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by

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Abstract

To date, relatively little is known about the geological and tectonic evolution of Southern Mongolia, despite its emerging importance as a mineral exploration frontier province. The distribution of porphyry Au, Cu and Mo mineralization in the region is strongly controlled by the tectonic regime governing the northern margin of the Palaeo-Asian Ocean. The Saykhandulaan basement inlier in southern Mongolia constitutes a critical window into the Palaeozoic development of this margin, and consequently, understanding the tectonic evolution of this area is important in both an academic and economic context.

By broadly characterising the geological and tectonic evolution of the southeast Gobi region, this project elucidates the geological evolution of a relatively unstudied accretionary margin. It provides both a robust spatial and temporal framework within which to interpret the mineralization identified to date, and new insights for focusing mineral exploration efforts in potentially fertile areas.

Through fieldwork, five litho-tectonic domains are defined; (1) the Northern Slate Belt, comprising Devonian greenschist grade pelites and psammites with deep-marine to coastal siliciclastic protoliths; (2) the Saykhandulaan Valley Lineament Zone (SVLZ), a tectonised zone of faulted and lithologically altered volcanic rocks; (3) the High Strain Belt. consisting of tightly folded and flattened metamorphosed clastic sedimentary rocks; (4) the Molasse Succession, consisting of relatively undeformed coarse conglomerates and sandstones and; (5) the Oyut Ulaan Volcanic Group, a nearly 5 km-thick folded Carboniferous volcanic succession that hosts the mid-Carboniferous Oyut Ulaan mineralised intrusive complex. The structural architecture of the inlier records several ductile and brittle deformations, including folding of all lithologies to differing degrees, folding of cleavage in the Northern Slate Belt, thrusting along the SVLZ and exhumation of the tightly folded High Strain Belt. Field relations, geochemical signatures and the absolute age of the Oyut Ulaan intrusive complex show that, with the Oyut Ulaan Volcanic Group, it forms a co-magmatic volcano-plutonic complex. Volcanic and intrusive lithologies have subduction zone-related signatures. The Oyut Ulaan Volcanic Group is comprised of four formations with volcanic lithologies and thick intercalated siliciclastic and volcaniclastic sediments.

Chemostratigraphy of the Oyut Ulaan Volcanic Group illustrates an evolving magma chamber with periodic replenishment by new magma batches. One other intrusion within the Saykhandulaan inlier and six other intrusions within the neighbouring Mandakh inlier were geochemically analysed and U-Pb zircon dated, showing, broadly, that a 180 km long belt of monzonitic intrusions were emplaced in the mid-Carboniferous (between 338.93 and 323.12 Ma) and post-collisional granites and A-type syenites were emplaced in the Early Permian (292.34 Ma).

The combined results of this study indicate that whilst economic mineralisation identified in the region to date is associated with early intrusions in an emerging continentalarc setting, the later stages of arc magmatism resulted in a significant EW belt of intrusions and volcanic deposits, which are also host to prospect mineralization. The youngest parts of this belt track the transition from a continental-arc to a post-collisional magmatic environment.

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Dickson started this all off by directing me to the original project advertisement whilst I was in the 4th year of my Mgeol, in 2002. He then spent 4 years; using his extensive contacts and knowledge of Mongolia to make my field seasons run smoothly; tirelessly reviewing my scribblings; and putting up with my occasionally over-enthusiastic knocking on his door. I also thank him for introducing me to the concept of English grammar, of which I was hitherto unaware.

Mike Petterson is a legend. A kind of pint-sized singing geological troubadour, he has accompanied and encouraged me on many exploits, including my main fieldwork, an excellent trip to the lake district (in which I hobbled up and down hill and dale with a knackered leg), numerous conferences, and many lunches and drinking sessions in the pub. His financial and logistical support made my second field season possible, and his academic supervision made it successful. His friendship and support during difficult times went beyond the call of duty.

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This project would not have been possible without the logistical and scientific support of Ivanhoe Mines Ltd. Specifically I would like to thank Doug Kirwin, Chris Wilson, Paul Carter and Tim Corbett for generous and well organised logistical support. Tom Sant, Andrew Stewart and Rohan Wolfe provided in-field scientific data, discussions, tours of mineral occurrences, and welcome company at the end of long field seasons.

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After his degree in geology at Cardiff, Simon Crockford broke north to Nottingham for a degree in architecture, just in time to be talked into accompanying me to Mongolia in 2004, (a decision he may still be rueing). I thank him for his excellent field support, for keeping me supplied with; abstract conversation and a golfing partner on the steppe (until I lost all our balls in one game); for being an expert wielder of a GPS unit, for spotting some of the only fossils in the area, and for generally fixing things up and sorting stuff out. Simon made the second field season one hundred percent more awesome than the first. Thank you buddy.

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I've been at Leicester a long old time, and when I first arrived here in 1998, I couldn't have imagined that almost a decade later I'd still be here, not getting much sleep, sitting in an office, surrounded by monitors, thinking about Mongolia and geology. Over that time many people have come and gone, some legendary times have been had, and I've met a lot of people that I feel honoured to be able to call friends. These people are too numerous to mention directly, but to you all I say 'cheers' and hope to see you out there sometime.

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Table of Contents

Chapter 1

Introduction	1
1.2 Wider Context of Project	4
1.3 Chapter Synopsis	4

Chapter 2

Crustal evolution of the Saykhandulaan Inlier, Mongolia: Implications for Palaeozoic	8
arc magmatism, polyphase deformation and terrane accretion in the Southeast Gobi	
Mineral Belt	

2.1 Introduction	8
2.1.1 Regional geology	8
2.2 Litho-tectonic domains	11
2.2.1 Northern Slate Belt	12
2.2.2 Saykhandulaan Valley Lineament Zone	18
2.2.3 High-Strain Belt	18
2.2.4 Molasse Sucession	21
2.2.5 Oyut Ulaan Volcanic Group	23
2.2.5 Oyut Ulaan Intrusion	24
2.2.7 Mesozoic and Cenozoic cover sequences	25
2.3 Provenance data	26
2.4 Geochemical data	27
2.5 Structural data	31
2.6 Discussion	37
2.7 Conclusions	42

Chapter 3

The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution and timing	43
3.1 Introduction	43
3.1.1 Regional geology	43
3.1.2 Oyut Ulaan Volcanic Group	45
3.2 Field data	46
3.2.1 Gurvan Morin Höndiy Formation	46
3.2.2 Shargyn Moghai Formation	55
3.2.3 Tsagaan Nuruu Formation	57

3.2.4 Yasun Eliy-e Formation	(0
5.2.4 Tasun Eny-e Tornation	60
3.3 U-Pb dating of the Oyut Ulaan Volcanic Group	63
3.4 Geochemical data	66
3.5 Discussion	70
3.6.1 Physical volcanic model	70
3.6.2 Geochemical implications for the physical volcanic model	75
3.6.3 Magmatic-tectonic model	77
3.6.4 Regional implications	79
3.7 Conclusions	80

Chapter 4

Granites of the southern Mongolia Carboniferous arc: New age and geochemical constraints	81
4.1 Introduction	81
4.1.3 Methods	83
4.2 Oyut Ulaan Intrusion	85
4.2.1 Field data and petrography	85
4.2.2 Geochemistry	91
4.2.3 Geochronology	99
4.2.4 Discussion	99
4.3 Other granites in southeast Mongolia	104
4.3.1 Field data and petrography	104
4.3.2 Geochemistry of intrusions from the region, and comparison with Oyut	109
Ulaan	
4.3.3 Geochronology	118
4.3.4 Discussion	123
4.4 Discussion and wider implications	125

Chapter 5

Discussion and conclusions	128
5.1 The Saykhandulaan inlier	128
5.2 The evolving volcano-sedimentary environment	129
5.3 Terrane models	130
5.3.1 Gobi Altai and Mandalovoo terrane boundary	130
5.3.2 Mandalovoo and Gurvansayhan terrane boundary	131
5.3.3 Mineralisation: how do the Gurvansayhan and Mandalovoo terranes	134
compare VIII	

5.4 Granite magmatism	135
5.5 Conclusions	137
5.6 Recommendations for future work	138
Appendix A Part 1 - Geochemical results	139 155
Part 2 - Locations of samples Appendix B - Isotope geochronological results	155
Appendix C - Citations for comparison data sets used in geochemistry sections of	174
chapters 3 and 4	
Appendix D - Mineral modal abundances, chapter 4	176
Bibliography	178

Index of Figures

Chapter	1
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Fig 1.1 Tectonostratigraphic terrane map of South East Mongolia, after Badarch et al. (2002).	2
Fig 1.2 Digital elevation model of Mongolia showing locations of various mountain ranges.	3
Fig. 1.3 Satellite image showing locations of inliers investigated in this study and mineral deposits from the SE Gobi region.	4
Chapter 2	
Fig. 2.1 Two interpretations of the tectonic setting in southeast Mongolia during Devonian-Carboniferous time.	9
Fig. 2.2 Landsat image of Saykhandulaan Inlier.	11
Fig. 2.3 Interpreted Landsat image of the Northern Slate Belt.	12
Fig. 2.4 Photographs of cross-stratification in meta-psammite of Northern Slate Belt	14
Fig. 2.5 Lithological logs from southern zone of Northern Slate Belt.	15
Fig 2.6 Photomicrographs of lithologies from Northern Slate Belt	16
Fig 2.7 Features of large quartz veins, Northern Slate Belt	17
Fig. 2.8 Aerial photograph and interpretation of the southern part of the Saykhandulaan inlier	19
Fig. 2.9 Stratigraphic columns for Saykhandulaan Valley Volcanic Formation	20
Fig 2.10 Photographs of conglomerates from the northern margin, High Strain Belt	21
Fig. 2.11 Lithological logs, photographs and structural data from Molasse Succession	22
Fig. 2.12 Sandstone compositional data from Northern Slate Belt, High Strain Belt and Molasse Succession	26
Fig. 2.13 Total Alkalis Silica (TAS) for Saykhandulaan Valley Formation Volcanic rocks.	27
Fig. 2.14 Harker variation diagrams for Saykhandulaan Valley Formation Volcanic rocks	28
Fig. 2.15 Log Ba versus log Sr diagram for Saykhandulaan Valley Formation Volcanic rocks	29
Fig. 2.16 Relative stratigraphic position versus Na ₂ O+K ₂ O, Y, Sr, Rb for Saykhandulaan Valley Formation volcanic rocks.	29
Fig. 2.17 Spidergram of trace elements for Saykhandulaan Valley Formation volcanic rocks	30
Fig. 2.18 Isocon diagrams of altered samples versus least-altered-equivalents for Saykhandulaan Valley Formation Volcanic rocks.	31
Fig. 2.19 Individual structural transects through Northern Slate Belt and combined summary section incorporating all lines.	32
Fig. 2.20 Transect line through High-Strain Belt	33

Fig. 2.21 Transect line through Oyut Ulaan Volcanic Group.	34
Fig 2.22 Photos of fault related features of Saykhandulaan Valley Lineament Zone	35
Fig. 2.23 Structural and orientation data of faults in Saykhandulaan Valley Linea- ment Zone	36
Fig. 2.24 Evolutionary model to illustrate the Devonian-Permian development of the Saykhandulaan Inlier.	37
Fig. 2.25 Landsat image of Saykhandulaan Inlier. Interpreted and measured faults from inlier shown with movement sense.	41
Chapter 3	
Fig. 3.1 Devonian and Carboniferous paleogeographic interpretations of south Mon- golia	45
Fig. 3.2 Map of OUVG outcrop areas,	47
Fig. 3.3 Stratigraphic columns and cross section from Gurvan Morin Höndiy Forma- tion,	49
Fig. 3.4 Photomicrographs illustrating volcanic lithologies in OUVG	50
& continued	51
Fig. 3.5 Lithological logs and photographs of Gurvan Morin Höndiy Formation	52
Fig. 3.6 Panoramic photograph showing 40m thick conglomeratic succession, photo- graph showing granite clast	53
Fig. 3.7 Field photographs of Gurvan Morin Höndiy Formation	56
Fig. 3.8 Stratigraphic columns from Shargyn Moghai Formation	57
Fig. 3.9 Stratigraphic column and cross section from Tsagaan Nuruu Formation,	59
Fig. 3.10 Lithological logs and photographs from upper part of Tsagaan Nuruu For- mation	60
Fig. 3.11 Stratigraphic column from Yasun Eliy-e Formation	61
Fig. 3.12 Lithological log and photograph from Yasun Eliy-e Formation	62
Fig. 3.13 Structural relationship between Gurvan Morin Höndiy formation and Ya- sun Eliy-e formation out crop areas.	63
Fig. 3.14 Concordia diagrams for the granite cobble from the Gurvan Morin Höndiy Formation and the rhyolitic unit from the lower parts of the Tsagaan Nuruu Forma- tion	65
Fig. 3.15 Total Alkalis Silica diagrams after Le Bas et al. (1986) for Oyut Ulaan Vol- canic Group	67
& continued	68
Fig. 3.16 Spidergrams for trace elements	69
Fig. 3.17 Ce/Y versus Zr/TiO2 and Zr/Y versus Nb/Y diagrams for basalts and ande- sites from Yasun Eliy-e Formation, Gurvan Morin Höndiy Formation and Shargyn Moghai Formation.	70

Fig. 3.18 Various elements plotted against stratigraphic height to show systematic variations throughout the Oyut Ulaan Volcanic Group	71
Fig. 3.19 Diagrams to show A-type and A_2 -type signature of the rhyolitic components of the TNF	72
Fig. 3.20 Interpretive volcanic environment and magma-chamber models for the various formations of the Oyut Ulaan Volcanic Group.	74
Fig. 3.21 Interpretation of sequence of tectonic events that controlled the Oyut Ulaan Volcanism.	78
Chapter 4	
Fig. 4.1 Regional geological map showing distribution of granite bodies, Palaeozoic inliers Mesozoic and Cenozoic basins and faults	82
Fig. 4.2 a) Quickbird satellite image of the Oyut Ulaan Intrusion and interpretation thereof.	86
Fig. 4.3 Photomicrographs of the Oyut Ulaan main intrusion and the andesite dykes	87
Fig. 4.4 Maps and rose plots showing morphology and cross-cutting relationships of 3 separate dyke swarms identified in the Oyut Ulaan intrusion.	88
Fig. 4.5 Photographs, Satellite images and maps of Tourmaline breccia pipes	90
Fig. 4.6 a) Composite volcanic/plutonic Total Alkalis Silica diagram for Oyut Ulaan Intrusive Complex rocks.	92
Fig. 4.7 Harker variation diagrams of major and trace elements vs SiO2 for the Oyut Ulaan intrusive complex	93
& continued	94
& continued	95
Fig. 4.8 Log Ba versus log Sr diagram for Oyut Ulaan Intrusive Complex rocks.	97
Fig. 4.9 Geospatial contour plots for various elemental abundances, Oyut Ulaan in- trusion	98
Fig. 4.10 Concordia diagrams for the main Oyut Ulaan Intrusion and the late-stage andesite dykes.	100
Fig. 4.11 Interpreted sequence of emplacement of the Oyut Ulaan plutonic complex.	101
Fig. 4.12 Interpretive EW cross section through east margin of intrusion, showing possible relationships of dykes, faults and roof-pendants.	102
Fig. 4.13 Landsat TM imagery showing the location of the various intrusions within the wider region.	105
Fig. 4.14 Photomicrographs of various lithologies from the intrusions of the region.	106

& continued	107
Fig. 4.15 Assorted geochemical diagrams for all intrusions: Total Alkalis Silica; A/ CNK (Alkali saturation index; $Al_2O_3/[K_2O + Na_2O + CaO]$) vs A/NK ($Al_2O_3/[K_2O + Na_2O]$); SiO ₂ vs P ₂ O ₅ ; Zr vs 10000*Ga/Al; Y/Nb vs Sc/Nb (caption on preceding page).	110
Fig. 4.16 Harker variation diagrams of major and trace elements vs SiO2 for intru- sions of the region.	111
& continued	112
& continued	113
Table 4.1 Characteristics of intrusion groups	114
Fig. 4.17 Bar chart of correlation coefficients for average elemental abundaces from Group 1 versus average elemental abundances from various plutons from locations worldwide.	115
Fig. 4.18 Spidergrams of trace element abundances from all analysed samples; nor- malised to NMORB and average upper crustal values	116
& continued	117
Fig. 4.19 Concorda diagrams for dated intrusions from the region.	120
& continued	121
& continued	122
Fig. 4.20 Summary of ages from this chapter, chapter 3 and published literature	124
Chapter 5	
Fig. 5.1 Landsat satellite image showing the Saykhandulaan inlier, annotated with features that show westward down-tilt of whole inlier.	129
Fig. 5.2 Landsat Satellite image showing the southeast Gobi region with the inliers studied here marked, and the terrane model of Badarch et al. 2002 superimposed	131
Fig. 5.3 (next page) Three satellite image maps to show the time periods of emplacement of different groups of intrusions (figure caption on preceding page)	133
Fig. 5.4 Proposed new path of the Mandalovoo-Gurvansayhan boundary.	134
Fig. 5.5 Y+Nb vs Rb diagram, dashed line shows field of results from granites of NE China	136

Introduction

This thesis concerns the Palaeozoic crustal evolution of the Saykhandulaan inlier, a large area of basement exposure within the Southeast Gobi Desert region of Mongolia (Fig. 1.1). The Saykhandulaan inlier contains one of the largest areas of basement rock exposure in southeast Mongolia and thus provides an important window into the Palaeozoic crustal evolution of the region. The inlier contains a wide range of Palaeozoic lithologies, including diverse volcanic rocks, siliciclastic and volcaniclastic sedimentary rocks and a major monzonitic intrusion (the Oyut Ulaan intrusive complex) which has potential economic copper-gold mineralisation. The Saykhandulaan inlier is within the Southeast Gobi Mineral Belt, which has developed into a major industrial exploration frontier province during the last fifteen years (Fig 1.1). In this thesis, the tectonic setting and geological history of the Saykhandulaan inlier are interpreted, and mineralised intrusions from the inlier and the surrounding region are put into spatial, temporal and lithological context (Fig 1.1).

The specific objectives of this project were: (1) to document the basement rocks of the inlier including their protoliths and environments of deposition; (2) to establish the structural architecture and extent and nature of metamorphism; (3) to describe the volcanic stratigraphy and establish its volcanic environment; (4) to document the magmatic evolution of the Oyut Ulaan intrusive complex, and its relationship to surrounding volcanic sequences within an evolving tectonic setting; (5) identify age and geochemical character of the Oyut Ulaan intrusive complex and other mineralised intrusions from the region, in order to investigate the timing and distribution of silicic magmatism and associated mineralisation within the Southeast Gobi Mineral Belt and; (6) to test existing terrane models for Palaeozoic arc magmatism and accretion in southeast Mongolia.

Fieldwork was carried out over twenty weeks in the summers of 2003 and 2004, mainly within the Saykhandulaan inlier (Fig 1.1). A range of geological techniques was employed, including completion of structural transects, lithological mapping and sedimentological analysis of key sections, and sampling for petrological, geochemical and geochronological analysis. Six granitoids were also sampled for geochemical and geochronological analysis from the neighbouring Mandakh inlier (Fig 1.2).

Laboratory work was carried out at the University of Leicester, the British Geological Survey, and the NERC Isotopes Geosciences Laboratories, and included X-ray fluorescence, to measure major and trace element abundances for a suite of volcanic and intrusive

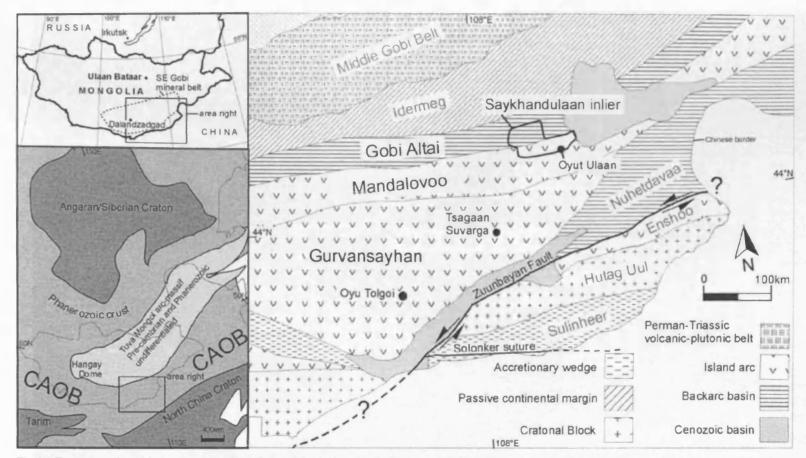


Fig 1.1 Tectonostratigraphic terrane map of South East Mongolia, after Badarch et al. (2002). Location and offset sense of Zuunbayan Fault after Lamb et al. (1999). Location of Solonker Suture after Xaio et al. (2003) Location of terrane boundaries in China not shown because of uncertain correlations there. Inset maps show regional political boundaries (top) and locations of Precambrian cratons and terrane collage comprising Central Asian Orogenic Belt (CAOB) after Şengör and Natal'in (1996) and Helo et al. (2006); bottom).

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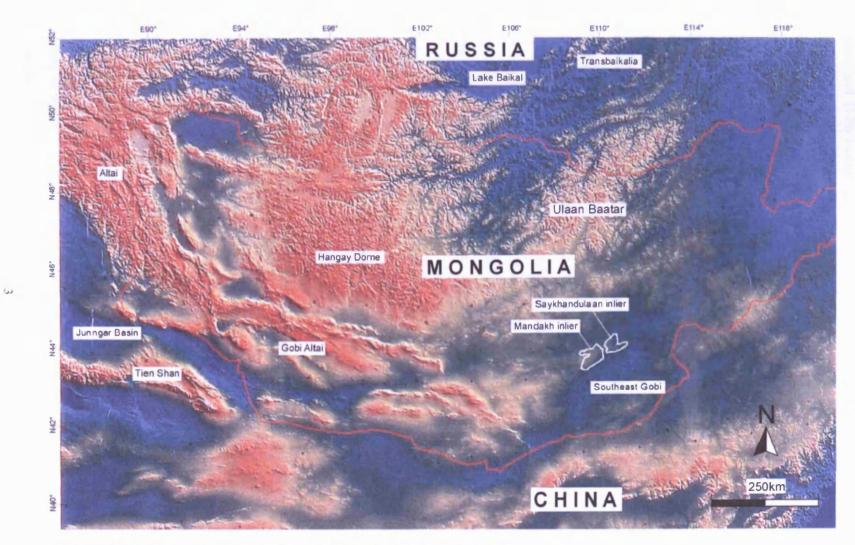


Fig 1.2 Digital elevation model of Mongolia showing locations of various mountain ranges.

samples; and U-Pb isotope geochronology, to develop a detailed time-sequence for the emplacement of mineralised intrusions and volcanism within the region. Petrography was carried out to document lithologies and textures, establish sedimentary provenance, and measure mineral modal abundances. Satellite image interpretation was undertaken, at several scales, to identify structures and geomorphological features.

1.2 Wider Context of Project

This project connects with longstanding geological research activities in Mongolia, carried out by members of the Crustal Processes Group at the University of Leicester. The project builds on previous work, concerning the structure and basin architecture of the Altai and Gobi Altai (Cunningham, 1998; Buchan et al., 2002; Windley et al., 2002; Cunningham, 2005; and references therein) however, it also represents a new direction because it concerns the basement evolution, crustal growth and metallogeny of southeast Mongolia. The project was funded by the National Environmental Research Council (NERC). The British Geological Survey (BGS) supported and co-supervised this work, and it forms part of ongoing involvement by the BGS into economic minerals research and international development. Ivanhoe Mines Ltd is carrying out a wide-ranging mineral exploration programme across southern Mongolia following on from their development of the giant Oyu Tolgoi (Fig 1.1, 1.3) gold-rich copper porphyry within the region. Ivanhoe Mines Ltd provided scientific and logistical support to this project.

1.3 Chapter Synopsis

This thesis contains three chapters that have each been prepared as pre-publication manuscripts.

In Chapter 2 the lithology and structure of the Saykhandulaan inlier are described. The inlier is comprised of Devonian-Permian lithologies, and has a dominant E-W structural grain. Results from cross-strike transects within the Saykhandulaan inlier reveal that it can be subdivided into five parallel E-W striking litho-tectonic domains; 1) the Northern Slate Belt, comprising Devonian greenschist grade pelites and psammites with deep-marine to coastal siliciclastic protoliths; 2) the Saykhandulaan Valley Lineament Zone (SVLZ), a tectonised zone of faulted and lithologically altered volcanic rocks; 3) the High Strain Belt, consisting of tightly folded and flattened metamorphosed clastic sedimentary rocks; 4) the Molasse Succession, consisting of relatively undeformed coarse conglomerates and

sandstones and, 5) the Oyut Ulaan Volcanic Group, a nearly 5 km-thick folded Carboniferous volcanic succession that hosts the mid-Carboniferous Oyut Ulaan mineralised intrusive complex. The Northern Slate Belt metasedimentary rocks record a northerly cratonic provenance, whereas all rocks to the south of the SVLZ have arc affinities. The SVLZ is interpreted to be a major terrane boundary between the Gobi Altai and Mandalovoo terranes. Two major deformation events are interpreted in the region; 1) back-arc basin closure and inversion involving regional scale folding and greenschist grade metamorphism in the Northern Slate and High Strain Belts; 2) contraction associated with Mandalovoo terrane accretion and final closure of the Palaeo-Asian Ocean to the south. Following further modified the crustal architecture of the inlier. Chapter 2 has been submitted for publication in a special issue of the *Journal of Asian Earth Sciences* on the geodynamics and metallogeny of the Altaid Orogeny. It was favourably reviewed and is now awaiting final acceptance.

Chapter 3 focuses on the stratigraphy and magmatic evolution of the Oyut Ulaan Volcanic Group (OUVG). The OUVG is a sequence of volcanic and sedimentary rocks, which provides important evidence for the nature of arc activity in the southeast Mongolia sector of the Central Asian Orogenic Belt during the Carboniferous. The OUVG forms the southern part of the Saykhandulaan inlier, and is comprised of four distinct formations. The Yasun Eliy-e Formation is composed of basalts, basaltic andesites, conglomerates and immature volcanic sandstones and is intruded by the mineralised Oyut Ulaan Granite; the Gurvan Morin Höndiy Formation is comprised of interbedded coarse conglomerates, sandstones and thick andesites and basalts; the Shargyn Moghai formation is entirely composed of volcanic lithologies with a range of compositions from basalts to dacites; finally, the Tsagaan Nuruu formation is composed of thick ash-fall deposits punctuated by lava-like ignimbrites. Physical volcanological and sedimentological interpretations characterise three clear eruptive styles; periodic andesite volcanism in an actively eroding arc-setting, containing large rivers and swamps; highly effusive andesite-field volcanism; and explosive rhyolitic volcanism. Geochemical analyses of volcanic lithologies suggest the group represents subduction-related, mature, continental-arc volcanism. Interpretations of geochemical results relate surface processes of the volcano-sedimentary model to an evolving magma chamber. Magma pulses and replenishments are identified from variations in the chemostratigraphy. Zircon U/Pb isotope ages from a felsic volcanic horizon and a granitoid cobble from an intercalated conglomerate constrain the timing of extrusion of the

OUVG to the mid-Carboniferous, and show that the OUVG contains clasts derived from older arc-related plutons, emplaced, uplifted, eroded and deposited within around 10 M.y. Chapter 3 will be condensed and submitted for publication to *Earth and Planetary Science Letters* in 2007.

Chapter 4 has two parts. The first part documents the field relations, geochemical evolution and absolute age of the Oyut Ulaan intrusive complex, which cuts the Oyut Ulaan Volcanic Group. The Oyut Ulaan intrusive complex was selected for study because, at the onset of the project, it was a focus for exploration activity. Now, three years later, exploration interests have shifted elsewhere, but the complex remains of academic interest. Oyut Ulaan is a quartz-monzonite pluton, elongate in the EW direction, which is apparently fault bound on most sides. The main intrusion is cut by several sets of dykes of varying lithologies, and a tourmaline breccia pipe cluster that post-dates the dykes. The magmatic evolution and dyke paragenesis are discussed, and new absolute age data are presented for the quartz-monzonite and for a major andesite dyke swarm that cuts the intrusion.

The second part of chapter 4 concerns geochemical and geochronological data from one other intrusion within the Saykhandulaan inlier and six other intrusions within the Mandakh inlier (Figs. 1.2 & 1.3). The Mandakh inlier has a much larger proportion of its outcrop area taken up by granitoid lithologies. New absolute age data are presented for four of the intrusions, and comparisons are made between these bodies and the Oyut Ulaan intrusive complex, and also other mineralised and non-mineralised intrusions from the wider region. It is planned that chapter 4 will be condensed and submitted for publication to the Journal of the Geological Society in 2007.

Chapter 5 is a conclusion section in which results and interpretations from each of the preceding three chapters are synthesised, and integrated, to develop a new model for crustal growth and terrane accretion in southeast Mongolia.

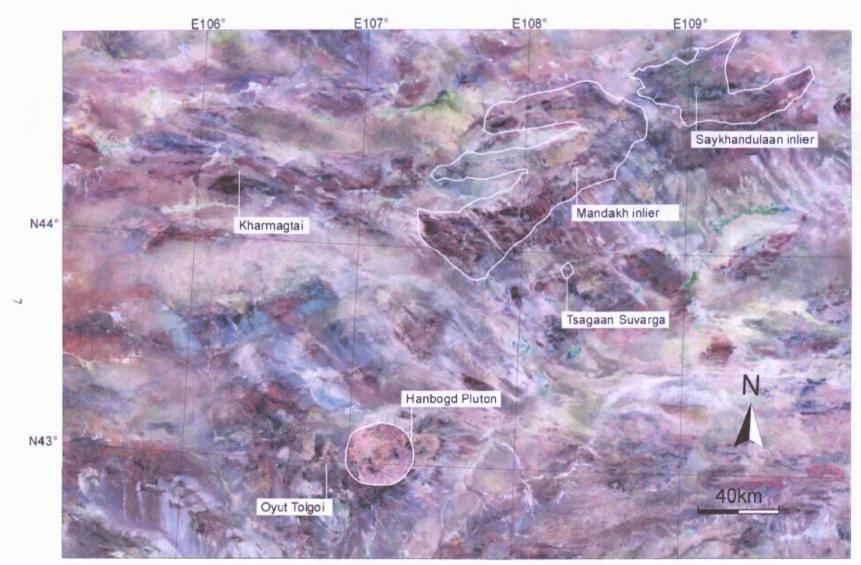


Fig. 1.3 Satellite image showing locations of inliers investigated in this study and mineral deposits from the SE Gobi region.

Crustal evolution of the Saykhandulaan Inlier, Mongolia: Implications for Palaeozoic arc magmatism, polyphase deformation and terrane accretion in the Southeast Gobi Mineral Belt

2

2.1 Introduction

The Gobi region of southeastern Mongolia lies within the Central Asian Orogenic Belt (CAOB), the Earth's largest area of Phanerozoic continental growth, and is a natural laboratory for documenting processes of terrane accretion and amalgamation (Sengör et al., 1993; Şengör and Natal'in, 1996; Badarch et al., 2002). Important mineral deposits have been discovered in the SE Gobi region during the last decade and consequently the region is now a major mineral exploration province. Nevertheless, few studies exist documenting the basement evolution and lithotectonic context of the SE Gobi mineral belt (Lamb and Badarch, 2001; Badarch et al., 2002; Xiao et al., 2003). This is partly because the area is remote, has low relief, and in general, displays poor outcrop exposure. However, the Saykhandulaan Inlier (Fig. 1.1), which crops-out 400 km to the south of Ulaan Baatar is unusual because it contains a large area of basement exposure and provides a good opportunity for unravelling the major tectonic, metamorphic and intrusive events that have affected the SE Gobi mineral belt. In addition, it hosts the Oyut Ulaan Cu-Au porphyry prospect and is along strike from other major exploration targets in the region. Therefore, a detailed multidisciplinary study incorporating field investigations and structural and geochemical analysis was carried out during 2004-2006 to document the crustal evolution of the Saykhandulaan Inlier and the terrane context of SE Gobi mineralisation.

2.1.1 Regional geology

The CAOB records terrane accretion and crustal growth between the Angaran craton (also known as the Siberian Craton) and the North China Craton from the Late Precambrian to Permian (Fig. 1.1). The CAOB reaches from Kazakhstan to Eastern Siberia and averages around 300 km wide (Xiao et al., 2003; 2004). Terranes in Southern Mongolia lie within the CAOB, to the north of the main Permian Solonker suture, which marks the final closure of the Palaeo-Asian Ocean in the Permian (Wang and Liu, 1986; Xiao et al., 2003; Li, 2006). The basement geology of South Mongolia consists of island-arc, backarc/forearc basin and accretionary prism terranes that accreted around a Precambrian cratonic block that lies under the Hangay Dome in central Mongolia (Fig. 1.1; Şengör and Natal'in, 1996; Badarch et al.

2002). These terranes record the tectonic evolution of the northern margin of the Palaeo-Asian Ocean during the Palaeozoic, generally interpreted to have taken place above a northward dipping subduction zone.

Two hypotheses exist for the formation of the Mongolian CAOB crust during the Palaeozoic. Şengör and Natal'in (1996), postulated one long-lived island-arc, with a complex history of magmatic front migration, strike-slip motion and oroclinal bending along its length prior to terminal accretion (Fig. 2.1a). An alternative model by Mossakovsky and Dergunov (1985), and developed by Ruzhentsev and Pospelov, (1992), Zorin et al., (1993) Mossakovsky et al. (1994), and Badarch et al. (2002), proposed the existence of multiple island arcs drifting across the Palaeo-Asian Ocean and accreting various arc-marginal basin terranes and ophiolite slivers before terminal collision against the southern margin of Siberia/Hangay (Fig. 2.1b).

Badarch et al. (2002) suggest that southeastern Mongolia is dominated by two Ordovician-Carboniferous island-arc terranes (Fig. 1.1), the Gurvansaykhan and Mandalovoo terranes, which are surrounded by the Ordovician-Carboniferous Gobi Altai back-arc/fore-arc terrane to the north and the Nuhetdavaa back-arc/fore-arc terrane to the

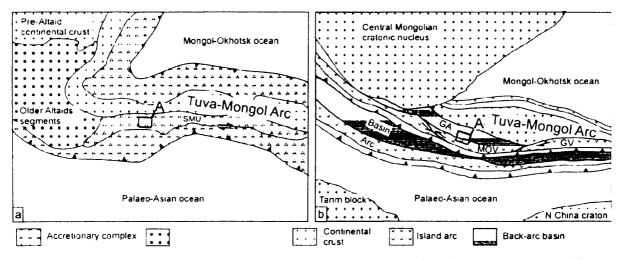


Fig. 2.1 Two interpretations of the tectonic setting in southeast Mongolia during Devonian-Carboniferous time. a) Early Carboniferous palaeotectonic reconstruction of the Tuva-Mongol are (after Sengor and Natal'in, 1996). Growth of the arc takes place via accretion above northward dipping subduction zone, and strike-slip faulting along the arc front. The South Mongolian Unit (marked SMU) is a subduction-accretion complex, which represents the majority of the Palaeozoic crustal growth in southeast Mongolia. Box A shows approximate position of the study area. b) Simplified reconstruction of Devonian-Carboniferous terrane positions in South Mongolia, after Badarch et al. (2002). The diagram shows two northward dipping subduction zones beneath parallel E-W island ares. The Mandalovoo (MOV) and Gurvansayhan (GV) terranes represent laterally contiguous sections of the same are. The Gobi Altai terrane (GA) is a back are basin to the north of the arc. Back-arc/ fore-arc basins to the south (marked 'Basin') include, from west to east, segments identified by Badarch et al. (2002) as the Baaran, Atasbogd and Nuhetdavaa terranes (un-differentiated on diagram). The arc to the south (marked 'Arc') includes, from west to east, segments identified by Badarch et al. (2002) as the Baaran (Fig 2.2).

south. The Gurvansaykhan and Mandalovoo terranes are interpreted to have originally been along-strike equivalents of a contiguous island arc, but dextral strike-slip faults shunted the Gurvansaykhan terrane southwest to its current location. South of these two terranes, near the Sino-Mongolian border, a series of parallel island-arc, accretionary wedge and cratonal terranes record a separate subduction-accretion history (Figs. 1.1, 2.1; Badarch et al., 2002).

Subsequent to Palaeo-Asian suturing at the end of the Permian, Mongolia underwent several periods of intracontinental deformation. Left-lateral strike-slip faults were active in southeast Mongolia from the Triassic to late Cretaceous (Lamb et al., 1999) and between 185-235 km of left-lateral offset occurred along the Zuunbayan Fault, which forms the southeast margin of the Gurvansaykhan terrane (Fig. 1.1). Further west, a Jurassic contractional phase of deformation is expressed by E-W trending thrust faults along the Mongolian-Chinese border (Zheng et al., 1996). Southeast Mongolia and adjacent regions of China experienced a major phase of NW-SE crustal extension during the Jurassic-Cretaceous (Meng et al., 2003). Jurassic-Cretaceous clastic and volcanic stratigraphy fill low-relief basins throughout the region including areas adjacent to the Saykhandulaan Inlier. The rifting is interpreted to be a distal effect of Pacific-rim back-arc extension (Graham et al., 2001). Cretaceous-Tertiary thermal uplift and volcanism are widely distributed in central, southern and southeastern Mongolia and are possibly related to a steady state thermal anomaly in the mantle beneath Mongolia and Eastern China (Barry and Kent, 1998). Sinistral transpressional deformation driven by the Indo-Eurasia collision, has reactivated the Gobi Altai region in south and west Mongolia during the late Cenozoic (Cunningham, 1998). However, there is only limited evidence for renewed tectonism in southeast Mongolia (Webb and Johnson, 2006)

Major porphyry copper discoveries in the region include the Oyu Tolgoi gold-rich deposit, which occurs within the Gurvansaykhan arc terrane, 260 km to the southwest of the Saykhandulaan Inlier (Fig. 1.1; Badarch et al., 2002). Mineralisation at Oyu Tolgoi is associated with arc related Siluro-Devonian porphyry magmatism intruded into lavas and clastic sedimentary rocks (Perello et al., 2001). Another important deposit is Tsagaan Suvarga, a copper-molybdenum porphyry hosted in a Devonian calc-alkaline granite complex, 120 km southwest of the Saykhandulaan Inlier (Fig. 1.1; Watanabe and Stein, 2000). To the north, the Mandalovoo terrane also contains several porphyry-style prospects in an east-west trending belt. Part of the Mandalovoo terrane lies within the Saykhandulaan Inlier and contains the Oyut Ulaan copper-gold prospect (Fig. 1.1).

2.2 Litho-tectonic domains

The Saykhandulaan Inlier spans the boundary between the Gobi Altai terrane to the north, and the Mandalovoo terrane to the south (Fig. 1.1). The Saykhandulaan Valley Lineament Zone (SVLZ) trends approximately east-west and marks the terrane boundary through the inlier (Fig. 2.2). Five lithological and structural domains are identified within the inlier (Fig. 2.2). North of the SVLZ is the Northern Slate Belt (NSB) which contains folded siliciclastic meta-sediments. The NSB is overlapped in the east and north by several basalt fields (undated, but probably correlative with Jurassic-Cretaceous lavas elsewhere in the region). The SVLZ is 1 - 1.5 km wide and contains a range of lithologies, including volcanic rocks of the Saykhandulaan Valley Formation (SVF) which mainly consist of altered intermediate and felsic lavas. To the south of the SVLZ are several parallel lithotectonic domains. The High Strain Belt (HSB) contains greenschist grade meta-sandstones and conglomerates deformed into tight-to-isoclinal folds. It is exposed across the full east-west width of the inlier. The Molasse Succession (MS) contains relatively undeformed conglomerates, sandstones and mudstones, and crops out to the south of the HSB. The Oyut Ulaan Volcanic Group (OUVG) contains a wide range of volcanic and sedimentary

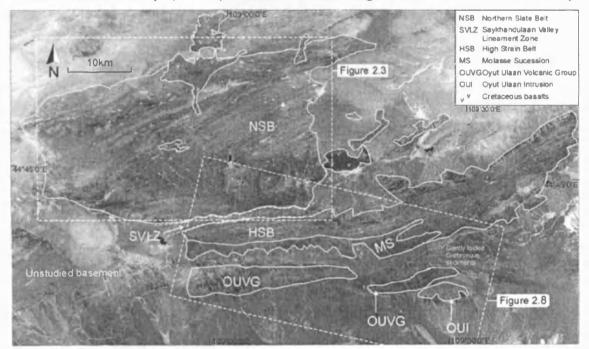


Fig. 2.2 Landsat image of Saykhandulaan Inlier, location shown in Fig. 1.1. Litho-tectonic domains marked: NSB - Northern Slate Belt; SVLZ - Saykhandulaan Valley Lineament Zone; HSB - High Strain Belt; MS -Molasse Succession; OUVG - Oyut Ulaan Volcanic Group; OUI - Oyut Ulaan Intrusion. Areas outside of marked litho-tectonic domains contain Mesozoic-Cenozoic sedimentary cover sequences and lavas.

Chapter 2. Crustal evolution of the Saykhandulaan Inlier, Mongolia

lithologies and defines the southern margin of the inlier. The Oyut Ulaan Intrusion (OUI) cuts rocks of the OUVG in the southeast corner of the inlier (Fig. 2.2). The inlier is surrounded by basins containing Upper Jurassic to Cretaceous and Quaternary sediments (Figs. 2.2, and 2.3; Graham et al., 2001). The inlier contains subdued topography with a maximum relief of 50 m, outcrop quality is variable and in many areas contacts and faults are not exposed.

Lithological characteristics of each of the domains defined above are described in detail from north to south.

2.2.1 Northern Slate belt

The Northern Slate Belt is a folded meta-sedimentary sequence (Figs. 2.2 and 2.3). Its metamorphic grade reaches lower greenschist grade in some areas. In the north, this sequence is dominated by pelites with well-developed cleavage; the protolith coarsens to the south where fine- to medium-grained psammites locally dominate. An outstanding feature of this unit is the presence of abundant and volumetrically significant quartz veins.

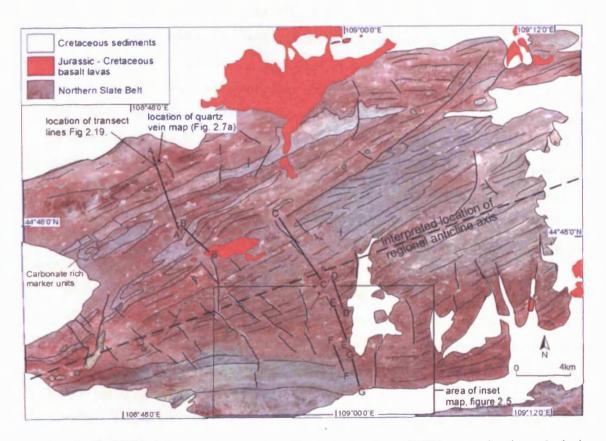


Fig. 2.3 Interpreted Landsat image of the Northern Slate Belt. Dominant NE-SW structural grain emphasised with fine lines. Locations of transect segments shown.

The main rock type of the NSB is grey pelite, which crops-out in beds 0.5 to 2 m thick throughout the belt. Few original sedimentary features were observed, but rare graded bedding occurs and in some localities units exhibit clay drapes and fine-sand lag-bases. The sequence also features sparsely distributed 20 to 50 cm thick beds of fine- to medium-grained meta-psammite which appear brown on weathered surfaces, and locally exhibit planar cross stratification (Fig 2.4 a).

In the west of the NSB where shallower stratigraphic levels are exposed, psammitic lithologies are dominant, featuring up to 1 m thick medium-grained units interbedded with relatively thin (20 to 30 cm) pelitic material. In one section, flame and lobe structures, ripup clasts and swaley cross stratification (Fig 2.4 b) occur in the psammite beds and provide younging criteria, however, original sedimentary features were rarely observed outside of psammite dominated areas.

Lithologies from the southwest corner of the NSB are generally less-deformed, are of a lower metamorphic grade than the rest of the belt, and are sandstone dominated. Lithological logs from the south of the NSB show tabular sandstone bodies of between 10 and 50cm thickness, interbedded with mudstone sequences of up to 1 m thick. Flame structures, lag bases, rip-up clasts and climbing ripples are present (Fig. 2.5).

In thin-section, the sand-grade units show different degrees of deformation and metamorphism, from relatively uncleaved greywacke (Fig 2.6, a and b), to greenschist-grade psammites (Fig 2.6, c to f). The metamorphic fabric consists of recrystallised quartz grains and a micaceous slatey cleavage. Several samples display a penetrative crenulation cleavage and some have isolated kink bands. Locally, siderite forms a cement and secondary replacement phase. The rocks are generally more calcareous in the northern sector of the NSB; sparse outcrops of a bio-micritic limestone with small broken crinoid fragments occur near its northern boundary.

Throughout the NSB, quartz veins cut the succession, the largest of which can be seen from tens of kilometres away and form the highest topographic features in the belt (Fig. 2.7 The veins trend ENE, deviating from the orientation of the regional cleavage by 10 to 20°. Three generations of veins occur, the oldest are metre-wide veins (Fig. 2.7 b) which are commonly cut by main mega-vein bodies (Fig. 2.7 a), which are, in turn, cut by thin quartz-stockworks. Visible mineralisation is rare, although manganite (MnO·OH) was observed within zones densely penetrated by 30-70cm wide veins. The giant veins and vein zones are found in discrete corridors, with other areas exhibiting little to no veining. Several of the

Chapter 2. Crustal evolution of the Saykhandulaan Inlier, Mongolia



Fig 2.4 a) Planar cross stratification in meta psammite of Northern Slate Belt; b) Swaley cross stratification in meta-psammite of Northern Slate Belt

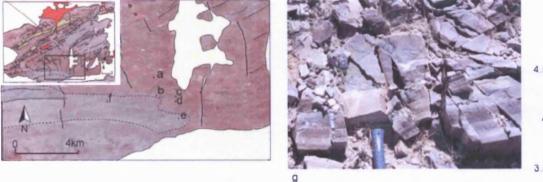
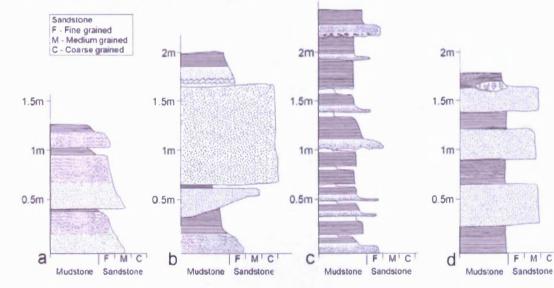
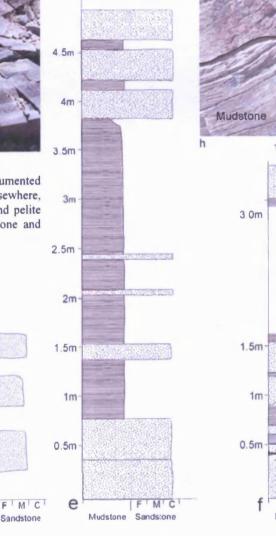
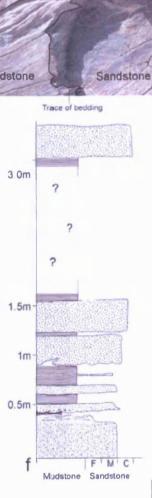


Fig. 2.5 a-f) Lithological logs from southern zone of Northern Slate Belt. Coarser lithologies documented in these logs, occur in south of belt where psammitic bands are thicker and more widespread. Elsewhere, to the north, the belt is dominated by pelites with slatey cleavage. g) fine grained psammite and pelite interbeds similar to log c. h) flame structure preserved in relatively un-metamorphosed sandstone and mudstone from log f, beds young to top right.







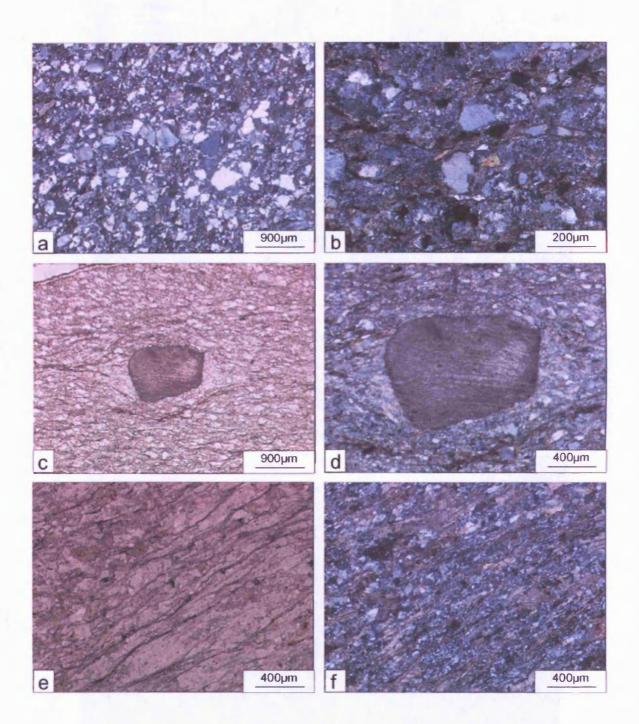


Fig 2.6 a), b) Greywacke from NSB in XPL,; c) & d) deformation around lithic clast in fine greywacke from NSB PPL, XPL respectively. e) & f) greenschist grade metapsammite with clear cleavage.

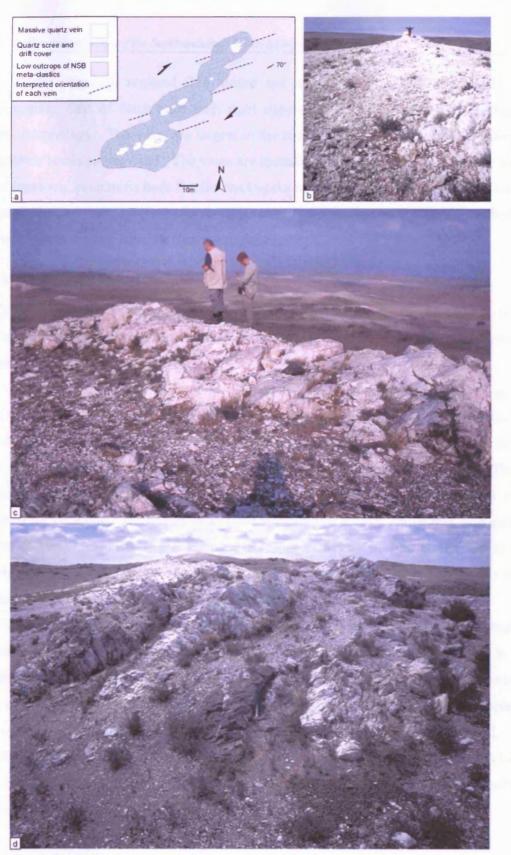


Fig. 2.7 a) Map of large en-echelon quartz vein array (location noted on Fig. 2.3) with arrows to show interpreted dextral shear sense. b) View NE of major quartz vein outcrop. c) View SE from top of vein outcrop, more large veins visible in distance. d) View NE of composite vein array.

larger tabular veins cut regional fold hinges and some smaller veins have saddle reef morphologies. Sets of veins have both right stepping (Fig. 2.7 a) and left stepping enechelon morphology. The veins are largest in the southeast of the NSB, where the deepest stratigraphic levels are exposed. The veins are spatially related to coarser lithologies, and at several locations, psammitic beds feature stockworks of quartz veins. The geological map of Mongolia (Tomurtogoo, 1999) shows the NSB to be Devonian in age. However, no absolute radiometric ages are available for this assemblage.

2.2.2 Saykhandulaan Valley Lineament Zone

The SVLZ runs approximately east-west (085N) across the inlier, forming a 1 to 1.5 km wide corridor of small isolated hills with little outcrop, between the NSB to the north and HSB to the south (Figs. 2.2 and 2.8).

Volcanic strata of the Saykhandulaan Valley Formation are best exposed in a ridge that trends 070, in its western reaches of the SVLZ (see box marking location of outcrop on Fig. 2.8). An approximately 200m thick sequence of extrusive rocks (Fig. 2.9) crops out in this ridge. An amygdaloidal trachydacite (>20m) is at the base of the succession. This is overlain by a white rhyolite (~90m), which contains sub-planar flow-bands and local zones of intense flow-folding. A variably-brecciated trachyte (70 m) lies above this, and another trachyte (>25m), featuring dense euhedral feldspar phenocrysts, lies at the top of the sequence. Rhyolites and trachytes crop out at numerous other localities throughout the zone, commonly in prominent ridges with similar 070 trends.

Along the southern edge of the SVLZ, at the foot of some of the steepest and highest topography in the inlier, basic dykes crop-out, both parallel and perpendicular to the lineament. Brecciated and fractured lithologies are common near the ends of the prominent ridges in the zone. Cataclastic microtextures are seen in thin-section from several samples in these areas. Quartz in some of the felsic lithologies has been extensively recrystallised.

The geological map of Mongolia (Tomurtogoo, 1999) shows the area of the SVLZ to be Carboniferous and Permian in age. However, no absolute radiometric ages are available for lithologies from within the SLVZ.

2.2.3 High-Strain Belt

The HSB is the zone of highest deformation in the inlier (Fig. 2.8). Its northern margin is the abrupt southern edge of the SVLZ. Directly south of the SVLZ, altered, green, cobble- to boulder-conglomerates, containing clasts of mafic extrusive lithologies, form



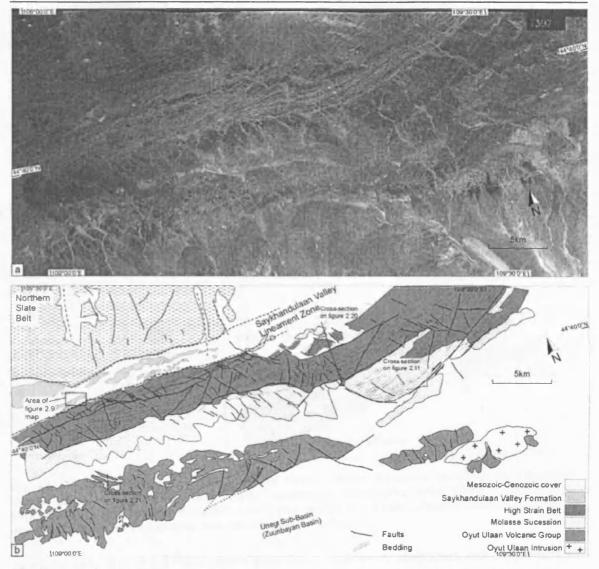


Fig. 2.8 - a) Aerial photograph of the southern part of the field area. Location of Fig. shown in Fig. 2.2. Notice dominant ENE-WSW structural grain. b) Interpretation of Fig. 2.8 a showing litho-tectonic units: High Strain Belt, Molasse Succession; Oyut Ulaan Volcanic Group; Oyut Ulaan Intrusion. Dominant structural grain marked with fine lines. Faults, observed and interpreted, marked with thicker lines. Locations of transect lines shown.

ENE trending ridges comprising the highest topography of the inlier (Fig 2.10). The metamorphic grade appears locally elevated; some metabasite clasts are entirely altered to amphibolite. Two parallel bands of these higher-grade rocks occur in the north of the HSB, with a narrow band of greenschist-grade meta-clastic rocks between them. The relationship between the areas of lithologies with different metamorphic grades is not clear, as the contact between them is not exposed.

South of the meta-conglomerates, the HSB is comprised of meta-clastic rocks featuring a range of protolith grain sizes from mud to gravel-conglomerate. This part of the belt is similar to the NSB; cleavage is generally dominant, and the rocks are of greenschist grade,

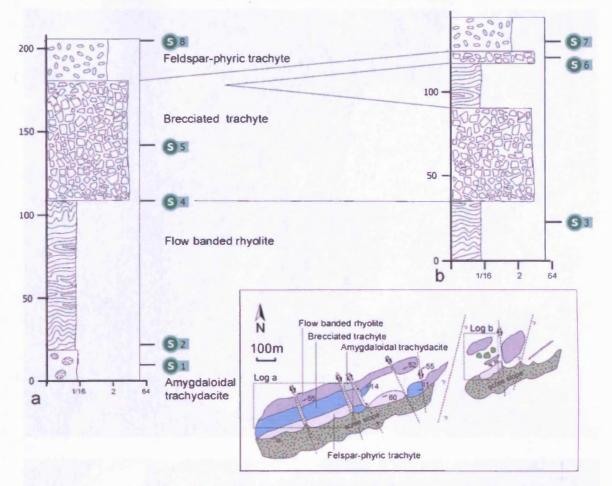


Fig. 2.9 Stratigraphic columns for Saykhandulaan Valley Volcanic Formation, grain size and lithological features shown. Samples taken for analysis numbered in stratigraphic order; S1-S8. Inset map of Saykhandulaan Valley Volcanic Formation outcrop (see Fig. 2.8 for location). Fault orientations and sense of movement inferred from topographic features and contact offsets.

comparable to that of the NSB meta-clastic rocks. However, sandstones and conglomerates are the main protolith here, compared with mudstones in the NSB. Coarse sandstones are widespread, are generally 0.5 to 2m thick and display cross-stratification, graded and lenticular bedding, and laminated mudstone tops featuring ripple structures.

The geological map of Mongolia (Tomurtogoo, 1999) shows the HSB to be early Carboniferous in age. However, no absolute radiometric ages are available for this assemblage.

2.2.4 Molasse Succession

The Molasse Succession (Fig. 2.11) is characterised in the west by un-metamorphosed coarse conglomerates, and in the east by interbedded fine sandstones and mudstones.

Thick channel-based conglomerates mixed with coarse sands (Fig. 2.11, log a) dominate the molasse succession. The conglomerate beds are poorly sorted, heterolithic,



Fig 2.10 Conglomerates from the northern margin of the High Strain Belt.

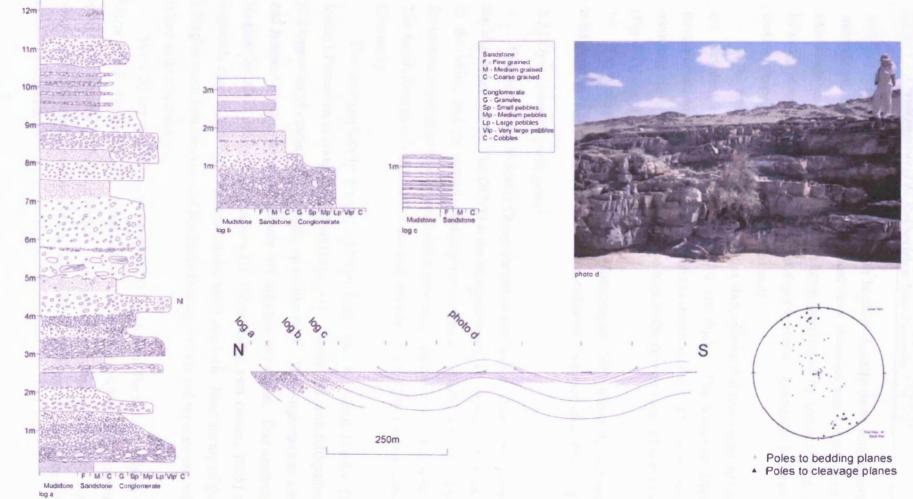


Fig. 2.11 Lithological logs and photographs from Molasse Sucession (MS) showing fining upward tendency from conglomerates to intercalated fine-sand and mudstones. Photograph of horizontal sandstone and mudstone beds Logs and photograph located on inset transect line (location of transect shown on Fig. 2.8). Lower hemisphere, equal area stereoplot of MS structural data

22

with grain sizes ranging from granule to boulder. Locally some conglomerate units show imbrication, but evidence for a prevalent flow direction was inconclusive. The coarse sandstones comprise both a matrix in areas dominated by conglomerate, and the main lithology elsewhere, with scattered gravel-grade clasts. Lenticular bed morphologies are common, especially in the conglomeratic units.

In the east of the Molasse Succession, thin, interbedded fine-sandstones and mudstones are prevalent in pairs approximately 10 cm thick. The transition from dominantly conglomerate to sandstones and mudstones is shown in Fig. 2.11, log b. Intra-formational mudstone clasts and ripple structures are seen in the coarser bases of some sandstone units (Fig. 2.11, log c).

The geological map of Mongolia (Tomurtogoo, 1999) shows the Molasse Succession to be Permian in age. However, no absolute radiometric ages are available for this lithology.

2.2.5 Oyut Ulaan Volcanic group

The Oyut Ulaan Volcanic Group comprises four distinct formations in the south of the Saykhandulaan Inlier. The OUVG is the most volumetrically significant volcanic succession in the inlier, and its overall stratigraphic thickness exceeds 4000m. Three of these formations occur in an area of relatively continuous outcrop in the south west of the inlier. The fourth formation is exposed in the east, adjacent to the Oyut Ulaan intrusion (Fig. 2.8; Chapter 3).

The stratigraphically lowest, c.1500m thick, Gurvan Morin Höndiy (Three Horse Valley) Formation is comprised of andesitic lavas interbedded with feldspathic sandstones and sequences of coarse conglomerates up to 30m thick. The conglomerates are heterolithic and feature volcanic, meta-sedimentary and intrusive lithologies. One sandstone sequence contains lycopsid tree-bark impressions (H. Falcon-Lang, pers comm., 2005) and lithified fragments near its base below several tabular sandstone beds. Near the top of the formation, a conglomerate features crinoidal bioclastic limestone clasts and separate crinoid fragments. Pillow andesites also occur.

The c.2000m thick Shargyn Moghai (Yellow Snake) Formation is above the Gurvan Morin Höndiy Formation. It is comprised of a relatively monotonous succession of basaltic andesites, basaltic trachyandesites and trachyandesites. Locally, boulder-grade conglomerates featuring volcanic, meta-sedimentary and intrusive lithologies occur, but are laterally discontinuous.

The c.1000m thick Tsagaan Nuruu (White Ridge) Formation is comprised of a number of distinctive 5 to 10 m thick felsic lavas, which are blocky and crystalline, and form positive topography, interbedded with ca.60 m thick mudstone and siltstones, which are sparsely exposed. Near its top, between felsic lavas, the formation contains 2 to 3m thick basalt lavas and thinner intervals (25 to 35m) of sandstone units and black, organic mudstones with plant fragments.

The Yasun Eliy-e (Dead Vulture) Formation is isolated from the rest of the group stratigraphy in the east; its vertical thickness is unconstrained but is at least 1500m. It forms the host rocks to the Oyut Ulaan intrusion (Fig. 2.8) and is lithologically similar to the Ghurban Morin Höndiy Formation, but does not display thick conglomerate sequences. Volcanic sandstones and andesitic lithologies are dominant, with some basic lavas in the upper parts of the formation.

The Yasun Eliy-e Formation is the only part of the OUVG to be cut by minor intrusions. In the north, a 1 m wide olivine-phyric basalt dyke trends 130; south of this, in the centre of the area a small dioritic intrusion with a roughly circular surface expression, only 20m in diameter, cuts the volcanic-sedimentary succession.

The rocks of the OUVG are un-metamorphosed and relatively unaltered, compared to the rest of the inlier. Epidotisation locally occurs proximal to faults, fractures and carbonate veins.

The geological map of Mongolia (Tomurtogoo, 1999) shows the OUVG to be Carboniferous in age. Recently obtained zircon U-Pb ages, detailed later in this thesis (Chapter 3; Appendix B) indicate a mid-Carboniferous age for the OUVG volcanic succession. These ages constitute part of a larger regional data set that is being prepared for a separate publication.

2.2.6 Oyut Ulaan Intrusion

The Oyut Ulaan intrusion crops out in the southeast corner of the Saykhandulaan Inlier (Fig. 2.2). Together with the OUVG it forms the Oyut Ulaan volcano-plutonic complex. It is elongate, around 10 km east to west, and 3 km north to south. To the south, it is bordered by part of the Cretaceous rocks of the Zuunbayan basin, on other sides it is in intrusive contact with basement rocks of the Saykhandulaan Inlier. The contact zone is rarely exposed; it is covered by drift in most areas, but the margins of the intrusion are evident on satellite imagery (Fig. 2.8; Chapter 4; Fig. 4.2).

The main intrusion is cut by several dyke swarms, which have a range of compositions and orientations. A series of 1 to 100cm wide pink fine-grained felsic dykes run east-west parallel with the intrusion's long axis. Five- to ten-metre thick dark-green andesite dykes cut the felsic dykes. These are primarily observed in the central area of the intrusion. Their general trend is northwesterly, but they form a sector of an apparently radial set striking between 285 and 310.

The Oyut Ulaan intrusion and the surrounding country rocks host several mineralised features. To the northeast of the main intrusion there is an E-W elongate series of sulphide bearing quartz vein-stockworks within the volcanic country rock. The stockworks are hosted in potassically-altered andesite, and are adjacent to an east-west trending dyke. A second mineralised feature occurs along the SE margin of the intrusion within a zone of margin-parallel quartz veins and wall rock screens. This prospect consists of hard, silicified pods, surrounded by altered wall-rock that has a visibly obvious malachite presence. A tourmaline breccia-pipe cluster forms a series of rounded black hills within the intrusion. These hills are a topographic high point and appear in stark contrast to the pink-white granite landscape surrounding them. The tourmaline breccia pipes are spatially associated with minor pegmatite bodies.

The geological map of Mongolia (Tomurtogoo, 1999) shows the Oyut Ulaan intrusion to be Carboniferous in age. No published absolute radiometric ages are currently available for this lithology, however unpublished zircon U-Pb ages, recently obtained for this project, (Chapter 4; Appendix B) indicate a mid-Carboniferous age for the Oyut Ulaan Intrusion.

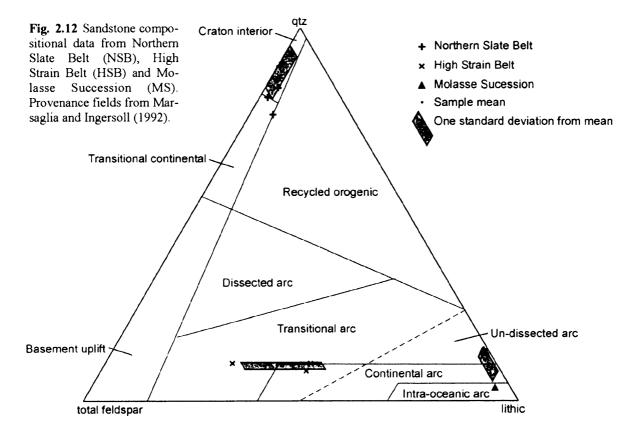
2.2.7 Mesozoic and Cenozoic cover sequences

Basaltic lavas, interpreted to correlate in age with Jurassic-Cretaceous lavas elsewhere in the region, lie unconformably on the Northern Slate Belt. The largest areas of lava are on the northern margin of the NSB, and to the east near the junction between the NSB, the eastern basin and the Saykhandulaan Valley Lineament Zone (Figs. 2.2 and 2.3). The lavas dip gently to the south and have layers between 5 and 10m thick, forming an extensive traptopography. Several smaller basalt remnants sit on the NSB in various locations in the west. In several localities near the inlier, partially lithified Cretaceous sediments are deformed and exposed. The best example of this is on the southern margin of the basin which lies to the east of the NSB. Throughout the inlier, interpreted faults that bound various lithological domains are generally hidden beneath recent alluvial cover sequences.

2.3 Provenance data

Thirteen samples from the Northern Slate Belt, High Strain Belt and Molasse Succession were point-counted for sandstone provenance. Several samples that were of an appropriate grain size for provenance work were discarded from this survey due to metamorphic grade and alteration. Five hundred points were counted for each thin section. The results are plotted on a quartz-feldspar-lithics ternary diagram (Fig. 2.12) and indicate that sediments of the NSB were derived from a cratonic source (average values; 88% quartz, 10% total feldspar, 2% lithic fragments). Clasts are generally angular to sub-angular.

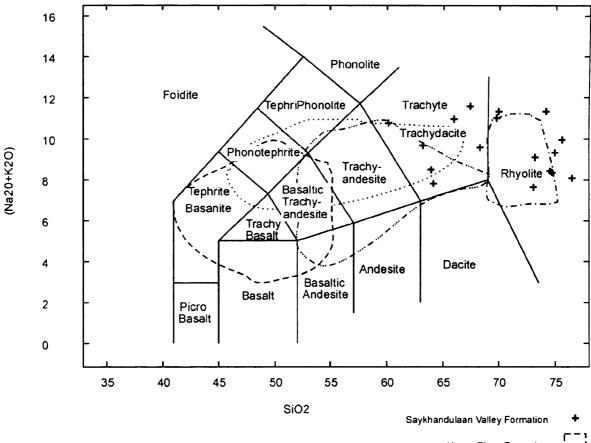
Sediments in the HSB and MS were derived from volcanic arc domains at different stages of evolution (average values HSB; 9% quartz, 49% total feldspar, 41% lithic fragments; average values MS; 10% quartz, 2% total feldspars, 88% lithic fragments). The lithic fragments seen in the HSB are predominantly basalt or andesite with aphyric or trachytic texture, although small proportions of fine sandstone fragments and multicrystalline quartz grains also occur. A wide range of lithologies occur as fragments in

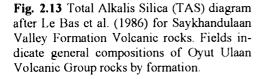


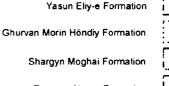
the MS, including various volcanics, granitoids, and sediments including sandstones and mudstones. In both the HSB and MS, grains are rounded to sub-rounded. The clear separation between the three populations in ternary space suggests different eroding source terrains.

2.4 Geochemical data

Seventeen volcanic samples from the Saykhandulaan Valley Formation were analysed using standard spectrometry techniques at the University of Leicester (Appendix A). The formation contains a sequence of dominantly high-K, calc-alkaline lavas with compositions that range from trachydacites and trachytes to rhyolites (Fig. 2.13). The bulk of samples are rhyolites. Harker variation diagrams (Fig. 2.14) illustrate some key geochemical characteristics and trends of the Saykhandulaan Valley Formation. MgO and CaO both fall with increasing SiO₂ and have distinctive changes in their geochemical gradient, Al_2O_3 and Fe_2O_3 decrease linearly with increasing SiO₂, these features suggest early mafic and feldspar







Tsagaan Nuruu Formation

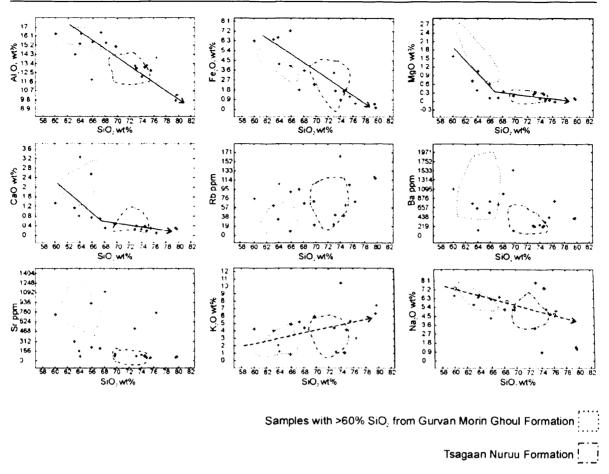


Fig. 2.14 Harker variation diagrams of Al_2O_3 , Fe_2O_3 , MgO, CaO, Rb, Ba, Sr, K_2O , Na_2O versus SiO_2 . Fields indicate general composition of Gurvan Morin Höndiy Formation (with SiO2 values >60%) and Tsagaan Nuruu Formation. Arrows indicate fractionation trends.

controlled fractionation. Rb, Ba and Sr are scattered due to their post-emplacement mobility. K_2O and NaO_2 values show more scatter than other results, however, trends are discernible; increasing K_2O and decreasing NaO_2 with SiO₂ is suggestive of albite fractionation. Ba and Sr values suggest that the Saykhandulaan Valley Formation may have evolved by fractional crystallisation of feldspars and biotite. The liquid line of descent originates from a source chemically similar to the Oyut Ulaan granite (Fig. 2.15).

Eight analyses from known stratigraphic positions (Fig. 2.9) show evidence for systematic variations in composition. Plots of major and trace elements vs relative stratigraphic position show that there are consistent variations for several elements over time (Fig. 2.16). K_2O , Sr and Rb act compatibly, whereas the sequence becomes more enriched in Y. Other elements do not show discernible trends.

Multi-element normalised diagrams for the Saykahndulaan Valley Formation (Fig. 2.17) show strong negative anomalies for Nb, Rb, Sr, P and Cr and positive anomalies for

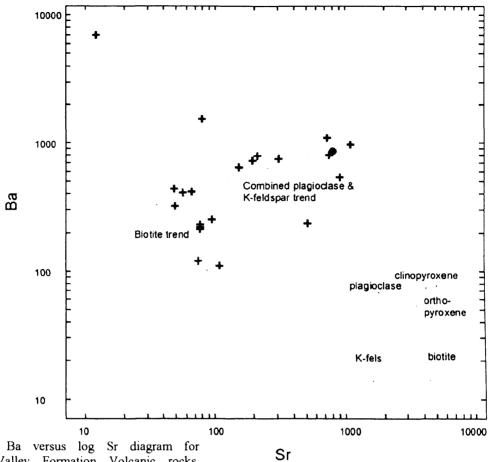


Fig. 2.15 Log Ba versus log Sr diagram for Saykhandulaan Valley Formation Volcanic rocks. Fractional crystallisation vectors for plagioclase, K-feldspar, biotite, orthopyroxene, clinopyroxene calculated from average values for Ba and Sr from Oyut Ulaan Granite, using partition coefficients for rhyolitic liquids from Rollinson (1993).

+ Saykhandulaan Valley Formation

• Average composition of Oyut Ulaan intrusion

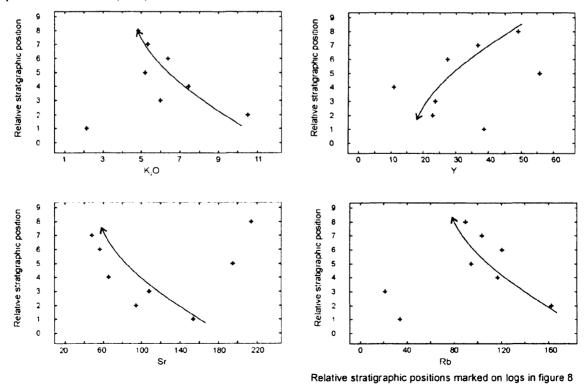


Fig. 2.16 Relative stratigraphic position versus Na_2O+K_2O , Y, Sr, Rb for Saykhandulaan Valley Formation volcanic rocks.



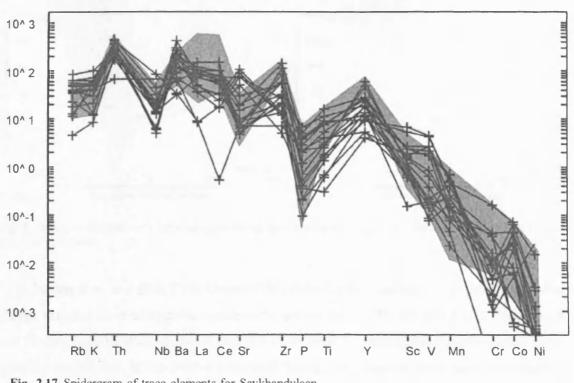
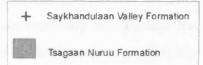


Fig. 2.17 Spidergram of trace elements for Saykhandulaan Valley Formation volcanic rocks normalised to NMORB (Sun and McDonough, 1989) Field indicates general composition of Tsagaan Nuruu Formation of the Oyut Ulaan Volcanic Group.



Th, Ba and Zr. The negative Nb anomaly and high ratio of low-field-strength-elements (LFSE) to high-field-strength-elements (HFSE) are both features typical of subduction related volcanism (Fig. 2.17; Saunders et al., 1980; Wilson, 1989). The negative Sr and Rb anomalies may be linked to feldspar and biotite fractionation. The Ba, Zr and Th positive anomalies may be linked to cumulus potassic feldspar and zircon.

Field observations and petrographic analysis indicate widespread silicification in the lavas of the Saykhandulaan Valley. Geochemical results support this observation; silica values between 76 and 80% are recorded for three samples (Fig. 2.13).

Graphical comparison of the trace element composition of an altered rock with its least-altered-equivalent allows the quantification of metasomatic processes that affected the altered sample (Grant, 1986). It is assumed that the sample identified as least-altered-equivalent has not undergone metasomatic alteration, and that, in the altered sample, Zr, Y, and Nb have remained relatively immobile. Trace element results for the two samples are plotted against each other, and a line of best fit, the isocon, is drawn through Zr, Y and Nb points.

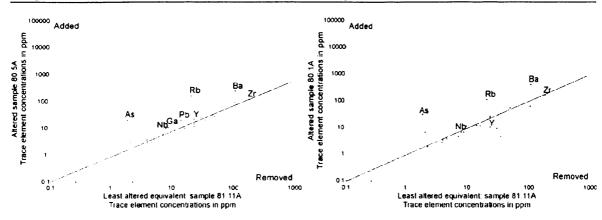


Fig. 2.18 Isocon diagrams of altered samples versus least-altered-equivalents for Saykhandulaan Valley Formation Volcanic rocks.

Isocon diagrams (Fig. 2.18; Grant, 1986) of the Saykhandulaan Valley rocks show that altered samples have undergone metasomatic enrichment of Rb, As and Ba. Zirconium, Y and Nb (along with other elements that plot on or near the isocon) have lower values in the altered samples than in the least-altered-equivalents; this suggests mass gain has occurred, diluting the initial concentrations of these elements. This provides geochemical evidence that supports the interpretation that volumetrically significant secondary silicification has occurred. Whilst post-emplacement metasomatic mobility of trace elements may adversely affect petrogenetic analysis (e.g. Fig. 2.13), silicification may have modified the position of samples on the TAS petrological discrimination diagram, causing compositions to plot in more evolved fields (Fig. 2.13).

The Saykhandulaan Valley Formation is chemically similar to the Tsagaan Nuruu Formation of the OUVG (Figs. 2.13 and 2.17). It also overlaps with the more silicic parts (>60%) of the Gurvan Morin Höndiy Formation (Fig. 2.14). Further discussion of the detailed geochemistry of the OUVG is found in Chapter 3.

2.5 Structural data

The strike of the dominant structural grain in the Saykhandulaan Inlier varies from 090 in the southwest, to 050 in the southeast and in the NSB. Folding occurs throughout the inlier and each litho-tectonic domain has a characteristic fold style. Cleavage is variably developed; the HSB and NSB display a widespread penetrative cleavage, whilst the MS, OUVG and rocks of the SVLZ are uncleaved or only affected by spaced cleavage.

At first-order, the NSB consists of regional-scale west-plunging folds, the limbs of which form a 'Z' across the belt (Fig. 2.4). Second-order folds occur on a scale of 10-100

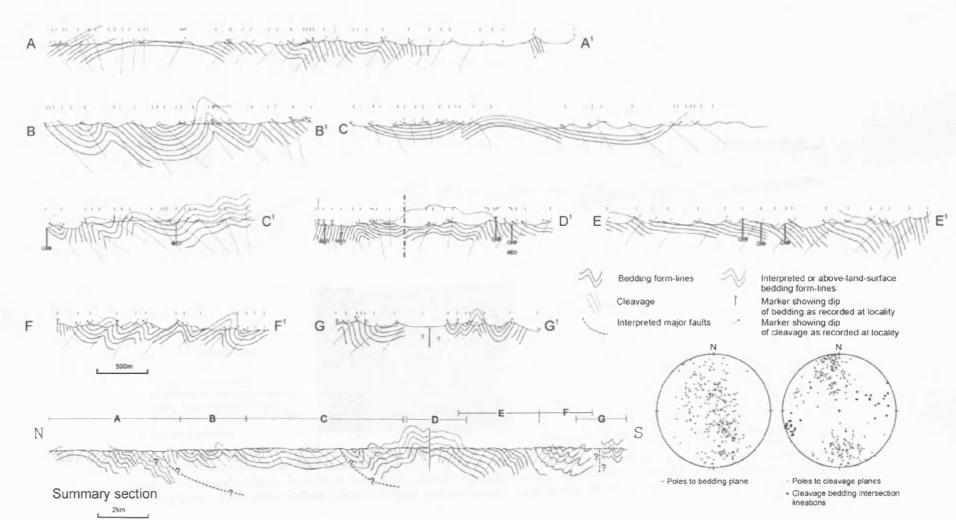


Fig. 2.19 Individual structural transects through Northern Slate Belt and combined summary section incorporating all lines. Bedding traced by form lines showing folds. Location of transect line segments shown in Fig. 2.3. Stereoplot 1. - NSB poles-to-bedding-planes on lower hemisphere equal-area stereoplot. Stereoplot 2 - NSB poles-to-cleavage-planes on lower hemisphere equal-area stereoplot. Summary section demonstrates kilometre scale first order folding within NSB.

32

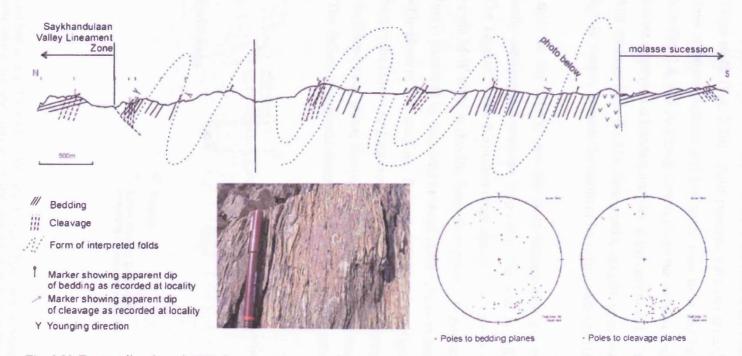


Fig. 2.20 Transect line through HSB (Location of transect shown on Fig. 2.8). Bedding and cleavage traced by form lines. Interpreted folds shown by dashed lines. Stereoplots show; HSB poles-to-bedding-planes and poles-to-cleavage-planes on lower hemisphere equalarea projections. Photo shows flattened clasts and spaced cleavage in meta-conglomerate, pen for scale.

33

m (Fig. 2.19). These folds plunge to both the east and west. Vergence varies through the zone, appearing to fan around first-order folds, which are upright.

The HSB features tight-to-isoclinal steeply-inclined folds which plunge to the east and west and verge south (Fig. 2.20). Fold closures were not directly observed in the field, however some apparent closures and low angle truncation can be identified on the aerial photograph in Fig. 2.8, and younging criteria prove the existence of fold hinges (Fig. 2.20). Other folds were observed on Landsat imagery at the eastern end of the HSB.

Bedding readings from the MS show gentle, upright, open folds (Fig. 2.11). Bedding becomes slightly steeper towards the northern boundary with the HSB (see cross section on Fig. 2.11).

The folds in the OUVG are the most recognisable on the ground. The three stratigraphically contiguous formations crop-out in the west in a first-order west-plunging syncline. The Tsagaan Nuruu Formation crops-out in the centre of this syncline (Fig. 2.21) and similar-style M-W folds in rhyolite lavas form positive topography. The northern limb of the syncline is truncated by east-west oriented faults. Poles to bedding planes (Fig. 2.21) trace the profile-plane of this syncline. Folds in OUVG have a slightly different trend from folds elsewhere in the inlier - striking around 090 (E-W) and plunging west.

Well developed axial planar cleavage characterises pelitic lithologies in both the NSB and HSB. The different vergence directions of the NSB is reflected in the wide range of

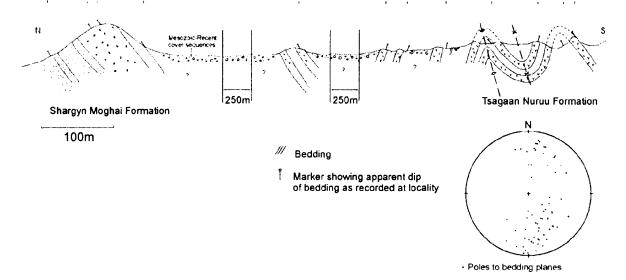


Fig. 2.21 Transect line through Oyut Ulaan Volcanic Group. Upper parts of Shargyn Moghai Formation (to left) comprise north limb of regional syncline that dips to south under Tsagaan Nuruu Formation which is deformed into m-w folds in core of syncline (to right). Location of transect shown on Fig. 2.8. Stereoplot: OUVG poles-to-bedding-planes on lower hemisphere equal-area projection.

Chapter 2. Crustal evolution of the Saykhandulaan Inlier, Mongolia

cleavage orientations shown in Fig. 2.19. Cleavage-bedding intersection lineations which are a proxy for fold hinges, plunge both to the east and west (Fig. 2.19). Cleavage is dominant in the south-east corner of the NSB, and is deformed into tight, upright F_2 folds. Cleavage in the HSB is sub-parallel to bedding, and is steep and dominantly north dipping (Fig. 2.20). The coarse and relatively fresh lithologies of the MS do not contain a well developed cleavage, but where spaced cleavage was observed, it is near vertical and shows little variation compared to other domains (Fig. 2.11).

Remote sensing imagery reveals many faults that cut the Saykhandulaan Inlier, however, because of the near peneplain relief of the entire inlier, comparatively few faults have exposed surfaces with visible kinematic indicators. One of the best-exposed faults is a brittle thrust that defines the northern edge of the HSB in the east, which has partially consolidated upturned Mesozoic sediments in the footwall (Fig. 2.22c). Oblique-slip faults are exposed near the southern margins of the molasse succession. Both of these examples relate to post-Cretaceous fault movements at the boundary between Palaeozoic strata and



Fig. 2.22 a) Top to south backthrust zone in Saykhandulaan Valley Formation silicified rhyolite. View to west, width of photo - 5m. b) Detail of thrust surface showing down-dip slickenlines c) View to west of High Strain Belt greenschist-grade meta-conglomerates (left) thrust over partially consolidated near-vertical dipping Cretaceous sediments (right).

Chapter 2. Crustal evolution of the Saykhandulaan Inlier, Mongolia

Cretaceous basin sequences; although the faults themselves could have formed earlier, and been subsequently reactivated. Within the Saykhandulaan Valley Lineament, north-dipping thrust faults crop-out in the silicified rhyolitic units of the Saykhandulaan Valley Formation (Fig. 2.22a). Striations indicating dip-slip movement are locally observed (Figs 2.22b, 2.23a). Three dimensional data was recorded from some strike slip faults (Fig 2.23b), but most strike-slip faults are not exposed at the surface and so are inferred to be vertical, because they from linear depressions and offset contacts and lithologies (Figs. 2.23 c and d).

Inferred normal faults define the eastern and western edges of the inlier. In the northeast, a normal fault-bound Cretaceous basin lies along strike from the NSB. The Cretaceous basin is bordered to the south, by the HSB. Where the Saykhandulaan Valley Lineament Zone joins the basin, there are a number of fault-bound troughs partially covered by onlapping Cretaceous sediments. The basement to these small depocentres appears to be faulted blocks of the HSB (Fig. 2.8).

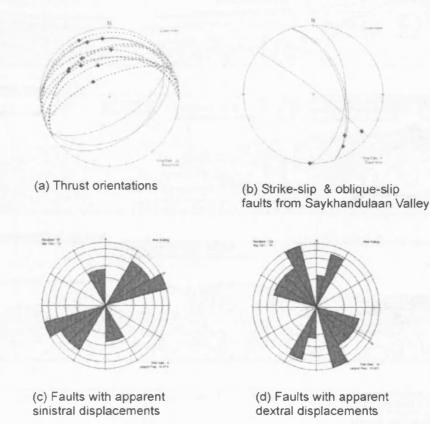
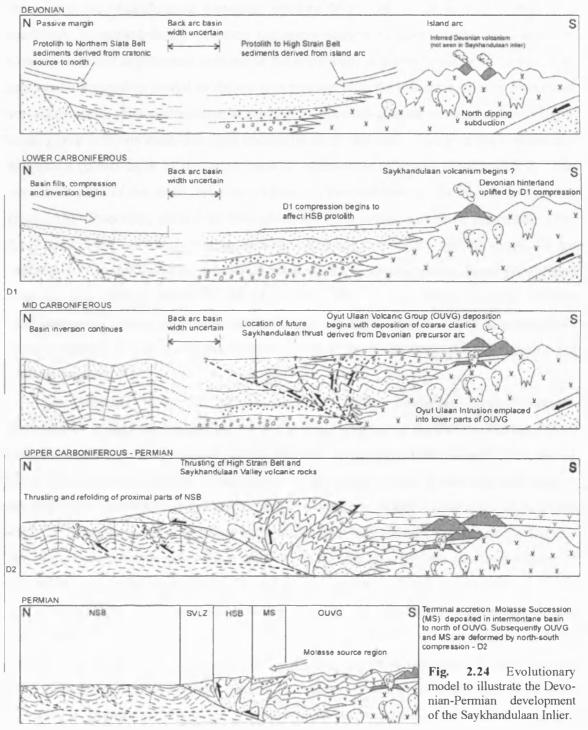


Fig. 2.23 a) Orientations of thrust faults - (unbroken line) and minor back-thrusts - (dashed line) from the Saykhandulaan Valley Lineament Zone. Striations on fault surfaces (crosses) indicate dominant dip-slip motion. b) Oblique-slip and strike-slip faults from back-thrusted zone in Saykhandulaan Valley. Striations on fault surfaces indicate dominant strike-slip motion. c) Orientations of brittle faults with apparent sinistral offsets from the whole inlier. d) Orientations of brittle faults with apparent dextral offsets from the whole inlier.

2.6 Discussion

The Palaeozoic geological evolution of the Saykhandulaan Inlier is dominated by siliciclastic sedimentation in a wide variety of environments, with erupted sequences of volcanic rocks, arc-related plutonism and contractional deformation (Fig. 2.24). Although major questions remain about the overall geological evolution of Southeast Mongolia, the



lithological and structural data presented here provide the basis for the first detailed interpretation of Palaeozoic rocks of the region, and their terrane context.

The original depositional environment of the Northern Slate Belt pelitic and psammitic rocks is interpreted to represent a shelf-to-tidal shallowing-environment. The stratigraphically lowest parts of the NSB are interpreted to be exposed in the southeast, in the core of the west-plunging first-order anticline (Fig. 2.19). The dominant protolith is mudstone, in upward-fining turbiditic sequences suggesting deep marine sedimentation. Coarser units and sedimentary features in the southwest, at higher stratigraphic levels, may represent a prograding fluvial or deltaic environment with the influence of both fluvial and wave processes. Flame structures at the base of medium-grained sandstone units suggest loading onto soft, wet mud, and rapid accumulation of sediment. Swaley cross stratification suggests a palaeo-depth of the upper zone of storm-wave influence (Tucker, 1991). The uppermost parts of the stratigraphy are exposed in the northwest, in the first order syncline (Fig. 2.19). Psammitic units from throughout the NSB record a cratonic provenance (Fig. 2.12), and there is a high degree of provenance separation, in ternary space, of the sandstones in the NSB and those from elsewhere in the inlier, suggesting disparate sediment sources. The NSB is considered part of the Gobi Altai terrane, which is bordered to the north by passive margin and cratonic terranes (Fig. 1.1; Badarch et al., 2002). It is thus likely that the cratonic source of the sediments that formed the protoliths to the NSB was in this northern region.

The volcanic rocks of the Sakhandulaan Valley Formation have undergone considerable metasomatic alteration, related to fluids moving in the Saykhandulaan Valley Lineament Zone. The alteration makes accurate interpretation of primary geochemical signatures problematic though not impossible. Multi-element plots of trace-elements suggest the succession is volcanic-arc related, and it is chemically similar to the upper parts of the OUVG. It has, however, been more extensively deformed and tectonised than the OUVG, and the thickness of the succession suggests it represents a far less extensive history of volcanism.

The HSB is proximal to the NSB, is of a similar siliciclastic protolith and is also largely of greenschist metamorphic grade. However, the sediments that formed the HSB protolith have a dissected continental arc provenance and thus are probably south-derived (Fig. 2.12). Deformation obscures original sedimentary structures in most areas, but locally younging evidence was observed. The coarse-conglomerate parts of the HSB, near the

38

Saykhandulaan Valley, are interpreted to represent lower sections of the stratigraphy than the more voluminous sand- and granule-grade meta-clastic rocks to the south. The grain size range, cross-stratification and lenticular bedding suggest a sand-dominated braided river system as the depositional environment for the bulk of the HSB. Whilst the observed cross-stratification provided evidence of both younging direction, and the environment of deposition, the number of recorded instances was too few to unequivocally indicate a palaeo-flow direction.

The Yasun Eliy-e Formation, though not in direct contact with the rest of the OUVG, is interpreted to be the oldest volcanic formation as it is the least evolved. It has lithological similarities to and geochemical overlap with the Gurvan Morin Höndiy Formation, which is at the base of the contiguous volcanic stratigraphy in the west (Fig. 2.8).

In the Ghurvan Morin Höndiy Formation, various granite clasts in fan-glomerate successions that are intercalated with the volcanics suggest older, exhumed arc-crust was eroded during the early stages of OUVG volcanicity. It seems likely that this partially dissected arc could be the same source as that for the sediments that were the protolith to the HSB. The difference in grain size may suggest that the depositional environment of the HSB protolith was further from the eroding source than was the OUVG. Pillow andesites and lycopsid tree bark in sandstone suggests a shallow marine to coastal terrestrial palaeo-environment during early stages of the Oyut Ulaan volcanism.

The Shargyn Moghai Formation is almost entirely dominated by thick trachyandesitic sheets with little intervening material; this suggests high volcanic-effusion rates.

In the Tsagaan Nuruu Formation, the succession is mainly composed of fine- to medium-grained volcaniclastic deposits. The precise nature of these units is unclear. They appear to have had a very large areal extent for felsic lavas, and were either particularly hot and of low viscosity on extrusion; formed by welding of rapidly emplaced pyroclastic flow; or were injected into the sediments laterally as sills. Sediments in the upper parts of the succession also suggest a marine marginal environment.

The poorly-sorted conglomerates of the MS represent a coarse-grained braided-river system which drained the OUVG. Fine sand and mudstone sequences may represent flood-related overbank sequences, or cyclic lake-sedimentation. The MS occurs unconformably on rocks of the HSB. Provenance data suggest the MS sediments were derived from an undissected arc of continental to intra-oceanic affinity (Fig. 2.12). It is interpreted to be the

youngest lithology of the inlier because it is un-metamorphosed and less deformed than the HSB, on which it lies unconformably.

At least four deformation events are recorded in the Saykhandulaan inlier. D1 is expressed in the NSB as a regional folding and cleavage forming event under lower greenschist grade metamorphic conditions. D1 folds generally trend ENE. Few Palaeozoic thrust surfaces were directly observed, however a few thrusts are tentatively interpreted from metamorphic breaks and fold asymmetry. The upright first-order folds of the NSB feature several zones of abrupt vergence changes, these are interpreted to be the effects of either blind-thrusts or thrusts that break the surface, but are obscured by drift (summary section; Fig. 2.19). South of the NSB unambiguous evidence for D1 was not observed.

D2 is a second contractional event, which has affected the entire inlier. Evidence for D2 consists of F2 folds of S1 cleavage, local crenulation cleavage and kink banding in the NSB. Quartz veins in the NSB postdate the formation of the S1 cleavage, and may have been emplaced parallel to cleavage planes during D2. The veins are spatially related to psammite units, which may have deformed in a more brittle manner compared to surrounding pelites, providing conduits for hot SiO₂-rich solutions. Intense folding and greenschist grade metamorphism within the HSB may have occurred during D1 and/or D2; no F2 folds of cleavage were identified.

South of the NSB, the Saykhandulaan Valley Lineament Zone is an important topographic and structural boundary, separating arc related rocks to the south, from basin sediments in the north. The zone itself is a 2 km-wide corridor of distributed cataclastic deformation, discrete faulting and abundant silicification. It is interpreted that the SVLZ may represent a south-dipping thrust zone, which brought the highest-grade rocks of the area (the HSB) to the surface during D1 and/or D2, entraining slivers of the Saykhandulaan Valley Formation in its base. Some minor north-dipping thrust surfaces are seen in the SVLZ, these are interpreted to be backthrusts.

The Molasse Succession and Oyut Ulaan Volcanic Formation have undergone the least deformation. The Molasse Succession has fold orientations that match those of the underlying HSB, but the folding is far less intense. Orientations of folds in the OUVG suggest it may have been affected by N-S shortening in contrast to the NNW-SSE directed compression seen in the rest of the inlier (Figs. 2.11, 2.21). Folding in the OUVG is interpreted to have occurred during D2 because the sequence lacks cleavage and evidence for metamorphism which are typical of D1 deformation to the north. Gentle folding in the

MS is interpreted to be a late-stage expression of D2. The D2 deformation of the OUVG must post-date the deposition of this group, and therefore has a mid-Carboniferous maximum age.

The Oyut Ulaan intrusion, which is emplaced in the lowermost and least-evolved parts of the OUVG, is elongate in a direction parallel to the axial trace of folds in the OUVG. Uranium-Lead zircon dates (Chapters 3 and 4) indicate that the Oyut Ulaan volcano-plutonic complex has a mid-Carboniferous age. This is consistent with regional evidence for Carboniferous arc-magmatism throughout southern Mongolia (Lamb and Badarch, 2001).

D3 represents Jurassic-Cretaceous crustal extension widespread in the region (Graham et al. 2001). Normal faults that cut the inlier and bound Cretaceous basins around the inlier are likely to have formed during D3.

Some strike slip faults that cut the inlier including the SVLZ cut all older structures and are therefore suspected of being the youngest faults in the region, and represent a fourth deformation event, D4. Recorded sinistral minor faults, and major faults interpreted to have sinistral offsets trend 030-070, interpreted dextral antithetic shears trend around 160 (Fig. 2.25). Orientations of faults recorded in the field, and interpreted on satellite imagery (Fig. 2.25) suggest a sinistral Riedel-shear deformation regime during the Late Cretaceous or Tertiary. These fault displacements may have been co-genetic with brittle sinistral

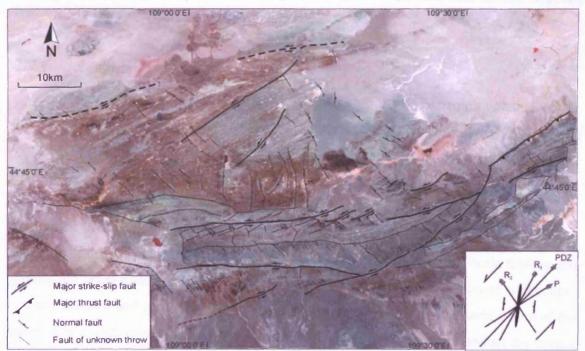


Fig. 2.25 Landsat image of Saykhandulaan Inlier. Interpreted and measured faults from inlier shown with movement sense. Inset sinistral Riedel-shear model shows predicted orientations of major and antithetic shears and normal faults. The orientation of Mezozoic regional sinistral movements compares well with array of strike- and oblique-slip faults identified in this study (Fig. 2.20).

movements on the nearby Zuunbayan Fault (Fig. 1.1; Lamb et al., 1999) during the Late Cretaceous or Tertiary.

The recognition that the Saykhandulaan inlier contains a southern volcanic arc complex and a northern deformed and metamorphosed marine basin assemblage, sheds light on the regional-scale tectonic events that were responsible for crustal growth in southeast The shortening and metamorphism within the NSB indicates closure and Mongolia. inversion of the basin between an arc to the south and a continental block to the north. No evidence was found for subduction, ophiolite obduction or accretionary prism development during closure of the NSB basin. Therefore, it is unlikely that the NSB basin was ever floored by oceanic crust and instead is interpreted to have been ensialic. The polarity of subduction beneath the arc-complex in the southern inlier was therefore probably north directed, consistent with other regional interpretations within the CAOB of Palaeo-Asian Ocean closure (Fig.2.1, Sengör and Natal'in, 1996, Badarch et al., 2002). Apart from local en echelon-vein arrays in the NSB, little evidence was observed for the Palaeozoic largescale dextral movements postulated in the models of both Şengör and Natal'in (1996) and Badarch et al. (2002). Any major strike-slip displacements within the inlier were probably focused along the SVLZ and adjacent HSB, which represent the composite terrane boundary between the Gobi Altai and Mandalovoo terranes.

2.7 Conclusions

The Saykhandulaan inlier provides a window into the Palaeozoic evolution of the northern margin of the Palaeo-Asian Ocean in southeast Mongolia. Five major lithotectonic domains are distinguished that help elucidate the crustal evolution in the region. More than four thousand metres of volcanic rocks with arc geochemical signatures are documented, and the intrusion of the mineralised Oyut Ulaan granite suggest subduction-related magmatism. Two major deformation events are recorded related to back-arc basin closure, inversion and accretion of the Mandalovoo arc-terrane. Basin closure involved regional scale folding and greenschist grade metamorphism. Following terrane accretion and cessation of subduction, crustal extension and strike-slip faulting have further modified the crustal architecture of the inlier. The results presented here provide a useful framework for understanding the crustal evolution of adjacent regions within the southeast Gobi mineral belt.

3.1 Introduction

A large area of southeast Mongolia is composed of volcanic arc terranes (Fig. 1.1) and the accretion of arc segments is a crucial component of crustal growth in the Central Asian Orogenic Belt. Economic mineralisation is associated with the volcanic-arc environment, including the copper-porphyry deposits for which southeast Mongolia is known. The stratigraphy of volcanic successions must be recorded and interpreted if the Palaeozoic evolution of southeast Mongolia is to be understood.

This chapter focuses on a succession of volcanic rocks within the Saykhandulaan Inlier - The Oyut Ulaan Volcanic Group. The volcanological processes that led to its formation have been characterised by the interpretation of new, detailed field observations. Models of the origin and evolution of key arc terranes are developed, with new geochemical and U-Pb zircon age constraints.

3.1.1 Regional geology

The two hypotheses that exist for the formation of the Mongolian CAOB crust during the Palaeozoic were discussed in Section 2.1. There have been many large scale models postulated for the development of volcanic arcs and terrane amalgamation in the region (Mossakovsky and Dergunov, 1985; Ruzhentsev and Pospelov, 1992; Zorin et al., 1993; Mossakovsky et al., 1994; Şengör and Natal'in, 1996; Badarch et al. 2002). Part of the problem in constructing a working palinspastic model lies in a lack of basic field data. Lamb and Badarch (1997; 2001) partially address this by documenting Palaeozoic stratigraphic sucessions and their geochemical characteristics from a range of localities throughout southern Mongolia.

Lamb and Badarch (2001) propose that an island arc existed between Edren in the west and Tsagaan Suvarga in the east during the Devonian (Fig. 3.1a). North of the Devonian island arc is a back-arc or trapped oceanic basin. In the Carboniferous, arc activity is split into two separate fronts, both built on the preceding Devonian arc material (Fig. 3.1b). Carboniferous arc activity in southeast Mongolia is linked with the Bogda-Northern Tien Shan arc in eastern Xinjiang province, China (Fig. 3.1b; Lamb and Badarch, 2001). Carroll et al. (1990) interpret the Bogda arc as intra-oceanic in the west, becoming more terrestrial and continental in the east where it crosses the Sino-Mongolian border. A separate, parallel Carboniferous arc formed in the west at the same time, above the subducting northern margin of the Junggar Ocean (Lamb and Badarch, 2001). The mechanism that produces this duplication of arc fronts in the Carboniferous is not discussed, though several other palinspastic models for the region show dextral strike-slip duplication of arc sections during the Devonian and Carboniferous (Şengör and Natal'in, 1996; Badarch et al., 2002). All arcs are interpreted to have developed above northward-dipping subduction zones (Şengör and Natal'in, 1996; Lamb and Badarch, 1997, 2001; Badarch et al., 2002). Lamb and Badarch's (1997; 2001) tectonic model benefits both from being based on new, original field observations, and from being focused on a relatively small area, compared to some of the grand syntheses available elsewhere.

Geochemical and Nd isotope data from the Gurvansayhan Range indicate a juvenile oceanic arc was active in the region in the late Silurian to early Devonian (Helo et al., 2006). The authors state that this does not support the within-plate basalt affinity suggested by Lamb and Badarch (2001) for rocks from Gurvansayhan. However, this affinity is detected in rocks of Carboniferous age, and the work of Helo et al (2006) in the Gurvansayhan Range is focused on rocks for which they have established a Siluro-Devonian age. It appears that there is, in fact, no contradiction between the two models. Together they document an incipient, juvenile island arc which originated in the Silurian, became more evolved and alkaline during the Devonian, before the effects of back-arc rifting spread south into the area in the Carboniferous.

Whilst other parts of Mongolia have been a focus for detailed work in the last decade (Zorin et al., 1993; Lamb and Badarch, 1997; Cunningham, 1998; Lamb et al., 1999; Zorin, 1999; Buchan et al., 2001; Cunningham et al., 2001; Lamb and Badarch, 2001; Perello et al., 2001; Cunningham, 2005; Helo et al., 2006), the easterly reaches of the Mongolian Gobi have remained relatively unstudied. The field area for this study was selected, therefore, to establish the terrane context of the South Gobi Mineral Belt, and test existing terrane models for South Mongolia.

The Saykhandulaan inlier is situated around 150km to the northeast of Tsagaan Suvarga, and is comprised of a series of E-W trending lithotectonic domains. The inlier records the Devonian-Carboniferous history of the boundary between island arc dominated lithologies in the south and rocks formed from craton-derived basin sediments in the north.

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

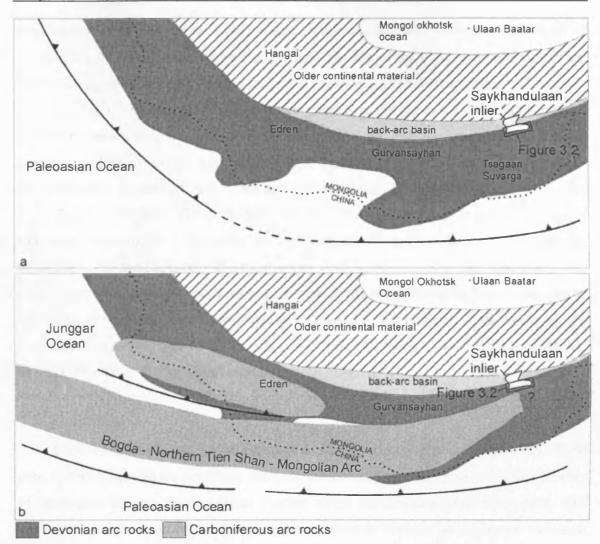


Fig. 3.1 Paleogeographic interpretations of south Mongolia redrawn from Lamb and Badarch (2001) a) Devonian b) Carboniferous. Location of Gurvansayhan and Edren localities from Lamb and Badarch (2001) shown. The Saykhandulaan inlier is the field area for this study.

The southernmost domain is a folded succession of Carboniferous volcanic and sedimentary rocks called the Oyut Ulaan Volcanic Group (Chapter 2), which is the subject of this chapter.

3.1.2 Oyut Ulaan Volcanic Group

The Oyut Ulaan Volcanic Group (OUVG) crops-out along the southern margin of the Saykhandulaan inlier in a 45 km long E-W trending belt (Fig. 3.2). The main outcrops are in the west of this belt in a 25 km E-W range of hills. The eastern outcrops form the country rocks to the Oyut Ulaan Intrusion and are separated from the western outcrops by an area of drift. The contiguous succession is around 4.6 km thick and is comprised of a variety of extrusive lithologies from basalt to rhyolite lavas and volcaniclastic sediments locally

interbedded with a wide range of silici-clastic sediments. The total stratigraphic thickness of 4.6 km is a minimum value, as neither the base nor top of the group are constrained, the outcrop being surrounded by inferred faults and unexposed ground on all sides.

The OUVG is tightly folded with hinges parallel to the regional E-W structural grain. The main western outcrops occur within the north-dipping limb and hinge zone of a major syncline. Folds are upright, have an inter-limb angle of 70°, and are plunging on average 30° to the west. Cleavage is rarely seen and the rocks are un-metamorphosed.

The OUVG has not previously been described in any literature. The geological map of Mongolia (Tomurtogoo, 1999) shows the area as an undifferentiated block of Carboniferous volcanics. The geographically-closest relevant work is that of Lamb and Badarch (1997; 2001) whose eastern-most localities are 150 km to the west of the Saykhandulaan Inlier. Lamb and Cox (1998) note Carboniferous sedimentary and volcanic strata overlying the Devonian Tsagaan Suvarga porphyry copper-molybdenum deposit, which is situated 100 km to the south west of the Saykhandulaan inlier (Fig. 1.1).

3.2 Field data

Field work was conducted to establish a detailed stratigraphy for the OUVG. Field data, and rock samples for petrologic and geochemical analysis, were collected along a series of lithological and structural traverses directed across the structural grain of the area. The key results are presented below, first progressing upwards through the contiguous succession from east to west, then describing the separate area in the east. The locations of the traverses are shown on Fig. 3.2.

3.2.1 Gurvan Morin Höndiy Formation

The stratigraphically lowest, c.1500m thick, Gurvan Morin Höndiy (Three Horse Valley) Formation crops out in the east of the contiguous succession. The formation was principally observed in a dry river valley (line of transect shown in Fig. 3.2) that cuts across the dominant E-W trending structural grain (Fig. 3.2). It is comprised of 10 to 150m thick intermediate lavas and coarse conglomerates interbedded with >15m thick feldspathic sandstone sequences (Fig. 3.3). The lavas and conglomerates are cliff forming units, between which are zones of little to no outcrop. Lavas and conglomerates are mainly within the southern limb of a 1st order syncline and dip steeply to the north. Further north, the upper parts of the succession are deformed into a number of 2^{nd} order folds indicative of

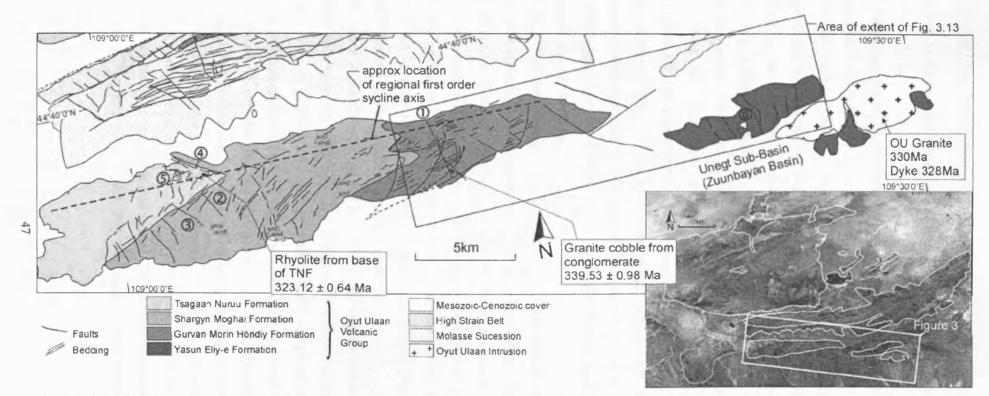


Fig. 3.2 Map of OUVG outcrop areas, showing the vertically contiguous Gurvan Morin Höndiy, Shargin Moghai and Tsagaan Nuruu Formations in the west and the Yasun Eliy-e Formation in the east, in contact with the Oyut Ulaan intrusion. Inset - satellite image of the Saykhandulaan inlier showing location of Fig. 3.2. Dotted lines on map - locations of transects/stratigraphic sections study areas from various formations; \bigcirc GMHF; \bigcirc , \bigcirc , \bigcirc SMF; \bigcirc TNF; \bigcirc YEF. Points sm1-9 indicate locations of SMF samples not marked on stratigraphy in Fig. 3.8

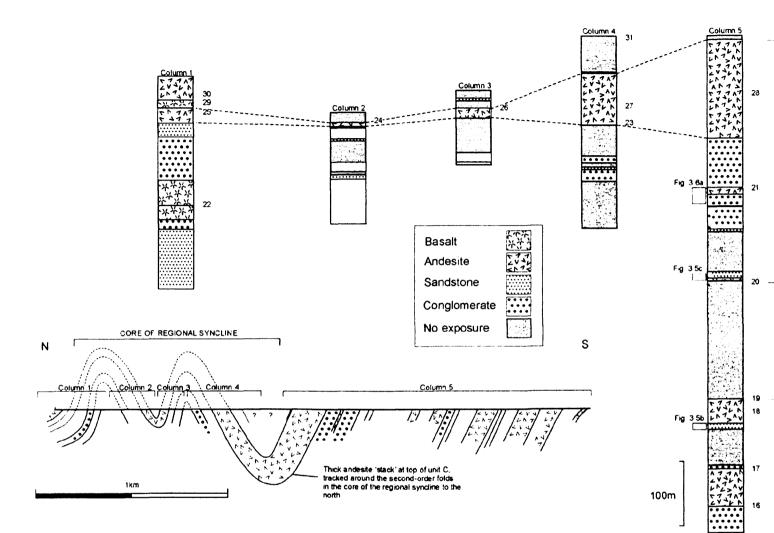
their proximity to the regional hinge. In the south, the formation is fault bound; its base is not seen.

The formation was subdivided into three units, designated A, B and C (Fig. 3.3). Unit A, at the base of the formation, is 500m thick and is composed of basic to intermediate lavas. These lavas occur in five 'stacks' in which individual flow units are indistinguishable; three of these stacks are 70 to 90 m thick and form major topographic features. The typical rock type in Unit A has blue-grey weathered surfaces. Subhedral to euhedral plagioclase phenocrysts are dominant, comprising between 30 and 70% of the rock (Fig. 3.4 a). Phenocryst size ranges from 1 to 10 mm, but both minimum and maximum size decrease within this range with stratigraphic height. Hornblende is a minor phenocryst phase, commonly subhedral, and generally 1 to 3 mm in size.

Local variations from this typical lithology include varying levels of vesiculation, and the occasional presence of flow foliation defined by oriented plagioclase laths. One unit is sparsely populated by long thin feldspar phenocrysts, often seen in agglomerations. Granite xenoliths occur in some sections.

Unit B, which conformably overlies Unit A, contains similar extrusive lithologies along with thick successions of conglomerates and some sandstones. The base of Unit B is defined by exposures of sedimentary rocks, which do not occur lower in the formation (Fig. 3.5 a). This sequence includes conglomerates, siltstones and several 1 to 3 m thick lavas separated from each other by thin sediment screens. In contrast to the extrusive lithologies from Unit A, the lavas in this sequence are dark grey and aphyric (Fig. 3.4 b), or contain only sparse (<1 mm diameter) hornblende phenocrysts.

Fifty metres above the base of Unit B, a 40m thick conglomeratic succession is overlain by a 60m thick lava stack (Fig. 3.6). The conglomerates form a series of beds of 2 to 20 m thickness. They are poorly sorted and are predominantly composed of pebble to boulder (max 70 cm) andesitic clasts supported by a coarse immature sandstone matrix. Some beds have erosive bases. Conglomerate clast sizes generally decrease upwards in this sequence, as do individual bed thicknesses. The overlying andesite displays loading and sediment injection structures at its base, with 50 cm 'flames' of conglomerate matrix 'intruding' the lava. A 50 m thick trachyandesite contains 10% 1-2 mm euhedral to subhedral feldspar phenocrysts at its base. The proportion and size of these crystals increases to 30% and 2 to 5 mm at the top of the lava stack, where they are strongly flow orientated, displaying a



10

Fig. 3.3 Stratigraphic columns and cross section from Gurvan Morin Höndiy Formation, location shown by line \mathbb{O} on Fig.3.2. Second-order folds in north reflect proximity to E-W trending axis of regional syncline (columns 1-4). Northerly dipping sequence in the south is southern limb of first-order west plunging syncline (column 5). Location of transect shown on Fig. 3.2. Columns show lower parts of sequence dominated by volcanism, with coarse sedimentation becoming more important upwards and to the north. Numbers to right of column indicate positions of geochemical analyses.

с

R

15

14

R. Sand P.

Fig 3.5a

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

trachytic fabric. Hornblende phenocrysts form 5 to 10 % of the rock in central parts of this section. Another conglomeratic bed lies above the andesite, similar to those below.

Sixty metres above the conglomerate lithologies, 60 to 200 cm thick sandstones and conglomerates with some thin shale-bands occur (Fig. 3.5 b). This sequence includes a 60 cm thick carbon-rich black-shale horizon. A further 40 m thickness of densely feldspar-

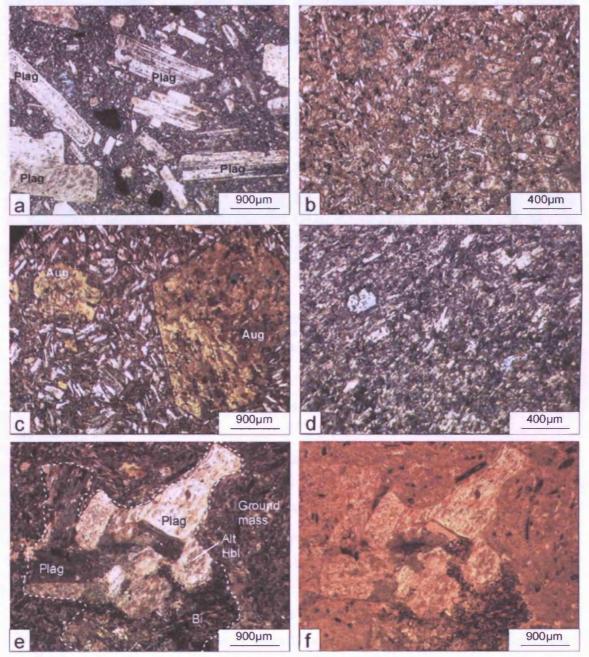


Fig. 3.4 Photomicrographs illustrating volcanic lithologies in OUVG. a) Basalt from GMHF with weakly flowaligned euhedral plagioclase (labradorite) phenocrysts, b) Aphyric basalt from GMHF, c) Basalt from SMF with large augite phenocrysts and plagioclase lath microphenocrysts, d) Fine grained amygdaloidal basalt from SMF, e) Multi-mineralic granite microxenolith in SMF formation aphyric basaltic andesite. Xenolith contains biotite (Bi), plagioclase (Plag), altered hornblende (alt hbl), f) same feature as 'e' in plane polarised light, g-j overleaf.

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

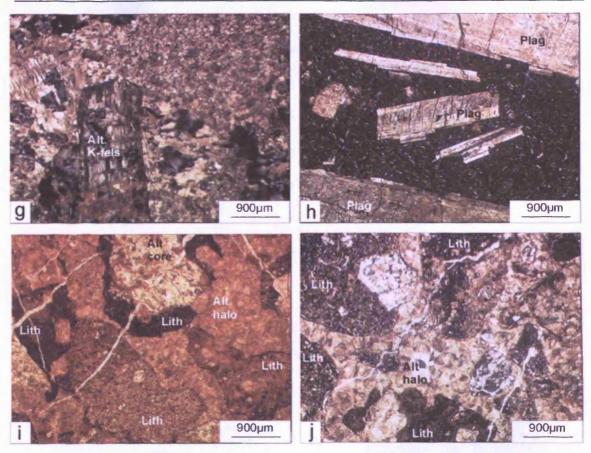


Fig. 3.4 (continued from previous page) g) Rhyolitic lithology from TNF, note altered feldspar crystal, apparently devitrified ground mass h) Basalt from upper part of TNF, very large euhedral plagioclase phenocrysts i) highly altered volcani-clastic lithic breccia, clasts of various basaltic lithologies with alteration haloes, in plane polarised light j) same as 'i' in cross polarised light

phyric andesite with 1 to 5 mm-long euhedral phenocrysts is exposed above these sedimentary units.

The uppermost part of Unit B is another relatively thinly bedded sedimentary sequence, featuring graded sandstones with cross stratified bases and bioturbation, and siltstones with lycopsid bark impressions (Fig. 3.5, c to e; H. Falcon-Lang pers. comm. 2005). One segment of lycopsid trunk occurs in apparent life-position (Fig. 3.5 d), whilst others are parallel to bedding (Fig. 3.5 e). Thin 1 to 3 cm thick seams of coal with Fe-oxide halos occur in these units.

Unit C is lithologically similar to Unit B containing thick conglomerates and andesites. The lithologies of Unit C were traced laterally around a series of second-order folds in the northern part of the GMHF outcrop area (Fig. 3.3), documenting lateral transitions in the succession. In the south, the base of the unit is defined by <1 to 2m thick small- to mediumpebble conglomerate beds with an intercalated sandstone and shale unit, above which is a

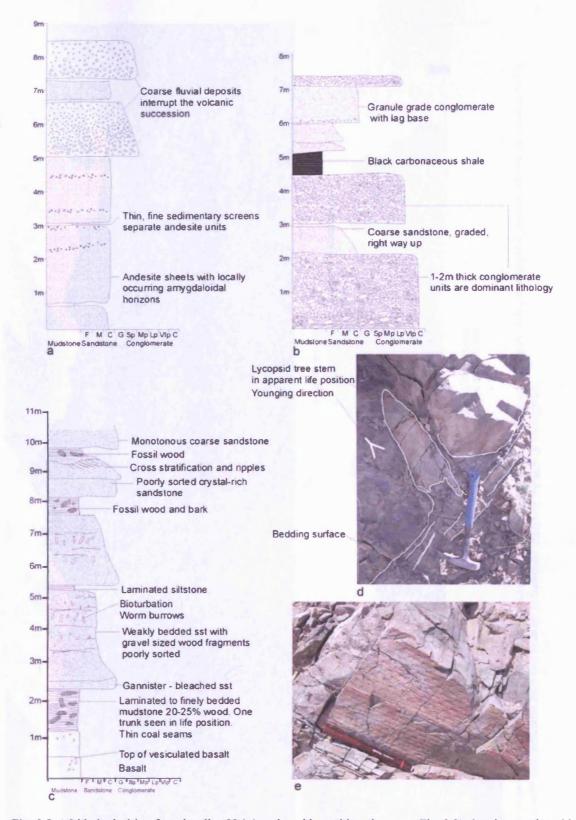
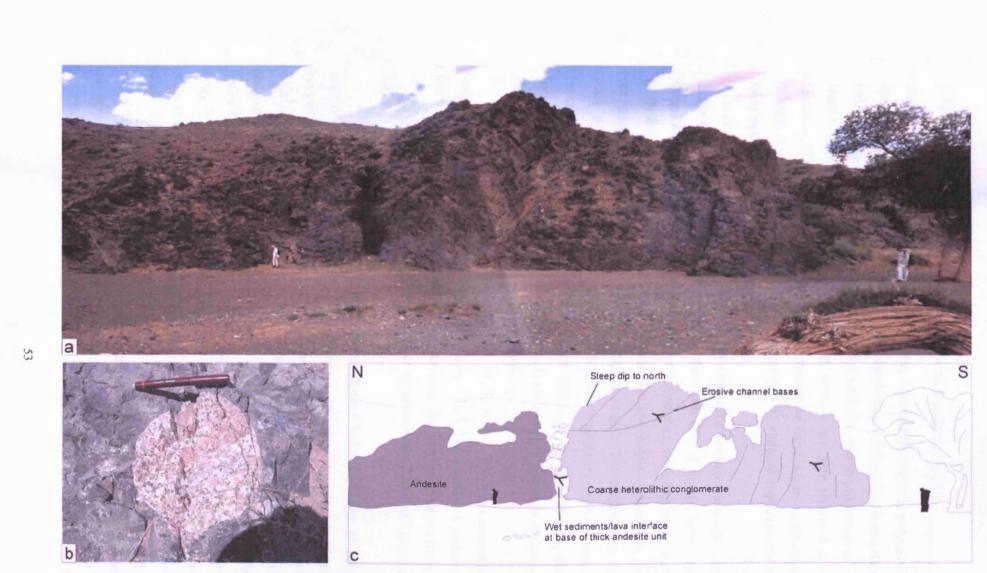
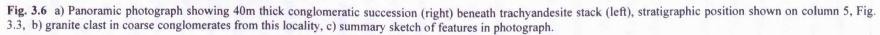


Fig. 3.5 a) Lithological log from locality 55.1 (stratigraphic position shown on Fig. 3.3) showing stratigraphically lowest sedimentary units in Gurvan Morin Höndiy formation. Sediment screens within lava sequence delimitate lava flow-units. b) Lithological log from locality 54.16 (stratigraphic position shown on column 4, Fig. 3.3) showing detail of sandstone and conglomerate beds in GMHF, features a carbon-rich black shale unit. c) Lithological log from locality 54.11 (stratigraphic position shown on column 4, Fig. 3.3) showing detail of sandstone shale beds in GMHF, features lycopsid bark impressions in mudstones and fine sandstones d) Photograph showing tree trunk apparently in life position standing perpendicular to the bedding surface e) Photograph showing lycopsid tree-bark impressions in situ.





50m thick sequence of massive conglomerate. The conglomerate is polymictic and poorly sorted, containing clasts of granite, andesite, sandstone, siltstone, basalt and dacite with sizes ranging from 10 to 100 cm. Granites comprise both the highest proportion of clasts and the largest clasts. Individual beds or bedding surfaces are rare within this conglomerate sequence; however, one 30 cm thick coarse-sandstone band occurs approximately midway through the unit. A 10 m thick densely feldspar-phyric andesite separates this conglomerate from another 80 m of similar lithology above.

A 140 m thick andesite stack, which constitutes the thickest continuous outcrop of lava in the GMHF, defines the top of Unit C in the south (Fig. 3.3). As with similar massive andesite stacks lower in the formation, lava boundaries were not seen, but the stack's thickness suggests it must represent several separate lava bodies. Phenocryst size and shape are the only factors which vary with stratigraphic height. The trachyandesites within this stack are generally more densely packed with feldspar phenocrysts than units lower in the formation. Phenocrysts are subhedral, range in size from <1 to 4 mm, and constitute between 50 and 80% of the rock. Trachytic textures are a common feature of the lava. Phenocryst size decreases upwards through the stack.

The lithologies of Unit C generally thin to the north. The main traceable unit is the large andesite stack at the top of the succession, which helps define a series of 2^{nd} order folds. From structural reconstructions, it is estimated that this unit reduces from a thickness of 140m in the south to 20m in the north, over approximately 2.5km of lateral extent (Fig. 3.3).

The most complete section of stratigraphy exposed in the north dips to the north at the edge of the GMHF outcrop area. This sequence is laterally equivalent to Unit C. At the base of the sequence is a 50m composite sequence of 10 to 50cm thick coarse sandstones with intercalated mudstones, overlain by 40m of coarse sandstones, local channelised conglomerates and thin, cross-stratified mudstones. Several scoriaceous basalt horizons 50 cm in thickness were identified within this otherwise entirely sedimentary sequence (Fig. 3.7a). The relatively thinly bedded sediments contain many small-scale folds, which do not occur in other parts of the succession; these minor folds verge to the north and plunge to the west. They are a rare example of folding that occurs at an outcrop scale in the OUVG. Above this, the sequence continues to coarsen into a 6m thick pebble to cobble conglomerate unit containing mainly andesite clasts. Some large cobbles of bioclastic crinoidal limestone occur in this bed.

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

Seventy metres of aphyric basalt are intercalated with the conglomerate, as a 25 m thick lower unit and a 35 m thick upper unit. A 5 to 10 cm sandstone band divides the two lavas and the upper basalt unit has an undulating sediment-mixed base. Above the upper basalt is another 80 m of coarse, poorly-sorted heterolithic conglomerate with clasts up to 60 cm in size, of jasper, basalt, massive quartz and mudstone. In the top ten metres of the conglomerate, clast sizes decrease to granule-grade, indicating the section is right way up. The conglomerate is overlain by a 1 m thick mudstone, and 5 to 10 cm sandstone-mudstone graded units with coarse erosive bases, again indicating the section is right way up. Eighteen metres of poorly-bedded volcanic sandstone constitutes the highest sedimentary unit beneath the lava at the top of the formation.

The 20 m thick northern equivalent of the major andesite stack in Unit C lies near the top of the exposed lithologies in the north (Fig. 3.3). The top of this 5m-thick unit locally contains lenses of lava with scoriaceous texture. It is overlain by a 1 to 2 m thick basalt, the base of which holds entrained clasts of the trachyandesite. The basalt is overlain by the uppermost unit of the GMHF stratigraphy, an andesite sheet of 3 m minimum thickness, which features 1 to 2 m thick pillow lavas (Fig. 3.7 b), which confirm the northerly younging direction (Fig. 3.3).

The formation is most altered at its northern and southern margins and at the margins of thick lava sequences, where carbonate veins have epidotised haloes (Fig. 3.7 c).

3.2.2 Shargyn Moghai Formation

The c.2000 m thick Shargyn Moghai (Yellow Snake) Formation (SMF) is situated stratigraphically and conformably above the Gurvan Morin Höndiy Formation (Fig. 3.2). It is comprised of a relatively monotonous succession of basaltic andesites and andesites (Fig. 3.8). Around six hundred metres of stratigraphy from the upper half of this formation were recorded along one continuous transect and a succession from a parallel shorter transect along strike to the west was also documented. The transects cut across structural grain in the southern limb of the regional syncline (Fig. 3.2). The uppermost parts of the formation were recorded on the northern limb, below the overlying Tsagaan Nuruu formation. Reconnaissance fieldwork across the remainder of the SMF outcrop area indicated that the formation deviates little from the lithologies seen along the transects.

Bed thicknesses range from 2 to 10 m and are mainly identified through scarp and dip slopes. There is rarely more than 1 to 2 cm of rubbly volcanic detritus between lava sheets; most contacts are lava on lava, suggesting high effusion rates. Individual flows exhibit

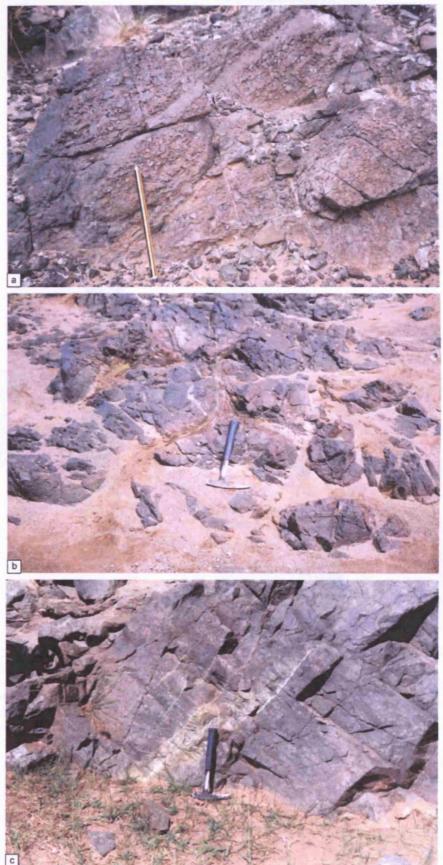


Fig. 3.7 a) Photograph showing scoriaceous texture from upper parts of GMHF stratigraphy, b) photograph showing andesite pillow-lavas from near the top of the GMHF stratigraph/y, c) 20cm wide epidotised alteration halo around carbonate vein in trachyandesite.

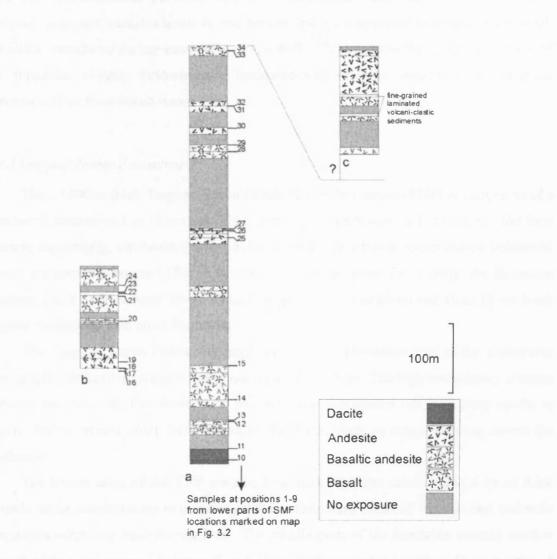


Fig. 3.8 Stratigraphic columns from Shargyn Moghai Formation, transect study area shown on Fig.3.2, a) northerly dipping sequence in the southern limb of first-order west plunging syncline (line @ on Fig. 3.2), b) section of stratigraphy from 1200m along strike to west of column 'a' (line @ on Fig. 3.2), c) top part of SMF formation in north beneath lowermost outcrops of TNF (line @ on Fig. 3.2). Despite gaps in exposure, columns are dominated by lava and few intercalated sedimentary rocks are exposed.

variations in phenocryst phase and size, vesicularity, flow banding and brecciation - most sheets have relatively massive interiors and brecciated flow margins. Both aphyric and porphyritic textures occur, dominantly featuring euhedral plagioclase phenocrysts (Fig. 3.4, c & d). Groundmasses primarily consist of plagioclase micro-laths. Small, partially resorbed, granitoid particles occur in one section and are interpreted to represent wall-rock xenoliths, introduced during ascent (Fig. 3.4, e & f). Exposures in the uppermost 150 m of the formation contain siltstone-grade laminated volcaniclastic sediments that crop-out between c.10 m thick basalt lavas.

3.2.3 Tsagaan Nuruu Formation

The c.1000 m thick Tsagaan Nuruu (White Ridge) Formation (TNF) is comprised of a number of distinctive 5 to 10 m thick felsic units, which are blocky and crystalline, and form positive topography, interbedded with ca. 60 m thick fine-grained volcaniclastic sediments, which are sparsely exposed (Fig. 3.9). Near its top, between felsic units, the formation contains 2 to 3 m thick basalt lavas, 25 to 35 m sections of sandstone and 10 to 15 cm black organic-mudstones with plant fragments.

The Tsagaan Nuruu Formation crops out in the northwestern part of the contiguous stratigraphy, within the core of a first-order regional syncline. The high competency contrast between the relatively thin felsic units and the thick intercalated tuff sequences results in highly visible second order folds traced by the felsic units as ridges snaking across the landscape.

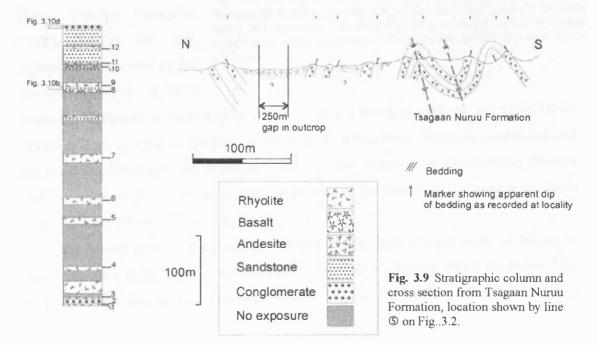
The lowest units of the TNF are two 5 m thick rhyolites sandwiching a 16 m thick granule-grade conglomerate with subangular to subrounded clasts of basaltic and andesitic lithologies exhibiting trachytic textures. The middle parts of the formation contain another five rhyolite beds, ranging between 5 and 18 m thick separated by 20 to 60 m swaths of almost no outcrop. Limited local exposures contain finely laminated and highly silicic fine-grained units, which appear to be volcaniclastic in origin. These are preferentially exposed near the bases of the blocky rhyolites.

In thin section, the rhyolites are predominantly composed of a fine-grained groundmass featuring spherulites of intergrown quartz and plagioclase, with euhedral phenocrysts of orthoclase constituting 5-10% of the rock mass (Fig. 3.4 g). It is suggested that these blocky rhyolitic units constitute lava-like ignimbrites or rhyolitic lavas of

abnormally low viscosity, which would explain the high aspect ratio, and wide areal extent of these units.

In the upper part of the TNF, intervals between blocky crystalline units are thinner and sequences are better exposed. In a 5 m thick bed of black shale beneath the eighth rhyolitic unit (Fig. 3.9), cordaites leaf impressions occur on bedding-parallel surfaces (Fig. 3.10 a). Interbedded 1 m thick massive sandstones and carbon-rich black shales occur below the ninth rhyolitic unit (Fig. 3.10 b). These black shaley tops of graded sandstones exhibit wood and leaf fragments and are overlain by a 5 to 30 cm thick bed of laminated siltstone. The bases of the massive sandstone beds have rip-up clasts of the underlying siltstone (Fig. 3.10 c). Where sandstone lies beneath a black shale horizon, it appears to form a gannister-style layer. Underlying these sediments is a 5 m thick, coarsely feldspar-phyric basaltic lava (Fig. 3.4 h).

The top of the TNF stratigraphy recorded here comprises around 60 m of almost continuous exposure near the core of the regional syncline. At the base of this sequence is exposures of a 1.5 m thick coarse immature sandstone bed, overlain by a 2 m thick feldsparphyric, trachytic textured basalt, which in turn is overlain by a 2 m thick rhyolitic unit, similar to others from lower in the formation. Between this rhyolite and the next (and uppermost) unit is 10.5 m of mudstone interbedded at 1.5 to 4 m intervals with three coarse immature tabular sandstone beds of 20 to 40 cm thickness. The last rhyolite bed is 3.5 m thick and is overlain by 18 m of interbedded mudstones and coarse sandstones of 30 to 50 cm thickness. The uppermost unit recorded in the TNF is a poorly sorted matrix-supported



Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

conglomerate with pale, vesiculated felsic clasts of 1 to 10 cm diameter, in a dark matrix (Fig. 3.10 d).

The TNF may be considerably thicker than recorded here, as the syncline plunges to the west, where is more there outcrop. However, the stratigraphic relationship between the rocks further to the west and the TNF stratigraphy as described here is ambiguous, as the two are divided by large outcrop gaps interpreted to represent major structural breaks.

3.2.4 Yasun Eliy-e Formation

The Yasun Eliy-e (Dead Vulture) Formation (YEF) lies in the east, isolated from the rest of the group stratigraphy. It has a

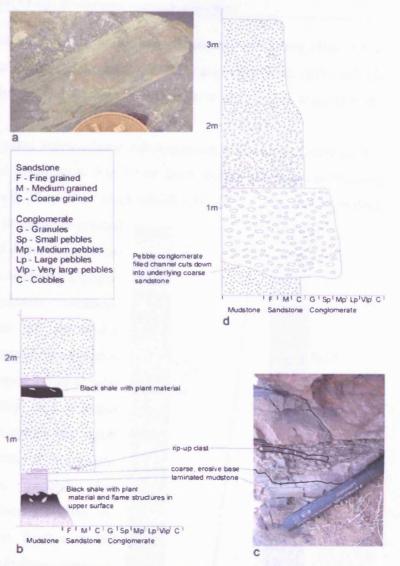


Fig. 3.10 Lithological logs and photographs from upper part of TNF (for stratigraphic position see Fig. 3.9), a) Cordiates leaf fragment, b) Sandstones and mudstones with plant fragments, c) rip up clast of laminated mudstone in coarse sandstone, d) Conglomerate units with curved channel bases.

minimum thickness of 1500m (Fig. 3.11). It forms the host rocks to the Oyut Ulaan intrusion (Fig. 3.2) and is the least evolved of the formations. Volcanic sandstones and trachybasaltic lithologies are dominant. The YEF was observed in a river-valley transect that crosses the regional structural grain in the west of the formation's outcrop area. Beds in the YEF dip between 25° and 60° to the north.

The lowest units of the formation (which are the first exposed north of Mesozoic basin sequences to the south of the area) are feldspar-phyric basalts, which are interbedded in places with coarse, immature sandstones. Further up-section, 10 to 20 m thick

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

trachybasalts are interbedded with poorly sorted conglomerates, exhibiting clasts up to boulder grade. Unlike the conglomerates from GMHF these are mono-lithic, being entirely comprised of blue-grey andesites and basaltic andesites in a matrix that resembles the volcanic ground mass.

A series of finely laminated volcaniclastic lithologies are exposed at a stratigraphic height of 475 m, consisting of a number of 5 to 10 cm thick, coarse, lapilli-grade horizons (Fig. 3.4, i & j) interbedded with 20 to 30 cm thick ashfall tuffs (Fig. 3.12). A 110 m thick

sequence of volcanic fine- to medium-grained sandstones with local parallel-lamination cropsout between 5 to 10 m thick feldspar-phyric basalts. Overlying the volcanic sandstone sequence, further sequences of monolithic conglomerates feature well defined escarpments, and drift covered lee slopes. Sub-angular andesitic clasts with vesicles and feldspar phenocrysts occur in a coarse matrix that again resembles the fine groundmass of the clasts. have diffuse margins. Some clasts The stratigraphically lowest conglomerate sheet has an exposed thickness of 10 m. Further up the stratigraphy, 30 m of similar lithology crops out, beneath two 8 to 10 m thick basaltic andesite units. Between these lavas is a 30 cm thick brecciated red-jasper horizon, overlain by 20 m of feldspar phyric basaltic trachyandesite.

Upper parts of the stratigraphy are exposed in 5 to 10 m escarpments formed by trachybasalt and basaltic trachyandesites in second order west-plunging folds. Gaps in exposure are formed by the gently dipping lee slopes of these units and buried intercalated sequences. In thin section, these lavas are porphyritic and densely

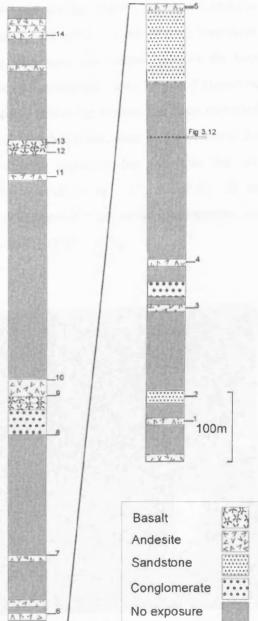
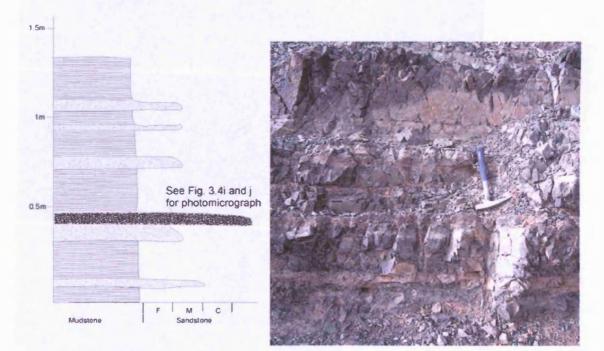


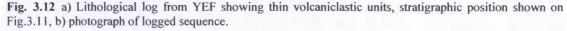
Fig. 3.11 Stratigraphic column from Yasun Eliy-e Formation, location shown by line [©] on Fig. 3.2.

packed with 0.1 to 1.0 mm euhedral plagioclases (An_{35}) and sparsely distributed but larger (2 to 3mm) hornblendes.

The YEF is the only part of the OUVG to be cut by minor intrusions. In the north, a 1 m wide olivine-phyric basalt dyke trends 130; south of this, in the centre of the area, a small dioritic intrusion with a roughly circular surface expression 20 m in diameter, cuts the volcanic-sedimentary succession.

The stratigraphic relation between the Yasun Eliy-e formation and the rest of the group is ambiguous. It lies in the east, and the group younging direction is with the plunge of the major syncline to the west, suggesting that the YEF predates the GMHF. However, there is 16 km of linear separation of poor exposure between the recorded sections of each formation (Fig. 3.13), and the possibility that there is some alternative association between the two cannot be ruled out. One explanation for the gap in the stratigraphy may be post-Palaeozoic brittle deformation. Evidence for a Mesozoic sinistral strike-slip regime has been recorded from both the greater region (Lamb et al., 1999) and the Saykhandulaan Inlier (Chapter 2). On satellite imagery, it appears that the area of poor exposure that separates the two formations is also where several major lineaments intersect (Fig. 3.13, a and b). If the sinistral and dextral (antithetic) fault movements interpreted from aerial photographs are reversed, the YEF moves closer to the base of the GMHF (Fig. 3.13 c).

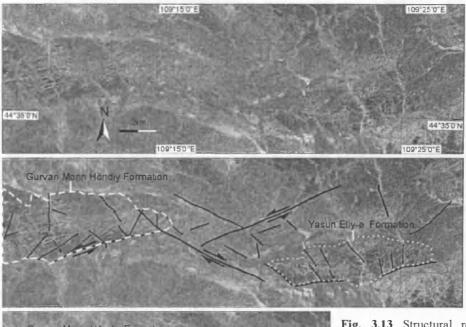




3.3 U-Pb dating of the Oyut Ulaan Volcanic Group

Two samples were analysed by Isotope Dilution Thermal Ionization Mass Spectrometry (ID-TIMS) at the NERC Isotope Geosciences Laboratory (NIGL), using analytical procedures as described by Noble et al. (1993). One dated sample was a welded ignimbrite from the lower parts of the TNF stratigraphy, the other was a granite clast from the coarse conglomerates in lower parts of the GMHF (Results - Appendix B).

Zircon crystals were separated from <355µm grained bulk-rock powder using standard vibrating-table, specific gravity and magnetic techniques. Crystal fractions for analysis were picked by hand under a binocular microscope; all analysed fractions consisted of single grains. Some zircon crystals were subjected to air abrasion (Krogh, 1982), whist others used a modified chemical abrasion technique (Mattinson, 2005). The zircon crystals were ultrasonically washed in 4N HNO₃, rinsed in ultra-pure water, then further washed in warm 4N HNO₃ prior to rinsing with distilled water, all of which aimed to remove surface



Gurvan Mosin Höndiy Formation. Yasun Eliv-e Formation

Fig. 3.13 Structural relationship between Gurvan Morin Höndiy formation and Yasun Eliy-e formation out crop areas. a) Aerial photograph (courtesy of the Institute of Geology and Mineral Resources, Mongolian Academy of Sciences) b) interpreted locations and movement sense of major and minor faults c) Reconstructions of major faults to show suggested pre-deformation juxtaposition of the two formations. Location of figure shown on Fig. 3.2. contamination. A mixed ²⁰⁵Pb - ²³⁵U tracer was used to spike all fractions. Dissolved, spike equilibrated samples were not subjected to ion-exchange procedures but were converted to chloride and loaded onto degassed rhenium filaments in silica gel following a procedure modified after Mundil et al (2004). Isotope data were collected using a Thermo Electron Triton with SEM for ion counting, and Faraday cups for voltage measurement when ion counts exceeded 800,000 per second. Errors were calculated using numerical error propagation (Ludwig, 1980). Isotope ratios were plotted using Isoplot version 3 (Ludwig, 1993, 2003), and error ellipses reflect 2σ (95% confidence level) uncertainty. Mean Squared Weighted Deviates (MSWD) are calculated by dividing the sum of the squares of the mis-fits to the regression line by the number of data points minus two, and are a measure of the scatter of points. If scatter is limited to that caused by analytical errors, MSWD should = 1, too much scatter results in MSWD > 1 and too little (less than expected from analytical errors) results in MSWD <1. MSWD values near 1 give a high level of confidence that a true isochron is indicated by the data (McIntyre et al., 1966).

Lead blanks recorded during three separate batches of analysis ranged from 1.2 pg to 0.2 pg. Samples were blank corrected using the blank ²⁰⁴Pb:²⁰⁶Pb:²⁰⁷Pb ratio. Correction for common lead in all samples was carried out using the Stacey-Kramers common lead evolutionary model (Stacey and Kramers, 1975), however the amount of common lead in the analysed zircons was negligible, as the correction was dominated by the Pb blank.

The rhyolite from the TNF yielded two single-grain zircon analyses, one concordant and one discordant (Fig. 3.14). The concordia age calculated for the concordant point is 323.12 ± 0.64 Ma. This is the age of the base of the youngest formation of the OUVG. If both points are considered, the upper intercept is 322.9 ± 3.5 . The extremely low MSWD (0.0026) is meaningless as it refers to only one point and so cannot measure scatter. When MSWD is calculated for the two points, the result is zero, as two points will always define a straight line, and there will be no scatter of those two points from the line they define.. Further data points from this unit are desirable.

The granite cobble from the GMHF yielded three overlapping, concordant, singlegrain zircon analyses (Fig. 3.14). The concordia age calculated from these three points is 338.93 ± 0.85 Ma. One further analysis was slightly discordant, but within error of the calculated concordia age, producing an average age of 339.53 ± 0.98 (supported by 4 analyses). Another result had a greater degree of discordance, and was excluded from the age calculation. The discordance encountered can arguably be attributed to lead loss.

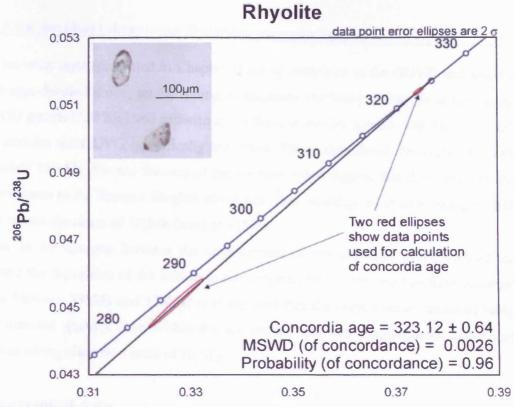
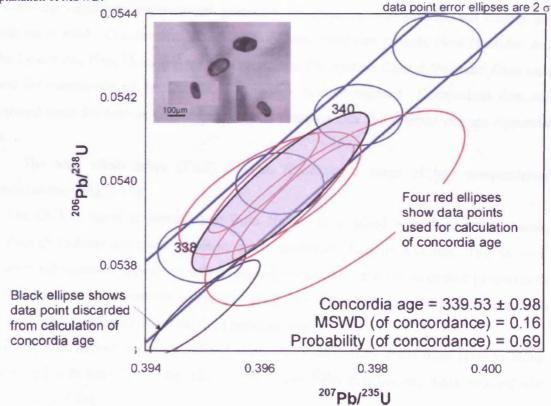


Fig. 3.14 Concordia diagrams for the granite cobble from the Gurvan Morin Hondiy formation and the rhyolitic unit from the lower parts of the Tsagaan Nuruu Formation. Thin ellipses show the data points, and corresponding errors. Grey-filled ellipse shows the calculated concordia age. Refer to text for an explanation of MSWD.



²⁰⁷Pb/²³⁵U



Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

Two other ages (presented in Chapter 4) are of relevance to the OUVG and together with the ages detailed above, set the timing of magmatic evolution within the group. These are the OU granite (330 Ma) and andesite dykes that cut the OU granite (328 Ma). The OU granite intrudes the OUVG (specifically the Yasun Eliy-e formation); therefore, the YEF must predate 330 Ma. Several features of the andesite dykes suggest that they represent the feeder structures to the Shargyn Moghai volcanism. This would give the intervening GMHF an approximate age range of 330Ma (min) to 328Ma.

Due to the age gap between the emplacement of the intrusion which yielded the cobble, and the deposition of the cobble in the conglomerate (interpreted to have occurred sometime between 330Ma and 328Ma) it is apparent that the conglomerate included fairly recently intruded granites from within the arc terrane and that emplacement, uplift and erosion was taking place on a scale of 10 M.y.

3.4 Geochemical data

One-hundred representative whole rock samples from the Oyut Ulaan Volcanic Group were analysed using standard XRF spectrometry techniques at the University of Leicester (Appendix A). Twelve samples were analysed in duplicate or triplicate in order to constrain uncertainty related to experimental precision, resulting in one-hundred and twenty one analyses in total. Geochemical data from the South Sandwich Islands, New Hebrides Arc, The Lesser Antillies, Honshu Arc, Sunda Arc, and the Andean Central Volcanic Zone were used for comparison of the OUVG with known tectonic regimes. Comparison data was acquired from the Georoc online geochemical database (for full citation list see Appendix C).

The total alkali silica (TAS) diagram illustrates a range of key compositional characteristics (Fig. 3.15):

- The OUVG varies in composition from Na +/- K enriched basalt and trachy basalt, through andesite and trachy andesite, dacite and trachy dacite to rhyolites. The Na +/- K enriched signature appears to reflect original composition and not secondary processes as this signature is a constant across the whole arc, whilst metamorphism is low to nonexistent and alteration is a local field phenomenon.
- There is a distinct and well defined magmatic evolutionary trend from less- to moreevolved with time. The most basic parts of each formation become more evolved with time (Fig. 3.15).

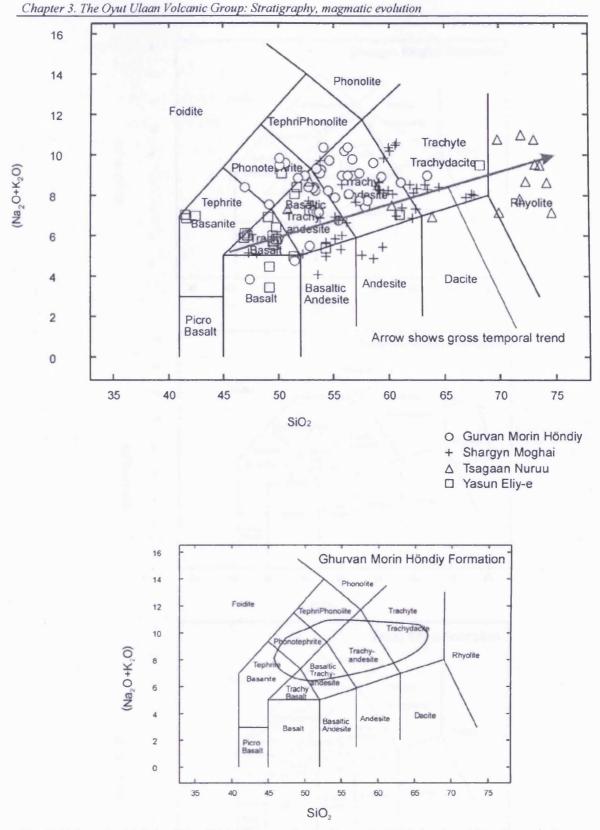
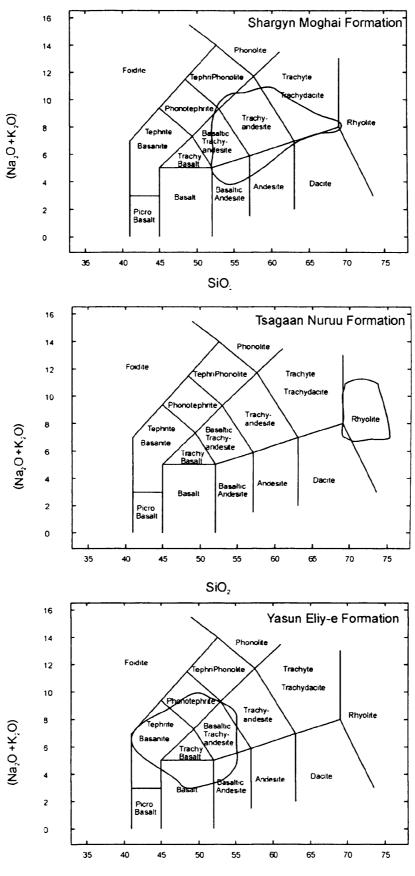


Fig. 3.15 Top; Total Alkalis Silica (TAS) diagram after Le Bas et al. (1986) for Oyut Ulaan Volcanic Group rocks showing wide range of compositions for both silica and alkalis. Bottom and overleaf; Thumbnail graphs showing field of analyses of each formation. Note that the most basic end of formation composition becomes more evolved with time.



SiO₂

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

There is a sharp rise in silica values in the TNF formation compared to the other formations.

Trace element spidergrams illustrate the key characteristics of subduction-zone derived magmas; e.g. high ratios of low field strength/high field strength elements (LFSE:HFSE) and a negative Nb anomaly (Saunders et al., 1980; Wilson, 1989). Furthermore, the trace element signature of the OUVG most closely resembles patterns from mature oceanic/ continental arcs. Multi-element variograms (Fig. 3.16) show the closest compositional analogues are arcs and cordillera such as Sunda, Honshu, and the Andes, with elevated, convex upwards Sr-Th patterns and negative to gently concave upwards Ce-Y patterns. Ratio-ratio plots involving Zr, Ti, Nb, Ce, and Y (e.g. Nb/Y vs Zr/Y; Fig. 3.17) confirm that when the tightly data are plotted in constrained fields, the OUVG : exhibit very similar compositions to highly evolved arcs such as Sunda, Honshu and the Central Andes.

Geochemical results generally show an evolutionary trend within the OUVG, from basalts at its base

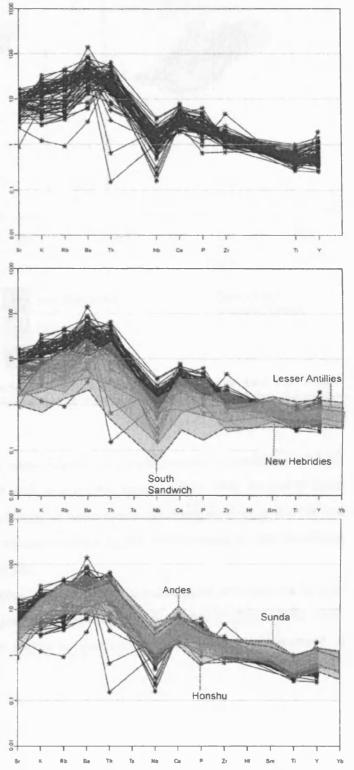


Fig. 3.16 Spidergrams for trace elements from YEF, GMHF and SMF. Fields show area of plots of comparative data from various published sources (see Appendix C). All data normalised to MORB values of Pearce (1983)

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

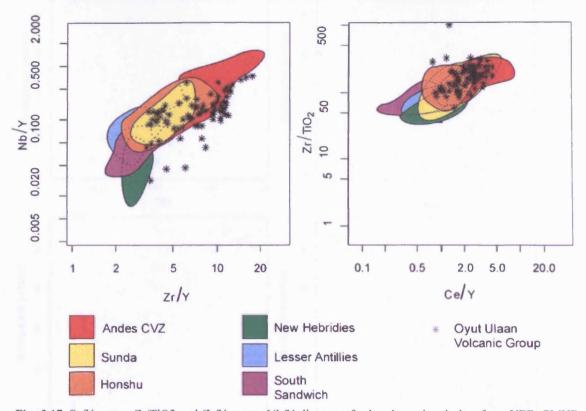


Fig. 3.17 Ce/Y versus Zr/TiO2 and Zr/Y versus Nb/Y diagrams for basalts and andesites from YEF, GMHF and SMF. Fields show summary data from known tectonic regimes. Data from various published sources (see Appendix C).

to volcaniclastic deposits of rhyolitic composition in its upper reaches. Abundances of CaO, TiO_2 , Al_2O_3 and Fe_2O_3 generally fall with stratigraphic height, whilst SiO_2 , Ba and Sr show general increases. Stratigraphic variations in some elemental abundances (e.g. Zr, Nb and Y) show variations that are more intricate, illustrating the development of the underlying magma chamber through time (Fig. 3.18).

The rhyolites of the TNF are weakly peralkaline to metaluminous, and have an A_2 -type signature when plotted on granite discrimination diagrams developed by Eby (1990, 1992; Fig. 3.19). The A_2 -type signature relates to granitoid magma chemistries generated in extensional environments.

3.5 Discussion

3.6.1 Physical volcanic model

The three contiguous formations in the west contain 4.6 km of stratigraphy from an evolving volcanic-sedimentary system, and record three distinct stages of volcanism: 1) commencement of volcanic activity within an energetic fluvial sedimentary environment, 2)

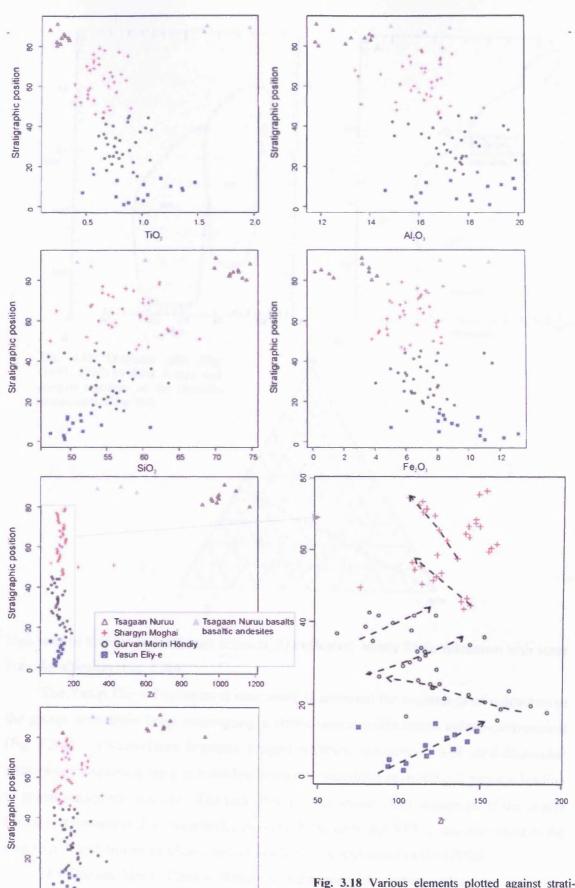
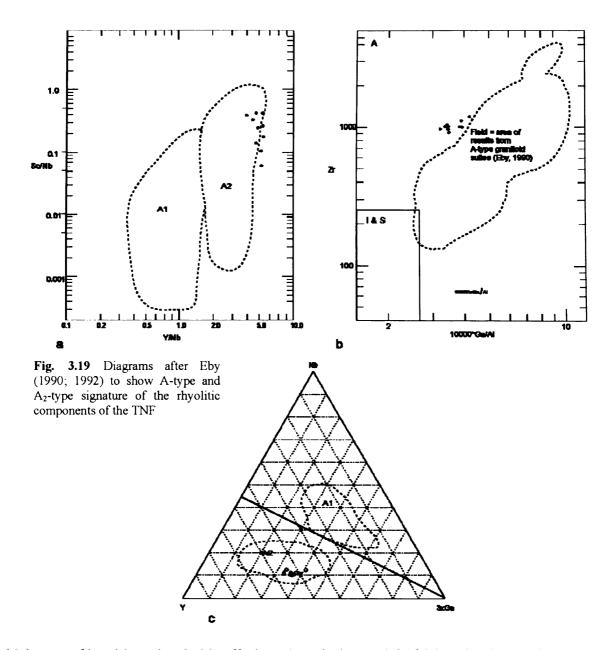


Fig. 3.18 Various elements plotted against stratigraphic height to show systematic variations throughout the Oyut Ulaan Volcanic Group.

Ce



high rates of basaltic and andesitic effusion, 3) explosive, mainly felsic volcanism with some bimodal affinities (Fig. 3.20).

The Yasun Eliy-e Formation is interpreted to represent the beginnings of volcanism in the group, with basic lavas interrupting a stable sediment-dominated palaeo-environment (Fig 3.20a). Volcaniclastic horizons suggest explosive eruptions. The sand-dominated sedimentary sequences suggest a shallow marine or lacustrine environment, perhaps leading to phreato-magmatic activity. The lack of thick, erosion-resistant sequences of the coarse fluvial conglomerates that characterise the GMHF suggests that YEF volcanism predates the major uplift and erosion of older crust, or is a lateral facies variant of the GMHF.

The Gurvan Morin Höndiy formation represents intermittent volcanism within an active, high-energy sedimentary environment (Fig. 3.20 b). In its lower parts (Unit A), andesite sheets are intermixed with coarse heterolithic conglomerates, interpreted to be

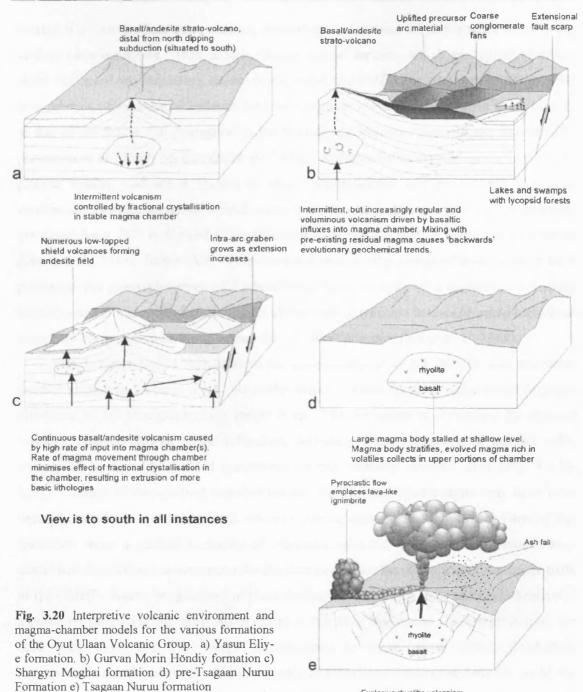
deposited by large river systems eroding the uplands and depositing alluvial-fan sequences in the lower parts of the arc. Whilst their heterolithic nature points to a widespread provenance, the high proportion of large granite clasts suggests that the provenance-zone included uplifted sequences of earlier arc-magmatism. This suggests that at the base of OUVG volcanism, the area was not a simple immature island arc but had more in common with either an evolved island arc or a continental margin. The polymict nature of the succession's voluminous conglomerates shows that a varied geological hinterland was undergoing erosion contemporaneously with the Oyut Ulaan Volcanism.

Higher in the succession conglomerates have smaller clast-sizes, are more thinly bedded, and finer siliciclastic sediments become more common. Sandstones are commonly graded and have mudstone/siltstone caps, suggesting sub-aqueous turbidite-style deposition at some localities. Evidence of mature vegetation suggests a stable, terrestrial landscape and long inter-eruptive periods, leading to growth of plant life within a swamp-like environment. This is consistent with a palaeo-environment of braided rivers flowing into lakes and swamps in a warm, humid climate. The northwards thinning observed in lava sheets, suggests that volcanic vents were located to the south, and that lavas have wedge-like thickness patterns. Lava-sediment mixing at the base of some sheets suggests lava was emplaced onto wet sediment, resulting in loading structures. Pillow andesites at the top of the formation suggest some lava was being extruded within a sub-aqueous environment, though in light of the other evidence it is suggested that this was lacustrine or swamp-like rather than marine. The presence of bio-clastic limestone cobbles in conglomerates in the upper parts of the formation suggests proximal erosion of marine sequences, highlighting the growth of the arc from earlier marine settings.

In conclusion, it is hypothesised that stage one volcanism exhibits periodic andesitic effusion with long periods of volcanic acquiescence within a wet-humid semi-tropical environment. Initially, volcanism occurred within the rifted lowlands of a mature arc close to geologically diverse uplands. This environment likely contained large, intermittantly powerful rivers that had the capacity to transport and deposit large volumes of coarse material from the precursor arc-hinterland material to the volcanically active arc-graben. As time progressed the rate of effusion increased, as did the extent of low-swamp lands with standing lacustrine bodies and braided sand and silt bearing river systems.

The Shargyn Moghai Formation represents an abrupt change in volcanic style. It is composed almost entirely of basaltic andesite and andesite lava sheets and no non-volcanic

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution



Explosive rhyolitic volcanism, ensues, Basic parts of chamber are tapped later after rhyolitic eruption, producing lava flows interspersed with sediments.

sedimentation occurs in this formation, suggesting an increase in effusion rates. Many sheeton-sheet contacts are evident, expressed as trap topography (Fig. 3.20 c). Pillow-lavas do not occur, implying that the great bulk of volcanism took place sub-aerially. Voluminous volcanic deposition rapidly buried the aqueous environment present in the upper and northern parts of the GMHF. No pyroclastic activity is recorded, implying that even during

Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

extrusion of intermediate compositions, degassing was widespread and magma paths to the surface were numerous. Thin, lobate, channel-bound deposits, which are typical of steepsided volcanic-cone sequences, do not occur within the SMF. The stratigraphy of the SMF is suggestive of a sub-aerial andesite field with multiple low-angle shield-style vents, similar to that of the Birker Fell Formation in the Borrowdale Volcanic Group, Lake District, UK (Petterson et al., 1992; McConnell et al., 2002). Andesite fields are analogous, in form, to plateau basalts, and are a feature of many pre-stratocone and pre-caldera sequences worldwide. Pre-caldera andesite fields occur in a range of locations, including beneath both the Loma Seca Tuff in Central Chile (Hildreth et al., 1984) and the Santorini ignimbrites (Druitt et al., 1989). In the SMF, voluminous and regular outpourings of lava appear to have prevented the re-establishment of Carboniferous flora, in spite of a probably co-existing humid, warm climate. Modern analogues of this type of volcanic landscape could include an energetic, Tongariro-style, North-Island New Zealand province (Nairn et al., 1998).

The Tsagaan Nuruu Formation is the uppermost part of the OUVG, and represents another change in volcanic style. Andesite sheets, notable for their voluminous presence elsewhere in the stratigraphy, are absent here. The formation is dominated by deposits resulting from explosive felsic volcanism, including thick sequences of ash-fall tuffs, interrupted by lava-like welded ignimbrites or low viscosity rhyolite lavas (Fig. 3.2 e). Large volumes of fine-grained material suggest the Tsagaan Nuruu strata may have been deposited within a syn-depositional volcano-tectonic depression. The upper parts of the formation show a gradual lessening of extrusion rates and a return to a fluvial/swamp dominated depositional environment for the first time since the deposition of the upper parts of the GMHF. Again, the presence of plant detritus in carbon-rich shale units is indicative of a relatively quiescent and moist environment at this time; vegetation was established on the land once more, and low energy sedimentation in lacustrine or deltaic flood-plain environments could take place. The occurrence of more basic lithologies, near the top of the formation, illustrates the bimodal nature of the TNF.

3.6.2 Geochemical implications for the physical volcanic model

The least evolved formation is the YEF, which field and remote-sensing evidence suggests represents the deepest stratigraphy. The formation's vertical geochemical variation corroborates this interpretation, fitting in at the base of the group and becoming slightly more silicic with height (Fig. 3.18). The YEF varies from the rest of the group's Natransitional signature; it is predominantly K-series alkaline. Zirconium abundances rise in

the YEF, showing a simple evolving trend of fractional crystallisation, with the residual magma becoming gradually more evolved. These data are consistent with a simple andesitic fractionation trend, with intermittent eruptions that tapped this gradually evolving source (Fig. 3.18 and Fig 3.20 a).

Unit A, at the base of the GMHF, has distinctive decreasing abundances of Zr and La with stratigraphic height (Fig. 3.18); this counter-evolutionary trend may result from a new influx of basaltic parent magma. The fact that this is expressed as a smooth trend rather than a sudden step suggests that the remaining residual magma from the YEF was mixed with a new, more primitive magma influx, whilst concurrent eruptions tapped the chamber (Fig. 3.20 b). The thick andesite sheets of the GMHF provide further evidence for periods of heightened magma chamber through-put. Upper parts of the GMHF show minor systematic fluctuations in Zr; both Unit B and Unit A show similar slight increasing trends with height (Fig. 3.18), which is interpreted as having been caused by new influxes of magma that were introduced to the underlying chamber, and which progressed through fractional-crystallisation controlled evolutionary trends in a similar manner to the YEF. It is interpreted that this pulsing magma replenishment produced long inter-eruption time gaps leading to the establishment of the relatively stable swamp-environments in the upper parts of the GMHF.

The SMF exhibits two consecutive sequences of decreasing Zr trends with height (Fig. 3.18). Other incompatible HFSEs also fall, but trends are less distinct. The highest abundances of Cr and Ni from the whole group are seen in the upper parts of the SMF, as are enriched TiO₂, Al₂O₃ and Fe₂O₃, indicating fresh and voluminous inputs of more primitive magma at this point. These trends imply that magma input rate into the underlying chamber was exceeding the rate of extrusion at the time of the SMF, causing the eruption of less evolved lava sequences (Fig. 3.20 c). This scenario supports the interpretation of high effusion rates in the SMF.

The TNF is predominantly composed of highly evolved silicic volcanic clastic deposits, geochemical results reflect this; most elemental abundances show a significant compositional gap from preceding evolutionary trends (Fig. 3.18). Intermediate and basaltic units at the top of the TNF show a return to a similar effusive eruptive style that occurred in earlier formations.

The general interpretations of the variation of OUVG geochemical data with stratigraphic height (Fig. 3.18) are:

1) An overall trend towards more SiO₂-rich magmas with time.

- Saw-tooth patterns of elemental abundances with stratigraphic height are suggestive of a dynamic magma environment with pulses of primitive magma being introduced into the magma chamber(s) episodically.
- 3) Indications of magmatic evolutionary trends that differ from the predominant trend.
- 4) A clear compositional gap between the TNF rhyolites and the older parts of the OUVG.

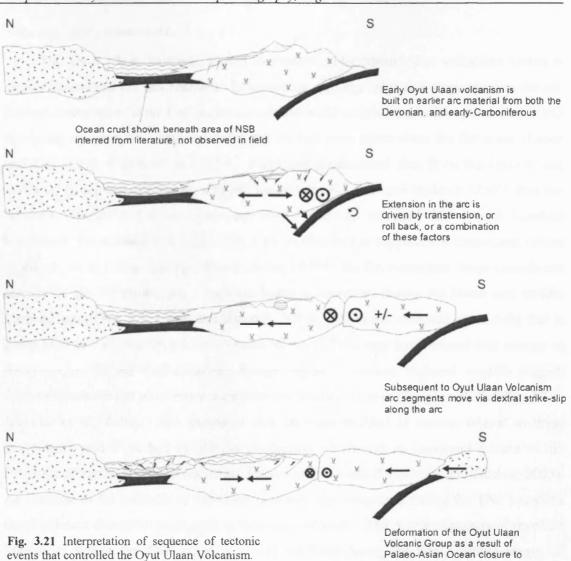
3.6.3 Magmatic-tectonic model

OUVG is interpreted to record a series of tectonic events affecting a mature continental-style arc (Figs. 3.20 and 3.21). The OUVG constitutes a more north easterly expression of volcanic activity than has previously been recorded for the southern Mongolia Carboniferous arc (cf. Lamb and Badarch, 2001).

Magmatism began in the YEF within a relatively stable environment, its K-alkaline to signature may signify that volcanism here is indicative of an arc front somewhat removed from the subducting trench, if a simple K-h style trend was operational (Gill, 1981; Wilson, 1989).

Extension is interpreted as the trigger for volcanism in the OUVG, and particularly the increasing effusion rates of the Shargyn Moghai and Tsagaan Nuruu formations. The extension may have been produced by roll-back of the subducting slab, or transtension along the arc. This extension would have provided rejuvenated mountain fronts and river systems, and increased the number of potential magma conduits. The coarse conglomerates and thick andesite sequences of the GMHF suggest intra-arc extensional graben, with footwall uplift providing a hinterland of older arc material. Similar, ancient arc-graben depressions occur in the southwest cordillerian United States, and a modern analogue occurs in Central America (Fisher and Schmincke, 1994). Increasing extension, during the SMF times, led to the development of many magma conduits and vents resulting in high effusion rates. Some SMF lavas contain xenoliths of granite which are lithologically similar to the nearby Oyut Ulaan intrusion. Andesitic dykes cut the intrusion and are geochemically similar to the SMF. These dykes may represent the feeder structures to the SMF (Chapter 5).

Two possible hypotheses for the high silica sequences of the TNF are suggested: Firstly, the TNF followed a period of volcanic quiescence, the trapping of substantial magma volumes at shallow levels allowed for a protracted period of fractionation and lead to the development of a stratified magma chamber, with a concentration of volatile-rich rhyolitic fluids in its upper parts. This scenario could lead to explosive felsic eruptions, and the rapid



Chapter 3. The Oyut Ulaan Volcanic Group: Stratigraphy, magmatic evolution

emptying of the stratified chamber. Once the main chamber had been largely emptied, basic magma from its deeper parts was tapped and emplaced into a relatively quiescent environment, suggested by the black shales and organic matter in the upper parts of the TNF. However, it is not clear what process would have caused the pause in volcanism during which the magma chamber stratification could take place. A second hypothesis, that the TNF represents the beginnings of extension-related bimodal volcanism in the OUVG, is supported by the A-type chemistry of the rhyolites (Fig. 3.19), although only one of the non-rhyolitic lavas has a silica value below 52 wt% (Fig. 3.15). This second hypothesis appears more likely, as other characteristics of the OUVG indicate increasing extension; and a sudden pause in volcanism, after the high effusive rates of the SMF, appears counter-intuitive to this interpreted trend.

the south of the area

3.6.4 Regional Implications

The Oyut Ulaan Volcanic Group represents mid-Carboniferous volcanism within a mature continental arc environment. Evidence for ongoing uplift and magmatism in the arc through earlier parts of the Carboniferous occurs locally as granite cobbles within the OUVG sucession, whereas, on a regional scale, the arc had been active since the Devonian (Lamb and Cox, 1998; Perello et al., 2001). Field and geochemical data from the Oyut Ulaan Volcanic Group are consistent with the suggestion of Lamb and Badarch (2001) that the Southern Mongolia Carboniferous arc may "continue eastward for several hundred kilometres" from Tsagaan Suvarga (Fig. 3.1). It also further supports the continental nature of the arc in this area. Along strike from the OUVG the Gurvansayhan range records arc activity in the Devonian, but a back-arc basin environment during the lower and middle Carboniferous (Fig. 3.1; Lamb and Badarch, 2001). The same tensional stress field that is interpreted to have facilitated the eruption of the OUVG may have caused this change in environments in the Gurvansayhan Range region. Various regional models suggest Carboniferous dextral movements along the arc front in the area (Sengör and Natal'in, 1996; Badarch et al., 2002). The extension may be transtensional in nature, related to these movements, and a product of oblique subduction which was an important feature of the Devonian-Permian geodynamics of the Palaeo-asian Ocean (Dobretsov and Buslov, 2005). An increase in the intensity of extension is tentatively interpreted during the TNF based on the distinctive change eruption style to bimodal volcanism. The A-type signature of rhyolitic lithologies within the TNF suggests it was extruded during the final, waning stages of subduction-zone related magmatism (Eby, 1992), and the age of the TNF (323.12 \pm 0.64 Ma) therefore tentatively provides a maximum age for the cessation of subduction in this area. A modern analogue for the transition from calc-alkaline magmatism in an arc-environment to extension related A-type magmatism is America's Basin and Range province, where an early stage of extension, occurring as a result of intra-arc strike slip movements, can be distinguished from a later transition to continental post-accretion extensional tectonism (Zoback et al, 1981).

Some time after the emplacement of the TNF the OUVG was deformed into E-W trending folds. The deformation of the OUVG has three potential causes: Firstly, Badarch et al. (2002) show that to the south of the Devonian/Carboniferous arc are further arc sections and cratonic fragments (Enshoo, Hutag Uul; Fig 1.1). The docking of any of these terranes at the subduction zone may have caused the folding in the OUVG. Secondly, the dextral

strike-slip duplication and westwards migration of previously laterally contiguous arcsegments due to oblique subduction may have driven the compression. Thirdly, the folding in the OUVG may be considered to be related to closure of the Palaeo-asian ocean in the Permian (Xiao et al., 2003). Major brittle structures which define the outcrop pattern of the Saykhandulaan inlier were also formed at this time (Chapter 2).

3.7 Conclusions

The Oyut Ulaan Volcanic Group provides crucial information about the terrane evolution in southern Mongolia during the Carboniferous. It constitutes some of the youngest arc-material yet dated from Southern Mongolia and it represents one of the last phases of arc-volcanism prior to the final closure of the Palaeo-Asian Ocean in the Permian.

Lithological and geochemical data from the OUVG illustrate both the palaeogeography and the volcano-tectonic regime at the time of emplacement. From incipient basic volcanism in a marine environment, through increasing extrusion rates amidst uplifted sections of precursor arc, to an evolved explosive upper-sequence, the OUVG documents a period of dominantly sub-aerial volcanism in a mature island arc or continental arc setting and extends eastwards the along-strike continuation of Carboniferous arc activity in south Mongolia and northwest China. The OUVG may span the transition from calc-alkaline arc magmatism, to bimodal, A-type post-orogenic magmatism; an important feature of the late Carboniferous and Permian growth of the CAOB.

4.1 Introduction

Over the past fifteen years, southern Mongolia has become a key region for both mineral exploration and research into processes of volcanic-arc development and terrane accretion. The discovery of important intrusion-related mineral deposits, such as the world-class Oyu Tolgoi gold-rich copper porphyry (Fig. 1.1), has encouraged efforts to understand arc magmatism and continental growth in the region. Whilst few studies exist detailing the basement evolution and lithological context within this SE Gobi Mineral Belt, fewer still present original absolute age data for any of the numerous granite intrusions which crop-out across the region.

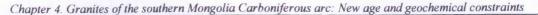
This chapter addresses the paucity of age data by presenting new U/Pb zircon dates for five intrusions from a 200 km long belt 150 km to the northeast of Oyu Tolgoi (Fig. 4.1). One of these intrusions has previously been dated with Rb/Sr whole rock techniques (Batkhishig and Iizumi, 2001), whereas the other four have not previously been dated.

Following a summary of the regional geology and methods employed, the results section of this chapter is divided into two parts. The first concerns the Oyut Ulaan intrusion, a mineralised granite that crops out within the Saykhandulaan Inlier 400 km to the south of Ulaan Baatar (Figs. 1.1, 4.1 and 4.2). The field relations, geochemistry and age of this intrusion are documented in detail. Features that cross-cut the intrusion including dykes and hydrothermally mineralised sheeted vein complexes and stockworks, are described.

The second part of this paper constitutes a reconnaissance study of granites in the broader region, encompassing intrusions from a belt 200 km to the west of Oyut Ulaan along the regional structural grain, including those of the Mandakh inlier, situated to the WSW of the Saykhandulaan inlier (Fig. 4.1). In addition to new age data, some geochemical results are presented for each intrusion.

4.1.1 Regional geology

The Central Asian Orogenic Belt (CAOB) represents 1.3 Ga of tectonic activity that took place between initial rifting of Siberia and North China in the Palaeo-Meso Proterozoic (1516-1662 Ma; Wang and Liu, 1986), to final closure of the Palaeo-Asian Ocean along the Solonker suture in the Permian (Fig 1.1; Xiao et al., 2003). The geology of southern Mongolia, and specifically, the southeast Gobi, records the Ordovician to Permian evolution of



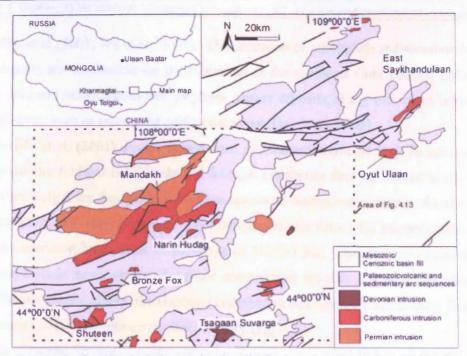


Fig. 4.1 Regional geological map showing distribution of granite bodies, Palaeozoic inliers, and Mesozoic and Cenozoic basins and faults, after Tomurtogoo (1999).

the northern margin of the Palaeo-Asian Ocean, with multiple phases of island-arc growth, back-arc rifting, and terrane accretion (Zorin et al., 1993; Şengör and Natal'in, 1996; Lamb and Badarch, 1997, 2001; Badarch et al., 2002).

Lamb and Badarch (2001) propose a Devonian arc that spanned from Edren in the west to Tsagaan Suvarga in the east (Fig. 3.1). They interpret Carboniferous arc-activity in southeast Mongolia as having been built upon pre-existing Devonian arc-crust, and consider it to be linked to the west, with Carboniferous arc rocks in Bogda Shan in the northern Tian Shan. This arc has oceanic affinities to the west (in eastern Xinjiang Province) but becomes more continental towards the Mongolian border and in regions further east (Carroll et al., 1990; Zorin et al., 1993). In chapter 3, evidence of Carboniferous continental-arc activity was confirmed in the Saykhandulaan inlier, extending eastwards the model of Lamb and Badarch (2001).

The emplacement of voluminous intrusive bodies is an important feature of continental growth within accreting terrane belts. This process affects all environments, from juvenile island arcs and continental cordilleras, to post-orogenic plateau regions (Harris et al., 1986; Wilson, 1989). After the final suturing of the Palaeoasian Ocean in the Late Permian (Xiao et al., 2003), and continuing into the Jurassic, voluminous, juvenile granitoids were emplaced into the Central Asian Orogenic Belt. These post orogenic intrusions are thought to indicate a major transfer of mantle material to the crust as a result of slab drop-off (Wu et al.,

2000; Zhu et al., 2001; Wu et al., 2002). The processes of arc growth and accretion in southern Mongolia are responsible for the formation of the southeast Gobi mineral belts, which feature gold and molybdenum-rich porphyry copper deposits, along with other intrusion related prospects such as skarns and epithermal veins (Dejidmaa, 2005).

Perello et al. (2001) discuss magmatism and mineralisation at Oyu Tolgoi (Fig. 1.1). The monzonitic feldspar-hornblende and feldspar porphyries that are related to mineralisation at Oyu Tolgoi are thought to have been emplaced during initial stages of arc-evolution in the late Silurian to early Devonian. Hydrothermal biotite from a Cu mineralisation-related K-silicate alteration halo yields an K/Ar age of 411+/-3 Ma. Post-mineralisation intrusive lithologies include minor stocks of syenitic composition, rhyolite and andesite dykes, and a major alkaline granite pluton, the Hanbogd complex, which forms a large circular feature (32 km diameter), clearly visible on satellite imagery (Fig. 1.3).

The Tsagaan Suvarga Cu-Mo porphyry deposit crops out 150 km to the NE of Oyu Tolgoi, and 45 km to the SE of the Saykhandulaan inlier (Fig. 4.1). Mineralisation is associated with small intrusions and dykes of a range of lithologies including diorite, granodiorite and syenite (Lamb and Cox, 1998). Lamb and Cox (1998) provide an Ar/Ar date of 364.9+/- 3.5 Ma for sericitic alteration associated with mineralisation at Tsagaan Suvarga. Watanabe and Stein (2000) provide an average Re/Os date of 370.4 +/-0.8 Ma from molybdenite. Post-mineralisation monzonite dykes have an Ar/Ar age of 313 +/- 2.9 Ma (Lamb and Cox, 1998). It should be noted that K/Ar and Ar/Ar dates for mineralisation have been shown to be affected by post-mineralisation events, whereas Re/Os molybdenite ages are considered more reliable (Rundle, 1981; Stein et al., 2000; Selby et al., 2002).

The Kharmagtai gold-copper porphyry district lies approximately 100 km to the north of Oyu Tolgoi, and 100 km to the west of the belt of intrusions investigated in this study (Fig. 1.3). Devonian marine sediments and volcaniclastics form the host rock to monzodiorite and diorite porphyry stocks which host porphyry mineralisation, along with mineralised breccia pipes and quartz vein stockworks (Kirwin et al., 2005). There are no published age data available for the Kharmagtai complex.

4.1.3 Methods

Fieldwork included mapping and sampling for petrographic, geochemical and geochronological analysis at numerous localities across the Oyut Ulaan Granite outcrop area, with particular focus on the granite margins, roof pendants, dykes and breccia pipes. Reconnaissance sampling of the other intrusions from the region was carried out along a road transect to the west of the Saykhandulaan Inlier.

Fifty-five samples were analysed using standard X-ray fluorescence (XRF) techniques at the University of Leicester. Six samples (one each from the following intrusions; Oyut Ulaan granite, Oyut Ulaan andesite dykes, Mandakh, Narin Hudag, Bronze Fox and Shuteen) were analysed by Isotope Dilution Thermal Ionization Mass Spectrometry (ID-TIMS) for isotopic abundances of U and Pb in zircon grains, at the NERC Isotope Geosciences Laboratory (NIGL), using analytical procedures as described by Noble et al (1993).

Zircon crystals were separated from <355 µm grained bulk-rock powder using standard vibrating-table, specific gravity and magnetic techniques. Crystal fractions for analysis were picked by hand under a binocular microscope; all analysed fractions consisted of single grains. Some zircon crystals were subjected to air abrasion (Krogh, 1982), whist others used a modified chemical abrasion technique (Mattinson, 2005). The zircon crystals were ultrasonically washed in 4N HNO₃, rinsed in ultra-pure water, then further washed in warm 4N HNO₃ prior to rinsing with distilled water, all of which aimed to remove surface contamination. A mixed ²⁰⁵Pb - ²³⁵U tracer was used to spike all fractions. Dissolved, spike equilibrated samples were not subjected to ion-exchange procedures but were converted to chloride and loaded onto degassed rhenium filaments in silica gel following a procedure modified after Mundil et al. (2004). Isotope data were collected using a Thermo Electron Triton with SEM for ion counting, and faraday cups for voltage measurement when ion counts exceeded 800,000 per second. Errors were calculated using numerical error propagation (Ludwig, 1980). Isotope ratios were plotted using Isoplot version 3 (Ludwig, 1993, 2003), and error ellipses reflect 20 (95% confidence level) uncertainty. Mean Squared Weighted Deviates (MSWD) are calculated by dividing the sum of the squares of the mis-fits to the regression line by the number of data points minus two, and are a measure of the scatter of points. If scatter is limited to that caused by analytical errors, MSWD should = 1, too much scatter results in MSWD > 1 and too little (less than expected from analytical errors) results in MSWD <1. MSWD values near 1 give a high level of confidence that a true isochron is indicated by the data (McIntyre et al., 1966).

Lead blanks recorded during three separate batches of analysis ranged from 1.2pg and 0.2pg. Samples were blank corrected using the blank ²⁰⁴Pb:²⁰⁶Pb:²⁰⁷Pb ratio measured during the analysis. Correction for common lead in all samples was carried out using the Stacey-Kramers common lead evolutionary model (Stacey and Kramers, 1975), however the amount of common lead in the analysed zircons was negligible, as the correction was dominated by the Pb blank.

4.2 Oyut Ulaan Intrusion

4.2.1 Field data and petrography

The Oyut Ulaan intrusion crops-out in the southeast corner of the Saykhandulaan inlier, within a belt of Carboniferous volcanic and sedimentary rocks called the Oyut Ulaan Volcanic Group (OUVG; Fig. 3.2; Chapter 3). The base formation of the OUVG (the Yasun Eliy-e formation; YEF) forms the country rock to the Oyut Ulaan intrusion. Two roof-pendants of basaltic and andesitic lithologies crop-out in direct contact with the intrusion in the south and east. The western roof pendant divides the intrusion into east and west lobes (Fig. 4.2). Lithologies within these roof pendants are all but obscured by thermal metamorphism, dykes, and intense hydrothermal alteration. Several generations of dykes cut the intrusion, and a cluster of tourmaline breccia pipes form prominent topographic features in the western lobe of the pluton's outcrop area.

The intrusion is elongate, measuring around 10 km in the E-W orientation, and around 3 km N-S. No emplacement-related ductile fabrics were observed, but there are fractures trending 045 and faults with apparent dextral offsets (<1 m), trending 135, throughout the outcrop area (Fig. 4.2). The contact of the intrusion with the country rock is generally not exposed, and the distribution of outcrop and major drainage channels suggests it is fault bound on most margins. Where the intrusion's contact with the country rock is exposed, in the southeast, it is irregular, has a 1-2 cm chilled margin, and follows topographic contours, suggesting that it is a relatively low-angle surface. Small (<1 m wide) apophyses of the intrusive lithology occur in the country rock, and xenoliths of country rock are seen within 5 m of the granitoid margin.

Whilst the there are only limited exposures of the intrusion's contact with surrounding rocks, some further details of its nature and morphology can be observed on satellite imagery. The pluton's southern boundary is parallel with a major E-W crustal lineament that marks the southern margin of the Saykhandulaan inlier. The western margins of both roof pendants are obscured by major drainages, but the northern and eastern margins appear to be intrusive contacts. Further observations of drainage patterns within the outcrop area show a drainage-divide approximately parallel with, and proximal to, the sharply defined northeastern margin of the intrusion, suggesting the body has been tilted to the south in relatively recent times.

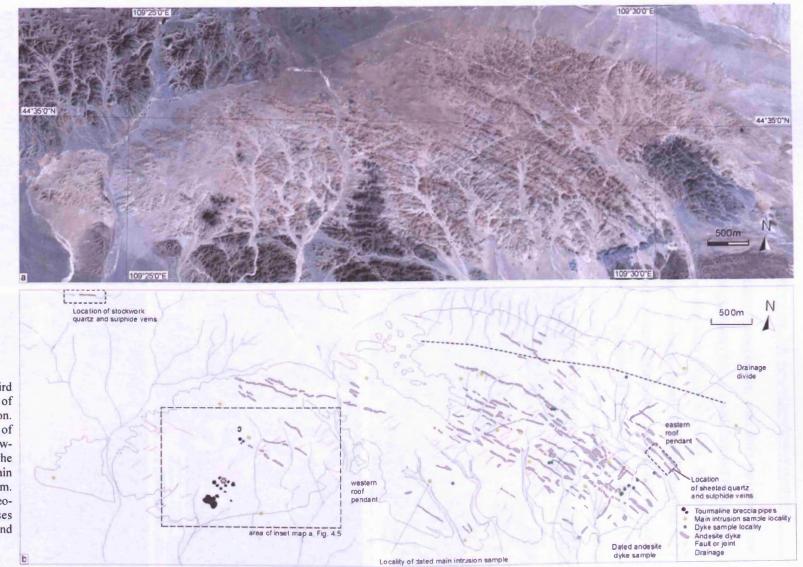


Fig. 4.2 a) Quickbird satellite image of Oyut Ulaan Intrusion. b) Interpretation of satellite image showing outline of the granite and the main andesite dyke swarm. Locations of geochemical analyses from the granite and

the dykes shown.

98

Chapter 4. Granites of the southern Mongolia Carboniferous arc: New age and geochemical constraints

The lithology of the intrusion is remarkably homogenous, with little variation across the outcrop area. The main mineral phase is plagioclase (An_{25-30}) and, in most thin sections, forms a framework of euhedral phenocrysts 1-5 mm long (Fig. 4.3, a to c). Small euhedral hornblende phenocrysts of 1-3 mm occur in some sections. Small biotite phenocrysts (of 1 to 2 mm length) are seen in all sections, but are sparsely distributed. Quartz and orthoclase feldspar form interstitial phases and myrmekitic intergrowths of the two occur sparsely (Fig. 4.3 d). Biotite also occurs as secondary growths proximal to quartz veins, along with a

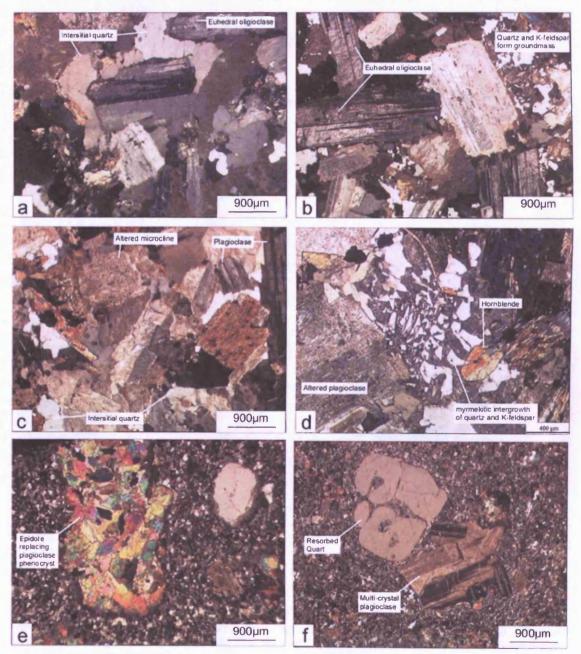


Fig. 4.3 Photomicrographs of the Oyut Ulaan main intrusion (a, b, c and d) and the andesite dykes (e and f).

Chapter 4. Granites of the southern Mongolia Carboniferous arc: New age and geochemical constraints

higher concentration of opaque phases. Accessory phases, such as zircon and apatite, are also present.

Three sets of dykes of various lithologies cut the intrusion, each with a distinctive orientation (Fig. 4.4). Pink fine-grained aphyric dykes crop out in all areas. Locally these bodies branch and bifurcate, and appear to be randomly orientated, but rose diagrams of all recorded dykes show that ENE-trends occur more commonly than any other orientation (Fig. 4.4 a). These dykes were not observed in the surrounding country rock. The felsic dykes

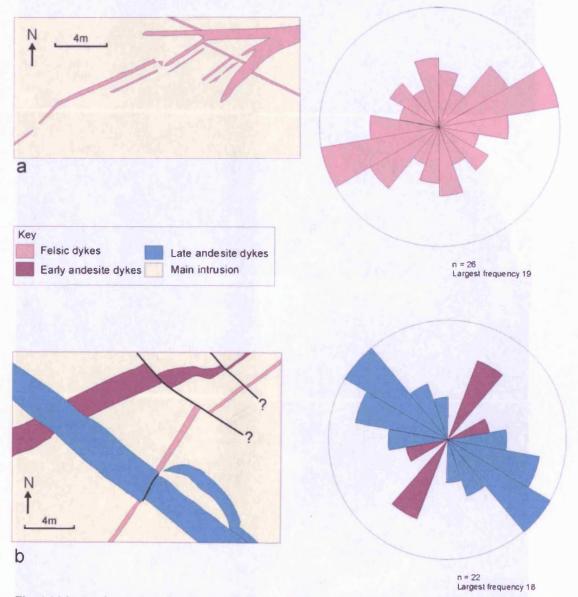
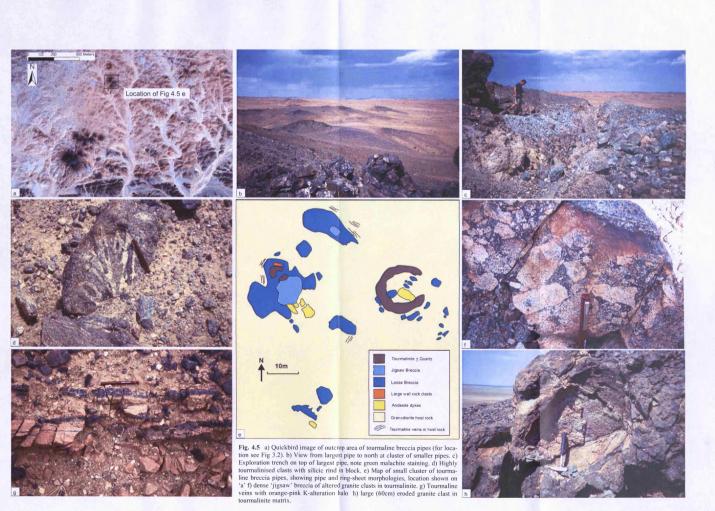


Fig. 4.4 Maps and rose plots showing morphology and cross-cutting relationships of 3 separate dyke swarms identified in the Oyut Ulaan intrusion. a) Earliest phase rhyolite dykes branch and crosscut each other and have diverse orientation, but are dominantly ENE trending. b) andesite dyke, which is part of large NW trending swarm cross-cuts earlier NE trending andesite dyke, and NE trending rhyolite dyke, rose plot showings orientations of the two sets of andesite dykes.

Special Note

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scree makes true pipe-margins indistinct. Other pipes have average apparent widths of 25-40m (Fig. 4.5 e). Circular morphologies are the most common, although one mapped pipe, and another observed on satellite imagery, have ring-sheet morphologies. The tourmaline breccia pipes locally cross cut the youngest dyke set.

Various textures that occur within the tourmalinite suggest several phases of fluid flow, and brecciation. Tight jigsaw breccias, loose breccias, massive tourmalinite, granite with pervasive tourmaline alteration and tourmaline vein stockworks with orange-pink potassic halos all occur in the vicinity of the pipes (Fig 4.5). Thin 1 to 5 cm tourmaline/ quartz veins, with 1 to 2 cm potassic alteration halos, cut the Oyut Ulaan intrusion across its whole outcrop area. These veins increase in number and thickness near the breccia pipes.

4.2.2 Geochemistry

The Oyut Ulaan intrusion is metaluminous, and has an alumina saturation index (ASI) of less than 1.1, which indicates it is either A- or I-type (Chappell and White, 1974; Wu et al., 2000; Results - Appendix A). The primacy of plagioclase over K-feldspar, and relatively high Na₂O abundances suggests that the intrusion is I-type rather than A-type (Fig. 4.6; Chappell and White, 1974; Eby, 1990; Chappell and White, 2001).

Major element abundances of the Oyut Ulaan intrusion indicate a quartz-monzonite composition (Fig. 4.6 a). Harker variation diagrams for analyses of the main intrusion show typical inverse correlations between major elements and SiO₂, with the exception of K_2O which shows a positive, incompatible trend (Fig. 4.7) suggesting increasing amounts of K-feldspar and mica in more evolved samples. Of the trace elements, Sr and Y show a decrease with silica, which is interpreted to be controlled by plagioclase fractionation, whereas Rb shows a positive trend, matching that of K_2O . Other elemental abundances do not display discernable trends for the main intrusion samples.

Major element abundances of the early, pink, felsic-dykes show they are rhyolites. The NE trending dark dykes are trachy-andesites, and the more prolific, late, NW-trending swarm has a range of compositions from andesites and trachyandesites to dacites (Fig. 4.6 a). Harker diagrams featuring all the lithologies from the Oyut Ulaan plutonic complex, show simple, single trends with silica (Fig. 4.7). These trends parallel those established for the main intrusion, suggesting that, as a whole, the complex was derived from the same magma source, which was evolving and being replenished at depth. The NE-trending andesite dykes have the most mafic compositions, and the later NW-trending swarm have a range of compo-

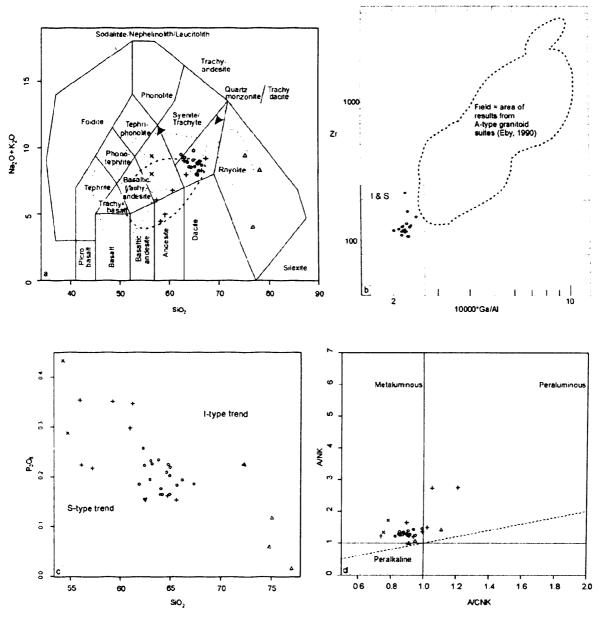
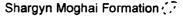
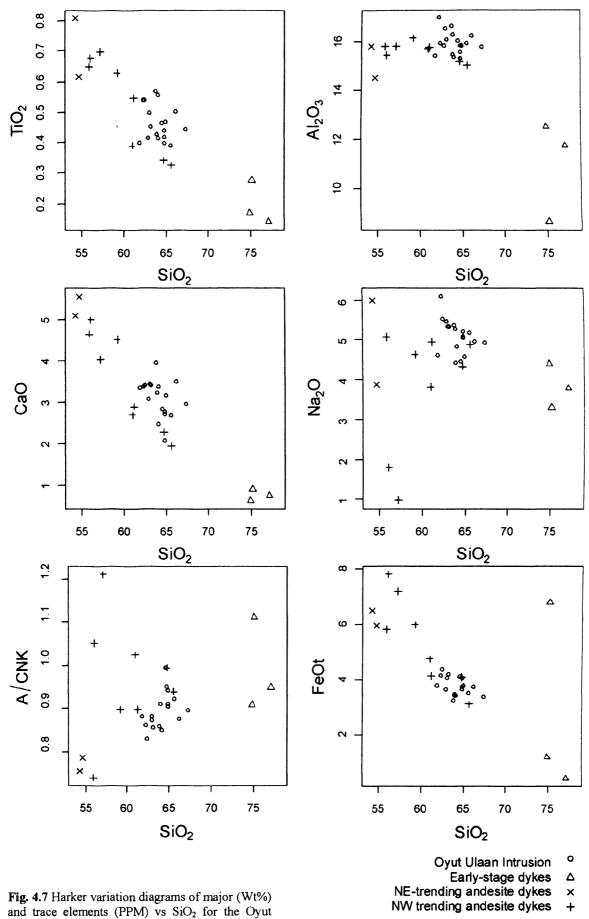
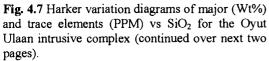


Fig. 4.6 a) Composite volcanic/plutonic Total Alkalis Silica (TAS) diagram after Middlemost (1985), for Oyut Ulaan Intrusive Complex rocks. Plot shows quartz-monzonite compositions of main intrusion, rhyolitic and andesitic composition, respectively, for earlyand late-stage dykes. Note overlap between late-stage andesite dykes and field of analytical results from Shargyn Moghai Formation (Chapter 3). Graphs produced using GCDKit software (Janoušek et al., 2006). b) Diagram of Zr vs 10000*Ga/Al after Eby (1990) to differentiate I & S type granitoids from A-type granitoids. c) Diagram of SiO₂ vs P_2O_5 showing inverse trend typical of I-type granitoids and indicative of the fractionation of apatite in the absence of Y-bearing accessory minerals (Wu et al., 2000). d) A/ CNK-ANK plot of Shand (1943) showing predominantly metaluminous signature of Oyut Ulaan intrusive complex.

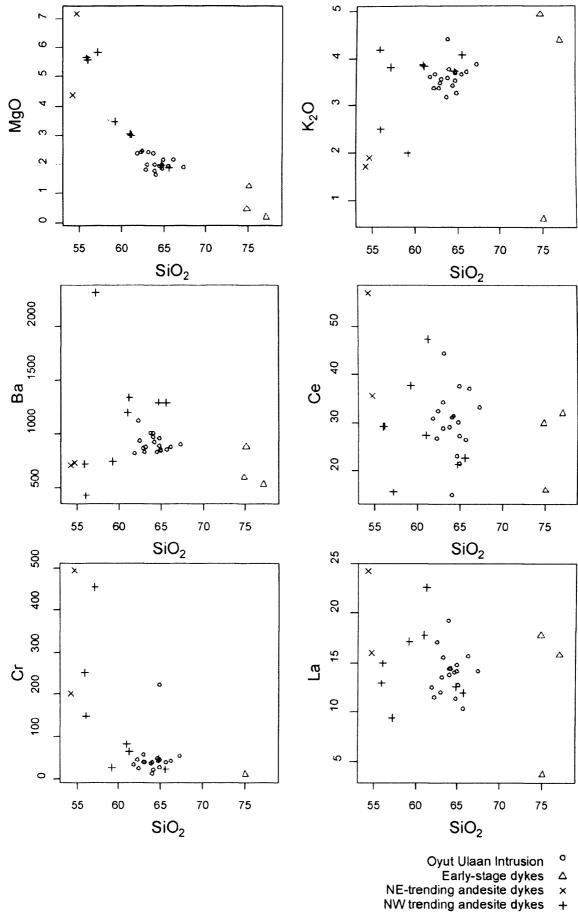


- Other formations of the Oyut Ulaan Volcanic Group
 - Oyut Ulaan Intrusion o
 - Early-stage dykes △
- NE-trending and site dykes \times
- NW trending andesite dykes +

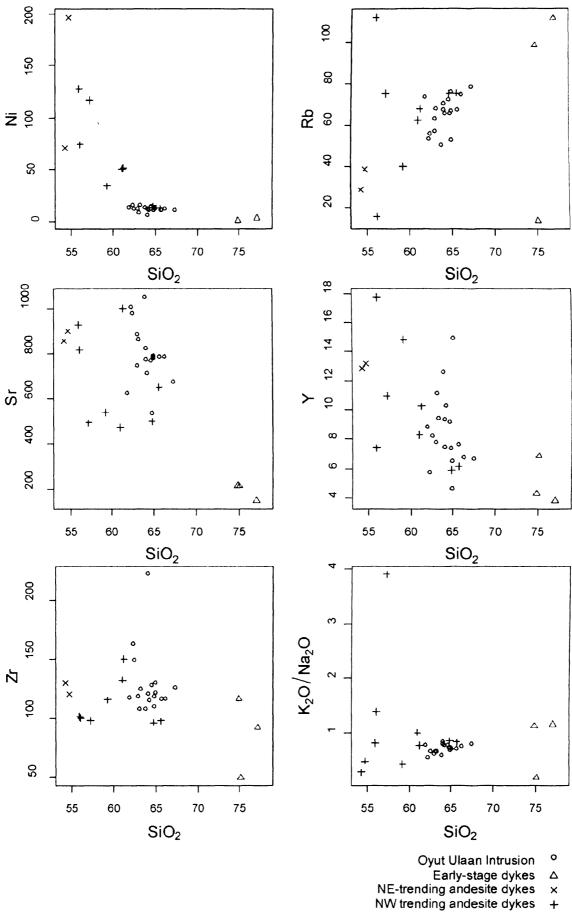




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sitions from those similar to the NE-trending dykes to those similar to the intrusion. The compositional range in the NW trending dykes does not seem to vary systematically with location.

Geochemically, the Oyut Ulaan intrusive complex has many similarities with its host rocks, the Oyut Ulaan Volcanic Group (Chapter 3). However, it is hosted by the Yasun Eliy-e formation, the least evolved formation of the OUVG, which lies at the base of this group, and is also considerably more mafic than any parts of the intrusive complex (Fig. 3.15). The late-stage andesite and trachyandesite dykes show a geochemical similarity to the Shargyn Moghai formation, the third formation of the group (Fig. 4.6 a). When considered *in toto*, chemical analyses of the intrusive rocks and host volcanic rocks show simple, single trends, characteristic of an evolving magma body, which was perhaps the ultimate source of both the intrusive and extrusive components of an 'Oyut Ulaan volcano-plutonic suite'.

Barium and strontium abundances of the whole Oyut Ulaan intrusive complex, show that the early-stage rhyolite dykes have a composition not inconsistent with magmatic evolution from a source chemically similar to the main intrusion, predominantly via fractional crystallisation of plagioclase, and, to a lesser degree, K-feldspar (Fig. 4.8). Petrographic analysis reveals that these are the main mineral constituents of the intrusion (Appendix D mineral modal abundances; Fig. 4.3). The andesite dykes do not represent a continuation of this trend, and their signature in Ba-Sr space suggests plagioclase and hornblende fractionation from a source chemically similar to the early, NE-trending andesite dykes.

Geo-spatial analysis of the distribution of trace and minor element abundances across the Oyut Ulaan intrusion was carried out by applying standard interpolation techniques (kriging; Oliver and Webster, 1990) to analytical results from seventeen sample locations using surfer (Fig. 4.9). The results should be interpreted conservatively due to the relatively low number of samples compared to the area of outcrop. The intrusion shows a relatively homogenous chemistry across its outcrop area for most elements. However, NaO₂, Fe₂O₃ and Sr abundances are elevated in the western lobe of the body, suggesting this part of the intrusion is relatively enriched in plagioclase and magnetite. The most silicic and evolved part of the intrusion is situated to the NE. Tourmalinisation may have produced elevated levels of Cu, Zr and As in the west lobe.

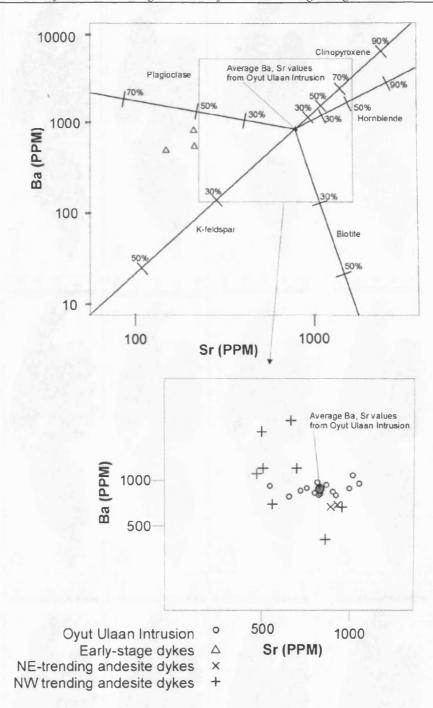


Fig. 4.8 Log Ba versus log Sr diagram for Oyut Ulaan Intrusive Complex rocks. Fractional crystallisation vectors for plagioclase, K-feldspar, biotite, orthopyroxene, clinopyroxene and hornblende calculated from average values for Ba and Sr from Oyut Ulaan Granite, using partition coefficients for rhyolitic liquids from Rollinson (1993).

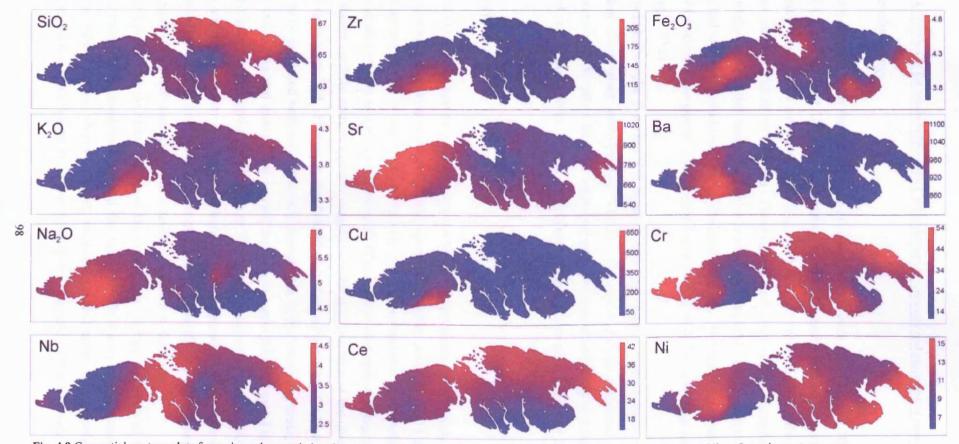


Fig. 4.9 Geospatial contour plots for various elemental abundances, created by interpolation of 17 geochemical analyses across the Oyut Ulaan Intrusion outcrop area.

4.2.3 Geochronology

Two samples from the Oyut Ulaan intrusive system were dated (Fig. 4.10; Results - Appendix B). The Oyut Ulaan main intrusion quartz-monzonite yielded five overlapping, concordant, single-grain zircon analyses (Fig. 4.10 a). The concordia age calculated from these five points is 330.02 +/- 0.53 Ma. Three further analyses plot with discordant younger ages, a likely cause of this being the failure to remove completely the outer portions of zircon that had undergone lead-loss during chemical abrasion. The upper-intercept of the line of best-fit through these points is coincident (within error) with the concordia age as calculated (Fig. 4.10 a).

An andesite dyke from the NW trending late-stage swarm yielded three overlapping, concordant, single-grain analyses (Fig. 4.10 b). The concordia age calculated from these three points is 327.86 ± 0.44 Ma. An additional analysis plots discordantly and older than the cluster of concordant points. This is interpreted to represent an older inherited zircon corezone.

4.2.4 Discussion

The Oyut Ulaan complex is interpreted to represent two phases of intrusion; the first is the emplacement of a relatively homogenous quartz-monzonite body (Fig. 4.11 a). The lobate outcrop expression of the intrusion suggests that it was emplaced as two adjacent, connected bodies, probably as a result of roof uplift. The shallow roof zone dipping to the south and the abrupt northern margin together suggest that the emplacement of the quartz monzonite was fault controlled. Plutons in the Coastal Cordillera of the north Chilean Andes are thought to be emplaced with similar vertical movements of the overlying strata; both compressive and extensional models can explain these movements (Grocott and Taylor, 2002). At Oyut Ulaan the roof uplift could relate to N-S compression or extension within an EW trending arc, or transtension in a step-over between two arc-parallel faults. More work is required to define the structural controls on emplacement, especially the attitude and kinematics of the postulated fault that appears to bound the intrusion to the north.

The lithology in the western lobe of the intrusion is slightly less evolved than in the east, suggesting that it solidified first and that incompatible elements were concentrated in the eastern lobe. As the intrusion cooled, fractional crystallisation of plagioclase and K-feldspar appears to have driven the compositional development of the relatively small vol-

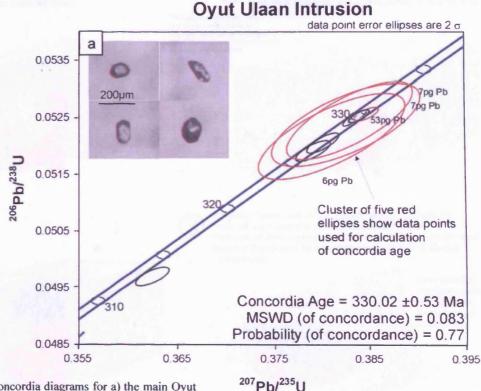
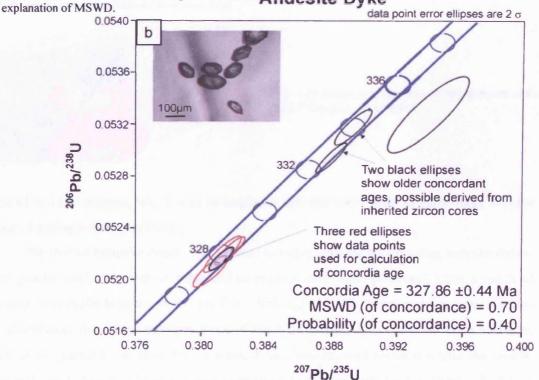
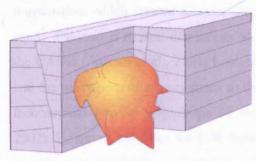


Fig. 4.10 Concordia diagrams for a) the main Oyut Ulaan Intrusion, and b) the late-stage andesite dykes. Ellipses with fine outlines show the data points, and corresponding errors. Grey-filled ellipses show the calculated concordia age. See text for Andesite Dyke

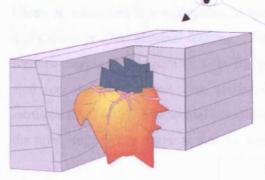


This upper surface bounds the block model, but does

Oyut Ulaan intrusion emplaced at 330.02 +/- 0.53 Ma into country rocks of the Yasun Eliy-e formation, Oyut Ulaan Volcanic Group 2 Shortly after the main body was emplaced, rhyolite dykes, apparently derived from the evolving residual fluid, fill in fractures with a wide variety of orientations



Inte lande model, but does Oyut Ulaan Group volcanism was ongoing at the surface



Andesite dykes, with lazy-Z morphologies, cut both the main intrusion and the surrounding country rock. Because of their sigmoidal shape, the emplacement of these dykes is interpreted as having been controlled by dextral transtension.

Dyke parallel sheeted quartz vein complex forms here, in country rock

Tourmaline breccia pipes, possibly related to late-stage magmatic fluid from another intrusion at depth, puncture all earlier phases, and are accompanied by widespread tourmaline veins Quartz stockwork occurrances form along dyke here, in country rock

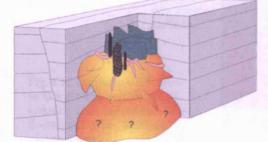
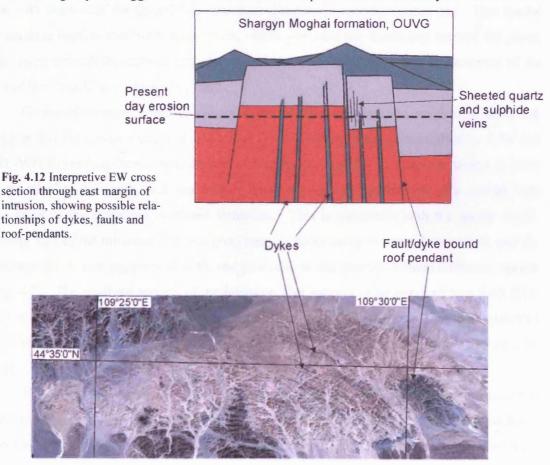


Fig. 4.11 Interpreted sequence of emplacement of the Oyut Ulaan plutonic complex.

ume of residual magma, which was re-emplaced into the main body as early-stage rhyolite dykes, forming a dyke-stockwork.

The second intrusive event is interpreted to begin with the NE-trending andesite dykes. The geochemical signature of these dykes implies they were generated from a batch of magma more mafic than the main intrusion. Although the NW trending dykes have elemental abundances that range between those of the NE-trending dykes and the main intrusion, there is no systematic relationship between dyke chemistry and location within the swarm. The early andesite dykes have a similar orientation to the main felsite dyke trend, which sug-

gests that they were emplaced in the same stress-field. However, the sigmoidal shape of the late-stage andesite dykes suggests they were emplaced during of E-W orientated dextral transtension, which created dilation sites, allowing more evolved, viscous lithologies to ascend. Palaeozoic dextral displacements are widely documented in the Mongolian parts of the CAOB (Buchan et al., 2001; Laurent-Charvet et al., 2002; Buslov and Safonova, 2006) and the movement of arc segments to the west, via dextral strike slip along the arc-front, is incorporated into some palinspastic models (Sengör and Natal'in, 1996; Badarch et al., 2002). However, evidence for E-W Palaeozoic dextral movement has not been documented elsewhere in the Saykhandulaan Inlier (Chapter 1). It is suggested that the andesite dykes are evidence for these Palaeozoic dextral movements because they are within the rigid Oyut Ulaan intrusion and less susceptible to over-printing by later NS compression, or Mesozoic and Cenozoic ENE sinistral faulting. The eastern roof pendant has an apparently faulted western-margin that is parallel with the NW dyke swarm, suggesting that dextral transtension may also have caused some vertical displacement of crustal-blocks bounding the main intrusion (Fig. 4.12). The spatial association of sulphide bearing quartz vein complexes with the third stage dykes suggests that the heat of the emplacement of these dykes caused fluid



convection, and the action of their emplacement fractured the surrounding rocks generating space for the hydrothermal deposition of minerals. The sheeted vein complex in the eastern roof pendant, in particular, appears to have been formed in an identical stress regime to the third stage dykes. The associations of the stockwork vein zone in the northwest are less clear. The dyke that crops out in contact with the vein zone appears to be of a similar lithology to the late stage dykes, and has a similar orientation to the dextral tail zones of the dykes in the NW of the intrusion outcrop area. The slight deviation in the stockwork-zone-proximal dyke's orientation (E-W rather than WNW-ESE) can be explained by the N-S directed deformation that has affected the country rock (Chapter 3).

Finally, the solidification of a later magma body at depth and the resultant increase in fluid pressure due to the generation of Boron-rich magmatic fluid, caused the emplacement of the tourmaline breccia pipes into the overlying strata, cross-cutting both the Oyut Ulaan intrusion and the late-stage andesite dykes. This interpreted magma batch may be related to the andesite dykes, as they show an increasingly silicic trend with time. There are no geochemical or absolute age data from the tourmaline breccia pipes, meaning that their association with the rest of the Oyut Ulaan intrusive complex is a purely spatial one. This spatial association implies that the magma batch, which provided the fluids that formed the pipes, was rising through the same crustal plumbing system that controlled the emplacement of the rest of the Oyut Ulaan intrusive complex.

Geomorphological features, observed on satellite imagery and verified in the field, suggest that the current outcrop shape of the Oyut Ulaan intrusion is controlled by E-W and ESE-WNW-trending brittle structures. The intrusion appears to crop-out within a horst block, tilted to the south, with the deepest levels exposed in the footwall of a normal fault that delimits the intrusions northeast boundary. This is consistent with the gently south-sloping roof of the intrusion, the overlying country rocks being exposed to the south and the drainage divide running parallel with, and proximal to, the sharply defined northeast margin (Fig. 4.2). The southern margin of the intrusion also appears to be proximal to a fault (Fig. 4.2), although an intrusive contact was documented in some localities. This fault truncates the NW trending andesite dykes, so that their terminations are not visible, unlike at their NW ends.

The Oyut Ulaan intrusion is considerably younger than other mineralised intrusions in the region. Oyu Tolgoi and Tsagaan Suvarga both record Devonian ages (411+/-3 Ma K-Ar and 364.9+/- 3.5 Ma Ar-Ar respectively; Lamb and Cox, 1998; Perello et al., 2001), whereas

post-mineralisation dykes at Tsagaan Suvarga have an age and composition much closer to that of Oyut Ulaan (313 +/- 2.9 Ma Ar-Ar; monzonite).

The age of the Oyut Ulaan intrusion also indirectly provides a minimum age for its host rocks - the basal formation of the Oyut Ulaan Volcanic Group. Upper parts of this volcano-sedimentary succession have been dated at 323.12 ± 0.64 Ma (Chapter 3) giving a minimum duration of volcanism in the OUVG of 6.9 M.y., with a maximum range of 8.07 M.y. and a minimum range of 5.73 M.y., when error values are taken into account.

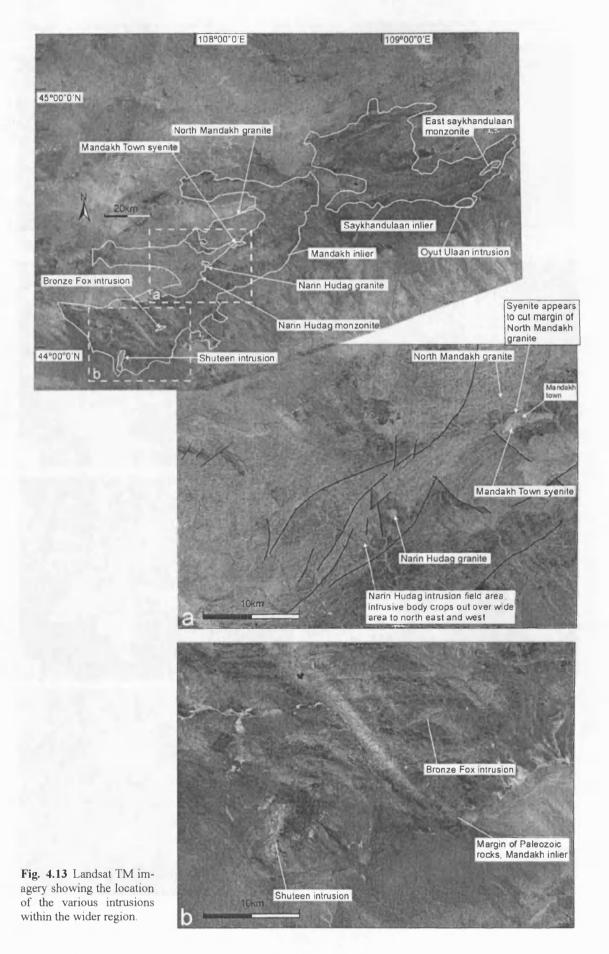
The time gap between ages of emplacement of the main quartz monzonite and the latestage andesite dykes is 2.16 M.y., or a range of 1.19-3.31 M.y., considering errors. Furthermore, the volcanic model proposed for the Oyut Ulaan Volcanic Group (Chapter 3) suggests a period of higher effusion and more mafic lava types, related to increased extension, during the Shargyn Moghai Formation volcanism. Therefore, these dykes, with their chemical similarity to the SMF and their interpreted emplacement during crustal transtension, provide an age for the SMF, which, although indirect, is the best available.

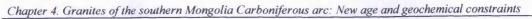
4.3 Other granites in southeast Mongolia

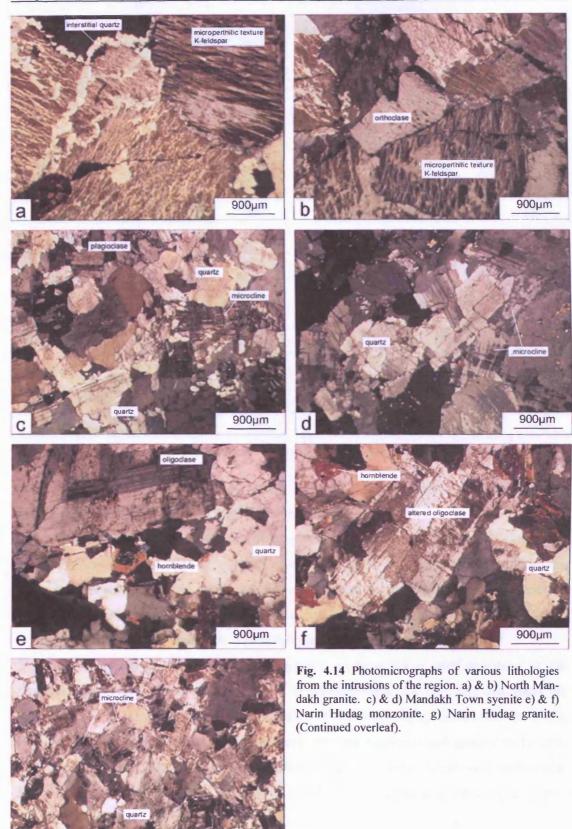
4.3.1 Field data and petrography

Samples from the Mandakh and Shuteen intrusions were collected as part of a reconnaissance transect during summer of 2004 (Fig. 4.13). Ivanhoe Mines Ltd provided samples from the Bronze Fox and Narin Hudag intrusions, which were exploration targets at the time of sampling. The country rock for these four intrusions was not investigated; it is assumed to be arc volcanic and sedimentary rocks of a similar age and type to those that occur along strike in the Saykhandulaan inlier (Chapters 2 and 3). This assumption is supported by available literature (Badarch et al., 2002; Bignall et al., 2005). Mineral modal abundances for the lithologies discussed here are available in Appendix D.

The Narin Hudag and Mandakh samples come from a large area in the north of the Mandakh inlier, dominated by multiple intrusions (Fig. 4.1; Fig. 4.13). Two separate intrusive bodies were sampled near the town of Mandakh. The North Mandakh granite has an outcrop area of approximately 220 km^2 , dominating the northeast of the Mandakh inlier (Fig. 4.13). It is very coarse-grained and is predominantly composed of large sub- and anhedral K-feldspars with microperthitic textures (Fig. 4.14, a and b). Plagioclase (An₂₅) is present as







900µm

g

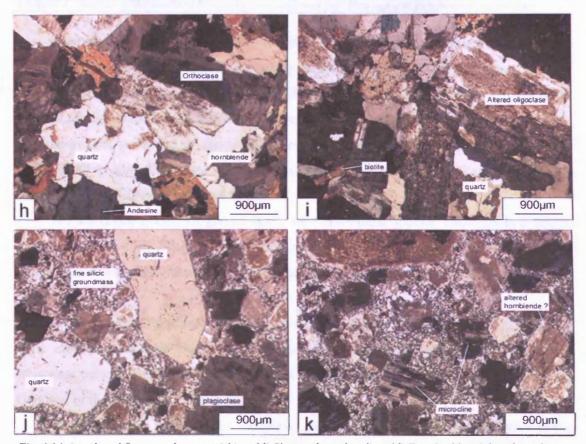


Fig. 4.14 (continued from previous page) h) and i) Shuteen intrusion. j) and i) East Saykhandulaan intrusion

rims and cores to these large crystals, whilst interstitial quartz, euhedral to subhedral hornblende, biotite and opaques form minor mineral phases.

The Mandakh Town syenite is a relatively small stock (5.5 km²) which is elongate in the E-W orientation and slightly arcuate in form (Fig. 4.13). Its expression on satellite imagery suggest it is associated with a 25 km² outcrop area of apparently similar material directly to the south. It is almost entirely composed of 1-3 mm long plagioclase (An₂₁₋₂₈) and microcline phenocrysts, with minor interstitial quartz (Fig. 4.14, d and e).

The main Narin Hudag monzonite (referred to by Ivanhoe staff members as the 'Pudwake granodiorite') has an outcrop area of approximately 500 km², and dominates the northwest of the Mandakh inlier. Interpretation of satellite imagery shows that the Narin Hudag monzonite has several fault-bound margins in the southeast and appears to be contiguous with intrusions to the southwest of Mandakh town. The north and west limits of the Narin Hudag monzonite seem to be defined by Mesozoic sediments which lie unconformably on the intrusion.

Samples from the Narin Hudag monzonite were taken from a relatively small area near its southeast margin (Fig. 4.13). It is a coarse porphyritic intrusive body, composed primarily of 3 to 6 mm long euhedral plagioclase phenocrysts (An_{22-25}), in which zoning is common. Lozenge-shaped subhedral hornblendes of 1 to 2 mm length occur in the fine-to-medium grained groundmass. Some hornblendes have an apparently poikilitic texture, encasing small <1 mm plagioclase laths. The groundmass also contains 2 to 3 mm biotites and interstitial quartz. (Fig. 4.14, e and f).

A 1 km diameter circular granite stock, the Narin Hudag granite, crops-out in countryrock to the east of the Narin Hudag monzonite's margin. The granite is fine to mediumgrained, and composed primarily of microcline with a fine-grained quartz groundmass (Fig. 4.14 g).

Dyke swarms, trending E and NE, are a visible feature of intrusions in the Mandakh inlier including the main Narin Hudag intrusion. However, these dark coloured dykes, which are pervasive elsewhere, do not appear to cut the North Mandakh and Narin Hudag Granites, or the Mandakh Town Syenite.

The Bronze Fox intrusion is a complexly zoned monzo-granodiorite stockwork to the southwest of the large-volume intrusive rocks at Narin Hudag and Mandakh (Fig. 4.13). This body features an asymmetrically zoned sequence of intrusive lithologies including an outer shell of hornblende monzodiorite, a middle-zone of hornblende-biotite quartz-monzonite, and a core of biotite-hornblende granodiorite. Gold-copper mineralisation is strongly associated with the core zone of the intrusive system here (Stewart, 2005, pers comm.).

The Shuteen volcano-plutonic complex is at the southwest end of the belt of intrusions studied here. Shuteen is unique amongst the intrusions investigated here, in having been the subject of some previous work: Korim et al. (1984) report that the Shuteen intrusion has a typical ring-structure with circular normal-faults. Bignall et al. (2005) show that the Shuteen volcano-plutonic complex is comprised of the Dusiin Ovoo Volcanic formation and the Shuteen pluton, which is formed of a variety of granitoid lithologies, and previously dated via Rb/Sr whole rock methods at 321+/- 9 Ma (Batkhishig and Iizumi, 2001; Batkhishig et al., 2003). The part of the pluton sampled for this study consisted primarily of a medium-grained granitoid densely packed with subhedral 2-4 mm K-feldspar phenocrysts, and euhedral plagioclase laths (An₂₂₋₃₄) of similar size (Fig. 4.14, h and i). Supplementary phases include euhedral biotite and sparsely distributed hornblende. Microgranite dykes that cut the

pluton are sparsely populated with quartz xenocrysts and plagioclase phenocrysts in a fine grained groundmass of quartz plagioclase and biotite. Some zoned plagioclase phenocrysts show a clear variation in composition from inner to outer zones (An_{60} to An_{26}). Myrmekitic intergrowths of quartz and K-feldspar occur in one sample.

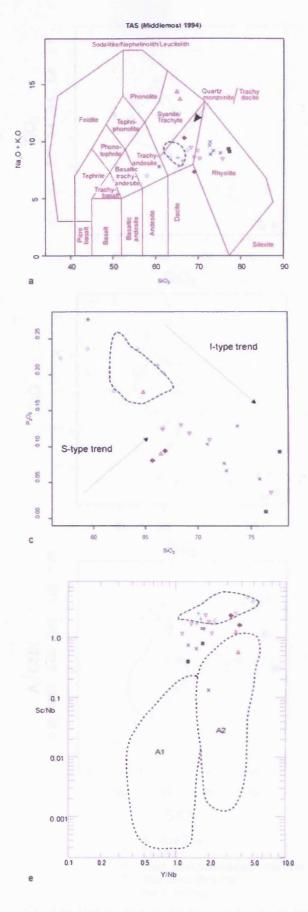
The East Saykhandulaan intrusion lies at the eastern edge of the Saykhandulaan inlier, 10 km to the northeast of the Oyut Ulaan intrusion. This body consists of two lobes, elongate to the north-east, parallel to the structural grain of the area. It is a fine- to mediumgrained felsic body, composed of K-feldspar and quartz phenocrysts in a fine-grained felsic groundmass (Fig. 4.14, j and k). Its distinctive porphyritic texture suggests that it is a large hypabyssal intrusion rather than a pluton. The central zone, between the two lobes, contains a complex stockwork of overlapping hypabyssal intrusions of various mafic lithologies, which appear to postdate the main intrusion; 1-2 m thick basalt dykes cut the felsic body, and xenoliths of granite occur within larger volumes of mafic material.

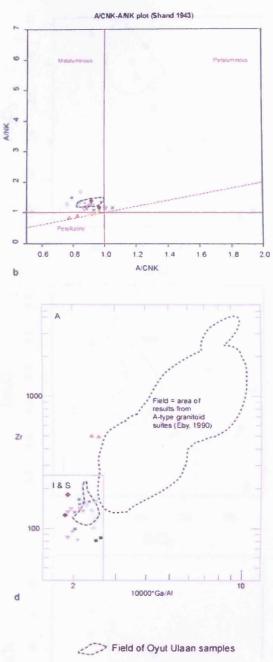
4.3.2 Geochemistry of intrusions from the region, and comparison with Oyut Ulaan

The TAS diagram of Middlemost (1985) was used for determination of intrusive lithologies (Fig. 4.15; Results - Appendix A). Two analysed samples from Bronze Fox plot as monzonites and two as quartz-monzonites. All analysed samples from the Narin Hudag monzonite plot as quartz-monzonites. All samples from the Narin Hudag granite plot within the granite field. The one sample that was analysed from the East Saykhandulaan intrusion plot in the monzonite field. Four analyses from Shuteen plot as a cluster near the quartz monzonite-granite boundary, with two analyses falling either side of the line. One sample from Shuteen plots as a granite. This represents a mircrogranite dyke that cuts the main intrusion there.

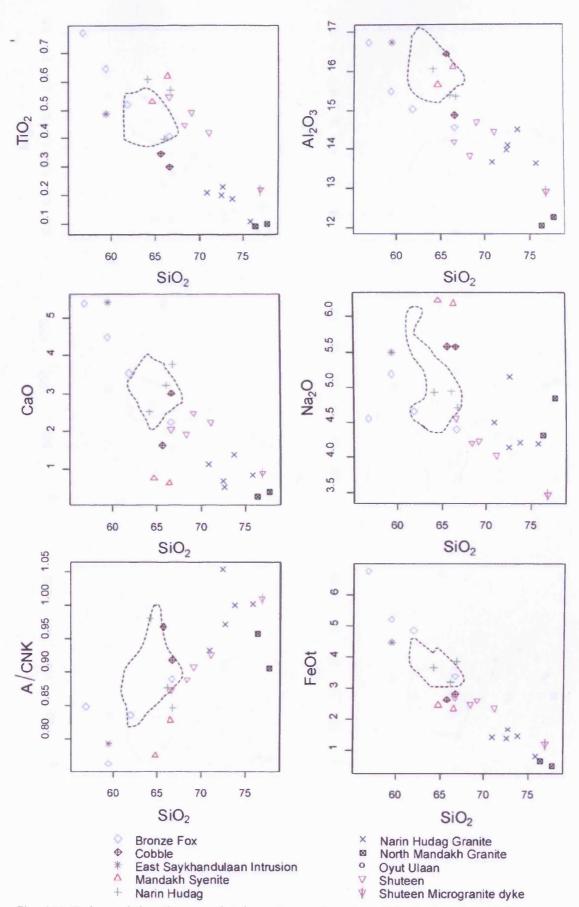
Harker diagrams for all samples show typical inverse differentiation trends of compatiable elemental abundances with SiO_2 (Fig. 4.16). Samples from Bronze Fox and the Narin Hudag Monzonite define the more mafic end of this trend on most diagrams, whereas the true granitic lithologies are most evolved, and have the highest abundances of incompatible

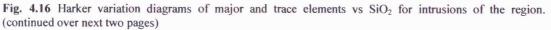
Fig. 4.15 (next page) a) Total Alkalis Silica (TAS) diagram after Middlemost (1985), for all intrusions. Field shows area of Oyut Ulaan intrusion samples. Analyses of granitoid cobbles from Oyut Ulaan Volcanic Group also shown. b) Diagram of A/CNK (Alkali saturation index; $Al_2O_3/[K_2O + Na_2O + CaO]$) vs A/NK ($Al_2O_3/[K_2O + Na_2O]$) after Shand (1943) c) Diagram of SiO₂ vs P₂O₅ showing inverse trend typical of I-type granitoids and indicative of the fractionation of apatite in the absence of Y-bearing accessory minerals (Wu et al., 2000) d) Diagram of Zr vs 10000*Ga/Al after Eby (1990), to differentiate I & S type granitoids from A-type granitoids. e) diagram of Y/Nb vs Sc/Nb after Eby (1992) to differentiate A1 and A2 type granitoids, note North Mandakh granite plotting nearer to A2 field than other intrusions, fields represent data as cited in Appendix C.

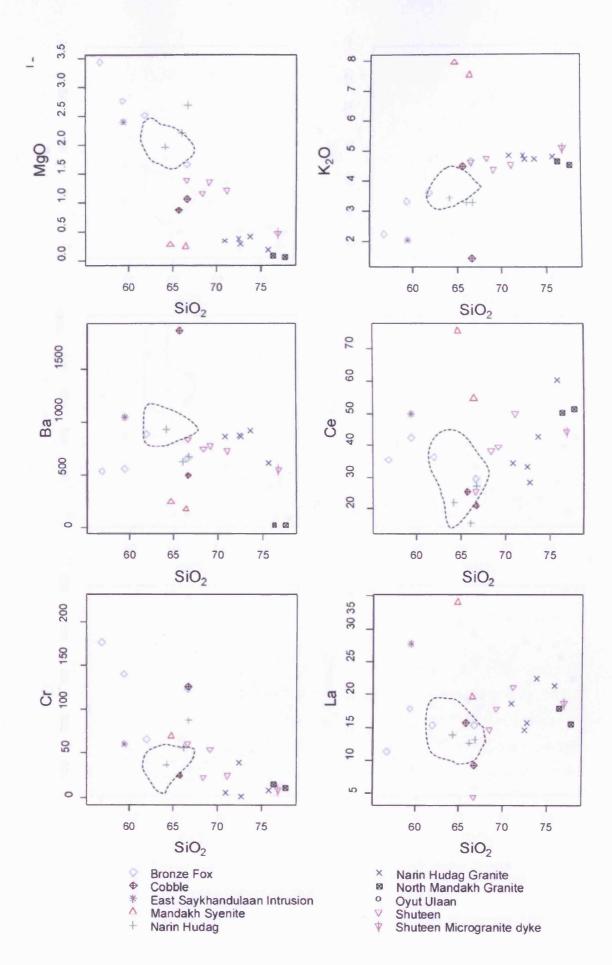


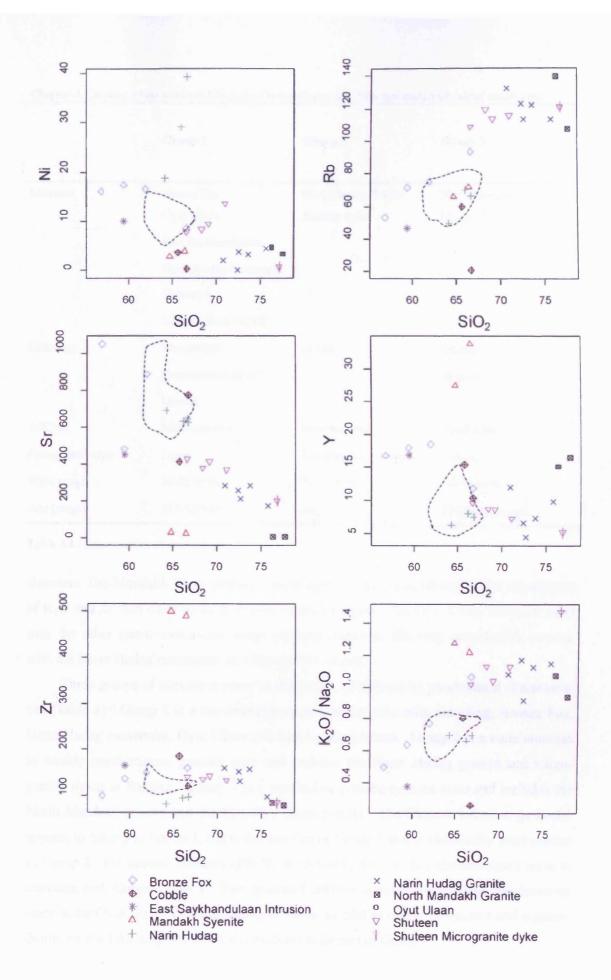


- A Mandakh Town syenite
- North Mandakh granite
- × Narin Hudag granite
- Bronze fox intrusion
- + Narin Hudag intrusion
- East Saykhandulaan intrusion
- Cobbles from OUVG









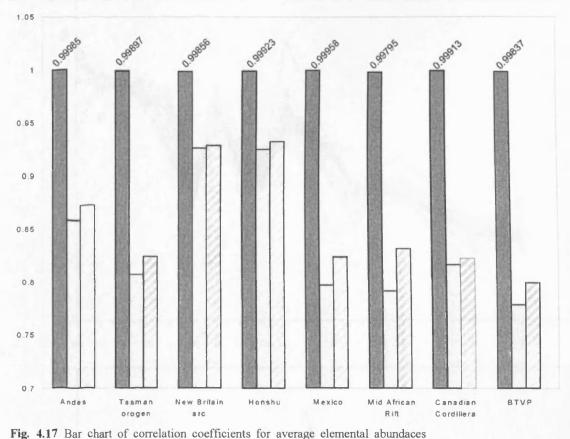


	Group 1	Group 2	Group 3
Members	Bronze Fox	Narin Hudag Granite	North Mandakh
	Oyut Ulaan	Shuteen dyke	Mandakh Town
	East Saykhandulaan		
	Narin Hudag Monzonite		
	Shuteen		
	Cobbles from OUVG		
Lithology	Monzonites	Granite	Granite
	Quartz-monzonites		Syenite
	Granite		
Al/CNK	Metaluminous	Peraluminous	Peralkaline
Petrogenetic type	I-type	I or aluminous A-type	A-type
Silica range	56-72 wt %	71-77 wt %	65-79 wt %
Age (range)	339-325Ma	n/a	329Ma (max age)

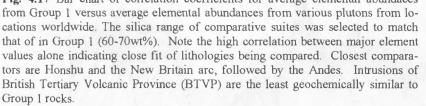
Table 4.1 Characteristics of intrusion groups.

elements. The Mandakh Town syenite is an exception to this rule, having higher abundances of K_2O and Zr than other rocks at similar values for silica. The Oyut Ulaan intrusion plots near the other quartz-monzonitic rocks on most diagrams, showing considerable overlap with the Narin Hudag monzonite, and Bronze Fox intrusion.

Three groups of intrusions occur in the region, as defined by geochemical characteristics (Table 1). Group 1 is a metaluminous quartz-monzonitic suite including; Bronze Fox, Narin Hudag monzonite, Oyut Ulaan and East Saykhandulaan. Group 2 is a metaluminous to weakly peraluminous granitic suite and includes the Narin Hudag granite and microgranite dykes at Shuteen. Group 3 is a peralkaline granitic-syenitic suite and includes the North Mandakh granite and the Mandakh Town syenite. The Shuteen intrusion generally appears to belong to Group 1, but is the member of Group 1 that is chemically most similar to Group 2. For several elements (Rb, Sr, K₂O/Na₂O), Shuteen has characteristics more in common with Group 2 than 1. Two granitoid cobbles sampled from coarse conglomerate units in the Oyut Ulaan Volcanic Group (Chapter 3), plot as quartz monzonite and a granodiorite on the TAS diagram, and are considered to be part of Group 1.



Chapter 4. Granites of the southern Mongolia Carboniferous arc: New age and geochemical constraints



Group 1 rocks are I-type granitoids (Fig. 4.15; Chappell and White, 1974; Wu et al., 2000). Group 2 rocks plot as I-type on a range of diagrams, but from their high silica content, it is possible that they are part of the aluminous A-type association defined by King et al. (1997). This association does not have the tectono-magmatic implications of the standard A-type classification, and the potential source region is infra-crustal, overlapping with the I-type source regions. A variation of physical properties at source, such as limited H₂O and high temperatures during partial melting, is thought to generate aluminous A-type magmas (King et al., 1997). It is noted that the more evolved aluminous A-type granites are difficult to distinguish from I-type granites, and that, ideally, suites containing less evolved rocks would be compared.

major elements only

trace elements only

major and trace elements combined

The Mandakh Town syenite is the only intrusion that appears conclusively to be of peralkaline A-type character (Fig. 4.15), whilst the peralkaline North Mandakh granite plots closer to A-type fields than other intrusions from the region (Fig. 4.15). The A-type signa-

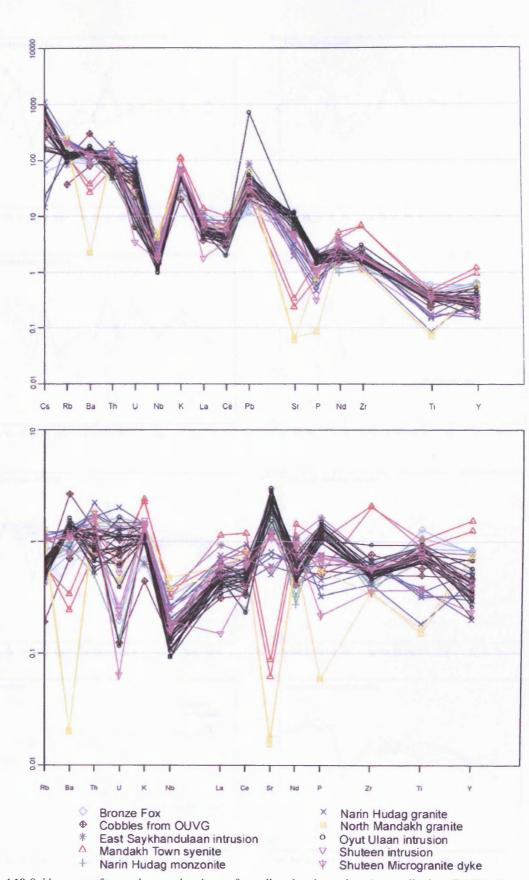
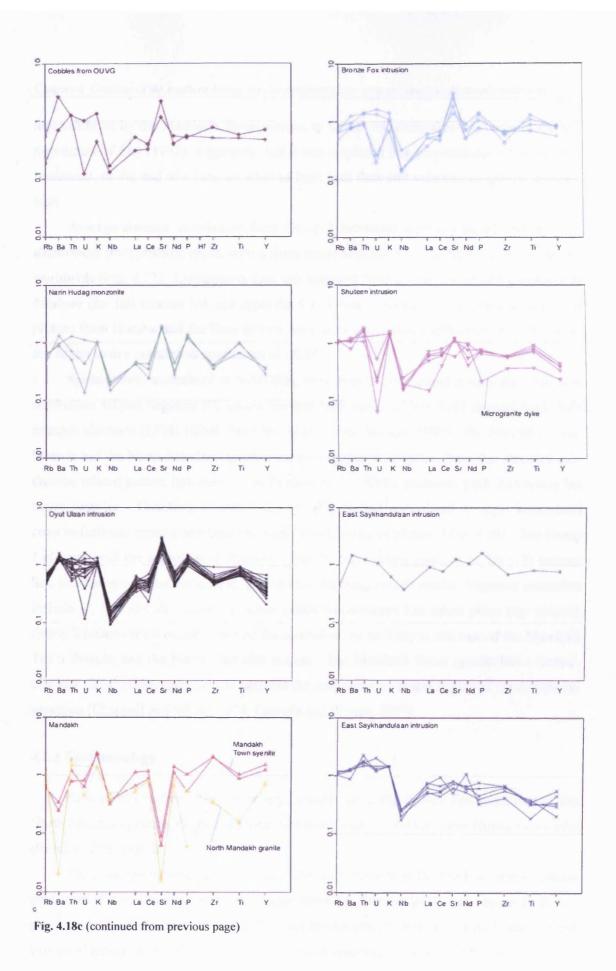


Fig. 4.18 Spidergrams of trace element abundances from all analysed samples; a) normalised to NMORB (Sun and McDonough, 1989); b) normalised to average upper crustal values (Taylor and McLennan, 1985); c) (next page) normalised to average upper crustal values, plotted separately, by intrusive body, for clarity.



ture exhibited by the Mandakh Town syenite, is further constrained as ' A_2 ' type in the nomenclature of Eby (1992), suggesting that it was emplaced in a post-collisional tectonic environment, or the end of a long duration of high heat flow and voluminous granite magmatism.

Average element abundances from Group 1 intrusions were correlated with average abundances from plutonic rocks, with a silica range between 60-70%, from various locations worldwide (Fig. 4.17). Comparison data was acquired from the Georoc online geochemical database (for full citation list, see appendix C). Group 1 rocks show greatest similarity to plutons from Honshu and the New Britain Arcs, with correlation coefficients of >0.9, and to the Andes with a correlation coefficient of >0.85.

Spidergrams, normalised to N-MORB, show typical convergent margin patterns, with subduction related negative Nb anomalies and high ratios of low field strength/high field strength elements (LFSE:HFSE; Saunders et al., 1980; Wilson, 1989), the Mandakh Town Syenite and the North Mandakh Granite show the greatest deviation from this standard subduction related pattern however, normalisation by N-MORB produces poor distinction between samples. Therefore, abundances were also plotted normalised to upper continental crust to facilitate comparison between plutons and groups of plutons (Fig. 4.18). The Group 1 plutons, with the exception of Shuteen, generally have strong positive Sr, Ba + Ti anomalies, indicating cumulus K-feldspar, plagioclase and magnetite/ilmenite. Negative anomalies include U, Nd, and Zr indicating minor phase fractionation has taken place (eg. zircon). Group 2 plutons show negative Sr and Ba anomalies, particularly in the case of the Mandakh Town Syenite, and the North Mandakh granite. The Mandakh Town syenite has a distinctive low LFSE:HFSE ratio, which supports the interpretation that it is part of the A-type association (Chappell and White, 1974; Loiselle and Wones, 1979).

4.3.3 Geochronology

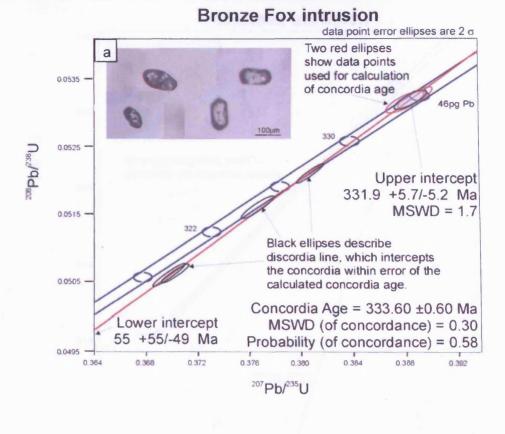
Four intrusions from the greater region were dated, the Bronze Fox granodiorite, the North Mandakh granite, the quartz monzonite from Shuteen and the Narin Hudag monzonite (Results - Appendix B).

The biotite-hornblende granodiorite is the core intrusion at Bronze Fox, and is considered most closely linked with mineralisation there (A. Stewart 2005, pers. comm.). It was geochemically determined to be of quartz monzonitic composition in this study and yielded two overlapping, concordant, single-grain zircon analyses. The concordia age calculated from these two points is 333.60 ± 0.60 Ma (Fig. 4.19 a). Four further analyses plotted with younger discordant ages, relating to incomplete removal of parts of the zircon that had suffered lead loss. A discordia line through all data points gives an upper intercept of 331.9 ± 0.57 Ma, which falls within error of the two point concordia age (Fig. 4.19 a).

The Narin Hudag monzonite yielded three, overlapping, concordant, single-grain zircon analyses. The concordia age calculated from these three points is 333.22 ± 0.63 Ma (Fig. 4.19 b). Three further analyses plotted with younger discordant ages are likely to have been caused by lead loss.

The Shuteen quartz-monzonite yielded three, overlapping concordant, single-grain zircon analyses. The concordia age calculated from these three points is 325.47 ± 0.95 Ma (Fig. 4.19 c). Two other analyses plotted with strong negative discordance, and were disregarded.

The north Mandakh granite yielded three, overlapping, concordant, single-grain zircon analyses. The concordia age calculated from these three points is 292.34 ± 0.50 Ma (Fig. 4.19 d). One further analysis plotted with a younger discordant age, which again is likely to have been caused by lead loss.



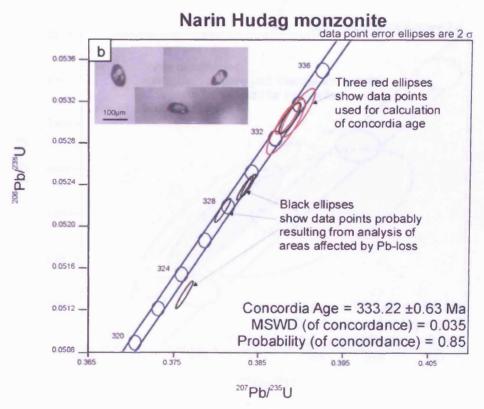
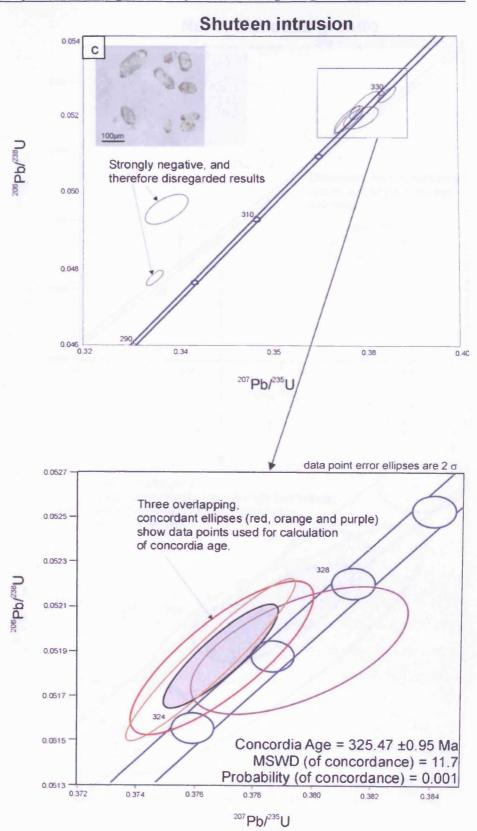
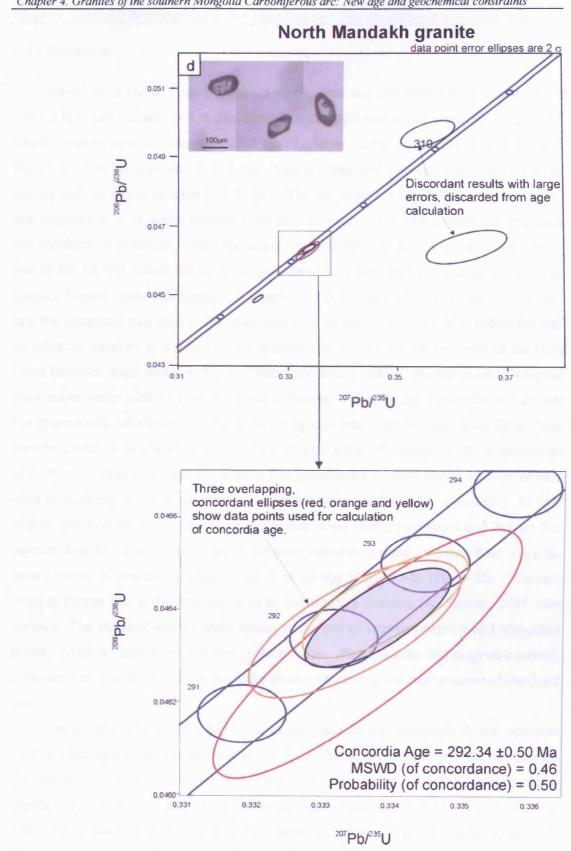


Fig. 4.19 Concorda diagrams for dated intrusions from the region. Ellipses with fine outlines show the data points, and corresponding errors. Grey-filled ellipses show the calculated concordia age. (continued over next two pages). See text for explanation of MSWD.



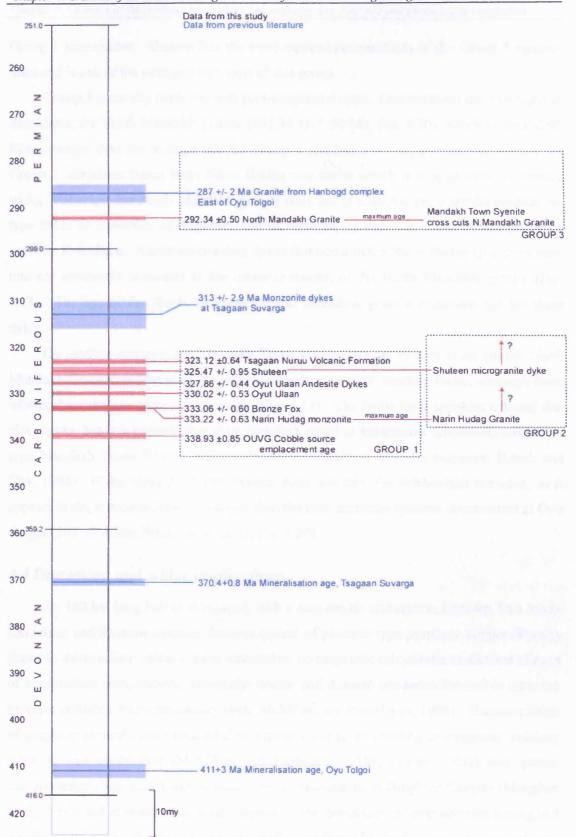
121



4.3.4 Discussion

Intrusions of Group 1 have a distinct geochemical and geochronological signature. A 180 km long belt includes five studied intrusions of quartz monzonitic composition, three of which returned ages between 333.22 +/- 0.63 (Narin Hudag monzonite; Fig. 4.20) and 325.47 +/- 0.95 Ma (Shuteen; Fig. 4.20). This is interpreted to indicate regional intrusive activity with minimum duration of 7.75 M.y. The intrusions are I-type, and appear to represent magmatism in an active, mature continental-arc setting, but with a restricted time span and geochemical signature. These intrusions are geochemically similar to extrusive lithologies of the OUVG, which are most closely related to mature arcs/continental arcs such as Honshu, Central Andes and Sunda (c.f. Chapter 3). Granitoid cobbles from the OUVG indicate that intrusions with similar characteristics were emplaced around 6 M.y. before the oldest intrusion dated here, and that by the approximate time of the emplacement of the Oyut Ulaan Intrusion, these earlier bodies had been uplifted and eroded. Further geochronological associations occur within Group 1. Three intrusions; Narin Hudag monzonite and Bronze Fox granodiorite, which crop out within 40 km of each other, and the more distal Oyut Ulaan intrusion, were all emplaced within 3.5 M.y. of each other. Furthermore, the emplacement of the Narin Hudag monzonite and Bronze Fox granodiorite occured within 0.14 My of each other (considering errors, a maximum temporal separation of 1.37 M.y. is possible). In light of their geochemical similarity, this suggests that Narin Hudag monzonite and Bronze Fox complex may be surface expressions of the same batholith at depth, and that there was a focussed period of monzonitic magmatism at or around 333-330 My (Fig. 4.20). The unit dated at Bronze Fox is the late core-zone to the intrusive complex (A. Stewart, 2005, pers comm.). The obtained age therefore relates to the end of intrusive activity and associated primary porphyry-style mineralisation at Bronze Fox. This indicates that magmatic activity at Bronze Fox may have been on-going for some time prior to the emplacement of the dated unit.

The prolific dyke swarms that occur in the Narin Hudag monzonite do not penetrate the Narin Hudag granite. For this reason, the Narin Hudag granite is interpreted to post-date the emplacement of the monzonite (333.22 +/- 0.63 Ma; Fig. 4.20). The Shuteen microgranite dyke clearly post-dates the emplacement age of Shuteen (325.47 +/- 0.95 Ma; Fig. 4.20). As no absolute ages are available for these two features, it is not possible to assess if their compositional similarity is purely coincidental, or if there was some regional granite emplacement activity that took place towards the end of, or after the emplacement of the



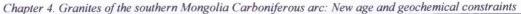


Fig. 4.20 Summary of ages from this chapter, chapter 3 and published literature (blue) marked on the the International Stratigraphic Chart geological time scale (2004). Undated intrusions are marked with maximum ages interpreted from cross-cutting relationships

Group 1 monzonites. Shuteen has the most-evolved compositions of the Group 1 monzonites and is one of the youngest members of this group.

Group 3 generally tends towards post-orogenic A-type. One intrusion from Group 3 is dated here; the North Mandakh granite (292.34 +/- 0.50 Ma; Fig. 4.20), which is around 40 M.y. younger than the average age for Group 1 and has a far larger areal extent than the Group 1 intrusions (apart from Narin Hudag monzonite which it is apparently in contact with). Although the North Mandakh granite does not plot as A-type, it trends towards A-type fields on a number of diagrams, and its petrography shows it is mainly comprised of perthitic K-feldspar. Northeast-trending dykes that occur in the Narin Hudag Quartz monzonite are apparently truncated at the intrusive margin of the North Mandakh granite (Fig. 4.13). The age of the North Mandakh granite, therefore, gives a minimum age for these dykes.

On satellite imagery, the Mandakh Town syenite appears to both cross-cut the North Mandakh Granite, and be spatially associated with major NE trending faults, although these relationships require ground-verification (Fig. 4.13). The faults have apparent sinistral displacements, but it is possible that they initially formed as extensional structures, and the A-type Mandakh Town Syenite was emplaced in association with the extension (Lamb and Cox, 1998). If the Mandakh Town Syenite does post-date the N.Mandakh intrusion, as it appears to do, it is considerably younger than the post-accretion syenites documented at Oyu Tolgoi (307 +/- 4 Ma, Perello et al. 2001; Fig. 4.20).

4.4 Discussion and wider implications

An 180 km long belt of intrusions, with a monzonitic association, between East Saykhandulaan and Shuteen contains features typical of plutonic-type porphyry copper deposits (basic to intermediate volcanic piles intruded by co-magmatic calc-alkalic to alkaline plutons of intermediate compositions; composite stocks; and discrete ore-zones focused in intrusive breccias or highly fractured country rock; McMillan and Pantaleyev, 1988). The association of porphyry mineralisation with alkaline intrusive suites, penetrating co-magmatic volcanic piles, is well established (McMillan and Pantaleyev, 1988; Sillitoe, 1997) and quartzmonzonites are associated with Cu-porphyry mineralisation at Bingham Canyon (Maughan et al., 2002) and at many other major deposits. The correlation of emplacement timing and geochemistry across the regional intrusive belt of southeast Mongolia, suggests regional controls on emplacement and mineralisation. This chronological and geochemical association may extend beyond the confines of the belt as studied here, along-strike in both directions, and may define a common association of mineral prospectivity.

There is a great volume of post-orogenic granite (North Mandakh granite) in close proximity to the Oyut Ulaan-Shuteen belt and A-type syenites also occur in this region (Group 3). Generally, these bodies are emplaced to the north of the Group 1 belt, and considerably later (Permian vs Carboniferous). At other mineral deposits in the region, similar intrusions were emplaced post-mineralisation and are apparently barren. The Hanbogd pluton to the east of Oyu Tolgoi is a multi-stage granitoid complex, consisting of two phases of alkaline granite and multiple dyke swarms with concentric and radial morphologies, composed of various alkaline lithologies. It is peraluminous, has an A-type signature, and was formed in a post-collisional setting (Gerel et al., 2005). The emplacement age of the Hanbogd pluton is very similar to that of the North Mandakh granite (287+2Ma and 292.34 +/- 0.50 Ma respectively; Fig. 4.20).

It is conceivable that porphyry mineralisation occurrences will be found in association with Group 3 bodies, although none have been reported as yet from Mongolia. Such deposits are likely to be of the classic (stock related) type defined by McMillan and Pantaleyev (1988; associated with post-orogenic stocks intruding unrelated host rocks). The substantial outcrop area of the Group 3 intrusions (specifically the North Mandakh granite) and the Hanbogd pluton, suggests that the upper levels of these plutons have been removed by erosion, and so mineralised volumes may have been lost.

To the south of the belt, mineralisation (and therefore emplacement) at Oyu Tolgoi and Tsgaan Suvarga took place earlier than the emplacement ages for Group 1. The ages available in the literature for these deposits are largely based on K/Ar and Ar/Ar techniques, and so must be treated with caution, although the Re/Os date from Tsagaan Suvarga should be more reliable, and confers relatively well with the Ar/Ar age from the same deposit (Rundle, 1981; Watanabe and Stein, 2000; Stein et al., 2000; Selby et al., 2002). The locus of emplacement of mineralised bodies appears, in the first instance, to have moved north with time. However, this does not take into account tectonic models that suggest parts of the arc have moved dextrally along the arc front (Şengör and Natal'in, 1996; Badarch et al., 2002). If these models are correct, crust that hosts Tsagaan Suvarga and Oyu Tolgoi originally formed as a contiguous section of arc, along-strike to the east of the Oyut Ulaan-Shuteen belt, and moved laterally to the west via dextral strike-slip faulting. Whilst this movement is poorly constrained in time and space, it is generally regarded as Devonian-

Carboniferous by Badarch et al. (2002) and early Carboniferous by Şengör and Natal'in (1996). If the dextral translation occurred at an earlier time (prior to the 411+3 Ma Oyu Tolgoi age; Perello et al., 2001), the arc segments could have been in their present-day position prior to emplacement of any of the region's mineralised intrusions, and a northwardmovement of the magmatic arc with time would be a viable interpretation. However, it seems unlikely that the arc segments assumed their current juxtaposition so early. Evidence for dextral transtension only occurs in the andesite dykes of the Oyut Ulaan Intrusive Complex, and this event now has a well-constrained 327.86 +/- 0.44 date. Whilst this date constitutes neither a minimum or maximum age for dextral motion, it does suggest that a dextral transtensional stress field was in place during the Mid-Carboniferous, and that the only observable evidence for this (in the Saykhandulaan inlier) post-dates the emplacement of the Group 1 monzonitic-quartz-monzonitic suite. This further supports the notion of progressively southwards-directed accretion in southeast Mongolia by removing its counter argument (i.e. the apparent northward younging of volcanic and intrusive lithologies).

Discussion and conclusions

5.1 The Saykhandulaan inlier

The Saykhandulaan inlier contains evidence for a wide range of depositional environments, magmatic episodes and deformation events. North-south transects across the inlier reveal that rock types can be logically subdivided into five lithotectonic domains. The analysis of lithologies and structures in these domains elucidates the large-scale evolution of the crust in the upper Palaeozoic. However, the domains are fault-bound and the exact relationships between domains are poorly constrained.

On a large scale, across the whole inlier from north to south, the original depositional environment changes from siliciclastic deep turbiditic-basin sedimentation to a terrestrial volcanic and fluvial environment, whereas the sedimentary provenance changes from a cratonal source in the north, to a dissected arc, with a further change to an un-dissected arc in the youngest Molasse Succession. Deformation and metamorphism generally are more intense in the north than the south, but reach a peak at the Saykhandulaan Valley Lineament Zone.

The four-dimensional development of the Saykhandulaan inlier began with sediment, eroded from a cratonal terrane probably to the north, being deposited in a basin, that would later become the Northern Slate Belt. In the south, volcanic arc lithologies were also being eroded. The protolith to the High Strain Belt, and the coarse conglomerates in the Oyut Ulaan Volcanic Group were both derived from uplifted arc segments. The protolith to the High Strain Belt likely formed distally from the eroding arc, as the HSB is predominantly composed of meta-psammites and pelites with turbiditic grading. The HSB is interpreted to represent deep levels of the southern, arc-dominated margin of the back arc basin, and to have been exhumed by thrusting along the Saykhandulaan Valley Lineament Zone. This also explains the sharp break in lithologies at the SVLZ, and the change in provenance.

Two phases of Palaeozoic ductile deformation are recorded in the inlier. The first resulted in ENE-WNW orientated largely upright folds in the Northern Slate Belt and High Strain Belts. The second deformation resulted in E-W orientated folds in the Oyut Ulaan Volcanic Group, and the Molasse Succession, and is interpreted to have tightened and modified earlier structures, and to have folded pre-existing cleavage in the Northern Slate Belt. The first deformation is interpreted to have occurred during back-arc basin inversion as a response to changing subduction-zone stresses to the south of the area, whereas the second is interpreted to be related to final closure of the Palaeo-Asian Ocean along the Solonker Suture to the south.

The inlier appears to have been tilted, with deeper stratigraphic levels generally exposed in the east (Fig. 5.1); The most metamorphosed parts of the Northern Slate Belt and the High Strain Belt occur in the east; the deepest parts of the Oyut Ulaan Volcanic Group also crops-out in the east, where it is intruded by the Oyut Ulaan intrusive complex; the unconformable contact at the base of the Molasse succession with the High Strain Belt, defines the eastern margin of the Molasse succession out-crop area. This tilting may be due to crustal extension associated with Jurassic-Cretaceous rifting (Graham et al., 2001), on normal faults running N-S or NW-SE, parallel to the western edge of the inlier, and the eastern edge of the Northern Slate Belt (Fig. 5.1). The westward plunge of folds in the inlier exposes stratigraphic variation within individual domains, and so comparison of eastern and western areas gives a more detailed view of the changing palaeo-environment within each domain, e.g. the evolving volcanic environment that formed the OUVG.

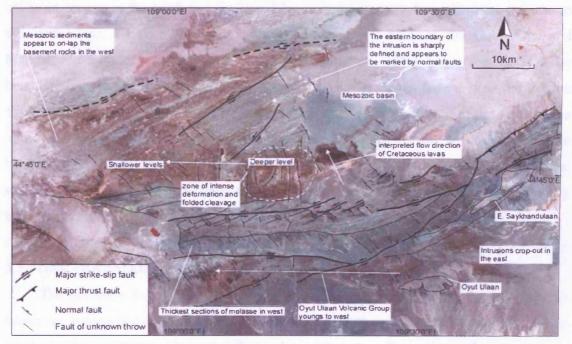


Fig. 5.1 Landsat satellite image showing the Saykhandulaan inlier, annotated with features that show westward down-tilt of whole inlier.

5.2 The evolving volcano-sedimentary environment

The Oyut Ulaan Volcanic Group records a predominantly andesitic, subduction-related volcanic arc environment, active between 330-323 Ma. The OUVG appears to represent a co-magmatic eruptive sequence to the Oyut Ulaan intrusive complex. Clear lithological,

geochemical, and geochronological associations suggest that the late-stage andesite dykes of the Oyut Ulaan intrusive complex fed parts of the OUVG (Fig. 3.4 e, 4.6 a and 4.12). Increasing effusion rates, changing magma chemistry and the preservation of a thick volcanic sequence suggest increased arc extension during OUVG volcanism. Rhyolitic units of the uppermost formation have an A-type signature, but the timing of these units significantly predates the Permian ages of the post-orogenic granites and A-type syenites of the Mandakh inlier and elsewhere (Figs. 3.19 and 4.20). The changing geochemical signature of the OUVG may be the earliest evidence of a transition from volcanic-arc to Atype post-collision magmatism in south east Mongolia.

5.3 Terrane models

The terrane model of Badarch et al. (2002) is the most detailed available. The areas studied here span three of the terranes described in this model, the Gobi Altai back-arc/forearc basin terrane in the north and the Mandalovoo and Gurvansayhan island arc terranes to the south (Figs. 1.1 & 5.2). In Chapter 2, the boundary between the Gobi Altai and Mandalovoo terranes was identified in the Saykhandulaan Valley Lineament Zone. The boundary between the Mandalovoo terrane and the Gurvansayhan terrane does not cut the Saykhandulaan inlier. The terrane map of Badarch et al. (2002) shows it to the south of the inlier, and cutting the Mandakh inlier to the west (Fig. 5.2). In the Mandakh inlier, the boundary divides the northern areas, which are dominated by granitoid out-crops, from the southern areas, which are predominantly country rock, with some small intrusions (Shuteen and Bronze Fox).

5.3.1 Gobi Altai and Mandalovoo terrane boundary.

The boundary between the Gobi-Altai back-arc basin terrane, and the Mandalovoo island arc terrane is important, because it marks the northern limit of Altaid volcanic-arc lithologies in southeast Mongolia (Figs. 1.1 and 5.2). The structural and tectonic significance of this boundary, as it is expressed in the SVLZ, has not previously been documented. The SVLZ is interpreted to have first formed when a compressive event, possibly related to the accretion of an arc terrane at the subduction zone to the south during one stage of the closure of the Palaeoasian Ocean (Fig. 2.1), caused the overthrusting of lithologies of the HSB over those of the NSB (Fig. 2.21). The reason for the exact location of the boundary is unclear, and it is difficult to estimate the volume of 'lost strata' that might

Chapter 5. Discussion and conclusions

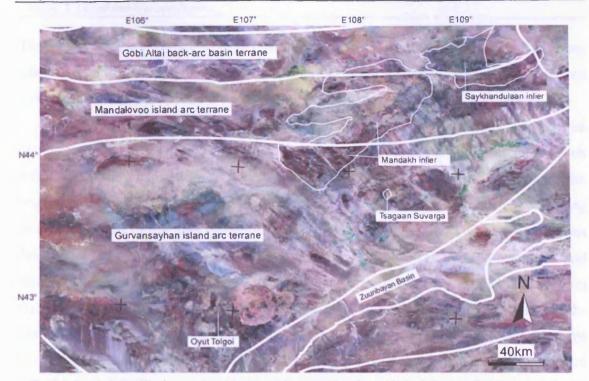


Fig. 5.2 Landsat Satellite image showing the southeast Gobi region with the inliers studied here marked, and the terrane model of Badarch et al. 2002 superimposed as (thick white lines).

have existed between the NSB and the HSB. The existence of volcanic 'slivers' within the SVLZ suggests that a sequence of volcanics became entrained in the thrust-zone. The status of the SVLZ as a major crustal fault zone is further confirmed by the focussing of subsequent deformation and dyke emplacement within the zone. Oblique shear zones crop out at the surface with silicified, striated slip surfaces, suggesting that oblique-slip movements (with a strong strike slip component; Figs. 2.19 and 2.20) took place along the zone, some time after initial north-directed thrusting. Basalt dykes run parallel within the zone, and the lobate outcrop expression of the Cretaceous lavas that unconformably overlie basement rocks suggest that they flowed to the north, away from the SVLZ (Fig. 5.1). This implies that the SVLZ provided a crustal conduit for these lavas. Finally, at the southern margin of the SVLZ, in the far east corner of the inlier, greenschist-grade conglomerates of the HSB are thrust over unconsolidated sediments, suggesting Cenozoic reactivation (Fig. 2.19).

5.3.2 Mandalovoo and Gurvansayhan terrane boundary

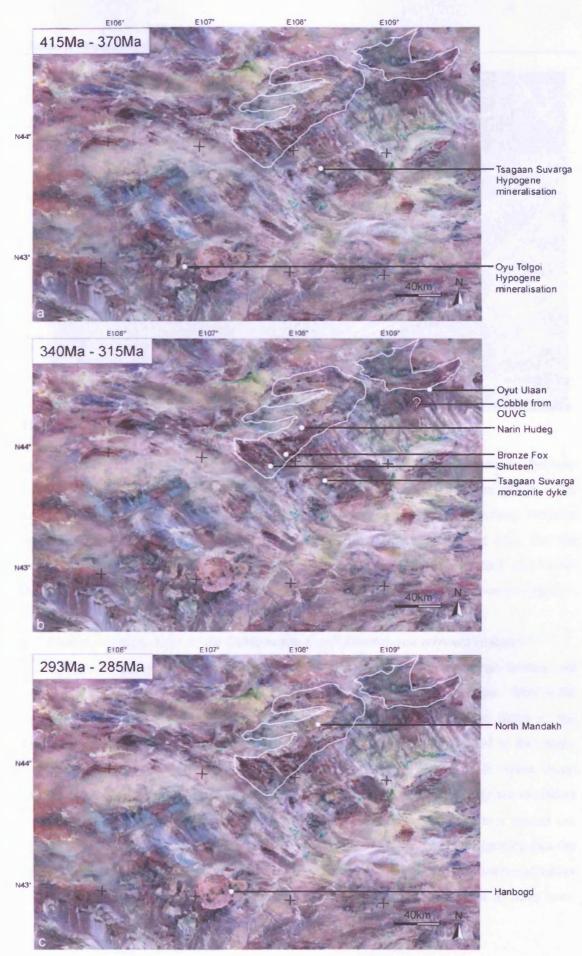
The tectonic relationship between the Mandalovoo and Gurvansayhan terranes should be of particular interest to mineral explorationists, because the Gurvansayhan terrane contains both the Oyu Tolgoi Au-Cu porphyry and the Tsagaan Suvarga Cu-Mo porphyry. The two terranes are thought to have been previously along-strike components of the same island arc, and then during Devonian-Carboniferous times, the Gurvansayhan terrane moved southwest to its current location, via dextral shear along the arc (Badarch et al., 2002).

This study calls into question the positioning of the terrane boundary between the Mandalovoo and Gurvansayhan terranes. Members of the Group 1 intrusions crop-out on either side of the lineament (as it is currenly positioned; Figs. 5.2 and 5.3). Furthermore, the boundary divides the Bronze Fox intrusion (south of the line) from the Narin Hudag monzonite (north of the line), which share the closest age association of all the intrusions dated here. There are three possible explanations for this; (1) the compositional and chronological association between the intrusions is coincidental; they formed distally from each other and were brought into their current juxtaposition via the dextral movement of the Gurvansayhan terrane; (2) by the time that the Group 1 intrusions were emplaced the terranes were at, or near, their current position; (3) the boundary between the Mandalovoo and Gurvansayhan terranes is too far north, as it is previously defined (Badarch et al. 2002; Fig. 5.2 and 5.4). The third option appears to be the most likely here; the boundary between the Gurvansayhan and Mandalovoo terranes, along which an arc segment is supposed to have migrated (Fig. 2.1), is marked, in the Mandakh inlier, by the southerly margin of the large area of granite outcrop, a boundary that appears to be largely intrusive in nature (Fig. By comparison, the Gobi Altai-Mandalovoo boundary, as exposed in the 5.2). Saykkhandulaan inlier (Figs. 2.6 and 5.1), is a multiply reactivated belt of deformation, alteration and metamorphism (Figs. 2.19 and 2.20), and yet, in previously-published terrane models, no major Palaeozoic strike-slip motion has been suggested for this boundary.

Whilst explanation (1) appears far-fetched, and is contradicted by the available evidence, explanations (2) and (3) are not denied by the available evidence and neither need they be mutually exclusive. It is plausible that the correct position of the boundary is to the south beneath basin fill *and* the dextral movement of the Gurvansayhan terrane took place along this boundary. This scenario seems to be further supported by the post-mineralisation monzonite dykes at Tsagaan Suvarga, which are of a reasonably similar age and composition to be considered part of the Group 1 Carboniferous monzonite association that occurs to the north.

In Badarch et al. (2002), the text states that the Mandalovoo terrane contains only Devonian plutons, however, stratigraphic columns for the whole terrane show a

Fig. 5.3 (next page) Three satellite image maps to show the time periods of emplacement of different groups of intrusions a) the Porphyry deposits of the Gurvansayhan terrane, b) the Group 1 monzonite association of this study, c) the post-orogenic granitoids.



Chapter 5. Discussion and conclusions

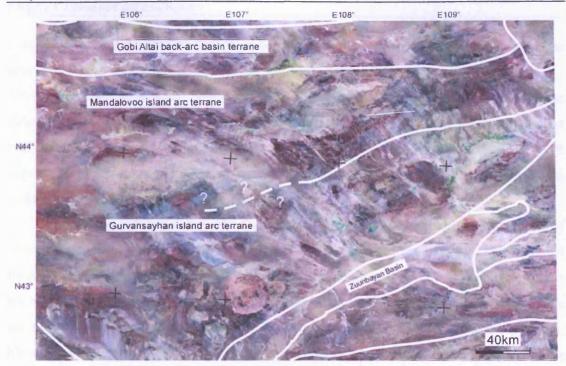


Fig. 5.4 Proposed new path of the Mandalovoo-Gurvansayhan boundary.

granodioritic-tonalitic magmatic phase from 400-355 Ma and two granitic phases, between 315-300 Ma and 270-290 Ma with no absolute age data to support these assertions. The Group 1 monzonitic suite of this study does not fit in with any of these postulated intrusive episodes. It is suggested, in light of the new absolute age data presented here, that the Mandalovoo terrane definition is wrong, and that a clear distinguishing feature, and along-strike characteristic of the terrane is the existance of mid-Carboniferous monzonitic plutons.

5.3.3 Mineralisation: How do the Gurvansayhan and Mandalovoo terranes compare?

Major porphyry mineral deposits have been found in the Gurvansayhan terrane, yet nothing on a similar scale has so far been discovered in the Mandalovoo terrane. What is the key difference between the two areas? Those intrusions that have been dated in the Gurvansayhan terrane have Devonian ages, whereas all the intrusions dated in this study were emplaced during the mid-upper Carboniferous. Oyu Tolgoi is the oldest dated intrusive body in the region, and is interpreted as having formed during early arc-evolution in the upper-Silurian to Devonian, whereas Tsagaan Suvarga formed later in a mature arc setting in the upper Devonian (Lamb and Cox, 1998; Perello et al., 2001), suggesting that the age of formation relative to arc maturity is not a controlling factor. Syn-mineralisation telescoping enhanced the mineralisation at Oyu Tolgoi, and is interpreted to have been

caused by uplift at the Silurian-Devonian boundary, whilst intra- and late-mineral intrusions provided a heat source for hydrothermal fluid circulation during this time (Perello et al., 2001). The main mineralised features at Oyut Ulaan are associated with late-stage andesite dykes and tourmaline breccia pipes, and evidence for uplift occurs in the plutonic-clast bearing voluminous conglomerates within the co-magmatic volcanic section. This uplift appears to be approximately contemporaneous with the emplacement of Oyut Ulaan into underlying parts of the volcanic stratigraphy.

An essential difference between Oyut Tolgoi and Ouyt Ulaan could be the number of concurrent and subsequent magmatic episodes, which provided the heat for hydrothermal fluid circulation during uplift-related telescoping of the mineralisation. At Oyu Tolgoi there are multiple phases of inter- and late-mineral dyke intrusions, whereas, at Oyut Ulaan there are only three phases of dyke activity, and the first two of these are relatively minor. Mineralised features at Oyut Ulaan are spatially associated with the latest stage of dyke activity and tourmaline breccia pipes, and there are no younger local intrusions.

5.4 Granite magmatism

Jahn et al. (2001) give an overview of granitoids within the Central Asian Orogenic Belt. They divide the CAOB into two gigantic granitic belts, (1) a northern belt from N Mongolia to Transbaikalia, and (2) a southern belt from Kazakhstan, Xinjiang and Southern Mongolia to NE China. The intrusions in southeast Mongolia are situated in the southern belt. Jahn et al. (2001) note a younging-to-the-south trend in the granites of the CAOB. However, one of the interesting features of southeast Mongolia is the juxtaposition of older intrusions to the south (Oyu Tolgoi and Tsagaan Suvarga) and younger intrusions to the north (Group 1). This has been explained by along strike re-arrangement of the arc, and it shows that greater detail and complexity occurs within the southeast Gobi region, than can be described by generalised CAOB trends.

Granites with an A-type post-collision signatures, and very similar ages to the North Mandakh granite and Hanbogd Plutons (Fig. 5.3), have been documented from as far-afield as west Junngar, Xinjiang Province, China and Transbaikalia, Russia. (Fig. 1.2; Zhou et al., 2006; Litvinovsky et al., 2002). This illustrates the change in tectonic environment from a subduction related along-strike intrusive belt, active in the mid-Carboniferous, to a whole-CAOB post-collisional A-type event in the early Permian.

Chapter 5. Discussion and conclusions

The geochemical signature and age of the granites studied here correspond closely with that of granites which crop out in northeast China, (Fig. 5.5; Zhu et al., 2001; Wu et al., 2002; Wu et al., 2003) and it is likely that they formed during similar regional tectonic processes. Indeed, the arc terranes in southern Mongolia may be traceable into NE China, with a greater level of accuracy than has thus far been accomplished, by the large-scale comparison of granite chemistry, emplacement timing and volcanic host rocks across the region. This has clear implications for mineral exploration in the region, as the along-strike continuation of the Carboniferous volcanic-arc is likely to be prospective for mineralisation.

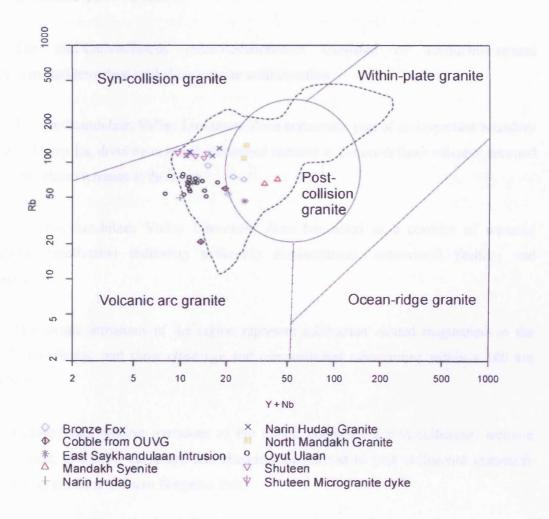


Fig. 5.5 Y+Nb vs Rb diagram after Pearce (1996), dashed line shows field of results from granites of NE China (Wu et al., 2000).

5.5 Conclusions

The Saykhandulaan inlier is a key area of Palaeozoic basement outcrop, within a region in which the basement is mostly obscured by Mesozoic basins. It records the geological evolution of part of the Palaeo-Asian Ocean's northern margin.

The Devonian - Early Carboniferous palaeo-environment consisted of basin sedimentation in a back-arc environment supplied by a cratonal source in the north, and an eroding volcanic arc in the south.

The mid-Carboniferous palaeo-environment consisted of subduction-related volcanism, and terrestrial to shallow-marine sedimentation.

The Saykhandulaan Valley Lineament Zone constitutes part of an important boundary in south Mongolia, dividing cratonal-dominated terranes to the north from volcanic arcs and accretion related terranes to the south.

The Saykhandulaan Valley Lineament Zone has acted as a corridor of repeated structural reactivation indicating strike-slip displacements, extensional faulting and thrusting.

Monzonitic intrusions of the region represent subduction related magmatism in the mid-Carboniferous, and show close age and compositional associations within a 180 km long belt.

Granitic and syenitic intrusions of the region document a post-collisional tectonic environment, and show close age and chemical similarities to post collisional granitoids from across the Central Asian Orogenic Belt.

5.6 Recommendations for future work

This project represents an island of detailed work in an unstudied frontier region. Only through further detailed work in adjacent areas will the terrane boundaries, regional structure, magmatic events and mineralisation setting of the region be fully understood. Specifically, a similar geological survey of the neighbouring Mandakh inlier would provide many points of comparison with this study, and build on information presented here.

Within the Saykhandulaan inlier, pressure-temperature work and mica dating would help establish and date the metamorphic and deformation histories of the Nothern Slate Belt and the High Strain Belt. Isotope age data from the volcanic lithologies in the SVLZ is also desirable, to compare its age with the surrounding lithotectonic domains and the OUVG to the south. A full and detailed sedimentological survey and mapping of the molasse succession would more effectively document the Permian palaeo-environment.

Post-Palaeozoic lithologies and events have been touched on here, but there is scope for more work, especially in the basin to the northeast, which includes several basalt lava sequences and unconsolidated sediments. Badland topography and drainage channels expose the stratigraphy of the unconsolidated sediments, and detailed sedimentological analysis would elucidate not only the depositional environment, but also periods of tectonic activity.



Part 1XRF geochemical resultsPart 2locations of samples

Sample number	BED0025	BEO024P	BED024C	BED024D	51 14	51 10	64.00	51 40
Sample number Bead					51.1A LF25623	51.1A		51.4A
Dead	FL53390	LI 20990	20330	LF 20000	LF 20023	LF25624	LF25640	LF25633
field on a	0 F	Been and Fave	Proppo Fav	December 5 au	Manadalah			
field area	Bronze Fox	Bronze Fox	Bronze Fox	Bronze Fox	Mandakh	Mandakh	Mandakh	Mandakh
formation	n/a	n/a i	n/a	n/a	n/a	n/a	n/a	n/a
SiO2	61.97	56.84	59.43	66.67	76.74		78.75	66.49
TiO2	0.52	0.77	0.64	0.40	0.10		0.11	0.62
AI2O3	15.03	16.72	15.48	14.55	12.54	12.71	12.25	16.10
Fe2O3	5.37	7.50	5.78	3.74	0.60	0.57	0.43	2.58
MnO	0.08	0.12	0.09	0.03	0.04			0.10
MgO	2.51	3.43	2.76	1.66	0.12			0.25
CaO	3.54	5.38	4.49	2.24	0.42		0.40	
Na2O	4.66	4.55	5.19	4.39	4.27			
K2O	3.61	2.26	3.33	4.68	4.69			
P2O5	0.18	0.22	0.24	0.13	0.02			
SO3	0.29	0.24 1.97	0.89	0.96	0.01			0.05
LOI As	1.97	1.97	2.47	1.25 2.77	0.33		0.25	
Ba	19.70 885.98	533.89	14.75 553.30	654.82	8.22 66.66		116.04 67.32	3.50 168.71
Ce	36.45		42.37	29.65	40.89			
Co	17.08		20.54	12.90	0.07		n/a	
Cr	65.07	176.25	140.16	123.02	4.89		4.74	
Cs	2.85	0.42	n/a	3.39	0.36			4.99
Cu	116.47		1930.64		n/a		n/a	
Ga	18.22		19.79	19.20	15.17			
La	15.31	11.23	17.79	15.27	18.99			
Мо	1.63	4.75	1.86	1.39	1.91	0.85	0.74	1.39
Nb	3.70		8.00		14.36			9.21
Nd	18.07		23.07		8.43			
Ni	16.52		17.34		4.10			
Pb	5.35		3.41		20.81			
Rb	75.07		71.30		144.12			
Sc	17.20				n/a			
Sr	884.88		479.77		26.03			
Th	14.33		10.06					
U V	3.34				n/a 6.42			
Ŷ	145.10 18.50		169.79 17.93		7.32			
Zn	35.38		51.71		14.76			
Zr	150.17		137.02		80.52			
Total	99.72		100.79		99.55			
		00.04		100.71	33.00	100.40	100.70	100.64
		30.04		100.71		100.40	100.70	100.64
Sample number	r 54.20A	54.3A	54.6A	55.12A	55.13A	55.14A	55.17A	55.18A
Sample number Bead	r 54.20A LF25094							
		54.3A	54.6A	55.12A	55.13A	55.14A	55.17A	55.18A
Bead	LF25094	54.3A LF25057	54.6A LF25063	55.12A LF25083	55.13A LF25472	55.14A LF25086	55.17A LF25068	55.18A LF25055
	LF25094 OUVG	54.3A LF25057 OUVG	54.6A LF25063 OUVG	55.12A LF25083 OUVG	55.13A LF25472 OUVG	55.14A LF25086 OUVG	55.17A LF25068 OUVG	55.18A LF25055 OUVG
Bead field area	LF25094 OUVG Gurvan Morin	54.3A LF25057 OUVG Gurvan Morin	54.6A LF25063 OUVG Gurvan Morin	55.12A LF25083 OUVG Gurvan Morin	55.13A LF25472 OUVG Gurvan Morin	55.14A LF25086 OUVG Gurvan Morin	55.17A LF25068 OUVG Gurvan Morin	55.18A LF25055 OUVG Gurvan Morin
Bead field area	LF25094 OUVG Gurvan Morin Hondiy	54.3A LF25057 OUVG Gurvan Morin Hondiy	54.6A LF25063 OUVG Gurvan Morin Hondiy	55.12A LF25083 OUVG Gurvan Morin Hondiy	55.13A LF25472 OUVG Gurvan Morin Hondiy	55.14A LF25086 OUVG Gurvan Morin Hondiy	55.17A LF25068 OUVG Gurvan Morin Hondiy	55.18A LF25055 OUVG Gurvan Morin Hondiy
Bead field area formation SiO2	LF25094 OUVG Gurvan Morin Hondiy 56.77	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13
Bead field area formation SiO2 TiO2	UVG Gurvan Morin Hondiy 56.77 0.75	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68
Bead field area formation SiO2	LF25094 OUVG Gurvan Morin Hondiy 56.77	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 5 16.74	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44
Bead field area <u>formation</u> SiO2 TiO2 Al2O3	UVG Gurvan Morin Hondiy 56.77 0.75 18.45	54.3A LF25057 Gurvan Morin Hondiy 58.07 0.65 16.89 5.99	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.03	55.12A LF25083 Gurvan Morin Hondiy 55.18 0.92 17.68 7.44	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 5 16.74 7.05	55.17A LF25068 Gurvan Morin Hondiy 55.49 0.56 17.13 7.13	55.18A LF25055 Gurvan Morin Hondiy 53.13 0.68 17.44 9.13
Bead field area formation SiO2 TiO2 AI2O3 Fe2O3	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.03 0.07	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18	55.14A LF25086 Gurvan Morin Hondiy 56.73 5 0.82 5 16.74 5 0.82 5 0.85 5	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12	55.12A LF25083 Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.76 8.65 0.18 2.11 2.81	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 16.74 5.05 0.16 2.95 3.03 3.03 3.03 3.03 3.03 3.03 3.03 3.0	55.17A LF25068 Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82	55.18A LF25055 Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	UVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69	54,6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.11 2.81 9.53	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 16.74 7.05 0.18 2.95 3.33 8.10	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	CUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 6 7.44 2.36	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 5.0.82 16.74 5.0.82 5.0.18 2.95 3.33 8.10 0.84	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 7.13 0.12 3.10 6.82 4.76 2.02	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 4.5.69 2.63
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5	UVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65 0.18 2.17 2.81 9.53 0.18 9.53 0.18	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 5 16.74 5 7.09 0.18 2.95 3.03 8.10 0.84 2.95 3.33 8.10 0.84 2.95 3.33 8.10 0.84 2.95 3.33 8.10 0.84 2.95 3.33 3.03 1.03 1.03 1.03 1.03 1.03 1.03	55.17A LF25068 Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21
Bead field area 5/02 T/02 A/203 Fe203 MnO MgO CaO Na20 K20 P205 SO3	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33 0.04	54 3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.06 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.76 8.65 0.18 2.17 2.81 9.53 0.18 9.53 0.18 0.62 0.04	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 5 16.74 5 7.09 0.18 2.95 3.33 8.10 0.84 0.31 0.84 0.31	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04	55.18A LF25055 Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 3.56 6 7.44 2.36 0.33 0.04 2.80	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.55	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 5.0.82 5.0.82 5.0.82 5.0.82 5.0.84 5.0.84 5.0.84 5.0.84 0.33 8.10 0.84 0.33 7.0.84 0.347	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33 0.04 2.80 5.57	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.59 10.61	55.14A LF25086 Gurvan Morin Hondiy 56.73 6.82 5.16.74 5.709 0.18 2.95 3.33 8.10 0.084 0.31 0.03 3.47 8.34	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.32 0.32 0.33 10.13	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 2.722
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As Ba	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 3.56 7.44 2.36 0.03 0.04 2.80 0.04 2.80 5.57 677.95	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.34 7.44 7.44 524.03	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.59 10.61 6.3.18	55.14A LF25086 Gurvan Morin Hondiy 56.77 0.82 16.74 7.09 0.18 2.95 3.33 8.10 0.84 4.031 0.03 0.33 4.7 8.34 323.62	55.17A LF25068 Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.32 0.04 1.53 10.13 7.19.16	55.18A LF25055 Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 7.13.44
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33 3.60 7.44 2.36 0.33 0.04 2.80 5.57 677.95 33.81	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 3.002	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.59 10.61 63.18 70.47	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 5.0.82 5.0.82 5.0.82 5.0.82 5.0.82 5.0.82 5.0.82 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.84 5.0.82 5.0.83 5.0.82 5.0.82 5.0.82 5	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 47.24	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	LF25094 OUVG Gurven Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 67 44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 18.60	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 0.09 0.293 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28	54.6A LF25063 OUVG Gurvan Morin Hondly 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 1.460 1.4	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 2.99 0.33 0.02 1.87 6.05 950.74 46.46 2.0.65	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.59 10.61 63.18 70.47 26.75	55.14A LF25086 Gurvan Morin Hondiy 56.73 16.74 16.74 16.74 2.95 3.33 8.10 0.084 0.31 0.03 3.347 8.34 32362 47.73 22.86	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.32 0.32 0.32 0.32 0.32 0.32	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O R2O P2O5 SO3 LOI As Ba Ce Co Cr	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.99 1.99 3.56 7.44 2.36 0.03 3.56 7.44 2.36 0.03 3.55 7.44 2.36 0.04 2.80 0.04 2.80 0.55 7.677.95 3.4 81 18.60 7.94 3.4 81 0.04 1.95 0.04 1.95 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65 0.18 2.17 2.81 9.55 0.18 0.62 0.04 2.59 10.61 63.18 70.47 26.75 n/a	55.14A LF25086 Gurvan Morin Hondiy 56.73 0.82 16.74 5.709 0.16 2.96 3.33 8.10 0.84 0.31 0.03 0.34 7.83 3.23.62 47.73 5.228 8.728	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 47.24 22.65 24.54	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 2.7.22 713.44 79.85 3.358 51.06
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	LF25094 OUVG Gurven Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 67 44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 18.60	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 3.002 14.66 55.94 n/a	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65 0.18 2.17 2.87 9.53 0.18 0.52 0.44 9.53 0.48 0.42 0.44 2.59 10.63.18 70.47 26.77 n/47 26.77 n/47 26.21	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 0.82 16.74 0.82 3.082 3.082 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.86 87.28 7.28	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 0.476 2.02 0.32 0.04 1.53 10.13 7.19.16 4.764 2.02 0.32 0.476 4.764 2.02 0.32 0.476 0.4776 0.476 0.476 0.4776	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO GaO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33 3.66 7.44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 18.6C 0.74 2.49	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 1.460 55.99 1.460 1.4	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 2.99 0.33 0.02 1.87 6.05 950.74 46.46 2.055 18.32 3.54 191.79	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 10.61 63.18 70.47 2.675 r/47 2.675 r/47 2.675 r/47 6.211 169.19	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.09 0.18 2.95 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.86 87.28 87.28 87.28 111.20	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 47.24 22.65 24.54 74 24.54 74 24.54 74	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.66 7.44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 1.86 C 0.42 9.43 2.49 9.43 2.49 9.43 2.49 9.43 2.49 9.43 2.49 1.80 1.80 1.80 1.80 1.80 1.80 1.80 1.80	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 21.69 13.49	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 3.002 14.66 55.94 17.84 43.61 17.84 14.06	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 191.79 21.31 16.82	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.59 10.61 63.18 70.47 26.51 169.19 17.65 19.55 2.904	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 5.16.74 5.0.82 5.16.74 5.0.82 5.	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 0.476 2.02 0.32 0.32 0.476 2.02 0.32 0.476 2.02 0.32 0.476 2.02 0.32 0.476 2.02 0.32 0.476 2.02 0.32 0.476 2.02 0.32 0.476 2.02 0.32 0.476 1.53 10.13 7.19,16 4.724 2.265 2.4.54 1.53 1.012 1.53 1.13 7.13 7.13 1.13 7.13 1.12 1.13 1.12 1.15 1.28 1.12 1.12 1.16 2.1.01	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.25 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.25 20.63
Bead field area SIO2 TIO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 3.56 7.44 2.36 0.33 0.04 2.80 5.57 677.95 3.481 18.60 0.44 9.430 1.86 0.17.83 2.49 9.430 1.7.83 1.404 1.30	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 0.30,35 18.28 70.00 0.45 18.29 18.28 70.00 0.45 18.28 70.00 0.45 18.28 70.00 19.30 19.30 19.30 10.29 10.30 10.27 10.30 10.35 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 18.28 70.00 72.21 72.	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.00 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 n/4 4.361 17.84 14.06 1.28 1	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 191.79 21.31 16.82 2.12	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 10.61 8.70.47 169.19 17.67 19.57 10.5	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.05 0.82 16.74 7.05 0.84 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.86 87.28 87.28 111.20 16.43 18.63 1.63	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.47 1.53 10.13 7.19.16 4.7.24 22.65 24.54 n/a 128.71 2.16 2.23	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Co Cr Cs Cu Ga La Mo Nb	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 6.0.33 0.04 2.80 0.42 2.63 9.43 118.65 7.44 2.86 0.33 0.04 2.80 0.42 2.63 9.43 11.85 11.	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 21.69 13.49 2.13 3.45	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.52 2.12 7.55 2.12 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 n/a 43.61 17.84 14.06 1.784 14.066 1.784 14.066 1	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 19.179 21.31 16.82 2.12 3.08	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 0.73 0.18 0.62 0.04 2.55 10.61 63.18 70.47 26.75 169.19 17.67 29.04 1.89.18 12.55	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.62 16.74 7.09 0.18 2.95 3.33 8.10 0.84 0.31 0.03 0.84 0.31 0.03 3.47 3.2365 87.28 n/a 11.22 16.43 18.56 1.69 2.72	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 47.24 22.65 24.54 n/a 128.71 21.16 21.01 2.23 4.77	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 37.55 51.06 2.54 36.22 24.35 20.63 1.05 4.00
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO GaO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 3.56 7.44 2.36 0.33 0.04 2.80 5.57 677.95 34.81 18.60 0.42 2.49 9.4.30 17.83 14.04 1.33 2.02 14.46	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 21.69 13.49 2.13 3.45 17.24	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.52 2.12 7.53 1.10 0.27 0.07 3.24 7.41 5.24.03 30.02 14.60 5.54.94 17.84 14.06 1.7.84 14.06 1.28 3.559 1.557 1.57	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 191.79 21.31 16.82 2.131 16.82 2.173	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.65 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.59 10.61 63.18 70.47 2.63 1.63.18 17.65 1.63.18 17.65 2.904 1.88 12.65 3.3.34	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 5.16.74 5.0.82 5.16.74 5.0.82 5.	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.62 4.76 2.02 0.32 0.04 1.53 10.13 719.16 4.724 22.65 24.54 n/a 128.71 21.16 21.01 2.23 4.77 25.72	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 2.722 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33 3.66 7.44 2.36 0.33 3.66 7.44 2.36 0.33 3.66 7.44 2.80 5.57 677,95 3.481 1.86 0.04 2.80 5.57 677,95 3.481 1.86 0.04 2.80 5.57 6.77,95 3.481 1.86 0.04 2.80 5.57 6.77,95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 1.86 7.95 3.481 3.67 7.95 3.481 3.67 7.95 3.481 3.67 7.95 3.481 3.67 7.95 3.481 3.67 7.95 3.75 3.75 3.481 3.67 7.95 3.481 3.67 7.95 3.481 3.86 7.95 7.95 7.95 7.95 7.95 7.95 7.95 7.95	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 3035 18.28 70.00 0.48 18.21 18.21 21.69 13.49 2.13 3.45 17.24 10.54	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 17.84 14.60 1.28 3.56 1.557 5.52 5.52 5.55 5.52 5.55	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 4.64 2.065 18.32 3.54 191.79 21.31 16.82 2.12 3.08 2.173 1.53	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 10.61 70.47 2.65 10.61 70.47 2.675 169.19 17.67 29.04 1.88 6.22 169.19 17.65 33.34 n/a 1.85 33.34 n/a 1.85 33.34 1.85 33.34 1.85 33.34 1.85	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.05 0.82 16.74 7.05 0.82 16.74 7.05 0.84 3.33 8.10 0.84 0.31 1.0.03 3.47 8.34 3.23.62 47.73 22.86 87.28 87.28 111.20 16.43 1.8.65 1.69 2.72 18.15 5.87	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 4.724 22.65 24.54 128.71 21.16 21.01 2.23 4.77 25.72 4.81	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19 1.073
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.03 3.56 7.44 2.36 0.03 3.56 7.44 2.30 0.557 677.95 3.481 1.18 67 .92 3.481 1.18 2.49 9.430 1.783 1.400 1.33 1.400 1.33 1.400 1.33 1.400 1.33 1.400 1.33 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.400 1.35 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.4000 1.40000 1.40000 1.40000 1.40000000000	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.99 0.09 2.93 4.82 4.69 0.29 0.35 18.21 13.49 13.45 17.24 0.55 1.55	54.6A LF25063 OUVG Gurvan Monin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 1.65 5.94 1.784 1.784 1.28 3.56 15.57 5.52 9.37	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.66 2.05 950.74 46.65 18.32 3.54 491.79 21.31 16.82 2.12 3.08 21.73 8.74 4.75 4.74 4	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 1.7.75 8.66 0.18 2.17 2.81 0.42 0.62 0.04 2.55 1.0.61 63.18 70.47 2.6.75 n/# 6.21 1.6.918 1.7.67 2.9.04 1.88 1.2.55 3.3.34 n/a8 7.23 7.25 7.25 7.25 7.25 7.25 7.25 7.25 7.	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 0.082 3.33 8.10 0.084 0.31 0.03 0.18 2.95 3.33 8.10 0.84 0.31 0.03 3.37 8.34 323.62 47.73 22.86 87.28 11.22 11.22 14.43 15.55 5.87 8.95	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 47.24 2.265 24.54 n/8 128.71 2.116 2.101 2.23 4.77 2.572 4.81 10.48 10.48	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 2.722 713.44 79.85 33.55 33.55 33.55 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19 1.073 12.96
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb	LF25094 OUVG Gurven Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.03 3.66 7.44 2.36 0.03 3.65 7.44 2.36 0.04 2.80 0.04 2.80 0.04 2.80 0.04 2.42 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.30 94.50	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 21.69 13.49 2.13 3.45 17.24 10.54	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 5.24.03 3.002 1.460 5.594 n/a 4.366 1.7.84 1.480 1.28 3.557 5.52 9.37 1.4.80 1.480	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 191.79 21.31 16.82 2.131 16.82 2.133 3.08 2.173 3.076 3.08 2.173 3.08 2.173 3.09 3.08 3.08 3.08 3.09 3.08 3.08 3.08 3.07 3.08 3.07 3.08 3.07	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.55 0.18 0.22 0.44 2.59 10.61 63.18 70.47 2.675 n/a 6.21 159.15 17.67 2.904 1.88 12.55 33.34 n/a 7.25 1.82 1.85	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 5.16.74 7.05 0.18 2.95 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 3.22.65 87.28 n/a 11.20 16.43 18.56 1.63 18.56 1.63 18.55 14.23	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 47.245 24.54 n/a 128.71 21.16 21.01 2.23 4.77 25.72 4.81 10.48 42.37	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 3.62 2.4.35 20.63 1.05 2.54 3.58 51.06 3.58 51.06 5.50 1.07 3.58 5.50
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.33 3.66 7.44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 1.18 6C 0.74 2.49 94.33 1.783 1.130 2.02 1.44 45 3.92 2.164	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 2.13 3.45 1.52 13.49 2.13 3.45 1.52 13.49 2.13 3.45 1.52 13.49 14.54 14.54 14.51 14.51 14.54 14.51 14.54 14.51 14.51 14.54 14.51 14.54 14.51 14.51 14.54 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 14.51 15.55	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 17.84 14.60 1.28 3.56 1.557 5.52 9.37 14.80 15.92 15.92 15.92 15.92 15.92 15.92 14.80 15.92	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 18.32 950.74 46.46 20.65 18.32 3.54 191.79 21.31 16.82 2.12 3.08 21.73 1.53 8.74 5.076 1.502	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.04 0.25 10.61 63.18 70.47 26.75 10.67 19.94 1.86 6.21 169.19 17.67 29.04 1.88 6.23 1.85 3.33 1.82 1.257 2.33 1.82 1.257 2.33 1.82 1.257 2.35 1.85 1	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.05 0.82 16.74 7.05 0.82 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.66 87.28 n/a 111.20 16.43 18.56 7.65 1.69 2.722 18.15 5.87 8.95 14.23 14.74 14.75 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.75 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.74 14.75 1	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 4.724 22.65 24.54 128.71 21.16 21.01 2.23 4.77 25.72 4.81 10.48 42.37 17.19	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 2.519 10.73 12.96 55.01 17.46
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.03 3.56 7.44 2.36 0.03 3.56 7.44 2.36 5.57 677.95 3.481 1.85 677.95 3.481 1.85 0.0/2 3.481 1.85 0.0/2 3.481 1.85 0.0/2 3.481 1.135 3.92 2.02 1.44 2.135 1.35 3.92 2.154 1.35 3.92 2.154 1.35 3.92 2.154 3.92 2.154 3.95 3.92 3.95 3.92 3.95 3.95 3.95 3.95 3.95 3.95 3.95 3.95	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 2.13 3.45 17.24 10.54 6.11 4.54 1.55 10.77,20 1.59 1.349 1.345 1.59 1.59 1.	54.6A LF25063 OUVG Gurvan Monin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 1.784 17.84 17.84 17.84 15.55 9.37 14.80 15.92 781.80 781.80	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.12 8.87 4.646 2.065 18.32 2.12 3.54 191.79 2.131 168 2.12 3.54 1.53 8.74 5.78 8.74 5.78 1.87 5.78 1.87 5.78 1.87 5.78 1.87 5.78 1.87 5.78 1.87 5.95 1.87 5.95 1.87 5.18 1.87 5.18 3.54 1.91 5.18 5.19 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.19 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.19 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.18 5.19 5.18 5.	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 0.62 0.04 2.59 10.61 63.18 70.47 26.75 n/47 26.75 n/47 29.04 1.88 12.55 33.34 n/48 12.55 33.34 n/48 12.55 33.18 22.57 27.7.14	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.09 0.18 2.95 3.33 8.10 0.084 0.31 0.031 0.031 0.031 3.33 8.10 0.84 0.31 0.33 3.47 8.34 323.62 47.73 22.86 87.28 87.28 111.20 16.43 18.56 1.69 2.72 18.15 5.87 8.95 14.23 14.74 858.04	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 4.724 22.65 24.54 n/a 128.71 2.1.16 2.101 2.23 4.77 2.572 4.81 10.48 42.37 17.19 17.87 17.19 17.87 17.19 17.87 17.19 17	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 3.19 1.07 1.0
Bead field area formation SIO2 TIO2 Al2O3 Fe2O3 MnO MgO CaO Na2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	LF25094 OUVG Gurven Morin Hondiy 56.77 0.75 18.45 5.90 0.99 1.99 3.56 7.44 2.36 6.0.33 0.04 2.80 0.04 2.80 0.57 677.95 34.81 18.60 0.73 34.81 18.60 0.74 2.89 9.4.30 17.83 14.04 1.35 3.92 2.15 4.15 11.35 3.92 2.15 4.15 1.02 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 4.10 2.95 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.1	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 21.69 3.45 17.24 10.54 4.611 4.544 1.611 4.544 1.611 3.04	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.55 1.10 0.27 0.	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 191.79 2.131 16.82 2.12 3.08 2.173 1.53 8.74 50.76 15.02 1.28 3.87 4.50.76 1.130 1.3	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.48 0.49 0.49 1.65 10.61 63.18 70.47 2.675 1.69.19 1.767 29.04 1.88 12.55 33.34 n/a 1.255 33.34 n/a 7.23 1.82 1.257 27.714 7.29 1.87 27.74 7.29 1.87 27.74 7.29 1.87 27.74 7.29 1.87 27.74 7.29 1.87 27.74 7.29 1.87 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.75 27.74 7.29 27.75 27.74 27.75 27.74 27.75 27.74 27.75 27.74 27.75 27.74 27.75 27.75 27.74 27.75 27.74 27.75 27.74 27.75 27.74 27.75 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.75 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 7.29 27.74 27.74 7.29 27.74 27.74 27.74 27.74 27.74 27.74 27.75 27.74 27.75 27.74 27.75 27.75 27.74 27.75 27.75 27.75 27.75	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 5.16.74 7.06 0.18 2.95 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.86 87.28 n/a 11.22 16.43 18.56 1.69 2.72 18.15 5.87 8.95 14.23 14.74 855.04 6.10	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 47.24 22.65 24.54 n/a 128.71 21.16 21.01 2.23 4.77 25.72 4.81 10.48 42.37 17.19 1178.72 6.87	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 3.58 51.06 2.54 3.68 27.22 713.44 79.85 3.58 51.06 2.54 3.622 24.35 20.63 1.05 4.00 25.19 10.75 4.00 25.19 10.75 4.00 25.19 10.75 4.00 25.19 10.75 10.95 10.
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO GaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.66 7.44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 1.8 6C 0.44 9.43 2.49 9.43 2.49 9.43 2.17,83 14.04 1.30 2.02 2.14,46 3.98 11.35 3.92 2.164 1541.07 2.99 0.12	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 118.21 2.13 3.45 17.24 13.49 2.13 3.45 17.24 10.54 6.11 3.49 14.51 14.51 14.51 14.51 15.51 10.54 15.51 10.54 11.50	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 17.84 14.90 1.28 3.55 5.52 9.37 14.80 15.92 781.80 5.71 1.20	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 18.32 .3.54 191.79 21.31 16.82 2.12 3.08 2.173 1.53 8.74 5.076 1.502 1.288 2.173 3.54 1.53 8.74 5.076 1.502 1.288 2.173 1.53 8.74 5.076 1.502 1.288 2.173 1.53 8.74 5.076 1.502 1.288 2.173 1.53 8.74 5.076 1.502 1.288 2.173 1.53 8.74 5.076 1.502 1.288 2.173 1.53 8.74 5.076 5.076 5.076 5.076 5.076 5.076 5.076 5.076 5.076 5.077 5.076 5.076 5.076 5.076 5.076 5.076 5.077 5.076 5.076 5.077 5.076 5.076 5.076 5.077 5.076 5.077 5.077 5.076 5.0777 5.0777 5.07777 5.07777 5.07777 5.077777 5.0777777777777777777777777777777777777	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 10.61 70.47 2.55 10.61 70.47 2.55 10.61 70.47 2.55 10.61 70.47 2.55 10.61 7.47 2.55 10.61 7.29.04 1.88 12.55 3.3.34 n/a 7.29 1.82 12.57 277.14 7.29 n/a 1.85 1.	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.05 0.82 16.74 7.05 0.82 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.66 87.28 n/a 111.20 16.43 18.56 7.25 14.23 18.55 5.87 8.95 14.23 14.74 858.04 6.10 2.43	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 719.16 4.724 22.65 24.54 128.71 21.16 21.01 2.23 4.77 25.72 4.81 10.48 42.37 17.19 1178.72 6.87 2.65	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19 10.73 12.96 55.01 17.46 997.39 8.15 3.30
Bead field area SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Co Cr Cs Co Cr Cs Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nd Nb Nd Nb Nd Nb Nd Nb Nd Nb Nd Nb V V	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 0.03 3.56 7.44 2.36 0.03 3.57 6.77.95 3.48 1.88 0.557 6.77.95 3.48 1.88 0.42 2.49 9.43 0.13 2.02 1.4.46 3.39 1.135 3.92 2.164 3.39 2.1541.07 2.29 0.12 2.208.72 2.08.72	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 2.13 3.45 1.3.45 1.3.45 1.5.9 1.3.49 2.13 3.45 1.5.9 1.3.49 1.3.45 1.5.9 1.3.45 1.5.9 1.3.45 1.5.9 1.3.45 1.5.9	54.6A LF25063 OUVG Gurvan Monin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.77 3.24 7.41 524.03 30.02 14.60 55.94 1.28 3.56 1.557 5.52 9.37 1.480 1.592 7.81.80 5.71 1.20 1.692 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.71 1.202 7.81.80 5.72 7.81.80 5.72 7.81.80 5.72 7.81.80 5.72 7.81.80 5.72 7.81.80 5.72 7.81.80 5.72 7.81.80 5.72 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 5.77 7.82 7.81.80 7.77 7.82 7.83 7.8	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.99 0.33 0.02 2.187 6.05 950.74 4.646 2.065 1.832 2.12 3.54 1.91.79 2.131 1.682 2.12 3.08 2.173 1.53 8.74 5.02 1.53 8.74 5.02 1.53 8.74 5.02 1.53 8.74 5.02 1.53 8.74 5.02 1.53 8.74 5.02 1.53 1.50 2.12 1.50 2.15 1.50 2.15 1.50 2.50 1.50 2.50 1.50 2.50 1.50 2.50 1	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 0.62 10.61 63.18 70.47 2.65 10.61 17.67 17.67 17.67 17.75 17.75 8.66 0.18 0.62 10.61 17.67 17.75 18.65 10.61 16.31 18.77 17.75 17	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.09 0.18 3.33 8.10 0.03 0.03 0.03 0.03 0.03 3.347 8.34 323.62 47.73 22.86 87.28 87.28 87.28 111.20 16.43 18.56 1.69 2.72 18.15 5.87 8.95 14.23 14.74 858.04 6.10 2.43 180.61	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 47.24 22.65 24.54 n/a 128.71 2.1.16 2.1.01 2.23 4.77 2.572 4.81 10.48 42.37 17.19 1178.72 6.87 2.65 194.71	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 0.68 17.44 9.13 0.296 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.82 24.35 20.63 1.05 4.00 25.19 1.07 1.07 1.07 1.07 1.07 3.12.96 5.01 1.07 1.07 3.13 2.96 1.05 1.07
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O P2O5 SO3 LOI As Ba Ce Co Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V	LF25094 OUVG Gurven Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 6.0.33 0.04 2.80 0.04 2.80 0.55 677.95 3.4 81 18.60 677.95 3.4 81 18.60 0.72 3.4 81 18.60 17.83 14.04 1.30 2.02 14.46 3.39 2.65 11.35 3.92 2.164 11.35 3.92 2.164 11.35 3.92 2.164 11.35 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.156 3.145 1.135 3.92 2.164 3.92 1.135 3.92 2.156 3.145 3.145 1.157 1.	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 1.828 70.00 n/a 118.21 21.69 13.49 2.13 3.45 17.24 10.54 6.11 1.57 10.57 13.45 17.24 10.54 14.54 118.751 3.04 118.751 3.04 118.25 1.50 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.16 5.17 5.17 5.16 5.16 5.17 5.17 5.16 5.17 5.17 5.16 5.16 5.17 5.16 5.17 5.16 5.16 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.17 5.16 5.17 5.	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.16 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 950.74 46.46 20.65 18.32 3.54 49.173 16.82 2.12 3.08 2.173 1.53 8.74 50.76 15.02 1.28 3.874 50.76 15.02 1.30 8.74 50.76 1.30 2.212 3.08 2.173 1.53 8.74 50.76 1.50 2.212 3.08 2.173 1.53 8.74 50.76 1.50 1.50 1.57 1	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.55 10.61 63.18 70.47 2.675 1.69.19 17.67 2.9.04 1.85 1.2,55 3.3,34 7.23 1.82 1.2,55 3.3,44 7.23 1.82 1.2,55 2.77.14 7.29 n/a 1.59.77 20.55	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.62 16.74 7.06 0.18 2.95 3.33 8.10 0.84 0.31 0.03 3.47 3.2365 47.73 22.86 87.28 n/a 111.20 16.43 18.66 1.69 2.72 18.15 5.87 8.95 14.23 14.74 858.04 6.10 2.43 14.74 14.39	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 47.24 2.265 24.54 n/a 128.71 2.16 21.01 2.23 4.77 25.72 4.81 10.48 42.37 17.19 1178.72 6.87 2.65 194.71 19.23	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.55 51.06 2.54 33.55 20.63 1.05 4.00 25.19 10.75 29.63 1.05 4.00 25.19 10.75 29.63 1.05 4.00 25.19 10.75 20.63 1.05 4.00 25.19 10.75 10.95 11.74 29.73 8.15 3.30 249.09 17.3
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y Zn	LF25094 OUVG Gurvan Morin Hondiy 56.77 0.75 18.45 5.90 0.09 3.56 7.44 2.36 0.33 0.04 2.80 5.57 677.95 3.4 81 18.60 0.42 9.43 0.33 14.04 1.33 2.49 9.4.33 14.04 1.33 2.49 9.4.33 11.35 3.39 21.64 1541.07 2.99 0.12 2.08.77 9.54 5.375	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 118.21 2.13 3.45 1.52 13.49 2.13 3.45 17.24 10.54 6.11 3.49 2.13 3.45 17.24 10.54 6.11 3.49 2.13 3.45 17.24 10.54 10.54 10.54 10.54 10.54 10.55 11.50 11.87 11.39 2.13 3.45 11.82 1.50 1.50 1.5	54.6A LF25063 OUVG Gurvan Morin Hondiy 61.15 0.66 16.10 5.007 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 3.002 14.60 55.94 17.84 14.90 1.28 3.356 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 15.57 5.52 9.37 14.80 5.59 17.81,80 5.59 17.80 5.59 17.80 5.50 17.80 5.50 17.80 5.50 17.80 5.50 17.80 5.50 17.80 5.50 17.80 5.50 17.80 5.50 5	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 18.32 3.54 191.79 21.31 16.82 2.12 3.08 2.173 1.53 8.74 4.50 7.45 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.83 1.53 8.74 5.07 1.53 8.74 5.21 1.53 8.74 5.21 5	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.87 9.53 0.18 0.62 10.61 70.47 2.55 10.61 70.47 2.55 10.61 70.47 2.55 10.61 7.29.04 1.88 12.55 3.34 1.255 3.34 1.255 3.34 1.257 2.77.14 7.29 n/a 1.59.77 20.55 9.8.57 9.8.7 9.8.5 9.8.57 9.8.7 1.59.77 1.59.77 1.59.77 1.59.77 20.55 9.8.57 9.8.7 1.59.7	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.05 0.82 16.74 7.05 0.82 3.33 8.10 0.84 0.31 0.03 3.47 8.34 323.62 47.73 22.66 87.28 n/a 111.20 16.43 18.56 7.25 14.23 18.55 5.87 8.95 14.23 14.74 858.04 6.10 2.72 18.15 5.87 8.95 14.23 14.74 858.04 6.10 2.73 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.75 14.75 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.74 14.23 14.75 14.75 14.75 14.75 14.75 14.75 14.75 15.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 15.75 14.75 14.75 14.75 15.75 14.75 15.75 14.75 15.7	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 7.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 71916 4.724 22.65 24.54 128.71 21.16 21.01 2.23 4.77 25.72 4.81 10.48 42.37 17.19 1178.72 6.87 2.65 194.71 19.23 3.38	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19 10.73 12.96 55.01 17.46 997.39 8.15 3.30 249.09 17.39 92.83
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V	LF25094 OUVG Gurven Morin Hondiy 56.77 0.75 18.45 5.90 0.09 1.99 3.56 7.44 2.36 6.0.33 0.04 2.80 0.04 2.80 0.55 677.95 3.4 81 18.60 677.95 3.4 81 18.60 0.72 3.4 81 18.60 17.83 14.04 1.30 2.02 14.46 3.39 2.65 11.35 3.92 2.164 11.35 3.92 2.164 11.35 3.92 2.164 11.35 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.164 1.135 3.92 2.156 3.145 1.135 3.92 2.164 3.92 1.135 3.92 2.156 3.145 3.145 1.157 1.	54.3A LF25057 OUVG Gurvan Morin Hondiy 58.07 0.65 16.89 5.99 0.09 2.93 4.82 4.69 3.02 0.29 0.08 1.50 6.15 1027.70 30.35 18.28 70.00 n/a 118.21 2.13 3.45 1.3.45 1.59 1.3.49 2.13 3.45 1.59 1.3.49 2.13 3.45 1.59 1.3.49 2.13 3.45 1.59 1.3.45 1.59 1.3.45 1.50 5.11,42 1.50 5.11,42 1.50 5.11,42 1.50 5.11,42 5.17,24 1.50 5.11,52 5.11	54.6A LF25063 OUVG Gurvan Monin Hondiy 61.15 0.66 16.10 5.03 0.07 2.53 2.12 7.53 1.10 0.27 0.07 3.24 7.41 524.03 30.02 14.60 55.94 1.28 3.56 1.557 5.52 9.37 1.480 1.59 7.518.80 5.711 1.20 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 9.37 1.480 1.55 1.55 1.22 1.55 1.22 1.55 1.22 1.55 1.22 1.22 1.25 1.22 1.25 1	55.12A LF25083 OUVG Gurvan Morin Hondiy 55.18 0.92 17.68 7.44 0.12 2.80 6.21 4.92 2.99 0.33 0.02 1.87 6.05 18.32 3.54 191.79 21.31 16.82 2.12 3.08 2.173 1.53 8.74 4.50 7.45 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.87 6.05 1.83 1.53 8.74 5.07 1.53 8.74 5.21 1.53 8.74 5.21 5	55.13A LF25472 OUVG Gurvan Morin Hondiy 54.61 0.73 17.75 8.66 0.18 2.17 2.81 9.53 0.18 0.62 0.04 2.55 10.61 63.18 70.47 2.675 1.69.19 17.67 2.9.04 1.85 1.2,55 3.3,34 7.23 1.82 1.2,55 3.3,44 7.23 1.82 1.2,55 2.77.14 7.29 n/a 1.59.77 20.55	55.14A LF25086 OUVG Gurvan Morin Hondiy 56.73 0.82 16.74 7.09 0.18 2.95 3.33 8.10 0.03 3.47 8.34 323.62 47.73 22.86 87.28 87.28 87.28 111.20 16.43 18.56 1.69 2.72 18.15 5.87 8.95 14.23 14.74 858.04 6.10 2.43 180.61 14.39 78.15 15.312	55.17A LF25068 OUVG Gurvan Morin Hondiy 55.49 0.56 17.13 0.12 3.10 6.82 4.76 2.02 0.32 0.04 1.53 10.13 7.19.16 4.72 2.25 24.54 128.71 2.161 2.23 4.77 2.572 4.81 10.48 42.37 1.7.19 1178.72 6.87 2.65 194.71 19.23 3.738 18.111	55.18A LF25055 OUVG Gurvan Morin Hondiy 53.13 0.68 17.44 9.13 0.13 2.96 4.44 5.69 2.63 0.21 0.02 2.58 27.22 713.44 79.85 33.58 51.06 2.54 36.22 24.35 20.63 1.05 4.00 25.19 10.73 12.96 55.01 17.46 997.39 8.15 3.30 249.09 17.39 92.83 162.97

Sample number	51.4B				11/08_2	17/08_6	78.3A		JBSP003
Bead	LF25642	LF25684 I	.F25632 I	F25641	LF22797	LF22796	LF25986	LF25647	LF25649
fieid area	Mandakh	Mandakh	Mandakh	Mandakh	Mesozoic basalts	Mesozoic basalts	Molasse Sucession Dyke	Narin Hudag	Narin Hudag
								· · · · · · · · · · · · · · · · · · ·	
formation		n/a r 64.78	n/a 1 77.69		n/a	n/a			n/a 73 73
SiO2 TiO2	78.71	0.53	0.10	76.35 0.09	55.25 2.22	51.24 2.74		72.68 0.23	73.72 0.19
AI2O3	12.38	15.65	12.27	12.05	14.28	14.09		14.09	14.50
Fe2O3	0.69	2.71	0.57	0.71	9.16			1.86	1.63
MnO	0.05	0.11	0.05	0.07	0.14	0.16		0.02	0.04
MgO	0.07	0.28	0.06	0.08	3.00	3.16	2.32	0.30	0.42
CaO	0.32	0.75	0.38	0.26	5.78			0.51	1.36
Na2O	4.58	6.23	4.84	4.32	3.47			5.15	4.21
K20	4.27	7.94	4.53	4.64	2.78			4.73	4.73
P2O5 SO3	0.01 0.02	0.18 0.03	0.09 0.05	0.01 0.03	1.17	1.67 0.08		0.07	0.13
LOI	0.02	0.03	0.16	0.20	2.73			0.68	0.52
As	0.44	1.62	0.88	376.71	7.22			0.80	1.68
Ba	8.51	235.35	14.30	13.92	782.57			855.89	919.08
Ce	41.48	75.74	51.31	50.16	90.02			28.32	42.55
Co	0.51	4.08	n/a	n/a	8.41			3.19	1.92
Cr	8.47	69.33	10.27	14.95	8.07			0.29	n/a
Cs Cu	2.21	4.37 n/a	n/a n/a	2.42 8.83	4.13			0.57	5.37
Ga	n/a 13.89	n/a 19.92	n/a 16.29	8.83 16.75	5.03 22.18			9.01 15.24	4.46
La	24.48		15.43	17.88	37.72			15.65	22.46
Mo	1.18		2.04	1.36	3.69			1.64	0.72
Nb	9.19		9.48	11.79	14.17	36.01		6.62	
Nd	12.44		21.74	17.43	41.16			13.55	
Ni	3.72		3.34	4.62	n/a				
Pb	14.87 108,17	11.19	15.29	19.16	12.04			19.94	
Rb Sc	3.86		107.49 8.58	139.76 5.22	82.52 5.13				
Sr	3.62			6.13	80.87				
Th	13.99	12.62		19.44	15.58				
U	2.51	1.57	n/a	1.13	3.52				
v	4.27	6.16	3.15	8.99	13.67				
Y	14.51	27.41	16.49	15.16	68.04			4.38	
Zn	17.53 80.11	37.69 498.98	21.94 80.98	24.40 85.45	61.90 520.44				
Zr Total	101.19			98.61	100.01	99.96			
Sample number			55.19A	55.1A	55.1B	55.1B	55.1B	55.1C	55.20A
Sample number Bead	55.18B LF25464		55.19A LF25556	55.1A LF25041	55.1B LF25105	55.1B LF25108	55.1B LF25109	55.1C LF25104	55.20A LF25091
					LF25105 OUVG	LF25108 OUVG	LF25109 OUVG		
Bead	LF25464 OUVG Gurvan Morin	UF25555 OUVG Gurvan Morin	LF25556 OUVG Gurvan Morin	UF25041 OUVG Gurvan Morin	UF25105 OUVG Gurvan Morin	LF25108 OUVG Gurvan Morin	LF25109 OUVG Gurvan Morin	LF25104 OUVG Gurvan Morin	LF25091 OUVG Gurvan Morin
Bead field area formation	LF25464 OUVG Gurvan Morin Hondiy	UF25555 OUVG Gurvan Morin Hondiy	LF25556 OUVG Gurvan Morin Hondiy	UF25041 OUVG Gurvan Morin Hondiy	UF25105 OUVG Gurvan Morin Hondiy	LF25108 OUVG Gurvan Morin Hondiy	LF25109 OUVG Gurvan Morin Hondiy	UF25104 OUVG Gurvan Morin Hondiy	LF25091 OUVG Gurvan Morin Hondiy
Bead field area formation SiO2	LF25464 OUVG Gurvan Morin Hondiy 54.07	UF25555 OUVG Gurvan Morin Hondiy 51.81	UF25556 OUVG Gurvan Morin Hondiy 56.29	UF25041 OUVG Gurvan Morin Hondiy 63.52	UF25105 OUVG Gurvan Morin Hondiy 53.48	UF25108 OUVG Gurvan Morin Hondiy 53.18	LF25109 OUVG Gurvan Morin Hondiy 53.66	UF25104 OUVG Gurvan Morin Hondiy 52.85	UF25091 OUVG Gurvan Morin Hondiy 57.38
Bead field area formation SiO2 TiO2	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92	UF25555 OUVG Gurvan Morin Hondiy 51.81 0.69	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57	UF25041 OUVG Gurvan Morin Hondiy 63.52 0.59	UF25105 OUVG Gurvan Morin Hondiy 53.48 0.89	UF25108 OUVG Gurvan Morin Hondiy 53.18 0.76	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77	UF25091 OUVG Gurvan Morin Hondiy 57.38 0.96
Bead field area formation SiO2 TiO2 Al2O3	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38	UVG Gurvan Morin Hondiy 51.81 0.69 20.38	UVG Gurvan Morin Hondiy 56.29 0.57 17.81	UVG Gurvan Morin Hondiy 63.52 0.59 16.72	UVG Gurvan Morin Hondiy 53.48 0.89 17.15	UVG Gurvan Morin Hondiy 53.18 0.76 17.18	UVG Gurvan Morin Hondiy 53.66 0.89 17.19	UVG Gurvan Morin Hondiy 52.85 0.77 17.29	UVG Gurvan Morin Hondiy 57.38 0.96 15.87
Bead field area formation SiO2 TiO2	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92	UVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44	UVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20	UF25041 OUVG Gurvan Morin Hondiy 63.52 0.59	UF25105 OUVG Gurvan Morin Hondiy 53.48 0.89	OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03	UVG Gurvan Morin Hondiy 53 66 0.89 17.19 8.08	OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05	UF25091 OUVG Gurvan Morin Hondiy 57.38 0.96
Bead field area formation SIO2 TIO2 AI2O3 Fe2O3	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75	UVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23	UVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11	UVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09	UVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98	OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.16 5.79	UVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14	UVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09
Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48	UF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42	UF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98 2.82	LF25108 OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.15 5.79 2.72	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.01
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07	UVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05	UVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75	UF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.89 17.15 8.08 0.15 5.98 2.82 6.39	LF25108 OUVG Gurven Morin Hondiy 53.18 0.76 17.18 8.03 0.15 5.79 2.72 2.72 6.47	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36	UVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29	UVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61	LF25041 OUVG Gurven Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.43 3.52	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98 2.22 6.33 0.75	UVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.15 5.79 2.72 6.47 0.72	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16	UVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41	UVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.030 1.58 1.42 5.45 3.52 3.52 0.16	UF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.06 0.15 5.98 2.82 6.39 0.75 0.22	LF25108 OUVG Gurvan Morin Hondiy 53, 18 0, 76 17, 18 8, 03 0, 16 5, 79 2, 72 6, 47 0, 72 0, 22	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22	UVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06	UVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03	UF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.89 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05	LF25108 OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.15 5.77 6.47 0.72 0.22 0.24	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37	UF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.45 0.23 0.23 0.23 0.23 0.41 0.66 0.78 0.41 0.06 0.302	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.030 1.58 1.42 5.45 3.52 3.52 0.16	UF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.06 0.15 5.98 2.82 6.39 0.75 0.22	LF25108 OUVG Gurven Morin Hondiy 53,18 0,76 17,18 8,03 0,16 5,77 2,772 6,47 0,72 0,22 0,04 4,38	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22	UVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33
Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As Ba	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 16007	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 2.188 708.81	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.99 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 38.47 1798.76	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.38 17.15 8.08 0.75 8.08 2.82 6.39 0.75 0.22 0.05 4.33 53.64 365.31	LF25108 OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.16 5.72 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31
Bead field area SIO2 TIO2 AI2O3 FE2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 160.07 16.07 16.07 4.89 89.89	UF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.066 3.02 2.188 708.81 58.15	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.62 0.16 0.24 2.25 38.47 1798.76 18.50	LF25105 OUVG Gurvan Morin Hondiy 53,48 0,89 17,15 8,08 0,15 5,598 2,822 6,33 0,75 0,222 0,055 4,38 53,64 335,34 353,64 365,31 32,02	LF25108 OUVG Gurvan Morin Hondiy 53, 18 0, 76 17, 18 8, 03 0, 16 5, 77 2, 72 6, 47 0, 72 0, 22 0, 64 4, 38 55, 13 342, 93 41, 93 41, 93	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 16.01 1606.78 49.89 25.30	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 38.47 1798.76 18.50 11.19	LF25105 OUVG Gurvan Morin Hondiy 53,48 0.89 17,15 8,08 0.15 5,98 2,222 6,39 0,75 0,22 0,05 4,33 53,64 365,31 32,02 2,667	LF25108 OUVG Gurven Morin Hondiy 53.18 0.76 17.18 8.03 0.15 5.79 2.272 6.47 0.72 0.22 0.04 4.38 55.13 342.93 41.93 24.55	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43
Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 2.5.30 0.85	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.844 0.23 2.39 3.91 8.05 0.78 8.05 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 20.11	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 3.6.43 26.99 8.93	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.322 0.16 0.24 2.255 3.8.47 1798.76 18.50 11.19 867.78	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.98 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.33 5.364 365.31 32.00 26.67 337.37	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,77 17,18 8,03 0,16 5,79 2,72 6,47 0,72 0,22 0,22 0,24 0,44 4,38 5,51 3,42,93 41,93 25,51 3,11,96	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 5.154 348.51 40.37 26.89 337.86	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 2.431 989.31 34.18 22.43 195.16
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91	UF25555 Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a	UF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 38.47 1798.76 18.50 11.19 867.78 2.28	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.38 5.364 365.31 32.02 2.667 337.37 3.50	LF25108 OUVG Gurven Monn Hondiy 53.18 0.76 17.18 8.03 0.15 5.72 0.27 0.47 0.72 0.44 0.77 0.22 0.04 4.38 55.13 341.93 25.51 311.96 4.402	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 160.03 2.01 160.03 2.01 160.03 2.01 160.03 2.01 160.03 2.01 2.66 6.67	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.65 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 20.11 1.61 96.35	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 36.43 36.43 36.43 36.43 36.43 37.52	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 38.47 1798.76 18.50 11.19 867.78 2.88 79.39	LF25105 OUVG Gurvan Morin Hondiy 53,48 0.89 17, 15 8,08 0.15 5,98 2,822 6,33 0,75 0,22 0,055 4,38 53,64 3,365,31 3,200 2,667 3,37,37 3,500 80,89	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,76 17,18 8,03 0,16 5,77 2,772 0,272 0,04 4,33 55,13 342,93 41,93 25,51 311,96 4,07 2,5,51 311,96 4,07 2,5,51 311,96 4,07 2,5,51 311,97 4,07 2,5,51 311,97 4,07 2,5,51 311,97 4,07 2,5,51 311,97 4,07 2,5,51 311,97 4,07 2,5,51 311,97 4,07 2,5,51 31,97	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14	UVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 98931 34.18 22.43 195.16 n/a 71.35
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.844 0.23 2.39 3.91 8.05 0.78 0.78 0.78 0.41 0.06 3.002 2.1.88 708.81 58.15 25.92 20.11 1.61 9.635 19.76	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 3.6.43 26.99 8.93 n/a 173.52 22.69	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.39 15.56	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.38 5.364 365.31 32.02 2.667 337.37 3.50	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,77 17,18 8,03 0,16 5,79 2,72 6,47 0,72 0,22 0,22 0,22 0,22 0,22 0,23 5,51 3,42,93 41,93 2,555 3,11,96 4,02 2,555 3,11,96 4,102 2,555 3,119 5,557 3,129	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.278 6.40 0.75 0.22 0.05 4.36 5.154 348.51 40.37 26.89 337.86 3.77 82.14 19.41	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Co Cr Cs Cu Ga	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 160.01 160.61 160.89 25.30 0.85 2.291 2.666 19.08 24.74 1.26	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.65 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 173.52 22.69 13.12 1.76	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 38.47 1798.76 18.50 11.19 867.78 2.28 79.39 15.36 11.39 3.90	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98 2.82 2.82 2.82 0.75 0.22 0.05 4.38 53.64 3365.31 32.02 2.667 337.37 3.50 80.89 18.14 12.80 2.85	LF25108 OUVG Gurvan Morin Hondiy 53, 18 0, 76 17, 18 8, 03 0, 16 5, 77 2, 77 2, 77 2, 77 2, 77 2, 6, 47 0, 72 0, 22 0, 64 4, 38 55, 13 342, 93 342, 93 343, 93	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.37.8 8.2.14 19.41 11.62 2.31	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Co Cr Cs Cu Ga La Mo Nb	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 0.277 6.07 4.29 0.037 0.03 2.01 1606.78 49.89 25.30 0.85 2.91 266 19.08 24.74 1.26 5.26	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.84 0.23 2.39 3.91 8.05 0.78 0.78 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 2.011 1.61 9.635 19.76 22.07 1.77 3.76	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 258.23 3.6.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.33 15.56 11.39 3.90 4.04	LF25105 OUVG Gurvan Morin Hondiy 17 15 8 08 9 17 15 8 08 0 15 5 98 2 82 6 39 0 75 0 022 0 05 4 38 5 3 64 3 365 31 3 32 00 2 6 67 3 37 37 3 35 05 8 0 89 18, 14 12, 80 18, 14 12, 80 2 2, 86 4 , 92	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,77 17,18 8,03 0,16 5,79 2,72 6,47 0,72 0,22 0,22 0,22 0,24 0,44 3,55 13 342,93 41,93 25,51 311,96 4,02 81,77 19,55 13,10 1,64 4,36 5,13	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 4.36 5.154 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99	LF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 83.61	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77
Bead field area SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 2.550 0.855 2.91 26.66 19.08 24.74 1.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 1.793	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.99 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 18.50 18.50 11.19 867.78 2.88 79.39 15.36 11.39 3.90 4.04 13.84	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.89 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.33 53.64 365.31 32.02 22.62 7 337.37 3.50 80.89 18.14 12.80 2.35 4.92 14.75	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,76 17,18 8,03 0,15 5,77 0,27 0,27 0,27 0,27 0,27 0,27 0,27 0	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 1.299 16.27	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 6.3.01 16.61	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 2.431 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 4.677 7.18
Bead field area SIO2 TIO2 AI2O3 FE2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 4.29 0.37 0.03 2.01 1601 1606 78 49.89 25.30 0.85 2.91 26.66 19.08 24.74 1.26 5.26 24.58 6.84	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42 3.76	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 1.735 22.69 13.12 1.76 7.34 1.793 n/a	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.28 79.33 15.56 11.39 3.90 4.04 13.84 5.26	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.89 2.822 0.55 4.38 5.364 365.31 32.02 26.67 337.37 3.50 80.89 18.14 12.80 2.822 14.75 112.31	LF25108 OUVG Gurven Monin Hondiy 53.18 0.76 17.18 8.03 0.15 5.72 2.72 6.47 0.72 0.22 0.04 4.38 55.13 342.93 41.93 25.51 311.96 4.02 81.77 19.55 13.10 1.64 3.36 17.32 11.271	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 3.01 16.61 106.74	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 0.277 6.07 4.29 0.037 0.03 2.01 1606.78 49.69 2.5.30 0.85 2.91 2666 19.08 24.74 1.26 5.26 6.84 9.16	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.84 0.23 2.39 3.91 8.05 0.78 0.78 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 20.11 1.61 9.635 19.76 22.07 1.77 3.76 29.42 3.76	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 2.58,23 3.643 26.99 8.93 n/a 17352 22.69 13.12 1.76 7.34 17.93 n/a 2.13	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.33 15.36 11.39 3.390 4.04 13.84 5.26 11.38 4.52 6.51 11.08	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.98 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.38 53.64 3365.31 32.00 2.667 337.37 3.50 80.89 18.14 1.2.80 2.365 80.99 18.14 1.2.80 2.35 80.49 2.14.75 112.31 1.13.31 1.1	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,77 17,18 8,03 0,16 5,79 2,72 6,47 0,72 0,22 0,22 0,22 0,24 0,44 3,55 13,10 3,42,93 3,41,93 2,5,51 3,11,96 4,02 8,177 19,55 13,10 1,64 4,02 8,177 19,55 13,10 1,64 4,02 8,177 19,55 13,10 1,64 4,02 8,177 19,55 13,10 1,64 4,02 8,177 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 4,02 2,51 11,277 19,55 13,10 1,64 14,02714,027 14,027 14,027 14,	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 5.154 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 11.188 2.10	LF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 83.60 19.20 13.46 2.31 2.45 3.67 84 1.66 2.31 3.67 1.26 3.01 1.66 1.26 3.01 1.66 2.27	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 6.93
Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O R2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91 26.66 19.08 24.74 1.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 2.188 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42 3.76 8.13 7.194	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 3.6.43 26.93 8.93 n/a 173.52 22.69 13.12 1.76 7.34 17.93 n/a 2.13	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.39 15.36 11.39 3.500 4.04 13.84 5.26 11.38 4.52 11.38 4.52 11.38 4.526 11.08 5.680	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.38 17.15 8.08 0.45 2.82 6.39 0.75 0.22 0.05 4.33 53.64 365.31 32.00 22.67 337.37 3.50 80.99 18.14 12.80 2.82 4.92 14.75 112.31 n/w a 10.85	LF25108 OUVG Gurvan Morin Hondiy 53,18 0,76 17,18 8,03 0,16 5,77 0,22 0,27 6,47 0,72 0,22 0,04 4,38 55,13 342,93 41,93 25,51 311,96 4,02 81,77 19,55 13,10,90	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 1.299 16.27 111.88 2.10	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 301 16.61 106.74 6.27 15.98	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 6.93 32.35
Bead field area SIO2 TIO2 AI2O3 F62O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1601 1606 78 49.89 25.30 0.85 2.91 26.66 19.08 24.74 1.26 5.26 24.58 6.84 9.16 8.93 07 18.91	LF25555 Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42 3.76 8.13 71.94 16.19	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 1.793 n/a 2.13 9.72 17.6	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.84 7.1798.76 18.50 11.19 867.78 2.28 39.15 36 11.39 3.90 4.04 13.84 5.26 11.08 5.680 11.080 5.680 11.080 5.680 11.080 5.680 11.080 13.040 13.040 13.040 13.040 13.040 13.040 13.040 14.040 15.0400 15.0400 15.0400 15.0400 15.0400 15.0400000000000000000000000000000000000	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.98 17.15 8.08 0.98 17.15 8.08 0.99 17.5 5.98 2.82 0.15 5.98 2.82 0.75 0.22 0.05 4.38 53.64 337.37 3.50 80.99 18.14 12.80 2.36 4.92 14.75 112.31 n/a 10.85 31.43 31.43	LF25108 OUVG Gurven Monin Hondiy 53.18 0.76 17.18 8.03 0.15 5.72 0.72 0.47 0.72 0.44 4.38 55.13 342.93 41.93 25.51 311.96 4.02 81.77 19.55 13.10 1.64 3.65 13.10 1.64 3.65 13.10 1.64 3.65 13.10 1.64 1.64 1.73 2.72 112.71 0.23 10.99 17.37	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88 2.10 0.123 2.136	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 3.01 1.661 106.74 6.27 15.98 26.62	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 6.93 32.35 14.02
Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O R2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91 26.66 19.08 24.74 1.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42 3.76 8.13 71.94 16.9 910.97	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 1.793 n/a 2.13 9.72 17.6	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.39 15.36 11.39 3.500 4.04 13.84 5.26 11.38 4.52 11.38 4.52 11.38 4.526 11.08 5.680	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.38 17.15 8.08 0.45 2.82 6.39 0.75 0.22 0.05 4.33 53.64 365.31 32.00 22.67 337.37 3.50 80.99 18.14 12.80 2.82 4.92 14.75 112.31 n/w a 10.85	LF25108 OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.16 5.79 2.72 6.47 0.72 0.22 0.04 4.38 55.13 342.93 41.93 22.551 311.96 312.95 311.96 1.310 1.64 3.65 1.73 2.12.71 1.12.71 0.23 1.12.71 0.23 1.12.71 0.23 1.12.71 0.23 1.12.71 0.23 1.12.71 0.23 1.12.71 1.27.71 0.23 1.12.71 1.27.71 0.23 1.27.71 0.23 1.27.71 0.23 1.27.71 0.23 1.27.71 0.23 1.27.71 0.23 1.27.71 0.23 1.27.71 0.23 1.27.71 0.27.710	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88 2.10 11.23 2.136 1068.13	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 301 16.61 106.74 6.27 15.98	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 6.93 32.35
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91 26.66 19.08 2.91 26.66 19.08 2.4.74 1.26 5.26 6.24.58 6.84 9.16 6.93,07 18.91 957.48 1.35	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 1.976 22.07 1.77 3.766 29.42 3.7194 1.619 910.97 7.59 1.97	UF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 1.793 n/a 2.13 9.72 17.46 1021.51 1.68 4.42	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.28 79.39 15.36 11.39 3.99 4.04 13.84 5.26 11.08 5.26 11.39 3.99 4.04 13.84 5.26 11.08 5.680 16.19 1270.68 4.44 0.47	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.98 17.15 8.08 0.98 17.15 8.08 0.99 17.15 8.08 0.99 17.15 8.08 0.99 17.15 8.08 0.99 1.215 5.364 3.350 6.39 1.3202 2.667 337.37 3.500 80.89 18.14 12.80 2.36 4.92 2.475 112.31 n/a 10.65 3.143 1062.66 3.11 0.79 0.79 0.75 0.22 0.55 0.39 0.80 0.89 112.31 0.45 0.155 0.22 0.55 0.22 0.55 0.22 0.55 0.22 0.55 0.22 0.55 0.35 0.80 0.89 0.155 0.12 0.155 0.22 0.55 0.22 0.55 0.35 0.80 0.89 0.12 0.12 0.155 0.22 0.55 0.22 0.55 0.22 0.55 0.22 0.55 0.22 0.55 0.22 0.55 0.22 0.55	LF25108 OUVG Gurven Monin Hondiy 53,18 0,76 1,7,18 8,03 0,15 5,77 2,77 6,47 0,72 0,27 0,47 0,72 0,27 0,47 0,72 0,27 0,47 0,47 0,43 0,55 1,31 0,43 4,193 2,55 1,311,96 4,02 8,177 1,9,55 1,310 1,64 3,11,96 4,02 8,177 1,9,55 1,310 1,64 3,119 6,17,22 1,12,71 0,23 1,12,71 0,23 1,12,71 0,23 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 0,23 1,12,71 1,12,71 1,12,71 0,23 1,12,71 1,12,71 1,12,71 1,12,71 0,23 1,12,71	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88 2.10 11.23 21.36 1068.13 3.05 2.28	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 3.07 8.4 1.661 1.06.74 6.27 15.98 26.62 1172.45 5.74 3.18	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 4.6.77 17.18 64.43 6.93 32.25 14.02 1277.62 1.177
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Co Cr Cs Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nd Nd Ni Pb Rb Sc Sr Th U V	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.03 2.01 1.601 1606.78 49.89 2.5.30 0.85 2.91 26.66 19.08 2.4.74 1.26 5.26 6.24.58 6.64 9.16 9.307 1.891 957.48 10.63 1.35 222.82	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42 3.76 8.13 71.94 1.67 9.097 7.59 9.097 7.59 1.97 234.50	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 3.643 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 17.93 n/a 2.13 9.72 17.46 1021.51 1.68 4.42 170.46	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 3.52 0.16 0.24 2.25 3.8.47 1798.76 18.50 11.19 867.78 2.288 79.39 15.36 11.39 3.90 4.04 13.84 5.26 11.08 5.26 11.08 5.26 11.08 5.20 11.08 5.20 11.08 5.20 11.08 5.20 11.08 5.20 11.08 5.20 11.08 5.20 11.08 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.89 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.38 5.3.64 3.65.31 3.250 2.26.67 3.37.37 3.55 80.99 18.14 1.2.85 2.82 2.67 3.37.37 3.55 5.80.99 18.14 1.2.85 2.85 3.14.31 1.062.66 3.114 3.111 0.72 2.11.45	LF25108 OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.16 5.79 2.72 6.47 0.72 0.22 0.04 4.38 55.13 342.93 342.93 25.51 311.96 312.95 311.96 1.73 11.95 1.310 1.64 3.65 1.73 2.12,71 1.12,71 0.23 1.12,71 0.24 1.23 1.23 1.23 1.23 1.23 1.23 1.23 1.23	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88 2.10 11.23 2.136 1068.13 3.05 2.28 2.150	LF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 4.60 4.36 1.16 0.22 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 83.60 19.20 13.46 6.23 11.26 5.24 1.26 5.26 5.24 1.26 5.24 1.26 5.26 5.27 5.26 5.24 5.26 5.24 5.26 5.26 5.27 5.26 5.26 5.27 5.26 5.27 5.26 5.27 5.26 5.27 5.27 5.27 5.26 5.27 5.27 5.27 5.26 5.27 5.27 5.27 5.27 5.27 5.27 5.27 5.27	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 6.93 32.35 14.02 1277.62 1.13 n/a 147.35
Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91 26.66 19.08 24.74 1.26 5.22 5.20 24.58 6.84 9.30 7.85 2.91 26.66 19.08 24.74 1.26 5.22 5.22 5.22 5.22 5.22 5.22 5.22 5	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 8.05 0.79 2.00 1.77 7.77 7.77 7.77 7.59 9.09 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 9.19 7.59 1.55 8.13 7.55 8.13 7.55 8.15 7.55 8.15 7.55 8.15 7.55 7.55 7.55 7.55 7.55 7.55 7.55 7	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 17.93 n/a 17.34 17.93 n/a 17.45 2.13 9.72 17.46 1021.51 1.68 4.42 170.46 23.83	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.39 15.36 11.39 3.90 4.04 13.84 5.26 11.39 11.39 3.90 4.04 13.84 5.26 11.39 1.53 5.680 16.19 1270.68 4.44 4.44 0.47 204.10 12.94	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.98 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.33 53.64 3.65.31 3.200 2.667 3.37.37 3.50 80.89 18.14 12.80 2.36 4.92 14.75 112.31 n/a 10.62 6.31.43 10.62 3.143 10.62 3.11 0.79 2.11.45 3.13.65	LF25108 OUVG Gurvan Morin Hondiy 33,18 0,76 17,18 8,03 0,16 5,79 2,72 6,47 0,72 0,22 0,22 0,22 0,22 0,22 0,22 0,2	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 1.23 2.19 10.627 111.88 2.10 11.23 2.136 1068.13 3.05 2.28 2.15.04 14.55	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 3.67 84 1.66 8.3.60 19.20 13.46 1.26 6.33.60 19.20 13.46 1.26 5.367 84 1.61 1.661 1.06.74 5.74 3.18 8.26.62 1.172.45 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.57 5.74 3.18 5.74 5.74 5.74 5.74 5.74 5.74 5.74 5.75 5.74 5.75 5.74 5.75 5.75	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 32.35 14.02 1277.62 1.13 n/a 14.73 5.14 2.14 14.74 14.75 14.24 14.75 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 14.75 14.24 15.75 14.24 14.75 14.24 15.75 14.24 15.75 15.75 15.75 15.77 15.87 14.24 15.75 15.87 15.87 14.75 14.75 14.24 15.75 14.24 15.75 1
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V Y Zn	LF25464 OUVG Gurven Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.200 2.77 6.07 4.29 0.37 0.03 2.01 1606.78 49.89 25.30 0.05 2.91 26.66 19.08 24.74 1.26 5.26 6.29 19.08 24.74 1.26 5.26 6.29 19.08 24.74 1.26 5.26 6.24.58 6.84 9.16 6.93,07 18.91 957.44 1.05 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,16 8.71,15 222.82 6.87,15 222.82 6.87,15 222.82 6.87,15 222.82 6.87,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 222.82 8.71,15 1.51,15 1.	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 19.76 29.42 3.76 8.13 7.194 1.61 9.63 5.197 7.59 1.97 7.59 1.97 234.50 25.58 7.76	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 36.43 26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 1.73,52 22.69 13.12 1.76 7.34 1.73,52 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 22.69 13.12 1.76 7.34 1.73,53 1.72 1.76 7.34 1.73,53 1.72 1.76 1.73,54 1.72 1.76 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.42 1.70,46 1.68 4.68 1.68	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.56 5.45 3.52 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.39 15.36 11.39 3.90 4.04 13.84 5.26 5.26 11.09 3.90 4.03 4.03 4.03 4.03 4.04 13.84 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26	LF25105 OUVG Gurvan Morin Hondiy 53.48 0.98 17.15 8.08 0.15 5.98 2.82 0.75 0.22 0.05 4.38 5.364 365.31 32.02 2.667 337.37 3.50 80.89 18.14 12.80 2.35 4.99 18.14 10.25 3.11 0.75 3.143 1062 66 3.11 0.79 2.11.45 3.13 0.65 7.253 3.143	LF25108 OUVG Gurven Monin Hondiy 53,18 0,76 17,18 8,03 0,16 5,77 2,77 6,47 0,27 0,22 0,04 4,38 55,13 342,93 41,93 25,51 311,96 4,02 81,77 19,55 13,10 4,02 81,77 19,55 13,10,90 4,02 81,77 19,55 13,10,90 4,02 81,77 19,55 13,10,90 4,02 81,77 19,55 13,10,90 17,37 107,05 8,0,88 2,05 2,07,31 11,27 107,05 8,0,88 2,05 2,07,31 11,37 10,755 10,937 10,93	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88 2.100 11.23 2.136 1068.13 3.05 2.28 2.15.04 14.55 7.574	LF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 367.84 1.66 83.60 19.20 13.46 1.26 3.67 84 1.66 1.36 1.3	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 2.4.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 4.677 17.18 64.43 6.93 3.2.35 14.02 1277.62 1.13 n/a 147.35
Bead field area formation SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V	LF25464 OUVG Gurvan Morin Hondiy 54.07 0.92 18.38 7.75 0.13 3.20 2.77 6.07 4.29 0.37 0.37 0.03 2.01 1606.78 49.89 25.30 0.85 2.91 26.66 19.08 24.74 1.26 5.22 5.20 24.58 6.84 9.30 7.85 2.91 26.66 19.08 24.74 1.26 5.22 5.22 5.22 5.22 5.22 5.22 5.22 5	LF25555 OUVG Gurvan Morin Hondiy 51.81 0.69 20.38 8.44 0.23 2.39 3.91 8.05 0.78 0.41 0.06 3.02 21.88 708.81 58.15 25.92 20.11 1.61 96.35 19.76 22.07 1.77 3.76 29.42 3.76 29.42 3.76 8.13 71.94 1.67 9.09 1.97 7.59 1.97 7.59 1.97 7.59 1.97 7.57 6.77 8.75 7.76 1.97 7.78 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 7.57 1.97 2.34,50 2.57 2.34,50 2.35,76 1.97 2.34,50 2.57 2.34,50 2.35,76 1.77 7.59 1.97 2.34,50 2.57 2.34,50 2.57 2.37 2.37 3.76 2.37 3.76 2.37 3.76 2.37 3.76 2.37 3.76 2.37 3.76 3.77 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.77 3.76 3.76 3.76 3.77 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.77 3.76 3.76 3.76 3.76 3.76 3.76 3.76 3.77 3.76 3.76 3.77 3.76 3.76 3.76 3.77 3.76 3.77 3.76 3.77 3.76 3.77 3.76 3.77 3.76 3.77 3.76 3.77 3.76 3.77 3.76 3.77 3.77 3.77 3.77 3.76 3.77 3.77 3.77 3.76 3.77 3.77 3.77 3.76 3.77 3.77 3.77 3.77 3.77 3.76 3.77 3.77 3.76 3.77 3.77 3.76 3.77 3.76 3.77 3.77 3.76 3.77 3.77 3.76 3.77 3.77 3.76 3.77 3.77 3.77 3.76 3.77 3.7	LF25556 OUVG Gurvan Morin Hondiy 56.29 0.57 17.81 8.20 0.11 2.03 2.48 6.75 3.61 0.27 0.03 1.81 6.31 258.23 3.64 3.26.99 8.93 n/a 173.52 22.69 13.12 1.76 7.34 17.93 .74 17.93 .74 17.93 .74 17.93 .74 17.93 .74 17.93 .74 .74 .74 .74 .74 .74 .74 .74	LF25041 OUVG Gurvan Morin Hondiy 63.52 0.59 16.72 4.09 0.03 1.58 1.42 5.45 0.16 0.24 2.25 3.847 1798.76 18.50 11.19 867.78 2.88 79.39 15.36 11.39 3.90 4.04 13.84 5.26 11.39 11.39 3.90 4.04 13.84 5.26 11.39 1.53 5.680 16.19 1270.68 4.44 4.44 0.47 204.10 12.94	LF25105 OUVG Gurvan Morin Hondiy 33.48 0.98 17.15 8.08 0.15 5.98 2.82 6.39 0.75 0.22 0.05 4.33 53.64 3.65.31 3.200 2.667 3.37.37 3.50 80.89 18.14 12.80 2.36 4.92 14.75 112.31 n/a 10.62 6.31.43 10.62 3.143 10.62 3.11 0.79 2.11.45 3.13.65	LF25108 OUVG Gurvan Morin Hondiy 53.18 0.76 17.18 8.03 0.15 5.79 2.72 6.47 0.72 0.22 0.04 4.38 55.13 342.93 342.93 25.51 311.96 312.95 311.96 1.73 11.95 1.310 1.64 3.65 1.73 2.12 7.13 1.0 90 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.20 1.73 1.070 58 0.020 1.73 1.070 58 0.020 1.73 1.070 58 0.020 1.73 1.070 58 0.020 1.73 1.070 58 0.020 1.73 1.070 59 0.020 1.73 1.070 50 0.020 1.73 1.070 1.750	LF25109 OUVG Gurvan Morin Hondiy 53.66 0.89 17.19 8.08 0.15 5.85 2.78 6.40 0.75 0.22 0.05 4.36 51.54 348.51 40.37 26.89 337.86 3.77 82.14 19.41 11.62 2.31 2.99 16.27 111.88 2.10 11.23 2.136 1068.13 3.05 2.28 2.1504 14.55 7.574 93.07	UF25104 OUVG Gurvan Morin Hondiy 52.85 0.77 17.29 8.05 0.14 6.12 4.60 4.36 1.16 0.22 0.22 3.38 11.43 573.91 41.80 28.95 3.67 84 1.66 8.3.60 19.20 13.46 1.26 6.33.60 19.20 13.46 1.26 5.367 84 1.61 1.661 1.06.74 5.74 3.18 8.26.62 1.172.45 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.56 5.74 3.18 8.20.57 5.74 3.18 5.74 5.74 5.74 5.74 5.74 5.74 5.74 5.75 5.74 5.75 5.74 5.75 5.75	LF25091 OUVG Gurvan Morin Hondiy 57.38 0.96 15.87 6.05 0.09 4.01 4.17 5.44 2.27 0.33 0.05 2.25 24.31 989.31 34.18 22.43 195.16 n/a 71.35 17.91 16.04 2.34 6.77 17.18 64.43 32.35 14.02 1277.62 1.13 n/a 14.73 5.44 14.75 14.24

Sample numbe	ar JBSP004	JBSP004	JBSP004	JBSP005	JBSP006	JBSP007	JBSP008
Bead						LF25652	LF25651
f al d a se a	Maria Mudan	blanin I kudan	Nada Ukidaa	Maria Hudaa	Made Divide a	Mar. 11 44-4	N I S Mar I I S Mar a
field area	Narin Hudag	Narin Hudag	Narin Hudag	Narin Hudag	Narin Hudag	Narin Hudag	Narin Hudag
formation							n/a
SiO2	73.02		72.45	70.89	75.80	66.15	64.24
TiO2	0.24	0.21	0.20	0.21	0.11	0.40	0.61
AI2O3	13.95	14.16	13.99	13.68	13.65	15.38	16.04
Fe2O3	1.51	1.52	1.55	1.58	0.91	3.53	4.05
MnO	0.04	0.04	0.04	0.05	0.03	0.06	0.08
MgO	0.38	0.36	0.37	0.35	0.19	2.20	1.97
CaO	0.68	0.66	0.67	1.10	0.84	3.23	2.50
Na2O	4.51	4.57	4.15	4.50	4.19	4.94	4.93
K2O	5.15	4.90	4.85	4.86	4.81	3.28	3.44
P2O5	0.08	0.07	0.08	0.10	0.06	0.21	0.23
SO3	0.05	0.04	0.01	0.02	0.02	0.02	0.02
LOI	0.64	0.63	0.63	0.44	0.36	0.85	2.19
As	0.87	0.10	n/a	2.75	3.43	n/a	0.68
Ba	903.40		875.56	859.50	608.27	620.32	
Ce	29.04		33.36	34,50	60.37	15.54	22.12
Co	3.11		2.79	2.90	1.20	10.57	13.25
Cr	14.26		39.22		7.72	55.75	
Cs	2.48		0.10		n/a	n/a	
Cu	n/a		n/a		n/a	19.63	
Ga	15.64		15.90		14.88	16.33	
La	17.65		14.65		21.35	12.63	
Mo	1.57		1.45		21.35	12.03	
Nb	6.33		1.40				
			5.03		6.42	5.18	
Nd	14.99				27.70	8.38	
Ni	n/a 15.00		0.07		4.53	29.00	
Pb	15.06		16.15		15.71	10.49	
Rb	124.42		122.55		112.86		
Sc	2.23		4.22		4.68	10.03	
Sr	258.44		254.84		175.94	629.22	
Th	16.24		15.55		23.42	5.25	
U	1.00		n/a		3.05	0.34	
V	23.62		21.20		11.26	77.39	
Y	6.41		6.52		9.82		
Zn	19.61		19.00		6.02		
Zr	157.16	152.46	152.64		98.94	95.05	
	100.01	101 10	- AA AA	A0 90	400.01	100.05	400 00
Total	100.24	101.12	98.36	98.78	100.61	100.25	100.30
		·					
ample numbe	er 55.22A	55.3A	55.4A	55.6A	55.8A	55.8B	55.9A
		·		55.6A	55.8A		
ample numbe	er 55.22A	55.3A	55.4A	55.6A	55.8A	55.8B	55.9A
ample numbe Bead	r 55.22A LF25675	55.3A LF25099	55.4A LF25092	55.6A LF25468	55.8A LF25053	55.8B LF25473	55.9A LF25465
ample numbe	er 55.22A	55.3A	55.4A	55.6A LF25468 OUVG	55.8A LF25053 OUVG	55.8B	55.9A
mple numbe Bead	r 55.22A LF25675 OUVG	55.3A LF25099 OUVG	55.4A LF25092 OUVG	55.6A LF25468 OUVG Gurvan Morin	55.8A LF25053 OUVG	55.8B LF25473 OUVG	55.9A LF25465 OUVG
mple numbe Bead field area	r 55.22A LF25675 OUVG Gurvan Morin	55.3A LF25099 OUVG Gurvan Morin Hondiy	55.4A LF25092 OUVG Gurvan Morin Hondiy	55.6A LF25468 OUVG Gurvan Morin Hondiy	55.8A LF25053 OUVG Gurvan Morin	55.8B LF25473 OUVG Gurvan Morin Hondiy	55.9A LF25465 OUVG Gurvan Morin Hondiy
mple numbe Bead field area formation	or 55.22A LF25675 OUVG Gurvan Morin Hondiy	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76	55.4A LF25092 OUVG Gurvan Morin Hondiy	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83	55.8A LF25053 OUVG Gurvan Morin Hondiy	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47
field area formation SiO2	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07
field area formation SiO2 TiO2 Al2O3	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 19.91
field area formation SiO2 TiO2 AI2O3 Fe2O3	r 55 22A LF25675 Gurvan Morin Hondly 65.73 0.35 16.43 2.92	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.07 19.99 7.81
field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO	r 55.22A LF25675 Gurvan Morin Hondiy 65.73 0.35 16.43 2.92 0.06	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.22 6.35 0.10	55.6A LF25468 OUVG Gurven Morin Hondiy 55.83 0.71 17.77 5.91 0.09	55.8A LF25053 Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08	55.88 LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.07 19.91 7.84 0.11
field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46	55.8A LF25053 Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 19.91 7.81 0.11 2.65
field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO	r 55.22A LF25675 Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 19.97 7.81 0.11 2.65 3.23
field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	r 55.22A LF25675 Gurvan Morin Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58	55.3A LF25099 Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4 09 7.69	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.38	55.6A LF25468 Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27	55.8A LF25053 Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04	55.88 LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 19.91 7.81 0.11 2.66 3.22 7.56
field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.61 6.33 2.72	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72	55.8A LF25053 Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 19.91 7.84 0.11 2.65 3.22 7.56 (3.22 7.56 1.77
ample numbe Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.38 2.72 0.34	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.54 2.09 0.31	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 1.9.9 7.81 0.11 2.65 3.22 7.56 1.756 0.41
field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	r 55 22A LF25675 Gurvan Morin Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09 0.03	55.3A LF25099 Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.38 0.74 17.92 6.35 0.10 2.55 3.51 6.38 2.72 0.34 0.08	55.6A LF25468 Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09 0.31 0.02	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.41 1.00 19.99 7.81 0.11 2.66 3.22 7.56 1.77 6 0.41 0.02
ample numbe Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09 0.03 1.30	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.33 0.10 2.55 3.51 6.38 2.72 0.34 0.08 2.20	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.01	55.8A LF25053 Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.33 0.03 2.47	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09 0.31 0.02 2.25	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.07 19.91 7.81 0.11 2.65 3.22 7.65 6.3 22 7.65 0.44 0.02 2.33
ample numbe Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09 0.03 1.30 0.33 1.30	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.38 2.77 0.34 0.08 2.20 3.35 0.34 0.08 2.20 3.35	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.01 3.01	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03 2.47 28.58	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09 0.31 0.02 2.25 2.7.92	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 1.9.9 7.81 0.11 2.65 3.22 7.56 1.756 0.41 0.02 2.39 3.375
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field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.066 0.87 1.62 5.58 4.50 0.09 0.03 1.30 8.83 1.861.71 225.53	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45 325.61 39.28	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.33 0.10 2.55 3.61 6.38 2.72 0.34 0.08 2.20 0.30.56 740.33 41.67	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.01 3.01 3.01 3.01 3.01 3.01	55.8A LF25053 Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.33 2.47 28.58 790.20 38.27	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09 0.31 0.02 2.25 27.92 602.47 36.07	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.07 19.99 7.81 0.11 2.66 3.22 7.66 1.72 0.41 0.02 2.39 33.75 774.03 62.15
ample numbe Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.99 0.03 1.30 8.83 1861.71 25.55 6.95	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45 325.61 39.28 24.97	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.38 2.77 0.34 0.08 2.20 30.56 740.33 41.67 20.47	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.01 3.01 3.01 3.01 8.59,72 40.35 18.64	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03 1.94 0.31 0.03 2.47 28.58 790.20 38.27 21.28	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09 0.31 0.02 2.25 2.7.92 602.47 36.07 18.79	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.07 19.91 7.81 0.11 2.66 3.22 7.56 6. 1.77 0.41 0.02 2.38 33.75 774.03 2.35 2.542
ample numbe Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr	r 55 22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.03 1.30 0.35 1.43 1.43 1.43 1.64 1.64 1.64 1.64 1.64 1.64 1.64 1.64	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45 325.61 39.28 24.97 17.90	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.38 2.72 0.34 0.08 2.20 3.056 740.33 41.67 20.47 134.75	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.012 659.72 40.35 18.64 26.16	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03 2.47 2.64 3.26 7.04 1.94 0.31 0.03 2.47 2.64 8.58 790.20 38.27 21.28 51.29 51.28 51.28 51.29 51.29 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.29 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.29 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.28 51.29 51.28 51.28 51.28 51.28 51.29 51.28 51.29 51.28 51.29 51.28 51.29 51.	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.94 2.09 0.31 0.02 2.25 2.7.92 602.47 36.07 18.79 n/a	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.00 19.97 7.81 0.11 2.66 3.22 7.56 1.756 0.41 0.02 2.39 3.3.75 774.03 62.15 25.42 57.70
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ample numbe Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09 0.03 1.30 0.99 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.55 0.69 5.24.59 1.81 1.7.84 1.62 5.67 6.95 7.44 4.09 8.25 7.74 4.00 7.74 6.95 7.74 6.95 7.74 7.74 6.95 7.74 7.74 6.54 7.74 6.54 7.74 6.54 7.54 7.54 7.54 7.54 7.54 7.54 7.54 7.54 7.54 7.54 7.54 7.55 7.54 7.54 7.55 7.54 7.55 7	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45 325.61 3	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.33 2.77 0.34 0.255 3.51 6.33 2.77 0.34 0.20 3.056 740.33 41.67 20.47 134.75 n/a 85.76 21.49 16.21 2.49 16.21 2.49 3.58 17.23 5.81 7.35 8.17 7.35 8.17 7.35 7.35 7.35 7.35 7.35 7.35 7.40 7.20 7.20 7.20 7.20 7.20 7.20 7.20 7.2	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.05 3.05 3.15 1.864 5.5 3.151 1.809 1.21 1.70 3.00 3.05 3.151 1.809 3.266 7.10 5.17 1.229 1.451.84 5.79 0.50 3.17 1.219 1.451.84 5.79 0.50 3.16 3.17 1.229 1.451.84 5.79 0.57 3.17 1.229 1.451.84 5.79 0.57 3.17 1.229 1.451.84 5.79 0.57 3.17 1.229 1.451.84 5.79 0.50 3.17 1.421.84 5.79 0.50 3.17 1.229 1.451.84 5.79 0.50 2.772 3.266 7.10 5.17 1.229 3.457.84 5.79 0.50 2.77 3.497 1.497 1.497 1.497 1.497 1.457 1.457 1.457 1.497 1.457 1.457 1.497 1.457	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03 2.47 28.58 790.20 38.27 21.28 167.90 1.88 99.90 20.33 14.54 2.23 3.78 17.61 5.08 15.47 1182.09 5.28 1.74 2.122 14.49	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.54 2.99 0.31 0.02 2.25 2.7.92 602.47 36.07 18.79 n/a 87.64 2.122 2.38 87.64 2.122 2.38 87.64 3.87 9.122 3.84 9.60 3.849 1.248 2.092 5.64 9.60 3.849 1.248 2.092 5.64 3.849 1.248 2.092 5.64 3.849 1.248 3.849 3.209 5.35 3.362 3.363 3.362 3.363 3.362 3.363 3.362 3.363 3.363 3.364	55.9A LF25465 Gurvan Morin Hondiy 53.47 1.07 1.9.91 7.81 0.11 2.65 3.23 7.55 7.76 0.41 0.02 2.35 2.5.42 57.70 n/a 160.32 2.3.55 2.1.55
ample numbe Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.066 0.87 1.62 5.58 4.50 0.09 0.03 1.30 8.33 1.861.71 2.553 6.95 24.59 1.81 1.7.84 15.67 1.10 4.25 1.421 3.62 5.55 6.95 24.59 1.81 1.7.84 15.67 1.10 4.25 1.421 3.62 5.74 4.409 8.25 1.81 1.7.84 1.567 1.10 4.25 1.421 3.62 5.56 5.56 1.81 1.7.84 1.567 1.81 1.7.84 1.567 1.10 4.25 1.421 1.577 1.10 4.25 1.421 1.577 1.10 4.25 1.421 1.332 5.55 1.577 1.10 4.25 1.421 1.332 1.577 4.7.44 1.577 4.7.44 1.577 4.7.44 1.577 1.7.44 1.577 1.7.44 1.577 1.57	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45 325.61 39.28 24.97 17.90 4.37 121.10 20.96 12.91 1.76 3.83 17.42 4.95 4.62 1.051 2.608 838.72 4.95 4.62 1.051 2.608 838.72 4.95 4.62 1.051 2.608 838.72 4.95 4.60 1.15 1.26 1.25 4.62 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.291 1.76 1.39,28 2.497 1.790 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.291 1.762 1.742	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.33 0.10 2.55 3.51 6.38 2.27 0.34 0.08 2.20 30.56 740.33 41.67 20.47 134.75 n/a 85.76 21.49 16.21 2.49 3.56 81 7.23 5.81 7.72 3.55 7.12 9.35 8.17 7.23 5.81 7.73 3.58 17.23 5.81 7.73 3.58 17.23 5.81 7.73 7.74 7.75 7.74 7.75 7.75 7.75 7.75 7.75	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.05 2.151 1.8.69 1.27 1.57 3.55	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03 2.47 28.58 790.20 38.27 21.28 167.90 1.88 99.90 20.33 14.54 2.23 3.78 17.61 5.08 6.45 35.08 15.47 1182.09 5.28 1.74 21.122 14.49 66.80	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.55 44 2.09 0.31 0.02 2.25 27.92 602 47 36.07 18.79 n/a 87.64 21.22 13.84 20.92 5.64 9.05 38.49 12.28 1.32 1.32 1.32 1.32 1.32 1.32 1.32 1.32	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 1.9.91 7.81 0.11 2.65 3.22 7.65 2.3 3.27 7.65 2.3 3.37 7.74 0.41 0.02 2.33 3.375 7.74 0.43 2.5 2.5 2.5 2.1 5.7 0.44 0.02 2.33 3.375 7.74 0.32 2.5 6.2 1.53 0.96 3.30 2.5 6.2 1.53 0.96 4.60 3.30 2.5 5.2 1.53 0.96 4.60 3.30 2.5 5.2 1.53 0.96 4.60 3.30 2.5 5.2 1.53 0.96 4.60 3.30 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 0.96 4.60 3.30 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 2.1 5.2 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.2 1.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5
field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	r 55.22A LF25675 OUVG Gurvan Monn Hondiy 65.73 0.35 16.43 2.92 0.06 0.87 1.62 5.58 4.50 0.09 0.03 1.30 0.99 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.09 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 4.50 0.99 0.03 1.62 5.58 6.95 24.59 1.81 1.7.84 1.62 5.67 6.95 6.95 24.59 1.81 1.7.84 1.62 5.67 6.95 7.44 40.98 2.13.35 2.57 4.7.40 1.54	55.3A LF25099 OUVG Gurvan Morin Hondiy 52.76 0.83 16.80 7.56 0.11 2.97 4.09 7.69 0.72 0.28 0.03 5.05 26.45 325.61 39.28 24.97 17.90 4.37 121.10 20.96 12.91 1.76 3.83 3.74 2.94 4.37 12.10 20.96 12.91 1.76 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.68 3.83 17.42 4.95 4.62 1.65 3.83 17.42 4.95 4.62 1.65 3.83 1.72 4.95 4.62 1.66 8.83 8.72 4.95 4.62 1.65 3.75 4.62 1.75 4.95 4.62 1.75 4.62 1.75 4.57 4.5	55.4A LF25092 OUVG Gurvan Morin Hondiy 57.39 0.74 17.92 6.35 0.10 2.55 3.51 6.33 2.77 0.34 0.255 3.51 6.33 2.77 0.34 0.20 3.056 740.33 41.67 20.47 134.75 n/a 85.76 21.49 16.21 2.49 16.21 2.49 3.58 17.23 5.81 7.35 8.17 7.35 8.17 7.35 7.35 7.35 7.35 7.35 7.35 7.40 7.20 7.20 7.20 7.20 7.20 7.20 7.20 7.2	55.6A LF25468 OUVG Gurvan Morin Hondiy 55.83 0.71 17.77 5.91 0.09 2.46 3.97 6.27 2.72 0.31 0.01 3.	55.8A LF25053 OUVG Gurvan Morin Hondiy 56.30 0.66 17.50 6.60 0.08 2.64 3.26 7.04 1.94 0.31 0.03 2.47 28.58 790.20 38.27 21.28 167.90 1.88 99.90 20.33 14.54 2.23 3.78 17.61 5.08 15.47 1182.09 5.28 1.74 2.122 14.49	55.8B LF25473 OUVG Gurvan Morin Hondiy 56.38 0.79 17.73 6.40 0.11 2.79 5.35 5.54 2.99 0.31 0.02 2.25 2.7.92 602.47 36.07 18.79 n/a 87.64 2.122 2.38 87.64 2.122 2.38 87.64 3.87 9.122 3.84 9.60 3.849 1.248 2.092 5.64 9.60 3.849 1.248 2.092 5.64 3.849 1.248 2.092 5.64 3.849 1.248 3.849 3.209 5.35 3.362 3.363 3.362 3.363 3.362 3.363 3.362 3.363 3.363 3.364	55.9A LF25465 OUVG Gurvan Morin Hondiy 53.47 1.07 1.99 7.83 0.11 2.66 3.22 7.56 6.1.77 0.41 0.02 2.33 33.75 7.74.03 2.33 33.75 2.155

ampie numbe	r JBSP010	JBSP010	JBSP010	27/07_5	22/08_11	22/08_11	22/08_11	22/08_13
Bead	LF25676		LF25678		LF22775	LF22786		LF22779
				East				
				Sykhandulaan				
field area	Narin Hudag	Narin Hudag	Narin Hudag	Intrusion	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan
formation	n/a		n/a			n/a		n/a
SiO2 TiO2	66.80 0.57		64.49 0.51		64.64 0.46	64.39 0.45		62.41 0.55
AI2O3	15.34		14.62		16.02			15.67
Fe2O3	4.26		4.27		4.55	4.56		5.64
MnO	0.08		0.08		0.09	0.09		0.10
MgO	2.69		2.63		1.93			3.06
CaO	3.75		3.30			1.96		
Na2O		4.66	5.04		2.83	2.86		3.69
K20	4.71 3.29	3.28	3.60		4.43 3.41	4.57		4.69
P205	0.20	0.20	0.20		0.21	3.32		3.10 0.19
SO3	0.03	0.03	0.01		0.03	0.20		0.01
LOI	0.03	0.80	0.74		1.48	0.15		0.85
As	3.38	2.79	3.83		3.90	1.50 3.83		2.57
Ba	672.93	652.06	653.14		832.51	276.74		882.15
Ce	27.36	34.45	32.42		22.90	23.02		22.30
Co	11.75	10.79	13.32					
Cr	86.81	88.68	75.52		13.89 47.44	10.85 38.24		15.83 106.25
Cs								
	n/a 34.61	4.15	4.42		2.84	n/a 22.00		n/a
Cu	34.61	36.82	36.10		211.18	22.90		131.63
Ga	16.61	16.41	15.91		18.78	16.52		
La	13.13	17.25	16.54		14.04	14.49		11.88
Mo	2.14	1.82	1.63		2.26	0.66		
Nb	4.64	5.41	3.26		3.46	4.96		
Nd	11.43	14.96	11.14		12.97	17.22		
Ni	39.30	40.44	37.84		13.81	1.56		
Pb	6.17	6.67	5.55		11.72	9.82		
Rb	66.13	64.58	66.27		72.04	17.24		
Sc	13.55	8.74	12.62		9.57	5.59		
Sr	624.23	612.34	620.68		765.49	456.12		
Th	13.69		7.60		13.59			
U	2.78	0.90	2.84		2.56			
v	95.29	93.32	95.70		96.59			
		10.10	7.47	16.93	9.11	26.67	22.57	13.03
Y	7.46							
Zn	33.05	32.61	33.70	86.53	43.23			
Zn Zr	33.05 98.32	32.61 107.52	33.70 112.27	86.53 165.77	43.23 127.89	120.97	76.06	102.91
Zn	33.05	32.61 107.52	33.70	86.53 165.77	43.23		76.06	102.91
Zn Zr Total	33.05 98.32 101.72	32.61 107.52 99.76	33.70 112.27 99.47	86.53 165.77 100.27	43.23 127.89 100.07	120.97 100.15	76.06	102.91 99.94
Zn Zr Total	33.05 98.32 101.72	32.61 107.52 99.76 55.248	33.70 112.27 99.47 56.2A	86.53 165.77 100.27 91.2A	43.23 127.89 100.07 91.3A	120.97 100.15 91.38	91.4C	102.91 99.94 91.4D
Zn Zr Total	33.05 98.32 101.72	32.61 107.52 99.76 55.248	33.70 112.27 99.47	86.53 165.77 100.27 91.2A	43.23 127.89 100.07	120.97 100.15	76.06	102.91 99.94
Zn Zr Total mple number	33.05 98.32 101.72	32.61 107.52 99.76 55.248	33.70 112.27 99.47 56.2A	86.53 165.77 100.27 91.2A	43.23 127.89 100.07 91.3A	120.97 100.15 91.38	91.4C	102.91 99.94 91.4D
Zn Zr Total mple number Bead	33.05 98.32 101.72 3/08_6 LF22772	32.61 107.52 99.76 55.24B LF25567	33.70 112.27 99.47 56.2A	86.53 165.77 100.27 91.2A	43.23 127.89 100.07 91.3A LF25477	120.97 100.15 91.38 LF25554	76.06 100.04 91.4C LF25553	102.91 99.94 91.4D LF25064
Zn Zr Total mple number Bead	33.05 98.32 101.72	32.61 107.52 99.76 55.248	33.70 112.27 99.47 56.2A LF25557	86.53 165.77 100.27 91.2A LF25469	43.23 127.89 100.07 91.3A	120.97 100.15 91.38	91.4C	102.91 99.94 91.4D
Zn Zr Total mple number Bead field area	33.05 98.32 101.72 3/08_6 LF22772 OUVG	32.61 107.52 99.76 55.24B LF25567	33.70 112.27 99.47 56.2A LF25557 OUVG	86.53 165.77 100.27 91.2A LF25469 OUVG	43.23 127.89 100.07 91.3A LF25477 OUVG	120.97 100.15 91.38 LF25554 OUVG	76.06 100.04 91.4C LF25553 OUVG	102.91 99.94 91.4D LF25064 OUVG
Zn Zr Total mple number Bead field area formation	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu	33.70 112.27 99.47 56.2A LF25557 OUVG	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu	91.4C LF25553 OUVG Tsagaan Nuruu	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu
Zn Zr Total mple number Bead field area formation SiO2	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72.41	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.89	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80
Zn Zr Total mple number Bead field area formation SiO2 TiO2	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72.41 0.28	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88	8653 16577 10027 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 1.7.25	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47	102.91 99.94 91.4D LF25064 Tsagaan Nuruu 52.80 1.57 16.21
Zn Zr Total mple number Bead field area formation SiO2 TiO2	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72.41 0.28	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.89 1.97 17.25 11.36	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72.41 0.28 13.20 3.67 0.11	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24 11.88 3.84	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0.28 13.20 3.67 0.11 0.07	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 0.24 11.88 3.84 0.06 0.11	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.89 1.97 17.25 11.36 0.28 2.34	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.03	102.91 99.94 91.4D LF25064 Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83	32 61 107 52 99.76 55.24B LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3.67 0.11 0.07 0.34	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.69 14.82 8.27 0.16 1.48 2.51	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.89 1.97 17.25 11.36 0.28 2.34 3.40	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29	102.91 99.94 91.4D LF25064 Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72.41 0.28 13.20 3.67 0.11 0.07 0.34 5.75	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.86 3.84 0.06 0.11 0.32 3.91	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.40 6.97	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 3.14 7.41
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0.28 13.20 3.67 0.11 0.07 0.34 5.75 2.94	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 0.24 0.24 0.24 0.23 0.24 0.23 0.24 0.23 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	86 53 165 77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.88 1.97 17.25 1.1.36 0.22 2.34 3.40 6.97 0.36	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.03 0.12 0.29 4.35 2.81	102.91 99.94 91.4D LF25064 Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33	32 61 107 52 99.76 55.24B LF25567 OUVG Tsagaan Nuruu 72 41 0.28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.69 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.60	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.89 1.97 17.25 11.36 0.28 2.34 3.40 6.97 0.36 0.77	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06	102.91 99.94 91.4D LF25064 Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02	32.61 107.52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72.41 0.28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10	33.70 112.27 99.47 56.2A LF25557 OUVG 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.70 0.04	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08	43,23 127.89 100.07 91.3A LF25477 OUVG Tsegean Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.60 0.08	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.44 6.97 0.36 0.77 0.36	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MgO CaO Na2O K2O P2O5 SO3 LOI	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 4.52 2.39 0.33	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0.28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 0.24 0.24 0.24 0.24 0.23 0.24 0.23 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	8653 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.60 0.08 3.03	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 1.1.36 0.22 2.34 3.40 6.97 0.36 0.77 0.32 3.50	76.06 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46	102.91 99.94 91.4D LF25064 Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 .94 0 03 0 10 1.55 62.37	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.39 4.77 0.04 0.04 0.04 1.31 2.4.86	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.54 15.36	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 4.20 0.60 0.08 3.03 146.02	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.89 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.77 0.360 3.50 3.50 3.854	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 45.37
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 0.02 3.43 6.01 1000.39	32 61 107 52 99.76 55.24B LF25567 OUVG Tsagaan Nuruu 72 41 0.28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.03 0.10 1.55 62.37 466.60	33.70 112.27 99.47 56.2A LF25557 OUVG 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.97 4.70 0.044 0.04 1.31 24.86 165.10	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.66 0.08 3.03 146.02 921.01	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.40 6.97 0.36 0.77 0.02 3.50 0.38.54 181.64	76.06 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 4.52 2.39 0.33 4.52 2.39 0.33 4.52 2.39 0.33 0.02 3.43 6.01	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0.28 13.20 3.67 0.11 0.27 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24 0.24 0.24 0.24 0.24 0.24 0.23 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	86 53 165 77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.66 0.08 3.03 146.02 921.01 63.80	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.22 2.34 3.40 6.97 0.36 0.77 0.02 3.50 3.854 181.64 80.74	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 2.145.14 151.39	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 3.43 6.01	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 .94 0 03 0 10 1 55 62 37 466 60 143 78 8.08	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.33 3.91 4.70 0.04 0.13 1.33 24.86 165.10 190.43 7.23	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.24 11.81 3.22 0.01 0.23 3.32 3.93 3.32 0.01 0.08 3.32 3.93 3.32 0.01 0.08 3.32 3.93 3.32 0.01 0.08 3.32 0.01 0.08 3.32 0.01 0.08 3.32 0.01 0.02 0.02 0.24 0.24 0.24 0.24 0.24 0.24	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.202 0.60 0.08 3.03 14.602 921.01 63.80 22.35	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.77 0.38 0.77 0.38 0.74 0.38 54 181.64 181.64 181.64 39.01	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 1.45 1.49 6.82	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.02 3.43 0.02 3.43 6.01 1000.39 34.26 9.83 85.50	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78 8.88 8.088	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.70 0.04 0.04 0.04 1.31 2.4.86 165.10 190.43 7.23 14.19	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 14,82 8,27 0,16 1,48 2,51 5,46 2,02 0,66 0,08 3,03 14,602 921.01 63,80 21.36 6,23	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.40 6.97 0.36 0.27 0.36 0.38,54 181.64 80.74 39.01 61.53	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 36.18
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 3.43 6.01 1000.39 3.426 9.83 85.50 0.26	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0.28 13.20 3.67 0.11 0.07 0.34 13.20 3.67 0.11 0.07 0.34 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 3.67 0.11 0.28 13.20 0.11 0.28 13.20 0.11 0.28 0.11 0.28 0.11 0.28 0.11 0.07 0.34 0.07 0.11 0.07 0.34 0.07 0.11 0.07 0.13 0.10 0.15 62.37 466.60 0.143.78 8.08 0.88 5.32	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24 0.24 11.88 3.64 0.06 0.11 0.33 91 4.70 0.04 0.04 0.131 2.4.86 165.10 190.43 7.23 14.19 4.67	8653 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14 82 8.27 0.16 1.48 2.51 5.46 2.02 0.66 0.08 3.03 146.02 921.01 63.80 21.36 6.23 4.10	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.44 6.97 0.36 0.77 0.36 3.854 181.64 181.64 181.64 3.901 61.53 5.64	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.322 145.14 151.39 6.82 12.60 3.81	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 7.16.78 80.04 25.95 36.18 n/a
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.239 0.33 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 .75 2 .94 0 03 0 10 1.55 62 .37 466 60 143 .78 8.08 0.88 5 .32 5 .22 1/2	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.011 0.33 3.91 4.70 0.04 1.33 24.86 165.10 190.43 7.23 14.19 4.67 4.03	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.29 0.24 11.81 3.22 0.01 0.23 3.02 3.93 3.32 3.04 3.04 3.04 3.04 3.04 3.04 3.04 3.04	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.202 0.66 0.08 3.03 146.02 921.01 63.80 21.36 6.23 4.10 17.39	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.38.54 181.64 181.64 181.65 3.56 4.153 5.64 102.16	76.66 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 1.45 14 1.45 14 1.45 139 6.82 1.260 3.81 n/a	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 3.6.18 n/a 4.818
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 6.01 1000.39 34.26 9.83 85.50 0.26 (30.96 17.43	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78 8.808 0.88 5.32 0.88 5.32 0.88	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 1.31 2.4.86 165.10 190.43 7.23 14.19 4.67 4.03 2.7.88	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.322 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.60 0.08 3.03 146.02 921.01 63.80 21.36 6.23 4.10 17.39 2.1.44	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 2.34 3.40 6.97 0.36 0.22 2.34 3.40 6.97 0.36 0.27 0.35 0.38,54 181.64 80.74 3.901 61.53 5.64 102.16 2.314	76.06 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 145.14 151.39 6.82 12.60 3.81 n/a 27.69	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 25.95 3.618 n/a 4.818 24.40
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 0.04 1.54 2.39 0.33 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 3.426 9.83 8.550 0.26 30.96 17.43 21.41	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0 28 13.20 3.67 0.11 0.07 0.34 13.20 3.67 0.11 0.07 0.34 13.20 3.67 0.11 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.11 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.11 0.07 0.34 0.03 0.11 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.34 0.07 0.36 0.11 0.07 0.36 0.10 0.15 0.62 0.7 0.43 0.88 0.88 0.88 0.88 0.88 0.88 0.88 0.52 0.55	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 2.3.79 62.53	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14 82 8.27 0.16 1.48 2.51 5.46 2.02 0.65 0.08 3.03 146.02 921.04 63.80 21.36 6.23 4.10 17.39 21.44 25.21	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 197 17.25 11.36 0.28 2.34 3.40 6.97 0.36 0.77 0.02 3.50 3.854 181.64 80.74 3.90 6.153 5.64 102.16 2.314 8.074 3.901 6.153 5.64 102.16 2.314 3.013 3.013	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 14.514 151.39 6.82 12.60 3.81 n/a 27.69 58.50	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 7.16.78 80.04 25.95 36.18 n/a 48.18 24.40 29.58
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 2.1.41 1.63	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78 8.08 0.48 5.32 n/a 26.72 56.36 3.65	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.011 0.33 3.91 4.70 0.04 1.33 1.45 165.10 190.43 7.23 14.19 4.65 165 105 190.43 7.23 14.19 4.65 4.65 165 105 190.43 7.23 7.23 14.19 4.65 4.65 4.65 105 105 105 105 105 105 105 105 105 10	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.322 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.1.48 2.02 0.66 0.08 3.03 146.02 921.01 63.80 21.36 6.23 4.10 17.39 21.44 25.21 4.22 4.22	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.38.54 181.64 181.64 181.64 180.74 3.901 61.53 5.54 102.16 2.3.14 30.13 2.66	76.66 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 1.45 1.44 1.51.39 6.82 1.250 3.81 1.46 8.32 1.45 8.32 1.45 8.32 1.45 8.32 1.45 8.50 3.81 1.46 8.32 1.45 8.50 3.81 1.46 8.32 1.25 8.50 3.81 1.46 8.32 1.25 8.50 3.81 1.46 8.32 1.25 8.50 2.79	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 36.18 n/a 4.818 24.40 29.58 2.13
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 21.41 1.63 6.43	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 94 0 03 0 10 1 55 6 2 37 4 66 60 1 43 78 8 808 0 143 78 8 808 5 32 1 74 6 55 2 1,45	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 0.33 3.91 4.77 0.04 0.04 1.31 1.88 3.84 0.06 0.01 0.32 3.91 4.77 0.24 8.68 6.8.96 3.95 2.7.12	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.322 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 26.33	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 4.20 0.60 0.08 3.03 146.02 921.01 63.80 21.36 6.23 14.62 921.01 63.80 21.36 6.23 14.62 921.01 17.39 21.44 2.52 1.39 1.44 2.51 1.73 92.144 1.59 2.144 2.52 1.34 1.59 2.144 2.52 1.34 1.59 2.144 2.52 1.34 1.59 2.144 2.52 1.35 2.144 2.52 1.35 2.144 2.52 1.35 2.144 2.52 1.35 2.144 2.52 1.35 2.135 2.144 2.52 1.35 2.144 2.521 3.145 2.135 2.135 2.135 2.135 2.135 2.145 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.135 2.145 2.135 2.144 2.521 2.135 2.135 2.135 2.135 2.144 2.521 2.135 2.135 2.135 2.144 2.521 2.135 2.144 2.521 2.135 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.144 2.521 2.244 2.241 2.244 2.241 2.244 2.241 2.2444 2.244 2.244 2.2444 2.2444 2.2444 2.24444 2.2444444 2.244444444	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.22 11.36 0.22 2.34 3.40 6.97 0.36 0.37 0.36 0.377 0.36 0.38,54 181.64 80.74 3.901 61.53 5.564 102.16 2.3.14 3.903	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 36.18 n/a 4.818 24.40 29.58 2.13 15.28
Zn Zr Total Total mple number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 3.43 6.01 1000.39 3.4.26 9.83 85.50 0.026 30.96 17.43 21.41 1.63 6.13 21.41	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5.75 2.94 0 03 0 11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62 37 466 60 143.78 8.08 8.088 5.32 n/a 2.6.72 5.63 6.365 21.45 7.428	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.70 0.04 0.04 0.04 0.04 0.04 0.04 0.04	86.53 165.77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 9.23.79 62.53 2.72 26.33 7.3.06	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14 82 8.27 0.16 1.48 2.51 5.46 2.02 0.65 0.08 3.03 146.02 921.04 63.80 21.36 6.33 4.10 17.39 221.44 25.21 2.24 11.69 33.61	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.77 0.02 3.50 3.854 181.64 80.74 3.901 61.55 5.64 102.16 2.3.14 30.13 2.66 9.83 4.05 5.64 102.16 2.3.14 30.13 2.66 9.83 4.05 9.85 9.85 9.85 9.85 9.85 9.85 9.85 9.8	76.06 91.4C UF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89 71.79	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 1.6.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 3.6.18 n/a 48.18 2.4.40 29.58 2.13 15.28 43.69
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 MO Na2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 34.26 9.83 85.50 0.26 30.96 17.43 21.41 1.63 6.43 21.24 34.73	32 61 107 52 99.76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466 60 143.78 8.08 0.88 5.32 n/a 26.72 56.36 3.65 21.45 74.28 n/a	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.86 3.84 0.06 0.11 0.23 3.91 4.70 0.04 0.04 1.33 1.65.10 190.43 7.23 1.64.10 190.43 7.23 1.4.19 4.67 4.03 2.7.88 68.99 3.95 2.7.12 8.7.72 0.71 2.7.72 0.71 0.71 0.72 0.71 0.72 0.71 0.72 0.71 0.72 0.71 0.72 0.72 0.71 0.72 0.72 0.72 0.72 0.72 0.72 0.72 0.72	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.322 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 2.633 7.3.06 n/a	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.1.48 2.02 0.66 0.08 3.03 146.02 921.01 63,80 2.136 6.23 4.10 17,39 2.144 2.52,21 2.24 11.69 3.61 1,69 3.61 1,69 1,69 1,69 1,69 1,69 1,69 1,69 1,	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.38.54 181.64 181.64 181.64 182.65 2.34 3.901 61.53 5.54 102.16 2.3.14 30.13 2.66 9.83 40.66 2.3.22	76.66 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 1.45 1.44 1.51.39 6.82 1.250 3.81 n/a 2.79 22.89 58.50 0.279 1.260 2.79 22.89 71.79 n/a	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 36.18 n/a 4.818 24.40 29.58 2.13 15.28 4.369 n/a
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 21.41 1.63 6.43 21.24 3.643 21.2432 21.243 21.243 21.243 21.243 21.243 21.2	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 94 0 03 0 10 1.55 6 2.37 466 60 143.78 8.08 0 143.78 8.08 5 32 0.145 5 6 26 3.65 2 1.45 74 28 0 74 28 74 28 75	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 0.13 1.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 0.32 1.65.10 1.90.43 7.23 1.4.19 4.67 4.03 2.7.88 6.8.99 3.95 2.7.12 8.7.72 7.72 8.7.72 7.72 8.7.72 7.72 8.7.72 7.72	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.32 3.93 3.322 0.01 0.08 3.52 0.24 0.01 0.08 3.52 0.53 0.24 0.01 0.08 3.52 0.53 7.22 0.53 7.22 0.63 7.22 2.53 7.30 6.53 7.30 6.53 7.30 6.53 7.30 6.53 7.322 7.3277 7.322 7.3277 7.322 7.3277 7.3277 7.3277 7.3277 7.3277 7.32777 7.327777777777	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 4.20 0.60 0.08 3.03 14.62 921.01 63.80 21.36 6.23 4.10 17.39 221.44 2.54 5.45 6.23 1.46 2.29 1.15 6.38 0.21.36 6.38 0.21.36 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.56 7.57 7.57 7.57 7.57 7.57 7.57 7.57 7	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.22 11.36 0.22 2.34 3.40 6.97 0.36 0.37 0.36 0.377 0.36 0.38,54 181.64 80.74 3.901 61.53 5.54 102.16 2.3.14 3.901 61.53 5.54 102.16 2.3.14 3.901 61.53 5.54 102.16 2.3.14 3.901 61.53 5.54 5.55 5.55 5.55 5.50 5.50 5.50 5.50	76.06 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 58.50 2.79 58.50 2.79 71.79 78.85 71.79 79.76 71.75 74.75 75.76 74.75 75.76 74.75 75.76 74.75 75.76 75.76 74.75 75.76 75.776 75.76 75.776 75.776 75.77777777777777777777777777777777777	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 3.6.18 n/a 4.818 24.40 29.58 2.13 15.28 43.69 n/a 11.72
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 MO Na2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.04 1.54 2.83 4.52 2.39 0.02 3.43 3.002 3.43 3.601 1000.39 34.26 9.83 85.50 0.26 30.96 30.96 30.96 17.43 21.41 1.63 6.43 21.24 34.73 10.10 0.43,35	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0 28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78 8.08 8.088 5.32 n/a 2.6.25 2.145 7.4.28 n/a 2.6.72 5.6.36 3.65 2.145 7.4.28 n/a 2.6.72 5.74,28 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.70 0.04 0.04 0.04 1.31 24.86 165.10 190.43 7.23 14.19 4.67 4.03 2.7.88 68.98 3.39 2.7.12 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 26.33 73.06 n/a 12.71 63.52	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14 82 8.27 0.16 1.48 2.51 5.46 2.02 0.65 0.08 3.03 146.02 921.04 63.80 21.36 6.33 4.10 17.39 21.44 25.21 2.24 11.69 33.61 n/a 18.80 27.09	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.40 6.97 0.36 0.27 0.35 0.077 0.02 3.505 3.8.54 181.64 80.74 3.901 61.55 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 1.022 5.63 3.037 5.64 5.64 1.022 5.64 5.64 5.64 5.64 5.64 5.64 5.64 5.64	76.06 91.4C UF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.769 58.50 2.79 22.89 71.79 n/a 19.93 61.54	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 1.6.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 3.6.18 n/a 48.18 2.4.40 29.58 2.13 1.5.28 43.69 n/a 1.72 16.92
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 21.41 1.63 6.43 21.24 3.643 21.2432 21.243 21.243 21.243 21.243 21.243 21.2	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 94 0 03 0 10 1.55 6 2.37 466 60 143.78 8.08 0 143.78 8.08 5 32 0.145 5 6 26 3.65 2 1.45 74 28 0 74 28 74 28 75 75 75 75 75 75 75 75 75 75 75 75 75 75 75 75	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nuruu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 0.13 1.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 0.32 1.65.10 1.90.43 7.23 1.4.19 4.67 4.03 2.7.88 6.8.99 3.95 2.7.12 8.7.72 7.72 8.7.72 7.72 8.7.72 7.72 8.7.72 7.72	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 26.33 73.06 n/a 12.71 63.52	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 4.20 0.60 0.08 3.03 14.62 921.01 63.80 21.36 6.23 4.10 17.39 221.44 2.54 5.45 6.23 1.46 2.29 1.15 6.38 0.21.36 6.38 0.21.36 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 1.4.62 921.01 6.38 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.36 6.39 0.21.56 7.57 7.57 7.57 7.57 7.57 7.57 7.57 7	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.22 11.36 0.22 2.34 3.40 6.97 0.36 0.37 0.36 0.377 0.36 0.38,54 181.64 80.74 3.901 61.53 5.54 102.16 2.3.14 3.901 61.53 5.54 102.16 2.3.14 3.901 61.53 5.54 102.16 2.3.14 3.901 61.53 5.54 5.55 5.55 5.55 5.50 5.50 5.50 5.50	76.06 91.4C UF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.769 58.50 2.79 22.89 71.79 n/a 19.93 61.54	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 3.6.18 n/a 4.818 24.40 29.58 2.13 15.28 43.69 n/a 11.72
Zn Zr Total Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.04 1.54 2.83 4.52 2.39 0.02 3.43 3.002 3.43 3.601 1000.39 34.26 9.83 85.50 0.26 30.96 30.96 30.96 17.43 21.41 1.63 6.43 21.24 34.73 10.10 0.43,35	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0 28 13.20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78 8.08 8.088 5.32 n/a 2.6.25 2.145 7.4.28 n/a 2.6.72 5.6.36 3.65 2.145 7.4.28 n/a 2.6.72 5.74,28 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57 7.42,42 1.57	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.70 0.04 0.04 0.04 1.31 24.86 165.10 190.43 7.23 14.19 4.67 4.03 2.7.88 68.98 3.39 2.7.12 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712 8.7.72 7.712	86 53 165 77 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 2.633 7.306 n/a 12.71 6.552 6.552 6.553 7.306 7.307 7.306 7.307 7.306 7.307 7.306 7.307 7.306 7.307 7.307 7.306 7.307 7.3	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14 82 8.27 0.16 1.48 2.51 5.46 2.02 0.65 0.08 3.03 146.02 921.04 63.80 21.36 6.33 4.10 17.39 21.44 25.21 2.24 11.69 33.61 n/a 18.80 27.09	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.28 2.34 3.40 6.97 0.36 0.27 0.35 0.077 0.02 3.505 3.8.54 181.64 80.74 3.901 61.55 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 102.16 2.3.14 3.903 5.64 1.022 5.63 3.037 5.64 5.64 1.022 5.64 5.64 5.64 5.64 5.64 5.64 5.64 5.64	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.322 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89 71.79 n/a 19.93 61.54 2.32	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 1.6.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 25.95 3.6.18 n/a 48.18 2.4.40 29.58 2.13 1.5.28 43.69 n/a 1.72 16.92
Zn Zr Total Total imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 21.44 1.63 6.43 21.24 1.63 6.93 9.19 1.03 8.80	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 .75 6 2 37 466 60 143 .78 8 .08 0 .88 5 .32 1.55 6 2 .37 466 60 143 .78 8 .08 0 .88 5 .32 1.55 6 2 .37 466 60 143 .78 8 .08 0 .88 5 .32 1.55 6 2 .37 4 66 60 143 .78 8 .08 0 .88 5 .32 1.55 6 2 .37 4 66 60 143 .78 8 .08 0 .88 5 .35 2 1.45 7 4 .28 1.57 7 4 2.42 3 .68 7 6 .89	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.011 0.33 3.91 4.70 0.04 1.31 14.70 0.04 1.33 14.19 4.67 4.03 27.88 68.99 3.95 27.12 87.72 7.12 87.72 7.12 87.72 7.12 87.72 7.12 87.72 1.5 3.364	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.24 11.81 3.22 0.01 0.23 3.02 3.93 3.322 0.01 0.08 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 2.6.33 7.306 n/a 12.71 63.52 8.40 133.58	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.202 0.60 0.08 3.03 14.62 921.01 63.80 21.55 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 14.62 921.01 63.80 21.56 6.33 6.23 6.23 6.23 6.23 6.23 6.23 6.2	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.38 5.64 181.64 180.74 3.901 61.53 5.64 102.16 2.3.14 3.911 61.53 5.64 5.64 5.32.32 5.03 7.766 3.038 5.32.32 5.03 7.766 3.038 6.54.84	76.66 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89 71.79 58.50 2.79 58.50 59.50 50.50	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 716.78 80.04 4.595 3.6.18 n/4 25.95 3.6.18 n/4 15.28 4.36 21.3 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 2.13 15.28 4.36 15.21 15.28 15.28 15.28 15.28 15.21 15.28 15.28 15.28 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.21 15.28 15.21 15.21 15.21 15.28 15.21 15.21 15.21 15.21 15.21 15.28 15.21 15.21 15.21 15.28 15.21 15.21 15.21 15.28 15.21 15.21 15.21 15.21 15.21 15.28 15.21 15.22 15.21 15.22 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15.21 15.28 15
Zn Zr Total Total imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 3.096 17.43 21.41 1.63 6.43 21.24 3.47 3.6,43 21.24 3.6,43 21.24 3.6,43 21.24 3.6,43 21.24 3.6,43 21.24 3.7,39 1038.80 7.39	32 61 107 52 99 76 55.248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3.67 0.11 0.07 0.34 5.75 2.94 0.03 0.10 1.55 62.37 466.60 143.78 8.88 8.088 5.32 n/a 26.72 56.36 3.65 2.1.45 74.28 n/a 15.77 42.42 3.68 74.28 n/a 15.77 42.42 56.36 3.65 2.1.45 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.428 7.425 7.428 7.428 7.425 7.428	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 1.31 24.86 165.10 190.43 7.23 14.19 4.67 4.03 2.7.88 68.99 2.7.12 87.72 14.19 4.67 4.03 2.7.88 68.99 2.7.12 87.72 1.55 4.00 2.7.12 8.7.72 1.55 4.00 2.7.12 8.7.72 1.55 3.3.64 1.00 0.00 1.55 3.3.54 1.7.96 1.55 3.3.54 1.7.96 1.7.96 3.3.54 3.55 3.3.54 3.55 3.3.54 3.55 3.55	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.322 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.79 62.53 2.73 63.55 6.55 6.55 7.36 6.55 7.36 6.55 7.36 6.55 7.36 6.55 7.36 7.36 7.36 7.36 7.36 7.36 7.36 7.36	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.60 0.08 3.03 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 6.33 14.62 921.01 7.35 6.13 1.59 6.23 1.59 7.13 1.59 7.52 7.52	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.27 0.36 0.27 0.36 0.38,54 181.64 80.74 0.35 0.38,54 181.64 80.74 0.35 0.38,54 181.64 80.74 0.32,54 0.33,55 102.16 2.314 3.9.01 5.64 102.16 2.314 3.9.01 5.64 102.16 2.314 3.9.03 5.64 5.64 5.63 5.64 5.63 5.64 5.63 5.64 5.63 5.63 5.64 5.63 5.63 5.64 5.63 5.63 5.63 5.64 5.63 5.63 5.64 5.63 5.63 5.63 5.64 5.63 5.63 5.63 5.64 5.63 5.63 5.64 5.63 5.63 5.63 5.63 5.64 5.63 5.64 5.63 5.63 5.63 5.64 5.63 5.63 5.63 5.64 5.63 5.64 5.63 5.64 5.63 5.64 5.63 5.64 5.63 5.64 5.63 5.64 5.64 5.64 5.65 5.64 5.64	76.06 91.4C UF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 58.50 2.79 71.79 n/a 19.93 61.54 2.32 2.631 14.88	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 25.95 3.618 n/a 4.818 24.40 29.58 2.13 15.28 43.69 n/a 11.72 16.92 21.45 326.81 7.56
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 LOI As Ba Ce Co Cr Cr Cs Cu Ga La Mo Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nunuu 64.01 0,72 16.96 2,89 0,04 1,54 2,83 4,52 2,39 0,03 3,43 4,52 2,39 0,03 3,43 4,52 2,39 0,03 3,43 4,52 2,39 0,03 3,43 4,52 2,39 0,02 0,34 3,43 4,52 2,39 0,03 3,43 4,52 2,39 0,02 0,34 3,43 4,52 2,39 0,02 3,43 4,52 2,39 3,43 4,52 2,39 3,43 4,52 2,39 3,43 4,52 2,39 3,43 4,52 2,39 3,43 4,52 2,39 3,43 4,52 2,39 3,43 4,52 4,52 3,55 0,02 0,52 5,57 1,72 5,577 2,5772 2	32 61 107 52 99.76 55.248 LF25567 OUVG 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5.75 2.94 0 03 0.11 0.07 0.34 5.75 2.94 0 03 0.10 1.55 62 37 466 60 143.78 8.08 0.86 0.14 0.77 0.24 0.36 0.77 0.55 0.52 0.14 0.52 0.52 0.52 0.55 0.52 0.55 0.	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 0.24 11.88 3.84 0.06 0.011 0.33 91 4.70 0.04 0.04 0.04 0.04 0.04 0.04 0.04	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 1536 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 26.33 7.306 n/a 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 12.71 6.55 2.72 2.633 7.306 7.306 7.307 7.066 7.307 7.306 7.307 7.307 7.306 7.307 7.30	43.23 127.89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.66 0.08 3.03 146.02 921.01 63.80 2.136 6.23 4.10 17.39 2.144 2.52 1.36 6.23 4.10 17.39 2.144 2.52 1.36 6.23 4.10 17.39 2.144 2.52 1.36 6.23 4.10 17.39 2.144 2.52 1.36 6.23 4.10 17.39 2.144 2.52 1.36 6.23 4.10 17.39 2.144 2.52 1.36 7.52 2.24 1.69 3.66 1.69 3.66 1.69 3.67 3.67 1.69 3.67 5.57 1.69 3.67 1.69 3.67 1.69 3.67 1.69 3.67 1.69 3.67 3.67 3.67 1.69 3.67 3.67 3.67 3.67 3.67 3.67 3.67 3.67	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 197 17.25 11.36 0.22 2.34 3.44 6.97 0.36 0.77 0.02 3.50 3.854 181.64 181.64 181.64 181.64 102.16 2.314 3.013 2.66 9.83 3.013 2.66 9.83 3.013 2.66 9.83 3.7.66 3.0.98 654.84 4.49 1.92	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.322 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89 71.79 74.73 1.9 6.82 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 4.15.37 7.16.78 80.04 25.95 36.18 n/a 48.18 2.4.00 29.58 2.13 15.28 43.69 n/a 11.72 16.92 21.45 326.81 7.56 4.12
Zn Zr Total Total imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 21.41 1.63 6.43 21.24 3.64 3.64 3.64 3.75 9.83 3.65 0.06 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.75 0.26 3.99 0.35 0.26 3.096 1.743 21.41 1.63 6.43 21.24 1.63 6.43 21.24 3.99 0.38 0.72 1.63 0.72 1.63 0.72 1.63 0.72 1.63 0.72 1.63 0.73 0.75	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 72 41 0 03 0 10 143 78 8 08 0 88 5 32 145 62 37 466 60 143 78 8 08 0 88 5 32 145 62 37 466 63 143 78 8 08 0 88 5 32 145 7 4 28 7 4 28 7 4 24 3 68 7 6 89 15 61 5 09 4 18 7 6 9 15 61 5 09 4 18 7 6 9 15 61 5 09 4 18 7 6 19 15 7 7 42 42 3 68 7 6 89 15 61 5 09 4 18 7 6 9 15 61 5 09 4 18 7 6 9 15 61 5 09 4 18 7 6 89 15 61 5 09 7 6 11 5 09 7 6 11 7 7 7 61 7	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.011 0.33 3.91 4.70 0.04 1.31 24.86 165.10 190.43 7.23 14.19 4.67 4.03 27.88 68.99 3.35 2.7.12 8.7.72 8.7.72 1.93 3.55 2.7.12 8.7.72 1.79 3.364 1.796 3.364 1.796 3.364 1.796 3.364 1.796 3.364 1.796 3.364 7.796 3.364 3.36	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 3.02 3.93 3.32 2.00 1 1.00,89 5.23 2.22 2.63 3.73 2.22 2.63 3.73 5.22 2.63 3.73 5.22 2.63 3.73 5.22 2.63 3.73 5.22 2.63 3.73 5.22 2.63 3.73 5.22 2.63 3.73 5.22 3.22 2.63 3.73 5.22 3.22 2.63 3.73 5.22 3.22 2.63 3.73 5.22 3.22 2.63 3.73,00 5.22 3.22 2.63 3.73 5.22 3.22 2.63 3.73 5.22 3.22 2.63 3.73 5.22 3.22 3.73 5.22 3.73 5.22 3.73 5.22 3.73 5.23 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.35 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.22 5.33 5.23 5.33 5.25 5.33 5.25 5.33 5.25 5.33 5.25 5.33 5.25 5.33 5.25 5.33 5.25 5.33 5.25 5.35 5.55 5.5	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.202 0.60 0.08 3.03 146.02 921.01 63.80 21.36 6.23 4.10 17.39 21.44 2.52 1.36 6.23 4.10 17.39 21.44 2.52 1.36 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 1.59 9.11 1.59 1.59 1.48 2.55 1.54 5.54 5.54 5.54 5.54 5.54 5.54 5	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.38 5.44 181.64 181.64 180.74 3.901 61.53 5.64 102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.920 5.03 5.03 5.03 5.03 5.03 5.03 5.03 5.0	76.66 100.04 91.4C LF25553 OUVG Tsagaan Nunuu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 15.14 15.247 2.81 0.06 0.03 1.46 8.32 145.14 15.247 2.81 0.06 0.03 1.46 8.32 12.60 3.81 1.47 8.32 1.45 1.	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 7.16.78 80.04 25.95 3.6.18 n/4 4.537 7.16.78 80.04 25.95 3.6.18 n/4 1.72 15.28 4.3.69 1.52 3.6.18 1.52 4.35 2.13 1.52 3.6.18 1.72 1.6.21 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.21 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.21 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.52 3.6.18 1.72 1.52 3.6.18 1.72 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.21 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.21 1.72 3.6.18 1.72 3.6.21 1.72 3.6.18 1.72 3.6.21 1.72 3.6.21 1.72 3.6.21 1.72 3.6.18 1.72 3.6.21 1.72 3.6.21 1.72 3.6.18 1.72 3.74 3.74 3.74 3.74 3.74 3.74 3.74 3.74
Zn Zr Total Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	33.05 98.32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.03 0.02 3.43 6.01 1000.39 3.426 3.096 3.096 3.096 3.096 3.096 3.096 3.096 3.096 3.096 3.011 1.54 3.55 0.026 3.096	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 94 0 03 0 10 1 45 75 6 2 37 4 66 60 1 43 78 8 808 5 32 0 143 78 8 808 5 32 0 143 78 8 808 5 32 0 143 78 8 808 5 32 0 143 78 7 4 28 7 5 5 6 3 7 5 6 3 7 5 5 6 3 7 5 5 6 3 7 5 6 3 7 5 5 6 3 7 5 5 6 3 7 5 6 3 6 5 5 6 3 6 5 6 3 6 6 3 6 5 6 6 3 6 6 6 6	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.11 0.32 3.91 4.77 0.04 0.04 1.31 1.88 3.84 0.06 0.011 0.32 3.91 4.77 0.04 1.31 1.90,43 7.23 1.4,19 4.65 1.05,10 1.90,43 7.23 2.7.88 68,99 2.7.12 8.7.72 1.90,22 8.89 5.27,12 8.7.72 1.90,02 3.3,64 1.79,64 4.87 7.00,02 1.90,	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.322 0.01 0.08 3.64 15.36 199.31 140.22 6.37 12.84 3.17 0.69 23.79 62.53 2.72 2.633 73.06 n/a 12.71 63.52 8.40 133.58 12.62 3.76 6.301 135.58	43,23 127.89 100.07 91.3A LF25477 OUVG Tsagean Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 2.02 0.060 0.08 3.03 146.02 921.01 63.80 21.36 6.23 14.42 2.92 1.18 6.33 14.62 921.01 17.39 21.44 2.52 1.36 6.23 14.62 921.01 17.39 21.44 2.52 1.36 6.23 1.169 3.6.61 1.69 3.6.61 1.69 3.6.61 1.69 3.03 5.7.52 1.80 90,15 5.7.52 1.80 90,15 5.61,82	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 2.34 3.40 6.97 0.36 0.22 2.34 3.40 6.97 0.36 0.27 0.35 0.38,54 181.64 80.74 0.35 0.33,854 181.64 80.74 0.35 0.33,854 181.64 80.74 0.35 0.33,854 102.16 2.314 3.9.01 6.153 5.64 102.16 2.314 3.9.01 6.153 5.64 102.16 2.314 3.9.01 6.153 5.64 102.16 2.314 3.9.03 5.54 6.53 9.83 3.9,85 5.64 5.63 9.83 9.654,84 4.49 1.922 2.6668 5.8.39	76.06 91.4C UF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89 71.79 n/a 19.93 61.54 2.34 14.88 2.18 3.40 17.79	10291 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 25.95 3.618 n/a 4.88 2.40 29.58 2.13 1.528 4.369 n/a 4.88 2.40 29.58 2.13 1.528 3.26.81 7.56 3.26.81 7.56 4.12 2.97.14 66.17
Zn Zr Total Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	33 05 98 32 101.72 3/08_6 LF22772 OUVG Tsagaan Nuruu 64.01 0.72 16.96 2.89 0.04 1.54 2.83 4.52 2.39 0.33 0.02 3.43 6.01 1000.39 3.426 9.83 85.50 0.26 30.96 17.43 21.41 1.63 6.43 21.24 3.64 3.64 3.64 3.75 9.83 3.65 0.06 3.75 0.26 3.096 1.63 3.00 3.64 3.64 3.75 9.19 1.63 5.99 1.03 8.00 7.39 1.63 3.00 3.00 3.00 3.00 0.26 3.096 1.74 3.21.44 3.67 3.00 0.55 9.19 1.03 8.00 7.39 1.63 5.99 1.03 3.00 2.64 3.06 3.096 1.743 21.41 1.63 6.43 21.24 1.63 6.43 21.24 3.00 6.63 9.19 1.03 8.00 7.39 9.19 1.038.80 7.39 0.63 9.30 1.63 9.30 1.63 9.30 1.63 1.	32 61 107 52 99 76 55 248 LF25567 OUVG Tsagaan Nuruu 72 41 0 28 13 20 3 67 0 11 0 07 0 34 5 75 2 94 0 03 0 10 1 55 6 2 37 4 66 60 1 43 78 8 808 5 32 0 143 78 8 808 5 32 1 45 5 6 21 45 7 4 28 0 36 5 21 45 7 4 28 0 36 7 4 28 7 5 6 36 7 5 5 6 36 7 5 6 36 7 5 6 36 7 6 36 7 6 36 7 6 36 7 6 6 36 7 6 6 6 7 6 7	33.70 112.27 99.47 56.2A LF25557 OUVG Tsagaan Nunuu 74.24 0.24 11.88 3.84 0.06 0.011 0.33 3.91 4.70 0.04 1.31 24.86 165.10 190.43 7.23 14.19 4.67 4.03 27.88 68.99 3.35 2.7.12 8.7.72 8.7.72 1.93 3.55 2.7.12 8.7.72 1.79 3.364 1.796 3.364 1.796 3.364 1.796 3.364 1.796 3.364 1.796 3.364 7.796 3.364 3.36	8653 16577 100.27 91.2A LF25469 OUVG Tsagaan Nuruu 69.98 0.24 11.81 3.21 0.09 0.19 3.02 3.93 3.22 0.01 0.08 3.64 1536 199.31 140.22 6.37 12.84 3.57 6.53 2.72 2.633 7.306 n/a 12.71 6.55 2.72 2.633 7.306 0.99 2.379 6.53 2.72 2.633 7.306 0.99 2.379 6.53 2.72 2.633 7.306 0.99 2.379 6.53 2.72 2.633 7.306 0.99 2.379 6.53 2.72 2.633 7.306 0.92 5.53 2.72 2.633 7.306 0.92 5.53 2.72 2.633 7.306 0.92 5.53 2.72 2.633 7.306 0.92 5.53 2.72 2.633 7.306 0.92 5.53 2.72 2.633 7.306 0.92 5.53 2.72 2.633 7.306 0.13 5.55 2.72 2.633 7.306 0.12 0.55 2.72 2.633 7.306 0.12 0.55 2.72 2.633 7.306 0.12 0.55 2.72 2.633 7.306 0.12 0.55 2.72 2.633 7.306 0.12 0.55 2.72 2.633 7.306 0.12 0.13 1.54 0.55 2.72 2.633 7.306 0.19 0.23 7.55 7.55 7.55 7.55 7.55 7.55 7.55 7.5	43,23 127,89 100.07 91.3A LF25477 OUVG Tsagaan Nuruu 60.30 1.59 14.82 8.27 0.16 1.48 2.51 5.46 6.202 0.60 0.08 3.03 146.02 921.01 63.80 21.36 6.23 4.10 17.39 21.44 2.52 1.36 6.23 4.10 17.39 21.44 2.52 1.36 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 17.39 21.44 2.52 1.86 6.23 4.10 1.59 9.11 1.59 1.59 1.48 2.55 1.54 5.54 5.54 5.54 5.54 5.54 5.54 5	120.97 100.15 91.38 LF25554 OUVG Tsagaan Nuruu 50.85 1.97 17.25 11.36 0.22 2.34 3.40 6.97 0.36 0.38 5.44 181.64 181.64 180.74 3.901 61.53 5.64 102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.910 61.53 5.64 4.102.16 2.314 3.920 5.03 5.03 5.03 5.03 5.03 5.03 5.03 5.0	76.06 100.04 91.4C LF25553 OUVG Tsagaan Nuruu 74.73 0.18 12.47 3.23 0.03 0.12 0.29 4.35 2.81 0.06 0.03 1.46 8.32 145.14 151.39 6.82 12.60 3.81 n/a 27.69 58.50 2.79 22.89 71.79 58.50 2.79 22.89 71.79 7.79 9.88 2.18 3.40 0.17,79 9.88 2.18 3.40 0.17,79 9.88 2.18 3.40 0.17,79 9.88 0.117,79 9.88 0.107 0.1	102.91 99.94 91.4D LF25064 OUVG Tsagaan Nuruu 52.80 1.57 16.21 9.82 0.15 1.64 3.14 7.41 1.29 0.77 0.07 4.44 15.37 7.16.78 80.04 25.95 3.6.18 n/4 4.537 7.16.78 80.04 25.95 3.6.18 n/4 1.72 15.28 4.3.69 1.52 3.6.18 1.52 4.35 2.13 1.52 3.6.18 1.72 1.6.21 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.21 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.21 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.6.22 2.13 1.52 3.6.18 1.72 1.52 3.6.18 1.72 1.52 3.6.18 1.72 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.21 1.72 3.6.18 1.72 3.6.18 1.72 3.6.18 1.72 3.6.21 1.72 3.6.18 1.72 3.6.21 1.72 3.6.18 1.72 3.6.21 1.72 3.6.21 1.72 3.6.21 1.72 3.6.18 1.72 3.6.21 1.72 3.6.21 1.72 3.6.18 1.72 3.74 3.74 3.74 3.74 3.74 3.74 3.74 3.74

Sample number	22/08 13	22/08_13	22/08_15	2/08_15	22/08_15	22/08_9	22/08_9
Bead			-		LF22780	LF22771	22/08_9 LF22773
field area	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan
formation	n/a	n/a	n/a i	n/a	n/a	n/a	n/a
SiO2	64.66	64.09	63.54	63.92	63.89	64.74	
TiO2	0.50	0.43	0.59	0.59	0.57	0.45	
AI2O3	14.99	15.46	16.63	16.93	16.66	16.03	
Fe2O3 MnO	4.56 0.07	3.81 0.06	4.01 0.06	3.67 0.05	3.58	3.93 0.05	
MgO	2.37	1.96	2.38	2.26	0.05 2.34	1.98	0.06
CaO	3.34	3.23	3.97	3.98	3.95	3.07	
Na2O	4.18	4.42	5.30	5.50	5.36	4.65	
K2O	3.60	3.56	3.17	3.06	3.16	3.36	
P2O5	0.19	0.16	0.23	0.23	0.23		
SO3	0.02	0.02	0.02	0.01	0.01	0.02	
LOI As	0.72 2.84	0.68 1.29	0.48	0.46 11.81	0.51 12.13	0.90 6.20	
Ba	931.70	975.21	974.46	959.75	1001.52	868.88	
Ce	19.73	14.78	19.90	22.21	28.93	14.62	
Co	12.87	9.61	9.29	8.82	7.55	11.59	
Cr	32.50	38.30	24.66	32.19	33.47	29.24	
Cs	n/a 114.20	1.08	n/a 176.00	1.82	2.46	n/a 140.08	
Cu Ga	114.20 17.94	92.99 18.45	176.23 21.31	195.06 20.51	222.31 20.56		
La	12.49	13.77	17.59	15.36	19.20	13.49	
Mo	1.27	1.48	2.18	2.55	2.61	1.05	
Nb	3.33	3.11	2.56	2.26	2.29	3.41	2.78
Nd	13.71	11.62		14.11	16.01	12.43	
Ni	16.94	11.34	14.49	11.03	12.69		
Pb	8.09 67.47	8.40 67.28		9.28 49.43	7.66 50.52		
Rb Sc	8.93	10.06	48.58 11.86	12.35			
Sr	756.20	823.05		1045.46			
Th	12.74	12.10		12.43			
U	0.79	0.29		3.63			
v	112.52	90.33	128.63	111.06			
Y	12.02	9.32		9.92			
Y Zn	12.02 38.22	32.87	44.62	42.15	43.96	30.91	33.30
Y	12.02		44.62 114.68		43.96 108.27	30.91 134.53	33.30 129.90
Y Zn Zr	12.02 38.22 128.87	32.87 120.62	44.62 114.68 100.37	42.15 104.24 100.68	43.96 108.27 100.30	30.91 134.53 99.41	33.30 129.90 99.78
Y Zn Zr Total Sample number	12.02 38.22 128.87 99.21 95.10A	32.87 120.62 97.88 95.11A	44.62 114.68 100.37 95.1A	42.15 104.24 100.68 95.3A	43.96 108.27 100.30 95.5A	30.91 134.53 99.41 95.7A	33.30 129.90 99.78 3/08_1
Y Zn Zr Total	12.02 38.22 128.87 99.21	32.87 120.62 97.88	44.62 114.68 100.37	42.15 104.24 100.68	43.96 108.27 100.30	30.91 134.53 99.41	33.30 129.90 99.78
Y Zn Zr Total Sample number	12.02 38.22 128.87 99.21 95.10A	32.87 120.62 97.88 95.11A	44.62 114.68 100.37 95.1A	42.15 104.24 100.68 95.3A	43.96 108.27 100.30 95.5A	30.91 134.53 99.41 95.7A	33.30 129.90 99.78 3/08_1
Y Zn Zr Total Sample number	12.02 38.22 128.87 99.21 95.10A	32.87 120.62 97.88 95.11A	44.62 114.68 100.37 95.1A	42.15 104.24 100.68 95.3A	43.96 108.27 100.30 95.5A	30.91 134.53 99.41 95.7A	33.30 129.90 99.78 3/08_1
Y Zn Zr Total Sample number Bead field area	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG	32.87 120.62 97.88 95.11A LF25562 OUVG	44.62 114.68 100.37 95.1A LF25561 OUVG	42.15 104.24 100.68 95.3A LF25054	43.96 108.27 100.30 95.5A LF25563 OUVG	30.91 134.53 99.41 95.7A LF25067 OUVG	33.30 129.90 99.78 3/08_1 LF22785 OUVG
Y Zn Zr Total Sample number Bead field area formation	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu	33.30 129.90 99.78 3/08_1 LF22785 OUVG Shargyn Mogha
Y Zn Zr Total Sample number Bead field area formation SiO2	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19	33.30 129.90 99.78 3/08_1 LF22785 OUVG Shargyn Mogha 62.53
Y Zn Zr Total Sample number Bead field area field area SiO2 TIO2	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34	33.3(129.9(99.7) 3/08_1 LF22785 OUVG Shargyn Mogha 62.5(0.57
Y Zn Zr Total Sample number Bead field area formation SiO2	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76	33.3(129.9(99.72 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.57 16.21
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 13.88 0.21	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.16	33.3(129.9(99.7(3/08_1 LF22785 OUVG Shargyn Mogha 62.5(0.5; 16.2' 4.8(0.00)
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.21	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07	42,15 104,24 100,68 95,3A LF25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00	33.3(129.9(99.72 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.57 16.21 4.85 0.06 2.47
Y Zr Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88	42, 15 104,24 100,68 95,3A LF25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85	43.96 108.27 100.30 95.5A LF25563 OUVG Tsegaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11	33.3(129.9(99.77 3/08_1 LF22785 OUVG Shargyn Mogha 62.65 0.57 16.21 4.85 0.06 2.41 3.62
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsegaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.58 0.01 0.14 5.15	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.01 0.07 0.88 5.16	42.15 104.24 100.63 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.99 0.85 6.75	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.01 0.02	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.16 0.00 0.11 0.72 5.03	33.3(129.9(99.7) 3/08_1 LF22785 OUVG Shargyn Mogha 62.5(0.5) 16.2' 4.88 0.08 2.44 3.66 4.88
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.14 0.14 5.15	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.28 0.01 0.07 0.88 5.16 4.31	42, 15 104,24 100,68 95,3A LF25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.00 1.04 5.54	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.01 0.00 0.01 1.072 5.03 4.51	33 33 129.9 99.77 3708_1 LF22785 OUVG Shargyn Mogha 62.55 0.57 16.27 4.88 0.06 2.41 3.66 2.41 3.66 2.44 3.66 2.44
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsegaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.58 0.01 0.14 5.15	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03	42,15 104,24 100,68 95,3A LF25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85 6,75 1,05	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.56 0.11	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07	33.3(129.9(99.77) 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2 4.85 0.00 2.44 3.62 4.85 0.00 2.44 3.62 4.85 0.02 2.44 0.24 0.24 0.24 0.24 0.24 0.24
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5 SO3 LOI	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.14 0.14 0.44 5.15 5.59 0.05 0.02 0.75	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 0.02 1.21	44.62 114.68 100.37 95.1A LF25561 OUVG 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49	42,15 104,24 100,68 95,3A LF25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85 6,75 1,05 0,01 0,06 1,89	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.00 1.04 5.44 5.55 0.11 0.06 1.19	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.05 1.16	33.3(129.9(99.76 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.57 16.21 4.86 0.05 2.47 3.66 2.47 3.66 2.44 4.86 0.24 4.86 0.24 4.86 0.24 1.36 2.44 0.02 0.02 0.02 0.02 0.02 0.02 0.02
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O N2O K2O P2O5 SO3 LOI As	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.14 0.14 5.59 0.05 0.05 0.05 0.05 0.05 0.05 0.05	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 7.79	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 5.1,49 28.93	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.06 0.01 0.06 0.189 27.54	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.54 5.60 1.04 5.44 5.54 5.60 1.04 5.64 5.64 5.64 5.64 5.64 5.64 5.64 5.6	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.011 0.72 5.03 4.51 0.07 0.05 1.16 25.64	33.3(129.9(99.77 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.57 16.21 4.85 0.00 2.44 3.62 4.48 2.44 0.02 0.02 1.93 4.96
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 5.15 5.59 0.05 0.02 0.75 16.21 333.66	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95	42, 15 104,24 100,68 95,3A LF25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 6,75 1,05 7,190 0,040 1,040 0,040 1,040 1,040 0,040 1,0400	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.09 0.01 0.09 1.04 5.44 5.55 0.11 0.06 1.99 8.37 592.83	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16	33.30 129.90 99.77 3/08_1 LF22785 OUVG Shargyn Mogha 62.53 0.57 16.21 4.85 0.06 2.47 3.62 4.85 0.06 2.47 3.62 4.85 0.02 4.95 2.44 0.22 0.02 1.93 4.95 807.52
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TIO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5 SO3 LOI As Ba Ce	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 0.21 2.1 71.79 630.98 134.74	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50	42,15 104,24 100,68 95,3A LF 25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85 6,75 1,05 6,75 1,05 0,01 0,06 1,89 2,7,54 197,69 30,05	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.03 0.01 0.06 1.04 5.44 5.55 0.11 0.06 1.19 8.37 592.83 126.99	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00	33 33 129.9(99.77 3708_1 LF22785 OUVG Shargyn Mogha 62.55 16.2 4.88 0.06 2.47 3.66 4.88 0.00 0.247 3.66 4.88 0.00 0.247 3.66 4.88 0.00 0.247 3.66 4.88 0.00 0.247 3.66 2.47 3.67 3.67 3.67 3.67 3.67 3.67 3.67 3.6
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.14 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 2.893 3.394.95 4.01.50 0.88	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 5.6.75 1.05 0.01 0.06 1.89 2.7.54 197.69 3.0.05 7.92	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.55 0.11 0.08 1.04 5.55 0.11 0.08 1.04 5.55 0.11 0.08 1.04 5.55 0.11 0.08 1.09 0.01 0.08 1.04 0.08 1.09 0.05 0.08 0.09 0.08 0.09 0.09 0.00 0.00 0.00	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a	33.3(129.9(99.7č 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.57 16.21 4.8č 0.0č 2.47 3.62 4.4č 4.8č 2.44 0.02 0.02 1.93 4.9ć 807.52 19.93 13.50
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TIO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5 SO3 LOI As Ba Ce	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 0.21 2.1 71.79 630.98 134.74	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 2.893 3.94.95 4.0150 0.88 n/a	42,15 104,24 100,68 95,3A LF 25054 OUVG Tsagaan Nuruu 71,90 0,24 11,76 4,18 0,04 0,09 0,85 6,75 1,05 6,75 1,05 0,01 0,06 1,89 2,7,54 197,69 30,05	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.52 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 1.09 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.09 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.09 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.09 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.08 7.19 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.08 7.19 0.03 7.19 0.09 0.01 0.09 0.01 0.08 7.19 0.09 0.01 0.09 0.01 0.08 7.19 0.09 0.01 0.09 0.01 0.09 0.01 0.09 0.01 0.08 0.01 0.09 0.01 0.08 0.01 0.09 0.01 0.09 0.01 0.08 0.01 0.09 0.000000000000000000000000000	30.91 134.53 99.41 95.7A LF25067 Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 229.28	33.3(129.9(99.77 3/08_1 LF22785 OUV/G Shargyn Mogha 62.65 0.57 16.21 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.43 3.62 4.85 0.00 2.43 3.62 4.85 0.00 2.43 3.62 4.85 0.00 2.43 3.62 4.85 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.45 0.00 2.43 3.62 5.55 0.05 3.62 5.55 0.05 5.555 5.555 5.555 5.555 5.5555 5.5555 5.55555 5.555555
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 nra 4.50	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 7.1.79 630.98 134.74 7.23 n/a	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 334.95 401.50 0.88 n/a 1.62	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.06 1.99 2.7.54 1.97.69 30.05 7.92 45.67 7.92 45.67 7.92	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.55 0.11 0.08 1.04 5.55 0.11 0.08 1.04 5.55 0.11 0.08 1.09 0.01 1.09 0.01 1.09 0.01 1.09 0.01 1.09 0.00 1.09 0.00 1.09 0.00 1.09 0.00 0.00	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a	33.3(129.9) 99.77 99.77 3708_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2° 4.86 0.06 2.41 3.66 2.44 3.66 3.53 3.54 3.54 3.54 3.54 3.54 3.54 3.54
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 nra 1450 nra 1450 0.02	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.14 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 n/a 28.26	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 2.893 394.95 401.50 0.88 n/a 11.62 n/a 2.646	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 6.75 1.05 6.75 1.05 7.10 8.00 1.00 9.00 1.89 0.01 0.01 0.01 0.01 0.05 1.97 69 3.0.05 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 7.93 8.00 7.93 8.00 7.95 7.95 7.92 7.95 7.92 7.95 7.92 7.95 7.92 7.95 7.95 7.95 7.95 7.95 7.95 7.95 7.95	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.55 0.11 0.08 1.04 5.44 5.55 0.11 0.06 1.09 8.37 592.83 1.26.99 0.69 0.78 1.26.78	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.60 n/a 29.28 3.50 n/a 27.33	33.3(129.9(99.77) 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 16.2 4.86 0.00 2.41 3.62 4.86 0.02 0.02 1.93 807.52 19.93 13.56 807.52 19.93 13.56 807.52 19.93 13.56 807.52 19.93 13.56 19.53 13.56 13.55 13.55 13.55 13.55 13.55 14.55 14.55 15
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 n/a 30.90 48.24	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 1.21 71.79 630.98 134.74 7.23 nr/a 134.74 7.23 nr/a 28.26 59.52	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 334.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11	42.15 104.24 100.68 95.3A LF 25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.06 1.89 27.56 30.05 7.922 45.67 3.48 n/a 2.627 6.20	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.55 0.11 0.06 1.19 8.33 126.99 0.65 n/a 1.55 n/a 26.78 5.3.42	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.500 n/a 29.28 3.500	33 33 129.9(99.7(99.7(3708_1 LF22785 OUVG Shargyn Mogha 62.55 16.2; 16.2; 4.88 0.00 2.47 3.66 4.84 2.44 0.22 0.00 1.93 4.99 807.55 1.93 1.93 1.356 3.53 1.55 1.55 1.55 1.62; 1.93; 1.93; 1.35; 1.55; 1.62; 1.88; 1.88; 1.20;
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 0.02 0.75 16.21 333.66 144.25 n/a 14.50 0.02 0.75 16.21 333.66 144.25 14.55 1.59 0.02 0.75 16.21 333.66 144.25 n/a 14.55 1.59 0.02 0.75 16.21 333.66 144.25 n/a 14.55 1.59 0.02 0.75 16.21 333.66 144.25 1.62 1.75 1.75 1.	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.20 0.20 0.21 0.21 7.179 630.98 134.74 7.23 n/a 4.74 4.74 1.72 7.23 1.21 7.179 630.98 134.74 7.23 1.21 7.179 630.95 1.21 7.179 630.98 1.34.74 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 1.21 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 4.0150 0.88 n/a 11.62 n/a 26.46 17.7.11 3.04	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.01 0.01 0.01 0.01 0.01 0.0	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00 1.09 0.01 0.00 1.04 5.45 0.11 0.06 1.19 8.37 592.83 126.99 0.69 n/a5 1.15 592.63 126.99 0.69 n/a5 1.15 5.52 0.69 1.15 5.52 0.69 1.15 5.52 0.69 1.15 5.52 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 29.58 3.59.58 1.78	33.3(129.9) 99.7(99.7(3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.62 4.85 0.06 2.41 3.66 2.41 3.66 2.44 3.56 2.44 3.56 2.44 3.56 2.44 3.56 2.44 3.56 2.44 3.56 2.44 3.56 2.44 3.56 2.44 2.44 3.56 2.56 2.44 3.56 2.56 2.56 2.56 2.56 2.56 2.56 2.56 2
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O N2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	12.02 38.22 128.87 99.21 95.10A UF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.05 0.05 0.05 0.05 16.21 333.66 144.25 nfa 14.50 nfa 14.50	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 n/a 28.26 59.52 3.12 24.63	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11 3.04 26.46	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.06 1.89 27.54 197.69 30.05 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.92 7.92 45.67 7.92 7.92 7.92 7.92 7.92 7.92 7.92 7.9	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.56 0.11 0.08 1.04 5.44 5.52 0.01 0.06 1.04 5.44 5.52 0.01 0.05 0.12 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 29.28 3.50 n/a 27.33 59.58 1.78 23.11	33.3(129.9(99.77) 99.77) 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2° 4.86 0.00 2.41 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 3.62 1.93 3.55 8.07,55
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd	12.02 38.22 128.87 99.21 95.10A UF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 133.66 144.25 n/a 14.50 n/a 30.90 48.24 1.81 25.05 65.38	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23 134.74 7.23	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11 3.04 24.72 211.13	42.15 104.24 100.68 95.3A LF 25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 5.6.75 1.05 0.01 0.06 1.89 27.54 10.6 0.05 1.95 27.54 3.05 7.92 4.567 3.48 n/a 26.27 6.20 3.48 n/a 26.27 6.20 3.49 2.3.26 2.19.22 4.567 3.48 1.2627 2.525 3.48 1.2627 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48777 3.487777 3.48777777777777777777777777777777777777	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.55 0.11 0.06 1.19 8.33 126.99 0.65 n/4 1.15 n/4 26.78 5.342 2.90 24.61 71.83	30.91 134.53 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.500 n/a 29.28 3.500 n/a 29.28 3.505 8.178 2.311 7.3.81	33.3(129.9(99.77) 3/08_1 LF22785 OUVG Shargyn Mogha 62.53 0.57 16.2° 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 4.85 0.00 2.41 3.62 3.62 3.53 3.53 3.53 3.53 3.53 1.85 1.85 1.85 1.85 1.85 1.85 1.85 1.85 1.20 2.11 2.00 2.11 1.85 1.85 1.85 1.85 1.85 1.85 1.15 2.15 1.52 1.55 1.52 1.55 1.52 1.55 1.52 1.55 1.52 1.55 1.52 1.55 1.52 1.55 1.52 1.55 1.5
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 0.44 0.44 0.44 1.450 0.02 0.75 16.21 333.66 144.25 n/a 1.455 5.59 0.02 0.75 16.21 333.66 144.25 n/a 1.455 5.59 0.02 0.75 16.21 333.66 144.25 1.455 1.45 1.4555 1.45555 1.455555 1.45555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.455555 1.4555555 1.4555555 1.4555555 1.4555555 1.4555555 1.45555555 1.4555555555 1.45555555555555555 1.4555555555555555555555555555555555555	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 n/a 28.26 59.52 3.12 24.63 72.31	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 17.711 3.04 24.72 211.13 3.60	42.15 104.24 100.68 95.3A LF 25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.01 0.01 0.06 1.89 30.05 7.92 3.05 7.92 3.48 n/a 2.7.54 1.97.69 3.0.05 7.92 3.48 0.7.92 3.48 0.7.92 3.48 0.7.92 3.48 0.7.92 3.49 0.7.92 3.90 0.00 0.00 0.00 0.00 0.00 0.00 0.00	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.00 1.04 5.55 0.11 0.06 1.19 8.37 3.126.99 0.69 n/a 1.15 n/a 26.78 5.3.42 2.90 2.4.61 71.83 2.45	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 27.33 59.58 1.78 23.11 73.81 73.81 73.81	33.3(129.9(99.7(99.7(99.7(99.7(99.7(99.7(122785) OUVG Shargyn Mogha 62.5(0.5(16.2' 4.8(0.06(2.4(3.66(3.5())))))))))))))))))))))))))))))))))))
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 1333.66 144.25 n/a 14.50 n/a 30.90 48.24 1.81 25.05 65.38	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 4.74 4.74 1.22 3.12 2.463 72.31 2.70 20.37	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 1.38 0.01 0.07 0.27 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 2.893 3.94.95 4.01.50 0.88 n/a 11.62 n/a 2.646 177.11 3.04 2.646 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.04 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 177.11 3.045 2.645 1.55 2.645 1.55 2.645 1.55 2.645 1.55 2.645 1.55 2.645 1.55 2.645 1.55 2.645 2.77 2.11 3.045 2.645 2.77 2.11 3.045 2.645 2.77 2.11 3.045 2.55 3.65 2.55 3.65 2.55 3.65 2.55 3.65 2.55 3.5	42.15 104.24 100.68 95.3A LF 25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 5.6.75 1.05 0.01 0.06 1.89 27.54 10.6 0.05 1.95 27.54 3.05 7.92 4.567 3.48 n/a 26.27 6.20 3.48 n/a 26.27 6.20 3.49 2.3.26 2.19.22 4.567 3.48 1.2627 2.525 3.48 1.2627 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48277 3.48777 3.487777 3.48777777777777777777777777777777777777	43.96 108.27 100.30 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.55 0.11 0.08 5.57 0.15 5.57 0.15 5.57 1.09 0.08 5.57 0.14 0.08 1.04 5.55 0.11 0.08 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.15 5.57 0.05 5.57 0.15 0.05 5.57 0.05 5.57 0.15 0.05 5.57 0.05 5.57 0.05 5.57 0.05 5.57 0.05 5.57 0.05 5.57 0.05 0.05	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 27.33 59.58 1.78 2.7.33 59.58 1.78 1.	33.3(129.9(99.77) 99.77) 99.77 99.77 3008_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2 4.88 0.00 0.2.41 3.62 4.88 0.24 0.22 0.02 1.95 1.15 1.95 1.15 1.15 1.95 1.15 1.15 1.95 1.15
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Nd Ni Pb	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 5.59 0.05 1.42 1.55 0.02 0.75 1.62 1.13 1.45 5.59 0.05 0.02 0.75 1.62 1.13 1.45 5.59 0.05 0.02 0.75 1.62 1.13 1.45 5.59 0.05 0.02 0.75 1.62 1.45 5.59 0.05 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.58 0.02 0.02 0.75 1.62 1.45 0.02 0.75 1.62 1.45 0.58 0.02 0.75 1.62 1.13 0.66 1.45 0.58 0.02 0.75 1.62 1.13 0.06 5.58 0.02 0.02 0.75 1.62 1.13 0.06 5.58 0.02 0.02 0.75 1.62 1.13 0.02 0.75 0.53 0.53 0.02 0.03 0.02 0.05 0.02 0.05 0.02 0.02 0.05 0.02 0.02 0.02 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.05 0.02 0	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 1.21 71.79 6.30 8.134.74 7.23 n/a 4.74 n/a 28.26 59.52 3.12 24.63 7.231 7.231 7.270 20.37 90.60 10.12	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11 3.04 24.72 211.13 3.60 25.34 75.04 6.31	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.25 6.75 1.05 0.01 0.09 0.85 6.75 1.05 0.01 0.04 1.89 27.54 1.97.69 3.0.05 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 3.48 n/a 22.57 6.20 3.69 3.26 1.97 6.20 3.69 3.26 1.92 6.22 6.20 3.69 3.26 1.92 6.22 6.20 3.69 3.26 1.92 6.22 6.20 3.69 3.26 1.92 6.22 6.20 3.69 3.26 1.92 6.20 3.69 3.26 5.55 6.20 5.55 6.20 5.55 7.52 7.54 7.54 1.97 6.20 3.69 7.54 7.54 7.54 7.54 7.54 7.54 7.54 7.54	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.00 0.01 0.00 1.04 5.44 5.55 0.11 0.06 1.19 8.37 5.92.83 126.99 0.69 n/a 1.55 n/a 5.342 2.90 2.45 5.342 2.90 2.45 5.342 2.90 2.45 5.342 2.90 2.45 5.34 5.54 5.342 2.90 2.45 5.34 5.54 5.342 5.54 5.55 5.4 5.55 5.4 5.55 5.4 5.55 5.4 5.55 5.4 5.55 5.51 5.55 5.51 5.55 5.51 5.55 5.51 5.55 5.51 5.52 5.54 5.55 5.51 5.55 5.51 5.55 5.54 5.55 5.51 5.55 5.51 5.55 5.51 5.55 5.54 5.55 5.51 5.55 5.51 5.55 5.52 5.55	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 27.33 59.58 1.78 23.11 73.81	33 33 129 9 99 70 99 70 3708_1 LF22785 OUVG Shargyn Mogha 62.55 16.2 4.84 0.00 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 4.84 2.44 3.66 1.99 3.135 1.99 3.135 1.99 3.135 3.53 3.53 3.53 3.55 3.55 3.55 8.67 1.99 3.135 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.55 8.67 1.99 3.155 3.5
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 14.25 0.02 0.75 16.21 333.66 144.25 14.25 16.21 333.65 14.25 5.59 0.02 0.75 16.21 333.65 14.25 5.59 0.02 0.75 16.21 333.65 14.25 5.59 0.05 16.21 333.65 14.25 15.59 0.02 0.75 16.21 333.65 14.25 16.21 333.65 14.25 15.59 0.02 0.75 16.21 333.65 14.25 16.21 333.65 14.25 14.25 14.25 16.21 333.65 14.25 16.21 333.65 14.25 16.21 333.65 14.25 14.25 16.21 333.65 14.25 14.25 16.21 333.65 14.25 16.21 333.65 14.25 16.21 333.65 14.25 14.25 16.21 333.65 14.25 16.21 333.65 14.25 14.25 14.25 14.25 14.25 14.25 16.21 14.25 15.33 14.25 16.21 14.25 16.21 14.25 16.21 14.25 16.21 14.25 16.21 14.25 16.21 14.25 16.21 17.27 16.21 17.27 16.21 17.27 16.21 17.27 17.27 16.21 17.27 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 16.21 17.57 1	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 0.72 3.12 2.8.26 59.52 3.12 2.4.63 7.231 2.70 2.037 90.60 10.12 5.9.12	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 1.297 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 2.893 334.95 4.01.50 0.88 n/a 1.62 n/a 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.34 3.09 25.34 75.04 6.31 3.9.84	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.01 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.01 0.04 0.05 0.04 0.05 0.04 0.05 0.04 0.05 0.05	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 1.4.00 1.09 0.35 1.4.00 1.09 0.35 1.4.00 1.09 0.35 1.4.00 1.09 0.08 1.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.69 0.09 0.69 0.09 0.69 0.02 2.90 2.46 1.58 5.98 2.85 5.85 2.90 2.46 5.58 5.85 5	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 27.33 59.58 1.78 23.11 73.81 n/a 6.62 85.95 9.48 31.53	33.30 129.90 99.77 99.77 3008_1 LF22785 OUVG Shargyn Mogha 62.55 16.2° 4.88 0.00 2.44 3.66 3.55 3.5
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd Ni Pb Rb Sc Sr Th	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsegaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 n/a 30.90 48.24 18.50 55.38 n/a 16.01 100.85 3.341 24.96 11.43	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 4.74 0.45 5.952 3.12 2.24.63 72.31 2.70 20.37 90.60 10.12 2.912 2.44.33	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 1.297 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11 3.04 25.34 75.04 6.31 39.84 13.96	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 5.0.01 0.01 0.06 1.89 2.7.54 197.69 3.0.05 7.92 45.67 7.92 7.92 45.67 7.92 7.92 7.92 7.92 7.92 7.92 7.92 7.9	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.04 5.44 5.55 0.11 0.06 1.04 5.44 5.55 0.11 0.06 1.04 5.44 5.55 0.11 0.06 1.04 5.44 5.52 0.11 0.06 1.04 5.44 5.55 0.11 0.06 1.04 5.44 5.55 5.0.11 0.06 1.04 5.44 5.55 5.0.11 0.06 1.04 5.44 5.55 5.0.11 0.06 1.04 5.44 5.55 5.0.11 0.06 1.04 5.44 5.55 5.0.11 0.06 1.04 5.44 5.55 5.0.11 0.06 1.04 5.54 5.34 2.678 5.34 2.595 5.34 2.595 5.34 2.595 5.34 2.595 5.34 2.595 5.34 2.595 5.34 2.595 5.34 2.595 5.34 5.345 5.355 5.345 5.355 5.345 5.355 5.345 5.3555 5.345555555555	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 0 n/a 29.33 59.58 1.78 23.11 73.81 1.78 23.11 73.81 1.78 23.11 73.81 1.78 23.11 73.81 1.78 23.11 73.81 74.81 75.72 75.75 75.75 75.75 75.75	33.30 129.90 99.77 3708_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2 4.86 0.00 2.44 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.24 3.62 4.86 0.22 0.02 1.93 807.55 8
Y Zn Zr Total Sample number Bead field area field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.44 0.42 1.455 0.02 0.75 1.6.21 3.33.66 1.44.25 n/a 1.455 6.538 n/a 1.6.01 1.00.85 3.41 24.966 11.43 4.03 4.03 1.403 1.403 1.403 1.405 1.558 1.559 1.	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.02 1.21 71.79 630.98 134.74 7.23 n/a 28.26 59.52 3.12 2.4.63 7.2.31 2.70 20.37 90.60 10.12 5.91 2.71 90.60 10.12 5.91 2.71 2.70 20.37 90.60 10.12 2.91 2.4.63 7.2.31 2.70 2.03 7.2.31 7.73 9.06 6.00 2.03 7.2.31 7.73 7.73 7.73 7.73 7.73 7.73 7.73 7	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11 3.04 24.72 211.13 3.60 25.34 75.04 6.31 39.84 13.96 4.71	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.25 6.75 1.05 0.01 0.09 0.85 6.75 1.05 0.01 0.09 0.85 6.75 1.05 0.01 0.04 1.89 27.54 9.30.05 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.3.48 n/a 26.27 6.20 3.69 23.26 19.92 23.26 19.74 23.26 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 23.75 19.75 23.75 27	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.99 0.35 14.00 0.01 0.00 1.04 5.44 5.55 0.11 0.06 1.19 8.37 5.92.83 126.99 0.69 n/a 5.342 2.90 2.45 5.342 2.90 2.45 5.342 2.90 2.45 5.342 2.90 2.45 5.54 5.85 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.84 5.85 5.84 5.85 5.84 5.84 5.84 5.84 5.85 5.84 5.85 5.84 5.85 5.84 5.85 5.84 5.85 5	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 29.38 1.78 23.11 73.81 1.73.81 1.78 23.11 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 23.15 7.38 23.15 7.38 23.15 7.38 20.95	33 33 129.9 99.77 99.77 3708_1 LF22785 OUVG Shargyn Mogha 62.55 16.2 4.88 0.06 2.41 3.66 2.41 3.66 2.44 3.55 8.07 1.93 1.35 3.53 8.07 7.15 1.35 8.07 1.35 8.07 7.15 1.35 8.07 7.15 1.35 8.07 7.15 8.07 3.55 8.07 7.15 8.07 3.55 8.07 7.15 8.07 3.55 8.07 7.15 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 8.07 7.15 7.15 8.07 7.15
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MOO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 0.44 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.65 14.55 14.55 0.02 0.75 16.21 333.65 14.55 14.55 15.59 0.05 16.21 333.65 14.55 14.55 14.55 15.59 0.05 16.21 13.07 16.21 13.07 14.55 16.21 14.55 14.55 14.55 16.21 14.55 16.21 14.55 16.21 14.55 16.21 14.55 14.55 14.55 14.55 14.55 14.55 14.55 15.59 0.05 16.21 14.55 16.21 14.55 1	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.14 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 0.72 3.12 2.4.63 72.31 2.70 2.037 90.60 10.12 5.912 3.12 2.4.63 72.31 2.70 2.70 2.037 90.60 10.12 5.912 3.12 2.4.63 7.231 2.4.63 7.23 1.21 7.23 1.21 7.23 7.24 8.26 5.95 2.3 1.22 7.23 7.23 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.24 7.24 7.23 7.23 7.24 7.24 7.23 7.24 7.23 7.24 7.24 7.25 7.24 7.24 7.25 7.24 7.25 7.24 7.25 7.24 7.24 7.25 7.24 7.25 7.24 7.24 7.25 7.24 7.25 7.24 7.25 7.24 7.25 7.24 7.24 7.25 7.24 7.25 7.24 7.25 7.24 7.25 7.25 7.24 7.24 7.25 7.25 7.24 7.25 7.24 7.25 7.25 7.24 7.25 7.24 7.25 7.25 7.25 7.24 7.25 7.25 7.24 7.25 7.25 7.24 7.25 7.25 7.25 7.25 7.25 7.25 7.25 7.25	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 334.95 4.01.50 0.88 n/a 1.62 n/a 26.46 177.11 3.04 26.46 177.13 3.60 25.34 75.04 6.31 3.9.84 13.9.	42.15 104.24 100.68 95.3A LF25054 Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.04 0.09 0.85 6.75 1.05 0.01 0.01 0.06 1.99 2.7.54 1.97.69 1.97.69 1.97.69 1.97.64 1.97.65 1.97.54 1.97.65 1.97.54 1.97.65 1.97.62 1.97.64 1.97.62 1.97.64 1.97.754 1.97	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 1.09 0.08 1.09 0.35 1.09 0.08 1.09 0.35 1.09 0.08 1.09 0.35 1.09 0.08 1.09 0.09 0.35 1.09 0.09 0.09 0.35 1.09 0.08 1.09 0.02 1.09 0.26 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.95 2.90 2.45 5.55 5.46 2.90 2.45 5.55 5.46 5.55 5.46 2.90 2.45 5.55 5.66 5	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 29.58 1.78 23.11 73.81 1.73.95 1.73.95 1.73.95 1.73.95 1.74.75 1.75	33.30 129.90 99.77 99.77 308_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2° 4.86 0.06 2.44 3.66 2.42 4.88 3.50 3.53 3.53 3.53 3.53 3.53 3.55
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsegaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 n/a 30.90 48.24 18.25 0.90 48.24 18.25 14.50 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 n/a 14.50 5.38 14.50 5.38 14.50 5.38 14.50 5.38 12.55 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.59 14.50 5.58 14.50 5.58 14.50 5.58 14.50 5.58 14.50 5.59 14.50 5.58 14.50 5.58 14.50 5.58 14.50 5.59 16.21 1.50 5.58 16.21 1.50 5.58 16.01 10.08 5.38 11.23 5.59 16.01 10.08 5.38 11.23 5.59 16.01 10.08 5.38 17.75 16.01 10.08 5.38 17.75 16.01 10.75 16.01 10.75 16.01 10.75 16.71 17.75 16.71 17.75 16.71 17.75 17.75 16.71 17.75	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.19 5.54 0.05 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 6.30,85 132.72 3.12 24.63 72.31 2.70 20.37 90.60 10.12 5.912 3.12 2.463 7.23 1.21 7.23 1.21 7.23 1.21 7.23 7.23 1.22 7.23 7.23 7.23 7.24 7.23 7.23 7.24 7.23 7.23 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.23 7.23 7.24 7.23 7.23 7.24 7.23 7.23 7.23 7.24 7.23 7.23 7.24 7.23 7.23 7.24 7.23 7.23 7.23 7.24 7.23 7.23 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.23 7.24 7.24 7.24 7.25 7.24 7.24 7.25 7.24 7.25 7.24 7.24 7.24 7.25 7.25 7.24 7.25 7.25 7.25 7.25 7.25 7.25 7.25 7.25	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 394.95 401.50 0.88 n/a 11.62 n/a 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 25.34 75.04 6.31 3.98 4.31 3.96 4.71 3.98 4.33 5.88 13.96 4.71 3.98 4.33 5.98 4.33 5.98	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.25 6.75 1.05 0.01 0.09 0.85 6.75 1.05 0.01 0.09 0.85 6.75 1.05 0.01 0.04 1.89 27.54 9.30.05 7.92 45.67 7.92 45.67 7.92 45.67 7.92 45.67 7.3.48 n/a 26.27 6.20 3.69 23.26 19.92 23.26 19.74 23.26 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 19.75 23.75 23.75 19.75 23.75 27	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nuruu 71.99 0.35 14.00 1.09 0.01 0.08 1.04 5.44 5.565 0.11 0.06 1.09 8.37 592.83 126.99 0.659 0.455 0.42 5.44 5.525 0.42 1.535 98.08 5.342 2.990 2.4.61 7.1.83 2.455 5.342 2.990 2.4.61 7.1.83 2.455 5.342 2.990 2.4.61 7.1.83 2.455 5.342 2.990 2.4.61 7.1.83 2.455 5.342 2.990 2.4.61 7.1.83 5.445 5.5.85 98.08 5.62 6.2.68 1.4.18 5.545 5.342 2.990 2.4.61 7.1.83 7.1.83 2.455 5.5.42 7.1.83 7.1.85 5.342 7.1.83 7.1.85 5.342 7.1.83 7.1.85 7.1.	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 29.38 1.78 23.11 73.81 1.73.81 1.78 23.11 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 1.78 23.15 7.38 23.15 7.38 23.15 7.38 23.15 7.38 20.95	33.3(129.9(99.77) 99.77) 3/08_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.2° 4.86 0.00 2.44 3.62 4.84 2.44 0.22 0.02 1.95 807.55 807.75 807.75 807.55 807.75 807.55 807.55 807.75
Y Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MOO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V	12.02 38.22 128.87 99.21 95.10A LF25559 OUVG Tsagaan Nuruu 73.07 0.31 14.05 0.58 0.01 0.14 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.50 0.44 0.44 5.15 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.66 144.25 n/a 14.55 5.59 0.05 0.02 0.75 16.21 333.65 14.55 14.55 0.02 0.75 16.21 333.65 14.55 14.55 15.59 0.05 16.21 333.65 14.55 14.55 14.55 15.59 0.05 16.21 13.07 16.21 13.07 14.55 16.21 14.55 14.55 14.55 16.21 14.55 16.21 14.55 16.21 14.55 16.21 14.55 14.55 14.55 14.55 14.55 14.55 14.55 15.59 0.05 16.21 14.55 16.21 14.55 1	32.87 120.62 97.88 95.11A LF25562 OUVG Tsagaan Nuruu 69.84 0.30 13.94 3.67 0.20 0.11 0.31 5.14 0.55 0.02 1.21 71.79 630.98 134.74 7.23 n/a 4.74 0.72 3.12 2.70 2.3.12 2.4.63 7.231 2.21 2.4.63 7.231 2.21 2.4.63 7.231 1.21 7.23 1.22 7.23 1.22 7.23 1.22 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7	44.62 114.68 100.37 95.1A LF25561 OUVG Tsagaan Nuruu 73.68 0.27 12.97 1.38 0.01 0.07 0.88 5.16 4.31 0.03 0.05 1.49 28.93 334.95 401.50 0.88 n/a 1.62 n/a 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.46 177.11 3.04 26.34 1.62 n/a 26.34 1.62 1.62 1.62 1.62 1.63 1.62 1.62 1.63 1.62 1.63 1.62 1.64 1.64 1.6	42.15 104.24 100.68 95.3A LF25054 OUVG Tsagaan Nuruu 71.90 0.24 11.76 4.18 0.04 0.09 0.85 6.75 1.05 0.01 0.06 1.89 27.54 197.69 30.05 7.92 45.67 7.92 7.92 7.92 7.92 7.92 7.92 7.92 7.9	43.96 108.27 100.33 95.5A LF25563 OUVG Tsagaan Nunuu 71.99 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 14.00 1.09 0.35 1.09 0.08 1.09 0.35 1.09 0.08 1.09 0.35 1.09 0.08 1.09 0.35 1.09 0.08 1.09 0.09 0.35 1.09 0.09 0.09 0.35 1.09 0.08 1.09 0.02 1.09 0.26 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.99 0.69 0.45 1.95 2.90 2.45 5.55 5.46 2.90 2.45 5.55 5.46 5.55 5.46 2.90 2.45 5.55 5.66 5	30.91 134.63 99.41 95.7A LF25067 OUVG Tsagaan Nuruu 73.19 0.34 13.76 0.16 0.00 0.11 0.72 5.03 4.51 0.07 0.05 1.16 25.64 326.16 125.00 n/a 29.28 3.50 n/a 29.28 3.50 n/a 29.33 59.58 1.78 23.11 73.81 n/a 6.62 85.95 9.48 31.573 0.95 4.59 123.39	33.30 129.90 99.76 99.76 3008_1 LF22785 OUVG Shargyn Mogha 62.55 0.55 16.21 4.86 0.06 2.41 3.66 2.44 3.66 3.53 3.50 3.53 3.55 3.5

field area C formation n/a SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	22803 I						62.5A LF25669	62.7A LF25664
field area C formation n/a SiO2 TiO2 AI2O3 Fe2O3 MnO MgO	Oyut Ulaan							
formation n/a SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	1	Overtilleen				-		
formation n/a SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	1	Ovut Lilean						
formation n/a SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	1		Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan
SiO2 TiO2 AI2O3 Fe2O3 MnO MgO		0,0.0,000						,
TiO2 AI2O3 Fe2O3 MnO MgO	64.08						n/a	n/a
AI2O3 Fe2O3 MnO MgO		64.85	62.34	65.72	63.02	67.41	63.26	64.24
Fe2O3 MnO MgO	0.44	0.39	0.54	0.39	0.41	0.44	0.45	
MnO MgO	15.93 3.79	15.30 4.47	16.99 4.57	15.92 3.87	15.81 4.05	15.77 3.72	16.09 4.62	
MgO	0.05	4.47	4.57	0.07	0.13	0.12	4.62	
	1.89	1.94	2.38	1.93	1.79	1.87	2.39	
CaO	3.06	2.06	3.37	2.66	3.05	2.93	3.41	
Na2O	4.64	5.08	6.09	5.16	5.45	4.91	5.34	
K20	3.36	3.68	3.35	3.65	3.35	3.87	3.53	
P2O5	0.20	0.22	0.26	0.18	0.19	0.19	0.23	0.1
SO3	0.03	0.02	0.03	0.03	0.02	0.03		
LOI	0.97	1.43	0.62	0.70	1.95	0.56		
As	4.80	8.31	4.41	3.38	21.18	3.72		
Ba	838.04	957.44	1120.75	856.79	864.02	894.85		
Ce	14.42	30.07	26.58	26.34	28.77	32.97	44.15	
Co Cr	10.63	12.89	11.88	9.40	12.00 36.60	8.83		
Cr Cs	32.49 n/a	39.86 1.04	42.57 2.47	36.65 1.17	36.60 n/a	53.12 1.23		
Cu	133.98	33.95	70.32		102.34	108.42		
Ga	20.32	16.51	20.80		18.57	18.36	20.04	
La	13.11	11.34	11.48		11.91	14.07	15.44	
Mo	0.86	2.13	2.68			2.39	2.65	
Nb	4.07	4.09	2.31	3.62		3.78		
Nđ	7.58	11.00	11.25			15.94	19.16	
Ni	12.30	12.98	15.39	10.97	11.32	10.60	15.65	11.1
Pb	6.23	10.10	10.17	7.74		16.00		
Rb	66.73	65.33	53.54			78.42		
Sc	11.63	13.46	13.73			13.27		
Sr.	826.24	533.87	1005.83			674.42		
Th	8.24	11.62	6.95		6.14	10.63		
U V	0.03	n/a	1.57			0.97		
	84.61	103.50 7.37	141.59 5.74	7.61	109.74 7.77	84.77 6.69		
	10.25	1.31				51.56		
Y	10.25							
	30.59	71.70	43.69 163.58		118.75	126.07	125.31	115.5
Y Zn			43.69 163.58 100.62	116.62		126.07 101.25		
Y Zn Zr	30.59 113.07	71.70 118.94	163.58	116.62				
Y Zn Zr Total Sample number 3/08	30.59 113.07 98.45 98_1	71.70 118.94 99.59 3/08_2	163.58 100.62 3/08_2	116.62 100.28 31/07_1	99.23 31/07_2	101.25	99.81 56.10A	99.4 56.13A
Y Zn Zr Total Sample number 3/08	30.59 113.07 98.45 08_1	71.70 118.94 99.59 3/08_2	163.58 100.62	116.62 100.28	99.23 31/07_2	101.25	99.81	99.4
Y Zn Zr Total Sample number 3/08	30.59 113.07 98.45 98_1	71.70 118.94 99.59 3/08_2	163.58 100.62 3/08_2	116.62 100.28 31/07_1	99.23 31/07_2	101.25	99.81 56.10A	99.4 56.13A
Y Zn Zr Total Sample number 3/08	30.59 113.07 98.45 98_1	71.70 118.94 99.59 3/08_2	163.58 100.62 3/08_2	116.62 100.28 31/07_1	99.23 31/07_2	101.25	99.81 56.10A	99.4 56.13A
Y Zn Zr Total Sample number 3/00 Bead LF2 field area	30.59 113.07 98.45 08_1 22801 OUVG	71.70 118.94 99.59 308_2 LF22767 OUVG	163.58 100.62 308_2 .F22781 OUVG	116.62 100.28 31/07_1 LF22778 OUVG	99.23 31/07_2 LF22794 OUVG	101.25 31/07_3 LF22792 OUVG	99.81 56.10A LF25558 OUVG	99.4 56.13A LF25065 OUVG
Y Zn Total Sample number 3/00 Bead LF2 field area formation Sha	30.59 113.07 98.45 98_1 22801 OUVG argyn Moghai	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai	163.58 100.62 308_2 .F22781 OUVG Shargyn Mogha	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai	99.23 31/07_2 LF22794 OUVG Shargyn Moghai	101.25 31/07_3 LF22792 OUVG Shargyn Moghai	99.81 56.10A LF25558 OUVG Shargyn Moghai	99.4 56.13A LF25065 OUVG Shargyn Mogh
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation Sha SiO2	30.59 113.07 98.45 8_1 22801 OUVG argyn Moghai 61.95	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0
Y Zn Zr Total iample number 3/00 Bead LF2 field area formation Sha SiO2 TiO2	30,59 113,07 98,45 08_1 22801 OUVG argyn Moghai 61,95 0,70	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51	163.58 100.62 3008_2 _F22781 OUVG Shargyn Mogha 64.62 0.51	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7
Y Zn Zr Total Sample number 3/00 Bead LF2 field area formation Sha SiO2 TiO2 AJ2O3	30,59 113,07 98,45 08_1 22801 OUVG argyn Moghai 61,95 0,70 16,69	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5
Y Zn Total Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3	30 59 113.07 98.45 8_1 22801 OUVG argyn Moghai 61.95 0 70 16 69 5.10	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8
Y Zn Zr Total iample number 3/08 Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3 MinO	30,59 113,07 98,45 22801 OUVG argyn Moghai 61,95 0,70 16,69 5,10 0,06	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.88 4.27 0.06	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12	99. 56.13A LF25065 OUVG Shargyn Mogh 48. 0.7 13.5 5.6 0.1
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3 MnO MgO	30 59 113.07 98.45 02801 0UVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85	99.4 56.13A LF25065 OUVG Shargyn Mogh 480 0.7 13.5 5.8 0.1 4.5
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	30 59 113.07 98.45 8_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 47.24 0.69 17.27 7.80 0.23 2.31 11.73	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 (0.3
Y Zn Zr Total ample number 3/08 Bead LF2 field area formation SiO2 TiO2 AI2O3 Fe2O3 MinO MgO CaO Na2O	30 59 113.07 98.45 08_1 22801 0UVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.55 1685 4.27 0.06 1.24 1.85 5.40	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 6.32 0.09 2.49 5.97 4.55	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6
Y Zn Zr Total iample number 3/08 Bead LF2 field area formation Sha SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	30 59 113.07 98.45 8_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 6.37 2.15	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.86 5.40 3.02	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69	99.4 56.13A LF25065 OUVG Shargyn Mogh 480 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5	30 59 113.07 98.45 8_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.85 5.44 3.00 0.23	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48	99.4 56.13A LF25065 OUVG Shargyn Mogh 480 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4
Y Zn Zr Total Bead LF2 field area formation Sha SiO2 TiO2 A2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	30 59 113.07 98.45 8_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 6.37 2.15	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.86 5.40 3.02	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.32	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.28 0.14	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5	30 59 113 07 98 45 8_1 22801 OUVG argyn Moghai 61 95 0 70 16 69 5 10 0 06 2 24 2 47 6 37 2 15 0 30 0 06 2 23 4 54	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.44 3.00 0.23 0.01 1.48 5.54 3.00 0.23 0.01 1.48 5.44 3.00 0.23 0.01	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.32 0.32 0.58.63	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 1.14 0.28 0.14 7.40 12.12	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.6 0.1 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	30 59 113.07 98.45 18_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 738.27	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 0.393 947.24	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.85 5.40 0.22 0.01 1.48 5.40 3.02 0.23 0.01 1.48 5.40 3.02 0.23 0.01	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.32 0.02 3.70 58.63 611.07	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 0.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	30 59 113.07 98.45 18_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 738.27 65.44	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.44 3.00 0.23 0.01 1.48 2.83 964.35 2.1.25	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.86 0.32 0.02 3.70 5.86 0.32 0.02 0.02 3.70 5.86 0.32 0.02 0.02 0.02 0.02 0.02 0.02 0.02	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 0.237 7.94 953.54 25.87	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.6 0.1 4.6 0.1 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	30 59 113 07 98 45 8_1 22801 OUVG argyn Moghai 61.95 0.70 16 69 5.10 0.70 16 69 5.10 0.70 16 69 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38 27 65.44 9.08	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 0.22 0.02 0.02 0.02 0.02 0.02 0.02 0.0	163.58 100.62 5008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.85 5.44 3.02 0.23 0.01 1.48 2.83 964.35 2.125 1.302	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 2.57 10.61	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 5.97 2.393	99.4 56.13A LF25065 OUVG Shargyn Mogh 480 0.7 13.5 5.6 0.1 4.5 0.1 4.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total Bead LF2 field area formation Sha SiO2 TiO2 A2O3 Fe2O3 MnO MgO CaO Na2O K2O F2O5 SO3 LOI As Ba Ce Co Cr	30 59 113.07 98.45 13.07 98.45 14.07 14.07 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 1.45 0.30 0.06 0.45 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.79 0.75 0.79 0.75 0.79 0.75 0.79 0.75 0.7	71.70 118.94 99.59 3/08_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40	163.58 100.62 500.62 F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.85 5.44 3.00 0.22 0.01 1.44 2.83 964.35 21.22 21.22 3.564	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 8.032 0.02 3.70 5.86 3.611.07 29.55 19.12 4.7.89	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.57 10.61 11.51	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Ce Co Cr Cs	30 59 113.07 98.45 18_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 738.27 65.44 9.08 n/a 0.57	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.86 5.40 3.02 0.23 9.64.35 0.01 1.48 2.83 9.964.35 2.1.25 13.02 3.5.64 1.00	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.02 6.32 0.09 6.32 6.32 6.32 6.32 6.32 6.32 6.32 6.32	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 953.54 10.51 11.51 2.14	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.6 0.1 4.5 0.1 4.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/08 Bead LF2 field area formation Sha SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Co Cr Cs Cu	30 59 113 07 98 45 122801 OUVG argyn Moghai 61.95 0.70 16 69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38 27 65.44 9.08 n/a 0.57 2.13	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 0.22 0.02	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.00 1.24 1.85 5.44 3.02 0.23 0.01 1.44 2.83 964.33 21.25 1.302 3.5.64 1.000 48.35	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/43.75	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.87 10.61 11.51 2.14 151.99	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 3.33	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.6 5.6 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 A/2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga	30 59 113 07 98 45 122801 OUVG argyn Moghai 61 95 0 70 16 69 5 10 0 06 2 24 2 47 6 37 2 15 0 30 0 06 2 23 4 54 738 27 6 5 44 9 08 n/a 0.57 2 13 16.08	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98	163.58 100.62 3008_2 .F22781 OUVG 5hargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.86 5.44 3.02 0.22 0.01 1.44 2.83 964.35 21.22 13.02 35.64 1.300 35.64 1.300 35.64 1.300 35.64 1.300 3.564 1.3000 3.564 1.3000 3.564 1.3000 3.564 1.30000 3.564 1.30000 3.564 1.3000000000000000000000000000000000000	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 0.65 0.26 0.03 2.37 7.94 953.54 25.57 10.61 11.51 2.14 151.99 21.47	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70 14.06	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 3.33 20.30	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/08 Bead LF2 field area formation Sha SiO2 TiO2 AI2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	30 59 113.07 98.45 18_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38.27 65.44 9.08 n/a 0.57 2.13 16.08 3.107	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00	163.58 100.62 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.86 5.40 0.22 0.01 1.44 2.83 964.35 21.25 21.25 1.300 35.64 1.00 48.35 21.25 1.300 35.64 1.00 48.35 1.00 49.35 1.00 49.55 1.	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 58.63 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.87 10.61 11.51 2.14 15.199 21.47 15.86	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70 14.06 19.35	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 33.33 201.28 0.30 0.22.61	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total Field area field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	30 59 113 07 98 45 122801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38.27 65.44 9.08 n/a 0.57 2.13 16.08 31.07 1.15	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.00	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.00 1.24 1.85 5.44 3.02 0.23 0.01 1.44 2.83 964.35 2.122 1.302 3.5.64 5.5.64 5.5.65 5	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 0.23 1.57 1.58 6 2.12	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 34.70 43.08 19.03 4.83 .747 .80 .14 0.69 .231 .232 .231 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .231 .232 .232 .231 .232 .234 .247 .00 .3308 .230 .232 .231 .232 .332 .232	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 3.33 20.30 22.61 2.12	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	30 59 113 07 98 45 122801 OUVG argyn Moghai 61 95 0 70 16 69 5 10 0 06 2 24 2 47 6 37 2 15 0 30 0 06 2 23 4 54 7 38 27 6 5 44 9 08 n/a 0 57 2 13 16.08 31.07 1.15 8.34	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 13.08 45.40 0.11 48.02 18.98 14.00 1.00 1.97	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.44 3.02 0.22 0.01 1.48 5.44 3.02 0.23 0.01 1.48 5.44 3.05 0.21 2.1.22 1.3.02 3.5.64 2.5.64 3.5.64 2.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.64 3.5.564 3.5.64 5.65 5.65 5.65 5.65 5.65 5.65 5.65	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 0.10 4.34 0.65 0.26 0.03 2.37 7.94 953.54 25.57 10.61 11.51 2.14 15.199 21.47 15.86 2.12 2.65	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.93 201.28 n/a 3.33 2030 22.61 2.12 7.16	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/08 Bead LF2 field area formation SiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Ca Co Cr Cs Cu Ga La Mo Nd	30 59 113.07 98.45 18_1 22801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.06 2.24 2.47 2.15 0.30 0.06 2.23 4.54 7.38.27 65.44 9.08 n/a 0.57 2.13 16.08 31.07 1.15 8.34 34.72	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.97 14.61	163.58 100.62 500.82 F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.40 0.02 0.01 1.44 2.83 964.33 21.22 21.22 21.30 21.35 64 3.00 1.30 21.35 21.	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 2.49 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 58.63 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 43.75	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.994 953.54 25.87 10.61 11.51 2.14 15.199 21.47 15.86 2.12 2.65 15.25	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 4.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20 25.26	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 8.002 1.93 6.43 1198.01 150.97 23.93 20.128 n/a 33.33 20.30 22.61 2.12 7.16 24.69	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/08 Bead LF2 field area formation Si02 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni	30 59 113 07 98 45 122801 OUVG argyn Moghai 61.95 0.70 16 69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38.27 65.44 9.08 n/a 0.57 2.13 16.08 31.07 1.15 8.34 34.72 n/a	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.00 1.97 14.61 24.82	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.00 0.124 1.85 5.44 3.02 0.23 0.01 1.44 2.83 964.35 2.122 13.02 3.564 1.00 48.35 1.	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 1.5.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 58.63 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 4.31 1.48 4.31	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.87 10.61 11.51 2.14 151.99 21.47 15.86 2.12 2.65 15.25 6.94	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 19.05 27.20 14.06 19.03 19.03 19.05 19.05 27.20 14.06 19.03 19.03 19.05	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 5.097 23.93 201.28 n/a 33.33 20.30 22.61 2.12 7.16 24.69 111.27	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 0.1 0.1 4.5 0.1 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/00 Bead LF2 field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	30 59 113 07 98 45 13 07 98 45 0 10 08 argyn Moghai 61 95 0 70 16 69 5 10 0 006 2 24 2 47 6 37 2 15 0 30 0 06 2 23 4 54 7 38 27 65 44 9 08 n/a 0 57 2 13 16.08 31.07 1.15 8.34 34.72 n/a 19.49	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.97 14.61	163.58 100.62 500.82 F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.40 0.02 0.01 1.44 2.83 964.33 21.22 21.22 21.30 21.35 64 3.30 0.43 21.35 21.	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.02 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 4.31 1.93 9 22.08 5.04	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 2.587 10.61 11.51 2.14 15.199 21.47 15.86 2.12 2.65 15.25 6.94 11.67	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 4.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20 25.26	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 8.002 1.93 6.43 1198.01 150.97 23.93 20.128 n/a 33.33 20.30 22.61 2.12 7.16 24.69	99.4 56.13A LF25065 OUVG Shargyn Mogh 480 0.1 13.6 5.6 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total ample number 3/08 Bead LF2 field area formation Si02 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni	30 59 113 07 98 45 122801 OUVG argyn Moghai 61.95 0.70 16 69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38.27 65.44 9.08 n/a 0.57 2.13 16.08 31.07 1.15 8.34 34.72 n/a	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 13.08 45.40 0.11 48.02 18.98 14.00 1.07 14.61 24.82 4.23	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.00 1.24 1.85 5.44 3.02 0.22 0.01 1.48 2.82 964.35 21.22 13.02 3.5.64 1.00 48.35 13.02 3.5.64 1.00 48.35 13.02 3.5.64 1.00 48.35 1.3.77 15.83 0.64 1.3.77 15.87 13.77 13.67 16.71	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 4.7.89 n/a 43.75 14.96 14.31 1.4.86 14.31 1.4.96 14.31 1.9.39 22.08 5.04 13.76	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.87 10.61 11.51 2.14 15.199 21.47 15.86 2.12 2.65 15.25 6.94 11.67 63.44	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20 25.26 n/a 7.60	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 3.33 20.30 22.61 2.12 7.16 24.69 11.27 8.40	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total Bead Field area formation SiO2 Al2O3 Field area SiO2 Al2O3 Field area SiO2 Al2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd Ni Pb Rb	30 59 113.07 98.45 13.07 98.45 13.07 14.07 14.07 16.69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.24 3.454 7.38.27 6.544 9.08 n/a 16.08 3.107 1.15 8.34 34.72 n/a 19.49 11.455 19.455 10.577 2.135 10.357 2.155 10.357 10.577 2.135 10.577 2.135 10.577 2.135 10.577 2.135 10.577 2.135 11.555 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.155 11.577 2.157 11.577 11.57 11.575 11.577 11.575 11.577 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.575 11.577 11.55 11.57	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.97 14.61 24.82 4.23 55.72	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.40 0.02 0.01 1.44 2.13 21.22 0.01 1.45 2.13 2.13 2.13 2.13 2.13 2.13 2.13 2.13	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 58.63 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 4.31 1.59 4.55 5.50 5.50 5.50 5.50 5.50 5.50 5.50	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 953.54 10.61 11.51 2.14 151.99 21.47 15.86 2.12 2.65 15.25 6.94 11.67 63.44 14.15	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 4.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20 25.26 n/a 7.60 14.79	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 150.97 23.93 201.28 n/a 33.33 20.30 22.61 2.12 7.16 24.69 111.27 8.40 38.65	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 0.1 0.1 4.5 0.1 0.1 4.5 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Y Zn Zr Total Sample number 3/00 Bead LF2 field area formation SiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nb Ni Pb Rb Sc	30 59 113 07 98 45 122801 OUVG argyn Moghai 61 95 0 70 16 69 5 10 0 06 2 24 2 47 6 37 2 15 0 30 0 06 2 23 4 54 738 27 6 5 44 9 08 n/a 0.57 2 13 16.08 31.07 1.15 8.34 34.72 n/a 9.49 114.55 5 28 99.53 14.83 14.83	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.07 14.61 24.82 4.23 55.72 7.46 928.82 9.49	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.51 16.85 4.27 0.06 1.24 1.85 5.40 3.02 0.23 964.35 964.35 964.35 21.25 1.300 3.564 1.300 3.564 1.307 3.564 1.307 3.564 1.307 3.564 1.307 3.564 1.307 3.564 1.307 3.564 1.307 3.564 3.054 1.307 3.564 3.054 1.307 3.564 3.0555 3.055555555555555555555555555555	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 8.032 0.02 3.70 58.63 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.4.96 14.31 1.4.96 14.31 1.9.39 22.08 5.04 13.76 16.26 9.81.23 5.07	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.87 10.61 11.51 2.14 151.99 21.47 15.86 2.12 2.65 15.25 6.94 11.67 63.44 14.15 11.13.07 7.44	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 4.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.03 4.83 19.05 7.20 25.26 n/a 7.60 14.79 15.17 103.65 8.86	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 33.33 20.30 22.61 2.12 7.16 24.69 111.27 8.40 0.38.65 18.37	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.0 14.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zr Total Sample number 3/00 Bead LF2 field area formation SiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb	30 59 113 07 98 45 122801 OUVG argyn Moghai 61.95 0.70 16 69 5.10 0.06 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38.27 65.54 9.08 31.07 1.15 8.34 9.08 31.07 1.15 8.34 1.43 31.07 1.15 8.34 31.43 31	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.947.24 25.99 13.08 45.40 0.11 48.02 18.98 14.00 1.97 14.61 24.82 4.23 55.72 7.46 928.82 9.49 0.35	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.40 0.22 0.00 1.24 1.85 5.40 0.23 0.01 1.44 2.83 964.35 2.1.25 0.01 1.45 2.85 2.1.25 1.300 3.5.64 1.00 4.83 9.64,35 2.1.25 1.300 3.5.64 1.00 4.83 9.64,57 1.54 9.756 6.97 6.94 9.27.56 7.57.56 7.57.57 7.57.57 7.57.57 7.57.57 7.57.57 7.57.57 7.57.57 7.57.57 7.57.57 7.57.57.57 7.57.57.57 7.57.57.57.57 7.57.57.57.57.57.57.57.57.57.57.57.57.57	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 58.63 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 43.11 1.9.39 22.08 5.04 4.31 6.12 4.31 6.12 6.14 6.14 6.14 6.14 6.14 6.14 6.14 6.14	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 953.54 953.54 11.51 2.14 151.99 21.47 15.86 2.12 2.65 15.25 6.94 11.67 6.3,44 14.15 1113.07 7.44 2.11	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20 25.26 n/a 7.60 14.79 15.17 103.65 8.86 1.28	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 33.33 2030 22.61 2.12 7.16 24.69 111.27 8.40 38.65 18.37 1932.21 0.13 n/a	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 0.1 0.1 4.5 0.1 0.1 4.5 0.1 0.1 4.5 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1
Y Zn Zr Total Sample number 3/08 Bead LF2 field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Be CaO CaO Na2O K2O P2O5 SO3 LOI As Be CaO CaO CaO Na2O K2O P2O5 SO3 LOI As Be CaO CaO Na2O K2O P2O5 SO3 LOI As Be CaO CaO Na2O K2O P2O5 SO3 LOI As Be CaO CaO SC SC Cu Ca Cu Ca Cu Ca Cu Ca Cu Ca Cu Ca Cu Ca Cu Ca Cu Cu Ca Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu Cu	30 59 113 07 98 45 132801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.70 16.69 5.10 0.70 16.69 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38 27 65.44 9.08 n/a 0.57 2.13 16.08 31.07 1.15 8.34 34.72 n/a 19.49 114.55 5.28 9.953 14.83 4.11 17.39	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.83 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 14.81 25.99 13.08 45.40 0.11 14.82 18.98 14.00 1.97 14.61 24.82 4.23 55.72 7.46 928.82 9.49 0.35 86.15	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.44 3.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 4.31 19.39 22.08 5.04 13.76 16.26 981.23 5.07 0.25 143.61	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 2.587 10.61 11.51 2.14 151.99 21.47 15.86 2.12 2.65 5.55 15.25 6.94 11.67 63.44 14.15 1113.07 7.44 2.11 125.07	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 34.70 4.308 19.03 4.83 n/a 2.70 14.06 19.33 0.52 7.20 25.26 n/a 7.60 14.79 15.17 103.65 8.86 1.28 60.41	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 33.33 20.30 22.61 2.12 7.16 24.69 111.27 8.40 38.65 18.37 1932.21 0.13 n/a 185.15	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4
Y Zn Zn Total Bead LF2 field area formation SiO2 Al2O3 FE2O3 MINO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	30 59 113 07 98 45 122801 OUVG argyn Moghai 61 95 0 70 16 69 5 10 0 06 2 24 2 47 6 37 2 15 0 30 0 06 2 23 4 54 7 38 27 6 5 44 9 08 n/a 0 57 2 13 16.08 31.07 1.15 8.34 34.72 n/a 19.49 114.55 5 28 99.53 14.83 4.11 17.39 37.20	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 48.02 13.08 45.40 0.11 48.02 13.08 45.40 0.11 48.02 18.98 14.00 1.00 1.97 14.61 24.82 4.23 55.72 7.46 928.82 9.49 0.35 56.15 10.62	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.44 3.02 0.22 0.01 1.44 2.83 964.35 21.22 21.22 1.300 35.64 1.300 35.64 1.300 35.64 1.307 35.75 1.307 35.75 1.30	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 8.032 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.486 4.31 1.939 22.08 5.044 5.04 5.04 5.04 5.04 5.04 5.04 5.0	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 25.87 10.61 11.51 2.14 151.99 21.47 15.86 2.12 2.65 15.25 6.94 11.67 63.44 14.15 1113.07 7.44 2.11 125.07 11.69	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 347.70 43.08 19.03 4.83 n/a 2.70 14.06 19.35 0.52 7.20 25.26 n/a 7.60 14.79 15.17 103.65 8.866 1.28 60.41 34.78	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.76 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 0.42 1.93 20.30 22.61 2.12 7.16 24.69 111.27 8.40 38.65 18.37 1932.21 0.13 n/a 185.15 12.49	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 45.0 10.3 46.0 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0
Y Zn Zr Total Field area field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U U V	30 59 113 07 98 45 132801 OUVG argyn Moghai 61.95 0.70 16.69 5.10 0.70 16.69 5.10 0.70 16.69 2.24 2.47 6.37 2.15 0.30 0.06 2.23 4.54 7.38 27 65.44 9.08 n/a 0.57 2.13 16.08 31.07 1.15 8.34 34.72 n/a 19.49 114.55 5.28 9.953 14.83 4.11 17.39	71.70 118.94 99.59 308_2 LF22767 OUVG Shargyn Moghai 62.65 0.51 16.34 4.27 0.06 1.17 1.83 4.27 0.06 1.17 1.81 5.36 3.01 0.22 0.02 1.30 3.93 947.24 25.99 13.08 45.40 0.11 14.81 25.99 13.08 45.40 0.11 14.82 18.98 14.00 1.97 14.61 24.82 4.23 55.72 7.46 928.82 9.49 0.35 86.15	163.58 100.62 3008_2 .F22781 OUVG Shargyn Mogha 64.62 0.55 16.85 4.27 0.06 1.24 1.85 5.44 3.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02	116.62 100.28 31/07_1 LF22778 OUVG Shargyn Moghai 59.42 0.71 15.09 6.32 0.09 2.49 5.97 4.55 0.88 0.32 0.02 3.70 5.863 611.07 29.55 19.12 47.89 n/a 43.75 14.96 14.31 1.48 4.31 19.39 22.08 5.04 13.76 16.26 981.23 5.07 0.25 143.61	99.23 31/07_2 LF22794 OUVG Shargyn Moghai 53.57 0.90 18.64 8.31 0.10 4.34 7.77 3.44 0.65 0.26 0.03 2.37 7.94 953.54 2.587 10.61 11.51 2.14 151.99 21.47 15.86 2.12 2.65 5.55 15.25 6.94 11.67 63.44 14.15 1113.07 7.44 2.11 125.07	101.25 31/07_3 LF22792 OUVG Shargyn Moghai 47.24 0.69 17.27 7.80 0.23 2.31 11.73 4.01 1.14 0.28 0.14 7.40 12.12 34.70 4.308 19.03 4.83 n/a 2.70 14.06 19.33 0.52 7.20 25.26 n/a 7.60 14.79 15.17 103.65 8.86 1.28 60.41	99.81 56.10A LF25558 OUVG Shargyn Moghai 55.78 0.66 16.90 7.19 0.12 3.85 4.16 5.80 2.69 0.48 0.02 1.93 6.43 1198.01 50.97 23.93 201.28 n/a 33.33 20.30 22.61 2.12 7.16 24.69 111.27 8.40 38.65 18.37 1932.21 0.13 n/a 185.15	99.4 56.13A LF25065 OUVG Shargyn Mogh 48.0 0.7 13.5 5.8 0.1 4.5 10.3 4.6 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4

Samola aunt	65 124					65 24	65 6 A	66 204
Sample numbe Bead							65.6A LF25661	66.20A LF25656
0000	21 20070		2, 20000		2, 20000	21 20000		2120000
field area	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan
						- •-		
formation SiO2	n/a 66.23	n/a 64.96	n/a66.78	n/a 65.01	n/a 62.00	n/a 63.12	n/a 61.92	n/a 64.79
TiO2	0.50	0.42	0.51	0.42	0.55	0.49		
AI2O3	16.21	15.57	16.00	15.68	16.27	16.55		
Fe2O3	4.16	4.14	4.31	4.19	4.94	4.49		
MnO	0.08	0.07	0.07	0.07	0.08	0.07		
MgO	2.12	1.86	1.98	1.90	2.13	1.95	2.33	1.98
CaO	3.49	2.71	3.24	2.73	3.34	3.44		
Na2O	4.96	5.05	5.05	5.19	5.58	5.33		
K2O	3.70	3.69	3.48	3.73	3.64	3.47		
P2O5	0.19	0.20	0.21	0.20	0.24	0.23		
SO3	0.04	0.03	0.03	0.02	0.05	0.04		
LOI	0.79	0.73	0.72	0.63	0.47	1.27		
As	6.56	4.64	0.00	0.00	4.02	5.96		
Ba Ce	873.69 36.97	885.22	0.00	0.00 29.36	921.60	834.85		
Co	10.83	37.46 11.30	27.96 0.00	0.00	33.19 11.98	34.01 12.23		
Cr	40.24	42.26	0.00	0.00	48.58	54.96		
Cs	40.24	42.20	1.72	3.20	48.58	2.66		
Cu	148.64	153.58	0.00	0.00	160.66	137.07		
Ga	18.79	18.06		0.00	19.73	20.31		
La	15.64	14.69	13.28	14.19	18.03	13.52		
Mo	2.13	2.68		0.00	2.40	2.93		
Nb	3.63	4.10	0.00	0.00	2.38	3.39		
Nd	15.79	17.14		14.56	20.28	18.55		
Ni	11.49	10.29	0.00	0.00	9.73	8.78		
Pb	14.95	10.12		0.00	15.57			
Rb	74.80	75.84	0.00	0.00	58.40	57.03		
Sc	12.53	10.49	0.00	0.00	13.27	16.14	16.60	11.23
Sr	782.97	784.90	0.00	0.00	883.30	881.44	619.71	818.88
Th	10.54	7.09		0.00	9.65			10.57
υ	2.74	2.88		0.00	4.11	1.50		
v	93.85		0.00	0.00	145,10			
Y	6.73	4.56	0.00	0.00	9.20	11.13		
Zn								
	49.55	42.49	0.00	0.00	69.37	66.58		
Zr	116.58	110.15	0.00	0.00	133.28	108.00	117.57	214.64
			0.00				117.57	214.64
Zr Total	116.58 101.68	110.15 99.42	0.00 101.66	0.00 99.78	133.28 99.31	108.00	99.28	214.64 3 100.03
Zr Total Sample number	116.58 101.68 56.14A	110.15 99.42 56.15A	0.00 101.66 56.15B	0.00 99.78 56.16A	133.28 99.31 56.17A	108.00 100.44 56.3A	0 117.57 999.28 56.38	214.64 3 100.03 56.4A
Zr	116.58 101.68	110.15 99.42	0.00 101.66	0.00 99.78	133.28 99.31	108.00	99.28	214.64 3 100.03
Zr Total Sample number	116.58 101.68 56.14A	110.15 99.42 56.15A	0.00 101.66 56.15B	0.00 99.78 56.16A	133.28 99.31 56.17A	108.00 100.44 56.3A	0 117.57 999.28 56.38	214.64 3 100.03 56.4A
Zr Total Sample number	116.58 101.68 56.14A	110.15 99.42 56.15A	0.00 101.66 56.15B	0.00 99.78 56.16A	133.28 99.31 56.17A	108.00 100.44 56.3A	0 117.57 999.28 56.38	214.64 3 100.03 56.4A
Zr Total Gample number Bead field area	116.58 101.68 56.14A LF25043 OUVG	110.15 99.42 56.15A LF25044 OUVG	0.00 101.66 56.15B LF25050 OUVG	0.00 99.78 56.16A LF25040 OUVG	133.28 99.31 56.17A LF25061 OUVG	108.00 100.44 56.3A LF25552 OUVG	0 117.57 99.28 56.38 LF25096 OUVG	214.64 100.03 56.4A LF25095 OUVG
Zr Total Sample number Bead field area formation	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai	0.00 99.78 56.16A LF25040 OUVG Shargyn Moghai	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai	0 117.57 99.26 56.38 LF25096 OUVG Shargyn Mogha	214.64 3 100.03 56.4A LF25095 OUVG Shargyn Moghai
Zr Total Sample number Bead field area formation SiO2	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94	0.00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57	0 117.57 99.26 56.38 LF25096 OUVG Shargyn Mogha 54.37	214.64 56.4A LF25095 OUVG Shargyn Moghai 62.22
Zr Total Sample number Bead field area formation SiO2 TiO2	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53	0.00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56	133.28 99.31 56 17A LF25061 OUVG Shargyn Moghai 53.78 0.66	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56	0 117.57 99.28 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75	214.64 3 100.03 56.4A LF25095 OUVG Shargyn Moghai 62.22 0.66
Zr Total Bead field area formation SiO2 TiO2 Al2O3	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38	0.00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34	0 117.57 99.26 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75 16.12	214.64 56.4A LF25095 OUVG Shargyn Moghai 62.22 0.66 16.07
Zr Total Bead field area formation SiO2 TiO2 AI2O3 Fe2O3	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80	0 117.57 99.28 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.46	214.6/ 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90
Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12	0 117.57 99.28 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.79 16.12 8.44 0.24	214.6 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.08
Zr Total Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO	116.58 101168 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20	0.00 101166 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35	0.00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43	133.28 99.31 56.17A LF25061 Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29	0 117.57 99.26 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75 16.12 8.44 0.24	214.64 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.00 2.90
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.65 6.91	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65	117.57 99.26 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31	214.6/ 3 100.00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.02 2.90 4.25
Zr Total Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO	116.58 101168 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87	133.28 99.31 56.17A LF25061 Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.55 4.32	0 117.57 99.28 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.55 7.31 3.53	214.6/ 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.08 2.90 4.25 4.80
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29	0.00 101166 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32	0 117.57 99.22 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.79 16.12 8.46 0.24 4.58 7.31 3.65 1.45	214.6 100.02 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.00 2.90 4.22 4.80 2.94
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.29 2.44	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.85	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32	133.28 99.31 56.17A LF25061 Shargyn Moghai 53.78 0.66 16.61 16.61 6.56 0.14 4.67 6.91 5.40 1.45	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73	117.57 99.26 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31 3.55 1.45 0.21	214.6/ 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.02 2.90 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 4.80 2.94 4.25 5.40 5.40 5.40 5.40 5.40 5.40 5.40 5.4
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 4.5.29 2.44 0.49 0.02 4.81	0.00 101166 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 6.64 0.85 0.59 0.09 7.22	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 2.81	133.28 99.31 56.17A LF25061 Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 6.65 6.432 0.73 0.25 0.04 1.75	117.55 99.22 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31 3.55 1.45 0.22 4.56 7.31 3.55 1.45 0.22 2.31	214.6/ 214.6/ 214.6/ 214.6/ 2000 200
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.29 2.44 0.49 0.02 4.81 25.29	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.99 7.22 9.66	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 2.84 1.958	133.28 99.31 56.17A LF25061 OUVG 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.24 0.24 0.24 0.24 0.24	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 0.4,75	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31 3.55 1.46 0.21 0.22 2.31 1.93	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 2000 2007 20
Zr Total Gample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O K2O SO3 LOI As Ba	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 6.38 1.26 0.41 0.20 4.47 9.53 780.43	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.87 3.33 0.32 0.18 2.44 4.87 3.33 0.32 0.18 2.41 19.66 1687.09	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.89 8.78 1312.96	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 4.75 4.75 526.92	117.57 99.28 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 7.31 3.63 1.45 0.21 0.22 0.22 1.93 797.41	214.6/ 214.6/ 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.08 2.90 4.25 4.80 2.04 0.22 0.04 1.29 16.17 1330.12
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 6.64 0.85 0.59 6.64 0.99 7.22 9.66 553.09 38.22	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 0.07 2.43 2.44 4.87 3.33 0.32 0.48 1.98 6.9 1.98 7.99 7.87 7.99 7.87 7.99 7.99 7.99 7	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.651	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 4.75 526.92 35.98	117.57 99.22 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.55 7.31 3.53 1.45 0.22 2.31 1.93 797.41 25.57	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 2000 20
Zr Total imple number Bead field area formation SiO2 TiO2 TiO2 TiO2 TiO2 TiO2 TiO2 TiO2 T	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.3.36	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.20 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 29.95	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 38.22 9.66	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0 56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 2.44 1.968 1687.09 36.91 1.905	133.28 99.31 56.17A LF25061 OUVG 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.43 0.24 0.07 2.69 8.78 1312.96 26.52	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 4.75 526.92 35.98 23.75	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31 3.52 2.146 0.21 0.02 2.33 1.93 797.41 25.57 32.28	214 6/ 100 00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.00 2.90 4.25 4.25 4.25 4.25 4.25 4.25 1.6.07 1.25 1.6.17 1.330.71 1.330.71 1.6.00
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O K2O SO3 LOI As Ba Ce Co Cr	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.33.66 2.35.66 2.3	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81 25.29 2.84 0.49 0.02 4.81 1.25.29 2.823.01 51.62 2.995 537.45	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.56 0.56 0.56 0.55 0.56 0.55 0.55	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.94 1.968 1.687.09 3.6.91 1.9.08 1.30.92	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 26.51 26.52 404.85	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.85 4.32 0.73 0.25 0.04 1.75 5.26.92 3.598 23.75 94.48	117.55 99.26 99.26 0UVG Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31 3.63 1.45 0.21 0.02 2.31 1.93 797.41 25.57 32.28 79.57	214.6. 100.00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.06 2.90 4.22 4.86 2.04 0.02 2.90 4.22 1.6.17 1.330.12 3.3.71 1.330.12 3.3.71 1.6.00 8.1.18
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 23.36 209.81 51.26	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81 25.29 5.37.45 5.37.45 5.37.45 1.40	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 5.65 0.56 0.09 7.22 9.66 553.09 58.22 17.61 155.58 n/a	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 0.48 2.84 19.66 1687.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.09 3.6.91 3.0.92 3.0	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 1.6.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.6.51 2.6.52 2.6.51 2.6.52 4.04.85 n/a	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 4.32 0.73 0.25 4.32 0.73 0.25 4.32 0.73 0.25 4.32 0.73 0.25 5.26.92 3.598 2.3.75 94.48 2.84	117.55 99.26 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.58 7.33 1.45 0.21 1.93 7.97.41 0.02 2.31 1.93 7.97.41 2.557 32.28 7.957 32.28 7.957 7.97	214.6. 3 100.00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.92 0.06 2.99 4.22 4.22 0.04 1.22 0.04 1.22 0.04 1.23 1.617 1.330.12 3.3.71 1.52 0.81.18 1.52
Zr Total ample number Bead field area formation SiO2 TiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cc Co Cr Cs Cu	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.041 0.20 4.47 9.53 780.43 51.26 2.336 2.09.81 n/a 4.59	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.20 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 2.995 537.45 1.40 5.6.96	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 38.22 9.66 553.09 38.22 17.61 155.58 n/a	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0 56 16.10 6 02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 19.68 1687.09 36.91 19.09 130.92 0.53 6.338	133.28 99.31 56.17A LF25061 OUVG 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 26.55 26.55 26.55 26.55 26.55 7.73	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.598 2.3.75 94.48 2.84 2.84 1.74.20	117.55 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.55 7.31 3.53 1.46 0.21 0.02 2.33 1.93 797.41 25.57 79.57 32.28 79.57 1.517	214 6/ 214 6/ 100 00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.00 2.90 4.25 4.86 2.44 0.02 0.04 1.25 1.6.17 1.330.12 3.371 1.6.00 8.1.18 1.52 2.348
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.336 2.23,66 2.23,66 2.33,66 2.29,81 n/a 4.159 1.6.82	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.84 0.49 0.02 4.81 51.62 2.9.95 537.45 1.40 56.90 2.823.01 51.62 2.9.95 537.45 1.40 56.90 5.83 5.83 5.83 5.83 5.83 5.83 5.83 5.83	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 3.822 17.61 155.58 n/a 197.79 13.41	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.64 19.66 1687.09 3.69 19.00 3.69 19.00 3.69 19.00 3.63 3.83 19.64	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.652 8.78 1312.96 26.51 26.52 404.85 n/a 77.13 1.7.71	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.598 2.3.75 9.4.48 2.84 1.74.20 9.4.28 2.84 1.74.20 9.4.20 19.20	117.55 99.26 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.58 0.24 4.58 0.24 0.24 4.58 0.21 0.22 0.23 1.13 3.63 1.45 0.21 0.22 0.23 1.13 1.93 797.41 25.57 32.28 79.57 718.34	214.6- 214.6- 3 100.03 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.08 2.90 4.25 4.80 2.04 1.29 16.17 1330.12 33.71 16.00 81.18 1.52 2.34 1.7.84
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	116.58 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.336 2.09.81 n/a 41.59 16.82 2.4.40	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45 1.62 2.9.95 5.37.45	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 5.65 0.09 7.22 9.66 553.09 7.22 9.85 0.56 0.09 7.22 9.85 5.53.09 38.22 17.61 155.58 n/a 197.79 13.41 26.71	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0 56 16.10 6.02 0.07 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 0.18 5.94 4.87 3.33 0.32 0.18 5.94 4.87 3.33 0.32 0.18 5.94 4.48 7.33 0.32 0.18 0.19 5.94 4.48 7.33 0.32 0.18 0.19 5.94 4.48 7.33 0.32 0.18 0.19 5.94 0.56 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.0	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.651 2.2652 2.651 2.2655 2.651 2.2655 1.225 4.04.85 n/a 7.7.13 17.71 10.24	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 4.32 0.73 0.25 5.26.92 3.5.98 2.3.75 9.4.48 2.84 17.4.20 19.20 16.90	117.55 99.26 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.58 7.33 1.45 0.21 1.93 7.97.41 2.5.57 32.28 79.57 7.12 15.17 18.34 10.95	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 21000 2000
Zr Total Gample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cc Cc Cc Cc Cc Cu Ga La Mo	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 23.36 24.40 1.59 1.62 24.40 1.55 24.40 1.55 24.40 1.55 24.40 1.55 24.40 24.40 24.40 24.40 24.40 24.40 24.40 24.40 24.40 24.40 25.36 29.81 25.25 26.25 27	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.20 2.44 0.49 0.02 4.81 25.29 2823.01 51.62 29.95 537.45 1.40 56.96 18.15 30.03 2.34	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 38.22 17.61 155.58 n/a 197.79 13.41 26.71 1.43	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 19.66 1687.09 19.09 130.92 0.53 6.338 19.64 19.55 1.81	133.28 99.31 56.17A LF25061 OUVG 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.24 0.24 2.652 4.04.85 2.652 4.04.85 2.652 4.04.85 2.652 4.04.85 2.652 4.04.85 7.7.13 1.7.71 1.0.24 2.43	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.25 0.04 1.75 4.75 526.92 23.75 94.48 2.84 2.84 1.74.20 19.20 16.90 0.00	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.75 16.12 8.44 0.24 4.55 7.31 3.53 1.44 0.21 0.02 2.33 1.93 797.41 2.55 3.2.28 79.57 n/a 15.17 18.34 10.95 1.25	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 2000 2200 200 2000 2
Zr Total Gample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.3.36 2.24.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35 2.25.35.35 2.25.35 2.25.35 2.25.35.35 2.25.35.3	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.3.54 5.29 2.44 0.49 0.02 4.81 51.62 2.995 537.45 1.40 56.96 18.15 3.003 2.34 5.45	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.99 7.22 9.66 553.09 3.822 17.61 155.58 n/a 197.79 13.41 26.71 1.43 4.68	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.87 3.33 0.32 0.18 2.84 1.956 1687.09 3.6.91 19.00 130.92 0.53 6.338 19.64 19.55 1.81 5.49	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.652 26.52 404.85 n/a 77.13 117.71 10.24 2.48	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.73 0.25 0.04 1.75 5.26.92 3.598 2.375 94.48 2.244 174.20 19.20 16.90 0.00 3.76	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.55 7.31 3.65 1.45 0.22 2.31 1.93 797.41 25.57 32.28 79.57 7.32 2.85 79.57 7.18 3.46 0.21 0.02 2.31 1.93 797.41 25.57 32.28 79.57 7.18 3.48 0.21 0.22 0.21 0.22 0.23 1.93 797.41 25.57 1.83 1.93 79.57 1.83 1.12 5.37 0.57 3.22 2.33 79.57 1.83 1.25 3.70 3.70 5.75 1.57 3.22 2.37 3.70 5.75 1.57 3.22 2.37 3.57 3.22 3.57 3.22 5.75 1.57 3.22 5.75 1.57 3.22 5.75 3.22 5.75 3.22 5.75 1.57 3.22 5.75 3.22 5.75 3.22 5.75 1.57 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 3.22 5.75 5.75 5.75 5.75 7.75 7.75 7.75 7	214.6 214.6 3 100.0 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.08 2.90 4.25 4.80 2.90 4.25 4.80 2.90 16.17 1330.12 33.71 16.00 81.18 1.52 2.348 1.7.84 16.60 81.7.84 1.60 81.7.84 1.60 81.7.84 1.60 81.7.84 1.66 1.66 1.66 1.60 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.7.84 1.66 1.7.84 1.66 1.7.84 1.66 1.66 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.60 1.7.84 1.66 1.7.84 1.66 1.7.84 1.66 1.66 1.7.84 1.66 1.60 1.85 1.7.84 1.66 1.60 1.7.84 1.66 1.7.84 1.66 1.7.84 1.66 1.66 1.7.84 1.66 1.67 1.7.84 1.66 1.66 1.67 1.7.84 1.66 1.67 1.7.84 1.66 1.66 1.7.84 1.66 1.66 1.7.84 1.66 1.67 1.7.84 1.66 1.67 1.7.84 1.66 1.67 1.7.84 1.66 1.67 1.7.84 1.66 1.67 1.7.84 1.66 1.66 1.67 1.67 1.7.84 1.66 1.67
Zr Total Gemple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.23.66 2.23.66 2.23.86 2.29.81 n/a 41.59 16.82 2.4.40 1.35 6.77 2.6.82	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.83.01 5.162 2.9.95 5.57.45 1.40 5.69 6.18.15 3.003 2.34 4.545 26.75	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 58.22 17.61 155.58 n/a 197.79 13.41 26.71 1.43 2.671	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.487 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 5.94 5.94 4.87 5.94 4.87 5.94 4.87 5.94 4.87 5.94 4.87 5.94 4.87 5.94 4.87 5.94 4.87 5.94 4.87 5.94 5.94 5.94 5.94 5.94 5.94 5.94 5.94	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.651 2.652 2.652 2.652 2.655 2.655 2.655 2.652 2.653 1.7.71 10.24 2.43 2.44 2.43 2.44 13.47	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 4.32 0.73 0.25 5.43 0.75 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 2.375 5.26.92 3.598 3.598 2.375 5.26.92 3.598 3.376 5.26.92 3.598 3.598 3.375 5.26.92 3.598 3.598 3.375 5.26.92 3.598 3.375 5.26.92 3.598 3.375 5.26.92 3.598 3.375 5.26.92 3.598 3.375 5.26.92 3.598 3.375 5.26.92 3.5986 3.5985 3.5985 3.5985 3.5985 3.5985 3.5996 3.5985 3.5985 3.5985 3.5985 3.5985 3.5985 3.5985 3.5985 3.5985	117.55 99.26 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 7.31 3.63 1.45 0.22 2.31 1.93 797.41 25.57 32.28 79.57 n/a 15.17 18.34 10.95 1.25 3.70 15.87	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 2000 2010 20
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 23.36 209.81 0.43 51.26 23.36 209.81 1.62 23.36 209.81 1.62 23.36 209.81 1.62 23.36 209.81 1.62 23.36 209.81 1.62 23.36 209.81 1.62 23.36 20.43 51.26 23.36 20.93 1.62 23.36 20.93 1.62 23.36 20.93 51.26 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 1.62 23.36 20.94 3.55 23.56 20.94 3.55 23.56 20.94 3.55 23.56 20.94 23.56 20.94 23.56 20.94 23.56 20.94 20.57 20.	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 29.95 537.45 1.40 56.96 1.815 30.03 2.34 5.45 2.675 114.35	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 38.22 17.61 155.58 0.56 0.056 0.059 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.67 7.23 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 9.66 553.09 7.22 7.23 7.23 7.23 7.23 7.23 7.23 7.23	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 16.10 16.02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 19.66 1687.09 119.09 130.92 0.53 6.38 19.64 19.56 1.81 1.81 5.49 20.61 1.81 5.49 20.61	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.47 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.652 2.652 2.652 2.652 4.04.85 2.652 4.04.85 2.652 2.64 2.652	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghal 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.25 0.04 1.75 4.75 526.92 23.75 99.48 2.375 99.48 2.84 174.20 19.20 19.20 16.90 0.00 3.76 18.50 0.00 28.15	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.79 16.12 8.44 0.24 4.58 7.31 3.63 1.44 0.21 0.02 2.33 1.93 797.41 2.65 3.228 79.57 n/a 15.17 18.34 10.95 1.25 3.70 15.87 30.24	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 210002 256.4A LF25095 CUVG 222 0.66 222 0.66 2.90 4.25 4.80 2.94 1.29 1.52 2.348 1.78 1.66 3.10 1.67 1.52 2.348 1.78 1.66 3.10 1.67 1.77 1.30 1.77 1.37 1.77 1.37 1.777 1.77
Zr Total Field area field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.23.36 2.23.36 2.23.36 2.29.81 n/a 4.159 16.82 2.24.40 1.35 6.77 26.82 2.440 1.35 6.77	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 2.995 537.45 1.40 56.96 18.15 3.003 2.34 5.45 26.76 11.42	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 3.8.22 17.61 155.58 n/a 197.79 13.41 26.71 1.43 4.68 27.25 7.173 9.93	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.44 4.87 3.33 0.32 0.18 2.84 19.06 1687.09 3.69 19.00 3.69 19.00 3.69 19.00 3.63 3.8 19.64 19.55 1.85 1.81 5.49 2.0.61 5.60 6.02 0.977	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.65 2.65 2.65 2.404.85 n/a 77.13 17.71 10.24 2.48 13.47 115.55 2.65 2.45 2.45 2.45 2.48 13.47	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.598 2.3.75 94.48 2.34 174.20 19.20 16.50 0.00 3.76 94.85 2.815 0.00 0.00 3.76 9.48 19.20 16.50 0.00 0.00 3.76 9.48 19.20 16.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 7.31 3.55 1.45 0.21 0.02 2.31 1.93 797.41 25.57 73.228 79.57 73.228 79.57 74 15.17 18.34 10.95 1.25 3.70 15.87 30.24 8.04	214.6. 100.00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.02 2.90 4.22 4.80 2.04 1.29 16.17 1330.12 33.71 16.00 81.18 1.620 2.3.48 1.7.84 1.7.84 1.6.60 81.18 1.600 81.28 1.600 81.28 1.600 8.5000 8.5000 8.5000 8.5000 8.5000 8.5000 8.5000 8.5000 8.50000 8.50000 8.500000 8.5000000000000000000000000000000000000
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd Ni Pb Rb	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.365 6.38 1.26 0.41 0.20 4.47 9.53 7.80.43 51.26 2.23.36 2.29.81 n/a 41.59 16.82 2.24.40 1.35 6.77 2.6.82 86.633 6.17	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 2.995 537.45 1.40 56.96 18.15 30.03 2.34 5.45 26.75 114.35 2.675 114.35	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 3.822 17.61 155.58 n/a 197.79 13.41 26.71 1.43 4.68 27.25 71.73 9.93 19.68	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.44 4.87 3.33 0.32 0.45 6.02 1.90 1.90 9.19 0.53 6.33 8 19.64 19.55 1.81 5.49 2.061 5.540 2.061	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.659 2.651 2.652 2.655 2.655 2.655 2.655 2.655 1.024 0.07 2.265 2.404.85 n/a 77.13 1.12.96 2.651 2.655 2.657 1.12.96 2.655 2.657 1.12.96 2.655 2.657 1.12.96 2.655 2.657 1.12.96 2.655 1.13.12.96 2.655 2.655 1.12.96 2.655 2.657 1.12.96 2.655 2.657 1.12.96 2.655 2.657 1.12.96 2.655 2.657 1.12.96 2.655 1.12.96 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 1.12.96 2.655 2.655 2.655 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 1.12.96 2.657 2.5577 2.5577 2.55777 2.557777777777	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 526.92 3.598 2.3.75 9.4.48 2.84 2.84 2.84 2.84 1.74.20 19.20 16.90 0.00 3.76 18.50 2.8.15 0.74 4.429	117.5: 99.22 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.75 16.12 8.44 0.24 4.56 7.31 3.63 1.45 0.22 4.56 7.31 3.63 1.45 0.22 0.02 2.31 1.93 797.41 25.57 32.28 79.57 n/a 15.17 18.34 10.95 1.25 3.370 15.87 3.0.24 8.04 3.014	214.6. 100.00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.00 2.90 4.22 4.80 0.00 2.90 4.22 4.80 0.00 2.90 4.22 16.17 1330.12 33.77 16.00 81.18 1.52 23.48 1.7.84 1.6.63 1.06 4.92 1.7.71 37.72 8.55 56.08
Zr Total Gemple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc	116.58 101168 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 10.20 4.47 9.53 780.43 51.26 23.36 209.81 n/a 41.59 16.62 24.40 1.35 6.77 26.82 24.40 1.35 6.77 26.82 24.61 1.55 6.77 19.21 1.61 9.21 1.62 1.62 1.62 1.62 1.62 1.62 1.62 1	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 0.02 4.81 25.29 2.83.01 51.62 29.95 5.37.45 1.40 56.96 18.15 30.03 2.34 5.45 2.675 114.35 2.675 114.35 2.236	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 5.65 0.56 0.56 0.56 5.53.09 7.22 9.66 5.53.09 7.22 9.65 5.53.09 7.22 9.65 5.55 8.47 1.155.58 n/a 197.79 13.41 1.26.71 1.43 4.68 2.7.25 7.1.73 9.93 19.68 26.26	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0 56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 2.44 4.87 3.33 0.32 0.07 2.43 4.87 3.33 0.32 0.07 2.43 4.87 3.33 0.32 0.07 2.43 4.87 3.33 0.32 0.07 3.63 3.83 19.64 19.55 1.81 19.55 1.81 5.49 9.20 6.05 1.95 1.95 1.95 1.95 1.95 1.95 1.95 1.9	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 1.6.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 26.51 26.52 404.85 n/a 77.13 17.71 10.24 2.43 2.48 13.47 115.55 2.57 19.81 2.97	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 4.75 526.99 2.375 9.94.84 2.24 174.20 19.20 19.90 16.99 0.00 3.76 18.50 2.815 0.74 14.29 2.835	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.79 16.12 8.44 0.24 4.55 7.33 3.63 2.145 0.21 0.02 2.231 1.93 797.41 2.55 7.32.28 79.57 71.18,34 10.95 1.25 3.70 15.87 30.24 8.04 30.14 2.689	214 6/ 214 6/ 100 00 56.4A LF25095 OUVG Shargyn Mogha 62 22 0.66 16.07 4.92 0.00 2.92 4.22 0.64 1.22 1.6.17 1.330.12 1.6.17 1.330.12 1.6.27 1.23 1.6.17 1.330.12 1.6.27 1.23 1.6.17 1.337.12 3.377 1.6.00 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.6.60 8.1.18 1.753 1.753 1.773 8.505 5.6.08 1.511 1.511 1.511 1.525 1.5555 1.5555 1.5555 1.5555
Zr Total Gample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 23.36 209.81 n/a 4.159 16.82 224.40 1.35 6.77 26.82 86.63 6.17 19.21 1.6 [9] 732.89	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.20 2.44 0.49 0.02 4.81 25.29 2.823.01 51.62 2.9.95 537.45 1.40 56.96 18.15 3.003 2.34 5.45 2.675 114.35 11.42 3.115 2.236 1700.60	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.99 7.22 9.66 553.09 7.22 9.761 155.58 n/a 197.79 13.41 2.677 1.73 9.93 19.68 2.626 7.177 1.3777 1.3777 1.3777 1.3777 1.3777 1.37777 1.37777 1.3777777777777777777777777777777777777	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 2.44 4.87 3.33 0.32 0.18 2.84 19.68 1687.09 3.6.91 19.09 3.6.91 19.09 3.6.91 19.05 1.33 6.338 19.64 1.95 6.338 19.64 1.95 6.05 9.72 6.207 9.72 7.207 7.	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.651 2.652 4.04.85 n/a 7.7.13 17.71 10.24 2.48 134.77 115.55 2.57 19.81 2.97 19.81 2.97 19.81	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 526.92 3.598 2.3.75 94.48 2.84 174.20 19.20 16.90 0.00 3.76 18.50 2.815 0.74 14.29 2.835 978.00	117.57 99.26 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 7.31 3.55 1.46 0.21 0.02 2.31 1.93 797.41 25.57 79.57 79.57 718.34 10.95 1.25 3.70 15.87 30.24 8.04 30.24	214 6. 100 00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.02 2.99 4.25 4.80 0.02 2.99 16.17 1330.12 33.71 16.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.6.00 81.18 1.52 2.3.48 1.7.84 1.52 2.54 1.55 1
Zr Total Gemple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.23.66 2.23.66 2.23.66 2.23.66 2.23.66 2.23.66 2.23.66 2.23.66 2.24.40 1.35 5.6.77 2.6.82 2.4.60 1.52 6.67 7.26.82 8.663 6.17 1.9.21 1.6.19 7.32.89 4.85	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.84 0.49 0.02 4.81 51.62 2.995 537.45 1.40 56.65 1.8.15 30.03 2.34 5.45 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.35 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 2.6.75 1.14.25 2.6.75 1.14.25 2.6.75 2.6.75 1.14.25 2.6.75 2.6.75 2.6.75 2.6.75 2.6.75 2.6.75 2.6.75 2.6.75 2.75 2.6.75 2.6.75 2.75 2.6.75 2.75 2.6.75 2.75 2.75 2.75 2.75 2.75 2.75 2.75 2	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.57 0.57 0.57 0.34 1.55 0.99 3.27 0.56 0.17 0.34 1.55 0.99 3.27 0.56 0.17 0.34 1.55 0.99 3.99 3.90 0.56 0.56 0.137 0.56 0.57 0.35 0.56 0.56 0.56 0.57	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.56 16.10 6.02 0.07 2.43 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 2.944 1.906 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 1.909 3.691 3.909 3.90	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.65 2.65 2.655 1.024 2.655 2.655 2.655 1.024 2.655 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 1.024 2.655 2.655 2.655 1.024 2.655 2.557 2.655 2.557 2.655 2.557 2.655 2.557 2.655 2.557 2.655 2.557 2.655 2.557 2.655 2.557 2.6577 2.6577 2.6577 2.6577 2.65777 2.65777 2.65777777777777777777777777777777777777	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.598 2.3.75 9.4.48 2.24 174.20 19.20 16.90 0.00 3.76 18.50 2.8.15 0.74 14.29 2.8.35 9.78 0.64 1.74 2.8.35 9.78 0.04 1.75 2.8.35 0.74 1.4.29 2.8.35 0.74 1.4.29 2.8.35 0.74 1.4.29 2.8.35 0.74 1.4.29 2.8.35 0.78 0.74 1.4.29 2.8.35 0.74 0.74 0.74 0.74 0.74 0.74 0.75 0.74 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.75	117.55 99.26 99.26 0UVG Shargyn Mogha 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 0.24 4.56 0.21 0.02 2.31 1.93 797.41 25.57 32.28 79.57 n/a 1.517 18.34 10.95 1.25 3.370 15.87 30.24 8.04 3.014 26.89 3.014 27.015 3.024 3.014 27.015 3.024 3.014 27.015 3.024 3.01	214.6. 214.6. 100.00 56.4A LF25095 OUVG Shargyn Mogha 62.22 0.66 16.07 4.90 0.00 2.90 4.22 4.80 0.00 2.90 4.22 4.80 0.00 2.90 0.04 1.22 1.6.17 1.330.12 3.3.71 1.330.12 3.3.71 1.300 8.1.18 1.52 2.348 1.7.84 1.6.63 1.056 6.00 4.92 0.04 1.52 1.630 1.540 1.556 1.0356 0.056 7.99
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.336 2.2336 2.2336 2.235 6.235 6.235 7.80,43 51.26 2.336 6.209.81 n/a 41.59 16.82 2.440 1.355 6.677 2.682 88.633 6.17 19.21 16.19 7.32.89 4.85 0.02	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16 23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.44 0.49 2823.01 51.62 29.95 537.45 1.40 56.96 18.15 30.03 2.34 5.45 26.75 114.35 21.42 2.34 5.45 2.67 5.31.15 2.26 1700.60 4.49 7.70	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 38.22 17.61 155.58 n/a 197.79 13.41 26.71 1.43 4.68 27.25 71.73 9.93 19.68 26.26 1137.75 4.35 n/a	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0 56 16.10 6.02 0.07 2.44 4.87 3.33 0.32 2.44 4.87 5.53 5.53 6.94 4.95 5.53 6.53 6.53 6.53 6.53 6.53 6.53 6.5	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.69 8.78 1312.96 2.651 2.652 2.651 2.655 2.651 2.655 1.12.96 1.312.96 4.04.85 n/a 7.7.13 17.71 10.24 2.43 2.48 13.47 115.55 2.67 7.19.81 1.278.96 4.41 1.23	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 4.32 0.04 1.75 526.92 3.598 2.375 9.4.88 2.35 9.94.84 2.84 174.20 19	117.5: 99.22 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.44 0.24 4.58 7.33 1.45 0.21 1.93 7.97.41 2.5.57 32.28 79.57 7.97.41 2.5.57 32.28 79.57 7.18.34 10.95 1.25 3.370 15.87 30.24 8.04 30.14 25.97 30.24 8.04 30.14 25.97 30.24 8.04 30.14 26.89 993.60 0.03 1.27	214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 214.6/ 210.00 200 200 200 200 200 200 200
Zr Total Gample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	116.58 101.68	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.20 3.54 5.20 2.44 0.49 0.02 4.81 25.29 2823.01 51.62 2.955 537.45 1.40 56.96 18.15 30.03 2.34 5.45 26.75 114.35 11.42 31.15 22.36 1700.60 4.49 n/a 216.77	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.99 7.22 9.66 553.09 7.22 9.66 558 1.7.71 1.43 4.68 2.7.25 7.1.73 9.93 19.68 2.62 6.137.75 4.35 1.43 4.63	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.65 16.10 6.02 0.07 2.43 3.3 3.0.32 0.18 2.84 1.95 1.687.09 3.6.91 19.05 1.30.92 0.63 3.6.33 1.9.64 1.90 3.6.33 1.9.64 1.9.55 1.31 5.606 9.72 6.207 9.33 1.449.48 3.322 2.44 4.55 1.441 5.606 9.72 6.207 9.33 1.449.48 3.322 2.442 5.606 5.606 5.606 5.606 5.606 5.606 5.607 9.72 5.607 9.72 5.607 9.73 5.607 9.73 5.605 5.605 5.605 5.605 5.727 5.607 9.72 5.607 9.73 5.605 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.7777 5.77777 5.77777 5.77777 5.77777777	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.24 0.24 0.26 51 26.55 26.51 126.52 404.85 n/a 77.13 17.71 10.24 2.43 2.48 1347 2.57 19.81 2.97 1.1278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.2777 5.2777 5.2777 5.2777 5.2777 5.2777 5.27777 5.27777 5.27777777777	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.5.98 2.3.75 94.48 2.84 174.20 19.20 0.00 3.76 94.85 2.8.15 0.74 1.8.50 2.8.15 0.74 1.4.29 2.8.35 978.00 3.00 2.8.15 0.74 1.4.29 2.8.35 978.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	117.57 99.22 56.38 LF25096 Shargyn Mogha 54.37 0.75 16.12 8.46 0.24 4.56 7.31 3.55 1.46 0.21 0.02 2.31 1.93 797.41 2.55 7.57 7.57 7.52 2.28 79.57 7.18.34 10.95 1.25 3.70 15.87 30.24 8.04 30.14 26.89 993.60 0.03 1.27 213.31	214.64 3 100.03 56.4A LF25095 OUVG Shargyn Moghai 62.22 0.66 16.07 4.90 0.08 2.90 4.25 4.80 2.04 0.02 0.04 1.29 16.17 1330.12 33.71 16.00 81.18 1.52 2.3.48 17.84 1.66 4.92 1.771 1.30 1.60 81.18 1.52 2.3.48 1.7.84 1.66 4.92 1.7.71 1.35.60 7.99 0.12 1.33.71 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 1.35.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.60 7.99 7.55.50 7.55.60 7.55.
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	116.58 101.68 101.68 56.14A LF25043 OUVG Shargyn Moghai 57.09 0.81 14.42 6.97 0.07 3.39 3.65 6.38 1.26 0.41 0.20 4.47 9.53 780.43 51.26 2.33.66 2.33.66 2.33.65 2.23.66 2.33.65 6.23.36 2.29.81 n/a 4.159 1.682 2.24.40 1.35 6.77 2.6.82 2.6.40 1.35 6.77 2.6.82 2.6.40 1.35 6.17 1.9.21 1.6.82 2.4.65 0.12 1.9.21 1.6.82 2.4.65 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.1	110.15 99.42 56.15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16.23 7.58 0.14 5.29 2.44 0.49 0.02 4.81 5.29 2.823.01 51.62 2.9.95 537.45 1.40 56.99 2.823.01 51.62 2.9.95 537.45 1.40 56.675 114.35 2.675 114.42 2.15 2.14 2.15 2.15 2.14 2.15 2.14 2.15 2.15 2.15 2.15 2.15 2.15 2.15 2.15	0.00 101.66 56.15B LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.99 7.22 9.66 553.09 3.822 17.61 155.58 n/a 197.79 13.41 26.71 1.43 4.68 27.25 71.73 19.68 26.26 113.75 4.35 n/a 16.63 11.37 15.34 16.64 11.37 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 13.41 15.58 15.58 13.41 15.58 13.41 15.58	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.55 16.10 6.02 0.07 2.43 4.87 3.33 0.32 0.18 2.244 4.87 3.33 0.32 0.18 1.966 1687.09 3.69 19.00 130.92 0.53 63.38 19.64 19.55 1.81 5.49 2.0.61 5.49 5.40 5.00 5.00 5.00 5.00 5.00 5.00 5.00	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.07 2.652 2.652 4.04.85 n/a 77.13 1312.96 26.52 4.04.85 n/a 77.13 1.12.96 2.652 2.652 2.652 2.652 2.652 2.652 2.652 2.655 2.657 1.12.75 1.12.75 2.652 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.655 2.657 2.657 2.655 2.657 2.657 2.655 2.657 2.577 2.657 2.577 1.024 1.127 2.657 2.577 1.024 1.1278 2.657 2.577 1.024 1.1278 2.577 1.12588 1.12588 1.12588 1.12588 1.125888 1.12588888	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.598 2.3.75 9.4.88 2.34 174.20 19.20 16.90 0.00 3.76 18.50 2.8.15 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 14.29 2.8.35 9.78.30 0.74 17.26 18.50 0.74 17.20 0.75 0.75 0.75 0.75 0.75 0.75 0.75 0.7	117.55 99.22 99.22 56.38 LF25096 Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 7.31 3.65 1.45 0.22 4.56 7.31 3.65 1.45 0.22 4.56 7.31 3.65 1.45 0.22 4.56 7.31 1.93 797.41 25.57 32.28 79.57 79.57 74 1.517 18.34 10.95 1.25 5.3.70 15.87 30.24 8.04 30.14 26.89 9.93.60 0.03 1.27 2.13.31 1.6.65	214.64 3 100.03 56.4A LF25095 OUVG Shargyn Moghai 62.22 0.66 16.07 4.90 0.08 2.90 4.25 4.80 2.04 1.29 16.17 1330.12 33.71 16.00 81.18 1.52 2.348 1.7.84 1.60 81.18 1.52 2.348 1.7.84 1.60 8.10 8.50 56.08 15.11 1035.60 7.99 0.12 113.37 12.57
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O CaO CaO CaO CaO CaO CaO CaO Ca	116.58 101.68	110.15 99.42 56 15A LF25044 OUVG Shargyn Moghai 52.74 0.71 16 23 0.14 5.29 2.44 0.49 0.02 4.81 25.29 2.83.01 51.62 29.95 537.45 1.40 56.96 18.15 30.03 2.34 5.45 26.75 114.35 11.42 26.77 114.35 11.42 22.36 1700.60 4.49 7.850	0.00 101.66 56.158 LF25050 OUVG Shargyn Moghai 52.94 0.53 13.38 5.67 0.17 2.35 8.47 6.64 0.85 0.56 0.09 7.22 9.66 553.09 38.22 17.61 155.58 n/a 197.79 13.41 26.71 1.43 4.68 27.25 71.73 9.93 19.68 26.26 1137.75 4.35 n/a 146.33 15.34 50.75	0 00 99.78 56.16A LF25040 OUVG Shargyn Moghai 59.94 0.65 16.10 6.02 0.07 2.43 3.3 3.0.32 0.18 2.84 1.95 1.687.09 3.6.91 19.05 1.30.92 0.63 3.6.33 1.9.64 1.90 3.6.33 1.9.64 1.9.55 1.31 5.606 9.72 6.207 9.33 1.449.48 3.322 2.44 4.55 1.441 5.606 9.72 6.207 9.33 1.449.48 3.322 2.442 5.606 5.606 5.606 5.606 5.606 5.606 5.607 9.72 5.607 9.72 5.607 9.73 5.607 9.73 5.605 5.605 5.605 5.605 5.727 5.607 9.72 5.607 9.73 5.605 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.605 5.727 5.7777 5.77777 5.77777 5.77777 5.77777777	133.28 99.31 56.17A LF25061 OUVG Shargyn Moghai 53.78 0.66 16.61 6.56 0.14 4.67 6.91 5.40 1.45 0.24 0.24 0.24 0.26 51 26.55 26.51 126.52 404.85 n/a 77.13 17.71 10.24 2.43 2.48 1347 2.57 19.81 2.97 1.1278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.96 2.971 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 4.41 1.23.97 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.257 1.278.96 5.2777 5.2777 5.2777 5.2777 5.2777 5.2777 5.27777 5.27777 5.27777777777	108.00 100.44 56.3A LF25552 OUVG Shargyn Moghai 57.57 0.56 17.34 6.80 0.12 3.29 6.65 4.32 0.73 0.25 0.04 1.75 5.26.92 3.5.98 2.3.75 94.48 2.84 174.20 19.20 0.00 3.76 94.85 2.8.15 0.74 1.8.50 2.8.15 0.74 1.4.29 2.8.35 978.00 3.00 2.8.15 0.74 1.4.29 2.8.35 978.00 3.00 2.8.15 0.74 1.4.29 2.8.35 978.00 3.00 1.15 2.22.77	117.5: 99.22 56.38 LF25096 OUVG Shargyn Mogha 54.37 0.77 16.12 8.46 0.24 4.56 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.45 7.33 1.93 7.97.41	214.64 3 100.03 56.4A LF25095 OUVG Shargyn Moghai 62.22 0.66 16.07 4.90 0.08 2.90 0.425 4.80 2.04 0.22 0.04 1.29 16.17 1330.12 33.71 16.00 81.18 1.52 23.48 1.784 1.52 23.48 1.784 1.633 1.06 6.05 1.511 1035.60 7.99 0.12 113.37 12.57 60.46

	r 66.20A	66.21A	88.2A	58.3A	88.3A	88.3A	22/08_10	22/08_10
Bead						LF25655		LF25611
								1
field area	Oyut Ulean	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan
former officers		-	n/n			~/a	di den	duko
formation SiO2	n/a 64.06	n/a 64.10	n/a 62.50	n/a 64.80	n/a 64.97	n/a 65.70	dyke 56.09	dyke 56.11
TiO2	0.47	0.55	0.54	0.39	0.44	0.49	0.68	0.61
AI2O3	15.61	16.26	15.90	15.80	15.83	16.05		15.61
Fe2O3	3.91	3.77	4.83	4.08	4.05	4.09	8.69	8.59
MnO	0.08	0.05	0.09	0.06	0.06	0.06	0.31	0.32
	2.00		2.42	2.02		2.10		
MgO		1.76			1.97			
CaO	2.83	2.45	3.40	2.73	2.76	3.19		
Na2O	5.32	5.25	5.51	5.31	5.21	4.95		
K20	3.95	4.39	3.63	3.46	3.50	3.24		
P2O5	0.21	0.18	0.22	0.16	0.16	0.17		
SO3	0.02	0.02	0.01	0.03	0.03	0.05		
LOI	1.13	1.33	0.52	1.03	1.00	1.01		
As	4.56	6.61	3.85	4.19	3.75	3.77	5.01	13.02
Ba	883.90	1007.68	929.60	884.77	854.18	878.60		
Ce	33.66	30.97	32.41	34.27	27.02	33.77		
Co	9.18	8.93	11.76	10.37	10.72	12.18		
Cr	41.23	9.41	20.91	25.11	223.07	58.18		
Cs	0.71	5.31	n/a	2.10	5.59	2.63		
Cu	142.77	684.68	165.72	72.14	69.60	66.81	79.57	
Ga	20.19	19.54	21.04	19.87	17.92	18.62		
La	15.29	14.40	17.01	14.20	14.13	11.90		
Mo	2.07	2.24	3.06	1.29	2.55	2.49		
Nb	4.34	4.03	3.37	3.25	4.08	3.79		
Nd	13.70	12.72	16.14	13.44	12.03	12.33		
Ni	9.79	5.69	11.66	12.74	12.12	11.73		
Pb	9.71	7.13	11.35	8.69	10,13	8.47		
Rb	72.94	70.35	55.99	53.63	52.79	53.55		
Sc	14.75	9.94	14.94	15.77	13.55	15.12		
Sr	828.58	769.17	978.79	795.76	786.33	785.82		
Th	9.51	10.62	5.54	13.16	8.69	7.20		
U	7.97	3.22	2.00	2.46	2.16	2.27		
v	123.55	122.00	146.59	102.96	108.96	99.91		
Ŷ	7.62	7.45	8.23	7.90	6.51	6.05		
Zn	38.30	120.35	44.83	32.57	30.92	30.86		
Zr Total ample number	226.57 99.58 56.4B	222.18 100.10 56.5A	148.98 99.58 56.5A	109.34 99.89 56.5A	121.81 99.98 56.6A	110.05 100.09 56.7A	56.8A	56.9A
Zr Total	226.57 99.58 56.4B	222.18 100.10 56.5A	148.98 99.58	109.34 99.89	121.81 99.98	110.05	56.8A LF25566	5 104.75 5 99.13
Zr Total ample number	226.57 99.58 56.4B	222.18 100.10 56.5A	148.98 99.58 56.5A	109.34 99.89 56.5A	121.81 99.98 56.6A	110.05 100.09 56.7A	56.8A	56.9A
Zr Total ample number Bead field area	226.57 99.58 56.48 LF25090 OUVG	222.18 100.10 56.5A LF25546 OUVG	148.98 99.58 56.5A LF25547 OUVG	109.34 99.89 56.5A LF25548 OUVG	121.81 99.98 56.6A LF25070 OUVG	110.05 100.09 56.7A LF25089 OUVG	56.8A LF25566	104.75 99.13 56.9A LF25088 OUVG
Zr Total ample number Bead field area formation	226.57 99.58 56.4B LF25090 OUVG Shargyn Moghai	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai	110.05 100.09 56.7A LF25089 OUVG Shargyn Mogha	56.8A LF25566 OUVG Shargyn Mogha	56.9A LF25088 OUVG Shargyn Moghai
Zr Total ample number Bead field area formation SiO2	226.57 99.58 56.4B LF25090 OUVG Shargyn Moghai 62.27	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghai 58.64	56.8A LF25566 OUVG Shargyn Mogha 60.45	104.75 99.13 56.9A LF25088 OUVG Shargyn Mogha
Zr Total ample number Bead field area formation SiO2 TiO2	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87	56.8A LF25566 OUVG Shargyn Mogha 60.46 0.40	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3	226.57 99.58 56.4B LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59	56.8A LF25566 OUVG Shargyn Mogha 60.45 0.40 15.22	56.9A LF25088 OUVG Shargyn Mogha 59.27 0.76 16.33
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33	56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82	56.9A LF25088 OUVG Shargyn Mogha 59.27 0.76 16.33 5.73
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.98 0.14	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.55 7.33 0.13	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.46 0.40 15.22 4.82 0.06	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 16.96 6.98 0.14 4.76	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghai 58.64 0.87 15.58 7.33 0.13 4.71	56.8A LF25566 OUVG Shargyn Mogha 60.45 0.40 15.22 4.82 0.06 2.16	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29
Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.09	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.58 7.33 0.13 4.71 5.87	56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05	56.9A LF25088 OUVG Shargyn Mogha 59.27 0.76 16.33 5.73 0.07 2.29 2.98
Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 4.84 5.24 5.24	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.09 4.94	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 0.54 1.636 0.14 4.76 5.09 0.14 4.76 5.09 4.94 1.83	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.500 0.11 4.78 5.50 4.06 1.62	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71	56.8A LF25566 OUVG Shargyn Mogha 60.46 0.40 15.22 4.82 0.00 2.16 3.09 4.74 3.29	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O F2O5	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.0 1.87 0.24	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 6.98 0.14 4.76 5.09 4.94 1.83 0.24	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 5.50 4.06 1.62 0.27	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28	56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.29 0.22	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.25 5.25 1.87 0.24 0.05	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.09 4.94 1.83 0.24	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.29 0.22 0.24	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.03
Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 3.17 0.23 0.03 0.96	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 0.14 4.76 5.09 4.94 1.83 0.24 0.05 2.54	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 18.87 7.500 0.11 4.78 5.50 4.06 1.62 0.27 0.88 3.65	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.16	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.46 0.40 15.22 4.82 0.00 2.16 3.09 4.74 3.29 0.22 0.04	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 6.39	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.24 5.24 0.24 0.24 0.24 0.25 4.11.17	148.98 99.58 56.5A LF25547 OUVG 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 8.88	109.34 99.89 56.5A LF25548 OUVG 55.26 0.55 16.96 6.98 0.14 4.76 5.09 4.94 1.83 0.24 0.52 5.49 8.81	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.25 0.22 0.04 5.27 15.95	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.31 0.03 4.00 6.38
Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O SO3 LOI As Ba	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 6.63 72	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.99 0.14 4.76 5.09 4.94 1.83 0.24 0.05 2.54 8.81 641.10	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.76 5.50 4.06 1.62 0.27 0.27 0.08 3.65 9.63 8.44.73	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.66 3.000 2.59.94	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.25 0.22 0.22 0.22 0.22 0.22 0.22 0.22 0	56.9A LF25088 OUVG Shargyn Mogha 59.27 0.76 16.33 5.73 0.07 2.298 5.89 2.34 0.31 0.03 0.03 0.03 4.00 6.38 739.19
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	226.57 99.58 56.48 LF25090 OUVG 5hargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 3.17 0.23 3.17 0.23 3.17 0.23 3.48	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00 29.66	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.254 8.88 8.83 7.27.43	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 0.14 4.76 5.09 4.94 1.83 0.24 4.94 1.83 0.24 8.81 6.41.10 38.98	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 0.61 18.87 7.50 0.11 4.78 5.50 0.011 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 3.65 9.43 3.39.49	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 7.33 0.13 4.71 5.87 4.16 0.77 4.16 0.77 4.16 0.77 2.16 3.00 2.59.94 3.964	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 2.16 3.05 2.16 3.05 2.16 3.05 2.16 3.05 2.16 3.05 2.16 3.05 2.15 5.65	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 739.19 4.720
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.317 0.23 0.03 0.96 6.39 891.52 34.88 18.01	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.24 5.24 0.24 0.05 2.54 11.17 632.00 29.66 27.06	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.24 8.88 8.663 72 2.743 2.644	109.34 99.89 56.5A LF25548 OUVG 55.26 0.56 16.96 6.98 0.14 4.76 4.94 1.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 3.65 9.63 3.94 7.39 40 2.25,51	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.16 3.00 2.59.94 3.964 26.83	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.40 (15.22 4.82 0.06 2.16 3.05 4.74 3.25 0.22 0.04 5.27 15.95 960.76 5.56.84	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.031 0.03 4.00 6.38 7.39.19 4.720 18.61
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 663.72 2.7.43 2.644 105.69	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.09 4.94 4.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26 62.12.49	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.555 9.63 9.63 9.63 9.63 9.63 9.63 9.63 9.63	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.59.94 3.00 2.59.94 3.964 2.633 8.6.11	56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.29 0.22 0.04 5.27 15.95 960.76 55.61 3.143 3.143 262.94	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 233.61
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.33 0.98 881.52 34.88 18.01 75.67 3.94	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 10.17 632.00 29.66 27.06 20.345 2.16	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 1.680 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 8.88 8.86 663.72 2.7.43 2.6.44 105.69 7.76	109.34 99.89 56.5A LF 25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.99 4.94 1.83 0.24 4.94 1.83 0.25 8.81 64.10 38.98 25.26 2.54 8.81 64.10 38.98 25.26 2.12.49 0.56	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 0.011 4.78 5.50 0.011 4.06 1.62 0.27 0.08 3.65 9.63 3.844.73 39.49 22.51 95.27 7.52	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00 259.94 39.64 26.83 86.11 4.18	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.25 0.04 5.27 15.95 960.76 55.61 31.43 262.94 n/a	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 1.33.61 1.41
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.317 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 33.32	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 56.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.24 5.24 5.24 5.24 1.87 0.24 0.05 2.54 1.17 632.00 29.66 27.06 203.45 2.16 10.88	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 8.88 663.72 2.743 8.88 663.72 2.743 8.88 663.72 2.743 8.88 663.72 2.743 8.88 663.72 2.743 8.88 8.87 1000000000000000000000000000000000000	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 6.98 0.14 4.476 5.09 4.94 1.83 0.24 0.05 2.54 8.81 64.10 38.98 2.526 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 11.6.87 7.50 0.11 4.76 5.50 4.06 1.62 0.27 0.08 3.55 9.63 844.73 39.49 20.51 9.527 7.52 25.51	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00 259.94 3.96 4.26.83 8.6.11 4.18 15.89	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.44 0.40 15.22 4.82 0.00 2.16 3.05 4.74 3.25 0.22 0.04 5.27 15.95 5.61 31.43 262.94 0.14 3.262.94 0.14 46.48	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39 19.47 2.34 0.31 0.03 1.00 1.861 2.33.61 1.41 4.42
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 33.32 19.51	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.25 1.87 0.24 0.05 2.54 1.17 632.00 29.66 27.06 27	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 663.72 2.743 2.644 105.69 7.86 8.71 18.31	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 6.98 0.14 4.76 5.09 4.94 1.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26 2.12.49 0.56 9.94 18.11	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 5.9.63 844.73 39.49 25.51 9.63 844.73 39.49 25.51 9.52 7.7.52 5.04 20.15	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.58 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.16 3.00 2.59.94 3.964 26.83 86.11 4.18 16.85	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.42 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.29 0.22 0.04 5.27 15.95 960.76 55.61 3.1.43 262.94 n/a 4.6.48 19.96	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.31 0.33 4.00 6.38 7.39.19 4.720 18.61 233.61 1.41 44.22 19.08
Zr Total ample number Bead field area formation SiO2 TiO2 Al2C03 Fe2O3 MnO Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 3.32 19.51 1.772	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 20.345 2.16 10.88 11.17 632.00 29.66 27.06 10.88 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 11.17 1.	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 0.61 16.80 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.25 4.93 0.25 4.93 1.82 0.25 4.93 0.25 4.93 1.82 0.25 8.88 8.88 8.86 6.37 7.01 7.43 2.54 8.88 8.86 7.74 3.25 8.87 7.83 7.84 7.84 7.85 7.84 7.85 7.74 7.85 7.85 7.84 7.85 7.84 7.85 7.84 7.85 7.85 7.84 7.85 7.85 7.85 7.85 7.85 7.85 7.85 7.85	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.09 4.94 1.83 0.24 8.81 641.10 38.98 25.26 2.12.49 0.56 2.12.49 0.56 9.94 18.11 11.17	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 22.51 95.27 7.52 5.04 20.15 1.077	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.16 3.00 259.94 39.64 26.83 86.11 4.18 15.89 16.85 12.35	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.29 0.22 0.04 5.27 15.96 960.76 55.61 31.43 262.94 n/a 46.48 19.96 25.79	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.298 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 1.41 44.22 19.08 20.13
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.317 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 4.33.32 19.51 1.77 2.3.48	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.25 1.87 0.24 0.05 2.54 1.17 632.00 29.66 27.06 27	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.25 2.54 8.88 663.72 2.743 2.644 105.69 7.86 8.87 18.31 11.39 2.05	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 0.14 4.76 5.09 4.94 1.83 0.24 0.55 2.54 8.81 641.10 38.99 2.526 2.12.49 0.56 2.12.49 0.56 9.94 18.11 11.17 1.50	121.81 99.98 56.6A LF25070 Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.76 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 20.51 95.27 7.52 5.04 20.51 95.27 7.52 5.04 20.15 10.77 1.14	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00 259.94 3.96 26.83 8.611 4.18 15.89 16.85 2.69 16.55 2.29	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.44 0.40 15.22 4.82 0.00 2.16 3.05 4.74 3.25 0.22 0.04 5.27 15.95 960.76 5.561 31.43 262.94 n/a 46.48 19.96 25.79 2.15	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39 9.234 0.31 0.03 4.00 6.38 7.39 9.24 0.31 0.03 1.63 1.23 1.61 1.41 1.44 2.23 1.61 1.41 1.44 2.25 1.63 1.41 1.44 1.44 2.25 1.63 1.41 1.44 1.44 1.89 1.89 1.89 1.89 1.89 1.89 1.89 1.89 1.89 1.63 1.89 1.89 1.63 1.89 1.63 1.89 1.63 1.89 1.63 1.89 1.63 1.89 1.63 1.89 1.89 1.63 1.89 1.63 1.63 1.89 1.63 1.89 1.63 1.89 1.63 1.89 1.63 1.89 1.63 1.63 1.63 1.89 1.63 1.63 1.63 1.89 1.63 1.63 1.63 1.89 1.63 1.63 1.63 1.89 1.63 1.63 1.63 1.89 1.63 1.63 1.63 1.63 1.63 1.63 1.63 1.89 1.63 1.63 1.63 1.63 1.63 1.89 1.63 1.
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 3.32 19.51 1.772	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 20.345 2.16 10.88 11.17 632.00 29.66 27.06 10.88 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 29.66 11.17 632.00 11.17 1.	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 0.61 16.80 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.25 4.93 0.25 4.93 1.82 0.25 4.93 0.25 4.93 1.82 0.25 8.88 8.88 8.86 6.37 7.01 7.01 7.01 7.01 7.01 7.01 7.01 7.0	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 0.14 4.76 5.09 4.94 1.83 0.24 0.55 2.54 8.81 641.10 38.99 2.526 2.12.49 0.56 2.12.49 0.56 9.94 18.11 11.17 1.50	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 225.51 95.27 7.52 5.04 20.15 1.077	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.58 7.33 0.13 4.77 5.87 4.16 0.71 0.28 0.03 2.16 3.00 2.59.94 3.964 2.633 86.11 4.18 15.89 16.85 12.35 2.09 3.07	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.42 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.29 0.04 5.27 15.95 960.76 55.61 3.1.43 262.94 n/a 46.48 19.96 25.79 2.15 6.27	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.31 0.33 4.00 6.38 7.39.19 47.20 18.61 233.61 1.41 44.22 19.08 20.13 1.89 6.21
Zr Total Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O K2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.93 6.39 891.52 34.88 18.01 75.67 3.94 43.322 19.51 17.72 1.66 3.27	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.5 1.87 0.24 0.05 2.54 1.17 632.00 29.66 203.45 2.54 1.17 632.00 29.66 1.088 1.87 0.24 0.55 2.54 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.18 1.17 632.00 29.66 1.17 632.00 29.66 1.16 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 632.00 29.66 1.17 1.17 632.00 29.66 1.17 1.17 632.00 29.66 1.17 1.17 632.00 29.66 1.17 1.17 632.00 29.66 1.18 1.17 632.00 29.66 1.18 1.17 632.00 20.345 2.16 1.68 1.69 3.25 1.69	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 8.88 663.72 2.73 2.644 105.69 7.766 8.88 663.72 2.743 2.644 105.69 7.766 8.871 1.139 2.056 8.71 1.139 2.056	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 6.98 0.14 4.76 5.09 4.94 1.83 0.24 0.05 2.54 8.81 641.10 38.98 2.526 2.12.49 0.56 9.94 18.11 1.1.17 1.50 2.26	121.81 99.98 56.6A LF25070 Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 5.9.63 8.44.73 39.49 225.51 95.27 7.52 5.04 20.15 10.77 1.14 2.34	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.58 7.33 0.13 4.77 5.87 4.16 0.71 0.28 0.03 2.16 3.00 2.59.94 3.964 2.633 86.11 4.18 15.89 16.85 12.35 2.09 3.07	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.44 0.40 15.22 4.82 0.00 2.16 3.05 4.74 3.25 0.22 0.04 5.27 15.95 960.76 5.561 31.43 262.94 n/a 46.48 19.96 25.79 2.15	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.31 0.33 4.00 6.38 7.39.19 47.20 18.61 233.61 1.41 44.22 19.08 20.13 1.89 6.21
Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O Fe2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 3.32 19.51 17.72 1.66 3.27 15.29	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.16 10.88 18.46 10.88 18.46 11.61 1.69 3.25 17.06 1.69 1.70 1.67 1.6	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 4.93 1.82 0.24 0.05 2.54 6.87 2.743 2.644 105.69 7.86 8.871 18.31 11.39 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.52 2.54 8.871 1.831 1.139 2.05 3.525 2.54 8.871 1.831 1.139 2.055 3.525 1.617 1.058 3.5255 3.525 3.525 3.525 3.525 3.525 3.5255 3.5255 3.5255 3.5255 3.5255 3.5255 3.5255 3.5255 3.5555 3.5555 3.5555 3.55555 3.55555 3.5555 3.555555 3.55555555	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 0.14 4.76 5.09 4.94 1.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26 212.49 0.56 212.49 0.56 212.49 18.11 11.17 1.50 2.26 1.5.46	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 225.51 9.52 7.52 5.04 20.15 10.77 1.14 2.34 10.77	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 5.87 4.16 0.71 5.87 4.16 0.03 2.59.94 39.64 39.75 30.75	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.25 0.22 0.04 5.561 3.143 262.94 n/a 46.48 19.96 25.79 2.15 6.27 30.90	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.298 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 1.41 44.22 19.08 20.13 1.89 6.21 23.70
Zr Total ample number Bead field area formation SiO2 TiO2 Al2C03 Fe2C03 Fe2C03 Fe2C03 MnO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 3.37 0.23 3.03 0.96 6.33 0.96 6.33 9.89 1.52 3.488 18.01 75.67 3.94 3.32 19.51 1.7.72 1.66 3.27 15.29 36.96	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.54 11.17 632.00 29.66 27.06 203.45 2.16 1.69 3.25 17.06 3.395	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 663.72 2.74 8.88 7.86 7.86 7.86 7.86 7.86 7.86 7.86	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 6.98 0.14 4.476 5.09 4.94 1.83 0.24 0.05 2.254 8.81 641.10 38.98 2.252 6.212.49 0.65 2.212.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.12.49 0.552 2.14 0.552 2.154 0.52 0.52 0.52 0.54 0.52 0.52 0.52 0.52 0.52 0.52 0.52 0.52	121.81 99.98 56.6A LF25070 Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.76 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 20.51 9.527 7.52 5.04 20.51 9.527 7.52 5.04 20.15 5.04 20.15 1.077 1.14 2.34 17.76 2.94 23.94 25.94 23.94 25.94 25.94 23.94 23.94 24.94 25.94 25.94 25.94 20.94	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.55 7.33 0.13 4.71 5.87 4.16 0.071 0.28 0.03 2.16 3.00 259.94 3.94 4.95 4.95 6.83 8.61 1.41 5.89 1.655 1.235 2.09 3.07 1.760 3.149	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.44 0.40 15.22 4.82 0.06 2.16 3.06 4.74 3.25 0.22 0.04 5.27 15.95 5.61 31.43 262.94 1.960.76 5.27 9.215 6.27 3.090 2.07,56	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39 19 2.34 0.31 0.03 4.00 6.38 7.39 19 2.34 0.31 0.41 2.34 0.31 0.03 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.70 5.197 5.297 5.1
Zr Total Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 4.33.32 19.51 17.72 1.66 3.27 15.29 36.96 8.81	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.51 7.06 0.14 4.84 5.24 5.51 7.06 0.14 4.84 5.24 5.52 1.87 0.24 0.05 2.54 1.17 632.00 29.66 203.45 2.16 10.88 18.81 1.17 632.00 29.66 10.88 18.7 0.57 2.54 11.17 632.00 29.66 10.88 18.7 0.57 2.54 11.17 632.00 29.66 203.45 2.16 10.88 18.61 1.69 3.25 17.06 3.395 3.42	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.05 2.54 8.88 663.72 2.743 2.644 105.69 7.766 8.871 11.33 2.644 105.69 7.766 8.871 1.33 2.644 1.139 2.656 8.71 1.33 2.644 1.139 2.656 8.71 1.139 2.654 8.71 1.139 2.656 8.71 1.139 2.656 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 2.713 2.654 8.72 7.733 2.654 8.71 7.733 2.656 8.71 7.73 8.756 8.71 7.735 8.756 8.777 7.733 2.656 8.777 7.735 8.756 8.777 7.735 8.757 8.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.7576 7.757777777777	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 16.96 6.98 0.14 4.76 5.09 4.94 1.83 0.24 0.05 2.54 8.81 641.10 38.98 22.52 2.12.49 0.56 9.94 1.83 1.17 1.17 1.55 2.56 9.94 1.81 1.17 1.55 2.56 9.94 1.81 1.17 1.55 2.56 9.94 1.81 1.17 1.55 2.56 9.94 1.81 1.17 1.55 2.56 9.94 1.81 1.55 2.55 2.52 2.52 2.52 2.54 2.55 2.55 2	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 5.9.63 844.73 39.49 22.51 95.27 7.52 5.20 5.20 5.20 7.52 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 5.20 7.22 7.22 5.20 7.22 5.20 7.22 7.22 7.22 7.22 7.22 7.22 7.22 7	110.05 100.09 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.16 3.00 2.59.94 3.964 2.633 86.11 4.18 15.59 3.00 2.59.94 3.964 2.633 86.11 4.18 15.59 3.00 2.59.94 3.964 2.633 8.611 4.18 15.59 3.00 2.59.94 3.964 2.633 8.611 4.18 15.59 3.00 2.59.94 3.964 2.633 3.00 3.00 2.59.94 3.964 2.633 3.00 3.00 3.00 3.00 3.00 3.00 3.00	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.25 960.76 55.61 31.43 262.94 n/a 46.48 19.96 25.79 2.15 6.27 30.90 20.756 8.43	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.34 0.31 0.03 4.00 6.38 739.19 47.20 18.61 233.61 1.41 44.22 19.08 20.13 1.89 6.21 23.76 1.897 8.97
Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd Ni Pb Rb	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 3.32 19.51 17.72 1.66 3.27 15.29 36.96 8.81 58.31	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.24 5.25 1.87 0.24 0.05 2.54 1.17 632.00 29.66 27.06 203.45 2.16 10.88 18.46 10.88 18.46 10.88 3.25 17.06 3.395 3.42 46.55	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 4.93 1.82 0.24 0.05 2.54 4.93 1.82 0.24 0.05 2.54 8.871 1.831 1.139 2.644 1.05.69 7.86 8.871 1.831 1.139 2.65 3.522 1.6.17 3.4.58 6.618 1.39 2.65 3.522 1.6.17 3.4.58 6.618 1.39 2.65 3.522 1.6.17 3.4.58 6.618 1.39 2.65 3.522 1.6.17 1.34 5.55 5.65 6.61 5.65 6.61 7.85 7.85 7.85 7.85 7.85 7.85 7.85 7.85	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 16.96 6.98 0.14 4.76 5.09 4.94 4.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26 212.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 0.57 0.57 0.57 0.57 0.57 0.57 0.57 0.57	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.76 5.50 4.06 1.62 0.27 0.08 3.855 9.63 844.73 39.49 25.51 9.527 7.52 5.04 4.20.15 10.77 1.14 2.34 20.15 10.77 1.17 2.34 2.55 5.50 2.77 5.50 5.50 2.77 5.50 5.50 5.50 5.50 5.50 5.50 5.50 5	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.59.54 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.964 3.97 1.655 2.99 3.07 1.760 3.149 3.51 1.425 3.97 1.425 3.97 1.425 3.97 1.425 3.97 1.425 3.97 3.97 1.760 3.149 3.51 1.425 3.97 1.760 3.149 3.51 1.425 3.07	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.05 4.74 3.25 0.04 5.25 0.22 0.04 5.25 960.76 55.61 31.43 262.94 n/a 46.48 19.96 25.79 2.15 6.27 30.90 207.56 8.43 21.94	56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 23.61 1.41 44.22 19.08 20.13 1.89 6.21 23.70 51.97 8.97 3.13
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Ni Pb Rb Sc	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 3.17 0.23 3.37 3.36 4.93 3.17 0.23 3.36 4.93 3.17 0.23 3.36 4.93 3.17 0.23 3.36 4.93 3.17 0.23 3.36 4.93 3.17 0.23 3.36 6.327 15.67 9.56 3.94 3.32 19.51 1.77 2.56 3.94 3.32 1.57 1.52 9.36 9.68 3.11 1.57	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.16 10.88 18.46 11.61 1.69 3.25 17.06 3.395 3.42 46.55 24.72	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.25 8.88 8.663 7.27.43 2.644 105.69 7.86 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 1.139 2.65 8.87 7.86 7.86	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 6.98 0.14 4.476 5.09 4.94 1.83 0.24 0.05 2.254 8.81 641.10 3.89 2.526 2.12.49 0.66 9.94 1.81 1.117 1.50 2.254 8.81 6.41.10 3.89 2.526 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.15.4 3.356 7.744 4.72 5.35 2.54 3.356 7.744 4.72 3.18 3.18	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 6.0 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 225.51 95.27 7.52 5.04 20.15 10.77 1.14 2.34 17.76 29.42 2.99 56.65 2.662	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.55 7.33 0.13 4.71 5.87 4.16 0.071 0.28 0.03 2.16 3.00 259.94 3.94 4.95 4.16 5.87 4.16 5.87 4.16 5.87 4.16 5.87 4.16 5.87 4.16 5.87 4.16 5.89 4.15 5.87 4.16 5.87 4.16 5.89 1.65 5.52 2.09 3.07 1.760 3.149 3.51 1.425 3.107	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.44 0.40 15.22 4.82 0.06 2.16 3.06 4.74 4.82 0.06 2.16 3.06 4.74 4.82 0.02 0.04 5.27 15.95 5.61 31.43 2.62,94 0.960.76 5.57 9.215 6.27 3.090 2.07,56 8.43 2.194 2.19 2.19 2.15 6.27 3.090 2.07,56 8.43 2.194 2.19 2.19 2.19 2.19 2.19 2.19 2.19 2.19	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39 19 2.34 0.31 0.03 1.41 2.33.61 1.41 2.33.61 1.41 2.33.61 1.41 2.33.63 1.41 2.33.70 5.197 8.97 3.13 16.65
Zr Total Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 433.22 9.51 1.77.22 1.66 3.27 15.29 36.96 8.81 58.31 1.157 52.29	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 27.06 27.06 27.06 27.06 1.87 0.24 0.55 2.54 11.17 632.00 29.66 27.06 27.	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 0.52 5.26 4.43 1.82 0.24 0.52 5.26 4.93 1.82 0.24 0.52 5.26 4.93 1.82 0.24 0.56 5.25 4.93 1.82 0.24 0.55 5.26 4.93 1.82 0.24 0.55 5.26 4.93 1.82 0.24 0.55 5.26 6.37 2.743 2.644 1.056 9.786 6.88 8.87 1.831 1.139 2.055 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 16.96 6.98 0.14 4.76 5.09 4.94 1.83 0.24 0.56 2.54 8.81 641.10 38.98 25.26 2.12.49 0.56 9.94 18.11 11.17 1.55 2.26 9.94 18.11 11.17 1.55 2.26 9.34 8.81 641.20 3.365 7.44 4.7.26 3.188 8.78.39	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 22.51 95.27 7.52 5.04 20.15 10.77 1.14 2.34 17.76 29.42 2.99 56.65 22.65 22.65 22.65 26.65 27.55 27.55 27.55 27.55 25.55 25.55 25.55 25.54 20.15 25.5	110.02 100.03 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00 2.59.94 3.964 2.633 86.11 4.125 3.00 3.0	i 100.38 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.25 960.76 55.61 31.43 262.94 n/a 46.48 19.96 25.79 2.15 6.27 30.90 207.56 8.43 21.94 2.19 6.27 2.19 6.27 30.90 207.56 8.43 21.94 2.19 6.27 2.19 6.27 2.19 6.27 30.90 2.19 6.27 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 30.90 2.19 6.27 6.27 30.90 2.19 5.56 6.27 30.90 2.10 5.56 6.27 30.90 2.10 5.56 6.27 30.90 2.10 5.56 5.57 5.56 5.57 5.56 5.57 5.56 5.57 5.56 5.57 5.56 5.57 5.57	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.298 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 1.861 2.33.61 1.41 1.44 22 1.9.08 2.34 0.031 0.03 4.00 5.88 7.39.19 47.20 1.861 2.33.61 1.41 1.44.22 1.9.08 2.01 1.89 6.21 2.37 5.197 8.97 33.13 1.665 1.029.04
Zr Total Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O MgO CaO Na2O Na2O K2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 891.52 34.88 18.01 75.67 3.94 3.322 19.51 17.72 1.86 6.32 9.891.52 3.48 8.18.01 75.67 3.94 3.322 9.951 1.772 1.86 6.322 9.51 1.772 1.85 6.32 9.51 1.772 1.85 6.32 9.51 3.54 5.29 3.54 5.29 3.54	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.16 10.88 11.17 632.00 29.66 27.06 203.45 2.16 10.85 3.42 46.55 3.42 46.55 3.42 882.97 3.17	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.22 0.24 0.05 2.54 6.372 2.7.43 2.644 105.69 7.86 8.71 18.31 11.33 2.65 8.71 18.31 11.33 2.65 6.8.71 18.33 2.64 6.8.71 2.27.43 2.64 8.74 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.75 2.27.43 2.64 8.77 1.13 2.65 8.77 1.13 2.65 8.77 2.57 8.68 7.66 8.77 2.57 8.68 7.66 8.77 2.57 8.68 7.66 7.66 7.66 7.66 7.66 7.66 7.6	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.25 0.55 6.98 0.14 4.76 5.09 4.94 4.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26 212.49 0.56 9.94 18.11 11.17 1.50 2.26 5.25 2.12.49 0.56 9.94 4.83 3.54 8.83 3.88 8.78.39 3.54	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.555 9.63 844.73 39.49 25.51 9.63 844.73 39.49 25.51 9.63 9.63 9.63 9.63 9.63 9.62 7.7,52 5.04 20.15 10.77 1.14 2.34 2.55 9.65 5.50 6.65 2.655 2.6555 2.6555 2.6555 2.6555 2.6555 2.6555 2.65555 2.65555 2.65555555555	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.58 7.33 0.13 4.71 5.87 4.16 0.71 0.28 0.03 2.59 4.30 0.259.94 3.964 2.633 86.11 4.18 15.88 12.35 2.09 3.07 17.60 3.14 9.351 14.25 3.107 9.22.70 5.50	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.42 0.44 15.22 4.82 0.06 2.16 3.06 4.74 3.29 0.22 0.44 5.27 15.95 960.76 55.61 3.1.43 262.94 n/a 46.42 960.76 55.61 3.1.43 262.94 n/a 46.82 960.76 55.61 3.1.43 262.94 n/a 46.82 960.76 55.61 3.1.43 262.94 n/a 46.82 960.76 55.61 3.1.43 262.94 n/a 46.82 960.76 55.61 3.1.43 262.94 n/a 46.82 960.76 55.61 3.1.43 262.94 n/a 46.82 960.76 55.61 3.1.43 262.94 n/a 46.82 9.60.76 55.61 3.1.43 2.62.94 1.9.96 2.5.79 2.15 5.6.27 30.90 2.07.56 8.43 2.1.94 2.2.72 3.0.90 2.07.56 8.43 2.1.94 2.2.72 3.0.90 2.07.56 5.22	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 233.61 1.41 44.22 19.08 20.13 1.89 6.21 23.70 51.97 8.97 33.13 16.65 1029.04 4.33
Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 3.32 19.51 17.72 1.66 3.27 15.29 36.96 8.81 1.52 3.68 3.15 2.58 3.15 2.58 3.15 2.58 3.15 2.58 3.15 2.58 3.54 3.54 2.70	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.16 10.88 18.46 11.61 1.69 3.25 17.06 2.345 2.16 10.88 18.46 11.61 1.69 3.25 17.06 3.395 3.42 4.655 2.4.72 882.97 3.17 n/a	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 0.52 4.93 1.82 0.24 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 0.25 0.25 4.93 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.56 6.98 0.14 4.476 5.09 4.94 1.83 0.24 0.05 2.254 8.81 641.10 38.98 2.2526 2.12.49 0.562 2.12.49 0.562 2.12.49 0.562 2.12.49 0.562 2.12.49 0.562 2.12.49 0.562 2.15.46 3.356 7.44 4.726 3.1.88 8.78.39 3.54 1.36	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 22.51 10.77 1.14 2.015 10.77 1.14 2.015 10.77 1.14 2.95 5.04 20.15 10.77 1.14 2.94 2.99 5.66 2.95 2.95 2.95 2.66 2.95 2.66 2.95 2.55 2.66 2.55 2.55 2.66 2.55 2.55 2.5	110.05 100.05 56.7A LF25089 OUVG Shargyn Mogha 58.64 0.87 15.55 7.33 0.13 4.16 0.071 5.87 4.16 0.071 0.28 0.03 2.16 3.00 259.94 3.964 26.83 86.11 4.18 5.89 16.85 12.35 2.09 3.07 17.60 3.149 3.3149 3.317 17.50 2.270 5.50 2.40	56.8A LF25566 OUVG Shargyn Mogha 60.46 0.40 0.22 0.04 0.52 0.22 0.04 0.52 0.22 0.04 0.52 0.22 0.04 0.52 0.22 0.04 0.52 0.22 0.04 0.52 0.22 0.04 0.52 0.22 0.04 0.52 0.55 6.55 6.27 0.30 0.90 2.07 6.62 7.7 3.090 2.07 6.62 7.7 3.090 2.07 5.62 7.7 3.090 2.07 5.62 7.7 3.090 2.07 5.62 7.7 3.090 2.07 5.22 2.12 1.095 8.03 2.12 1.095 2.22 2.12 1.095 1.005 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 2.12 1.055 1.22 1.25 1.2	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.298 2.34 0.31 0.03 4.00 6.38 733.19 47.20 18.61 1.41 44.22 19.08 20.13 1.89 6.21 2.370 5.197 8.97 3.313 16.65 1029.04 4.33 1.41
Zr Total Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 4.33.32 9.51 1.77 2.34 8.81 5.83 1.17 7.52 9.36 9.66 8.81 5.831 1.157 5.82.99 3.54 4.270 120.58	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.25 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.16 10.88 18.46 11.61 1.69 3.25 17.06 33.95 3.42 46.55 2.472 882.97 3.17 n/a 203.31	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.83 1.83 1.13 2.05 5.95 7.86 6.88 8.87 1.83 1.25 5.95 6.88 8.87 1.83 1.25 5.95 6.88 8.87 1.83 1.25 5.95 6.65 7.75 7.7	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 26 0.55 26 0.55 26 0.55 26 0.56 26 26 26 26 26 26 26 26 26 26 26 26 26	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 225.51 95.27 7.52 5.04 20.15 10.77 1.14 2.34 17.76 29.42 2.99 56.65 22.65 26.62 29.86 20.92 3.32 2.33 22 2.13.88	110.02 100.03 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00 259.94 3.06 3.00 259.94 3.06 3.00 259.94 3.06 3.00 259.94 3.06 3.00 2.16 3.00 3.	i 100.38 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.25 0.22 0.04 5.27 15.95 960.76 5.56 1.31.43 262.94 n/a 4.64.88 19.96 25.79 2.15 6.27 30.90 207.56 8.43 21.94 22.72 1069.80 5.22 2.12 1069.80	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.03 4.00 18.61 233.61 1.41 1.44 23.75 1.89 6.21 23.70 51.97 8.97 33.13 16.65 1029.04 4.33 1.41 1.40,16
Zr Total Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 89.152 34.88 18.01 75.67 3.94 4.33 3.22 19.51 17.72 1.66 6.327 15.29 36.96 8.81 58.31 11.57 8.32.99 3.54 2.70 120.58 13.57	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.24 5.25 1.87 0.24 0.05 2.54 4.11.17 632.00 29.66 27.06 203.45 2.16 1.088 18.46 11.61 1.69 3.25 17.06 33.95 3.42 46.55 24.72 882.97 3.17 n/a 203.31 21.25	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.22 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.25 4.93 1.82 0.24 4.93 1.82 0.25 4.93 1.82 0.24 6.87 1.83 2.64 4.105.69 7.86 8.71 1.139 2.05 5.35 6.87 1.139 2.64 4.139 2.64 4.139 2.65 4.61 1.139 2.65 5.86 6.87 2.54 6.87 2.55 7.55 7.55 7.55 7.55 7.55 7.55 7.5	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.25 0.55 6.98 0.14 4.76 5.09 4.94 4.83 0.24 0.05 2.54 8.81 641.10 38.98 25.26 2.12.49 0.56 2.12.49 0.56 2.12.49 0.56 2.52 2.12.49 0.56 2.52 2.12.49 0.56 2.52 2.12.49 0.56 2.52 2.12.49 0.56 2.52 2.12.49 0.56 2.52 2.12.49 0.56 2.52 2.52 2.52 2.52 2.52 2.52 2.52 2	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.555 9.63 844.73 39.49 25.51 9.63 844.73 39.49 25.51 9.52 7.7.52 5.04 4.20.15 10.77 1.14 2.34 17.76 2.99 5.655 2.665 2.665 2.665 2.662 2.860.49 3.92 3.32 2.13.88 2.068	110.05 100.05 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.55 7.33 0.13 4.71 5.87 4.16 0.71 0.22 0.03 2.16 3.00 2.59.94 3.964 26.83 86.11 4.18 16.85 12.35 2.09 3.07 17.60 3.07 17.60 3.01 2.55 3.00 2.59.94 3.964 2.633 86.11 4.18 16.85 12.35 2.09 3.07 17.60 3.07 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.10 14.25 3.00 14.25 3.00 15.85 16.85 16.85 16.85 16.85 16.85 16.85 16.85 16.85 16.85 16.85 16.85 16.85 16.55 16.55 16.55 16.55 10.73 16.55 1	i 100.36 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.42 0.44 15.22 4.82 0.06 2.16 3.06 4.74 3.29 0.04 5.21 15.95 960.76 55.61 3.1.43 262.94 n/a 4.64 9.96 25.79 2.15 6.27 30.90 207.56 8.43 21.94 22.72 1069.80 5.22 2.12 4.62 9.63 7.9 2.15 6.27 30.90 2.07.56 8.43 2.1.94 2.27 2.16 6.27 30.90 2.27 5.22 2.12 6.27 30.90 2.27 5.22 2.12 6.27 30.90 2.27 5.22 2.12 6.27 30.90 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 6.27 3.09 2.27 5.22 2.16 7.30 9.09 7.55 6.27 3.09 2.27 5.22 2.16 7.30 2.27 5.22 2.16 7.30 7.47 7.55 7.99 7.15 7.55 7.99 7.15 7.55 7.99 7.15 7.55 7.99 7.15 7.22 7.15 7.22 7.15 7.99 7.15 7.55 7.22 7.15 7.22 7.15 7.22 7.15 7.55 7.22 7.15 7.22 7.15 7.55 7.22 7.15 7.55 7.22 7.25 7.55 7.55 7.55 7.55 7.5	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghal 59.27 0.76 16.33 5.73 0.07 2.29 2.98 5.89 2.34 0.31 0.31 0.03 4.00 6.38 7.39.19 47.20 18.61 2.33.61 1.41 44.22 19.08 20.13 1.89 6.21 2.3.70 51.97 8.97 33.13 16.65 1029.04 4.33 1.41 140.16 10.01
Zr Total Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	226.57 99.58 56.48 LF25090 OUVG Shargyn Moghai 62.27 0.61 16.96 5.79 0.05 1.37 3.36 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 4.93 3.17 0.23 0.03 0.96 6.39 881.52 34.88 18.01 75.67 3.94 4.33.32 9.51 1.77 2.34 8.81 5.83 1.17 7.52 9.36 9.66 8.81 5.831 1.157 5.82.99 3.54 4.270 120.58	222.18 100.10 56.5A LF25546 OUVG Shargyn Moghai 55.17 0.57 16.85 7.06 0.14 4.84 5.24 5.05 1.87 0.24 0.05 2.54 11.17 632.00 29.66 27.06 203.45 2.16 10.88 18.46 11.61 1.69 3.25 1.70 6.27 0.24 0.24 0.55 2.54 1.17 6.22 0.24 0.55 2.55 1.87 0.24 0.55 1.87 0.24 0.55 1.87 0.24 0.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.55 1.87 0.24 0.55 2.16 1.68 1.61 1.69 3.95 3.42 2.46 55 2.472 882.97 3.17 n/a 2.03.31 2.125 2.17 1.76 1.77 1.76 1.77 1.77 1.77 1.77 1.77 1.77 1.77 1.77 1.77 1.77 1.77 1.79 1.70 1.	148.98 99.58 56.5A LF25547 OUVG Shargyn Moghai 55.46 0.61 16.80 7.01 0.13 4.74 5.28 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.24 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.82 0.25 4.93 1.83 1.83 1.13 2.05 5.95 7.86 6.88 8.87 1.83 1.25 5.95 6.88 8.87 1.83 1.25 5.95 6.88 8.87 1.83 1.25 5.95 6.65 7.75 7.7	109.34 99.89 56.5A LF25548 OUVG Shargyn Moghai 55.26 0.55 26 0.55 26 0.55 26 0.55 26 0.55 26 0.56 26 0.44 4.76 2.94 1.83 0.24 0.55 25 26 2.526 2	121.81 99.98 56.6A LF25070 OUVG Shargyn Moghai 54.36 0.61 16.87 7.50 0.11 4.78 5.50 4.06 1.62 0.27 0.08 3.65 9.63 844.73 39.49 225.51 95.27 7.52 5.04 20.15 10.77 1.14 2.34 17.76 29.42 2.99 56.65 22.65 26.62 29.86 20.92 3.32 2.33 22 2.13.88	110.02 100.03 56.7A LF25089 OUVG Shargyn Moghal 58.64 0.87 15.59 7.33 0.13 4.71 5.87 4.16 0.77 0.28 0.03 2.16 3.00 259.94 3.06 3.00 259.94 3.06 3.00 259.94 3.06 3.00 259.94 3.06 3.00 2.16 3.00 3.	i 100.38 99.83 56.8A LF25566 OUVG Shargyn Mogha 60.45 0.44 15.22 4.82 0.06 2.16 3.09 4.74 3.25 0.22 0.04 5.27 15.95 960.76 5.56 1.31.43 262.94 n/a 4.64.88 19.96 25.79 2.15 6.27 30.90 207.56 8.43 21.94 22.72 1069.80 5.22 2.12 1069.80	5 104.75 99.13 56.9A LF25088 OUVG Shargyn Moghai 59.27 0.76 16.33 5.73 0.07 2.298 5.89 2.34 0.31 0.03 4.00 6.38 739.19 47.20 18.61 1.41 44.22 19.08 20.13 1.89 6.21 23.70 51.97 8.97 3.313 16.65 1029.04 4.33 1.41 140.16 10.01 63.81

Sample number	22/08_12	60.12A	60.12B	60.22A	60.7A	60.9A	60.9A	67.4A
Bead						LF25607		LF25610
field area	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan
	•	•		-	•	•	1 · · · · · · · · · · · · · · · · · · ·	
formation SiO2	dyke 59.24	dyke 65.63	dyke57.20	dyke 74.85	dyke 61.00	dyke 64.77	dyke 66.10	dyke 55.93
TiO2	0.63	0.32	0.70	0.17	0.39	0.34		0.65
AI2O3	16.15	15.03	15.80	12.52	15.69	15.20	15.59	15.82
Fe2O3	6.65	3.45	7.99	1.31	5.29	4.54		
MnO	0.14	0.06	0.24	0.05		0.08		0.22
MgO CaO	3.47 4.51	1.89 1.95	5.82 4.04	0.48		1.98 2.27		
Na2O	4.63	4.88	0.98	4.41	3.81	4.33		
K20	1.99	4.07	3.81	4.93		3.72		4.19
P2O5	0.35	0.15	0.22	0.06		0.16	0.17	
SO3	0.04	0.02	0.06	0.01		0.09		
LOI	2.18	1.70	3.23	0.53		2.64		
As Ba	9.55 747.95	8.38 1295.89	21.82 2315.44			3.03 1298.67		
Ce	37.78	22.66	15.56			21.26		
Co	21.82	10.42	27.26			12.96		
Cr	25.06	21.43	455.77	n/a		46.04		
Cs	0.05	n/a	n/a			0.38	n/a	
Cu	70.55	280.37	367.87	57.88		155.28		2.05
Ga	21.15	16.14	17.21	15.48		17.93		
La Mo	17.11 2.13	11.92 1.68	9.44 2.21	17.74				
Nb	5.94	2.86	3.66					
Nd	17.60	10.44	7.50			10.84		
Ni	34.35	12.72						
Pb	2.31	4.83	7.69					
Rb	39.89	75.53	75.25					
Sc Sr	12.54	12.75	14.92					
Th	538.02 8.51	649.34 10.99	492.31 6.30					
Ű	1.49	1.44	n/a			0.07		
v	134.36	87.11	153.79					
Y	14.82	6.16	10.95				5.57	
Zn								445.00
	37.86	42.23	47.39					
Zr	115.92	97.85	98.07	116.64	132.56	96.49	100.51	101.27
				116.64	132.56	96.49	100.51	101.27
Zr Total Sample number	115.92 99.97 56.9A	97.85 99.15 56.9A	98.07 100.08 56.9B	116.64 99.96 8/07_3	132.56 99.00 93.10A	96.49 100.11 93.10A	93.10A	101.27 100.87 93.12A
Zr Total	115.92 99.97	97.85 99.15	98.07	116.64 99.96	132.56 99.00	96.49 100.11) 100.51 99.92	101.27 100.87
Zr Total Sample number	115.92 99.97 56.9A	97.85 99.15 56.9A	98.07 100.08 56.9B	116.64 99.96 8/07_3	132.56 99.00 93.10A	96.49 100.11 93.10A	93.10A	101.27 100.87 93.12A
Zr Total Sample number	115.92 99.97 56.9A	97.85 99.15 56.9A	98.07 100.08 56.9B	116.64 99.96 8/07_3	132.56 99.00 93.10A	96.49 100.11 93.10A	93.10A	101.27 100.87 93.12A
Zr Total Sample number Bead field area	115 92 99.97 56 9A LF25110 OUVG	97.85 99.15 56.9A LF25111 OUVG	98.07 100.08 56.9B LF25093 OUVG	116.64 99.96 8/07_3 LF22774 OUVG	132.56 99.00 93.10A LF25071 OUVG	96.49 100.11 93.10A LF25074 OUVG	9 100.51 99.92 93.10A LF25069 OUVG	101.27 100.87 93.12A LF25549 OUVG
Zr Total Sample number Bead field area formation	115.92 99.97 56.9A LF25110 OUVG Shargyn Moghai	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai	98.07 100.08 56.98 LF25093 OUVG Shargyn Mogha	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha	93.10A 93.10A LF25069 OUVG i Shargyn Mogha	101.27 100.87 93.12A LF25549 OUVG Shargyn Mogha
Zr Total Sample number Bead field area	115 92 99.97 56 9A LF25110 OUVG	97.85 99.15 56.9A LF25111 OUVG	98.07 100.08 56.9B LF25093 OUVG	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08	93.10A 93.10A LF25069 OUVG i Shargyn Mogha 60.74	101.27 100.87 93.12A LF25549 OUVG Shargyn Mogha 59.10
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3	115.92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15	98.07 100.02 56.98 LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54	9 100.51 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81	101.27 100.87 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.56 16.75
Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64	9 100.5 99.92 93.10A LF25069 0UVG i Shargyn Mogha 60.74 0.66 16.81 5.74	101.27 100.81 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.95
Zr Total Sample number Bead field area formation SiO2 TiO2 A12O3 Fe2O3 MnO	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02	116.64 99.96 8/07_3 LF22774 OUVG Shargyn Moghai 60.72 0.57 16.25 5.15 0.07	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 5 60.74 0.66 16.81 5.74 0.06	101.27 100.87 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.58 16.77 5.95 0.10
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	115.92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.08 1.98	116.64 99.96 8/07_3 LF22774 OUVG Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07 1.81	0 100.51 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.99 0.11 2.68
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2C3 Fe2O3 MnO MgO CaO	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.92 2.41	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07 1.81 1.83	9 100.5 99.92 93.10A LF25069 0UVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.00 1.78 1.97	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.55 16.75 5.92 0.11 2.66 4.3
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	115.92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.08 1.98	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 16.54 5.64 0.07 1.81 1.83 7.53	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79	101.27 100.87 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.58 16.77 5.99 0.10 2.68 4.31 5.46
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 1.96 2.41 6.72 3.12	116.64 99.96 8/07_3 LF22774 OUVG Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 16.54 5.64 0.07 1.81 1.83 7.53	9 100.51 99.92 93.10A LF25069 OUVG Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 16.81 5.74 0.06 17.79 2.79	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.1(0.56 16.77 5.99 0.10 2.66 4.33 5.46 3.11
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 1.92 2.44 6.72 3.12 0.32 0.03	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.03	9 100.5 99.92 93.10A LF25069 0UVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04	101.2: 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.59 16.75 5.99 0.16 2.66 4.33 5.46 3.17 0.28 0.00
Zr Total Sample number Bead field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.68 8.2.38 0.31 0.03 4.24	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.98 2.41 6.72 3.12 0.32 0.03 2.71	116.64 99.96 8/07_3 LF22774 OUVG Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 0.54 16.54 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04 2.26	101.27 100.87 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.58 16.77 5.95 0.10 2.68 4.31 5.46 3.17 0.28 0.03 1.41
Zr Total Sample number Bead field area formation SiO2 TiO2 TiO2 A2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 1.99 2.41 6.72 3.12 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.3	116.64 99.96 8/07_3 LF22774 0UVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.33 2.26 2.144	9 100 5 99 99 22 93 10A LF 25069 0UVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04 2.266 20.72	101.2: 100.8: 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.92 0.11 2.66 4.31 5.46 3.11 0.226 0.03 1.41 7.33
Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 2.38 0.31 0.03 4.24 2.37 750.19	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 1.92 2.41 6.72 3.12 0.33 0.03 2.71 6.06 1271 02	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07 1.83 7.53 2.65 0.27 0.03 2.26 21.44 892.46	9 100.5 99.92 93.10A LF25069 0UVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04 2.26 20.72 882.22	101.2: 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.99 0.16 2.66 4.31 5.46 3.17 0.28 0.03 1.44 7.33 920.99
Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.68 2.38 0.31 3.05 5.88 2.38 0.31 0.03 3.05 5.88 2.38 0.31 0.03 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750 19 44.98	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.92 2.41 6.72 3.12 0.02 2.71 6.02 2.71 6.02 3.4.87	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 2.1069.95 2.9.04	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 1.67 2.81 0.27 1.69 926.90 926.90 27.17	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26 2.144 892.46 22.66	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 2.79 0.28 0.04 2.26 20.72 892.22 27.43	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.54 16.77 5.94 0.10 2.66 4.33 5.44 3.17 0.22 0.00 1.41 7.33 920.95 38.44
Zr Total Sample number Bead field area formation SiO2 TiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 1.99 2.41 6.72 3.12 0.03 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.31 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.32	116.64 99.96 8/07_3 LF22774 0UVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 2.99.04 18.44	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 16.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26 2.144 892.46 2.606 17.88	9 100 5 99 99 22 93 10A LF25069 0UVG 1 Shargyn Mogha 60 74 0.66 16 81 5.74 0.06 1.88 1.57 0.28 0.04 2.26 20.72 892 22 27.43 15.84	101.22 100.87 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.96 0.10 2.66 4.31 5.46 3.17 0.28 0.03 1.41 7.33 920.99 38.46 17.54
Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 1.96 2.41 6.77 3.12 0.32 0.03 2.71 6.72 0.34 8.73 0.03 0.03 2.71 6.73 0.03 0.03 0.271 6.74 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.0	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 29.04 18.44 60.99	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 16.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26 2.144 892.46 2.606 17.88	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.77 2.79 0.28 0.04 2.26 20.72 892.22 2.743 15.84 58.74	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.5 16.77 5.99 0.11 2.66 4.33 5.46 3.17 0.22 0.03 1.44 7.33 920.99 38.44 17.54 10.35 10.
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 19.16 83.62 n/a 46.17	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 4.205	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 1.96 2.41 6.72 3.12 0.03 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.127 0.34 87 1.90 2.01 6.02 1.271 0.34 8.07 1.90 2.01 6.02 1.271 0.34 8.03 1.90 2.01 6.02 1.271 0.34 8.03 1.90 2.01 6.02 1.271 0.27 6.02 1.271 0.27 6.02 6.02 6.02 1.271 0.27 6.02 6.02 6.02 6.02 6.02 6.02 6.02 6.02	116 64 99 96 8/07_3 LF22774 0UVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069 95 2.90 44 18.44 60.99 0.72 9.04 18.44	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/a 246.17	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 16.54 16.54 5.64 0.07 1.81 1.83 2.65 0.27 0.03 2.26 2.144 892.46 17.88 3.242 0.12 2.448.71	9 100 5 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 58.74 0.42 240.36	10122 1008 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.96 0.10 2.66 3.17 0.28 0.03 1.41 7.33 920.93 38.46 17.54 10.35 0.66 1.35 4.10,35 0.66 0.139,74
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 n/a 46.17 7.91	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 5.88	98.07 100.00 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.77 5.97 0.02 1.99 2.41 6.77 3.12 0.32 0.03 0.03 2.71 6.05 1271 02 3.48 19.03 9.0.18 12.05 6.186 2.024	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 29.04 18.44 60.99 n/a 275.98 20.07	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/a 246.17 18.80	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.07 0.03 2.26 0.12 2.144 892.46 2.6.06 17.88 3.2.42 0.12 2.48,71 1.78	9 100.5 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 2.79 0.28 0.04 2.26 2.072 892.22 2.74.33 15.84 58.74 0.42 2.40.36 18.40	1012 1008 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.5 16.75 5.91 0.11 2.66 4.33 5.44 3.17 0.22 0.03 1.44 7.33 920.95 38.44 17.56 10.35 0.66 139.74 2.2,13
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 0.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.473 744.05 42.56 19.16 83.62 19.16 83.62 19.17,91 19.57	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71	98.07 100.02 56.98 LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.03 0.03 1.90 0.03 1.90 0.03 1.271 0.34,87 1.90 0.04 1.271 0.34,87 1.90 0.04 1.271 0.34,87 1.90 0.05 1.271 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.0	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 29.04 18.44 60.99 n/a 275.98 20.07 14.34	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 7.81 1.95 7.67 2.81 1.027 1.859 926.90 27.17 16.81 1.252 n/a 246.17 1.8.80 16.75	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 5.64 0.07 1.654 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26 2.144 892.46 2.606 1.788 3.242 0.12 2.48.71 1.786 3.242 0.12 2.48.71 1.786 3.242 0.12	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.81 5.74 0.06 1.81 0.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 5.874 0.42 240.36 18.40 15.82	101.2: 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.12 0.12 0.12 0.12 0.00 0.14 1.41 7.33 920.95 3.844 1.0.35 0.68 1.39.74 1.0.25 0.68 1.39.74 1.0.25 1.39.74 1.0.25 0.68 1.39.74 1.0.25 1.39.74 1.35.75.75 1.35.75 1.35.75 1.35.75 1.35.75
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 n/a 46.17 17.91 19.57 2.10	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 4.205 18.97 20.71 1.99	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.32 0.32 0.32 0.32 0.32 0.32 0.3	116 64 99 96 8/07_3 LF22774 OUVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 2.05 0.23 0.01 1.2,37 14.02 2.05 0.23 0.01 1.2,37 14.02 2.37 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 2.05 14.34 14.34 15.54 15.55 15.	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 0.27 16.81 12.52 0.27 16.81 12.55 9.26.90 2.7.17 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 0.27 16.81 12.55 12.57 16.81 12.55 16.82 17.17 16.81 12.55 16.81 17.17 16.81 12.55 16.82 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 12.57 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 16.81 12.55 17.17 17.17 17.17 16.81 12.55 17.17 16.81 12.55 17.17 1	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 16.54 5.64 0.07 1.81 1.83 2.65 0.27 0.03 2.26 0.27 0.03 2.26 0.27 0.3 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.27 0.3 2.26 0.3 2.26 0.27 0.3 2.26 0.30 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.2	9 100 5 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.88 1.97 7.79 0.28 0.04 2.26 20.72 892.22 27.43 1.5.84 5.87 4.0.42 2.40.36 18.40 15.82 1.84 5.87 4.0.42 2.40.36 18.40 15.82 1.84 1.84 1.84 1.84 1.87 1.84 1.84 1.87 1.84 1.87 1.87 1.84 1.84 1.84 1.84 1.84 1.85 1.84 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.84 1.85 1.85 1.84 1.85 1.85 1.84 1.85 1.85 1.84 1.85 1.85 1.85 1.84 1.85 1.85 1.84 1.85 1.85 1.84 1.85 1.85 1.84 1.85 1.84 1.85 1.85 1.84 1.85 1.45 1	1012 1008 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.53 16.77 5.94 0.11 2.66 4.31 5.44 3.11 0.26 4.31 5.44 3.11 0.26 4.31 5.44 3.11 0.26 1.41 7.33 920.93 3.8.44 1.7.54 1.0.55 1.41 7.33 920.93 3.8.44 1.7.54 1.0.55 1.41 7.33 920.93 3.8.44 1.7.54 1.33 1.6.74 1.31 1.6.74 1.31 1.6.74 1.31 1.6.74 1.5.45 1.6.75 1.75
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.24 4.73 744.05 42.56 19.16 83.62 n/a 46.17 17.91 19.57 2.10 6.81	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94	98.07 100.00 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.99 2.41 6.77 3.12 0.32 0.03 0.03 0.07 1.210 0.33 1.90 0.27 1.210 0.34 87 1.90.16 1.210 0.24 1.210 0.35 0.05 0.24 1.210 0.35 0.05 0.24 1.210 0.35 0.05 0.24 1.210 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.24 1.200 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.2000 0.20000 0.200000000	116.64 99.96 8/07_3 LF22774 OUVG Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 29.04 18.44 60.99 n/a 275.98 20.07 14.34 5.85	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/a 246.17 18.80 16.75 0.95 1.43	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 16.54 16.54 0.07 1.81 1.83 7.53 2.65 0.027 0.03 2.26 2.1.44 892.46 2.6.06 17.88 3.242 0.12 2.48,71 1.7.86 3.39	9 100.5 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 2.79 0.28 0.04 2.26 2.072 892.22 2.743 15.84 58.74 0.42 2.40.36 18.40 15.84 1.49 3.37	10122 1008 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.59 0.10 2.66 4.31 5.96 0.11 2.66 4.31 5.96 0.12 2.65 4.31 5.96 0.12 2.65 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.0
Zr Total Sample number Bead field area formation SiO2 TiO2 A2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 19.16 83.62 n/a 46.17 17.91 19.57 2.10 6.81 19.93	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 19.74	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 1.97 0.06 1.97 0.06 1.97 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.0	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 2.9.04 18.44 60.99 n/a 2.75.98 2.007 14.34 60.97 14.34 5.8 2.007	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 1.252 n/a 246.17 18.80 16.75 0.95 1.43 1.7.48	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 16.54 5.64 0.07 1.85 1.1.83 7.53 2.65 0.27 0.03 2.26 21.44 892.46 26.06 26.06 21.44 892.46 26.06 21.7.88 3.2.42 0.12 2.48.71 1.7.86 3.39 3.39 19.75	9 100.5 99.92 93.10A LF25069 OUVG I Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 0.42 240.36 18.40 15.82 1.49 3.37 16.54	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.55 16.75 5.99 0.11 0.55 46 3.17 0.26 0.00 1.44 7.33 920.99 38.44 17.54 0.35 0.00 1.47 1.37 2.213 1.397 1.3777 1.3777 1.3777 1.3777 1.3777 1.3777 1.3777 1.3777 1.3777 1.3777 1.37777 1.37777 1.37777 1.377777 1.3777777777777777777777777777777777777
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 0.916 83.62 0.916 83.62 0.916 83.62 0.916 83.62 0.916 83.62 0.916 83.62 0.917 1.917	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 0.31 0.03 4.24 2.38 0.31 0.03 4.24 2.38 0.31 0.03 1.003 1.2667 n/a 4.205 18.97 20.71 1.99 5.94 4.862	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.03 0.277 6.08 1271 0.32 0.03 0.277 6.08 1271 0.32 0.03 0.277 6.08 1271 0.32 0.03 0.277 6.08 1271 0.02 0.277 6.08 1.90 1.90 0.277 6.08 0.90 0.02 0.03 0.03 0.03 0.03 0.03 0.03 0.0	116 64 99.96 8/07_3 LF22774 OUVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.237 14.02 2.05 0.23 0.01 2.237 14.02 2.05 0.23 0.01 1.25 2.904 18.44 60.99 n/a 2.75.98 20.07 14.34 0.81 3.58 20.07 14.34 0.81 3.58 2.79	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 926.90 27.17 16.81 12.52 0.04 12.57 14.83 17.48 3.43	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 16.54 5.64 0.07 1.81 1.83 2.265 0.27 0.03 2.265 0.27 0.03 2.265 0.27 0.03 2.265 0.27 0.03 2.265 0.27 0.03 2.265 0.27 0.33 0.275 0.33 0.45 0.45 0.45 0.575 0	9 100 5 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 15.74 0.06 1.78 1.97 7.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 5.87 4.0.42 2.40.36 18.40 15.82 1.54 6.15 8.45 1.54 6.31	10112 1008 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.53 16.77 5.94 0.01 2.66 4.33 17.54 0.02 0.141 7.33 920.93 38.44 10.35 0.66 1.39,74 2.213 16.00 1.31 2.77 17.10 5.32
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2C03 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 19.16 83.62 n/a 46.17 17.91 19.57 2.10 6.81 19.93	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 19.74	98.07 100.00 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.8& 16.74 5.97 0.02 1.99 2.41 6.72 3.12 0.33 0.03 0.271 1.90 2.01 6.12 6.12 6.12 6.12 6.12 6.12 6.12 6.1	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 29.04 18.44 60.99 n/a 2.75.98 20.07 14.34 5.8 20.07 14.34 5.8 5.15 0.23 0.01 1.237 9.95 2.904 1.844 5.95 2.907 14.34 0.81 3.58 15.31 3.279 9.23	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/a 246.17 18.80 16.75 0.95 1.43 17.48 3.43 7.82	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.027 0.03 2.26 2.1.44 892.46 2.6.06 17.88 3.2.42 0.12 2.48,71 1.7.86 3.2.42 0.12 2.48,71 1.7.86 3.39 19.75 5.97 5.40	9 100 5 99.92 93.10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 2.79 0.28 0.04 2.26 20.72 892.22 2.74 3.15.84 58.74 0.42 2.40.36 18.40 15.84 58.74 0.42 2.40.36 18.40 15.84 58.74 0.42 2.40.36 18.40 15.84 58.74 0.42 2.40.36 18.40 15.84 58.74 0.42 2.40.36 18.40 15.84 58.74 0.42 2.40.36 18.40 15.84 58.74 0.42 1.49 3.37 16.54 6.31 4.91 1.49 1	1012 1008 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.55 16.75 5.92 0.11 2.66 4.33 5.44 3.15 4.33 5.44 3.17 5.45 0.02 0.02 0.02 0.03 1.44 7.33 920.95 3.8,44 7.75 10.35 0.66 13.974 2.213 16.04 1.337 7.77 7.7.10 5.32 1.55 1.55 1.55 1.55 1.55 1.55 1.55 1.5
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O6 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Sc	115 92 99 97 56 9A LF25110 OUVG Shargyn Moghai 59 60 0.75 16 50 0.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.43 744.05 42.56 19.16 83.62 19.16 83.62 19.17 9.57 2.10 6.81 19.93 50.40 8.83 34.44 13.84	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 2.38 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 4.98 17.83 1.97 20.71 1.99 5.94 4.97 1.97 4.98 1.78 1.97 2.071 1.99 5.94 4.97 1.97 2.071 1.99 5.94 4.97 1.97 2.071 1.99 5.94 4.97 1.97 2.071 1.99 5.94 4.97 1.97 2.071 1.99 5.94 4.97 1.97 2.071 1.99 5.94 4.97 2.071 1.99 5.94 4.97 2.071 1.99 5.94 4.97 5.94 5.94 5.94 5.94 5.94 5.94 5.94 5.94	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.56 0.86 16.74 5.97 0.02 2.41 6.72 3.12 0.03 2.41 6.72 3.12 0.32 0.03 2.41 6.72 3.12 0.32 0.03 0.271 6.02 1.271 0.34 8.03 1.90 2.41 6.72 3.12 0.32 0.03 0.271 6.02 1.271 6.02 1.271 6.02 1.271 6.02 1.271 6.02 1.271 6.02 6.03 1.271 6.02 1.271 6.02 6.03 1.271 6.02 1.271 6.02 6.03 1.271 6.02 1.271 6.02 6.03 1.271 6.02 6.03 1.271 6.03 2.032 1.271 6.02 6.03 6.03 1.271 7.032 1.	116 64 99 96 8/07_3 LF22774 OUVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069 95 2.904 18.44 60.99 n/a 2.75.98 20.07 14.34 5.31 3.58 5.31 3.279 9.23 3.449 9.23 3.449	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 18.59 926.90 27.17 16.81 12.52 n/a 246.17 18.80 16.75 0.95 1.43 17.48 3.43 7.82 3.12 13.11	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 16.54 5.64 0.07 1.83 7.53 2.65 0.27 0.03 2.26 2.144 892.46 2.606 1.788 3.242 0.12 2.48.71 1.786 1.4.78 3.242 0.12 2.48.71 1.785 5.97 5.97 5.97 5.40 3.369 1.755	9 100 5 999 5 93 10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 0.28 0.04 2.26 20.72 2.743 15.84 5.874 0.42 240.36 18.40 15.82 1.49 3.37 16.54 6.31 4.91 3.209 14.47	101.2 100.8 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.55 16.77 5.99 0.10 2.66 4.33 5.46 3.17 0.26 4.33 920.95 38.46 17.55 9.38 4.62 1.39 74 2.21 1.035 0.66 1.39.74 2.21 1.624 1.33 1.604 1.33 1.624 1.33 1.635 1.632 1.155 1.511
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.96 0.075 16.50 5.96 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 n/a 4.24 4.73 744.05 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.62 19.16 83.52 19.16 83.52 19.16 83.52 19.16 19.	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 19.74 48.62 11.34 32.79 15.74 988.91	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.99 2.41 6.72 3.11 0.32 0.03 0.03 2.71 6.05 1271 02 3.487 19.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	116 64 99 96 8/07_3 LF22774 OUVG Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069 95 29.04 18.44 60.99 n/4 2.75.98 20.07 14.34 60.99 n/4 18.44 1059 55 29.04 18.44 1059 55 29.07 14.34 1059 55 29.07 14.35 15.35 20.07 14.35 20.07 14.34 1.358 15.31 1.358	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/4 2.46.17 18.80 16.75 0.95 1.43 17.48 3.43 7.82 3.312 (3.311 654.91	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.64 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.027 0.181 1.83 7.53 2.65 0.027 0.03 2.26 2.144 892.46 2.605 0.17.88 3.242 0.12 2.48.71 1.788 3.242 0.12 2.48.71 1.788 3.39 3.39 3.39 19.75 5.57 5.57 5.57 5.57 5.57 5.57 5.57	9 100 5 99 99 22 93 10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 240.36 18.40 15.84 58.74 0.42 1.49 1.49 1.49 1.49 1.49 1.49 1.49 1.49 1.49 1.20 1.49 1	10122 1008 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.92 0.10 2.66 4.31 5.44 3.17 0.22 0.00 1.41 7.33 920.99 3.846 10.35 1
Zr Total Sample number Bead field area formation SiO2 TiO2 A2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.23 4.73 744.05 42.56 19.16 83.62 n/a 46.17 17.91 19.57 2.10 6.81 19.93 50.40 8.83 3.444 13.84 4.13.84 108.83 7.27	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 5.88 17.83 126.67 n/a 42.05 5.88 17.83 126.67 1.97 20.71 1.99 5.94 19.74 48.62 11.34 32.79 15.74 988.91 5.08	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 1.97 2.41 6.72 0.32 0.03 0.03 2.41 6.72 0.33 0.03 0.03 0.271 6.05 1.271 02 3.4.87 19.03 9.0.16 2.024 1.271 02 3.4.87 19.03 9.0.16 2.05 6.18 6.12 6.12 6.12 6.12 6.12 6.12 6.12 6.12	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.01 2.37 14.02 1069.95 29.04 18.44 60.99 n/a 275.98 20.07 14.34 5.09 1069.95 29.04 18.44 60.99 n/a 275.93 14.34 8.44 9.93 3.449 11.60 129.384 9.93	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 1.027 0.04 2.27 7.18.59 926.90 27.17 16.81 12.52 n/a 246.17 18.80 16.75 0.95 1.43 17.48 3.43 7.82 33.12 13.11 654.91 6.05	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.08 0.54 16.54 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26 2.144 89246 2.600 2.144 89246 2.600 2.1788 3.242 0.1788 3.242 0.1788 3.242 0.1788 3.39 19.75 5.97 5.97 5.40 3.369 17.65 6.5065 7.70	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 5.874 0.42 240.36 18.40 15.82 1.49 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.37 16.54 6.31 4.91 3.209 14.47 6.53 3.3 6.85	1012 1008 93.12A LF25549 OUVG Shargyn Mogha 59.11 0.559 0.11 2.66 4.33 5.46 4.33 5.46 4.33 5.46 4.33 5.46 4.33 5.46 4.33 5.46 4.33 5.46 4.33 5.46 4.33 5.46 1.03 0.03 0.03 0.03 1.44 1.73 0.66 1.39.74 2.13 1.654 5.46 96 1.39.74 1.55 4.696 1.514 5.48 5.48 5.48 5.48 5.48 5.48 5.48 5.4
Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	115 92 99 97 56 9A LF25110 OUVG Shargyn Moghai 59 60 0.75 16 50 0.566 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.473 744.05 42.56 19.16 83.62 19.16 83.62 19.17 17.91 19.57 2.10 6.81 19.93 50.40 8.83 3.34.44 13.84 1008.83 3.34.44 13.84 1008.83 3.34.44	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 4.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 4.98 5.94 2.03	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 2.44 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 2.41 6.72 3.12 0.33 0.03 0.03 2.77 6.12 2.05 6.1.84 2.05 2.05 2.05 2.05 2.05 2.05 2.05 2.05	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 2.904 18.44 60.99 n/a 2.75.98 2.007 14.34 60.99 n/a 2.75.98 2.007 14.34 60.99 1.84 4.91 1.84 4.91 2.53 3.34.49 11.60 1.23.84 9.93 3.16	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 7.81 1.95 7.67 2.81 1.027 1.85 9.926.90 27.17 16.81 1.252 n/a 246.17 1.880 16.75 0.95 1.43 17.48 3.43 7.82 3.12 1.311 654.91 6.05 n/a	96.49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.27 0.03 2.26 2.144 892.46 2.606 1.788 3.242 0.12 2.48.71 1.786 1.4.78 0.39 3.399 1.975 5.97 5.97 5.97 5.97 5.97 5.97 5.97	9 100.5 99.92 93.10A LF25069 OUVG i Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 58.74 0.42 240.36 18.40 15.82 1.49 3.37 16.54 6.31 4.91 3.209 14.47 653.33 6.85 2.55	10122 1008 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.59.10 0.10 0.59.10 0.10 0.59.10 0.10 0.10 0.10 0.10 0.10 0.10 0.10
Zr Total Sample number Bead field area formation SiO2 TiO2 A12O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O CaO Na2O CaO Na2O CaO CaO CaO CaO CaO CaO CaO Ca	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.96 0.075 16.50 5.96 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 n/a 45.7 2.10 6.81 19.93 50.40 8.83 34.44 119.93	97.85 99.15 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/2 4.26 18.97 20.71 1.99 5.94 19.74 48.62 11.34 32.79 15.74 988.91 5.74 988.91 5.74	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.99 2.41 6.72 3.12 0.03 0.03 2.71 6.02 1271 02 3.487 19.03 0.03 0.03 0.03 0.271 6.02 1271 02 3.487 19.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	116 64 99 96 8/07_3 LF22774 0UVG 1 Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.03 0.01 2.37 14.02 1069 95 29.04 18.44 60.99 n/4 2.75.98 20.07 14.34 60.99 0.081 3.58 15.31 3.279 9.23 3.4.49 9.33 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.4.49 9.23 3.2.79	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/4 2.46.17 18.80 16.75 0.95 1.43 17.48 3.43 7.82 33.12 1.43 17.48 3.43 7.82 33.12 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 17.48 1.43 1.43 1.43 1.43 1.43 1.43 1.43 1.43	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.02 0.64 16.54 5.64 0.07 1.84 1.83 7.53 2.65 0.027 0.184 1.83 7.53 2.65 0.027 0.03 2.26 2.144 892.46 2.605 0.17.88 3.242 0.12 2.48.71 1.7.88 3.242 0.12 2.48.71 1.7.88 3.39 3.39 19.75 5.59 5.59 5.59 5.59 5.59 5.59 5.59	9 100 57 99 99 27 93 10A LF25069 OUVG 1 Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 2.79 0.28 0.04 2.26 20.72 892.22 27.43 1.5.84 5.874 0.42 240.36 1.89 1.49 1.5.84 5.874 0.42 240.36 1.89 1.49 1.497 1.5.84 5.874 0.42 2.40 5.874 0.45 2.55 163.94	10112 1008 93.12A LF25549 OUVG Shargyn Moghe 59.10 0.55 16.75 5.92 0.10 2.66 4.33 5.44 1.755 10.35
Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.66 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.24 4.73 774.05 42.56 19.16 83.62 n/a 46.17 17.91 19.57 2.10 6.81 19.93 50.40 8.83 34.44 13.84 100.8.83 7.27 n/a 10.36	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 2.37 750.19 44.98 17.83 126.67 n/a 42.05 5.88 1.78 126.67 n/a 42.98 1.78 126.67 1.99 5.94 19.74 48.62 20.71 1.99 5.94 19.74 48.62 21.13 1.059	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.06 1.97 2.41 6.77 3.12 0.32 0.03 0.03 2.41 6.77 3.12 0.32 0.03 0.03 2.41 6.77 3.12 0.33 0.03 0.03 2.41 6.77 3.12 0.33 0.03 0.03 0.241 6.76 1.27102 3.48 1.9.02 9.0.16 6.186 2.024 1.632 2.37 6.12 1.632 2.37 7.535 2.37 7.535 2.37 7.535 2.37 7.535 2.37 7.535 7.547 7.535 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.547 7.557 7.5577 7.55777 7.557777777777	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 29.04 18.44 60.99 n/a 275.98 20.07 14.34 60.99 1069.95 29.04 18.44 60.99 1069.95 29.04 18.44 9.05 3.38 4.99 3.34.49 11.60 129.38 4.99.3 3.449 11.60 129.38 4.99.3 3.449 12.58	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.04 2.27 7.0.04 2.27 18.59 926.90 27.17 16.81 12.52 n/a 246.17 18.80 16.75 1.43 17.48 3.43 3.7.82 33.12 13.11 6.05 n/a 169.26 16.7	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.06 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.027 0.03 2.26 2.144 892.46 2.6.06 17.88 3.2.42 0.12 2.144 892.46 2.6.06 17.88 3.2.42 0.12 3.39 19.75 5.97 5.97 5.40 3.369 1.7.56 5.57 5.97 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.54 5.54 5.54 5.54 5.54 5.54 5.54 5	9 100.5 99.92 93.10A LF25069 OUVG I Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 2.79 0.28 0.04 2.26 20.72 892.22 2.74.33 15.84 5.874 0.42 240.36 18.40 15.82 1.49 3.37 16.54 6.31 4.91 3.25 16.394 13.25	10122 1008 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.59 0.10 2.66 4.33 5.46 3.17 0.22 0.03 1.44 7.33 920.99 38.46 17.56 10.35 0.66 139.74 22.13 16.04 1.39 1.45 1.35 4.69 1.39 7.17 1.155 4.69 1.511 1.555 4.69 1.511 1.555 4.515 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.5154 4.51544 4.51544 4.51544 4.51544 4.515444 4.5154444444444
Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na2O CaO CaO CaO CaO CaO CaO CaO Ca	115 92 99.97 56.9A LF25110 OUVG Shargyn Moghai 59.60 0.75 16.50 5.96 0.075 16.50 5.96 0.08 2.27 3.03 5.88 2.25 0.31 0.04 4.24 4.73 744.05 42.56 19.16 83.62 n/a 45.7 2.10 6.81 19.93 50.40 8.83 34.44 119.93	97.85 99.15 56.9A LF25111 OUVG Shargyn Moghai 59.04 0.84 16.15 5.64 0.07 2.30 3.05 5.88 2.38 0.31 0.03 4.24 4.25 18.97 7.50.19 44.98 17.83 126.67 n/a 42.05 18.97 20.71 1.99 5.94 49.82 11.33 126.67 n/a 42.05 5.88 2.38 2.37 7.50.19 44.98 17.83 126.67 18.97 20.71 1.99 5.94 4.97 5.94 4.97 5.94 4.97 5.94 4.97 5.94 5.94 5.94 5.94 5.94 5.94 1.97 5.94 5.94 5.94 5.94 5.94 5.94 5.94 5.94	98.07 100.02 56.9B LF25093 OUVG Shargyn Mogha 59.55 0.86 16.74 5.97 0.02 1.99 2.41 6.72 3.12 0.03 0.03 2.71 6.02 1271 02 3.487 19.03 0.03 0.03 0.03 0.271 6.02 1271 02 3.487 19.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	116.64 99.96 8/07_3 LF22774 OUVG i Shargyn Moghai 60.72 0.57 16.25 5.15 0.07 3.03 3.99 4.91 2.05 0.23 0.01 2.37 14.02 1069.95 2.9.04 18.44 60.99 n/a 2.75.98 2.0.07 14.34 60.99 n/a 2.75.98 2.0.07 14.34 60.99 n/a 2.75.98 2.0.07 14.34 60.99 n/a 2.75.93 3.34.49 11.60 1293.84 9.93 3.1/2 1.60 1293.84 9.93 3.0/2 1.60 129.35 8.67.57 1.62 5.57 5.57 5.57 5.57 5.57 5.57 5.57 5.5	132.56 99.00 93.10A LF25071 OUVG Shargyn Moghai 60.59 0.66 16.82 5.67 0.07 1.71 1.95 7.67 2.81 0.27 0.04 2.27 18.59 926.90 27.17 16.81 1.252 n/a 246.17 1.880 16.75 0.95 1.43 17.48 3.43 7.82 3.12 13.11 654.91 6.05 n/a 169.26 (16.75 0.34	96 49 100.11 93.10A LF25074 OUVG Shargyn Mogha 60.06 0.54 16.54 5.64 0.07 1.81 1.83 7.53 2.65 0.027 0.03 2.26 2.144 892.46 2.6.06 17.88 3.2.42 0.12 2.144 892.46 2.6.06 17.88 3.2.42 0.12 3.39 19.75 5.97 5.97 5.40 3.369 1.7.56 5.57 5.97 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.57 5.40 3.369 1.7.56 5.54 5.54 5.54 5.54 5.54 5.54 5.54 5	9 100.5 99.92 93.10A LF25069 OUVG I Shargyn Mogha 60.74 0.66 16.81 5.74 0.06 1.78 1.97 7.79 0.28 0.04 2.26 20.72 892.22 27.43 15.84 58.74 0.42 240.36 18.40 15.82 1.49 3.37 16.54 6.31 4.91 3.209 14.47 653.33 6.85 2.55 163.94 13.25 13.25 14.97	10122 1008 93.12A LF25549 OUVG Shargyn Mogha 59.10 0.55 16.75 5.99 0.10 2.66 4.33 5.46 4.33 5.46 4.31 7.022 0.03 1.44 7.33 920.99 38.46 17.54 10.35 0.66 139.74 22.13 16.04 1.39 1.45 4.54 1.35 1.64 1.55 1.54 5.46 5.48 5.48 5.48 5.48 5.48 5.48 5.48 5.48

ample numbe					90.9B	68.1A		88.12A
Bead	LF25621	LF25613	LF25615	LF25612	LF25616	LF25680	LF25047	LF25058
field area	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	Oyut Ulaan	OUVG	OUVG
formation						dyke	Yasun Eliy-e	Yasun Eliy-e
SiO2	77.09	54.72	61.25	75.10	54.28	60.42		
TiO2	0.14	0.62	0.54	0.28	0.81	0.57		0.96
AI2O3	11.76	14.54	15.77	8.63	15.84			17.34
Fe2O3	0.45	6.60	4.60	7.55	7.21	5.26		
MnO M=O	0.02	0.13	0.09	0.05	0.31			
MgO	0.19	7.15	3.01	1.24	4.38	3.34		4.66
CaO	0.77	5.55	2.89	0.92	5.09			8.02
Na2O	3.80	3.89	4.95	3.30	6.00			3.13
K20	4.39	1.89	3.82		1.70			
P2O5	0.02	0.29	0.35	0.12	0.43	0.30		
SO3	0.09	0.08	0.11	0.08	0.10	0.02		
LOI	0.63 64.13	3.69 33.91	2.94	1.45 2.85	3.83 33.41	1.39		1.66
As Ba	537.29		15.19		712.75			
		737.26	1343.55					
Ce	31.98	35.72	47.37	16.00	56.95			
Co	n/a	27.72	15.09		26.33			
Cr	n/a 178	493.54	64.81		201.15			
Cs	1.78	1.06	n/a 7.01	n/a 4388.42	n/a 734.25			
Cu	269.30	53.47	7.01		734.25			
Ga	14.77	18.11	19.50		19.17			
La	15.78	16.03	22.56		24.23			
Mo	3.13	1.55	2.13		1.35			
Nb	4.81	4.79	7.49		5.19			
Nd	13.88	19.89	22.67		23.51			
Ni	3.28	196.36	51.55		71.23			
Pb Rb	6.53 111.73	26.10 38.83	10.35 67.89		27.97 28.82			
Sc Sr	n/a 149.74	16.19	9.12		15.65			
Th		897.40	999.36		852.36			
U	38.67 5.18	6.64 0.36	4.63		6.27			
v	14.84	166.18	0.49 134.73		n/a 173.98			
Ŷ	3.83	13.16			12.82			
		13.10	10.23	0.04	12.02			
		91.03	137 70	55 53	434 90	60.77	7 43.23	an ng
Zn	6.51	91.03 120.79	137.70 150.21		434.90 130.25			
		91.03 120.79 99.14	137.70 150.21 100.33	49.70	434.90 130.25 99.97	91.52	2 104.70	91.04
Zn Zr Total	6.51 91.99 99.32 93.12A	120.79 99.14 93.12A	150.21	49.70	130.25	91.52	2 104.70	91.04
Zn Zr Total ample number	6.51 91.99 99.32 93.12A	120.79 99.14 93.12A	150.21 100.33 93.15A	49.70 99.33 93.15A	130.25 99.97 93.15A	91.52 99.25 93.15C	2 104.70 5 99.37 96.2A	91.04 99.17 96.28
Zn Zr Total mple number Bead field area	6.51 91.99 99.32 93.12A LF25550 OUVG	120.79 99.14 93.12A LF25551 OUVG	150.21 100.33 93.15A LF25543 OUVG	49.70 99.33 93.15A LF25544 OUVG	130.25 99.97 93.15A LF25545 OUVG	91.52 99.25 93.15C LF25564 OUVG	2 104.70 5 99.37 96.2A LF25573 OUVG	91.04 99.17 96.28 LF25458 OUVG
Zn Zr Total Imple number Bead field area formation	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha	9 91.04 99.17 96.28 LF25458 OUVG i Shargyn Moghai
Zn Zr Total ample number Bead field area formation SiO2	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.20	2 104.7(5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57	9 91.04 99.17 96.28 LF25458 OUVG i Shargyn Moghai 63.38
Zn Zr Total ample number Bead field area formation SiO2 TiO2	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.45	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40	91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40 4 16.45	96.28 LF25458 OUVG i Shargyn Moghai 63.38 0 0.51 16.30
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.30	2 104.7(5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 4 16.48 0 4.33	96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 16.30 4.82
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.45 15.04 8.30 0.16	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40 4 16.45 0 4.33 5 0.00	96.28 LF25458 OUVG i Shargyn Moghai 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.33 0.16 2.87	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 0.40 4 16.45 0 4.33 5 0.06 1.74	91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 16.30 4.82 0.05 1.24
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23	150.21 100.33 93.15A LF25543 OUVG 5hargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.30 0.16 2.87 6.92	2 104.7(5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.4(4 16.45 0 4.33 5 0.00 1.74 2 3.07	9 91 04 99 17 96 28 LF25458 OUVG Shargyn Moghai 63 38 0.51 1 16 30 4.82 0.05 1 24 3.05
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.87 6.92 4.06	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40 4 16.42 5 0.40 4 33 5 0.06 7 1.74 8 3.07 5 43 5 0.42 5 43 5 0.40 5 5 43 5 0.40 5 5 43 5 0.40 5 5 43 5 0.40 5 5 43 5 5 43 5 5 43 5 5 43 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	91.04 99.17 96.28 LF25458 OUVG i Shargyn Moghai 63.38 0.051 16.30 0.4.82 0.05 1.24 3.05 6.16
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.855 0.08 1.09 2.23 7.60 0.43	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.45 15.04 15.04 8.30 0.16 2.87 6.92 4.06 1.05	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40 4 16.45 0 4.33 5 0.00 1.74 2 3.07 5 5.43 5 2.85	91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 53.38 0.051 16.30 4.82 0.05 1.24 3.05 6.16 2.38
Zn Zr Total imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O Na2O Na2O K2O P2O5	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 2.93 0.28	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28	150.21 100.33 93.15A LF25543 OUVG 5hargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.42	130.25 99.97 93.15A LF25545 OUVG 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.30 0.16 2.83 6.92 4.06 1.06 0.27	2 104.7(5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.4(4 16.48 0 4.33 5 0.00 1.74 2 3.07 5 4.3 5 0.21	9 91 04 99 17 96 28 LF25458 OUVG Shargyn Moghai 63 38 0.51 1 16 30 4.82 0.05 1 124 3.05 6.16 2.38 0.22
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.46 15.04 8.33 0.16 2.87 6.92 4.06 1.02 0.27 0.12	2 104.7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 4 16.49 0 4.33 5 0.64 1.74 2 3.07 5 4.33 5 0.84 0 0.64 1.74 2 3.07 5 4.33 5 0.84 0 0.07 5 4.33 5 0.84 0 0.07 5 0.43 5 0.84 0 0.07 5 0.43 5 0.84 0 0.07 5 0.43 5 0.84 0 0.07 5 0.43 5 0.43 5 0.43 5 0.43 5 0.43 5 0.43 5 0.44 5 0.43 5 0.44 5 0.44	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.05 1.24 3.05 6.16 2.38 0.22 0.03
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 0.40 1.09 2.23 7.60 0.43 0.14 0.05 2.86	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.45 15.04 15.04 8.30 0.16 2.87 6.92 4.06 1.05 0.27 0.12 8.36	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40 4 16.43 5 0.40 4 16.43 5 0.40 5 1.74 2 3.07 5 4.35 5 2.85 0.21 2 0.07 1.28	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.051 1.630 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96	150.21 100.33 93.15A LF25543 OUVG 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.52 86 5.99	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.42 0.14 0.05 2.85 9.14	130.25 99.97 93.15A LF25545 OUVG 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.44 2.88 6.00	91.52 99.25 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.30 0.16 2.87 6.92 4.06 1.055 0.27 0.12 8.36 1.055	2 104 7(5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 0.4(16.48 0 63.57 0.4(16.48 0 4.33 5 0.06 7 1.74 2 3.07 5 4.33 5 2.85 0.21 0.07 1.28 0.077	96.28 UF25458 OUVG i Shargyn Moghai 63.38 0.51 16.30 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 9.07 9.07 9.35.80	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.266 5.286 5.286 5.244	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 15.04 8.33 0.16 2.85 4.06 1.055 0.27 0.12 8.33 10.55 1259.44	2 104.7(5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 5 0.04G 1 648 0 4.33 5 0.06 1.74 2.3.07 5.43 5.0.21 2.0.07 1.28 0.07 1.278.72	96.28 UF25458 OUVG Shargyn Moghai 5hargyn Moghai 63.38 0.51 16.30 5.124 3.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.65 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.86 5.99 122.44 74.23	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 4.04 2.85 9.14 114.53 73.77	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 7.687 7.687	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.46 15.04 8.33 0.16 2.87 6.92 4.06 1.05 0.27 0.12 8.36 1.055 1.259.44 2.8.11	2 104.70 5 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.40 4 16.44 0 4.33 5 0.40 4 16.45 0 4.33 5 0.40 4 .16.45 0 4.33 5 0.40 4 .16.45 0 4.33 5 0.40 4 .16.45 0 4.33 5 0.40 4 .16.45 0 4.33 5 0.40 1 .17.4 1 .17.4 2 .2.45 0 .2.4 0 .7.7 1 .28.7 2 .4.46 0 .7.4 2 .4.46 0 .4.45 0 .4.45 0 .4.45 0 .4.55 0 .4.75 0 .7.75 0	9 91.04 99.17 96.28 LF25458 OUVG i Shargyn Moghai 5 Shargyn Moghai 6 3.38 0 0.51 1 6.30 1 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 0.28 0.03 2.93 0.28 0.03 0.28 0.03 0.28 0.03 5.02 17.71	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 1.6.78	150.21 100.33 93.15A LF25543 OUVG 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.286 5.99 122.44 74.23 9.78	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.42 0.42 0.44 0.44 0.44 0.44 0.44	130.25 99.97 93.15A LF25545 OUVG 67.02 0.33 13.51 3.83 0.06 1.05 2.23 7.45 0.42 0.13 0.44 2.88 6.00 105.75 76.87 10.68	91,55 99,25 93,15C LF25564 OUVG Shargyn Mogha 52,20 0,44 15,04 8,30 0,16 2,83 0,01 1,05 1,055 1,259,44 2,8,11 3,027	2 104 7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 16.44 0 4.33 5 0.06 7 1.74 2 3.07 5 4.33 5 2.85 0.21 0.077 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77	9 91 04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 1 16.30 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.18 954.73 2710 13.21
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 9.07 9.05.80 35.02 17.71 1.63	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.0.14 0.05 2.266 5.99 122.44 7.423 9.78 19.18	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 15.04 8.33 0.16 2.85 4.06 1.055 1.055 1.259.44 2.8.11 3.0.27 2.53.83	2 104.7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 5 0.04 i Shargyn Mogha 0 3.57 5 0.44 16.42 0 4.33 5 0.06 1.74 2.357 0.21 2.446 15.22 2.3.70	96.28 UF25458 OUVG Shargyn Moghai 63.38 0.51 1.6.30 4.82 0.05 1.24 3.05 4.82 0.05 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.71 5.18 954.73 27.10 13.21 44.16
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 n/a	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.86 5.99 122.44 7.423 9.78 19.18 1.63	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 114.53 73.77 11.93 153.32 r/a	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 7.687 10.68 12.34 4.94	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.83 6.92 4.06 1.05 0.27 0.12 8.36 10.55 1259.44 28.11 30.27 253.83 1.11	2 104.7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 4 16.49 0 4.33 5 0.64 4 3.07 5 0.43 5 0.44 1.74 2 3.07 5 1.28 0.27 1.28 0.07 1.28 0.27 1.28 0.77 1.28,72 2.4.46 1.5.22 2.3.70 n/a	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 53.38 0.051 1.6.30 3.4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a
Zn Zr Total Imple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 3.1.41 9.07 935.80 35.02 17.71 1.63 	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32	150.21 100.33 93.15A LF25543 OUVG 5hargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.286 5.99 122.44 74.23 9.78 19.18 19.18 19.18 19.18	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.04 0.14 0.05 2.85 9.14 114.53 7.377 11.93 153.32 n7a 8.74	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34 4.94 7.93	91,55 99,25 93,15C LF25564 OUVG Shargyn Mogha 52,20 0,44 15,04 8,30 0,16 2,87 6,92 4,00 1,05 1,259,44 2,81 1,05 1,259,44 2,81 1,30,27 2,53,83 1,11 7,733	2 104 7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 16.44 0 4.33 5 0.06 7 1.74 2 3.07 5 4.33 5 0.24 5 0.21 0.077 1.28 0.27 1.28 0.37 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 0.42 0.27 1.28 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.27 0.25 0.55 0.55	9 91 04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 1 16.30 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.18 954.73 2710 13.21 44.16 n(a) 13.21 44.16
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 n/a 143.34 22.41	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.014 0.05 2.265 5.99 122.44 7.423 9.78 19.18 1.63 8.79 19.82	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.055 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 710.68 112.54 4.94 7.93 20.42	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.33 0.16 2.87 6.92 4.06 1.055 1.055 1.259.44 2.8.11 30.27 2.53.83 1.11 77.93 1.708	2 104.7(3 99.3) 96.2A LF25573 OUVG I Shargyn Mogha 0 63.57 5 0.44 16.48 0 4.33 5 0.06 1.74 2.3.07 5.43 5.0.07 1.28 0.07 1.28 0.07 1.278.72 2.4.46 15.22 2.3.70 n/a 2.6.56 18.83	91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.051 1.6.30 4.82 0.05 1.24 3.05 4.82 0.05 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.03 1.24 3.05 4.82 0.02 0.03 1.71 5.18 954.73 27.10 1.3.21 4.416 1.3.21 1.3.32 1.3.332 1.3.32 1.3.32 1.3.3
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 n/a 143.34 22.41 16.97	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.266 5.99 122.44 7.423 9.78 19.18 19.18 19.78 19.78 2.30 7.99 19.82 3.073	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.85 9.14 114.53 73.77 11.93 153.32 n/a 8.74 20.31 31.53	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34 4.94 7.93 20.42 32.45	91.52 99.26 93.15C LF25564 OUVG Shargyn Mogha 52.20 0.44 15.04 8.33 0.16 2.87 6.92 4.06 1.00 0.27 0.12 8.33 10.59 1259.44 28.11 3.027 253.83 1.11 77.93 17.98 9.97	2 104.7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 4 16.49 0 4.33 5 0.64 4 16.49 0 4.33 5 0.64 1.74 2.85 0.21 0.07 1.28 0.21 0.07 1.28.72 2.4.46 15.22 2.3.70 n/a 2.6.56 18.83 10.97	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 53.38 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a 12.52 19.05 1.24 1.51 1.51 1.55
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 MO Na2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 5.02 35.02 17.71 1.63 1.41 9.07 935.80 35.02 17.71 1.63 1.41 9.07 935.80 35.02 17.71 1.63 1.41 9.07 9.35.80 3.50 2.77 1.63 1.69 7.70 7.78 1.69 7.078	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.66 0.43 0.14 0.05 2.26 5.99 122.44 7.42 5.99 122.44 19.18 19.18 19.18 19.18 19.18 19.18 19.23 3.073 1.67	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.04 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 rva 8.74 20.31 1.53 1.53	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.67 10.68 12.34 4.94 7.93 20.42 32.46 2.31	91,55 99,25 93,15C LF25564 OUVG Shargyn Mogha 52,22 0,44 15,04 8,30 0,16 2,87 6,92 4,00 1,05 1,059 1,0	2 104 7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 16.44 0 4.33 5 0.06 4 16.45 0 4.33 5 0.06 7 1.74 2 3.07 5 4.33 5 0.24 5 0.21 0.077 1.28 0.27 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77 1.28 0.77 1.28 1.28 0.77 1.28 0.77 1.28 1.28 0.77 1.28 0.77 1.28 1.28 0.65 6 1.83 1.09 1.83 1.09 1.88 1.09 1.88 1.09 1.88 1.09 1.88 1.09 1.88 1.88 1.09 1.88 1.88 1.09 1.88 1.88 1.88 1.09 1.88 1	9 91 04 99.17 96.28 LF25458 OUVG I Shargyn Moghai 63.38 0.051 1 16.30 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 5.18 0.22 0.03 1.24 3.25 1.24 3.25 1.24 3.25 1.24 3.25 1.24 3.25 1.24 3.25 1.24 3.25 1.24 3.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.28 0.25 1.24 3.27 1.24 3.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 0.28 0.03 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 n/a 143.34 22.41 16.97 0.78 2.21	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.014 0.05 2.86 5.99 122.44 7.423 9.78 19.18 1.63 8.79 19.82 30.73 1.67 19.82 30.73 1.67 19.82	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 3.153 1.53 2.15 9.14	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34 4.94 7.93 20.42 32.46 2.31 12.41	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.87 6.92 4.06 1.065 1.055 1.259.44 2.8.11 3.0.27 2.53.83 1.111 7.793 1.708 9.97 1.911 2.93	2 104 7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.4(16.48 0 4.33 5 0.06 1.74 2.307 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.52 0.4 1.522 0.370 1.28 0.55 1.522 0.370 1.88 3.50 0.4 0.55 1.522 0.370 1.522 0.370 1.522 0.370 1.522 0.370 1.522 0.370 1.522 0.370 1.522 0.370 1.522 0.55 0.4 0.57 0.55 0.4 0.77 1.28 0.077 1.28 0.077 1.28 0.077 1.28 0.57 1.28 0.57 1.28 0.57 1.28 0.57 1.28 0.57 1.28 0.57 1.28 0.55 1.522 1.52 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.525 1.545 1.525 1.525 1.525 1.525 1.525 1.525 1.545 1.525 1.545	91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 16.30 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a, 12.52 19.05 15.95 1.87 3.81
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 n/a 143.34 22.41 16.97 0.78 2.21 19.12	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 18.56	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.43 0.44 0.05 2.266 5.99 122.44 7.423 9.78 19.18 1.63 8.879 19.82 30.73 1.67 13.51 35.67	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.85 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 31.53 1.85 1.4.99 36.84	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34 4.94 7.93 20.42 32.04 2.31 12.41 3.33	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.85 4.06 1.055 1259.44 2.811 3.027 2.53.83 1.11 7.739 1.708 9.97 1.91 2.933	2 104.7(99.3) 96.2A LF25573 OUVG Shargyn Mogha 0.63.57 0.40 1.645 0.433 0.45 0.433 0.45 0.433 0.45 0.433 0.45 0.433 0.45 0.433 0.45 0.433 0.45 0.433 0.45 0.433 0.45	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a 12.52 19.05 15.95 1.87 3.81 13.60
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cr Cs Cu Ga La Mo Nb Nb Ni	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 0.35 0.23 0.71 1.63 1.41 9.07 935.80 35.02 17.71 1.63 0.78 0.35 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.58 16.80 5.82 0.10 2.70 4.23 5.45 5.30 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 <i>n/a</i> 142.32 21.69 15.93 1.76 3.40 0.18.56 6.13	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.66 0.043 0.14 0.05 2.26 5.99 122.44 74.23 9.78 19.18 1.65 5.99 122.44 74.23 9.78 19.18 1.65 5.99 1.22.44 74.23 9.78 1.918 1.93 1.97 1.918 1.93 1.97 1.918 1.93 1.97 1.97 1.97 1.97 1.97 1.97 1.97 1.97	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.04 0.42 0.14 1.05 2.85 9.14 114.53 7.77 11.93 1.53.32 r/a 8.74 20.31 3.153 3.153 1.85 1.4.99 3.6.84 6.71	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.67 76.67 76.67 10.68 12.34 4.94 7.93 20.42 32.46 2.31 12.41 38.34 5.52	91,55 99,25 93,15C LF25564 OUVG Shargyn Mogha 52,22 0,44 15,04 8,32 0,016 2,87 6,92 4,00 1,05 1,059 1,	2 104 7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 16.44 0 4.33 5 0.06 7 1.74 3 0.00 7 1.74 2 2.85 0.21 0.077 1.28 0.27 1.28 0.77 1.28 0.77 1.28 1.28 0.07 1.28 1.28 0.07 1.28 1.29 1.28 1	9 91 04 99.17 96.28 LF25458 OUVG (Shargyn Moghai 63.38 0.051 16.30 4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 2.38 0.22 0.03 1.24 3.05 6.16 5.18 7.17 1.24 3.05 6.16 5.18 7.10 1.24 3.05 6.16 5.18 7.16 3.18 7.16 5.18 7.17 1.24 3.17 1.24 3.16 0.15 1.24 3.27 1.25 3.27 3.27 1.25 3.27 3.27 1.25 3.27 3.27 3.27 3.27 3.27 3.27 3.27 3.27
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.00 2.66 4.15 5.33 2.93 0.28 0.03 3.028 0.03 3.028 0.03 3.028 0.03 3.028 0.03 3.028 0.03 1.41 9.07 935.80 35.02 17.71 1.63 n/44 143.34 22.41 16.97 0.78 2.21 19.12 6.44 10.23	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/4 142.32 21.69 15.93 1.76 3.40 18.56 6.13 3.315	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.014 0.05 2.86 5.99 122.44 7.423 9.78 19.18 1.63 8.79 19.82 30.73 1.67 13.51 3.567 5.266 7.59	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 3.153 1.53 2.65 9.14 11.93 153.32 r/a 8.74 20.31 3.155 1.65 9.14 1.93 1.55 2.65 9.14 1.93 1.53 2.65 9.14 1.93 1.53 2.65 9.14 1.93 1.53 2.65 9.14 1.93 1.53 2.65 9.14 1.93 1.53 1.53 1.55 1.54 1.93 1.55 1.55 1.55 1.55 1.55 1.55 1.55 1.5	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.33 13.51 3.83 0.08 105 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 6.12.34 1.05 76.27 10.68 1.2.34 4.99 7.99 2.0.42 3.2.46 2.31 1.2.41 3.8.34 5.52 7.62	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.30 0.16 2.87 6.92 4.00 1.055 1259.44 2.8.11 3.0.27 0.12 8.36 1259.44 2.8.11 3.0.27 1253.83 1.11 7.793 1.708 9.977 1.91 2.53.83 1.11 7.793 1.500 6.7.14 3.32	2 104 7(99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 0.4(16.48 0 4.33 0.00 1.74 2.307 1.78 2.85 0.07 1.28 0.07 0.0	9 91 04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 1 16.30 4.82 0.05 1 124 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/4 12.52 19.06 15.95 1.87 3.81 13.60 0.575 6.90
Zn Zr Total minple number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MinO MigO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	6.51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 9.07 9.07 9.07 9.07 8.00 3.5.02 1.7.71 1.63 n/a 143.34 2.2.41 1.6.97 0.78 2.21 1.9.12 6.44 4.10,23 45.81	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 1.67 8.31.52 1.69 15.93 1.76 3.40 18.56 6.13 3.40 18.56 6.13 1.55	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.04 4 0.05 2.266 5.266 5.266 5.266 5.266 5.269 122.44 7.423 9.78 19.18 1.63 1.63 1.63 5.67 5.26 3.567 7.526 7.5277 7.5277 7.52777 7.527777777777777	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 31.53 1.85 14.49 36.84 6.71 6.19 8.56	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34 4.94 7.93 20.42 32.46 2.21 12.34 13.83 4.95 20.42 32.46 2.21 12.24 13.83 4.95 20.42 32.46 2.21 12.24 32.46 2.21 32.46	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.85 4.06 1.055 1.259.44 2.811 3.0.27 2.53.83 1.11 7.793 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 2.93 1.7.08 9.97 1.91 9.97 1.91 1.93 1.93 1.93 1.93 1.93 1.93 1.93	2 104.7(99.3) 96.2A LF25573 OUVG Shargyn Mogha 0.63.57 0.44 16.45 0.43 0.43 0.43 0.43 0.43 0.43 0.44 1.645 0.43 0.43 0.44 1.74 2.85 0.00 1.74 2.370 0.77 1.278 2.446 15.22 2.3.70 n/a 2.656 18.83 10.97 1.883 10.97 1.883 5.40 1.629 1.278 2.455 1.625 1.2788 1.2788 1.2788 1.2788 1.	91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.05 1.24 3.21 1.360 15.75 1.36 3.81 1.360 15.75 3.81 1.360 15.75 3.81 3.81 3.60 15.75 3.81 3.81 3.60 15.75 3.81
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 MO K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nb Nb Nb Ni Pb Rb Sc	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 0.35.02 17.71 1.63 0.35.02 17.71 1.63 0.78 2.21 1.9.12 6.44 10.23 1.9.12 1.9	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 0.270 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 1.678 31.52 n/a 142.32 21.69 1.593 1.76 3.40 18.56 6.13 13.15 46.45 17.28	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.86 5.99 122.44 7.423 9.78 122.44 7.423 9.78 19.18 1.63 8.79 19.82 30.73 1.67 1.351 3.567 5.26 7.59 8.36 6.26 1.21 1.21	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 3.153 1.53 1.85 14.49 36.84 6.71 6.71 6.79 3.65	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.43 0.44 2.88 6.00 105.757 76.67 10.68 12.34 38.34 4.94 7.93 20.42 32.46 2.31 12.41 38.34 5.52 7.62 9.84 14.74	91,55 99,25 93,15C LF25564 OUVG Shargyn Mogha 52,22 0,44 15,04 8,32 0,01 2,87 6,92 4,00 1,05 1,059 1,0	2 104.7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 16.49 0 4.33 5 0.06 1.74 2.3.70 1.28 0.27 1.28 0.21 0.07 1.28 0.27 1.28 0.27 1.28 0.21 0.07 1.28 0.27 1.28 0.23 0.07 1.28 0.23 0.07 1.28 0.07 1.88 0.09 1.88 0.43 0.97 1.88 0.43 0.97 1.88 0.43 0.97 1.88 0.44 0.	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 53.38 0.051 1.6.30 0.4.82 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a, 12.52 19.05 15.95 1.87 3.81 13.60 15.75 6.90 39.20 7.49
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba CaO R2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ca Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	6 51 91.99 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.03 0.266 4.15 5.33 0.28 0.03 0.02 0.03 0.28 0.03 0.02 0.03 0.28 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.771 1.63 0.78 0.78 0.78 0.78 0.78 0.78 0.78 0.78	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 18.56 6.13 13.15 46.45 17.28 1198.30	150.21 100.33 93.15A LF25543 OUVG 5hargyn Moghai 67.79 0 40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.04 2.23 7.60 0.43 0.14 0.04 2.23 7.60 0.43 0.14 0.05 2.86 5.99 122.44 7.423 9.78 19.18 1.63 3.9,78 19.18 1.63 3.9,78 19.82 3.0.73 1.67 13.51 3.56 2.56 2.56 5.99 12.244 7.423 9.78 19.82 3.0.73 1.67 1.351 3.56 2.56 2.56 2.56 5.99 12.244 7.423 9.78 19.82 3.07 3.167 1.351 1.351 1.351 3.56 2.56 2.86 3.167 1.351 3.56 2.85 3.57 3.56 2.85 3.57 3.56 3.56 2.56 3.57 3.56 3.56 2.56 3.57 3.56 3.56 3.57 3.56 3.56 3.56 3.56 3.56 3.57 3.56 3.56 3.56 3.57 3.56 3.57 3.56 3.57 3.56 3.57 3.57 3.56 3.57 3.57 3.57 3.57 3.57 3.57 3.57 3.57	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 31.53 1.53 2.65 9.14 11.93 153.32 r/a 8.74 20.31 31.53 1.85 14.49 36.84 6.71 6.71 6.71 6.79 8.56 5.95 365.01	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.68 12.34 12.34 12.34 12.34 2.0.42 32.46 2.33 12.41 38.352 7.62 2.9.84 14.74 37.022	91,55 99,22 93,15C LF25564 OUVG Shargyn Mogha 52,20 0,44 15,04 8,30 0,16 2,87 6,92 4,00 0,27 0,12 8,36 1,055 1259,44 2,8,11 1,055 1259,44 2,8,11 1,055 1259,44 2,8,11 1,7,93 1,7,93 1,7,08 9,97 1,91 2,93 1,50 6,7,14 3,32 1,7,56 2,3,99 6,21,00	2 104 77 99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 0 .04 16.48 0 4.33 0 .00 1.74 2.3.07 1.28 0.00 0.07 1.28 0.00 0.07	9 91 04 99.17 96.28 LF25458 OUVG i Shargyn Moghai 63.38 0.51 1 16.30 4.82 0.05 1 124 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/4 12.52 19.05 15.95 1.595 1
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	651 91.99 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 0.28 0.03 3.028 0.03 3.028 0.03 3.028 0.03 3.502 17.71 1.63 n/a 143.34 2.241 16.97 0.78 2.21 19.12 6.44 10.23 45.81 13.11 1206.85 5.14	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 18.56 6.13 3.40 18.56 6.13 3.15 1.69 15.93 1.76 3.40 18.56 6.13 1.52 1.69 15.93 1.76 3.40 18.56 6.13 1.52 1.69 15.93 1.76 3.40 18.56 6.13 1.52 1.69 15.93 1.76 3.40 18.56 6.13 1.52 1.69 15.93 1.76 3.40 18.56 6.13 1.52 1.69 15.93 1.76 3.40 18.56 6.13 1.31 1.52 1.69 1.59 1.72 1.69 1.593 1.76 1.69 1.69 1.593 1.76 1.69 1.69 1.593 1.76 1.69 1.69 1.593 1.76 1.69 1.593 1.76 1.69 1.69 1.69 1.69 1.69 1.69 1.593 1.76 1.69 1.593 1.76 1.69 1.69 1.593 1.76 1.69 1.593 1.76 1.69 1.593 1.76 1.69 1.69 1.593 1.76 1.69 1.593 1.76 1.69 1.69 1.593 1.76 1.69 1.69 1.69 1.593 1.76 1.69 1.593 1.76 1.79 1.7	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.044 0.05 2.266 5.99 122.44 7.423 9.78 19.18 1.63 8.79 19.82 30.73 1.67 13.51 35.67 5.26 6.7.59 8.36 11.21 35.67 7.59 8.36 11.21 3.54 2.44 1.315 1.21 3.54 2.44 1.315 1.21 3.54 2.44 1.315 1.21 3.54 2.44 1.21 3.55 3.55 7.59 8.36 1.121 3.55 7.59 8.36 1.121 3.55 7.59 8.36 3.121 3.55 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 8.36 7.59 7.59 8.36 7.59 8.36 7.59 7.59 7.59 8.36 7.59 7.59 7.59 7.59 7.59 7.59 7.59 7.59	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 31.53 1.85 5.95 5.14.49 36.84 6.71 6.19 8.56 5.95 5.365.01 12.06	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.055 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 76.87 76.87 10.68 12.34 4.94 7.93 20.42 32.46 2.31 12.34 4.94 7.93 20.42 32.46 2.31 12.41 38.34 5.52 7.62 7.62 7.62 7.82 7.45 10.68 11.24 11.24 12.41 38.34 4.55 2.7.62 7.62 7.62 7.62 7.62 7.62 7.62 7.	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.00 8.33 0.16 2.87 6.92 4.00 1.055 1.055 1.259.44 2.8.11 3.0.27 2.53.83 1.11 77.93 1.7.06 9.97 1.91 2.93 1.7.06 9.97 1.91 2.93 1.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 2.5.05 6.714 3.32 3.1505 6.714 3.32 2.5.05 6.714 3.32 3.5.05 6.714 3.32 2.5.05 6.714 3.32 3.5.05 6.714 3.32 3.5.05 6.714 3.32 3.5.05 6.714 3.32 3.5.05 6.714 3.32 3.5.05 6.714 3.5.05 6.714 3.5.05 6.714 3.5.05 6.714 7.755 7.755 7.755 7.755 7.755 7.755 7.755 7.755 7.7557 7.7557 7.75577 7.755777 7.75577777777	2 104.7(99.3) 96.2A LF25573 OUVG Shargyn Mogha 0.00 1.5hargyn Mogha 0.00 1.648 0.4.33 0.00 1.74 2.85 0.021 0.07 1.28 0.09 1.23 0.09 1.23 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 1.22 0.07 1.28 0.09 0.12 0.07 1.28 0.09 0.12 0.07 0.0	9 91.04 99.17 96.28 LF25458 OUVG i Shargyn Moghai 63.38 0.51 1.6.30 5.12 0.05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 1.3.21 44.16 n/a 12.52 19.05 1.5.95 1.87 3.81 13.60 15.75 6.90 39.20 7.49 945.44 5.08
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O3 Fe2O3 MnO K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb	6 51 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 0.35 0.35 0.28 0.03 1.41 9.07 935.80 35.02 17.71 1.63 0.52 5.84 1.41 9.07 9.35.80 35.02 17.71 1.63 0.52 5.84 1.41 9.07 9.35.80 35.02 17.71 1.63 0.78 2.21 1.9.12 6.44 10.25 5.84 1.25.84 1.13.11 1.206.85 5.14 2.16	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 15.93 1.76 3.40 15.93 1.78 11.98 30 0.27	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.355 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.266 5.99 122.44 7.423 0.43 0.14 0.05 2.266 5.99 122.44 7.423 9.78 19.18 1.93 19.18 1.93 19.83 1.97 19.82 30.73 1.67 1.351 3.567 5.26 5.26 5.26 5.39 9.19 19.83 3.07 3.167 1.351 3.567 5.26 5.26 5.26 5.26 5.27 5.26 5.26 5.26 5.26 5.26 5.26 5.27 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.85 2.18 7.65 0.42 0.14 4.05 2.85 9.14 114.53 73.77 11.93 153.32 n/a 8.74 20.31 3.155 14.49 3.6.84 6.71 6.19 3.6.84 6.71 6.19 3.65 12.06 5.95 3.65.01 12.06 1.97	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.04 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 76.87 10.65 12.34 4.94 7.93 20.42 32.46 2.31 12.41 38.34 5.52 7.65 2.9,84 14.74 37.02 2.9,84 14.74 37.02 2.9,84 14.74 37.02 2.3,49 3.49 3.49 3.49 3.49 3.49 3.49 3.49 3.	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.87 6.92 4.06 1.00 7.027 0.12 8.35 10.55 1259.44 28.11 3.027 2.53.83 1.11 7.7.93 17.08 9.97 1.91 2.93 1.505 67.14 3.32 1.505 67.14 3.32 1.505 67.14 3.329 621.00 4.000 1.63	2 104.7(5 99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 5 0.44 4 16.49 0 4.33 5 0.06 1.74 2 3.07 5 4.33 5 0.64 1.74 2 3.07 5 4.33 5 0.21 0.21 0.21 1.28 0.21 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.27 1.28 0.21 1.20 0.14 1.20 0.12 1.20 0.128 0.21 1.20 0.128 0.21 1.20 0.21 1.20 0.21 1.20 0.21 1.20 0.21	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 5 hargyn Moghai 6 3.38 0 .51 1 6.30 5 4.82 0 .05 1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a 12.52 19.05 1.595 1.87 3.81 13.60 15.75 6.90 39.20 7.49 945.44 5.08 2.52
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O K2O P2O5 SO3 LOI As Ba CaO P2O5 SO3 LOI As Ba CaO CaO CaO CaO CaO R2O F2O5 SO3 LOI As Ba CaO CaO R2O F2O5 SO3 LOI As Ba CaO R2O F2O5 SO3 LOI As Ba CaO SiO2 TiO2 Al2O3 Fe2O3 MnO Na2O R2O F2O5 SO3 LOI As Ba CaO SiO2 TiO2 Al2O3 Fe2O3 MO Na2O F2O5 SO3 LOI As Ba CaO SiO3 F2O5 SO3 LOI As Ba CaO SiO3 F2O5 SiO3 LOI As Ba CaO SiO3 F2O5 SiO3 LOI As Ba CaO CaO SiO3 F2O5 F2O5 F2O5 F2O5 F2O5 F2O5 F2O5 F2O5	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.03 0.266 4.15 5.33 0.28 0.03 0.22 0.221 1.9.12 0.221 1.9.12 0.2210 0.221 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210000000000	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 18.56 6.13 13.15 46.45 17.28 1198.30 10.80 0.27 193.23	150.21 100.33 93.15A LF25543 OUVG 5hargyn Moghai 67.79 0 40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.86 5.99 122.44 7.423 9.78 19.18 1.63 3.87 9.12 4.43 7.42 3.9.78 19.18 1.65 3.87 9.19 19.82 3.0.73 1.67 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.04 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 n/a 8.74 20.31 31.53 153.32 n/a 8.74 20.31 31.53 1.85 14.49 36.84 6.71 6.79 8.56 5.95 3.65.01 12.06 5.95 3.65.01 12.06 1.97 5.710	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.33 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.44 2.88 6.00 105.75 7687 10.68 12.34 32.042 32.34 5.22 7.62 9.84 14.74 370.22 2.92 3.49 47.61	91,55 99,22 93,15C LF25564 OUVG Shargyn Mogha 52,20 0,44 15,04 8,30 0,16 2,87 6,92 4,00 1,05 1,259,44 2,8,11 1,055 1,259,44 2,8,11 1,055 1,259,44 2,8,11 1,055 1,259,44 2,8,11 1,055 1,259,44 2,8,11 1,7,93 1,7,05 5,1259,44 2,8,11 1,7,93 1,7,05 5,1259,44 2,8,11 1,7,93 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,8,12 1,10 5,1259,44 2,1259,442,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,44 2,1259,454,454,454,454,454,454,454,454,454,4	2 104 7(99.37 96.2A LF25573 OUVG i Shargyn Mogha 0 63.57 0 .04 16.48 0 4.33 0 .00 1.74 2.35 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.07 1.28 0.21 0.43 0.24 0.63 1.74 2.35 0.44 1.74 2.35 0.44 1.74 2.35 0.21 0.77 1.28 0.21 0.77 1.28 0.21 0.77 1.28 0.21 0.21 0.23 0.21 0.24 0.65 1.88 1.64 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.52 2.370 1.88 5.40 1.23 1.24 1.25 1.25 1.20 1.25 1.20 1.25 1.25 1.20 1.25 1.25 1.20 1.25 1.20 1.25 1.20 1.25 1.20 1.25 1.20 1.25 1.20 1.25 1.20 1.25 1.20 1.20 1.25 1.20 1.20 1.25 1.20 1.20 1.20 1.20 1.25 1.20	9 91 04 99.17 96.28 LF25458 OUVG i Shargyn Moghai 63.38 0.51 1 16.30 4.82 0.05 1 124 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/4 12.52 19.05 15.95 1.87 3.81 13.60 5.55 6.90 39.20 7.49 945.44 5.08 2.52 95.16
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	651 91.99 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.10 2.66 4.15 5.33 2.93 0.28 0.03 3.028 5.03 1.041 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.555 5.14 2.211 1.023 3.5555 5.14 2.211 1.023 3.5555 5.14 2.211 1.023 3.5555 5.14 2.211 1.023 3.55555 5.14 2.211 1.023 3.55555555555555555555555555555555555	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 2.70 2.70 2.70 2.70 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 18.56 6.13 3.152 1.69 15.93 1.76 3.40 18.56 6.13 3.40 18.56 6.13 3.152 1.69 15.93 1.76 3.40 18.56 6.13 1.72 19.33 1.76 3.40 18.56 19.33 1.76 3.40 18.56 6.13 1.72 19.33 1.76 3.40 18.56 5.72 19.33 1.76 3.40 18.56 5.72 19.33 1.76 3.40 18.56 5.72 19.33 1.76 3.40 18.56 5.72 19.33 1.75 1.75 1	150.21 100.33 93.15A LF25543 OUVG Shargyn Moghai 67.79 0.40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 3.01 4 0.05 2.266 5.99 122.44 7.423 9.760 1.224 7.423 9.72 1.2244 7.423 9.73 1.97 1.351 3.567 5.266 7.59 8.36 1.121 3.567 7.59 8.36 1.121 3.567 7.59 8.36 1.121 3.567 7.59 8.36 1.121 3.567 7.59 8.36 7.59 7.59 8.36 7.59 8.36 7.59 7.59 8.36 7.59 7.59 7.59 7.59 7.59 7.59 7.57 7.59 7.57 7.59 7.57 7.59 7.57 7.59 7.57 7.59 7.57 7.57	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 r/a 8.74 20.31 31.53 1.85 5.14.59 1.4.59 36.84 6.71 6.19 8.56 5.95 5.365.01 12.06 1.97 5.710 5.622	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.38 13.51 3.83 0.08 1.055 2.23 7.45 0.42 0.13 0.04 2.88 6.00 105.75 7.687 10.68 6.12.34 4.94 7.93 20.42 32.46 2.31 12.34 4.94 7.93 20.42 32.46 2.31 12.41 38.34 5.55 7.62 7.62 7.62 7.62 7.62 7.62 7.62 7.62	91.52 99.22 93.15C LF25564 OUVG Shargyn Mogha 52.22 0.44 15.04 8.33 0.16 2.85 1.055 1.055 1.259.44 2.8.11 3.0.27 0.12 8.33 1.055 1.259.44 2.8.11 3.0.27 2.53.83 1.111 3.0.27 2.53.83 1.113 3.0.27 2.53.83 1.114 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 2.53.83 1.115 3.0.27 3.0.27 2.53.83 1.115 3.0.27 3.0.27 3.0.27 3.150 5.05 5.714 3.32 3.150 5.714 3.322 3.150 5.714 3.32 3.140 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 3.1505 5.714 3.327 5.755 5.714 5.755 5.714 5.755 5.714 5.755 5.714 5.7555 5.714 5.75555 5.7555555555555555555555555555	2 104.7(99.3) 96.2A LF25573 OUVG Shargyn Mogha 0.357 0.44 16.42 0.433 0.06 1.74 2.85 0.07 1.28 0.07 1.28 0.07 1.278.72 24.46 15.22 2.3.70 n/4 2.656 18.83 10.97 1.883 10.97 1.883 10.97 1.883 10.97 1.883 10.97 1.883 10.97 1.235 3.904 14.833 1240.71 2.255 3.904 14.833 1240.71 2.555 3.904 14.833 1240.71 1.235 3.904 14.833 1.245 1.255 3.904 1.425 1.235 1.245 1.255 1.207 1.28 1.245 1.2755 1.2755	9 91 04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.51 16.30 1.24 3.05 1.24 3.21 1.44 1.66 1.595 1.87 3.81 1.3.60 1.575 5.08 2.52 9.516 1.09 3.920 7.49 9.45 5.08 2.52 9.516 1.09 3.516 1.09 3.516 1.09 3.517 3.518 1.360 1.575 5.08 2.52 9.516 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518 1.09 3.518
Zn Zr Total mple number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O R2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U V	651 91.99 99.32 93.12A LF25550 OUVG Shargyn Moghai 59.13 0.51 16.82 5.84 0.03 0.266 4.15 5.33 0.28 0.03 0.22 0.221 1.9.12 0.221 1.9.12 0.2210 0.221 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210 0.2210000000000	120.79 99.14 93.12A LF25551 OUVG Shargyn Moghai 58.81 0.56 16.80 5.82 0.10 2.70 4.23 5.45 3.02 0.28 0.03 1.41 6.96 928.51 37.30 16.78 31.52 n/a 142.32 21.69 15.93 1.76 3.40 18.56 6.13 13.15 46.45 17.28 1198.30 10.80 0.27 193.23	150.21 100.33 93.15A LF25543 OUVG 5hargyn Moghai 67.79 0 40 13.63 3.85 0.08 1.09 2.23 7.60 0.43 0.14 0.05 2.86 5.99 122.44 7.423 9.78 19.18 1.63 3.87 9.12 4.43 7.42 3.9.78 19.18 1.65 3.87 9.19 19.82 3.0.73 1.67 5.26 5.26 5.26 5.26 5.26 5.26 5.26 5.26	49.70 99.33 93.15A LF25544 OUVG Shargyn Moghai 67.56 0.35 13.66 3.76 0.09 1.05 2.18 7.65 0.42 0.14 0.04 0.14 0.05 2.85 9.14 114.53 73.77 11.93 153.32 n/a 8.74 20.31 31.53 153.32 n/a 8.74 20.31 31.53 1.85 14.49 36.84 6.71 6.79 8.56 5.95 3.65.01 12.06 5.95 3.65.01 12.06 1.97 5.710	130.25 99.97 93.15A LF25545 OUVG Shargyn Moghai 67.02 0.33 13.51 3.83 0.08 1.05 2.23 7.45 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.42 0.13 0.44 2.88 6.00 105.75 7687 10.68 12.34 32.042 32.34 5.22 7.62 9.84 14.74 370.22 2.92 3.49 47.61	91,55 99,25 93,15C LF25564 OUVG Shargyn Mogha 52,22 0,44 15,04 8,32 0,016 2,87 6,92 4,00 0,27 0,12 8,33 10,59 1259,44 28,11 7,793 17,08 9,97 1253,83 111 77,93 17,08 9,97 1,91 2,93 15,06 6,7,14 3,32 17,56 6,23,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 6,21,00 1,63 2,33,99 1,50 1,50 1,50 1,50 1,50 1,50 1,50 1,50	2 104.7(99.3) 96.2A LF25573 OUVG i Shargyn Mogha 0.63.57 0.44 1.649 0.4.33 0.060 1.74 4.33 0.06 1.74 2.85 0.21 0.07 1.28 0.21 0.07 1.28 0.21 0.07 1.28 0.21 0.07 1.28 0.21 0.07 1.28 0.44 15.22 2.3.70 n/a 2.656 18.83 10.97 1.88 5.40 0.77 1.28 0.21 0.77 1.28 0.21 0.77 1.28 0.21 0.77 1.28 0.21 0.77 1.28 0.21 0.77 1.28 0.21 0.77 1.28 0.44 15.22 2.3.70 n/a 1.25 3.904 1.483 1.2407 1.2447 1.255 3.904 1.483 1.2407 1.25 3.904 1.2407 1.26 3.904 1.2407 1.265 3.904 1.2407 1.265 3.904 1.2407 1.2655 3.904 1.205 3.904 1.2407 1.2655 3.904 1.2407 1.2655 3.904 1.205 3.905 1.200 1.205 3.905 1.200 1.205 1.200 1.205 1.	9 91.04 99.17 96.28 LF25458 OUVG Shargyn Moghai 63.38 0.051 1.6.30 5.1.24 3.05 6.16 2.38 0.22 0.03 1.71 5.18 954.73 27.10 13.21 44.16 n/a 12.52 19.05 1.595 1.87 3.81 13.60 15.75 6.90 39.20 7.49 945.44 5.08 2.52 95.16 10.99 47.14

ample number		88.12A	88.17A	88.7A	88.9A	89.10A	1 I I I I I I I I I I I I I I I I I I I	89.10A
Bead	LF25072	LF25075	LF25049	LF25042	LF25046	LF25079	LF25106	LF25107
field area	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG
formation SiO2	Yasun Eliy-e 47.22	Yasun Eliy-e 46.97	Yasun Eliy-e 51.6	Yasun Eliy-e 49.1	Yasun Eliy-e 49.15	Yasun Eliy-e 49.52		Yasun Eliy-e 49.53
TiO2	0.96							49.0
AI2O3	17.53							19.02
Fe2O3	13.15							8.5
MnO	0.15							0.14
MgO	4.47	4.48	3.4	2 3.7	5.29	1.95	1.94	1.9
CaO	7.94	8.04						7.8
Na2O	3.17							4.6
K2O	2.83							1.3
P2O5	0.42							0.4
SO3	0.04	0.04						0.0
LOI	1.70	1.67						5.3
As Ba	14.94 740.41	15.83 715.38						32.8 526.7
Ce	41.15							43.9
Co	40.53							25.4
Cr	57.67							n/
Cs	4.54	n/a						0.9
Cu	112.34							
Ga	21.55						20.48	20.1
La	10.81	10.54						
Мо	2.53	0.16					2.02	
Nb	4.88							
Nd	18.79							
Ni	13.72							
Pb	2.16	n/a						
Rb	83.04							
Sc	31.70							
Sr	794.87							
Th U	3.38 3.42	6.06 1.59						
v	399.30	395.64						
v	333.30	390.04						
Y	24 67	25.16	25.1	7 303				
Y Zn	24.67 93.36	25.16 93.37						
Y Zn Zr	24.67 93.36 94.30	25.16 93.37 94.01	112.6	4 129.6	8 125.10	82.3	5. 84.58	82.9
Zn	93.36 94.30 99.58	93.37 94.01	112.6 117.5	4 129.6 5 103.2	8 125.10 0 93.8) 82.35 I 134.64	5 84.58 137.30	82.9 133.0
Zn Zr Total ample number Bead	93.36 94.30 99.58 96.4A LF25459	93.37 94.01 99.61 96.5A LF25570	112.6 117.5 99.0 96.6A LF25568	4 129.6 5 103.2 5 99.2 96.7A LF25565	8 125.10 0 93.8 9 98.67 96.88 LF25572	96.9A LF25569	96.9B LF25571	82.9 133.0 100.1 18/08_2 LF22788
Zn Zr Total ample number Bead field area	93.36 94.30 99.58 96.4A LF25459 OUVG	93.37 94.01 99.61 96.5A LF25570 OUVG	112.6 117.5 99.0 96.6A LF25568 OUVG	4 129.6 5 103.2 5 99.2 96.7A LF25565	8 125.10 0 93.8 9 98.62 96.88 LF25572 OUVG	0 82.38 1 134.6 2 100.13 96.9A LF25569 OUVG	84.58 137.30 3 100.07 96.9B LF25571	82.9 133.0 100.1 18/08_2 LF22788 SVLZ
Zn Zr Total mple number Bead field area formation	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha	4 129.6 5 103.2 5 99.2 96.7A LF25565 OUVG ti Shargyn Moghu	8 125.10 0 93.8 9 98.62 96.88 LF25572 OUVG ai Shargyn Mogha	0 82.34 1 134.6- 2 100.13 96.9A LF25569 OUVG i Shargyn Mogha	5 84.58 4 137.30 3 100.07 96.98 LF25571 OUVG i Shargyn Moghai	82.5 133.0 100.1 18/08_2 LF22788 SVLZ n/a
Zn Zr Total ample number Bead field area formation SiO2	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.20	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha 56.1	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8	8 125.11 0 93.8 9 98.6 96.88 LF25572 OUVG ai Shargyn Mogha 3 61.30	0 82.34 1 134.6- 2 100.13 96.9A LF25569 OUVG i Shargyn Mogha 0 55.80	84,58 137.30 96.98 LF25571 OUVG i Shargyn Moghai 0 59.98	82.5 133.0 100.7 18/08_2 LF22788 SVLZ n/a 76.4
Zn Zr Total ample number Bead field area formation SiO2 TiO2	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.20 0.51	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghu 56.1 0.5	4 129 6 5 103 2 6 99 2 96.7A LF25565 OUVG 41 Shargyn Moghu 9 53.8 3 0.7	8 125.10 9 33.8 9 98.65 96.88 LF25572 OUVG ai Shargyn Mogha 3 61.30 0 0.56	0 82.34 1 134.6- 2 100.13 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56	5 84.58 137.30 96.98 LF25571 OUVG i Shargyn Moghai 0 59.98 5 0.61	82.5 133.0 100. ⁻ 18/08_2 LF22788 SVLZ n/a 76.4 0.0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00	93.37 94.01 99.61 96.6A LF25570 OUVG Shargyn Moghai 55.22 0.51 15.66	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5	4 129 6 5 103 2 5 99 2 96.7A LF25565 OUVG 4i Shargyn Mogh 9 53.8 3 0.7 2 15.7	8 125,11 0 93,8 9 98,67 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,3 0 0,56 8 15,3	0 82.33 1 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.88 0 0.56 1 15.65	6 84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0 59,98 3 0,61 16,66	82.5 133.0 100.1 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.20 0.51 15.66 6.77	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 7.9	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG al Shargyn Mogh- 9 53.8 3 0.7 2 15.7 9 8.1	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,30 0 0,5 8 15,3 4 4,99	0 82.34 1 134.64 2 100.11 96.9A LF25569 OUVG i Shargyn Mogha 0 56.86 0 0.55 1 15.66 0 6.91	84.58 137.30 3 100.07 96.9B LF25571 OUVG 1 Shargyn Moghai 59.98 0.61 16.86 6.85	82.5 133.0 100.1 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.5
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.57 15.66 6.77 0.17	112 6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 7.9 0.1	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,3 0 0,5 8 15,3 4 4,9 4 0,00	0 82.34 1 134.6- 2 100.15 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 1 15.68 0 0.56 0 0.56	84.58 137.30 96.98 LF25571 OUVG i Shargyn Moghai 5.9.98 0.61 5.9.98 0.61 0.61 0.61 0.61 0.61	82.5 133.0 100.7 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.5 0.5 0.0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.51 15.66 6.77 0.17 3.54	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 7.9 0.1 3.6	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,3 0 0,5 8 15,3 4 4,9 4 0,00 2 2,9	0 82.33 1 34.6- 2 100.1: 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 1 55.69 0 0.56 1 15.66 0 0.56 1 15.66 0 0.15 0 0.15 0 0.15 0 0.05 0 0.05	6 84,58 137.30 96.98 LF25571 OUVG i Shargyn Moghai) 59.98 0.61 16.86 0.61 16.86 0.61 16.86 0.0.10 0.10 0.149	82.9 133.0 100.7 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.5 0.0 0.7
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32	93.37 94.01 99.61 96.6A LF25570 OUVG Shargyn Moghal 55.2C 0.51 15.6E 6.77 0.17 3.54 7.91	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moght 56.1 0.5 16.5 7.9 0.1 3.6 5.5	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 0 4.3	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,30 0 0.50 8 15,3 4 4,94 4 0.00 2 2,9 7 2,8	0 82.34 1 134.6- 2 100.11 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 55.86 0 55.86 0 6.97 3 0.10 4.80	84.58 137.30 3 100.07 96.98 LF25571 OUVG iShargyn Moghai 0 59.98 3 0.61 5 16.86 6 85 0 0.149 0 1.49 0 1.61	82.9 133.0 100.7 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.5 0.0 0.0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.51 15.66 6.77 0.17 3.54	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,30 0 0.5 8 15,3 4 4,94 4 0.0 2 2,9 7 2,8 8 6,14	0 82.34 1 134.6- 2 100.13 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 1 56.86 0 0.56 1 56.86 0 0.56 0 0.56	84.58 137.30 96.98 LF25571 OUVG i Shargyn Moghai 5.9.98 0.61 5.0.61 16.85 0.100 1.61 9.93	82.0 133.0 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.55 15.66 6.77 0.17 3.54 7.91 3.74	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 4 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2 1 2.1	8 125,11 9 98,67 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 0 0,56 8 15,33 4 4,99 7 2,8° 8 6,14 4 1,2°	0 82.3% 134.6 134.6 2 100.1 96.9A LF25569 OUVG i i Shargyn Mogha 55.8% 0 .55.8% 0 .56.8% 15.6%	84,58 137.30 96,98 LF25571 OUVG i Shargyn Moghai 0 59.98 168.65 0 0.61 168.65 0.010 90 1.49 90 0.61 90 0.61 90 0.40	82. 133. 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16	112 6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Mogh- 9 53.8 3 0.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,30 0 0,5 8 15,3 4 4,94 4 0,00 2 2,9 7 2,8 8 6,14 4 1,22 8 0,11 7 0,00	0 82.34 1 134.6- 2 100.13 96.9A LF25569 OUVG i Shargyn Mogha 0 55.80 0 0.55 1 56.80 0 0.55 1 56.80 0 0.55 0 0.15 0 4.05 0 4.05 0 4.05 0 4.05 0 0.25 0 0.12 0 0.25 0 0.25 0 0.12 0 0.02 0 0.02	84.58 137.30 3 100.07 96.9B LF25571 OUVG i Shargyn Moghai 59.98 0.61 16.66 6.85 0.10 1.61 9.33 0.40 0.42 0.32	82.0 133.0 100.0 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.86	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 1.7	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 1 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7	8 125,11 9 98,67 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 4 9,00 2 2,9 7 2,8 8 6,1 4 1,2 8 0,11 7 0,01 1 3,55	0 82.34 134.6 134.6 2 100.1 96.9A LF25569 OUVG i i Shargyn Mogha 55.86 0 55.86 0 55.86 0 0.56 15.63 0.10 4.65 6.93 3 0.10 4.65 5.10 4.09 3.022 7 0.10	84,58 137.30 96,98 LF25571 OUVG i Shargyn Moghai 0 59,98 0.61 16,86 0.61 16,86 0.61 16,93 0.100 1.49 0.101 1.64 0.102 1.61	82.6 133.0 100.7 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90	93.37 94.01 99.61 96.6A LF25570 OUVG Shargyn Moghal 55.2C 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.866 1.13	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghe 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 0.7 7,0.2	4 129 6 5 103 2 5 99 2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 2 2 2	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 0 0,56 8 15,33 4 4,99 4 0,00 6 8 15,33 4 4,99 4 0,00 7 2,8 8 6,11 8 6,11 7 0,00 1 3,35 0 13,33	0 82.34 134.6 134.6 2 100.1 96.9A 152569 OUVG i Shargyn Mogha 0 55.80 0 55.80 0 0.56 0 0.56 1 1.5.66 0 0.56 3 0.10 4.00 4.00 4.00 4.00 3 0.22 0 0.11 4.80 0.92 0 0.10 4.80 0.92 0 0.11 4.92 0.11 4.93 0.22 0 0.11 4.450 0.21.12	84,58 137.30 96,98 LF25571 OUVG i Shargyn Moghai 59,98 0,07 59,98 0,061 59,963 0,061 15,068 0,010 16,168 0,014 9,040 0,040 0,042 0,02 1,64 10,20	82.4 133.0 100.0 18/08_2 LF22788 SVLZ n/a 76.4 0.0 0.1 3.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As Ba	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 597.29	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghal 55.2C 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.86 1.13 983.22	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghu 56.1 0.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8 3 0.7 5 8.1 3 0.1 6 4.9 0 4.3 3 7.5 1 2.1 6 4.9 0 4.3 3 7.5 1 2.1 7 5 9 9 9 2 7 5 9 8 1 1 2.1 1	8 125,11 9 98,62 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,30 0 0,56 8 15,33 4 4,99 4 0,00 2 2,99 7 2,8 8 6,14 4 1,22 8 0,11 7 0,01 1 3,55 0 13,30 4 635,55	0 82.34 1 134.6- 2 100.11 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 1 5.66 0 0.56 1 5.66 0 0.56 0 0.56 1 5.66 0 0.55 1 5.67 0 0.11 4 0.97 0 0.11 4 0.97 0 0.11 0 0.97 0 0.11 0 0.97 0 0.11 0 0.97 0 0.11 0 0.97 0 0.11 0 0.97 0 0.11 0 0.97 0 0.01 0 0.97 0 0.02 0 0.01 0 0.97 0 0.02 0 0.02 0 0.01 0 0.97 0 0.97 0 0.02 0 0.97 0 0.97 0 0.97 0 0.97 0 0.97 0 0.97 0 0.97 0 0.97 0 0.02 0	84.58 137.30 3 100.07 96.98 LF25571 OUVG iShargyn Moghai 59.98 0.61 59.98 0.61 16.66 6.85 0.11 9.93 0.42 0.32 164 0.242 0.32 1.61 0.242	82.9 133.0 100.0 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 0.597.29 40.36	93.37 94.01 99.67 96.5A LF25570 OUVG Shargyn Moghai 55.2C 0.51 15.66 6.77 0.17 3.74 7.91 3.74 2.11 0.27 0.16 2.86 1.12 983.22 3.8.17	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 1.7 7.2 3 3.58	4 129 6 5 103.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 81 3 0.7 2 15.7 9 81 3 0.7 2 15.7 9 8.1 3 0.7 2 15.7 9 8.1 3 0.7 2 15.7 9 8.1 3 0.7 2 2 5.9 9 9 28.9 9 28.9 9 28.9	8 125,11 0 93,8 9 98,6 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 4 4,99 2 2,99 7 2,88 4 0,90 2 2,99 7 2,88 6,614 1,29 7 2,83 7 0,01 1 3,57 0 13,33 4 635,56 8 3,3,57	82.33 134.6 134.6 134.6 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 0 0.56 15.63 0.10 4.05 0.11 4.05 0.11 4.05 0.11 4.05 0.11 4.05 0.11 4.05 0.11 4.05 0.11 4.05 0.11 14.455 0.12 15.27 0.11 15.27 0.11 15.27 0.12 15.21 0.21 15.22 0.21 15.22 0.21 16.23 0.22 17.13 0.52	84,58 137.30 96.9B LF25571 OUVG i Shargyn Moghai 0 59.98 168.65 0 0.61 168.65 0.010 9.161 16.86 0 0.40 0 1.49 0 0.40 0 0.42	82. 133. 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.5 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 0.17 0.25 0.04 0.17 0.25 0.04 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17	93,37 94,01 99,64 LF25570 OUVG Shargyn Moghal 55,22 0,55 15,66 6,77 0,17 3,54 7,91 3,74 2,11 0,27 0,16 2,26 2,13 3,81 2,26,56	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghe 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 1.7 0.2 723.3 3.58 2.49	4 129 6 5 103 2 5 99 2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2 1 4 0.4 5 1.7 2 22 5 999 2 9 28.9 4 13.5	8 125,11 9 98,67 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 4 4,99 4 0,04 5 6,15,33 4 4,99 4 0,04 7 2,99 7 2,87 8 6,14 7 0,07 1 3,55 0 13,33 4 635,55 8 33,57 2 16,88	0 82.33 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.84 0 55.84 0 55.84 0 0.55 1 15.64 0 0.55 0 0.56 0 0.56 0 0.56 0 0.57 3 0.10 4 4.86 5 0.22 7 0.10 4 4.56 2 0.12 3 0.22 7 0.10 4 4.56 2 972.33 3 5.28 2.8.76	84,58 137.30 3 100.07 96,98 LF25571 OUVG i Shargyn Moghai 0 59.98 0 61.6 16 16.86 0 0.10 1 1.61 9 9.3 0 0.40 0 0.42 0 294.84 55.44 22.94	82: 133: 100: 18/08_2 LF22788 SVLZ n/a 76:4 0:0 0:0 0:0 0:0 0:0 0:0 0:0 0
Zn Zr Total Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI AS Ba Ce Ce Co Cr	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 597.29 40.36 28.78 102 23	93.37 94.01 99.61 90.65A LF25570 OUVG Shargyn Moghal 55.20 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.22 0.16 2.86 6.13 2.983.22 3.8.17 2.6.56 9.4.91	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ii Shargyn Mogh 9 53.8 3 0.7 5 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 909.2 9 28.9 4 13.5 8 86.3 8 86.3	8 125,11 9 98,67 96,88 LF25572 OUVG 1 Shargyn Mogha 3 61,30 0 0.50 8 15,37 4 4,99 4 0.00 2 2,97 7 2,87 8 6,11 7 0.01 1 3,55 8 6,12 8 0,11 7 0,01 1 3,55 8 3,35 2 16,88 0 124,82 0 124,8	0 82.34 134.6 134.6 2 100.1 96.9A 15.68 0 55.86 0 55.86 0 55.86 0 55.86 0 6.97 3 0.10 4 4.86 5 1.15.66 0 6.97 3 0.10 4 4.86 5 1.12 972.30 972.30 14 4.55 2 2.8.76 2 2.8.76	84.58 137.30 3 100.07 96.98 LF25571 OUVG i Shargyn Moghai 0 59.98 0 616 16 16.86 0 1.49 0 1.61 0 0.42 0 0.32 16.42 10.20 24.84 22.94 4 22.94 86.41 22.94	82.9 133.0 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Co Cr Cs	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 0.597.29 40.36 28.78 102.23 n/a	93.37 94.01 99.67 96.5A LF25570 OUVG Shargyn Moghal 55.2C 0.55 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.22 0.16 2.86 1.13 983.22 983.22 38.17 2.65 94.99 0.54	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.0 0.1 723.3 3.58 24.9 57.1 2.4	4 129 6 5 103.2 96.7A LF25565 OUVG al Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 2 902.2 9 8.8 1 3.0 1 2.1 4 0.4 8 0.0 5 1.7 2 2.2 9 2.8 9 4 13.5 8 863 8 0.0	8 125,11 9 98,67 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 4 0,04 2 2,9 7 2,8 4 0,04 2 2,9 7 2,8 8 6,11 4 1,22 8 0,11 4 635,55 8 33,55 2 16,88 0 124,82 1 1,66 1 6,67 1 6,67	82.33 134.6 134.6 134.6 134.6 134.6 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.57 3 0.21 0 21.12 0 22.69 28.72 236.97 2 236.97	84.58 137.30 96.9B LF25571 OUVG i Shargyn Moghai 0.59.98 168.65 0.61 16.66 16.66 0.61 19.933 0.400 1.64 0.232 1.64 10.20 2.032 1.64 10.20 2.04.84 5.44 2.294 86.41 0.95	82: 133: 100. 18/08.2 LF22788 SVLZ n/a 76.4 0.0 13:5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	93.36 94.30 99.58 99.58 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 0.17 0.17 0.25 0.04 0.17 0.17 0.17 0.25 0.04 0.17 0.17 0.25 0.04 0.17 0.17 0.25 0.04 0.17 0.17 0.25 0.04 0.25 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	93.37 94.01 99.61 96.5A LF25570 OUVG Shargyn Moghai 55.22 0.51 15.66 6.77 0.17 3.74 2.11 0.27 0.16 2.86 1.13 983.26 38.17 2.655 38.17 2.655 34.91 0.54	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moght 56.1 0.5 16.5 7.9 0.1 3.6 5.5 2.1 0.2 0.0 1.7 0.2 723.3 3.58 2.49 5.7.1 2.4 6.29	4 129 6 5 103.2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.7 2 4.3 3 7.5 1 2.1 4 0.4 5 1.7 2 2.2 5 9992 9 28.9 4 13.5 8 86.3 8 0.0 8 115.4	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 14 125,572 0 0.56 15,33 61,33 4 4,99 4 0.04 2 2.99 7 2.8* 8 6.11 7 0.01 1 3.55 0 13.30 4 635,55 2 16,85 0 124,82 1 1,64 9 73,95	0 82.3% 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.8% 0 55.8% 0 55.8% 0 55.8% 0 55.8% 0 0.56 1 15.6% 0 0.56 1 5.6% 0 0.57 3 0.10 4 4.8% 5 0.10 4 4.51 0 0.22 0 0.12 5 972.33 2 28.78 2 236.9% 0 60.26	84,58 137,30 96,98 LF25571 OUVG iShargyn Moghai 0 59,98 0 68,55 0 0,61 16,665 0,010 0 1,64 0 0,010 1,49 9,93 0 0,40 2 0,42 0 204,84 55,44 55,44 0,95 16,72	82: 133: 130: 18/08_2 LF22788 SVLZ n/a 76.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 597.29 40.36 2.8.78 102.23 n/a 74.46 18.49	93.37 94.01 99.61 96.6A LF25570 OUVG Shargyn Moghal 55.2C 0.51 15.6C 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.86 5.13 983.2E 3.817 2.655 3.31 1.653 1.631	112 6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG ai Shargyn Moghi 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 2 22 5 909 2 9 28.9 4 13.5 8 863 8 0.0 5 115.4 9 0.2 9 28.9 9 28.9 9 28.9 9 28.9 1 5.1 1	8 125,11 9 98,67 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 4 0,00 8 15,33 4 0,00 8 61,1 4 0,00 8 61,5 8 61,1 7 2,8 8 6,1 1 3,5 9 7, 2,8 8 6,1 1 3,5 1 3,3 4 635,55 8 33,55 2 16,85 0 124,82 1 1,6 8 7,3,95 4 1,756 9 7,3,95 4 1,756 9 7,3,95 4 1,756 1 1	0 82.34 134.6 134.6 2 100.1 96.9A 1F25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 0 0.56 1 1.66 0 0.57 0 0.56 1 4.02 0 0.10 4.02 0.11 0 0.97 0 0.14 0 0.97 0 0.11 0 0.97 0 0.12 1 4.80 0 0.97 0 0.12 1 4.51 0 972.33 0 2.876 0 0.28 0 0.026 0 0.026 0 0.026 0 0.026 0 0.026 1.12 1.12	84,58 137,30 96,98 LF25571 OUVG iShargyn Moghai 59,98 0,59,98 0,16 6,85 0,01 1,61 0,932 1,62 0,040 0,102 1,62 0,040 0,224,84 55,48 1,62 1,62 1,62 1,62 1,62 1,63 0,040 224,84 55,44 222,94 1,62 1,62 1,62 1,62 1,62 1,62 1,64 229,84 55,44 229,94 86,41 0,987 1,987	82: 133: 130: 18/08_2 LF22788 SVLZ n/a 76: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0
Zn Zr Total Total ample number Bead field area formation SiO2 TiO2 Al203 Fe203 MnO MgO CaO Na20 K200 F205 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 0.597.29 40.36 28.78 102.23 n/a 74.46 18.49 12.20	93.37 94.01 99.67 96.5A LF25570 OUVG Shargyn Moghal 55.2C 0.55 15.66 6.77 0.17 3.54 7.91 3.54 2.11 0.22 0.16 2.86 1.13 2.86 1.13 2.85 3.8.17 2.6.55 3.8.17 2.6.55 3.8.17 2.6.55 3.4.91 0.54 5.5.37 1.6.31 1.4.20	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.0 1.7 2.0 0.0 1.7 2.3 3.58 2.4.9 57.1 2.4 4.62.9 18.9 9.5 1.1 2.4 4.62.9 18.9 12.5 12.5 5 12.5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4 129 6 5 103.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 2.9 9 8.8 1 3.0,1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 2.9 9 8.8 1 5.4 8 0.0 5 1.7 2 2.9 9 8.9 1 3.0,1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 2.5 9 0.2 9 2.8 9 4 13.5 8 863 8 0.0 8 115.4 9 1.5 9 1.5 9 1.5 9 2.5 9 2.5 9 1.5 9 2.5 9 1.5 9 2.5 9 2.5 9 0.5 8 1.5 8 863 8 1.5 8 863 8 1.5 8 1.5 8 1.5 9 1.5 8 1.	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 0 0 3 61,3 3 61,3 4 4,9 4 0,00 2 2,9 7 2,8 8 6,11 4 1,29 7 0,01 1 3,57 2 16,8 0 124,8 0 124,8 1 1,64 9 73,99 4 17,56 1 12,57	82.33 134.6 134.6 134.6 134.6 134.6 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.57 3 0.21 0 21.12 0 22.69 2.236.92 2.26.72 2 2.36.92 0 60.22 18.52 18.52 18.52 14.14	84.58 137.30 96.9B LF25571 OUVG i Shargyn Moghai 0.59.86 0.61 16.66 0.61 16.66 0.61 1.64 0.93 0.100 1.64 0.932 1.64 0.932 1.64 0.24.84 10.20 2.64.45 1.64 1.65 1.64 1.65	82: 133: 100. 18/08_2 LF22788 SVLZ n/a 76. 0.0 13:8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 MO MgO CaO Na2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 4.176 1.90 597.29 4.036 28.78 102.23 74.46 18.49 12.20 1.21	93.37 94.01 99.61 99.65 OUVG Shargyn Moghai 55.22 0.51 15.66 6.77 0.17 3.74 2.11 0.27 0.16 2.86 2.86 2.84 3.8,17 2.656 94.99 0.55,37 16.33 14.22 2.21,22	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 1.7 7.2 3.3 3.68 2.49 5.7.1 2.4 62.9 1.2 4.6 2.9 1.2 4.6 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1	4 129 6 5 103.2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 5 999.2 3 0.7 9 8.1 3 0.7 9 8.1 3 0.7 9 8.1 3 0.7 1 2.1 4 0.4 8 0.0 5 1.7 2 2.2 5 999.2 9 28.9 4 13.5 8 8 60.3 8 0.0 8 115.4 9 16.5 8 20.2 9 28.9 4 13.5 8 8 6.3 8 0.0 8 115.4 9 16.5 8 20.2 9 28.9 1 3.5 8 20.5 1 5.7 1 5	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 14 125572 0 0.50 8 15,33 4 4,99 7 2,8* 8 6,11 7 0,07 1 3,5* 0 13,33 4 635,65 2 16,85 0 12,48 1 16,49 9 73,95 4 17,56 1 12,57 0 1,75 0 1,75	0 82.3% 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.8% 0 0.56 15.6% 0.15 0 0.56 1 1.56% 0 0.56 1 1.56% 0 0.56 1 1.56% 0 0.57 1 0.16 4.8% 5.10 1 0.972.33 0 21.12 0 972.33 1 3.522 2.36.97 2.36.97 236.92 1.8.52 1.8.52 1.8.52 1.4.14 2.44 2.45	84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0 59,98 0 68,55 0 0.61 1686 68,55 0 0.10 0 1.49 0 0.40 0 0.42 0 1.64 0.204,84 55,44 0.204,84 55,44 0.95 16,72 19,87 25,69 0.91 16,72	82: 133: 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 597.29 40.36 28.78 102.23 n/a 74.46 18.49 12.20 1.21 0.83	93.37 94.01 99.64 UF25570 OUVG Shargyn Moghal 55.20 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 983.22 983.22 983.22 983.25 94.91 94.91 0.54 5.53 31.16.31 14.22 5.50	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghe 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 0.7 7.2 3.3 3.58 2.4.9 5.7.1 2.4 62.9 18.9 12.5 2.0 0 0.4,3	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 11 Shargyn Moghi 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 2 29 28.9 9 3.8 115.4 15.7 15.7 15.7 15.7 10.1 15.7	8 125,11 0 93,8 9 98,6 90 98,6 90 98,6 90 98,6 90 98,6 90 98,6 90 98,6 90 98,6 90 98,6 91 95,2572 0UVG 15,33 4 0,00 8 6,11 4 0,22,99 7 2,8 8 6,11 2 2,99 7 0,01 1 3,55 0 1,33 4 635,55 1 3,55 1 1,68 0 124,82 1 1,68 0 124,82 1 1,69 9 73,99 4 17,56 1 12,57 1 12,59 1	0 82.34 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 55.87 0 55.80 0 0.56 1 1.66 0 0.56 1 5.69 0 0.56 1 5.66 0 0.56 1 5.66 0 0.57 1 5.67 1 1.66 0 0.57 1 4.80 0 0.97 3 0.22 0 0.12 1 4.52 2 2.876 2 2.876 1 1.4 0 60.22 1 1.4 2 2.876 1 1.4 2 2.876	84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0,59,98 0,61 5,96,98 16,66 0,61 16,16,86 0,010 1,161 0,933 0,040 0,161 1,64 0,294,84 1,62 1,64 0,294,84 1,62 1,64 1,62 1,64 1,62 1,64 1,62 1,64 1,62 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64 1,64	82: 133: 100: 18/08_2 LF22788 SVLZ n/a 76: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0
Zn Zr Total Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 0.597.29 40.36 28.78 102.23 n/a 74.46 18.49 12.20 1.21 0.83 18.86	93.37 94.01 99.67 0UVG Shargyn Moghal 55.20 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.86 1.13 2.85 1.13 3.81 2.85 1.13 2.85 1.13 3.81 2.85 1.13 2.85 2.85 1.13 2.85 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 2.35 1.13 2.85 1.13 2.85 2.85 1.13 2.85 2.35 2.85 2.35 2.85 2.35 2.85 2.35 2.85 2.55 2.35 1.63 2.13 1.14 2.85 1.13 2.55 2.55 2.55 2.55 2.55 2.55 2.55 2.5	112.6 117.5 9900 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.0 1.7 3.6 5.5 4.5 2.1 0.0 1.7 3.3 5.8 2.4,9 5.7 1.2 2.0 0 1.2 2.2 0.0 1.7 2.3 3.3 5.8 2.4,9 5.7 1.2 2.4 9 5.7 1.2 2.4 9 5.7 1.2 2.4 9 5.7 1.2 2.4 2.4 9 5.7 1.2 2.4 2.4 9 5.7 1.2 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2	4 129 6 5 103.2 96.7A LF25565 OUVG al Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 9 28.9 4 13.5 8 863.5 8 863.5 8 0.0 8 115.4 6 16.9 9 2.5 9 3.5 8 863.5 8 863.5 8 115.4 6 16.9 9 16.5 3 2.0 2 5.9 9 3.5 8 15.6 9 16.5 3 2.0 2 5.5 9 2.5 9 3.5 8 863.5 8 115.4 6 16.5 9 16.5 8 15.5 9 16.5 8 2.5 9 17.5 9 16.5 8 2.5 9 16.5 8 2.5 9 16.5 8 2.5 9 16.5 8 2.5 9 16.5 8 2.5 9 16.5 9 15.5 8 15.5 9 16.5 9 15.5 9 15.5 15	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 0 0 3 61,3 3 61,3 4 4,9 4 0,00 2 2,9 7 2,8 6 6,11 4 1,29 7 2,8 8 6,11 7 0,01 1 3,50 2 16,8 3 3,51 2 16,8 0 12,8 1 1,64 9 7,39 9 16,00	82.33 134.6 134.6 134.6 134.6 134.6 134.6 134.6 2 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.56 0 0.57 3 0.21 1 4.56 0 21.12 0 22.67 14 4.52 0 22.76.90 0 60.22 18.52 18.52 14.14 2.44 2 3.86 3 3.86 3 3.86	84.58 137.30 96.9B LF25571 OUVG i Shargyn Moghai 0.59.86 0.61 16.66 16.66 16.67 0.100 1.49 0.100 1.49 0.101 1.64 1.62 1.64 0.932 1.64 0.24.84 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.21 1.64 1.65 1.67 1.67 1.67 1.67 1.67 1.67	82: 133: 100. 18/08_2 LF22788 SVLZ n/a 76. 0.0 13:8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cr Cs Cu Ga La Mo Nb Nb Ni	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 0.04 1.79 0.25 0.04 0.04 0.04 1.79 0.25 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	93.37 94.01 99.67 99.67 OUVG Shargyn Moghai 55.22 0.57 15.66 6.77 0.17 3.74 2.11 0.27 0.16 2.86 3.817 2.65 3.817 2.65 5.37 1.637 1.422 3.8.17 2.65 5.37 1.637 1.422 3.54 3.54 3.54 3.54 3.54 3.54 3.54 3.54	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 7.9 0.1 3.65 5.5 2.1 0.2 0.0 1.7 723 3.358 2.4.9 57.1 2.4 62.9 1.2 4.9 57.1 2.4 62.9 1.2 5.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 129 6 5 103.2 96.7A LF25565 OUVG 1 Shargyn Mogh 9 53.8 3 0.7 2 53.0 1 2 15.7 9 8.1 3 0.7 2 54.9 0 4.3 3 75 1 2 1 4 0.4 8 0.0 5 1.7 2 2.2 5 9092 2 8.9 4 0.4 8 0.0 5 1.7 2 2.2 5 9092 2 2.8 9 6.3 8 0.0 8 0.0 8 15.4 9 16.5 8 86.3 8 0.0 8 15.4 9 16.5 8 0.0 8 15.5 9 0.5 8 15.5 9 0.0 9 2.5 8 15.5 9 0.5 8 15.5 8	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 14 125,572 0 0.50 8 61,33 4 4,99 2 2,99 7 2,8° 8 6,11 4 1,22 9 7 2,8° 6,13 4 1,29 7 2,8° 8 6,11 4 1,22 9 1,33,50 1 1,24,8° 9 7,395 4 1,75 0 1,77 3 5,99 9 166 6 68,88	82.33 134.6 134.6 134.6 134.6 134.6 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0.56 15.63 0.10 15.63 0.11 4.60 4.80 4.61 0.97 3.0.22 0.10 4.51 0.97 3.0.22 0.10 4.52 2.8.90 0 60.26 1.15.22 2.36.90 0 60.26 1.15.23 18.55 1.14.14 2.46 3.38 18.00 3.18.01 10.174	84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0 59,98 0 6,85 0 0,61 16,86 6,85 0 0,10 0 1,49 0 1,61 0 9,03 0 0,40 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,42 0 0,55 16,72 19,87 19,87 25,69 0,91 5,76	82: 133: 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	93.36 94.30 99.58 99.58 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.76 0.19 0.59 0.05 0.04 1.76 0.19 0.59 0.04 1.76 0.23 0.04 1.76 0.23 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.59 2.29 1.79 1.02 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 7.77 7.46 0.121 1.21 7.77 7.46 0.121 7.77 7.77 7.77 7.46 7.77 7.77 7.77 7.77	93,37 94,01 99,64 96,6A LF25570 OUVG Shargyn Moghal 55,20 0,51 15,66 6,77 0,17 3,54 7,99 3,44 2,11 0,27 0,16 2,86 2,13 983,26 3,81 7,99 3,81 7,99 3,24 2,11 2,65 5,37 16,31 14,22 5,53 3,16,31 14,22 5,50 6,51 94,99 94,99 5,53 5,53 16,31 14,22 5,50 6,53 16,31 14,22 5,50 6,53 16,31 14,22 5,50 5,50 5,50 5,50 5,50 5,50 5,50 5	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghu 56.1 0.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 0.17 0.2 723.3 358 2.49 57.1 2.4 62.9 57.1 2.4 62.9 1.25 6.5 0.0 0.0 1.7 0.2 773.3 358 2.49 57.1 2.4 62.9 57.1 2.4 62.9 6.2 6.2 6.2 6.2 6.2 6.2 6.2 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8 1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 2.2 5 909.2 9 28.9 4 13.5 8 863.3 8 0.0 5 1.7 2 2.2 5 909.2 9 28.9 9 4 13.5 8 863.3 8 0.0 5 1.7 2 2.2 5 909.2 9 28.9 1 5.7 9 28.9 1 5.7 9 28.9 1 5.7 1 2.1 1 5.7 9 28.9 1 5.7 9 28.9 1 5.7 9 28.9 1 5.7 9 28.9 1 5.7 1 2.1 1 5.7 9 3 1.7 1 2.1 1 5.7 9 9.8 1 3.0 1 5.7 1 2.1 1 5.7 9 9.7 1 2.5 1 2.1 1 5.7 9 9.8 1 3.0 1 2.1 1 5.7 9 9.7 1 3.0 1 7.7 1 2.1 1 5.7 9 9.8 1 3.0 1 7.5 1 2.1 1 5.7 9 9.8 1 3.0 1 7.5 1 2.1 1 5.7 9 9.8 1 3.0 1 7.5 1 2.1 1 5.7 9 9.8 1 3.0 0 7.5 1 2.1 1 5.7 9 9.7 1 2.5 1 2.5 1 5.7 9 9.8 1 3.5 8 863.3 8 0.0 0 5.1 5.7 9 9.7 9	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 0 95,88 LF25572 0UVG ai Shargyn Mogha 3 30 0.56 6 15,33 4 4,99 7 2,87 8 6,14 7 0.01 1 3,54 9 7,0.01 1 3,55 1 1,633,51 2 16,88 0 124,82 1 1,649 9 73,99 4 1,754 1 1,255 1 1,255 1 1,255 1 1,255 1 1,255 1 1,255 1 1,255 1	82.33 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0.15.66 0.15.67 0.15.68 0.15.64 0.15.64 0.15.64 0.15.64 0.15.64 0.15.64 0.164 1.5.64 0.156 1.5.64 0.156 1.5.64 0.164 1.5.64 0.164 1.5.64 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.74 1.5.75 1.5.75 1.5.75 <tr td=""></tr>	84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0,59,98 0,61 16,66 0,61 16,66 0,61 16,66 0,61 16,168 0,010 0,149 1,61 0,933 0,040 0,224,84 1,54 1,62 1,64 0,224,84 1,62 1,64 1,22,94 1,67 1,987 22,94 1,67 1,987 2,59 1,67 1,987 2,59 1,672 1,987 2,59 1,576 31,07 1,84 6,50	82: 133: 100: 18/08_2 LF22788 SVLZ n/a 76: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0
Zn Zr Total Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 597.29 40.36 28.78 102.23 n/a 74.66 18.49 12.20 1.21 0.83 18.86 41.47 7.39 29.12	93.37 94.01 99.67 OUVG Shargyn Moghal 55.20 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.86 1.13 2.86 1.13 2.85 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 1.13 2.85 2.85 1.13 2.85 2.55 2.55 2.55 2.55 2.55 2.55 2.55	112.6 117.5 990. 996.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 16.5 16.5 16.5 2.1 0.1 3.6 5.5 2.1 0.2 0.0 1.7 0.2 0.0 1.7 0.2 0.0 1.7 0.2 0.0 1.7 0.2 0.0 1.7 0.2 0.0 1.7 0.2 0.0 0.1 0.5 1.6 5.5 1.6 5.5 2.1 0.2 0.0 1.7 0.2 0.0 0.1 0.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.6 5.5 1.7 9.0 1.7 1.3 1.8 2.4 9.5 1.7 2.0 0.1 1.7 2.2 0.0 1.7 2.3 3.5 8 2.4 9.5 1.5 2.5 1.5 2.1 0.0 1.7 2.3 3.5 8 2.4 9.5 1.5 2.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	4 129 6 5 103.2 96.7A LF25565 OUVG al Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 9 28.9 4 13.5 5 90.2 9 28.9 4 13.5 8 863.5 8 863.5 8 0.0 8 115.4 6 16.9 9 16.5 3 2.0 2 9.2 9 2.8 9 4 13.5 8 863.5 8 0.0 8 15.4 8 0.0 8 15.4 8 0.0 9 16.5 8 863.5 8 0.0 8 15.4 8 0.0 9 16.5 9 2.9 9 2.9 9 2.8 9 4 13.5 8 863.5 8 0.0 8 15.4 8 0.0 9 16.5 9 2.5 9 2.9 9 2.8 9 4 13.5 8 863.5 8 0.0 8 15.4 6 16.9 9 16.5 3 2.0 2 5.9 9 2.8 9 4 13.5 8 863.5 8 15.4 6 16.5 9 16.5 8 15.4 8 15.4 9 16.5 8 15.4 8 15	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 0 0 3 61,3 3 61,3 4 9,0 5 6,1 4 1,2 5 0,1 3 5,5 8 6,1 4 1,2 5 0,1 4 1,2 5 3,3 5 2 6 3,3 6 1,7 7 2,8 7 0,0 1 3,5 2 16,8 3 1,1 6 7,9 9 <td>82.33 134.6 134.6 134.6 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0 55.86 0 0 15.62 0 15.86 0 15.87 0 15.87 0 15.87 0 14 4.93 0 14 15 16.87 16.87 101.77 16.87 101.77 16.87</td> <td>84.58 137.30 96.9B LF25571 OUVG i Shargyn Moghai 0.59 0.161 16.66 16.66 16.62 0.100 1.49 0.100 1.49 1.61 1.62 1.64 1.62 1.64 1.993 0.400 2.032 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 1.97 1.64 1.987 1.987 1.97 1.97 1.97 1.987 1.97 <!--</td--><td>82: 133: 100. 18/08.2 LF22788 SVLZ n/a 76. 0.0 13:8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.</td></td>	82.33 134.6 134.6 134.6 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 0 55.86 0 0 15.62 0 15.86 0 15.87 0 15.87 0 15.87 0 14 4.93 0 14 15 16.87 16.87 101.77 16.87 101.77 16.87	84.58 137.30 96.9B LF25571 OUVG i Shargyn Moghai 0.59 0.161 16.66 16.66 16.62 0.100 1.49 0.100 1.49 1.61 1.62 1.64 1.62 1.64 1.993 0.400 2.032 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 10.20 1.64 1.97 1.64 1.987 1.987 1.97 1.97 1.97 1.987 1.97 </td <td>82: 133: 100. 18/08.2 LF22788 SVLZ n/a 76. 0.0 13:8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.</td>	82: 133: 100. 18/08.2 LF22788 SVLZ n/a 76. 0.0 13:8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	93.36 94.30 99.58 99.58 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.76 0.19 0.59 0.05 0.04 1.76 0.19 0.59 0.04 1.76 0.23 0.04 1.76 0.23 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.76 0.05 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.25 0.04 1.79 0.59 2.29 1.79 1.02 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 0.04 1.77 0.57 2.35 1.22 7.77 7.46 0.121 1.21 7.77 7.46 0.121 7.77 7.77 7.77 7.46 7.77 7.77 7.77 7.77	93.37 94.01 99.67 99.67 OUVG Shargyn Moghai 55.22 0.51 15.66 6.77 0.17 3.74 2.11 0.27 0.16 2.86 3.817 2.65 3.817 2.65 5.37 1.637 1.422 3.8.17 2.65 5.37 1.637 1.422 1.22 5.500 1.901 0.55 5.37 1.637 1.422 1.22 5.500 1.901 0.55 5.57 5.57 5.57 5.57 5.57 5.57 5.57	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Moghi 56.1 0.5 7.9 0.1 3.65 5.5 2.1 0.2 0.0 1.7 723 3.358 2.4.9 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.0 0.0 0.1.7 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 129 6 5 103.2 96.7A LF25565 OUVG 1 Shargyn Mogh 9 53.8 3 0.7 2 5 90.2 4 3.3 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 2 2.2 9 28.9 4 13.5 8 86.3 8 0.0 8 115.4 6 16.5 3 2.0 8 115.4 6 16.5 8 2.0 8 115.4 6 16.5 8 2.0 8 115.4 6 16.5 9 2.5 9 2.5 9 3.5 8 13.5 8 15.5 9 10.5 1 2.5 1 2.5 9 00.5 1 2.5 1 2.5 1 2.5 1 3.5 1 2.5 1 3.5 1 2.5 1 3.5 1 2.5 1 4.5 1 5.5 1 2.5 1 5.5 1 2.5 1 5.5 1 2.5 1 3.5 1 3.5	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 1 52572 OUVG 15,33 4 4,90 2 2,97 7 2,8 8 6,11 4 1,22 9 7 2 2,97 7 2,8 8 6,11 4 1,22 9 1,63,33 1 1,63,33 9 1,64 9 7,39,44 4 17,55 0 1,24,83 1 1,25 0 1,77 3 5,99 9 16,00 9 16,00 9 16,00 </td <td>82.33 134.6 100.11 96.9A LF25569 OUVG i Shargyn Mogha 0.55.86 0.056 i Shargyn Mogha 0.55.86 0.056 15.63 0.057 0.10 4.88 0.11 4.62 0.11 4.63 0.11 4.64 1.562 2.011 4.65 1.57 2.021 1.1562 2.021 4.88 1.57 2.021 1.022 1.0352 2.0236.90 1.017 3.384 1.017 3.384 1.017 3.522 1.017 3.522 1.017 3.522 1.017 3.522 1.017</td> <td>64,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 59,98 0,61 16,86 6,85 0,01 0,1,49 0,1,64 16,86 16,86 16,86 16,86 10,20 294,84 10,20 294,84 10,20 294,84 10,20 1,64 10,20 294,84 10,20 1,64 10,20 294,84 10,20 1,64 1,55,44 1,55,44 1,55,44 1,55,44 1,55,44 1,55,44 1,55,69 1,57 1</td> <td>82: 133: 130: 18/08_2 LF22788 SVLZ n/a 76. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0</td>	82.33 134.6 100.11 96.9A LF25569 OUVG i Shargyn Mogha 0.55.86 0.056 i Shargyn Mogha 0.55.86 0.056 15.63 0.057 0.10 4.88 0.11 4.62 0.11 4.63 0.11 4.64 1.562 2.011 4.65 1.57 2.021 1.1562 2.021 4.88 1.57 2.021 1.022 1.0352 2.0236.90 1.017 3.384 1.017 3.384 1.017 3.522 1.017 3.522 1.017 3.522 1.017 3.522 1.017	64,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 59,98 0,61 16,86 6,85 0,01 0,1,49 0,1,64 16,86 16,86 16,86 16,86 10,20 294,84 10,20 294,84 10,20 294,84 10,20 1,64 10,20 294,84 10,20 1,64 10,20 294,84 10,20 1,64 1,55,44 1,55,44 1,55,44 1,55,44 1,55,44 1,55,44 1,55,69 1,57 1	82: 133: 130: 18/08_2 LF22788 SVLZ n/a 76. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O3 Fe2O3 MnO MgO CaO Na2O F2O5 SO3 LOI As Ba Ce Co Cr Cr Cs Cu Ga La Mo Nb Nb Nb Ni Pb Rb Sc	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 0.597.29 40.36 28.78 102.23 1.74 4.35 2.0.14 1.76 1.90 0.597.29 4.0.36 28.78 102.23 1.21 0.83 1.826 4.147 7.426 1.849 1.220 1.21 0.83 1.866 4.147 7.39 2.912 2.426	93.37 94.01 99.67 OUVG Shargyn Moghai 55.22 0.55 15.66 6.77 0.17 3.54 2.11 0.27 0.16 2.86 2.83 2.83 3.81 2.655 94.91 0.54 5.53 3.16.33 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.625 5.33 1.633 1.635 5.526 5.525 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.537 5.526 5.527 5.526 5.537 5.526 5.537 5.526 5.546 5.537 5.526 5.547 5.527 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.577 5.5775 5.5775 5.5775 5.5775 5.5775 5.5775 5.5775 5.5775 5.57755 5.57755555555	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Moght 56.1 0.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 1.7 0.2 723.3 368 24.9 57.1 2.4 62.9 1.2 4.5 2.0 0.1,7 0.2 77.3 3.58 2.4 0.2 0.0 0.1,7 0.2 7.3 3.58 2.4 0.2 0.0 0.1,7 0.2 7.3 3.58 2.4 0.2 0.0 0.1,7 0.2 7.3 3.58 2.4 0.2 0.0 0.1,7 0.2 7.3 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.0 0.1,7 0.2 7.7 3.58 2.4 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 15.7 9 8.1 3 0.7 2 15.7 9 9.8 1 3.0 1 2.1 4 0.4 8 0.0 0 5.1 1 2.2 2 2.2 9 99.9 9 28.9 9 4 13.5 8 863.3 8 0.0 8 115.4 6 16.9 9 16.5 3 2.0 2 5.9 9 5.3 8 863.3 8 0.0 8 115.4 6 16.9 9 16.5 3 2.0 2 5.9 9 5.3 8 863.3 8 0.0 8 115.4 6 16.9 9 16.5 3 2.0 2 5.9 9 5.3 8 863.3 8 0.0 8 115.4 6 16.9 9 16.5 8 3.5 6 3.3 8 0.0 8 115.4 6 3.3 9 16.5 8 3.5 6 3.3 8 0.0 8 115.4 6 16.9 9 16.5 8 3.5 6 3.3 8 0.0 8 115.4 6 16.9 9 16.5 8 3.5 6 3.3 8 0.0 8 115.4 6 3.3 8 0.5 8 3.5 6 3.3 8 0.5 8 3.5 6 3.3 8 5.5 7 8 3.5 7 8 3.5 7 7 8 3.5 7 8 3.5 7 7 7 7 7 8 3.5 7 7 7 7 7 7 7 7 7 7 7 7 7	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 1 124,12 0 0,05 8 15,33 4 4,99 7 2,8' 8 6,11 7 0,01 1 3,50 0 13,33 4 635,55 2 16,83 0 124,82 9 73,99 4 17,56 1 12,63 5 9,91 9 16,00 6 68,83 9 30,16 6 68,83 9 30,17 9 30,16 1090,55	82.33 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.84 0 55.83 0 55.84 0 15.63 0 15.63 0 0 0 15.83 0 15.63 0 15.63 0 15.63 0 15.63 0 15.63 0 15.63 0 10.44 10.44 10.57 10.60.25 18.52 11.58 11.58 11.58 11.58 11.58 11.58 11.58 11.58 11.58 11.58 11.58	84,58 137,30 96,98 LF25571 OUVG iShargyn Moghai 0,59,98 0,61 16,66 0,61 16,66 0,61 16,66 0,61 16,66 0,61 16,66 0,010 1,49 0,040 0,100 1,43 0,040 0,161 1,64 0,294,84 16,22,94 16,41 0,93 16,72 19,87 25,69 0,91 5,76 31,07 61,84 6,50 8,29 10,03 743,21	82: 133: 100. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 SO3 LOI As Ba CaO P2O5 SO3 LOI As Ba CaO CaO CaO CaO CaO CaO CaO CaO CaO Ca	93.36 94.30 99.58 99.58 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.21 0.22 0.83 1.88 0.83 1.88 0.83 1.88 0.83 1.88 0.83 1.84 0.83 1.84 0.83 1.84 0.83 1.84 84 1.21 0.83 1.84 1.84 1.84 1.84 1.84 1.84 1.84 1.84	93.37 94.01 99.67 OUVG Shargyn Moghal 55.20 0.51 15.66 6.77 0.17 3.54 2.11 983.22 3.81 2.85 98.32 98.32 98.32 1.13 983.22 3.81 2.85 5.33 1.6.33 1.4.22 5.53 3.16.33 1.4.22 5.50 1.90 1.90 1.90 1.90 1.90 1.90 1.90 1.9	112 6 117.5 99.0 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 16.5 16.5 16.5 1.6 2.1 0.2 0.0 0.7 1.3 6.5 4.5 2.1 0.2 0.0 0.7 1.3 3.5 8.249 5.7 1.2 4.6 2.7 2.3 3.5 8.249 5.7 1.2 4.6 2.7 2.3 3.5 8.249 5.7 1.2 4.6 2.7 3.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	4 129 6 5 103.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 538 3 0.7 2 15.7 9 8.1 3 0.1 6 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.7 2 2.2 9 28.9 4 13.5 8 863 8 0.0 8 115.4 6 16.9 9 28.9 4 13.5 5 9.92 9 28.9 4 3.3 5 9.92 8 863 8 0.0 8 115.4 6 16.9 9 5.3 8 0.0 8 115.4 6 16.9 9 5.3 8 0.0 8 115.4 6 16.9 9 5.3 8 863 8 0.0 8 115.4 6 16.9 9 5.3 8 15.5 8 863 8 0.0 8 115.4 6 16.5 9 16.5 8 3.5 8 4.5 8 4.5 8 4.5 8 4.5 8 4.5 8 4.5 8 4.5 8 4.5 8 4.5 8 5.5 8 4.5 8 5.5 8 4.5 8 5.5 8 5.	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 0 0 1 53,3 4 4,9 4 0,0 2 2,9 7 2,8 4 0,00 2 2,9 7 2,8 8 6,11 4 1,2 8 6,11 7 0,00 1 3,5 1 1,5 0 1,3,5 0 1,2,5 0 1,7,7 3 5,9 9 16,00 6 68,8 3 9,16	82.34 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 55.86 0 55.86 0 55.86 0 0.55.86 1.56 6.97 3.0.11 6.97 3.0.12 972.33 9.22.112 972.33 9.23.97 0.11 4.52 236.92 1.4.45 18.55 1.4.14 2.46 3.86 18.55 1.14.14 2.46 3.86 18.07 1.14.14 2.46 3.86 18.55 1.15.87 1.16.87 3.52.2 0.66	84.58 137.30 96.98 LF25571 OUVG i Shargyn Moghai 0.59.98 0.61 59.98 0.61 100.07 96.98 LF25571 OUVG i Shargyn Moghai 0.59.98 0.61 16.86 0.010 1.61 9.93 0.040 0.42 0.32 1.64 0.294.84 224.84 222.94 86.41 0.95 16.72 19.87 25.69 0.91 5.76 31.07 61.84 6.50 8.29 10.03 743.21 8.79	82: 133: 130: 18/08_2 LF22788 SVLZ n/a 76. 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U V	93.36 94.30 99.58 99.58 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.21 0.83 1.88 0.83 1.88 0.87 1.22 0.33 1.22 0.04 1.21 0.33 1.22 0.23 1.23 0.23 1.22 0.23 1.23 1.23 1.23 1.23 1.23 1.23 1.23 1	93.37 94.01 99.61 99.65 OUVG Shargyn Moghai 55.22 0.51 15.66 6.77 0.17 3.54 7.91 3.74 2.11 0.27 0.16 2.86 1.13 983.26 38.17 2.86 55.33 16.33 14.22 1.22 5.53 16.33 14.22 1.22 5.54 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 3.14 2.25 5.53 5.53 5.53 5.53 5.53 5.53 5.53	112.6 117.5 990 96.6A LF25568 OUVG Shargyn Moght 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 1.7 0.2 723.3 3.68 2.49 5.7.1 0.2 0.0 1.7 0.2 723.3 3.68 2.49 5.7.1 0.2 0.0 0.1.7 0.2 7.3 3.65 2.1 0.2 0.0 0.1.7 0.2 7.7 0.5 1.2 0.0 0.1 7.7 0.2 7.7 0.2 7.7 0.3 3.5 8. 2.49 5.5 1.2 0.0 0.1 7.7 0.2 7.7 3. 3.5 8. 2.49 5.5 1.2 0.0 0.1 7.7 0.2 7.7 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.2 3. 3.5 8. 2.49 7.3 3.5 8. 2.49 7.3 3.5 8. 2.0 7.3 3.5 8. 2.2 5. 1.005 2.3 9. 3.1 2.25 5. 1.025 2.3 9. 3.1 2.25 5. 1.025 2.3 9. 3.1 2.25 5. 1.025 2.3 9. 3.1 2.25 5. 1.025 2.3 3.1 2.25 5. 3.5 3.5 3.5 3.5 3.5 3.5 3.5	4 129 6 5 103.2 96.7A LF25565 OUVG 11 Shargyn Mogh 9 53.8 3 0.7 2 5 999.2 13 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 5 0.0 5 1.7 2 2.2 5 999.2 9 28.9 4 13.5 8 86.3 8 0.0 8 115.4 6 16.9 9 16.5 3 2.0 2 5.9 9 2.8 8 86.3 8 0.0 8 115.4 6 16.9 9 3 6.5 8 35.6 2 5.9 9 5.5 8 86.3 8 0.0 8 115.4 6 16.9 9 16.5 8 35.6 2 5.9 9 16.5 8 35.6 2 5.9 9 17.7 1 3.0 1 15.7 1	8 125,11 0 93,8 96,88 LF25572 OUVG ai Shargyn Mogha 3 61,33 3 61,33 4 4,99 4 0,00 2 2,99 7 2,87 8 6,11 4 1,22 8 6,11 7 2,87 8 6,11 7 0,01 1 3,59 0 13,30 4 635,55 2 16,86 0 1,24,85 9 7,395 4 1,26,57 0 1,77 3 5,99 6 68,88 3 9,130,91 9 16,00 5 1090,52 a 3,06 6 111,11	0 82.33 134.6 134.6 134.6 100.1 96.9A 1F25569 OUVG i i Shargyn Mogha 0 0 55.8 0 0.56 15.6 0.10 0 0.56 1 5.62 0 0.56 1 5.63 0 0.56 1 5.62 0 0.57 1 5.63 0 0.57 1 5.62 0 0.22 0 0.117 0 60.22 1 14.14 2 2.45 3 18.05 1 16.83 1 10.90.54 1 1.90.54 1 1.90.54 1 1.48.96 1 1.48.96	84,58 137,30 96,98 LF25571 OUVG iShargyn Moghai 0,59,98 0,61 16,66 0,61 16,66 0,61 16,66 0,61 16,66 0,61 16,67 10,020 224,84 0,524 1,62 1,64 0,20 1,64 0,224,84 55,44 0,95 16,72 19,87 25,61 1,576 31,07 1,84 0,93 1,743,21 8,79 12,13 12,13	82: 133.0 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U U V Y	93.36 94.30 99.58 96.4A LF25459 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 1.79 0.25 0.04 1.76 1.90 597.29 40.36 28.78 102.23 n/a 74.46 18.49 12.20 1.21 0.83 18.86 41.47 7.39 29.12 2.4.26 874.93 3.12 n/a 2.13,55 18.01	93.37 94.01 99.67 OUVG Shargyn Moghal 55.20 0.51 15.66 6.77 0.17 3.54 2.11 983.22 983.22 983.22 983.21 983.22 983.21 983.22 983.21 983.22 983.21 983.22 983.21 983.22 983.21 983.22 983.21 983.22 983.21 983.22 983.22 983.21 983.22 994.91 995.20 905.20 905.	112.6 117.5 99.0 96.6A LF25568 OUVG Shargyn Moghe 56.1 0.5 16.5 7.9 0.1 3.6 5.5 4.5 2.1 0.2 0.0 0.7 7.23 3.58 2.49 5.7.1 2.4 6.29 1.24 6.29 1.25 1.55 1	4 129 6 5 103.2 5 99.2 96.7A LF25565 OUVG 11 Shargyn Moghi 9 53.8 3 0.7 2 15.7 9 8.1 3 0.1 5 4.9 0 4.3 3 7.5 1 2.1 4 0.4 8 0.0 5 1.2 1 2.2 5 909.2 9 28.9 9 28.9 9 28.9 9 28.9 9 28.9 1 5.1 4 0.4 8 0.0 5 1.5 1 2.1 4 0.4 8 0.0 5 1.5 9 2.2 9 2.8 9 2.8 9 3.8 8 86.3 8 0.0 8 115.4 6 16.9 9 16.5 3 2.0 2 5.9 9 2.8 9 2.8 9 2.8 9 3.8 8 0.0 8 115.4 9 16.5 3 2.0 2 5.9 9 2.8 9 2.8 9 2.8 9 3.8 8 0.0 8 115.4 9 1.8 8 0.0 8 115.4 9 1.8 8 0.0 8 1.8 8 0.0 8 1.5 8 86.3 8 0.0 8 1.5 8 86.3 8 0.0 8 1.5 9 9.3 8 0.0 8 1.5 8 86.3 8 0.0 8 1.5 9 9.3 9 1.5 9 0.0 9 1.5 9 0.0 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 LF25572 OUVG ai Shargyn Mogha 3 3 61,3 4 4,9 5 0,5 8 6,1 4 1,2 9 0,13 1 3,5 1 3,5 1 3,5 1 1,6 9 7,3 5 9,9 1 1,2 1 1,6 9 7,3 5 9,9 1 1,2 1 1,2 1 1,2 1 1,2	82.34 134.6 100.11 96.9A LF25569 OUVG i Shargyn Mogha 0.55.80 i Shargyn Mogha 0.55.80 i Shargyn Mogha 0.55.80 0.10 1.56 0.156 1.56 0.156 1.56 0.16 4.06 1.56 0.10 4.02 1.56 0.10 4.80 1.56 1.57 1.58 1.52 2.112 972.33 1.52 2.877 2.126 1.853 1.853 1.862 1.853 1.862 1.863 1.863 1.864 1.865 1.865 1.865 1.862 1.862 <t< td=""><td>84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0,59,98 0,61 5,96,98 16,66 0,61 16,16,86 0,010 1,149 1,61 0,933 0,040 0,102 294,84 1,62 1,64 0,294,84 1,62 1,64 0,294,84 1,62 1,64 0,294,84 1,62 1,64 0,95 16,72 1,98 1,98 1,98 1,03 1,149 1,544 1,98 1,99 1,98 1,98 1,21,84 1,98</td><td>82. 133.0 18/08.2 LF22788 SVLZ n/a 76.4 76.4 76.4 76.4 76.4 76.4 76.4 0.0 13.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0</td></t<>	84,58 137,30 96,98 LF25571 OUVG i Shargyn Moghai 0,59,98 0,61 5,96,98 16,66 0,61 16,16,86 0,010 1,149 1,61 0,933 0,040 0,102 294,84 1,62 1,64 0,294,84 1,62 1,64 0,294,84 1,62 1,64 0,294,84 1,62 1,64 0,95 16,72 1,98 1,98 1,98 1,03 1,149 1,544 1,98 1,99 1,98 1,98 1,21,84 1,98	82. 133.0 18/08.2 LF22788 SVLZ n/a 76.4 76.4 76.4 76.4 76.4 76.4 76.4 0.0 13.9 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U V	93.36 94.30 99.58 99.58 OUVG Shargyn Moghai 55.66 0.77 16.00 8.01 0.16 4.74 7.32 3.52 0.04 1.79 0.25 0.04 1.21 0.83 1.88 0.83 1.88 0.87 1.22 0.33 1.22 0.04 1.21 0.33 1.22 0.23 1.23 0.23 1.22 0.23 1.23 1.23 1.23 1.23 1.23 1.23 1.23 1	93.37 94.01 99.67 0UVG Shargyn Moghai 55.22 0.51 15.66 6.77 0.17 3.74 2.11 0.27 0.16 2.86 1.13 2.98 2.81 1.26 5.53 3.8.17 2.65 5.33 1.6.33 1.4.22 1.20 5.53 3.14.22 5.00 1.9.01 4.03 5.53 3.4.22 5.51 7.92 6.33 1.72 2.51 7.92 5.33 1.63 1.52 5.53 3.54 5.53 3.54 5.53 5.53 5.53 5.53	112.6 117.5 9900 96.6A LF25568 OUVG Shargyn Mogha 56.1 0.5 1.5 1.5 1.5 2.1 0.2 0.0 1.7 7.9 0.1 1.3 6.5 5.5 2.1 0.2 0.0 1.7 7.9 0.1 1.3 6.5 5.5 2.1 0.2 0.0 0.1.7 7.9 0.1 1.3 2.0 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.0 0.1.7 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	4 129 6 5 103.2 96.7A LF25565 OUVG ai Shargyn Mogh 9 3.0.7 2 5.999.2 3 0.7 9 6.3.8 3 0.7 2 15.7 9 8.1 3 0.7 2 15.7 9 8.1 3 0.7 2 2.5 9 0.2 9 22.9 4 13.5 8 863 8 0.0 8 115.4 6 115.4 6 118.0 9 16.5 3 2.0 1.7 2.2 9 22.9 9 22.9 4 3.5 8 863 8 0.0 8 115.4 6 115.4 0 433.9 1.5 1.5 1.5 1.7 2.5 9 90.6 1.7 2.5 9 90.6 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.7 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	8 125,11 0 93,8 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 9 98,6 1 125572 OUVG 15,3 4 0,9 3 61,3 4 4,9 2 2,9 7 2,8 8 6,1 4 1,2 9 1,3,3 5 9 1 3,5 2 16,8 3 3,5 2 16,8 3 9,10 7 16,0 5 10,0 5 10,0 5 10,0 5 10,0 5 10,0 5 10,0 <tr< td=""><td>82.33 134.6 134.6 134.6 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 0 15.83 0 15.63 0 15.63 0 0 15.63 0 15.63 0 15.63 0 0 15.63 0 15.64 0 15.63 0 14.40 4.65 0 12.17.13 12.17.13 13.52 13.52 14.14 2.36.90 10.174 3.52 110.174 3.54 101.74 101.74 101.74 11.11 10.117</td><td>84,58 137,30 96,98 LF25571 OUVG iShargyn Moghai 0,59,98 0,61 16,86 0,61 16,86 0,61 16,86 0,61 16,99,33 0,040 0,102 1,64 0,294,84 55,44 0,294,84 10,20 1,64 0,294,84 55,44 0,95 16,72 19,87 0,91 5,76 10,20 16,72 19,87 25,69 0,91 5,76 10,03 743,21 8,79 2,13 121,84 19,88 81,41</td><td>82.9 133.0 1000. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0</td></tr<>	82.33 134.6 134.6 134.6 134.6 100.1 96.9A LF25569 OUVG i Shargyn Mogha 0 0 15.83 0 15.63 0 15.63 0 0 15.63 0 15.63 0 15.63 0 0 15.63 0 15.64 0 15.63 0 14.40 4.65 0 12.17.13 12.17.13 13.52 13.52 14.14 2.36.90 10.174 3.52 110.174 3.54 101.74 101.74 101.74 11.11 10.117	84,58 137,30 96,98 LF25571 OUVG iShargyn Moghai 0,59,98 0,61 16,86 0,61 16,86 0,61 16,86 0,61 16,99,33 0,040 0,102 1,64 0,294,84 55,44 0,294,84 10,20 1,64 0,294,84 55,44 0,95 16,72 19,87 0,91 5,76 10,20 16,72 19,87 25,69 0,91 5,76 10,03 743,21 8,79 2,13 121,84 19,88 81,41	82.9 133.0 1000. 18/08_2 LF22788 SVLZ n/a 76.4 0.0 13.9 0.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Sample number	89.11A	89.12A	89.14A	89.15A	89.1A	89.3A	89.4A	89.6B
Bead	LF25475	LF25470	LF25087	LF25471	LF25082	LF25080	LF25474	LF25467
field area	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG
new area	0000	0073	0000	0049	0000	0000	00v3	0040
formation	Yasun Eliy-e	Yasun Eliy-e	Yasun Eliy-e	Yasun Eliy-e	Yasun Eliy-e	Yasun Eliy-e		Yasun Eliy-e
SiO2 TiO2	49.57 1.48							50.30 1.36
AI2O3	16.30							19.8
Fe2O3	10.6							8.9
MnO	0.24							0.1
MgO	4.22							2.2
CaO	6.46							4.1
Na2O	3.69							6.2
K20	1.88							2.8
P2O5	0.39							
SO3	0.03							0.0
LOI	4.14							3.6
As	7.64							15.2
Ba	469.36							
Ce	37.14							47.0
Co	33.17							27.6
Cr	20.9							11.8
Cs	1.66							
Cu	34.76							
Ga	19.78							
La	14.60							
Mo	1.95							
ND	7.21							
Nd	21.4							19.8
Ni	11.76							
Pb	5.98							
Rb	30.3							
Sc	42.94							
Sr	424.3							
Th	5.77							
U	1.01							
v	274.85							
Ŷ								
1	42.33	16.70) 32.4	2 26.8	3 34.11			
Zn	90.53	5 75.01	73.3	7 34.3				
	90.53 148.16	75.01 75.17	73.3	7 34.3 9 299.6	0 116.78 2 120.55	51.54 5 133.99	182.47 116.59	93.0 142.4
Zn	90.53	75.01 75.17	73.3 122.6	7 34.3 9 299.6	0 116.78 2 120.55	51.54 5 133.99	182.47 116.59	93.0 142.4
Zn Zr Total	90.53 148.16 98.99	75.01 75.17 98.60	73.3 122.6 100.4	7 34.3 9 299.6 0 100.6	0 116.78 2 120.55 9 99.50	51.54 133.99 98.94	182.47 116.59 99.86	93.0 142.4 100.3
Zn Zr Total ample number	90.53 148.16 98.95 18/08_3	75.01 75.17 98.60 18/08_5	73.3 122.6 100.4 19/08_1	7 34.3 9 299.6 0 100.6 79.11A	0 116.78 2 120.58 9 99.50 79.12A	51.54 51.54 133.99 98.94 8/08_1	8/08_2	93.0 142.4 100.3 8/08_5
Zn Zr Total	90.53 148.16 98.99	75.01 75.17 98.60	73.3 122.6 100.4	7 34.3 9 299.6 0 100.6	0 116.78 2 120.55 9 99.50	51.54 133.99 98.94	182.47 116.59 99.86	93.0 142.4 100.3
Zn Zr Total ample number Bead	90.53 148.16 98.99 18/08_3 LF22784	75.01 75.17 98.60 18/08_5 LF22787	73.3 122.6 100.4 19/08_1 LF22790	7 34.3 9 299.6 0 100.6 79.11A LF25989	0 116.76 2 120.56 9 99.50 79.12A LF25979	51.54 133.99 98.94 8/08_1 LF22793	8/08_2 LF22802	93.0 142.4 100.3 8/08_5 LF22798
Zn Zr Total ample number	90.53 148.16 98.95 18/08_3	75.01 75.17 98.60 18/08_5	73.3 122.6 100.4 19/08_1	7 34.3 9 299.6 0 100.6 79.11A	0 116.78 2 120.58 9 99.50 79.12A	51.54 51.54 133.99 98.94 8/08_1	8/08_2	93.0 142.4 100.3 8/08_5
Zn Zr Total ample number Bead	90.53 148.16 98.99 18/08_3 LF22784	75.01 75.17 98.60 18/08_5 LF22787	73.3 122.6 100.4 19/08_1 LF22790	7 34.3 9 299.6 0 100.6 79.11A LF25989	0 116.76 2 120.56 9 99.50 79.12A LF25979	51.54 133.99 98.94 8/08_1 LF22793	8/08_2 LF22802	93.0 142.4 100.3 8/08_5 LF22798
Zn Zr Total ample number Bead field area formation SiO2	90.53 148.16 98.99 18/08_3 LF22784 SVLZ n/a 48.73	18/08_5 LF22787 SVLZ n/a 64.05	73.3 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8	0 116.7 2 120.55 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3	515.4 133.99 98.94 8/08_1 LF22793 SVLZ n/a 65.83	8/08_2 LF22802 SVLZ n/a 72.95	93.0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1
Zn Zr Total Rample number Bead field area formation SiO2 TiO2	90.53 148.16 98.93 18/08_3 LF22784 SVLZ n/a 48.77 0.64	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.09 0.53	73.3 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.6	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8	0 116.7(2 120.5(9 99.50 79.12A LF25979 SVLZ n/a 9 67.3' 2 0.7(51.54 133.95 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18	93.0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3	90.5: 148.16 98.99 18/08_3 LF22784 SVLZ n/a 48.7? 0.64 17.13	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.6 0.7.2	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 15.5	0 116.7 2 120.55 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.46	8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21	93 0 142.4 100 3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3	90 5: 148 16 98 93 18/08_3 LF22784 SVLZ n/a 48.7; 0.66 17.1; 8.0'	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.57 4.18	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 17.2 7.3	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 15.5 8 3.9	0 116.7 2 120.55 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.46 8 1.84	5155 133.95 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22	8/08_2 SVLZ n/a 72.95 0.18 13.21 3.36	93 0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO	90.53 148.16 98.93 18/08_3 LF22784 SVLZ n/a 48.73 0.64 17.13 8.01 0.12	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.18 0.15	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 0.6 17.2 0.7 3 0.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 8 3.9 4 0.0	0 116.7 2 120.55 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.4 8 1.8 3 0.03	51.54 133.99 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10	93.0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.1: 8.0: 0.12 9.05 9.05	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.55 16.37 4.18 0.15 1.00	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 7.7 5 0.6 7.3 5 0.0 1 5 3.0 1 5 3.5 1 2 5 4.5 5 4.5 5 4.5 5 4.5 5 4.5 5 4.5 5 1 2 2 6 6 5 4.5 5 4.5 5 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.0	0 116.7 2 120.55 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.75 5 16.46 8 1.84 3 0.03 1 0.13	515,5 133,99 98,94 8/08_1 LF22793 SVLZ n/a 65,83 0.92 11,84 7.22 0.11 0.60	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 3 72.95 0.18 13.21 3.36 0.10 0.26	93 (142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7? 0.64 17.12 8.07 0.11 9.05 8.16	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.18 0.16 1.00 3.27	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.6 17.2 7.3 0.1 5.3.5 5.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 0 0.7	0 116.7 2 120.5 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.46 8 1.84 3 0.00 1 0.13 4 0.70	5155 133.95 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.66 2.56	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.22	93 0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O	90 53 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.73 0.64 17.13 8.01 0.12 9.00 8.16 3.58	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.09 0.53 16.37 4.18 0.15 1.00 6.66	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 17.2 5 0.6 17.2 5 0.6 17.2 5 0.6 5 0.5 5 0.	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 10 0 7 12 6.2	0 116.7 2 120.55 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.4 8 1.8 3 0.03 1 0.1 4 0.70 2 6.46	5154 133.99 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.56 4.25	8/08_2 LF22802 SVLZ n/a 3 72.95 0.18 13.21 3.36 0.10 0.26 0.27 3.31	93.0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 5.2
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.13 8.01 9.05 8.16 3.56 0.75	75.07 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.55 16.37 4.16 0.16 1.00 3.27 6.60 1.20	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 17.2 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.1 0 0.7 12 6.2 6 4 4.8	0 116.77 2 120.56 9 99.50 79.12A LF25979 SVLZ n/a 9 67.33 2 0.76 5 16.46 8 1.84 8 1.84 3 0.00 1 0.13 4 0.77 2 6.46 3 5.15	515,5 133,96 98,94 8/08_1 LF22793 SVLZ n/a 65,83 0.92 11,84 7.22 0.11 0.60 2.55 4.29 0.87	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.31 4.41	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 4.4
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O K2O P2O5	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7? 0.64 17.11 8.0? 0.12 9.05 8.16 3.55 0.75 0.05	75.07 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.00 0.53 16.37 4.16 0.15 5 1.00 3.27 6.66 1.26 0.23	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.6 17.2 3.0 17.2 3.0 15.4 9 0.6 54.9 0.6 54.9 0.6 55.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 10 0.7 12 6.2 16 4.8	0 116.7 2 120.56 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.75 5 16.46 8 1.84 3 0.03 1 0.13 4 0.70 2 6.46 3 5.15 3 0.43	8/08_1 LF22793 SVLZ n/a 66.83 0.92 11.84 7.22 0.11 0.66 2.56 4.22 0.87 0.46	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 0.26 0.27 3.36 0.10 0.26 0.27 3.31 4.41 0.06	93 (142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 4.4 4 0.2
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7 0 6 17 11 8.0 0 12 9 05 8.16 3.58 0.77 0.05 0.07	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.55 16.37 4.18 0.16 1.06 0.55 1.637 4.18 0.16 1.06 0.23 0.23 0.23	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 50.6 172 73 50.0 1 335 50.5 50.5 50.5 50.5 50.5 50.5 50.5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 10 0.7 12 6.2 16 4.8 14 0.3 16 0.0	0 116.7 2 120.5 9 99.5 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.44 8 1.84 3 0.0 1 0.13 4 0.7 2 6.46 3 5.16 4 0.7 2 6.46 3 0.43 5 0.03	515-5 133.99 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.56 4.29 0.87 0.46 0.30	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.027 3.31 4.41 0.03	93 0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 3 0.3 0.3 0.3 5.2 4.4 0.0 0.0
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0 64 17.1: 8 00 0.12 9 05 8.16 3.56 0.07 0.02 0.02 0.02 0.02 0.02 0.02 0.02	75.07 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.55 16.37 4.16 0.45 10.63 16.37 4.16 1.06 3.27 6.65 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02	733 1226 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 17.2 3.0.1 3.0.1 3.0.1 3.0.1 3.0.1 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 3.0.2 5.0.5 5.0.5 5.0.5 5.0.5 5.0.5 5.0.5 5.0.5.	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.0 14 0.1 0 0.7 12 6.2 14 0.3 6 4.8	0 116.7 2 120.53 9 99.57 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.46 8 1.8 3 0.03 1 0.13 4 0.77 2 6.46 3 5.15 3 0.43 5 16.25 8 0.66 8 0.66	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.55 4.25 0.11 0.60 2.55 4.25 0.87 0.44	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.16 0.26 0.27 3.31 4.41 0.06 0.03 1.18	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 5.2 4.4 0.2 0.0 1.4
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.11 8.07 0.64 17.11 8.07 0.64 17.12 9.00 8.16 3.55 0.75 0.05 0.05 0.05 0.05 0.05 0.05 0	75.017 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.00 0.53 16.37 4.18 0.15 1.00 3.27 6.66 1.22 0.23 0.14 1.25 7 89.98	733 122.6 1004 19/08_1 LF22790 SVLZ n/a 54.9 0.6 0.7 3 0.1 54.9 0.6 0.7 3 0.1 54.9 0.6 0.6 0.5 0.0 50 0.5 0.0 50 0.5 0.0 1004 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 8 3.9 4 0.0 14 0.1 0 0.7 12 6.2 16 4.8 4 0.3 6 0.0 15.1	0 116.7 2 120.53 9 99.50 79.12A LF25979 SVLZ n/a 9 67.3 2 0.76 5 16.44 8 1.84 3 0.05 1 0.13 4 0.70 2 6.44 3 5.16 3 0.43 5 0.05 8 0.66 0 4.1.15	8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.65 2.56 4.25 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.27 3.36 0.10 0.26 0.27 3.31 4.41 0.06 0.03 1.18 2.19	93 (142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As Ba	90 5: 148 16 98 99 16/08_3 LF22784 SVLZ n/a 48.7? 064 17.12 8.07 0.12 9.05 8.16 3.56 0.75 0.05 8.16 3.56 0.75 0.05 8.17 9.36 8.17 9.35 8.17 9.	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.18 0.05 0.53 16.37 4.18 1.06 1.26 0.23 0.14 2.55 8.995 120.51	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 17.2 7.3 0.1 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 10 0.7 12 62 16 4.8 14 0.3 6 0.0 14 0.1 10 0.7 12 6.2 16 4.8 10 0.7 12 6.2 15 1 18 794.2	0 116,7 2 120,55 9 99,50 79,12A LF25979 SVLZ n/a 9 67,3 2 0.74 5 16,46 8 1.84 3 0.03 1 0.13 4 0.70 2 6,46 3 5,16 4 0.76 2 6,46 3 0.43 5 0.63 8 0.66 0 41,16 4 725,45	5155 133.99 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.56 4.25 0.87 0.46 0.30 3.37 2.641 536.58	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.00 0.27 3.31 4.41 0.026 0.27 3.31 2.44 2.99 2.19 2.26.10	93 0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.13 8.0 0.12 9.05 8.16 3.56 0.075 0.00 0.01 3.86 5.075 0.00 8.17.97 0.00 8.17.97 0.00 0.01 3.87 5.075 0.00 0.01 3.87 5.075 0.00 0.01 3.87 5.075 0.00 0.01 3.87 5.075 0.00 0.01 3.87 5.075 0.00 0.01 3.87 5.075 0.00 0.01 3.87 5.075 0.00 0.01	75,017 75,17 98,60 18/08_5 LF22787 SVLZ n/a 64,09 0.55 16,37 4,18 0.65 16,37 4,18 1.06 3.27 6,66 1.26 0.23 0.14 2.57 89,99 120,51 0.45	733 1226 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 172 3.0.1 3	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.0 14 0.1 0 0.7 12 62 16 4.8 14 0.3 6 0.0 14 0.1 0 0.7 12 62 16 4.8 14 0.3 6 0.6 12 15.1 18 794.2 0 6 65.1	0 116.77 2 120.56 9 99.57 79.12A LF25979 SVLZ n/a 9 67.33 2 0.76 5 16.46 8 1.84 8 1	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.55 4.25 0.11 0.60 2.55 4.25 0.337 26.41 536.58 2.0.16	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.33 4.41 0.06 0.03 1.18 2.19 0.331	93 (142.4 100 3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 5.2 0.0 0.3 0.3 5.2 0.0 0.3 0.3 5.2 0.0 0.3 0.3 5.2 0.0 0.3 0.3 5.2 0.0 0.3 0.3 0.3 5.2 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.13 8.07 17.13 8.07 17.13 17.13 17.13 17.13 17.13 17.13 17.13 17.13 17.13 17.13 17.13 17.14 17.13 17.14 17.14 17.15 17.14 17.15 17.14 17.17	n/a 5 5 5 5 5 5 5 5 5 5 5 5 5	733 122.6 19/08_1 19/08_1 LF22790 SVLZ n/a 54.9 0.6 17.2 5.0 0.0 15.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 0.0 4 0.1 0 0.7 12 62 4 0.0 14 0.1 0 0.7 12 62 4 0.0 14 0.1 0 0.7 12 62 15 1 8 3 794.2 0 65.1 18 794.2 0 65.1 18 794.2	0 116,7 2 120,53 9 99,50 79,12A LF25979 SVLZ n/a 9 67,3 2 0,74 5 16,44 8 1,84 3 0,05 1 0,15 4 0,77 2 6,44 3 0,43 5 0,00 8 0,41 5 0,00 8 0,41 5 0,00 8 0,41 5 0,00 8 0,41 5 0,00 8 0,41 5 0,00 8 0,42 5 0,42 5 0,00 8 0,42 5 0,00 8 0,42 5 0,40 8 0,42 5 0,00 8 0,42 5 0,40 8 0,42 5 0,40 8 0,42 5 0,40 8 0,42 5 0,40 8 0,42 5 0,40 8 0,42 5 0,40 8 0,4	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.66 2.56 4.25 0.87 0.87 0.46 0.33 3.37 26.41 536.88 2.016 2.970	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.27 3.31 4.41 0.06 0.03 1.18 2.19 236.10 15.48 3.25	93 (142. 100 3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7? 0.64 17.12 8.01 9.05 0.64 17.12 17.12 9.05 0.64 17.12 17.12 9.05 0.75 0.64 17.12 17.12 17.12 9.05 0.75 0.75	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.18 0.16 1.00 1.26 0.23 0.14 2.51 0.44 2.51 0.44 2.51 0.44 2.16	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 17.2 7.3 0.0 17.2 7.3 0.0 17.2 7.3 0.0 17.2 7.3 0.0 17.2 7.3 0.0 15 3.5 0.6 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 10 0.7 12 62 16 4.8 13 65.8 19 0.8 14 0.1 10 0.7 12 62 16 4.8 14 0.3 16 4.8 15 15 18 794.2 0 65.1 18 794.2 0 65.1 17 8.8	0 116,7 2 120,55 9 99,57 79,12A LF25979 SVLZ n/a 9 67,33 2 0.75 5 16,46 8 1.84 3 0.03 1 0.13 4 0.70 2 6,46 3 5.16 4 0.70 2 6,46 3 0.43 5 0.05 8 0.64 5 0.05 8 0.64 5 0.05 8 0.43 5 0.05 8 0.64 5 0.05 8 0.54 5 0.05 8 0.64 5 0.64 5 0.55 8 0.55 8 0.55 8 0.55 8 0.55 8 0.55 8 0.55 8 0.	5155 133.99 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.66 2.56 4.29 0.87 0.46 0.30 3.37 2.641 536.58 20.16 2.9776 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.976 2.9776 2.9776 2.97777 2.077777777777777777777777777777777	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.18 13.21 3.36 0.10 0.26 0.27 3.31 4.41 0.06 0.03 1.8 2.19 2.36.10 15.48 33.25 356.09	93. 142. 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.12 9.05 8.16 3.56 0.02 8.16 3.56 0.02	75,017 75,17 98,60 18/08_5 LF22787 SVLZ n/a 64,09 0.55 16,37 4,18 0.55 16,37 4,18 0.55 16,37 4,18 0.55 16,37 4,18 0.55 16,37 4,18 0.55 16,37 4,18 0.55 16,37 10,65 1,26 0.55 1,65 0,55 1,65 0,55 1,65 0,55 1,65 0,55 1,65 0,55 1,63 0,55 1,64 0,55 1,63 0,75 1,66 0,55 1,26 0,126 0,	733 1226 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 172 3.0.1 5.0.6 5.0.5 5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.0 4 0.1 0 0.7 12 62 14 0.3 6 0.0 4 0.1 10 0.7 12 62 16 4.8 14 0.3 16 4.8 14 0.3 16 5.8 19 0.8 14 0.5 16 5.8 19 0.8 19 0.8 10 0.6 19 0.8 19 0.8 10 0.6 19 0.8 19 0.8 19 0.8 10 0.0 10 0.6 19 0.8 10 0.6 10 0.7 10 0.0 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.7 10 0.6 10 0.7 10 0.6 10 0.7 10 0.7	0 116.7 2 120.53 9 99.55 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.44 8 1.84 8 1.84 8 1.84 8 3.0.03 1 0.13 4 0.77 2 6.46 3 5.15 3 0.43 5 0.03 8 0.066 0 41.16 9 88.85 3 3.83 6 3.3 83.67 a n/a	5155 133.96 988.97 8/08_1 LF22793 SVLZ n/a 655.83 0.92 11.84 7.22 0.11 0.60 2.56 4.25 0.87 0.46 0.33 3.37 2.6.41 5.36.58 2.0.16 2.9.70 18.09 0.30 3.37 2.6.41 5.36.58 2.0.16 2.9.70 18.09 0.30 3.37 2.6.41 5.36.58 2.0.16 2.9.70 18.09 2.0.16 2.9.70 19.00 10.00 1	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.33 4.41 0.06 0.33 1.18 2.19 2.36.10 1.18 2.19 2.36.10	93 (142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 5.2 4.4 0.0 0.0 1.4 977.4 97
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.1: 8.0: 0.1: 9.00 8.16 3.56 0.0: 0.0: 3.84 5.0: 8.17, 9] 3.39 17.00 4.4, 4: 17.00 6.4, 34 17.00 6.4, 34 17.00 10	n/a 64.00 64.0	733 122.6 19/08_1 19/08_1 LF22790 SVLZ n/a 54.9 0.0 17.2 5.0 0.0 17.2 5.0 0.0 15.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.1 0 0.7 2 6.2 4 0.1 0 0.7 2 6.2 4 0.1 0 0.7 2 6.2 6 4.8 4 0.1 0 0.7 2 6.2 6 4.8 4 0.1 0 0.7 2 6.2 6 4.8 4 0.1 0 6.5 1 1 8 794.2 0 65.1 1 8 794.2 0 65.1 1 8 794.2 0 65.1 1 8 794.2 0 65.1 1 8 794.2 0 65.1 1 8 794.2 1 1 8 794.2 1 1 8 794.2 1 1 8 794.2 1 1 8 794.2 1 1 8 794.2 1 1 8 794.2 1 1 8 794.2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 116,7 2 120,53 9 99,50 79,12A LF25979 SVLZ n/a 9 67,33 2 0,74 5 16,46 8 1,84 3 0,03 1 0,13 4 0,77 2 6,46 8 1,84 3 0,03 5 0,03 8 0,66 0 41,15 4 725,45 9 88,86 3 3,81 3 83,67 a n/a 0 0,33 8 0,03	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.66 2.56 4.29 0.87 0.46 0.33 7.26.41 536.58 20.16 2.9.70 18.09 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.44 0.32 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.16 13.21 3.36 0.16 13.21 3.36 0.16 0.26 0.27 3.31 1.8 2.19 23610 15.48 33.25 356.09 0/4 39.91	930 142.4 1003 8/08.5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7? 0.64 17.12 9.05 8.16 3.56 0.75 0.05 0	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.00 0.53 16.37 4.18 0.163 1.265 1.226 0.23 1.265 1.265 1.225 0.44 2.57 89.98 120.51 0.44 2.16 0.43 2.16 0.22 0.22	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 6.0 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.0 4 0.1 0 0.7 12 62 6 4.8 3 794.2 0 65.1 18 794.2 0 65.1 18 794.2 0 65.1 17 8.8 9 3.1 78 8 9 3.1	0 116,7 2 120,55 9 99,55 79,12A LF25979 SVLZ n/a 9 67,3 2 0.75 5 16,46 8 1.84 3 0.03 5 16,46 8 1.84 3 0.03 1 0.13 4 0.76 2 6,44 3 5,16 3 0.43 5 0.03 8 0.66 0 41,16 4 725,45 9 88,88 3 3.83 3 83,67 a n/2,45 9 88,88 3 3.83 5 0.03 6 0.035 0 0.03	8/08_1 LF22793 SVLZ n/a 66.83 0.92 1.84 7.22 0.11 0.66 2.56 4.22 0.87 0.46 0.33 0.377 26.41 5.36.58 20.16 29.70 18.09 0.44 0.33 0.44 0.32 0.44 0.32 0.44 0.34 0.44 0.32 0.46 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.46 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.32 0.44 0.46 0.20 0.44 0.32 0.44 0.46 0.20 0.44 0.32 0.44 0.46 0.20 0.46 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.20 0.46 0.46 0.20 0.46 0.46 0.46 0.20 0.46 0.46 0.20 0.46	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.18 13.21 3.36 0.18 13.21 3.36 0.18 13.21 3.36 0.18 1.21 2.36 1.18 2.19 2.36.10 1.548 33.25 356.09 0.16.49	93 0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 3 0.3 5.2 4.4 4.0 2 0.0 1.4 4.9 6 6 977.4 27.8 11.0 25.9 n// 161.3 20.9
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7; 0.64 17.1; 9.05 0.12 9.05 8.16 3.55 0.75 0.06 0.02 3.88 5.00 0.02 3.88 5.00 0.02 3.88 5.00 0.42 0.43 1.70 0.44 3.55 0.75 0.05 0.05 0.07 0.05 0.07 0.05 0.07 0.05 0.07 0.05 0.07 0.05 0.07 0.05	75,017 75,17 98,60 18/08_5 LF22787 SVLZ n/a 3 64,09 0.53 16,37 4,18 0.15 1,06 3.27 6,66 1,26 0.23 0,14 2,57 89,92 120,51 0,42 3,04 4,12 2,57 89,92 120,51 0,42 3,04 4,12 2,57 2,28 6,04 3,04 5,04 5,04 5,04 5,04 5,04 5,04 5,04 5	733 1226 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 172 3.0.1 3.0.6 5.0.5 5.0.6 5.0.5 5.0.6 5.0.6 5.0.5 5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 15.5 18 3.9 4 0.0 14 0.1 0 0.7 12 62 15.1 10 0.0 14 0.3 16 4.8 14 0.3 16 4.8 14 0.3 16 4.8 14 0.3 16 4.8 14 0.3 16 4.8 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 794.2 0 65.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 10 0.0 10 0.0	0 116.7 2 120.53 9 99.5 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.44 8 1.84 8 1.84 8 1.84 8 1.84 3 0.03 1 0.13 4 0.7 2 6.46 3 5.15 3 0.43 5 0.03 8 0.66 0 41.16 9 88.85 3 3.83 6 1 3.83 6 0 0.03 3 .83 6 1 3.92 1 3.92	5154 133.96 988.94 8/08_1 LF22793 SVLZ n/a 6583 0.92 11.84 7.22 0.87 0.46 2.56 2.0.10 2.56 2.0.11 0.60 2.56 2.0.12 0.33 3.37 2.6.41 5.36.58 2.0.16 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 18.09 2.9.70 19.90 19.	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.00 0.26 0.27 3.31 4.41 0.06 1.18 2.19 3.36.10 1.548 33.25 356.09 n/a 39.91 16.49 2.71	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.13 8.07 0.12 9.05 8.16 3.56 0.07 0.05 0.05 0	18/08_5 LF22787 SVLZ n/a 64.05 0.55 16.37 4.18 0.15 16.37 4.18 0.15 0.55 16.37 4.18 0.15 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12	733 122.6 19/08_1 19/08_1 LF22790 SVLZ n/a 54.5 0.6 7.7 3 0.1 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 15.5 8 3.9 4 0.1 6 0.0 79 12 6.2 6 4.8 4 0.1 0 0.7 12 6.2 6 4.8 4 0.1 0 0.7 12 6.2 6 4.8 4 0.1 10 0.0 7 8 3.9 6 0.0 12 6.2 15.1 8 794.2 15.1 8 794.2 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	0 116,77 2 120,53 9 99,50 79,12A LF25979 SVLZ n/a 9 67,33 2 0,78 5 16,46 8 1,84 8 1,84 8 1,84 3 0,05 1 0,13 4 0,77 2 6,46 6 3,5 16 3 0,41 5 0,05 8 0,05 6 0,03 8 0,66 0 41,15 4 725,45 9 88,86 3 3,81 3 83,65 0 0,03 8 0,03 0 17,14 1 39,27 1 1,15 1	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.97 0.46 0.30 3.37 26.41 5.36.58 20.16 2.9.70 18.09 0.97 0.46 0.30 3.37 2.6.41 5.36.58 2.0.16 2.9.70 18.09 0.97 0.46 0.30 3.37 2.6.41 5.36.58 2.0.16 0.97 0.46 0.30 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.47 0.46 0.97 0.47 0.46 0.97 0.47 0.47 0.47 0.46 0.97 0.47 0.47 0.46 0.97 0.47 0.47 0.46 0.97 0.47 0.47 0.46 0.97 0.46 0.97 0.47 0.47 0.47 0.46 0.97 0.47 0.46 0.97 0.46 0.97 0.47 0.46 0.97 0.46 0.97 0.47 0.47 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.46 0.97 0.47 0.47 0.47 0.47 0.47 0.47 0.47 0.4	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.26 0.27 3.31 1.441 0.66 0.235 0.441 0.461 1.18 2.19 23610 15.48 33.25 3360.99 n/a 39.91 16.49 2.71 16.49 2.71	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.11 8.07 0.64 17.11 8.07 0.64 17.12 9.00 8.16 3.55 0.75 0.05	75.01 98.60 18/08_5 LF22787 SVLZ n/a 64.00 0.53 16.37 1.63 1.00 3.16.37 4.16 0.52 1.20 1.20 0.15 1.20 1.20 0.14 2.57 .89.92 1.20.57 .045 .046 .047 .052 .048 .053 .054 <	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 6 6 73 73 6 6 73 73 73 73 73 73 73 73 73 73 73 73 73	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 14 15.5 8 3.9 4 0.0 15.8 8 3.9 4 0.0 16 4.8 4 0.0 16 4.8 4 0.0 16 4.8 17 6.2 15.1 8 794.2 0 65.1 17 8.8 9 3.1 17 8.8 9 3.1 17 8.8 9 3.1 17 8.8 9 3.1 17 8.8 9 3.1 16 0.0 16 8.5 1.1 15 16 8.5 1.5 16 8.5 1.1 15 16 8.5 16 8.5 1.1 15 16 8.5 1.5 16 8.5 1.5 17 16 8.5 17 16 8.5 18 16 8.5 18 16 8.5 18 16 8.5 18 16 8.5 18 16 16 8.5 18 16 16 16 16 16 16 16 16 16 16 16 16 16	0 116,7 2 120,53 9 99,55 79,12A LF25979 SVLZ n/a 9 67,33 2 0,78 5 16,44 8 1,84 3 0,05 5 16,44 8 1,84 3 0,05 6 0,07 5 16,44 8 1,84 3 0,05 6 0,07 5 16,44 8 1,84 3 0,05 6 0,07 8 0,04 1 0,15 4 0,70 2 6,44 9 88,85 8 3,38 3 3,83 3 3,83 5 1,14 5 0,05 8 0,	5154 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.55 4.25 0.67 0.46 0.33 7.26.41 5.36.58 2.016 2.9.70 18.09 n/a 61.38 2.0.07 16.16 0.80 3.63	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.22 0.18 13.21 3.36 0.10 0.226 0.27 3.31 1.8 2.19 236.10 15.48 33.25 356.09 n/a 39.91 16.49 2.71 n/a n/a	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7; 0.64 17.1; 9.05 0.12 9.05 8.16 3.56 0.75 0.06 0.02 3.88 5.00 0.02 3.88 5.00 0.02 3.88 5.00 0.02 3.88 5.00 0.02 3.89 1.70 0.64 3.55 0.75 0.05 0.02	75.01 18/08_5 18/08_5 LF22787 SVLZ n/a 3 64.09 0.53 16.33 16.33 1.64.09 0.52 1.63 1.64.09 0.52 1.63 1.64.09 0.52 1.64.09 0.52 1.66 1.26 0.22 0.41 2.57 89.92 1.20.51 0.42 1.20.51 0.42 1.20.51 0.42 1.22 0.43 1.22 0.43 1.22 0.44 1.22 1.22 1.22 1.23 1.24 1.25 1.22 1.22 1.23 1.24 1.25 1.26 <tr td=""></tr>	733 1226 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 172 3.0.1 3.35 5.0 0.5 5.0 0.5 5.0 0.5 5.0 0.5 5.0 0.0 128.6 128.6 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 343 9 2996 0 1006 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 155 18 39 4 0.0 14 0.1 10 0.7 16 4.8 14 0.3 6 0.0 14 0.3 15 16 16 4.8 14 0.3 6 0.0 14 0.3 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 10 65.1 10 65.1 10 0.0 10 0.0	0 116.77 2 120.58 9 99.54 79.12A LF25979 SVLZ n/a 9 67.33 2 0.76 5 16.44 8 1.84 8 1.84 8 1.84 3 0.43 5 0.03 8 0.66 0 41.15 4 725.48 8 8.85 3 3.83.67 8 0.66 0 41.15 4 725.48 9 88.85 3 3.83.67 8 0.05 8 0.05 9 0.05 8 0.05 8 0.05 9 0.05 8 0.05	5154 133.96 988.94 8/08_1 LF22793 SVLZ n/a 655.83 0.92 11.84 7.22 0.11 0.65 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 2.56 2.0.16 3.33 3.37 2.641 5.3658 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.17588 2.0.16 1.53588 2.0.16 1.53588 2.0.16 1.53588 2.0.17588 2.0.16 1.53588 2.0.16 1.53588 2.0.17588 2.0.16 1.53588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.17588 2.0.175888 2.0.175888 2.0.175888 2.0.1758888 2.0.175888 2.0.1758888 2.0.175888888888888888888888888888888888888	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.00 0.26 0.27 3.31 4.41 0.06 1.18 2.19 3.36.10 1.548 33.25 356.09 n/a 39.91 16.49 2.71 n/a 8.78	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 064 17.1: 8.0: 0.12 9.05 8.1: 9.1: 8.8: 8.5: 8.5: 8.5: 9.	75.01 18/08_5 LF22787 SVLZ n/a 64.05 18.08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.16 0.45 1.205 1.205 1.205 1.205 1.205 0.44 2.16 0.43 3.228 2.286 0.2286 0.43 3.228 0.44 3.228 0.45 3.228 0.44 3.228 0.44 3.228 0.45 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802 1.4802	733 1226 19/08_1 19/08_1 LF22790 SVLZ n/a 54.5 0.6 172 3.0.1 3.325 5.0.5 0.5 5.0.5 0.5 5.0	7 343 9 2996 0 1006 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 155 8 3.9 4 0.1 0 0.7 12 66 4 0.1 0 0.7 12 66 4 0.1 0 0.7 12 65.8 3 9 4 0.1 0 0.7 12 65.8 4 0.1 0 0.7 12 65.8 3 9 4 0.1 0 0.7 12 65.8 14 0.1 0 0.7 12 65.8 10 0.0 10 0.0	0 116,77 2 120,56 9 99,57 79,12A LF25979 SVLZ n/a 9 67,33 2 0,77 5 16,46 8 1,84 8 0,00 1 0,13 4 0,77 5 16,46 8 1,84 3 0,00 1 0,13 4 0,77 5 16,46 8 1,84 5 0,003 8 0,005 1	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 11.84 7.22 0.92 0.92 11.84 7.22 0.92 0.92 11.84 7.22 0.92 0.92 11.84 7.22 0.92 0.92 11.84 7.22 0.92 11.84 7.22 0.92 0.92 0.92 11.84 7.22 0.92 0.92 0.92 11.84 7.22 0.91 0.92 0.92 11.84 7.22 0.91 0.92 0.92 11.84 7.22 0.93 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.03 118 2.19 236.10 15.48 33.25 3360.9 118 2.19 236.10 15.48 33.25 3360.9 118 2.19 236.10 16.49 2.71 n/a 8.78 144.06	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.13 8.07 0.05 0.05 0.05 0.05 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 0.17 17.13 8.07 17.13 8.07 17.13 8.07 17.13 8.07 17.13 8.14 17.13 8.17 17.13 8.17 17.13 8.17 17.13 8.17 17.00 17.14 17.13 8.17 17.00 17.00 17.00 17.10	75.01 98.60 18/08_5 LF22787 SVLZ n/a 64.02 0.53 16.37 4.16 0.152 1.27 6.60 1.27 6.61 1.27 6.62 1.27 6.62 1.27 6.62 1.27 6.62 1.27 6.62 1.27 6.63 1.27 6.64 1.27 6.65 1.27 6.65 1.27 6.65 1.27 6.65 1.28 9.99 120.57 120.57 120.57 120.57 120.57 120.57 120.57 120.57 120.57 120.57 120.57 120.57	733 122.6 19/08_1 19/08_1 LF22790 SVLZ n/a 54.9 0.0 17.2 5.0 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 15.3 0.0 10.4 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 0.0 4 0.1 6 4.8 4 0.0 79 0.8 4 0.0 6 4.4 4 0.1 6 0.0 7 2 6.2 6 4.8 4 0.0 7 2 6.2 6 4.8 4 0.0 7 8 794.2 0 65.1 7 8 794.2 0 65.1 17 8.8 9 3.1 7 8 794.2 0 65.1 17 8.8 9 3.1 7 7 8.8 9 3.1 7 7 8 8.1 9 3.1 7 8 8.1 8 9.2 9 3.1 7 8 8.1 9 3.1 9 1.5 8 1.1 9 1.5 8 1.1 9 1.5 8 1.1 9 1.5 8 1.1 9 1.5 8 1.1 9 1.5 8 1.1 9 1.5 9 1.5 9 1.5 9 1.5 1.5 9 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	0 116,7 2 120,53 9 99,55 79,12A LF25979 SVLZ n/a 9 67,33 2 0,78 5 16,44 8 1,84 3 0,05 5 16,44 8 1,84 3 0,05 5 16,44 8 1,84 3 0,05 5 16,44 8 1,84 3 0,05 5 16,44 8 1,84 3 0,05 6 0,07 5 16,44 8 1,84 3 0,05 6 0,07 5 16,44 8 1,84 3 0,05 6 0,07 5 16,44 8 1,84 3 0,05 6 0,07 1 0,15 4 0,70 2 6,44 9 88,85 6 0,03 8 0,066 0 41,15 4 725,45 9 88,85 3 3,81 3 83,67 a n/4 5 10,03 5 0,03 6 0,03 7 1,14 1 39,27 1 1,12 5 12,86 3 43,45 9 2,47 1 7,12 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 39,27 1 1,12 1 39,27 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 1,12 1 39,27 1 1,12 1 1,12	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.55 4.25 0.42 0.337 26.41 536.58 20.16 29.70 18.09 n/a 61.38 20.07 16.16 0.80 3.37 3.025 3.68 20.07 16.33 3.73 3.025 3.68 3.	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.27 3.31 4.41 0.06 0.03 1.18 2.19 236.10 15.48 3.9.91 16.49 2.71 3.9.91 16.49 2.71 n/a .78 .74.44.06	93. 142. 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7; 0.64 17.1; 9.06 0.0; 0.0;	75.01 18/08_5 18/08_5 LF22787 SVLZ n/a 3 64.09 0.53 16.37 1.64.09 0.53 1.637 4.18 0.10 3.27 6.66 1.26 0.327 6.66 1.265 0.42 0.42 0.43 0.44 0.45 0.45 0.46 0.47 0.48	733 122.6 19/08_1 19/08_1 LF22790 SVLZ n/a 54.5 0.6 17.2 3.0.1 3.35 5.0 0.5 5.0 5.0	7 343 9 2996 0 1006 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 155 18 39 4 0.0 14 0.1 10 0.7 16 4.8 14 0.3 6 0.0 14 0.3 15 16 16 4.8 14 0.3 6 0.0 14 0.3 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 17 8.8 19 3.1 10 65.1 10 0.5 10 0.5	0 116.77 2 120.58 9 99.54 79.12A LF25979 SVLZ n/a 9 67.33 2 0.76 5 16.44 8 1.84 8 1.84 8 1.84 3 0.43 5 0.03 8 0.66 0 41.15 4 725.46 8 8.86 3 3.83 6 3 8 0.66 0 41.15 4 725.46 9 88.85 3 3.83 6 3 0 41.54 9 88.85 3 3.83 6 3 0 41.15 4 72.45 9 88.85 3 3.83 6 3 1 1.15 1 2.85 1 2.85 1 1.15 1 2.85 1 1.15 1 2.85 1 1.15 1 1.15 1 2.85 1 1.15 1 1.15 1 2.85 1 1.15 1 1	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.66 2.56 4.22 0.87 0.44 7.22 0.11 0.66 2.56 4.22 0.87 0.44 6.33 3.37 2.641 5.36.58 20.16 29.70 18.99 n/a 61.38 20.07 16.16 0.80 3.63 3.63 8.36 8.36	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 13.21 3.36 0.026 0.27 3.31 4.41 0.06 1.18 2.356.09 n/a 3.991 16.49 2.71 n/a 8.78 144.06 143.23.01	93 (142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni Pb Rb Sc	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 064 17.13 8.0 0.12 9.05 8.16 3.56 0.075 0.025	75.01 18/08_5 LF22787 SVLZ n/a 64.05 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.16 0.41 1.2051 0.44 2.166 0.44 3.228 0.44 3.228 0.43 3.228 0.43 3.228 0.43 3.228 0.43 3.228 0.43 3.228 0.43 3.228 0.43 3.228 0.356	733 1226 19/08_1 19/08_1 LF22790 SVLZ n/a 54.9 6.06 7.73 6.06 7.73 6.06 7.73 6.06 7.73 7.3 6.06 7.73 6.06 7.73 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 6.06 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3	7 343 9 2996 0 1006 79.11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 155 8 3.9 4 0.0 4 0.1 0 0.7 2 6.2 4 0.3 6 0.0 4 0.1 0 0.7 2 6.5 8 3.9 4 0.5 8 3.9 8 3.9 6 5.8 9 0.8 1 5.5 8 3.9 6 0.6 8 3.9 9 3.1 1 5.5 8 8 9 3.1 1 2.5 8 8 9 3.1 1 3.5 1 3.5 8 8 9 3.1 1 5.5 8 8 9 3.1 1 5.5 9 6 8 8 9 3.1 1 5.5 9 6 8 8 9 3.5 1 3.5	0 116,77 2 120,56 9 99,57 79,12A LF25979 SVLZ n/a 9 67,33 2 0,77 5 16,46 8 1.84 3 0,00 1 0,13 4 0,77 5 6,64 8 1.84 3 0,43 5 0,00 1 0,13 4 0,77 2 6,46 3 0,44 5 0,00 8 0,66 0 41,16 4 725,45 9 88,86 3 3,83 3 83,67 0 0,035 0 0,17,16 9 88,86 9 88,86 3 3,83 3 83,67 1 1,39 2 1,26 9 88,86 9 83,37 1 1,16 5 12,86 9 2,47 0 1,177 9 4,66 9 7,37 7 94,66 2 7,67 7 94,66 2 7,67 7 94,66 2 7,67 7 94,66 2 7,67 9 84,86 9 85,87 1 1,177 1 1,17	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.55 4.25 0.67 0.46 0.30 3.37 26.41 536.58 20.16 29.70 18.09 0.30 3.37 26.41 536.58 20.16 29.70 18.09 0.30 3.37 26.41 536.58 20.16 29.70 18.09 0.30 3.37 26.41 536.58 20.16 29.70 18.09 0.30 3.37 26.41 536.58 20.16 29.70 18.09 0.30 3.37 26.41 536.58 20.16 29.70 18.09 0.30 53.53 53.58 20.16 29.70 18.09 0.30 53.53 53.58 54.58 55.5	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 3 72.95 0.18 13.21 3.31 0.026 0.27 3.31 4.41 0.06 0.331 1.82 2.99 236.10 15.48 33.25 336.09 16.49 2.71 n/a 8.78 144.06 n/a 2.3.01 34.41	93 (142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba CaO R2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	90 5: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.13 8.07 0.12 9.06 8.16 3.56 0.77 0.05 0.05 0.05 0.05 0.05 0.17 0.44 3.56 0.77 0.05 0.17 0.15 0.57 0.05 0.17 0.15 0	75.01 98.60 18/08_5 LF22787 SVLZ n/a 64.00 0.53 16.37 4.16 0.152 1.20 1.20 1.21 0.12 1.22 0.14 2.57 1.20 1.21 0.41 2.51 1.22 0.44 2.120 5 2.120 5 2.120 5 2.120 5 2.120 5 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.22 3.36 <t< td=""><td>73.3 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.0 12.7 3.00 12.7 3.01 12.6 13.32.5 14.4 15.32.6 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 13.35.6 14.1 15.5 11.1 13.15.4 11.4 13.15.4 14.15.5 15.5 16.15.4 15.5 16.15.4 17.5 18.15.5 19.15.4</td><td>7 343 9 2996 0 1006 79 11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 155 8 3.9 4 0.1 0 0.7 2 62 4 0.1 0 65.1 1 8 794.2 0 65.1 1 9 3.1 1 8 89.3 1 1 8 5 296 8 1.1 3 11.9 0 320 2 2.0 5 13.0 8 89.3 1 8.2 1 8.2</td><td>0 116.7 2 120.53 9 99.55 79.12A LF25979 SVLZ n/a 9 67.3 2 0.74 5 16.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.05 6 0.03 5 0.05 8 0.66 0 41.15 4 725,48 8 88,88 3 3.81 3 83,67 8 0.35 0 17.14 1 39.27 1 1.16 5 12.86 3 43.44 9 2.47 1 1.76 7 94.66 9 2.47 1 1.76 7 94.66 9 2.47 1 1.76 7 94.65 2 7.62 3 194.76 1 94.76 1 94.76 2 7.62 3 194.76 1 94.76 1 94.76</td><td>5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.25 4.25 0.87 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.47 0.46 0.36 0.46 0.46 0.36 0.46 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.4</td><td>182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.27 3.31 4.41 0.06 0.236 0.236 1.18 2.19 236.10 15.48 33.25 356.09 n/a 39.91 16.49 2.711 n/a 8.78 144.06 n/a 8.744.06</td><td>93 (142.4 100 3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3</td></t<>	73.3 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.0 12.7 3.00 12.7 3.01 12.6 13.32.5 14.4 15.32.6 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 128.1 13.35.6 14.1 15.5 11.1 13.15.4 11.4 13.15.4 14.15.5 15.5 16.15.4 15.5 16.15.4 17.5 18.15.5 19.15.4	7 343 9 2996 0 1006 79 11A LF25989 SVLZ n/a 3 65.8 9 0.8 4 155 8 3.9 4 0.1 0 0.7 2 62 4 0.1 0 65.1 1 8 794.2 0 65.1 1 9 3.1 1 8 89.3 1 1 8 5 296 8 1.1 3 11.9 0 320 2 2.0 5 13.0 8 89.3 1 8.2 1 8.2	0 116.7 2 120.53 9 99.55 79.12A LF25979 SVLZ n/a 9 67.3 2 0.74 5 16.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.05 6 0.03 5 0.05 8 0.66 0 41.15 4 725,48 8 88,88 3 3.81 3 83,67 8 0.35 0 17.14 1 39.27 1 1.16 5 12.86 3 43.44 9 2.47 1 1.76 7 94.66 9 2.47 1 1.76 7 94.66 9 2.47 1 1.76 7 94.65 2 7.62 3 194.76 1 94.76 1 94.76 2 7.62 3 194.76 1 94.76 1 94.76	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.25 4.25 0.87 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.47 0.46 0.36 0.46 0.46 0.36 0.46 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.46 0.36 0.4	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.27 3.31 4.41 0.06 0.236 0.236 1.18 2.19 236.10 15.48 33.25 356.09 n/a 39.91 16.49 2.711 n/a 8.78 144.06 n/a 8.744.06	93 (142.4 100 3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.15 8.07 0.64 17.15 8.07 0.64 17.15 8.07 0.05	75.01 18/08_5 LF22787 SVLZ n/a 64.00 0.53 18/08_5 LF22787 SVLZ n/a 64.00 0.53 18.08_5 1.00 3.16.37 4.16 0.52 1.00 3.27 6.66 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 0.44 2.21 0.43 3.22 0.44 2.22 0.44 2.22 0.45 1.06 3.22 1.06 3.356 1.06 3.366	733 1226 100.4 19/08_1 LF22790 SVLZ n/a 54.5 0.6 172 3.0.1 3.35 5.0 0.5 5.0 0.5 5.0 0.1 1281 5.0 5.0 5.0 0.1 1281 5.0 0.1 1281 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	7 343 9 2996 0 1006 79.11A LF25989 SVLZ n/a 13 65.8 9 0.8 14 155 18 3.9 4 0.0 14 0.1 10 0.7 14 0.1 10 0.7 14 0.1 10 0.0 14 0.1 10 0.0 14 0.1 10 0.0 14 0.1 10 0.0 14 0.1 10 0.0 15 1 10 0.0 15 1 17 8.8 19 3.1 17 8.8 19 3.1 10 0.0 10 0.0	0 116.7 2 120.53 9 99.55 79.12A LF25979 SVLZ n/a 9 67.3 2 0.7 5 16.44 8 1.84 8 1.84 3 0.47 5 16.44 8 1.84 8 0.66 0 41.15 4 0.7 2 6.44 3 5.15 3 0.43 5 0.03 8 0.66 0 41.15 4 7254 9 88.85 3 3.83 6 0.03 8 0.66 0 41.15 1 2.45 9 88.85 3 3.83 6 3.3 1 4.754 9 88.85 3 3.83 6 3.3 1 4.754 9 88.85 3 3.83 6 3.3 1 1.154 9 2.44 1 3.927 1 1.15 1 2.85 3 4.34 9 2.44 9 2.44 9 2.44 9 2.44 9 2.44 9 2.44 9 2.44 9 2.44 9 3.455 9 2.44 9 2.44 9 3.455 9 2.44 9 2.44 9 2.44 9 2.44 9 2.44 9 2.44 9 3.455 9 2.44 9 3.455 9 2.44 9 3.455 9 4.455 9 4.455 9 4.455 9 4.455 9 4.455 9 4.555 9 4.555 9 4.555 9 4.555 9 4.555 9 4.555 9 4.555 9 4.555 9 4.555 9 5.555 9 5.5555 9 5.5555 9 5.5555 9 5.5555 9 5.5555 9 5.5555 9 5.55555 9 5.55555 9 5.55555 9 5.555555555 9 5.555555555555555555555555555555	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.66 2.56 4.22 0.87 0.44 7.22 0.11 0.66 2.56 4.22 0.87 0.44 7.22 0.11 0.65 2.56 2.0.16 2.9.70 18.99 n/a 61.38 20.07 16.16 0.80 3.63 3.63 3.63 3.68 8.36 2.8.13 3.922.82 8.32 3.68 8.36 2.8.13 3.922.82 8.32 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.68 8.36 3.57 3.68 8.36 3.68 8.36 3.57 3.68 8.36 3.57 3.68 8.36 3.58 3.57 3.57 3.57 3.58 3.57 3.58 3.58 3.57 3.57 3.58 3.58 3.57 3.	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.026 0.27 3.31 4.41 0.06 1.88 2.356.09 n/a 39.91 16.49 2.71 n/a 3.78 144.06 0.73.01 34.41 517.57 2.69	933 142-4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni Pb Rb Sc Sr Th U	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.7: 0.64 17.13 8.0 0.12 9.05 8.16 3.56 0.02 3.84 5.02 0.02 3.84 5.02 0.02 3.84 5.02 0.02 1.12 5.22 5.22 1.12 5.22 5	75.01 18/08_5 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.16 0.64.05 1.637 1.64.05 0.55 1.637 1.64.05 0.55 1.637 1.64.05 0.55 1.64 0.76 1.2051 1.2051 1.2051 1.2051 1.2051 0.44 2.52 0.44 2.52 1.2051 0.44 2.52 0.44 2.52 0.45 1.222 0.43 2.923 1.065 1.48.05 1.48.05 1.48.05 1.48.05 1.48.05 1.48.05 1.48.05 1.48.05 1.48.05 <	733 1226 19/08_1 19/08_1 LF22790 SVLZ n/a 54.9 6.06 7.73 6.06 7.73 6.06 7.73 6.06 7.73 7.3 6.06 7.73 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 33 65.8 99 0.8 14 15.5 18 3.9 4 0.0 14 0.1 10 0.7 14 0.1 10 0.7 12 6.2 14 0.3 15 8.8 16 4.8 17 8.8 18 794.2 19 3.1 17 8.8 18 794.2 10 16.8 11 2.6 12 0.5 13 11.9 14 0.3 15 29.6 16 8.9 17 8.8 18 794.2 19 3.4 10 3.2 13 11.9 14 8.9 15 3.2 13 11.9 14 8.9 15 21.9 16 8.9 17	0 116,77 2 120,56 9 99,57 79,12A LF25979 SVLZ n/a 9 67,33 2 0,77 5 16,46 8 1.84 8 1.84 3 0,00 1 0,13 4 0,77 5 6,46 3 0,43 5 16,46 8 1.84 8 1.84 8 0,00 1 0,13 4 0,77 2 6,46 3 0,41 1 0,13 4 0,77 2 6,46 3 3,0,43 5 16 3 0,44 5 0,035 0 0,41,16 9 88,86 3 3,83,67 8 0,035 0 0,17,14 1 39,27 1 1,18 5 12,86 9 2,47 0 0,11,77 9 4,66 2 7,62 3 194,76 7 9,86 7 1,37 9 8,00 7 1,37 9 8,00 1 1,37 9 8,00 1 1,37 9 8,00 1 1,37 1 1,37	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.55 4.22 0.11 0.60 2.55 4.22 0.11 0.60 2.55 4.22 0.11 0.60 2.55 4.22 0.37 26.41 536.58 20.16 29.70 18.09 n/a 61.38 20.07 18.09 1.64 5.36 5.85 20.16 29.70 18.09 1.64 5.36 5.85 20.16 29.70 18.09 1.64 5.36 5.85 20.16 29.70 18.09 1.64 5.36 5.85 20.16 29.70 18.09 1.71 5.36 5.85 3.68 8.36 2.85 3.13 9.22 8.32 1.71 1	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 3 72.95 0.18 13.21 3.33 4.41 0.026 0.27 3.31 4.41 0.06 0.236.10 118 2.19 236.10 15.48 33.25 336.09 n/a 39.91 16.49 2.71 n/a 39.91 16.49 2.71 n/a 32.01 34.41 517.57 2.69 0.14	930 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ca Ca Co Cr Cs Cu Ca Ca Ca Cr Cs Cu Ca Ca Ca Cr Cs Cu Ca Ca Ca Cr Cs Cu Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.73 0.64 17.13 8.07 0.64 17.13 8.07 0.64 17.13 8.07 0.64 17.13 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.06 0.07 0.06 1.79 1.702 1.7	75.01 75.17 98.60 18/08_5 LF22787 SVLZ n/a 64.00 0.53 16.37 4.16 0.15 1.20 1.21 0.12 1.22 0.12 1.22 0.14 2.57 1.20 1.21 0.44 2.51 1.22 0.44 2.28 0.48 2.28 0.356 1.22,57 3.22,80 3.22,80 3.22,80 3.22,80 3.23,106,54 3.23,106,54 3.23,106,54 3.106,55 3.106,55 3.106,54 3.106,55 3.106,55 3.106,55 3.106,55 3.106,55 3.106,55 3.106,55 3.16,85 3.24,24	73.3 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 0.0 12.5 0.0 12.5 0.0 12.5 13.32.5 1281.6 138.6 10.115.4 15.5 11.4 15.6 14.15 15.6 16.15 17.3 18.6 19.15 19.15 19.15 19.1	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 33 65.8 39 0.8 44 15.5 88 3.9 44 0.1 00 0.7 22 6.2 44 0.1 00 0.7 22 6.2 44 0.3 6 0.0 24 15.1 88 3.9 44 0.3 6 0.0 2 15.1 89 3.1 80 3.1 81 794.2 6 1.1 3 1.1 3 2.13.0 8 89.3 1 1.4.9 0 3.20.0 5 13.0 8 89.3 </td <td>0 116.7 2 120.53 9 99.55 79.12A LF25979 SVLZ n/a 9 67.3 2 0.74 5 16.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.43 5 10.43 6 0.03 8 0.66 0 41.15 4 725,48 8 88 8 3 3.81 3 83.67 2 0.74 5 12.88 3 3.81 3 83.67 2 1.28 3 3.43 4 3.43 5 12.88 3 3.43 4 3.43 5 12.88 3 43.45 9 2.47 7 9.86 7 9.83 7 9.85 7 9.83 7 9.83 7 9.83 7 9.85 7 9.83 7 9.85 7 9</td> <td>5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.65 2.56 4.29 0.87 0.46 0.37 0.46 0.46 0.37 0.46 0.4</td> <td>182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.26 0.27 3.31 4.41 0.06 0.325 356.09 n/a 39.91 16.49 2.711 n/a 8.78 144.06 0.16 2.356.09 n/a 3.39.91 16.49 2.711 n/a 8.78 144.06 n/a 517.57 2.69 0.14 221.54</td> <td>930 1424 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3</td>	0 116.7 2 120.53 9 99.55 79.12A LF25979 SVLZ n/a 9 67.3 2 0.74 5 16.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.05 1 0.15 4 0.77 2 6.46 8 1.84 3 0.43 5 10.43 6 0.03 8 0.66 0 41.15 4 725,48 8 88 8 3 3.81 3 83.67 2 0.74 5 12.88 3 3.81 3 83.67 2 1.28 3 3.43 4 3.43 5 12.88 3 3.43 4 3.43 5 12.88 3 43.45 9 2.47 7 9.86 7 9.83 7 9.85 7 9.83 7 9.83 7 9.83 7 9.85 7 9.83 7 9.85 7 9	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.65 2.56 4.29 0.87 0.46 0.37 0.46 0.46 0.37 0.46 0.4	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.10 0.26 0.27 3.31 4.41 0.06 0.325 356.09 n/a 39.91 16.49 2.711 n/a 8.78 144.06 0.16 2.356.09 n/a 3.39.91 16.49 2.711 n/a 8.78 144.06 n/a 517.57 2.69 0.14 221.54	930 1424 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V Y	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.77 0.64 17.11 8.07 0.64 17.11 8.07 0.64 17.11 8.07 0.64 0.12 9.00 8.16 3.55 0.75 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.17 0.15	75.01 18/08_5 LF22787 SVLZ n/a 64.02 0.53 18/08_5 LF22787 SVLZ n/a 64.02 0.53 16.37 1.20 1.21 0.15 1.22 0.41 2.57 1.22 0.44 2.120.57 1.22.80 0.44 2.280 2.280 2.293 3.2280 2.293 3.2280 3.2280 3.2280 3.2280 3.2280 3.356 3.366 3.366 3.366 3.366 3.366 3.366 3.366 3.366 3.366 3.366 3.366 3.366 3.366	733 122.6 100.4 19/08_1 LF22790 SVLZ n/a 54.9 6.17.2 5.0 6.0 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 33 65.8 99 0.8 13 65.8 13 65.8 14 15.5 18 3.9 4 0.0 10 0.7 12 6.2 14 0.1 10 0.7 12 6.2 14 0.3 15 79.4.2 16 4.0 17 8.8 18 794.2 0 65.1 17 8.8 18 794.2 10 16.8 11 2.6 12 2.0 13 11.5 0 32.0 2 2.0 1 8.9.3 1 8.9.3 1 8.9.3 1 8.9.3	0 116.77 2 120.53 9 99.54 79.12A LF25979 SVLZ n/a 9 67.33 2 0.74 5 16.44 8 1.84 8 0.66 0 41.15 3 0.43 5 0.03 8 0.66 0 41.15 3 0.43 5 0.03 8 0.66 0 41.15 1 0.13 4 0.77 2 8.88 3 3.83 6 7.9 8 8.85 3 3.83 6 7.9 8 8.85 7 9.85 7 1.33 0 3.175 5 5.577	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.87 0.46 2.56 4.22 0.87 0.46 0.32 3.37 26.41 536.58 20.16 29.70 18.09 0.32 3.37 26.41 536.58 20.16 29.70 18.53 30.25 3.68 8.36 28.13 922.82 1.71 208.16 18.53	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 72.95 0.18 13.21 3.36 0.00 0.26 0.27 3.31 4.41 0.06 1.8 2.18 3.325 3.56.09 n/a 3.91 16.49 2.71 n/a .72.95 .331 .441 0.66 .71 .74 .75 .360 .71 .72 .71 .72 .73 .74 .75 .769 .14 .77.76 .76 .77 .77 .77 .77 .77	93.0 142.4 1003 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 3.5 2 4.4 4.0 2 0.0 0.0 0.3 0.3 0.3 3.5 2 4.4 4.0 2 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3
Zn Zr Total ample number Bead field area formation SiO2 TiO2 AJ2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ca Ca Co Cr Cs Cu Ca Ca Cu Ca Ca Cu Ca Ca Cu Ca Ca Cu Ca Ca Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci Ci	90 65: 148 16 98 99 18/08_3 LF22784 SVLZ n/a 48.73 0.64 17.13 8.07 0.64 17.13 8.07 0.64 17.13 8.07 0.64 17.13 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.64 1.713 8.07 0.06 0.07 0.06 1.79 1.702 1.7	75.01 18/08_5 18/08_5 LF22787 SVLZ n/a 64.05 0.53 16.37 4.16 0.53 16.37 1.64.05 0.53 16.37 1.64.05 0.55 1.637 1.64.05 0.55 1.637 1.64 0.74 1.2057 66 1.2057	733 1226 19/08_1 19/08_1 LF22790 SVLZ n/a 54.9 6.06 7.73 6.06 7.73 6.06 7.73 6.06 7.73 7.3 6.06 7.73 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.3 7.	7 34.3 9 299.6 0 100.6 79.11A LF25989 SVLZ n/a 3 33 65.8 99 0.8 24 15.5 88 3.9 4 0.0 10 0.7 14 0.1 10 0.7 14 0.1 10 0.7 16 4.8 14 0.3 6 0.0 12 15.1 13 1.0 14 0.3 15 2.9 16 4.8 17 8.8 18 794.2 10 16.8 13 1.1 2 0.0 5 2.9 6 1.1 3 1.1.2 1 2.2 1 1.4 6 4.1.1 2 9.9	0 116,77 2 120,56 9 99,55 79,12A LF25979 SVLZ n/a 9 67,33 2 0,76 5 16,46 8 1.84 8 1.84 8 1.84 8 1.84 3 0,00 1 0,13 4 0,77 5 6,46 3 5,15 3 0,43 5 16,46 8 1.84 8 1.84 8 0,00 1 0,13 4 0,77 2 6,46 3 5,15 3 0,43 5 0,00 8 0,00 1 0,13 4 0,77 2 6,46 3 5,15 3 0,44 5 0,00 8 0,00 1 0,13 4 0,77 2 6,46 3 3,515 3 0,44 5 0,00 8 0,00 1 1,715 1 1,88 3 3,83 6 1,92 1 1,155 1 2,86 9 8,88 8 3,383 6 1,92 1 1,155 1 2,86 9 2,47 0 0,11,77 9 8,60 2 7,62 3 194,77 9 8,60 7 1,98 6 7,33 1 2,075 5 5,557 4 4,44,91 1 2,075 1 2,075 5 5,557 4 4,44,91 1 2,075 1 3,075 1 3,	5155 133.96 98.94 8/08_1 LF22793 SVLZ n/a 65.83 0.92 11.84 7.22 0.11 0.60 2.55 4.25 0.42 0.37 26.41 536.58 20.16 29.70 18.09 0.44 536.58 20.16 29.70 18.09 1.18 4.25 0.42 0.337 26.41 536.58 20.16 29.70 18.09 1.18 536.58 20.17 1.556.58 20.17 1.557 20.17 1.557 20.17 1.557 20.17 1.557 20.17 1.557 20.17 20.	182.47 116.59 99.86 8/08_2 LF22802 SVLZ n/a 3 72.95 0.18 13.21 3.33 4.41 0.026 0.27 3.31 4.41 0.06 0.331 1.8 2.99 236.10 15.48 33.25 336.09 18 2.301 39.91 16.49 2.71 n/a 39.91 16.47 39.91 16.47 2.301 34.41 517.57 2.69 0.14 221.54 17.76 62.02	93.0 142.4 100.3 8/08_5 LF22798 SVLZ n/a 68.1 0.4 15.4 3.5 0.0 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3

Sample numbe		89.8A	89.9A	89.9B	89.9B	89.9B	52.12A	52.3A
Bead	LF25085	LF25476	LF25081	LF25451	LF25452	LF25453	LF25457	LF25456
field area	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG Gurvan Morin	OUVG Gurvan Morin
formation SiO2	Yasun Eliy-e 51.4	Yasun Eliy-e 7 59.45	Yasun Eliy-e 5 44.95	Yasun Eliy-e 41.65	Yasun Eliy-e 41.55	Yasun Eliy-e 42.4	Hondiy 4 55.97	Hondiy 49.14
TiO2	1.2							
AI2O3	18.7							
Fe2O3	8.0							
MnO MgO	0.1 2.3							
CaO	5.1							
Na2O	5.3							
K2O	2.7	2 1.5		1.51	1.59			
P2O5	0.4							
SO3 LOI	0.0 3.8							
As	20.6							
Ba	840.0							
Ce	37.4		26.78	3 25.1	30.14	32.3	8 20.11	43.24
Co	22.8							
Cr	11.2							
Cs Cu	1.5 7.8							
Ga	18.2							
La	18.0							
Mo	1.3	6 1.6	B 1.14	1.00	3 1.41	2.2	3 0.95	5 1.78
Nb	8.0							
Nd	19.3							
Ni Pb	1.3 4.7							
Rb	39.8							
Sc	14.2							
Sr	675.1	0 986.8	2 259.90	826.4	836.62			812.65
Th	1.1							
U	0.6							
V Y	174.0 33.4							
Zn	69.5							
Zr	129.8						3 83.79	
Total	99.5	99.8	3 99.70	N 00 2	99.43	100.2	6 98.95	5 99.57
				99.3	99.43	100.2	0 30.30	33.01
Sample numbe		80.1A	80.5A	81.10A	81.11A	81.13A	81.19A	81.7A
Sample numbe Bead	r 80.13A LF25978							· · · · · · · · · · · · · · · · · · ·
		80.1A	80.5A	81.10A	81.11A	81.13A	81.19A	81.7A
Bead	LF25978	80.1A LF25981	80.5A LF25980	81.10A LF25982	81.11A LF25983	81.13A LF25999	81.19A LF25991	81.7A LF25988
Bead field area formation SiO2	LF25978 SVLZ n/a74.8	80.1A LF25981 SVLZ n/a 19 79.7	80.5A LF25980 SVLZ n/a 1 74.0;	81.10A LF25982 SVLZ n/a 2 75.50	81.11A LF25983 SVLZ n/a 0 69.77	81.13A LF25999 SVLZ n/a 79.5	81.19A LF25991 SVLZ n/a 4 63.15	81.7A LF25988 SVLZ n/a 63.86
Bead field area formation SiO2 TiO2	LF25978 SVLZ n/a 74.8 0.2	80.1A LF25981 SVLZ n/a 19 79.7	80.5A LF25980 SVLZ n/a 1 74.0: 7 0.00	81.10A LF25982 SVLZ n/a 2 75.5(5 0.1)	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32	81.13A LF25999 SVLZ n/a 79.5 0.1	81.19A LF25991 SVLZ n/a 4 63.11 4 1.58	81.7A LF25988 SVLZ n/a 63.86 3 1.11
Bead field area formation SiO2 TiO2 Al2O3	LF25978 SVLZ n/a 74.8 0.2 13.2	80.1A LF25981 SVLZ n/a 19 79.7 9 0.0 12 10.3	80.5A LF25980 SVLZ n/a 1 74.0: 7 0.00 1 12.0	81.10A LF25982 SVLZ n/a 2 75.5(5 0.1(9 12.7(81.11A LF25983 SVLZ 0 69.77 5 0.32 0 15.11	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7	81.19A LF25991 SVLZ n/a 4 63.15 4 1.55 9 14.25	81.7A LF25988 SVLZ n/a 63.86 3.1.11 15.34
Bead field area formation SiO2 TiO2 Al2O3 Fe2O3	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1	80.5A LF25980 SVLZ 1 74.0; 7 0.0 1 12.0; 7 0.8;	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.7 9 1.11	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 0 2.29	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5	81.19A LF25991 SVLZ n/a 4 63.15 4 1.55 9 14.25 2 6.46	81.7A LF25988 SVLZ n/a 63.86 3.1.11 15.34 6.61
Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO	LF25978 SVLZ n/a 74.8 0.2 13.2	80.1A LF25981 SVLZ n/a 9979.7 990.0 2210.3 120.1 120.0	80.5A LF25980 SVLZ n/a 1 74.0 7 0.0 1 12.0 7 0.8 0 0.0	81.10A LF25982 svLz n/a 2 75.5 5 0.1 9 12.7/ 9 1.1 9 0.0	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0	81.19A LF25991 SVLZ n/a 4 63.15 4 1.55 9 14.25 2 6.44 1 0.15	81.7A LF25988 SVLZ n/a 6 63.86 3 1.11 1 15.34 6 61 0.15
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	LF25978 SVLZ n/a 74.8 0.2 13.2 13.2 1.8 0.0 0.0 0.2	80.1A LF25981 9979.7 9900 12103 120.1 1200 120.0 1200 1200 1200 1200 12	80.5A LF25980 3VLZ 1 74.00 7 0.01 1 12.02 7 0.83 0 0.05 7 0.11 7 0.21	81.10A LF25982 svLZ n/a 2 75.5(5 0.1(9 12.7(9 1.1) 9 0.0(0 0.0(6 0.3)	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 0 0.49	81 13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3	81.19A LF25991 SVLZ 1/4 63.11 4 1.55 9 14.25 2 6.46 1 0.15 1 0.72 1 1.14	81.7A LF25988 SVLZ n/a 6 3.66 3 1.11 1 15.34 6.61 5 0.15 2 0.38 0.81
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 2 2,2 5,2	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 16 0.0 16 0.0 12 1.2	80.5A LF25980 3VLZ 1 74.0; 7 0.0 1 12.0; 7 0.8; 0 0.0; 7 0.1 1 7 0.2; 3 0.8;	81.10A LF25982 SVLZ n/a 2 75.54 5 0.11 9 12.74 9 1.11 9 0.00 0 0.04 5 0.33 8 4.65	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 2 0.05 5 0.49	81 13A LF25999 SVLZ n/a 795 0.1 9.7 0.5 0.0 0.1 1.0.3 1.4	81.19A LF25991 SVLZ n/a 4 63.15 4 1.55 9 14.25 2 6.46 1 0.15 1 0.15 1 0.7 1 1.14 2 5.66	81.7A LF25988 SVLZ n/a 63.86 3.1.11 15.34 6.61 5.0.15 0.38 0.81 0.81 0.81 0.81
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.2 5.2 4.1	80.1A LF25981 99 79.7 19 0.0 12 10.3 12 0.1 12 0.0 16 0.0 10 0.2 12 1.2 3 7.4	80.5A LF25980 SVLZ n/a 1 74.0 7 0.0 1 12.0 7 0.8 0 0.0 7 0.1 1 7 0.2 3 0.8 3 10.5	81.10A LF25982 svLz n/a 2 75.5 5 0.1 9 12.7 9 1.1 9 0.0 0 0.0 5 0.3 8 4.6 1 5.3	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 0 0.49 5 41 5 97	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3	81.19A LF25991 SVLZ n/a 4 63.15 4 1.55 9 14.25 2 6.4 1 0.15 1 0.15 1 0.12 1 1.14 2 5.66 6 4.00	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 0.15 0.15 0.38 0.81 5 0.41 5 0.41 5 0.212
Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.2 5.2 4.1 0.0	80.1A LF25981 9 79.7 9 0.0 12 10.3 12 0.1 12 0.1 12 0.0 16 0.0 16 0.0 12 1.2 12 3.7,4 18 0.0	80.5A LF25980 SVLZ 1 74.00 7 0.00 1 12.00 7 0.01 7 0.80 0 0.00 7 0.11 7 0.21 3 0.81 3 10.5 2 0.0	81.10A LF25982 SVLZ n/a 2 75.56 6 0.11 9 12.77 9 1.11 9 0.00 0 0.00 5 0.31 8 4.66 1 5.3 1 0.00	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 0 0.49 9 5.41 5 97 5 0.14	81 13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0	81.19A LF25991 SVLZ n/a 4 63.16 4 1.56 9 14.25 2 6.44 1 0.15 1 0.72 1 1.14 2 5.66 6 4.00 2 0.58	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 6.61 5 0.15 5 0.38 6 0.81 5 0.81 5 0.38 6 0.81 6 0.81 6 0.38 6 0.81 6 0.38 6 0.81 6 0.38 6 0.81 6 0.38 6 0.38 7 0.38 7 0.38 7 0.38 6 0.38 7 0.39 7 0.38 7 0.38 7 0.38 7 0.38 7 0.38 7 0.38 7 0.38 7 0.39 7
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	LF25978 SVLZ n/a 74.8 0.2 13.2 13.2 13.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 0.0 10 0.0 12 0.0 10 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0	80.5A LF25980 SVLZ n/a 1 74.0; 7 0.0 1 12.0; 7 0.1 7 0.8; 0 00; 7 0.1 7 0.2; 3 0.8; 3 10.5 2 0.0 3 0.0;	81.10A LF25982 SVLZ n/a 2 75.54 5 0.11 9 12.77 9 1.11 9 0.01 5 0.31 8 4.61 1 5.3 1 0.00 3 0.00	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 9 0.49 9 5.41 1 5.97 5 0.14 4 0.07	81 13A LF25999 SVLZ n/a 795 0.1 97 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1	81.19A LF25991 SVLZ n/a 4 63.11 4 1.55 9 14.22 2 6.46 1 0.12 1 1.12 2 5.66 6 4.00 2 0.55 4 0.00	81.7A LF25988 SVLZ n/a 63.63.86 3.1.11 1.15.34 6.61 5.0.15 2.0.38 8.0.81 5.2.0.38 8.0.81 5.2.0.39 8.0.61 5.2.0.5 5.0.05
Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 2.5 2.4 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 10 0.2 12 1.2 10 0.2 12 1.2 10 0.2 12 1.2 10 0.2 12 1.2 10 0.0 10 0.2 12 1.2 10 0.0 10 0.2 12 1.2 10 0.0 10 0.2 12 1.2 10 0.0 10 0.0 1	80.5A LF25980 SVLZ n/a 1 74.00 7 0.01 1 12.01 7 0.81 0 0.02 7 0.11 7 0.21 3 0.81 3 10.5 2 0.0 3 0.00 3 0.00 6 20.91	81.10A LF25982 svLZ n/a 2 75.5 6 0.11 9 12.7 9 1.17 9 0.00 6 0.33 8 4.6 1 5.3 1 0.04 3 0.00 6 0.7 0 7.8	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 0 49 9 5.41 1 5.97 5 0.14 1 5.97 5 0.14 1 5.97 6 9.77 0 78 1 1.85	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 4.63 0.0 0.1 4.63 0.0 0.1 7.2 7.2	81.19A LF25991 SVLZ n/a 4 63.16 4 1.58 9 14.25 9 14.25 2 6.44 1 0.17 1 1.14 2 5.66 6 4.00 2 0.55 4 0.05 5 1.66 9 6.65	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 63 8 0.81 5 0.15 2 0.38 4 0.81 5 0.15 5 0.38 4 0.81 5 0.75 5 0.05 5 2.29 36.88
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 16 0.0 12 10.3 12 0.1 12 0.0 13 7.4 18 0.0 13 0.0 17 0.6 19 32.1 15 414.8	80.5A LF25980 SVLZ n/a 1 74.00 7 0.01 1 12.01 7 0.81 0 0.02 7 0.11 7 0.21 3 0.81 0 0.02 7 0.21 3 0.81 0 0.02 7 0.21 7	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.17 9 0.00 5 0.31 8 4.66 1 5.3 1 0.00 5 0.7 7 7.8 9 436.77	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 2 0.05 5 0.19 9 5.41 5 97 5 0.14 4 0.07 7 0.78 1 1.85 1 10.69	81 13A LF25999 SVLZ n/a 79.5 0.0 1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 2.4 11.3	81.19A LF25991 SVLZ n/a 4 63.11 4 1.55 9 14.25 2 6.46 1 0.15 1 0.72 1 1.14 2 5.66 6 4.00 2 0.55 4 0.05 5 1.66 8 752.21	81.7A LF25988 SVLZ n/a 63.61 5.34 6.61 5.015 2.038 0.81 5.441 5.20 0.55 0.05 2.29 3.688 641.75
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	LF25978 SVLZ n/a 74.8 02 132 18 02 132 18 02 02 02 52 4.1 00 00 02 52 4.1 00 00 02 52 4.1 00 00 02 25 24 10 10 22 22 12 24 22 22 24 22 24 24 24 24 24 24 24 24	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 12 0.1 12 0.0 12 10.3 12 0.1 14 0.0 15 414.8 15 414.8 15 57.2	80.5A LF25980 SVLZ n/a 1 74.00 7 0.01 7 0.01 7 0.88 0 0.00 7 0.11 7 0.21 3 0.81 3 10.5 2 0.0 3 0.00 0 0.77 6 20.97 7 254.11 8 28.8	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.71 9 1.11 9 0.00 5 0.31 8 4.66 1 5.3 1 0.00 5 0.7 0 7.86 9 436.77 7 69.7	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 2 0.055 5 0.19 0 5.41 5 0.14 5 0.14 5 0.17 5 0.18 5 0.14 5 0.17 5 0.14 5 0.17 5 0.10 5 0.10 5 0.10	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4	81.19A LF25991 SVLZ n/a 4 63.15 4 1.55 9 14.25 2 6.44 1 0.15 1 0.72 1 1.4 5.66 6 4.00 2 0.55 4 0.00 5 1.66 9 6.65 8 752.21 7 85.52	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 6.41 5 0.05 5 0.05 5 2.29 3 6.88 6 41.75 5 5.8.41
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 1	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.80 7 0.80 7 0.11 7 0.21 3 0.81 3 10.5 2 0.0 3 0.00 3 0.00 3 0.00 7 254.11 8 28.81 8 7.85 8 7.85 8 7.85 1 8 7.85 1	81.10A LF25982 SVLZ n/a 2 75.5 5 0.11 9 12.7 9 1.2.7 9 1.2.7 9 0.0 0 0.0 5 0.3 8 4.6 1 5.3 1 0.0 3 0.0 5 0.7 0 7.8 9 436.7 7 69.7 a 0.2	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 9 2.29 0 0.55 5 0.19 9 0.49 9 5.41 1 5.97 5 0.14 1 0.69 7 0.78 4 1.85 4 110.69 5 0.32 2 0.26	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 n/4	81.19A LF25991 SVLZ n/a 4 63.16 4 1.56 9 14.22 2 6.44 1 0.12 1 0.12 1 1.14 2 5.66 6 4.00 2 0.58 4 0.05 5 1.66 9 6.65 8 752.21 7 85.52 2 a 19.63	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 63.86 3 1.11 5 34 5 0.15 2 0.38 4 0.81 5 2.12 5 0.05 5 2.29 3 6.88 641.75 5 8.41 2 0.18
Bead field area SiO2 TiO2 Al2O3 Fe2O3 MnO Ma2O Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 9 79.7 9 0.0 12 10.3 12 0.1 12 0.1 12 0.0 12 0.2 12 0.2 12 0.2 12 0.2 12 0.0 12 0.0 10 0.0 12 0.0 13 7.4 18 0.0 13 0.0 15 0.0 16 0.0 16 0.0 16 0.0 16 0.0 17 0.6 18 0.0 18 0.0 19 3.2 1 15 5 414.8 16 5 7.2 16 6 4.9 16 4.9 16 4.9 16 4.9 17 0.6 16 0.0 17 0.6 18 0.0 19 3.2 1 12 5 4.1 18 0.0 19 3.2 1 19 5 4.1 18 0.0 19 5 7.2 16 5 9 4.9 19 5 7.2 16 5 9 4.9 19 5 7.2 10 5 9 4.1 10 5 9 5.1 10 5 9 5.1 10 5 9 5.1 10 5 9 5.1 10	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.80 0 0.00 7 0.11 7 0.21 3 0.81 0 0.00 7 0.11 7 0.21 3 0.81 0 0.00 7 0.11 7 0.21 8 28.81 8 28.81 8 28.81 1 21.05 1 21.05	81.10A LF25982 SVLZ n/a 2 75.56 3 0.11 9 12.77 9 1.17 9 0.00 5 0.31 8 4.66 1 5.3 1 0.01 3 0.00 5 0.77 7 69.77 4 36.77 7 69.77 8 4.36.74 7 69.72 9 9.2.73 9 9.2.73	81.11A LF25983 SVLZ n/a 0 69.77 0 0.32 0 15.11 0 2.29 2 0.05 5 0.32 0 5.41 5 97 5 0.44 0 0.49 0 5.41 5 97 5 0.14 1 0.69 5 0.78 1 10.69 5 0.32 0 2.25 0 0.44 0 0.77 0 78 1 10.69 5 0.32 0 0.54 5 0.54 5 0.55 0 0.44 0 0.77 0 0.78 0 0.45 0 0.45 0 0.45 0 0.45 0 0.45 0 0.45 0 0.45 0 0.75 0 0.	81 13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 n/0,1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.	81.19A LF25991 SVLZ n/a 4 63.16 9 14.25 9 14.25 2 6.46 1 0.16 1 0.77 1 1.14 2 5.66 6 4.06 2 0.55 4 0.05 5 1.66 9 6.65 8 752.21 7 85.52 2 5.12 2 5.12 3 19.63 2 5.12 3 19.63 2 5.12 3 19.63 3 19.65 3 19.6	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 15.34 6 61 0.15 2 0.38 0.81 5 2 0.38 0.81 5 2 0.55 2 29 3 6.88 6 41.75 5 4.841 2 0.72
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 12 0.1 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 14 0.0 15 414.8 19 32.1 15 414.8 19 32.1 15 7.2 15 7.2 15 7.2 19 32.1 19 32.1 10 3 19 32.1 19 32.1 19 32.1 19 32.1 10 3 10 3 10 3 10 4 10 3 10 3	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.11 7 0.21 3 0.80 3 10.5 2 0.0 3 10.5 2 0.0 3 0.00 0 0.77 6 20.97 8 28.8 a n/a 1 21.00 6 n/a	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.17 9 0.00 5 0.31 1 0.00 5 0.31 1 5.31 1 0.00 5 0.77 0 7.88 4.66 1 5.31 1 0.07 0 7.89 4.36.77 8 4.67 7 69.77 8 0.27 9 92.77 8 4.11 1 0.02 1 0.07 1 0.07	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 2 0.055 5 0.19 0 5.41 5 0.14 4 0.07 5 0.14 5 0.18 5 0.14 5 0.17 5 0.14 5 0.78 10.69 50.32 2 0.26 35.43 10.69 5 35.65 2 0.26 35.43 2.24	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 2 6.4 1 0.15 9 14.25 2 6.4 1 0.72 1 1.14 2 5.66 6 4.06 2 0.55 4 0.00 5 1.66 9 6.65 8 752.21 7 85.52 a 19.65 2 5.16 2 5.12 0 1.15 1 5.22 1 5.22 2 5.22 1 5.22 2 5.25 2 5.2	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0 0.15 2 0.38 0.81 5 6.41 5 0.229 3 6.88 6 41.75 5 0.05 2 2.99 3 6.88 6 41.75 5 0.05 2 2.99 3 6.88 6 41.75 5 0.05 2 2.99 3 6.88 6 41.75 5 0.05 2 2.99 3 6.84 1 20.18 0 0.72 0 0.72 0 0.07 0 0.0
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO CaO Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Co Cr Cs Cu Ga	LF25978 SVLZ n/a 74.8 0.2 13.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 9 79.7 9 0.0 12 10.3 12 0.1 12 0.1 12 0.1 12 0.0 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.0 12 10.3 12 0.0 12 10.3 12 0.0 12 10.3 12 0.0 12 0.0 13 7.4 18 0.0 19 3.2 15 414.8 15 414.8 16 414.8 17 44.8 18 414.8 19 88 1.9 19 88 1.9 10 117 10 10 10 10 10 10 10 10 10 10 10 10 10 1	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.01 7 0.21 3 0.81 0 0.00 7 0.11 7 0.21 3 0.81 0 0.00 7 0.21 8 28.81 8 3 8 3 8 3 8 3 8 3 8 3 8 3 8 3	81.10A LF25982 SVLZ n/a 2 75.56 0.11 9 12.77 9 1.17 9 0.00 5 0.31 8 4.66 1 5.3 1 0.02 5 0.77 8 436.77 7 69.77 9 92.75 a 4.11 9 2.57 7 13.9	81.11A LF25983 SVLZ n/a 0 69.77 0 0.32 0 15.11 0 2.29 0 0.5 0 15.11 0 2.29 0 0.5 0 .14 0 0.49 0 5.41 5.97 0 0.44 0 5.97 0 0.44 0 5.97 5.97 0 0.44 0 5.97	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.1 0.3 0.1 0.1 0.1 0.3 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	81.19A LF25991 SVLZ n/a 4 63.16 4 1.58 9 14.25 2 6.44 1 0.15 1 0.77 1 1.14 2 5.66 6 4.00 2 0.58 4 0.00 5 1.66 8 752.21 7 85.52 2 5.12 0 1.19 4 5.51 2 5.12 0 1.19 4 5.51 5 1.65 5 1.55 5 1.5	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 15.34 5 6.61 5 0.15 2 0.38 6 .61 5 2 12 0 .75 5 2 229 36.88 641.75 5 2.018 1 0.72 0.07 5 2.29 36.88 641.75 5 2.018 1 0.72 0.07 0.85 1 7.88
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Cs Cu Ga La	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.1 13 0.0 15 1.1 15 1.1 15 1.1 1.1 1.5 1.1 1.5 1.	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.11 7 0.21 3 0.80 3 10.5 2 0.0 3 10.5 2 0.0 3 0.00 0 0.74 6 20.97 6 20.97 7 254.11 8 28.8 a n/a 1 21.00 6 n/a 4 60 5 13.85 5 12.00	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.17 9 0.00 5 0.31 1 0.00 5 0.31 8 4.66 1 5.33 1 0.00 5 0.77 0 7.88 9 436.77 7 69.77 a 0.27 9 92.77 a 4.11 9 2.55 7 13.99 5 32.4'	81.11A LF25983 SVLZ n/a 0 69.77 5 0.32 0 15.11 2 0.055 5 0.15 9 5.41 5 0.14 0 0.78 1 10.62 5 0.14 5 0.14 5 0.17 5 0.14 5 0.78 1 10.69 5 35.42 7 0.78 1 10.69 5 35.41 9 56 2 0.224 7 14 9.66 32.66 7 23.66	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 2 6.4 1 0.15 9 14.25 2 6.4 1 0.72 1 1.14 2 5.66 6 4.06 2 0.55 4 0.00 5 1.66 9 6.65 8 752.21 7 85.52 a 19.65 2 5.12 7 85.52 a 19.65 2 5.12 7 85.52 3 19.65 2 5.12 7 85.52 3 19.65 3 19.65	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 0.15 2 0.38 0.81 5 0.15 2 0.38 6.41 5 0.05 2 29 3 6.88 641,75 5 0.05 2 29 3 6.88 641,75 5 0.05 1 2.29 3 6.88 641,75 5 0.05 1 2.29 3 6.84 1 20.18 1 2.12 5 0.05 5 2.29 3 6.84 1 20.18 1 2.12 5 0.05 5 2.29 3 6.84 1 20.18 5 0.07 0.75 1 7.88 2 8.07 1 8.85 1 7.88 1 8.07 1 8.85 1 7.88 1 8.07 1 8.55 1 7.88 1 8.55 1 7.88 1 8.55 1 7.88 1 7.85 1 7.88 1 7.85 1 7.88 1 7.85 1 7.88 1 7.85 1
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	LF25978 SVLZ n/a 74.8 02 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.0 12 0.1 12 0.0 12 0.1 12 0.0 12 0.1 12 0.0 12 0.1 12 0.1 12 0.0 12 0.1 12 0.1 13 0.0 15 414.8 1.9 18 1.9 18 1.9 18 1.9 18 1.9 18 1.9 18 1.9 18 1.9 18 1.9 19 1.9 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	80.5A LF25980 SVLZ n/a 1 74.00 1 12.00 7 0.01 1 12.00 7 0.88 0 0.00 7 0.11 7 0.21 3 0.84 3 10.5 2 0.0 3 0.07 6 20.99 7 254.11 8 28.8 a n/A 1 21.00 6 n/A 4 6.00 5 13.8 5 12.00 0 3.21 0 0.21 0 0.25 0 0.25	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.11 9 0.00 5 0.31 8 4.63 1 5.3 1 0.04 5 0.77 0 7.88 9 436.77 7 69.77 a 4.11 9 2.57 7 13.99 5 32.47 0 0.81 1 0.02 1 0.22 9 92.77 1 3.9 5 32.47 0 0.81 1 0.02 1 0	81.11A LF25983 SVLZ n/a 0 69.77 75 0.32 0 15.11 2 2.29 0 0.55 0 0.54 0 0.49 0 5.97 0 0.49 0 0.78 1 5.97 0 0.49 0 0.78 1 5.97 0 0.78 1 10.69 5 0.14 5 0.22 0 0.26 1 5.97 2 0.26 3 35.45 2 2.24 7 7.14 9.66 2.05	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 5.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 5.5 0.0 0.1 0.3 0.4 0.5 0.0 0.1 0.3 0.4 0.5 0.0 0.1 0.5 0.0 0.1 0.5 0.0 0.1 0.5 0.0 0.1 0.5 0.0 0.1 0.5 0.0 0.1 0.5 0.0 0.1 0.7 7.2 5.5 0.0 0.1 0.7 7.2 5.5 0.0 0.1 0.7 7.2 5.5 1.4 6.3 0.0 0.1 1.4 6.4 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.0 0.1 0.7 0.5 0.0 0.0 0.7 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 2 6.44 1 0.15 1 0.72 1 1.14 2 5.66 6 4.00 2 0.55 4 0.05 5 1.66 9 6.65 8 752.21 7 85.55 a 19.63 2 5.12 7 1.55 a 19.63 2 5.12 7 1.55 a 1.12 7 1.55 5 1.12 7 3.807 8 1.12	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 63.86 3 1.11 5 34 5 0.15 0.38 0.81 5 0.15 0.38 0.81 5 0.55 0.229 3 6.88 641.75 5 58.41 20.18 10.72 0.07 0.85 17.88 28.07 3.09
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO CaO Na2O Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Co Cr Cs Cu Ga La Mo Nb	LF25978 SVLZ n/a 74.8 0.2 13.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 9 79.7 9 0.0 12 10.3 12 0.1 12 0.1 12 0.1 12 0.1 12 0.1 12 0.1 12 0.1 12 0.2 12 1.2 12 0.2 12 1.2 12 0.1 12 0.1 13 0.0 15 414.8 1.9 1.8 1.9 1.8 1.9 1.7 1.7 1.3 2.8 1.1 1.7 1.9 6.9 1.0 1.7 1.7 1.7 1.7 1.7 1.7 1.7 1.7	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.80 0 0.02 7 0.81 0 0.02 7 0.81 7 0.24 3 0.83 0 0.02 7 0.24 1 12.00 7 0.24 1 21.00 6 n/4 1 21.00 6 n/4 5 13.87 5 12.00 0 3.21 3 10.22 1 2.01 1 2.02 1 2.02 1 2.03 1 2.0	81.10A LF25982 SVLZ n/a 2 75.5 6 0.11 9 12.7 9 1.11 9 0.00 6 0.31 8 4.6 1 5.3 1 0.03 3 4.6 1 5.3 1 0.03 3 4.6 1 5.3 1 0.04 3 0.00 6 0.31 8 4.6 1 0.5 3 0.00 5 0.37 8 4.6 1 0.5 3 0.00 5 0.37 8 4.6 1 0.5 3 0.00 5 0.37 8 4.6 1 0.5 3 0.00 5 0.37 9 0.27 9 0.5 9 0.27 9 0	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 15.11 0 2.29 0 5.41 0 0.49 0 5.47 0 0.78 1 10.69 0 0.78 1 10.69 0 35.45 2 0.22 0 35.45 2 2.366 2 2.366 3 2.05 3 8.02	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.1 1.9 4.5 11.4 24.6 0.9 7.5	81.19A LF25991 SVLZ n/a 4 63.16 4 1.52 9 14.25 2 6.46 1 0.17 1 1.14 2 5.66 6 4.00 2 0.55 4 0.05 5 1.66 9 6.65 8 752.21 7 86.52 2 5.12 0 1.19 8 752.27 7 86.52 2 5.12 0 1.15 2 7.15 0 1.15 0	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 6 61 5 0.15 2 0.38 4 6 61 5 0.15 2 0.38 4 0.81 5 2 0.38 4 0.81 5 2 0.38 6 41.75 5 2.29 3 6.88 6 41.75 5 2.29 3 6.88 6 41.75 5 2.018 1 0.72 0.07 0.85 1 7.88 2 8.07 3.09 8 13
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Co Cr Cs Cu Ga La Mo Nb Nd	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 79.7 19 0.0 12 10.3 12 0.1 12 0.1 13 0.0 13 0.0 15 1.1 15 4.14.8 1.9 18 4.7 19 6.9 19 6.9 10 6.9 1	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.01 7 0.21 8 0.00 7 0.11 7 0.21 8 0.00 7 0.11 7 0.21 8 0.00 0 0.71 6 20.91 8 28.81 8 1.21 8 28.81 8 1.21 6 n/4 4 60 5 1.3.81 5 1.2.01 0 3.21 1.4.8	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.11 9 0.00 0 0.00 5 0.31 8 4.66 1 5.33 1 0.00 5 0.31 8 4.66 1 5.33 1 0.00 5 0.7 0 7.8 9 436.77 7 69.77 a 0.22 9 92.77 a 4.11 9 2.55 7 13.99 5 32.4 0 0.84 1 3.20 0 0.84 0 0.22 0 0.84 0 0.22 0 0.85 0 0.95 0 0.7 0 0.0 0 0.0 0 0.7 0 0.7 0 0.7 0 0.0 0 0.0	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 15.11 0 2.29 0 0.55 0 15.11 0 2.005 0 0.49 0 5.41 5 0.14 0 0.78 1 10.69 5 0.14 0.07 0.78 1 10.69 5 0.35.45 110.69 50.32 5 3.224 7 14 9.66 2.24 7 2.366 2.26 2.055 3.23.70 3.70	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	81.19A LF25991 SVLZ n/a 4 63.12 4 63.12 4 63.12 4 1.55 9 14.25 2 6.4 1 0.72 1 1.14 2 5.66 6 4.06 2 0.55 4 0.00 5 1.66 9 6.65 8 752.21 7 85.52 8 752.21 0 1.19 4 15.27 7 38.07 8 1.12 9 13.55 4 45.33	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 0.15 2 0.38 0.81 5 0.15 2 0.38 0.81 5 0.15 2 0.38 6.41 5 0.05 5 2.29 36.88 641.75 5 8.41 20.17 5 8.41 20.17 8 8.20 1.78 20.07 5 8.41 20.07 5 9.07 5
Bead field area SiO2 TiO2 AI2O3 Fe2O3 MnO CaO Na2O Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Co Cr Cs Cu Ga La Mo Nb	LF25978 SVLZ n/a 74.8 0.2 13.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 99 79.7 99 0.0 12 10.3 12 0.1 12 0.0 12 0.1 12 0.0 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 10.3 12 0.1 12 0.0 12 0.1 12 0.0 12 0.1 12 0.0 12 0.1 12 0.0 10 0.0 12 1.2 12 0.1 12 0.0 10 0.0 12 0.2 12 0.1 12 0.0 10 0.0 12 0.2 12 0.1 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0 12 0.0 10 0.0	80.5A LF25980 SVLZ n/a 1 74.00 7 0.01 1 12.00 7 0.88 0 0.00 7 0.11 7 0.21 3 0.88 3 10.5 2 0.0 3 0.00 7 254.11 8 28.8 a n/A 1 21.00 6 n/A 4 6.00 5 13.88 5 12.00 0 3.21 3 10.22 3	81.10A LF25982 SVLZ n/a 2 75.51 5 0.11 9 12.71 9 1.11 9 0.00 5 0.31 8 4.61 8 4.61 1 5.3 1 0.02 5 0.31 8 4.61 9 0.00 5 0.31 8 4.61 9 0.00 5 0.31 8 4.61 9 0.00 5 0.31 8 4.61 9 0.00 5 0.31 8 4.61 9 0.02 9 9.27 7 13.9 9 9.2.71 9	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 2 0.05 0 15.11 2 2.29 0 0.49 0 5.41 5 0.19 0 0.49 0 5.41 5 0.14 5 0.14 5 0.26 5 0.26 5 2.24 7 7.14 9.65 2.24 7 7.14 9.65 2.25 5 8.02 5 8.02 2 2.05 5 8.02 2 3.97 0 3.97	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.9 7.5 5.1 1.4 6.5 0.0 0.1 0.7 7.2 41.1 1.4 6.5 1.4 6.5 0.0 0.1 0.7 7.2 1.4 6.5 0.0 0.1 0.5 0.0 0.1 0.3 1.4 46.4 0.7 7.5 5.5 0.0 0.1 0.5 0.0 0.1 0.3 0.1 0.3 0.1 0.5 0.0 0.5 0.0 0.1 0.5 0.0 0.5 0.0 0.1 0.7 7.2 41.1 3.4 6.4 0.9 7.5 5.5 0.9 0.5 0.5 0.0 0.5 0.0 0.5 0.5 0.5	81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 2 6.44 1 0.15 9 14.25 2 6.44 1 0.72 1 1.14 2 5.66 6 4.00 2 0.55 4 0.05 5 1.66 9 6.65 8 752.21 7 85.55 a 19.63 2 5.12 0 1.19 4 15.21 7 38.07 8 1.12 9 13.55 4 45.35 3 2.30	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0.38 0.81 5 641 5 0.55 0.259 3 6.88 6 41.75 5 58.41 10.72 0.75 0.05 2.29 3 6.88 6 41.75 5 58.41 10.72 0.07 0.85 17.88 28.07 3.09 8,13 3.02 6 4.87
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 12 12 12 12 12 14 15 144.8 15 17 18 19 13 14 15 144.8 15 16 19 15 14 16 17 18 19 19 19 19 19 10 10 117.2 10 117.2	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.01 7 0.21 8 0.00 7 0.11 7 0.21 8 0.00 7 0.11 7 0.21 8 0.00 0 0.71 6 20.91 8 28.81 8 0.00 0 0.74 6 20.91 8 28.81 8 0.00 0 0.74 1 21.00 6 1.21 1 21.00 1 3.10 2 3	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.17 9 0.00 0 0.00 5 0.33 1 0.00 5 0.33 2 0.07 5 3.24 5 3.24 5 3.20 1 3.9 5 3.24 5 3.20 1 3.9 5 3.24 5 3.20 1 3.9 5 3.24 5 3.20 1 4.67 7 13.9 5 3.24 5 3.20 7 14.66 7 14.66 7 10.35 5 10.35 1 0.00 1 0.00	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 15.11 0 2.29 0 0.55 0 15.11 0 2.29 0 0.49 0 5.41 5 0.14 0 0.78 1 10.69 5 0.14 0 0.78 1 10.69 5 0.14 9 56.41 10.69 50.32 2 0.26 5 3.54 10.69 50.32 2 0.26 3 2.24 7 14.33 9 66 2 2.06 3 2.370 3 3.97 3 3.97 3 2.098 <td>81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1</td> <td>81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 2 6.4 1 0.72 1 1.42 2 6.4 1 0.72 1 1.14 2 5.66 6 4.06 2 0.55 4 0.00 5 1.66 9 6.65 2 5.16 9 6.65 2 5.12 1 1.93 2 5.12 7 8.52 8 7.52 9 1.65 7 16.52 7 16.52 7 18.07 8 1.12 9 13.55 4 45.33 2.03 2.30 13.73 56 6 16.168 <td>81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 5 2.29 36.88 641.75 5 8.41 20.18 5 0.05 5 2.29 36.88 641.75 5 8.41 20.18 6.41 5 0.05 5 2.29 36.88 641.75 5 8.41 20.17 8 66 1 7.7 8 66 1 3.30 6 4.17 5 8.41 20.17 8 8.41 20.17 8 8.41 20.17 5 8.41 20.17 3.09 8.13 3.026 4.83 3.59</td></td>	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 2 6.4 1 0.72 1 1.42 2 6.4 1 0.72 1 1.14 2 5.66 6 4.06 2 0.55 4 0.00 5 1.66 9 6.65 2 5.16 9 6.65 2 5.12 1 1.93 2 5.12 7 8.52 8 7.52 9 1.65 7 16.52 7 16.52 7 18.07 8 1.12 9 13.55 4 45.33 2.03 2.30 13.73 56 6 16.168 <td>81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 5 2.29 36.88 641.75 5 8.41 20.18 5 0.05 5 2.29 36.88 641.75 5 8.41 20.18 6.41 5 0.05 5 2.29 36.88 641.75 5 8.41 20.17 8 66 1 7.7 8 66 1 3.30 6 4.17 5 8.41 20.17 8 8.41 20.17 8 8.41 20.17 5 8.41 20.17 3.09 8.13 3.026 4.83 3.59</td>	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 5 2.29 36.88 641.75 5 8.41 20.18 5 0.05 5 2.29 36.88 641.75 5 8.41 20.18 6.41 5 0.05 5 2.29 36.88 641.75 5 8.41 20.17 8 66 1 7.7 8 66 1 3.30 6 4.17 5 8.41 20.17 8 8.41 20.17 8 8.41 20.17 5 8.41 20.17 3.09 8.13 3.026 4.83 3.59
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ 19 19 12 13 12 14 15 16 17 18 19 12 14 15 14 15 11 13 15 19 15 16 4.9 17 18 19 6 20 3.5 13 13 12 13 12 13 14 17 17 17 17 18 19 117 12 117 12 117	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.88 3 10.5 2 0.00 3 0.88 3 10.5 2 0.00 3 0.88 3 10.5 2 0.00 7 254.11 8 28.8° a n/a 1 21.00 5 13.8° 5 13.8°	81.10A LF25982 SVLZ n/a 2 75.51 5 0.11 9 12.71 9 1.11 9 0.01 5 0.31 8 4.61 1 0.01 5 0.31 8 4.61 1 0.01 5 0.31 8 4.61 1 0.02 5 0.31 8 4.61 1 0.02 5 0.31 8 4.61 1 0.02 5 0.32 9 92.77 1 3.9 9 92.77 1 3.9 9 92.77 7 13.9 5 32.4 0 0.84 2 9.84 2 9.85 5 32.40 5 32.00 7 14.66 7 103.55 5 5.12 7 14.66 7 103.55 5 5.12 7 14.66 7 103.55 5 5.12 7 14.65 7 103.55 5 5.12 7 103.55 7 103	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 2 0.02 0 15.11 2 0.05 5 0.19 0 5.41 5 0.14 5 0.14 5 0.14 5 0.14 0 0.78 1 10.69 5 0.14 0.07 0.78 1 0.52 0 2.24 7 14.966 2 2.05 5 8.02 2 2.05 5 8.02 2 0.26 3 2.098 2 0.28 2 0.28 3 2.098 2 0.68 3 2.098 2 0.466	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.9 7.5 2.5 2.5 9.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2	81.19A LF25991 SVLZ n/a 4 63.16 4 1.55 9 14.25 2 6.44 1 0.16 1 0.72 1 1.14 2 5.66 6 4.00 5 1.66 9 6.65 6 75.21 7 36.52 8 75.221 7 1.65 2 5.16 9 6.65 7 38.52 2 5.12 0 1.12 0 1.12 9 1.65 3 2.30 0 1.373 6 61.68 0 12.38	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0.38 0.81 5 641 5 0.55 0.29 3 6.88 6 41.75 5 58.41 10.72 0.07 0.85 17.88 28.07 3.09 8.13 3.0026 4.87 13.59 12.48
Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO CaO Na2O K2O P2O5 SO3 LOI AS Ba CaO CaO CaO Ca Co Cr Cs Cu Ga La Mo Nb Nd Nd Nd Nd Sc Sc Sr	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 9 79.7 9 0.0 12 10.3 12 0.1 12 0.0 12 0.1 12 0.0 12 0.0 13 0.0 13 0.0 15 414.8 1.9 16 4.9 18 1.9 19 6.9 10 7.2 10 7	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.80 7 0.11 7 0.21 3 0.80 3 0.00 0 0.07 6 20.99 7 254.11 8 28.81 8 28.81 5 12.00 6 n/4 4 6.00 5 13.81 5 12.00 0 3.21 3 10.22 3 14.88 1 20.61 1 162.65 1	81.10A LF25982 SVLZ n/a 2 75.5 5 0.11 9 12.7 9 12.7 9 0.0 0 0.0 5 0.3 8 4.6 8 4.6 1 5.3 1 0.0 5 0.7 0 7.8 9 436.7 7 69.7 a 0.2 9 92.7 a 4.1 9 2.5 7 13.9 5 32.4 0 0.8 2 9.8 0 32.00 7 2.7 7 14.6 7 103.5 5 3.2,1 4 8.2 9 3.2,0 1 4 8.2 1 5 5 5 5 3.2 1 4 8.2 1 5 5 5 1 1 5 5 1 1 4 8.2 1 5 5 1 1 1 1 1 5 5 1 1 1 1 1 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 15.11 0 2.29 0 5.41 0 0.49 0 5.97 0 14 0 0.78 1 5.97 0 14 9 50.32 2 0.26 3 5.45 2 2.026 3 5.45 10.69 2.366 2 2.65 3 2.44 7 14 9.66 2.05 3 2.037.00 3 3.97 14.33 20.98 2 4.66 107.89 107.89	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 1.4 24.6 0.9 7.5 22.9 3.3 9.2 120.7 0.8 56.1 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1	81.19A LF25991 SVLZ n/a 4 63.16 4 1.52 9 14.22 2 6.44 1 0.12 1 1.14 2 5.66 6 4.00 2 0.58 4 0.05 5 1.66 9 6.65 8 752.21 7 85.52 2 5.16 9 6.65 8 752.21 7 8.55 3 7.38.07 7 1.52 7 1.52 7 3.55 4 45.35 3 2.300 13.73 6 9 311.78	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 63.86 3 1.11 5 34 5 0.15 0.38 0.81 6 41.75 5 0.05 5 2.29 3 6.88 6 41.75 5 41.75 5 0.81 1 0.72 0.77 0.85 1 7.88 28.07 3.09 8.13 3.026 4.87 1.356 3.359 1.248 15.61 15.61 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.84 15.85 17.88 18.13 19.99 17.88
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.2 1.2 1.2 0.0 0.2 5.2 4.1 0.0 0.2 5.2 4.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ n/a 19 10 12 10 12 12 12 14 15 16 17 18 19 10 12 13 14 15 1414.8 10 17 16 17 18 19 19 19 19 19 19 19 19 117 12 117 12 117 12 12 117 12 117 12 117 12 13 14 15	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.01 7 0.88 0 0.00 7 0.11 7 0.21 3 0.88 3 10.5 2 0.0 3 0.87 3 0.88 3 10.5 2 0.0 3 0.87 4 6 0.09 4 6 0.09 5 13.88 5 12.00 6 n/4 4 6.00 5 13.8 5 12.00 6 3.00 3 14.88 1 2.86 1 2.10 6 3.00 9 4.55 1 2.05 1 162.65 6 3.00 0 9 4.55 2 10.44 1 2.05 1 162.65 1 162.65	81.10A LF25982 SVLZ n/a 2 75.51 5 0.11 9 12.71 9 0.00 5 0.31 8 4.61 1 5.33 1 0.02 5 0.31 8 4.61 1 5.33 1 0.03 8 4.61 1 5.33 1 0.04 5 0.77 8 4.36.77 7 69.77 9 2.77 4 3.6.77 9 2.75 1 3.9 5 32.44 0 0.3200 7 2.77 1 103.54 5 5 5.11 1 48.25 8 1.188 1 1.88 1	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 2 2.22 0 15.11 2 2.23 5 0.12 0 0.49 0 5.97 5 0.14 5 5.97 5 0.14 5 5.032 2 0.26 3 5.45 7 2.24 7 10.78 5 8.02 3 2.098 2 2.05 5 8.02 3 2.098 2 0.397 14.33 20.98 2 4.66 107.89 16.44	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.1 0.1 0.3 1.4 6.3 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1	81.19A LF25991 SVLZ n/a 4 63.16 4 1.52 9 1.4.22 2 6.44 1 0.17 1 1.12 5.66 4.00 5 1.66 9 6.66 8 752.21 7 86.52 2 5.12 0 1.19 4 15.21 7 16.52 7 38.07 8 1.12 9 13.55 4 45.35 3 2.30 13.73 6 6 61.68 0 12.38 9 311.78 8 9.04	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 6.61 5 0.15 2 0.38 6 .61 5 2 0.38 6 .015 5 2 0.05 5 2 .29 3 6.88 6 .017 5 .005 5 2 .29 3 6.88 6 .017 5 .005 5 .
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.2 1.2 1.8 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	80.1A LF25981 SVLZ 19 12 13 12 14 15 16 17 18 19 12 13 14 15 14148 15 117 15 148 15 16 19 16 19 10 117 12 13 14 19 10 117 12 13 14 17 13 14 117 12 13 14 17 18 117 12 13 14 17 <td>80.5A LF25980 SVLZ n/a 1 74.00 7 0.01 1 12.02 7 0.88 0 0.00 7 0.11 7 0.21 3 0.88 3 10.5 2 0.00 3 0.00 7 254.11 8 28.8° a n/a 1 21.00 6 n/a 4 6.00 5 13.8° 5 12.00 0 3.21 3 10.22 3 10.22</td> <td>81.10A LF25982 SVLZ n/a 2 75.51 5 0.11 9 12.71 9 1.11 9 0.01 5 0.31 8 4.61 1 0.02 5 0.31 1 0.02 5 0.31 1 0.02 5 0.31 9 436.77 7 7 8.97 1 3.9 9 92.77 7 13.9 9 92.77 7 13.9 9 92.71 7 13.9 9 32.00 7 2.70 7 14.66 7 103.55 5 3.24 0 0.84 2 9.88 2 9.88 2 0.55 5 11 4 8.22 0 5.5 5 12 1 48.22 0 5.5 5 12 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td> <td>81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 15.11 0 2.29 0 0.43 0 0.43 0 0.44 0 0.49 5 0.14 0 0.78 1 10.69 0 0.43 0 0.78 1 10.69 5 0.14 0 0.78 1 10.69 5 0.22 0 0.28 1 0.65 2 0.26 3 35.45 1 0.69 2 0.26 2 0.23 2 0.23 3 2.05 5 8.02 3 2.098 2 0.66</td> <td>81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.9 7.5 22.9 3.3 9.2 22.9 3.3 9.2 1.2 1.2 1.4 1.4 1.9 7.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 2.2 9 3.3 9.2 2.2 1.2 1.1 1.4 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.1 1.5 1.1 1.4 1.1 1.1 1.1 1.1 1.1 1.1</td> <td>81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 9 14.25 1 0.16 1 0.72 1 1.14 2 6.44 1 0.72 1 1.14 2 5.64 0 0.55 4 0.52 5 1.66 9 6.67 8 752.21 7 185.52 a 19.62 0 1.12 9 6.67 2 5.12 0 1.12 9 1.355 3 2.30 0 1.373 6 61.68 9 311.78 9 311.78 9 9.04 9 9.04</td> <td>81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0.38 0.81 5 641 5 0.55 2.29 3.688 641.75 5 58.41 10.72 0.07 0.65 17.88 28.07 3.09 8.13 8.11 8.32 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.12 8.12 8.11 8.12 8.12 8.12 8.11 8.12 8.11 8.12 8.1</td>	80.5A LF25980 SVLZ n/a 1 74.00 7 0.01 1 12.02 7 0.88 0 0.00 7 0.11 7 0.21 3 0.88 3 10.5 2 0.00 3 0.00 7 254.11 8 28.8° a n/a 1 21.00 6 n/a 4 6.00 5 13.8° 5 12.00 0 3.21 3 10.22 3 10.22	81.10A LF25982 SVLZ n/a 2 75.51 5 0.11 9 12.71 9 1.11 9 0.01 5 0.31 8 4.61 1 0.02 5 0.31 1 0.02 5 0.31 1 0.02 5 0.31 9 436.77 7 7 8.97 1 3.9 9 92.77 7 13.9 9 92.77 7 13.9 9 92.71 7 13.9 9 32.00 7 2.70 7 14.66 7 103.55 5 3.24 0 0.84 2 9.88 2 9.88 2 0.55 5 11 4 8.22 0 5.5 5 12 1 48.22 0 5.5 5 12 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 5 3.24 1 48.22 0 5.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 15.11 0 2.29 0 0.43 0 0.43 0 0.44 0 0.49 5 0.14 0 0.78 1 10.69 0 0.43 0 0.78 1 10.69 5 0.14 0 0.78 1 10.69 5 0.22 0 0.28 1 0.65 2 0.26 3 35.45 1 0.69 2 0.26 2 0.23 2 0.23 3 2.05 5 8.02 3 2.098 2 0.66	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.9 7.5 22.9 3.3 9.2 22.9 3.3 9.2 1.2 1.2 1.4 1.4 1.9 7.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 1.1 1.9 1.5 2.2 9 3.3 9.2 2.2 1.2 1.1 1.4 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.5 1.1 1.4 1.1 1.5 1.1 1.4 1.1 1.1 1.1 1.1 1.1 1.1	81.19A LF25991 SVLZ n/a 4 63.15 9 14.25 9 14.25 1 0.16 1 0.72 1 1.14 2 6.44 1 0.72 1 1.14 2 5.64 0 0.55 4 0.52 5 1.66 9 6.67 8 752.21 7 185.52 a 19.62 0 1.12 9 6.67 2 5.12 0 1.12 9 1.355 3 2.30 0 1.373 6 61.68 9 311.78 9 311.78 9 9.04 9 9.04	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0.38 0.81 5 641 5 0.55 2.29 3.688 641.75 5 58.41 10.72 0.07 0.65 17.88 28.07 3.09 8.13 8.11 8.32 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.11 8.12 8.12 8.12 8.11 8.12 8.12 8.12 8.11 8.12 8.11 8.12 8.1
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.2 1.2 1.2 0.0 0.2 5.2 4.1 0.0 0.2 5.2 4.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ 19 19 12 14 13 14 15 14 15 16 19 10 19 10 117 12 117 12 117 12 117 12 13 12 13 14 15	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.11 7 0.21 3 0.88 3 10.5 2 0.0 3 0.87 3 0.87 1 20.67 1 20.67	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.11 9 0.00 5 0.31 8 4.63 1 5.3 1 0.02 5 4.63 1 5.3 1 0.02 9 4.36,7 7 69,7 a 4.11 9 2.57 7 13.9 5 32.44 2 9.82 1 2.57 7 13.9 5 32.44 1 0.32 9 2.77 a 4.11 9 2.57 7 13.9 5 32.44 1 0.32 9 2.77 1 3.9 5 32.44 1 0.32 9 2.57 7 13.9 5 32.44 1 0.32 1 0.55 1 1 0.32 1	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 2 0.05 5 0.15.11 2 2.05 5 0.19 0 0.49 1 5.97 0 14 10.07 0.78 1 10.69 1 5.97 0 0.49 0 0.78 1 5.97 0 14 9.66 2.24 7.14 9.66 2 2.05 3 2.370 3 2.389 3 2.038 2 3.97 14.33 20.98 2 16.44 3.88 8.71	81.13A 81.13A LF25999 SVLZ n/a 79.5 0.0 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 4.11.3 4.6.4 0.0 0.1 0.7 7.2 4.11.3 4.6.4 0.0 0.1 0.7 7.2 4.11.3 4.6.4 0.0 0.1 0.7 7.2 4.11.3 4.6.4 0.9 7.5 2.2.9 3.3 9.2 7.20 7.5 9.2.2 9.3 9.2 7.0 8.5 6.1 1.4 1.4 9.5 9.2 9.0 0.8 5.5 9.2 9.0 0.8 5.5 9.2 9.0 0.8 0.9 0.3 0.3 0.0 0.1 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.7 0.5 0.0 0.1 0.1 0.7 0.5 0.2 0.9 0.3 0.9 0.3 0.9 0.3 0.9 0.3 0.8 0.9 0.3 0.8 0.9 0.3 0.9 0.3 0.8 0.9 0.9 0.3 0.9 0.9 0.9 0.8 0.9 0.9 0.9 0.9 0.9 0.9 0.9 0.9	81.19A LF25991 SVLZ n/a 4 63.16 4 1.52 9 14.22 2 6.44 1 0.12 1 1.14 2 5.66 6 4.00 2 0.58 4 0.20 5 1.66 9 6.65 8 752.21 0 1.152 0 1.52 2 5.16 9 6.65 8 752.21 1 1.52 2 5.12 0 1.152 7 18.52 4 45.35 3 2.300 0 13.73 6 61.62 0 12.38 9 311.78 8 9.04 8 9.04 8 10.338	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 2 0.38 0.81 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 2 0.38 6.41 5 2.12 0.75 5 2.29 36.88 641.75 5 84.11 2 0.15 5 0.05 5 2.29 36.88 641.75 5 84.11 2 0.38 641.75 5 84.11 2 0.33 5 1.11 5 2 0.38 641.75 5 84.11 2 0.35 1 7.88 2 8.07 3 0.99 8 13 3 0.26 4.87 1 3.56 3 3.59 1 2.48 1 5.361 6.72 0.81 8 2.72 3 8.61
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI AS Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V V Y Zn	LF25978 SVLZ n/a 74.8 0.2 13.2 1.8 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	80.1A LF25981 SVLZ 19 12 13 12 14 15 16 17 18 19 12 13 14 15 14148 15 117 15 117 12 13 14 19 16 4.9 13 14 17 13 14 17 13 14 17 13 14 17 18 117 12 13 14 17 18 117 12 13 14 15 <td>80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.88 3 10.5 2 0.00 3 0.88 3 10.5 1 20.00 3 0.88 3 10.5 1 20.00 3 0.88 5 12.00 0 3.22 3 14.88 1 2.85 1 2.05 5 13.88 5 12.00 0 3.22 3 14.88 1 2.85 1 2.05 6 3.00 0 94.55 2 10.45 2 10.45 2 10.45 2 10.45 3 3.22.97 6 2.25 3 2.25 3 3.22.97 6 2.65 3 3.22.97 6 2.65 6 2.05 7 2.54 7 3.54 7 5.55 7 5.</td> <td>81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.17 9 0.00 5 0.31 8 4.67 1 0.00 5 0.31 8 4.67 7 69.77 a 0.27 9 92.77 7 13.9 9 92.77 7 13.9 9 92.77 7 13.9 9 92.77 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.7 7 14.6 2 9.8 2 9.8 2 9.8 3 1.0 5 3.2 4 3.6 7 1.5 5 3.2 8 4.6 7 1.5 5 3.2 1.5 5 3.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1</td> <td>81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 0.43 0 0.43 0 0.43 0 0.44 0 0.49 0 0.49 0 0.49 0 0.44 0 0.78 1 0.65 0 0.44 0.07 0.78 1 0.69 0 0.44 0.07 0.78 1 10.69 0 0.22 0 0.26 3 2.24 7 14 9.66 8.02 2 0.26 3.23 20.98 2 4.66 0 107.89 0 16.44 3.88 8.71 23.67</td> <td>81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.9 7.5 22.9 3.3 9.22 120.7 0.8 56.11 1.4 1.9 9.5 22.9 3.3 9.22 120.7 0.8 56.11 1.4 1.9 9.5 22.9 3.3 9.22 120.7 0.8 56.11 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 7.2 1.1 1.9 7.2 1.1 1.4 1.9 7.2 2.2 9.3 3.9 2.2 9.2 1.0 7.2 1.1 1.4 1.4 1.4 1.4 1.4 1.9 7.5 7.2 1.1 1.4 1.1 9.5 7.5 7.2 1.1 1.4 1.1 9.5 7.5 7.2 1.1 1.4 1.9 9.5 7.5 7.2 1.1 1.4 1.1 9.7 7.2 1.1 1.4 1.9 9.5 7.5 7.2 9.2 9.3 3.9 9.2 1.0 7.5 7.2 1.1 1.4 1.1 9.9 9.7 7.5 7.2 9.2 9.2 7.5 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2</td> <td>81.19A LF25991 SVLZ n/a 4 63.16 4 1.56 9 14.25 2 6.46 1 0.16 1 0.72 1 1.14 2 5.66 6 4.00 2 0.56 6 0.05 2 0.54 6 6.66 7.52.21 1.62 9 6.65 8 752.21 7 1.65 2 5.16 9 6.67 8 1.62 9 6.66 7.38.07 8.01 12 7.38.07 8 1.12 9 1.3.55 3 2.30 0 1.3.73 6 6.16.86 9 311.78 9 311.78 9 9.044</td> <td>81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0.38 0.81 5 641 5 0.55 2.29 3.688 641.75 5 58.41 10.72 0.07 0.65 17.88 28.07 3.09 8.13 8.11 8.27 8.51 8.5</td>	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.88 3 10.5 2 0.00 3 0.88 3 10.5 1 20.00 3 0.88 3 10.5 1 20.00 3 0.88 5 12.00 0 3.22 3 14.88 1 2.85 1 2.05 5 13.88 5 12.00 0 3.22 3 14.88 1 2.85 1 2.05 6 3.00 0 94.55 2 10.45 2 10.45 2 10.45 2 10.45 3 3.22.97 6 2.25 3 2.25 3 3.22.97 6 2.65 3 3.22.97 6 2.65 6 2.05 7 2.54 7 3.54 7 5.55 7 5.	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.17 9 0.00 5 0.31 8 4.67 1 0.00 5 0.31 8 4.67 7 69.77 a 0.27 9 92.77 7 13.9 9 92.77 7 13.9 9 92.77 7 13.9 9 92.77 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.5 7 13.9 9 2.7 7 14.6 2 9.8 2 9.8 2 9.8 3 1.0 5 3.2 4 3.6 7 1.5 5 3.2 8 4.6 7 1.5 5 3.2 1.5 5 3.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 0 2.29 0 0.43 0 0.43 0 0.43 0 0.44 0 0.49 0 0.49 0 0.49 0 0.44 0 0.78 1 0.65 0 0.44 0.07 0.78 1 0.69 0 0.44 0.07 0.78 1 10.69 0 0.22 0 0.26 3 2.24 7 14 9.66 8.02 2 0.26 3.23 20.98 2 4.66 0 107.89 0 16.44 3.88 8.71 23.67	81.13A LF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 411.3 46.4 0.9 7.5 22.9 3.3 9.22 120.7 0.8 56.11 1.4 1.9 9.5 22.9 3.3 9.22 120.7 0.8 56.11 1.4 1.9 9.5 22.9 3.3 9.22 120.7 0.8 56.11 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 9.5 7.2 1.1 1.4 1.9 7.2 1.1 1.9 7.2 1.1 1.4 1.9 7.2 2.2 9.3 3.9 2.2 9.2 1.0 7.2 1.1 1.4 1.4 1.4 1.4 1.4 1.9 7.5 7.2 1.1 1.4 1.1 9.5 7.5 7.2 1.1 1.4 1.1 9.5 7.5 7.2 1.1 1.4 1.9 9.5 7.5 7.2 1.1 1.4 1.1 9.7 7.2 1.1 1.4 1.9 9.5 7.5 7.2 9.2 9.3 3.9 9.2 1.0 7.5 7.2 1.1 1.4 1.1 9.9 9.7 7.5 7.2 9.2 9.2 7.5 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	81.19A LF25991 SVLZ n/a 4 63.16 4 1.56 9 14.25 2 6.46 1 0.16 1 0.72 1 1.14 2 5.66 6 4.00 2 0.56 6 0.05 2 0.54 6 6.66 7.52.21 1.62 9 6.65 8 752.21 7 1.65 2 5.16 9 6.67 8 1.62 9 6.66 7.38.07 8.01 12 7.38.07 8 1.12 9 1.3.55 3 2.30 0 1.3.73 6 6.16.86 9 311.78 9 311.78 9 9.044	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 63.86 3 1.11 5 0.15 0.38 0.81 5 641 5 0.55 2.29 3.688 641.75 5 58.41 10.72 0.07 0.65 17.88 28.07 3.09 8.13 8.11 8.27 8.51 8.5
Bead field area SIO2 TIO2 AI2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V Y	LF25978 SVLZ n/a 74.8 0.2 13.2 0.2 14.1 0.0 0.2 5.2 4.1 0.0 0.2 5.2 4.1 0.0 0.2 5.2 4.1 0.0 0.2 129.7 3.6 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5	80.1A LF25981 SVLZ 19 19 12 12 12 12 12 12 12 12 12 12 12 12 12 13 14 15 14 15 16 17 16 19 16 14 15 16 17 18 19 10 19 10 117 12 13 12 13 14 19 10 117 12 13 12 13 14 15	80.5A LF25980 SVLZ n/a 1 74.00 7 0.00 1 12.00 7 0.88 0 0.00 7 0.11 7 0.21 3 0.88 3 10.5 2 0.0 3 0.87 3 0.87 3 0.87 5 12.04 1 22.09 7 254.11 8 28.87 8 28.87 1 21.00 6 n/A 4 6.00 5 13.87 5 12.04 1 22.87 1 22.67 1 162.67 1 162.67 1 162.67 1 162.67 1 162.67 1 20.67 1 20.67 1 20.94 5 12.14 0 3.82 0 3.22 9 4.57 2 10.47 1 22.93 3 22.97 5 12.14	81.10A LF25982 SVLZ n/a 2 75.56 5 0.11 9 12.77 9 1.11 9 0.00 5 0.31 8 4.63 1 5.3 1 0.02 5 4.63 1 5.3 1 0.02 5 4.63 1 5.3 1 0.02 9 4.36,77 6 9.77 6 9.77 6 9.77 6 9.77 7 69.77 8 4.36,77 7 13.99 5 32.44 1 9 2.55 7 13.99 5 32.44 1 9 2.57 7 13.99 5 32.44 1 9 2.57 7 13.99 5 32.44 1 9 2.57 7 14.64 7 103.55 5 1.12 1 48.22 3 1.188 2 9.88 3 1.188 2 0.55 7 10.18 1 3.66 4 8.25 7 10.18 1 3.66 1 1.88 2 9.88 3 1.188 2 0.55 7 10.18 1 3.66 4 8.25 7 10.18 1 3.66 4 8.25 7 10.18 1 3.66 3 1.188 2 0.55 7 10.18 1 3.66 3 1.888 2 0.55 7 10.18 1 3.66 3 1.888 2 0.55 7 10.18 1 3.66 3 1.888 2 0.266 4 1.888 2 0.55 7 10.18 1 3.66 3 1.888 2 0.266 4 1.888 2 0.55 7 10.18 1 3.66 3 1.888 3 0.266 4 1.888 3 0.266 4 1.888 3 0.266 4 1.888 3 0.266 4 1.888 3 0.266 4 1.888 3 0.266 4 1.888 3 0.888 3 0.1888 3 0.888 3 0.888 3 0.55 5 0.11 5 0.51 5	81.11A LF25983 SVLZ n/a 0 69.77 0 15.11 2 2.05 5 0.15 2 0.05 5 0.19 0 0.49 1 5.97 0 14 0 0.78 1 10.69 0 0.49 0 0.49 0 0.78 1 5.97 0 0.44 0 0.76 1 5.97 0 0.49 0 0.78 1 5.97 0 35.45 2 0.26 3 3.62 3 2.05 3 2.05 3 3.97 1 14.33 2 4.66 107.89 16.44 3.88 8.711	81.13A EF25999 SVLZ n/a 79.5 0.1 9.7 0.5 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.3 1.4 6.3 0.0 0.1 0.7 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7	81.19A LF25991 SVLZ n/a 4 63.16 4 1.52 9 14.25 9 14.25 1 0.16 1 0.17 1 1.42 2 6.44 1 0.77 1 1.14 2 5.66 6 4.00 5 1.66 9 6.65 8 752.21 7 8.52 8 75.22 7 8.52 8 75.21 7 1.52 2 5.12 9 1.355 4 45.35 2 3.11.78 9 3.13.73 6 61.68 0 12.38 9 3.11.78 8 9.04 9 3.13.73 6 61.68 9 3.11.78 8 9.04	81.7A LF25988 SVLZ n/a 5 63.86 3 1.11 5 34 5 63.86 3 1.11 5 34 5 63.86 3 0.15 0.38 0.81 6 41.75 5 0.05 5 2.29 3 688 641.75 5 8.41 10.72 0.07 0.85 17.88 28.07 3.09 8.13 30.26 4.87 13.56 33.59 12.48 153.61 6.72 0.81 8.272 38.61 6.931 277.60

Sample numbe	r 52.5A	52.6A	53.12A	53.12A	53.12A	53.17A	53.18A	53.20A
Bead	LF25462	LF25575A	LF25445	LF25446	LF25447	LF25461	LF25466	LF25454
field area	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG
neid area	Gurvan Morin	Gurvan Morin	Gurvan Morin	Gurvan Morin			Gurvan Morin	Gurvan Morin
formation	Hondiy	Hondiy	Hondiy	Hondiy	Hondiy	Hondiy	Hondiy	Hondiy
SiO2	47.01					53.93	54.56	
TiO2 AI2O3	0.87 14.91				0.68 15.57	1.09 19.63	0.88	0.89
Fe2O3	6.90					8.63	18.14	17.62 7.01
MnO	0.24					0.25	0.16	
MgO	2.02		5 1.60	1.58		2.17	2.17	
CaO	10.46					2.91	4.11	6.31
Na2O	4.32					8.39	7.00	
K2O	4.10					0.86		
P2O5	0.77						0.41	
SO3 LOI	0.05 8.33					0.03		
As	14.43					6.42		
Ba	695.97					381.74		
Ce	46.68							
Co	21.30					24.83	24.04	22.43
Cr	3.70							
Cs	0.24							
Cu	213.71					156.57		
Ga La	16.11 15.37							
Mo	15.37							
Nb	7.10							
Nd	24.03							
Ni	n/a	0.13	3 1.15	5 3.61	0.92			
Pb	1.31							6.08
Rb	54.53							
Sc	20.73							
Sr	824.90							
Th U	7.47 0.97							
v	192.16							
Ŷ								
Zn	28.32 85.95			59.04	60.03	101.64	88.11	70.86
	85.95 95.98	76.00 107.58) 59.44 3 77.62	76.05	79.10	152.58	109.11	81.47
Zn	85.95	76.00 107.58) 59.44 3 77.62	76.05	79.10	152.58	109.11	81.47
Zn Zr Total	85.95 95.98 99.98	76.00 107.54 100.34	59.44 77.62 99.85	2 76.05	79.10 99.67	152.58 100.49	109.11 99.52	81.47 2 100.08
Zn Zr Total Sample number	85.95 95.98 99.98 82.11A	76.00 107.54 100.34 82.11A	59.44 59.44 77.62 899.85 82.11A	2 76.05 5 99.30 82.5A	79.10 99.67 83.3A	152.58 100.49 97.2A	109.11 99.52 97.3A	81.47 100.08 97.5A
Zn Zr Total	85.95 95.98 99.98	76.00 107.54 100.34	59.44 77.62 99.85	2 76.05	79.10 99.67	152.58 100.49	109.11 99.52	81.47 2 100.08
Zn Zr Total Sample number Bead	85.95 95.98 99.98 82.11A LF26005	76.00 107.58 100.33 82.11A LF26006	59.44 77.62 99.85 82.11A LF26007	2 76.05 99.30 82.5A LF25984	79.10 99.67 83.3A LF25996	152.58 100.49 97.2A LF25679	109.11 99.52 97.3A LF25635	97.5A LF25634
Zn Zr Total Sample number	85.95 95.98 99.98 82.11A LF26005 SVLZ	76.00 107.54 100.33 82.11A LF26006 SVLZ	0 59.44 3 77.62 3 99.82 82.11A LF26007 SVLZ	2 76.05 99.30 82.5A LF25984 SVLZ	79.10 99.67 83.3A LF25996 SVLZ	152.58 100.49 97.2A LF25679 Shuteen	109.11 99.52 97.3A LF25635 Shuteen	81.47 2 100.08 97.5A LF25634 Shuteen
Zn Zr Total Sample number Bead field area formation	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a	76.00 107.54 100.33 82.11A LF26006 SVLZ n/a	0 59.44 3 77.62 3 99.82 82.11A LF26007 SVLZ n/a	2 76.05 99.30 82.5A LF25984 SVLZ n/a	79.10 99.67 83.3A LF25996 SVLZ n/a	152.58 100.45 97.2A LF25679 Shuteen n/a	97.3A LF25635 Shuteen n/a	97.5A LF25634 Shuteen
Zn Zr Total Sample number Bead field area formation SiO2	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.10	0 59.44 3 77.62 3 99.82 82.11A LF26007 SVLZ n/a 3 74.6	2 76.05 99.30 82.5A LF25984 SVLZ n/a 69.65	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02	152.58 100.45 97.2A LF25679 Shuteen n/a 69.19	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65	97.5A LF25634 Shuteen n/a 5 76.87
Zn Zr Total Sample number Bead field area formation SiO2 TIO2	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23	76.00 107.54 100.34 82.11A LF26006 SVLZ n/a 73.11 0.21	0 59.44 3 77.62 3 99.82 82.11A LF26007 SVLZ n/a 5 74.6 5 0.23	2 76.05 5 99.30 82.5A LF25984 SVLZ n/a 69.65 3 0.33	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45	97.3A LF25635 Shuteen n/a 66.66 0.55	97.5A LF25634 Shuteen n/a 76.87 0.22
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 7.3.11 0.22 12.99	0 594 3 77.6 3 99.8 82.11A LF26007 SVLZ n/a 5 74.6 5 0.2 3 13.00	2 76.05 5 99.30 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34	152.58 100.45 97.2A LF25679 Shuteen n/a 69.19 0.45 14.70	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18	97.5A LF25634 Shuteen n/a 5 76.87 5 0.22 12.93
Zn Zr Total Sample number Bead field area formation SiO2 TIO2	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23	76.00 107.51 100.34 82.11A LF26006 SVLZ n/a 73.11 0.22 12.94 1.72	0 5944 3 776 3 998 82.11A LF26007 SVLZ n/a 74.6 5 0.2 3 13.00 2 1.60	2 76.05 99.30 82.5A LF25984 SVLZ n/a 69.65 3 0.33 5 15.11 3 2.28	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.44 14.70 2.90	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.98	81.47 2 100.08 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 3 1.33
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69	76.00 107.54 100.34 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.77 0.00	0 59.44 3 77.62 3 99.82 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 3 13.00 2 1.64 4 0.04	2 76.05 3 99.30 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11 3 2.22 4 0.05	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.49 14.77 2.99 0.05	109.1 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.96 0.00	81.47 2 100.05 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 MnO MgO CaO	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38	76.00 107.51 100.34 82.11A LF26006 SVLZ n/a 73.11 0.22 1.2.94 1.77 0.0 0.3 0.44	0 5944 3 77.6 3 99.8 82.11A LF26007 SVLZ n/a 5 74.6 5 0.2 3 13.00 2 1.64 4 0.0 0 .22 0 0.3	2 76 00 3 99 30 82 5A LF25984 SVLZ n/a 69 69 3 0.3 5 15.11 3 2.28 4 0.02 5 0.22 7 0.47	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.44 14.77 2.90 0.05 1.36 2.48	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.16 2.96 0.00 1.35 2.05	81.47 2 100.02 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.38 7.36	76.00 107.54 100.34 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.77 0.0 0.3 3 0.44 7.95	0 5944 3 77.6 3 99.8 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 8 13.06 2 1.61 4 0.04 1 0.26 0 0.3 5 7.35	2 76 00 3 99 30 82 5A LF25984 SVLZ n/a 69 66 3 0.33 5 15 11 2 220 4 0.00 5 0.22 7 0.47 5 5.16	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.05 1.33 2.48 4.23	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.95 0.06 1.33 2.05 4.55	97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.8
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MO MgO CaO Na2O K2O	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.30 0.38 7.36 1.09	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.77 0.0 0.3 0.44 7.94 1.2	0 5944 3 77.62 3 99.84 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 3 13.06 2 1.64 4 0.04 1 0.26 0 3.35 7 .36 1 1.06	2 76.05 3 99.30 82.5A LF25984 SVLZ n/a 9 69.65 3 0.33 5 15.11 3 2.22 4 0.00 5 0.20 7 0.41 5 5.16 5 5.86	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24	152.56 100.45 97.2A LF25679 Shuteen n/a 69.19 0.49 14.77 2.90 0.05 1.36 2.48 4.22 4.38	109.11 99.52 97.3A LF25635 Shuteen n/a 66.66 0.55 14.18 2.96 0.00 1.35 2.00 4.55 4.63	81.47 2 100.05 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.69 3.466 5.69
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 1.09 0.25	76.00 107.51 100.34 82.11A LF26006 SVLZ n/a 73.11 0.29 1.2,99 1.2,99 1.2,99 1.2,99 1.7, 0.0 0.3 0.44 7.99 1.2 2 0.24	5944 377.62 399.82 82.11A LF26007 SVLZ n/a 574.62 0.22 1.64 0.04 0.02 0.03 5.7.33 1.00 5.0.22	2 76 00 99 30 82 5A LF25984 SVLZ n/a 69 66 3 0.33 5 15 11 3 2.28 4 0.02 5 0.22 5 5.86 5 5.86 5 0.14	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.48	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.45 14.70 2.90 0.00 1.36 2.48 4.23 4.38 0.12	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.98 0.00 1.33 2.05 4.63 2.05 4.63 0.12	81.47 2 100.08 97.5A LF25634 Shuteen n/a 76.87 0.22 2 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.38 7.36 1.09 0.25 0.12	76.00 107.54 100.34 82.11A LF26006 SVLZ n/a 73.11 0.24 1.29 1.77 0.0 0.3 3 0.44 7.94 1.2 2 0.24 0.24 0.24	594 3 77.67 3 99.87 82.11A LF26007 SVLZ n/a 74.67 5 0.22 3 13.00 2 1.68 4 0.00 1 0.24 5 7.36 5 7.36 1 0.02 0 0.33 5 7.36 1 0.02 0 0.01 0 0.02 0 0	2 76 00 3 99 30 82 5A LF25984 SVLZ n/a 1 69 66 3 0.33 5 15 11 3 2.22 4 0.06 5 0.22 7 0.44 5 5.86 5 5.86 5 0.01	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.48 0.14	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.06 1.36 2.46 4.23 4.23 4.23 4.23 0.12 0.04	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.95 0.06 1.33 2.00 4.55 4.63 0.12 0.05	81.47 2 100.08 97.5A LF25634 Shuteen n/a 5 76.87 5 0.22 12.93 1.33 5 0.02 0.48 0.89 3.46 5.09 0.04 0.03
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 Fe2O3 MO MgO CaO Na2O K2O P2O5 SO3 LOI	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.30 0.38 7.36 1.09 0.25 0.12 1.19	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.90 1.77 0.0 0.3 0.44 7.94 1.2 0.23 0.24 0.22 0.22 1.11	5944 377.62 399.82 82.11A LF26007 SVLZ n/a 574.6 50.22 13.06 21.64 0.02 1.64 0.02 1.64 0.02 0.03 57.35 1.00 5.022 0.03 5.7.35 1.00 5.022 0.03 5.7.35 1.00 5.022 0.01 1.00 5.022 0.01 1.00 5.022 0.01 1.00 5.022 0.01 1.00 5.022 0.01 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 1.00 5.022 0.021 0.021 0.022 0.021 0.022 0.021 0.022 0.021 0.022 0.021 0.022 0.02	2 76.05 3 99.30 82.5A LF25984 SVLZ n/a 69.65 3 0.33 5 15.11 3 2.28 4 0.00 5 0.22 7 0.47 5 5.16 5 5.86 5 0.14 9 0.06 9 0.00 0 0.06 0 0.00 0	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 6.56 6.4.24 0.48 0.14 1.57	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.77 2.90 0.05 1.36 2.48 4.23 4.38 0.12 0.04	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 14.16 2.96 0.00 1.35 2.00 4.55 4.63 0.12 2.05 4.63 0.07 0.75	81.47 2 100.05 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.33 0.53
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O SO3 LOI As	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 6 1.09 0.25 0.12 1.19 2.19	76.00 107.51 100.34 82.11A LF26006 SVLZ n/a 73.11 0.24 12.99 1.77 0.00 0.3 0.44 7.99 1.22 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0	5944 377.62 399.82 82.11A LF26007 SVLZ n/a 574.62 0.22 3.13.00 2.164 0.04 0.02 0.03 5.7.33 1.100 5.0.22 0.03 5.7.33 1.100 5.0.22 0.011 1.100 5.0.22 0.0.112 1.000 5.0.22 0.0.112 1.000 5.0.22 0.0.112 1.000 5.0.22 0.0.112 1.000 5.0.22 0.0.112 1.000 5.0.22 0.0.21 5.0.22 5.	2 76 00 99 30 82 5A LF25984 SVLZ n/a 69 69 3 0.3 5 15 11 3 2.22 4 0.02 5 0.22 5 5.86 5 0.22 7 0.47 5 5.86 5 0.22 7 0.47 5 5.86 6 0.63 7 0.22 7 0.47 5 5.86 6 0.64 7 0.22 7 0.47 5 0.22 7 0.47 5 0.03 7 0.47 5 0.22 7 0.47 5 0.22 7 0.47 5 0.58 6 0.44 5 0.58 6 0.33 7 0.47 5 0.22 7 0.47 5 0.58 6 0.44 5 0.44 5 0.44 5 0.04 5 0.	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.45 14.70 2.90 0.00 1.36 2.48 4.23 4.38 0.12 0.04 0.54 4.76	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.16 2.96 0.06 1.35 2.05 4.65 4.65 4.65 4.65 0.12 0.079 4.74	81.47 2 100.02 97.5A LF25634 Shuteen n/a n/a 76.87 0.22 12.93 1.33 0.02 9.346 5.09 0.04 0.03 0.53 2.79
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 Fe2O3 MO MgO CaO Na2O K2O P2O5 SO3 LOI	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.30 0.38 7.36 1.09 0.25 0.12 1.19	76.00 107.51 100.34 82.11A LF26006 SVLZ n/a 73.10 0.24 1.294 1.77 0.00 0.3 3 0.44 7.94 1.27 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	594 3 77.63 99.82 82.11A LF26007 SVLZ n/a 5 74.63 0 0.23 1 .00 1 .024 0 0.24 0 0.2	2 76 00 3 99 33 82 5A LF25984 SVLZ n/a 1 69 66 3 0.33 5 15 11 3 2.22 4 0.04 5 0.22 7 0.44 5 5.86 5 0.21 6 0.63 5 0.22 7 0.44 5 0.22 6 0.44 5 0.22 7 0.44 5 1.64 5 0.65 5 0.65 6 0.44 5 0.65 5 0.65 6 0.65 5 0.65 6 0.65 5 0.65 6 0.65 5 0.65 6 0.65 5 0.65 6 0.55 6 0.55	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99 1093.67	152.56 100.45 97.2A LF25679 Shuteen n/a 69.19 0.45 14.70 2.90 0.06 1.36 2.48 4.23 4.23 4.23 4.23 4.23 4.23 7.66 7.76.64	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.95 0.06 1.35 2.05 4.55 4.63 2.05 4.55 4.63 0.12 0.05 0.79 4.74 835.52	97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 0.133 0.02 0.48 0.89 3.46 5.09 0.04 0.03 0.03 0.03 0.53 2.79 546.98
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 AI2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O SO3 LOI As Ba Ce Co	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 6 1.09 0.25 0.12 1.19 2.19 2.19 2.11,49 82.00 2.78	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.99 1.77 0.00 0.3 0.44 7.99 1.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	5944 377.62 399.82 82.11A LF26007 SVLZ n/a 574.65 74.65 0.22 313.00 21.64 0.04 0.02 0.03 57.33 1.30 0.02 0.03 5.7.33 1.1.00 5.0.22 0.0.11 1.10 5.7.35 1.1.00 5.7.35 1.1.00 5.7.35 5.7.55	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 15.11 3 2.22 4 0.02 5 0.22 5 0.44 5 5.86 5 0.44 5 0.35 5 0.44 5 0.85 5 0.44 5 0.44 5 0.44 5 0.85 5 0.44 5 0.86 5 0.44 5 0.45 5 0.45	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 6.4.24 0.14 1.57 1.99 1093.67 66.39 20.59	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.00 1.35 2.48 4.23 4.38 8.0.12 0.04 0.54 7.76.04 7.76.04 39.59 7.34	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.16 2.96 0.06 1.33 2.05 4.55 4.63 0.12 0.05 4.55 4.63 0.12 0.079 4.74 835.52 2.55 64 8.29	81.47 100.02 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.53 2.79 546.98 1.64
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O Na2O K2O SO3 LOI AS Ba Ce Co Cr	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 1.09 0.25 0.12 1.19 2.19 2.19 2.19 2.19 2.19 2.19 2	76.00 107.51 100.34 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.77 0.0 0.3 0.44 7.94 1.27 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	5944 3 77.63 99.83 82.11A LF26007 SVLZ n/a 5 74.65 5 0.22 3 13.00 2 1.64 4 0.00 0 0.33 5 7.33 1 0.02 0 0.33 5 7.33 1 0.02 0 0.33 5 7.33 1 0.02 0 0.11 0 0.24 0 0.03 5 7.33 1 0.02 0 0.33 5 7.33 1 0.02 0 0.23 0 0.24 0 0.24 0 0.03 0 0.25 0 0.23 0 0.25 0 0.55 0 0.55 0.	2 7600 3 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11 3 2.22 4 0.04 5 0.22 5 0.22 5 0.22 5 0.24 5 0.22 6 0.44 5 0.22 5 0.24 5 0.22 6 0.44 5 0.22 5 0	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.56 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99 1093.67 66.39 20.59 96.86	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.44 14.70 2.90 0.05 1.36 2.48 4.23 0.05 1.36 2.48 4.23 0.12 0.04 0.55 7.54 7.66 7.76.04 39.59 7.54 53.80	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.99 0.06 1.33 2.05 4.55 4.63 2.05 4.55 4.63 2.05 4.74 835.52 2.564 8.29 60.51	81.47 2 100.02 97.5A 100.02 97.5A 100.02 Shuteen 100.02 n/a 76.87 70.22 12.93 1.33 0.02 0.48 0.48 0.02 0.48 0.03 0.53 2.79 546.98 44.28 1.64 8.37 1.64
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.04 0.30 0.30 0.38 7.36 1.09 0.25 0.12 1.19 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,19 2.11,9 2.11,19 2	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.21 12.90 1.77 0.00 0.3 0.44 7.94 1.2 0.22 0.23 0.24 0.23 0.24 0.25 0.25 0.29 10.00 1.8	5944 77.62 82.11A LF26007 SVLZ n/a 574.6 50.22 313.06 21.64 40.00 10.24 50.02 313.06 21.64 40.00 10.02 50.02 313.06 21.64 40.00 10.02 50.02 10.02 50.02 10.02 50.0	2 76.00 3 99.33 82.5A LF25984 SVLZ n/a 1 69.66 3 0.33 5 15.11 3 2.22 4 0.06 5 0.22 7 0.47 5 5.86 5 0.14 0 0.06 5 5.86 5 0.14 0 0.06 5 5.86 5 0.15 1 5 5.86 5 0.15 5 5.86 5 0.15 5 5.86 5 0.15 5 5.86 5 0.22 7 0.47 5 5.86 5 0.02 2 0.85 7 2.15 6 0.00 5 0.02 7 0.47 5 5.86 5 0.00 6 0.00 5 0.02 7 0.05 8 0.03 5 0.02 7 0.05 8 0.03 5 0.02 7 0.05 8 0.03 8 0.04 8 0.04 8 0.04 8 0.04 8 0.05 8 0.04 8 0.04 8 0.05 8 0.04 9 0.05 8 0.04 9 0.05 8 0.04 9 0.05 8 0.04 9 0.05 9 0.0	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.48 0.06 1.57 1.34 6.56 6.4.24 0.48 0.14 1.57 1.99 1093.67 66.39 20.59 9.96.86 6.1.05	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.05 1.33 2.48 4.23 4.23 4.23 4.23 4.23 4.23 4.23 4.23	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.96 0.06 1.33 2.05 4.55 4.63 0.12 0.05 0.75 4.55 4.63 0.12 0.05 0.075 4.74 8.35.52 2.5.64 8.29 60.51 n/a	81.47 2 100.02 97.5A 100.02 LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.03 0.53 2.79 546.98 44.28 1.64 8.37 2.51 2.51
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.23 13.02 1.69 0.04 0.30 0.38 7.36 6 1.09 0.25 0.12 1.19 2.19 2.11,9 2.19 2.11,4 82.00 2.27 8 37.96 1.71	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.99 1.77 0.04 0.23 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	5 594 4 3 77.63 99.84 82.11A LF26007 SVLZ n/a 5 74.65 0.22 3 13.00 2 1.64 4 0.04 1 0.22 0 0.33 5 7.33 1 1.00 5 0.22 0 0.11 7 2.01 4 230.84 9 86.94 7 2.64 3 5.22 1 n/a	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11 3 2.22 4 0.02 5 0.22 5 0.22 5 0.22 5 0.44 5 5.86 5 0.22 5 0.44 5 5.86 5 0.22 5 0.22 5 0.44 5 5.86 5 0.22 5 0.2	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.67 1.34 6.56 6.4.24 0.48 0.14 1.57 1.34 6.56 6.4.24 0.48 0.14 1.57 1.99 1093.67 6.39 20.59 96.86 1.05 7.27	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.00 1.36 2.48 4.22 4.88 0.12 0.44 0.54 7.76.04 39.59 7.54 53.80 2.25 7.54 53.80 2.25 1.324	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.96 0.06 1.33 2.05 4.55 4.63 0.12 0.05 4.55 4.63 0.12 0.07 9.4.74 835.52 2.56 4.829 60.51 n/a	81.47 100.02 97.5A LF25634 Shuteen n/a 76.87
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	85.95 95.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 6 1.09 0.25 0.12 1.19 2.19 2.19 2.19 2.19 2.19 2.19 2	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.2,	594 377.63 99.82 82.11A LF26007 SVLZ n/a 574.65 0.22 1.64 0.00 0.22 0.03 57.33 1.00 0.02 0.03 57.33 1.00 0.02 0.03 57.33 1.00 0.02 0.03 5.7.33 1.00 2.00 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 1.00 5.02 0.03 5.7.33 5.7.33 5.7.33 5.7.33 5.7.33 5.7.34 5.7.35 5.7.55 5	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11 3 2.28 4 0.04 5 0.22 5 0.22 5 0.24 5 0.2	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.56 1.57 1.34 6.56 4.24 0.48 0.14 1.57 66.39 20.59 96.86 1.05 7.727 16.85	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.44 14.77 2.90 0.05 1.36 2.44 4.23 4.38 0.12 0.04 7.66 7.76.04 39.59 7.94 5.380 2.25 13.24 15.38	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.98 0.06 1.35 2.05 4.65 4.65 2.05 4.65 4.65 0.12 0.05 4.74 835.52 25.64 8.29 60.51 n/a 5.70 16.15	81.47 2 100.02 97.5A LF25634 Shuteen n/a n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.689 0.04 0.03 0.53 2.79 546.98 44.28 1.64 8.37 1.06 13.16
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O K2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.04 0.30 0.04 0.30 0.04 0.30 0.04 0.30 0.04 0.30 0.25 0.12 1.19 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,9 2.11,4 3.7,96 1.71,14 4.68 2.4,00 3.3,57	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 7.3.11 0.21 12.90 1.77 0.00 0.33 0.44 7.94 1.22 0.22 0.22 0.22 0.21 1.11 1.75 2.85 59 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 1.12 1.12 1.12 1.12 1.12 1.12 1.12 1	5944 77.62 8-77.62 8-77.62 8-77.62 8-74.61 5 - 0.22 8 - 11A 1.64 5 - 0.22 1.64 4 - 0.04 1 - 0.24 0 - 0.3 5 - 7.34 4 - 0.04 1 - 0.24 0 - 0.3 5 - 7.34 1 - 0.04 1 - 0.24 0 - 0.35 1 - 0.22 1 - 0.04 1 - 0.24 0 - 0.35 1 - 0.24 1 - 0.24 0 - 0.35 1 - 0.24 1 - 0.24 0 - 0.35 1 - 0.24 0 - 0.35 1 - 0.24 0 - 0.35 1 - 0.24 0	2 7600 3 9933 82.5A LF25984 SVLZ n/a 1 69.66 3 0.33 5 15.17 3 2.22 0 0.65 5 .5.66 5 .5.67 5 .5.75 5 .5.75	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.630 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99 1093.67 66.39 20.59 96.86 1.05 7.27 1.685 34.18	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.05 2.90 0.05 2.90 0.05 2.94 4.23 4.23 4.23 0.12 0.04 0.54 7.76.04 39.59 7.74 4.53.80 2.25 13.24 15.39 17.83	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.95 0.05 1.33 2.05 4.55 4.63 0.12 0.75 4.74 8.29 60.51 n/a 8.29 60.51 n/a	81.47 2 100.02 97.5A LF25634 Shuteen n/a 5 76.87 0.22 12.93 1.33 0.02 0.43 0.68 0.04 0.03 0.53 2.79 5.46.98 44.28 1.64 8.37 2.51 1.06 1.859 1.64
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	85.95 95.98 99.58 99.58 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.23 13.02 1.69 0.04 0.30 0.30 0.38 7.36 1.09 0.25 0.12 1.19 2.19 2.11.49 82.00 2.278 37.96 1.71 4.68 24.000 33.57 0.73	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 7.3.11 0.22 12.99 1.7 0.02 0.23 0.24 0.22 0.24 0.22 0.22 0.22 0.22 0.22	5944 377.62 399.82 82.11A LF26007 SVLZ n/a 574.65 0.22 1.66 0.02 3.13.00 2.1.6 4.0.04 1.0.02 0.0.3 5.7.33 1.1.00 5.0.22 0.0.11 7.2.03 4.230.86 9.4.65 8.694 7.2.64 3.5.22 1.61 8.5.22 1.61 7.2.33 1.85 7.332 1.65 7.332 1.65 7.332	2 7600 9933 82.5A LF25984 SVLZ n/a 0.03 3 15.11 3 2.28 0.03 5 15.11 3 2.28 0.02 0.047 5 5.16 0.22 0.047 5 5.86 5 0.22 7 0.47 5 2.27 5 2.2	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.67 1.34 6.56 6.4.24 0.48 0.14 1.57 1.34 6.56 6.4.24 0.48 0.14 1.57 1.99 1093.67 6.39 20.59 96.86 1.05 17.27 16.85 34.18	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.00 1.36 2.48 4.22 4.82 0.12 0.44 0.54 7.76.04 39.55 7.74 4.53.80 2.25 13.24 5.380 2.25 13.24 15.39 17.83 1.18	109.11 97.3A LF25635 Shuteen n/a 666.66 0.55 14.16 2.96 0.06 1.33 2.06 1.33 2.06 1.33 2.06 1.33 2.06 1.35 2.06 1.33 2.06 1.35 2.25 1.57 1.07 1.57 1.07 1.57 1.07 1.07 1.07 1.07 1.07 1.07 1.07 1.0	81.47 100.08 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.53 2.79 546.98 44.28 1.64 8.37 2.51 1.64 1.64 1.64 1.64 1.64 1.64 1.64
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 6 1.09 0.25 0.12 1.19 2.19 2.19 2.19 2.11.49 82.00 2.278 37.96 1.71 4.68 2.4.00 33.57 0.73 3.22.35	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.29 12.99 1.29 1.29 1.29 1.29 1.29 1.29	594 377.63 99.84 82.11A LF26007 SVLZ n/a 574.65 0.22 1.64 0.02 0.03 5.7,33 1.100 5.0,22 0.0,11 0.0,24 0.0,02 0.0,33 5.7,33 1.100 5.0,22 0.0,11 0.0,24 5.0,24	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11 3 2.28 4 0.02 5 0.20 6 0.20 7 0.41 5 5.86 6 0.21 6 0.68 7 1.26 5 3.64 5 3.64 5 3.64 5 2.65 2 2.756 0.04 5 3.54 2 2.65 2 2.756 0.04 1 5.152 2 2.65 2 2.756 0.04 1 5.152 2 2.65 2 2.756 0.04 1 5.152 2 2.65 2 2.756 0.04 0.052 2 2.65 2 2.756 0.04 0.052 2 2.756 0.04 0.052 0.052	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.56 1.67 1.34 6.56 4.24 0.14 1.57 1.34 6.56 4.24 0.14 1.57 1.39 1093.67 66.39 20.59 90.686 1.05 7.727 16.85 34.18 1.37 10.35	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.44 14.77 2.90 0.05 1.36 2.44 4.23 4.38 0.12 0.04 0.53 4.38 0.12 0.05 1.36 7.76.04 39.55 7.94 5.380 2.25 1.324 5.380 2.25 1.324 1.539 1.783 1.188 4.06	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.16 2.96 0.06 1.35 2.00 4.55 4.63 0.07 9.474 835.52 25.64 8.29 60.51 n/a 8.29 60.51 n/a 5.70 16.15 4.45 3.479	81.47 100.08 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.33 2.79 546.98 44.28 1.64 8.37 2.51 1.36 1.37 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.54 1.64 8.37 3.16 1.54 1.54 1.54
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.04 0.30 0.38 7.36 1.09 0.25 0.12 1.19 2.11,49 82.00 2.78 3.7.96 1.11 4.68 2.4.00 3.357 0.73 2.235 46.16	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 7.3.11 0.22 12.99 1.7,7 0.00 0.3 0.44 7.99 1.22 0.22 0.22 0.22 0.23 1.11 1.75 2.85 59 0.29 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.00 1.8 55 55 2.97 10.02 1.8 55 1.27 0.24 0.24 0.24 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	5944 77.62 82.11A LF26007 SVLZ n/a 574.6 50.22 1.64 0.02 1.64 1.06 1.02 1.06 1.02 1.06 1.02 1.02 1.04 1.06 1.02 1.02 1.04 1.02 1.02 1.04 1.02 1.04 1.02 1.02 1.02 1.04 1.02 1.02 1.02 1.04 1.02	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 0.33 5 151 3 2.22 0.44 5 .54 0.04 5 .54 6 .0.33 5 151 3 2.22 6 .0.33 5 151 3 2.22 6 .0.33 5 .154 5 .56 6 .0.44 5 .54 5 .56 6 .0.14 5 .56 6 .0.27 5 .56 6 .0.27 5 .56 6 .0.27 5 .0.2	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99 1093.67 66.39 20.59 96.86 1.05 17.27 1.685 34.18 1.37 10.35 31.42	152.56 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.06 1.36 2.90 0.06 7.06 4.23 0.02 0.06 7.66 7.76.04 39.59 7.94 5.3.80 2.25 3.80 2.25 13.24 5.3.80 2.15 3.80 3.15 3.80 3.17 3.17 3.18 3.18 3.18 3.18 3.18 3.18 3.18 3.18	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.96 0.06 1.33 2.05 4.65 4.65 2.05 4.65 0.72 4.55 4.65 2.56 4.65 0.72 0.05 0.79 4.74 835.52 25.64 8.29 60.51 n/a 5.70 16.15 4.45 1.20 0.55	97.5A LF25634 Shuteen n/a 5 76.87 5 0.22 12.93 5 0.02 0.48 5 0.99 3.46 5 0.99 0.04 0.03 0.53 2.79 546.98 44.28 1.64 4.837 2.51 1.06 13.16 18.59 1.76 4.54 23.98
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 6 1.09 0.25 0.12 1.19 2.19 2.19 2.19 2.11.49 82.00 2.278 37.96 1.71 4.68 2.4.00 33.57 0.73 3.2235	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 7.3.11 0.22 12.90 1.77 0.00 0.3 0.44 7.99 1.2 0.22 0.22 0.22 0.22 0.22 0.22 0.22	5 594 4 3 77.62 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 3 13.00 2 1.6 4 0.04 1 0.24 5 7.33 1 1.00 5 0.22 0 0.10 1 1.12 7 2.03 4 230.85 5 3 5.22 1 0.4 5 8.694 7 2.64 5 8.52 1 0.4 7 2.03 4 230.85 5 8.694 7 2.64 5 8.52 1 0.4 7 2.64 7 3.32 1 0.8 7 3.4 7 3.4 7 2.64 7 3.32 7 3.32 7 3.4 8 1.52 7 3.4 7 3.4 7 3.4 7 3.4 7 4.6 8 0.22 1 0.0 7 3.4 7 3.4 7 4.6 7 7.8 7 7.8	2 7600 9933 82.5A LF25984 SVLZ n/a 69.65 3 0.33 5 15.11 3 2.22 4 0.02 5 0.22 5 0.22 5 0.22 5 0.22 5 0.24 5 0.26 5 0.22 6 0.33 9 2.25 6 0.44 5 0.26 5 0.22 7 0.44 5 0.26 5 0.22 7 0.44 5 0.26 5 0.22 7 0.44 5 0.26 5 0.22 6 0.33 9 2.27 5 0.26 0 0.44 5 0.26 5 0.22 6 0.26 5 0.22 7 0.04 5 0.26 5 0.22 6 0.26 5 0.26 6 0.26 6 0.26 5 0.26 6 0.26 6 0.26 5 0.26 6 0.26 7 0.26 7 0.26 7 0.27 8 0.2	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.56 1.67 1.34 6.56 4.24 0.14 1.57 1.34 6.56 4.24 0.14 1.57 1.39 1093.67 66.39 20.59 96.86 1.05 1.727 16.85 34.18 1.37 10.35 31.42 2.530 0.03	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.00 0.13 2.48 4.23 4.23 4.23 4.38 0.12 0.44 7.66 7.76.04 39.59 7.94 5.380 2.25 13.24 4.53 80 2.25 13.24 15.39 17.83 1.78 1.78 1.78 1.78 1.78 1.78 1.78 1.78	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.16 2.95 0.06 1.33 2.05 4.55 4.63 0.12 0.07 4.55 4.63 0.12 0.07 9.474 835.52 2.56 4.63 0.77 4.74 835.52 2.56 60.51 n/a 8.29 60.51 n/a 5.70 16.15 4.45 1.20 4.79 10.55 7.92	97.5A 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.03 0.53 2.79 546.98 44.28 1.64 8.37 2.51 1.06 13.16 18.59 1.76 4.54 23.98 n/76 8.89
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 1.09 0.04 0.38 7.36 1.09 0.25 0.12 1.19 0.25 0.12 1.19 2.19 2.11.49 82.00 2.78 37.96 1.71 4.68 2.4.00 33.57 0.73 22.35 46.16 2.23 2.40 3.357 0.73 2.235 46.16 2.23 2.40 3.357 0.73 2.235 4.616 2.23 2.235 4.616 2.23 2.235 4.616 2.235 4.616 2.235 4.616 2.235 4.616 2.623 2.235 4.616 2.623 2.235 4.616 2.633 7.65 7.75 7.75 7.75 7.75 7.75 7.75 7.75	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.77 0.0 0.3 0.44 7.94 1.27 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	5944 77.62 82.11A LF26007 SVLZ n/a 574.6 50.22 1.66 0.22 1.66 0.22 1.66 0.22 1.66 0.22 1.66 0.22 1.66 0.22 1.66 0.22 0.03 1.66 0.22 0.04	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 0.33 5.151 3.2.22 0.04 5.000 5.000 0.41 5.56 6.000 5.000 0.41 5.56 6.000 5.0000 5.0000 5.000 5.000 5.000 5.000 5.000 5.000 5.000 5.000 5.000 5.000 5.000 5.000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.0000 5.00000 5.00000 5.00000 5.00000 5.00000 5.00000 5.000000 5.0000000000	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.56 4.24 0.48 0.14 1.57 1.036 920.59 96.86 1.05 17.27 16.85 34.18 1.37 10.35 31.42 25.30 10.03 76.02	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.44 14.70 2.90 0.05 1.36 2.48 4.23 0.12 0.04 7.66 7.76.64 39.59 7.94 5.3.80 2.25 3.80 2.25 3.122 4.15.39 1.15.3	109.11 97.3A LF25635 Shuteen n/a 66.65 0.55 14.18 2.95 0.06 1.33 2.05 4.55 4.63 2.05 4.55 4.63 2.05 4.55 4.63 2.05 4.74 835.52 25.64 8.29 60.51 n/a 5.70 16.15 1.20 4.79 4.74 83.52 2.56 4.63 2.55 4.74 8.29 6.51 1.05 5.7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.92 2.9,48 10.55 7.9,29 10.55 7.9,29 10.55 7.9,29 10.55 7.9,20 7.9,20 7.9,40 7.55 7.9,20 7.9,40 7.9,40 7.9,40 7.9,40 7.9,40 7.9,40 7.9,40 7.9,40 7.55 7.9,20 7.9,40 7.55 7.55 7.55 7.55 7.55 7.55 7.55 7.5	81.47 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.43 0.63 0.02 0.48 0.02 0.48 0.03 0.53 2.79 546.98 44.28 1.64 8.37 2.51 1.066 13.16 18.59 1.76 4.54 23.98 n/a 8.89 120.88
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni Pb Rb Sc	85.95 95.98 99.58 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.04 0.030 0.04 0.04 0.04 0.030 0.04 0.04	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 7.3.11 0.22 12.90 1.77 0.00 0.3 0.44 7.94 1.2 0.22 0.22 0.22 0.22 0.22 0.22 0.22	5 594 3 77.62 3 99.84 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 3 13.00 2 1.66 4 0.04 1 0.24 5 7.36 1 0.05 5 7.36 1 1.00 5 0.22 0 0.11 7 2.00 4 230.85 5 86.94 7 6.18 5 86.94 7 86.95 7 86.94 7 86.95 7 86.94 7 86.95 7 86.94 7 86.95 7 86.94 7 86.95 7 98.95 7 86.95 7 86	2 7600 3 9933 82.5A LF25984 SVLZ n/a 1 69.66 3 0.33 5 15.11 3 2.22 0 0.02 5 0.22 0 0.44 5 0.02 0 0.45 5 0.02 0 0.44 5 0.02 0 0.45 5 0.02 0 0.85 0 0.45 5 0.02 0 0.85 0 0.45 5 0.02 0 0.65 0 0.22 0 0.85 0 0.45 0 0.02 0 0.65 0 0.45 0 0.02 0 0.65 0 0.45 0 0.05 0 0.02 0 0.05 0 0.02 0 0.05 0	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.630 0.06 1.57 1.34 6.56 4.24 0.48 0.014 1.57 1.99 1093.67 66.39 20.59 96.86 1.05 17.27 16.85 34.18 1.37 10.35 31.42 25.30 10.03 76.02	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.05 1.33 2.48 4.22 4.22 4.22 4.38 0.12 0.44 7.66 7.76.05 7.94 5.380 2.25 1.324 1.53 9.79 7.94 5.380 2.25 1.324 1.53 1.783 1	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.16 2.95 0.06 1.33 2.05 4.55 4.63 0.12 0.07 4.55 4.63 0.12 0.07 4.74 835.52 2.56 4.63 0.77 4.74 835.52 2.56 4.63 0.77 4.74 835.52 2.56 4.63 0.77 4.74 835.52 2.56 4.63 0.77 4.74 835.52 2.56 60.51 0.77 4.74 835.52 2.56 8.29 60.51 0.77 4.74 835.52 2.56 8.29 60.51 0.77 4.74 835.52 2.56 8.29 60.51 0.77 4.74 835.52 2.56 8.29 60.51 0.77 4.74 835.52 2.56 8.29 60.51 0.77 4.74 835.52 2.56 8.29 60.51 0.77 5.70 1.57 7.72 9.48 8.10 8.52 1.20 1.20 1.20 1.20 0.77 9.47 4.55 1.20 1.20 1.20 0.77 9.57 1.20 1.20 0.77 9.57 1.20 0.77 1.20 0.77 0.77 0.77 0.77 0.77 0.77 0.77 0	81.47 100.02 97.5A LF25634 Shuteen n/a 76.67 0.22 1.33 0.02 1.33 0.02 0.48 0.53 2.79 546.98 1.44 8.37 2.51 1.06 13.16 18.59 1.76 4.54 2.398 n/a 8.89 1.20.88 6.04
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O N2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 0.109 0.25 0.12 1.19 2.19 2.11,49 82.00 0.278 37.96 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.67 1.71 4.68 24.00 3.32 1.71 4.68 24.00 3.32 1.71 4.68 24.00 3.32 1.71 4.68 24.00 3.32 1.71 4.68 24.00 3.32 1.71 4.68 24.00 3.32 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.35 1.71 4.68 24.00 3.73 4.68 24.00 3.73 4.68 24.00 3.75 1.71 4.68 24.00 3.75 1.71 4.68 24.00 3.75 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.68 2.78 3.795 1.71 4.775 1.73 1.7355 1.73555 1.7355 1.73555 1.73555 1.73555555 1.7355555555 1.73555555555555555555555555555555555555	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 1.2.91 1.77 0.00 0.3 0.44 7.99 1.22 0.22 0.22 0.22 0.22 0.22 0.22 0.22	5 594 4 77.63 99.84 82.11A LF26007 SVLZ n/a 5 74.65 5 0.22 3 13.00 2 1.64 4 0.04 1 0.22 5 7.33 1 1.00 5 0.22 3 13.00 2 1.64 4 0.04 1 0.22 5 7.33 1 1.00 5 7.33 1 1.00 5 0.22 5 7.33 1 1.00 5 0.23 6 0.24 5 0.23 1 1.00 5 0.24 5 0.24 5 0.25 5 0.25 5 0.25 5 0.25 5 0.25 5 0.24 5 0.25 5 0.5 5 0.5 5 0.5 5 0	2 7600 9933 82.5A LF25984 SVLZ n/a 69.69 3 0.33 15.11 3 2.22 4 0.05 5 0.22 5 0.22 5 0.44 5 5.86 5 0.22 5 0.22	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.14 1.57 1.39 1093 67 66.39 20.59 96.86 1.05 1.727 16.85 34.18 1.37 10.35 31.42 25.30 10.03 76.12 25.30	152.55 100.43 97.2A LF25679 Shuteen n/a 69.19 0.44 14.70 2.90 0.00 1.36 2.48 4.23 0.44 4.23 4.38 0.12 0.44 7.66 7.76.04 39.59 7.94 53.80 2.25 13.24 15.39 17.33 1.32	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.96 0.06 1.33 2.05 4.53 4.63 2.05 4.63 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.74 835.52 2.5.64 8.29 60.51 n/a 1.20 5.70 16.15 4.45 1.20 4.79 10.55 7.92 9.48 108.52 2.9.48 108.52 7.92 9.48	81.47 100.02 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.53 2.79 546.98 44.28 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.89 1.76 4.54 23.98 n/a 8.89 120.88 6.04 200.59
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 1.02 1.69 0.04 0.30 0.38 7.366 1.09 0.25 0.12 1.19 2.19 2.19 2.11.49 82.00 2.78 37.96 1.71 4.68 2.400 3.367 0.73 2.235 46.16 2.235 2.155 1.171 4.555 1.175 1.5555 1.5555 1.5555 1.55555 1.5555555 1.5555555555	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.94 1.294	5944 377.63 99.84 82.11A LF26007 SVLZ n/a 574.65 0.22 1.64 0.02 0.03 57.33 1.10 0.22 0.03 5.7.33 1.10 0.02 0.03 5.7.33 1.10 0.02 0.03 5.7.33 1.10 0.02 0.03 5.7.33 1.10 0.23 0.02 0.03 5.7.33 1.10 0.23 0.02 0.03 5.7.33 1.10 0.22 0.03 5.22 1.11 0.23 4.10 0.22 0.23 1.11 0.23 4.10 0.22 0.23 1.11 0.22 0.23 1.12 1.23 2.23 4.12 2.34 1.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.23 4.16 2.25 5.92 1.16 2.25 2.25 3.11 6.16 2.25 3.11 6.16 2.25 5.22 1.16 7.46 5.22 1.16 7.46 5.22 5.22 1.16 7.46 5.22 5.22 1.16 7.46 5.22 5.52 7.55	2 7600 3 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15.11 3 2.22 4 0.04 5 0.22 5 0.22 5 0.22 5 0.24 5 0.22 6 0.44 5 0.22 5 0.22 5 0.22 5 0.22 5 0.22 5 0.24 5 0.22 5 0	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.50 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 66.39 20.59 96.86 1.05 7.727 16.85 34.18 1.37 10.35 31.42 25.30 10.03 7.602 13.79 7.34.72 11.50	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.44 14.70 2.90 0.05 1.36 2.48 4.23 4.23 4.23 4.23 4.23 4.23 4.24 4.23 4.24 4.23 4.23	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.18 2.99 0.06 1.33 2.05 4.55 4.63 2.05 4.55 2.564 8.29 60.51 n/a 8.55 2.25.64 8.29 60.51 n/a 1.55 7.92 2.9 60.51 1.615 4.45 1.20 0.05 7.92 2.9 60.51 1.05 7.92 2.9 61.51 1.25 1.25 1.25 1.25 1.25 1.25 1.25	81.47 100.02 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.689 3.46 0.03 0.53 2.79 546.98 44.28 1.64 8.37 2.51 1.36 1.859 1.76 4.54 23.98 n/a 8.89 120.88 6.04 20.59 17.58
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.04 0.030 0.04 0.04 0.04 0.04 0.0	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.22 12.90 1.77 0.0 0.3 0.44 7.90 1.2 0.22 0.22 0.22 0.22 0.22 0.22 0.22	5 594 77.62 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 1.66 0.22 1.66 0.02 1.10 0.03 1.00 0.03 1.00 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.02 0.02 0.02 0.02 0.02 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.02 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.02 0.02 0.03 1.00 0.02 0.03 1.00 0.02 0.02 0.03 1.00 0.02 0.	2 7600 3 9933 82.5A LF25984 SVLZ n/a 1 69.66 3 0.33 5 1511 3 2.22 0 0.43 5 0.22 0 0.44 5 5.86 5 0.22 0 0.44 5 5.86 5 0.21 2 0.85 5 2.27,55 0 0.44 5 5.86 5 0.21 2 0.85 5 2.27,55 0 0.44 5 3.87 5 154 5 0.22 0 0.85 5 2.27,55 0 0.44 5 3.87 5 154 5 0.22 0 0.85 5 2.27,55 0 0.44 5 3.87 5 154 5 165 5 0.22 0 0.44 5 3.87 5 154 5 0.22 0 0.44 5 3.87 5 154 5 0.22 0 0.44 5 3.87 5 154 5 165 5 0.22 7 0.44 5 165 5 17 5 165 5 1	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.630 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99 1093.67 66.39 20.59 96.86 1.05 17.27 1.685 34.18 1.37 10.93 67.165 31.42 25.30 10.03 76.02 13.79 734.72 11.50 2.68	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.05 1.33 2.48 4.22 4.22 4.22 4.32 0.12 0.44 7.66 7.76.05 7.94 5.380 2.25 1.324 1.53 3.17.83 1.783 1.783 1.783 1.783 1.783 1.783 1.783 1.785 1	109.11 99.52 97.3A LF25635 Shuteen n/a 66.65 0.55 14.16 2.95 0.06 1.33 2.05 4.55 4.63 0.12 0.05 4.55 4.63 0.12 0.07 9.474 835.52 2.56 4.63 0.12 0.07 9.474 835.52 2.56 4.63 0.12 0.07 9.474 835.52 2.56 4.55 1.20 4.79 10.55 7.92 9.48 10.852 10.12 4.55 1.20 4.79 10.55 7.92 9.48 10.852 10.12 1.20 1.20 1.20 1.20 1.20 1.20 1.	81.47 100.02 97.5A LF25634 Shuteen n/a 76.67 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.48 1.53 0.53 2.79 546.98 41.64 8.37 1.61 13.16 13.16 13.46 13.9 1.76 3.98 n/a 8.89 1.20.88 6.04 200.59 1.758 1.31
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O MgO CaO Na2O MgO CaO Na2O MgO CaO Na2O MgO CaO Na2O MgO CaO Na2O MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 61.09 0.25 0.12 1.19 2.19 2.11.49 82.00 0.25 0.12 1.19 2.11.4 82.00 0.25 0.12 1.19 2.19 2.11.4 82.00 2.235 46.16 2.235 46.16 2.235 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.235 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 2.40 3.736 0.73 2.235 4.61 6.223 1.71 4.68 2.40 3.736 1.71 4.68 2.40 3.736 1.71 4.68 2.40 3.736 1.71 4.68 2.40 3.736 1.71 4.68 3.736 1.73 4.58 1.73 4.58 1.73 4.58 1.12 1.73 4.58 1.12 1.12 1.14 1.12 1.14 1.15 1.12 1.15	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 1.2.99 1.7 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	5 594 4 3 77 65 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 3 13.00 2 1.60 4 0.04 1 0.22 0 0.3 5 7.3 1 1.00 5 0.22 3 13.00 2 1.60 4 0.04 1 0.22 0 0.3 5 7.3 1 1.00 5 0.22 3 13.00 2 1.60 4 0.04 1 0.22 0 0.3 5 7.3 4 23.04 5 0.22 3 13.00 2 1.60 4 0.04 1 0.22 0 0.3 5 7.3 5 7.3 5 7.3 5 0.22 3 13.00 2 1.60 4 0.04 5 0.22 3 13.00 2 1.60 4 0.04 5 0.22 5 7.3 5 7.3 5 0.22 5 7.3 6 0.23 5 7.3 6 0.23 5 7.3 6 0.23 5 7.3 6 0.24 5 0.22 5 7.3 6 0.23 5 7.3 6 0.23 5 7.3 6 0.23 5 7.3 6 0.23 6 0.24 5 0.22 5 7.3 6 0.23 6 0.24 5 0.22 5 7.3 6 0.23 6 0.24 5 0.23 6 0.4 7 0.01 6 0.23 6 0.24 5 0.23 6 0.23 6 0.24 5 0.24 5 0.25 6 0.25 6 0.25 7 .3 6 0.25 7 .3 7 .2 6 .1 7 .40 7 .57 7 .	2 7600 9933 82.5A LF25984 SVLZ n/a 69.69 3 0.33 15.11 3 2.22 4 0.02 5 0.22 5 0.22 5 0.44 5 5.86 5 0.22 7 0.44 5 5.86 6 0.32 7 0.44 5 5.86 6 0.22 7 0.44 5 5.86 6 0.26 7 0.27 5 5.86 6 0.32 7 0.44 5 5.86 6 0.32 7 0.44 5 5.86 6 0.26 7 0.44 5 5.86 6 0.26 7 0.44 5 5.86 6 0.26 7 0.44 5 5.86 6 0.26 7 0.44 5 5.86 6 0.32 7 0.44 5 5.86 6 0.32 7 0.44 5 5.86 6 0.02 7 0.44 5 5.86 6 0.32 7 0.44 5 5.86 6 0.26 7 0.44 5 5.86 6 0.02 7 5.86 6 0.02 7 5.86 6 0.04 7 0.00 0 0.00	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.30 0.06 1.57 1.34 6.56 4.24 0.14 1.57 1.39 1093 67 66.39 20.59 96.86 1.05 1.727 16.85 34.18 1.37 10.35 31.42 25.30 10.03 76.02 2.53 0.103 71.27 1.37 97.73.472 11.50 2.68 127.01	152.55 100.43 97.2A LF25679 Shuteen n/a 69.19 0.44 14.70 2.90 0.00 1.36 2.48 4.22 4.38 0.12 0.44 7.66 7.76.04 39.59 7.34 5.380 2.25 1.324 5.380 2.25 1.324 15.38 1.783 1.324 15.38 1.783 1.324 15.38 1.785 1.324 1.325 1.324 1.326 1	109,11 97.3A LF25635 Shuteen n/a 666.65 0.55 14,16 2.96 0.06 1.33 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.53 4.63 2.05 4.53 4.74 835.52 2.564 5.70 16.15 4.45 5.70 16.15 4.45 5.70 16.20 4.79 4.79 10.55 5.79 2.948 108.52 7.92 9.48 108.52 7.92 9.48 108.52 7.92 9.48 108.52 7.92 9.48 108.52 7.92 9.48 108.52 7.92 7.94 7.94 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.92 7.95 7.92 7.94 7.95 7.92 7.94 7.95 7.95 7.95 7.95 7.95 7.95 7.95 7.95	97.5A 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.63 2.79 546.98 44.28 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 8.37 2.51 1.64 1.85 1.64 1.85 1.79 1.64 1.64 1.64 1.64 1.76 1.76 1.76 1.76 1.76 1.64 1.64 1.64 1.76 1.76 1.76 1.76 1.76 1.64 1.85 1.76 1.76 1.76 1.76 1.64 1.64 1.76 1.76 1.76 1.76 1.64 1.64 1.64 1.76 1.76 1.76 1.76 1.64 1.64 1.76
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 1.02 1.69 0.04 0.30 0.38 7.36 1.09 0.25 0.12 1.19 2.11.49 82.00 2.78 37.96 1.71 4.68 24.00 33.57 0.73 32.235 46.16 2.235 46.25 1.112 4.005 1.120 1.120	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.29 12.99	5 594 4 77.63 99.84 82.11A LF26007 SVLZ n/a 5 74.65 0.22 3 13.00 2 1.64 0.02 0 0.31 5 7.33 1 1.00 5 0.22 0 0.11 0 0.21 5 0.22 0 0.31 5 7.33 1 1.00 5 0.22 0 0.11 5 0.22 0 0.11 5 0.22 0 0.31 5 7.33 1 1.00 5 0.22 0 0.31 5 0.22 0 0.31 5 7.33 1 1.00 5 0.22 0 0.31 5 0.22 1 0.01 0 0.21 5 0.22 5 0.22 0 0.31 5 0.22 0 0.32 5 0.22 0 0.32 0 0.3	2 7600 9933 82.5A LF25984 SVLZ n/a 69.66 3 0.33 5 15,11 3 2.22 4 0.04 5 0.22 5 0.22 5 0.24 5 0.24 5 0.22 5 0.24 5 0.22 5 0.24 5 0.22 5 0.22 5 0.24 5 0.27 5 0.2	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.60 1.57 1.34 6.56 4.24 0.48 0.14 1.57 66.39 20.59 96.86 1.05 7.1.39 1093.67 66.39 20.59 96.86 1.05 31.42 25.30 10.03 31.42 25.30 10.03 7.4.72 11.50 2.68 127.01 23.61	152.55 100.45 97.2A LF25679 Shuteen n/a 69.19 0.44 14.77 2.90 0.05 1.36 2.44 4.22 4.38 0.12 0.04 7.66 7.76.04 39.59 7.94 5.380 2.25 13.24 15.39 1.783 1.18 4.06 1.3.26 1.3.24 4.22 4.38 0.12 0.04 1.36 1.32	109.11 97.3A LF25635 Shuteen n/a 666.65 0.55 14.16 2.95 0.06 1.33 2.05 4.65 4.63 2.05 4.65 4.63 2.05 4.74 835.52 25.64 8.29 60.51 n/a 5.70 16.15 4.45 1.20 0.05 7.92 2.96 4.74 835.52 2.56 4.74 8.25 60.51 n/a 1.35 7.92 9.48 108.52 10.15 7.92 9.48 108.52 10.15 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.48 108.52 10.55 7.92 9.59	97.5A 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 0.48 0.689 3.46 5.09 0.44 0.03 0.53 2.79 546.98 44.28 1.64 8.37 2.51 1.06 13.16 18.59 1.76 4.54 2.398 n/a 8.89 120.88 6.04 20.59 17.58 1.31 21.05 5.16
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr Th U V	85.95 95.98 99.98 99.98 82.11A LF26005 SVLZ n/a 74.48 0.23 13.02 1.69 0.04 0.30 0.38 7.36 61.09 0.25 0.12 1.19 2.19 2.11.49 82.00 0.25 0.12 1.19 2.11.4 82.00 0.25 0.12 1.19 2.19 2.11.4 82.00 2.235 46.16 2.235 46.16 2.235 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.235 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 24.00 33.57 0.73 22.35 46.16 2.23 1.71 4.68 2.40 3.736 0.73 2.235 4.61 6.223 1.71 4.68 2.40 3.736 1.71 4.68 2.40 3.736 1.71 4.68 2.40 3.736 1.71 4.68 2.40 3.736 1.71 4.68 3.736 1.73 4.58 1.73 4.58 1.73 4.58 1.12 1.73 4.58 1.12 1.12 1.14 1.12 1.14 1.15 1.12 1.15	76.00 107.51 100.33 82.11A LF26006 SVLZ n/a 73.11 0.24 12.99 1.77 0.0 0.3 0.44 7.99 1.2 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.	5 594 77.62 82.11A LF26007 SVLZ n/a 5 74.6 5 0.22 1 3.06 2 1.64 4 0.04 1 0.24 5 7.36 1 0.02 5 7.36 1 0.02 5 7.36 1 0.02 5 7.36 1 0.02 5 7.36 1 0.02 5 7.36 5 0.22 1 0.03 5 7.36 5 0.22 1 0.04 5 0.22 5 7.36 5 0.22 1 0.04 5 0.22 5 7.36 5 7.36 5 0.22 5 7.36 5 7.26 5 7.	2 7600 3 9933 82.5A LF25984 SVLZ n/a 1 69.66 3 0.33 5 1517 3 2.22 0 0.44 5 0.22 0 0.44 5 5.86 5 0.22 0 0.44 5 0.22 5 0.22 0 0.44 5 0.22 5 0.22 7 0.44 5 0.22 5 0.22 5 0.22 5 0.22 5 0.04 5 0.22 5 0.22 5 0.22 5 0.22 5 0.22 5 0.22 5 0.66 5 0.22 5 0.04 5 0.22 5 0.22 5 0.04 5	79.10 99.67 83.3A LF25996 SVLZ n/a 60.02 0.81 16.34 6.630 0.06 1.57 1.34 6.56 4.24 0.48 0.14 1.57 1.99 1093.67 66.39 20.59 96.86 1.05 17.27 1.685 34.18 1.37 9.96.86 1.05 17.27 1.685 34.18 1.37 9.96.86 1.05 17.27 1.685 34.18 1.37 9.734.72 11.50 2.68 127.01 2.68 127.01 2.68	152.55 100.45 97.2A LF25679 Shuteen n/a 69.15 0.45 14.70 2.90 0.05 1.33 2.48 4.22 4.22 4.22 4.32 0.12 0.44 7.66 7.76.05 7.94 5.380 2.25 1.3.24 1.533 1.785 1.785 1	109.11 99.52 97.3A LF25635 Shuteen n/a 666.65 0.55 14.16 2.96 0.06 1.33 2.05 4.55 4.63 0.12 0.05 4.55 4.63 0.12 0.07 9.474 835.52 2.56 4.63 0.12 0.07 9.474 835.52 2.55 4.63 1.20 0.79 0.79 0.79 0.79 0.79 0.79 0.79 0.7	81.47 100.08 97.5A LF25634 Shuteen n/a 76.87 0.22 12.93 1.33 0.02 1.33 0.02 0.48 0.89 3.46 5.09 0.04 0.53 2.79 546.98 4.54 1.64 8.37 2.51 1.06 13.16 18.59 1.76 4.54 2.398 n/a 8.89 1.06 13.16 13.17 2.00.88 6.04 200.59 17.58 5.16 14.32

Sample numbe Bead	r 53.9B LF25463							54.1A LF25674
Deau	LF20400		23103		LI 2309/	LF25101	LF 20090	LF230/4
field area	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG	OUVG
	Gurvan Morin	Gurvan Morin	Gurvan Morin	Gurvan Morin	Gurvan Morin	Gurvan Morin	Gurvan Morin	Gurvan Morin
formation	Hondiy	Hondiy	Hondiy	Hondiy				Hondiy
SiO2	47.37	51.53	57.93	59.34	52.40	53.80	58.60	66.72
TiO2	1.04		0.76	0.68	0.80	0.94	0.69	0.30
AI2O3	16.58		16.42	17.37	17.72	18.31	17.03	14.86
Fe2O3 MnO	11.54 0.16		6.01 0.06	5.52 0.10		7.79 0.13	6.50 0.10	3.10 0.07
MgO	4.84			2.44		3.60	2.79	1.06
CaO	8.09			2.89		2.91	2.79	3.01
Na2O	3.30			5.65			6.04	5.57
K20	0.53			3.27			3.54	1.46
P2O5	0.08			0.28		0.30	0.28	0.09
SO3	0.02							0.03
LOI	6.68							3.28
As	11.48	4.47			23.11	13.44	14.15	2.67
Ba	259.96				173.44	792.03	1204.01	493.02
Ce	27.34					39.35		21.06
Co	37.82			15.14				9.81
Cr	4.70							
Cs	3.35							
Cu	39.45							
Ga	18.42							
La Mo	5.76 1.82							
Nb	0.55							
Nd	8.63							
Ni	5.82							
Pb	2.87							
Rb	8.49							
Sc	29.34							
Sr	430.36	1036.16	835.65	1987.42				
Th	5.18			3.66	5.83	5.83	4.03	13.3
U	1.05					n/a	2.25	0.3
v	305.25							
Y	17.60							
				56.59	74.03	85.93	61.63	28.93
Zn	89.51							
Zn Zr	61.41	113.63	111.52	115.83	116.50	113.03	106.68	121.68
Zn		113.63	111.52	115.83	116.50	113.03	106.68	121.68
Zn Zr Total	61.41 100.23	113.63 98.69	111.52	115.83	99.87 116.50	113.03 99.82	106.68 100.48	121.68 99.56
Zn Zr Total Sample number	61.41 100.23 r 97.6A	113.63 98.69 97.6A	97.7A	97.8A	116.50 99.87 70.11A	113.03 99.82 22/08_14	106.68 100.48 22/08_14	121.68 99.56 22/08_14
Zn Zr Total	61.41 100.23	113.63 98.69	111.52	115.83	116.50 99.87 70.11A LF25987	113.03 99.82	106.68 100.48	121.68 99.56
Zn Zr Total Sample number	61.41 100.23 r 97.6A	113.63 98.69 97.6A	97.7A	97.8A	116.50 99.87 70.11A LF25987 Dyke in	113.03 99.82 22/08_14 LF22795	106.68 100.48 22/08_14 LF22799	121.68 99.56 22/08_14 LF22800
Zn Zr Total Sample number	61.41 100.23 r 97.6A	113.63 98.69 97.6A	97.7A	97.8A	116.50 99.87 70.11A LF25987 Dyke in	113.03 99.82 22/08_14 LF22795	106.68 100.48 22/08_14	121.68 99.56 22/08_14 LF22800
Zn Zr Total Gample number Bead	61.41 100.23 7 97.6A LF25626 Shuteen	113.63 98.69 97.6A LF25628 Shuteen	97.7A LF25636 Shuteen	97.8A LF25638 Shuteen	70.11A LF25987 Dyke in Northern Slate Belt	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex	121.65 99.56 22/08_14 LF22800 Sheeted quartz vein complex
Zn Zr Total Sample number Bead field area formation	61.41 100.23 r 97.6A LF25626 Shuteen n/a	113.63 98.65 97.6A LF25628 Shuteen n/a	97.7A LF25636 Shuteen	97.8A 99.60 97.8A LF25638 Shuteen n/a	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a	121.65 99.56 22/08_14 LF22800 Sheeted quartz vein complex n/a
Zn Zr Total Sample number Bead field area formation SiO2	61.41 100.23 r 97.6A LF25626 Shuteen n/a 77.37	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25	97.7A 97.7A LF25636 Shuteen n/a 97.1.10	97.8A 99.60 97.8A LF25638 Shuteen n/a 0 68.41	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17	121.66 99.56 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.74
Zn Zr Total Sample number Bead field area formation SiO2 TiO2	61.41 100.23 r 97.6A LF25626 Shuteen n/a 77.37 0.23	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22	97.7A LF25636 Shuteen n/a 71.10	97.8A LF25638 Nuteen n/a 0 68.4 2 0.45	116.50 99.87 70.11A LF25987 Dyke in Northem Slate Belt n/a 52.51 2.29	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60	121.66 99.56 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.77 0.56
Zn Zr Total Sample number Bead field area formation SIO2 TIO2 AI2O3	61.41 100.23 r 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 0.22 12.73	97.7A LF25636 Shuteen n/a 97.1.10 97.7A LF25636	97.8A LF25638 Shuteen n/a 0 68.41 2 0.46 13.83	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 2.29 14.77	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37	121.66 99.56 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/4 0.56 16.65
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3	61.41 100.23 • 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31	111.52 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.62	97.8A LF25638 Shuteen n/a 0 68.41 0 468.41 1 0.44 1 3.83 2 .75	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 2.29 14.77 5 10.85	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 64.5/
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO	61.41 100.23 r 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02	111.52 100.14 97.7A LF25636 Shuteen n/a 71.10 9 71.10 0.42 14.44 2.65 2.0.00	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 9.0.46 1.3.83 2.2.76 5.0.00	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt 52.51 52.29 14.77 510.85 0.19	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08	121 60 99 50 22/08_14 LF22800 Sheeted quartz vein complex vein complex n/a 63 7/ 0.56 16 66 4.54 0.07
Zn Zr Total Sample number Bead field area formation SIO2 TIO2 Al2O3 Fe2O3 Fe2O3 MnO MgO	61.41 100.23 7 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.02 0.48	113.63 98.65 97.6A LF25628 Shuteen n/a 75.29 0.22 12.73 1.31 0.02 0.48	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.42 14.44 2.65 0.00 1.2 ¹	115.83 99.60 97.8A LF25638 Shuteen n/a 0 68.41 2 0.45 13.83 2 .7.75 5 0.00 1.16	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 2.29 14.77 5 10.85 5 0.19 5 5.52	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 4.5/ 0.5/ 16.6/ 4.5/ 0.5/ 2.3/ 2.3/ 2.3/
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO	61.41 100.23 • 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.48 0.93	97.7A LF25636 Shuteen n/a 71.1(0.44 14.44 2.6(0.00 1.22 3.2.24	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.68.41 0.64 1.13.83 2.75 0.05 1.16 1.92	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5.2.29 14.77 10.85 5.0.19 5.52 5.66	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.74 0.55 16.66 4.54 0.07 2.35 3.57
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O	61.41 100.23 7 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 0.22 0.23 1.33 1.33 0.02 0.44 0.93 3.55	111.52 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.65 0.06 3.1.22 3.2.22 3.4.03	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.76 0.06 1.16 1.92 3.4.21	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 2.29 14.77 10.85 0.19 5.566 4.39	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 6 (6,6) 4.5/ 0.0/ 2.3/ 3.5/ 7 4.9/
Zn Zr Total Sample number Bead field area formation SIO2 TIO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 K2O K2O	61.41 100.23 7 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39 5.09	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.48 0.93 3.53 5.12	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.42 14.44 2.62 0.00 1.22 3.22 4.03 4.53 4.53	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 2.0.45 1.3.83 2.75 5.0.00 1.16 1.92 2.4.76	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 0.19 5.52 5 5 0.19 5 8 1.95	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40	121 60 99 50 22/08_14 LF22800 Sheeted quartz vein complex vein complex vein complex 16 66 4 54 4 54 0.07 2.32 3.55 4.94 3.35
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.77 1.31 0.02 0.44 0.93 3.55 5.12 0.044	97.7A 97.7A LF25636 Shuteen n/a 71.1(0.44 2.62 3.0.00 3.1.22 3.2.24 3.4.00 3.2.24	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.68.41 0.64 1.18 2.2.75 0.00 1.16 1.92 3.4.21 3.4.21 0.13	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Beit n/a 52.51 2.29 14.77 50.110 52.51 2.29 14.77 50.52 50.66 4.39 1.95 0.35	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 4.54 0.07 2.3/ 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.32 3.5/ 4.94 3.5/ 4.94 4.94 4.94 4.94 4.94 4.94 4.94 4.9
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39 5.09 0.04 0.00	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.33 0.02 0.44 0.93 3.53 5.12 0.04 0.01	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.65 1.22 3.4.05 1.01 1.01 0.45 1.01 0.45 0.01 0.45 0.01 0.45 0.01 0.45 0.01 0.45 0.01 0.01 0.45 0.01 0.45 0.01 0.0	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.75 0.06 1.16 1.92 3.4.21 5.0.05 1.92 3.4.21 5.4.27 5.0.05 1.92 5.4.21 5.5.5.51 5.5.51 5.5.51 5.5.51 5.5.51 5.5.51 5.5.51 5.5.551 5.5.551	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 10.85 0.19 5.56 4.39 1.95 0.13 0.13	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01	121.66 99.57 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.74 0.55 1.665 4.54 0.07 2.33 3.57 4.94 3.35 4.94 3.30 2.20 0.05
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 K2O Na2O K2O P2O5 SO3 LOI	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.00 0.45	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 0.22 12.73 0.22 12.73 0.25 0.22 12.73 0.25 0.22 12.73 0.25 0.25 12.00 0.44 0.010 0.04 0.04 0.04 0.04	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.42 14.44 2.62 0.00 1.22 3. 2.24 4.00 4.05 0.11 0.04 0.45 0.	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 2.0.45 1.3.85 2.2.75 5.0.05 1.16 1.92 2.4.76 0.13 0.02 4.4.21 1.92 4.4.76 0.13 0.02 0.72	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt 1 n/a 52.51 5 2.29 14.77 10.85 5 0.19 5 5.62 2 5.66 4.39 1.95 0.35 0.33 2 0.33 2 2.30	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 3.40 0.23 0.01 0.50	121 60 99 50 22/08_14 LF22800 Sheeted quartz vein complex vein complex vein complex n/a 63 74 0.56 16.65 4.54 0.07 2.33 3.57 4.94 3.35 0.22 0.055 0.55
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39 5.09 0.04 0.00	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.46 0.93 3.555 5.11 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 0.94 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	111.52 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 2.62 2.0.00 3.1.22 3.2.24 3.	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.76 0.00 1.16 1.92 3.4.27 0.00 0.00 1.16 1.92 3.4.27 0.03 0.00 0.072 0.03,12 0.072	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Beit n/a 52.51 2.29 14.77 10.85 0.19 5.66 4.39 1.95 0.35 0.13 2.30 2.69	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 4.54 0.07 2.3/ 3.57 4.54 3.35 3.57 4.54 3.35 3.57 4.54 5.64 5.64
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O Na2O K2O P2O5 SO3 LOI As	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.04 0.04 0.04 0.045 2.61	113.63 98.65 97.6A LF25628 Nuteen n/a 75.22 0.22 12.73 1.33 0.02 0.42 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.1	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.42 14.44 2.66 2.000 3.12 2.24 3.400 3.12 4.55 3.001 3.004 3.52 4.55 3.004 3.502 5.005	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 2.0.46 1.3.83 2.2.77 5.0.05 1.16 1.92 2.4.77 5.0.05 1.16 1.92 2.4.77 0.13 3.0.02 0.77 3.16 3.38.42 3.38.42	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 52.29 14.77 10.85 0.19 5.52 0.19 5.52 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.36 2.30 435.25 67.32	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.1338.88 207.14	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 3.001 0.50 8.20 970.18 2.522	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex vein complex n/a 63 7/ 0.5/ 16 6/ 4.5/ 0.0/ 2.3/ 3.5/ 1.6/ 4.5/ 0.0/ 2.3/ 3.3/ 3.3/ 3.3/ 3.3/ 1.4.9/ 3.3/ 2.2/ 0.0/ 5.5/ 6.6/ 8.12.13/ 3.3/ 3.3/ 3.3/ 3.3/ 3.3/ 3.3/ 3.3/
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39 5.09 0.04 0.04 0.00 0.45 2.61 571.02	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.46 0.93 3.555 5.11 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 0.94 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.44 2.62 0.00 1.22 3.224 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.2444 3.24444 3.24444 3.24444 3.244444 3.2444444444444444444444444444444444444	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.76 0.00 1.16 1.92 3.4.27 0.00 0.00 1.16 1.92 3.4.27 0.00 0.00 1.16 1.92 3.4.27 0.03 1.92 3.4.27 3.4.25 3.4.35 3.5.45 3.5.45	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 52.29 14.77 10.85 0.19 5.52 0.19 5.52 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.36 2.30 435.25 67.32	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.1338.88 207.14	106.68 100.48 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex vein complex n/a 63 7/ 0.5/ 16 6/ 4.5/ 0.0/ 2.3/ 3.5/ 1.6/ 4.5/ 0.0/ 2.3/ 3.3/ 3.3/ 3.3/ 3.3/ 1.4.9/ 3.3/ 2.2/ 0.0/ 5.5/ 6.6/ 8.12.13/ 3.3/ 3.3/ 3.3/ 3.3/ 3.3/ 3.3/ 3.3/
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.91 3.39 5.09 0.04 0.04 5.261 571.02 5.07 2.56 1.99	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.33 0.02 0.48 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.01 0.44 3.25 5.66.94 11.71 2.566.94 11.77 2.566.94 3.855	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.66 1.27 0.44 14.44 2.66 0.04 1.27 2.22 3.400 2.465 3.000 4.522 4.000 3.004 4.522 5.000 6.565 5.2467 5.246	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.77 0.06 1.16 2.0.05 1.16 2.2.77 0.005 1.16 1.92 3.4.22 0.02 0.02 0.02 0.02 0.02 0.02 0.02	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 0.19 5.52 14.77 10.85 0.19 5.52 0.35 0.35 0.13 2.30 4.39 1.52 6.66 4.39 1.95 0.35 0.36 2.430 1.522 6.732 2.30 1.32 2.30 1.50.85	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 3.1.16 n/a	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 0.01 0.50 8.20 970.18 25.22 11.20 12.28	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 64.5/ 0.07 2.3/ 3.57 4.9/ 3.36 3.57 4.9/ 3.35 5.6/ 812.13 3.2.37 15.61 51.44
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39 5.09 0.04 0.91 3.39 5.09 0.04 0.00 0.45 2.61 577.02 5.07 2.55 1.99 4.83	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 1.33 0.02 0.44 0.93 3.53 5.12 0.04 0.01 0.44 3.22 5.66.94 11.71 2.66 3.8.65 4.55	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.65 0.06 1.22 2.22 3.4.00 4.55 0.11 0.00 3.52 0.04 5.00 5.0	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.277 0.065 1.16 1.383 2.277 0.065 1.16 1.99 3.4.21 3.4.77 0.13 3.744.95 3.8.42 3.744.95 3.8.42 3	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 10.85 0.19 5.22 14.77 10.85 0.19 5.66 4.39 1.95 0.35 0.36 2.30 2.56 67.32 42.30 150.85 n/a	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.24 0.54 5.1338.88 207.14 31.16 n/a 1.11	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20 970.18 25.22 11.20	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 6 6.6/ 6 6.6/ 4.5/ 4.5/ 4.5/ 3.3 3.5/ 6.6/ 6 6.6/ 6 6.6/ 6 7.2 3.3/ 3.3/ 7.2 6.5/ 6.6/ 6 8.12.13 3.2.37 15.6/ 5.1.44 n/a
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.04 0.045 2.61 5.71.02 5.09 0.04 0.045 2.61 5.71.02 5.09 0.04 0.045 2.61 5.71.02 5.09 0.04 0.045 2.61 5.71.02 5.09 0.04 0.045	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.44 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.93 3.555 5.12 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 2.62 0.00 1.2' 3.2.24 3.4.44 2.62 2.0.00 3.1.2' 3.2.24 3.4.44 2.62 3.1.2' 3.2.24 3.5.20 5.00 5.24.65 5.25.65 5.24.65 5.25.55 5.24.65 5.24.65 5.25.55	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.44 0.44 13.83 2.76 0.00 1.16 1.92 3.4.27 0.00 0.1192 3.4.27 0.00 0.07 3.13 3.4.76 0.13 0.00 0.07 3.13 5.4.95 3.4.4555 3.4.4555 3.4.4555 3.4.45555 3.4.45555555555	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 2.29 14.77 5.019 10.85 0.19 5.52 0.35 0.132 2.302 2.69 435.25 67.32 42.30 150.85 n/a 2.65 67.52 7.20	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 4.515 1338.88 207.14 3.116 n/a 1.11 36.72	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 2.51.20 12.28 4.49 152.27	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6/ 4.54 0.07 2.3/ 3.357 4.54 0.23/ 3.357 4.54 0.23/ 3.357 4.54 0.55/ 5.64 812.13 32.37 15.61 51.44 812.43 32.43/ 15.61 51.44 812.43/ 32.43/ 15.61 51.44 812.43/ 32.43/ 15.61 51.44 812.43/ 812.43/ 15.61 51.44 812.43/ 812.43/ 15.61 51.44/ 812.43/ 15.61/ 51.64/ 51.6
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.091 3.39 5.09 0.04 0.04 0.04 5.09 5.09 0.04 0.04 0.04 5.255 2.61 571.02 5.07 2.55 5.1.99 4.83 7.04 13.55	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.33 0.02 0.48 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.01 0.04 0.05 0.02 0.02 0.02 0.02 0.02 0.02 0.02	97.7A 97.7A LF25636 Shuteen n/a 71.1(0.44 14.44 2.65 0.04 1.26 0.06 0.45 0.06 0.04 0.52 0.06 0.65 0.52 0.65 0.24 0.06 0.65 0.26 0.65 0.26 0.65 0.26 0.65 0.26 0.65 0.26 0.65 0.26 0.65 0.26 0.65 0.26 0.26 0.65 0.26 0.26 0.65 0.26 0.26 0.65 0.26 0.26 0.26 0.26 0.65 0.26 0.2	115.83 99.60 97.8A LF25638 Shuteen n/a 68.41 0.44 13.83 2.75 0.05 1.16 2.34 2.75 0.05 1.16 2.34 2.75 0.05 1.16 2.34 2.75 0.05 1.16 2.34 2.75 0.05 1.19 0.07 0.74 0.54 5.48 2.248 0.38 2.248 0.38 0.38 0.38 0.38 0.38 0.38 0.38 0.3	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 0.19 5.52 10.85 0.19 5.52 0.35 0.35 0.13 2.30 150.85 0.435.25 0.73 1.055 0.35 0.36 1.95 1.055 0.36 1.035 1.035 1.035 1.035 1.035 1.035 1.035 1.035 1.035 1.035 1.035 1.035 1.042 1.0505 1.042 1.042 1.042 1.042	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 3.116 n/a 1.11 3.672 2.4.56	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 0.23 0.01 0.50 0.820 970.18 25.22 11.20 11.20 12.28 4.49 152.27 19.99	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.55 16.66 4.54 0.02 2.32 3.35 4.94 3.35 6.66 4.54 0.02 2.32 3.35 5.64 812.13 3.23 7.15.61 5.144 n/a 43.05 5.144 n/a 6.812.13 3.23 7.15.61 5.144 n/a 6.812.13 3.23 7.15.61 5.144 1.15.71 5.144 1.15.7555555555555555555555555555555555
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Fe2O3 MnO MgO CaO Na2O Fe2O3 CaO Na2O F2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La	61.41 100.23 7 97.6A LF25626 5huteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.02 0.48 0.02 0.48 0.91 3.39 5.09 0.04 0.00 0.45 2.61 571.02 5.07 2.55 5.199 4.83 7.04 13.55 6.85	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 1.33 0.02 0.44 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.93 5.12 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.65 0.04 1.22 2.22 3.400 3.122 3.400 3.522 3.500 3.522 3.500 3.522 3.522 3.500 3.522 3.500 3.522 3.500 3.522 3.5	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.76 0.06 1.16 2.2.76 0.06 1.16 1.92 4.21 0.42 1.92 4.21 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.077 0.02 0.02	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 63.52 64.39 1.95 52.52 67.32 42.30 150.85 n/a 26.57 19.60 19.86	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 36.72 24.56 90.78	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20 970.18 25.22 11.20 970.18 25.22 11.20 12.28 4.49 152.27 19.99 16.24	121 66 99 57 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.74 0.56 1.665 4.56 0.07 2.33 3.57 4.94 3.35 0.22 0.05 5.64 8.12.13 3.2.37 15.61 5.1.44 n/a 3.2.37 15.61 5.1.44 n/a 3.2.37 15.61 5.1.44 n/a 3.2.37 15.61 5.1.44 1.72 1.87 1.87 1.87 1.97 1.97 1.97 1.97 1.97 1.97 1.97 1.9
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.04 0.045 2.61 5.71.02 5.07 2.55 1.99 4.83 7.04 1.57 6.685 6.85 2.62	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 12.73 1.31 0.02 0.44 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 0.94 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	111.52 97.7A 100.14 97.7A LF25636 Shuteen n/a 71.11 0.4 1.44 2.62 0.00 1.2 3.224 3.224 3.224 3.224 3.224 3.224 3.224 3.24.55 3.24.65 3.24.65 3.24.65 3.24.65 3.24.65 3.24.77 3.22.63 3.22.63	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.44 0.44 13.83 2.2.76 0.00 1.16 1.92 3.4.21 0.01 0.02 1.16 1.92 3.4.21 0.03 0.02 0.77 3.13 5.4.92 0.03 0.02 0.07 3.13 5.4.92 0.03 0.02 0.07 0.03 0.02 0.07 0.03 0.02 0.07 0.03 0.02 0.07 0.03 0.02 0.07 0.03 0.03 0.02 0.07 0.03 0.03 0.03 0.03 0.03 0.03 0.03	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5.259 9.14.77 10.85 0.19 5.52 5.66 4.39 1.95 0.13 2.30 2.69 435.25 67.32 42.30 150.85 n/a 26.57 19.60 19.86 1.03	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 5.15 1338.88 207.14 3.116 n/a 1.11 3.672 2.456 90.78 2.78	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.200 970.18 2.52 2.11.20 12.28 4.49 152.27 19.99 16.24 2.05	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0.5/ 16.6/ 4.5/ 0.0/ 2.3/ 3.5/ 3.3/ 0.2/ 0.6/ 5.6/ 812.13/ 3.2.3/ 15.61 51.4/ 812.13/ 3.2.3/ 15.61 51.4/ 812.13/ 3.2.3/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13/ 15.61 51.4/ 812.13
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MigO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.091 3.39 5.09 0.04 0.04 0.04 5.261 571.02 5.07 2.55 1.99 4.83 7.04 13.55 6.85 6.85 6.85 6.85 6.85 6.85 6.85 6	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.48 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.04 0.03 3.55 5.12 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	97.7A 97.7A LF25636 Shuteen n/a 71.1(0.44 71.1(0.44 1.44 2.65 0.00 1.22 0.00 1.22 0.00 1.22 0.00 0.43 1.44 2.65 0.00 0.43 1.12 0.24 1.10 0.44 0.24 1.22 0.00 0.44 0.24 0.02 0.24 0.04 0.45 0.24 0.04 0.45 0.24 0.04 0.45 0.24 0.04 0.45 0.24 0.04 0.45 0.24 0.04 0.45 0.24 0.04 0.45 0.24 0.04 0.45 0.02 0.45 0.22 0.05 0.44 0.04 0.45 0.04 0.45 0.02 0.45 0.04 0.45 0.04 0.45 0.04 0.45 0.04 0.45 0.04 0.45 0.04 0.45 0.04 0.45 0.04 0.04 0.52 0.04 0.05 0.02 0.05 0.0	115.83 99.60 97.8A LF25638 Shuteen n/a 68.41 0.44 13.83 2.75 0.05 1.16 5.005 1.16 5.192 3.4.22 5.005 1.16 5.192 3.4.24 0.072 0.072 0.072 0.072 3.13 5.49 5.49 5.49 5.49 5.49 5.49 5.49 5.49	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 2.29 14.77 10.85 0.19 5.56 4.39 1.95 2.25 6.66 4.39 1.95 0.13 2.30 1.525 67.32 42.30 150.85 n/a 2.657 1.960 1.986 1.03 9.99	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 3.116 1338.88 207.14 3.116 0.4 5.15 1338.88 207.14 3.16 0.62 0.62 0.62 0.62 0.62 0.62 0.62 0.6	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 0.820 970.18 25.22 11.20 12.28 4.49 152.27 19.99 16.24	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0.5/ 16 6/ 4.5/ 0.02 2.3/ 3.5/ 4.9/ 3.35/ 4.9/ 3.35/ 5.6/ 812.13 3.2.3/ 15.6/ 5.144 n/a 4.30 0.15/ 5.6/ 812.13 3.2.3/ 15.6/ 5.144 n/a 6.5/ 14.6/ 0.5/ 5.6/ 6.6/ 7.19/
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.91 3.39 5.09 0.04 0.91 3.39 5.09 0.04 0.00 0.45 2.61 571.02 5.07 2.55 5.199 4.83 7.04 1.355 6.85 2.62 4.35 6.85 2.62 4.35 6.41	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 1.33 0.02 0.44 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 5.65 5.65 5.65 0.93 5.65 5.65 5.65 5.65 5.65 5.65 5.65 5.6	111.52 97.7A LF25636 Shuteen n/a 97.7A LF25636 Shuteen n/a 97.7A LF25636 Shuteen n/a 97.7A LF25636 Shuteen n/a 97.7A LF25636 n/a 97.7A 14.44 2.62 9.043 1.22 9.044 2.22 9.044 2.22 9.044 2.22 9.044 2.22 9.044 2.22 9.044 5.22 9.044 5.22 9.044 5.22 9.044 5.22 9.044 5.22 9.044 2.001 1.13 2.001	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.75 0.000 1.16 2.2.75 0.000 1.16 2.2.75 0.000 1.16 1.92 4.21 0.4.21 0.4.21 0.4.21 0.4.21 0.002 0.77 0.3.13 744.55 3.8.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.38.42 5.44.55 5.38.42 5.38.42 5.45.55 5.38.42 5.38.42 5.38.42 5.45.55 5.38.42 5.45.55 5.38.42 5.45.55 5.55.55 5.45.55 5.55.55 5.55.55 5.55.55 5.55.55 5.55.5	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 52.29 14.77 510.85 50.19 5.52 25.66 4.39 1.95 5.66 4.39 1.95 5.66 4.39 1.95 5.67 32 2.69 4.35 2.51 5.66 6.43 2.59 1.035 5.67 32 2.59 1.035 5.67 32 2.59 1.035 5.67 32 2.59 1.035 5.66 5.035 5.03	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 36.72 2.4.56 90.78 2.78 2.9.07 100.48	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.66 16.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.37 4.62 0.08 2.35 9.4.85 3.40 0.23 0.01 0.50 8.20 970.18 2.52 11.20 12.28 4.49 152.27 19.99 9.16.24 2.49 15.13	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0 5/ 16 6/ 6 6 6 6 6 6 6 7 3 3 57 4 9/ 3 3 3 57 4 9/ 4 3 3 3 5 5/ 4 9/ 3 3 3 5 5 6/ 4 9/ 3 3 5 5/ 4 9/ 3 3 5 5/ 6 4/ 4 9/ 3 3 5 5/ 4 9/ 4 3 3 2 5 6/ 5 14/ 4 5/ 5 14/ 4 5/ 5 14/ 4 5/ 5 14/ 4 9/ 3 3 5 5/ 4 9/ 4 3 3 2 5 5/ 5 14/ 4 9/ 3 15/ 5 14/ 4 9/ 1 5/ 1 5/ 1 4/ 4 9/ 3 15/ 5 14/ 4 9/ 1 5/ 1 4/ 4 9/ 3 15/ 5 14/ 4 9/ 1 5/ 1 5/ 1 4/ 4 9/ 3 15/ 1 5/ 1 4/ 4 9/ 1 5/ 1 5/ 1 4/ 4 9/ 1 5/ 1 5/ 1 4/ 4 5/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 5/ 1 5/ 1 4/ 1 5/ 1 5/ 1 5/ 1 5/ 1 5/ 1 5/ 1 5/ 1 5
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Ni	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.02 0.48 0.91 3.39 5.09 0.04 5.07 0.25 5.07 0.45 2.61 5.71.02 5.07 2.55 1.99 4.83 7.04 13.55 6.85 2.62 4.35 6.641 n/a	113.63 98.65 97.6A LF25628 Nuteen n/a 75.22 0.22 0.22 0.22 0.22 0.22 0.23 0.33 0.02 0.44 0.93 3.55 5.12 0.04 0.01 0.48 3.856 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 6.55 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 6.66 13.24 4.55 7.52 7.52 7.52 7.52 7.52 7.52 7.52 7	111.52 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.65 0.06 1.22 0.06 1.22 0.06 1.22 0.06 0.45 0.01 0.45 0.01 0.45 0.01 0.45 0.02 0.45 0.01 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.45 0.02 0.02 0.45 0.02 0.	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.44 0.45 13.83 2.2.76 0.00 1.16 1.92 3.4.21 0.02 0.1192 3.4.21 0.02 0.77 3.13 3.4.76 0.03 0.02 0.07 3.13 3.4.76 0.03 0.02 0.07 3.13 3.4.76 0.03 0.02 0.07 3.13 3.4.76 0.03 0.02 0.07 3.13 3.4.76 0.03 0.02 0.07 0.03 0.02 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.07	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 0.195 5.52 5 0.195 5.52 5 0.13 2.566 4.39 1.95 0.13 2.30 2.69 145.25 67.32 42.30 150.85 n/a 2.657 19.60 19.86 1.03 9.99 36.47 40.66	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 0.23 0.24 4.65 3.46 0.23 0.24 5.15 1338.88 207.14 3.116 n/a 1.11 3.672 2.456 90.78 2.78 2.907 100.48 10.17	106.66 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.600 16.37 4.62 0.08 8.23 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 2.65 2.49 152.27 19.99 16.24 2.05 2.49 15.13 8.69	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0.5/ 16.6/ 4.5/ 0.0/ 2.3/ 3.5/ 1.6.6/ 4.5/ 0.2/ 2.3/ 3.5/ 0.2/ 0.6/ 5.6/ 812.13/ 32.3/ 15.61 51.4/ 4.3/ 0.5/ 5.6/ 812.13/ 32.3/ 15.61 51.4/ 4.3/ 0.5/ 5.6/ 1.5.61 51.4/ 4.3/ 0.5/ 5.6/ 1.5.61 51.4/ 1.5.71 51.4/ 1.5.71 51.4/ 1.5.71 51.4/ 1.5.71 51.4/ 1.5.71 51.5/ 51.4/ 1.5.71 51.5/
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.045 5.09 0.04 0.045 2.61 571.02 5.07 2.55 1.99 4.83 7.04 13.55 6.85 2.62 4.35 6.41 1.70 2.61	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.77 1.31 0.02 0.44 0.03 3.55 5.12 0.04 0.03 3.55 5.12 0.04 0.04 0.03 3.55 5.12 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.44 71.10 0.44 1.44 2.66 1.22 0.00 1.22 3.224 3.400 1.22 3.224 3.400 4.53 2.24 3.522 3.5	115.83 99.60 97.8A LF25638 Shuteen n/a 68.41 0.44 13.83 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 1.16 2.1.38 2.2.75 0.00 0.138 2.2.75 0.00 0.138 2.2.75 0.00 0.138 2.2.75 0.00 0.138 2.2.75 0.00 0.138 2.2.75 0.00 0.138 2.2.75 0.00 0.138 2.2.75 0.00 0.16 0.00 0.77 0.00000000	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 2.29 14.77 10.85 0.19 5.56 4.39 1.95 2.666 4.39 1.95 0.13 2.69 435.25 67.32 42.69 150.85 n/a 26.57 19.60 19.86 1.03 9.99 36.47 40.06 1.86	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 3.116 n/a 1.11 36.72 24.56 90.78 2.78 2.78 2.907 100.48 10.17 15.73	106.66 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20 12.28 4.49 15.27 19.99 16.24 2.05 2.49 15.13 8.69 6.80	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0.5% 16 6/ 4.5% 0.07 2.3% 3.5% 4.9% 3.5% 6.6% 4.5% 0.02% 0.05% 5.6% 812.13 3.2.3% 15.6% 5.14% n/a 4.30% 18.8% 19.2% 19
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MinO MgO CaO Na2O K2O Na2O K2O Na2O K2O SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nd Ni Pb Rb	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.01 3.39 5.09 0.04 0.00 0.45 5.685 2.61 571.02 5.07 2.55 1.99 4.83 7.04 1.95 6.85 2.62 4.35 6.41 1.88 7.37 7.55 7.37	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.33 0.02 0.42 4.03 3.53 5.11 0.04 0.01 0.44 3.25 5.66.94 11.77 2.66 9.38.55 4.55 6.66 6.63 1.324 4.93 2.200 4.88 6.634 1.324 4.93 2.200 4.88 6.634 1.324 4.93 2.200 4.88 6.634 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 2.200 4.83 6.34 1.324 4.93 7.2000 7.20000 7.20000 7.20000 7.20000000000	111.52 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.66 1.24 14.44 2.66 1.24 14.44 2.66 1.24 1.26 2.22 3.40 3.12 2.22 3.40 3.12 3.22 3.40 3.52 1.00 3.52 1.00 3.52 1.00 3.52 1.00 3.52 1.00 3.52 1.10 5.52 1.10	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.77 0.0.00 1.16 2.2.77 0.0.00 1.16 1.92 4.21 0.4.21 0.0.02 0.0.72 0.3.13 744.55 0.002 0.0.72 0.3.13 744.55 0.38.42 0.0.22 0.0.72 0.3.13 744.55 0.0.22 0.0.72 0.3.14 5.45 0.0.22 0.0.72 0.3.14 0.0.22 0.0.72 0.	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 2.29 14.77 5 5 0.19 5.52 6.66 4.39 1.95 5 0.35 0.13 2.56 4.39 1.95 5 0.35 0.13 2.30 2.42.30 1.03 2.29 42.30 150.85 n/a 2.69 42.30 150.85 n/a 9.60 19.60 19.60 19.86 1.03 9.99 36.47 40.06 1.86 43.94	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 36.72 2.24.56 90.78 2.78 2.9.07 100.48 10.17 5.73 69.44	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 4.62 0.09 4.62 0.09 4.62 0.09 9.018 2.59 4.62 0.09 9.018 2.59 9.99 9.16.24 2.59 2.29 9.59 1.513 8.69 6.80 6.80 6.46 6.46	1216 995 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.55 16.63 4.54 0.07 2.33 3.35 4.94 3.33 0.22 0.06 0.55 6.6 812.13 3.23 15.61 51.44 v/4 0.05 5.66 812.13 3.23 15.61 5.144 v/2 18.87 19.27 1.15 5.41 17.77 3.1.13 5.22 3.7.31
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nb Ni Pb Rb Sc	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.02 0.48 0.91 3.39 5.09 0.04 0.02 0.48 0.91 3.39 5.09 0.04 0.02 0.48 0.91 3.39 5.09 0.04 0.02 0.48 0.91 3.39 5.09 0.04 0.04 0.02 0.48 0.91 3.39 5.09 0.04 0.02 0.48 0.91 3.39 5.09 0.04 0.04 0.02 0.48 0.91 1.35 5.67 2.65 1.99 4.83 7.04 1.95 6.685 2.62 4.35 6.641 n/a 9.36 1.07 7.75 7.77 7.75 7.777 7.75 7.777 7.75 7.7777 7.7777 7.7777 7.7777 7.7777 7.777777 7.77777777	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 1.31 0.02 0.44 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 0.94 0.93 0.94 0.94 0.93 0.94 0.94 0.93 0.94 0.94 0.94 0.93 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94	111.52 100.14 97.7A LF25636 Shuteen n/a 71.10 97.14 97	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.44 0.45 13.83 2.2.76 0.00 1.16 1.92 3.4.21 0.00 0.11 1.92 3.4.21 0.00 0.77 3.13 3.4.76 0.03 1.92 3.4.76 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 0.03 1.92 3.4.77 1.93 3.4.77 5.73 5.73 5.73 5.73 5.73 5.73 5.73 5	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 10.85 0.195 5.52 5.66 4.39 0.195 5.52 5.66 4.39 0.13 2.30 2.69 14.77 19.60 195 195 195 195 195 195 196 197 19.60 1986 103 9.99 36.47 40.06 1.86 43.94 36.45	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 0.23 0.24 4.65 3.46 0.23 0.24 5.15 1338.88 207.14 3.116 n/a 1.11 3.672 2.456 90.78 2.78 2.907 100.48 10.17 15.73 69.44 15.54	106.66 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 2.62 2.11.20 12.28 4.49 152.27 19.99 16.24 2.05 2.49 15.13 8.69 6.80 6.80 6.80 6.446 11.15	1216 995 22/08_14 LF22800 Sheeted quartz vein complex n/a 637 637 637 637 637 637 637 637 637 637
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Ai2O3 Fe2O3 Fe2O3 Fe2O3 Fe2O3 CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nd Ni Pb Rb Sc Sr	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.91 3.39 5.09 0.04 0.045 5.09 0.04 0.09 0.045 5.09 0.04 0.09 0.045 5.09 0.04 0.045 0.045 0.04000000000000000000	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.77 1.31 0.02 0.44 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.93 3.55 5.12 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.44 71.10 0.44 2.62 0.00 1.22 3.224 3.245 3.255 3.555 3.555 3.555 3.555 3.555 3.555 3.555 3.555 3.555 3.555 3.555 3.55555 3.55555 3.55555 3.555555 3.5555555 3.5555555555	115.83 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.75 0.00 1.16 1.16 1.92 3.4.22 1.16 1.92 3.4.22 1.16 1.92 3.4.22 1.92 1.92 1.92 1.92 1.92 1.92 1.92 1	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Beit n/a 52.51 2.29 14.77 10.85 0.19 5.251 2.29 14.77 10.85 0.19 5.252 6.66 4.39 1.95 2.30 2.52 6.732 1.95 0.13 2.30 2.52 6.732 4.352 6.732 4.230 150.85 n/a 2.657 19.60 19.86 1.03 9.99 36.47 40.06 1.86 43.94 36.45 454.83	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207 14 31.16 n/a 1.11 36.72 24.56 90.78 2.907 100.48 10.17 15.73 69.44 1123.28	106.68 100.48 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 2.52 2.11.20 12.28 4.49 152.27 19.99 16.24 2.49 15.13 8.69 6.80 64.46 1.15 1.112.63	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0.5/ 16 6/ 4.5/ 0.07 2.3/ 3.5/ 4.9/ 3.5/ 5.6/ 812.13 3.2.37 15.67 5.14/ n/a 812.13 3.2.37 15.67 5.14/ 13.5.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 15.67 15.77 17.777 17.777 17.777 17.777 17.7777 17.77777 17.77777777
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.00 0.45 2.61 571.02 5.07 2.55 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.02 5.07 2.55 6.85 2.62 4.35 6.41 n/a 9.36 1.27 1.28 1.29 1.28 1.28 1.29 1.28 1.29 1.28 1.29 1.28 1.29 1.28 1.29 1.28 1.29 1.28 1.29 1.28 1.99 1.48 1.25 1.28 1.99 1.28 1.29 1.99 1.28 1.29 1.29 1.99 1.28 1.29 1.29 1.99 1.28 1.29 1.20 1.29	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.33 0.02 0.42 0.03 3.55 5.12 0.04 0.03 3.55 5.12 0.04 0.04 0.01 0.44 3.22 5.66.94 11.77 2.66 3.8.55 6.66 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 4.55 6.63 6.53 6.53 6.53 6.53 6.53 6.53 6	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.66 1.24 14.44 2.66 1.24 14.44 2.66 1.24 1.26 1.26 1.26 1.27 2.22 3.400 1.27 2.22 3.400 1.27 3.22 3.400 1.27 3.22 3.4000 3.40000 3.4000 3.4000 3.40000 3.40000 3.40000 3.40000 3.40000 3.40000 3.40000 3.400000 3.4000000000000000000000000000000000000	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.77 0.00 1.16 2.3.42 0.00 1.16 2.3.42 0.00 0.77 0.02 0.07 0.3.13 0.00 0.744.59 0.3.38.42 0.00 0.744.59 0.3.38.42 0.00 0.72 0.3.13 0.00 0.744.59 0.3.38 0.00 0.744.59 0.3.42 0.00 0.72 0.3.13 0.00 0.744.59 0.3.42 0.00 0.744.59 0.3.42 0.00 0.744.59 0.3.42 0.00 0.744.59 0.3.42 0.00 0.744.59 0.3.44 0.445 0.3.445 0.3.445 0.3.445 0.445 0.5.49 0.16.22 0.145 0.5.79 0.16.23 0.145 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.119.40 0.5.79 0.00 0.77 0.000000	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 53.019 55.22 56.03 1.95 50.035 0.13 2.55 67.32 42.30 150.85 n/a 2.65 19.60 19.60 19.86 1.03 9.99 36.47 40.06 1.86 43.94 36.43 454.483 7.33	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 36.72 24.56 90.78 2.78 2.907 100.48 10.17 15.73 69.44 15.54 1123.28 12.39	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20 12.28 4.49 152.27 19.99 16.24 2.49 15.13 8.69 6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.80	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 6.6/ 4.5/ 0.07 2.32 3.57 4.94 3.33 0.22 0.06 0.55 5.64 812.13 32.37 15.61 51.44 vin complex 0.55 5.64 812.13 32.37 15.61 51.44 19.27 1.16 5.41 17.70 31.13 5.20 37.31 12.20 37.31 37.31 37.31 37.31 37.31 37.31 37.32 37.31
Zn Zr Total Sample number Bead field area formation SIO2 TiO2 Al2O3 Fe2O3 MOO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nb Nb Nb Nb Nb Nb Nb Nb Sc Sr Th U	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.02 0.48 0.02 0.48 0.02 0.48 0.02 0.48 0.02 0.48 0.02 0.44 0.00 0.44 0.00 0.45 2.61 571.02 5.07 2.55 5.199 4.83 7.04 13.55 6.85 2.62 4.35 5.641 n/a 9.94 6.85 2.62 4.35 6.41 1.99 4.83 7.04 1.95 6.85 2.62 4.35 6.41 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 4.83 7.04 1.99 5.09 7.10 7.25 7.10 7.25 5.07 7.25 7.10 7.10 7.25 7.10 7.10 7.10 7.25 7.10 7.10 7.10 7.10 7.10 7.10 7.10 7.10	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 1.33 0.02 0.44 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0	111.52 97.7A LF25636 Shuteen n/a 71.10 0.44 14.44 2.65 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.06 1.22 0.24 0.05 0.44 0.45 0.06 0.44 0.45 0.06 0.44 0.45 0.06 0.44 0.45 0.06 0.44 0.45 0.06 0.44 0.22 0.06 0.44 0.06 0.44 0.06 0.44 0.06 0.44 0.06 0.44 0.06 0.44 0.06 0.44 0.06 0.44 0.06 0.06 0.52 0.07 0.04 0.07 0.04 0.06 0.52 0.06 0.52 0.06 0.52 0.06 0.52 0.07 0.52 0.07 0.55 0.	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.277 0.045 1.16 1.383 2.277 0.045 1.16 1.92 4.21 0.05 1.16 1.92 3.4.21 0.05 1.92 3.4.21 0.05 1.92 3.4.21 0.05 1.92 3.4.21 0.05 1.92 3.4.21 0.05 1.92 3.744.55 3.8.42 0.05 1.92 3.744.55 3.8.42 0.05 1.92 3.744.55 3.8.42 0.05 1.92 3.744.55 3.8.42 1.92 3.744.55 3.8.42 1.92 3.744.55 3.8.42 1.92 3.744.55 3.8.42 1.92 3.744.55 3.8.42 1.92 3.744.55 5.55 5.51 9.119.42 3.8.55 5.57 9.119.42 3.8.55 5.57 9.119.42 3.8.55 5.57 9.119.42 3.8.55 5.57 9.119.42 3.8.55 5.57 9.119.42 3.770.05 1.19.42 3.8.55 3.744.55 3.774.55 3.7744.5575.5744.57575.5775.577575.57757	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 12.29 14.77 10.85 0.19 5.52 0.13 2.30 2.52 67.32 42.30 150.85 n/a 26.57 19.60 19.86 1.033 9.99 36.47 40.06 1.86 43.94 36.45 454.83 7.33 n/a	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 36.72 2.4.56 90.78 2.78 2.90 7.10,48 10.17 15.73 69.44 15.54 1123.28 2.93 1.14	106.68 100.48 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.200 970.18 25.22 11.20 970.18 25.22 11.20 970.18 25.22 11.20 12.28 4.49 152.27 19.99 16.24 2.49 152.3 1.51 3.869 6.80 6.81 0.62 1.51 3.859 4.85 3.40 0.23 3.59 4.85 3.40 0.23 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1	121 6 99 5 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.56 16.62 4.54 0.07 2.33 3.57 4.94 3.32 0.22 0.00 0.55 5.64 8.12.13 32.37 15.61 51.44 1.32.37 15.61 51.44 1.32.37 15.61 51.44 1.32.37 1.52.14 1.52.45 1.52.45 1.52.45 1.52.45 1.52.45 1.52.45 1.52.45 1.52.55 1.52.45 1.52.55 1.55.55.55 1.55.55.55.55 1.55.55.55 1.55.55.55.55 1.55.55.55.55.55.55.55.55.5
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U V	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.91 3.39 5.09 0.04 0.045 2.61 571.02 5.07 2.55 1.99 4.83 3.7.04 5.09 0.04 0.045 2.61 571.02 5.07 2.55 1.99 4.83 3.7.04 13.55 6.85 5.25 2.62 2.62 2.63 1.20 7.7 1.25 5.09 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.31 0.02 0.44 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.93 3.555 5.11 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0	97.7A 97.7A LF25636 Shuteen n/a 71.10 0.44 71.10 0.44 2.62 0.00 1.22 3.224 3.2467 3.2467 3.2467 3.2467 3.2467 3.247	97.8A 99.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 1.13.83 2.2.76 0.06 1.16 1.92 3.4.27 0.00 0.13 0.00 0.77 3.13 3.4.27 0.00 0.14 1.92 3.4.27 3.5.49 3.5.49 3.5.49 3.5.79 3.7.70	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Beit n/a 52.51 2.29 14.77 10.85 0.19 5.66 4.39 1.95 2.66 4.39 1.95 0.13 2.30 2.667 1.95 0.13 2.30 1.95 0.13 2.30 2.667 1.960 1.986 1.999 3.647 1.960 1.986 1.03 9.99 3.645 454.83 7.33 1.86 454.83 7.33 1.86 454.83 7.33 1.86 456.86 456.86	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 3.672 24.56 90.78 2.907 100.48 2.907 100.48 12.573 5.73 69.44 1123.28 12.39 3.14	106.68 100.48 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 2.52 2.11.20 12.28 4.49 152.27 19.99 16.24 2.49 15.13 8.69 6.80 6.4.46 11.15 1112.63 13.39 2.78 12.904	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.66 4.54 0.07 2.32 3.357 4.94 3.35 0.22 0.052 5.64 812.13 32.37 15.61 51.44 n/a 6.812.13 32.37 15.61 51.44 1.77 0.31.13 5.20 37.13 1.13 5.20 37.13 1.13 5.20 37.13 1.220 1.166.94 4.90 3.13 5.20 37.13 1.220 1.166.94 4.90 3.13 5.20 37.13 1.220 1.166.94 4.90 3.13 5.20 37.13 1.220 1.166.94 4.90 3.13 5.20 37.13 1.220 1.166.94 4.90 3.13 1.220 1.166.94 4.90 3.13 1.220 1.166.94 4.90 3.13 1.220 1.166.94 4.90 3.13 1.220 1.166.94 4.90 3.13 1.220 1.166.94 4.90 3.13 1.220 1.166.94 4.90 3.13 1.220 3.166.94 3.107 3.11
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O Na2O Na2O Na2O Na2O Na2O Na2O Na	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.00 0.45 2.61 571.02 5.07 2.55 1.99 4.83 7.04 1.97 4.83 7.04 1.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.00 0.45 5.262 4.35 6.85 2.62 4.35 6.85 1.20,77 1.28 7.04 1.28 7.04 1.99 7.05 6.85 2.65 1.27,70 1.28 7.04 1.99 7.04 1.99 7.05 1.28 1.28 7.04 1.35 7.04 1.35 7.04 1.35 7.04 1.35 7.04 1.35 7.04 1.35 7.04 1.35 7.04 1.28 1.27 7.76 1.27 7.75 9.37 1.55	113.63 98.65 97.6A LF25628 Shuteen n/a 75.25 0.22 12.73 1.33 0.02 0.48 0.93 3.65 5.12 0.04 0.93 3.65 5.12 0.04 0.93 3.65 5.12 0.04 0.93 3.65 5.12 0.04 0.93 3.65 5.12 0.04 0.93 3.65 5.12 0.04 0.93 3.65 5.12 0.04 0.04 0.01 0.02 0.000000000000000000000000000	97.7A 97.7A LF25636 Shuteen n/a 71.1(0.44 14.44 2.65 14.44 2.65 14.44 2.65 1.44 2.65 1.44 2.65 1.44 2.65 2.24 3.40 2.22 3.40 2.22 3.40 2.45 3.00 4.55 2.24 3.00 4.55 2.24 3.00 4.55 2.25 3.00 2.22 3.00 3.00 4.55 3.00 3.00 4.55 3.00 5.22 3.00 5.22 3.00 5.22 3.00 5.22 3.00 5.22 5.00 5.22 5.00 5.22 5.00 5.22 5.00 5.22 5.00 5.22 5.00 5.22 5.00 5.22 5.00 5.25 5.22 5.00 5.25 5.25 5.25 5.25 5.25 5.00 5.25 5.25 5.25 5.00 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.25 5.55 5.25 5.55 5	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.77 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 1.19 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.000 1.16 0.000 0.77 0.0000 0.77 0.0000 0.77 0.0000 0.77 0.00000000	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 52.51 53.14.77 54.33 55.22 56.66 4.39 1.95 52.56 67.32 42.30 150.85 n/a 26.57 19.60 19.86 1.03 9.99 36.47 40.06 1.86 43.94 36.47 40.43.44 1.86 43.94 36.47 40.6 454.83 7.33 n/a 226.86 62.43	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 3.116 n/a 1.11 3.67 2.456 90.78 2.78 2.907 100.48 10.17 15.73 69.44 15.54 1123.28 12.39 3.14	106.68 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20 12.28 4.49 152.27 19.99 16.24 2.49 15.13 8.69 6.80 6.80 6.80 6.80 6.80 6.80 6.80 6.80	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63.7/ 0.5/ 16.6% 4.5/ 0.02 3.357 4.9/ 3.35 3.57 4.9/ 3.35 5.66 812.13 3.2.37 15.61 5.144 n/a 4.30 5.144 n/a 4.30 5.144 17.70 3.113 5.20 3.7.31 12.20 3.7.31 12.20 3.7.31 12.20 3.7.31 1.25 5.64 1.7.70 3.1.13 5.20 3.7.31 1.25 5.20 3.7.31 5.20 3.7.31 3.23 3.7.31 5.20 5.20 5.20 5.20 5.20 5.20 5.20 5.20
Zn Zr Total Sample number Bead field area formation SiO2 TiO2 Al2O3 Fe2O3 MnO MgO CaO Na2O K2O P2O5 SO3 LOI As Ba Ce Co Cr Cs Cu Ga La Mo Nb Nb Nd Ni Pb Rb Sc Sr Th U V	61.41 100.23 97.6A LF25626 Shuteen n/a 77.37 0.23 12.97 1.28 0.02 0.48 0.91 3.39 5.09 0.04 0.91 3.39 5.09 0.04 0.045 2.61 571.02 5.07 2.55 1.99 4.83 3.7.04 5.09 0.04 0.045 2.61 571.02 5.07 2.55 1.99 4.83 3.7.04 13.55 6.85 5.25 2.62 2.62 2.63 1.20 7.7 1.25 5.09 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0	113.63 98.65 97.6A LF25628 Shuteen n/a 75.22 0.22 12.73 1.33 0.02 0.44 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.93 3.53 5.12 0.04 0.04 0.01 0.44 3.25 6.66 6.13 2.4 53 6.13 2.20 2.02 2.02 2.02 3.13 3.53 5.12 0.04 0.01 0.44 3.25 6.66 6.13 2.45 5.25 0.02 5.12 0.04 0.01 0.00 0.04 0.01 0.04 0.01 0.00 0.04 0.00 0.04 0.00 0.04 0.00 0.04 0.00 0.04 0.00 0.04 0.00 0.04 0.00 0.00 0.04 0.000000	111.52 97.7A LF25636 Shuteen n/a 100.14 97.7A LF25636 Shuteen n/a 11.10 0.43 14.44 2.62 1.22 2.22 3.12 2.22 3.12 3.12 3.12 1.12 2.12 3.12 1.13 2.22 3.12 3.12 1.15	115.83 999.60 97.8A LF25638 Shuteen n/a 0.68.41 0.44 13.83 2.2.77 0.0.61 1.16 1.3.83 2.2.77 0.0.61 1.92 4.21 0.0.61 1.92 4.21 0.0.02 0.0.77 3.13 744.55 3.8.42 0.0.02 0.0.72 3.3.13 744.55 3.8.42 5.49 0.0.22 4.21 1.14.55 5.57 9.119.40 1.12.29 3.377.02 10.97 0.61 5.9.88 5.867 7.21.94	116.50 99.87 70.11A LF25987 Dyke in Northern Slate Belt n/a 52.51 5 0.195 5.52 5 0.195 5.52 5 0.195 1.955 0.131 2.302 2.69 14.77 19.60 195 1.955 0.131 2.302 2.69 1435.25 0.732 2.304 2.657 19.60 19.86 1.033 9.99 36.47 40.66 1.86 4.333 7.33 7.33 7.33 7.33 7.33 9.97	113.03 99.82 22/08_14 LF22795 Sheeted quartz vein complex n/a 63.26 0.60 16.31 4.55 0.07 2.37 3.59 4.86 3.46 0.23 0.24 0.54 5.15 1338.88 207.14 31.16 n/a 1.11 3.672 24.56 90.78 2.907 100.48 2.907 100.48 12.573 5.73 69.44 1123.28 12.39 3.14	106.68 100.48 100.48 22/08_14 LF22799 Sheeted quartz vein complex n/a 63.17 0.60 16.37 4.62 0.08 2.37 3.59 4.85 3.40 0.23 0.01 0.50 8.20 970.18 25.22 11.20 0.23 0.01 0.50 8.20 970.18 25.22 11.20 12.28 4.49 152.27 19.99 16.24 2.49 152.27 19.99 16.24 2.49 152.27 19.99 16.24 2.49 15.13 8.69 6.80 64.46 11.15 1112.63 13.39 2.78 129.04 7.95 43.85	121 6/ 99 5/ 22/08_14 LF22800 Sheeted quartz vein complex n/a 63 7/ 0 5/ 16 6/ 6 6 6 6 6 6 6 7 3 3 57 4 9/ 3 3 3 57 4 9/ 4 3 3 3 5 5/ 4 9/ 3 3 3 5 5 6/ 4 9/ 3 3 5 5/ 4 9/ 3 3 5 5/ 6 4/ 4 9/ 3 3 5 5/ 4 9/ 4 3 3 2 5 6/ 5 14/ 4 5/ 5 14/ 4 5/ 5 14/ 4 5/ 5 14/ 4 9/ 3 3 5 5/ 4 9/ 4 3 3 2 5 5/ 5 14/ 4 9/ 3 15/ 5 14/ 4 9/ 15/ 15/ 14/ 15/ 16/ 15/ 14/ 15/ 15/ 15/ 15/ 15/ 15/ 15/ 15/ 15/ 15

Sample locality	Sample number	field area	Sample formation or secondary descriptor	UTM	EASTING	NORTHING
FD024	BFD024B	Bronze Fox	n/a	48T	727700	4883000
FD024	BFD024C	Bronze Fox	n/a	48T	727700	ALC: A DESCRIPTION OF A
FD002	BFD002F	Bronze Fox	n/a	48T	727700	4883000
FD024	BFD024D	Bronze Fox	n/a	48T	727700	4883000
D002	BFD002G	Bronze Fox	n/a	48T	727700	4883000
.1	51.1A	Mandakh	n/a	48T	730145	
1.1	51.1A	Mandakh	n/a	48T	730145	and provide largest the strategy where the
1.6	51.6A	Mandakh	n/a	49T	282756	
1.4	51.4A	Mandakh	n/a	49T	279566	war warren warren warren in der
		the second of the second se	(2) A the art of the constraint of the standard states and the states of the states			
1.2	51.2B	Mandakh	,n/a	48T	730238	Constrained the later of the day
.7	51.7A	Mandakh	n/a	49T	282789	party and the second of the second strongs
1.4	51.4B	Mandakh	n/a	49T	279566	where a writer in the second second
1.5	51.5A	Mandakh	n/a	49T	281056	492119
1.4	17/08_6	Mesozoic basalts	n/a	49T	329450	496044
5.8	11/08_2	Mesozoic basalts	n/a	49T	332239	496145
3.3	78.3A	Molasse	n/a	49T	371370	
3SP004	JBSP004	Narin Hudag	n/a	49T	267843	PERSONAL ADVISED AND ADVISED ADVIS
3SP004	JBSP004	Narin Hudag	The second s	49T	CARTER AND A REAL PROPERTY AND AND AND	وروابه بالاسترب الأمم المتحدين والمتحر ورؤ
		· · · · · · · · · · · · · · · · · · ·	n/a		267843	And and the second as
3SP004	JBSP004	Narin Hudag	n/a	49T	267843	and the second
3SP006	JBSP006	Narin Hudag	n/a	49T	267576	
BSP001	JBSP001	Narin Hudag	n/a	49T	267960	A 10 10 10 10 10
3SP005	JBSP005	Narin Hudag	n/a	49T	267834	491096
3SP003	JBSP003	Narin Hudag	n/a	49T	267844	医骨上的 化化合物 化分子子 化分子子
BSP008	JBSP008	Narin Hudag	n/a	49T	263912	and the second sec
3SP007	JBSP007	Narin Hudag	n/a	49T	266779	and a second
BSP010	JBSP010	Narin Hudag	n/a	491 49T	264232	an a a a a a a a a a a a a a a a a a a
		-			18 11 11 11 11 11 11 11 11 11 11 11 11 1	dense a company se services a
BSP010	JBSP010	Narin Hudag	n/a	49T	264232	And the second second second second
BSP010	JBSP010	Narin Hudag	n/a	49T	264232	downers and the second
3.10	27/07_5	North Eastern Intrusion	n/a	49T	389947	
6.4	22/08_9	Oyut Ulaan	n/a	49T	380649	493682
5.4	22/08_9	Oyut Ulaan	n/a	49T	380649	493682
5.7	22/08_11	Oyut Ulaan	n/a	49T	379899	
5.12	22/08_15	Oyut Ulaan	n/a	49T	375316	den de la secona e el contrat response
5.12 5.12	and the second	Oyut Ulaan	n/a	49T	375316	
	22/08_15		(a) the second secon	- k		
6.9	22/08_13	Oyut Ulaan	n/a	49T	378399	20.77 December 1995 Bills Aust
5.12	22/08_15	Oyut Ulaan	n/a	49T	375316	Appendix and the second
5.9	22/08_13	Oyut Ulaan	n/a	49T	378399	493613
6.9	22/08_13	Oyut Ulaan	n/a	49T	378399	493613
6.7	22/08_11	Oyut Ulaan	n/a	49T	379899	493676
6.7	22/08 11	Oyut Ulaan	n/a	49T	379899	Concerns to the programmer of the
5.4	22/08_9	Oyut Ulaan	n/a	49T	380649	Giral and the state of the second sec
3. 4 3.3	88.3A	Oyut Ulaan	n/a	49T	377966	
			and the second			
3.3	88.3A	Oyut Ulaan	n/a	49T	377966	
3.3	88.3A	Oyut Ulaan	n/a	49T	377966	And the second s
5.20	66.20A	Oyut Ulaan	n/a	49T	377017	
5.20	66.20A	Oyut Ulaan	n/a	49T	377017	493700
3.2	88.2A	Oyut Ulaan	n/a	49T	375708	493742
5.21	66.21A	Oyut Ulaan	n/a	49T	375857	A PERSONAL A CARL PROPERTY AND A PERSONAL AND A PERSON AN
5.6	65.6A	Oyut Ulaan	n/a	49T	378807	
5.1	65.1A	Oyut Ulaan	n/a	49T	373695	
	62.7A	Oyut Ulaan	n/a	49T	380196	
2.7						
2.16	62.16A	Oyut Ulaan	n/a	49T	379101	
2.3	62.3A	Oyut Ulaan	,n/a	49T	381155	
2.10	62.10A	Oyut Ulaan	n/a	49T	379350	
2.5	62.5A	Oyut Ulaan	"n/a	49T	381786	
D.13	60.13B	Oyut Ulaan	n/a	49T	380599	
5.12	65.12A	Oyut Ulaan	n/a	49T	378627	
1.7	61.7A	Oyut Ulaan	n/a	49T	375388	
5.3	65.3A	Oyut Ulaan	n/a	49T	373261	
5.14	65.14A	Oyut Ulaan	n/a	49T	377179	
5.14	65.14A	Oyut Ulaan		49T	377179	
			n/a			
5.14	65.14A	Oyut Ulaan	'n/a	49T	377179	
5.8	22/08_12	Oyut Ulaan	dyke	49T	379278	
5.5	22/08_10	Oyut Ulaan	dyke	49T	380578	
0.9	60.9A	Oyut Ulaan	dyke	49T	380496	4936742
0.9	60.9A	Oyut Ulaan	dyke	49T	380496	
).7	60.7A	Oyut Ulaan	dyke	49T	380577	
7.4	67.4A	Oyut Ulaan	dyke	49T	379457	
5.5	22/08_10	Oyut Ulaan	dyke	49T	380578	
7.7	67.7A	Oyut Ulaan	dyke	49T	380995	No. 1. Commission of the
7.5	67.5A	Oyut Ulaan	dyke	49T	379491	
0.12	60.12B	Öyüt Ülaan	dyke	49T	380362	4936670
7.5	67.5B	Oyut Ulaan	dyke	49T	379491	

Sample locality	Sample number	field area	Sample formation or secondary descriptor	υтм	EASTING	NORTHIN
0.9	90.9B	Oyut Ulaan	dyke	49T	378246	49368
0.12	60.12A	Oyut Ulaan	dyke	49T	380362	49366
0.22	60.22A	Oyut Ulaan	dyke	49T	380423	49381
57.4	67.4B	Oyut Ulaan	dyke	49T	379457	49370
8.1	68.1A	Oyut Ulaan Contact Zone	n/a	49T	380683	49363
8.7	88.7A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372340	49373
8.9	88.9A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372350	49374
8.10	88.10A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372374	
8.17	88.17A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372376	
8.12	88.12A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372360	the second second second second second second
8.12	88.12A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372360	the second se
8.12	88.12A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372360	services and services of the s
9.10	89.10A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371615	49390
9.3	89.3A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372301	49385
9.9	89.9A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371700	 I and the second se second second sec
9.1	89.1A	Oyut Ulaan Volcanic Group	Dead vulture	49T	372357	En la companya de la constante de la
9.6	89.6C	Oyut Ulaan Volcanic Group	Dead vulture	49T	371917	The second second spectrum and special
9.14	89.14A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371417	Final Annal Contract
9.10	89.10A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371615	
9.10	89.10A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371615	
9.9 9.9	89.9B	Oyut Ulaan Volcanic Group	Dead vulture	49T	371700	gen e neer e errer
	89.9B	Oyut Ulaan Volcanic Group	Dead vulture	49T	371700 371700	(i) an experimental second se second second sec
9.9	89.9B	Oyut Ulaan Volcanic Group	Dead vulture	49T	Contractor and take a rest of the	der an annander 7 7 7 7
9.6 9.12	89.6B	Oyut Ulaan Volcanic Group	Dead vulture Dead vulture	49T	371917	Concerning and the second second
	89.12A	Oyut Ulaan Volcanic Group		49T	371562	4 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
9.15	89.15A 89.4A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371656	
9.4		Oyut Ulaan Volcanic Group	Dead vulture	49T	372028	建化物化 化乙基乙基 化乙基乙基乙基乙基
9.11	89.11A 89.8A	Oyut Ulaan Volcanic Group	Dead vulture	49T	371544 371872	Second in an analysis of
9.8 5.1	55.1A	Oyut Ulaan Volcanic Group	Dead vulture	49T 49T	355577	Survey of Articles
5.8	55.8A	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Three Horse Valley Three Horse Valley	491 49T	355522	And a second second second second second
5.18	55.18A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355612	de la seconda ca
.3	54.3A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355315	1.14 Revision Constraints
l.1	54.10A	Oyut Ulaan Volcanic Group	Three Horse Valley	491 49T	355338	a contract property of a starting
1.7i	54.6A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355378	The second second second second second
5.12	55.12A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355505	
5.17	55.17A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355567	print a reason or were as an assessment
5.14	55.14A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355525	E contra a la serie entre entre a
5.2	55.20A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355580	والمحاد المحاد والالالا المحاد المحاد المطا
5.4	55.4A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355529	
4.20	54.20A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355571	4939
4.14	54.14A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355331	
4.18	54.18A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355544	bull of a constant management
5.3	55.3A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355560	where the second second second
.17	54.17A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355532	A PERSONAL MERICANONAL
.13	54.13A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355309	
.12	54.12A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355285	
.1	55.1C	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355577	
1	55.1B	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355577	
5.1	55.1B	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355577	
.1	55.1B	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355577	PARK IS MINIMUM AND A VERY MADE
.12	53.12A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355343	the sum contains of some states and some of
5.12	53.12A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355343	
5.12	53.12A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355343	the second s
.20	53.20A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355338	
.3	52.3A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355358	
2.12	52.12A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355538	
9.17	53.17A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355374	W1
.5	52.5A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355554	4941
3.9	53.9B	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355354	4941
.18	55.18B	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355612	production and a second
i.9	55.9A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355512	
.18	53.18A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355325	
i.6	55.6A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355507	
.13	55.13A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355518	4939
5.8	55.8B	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355522	
5.19	55.19A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355612	49392
5.19	55.19A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355612	
2.6	52.6A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355574	4941
4.1	54.1A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355338	49409
5.23	55.22A	Oyut Ulaan Volcanic Group	Three Horse Valley	49T	355801	49390
B.9	3/08_6	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	343895	4941
5. 3	95.3A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	342609	4941

Sample locality	Sample number	field area	Sample formation or secondary descriptor	UTM	EASTING	NORTHING
91.4	91.4D	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	341463	494203
95.7	95.7A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	342301	494170
91.2	91.2A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	341464	the second test and seen and second
91.3 91.4	91.3A 91.4C	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Tsagaan Nuruu Tsagaan Nuruu	49T 49T	341465 341463	man contractor analysis and
91.3	91.3B	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	341465	The second second as a second second
56.2	56.2A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	341866	per care intervente a station de localement de la serie
5.10	95.10A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	341923	
95.1	95.1A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	342612	
95.11	95.11A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	341874	i na anto esterar a come a com
95.5	95.5A	Oyut Ulaan Volcanic Group	Tsagaan Nuruu	49T	342558	per la construcción de l
55.25 28.4	55.24B 3/08_2	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Tsagaan Nuruu Yellow Snake	49T 49T	342303 343612	the second second states and second
5.6	8/07_3	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341758	and a set of an instance of a
26.2	31/07_1	Oyut Ulaan Volcanic Group	Yellow Snake	49T	344542	
28.4	3/08_2	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343612	
8.1	3/08_1	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343139	4. A. M. A. M.
26.2	31/07_3	Oyut Ulaan Volcanic Group	Yellow Snake	49T	344542	and the second
26.2	31/07_2	Oyut Ulaan Volcanic Group	Yellow Snake	49T	344542	1976 and 1976 and an algorithm in
8.1	3/08_1	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343139	compared and an end of the second second second
56.16 56.14	56.16A 56.14A	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Yellow Snake Yellow Snake	49T 49T	342401 342432	A second seco
56.15	56.15A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342432	Level is the second of the second
6.15	56.15B	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342424	الحارب فرجا وروديون الروسان المحمد الأم
6.17	56.17A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343535	egis in the second s
6.6	56.6A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341932	S
3.10	93.10A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	349960	of a second we as a first a
3.10	93.10A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	349960	
6.13 3.10	56.13A 93.10A	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Yellow Snake Yellow Snake	49T 49T	342450 349960	Construction and the second second second
6.9	56.9A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342553	A
6.7	56.7A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341917	
6.4	56.4B	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341860	a atom war the gast and make it
6.9	56.9B	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342553	49392
6.4	56.4A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341860	2 march 42 (1997)
56.3	56.3B	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342017	Open and record compared to the
6.9	56.9A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342553	
56.9 96.2	56.9A 96.2B	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Yellow Snake Yellow Snake	49T 49T	342553 343759	April 11 Auror 1 Concernent
96.4	96.4A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343698	ef mense i konstant i konstante sekense finsk
3.15	93.15A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	348955	have a set of a constant way we done of
3.15	93.15A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	348955	
3.15	93.15A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	348955	1.1.14 - Mart 2012 Aug 11.001
6.5	56.5A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341913	A REAL PROPERTY AND A REAL
6.5	56.5A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	341913	Contract (1997) 1997 (1997) 1997
56.5 93.12	56.5A 93.12A	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Yellow Snake Yellow Snake	49T 49T	341913 349684	Manual Contempt Apple Arts
3.12 3.12	93.12A	Ovut Ulaan Volcanic Group	Yellow Snake	49T	349684	Kalan Kalangan
3.12	93.12A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	349684	
6.3	56.3A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342017	al e se en la seconda para se en estas
6.10	56.10A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342399	49391
3.15	93.15C	Oyut Ulaan Volcanic Group	Yellow Snake	49T	348955	For encounter a classification when
6.7	96.7A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343651	ê la menanî în para ana are
6.8	56.8A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	342532 343663	The second secon
6.6 6.9	96.6A 96.9A	Oyut Ulaan Volcanic Group Oyut Ulaan Volcanic Group	Yellow Snake Yellow Snake	49T 49T	343663	Exclusion 100mm mag 2001 N
16.5	96.5A	Oyut Ulaan Volcanic Group	Yellow Snake	491 49T	343683	
6.9	96.9B	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343478	A car of the second second
6.8	96.8B	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343493	
6.2	96.2A	Oyut Ulaan Volcanic Group	Yellow Snake	49T	343759	
2.9	18/08_3	Saykhandulaan valley	n/a	49T	352612	
2.16	18/08_5	Saykhandulaan valley	n/a	49T	351946	
2.3	18/08_2	Saykhandulaan valley	n/a n/a	49T	353099	General constraints and a second second
3.1 3.1	19/08_1 8/08_1	Saykhandulaan valley Saykhandulaan valley	n/a n/a	49T 49T	351971 342776	49496 49490
3.9	8/08_5	Saykhandulaan valley	n/a	49T	343163	Second a first of copyed on a
33.2	8/08_2	Saykhandulaan valley	n/a	49T	342591	
30.13	80.13A	Saykhandulaan valley	n/a	49T	354599	
79.12	79.12A	Saykhandulaan valley	n/a	49T	341310	Contraction in the second second
30.5	80.5A	Saykhandulaan valley	n/a	49T	341679	
30.1	80.1A	Saykhandulaan valley	n/a	49T	341457	A REPORT OF A R
31.10	81.10A	Saykhandulaan valley	n/a	49T	342489	the second s
81.11	81.11A	Saykhandulaan valley	n/a	49T	342576	49491

Sample locality	Sample number	field area	Sample formation or secondary descriptor	υтм	EASTING	NORTHING
82.5	82.5A	Saykhandulaan valley	n/a	49T	343212	4949942
81.7	81.7A	Saykhandulaan valley	n/a	49T	342100	4949041
79.11	79.11A	Saykhandulaan valley	n/a	49T	341277	4948660
81.19	81.19A	Saykhandulaan valley	n/a	49T	344018	4949922
83.3	83.3A	Saykhandulaan valley	n/a	49T	346260	4950536
81.13	81.13A	Saykhandulaan valley	n/a	49T	342493	4949079
82.11	82.11A	Saykhandulaan valley	n/a	49T	345342	4950506
B2.11	82.11A	Saykhandulaan valley	n/a	49T	345342	4950506
82.11	82.11A	Saykhandulaan valley	n/a	49T	345342	4950506
97.6	97.6A	Shuteen	n/a	48T	715785	4867022
97.6	97.6A	Shuteen	n/a	48T	715785	4867022
97.5	97.5A	Shuteen	n/a	48T	714578	4866098
97.3	97.3A	Shuteen	n/a	.48T	714149	4866052
97.7	97.7A	Shuteen	n/a	48T	713625	4865861
97.8	97.8A	Shuteen	n/a	:48T	713332	4865612
97.2	97.2A	Shuteen	n/a	48T	714092	4865539
70.11	70.11A	Slate Belt	n/a	49T	342024	4955444
46.1	22/08 14	South East Target	n/a	49T	381062	4937003
46.1	22/08 14	South East Target	n/a	49T	381062	493700
46.1	22/08_14	South East Target	n/a	49T	381062	493700



U-Pb isotopic analyses results

Sample Number	88:3A	88:3A	88:3A	88:3A	51:7A	· · · · · · · · · · · · · · · · · · ·
Unique ID		1992	1993	1994	1995	2006
Fraction Code	Z-1	Z-2	Z-3	Z-4	Z-6	
chemistry code	148-01	148-02	148-03	148-04	148-05	
Sample Weight (µg)		6.3	3.7	7.5	4.0	5.0
Spike Weight (g)		0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb		2.5872	2.6500	2.4956	3.4303	4.3494
2σ % error		0.043	0.055	0.020	0.043	0.031
²⁰⁶ Pb/ ²⁰⁷ Pb		7.2195	7.1843	6.8372	9,8690	12,7973
20 % error		0.074	0.078	0.040	0.049	0.039
²⁰⁶ Pb/ ²⁰⁵ Pb		0.6181	0.6461	0.6927	1,1191	1,7150
20 % error		0.035	0.035	0.020	0.022	0.018
²⁰⁶ Pb/ ²⁰⁴ Pb		164.6010	163,6560	151,4908	291,6760	550,4980
20 % error		0.152	0.188	0.100	0.147	0.175
²³⁸ U/ ²³⁵ U				0.1070	and the second	the first of the second second second
		0.0919	0.0951 0.258	0.110	0.1789	0.2076
20 % error		0.184			0.181	0.076
Pb Blank		2.0	2.0	2.0	2.0	2.0
U Blank	76	4.5	4.5	4.5	4.5	4.5
Stacey & Kramer, 197	/5	000	000	000		
model Pb age		328	329	329	329	300
64c		18.1949	18,1933	18.1933	18.1933	18.2393
74c		15.6019	15.6018	15.6018	15.6018	15.6046
84c		38.0278	38.0260	38.0260	38.0260	38.0797
BlankUsed		2.0000	2.0000	2.0000	2.0000	2.0000
Common Pb		2.0849	2.4385	3.5870	2.2346	0.9095
Total Pb C		4.0849	4.4385 5.0795	5.5870	4.2346	2.9095
Pb ppm		2.8340		2.8170	8.3435	10.1180
U ppm Pb206U238		45.1631 0.0520	79.6622	44.3574	140.2306	130.4238
			0.0526	0.0497	0.0524	0.0724
Pb206U238err		0.3251	0.3680	0.2676	0.2658	0.1913
Pb206U238errA		16.8935	19.3521	13.2982	13.9311	13.8570
Pb206U238age Pb207U235		326.5876 0.3817	330.4117	312.6667	329.3681	450.7178
Pb2070235 Pb2070235err			0.3865	0.3626	0.3845	0.5279
		0.4538 17.3232	0.5156	0.3904	0.3156	0.2170
Pb207U235errA		328.2968	19.9284 331.7977	14.1543 314.1552	12.1340 330.3325	11.4583 430.4305
Pb207U235age Pb207Pb206		0.0533	0.0533	0.0529	0.0532	430.4305
Pb207Pb206 Pb207Pb206err		0.3073	0.3486	0.0529	0.0532	0.0529
Pb207Pb206errA		16.3694	18.5819	14.5225	8.8043	
Pb207Pb206age		340.4370	341.5342	325.2212	337,1383	5.3200 323.2444
•		6.9575	7.8925	6.2309		2.2853
Pb207Pb206ageerr Pb206Pb204		464.5249	418.2556	308.2676	3.7497 846.3067	2.2853
Pb208Pb204 Pb208Pb206		0.1861	0.1730	0.1801	0.1776	3∠90.6546 0.1698
Rho		0.7362	0.7372	0.7116	0.8515	0.1698
RIIO		0.7362	0.7572	0.7110	0.0010	0.0001
Description	U from Pb	fraction U from P	b fraction U from P	b fraction U from P	b fraction U from F	Pb fractios
	5.0					2.740400

Sample Number	JBSP010	JBSP010	JBSP010	JBSP010	97.2A	
Unique ID		2015	2016	2017	2018	2023
Fraction Code	Z-9	Z-10	Z-11	Z-12	Z-13	
chemistry code	148-09	148-10	148-11	148-12	148-13	
Sample Weight (µg)	-	14.4	11.6	18.0	11.0	3.8
Spike Weight (g)		0.0025	0.0025	0.0025	0.0025	0.0025
206 Pb/208 Pb		5.5447	5.3950	5.7205	5.7015	2,1773
20 % error		0.027	0.034	0.041	0.094	0.064
²⁰⁶ Pb/ ²⁰⁷ Pb		16.3820	15,7812	16,5984	16.6039	6.8878
20 % error		0.060	0.041	0.074	0.930	0.081
²⁰⁶ Pb/ ²⁰⁵ Pb		6,1720	5,1343	5.3126	4.9472	0.5811
20 % error		0.023	0.017	0.053	0.090	0.030
²⁰⁶ Pb/ ²⁰⁴ Pb		1761.2140	1290,8170	1945.3750	150.1020	150,1020
20 % error		0.285	0.112	0.402	0.357	0.154
²³⁸ U/ ²³⁵ U		0.8858	0.8817	0.9242	0.0860	0.0923
20% error		0.161				
Pb Blank		2.0	0.060 2.0	0.236 2.0	0.127	0.300
U Blank		2.0 4.5		2.0	2.0 4.5	2.0
Stacey & Kramer, 197	76	4. D	4.5	4.5	4.5	4.2
•	5	330	333	334	226	236
model Pb age 64c		18,1917	18,1869	18,1854	326 18.1981	18.3401
74c		15.6017	15.6014	15.6013	15.6021	15.6104
740 840		38.0241		38.0167		38,1979
BlankUsed		2.0000	38.0186 2.0000	2.0000	38.0315 2.0000	2.0000
Common Pb		1.6234	2.4928	0.2013	55.7824	2.3085
Total Pb C		3.6234	4,4928	2.2013	57,7824	4.3085
Pb ppm		12.9912	13,4128	8.8512	13.5252	4.6331
U ppm		195.6985	241.8099	163.4045	24.1810	75.2828
Pb206U238		0.0630	0.0523	0.0519	0.4735	0.0477
Pb206U238err		0.2287	0.1717	0.2916	0.2467	0.4098
Pb206U238errA		14.4012	8.9906	15.1410	116.8426	19.5345
Pb206U238age		393.6725	328.9226	326.3105	2499.0066	300.1628
Pb207U235		0.4614	0.3789	0.3807	0.0000	0.3363
Pb207U235err		0.2459	0.1884	0.3081	1.4733	0.5564
Pb207U235errA		11.3453	7.1374	11.7301	0.0000	18.7137
Pb207U235age		385.2218	326.2322	327.5825	0.0000	294.3740
Pb207Pb206		0.0531	0.0525	0.0532	-0.0500	0.0512
Pb207Pb206err		0.0898	0.0770	0.0990	1.4824	0.3651
Pb207Pb206errA		4.7741	4.0446	5.2645	-74.1832	18.6827
Pb207Pb206age		334,7696	307.0870	336,6365	0.0000	248.6967
Pb207Pb206ageerr		2.0363	1.7549	2.2429	0.0000	8.4033
Pb206Pb204		6897.3312	3724.4647	47752.9673	160.3172	391.7250
Pb208Pb206		0.1615	0.1594	0.1579	-0.0894	0.2520
Rho		0.9309	0.9125	0.9470	0.0469	0.7549
Description	U from Pb	fraction U from P	b fraction U from P	b fraction U from Pl	b fraction U from P	b fraction

Sample Number	97.2A	97.2A	97.2A	95.3A	95.3A
Unique ID	2054	2055	2056		
Fraction Code	Z-14				Z-18
chemistry code	148-14	148-15	148-16	148-17	148-18
Sample Weight (µg)	0.0	0.7	0.0		1.0
Spike Weight (g)	0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	2.3357	2.4437	1.7870	2.9087	0.9372
20 % error	0.122	0.105	0.103	0.041	0.123
²⁰⁶ Pb/ ²⁰⁷ Pb	6.6422	7.1617	4.9341	10.5687	2.3057
20 % error	0.118				0.154
²⁰⁶ Pb/ ²⁰⁵ Pb	0.3326	and the second	5. A second state in the second state and second state and second states.	E. A. C. M. Market and M. M Market and M. Market and M. Market And M. Market and M. Mar	0.0896
20 % error	0.050		0.062		
²⁰⁶ Pb/ ²⁰⁴ Pb			and the second		35.2090
	141.6210				
20 % error	0.232		and the second	the state of the second s	(c) We take a set of a set
²³⁸ U/ ²³⁵ U	0.0454				0.0024
20 % error	0.069				
Pb Blank	2.0		the second se		
U Blank	4.5	4.5	4.5	4.5	4.5
Stacey & Kramer, 19					
model Pb age	330				
64c	18.1917	18.1790	18.2060	18.2028	1
74c	15.6017	15.6009	15.6026	15.6024	
84c	38.0241				1
BlankUsed	1.0000	1.0000	1.0000	1.0000	
Common Pb	0.4966	0.2355	0.4072	0.9237	
Total Pb C	1.4966	1.2355	1.4072	1.9237	
Pb ppm	27622.1624	12.3485	6293.2507	9.3493	
Uppm	456870.0761	210.9113	99927.9439	156.0678	
Pb206U238	0.0524				
Pb206U238err	0.3222	end and a second sec	where the many start of the second		
Pb206U238errA	16.8849				
Pb206U238age	329.3135				
Pb207U235	0.3877				
Pb207U235err	0.4796				
Pb207U235errA	18.5920		المطالب والمحاج والمحاجب والمحاجب والمحاجب والمحاجب والمحاج والمح	provide the second s	
Pb207U235age	332.6844			11 0 10 10 10 10 10 10 10 10 10 10 10 10	
Pb207Pb206	0.0536				
Pb207Pb206err	0.3462				
Pb207Pb206errA	18.5738				
Pb207Pb206age	356.3289			An a construction of the second secon	
Pb207Pb206ageerr	7.8171				
Pb206Pb204	928.4518				
Pb208Pb204 Pb208Pb206	0.2064	the second se			
	0.6922				
Rho	0.6922	0.6998	0.6/9/	0.7900	F. An analysis of the second secon
		U from U fractiondat	U from U fractiondat	;	
	U and Pb from separate	files for U from Pb won't	files for U from Pb won't	*	
Description	fractions			U from Pb fraction	U from Pb fraction
Description	nacions	open	open	o nom Po nacion	O nom Po nacion

Sample Number	95.3A	55.22A		5.22A	55.22A			68.3A	
Unique ID		2026	2027	20		2059	2060		2061
Fraction Code	Z-19	Z-20		2-21	Z-22			Z-24	
chemistry code	148-19	148-20	1	48-21	148-22	, ,	148-23	148-24	
Sample Weight (µg)		206.0	3.0	5	5.7	0.7.	0.7	· · · · · · · · · · · · · · · · · · ·	0.3
Spike Weight (g)	0.	0025	0.0025	0.00	25	0.0025	0.0025	0.0	0025
²⁰⁶ Pb/ ²⁰⁸ Pb	3.	5232	5.9562	5.88	14	5.3063	5.5874	3.9	9561
2σ % error	() (0.065	0.030	0.0	28	0.062,	0.024	0.	.054
²⁰⁶ Pb/ ²⁰⁷ Pb	8.	4995	13.0107	14.76	50	12.4748	13.9223	10.5	5763
20 % error		0.086	0.044	0.0	39	0.055	0.028	0.	.054
²⁰⁶ Pb/ ²⁰⁵ Pb	. 0	6305	1,4445	3.34	50	1.7405	2.0925	3	9198
20 % error		0.028	0.021	0.0	The second se	0.031	0.012		.018
²⁰⁶ Pb/ ²⁰⁴ Pb		7700	585.0450	972.46		528,4590	748,9930		
20 % error		0.194	0.150	0.2		0,188	0.129		153
²³⁸ U/ ²³⁵ U			-		 201 1 	a second a second	and the second se	the same and the second s	
20 % error		1098	0.2335	0.72		0.2880	0.3424		1455
∠o % error Pb Blank	, i	0.184	0.059	0.2		0.228	0.105		0.062
		2.0	2.1		2.0	2.0	2.0		2.0
U Blank	-	4.5	0.4	4	4.5	4.5	4.5	a and an a	0.1
Stacey & Kramer, 197	5								
model Pb age		310	340		30	364	342		334
64c		2235	18.1758	18.19		18.1375	18.1726		1854
74c		6036	15.6007	15.60	and the second second second	15.5984	15.6006	ಪೇಷ ತಡು ಸಹುಗಳು ಸೇರೆ	6013
84c		0612	38.0056	38.02		37.9611	38.0019		0167
BlankUsed		0000	1.0500	2.00		2.0000	2.0000		0000
Common Pb		5786	0.6678	1.50		1.2337	0.3166		2240
Total Pb C		5786	1.7178	3.50		3.2337	2.3166		2240
Pb ppm		0793	13.4268	17.25	14 M	69.9843	84.4786		3592
U ppm		6572	246.1689	401.16		1278.3311	1522.1082		
Pb206U238		0456	0.0537	0.04	1	0.0528	0.0541	WAR A COMPANY AND A	0526
Pb206U238err		3179	0.1748	0.26		0.2888	0.1987		2101
Pb206U238errA		5125	9.3849	11.03		15.2340	10.7479		0536
Pb206U238age		7542	337.2063	261.74		331,4030	339.5254		
Pb207U235		3337	0.3950	0.30		0.3915	0.3981		3869
Pb207U235err	ALC: 1	4054	0.1960	0.27		0.3125	0.2128	AND A REPORT OF A REAL PROPERTY AND A REAL PRO	2508
Pb207U235errA		5285	7.7428	8.52		12.2346	8.4720		7061
Pb207U235age		3725	338.0428	270.36		335.4651	340.286		
Pb207Pb206		0530	0.0534	0.05		0.0538	0.0534	where the management of a state and	0533
Pb207Pb206err		2458	0.0879	80.0		0.1174	0.075		1349
Pb207Pb206errA		0326	4.6915	4.49		6.3189	4.0301		1955
Pb207Pb206age		4422	343.8065	345.64		363.7290	345.492		
Pb207Pb206ageerr		5771	1.9899	1.90		2.6472	1.7076		0525
Pb206Pb204	1714.	8185	3753.4162	3981.99	26	2456.4016	11626.5269	6802.1	1869
Pb208Pb206		1222	0.1080	0.13		0.1228	0.1334		1527
Rho	0.	7953	0.8937	0.95	36	0.9268	0.9350) 0.8	8431
Description	U from U fractio	on U from P		U from U fraction	U from U	į	U from U fraction	U from U fraction	

Sample Number	68.3A	BLANK05	68.3A	55.22A	BLANK05 E	BLANK05
Unique ID	206	2 1917	2063	2064	1918	1919
Fraction Code	Z-25	B-1	Z-26	Z-28	B-2 ,E	3-3
chemistry code	148-25	148-25	148-26	148-28	148-28 1	48-29
Sample Weight (µg)	0.	5 1.0	0.3	0.5	1.0	1.0
Spike Weight (g)	0.002	5 0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	4,454	3 0.9311	3,9348	0.7965	0.5797	0.9312
20 % error	0.06	6 0.073	0.030	0.029	0.031	0.146
²⁰⁶ Pb/ ²⁰⁷ Pb	13.633	9 2.3024	11,2680	1,9601	1,3974	2.2797
20 % error	0.07		0.030	0.038	0.019	0.305
²⁰⁶ Pb/ ²⁰⁵ Pb	2.063	1. F	1.0800	0,1086	0.2420	0.0899
2σ % error	0.04		0.014	0.021	0.026	0.056
²⁰⁶ Pb/ ²⁰⁴ Pb	690.986		288.3670	30.7278	24.2327	34,5995
20 % error	0.37		288.3670	0.078	0.021	A. A
²³⁸ U/ ²³⁵ U			and the second	and a second	بيئرك برواب فالمراجب المرزا والمتعاقب	0.579
	0.344			0.0020	1.0000	1.0000
20 % error	0.27	A		0.422	0.100	1.000
Pb Blank		.4 0.0		2.0	0.0	0.0
U Blank	0	.1 0.0	0.1	4.5	0.0	0.0
Stacey & Kramer, 197						
model Pb age	33			0	0	0
64c	18.191			18.7033	18.7033	18,7033
74c	15.601	The first of the second s	And the second sec	15.6288	15.6288	15.6288
84c	38.024			38.6305	38.6305	38.6305
BlankUsed	2.400			2.0000	0.0000	0.0000
Common Pb	0.272			1.7020	15.7711	1,9843
Total Pb C	2.672			3.7020	15.7711	1.9843
Pb ppm	132.942			3.3247	17.3229	1.7623
Uppm	2372.446			-0.9997	3192.8035	3192.8035
Pb206U238	0.052		And the second	0.0449	0.0001	0.0000
Pb206U238err	0.324			46.2171	1.3304	5.8313
Pb206U238errA	17.099			2076 1837	0.1491	-0.1086
Pb206U238age	331.024			283.2727	0.7226	-0.1201
Pb207U235	0.387				0.0219	-0.0018
Pb207U235err	0.354		the second se	70.4269	0.9219	7.6406
Pb207U235errA	13.711			-5115.7216	2.0192	-1.3787
Pb207U235age	332.356				21.9994	-1.8338
Pb207Pb206	0.053	-0.0838	0.0386		1.4171	0.7027
Pb207Pb206err	0.138				0.7089	3.4545
Pb207Pb206errA	7.398	-3602.3523	24.4909		1004.4883	2427.4564
Pb207Pb206age	341.694				5722.6323	4736.2510
Pb207Pb206ageerr	3.142				9.7808	49.6256
Pb206Pb204	13287.685	56 19.4863	880.4029	17.8600	20.1539	16.7879
Pb208Pb206	0.177			1.1632		2.6146
Rho	0.920	-0.8502	0.6220	0.5158	0.8632	0.9028
					Zinnen Oberniet	
Description	U from U fraction	Zircon chemistry blank No U	U from U fraction	U from U fraction		Zircon Chemistry Blank

Sample Number			91500	91500	91500
Unique ID	2065	1920	1921	1922	1930
Fraction Code	Z-30	Z	Z	Ζ	Z-31
chemistry code	148-30	148-31	148-31	148-31	148-31
Sample Weight (µg)	0.4	60.0	60.0	60.0	80.0
Spike Weight (g)	0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	2.6129	8,7922	8.7757	8.8437	8.8738
20 % error	0.532	0.024	0.029		
²⁰⁶ Pb/ ²⁰⁷ Pb	6.1407	12,7961	12.7760	and the second	1
20 % error	0.539	0.015	0.014		
²⁰⁶ Pb/ ²⁰⁵ Pb	0.3026	13.6900	13.6710	dan kanalar dan sebuah kanalar kala	
20 % error	0.386		0.219		y contract of a character with the second second
²⁰⁶ Pb/ ²⁰⁴ Pb				and the second	4
	126.2350	4824.9250	4870.4413		the second se
2σ % error ²³⁸ ⊔/ ²³⁵ ⊔	0.679		0.219	general and the second second second second	No. 1.1. Contract and commentant
	0.0450		0.7025		
2σ % error	0.174		0.009		
Pb Blank	2.0				
U Blank	4.5	4.3	4.3	4.3	4.3
Stacey & Kramer, 1975					
model Pb age	330				
64c	18.1917	16.9536	16.9536	16.9536	16.9554
74c	15.6017	15.4978	15.4978	15.4978	15.4980
84c	38.0241	36.6374	36.6374	36.6374	36.6393
BlankUsed	1.0000	1.8000	1.8000	1.8000	1.8000
Common Pb	0.5861	0.5585	0.5047	0.5276	0.5200
Total Pb C	1.5861	2.3585	2.3047	2.3276	2.3200
Pb ppm	16.2802	6.7548	6.7473	6.7691	5.0717
Uppm	323.6258	37.2192	37.2192	37.1888	27.8916
Pb206U238	0.0462				
Pb206U238err	0.6501	0.1621	0.2719	0.1627	0.1749
Pb206U238errA	30.0384				
Pb206U238age	291.1709				
Pb207U235	0.3448				
Pb207U235err	1.5504				
Pb207U235errA	53.4637	the second se	The second secon		
Pb207U235age	300.8367				
Pb207Pb206	0.0541		The second se		a second data and the second data data and
Pb207Pb206err	1.3826	server of any server in the server of the			all the second
Pb207Pb206errA	74.8435				
Pb207Pb206age	376.5195				
Pb207Pb206ageerr	31.1072				
Pb206Pb204	692.4725		and a second		
Pb208Pb206	0.1034	and the second	and a stand of the stand of the Armonia standard with the	And A have shown and a second of the state	and which a real count from the count of the street for
Rho	0.4537				
	0.4007	0.0407	0.301	Pb collected	
				statically on	
		91500 SOLN	91500 2nd run (possible	Faradays (6/4 fro,	
Description	U from U fraction	Pb_SEM_1	organics)	SEM_2)	Pb MIC_2

Sample Number	91500	91500	51.7A	91500	91500	91500
Unique ID	1929		2066	1924		1925
Fraction Code	Z-31	Z-31	Z-31	Z	Z-32	Z
chemistry code	148-31	148-31	148-31	148-32	148-32	148-32
Sample Weight (µg)	80.0	60.0	0.3	80.0	80.0	80.0
Spike Weight (g)	0.0025	0.0025	0.0020	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	8.8693	8.8096	5.1471	8.9193	8.9396	8.9211
20 % error	0.060	0.010	0.385	0.032	0.010	0.029
²⁰⁶ Pb/ ²⁰⁷ Pb	12.8741	12.8034	12.6490	12.9000	12.8926	12.9021
20 % error	0.060		0.456		and the second	
²⁰⁶ Pb/ ²⁰⁵ Pb	13,7515		1.5366		*	с
20 % error	0.090		0.226			
²⁰⁶ Pb/ ²⁰⁴ Pb	4969.6195		522.3120			6326.6110
20% error	4969.6195		1,161			
²³⁸ 1 V ²³⁵ 11						A STATE AND A STAT
0, 0	0.7019		0.2690			
20 % error	0.020		0.124			
Pb Blank	1.8		2.0			
U Blank	4.3	4.3	4.5	4.3	4.3	4.3
Stacey & Kramer, 197						
model Pb age	1065		312			
64c	16.9536				c	
74c	15.4978		15.6034	and the second sec	at the best store and an	 An and an interface
84c	36.6374		38.0575			
BlankUsed	1.8000		2.0000		· · · · · · · · · · · · · · · · · · ·	
Common Pb	0.4342		0.0723			
Total Pb C	2.2342		2.0723			
Pb ppm	5.0828		137.1169			
Uppm	27.8916					
Pb206U238	0.1792		0.0497	the second se	e an shire e fille	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Pb206U238err	0.1839		0.3293			
Pb206U238errA	32,9636		16.3785			29.4645
Pb206U238age	1062.6094	1070.1014	312.9540) 1058.1383	1070.6885	1055.8055
Pb207U235	1.8565		0.3601	1.8574	1.8828	1.8526
Pb207U235err	0.2019	0.1690	0.7561	0.1722	0.1683	0.1742
Pb207U235errA	37.4748	31.7803	27.2267	31.9829	31.6872	32.2803
Pb207U235age	1065.7537	1074.1764	312.2762	2 1066.0507	1075.0421	1064.3516
Pb207Pb206	0.0751	0.0755	0.0525	5 0.0755	0.0756	0.0755
Pb207Pb206err	0.0826	0.0533	0.6712	0.0534	0.0521	0.0543
Pb207Pb206errA	6.2064	4.0229	35.2393	4.0291	3.9360	4.0975
Pb207Pb206age	1072.1964	1082.4581	307.2277	1082.2795	1083.8831	1081.9130
Pb207Pb206ageerr	1.6593	1.0684	15.2886	5 1.0702	1.0443	1.0886
Pb206Pb204	55792.9398	44150.4067	29346.6649	23191.4431	23045.4165	23278.7440
Pb208Pb206	0.1060	0.1066	0.1284	0.1069	0.1067	0.1068
Rho	0.9124	0.9490	0.4611	0.9508	0.9509	0.9503
		91500 SEM			91500 SEM	
		Integration			Integration	
Description	Pb from MIC	experiment	U from U fraction	SEM_1	Experiment	SEM_2

Sample Number	91500	BF	D BF		D BF	D	
Unique ID	1923	1926	2095	2096	2097	2098	
Fraction Code	Z	Z-1			3 Z-4	1	
chemistry code	148-32 148-32	154	4-06 15	4-07 15-	4-08 15	154-09	
Sample Weight (µg)	0.0	80.0	2.0	2.0	2.0	2.0	
Spike Weight (g)	0.0000	0.0025	0.0025	0.0025	0.0025	0.0025	
²⁰⁶ Pb/ ²⁰⁸ Pb	0.0000	8.9855	4.3547	4.2895	5.0386	4.9932	
20 % error	0.000	0.014	0.030	0.020	0.030	0.026	
²⁰⁶ Pb/ ²⁰⁷ Pb	0.0000	13.0039	12,7766	12.2844	14.2292	13,7510	
20 % error	0.000	0.020	0.060	0.030	0.030	0.040	
²⁰⁶ Pb/ ²⁰⁵ Pb	0.0000	22.0174	1,7169	2.0727	2.0258	1.7606	
20 % error	0.000	0.029	0.020	0.010	0.020	0.020	
²⁰⁶ Pb/ ²⁰⁴ Pb	0.0000	6326.6110			and the second sec	 And a set of the set	
20% error			548.6800	497.3139	802.7013	702.5165	
	0.000	0.230	0.180	0.130	0.120	0.160	
²³⁸ U/ ²³⁵ U	0.0000	1.1239	0.2855	0.3494	0.3431	0.3047	
20 % error	0.000	0.011	0.030	0.030	0.080	0.030	
Pb Blank	0.0	1.8	1.3	1.3	1.3	1.3	
U Blank	0.0	4.3	0.1	0.1	0.1	0.1	
Stacey & Kramer, 1975							
model Pb age	0	1065	328	325	327	0	
64c	0.0000	16.9536	18.1949	18.1997	18.1965	18.7033	
74c	0.0000	15.4978	15.6019	15.6022	15.6020	15.6288	
84c	0.0000	36.6374	38.0278	38.0334	38.0297	38.6305	
BlankUsed		1.8000	1.3000	1.3000	1.3000	1.3000	
Common Pb		1.6954	1.6078	3.5174	0.4948	0.4697	
Total Pb C		3.4954	2.9078	4.8174	1.7948	1.7697	
Pb ppm		8.1658	25.6840	31.7367	29.7594	25.6144	
Uppm		44.8479	452.6589	554.4505	544.4182	483.2766	
Pb206U238		0.1788	0.0522	0.0515	0.0520	0.0506	
Pb206U238err		0.1615	0.2312	0.2104	0.2259	0.2280	
Pb206U238errA		28.8706	12.0752	10.8453	11.7517	11.5360	
Pb206U238age		1060.4197	328.2430	323.9773	326.9785	318.1337	
Pb207U235		1.8463	0.3821	0.3783	0.3823	0.3718	
Pb207U235err		0.1706	0.2696	0.2427	0.2448	0.2540	
Pb207U235errA		31.4958	10.3021	9.1792	9.3585	9.4428	
Pb207U235age		1062.1124	328.5716	325.7515	328.6993	320.9969	
Pb207Pb206		0.0749	0.0530	0.0532	0.0533	0.0533	
Pb207Pb206err		0.0550	0.1407	0.1214	0.0975	0.1122	
Pb207Pb206errA		4.1196	7.4649	6.4630	5.1931	5.9796	
Pb207Pb206age		1065.5927	330.9070	338.4566	340.9077	341.8301	
Pb207Pb206ageerr		1.1061	3.1916	2.7504	2.2066	2.5393	
Pb206Pb204		22936.2203	1869.3516	1040.9950	7224.4779	6672.2860	
Pb208Pb206	27 - 1 - 1	0.1060	0.1699	0.1660	0.1577	0.1533	
Rho		0.9466	0.8530	0.8658	0.9174	0.8972	
B		DAYS (6/4					
Description	FROM	SEM 2) CA	A 120 C/	4 120 CA	A 120 C.	A 120	

Sample Number	BFD	88:3A	88:3A	88:3A	88:3A	51:7A
Unique ID	209		2301	2300	2299	2298
Fraction Code	Z-5	Z-5	Z-6	Z-7	Z-8	Z-5
chemistry code	154-10	159-01	159-02	159-03	159-04	159-06
Sample Weight (µg)	2.0	0 3.1	0.5	1.3	0.6	22.9
Spike Weight (g)	0.002	5 0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	4.418	3 4,9961	2.3386	2.1584	2.4677	5,1004
20 % error	0.04	0.061	0.114	0.165	0.203	0.100
²⁰⁶ Pb/ ²⁰⁷ Pb	12.876	8 13.7409	6.1484	5,7768	6.7413	10.9197
20 % error	0.04			0.191	0.280	0.120
²⁰⁶ Pb/ ²⁰⁵ Pb	1.266		0.3073	0.2597	0.3226	1,0371
20 % error	0.02					0.045
²⁰⁶ Pb/ ²⁰⁴ Pb	557.930	and the second		113,5480		351.9810
20 % error	0.17				0.620	0.321
²³⁸ U/ ²³⁵ U	0.215				where we are the state of the state of the state	prime in the term of the second s
20 % error				0.0314		
Pb Blank	0.02					0.056
U Blank	1. 0.				1.2 0.1	0.9
		U. I	U. 1	U. 1		0.1
Stacey & Kramer, 1975 model Pb age	32	0 330	329	329	334	320
64c	18.207					320 18.2076
74c	15.602					where the state of the second state of the sec
740 840	38.042		and the second			
o4c BlankUsed	1.300					
Common Pb	A 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	The second se		And the second s	enter and the second second second	and the second second second second second
Total Pb C	0.027					
					A AN ANY MARKS A STREET	Contract of the second se
Pb ppm	18.177 341.669		the second of the second se		we consider a second or a part of balance	
U ppm Pb206U238	0.050					
Pb206U238err	0.278	the second se	get a set of the set o	and the second second second and all	C. THE SHOT HERE A DOCTORS	
Pb206U238errA	14.082			and a second second second second		
Pb206U238age	317.969			the second s		
Pb207U235	0.372				A reasonable space of a second	and any in the same management of a
Pb207U235 Pb207U235err	0.372					
Pb207U235errA	11.458		and the second	THE ARE STOLEN AND ADDRESS OF A DESCRIPTION	A comparison of the second sec	The property of many second reaction and the
Pb207U235age	321.167					
Pb207Pb206	0.053					
Pb207Pb206err	0.137	(A) a set of a set	Contraction of the second s	付け いいかい というかんかん しゅういか かんしょ	CONTRACTOR AND A STATE OF CONSISTENCE	PLAN ALL PRIMA AND A PLAN AND ADDRESS OF A
Pb207Pb206errA	7.358			and the second		the second
Pb207Pb206age	344.431					
Pb207Pb206ageerr	3.120			14 · · · · · · · · · · · · · · · · · · ·	STATISTICS AND A DESCRIPTION OF A DESCRI	the second secon
Pb206Pb204	79992.014			and the second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A LEW A CONSTRUCTION OF A CONSTRUCTURA
Pb208Pb206	0.168		the second se			devolution and the second second second
Rho	0.894					Annual Contraction of the second second second
T T T T	0.034	2	0.0331	0.7231	0.7044	
Description	CA 120	single zircon no chem CA 180 (57pg Pb)	single zircon no chemistry CA 180	single zircon no chem CA 180	single zircon no chem CA 180	single zircon no chem CA 180 concordant

Sample Number	51:7A	51.7A	BFD	BFD	· · · · · · · · · · · · · · · · · · ·	BFD	68:1A
Unique ID	229	6 229	5 22	94	2293	2292	2291
Fraction Code	Z-7	Z-8	Z-8	Z-9	a a a constructionerge S		Z-1
chemistry code	159-08	159-09	159-11	159-12		159-13	159-14
Sample Weight (µg)	9.	5 7.9)	2.2	0.7	0.5	2.3
Spike Weight (g)	0.002	5 0.002	5 0.00	25	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	4,280	4.081	9 4.00	86	4.0694	3.0139	2.9532
20 % error	0.07			58	0.055	0.088	0.039
²⁰⁶ Pb/ ²⁰⁷ Pb	10.419				13.8207	9.2045	8,9812
20 % error	0.10			20	0.088	0.227	0.070
²⁰⁶ Pb/ ²⁰⁵ Pb	0.784				an an a Dalaman g	0.6317	e a la constante de la constant
20% error	A		And the second		1.5463		0.5239
²⁰⁶ Pb/ ²⁰⁴ Pb	0.03)36	0.035	0.041	0.029
	315.515				703.3830	243.8160	235.5760
20 % error	0.29			514	0.453	0.828	0.276
²³⁸ U/ ²³⁵ U	0.138				0.2540		0.0767
20 % error	0.11		0 0.	053	0.062		0.050
Pb Blank	0.	2 1.	1	1.2	1.1	1.9	0.9
U Blank	0	.1 0.	1	0.1	0.1	0.1	0.1
Stacey & Kramer, 1975	5						
model Pb age	29	30	0	333	333		330
64c	18.252	20 18.239	3 18.1	369	18.1869	18.1917	18.1917
74c	15.605	3 15.604	6 15.6	014	15.6014	15.6017	15.6017
84c	38.094	5 38.079	7 38.0	186	38.0186	38.0241	38.0241
BlankUsed	0.200	0 1.100	0 1.2	000	1.1000	1.9000	0.9000
Common Pb	1.549	0.093	1 0.0	949	0.1002	0.0088	0.3500
Total Pb C	1,749	1.193	1 1.2	949	1.2002		
Pb ppm	2.331	8 1.952	2 20.5	384	66,1745		
Uppm	46.171	2 41.529	2 358.0	627	1150.0795	597,3564	104.8749
Pb206U238	0.046				0.0532		
Pb206U238err	0.204		Contraction of the second s	of the second second	0.2331	When we are a set to be a set of a set of the	The manual state is to reach a south
Pb206U238errA	9.476		5 y		12.3929		
Pb206U238age	292,442				333.8697	and the second	2 set when non-sets we
Pb207U235	0.333				0.3891		
Pb207U235err	0.290			096	0.2759		
Pb207U235errA	9.697				10,7366	and and the second second second second second	hand doe to prove the end out the surgery for
Pb207U235age	292.559				333,7462		
Pb207Pb206	0.052				0.0531		A Contract of America Mark (Mark)
Pb207Pb206err	0.202				0.1489	A THE REAL PROPERTY AND A	THE REPORT OF A REPORT OF
Pb207Pb206errA	10.556				7.9047		
Pb207Pb206age	293.489				332.8920		
Pb207Pb206ageerr	4.618			391	3.3755	6 / W / W /	
•							
Pb206Pb204	846.654		and the second sec	the second second second	6895.6956		
Pb208Pb206	0.124			998	0.2020		
Rho	0.717	0.859	0 0.7	862	0.8419	0.7374	0.8556
	single zircon no	single zircon no					
	chem CA 180	chem CA 180	single zircon r	o cinalo	zircon no	Single zircon no	Single zircon no
Description	concordant	concordant	chem CA 180	chem (chem CA 180	chem 14pg Pb
Description	concordant	concordant		Chem			uneni impgro

Sample Number	68:1A 68	1A 68:1A		55:22A	55:22A	55:22A
Unique ID	2290	2289	2288	2287	2276	2274
Fraction Code	Z-2 Z-			Z-1	Z-2	Z-3
chemistry code		9-17 159-18		159-19	159-20	159-21
Sample Weight (µg)	1.2	0.6	0.7	0.9	0.9	0.5
Spike Weight (g)	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	4,9630	5.1009	5.3681	5.8801	5.9037	4.6101
20 % error	0.034	0.059	0.037	0.035	0.035	0.091
²⁰⁶ Pb/ ²⁰⁷ Pb	15,1088	13.6776	14.0757	13.9789	15.4580	11.9485
20 % error	0.056	0.080	0.049	0.045		0.130
²⁰⁶ Pb/ ²⁰⁵ Pb	2,3362	1.4891	1.8412	1.5709	been and the second	1.1380
20 % error	0.037	0.030	0.022	0.025		0.058
²⁰⁶ Pb/ ²⁰⁴ Pb	1036.0390	667,3980	756.0850	744.3300		450.7570
20 % error	0.284	0.320	0.306	0.227		450.7570
²³⁸ U/ ²³⁵ U	0.3973	0.2493	0.3099		and a second	the second se
2σ%error	0.3973	0.2493	0.082	0.2548		0.1796
Pb Blank						0.037
	0.5	1.2	1.1	1.1		0.7
U Blank Stacey & Kramer, 1975	0.1	0.1	0.1	0.1	0.1	0.1
model Pb age	330	325	330	340	340	0.40
64c	18,1917					340
54C 74C		18.1997	18.1917	18.1758		18.1758
74C 84C	15.6017	15.6022	15.6017	15.6007		15.6007
	38.0241	38.0334	38.0241	38.0056		38.0056
BlankUsed	0.5000	1.2000	1.1000	0.5500		0.7000
Common Pb	0.8136	0.0588	0.5353	0.4973		1.1058
Total Pb C	1.3136	1.2588	1.6353	1.0473		
Pb ppm	58.4797	70.7767	76.1140	49.5883	And the second	
U ppm	1051.4713	1316.4784	1404.0934	897.2305		1136.5782
Pb206U238	0.0522	0.0520	0.0522	0.0540		NEW YORK AND A REAL POINT AND A REAL AND AND A REAL AND
Pb206U238err	0.1747	0.2422	0.2214	0.2073		
Pb206U238errA	9.1211	12.6033	11.5530	11.1852		
Pb206U238age	328.1348	326.9882	327.9741	338.7279	the mark to be all the second second	CONTRACTOR AND CONTRACTOR AND
Pb207U235	0.3819	0.3787	0.3814	0.3966		
Pb207U235err	0.1961	0.2812	0.2475	0.2248		and the second state of the second state of the second state of the
Pb207U235errA	7.4896	10.6502	9.4399	8.9155		
Pb207U235age	328.4102	326.0949	328.0681	339.1704		
Pb207Pb206	0.0530	0.0528	0.0530	0.0533	4 so a we do name brand cars	CONTRACTOR COMPANY AND ADDRESS OF ADDRESS OF
Pb207Pb206err	0.0891	0.1457	0.1120	0.0875		b star i sa la companya da series de la companya de
Pb207Pb206errA	4.7241	7.6912	5.9368	4.6632		
Pb207Pb206age	330.3695	319.7308	328.7415	342.2104		
Pb207Pb206ageerr	2.0204	3.3112	2.5416	1.9798	A 44 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Pb206Pb204	5114.5044	43994.0072	6049.1175	5528.7083	The second second second second second second	a second term that where we want to a second
Pb208Pb206	0.1705	0.1466	0.1422	0.1244		
Rho	0.8909	0.8553	0.8917	0.9212	0.9064	0.6795
	Single zircon no si	ngle zircon no Single	zircon no	single zircon no	single zircon no	single zircon no
Description	•	iem 43 pg chem 5		single zircon no	chem	chem

Sample Number	55:22A	JBSP010	JBSP010	JBSP010		JBSP010
Unique ID	2273	3 2272	2271	2270	2269	2268
Fraction Code	Z-4	Z-1	Z-2	Z-3	Z-4	Z-5
chemistry code	159-22	159-23	159-24	159-25	159-26	159-27
Sample Weight (µg)	0.7	7 0.3	0.3	0.4	0.7	0.7
Spike Weight (g)	0.002	5 0.0025	0.0025	0.0025	0.0025	0.0025
²⁰⁶ Pb/ ²⁰⁸ Pb	4,382	4.0819	3,6360	5.1878	4,1030	3.2885
20 % error	0.11					0.278
²⁰⁶ Pb/ ²⁰⁷ Pb	11.451					8,7893
20 % error	0.160					0.367
²⁰⁶ Pb/ ²⁰⁵ Pb	0.926					0.6171
20 % error	0.920					0.205
²⁰⁶ Pb/ ²⁰⁴ Pb	400.897				the second second second second second second	228.9020
20% error	400.897					1,183
²³⁸ U/ ²³⁵ U					and the second	a second a second s
	0.144					0.0924
20 % error	0.03				And a second	0.121
Pb Blank	1.					1.5
U Blank	- 0.1	1 0.1	0.1	0.1	0.1	0.1
Stacey & Kramer, 1975						
model Pb age	34					
64c	18.175					18.1885
74c	15.600		and the second	a second of the second s		15.6015
84c	38.005					38.0204
BlankUsed	1.200			where the second s		1.5000
Common Pb	0.205					0.6079
Total Pb C	1.405		A second s			2.1079
Pb ppm	36.523				The second se	23.7376
U ppm	651.313					415.7745
Pb206U238	0.053	and the second	(a) a second se second second sec	where a contract of second con-	and a second	and an end of the second se
Pb206U238err	0.345					
Pb206U238errA	18.624					
Pb206U238age	338.645					
Pb207U235	0.3973					
Pb207U235err	0.467:			A 115 THE REPORT OF THE REPORT OF	of a second construction and the second construction of	water a company on a second or other company.
Pb207U235errA	18.568					
Pb207U235age	339.705					
Pb207Pb206	0.053	(a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	A COMMON A COMPANY A		of the control of the	NUMBER OF A DESCRIPTION OF AN ADDRESS OF A DESCRIPTION OF A
Pb207Pb206err	0.313					
Pb207Pb206errA	16.7612					
Pb207Pb206age	346.9698					
Pb207Pb206ageerr	7.0952					
Pb206Pb204	7529.8902			the second of the second state was a second state of the second st	and the second	and the second sec
Pb208Pb206	0.145					
Rho	0.741:	2 0.842	0.8512	2 0.9907	0.8604	0.5840
	single zircon grain			Z?????? Weird		Z no chem Pb rerun -
Description	no column chem	z	Z	load	z	disregard
Description	no column chem	<u> </u>	<u>د </u>	1000	-	usicyalu

Sample Number	BLANK06	BLANK06	BLANK06	S	Shuteen	Shuteen
Unique ID	2267	226	6	2265	2303	
Fraction Code	B-3	B-2	B-1			'Z-2
chemistry code	159-28	159-29	159-30	1	63-23	163-24
Sample Weight (µg)	1.0	,	0	1.0	0.9	0.4
Spike Weight (g)	0.0025	0.002	5	0.0025	0.0020	0.0020
²⁰⁶ Pb/ ²⁰⁸ Pb	0.8812	0.888	2	0.9041	3.9565	3.8708
20 % error	0.091			0.148	0.048	and a second s
²⁰⁶ Pb/ ²⁰⁷ Pb	2.1751			2.2276	12,9059	where the second s
20 % error	0.139			0.195	0.080	
²⁰⁶ Pb/ ²⁰⁵ Pb	0.0943			0.0917	1.3466	
20 % error	0.094			0.108	0.052	
²⁰⁶ Pb/ ²⁰⁴ Pb						Contraction of the Apple of the Party of the
	33.7840		-	34.9050	549.7640	
20 % error	0.244			0.509	0.449	
²³⁸ U/ ²³⁵ U	0.0007			0.0008	0.2242	
20 % error	0.575			1.085	0.500	and the second
Pb Blank	0.0			0.0	1.1	
U Blank	0.0) _0,	0	0.0	0.1	0.1
Stacey & Kramer, 1975						
model Pb age	(0	0	325	
64c	18.7033		3	18.7033	18.1997	
74c	15.6288	And the second	and the second	15.6288	15.6022	
84c	38.6305			38.6305	38.0334	38.0334
BlankUsed	0.0000	0.000	0	0.0000	1.1000	1.1000
Common Pb	2.3443	2.206	0.	2.0368	0.2258	0.7287
Total Pb C	2.3443	2.206	0	2.0368	1.3258	1.8287
Pb ppm	2.2409	2.183	1	1.9725	35.4062	2 71.0360
Uppm	0.1410	0.280	6	0.1822	631.0425	5 1316.5910
Pb206U238	-0.2614	-0.026	8	-0.1294	0.0519	0.0495
Pb206U238err	4.9595	5 51.254	3	13.1646	0.5743	3 0.6207
Pb206U238errA	-1296.5621	-1374.558	-17	703.6260	29.778	30.7386
Pb206U238age	-1953.5094	-175.242	.9' -8	393.3683	325.892	1 311.5881
Pb207U235	0.0000) 1.144	8	0.0000	0.376	5 0.3377
Pb207U235err	11.1481	147.856	6	59.1338	0.602	5 1.1213
Pb207U235errA	0.0000	16927.171	3	0.0000	22.6843	3 37.8723
Pb207U235age	0.0000	774.801	7	0.0000	324.482	3 295.4642
Pb207Pb206	0.4198	-0.309	6	0.1985	0.052	7 0.0495
Pb207Pb206err	7.2094	196.635	i1	47.1208	0.1843	3 0.9282
Pb207Pb206errA	3026.4802	-60879.440	3 93	353.5970	9.705	
Pb207Pb206age	3981.5352	0.000	0 28	313.9250	314.3868	8 169.8948
Pb207Pb206ageerr	107.9087	0.000	0	769.9036	4,192	2 21.6744
Pb206Pb204	17.6983			17.9632	8227.6284	factor and a second fight of
Pb208Pb206	1.8257			1.9537	0.1958	en ante en el construction de la co
Rho	0.8763			0.9311	0.952	
	and a dreat blands of	manage along the familie	Tana an duna 144			
Description	procedural blank no col chem	procedural blanks no column chem	procedural bla column chem		CA 180	CA 180

Sample Number Unique ID	BLANK? 230	SHUTEEN 5 230	Shuteen 06 2308
Fraction Code	23U B-1	⊃ 230 Z-4	Z-5 2308
chemistry code		163-26	163-27
Sample Weight (µg)	163-25		and a second
Spike Weight (g)			
²⁰⁶ Pb/ ²⁰⁸ Pb	0.002		
	0.878		
20 % error	0.13		
²⁰⁶ Pb/ ²⁰⁷ Pb	2.298		
20 % error	0.19	0.1	51 0.348
²⁰⁶ Pb/ ²⁰⁵ Pb	0.091	9 0.76	5 1.283
2σ % error	0.09	9 0.1	0.142
²⁰⁶ Pb/ ²⁰⁴ Pb	36.405	0 296.38	455.7710
2σ % error	0.31	6 0.5	00 1.385
²³⁸ U/ ²³⁵ U	0.000	0.12	0.2116
2σ % error	0.32		
Pb Blank			.3 1.7
U Blank	-	Sec	0.1
Stacey & Kramer, 197			
model Pb age		0 3:	25 32
64c	18.703		
74c	15.628		
84c	38.630	and the second se	
BlankUsed	0.000		
Common Pb	1.475		
Total Pb C	1.475		
Pb ppm	1.620		
U ppm	0.366		
Pb206U238	0.083		
Pb206U238err	4.729		
Pb206U238errA	393,269		
Pb206U238age	514.958		
Pb207U235	2.306		
Pb207U235err	22.981		
Pb207U235errA	5300.961	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Pb207U235age	1214.336		
Pb207Pb206	0.201		
Pb207Pb206err	19,153		
Pb207Pb206errA	3853.097		
Pb207Pb206age	2835.724		
Pb207Pb206ageerr	312.331		
Pb206Pb204	20.024		
Pb208Pb206	4,315		
Rho	0.844		
Rio	0.044	5 0.00	14 0.000
D	NO COLUMN	04.400	A 400
Description	CHEM	CA 180	CA 180

Appendix C

Geochemical data from various arc environments was used for comparison in Chapter 3. This data was acquired from the Georoc online geochemistry database at <u>http://</u><u>georoc.mpch-mainz.gwdg.de/georoc/</u>. The citations for each location are listed below, and full references can be found in the bibliography (Page 169 onwards)

South Sandwich Arc; Gledhill and Baker, 1973; Frolova and Rudnik, 1974; Hawkesworth et al., 1977; Baker, 1978; Barreiro, 1983; Stern et al., 1984; Johnston, 1986; Pearce et al., 1995;

New Hebridies Arc; Gorton, 1977; Marcelot, 1981; Barsdell et al., 1982; Marcelot et al., 1983; Barsdell and Berry, 1989; Price et al., 1990; Eggins, 1993; Coltorti et al., 1994a; Coltorti et al., 1994b; Maillet et al., 1995; Monzier et al., 1997; Peate et al., 1997; Raos and Crawford, 2004;

Lesser Antillies Arc; Shimizu and Arculus, 1975; Baker, 1984; Thirlwall and Graham, 1984; Speed and Walker, 1991; Kerr et al., 1996a; Kerr et al., 1996b; Smith et al., 1996; Thirlwall et al., 1996; Turner et al., 1996; Heath et al., 1998; Lidiak and Larue, 1998; Révillon et al., 1999; White et al., 1999; Hauff et al., 2000; Woodland et al., 2002; Lindsay et al., 2005;

Sunda; Calanchi et al., 1983; Varne and Foden, 1986; Wheller and Varne, 1986; Wheller et al., 1987; Stolz et al., 1988; Vukadinovic and Nicholls, 1989; Gill and Williams, 1990; Stolz et al., 1990; Vukadinovic and Sutamidjaja, 1995; Wensink and Van Bergen, 1995; Mande-ville, 1996; Alves et al., 1999; Abdullah et al., 2000; Turner and Foden, 2001; Reubi et al., 2002; Gertisser and Keller, 2003; Reubi and Nicholls, 2004, 2005;

Honshu Arc; Kohn et al., 1989; Ujiie, 1989; Fukudome et al., 1990; Allan and Gorton, 1992; Iwamori, 1992; Jones et al., 1993; Uto et al., 1993; Miyake, 1994; Uto et al., 1994; Miyashita et al., 1995; Morris, 1995; Gust et al., 1997; Ishiwatari and Ohama, 1997; Kimura and Yoshida, 1999; Morris et al., 1999; Nakashima et al., 2000; Tamura et al., 2000; Churikova et al., 2001; Kimura et al., 2001; Kita et al., 2001; Kobayashi and Nakamura,

2001; Gasperini et al., 2002; Kimura et al., 2002; Takashima et al., 2002; Tamura et al., 2003; Tatsumi et al., 2003; Fujinawa and Kamata, 2005; Tatsumi et al., 2005; Tsuchiya et al., 2005; Shuto et al., 2006; Tatsumi et al., 2006;

Andes Central Volcanic Zone (CVZ); Thorpe et al., 1984; Buchelt M., 1986; Baker et al., 1987; Davidson et al., 1990; Tormey et al., 1991; Vatin-Perignon et al., 1992; Coira and Mahlburg, 1993; Hooker et al., 1993; Feeley and Davidson, 1994; Matthews et al., 1994; Davidson and De Silva, 1995; Stern and Skewes, 1995; Tormey et al., 1995; Ort et al., 1996; Trumbull et al., 1999; Bertotto, 2000; Richards and Villeneuve, 2002; Halter et al., 2004; Sandeman and Clark, 2004; Vergara et al., 2004; Bierlein et al., 2006; Richards et al., 2006

Geochemical data from intrusions at various locations world wide was used for comparison in Chapter 4. Again, this data was acquired from the Georoc. The citations for each location are listed below, and full references can be found in the reference list. **Andes;** Kontak et al., 1986; Brown, 1991; Parada et al., 1991; Richards et al., 2006

Australia,; Allen et al., 1997; Soesoo and Nicholls, 1999

BTVP; Pankhurst et al., 1978; Walsh et al., 1979; Meighan et al., 1984; Vogel et al., 1984; Ferry, 1985

Canadian Cordillera; Piercey et al., 2003; Miskovic and Francis Don, 2006

Honshu; Masuda et al., 1983; Luhr and Carmichael, 1985; Takagi et al., 1989; Kagami et al., 1992; Takagi, 1992; Kutsukake, 1993; Masaki, 1994; Rezanov et al., 1996; Shinjoe, 1997; Ohta et al., 1998; Shimoda et al., 1998; Verma, 2000; Ishihara and Wu, 2001; Kamei, 2002; Kutsukake, 2002

Mid African Rift; Marzoli et al., 1999

New Britain arc; Whalen, 1985

Appendix D

Mineral modal abundances

Sample number	Intrusion name	Quartz	Plagioclase	K-feldspar	Amphibole E	Biotite d	paques	total
51.7A	North Mandakh Granite	40	15	207	26	4	8	3 300
		13.33	5.00	69.00	8.67	1.33	2.67	,
51.6A	North Mandakh Granite	44	22	204	22	5	3	300
		14.67	7.33	68.00	7.33	1.67	1.00	2
97.3A	Shuteen Granite	77	54	143	0	24	2	2 300
		25.67	18.00	47.67	0.00	8.00	0.67	<u>r</u>
97.2A	Shuteen Granite	83	74	111	1	31	C	300
		27.67	24.67	37.00	0.33	10.33	0.00	2
JBSP010	Narin Hudag Quartz Monzonite	81	126	60	13	18	2	2 300
		27.00	42.00	20.00	4.33	6.00	0.67	7
JBSP009	Narin Hudag Quartz Monzonite	141	78	32	21	27	1	300
		47.00	26.00	10.67	7.00	9.00	0.33	3
JBSP007	Narin Hudag Quartz Monzonite	74	145	44	17	16	4	300
		24.67	48.33	14.67	5.67	5.33	1.33	3
JBSP006	Narin Hudag Granite	151	26	115	0	2	e	5 300
		50.33	8.67	38.33	0.00	0.67	2.00	<u>ן</u>
65.12A	Oyut Ulaan	65	108	95	3	20	g	300
		21.67	36.00	31.67	1.00	6.67	3.00	2
88.5A	Oyut Ulaan	62	116	99	2	10	11	300
		20.67	38.67	33.00	0.67	3.33	3.67	7
88.3A	Oyut Ulaan	67	135	84	0	13	1	300
		22.33	45.00	28.00	0.00	4.33	0.33	3

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