	18.28						99.76
Peskowesk A-99	2222.59	2222.59	LCC	98	K-feldspar	64.02	0.00	17.55	0.00	0.28	0.00	0.00	0.00	0.55	18.62						101.02
Peskowesk A-99	2222.59	2222.59	LCC	99	K-feldspar	63.30	0.00	17.67	0.00	0.25	0.00	0.01	0.04	0.99	17.42						99.68
Peskowesk A-99	2222.59	2222.59	LCC	100	K-feldspar	64.40	0.17	18.53	0.00	0.50	0.00	0.33	0.01	0.16	15.91						100.01
Peskowesk A-99	2222.59	2222.59	LCC	101	K-feldspar	64.18	0.00	17.46	0.00	0.06	0.00	0.00	0.01	0.75	17.70						100.16
Peskowesk A-99	2222.59	2222.59	LCC	102	K-feldspar	63.27	0.00	17.48	0.00	0.06	0.00	0.00	0.00	0.47	18.19						99.47
Peskowesk A-99	2222.59	2222.59	LCC	103	K-feldspar	63.98	0.00	17.34	0.00	0.11	0.00	0.01	0.00	1.06	17.57						100.07
Peskowesk A-99	2227.34	2227.34	LCC	62	K-feldspar	65.64	0.03	17.63	0.00	0.77	0.00	0.01	0.02	0.93	15.59						100.62
Peskowesk A-99	2227.34	2227.34	LCC	63	K-feldspar	65.09	0.01	17.87	0.00	0.27	0.00	0.00	0.02	0.72	16.00						99.98
Peskowesk A-99	2227.34	2227.34	LCC	64	K-feldspar	65.29	0.02	17.52	0.00	0.83	0.00	0.00	0.03	0.79	15.67						100.15
Peskowesk A-99	2227.34	2227.34	LCC	91	K-feldspar	65.10	0.00	18.05	0.00	0.24	0.00	0.01	0.01	0.22	15.74						99.37
Peskowesk A-99	2227.34	2227.34	LCC	93	K-feldspar	66.93	0.03	16.68	0.00	0.32	0.00	0.00	0.00	0.28	14.27						98.51
Peskowesk A-99	2228.42	2228.42	LCC	65	K-feldspar	67.39	0.00	16.89	0.01	0.03	0.03	0.00	0.00	0.35	15.83						100.53
Peskowesk A-99	2228.42	2228.42	LCC	66	K-feldspar	66.57	0.00	16.83	0.00	0.03	0.02	0.00	0.00	0.42	15.80						99.67
Peskowesk A-99	2228.42	2228.42	LCC	67	K-feldspar	65.10	0.02	17.78	0.01	0.11	0.01	0.02	0.00	0.38	16.01						99.44
Peskowesk A-99	2230.62	2230.62	LCC	104	K-feldspar	63.31	0.00	17.39	0.01	0.08	0.00	0.01	0.00	0.35	18.46						99.61
Peskowesk A-99	2233.62	2233.62	LCC	35	K-feldspar	65.49	0.00	18.13	0.00	0.15	0.00	0.00	0.01	0.61	15.84						100.23
Peskowesk A-99	2233.62	2233.62	LCC	36	K-feldspar	65.86	0.00	18.25	0.00	0.08	0.00	0.00	0.00	1.41	14.49						100.09
Peskowesk A-99	2233.62	2233.62	LCC	37	K-feldspar	65.93	0.00	18.29	0.01	0.15	0.00	0.00	0.01	1.03	15.17						100.59
Peskowesk A-99	2233.62	2233.62	LCC	95	K-feldspar	64.72	0.04	18.02	0.03	0.16	0.01	0.02	0.09	0.52	16.00						99.61
Peskowesk A-99	2233.62	2233.62	LCC	96	K-feldspar	65.10	0.02	18.27	0.02	0.13	0.01	0.01	0.02	0.59	16.06						100.23
Peskowesk A-99	2233.62	2233.62	LCC	97	K-feldspar	64.99	0.02	18.34	0.04	0.14	0.02	0.02	0.03	0.89	15.79						100.28
Peskowesk A-99	2233.62	2233.62	LCC	98	K-feldspar	64.26	0.02	18.17	0.03	0.14	0.02	0.02	0.04	0.98	15.21						98.89
Peskowesk A-99	2233.62	2233.62	LCC	99	K-feldspar	65.33	0.03	18.22	0.02	0.21	0.00	0.01	0.03	0.38	16.13						100.36
Peskowesk A-99	2233.62	2233.62	LCC	100	K-feldspar	65.56	0.01	17.52	0.00	0.17	0.00	0.00	0.04	0.62	15.23						99.15
Peskowesk A-99	2233.62	2233.62	LCC	101	K-feldspar	64.28	0.00	17.67	0.01	0.14	0.00	0.02	0.07	0.40	15.85						98.44
Peskowesk A-99	2237.16	2237.16	LCC	69	K-feldspar	64.57	0.00	17.73	0.00	0.03	0.00	0.00	0.00	0.37	16.07						98.77
Peskowesk A-99	2237.16	2237.16	LCC	70	K-feldspar	64.13	0.00	17.73	0.00	0.00	0.00	0.00	0.00	0.48	16.00						98.34
Peskowesk A-99	2237.16	2237.16	LCC	102	K-feldspar	64.26	1.11	18.30	0.00	0.10	0.02	0.05	0.01	0.62	15.60						100.07
Peskowesk A-99	2237.16	2237.16	LCC	103	K-feldspar	65.20	0.18	18.32	0.00	0.12	0.01	0.04	0.01	0.63	15.89						100.40
Peskowesk A-99	2238.65	2238.65	LCC	89	K-feldspar	63.45	0.00	18.57	0.00	0.00	0.00	0.00	0.00	0.37	15.83						98.22
Peskowesk A-99	2238.65	2238.65	LCC	104	K-feldspar	64.23	0.25	18.75	0.00	0.23	0.01	0.02	0.03	2.06	13.41						98.99
Peskowesk A-99	2243.12	2243.12	LCC	34	K-feldspar	65.34	0.06	18.34	0.01	0.11	0.03	0.10	0.01	0.83	15.88						100.71
Peskowesk A-99	2243.12	2243.12	LCC	106	K-feldspar	65.15	0.06	18.22	0.00	0.10	0.05	0.01	0.03	0.07	14.88						98.57
Peskowesk A-99	2250.17	2250.17	LCC	71	K-feldspar	65.37	0.00	18.37	0.00	0.01	0.00	0.00	0.00	0.51	16.51						100.77
Peskowesk A-99	2250.17	2250.17	LCC	72	K-feldspar	65.61	0.00	18.49	0.00	0.01	0.00	0.00	0.00	0.59	16.35						101.05
Peskowesk A-99	2250.17	2250.17	LCC	73	K-feldspar	66.80	0.00	18.81	0.00	0.00	0.00	0.00	0.25	3.33	11.97						101.16
Peskowesk A-99	2266.99	2266.99	LCC	108	K-feldspar	62.99	0.02	18.05	0.00	0.00	0.00	0.00	0.00	0.60	17.71						99.37
Peskowesk A-99	2266.99	2266.99	LCC	109	K-feldspar	63.91	0.00	17.63	0.00	0.00	0.00	0.00	0.01	0.52	18.11						100.18

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Peskowesk A-99	2266.99	2266.99	LCC	110	K-feldspar	64.01	0.00	17.58	0.00	0.03	0.00	0.00	0.00	0.31	18.58						100.51
Peskowesk A-99	2266.99	2266.99	LCC	111	K-feldspar	63.65	0.00	17.77	0.00	0.01	0.00	0.01	0.02	0.91	16.78						99.15
Peskowesk A-99	2266.99	2266.99	LCC	112	K-feldspar	63.67	0.00	17.72	0.00	0.00	0.00	0.01	0.00	0.59	17.98						99.97
Peskowesk A-99	2933.62	2933.62	MM	113	K-feldspar	63.01	0.00	17.60	0.00	0.01	0.00	0.00	0.00	0.52	18.04						99.18
Peskowesk A-99	2933.62	2933.62	MM	114	K-feldspar	63.46	0.01	17.67	0.01	0.00	0.00	0.00	0.03	0.64	17.82						99.64
Peskowesk A-99	2936.06	2936.06	MM	38	K-feldspar	63.84	0.00	18.24	0.01	0.27	0.00	0.06	0.00	0.69	15.67						98.78
Peskowesk A-99	2936.06	2936.06	MM	39	K-feldspar	65.24	0.00	18.28	0.00	0.08	0.00	0.01	0.00	0.72	16.02						100.35
Peskowesk A-99	2950.54	2950.54	MM	118	K-feldspar	63.51	0.00	17.41	0.00	0.00	0.00	0.00	0.00	1.16	17.07						99.15
Peskowesk A-99	2950.54	2950.54	MM	119	K-feldspar	63.44	0.02	17.36	0.01	0.04	0.00	0.00	0.00	0.51	18.13						99.51
Peskowesk A-99	2950.54	2950.54	MM	120	K-feldspar	63.08	0.00	17.19	0.00	0.03	0.00	0.00	0.00	0.34	18.64						99.28
Peskowesk A-99	3796.33	3796.33	MMC	105	K-feldspar	63.32	0.00	17.47	0.00	0.00	0.00	0.00	0.00	0.24	18.51						99.54
Peskowesk A-99	3796.33	3796.33	MMC	106	K-feldspar	62.85	0.03	17.86	0.00	0.05	0.00	0.00	0.00	0.42	17.85						99.06
Peskowesk A-99	2211.47	2211.47	LCC	129	Plagioclase	66.08	0.00	21.86	0.00	0.00	0.00	0.00	3.26	8.80	0.00						100.00
Peskowesk A-99	2211.47	2211.47	LCC	169	Plagioclase	65.84	0.00	19.91	0.00	0.01	0.00	0.00	1.89	6.18	6.06						99.89
Peskowesk A-99	2212.91	2212.91	LCC	26	Plagioclase	62.71	0.00	22.43	0.00	0.05	0.00	0.00	4.36	9.45	0.10						99.10
Peskowesk A-99	2212.91	2212.91	LCC	27	Plagioclase	62.94	0.00	22.27	0.02	0.05	0.00	0.00	4.08	9.72	0.18						99.26
Peskowesk A-99	2222.59	2222.59	LCC	122	Plagioclase	62.98	0.00	23.16	0.00	0.06	0.00	0.00	5.51	8.08	0.21						100.00
Peskowesk A-99	2227.34	2227.34	LCC	28	Plagioclase	68.56	0.00	19.32	0.00	0.31	0.00	0.00	0.01	10.71	0.28						99.19
Peskowesk A-99	2230.62	2230.62B	LCC	7	Plagioclase	63.99	0.00	22.65	0.00	0.05	0.00	0.00	3.92	9.25	0.13						99.99
Peskowesk A-99	2230.62	2230.62B	LCC	10	Plagioclase	68.91	0.02	19.39	0.01	0.18	0.00	0.00	0.06	9.89	0.11						98.57
Peskowesk A-99	2233.62	2233.62	LCC	19	Plagioclase	69.30	0.00	19.15	0.00	0.03	0.00	0.00	0.00	11.72	0.17						100.37
Peskowesk A-99	2233.62	2233.62	LCC	20	Plagioclase	68.83	0.00	19.44	0.00	0.14	0.00	0.00	0.15	11.33	0.16						100.05
Peskowesk A-99	2233.62	2233.62B	LCC	11	Plagioclase	67.81	0.02	19.35	0.03	0.17	0.01	0.02	0.09	10.70	0.87						99.07
Peskowesk A-99	2233.62	2233.62B	LCC	12	Plagioclase	84.80	0.00	9.91	0.02	0.12	0.00	0.01	0.02	5.48	0.13						100.49
Peskowesk A-99	2237.16	2237.16	LCC	14	Plagioclase	68.78	0.00	19.62	0.00	0.04	0.02	0.00	0.08	11.32	0.16						100.02
Peskowesk A-99	2237.16	2237.16	LCC	15	Plagioclase	69.04	0.00	19.69	0.00	0.07	0.02	0.01	0.13	10.70	0.45						100.11
Peskowesk A-99	2237.16	2237.16	LCC	25	Plagioclase	66.82	0.00	19.59	0.00	1.57	0.00	0.58	0.06	9.82	0.00						98.44
Peskowesk A-99	2238.65	2238.65	LCC	121	Plagioclase	66.12	0.00	20.58	0.00	0.00	0.00	0.00	1.17	10.10	0.16						98.13
Peskowesk A-99	2238.65	2238.65	LCC	17	Plagioclase	68.53	0.01	19.57	0.00	0.01	0.02	0.00	0.05	9.77	0.07						98.03
Peskowesk A-99	2250.17	2250.17	LCC	29	Plagioclase	66.36	0.00	21.11	0.00	0.02	0.00	0.00	2.08	10.20	0.39						100.16
Peskowesk A-99	2250.17	2250.17	LCC	30	Plagioclase	69.61	0.00	19.32	0.00	0.00	0.00	0.00	0.00	11.65	0.09						100.67
Peskowesk A-99	2266.99	2266.99	LCC	128	Plagioclase	67.79	0.00	20.54	0.00	0.00	0.00	0.00	1.54	10.14	0.00						100.01
Peskowesk A-99	2470.66	2470.66	UM	126	Plagioclase	67.23	0.00	20.77	0.00	0.14	0.00	0.00	1.84	9.82	0.22						100.02
Peskowesk A-99	2470.66	2470.66	UM	127	Plagioclase	63.29	0.00	23.25	0.00	0.07	0.00	0.00	4.81	8.37	0.21						100.00
Peskowesk A-99	2950.54	2950.54	MM	130	Plagioclase	69.28	0.00	20.26	0.00	0.03	0.00	0.00	1.20	9.23	0.00						100.00
Peskowesk A-99	2963.06	2963.06	MM	21	Plagioclase	68.67	0.00	19.51	0.00	0.07	0.00	0.00	0.08	10.92	0.12						99.37
Peskowesk A-99	3793.40	3793.40	MMC	32	Plagioclase	71.99	0.00	17.74	0.01	0.03	0.00	0.00	0.13	10.57	0.10						100.57
Peskowesk A-99	3793.40	3793.40	MMC	33	Plagioclase	70.33	0.01	18.05	0.00	0.22	0.00	0.02	0.11	10.52	0.09						99.35
Peskowesk A-99	3796.33	3796.33	MMC	123	Plagioclase	64.29	0.00	23.37	0.00	0.05	0.00	0.02	2.04	8.65	1.60						100.02
Peskowesk A-99	3796.33	3796.33	MMC	124	Plagioclase	66.53	0.00	22.92	0.00	0.02	0.00	0.00	2.17	8.36	0.00						100.00

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Peskowesk A-99	3796.33	3796.33	MMC	125	Plagioclase	67.19	0.00	20.98	0.00	0.34	0.00	0.06	1.66	9.57	0.20						100.00
Sambro I-29	963.05	3170B	LC	1	K-Feldspar	63.65	0.03	18.28	0.00	0.09	0.00	0.00	0.04	0.91	16.79						99.79
Sambro I-29	963.05	3170B	LC	2	K-Feldspar	63.86	0.00	18.14	0.00	0.06	0.00	0.01	0.01	0.72	17.52						100.32
Sambro I-29	963.05	3170B	LC	3	K-Feldspar	64.14	0.00	17.87	0.00	1.31	0.00	0.02	0.00	0.35	17.31						101.00
Sambro I-29	963.05	3170B	LC	4	K-Feldspar	63.54	0.04	18.38	0.00	0.30	0.00	0.00	0.02	0.86	16.61						99.75
Sambro I-29	1136.21	3740	UM	8	K-Feldspar	63.00	0.00	17.79	0.00	1.54	0.00	0.00	0.02	0.73	16.99						100.07
Sambro I-29	1215.20	4000	UM	7	K-Feldspar	64.51	0.00	18.28	0.00	0.72	0.00	0.01	0.00	1.52	14.75						99.79
Sambro I-29	1239.50	4080	MM	9	K-Feldspar	62.97	0.00	18.36	0.00	0.09	0.00	0.01	0.13	0.36	18.20						100.12
Sambro I-29	1239.50	4080	MM	10	K-Feldspar	64.05	0.00	18.61	0.00	0.08	0.00	0.01	0.34	0.33	18.04						101.46
Sambro I-29	1239.50	4080	MM	11	K-Feldspar	62.20	0.00	18.29	0.00	0.07	0.00	0.01	0.40	0.58	16.85						98.40
Sambro I-29	1239.50	4080	MM	12	K-Feldspar	63.68	0.00	19.07	0.00	0.00	0.00	0.02	0.04	1.32	16.32						100.45
Sambro I-29	1239.50	4080	MM	13	K-Feldspar	63.63	0.00	18.31	0.00	0.03	0.00	0.02	0.07	0.33	17.82						100.21
Sambro I-29	1275.96	4200	MM	15	K-Feldspar	62.55	0.00	18.34	0.00	0.01	0.00	0.00	0.03	0.52	17.77						99.22
Sambro I-29	963.05	3170B	LC	71	Plagioclase	63.05	0.00	22.00	0.00	0.15	0.00	0.04	3.67	10.08	0.11						99.10
Thebaud 3	3911.16	4	LM	11	Plagioclase	68.91	0.02	20.15	0.00	0.04	0.00	0.00	0.62	10.05	0.16	0.27		0.00	0.03	0.43	100.68
Thebaud 3	3911.16	4	LM	12	Plagioclase	66.87	0.01	20.23	0.00	0.02	0.00	0.00	0.60	10.94	0.13	0.16		0.00	0.00	0.38	99.34
Thebaud 3	3911.16	4	LM	13	Plagioclase	66.66	0.00	20.47	0.03	0.02	0.02	0.00	0.79	10.94	0.16	0.22		0.00	0.01	0.41	99.72
Thebaud 3	3911.16	4	LM	14	Plagioclase	65.29	0.00	21.36	0.00	0.05	0.00	0.00	1.36	10.48	0.19	0.63		0.01	0.00	0.37	99.74
Thebaud 3	3911.16	4	LM	15	Plagioclase	65.29	0.00	21.49	0.00	0.04	0.00	0.00	1.37	10.44	0.18	0.65		0.00	0.01	0.39	99.87
Thebaud 3	3911.16	4	LM	16	Plagioclase	66.48	0.03	20.21	0.00	0.00	0.00	0.00	0.62	10.78	0.15	0.14		0.00	0.00	0.44	98.85
Thebaud 3	3913.54	7 (LMS)	LM	1	Plagioclase	68.48	0.00	20.00	0.00	0.01	0.00	0.00	0.00	11.75	0.02	0.00		0.00	0.00	0.39	100.66
Thebaud 3	3913.54	7 (LMS)	LM	2	Plagioclase	68.96	0.00	19.89	0.00	0.00	0.00	0.00	0.00	11.33	0.01	0.00		0.00	0.00	0.39	100.59
Thebaud 3	3913.54	7 (LMS)	LM	3	Plagioclase	69.44	0.00	19.84	0.00	0.00	0.00	0.00	0.00	10.64	0.02	0.00		0.00	0.00	0.37	100.32
Thebaud 3	3913.54	7 (LMS)	LM	4	Plagioclase	68.50	0.00	19.76	0.00	0.00	0.00	0.00	0.00	11.15	0.01	0.00		0.00	0.00	0.39	99.82
Thebaud 3	3913.54	7 (LMS)	LM	5	Plagioclase	68.49	0.00	19.87	0.00	0.00	0.00	0.00	0.00	10.93	0.02	0.00		0.00	0.00	0.37	99.67
Thebaud 3	3913.54	7 (LMS)	LM	6	Plagioclase	68.20	0.00	19.90	0.00	0.00	0.00	0.00	0.00	11.44	0.03	0.00		0.00	0.00	0.33	99.90
Thebaud 3	3913.54	7 (LMS)	LM	7	Plagioclase	69.43	0.00	19.79	0.00	0.00	0.00	0.00	0.00	10.19	0.02	0.00		0.00	0.00	0.42	99.84
Thebaud 3	3913.54	7 (LMS)	LM	8	Plagioclase	68.93	0.00	19.94	0.00	0.00	0.00	0.00	0.00	10.93	0.00	0.00		0.00	0.00	0.44	100.25
Thebaud 3	3913.54	7 (LMS)	LM	9	Plagioclase	68.02	0.00	19.93	0.00	0.00	0.00	0.00	0.01	10.93	0.02	0.00		0.00	0.00	0.40	99.32
Thebaud 3	3914.57	8 (HMS)	LM	45	Plagioclase	67.86	0.00	19.77	0.00	0.00	0.00	0.00	0.00	11.40	0.00	0.00		0.00	0.00	0.35	99.38
Thebaud 3	3915.04	9 (LMS)	LM	1	Plagioclase	68.43	0.00	19.89	0.00	0.00	0.00	0.00	0.00	10.78	0.02	0.00		0.00	0.00	0.43	99.54
Thebaud 3	3915.04	9 (LMS)	LM	2	Plagioclase	67.62	0.00	19.46	0.00	0.00	0.00	0.00	0.00	10.60	0.03	0.00		0.00	0.00	0.43	98.15
Thebaud 3	3915.04	9 (LMS)	LM	3	Plagioclase	68.23	0.00	19.63	0.00	0.09	0.00	0.00	0.00	10.90	0.02	0.00		0.00	0.00	0.41	99.28
Thebaud 3	3915.04	9 (LMS)	LM	4	Plagioclase	69.68	0.00	19.97	0.00	0.00	0.00	0.00	0.00	10.58	0.02	0.00		0.00	0.00	0.44	100.69
Thebaud 3	3915.04	9 (LMS)	LM	5	Plagioclase	68.93	0.00	19.94	0.00	0.00	0.00	0.00	0.00	10.62	0.00	0.00		0.00	0.00	0.47	99.95
Thebaud 3	3915.04	9 (LMS)	LM	6	Plagioclase	69.43	0.00	20.02	0.00	0.00	0.00	0.00	0.00	10.30	0.01	0.02		0.00	0.00	0.44	100.23
Thebaud 3	3915.04	9 (LMS)	LM	7	Plagioclase	68.97	0.00	20.03	0.00	0.00	0.00	0.00	0.00	10.67	0.01	0.00		0.00	0.00	0.42	100.10
Thebaud 3	3915.04	9 (LMS)	LM	13	Plagioclase	69.52	0.00	20.04	0.00	0.00	0.00	0.00	0.00	10.50	0.03	0.00		0.00	0.00	0.44	100.54
Thebaud 3	3915.04	9 (LMS)	LM	14	Plagioclase	67.73	0.00	19.63	0.00	0.01	0.00	0.00	0.00	10.18	0.02	0.00		0.00	0.00	0.42	97.99
Thebaud 3	3915.04	9 (LMS)	LM	15	Plagioclase	68.34	0.00	19.74	0.00	0.00	0.00	0.00	0.00	10.78	0.02	0.00		0.00	0.00	0.42	99.31

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Thebaud 3	3915.96	11 (LMS)	LM	1	Plagioclase	68.68	0.00	19.88	0.00	0.01	0.00	0.00	0.02	9.87	0.01	0.00		0.00	0.00	0.30	98.76
Thebaud 3	3915.96	11 (LMS)	LM	2	Plagioclase	69.97	0.00	20.18	0.00	0.00	0.00	0.00	0.00	10.58	0.00	0.00		0.00	0.00	0.37	101.10
Thebaud 3	3915.96	11 (LMS)	LM	3	Plagioclase	70.15	0.00	20.11	0.00	0.00	0.00	0.00	0.00	10.49	0.03	0.00		0.00	0.00	0.43	101.21
Thebaud 3	3915.96	11 (LMS)	LM	4	Plagioclase	69.51	0.00	20.26	0.00	0.00	0.00	0.00	0.00	10.01	0.02	0.00		0.00	0.00	0.38	100.18
Thebaud 3	3915.96	11 (LMS)	LM	5	Plagioclase	69.85	0.00	19.95	0.00	0.00	0.00	0.00	0.00	10.76	0.03	0.00		0.00	0.00	0.43	101.02
Thebaud 3	3915.96	11 (LMS)	LM	7	Plagioclase	69.55	0.00	19.94	0.00	0.00	0.00	0.00	0.00	10.73	0.02	0.00		0.00	0.00	0.39	100.63
Thebaud 3	3915.96	11 (LMS)	LM	8	Plagioclase	68.86	0.00	20.01	0.00	0.00	0.00	0.00	0.02	11.48	0.03	0.00		0.00	0.00	0.44	100.85
Thebaud 3	3915.96	11 (LMS)	LM	9	Plagioclase	69.55	0.00	19.99	0.00	0.00	0.00	0.00	0.01	10.52	0.03	0.00		0.00	0.00	0.41	100.50
Thebaud 3	3915.96	11 (LMS)	LM	10	Plagioclase	68.35	0.00	20.09	0.00	0.70	0.00	0.06	0.00	10.93	0.04	0.00		0.00	0.00	0.37	100.52
Thebaud 3	3915.96	11 (LMS)	LM	11	Plagioclase	69.40	0.00	19.94	0.00	0.00	0.00	0.00	0.00	10.80	0.02	0.00		0.00	0.00	0.42	100.59
Thebaud 3	3915.96	11 (LMS)	LM	14	Plagioclase	69.72	0.00	20.12	0.00	0.08	0.00	0.00	0.04	9.90	0.06	0.00		0.00	0.00	0.46	100.38
Thebaud 3	3915.96	11 (LMS)	LM	15	Plagioclase	69.52	0.00	20.10	0.00	0.03	0.00	0.00	0.12	10.23	0.03	0.00		0.00	0.00	0.47	100.51
Thebaud 3	3915.96	11 (LMS)	LM	16	Plagioclase	73.37	0.00	20.39	0.00	0.01	0.00	0.00	0.01	6.91	0.01	0.00		0.00	0.00	0.45	101.15
Thebaud 3	3915.96	11 (LMS)	LM	17	Plagioclase	69.33	0.00	19.86	0.00	0.00	0.00	0.00	0.01	10.69	0.03	0.00		0.01	0.00	0.28	100.21
Thebaud 3	3915.96	11 (LMS)	LM	18	Plagioclase	69.29	0.00	19.94	0.00	0.00	0.00	0.00	0.01	10.51	0.03	0.00		0.00	0.00	0.35	100.14
Thebaud 3	3915.96	11 (LMS)	LM	19	Plagioclase	68.62	0.00	19.76	0.00	0.02	0.00	0.00	0.03	10.50	0.01	0.04		0.00	0.00	0.29	99.27
Thebaud 3	3915.96	11 (LMS)	LM	20	Plagioclase	69.30	0.00	19.93	0.00	0.00	0.00	0.00	0.10	10.31	0.02	0.00		0.01	0.00	0.34	100.01
Thebaud 3	3915.96	11 (LMS)	LM	21	Plagioclase	69.59	0.00	19.93	0.00	0.01	0.00	0.00	0.01	10.72	0.03	0.01		0.01	0.02	0.33	100.66
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	11	Plagioclase	69.39	0.03	20.43	0.00	0.21	0.00	0.00	0.29	9.13	0.11	0.02		0.00	0.00	0.42	100.02
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	12	Plagioclase	69.09	0.03	19.91	0.01	0.14	0.00	0.00	0.07	10.16	0.05	0.04		0.01	0.00	0.35	99.86
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	13	Plagioclase	68.56	0.03	19.64	0.00	0.26	0.00	0.00	0.10	9.91	0.05	0.04		0.02	0.00	0.39	98.99
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	18	Plagioclase	71.26	0.00	20.36	0.01	0.02	0.00	0.00	0.03	6.65	0.02	0.01		0.00	0.00	0.39	98.75
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	20	Plagioclase	67.65	0.00	19.58	0.03	0.05	0.00	0.00	0.04	10.80	0.03	0.00		0.00	0.00	0.41	98.59
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	21	Plagioclase	69.85	0.01	19.88	0.00	0.04	0.00	0.00	0.04	10.00	0.05	0.00		0.01	0.00	0.38	100.27
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	22	Plagioclase	69.33	0.00	19.81	0.00	0.04	0.00	0.00	0.03	10.82	0.00	0.00		0.01	0.00	0.39	100.43
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	(25)	Plagioclase	74.01	0.04	20.44	0.00	0.13	0.00	0.00	0.03	6.82	0.03	0.00		0.01	0.01	0.37	101.90
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	27	Plagioclase	70.05	0.05	20.00	0.00	0.25	0.00	0.00	0.07	10.73	0.03	0.00		0.00	0.00	0.29	101.46
Thebaud C-74	3911.74	P20-3911.66-3911.82	LM	28	Plagioclase	69.45	0.05	20.12	0.00	0.19	0.00	0.00	0.04	10.41	0.05	0.02		0.00	0.01	0.30	100.63
Thebaud I-93	3361.87	7	MM	2	Plagioclase	70.94	0.00	19.96	0.00	0.07	0.00	0.00	0.00	9.97	0.05	0.00		0.03	0.00	0.41	101.45
Thebaud I-93	3361.87	7	MM	4	Plagioclase	70.00	0.02	19.60	0.01	0.12	0.00	0.00	0.00	10.38	0.06	0.01		0.00	0.00	0.36	100.56
Thebaud I-93	3361.87	7	MM	5	Plagioclase	70.83	0.01	19.82	0.00	0.12	0.01	0.00	0.04	9.48	0.31	0.09		0.01	0.00	0.42	101.13
Thebaud I-93	3361.87	7	MM	6	Plagioclase	70.20	0.02	19.73	0.00	0.07	0.01	0.00	0.00	10.50	0.14	0.00		0.00	0.00	0.38	101.05
Thebaud I-93	3361.87	7	MM	7	Plagioclase	68.61	0.00	19.34	0.01	0.15	0.00	0.00	0.00	9.79	0.12	0.02		0.02	0.00	0.39	98.45
Venture 1	4614.99	4614.81-4615.17	LM	49	Plagioclase	73.20	0.00	19.93	0.00	0.04	0.01	0.00	0.03	7.78	0.05	0.00		0.00	0.00	0.39	101.43
Venture 1	4614.99	4614.81-4615.17	LM	50	Plagioclase	68.55	0.00	19.40	0.00	0.03	0.01	0.00	0.03	11.19	0.02	0.00		0.00	0.00	0.33	99.56
Venture 1	4614.99	4614.81-4615.17	LM	51	Plagioclase	68.28	0.00	19.80	0.00	0.03	0.01	0.01	0.03	11.24	0.03	0.00		0.01	0.01	0.33	99.78
Venture 1	4614.99	4614.81-4615.17	LM	52	Plagioclase	68.18	0.00	19.65	0.00	0.03	0.00	0.00	0.03	11.34	0.04	0.00		0.00	0.00	0.33	99.59
Venture 1	4614.99	4614.81-4615.17	LM	53	Plagioclase	67.28	0.00	19.57	0.00	0.05	0.02	0.00	0.01	11.18	0.04	0.00		0.00	0.00	0.33	98.47
Venture 1	4614.99	4614.81-4615.17	LM	54	Plagioclase	68.30	0.00	19.72	0.00	0.07	0.00	0.00	0.15	10.86	0.04	0.00		0.00	0.01	0.34	99.48
Venture 1	4614.99	4614.81-4615.17	LM	55	Plagioclase	68.04	0.00	20.29	0.00	0.05	0.01	0.00	0.51	10.05	0.08	0.02		0.00	0.05	0.41	99.51

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Venture 1	4614.99	4614.81-4615.17	LM	56	Plagioclase	63.53	0.00	22.44	0.02	0.08	0.00	0.00	3.06	9.39	0.27	0.08		0.01	0.00	0.26	99.12
Venture 1	4614.99	4614.81-4615.17	LM	57	Plagioclase	65.81	0.00	22.93	0.00	0.06	0.01	0.00	3.20	6.53	0.24	0.05		0.00	0.00	0.35	99.19
Venture 3	4882.53	4882.37-4882.68	LM	68	Plagioclase	72.00	0.00	20.10	0.00	0.06	0.00	0.00	0.04	7.04	0.03	0.00		0.00	0.00	0.46	99.72
Venture 3	4882.53	4882.37-4882.68	LM	69	Plagioclase	68.77	0.00	19.68	0.00	0.05	0.01	0.00	0.01	10.35	0.02	0.01		0.00	0.00	0.36	99.26
Venture 3	4882.53	4882.37-4882.68	LM	70	Plagioclase	68.76	0.00	19.76	0.00	0.05	0.00	0.00	0.02	10.70	0.04	0.03		0.00	0.00	0.35	99.71
Venture 3	4882.53	4882.37-4882.68	LM	71	Plagioclase	68.50	0.00	19.58	0.00	0.06	0.00	0.00	0.01	10.41	0.01	0.00		0.00	0.02	0.33	98.93
Venture 3	4882.53	4882.37-4882.68	LM	72	Plagioclase	69.39	0.00	19.82	0.00	0.07	0.00	0.00	0.02	10.24	0.03	0.00		0.00	0.02	0.37	99.95
Venture 3	4882.53	4882.37-4882.68	LM	73	Plagioclase	69.31	0.00	19.52	0.00	0.08	0.01	0.00	0.02	10.11	0.02	0.00		0.00	0.00	0.37	99.45
Venture 3	4882.53	4882.37-4882.68	LM	74	Plagioclase	68.75	0.00	19.57	0.00	0.07	0.02	0.00	0.03	10.33	0.02	0.00		0.00	0.01	0.32	99.12
Venture 3	4882.53	4882.37-4882.68	LM	75	Plagioclase	68.83	0.01	19.75	0.01	0.11	0.00	0.00	0.06	10.27	0.02	0.00		0.00	0.00	0.38	99.43
Venture 3	4882.53	4882.37-4882.68	LM	76	Plagioclase	68.96	0.00	19.77	0.00	0.12	0.01	0.00	0.04	10.46	0.01	0.00		0.03	0.02	0.36	99.77
Venture 4	5341.42	5341.32-5341.52	LM	30	K-feldspar	63.23	0.04	18.55	0.04	0.03	0.02	0.00	0.00	0.53	14.77	0.00		0.02	0.35	0.41	97.99
Venture 4	5341.42	5341.32-5341.52	LM	31	K-feldspar	63.35	0.05	18.53	0.01	0.01	0.02	0.00	0.01	0.45	15.32	0.03		0.02	0.26	0.42	98.49
Venture 4	5341.42	5341.32-5341.52	LM	32	K-feldspar	63.53	0.03	18.65	0.03	0.03	0.01	0.00	0.01	0.52	15.16	0.02		0.02	0.27	0.44	98.73
Venture 4	5341.42	5341.32-5341.52	LM	20	Plagioclase	70.80	0.00	19.54	0.00	0.02	0.00	0.00	0.18	8.08	0.06	0.00		0.00	0.00	0.47	99.14
Venture 4	5341.42	5341.32-5341.52	LM	21	Plagioclase	67.33	0.00	19.39	0.00	0.04	0.01	0.00	0.14	10.71	0.06	0.00		0.00	0.00	0.33	98.01
Venture 4	5341.42	5341.32-5341.52	LM	22	Plagioclase	68.76	0.00	19.67	0.00	0.32	0.00	0.04	0.19	9.80	0.11	0.00		0.00	0.00	0.42	99.31
Venture 4	5341.42	5341.32-5341.52	LM	24	Plagioclase	67.05	0.00	19.42	0.00	0.03	0.01	0.00	0.08	10.97	0.08	0.02		0.00	0.00	0.38	98.02
Venture 4	5341.42	5341.32-5341.52	LM	33	Plagioclase	64.59	0.00	21.77	0.00	0.04	0.01	0.00	2.70	9.09	0.20	0.02		0.02	0.00	0.40	98.84
Venture 4	5341.42	5341.32-5341.52	LM	34	Plagioclase	63.96	0.00	21.81	0.02	0.06	0.00	0.00	2.81	9.12	0.18	0.00		0.00	0.00	0.38	98.34
Venture 4	5341.42	5341.32-5341.52	LM	35	Plagioclase	63.61	0.02	21.88	0.00	0.03	0.01	0.00	2.86	9.41	0.18	0.02		0.00	0.00	0.42	98.46
Venture 4	5341.42	5341.32-5341.52	LM	36	Plagioclase	68.76	0.00	19.32	0.00	0.02	0.01	0.00	0.04	9.57	0.04	0.01		0.00	0.00	0.33	98.10
Venture 4	5341.42	5341.32-5341.52	LM	37	Plagioclase	69.45	0.00	19.41	0.01	0.01	0.00	0.00	0.01	10.82	0.04	0.00		0.00	0.00	0.34	100.09
Venture 4	5341.42	5341.32-5341.52	LM	39	Plagioclase	69.22	0.00	19.46	0.01	0.00	0.00	0.00	0.01	10.04	0.05	0.00		0.00	0.00	0.37	99.16
Venture 4	5341.42	5341.32-5341.52	LM	40	Plagioclase	69.05	0.00	19.65	0.02	0.01	0.02	0.00	0.00	10.47	0.03	0.02		0.00	0.00	0.34	99.61
Venture 4	5341.42	5341.32-5341.52	LM	41	Plagioclase	68.75	0.00	19.58	0.01	0.03	0.01	0.00	0.02	10.64	0.03	0.00		0.00	0.00	0.39	99.45
Venture 4	5341.42	5341.32-5341.52	LM	42	Plagioclase	68.43	0.00	19.44	0.00	0.00	0.00	0.00	0.10	10.72	0.05	0.00		0.00	0.00	0.40	99.14
Venture 4	5341.42	5341.32-5341.52	LM	43	Plagioclase	68.45	0.00	19.56	0.00	0.00	0.01	0.00	0.00	10.88	0.03	0.01		0.00	0.00	0.41	99.35
Venture 4	5341.42	5341.32-5341.52	LM	44	Plagioclase	68.61	0.00	19.49	0.00	0.00	0.00	0.00	0.00	10.70	0.03	0.03		0.00	0.00	0.40	99.26
Venture 4	5341.42	5341.32-5341.52	LM	45	Plagioclase	69.35	0.00	19.53	0.00	0.00	0.00	0.00	0.01	10.28	0.03	0.01		0.00	0.00	0.31	99.53
Venture 4	5341.42	5341.32-5341.52	LM	46	Plagioclase	68.58	0.00	19.65	0.00	0.00	0.00	0.00	0.01	10.34	0.03	0.03		0.00	0.01	0.32	98.98
Venture 4	5371.87	5371.77-5371.97	LM	31	Plagioclase	67.83	0.00	19.44	0.00	0.00	0.00	0.00	0.00	10.31	0.03	0.00		0.00	0.00	0.41	98.02

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Alma K-85	2465.00	2465.00	LCC	195	Garnet	37.82	0.09	19.28	0.04	18.16	14.37	1.07	9.45	0.04	0.02						100.34	2
Alma K-85	2465.90	2465.90	LCC	198	Garnet	37.68	0.19	20.98	0.04	26.85	0.77	2.05	9.82	0.08	0.00						98.46	1
Alma K-85	2466.65	2466.65	LCC	196	Garnet	37.32	0.01	20.22	0.01	31.40	0.51	2.72	3.49	0.04	0.00						95.72	1
Alma K-85	2466.65	2466.65	LCC	197	Garnet	36.10	0.03	21.09	0.01	32.25	0.43	2.87	4.11	0.03	0.00						96.92	1
Alma K-85	2468.95	2468.95	LCC	267	Garnet	36.67	0.00	19.76	0.00	22.21	14.43	1.26	3.28	0.00	0.00						97.61	4
Alma K-85	2468.95	2468.95	LCC	268	Garnet	36.49	0.00	19.59	0.00	22.01	13.74	1.20	3.50	0.00	0.00						96.53	4
Alma K-85	2468.95	2468.95	LCC	269	Garnet	37.36	0.04	19.47	0.00	18.67	18.59	1.71	1.00	0.00	0.00						96.84	4
Alma K-85	2469.30	2469.30	LCC	225	Garnet	36.82	0.15	20.37	0.24	28.45	2.06	2.14	9.24	0.00	0.02						99.49	1
Alma K-85	2469.30	2469.30	LCC	270	Garnet	36.80	0.18	20.43	0.16	28.63	1.58	1.98	9.07	0.01	0.03						98.87	1
Alma K-85	2469.30	2469.30	LCC	271	Garnet	36.52	0.10	19.08	0.02	8.35	30.00	1.27	0.45	0.02	0.03						95.84	5
Alma K-85	2469.30	2469.30	LCC	272	Garnet	36.79	0.09	19.21	0.03	8.36	30.13	1.35	0.56	0.03	0.02						96.57	5
Alma K-85	2473.70	2473.70	LCC	273	Garnet	37.92	0.00	19.93	0.00	30.23	1.57	1.41	9.00	0.02	0.00						100.08	3
Alma K-85	2473.70	2473.70	LCC	274	Garnet	38.23	0.00	19.93	0.02	30.49	1.57	1.41	8.56	0.01	0.00						100.22	3
Alma K-85	2473.70	2473.70	LCC	275	Garnet	38.08	0.00	20.03	0.02	29.26	0.41	1.43	10.51	0.01	0.00						99.75	3
Alma K-85	2473.70	2473.70	LCC	285	Garnet	35.61	0.35	20.12	0.00	17.98	18.85	2.44	1.27	0.00	0.00						96.62	4
Alma K-85	2474.15	2474.15	LCC	276	Garnet	37.71	0.08	20.75	0.03	29.09	4.36	1.17	7.17	0.01	0.00						100.37	2
Alma K-85	2474.15	2474.15	LCC	277	Garnet	37.65	0.09	20.54	0.02	28.92	4.01	1.28	7.14	0.01	0.00						99.66	2
Alma K-85	2502.00	2502.00	LCC	281	Garnet	36.89	0.06	21.85	0.07	37.44	0.40	3.27	1.11	0.05	0.00						101.14	1
Alma K-85	2502.00	2502.00	LCC	282	Garnet	36.89	0.06	21.95	0.06	37.48	0.40	3.32	1.10	0.04	0.00						101.30	1
Alma K-85	2862.24	2862.24	UM	279	Garnet	36.72	0.14	21.47	0.04	26.86	8.87	1.21	5.34	0.02	0.00						100.67	2
Alma K-85	2862.24	2862.24	UM	280	Garnet	36.66	0.13	21.67	0.06	26.73	8.82	1.20	5.24	0.03	0.00						100.54	2
Alma K-85	3045.23	3045.23	UM	283	Garnet	36.59	0.35	21.22	0.03	11.18	24.29	0.30	5.59	0.00	0.00						99.55	5
Alma K-85	3045.23	3045.23	UM	284	Garnet	36.59	0.24	21.52	0.03	14.42	23.55	0.49	3.83	0.00	0.00						100.67	5
Alma K-85	3075.96	3075.96	UM	278	Garnet	38.89	0.02	22.19	0.03	29.46	0.79	7.12	2.07	0.00	0.00						100.57	1
Argo F-38	3045.00	3030-3060A	LCC	5	Garnet	36.83	0.46	19.56	0.00	11.39	27.85	2.76	1.40	0.02	0.00	0.03			0.81		101.13	5
Crow F-52	1970.00	1970A	LCS	1	Garnet	36.41	0.01	21.30	0.00	33.19	6.94	1.57	0.85	0.04	0.00	0.00			0.00		100.30	1
Dauntless D-35	2554.22	2554.22	LCC	3	Garnet	37.89	0.03	20.92	0.01	23.84	0.95	4.59	11.60	0.00	0.03						99.86	1
Dauntless D-35	2554.22	2554.22	LCC	4	Garnet	37.74	0.03	21.06	0.00	23.91	0.93	4.58	11.54	0.01	0.04						99.82	1
Dauntless D-35	2554.22	2554.22	LCC	5	Garnet	36.49	0.17	20.73	0.00	23.58	7.36	0.64	9.92	0.00	0.03						98.91	1
Dauntless D-35	2554.22	2554.22	LCC	6	Garnet	36.68	0.13	20.61	0.01	24.78	6.22	0.71	9.89	0.02	0.03						99.08	1
Dauntless D-35	2705.67	2705.67	LCC	1	Garnet	36.97	0.12	20.48	0.02	31.92	1.70	0.63	8.66	0.03	0.01						100.51	1
Dauntless D-35	2705.67	2705.67	LCC	2	Garnet	36.95	0.10	20.50	0.05	32.64	1.20	0.65	8.32	0.03	0.02						100.47	5
Dauntless D-35	2705.67	2705.67	LCC	3	Garnet	38.13	0.00	21.21	0.00	30.98	1.36	6.94	1.36	0.00	0.02						100.00	4
Dauntless D-35	2705.67	2705.67	LCC	4	Garnet	38.10	0.00	21.16	0.00	30.80	1.37	7.07	1.47	0.01	0.01						99.99	5
Dauntless D-35	2705.67	2705.67	LCC	7	Garnet	38.61	0.00	21.72	0.04	27.08	1.87	9.78	1.67	0.00	0.01						100.78	4
Dauntless D-35	2705.67	2705.67	LCC	8	Garnet	38.46	0.00	21.64	0.02	27.04	1.95	9.77	1.72	0.00	0.02						100.61	5
Dauntless D-35	2705.67	2705.67	LCC	9	Garnet	37.83	0.00	21.11	0.03	29.61	4.96	6.11	1.70	0.00	0.01						101.37	5
Dauntless D-35	2705.67	2705.67	LCC	10	Garnet	37.56	0.00	21.27	0.06	29.38	5.15	6.07	1.64	0.01	0.03						101.16	5
Dauntless D-35	2709.67	2709.67	LCC	6	Garnet	37.64	0.04	20.99	0.06	25.71	2.43	5.05	7.64	0.04	0.04						99.62	2
Dauntless D-35	2709.67	2709.67	LCC	7	Garnet	37.63	0.03	20.78	0.05	26.01	2.37	5.02	7.71	0.01	0.03						99.64	4
Dauntless D-35	2709.67	2709.67	LCC	8	Garnet	37.75	0.02	21.54	0.04	31.15	0.93	7.45	1.43	0.01	0.03						100.33	2

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Dauntless D-35	2709.67	2709.67	LCC	9	Garnet	37.76	0.00	21.39	0.05	31.35	0.97	7.42	1.30	0.01	0.03						100.29	4
Dauntless D-35	2709.67	2709.67	LCC	14	Garnet	37.71	0.04	21.33	0.06	31.94	1.41	6.11	1.75	0.00	0.03						100.37	1
Dauntless D-35	2709.67	2709.67	LCC	15	Garnet	37.84	0.03	21.63	0.04	31.95	1.38	6.22	1.74	0.03	0.03						100.89	1
Dauntless D-35	2709.67	2709.67	LCC	16	Garnet	39.41	0.05	22.23	0.00	19.92	0.33	11.95	6.33	0.01	0.02						100.25	2
Dauntless D-35	2709.67	2709.67	LCC	17	Garnet	39.39	0.04	22.18	0.00	19.77	0.34	11.98	6.31	0.01	0.02						100.03	4
Dauntless D-35	2709.67	2709.67	LCC	18	Garnet	38.29	0.01	21.69	0.03	26.26	1.46	7.76	4.65	0.00	0.02						100.16	1
Dauntless D-35	2709.67	2709.67	LCC	19	Garnet	38.36	0.03	21.67	0.03	25.72	1.28	8.24	4.62	0.00	0.03						99.96	1
Dauntless D-35	2709.67	2709.67	LCC	20	Garnet	37.62	0.04	21.35	0.05	29.37	3.96	6.12	1.74	0.00	0.04						100.29	1
Dauntless D-35	2709.67	2709.67	LCC	21	Garnet	37.53	0.01	21.02	0.06	29.38	3.86	6.19	1.65	0.02	0.03						99.75	5
Dauntless D-35	2709.67	2709.67	LCC	22	Garnet	38.49	0.00	21.80	0.01	26.75	1.42	9.86	1.64	0.00	0.02						100.00	2
Dauntless D-35	2709.67	2709.67	LCC	23	Garnet	38.54	0.00	21.98	0.01	26.71	1.46	9.93	1.71	0.02	0.02						100.38	1
Dauntless D-35	2709.67	2709.67	LCC	24	Garnet	37.74	0.06	20.81	0.03	25.88	0.92	7.29	6.33	0.00	0.03						99.09	1
Dauntless D-35	2709.67	2709.67	LCC	25	Garnet	37.80	0.02	21.14	0.00	25.88	0.92	7.32	6.36	0.02	0.02						99.49	2
Dauntless D-35	2709.67	2709.67	LCC	26	Garnet	36.42	0.10	20.60	0.07	32.99	1.33	0.67	7.66	0.03	0.03						99.90	5
Dauntless D-35	2709.67	2709.67	LCC	27	Garnet	36.29	0.13	20.39	0.09	32.85	1.17	0.64	7.78	0.03	0.03						99.41	4
Dauntless D-35	2709.67	2709.67	LCC	30	Garnet	37.81	0.06	20.94	0.02	26.63	1.10	6.23	6.63	0.01	0.02						99.42	4
Dauntless D-35	2709.67	2709.67	LCC	31	Garnet	37.19	0.06	20.81	0.03	26.65	1.11	6.26	6.50	0.01	0.04						98.67	1
Emerillon C-56	1828.80	1828.80	LCE	33	Garnet	36.87	0.09	20.60	0.05	31.76	1.55	1.27	7.22	0.00	0.04						99.46	2
Emerillon C-56	1828.80	1828.80	LCE	34	Garnet	37.07	0.10	20.79	0.04	32.51	1.58	1.33	6.83	0.01	0.04						100.31	5
Emerillon C-56	1828.80	1828.80	LCE	35	Garnet	38.10	0.02	20.84	0.03	25.51	2.45	5.49	7.46	0.00	0.03						99.92	5
Emerillon C-56	1828.80	1828.80	LCE	36	Garnet	37.20	0.01	20.54	0.02	25.30	2.54	5.29	7.60	0.00	0.03						98.55	4
Emerillon C-56	1950.72	1950.72	LCN	37	Garnet	37.20	0.01	21.03	0.08	35.47	0.40	4.44	1.08	0.05	0.03						99.79	1
Emerillon C-56	1950.72	1950.72	LCN	38	Garnet	37.36	0.04	21.31	0.05	35.39	0.43	4.47	1.13	0.03	0.03						100.24	4
Emerillon C-56	1950.72	1950.72	LCN	39	Garnet	36.15	0.17	20.42	0.08	24.86	12.28	1.04	3.77	0.01	0.03						98.81	4
Emerillon C-56	1950.72	1950.72	LCN	40	Garnet	36.40	0.21	20.41	0.08	24.59	12.21	1.02	3.66	0.01	0.04						98.63	4
Emerillon C-56	1950.72	1950.72	LCN	41	Garnet	36.73	0.06	20.49	0.07	27.67	10.65	2.45	0.96	0.00	0.04						99.13	4
Emerillon C-56	1950.72	1950.72	LCN	42	Garnet	36.35	0.10	20.53	0.05	27.60	10.70	2.50	1.05	0.00	0.05						98.95	4
Glenelg N-49	2988.51	2988.51	LCC	300	Garnet	35.32	0.00	21.81	0.00	35.18	1.80	4.07	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	99.79	4
Glenelg N-49	3609.63	3609.63	UM	44	Garnet	35.06	0.00	19.99	0.00	17.43	23.76	0.39	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.40	4
Glenelg N-49	3609.63	3609.63	UM	43	Garnet	35.41	0.00	20.11	0.00	18.01	23.83	0.38	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.42	1
Hermine E-94	1484.38	1484.38	LCE	45	Garnet	38.75	0.01	21.96	0.01	21.38	5.45	10.79	1.17	0.00	0.02						99.55	1
Hermine E-94	1484.38	1484.38	LCE	46	Garnet	38.60	0.03	21.80	0.00	21.28	5.51	10.65	1.23	0.01	0.03						99.14	1
Hermine E-94	1484.38	1484.38	LCE	47	Garnet	38.60	0.02	21.79	0.02	24.21	1.29	10.05	3.15	0.01	0.02						99.16	4
Hermine E-94	1484.38	1484.38	LCE	48	Garnet	38.61	0.04	21.90	0.00	24.16	1.26	10.19	3.05	0.02	0.04						99.27	4
Jason C-20	3940.00	3940H	LCC	1	Garnet	38.03	0.00	21.94	0.00	29.91	1.14	7.62	1.77	0.00	0.00	0.09			0.02		100.52	1
Jason C-20	3940.00	3940H	LCC	1	Garnet	38.17	0.03	21.99	0.00	25.14	1.52	9.22	3.22	0.03	0.00	0.04			0.00		99.37	1
Jason C-20	3940.00	3940H	LCC	1	Garnet	39.07	0.00	21.60	0.00	25.63	0.83	7.02	7.24	0.01	0.00	0.00			0.00		101.39	4
Jason C-20	5680.00	5680F	MM	2	Garnet	36.73	0.01	20.35	0.00	19.62	20.41	0.82	3.04	0.02	0.00	0.00			0.00		101.02	4
Jason C-20	6480.00	6480H	MMC	1	Garnet	42.67	0.05	20.66	0.00	7.08	0.40	21.51	5.33	0.02	0.00	0.08			0.03		97.83	4
Musquodoboit E-23	1800.00	1800.00	LCC	1	Garnet	37.04	0.04	20.65	0.03	28.55	1.95	6.62	2.73	0.03	0.05	0.04		0.26	0.02	0.04	98.04	4
Musquodoboit E-23	1800.00	1800.00	LCC	2	Garnet	36.92	0.05	20.47	0.02	28.62	2.06	6.65	2.79	0.01	0.02	0.03		0.27	0.03	0.01	97.96	1

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	1800.00	1800.00	LCC	11	Garnet	36.86	0.05	20.09	0.02	24.54	1.05	6.23	8.33	0.01	0.02	0.02		0.24	0.00	0.02	97.48	1
Musquodoboit E-23	1800.00	1800.00	LCC	12	Garnet	36.45	0.11	19.90	0.01	24.35	1.03	6.19	8.57	0.01	0.04	0.03		0.24	0.01	0.02	96.97	1
Musquodoboit E-23	1800.00	1800.00	LCC	13	Garnet	36.68	0.11	20.40	0.02	29.99	1.69	4.76	4.36	0.01	0.03	0.03		0.24	0.01	0.01	98.35	1
Musquodoboit E-23	1800.00	1800.00	LCC	14	Garnet	36.03	0.07	20.18	0.02	29.82	1.76	4.74	4.35	0.00	0.02	0.06		0.25	0.00	0.05	97.35	1
Musquodoboit E-23	1800.00	1800.00	LCC	15	Garnet	37.13	0.02	20.54	0.00	24.86	0.49	6.17	8.16	0.00	0.03	0.04		0.21	0.01	0.01	97.67	4
Musquodoboit E-23	1800.00	1800.00	LCC	16	Garnet	37.00	0.07	20.81	0.01	24.30	0.49	5.94	8.78	0.00	0.02	0.04		0.24	0.01	0.03	97.77	1
Musquodoboit E-23	1800.00	1800.00	LCC	17	Garnet	35.61	0.27	18.24	0.03	18.28	10.95	0.68	12.65	0.02	0.03	0.03		0.27	0.06	0.05	97.18	1
Musquodoboit E-23	1800.00	1800.00	LCC	18	Garnet	35.68	0.18	18.70	0.01	17.87	11.20	0.66	12.79	0.03	0.03	0.02		0.19	0.00	0.02	97.38	1
Musquodoboit E-23	1800.00	1800.00	LCC	39	Garnet	35.58	0.11	19.48	0.02	18.45	13.12	1.44	8.61	0.04	0.03	0.05		0.22	0.06	0.01	97.20	1
Musquodoboit E-23	1800.00	1800.00	LCC	40	Garnet	35.55	0.11	19.17	0.02	18.92	12.39	1.41	8.97	0.03	0.03	0.02		0.28	0.05	0.06	97.00	1
Musquodoboit E-23	1800.00	1800.00	LCC	41	Garnet	35.56	0.16	19.41	0.02	18.57	13.08	1.43	8.65	0.02	0.03	0.04		0.30	0.07	0.05	97.39	4
Musquodoboit E-23	1800.00	1800.00	LCC	52	Garnet	37.41	0.03	20.63	0.05	22.55	0.57	5.38	11.20	0.02	0.01	0.05		0.27	0.02	0.00	98.18	1
Musquodoboit E-23	1800.00	1800.00	LCC	53	Garnet	37.23	0.07	20.49	0.01	22.81	0.63	5.29	11.13	0.00	0.03	0.01		0.21	0.07	0.01	97.99	1
Musquodoboit E-23	1800.00	1800.00	LCC	54	Garnet	36.62	0.07	20.24	0.07	28.58	0.73	4.50	6.73	0.00	0.02	0.03		0.25	0.00	0.03	97.88	2
Musquodoboit E-23	1800.00	1800.00	LCC	55	Garnet	36.47	0.05	20.34	0.08	28.66	0.71	4.42	6.86	0.00	0.03	0.03		0.26	0.00	0.03	97.94	2
Musquodoboit E-23	2190.00	2190.00	LCCl	3	Garnet	36.19	0.12	20.23	0.08	31.10	0.82	0.87	8.99	0.01	0.04	0.04		0.32	0.00	0.04	98.86	3
Musquodoboit E-23	2190.00	2190.00	LCCl	4	Garnet	36.44	0.10	20.44	0.05	31.06	0.75	0.95	8.82	0.02	0.03	0.00		0.28	0.00	0.04	98.99	3
Musquodoboit E-23	2190.00	2190.00	LCCl	5	Garnet	37.43	0.08	20.91	0.04	24.68	0.82	7.30	7.02	0.01	0.04	0.02		0.28	0.00	0.03	98.66	1
Musquodoboit E-23	2190.00	2190.00	LCCl	6	Garnet	37.42	0.05	20.84	0.06	24.51	0.84	7.29	6.92	0.01	0.03	0.04		0.31	0.00	0.05	98.38	1
Musquodoboit E-23	2190.00	2190.00	LCCl	7	Garnet	37.79	0.03	21.65	0.07	27.55	0.33	10.06	1.09	0.01	0.04	0.08		0.27	0.00	0.00	98.96	1
Musquodoboit E-23	2190.00	2190.00	LCCl	8	Garnet	37.58	0.03	21.52	0.06	27.27	0.34	9.97	1.11	0.00	0.03	0.07		0.25	0.00	0.02	98.26	1
Musquodoboit E-23	2190.00	2190.00	LCCl	9	Garnet	36.16	0.03	20.63	0.07	33.64	3.93	2.41	1.46	0.00	0.06	0.03		0.27	0.00	0.06	98.75	1
Musquodoboit E-23	2190.00	2190.00	LCCl	10	Garnet	36.01	0.01	20.54	0.10	33.66	3.88	2.57	1.50	0.01	0.05	0.03		0.30	0.00	0.05	98.70	1
Musquodoboit E-23	2190.00	2190.00	LCCl	11	Garnet	36.18	0.07	21.15	0.14	28.80	0.53	8.61	1.37	0.03	0.03	0.04		0.27	0.00	0.03	97.25	1
Musquodoboit E-23	2190.00	2190.00	LCCl	12	Garnet	35.49	0.02	20.74	0.11	28.43	0.60	8.59	1.32	0.00	0.03	0.09		0.26	0.00	0.00	95.68	1
Musquodoboit E-23	2190.00	2190.00	LCCl	13	Garnet	36.77	0.03	20.89	0.08	32.42	1.70	5.09	1.46	0.01	0.03	0.06		0.28	0.00	0.03	98.85	1
Musquodoboit E-23	2190.00	2190.00	LCCl	14	Garnet	36.33	0.03	20.81	0.09	32.64	1.78	4.91	1.42	0.00	0.05	0.07		0.27	0.00	0.01	98.41	1
Musquodoboit E-23	2190.00	2190.00	LCCl	15	Garnet	36.80	0.02	20.93	0.05	30.45	1.41	6.80	1.42	0.00	0.02	0.04		0.28	0.00	0.03	98.25	1
Musquodoboit E-23	2190.00	2190.00	LCCl	16	Garnet	37.22	0.02	21.13	0.05	30.58	1.43	6.85	1.37	0.01	0.04	0.06		0.26	0.00	0.01	99.02	1
Musquodoboit E-23	2190.00	2190.00	LCCl	17	Garnet	37.58	0.05	20.77	0.06	25.15	2.80	4.82	7.88	0.00	0.04	0.02		0.26	0.00	0.01	99.43	1
Musquodoboit E-23	2190.00	2190.00	LCCl	18	Garnet	37.04	0.08	20.53	0.06	25.26	2.78	4.78	7.90	0.02	0.03	0.02		0.22	0.00	0.02	98.73	1
Musquodoboit E-23	2190.00	2190.00	LCCl	19	Garnet	37.66	0.07	20.75	0.03	24.91	0.91	6.31	8.13	0.00	0.03	0.03		0.27	0.00	0.02	99.12	1
Musquodoboit E-23	2190.00	2190.00	LCCl	20	Garnet	37.36	0.04	20.53	0.04	24.81	0.97	6.02	8.24	0.01	0.03	0.07		0.26	0.00	0.03	98.42	1
Musquodoboit E-23	2190.00	2190.00	LCCl	21	Garnet	37.10	0.08	20.46	0.06	24.00	2.71	4.60	9.26	0.00	0.04	0.03		0.28	0.00	0.03	98.63	1
Musquodoboit E-23	2190.00	2190.00	LCCl	22	Garnet	36.88	0.05	20.40	0.06	23.86	3.03	4.37	9.32	0.00	0.04	0.03		0.30	0.00	0.02	98.37	1
Musquodoboit E-23	2190.00	2190.00	LCCl	23	Garnet	36.47	0.04	20.70	0.10	33.10	2.28	4.21	1.26	0.01	0.05	0.05		0.31	0.00	0.04	98.62	1
Musquodoboit E-23	2190.00	2190.00	LCCl	24	Garnet	36.34	0.03	20.74	0.06	33.06	2.27	4.19	1.31	0.00	0.04	0.05		0.28	0.00	0.05	98.42	1
Musquodoboit E-23	2190.00	2190.00	LCCl	27	Garnet	37.52	0.06	20.74	0.07	23.81	1.01	6.15	8.98	0.00	0.03	0.03		0.28	0.00	0.03	98.71	1
Musquodoboit E-23	2190.00	2190.00	LCCl	28	Garnet	37.26	0.09	20.56	0.07	23.37	1.02	5.97	9.64	0.00	0.03	0.03		0.31	0.00	0.01	98.36	1
Musquodoboit E-23	2190.00	2190.00	LCCl	31	Garnet	37.29	0.05	20.68	0.06	22.89	2.96	5.65	8.83	0.00	0.05	0.01		0.29	0.00	0.02	98.77	3
Musquodoboit E-23	2190.00	2190.00	LCCl	32	Garnet	37.36	0.03	20.79	0.05	22.63	2.74	5.93	8.77	0.01	0.04	0.00		0.27	0.00	0.00	98.62	3

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	2500.00	2500A	UM	3	Garnet	37.56	0.04	20.84	0.05	24.09	1.30	6.22	8.43	0.00	0.04	0.01		0.25	0.00	0.01	98.83	1
Musquodoboit E-23	2500.00	2500A	UM	4	Garnet	37.40	0.08	20.84	0.03	23.98	1.30	6.08	8.51	0.00	0.03	0.00		0.25	0.00	0.03	98.54	1
Musquodoboit E-23	2500.00	2500A	UM	11	Garnet	37.56	0.06	20.34	0.00	23.82	0.75	6.46	8.58	0.01	0.02	0.00		0.26	0.00	0.00	97.87	1
Musquodoboit E-23	2500.00	2500A	UM	12	Garnet	37.56	0.06	20.41	0.01	23.61	0.78	6.39	9.00	0.00	0.02	0.00		0.23	0.00	0.00	98.09	1
Musquodoboit E-23	2500.00	2500A	UM	17	Garnet	37.12	0.03	21.08	0.00	30.02	0.31	7.61	1.69	0.01	0.02	0.01		0.20	0.00	0.01	98.11	1
Musquodoboit E-23	2500.00	2500A	UM	18	Garnet	37.04	0.00	21.00	0.01	29.81	0.32	7.52	1.83	0.01	0.03	0.00		0.24	0.00	0.00	97.80	1
Musquodoboit E-23	2500.00	2500B	UM	1	Garnet	37.59	0.04	20.66	0.05	25.19	0.86	6.38	7.48	0.00	0.04	0.05		0.25	0.00	0.02	98.61	1
Musquodoboit E-23	2500.00	2500B	UM	2	Garnet	37.58	0.08	20.73	0.08	25.14	0.84	6.39	7.61	0.01	0.03	0.03		0.28	0.00	0.04	98.84	1
Musquodoboit E-23	2500.00	2500B	UM	3	Garnet	36.53	0.09	19.59	0.04	22.04	7.09	1.76	10.83	0.01	0.03	0.04		0.28	0.00	0.06	98.42	4
Musquodoboit E-23	2500.00	2500B	UM	4	Garnet	36.48	0.08	19.64	0.07	21.93	7.46	1.68	10.62	0.02	0.03	0.01		0.27	0.00	0.06	98.35	4
Musquodoboit E-23	2500.00	2500B	UM	5	Garnet	37.20	0.05	20.42	0.05	25.95	1.75	5.93	6.86	0.02	0.03	0.02		0.26	0.00	0.02	98.55	4
Musquodoboit E-23	2500.00	2500B	UM	6	Garnet	37.11	0.07	20.55	0.05	26.23	1.78	5.90	6.82	0.00	0.04	0.04		0.27	0.00	0.04	98.89	4
Musquodoboit E-23	2500.00	2500B	UM	15	Garnet	37.83	0.05	21.13	0.05	23.78	0.63	8.39	6.48	0.00	0.02	0.06		0.25	0.00	0.00	98.67	1
Musquodoboit E-23	2500.00	2500B	UM	16	Garnet	37.80	0.08	21.09	0.05	23.67	0.55	8.34	6.51	0.01	0.02	0.01		0.27	0.00	0.00	98.40	4
Musquodoboit E-23	2600.00	2600.00	MM	1	Garnet	37.67	0.02	21.21	0.04	30.14	0.35	8.15	1.44	0.00	0.01	0.03		0.27	0.01	0.01	99.35	4
Musquodoboit E-23	2600.00	2600.00	MM	2	Garnet	37.67	0.02	21.29	0.04	30.02	0.40	8.14	1.42	0.01	0.03	0.05		0.20	0.05	0.03	99.37	1
Musquodoboit E-23	2600.00	2600.00	MM	5	Garnet	37.68	0.01	21.33	0.00	28.27	0.60	8.67	1.82	0.03	0.03	0.04		0.23	0.00	0.00	98.71	1
Musquodoboit E-23	2600.00	2600.00	MM	6	Garnet	37.47	0.00	21.39	0.03	28.10	0.59	8.80	1.69	0.01	0.03	0.08		0.22	0.01	0.00	98.43	1
Musquodoboit E-23	2600.00	2600.00	MM	7	Garnet	37.92	0.02	21.35	0.00	28.38	0.61	9.05	1.39	0.01	0.03	0.02		0.22	0.04	0.00	99.03	1
Musquodoboit E-23	2600.00	2600.00	MM	31	Garnet	36.02	0.07	20.57	0.05	24.76	12.97	2.42	1.42	0.02	0.03	0.01		0.27	0.02	0.03	98.66	1
Musquodoboit E-23	2600.00	2600.00	MM	32	Garnet	36.06	0.13	20.47	0.02	24.27	14.09	2.37	1.02	0.03	0.03	0.08		0.25	0.02	0.01	98.85	1
Musquodoboit E-23	2600.00	2600.00	MM	50	Garnet	37.47	0.17	20.29	0.01	24.55	1.58	6.30	7.93	0.03	0.03	0.02		0.26	0.03	0.03	98.70	1
Musquodoboit E-23	2600.00	2600.00	MM	51	Garnet	37.48	0.15	20.22	0.02	24.60	1.56	6.26	7.94	0.03	0.03	0.02		0.24	0.02	0.00	98.54	5
Musquodoboit E-23	2600.00	2600.00	MM	52	Garnet	37.41	0.18	20.10	0.03	24.44	1.54	6.23	7.90	0.01	0.03	0.01		0.23	0.00	0.02	98.14	1
Musquodoboit E-23	2800.00	2800.00	MM	1	Garnet	37.19	0.01	21.17	0.00	32.48	2.07	4.70	1.87	0.02	0.04	0.00		0.15	0.00	0.00	99.69	1
Musquodoboit E-23	2800.00	2800.00	MM	2	Garnet	37.38	0.00	21.06	0.04	32.76	2.02	4.60	1.92	0.03	0.02	0.00		0.18	0.00	0.00	100.04	1
Musquodoboit E-23	2800.00	2800.00	MM	15	Garnet	36.61	0.00	20.94	0.00	31.98	7.43	2.58	0.87	0.01	0.01	0.04		0.26	0.00	0.00	100.73	1
Musquodoboit E-23	2800.00	2800.00	MM	16	Garnet	36.38	0.09	20.77	0.03	30.35	8.47	2.70	0.92	0.03	0.03	0.06		0.22	0.00	0.00	100.05	1
Musquodoboit E-23	2800.00	2800.00	MM	39	Garnet	36.69	0.00	21.10	0.00	32.07	1.92	3.45	4.42	0.02	0.01	0.00		0.18	0.00	0.00	99.85	1
Musquodoboit E-23	2800.00	2800.00	MM	40	Garnet	36.62	0.02	20.97	0.00	32.15	1.98	3.41	4.51	0.02	0.03	0.00		0.22	0.00	0.00	99.93	1
Musquodoboit E-23	2800.00	2800.00	MM	45	Garnet	36.97	0.05	21.22	0.01	32.23	2.76	4.54	1.67	0.00	0.02	0.00		0.17	0.00	0.00	99.63	1
Musquodoboit E-23	2800.00	2800.00	MM	46	Garnet	36.80	0.01	21.00	0.01	32.52	2.83	4.45	1.63	0.02	0.01	0.00		0.19	0.00	0.03	99.51	1
Musquodoboit E-23	2800.00	2800.00	MM	51	Garnet	36.34	0.01	20.86	0.00	33.09	4.99	2.43	1.54	0.03	0.02	0.00		0.17	0.02	0.01	99.50	2
Musquodoboit E-23	2800.00	2800.00	MM	52	Garnet	36.72	0.03	20.81	0.01	33.26	4.86	2.40	1.50	0.02	0.02	0.00		0.20	0.00	0.00	99.84	2
Musquodoboit E-23	2800.00	2800.00	MM	61	Garnet	36.70	0.01	20.80	0.00	31.85	4.38	3.05	2.75	0.01	0.02	0.01		0.19	0.00	0.00	99.77	2
Musquodoboit E-23	2800.00	2800.00	MM	62	Garnet	36.62	0.02	20.94	0.00	32.65	4.03	3.22	2.06	0.01	0.02	0.00		0.20	0.00	0.00	99.78	2
Musquodoboit E-23	2800.00	2800.00	MM	63	Garnet	37.10	0.15	21.14	0.17	31.02	2.24	5.85	1.53	0.00	0.02	0.04		0.22	0.02	0.00	99.50	2
Musquodoboit E-23	2800.00	2800.00	MM	64	Garnet	37.08	0.15	21.12	0.18	31.06	2.33	5.62	1.60	0.02	0.02	0.03		0.15	0.00	0.00	99.38	1
Musquodoboit E-23	2800.00	2800.00	MM	65	Garnet	36.33	0.01	20.83	0.00	31.16	7.47	3.06	0.59	0.07	0.03	0.06		0.23	0.00	0.00	99.84	1
Musquodoboit E-23	2800.00	2800.00	MM	66	Garnet	36.37	0.00	21.04	0.01	31.08	7.32	3.01	0.82	0.02	0.01	0.01		0.21	0.00	0.00	99.91	1
Musquodoboit E-23	2800.00	2800.00	MM	92	Garnet	35.97	0.01	20.57	0.13	27.76	13.38	0.75	1.09	0.02	0.02	0.00		0.20	0.00	0.00	99.90	1

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	2800.00	2800.00	MM	93	Garnet	35.87	0.02	20.48	0.03	27.63	13.61	0.77	0.99	0.04	0.01	0.03		0.18	0.00	0.00	99.64	3
Musquodoboit E-23	2800.00	2800.00	MM	13	Garnet	36.14	0.07	20.55	0.00	19.65	18.56	1.91	2.33	0.04	0.02	0.00		0.19	0.00	0.00	99.46	3
Musquodoboit E-23	2800.00	2800.00	MM	14	Garnet	36.33	0.03	20.80	0.00	19.76	18.33	2.06	2.17	0.05	0.02	0.00		0.22	0.00	0.00	99.77	1
Naskapi N-30	1473.81	1473.81H	UM	1	Garnet	39.11	0.02	21.71	0.01	21.97	0.51	11.46	4.24	0.00	0.03	0.03		0.00	0.01	0.26	99.36	1
Naskapi N-30	1473.81	1473.81H	UM	2	Garnet	38.92	0.03	21.81	0.01	22.28	0.52	11.48	4.26	0.00	0.04	0.04		0.02	0.00	0.23	99.62	1
Naskapi N-30	1473.81	1473.81H	UM	3	Garnet	36.33	0.25	20.28	0.00	12.13	23.91	3.41	1.77	0.01	0.02	0.00		0.00	0.02	0.21	98.32	1
Naskapi N-30	1473.81	1473.81H	UM	4	Garnet	36.44	0.07	20.43	0.05	12.01	23.84	3.45	1.71	0.00	0.02	0.00		0.02	0.00	0.23	98.27	1
Naskapi N-30	1473.81	1473.81H	UM	5	Garnet	36.36	0.06	20.30	0.10	12.05	24.00	3.30	1.73	0.00	0.02	0.01		0.01	0.00	0.19	98.13	1
Naskapi N-30	1473.81	1473.81H	UM	6	Garnet	36.41	0.06	20.62	0.01	16.40	18.62	3.54	2.66	0.01	0.01	0.00		0.00	0.00	0.20	98.53	1
Naskapi N-30	1473.81	1473.81H	UM	7	Garnet	36.16	0.17	20.14	0.00	16.43	18.65	3.10	2.82	0.00	0.03	0.03		0.01	0.02	0.15	97.70	1
Naskapi N-30	1473.81	1473.81H	UM	8	Garnet	35.64	0.13	20.12	0.00	21.00	15.38	0.62	4.72	0.00	0.02	0.00		0.01	0.00	0.17	97.80	1
Naskapi N-30	1473.81	1473.81H	UM	9	Garnet	35.79	0.09	20.18	0.01	21.49	14.66	0.66	4.40	0.00	0.03	0.00		0.00	0.01	0.18	97.49	1
Naskapi N-30	1473.81	1473.81H	UM	10	Garnet	36.06	0.14	20.07	0.00	16.56	19.79	0.48	4.93	0.02	0.04	0.00		0.02	0.00	0.20	98.32	1
Naskapi N-30	1473.81	1473.81H	UM	11	Garnet	35.93	0.25	20.18	0.03	19.08	17.91	0.54	4.40	0.00	0.02	0.00		0.00	0.00	0.23	98.55	1
Naskapi N-30	1473.81	1473.81H	UM	12	Garnet	35.45	0.09	19.81	0.00	9.77	26.98	0.49	4.51	0.00	0.03	0.00		0.00	0.01	0.19	97.32	1
Naskapi N-30	1473.81	1473.81H	UM	13	Garnet	35.61	0.20	19.89	0.00	11.99	26.04	0.70	3.02	0.01	0.02	0.00		0.02	0.00	0.20	97.71	1
Naskapi N-30	1473.81	1473.81H	UM	14	Garnet	36.26	0.03	20.74	0.02	31.97	4.07	3.87	1.36	0.02	0.02	0.00		0.01	0.00	0.22	98.60	1
Naskapi N-30	1473.81	1473.81H	UM	15	Garnet	36.23	0.09	20.72	0.00	31.61	4.15	3.86	1.30	0.00	0.02	0.00		0.00	0.00	0.20	98.20	1
Naskapi N-30	1473.81	1473.81H	UM	16	Garnet	36.32	0.16	20.73	0.00	31.48	3.73	3.91	1.38	0.01	0.01	0.02		0.02	0.02	0.19	97.98	1
Naskapi N-30	1473.81	1473.81H	UM	17	Garnet	35.75	0.05	20.43	0.00	29.49	7.86	1.71	2.13	0.05	0.02	0.02		0.00	0.00	0.17	97.69	1
Naskapi N-30	1473.81	1473.81H	UM	18	Garnet	35.67	0.21	20.20	0.00	29.40	7.62	1.74	2.07	0.04	0.02	0.02		0.00	0.01	0.18	97.19	1
Naskapi N-30	1473.81	1473.81H	UM	19	Garnet	35.59	0.11	20.40	0.00	29.75	7.60	1.79	2.05	0.04	0.02	0.01		0.00	0.00	0.22	97.58	1
Naskapi N-30	1473.81	1473.81H	UM	20	Garnet	35.50	0.11	20.08	0.01	16.37	21.35	0.45	3.35	0.01	0.02	0.01		0.00	0.00	0.17	97.44	1
Naskapi N-30	1473.81	1473.81H	UM	21	Garnet	35.76	0.30	20.12	0.02	19.77	17.19	0.59	3.92	0.00	0.02	0.02		0.01	0.03	0.22	97.97	1
Naskapi N-30	1473.81	1473.81H	UM	22	Garnet	35.68	0.08	19.87	0.00	18.04	19.83	0.75	3.11	0.02	0.02	0.00		0.00	0.01	0.18	97.59	1
Naskapi N-30	1473.81	1473.81H	UM	23	Garnet	35.62	0.16	19.71	0.00	18.60	18.67	0.79	3.54	0.01	0.02	0.00		0.01	0.00	0.16	97.29	1
Naskapi N-30	1473.81	1473.81H	UM	24	Garnet	35.47	0.19	20.07	0.00	6.97	31.29	0.14	3.37	0.01	0.02	0.01		0.00	0.04	0.15	97.75	1
Naskapi N-30	1473.81	1473.81H	UM	25	Garnet	35.73	0.33	20.09	0.00	7.01	31.27	0.18	3.28	0.00	0.02	0.00		0.02	0.01	0.22	98.17	1
Naskapi N-30	1473.81	1473.81H	UM	26	Garnet	35.86	0.33	20.10	0.00	7.01	31.04	0.18	3.44	0.01	0.02	0.00		0.02	0.00	0.21	98.23	1
Naskapi N-30	1473.81	1473.81H	UM	27	Garnet	35.31	0.10	20.26	0.00	25.74	13.73	1.77	0.30	0.03	0.04	0.16		0.00	0.05	0.22	97.70	1
Naskapi N-30	1473.81	1473.81H	UM	28	Garnet	35.28	0.08	20.31	0.00	25.97	13.81	1.74	0.29	0.02	0.02	0.26		0.00	0.00	0.20	97.98	1
Naskapi N-30	1473.81	1473.81H	UM	29	Garnet	34.84	0.09	19.76	0.00	17.48	24.64	0.54	0.30	0.03	0.02	0.44		0.04	0.00	0.19	98.36	1
Naskapi N-30	1473.81	1473.81H	UM	30	Garnet	34.83	0.11	19.76	0.00	17.04	24.70	0.53	0.29	0.01	0.01	0.42		0.00	0.02	0.20	97.92	1
Naskapi N-30	1473.81	1473.81H	UM	31	Garnet	35.53	0.12	20.28	0.00	24.59	15.78	1.21	0.35	0.01	0.03	0.16		0.05	0.03	0.23	98.38	1
Naskapi N-30	1473.81	1473.81H	UM	32	Garnet	35.58	0.14	20.22	0.01	24.24	15.71	1.18	0.29	0.01	0.03	0.20		0.03	0.00	0.18	97.84	2
Naskapi N-30	1473.81	1473.81H	UM	33	Garnet	35.61	0.20	20.36	0.00	6.49	31.55	0.52	3.25	0.00	0.03	0.00		0.00	0.01	0.20	98.22	2
Naskapi N-30	1473.81	1473.81H	UM	34	Garnet	35.24	0.28	20.21	0.00	6.06	31.88	0.47	3.24	0.01	0.03	0.00		0.00	0.00	0.18	97.60	1
Naskapi N-30	1473.81	1473.81H	UM	35	Garnet	38.83	0.06	22.05	0.00	22.26	0.52	11.55	4.16	0.01	0.03	0.05		0.01	0.01	0.25	99.79	1
Naskapi N-30	1473.81	1473.81H	UM	36	Garnet	38.96	0.07	22.04	0.00	22.06	0.48	11.69	4.14	0.01	0.04	0.05		0.00	0.00	0.18	99.71	1
Naskapi N-30	1473.81	1473.81L	UM	22	Garnet	35.91	0.13	21.67	0.09	9.43	29.04	0.26	2.56	0.02	0.02	0.04		0.06	0.08	0.23	99.53	1
Naskapi N-30	1473.81	1473.81L	UM	23	Garnet	36.02	0.11	21.47	0.07	12.40	26.19	0.31	3.46	0.00	0.04	0.02		0.08	0.09	0.20	100.46	1

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Naskapi N-30	1473.81	1473.81L	UM	24	Garnet	35.96	0.06	21.78	0.08	9.32	29.40	0.23	2.50	0.02	0.03	0.04		0.06	0.10	0.19	99.80	1
Naskapi N-30	1473.81	1473.81L	UM	25	Garnet	36.32	0.15	21.88	0.09	11.43	26.90	0.31	3.50	0.00	0.02	0.02		0.10	0.04	0.23	100.99	1
North Triumph B-52	3788.50	3788.50	UM	623	Garnet	37.58	0.07	20.82	0.01	27.31	14.47	1.35	0.26	0.04	0.00						101.91	1
North Triumph B-52	3788.50	3788.50	UM	624	Garnet	37.52	0.08	20.96	0.04	26.97	14.54	1.29	0.28	0.03	0.00						101.71	1
Peskowesk A-99	2212.91	2212.91	LCC	131	Garnet	36.90	0.80	19.93	0.04	25.92	10.79	1.10	3.90	0.01	0.00						99.39	4
Peskowesk A-99	2212.91	2212.91	LCC	132	Garnet	37.01	0.14	20.22	0.05	27.34	9.88	1.13	3.92	0.00	0.00						99.69	4
Peskowesk A-99	2212.91	2212.91	LCC	133	Garnet	37.40	0.04	20.48	0.02	30.76	0.42	3.26	6.33	0.03	0.00						98.74	1
Peskowesk A-99	2212.91	2212.91	LCC	134	Garnet	37.59	0.08	20.52	0.03	30.75	0.39	3.19	6.32	0.03	0.00						98.90	1
Peskowesk A-99	2212.91	2212.91	LCC	135	Garnet	37.27	0.13	19.81	0.04	30.20	3.11	1.20	7.17	0.03	0.00						98.96	1
Peskowesk A-99	2222.59	2222.59	LCC	136	Garnet	39.04	0.05	20.68	0.01	24.67	0.70	7.85	5.96	0.01	0.00						98.97	1
Peskowesk A-99	2222.59	2222.59	LCC	137	Garnet	38.83	0.06	20.67	0.01	23.94	0.73	8.02	6.17	0.01	0.00						98.44	1
Peskowesk A-99	2222.59	2222.59	LCC	138	Garnet	37.20	0.07	20.28	0.06	36.10	0.30	3.53	1.60	0.04	0.00						99.18	4
Peskowesk A-99	2222.59	2222.59	LCC	139	Garnet	37.20	0.08	20.00	0.04	36.25	0.30	3.48	1.76	0.03	0.00						99.14	4
Peskowesk A-99	2222.59	2222.59	LCC	140	Garnet	37.22	0.08	20.17	0.01	36.23	0.30	3.49	1.75	0.02	0.00						99.27	1
Thebaud 3	3914.57	8 (HMS)	LM	1	Garnet	36.88	0.10	22.03	0.12	33.96	1.47	4.14	1.20	0.00	0.04	0.08		0.04	0.07	0.18	100.29	1
Thebaud 3	3914.57	8 (HMS)	LM	2	Garnet	37.53	0.07	22.11	0.14	33.88	1.44	4.16	1.21	0.00	0.04	0.06		0.05	0.11	0.23	101.01	1
Thebaud 3	3914.57	8 (HMS)	LM	3	Garnet	36.81	0.14	21.83	0.13	33.39	1.42	4.21	1.22	0.00	0.03	0.10		0.03	0.07	0.17	99.55	1
Thebaud 3	3914.57	8 (HMS)	LM	4	Garnet	36.72	0.09	21.82	0.13	33.68	1.41	4.14	1.21	0.00	0.04	0.09		0.06	0.14	0.20	99.74	4
Thebaud 3	3914.57	8 (HMS)	LM	33	Garnet	36.90	0.04	22.11	0.00	29.48	8.04	1.77	2.35	0.01	0.00	0.00		0.00	0.00	0.21	100.92	4
Thebaud 3	3914.57	8 (HMS)	LM	34	Garnet	37.06	0.03	22.27	0.00	30.06	7.03	1.87	2.47	0.01	0.01	0.00		0.00	0.00	0.21	101.02	1
Thebaud 3	3914.57	8 (HMS)	LM	35	Garnet	36.66	0.02	21.88	0.00	28.83	8.60	1.62	2.40	0.02	0.01	0.02		0.00	0.00	0.20	100.25	1

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Ti/Ti+Fe	Type
Argo F-38	3475.00	3470-3480H	LCC	1	Ilmenite	0.06	51.53	0.08	0.00	46.66	2.82	0.08	0.05	0.04	0.00	0.01			0.00		101.34	0.50	ilmenite
Argo F-38	3475.00	3470-3480H	LCC	2	Ilmenite	0.09	49.10	0.08	0.00	47.27	2.74	0.08	0.05	0.04	0.00	0.03			0.00		99.48	0.48	ilmenite
Argo F-38	3475.00	3470-3480H	LCC	3	Ilmenite	0.07	48.88	0.11	0.00	46.12	0.69	1.99	0.23	0.01	0.00	0.03			0.00		98.12	0.49	ilmenite
Argo F-38	4690.00	4680-4700A	MM	5	Ilmenite	0.01	50.08	0.09	0.00	44.84	0.83	1.44	0.17	0.04	0.00	0.04			0.00		97.54	0.50	ilmenite
Fox I-22	1115.00	1100-1130	LCM	3	Ilmenite	0.00	51.75	0.00	0.00	46.87	0.88	0.28	0.14	0.00	0.04	0.03			0.00		99.99	0.50	ilmenite
Fox I-22	1955.00	1940-1970C	UM	9	Ilmenite	0.00	50.84	0.13	0.00	45.11	0.62	2.14	0.05	0.00	0.00	0.00			0.00		98.89	0.50	ilmenite
Fox I-22	1985.00	1970-2000C	UM	3	Ilmenite	0.09	50.22	0.12	0.00	46.11	0.98	1.67	0.19	0.03	0.00	0.08			0.00		99.49	0.49	ilmenite
Fox I-22	2045.00	2030-2060	MM	8	Ilmenite	0.00	47.78	0.00	0.00	50.20	0.42	0.00	0.09	0.00	0.06	0.00			0.00		98.55	0.46	ilmenite
Fox I-22	2135.00	2120-2150C	MM	7	Ilmenite	2.28	51.28	0.02	0.00	45.23	0.42	0.26	0.00	0.00	0.00	0.04			0.00		99.52	0.50	ilmenite
Jason C-20	4220.00	4220	LCN	6	Ilmenite	0.00	48.93	0.01	0.00	48.16	0.84	0.71	0.15	0.00	0.09	0.03			0.00		98.93	0.48	ilmenite
Jason C-20	4700.00	4700C	MM	5	Ilmenite	0.05	52.14	0.13	0.00	46.10	0.77	2.03	0.04	0.03	0.00	0.00			0.00		101.29	0.50	ilmenite
Jason C-20	6480.00	6480H	MMC	2	Ilmenite	0.00	50.26	0.07	0.00	46.07	0.72	2.51	0.00	0.00	0.00	0.00			0.00		99.63	0.50	ilmenite
Crow F-52	2450.00	2450F	LCC	1	Altered Ilmenite	0.58	74.48	0.68	0.00	5.03	0.01	0.02	0.32	0.13	0.00	0.12			1.48		82.87	0.93	rutile
Crow F-52	2450.00	2450F	LCC	2	Altered Ilmenite	5.04	72.36	0.61	0.00	4.75	0.02	0.03	0.25	0.10	0.00	0.10			1.29		84.54	0.93	rutile
Fox I-22	2045.00	2030-2060F	MM	2	Altered Ilmenite	0.37	89.86	0.72	0.00	3.51	0.05	0.06	0.08	0.18	0.00	0.07			0.00		94.90	0.96	rutile
Jason C-20	4220.00	4220	LCN	5	Altered Ilmenite	5.32	81.37	1.58	0.00	2.70	0.14	1.09	0.64	0.22	0.37	0.26			0.00		93.70	0.96	rutile
Jason C-20	4220.00	4220	LCN	5	Altered Ilmenite	3.88	80.95	1.67	0.00	5.27	0.17	1.06	0.97	0.22	0.05	0.10			0.00		94.35	0.93	rutile
Jason C-20	4700.00	4700F	MM	9	Altered Ilmenite	3.90	71.41	1.28	0.00	4.27	0.04	0.37	0.16	0.12	0.00	0.06			0.00		81.60	0.94	rutile
Jason C-20	5680.00	5680C	MM	5	Altered Ilmenite	0.47	78.12	2.84	0.00	2.67	0.11	0.14	0.74	0.32	0.06	1.31			0.00		86.80	0.96	rutile
Naskapi N-30	1471.75	1471.75	UM	626	Altered Ilmenite	0.77	74.90	0.77	0.24	3.82	0.17	0.05	0.11	0.18	0.00						81.01	0.95	rutile
Naskapi N-30	1471.75	1471.75	UM	627	Altered Ilmenite	0.31	76.36	0.48	0.14	7.29	0.05	0.04	0.07	0.11	0.02						84.87	0.90	rutile
Naskapi N-30	1472.36	1472.36	UM	621	Altered Ilmenite	0.51	73.03	0.75	0.29	6.36	0.51	0.06	0.12	0.16	0.04						81.83	0.91	rutile
Naskapi N-30	1472.36	1472.36	UM	622	Altered Ilmenite	0.00	79.19	0.14	0.11	7.57	0.20	0.00	0.11	0.10	0.03						87.45	0.90	rutile
Peskowesk A-99	2212.91	2212.91	LCC	3	Altered Ilmente	0.97	85.24	1.06	0.10	1.53	0.05	0.10	0.84	0.17	0.00	0.40	0.49				90.95	0.98	rutile
Peskowesk A-99	2212.91	2212.91	LCC	4	Altered Ilmente	2.09	83.88	1.54	0.19	2.57	0.07	0.07	0.60	0.11	0.12	0.26	0.45				91.95	0.97	rutile

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Ti/Ti+Fe	Type
Crow F-52	2450.00	2450F	LCC	1	Altered Ilmenite	0.49	69.29	0.62	0.00	19.06	0.99	0.07	0.28	0.07	0.00	0.09			1.39		92.36	0.77	leucoxene
Crow F-52	2450.00	2450F	LCC	3	Altered Ilmenite	0.62	70.66	0.79	0.00	16.25	0.43	0.06	0.33	0.12	0.01	0.20			1.47		90.93	0.80	leucoxene
Crow F-52	2450.00	2450F	LCC	1	Altered Ilmenite	0.27	65.52	0.28	0.00	22.31	0.55	0.16	0.20	0.13	0.00	0.10			1.37		90.88	0.73	leucoxene
Crow F-52	2773.00	2766-2780H	MM	3	Altered Ilmenite	0.74	76.11	0.61	0.00	15.48	0.20	0.14	0.67	0.11	0.00	0.22			1.82		96.10	0.82	leucoxene
Crow F-52	3170.00	3170F	MM	1	Altered Ilmenite	0.81	72.83	0.94	0.00	14.61	0.16	0.05	0.51	0.27	0.00	0.25			1.60		92.04	0.82	leucoxene
Fox I-22	1955.00	1940-1970F	UM	1	Altered Ilmenite	0.33	69.18	0.25	0.00	22.73	2.32	0.08	0.11	0.10	0.00	0.03			0.00		95.12	0.73	leucoxene
Fox I-22	2105.00	2090-2120C	MM	4	Altered Ilmenite	0.49	71.26	0.56	0.00	18.47	0.57	0.11	0.28	0.21	0.06	0.16			0.00		92.17	0.78	leucoxene
Fox I-22	2105.00	2090-2120C	MM	6	Altered Ilmenite	0.66	70.89	0.55	0.00	17.89	0.52	0.10	0.25	0.26	0.03	0.20			0.00		91.35	0.78	leucoxene
Fox I-22	2135.00	2120-2150C	MM	1	Altered Ilmenite	0.85	65.50	0.86	0.00	13.11	0.02	0.02	0.04	0.13	0.00	0.19			0.00		80.73	0.82	leucoxene
Fox I-22	2135.00	2120-2150C	MM	2	Altered Ilmenite	0.38	61.87	0.47	0.00	19.34	0.67	0.09	0.00	0.07	0.00	0.12			0.00		83.00	0.74	leucoxene
Jason C-20	5680.00	5680C	MM	2	Altered Ilmenite	1.11	65.61	0.88	0.00	13.12	0.41	0.35	6.11	0.29	0.05	0.16			0.00		88.09	0.82	leucoxene
Naskapi N-30	1467.96	1467.96	UM	616	Altered Ilmenite	1.13	71.77	0.83	0.29	11.59	0.78	0.15	0.18	0.71	0.02						87.45	0.85	leucoxene
Naskapi N-30	1472.36	1472.36	UM	617	Altered Ilmenite	0.66	67.29	0.50	0.14	10.12	2.22	0.04	0.07	0.34	0.00						81.38	0.86	leucoxene
Naskapi N-30	1472.36	1472.36	UM	618	Altered Ilmenite	1.19	71.84	0.73	0.30	9.70	0.51	0.02	0.11	0.29	0.07						84.76	0.87	leucoxene
Naskapi N-30	1472.36	1472.36	UM	619	Altered Ilmenite	0.87	69.27	0.78	0.31	11.89	0.81	0.05	0.10	0.57	0.09						84.74	0.84	leucoxene
Naskapi N-30	1472.36	1472.36	UM	620	Altered Ilmenite	0.81	71.58	0.89	0.31	10.10	1.15	0.07	0.13	0.81	0.07						85.92	0.86	leucoxene
Naskapi N-30	1472.36	1472.36	UM	623	Altered Ilmenite	0.29	64.79	0.50	0.16	15.10	1.40	0.16	0.12	0.85	0.05						83.42	0.79	leucoxene
Naskapi N-30	1472.36	1472.36	UM	624	Altered Ilmenite	0.71	72.48	0.74	0.28	8.42	0.96	0.06	0.12	0.69	0.04						84.50	0.89	leucoxene
Naskapi N-30	1472.36	1472.36	UM	625	Altered Ilmenite	0.88	73.80	0.81	0.25	9.73	0.92	0.06	0.25	0.12	0.05						86.87	0.87	leucoxene
Peskowesk A-99	2211.47	2211.47	LCC	8	Altered Ilmente	0.21	64.06	0.41	0.13	21.55	0.12	0.12	1.18	0.03	0.00	0.06	0.14				88.01	0.73	leucoxene
Peskowesk A-99	2933.62	2933.62	MM	7	Altered Ilmente	0.30	74.14	0.84	0.21	14.90	0.38	0.03	0.28	0.19	0.00	0.06	0.19				91.52	0.82	leucoxene
Sambro I-29	1136.21	3740	UM	63	Altered Ilmenite	0.13	66.76	0.21	0.13	24.28	2.13	0.08	0.20	0.03	0.00						93.95	0.71	leucoxene
Sambro I-29	1136.21	3740	UM	64	Altered Ilmenite	0.25	68.17	0.26	0.19	22.95	2.84	0.05	0.22	0.05	0.00						94.98	0.73	leucoxene
Sambro I-29	1136.21	3740	UM	65	Altered Ilmenite	0.20	68.81	0.18	0.14	24.62	1.29	0.05	0.23	0.04	0.00						95.56	0.72	leucoxene
Sambro I-29	1136.21	3740	UM	66	Altered Ilmenite	0.21	68.31	0.29	0.14	22.28	2.96	0.05	0.24	0.07	0.00						94.55	0.73	leucoxene
Sambro I-29	1275.96	4200	MM	69	Altered Ilmenite	0.38	73.25	0.70	0.00	15.05	0.74	0.14	0.14	0.20	0.00						90.60	0.81	leucoxene
Sambro I-29	1275.96	4200	MM	70	Altered Ilmenite	0.07	66.68	0.30	0.00	20.33	2.13	0.13	0.07	0.06	0.00						89.77	0.75	leucoxene

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Fox I-22	845.00	830-860H	LCM	1	Magnetite	0.00	0.22	0.00	0.00	97.08	0.87	0.00	0.11	0.00	0.06	0.04			0.03		98.41
Jason C-20	6480.00	6480H	MMC	1	Ti-Magnetite	0.05	22.31	1.50	0.00	72.76	0.60	1.47	0.01	0.00	0.00	0.01			0.36		99.08

APPENDIX 2: Chemical analyses of detrital minerals

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	P_2O_5	SiO_2	ThO_2	Y_2O_3	La_2O_3	Ce_2O_3	Pr_2O_3	Nd_2O_3	Gd_2O_3	CaO	Sm_2O_3	UO_2	Total
North Triumph B-52	3783.60	3783.60	UM	64	Monazite	29.62	0.18	5.78	2.37	9.15	25.26	4.83	11.38	2.58	1.51	2.73	0.27	95.66
North Triumph B-52	3783.60	3783.60	UM	65	Monazite	29.54	0.18	6.99	1.55	9.90	27.80	5.18	11.45	1.49	1.32	2.11		97.51

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2465.00	2465.00	LCC	213	Muscovite	44.93	0.59	33.91	0.00	1.43	0.00	0.73	0.03	0.21	9.46						91.29
Alma K-85	2465.00	2465.00	LCC	142	Muscovite	46.73	1.12	34.90	0.00	2.69	0.01	0.70	0.00	0.42	9.90						96.47
Alma K-85	2465.00	2465.00	LCC	143	Muscovite	46.88	0.03	37.19	0.00	0.38	0.00	0.13	0.00	0.34	10.64						95.59
Alma K-85	2465.00	2465.00	LCC	144	Muscovite	45.56	0.03	34.35	0.00	2.39	0.00	0.63	0.00	0.48	9.95						93.39
Alma K-85	2465.90	2465.90	LCC	147	Muscovite	46.25	0.68	35.12	0.00	1.63	0.07	0.61	0.00	0.30	9.90						94.56
Alma K-85	2466.07	2466.07	LCC	212	Muscovite	45.60	0.81	29.97	0.00	4.25	0.01	1.41	0.00	0.18	9.57						91.80
Alma K-85	2466.07	2466.07	LCC	137	Muscovite	46.38	0.47	35.83	0.00	1.92	0.00	0.71	0.09	0.53	10.21						96.14
Alma K-85	2466.07	2466.07	LCC	138	Muscovite	48.02	0.47	36.20	0.04	0.62	0.00	0.77	0.00	0.65	8.96						95.73
Alma K-85	2466.07	2466.07	LCC	139	Muscovite	46.73	0.27	36.35	0.00	1.42	0.02	0.74	0.00	0.77	10.05						96.35
Alma K-85	2466.07	2466.07	LCC	140	Muscovite	46.25	0.79	34.91	0.00	1.47	0.01	0.72	0.00	0.37	9.43						93.95
Alma K-85	2466.07	2466.07	LCC	141	Muscovite	46.28	0.28	35.98	0.00	1.21	0.04	0.68	0.02	0.46	10.32						95.27
Alma K-85	2466.07	2466.07	LCC	338	Muscovite	45.78	0.79	34.00	0.01	2.83	0.00	0.74	0.01	0.82	9.39						94.37
Alma K-85	2466.65	2466.65	LCC	145	Muscovite	46.17	0.36	33.88	0.02	1.97	0.00	0.80	0.13	0.22	9.82						93.37
Alma K-85	2466.65	2466.65	LCC	146	Muscovite	45.52	0.78	36.60	0.00	1.63	0.01	0.75	0.03	0.54	10.13						95.99
Alma K-85	2467.55	2467.55	LCC	148	Muscovite	46.74	0.72	38.30	0.03	0.78	0.01	0.53	0.02	1.27	9.16						97.56
Alma K-85	2467.55	2467.55	LCC	149	Muscovite	45.30	0.74	30.77	0.00	5.42	0.05	1.18	0.00	0.31	9.60						93.37
Alma K-85	2467.55	2467.55	LCC	150	Muscovite	46.54	1.21	34.92	0.00	0.64	0.00	0.63	0.03	0.84	9.05						93.86
Alma K-85	2469.30	2469.30	LCC	339	Muscovite	41.42	0.40	38.79	0.00	1.44	0.02	0.43	2.88	0.42	7.49						93.29
Argo F-38	1915.00	1900-1930A	LCM	6	Muscovite	46.78	0.23	35.17	0.00	1.22	0.09	0.52	0.07	0.78	10.89	0.00			0.16		95.91
Argo F-38	1915.00	1900-1930A	LCM	1	Muscovite	45.49	1.33	31.05	0.00	2.68	0.14	1.08	0.10	0.59	10.24	0.04			0.17		92.91
Argo F-38	1915.00	1900-1930A	LCM	2	Muscovite	47.13	0.13	32.02	0.00	2.06	0.00	1.03	0.00	0.83	10.38	0.00			0.24		93.82
Argo F-38	1915.00	1900-1930B	LCM	30	Muscovite	47.75	0.23	35.30	0.00	2.35	0.19	0.50	0.02	0.64	9.30	0.00			0.13		96.41
Argo F-38	2815.00	2800-2830	LCM	6	Muscovite	50.41	0.28	23.93	0.00	7.77	0.04	3.02	0.06	0.15	7.17	0.00			0.19		93.02
Argo F-38	3075.00	3060-3090A	LCC	10	Muscovite	48.97	0.05	33.53	0.00	2.30	0.04	0.45	0.02	0.09	7.57	0.01			0.00		93.04
Chebucto K-90	4283.72	4283.72	UM	431	Muscovite	45.28	0.58	37.21	0.00	0.72	0.00	0.47	0.00	0.64	9.79	0.03		0.00	0.00	0.00	94.72
Chebucto K-90	4283.72	4283.72	UM	432	Muscovite	45.58	0.63	36.91	0.00	0.76	0.00	0.51	0.01	0.67	10.02	0.02		0.00	0.00	0.00	95.11
Chebucto K-90	4283.72	4283.72	UM	433	Muscovite	45.34	0.55	36.83	0.00	0.78	0.00	0.53	0.00	0.64	9.88	0.06		0.00	0.00	0.00	94.61
Chebucto K-90	4286.07	4286.07	UM	387	Muscovite	44.84	0.00	35.88	0.00	2.68	0.04	0.54	0.00	0.85	8.64	0.02		0.00	0.00	0.00	93.49
Chebucto K-90	4286.07	4286.07	UM	388	Muscovite	45.59	0.00	35.52	0.00	2.69	0.03	0.56	0.00	0.77	8.91	0.09		0.00	0.00	0.00	94.16
Crow F-52	1430.00	1430B	LCM	3	Muscovite	54.50	0.11	22.46	0.00	7.04	0.00	2.84	0.18	0.05	6.98	0.06			0.07		94.28
Crow F-52	1430.00	1430B	LCM	9	Muscovite	48.31	0.05	31.56	0.00	4.45	0.05	2.43	0.55	0.22	8.27	0.21			0.14		96.24
Crow F-52	1970.00	1970A	LCS	5	Muscovite	49.73	0.20	28.25	0.00	1.97	0.00	2.91	0.09	0.07	7.16	0.00			0.14		90.51
Crow F-52	1970.00	1970A	LCS	4	Muscovite	44.73	0.01	35.07	0.00	1.88	0.01	0.10	0.00	0.27	10.32	0.00			0.03		92.42
Crow F-52	1970.00	1970A	LCS	7	Muscovite	45.17	0.02	33.36	0.00	2.68	0.01	0.44	0.00	0.26	10.06	0.00			0.02		92.02
Crow F-52	2450.00	2450F	LCC	1	Muscovite	44.59	0.72	33.42	0.00	1.34	0.00	0.91	0.00	0.68	8.98	0.00			0.00		90.64
Crow F-52	2450.00	2450F	LCC	5	Muscovite	44.85	1.04	33.02	0.00	1.29	0.00	1.20	0.00	0.65	9.54	0.00			0.00		91.58
Crow F-52	2773.00	2766-2780H	MM	3	Muscovite	53.52	0.56	31.91	0.00	1.23	0.01	0.39	0.00	1.05	7.58	0.00			0.26		96.51
Dauntless D-35	3162.76	3162.76	UM	75	Muscovite	45.40	0.50	35.29	0.00	0.90	0.00	0.51	0.00	1.21	8.53	0.00	0.00		0.00		92.34
Dauntless D-35	3164.43	3164.43	UM	76	Muscovite	45.42	0.70	35.00	0.00	1.05	0.00	0.52	0.00	0.80	7.63	0.00	0.00		0.00		91.12

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Fox I-22	905.00	890-920B	LCM	6	Muscovite	48.04	0.12	35.66	0.00	0.34	0.14	0.16	0.32	0.43	10.86	0.01			0.24		96.31
Fox I-22	905.00	890-920B	LCM	9	Muscovite	46.55	0.12	35.15	0.00	0.28	0.11	0.07	0.27	0.32	11.56	0.07			0.19		94.68
Fox I-22	1055.00	1040-1070	LCM	7	Muscovite	52.83	0.09	28.15	0.00	2.71	0.02	2.32	0.76	0.07	8.06	0.00			0.09		95.09
Fox I-22	1115.00	1100-1130	LCM	6	Muscovite	46.13	0.01	36.07	0.00	1.41	0.00	0.82	0.04	0.14	9.90	0.00			0.06		94.57
Fox I-22	1205.00	1190-1220	LCS	27	Muscovite	55.81	0.10	30.27	0.00	1.95	0.00	3.67	0.00	0.16	5.34	0.00			0.05		97.35
Fox I-22	1205.00	1190-1220	LCS	14	Muscovite	51.96	0.86	28.72	0.00	1.85	0.00	3.47	0.00	0.15	8.51	0.00			0.10		95.61
Fox I-22	1205.00	1190-1220	LCS	2	Muscovite	47.20	0.00	30.55	0.00	4.61	0.03	1.55	0.00	0.14	9.89	0.00			0.00		93.97
Fox I-22	1595.00	1580-1610	LCC	5	Muscovite	48.77	0.07	33.92	0.00	2.52	0.06	1.14	0.07	0.61	7.80	0.07			0.26		95.28
Fox I-22	1595.00	1580-1610	LCC	6	Muscovite	50.59	0.63	24.48	0.00	7.27	0.01	3.63	0.00	0.08	7.83	0.00			0.01		94.53
Fox I-22	1955.00	1940-1970C	UM	8	Muscovite	45.36	0.34	34.23	0.00	3.18	0.00	0.57	0.00	1.18	11.20	0.00			0.33		96.39
Fox I-22	1955.00	1940-1970C	UM	5	Muscovite	44.69	0.32	33.55	0.00	3.89	0.01	0.82	0.00	0.38	11.88	0.00			0.42		95.96
Fox I-22	1985.00	1970-2000C	UM	1	Muscovite	46.22	1.53	33.88	0.00	1.60	0.01	1.04	0.00	0.39	11.01	0.00			0.18		95.86
Fox I-22	2045.00	2030-2060	MM	4	Muscovite	46.54	0.18	28.93	0.00	6.61	0.03	0.84	0.02	0.05	10.11	0.00			0.10		93.39
Fox I-22	2045.00	2030-2060	MM	4	Muscovite	48.78	0.57	33.72	0.00	2.30	0.01	1.31	0.04	0.11	7.67	0.00			0.23		94.73
Fox I-22	2045.00	2030-2060	MM	6	Muscovite	44.71	0.13	34.07	0.00	2.94	0.02	1.25	0.00	0.23	10.25	0.00			0.22		93.82
Fox I-22	2045.00	2030-2060	MM	7	Muscovite	46.30	0.22	36.83	0.00	2.10	0.03	0.41	0.01	1.72	7.07	0.00			0.16		94.85
Fox I-22	2045.00	2030-2060	MM	10	Muscovite	46.49	0.27	34.56	0.00	0.09	0.03	0.73	0.03	0.38	7.65	0.00			0.28		90.50
Fox I-22	2045.00	2030-2060	MM	12	Muscovite	50.72	0.49	31.05	0.00	2.74	0.03	2.39	0.01	0.13	8.86	0.00			0.19		96.61
Fox I-22	2075.00	2060-2090C	MM	3	Muscovite	46.44	0.40	33.54	0.00	2.82	0.02	1.06	0.00	0.75	10.38	0.00			0.29		95.69
Fox I-22	2105.00	2090-2120F	MM	4	Muscovite	46.76	0.14	35.78	0.00	2.17	0.03	0.27	0.00	0.97	7.10	0.00			0.11		93.32
Fox I-22	2135.00	2120-2150C	MM	6	Muscovite	47.37	0.00	36.00	0.00	0.86	0.00	0.28	0.00	1.54	7.72	0.00			0.00		93.76
Glenelg E-58	2993.62	2993.62	LCC	260	Muscovite	45.40	1.07	30.46	0.00	4.97	0.03	1.32	0.01	0.29	9.60	0.00		0.02	0.40	0.00	93.57
Glenelg E-58	2993.62	2993.62	LCC	261	Muscovite	45.79	0.95	30.92	0.00	4.73	0.03	1.41	0.02	0.26	9.34	0.00		0.00	0.33	0.00	93.79
Glenelg E-58	2993.62	2993.62	LCC	268	Muscovite	46.33	1.28	30.81	0.01	3.96	0.03	1.53	0.06	0.30	10.39	0.00		0.00	0.28	0.00	94.97
Glenelg E-58	2993.62	2993.62	LCC	269	Muscovite	45.76	1.16	30.27	0.01	3.97	0.02	1.68	0.09	0.28	10.23	0.00		0.00	0.30	0.00	93.79
Glenelg E-58	3006.02	3006.02	LCC	412	Muscovite	45.70	0.69	36.47	0.00	1.20	0.01	0.47	0.08	1.16	8.87	0.02		0.00	0.14	0.00	94.82
Glenelg E-58	3006.02	3006.02	LCC	413	Muscovite	45.04	0.71	36.30	0.00	0.99	0.00	0.57	0.06	1.40	8.53	0.05		0.00	0.11	0.00	93.75
Glenelg E-58	3006.02	3006.02	LCC	414	Muscovite	45.60	0.36	37.07	0.00	0.73	0.00	0.51	0.03	1.53	8.37	0.02		0.00	0.04	0.00	94.25
Glenelg H-59	3882.93	3882.93	UM	424	Muscovite	47.10	0.12	30.69	0.00	3.88	0.00	1.94	0.10	0.21	10.27	0.03		0.00	0.10	0.00	94.44
Glenelg H-59	3882.93	3882.93	UM	425	Muscovite	46.78	0.14	32.37	0.00	3.36	0.00	1.32	0.10	0.17	10.30	0.04		0.00	0.21	0.00	94.80
Glenelg H-59	3882.93	3882.93	UM	426	Muscovite	47.10	0.09	30.35	0.00	3.84	0.01	2.02	0.11	0.20	10.23	0.02		0.00	0.19	0.00	94.16
Glenelg N-49	2983.18	2983.18	LCC	201	Muscovite	46.10	0.65	35.38	0.00	0.58	0.00	0.70	0.00	1.15	9.18	0.00	0.00	0.00	0.00	0.00	93.73
Glenelg N-49	2983.18	2983.18	LCC	23	Muscovite	48.36	0.43	38.60	0.00	0.93	0.00	0.44	0.00	0.51	6.36	0.00	0.00	0.00	0.00	0.00	95.63
Glenelg N-49	2987.28	2987.28	LCC	4	Muscovite	45.94	0.85	37.03	0.00	0.64	0.00	0.47	0.00	0.68	7.76	0.00	0.00	0.00	0.00	0.00	93.36
Glenelg N-49	3001.84	3001.84	LCC	251	Muscovite	45.70	0.00	35.33	0.00	1.27	0.00	0.88	0.00	0.59	10.77	0.00	0.00	0.00	0.00	0.00	94.55
Glenelg N-49	3001.84	3001.84	LCC	256	Muscovite	45.80	0.92	34.85	0.00	2.00	0.00	0.34	0.00	0.63	10.16	0.00	0.00	0.00	0.00	0.00	94.69
Glenelg N-49	3576.78	3576.78	UM	198	Muscovite	45.10	0.95	32.59	0.00	3.46	0.00	0.92	0.00	0.54	10.33	0.00	0.00	0.00	0.00	0.00	93.89
Glenelg N-49	3581.99	3581.99	UM	37	Muscovite	46.27	0.29	33.87	0.00	2.56	0.00	0.98	0.00	0.00	7.66	0.00	0.00	0.00	0.00	0.00	91.63
Glenelg N-49	3581.99	3581.99	UM	34	Muscovite	49.10	0.60	35.37	0.00	1.52	0.00	0.96	0.00	0.00	7.11	0.00	0.00	0.00	0.00	0.00	94.66

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Glenelg N-49	3603.05	3603.05	UM	246	Muscovite	45.62	0.36	35.19	0.00	1.81	0.00	0.47	0.00	0.66	7.80	0.00	0.00	0.00	0.00	0.00	91.91
Glenelg N-49	3603.05	3603.05	UM	242	Muscovite	45.00	0.80	32.91	0.00	3.24	0.00	0.81	0.00	0.51	10.21	0.00	0.00	0.00	0.00	0.00	93.46
Glenelg N-49	3603.05	3603.05	UM	244	Muscovite	45.37	0.31	34.91	0.00	1.03	0.00	0.79	0.00	0.45	10.38	0.00	0.00	0.00	0.69	0.00	93.93
Glenelg N-49	3613.60	3613.60	UM	68	Muscovite	47.28	0.70	27.95	0.00	7.03	0.00	1.99	0.00	0.00	7.11	0.00	0.00	0.00	0.00	0.00	92.05
Glenelg N-49	3641.50	3641.50	UM	75	Muscovite	45.34	0.00	36.57	0.00	1.07	0.00	0.29	0.00	0.30	8.06	0.00	0.00	0.00	0.00	0.00	91.63
Glenelg N-49	3660.91	3660.91	UM	103	Muscovite	45.52	0.85	34.61	0.00	1.30	0.00	0.78	0.00	0.30	7.60	0.00	0.00	0.00	0.00	0.00	90.95
Glenelg N-49	2983.18	2983.18	LCC	25	Paragonite	47.63	0.00	40.03	0.00	0.50	0.00	0.00	0.00	4.53	0.77	0.00	0.00	0.00	0.00	0.00	93.46
Glenelg N-49	2983.18	2983.18	LCC	280	Paragonite	46.06	0.00	37.61	0.00	0.44	0.00	0.00	0.00	6.31	0.86	0.00	0.00	0.00	0.00	0.00	91.29
Glenelg N-49	2983.18	2983.18	LCC	205	Paragonite	46.10	0.00	37.97	0.00	0.59	0.00	0.25	0.00	6.10	0.93	0.00	0.00	0.00	0.00	0.00	91.94
Glenelg N-49	2983.18	2983.18	LCC	279	Paragonite	46.24	0.00	38.00	0.00	0.50	0.00	0.00	0.00	6.62	0.81	0.00	0.00	0.00	0.00	0.00	92.18
Glenelg N-49	3001.84	3001.84	LCC	281	Paragonite	46.49	0.00	37.74	0.00	0.63	0.00	0.00	0.00	6.54	0.81	0.00	0.00	0.00	0.00	0.00	92.22
Jason C-20	3480.00	3480	LCC	7	Muscovite	46.17	0.56	32.34	0.00	2.30	0.12	1.03	1.91	0.28	8.46	0.01			0.45		93.63
Jason C-20	5680.00	5680C	MM	3	Muscovite	49.53	1.15	31.36	0.00	3.26	0.05	1.80	0.03	0.84	9.56	0.04			0.32		97.93
Jason C-20	5680.00	5680	MM	1	Muscovite	50.74	0.11	33.84	0.00	1.18	0.00	1.02	0.00	0.57	5.83	0.00			0.00		93.30
Musquodoboit E-23	2800.00	2800.00	MM	37	Muscovite	45.54	0.40	32.59	0.00	3.70	0.00	1.08	0.01	0.39	9.49	0.00		0.00	0.02	0.00	93.21
Musquodoboit E-23	2800.00	2800.00	MM	38	Muscovite	45.17	0.38	32.88	0.00	3.83	0.00	1.02	0.00	0.36	9.53	0.00		0.00	0.00	0.00	93.18
Naskapi N-30	1467.96	1467.96	UM	497	Muscovite	45.71	0.77	34.28	0.03	2.19	0.00	0.67	0.00	0.49	10.49						94.63
Naskapi N-30	1467.96	1467.96	UM	498	Muscovite	45.49	0.79	34.59	0.03	2.39	0.04	0.68	0.00	0.49	10.48						94.98
Naskapi N-30	1467.96	1467.96	UM	499	Muscovite	46.50	1.53	34.29	0.06	1.15	0.00	0.85	0.00	0.51	10.32						95.21
Naskapi N-30	1467.96	1467.96	UM	500	Muscovite	45.71	0.17	36.34	0.07	1.07	0.00	0.46	0.00	0.86	9.58						94.26
Naskapi N-30	1467.96	1467.96	UM	501	Muscovite	45.58	1.04	33.24	0.01	3.78	0.00	0.70	0.00	0.51	10.12						94.98
Naskapi N-30	1467.96	1467.96	UM	502	Muscovite	58.23	0.15	29.92	0.06	0.60	0.00	0.28	0.04	0.30	7.84						97.42
Naskapi N-30	1467.96	1467.96	UM	504	Muscovite	45.95	0.21	35.98	0.03	1.58	0.00	0.71	0.00	0.51	10.81						95.78
Naskapi N-30	1467.96	1467.96	UM	505	Muscovite	45.62	0.62	35.47	0.03	1.27	0.00	0.59	0.00	0.27	9.81						93.68
Naskapi N-30	1468.65	1468.65	UM	507	Muscovite	44.44	1.12	33.06	0.01	2.87	0.04	0.64	0.03	0.43	9.93						92.57
Naskapi N-30	1468.65	1468.65	UM	508	Muscovite	47.06	0.90	32.11	0.06	2.00	0.04	1.44	0.01	0.20	9.98						93.80
Naskapi N-30	1468.65	1468.65	UM	509	Muscovite	46.85	0.32	32.87	0.07	2.18	0.03	1.38	0.00	0.26	10.50						94.46
Naskapi N-30	1468.65	1468.65	UM	530	Muscovite	45.23	0.02	36.52	0.04	0.28	0.07	0.27	0.20	1.66	6.21						90.50
Naskapi N-30	1469.00	1469.00	UM	510	Muscovite	46.29	0.13	34.74	0.02	2.00	0.01	0.72	0.00	0.56	10.16						94.63
Naskapi N-30	1469.00	1469.00	UM	511	Muscovite	45.89	0.69	34.49	0.03	3.17	0.04	0.68	0.00	0.92	9.55						95.46
Naskapi N-30	1469.00	1469.00	UM	512	Muscovite	44.79	1.75	34.60	0.00	1.62	0.00	0.74	0.00	0.59	10.97						95.06
Naskapi N-30	1469.00	1469.00	UM	513	Muscovite	45.64	0.64	34.14	0.03	3.14	0.00	0.62	0.00	0.85	9.81						94.87
Naskapi N-30	1469.00	1469.00	UM	514	Muscovite	45.90	0.62	35.88	0.00	0.78	0.00	0.54	0.00	0.89	9.12						93.73
Naskapi N-30	1469.00	1469.00	UM	532	Muscovite	44.53	0.66	32.75	0.03	2.90	0.00	0.63	0.06	0.97	9.39						91.92
Naskapi N-30	1469.00	1469.00	UM	533	Muscovite	44.27	0.72	32.04	0.00	3.14	0.00	0.69	0.01	0.48	9.63						90.98
Naskapi N-30	1469.89	1469.89	UM	526	Muscovite	45.75	0.44	31.97	0.05	2.65	0.04	1.13	0.03	0.33	9.48						91.87
Naskapi N-30	1469.89	1469.89	UM	527	Muscovite	45.16	0.64	33.50	0.03	2.78	0.15	0.78	0.01	0.36	9.71						93.12
Naskapi N-30	1469.89	1469.89	UM	589	Muscovite	46.02	0.22	32.20	0.01	2.43	0.01	1.46	0.00	0.13	10.76						93.24
Naskapi N-30	1469.89	1469.89	UM	590	Muscovite	45.82	0.40	36.29	0.03	0.81	0.00	0.64	0.00	0.98	9.81						94.78

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Naskapi N-30	1469.89	1469.89	UM	591	Muscovite	45.54	0.42	36.37	0.04	0.92	0.00	0.55	0.01	1.01	9.70						94.56
Naskapi N-30	1469.89	1469.89	UM	592	Muscovite	44.86	0.59	34.90	0.01	1.35	0.00	0.50	0.01	0.17	10.15						92.54
Naskapi N-30	1469.89	1469.89	UM	593	Muscovite	45.23	0.67	35.43	0.05	1.03	0.00	0.51	0.02	0.27	10.34						93.55
Naskapi N-30	1469.89	1469.89	UM	594	Muscovite	45.65	0.41	36.37	0.03	1.50	0.00	0.40	0.03	0.66	9.98						95.03
Naskapi N-30	1469.89	1469.89	UM	301	Muscovite	45.40	0.70	34.25	0.02	3.68	0.02	0.72	0.01	0.52	6.80	0.00		0.00	0.36	0.13	92.61
Naskapi N-30	1469.89	1469.89	UM	308	Muscovite	46.43	0.12	36.32	0.01	1.72	0.01	0.62	0.03	0.79	7.13	0.02		0.00	0.00	0.12	93.32
Naskapi N-30	1469.89	1469.89	UM	309	Muscovite	46.52	0.21	36.64	0.02	1.43	0.03	0.63	0.07	0.42	8.44	0.06		0.00	0.00	0.16	94.64
Naskapi N-30	1470.50	1470.50	UM	515	Muscovite	44.53	0.84	32.16	0.05	3.73	0.00	1.05	0.00	0.41	10.74						93.51
Naskapi N-30	1470.50	1470.50	UM	516	Muscovite	45.04	0.58	33.84	0.02	3.30	0.00	0.79	0.00	0.75	9.99						94.31
Naskapi N-30	1471.75	1471.75	UM	595	Muscovite	45.03	0.64	35.00	0.02	1.81	0.00	0.53	0.00	1.06	10.15						94.24
Naskapi N-30	1471.75	1471.75	UM	596	Muscovite	46.57	0.08	36.66	0.02	0.58	0.00	0.53	0.00	0.88	9.72						95.04
Naskapi N-30	1471.75	1471.75	UM	597	Muscovite	45.25	0.86	33.44	0.01	3.84	0.01	0.76	0.00	0.52	10.29						94.98
Naskapi N-30	1472.25	1472.25	UM	588	Muscovite	46.42	0.28	36.34	0.01	0.70	0.05	0.43	0.01	1.05	8.62						93.91
Naskapi N-30	1472.36	1472.36	UM	576	Muscovite	46.79	0.42	37.54	0.00	0.46	0.00	0.46	0.00	1.02	9.21						95.90
Naskapi N-30	1472.36	1472.36	UM	577	Muscovite	46.81	0.41	35.43	0.00	1.66	0.00	0.62	0.00	0.80	9.10						94.83
Naskapi N-30	1472.36	1472.36	UM	578	Muscovite	47.38	0.10	32.55	0.01	3.32	0.00	1.13	0.01	0.21	10.06						94.77
Naskapi N-30	1472.36	1472.36	UM	579	Muscovite	46.19	0.15	35.17	0.00	1.28	0.00	0.44	0.05	0.34	9.49						93.11
Naskapi N-30	1472.36	1472.36	UM	580	Muscovite	46.11	0.77	35.21	0.01	1.76	0.03	0.67	0.01	0.63	10.14						95.34
Naskapi N-30	1472.36	1472.36	UM	581	Muscovite	46.72	0.55	31.45	0.03	2.97	0.04	1.26	0.00	0.31	9.66						92.99
Naskapi N-30	1472.36	1472.36	UM	582	Muscovite	46.77	0.46	36.43	0.00	0.81	0.00	0.65	0.02	0.53	10.05						95.72
Naskapi N-30	1472.36	1472.36	UM	583	Muscovite	46.54	0.53	37.09	0.02	0.78	0.00	0.38	0.00	1.17	9.29						95.80
Naskapi N-30	1473.51	1473.51	UM	584	Muscovite	45.20	0.57	35.98	0.00	0.86	0.00	0.39	0.00	0.96	9.45						93.41
Naskapi N-30	1473.51	1473.51	UM	585	Muscovite	46.13	1.03	35.58	0.00	1.26	0.00	0.66	0.00	0.56	10.29						95.51
Naskapi N-30	1473.51	1473.51	UM	586	Muscovite	45.99	0.02	34.80	0.00	1.46	0.00	0.71	0.00	0.41	10.52						93.91
Naskapi N-30	1473.51	1473.51	UM	587	Muscovite	45.68	0.00	35.13	0.00	1.41	0.00	0.79	0.01	0.51	10.02						93.55
Naskapi N-30	1473.51	1473.51	UM	598	Muscovite	45.25	0.06	34.76	0.00	2.07	0.00	0.43	0.00	1.14	7.92						91.63
Naskapi N-30	1473.51	1473.51	UM	599	Muscovite	45.48	0.05	31.87	0.01	2.16	0.00	1.38	0.02	0.15	10.38						91.50
Naskapi N-30	1473.61	1473.61	UM	517	Muscovite	45.18	0.30	36.03	0.02	0.78	0.00	0.49	0.00	0.73	9.95						93.48
Naskapi N-30	1473.61	1473.61	UM	518	Muscovite	43.98	0.70	33.71	0.01	2.84	0.05	0.59	0.01	0.85	9.80						92.54
Naskapi N-30	1473.61	1473.61	UM	520	Muscovite	43.87	0.81	32.95	0.00	3.44	0.02	0.63	0.02	0.54	9.70						91.98
Naskapi N-30	1473.81	1473.81	UM	522	Muscovite	45.54	1.05	30.99	0.07	2.94	0.00	1.35	0.01	0.19	9.93						92.07
Naskapi N-30	1473.81	1473.81	UM	523	Muscovite	44.71	0.29	34.21	0.01	1.94	0.00	0.70	0.00	0.59	10.32						92.77
Naskapi N-30	1473.81	1473.81	UM	524	Muscovite	45.09	0.30	33.48	0.01	2.30	0.00	0.79	0.01	0.56	10.27						92.81
Naskapi N-30	1473.81	1473.81	UM	525	Muscovite	44.84	0.11	34.13	0.02	2.33	0.08	0.63	0.01	0.36	10.34						92.85
Naskapi N-30	1473.81	1473.81	UM	538	Muscovite	44.72	0.09	33.72	0.02	2.05	0.03	0.58	0.05	0.39	10.13						91.78
Naskapi N-30	1473.81	1473.81	UM	575	Muscovite	48.29	0.09	35.54	0.02	2.47	0.06	0.69	0.00	0.20	6.00						93.36
Naskapi N-30	1473.81	1473.81H	UM	103	Muscovite	45.94	0.82	33.76	0.00	1.61	0.00	1.15	0.00	0.26	7.85	0.00		0.00	0.24	0.28	91.92
Naskapi N-30	1473.81	1473.81H	UM	104	Muscovite	47.05	0.81	33.87	0.00	2.09	0.01	1.33	0.00	0.25	7.91	0.00		0.00	0.27	0.30	93.88
Naskapi N-30	1473.81	1473.81H	UM	110	Muscovite	44.62	0.39	34.91	0.00	2.28	0.05	0.49	0.02	0.53	7.26	0.07		0.00	0.00	0.22	90.84

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Naskapi N-30	1473.81	1473.81H	UM	112	Muscovite	45.06	0.68	34.57	0.00	2.16	0.00	0.62	0.01	0.66	6.82	0.03		0.00	0.05	0.25	90.92
Naskapi N-30	1473.81	1473.81H	UM	113	Muscovite	47.11	0.65	32.64	0.00	2.13	0.00	1.45	0.00	0.25	6.87	0.00		0.00	0.14	0.28	91.53
Naskapi N-30	1473.81	1473.81H	UM	116	Muscovite	45.68	0.71	36.64	0.00	0.77	0.00	0.43	0.00	1.02	7.55	0.00		0.00	0.70	0.31	93.80
Naskapi N-30	1473.81	1473.81H	UM	117	Muscovite	45.41	0.71	36.69	0.00	0.75	0.00	0.40	0.00	0.87	7.85	0.00		0.00	0.65	0.30	93.62
Naskapi N-30	1473.81	1473.81H	UM	122	Muscovite	45.53	1.19	33.66	0.00	2.60	0.00	0.81	0.00	0.35	6.75	0.01		0.00	0.04	0.23	91.17
Naskapi N-30	1473.81	1473.81H	UM	123	Muscovite	45.52	0.96	33.75	0.00	2.52	0.00	0.83	0.00	0.33	6.57	0.00		0.00	0.05	0.24	90.78
Naskapi N-30	1473.81	1473.81H	UM	126	Muscovite	46.26	0.72	35.67	0.00	1.80	0.00	0.51	0.00	0.98	6.45	0.02		0.00	0.23	0.27	92.91
Naskapi N-30	1473.81	1473.81H	UM	127	Muscovite	46.10	0.57	35.62	0.00	1.84	0.00	0.52	0.01	0.96	6.59	0.01		0.00	0.25	0.29	92.77
Naskapi N-30	1473.81	1473.81H	UM	148	Muscovite	44.59	1.04	34.40	0.09	2.40	0.04	0.44	0.01	0.73	6.93	0.00		0.03	0.20	0.28	91.18
Naskapi N-30	1473.81	1473.81H	UM	149	Muscovite	45.80	1.04	34.48	0.07	2.77	0.04	0.57	0.01	0.75	6.38	0.00		0.00	0.15	0.31	92.36
Naskapi N-30	1473.81	1473.81H	UM	150	Muscovite	46.60	0.05	37.88	0.06	0.64	0.01	0.18	0.01	0.92	7.31	0.00		0.00	0.00	0.33	94.00
Naskapi N-30	1473.81	1473.81H	UM	151	Muscovite	46.31	0.06	38.14	0.05	0.59	0.01	0.18	0.01	0.86	7.19	0.00		0.00	0.00	0.29	93.69
Naskapi N-30	1473.81	1473.81H	UM	152	Muscovite	45.41	0.87	33.88	0.04	2.90	0.03	0.70	0.02	0.68	7.31	0.00		0.00	0.31	0.33	92.50
Naskapi N-30	1473.81	1473.81H	UM	153	Muscovite	46.59	0.56	36.65	0.06	0.97	0.01	0.42	0.05	0.92	6.42	0.00		0.03	0.07	0.30	93.05
Naskapi N-30	1473.81	1473.81H	UM	154	Muscovite	46.68	0.60	36.68	0.08	1.02	0.03	0.51	0.01	0.90	6.36	0.00		0.00	0.06	0.29	93.24
Naskapi N-30	1473.81	1473.81H	UM	165	Muscovite	45.23	0.54	36.30	0.01	0.72	0.00	0.49	0.00	0.53	7.50	0.00		0.00	0.28	0.20	91.81
Naskapi N-30	1473.81	1473.81H	UM	166	Muscovite	44.74	0.84	35.84	0.00	0.74	0.00	0.52	0.01	0.74	7.44	0.02		0.00	0.32	0.20	91.39
Naskapi N-30	1473.81	1473.81H	UM	167	Muscovite	46.03	0.91	34.16	0.00	3.29	0.00	0.74	0.00	0.54	8.14	0.00		0.00	0.01	0.27	94.08
Naskapi N-30	1473.81	1473.81H	UM	168	Muscovite	45.35	0.83	34.14	0.00	3.30	0.00	0.73	0.00	0.49	7.98	0.00		0.00	0.04	0.29	93.17
Naskapi N-30	1473.81	1473.81H	UM	177	Muscovite	45.75	0.66	36.06	0.00	0.82	0.00	0.59	0.00	0.93	7.60	0.03		0.00	0.25	0.26	92.95
Naskapi N-30	1473.81	1473.81H	UM	178	Muscovite	45.60	0.56	36.35	0.00	0.78	0.00	0.53	0.00	0.76	7.49	0.03		0.00	0.17	0.28	92.55
Naskapi N-30	1473.81	1473.81H	UM	179	Muscovite	44.76	1.39	35.39	0.00	0.88	0.00	0.60	0.00	1.05	7.37	0.01		0.00	0.39	0.24	92.08
Naskapi N-30	1473.81	1473.81H	UM	180	Muscovite	45.78	0.26	35.53	0.00	1.49	0.00	0.77	0.00	0.40	8.91	0.04		0.00	0.31	0.23	93.71
Naskapi N-30	1473.81	1473.81H	UM	181	Muscovite	45.10	0.45	34.72	0.00	1.46	0.00	0.78	0.00	0.41	9.01	0.06		0.00	0.35	0.22	92.58
Naskapi N-30	1473.81	1473.81H	UM	193	Muscovite	45.66	1.00	35.95	0.01	0.83	0.01	0.55	0.01	0.67	7.38	0.03		0.03	0.28	0.30	92.72
Naskapi N-30	1473.81	1473.81H	UM	194	Muscovite	45.56	1.03	35.68	0.03	0.86	0.01	0.66	0.00	0.59	7.65	0.00		0.02	0.26	0.32	92.67
Naskapi N-30	1473.81	1473.81L	UM	7	Muscovite	46.09	0.87	35.33	0.00	1.56	0.00	0.71	0.00	0.53	7.51	0.00		0.00	0.00	0.26	92.86
Naskapi N-30	1473.81	1473.81L	UM	8	Muscovite	46.13	0.84	35.46	0.00	1.51	0.00	0.65	0.02	0.45	7.51	0.08		0.00	0.00	0.25	92.89
Naskapi N-30	1473.81	1473.81L	UM	11	Muscovite	45.87	1.32	33.97	0.00	2.81	0.00	0.65	0.00	0.49	7.13	0.07		0.00	0.00	0.24	92.55
Naskapi N-30	1473.81	1473.81L	UM	12	Muscovite	45.71	1.29	34.26	0.00	2.98	0.00	0.64	0.00	0.49	7.34	0.00		0.00	0.00	0.27	92.97
Naskapi N-30	1473.81	1473.81L	UM	14	Muscovite	45.96	0.27	36.23	0.00	1.43	0.00	0.67	0.00	0.34	7.41	0.00		0.00	0.16	0.21	92.68
Naskapi N-30	1473.81	1473.81L	UM	15	Muscovite	45.54	0.99	35.60	0.00	1.68	0.00	0.38	0.00	0.51	7.68	0.02		0.00	0.21	0.24	92.86
Naskapi N-30	1473.81	1473.81L	UM	16	Muscovite	45.68	1.19	34.67	0.00	2.41	0.00	0.58	0.01	0.44	7.43	0.06		0.00	0.19	0.25	92.91
Naskapi N-30	1473.81	1473.81L	UM	17	Muscovite	45.48	0.70	34.53	0.00	2.66	0.00	0.75	0.02	0.58	6.92	0.05		0.00	0.09	0.22	92.02
Naskapi N-30	1473.81	1473.81L	UM	18	Muscovite	44.42	0.69	34.39	0.00	2.58	0.01	0.72	0.00	0.48	6.70	0.05		0.00	0.09	0.19	90.31
Naskapi N-30	1473.81	1473.81L	UM	19	Muscovite	45.48	0.64	35.24	0.01	2.71	0.00	0.58	0.00	1.04	7.45	0.02		0.00	0.29	0.26	93.72
Naskapi N-30	1473.81	1473.81L	UM	20	Muscovite	45.12	0.61	34.82	0.00	2.98	0.00	0.67	0.00	1.02	7.18	0.00		0.00	0.26	0.27	92.92
Naskapi N-30	1473.81	1473.81L	UM	21	Muscovite	44.92	0.58	34.81	0.00	2.89	0.00	0.63	0.00	0.96	7.24	0.04		0.00	0.26	0.28	92.60
Naskapi N-30	1473.81	1473.81L	UM	26	Muscovite	45.43	1.06	34.96	0.00	2.25	0.00	0.48	0.00	0.98	7.50	0.02		0.00	0.29	0.23	93.20

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Naskapi N-30	1473.81	1473.81L	UM	27	Muscovite	45.90	0.96	34.96	0.00	2.15	0.00	0.50	0.00	0.97	7.35	0.00		0.00	0.29	0.24	93.33
North Triumph B-52	3771.30	3771.30	UM	692	Muscovite	46.61	1.07	34.86	0.01	1.82	0.00	0.77	0.00	0.31	9.95						95.40
North Triumph B-52	3771.30	3771.30	UM	698	Muscovite	44.50	0.09	31.75	0.02	5.36	0.00	1.25	0.26	0.09	7.42						90.74
North Triumph B-52	3776.62	3776.62	UM	684	Muscovite	46.82	0.33	32.98	0.00	3.23	0.00	1.08	0.00	1.44	8.52						94.40
North Triumph B-52	3776.62	3776.62	UM	685	Muscovite	46.43	0.36	33.80	0.00	2.77	0.00	0.83	0.00	0.37	9.89						94.45
North Triumph B-52	3776.62	3776.62	UM	697	Muscovite	43.33	0.19	33.96	0.04	3.46	0.00	0.76	0.55	0.15	8.13						90.57
North Triumph B-52	3780.21	3780.21	UM	749	Muscovite	46.90	0.37	25.45	0.00	7.08	0.11	2.23	0.01	0.21	10.92						93.28
North Triumph B-52	3780.21	3780.21	UM	750	Muscovite	45.21	0.36	35.19	0.00	0.83	0.00	0.38	0.01	1.34	9.45						92.77
North Triumph B-52	3780.21	3780.21	UM	751	Muscovite	43.76	0.38	33.57	0.00	4.01	0.00	0.86	0.06	1.22	8.20						92.06
North Triumph B-52	3783.60	3783.60	UM	693	Muscovite	46.73	0.00	37.98	0.01	0.26	0.00	0.04	0.03	0.42	9.32						94.79
North Triumph B-52	3783.60	3783.60	UM	694	Muscovite	46.50	0.64	35.04	0.00	0.81	0.00	0.61	0.26	0.48	9.34						93.68
North Triumph B-52	3783.60	3783.60	UM	696	Muscovite	44.68	0.03	36.92	0.00	0.88	0.00	0.33	0.00	0.43	9.94						93.21
North Triumph B-52	3783.60	3783.60	UM	699	Muscovite	46.32	1.26	35.33	0.01	0.83	0.00	0.60	0.04	0.57	8.63						93.59
North Triumph B-52	3783.60	3783.60	UM	702	Muscovite	44.99	0.00	37.93	0.01	0.26	0.00	0.00	0.00	0.51	9.10						92.80
North Triumph B-52	3784.40	3784.40	UM	748	Muscovite	46.01	0.92	34.42	0.02	2.64	0.00	0.58	0.01	0.58	9.89						95.07
North Triumph B-52	3788.50	3788.50	UM	704	Muscovite	43.87	0.22	32.72	0.00	3.28	0.00	0.78	0.00	0.00	9.49						90.36
North Triumph B-52	3788.50	3788.50	UM	707	Muscovite	44.95	0.07	36.06	0.00	0.55	0.00	0.48	0.00	0.17	8.44						90.72
North Triumph B-52	3791.95	3791.95	UM	688	Muscovite	48.40	0.03	31.73	0.01	2.69	0.08	1.42	0.13	0.08	8.45						93.02
North Triumph B-52	3791.95	3791.95	UM	689	Muscovite	45.99	0.81	33.87	0.01	3.45	0.09	0.76	0.02	0.68	10.07						95.75
North Triumph B-52	3791.95	3791.95	UM	690	Muscovite	46.68	0.46	35.67	0.02	2.00	0.00	0.57	0.00	0.99	9.42						95.81
North Triumph B-52	3791.95	3791.95	UM	691	Muscovite	46.72	0.77	36.06	0.02	1.15	0.02	0.61	0.00	0.66	9.44						95.45
North Triumph B-52	3799.62	3799.62	UM	695	Muscovite	46.96	0.43	34.37	0.00	1.21	0.00	0.84	0.00	0.91	8.90						93.62
North Triumph B-52	3799.62	3799.62	UM	700	Muscovite	45.31	0.95	34.44	0.04	1.95	0.00	0.47	0.00	0.52	9.20						92.88
North Triumph B-52	3803.50	3803.50	UM	686	Muscovite	44.95	0.69	32.92	0.00	2.45	0.08	0.99	0.00	0.71	10.11						92.90
North Triumph B-52	3814.05	3814.05	UM	687	Muscovite	46.78	0.73	35.53	0.04	0.84	0.06	0.44	0.00	1.04	9.25						94.71
North Triumph G-43	3803.56	3803.56	UM	372	Muscovite	43.82	0.77	32.92	0.00	5.35	0.00	0.99	0.01	0.36	9.29	0.02		0.00	0.24	0.00	93.76
North Triumph G-43	3803.56	3803.56	UM	373	Muscovite	44.52	0.93	32.99	0.00	4.35	0.00	0.85	0.01	0.34	9.70	0.00		0.00	0.24	0.00	93.93
Peskowesk A-99	2238.65	2238.65	LCC	145	Muscovite	47.50	0.00	33.35	0.00	2.61	0.00	0.93	0.00	0.13	8.42						92.94
Peskowesk A-99	3796.33	3796.33	MMC	149	Muscovite	44.42	0.56	34.45	0.00	0.82	0.00	0.59	0.00	0.85	9.79						91.48
Peskowesk A-99	3796.33	3796.33	MMC	150	Muscovite	45.88	0.06	34.52	0.00	1.03	0.02	0.60	0.02	0.22	8.31						90.66
Sambro I-29	963.05	3170B	LC	16	Muscovite	46.31	0.58	35.63	0.01	0.91	0.00	0.53	0.09	1.52	9.65						95.23
Sambro I-29	963.05	3170B	LC	17	Muscovite	45.42	0.42	33.80	0.00	1.45	0.00	0.66	0.25	0.33	10.70						93.03
Sambro I-29	963.05	3170B	LC	18	Muscovite	45.15	0.56	34.49	0.00	2.25	0.00	0.50	0.00	1.06	9.47						93.48
Sambro I-29	1178.74	3880	UM	20	Muscovite	45.68	0.28	33.55	0.00	3.66	0.00	0.92	0.04	0.40	7.45						91.98
Sambro I-29	1178.74	3880	UM	84	Muscovite	45.65	1.00	33.72	0.00	1.74	0.02	1.12	0.01	0.28	9.66						93.20
Sambro I-29	1178.74	3880	UM	85	Muscovite	46.00	0.26	30.11	0.00	4.01	0.02	1.77	0.00	0.18	8.80						91.15
Sambro I-29	1178.74	3880	UM	81	Muscovite	47.00	1.22	30.45	0.00	2.55	0.03	1.83	0.02	0.16	9.01						92.27
Sambro I-29	1239.50	4080	MM	19	Muscovite	44.70	0.43	35.90	0.00	0.94	0.00	0.55	0.12	1.19	9.12						92.95
Sambro I-29	1239.50	4080	MM	22	Muscovite	46.62	0.03	30.23	0.00	5.66	0.00	1.15	0.32	0.45	7.31						91.77

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Sambro I-29	1275.96	4200	MM	21	Muscovite	44.17	0.33	29.42	0.00	5.58	0.06	2.50	0.00	0.19	9.62						91.87
Thebaud 3	3911.16	4	LM	4	Muscovite	47.34	0.69	30.88	0.00	5.72	0.02	1.43	0.00	0.18	6.04	0.00		0.00	0.00	0.30	92.59
Thebaud 3	3911.16	4	LM	5	Muscovite	48.37	0.53	30.39	0.00	5.32	0.04	1.62	0.01	0.18	5.86	0.00		0.00	0.00	0.29	92.62
Thebaud 3	3911.16	4	LM	6	Muscovite	47.49	0.62	30.60	0.00	5.72	0.04	1.43	0.00	0.20	6.08	0.00		0.00	0.00	0.34	92.52
Thebaud 3	3915.04	9 (LMS)	LM	11	Muscovite	45.75	0.90	35.42	0.00	0.72	0.00	0.64	0.01	0.98	6.16	0.00		0.00	0.10	0.28	90.97
Thebaud 3	3915.04	9 (LMS)	LM	12	Muscovite	46.28	0.89	35.87	0.00	0.74	0.01	0.63	0.00	1.00	6.31	0.00		0.00	0.09	0.28	92.09
Thebaud 3	3915.04	9 (HMS)	LM	24	Muscovite	46.07	0.87	35.83	0.00	0.89	0.03	0.56	0.03	0.67	6.46	0.04		0.00	0.11	0.35	91.91
Thebaud 3	3915.04	9 (HMS)	LM	25	Muscovite	45.94	0.84	35.69	0.01	0.96	0.04	0.57	0.05	0.68	6.92	0.06		0.01	0.12	0.29	92.19
Thebaud C-74	3911.74	3911.66-3911.82	LM	(28)	Muscovite	51.09	0.25	25.51	0.00	6.94	0.04	2.81	0.00	0.06	6.44	0.01		0.00	0.17	0.36	93.68
Thebaud C-74	3911.74	3911.66-3911.82	LM	(29)	Muscovite	51.20	0.34	25.84	0.00	6.65	0.04	2.76	0.00	0.07	6.47	0.00		0.00	0.19	0.31	93.87
Venture 1	4606.47	4606.32-4606.74	LM	18	Muscovite	45.91	0.32	35.52	0.00	0.78	0.00	0.53	0.00	1.05	7.54	0.03		0.11	0.00	0.00	91.79
Venture 1	4606.47	4606.32-4606.75	LM	19	Muscovite	45.81	0.36	35.70	0.00	0.82	0.00	0.49	0.00	1.10	7.43	0.01		0.10	0.00	0.00	91.82
Venture 1	4606.47	4606.32-4606.76	LM	20	Muscovite	46.02	0.41	35.60	0.00	0.80	0.00	0.53	0.00	1.02	7.35	0.03		0.05	0.00	0.00	91.80
Venture 1	4614.99	4614.81-4615.17	LM	192	Muscovite	46.78	1.09	33.02	0.00	3.34	0.01	0.93	0.00	0.44	6.58	0.00		0.00	0.00	0.28	92.45
Venture 1	4614.99	4614.81-4615.17	LM	193	Muscovite	46.45	1.05	32.74	0.00	3.27	0.02	0.98	0.00	0.42	6.80	0.00		0.00	0.00	0.29	92.02
Venture 1	4614.99	4614.81-4615.17	LM	194	Muscovite	47.18	1.06	32.76	0.00	3.33	0.03	1.00	0.00	0.36	6.61	0.00		0.00	0.05	0.27	92.65
Venture 1	4614.99	4614.81-4615.17	LM	195	Muscovite	46.94	1.13	32.57	0.00	3.33	0.00	1.00	0.00	0.40	6.69	0.00		0.00	0.00	0.32	92.37
Venture 1	4614.99	4614.81-4615.17	LM	200	Muscovite	50.14	0.42	29.18	0.00	3.26	0.00	2.24	0.00	0.92	5.86	0.00		0.00	0.17	0.34	92.52
Venture 1	4614.99	4614.81-4615.17	LM	201	Muscovite	48.89	0.49	28.18	0.00	4.10	0.00	2.33	0.00	0.86	5.86	0.00		0.00	0.12	0.34	91.17
Venture 1	4614.99	4614.81-4615.17	LM	202	Muscovite	48.59	0.46	28.25	0.00	5.69	0.00	2.62	0.05	0.74	5.43	0.00		0.00	0.16	0.34	92.33
Venture 4	5341.42	5341.32-5341.52	LM	23	Muscovite	49.11	0.00	30.79	0.04	3.36	0.02	1.64	0.03	0.40	6.10	0.00		0.00	0.14	0.26	91.88
Venture 4	5341.42	5341.32-5341.52	LM	25	Muscovite	48.14	0.07	30.27	0.01	3.57	0.03	1.59	0.03	0.53	6.66	0.04		0.00	0.22	0.26	91.42
Venture 4	5341.42	5341.32-5341.52	LM	186	Muscovite	49.78	0.03	29.18	0.00	2.35	0.03	2.08	0.65	0.14	6.49	0.00		0.00	0.00	0.31	91.03

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Jason C-20	4700.00	4700C	MM	1	Olivine	33.48	0.07	0.01	0.00	43.01	0.82	22.07	0.42	0.02	0.00	0.04			0.06		#####
Jason C-20	4700.00	4700C	MM	6	Olivine	33.32	0.08	0.01	0.00	43.76	0.91	21.74	0.43	0.05	0.00	0.14			0.03		#####
Jason C-20	4700.00	4700C	MM	8	Olivine	33.90	0.05	0.01	0.00	43.48	0.85	21.20	0.40	0.04	0.00	0.02			0.00		99.95
Jason C-20	4700.00	4700C	MM	11	Olivine	33.72	0.03	0.01	0.00	43.67	0.91	21.12	0.34	0.04	0.00	0.07			0.00		99.91
Jason C-20	6480.00	6480H	MMC	4	Olivine	34.10	0.00	0.00	0.00	44.38	0.86	21.36	0.34	0.00	0.00	0.07			0.00		#####
Jason C-20	6480.00	6480H	MMC	5	Olivine	33.89	0.00	0.00	0.00	43.62	0.78	22.02	0.31	0.01	0.00	0.05			0.00		#####
Jason C-20	6480.00	6480H	MMC	8	Olivine	33.98	0.11	0.00	0.00	43.50	0.88	20.97	0.31	0.03	0.00	0.09			0.05		99.92

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Ti/Ti+Fe	Type
Argo F-38	1705.00	1690-1720C	LCM	7	Altered Ilmenite	0.06	52.62	0.21	0.00	32.24	0.52	0.38	0.13	0.10	0.04	0.13			0.00		86.42	0.59	pseudorutile
Argo F-38	1705.00	1690-1720A	LCM	3	Ilmenite	0.00	53.44	0.00	0.00	42.84	1.84	0.55	0.12	0.02	0.03	0.02			0.00		98.85	0.53	pseudorutile
Argo F-38	1705.00	1690-1720A	LCM	5	Ilmenite	0.00	53.33	0.03	0.00	42.68	1.77	0.01	0.14	0.00	0.04	0.04			0.00		98.03	0.53	pseudorutile
Argo F-38	4690.00	4680-4700A	MM	8	Ilmenite	0.00	51.57	0.09	0.00	45.21	0.70	1.90	0.10	0.04	0.00	0.02			0.00		99.64	0.51	pseudorutile
Argo F-38	4690.00	4680-4700B	MM	6	Ilmenite	0.00	52.13	0.00	0.00	45.23	0.81	1.79	0.31	0.00	0.09	0.00			0.00		100.36	0.51	pseudorutile
Argo F-38	4690.00	4680-4700B	MM	20	Ilmenite	0.07	50.42	0.15	0.00	43.38	0.79	1.92	0.35	1.30	0.25	0.05			0.00		98.68	0.51	pseudorutile
Argo F-38	4690.00	4680-4700B	MM	1	Ilmenite	0.00	52.35	0.00	0.00	45.90	0.08	2.04	0.12	0.00	0.08	0.00			0.00		100.57	0.51	pseudorutile
Crow F-52	2450.00	2450F	LCC	2	Altered Ilmenite	0.23	62.20	0.24	0.00	23.74	0.61	0.12	0.16	0.13	0.00	0.07			1.29		88.80	0.70	pseudorutile
Crow F-52	1970.00	1970A	LCS	3	Ilmenite	0.05	54.94	0.04	0.00	43.87	1.02	0.05	0.07	0.00	0.00	0.04			0.00		100.08	0.53	pseudorutile
Crow F-52	1970.00	1970A	LCS	8	Ilmenite	0.03	54.18	0.00	0.00	44.35	1.21	0.13	0.11	0.03	0.00	0.03			0.00		100.06	0.52	pseudorutile
Crow F-52	2773.00	2766-2780H	MM	2	Ilmenite	0.00	55.56	0.03	0.00	44.14	0.75	0.18	0.07	0.00	0.05	0.02			0.00		100.78	0.53	pseudorutile
Crow F-52	2810.00	2810H	MM	3	Ilmenite	0.06	55.23	0.00	0.00	44.13	0.35	0.20	0.06	0.02	0.00	0.01			0.00		100.07	0.53	pseudorutile
Fox I-22	1205.00	1190-1220	LCS	10	Altered Ilmenite	0.15	59.45	0.08	0.00	33.02	0.51	0.51	0.10	0.00	0.00	0.04			0.00		93.86	0.62	pseudorutile
Fox I-22	1985.00	1970-2000F	UM	6	Altered Ilmenite	0.32	63.76	0.22	0.00	27.21	0.31	0.86	0.18	0.10	0.00	0.02			0.00		92.98	0.68	pseudorutile
Fox I-22	2045.00	2030-2060F	MM	1	Altered Ilmenite	0.08	56.12	0.09	0.00	41.47	2.96	0.00	0.02	0.04	0.00	0.02			0.00		100.79	0.55	pseudorutile
Fox I-22	2105.00	2090-2120C	MM	4	Altered Ilmenite	0.00	60.52	0.05	0.00	33.28	0.27	0.25	0.05	0.03	0.05	0.05			0.00		94.55	0.62	pseudorutile
Fox I-22	2105.00	2090-2120C	MM	2	Altered Ilmenite	0.77	60.32	0.82	0.00	30.41	1.20	0.43	0.13	0.03	0.09	0.08			0.00		94.28	0.64	pseudorutile
Fox I-22	1205.00	1190-1220	LCS	6	Ilmenite	0.26	51.59	0.28	0.00	41.97	0.81	1.83	0.21	0.00	0.00	0.06			0.00		97.01	0.53	pseudorutile
Fox I-22	1955.00	1940-1970F	UM	3	Ilmenite	0.01	52.81	0.02	0.00	43.40	4.54	0.11	0.02	0.00	0.00	0.01			0.00		100.92	0.52	pseudorutile
Fox I-22	1985.00	1970-2000C	UM	4	Ilmenite	0.02	51.43	0.02	0.00	45.21	0.68	1.73	0.07	0.00	0.03	0.03			0.00		99.22	0.51	pseudorutile
Fox I-22	1985.00	1970-2000F	UM	1	Ilmenite	0.00	52.28	0.03	0.00	43.82	0.39	1.12	0.02	0.00	0.00	0.00			0.00		97.65	0.52	pseudorutile
Fox I-22	2045.00	2030-2060	MM	9	Ilmenite	0.00	51.85	0.00	0.00	43.98	1.09	2.87	0.32	0.00	0.07	0.00			0.00		100.18	0.51	pseudorutile
Fox I-22	2075.00	2060-2090C	MM	5	Ilmenite	0.00	54.94	0.13	0.00	37.21	0.56	2.84	0.10	0.00	0.05	0.04			0.00		95.87	0.57	pseudorutile
Fox I-22	2105.00	2090-2120C	MM	2	Ilmenite	0.00	50.31	0.00	0.00	43.48	0.48	0.15	0.06	0.00	0.10	1.02			0.00		95.59	0.51	pseudorutile
Glenelg N-49	2983.18	2983.18	LCC	230	Altered Ilmenite	0.00	52.01	0.00	0.00	36.86	0.67	1.90	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	92.26	0.56	pseudorutile
Jason C-20	5680.00	5680F	MM	1	Altered Ilmenite	0.13	59.34	0.17	0.00	26.51	0.26	0.02	0.08	0.06	0.00	0.03			0.00		86.60	0.67	pseudorutile
Jason C-20	5680.00	5680F	MM	1	Altered Ilmenite	0.15	61.59	0.19	0.00	26.03	0.18	0.12	0.53	0.08	0.00	0.03			0.00		88.90	0.68	pseudorutile
Sambro I-29	1136.21	3740	UM	67	Ilmenite	0.00	50.26	0.11	0.07	43.51	1.81	0.60	0.16	0.00	0.00						96.52	0.51	pseudorutile
Sambro I-29	1178.74	3880	UM	68	Ilmenite	0.03	52.47	0.18	0.00	42.51	0.79	4.74	0.13	0.03	0.00						100.88	0.53	pseudorutile
Sambro I-29	1178.74	3880	UM	88	Ilmenite	0.00	53.12	0.00	0.00	41.89	4.83	0.04	0.11	0.00	0.00						99.99	0.53	pseudorutile
Sambro I-29	1215.20	4000	UM	62	Ilmenite	0.03	52.33	0.08	0.00	42.26	0.55	2.05	3.62	0.04	0.00						100.96	0.53	pseudorutile

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Jason C-20	6300.00	6300H	MMC	2	Rhodocrosite	0.41	0.00	0.27	0.00	11.33	43.44	1.14	2.88	0.08	0.00	0.02			0.04		59.61
Jason C-20	6300.00	6300H	MMC	3	Rhodocrosite	0.32	0.00	0.23	0.00	7.36	46.41	1.27	3.46	0.05	0.00	0.03			0.00		59.12

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Ti/Ti+Fe	Type
Alma K-85	2465.00	2465.00	LCC	163	Rutile	0.00	97.20	0.00	0.04	1.07	0.12	0.00	0.05	0.00	0.04						98.52	0.99	rutile
Alma K-85	2465.90	2465.90	LCC	170	Rutile	0.08	99.08	0.15	0.05	0.90	0.03	0.06	0.00	0.07	0.03						100.45	0.99	rutile
Alma K-85	2465.90	2465.90	LCC	171	Rutile	0.05	97.28	0.16	0.06	1.19	0.17	0.08	0.23	0.06	0.03						99.31	0.99	rutile
Alma K-85	2465.90	2465.90	LCC	172	Rutile	0.18	97.23	0.29	0.06	1.39	0.11	0.07	1.27	0.05	0.02						100.67	0.98	rutile
Alma K-85	2465.90	2465.90	LCC	174	Rutile	0.01	98.85	0.11	0.04	0.79	0.05	0.07	1.00	0.04	0.02						100.98	0.99	rutile
Alma K-85	2466.07	2466.07	LCC	162	Rutile	0.00	98.03	0.00	0.06	0.77	0.03	0.00	0.02	0.00	0.03						98.94	0.99	rutile
Alma K-85	2466.65	2466.65	LCC	164	Rutile	1.24	97.44	0.16	0.04	0.32	0.00	0.00	0.19	0.00	0.02						99.41	1.00	rutile
Alma K-85	2466.65	2466.65	LCC	165	Rutile	0.02	97.82	0.03	0.05	0.53	0.00	0.00	0.10	0.01	0.00						98.56	0.99	rutile
Alma K-85	2466.65	2466.65	LCC	169	Rutile	0.01	98.68	0.03	0.02	0.33	0.01	0.00	0.06	0.00	0.01						99.15	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	175	Rutile	0.05	98.38	0.02	0.05	0.33	0.00	0.01	0.20	0.00	0.00						99.04	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	176	Rutile	0.05	99.04	0.03	0.00	0.15	0.00	0.00	0.01	0.00	0.00						99.28	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	177	Rutile	0.04	99.31	0.00	0.24	0.18	0.07	0.02	0.02	0.00	0.00						99.88	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	178	Rutile	0.51	95.65	0.40	0.03	1.62	0.00	0.00	0.02	0.02	0.00						98.25	0.98	rutile
Alma K-85	2467.55	2467.55	LCC	179	Rutile	0.12	98.08	0.12	0.01	0.31	0.00	0.02	0.10	0.02	0.00						98.78	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	180	Rutile	0.08	99.64	0.01	0.01	0.19	0.03	0.01	0.03	0.02	0.00						100.02	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	182	Rutile	0.22	99.10	0.01	0.02	0.19	0.04	0.00	0.03	0.01	0.01						99.63	1.00	rutile
Alma K-85	2467.55	2467.55	LCC	183	Rutile	0.11	96.70	0.23	0.01	1.34	0.04	0.00	0.86	0.00	0.02						99.31	0.98	rutile
Alma K-85	2468.95	2468.95	LCC	312	Rutile	0.04	97.80	0.00	0.00	0.14	0.00	0.00	0.16	0.00	0.00						98.14	1.00	rutile
Alma K-85	2473.70	2473.70	LCC	315	Rutile	0.05	98.22	0.02	0.00	0.99	0.03	0.00	0.50	0.00	0.02						99.83	0.99	rutile
Alma K-85	2473.70	2473.70	LCC	316	Rutile	0.05	97.87	0.20	0.09	0.20	0.05	0.00	0.17	0.00	0.00						98.63	1.00	rutile
Alma K-85	2861.10	2861.10	UM	320	Rutile	0.03	99.47	0.06	0.04	0.25	0.02	0.01	0.15	0.01	0.02						100.06	1.00	rutile
Alma K-85	2861.10	2861.10	UM	321	Rutile	0.00	97.39	0.07	0.07	0.95	0.05	0.01	0.20	0.00	0.02						98.76	0.99	rutile
Alma K-85	2862.24	2862.24	UM	326	Rutile	0.00	98.26	0.01	0.05	0.24	0.00	0.00	0.07	0.03	0.01						98.67	1.00	rutile
Alma K-85	2862.24	2862.24	UM	327	Rutile	0.00	100.24	0.01	0.06	0.03	0.02	0.00	0.07	0.00	0.03						100.46	1.00	rutile
Alma K-85	2872.10	2872.10	UM	322	Rutile	0.00	99.51	0.00	0.07	0.33	0.02	0.01	0.05	0.00	0.00						99.99	1.00	rutile
Alma K-85	3073.60	3073.60	UM	318	Rutile	0.00	98.19	0.04	0.05	0.45	0.03	0.01	0.06	0.00	0.01						98.84	1.00	rutile
Argo F-38	1705.00	1690-1720A	LCM	5	Rutile	0.00	98.59	0.08	0.00	0.34	0.03	0.00	0.08	0.01	0.05	0.01			0.00		99.19	1.00	rutile
Argo F-38	4690.00	4680-4700B	MM	9	Rutile	0.00	95.45	0.30	0.00	0.70	0.04	0.00	2.71	0.07	0.04	1.01			0.00		100.32	0.99	rutile
Crow F-52	1430.00	1430B	LCM	5	Rutile	6.43	86.85	3.38	0.00	1.24	0.05	0.25	0.20	0.02	0.96	0.04			1.57		100.99	0.98	rutile
Crow F-52	1430.00	1430B	LCM	5	Rutile	0.00	97.45	0.09	0.00	0.37	0.06	0.03	0.39	0.00	0.17	0.03			1.61		100.21	1.00	rutile
Crow F-52	2450.00	2450F	LCC	4	Rutile	0.10	96.91	0.07	0.00	0.29	0.01	0.02	0.00	0.01	0.00	0.00			1.85		99.25	1.00	rutile
Crow F-52	3170.00	3170	MM	2	Rutile	0.14	99.76	0.00	0.00	1.02	0.07	0.00	0.06	0.09	0.00	0.02			0.00		101.16	0.99	rutile
Dauntless D-35	2980.94	2980.94	UM	282	Rutile	1.03	92.05	1.18	0.11	1.39	0.06	0.02	0.75	0.06	0.00	0.07	0.56		1.75		99.02	0.98	rutile
Dauntless D-35	3145.54	3145.54	UM	196	Rutile	0.00	96.44	0.09	0.03	1.29	0.05	0.00	0.18	0.00	0.00	0.04	0.24		1.63		100.00	0.98	rutile
Dauntless D-35	3279.65	3279.65	MM	206	Rutile	0.00	98.15	0.02	0.03	1.11	0.07	0.02	0.44	0.00	0.00	0.05	0.10		0.00		99.98	0.99	rutile
Fox I-22	1205.00	1190-1220	LCS	12	Rutile	0.08	98.54	0.23	0.00	1.82	0.01	0.00	0.11	0.00	0.00	0.05			0.00		100.84	0.98	rutile
Fox I-22	1205.00	1190-1220	LCS	15	Rutile	0.11	99.49	0.00	0.00	0.84	0.00	0.02	0.11	0.00	0.01	0.00			0.00		100.57	0.99	rutile
Fox I-22	1205.00	1190-1220	LCS	30	Rutile	0.00	99.96	0.00	0.00	0.09	1.16	0.00	0.01	0.07	0.00	0.00			0.00		101.29	1.00	rutile
Fox I-22	1955.00	1940-1970C	UM	2	Rutile	0.10	98.22	0.27	0.00	2.06	0.06	0.00	0.15	0.00	0.00	0.00			0.00		100.86	0.98	rutile
Fox I-22	1985.00	1970-2000C	UM	3	Rutile	0.08	100.38	0.00	0.00	0.24	0.07	0.00	0.07	0.00	0.04	0.00			0.00		100.88	1.00	rutile
Fox I-22	1985.00	1970-2000F	UM	5	Rutile	0.00	97.53	0.36	0.00	0.74	0.00	0.00	0.00	0.01	0.00	0.01			0.00		98.66	0.99	rutile
Fox I-22	2045.00	2030-2060	MM	4	Rutile	0.00	98.75	0.00	0.00	0.37	0.05	0.00	0.07	0.00	0.06	0.00			0.00		99.29	1.00	rutile
Glenelg N-49	2981.36	2981.36	LCC	275	Rutile	0.33	94.67	0.24	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	1.87	0.00	97.95	1.00	rutile

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Ti/Ti+Fe	Type
Glenelg N-49	2981.36	2981.36	LCC	171	Rutile	0.32	96.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.49	0.00	1.58	0.00	99.48	1.00	rutile
Glenelg N-49	2983.18	2983.18	LCC	208	Rutile	5.43	91.21	0.36	0.00	0.54	0.00	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.90	0.99	rutile
Glenelg N-49	2983.18	2983.18	LCC	224	Rutile	0.44	96.41	0.19	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.48	1.00	rutile
Glenelg N-49	2988.51	2988.51	LCC	288	Rutile	0.00	97.62	0.00	0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.93	1.00	rutile
Glenelg N-49	2988.51	2988.51	LCC	289	Rutile	0.00	96.21	0.00	0.00	0.65	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.05	0.99	rutile
Glenelg N-49	3001.84	3001.84	LCC	341	Rutile	0.00	97.33	0.00	0.00	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.09	0.99	rutile
Glenelg N-49	3576.78	3576.78	UM	194	Rutile	0.33	98.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.37	1.00	rutile
Glenelg N-49	3576.78	3576.78	UM	195	Rutile	11.28	87.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.73	1.00	rutile
Glenelg N-49	3581.99	3581.99	UM	29	Rutile	0.21	97.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.05	1.00	rutile
Glenelg N-49	3652.30	3652.30	UM	344	Rutile	0.00	98.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	98.04	1.00	rutile
Jason C-20	3530.00	3530	LCC	1	Rutile	0.02	93.24	0.19	0.00	0.96	0.00	0.00	0.06	0.00	0.00	0.00			4.42		98.89	0.99	rutile
Jason C-20	4220.00	4220	LCN	2	Rutile	0.03	98.75	0.06	0.00	0.90	0.09	0.00	0.15	0.02	0.11	0.04			0.00		100.14	0.99	rutile
Jason C-20	4220.00	4220	LCN	1	Rutile	0.25	99.83	0.02	0.00	0.84	0.00	0.00	0.03	0.01	0.01	0.00			0.00		101.01	0.99	rutile
Jason C-20	5680.00	5680	MM	1	Rutile	0.06	98.73	0.04	0.00	0.60	0.00	0.01	0.02	0.00	0.02	0.02			0.10		99.58	0.99	rutile
North Triumph B-52	3771.30	3771.30	UM	647	Rutile	0.00	96.44	0.00	0.12	1.27	0.06	0.00	0.05	0.00	0.04						97.98	0.99	rutile
North Triumph B-52	3771.30	3771.30	UM	648	Rutile	0.13	97.56	0.07	0.09	0.44	0.08	0.00	0.08	0.01	0.04						98.50	0.99	rutile
North Triumph B-52	3771.30	3771.30	UM	649	Rutile	0.00	97.39	0.05	0.06	1.30	0.10	0.00	0.04	0.00	0.06						99.00	0.99	rutile
North Triumph B-52	3780.21	3780.21	UM	743	Rutile	0.00	96.87	0.89	0.15	1.22	0.05	0.00	0.04	0.01	0.00						99.23	0.99	rutile
North Triumph B-52	3780.21	3780.21	UM	744	Rutile	0.00	99.62	0.14	0.03	0.20	0.03	0.00	0.10	0.01	0.00						100.13	1.00	rutile
North Triumph B-52	3783.60	3783.60	UM	658	Rutile	1.23	96.12	0.53	0.12	0.54	0.04	0.06	0.36	0.02	0.13						99.15	0.99	rutile
North Triumph B-52	3783.60	3783.60	UM	659	Rutile	2.49	93.72	1.57	0.04	0.42	0.02	0.06	0.34	0.06	0.51						99.23	0.99	rutile
North Triumph B-52	3784.40	3784.40	UM	740	Rutile	0.00	96.30	0.12	0.07	2.39	0.06	0.00	0.08	0.00	0.00						99.02	0.97	rutile
North Triumph B-52	3784.40	3784.40	UM	741	Rutile	0.38	95.37	0.47	0.07	1.64	0.05	0.00	0.09	0.02	0.00						98.09	0.98	rutile
North Triumph B-52	3784.40	3784.40	UM	742	Rutile	0.00	97.84	0.56	0.26	1.28	0.04	0.00	0.02	0.00	0.00						100.00	0.99	rutile
North Triumph B-52	3786.07	3786.07	UM	637	Rutile	0.00	98.80	0.00	0.02	0.32	0.15	0.00	0.48	0.02	0.03						99.82	1.00	rutile
North Triumph B-52	3788.50	3788.50	UM	655	Rutile	0.00	98.71	0.00	0.07	0.69	0.01	0.00	0.15	0.00	0.00						99.63	0.99	rutile
North Triumph B-52	3788.50	3788.50	UM	660	Rutile	0.03	98.33	0.00	0.00	0.57	0.00	0.00	0.57	0.00	0.00						99.50	0.99	rutile
North Triumph B-52	3788.50	3788.50	UM	661	Rutile	0.00	99.57	0.02	0.00	0.00	0.00	0.00	0.07	0.00	0.00						99.66	1.00	rutile
North Triumph B-52	3791.95	3791.95	UM	644	Rutile	0.60	96.32	0.31	0.18	0.25	0.11	0.02	0.11	0.03	0.13						98.06	1.00	rutile
North Triumph B-52	3791.95	3791.95	UM	646	Rutile	0.00	98.25	0.00	0.09	0.41	0.05	0.00	0.06	0.01	0.05						98.92	1.00	rutile
North Triumph B-52	3799.62	3799.62	UM	657	Rutile	0.00	97.30	0.02	0.10	0.50	0.04	0.00	0.15	0.00	0.00						98.11	0.99	rutile
North Triumph B-52	3803.50	3803.50	UM	641	Rutile	0.00	98.31	0.08	0.09	0.34	0.01	0.00	0.04	0.00	0.01						98.88	1.00	rutile
North Triumph B-52	3803.50	3803.50	UM	642	Rutile	0.00	98.13	0.10	0.08	0.38	0.04	0.00	0.03	0.00	0.00						98.76	1.00	rutile
North Triumph B-52	3808.44	3808.44	UM	653	Rutile	0.00	99.32	0.00	0.05	0.55	0.03	0.02	0.02	0.00	0.00						99.99	0.99	rutile
Peskowesk A-99	2210.37	2210.37	LCC	9	Rutile	0.94	95.39	1.05	0.00	1.44	0.06	0.03	0.21	0.05	0.06	0.05	0.74				100.02	0.98	rutile
Peskowesk A-99	2211.47	2211.47	LCC	17	Rutile	0.32	94.97	0.68	0.09	1.73	0.07	0.07	0.15	0.04	0.00	0.03	0.30				98.45	0.98	rutile
Peskowesk A-99	2212.91	2212.91	LCC	10	Rutile	0.00	98.52	0.03	0.02	1.41	0.05	0.00	0.06	0.01	0.00	0.01	0.34				100.45	0.98	rutile
Peskowesk A-99	2266.99	2266.99	LCC	15	Rutile	0.00	98.57	0.01	0.04	0.92	0.05	0.02	0.03	0.00	0.00	0.06	0.19				99.89	0.99	rutile
Peskowesk A-99	2470.66	2470.66	UM	13	Rutile	0.00	98.04	0.00	0.03	0.83	0.05	0.00	0.05	0.02	0.00	0.01	0.18				99.21	0.99	rutile
Peskowesk A-99	2933.62	2933.62	MM	16	Rutile	0.73	94.07	1.07	0.11	1.35	0.04	0.01	0.31	0.04	0.00	0.06	0.42				98.21	0.98	rutile
Peskowesk A-99	2950.54	2950.54	MM	18	Rutile	0.00	100.21	0.04	0.03	0.17	0.03	0.00	0.04	0.00	0.00	0.02	0.14				100.68	1.00	rutile
Peskowesk A-99	2950.54	2950.54	MM	19	Rutile	0.00	99.38	0.02	0.04	0.13	0.04	0.00	0.03	0.01	0.00	0.03	0.14				99.82	1.00	rutile
Peskowesk A-99	3796.33	3796.33	MMC	32	Rutile	0.00	97.14	0.01	0.22	1.12	0.05	0.00	0.05	0.00	0.00	0.02	0.21				98.82	0.99	rutile

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Ti/Ti+Fe	Type
Sambro I-29	1136.21	3740	UM	60	Rutile	0.07	97.92	0.13	0.07	2.61	0.05	0.00	0.19	0.00	0.00						101.04	0.97	rutile
Sambro I-29	1178.74	3880	UM	86	Rutile	0.00	100.00	0.36	0.00	0.38	0.07	0.01	0.36	0.00	0.00						101.18	1.00	rutile
Sambro I-29	1239.50	4080	MM	87	Rutile	0.13	98.74	0.41	0.00	0.63	0.00	0.03	0.96	0.00	0.00						100.90	0.99	rutile
Thebaud 3	3911.16	4	LM	1	Rutile	0.04	97.53	0.01	0.07	0.27	0.06	0.00	0.10	0.00	0.06	0.03		0.09	0.93	0.01	99.20	1.00	rutile
Thebaud 3	3911.16	4	LM	2	Rutile	0.03	98.43	0.02	0.13	0.34	0.08	0.00	0.15	0.00	0.07	0.02		0.09	1.00	0.00	100.35	1.00	rutile
Thebaud 3	3911.16	4	LM	3	Rutile	0.03	97.93	0.01	0.08	0.36	0.06	0.00	0.15	0.00	0.07	0.05		0.09	1.03	0.01	99.88	1.00	rutile
Thebaud C-74	3920.15	P27-3920.04-3920.25	LM	20	Rutile	0.08	96.63	0.11	0.24	1.27	0.04	0.01	0.04	0.00	0.06	0.00		0.09	1.01	0.04	99.64	0.98	rutile
Thebaud C-74	3920.15	P27-3920.04-3920.25	LM	21	Rutile	0.63	92.46	1.42	0.37	2.06	0.04	0.03	0.09	0.03	0.07	0.01		0.11	0.99	0.09	98.40	0.97	rutile

APPENDIX 2: Chemical analyses of detrital minerals

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	Zn	Fe	S	Total
North Triumph B-52	3771.30	3771.30	UM	66	Sphalerite	43.94		56.06	100.00
North Triumph B-52	3783.60	3783.60	UM	62	Sphalerite	47.61	1.16	51.24	100.01
North Triumph B-52	3788.50	3788.50	UM	63	Sphalerite	49.90	0.50	49.60	100.00

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Alma K-85	2465.90	2465.90	LCC	199	Chromite	0.01	0.17	5.75	63.79	#####	13.73	1.80	7.12	0.26	0.39	0.03						93.05	4
Alma K-85	2502.00	2502.00	LCC	290	Chromite	0.00	0.08	25.46	43.67	#####	16.72	0.33	13.75	0.04	0.03	0.01						100.09	3
Alma K-85	2502.00	2502.00	LCC	291	Chromite	0.00	0.09	25.34	43.68	#####	16.04	0.34	13.82	0.02	0.02	0.00						99.35	3
Alma K-85	2502.00	2502.00	LCC	292	Chromite	0.00	0.08	25.18	43.41	#####	16.17	0.37	13.69	0.02	0.00	0.00						98.92	3
Alma K-85	2502.00	2502.00	LCC	293	Chromite	0.00	0.10	25.29	43.43	#####	16.69	0.30	13.72	0.04	0.02	0.00						99.59	3
Alma K-85	2885.71	2885.71	UM	288	Chromite	0.00	0.31	26.35	32.50	55.75	31.95	0.51	8.21	0.02	0.02	0.00						99.87	2
Alma K-85	2885.71	2885.71	UM	289	Chromite	0.00	0.58	25.47	32.33	55.26	33.04	0.61	7.98	0.04	0.01	0.01						100.07	2
Alma K-85	3045.23	3045.23	UM	294	Chromite	0.00	0.05	21.78	44.20	98.38	23.15	0.48	8.39	0.03	0.01	0.01						98.10	3
Alma K-85	3045.23	3045.23	UM	295	Chromite	0.00	0.05	21.65	44.16	#####	22.38	0.43	8.29	0.06	0.02	0.00						97.04	3
Alma K-85	3081.07	3081.07	UM	296	Chromite	0.00	0.13	18.12	51.44	#####	13.88	0.52	10.83	0.11	0.08	0.00						95.11	3
Alma K-85	3081.07	3081.07	UM	297	Chromite	0.00	0.10	18.37	51.85	#####	14.49	0.51	11.23	0.08	0.04	0.00						96.67	3
Alma K-85	2469.30	2469.30	LCC	298	Cr-Spinel	0.00	0.07	29.17	40.09	91.07	14.85	0.32	11.87	0.09	0.03	0.02						96.51	2
Alma K-85	2469.30	2469.30	LCC	299	Cr-Spinel	0.00	0.07	27.46	42.11	96.96	15.97	0.38	11.67	0.09	0.00	0.03						97.78	3
Alma K-85	2469.30	2469.30	LCC	300	Cr-Spinel	0.00	0.66	30.96	32.27	67.78	16.65	0.31	16.64	0.09	0.00	0.03						97.61	2
Alma K-85	2473.70	2473.70	LCC	301	Cr-Spinel	0.00	0.11	25.30	37.78	82.20	20.66	0.31	10.49	0.07	0.00	0.00						94.72	3
Alma K-85	2473.70	2473.70	LCC	302	Cr-Spinel	0.00	0.13	25.31	37.46	79.48	21.82	0.30	11.29	0.16	0.00	0.00						96.47	2
Alma K-85	3045.23	3045.23	UM	306	Cr-Spinel	0.00	0.40	37.25	28.76	52.94	17.08	0.29	15.67	0.05	0.01	0.00						99.51	2
Alma K-85	3045.23	3045.23	UM	307	Cr-Spinel	0.00	0.39	37.33	28.73	52.60	17.29	0.33	15.60	0.05	0.00	0.00						99.72	2
Alma K-85	3045.23	3045.23	UM	308	Cr-Spinel	0.00	0.11	39.26	28.18	50.50	16.54	0.23	15.91	0.03	0.01	0.00						100.27	2
Alma K-85	3045.23	3045.23	UM	309	Cr-Spinel	0.00	0.12	39.13	28.47	51.33	16.34	0.25	15.90	0.02	0.01	0.00						100.24	2
Alma K-85	3075.96	3075.96	UM	303	Cr-Spinel	0.00	0.29	26.99	37.72	73.93	24.03	0.44	10.36	0.25	0.02	0.01						100.11	2
Alma K-85	3075.96	3075.96	UM	304	Cr-Spinel	0.00	0.27	27.92	36.87	72.65	22.83	0.46	10.59	0.16	0.00	0.00						99.10	2
Alma K-85	3075.96	3075.96	UM	305	Cr-Spinel	0.00	0.27	27.74	36.66	72.55	22.79	0.37	10.46	0.14	0.01	0.00						98.44	2
Chebucto K-90	4286.07	4286.07	UM	378	Chromite	0.05	0.10	25.79	44.09	#####	15.08	0.29	14.88	0.04	0.01	0.04	0.00		0.17	0.13	0.14	100.80	3
Crow F-52	2450.00	2450F	LCC	1	Chromite	0.00	0.17	17.36	50.20	#####	20.52	0.40	12.82	0.00	0.03	0.00	0.00			0.12		101.62	3
Crow F-52	2450.00	2450F	LCC	2	Chromite	0.00	0.19	17.75	50.65	#####	20.14	0.36	11.02	0.00	0.01	0.00	0.00			0.01		100.13	3
Dauntless D-35	2709.67	2709.67	LCC	10	Chromite	0.06	0.28	17.65	44.48	94.36	29.50	0.42	6.81	0.07	0.02	0.03						99.32	3
Dauntless D-35	2709.67	2709.67	LCC	11	Chromite	0.06	0.26	17.78	45.20	98.39	28.16	0.40	6.08	0.05	0.03	0.04						98.07	3
Dauntless D-35	2709.67	2709.67	LCC	12	Chromite	0.04	0.18	21.92	44.95	#####	21.96	0.33	10.52	0.05	0.03	0.04						100.02	3
Dauntless D-35	2709.67	2709.67	LCC	13	Chromite	0.06	0.19	21.91	45.31	#####	21.74	0.37	10.64	0.05	0.02	0.03						100.33	3
Dauntless D-35	2980.94	2980.94	UM	1c	Chromite	0.00	0.24	22.88	43.26	#####	19.66	0.31	12.54	0.10	0.04	0.00	0.00	0.00		0.00		99.03	3
Dauntless D-35	2980.94	2980.94	UM	1r	Chromite	0.00	0.24	23.50	44.50	#####	17.07	0.28	9.95	0.19	0.03	0.00	0.00	0.00		0.00		95.76	3
Dauntless D-35	2980.94	2980.94	UM	2c	Chromite	0.00	0.12	24.45	40.66	91.25	20.11	0.29	10.82	0.09	0.05	0.00	0.00	0.00		0.00		96.58	3
Dauntless D-35	2980.94	2980.94	UM	2r	Chromite	0.00	0.11	25.34	40.28	88.75	20.04	0.28	11.01	0.12	0.04	0.00	0.00	0.00		0.00		97.24	3
Dauntless D-35	3165.04	3165.04	UM	1c	Chromite	0.04	0.21	23.95	37.99	79.30	23.97	0.37	10.45	0.02	0.08	0.00	0.00	0.00		0.00		97.07	3
Dauntless D-35	3165.04	3165.04	UM	2c	Chromite	0.02	0.25	24.46	37.75	78.85	23.42	0.34	10.77	0.00	0.08	0.00	0.00	0.00		0.00		97.08	3
Dauntless D-35	3165.04	3165.04	UM	3c	Chromite	0.03	0.24	24.18	37.66	78.32	23.91	0.37	10.25	0.01	0.04	0.00	0.00	0.00		0.00		96.70	3
Dauntless D-35	2554.22	2554.22	LCC	11	Cr-Spinel	0.00	0.41	35.51	24.52	42.81	21.78	0.89	15.49	0.01	0.03	0.02						98.66	2
Dauntless D-35	2554.22	2554.22	LCC	12	Cr-Spinel	0.00	0.47	35.24	25.07	44.12	21.59	0.80	15.57	0.02	0.00	0.02						98.79	2
Dauntless D-35	2554.22	2554.22	LCC	1	Cr-Spinel	0.00	0.42	38.00	25.16	41.55	22.56	0.17	14.92	0.02	0.00	0.02						101.27	2
Dauntless D-35	2554.22	2554.22	LCC	2	Cr-Spinel	0.00	0.42	38.12	25.11	41.49	22.40	0.22	15.14	0.02	0.00	0.02						101.45	2

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Dauntless D-35	2705.67	2705.67	LCC	5	Cr-Spinel	0.00	0.22	38.94	25.38	44.35	18.30	0.66	14.58	0.00	0.03	0.01						98.13	2
Dauntless D-35	2705.67	2705.67	LCC	6	Cr-Spinel	0.00	0.23	38.64	25.44	44.79	18.16	0.57	14.39	0.00	0.02	0.02						97.47	2
Dauntless D-35	2709.67	2709.67	LCC	3	Cr-Spinel	0.02	0.26	41.41	24.19	38.63	21.21	0.23	12.35	0.03	0.01	0.02						99.74	2
Dauntless D-35	2709.67	2709.67	LCC	4	Cr-Spinel	0.01	0.28	41.57	24.24	38.52	21.37	0.20	12.23	0.03	0.01	0.02						99.95	2
Dauntless D-35	2709.67	2709.67	LCC	5	Cr-Spinel	0.00	0.24	41.26	24.52	39.11	21.42	0.20	12.26	0.03	0.02	0.02						99.95	2
Dauntless D-35	2709.67	2709.67	LCC	28	Cr-Spinel	0.03	0.23	27.47	38.19	75.18	23.33	0.34	9.24	0.05	0.02	0.02						98.92	2
Dauntless D-35	2709.67	2709.67	LCC	29	Cr-Spinel	0.04	0.26	27.84	37.59	73.04	23.64	0.33	9.05	0.06	0.02	0.04						98.86	2
Glenelg E-58	2993.62	2993.62	LCC	228	Chromite	0.05	0.20	22.17	46.20	#####	17.34	0.33	13.41	0.06	0.10	0.06	0.03		0.18	0.12	0.19	100.43	3
Glenelg E-58	2993.62	2993.62	LCC	229	Chromite	0.01	0.23	22.21	46.27	#####	17.16	0.30	13.35	0.07	0.19	0.08	0.00		0.18	0.11	0.19	100.35	3
Glenelg E-58	2993.62	2993.62	LCC	232	Chromite	0.06	0.23	6.99	54.98	#####	29.53	1.35	6.37	0.06	0.03	0.06	0.03		0.17	0.17	0.30	100.33	4
Glenelg E-58	2993.62	2993.62	LCC	233	Chromite	0.07	0.21	7.18	55.09	#####	28.71	1.47	5.60	0.05	0.06	0.04	0.03		0.19	0.18	0.29	99.18	4
Glenelg E-58	2993.62	2993.62	LCC	240	Chromite	0.02	0.21	16.27	50.47	#####	24.29	0.56	8.94	0.11	0.00	0.06	0.03		0.18	0.19	0.29	101.61	3
Glenelg E-58	2993.62	2993.62	LCC	241	Chromite	0.02	0.15	16.03	50.84	#####	23.83	0.62	8.99	0.08	0.02	0.06	0.02		0.17	0.17	0.31	101.31	3
Glenelg E-58	2993.62	2993.62	LCC	272	Chromite	0.21	0.28	17.73	52.15	#####	20.18	0.82	5.58	0.26	0.04	0.07	0.03		0.21	0.19	0.21	97.96	3
Glenelg E-58	2993.62	2993.62	LCC	273	Chromite	0.06	0.25	16.65	51.85	#####	20.48	0.74	9.26	0.10	0.06	0.07	0.03		0.23	0.18	0.20	100.17	3
Glenelg E-58	2993.62	2993.62	LCC	274	Chromite	0.05	0.12	24.10	47.11	#####	15.45	0.44	13.42	0.11	0.02	0.07	0.00		0.20	0.17	0.13	101.39	3
Glenelg E-58	2993.62	2993.62	LCC	275	Chromite	0.00	0.14	24.15	46.89	#####	15.76	0.40	13.77	0.09	0.03	0.07	0.03		0.16	0.21	0.15	101.85	3
Glenelg E-58	2993.62	2993.62	LCC	280	Chromite	0.04	0.14	21.82	46.95	#####	20.52	0.43	11.65	0.11	0.01	0.05	0.00		0.17	0.16	0.18	102.22	3
Glenelg E-58	2993.62	2993.62	LCC	281	Chromite	0.06	0.17	21.72	46.61	#####	20.40	0.41	11.61	0.12	0.04	0.07	0.04		0.20	0.17	0.16	101.77	3
Glenelg E-58	2993.62	2993.62	LCC	282	Chromite	0.16	0.13	13.12	59.74	#####	16.03	0.44	6.63	0.13	0.03	0.06	0.00		0.16	0.21	0.22	97.08	4
Glenelg E-58	2993.62	2993.62	LCC	283	Chromite	0.14	0.13	13.07	60.13	#####	15.17	0.51	7.03	0.17	0.04	0.05	0.04		0.19	0.18	0.28	97.14	4
Glenelg E-58	2993.62	2993.62	LCC	284	Chromite	0.04	0.11	22.81	47.03	#####	19.15	0.42	9.40	0.12	0.04	0.07	0.03		0.17	0.13	0.18	99.70	3
Glenelg E-58	2993.62	2993.62	LCC	285	Chromite	0.04	0.12	22.45	47.72	#####	18.58	0.46	10.33	0.11	0.04	0.05	0.02		0.17	0.18	0.18	100.46	3
Glenelg E-58	2993.62	2993.62	LCC	286	Chromite	0.04	0.13	21.33	47.75	#####	19.63	0.45	11.70	0.15	0.03	0.06	0.02		0.19	0.19	0.18	101.85	3
Glenelg E-58	2993.62	2993.62	LCC	287	Chromite	0.07	0.11	20.83	47.97	#####	19.12	0.41	11.96	0.15	0.02	0.05	0.00		0.15	0.19	0.18	101.21	3
Glenelg E-58	2993.62	2993.62	LCC	294	Chromite	0.06	0.14	22.62	47.27	#####	18.21	0.39	12.17	0.09	0.03	0.05	0.02		0.15	0.19	0.15	101.53	3
Glenelg E-58	2993.62	2993.62	LCC	295	Chromite	0.03	0.17	21.66	48.21	#####	18.49	0.37	11.77	0.08	0.05	0.06	0.02		0.17	0.16	0.17	101.40	3
Glenelg E-58	2993.62	2993.62	LCC	296	Chromite	0.01	0.10	19.95	51.12	#####	15.78	0.54	11.91	0.06	0.04	0.06	0.03		0.18	0.18	0.17	100.13	3
Glenelg E-58	2993.62	2993.62	LCC	297	Chromite	0.02	0.11	20.08	51.31	#####	15.94	0.53	11.82	0.06	0.03	0.05	0.01		0.18	0.17	0.19	100.47	3
Glenelg E-58	2993.62	2993.62	LCC	302	Chromite	0.15	1.59	18.31	42.04	85.69	30.75	0.58	7.57	0.08	0.02	0.05	0.06		0.30	0.18	0.30	101.98	3
Glenelg E-58	2993.62	2993.62	LCC	303	Chromite	0.18	2.80	20.27	34.01	61.07	35.42	0.59	7.30	0.09	0.03	0.06	0.05		0.21	0.22	0.25	101.51	3
Glenelg E-58	2993.62	2993.62	LCC	304	Chromite	0.19	2.00	18.47	38.42	73.46	33.83	0.55	6.67	0.09	0.03	0.07	0.04		0.23	0.22	0.32	101.13	3
Glenelg E-58	2993.62	2993.62	LCC	307	Chromite	0.12	0.15	19.16	51.10	#####	19.08	0.46	11.43	0.06	0.00	0.05	0.04		0.19	0.21	0.37	102.43	3
Glenelg E-58	2993.62	2993.62	LCC	308	Chromite	0.09	0.15	18.80	51.83	#####	18.98	0.46	11.35	0.08	0.01	0.05	0.03		0.23	0.19	0.34	102.59	3
Glenelg E-58	2994.33	2994.33	LCC	332	Chromite	0.00	0.15	24.14	43.52	#####	19.07	0.35	12.47	0.10	0.03	0.04	0.01		0.17	0.08	0.18	100.32	3
Glenelg E-58	2994.33	2994.33	LCC	333	Chromite	0.00	0.15	24.12	42.97	99.73	18.97	0.36	12.33	0.10	0.04	0.04	0.00		0.16	0.13	0.14	99.51	3
Glenelg E-58	2994.33	2994.33	LCC	344	Chromite	0.02	0.20	17.82	49.21	#####	19.74	0.39	11.12	0.17	0.00	0.06	0.02		0.21	0.13	0.16	99.24	3
Glenelg E-58	2994.33	2994.33	LCC	345	Chromite	0.02	0.24	17.93	49.39	#####	19.79	0.42	11.23	0.14	0.03	0.05	0.02		0.19	0.10	0.12	99.68	3
Glenelg E-58	2993.62	2993.62	LCC	242	Cr-spinel	0.00	0.13	27.08	44.48	#####	14.97	0.35	12.62	0.04	0.02	0.03	0.02		0.18	0.09	0.19	100.21	3
Glenelg E-58	2993.62	2993.62	LCC	243	Cr-spinel	0.01	0.17	27.21	44.44	#####	15.58	0.34	11.26	0.01	0.02	0.03	0.00		0.13	0.09	0.20	99.49	3
Glenelg E-58	2993.62	2993.62	LCC	244	Cr-spinel	0.00	0.07	38.91	31.72	60.28	13.71	0.21	16.09	0.00	0.01	0.02	0.01		0.18	0.05	0.09	101.07	2
Glenelg E-58	2993.62	2993.62	LCC	245	Cr-spinel	0.00	0.10	40.19	30.06	55.65	13.82	0.23	16.46	0.00	0.00	0.02	0.01		0.19	0.04	0.07	101.20	2

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Glenelg E-58	2993.62	2993.62	LCC	248	Cr-spinel	0.01	0.24	30.38	41.02	92.41	14.02	0.28	13.46	0.02	0.00	0.04	0.01		0.20	0.07	0.15	99.90	2
Glenelg E-58	2993.62	2993.62	LCC	249	Cr-spinel	0.00	0.16	30.56	41.52	93.63	13.79	0.26	11.91	0.03	0.01	0.04	0.01		0.15	0.12	0.12	98.68	2
Glenelg E-58	2993.62	2993.62	LCC	262	Cr-spinel	0.01	0.41	40.21	28.67	50.74	16.30	0.26	14.20	0.05	0.01	0.05	0.00		0.31	0.07	0.00	100.55	2
Glenelg E-58	2993.62	2993.62	LCC	263	Cr-spinel	0.03	0.42	40.53	28.29	49.66	16.43	0.26	14.30	0.04	0.03	0.04	0.01		0.30	0.06	0.00	100.73	2
Glenelg E-58	2993.62	2993.62	LCC	266	Cr-spinel	0.00	0.11	30.31	39.99	89.04	14.61	0.33	13.25	0.11	0.04	0.07	0.00		0.18	0.17	0.12	99.28	2
Glenelg E-58	2993.62	2993.62	LCC	267	Cr-spinel	0.01	0.14	30.53	41.25	90.80	14.90	0.30	12.27	0.09	0.02	0.04	0.03		0.21	0.13	0.09	100.00	2
Glenelg E-58	2993.62	2993.62	LCC	270	Cr-spinel	0.01	0.11	30.67	40.71	88.63	15.25	0.28	10.97	0.12	0.02	0.05	0.00		0.18	0.11	0.11	98.59	2
Glenelg E-58	2993.62	2993.62	LCC	271	Cr-spinel	0.51	0.17	30.05	40.49	88.56	15.67	0.29	9.63	0.12	0.03	0.06	0.01		0.23	0.15	0.10	97.52	2
Glenelg E-58	2993.62	2993.62	LCC	276	Cr-spinel	0.01	0.18	34.21	34.30	63.86	19.50	0.32	12.52	0.08	0.03	0.07	0.03		0.18	0.12	0.05	101.59	2
Glenelg E-58	2993.62	2993.62	LCC	277	Cr-spinel	0.03	0.16	34.55	33.73	62.15	19.72	0.32	12.43	0.06	0.03	0.07	0.02		0.19	0.11	0.09	101.53	2
Glenelg E-58	2993.62	2993.62	LCC	293	Cr-spinel	0.00	0.10	37.71	33.46	65.08	13.71	0.24	16.35	0.05	0.02	0.05	0.01		0.23	0.13	0.01	102.07	2
Glenelg E-58	2993.62	2993.62	LCC	298	Cr-spinel	0.00	0.22	38.31	33.58	64.78	13.52	0.29	13.75	0.13	0.02	0.04	0.00		0.23	0.10	0.03	100.23	2
Glenelg E-58	2993.62	2993.62	LCC	299	Cr-spinel	0.00	0.15	38.19	33.73	65.14	13.59	0.25	13.58	0.10	0.01	0.04	0.00		0.22	0.13	0.03	100.02	2
Glenelg E-58	2994.33	2994.33	LCC	338	Cr-spinel	0.00	0.11	25.40	41.53	91.49	19.99	0.33	11.97	0.11	0.01	0.05	0.02		0.14	0.12	0.11	99.87	3
Glenelg E-58	2994.33	2994.33	LCC	339	Cr-spinel	0.00	0.10	25.06	42.15	93.68	19.94	0.36	12.06	0.08	0.02	0.03	0.00		0.12	0.14	0.13	100.19	3
Glenelg E-58	2994.33	2994.33	LCC	342	Cr-spinel	0.00	0.07	28.96	42.26	#####	12.20	0.23	12.76	0.26	0.00	0.04	0.02		0.20	0.09	0.14	97.23	2
Glenelg E-58	2994.33	2994.33	LCC	343	Cr-spinel	0.00	0.06	27.91	41.32	#####	12.88	0.29	15.98	0.13	0.02	0.04	0.00		0.18	0.10	0.12	99.03	2
Glenelg E-58	3443.86	3443.86	UM	180	Cr-spinel	0.00	0.14	24.55	46.27	#####	13.14	0.32	14.22	0.19	0.04	0.04	0.02		0.19	0.12	0.18	99.42	3
Glenelg E-58	3443.86	3443.86	UM	181	Cr-spinel	0.00	0.08	25.12	46.54	#####	13.06	0.29	13.29	0.12	0.03	0.06	0.02		0.22	0.10	0.16	99.08	3
Glenelg E-58	3443.86	3443.86	UM	182	Cr-spinel	0.00	0.13	24.37	46.19	#####	13.43	0.31	14.02	0.31	0.03	0.05	0.01		0.20	0.07	0.21	99.32	3
Glenelg E-58	3529.32	3529.32	UM	315	Cr-spinel	0.00	0.11	27.25	43.09	#####	14.98	0.34	13.53	0.06	0.03	0.04	0.00		0.15	0.10	0.14	99.80	3
Glenelg E-58	3529.32	3529.32	UM	316	Cr-spinel	0.00	0.14	26.49	43.74	#####	15.47	0.33	13.86	0.04	0.00	0.02	0.02		0.16	0.10	0.14	100.51	3
Glenelg E-58	3529.32	3529.32	UM	319	Cr-spinel	0.00	0.08	40.64	28.98	52.84	14.20	0.22	16.77	0.03	0.00	0.03	0.00		0.21	0.02	0.00	101.18	2
Glenelg E-58	3529.32	3529.32	UM	320	Cr-spinel	0.00	0.08	40.74	28.69	52.53	13.88	0.23	16.86	0.02	0.01	0.04	0.00		0.25	0.04	0.02	100.84	2
Glenelg E-58A	3731.10	3731.10	UM	30	Chromite	0.01	0.03	29.48	39.10	80.53	19.08	0.26	12.24	0.01	0.00	0.04						100.25	2
Glenelg E-58A	3731.10	3731.10	UM	31	Chromite	0.04	0.02	30.25	39.25	79.68	19.00	0.25	9.84	0.02	0.00	0.03						98.71	2
Glenelg E-58A	3731.10	3731.10	UM	32	Chromite	0.03	0.11	17.22	53.16	#####	16.77	0.31	7.32	0.04	0.00	0.06						95.01	3
Glenelg E-58A	3731.10	3731.10	UM	33	Chromite	0.04	0.12	16.83	50.92	#####	20.47	0.38	8.96	0.03	0.00	0.04						97.78	3
Glenelg E-58A	3736.53	3736.53	UM	59	Chromite	0.03	0.08	24.54	44.45	#####	15.39	0.32	12.75	0.06	0.00	0.04						97.64	3
Glenelg E-58A	3736.53	3736.53	UM	60	Chromite	0.05	0.09	24.46	44.41	#####	15.93	0.29	12.58	0.08	0.02	0.04						97.95	3
Glenelg E-58A	3737.82	3737.82	UM	39	Chromite	0.03	0.02	23.83	44.73	#####	20.82	0.35	10.89	0.11	0.01	0.03						100.82	3
Glenelg E-58A	3737.82	3737.82	UM	40	Chromite	0.01	0.04	23.81	44.36	99.35	20.84	0.37	11.06	0.08	0.00	0.03						100.59	3
Glenelg E-58A	3737.82	3737.82	UM	43	Chromite	0.04	0.07	20.99	46.76	#####	17.94	0.30	12.96	0.06	0.00	0.04						99.14	3
Glenelg E-58A	3737.82	3737.82	UM	44	Chromite	0.04	0.09	21.23	46.56	#####	18.07	0.30	12.90	0.04	0.00	0.05						99.28	3
Glenelg E-58A	3737.82	3737.82	UM	47	Chromite	0.03	0.13	21.51	48.46	#####	18.75	0.32	11.83	0.02	0.00	0.04						101.08	3
Glenelg E-58A	3737.82	3737.82	UM	48	Chromite	0.04	0.13	21.62	48.17	#####	19.02	0.36	11.71	0.02	0.00	0.02						101.09	3
Glenelg E-58A	3745.77	3745.77	UM	61	Chromite	0.06	0.15	10.31	58.31	#####	19.17	0.58	10.34	0.04	0.00	0.06						99.04	4
Glenelg E-58A	3745.77	3745.77	UM	62	Chromite	0.07	0.13	10.43	58.27	#####	19.32	0.58	10.27	0.04	0.01	0.05						99.17	4
Glenelg E-58A	3745.77	3745.77	UM	71	Chromite	0.05	0.43	16.85	44.13	96.31	28.97	0.56	8.30	0.09	0.01	0.06						99.45	3
Glenelg E-58A	3745.77	3745.77	UM	72	Chromite	0.05	0.39	17.12	43.99	96.90	28.28	0.52	8.59	0.09	0.05	0.07						99.14	3
Glenelg E-58A	3737.82	3737.82	UM	41	Cr-spinel	0.10	0.92	31.43	31.16	58.83	21.54	0.25	15.39	0.17	0.00	0.02						100.98	2
Glenelg E-58A	3737.82	3737.82	UM	42	Cr-spinel	0.14	0.89	31.37	31.31	59.64	21.12	0.19	15.43	0.14	0.00	0.02						100.62	2

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Glenelg H-59	3885.38	3885.38	UM	393	Cr-spinel	0.13	0.33	25.93	41.79	88.28	21.41	0.50	10.40	0.10	0.01	0.08	0.06		0.18	0.20	0.26	101.39	3
Glenelg H-59	3885.38	3885.38	UM	394	Cr-spinel	0.11	0.34	25.38	42.22	90.35	21.36	0.54	10.27	0.10	0.01	0.08	0.04		0.14	0.18	0.28	101.04	3
Glenelg H-59	3888.99	3888.99	UM	415	Cr-spinel	0.00	0.21	38.96	27.20	47.72	18.03	0.25	16.51	0.02	0.01	0.03	0.03		0.26	0.04	0.05	101.60	2
Glenelg H-59	3888.99	3888.99	UM	416	Cr-spinel	0.00	0.22	38.70	27.56	48.57	18.04	0.26	16.50	0.05	0.01	0.04	0.05		0.27	0.07	0.06	101.82	2
Glenelg H-59	3888.99	3888.99	UM	420	Cr-spinel	0.00	0.10	45.93	24.25	40.49	13.95	0.21	17.15	0.02	0.03	0.02	0.03		0.19	0.04	0.00	101.94	2
Glenelg H-59	3888.99	3888.99	UM	421	Cr-spinel	0.00	0.13	45.54	24.72	41.55	13.96	0.24	17.18	0.05	0.01	0.02	0.04		0.21	0.03	0.05	102.18	2
Glenelg H-59	3896.53	3896.53	UM	395	Cr-spinel	0.10	0.12	27.57	42.01	95.62	16.36	0.48	13.45	0.09	0.02	0.06	0.05		0.18	0.12	0.22	100.83	3
Glenelg H-59	3896.53	3896.53	UM	396	Cr-spinel	0.11	0.15	27.58	41.82	95.03	16.43	0.45	13.29	0.06	0.02	0.06	0.08		0.22	0.16	0.22	100.65	3
Glenelg H-59	3896.53	3896.53	UM	397	Cr-spinel	0.08	0.11	34.11	37.57	76.75	14.84	0.33	11.80	0.06	0.03	0.06	0.02		0.19	0.12	0.21	99.51	2
Glenelg H-59	3896.53	3896.53	UM	398	Cr-spinel	0.09	0.20	33.86	37.58	77.45	14.66	0.28	11.88	0.06	0.01	0.05	0.04		0.18	0.13	0.22	99.23	2
Glenelg H-59	3896.53	3896.53	UM	399	Cr-spinel	0.06	0.17	34.25	36.10	73.77	14.69	0.28	15.54	0.06	0.02	0.06	0.07		0.21	0.14	0.19	101.84	2
Glenelg H-59	3896.53	3896.53	UM	400	Cr-spinel	0.07	0.19	33.87	36.43	75.16	14.60	0.32	15.44	0.06	0.03	0.06	0.04		0.21	0.15	0.17	101.64	2
Glenelg H-59	3896.53	3896.53	UM	404	Cr-spinel	0.08	0.09	41.53	28.03	49.55	15.04	0.27	16.00	0.10	0.02	0.05	0.04		0.23	0.09	0.14	101.72	2
Glenelg H-59	3896.53	3896.53	UM	405	Cr-spinel	0.08	0.11	42.17	28.04	49.04	15.00	0.27	16.01	0.11	0.03	0.04	0.06		0.25	0.12	0.14	102.42	2
Glenelg N-49	2981.36	2981.36	LCC	314	Chromite	0.00	0.00	7.39	54.62	#####	28.50	0.00	5.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	95.51	4
Glenelg N-49	2981.36	2981.36	LCC	313	Chromite	0.00	0.00	28.69	38.39	78.24	20.39	0.00	8.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.27	2
Glenelg N-49	2983.18	2983.18	LCC	207	Chromite	0.47	0.00	14.97	56.65	#####	14.47	0.00	9.58	0.23	0.28	0.00	0.00	0.00	0.00	0.00	0.00	96.65	3
Glenelg N-49	2983.18	2983.18	LCC	331	Chromite	0.00	0.00	14.96	53.76	#####	17.31	0.00	10.67	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.11	3
Glenelg N-49	2983.18	2983.18	LCC	563+	Chromite	0.00	0.48	15.15	53.83	#####	16.51	0.48	11.58	0.22	0.00	0.05	0.00	0.00	0.25	0.00	0.00	98.55	3
Glenelg N-49	2983.18	2983.18	LCC	564+	Chromite	0.07	0.29	16.05	56.36	#####	12.96	0.40	9.68	0.25	0.11	0.05	0.00	0.00	0.24	0.00	0.00	96.46	3
Glenelg N-49	2988.51	2988.51	LCC	297	Chromite	0.00	0.00	20.08	47.64	#####	21.66	0.00	7.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.00	3
Glenelg N-49	2988.51	2988.51	LCC	295	Chromite	0.00	0.00	25.92	39.64	85.46	20.46	0.51	12.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	99.28	3
Glenelg N-49	2988.51	2988.51	LCC	565+	Chromite	0.00	0.31	27.14	39.90	85.68	19.43	0.34	13.03	0.07	0.00	0.03	0.00	0.00	0.33	0.00	0.00	100.58	2
Glenelg N-49	2988.51	2988.51	LCC	566+	Chromite	0.00	0.28	25.87	40.65	87.59	20.54	0.36	12.48	0.09	0.00	0.03	0.00	0.00	0.27	0.00	0.00	100.57	3
Glenelg N-49	2988.51	2988.51	LCC	567+	Chromite	0.00	0.26	20.63	46.94	#####	21.74	0.39	7.93	0.09	0.00	0.03	0.00	0.00	0.27	0.00	0.00	98.28	3
Glenelg N-49	2988.51	2988.51	LCC	568+	Chromite	0.00	0.22	20.96	47.00	#####	19.85	0.40	7.85	0.28	0.00	0.05	0.00	0.00	0.27	0.00	0.00	96.88	3
Glenelg N-49	3626.94	3626.94	UM	187	Chromite	0.00	0.00	22.97	46.86	#####	12.91	0.00	13.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.18	3
Glenelg N-49	3626.94	3626.94	UM	323	Chromite	0.00	0.00	24.45	46.71	#####	13.77	0.00	12.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	97.55	3
Glenelg N-49	3629.94	3629.94	UM	553+	Chromite	0.00	0.17	25.16	47.00	#####	12.68	0.30	12.39	0.06	0.00	0.02	0.00	0.00	0.23	0.00	0.00	98.01	3
Glenelg N-49	3629.94	3629.94	UM	554+	Chromite	0.00	0.14	25.24	46.66	#####	12.89	0.29	13.43	0.06	0.00	0.03	0.00	0.00	0.25	0.00	0.00	98.99	3
Glenelg N-49	3629.94	3629.94	UM	555+	Chromite	0.00	0.16	25.29	46.59	#####	13.04	0.25	13.33	0.07	0.00	0.05	0.00	0.00	0.24	0.00	0.00	99.02	3
Glenelg N-49	3675.22	3675.22	UM	350	Chromite	0.00	0.00	29.09	39.96	85.76	17.51	0.00	10.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	96.84	2
Glenelg N-49	3675.22	3675.22	UM	558+	Chromite	0.06	0.02	9.41	64.49	#####	11.74	0.41	7.72	0.12	0.03	0.00	0.00	0.00	0.06	0.00	0.00	94.06	4
Glenelg N-49	3675.22	3675.22	UM	559+	Chromite	0.00	0.00	32.24	37.57	79.40	15.08	0.27	10.49	0.10	0.01	0.00	0.00	0.00	0.00	0.00	0.00	95.76	2
Glenelg N-49	3675.22	3675.22	UM	571+	Chromite	0.00	0.00	29.98	40.33	87.60	16.06	0.20	9.91	0.00	0.01	0.00	0.00	0.00	0.02	0.00	0.00	96.51	2
Glenelg N-49	3675.22	3675.22	UM	572+	Chromite	0.00	0.00	34.19	35.40	70.72	15.87	0.11	9.65	0.03	0.00	0.00	0.00	0.00	0.02	0.00	0.00	95.27	2
Jason C-20	4220.00	4220	LCN	1	Chromite	0.01	0.06	8.88	63.08	#####	17.67	0.89	11.32	0.00	0.00	0.00	0.02			0.02		101.96	4
Jason C-20	4220.00	4220	LCN	2	Chromite	0.02	0.04	9.24	66.67	#####	11.47	1.28	5.97	0.00	0.11	0.00	0.02			0.00		94.83	4
Jason C-20	5680.00	5680F	MM	1	Chromite	0.00	0.10	9.05	61.25	#####	19.04	0.41	10.23	0.01	0.02	0.00	0.04			0.00		100.15	4
Jason C-20	5680.00	5680F	MM	1	Chromite	0.00	0.01	19.18	51.73	#####	18.61	0.32	10.83	0.00	0.03	0.00	0.00			0.00		100.70	3
Louisbourg J-47	4074.39	4074.39	MM	151	Chromite	0.07	0.10	10.52	60.76	#####	14.09	1.65	8.39	0.10	0.11	0.07						95.85	4
Louisbourg J-47	4074.39	4074.39	MM	152	Chromite	0.05	0.09	10.36	60.79	#####	13.90	1.62	8.50	0.12	0.14	0.06						95.64	4

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Louisbourg J-47	4074.39	4074.39	MM	153	Chromite	0.07	0.11	10.42	61.02	#####	14.39	1.29	6.57	0.24	0.06	0.05						94.21	4
Louisbourg J-47	4408.09	4408.09	MMC	143	Chromite	0.05	0.09	18.80	49.88	#####	20.46	0.44	9.96	0.35	0.04	0.06						100.12	3
Louisbourg J-47	4408.09	4408.09	MMC	144	Chromite	0.05	0.08	18.81	50.27	#####	20.61	0.42	9.80	0.43	0.02	0.06						100.55	3
Louisbourg J-47	5451.23	5451.23	MMC	149	Cr-spinel	0.00	0.07	33.11	37.46	78.16	14.81	0.24	13.91	0.09	0.01	0.06						99.76	2
Louisbourg J-47	5451.23	5451.23	MMC	150	Cr-spinel	0.07	0.11	33.60	37.84	79.40	14.06	0.25	13.64	0.12	0.04	0.05						99.78	2
Musquodoboit E-23	1800.00	1800.00	LCC	5	Chromite	0.01	0.13	14.56	55.15	#####	17.87	0.41	10.62	0.10	0.04	0.04	0.02		0.33	0.18	0.13	99.59	3
Musquodoboit E-23	1800.00	1800.00	LCC	6	Chromite	0.03	0.16	14.70	55.31	#####	18.50	0.40	10.44	0.13	0.03	0.04	0.00		0.32	0.18	0.14	100.37	3
Musquodoboit E-23	1800.00	1800.00	LCC	23	Chromite	0.00	0.09	23.72	44.22	#####	18.80	0.35	11.79	0.09	0.02	0.03	0.04		0.22	0.10	0.14	99.61	3
Musquodoboit E-23	1800.00	1800.00	LCC	24	Chromite	0.00	0.07	24.03	44.11	#####	18.94	0.40	11.85	0.09	0.03	0.04	0.03		0.25	0.10	0.16	100.09	3
Musquodoboit E-23	1800.00	1800.00	LCC	50	Chromite	0.00	0.31	13.72	56.50	#####	16.71	0.41	11.75	0.08	0.04	0.04	0.02		0.31	0.12	0.17	100.17	3
Musquodoboit E-23	1800.00	1800.00	LCC	51	Chromite	0.00	0.30	13.78	56.56	#####	17.00	0.40	11.54	0.09	0.00	0.03	0.03		0.35	0.09	28 (lt)	100.18	3
Musquodoboit E-23	1800.00	1800.00	LCC	56	Chromite	0.00	0.06	21.64	48.30	#####	16.40	0.34	12.28	0.02	0.02	0.03	0.00		0.28	0.00	0.09	99.46	3
Musquodoboit E-23	1800.00	1800.00	LCC	57	Chromite	0.01	0.03	21.58	48.13	#####	15.94	0.32	12.10	0.07	0.01	0.03	0.00		0.20	0.00	0.05	98.48	3
Musquodoboit E-23	2500.00	2500A	UM	8	Chromite	0.00	0.29	21.10	45.21	#####	21.99	0.44	10.51	0.05	0.00	0.04	0.00		0.23	0.16	0.15	100.15	3
Musquodoboit E-23	2500.00	2500A	UM	9	Chromite	0.00	0.11	23.49	45.04	#####	18.22	0.35	12.21	0.08	0.01	0.04	0.00		0.19	0.12	0.18	100.03	3
Musquodoboit E-23	2500.00	2500A	UM	10	Chromite	0.00	0.10	24.12	44.95	#####	16.96	0.33	10.77	0.08	0.01	0.04	0.02		0.17	0.13	0.14	97.81	3
Musquodoboit E-23	2500.00	2500A	UM	7	Chromite	0.00	0.24	21.43	45.19	#####	21.71	0.39	10.89	0.05	0.00	0.04	0.02		0.23	0.16	0.14	100.50	3
Musquodoboit E-23	2600.00	2600.00	MM	41	Chromite	0.00	0.08	22.08	51.21	#####	12.77	0.31	9.56	0.04	0.00	0.04	0.00		0.21	0.09	0.20	96.59	3
Musquodoboit E-23	2600.00	2600.00	MM	42	Chromite	0.00	0.12	22.69	52.15	#####	10.91	0.29	8.67	0.05	0.00	0.04	0.00		0.21	0.14	0.19	95.46	3
Musquodoboit E-23	2800.00	2800.00	MM	3	Chromite	0.00	0.18	21.10	50.42	#####	15.81	0.49	10.82	0.07	0.04	0.05	0.03		0.26	0.15	0.14	99.55	3
Musquodoboit E-23	2800.00	2800.00	MM	4	Chromite	0.00	0.17	20.87	50.86	#####	15.98	0.51	10.48	0.08	0.06	0.05	0.03		0.23	0.17	0.14	99.64	3
Musquodoboit E-23	2800.00	2800.00	MM	47	Chromite	0.02	0.13	20.79	49.51	#####	17.82	0.40	9.07	0.06	0.03	0.04	0.02		0.23	0.11	0.17	98.39	3
Musquodoboit E-23	2800.00	2800.00	MM	48	Chromite	0.04	0.14	20.36	50.07	#####	17.80	0.37	9.15	0.06	0.04	0.06	0.02		0.23	0.15	0.18	98.67	3
Musquodoboit E-23	2800.00	2800.00	MM	75	Chromite	0.10	0.22	16.24	51.20	#####	23.19	0.49	9.94	0.05	0.03	0.05	0.06		0.34	0.14	0.18	102.23	3
Musquodoboit E-23	2800.00	2800.00	MM	76	Chromite	0.07	0.22	16.30	50.97	#####	23.36	0.44	9.97	0.05	0.02	0.02	0.04		0.32	0.13	0.20	102.13	3
Musquodoboit E-23	2800.00	2800.00	MM	81	Chromite	0.11	0.20	10.56	59.68	#####	18.94	0.56	10.41	0.07	0.04	0.05	0.03		0.33	0.18	0.19	101.34	4
Musquodoboit E-23	2800.00	2800.00	MM	82	Chromite	0.07	0.22	10.96	59.81	#####	18.87	0.51	10.36	0.05	0.05	0.05	0.06		0.38	0.13	0.18	101.72	4
Musquodoboit E-23	2800.00	2800.00	MM	90	Chromite	0.09	0.52	16.05	42.01	82.65	34.78	0.54	7.31	0.06	0.04	0.05	0.03		0.29	0.16	0.24	102.19	3
Musquodoboit E-23	2800.00	2800.00	MM	91	Chromite	0.08	0.53	16.50	40.36	78.43	34.96	0.54	7.19	0.06	0.03	0.06	0.08		0.32	0.19	0.24	101.12	3
Musquodoboit E-23	1270.00	1270.00	DC	5	Cr-Spinel	0.00	0.05	48.78	20.23	32.19	14.05	0.18	17.99	0.02	0.00	0.01	0.00		0.00	0.02	0.27	101.61	2
Musquodoboit E-23	1270.00	1270.00	DC	6	Cr-Spinel	0.00	0.05	49.16	20.48	32.43	13.99	0.16	17.78	0.00	0.01	0.03	0.00		0.00	0.02	0.25	101.95	2
Musquodoboit E-23	1800.00	1800.00	LCC	3	Cr-Spinel	0.00	0.07	31.66	39.38	86.69	13.77	0.28	14.76	0.05	0.02	0.02	0.03		0.23	0.07	0.16	100.50	2
Musquodoboit E-23	1800.00	1800.00	LCC	4	Cr-Spinel	0.00	0.08	31.84	39.23	85.73	13.92	0.30	14.66	0.07	0.03	0.02	0.00		0.15	0.08	0.13	100.51	2
Musquodoboit E-23	1800.00	1800.00	LCC	7	Cr-Spinel	0.00	0.10	50.66	19.50	31.09	12.08	0.14	18.36	0.06	0.03	0.02	0.01		0.00	0.00	0.25	101.20	2
Musquodoboit E-23	1800.00	1800.00	LCC	8	Cr-Spinel	0.00	0.10	49.93	20.22	32.56	12.18	0.15	18.25	0.04	0.03	0.02	0.00		0.04	0.03	0.23	101.24	2
Musquodoboit E-23	1800.00	1800.00	LCC	9	Cr-Spinel	0.30	0.11	39.19	30.96	59.00	13.28	0.22	13.04	0.07	0.01	0.04	0.04		0.12	0.00	0.16	97.54	2
Musquodoboit E-23	1800.00	1800.00	LCC	10	Cr-Spinel	0.00	0.12	39.21	31.44	59.60	13.54	0.23	14.18	0.08	0.01	0.03	0.01		0.12	0.05	0.22	99.24	2
Musquodoboit E-23	1800.00	1800.00	LCC	21	Cr-Spinel	0.00	0.14	26.81	41.70	94.70	17.22	0.31	13.55	0.07	0.03	0.04	0.00		0.22	0.11	0.17	100.36	3
Musquodoboit E-23	1800.00	1800.00	LCC	22	Cr-Spinel	0.00	0.13	26.49	42.18	96.80	17.08	0.31	13.74	0.07	0.02	0.04	0.00		0.23	0.09	0.17	100.55	3
Musquodoboit E-23	1800.00	1800.00	LCC	33	Cr-Spinel	0.00	0.08	55.53	13.36	19.63	12.54	0.14	18.82	0.05	0.03	0.02	0.00		0.00	0.00	0.29	100.88	1
Musquodoboit E-23	1800.00	1800.00	LCC	34	Cr-Spinel	0.00	0.10	55.85	13.11	19.30	12.10	0.14	18.88	0.04	0.02	0.01	0.00		0.00	0.00	0.32	100.56	1
Musquodoboit E-23	1800.00	1800.00	LCC	35	Cr-Spinel	0.00	0.75	27.30	37.71	76.85	21.76	0.37	11.57	0.07	0.02	0.03	0.00		0.19	0.09	0.22	100.07	2

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	1800.00	1800.00	LCC	36	Cr-Spinel	0.00	0.78	27.82	36.72	73.31	22.27	0.39	11.29	0.06	0.02	0.05	0.02		0.16	0.05	0.21	99.84	2
Musquodoboit E-23	1800.00	1800.00	LCC	37	Cr-Spinel	0.00	0.18	29.57	39.03	83.09	17.41	0.34	13.33	0.07	0.03	0.02	0.00		0.18	0.13	0.18	100.47	2
Musquodoboit E-23	1800.00	1800.00	LCC	38	Cr-Spinel	0.00	0.18	29.48	38.80	82.11	17.77	0.34	13.05	0.07	0.02	0.02	0.00		0.20	0.08	0.14	100.14	2
Musquodoboit E-23	1800.00	1800.00	LCC	58	Cr-Spinel	0.00	0.04	42.18	25.57	44.29	15.54	0.18	16.01	0.03	0.00	0.02	0.00		0.06	0.00	0.13	99.75	2
Musquodoboit E-23	1800.00	1800.00	LCC	59	Cr-Spinel	0.00	0.04	43.03	24.90	42.35	15.78	0.20	16.17	0.00	0.02	0.01	0.01		0.01	0.00	0.13	100.30	2
Musquodoboit E-23	2500.00	2500A	UM	1	Cr-Spinel	0.00	0.20	40.74	29.30	55.13	12.40	0.22	15.77	0.03	0.01	0.02	0.01		0.06	0.04	0.22	99.02	2
Musquodoboit E-23	2500.00	2500A	UM	2	Cr-Spinel	0.00	0.17	39.88	30.64	58.86	12.18	0.20	16.14	0.04	0.01	0.03	0.00		0.07	0.09	0.22	99.66	2
Musquodoboit E-23	2500.00	2500A	UM	15	Cr-Spinel	0.00	0.11	31.81	38.87	84.76	14.05	0.28	12.29	0.09	0.01	0.03	0.02		0.12	0.15	0.15	97.96	2
Musquodoboit E-23	2500.00	2500A	UM	16	Cr-Spinel	0.00	0.07	31.44	38.82	85.76	13.82	0.28	12.15	0.07	0.00	0.03	0.00		0.11	0.06	0.16	97.02	2
Musquodoboit E-23	2500.00	2500B	UM	9	Cr-Spinel	0.00	0.40	42.70	25.43	43.52	15.74	0.25	16.47	0.02	0.00	0.03	0.01		0.08	0.10	0.26	101.49	2
Musquodoboit E-23	2500.00	2500B	UM	10	Cr-Spinel	0.00	0.37	42.07	25.44	44.12	15.59	0.25	16.43	0.04	0.01	0.04	0.01		0.02	0.06	0.26	100.57	2
Musquodoboit E-23	2500.00	2500B	UM	11	Cr-Spinel	0.00	0.34	42.16	25.53	44.24	15.56	0.25	16.45	0.01	0.01	0.04	0.00		0.03	0.05	0.24	100.68	2
Musquodoboit E-23	2500.00	2500B	UM	12	Cr-Spinel	0.00	0.39	42.15	25.16	43.59	15.56	0.23	16.23	0.02	0.01	0.02	0.02		0.04	0.05	0.25	100.13	2
Musquodoboit E-23	2800.00	2800.00	MM	5	Cr-Spinel	0.00	0.37	32.98	33.67	62.77	20.67	0.28	13.66	0.06	0.04	0.05	0.03		0.12	0.12	0.19	102.23	2
Musquodoboit E-23	2800.00	2800.00	MM	6	Cr-Spinel	0.00	0.38	33.52	33.28	61.53	20.57	0.33	13.56	0.06	0.03	0.05	0.04		0.12	0.12	0.20	102.25	2
Musquodoboit E-23	2800.00	2800.00	MM	25	Cr-Spinel	0.00	0.10	38.12	32.57	61.04	15.25	0.24	15.04	0.06	0.02	0.04	0.04		0.12	0.08	0.14	101.83	2
Musquodoboit E-23	2800.00	2800.00	MM	26	Cr-Spinel	0.00	0.07	38.61	32.63	60.59	15.25	0.21	13.68	0.05	0.02	0.04	0.00		0.10	0.07	0.19	100.90	2
Musquodoboit E-23	2800.00	2800.00	MM	59	Cr-Spinel	0.02	0.11	36.72	34.64	67.65	14.48	0.28	15.61	0.05	0.03	0.04	0.03		0.18	0.07	0.19	102.45	2
Musquodoboit E-23	2800.00	2800.00	MM	60	Cr-Spinel	0.01	0.13	35.74	34.97	69.10	14.87	0.30	15.42	0.03	0.02	0.03	0.01		0.12	0.10	0.21	101.96	2
Musquodoboit E-23	2800.00	2800.00	MM	73	Cr-Spinel	0.04	0.53	39.68	26.38	45.24	18.62	0.24	16.46	0.03	0.02	0.03	0.05		0.12	0.09	0.31	102.61	2
Musquodoboit E-23	2800.00	2800.00	MM	77	Cr-Spinel	0.02	0.10	35.53	35.41	70.50	14.70	0.29	15.51	0.04	0.04	0.04	0.03		0.19	0.04	0.19	102.13	2
Musquodoboit E-23	2800.00	2800.00	MM	89	Cr-Spinel	0.04	0.51	36.87	32.67	61.89	15.92	0.27	12.57	0.04	0.03	0.04	0.04		0.15	0.09	0.20	99.45	2
Musquodoboit E-23	2800.00	2800.00	MM	94	Cr-Spinel	0.62	0.15	26.73	44.84	#####	13.57	0.30	9.70	0.19	0.12	0.05	0.04		0.27	0.12	0.21	96.90	3
Musquodoboit E-23	2800.00	2800.00	MM	95	Cr-Spinel	0.43	0.14	28.50	46.02	#####	13.32	0.30	8.87	0.10	0.13	0.03	0.04		0.26	0.04	0.16	98.35	3
North Triumph B-52	3783.60	3783.60	UM	626	Chromite	0.00	0.10	20.83	49.67	#####	17.08	0.35	11.44	0.04	0.01	0.00						99.52	3
North Triumph B-52	3788.50	3788.50	UM	627	Chromite	0.00	0.00	24.67	46.09	#####	16.01	0.34	10.32	0.00	0.00	0.00						97.43	3
North Triumph B-52	3788.50	3788.50	UM	628	Chromite	0.00	0.00	25.35	45.24	#####	16.43	0.18	10.67	0.00	0.00	0.00						97.87	3
North Triumph B-52	3799.62	3799.62	UM	625	Chromite	0.00	0.16	10.96	56.22	#####	18.96	0.88	5.99	0.04	0.10	0.00						93.31	4
North Triumph B-52	3786.07	3786.07	UM	629	Cr-Spinel	0.00	0.08	28.01	41.95	#####	13.30	0.31	14.09	0.10	0.04	0.02						97.90	3
North Triumph B-52	3786.07	3786.07	UM	630	Cr-Spinel	0.00	0.10	28.03	42.05	#####	13.71	0.26	13.94	0.12	0.01	0.03						98.25	3
North Triumph B-52	3786.07	3786.07	UM	631	Cr-Spinel	0.00	0.07	39.13	28.47	53.17	14.42	0.22	16.41	0.32	0.02	0.02						99.08	2
North Triumph B-52	3786.07	3786.07	UM	632	Cr-Spinel	0.00	0.09	38.62	28.93	54.43	14.53	0.25	16.28	0.38	0.03	0.00						99.11	2
North Triumph B-52	3791.95	3791.95	UM	633	Cr-Spinel	0.00	0.09	27.78	39.49	86.24	18.01	0.35	13.27	0.05	0.02	0.03						99.09	2
North Triumph B-52	3791.95	3791.95	UM	634	Cr-Spinel	0.00	0.08	27.74	39.61	86.77	17.91	0.36	13.07	0.04	0.01	0.03						98.85	2
North Triumph G-43	4050.67	4050.67	UM	359	Chromite	0.01	0.13	21.83	47.17	#####	19.60	0.39	11.82	0.05	0.00	0.06	0.00		0.15	0.13	0.20	101.54	3
North Triumph G-43	4050.67	4050.67	UM	360	Chromite	0.12	0.15	21.56	46.82	#####	19.71	0.36	11.81	0.05	0.01	0.05	0.03		0.14	0.19	0.18	101.17	3
North Triumph G-43	3278.12	3278.12	LCC	427	Cr-spinel	0.00	0.30	36.00	32.76	63.74	15.39	0.29	15.20	0.04	0.01	0.03	0.03		0.18	0.13	0.11	100.46	2
North Triumph G-43	3278.12	3278.12	LCC	428	Cr-spinel	0.00	0.32	35.65	32.65	64.16	15.24	0.28	15.21	0.05	0.04	0.04	0.05		0.17	0.03	0.07	99.79	2
Peskowesk A-99	2211.47	2211.47	LCC	163	Cr-spinel	0.00	0.15	21.62	46.94	#####	18.36	0.38	12.48	0.04	0.03	0.00						100.00	3
Peskowesk A-99	2211.47	2211.47	LCC	164	Cr-spinel	0.00	0.14	23.12	48.90	#####	17.83	0.32	9.62	0.05	0.01	0.00						100.00	3
Peskowesk A-99	2212.91	2212.91	LCC	151	Cr-spinel	0.00	0.24	26.88	40.75	94.75	16.13	0.29	15.65	0.04	0.02	0.00						100.00	3
Peskowesk A-99	2212.91	2212.91	LCC	152	Cr-spinel	0.00	0.22	26.75	40.84	95.35	16.08	0.31	15.73	0.05	0.02	0.00						100.00	3

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Peskowesk A-99	2212.91	2212.91	LCC	153	Cr-spinel	0.00	2.27	14.82	40.83	81.58	35.23	0.54	6.23	0.06	0.02	0.00						100.00	3
Peskowesk A-99	2222.59	2222.59	LCC	154	Cr-spinel	0.00	0.21	9.92	58.60	#####	20.76	1.44	8.99	0.05	0.03	0.00						100.00	4
Peskowesk A-99	2222.59	2222.59	LCC	155	Cr-spinel	0.00	0.19	9.99	58.72	#####	20.65	1.40	8.97	0.04	0.03	0.00						100.00	4
Peskowesk A-99	2470.66	2470.66	UM	156	Cr-spinel	0.00	0.21	14.83	52.96	#####	21.81	0.49	9.62	0.05	0.03	0.00						100.00	3
Peskowesk A-99	2470.66	2470.66	UM	157	Cr-spinel	0.00	0.25	14.98	52.56	#####	22.06	0.50	9.57	0.05	0.03	0.00						100.00	3
Peskowesk A-99	2470.66	2470.66	UM	158	Cr-spinel	0.00	0.28	10.67	60.94	#####	19.08	1.65	7.21	0.06	0.12	0.00						100.00	4
Peskowesk A-99	2470.66	2470.66	UM	159	Cr-spinel	0.00	0.98	10.61	62.28	#####	17.17	1.59	6.91	0.09	0.37	0.00						100.00	4
Peskowesk A-99	2933.62	2933.62	MM	160	Cr-spinel	0.00	0.16	28.14	36.27	70.99	22.94	0.36	11.66	0.45	0.02	0.00						100.00	2
Peskowesk A-99	2933.62	2933.62	MM	161	Cr-spinel	0.00	0.20	27.93	35.96	68.18	24.81	0.41	9.97	0.68	0.04	0.00						100.00	2
Peskowesk A-99	2933.62	2933.62	MM	162	Cr-spinel	0.00	0.12	23.84	46.50	#####	16.78	0.47	12.14	0.13	0.03	0.00						100.00	3
Thebaud 3	3914.57	8 (HMS)	LM	7	Chromite	0.00	0.22	18.76	49.69	#####	13.88	0.26	15.73	0.05	0.00	0.04	0.11		0.22	0.15	0.21	99.34	3
Thebaud 3	3914.57	8 (HMS)	LM	8	Chromite	0.00	0.25	19.21	49.47	#####	13.87	0.29	16.39	0.05	0.01	0.06	0.06		0.26	0.17	0.18	100.27	3
Thebaud 3	3914.57	8 (HMS)	LM	28	Chromite	0.06	0.14	9.06	59.40	#####	15.66	1.54	10.72	0.04	0.13	0.04	0.08		0.16	0.25	0.30	97.58	3
Thebaud 3	3914.57	8 (HMS)	LM	29	Chromite	0.03	0.05	9.11	59.48	#####	15.10	1.43	9.76	0.02	0.11	0.02	0.00		0.03	0.00	0.23	95.36	4
Thebaud 3	3914.57	8 (HMS)	LM	30	Chromite	0.03	0.07	9.59	59.62	#####	16.47	1.31	9.85	0.00	0.13	0.03	0.00		0.02	0.00	0.28	97.40	2
Thebaud 3	3914.57	8 (HMS)	LM	38	Chromite	0.00	0.19	21.67	45.79	#####	18.25	0.24	8.75	0.01	0.00	0.03	0.00		0.01	0.00	0.15	95.08	2
Thebaud 3	3914.57	8 (HMS)	LM	39	Chromite	0.51	0.22	22.29	46.22	#####	16.58	0.25	7.67	0.00	0.03	0.01	0.00		0.01	0.00	0.16	93.94	3
Thebaud 3	3914.57	8 (HMS)	LM	47	Chromite	0.74	0.34	13.21	40.05	#####	17.55	0.25	4.18	0.10	0.00	0.02	0.03		0.00	0.00	0.00	76.46	3
Thebaud 3	3914.57	8 (HMS)	LM	48	Chromite	0.00	0.09	21.99	46.06	#####	17.51	0.30	10.68	0.18	0.02	0.02	0.00		0.04	0.00	0.14	97.02	2
Thebaud 3	3915.04	9 (HMS)	LM	3	Chromite	0.10	0.16	19.51	48.72	#####	17.44	0.40	11.08	0.06	0.06	0.04	0.11		0.22	0.14	0.35	98.40	2
Thebaud 3	3915.04	9 (HMS)	LM	4	Chromite	0.10	0.14	19.21	49.46	#####	17.52	0.42	10.77	0.06	0.05	0.03	0.03		0.23	0.17	0.33	98.53	3
Thebaud 3	3915.04	9 (HMS)	LM	5	Chromite	0.10	0.18	18.73	48.81	#####	17.25	0.37	10.58	0.06	0.04	0.05	0.05		0.23	0.15	0.33	96.93	3
Thebaud 3	3915.04	9 (HMS)	LM	26	Chromite	0.10	0.18	7.68	58.26	#####	22.60	0.57	7.68	0.08	0.04	0.05	0.07		0.23	0.18	0.40	98.12	4
Thebaud 3	3915.04	9 (HMS)	LM	27	Chromite	0.13	0.16	7.89	57.99	#####	22.56	0.60	8.11	0.08	0.03	0.05	0.10		0.20	0.18	0.47	98.55	4
Thebaud 3	3915.96	11 (HMS)	LM	7	Chromite	0.00	0.10	20.66	47.09	#####	15.00	0.35	13.88	0.04	0.00	0.05	0.01		0.21	0.15	0.22	97.76	4
Thebaud 3	3915.96	11 (HMS)	LM	8	Chromite	0.00	0.13	21.30	46.82	#####	14.84	0.34	14.49	0.08	0.01	0.05	0.06		0.20	0.14	0.26	98.71	3
Thebaud 3	3915.96	11 (HMS)	LM	9	Chromite	0.00	0.10	18.72	49.72	#####	18.07	0.39	12.54	0.04	0.00	0.05	0.00		0.19	0.18	0.29	100.28	3
Thebaud 3	3915.96	11 (HMS)	LM	10	Chromite	0.00	0.14	17.80	49.78	#####	18.00	0.34	11.89	0.05	0.00	0.03	0.03		0.17	0.12	0.25	98.61	3
Thebaud 3	3915.96	11 (HMS)	LM	11	Chromite	0.00	0.13	17.93	49.93	#####	17.96	0.35	12.96	0.07	0.01	0.05	0.05		0.18	0.15	0.30	100.07	3
Thebaud 3	3915.96	11 (HMS)	LM	17	Chromite	0.11	0.13	6.27	61.95	#####	18.00	0.49	10.00	0.06	0.05	0.06	0.10		0.21	0.18	0.41	98.02	3
Thebaud 3	3915.96	11 (HMS)	LM	18	Chromite	0.10	0.12	6.67	61.40	#####	18.51	0.49	10.25	0.09	0.05	0.05	0.04		0.17	0.18	0.41	98.54	3
Thebaud 3	3911.16	4	LM	7	Cr-Spinel	0.06	0.10	23.53	44.92	#####	14.23	0.30	15.75	0.11	0.03	0.04	0.03		0.23	0.03	0.13	99.49	3
Thebaud 3	3911.16	4	LM	8	Cr-Spinel	0.07	0.12	23.67	45.52	#####	13.85	0.32	15.33	0.06	0.00	0.03	0.05		0.26	0.09	0.16	99.54	4
Thebaud 3	3911.16	4	LM	9	Cr-Spinel	0.06	0.10	23.47	45.00	#####	14.21	0.33	15.87	0.18	0.01	0.05	0.01		0.24	0.02	0.13	99.67	4
Thebaud 3	3911.16	4	LM	10	Cr-Spinel	0.04	0.12	23.53	45.03	#####	14.12	0.35	15.82	0.08	0.00	0.04	0.08		0.23	0.05	0.14	99.61	3
Thebaud 3	3914.57	8 (HMS)	LM	9	Cr-Spinel	0.12	0.34	36.00	30.67	61.73	13.67	0.21	18.15	0.02	0.01	0.04	0.02		0.27	0.14	0.06	99.72	3
Thebaud 3	3914.57	8 (HMS)	LM	10	Cr-Spinel	0.09	0.32	35.65	30.95	62.76	13.66	0.20	18.49	0.02	0.01	0.04	0.00		0.28	0.09	0.03	99.83	3
Thebaud 3	3914.57	8 (HMS)	LM	31	Cr-Spinel	0.00	0.00	34.49	34.77	70.86	14.58	0.21	12.85	0.00	0.00	0.01	0.00		0.01	0.00	0.09	97.01	3
Thebaud 3	3914.57	8 (HMS)	LM	32	Cr-Spinel	0.00	0.01	33.91	34.65	71.11	14.83	0.16	11.69	0.00	0.01	0.01	0.00		0.03	0.00	0.08	95.37	3
Thebaud 3	3915.04	9 (HMS)	LM	8	Cr-Spinel	0.10	0.40	26.07	39.64	87.74	19.11	0.36	9.40	0.07	0.05	0.03	0.06		0.26	0.13	0.28	95.96	4
Thebaud 3	3915.04	9 (HMS)	LM	9	Cr-Spinel	0.08	0.38	26.47	39.18	84.54	19.87	0.38	9.04	0.08	0.02	0.04	0.04		0.24	0.14	0.27	96.22	4
Thebaud 3	3915.04	9 (HMS)	LM	10	Cr-Spinel	0.09	0.13	25.12	44.09	#####	15.05	0.32	11.12	0.05	0.03	0.04	0.05		0.25	0.12	0.30	96.75	3

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3		FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Thebaud 3	3915.04	9 (HMS)	LM	11	Cr-Spinel	0.07	0.10	24.91	44.47	#####	14.80	0.34	9.89	0.05	0.02	0.04	0.09		0.22	0.17	0.28	95.44	3
Thebaud 3	3915.04	9 (HMS)	LM	12	Cr-Spinel	0.08	0.14	28.92	39.21	87.94	15.66	0.32	14.51	0.03	0.03	0.04	0.07		0.26	0.10	0.28	99.66	3
Thebaud 3	3915.04	9 (HMS)	LM	13	Cr-Spinel	0.05	0.19	29.75	38.23	83.95	15.79	0.35	14.86	0.03	0.04	0.05	0.05		0.22	0.06	0.21	99.87	3
Thebaud 3	3915.04	9 (HMS)	LM	18	Cr-Spinel	0.04	0.56	38.09	28.34	53.04	15.35	0.27	15.15	0.03	0.00	0.02	0.05		0.31	0.13	0.14	98.49	2
Thebaud 3	3915.04	9 (HMS)	LM	19	Cr-Spinel	0.04	0.56	36.76	29.03	55.59	15.47	0.26	15.83	0.04	0.03	0.03	0.03		0.30	0.10	0.16	98.64	2
Thebaud 3	3915.04	9 (HMS)	LM	20	Cr-Spinel	0.18	0.24	41.08	25.34	47.28	12.50	0.28	18.77	0.03	0.01	0.02	0.03		0.32	0.08	0.11	98.99	2
Thebaud 3	3915.04	9 (HMS)	LM	21	Cr-Spinel	0.14	0.21	41.10	23.94	42.14	15.72	0.31	17.20	0.05	0.02	0.03	0.04		0.26	0.08	0.14	99.24	2
Thebaud 3	3915.04	9 (HMS)	LM	22	Cr-Spinel	0.08	0.10	33.13	34.73	73.39	14.19	0.27	15.99	0.06	0.04	0.03	0.08		0.27	0.08	0.17	99.24	3
Thebaud 3	3915.04	9 (HMS)	LM	23	Cr-Spinel	0.04	0.14	34.35	34.84	72.54	13.68	0.26	14.27	0.05	0.03	0.04	0.10		0.27	0.16	0.21	98.44	2
Thebaud 3	3915.04	9 (HMS)	LM	28	Cr-Spinel	0.04	0.11	39.78	28.35	50.38	16.49	0.29	15.54	0.03	0.05	0.03	0.06		0.28	0.11	0.20	101.37	3
Thebaud 3	3915.04	9 (HMS)	LM	29	Cr-Spinel	0.04	0.10	36.36	29.85	56.59	16.40	0.30	14.70	0.04	0.01	0.03	0.05		0.26	0.13	0.17	98.44	3
Thebaud 3	3915.96	11 (HMS)	LM	15	Cr-Spinel	0.02	0.37	34.28	29.78	55.84	19.05	0.28	14.95	0.04	0.04	0.05	0.02		0.26	0.13	0.14	99.40	2
Thebaud 3	3915.96	11 (HMS)	LM	16	Cr-Spinel	0.02	0.39	34.42	29.29	55.12	18.72	0.25	15.21	0.06	0.04	0.04	0.016		0.27	0.11	0.14	99.00	2
Thebaud 3	3915.96	11 (HMS)	LM	19	Cr-Spinel	0.08	0.21	29.05	37.10	77.82	18.62	0.35	13.86	0.05	0.07	0.06	0.00		0.19	0.10	0.22	99.96	2
Thebaud 3	3915.96	11 (HMS)	LM	20	Cr-Spinel	0.08	0.20	29.62	37.20	77.07	18.65	0.34	13.84	0.06	0.06	0.05	0.01		0.21	0.15	0.24	100.71	2
Thebaud 3	3915.96	11 (HMS)	LM	21	Cr-Spinel	0.03	0.19	27.87	36.73	78.73	18.77	0.34	12.96	0.05	0.03	0.05	0.06		0.17	0.12	0.20	97.57	2
Thebaud C-74	3911.74	1.66-3911.82	LM	1	Cr-Spinel	0.02	0.10	24.69	47.15	#####	12.58	0.28	11.43	0.03	0.01	0.03	0.00		0.22	0.14	0.18	96.86	3
Thebaud C-74	3911.74	1.66-3911.82	LM	2	Cr-Spinel	0.03	0.09	24.61	47.63	#####	12.91	0.28	10.96	0.03	0.00	0.03	0.00		0.20	0.10	0.18	97.05	3
Thebaud C-74	3911.74	1.66-3911.82	LM	3	Cr-Spinel	0.02	0.07	24.37	47.04	#####	13.62	0.30	12.27	0.03	0.00	0.03	0.01		0.25	0.14	0.15	98.31	3
Thebaud C-74	3911.74	1.66-3911.82	LM	4	Chromite	0.04	0.07	17.53	54.18	#####	13.10	0.41	9.18	0.02	0.09	0.04	0.00		0.15	0.14	0.22	95.17	3
Thebaud C-74	3911.74	1.66-3911.82	LM	5	Chromite	0.01	0.10	17.41	53.71	#####	13.08	0.43	11.04	0.03	0.12	0.05	0.04		0.16	0.18	0.23	96.58	3
Thebaud C-74	3911.74	1.66-3911.82	LM	6	Chromite	0.01	0.05	17.58	53.96	#####	12.96	0.42	9.90	0.02	0.10	0.04	0.02		0.16	0.17	0.21	95.58	3
Thebaud C-74	3920.15	0.04-3920.25	LM	16	Cr-Spinel	0.00	0.12	36.76	28.83	49.28	21.74	0.28	13.02	0.02	0.00	0.04	0.00		0.17	0.00	0.05	101.02	2
Thebaud C-74	3920.15	0.04-3920.25	LM	17	Cr-Spinel	0.00	0.16	37.65	28.55	48.42	21.32	0.26	13.18	0.02	0.00	0.05	0.00		0.15	0.07	0.08	101.48	2
Thebaud C-74	3920.15	0.04-3920.25	LM	18	Cr-Spinel	0.00	0.12	36.62	29.19	50.35	21.34	0.25	13.04	0.02	0.00	0.05	0.00		0.18	0.08	0.04	100.94	2
Thebaud C-74	3920.15	0.04-3920.25	LM	19	Cr-Spinel	0.00	0.16	36.58	28.64	49.10	21.76	0.27	12.89	0.03	0.00	0.04	0.00		0.17	0.12	0.00	100.67	2
Thebaud C-74	3920.15	0.04-3920.25	LM	23	Chromite	0.02	0.03	19.45	51.47	#####	14.50	0.33	11.03	0.06	0.02	0.05	0.03		0.13	0.08	0.17	97.37	3
Thebaud C-74	3920.15	0.04-3920.25	LM	24	Chromite	0.00	0.05	19.45	51.62	#####	13.94	0.35	11.22	0.03	0.01	0.04	0.00		0.17	0.11	0.19	97.17	3
Thebaud C-74	3920.15	0.04-3920.25	LM	30	Cr-Spinel	0.00	0.04	25.03	41.77	95.95	18.50	0.34	12.86	0.09	0.00	0.04	0.00		0.20	0.12	0.12	99.12	3
Thebaud C-74	3920.15	0.04-3920.25	LM	31	Cr-Spinel	0.00	0.03	25.64	41.69	94.58	18.44	0.35	12.29	0.09	0.00	0.04	0.00		0.19	0.11	0.12	98.98	3
Thebaud C-74	3920.15	0.04-3920.25	LM	32	Cr-Spinel	0.02	0.02	25.30	42.74	97.24	18.66	0.29	12.85	0.07	0.01	0.03	0.00		0.07	0.00	0.16	100.22	3
Venture 4	5371.87	5371.77-537	LM	37	Chromite	0.00	0.10	24.00	44.14	#####	18.62	0.33	7.28	0.12	0.02	0.04	0.04		0.20	0.09	0.18	95.16	2
Venture 4	5371.87	5371.77-537	LM	38	Chromite	0.00	0.08	23.42	44.70	#####	17.42	0.32	8.16	0.18	0.03	0.04	0.02		0.20	0.09	0.23	94.88	2
Venture 4	5371.87	5371.77-537	LM	39	Chromite	0.00	0.09	23.80	44.23		19.94	0.32	6.17	0.19	0.00	0.06	0.06		0.19	0.09	0.20	95.33	2
Venture 4	5384.83	4.68-5384.98	LM	97	Chromite	1.52	0.17	6.58	50.51		25.71	3.34	3.73	0.11	0.07	0.06	0.03		0.19	0.16	0.29	92.47	2
Venture 4	5384.83	4.68-5384.98	LM	95	Cr-spinel	0.00	0.14	28.43	36.82		19.25	0.34	12.76	0.04	0.02	0.04	0.00		0.20	0.13	0.14	98.31	2
Venture 4	5384.83	4.68-5384.98	LM	96	Cr-spinel	0.00	0.11	28.67	36.93		19.12	0.36	12.86	0.03	0.00	0.04	0.04		0.17	0.08	0.13	98.55	2
Venture 4	5384.83	4.68-5384.98	LM	98	Cr-spinel	0.00	0.09	26.89	43.90		13.57	0.33	12.33	0.03	0.00	0.04	0.04		0.16	0.09	0.20	97.67	2
Venture 4	5384.83	4.68-5384.98	LM	99	Cr-spinel	0.00	0.12	26.67	43.48		13.63	0.28	12.42	0.05	0.00	0.05	0.01		0.19	0.11	0.17	97.17	2
Venture 4	5384.83	4.68-5384.98	LM	106	Cr-spinel	0.00	0.18	33.96	35.28		13.58	0.25	13.46	0.03	0.00	0.03	0.02		0.18	0.11	0.09	97.17	2
Venture 4	5384.83	4.68-5384.98	LM	107	Cr-spinel	0.00	0.16	33.39	35.55		13.60	0.23	14.11	0.03	0.00	0.04	0.02		0.18	0.08	0.11	97.51	2

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Argo F-38	4375.00	4360-4390H	MM	1	Staurolite	26.88	0.58	53.38	0.00	14.47	0.06	1.40	0.00	0.01	0.00	0.00			0.00		96.78
Crow F-52	2773.00	2766-2780H	MM	1	Staurolite	26.82	0.72	53.20	0.00	13.82	0.17	1.48	0.02	0.04	0.01	0.00			0.10		96.39
Crow F-52	2773.00	2766-2780H	MM	1	Staurolite	26.14	0.61	53.54	0.00	14.15	0.36	1.63	0.01	0.00	0.01	0.03			0.11		96.60
Crow F-52	2810.00	2810H	MM	1	Staurolite	25.80	0.48	54.69	0.00	13.66	0.07	1.13	0.00	0.04	0.00	0.01			0.08		95.95
Crow F-52	3170.00	3170F	MM	2	Staurolite	25.69	0.34	53.32	0.00	13.22	0.44	1.88	0.00	0.04	0.00	0.00			0.00		94.94
Fox I-22	2105.00	2090-2120C	MM	1	Staurolite	27.15	0.51	52.70	0.00	13.69	0.17	1.46	0.00	0.01	0.00	0.00			0.04		95.73
Fox I-22	2105.00	2090-2120C	MM	1	Staurolite	28.05	0.52	52.43	0.00	13.65	0.28	1.78	0.00	0.03	0.00	0.00			0.05		96.78
Fox I-22	2105.00	2090-2120C	MM	1	Staurolite	27.97	0.44	52.69	0.00	13.71	0.10	1.28	0.00	0.00	0.00	0.04			1.02		97.25
Fox I-22	2105.00	2090-2120F	MM	5	Staurolite	28.78	0.30	53.89	0.00	10.96	0.42	2.02	0.00	0.04	0.00	0.10			0.22		96.72
Fox I-22	2135.00	2120-2150C	MM	1	Staurolite	27.42	0.32	52.29	0.00	14.56	0.00	1.37	0.00	0.01	0.00	0.00			0.00		95.97
Jason C-20	6480.00	6480H	MMC	1	Staurolite	27.37	0.29	53.24	0.00	12.82	0.04	1.17	0.00	0.13	0.00	0.00			0.00		95.05
Musquodoboit E-23	2190.00	2190.00	LCCl	25	Staurolite	27.14	0.37	52.26	0.00	13.01	0.06	1.17	0.01	0.02	0.03	0.00		0.09	0.00	0.01	94.17
Musquodoboit E-23	2190.00	2190.00	LCCl	26	Staurolite	26.87	0.33	51.74	0.00	12.77	0.05	1.13	0.00	0.00	0.03	0.01		0.09	0.00	0.00	93.01
Sambro I-29	1178.74	3880	UM	76	Staurolite	26.33	0.32	53.17	0.00	13.98	0.36	1.49	0.00	0.04	0.00						95.69

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Argo F-38	4690.00	4680-4700A	MM	8	Stilpnomelane	45.87	0.19	6.66	0.00	21.81	0.05	12.91	0.76	2.58	0.21	0.00			0.05		91.11
Argo F-38	4690.00	4680-4700A	MM	9	Stilpnomelane	43.15	0.11	6.33	0.00	21.04	0.04	11.83	0.90	10.35	0.01	0.07			0.03		93.88
Argo F-38	4690.00	4680-4700A	MM	10	Stilpnomelane	46.45	0.65	10.58	0.00	21.26	0.03	10.41	0.59	2.09	0.23	0.03			0.01		92.33
Argo F-38	4690.00	4680-4700A	MM	11	Stilpnomelane	45.51	0.02	6.35	0.00	24.10	0.03	11.93	0.92	2.64	0.17	0.03			0.02		91.70
Argo F-38	4690.00	4680-4700A	MM	12	Stilpnomelane	44.03	0.24	10.15	0.00	20.82	0.04	9.64	0.51	2.74	0.15	0.01			0.00		88.32
Argo F-38	4690.00	4680-4700B	MM	12	Stilpnomelane	45.43	0.12	7.49	0.00	19.67	0.12	12.27	0.60	2.04	0.40	0.00			0.07		88.21
Argo F-38	4690.00	4680-4700B	MM	19	Stilpnomelane	47.50	0.02	6.28	0.00	19.22	0.08	14.33	0.25	1.73	0.15	0.01			0.02		89.60
Argo F-38	4690.00	4680-4700B	MM	21	Stilpnomelane	41.98	0.17	5.34	0.00	25.59	0.08	12.79	0.38	1.87	0.34	0.00			0.02		88.57
Argo F-38	4690.00	4680-4700B	MM	22	Stilpnomelane	46.35	0.14	6.05	0.00	21.55	0.08	11.86	0.32	1.90	0.36	0.00			0.00		88.61
Argo F-38	4690.00	4680-4700B	MM	22	Stilpnomelane	46.38	0.06	8.73	0.00	21.69	0.05	12.53	0.67	1.50	0.59	0.00			0.02		92.20
Argo F-38	4690.00	4680-4700B	MM	23	Stilpnomelane	45.03	0.06	9.13	0.00	23.69	0.08	11.68	0.71	1.81	0.81	0.02			0.07		93.09

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Naskapi N-30	1473.81	1473.81H	UM	105	Topaz	31.91	0.00	54.52	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.17		0.00	0.00	0.08	86.68
Naskapi N-30	1473.81	1473.81H	UM	106	Topaz	32.19	0.00	54.37	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		0.00	0.00	0.09	86.66
Naskapi N-30	1473.81	1473.81H	UM	107	Topaz	32.16	0.03	54.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.06	86.81

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Alma K-85	2465.00	2465.00	LCC	154	Tourmaline	35.53	0.58	32.54	0.04	7.25	0.06	5.11	0.60	1.97	0.02						83.70	4
Alma K-85	2465.00	2465.00	LCC	155	Tourmaline	35.41	0.61	32.09	0.05	6.81	0.05	5.33	0.60	1.89	0.01						82.85	4
Alma K-85	2465.00	2465.00	LCC	156	Tourmaline	36.95	0.62	32.51	0.22	4.79	0.04	7.37	0.58	2.10	0.02						85.20	4
Alma K-85	2465.90	2465.90	LCC	158	Tourmaline	34.98	0.24	33.65	0.00	9.08	0.07	3.14	0.11	2.00	0.03						83.30	1
Alma K-85	2465.90	2465.90	LCC	159	Tourmaline	35.38	0.43	30.53	0.00	12.45	0.50	1.68	0.20	2.27	0.01						83.45	1
Alma K-85	2466.07	2466.07	LCC	151	Tourmaline	36.83	0.76	30.73	0.00	7.36	0.00	6.44	0.62	2.34	0.02						85.10	4
Alma K-85	2466.07	2466.07	LCC	152	Tourmaline	37.25	0.15	31.77	0.01	7.46	0.00	6.65	0.49	2.04	0.01						85.83	4
Alma K-85	2466.07	2466.07	LCC	153	Tourmaline	36.28	0.70	32.98	0.03	7.27	0.00	5.39	0.37	2.05	0.02						85.09	4
Alma K-85	2466.65	2466.65	LCC	157	Tourmaline	36.20	1.00	30.84	0.05	7.67	0.10	4.97	0.19	2.29	0.01						83.32	4
Alma K-85	3045.23	3045.23	UM	331	Tourmaline	34.75	0.76	34.36	0.00	6.72	0.04	5.68	1.18	1.67	0.03						85.19	4
Alma K-85	3045.23	3045.23	UM	332	Tourmaline	35.50	0.08	30.74	0.00	8.37	0.01	6.38	0.77	2.19	0.00						84.04	4
Alma K-85	3045.23	3045.23	UM	333	Tourmaline	35.47	0.87	31.36	0.01	8.47	0.00	6.02	0.23	2.27	0.00						84.70	4
Alma K-85	3081.07	3081.07	UM	329	Tourmaline	35.47	0.54	32.41	0.00	8.22	0.03	5.64	0.36	1.99	0.00						84.66	4
Alma K-85	3081.07	3081.07	UM	330	Tourmaline	35.36	0.55	32.65	0.00	8.52	0.06	5.57	0.33	2.07	0.00						85.11	4
Argo F-38	4375.00	4360-4390H	MM	4	Tourmaline	33.28	0.15	33.43	0.00	8.59	0.00	4.76	0.00	1.85	0.00	0.00			0.00		82.06	1
Argo F-38	4865.00	4850-4880	MM	4	Tourmaline	35.95	0.38	28.33	0.00	14.01	0.29	4.59	0.72	2.38	0.07	0.07			0.09		86.89	2
Chebucto K-90	4283.72	4283.72	UM	429	Tourmaline	36.02	0.75	35.27	0.00	6.40	0.03	5.82	0.34	1.72	0.05	0.00		0.00	0.00	0.14	86.54	1
Chebucto K-90	4283.72	4283.72	UM	430	Tourmaline	35.89	0.74	35.77	0.00	6.31	0.03	5.47	0.30	1.60	0.03	0.02		0.00	0.00	0.16	86.31	1
Chebucto K-90	4286.07	4286.07	UM	379	Tourmaline	35.55	1.03	35.13	0.10	6.25	0.00	6.13	0.77	1.86	0.03	0.00		0.00	0.00	0.09	86.93	1
Chebucto K-90	4286.07	4286.07	UM	380	Tourmaline	35.68	0.94	34.76	0.24	6.28	0.00	6.12	0.59	1.78	0.03	0.00		0.00	0.00	0.10	86.52	1
Chebucto K-90	4286.07	4286.07	UM	381	Tourmaline	34.36	0.10	34.61	0.00	16.09	0.10	0.05	0.06	2.05	0.07	0.01		0.00	0.00	0.11	87.62	4
Chebucto K-90	4286.07	4286.07	UM	382	Tourmaline	34.20	0.15	34.08	0.00	16.76	0.12	0.05	0.07	2.20	0.06	0.07		0.00	0.01	0.15	87.91	4
Chebucto K-90	4286.07	4286.07	UM	383	Tourmaline	35.23	0.08	34.78	0.00	15.53	0.06	0.05	0.01	1.86	0.07	0.05		0.00	0.00	0.16	87.87	4
Chebucto K-90	4286.07	4286.07	UM	384	Tourmaline	34.75	0.08	34.49	0.00	15.52	0.11	0.03	0.03	1.92	0.06	0.10		0.00	0.00	0.12	87.20	1
Chebucto K-90	4286.07	4286.07	UM	385	Tourmaline	36.22	0.11	33.21	0.00	6.47	0.00	7.60	0.00	2.65	0.01	0.00		0.00	0.00	0.12	86.39	1
Chebucto K-90	4286.07	4286.07	UM	386	Tourmaline	36.46	0.25	33.03	0.00	6.33	0.00	7.67	0.01	2.66	0.01	0.00		0.00	0.00	0.14	86.55	1
Chebucto K-90	4286.07	4286.07	UM	389	Tourmaline	35.54	0.28	33.88	0.00	7.55	0.07	6.65	0.76	2.05	0.08	0.02		0.00	0.00	0.23	87.13	3
Chebucto K-90	4286.07	4286.07	UM	390	Tourmaline	35.78	0.28	34.26	0.00	7.50	0.06	6.63	0.74	1.94	0.09	0.03		0.00	0.00	0.24	87.54	4
Crow F-52	1430.00	1430A	LCM	2	Tourmaline	35.65	0.78	31.39	0.00	10.70	0.10	4.20	0.78	1.88	0.04	0.00			0.08		85.60	4
Crow F-52	2480.00	2480A	LCC	1	Tourmaline	34.92	0.72	32.63	0.00	6.69	0.12	4.59	0.96	1.31	0.00	0.04			0.04		82.01	3
Crow F-52	2480.00	2480A	LCC	2	Tourmaline	36.41	0.91	30.53	0.00	7.82	0.12	6.25	0.99	1.78	0.00	0.00			0.06		84.88	1
Crow F-52	2773.00	2766-2780H	MM	1	Tourmaline	35.26	1.48	28.99	0.00	8.66	0.09	6.90	1.79	1.57	0.02	0.03			0.11		84.91	1
Crow F-52	2773.00	2766-2780H	MM	4	Tourmaline	34.50	1.21	29.54	0.00	8.56	0.06	6.63	1.62	1.52	0.02	0.01			0.07		83.74	1
Crow F-52	2773.00	2766-2780H	MM	4	Tourmaline	35.41	0.95	32.46	0.00	8.78	0.06	5.08	0.05	2.07	0.01	0.03			0.06		84.95	1
Crow F-52	2773.00	2766-2780H	MM	2	Tourmaline	34.66	0.72	31.88	0.00	8.27	0.06	5.21	0.41	1.65	0.00	0.01			0.04		82.91	4
Crow F-52	2810.00	2810H	MM	2	Tourmaline	35.18	0.46	31.39	0.00	7.91	0.02	6.95	0.72	1.95	0.00	0.00			0.03		84.60	4
Dauntless D-35	3157.72	3157.72	UM	178	Tourmaline	35.78	0.60	35.37	0.00	9.38	0.08	4.02	0.24	1.99	0.04	0.02					87.51	1
Dauntless D-35	3157.72	3157.72	UM	179	Tourmaline	35.64	0.85	35.84	0.00	5.39	0.02	6.12	0.54	1.92	0.04	0.00					86.36	1
Dauntless D-35	3267.16	3267.16	MM	176	Tourmaline	35.66	0.69	33.92	0.02	9.04	0.06	4.96	0.15	2.35	0.05						86.88	1
Dauntless D-35	3267.16	3267.16	MM	177	Tourmaline	36.11	0.08	36.36		6.15	0.02	5.51	0.27	1.98	0.03						86.50	1
Emerillon C-56	1828.80	1828.80	LCE	77	Tourmaline	36.34	0.66	34.70	0.00	5.08	0.00	6.92	0.53	1.79	0.00						86.02	1

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Emerillon C-56	1828.80	1828.80	LCE	78	Tourmaline	36.32	0.66	33.41	0.00	5.27	0.00	7.25	0.72	1.95	0.00						85.58	1
Emerillon C-56	1828.80	1828.80	LCE	79	Tourmaline	36.23	0.26	30.97	0.00	8.09	0.00	7.76	0.71	2.36	0.00						86.38	4
Emerillon C-56	1828.80	1828.80	LCE	80	Tourmaline	36.87	0.13	32.34	0.00	7.11	0.00	7.59	0.47	2.09	0.00						86.60	4
Emerillon C-56	1828.80	1828.80	LCE	81	Tourmaline	35.44	0.84	32.04	0.00	11.20	0.00	4.26	0.55	2.10	0.00						86.43	4
Emerillon C-56	1828.80	1828.80	LCE	82	Tourmaline	35.95	0.90	32.17	0.00	10.30	0.00	5.01	0.70	1.95	0.00						86.97	4
Emerillon C-56	1950.72	1950.72	LCN	83	Tourmaline	36.29	0.77	34.21	0.00	5.54	0.00	6.98	0.37	2.19	0.00						86.34	1
Emerillon C-56	1950.72	1950.72	LCN	84	Tourmaline	36.62	0.63	34.83	0.00	5.66	0.00	6.67	0.15	2.25	0.00						86.82	1
Emerillon C-56	1950.72	1950.72	LCN	85	Tourmaline	35.27	0.76	35.07	0.00	8.16	0.00	4.95	0.63	1.87	0.02						86.72	1
Emerillon C-56	1950.72	1950.72	LCN	86	Tourmaline	35.34	0.77	34.97	0.00	8.17	0.00	4.99	0.60	1.87	0.02						86.74	1
Emerillon C-56	1950.72	1950.72	LCN	87	Tourmaline	36.35	0.86	33.70	0.00	6.32	0.00	6.74	0.43	2.24	0.00						86.64	1
Emerillon C-56	1950.72	1950.72	LCN	88	Tourmaline	36.22	0.89	33.45	0.00	6.49	0.00	6.59	0.51	2.14	0.00						86.31	3
Emerillon C-56	1950.72	1950.72	LCN	89	Tourmaline	35.60	0.62	31.83	0.00	9.13	0.00	6.36	0.48	2.24	0.03						86.29	4
Emerillon C-56	1950.72	1950.72	LCN	90	Tourmaline	35.72	0.55	32.18	0.00	9.04	0.00	6.33	0.49	2.21	0.02						86.56	4
Emerillon C-56	1950.72	1950.72	LCN	93	Tourmaline	36.05	0.45	30.49	0.00	7.52	0.00	8.66	1.18	2.04	0.02						86.40	4
Emerillon C-56	1950.72	1950.72	LCN	94	Tourmaline	35.76	0.53	29.59	0.00	7.89	0.00	8.89	2.55	1.35	0.04						86.59	4
Emerillon C-56	1950.72	1950.72	LCN	97	Tourmaline	34.53	0.92	33.38	0.00	10.31	0.00	4.40	0.81	1.96	0.03						86.35	1
Emerillon C-56	1950.72	1950.72	LCN	98	Tourmaline	34.97	0.83	32.95	0.00	10.40	0.00	4.53	0.79	2.01	0.05						86.53	4
Emerillon C-56	1950.72	1950.72	LCN	99	Tourmaline	35.58	0.41	35.09	0.00	10.98	0.00	2.90	0.13	1.86	0.02						86.98	1
Emerillon C-56	1950.72	1950.72	LCN	100	Tourmaline	34.97	0.41	35.06	0.00	10.86	0.00	2.87	0.10	1.79	0.01						86.07	4
Emerillon C-56	1950.72	1950.72	LCN	101	Tourmaline	36.05	1.27	33.29	0.00	7.06	0.00	5.98	0.48	1.79	0.00						85.93	1
Emerillon C-56	1950.72	1950.72	LCN	102	Tourmaline	35.78	1.32	33.50	0.00	6.97	0.00	6.06	0.50	1.86	0.00						85.99	1
Fox I-22	1955.00	1940-1970	UM	1	Tourmaline	36.19	1.49	29.51	0.00	6.30	0.03	8.34	1.38	1.87	0.07	0.00			0.07		85.27	4
Fox I-22	1985.00	1970-2000C	UM	1	Tourmaline	36.39	1.06	27.36	0.00	9.51	0.00	7.27	0.44	2.65	0.00	0.00			0.00		84.67	4
Fox I-22	1985.00	1970-2000C	UM	2	Tourmaline	36.69	0.00	30.15	0.00	7.00	0.00	7.58	0.11	2.53	0.00	0.00			0.00		84.06	1
Fox I-22	1985.00	1970-2000C	UM	3	Tourmaline	36.71	0.00	29.91	0.00	6.54	0.00	8.19	0.11	2.48	0.00	0.00			0.00		83.94	1
Fox I-22	2105.00	2090-2120C	MM	2	Tourmaline	36.84	0.32	30.37	0.00	7.75	0.00	7.04	0.03	2.81	0.00	0.00			0.00		85.16	1
Glenelg E-58	2993.62	2993.62	LCC	234	Tourmaline	36.40	0.66	33.76	0.00	4.34	0.00	7.90	0.63	1.93	0.02	0.00		0.00	0.00	0.12	85.75	1
Glenelg E-58	2993.62	2993.62	LCC	235	Tourmaline	36.23	0.77	33.56	0.00	3.47	0.00	8.26	0.78	1.83	0.01	0.00		0.00	0.00	0.15	85.06	1
Glenelg E-58	2993.62	2993.62	LCC	236	Tourmaline	35.35	0.77	34.60	0.00	8.54	0.00	4.70	0.11	2.05	0.04	0.00		0.00	0.00	0.17	86.32	1
Glenelg E-58	2993.62	2993.62	LCC	237	Tourmaline	35.59	0.72	34.41	0.00	7.28	0.00	5.47	0.29	1.96	0.03	0.00		0.00	0.00	0.16	85.91	1
Glenelg E-58	2993.62	2993.62	LCC	238	Tourmaline	35.89	0.35	32.69	0.00	7.82	0.00	6.43	0.60	1.85	0.01	0.00		0.00	0.00	0.18	85.83	4
Glenelg E-58	2993.62	2993.62	LCC	239	Tourmaline	35.59	0.42	31.89	0.00	7.41	0.00	7.09	0.65	2.07	0.02	0.00		0.00	0.00	0.15	85.28	4
Glenelg E-58	2993.62	2993.62	LCC	246	Tourmaline	34.88	1.00	32.10	0.00	10.78	0.07	4.14	0.66	2.11	0.05	0.01		0.00	0.00	0.17	85.96	4
Glenelg E-58	2993.62	2993.62	LCC	247	Tourmaline	34.68	0.90	32.74	0.00	10.45	0.04	4.46	0.57	2.12	0.03	0.00		0.00	0.00	0.17	86.16	4
Glenelg E-58	2993.62	2993.62	LCC	250	Tourmaline	36.05	0.69	34.43	0.00	7.30	0.00	5.42	0.29	1.91	0.03	0.00		0.00	0.00	0.16	86.27	4
Glenelg E-58	2993.62	2993.62	LCC	251	Tourmaline	35.67	0.59	35.27	0.00	6.73	0.00	5.42	0.23	1.87	0.02	0.00		0.00	0.00	0.13	85.93	4
Glenelg E-58	2993.62	2993.62	LCC	252	Tourmaline	35.40	0.16	28.99	0.00	11.00	0.05	6.98	1.84	1.83	0.03	0.00		0.00	0.00	0.20	86.49	4
Glenelg E-58	2993.62	2993.62	LCC	253	Tourmaline	35.68	0.28	31.26	0.00	9.86	0.00	6.05	0.42	2.08	0.01	0.00		0.00	0.00	0.40	86.04	4
Glenelg E-58	2993.62	2993.62	LCC	254	Tourmaline	35.28	0.61	33.84	0.00	9.39	0.07	4.38	0.20	2.06	0.03	0.00		0.00	0.00	0.15	86.00	4
Glenelg E-58	2993.62	2993.62	LCC	255	Tourmaline	34.54	0.90	34.64	0.00	8.27	0.00	4.94	0.81	1.69	0.06	0.00		0.00	0.00	0.11	85.97	1
Glenelg E-58	2993.62	2993.62	LCC	256	Tourmaline	35.70	0.65	35.05	0.00	5.87	0.00	6.12	0.45	1.89	0.03	0.00		0.00	0.00	0.15	85.91	1

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Glenelg E-58	2993.62	2993.62	LCC	257	Tourmaline	35.91	0.72	34.89	0.00	5.87	0.00	6.07	0.43	1.82	0.02	0.00		0.00	0.00	0.14	85.87	1
Glenelg E-58	2993.62	2993.62	LCC	258	Tourmaline	35.95	0.22	35.48	0.00	6.94	0.02	5.19	0.42	1.69	0.03	0.00		0.00	0.00	0.15	86.08	1
Glenelg E-58	2993.62	2993.62	LCC	259	Tourmaline	35.03	0.77	34.88	0.03	7.78	0.03	4.79	0.57	1.70	0.04	0.00		0.00	0.00	0.13	85.74	1
Glenelg E-58	2993.62	2993.62	LCC	264	Tourmaline	35.82	0.85	34.91	0.05	7.03	0.04	5.59	0.22	2.08	0.05	0.00		0.00	0.00	0.10	86.74	1
Glenelg E-58	2993.62	2993.62	LCC	265	Tourmaline	35.99	0.86	34.96	0.00	7.01	0.04	5.66	0.24	2.05	0.04	0.00		0.00	0.00	0.07	86.90	1
Glenelg E-58	2993.62	2993.62	LCC	288	Tourmaline	36.29	0.61	34.69	0.00	6.08	0.04	6.38	0.40	1.89	0.04	0.00		0.00	0.00	0.10	86.51	1
Glenelg E-58	2993.62	2993.62	LCC	289	Tourmaline	36.28	0.44	35.47	0.00	5.92	0.03	6.18	0.32	1.72	0.03	0.00		0.00	0.00	0.05	86.44	1
Glenelg E-58	2993.62	2993.62	LCC	290	Tourmaline	35.74	0.84	35.05	0.00	6.31	0.00	5.96	0.59	1.80	0.03	0.00		0.00	0.00	0.09	86.43	1
Glenelg E-58	2993.62	2993.62	LCC	291	Tourmaline	35.96	0.80	35.10	0.00	6.08	0.01	6.23	0.56	1.85	0.03	0.00		0.00	0.00	0.09	86.70	1
Glenelg E-58	2993.62	2993.62	LCC	300	Tourmaline	36.00	1.00	33.25	0.09	6.84	0.02	6.89	0.75	1.93	0.04	0.01		0.01	0.00	0.27	87.11	4
Glenelg E-58	2993.62	2993.62	LCC	301	Tourmaline	36.42	1.05	32.83	0.08	7.06	0.03	7.05	0.83	1.95	0.03	0.00		0.05	0.00	0.26	87.63	4
Glenelg E-58	2993.62	2993.62	LCC	305	Tourmaline	36.00	0.71	32.83	0.02	9.22	0.02	5.55	0.54	2.14	0.03	0.01		0.00	0.00	0.28	87.34	2
Glenelg E-58	2993.62	2993.62	LCC	306	Tourmaline	35.88	0.67	32.80	0.01	9.20	0.05	5.45	0.51	2.15	0.03	0.01		0.01	0.00	0.22	86.98	2
Glenelg E-58	2993.62	2993.62	LCC	309	Tourmaline	35.90	0.82	32.73	0.01	7.68	0.07	6.60	0.74	2.01	0.03	0.03		0.00	0.00	0.38	87.00	2
Glenelg E-58	2993.62	2993.62	LCC	310	Tourmaline	35.34	0.74	35.77	0.04	6.43	0.03	5.89	0.83	1.79	0.07	0.02		0.00	0.00	0.22	87.16	2
Glenelg E-58	2994.33	2994.33	LCC	334	Tourmaline	36.26	0.54	29.29	0.00	5.26	0.00	8.93	0.63	2.53	0.01	0.00		0.00	0.00	0.13	83.58	2
Glenelg E-58	2994.33	2994.33	LCC	335	Tourmaline	36.06	0.64	30.27	0.00	5.08	0.00	8.80	0.91	2.26	0.02	0.00		0.00	0.00	0.15	84.21	2
Glenelg E-58	2994.33	2994.33	LCC	336	Tourmaline	35.39	0.76	32.90	0.00	5.50	0.01	6.06	0.26	2.03	0.04	0.00		0.00	0.00	0.04	83.01	4
Glenelg E-58	2994.33	2994.33	LCC	337	Tourmaline	35.38	0.56	27.85	0.00	11.30	0.04	5.45	0.22	2.53	0.03	0.00		0.00	0.00	0.55	83.90	4
Glenelg E-58	2994.33	2994.33	LCC	340	Tourmaline	34.42	1.60	31.46	0.00	11.53	0.12	2.72	0.18	2.02	0.06	0.00		0.00	0.00	0.08	84.19	4
Glenelg E-58	2994.33	2994.33	LCC	341	Tourmaline	34.64	1.23	30.39	0.00	12.40	0.16	2.78	0.23	2.08	0.03	0.00		0.00	0.00	0.09	84.02	4
Glenelg E-58	2994.33	2994.33	LCC	346	Tourmaline	34.88	0.51	31.80	0.00	4.36	0.00	7.23	0.84	1.74	0.02	0.00		0.00	0.00	0.09	81.46	1
Glenelg E-58	3529.32	3529.32	UM	313	Tourmaline	35.59	0.50	32.41	0.00	7.59	0.00	6.09	0.64	1.83	0.02	0.00		0.00	0.00	0.09	84.76	1
Glenelg E-58	3529.32	3529.32	UM	314	Tourmaline	35.23	0.54	32.04	0.00	7.72	0.02	6.17	0.76	1.89	0.03	0.00		0.00	0.00	0.07	84.47	1
Glenelg E-58	3529.32	3529.32	UM	317	Tourmaline	35.92	0.63	33.86	0.00	7.59	0.07	5.18	0.35	1.96	0.04	0.00		0.00	0.00	0.08	85.68	4
Glenelg E-58	3529.32	3529.32	UM	318	Tourmaline	35.74	0.61	33.40	0.00	7.65	0.05	5.15	0.31	1.92	0.03	0.00		0.00	0.00	0.09	84.95	4
Glenelg E-58	3529.32	3529.32	UM	321	Tourmaline	36.87	0.37	31.24	0.00	3.26	0.00	9.68	0.82	2.25	0.02	0.00		0.00	0.00	0.20	84.69	4
Glenelg E-58	3529.32	3529.32	UM	322	Tourmaline	36.01	0.73	31.58	0.00	7.29	0.02	6.34	0.72	1.96	0.02	0.00		0.00	0.00	0.11	84.79	4
Glenelg E-58	3529.32	3529.32	UM	323	Tourmaline	34.93	0.94	33.54	0.00	9.06	0.01	4.00	0.65	1.57	0.04	0.00		0.00	0.00	0.08	84.83	1
Glenelg E-58	3529.32	3529.32	UM	324	Tourmaline	35.22	0.85	34.05	0.00	8.65	0.01	3.84	0.56	1.50	0.04	0.00		0.00	0.00	0.09	84.82	4
Glenelg E-58	3529.32	3529.32	UM	325	Tourmaline	35.03	0.52	32.90	0.00	12.81	0.06	1.82	0.07	1.64	0.04	0.00		0.00	0.00	0.06	84.96	4
Glenelg E-58	3529.32	3529.32	UM	326	Tourmaline	35.30	0.56	32.77	0.00	11.72	0.01	2.68	0.05	1.81	0.03	0.00		0.00	0.00	0.07	85.00	4
Glenelg E-58	3529.32	3529.32	UM	330	Tourmaline	36.88	0.32	33.46	0.01	0.41	0.00	9.96	1.03	1.73	0.01	0.00		0.00	0.00	0.08	83.88	4
Glenelg E-58	3529.32	3529.32	UM	331	Tourmaline	36.64	0.35	33.39	0.00	0.70	0.00	9.24	0.76	1.77	0.01	0.00		0.00	0.00	0.09	82.95	4
Glenelg E-58A	3731.10	3731.10	UM	28	Tourmaline	35.96	0.61	35.15	0.00	6.17	0.00	6.54	0.65	2.03	0.05						87.17	4
Glenelg E-58A	3731.10	3731.10	UM	29	Tourmaline	36.52	0.33	35.94	0.16	6.10	0.00	5.52	0.36	1.79	0.03						86.76	4
Glenelg E-58A	3731.10	3731.10	UM	34	Tourmaline	35.84	0.93	35.59	0.00	6.42	0.00	5.91	1.08	1.59	0.04						87.40	4
Glenelg E-58A	3731.10	3731.10	UM	35	Tourmaline	35.97	0.82	35.84	0.00	6.58	0.00	5.88	0.77	1.73	0.05						87.64	4
Glenelg E-58A	3736.53	3736.53	UM	57	Tourmaline	36.15	0.64	33.36	0.04	6.30	0.00	6.48	0.73	1.95	0.03						85.69	1
Glenelg E-58A	3736.53	3736.53	UM	58	Tourmaline	36.01	0.61	33.41	0.08	6.24	0.00	6.52	0.73	1.97	0.03						85.61	4
Glenelg E-58A	3737.82	3737.82	UM	45	Tourmaline	36.31	0.64	35.05	0.00	4.49	0.00	7.70	0.99	1.97	0.02						87.17	4

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Glenelg E-58A	3737.82	3737.82	UM	46	Tourmaline	36.43	0.68	34.58	0.00	4.63	0.00	7.61	0.95	1.98	0.02						86.89	4
Glenelg E-58A	3737.82	3737.82	UM	49	Tourmaline	36.61	0.98	33.51	0.00	7.81	0.00	6.20	0.68	1.96	0.01						87.76	4
Glenelg E-58A	3737.82	3737.82	UM	50	Tourmaline	36.60	0.62	34.20	0.00	8.57	0.00	5.20	0.13	2.31	0.03						87.65	4
Glenelg E-58A	3745.77	3745.77	UM	63	Tourmaline	36.15	0.59	34.20	0.00	5.83	0.00	6.17	0.38	1.94	0.02						85.29	4
Glenelg E-58A	3745.77	3745.77	UM	64	Tourmaline	36.40	0.54	34.55	0.00	5.63	0.00	6.27	0.47	1.87	0.04						85.77	4
Glenelg E-58A	3745.77	3745.77	UM	65	Tourmaline	36.10	0.79	31.57	0.00	8.33	0.10	6.13	1.03	1.66	0.02						85.75	1
Glenelg E-58A	3745.77	3745.77	UM	66	Tourmaline	36.08	0.90	31.62	0.00	8.38	0.07	6.24	1.05	1.77	0.02						86.11	4
Glenelg E-58A	3745.77	3745.77	UM	67	Tourmaline	35.81	0.72	33.73	0.06	5.60	0.01	6.41	0.76	1.80	0.02						84.91	4
Glenelg E-58A	3745.77	3745.77	UM	68	Tourmaline	36.22	0.76	33.05	0.05	5.79	0.00	6.93	0.77	1.91	0.02						85.51	4
Glenelg E-58A	3745.77	3745.77	UM	69	Tourmaline	36.51	0.85	30.73	0.00	5.36	0.00	8.87	0.87	2.17	0.01						85.37	4
Glenelg E-58A	3745.77	3745.77	UM	70	Tourmaline	36.65	0.89	30.13	0.00	5.94	0.00	8.72	0.84	2.28	0.02						85.46	4
Glenelg H-59	3882.93	3882.93	UM	422	Tourmaline	36.05	0.63	34.54	0.00	8.88	0.05	4.91	0.39	1.73	0.04	0.02		0.00	0.00	0.15	87.38	4
Glenelg H-59	3882.93	3882.93	UM	423	Tourmaline	36.03	0.60	34.14	0.00	9.44	0.06	4.92	0.43	1.77	0.03	0.01		0.00	0.00	0.14	87.56	4
Glenelg H-59	3885.38	3885.38	UM	391	Tourmaline	35.95	0.62	34.25	0.00	8.44	0.04	5.18	0.49	1.69	0.04	0.01		0.00	0.00	0.20	86.93	4
Glenelg H-59	3885.38	3885.38	UM	392	Tourmaline	35.35	0.74	33.83	0.01	7.81	0.03	5.30	0.52	1.73	0.03	0.02		0.00	0.00	0.23	85.61	4
Glenelg N-49	3576.78	3576.78	UM	193	Tourmaline	35.49	0.39	31.95	0.00	12.73	0.00	2.70	0.18	1.76	0.00	0.00	0.00	0.00	0.00	0.00	85.19	3
Glenelg N-49	3603.05	3603.05	UM	241	Tourmaline	35.86	0.66	34.49	0.00	7.67	0.00	4.80	0.33	1.85	0.00	0.00	0.00	0.00	0.00	0.00	85.66	3
Glenelg N-49	3609.63	3609.63	UM	38	Tourmaline	34.97	0.40	32.42	0.00	9.85	0.00	4.57	0.18	1.94	0.00	0.00	0.00	0.00	0.00	0.00	84.33	1
Glenelg N-49	3609.63	3609.63	UM	39	Tourmaline	35.57	1.04	32.88	0.00	5.74	0.00	6.96	0.58	1.81	0.00	0.00	0.00	0.00	0.00	0.00	84.58	1
Glenelg N-49	3613.60	3613.60	UM	71	Tourmaline	35.10	0.77	33.63	0.00	7.45	0.00	4.88	0.00	1.89	0.00	0.00	0.00	0.00	0.00	0.00	83.72	1
Glenelg N-49	3613.60	3613.60	UM	65	Tourmaline	35.59	0.00	30.49	0.00	5.88	0.00	9.03	0.69	2.16	0.00	0.00	0.00	0.00	0.00	0.00	83.85	1
Glenelg N-49	3613.60	3613.60	UM	67	Tourmaline	35.08	1.58	32.28	0.00	6.68	0.00	6.01	0.68	1.73	0.00	0.00	0.00	0.00	0.00	0.00	84.04	4
Glenelg N-49	3613.60	3613.60	UM	64	Tourmaline	36.27	0.00	30.85	0.00	5.38	0.00	9.21	0.00	2.37	0.00	0.00	0.00	0.00	0.00	0.00	84.06	4
Glenelg N-49	3613.60	3613.60	UM	70	Tourmaline	35.73	0.62	33.94	0.00	6.32	0.00	5.68	0.45	1.60	0.00	0.00	0.00	0.00	0.00	0.00	84.34	3
Glenelg N-49	3641.50	3641.50	UM	76	Tourmaline	34.86	0.92	33.56	0.00	7.14	0.00	5.54	0.53	1.73	0.00	0.00	0.00	0.00	0.00	0.00	84.27	4
Glenelg N-49	3667.33	3667.33	UM	249	Tourmaline	35.80	0.00	32.47	0.00	10.34	0.00	4.41	0.44	1.98	0.00	0.00	0.00	0.00	0.00	0.00	85.44	4
Hermine E-94	1484.38	1484.38	LCE	105	Tourmaline	36.35	0.62	33.32	0.00	5.57	0.00	7.29	0.95	2.06	0.04						86.21	4
Hermine E-94	1484.38	1484.38	LCE	106	Tourmaline	36.26	0.83	33.53	0.22	5.67	0.00	6.93	0.94	1.98	0.04						86.41	4
Hermine E-94	1484.38	1484.38	LCE	107	Tourmaline	34.69	0.63	35.19	0.18	7.16	0.00	5.01	1.00	1.85	0.07						85.78	4
Hermine E-94	1484.38	1484.38	LCE	108	Tourmaline	34.83	0.64	35.33	0.06	7.14	0.00	5.09	1.01	1.86	0.07						86.02	4
Hermine E-94	1484.38	1484.38	LCE	109	Tourmaline	36.07	0.37	33.34	0.00	8.08	0.00	5.90	0.47	2.16	0.03						86.42	1
Hermine E-94	1484.38	1484.38	LCE	110	Tourmaline	36.14	0.34	33.05	0.00	8.21	0.01	5.87	0.37	2.23	0.03						86.26	4
Hermine E-94	1484.38	1484.38	LCE	111	Tourmaline	36.02	0.70	34.88	0.00	8.55	0.05	4.43	0.34	1.94	0.05						86.97	4
Hermine E-94	1484.38	1484.38	LCE	112	Tourmaline	35.75	0.72	34.78	0.00	8.60	0.07	4.35	0.36	1.92	0.05						86.61	4
Hermine E-94	1484.38	1484.38	LCE	113	Tourmaline	36.49	1.02	33.55	0.00	5.62	0.00	6.84	0.26	1.82	0.02						85.61	1
Hermine E-94	1484.38	1484.38	LCE	114	Tourmaline	36.71	0.62	35.14	0.00	4.22	0.00	7.01	0.44	2.08	0.06						86.29	1
Hermine E-94	1484.38	1484.38	LCE	115	Tourmaline	36.36	0.12	31.87	0.00	9.36	0.00	5.94	0.09	2.34	0.02						86.11	4
Hermine E-94	1484.38	1484.38	LCE	116	Tourmaline	36.41	0.38	31.55	0.00	9.19	0.01	6.12	0.24	2.34	0.03						86.27	4
Hermine E-94	1484.38	1484.38	LCE	117	Tourmaline	36.83	0.56	33.16	0.00	4.94	0.01	7.53	0.93	2.14	0.02						86.11	4
Hermine E-94	1484.38	1484.38	LCE	118	Tourmaline	36.92	0.46	33.03	0.00	5.36	0.00	7.55	0.84	2.21	0.03						86.38	4
Hermine E-94	1484.38	1484.38	LCE	119	Tourmaline	35.88	0.28	33.48	0.00	7.46	0.02	6.16	0.59	2.08	0.05						85.99	1

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Hermine E-94	1484.38	1484.38	LCE	120	Tourmaline	36.07	0.35	32.97	0.00	7.92	0.04	6.18	0.71	2.03	0.03						86.30	4
Hermine E-94	1505.71	1505.71	LCE	121	Tourmaline	36.05	0.64	32.07	0.00	6.15	0.00	8.01	1.40	2.03	0.06						86.41	4
Hermine E-94	1505.71	1505.71	LCE	122	Tourmaline	36.17	0.61	32.21	0.03	6.25	0.00	7.95	1.47	1.94	0.07						86.70	4
Hermine E-94	1505.71	1505.71	LCE	123	Tourmaline	36.14	0.80	33.24	0.00	6.62	0.00	6.79	0.43	2.49	0.02						86.52	4
Hermine E-94	1505.71	1505.71	LCE	124	Tourmaline	35.87	1.00	34.16	0.08	7.94	0.00	5.58	0.49	2.31	0.06						87.49	1
Hermine E-94	1505.71	1505.71	LCE	125	Tourmaline	36.33	0.41	31.53	0.00	7.56	0.00	7.51	0.80	2.47	0.04						86.65	4
Hermine E-94	1505.71	1505.71	LCE	126	Tourmaline	36.35	0.52	30.83	0.00	8.04	0.00	7.51	0.57	2.62	0.03						86.47	4
Hermine E-94	1505.71	1505.71	LCE	127	Tourmaline	35.63	0.50	31.76	0.00	9.11	0.03	6.37	1.17	2.06	0.08						86.70	4
Hermine E-94	1505.71	1505.71	LCE	128	Tourmaline	35.86	0.56	31.89	0.00	9.08	0.05	6.44	1.12	2.13	0.08						87.20	4
Hermine E-94	1505.71	1505.71	LCE	129	Tourmaline	35.37	1.22	34.15	0.07	8.70	0.02	4.53	0.78	1.86	0.06						86.76	4
Hermine E-94	1505.71	1505.71	LCE	130	Tourmaline	35.44	1.09	34.54	0.08	8.55	0.02	4.49	0.73	1.82	0.05						86.81	4
Hermine E-94	1505.71	1505.71	LCE	131	Tourmaline	36.19	0.25	32.30	0.00	7.27	0.00	7.53	0.90	2.24	0.03						86.71	4
Hermine E-94	1505.71	1505.71	LCE	132	Tourmaline	36.89	0.29	31.77	0.00	6.96	0.00	7.82	0.77	2.40	0.04						86.94	4
Hermine E-94	1505.71	1505.71	LCE	133	Tourmaline	35.71	0.55	35.26	0.00	9.85	0.03	3.69	0.27	1.99	0.05						87.39	4
Hermine E-94	1505.71	1505.71	LCE	134	Tourmaline	35.58	0.54	35.27	0.00	9.92	0.04	3.64	0.27	1.96	0.05						87.27	4
Hermine E-94	1505.71	1505.71	LCE	135	Tourmaline	35.67	0.67	34.54	0.00	8.66	0.04	4.97	0.74	1.80	0.06						87.16	4
Hermine E-94	1505.71	1505.71	LCE	136	Tourmaline	35.73	0.54	35.56	0.02	8.81	0.06	4.58	0.74	1.65	0.06						87.75	4
Hermine E-94	1505.71	1505.71	LCE	137	Tourmaline	36.09	0.85	34.83	0.01	6.63	0.00	5.78	0.48	2.25	0.07						86.99	3
Hermine E-94	1505.71	1505.71	LCE	138	Tourmaline	36.14	0.90	34.89	0.02	6.68	0.00	5.88	0.53	2.22	0.08						87.34	3
Hermine E-94	1505.71	1505.71	LCE	139	Tourmaline	35.18	0.43	34.20	0.00	12.86	0.23	2.26	0.11	2.15	0.05						87.49	4
Hermine E-94	1505.71	1505.71	LCE	140	Tourmaline	34.94	0.44	34.00	0.00	12.80	0.24	2.18	0.09	2.20	0.06						86.93	4
Jason C-20	3940.00	3940H	LCC	1	Tourmaline	34.86	0.40	33.69	0.00	7.86	0.04	4.32	0.09	2.01	0.00	0.01			0.00		83.28	1
Jason C-20	4910.00	4910H	MM	1	Tourmaline	35.85	0.13	30.31	0.00	11.10	0.13	6.49	1.26	1.91	0.00	0.03			0.00		87.21	1
Jason C-20	4910.00	4910H	MM	2	Tourmaline	34.21	0.50	21.81	0.00	19.43	0.13	6.69	1.65	1.92	0.00	0.00			0.00		86.34	4
Jason C-20	4910.00	4910H	MM	3	Tourmaline	34.93	0.13	27.27	0.00	14.34	0.12	6.32	1.44	1.97	0.00	0.00			0.00		86.52	4
Jason C-20	4910.00	4910H	MM	1	Tourmaline	36.07	0.08	34.75	0.00	10.19	0.11	2.99	0.05	1.51	0.00	0.00			0.00		85.75	4
Jason C-20	4910.00	4910H	MM	2	Tourmaline	36.49	0.09	35.03	0.00	10.25	0.10	3.15	0.07	1.60	0.00	0.01			0.00		86.80	4
Jason C-20	6480.00	6480H	MMC	2	Tourmaline	24.25	0.00	23.01	0.00	27.58	0.01	13.26	0.00	0.00	0.00	0.00			0.00		88.12	4
Louisbourg J-47	4408.09	4408.09	MMC	145	Tourmaline	36.73	0.65	34.57	0.02	5.65	0.00	6.62	0.41	2.09	0.04						86.78	4
Louisbourg J-47	4408.09	4408.09	MMC	146	Tourmaline	36.64	0.77	34.72	0.02	5.70	0.00	6.54	0.43	2.07	0.04						86.93	3
Louisbourg J-47	4408.09	4408.09	MMC	147	Tourmaline	35.41	0.64	34.87	0.00	9.64	0.05	3.58	0.30	1.92	0.07						86.50	4
Louisbourg J-47	4408.09	4408.09	MMC	148	Tourmaline	35.62	0.62	34.27	0.00	9.77	0.03	3.63	0.27	1.97	0.09						86.27	1
Musquodoboit E-23	1270.00	1270.00	DC	3	Tourmaline	34.57	0.30	31.56	0.00	10.90	0.04	4.98	0.40	2.28	0.04	0.00		0.16	0.00	0.00	85.24	1
Musquodoboit E-23	1270.00	1270.00	DC	4	Tourmaline	35.05	0.34	32.79	0.00	9.43	0.02	5.21	0.34	2.11	0.02	0.00		0.14	0.00	0.00	85.45	1
Musquodoboit E-23	1375.00	1375.00	TLC	9	Tourmaline	34.22	0.50	31.40	0.00	12.85	0.93	2.42	0.34	2.44	0.07	0.02		0.15	0.00	0.00	85.33	1
Musquodoboit E-23	1375.00	1375.00	TLC	10	Tourmaline	34.23	0.49	31.52	0.01	12.50	0.93	2.31	0.27	2.43	0.06	0.00		0.17	0.00	0.00	84.92	3
Musquodoboit E-23	1375.00	1375.00	TLC	11	Tourmaline	34.41	0.11	35.23	0.00	13.35	0.16	0.80	0.04	1.76	0.05	0.02		0.15	0.00	0.00	86.06	3
Musquodoboit E-23	1375.00	1375.00	TLC	12	Tourmaline	34.08	0.12	35.20	0.00	13.29	0.16	0.78	0.05	1.75	0.06	0.02		0.14	0.00	0.00	85.65	4
Musquodoboit E-23	1375.00	1375.00	TLC	13	Tourmaline	35.90	0.36	33.84	0.00	6.85	0.02	6.00	0.06	2.03	0.03	0.00		0.16	0.00	0.00	85.24	4
Musquodoboit E-23	1375.00	1375.00	TLC	14	Tourmaline	36.03	0.89	32.93	0.00	7.08	0.02	6.22	0.10	2.28	0.04	0.02		0.15	0.00	0.00	85.75	4
Musquodoboit E-23	1800.00	1800.00	LCC	19	Tourmaline	36.09	0.88	35.06	0.00	6.00	0.00	5.74	0.29	1.85	0.02	0.00		0.17	0.00	0.00	86.10	4

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	1800.00	1800.00	LCC	20	Tourmaline	36.21	0.82	35.09	0.00	5.93	0.00	5.85	0.31	1.84	0.03	0.00		0.15	0.00	0.00	86.24	4
Musquodoboit E-23	1800.00	1800.00	LCC	25	Tourmaline	34.39	0.35	34.94	0.00	10.50	0.05	2.97	0.58	1.73	0.05	0.00		0.15	0.00	0.00	85.73	4
Musquodoboit E-23	1800.00	1800.00	LCC	26	Tourmaline	34.70	0.42	34.78	0.00	11.02	0.08	2.76	0.54	1.75	0.04	0.00		0.14	0.00	0.00	86.25	4
Musquodoboit E-23	1800.00	1800.00	LCC	29	Tourmaline	35.66	0.53	34.04	0.00	8.12	0.01	5.03	0.41	1.99	0.02	0.00		0.17	0.00	0.00	85.97	4
Musquodoboit E-23	1800.00	1800.00	LCC	30	Tourmaline	35.43	0.48	34.07	0.00	8.25	0.00	5.06	0.51	2.01	0.03	0.00		0.18	0.00	0.00	86.01	4
Musquodoboit E-23	1800.00	1800.00	LCC	31	Tourmaline	35.65	0.84	34.89	0.00	5.56	0.00	6.15	0.61	1.66	0.02	0.00		0.20	0.00	0.00	85.59	4
Musquodoboit E-23	1800.00	1800.00	LCC	32	Tourmaline	36.15	0.78	34.68	0.01	5.74	0.00	6.18	0.56	1.65	0.00	0.00		0.14	0.00	0.00	85.89	4
Musquodoboit E-23	1800.00	1800.00	LCC	44	Tourmaline	36.00	0.66	34.44	0.00	5.29	0.00	6.60	0.63	1.84	0.02	0.00		0.12	0.00	0.00	85.61	4
Musquodoboit E-23	1800.00	1800.00	LCC	45	Tourmaline	35.92	0.70	34.84	0.00	5.38	0.00	6.61	0.65	1.85	0.01	0.00		0.16	0.00	0.00	86.12	4
Musquodoboit E-23	1800.00	1800.00	LCC	46	Tourmaline	35.30	0.81	35.07	0.00	7.17	0.01	4.71	0.38	1.80	0.04	0.00		0.13	0.00	0.00	85.43	4
Musquodoboit E-23	1800.00	1800.00	LCC	47	Tourmaline	35.83	0.65	35.80	0.00	7.47	0.00	4.37	0.30	1.77	0.04	0.00		0.16	0.00	0.00	86.39	4
Musquodoboit E-23	1800.00	1800.00	LCC	48	Tourmaline	34.46	0.62	27.18	0.00	13.63	0.11	5.57	1.52	1.95	0.10	0.00		0.17	0.00	0.00	85.30	4
Musquodoboit E-23	1800.00	1800.00	LCC	49	Tourmaline	34.44	0.62	27.08	0.00	13.99	0.11	5.62	1.42	1.97	0.09	0.00		0.18	0.00	0.00	85.52	3
Musquodoboit E-23	1800.00	1800.00	LCC	60	Tourmaline	35.37	0.55	34.69	0.00	9.87	0.06	2.96	0.03	1.78	0.03	0.01		0.13	0.00	0.00	85.49	3
Musquodoboit E-23	1800.00	1800.00	LCC	61	Tourmaline	35.41	0.12	35.29	0.00	11.14	0.04	2.06	0.04	1.64	0.02	0.00		0.12	0.00	0.00	85.87	1
Musquodoboit E-23	1800.00	1800.00	LCC	62	Tourmaline	35.83	0.69	34.31	0.00	6.17	0.00	6.05	0.33	1.94	0.02	0.00		0.15	0.00	0.00	85.50	1
Musquodoboit E-23	1800.00	1800.00	LCC	63	Tourmaline	35.88	0.66	34.40	0.00	5.80	0.00	6.18	0.30	1.98	0.00	0.00		0.15	0.00	0.00	85.34	4
Musquodoboit E-23	2190.00	2190.00	LCCl	1	Tourmaline	35.56	0.24	31.80	0.00	7.63	0.05	7.01	0.70	2.00	0.05	0.00		0.14	0.00	0.00	85.17	4
Musquodoboit E-23	2190.00	2190.00	LCCl	2	Tourmaline	35.21	0.26	32.32	0.00	7.64	0.07	6.70	0.52	2.07	0.06	0.00		0.14	0.00	0.00	85.00	1
Musquodoboit E-23	2190.00	2190.00	LCCl	29	Tourmaline	35.59	0.42	32.84	0.00	6.42	0.01	6.87	0.25	2.33	0.05	0.00		0.12	0.00	0.00	84.89	1
Musquodoboit E-23	2190.00	2190.00	LCCl	30	Tourmaline	35.75	0.38	32.94	0.00	6.25	0.01	6.86	0.22	2.32	0.03	0.00		0.11	0.00	0.00	84.88	1
Musquodoboit E-23	2500.00	2500A	UM	5	Tourmaline	35.18	0.20	33.10	0.00	7.20	0.04	6.96	1.01	1.83	0.06	0.00		0.15	0.00	0.00	85.72	4
Musquodoboit E-23	2500.00	2500A	UM	6	Tourmaline	35.00	0.20	32.81	0.00	7.20	0.06	6.96	1.01	1.81	0.04	0.00		0.15	0.00	0.00	85.24	4
Musquodoboit E-23	2500.00	2500A	UM	13	Tourmaline	34.46	0.10	34.25	0.00	11.98	0.06	2.16	0.20	1.91	0.06	0.05		0.09	0.00	0.00	85.32	3
Musquodoboit E-23	2500.00	2500A	UM	14	Tourmaline	34.32	0.13	34.17	0.00	12.23	0.10	2.19	0.22	1.91	0.05	0.02		0.15	0.00	0.00	85.48	4
Musquodoboit E-23	2500.00	2500B	UM	7	Tourmaline	34.97	0.17	34.76	0.00	11.84	0.15	1.96	0.08	1.74	0.05	0.00		0.12	0.00	0.00	85.85	3
Musquodoboit E-23	2500.00	2500B	UM	8	Tourmaline	34.94	0.20	34.76	0.00	11.89	0.16	2.02	0.10	1.86	0.05	0.00		0.11	0.00	0.00	86.09	4
Musquodoboit E-23	2500.00	2500B	UM	13	Tourmaline	35.34	0.93	34.73	0.00	7.19	0.03	5.13	0.53	1.82	0.05	0.00		0.10	0.00	0.00	85.85	4
Musquodoboit E-23	2500.00	2500B	UM	14	Tourmaline	35.44	0.88	34.78	0.00	7.21	0.05	4.94	0.50	1.79	0.05	0.00		0.12	0.00	0.00	85.75	1
Musquodoboit E-23	2600.00	2600.00	MM	39	Tourmaline	35.13	0.98	33.53	0.00	8.22	0.07	5.29	0.52	1.91	0.04	0.00		0.11	0.00	0.00	85.81	4
Musquodoboit E-23	2600.00	2600.00	MM	40	Tourmaline	35.20	0.95	33.37	0.00	8.39	0.09	5.27	0.48	1.95	0.05	0.00		0.08	0.00	0.00	85.82	4
Musquodoboit E-23	2600.00	2600.00	MM	43	Tourmaline	35.62	0.45	35.37	0.00	5.68	0.02	6.13	0.56	1.88	0.04	0.00		0.08	0.00	0.00	85.83	4
Musquodoboit E-23	2600.00	2600.00	MM	44	Tourmaline	35.23	0.60	35.38	0.00	5.75	0.00	6.22	0.84	1.90	0.05	0.00		0.09	0.00	0.00	86.06	4
Musquodoboit E-23	2600.00	2600.00	MM	45	Tourmaline	33.76	2.24	30.26	0.01	13.78	0.03	3.44	0.25	1.99	0.03	0.00		0.24	0.00	0.01	86.03	4
Musquodoboit E-23	2800.00	2800.00	MM	7	Tourmaline	35.21	0.33	36.60	0.00	8.05	0.00	4.13	0.50	1.72	0.09	0.01		0.11	0.00	0.00	86.75	4
Musquodoboit E-23	2800.00	2800.00	MM	8	Tourmaline	36.01	0.26	34.34	0.00	8.51	0.01	5.08	0.42	1.91	0.07	0.04		0.13	0.00	0.00	86.80	1
Musquodoboit E-23	2800.00	2800.00	MM	9	Tourmaline	35.53	0.35	33.58	0.00	8.71	0.12	5.47	0.62	1.95	0.07	0.00		0.12	0.00	0.00	86.51	1
Musquodoboit E-23	2800.00	2800.00	MM	10	Tourmaline	35.32	0.33	33.46	0.00	8.78	0.10	5.47	0.60	1.92	0.07	0.00		0.11	0.00	0.00	86.16	4
Musquodoboit E-23	2800.00	2800.00	MM	11	Tourmaline	35.54	0.40	34.89	0.00	10.32	0.02	3.69	0.32	2.06	0.07	0.01		0.12	0.00	0.00	87.44	4
Musquodoboit E-23	2800.00	2800.00	MM	12	Tourmaline	35.34	0.93	34.57	0.00	9.17	0.00	4.50	0.51	2.08	0.07	0.00		0.09	0.00	0.00	87.26	4
Musquodoboit E-23	2800.00	2800.00	MM	17	Tourmaline	35.91	1.13	33.53	0.00	7.50	0.01	5.77	0.81	1.75	0.05	0.00		0.12	0.00	0.00	86.57	4

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	2800.00	2800.00	MM	18	Tourmaline	35.41	1.23	33.76	0.00	7.68	0.02	5.85	0.92	1.75	0.06	0.00		0.14	0.00	0.00	86.81	4
Musquodoboit E-23	2800.00	2800.00	MM	19	Tourmaline	35.02	0.71	35.31	0.23	8.66	0.00	3.62	0.48	1.71	0.05	0.00		0.13	0.00	0.00	85.94	4
Musquodoboit E-23	2800.00	2800.00	MM	20	Tourmaline	35.37	0.71	35.45	0.45	8.62	0.00	3.62	0.43	1.70	0.05	0.00		0.16	0.00	0.00	86.56	4
Musquodoboit E-23	2800.00	2800.00	MM	21	Tourmaline	36.48	0.12	35.84	0.00	9.00	0.00	3.99	0.14	1.05	0.04	0.01		0.22	0.00	0.00	86.90	4
Musquodoboit E-23	2800.00	2800.00	MM	22	Tourmaline	36.49	0.14	35.92	0.00	8.10	0.00	4.56	0.19	1.20	0.01	0.00		0.29	0.00	0.00	86.91	4
Musquodoboit E-23	2800.00	2800.00	MM	23	Tourmaline	35.43	0.81	34.97	0.00	7.39	0.01	5.48	1.02	1.67	0.05	0.00		0.11	0.00	0.00	86.94	4
Musquodoboit E-23	2800.00	2800.00	MM	24	Tourmaline	35.34	0.84	34.99	0.00	7.29	0.00	5.56	0.99	1.66	0.06	0.00		0.16	0.00	0.00	86.90	4
Musquodoboit E-23	2800.00	2800.00	MM	27	Tourmaline	35.57	0.85	34.02	0.00	9.65	0.00	4.37	0.24	2.06	0.05	0.00		0.13	0.00	0.00	86.93	4
Musquodoboit E-23	2800.00	2800.00	MM	28	Tourmaline	35.49	0.77	33.78	0.00	9.88	0.00	4.30	0.26	2.09	0.06	0.00		0.13	0.00	0.00	86.76	4
Musquodoboit E-23	2800.00	2800.00	MM	29	Tourmaline	35.46	0.38	35.26	0.00	9.24	0.03	3.82	0.14	1.92	0.04	0.00		0.15	0.00	0.00	86.45	4
Musquodoboit E-23	2800.00	2800.00	MM	30	Tourmaline	35.48	0.39	35.30	0.00	9.35	0.05	3.91	0.15	1.92	0.04	0.00		0.12	0.00	0.00	86.71	4
Musquodoboit E-23	2800.00	2800.00	MM	31	Tourmaline	35.67	0.72	35.86	0.00	5.27	0.00	6.23	0.83	1.71	0.10	0.01		0.07	0.00	0.00	86.47	4
Musquodoboit E-23	2800.00	2800.00	MM	32	Tourmaline	36.09	0.27	36.71	0.00	5.60	0.00	5.79	0.49	1.64	0.05	0.00		0.16	0.00	0.00	86.80	1
Musquodoboit E-23	2800.00	2800.00	MM	33	Tourmaline	35.09	1.12	34.64	0.00	10.55	0.00	3.28	0.13	1.98	0.04	0.00		0.17	0.00	0.00	87.00	1
Musquodoboit E-23	2800.00	2800.00	MM	34	Tourmaline	35.18	1.17	34.91	0.00	10.36	0.02	3.16	0.19	1.81	0.03	0.01		0.11	0.00	0.00	86.95	4
Musquodoboit E-23	2800.00	2800.00	MM	35	Tourmaline	35.62	0.75	35.41	0.00	5.91	0.00	6.17	0.64	1.87	0.06	0.00		0.12	0.00	0.00	86.54	4
Musquodoboit E-23	2800.00	2800.00	MM	36	Tourmaline	35.85	0.73	34.71	0.00	6.16	0.00	6.30	0.89	1.88	0.06	0.00		0.13	0.00	0.00	86.71	1
Musquodoboit E-23	2800.00	2800.00	MM	41	Tourmaline	36.04	0.66	33.94	0.00	6.36	0.00	6.80	0.66	1.92	0.03	0.00		0.17	0.00	0.00	86.58	1
Musquodoboit E-23	2800.00	2800.00	MM	42	Tourmaline	35.81	0.48	35.35	0.00	5.32	0.00	6.67	0.63	1.81	0.03	0.00		0.14	0.00	0.00	86.23	4
Musquodoboit E-23	2800.00	2800.00	MM	43	Tourmaline	35.77	0.40	32.59	0.00	6.09	0.00	7.95	0.90	2.17	0.12	0.00		0.14	0.00	0.00	86.13	1
Musquodoboit E-23	2800.00	2800.00	MM	44	Tourmaline	35.71	0.55	31.15	0.00	7.35	0.00	7.86	0.50	2.41	0.04	0.00		0.19	0.00	0.00	85.75	4
Musquodoboit E-23	2800.00	2800.00	MM	49	Tourmaline	34.23	0.83	28.49	0.00	15.20	0.02	4.49	2.69	1.33	0.09	0.02		0.18	0.00	0.01	87.56	4
Musquodoboit E-23	2800.00	2800.00	MM	50	Tourmaline	34.51	0.96	27.31	0.01	15.96	0.02	4.90	2.49	1.41	0.08	0.01		0.22	0.00	0.02	87.88	1
Musquodoboit E-23	2800.00	2800.00	MM	53	Tourmaline	35.79	0.57	32.31	0.02	7.55	0.00	7.22	0.47	2.38	0.02	0.00		0.15	0.00	0.00	86.49	1
Musquodoboit E-23	2800.00	2800.00	MM	54	Tourmaline	35.51	0.56	33.71	0.02	8.20	0.00	6.05	0.63	1.91	0.02	0.00		0.19	0.00	0.00	86.80	1
Musquodoboit E-23	2800.00	2800.00	MM	55	Tourmaline	35.26	0.65	33.11	0.13	6.25	0.00	7.10	1.05	1.76	0.02	0.01		0.18	0.00	0.00	85.51	4
Musquodoboit E-23	2800.00	2800.00	MM	56	Tourmaline	35.31	0.60	33.92	0.09	6.29	0.00	7.00	1.08	1.75	0.00	0.02		0.16	0.00	0.00	86.23	2
Musquodoboit E-23	2800.00	2800.00	MM	57	Tourmaline	36.42	0.74	35.66	0.00	4.99	0.02	6.81	0.47	1.90	0.03	0.03		0.17	0.00	0.00	87.23	2
Musquodoboit E-23	2800.00	2800.00	MM	58	Tourmaline	36.16	0.67	35.55	0.00	5.00	0.03	6.69	0.39	1.91	0.01	0.01		0.19	0.00	0.00	86.63	1
Musquodoboit E-23	2800.00	2800.00	MM	67	Tourmaline	35.23	1.07	34.81	0.00	8.07	0.04	5.10	0.74	1.70	0.05	0.03		0.19	0.00	0.00	87.03	1
Musquodoboit E-23	2800.00	2800.00	MM	68	Tourmaline	35.37	1.06	35.02	0.00	7.92	0.04	4.99	0.76	1.70	0.05	0.03		0.16	0.00	0.00	87.09	2
Musquodoboit E-23	2800.00	2800.00	MM	69	Tourmaline	36.03	0.98	34.21	0.15	7.51	0.03	5.89	0.96	1.63	0.02	0.01		0.23	0.00	0.00	87.65	4
Musquodoboit E-23	2800.00	2800.00	MM	70	Tourmaline	35.67	1.04	34.71	0.11	7.32	0.03	5.76	0.87	1.60	0.03	0.00		0.22	0.00	0.00	87.36	4
Musquodoboit E-23	2800.00	2800.00	MM	71	Tourmaline	35.87	0.26	33.23	0.00	7.06	0.06	7.14	0.53	2.10	0.03	0.00		0.20	0.00	0.00	86.48	1
Musquodoboit E-23	2800.00	2800.00	MM	72	Tourmaline	35.49	0.32	33.42	0.01	7.27	0.05	6.86	0.53	2.09	0.03	0.01		0.17	0.00	0.00	86.27	1
Musquodoboit E-23	2800.00	2800.00	MM	79	Tourmaline	34.98	0.22	33.56	0.00	11.45	0.33	3.48	0.14	2.11	0.05	0.02		0.19	0.00	0.00	86.53	4
Musquodoboit E-23	2800.00	2800.00	MM	80	Tourmaline	35.52	0.21	33.63	0.00	11.59	0.33	3.49	0.14	2.12	0.04	0.00		0.18	0.00	0.00	87.26	4
Musquodoboit E-23	2800.00	2800.00	MM	83	Tourmaline	36.00	0.72	35.39	0.02	6.44	0.01	5.63	0.23	1.95	0.02	0.01		0.17	0.00	0.00	86.58	1
Musquodoboit E-23	2800.00	2800.00	MM	84	Tourmaline	35.91	0.74	35.27	0.01	6.82	0.00	5.75	0.29	1.89	0.02	0.03		0.18	0.00	0.00	86.91	1
Musquodoboit E-23	2800.00	2800.00	MM	85	Tourmaline	35.46	1.50	33.34	0.00	8.02	0.06	5.79	0.68	1.85	0.03	0.02		0.17	0.00	0.00	86.91	1
Musquodoboit E-23	2800.00	2800.00	MM	86	Tourmaline	35.26	1.35	33.29	0.01	8.36	0.04	5.26	0.81	1.76	0.02	0.01		0.22	0.00	0.00	86.38	1

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Musquodoboit E-23	2800.00	2800.00	MM	87	Tourmaline	36.13	0.67	33.21	0.00	7.42	0.05	6.50	0.78	2.01	0.03	0.02		0.21	0.00	0.00	87.01	4
Musquodoboit E-23	2800.00	2800.00	MM	88	Tourmaline	35.61	1.90	31.35	0.03	7.87	0.05	6.63	0.94	1.83	0.03	0.00		0.18	0.00	0.01	86.43	4
Musquodoboit E-23	2800.00	2800.00	MM	96	Tourmaline	35.95	0.35	33.22	0.00	7.12	0.05	7.23	0.92	1.96	0.02	0.00		0.16	0.00	0.00	86.98	4
Musquodoboit E-23	2800.00	2800.00	MM	97	Tourmaline	35.87	0.26	33.81	0.00	7.00	0.04	6.97	0.66	1.91	0.01	0.00		0.19	0.00	0.00	86.72	4
Naskapi N-30	1467.96	1467.96	UM	476	Tourmaline	35.73	1.02	29.07	0.06	8.56	0.03	6.68	1.71	1.69	0.02						84.57	1
Naskapi N-30	1467.96	1467.96	UM	477	Tourmaline	36.58	0.63	30.38	0.07	5.41	0.00	8.53	0.45	2.65	0.00						84.70	1
Naskapi N-30	1467.96	1467.96	UM	478	Tourmaline	35.58	0.95	29.85	0.12	9.04	0.00	6.57	1.32	1.92	0.00						85.35	4
Naskapi N-30	1467.96	1467.96	UM	482	Tourmaline	35.97	1.10	31.10	0.03	8.62	0.00	5.45	0.75	1.82	0.00						84.84	4
Naskapi N-30	1467.96	1467.96	UM	483	Tourmaline	36.73	0.10	33.69	0.02	7.21	0.05	5.45	0.16	2.31	0.02						85.74	4
Naskapi N-30	1468.65	1468.65	UM	479	Tourmaline	35.97	0.63	33.97	0.03	5.86	0.00	5.68	0.35	1.92	0.02						84.43	4
Naskapi N-30	1468.65	1468.65	UM	480	Tourmaline	36.34	0.58	32.22	0.03	6.39	0.04	6.48	0.05	2.43	0.02						84.58	4
Naskapi N-30	1469.00	1469.00	UM	484	Tourmaline	34.60	0.71	32.30	0.00	14.00	0.12	1.55	0.19	1.95	0.00						85.42	4
Naskapi N-30	1469.00	1469.00	UM	485	Tourmaline	35.46	0.70	32.48	0.01	9.06	0.06	4.91	0.24	2.30	0.00						85.22	1
Naskapi N-30	1469.89	1469.89	UM	495	Tourmaline	35.00	0.47	32.36	0.02	9.02	0.09	5.15	0.23	2.19	0.05						84.58	1
Naskapi N-30	1469.89	1469.89	UM	496	Tourmaline	35.70	0.79	31.01	0.04	7.95	0.00	6.10	0.82	1.94	0.05						84.40	2
Naskapi N-30	1469.89	1469.89	UM	570	Tourmaline	34.46	0.36	30.93	0.02	7.89	0.00	6.19	0.50	2.23	0.01						82.59	2
Naskapi N-30	1469.89	1469.89	UM	571	Tourmaline	36.11	0.29	34.71	0.01	5.93	0.03	5.50	0.43	1.75	0.02						84.78	1
Naskapi N-30	1469.89	1469.89	UM	572	Tourmaline	35.49	0.59	30.76	0.03	10.66	0.04	5.01	0.10	2.49	0.04						85.21	1
Naskapi N-30	1469.89	1469.89	UM	573	Tourmaline	35.48	0.75	32.83	0.00	9.03	0.09	4.32	0.11	2.10	0.04						84.75	4
Naskapi N-30	1469.89	1469.89	UM	299	Tourmaline	35.90	0.63	33.82	0.00	7.57	0.07	5.75	0.14	2.33	0.06	0.00		0.02	0.00	0.04	86.32	4
Naskapi N-30	1469.89	1469.89	UM	300	Tourmaline	35.79	0.56	34.08	0.00	7.58	0.06	5.83	0.14	2.32	0.06	0.03		0.00	0.00	0.06	86.51	4
Naskapi N-30	1470.50	1470.50	UM	486	Tourmaline	34.49	0.64	32.68	0.05	8.23	0.00	5.40	0.80	1.87	0.04						84.20	4
Naskapi N-30	1470.50	1470.50	UM	487	Tourmaline	34.92	0.21	33.67	0.00	9.00	0.12	3.39	0.06	2.19	0.05						83.61	4
Naskapi N-30	1470.50	1470.50	UM	488	Tourmaline	35.44	0.66	29.54	0.09	7.58	0.02	6.75	0.86	2.14	0.02						83.10	4
Naskapi N-30	1470.50	1470.50	UM	489	Tourmaline	35.51	2.07	30.87	0.03	6.65	0.00	6.36	0.59	1.96	0.07						84.11	4
Naskapi N-30	1470.50	1470.50	UM	490	Tourmaline	35.65	0.88	32.95	0.04	5.79	0.00	6.42	0.52	1.97	0.00						84.22	4
Naskapi N-30	1471.75	1471.75	UM	574	Tourmaline	36.95	0.38	34.55	0.00	5.64	0.00	6.57	0.47	2.10	0.00						86.66	1
Naskapi N-30	1472.25	1472.25	UM	567	Tourmaline	36.33	0.28	31.48	0.04	8.25	0.00	5.96	0.37	2.02	0.00						84.73	1
Naskapi N-30	1472.25	1472.25	UM	568	Tourmaline	36.38	0.27	31.32	0.03	8.61	0.05	5.92	0.39	2.15	0.00						85.12	1
Naskapi N-30	1472.25	1472.25	UM	569	Tourmaline	35.62	0.14	31.56	0.01	10.69	0.01	4.18	0.04	1.92	0.00						84.17	1
Naskapi N-30	1473.61	1473.61	UM	491	Tourmaline	35.64	0.16	32.30	0.01	7.93	0.10	5.73	0.18	2.02	0.02						84.09	4
Naskapi N-30	1473.61	1473.61	UM	492	Tourmaline	34.73	0.64	32.66	0.01	8.18	0.02	4.77	0.10	2.23	0.02						83.36	4
Naskapi N-30	1473.81	1473.81	UM	493	Tourmaline	34.18	0.41	34.61	0.03	7.93	0.02	4.22	0.52	1.60	0.05						83.57	4
Naskapi N-30	1473.81	1473.81	UM	494	Tourmaline	33.82	2.84	30.33	0.03	9.24	0.02	4.95	0.61	1.97	0.05						83.86	4
Naskapi N-30	1473.81	1473.81H	UM	100	Tourmaline	35.19	0.50	34.04	0.00	7.65	0.00	5.36	0.49	1.91	0.01	0.00		0.00	0.00	0.16	85.30	4
Naskapi N-30	1473.81	1473.81H	UM	101	Tourmaline	34.88	0.81	33.89	0.00	7.58	0.01	5.38	0.50	1.98	0.03	0.00		0.00	0.00	0.17	85.23	4
Naskapi N-30	1473.81	1473.81H	UM	108	Tourmaline	35.62	0.62	33.66	0.00	6.80	0.00	6.01	0.40	2.02	0.02	0.02		0.00	0.00	0.14	85.32	1
Naskapi N-30	1473.81	1473.81H	UM	109	Tourmaline	35.55	1.07	33.27	0.00	6.60	0.00	6.44	0.50	2.10	0.03	0.00		0.00	0.00	0.19	85.75	1
Naskapi N-30	1473.81	1473.81H	UM	114	Tourmaline	35.97	0.26	35.25	0.00	7.07	0.01	5.15	0.20	1.66	0.01	0.00		0.00	0.00	0.14	85.72	4
Naskapi N-30	1473.81	1473.81H	UM	115	Tourmaline	35.80	0.39	35.29	0.00	7.19	0.03	4.70	0.15	1.51	0.03	0.00		0.00	0.00	0.18	85.25	4
Naskapi N-30	1473.81	1473.81H	UM	118	Tourmaline	35.72	0.89	30.33	0.00	4.32	0.00	10.05	2.67	1.35	0.08	0.00		0.00	0.00	0.15	85.56	4

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Naskapi N-30	1473.81	1473.81H	UM	119	Tourmaline	35.39	0.79	31.55	0.00	8.79	0.02	5.98	0.47	2.05	0.03	0.00		0.00	0.00	0.41	85.49	1
Naskapi N-30	1473.81	1473.81H	UM	120	Tourmaline	35.66	0.73	32.59	0.00	7.69	0.00	6.27	0.45	2.02	0.01	0.00		0.00	0.00	0.35	85.77	1
Naskapi N-30	1473.81	1473.81H	UM	121	Tourmaline	35.62	0.78	33.28	0.00	6.96	0.02	6.39	0.56	1.95	0.02	0.00		0.00	0.00	0.17	85.74	4
Naskapi N-30	1473.81	1473.81H	UM	124	Tourmaline	35.48	1.03	33.73	0.00	7.94	0.01	4.99	0.03	2.08	0.03	0.00		0.00	0.00	0.14	85.45	4
Naskapi N-30	1473.81	1473.81H	UM	125	Tourmaline	35.56	1.01	33.59	0.00	8.16	0.02	4.80	0.06	2.14	0.04	0.01		0.00	0.00	0.17	85.57	1
Naskapi N-30	1473.81	1473.81H	UM	128	Tourmaline	34.56	0.44	33.31	0.06	8.03	0.08	6.15	1.03	1.89	0.07	0.00		0.00	0.00	0.23	85.85	1
Naskapi N-30	1473.81	1473.81H	UM	129	Tourmaline	34.28	0.53	33.38	0.08	8.00	0.07	6.15	1.00	1.86	0.08	0.00		0.00	0.00	0.24	85.69	1
Naskapi N-30	1473.81	1473.81H	UM	130	Tourmaline	34.96	1.60	33.03	0.05	8.08	0.09	5.14	0.38	2.00	0.04	0.00		0.00	0.00	0.15	85.53	1
Naskapi N-30	1473.81	1473.81H	UM	131	Tourmaline	35.42	0.96	34.60	0.07	7.39	0.09	5.12	0.39	2.08	0.06	0.00		0.00	0.00	0.22	86.39	4
Naskapi N-30	1473.81	1473.81H	UM	134	Tourmaline	35.45	0.29	30.06	0.09	9.33	0.08	6.87	0.92	2.30	0.04	0.00		0.00	0.00	0.24	85.67	1
Naskapi N-30	1473.81	1473.81H	UM	135	Tourmaline	35.62	0.41	32.12	0.04	7.92	0.07	6.60	0.62	2.14	0.03	0.00		0.00	0.00	0.58	86.14	1
Naskapi N-30	1473.81	1473.81H	UM	136	Tourmaline	35.79	0.80	33.65	0.08	5.96	0.04	6.60	0.40	2.09	0.02	0.00		0.00	0.00	0.21	85.64	1
Naskapi N-30	1473.81	1473.81H	UM	137	Tourmaline	35.72	0.74	33.47	0.06	6.05	0.05	6.71	0.46	2.15	0.03	0.00		0.00	0.00	0.16	85.60	4
Naskapi N-30	1473.81	1473.81H	UM	138	Tourmaline	35.54	0.51	35.11	0.05	5.42	0.04	6.11	0.49	2.00	0.04	0.00		0.00	0.00	0.19	85.48	4
Naskapi N-30	1473.81	1473.81H	UM	139	Tourmaline	34.94	1.39	30.94	0.07	8.56	0.05	6.35	0.69	2.01	0.03	0.00		0.02	0.00	0.67	85.73	1
Naskapi N-30	1473.81	1473.81H	UM	141	Tourmaline	34.18	0.75	32.77	0.04	6.87	0.05	6.21	0.41	1.93	0.01	0.00		0.01	0.00	0.21	83.45	1
Naskapi N-30	1473.81	1473.81H	UM	142	Tourmaline	35.50	0.49	32.89	0.04	7.66	0.05	6.08	0.23	2.27	0.05	0.00		0.00	0.00	0.19	85.46	4
Naskapi N-30	1473.81	1473.81H	UM	143	Tourmaline	35.43	0.65	33.01	0.04	7.85	0.06	6.05	0.14	2.35	0.06	0.00		0.00	0.00	0.23	85.87	4
Naskapi N-30	1473.81	1473.81H	UM	144	Tourmaline	36.56	0.33	31.83	0.03	4.05	0.03	9.62	0.17	2.92	0.03	0.00		0.01	0.00	0.18	85.74	4
Naskapi N-30	1473.81	1473.81H	UM	145	Tourmaline	35.35	0.59	32.04	0.05	8.45	0.04	6.45	0.77	2.02	0.04	0.00		0.00	0.00	0.22	86.03	4
Naskapi N-30	1473.81	1473.81H	UM	146	Tourmaline	35.46	0.79	34.29	0.07	7.60	0.05	5.29	0.66	1.81	0.04	0.00		0.00	0.00	0.17	86.24	4
Naskapi N-30	1473.81	1473.81H	UM	147	Tourmaline	35.06	0.87	33.66	0.03	8.80	0.08	4.78	0.64	1.82	0.03	0.00		0.00	0.00	0.19	85.97	4
Naskapi N-30	1473.81	1473.81H	UM	157	Tourmaline	34.34	0.49	33.32	0.00	8.20	0.02	5.85	1.01	1.84	0.05	0.06		0.00	0.00	0.11	85.28	2
Naskapi N-30	1473.81	1473.81H	UM	158	Tourmaline	35.21	0.62	30.05	0.00	10.41	0.02	5.68	0.41	2.29	0.02	0.01		0.00	0.00	0.31	85.03	2
Naskapi N-30	1473.81	1473.81H	UM	159	Tourmaline	35.16	0.47	29.71	0.00	9.82	0.17	6.75	0.90	2.23	0.06	0.03		0.00	0.00	0.13	85.44	4
Naskapi N-30	1473.81	1473.81H	UM	160	Tourmaline	35.00	0.98	29.76	0.00	9.43	0.02	6.84	0.82	2.22	0.03	0.00		0.00	0.00	0.20	85.30	4
Naskapi N-30	1473.81	1473.81H	UM	161	Tourmaline	35.13	0.84	34.43	0.00	7.27	0.00	5.14	0.34	1.90	0.02	0.03		0.00	0.00	0.15	85.26	4
Naskapi N-30	1473.81	1473.81H	UM	162	Tourmaline	35.43	0.84	34.75	0.00	7.34	0.00	5.12	0.36	1.89	0.02	0.04		0.00	0.00	0.15	85.96	4
Naskapi N-30	1473.81	1473.81H	UM	163	Tourmaline	34.77	1.06	32.68	0.00	6.98	0.00	6.04	1.11	1.81	0.04	0.00		0.00	0.00	0.11	84.61	4
Naskapi N-30	1473.81	1473.81H	UM	164	Tourmaline	34.93	1.24	32.70	0.00	6.94	0.01	6.16	1.13	1.73	0.04	0.00		0.00	0.00	0.15	85.02	4
Naskapi N-30	1473.81	1473.81H	UM	169	Tourmaline	35.13	0.19	34.37	0.00	13.11	0.11	1.18	0.00	1.67	0.04	0.03		0.00	0.00	0.11	85.94	4
Naskapi N-30	1473.81	1473.81H	UM	170	Tourmaline	34.69	0.42	34.01	0.00	11.19	0.07	2.61	0.02	2.04	0.02	0.05		0.00	0.00	0.10	85.21	4
Naskapi N-30	1473.81	1473.81H	UM	171	Tourmaline	35.66	0.50	31.98	0.00	7.28	0.02	6.80	0.58	2.08	0.02	0.00		0.00	0.00	0.16	85.08	4
Naskapi N-30	1473.81	1473.81H	UM	172	Tourmaline	35.02	0.56	32.00	0.00	7.42	0.02	6.79	0.62	2.10	0.02	0.00		0.00	0.00	0.15	84.70	4
Naskapi N-30	1473.81	1473.81H	UM	173	Tourmaline	34.98	0.83	33.66	0.00	7.96	0.00	5.38	0.50	1.88	0.02	0.03		0.00	0.00	0.11	85.36	4
Naskapi N-30	1473.81	1473.81H	UM	175	Tourmaline	35.19	1.33	32.58	0.00	8.97	0.07	4.39	0.06	2.19	0.05	0.00		0.00	0.00	0.09	84.92	4
Naskapi N-30	1473.81	1473.81H	UM	176	Tourmaline	34.99	1.40	32.70	0.00	9.09	0.07	4.28	0.07	2.09	0.04	0.00		0.00	0.00	0.12	84.85	1
Naskapi N-30	1473.81	1473.81H	UM	182	Tourmaline	34.00	0.50	32.47	0.00	8.50	0.02	5.88	0.91	1.94	0.08	0.02		0.00	0.00	0.12	84.44	1
Naskapi N-30	1473.81	1473.81H	UM	183	Tourmaline	35.10	0.56	31.26	0.00	8.01	0.02	6.73	0.75	2.16	0.01	0.00		0.00	0.00	0.14	84.76	4
Naskapi N-30	1473.81	1473.81H	UM	184	Tourmaline	35.43	0.49	31.47	0.00	7.25	0.01	7.23	0.95	2.00	0.02	0.00		0.00	0.00	0.13	84.98	4
Naskapi N-30	1473.81	1473.81H	UM	185	Tourmaline	35.20	0.48	32.81	0.00	7.40	0.04	6.47	0.84	1.96	0.03	0.00		0.02	0.00	0.20	85.45	4

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Naskapi N-30	1473.81	1473.81H	UM	186	Tourmaline	35.01	0.68	34.32	0.03	7.30	0.03	5.42	0.46	2.04	0.04	0.00		0.01	0.00	0.21	85.55	4
Naskapi N-30	1473.81	1473.81H	UM	187	Tourmaline	35.31	0.67	34.08	0.04	7.18	0.03	5.46	0.37	1.95	0.03	0.01		0.00	0.00	0.20	85.34	4
Naskapi N-30	1473.81	1473.81H	UM	188	Tourmaline	34.55	0.53	34.03	0.00	7.20	0.05	5.68	0.71	1.93	0.04	0.00		0.01	0.00	0.20	84.93	4
Naskapi N-30	1473.81	1473.81H	UM	189	Tourmaline	34.71	0.45	34.21	0.00	7.11	0.06	5.65	0.70	1.94	0.05	0.02		0.03	0.00	0.18	85.11	4
Naskapi N-30	1473.81	1473.81H	UM	190	Tourmaline	34.41	0.82	32.59	0.00	10.33	0.05	3.98	0.45	2.27	0.08	0.00		0.01	0.00	0.16	85.15	4
Naskapi N-30	1473.81	1473.81H	UM	191	Tourmaline	34.35	2.12	32.19	0.00	11.59	0.08	2.74	0.10	1.97	0.05	0.03		0.02	0.00	0.19	85.43	4
Naskapi N-30	1473.81	1473.81H	UM	192	Tourmaline	34.39	0.90	33.20	0.00	11.17	0.08	2.82	0.08	2.03	0.05	0.00		0.01	0.00	0.16	84.89	3
Naskapi N-30	1473.81	1473.81H	UM	195	Tourmaline	34.98	0.61	32.00	0.01	8.57	0.06	5.73	0.53	2.11	0.04	0.03		0.02	0.00	0.18	84.88	4
Naskapi N-30	1473.81	1473.81H	UM	196	Tourmaline	35.09	0.61	32.14	0.00	8.32	0.06	5.86	0.53	2.09	0.07	0.01		0.02	0.00	0.21	85.02	4
Naskapi N-30	1473.81	1473.81H	UM	197	Tourmaline	34.63	0.56	32.02	0.00	8.53	0.03	6.15	0.65	2.13	0.03	0.00		0.01	0.00	0.18	84.93	4
Naskapi N-30	1473.81	1473.81H	UM	198	Tourmaline	35.02	0.52	31.64	0.03	8.42	0.05	6.23	0.64	2.14	0.04	0.03		0.02	0.00	0.22	85.01	4
Naskapi N-30	1473.81	1473.81H	UM	199	Tourmaline	34.97	0.99	34.46	0.03	7.09	0.01	5.17	0.69	1.69	0.04	0.03		0.00	0.00	0.24	85.40	4
Naskapi N-30	1473.81	1473.81H	UM	200	Tourmaline	34.94	0.79	34.56	0.00	6.94	0.02	5.23	0.69	1.74	0.03	0.00		0.00	0.00	0.21	85.15	1
Naskapi N-30	1473.81	1473.81H	UM	201	Tourmaline	35.31	0.85	34.51	0.04	6.83	0.01	5.39	0.49	1.79	0.03	0.00		0.03	0.00	0.19	85.48	4
Naskapi N-30	1473.81	1473.81H	UM	202	Tourmaline	35.12	0.64	34.27	0.00	7.77	0.13	4.59	0.16	2.03	0.05	0.00		0.01	0.00	0.17	84.92	4
Naskapi N-30	1473.81	1473.81H	UM	203	Tourmaline	34.97	0.77	34.41	0.00	7.67	0.12	4.68	0.20	2.13	0.05	0.00		0.01	0.00	0.21	85.21	4
Naskapi N-30	1473.81	1473.81H	UM	204	Tourmaline	35.01	0.33	35.19	0.00	8.29	0.11	3.75	0.16	1.84	0.05	0.00		0.01	0.00	0.18	84.92	4
Naskapi N-30	1473.81	1473.81H	UM	205	Tourmaline	35.32	0.33	35.20	0.00	8.19	0.10	3.79	0.15	1.79	0.06	0.00		0.02	0.00	0.18	85.12	4
Naskapi N-30	1473.81	1473.81H	UM	206	Tourmaline	35.22	0.43	33.22	0.00	7.24	0.02	6.35	0.62	2.01	0.04	0.00		0.01	0.00	0.21	85.37	4
Naskapi N-30	1473.81	1473.81H	UM	207	Tourmaline	35.14	0.47	32.29	0.01	6.95	0.03	6.95	0.75	2.11	0.03	0.00		0.01	0.00	0.21	84.95	1
Naskapi N-30	1473.81	1473.81H	UM	208	Tourmaline	34.31	0.57	33.47	0.02	7.65	0.03	5.95	0.59	2.02	0.07	0.00		0.03	0.00	0.20	84.89	4
Naskapi N-30	1473.81	1473.81H	UM	209	Tourmaline	34.43	0.60	33.37	0.00	7.66	0.03	6.02	0.65	2.03	0.06	0.06		0.00	0.00	0.21	85.13	4
Naskapi N-30	1473.81	1473.81H	UM	210	Tourmaline	35.10	0.52	31.10	0.07	7.28	0.02	7.31	0.77	2.36	0.03	0.00		0.01	0.00	0.21	84.79	4
Naskapi N-30	1473.81	1473.81H	UM	211	Tourmaline	34.82	0.58	31.25	0.02	7.32	0.02	7.26	0.84	2.31	0.05	0.01		0.00	0.00	0.19	84.67	1
North Triumph B-52	3771.30	3771.30	UM	681	Tourmaline	36.22	0.92	29.84	0.06	9.85	0.07	5.29	0.31	2.41	0.00						84.97	4
North Triumph B-52	3776.62	3776.62	UM	679	Tourmaline	35.92	2.46	26.20	0.02	12.27	0.36	5.87	0.69	2.21	0.04						86.04	4
North Triumph B-52	3780.21	3780.21	UM	756	Tourmaline	35.65	0.72	31.44	0.00	9.27	0.02	4.56	0.53	2.06	0.00						84.25	4
North Triumph B-52	3780.21	3780.21	UM	757	Tourmaline	36.82	0.59	31.69	0.00	8.18	0.01	5.03	0.15	1.76	0.00						84.23	4
North Triumph B-52	3799.62	3799.62	UM	683	Tourmaline	36.47	0.50	31.19	0.00	7.02	0.01	5.99	0.43	2.07	0.00						83.68	4
North Triumph B-52	3808.44	3808.44	UM	682	Tourmaline	35.98	0.48	31.46	0.00	8.56	0.03	5.44	0.56	2.08	0.02						84.61	4
North Triumph B-52	3814.05	3814.05	UM	680	Tourmaline	36.83	0.27	32.01	0.00	7.93	0.03	5.76	0.38	1.68	0.00						84.89	1
North Triumph G-43	3803.56	3803.56	UM	366	Tourmaline	35.85	0.71	32.98	0.00	8.74	0.00	5.95	0.17	2.28	0.03	0.00		0.00	0.00	0.14	86.85	4
North Triumph G-43	3803.56	3803.56	UM	367	Tourmaline	35.71	0.71	32.40	0.00	8.93	0.01	6.01	0.14	2.38	0.03	0.00		0.00	0.00	0.18	86.51	4
North Triumph G-43	3803.56	3803.56	UM	368	Tourmaline	36.03	0.17	31.95	0.00	9.91	0.01	5.93	0.29	2.16	0.02	0.00		0.00	0.00	0.26	86.72	1
North Triumph G-43	3803.56	3803.56	UM	369	Tourmaline	36.50	0.22	35.02	0.00	7.42	0.00	5.86	0.17	1.80	0.02	0.00		0.00	0.00	0.12	87.14	4
North Triumph G-43	3803.56	3803.56	UM	370	Tourmaline	35.77	1.14	31.55	0.00	8.57	0.00	6.61	1.16	1.85	0.03	0.00		0.00	0.00	0.41	87.09	4
North Triumph G-43	3803.56	3803.56	UM	371	Tourmaline	35.76	0.86	33.17	0.00	7.45	0.00	6.54	0.89	1.83	0.01	0.00		0.00	0.00	0.17	86.68	4
North Triumph G-43	3803.56	3803.56	UM	374	Tourmaline	35.59	0.59	34.66	0.00	7.63	0.00	5.75	0.93	1.74	0.03	0.00		0.00	0.00	0.15	87.08	4
North Triumph G-43	3803.56	3803.56	UM	375	Tourmaline	36.01	0.65	34.73	0.00	7.74	0.00	5.73	0.94	1.73	0.03	0.00		0.00	0.00	0.12	87.67	4
North Triumph G-43	3803.56	3803.56	UM	376	Tourmaline	35.72	0.98	34.26	0.00	7.35	0.00	5.91	0.43	2.03	0.03	0.00		0.00	0.00	0.15	86.86	4
North Triumph G-43	3803.56	3803.56	UM	377	Tourmaline	35.96	0.74	34.25	0.00	7.51	0.00	6.00	0.55	1.95	0.01	0.00		0.00	0.00	0.14	87.11	1

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
North Triumph G-43	4050.67	4050.67	UM	351	Tourmaline	35.54	1.82	32.69	0.00	5.24	0.00	8.16	2.21	1.45	0.10	0.00		0.00	0.00	0.10	87.31	3
North Triumph G-43	4050.67	4050.67	UM	352	Tourmaline	35.13	1.73	32.77	0.00	5.41	0.00	8.03	2.23	1.43	0.10	0.00		0.00	0.00	0.08	86.91	4
North Triumph G-43	4050.67	4050.67	UM	353	Tourmaline	37.05	0.39	35.31	0.00	4.36	0.00	7.34	0.48	1.60	0.01	0.00		0.00	0.00	0.10	86.64	4
North Triumph G-43	4050.67	4050.67	UM	354	Tourmaline	36.13	0.90	33.86	0.00	5.68	0.00	7.31	1.17	1.73	0.04	0.00		0.00	0.00	0.11	86.93	4
North Triumph G-43	4050.67	4050.67	UM	355	Tourmaline	35.32	0.88	36.15	0.00	8.26	0.00	4.42	0.66	1.63	0.03	0.00		0.00	0.00	0.15	87.50	4
North Triumph G-43	4050.67	4050.67	UM	356	Tourmaline	35.77	0.84	35.52	0.00	8.24	0.01	4.57	0.70	1.64	0.04	0.00		0.00	0.00	0.13	87.46	4
North Triumph G-43	4050.67	4050.67	UM	357	Tourmaline	36.10	1.01	32.76	0.00	6.85	0.00	7.19	1.59	1.71	0.04	0.00		0.00	0.00	0.15	87.40	4
North Triumph G-43	4050.67	4050.67	UM	358	Tourmaline	36.03	1.07	32.69	0.00	6.81	0.00	7.12	1.55	1.74	0.05	0.00		0.00	0.00	0.14	87.21	4
North Triumph G-43	4050.67	4050.67	UM	361	Tourmaline	36.55	0.44	34.85	0.00	4.72	0.00	7.36	0.56	2.04	0.04	0.00		0.00	0.00	0.17	86.73	4
North Triumph G-43	4050.67	4050.67	UM	362	Tourmaline	36.24	0.48	34.46	0.00	5.21	0.00	7.32	0.58	1.99	0.03	0.00		0.00	0.00	0.17	86.49	4
Peskowesk A-99	2210.37	2210.37	LCC	168	Tourmaline	37.38	0.27	37.04	0.00	9.72	0.12	3.06	0.12	1.94	0.02						89.67	1
Thebaud 3	3914.57	8 (LMS)	LM	1	Tourmaline	35.67	0.56	34.97	0.00	5.92	0.00	5.89	0.56	1.93	0.05	0.00		0.00	0.00	0.08	85.63	1
Thebaud 3	3914.57	8 (LMS)	LM	2	Tourmaline	35.44	0.61	34.75	0.00	5.90	0.01	5.96	0.50	1.89	0.04	0.00		0.00	0.00	0.11	85.21	4
Thebaud 3	3914.57	8 (LMS)	LM	3	Tourmaline	35.20	0.72	34.49	0.00	8.38	0.03	4.22	0.18	1.91	0.05	0.00		0.00	0.00	0.08	85.26	4
Thebaud 3	3914.57	8 (LMS)	LM	4	Tourmaline	35.23	0.59	34.70	0.00	8.29	0.05	4.12	0.15	1.87	0.04	0.00		0.00	0.00	0.12	85.16	4
Thebaud 3	3914.57	8 (HMS)	LM	13	Tourmaline	35.02	1.13	33.21	0.00	9.28	0.05	3.87	0.18	2.04	0.05	0.00		0.00	0.00	0.07	84.89	4
Thebaud 3	3914.57	8 (HMS)	LM	14	Tourmaline	35.09	0.90	33.48	0.00	8.47	0.06	4.24	0.15	2.11	0.05	0.04		0.00	0.00	0.11	84.71	4
Thebaud 3	3914.57	8 (HMS)	LM	15	Tourmaline	35.16	0.75	33.72	0.00	8.31	0.04	4.62	0.22	2.09	0.04	0.00		0.00	0.00	0.10	85.05	4
Thebaud 3	3914.57	8 (HMS)	LM	16	Tourmaline	34.70	0.52	34.24	0.00	8.85	0.01	3.92	0.21	2.01	0.04	0.08		0.00	0.00	0.11	84.70	4
Thebaud 3	3914.57	8 (HMS)	LM	17	Tourmaline	34.53	0.50	34.06	0.00	8.91	0.03	3.94	0.19	2.02	0.04	0.05		0.00	0.00	0.12	84.38	4
Thebaud 3	3914.57	8 (HMS)	LM	18	Tourmaline	34.59	0.05	34.42	0.00	12.07	0.04	1.55	0.03	1.79	0.06	0.00		0.00	0.00	0.13	84.72	4
Thebaud 3	3914.57	8 (HMS)	LM	19	Tourmaline	34.98	0.01	34.41	0.00	12.28	0.07	1.55	0.04	1.84	0.06	0.02		0.00	0.00	0.13	85.39	3
Thebaud 3	3914.57	8 (HMS)	LM	20	Tourmaline	35.94	0.46	35.05	0.00	5.28	0.04	6.05	0.15	1.86	0.04	0.02		0.00	0.00	0.12	85.01	4
Thebaud 3	3914.57	8 (HMS)	LM	21	Tourmaline	35.72	0.49	34.78	0.00	5.32	0.02	6.05	0.15	1.87	0.05	0.03		0.00	0.00	0.11	84.58	4
Thebaud 3	3914.57	8 (HMS)	LM	22	Tourmaline	35.90	0.62	35.14	0.00	6.30	0.00	5.46	0.44	1.88	0.05	0.00		0.00	0.00	0.09	85.88	1
Thebaud 3	3914.57	8 (HMS)	LM	23	Tourmaline	35.97	0.64	34.99	0.00	6.33	0.02	5.56	0.41	1.89	0.05	0.00		0.00	0.00	0.13	86.00	4
Thebaud 3	3914.57	8 (HMS)	LM	24	Tourmaline	33.57	0.31	32.39	0.00	15.72	0.19	0.80	0.26	2.23	0.06	0.04		0.00	0.00	0.16	85.72	4
Thebaud 3	3914.57	8 (HMS)	LM	25	Tourmaline	33.59	0.21	32.57	0.00	16.32	0.24	0.36	0.28	2.29	0.06	0.03		0.00	0.00	0.10	86.04	4
Thebaud 3	3914.57	8 (HMS)	LM	26	Tourmaline	35.46	0.60	34.63	0.00	6.20	0.06	5.71	0.23	2.08	0.04	0.01		0.00	0.00	0.12	85.14	4
Thebaud 3	3914.57	8 (HMS)	LM	27	Tourmaline	35.49	0.72	34.87	0.00	6.21	0.03	5.44	0.29	1.96	0.03	0.00		0.00	0.00	0.12	85.16	4
Thebaud 3	3914.57	8 (HMS)	LM	36	Tourmaline	35.34	0.41	35.50	0.00	5.63	0.00	5.71	0.54	1.95	0.02	0.00		0.00	0.00	0.06	85.14	4
Thebaud 3	3914.57	8 (HMS)	LM	37	Tourmaline	35.78	0.39	35.41	0.00	5.83	0.00	5.77	0.56	1.95	0.02	0.00		0.00	0.00	0.08	85.79	4
Thebaud 3	3914.57	8 (HMS)	LM	40	Tourmaline	35.11	0.13	35.31	0.00	9.08	0.00	3.79	0.13	1.82	0.01	0.00		0.00	0.00	0.08	85.47	4
Thebaud 3	3914.57	8 (HMS)	LM	41	Tourmaline	35.01	0.20	35.80	0.00	10.27	0.00	2.69	0.14	1.70	0.03	0.00		0.00	0.00	0.08	85.91	1
Thebaud 3	3914.57	8 (HMS)	LM	42	Tourmaline	35.04	0.60	32.78	0.00	4.61	0.00	8.00	0.92	2.05	0.00	0.00		0.00	0.00	0.10	84.08	1
Thebaud 3	3914.57	8 (HMS)	LM	43	Tourmaline	35.74	0.49	33.36	0.00	4.48	0.00	7.58	0.59	2.16	0.00	0.00		0.00	0.00	0.14	84.54	4
Thebaud 3	3914.57	8 (HMS)	LM	44	Tourmaline	35.89	0.44	33.56	0.00	4.41	0.00	7.55	0.60	2.08	0.00	0.00		0.00	0.00	0.12	84.64	4
Thebaud 3	3915.04	9 (HMS)	LM	1	Tourmaline	35.14	0.83	30.70	0.00	9.76	0.17	6.10	0.55	2.36	0.06	0.01		0.02	0.00	0.24	85.95	4
Thebaud 3	3915.04	9 (HMS)	LM	2	Tourmaline	35.20	0.80	30.10	0.09	10.36	0.20	6.19	0.94	2.17	0.04	0.03		0.00	0.00	0.20	86.33	1
Thebaud 3	3915.04	9 (HMS)	LM	6	Tourmaline	34.86	0.13	34.36	0.00	11.11	0.21	2.29	0.08	1.90	0.06	0.02		0.02	0.00	0.26	85.29	1
Thebaud 3	3915.04	9 (HMS)	LM	7	Tourmaline	34.97	0.21	34.36	0.00	11.05	0.20	2.24	0.12	1.90	0.05	0.04		0.01	0.00	0.17	85.31	4

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Thebaud 3	3915.04	9 (HMS)	LM	16	Tourmaline	34.35	0.60	34.30	0.00	10.63	0.15	2.67	0.19	1.92	0.06	0.03		0.03	0.00	0.23	85.15	4
Thebaud 3	3915.04	9 (HMS)	LM	17	Tourmaline	34.09	0.54	34.30	0.00	10.76	0.15	2.57	0.16	1.91	0.05	0.03		0.02	0.00	0.18	84.76	4
Thebaud 3	3915.96	11 (HMS)	LM	1	Tourmaline	35.03	0.72	34.32	0.00	5.94	0.05	5.63	0.37	2.02	0.05	0.00		0.00	0.00	0.14	84.27	4
Thebaud 3	3915.96	11 (HMS)	LM	2	Tourmaline	34.58	0.72	34.07	0.00	5.95	0.05	5.58	0.40	1.97	0.04	0.00		0.00	0.00	0.15	83.51	4
Thebaud 3	3915.96	11 (HMS)	LM	3	Tourmaline	34.65	0.83	30.74	0.00	8.09	0.03	6.05	0.57	2.14	0.05	0.02		0.00	0.00	0.14	83.31	4
Thebaud 3	3915.96	11 (HMS)	LM	4	Tourmaline	34.35	0.84	30.24	0.00	8.15	0.03	6.25	0.60	2.22	0.04	0.00		0.00	0.00	0.14	82.85	4
Thebaud 3	3915.96	11 (HMS)	LM	5	Tourmaline	33.18	1.14	31.77	0.00	8.30	0.08	4.53	0.35	1.89	0.05	0.00		0.00	0.00	0.15	81.45	4
Thebaud 3	3915.96	11 (HMS)	LM	12	Tourmaline	34.95	0.15	31.37	0.00	6.78	0.09	7.49	0.97	2.02	0.05	0.00		0.00	0.00	0.15	84.01	1
Thebaud 3	3915.96	11 (HMS)	LM	13	Tourmaline	34.75	0.13	31.13	0.00	6.65	0.10	7.46	0.99	1.96	0.06	0.00		0.00	0.00	0.12	83.34	1
Thebaud 3	3915.96	11 (HMS)	LM	14	Tourmaline	34.91	0.66	30.22	0.01	9.84	0.04	6.24	0.77	2.14	0.03	0.05		0.00	0.00	0.63	85.54	4
Thebaud 3	3915.96	11 (HMS)	LM	22	Tourmaline	34.38	0.53	34.16	0.00	9.04	0.01	4.21	0.45	1.73	0.05	0.00		0.00	0.00	0.16	84.74	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	1	Tourmaline	34.68	0.66	32.75	0.02	4.54	0.00	7.04	1.07	1.57	0.03	0.03		0.00	0.00	0.14	82.52	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	2	Tourmaline	35.38	0.84	32.10	0.00	4.99	0.00	6.96	0.33	1.88	0.01	0.03		0.00	0.00	0.33	82.86	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	3	Tourmaline	34.22	0.85	32.55	0.00	7.51	0.03	4.44	0.16	1.80	0.04	0.06		0.00	0.00	0.12	81.79	1
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	4	Tourmaline	34.17	0.96	31.29	0.00	8.92	0.03	4.39	0.08	2.07	0.03	0.05		0.00	0.00	0.14	82.15	1
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	5	Tourmaline	33.01	1.18	31.84	1.35	8.32	0.00	3.44	0.69	1.59	0.07	0.05		0.00	0.00	0.15	81.69	1
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	6	Tourmaline	34.47	0.51	32.31	0.00	7.62	0.00	4.88	0.55	1.63	0.02	0.03		0.00	0.00	0.14	82.15	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	7	Tourmaline	33.20	1.03	31.67	1.47	8.54	0.00	3.63	0.87	1.59	0.04	0.05		0.00	0.00	0.12	82.21	1
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	8	Tourmaline	34.88	0.63	32.54	0.00	5.75	0.00	6.24	0.48	1.77	0.02	0.02		0.00	0.00	0.08	82.42	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	9	Tourmaline	34.92	0.51	32.51	0.00	5.75	0.01	6.32	0.44	1.83	0.02	0.05		0.00	0.00	0.10	82.45	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	10	Tourmaline	35.04	0.77	31.86	0.00	5.68	0.01	6.42	0.42	1.94	0.01	0.02		0.00	0.00	0.11	82.27	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	11	Tourmaline	34.62	0.74	33.62	0.00	5.23	0.00	5.94	0.52	1.72	0.04	0.03		0.00	0.00	0.09	82.56	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	12	Tourmaline	34.77	0.69	34.08	0.00	5.25	0.00	5.73	0.44	1.65	0.04	0.03		0.00	0.00	0.09	82.76	4
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	13	Tourmaline	34.90	0.34	33.82	0.00	8.22	0.07	3.74	0.03	1.58	0.03	0.05		0.00	0.00	0.08	82.85	1
Thebaud C-74	3865.66	P3-3865.56-3865.75	LM	14	Tourmaline	34.39	0.59	32.98	0.00	8.79	0.07	3.75	0.05	1.77	0.04	0.03		0.00	0.00	0.11	82.58	1
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	7	Tourmaline	36.14	0.67	34.08	0.01	6.98	0.00	5.66	0.51	1.77	0.01	0.00		0.00	0.00	0.16	85.99	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	8	Tourmaline	35.75	0.84	34.16	0.00	7.02	0.00	5.63	0.62	1.72	0.03	0.00		0.00	0.00	0.16	85.92	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	9	Tourmaline	35.76	0.77	33.85	0.00	7.45	0.00	5.72	0.69	1.76	0.02	0.00		0.00	0.00	0.13	86.16	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	15	Tourmaline	35.93	0.00	33.06	0.00	11.74	0.17	3.45	0.13	2.16	0.04	0.00		0.00	0.00	0.16	86.85	1
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	16	Tourmaline	35.84	0.00	33.36	0.00	10.67	0.17	3.82	0.12	2.14	0.05	0.00		0.00	0.00	0.17	86.34	1
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	23	Tourmaline	36.12	0.59	32.72	0.00	7.55	0.00	6.46	0.75	1.94	0.02	0.00		0.01	0.00	0.16	86.32	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	24	Tourmaline	36.04	0.71	33.23	0.00	6.63	0.00	6.48	0.64	1.91	0.01	0.00		0.00	0.00	0.18	85.82	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	25	Tourmaline	35.79	0.72	33.51	0.04	8.10	0.02	5.81	0.77	2.00	0.04	0.00		0.00	0.00	0.13	86.91	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	(26)	Tourmaline	35.66	0.89	32.65	0.00	7.98	0.02	6.06	0.84	1.97	0.04	0.00		0.00	0.00	0.16	86.26	4
Thebaud C-74	3911.74	20-3911.66-3911.82	LM	(27)	Tourmaline	35.65	0.84	32.85	0.00	7.79	0.00	6.03	0.81	2.00	0.03	0.00		0.00	0.00	0.11	86.11	4
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	1	Tourmaline	35.97	0.74	34.26	0.00	9.27	0.04	4.05	0.19	1.93	0.03	0.00		0.00	0.00	0.09	86.57	1
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	2	Tourmaline	35.67	0.76	34.10	0.00	9.12	0.05	4.36	0.20	1.99	0.03	0.00		0.00	0.00	0.10	86.39	1
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	3	Tourmaline	35.63	0.82	33.81	0.00	9.31	0.06	4.28	0.19	1.97	0.05	0.00		0.00	0.00	0.09	86.20	1
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	4	Tourmaline	35.96	1.05	32.64	0.00	8.94	0.06	4.60	0.19	2.09	0.03	0.00		0.00	0.00	0.11	85.68	1
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	8	Tourmaline	36.74	0.87	28.44	0.00	4.52	0.00	10.77	3.17	1.01	0.05	0.00		0.00	0.00	0.14	85.71	2
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	9	Tourmaline	36.66	0.74	28.58	0.00	4.43	0.00	10.77	3.05	0.99	0.06	0.00		0.00	0.00	0.11	85.39	2

Well	Depth (m)	Sample	Formation	Analysis N	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total	Chemical Type
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	10	Tourmaline	35.92	0.42	32.60	0.00	7.63	0.00	5.84	1.15	1.47	0.03	0.00		0.00	0.00	0.17	85.22	4
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	11	Tourmaline	35.84	0.82	31.88	0.00	7.74	0.00	6.04	1.36	1.48	0.03	0.00		0.00	0.00	0.21	85.40	4
Thebaud C-74	3920.15	27-3920.04-3920.25	LM	12	Tourmaline	35.49	0.95	31.26	0.00	8.70	0.00	5.47	1.28	1.38	0.02	0.00		0.00	0.00	0.25	84.80	4
Venture 1	4606.47	4606.32-4606.66	LM	10	Tourmaline	34.23	0.42	32.55	0.00	10.64	0.08	3.16	0.04	1.95	0.03	0.02		0.00	0.00	0.09	83.21	4
Venture 1	4606.47	4606.32-4606.67	LM	11	Tourmaline	34.06	0.41	32.21	0.00	10.60	0.07	3.00	0.05	1.95	0.04	0.10		0.00	0.00	0.09	82.58	4
Venture 1	4606.47	4606.32-4606.70	LM	14	Tourmaline	35.38	0.91	31.91	0.00	4.80	0.00	7.85	0.75	2.18	0.02	0.05		0.00	0.00	0.08	83.93	4
Venture 1	4606.47	4606.32-4606.71	LM	15	Tourmaline	35.25	1.10	31.23	0.03	5.07	0.00	7.87	1.00	2.02	0.05	0.02		0.00	0.00	0.17	83.80	4
Venture 1	4606.47	4606.32-4606.72	LM	16	Tourmaline	34.60	0.88	31.31	0.00	7.25	0.00	5.97	0.59	1.76	0.01	0.01		0.00	0.00	0.15	82.53	4
Venture 3	4885.76	4885.62-4885.94	LM	55	Tourmaline	34.42	0.53	33.09	0.00	5.71	0.00	5.89	0.59	1.70	0.05	0.02		0.00	0.00	0.07	82.06	1
Venture 3	4885.76	4885.62-4885.95	LM	56	Tourmaline	34.97	0.53	33.18	0.00	5.82	0.00	5.96	0.63	1.70	0.05	0.02		0.00	0.00	0.07	82.93	1
Venture 3	4885.76	4885.62-4885.96	LM	57	Tourmaline	34.95	0.65	30.56	0.00	7.94	0.00	5.95	0.38	2.00	0.03	0.00		0.00	0.00	0.26	82.73	1
Venture 3	4885.76	4885.62-4885.97	LM	58	Tourmaline	35.08	0.38	33.54	0.00	6.51	0.01	5.12	0.32	1.88	0.05	0.00		0.00	0.00	0.10	83.00	1
Venture 3	4885.76	4885.62-4885.98	LM	59	Tourmaline	34.73	1.04	29.72	0.00	8.01	0.02	6.35	0.80	1.87	0.04	0.00		0.00	0.00	0.36	82.94	4
Venture 3	4885.76	4885.62-4885.104	LM	65	Tourmaline	35.03	0.69	31.59	0.00	7.36	0.02	5.81	0.53	1.86	0.04	0.00		0.00	0.00	0.12	83.06	4
Venture 3	4885.76	4885.62-4885.105	LM	66	Tourmaline	34.57	0.84	31.31	0.00	7.48	0.01	5.79	0.56	2.00	0.04	0.00		0.00	0.00	0.11	82.72	4
Venture 3	4885.76	4885.62-4885.106	LM	67	Tourmaline	34.87	0.71	32.71	0.00	7.04	0.02	5.57	0.19	2.08	0.04	0.00		0.00	0.00	0.11	83.32	4
Venture 3	4885.76	4885.62-4885.107	LM	68	Tourmaline	34.56	1.81	29.32	0.00	8.42	0.01	6.07	0.33	2.04	0.03	0.00		0.00	0.00	0.85	83.46	4
Venture 3	4885.76	4885.62-4885.108	LM	69	Tourmaline	34.84	0.79	32.78	0.00	6.93	0.00	5.58	0.20	1.99	0.05	0.00		0.00	0.00	0.11	83.26	4
Venture 4	5371.87	5371.77-5371.97	LM	25	Tourmaline	34.71	0.50	32.28	0.00	7.04	0.00	5.74	0.47	1.94	0.01	0.00		0.00	0.00	0.13	82.81	4
Venture 4	5371.87	5371.77-5371.97	LM	26	Tourmaline	34.84	0.49	32.18	0.00	6.70	0.01	5.74	0.40	1.93	0.02	0.00		0.00	0.00	0.09	82.41	2
Venture 4	5371.87	5371.77-5371.97	LM	34	Tourmaline	34.76	0.44	33.25	0.00	7.57	0.04	4.97	0.24	1.94	0.04	0.00		0.00	0.00	0.12	83.36	1
Venture 4	5371.87	5371.77-5371.97	LM	35	Tourmaline	34.63	0.50	33.26	0.00	7.70	0.02	4.85	0.24	1.86	0.04	0.00		0.00	0.00	0.11	83.21	4
Venture 4	5371.87	5371.77-5371.97	LM	45	Tourmaline	35.30	2.19	27.99	0.00	2.63	0.00	11.00	1.37	2.07	0.04	0.00		0.00	0.00	0.27	82.86	4
Venture 4	5371.87	5371.77-5371.97	LM	46	Tourmaline	35.37	1.55	27.72	0.00	2.23	0.00	11.53	1.80	1.86	0.03	0.00		0.00	0.00	0.28	82.36	4
Venture 4	5371.87	5371.77-5371.97	LM	47	Tourmaline	35.32	0.01	34.24	0.04	11.40	0.00	1.78	0.09	0.41	0.02	0.00		0.00	0.00	0.07	83.38	4
Venture 4	5371.87	5371.77-5371.97	LM	48	Tourmaline	35.84	0.12	35.78	0.00	5.75	0.00	4.59	0.20	0.81	0.01	0.00		0.00	0.00	0.15	83.25	4
Venture 4	5384.83	5384.68-5384.98	LM	90	Tourmaline	34.95	0.63	33.11	0.00	4.76	0.03	6.96	0.78	1.67	0.03	0.00		0.00	0.00	0.12	83.04	4
Venture 4	5384.83	5384.68-5384.98	LM	91	Tourmaline	34.50	0.77	32.54	0.01	5.09	0.02	6.95	0.84	1.63	0.04	0.00		0.00	0.00	0.09	82.49	4
Venture 4	5384.83	5384.68-5384.98	LM	93	Tourmaline	34.44	1.16	33.22	0.01	5.98	0.01	5.72	0.40	1.78	0.05	0.02		0.00	0.00	0.10	82.87	4
Venture 4	5384.83	5384.68-5384.98	LM	94	Tourmaline	34.46	0.94	33.03	0.00	5.73	0.02	5.93	0.49	1.74	0.05	0.00		0.00	0.00	0.12	82.52	4
Venture 4	5384.83	5384.68-5384.98	LM	102	Tourmaline	34.10	0.61	32.91	0.00	7.40	0.01	5.12	0.30	1.81	0.03	0.05		0.00	0.00	0.08	82.42	4
Venture 4	5384.83	5384.68-5384.98	LM	103	Tourmaline	34.10	1.09	31.18	0.00	8.35	0.00	5.00	0.12	1.83	0.01	0.02		0.00	0.00	0.23	81.94	4
Venture 4	5384.83	5384.68-5384.98	LM	104	Tourmaline	34.44	0.58	32.42	0.00	7.03	0.00	5.78	0.80	1.60	0.01	0.00		0.00	0.00	0.13	82.79	4
Venture 4	5384.83	5384.68-5384.98	LM	105	Tourmaline	34.49	0.62	32.86	0.00	6.73	0.00	5.76	0.52	1.74	0.02	0.00		0.00	0.00	0.09	82.82	4
Venture 4	5384.83	5384.68-5384.98	LM	108	Tourmaline	34.80	0.69	32.62	0.00	6.28	0.00	6.15	0.65	1.70	0.02	0.00		0.00	0.00	0.10	83.00	4
Venture 4	5384.83	5384.68-5384.98	LM	109	Tourmaline	34.78	0.67	32.67	0.00	6.42	0.00	6.07	0.65	1.65	0.03	0.01		0.00	0.00	0.10	83.03	4

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Sambro I-29	963.05	3170A	LC	77	Titanite	29.74	32.45	4.44	0.00	0.29	0.00	0.02	28.22	0.01	0.00						95.17

Well	Depth (m)	Sample	Formation	Analysis No	Mineral	SiO_2	TiO_2	Al_2O_3	Cr_2O_3	FeO^t	MnO	MgO	CaO	Na_2O	K_2O	P_2O_5	ZrO_2	NiO	BaO	SrO	Total
Alma K-85	2465.00	2465.00	LCC	35	Zircon	34.31	0.21	0.02	0.15	0.86	0.20	0.06	0.08	0.05	0.06	1.31	63.02				100.33
Alma K-85	2465.00	2465.00	LCC	36	Zircon	33.67	0.25	0.03	0.14	1.25	0.18	0.06	0.10	0.04	0.06	1.68	63.20				100.66
Alma K-85	2465.00	2465.00	LCC	37	Zircon	34.52	0.19	0.03	0.15	1.33	0.23	0.05	0.08	0.04	0.06		64.32				101.00
Alma K-85	2465.90	2465.90	LCC	39	Zircon	33.26		0.01	0.02	0.15			0.05	0.01	0.01	0.28	65.33				99.12
Alma K-85	2465.90	2465.90	LCC	40	Zircon	33.06			0.01		0.05		0.03	0.01	0.02	0.18	65.54				98.90
Alma K-85	2465.90	2465.90	LCC	41	Zircon	33.61		0.01		0.15	0.06		0.01	0.02	0.01	0.14	65.81				99.82
Alma K-85	2466.07	2466.07	LCC	32	Zircon	34.60	0.27	0.06	0.14	1.01	0.21	0.06	0.05	0.06	0.07	1.85	63.23				101.61
Alma K-85	2466.07	2466.07	LCC	33	Zircon	34.79	0.24	0.05	0.13	1.45	0.22	0.06	0.09	0.05	0.06	1.41	65.17				103.72
Alma K-85	2466.07	2466.07	LCC	34	Zircon	34.75	0.25	0.04	0.13	1.43	0.15	0.05	0.08	0.05	0.06		66.13				103.12
Alma K-85	2466.65	2466.65	LCC	38	Zircon	32.52			0.03				0.10		0.01	0.26	65.76				98.68
Alma K-85	2468.95	2468.95	LCC	1	Zircon	32.27		0.02		0.02	0.02			0.02	0.01	0.48	65.10				97.94
Alma K-85	2469.30	2469.30	LCC	2	Zircon	33.08	0.20	0.04	0.12	0.24	0.17	0.05	0.08	0.06	0.06		71.84				105.94
Dauntless D-35	2980.94	2980.94	UM	287	Zircon	33.97	0.18	0.08	0.13	0.20	0.13	0.06	0.25	0.08	0.00	0.12	66.21		0.27		101.69
Dauntless D-35	3023.62	3023.62	UM	225	Zircon	31.01	0.18	0.09	0.14	0.80	0.15	0.06	0.10	0.05	0.00	0.30	66.79		0.34		100.03
Dauntless D-35	3145.54	3145.54	UM	196	Zircon	28.66	0.36	1.29	0.13	2.53	0.20	0.27	1.07	0.09	0.00	1.68	63.51		0.34		100.14
Dauntless D-35	3279.65	3279.65	MM	207	Zircon	31.10	0.19	0.08	0.12	1.32	0.15	0.07	0.09	0.06	0.00	0.28	66.14		0.39		99.99
Glenelg N-49	2983.18	2983.18	LCC	20	Zircon	31.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.45	0.00	0.00	0.00	99.10
Glenelg N-49	2983.18	2983.18	LCC	22	Zircon	31.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.27	0.00	0.00	0.00	99.88
Glenelg N-49	3581.99	3581.99	UM	33	Zircon	30.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	66.87	0.00	0.00	0.00	98.95
Glenelg N-49	3581.99	3581.99	UM	31	Zircon	31.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.25	0.00	0.00	0.00	99.77
Glenelg N-49	3596.43	3596.43	UM	8	Zircon	31.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.83	0.00	0.00	0.00	99.54
Glenelg N-49	3596.43	3596.43	UM	9	Zircon	31.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	67.07	0.00	0.00	0.00	99.55
Glenelg N-49	3609.63	3609.63	UM	41	Zircon	31.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68.14	0.00	0.00	0.00	99.52
Glenelg N-49	3613.60	3613.60	UM	60	Zircon	31.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.17	0.00	0.00	0.00	98.66
Glenelg N-49	3648.12	3648.12	UM	86	Zircon	31.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.14	0.00	0.00	0.00	98.31
Glenelg N-49	3656.94	3656.94	UM	48	Zircon	30.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67.18	0.00	0.00	0.00	98.15
Naskapi N-30	1469.89	1469.89	UM	12	Zircon	33.15	0.20	0.04	0.17	0.23	0.14	0.05	0.10	0.06	0.06	0.00	65.01	0.00			99.21
Naskapi N-30	1469.89	1469.89	UM	13	Zircon	33.25	0.20	0.02	0.13	0.25	0.20	0.07	0.10	0.06	0.06	0.00	65.35	0.00			99.69
Naskapi N-30	1469.89	1469.89	UM	14	Zircon	33.67	0.21	0.03	0.14	0.21	0.14	0.06	0.10	0.06	0.05	0.00	66.04	0.00			100.71
Naskapi N-30	1472.25	1472.25	UM	11	Zircon	33.98	0.25	0.06	0.15	0.28	0.26	0.07	0.08	0.08	0.04	0.00	62.84	0.00			98.09
Naskapi N-30	1472.36	1472.36	UM	4	Zircon	34.59	0.06	0.09	0.06	0.34	0.10	0.06	0.03	0.09	0.00	0.00	65.78	0.00			101.20
Naskapi N-30	1472.36	1472.36	UM	5	Zircon	34.36	0.26	0.27	0.17	0.23	0.24	0.05	0.09	0.06	0.05	0.00	65.43	0.00			101.21
Naskapi N-30	1472.36	1472.36	UM	7	Zircon	33.72	0.28	0.06	0.18	0.16	0.15	0.04	0.11	0.05	0.08	0.00	66.82	0.00			101.65
Naskapi N-30	1473.51	1473.51	UM	8	Zircon	33.70	0.05	0.06	0.07	0.14	0.15	0.07	0.05	0.08	0.04	0.00	65.93	0.00			100.34
Naskapi N-30	1473.51	1473.51	UM	9	Zircon	33.18	0.07	0.06	0.09	0.12	0.05	0.07	0.06	0.07	0.02	0.00	65.25	0.00			99.04
Naskapi N-30	1473.51	1473.51	UM	10	Zircon	33.36	0.05	0.05	0.07	0.14	0.10	0.06	0.04	0.06	0.05	0.00	64.78	0.00			98.76
Peskowesk A-99	2211.47	2211.47	LCC	30	Zircon	32.86	0.18	0.05	0.13	0.17	0.14	0.06	0.09	0.07	0.00	0.19	63.54		0.42		97.90
Peskowesk A-99	2212.91	2212.91	LCC	20	Zircon	31.06	0.20	0.11	0.14	0.16	0.14	0.06	0.15	0.06	0.00	0.22	67.32		0.40		100.02

Peskowesk A-99	2212.91	2212.91	LCC	21	Zircon	31.36	0.18	0.08	0.11	0.16	0.14	0.07	0.09	0.07	0.00	0.19	67.23		0.32		100.00
Peskowesk A-99	2222.59	2222.59	LCC	22	Zircon	31.43	0.16	0.07	0.12	0.28	0.12	0.06	0.09	0.07	0.00	0.11	67.10		0.39		100.00
Peskowesk A-99	2222.59	2222.59	LCC	23	Zircon	31.71	0.19	0.08	0.09	0.33	0.12	0.07	0.08	0.07	0.00	0.08	66.87		0.32		100.01
Peskowesk A-99	2266.99	2266.99	LCC	27	Zircon	31.13	0.16	0.06	0.11	0.31	0.11	0.06	0.06	0.07	0.00	0.19	67.34		0.42		100.02
Peskowesk A-99	2470.66	2470.66	UM	26	Zircon	31.27	0.22	0.08	0.09	0.24	0.16	0.05	0.08	0.08	0.00	0.13	67.17		0.46		100.03
Peskowesk A-99	2470.66	2470.66	UM	42	Zircon	31.15	0.19	0.09	0.11	0.20	0.16	0.07	0.08	0.08	0.00	0.10	67.34		0.46		100.03
Peskowesk A-99	2933.62	2933.62	MM	29	Zircon	32.94	0.17	0.08	0.12	0.21	0.15	0.06	0.09	0.08	0.00	0.11	64.59				98.60
Peskowesk A-99	2950.54	2950.54	MM	31	Zircon	33.07	0.20	0.06	0.12	0.25	0.14	0.06	0.05	0.07	0.00	0.17	64.27		0.42		98.88
Peskowesk A-99	3794.17	3794.17	MMC	28	Zircon	31.11	0.21	0.07	0.11	0.37	0.15	0.06	0.09	0.06	0.00	0.26	67.13		0.40		100.02
Peskowesk A-99	3796.33	3796.33	MMC	24	Zircon	31.09	0.19	0.07	0.11	0.25	0.12	0.07	0.08	0.07	0.00	0.12	67.41		0.43		100.01
Peskowesk A-99	3796.33	3796.33	MMC	25	Zircon	31.21	0.21	0.08	0.12	0.18	0.12	0.06	0.08	0.06	0.00	0.09	67.36		0.45		100.02