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LITHOGEOCHEMICAL DATABASE FOR VOLCANIC ROCKS FROM THE BONAVISTA PENINSULA, NORTHEASTERN NEWFOUNDLAND

(NTS MAP AREAS 2C/05E, 06, 11 AND 12SE)

A.J. Mills

Open File 002C/0226

St. John's, Newfoundland
July, 2017

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CONTENTS

SUMMARY

This database consists of whole-rock lithogeochemical data from samples of volcanic rocks collected on the Bonavista Peninsula of northeastern Newfoundland (Figure 1, NTS map areas 2C/05, 06, 11 and the southeast corner of 2C/12). The regional geology is discussed in reports by O'Brien (1994), Normore (2010, 2011), and Mills (2014). A discussion of lithogeochemical results for 22 of the mafic volcanic rocks is provided in Mills and Sandeman (2015). The rock samples were collected from the Bonavista Peninsula by L. Normore (during 2009, 2010), A.J. Mills (during 2013, 2014, 2015) and J. Wilson (during 2015). Details of the analytical methods used are provided by Finch (1998) and Mills and Sandeman (2015).

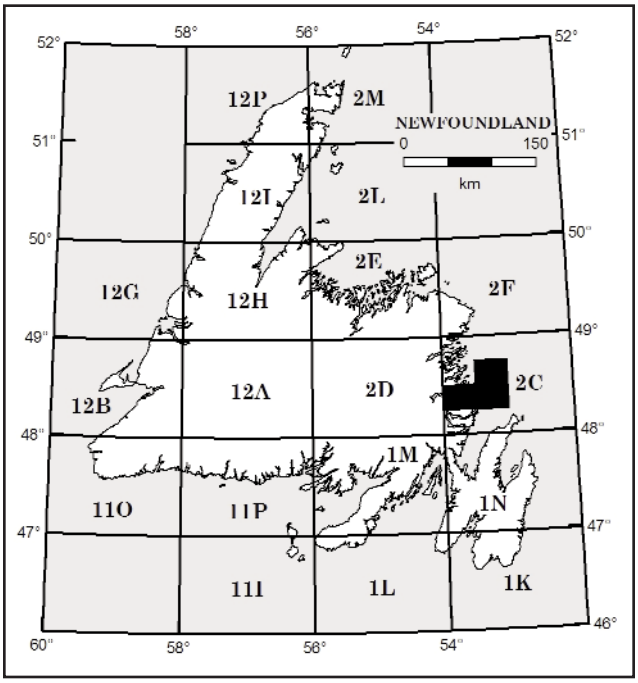

Figure 1. *Index map of study area.*

The open file data release provides no interpretation of the data. The database includes brief sample descriptions, location data, petrographic descriptions and photomicrographs, as well as major-element and trace-element data for 73 samples of volcanic rocks. The data are tabulated below and are available in digital format (*i.e.*, comma separated value files; *.csv).

Geochemistry of the intrusive and sedimentary rocks will be released later in separate open files.

NOTES ON DATABASE

All location data are presented in Universal Transverse Mercator (UTM), eastings and northings (Zone 22; NAD27) format. These were collected using a Trimble Juno 3B handheld unit. Samples are prefixed by the year and initials of the geologist who collected them. The table (Appendix A) contains whole-rock geochemical analytical data for volcanic rock samples along with laboratory duplicate analyses (Appendix B) and a number of reference materials used for the different analytical methods employed (Appendix C). Most data were acquired at the Geological Survey's Geochemical Laboratory (GSNL). Major elements are presented as weight percentages of their oxides. The minor-, trace-, and rare-earth elemental compositions are given in ppm, except for Au (ppb), and Fe and Na (analyzed by Neutron Activation Analysis, INAA); these are given in percent (pct). Volatiles are represented as loss-on-ignition (LOI) determined by gravimetric analysis.

Major elements and some trace elements (Ba, Zr, Cr) were analyzed by inductively coupled plasma-optical emission spectrometry (ICP-OESF) following lithium borate fusion and multi-acid attack. Other trace elements, including rare-earth elements (REE), were analyzed by inductively

coupled plasma-mass spectrometry (ICP-MSF) following lithium borate fusion and multi-acid attack. A small subset of trace elements (As, Be, Co, Cu, Li, Mn, Ni, Pb, Rb, Sc, Ti, V, and Zn) were analyzed by ICP-OES with a four acid digestion (ICP-OES4). Silver was analyzed by ICP-OES following a nitric acid digestion (ICP-OESH). Fluorine was analyzed by ion selective electrode (ISE) following a sodium carbonate and potassium nitrate fusion. Further details of analytical procedures are outlined by Finch (1998), Mills and Sandeman (2015) and Sandeman (2015).

Three of the rock samples were also analyzed by instrumental neutron activation analysis (INAA) at Becquerel Laboratories (Bec) in Mississauga, ON. The INAA data are captured in a separate table (Appendix D) and pertinent data from Standards are in Appendix E. Basic methods involve bombardment of the samples with neutrons in a nuclear reactor; the elements present are identified and quantified by gamma rays that are emitted during radioactive decay (http://maxxam.ca/services/radioactivity-testing-trace-element-analysis).

Calculations and abbreviations used in the database are described herein for clarity. A value of -99 reported for an element indicates it was not analyzed.

$$Mg\# = MgO/(MgO+FeOT)*100.$$

Within the Duplicates Table (Appendix B):

$$\%\_difference = [(OriginalValue - Lab\ Split\ Value)/Original\ Value] * 100.$$

In the %_difference rows, BD = Below Detection, and is used where both the original sample value and duplicate value are less than the limit of detection; LOD = Limit of Detection, where either the original sample value or the duplicate value (but not both) is less than the limit of detection; NA = Not Analyzed.

Sixty-four photomicrographs are available in a digital zip compressed file in Appendix F.

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Chris Finch and the staff at the Geological Survey of Newfoundland and Labrador, Howley Building Geochemical Laboratories, are thanked for their excellent work in obtaining the high-quality lithogeochemical data. Field assistance was provided by Zoe Goodyear, Jesse Wilson and Cameron Peddle. Pauline Honarvar is thanked for providing excellent assistance with formatting of the database and thorough review of the data for quality assurance.

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Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	UTMEast	UTMNorth	UTMZone	Datum	Geologist	Petro_Desc
Detection Limit							
Analysis Method							
09LN313A	10140074	340928	5377329	22	NAD27	L. Normore	No relict cpx; chl and carbonate in matrix and amygdales
09LN314A	10140075	340878	5377301	22	NAD27	L. Normore	No relict cpx; chl and carbonate in matrix and amygdales
09LN554A	10140136	340579	5377431	22	NAD27	L. Normore	Chl-carbonate alteration in matrix and amygdales; patchy ti-chl in matrix; minor carbonate veins
09LN555A	10140137	340590	5377365	22	NAD27	L. Normore	Chl-carbonate alteration in matrix and amygdales; minor pl phenocrysts; chl-qtz amygdales
09LN560A	10140142	340492	5376806	22	NAD27	L. Normore	Chl-carbonate alteration in matrix and amygdales
10LN002A	10140239	340897	5377311	22	NAD27	L. Normore	Minor relict cpx in chl-altered matrix with ti (~2%) and ep; weak trachytic texture
10LN003A	10140241	340819	5377301	22	NAD27	L. Normore	Minor relict cpx and mutually exclusive chl or carbonate amygdales in pl-rich volcanic rock; pl ranges from <100um to >1 mm; >1% ti; patchy carbonate alteration
10LN013A	10140242	313025	5370153	22	NAD27	L. Normore	Amygdales up to 1 cm contain fsp+ep in cores and rimming by adularia; matrix locally has trachytic flow texture
10LN711A	10140347	318693	5350241	22	NAD27	L. Normore	Very fine-grained qfp rock with carbonate
10LN724B	10140348	316307	5348026	22	NAD27	L. Normore	Stratified; possibly tuffaceous
10LN727A	10140357	314796	5346823	22	NAD27	L. Normore	Trachytic texture; abundant ti, rare tiny relict cpx, minor ep
13AM001A01	10740001	311408	5367848	22	NAD27	A. Mills	Cpx up to 3 mm; randomly oriented pl laths; subophitic texture; chlorite in matrix, and possibly replacing cpx; ep; minor carbonate; trace mt-ilm-cpy
13AM001B01	10740002	311408	5367848	22	NAD27	A. Mills	Sieve-textured pl anticrysts; pl in groundmass shows trachytic texture; amygdales of ep and qtz; ep crystals in groundmass
13AM008A01	10740003	312439	5368796	22	NAD27	A. Mills	Subhedral fsp phenocrysts; possible glass fragments
13AM009A01	10740028	312269	5368786	22	NAD27	A. Mills	Very fine-grained qfp matrix with 10% qtz microphenocrysts (100-200 µm); minor ti; bt (?) in blebs; opaques
13AM010A01	10740012	312076	5368778	22	NAD27	A. Mills	Spherulitic - devitrified glass; patchy opaques; 80% qfp spherules; 20% opaques (mainly hem)
13AM012A01	10740013	313515	5368684	22	NAD27	A. Mills	Poorly developed spherules; intergrowths of qtz+opaque rimming spherules; minor fsp phenocrysts up to 4 mm; drusey-texture with qtz+opaque+ser
13AM016A01	10740029	312836	5368046	22	NAD27	A. Mills	Minor qtz+fsp phenocrysts 1-2 mm, minor opaques, green-blue amphibole (aegirine?) and ti in qfp matrix
13AM018A01	10740004	313793	5373519	22	NAD27	A. Mills	Similar to 13AM016A - poorly developed spherules in quartzofeldspathic rock
13AM031A01	10740006	312815	5366282	22	NAD27	A. Mills	Qtz and commonly euhedral fsp phenocrysts in fine-grained qfp matrix; flow banding defined by opaque (hem+mt) and white mica
13AM035A01	10740007	312368	5364659	22	NAD27	A. Mills	Qfp spherules with minor opaques and alkali fsp phenocrysts and 200 um qtz eyes
13AM147A01	10740041	311046	5363023	22	NAD27	A. Mills	Ophitic cpx and pl; chl-qtz-ep in amygdales
13AM147B01	10740032	311046	5363023	22	NAD27	A. Mills	No thin section available
13AM176A01	10740047	310891	5361552	22	NAD27	A. Mills	Qfp rock with sausseritized fsp; qtz as blebs and fine veinlets; opaques associated with qtz between fsp
13AM178A01	10740119	310751	5362278	22	NAD27	A. Mills	Fsp porphyritic (3-4 mm); abundant qtz veins with bt at margins
13AM183A01	10740035	310067	5360298	22	NAD27	A. Mills	Weak spherulitic texture in qfp rock
13AM184A01	10740048	310092	5361005	22	NAD27	A. Mills	Spherulitic rhyolite; opaques and quartz in blebs (possibly filling voids); carbonate in veinlets and as isolated blebs
13AM190A01	10740049	311408	5363902	22	NAD27	A. Mills	Qfp sherules with minor opaques(hem-mt) and alkali fsp phenocrysts and qtz eyes; trace ep, ti, hbl (?)
13AM194A01	10740036	314371	5376285	22	NAD27	A. Mills	Pl-rich matrix with chl amygdales and chl-ep-opaques in groundmass
13AM200A01	10740037	308024	5378015	22	NAD27	A. Mills	Trachytic pl in glassy groundmass; trace opaques; rare fsp phenocrysts having brownish alteration phase
13AM201C01	10740053	308434	5378105	22	NAD27	A. Mills	Trachytic pl; minor chl amygdales; rare sieve-textured pl phenocrysts; trace euhedral ti and trace mt
13AM205A01	10740055	307769	5376064	22	NAD27	A. Mills	Felsic, mafic and intermediate volcanic clasts
13AM205A04	10740038	307769	5376064	22	NAD27	A. Mills	Felsic, mafic and intermediate volcanic clasts
13AM270B01	10740061	299892	5361049	22	NAD27	A. Mills	Qfp rock, very fine-grained; qtz veins are cut by carbonate veins
13AM297A01	10740066	305145	5374866	22	NAD27	A. Mills	Rare fsp phenocrysts and glomerocrysts in fspthic matrix; qtz-ti-opaque-amphibole blebs
13AM301A	10740124	304816	5374238	22	NAD27	A. Mills	Sieve-textured pl glomerocrysts up to 5 mm; trachytic basalt matrix; accessory high birefringence phase (ep or prehnite?)
13AM301A01	10740068	304816	5374238	22	NAD27	A. Mills	Sieve-textured pl glomerocrysts up to 5 mm; trachytic basalt matrix; accessory high birefringence phase (ep or prehnite?)
13AM306C01	10740073	305125	5374861	22	NAD27	A. Mills	Qfp rock with fine-grained grungy brown phase (amph?); possible zircon
13AM311C01	10740069	310798	5373684	22	NAD27	A. Mills	Pl glomerocrysts with sieve-textured cores rimmed by opaque-inclusion-rich pl, rimmed by clear, inclusion-free pl; fine pl laths and opaques in groundmass
13AM312A01	10740074	310809	5373755	22	NAD27	A. Mills	Heavily saussuritized pl glomerocrysts; 3% mt with ilm exsolution lamellae; intersertal glass replaced by chl; intersertal carbonate and carbonate veins
13AM314A01	10740079	313493	5373925	22	NAD27	A. Mills	Fine-grained qfp rock with weak flow texture; 20% high birefringence phase (amph/ep?); minor qtz veins
13AM315B01	10740099	313296	5373888	22	NAD27	A. Mills	Fsp phenocrysts up to 1 mm; colourless high birefringence phase up to 15%
13AM321B01	10740081	312952	5373095	22	NAD27	A. Mills	Sieve-textured cores of fsp phenocrysts; concentric-layered chl amygdales
13AM321C01	10740088	312952	5373095	22	NAD27	A. Mills	Zoned, subhedral pl phenocrysts in trachytic-textured matrix; qtz+/- chl amygdales with bleached haloes; possible siliciclastic clasts with white mica rimming

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	UTMEast	UTMNorth	UTMZone	Datum	Geologist	Petro_Desc
Detection Limit							
Analysis Method							
13AM322A01	10740092	312818	5372079	22	NAD27	A. Mills	Fsp phenocrysts (some having Carlsbad twins) in groundmass of fine pl laths; possible ser or white mica in matrix
13AM325A01	10740078	311627	5368265	22	NAD27	A. Mills	Amygdaloidal basalt with chl+ep amygdales; ep rimming amygdales and as alteration in groundmass
13AM335A01	10740086	308025	5377466	22	NAD27	A. Mills	30% pl phenocrysts; some are sieve-textured; variable to heavily saussuritized; minor opaques and carbonate veins
13AM345A01	10740093	307851	5353291	22	NAD27	A. Mills	Qfp spherulites with minor patches or drusey qtz and minor alkali fsp phenocrysts up to 2 mm (5% of rock)
13AM346A01	10740094	307770	5350372	22	NAD27	A. Mills	Banded qfp layers; rare alkali fsp phenocrysts up to 2 mm; pink-yellow pleochroic phase (piedmontite) associated with drusey qtz blebs
13AM368A01	10740087	309441	5357796	22	NAD27	A. Mills	Qtz and fsp phenocrysts in spectacularly banded rhyolite
13AM369A01	10740077	309535	5358590	22	NAD27	A. Mills	Very fine-grained qfp rock with vuggy blebs of qtz and fsp blades and minor opaques in some vugs
13AM386A01	10740083	313232	5370614	22	NAD27	A. Mills	Trachytic pl with minor sieve-textured and resorbed pl phenocrysts; rare amygdales containing ep; minor interstitial opaques
13AM387A01	10740076	313561	5370833	22	NAD27	A. Mills	Fine-grained, qfp rock with minor alkali fsp phenocrysts up to 2 mm; most phenocrysts are euhedral, some are sieve-textured, subhedral and have inclusion-free rims
13AM388A01	10740082	313091	5370156	22	NAD27	A. Mills	Very fine-grained qfp matrix with no phenocrysts; mostly fsp (90%), opaques (5%); qtz (<5%)
13AM390C01	10740091	312026	5369278	22	NAD27	A. Mills	Minor sieve-textured pl phenocrysts up to 2 mm; minor small chl amygdales; minor very fine-grained opaques
13AM410A01	10740107	310607	5373622	22	NAD27	A. Mills	Pl glomerocrysts in fine-grained, pl-rich groundmass with minor opaques
14AM039A01	10740137	340727	5376919	22	NAD27	A. Mills	Glassy matrix with abundant small amygdales (scoriaceous); concentrically zoned chl in amygdales; qtz-carbonate-fsp in some amygdales
14AM041A01	10740138	340974	5377286	22	NAD27	A. Mills	Relict cpx phenocrysts resorbed and altered to chl+ti; chl-carbonate+/-ep amygdales with chilled margins; fine ep-chl-hem, trace cpy
14AM077A01	10740145	327442	5360912	22	NAD27	A. Mills	No thin section available
14AM111C01	10740147	320658	5350048	22	NAD27	A. Mills	Fragments of cpx microcrystal-bearing scoria separated by qfp-carbonate (possible magmatic fluid?)
14AM284A01	10740171	314344	5347041	22	NAD27	A. Mills	Weakly developed trachytic texture; fine-grained, homogeneous, mafic volcanic rock
14JW007A	10740196	311837	5369276	22	NAD27	J. Wilson	Mainly fine-grained, cumulate pl laths showing minor chl and saussurite alteration; interstitial chl, ep, py/lm; amygdales filled with carbonate, stained red, and minor chl
14JW010A2	10740195	311928	5369244	22	NAD27	J. Wilson	Mainly pl laths; larger grains of ep and ep+chl+hem; minor veins of qtz +/- chl and carbonate
14JW027A2	10740194	312027	5369341	22	NAD27	J. Wilson	Fine-grained, microspherulitic quartzofeldspathic matrix; subhedral phenocrysts of ksp and qtz; possible ru
15AM005A	10740205	306564	5351840	22	NAD27	A. Mills	No thin section available
15AM012A	10740206	305762	5348056	22	NAD27	A. Mills	No thin section available
15AM013A	10740207	306242	5347956	22	NAD27	A. Mills	No thin section available
15AM042B	10740208	307048	5354283	22	NAD27	A. Mills	40% cpx (2-4 mm); 40% pl (up to 1 mm); 10% glassy groundmass; 10% opaques
15AM044A	10740209	308140	5354399	22	NAD27	A. Mills	Trachytic pl with rare sieve-textured pl phenocrysts; 5-10% opaques, possible opx (~5%)
15AM125A	10740216	311911	5369219	22	NAD27	A. Mills	Fine-grained (ash) matrix with minor crystals including zr
15AM200A	10740217	313422	5368680	22	NAD27	A. Mills	Fine qfp rock (sub-spherulitic) with qtz and rare ksp phenocrysts (<2 mm); minor ti; incipient bt; opaque (mt/hem?) in some fsp cores; grey, discontinuous lenses (fiamme?)
15AM201A	10740218	313699	5369202	22	NAD27	A. Mills	Felsic volcanic clastswith cuspate margins and embayments in fine-grained qfp matrix
15AM401	10740204	286710	5278663	22	NAD27	A. Mills	Minor fsp and qtz phenocrysts in compositionally banded rock; opaque-rich vs opaque-poor bands; qtz-rich vs feldspathic bands

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Rock_Type	TSPhoto	FieldNotes
Detection Limit				
Analysis Method				
09LN313A	10140074	Basalt	09LN313 rep ppl.jpg	Vesicular Basalt overlain sharply and discordantly by dark grey, thinly laminated and convoluted siltstone
09LN314A	10140075	Basalt	09LN314 adularia ep qtz amygs2.jpg	Amygdaloidal basalt with pink amygdales that have white centres
09LN554A	10140136	Basalt	09LN554 5x ppl.jpg	Amygdaloidal basalt with quartz amygdales
09LN555A	10140137	Basalt	09LN555 5x ppl.jpg	Interbedded pillow lavas and siltstone
09LN560A	10140142	Basalt	09LN560 5x ppl.jpg	Dark grey-green basalt with rusty red-purple sulphides
10LN002A	10140239	Basalt	10LN002 5x xpl.jpg	Basalt
10LN003A	10140241	Basalt	10LN003_5x_ppl.jpg	Basalt
10LN013A	10140242	Amygdaloidal basalt	10LN013 5x ppl.jpg	Columnar basalt
10LN711A	10140347	Intermediate crystal ash tuff	10LN711A 5x ppl.jpg	Tuff near New Bonaventure
10LN724B	10140348	Intermediate crystal ash tuff	10LN724B 5x ppl.jpg	Tuff near British Hr
10LN727A	10140357	Basalt	10LN727A 10x ppl.jpg	Brecciated basalt flow
13AM001A01	10740001	Gabbro dyke	13AM001A_cpx_subophitic_chlmatrix.jpg	Amygdaloidal basalt - poor roadside outcrop
13AM001B01	10740002	Andesite	13AM001B amygdales.jpg	Possible dyke/sill
13AM008A01	10740003	Welded tuff	13AM008A_poss_weldedtuff.jpg	Basaltic flow-top breccia with quartz amygdales up to 1 cm; at cell tower in Summerville
13AM009A01	10740028	Rhyolite	13AM009A radial bt in felsvlc.jpg	Flow-banded rhyolite, locally brecciated
13AM010A01	10740012	Rhyolite	13AM010 spheruliticRhyolite xpl.jpg	Flow-banded rhyolite, locally brecciated
13AM012A01	10740013	Rhyolite	13AM012_spherules_ppl.jpg	Banded Rhyolite
13AM016A01	10740029	Rhyolite	13AM016 2x ppl.jpg	Chaotically flow-banded rhyolite
13AM018A01	10740004	Rhyolite	13AM018 2x ppl.jpg	Flow-banded, pl porphyritic rhyolite
13AM031A01	10740006	Banded rhyolite	13AM031_dkBandTerminus_whiteMica_qfpPorph_ppl.jpg	Flow-banded, pl porphyritic rhyolite
13AM035A01	10740007	Rhyolite	13AM035 2x ppl.jpg	Flow-banded, pl porphyritic rhyolite
13AM147A01	10740041	Basalt	13AM147A chl ep amygs ppl.jpg	Maroon-coloured volcanic rock with mm-scale pl phenocrysts
13AM147B01	10740032	Basalt		Basalt in quarry 50 m west of station, carbonate amygdales with epidote at rims
13AM176A01	10740047	Rhyolite	13AM176A 2x ppl.jpg	Flow-banded and brecciated rhyolite with brick red veins locally (hematite-rich?)
13AM178A01	10740119	Rhyolite	13AM178A 2x ppl.jpg	Brick-red feslic volcanic rock
13AM183A01	10740035	Rhyolite	13AM183A 2x ppl.jpg	Flow-banded rhyolite, locally brecciated
13AM184A01	10740048	Spherulitic rhyolite	13AM184A 2x ppl.jpg	Rhyolite with fsp phenocrysts
13AM190A01	10740049	Spherulitic rhyolite	13AM190A 2x ppl.jpg	Flow-banded rhyolite
13AM194A01	10740036	Basalt	13AM194A_2x_ppl.jpg	Maroon-coloured volcanic rock with qtz-ep-hem amygdales
13AM200A01	10740037	Trachytic andesite	13AM200A 5x ppl.jpg	West side Cutler Head; thick andesitic flow with patchy red and maroon staining
13AM201C01	10740053	Trachytic andesite	13AM201C trachmfvlc porph.jpg	Thick, intermediate volcanic flow beneath 8 m sedimentary sequence
13AM205A01	10740055	Volcanic breccia	13AM205 vlc clast.jpg	Fsp porphyritic, red rhyolite, locally brecciated; overlain by red pebble conglomerate
13AM205A04	10740038	Volcanogenic conglomerate		Fsp porphyritic, red rhyolite, brecciated; overlain by red pebble conglomerate
13AM270B01	10740061	Rholite sill	13AM270B 5x ppl.jpg	5 cm wide, bluish silicic sill; locally cuts up through stratigraphy
13AM297A01	10740066	Andesite		Ep amygdaloidal basalt with alteration zone (salmon pink veining and narrow ep veinlets)
13AM301A	10740124	Plagioclase glomerocrystic trachytic basalt (epidotized)	13AM301A_xpl.jpg	Epidotized, veined, brecciated amygdaloidal basalt; to compare with unaltered 13AM301A01; intercalated with red conglomerate
13AM301A01	10740068	Plagioclase glomerocrystic trachytic basalt	13AM301A_xpl.jpg	Ep amygdaloidal basalt, locally veined and brecciated; intercalated with red conglomerate; epidotization avoided for lithogeochemistry
13AM306C01	10740073	Crystal ash tuff		Felsic tuff above thick basalt flow; overlain by cobble conglomerate
13AM311C01	10740069	Plagioclase glomerocrystic basalt	13AM311C_pl_glomerocrysts_ppl.jpg	Amygdaloidal basalt; overlies conglomerate and felsic tuff dated at 600 Ma (Mills et al., 2016)
13AM312A01	10740074	Glomerocrystic basalt	13AM312A_plGloms_xpl.jpg	Thick basalt flow; pl porphyritic with qtz-ep amygdales
13AM314A01	10740079	Andesite	13AM314A 5x ppl.jpg	Columnar with minor red qtz (jasper?) amygdales
13AM315B01	10740099	Rhyolite	13AM315B tuff ppl.jpg	Subvertical, greenish-yellow tuff layer interbedded with volcanic conglomerate; similar to 15AM125
13AM321B01	10740081	Andesite	13AM321B plag pheno.jpg	Amygdaloidal basalt; well cleaved and fractured; minor qtz and qfp veins
13AM321C01	10740088	Trachytic andesite	13AM321C_sievePl_hiMag_xpl.jpg	Red volcanic rock in fault contact with 13AM321B and bleached tuff/siliciclastic rock

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Rock_Type	TSPhoto	FieldNotes
Detection Limit				
Analysis Method				
13AM322A01	10740092	Andesite	13AM322A fsp phenos ppl.jpg	Columnar jointed flow containing pinkish fsp phenocrysts
13AM325A01	10740078	Amygdaloidal basalt	13AM325A 2x ppl.jpg	Qtz-chl amygdaloidal basalt
13AM335A01	10740086	Phenocrystic basalt	13AM335A 2x ppl.jpg	Qtz-chl amygdaloidal basalt overlying conglomerate to the south
13AM345A01	10740093	Rhyolite	13AM345A 2x ppl.jpg	Flow-banded, fsp porphyritic rhyolite
13AM346A01	10740094	Banded rhyolite	13AM346A 2x ppl.jpg	Flow-banded, fsp porphyritic rhyolite, locally brecciated
13AM368A01	10740087	Banded rhyolite	13AM368A 2x ppl.jpg	Flow-banded rhyolite
13AM369A01	10740077	Rhyolite	13AM369A 2x ppl.jpg	Flow-banded, fsp porphyritic rhyolite
13AM386A01	10740083	Trachytic basalt	13AM386A 2x ppl.jpg	Amygdaloidal basalt
13AM387A01	10740076	Feldspar porphyritic dacite	13AM387A_2x_ppl.jpg	Pl porphyritic, mafic to intermediate volcanic; well cleaved
13AM388A01	10740082	Rhyolite	13AM388A 5x ppl.jpg	Columnar jointed flow
13AM390C01	10740091	Basalt	13AM390A 5x ppl.jpg	Basalt from Summerville Roadcut
13AM410A01	10740107	Glomerocrystic basalt	13AM410A 2x ppl.jpg	Qtz-chl amygdaloidal, pl phenocrystic basalt with possible hem
14AM039A01	10740137	Amygdaloidal basalt	14AM039_2x_ppl.jpg	Mafic fragmental with rounded, pink, coarse-grained blebs apparently infilling voids (magmatic/hydrothermal?)
14AM041A01	10740138	Amygdaloidal basalt	14AM041_cpx_ChlCore.jpg	Basalt with chl-carbonate amygdales, common ep stringers and alteration; overlain by laminated grey siltstone
14AM077A01	10740145	Peperite		Aphanitic, salmon pink, qfp rock mixed with black mudstone; ~70 cm thick; sits stratigraphically above Trinity tillite
14AM111C01	10740147	Mafic fragmental/scoria		Mafic fragmental with rounded, pink blebs apparently infilling voids (magmatic/hydrothermal?)
14AM284A01	10740171	Basalt	14AM284A 10x ppl.jpg	Massive mafic volcanic flow with minor vesicles
14JW007A	10740196	Amygdaloidal basalt	14JW007A_2.JPG	Vesicular basalt near base of Summerville Roadcut
14JW010A2	10740195	Basalt	14JW010A2 2.JPG	Maroon stained, dark grey basalt; overlies siltstone
14JW027A2	10740194		14JW027A2 3.JPG	Weakly foliated, maroon rhyolite with pink fsp phenocrysts
15AM005A	10740205			Chlorite-amygdaloidal basalt
15AM012A	10740206	Basaltic andesite		Poorly exposed mafic volcanic with patchy green and dark pink alteration (ep and ksp/adularia?)
15AM013A	10740207	Basalt		Amygdaloidal basalt
15AM042B	10740208	Basalt	15AM042B 2x cpx pl chl mt ppl.jpg	Cliff of aphanytic basalt; epidote alteration and salmon-coloured felsite veinlets; trace py
15AM044A	10740209	Basalt	15AM044A 5x ppl.jpg	Cliff exposure of aphanitic basalt
15AM125A	10740216	Crystal ash tuff	15AM125A zr tuff 5x ppl.jpg	Yellow-green crystal ash tuff at Summerville roadcut
15AM200A	10740217	Rhyolite	15AM200A_2x_ppl.jpg	Flow-banded rhyolite
15AM201A	10740218	Felsic lapilli tuff	15AM201A 2x ppl.jpg	Lapilli tuff exposed at Horace Newell's cabin (north of Summerville)
15AM401	10740204	Banded rhyolite	15AM401 BandedRhy 2x ppl.jpg	Banded Rhyolite

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Map_Unit	Lab_Method	Mg#	SiO2_pct	Al2O3_pct	Fe2O3_pct	Fe2O3T_pct	FeO_pct	FeOT_pct	CaO_pct	MgO_pct	K2O_pct	Na2O_pct
Detection Limit			Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Analysis Method			Analysis Method		ICPOESF	ICPOESF	Difference	ICPOESF	Titration	Calculated	ICPOESF	ICPOESF	ICPOESF	ICPOESF
09LN313A	10140074	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	53.85	47.46	17.57	2.99	10.59	6.84	9.53	3.70	6.24	1.37	5.24
09LN314A	10140075	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	61.13	50.90	15.92	1.65	7.00	4.81	6.29	5.39	5.56	4.28	3.50
09LN554A	10140136	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	54.10	44.06	15.82	1.60	10.06	7.62	9.05	6.20	5.99	4.19	2.39
09LN555A	10140137	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	58.15	43.99	16.08	1.37	9.76	7.55	8.78	7.41	6.85	0.76	4.81
09LN560A	10140142	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	44.92	53.32	17.13	2.52	10.78	7.43	9.70	2.66	4.44	0.61	5.43
10LN002A	10140239	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	57.92	47.56	16.54	2.82	10.22	6.66	9.20	4.89	7.10	1.44	4.29
10LN003A	10140241	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	59.45	46.10	16.38	2.12	9.97	7.07	8.97	6.37	7.38	0.62	4.83
10LN013A	10140242	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	54.12	46.19	15.55	9.04	12.68	3.27	11.41	3.52	7.55	3.96	3.02
10LN711A	10140347	BrHr	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	43.34	80.73	10.53	0.59	0.93	0.31	0.84	0.82	0.36	1.01	4.59
10LN724B	10140348	BrHr	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	45.28	56.81	22.22	2.31	3.84	1.37	3.45	1.28	1.60	6.47	1.60
10LN727A	10140357	BrHr	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.96	46.82	14.94	7.85	13.63	5.20	12.27	6.30	4.39	1.34	5.04
13AM001A01	10740001	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	60.32	46.95	14.88	2.20	12.41	9.19	11.17	5.85	9.53	0.21	4.05
13AM001B01	10740002	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	39.56	55.93	15.17	6.08	9.88	3.42	8.89	4.57	3.27	0.68	6.90
13AM008A01	10740003	PCvbI	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	42.36	61.05	18.16	2.80	4.38	1.42	3.94	4.51	1.63	1.34	6.01
13AM009A01	10740028	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	3.56	76.10	10.41	4.43	4.69	0.23	4.22	0.20	0.09	3.42	3.45
13AM010A01	10740012	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	6.00	73.46	10.29	6.14	6.42	0.25	5.78	0.96	0.21	4.19	2.79
13AM012A01	10740013	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	5.85	75.35	10.43	3.32	3.54	0.20	3.18	0.82	0.11	3.32	4.06
13AM016A01	10740029	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	7.70	75.27	10.48	2.81	3.48	0.60	3.13	0.51	0.15	4.53	3.83
13AM018A01	10740004	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	1.19	78.06	10.64	3.44	3.60	0.15	3.24	0.22	0.02	0.15	6.61
13AM031A01	10740006	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	5.58	75.24	10.41	3.46	3.63	0.16	3.27	1.70	0.11	5.09	1.87
13AM035A01	10740007	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	3.81	74.29	10.34	4.54	4.92	0.35	4.43	0.44	0.10	5.37	2.22
13AM147A01	10740041	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	58.57	45.41	16.55	5.35	11.76	5.77	10.58	5.21	8.39	2.12	3.15
13AM147B01	10740032	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	60.63	46.17	16.34	4.46	11.29	6.15	10.16	4.67	8.78	1.74	3.47
13AM176A01	10740047	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	2.68	74.69	9.97	5.08	5.30	0.20	4.77	0.74	0.07	5.91	1.85
13AM178A01	10740119	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	12.32	83.62	8.29	2.09	2.59	0.45	2.33	0.06	0.18	1.93	3.05
13AM183A01	10740035	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	4.96	74.22	9.88	4.90	5.15	0.22	4.63	0.46	0.14	6.42	1.74
13AM184A01	10740048	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	9.85	76.07	11.03	3.02	3.32	0.27	2.99	1.06	0.18	3.20	3.69
13AM190A01	10740049	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	7.62	75.03	9.92	4.55	5.13	0.52	4.62	0.68	0.21	4.69	3.15
13AM194A01	10740036	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	54.23	43.27	13.92	7.83	14.65	6.14	13.18	5.13	8.76	0.12	4.11
13AM200A01	10740037	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	26.13	58.21	15.13	5.12	9.23	3.70	8.31	4.44	1.65	0.32	5.15
13AM201C01	10740053	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	41.61	56.21	15.99	5.99	9.97	3.59	8.98	1.61	3.59	0.15	6.61
13AM205A01	10740055	CPG Fels	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	30.85	69.09	13.48	4.08	4.63	0.50	4.17	2.83	1.04	1.01	3.76
13AM205A04	10740038	CPG Fels	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	27.85	71.50	11.79	3.23	3.90	0.61	3.51	4.43	0.76	0.19	3.80
13AM270B01	10740061	CPG Fels	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	27.76	78.95	10.06	0.19	2.59	2.16	2.33	1.81	0.50	0.13	4.43
13AM297A01	10740066	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	19.39	62.05	14.41	2.42	9.73	6.58	8.76	2.37	1.18	3.79	2.45
13AM301A	10740124	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	18.98	46.51	16.68	9.05	11.41	2.12	10.27	17.37	1.35	0.30	0.21
13AM301A01	10740068	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	49.66	46.88	17.87	8.74	12.96	3.80	11.66	2.40	6.45	2.07	4.48
13AM306C01	10740073	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	4.27	78.66	11.04	1.32	1.49	0.15	1.34	2.33	0.03	-0.01	5.08
13AM311C01	10740069	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	34.14	60.21	19.96	3.64	3.78	0.13	3.40	6.10	0.99	3.44	2.43
13AM312A01	10740074	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	42.98	50.10	18.16	9.67	11.72	1.84	10.54	2.77	4.46	1.86	5.45
13AM314A01	10740079	PCvbI	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	40.22	63.40	15.07	4.79	6.03	1.12	5.43	3.94	2.05	2.16	2.85
13AM315B01	10740099	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	30.74	77.69	11.54	1.04	1.47	0.39	1.32	2.20	0.33	1.06	3.79
13AM321B01	10740081	PCvbI	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	20.96	64.17	15.16	1.42	6.44	4.52	5.80	0.82	0.86	2.76	5.04
13AM321C01	10740088	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	31.18	55.87	16.40	7.88	9.37	1.34	8.43	2.38	2.14	1.48	6.76

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Map_Unit	Lab_Method	Mg#	SiO2_pct	Al2O3_pct	Fe2O3_pct	Fe2O3T_pct	FeO_pct	FeOT_pct	CaO_pct	MgO_pct	K2O_pct	Na2O_pct
Detection Limit			Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Analysis Method			Analysis Method		ICPOESF	ICPOESF	Difference	ICPOESF	Titration	Calculated	ICPOESF	ICPOESF	ICPOESF	ICPOESF
13AM322A01	10740092	PCvbI	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	16.33	66.72	14.14	1.55	2.63	0.97	2.37	3.19	0.26	2.85	4.81
13AM325A01	10740078	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	55.66	45.42	17.30	6.12	12.69	5.91	11.42	6.04	8.04	0.45	3.66
13AM335A01	10740086	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.51	46.71	19.39	8.07	9.82	1.57	8.83	5.61	3.10	2.91	4.04
13AM345A01	10740093	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	12.19	75.74	11.11	2.76	3.05	0.26	2.75	0.31	0.21	4.94	2.49
13AM346A01	10740094	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	5.98	70.46	13.85	2.94	3.10	0.15	2.79	0.95	0.10	4.86	3.77
13AM368A01	10740087	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	6.14	75.40	11.41	3.95	4.16	0.19	3.74	1.35	0.14	2.85	3.84
13AM369A01	10740077	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	3.69	76.09	11.02	3.47	3.58	0.10	3.22	1.74	0.07	3.38	3.34
13AM386A01	10740083	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	55.23	48.63	15.64	6.57	11.22	4.18	10.09	4.57	6.98	0.71	5.18
13AM387A01	10740076	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	10.77	69.71	13.10	5.35	5.54	0.17	4.98	0.55	0.34	4.00	4.49
13AM388A01	10740082	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	4.12	74.06	10.38	4.51	5.24	0.66	4.72	1.07	0.11	4.31	2.55
13AM390C01	10740091	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	43.08	52.17	13.68	6.75	11.44	4.22	10.29	4.62	4.37	0.45	5.27
13AM410A01	10740107	HB	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	36.15	47.43	18.66	8.82	11.25	2.19	10.12	6.46	3.22	1.60	4.25
14AM039A01	10740137	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	56.14	47.72	16.00	3.61	11.07	6.72	9.96	7.44	7.16	1.24	3.74
14AM041A01	10740138	DP	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	62.87	47.55	15.03	2.03	9.93	7.11	8.93	6.48	8.49	0.54	4.38
14AM077A01	10740145	Peperite	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	59.48	81.11	9.44	0.41	1.37	0.86	1.23	0.42	1.01	1.34	3.14
14AM111C01	10740147	BrHr	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	63.32	48.40	15.03	3.07	9.50	5.79	8.55	5.85	8.28	0.25	4.91
14AM284A01	10740171	BrHr	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.10	45.36	16.18	2.71	13.13	9.38	11.81	6.38	4.08	1.26	4.73
14JW007A	10740196	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	34.43	48.16	15.10	-99	8.53	-99	7.68	8.00	2.26	2.50	5.28
14JW010A2	10740195	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	55.42	55.92	12.64	-99	9.51	-99	8.56	6.20	5.97	0.34	2.26
14JW027A2	10740194	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	9.80	75.59	10.55	-99	3.56	-99	3.21	1.14	0.20	4.59	2.64
15AM005A	10740205	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	25.78	47.71	17.23	7.65	14.76	6.40	13.28	3.92	2.59	0.50	6.39
15AM012A	10740206	PCvbI	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	39.69	53.38	16.26	6.42	11.70	4.75	10.52	4.52	3.89	1.43	4.40
15AM013A	10740207	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	53.95	45.01	14.81	9.67	14.17	4.05	12.75	3.56	8.38	0.21	3.99
15AM042B	10740208	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	52.92	45.56	15.88	5.17	13.09	7.13	11.78	7.44	7.43	1.94	2.38
15AM044A	10740209	PCvbM	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	40.64	47.76	16.65	3.47	11.21	6.97	10.09	6.35	3.87	3.01	3.49
15AM125A	10740216	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	46.77	71.91	13.54	1.61	2.48	0.78	2.23	3.20	1.10	3.58	0.62
15AM200A	10740217	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	2.43	76.02	10.54	2.81	3.91	0.99	3.52	0.67	0.05	3.13	4.39
15AM201A	10740218	PCvbF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	57.52	61.97	16.27	3.65	4.94	1.16	4.44	1.23	3.38	1.13	7.17
15AM401	10740204	BAF	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	6.60	73.93	12.37	1.67	2.17	0.45	1.96	0.12	0.08	8.38	1.55

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	MnO_pct	TiO2_pct	P2O5_pct	LOI_pct	Total_pct	Ba_ppm	Cr_ppm	Zr_ppm	As_ppm	Bi_ppm	Cd_ppm	Ce_ppm	Co_ppm	Cs_ppm	Dy_ppm	Er_ppm	Eu_ppm	Ga_ppm	Gd_ppm	Ge_ppm
Detection Limit		0.001	0.001	0.001	0.01		1	1, 100	1	5	0.4, 0.5	0.2	0.5	1	0.5	0.1	0.1	0.05	1	0.1	1
Analysis Method		ICPOESF	ICPOESF	ICPOESF	Grav	Calculate	ICPOESF	ICPOESF	ICPOES	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
09LN313A	10140074	0.415	1.783	0.654	5.10	100.14	309	197	207	-99	-99	-99	-99.0	-99	0.9	-99	2.8	1.72	25	6.0	5
09LN314A	10140075	0.189	1.506	0.577	4.13	98.95	2036	156	160	-99	-99	-99	-99.0	-99	0.8	-99	2.3	1.48	15	5.3	4
09LN554A	10140136	0.350	1.668	0.523	7.11	98.37	1839	175	181	-99	-99	-99	-99.0	-99	1.1	-99	2.4	2.03	19	5.5	5
09LN555A	10140137	0.310	1.710	0.610	8.00	100.29	217	201	179	-99	-99	-99	-99.0	-99	0.7	-99	2.3	1.77	22	5.7	5
09LN560A	10140142	0.269	1.721	0.560	3.78	100.71	153	-100	214	-99	-99	-99	-99.0	-99	0.5	-99	3.2	2.18	22	6.8	5
10LN002A	10140239	0.237	1.741	0.551	4.48	99.05	602	189	183	-99	-99	-99	-99.0	-99	1.0	-99	2.5	2.09	20	6.0	6
10LN003A	10140241	0.269	1.802	0.682	6.22	100.61	192	205	193	-99	-99	-99	-99.0	-99	0.8	-99	2.2	1.33	18	5.3	6
10LN013A	10140242	0.262	1.960	0.298	4.28	99.26	867	103	183	-99	-99	-99	-99.0	-99	2.1	-99	3.2	1.53	21	6.0	4
10LN711A	10140347	0.054	0.214	0.051	1.67	100.95	177	-100	150	-99	-99	-99	-99.0	-99	1.7	-99	1.8	0.50	9	2.5	2
10LN724B	10140348	0.046	0.728	0.087	3.65	98.33	1212	-100	407	-99	-99	-99	-99.0	-99	8.1	-99	6.9	2.21	33	10.0	5
10LN727A	10140357	0.274	2.534	1.413	3.29	99.98	360	-100	398	-99	-99	-99	-99.0	-99	-0.5	-99	6.4	5.03	26	14.4	7
13AM001A01	10740001	0.210	1.870	0.280	3.98	100.22	114	217	124	-5	-0.4	-0.2	25.2	56	-0.5	5.0	2.8	1.32	15	4.9	3
13AM001B01	10740002	0.130	1.750	0.340	1.09	99.72	140	80	254	-5	0.6	-0.2	48.2	36	-0.5	6.8	3.7	1.72	15	6.6	4
13AM008A01	10740003	0.080	0.480	0.060	1.59	99.28	864	13	723	-5	-0.4	0.2	147.7	9	-0.5	23.5	14.3	2.78	24	20.1	3
13AM009A01	10740028	0.040	0.310	0.010	0.58	99.31	51	-1	645	-5	-0.4	-0.2	126.3	3	-0.5	17.7	11.0	2.03	32	16.0	4
13AM010A01	10740012	0.080	0.560	0.040	0.42	99.42	653	5	815	9	-0.4	-0.2	175.4	4	-0.5	23.2	13.9	3.47	24	22.4	7
13AM012A01	10740013	0.120	0.220	0.010	0.26	98.24	81	-1	724	-5	-0.4	-0.2	124.2	2	-0.5	21.3	13.2	1.86	26	17.6	5
13AM016A01	10740029	0.060	0.220	0.010	0.27	98.80	64	-1	731	-5	-0.4	-0.2	144.8	2	-0.5	15.1	8.9	1.93	30	14.2	5
13AM018A01	10740004	0.080	0.220	0.010	0.22	99.82	210	1	739	-5	-0.4	0.2	128.1	1	-0.5	15.2	10.4	1.68	35	13.4	4
13AM031A01	10740006	0.140	0.230	0.010	0.35	98.76	1249	4	509	6	-0.4	0.3	119.8	1	0.9	16.3	9.1	2.08	21	16.0	5
13AM035A01	10740007	0.080	0.240	0.010	0.16	98.18	144	2	696	-5	-0.4	-0.2	123.7	1	-0.5	14.9	9.9	1.89	26	13.3	5
13AM147A01	10740041	0.280	1.450	0.410	4.28	99.02	766	123	106	-5	-0.4	-0.2	34.6	44	0.6	4.8	2.7	1.67	17	5.1	4
13AM147B01	10740032	0.290	1.520	0.430	4.34	99.05	564	127	112	-5	-0.4	-0.2	33.7	45	-0.5	4.8	2.6	1.40	17	5.2	3
13AM176A01	10740047	0.120	0.320	0.010	0.47	99.45	65	2	684	-5	-0.4	0.2	144.8	1	0.5	18.8	11.0	2.32	29	17.9	5
13AM178A01	10740119	0.050	0.180	0.020	0.52	100.49	55	1	372	-5	-0.4	-0.2	106.0	2	-0.5	8.0	4.8	1.63	20	8.7	2
13AM183A01	10740035	0.130	0.320	0.010	0.26	98.72	210	1	735	-5	-0.4	0.3	172.2	1	0.6	15.9	9.0	2.62	26	18.8	4
13AM184A01	10740048	0.160	0.210	0.020	0.68	99.62	96	1	629	8	-0.4	-0.2	175.6	-1	-0.5	14.7	8.9	2.47	29	15.0	7
13AM190A01	10740049	0.210	0.330	0.010	0.27	99.64	38	3	703	-5	-0.4	0.3	157.3	1	1.0	13.4	8.1	1.76	33	11.7	6
13AM194A01	10740036	0.370	2.820	0.400	5.24	98.79	35	154	181	33	0.6	0.2	43.0	56	-0.5	8.9	5.0	2.36	26	8.8	7
13AM200A01	10740037	0.250	1.010	0.500	2.38	98.27	255	2	292	-5	0.6	-0.2	40.1	7	-0.5	7.3	4.6	2.07	16	7.8	3
13AM201C01	10740053	0.320	1.000	0.490	2.53	98.48	101	2	302	-5	0.7	0.2	64.6	11	-0.5	10.8	6.8	3.04	24	11.2	3
13AM205A01	10740055	0.180	0.400	0.070	1.74	98.24	414	3	82	-5	-0.4	-0.2	31.4	4	-0.5	5.2	3.3	1.47	15	4.9	3
13AM205A04	10740038	0.300	0.320	0.080	1.24	98.33	62	7	72	18	-0.4	-0.2	30.0	6	-0.5	4.5	3.2	1.30	23	4.8	5
13AM270B01	10740061	0.060	0.230	0.040	2.01	100.80	144	2	122	7	-0.4	-0.2	31.8	4	-0.5	4.7	3.5	0.90	9	5.1	2
13AM297A01	10740066	0.520	0.900	0.180	2.19	99.78	1874	3	269	-5	-0.4	-0.2	102.6	5	-0.5	11.9	7.2	5.65	27	12.9	7
13AM301A	10740124	0.170	1.020	0.430	2.73	98.18	117	11	97	15	-0.4	-0.2	53.8	28	-0.5	3.6	1.8	1.59	22	5.0	6
13AM301A01	10740068	0.220	1.400	0.530	3.73	98.99	1326	16	128	-5	-0.4	-0.2	75.6	33	0.9	4.7	2.4	2.24	14	6.8	3
13AM306C01	10740073	0.030	0.180	0.020	0.51	99.38	47	-1	227	-5	-0.4	-0.2	81.2	-1	-0.5	9.3	5.8	1.90	11	9.6	3
13AM311C01	10740069	0.110	0.800	0.160	2.58	100.57	1167	3	359	21	-0.4	-0.2	80.4	5	0.7	9.2	5.5	3.07	22	10.8	4
13AM312A01	10740074	0.190	1.200	0.420	3.20	99.52	1082	23	111	-5	-0.4	-0.2	65.9	32	0.5	4.4	2.1	1.81	17	5.8	3
13AM314A01	10740079	0.140	0.730	0.140	2.24	98.74	447	59	258	-5	0.4	0.2	69.6	19	2.3	7.0	4.4	1.70	23	7.1	4
13AM315B01	10740099	0.060	0.250	0.170	0.98	99.54	371	2	331	-5	-0.4	-0.2	61.6	2	-0.5	6.2	4.0	2.13	15	6.4	1
13AM321B01	10740081	0.170	0.790	0.240	1.55	98.01	3766	2	310	5	-0.4	-0.2	63.3	3	-0.5	8.7	5.2	5.95	21	8.9	4
13AM321C01	10740088	0.280	1.570	0.590	1.37	98.22	1359	3	327	6	-0.4	-0.2	63.7	8	-0.5	10.1	5.6	4.22	24	10.5	4

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	MnO_pct	TiO2_pct	P2O5_pct	LOI_pct	Total_pct	Ba_ppm	Cr_ppm	Zr_ppm	As_ppm	Bi_ppm	Cd_ppm	Ce_ppm	Co_ppm	Cs_ppm	Dy_ppm	Er_ppm	Eu_ppm	Ga_ppm	Gd_ppm	Ge_ppm
Detection Limit		0.001	0.001	0.001	0.01		1	1, 100	1	5	0.4, 0.5	0.2	0.5	1	0.5	0.1	0.1	0.05	1	0.1	1
Analysis Method		ICPOESF	ICPOESF	ICPOESF	Grav	Calculate	ICPOESF	ICPOESF	ICPOES	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
13AM322A01	10740092	0.170	0.770	0.240	2.66	98.43	2845	-1	302	-5	-0.4	-0.2	87.7	2	-0.5	8.4	4.4	6.29	19	9.3	3
13AM325A01	10740078	0.230	1.950	0.410	4.38	100.56	462	156	140	-5	-0.4	-0.2	34.5	52	-0.5	6.0	3.4	1.89	17	6.6	4
13AM335A01	10740086	0.170	1.010	0.480	4.88	98.12	1523	8	121	-5	-0.4	-0.2	74.9	26	1.0	4.1	2.0	2.05	24	6.2	4
13AM345A01	10740093	0.100	0.240	0.010	0.74	98.94	153	2	446	-5	-0.4	-0.2	71.5	1	-0.5	9.8	7.1	1.45	25	8.5	2
13AM346A01	10740094	0.220	0.270	0.010	0.39	98.00	896	-1	733	8	-0.4	-0.2	277.9	1	0.6	13.3	7.5	3.42	27	17.0	9
13AM368A01	10740087	0.080	0.290	0.030	0.42	99.96	105	2	717	11	-0.4	0.2	145.5	2	-0.5	24.7	17.0	2.58	31	20.9	6
13AM369A01	10740077	0.090	0.210	0.010	0.51	100.04	83	2	680	-5	-0.4	-0.2	144.3	1	-0.5	21.4	13.0	2.43	37	20.2	6
13AM386A01	10740083	0.220	1.920	0.390	2.94	98.41	467	91	260	-5	-0.4	-0.2	57.5	42	0.6	7.7	4.4	2.16	20	8.0	3
13AM387A01	10740076	0.160	0.400	0.030	0.49	98.81	373	2	415	-5	-0.4	-0.2	98.3	2	0.5	12.6	7.8	1.83	26	11.6	3
13AM388A01	10740082	0.070	0.320	0.010	1.10	99.22	89	9	689	-5	-0.4	-0.2	155.8	2	-0.5	18.7	11.3	2.44	30	17.4	10
13AM390C01	10740091	0.270	2.590	0.780	2.94	98.58	372	16	221	6	1.0	0.3	68.8	23	-0.5	10.8	6.5	4.13	26	12.0	5
13AM410A01	10740107	0.180	1.190	0.440	3.38	98.05	946	22	108	-5	0.5	0.2	66.3	28	0.7	3.9	2.2	2.11	19	6.2	3
14AM039A01	10740137	0.223	1.902	0.519	3.81	100.82	395	119	167	-99	-0.4	-0.2	92.4	34	0.6	4.9	2.6	1.98	21	5.7	5
14AM041A01	10740138	0.227	1.627	0.549	5.06	99.87	153	174	176	-99	-0.4	-0.2	108.4	35	-0.5	4.9	2.6	1.89	21	6.4	6
14AM077A01	10740145	0.055	0.161	0.032	1.28	99.36	276	2	83	-99	-0.4	-0.2	36.5	1	2.2	2.6	1.8	0.51	9	2.2	1
14AM111C01	10740147	0.241	1.815	0.435	4.00	98.71	110	487	198	-99	0.4	-0.2	160.2	41	0.8	4.8	2.3	2.47	23	7.1	6
14AM284A01	10740171	0.404	2.764	1.592	4.40	100.27	693	1	489	-99	-0.4	-0.2	137.2	20	0.6	14.3	7.5	5.49	32	17.0	6
14JW007A	10740196	0.344	1.900	0.316	6.46	98.85	297	67	138	-5	-0.4	0.6	30.6	32	3.1	5.7	3.1	1.62	20	6.0	4
14JW010A2	10740195	0.248	1.393	0.178	3.82	98.48	119	91	152	8	-0.4	0.3	30.8	35	0.9	5.3	3.1	1.47	16	5.1	4
14JW027A2	10740194	0.146	0.230	0.018	0.41	99.08	323	-1	674	52	-0.4	0.3	138.4	-1	0.7	16.9	9.7	2.06	28	17.5	7
15AM005A	10740205	0.300	2.273	0.439	4.45	100.55	139	11	134	-99	-0.5	-0.2	27.1	-99	1.0	7.1	4.0	2.44	18	8.4	6
15AM012A	10740206	0.227	1.557	0.206	2.64	100.21	365	48	207	-99	-0.5	-0.2	57.2	-99	1.0	9.1	5.3	1.91	25	8.9	6
15AM013A	10740207	0.299	2.568	0.390	4.65	98.03	119	66	162	-99	-0.5	-0.2	34.1	-99	1.1	7.1	4.1	2.05	18	7.6	5
15AM042B	10740208	0.232	1.928	0.307	3.27	99.47	694	79	123	-99	-0.5	-0.2	27.8	-99	1.2	5.1	2.8	1.73	17	5.3	4
15AM044A	10740209	0.214	2.597	1.006	2.61	98.77	832	2	263	-99	-0.5	-0.2	95.0	-99	1.9	6.7	3.2	3.14	23	8.7	5
15AM125A	10740216	0.079	0.219	0.025	1.93	98.67	241	8	208	-99	-0.5	-0.2	67.4	-99	5.9	5.2	2.9	1.00	21	5.1	3
15AM200A	10740217	0.113	0.213	0.008	0.18	99.22	69	4	698	-99	-0.5	-0.2	136.0	-99	0.7	19.4	12.1	1.93	30	17.5	6
15AM201A	10740218	0.351	0.302	0.004	1.83	98.58	113	3	1045	-99	-0.5	0.4	223.9	-99	3.3	28.5	17.2	3.38	64	27.0	8
15AM401	10740204	0.030	0.086	0.012	0.47	99.20	1171	-1	273	-99	0.5	-0.2	47.8	-1	4.5	8.1	6.0	0.72	14	7.1	3

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm	Nb_ppm	Nd_ppm	Pr_ppm	Sm_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	Tl_ppm	Tm_ppm	U_ppm	V_ppm	W_ppm
Detection Limit		0.2	0.1	0.2	0.5	0.05	2	1	0.2	0.1	0.1	1	1	0.5	0.1	0.1	0.1	0.05	0.1	5	1
Analysis Method		ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
09LN313A	10140074	4.9	1.0	-99	-99	0.33	-99	-99	38.1	9.7	6.9	1	-99	3.2	0.9	6.1	0.1	0.37	1.4	-99	2
09LN314A	10140075	4.1	0.8	-99	-99	0.28	-99	-99	35.3	9.0	6.1	1	-99	3.3	0.7	4.6	0.3	0.30	1.3	-99	1
09LN554A	10140136	4.1	0.9	-99	-99	0.34	-99	-99	37.8	9.6	6.6	1	-99	1.7	0.8	5.4	0.3	0.32	1.1	-99	2
09LN555A	10140137	4.2	0.8	-99	-99	0.33	-99	-99	39.8	10.3	7.2	-1	-99	1.9	0.8	5.2	-0.1	0.32	1.0	-99	1
09LN560A	10140142	4.9	1.2	-99	-99	0.42	-99	-99	41.0	11.0	7.4	2	-99	3.7	1.0	8.6	-0.1	0.47	2.2	-99	2
10LN002A	10140239	4.3	0.9	-99	-99	0.31	-99	-99	41.2	10.6	6.6	2	-99	2.8	0.8	5.7	0.1	0.31	1.4	-99	1
10LN003A	10140241	4.4	0.8	-99	-99	0.35	-99	-99	37.3	9.8	6.7	2	-99	3.2	0.8	6.1	-0.1	0.31	1.1	-99	2
10LN013A	10140242	4.5	1.1	-99	-99	0.43	-99	-99	20.1	4.3	4.9	2	-99	0.6	0.9	2.1	0.4	0.45	0.8	-99	1
10LN711A	10140347	3.7	0.6	-99	-99	0.32	-99	-99	13.8	3.7	2.8	1	-99	-0.5	0.4	4.9	-0.1	0.29	1.6	-99	1
10LN724B	10140348	10.8	2.1	-99	-99	1.03	-99	-99	54.5	13.6	10.9	4	-99	1.2	1.6	14.3	0.5	0.98	3.8	-99	2
10LN727A	10140357	8.4	2.4	-99	-99	0.87	-99	-99	70.4	15.9	15.4	3	-99	1.7	2.1	3.1	-0.1	0.87	1.0	-99	-1
13AM001A01	10740001	3.2	0.9	-0.2	10.4	0.34	-2	6	17.9	3.7	4.8	-1	57	-0.5	0.8	0.9	-0.1	0.33	0.3	251	2
13AM001B01	10740002	6.2	1.3	-0.2	21.7	0.54	-2	14	29.1	6.4	6.9	1	142	1.0	1.0	3.3	-0.1	0.54	1.1	205	-1
13AM008A01	10740003	22.8	4.7	0.3	62.8	2.25	-2	30	80.9	19.0	19.0	8	546	2.7	3.5	18.5	-0.1	2.14	2.4	59	3
13AM009A01	10740028	17.2	3.6	-0.2	53.7	1.66	-2	29	64.3	15.5	14.4	7	37	3.2	2.8	14.7	-0.1	1.60	1.9	9	1
13AM010A01	10740012	21.0	4.6	-0.2	88.1	2.01	-2	43	97.6	22.9	21.9	6	98	3.0	3.7	19.3	-0.1	2.03	2.8	27	-1
13AM012A01	10740013	18.2	4.3	-0.2	42.2	1.80	-2	30	52.9	11.7	14.4	6	25	2.2	3.3	15.9	-0.1	1.84	2.5	7	-1
13AM016A01	10740029	20.5	2.9	-0.2	42.2	1.47	2	33	62.0	14.7	16.5	6	37	3.5	2.3	17.6	-0.1	1.44	2.1	10	3
13AM018A01	10740004	18.8	3.1	-0.2	40.9	1.59	-2	32	43.0	10.1	12.1	6	16	2.4	2.2	15.9	-0.1	1.56	1.9	-5	-1
13AM031A01	10740006	13.1	3.1	-0.2	48.2	1.21	-2	24	62.4	14.0	14.7	4	130	2.2	2.6	13.6	-0.1	1.30	1.7	19	1
13AM035A01	10740007	17.1	3.0	-0.2	56.9	1.47	-2	30	65.3	15.4	14.0	6	37	2.1	2.2	14.9	-0.1	1.39	2.6	10	-1
13AM147A01	10740041	2.8	1.0	-0.2	14.8	0.35	2	6	21.6	4.7	5.4	1	411	0.6	0.8	0.7	-0.1	0.37	0.3	292	2
13AM147B01	10740032	2.7	0.8	-0.2	16.2	0.36	2	5	21.6	4.6	4.9	1	395	-0.5	0.7	0.7	-0.1	0.36	0.2	278	2
13AM176A01	10740047	18.3	3.5	0.3	64.8	1.65	-2	37	77.9	19.0	16.9	6	59	3.4	2.9	14.2	-0.1	1.60	2.8	5	-1
13AM178A01	10740119	8.6	1.6	-0.2	50.3	0.64	2	15	54.2	13.0	10.7	2	17	2.2	1.4	7.8	-0.1	0.63	0.9	12	2
13AM183A01	10740035	19.3	3.0	0.3	67.8	1.44	-2	35	85.0	19.7	20.7	7	48	3.7	2.7	15.5	-0.1	1.40	2.4	11	-1
13AM184A01	10740048	14.8	3.1	-0.2	78.2	1.35	-2	23	84.1	20.7	16.8	5	180	1.7	2.3	14.5	-0.1	1.32	1.8	6	-1
13AM190A01	10740049	18.1	2.5	0.3	35.2	1.51	-2	36	51.8	12.4	13.0	5	22	3.0	2.1	14.2	-0.1	1.31	2.0	-5	-1
13AM194A01	10740036	5.1	1.7	-0.2	19.6	0.64	2	10	29.3	6.0	8.1	2	186	0.7	1.4	1.4	-0.1	0.70	0.7	430	1
13AM200A01	10740037	5.0	1.5	-0.2	16.8	0.65	-2	5	27.1	5.6	6.9	1	162	-0.5	1.2	1.5	-0.1	0.65	0.6	25	-1
13AM201C01	10740053	7.7	2.3	-0.2	27.8	0.97	2	10	43.1	9.1	10.6	3	208	0.8	1.7	2.3	-0.1	0.92	0.8	43	2
13AM205A01	10740055	2.6	1.0	-0.2	15.3	0.50	-2	4	19.3	4.2	4.7	2	195	-0.5	0.8	2.2	-0.1	0.48	0.9	23	-1
13AM205A04	10740038	2.4	0.9	-0.2	14.5	0.43	-2	3	17.9	4.0	4.0	2	960	0.7	0.7	1.8	-0.1	0.44	0.9	21	-1
13AM270B01	10740061	3.5	1.1	-0.2	15.4	0.48	4	7	17.2	4.2	4.8	-1	194	0.9	0.9	4.1	-0.1	0.47	1.9	19	5
13AM297A01	10740066	8.5	2.4	-0.2	48.8	1.13	2	20	57.4	12.7	12.0	2	284	1.9	2.0	8.6	-0.1	0.99	2.9	36	-1
13AM301A	10740124	2.7	0.6	-0.2	25.3	0.23	-2	6	30.8	7.0	6.0	2	4003	0.6	0.7	7.9	-0.1	0.24	1.6	273	3
13AM301A01	10740068	3.7	0.8	-0.2	33.4	0.31	-2	7	41.8	9.6	8.6	1	591	0.6	0.9	10.8	-0.1	0.32	2.1	349	1
13AM306C01	10740073	7.5	1.9	-0.2	33.7	0.90	-2	13	45.2	10.8	10.1	4	1257	0.9	1.5	9.2	-0.1	0.85	2.0	13	2
13AM311C01	10740069	9.6	1.8	-0.2	57.6	0.85	-2	11	48.2	11.7	10.6	3	1323	1.0	1.6	15.3	-0.1	0.77	2.6	45	2
13AM312A01	10740074	3.3	0.7	-0.2	30.2	0.27	-2	7	36.5	8.5	7.6	2	649	-0.5	0.8	8.8	-0.1	0.28	1.7	317	2
13AM314A01	10740079	7.3	1.5	-0.2	32.0	0.66	3	15	35.2	8.6	8.1	3	355	1.5	1.2	8.5	-0.1	0.64	2.4	126	5
13AM315B01	10740099	7.4	1.2	-0.2	28.5	0.58	-2	12	30.1	7.3	6.6	1	600	0.8	1.0	6.0	-0.1	0.58	2.1	24	2
13AM321B01	10740081	8.1	1.7	-0.2	30.8	0.72	2	17	38.3	8.7	8.8	4	49	1.2	1.4	8.4	-0.1	0.68	2.0	19	1
13AM321C01	10740088	8.6	2.0	-0.2	24.5	0.81	2	18	39.5	8.4	10.6	4	207	2.3	1.7	5.5	-0.1	0.73	1.8	34	3

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm	Nb_ppm	Nd_ppm	Pr_ppm	Sm_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	Tl_ppm	Tm_ppm	U_ppm	V_ppm	W_ppm
Detection Limit		0.2	0.1	0.2	0.5	0.05	2	1	0.2	0.1	0.1	1	1	0.5	0.1	0.1	0.1	0.05	0.1	5	1
Analysis Method		ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
13AM322A01	10740092	7.8	1.5	-0.2	43.3	0.62	-2	18	45.8	11.0	9.8	5	149	1.4	1.4	8.1	-0.1	0.61	2.7	24	3
13AM325A01	10740078	3.7	1.2	-0.2	15.2	0.47	-2	7	22.9	4.9	6.2	1	454	-0.5	1.0	1.5	-0.1	0.50	0.5	293	-1
13AM335A01	10740086	3.3	0.7	-0.2	36.2	0.26	-2	8	40.3	9.4	8.1	3	551	0.6	0.8	11.8	-0.1	0.25	2.6	305	1
13AM345A01	10740093	10.9	2.1	-0.2	26.1	1.23	-2	18	32.3	7.1	7.6	4	23	1.4	1.5	15.2	-0.1	1.07	1.2	18	2
13AM346A01	10740094	15.8	2.4	-0.2	169.8	1.17	2	25	141.5	37.1	22.6	4	331	1.8	2.3	17.0	-0.1	1.08	3.2	19	3
13AM368A01	10740087	19.7	5.3	-0.2	71.7	2.33	-2	34	84.4	19.1	20.3	6	106	2.4	3.6	17.9	-0.1	2.37	4.1	15	2
13AM369A01	10740077	18.2	4.3	0.3	69.9	1.81	-2	28	85.8	20.0	19.4	7	130	2.4	3.4	16.5	-0.1	1.87	2.2	21	1
13AM386A01	10740083	7.1	1.5	-0.2	25.4	0.63	2	14	33.7	7.8	7.8	3	188	1.1	1.3	3.8	-0.1	0.62	1.2	244	1
13AM387A01	10740076	12.0	2.6	-0.2	42.2	1.32	-2	25	49.6	11.9	12.2	5	54	1.7	2.1	10.2	-0.1	1.25	2.0	13	2
13AM388A01	10740082	18.7	3.7	-0.2	68.6	1.74	2	37	84.7	19.6	18.3	8	21	2.7	2.9	15.6	-0.1	1.70	2.0	20	3
13AM390C01	10740091	6.6	2.2	-0.2	28.9	0.75	2	11	46.6	9.7	11.6	4	117	1.0	1.8	2.5	-0.1	0.77	0.6	261	2
13AM410A01	10740107	3.1	0.7	-0.2	32.5	0.31	-2	9	37.0	8.4	6.9	3	506	-0.5	0.7	8.9	-0.1	0.29	1.9	373	1
14AM039A01	10740137	4.0	0.9	-99	48.3	0.34	-2	55	38.1	10.2	7.1	1	334	3.5	0.9	6.0	-0.1	0.36	1.2	215	-1
14AM041A01	10740138	4.6	0.9	-99	55.1	0.34	-2	53	45.8	12.1	8.2	1	303	3.3	0.9	6.1	-0.1	0.32	2.1	199	-1
14AM077A01	10740145	2.9	0.6	-99	15.9	0.30	-2	6	12.2	3.3	2.4	1	119	0.6	0.4	7.9	-0.1	0.29	1.6	10	-1
14AM111C01	10740147	4.4	0.8	-99	75.8	0.27	-2	42	71.7	19.4	10.1	1	245	3.0	1.0	7.5	-0.1	0.27	2.1	246	-1
14AM284A01	10740171	11.6	2.7	-99	58.7	0.93	5	53	81.0	18.4	17.9	3	371	3.7	2.5	4.3	-0.1	1.00	1.4	113	-1
14JW007A	10740196	3.2	1.1	1.0	16.2	0.40	2	7	21.7	4.7	5.4	2	114	0.7	1.0	0.6	0.1	0.41	1.9	247	3
14JW010A2	10740195	4.1	1.0	1.0	12.4	0.46	2	8	18.4	4.1	4.7	2	505	0.8	0.8	2.5	-0.1	0.44	0.8	201	1
14JW027A2	10740194	17.0	3.2	1.0	68.3	1.33	-2	24	78.9	19.3	17.9	6	61	1.4	2.8	14.3	0.2	1.40	1.8	-5	-1
15AM005A	10740205	3.0	1.4	-99	21.6	0.54	-2	3	32.2	6.8	7.6	1	308	-0.5	1.2	0.3	-0.1	0.53	0.2	-99	-1
15AM012A	10740206	5.6	1.8	-99	22.9	0.75	-2	7	34.5	8.0	8.2	3	211	-0.5	1.5	3.9	-0.1	0.77	1.4	-99	-1
15AM013A	10740207	4.1	1.4	-99	15.4	0.55	-2	6	24.6	5.0	6.9	2	250	-0.5	1.2	1.1	-0.1	0.55	0.4	-99	-1
15AM042B	10740208	2.8	1.0	-99	10.2	0.40	-2	2	19.4	4.0	5.2	1	330	-0.5	0.9	0.4	-0.1	0.39	0.1	-99	-1
15AM044A	10740209	5.8	1.2	-99	44.7	0.41	3	56	47.6	11.5	9.8	2	501	2.8	1.3	4.1	-0.1	0.42	1.3	-99	-1
15AM125A	10740216	6.6	1.1	-99	33.0	0.45	2	14	27.0	7.3	5.1	4	180	1.4	0.9	17.1	0.1	0.44	3.7	-99	3
15AM200A	10740217	18.9	4.0	-99	41.9	1.94	3	31	55.3	13.1	14.3	7	26	2.4	3.1	16.8	-0.1	1.74	2.6	-99	3
15AM201A	10740218	28.2	5.9	-99	84.8	2.77	3	48	110.9	26.7	27.0	10	450	3.6	4.6	25.2	-0.1	2.59	5.1	-99	4
15AM401	10740204	8.8	1.7	-99	23.2	0.96	-2	11	28.2	6.4	6.8	5	32	1.2	1.2	14.7	0.7	0.90	3.9	9	-1

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Y_ppm	Yb_ppm	Zr_ppm	As_ppm	Be_ppm	Co_ppm	Cu_ppm	Li_ppm	Mn_ppm	Ni_ppm	Pb_ppm	Rb_ppm	Sc_ppm	Ti_ppm	V_ppm	Zn_ppm	Ag_ppm	F_ppm
Detection Limit		1	0.1	1	2	0.1	1	1	0.1	1	1	1	1	0.1	1	1	1	0.05, 0.1	5
Analysis Method		ICPMSF	ICPMSF	ICPMSF	ICPOES	ICPOES	ICPOES	ICPOES	ICPOES4	ICPOES4	ICPOES	ICPOES	ICPOES4	ICPOES	ICPOES	ICPOES	ICPOES	ICPOESH	ISE
09LN313A	10140074	-99	2.4	-99	11	2.0	42	30	52.3	2900	71	-1	38	25.7	9736	205	143	-0.10	618
09LN314A	10140075	-99	2.0	-99	13	1.2	35	29	31.3	1371	50	-1	74	23.7	9992	170	72	-0.10	560
09LN554A	10140136	-99	2.2	-99	16	1.4	42	27	60.3	2400	62	-1	79	26.8	11026	195	92	0.13	646
09LN555A	10140137	-99	2.2	-99	13	1.0	34	34	54.5	2141	67	-1	24	26.7	11070	262	94	-0.10	710
09LN560A	10140142	-99	3.2	-99	7	1.4	35	2	48.8	1884	25	-1	21	16.9	11032	170	123	-0.10	668
10LN002A	10140239	-99	2.1	-99	9	0.8	43	51	57.5	1721	63	-1	40	27.7	11155	225	87	-0.10	531
10LN003A	10140241	-99	2.1	-99	11	0.2	48	61	49.8	1935	73	-1	20	29.2	11428	198	93	-0.10	685
10LN013A	10140242	-99	3.0	-99	6	0.5	55	-1	68.7	1939	54	-1	110	38.7	12420	226	113	-0.10	625
10LN711A	10140347	-99	2.1	-99	6	0.5	3	6	4.3	463	-1	17	20	4.6	1238	10	25	-0.10	152
10LN724B	10140348	-99	6.9	-99	7	3.0	11	4	16.8	401	4	5	210	19.5	5218	98	57	-0.10	265
10LN727A	10140357	-99	5.8	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-0.10	645
13AM001A01	10740001	24	2.4	-99	-99	0.5	-99	68	28.2	1401	100	-1	6	37.5	10759	-99	98	0.11	-99
13AM001B01	10740002	35	3.7	-99	-99	3.7	-99	56	14.9	884	44	-1	23	30.2	10904	-99	60	-0.05	-99
13AM008A01	10740003	120	15.1	-99	-99	3.2	-99	17	10.9	561	11	7	29	14.6	3125	-99	196	-0.05	-99
13AM009A01	10740028	93	11.0	-99	-99	2.7	-99	4	6.5	312	5	11	101	1.0	1565	-99	29	-0.05	-99
13AM010A01	10740012	124	13.9	-99	-99	4.2	-99	3	3.9	584	10	20	133	6.6	3833	-99	73	-0.05	-99
13AM012A01	10740013	132	12.7	-99	-99	2.9	-99	4	17.7	902	4	9	93	0.8	1447	-99	96	-0.05	-99
13AM016A01	10740029	61	10.1	-99	-99	2.1	-99	2	35.8	499	4	17	112	0.8	1485	-99	163	0.13	-99
13AM018A01	10740004	90	11.1	-99	-99	4.5	-99	4	8.7	602	4	16	-1	0.5	1531	-99	59	-0.05	-99
13AM031A01	10740006	78	8.6	-99	-99	2.2	-99	11	2.5	1075	5	9	90	2.4	1555	-99	83	-0.05	-99
13AM035A01	10740007	81	10.9	-99	-99	3.7	-99	7	10.3	644	6	23	176	0.8	1646	-99	124	-0.05	-99
13AM147A01	10740041	24	2.2	-99	-99	1.0	-99	20	66.3	1957	68	-1	29	32.7	9025	-99	94	0.10	-99
13AM147B01	10740032	23	2.5	-99	-99	1.0	-99	18	67.5	2007	65	-1	31	33.4	9305	-99	97	0.08	-99
13AM176A01	10740047	91	10.9	-99	-99	2.3	-99	6	1.7	954	6	22	168	1.0	2181	-99	83	-0.05	-99
13AM178A01	10740119	48	4.6	-99	-99	0.8	-99	4	5.8	377	4	13	40	8.2	866	-99	133	-0.05	-99
13AM183A01	10740035	76	10.0	-99	-99	3.3	-99	6	11.9	943	5	19	177	1.0	2105	-99	172	-0.05	-99
13AM184A01	10740048	81	9.4	-99	-99	2.8	-99	5	3.6	1184	5	27	79	11.3	1418	-99	99	-0.05	-99
13AM190A01	10740049	58	10.2	-99	-99	2.3	-99	3	38.6	1627	6	13	134	1.1	2234	-99	185	-0.05	-99
13AM194A01	10740036	43	4.5	-99	-99	1.8	-99	40	78.2	2448	53	-1	10	50.5	16486	-99	131	0.08	-99
13AM200A01	10740037	40	4.4	-99	-99	1.9	-99	4	24.4	1779	9	-1	15	22.3	6407	-99	137	-0.05	-99
13AM201C01	10740053	59	6.0	-99	-99	1.4	-99	2	43.5	2285	10	-1	7	23.0	6557	-99	145	-0.05	-99
13AM205A01	10740055	31	3.5	-99	-99	0.9	-99	4	23.6	1309	7	2	30	24.5	2666	-99	100	-0.05	-99
13AM205A04	10740038	25	2.9	-99	-99	1.0	-99	7	21.2	2248	6	13	5	19.7	2132	-99	89	-0.05	-99
13AM270B01	10740061	29	3.4	-99	-99	0.6	-99	12	10.6	434	4	5	7	11.9	1536	-99	65	-0.05	-99
13AM297A01	10740066	60	7.1	-99	-99	1.8	-99	4	30.0	3673	11	-1	65	47.9	5879	-99	113	0.19	-99
13AM301A	10740124	17	1.7	-99	-99	0.8	-99	11555	20.0	1151	24	-1	9	26.4	6291	-99	61	1.94	-99
13AM301A01	10740068	22	2.2	-99	-99	0.4	-99	25	58.1	1471	26	-1	91	37.8	8682	-99	102	-0.05	-99
13AM306C01	10740073	52	5.9	-99	-99	1.5	-99	4	4.6	236	3	8	2	7.8	1262	-99	10	-0.05	-99
13AM311C01	10740069	52	5.6	-99	-99	2.3	-99	33	8.0	797	7	15	120	14.5	5276	-99	116	-0.05	-99
13AM312A01	10740074	19	2.0	-99	-99	1.1	-99	124	42.7	1270	25	-1	88	29.9	7462	-99	99	-0.05	-99
13AM314A01	10740079	38	4.3	-99	-99	2.0	-99	14	13.4	1034	26	10	94	17.5	4749	-99	100	-0.05	-99
13AM315B01	10740099	36	4.2	-99	-99	2.4	-99	10	2.8	441	3	9	28	11.4	1680	-99	49	-0.05	-99
13AM321B01	10740081	45	5.0	-99	-99	2.2	-99	5	23.5	1230	8	16	50	43.3	4798	-99	116	-0.05	-99
13AM321C01	10740088	50	5.0	-99	-99	5.0	-99	3	18.3	1964	10	-1	38	28.7	9625	-99	192	-0.05	-99

Open File 002C/0226 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	Y_ppm	Yb_ppm	Zr_ppm	As_ppm	Be_ppm	Co_ppm	Cu_ppm	Li_ppm	Mn_ppm	Ni_ppm	Pb_ppm	Rb_ppm	Sc_ppm	Ti_ppm	V_ppm	Zn_ppm	Ag_ppm	F_ppm
Detection Limit		1	0.1	1	2	0.1	1	1	0.1	1	1	1	1	0.1	1	1	1	0.05, 0.1	5
Analysis Method		ICPMSF	ICPMSF	ICPMSF	ICPOES	ICPOES	ICPOES	ICPOES	ICPOES4	ICPOES4	ICPOES	ICPOES	ICPOES4	ICPOES	ICPOES	ICPOES	ICPOES	ICPOESH	ISE
13AM322A01	10740092	42	4.1	-99	-99	2.3	-99	3	3.7	1270	4	6	81	39.8	4883	-99	41	-0.05	-99
13AM325A01	10740078	31	3.3	-99	-99	0.7	-99	28	43.1	1470	83	-1	10	25.7	12034	-99	107	0.07	-99
13AM335A01	10740086	19	1.7	-99	-99	2.0	-99	705	22.0	1171	19	-1	153	21.3	6402	-99	79	-0.05	-99
13AM345A01	10740093	62	8.2	-99	-99	1.2	-99	3	1.0	758	4	8	127	11.2	1422	-99	34	-0.05	-99
13AM346A01	10740094	66	7.7	-99	-99	2.9	-99	11	1.5	1681	4	22	109	28.3	1748	-99	106	-0.05	-99
13AM368A01	10740087	151	16.8	-99	-99	4.2	-99	2	3.4	580	6	20	61	2.7	1867	-99	115	-0.05	-99
13AM369A01	10740077	113	12.5	-99	-99	3.2	-99	6	1.9	714	5	30	78	0.9	1356	-99	102	-0.05	-99
13AM386A01	10740083	40	4.1	-99	-99	1.5	-99	55	48.2	1490	49	-1	25	30.8	11915	-99	115	-0.05	-99
13AM387A01	10740076	70	8.4	-99	-99	3.3	-99	5	2.6	1168	6	7	98	7.5	2585	-99	68	-0.05	-99
13AM388A01	10740082	98	11.8	-99	-99	2.4	-99	11	3.4	507	6	13	127	1.2	1680	-99	79	-0.05	-99
13AM390C01	10740091	55	5.2	-99	-99	1.7	-99	-1	28.7	1887	15	-1	18	35.0	15805	-99	117	-0.05	-99
13AM410A01	10740107	20	1.8	-99	-99	1.6	-99	55	33.6	1258	24	2	81	29.3	7413	-99	84	-0.05	-99
14AM039A01	10740137	24	2.3	-99	5	1.6	-99	88	42.6	1542	85	-1	28	26.3	11827	-99	80	0.19	605
14AM041A01	10740138	26	2.3	-99	8	1.7	-99	39	46.0	1596	69	-1	14	23.4	10138	-99	96	0.19	573
14AM077A01	10740145	16	2.1	-99	2	1.5	-99	12	22.9	449	4	-1	31	3.3	971	-99	41	-0.05	169
14AM111C01	10740147	21	1.8	-99	13	2.6	-99	42	99.5	1690	207	-1	8	26.8	11499	-99	78	0.29	945
14AM284A01	10740171	69	6.6	-99	4	3.2	-99	17	31.7	2717	12	-1	23	21.7	16461	-99	160	-0.05	1087
14JW007A	10740196	32	2.8	-99	-99	4.0	-99	16	27.0	2585	56	6	82	35.6	12524	-99	130	0.35	593
14JW010A2	10740195	28	2.8	-99	-99	0.8	-99	20	48.7	1874	67	-1	10	30.4	9276	-99	90	0.13	417
14JW027A2	10740194	93	9.2	-99	-99	3.6	-99	9	3.9	1228	5	18	76	1.2	1397	-99	133	-0.05	134
15AM005A	10740205	39	3.6	122	2	1.4	28	14	29.0	2077	19	1	17	28.9	13863	231	113	-0.10	457
15AM012A	10740206	48	5.0	197	2	2.6	20	9	29.8	1591	24	7	34	35.6	9744	240	181	-0.10	348
15AM013A	10740207	36	3.6	152	5	1.0	31	30	119.9	2099	41	-1	12	50.2	16260	401	146	-0.10	440
15AM042B	10740208	25	2.5	112	-2	0.8	30	47	25.6	1599	50	-1	50	40.7	12018	341	94	-0.10	204
15AM044A	10740209	32	2.7	258	2	2.0	14	15	38.9	1527	1	-1	65	16.9	16773	119	111	-0.10	799
15AM125A	10740216	27	2.9	209	3	3.5	2	198	24.4	634	8	15	150	3.9	1538	14	58	0.10	206
15AM200A	10740217	99	11.7	696	4	3.5	-1	4	8.0	925	1	11	76	0.7	1487	1	69	-0.10	138
15AM201A	10740218	147	17.1	1038	8	7.7	-1	5	46.0	2676	2	37	38	1.0	2009	1	457	-0.10	546
15AM401	10740204	44	6.3	-99	4	1.8	-99	8	3.4	261	4	38	220	4.0	583	-99	87	-0.05	38

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	SiO2_pct	Al2O3_pct	Fe2O3_pct	Fe2O3T_pct	FeO_pct	CaO_pct	MgO_pct	K2O_pct	Na2O_pct	MnO_pct	TiO2_pct	P2O5_pct	LOI_pct	Total_pct	Ba_ppm	Cr_ppm	Zr_ppm
Detection Limit			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001	0.001	0.01		1	1	1
Analysis Method			ICPOESF	ICPOESF	Difference	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	Grav	Calculated	ICPOESF	ICPOESF	ICPOESF
09LN186B_DUP	10140050	duplicate	60.15	14.03	5.39	10.37	4.49	2.41	2.01	3.06	2.75	0.200	1.703	0.155	2.56	99.41	541	-100	342
09LN186B	10140049	original	60.69	14.21	5.10	10.20	4.59	2.46	2.07	3.17	2.68	0.203	1.725	0.160	2.60	100.18	548	-100	375
		%_difference	-0.89%	-1.27%	5.69%	1.67%	-2.18%	-2.03%	-2.90%	-3.47%	2.61%	-1.478%	-1.275%	-3.125%	-1.54%	-0.77%	-1%	0%	-9%
09LN288_DUP	10140070	duplicate	69.72	13.91	1.02	3.67	2.39	1.73	1.38	1.89	5.29	0.082	0.678	0.235	1.38	99.95	637	-100	192
09LN288	10140069	original	69.42	13.81	1.17	3.86	2.42	1.76	1.04	1.72	4.92	0.081	0.672	0.208	1.40	98.89	577	-100	183
		%_difference	0.43%	0.72%	-12.82%	-4.92%	-1.24%	-1.70%	32.69%	9.88%	7.52%	1.235%	0.893%	12.981%	-1.43%	1.07%	10%	0%	5%
09LN357_DUP	10140090	duplicate	65.88	14.39	1.92	5.02	2.80	2.12	1.23	2.05	4.93	0.107	0.777	0.235	1.80	98.55	573	-100	197
09LN357	10140086	original	66.61	14.53	1.86	4.92	2.75	2.12	1.20	2.14	4.95	0.107	0.788	0.253	1.77	99.40	560	-100	211
		%_difference	-1.10%	-0.96%	3.23%	2.03%	1.82%	0.00%	2.50%	-4.21%	-0.40%	0.000%	-1.396%	-7.115%	1.69%	-0.86%	2%	0%	-7%
423_DUP	10140110	duplicate	66.74	16.37	1.15	3.91	2.49	0.88	1.68	2.31	6.42	0.097	0.649	0.119	1.81	100.99	568	-100	305
423	10140109	original	65.51	15.49	0.99	3.83	2.56	0.79	1.67	2.14	6.09	0.096	0.588	0.104	1.83	98.13	524	-100	277
		%_difference	1.88%	5.68%	16.16%	2.09%	-2.73%	11.39%	0.60%	7.94%	5.42%	1.042%	10.374%	14.423%	-1.09%	2.91%	8%	0%	10%
09LN531_DUP	10140130	duplicate	71.06	13.34	1.00	3.18	1.96	0.79	1.27	4.79	2.49	0.091	0.352	0.044	1.96	99.36	1242	-100	306
09LN531	10140129	original	70.10	13.37	0.97	3.15	1.97	0.78	1.23	4.95	2.43	0.093	0.348	0.043	1.99	98.49	1304	-100	258
		%_difference	1.37%	-0.22%	3.09%	0.95%	-0.51%	1.28%	3.25%	-3.23%	2.47%	-2.151%	1.149%	2.326%	-1.51%	0.88%	-5%	0%	19%
09LN573A_DUP	10140150	duplicate	74.15	12.21	0.61	1.15	0.49	0.17	0.83	7.21	0.69	0.022	0.184	0.043	1.15	97.80	1991	-100	116
09LN573A	10140146	original	74.72	12.31	0.70	1.17	0.42	0.16	0.81	7.24	0.70	0.024	0.181	0.045	1.26	98.61	2003	-100	114
		%_difference	-0.76%	-0.81%	-12.86%	-1.71%	16.67%	6.25%	2.47%	-0.41%	-1.43%	-8.333%	1.657%	-4.444%	-8.73%	-0.82%	-1%	0%	2%
09LN659_DUP	10140170	duplicate	60.36	16.73	1.60	7.80	5.58	1.83	2.73	1.17	5.05	0.177	1.092	0.137	2.98	100.07	271	-100	212
09LN659	10140169	original	58.72	16.47	1.42	7.59	5.55	1.80	2.85	1.19	5.29	0.170	1.031	0.145	2.98	98.23	288	-100	225
		%_difference	2.79%	1.58%	12.68%	2.77%	0.54%	1.67%	-4.21%	-1.68%	-4.54%	4.118%	5.917%	-5.517%	0.00%	1.87%	-6%	0%	-6%
09LN712_DUP	10140190	duplicate	70.08	13.78	1.08	3.74	2.39	0.44	1.42	1.44	5.83	0.075	0.486	0.091	1.82	99.19	349	-100	157
09LN712	10140178	original	71.30	13.86	1.14	3.80	2.40	0.44	1.43	1.45	5.89	0.075	0.488	0.091	1.81	100.65	346	-100	138
		%_difference	-1.71%	-0.58%	-5.26%	-1.58%	-0.42%	0.00%	-0.70%	-0.69%	-1.02%	0.000%	-0.410%	0.000%	0.55%	-1.45%	1%	0%	14%
09LN873_DUP	10140210	duplicate	61.37	17.43	1.61	6.93	4.79	0.99	1.65	2.87	2.93	0.145	1.179	0.108	3.01	98.61	482	-100	269
09LN873	10140207	original	61.74	17.48	1.62	6.97	4.82	1.00	1.67	2.90	2.97	0.145	1.187	0.109	3.21	99.38	483	-100	276
		%_difference	-0.60%	-0.29%	-0.62%	-0.57%	-0.62%	-1.00%	-1.20%	-1.03%	-1.35%	0.000%	-0.674%	-0.917%	-6.23%	-0.77%	0%	0%	-3%
09LN901_DUP	10140230	duplicate	67.39	11.82	1.60	1.98	0.34	6.50	1.35	3.41	0.49	0.143	0.183	0.019	5.45	98.74	267	-100	159
09LN901	10140216	original	66.16	11.66	1.75	2.13	0.34	6.46	1.12	3.40	0.46	0.145	0.181	0.003	5.47	97.18	235	-100	183
		%_difference	1.86%	1.37%	-8.57%	-7.04%	0.00%	0.62%	20.54%	0.29%	6.52%	-1.379%	1.105%	533.333%	-0.37%	1.61%	14%	0%	-13%
10LN017A_DUP	10140250	duplicate	63.40	17.25	4.21	4.86	0.59	0.57	1.08	4.42	2.92	0.035	0.763	0.049	2.65	98.01	1020	-100	200
10LN017A	10140244	original	64.25	17.62	4.10	4.94	0.76	0.57	1.01	4.52	3.28	0.035	0.777	0.051	2.69	99.74	1041	-100	204
		%_difference	-1.32%	-2.10%	2.68%	-1.62%	-22.37%	0.00%	6.93%	-2.21%	-10.98%	0.000%	-1.802%	-3.922%	-1.49%	-1.73%	-2%	0%	-2%
10LN050_DUP	10140270	duplicate	65.92	15.10	1.58	3.62	1.83	2.70	1.65	1.31	5.95	0.156	0.401	0.093	2.68	99.59	291	-100	117
10LN050	10140256	original	65.34	15.41	1.44	3.46	1.82	2.68	1.77	1.33	5.01	0.153	0.405	0.095	2.73	98.38	291	-100	112
		%_difference	0.89%	-2.01%	9.72%	4.62%	0.55%	0.75%	-6.78%	-1.50%	18.76%	1.961%	-0.988%	-2.105%	-1.83%	1.23%	0%	0%	4%
10LN111_DUP	10140290	duplicate	59.99	16.66	-99	7.95	-99	0.50	1.23	3.56	0.86	0.134	0.833	0.447	6.56	98.73	1195	-100	135
10LN111	10140273	original	61.15	16.85	-99	7.98	-99	0.61	1.24	3.66	0.93	0.124	0.831	0.522	6.44	100.32	1206	-100	134
		%_difference	-1.90%	-1.13%	NA	-0.38%	NA	-18.03%	-0.81%	-2.73%	-7.53%	8.065%	0.241%	-14.368%	1.86%	-1.58%	-1%	0%	1%
10LN417B_DUP	10140310	duplicate	63.54	16.71	1.01	5.64	4.16	0.54	1.17	3.51	4.92	0.114	0.495	0.098	1.91	98.65	802	-100	136
10LN417B	10140307	original	64.00	16.62	0.95	5.64	4.22	0.52	1.13	3.55	5.28	0.108	0.506	0.087	1.93	99.38	807	-100	118
		%_difference	-0.72%	0.54%	6.32%	0.00%	-1.42%	3.85%	3.54%	-1.13%	-6.82%	5.556%	-2.174%	12.644%	-1.04%	-0.73%	-1%	0%	15%
10LN494_DUP	10140330	duplicate	65.40	14.79	1.07	3.88	2.53	2.26	1.31	1.87	4.84	0.122	0.487	0.066	2.97	98.00	441	-100	138
10LN494	10140327	original	65.19	14.82	1.04	3.83	2.51	2.27	1.31	1.85	4.86	0.124	0.474	0.064	3.07	97.86	438	-100	138
		%_difference	0.32%	-0.20%	2.88%	1.31%	0.80%	-0.44%	0.00%	1.08%	-0.41%	-1.613%	2.743%	3.125%	-3.26%	0.14%	1%	0%	0%
10LN658B_DUP	10140350	duplicate	52.37	21.07	7.11	7.29	0.16	7.83	1.01	3.76	1.38	0.286	1.004	0.194	2.54	98.75	1055	-100	389
10LN658B	10140338	original	51.96	20.71	7.16	7.36	0.18	7.82	0.99	3.73	1.46	0.286	0.988	0.193	2.66	98.15	1051	-100	355
		%_difference	0.79%	1.74%	-0.70%	-0.95%	-11.11%	0.13%	2.02%	0.80%	-5.48%	0.000%	1.619%	0.518%	-4.51%	0.61%	0%	0%	10%
13AM040B01 DUP	10740010	duplicate	63.61	15.94	4.27	5.04	0.69	3.38	0.83	1.84	4.79	0.133	0.663	0.048	2.75	99.01	452	24	137
13AM040B01	10740008	original	63.63	15.75	4.22	5.01	0.71	3.45	0.82	1.80	4.67	0.136	0.691	0.049	2.74	98.75	447	22	145
		% difference	-0.03%	1.21%	1.18%	0.60%	-2.82%	-2.03%	1.22%	2.22%	2.57%	-2.206%	-4.052%	-2.041%	0.36%	0.26%	1%	9%	-6%
13AM016A01 DUP	10740030	duplicate	74.59	10.36	3.00	3.62	0.55	0.51	0.15	4.49	3.82	0.063	0.218	0.006	0.27	98.09	57	-99	724
13AM016A01	10740029	original	75.27	10.48	2.81	3.48	0.60	0.51	0.15	4.53	3.83	0.063	0.218	0.008	0.27	98.80	64	-99	731
		% difference	-0.90%	-1.15%	6.76%	4.02%	-8.33%	0.00%	0.00%	-0.88%	-0.26%	0.000%	0.000%	-25.000%	0.00%	-0.72%	-11%	NA	-1%
13AM154B01 DUP	10740050	duplicate	47.82	11.33	1.74	10.17	7.59	10.00	12.29	0.90	2.22	0.228	0.711	0.138	3.63	99.44	361	728	50

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	SiO2_pct	Al2O3_pct	Fe2O3_pct	Fe2O3T_pct	FeO_pct	CaO_pct	MgO_pct	K2O_pct	Na2O_pct	MnO_pct	TiO2_pct	P2O5_pct	LOI_pct	Total_pct	Ba_ppm	Cr_ppm	Zr_ppm
Detection Limit			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001	0.001	0.01		1	1	1
Analysis Method			ICPOESF	ICPOESF	Difference	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	Grav	Calculated	ICPOESF	ICPOESF	ICPOESF
13AM154B01	10740045	original	47.61	11.20	1.72	10.22	7.65	10.01	12.15	0.83	2.17	0.227	0.711	0.140	3.70	98.99	358	699	46
		% difference	0.44%	1.16%	1.16%	-0.49%	-0.78%	-0.10%	1.15%	8.43%	2.30%	0.441%	0.000%	-1.429%	-1.89%	0.45%	1%	4%	9%
13AM301A01 DUP	10740070	duplicate	46.62	17.79	9.26	13.39	3.72	2.40	6.49	2.18	4.41	0.221	1.409	0.537	3.74	99.18	1423	19	130
13AM301A01	10740068	original	46.88	17.87	8.74	12.96	3.80	2.40	6.45	2.07	4.48	0.221	1.397	0.532	3.73	98.99	1326	16	128
		% difference	-0.55%	-0.45%	5.95%	3.32%	-2.11%	0.00%	0.62%	5.31%	-1.56%	0.000%	0.859%	0.940%	0.27%	0.19%	7%	19%	2%
13AM319A01 DUP	10740090	duplicate	49.68	16.55	2.33	12.58	9.23	2.57	4.51	1.43	4.51	0.424	1.909	0.508	3.79	98.47	695	41	172
13AM319A01	10740089	original	49.57	16.53	2.37	12.53	9.14	2.51	4.47	1.37	4.48	0.421	1.905	0.502	3.76	98.05	681	41	169
		% difference	0.22%	0.12%	-1.69%	0.40%	0.98%	2.39%	0.89%	4.38%	0.67%	0.713%	0.210%	1.195%	0.80%	0.43%	2%	0%	2%
13AM044B01 DUP	10740110	duplicate	85.44	5.99	1.05	1.74	0.62	1.52	0.36	0.54	1.57	0.118	0.142	0.034	1.10	98.56	129	7	56
13AM044B01	10740108	original	86.48	6.16	0.99	1.59	0.54	1.57	0.37	0.56	1.60	0.118	0.155	0.036	1.18	99.82	137	10	52
		% difference	-1.20%	-2.76%	6.06%	9.43%	14.81%	-3.18%	-2.70%	-3.57%	-1.88%	0.000%	-8.387%	-5.556%	-6.78%	-1.26%	-6%	-30%	8%
13AM428C_DUP	10740130	duplicate	58.70	15.41	1.25	9.11	7.07	2.68	2.79	0.93	5.15	0.221	0.922	0.281	2.86	99.06	307	11	104
13AM428C	10740129	original	58.39	15.47	1.16	9.07	7.12	2.69	2.82	0.92	5.19	0.220	0.933	0.288	2.88	98.87	301	11	100
		% difference	0.53%	-0.39%	7.76%	0.44%	-0.70%	-0.37%	-1.06%	1.09%	-0.77%	0.455%	-1.179%	-2.431%	-0.69%	0.19%	2%	0%	4%
14AM077A01 DUP	10740150	duplicate	81.63	9.44	0.32	1.35	0.92	0.38	0.99	1.40	3.17	0.055	0.155	0.031	1.25	99.85	276	2	84
14AM077A01	10740145	original	81.11	9.44	0.41	1.37	0.86	0.42	1.01	1.34	3.14	0.055	0.161	0.032	1.28	99.36	276	2	83
		% difference	0.64%	0.00%	-21.95%	-1.46%	6.98%	-9.52%	-1.98%	4.48%	0.96%	0.000%	-3.727%	-3.125%	-2.34%	0.49%	0%	0%	1%
15AM042B DUP	10740210	duplicate	45.99	16.29	5.15	13.10	7.15	7.41	7.54	1.99	2.41	0.234	1.923	0.310	3.42	100.63	718	80	125
15AM042B	10740208	original	45.56	15.88	5.17	13.09	7.13	7.44	7.43	1.94	2.38	0.232	1.928	0.307	3.27	99.47	694	79	123
		% difference	0.94%	2.58%	-0.39%	0.08%	0.28%	-0.40%	1.48%	2.58%	1.26%	0.862%	-0.259%	0.977%	4.59%	1.17%	3%	1%	2%

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	As_ppm	Bi_ppm	Cd_ppm	Ce_ppm	Co_ppm	Cs_ppm	Dy_ppm	Er_ppm	Eu_ppm	Ga_ppm	Gd_ppm	Ge_ppm	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm	Nb_ppm
Detection Limit			5	0.4	0.1	1	1	0.5	0.1	0.1	0.05	1	0.1	1	0.2	0.1	0.2	0.5	0.05	2	1
Analysis Method			ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
09LN186B_DUP	10140050	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
09LN186B	10140049	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09LN288_DUP	10140070	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
09LN288	10140069	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09LN357_DUP	10140090	duplicate	-99	-99	-99	-99	-99	1.0	-99	4.5	1.84	18	7.5	4	5.6	1.5	-99	-99	0.62	-99	-99
09LN357	10140086	original	-99	-99	-99	-99	-99	0.9	-99	4.0	1.80	20	7.3	3	5.4	1.3	-99	-99	0.59	-99	-99
		%_difference	NA	-99	NA	NA	NA	11.1%	-99	12.5%	2.22%	-10%	2.7%	33%	3.7%	15.4%	NA	NA	5.08%	NA	NA
423_DUP	10140110	duplicate	-99	-99	-99	-99	-99	2.7	-99	4.2	1.50	20	6.1	3	7.3	1.3	-99	-99	0.68	-99	-99
423	10140109	original	-99	-99	-99	-99	-99	2.6	-99	4.0	1.57	20	6.2	4	7.0	1.3	-99	-99	0.63	-99	-99
		%_difference	NA	-99	NA	NA	NA	3.8%	-99	5.0%	-4.46%	0%	-1.6%	-25%	4.3%	0.0%	NA	NA	7.94%	NA	NA
09LN531_DUP	10140130	duplicate	-99	-99	-99	-99	-99	2.4	-99	4.5	1.86	22	7.2	4	7.2	1.5	-99	-99	0.70	-99	-99
09LN531	10140129	original	-99	-99	-99	-99	-99	2.5	-99	4.3	1.73	20	7.3	5	7.1	1.4	-99	-99	0.71	-99	-99
		%_difference	NA	-99	NA	NA	NA	-4.0%	-99	4.7%	7.51%	10%	-1.4%	-20%	1.4%	7.1%	NA	NA	-1.41%	NA	NA
09LN573A_DUP	10140150	duplicate	-99	-99	-99	-99	-99	2.7	-99	1.8	0.38	13	2.0	2	3.7	0.6	-99	-99	0.39	-99	-99
09LN573A	10140146	original	-99	-99	-99	-99	-99	2.7	-99	1.8	0.38	13	2.0	2	3.8	0.6	-99	-99	0.36	-99	-99
		%_difference	NA	-99	NA	NA	NA	0.0%	-99	0.0%	0.00%	0%	0.0%	0%	-2.6%	0.0%	NA	NA	8.33%	NA	NA
09LN659_DUP	10140170	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
09LN659	10140169	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09LN712_DUP	10140190	duplicate	-99	-99	-99	-99	-99	2.3	-99	2.8	1.04	15	3.8	2	4.2	0.9	-99	-99	0.44	-99	-99
09LN712	10140178	original	-99	-99	-99	-99	-99	2.2	-99	2.7	1.04	14	3.7	2	3.9	0.9	-99	-99	0.42	-99	-99
		%_difference	NA	NA	NA	NA	NA	4.5%	-99	3.7%	0.00%	7%	2.7%	0%	7.7%	0.0%	NA	NA	4.76%	NA	NA
09LN873_DUP	10140210	duplicate	-99	-99	-99	-99	-99	3.8	-99	3.7	1.36	23	6.3	4	7.1	1.2	-99	-99	0.60	-99	-99
09LN873	10140207	original	-99	-99	-99	-99	-99	3.8	-99	3.4	1.42	23	6.3	4	6.9	1.1	-99	-99	0.57	-99	-99
		%_difference	NA	NA	NA	NA	NA	0.0%	-99	8.8%	-4.23%	0%	0.0%	0%	2.9%	9.1%	NA	NA	5.26%	NA	NA
09LN901_DUP	10140230	duplicate	-99	-99	-99	-99	-99	5.8	-99	3.0	0.68	18	3.9	2	5.2	0.9	-99	-99	0.56	-99	-99
09LN901	10140216	original	-99	-99	-99	-99	-99	6.0	-99	3.1	0.69	18	4.0	2	5.3	0.9	-99	-99	0.54	-99	-99
		%_difference	NA	NA	NA	NA	NA	-3.3%	-99	-3.2%	-1.45%	0%	-2.5%	0%	-1.9%	0.0%	NA	NA	3.70%	NA	NA
10LN017A_DUP	10140250	duplicate	-99	-99	-99	-99	-99	5.3	-99	2.9	1.04	22	3.7	2	5.5	0.9	-99	-99	0.44	-99	-99
10LN017A	10140244	original	-99	-99	-99	-99	-99	5.0	-99	2.8	1.05	22	3.6	2	5.2	0.9	-99	-99	0.43	-99	-99
		%_difference	NA	NA	NA	NA	NA	6.0%	-99	3.6%	-0.95%	0%	2.8%	0%	5.8%	0.0%	NA	NA	2.33%	NA	NA
10LN050_DUP	10140270	duplicate	-99	-99	-99	-99	-99	1.9	-99	1.8	1.36	13	3.1	2	2.9	0.6	-99	-99	0.28	-99	-99
10LN050	10140256	original	-99	-99	-99	-99	-99	1.8	-99	1.8	1.37	12	3.2	2	2.7	0.6	-99	-99	0.30	-99	-99
		%_difference	NA	NA	NA	NA	NA	5.6%	-99	0.0%	-0.73%	8%	-3.1%	0%	7.4%	0.0%	NA	NA	-6.67%	NA	NA
10LN111_DUP	10140290	duplicate	-99	-99	-99	-99	-99	6.0	-99	3.8	1.50	29	7.0	5	3.6	1.2	-99	-99	0.59	-99	-99
10LN111	10140273	original	-99	-99	-99	-99	-99	6.3	-99	3.8	1.52	31	6.7	6	3.6	1.2	-99	-99	0.60	-99	-99
		%_difference	NA	NA	NA	NA	NA	-4.8%	-99	0.0%	-1.32%	-6%	4.5%	-17%	0.0%	0.0%	NA	NA	-1.67%	NA	NA
10LN417B_DUP	10140310	duplicate	-99	-99	-99	-99	-99	1.2	-99	2.3	1.26	21	3.8	3	3.5	0.7	-99	-99	0.36	-99	-99
10LN417B	10140307	original	-99	-99	-99	-99	-99	1.1	-99	2.2	1.31	16	3.8	3	3.4	0.8	-99	-99	0.34	-99	-99
		%_difference	NA	NA	NA	NA	NA	9.1%	-99	4.5%	-3.82%	31%	0.0%	0%	2.9%	-12.5%	NA	NA	5.88%	NA	NA
10LN494_DUP	10140330	duplicate	-99	-99	-99	-99	-99	1.5	-99	2.6	1.53	16	4.3	3	4.0	0.8	-99	-99	0.41	-99	-99
10LN494	10140327	original	-99	-99	-99	-99	-99	1.7	-99	2.7	1.68	17	4.6	3	4.2	0.9	-99	-99	0.45	-99	-99
		%_difference	NA	NA	NA	NA	NA	-11.8%	-99	-3.7%	-8.93%	-6%	-6.5%	0%	-4.8%	-11.1%	NA	NA	-8.89%	NA	NA
10LN658B_DUP	10140350	duplicate	-99	-99	-99	-99	-99	2.0	-99	6.5	3.03	34	11.2	5	9.9	2.2	-99	-99	0.91	-99	-99
10LN658B	10140338	original	-99	-99	-99	-99	-99	2.0	-99	6.8	3.07	38	11.3	5	10.1	2.3	-99	-99	0.95	-99	-99
		%_difference	NA	NA	NA	NA	NA	0.0%	-99	-4.4%	-1.30%	-11%	-0.9%	0%	-2.0%	-4.3%	NA	NA	-4.21%	NA	NA
13AM040B01 DUP	10740010	duplicate	-5	-0.4	-0.2	47	9	1.0	4.2	2.4	2.00	20	4.4	4	3.7	0.8	-0.2	26.6	0.37	-2	9
13AM040B01	10740008	original	-5	-0.4	-0.2	43	7	0.8	4.0	2.4	2.02	20	4.3	3	3.6	0.7	-0.2	24.2	0.33	-2	8
		% difference	BD	BD	BD	9%	29%	25.0%	5.0%	0.0%	-0.99%	0%	2.3%	33%	2.8%	14.3%	BD	9.9%	12.12%	BD	13%
13AM016A01 DUP	10740030	duplicate	-5	-0.4	-0.2	153	1	0.5	15.2	8.8	1.91	32	14.8	4	20.3	2.9	-0.2	42.7	1.51	2	34
13AM016A01	10740029	original	-5	-0.4	-0.2	145	2	-0.5	15.1	8.9	1.93	30	14.2	5	20.5	2.9	-0.2	42.2	1.47	2	33
		% difference	BD	BD	BD	6%	-50%	LOD	0.7%	-1.1%	-1.04%	7%	4.2%	-20%	-1.0%	0.0%	BD	1.2%	2.72%	0%	3%
13AM154B01 DUP	10740050	duplicate	-5	-0.4	-0.2	28	50	0.6	2.5	1.2	0.83	13	3.0	4	1.6	0.4	-0.2	14.2	0.15	-2	3

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	As_ppm	Bi_ppm	Cd_ppm	Ce_ppm	Co_ppm	Cs_ppm	Dy_ppm	Er_ppm	Eu_ppm	Ga_ppm	Gd_ppm	Ge_ppm	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm	Nb_ppm
Detection Limit			5	0.4	0.1	1	1	0.5	0.1	0.1	0.05	1	0.1	1	0.2	0.1	0.2	0.5	0.05	2	1
Analysis Method			ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
13AM154B01	10740045	original	-5	-0.4	-0.2	25	47	-0.5	2.2	1.2	0.78	12	2.7	2	1.3	0.4	-0.2	12.3	0.15	-2	2
		% difference	BD	BD	BD	12%	6%	LOD	13.6%	0.0%	6.41%	8%	11.1%	100%	23.1%	0.0%	BD	15.4%	0.00%	BD	50%
13AM301A01 DUP	10740070	duplicate	-5	-0.4	-0.2	76	35	1.0	4.7	2.4	2.20	15	7.0	4	3.8	0.9	-0.2	36.1	0.31	-2	8
13AM301A01	10740068	original	-5	-0.4	-0.2	76	33	0.9	4.7	2.4	2.24	14	6.8	3	3.7	0.8	-0.2	33.4	0.31	-2	7
		% difference	BD	BD	BD	0%	6%	11.1%	0.0%	0.0%	-1.79%	7%	2.9%	33%	2.7%	12.5%	BD	8.1%	0.00%	BD	14%
13AM319A01 DUP	10740090	duplicate	6	-0.4	-0.2	57	32	0.5	6.8	3.9	1.94	23	7.8	5	4.7	1.2	-0.2	26.1	0.43	2	9
13AM319A01	10740089	original	7	-0.4	-0.2	58	34	0.6	7.0	3.8	1.99	24	7.6	6	4.6	1.3	-0.2	26.6	0.42	2	9
		% difference	-14%	BD	BD	-2%	-6%	-16.7%	-2.9%	2.6%	-2.51%	-4%	2.6%	-17%	2.2%	-7.7%	BD	-1.9%	2.38%	0%	0%
13AM044B01 DUP	10740110	duplicate	-5	-0.4	-0.2	24	4	-0.5	2.3	1.6	0.56	7	2.3	4	2.0	0.5	-0.2	14.2	0.20	2	6
13AM044B01	10740108	original	-5	-0.4	-0.2	21	4	-0.5	2.1	1.4	0.55	7	1.9	2	2.2	0.5	-0.2	11.8	0.16	-2	6
		% difference	BD	BD	BD	14%	0%	BD	9.5%	14.3%	1.82%	0%	21.1%	100%	-9.1%	0.0%	BD	20.3%	25.00%	LOD	0%
13AM428C_DUP	10740130	duplicate	10	-0.4	-0.2	32	18	-0.5	4.9	3.1	1.41	17	5.3	3	2.8	1.0	-0.2	14.9	0.41	2	4
13AM428C	10740129	original	9	-0.4	-0.2	34	18	0.5	5.4	3.4	1.47	18	5.6	4	2.9	1.1	-0.2	15.8	0.43	2	4
		% difference	11%	BD	BD	-6%	0%	LOD	-9.3%	-8.8%	-4.08%	-6%	-5.4%	-25%	-3.4%	-9.1%	BD	-5.7%	-4.65%	0%	0%
14AM077A01 DUP	10740150	duplicate	-99	-0.4	-0.2	36	1	2.1	2.7	1.7	0.49	9	2.2	1	2.7	0.6	-99	15.9	0.28	-2	6
14AM077A01	10740145	original	-99	-0.4	-0.2	36	1	2.2	2.6	1.8	0.51	9	2.2	1	2.9	0.6	-99	15.9	0.30	-2	6
		% difference	NA	BD	BD	0%	0%	-4.5%	3.8%	-5.6%	-3.92%	0%	0.0%	0%	-6.9%	0.0%	NA	0.0%	-6.67%	BD	0%
15AM042B DUP	10740210	duplicate	-99	-99	-0.2	27	-99	1.2	5.0	2.8	1.71	18	5.1	4	2.6	1.0	-99	11.0	0.44	-2	2
15AM042B	10740208	original	-99	-99	-0.2	28	-99	1.2	5.1	2.8	1.73	17	5.3	4	2.8	1.0	-99	10.2	0.40	-2	2
		% difference	NA	NA	BD	-4%	NA	0.0%	-2.0%	0.0%	-1.16%	6%	-3.8%	0%	-7.1%	0.0%	NA	7.8%	10.00%	BD	0%

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	Nd_ppm	Pr_ppm	Sm_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	Tl_ppm	Tm_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Yb_ppm	Zr_ppm	As_ppm	Be_ppm	Co_ppm
Detection Limit			0.2	0.1	0.1	1	1	0.5	0.1	0.1	0.1	0.05	0.1	5	1	1	0.1	1	2	0.1	1
Analysis Method			ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPOES4	ICPOES4	ICPOES4
09LN186B_DUP	10140050	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	5	1.8	21
09LN186B	10140049	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	6	1.8	20
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-17%	0.0%	5%
09LN288_DUP	10140070	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	45	0.9	13
09LN288	10140069	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	46	0.9	13
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-2%	0.0%	0%
09LN357_DUP	10140090	duplicate	36.6	8.8	7.3	1	-99	-0.5	1.2	6.6	0.2	0.66	2.0	-99	-1	-99	4.3	-99	6	1.3	12
09LN357	10140086	original	35.5	8.5	7.5	1	-99	0.7	1.1	6.9	0.2	0.60	1.9	-99	1	-99	4.0	-99	7	1.3	12
		%_difference	3.1%	3.5%	-2.7%	0%	NA	LOD	9.1%	-4.3%	0.0%	10.00%	5.3%	NA	LOD	NA	7.5%	NA	-14%	0.0%	0%
423_DUP	10140110	duplicate	31.8	7.9	6.7	1	-99	-0.5	1.0	8.0	0.2	0.62	2.1	-99	-1	-99	4.4	-99	4	1.9	9
423	10140109	original	30.5	7.6	6.8	1	-99	-0.5	1.0	7.6	0.2	0.57	2.1	-99	-1	-99	4.3	-99	4	1.8	9
		%_difference	4.3%	3.9%	-1.5%	0%	NA	BD	0.0%	5.3%	0.0%	8.77%	0.0%	NA	BD	NA	2.3%	NA	0%	5.6%	0%
09LN531_DUP	10140130	duplicate	38.6	9.9	8.0	3	-99	-0.5	1.2	10.2	0.2	0.67	2.4	-99	3	-99	4.8	-99	7	2.6	5
09LN531	10140129	original	37.0	9.4	7.8	3	-99	-0.5	1.1	9.8	0.2	0.66	2.3	-99	4	-99	4.5	-99	7	2.5	5
		%_difference	4.3%	5.3%	2.6%	0%	NA	BD	9.1%	4.1%	0.0%	1.52%	4.3%	NA	-25%	NA	6.7%	NA	0%	4.0%	0%
09LN573A_DUP	10140150	duplicate	13.2	4.1	2.7	2	-99	-0.5	0.4	13.7	0.2	0.29	3.8	-99	1	-99	2.4	-99	5	1.0	3
09LN573A	10140146	original	13.3	3.9	2.6	2	-99	-0.5	0.4	14.1	0.2	0.31	4.1	-99	2	-99	2.4	-99	5	1.0	3
		%_difference	-0.8%	5.1%	3.8%	0%	NA	BD	0.0%	-2.8%	0.0%	-6.45%	-7.3%	NA	-50%	NA	0.0%	NA	0%	0.0%	0%
09LN659_DUP	10140170	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	9	1.4	16
09LN659	10140169	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	9	1.4	16
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0%	0.0%	0%
09LN712_DUP	10140190	duplicate	14.3	3.6	3.6	1	-99	-0.5	0.6	5.9	0.1	0.41	1.5	-99	-1	-99	2.8	-99	6	1.2	11
09LN712	10140178	original	14.6	3.6	3.4	1	-99	-0.5	0.6	5.9	0.1	0.42	1.4	-99	-1	-99	2.9	-99	6	1.3	11
		%_difference	-2.1%	0.0%	5.9%	0%	NA	BD	0.0%	0.0%	0.0%	-2.38%	7.1%	NA	BD	NA	-3.4%	NA	0%	-7.7%	0%
09LN873_DUP	10140210	duplicate	31.2	7.4	6.2	3	-99	1.8	1.0	7.9	-0.1	0.53	1.8	-99	2	-99	3.8	-99	5	2.1	18
09LN873	10140207	original	30.4	7.6	6.8	5	-99	1.4	0.9	7.8	-0.1	0.52	1.8	-99	2	-99	3.9	-99	5	2.1	18
		%_difference	2.6%	-2.6%	-8.8%	-40%	NA	28.6%	11.1%	1.3%	BD	1.92%	0.0%	NA	0%	NA	-2.6%	NA	0%	0.0%	0%
09LN901_DUP	10140230	duplicate	21.5	6.2	4.5	4	-99	1.2	0.6	15.3	0.3	0.48	5.3	-99	1	-99	3.5	-99	5	3.5	4
09LN901	10140216	original	22.5	6.1	4.3	4	-99	1.7	0.6	15.6	0.3	0.52	5.4	-99	1	-99	3.8	-99	4	3.5	4
		%_difference	-4.4%	1.6%	4.7%	0%	NA	-29.4%	0.0%	-1.9%	0.0%	-7.69%	-1.9%	NA	0%	NA	-7.9%	NA	25%	0.0%	0%
10LN017A_DUP	10140250	duplicate	13.4	3.1	3.4	2	-99	0.8	0.7	6.2	0.4	0.41	1.6	-99	-1	-99	3.2	-99	4	2.4	14
10LN017A	10140244	original	12.4	3.1	3.6	2	-99	0.8	0.6	5.9	0.4	0.43	1.5	-99	1	-99	3.0	-99	4	2.4	14
		%_difference	8.1%	0.0%	-5.6%	0%	NA	0.0%	16.7%	5.1%	0.0%	-4.65%	6.7%	NA	LOD	NA	6.7%	NA	0%	0.0%	0%
10LN050_DUP	10140270	duplicate	16.7	4.2	3.3	2	-99	-0.5	0.5	3.6	-0.1	0.25	0.9	-99	-1	-99	1.8	-99	4	1.0	9
10LN050	10140256	original	17.3	4.3	3.3	1	-99	-0.5	0.5	3.4	-0.1	0.27	0.9	-99	-1	-99	1.8	-99	4	1.0	9
		%_difference	-3.5%	-2.3%	0.0%	100%	NA	BD	0.0%	5.9%	BD	-7.41%	0.0%	NA	BD	NA	0.0%	NA	0%	0.0%	0%
10LN111_DUP	10140290	duplicate	36.4	9.6	7.1	3	-99	1.1	1.1	11.9	0.2	0.50	7.7	-99	5	-99	3.6	-99	138	2.6	26
10LN111	10140273	original	36.1	9.3	7.0	4	-99	1.0	1.3	12.0	0.2	0.53	8.0	-99	5	-99	3.6	-99	134	2.6	27
		%_difference	0.8%	3.2%	1.4%	-25%	NA	10.0%	-15.4%	-0.8%	0.0%	-5.66%	-3.8%	NA	0%	NA	0.0%	NA	3%	0.0%	-4%
10LN417B_DUP	10140310	duplicate	19.2	4.8	4.3	1	-99	-0.5	0.6	4.7	0.3	0.32	1.2	-99	-1	-99	2.2	-99	8	0.7	9
10LN417B	10140307	original	17.4	4.5	3.8	1	-99	-0.5	0.5	4.8	0.4	0.35	1.2	-99	-1	-99	2.3	-99	8	0.7	9
		%_difference	10.3%	6.7%	13.2%	0%	NA	BD	20.0%	-2.1%	-25.0%	-8.57%	0.0%	NA	BD	NA	-4.3%	NA	0%	0.0%	0%
10LN494_DUP	10140330	duplicate	22.5	5.6	4.5	1	-99	-0.5	0.7	5.2	0.2	0.37	1.2	-99	-1	-99	2.6	-99	3	1.3	8
10LN494	10140327	original	23.9	5.7	5.2	2	-99	0.5	0.7	5.4	0.2	0.39	1.3	-99	-1	-99	2.8	-99	4	1.3	7
		%_difference	-5.9%	-1.8%	-13.5%	-50%	NA	LOD	0.0%	-3.7%	0.0%	-5.13%	-7.7%	NA	BD	NA	-7.1%	NA	-25%	0.0%	14%
10LN658B_DUP	10140350	duplicate	44.6	10.7	11.0	3	-99	1.2	1.8	11.3	0.2	0.94	1.0	-99	1	-99	6.4	-99	18	1.6	11
10LN658B	10140338	original	46.1	11.0	10.7	3	-99	0.5	1.8	11.5	0.2	0.90	1.0	-99	-1	-99	6.4	-99	17	1.8	11
		%_difference	-3.3%	-2.7%	2.8%	0%	NA	140.0%	0.0%	-1.7%	0.0%	4.44%	0.0%	NA	LOD	NA	0.0%	NA	6%	-11.1%	0%
13AM040B01 DUP	10740010	duplicate	23.6	6.0	4.3	1	408	0.6	0.6	3.9	-0.1	0.35	0.6	70	-1	21	2.6	-99	-99	1.4	-99
13AM040B01	10740008	original	22.5	5.6	4.4	1	395	0.7	0.6	3.7	-0.1	0.35	0.6	70	-1	20	2.3	-99	-99	1.5	-99
		% difference	4.9%	7.1%	-2.3%	0%	3%	-14.3%	0.0%	5.4%	BD	0.00%	0.0%	0%	BD	5%	13.0%	NA	NA	-6.7%	NA
13AM016A01 DUP	10740030	duplicate	63.5	14.8	16.3	6	39	3.4	2.3	17.8	-0.1	1.45	2.1	12	3	61	10.1	-99	-99	2.1	-99
13AM016A01	10740029	original	62.0	14.7	16.5	6	37	3.5	2.3	17.6	-0.1	1.44	2.1	10	3	61	10.1	-99	-99	2.1	-99
		% difference	2.4%	0.7%	-1.2%	0%	5%	-2.9%	0.0%	1.1%	BD	0.69%	0.0%	20%	0%	0%	0.0%	NA	NA	0.0%	NA
13AM154B01 DUP	10740050	duplicate	15.4	3.6	3.7	2	91	-0.5	0.4	3.8	-0.1	0.15	1.1	283	-1	12	0.9	-99	-99	0.5	-99

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	Nd_ppm	Pr_ppm	Sm_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	Tl_ppm	Tm_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Yb_ppm	Zr_ppm	As_ppm	Be_ppm	Co_ppm
Detection Limit			0.2	0.1	0.1	1	1	0.5	0.1	0.1	0.1	0.05	0.1	5	1	1	0.1	1	2	0.1	1
Analysis Method			ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPOES4	ICPOES4	ICPOES4
13AM154B01	10740045	original	13.1	3.1	3.0	1	83	-0.5	0.4	3.4	-0.1	0.14	1.0	259	-1	11	0.9	-99	-99	0.5	-99
		% difference	17.6%	16.1%	23.3%	100%	10%	BD	0.0%	11.8%	BD	7.14%	10.0%	9%	BD	9%	0.0%	NA	NA	0.0%	NA
13AM301A01 DUP	10740070	duplicate	43.9	10.3	9.1	2	574	0.7	0.9	11.0	-0.1	0.32	2.1	360	2	23	2.1	-99	-99	0.4	-99
13AM301A01	10740068	original	41.8	9.6	8.6	1	591	0.6	0.9	10.8	-0.1	0.32	2.1	349	1	22	2.2	-99	-99	0.4	-99
		% difference	5.0%	7.3%	5.8%	100%	-3%	16.7%	0.0%	1.9%	BD	0.00%	0.0%	3%	100%	5%	-4.5%	NA	NA	0.0%	NA
13AM319A01 DUP	10740090	duplicate	32.9	7.8	8.2	4	176	0.6	1.2	7.2	-0.1	0.52	3.2	300	2	34	3.6	-99	-99	2.3	-99
13AM319A01	10740089	original	34.2	7.7	8.2	4	180	0.7	1.1	7.3	-0.1	0.50	3.2	304	3	35	3.8	-99	-99	2.2	-99
		% difference	-3.8%	1.3%	0.0%	0%	-2%	-14.3%	9.1%	-1.4%	BD	4.00%	0.0%	-1%	-33%	-3%	-5.3%	NA	NA	4.5%	NA
13AM044B01 DUP	10740110	duplicate	12.7	3.5	2.5	1	241	-0.5	0.4	2.9	-0.1	0.22	1.5	34	-1	15	1.5	-99	-99	0.6	-99
13AM044B01	10740108	original	12.0	3.0	2.0	1	233	-0.5	0.3	2.7	-0.1	0.19	1.3	33	1	14	1.3	-99	-99	0.6	-99
		% difference	5.8%	16.7%	25.0%	0%	3%	BD	33.3%	7.4%	BD	15.79%	15.4%	3%	LOD	7%	15.4%	NA	NA	0.0%	NA
13AM428C_DUP	10740130	duplicate	19.7	4.2	5.3	2	101	-0.5	0.8	2.3	-0.1	0.42	0.9	143	2	28	2.8	-99	-99	0.8	-99
13AM428C	10740129	original	21.0	4.6	5.2	2	105	1.5	0.9	2.5	-0.1	0.44	1.0	152	2	29	3.2	-99	-99	0.8	-99
		% difference	-6.2%	-8.7%	1.9%	0%	-4%	LOD	-11.1%	-8.0%	BD	-4.55%	-10.0%	-6%	0%	-3%	-12.5%	NA	NA	0.0%	NA
14AM077A01 DUP	10740150	duplicate	12.2	3.3	2.5	1	117	0.6	0.4	7.7	-0.1	0.30	1.6	13	-1	15	2.1	-99	2	1.5	-99
14AM077A01	10740145	original	12.2	3.3	2.4	1	119	0.6	0.4	7.9	-0.1	0.29	1.6	10	-1	16	2.1	-99	2	1.5	-99
		% difference	0.0%	0.0%	4.2%	0%	-2%	0.0%	0.0%	-2.5%	BD	3.45%	0.0%	30%	BD	-6%	0.0%	NA	0%	0.0%	NA
15AM042B DUP	10740210	duplicate	19.1	3.9	5.2	-1	329	-99	0.8	0.3	-99	0.39	0.2	325	-99	24	2.5	109	-2	0.8	30
15AM042B	10740208	original	19.4	4.0	5.2	1	330	-99	0.9	0.4	-99	0.39	0.1	322	-99	25	2.5	112	-2	0.8	30
		% difference	-1.5%	-2.5%	0.0%	LOD	0%	NA	-11.1%	-25.0%	NA	0.00%	100.0%	1%	NA	-4%	0.0%	-3%	0%	0.0%	0%

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	Cu_ppm	Li_ppm	Mn_ppm	Ni_ppm	Pb_ppm	Rb_ppm	Sc_ppm	Ti_ppm	V_ppm	Zn_ppm	Ag_ppm	F_ppm
Detection Limit			1	0.1	1	1	1	1	0.1	1	1	1	0.05, 0.1	5
Analysis Method			ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOESH	ISE
09LN186B_DUP	10140050	duplicate	10	48.3	1496	8	-1	80	19.9	8468	137	126	-0.10	363
09LN186B	10140049	original	7	46.8	1479	8	-1	77	19.6	8268	140	121	-0.10	290
		%_difference	43%	3.2%	1%	0%	BD	4%	1.5%	2%	-2%	4%	BD	25%
09LN288_DUP	10140070	duplicate	23	29.2	632	3	-1	30	12.3	3564	52	57	-0.10	197
09LN288	10140069	original	23	29.8	648	4	-1	25	12.6	3809	52	60	-0.10	166
		%_difference	0%	-2.0%	-2%	-25%	BD	20%	-2.4%	-6%	0%	-5%	BD	19%
09LN357_DUP	10140090	duplicate	7	20.4	812	5	-1	42	15.7	5227	80	66	-0.10	345
09LN357	10140086	original	8	20.5	816	5	-1	41	15.9	5278	81	66	-0.10	281
		%_difference	-13%	-0.5%	0%	0%	BD	2%	-1.3%	-1%	-1%	0%	BD	23%
423_DUP	10140110	duplicate	2	30.2	716	4	-1	58	13.2	3738	40	80	-0.10	224
423	10140109	original	2	30.3	731	4	-1	55	12.7	3658	39	81	-0.10	236
		%_difference	0%	-0.3%	-2%	0%	BD	5%	3.9%	2%	3%	-1%	BD	-5%
09LN531_DUP	10140130	duplicate	6	24.8	692	3	10	113	11.1	2540	18	78	-0.10	177
09LN531	10140129	original	5	24.7	685	3	10	112	11.0	2513	18	76	-0.10	141
		%_difference	20%	0.4%	1%	0%	0%	1%	0.9%	1%	0%	3%	BD	26%
09LN573A_DUP	10140150	duplicate	4	12.8	172	-1	8	155	3.9	1317	-1	23	-0.10	179
09LN573A	10140146	original	4	12.8	171	-1	8	154	3.9	1315	-1	23	-0.10	148
		%_difference	0%	0.0%	1%	BD	0%	1%	0.0%	0%	BD	0%	BD	21%
09LN659_DUP	10140170	duplicate	7	61.0	1224	5	-1	39	13.5	6526	144	92	-0.10	375
09LN659	10140169	original	7	62.0	1253	5	-1	39	13.6	6649	145	94	-0.10	331
		%_difference	0%	-1.6%	-2%	0%	BD	0%	-0.7%	-2%	-1%	-2%	BD	13%
09LN712_DUP	10140190	duplicate	20	33.6	566	9	-1	40	8.9	2621	56	37	-0.10	185
09LN712	10140178	original	20	33.6	560	9	-1	46	8.9	2587	56	37	-0.10	188
		%_difference	0%	0.0%	1%	0%	BD	-13%	0.0%	1%	0%	0%	BD	-2%
09LN873_DUP	10140210	duplicate	14	57.3	1067	13	-1	85	18.9	5543	109	91	-0.10	234
09LN873	10140207	original	14	57.1	1069	14	-1	85	18.9	5538	111	93	-0.10	279
		%_difference	0%	0.4%	0%	-7%	BD	0%	0.0%	0%	-2%	-2%	BD	-16%
09LN901_DUP	10140230	duplicate	152	25.2	1085	4	11	138	3.1	1300	6	63	0.18	184
09LN901	10140216	original	163	25.2	1083	4	11	124	3.1	1308	6	64	0.18	143
		%_difference	-7%	0.0%	0%	0%	0%	11%	0.0%	-1%	0%	-2%	0.00%	29%
10LN017A_DUP	10140250	duplicate	6	15.7	283	8	-1	149	12.8	5070	88	57	-0.10	133
10LN017A	10140244	original	6	15.5	281	8	-1	152	12.9	5127	87	57	-0.10	182
		%_difference	0%	1.3%	1%	0%	BD	-2%	-0.8%	-1%	1%	0%	BD	-27%
10LN050_DUP	10140270	duplicate	6	26.1	1244	3	-1	36	10.2	2486	31	70	-0.10	251
10LN050	10140256	original	6	25.0	1215	3	-1	36	9.9	2531	32	69	-0.10	242
		%_difference	0%	4.4%	2%	0%	BD	0%	3.0%	-2%	-3%	1%	BD	4%
10LN111_DUP	10140290	duplicate	80	45.2	1017	42	52	148	21.3	5280	246	62	0.14	630
10LN111	10140273	original	82	46.1	1045	42	51	151	21.5	5419	246	62	0.13	625
		%_difference	-2%	-2.0%	-3%	0%	2%	-2%	-0.9%	-3%	0%	0%	7.69%	1%
10LN417B_DUP	10140310	duplicate	9	32.8	913	6	-1	77	12.3	3371	72	86	-0.10	255
10LN417B	10140307	original	9	32.7	913	6	-1	79	12.6	3363	72	86	-0.10	281
		%_difference	0%	0.3%	0%	0%	BD	-3%	-2.4%	0%	0%	0%	BD	-9%
10LN494_DUP	10140330	duplicate	-1	23.3	998	3	-1	56	12.2	3217	38	72	-0.10	195
10LN494	10140327	original	-1	23.3	1013	3	-1	57	12.3	3146	38	73	-0.10	211
		%_difference	BD	0.0%	-1%	0%	BD	-2%	-0.8%	2%	0%	-1%	BD	-8%
10LN658B_DUP	10140350	duplicate	-1	12.0	2218	2	15	88	24.6	6559	38	46	-0.10	548
10LN658B	10140338	original	-1	12.3	2318	2	14	103	24.7	6814	39	48	-0.10	533
		%_difference	BD	-2.4%	-4%	0%	7%	-15%	-0.4%	-4%	-3%	-4%	BD	3%
13AM040B01 DUP	10740010	duplicate	13	25.7	983	11	3	54	13.0	3861	-99	69	-0.05	-99
13AM040B01	10740008	original	13	25.6	985	11	3	53	13.0	3857	-99	68	-0.05	-99
		% difference	0%	0.4%	0%	0%	0%	2%	0.0%	0%	NA	1%	BD	NA
13AM016A01 DUP	10740030	duplicate	2	36.4	505	4	18	116	0.8	1545	-99	163	0.13	-99
13AM016A01	10740029	original	2	35.8	499	4	17	112	0.8	1485	-99	163	0.13	-99
		% difference	0%	1.7%	1%	0%	6%	4%	0.0%	4%	NA	0%	0.00%	NA
13AM154B01 DUP	10740050	duplicate	91	55.2	1523	90	-1	18	50.3	4315	-99	68	0.18	-99

Open File 002C/0226 - Appendix B: Major-element and Trace-element data for GSNL Duplicates

SampleNum	LabNum	Control	Cu_ppm	Li_ppm	Mn_ppm	Ni_ppm	Pb_ppm	Rb_ppm	Sc_ppm	Ti_ppm	V_ppm	Zn_ppm	Ag_ppm	F_ppm
Detection Limit			1	0.1	1	1	1	1	0.1	1	1	1	0.05, 0.1	5
Analysis Method			ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOESH	ISE
13AM154B01	10740045	original	89	53.9	1533	91	-1	16	50.4	4327	-99	67	0.23	-99
		% difference	2%	2.4%	-1%	-1%	BD	13%	-0.2%	0%	NA	1%	-21.74%	NA
13AM301A01 DUP	10740070	duplicate	24	58.1	1475	26	-1	89	37.9	8703	-99	110	-0.05	-99
13AM301A01	10740068	original	25	58.1	1471	26	-1	91	37.8	8682	-99	102	-0.05	-99
		% difference	-4%	0.0%	0%	0%	BD	-2%	0.3%	0%	NA	8%	BD	NA
13AM319A01 DUP	10740090	duplicate	30	70.8	2880	23	-1	37	33.9	11810	-99	103	0.38	-99
13AM319A01	10740089	original	28	68.3	2792	22	-1	35	32.7	11451	-99	100	0.33	-99
		% difference	7%	3.7%	3%	5%	BD	6%	3.7%	3%	NA	3%	15.15%	NA
13AM044B01 DUP	10740110	duplicate	3	8.3	938	5	19	22	4.8	1012	-99	27	-0.05	-99
13AM044B01	10740108	original	4	8.3	927	4	19	22	4.8	1002	-99	26	-0.05	-99
		% difference	-25%	0.0%	1%	25%	0%	0%	0.0%	1%	NA	4%	BD	NA
13AM428C_DUP	10740130	duplicate	49	41.8	1564	13	-1	21	32.6	5966	-99	96	0.21	-99
13AM428C	10740129	original	48	41.6	1554	13	1	17	32.3	5911	-99	94	0.23	-99
		% difference	2%	0.5%	1%	0%	LOD	24%	0.9%	1%	NA	2%	-8.70%	NA
14AM077A01 DUP	10740150	duplicate	11	22.9	449	4	-1	30	3.2	908	-99	-99	-0.05	178
14AM077A01	10740145	original	12	22.9	449	4	-1	32	3.3	971	-99	-99	-0.05	169
		% difference	-8%	0.0%	0%	0%	BD	-6%	-3.0%	-6%	NA	NA	BD	5%
15AM042B DUP	10740210	duplicate	49	25.4	1592	50	-1	51	40.3	11836	336	95	-0.1	216
15AM042B	10740208	original	47	25.6	1599	50	-1	50	40.7	12018	341	94	-0.1	204
		% difference	4%	-0.8%	0%	0%	BD	2%	-1.0%	-2%	-1%	1%	BD	6%

Open File 002C/0226 - Appendix C: Major-element and Trace-element Data for GSNL Standards

StandardID	LabNum	SiO2_pct	Al2O3_pct	Fe2O3T_pct	CaO_pct	MgO_pct	K2O_pct	Na2O_pct	MnO_pct	TiO2_pct	P2O5_pct	LOI_pct	Ba_ppm	Cr_ppm	Zr_ppm
	Detection Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001	0.001	0.01	1	1, 100	1
ICPOESF	Analysis Method	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	Grav	ICPOESF	ICPOESF	ICPOESF
SDC-1	10140040	64.79	15.33	6.90	1.37	1.68	3.20	1.98	0.113	0.990	0.142	-0.01	646	-100	303
MRG-1	10140060	38.69	8.34	17.84	14.37	13.26	0.23	0.73	0.175	3.755	0.057	-0.01	44	422	106
RGM-1	10140080	72.75	13.31	1.75	1.14	0.30	4.21	4.04	0.036	0.262	0.045	-0.01	839	-100	219
GA-1	10140100	51.91	16.22	8.88	7.76	5.86	1.11	2.70	0.157	0.809	0.145	-0.01	428	121	81
BHV0-1	10140120	49.65	13.78	12.43	11.43	7.24	0.55	2.48	0.176	2.781	0.262	0.72	134	265	168
SY-2	10140140	59.10	12.06	6.30	7.99	2.86	4.47	5.16	0.318	0.141	0.432	2.78	459	-100	292
SCO-1	10140160	62.48	13.76	5.12	2.54	2.64	2.76	0.94	0.056	0.586	0.209	9.02	577	-100	176
RH-1	10140180	73.56	13.93	2.50	0.28	0.81	0.82	6.94	0.044	0.284	0.048	1.86	279	-100	252
QLO-1	10140200	66.21	16.63	4.24	3.13	1.05	3.57	4.22	0.094	0.618	0.250	1.05	1421	-100	186
BS-1	10140220	55.24	15.64	7.96	4.63	6.06	0.15	6.13	0.093	1.183	0.254	-0.01	146	-100	86
AND-1	10140240	48.40	15.18	6.72	6.32	5.76	2.17	2.63	0.111	0.898	0.194	-99	304	399	144
DR-N	10140260	53.74	17.49	9.71	6.96	4.10	1.80	3.01	0.223	1.050	0.223	-99	388	-100	130
GD-1	10140280	69.07	14.05	2.18	1.42	0.52	3.28	4.10	0.083	0.224	0.076	-99	1007	-100	149
FK-N	10140300	65.23	18.90	0.06	0.09	0.27	12.93	2.51	0.004	0.003	0.005	-99	201	-100	12
GD-2	10140320	75.06	12.46	0.75	0.09	0.34	5.24	3.67	0.021	0.057	0.004	-99	651	-100	61
MA-N	10140340	64.29	17.33	0.47	0.54	-0.01	3.05	5.70	0.037	0.010	1.465	-99	37	-100	37
RH-1	10140360	70.42	13.32	3.04	0.26	0.72	0.78	6.69	0.042	0.275	0.041	-99	268	-100	240
MAG-1	10740020	50.56	16.39	7.15	1.42	3.07	3.02	3.83	0.105	0.721	0.162	-99	514	92	122
W-2	10740040	51.52	15.4	10.74	10.69	6.41	0.57	2.19	0.172	1.062	0.120	-99	174	82	96
RGM-1	10740060	72.93	13.46	1.91	1.20	0.28	4.66	4.11	0.036	0.264	0.042	-99	826	3	206
G-2	10740080	69.13	15.19	2.73	1.92	0.75	4.89	4.13	0.033	0.488	0.130	-99	1902	7	303
BHVO-1	10740100	49.11	13.72	12.17	11.14	7.20	0.50	2.23	0.175	2.728	0.268	-99	141	257	162
QLO-1	10740120	64.34	15.99	4.30	3.19	1.00	3.25	4.08	0.092	0.601	0.256	-99	1435	2	172
QLO-1	10740140	65.51	16.20	4.42	3.16	1.02	3.39	4.09	0.092	0.611	0.254	-99	1426	6	170
STM-1	10740160	58.98	18.14	5.26	1.10	0.09	4.12	8.81	0.218	0.132	0.151	-99	583	2	1192
SDC-1	10740180	66.62	15.94	6.95	1.43	1.71	3.07	2.02	0.115	0.993	0.140	-99	671	57	342
AGV-1	10740200	59.96	17.42	6.88	4.84	1.54	2.97	4.37	0.099	1.075	0.502	-99	1271	8	215
QLO-1	10740220	63.49	15.84	4.29	3.15	0.99	3.45	4.10	0.091	0.591	0.251	-99	1386	2	162

Open File 002C/0226 - Appendix C: Major-element and Trace-element Data for GSNL Standards

StandardID	LabNum	As_ppm	Bi_ppm	Cd_ppm	Ce_ppm	Co_ppm	Cs_ppm	Dy_ppm	Er_ppm	Eu_ppm	Ga_ppm	Gd_ppm	Ge_ppm	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm	Nb_ppm	Nd_ppm
	Detection Limit	5	0.4, 0.5	0.2	0.5	1	0.5	0.1	0.1	0.05	1	0.1	1	0.2	0.1	0.2	0.5	0.05	2	1	0.2
ICPMSF	Analysis Method	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
	10140040	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
STM-1	10140060	-99	-99	-99	-99	-99	1.6	-99	4.5	3.50	41	9.4	5	27.9	1.5	-99	-99	0.63	-99	-99	82.4
	10140080	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
SDC-1	10140100	-99	-99	-99	-99	-99	4.0	-99	4.3	1.72	25	7.5	5	9.1	1.4	-99	-99	0.72	-99	-99	43.4
	10140120	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
	10140140	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
AGV-1	10140160	-99	-99	-99	-99	-99	1.2	-99	1.9	1.75	20	4.8	3	5.1	0.7	-99	-99	0.24	-99	-99	32.0
	10140180	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
MAG-1	10140200	-99	-99	-99	-99	-99	7.8	-99	2.9	1.47	23	6.2	4	3.6	1.0	-99	-99	0.41	-99	-99	37.4
	10140220	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
BIR-1	10140240	-99	-99	-99	-99	-99	-0.5	-99	1.6	0.51	14	1.9	2	0.5	0.6	-99	-99	0.24	-99	-99	2.4
W-2	10140260	-99	-99	-99	-99	-99	0.8	-99	2.0	1.03	16	3.4	3	2.3	0.7	-99	-99	0.28	-99	-99	12.0
RGM-1	10140280	-99	-99	-99	-99	-99	9.5	-99	2.3	0.67	15	3.7	3	5.9	0.8	-99	-99	0.41	-99	-99	19.7
G-2	10140300	-99	-99	-99	-99	-99	1.3	-99	0.9	1.44	27	4.1	5	8.2	0.4	-99	-99	0.09	-99	-99	54.2
BHVO-1	10140320	-99	-99	-99	-99	-99	-0.5	-99	2.6	2.16	21	6.3	5	4.4	1.0	-99	-99	0.27	-99	-99	25.7
QLO-1	10140340	-99	-99	-99	-99	-99	1.5	-99	2.2	1.29	17	3.9	2	4.3	0.7	-99	-99	0.37	-99	-99	22.6
STM-1	10140360	-99	-99	-99	-99	-99	1.5	-99	4.4	3.63	41	9.3	6	27.3	1.5	-99	-99	0.64	-99	-99	81.2
MAG-1	10740020	-5	-0.4	-0.2	89.1	22	1.5	5.4	3.1	1.56	26	6.3	4	3.8	1.0	-0.2	44.7	0.38	2	20	40.8
W-2	10740040	-5	-0.4	-0.2	25.5	48	-0.5	4.3	2.4	1.19	17	4.2	3	3.1	0.8	-0.2	12.6	0.31	2	8	14.9
RGM-1	10740060	-5	-0.4	-0.2	46.8	2	7.8	3.9	2.5	0.73	19	3.8	1	6.4	0.7	-0.2	24.9	0.34	3	9	20.5
G-2	10740080	-5	-0.4	-0.2	163.4	5	1.0	2.2	1.0	1.52	25	3.9	3	8.1	0.3	-0.2	90.3	0.06	-2	12	54.2
BHVO-1	10740100	-5	-0.4	-0.2	39.9	49	-0.5	5.5	2.7	2.22	22	6.6	4	4.6	1.0	-0.2	17.1	0.26	-2	18	26.4
QLO-1	10740120	-5	-0.4	-0.2	50.7	8	0.7	4.1	2.4	1.43	19	4.3	2	4.7	0.8	-0.2	27.8	0.34	3	11	23.6
QLO-1	10740140	-99	-0.4	-0.2	52.2	8	1.3	4.0	2.5	1.46	19	4.3	3	4.8	0.8	-99	28.8	0.38	2	9	23.7
STM-1	10740160	-99	-0.4	-0.2	258.0	-1	1.5	8.1	4.3	3.53	40	9.0	5	26.9	1.4	-99	146.7	0.60	4	230	78.0
SDC-1	10740180	-99	-0.4	-0.2	86.8	16	3.5	6.4	4.2	1.64	25	7.0	4	7.7	1.3	-99	42.0	0.58	-2	17	39.5
AGV-1	10740200	-99	-0.4	-0.2	65.6	19	1.2	3.3	1.8	1.61	22	4.7	5	4.7	0.6	-99	37.5	0.18	2	12	30.9
QLO-1	10740220	-99	-0.5	-0.2	50.8	-99	1.6	4.0	2.5	1.44	18	4.3	3	4.6	0.8	-99	26.6	0.41	4	10	23.3

Open File 002C/0226 - Appendix C: Major-element and Trace-element Data for GSNL Standards

StandardID	LabNum	Pr_ppm	Sm_ppm	Sn_ppm	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	Tl_ppm	Tm_ppm	U_ppm	V_ppm	W_ppm	Y_ppm	Yb_ppm	Zr_ppm
	Detection Limit	0.1	0.1	1	1	0.5	0.1	0.1	0.1	0.05	0.1	5	1	1	0.1	1
ICPMSF	Analysis Method	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
	10140040	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
STM-1	10140060	26.1	12.3	7	-99	20.3	1.5	29.9	0.2	0.69	8.5	-99	4	-99	4.5	-99
	10140080	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
SDC-1	10140100	11.3	8.859	3	-99	1.1	1.1	12.2	0.4	0.65	3.0	-99	-1	-99	4.2	-99
	10140120	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
	10140140	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
AGV-1	10140160	8.5	5.7	4	-99	0.7	0.7	6.3	0.2	0.27	1.9	-99	-1	-99	1.8	-99
	10140180	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
MAG-1	10140200	10.0	7.1	4	-99	1.4	0.9	11.5	-0.1	0.42	2.7	-99	2	-99	2.6	-99
	10140220	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
BIR-1	10140240	0.4	1.1	1	-99	-0.5	0.3	-0.1	-0.1	0.23	-0.1	-99	-1	-99	1.6	-99
W-2	10140260	2.8	2.8	1	-99	-0.5	0.5	2.0	-0.1	0.26	0.4	-99	-1	-99	1.9	-99
RGM-1	10140280	5.4	4.1	4	-99	-0.5	0.6	14.8	0.4	0.33	5.5	-99	-1	-99	2.4	-99
G-2	10140300	17.1	7.7	2	-99	0.9	0.5	24.9	0.6	0.10	1.8	-99	-1	-99	0.7	-99
BHVO-1	10140320	5.6	5.8	2	-99	0.9	1.0	1.3	-0.1	0.34	0.4	-99	-1	-99	2.1	-99
QLO-1	10140340	5.5	4.3	2	-99	-0.5	0.6	4.3	-0.1	0.30	1.6	-99	-1	-99	2.4	-99
STM-1	10140360	25.8	12.6	8	-99	16.8	1.5	29.8	0.1	0.67	8.4	-99	4	-99	4.3	-99
MAG-1	10740020	10.3	7.7	3	148	1.6	0.9	12.2	-0.1	0.40	2.8	156	2	26	2.7	-99
W-2	10740040	3.3	3.8	3	216	0.6	0.7	2.4	-0.1	0.35	0.5	298	-1	22	2.4	-99
RGM-1	10740060	5.2	4.1	4	109	1.4	0.6	15.0	-0.1	0.33	5.6	14	2	22	2.6	-99
G-2	10740080	16.6	7.7	2	490	1.0	0.4	25.4	-0.1	0.09	1.7	40	-1	9	0.8	-99
BHVO-1	10740100	5.6	6.5	2	417	1.3	0.9	1.3	-0.1	0.29	0.4	351	-1	26	2.2	-99
QLO-1	10740120	5.9	4.6	2	353	0.9	0.6	4.6	-0.1	0.35	1.7	54	1	23	2.4	-99
QLO-1	10740140	6.0	4.5	2	339	0.9	0.7	4.8	-0.1	0.35	1.9	54	-1	23	2.5	-99
STM-1	10740160	25.1	11.7	7	669	19.1	1.4	28.8	-0.1	0.61	8.1	6	3	42	4.1	-99
SDC-1	10740180	10.4	8.2	3	167	1.3	1.1	10.9	0.3	0.56	2.6	102	-1	34	4.1	-99
AGV-1	10740200	7.9	5.3	4	618	1.0	0.7	6.0	0.1	0.22	1.8	122	-1	17	1.6	-99
QLO-1	10740220	5.7	4.6	3	324	0.9	0.7	4.8	0.1	0.37	2.0	-99	4	21	2.6	162

Open File 002C/0226 - Appendix C: Major-element and Trace-element Data for GSNL Standards

StandardID	LabNum	As_ppm	Ba_ppm	Be_ppm	Ce_ppm	Co_ppm	Cu_ppm	Li_ppm	Mn_ppm	Ni_ppm	Pb_ppm	Rb_ppm	Sc_ppm	Sr_ppm	Ti_ppm	V_ppm	Y_ppm	Zn_ppm
	Detection Limit	2	1	0.1	1	1	1	0.1	1	1	1	1	0.1	1	1	1	1	1
ICPOES4	Analysis Method	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES4
WGB-1	10140040	4	814	0.2	17	28	88	45.4	962	57	-1	26	43.1	115	5161	216	14	39
SY-4	10140060	5	344	2.8	121	3	3	37.2	796	4	-1	54	1.1	1118	1725	-1	122	94
WGB-1	10140080	4	824	0.2	18	29	89	46.0	980	58	-1	27	43.8	117	5145	222	15	39
SY-4	10140100	5	343	2.8	123	3	3	36.9	780	4	-1	53	1.1	1109	1720	-1	119	95
WGB-1	10140120	4	835	0.2	18	29	90	45.6	954	56	-1	23	43.2	115	5222	218	15	40
SY-4	10140140	5	338	2.8	122	3	3	37.3	770	4	-1	55	1.1	1110	1780	-1	121	96
WGB-1	10140160	4	816	0.2	18	29	89	45.2	951	56	-1	25	43.3	116	5302	217	14	41
SY-4	10140180	5	337	2.8	122	3	3	37.2	774	4	-1	58	1.1	1111	1737	-1	122	93
WGB-1	10140200	4	833	0.2	18	29	91	46.2	967	57	-1	22	43.7	117	5578	221	15	40
SY-4	10140220	4	338	2.7	120	3	3	36.9	775	4	-1	54	1.1	1114	1784	-1	120	95
SY-4	10140240	3	342	2.7	122	3	-1	37.5	825	4	-1	54	0.8	1140	1745	4	118	94
WGB-1	10140260	4	840	-0.1	18	30	91	46.2	1020	56	-1	25	43.9	118	5248	224	14	42
SY-4	10140280	4	339	2.7	122	3	-1	37.1	823	4	-1	59	0.8	1135	1710	4	117	93
WGB-1	10140300	4	855	-0.1	19	30	92	45.6	1049	57	-1	21	44.8	120	5359	223	15	44
SY-4	10140320	3	346	2.5	123	3	2	38.0	828	4	-1	57	0.9	1139	1721	3	116	92
WGB-1	10140340	4	834	-0.1	19	29	89	44.9	1056	55	-1	21	43.8	120	5312	220	15	45
	10140360	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
SY-4	10740020	-99	-99	2.6	-99	-99	6	36.4	780	12	3	57	1.0	-99	1712	-99	-99	91
WGB-1	10740040	-99	-99	0.3	-99	-99	90	46.4	942	58	4	18	42.9	-99	5097	-99	-99	35
SY-4	10740060	-99	-99	2.6	-99	-99	5	36.1	768	12	3	55	1.0	-99	1720	-99	-99	91
SY-4	10740080	-99	-99	2.6	-99	-99	6	35.5	767	12	3	54	0.9	-99	1700	-99	-99	90
WGB-1	10740100	-99	-99	0.4	-99	-99	90	42.3	937	60	3	20	38.3	-99	5136	-99	-99	36
SY-4	10740120	-99	-99	2.5	-99	-99	5	34.7	761	12	3	51	0.9	-99	1668	-99	-99	88
SY-4	10740140	3	-99	2.5	-99	-99	4	38.7	792	11	-1	59	0.9	-99	1640	-99	-99	91
WGB-1	10740160	2	-99	0.3	-99	-99	92	44.9	965	60	2	20	42.8	-99	4890	-99	-99	35
SY-4	10740180	3	-99	2.5	-99	-99	5	36.3	785	11	-1	54	0.9	-99	1660	-99	-99	91
WGB-1	10740200	2	-99	0.3	-99	-99	88	42.3	947	59	2	20	42.0	-99	4803	-99	-99	35
WGB-1	10740220	2	-99	0.3	-99	16	89	43.9	967	51	5	21	43.0	-99	5057	217	-99	35

Open File 002C/0226 - Appendix C: Major-element and Trace-element Data for GSNL Standards

LabNum	StandardAg	Ag_ppm	StandardF	F_ppm
		0.05, 0.1		5
	ICPOESH	ICPOESH	ISE	ISE
10140040	AND-1	-0.1	GA-1	260
10140060	GA-1	-0.1	RH-1	100
10140080	GD-1	-0.1	GD-2	29
10140100	GD-2	-0.1	GD-1	228
10140120	RH-1	-0.1	GA-1	254
10140140	BS-1	-0.1	RH-1	97
10140160	AND-1	-0.1	GD-2	28
10140180	GA-1	-0.1	GD-1	241
10140200	GD-1	-0.1	GA-1	287
10140220	GD-2	-0.1	RH-1	101
10140240	CH-2	15.0	GD-2	29
10140260	PTC-1	5.2	GD-1	212
10140280	CH-2	12.0	GA-1	329
10140300	SU-1A	4.1	GD-2	28
10140320	SU-1A	4.0	RH-1	101
10140340	CH-2	17.6	GD-1	229
10140360	CH-2	17.5	GA-1	246
10740020	SU-1A	1.84		-99
10740040	CH-2	12.75		-99
10740060	SU-1A	2.00		-99
10740080	CH-2	14.09		-99
10740100	SU-1A	2.89		-99
10740120	CH-2	15.68		-99
10740140	CH-2	16.49	GA-1	288
10740160	SU-1A	2.74	BS-1	191
10740180	CH-2	15.84	RY-1	103
10740200	SU-1A	2.80	GD-2	19
10740220	SU-1A	3.33	GD-1	239

Open File 002C/0226 - Appendix D: Trace-element INAA Data

SampleNum Detection Limit Analysis Method	LabNum	UTMEast	UTMNorth	UTMZone	Datum	Geologist	Petrographic_Description	Rock_Type	TSPhoto
13AM008A01	10740003	312439	5368796	22	NAD27	A. Mills	Subhedral fsp phenocrysts; possible glass fragments	Welded rhyolite tuff	13AM008A_poss_weldedtuff.jpg
13AM194A01	10740036	314371	5376285	22	NAD27	A. Mills	Pl-rich matrix with chl amygdales and chl-ep-opaques in groundmass	Basalt	13AM194A_2x_ppl.jpg
13AM301A	10740124	304816	5374238	22	NAD27	A. Mills	Sieve-textured pl glomerocrysts up to 5 mm; trachytic basalt matrix; accessory high birefringence phase (ep or prehnite?)	Plagioclase glomerocrystic trachytic basalt (epidotized)	13AM301A_xpl.jpg

Open File 002C/0226 - Appendix D: Trace-element INAA Data

SampleNum	LabNum	FieldNotes	Map_Unit	Lab_Method	Weight_g	As_ppm	Au_ppb	Ba_ppm	Br_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Eu_ppm	Fe_pct
Detection Limit						0.5	1	50	1	3	2	10	0.5	0.5	0.1
Analysis Method						INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
13AM008A01	10740003	Basaltic flow-top breccia with quartz amygdales up to 1 cm; at cell tower in Summerville	PCvbI	Traces (INAA) Bec	21.36	2.1	-1	920	-1	150	5	14	1.1	2.7	2.9
13AM194A01	10740036	Maroon volcanic rock with qtz-ep-hem amygdales	PCvbM	Traces (INAA) Bec	27.26	3.7	-1	-50	-1	43	56	190	0.8	2.4	10.8
13AM301A	10740124	Epidotized, veined and brecciated, amygdaloidal basalt, to compare with unaltered 13AM301A01	HB	Traces (INAA) Bec	29.32	24.0	-1	130	-1	59	31	15	-1	1.7	8.7

Open File 002C/0226 - Appendix D: Trace-element INAA Data

SampleNum	LabNum	Hf_ppm	La_ppm	Lu_ppm	Mo_ppm	Na_pct	Rb_ppm	Sb_ppm	Sc_ppm	Se_ppm	Sm_ppm	Ta_ppm	Tb_ppm	Th_ppm	U_ppm	W_ppm	Yb_ppm	Zr_ppm
Detection Limit		1	1	0.05	1	0.05	5	0.1	0.1	1	0.1	0.2	0.5	0.1	0.1	1	0.5	100
Analysis Method		INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
13AM008A01	10740003	23	61	2.20	-1	4.30	26	0.3	13.7	-1	20.0	2.2	3.8	18.4	2.6	-1	13.0	760
13AM194A01	10740036	5	17	0.66	-1	3.20	-5	0.1	54.9	-1	7.9	0.7	1.5	1.3	0.6	1	4.0	340
13AM301A	10740124	3	26	0.26	-1	0.20	-5	0.6	29.0	-1	6.8	0.3	0.8	8.7	1.8	-1	1.4	-100

Open File 002C/0226 - Appendix E: Trace-element INAA Standards

StandardID	LabNum	Weight_g	As_ppm	Au_ppb	Ba_ppm	Br_ppm	Ce_ppm	Co_ppm	Cr_ppm	Cs_ppm	Eu_ppm	Fe_pct	Hf_ppm	La_ppm	Lu_ppm	Mo_ppm	Na_pct	Rb_ppm	Sb_ppm	Sc_ppm
Detection Limit			0.5	1	50	1	3	2	10	0.5	0.5	0.1	1	1	0.05	1	0.05	5	0.1	0.1
Analysis Method			INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
WPR-1	10140320	25.33	0.6	52	50	-1	-3	190	4490	0.6	-0.5	10.8	-1	2	0.10	-1	0.25	-5	0.8	13.2
WMG-1	10740120	21.38	7.6	114	110	-1	14	209	840	-0.5	0.8	12.6	1	8	0.27	-1	0.23	-5	2.2	27.1
WPR-1	10740200	20.60	1.0	41	50	1	-3	190	4730	0.7	-0.5	11.2	-1	2	0.11	-1	0.24	-5	0.7	14.0

Open File 002C/0226 - Appendix E: Trace-element INAA Standards

StandardID	LabNum	Se_ppm	Sm_ppm	Ta_ppm	Tb_ppm	Th_ppm	U_ppm	W_ppm	Yb_ppm	Zr_ppm
Detection Limit		1	0.1	-0.2	0.5	0.1	0.1	1	0.5	100
Analysis Method		INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA	INAA
WPR-1	10140320	2	0.9	-0.2	-0.5	0.3	0.3	-1	0.6	-100
WMG-1	10740120	10	2.4	0.3	-0.5	1.2	0.7	-1	1.1	-100
WPR-1	10740200	3	0.9	-0.2	-0.5	0.4	0.2	-1	-0.5	-100

Appendix F: Photomicrographs

The photomicrographs are provided as jpg digital images, compressed and made available through this link.

The jpg file names correspond to the names in the TSPhoto column in Appendices A and D.