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Mines

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

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

A.J. Mills

Open File 002C/0227

St. John's, Newfoundland
July, 2017

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Recommended citation:

Mills, A.J.

2017: Lithogeochemical database for intrusive rocks from the Bonavista Peninsula, northeastern Newfoundland (NTS map areas 2C/05, 06, 11 and 12SE). Government of Newfoundland and Labrador, Department of Natural Resources, Geological Survey, Open File 002C/0227, 33 pages.

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CONTENTS

SUMMARY

This database consists of whole-rock lithogeochemical data from samples of mafic intrusive 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), O'Brien and King (2002, 2004, 2005), Normore (2010, 2011), and Mills (2014). Mills and Sandeman (2017) discuss lithogeochemical results for the 52 samples of mafic intrusive rocks presented herein. The rock samples were collected from the Bonavista Peninsula by L. Normore, (2009, 2010) and A.J. Mills (2013, 2014, 2015). Details of the analytical methods used are provided by Finch (1998) and Mills and Sandeman (2015).

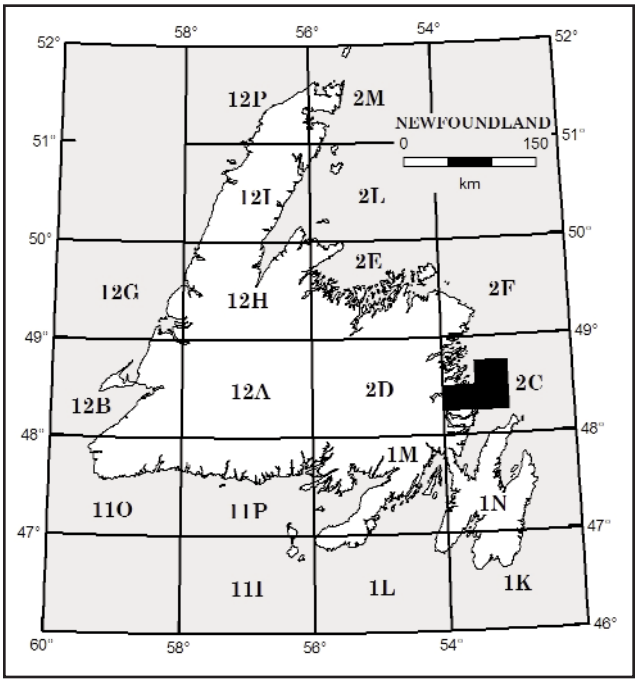

Figure 1. *Index map of study area.*

The open file data release provides no interpretation of the data. The database includes brief sample descriptions, location data, thickness, trend (by Right-Hand-Rule convention) and dip of dykes (where known), petrographic descriptions and photomicrographs (plane-polarized and cross-polarized) as well as major-element and trace-element data for 52 samples of intrusive rocks. The data are tabulated below and are available in digital format (*i.e.*, comma separated value files; *.csv).

Geochemistry of the volcanic 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 rock samples from dykes, along with four field-duplicate analyses (indicated in the 'Field Notes' column) and laboratory duplicate analyses (Appendix B). In addition, a number of reference materials (Standards) were analyzed for quality assurance (Appendix C). Most data were acquired at the Geological Survey's Geochemical Laboratory (GSNL). A small subset of four samples was analyzed by Neutron Activation Analysis (INAA) at Becquerel Laboratories (Bec) in Mississauga, ON.

Major elements are presented as weight percentages of their oxides. The minor-, trace-, and rare-earth elemental abundances are given in ppm, except for Au (ppb), and Fe and Na (analyzed by Neutron Activation Analysis, INAA), which 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 following lithium borate fusion and multi-acid attack (ICP-OESF). Other trace elements, including rare-earth elements (REE), were analyzed by inductively coupled plasma-mass spectrometry following lithium borate fusion and multi-acid attack (ICP-MSF). A small subset of trace elements (As, Be, Co, Cu, Li, Mn, Ni, Pb, Rb, Sc, Ti, V and Zn) were analyzed by inductively coupled plasma-optical emission spectrometry with a four acid digestion (ICP-OES4). Silver was determined by inductively coupled plasma-optical emission spectrometry following a nitric acid digestion (ICP-OESH). Fluorine was subjected to sodium carbonate and potassium nitrate fusion prior to Ion Selective Electrode determination (ISE). Further details of analytical procedures are outlined by Finch (1998) and by Mills and Sandeman (2015).

Four 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).

Data acquisition by ICP-MS commenced in 2012 at GSNL. Therefore, samples collected by L. Normore (09LN, 10LN prefixes) were re-analyzed in 2014 to acquire abundances of select trace elements (Cs, Er, Eu, Ga, Gd, Ge, Hf, Ho, Lu, Nd, Pr, Sm, Sn, Ta, Tb, Th, Tl, Tm, U, W, Yb) for petrogenetic analysis and interpretation. The new analyses are associated with different reference materials than those used for the initial trace element analyses and this applies only to the list of elements above. The reference materials analyzed when the original data was acquired are cited for elements not included in this list.

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. The column ‘Cuts’ refers to the map unit through which the dyke crosscuts; map unit abbreviations are indicated in Table 1, below. ‘KCode’ refers to the symbols used by IgPet.

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

Within the Duplicates Table (Appendix B):

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

Table 1. Code to map units (map unit crosscut by dyke, denoted “Cuts” in Appendix A)

BHF	Big Head Formation, Musgravetown Group
CPG	Connecting Point Group
MRF	Manuels River Formation, Harcourt Group
RHF	Rocky Harbour Formation, Mustravetown Group

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.

Forty-five plane-polarized photomicrographs and 44 cross-polarized photomicrographs are available in digital zip compressed files in Appendix F.

ACKNOWLEDGMENTS

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. Excellent field assistance was provided by Zoe Goodyear, Jesse Wilson and Cameron Peddle. Thanks also go to Pauline Honarvar for assistance with formatting of the database and thorough review of the data for quality assurance.

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Open File 002C/0227 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	UTMEast	UTMNorth	UTMZone	Datum	Geologist	Petro_Desc
Detection Limit							
Analysis Method							
09LN195A	10140052	335378	5381646	22	NAD27	L. Normore	65-75% pl (2 mm), 5% cpx (<1 mm), 10-15% hbl, 5-10% mt
09LN377B	10140093	343510	5387861	22	NAD27	L. Normore	Rounded fsp grains among pl laths; carbonate +/- saussurite blebs may be pseudomorphs; opaques (mt? ~2%)
09LN414B	10140105	339052	5386495	22	NAD27	L. Normore	Highly resorbed pl; brown amphibole (?), abundant ep (~20%; possibly replacing cpx), patchy chl alteration; opaques (1 grain ~1 cm)
09LN416A	10140108	341628	5388572	22	NAD27	L. Normore	Pl-rich, minor relict cpx; patchy carbonate and saussurite alteration
10LN125A	10140275	332255	5363927	22	NAD27	L. Normore	Mainly pl (some laths heavily saussuritized); groundmass slightly altered - chl+saussurite; grungy titanite
10LN181B	10140277	325469	5367573	22	NAD27	L. Normore	10-15% cpx; 60+% pl; 10% mt; 15% groundmass (mainly chl)
10LN264A	10140289	325111	5361456	22	NAD27	L. Normore	Pl and mt in fine-grained chl-rich groundmass; saussurite-carbonate alteration
10LN500A	10140329	330933	5363954	22	NAD27	L. Normore	Pl-chl-mt; no relict cpx - greenschist assemblage; similar to 10LN774B
10LN682A	10140343	325119	5359309	22	NAD27	L. Normore	Pl-chl-mt; no relict cpx - greenschist assemblage; similar to 10LN774B
10LN727C	10140358	314796	5346823	22	NAD27	L. Normore	Trachytic texture; euhedral to anhedral pl phenocrysts (avg ~ 1.5 mm); trace ti; heavily saussuritized; patchy carbonate alteration
10LN774B	10140359	324903	5359772	22	NAD27	L. Normore	Pl, chl-saussurite (after cpx; based on shape and mineral association), ep, mt
13AM057C01	10740009	303597	5358326	22	NAD27	A. Mills	Pl laths in altered rock; vesicles filled with carbonate with fine-grained hem rimming; intense carbonate alteration throughout rock
13AM061A01	10740111	304505	5360089	22	NAD27	A. Mills	Equant, sub- to anhedral cpx up to 500 µm; comagmatic with pl; laths 500 µm to 1 mm; ~5% ti; blebs of po, trace cpy; chl interstitial and in 1-2 mm amygdales
13AM061B02	10740011	304505	5360089	22	NAD27	A. Mills	50% pl; 25% cpx (formed first but small <1 mm); 15+% chl (groundmass and amygdales); 10% ilm + ti (ti rimming ilm)
13AM131B01	10740031	303951	5349991	22	NAD27	A. Mills	Cpx, pl < 1 mm; interstitial chl + carbonate; opaques + ~2-3% ti
13AM131B04	10740114	303951	5349991	22	NAD27	A. Mills	Cpx, pl < 1 mm; interstitial chl + carbonate; opaques + ~2-3% ti
13AM133A01	10740022	306780	5351975	22	NAD27	A. Mills	Trachytic texture; saussurite-altered pl phenocrysts (1-2 mm) with inclusion-poor rims; small, interstitial, brown cpx (titano-augite?); chl amygdales <1 mm
13AM136A01	10740023	305848	5350783	22	NAD27	A. Mills	Subhedral, sieve-textured pl (sauss- and chl-altered); patchy chl in pl lath-rich matrix; ep (altered cpx?; possibly some relict cpx); ti (occurs with chl)
13AM152B01	10740042	303988	5367266	22	NAD27	A. Mills	Bayonette of coarse-grained, euhedral cpx-phyric basalt cuts basaltic dyke with relict cpx and chl amygdales; carbonate veinlets, minor cpy
13AM152B05	10740043	303988	5367266	22	NAD27	A. Mills	Basaltic dyke with relict cpx and chl amygdales; carbonate veinlets, minor cpy (both dyke phases in one thin section)
13AM153B01	10740044	304421	5367013	22	NAD27	A. Mills	Rare pl phenocrysts; 50% pl, 20% cpx; 27% groundmass (chl replacing volcanic glass?), 2% ti, 1% carbonate, trace opaques; chl-carbonate alteration
13AM154B01	10740045	304865	5365992	22	NAD27	A. Mills	Euhedral cpx up to 6 mm in groundmass of fine-grained cpx-pl; patchy chl and carbonate; matrix pl saussuritized
13AM156B01	10740033	304626	5364762	22	NAD27	A. Mills	Highly fractured relict cpx up to 1 mm; heavily saussuritized pl up to 4 mm
13AM16011	10740202	308511	5363752	22	NAD27	A. Mills	Weak flow texture; pl + ti and/or titano-augite; minor siliciclastic xenoliths
13AM160B01	10740095	308827	5363396	22	NAD27	A. Mills	Sieve-textured pl phenocrysts up to 1 mm; patchy carbonate in matrix and as alteration of pl (?); 50 µm ti in matrix and as inclusions in pl
13AM168B01	10740046	304450	5364256	22	NAD27	A. Mills	Carbonate-altered mafic rock with trachytic texture; possible pseudomorphs of cpx
13AM168B04	10740117	304450	5364256	22	NAD27	A. Mills	Carbonate-altered mafic rock with trachytic texture; possible pseudomorphs of cpx
13AM208B01	10740039	308165	5376190	22	NAD27	A. Mills	Sieve-textured fsp and albite-twinned fsp phenoxrysts in pl lath-rich groundmass
13AM229B01	10740056	299161	5377411	22	NAD27	A. Mills	Equant, subhedral cpx; pl laths up to 2 mm; chl (replacing intersertal glass?) commonly associated with ti; trace po
13AM238B01	10740057	297512	5373560	22	NAD27	A. Mills	20 % cpx (200-400 um); 70% pl (~1 mm); 6% chl (interstitial); 4% opaques
13AM238B04	10740121	297512	5373560	22	NAD27	A. Mills	20 % cpx (200-400 um); 70% pl (~1 mm); 6% chl (interstitial); 4% opaques
13AM246B	10740123	296307	5372911	22	NAD27	A. Mills	Subhedral, brownish cpx (titano-augite?; < 50 um; ~25% of rock but chl-altered); pl laths up to 500 µm (60%); 15% amygdales of chl or carbonate
13AM246B01	10740058	296307	5372911	22	NAD27	A. Mills	Pl laths (500 µm to 1 mm); minor pl phenocrysts (~2 mm); light brown amphibolite (in matrix); chl ± carbonate in 2 mm amygdales and groundmass
13AM250B01	10740059	296237	5371167	22	NAD27	A. Mills	50% cpx (~1 mm); 25% pl (up to 2 mm); 15% chl; 10% opaques; most chl is intersertal (altered volcanic glass)
13AM270C01	10740062	299892	5361049	22	NAD27	A. Mills	Minor sieve-textured pl phenocrysts (0.5-1 mm); saussuritized pl in chl + saussurite groundmass; carbonate as cpx pseudomorphs, amygdales and veinlets
13AM279A01	10740063	304390	5354981	22	NAD27	A. Mills	35% fresh cpx; 50% pl; 15% glassy matrix; opaques (cpy+mt+ilm?+py?)
13AM280B01	10740064	303796	5379242	22	NAD27	A. Mills	5% fractured cpx; 60% pl (laths >500 um); 30-35% chl; ~3 % opaques
13AM293B01	10740065	304614	5375540	22	NAD27	A. Mills	Sieve-textured pl phenocrysts up to 1 mm; 20-25% cpx (stubby, anhedral, fractured); 15% chl after intersertal glass; <5% opaques (mainly hem)
13AM319B01	10740089	309816	5369398	22	NAD27	A. Mills	10% pl phenocrysts in fine-grained pl lath-rich groundmass with weak trachytic texture (90%); minor patchy chl (after intersertal glass); ti ~1%
13AM329B01	10740085	305890	5372743	22	NAD27	A. Mills	Pl up to 1 mm, locally sieve-textured; cpx (100-300 um); chl replacing intersertal glass(?); 1-2% opaques
14AM030B01	10740134	337330	5378973	22	NAD27	A. Mills	Cpx (~15%; <500 um); pl (~65-70%; 1-2 mm); 5-8 % opaques (mt+hem?+cpy); 5% interstitial chl; 2% ti (occurs with chl)
14AM286A01	10740173	314727	5346683	22	NAD27	A. Mills	75-80% pl laths, trachytic texture; 10% opaques + ti; 5% ep + chl
14AM287B01	10740179	314911	5346895	22	NAD27	A. Mills	
14AM299C01	10740176	318364	5350706	22	NAD27	A. Mills	Heavily saussuritized (or carbonatized?) rock with interstitial chl in groundmass; ru, hem, ilm, mt; ~10-20% carbonate
15AM093B	10740211	304591	5379364	22	NAD27	A. Mills	80% pl (groundmass); sericitized ksp phenocrysts; 5% quartz; patchy sericite alteration throughout
15AM101B	10740212	298071	5370827	22	NAD27	A. Mills	~60% pl laths, variably saussuritized; 10% relict cpx; 30% chl groundmass with patchy saussurite alteration; opaques
15AM104A	10740213	302486	5373836	22	NAD27	A. Mills	Pl-rich rock (~60%+; average ~1 mm); subordinate cpx (<500µm); groundmass is mainly chl; abundant ti (2-3 %; up to 400 µm)
15AM105B	10740214	302524	5373761	22	NAD27	A. Mills	Pl-rich; trachytic texture; 1-3 mm chl amygdales; brown, bladed phase (amphibole?); 2-3% ti
15AM111A	10740215	301574	5375471	22	NAD27	A. Mills	Euhedral to subhedral pl phenocrysts up to 1 cm, highly saussuritized; chl amygdales up to 1 mm; fine grained, pl lath-rich groundmass; trace py
15AM113B	10740222	301048	5374708	22	NAD27	A. Mills	Pl, chl, cpx (~2 mm); opaques with brown phase rimming (hem after mt?)
15AM141B	10740223	326790	5360035	22	NAD27	A. Mills	Pl, ti and patchy carbonate in chl groundmass
15AM218A	10740221	311191	5370112	22	NAD27	A. Mills	

Open File 002C/0227 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum Detection Limit Analysis Method	LabNum	Rock_Type	TSPhoto_pp	TSPhoto_xp	Thicknessm	Trend	Dip	FieldNotes	Cuts
09LN195A	10140052	Gabbro Dyke	09LN195A_2x_ppl.jpg	09LN195A_2x_xpl.jpg	20	330	80	QV network at dyke margin parallel and perpendicular to dyke margin	BHF
09LN377B	10140093	Basaltic Dyke	09LN377B_5x_ppl.jpg	09LN377B_5x_xpl.jpg	-99	-99	-99		BHF
09LN414B	10140105	Altered Gabbro	09LN414B_5x_ppl.jpg	09LN414B_5x_xpl.jpg	>10	345	90	black aphanitic dyke; pyritic	BHF
09LN416A	10140108	Altered Gabbro	09LN416A_5x_ppl.jpg	09LN416A_5x_xpl.jpg	2	12	70	High mag - 102.5; minor carbonate-epidote veins	BHF
10LN125A	10140275	Altered Gabbro	10LN125A_5x_ppl.jpg	10LN125A_5x_xpl.jpg	4.5	277	80	mag to 36.5	BHF
10LN181B	10140277	Gabbro Dyke	10LN181B_5x_ppl.jpg	10LN181B_5x_xpl.jpg	>1	290	79	dyke along fault; coarse sst north side, siltstone south side	BHF
10LN264A	10140289	Altered Gabbro	10LN264A_5x_ppl.jpg	10LN264A_5x_xpl.jpg	>2	264	66	mag up to 18; vesicular locally	BHF
10LN500A	10140329	Gabbro Dyke	10LN500A_5x_ppl.jpg	10LN500A_5x_xpl.jpg	-99	-99	-99	pyritic	BHF
10LN682A	10140343	Gabbro Dyke	10LN682A_5x_ppl.jpg	10LN682A_5x_xpl.jpg	10	245	47	10 m wide; mag 13.6	BHF
10LN727C	10140358	Pl-Phyric Andesite Dyke	10LN727C_5x_ppl.jpg	10LN727C_5x_xpl.jpg	-99	-99	-99	dyke 10 m from volcanic rocks; sample contaminated with siliciclastic country rock	RHF
10LN774B	10140359	Gabbro dyke	10LN774B_5x_ppl.jpg	10LN774B_5x_xpl.jpg	5	301	76	5 m wide; mag to 30	RHF
13AM057C01	10740009	Carbonatized mafic dyke	13AM057C_2x_ppl.jpg	13AM057C_2x_xpl.jpg	-99	-99	-99	poor exposure; west side of Cambrian inlier	CPG
13AM061A01	10740111	Gabbro Dyke	13AM061A_2x_ppl.jpg	13AM061A_2x_xpl.jpg	-99	-99	-99	no wallrock; solely dyke	CPG
13AM061B02	10740011	Gabbro Dyke	13AM061B_2x_ppl.jpg	13AM061B_2x_xpl.jpg	-99	-99	-99	field duplicate of 13AM061A	CPG
13AM131B01	10740031	Gabbro Dyke	13AM131B2_5x_ppl_incl_in_cpx_centre.jpg	13AM131B2_5x_xpl_incl_in_cpx_centre.jpg	-99	-99	-99	south end Ocean Pond	CPG
13AM131B04	10740114	Gabbro Dyke	13AM131B5_5x_ppl_incl_in_cpx_centre.jpg	13AM131B5_5x_xpl_incl_in_cpx_centre.jpg	-99	-99	-99	south end Ocean Pond; field duplicate of 13AM131B01	CPG
13AM133A01	10740022	Basaltic Dyke	13AM133A_5x_ppl.jpg	13AM133A_5x_xpl.jpg	-99	-99	-99		CPG
13AM136A01	10740023	Basaltic Dyke	13AM136A_5x_ppl.jpg	13AM136A_5x_xpl.jpg	-99	-99	-99	no info	CPG
13AM152B01	10740042	Cpx-phyric Basalt Dyke	13AM152B_5x_ppl_incl_in_cpx.jpg	13AM152B_5x_xpl_incl_in_cpx.jpg	0.4	-99	-99	olivine or cpx?	CPG
13AM152B05	10740043	Trachytic Basalt Dyke	13AM152B_5x_ppl_incl_in_cpx.jpg	13AM152B_5x_xpl_incl_in_cpx.jpg	-99	-99	-99		CPG
13AM153B01	10740044	Gabbro Dyke	13AM153B_5x_ppl_incl_in_cpx.jpg	13AM153B_5x_xpl_incl_in_cpx.jpg	-99	30	80		CPG
13AM154B01	10740045	Cpx-phyric Basalt Dyke	13AM154B_5x_ppl_incl_in_cpx.jpg	13AM154B_5x_xpl_incl_in_cpx.jpg	>1	352	85	dyke has cleavage developed near its margins	CPG
13AM156B01	10740033	Gabbro Dyke	13AM156B_5x_ppl_incl_in_cpx.jpg	13AM156B_5x_xpl_incl_in_cpx.jpg	1	348	70		CPG
13AM16011	10740202	Basaltic Dyke	13AM160ii_5x_ppl_xenolith.jpg	13AM160ii_5x_xpl_xenolith.jpg	0.5	-99	-99		CPG
13AM160B01	10740095	Basaltic Dyke	13AM160B_5x_ppl_sieve_pl.jpg	13AM160B_5x_xpl_sieve_pl.jpg	0.4	200	variable	bifurcating dyke with cuspate apophyses; synsedimentary	CPG
13AM168B01	10740046	Cpx-phyric Basalt Dyke	13AM168B_5x_ppl_carb_altd_pl.jpg	13AM168B_5x_xpl_carb_altd_pl.jpg	-99	347	79		CPG
13AM168B04	10740117	Cpx-phyric Basalt Dyke	13AM168B_5x_ppl_carb_altd_pl.jpg	13AM168B_5x_xpl_carb_altd_pl.jpg	-99	347	79	duplicate sample of 13AM168B01	CPG
13AM208B01	10740039	Pl-phyric basaltic dyke	13AM208B_2x_ppl.jpg	13AM208B_2x_xpl.jpg	-99	-99	-99	gabbro dyke cutting gravelly sst of upper CPG	CPG
13AM229B01	10740056	Gabbro Dyke	13AM229B_5x_ppl.jpg	13AM229B_5x_xpl.jpg	10	80	90	10 m wide	CPG
13AM238B01	10740057	Gabbro Dyke	13AM238B_5x_ppl.jpg	13AM238B_5x_xpl.jpg	-99	-99	-99		CPG
13AM238B04	10740121	Gabbro Dyke	13AM238B_5x_ppl.jpg	13AM238B_5x_xpl.jpg	-99	-99	-99	duplicate sample of 13AM238B01	CPG
13AM246B	10740123	Gabbro Dyke	13AM246B_5x_ppl.jpg	13AM246B_5x_xpl.jpg	2	95	90	2 m wide; bayonettes appear curved or folded	CPG
13AM246B01	10740058	Gabbro Dyke			-99	-99	-99		CPG
13AM250B01	10740059	Gabbro Dyke	13AM250B_5x_ppl.jpg	13AM250B_5x_xpl.jpg	5	65	90	5 m wide gabbro dyke with trace sulphides	CPG
13AM270C01	10740062	Gabbro Dyke	13AM270C_5x_ppl_poss_cpx_pseudo.jpg	13AM270C_5x_xpl_poss_cpx_pseudo.jpg	-99	-99	-99	no info	CPG
13AM279A01	10740063	Gabbro Dyke	13AM279A_5x_ppl.jpg	13AM279A_5x_xpl.jpg	10	15	90	10 m wide	MRF
13AM280B01	10740064	Gabbro Dyke	13AM280B_5x_ppl.jpg	13AM280B_5x_xpl.jpg	3	180	50		CPG
13AM293B01	10740065	Gabbro Dyke	13AM293B_5x_ppl.jpg	13AM293B_5x_xpl.jpg	8	60	85	8 m wide	CPG
13AM319B01	10740089	Pl-phyric basaltic dyke	13AM319B_5x_ppl.jpg	13AM319B_5x_xpl.jpg	3	45	45	QV in dyke and wall rock	CPG
13AM329B01	10740085	Gabbro Dyke	13AM329B_5x_ppl.jpg	13AM329B_5x_xpl.jpg	8	55	82	8 m wide; qtz amygdales; trace pyrite	CPG
14AM030B01	10740134	Gabbro Dyke	14AM030B_2x_ppl.jpg	14AM030B_2x_xpl.jpg	>3	90	90	possible E-W trend	BHF
14AM286A01	10740173	Basaltic Dyke	14AM286A_5x_ppl.jpg	14AM286A_5x_xpl.jpg	10	185	70	columnar jointing	RHF
14AM287B01	10740179				1.5	350	90		RHF
14AM299C01	10740176	Carbonatized gabbro dyke	14AM299C_5x_ppl.jpg	14AM299C_5x_xpl.jpg	1.5	300	70	calcite amygdales	RHF
15AM093B	10740211	Monzonite	15AM093_5x_ppl.jpg	15AM093_5x_xpl_carb_altn.jpg	>5	180	90	2 fsprs; >5 m wide	CPG
15AM101B	10740212	Gabbro Dyke	15AM101B_5x_ppl.jpg	15AM101B_5x_xpl.jpg	>1	80	90	1 m wide	CPG
15AM104A	10740213	Gabbro Dyke	15AM104_5x_ppl.jpg	15AM104_5x_xpl.jpg	>3	45	90	>3 m wide; exposed as cliff wall	CPG
15AM105B	10740214	Pl-phyric basaltic dyke	15AM105_2x_ppl.jpg	15AM105_2x_xpl.jpg	>2	140	75	>2 m wide; chlorite amygdales; rare pl phenocrysts	CPG
15AM111A	10740215	Pl-phyric basaltic dyke	15AM111_pl_pheno_chl_amyg_2x_ppl.jpg		-99	-99	-99	Pl phenocrystic diabase dyke	CPG
15AM113B	10740222	Gabbro Dyke	15AM113B_5x_ppl.jpg	15AM113B_5x_xpl.jpg	>30	-99	-99	>30 m; possible gabbro plug; Great Chance Hr area	CPG
15AM141B	10740223	Gabbro Dyke	15AM141_5x_ppl.jpg	15AM141_5x_xpl.jpg	2	245	80	2 m wide; Skerwink Peninsula	BHF
15AM218A	10740221				-99	15	90	20 m wide gabbro dyke in Summerville	CPG

Open File 002C/0227 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	KCODE	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					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Analysis Method					ICPOESF	ICPOESF	Difference	ICPOESF	Titration	Calculated	ICPOESF	ICPOESF	ICPOESF	ICPOESF
09LN195A	10140052	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	31.73	51.56	13.18	4.80	14.43	8.67	12.98	5.16	3.39	1.88	3.76
09LN377B	10140093	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	30.15	51.78	14.25	4.62	14.69	9.07	13.22	3.25	3.20	0.57	4.03
09LN414B	10140105	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	30.35	52.96	11.95	7.52	13.23	5.14	11.90	10.15	2.91	0.45	0.04
09LN416A	10140108	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	44.26	45.69	14.09	4.87	15.44	9.51	13.89	5.11	6.19	0.24	4.09
10LN125A	10140275	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	42.26	44.82	14.44	2.42	13.34	9.83	12.00	6.26	4.93	0.38	4.00
10LN181B	10140277	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.35	49.11	14.35	6.67	14.11	6.70	12.70	4.86	4.43	1.15	5.14
10LN264A	10140289	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	33.40	51.35	12.90	8.27	14.07	5.22	12.66	4.15	3.56	1.67	3.71
10LN500A	10140329	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	39.08	49.20	13.06	5.94	15.17	8.31	13.65	4.52	4.91	0.50	3.96
10LN682A	10140343	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	37.44	46.62	13.73	7.60	16.05	7.61	14.45	5.10	4.85	0.78	3.61
10LN727C	10140358	33	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	27.85	59.08	17.85	1.93	6.87	4.44	6.18	0.92	1.34	0.19	8.24
10LN774B	10140359	33	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.82	49.74	13.57	5.82	15.85	9.03	14.26	3.38	5.08	0.47	3.28
13AM057C01	10740009	11	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	59.06	38.19	12.45	1.40	8.62	6.50	7.76	13.04	6.28	1.46	1.91
13AM061A01	10740111	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	40.69	44.22	12.62	2.24	16.34	12.69	14.70	7.61	5.66	0.58	3.18
13AM061B02	10740011	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	41.27	44.43	12.79	1.63	16.30	13.20	14.66	7.62	5.78	0.80	3.30
13AM131B01	10740031	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	46.05	47.83	13.29	5.09	13.58	7.64	12.22	7.90	5.85	0.54	4.03
13AM131B04	10740114	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	44.83	55.83	12.89	4.47	10.93	5.81	9.83	6.28	4.48	0.12	2.44
13AM133A01	10740022	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	44.81	48.88	16.22	5.68	12.73	6.34	11.45	8.78	5.22	0.90	2.91
13AM136A01	10740023	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	32.66	56.44	14.80	2.49	9.97	6.73	8.97	5.06	2.44	2.31	3.04
13AM152B01	10740042	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	72.92	44.29	11.91	1.56	10.15	7.73	9.13	9.08	13.80	0.49	1.80
13AM152B05	10740043	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	65.15	50.56	16.05	1.37	9.00	6.87	8.10	4.72	8.49	0.83	4.28
13AM153B01	10740044	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	69.85	44.76	14.12	1.73	9.74	7.21	8.77	9.23	11.40	0.57	2.45
13AM154B01	10740045	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	70.19	47.61	11.20	1.72	10.22	7.65	9.20	10.01	12.15	0.83	2.17
13AM156B01	10740033	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	52.04	55.17	16.86	1.13	8.38	6.52	7.54	3.50	4.59	2.04	4.16
13AM16011	10740202	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	21.74	51.50	16.69	11.24	12.70	1.32	11.43	3.38	1.78	2.95	4.55
13AM160B01	10740095	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	33.97	53.39	13.92	8.69	12.28	3.23	11.05	3.75	3.19	0.50	5.28
13AM168B01	10740046	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	51.30	51.19	16.89	0.85	8.02	6.45	7.21	4.95	4.26	1.23	5.43
13AM168B04	10740117	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	49.70	54.52	15.94	0.69	6.76	5.46	6.08	4.76	3.37	1.43	5.18
13AM208B01	10740039	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	39.67	51.32	19.69	1.70	9.40	6.93	8.46	5.11	3.12	1.54	5.38
13AM229B01	10740056	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	41.77	44.76	13.66	3.96	16.75	11.51	15.07	7.29	6.07	0.66	3.58
13AM238B01	10740057	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	36.21	51.85	13.89	2.19	11.85	8.69	10.66	6.17	3.40	1.21	4.02
13AM238B04	10740121	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	36.28	52.26	14.12	2.54	11.72	8.27	10.55	6.06	3.37	1.21	4.08
13AM246B	10740123	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL; Traces (INAA) Bec	35.84	52.27	14.03	2.86	12.01	8.23	10.80	6.05	3.39	2.11	3.85
13AM246B01	10740058	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	48.33	45.70	14.39	2.03	13.21	10.06	11.88	7.79	6.24	0.45	3.94
13AM250B01	10740059	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	39.11	46.58	13.11	3.35	14.97	10.46	13.47	6.97	4.85	0.85	3.98
13AM270C01	10740062	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	64.68	50.02	14.32	0.97	8.72	6.98	7.85	5.00	8.07	0.82	3.03
13AM279A01	10740063	11	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	48.62	46.49	15.58	1.86	12.84	9.88	11.55	7.92	6.13	0.31	3.16
13AM280B01	10740064	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.69	46.89	15.95	3.06	14.11	9.95	12.70	4.27	4.50	1.05	4.70
13AM293B01	10740065	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	42.03	47.53	13.82	5.05	15.01	8.96	13.50	6.86	5.49	0.90	4.35
13AM319B01	10740089	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	41.38	49.57	16.53	2.37	12.53	9.14	11.27	2.51	4.47	1.37	4.48
13AM329B01	10740085	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.32	47.19	13.50	3.77	14.65	9.79	13.18	7.16	4.59	0.81	4.32
14AM030B01	10740134	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	30.87	53.20	13.16	3.84	13.67	8.85	12.30	5.51	3.08	1.89	3.62
14AM286A01	10740173	33	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	39.34	48.15	14.90	3.96	13.45	8.54	12.10	6.47	4.40	2.14	3.66
14AM287B01	10740179	33	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	27.67	59.20	18.68	1.60	7.19	5.03	6.47	1.25	1.39	0.10	9.15
14AM299C01	10740176	33	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	27.89	44.60	14.89	3.07	14.50	10.29	13.05	7.06	2.83	0.69	4.12
15AM093B	10740211	29	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	7.75	62.70	13.51	2.31	7.00	4.22	6.30	2.66	0.30	2.22	3.59
15AM101B	10740212	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	55.17	44.95	17.05	2.00	10.58	7.72	9.52	7.77	6.57	0.96	3.59
15AM104A	10740213	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	39.55	44.54	12.21	4.34	16.14	10.62	14.52	8.01	5.33	0.73	3.27
15AM105B	10740214	12	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	41.15	46.86	18.55	2.60	10.81	7.39	9.72	7.19	3.81	0.50	4.51
15AM111A	10740215	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	48.52	48.58	20.03	2.12	9.10	6.29	8.19	4.52	4.33	2.11	4.44
15AM113B	10740222	6	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	44.97	44.96	15.24	4.34	13.85	8.56	12.47	9.06	5.72	0.96	3.25
15AM141B	10740223	24	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	38.35	44.14	13.30	5.09	15.97	9.79	14.37	5.93	5.02	0.36	3.31
15AM218A	10740221	1	Majors and traces (ICP-OES, ICP-MS, titration, grav.) GSNL	47.62	46.91	19.22	1.86	11.39	8.58	10.25	6.69	5.23	1.14	3.73

Open File 002C/0227 - 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	Hf_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	0.2
Analysis Method		ICPOESF	ICPOESF	ICPOESF	Grav	Calc	ICPOESF	ICPOESF	ICPOESF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
09LN195A	10140052	0.324	2.592	1.174	2.50	99.96	1222	-100	217	-99	-99	-99	-99	-99	0.6	-99	5.2	4.33	22	11.4	5	5.2
09LN377B	10140093	0.334	2.134	0.926	4.45	99.62	245	-100	264	-99	-99	-99	-99	-99	-0.5	-99	6.0	5.28	24	12.0	4	6.7
09LN414B	10140105	0.482	1.953	0.806	3.09	98.03	182	-100	225	-99	-99	-99	-99	-99	0.7	-99	4.9	4.54	21	10.6	5	5.7
09LN416A	10140108	0.337	3.237	0.430	4.71	99.56	78	-100	238	-99	-99	-99	-99	-99	0.5	-99	4.5	2.27	23	8.1	5	5.6
10LN125A	10140275	0.451	3.007	0.498	7.68	99.80	81	-100	216	-99	-99	-99	-99	-99	0.9	-99	5.0	2.02	18	8.1	4	4.7
10LN181B	10140277	0.301	3.155	0.836	3.11	100.56	282	-100	249	-99	-99	-99	-99	-99	0.5	-99	7.0	3.43	26	11.7	4	6.4
10LN264A	10140289	0.190	3.105	1.287	3.35	99.34	560	-100	333	-99	-99	-99	-99	-99	0.5	-99	9.2	4.32	23	15.9	5	8.2
10LN500A	10140329	0.385	3.204	0.552	5.03	100.49	257	-100	270	-99	-99	-99	-99	-99	1.0	-99	7.4	3.22	23	11.7	5	6.6
10LN682A	10140343	0.345	3.719	0.639	4.28	99.73	231	-100	277	-99	-99	-99	-99	-99	-0.5	-99	7.2	3.24	25	11.9	6	7.0
10LN727C	10140358	0.226	0.652	0.231	3.65	99.24	48	-100	914	-99	-99	-99	-99	-99	-0.5	-99	9.3	4.84	36	16.4	5	20.1
10LN774B	10140359	0.259	3.082	0.512	4.13	99.36	185	-100	245	-99	-99	-99	-99	-99	0.6	-99	6.5	2.99	22	10.9	7	6.4
13AM057C01	10740009	0.290	1.470	0.270	15.08	99.06	322	317	158	-5	-0.4	-0.2	49.0	41	-0.5	3.7	1.9	1.41	16	4.6	3	4.3
13AM061A01	10740111	0.310	3.680	0.800	3.21	98.20	248	18	199	7	0.4	0.3	50.8	44	0.6	10.9	5.7	3.56	22	11.4	5	5.6
13AM061B02	10740011	0.300	3.650	0.800	3.06	98.84	315	17	198	-5	-0.4	-0.2	49.7	41	1.2	10.9	6.0	3.65	23	11.6	5	5.6
13AM131B01	10740031	0.240	2.630	0.540	2.92	99.35	198	80	157	-5	-0.4	-0.2	40.2	46	-0.5	8.3	4.7	2.70	22	8.9	4	4.4
13AM131B04	10740114	0.190	1.560	0.260	3.14	98.13	116	37	104	-5	1.0	0.3	23.1	41	-0.5	5.3	3.1	1.62	16	5.5	3	2.8
13AM133A01	10740022	0.210	1.750	0.420	1.79	99.80	387	63	111	-5	0.6	0.2	33.6	40	-0.5	5.4	3.1	1.75	18	5.9	4	3.1
13AM136A01	10740023	0.170	1.210	0.770	2.48	98.68	603	-1	163	13	-0.4	0.4	80.7	22	-0.5	7.0	4.2	2.23	19	9.0	5	4.8
13AM152B01	10740042	0.220	0.680	0.110	5.52	98.06	456	834	40	-5	0.5	-0.2	20.1	58	0.9	2.3	1.1	0.75	15	2.6	2	1.4
13AM152B05	10740043	0.190	0.830	0.240	4.86	100.06	522	173	75	-5	-0.4	-0.2	44.0	32	-0.5	2.8	1.6	1.49	15	3.9	2	2.2
13AM153B01	10740044	0.200	0.780	0.180	4.84	98.29	190	956	64	-5	-0.4	-0.2	28.8	46	-0.5	2.8	1.7	1.02	16	3.7	3	1.8
13AM154B01	10740045	0.230	0.710	0.140	3.70	98.99	358	699	46	-5	-0.4	-0.2	24.5	47	-0.5	2.2	1.2	0.78	12	2.7	2	1.3
13AM156B01	10740033	0.150	0.950	0.200	3.57	99.58	1102	53	135	10	-0.4	-0.2	45.1	24	0.7	4.9	2.6	1.40	20	5.3	3	4.0
13AM16011	10740202	0.128	2.330	0.774	2.69	99.47	655	16	200	-99	-0.4	-0.2	57.1	18	6.0	7.8	4.3	2.62	23	8.3	4	4.9
13AM160B01	10740095	0.290	2.330	0.710	2.78	98.42	181	12	221	9	0.9	-0.2	60.1	30	-0.5	9.7	5.8	3.36	20	10.9	3	5.9
13AM168B01	10740046	0.160	0.970	0.210	6.14	99.44	787	133	92	7	-0.4	-0.2	33.9	25	0.5	4.7	2.6	1.30	18	5.1	2	2.8
13AM168B04	10740117	0.140	0.790	0.170	5.52	98.59	942	104	126	9	-0.4	-0.2	46.3	20	-0.5	4.7	2.7	1.18	18	5.2	3	3.9
13AM208B01	10740039	0.160	1.020	0.210	3.41	100.36	649	4	83	-5	-0.4	-0.2	34.8	24	0.6	3.9	2.4	1.24	19	4.4	3	2.6
13AM229B01	10740056	0.290	2.900	0.470	2.79	99.21	311	22	161	-5	-0.4	-0.2	38.3	47	-0.5	7.9	4.2	2.41	21	8.3	4	4.2
13AM238B01	10740057	0.330	2.410	1.380	2.64	99.14	592	-1	277	-5	-0.4	0.5	89.1	13	-0.5	12.0	6.4	5.08	26	14.0	6	7.3
13AM238B04	10740121	0.320	2.500	1.350	2.77	99.77	596	1	287	-5	-0.4	-0.2	77.8	12	-0.5	10.8	5.8	4.25	23	12.4	4	6.5
13AM246B	10740123	0.310	2.480	1.340	3.11	100.95	592	1	278	-5	-0.4	0.2	80.8	13	-0.5	11.2	5.8	4.54	23	12.7	4	6.7
13AM246B01	10740058	0.300	1.710	0.220	4.75	98.69	263	245	102	-5	0.4	-0.2	20.4	48	-0.5	4.0	2.1	1.38	21	4.0	3	2.5
13AM250B01	10740059	0.330	3.800	0.980	2.90	99.34	308	2	239	-5	-0.4	0.2	57.7	34	-0.5	12.2	7.0	4.09	24	13.3	5	6.2
13AM270C01	10740062	0.240	0.750	0.130	7.51	98.62	744	579	69	10	-0.4	-0.2	23.4	42	0.6	3.1	2.0	0.85	16	3.4	3	2.0
13AM279A01	10740063	0.240	1.860	0.300	3.65	98.49	367	166	112	6	-0.4	0.2	32.1	43	-0.5	4.6	2.3	1.65	24	4.8	3	2.9
13AM280B01	10740064	0.280	2.530	0.680	3.38	98.33	460	1	270	-5	-0.4	-0.2	60.9	28	-0.5	8.1	4.6	2.72	22	9.3	4	6.2
13AM293B01	10740065	0.260	2.820	0.550	2.76	100.35	581	31	188	-5	0.6	-0.2	43.5	41	-0.5	8.5	5.0	2.52	22	9.0	4	4.8
13AM319B01	10740089	0.420	1.910	0.500	3.76	98.05	681	41	169	7	-0.4	-0.2	57.8	34	0.6	7.0	3.8	1.99	24	7.6	6	4.6
13AM329B01	10740085	0.290	3.220	0.620	2.38	98.74	331	9	192	7	-0.4	-0.2	49.5	36	-0.5	9.1	5.4	3.13	25	9.8	5	5.4
14AM030B01	10740134	0.290	2.574	0.840	2.07	99.89	750	7	239	-99	-0.4	-0.2	65.9	19	1.0	9.7	5.0	3.67	24	10.1	5	6.1
14AM286A01	10740173	0.306	3.132	1.186	2.59	100.37	655	-1	397	-99	-0.4	-0.2	113.9	21	0.6	11.4	6.1	4.40	24	13.5	6	9.6
14AM287B01	10740179	0.238	0.672	0.248	1.74	99.85	29	1	949	-99	-0.4	-0.2	172.4	2	-0.5	15.5	9.4	4.68	39	16.6	7	21.4
14AM299C01	10740176	0.371	2.948	1.556	6.49	100.06	151	2	344	-99	-0.4	-0.2	122.8	28	1.6	11.2	5.8	4.88	27	13.8	6	8.0
15AM093B	10740211	0.404	0.554	0.072	5.10	98.10	270	2	471	-99	-0.5	-0.2	103.3	-99	2.0	11.8	7.4	4.04	29	12.6	5	10.8
15AM101B	10740212	0.179	1.504	0.237	6.88	100.26	461	143	90	-99	-0.5	-0.2	22.1	-99	2.9	4.1	2.5	1.42	18	4.3	4	2.4
15AM104A	10740213	0.279	3.646	0.731	4.49	99.37	409	31	245	-99	-0.5	-0.2	53.4	-99	0.9	11.3	6.7	3.63	20	11.8	6	6.5
15AM105B	10740214	0.178	1.107	0.266	4.57	98.35	160	1	63	-99	-0.5	-0.2	29.2	-99	-0.5	3.3	1.6	1.63	20	4.4	6	1.9
15AM111A	10740215	0.143	1.350	0.243	4.04	98.89	1119	11	98	-99	-0.5	-0.2	22.0	-99	2.1	3.3	1.8	1.38	13	3.7	3	2.4
15AM113B	10740222	0.221	2.254	0.369	-99	99.16	227	70	122	-99	-0.5	-0.2	30.1	-99	2.8	6.2	3.6	2.11	18	6.6	5	3.5
15AM141B	10740223	0.381	3.619	0.571	5.98	98.57	109	48	271	-99	-0.5	-0.2	52.0	-99	0.7	12.5	7.5	3.10	24	12.3	8	7.4
15AM218A	10740221	0.197	1.111	0.219	3.41	99.24	367	48	35	-99	-0.5	-0.2	14.4	-99	2.7	3.2	1.9	1.14	17	3.3	3	1.1

Open File 002C/0227 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	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	Y_ppm	Yb_ppm	Zr_ppm
Detection Limit		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	1	0.1	1
Analysis Method		ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMS	ICPMSF	ICPMSF	ICPMSF
09LN195A	10140052	1.9	-99	-99	0.64	-99	-99	41.6	8.8	10.5	1	-99	1.2	1.7	3.0	0.2	0.69	1.0	-99	1	-99	4.4	-99
09LN377B	10140093	2.2	-99	-99	0.81	-99	-99	47.9	10.3	11.9	2	-99	0.7	1.9	4.1	-0.1	0.81	1.3	-99	2	-99	5.4	-99
09LN414B	10140105	1.8	-99	-99	0.73	-99	-99	41.3	8.6	9.9	1	-99	-0.5	1.6	3.4	-0.1	0.68	1.1	-99	-1	-99	4.4	-99
09LN416A	10140108	1.5	-99	-99	0.59	-99	-99	30.8	6.8	7.3	1	-99	-0.5	1.3	1.6	-0.1	0.61	0.4	-99	-1	-99	4.0	-99
10LN125A	10140275	1.6	-99	-99	0.65	-99	-99	27.2	5.7	7.1	3	-99	0.6	1.3	1.2	-0.1	0.68	0.4	-99	2	-99	4.6	-99
10LN181B	10140277	2.4	-99	-99	0.98	-99	-99	38.4	8.1	10.5	2	-99	1.0	1.9	2.2	0.2	1.04	0.7	-99	2	-99	6.1	-99
10LN264A	10140289	3.2	-99	-99	1.18	-99	-99	51.8	10.9	13.9	2	-99	1.4	2.6	3.0	0.2	1.24	0.9	-99	-1	-99	8.2	-99
10LN500A	10140329	2.4	-99	-99	0.98	-99	-99	36.3	7.5	10.1	2	-99	-0.5	2.0	1.8	-0.1	1.01	0.5	-99	-1	-99	6.7	-99
10LN682A	10140343	2.4	-99	-99	1.00	-99	-99	37.8	7.9	10.0	4	-99	0.6	2.0	2.1	-0.1	1.00	0.6	-99	-1	-99	6.6	-99
10LN727C	10140358	3.1	-99	-99	1.36	-99	-99	87.3	21.6	17.8	8	-99	6.3	2.7	8.8	-0.1	1.32	2.8	-99	1	-99	9.0	-99
10LN774B	10140359	2.3	-99	-99	0.87	-99	-99	35.0	7.6	9.4	3	-99	0.7	1.7	1.9	-0.1	0.93	0.6	-99	1	-99	6.2	-99
13AM057C01	10740009	0.7	-0.2	22.7	0.23	2	24	25.1	6.2	4.8	1	626	2.0	0.7	3.1	-0.1	0.25	1.2	238	-1	19	1.5	-99
13AM061A01	10740111	2.1	-0.2	22.5	0.79	-2	11	37.6	7.9	10.4	3	96	1.0	1.7	1.3	-0.1	0.81	0.4	522	2	53	5.0	-99
13AM061B02	10740011	2.2	-0.2	18.9	0.76	-2	14	39.0	7.5	10.1	2	112	0.9	1.7	1.2	-0.1	0.82	0.3	520	-1	55	5.3	-99
13AM131B01	10740031	1.6	-0.2	16.2	0.58	3	8	29.9	5.9	7.9	2	176	0.7	1.4	0.9	-0.1	0.61	0.3	405	3	42	3.9	-99
13AM131B04	10740114	1.0	-0.2	14.9	0.39	-2	4	16.5	3.5	5.0	1	408	-0.5	0.9	0.5	-0.1	0.43	0.2	295	2	29	2.8	-99
13AM133A01	10740022	1.1	-0.2	16.0	0.42	-2	8	21.0	4.7	5.9	-1	389	-0.5	0.9	1.1	-0.1	0.43	0.4	314	-1	29	3.0	-99
13AM136A01	10740023	1.4	-0.2	37.4	0.54	-2	9	44.1	10.4	9.6	2	522	-0.5	1.2	9.0	-0.1	0.53	4.0	137	-1	38	3.7	-99
13AM152B01	10740042	0.4	-0.2	9.7	0.16	2	4	11.6	2.6	2.7	1	175	-0.5	0.4	3.0	-0.1	0.15	0.9	294	1	10	1.0	-99
13AM152B05	10740043	0.5	-0.2	22.9	0.22	-2	4	22.0	5.4	5.0	1	323	0.9	0.5	5.8	-0.1	0.22	1.9	229	-1	14	1.4	-99
13AM153B01	10740044	0.5	-0.2	14.4	0.20	-2	4	16.0	3.7	3.7	1	82	-0.5	0.5	4.5	-0.1	0.19	1.0	256	-1	14	1.5	-99
13AM154B01	10740045	0.4	-0.2	12.3	0.15	-2	2	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
13AM156B01	10740033	0.9	-0.2	23.6	0.39	2	7	24.2	5.5	4.8	2	401	0.6	0.8	5.8	-0.1	0.37	2.4	221	3	25	2.6	-99
13AM16011	10740202	1.6	-99	28.0	0.57	-2	8	36.3	7.8	8.7	2	169	0.6	1.3	3.0	0.2	0.58	1.0	261	-1	39	3.8	-99
13AM160B01	10740095	1.9	-0.2	27.3	0.71	-2	10	41.6	8.7	10.0	4	199	0.8	1.6	2.7	-0.1	0.77	0.9	311	2	52	5.0	-99
13AM168B01	10740046	0.9	-0.2	16.4	0.31	-2	5	19.3	4.3	4.7	3	351	-0.5	0.8	3.6	-0.1	0.37	1.6	211	1	23	2.2	-99
13AM168B04	10740117	0.9	-0.2	26.6	0.39	-2	8	23.2	5.6	5.0	2	348	0.6	0.8	5.3	-0.1	0.40	1.8	188	2	25	2.7	-99
13AM208B01	10740039	0.8	-0.2	17.0	0.31	2	4	19.1	4.5	4.2	1	330	-0.5	0.6	4.2	-0.1	0.29	1.5	210	1	21	2.3	-99
13AM229B01	10740056	1.5	-0.2	15.5	0.57	-2	9	27.2	5.7	7.6	2	440	0.8	1.2	1.1	-0.1	0.56	0.6	523	-1	39	3.9	-99
13AM238B01	10740057	2.3	-0.2	36.6	0.79	-2	17	58.7	12.3	14.5	3	418	1.2	2.0	3.8	-0.1	0.86	1.1	113	-1	61	5.4	-99
13AM238B04	10740121	2.0	-0.2	31.6	0.66	2	15	52.2	10.8	12.3	3	383	1.4	1.9	3.2	-0.1	0.74	1.0	101	-1	53	4.9	-99
13AM246B	10740123	2.0	-0.2	33.8	0.74	3	18	53.1	11.3	12.4	3	228	1.6	1.8	3.4	-0.1	0.76	1.0	107	3	56	5.0	-99
13AM246B01	10740058	0.7	-0.2	9.4	0.23	-2	9	13.5	2.9	3.8	1	348	1.2	0.6	0.9	-0.1	0.25	0.3	274	-1	18	1.5	-99
13AM250B01	10740059	2.4	-0.2	21.9	0.85	-2	13	43.8	8.7	12.2	2	251	0.9	2.1	1.5	-0.1	0.89	0.4	352	-1	66	6.2	-99
13AM270C01	10740062	0.6	-0.2	14.8	0.25	2	4	12.5	3.0	3.2	1	353	-0.5	0.5	2.8	-0.1	0.25	1.3	233	2	17	1.7	-99
13AM279A01	10740063	0.9	-0.2	16.9	0.31	2	20	18.4	4.2	4.5	2	480	1.8	0.8	2.0	-0.1	0.33	0.6	288	1	22	2.2	-99
13AM280B01	10740064	1.5	-0.2	26.5	0.60	-2	14	39.3	8.4	9.0	2	248	1.2	1.3	1.4	-0.1	0.59	0.4	162	-1	39	3.9	-99
13AM293B01	10740065	1.6	-0.2	19.2	0.62	-2	8	31.0	6.4	8.1	2	170	0.6	1.4	1.6	-0.1	0.64	0.4	424	-1	44	4.2	-99
13AM319B01	10740089	1.3	-0.2	26.6	0.42	2	9	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
13AM329B01	10740085	1.8	-0.2	21.8	0.67	-2	9	34.2	7.1	8.8	3	189	0.7	1.5	2.0	-0.1	0.69	0.6	388	-1	48	4.7	-99
14AM030B01	10740134	1.8	-99	29.0	0.65	2	16	41.9	9.2	10.0	2	269	1.1	1.6	3.5	0.1	0.66	1.1	173	-1	46	4.7	-99
14AM286A01	10740173	2.2	-99	49.6	0.76	2	46	64.8	14.8	14.6	3	299	3.3	2.0	3.6	-0.1	0.79	1.1	135	-1	55	5.1	-99
14AM287B01	10740179	3.1	-99	78.1	1.36	-2	83	84.8	20.6	17.6	7	107	6.5	2.6	9.0	-0.1	1.35	2.8	-5	-1	82	9.5	-99
14AM299C01	10740176	2.1	-99	52.5	0.71	-2	44	72.3	16.4	15.2	2	291	3.2	2.0	3.4	-0.1	0.74	1.1	128	1	54	4.8	-99
15AM093B	10740211	2.4	-99	40.9	1.35	2	22	60.4	13.9	13.6	3	223	1.7	1.9	3.4	0.1	1.09	1.0	-99	4	57	7.8	447
15AM101B	10740212	0.9	-99	8.6	0.36	2	5	15.1	3.2	3.7	2	225	0.7	0.7	0.9	0.1	0.35	0.2	-99	4	20	2.1	80
15AM104A	10740213	2.3	-99	19.8	0.95	3	11	37.6	7.8	10.5	2	154	0.9	1.9	1.7	0.1	0.91	0.5	-99	3	54	5.9	226
15AM105B	10740214	0.6	-99	13.1	0.26	-2	6	18.1	4.0	4.2	-1	61	0.7	0.6	1.9	0.1	0.24	0.5	-99	4	16	1.4	54
15AM111A	10740215	0.7	-99	8.1	0.29	-2	7	14.5	3.1	3.6	1	1067	0.5	0.6	0.6	-0.1	0.28	0.2	-99	3	15	1.7	88
15AM113B	10740222	1.3	-99	10.9	0.50	-2	5	22.6	4.6	6.1	1	651	-0.5	1.0	0.9	-0.1	0.51	0.3	-99	2	29	3.2	114
15AM141B	10740223	2.6	-99	20.0	1.11	2	14	35.9	7.5	9.8	3	96	1.1	2.0	2.0	-0.1	1.07	0.6	-99	4	63	6.8	256
15AM218A	10740221	0.6	-99	6.2	0.31	-2	2	10.8	2.2	3.1	-1	506	-0.5	0.5	0.8	-0.1	0.30	0.4	-99	4	15	1.6	27

Open File 002C/0227 - Appendix A: Major-element and Trace-element GSNL Data

SampleNum	LabNum	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		2	0.1	1	1	0.1	1	1	1	1	0.1	1	1	1	0.05, 0.1	5
Analysis Method		ICPOES4	ICPOES4	ICPOES	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES	ICPOES4	ICPOES4	ICPOES4	ICPOES4	ICPOES	ICPOESH	ISE
09LN195A	10140052	20	0.6	35	12	28.7	2243	-1	-1	37	39.4	16534	124	119	-0.10	530
09LN377B	10140093	20	0.9	28	8	85.0	2399	-1	9	19	44.6	13228	66	149	-0.10	663
09LN414B	10140105	10	0.6	22	6	36.5	3331	-1	-1	13	43.3	10725	57	115	-0.10	711
09LN416A	10140108	10	0.5	59	32	84.2	2286	41	-1	19	42.5	20616	447	138	-0.10	379
10LN125A	10140275	4	-0.1	52	24	97.5	3283	22	-1	22	39.4	17132	413	120	-0.10	408
10LN181B	10140277	8	-0.1	50	16	26.6	2154	17	-1	31	35.3	19168	315	112	-0.10	572
10LN264A	10140289	5	-0.1	44	-1	29.0	1406	-1	-1	39	34.0	17728	225	123	-0.10	793
10LN500A	10140329	2	-0.1	53	17	38.3	2821	8	-1	15	40.1	18890	427	134	-0.10	635
10LN682A	10140343	5	-0.1	60	-1	58.3	2592	10	-1	15	45.6	21778	471	144	-0.10	576
10LN727C	10140358	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-0.10	373
10LN774B	10140359	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-0.10	636
13AM057C01	10740009	-99	3.7	-99	58	79.2	1989	146	-1	54	25.5	8893	-99	78	0.08	-99
13AM061A01	10740111	-99	1.2	-99	40	25.1	2000	30	-1	21	50.5	21629	-99	125	-0.05	-99
13AM061B02	10740011	-99	1.2	-99	35	25.1	2026	30	-1	22	50.7	21473	-99	130	0.07	-99
13AM131B01	10740031	-99	0.9	-99	70	33.4	1628	40	-1	14	45.3	15175	-99	106	-0.05	-99
13AM131B04	10740114	-99	0.5	-99	74	36.1	1318	41	-1	5	30.4	9442	-99	73	0.08	-99
13AM133A01	10740022	-99	0.9	-99	62	15.3	1454	45	-1	24	32.3	9546	-99	99	-0.05	-99
13AM136A01	10740023	-99	1.3	-99	135	20.5	1240	10	-1	47	28.8	7741	-99	116	0.07	-99
13AM152B01	10740042	-99	0.6	-99	97	64.6	1521	126	-1	8	52.0	4232	-99	66	0.18	-99
13AM152B05	10740043	-99	0.8	-99	10	47.0	1300	46	-1	20	29.1	5097	-99	60	0.17	-99
13AM153B01	10740044	-99	0.7	-99	17	53.0	1360	178	-1	11	34.9	4814	-99	74	0.19	-99
13AM154B01	10740045	-99	0.5	-99	89	53.9	1533	91	-1	16	50.4	4327	-99	67	0.23	-99
13AM156B01	10740033	-99	1.2	-99	37	54.5	1091	19	10	49	28.0	5706	-99	79	0.14	-99
13AM16011	10740202	11	1.8	-99	13	21.6	902	23	5	88	36.7	14563	-99	79	-0.05	720
13AM160B01	10740095	-99	1.2	-99	15	44.8	2024	25	3	21	37.0	14777	-99	140	-0.05	-99
13AM168B01	10740046	-99	1.0	-99	61	44.4	1035	33	4	35	31.4	5727	-99	75	-0.05	-99
13AM168B04	10740117	-99	1.0	-99	58	36.3	989	28	7	41	26.1	4878	-99	66	-0.05	-99
13AM208B01	10740039	-99	1.2	-99	22	58.5	1154	12	-1	37	24.2	6384	-99	89	0.09	-99
13AM229B01	10740056	-99	1.2	-99	90	31.8	1908	38	-1	25	45.1	17400	-99	126	0.12	-99
13AM238B01	10740057	-99	2.0	-99	5	14.5	2208	12	-1	27	31.9	15235	-99	137	-0.05	-99
13AM238B04	10740121	-99	2.0	-99	4	13.4	2120	11	-1	30	31.6	15191	-99	129	-0.05	-99
13AM246B	10740123	-99	2.0	-99	3	15.4	2028	11	-1	46	31.0	14800	-99	135	-0.05	-99
13AM246B01	10740058	-99	0.6	-99	64	24.3	1912	97	-1	14	31.5	10384	-99	99	0.21	-99
13AM250B01	10740059	-99	1.4	-99	9	15.4	2196	15	-1	29	39.6	23283	-99	130	-0.05	-99
13AM270C01	10740062	-99	1.3	-99	45	87.1	1701	86	2	28	34.5	4709	-99	71	0.14	-99
13AM279A01	10740063	-99	0.9	-99	54	90.8	1621	57	-1	10	29.9	11466	-99	102	-0.05	-99
13AM280B01	10740064	-99	1.6	-99	21	35.7	1917	14	-1	35	26.5	15800	-99	120	0.17	-99
13AM293B01	10740065	-99	1.2	-99	51	31.7	1720	31	-1	28	43.7	17224	-99	117	-0.05	-99
13AM319B01	10740089	-99	2.2	-99	28	68.3	2792	22	-1	34	32.7	11451	-99	100	0.33	-99
13AM329B01	10740085	-99	1.4	-99	18	20.9	1936	17	-1	30	43.6	19212	-99	116	-0.05	-99
14AM030B01	10740134	6	1.5	-99	23	24.1	1995	17	-1	39	34.3	15505	-99	129	-0.05	552
14AM286A01	10740173	4	2.6	-99	12	36.8	2096	13	-1	39	24.5	18959	-99	139	-0.05	733
14AM287B01	10740179	6	2.4	-99	4	28.7	1764	8	3	7	15.5	3961	-99	183	-0.05	253
14AM299C01	10740176	5	1.1	-99	13	94.9	2672	13	-1	22	20.0	6614	-99	154	-0.05	901
15AM093B	10740211	2	1.4	-1	2	6.6	3061	1	-1	39	39.1	1862	2	132	-0.10	206
15AM101B	10740212	5	0.7	24	78	38.0	1232	66	-1	34	35.1	9413	259	75	-0.10	429
15AM104A	10740213	3	1.6	21	39	22.0	1858	13	-1	27	49.5	22099	401	125	-0.10	564
15AM105B	10740214	7	1.2	15	20	29.7	1263	3	-1	13	16.2	7067	197	77	-0.10	442
15AM111A	10740215	6	0.7	17	23	55.1	1013	20	-1	71	16.9	8700	147	69	-0.10	204
15AM113B	10740222	2	0.8	22	62	35.0	1494	26	-1	42	43.4	13922	365	109	-0.10	372
15AM141B	10740223	11	2.4	22	1	74.6	2640	14	-1	17	46.9	21723	464	145	-0.10	957
15AM218A	10740221	3	0.4	19	125	45.2	1383	11	-1	32	33.3	6884	277	88	-0.10	186

Open File 002C/0227 - 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
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, 100
Analysis Method			ICPOESF	ICPOESF	Difference	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	Grav	Calculated	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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		%_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%	BD
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
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
		% 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%
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
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
		% 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
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

Open File 002C/0227 - 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
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, 100
Analysis Method			ICPOESF	ICPOESF	Difference	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	ICPOESF	Grav	Calculated	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
		% 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%
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
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
		% 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%
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
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
		% 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%
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
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
		% 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%
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
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
		% 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%
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
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
		% 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%
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
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
		% 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%

Open File 002C/0227 - Appendix B: Major-element and Trace-element Data for GSNL Duplicates

SampleNum	LabNum	Control	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	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm
Detection Limit			1	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
Analysis Method			ICPOESF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
09LN186B_DUP	10140050	duplicate	342	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
09LN186B	10140049	original	375	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
		%_difference	-9%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09LN288_DUP	10140070	duplicate	192	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
09LN288	10140069	original	183	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
		%_difference	5%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09LN357_DUP	10140090	duplicate	197	-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
09LN357	10140086	original	211	-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
		%_difference	-7%	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
423_DUP	10140110	duplicate	305	-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
423	10140109	original	277	-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
		%_difference	10%	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
09LN531_DUP	10140130	duplicate	306	-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
09LN531	10140129	original	258	-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
		%_difference	19%	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
09LN573A_DUP	10140150	duplicate	116	-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
09LN573A	10140146	original	114	-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
		%_difference	2%	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
09LN659_DUP	10140170	duplicate	212	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
09LN659	10140169	original	225	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99
		%_difference	-6%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09LN712_DUP	10140190	duplicate	157	-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
09LN712	10140178	original	138	-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
		%_difference	14%	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
09LN873_DUP	10140210	duplicate	269	-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
09LN873	10140207	original	276	-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
		%_difference	-3%	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
09LN901_DUP	10140230	duplicate	159	-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
09LN901	10140216	original	183	-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
		%_difference	-13%	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
10LN017A_DUP	10140250	duplicate	200	-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
10LN017A	10140244	original	204	-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
		%_difference	-2%	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
10LN050_DUP	10140270	duplicate	117	-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
10LN050	10140256	original	112	-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
		%_difference	4%	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
10LN111_DUP	10140290	duplicate	135	-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
10LN111	10140273	original	134	-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
		%_difference	1%	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
10LN417B_DUP	10140310	duplicate	136	-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
10LN417B	10140307	original	118	-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
		%_difference	15%	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
10LN494_DUP	10140330	duplicate	138	-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
10LN494	10140327	original	138	-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
		%_difference	0%	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
10LN658B_DUP	10140350	duplicate	389	-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
10LN658B	10140338	original	355	-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
		%_difference	10%	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
13AM040B01 DUP	10740010	duplicate	137	-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
13AM040B01	10740008	original	145	-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
		% difference	-6%	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
13AM016A01 DUP	10740030	duplicate	724	-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
13AM016A01	10740029	original	731	-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
		% difference	-1%	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%
13AM154B01 DUP	10740050	duplicate	50	-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

Open File 002C/0227 - Appendix B: Major-element and Trace-element Data for GSNL Duplicates

SampleNum	LabNum	Control	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	Hf_ppm	Ho_ppm	In_ppm	La_ppm	Lu_ppm	Mo_ppm
Detection Limit			1	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
Analysis Method			ICPOESF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF
13AM154B01	10740045	original	46	-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
		% difference	9%	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
13AM301A01 DUP	10740070	duplicate	130	-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
13AM301A01	10740068	original	128	-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
		% difference	2%	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
13AM319A01 DUP	10740090	duplicate	172	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
13AM319A01	10740089	original	169	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
		% difference	2%	-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%
13AM044B01 DUP	10740110	duplicate	56	-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
13AM044B01	10740108	original	52	-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
		% difference	8%	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
13AM428C_DUP	10740130	duplicate	104	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
13AM428C	10740129	original	100	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
		% difference	4%	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%
14AM077A01 DUP	10740150	duplicate	84	-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
14AM077A01	10740145	original	83	-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
		% difference	1%	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
15AM042B DUP	10740210	duplicate	125	-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
15AM042B	10740208	original	123	-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
		% difference	2%	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

Open File 002C/0227 - Appendix B: Major-element and Trace-element Data for GSNL Duplicates

SampleNum	LabNum	Control	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	Y_ppm	Yb_ppm	Zr_ppm	As_ppm
Detection Limit			1	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
Analysis Method			ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPOES4
09LN186B_DUP	10140050	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	5
09LN186B	10140049	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	6
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-17%
09LN288_DUP	10140070	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	45
09LN288	10140069	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	46
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-2%
09LN357_DUP	10140090	duplicate	-99	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
09LN357	10140086	original	-99	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
		%_difference	NA	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%
423_DUP	10140110	duplicate	-99	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
423	10140109	original	-99	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
		%_difference	NA	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%
09LN531_DUP	10140130	duplicate	-99	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
09LN531	10140129	original	-99	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
		%_difference	NA	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%
09LN573A_DUP	10140150	duplicate	-99	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
09LN573A	10140146	original	-99	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
		%_difference	NA	-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%
09LN659_DUP	10140170	duplicate	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	9
09LN659	10140169	original	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	-99	9
		%_difference	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0%
09LN712_DUP	10140190	duplicate	-99	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
09LN712	10140178	original	-99	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
		%_difference	NA	-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%
09LN873_DUP	10140210	duplicate	-99	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
09LN873	10140207	original	-99	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
		%_difference	NA	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%
09LN901_DUP	10140230	duplicate	-99	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
09LN901	10140216	original	-99	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
		%_difference	NA	-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%
10LN017A_DUP	10140250	duplicate	-99	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
10LN017A	10140244	original	-99	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
		%_difference	NA	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%
10LN050_DUP	10140270	duplicate	-99	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
10LN050	10140256	original	-99	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
		%_difference	NA	-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%
10LN111_DUP	10140290	duplicate	-99	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
10LN111	10140273	original	-99	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
		%_difference	NA	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%
10LN417B_DUP	10140310	duplicate	-99	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
10LN417B	10140307	original	-99	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
		%_difference	NA	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%
10LN494_DUP	10140330	duplicate	-99	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
10LN494	10140327	original	-99	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
		%_difference	NA	-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%
10LN658B_DUP	10140350	duplicate	-99	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
10LN658B	10140338	original	-99	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
		%_difference	NA	-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%
13AM040B01 DUP	10740010	duplicate	9	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
13AM040B01	10740008	original	8	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
		% difference	13%	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
13AM016A01 DUP	10740030	duplicate	34	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
13AM016A01	10740029	original	33	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
		% difference	3%	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
13AM154B01 DUP	10740050	duplicate	3	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

Open File 002C/0227 - Appendix B: Major-element and Trace-element Data for GSNL Duplicates

SampleNum	LabNum	Control	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	Y_ppm	Yb_ppm	Zr_ppm	As_ppm
Detection Limit			1	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
Analysis Method			ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPMSF	ICPOES4
13AM154B01	10740045	original	2	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
		% difference	50%	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
13AM301A01 DUP	10740070	duplicate	8	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
13AM301A01	10740068	original	7	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
		% difference	14%	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
13AM319A01 DUP	10740090	duplicate	9	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
13AM319A01	10740089	original	9	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
		% difference	0%	-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
13AM044B01 DUP	10740110	duplicate	6	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
13AM044B01	10740108	original	6	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
		% difference	0%	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
13AM428C_DUP	10740130	duplicate	4	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
13AM428C	10740129	original	4	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
		% difference	0%	-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
14AM077A01 DUP	10740150	duplicate	6	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
14AM077A01	10740145	original	6	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
		% difference	0%	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%
15AM042B DUP	10740210	duplicate	2	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
15AM042B	10740208	original	2	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
		% difference	0%	-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%

Open File 002C/0227 - Appendix B: Major-element and Trace-element Data for GSNL Duplicates

SampleNum	LabNum	Control	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			0.1	1	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	ICPOES4	ICPOES4	ICPOESH	ISE
09LN186B_DUP	10140050	duplicate	1.8	21	10	48.3	1496	8	-1	80	19.9	8468	137	126	-0.10	363
09LN186B	10140049	original	1.8	20	7	46.8	1479	8	-1	77	19.6	8268	140	121	-0.10	290
		%_difference	0.0%	5%	43%	3.2%	1%	0%	BD	4%	1.5%	2%	-2%	4%	BD	25%
09LN288_DUP	10140070	duplicate	0.9	13	23	29.2	632	3	-1	30	12.3	3564	52	57	-0.10	197
09LN288	10140069	original	0.9	13	23	29.8	648	4	-1	25	12.6	3809	52	60	-0.10	166
		%_difference	0.0%	0%	0%	-2.0%	-2%	-25%	BD	20%	-2.4%	-6%	0%	-5%	BD	19%
09LN357_DUP	10140090	duplicate	1.3	12	7	20.4	812	5	-1	42	15.7	5227	80	66	-0.10	345
09LN357	10140086	original	1.3	12	8	20.5	816	5	-1	41	15.9	5278	81	66	-0.10	281
		%_difference	0.0%	0%	-13%	-0.5%	0%	0%	BD	2%	-1.3%	-1%	-1%	0%	BD	23%
423_DUP	10140110	duplicate	1.9	9	2	30.2	716	4	-1	58	13.2	3738	40	80	-0.10	224
423	10140109	original	1.8	9	2	30.3	731	4	-1	55	12.7	3658	39	81	-0.10	236
		%_difference	5.6%	0%	0%	-0.3%	-2%	0%	BD	5%	3.9%	2%	3%	-1%	BD	-5%
09LN531_DUP	10140130	duplicate	2.6	5	6	24.8	692	3	10	113	11.1	2540	18	78	-0.10	177
09LN531	10140129	original	2.5	5	5	24.7	685	3	10	112	11.0	2513	18	76	-0.10	141
		%_difference	4.0%	0%	20%	0.4%	1%	0%	0%	1%	0.9%	1%	0%	3%	BD	26%
09LN573A_DUP	10140150	duplicate	1.0	3	4	12.8	172	-1	8	155	3.9	1317	-1	23	-0.10	179
09LN573A	10140146	original	1.0	3	4	12.8	171	-1	8	154	3.9	1315	-1	23	-0.10	148
		%_difference	0.0%	0%	0%	0.0%	1%	BD	0%	1%	0.0%	0%	BD	0%	BD	21%
09LN659_DUP	10140170	duplicate	1.4	16	7	61.0	1224	5	-1	39	13.5	6526	144	92	-0.10	375
09LN659	10140169	original	1.4	16	7	62.0	1253	5	-1	39	13.6	6649	145	94	-0.10	331
		%_difference	0.0%	0%	0%	-1.6%	-2%	0%	BD	0%	-0.7%	-2%	-1%	-2%	BD	13%
09LN712_DUP	10140190	duplicate	1.2	11	20	33.6	566	9	-1	40	8.9	2621	56	37	-0.10	185
09LN712	10140178	original	1.3	11	20	33.6	560	9	-1	46	8.9	2587	56	37	-0.10	188
		%_difference	-7.7%	0%	0%	0.0%	1%	0%	BD	-13%	0.0%	1%	0%	0%	BD	-2%
09LN873_DUP	10140210	duplicate	2.1	18	14	57.3	1067	13	-1	85	18.9	5543	109	91	-0.10	234
09LN873	10140207	original	2.1	18	14	57.1	1069	14	-1	85	18.9	5538	111	93	-0.10	279
		%_difference	0.0%	0%	0%	0.4%	0%	-7%	BD	0%	0.0%	0%	-2%	-2%	BD	-16%
09LN901_DUP	10140230	duplicate	3.5	4	152	25.2	1085	4	11	138	3.1	1300	6	63	0.18	184
09LN901	10140216	original	3.5	4	163	25.2	1083	4	11	124	3.1	1308	6	64	0.18	143
		%_difference	0.0%	0%	-7%	0.0%	0%	0%	0%	11%	0.0%	-1%	0%	-2%	0.00%	29%
10LN017A_DUP	10140250	duplicate	2.4	14	6	15.7	283	8	-1	149	12.8	5070	88	57	-0.10	133
10LN017A	10140244	original	2.4	14	6	15.5	281	8	-1	152	12.9	5127	87	57	-0.10	182
		%_difference	0.0%	0%	0%	1.3%	1%	0%	BD	-2%	-0.8%	-1%	1%	0%	BD	-27%
10LN050_DUP	10140270	duplicate	1.0	9	6	26.1	1244	3	-1	36	10.2	2486	31	70	-0.10	251
10LN050	10140256	original	1.0	9	6	25.0	1215	3	-1	36	9.9	2531	32	69	-0.10	242
		%_difference	0.0%	0%	0%	4.4%	2%	0%	BD	0%	3.0%	-2%	-3%	1%	BD	4%
10LN111_DUP	10140290	duplicate	2.6	26	80	45.2	1017	42	52	148	21.3	5280	246	62	0.14	630
10LN111	10140273	original	2.6	27	82	46.1	1045	42	51	151	21.5	5419	246	62	0.13	625
		%_difference	0.0%	-4%	-2%	-2.0%	-3%	0%	2%	-2%	-0.9%	-3%	0%	0%	7.69%	1%
10LN417B_DUP	10140310	duplicate	0.7	9	9	32.8	913	6	-1	77	12.3	3371	72	86	-0.10	255
10LN417B	10140307	original	0.7	9	9	32.7	913	6	-1	79	12.6	3363	72	86	-0.10	281
		%_difference	0.0%	0%	0%	0.3%	0%	0%	BD	-3%	-2.4%	0%	0%	0%	BD	-9%
10LN494_DUP	10140330	duplicate	1.3	8	-1	23.3	998	3	-1	56	12.2	3217	38	72	-0.10	195
10LN494	10140327	original	1.3	7	-1	23.3	1013	3	-1	57	12.3	3146	38	73	-0.10	211
		%_difference	0.0%	14%	BD	0.0%	-1%	0%	BD	-2%	-0.8%	2%	0%	-1%	BD	-8%
10LN658B_DUP	10140350	duplicate	1.6	11	-1	12.0	2218	2	15	88	24.6	6559	38	46	-0.10	548
10LN658B	10140338	original	1.8	11	-1	12.3	2318	2	14	103	24.7	6814	39	48	-0.10	533
		%_difference	-11.1%	0%	BD	-2.4%	-4%	0%	7%	-15%	-0.4%	-4%	-3%	-4%	BD	3%
13AM040B01 DUP	10740010	duplicate	1.4	-99	13	25.7	983	11	3	54	13.0	3861	-99	69	-0.05	-99
13AM040B01	10740008	original	1.5	-99	13	25.6	985	11	3	53	13.0	3857	-99	68	-0.05	-99
		% difference	-6.7%	NA	0%	0.4%	0%	0%	0%	2%	0.0%	0%	NA	1%	BD	NA
13AM016A01 DUP	10740030	duplicate	2.1	-99	2	36.4	505	4	18	116	0.8	1545	-99	163	0.13	-99
13AM016A01	10740029	original	2.1	-99	2	35.8	499	4	17	112	0.8	1485	-99	163	0.13	-99
		% difference	0.0%	NA	0%	1.7%	1%	0%	6%	4%	0.0%	4%	NA	0%	0.00%	NA
13AM154B01 DUP	10740050	duplicate	0.5	-99	91	55.2	1523	90	-1	18	50.3	4315	-99	68	0.18	-99

Open File 002C/0227 - Appendix B: Major-element and Trace-element Data for GSNL Duplicates

SampleNum	LabNum	Control	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			0.1	1	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	ICPOES4	ICPOES4	ICPOESH	ISE
13AM154B01	10740045	original	0.5	-99	89	53.9	1533	91	-1	16	50.4	4327	-99	67	0.23	-99
		% difference	0.0%	NA	2%	2.4%	-1%	-1%	BD	13%	-0.2%	0%	NA	1%	-21.74%	NA
13AM301A01 DUP	10740070	duplicate	0.4	-99	24	58.1	1475	26	-1	89	37.9	8703	-99	110	-0.05	-99
13AM301A01	10740068	original	0.4	-99	25	58.1	1471	26	-1	91	37.8	8682	-99	102	-0.05	-99
		% difference	0.0%	NA	-4%	0.0%	0%	0%	BD	-2%	0.3%	0%	NA	8%	BD	NA
13AM319A01 DUP	10740090	duplicate	2.3	-99	30	70.8	2880	23	-1	37	33.9	11810	-99	103	0.38	-99
13AM319A01	10740089	original	2.2	-99	28	68.3	2792	22	-1	35	32.7	11451	-99	100	0.33	-99
		% difference	4.5%	NA	7%	3.7%	3%	5%	BD	6%	3.7%	3%	NA	3%	15.15%	NA
13AM044B01 DUP	10740110	duplicate	0.6	-99	3	8.3	938	5	19	22	4.8	1012	-99	27	-0.05	-99
13AM044B01	10740108	original	0.6	-99	4	8.3	927	4	19	22	4.8	1002	-99	26	-0.05	-99
		% difference	0.0%	NA	-25%	0.0%	1%	25%	0%	0%	0.0%	1%	NA	4%	BD	NA
13AM428C_DUP	10740130	duplicate	0.8	-99	49	41.8	1564	13	-1	21	32.6	5966	-99	96	0.21	-99
13AM428C	10740129	original	0.8	-99	48	41.6	1554	13	1	17	32.3	5911	-99	94	0.23	-99
		% difference	0.0%	NA	2%	0.5%	1%	0%	LOD	24%	0.9%	1%	NA	2%	-8.70%	NA
14AM077A01 DUP	10740150	duplicate	1.5	-99	11	22.9	449	4	-1	30	3.2	908	-99	-99	-0.05	178
14AM077A01	10740145	original	1.5	-99	12	22.9	449	4	-1	32	3.3	971	-99	-99	-0.05	169
		% difference	0.0%	NA	-8%	0.0%	0%	0%	BD	-6%	-3.0%	-6%	NA	NA	BD	5%
15AM042B DUP	10740210	duplicate	0.8	30	49	25.4	1592	50	-1	51	40.3	11836	336	95	-0.1	216
15AM042B	10740208	original	0.8	30	47	25.6	1599	50	-1	50	40.7	12018	341	94	-0.1	204
		% difference	0.0%	0%	4%	-0.8%	0%	0%	BD	2%	-1.0%	-2%	-1%	1%	BD	6%

Open File 002C/0227 - 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/0227 - 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/0227 - 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/0227 - 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/0227 - 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/0227 - Appendix D: Trace-element INAA Data

SampleNum	LabNum	UTMEast	UTMNorth	UTMZone	Datum	Geologist	Petro_Desc	Rock_Type	TSPhoto_pp
Detection Limit									
Analysis Method									
10LN500A	10140329	330933	5363954	22	NAD27	L. Normore	Pl-chl-mt; no relict cpx - greenschist assemblage; similar to 10LN774B	Gabbro Dyke	10LN500A 5x ppl.jpg
13AM131B04	10740114	303951	5349991	22	NAD27	A. Mills	Cpx, pl < 1 mm; interstitial chl + carbonate; opaques + ~2-3% ti	Gabbro Dyke	13AM131B5_5x_ppl_incl_in_cpx_centre.jpg
13AM238B04	10740121	297512	5373560	22	NAD27	A. Mills	20 % cpx (200-400 um); 70% pl (~1 mm); 6% chl (interstitial); 4%opaques	Gabbro Dyke	
13AM246B	10740123	296307	5372911	22	NAD27	A. Mills	Subhedral, brownish cpx (titano-augite?; < 50 um; ~25% of rock but chl-altered); pl laths up to 500 µm (60%); 15% amygdales of chl or carbonate	Gabbro Dyke	13AM246B_5x_ppl.jpg

Open File 002C/0227 - Appendix D: Trace-element INAA Data

SampleNum	LabNum	TSPhoto_xp	Thicknessm	Trend	Dip	FieldNotes	Cuts	KCODE	Lab_Method	Weight_g	As_ppm	Au_ppb	Ba_ppm	Br_ppm	Ce_ppm	Co_ppm	Cr_ppm
Detection Limit											0.5	1	50	1	3	2	10
Analysis Method											INAA	INAA	INAA	INAA	INAA	INAA	INAA
10LN500A	10140329	10LN500A 5x xpl.jpg	-99	-99	-99	pyritic	BHF	24	Traces (INAA) Bec	28.63	2.5	-1	290	-1	59	34	15
13AM131B04	10740114	13AM131B5_5x_xpl_incl in cpx centre.jpg	-99	-99	-99	south end Ocean Pond; field duplicate of 13AM131B01	CPG	6	Traces (INAA) Bec	28.3	4.2	-1	140	-1	20	42	46
13AM238B04	10740121		-99	-99	-99		CPG	6	Traces (INAA) Bec	28.66	1	-1	640	-1	95	10	-10
13AM246B	10740123	13AM246B_5x_xpl.jpg	2	95	90	2 m wide; bayonettes appear curved or folded	CPG	6	Traces (INAA) Bec	26.44	2.1	-1	630	-1	95	11	-10

Open File 002C/0227 - Appendix D: Trace-element INAA Data

SampleNum	LabNum	Cs_ppm	Eu_ppm	Fe_pct	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		0.5	0.5	0.1	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	INAA	INAA	INAA
10LN500A	10140329	1.3	3.1	10.9	8	22	1	-1	3	9	0.5	43.3	-1	10.5	1.2	2.2	1.8	0.7	-1	6.9	-100
13AM131B04	10740114	-0.5	1.5	8.6	3	9	0.42	-1	2.1	-5	0.6	33.2	-1	5.2	0.3	1	0.5	0.2	-1	3	-100
13AM238B04	10740121	0.9	5.5	9.1	8	38	0.95	-1	3.4	28	0.3	36.5	-1	14.9	1.3	2.4	3.8	1.3	-1	5.7	230
13AM246B	10740123	1.2	4.9	8.5	8	35	0.8	-1	3	46	0.4	34.1	-1	14.1	1.2	2	3.7	1.1	-1	5.6	330

Open File 002C/0227 - 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	Se_ppm	Sm_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	1	0.1
Analysis Method			INAA	INAA	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	2	0.9
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	10	2.4
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	3	0.9

Open File 002C/0227 - Appendix E: Trace-element INAA Standards

StandardID	LabNum	Ta_ppm	Tb_ppm	Th_ppm	U_ppm	W_ppm	Yb_ppm	Zr_ppm
Detection Limit		0.2	0.5	0.1	0.1	1	0.5	100
Analysis Method		INAA	INAA	INAA	INAA	INAA	INAA	INAA
WPR-1	10140320	-0.2	-0.5	0.3	0.3	-1	0.6	-100
WMG-1	10740120	0.3	-0.5	1.2	0.7	-1	1.1	-100
WPR-1	10740200	-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 in separate compressed zip files for 45 plane-polarized and 44 cross-polarized images.

The .jpg file names correspond to the names in the TSPhoto_pp and TSPhoto_xp columns in Appendices A and D.

They are available through this link.