Newfoundland Labrador

Natural Resources

NEUTRON-ACTIVATION ANALYSES OF TILL HEAVY-MINERAL CONCENTRATES FROM SIX LOCATIONS IN NEWFOUNDLAND

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Geochemistry, Geophysics and Terrain Sciences

Open File NFLD/3171

St. John's
Newfoundland and Labrador
July 2012

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Cover: Three panned-concentrate samples undergoing bromoform separation.

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GEOLOGICAL SURVEY NEWFOUNDLAND AND LABRADOR 1864

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CONTENTS

FIGURES

TABLES

ABSTRACT

Instrumental Neutron Activation Analysis (INAA) has been carried out on heavy-mineral concentrates (HMC) extracted from till samples collected at 78 sites in the Bay de Verde Peninsula, and south of Red Indian Lake. The samples were collected from hand-dug pits, and after processing using a 'Goldhound' rotary panner, were subjected to heavy-liquid separation in bromoform (SG 2.89). Because of the paucity of HMC in many of the samples it has been necessary to composite some samples to accumulate sufficient material for the analysis, and for subsequent mineralogical examination.

The attached data file includes analyses of 97 composited and uncomposited samples for Sb, As, Ba, Br, Ce, Cs, Cr, Co, Eu, Au, Hf, Fe, La, Lu, Mo, Rb, Sm, Sc, Se, Na, Ta, Tb, Th, W, U, Yb, Zn and Zr. Some samples were also analyzed for Ca, Ir, Hg, Nd, Ni, Ag and Sr.

INTRODUCTION

This Open File release comprises analyses of 97 heavy-mineral concentrate samples extracted from till samples, collected in 2010 from 78 sites at 6 locations in Newfoundland. The work was an attempt to explain four anomalies previously identified (Amor, 2011) in the –180 micron fraction of till samples collected as part of an island-wide (and continuing) sampling program at a density of 1 per 4 km^2. Two other areas, that displayed little or no anomalous responses in the original sampling, were also sampled to serve as background controls.

Sample Site Selection

The areas selected for further investigation comprise 3 rare-earth element (REE) anomalies and one anomaly dominated by Mo, although in the latter case there are also anomalous responses of a suite of elements that includes U, Cs, P and Rb and is not readily suggestive of a known mineral-deposit type. The first two of these, termed the Carbonear and Heart's Content anomalies, are located in the Bay de Verde Peninsula, whereas the Henry Waters REE and Michael's Pond Mo anomalies are located in central Newfoundland south of Red Indian Lake. Additionally, samples were collected from two other areas, the contents of whose sampled tills indicate them to be geochemically background in terms of the elements classed as anomalous elsewhere. The Bay de Verde background area is located between the Carbonear and Heart's Content anomalies, across the spine of the Bay de Verde Peninsula, while the Red Indian Lake background area is south of Harbour Round. Details of the characteristics of the anomalies and background areas, and the criteria for determining whether an analysis is anomalous, are described in detail by Amor (2011). The sample locations are shown in Figures 1-5, and their coordinates are listed in Table 1.

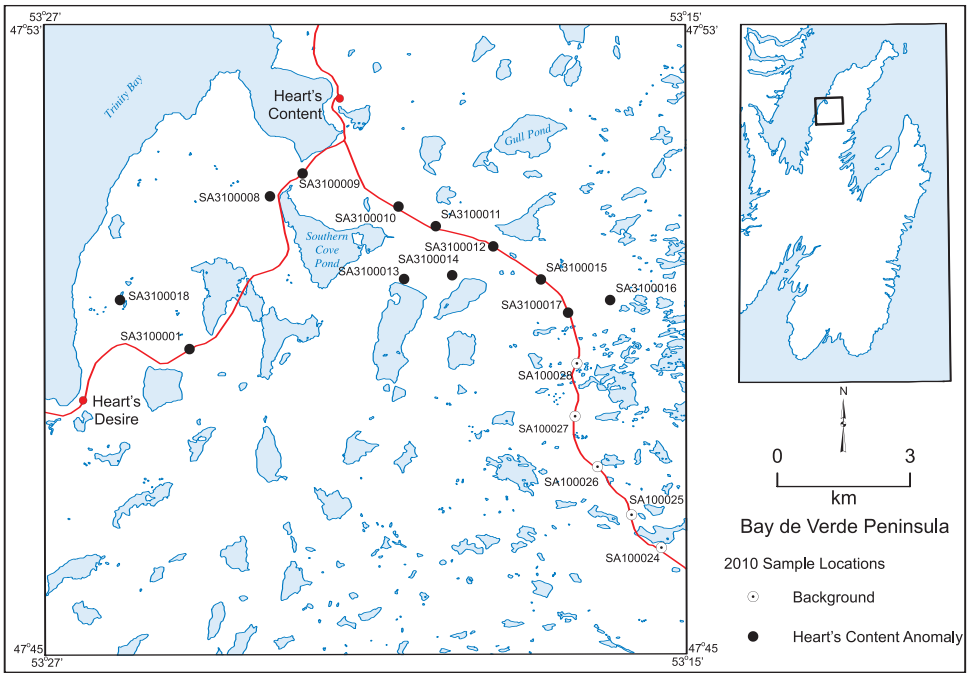

Figure 1. *Locations of 2010 till samples collected over the Heart's Content anomaly, and Bay de Verde background area.*

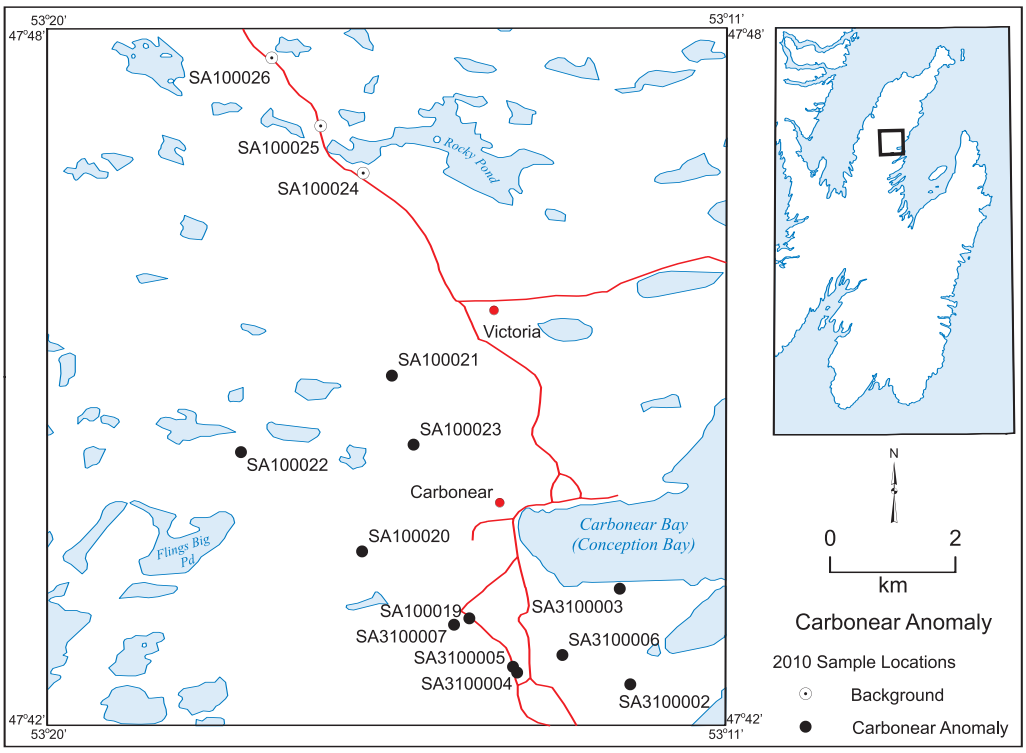

Figure 2. *Locations of 2010 till samples collected over the Carbonear anomaly, with adjacent background samples.*

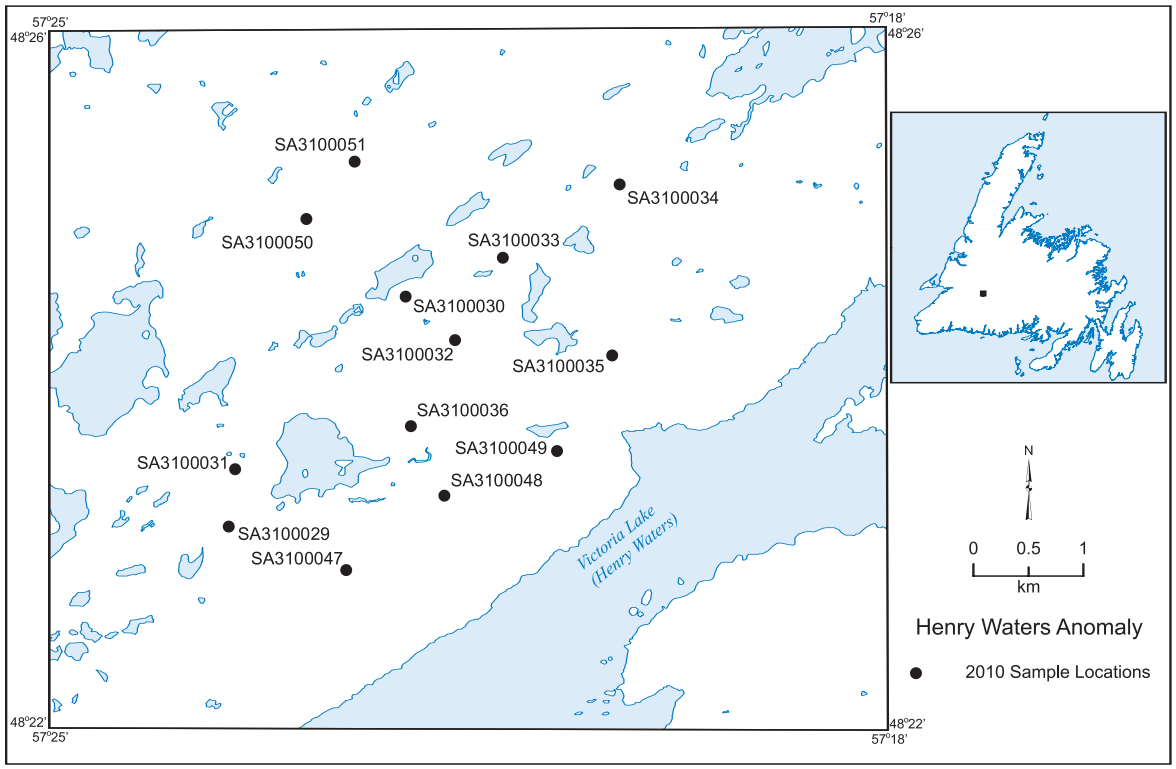

Figure 3. *Locations of 2010 till samples collected over the Henry Waters anomaly.*

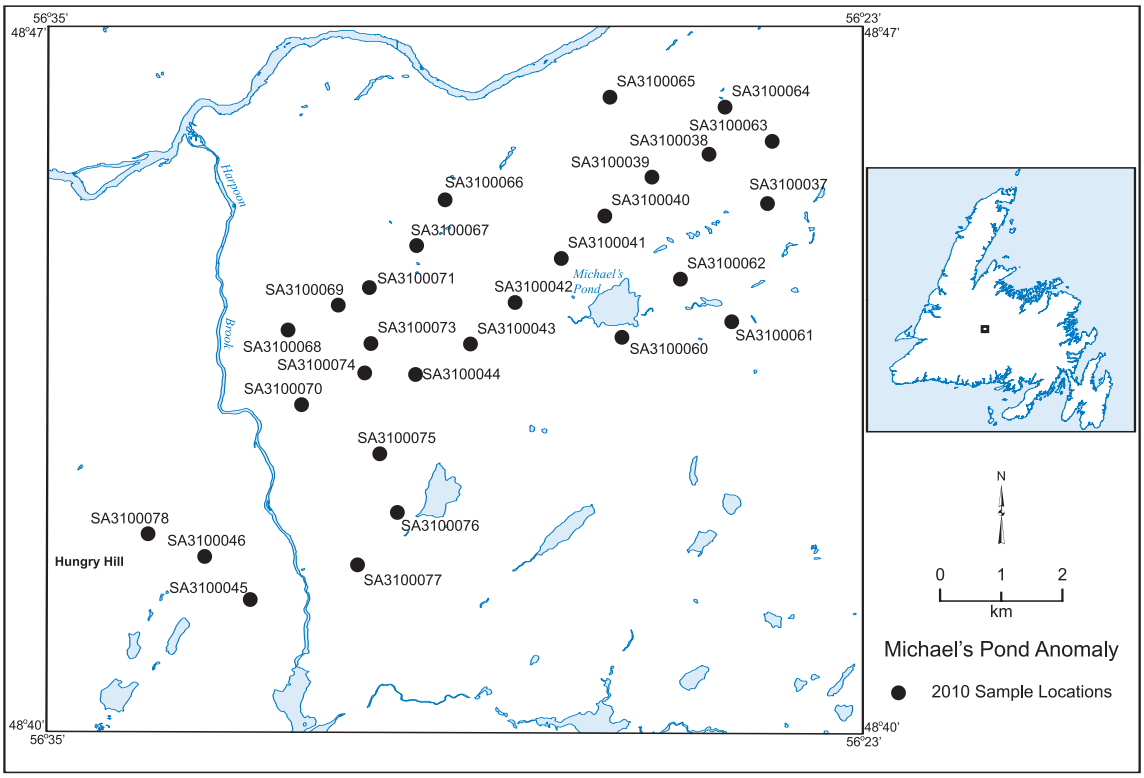

Figure 4. *Locations of 2010 till samples collected over the Michael's Pond anomaly.*

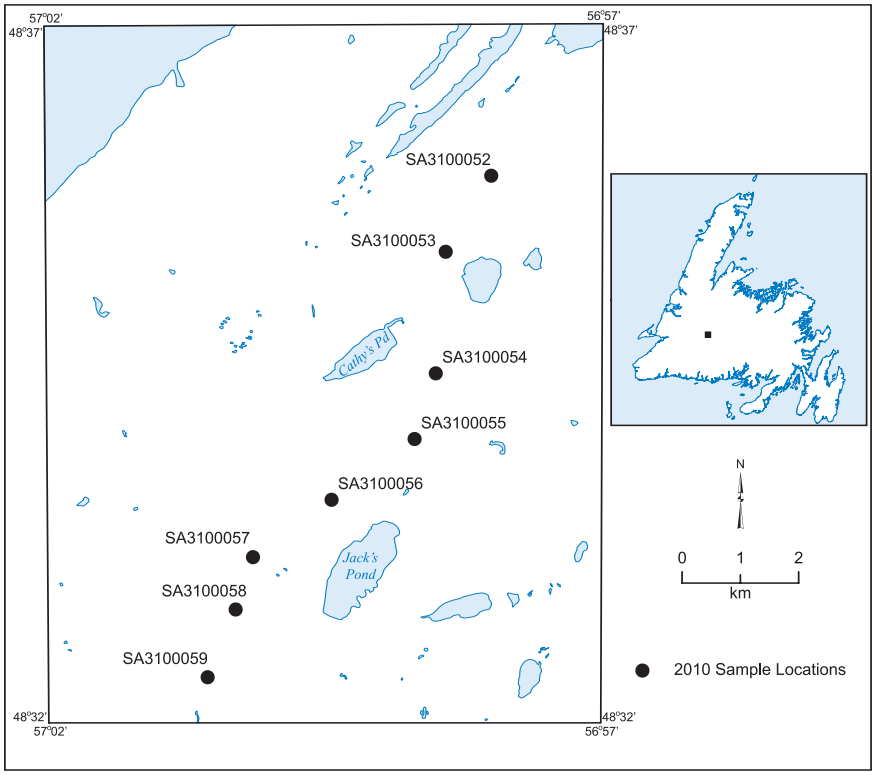

Figure 5. *Locations of 2010 till samples collected over the Michael's Pond anomaly within the Red Indian Lake background area.*

Table 1: Sample Locations (NAD 1927)

Bay de Verde background		
Field Number	**Latitude**	**Longitude**
SA3100024	47.78607	-53.2647
SA3100025	47.79262	-53.2741
SA3100026	47.80222	-53.2848
SA3100027	47.81228	-53.292
SA3100028	47.82307	-53.292

Carbonear		
Field Number	**Latitude**	**Longitude**
SA3100002	47.71388	-53.2048
SA3100003	47.72762	-53.2076
SA3100004	47.71597	-53.2299
SA3100005	47.71513	-53.2289
SA3100006	47.71782	-53.2194
SA3100007	47.72272	-53.2394
SA3100019	47.72175	-53.2427
SA3100020	47.73182	-53.2626
SA3100021	47.7572	-53.2573
SA3100022	47.7456	-53.2889
SA3100023	47.74737	-53.2524

Heart's Content		
Field Number	**Latitude**	**Longitude**
SA3100001	47.82368	-53.4092
SA3100008	47.8553	-53.3862
SA3100009	47.8601	-53.3767
SA3100010	47.85393	-53.3473
SA3100011	47.85022	-53.3359
SA3100012	47.84645	-53.3182
SA3100013	47.83925	-53.345
SA3100014	47.84035	-53.3305
SA3100015	47.83998	-53.3036
SA3100016	47.83625	-53.2824
SA3100017	47.83345	-53.2951
SA3100018	47.83322	-53.4306

Red Indian Lake background		
Field Number	**Latitude**	**Longitude**
SA3100052	48.59312	-56.9659
SA3100053	48.58548	-56.9728
SA3100054	48.57333	-56.9743
SA3100055	48.56673	-56.9775
SA3100056	48.56065	-56.99
SA3100057	48.5549	-57.0019
SA3100058	48.54967	-57.0045
SA3100059	48.54288	-57.0088

Henry Waters		
Field Number	**Latitude**	**Longitude**
SA3100029	48.394	-57.3854
SA3100030	48.41288	-57.3638
SA3100031	48.39872	-57.3846
SA3100032	48.40932	-57.3577
SA3100033	48.41608	-57.3518
SA3100034	48.42213	-57.3376
SA3100035	48.40812	-57.3384
SA3100036	48.4023	-57.3631
SA3100047	48.39048	-57.3709
SA3100048	48.3966	-57.3589
SA3100049	48.40028	-57.3451
SA3100050	48.41918	-57.376
SA3100051	48.42387	-57.3701

Michael's Pond		
Field Number	**Latitude**	**Longitude**
SA3100037	48.75577	-56.419
SA3100038	48.76302	-56.4318
SA3100039	48.75973	-56.4446
SA3100040	48.75408	-56.4551
SA3100041	48.7479	-56.4649
SA3100042	48.74145	-56.4752
SA3100043	48.73538	-56.4852
SA3100044	48.73097	-56.4974
SA3100045	48.69805	-56.5344
SA3100046	48.70447	-56.5445
SA3100060	48.73622	-56.4515
SA3100061	48.73845	-56.4271
SA3100062	48.7447	-56.4384
SA3100063	48.76488	-56.4178
SA3100064	48.76995	-56.4282
SA3100065	48.77155	-56.4538
SA3100066	48.7566	-56.4906
SA3100067	48.74997	-56.497
SA3100068	48.73763	-56.5257
SA3100069	48.74127	-56.5145
SA3100070	48.7267	-56.5228
SA3100071	48.74378	-56.5075
SA3100072	48.73535	-56.5072
SA3100073	48.73557	-56.5073
SA3100074	48.73123	-56.5087
SA3100075	48.71933	-56.5055
SA3100076	48.7107	-56.5017
SA3100077	48.70305	-56.5105
SA3100078	48.70785	-56.5571

SAMPLE COLLECTION AND PREPARATION

Collection

Till was collected with a steel shovel, aided by a wrecking bar to facilitate the removal of cobbles. Where possible, sample material was recovered from below the oxidized B-horizon and the holes were dug to a maximum of 1 m; however, the median depth from which material was recovered was 55 cm, and in some cases no unoxidized material was available for sampling. A plastic 22-litre pail was filled with sampled material at each site. The field and preliminary sample-preparation procedures are described in Amor (2011).

Sieving

Processing of the samples began with water-assisted screening through sieves of five mesh sizes: 36 mm, 19 mm, 10 mm, 6 mm and 3 mm, with material larger than the coarsest retained for pebble-logging and analysis, and material that passed the finest sieve processed through the Goldhound (see below). The intermediate fractions were created to alleviate problems of clogging during the sieving process, and were discarded subsequently.

Panning

Panning of the −3 mm fraction was carried out with a 'Goldhound' rotary panner (Amor, 2011). This device is no longer available commercially although a similar one is now being marketed as the Gold Screw (http://www.goldscrew.com). Both devices consist of an inclined cylinder with a deep spiral groove in its base, and their underlying principle is the same: when the cylinder rotates (powered by an electric motor), and under the influence of a constant stream of water, heavy minerals are trapped in the groove and driven by the spiral motion toward the centre of the cylinder where they fall into a suitable receptacle as 'panner heavies'. At the same time, lighter minerals are swept over the edge of the cylinder as 'panner lights'.

As the effectiveness of the 'Goldhound' in concentrating all heavy minerals (as opposed to coarse gold alone) was uncertain, samples were retained of both the 'panner heavies' and 'panner lights' fractions, and both were subjected to heavy-liquid separation subsequently. A maximum of one Kraft bag of each fraction was collected from each.

Heavy-Liquid Separation

After drying at ambient room temperature, the 'panner lights' and 'panner heavies' were sieved to −180 microns and separated using bromoform (SG 2.89) at the laboratory of the Geological Survey of Newfoundland and Labrador (GSNL).

During the heavy-liquid separation, the average amount of heavy minerals separated from the so-called 'panner lights' was more than twice as high as that separated from the 'panner heavies'; this ratio varied from 1.1, for the Heart's Content samples, to 3.7 for their counterparts from Michael's Pond. This may be in part a function of the larger abstracted sample size of the 'panner lights'. That some heavy minerals remained in suspension during the panning process may be a consequence of their lower, although still relatively high, density; however, it is considered more likely to have been caused by their finer grain size.

Compositing

The mean amount of HMC material extracted from both panner fractions combined, ranged from a maximum of more than 10 g at Henry Waters, to less than 1 g at Carbonear. Consequently, it was in many cases necessary to combine the HMC extracted from the 'panner lights' and 'panner heavies' to create both a sample split large enough to be analyzed by INAA (for which a minimum of 0.5 g was required), and a second split for subsequent optical examination. At some localities, even combining paired HMC was insufficient to generate samples of adequate size; in such cases it was necessary to composite samples from more than one site. At Carbonear, where the yield of HMC was extremely low, two such multisite composites were created, from seven and four adjacent sites. One composite was created from two adjacent Bay de Verde background sites, although the yield from the remaining samples was sufficient that multisite compositing was not necessary. At Michael's Pond, seven multisite composites were created: four from material from three adjacent sites, and three from two adjacent sites. Details of the compositing are given in Table 2.

ANALYSIS

Samples were submitted to Becquerel Laboratories for INAA after being packed into vials supplied by Becquerel. All of the samples were analyzed for Sb, As, Ba, Br, Ce, Cs, Cr, Co, Eu, Au, Hf, Fe, La, Lu, Mo, Rb, Sm, Sc, Se, Na, Ta, Tb, Th, W, U and Yb, Zn and Zr. Some samples were also analyzed for Ca, Ir, Hg, Nd, Ni, Ag and Sr. All of these analyses are included in the accompanying comma-delimited data file; however, all of the analyses of Mo, Se, Ir, Hg and Ag are below the analytical detection limit. 'Undetectable' values are indicated by a minus sign (−) and it should be noted that for many elements, these detection limits are not constant; therefore, care should be exercised in the conversion of these values to positive placeholder values. Finally, because of the potential for contamination from the bromoform separation medium, and as advised by Becquerel, the Br analyses are considered to be meaningless.

In Appendix 1 and the accompanying datafile, the analyses are sorted first by GSNL lab number and then by field number. The file includes the latitudes, longitudes and UTM coordinates of all of the sample sites; however, inasmuch as HMC representing composited 'panned heavies' and 'panned lights' fractions are derived from the same sample, the INAA analyses are only listed against the former.

The GSNL lab numbers indicate which samples are composites (see above), and which previously collected and processed samples they are composed of. However, analyses of composite samples are listed only once in the datafile. For example, GSNL lab number 1003202 is listed 14 times, against the following field numbers: SA3100002H ('panner heavies'), SA3100002L ('panner lights'), SA3100003H, SA3100003L, SA3100004H, SA3100004L, SA3100005H, SA3100005L, SA3100006H, SA3100006L, SA3100007H, SA3100007L, SA3100019H and SA3100019L, which were composited to create a single sample for submission to the lab.

FUTURE WORK

Additional work is envisaged which includes pebble counts of the till clasts, multi-element analysis of the latter with a portable XRF spectrometer, and mineralogical examination of the splits of the heavy-mineral concentrates, although the feasibility and practicality of the second two tasks has yet to be fully evaluated.

ACKNOWLEDGMENTS

Assistance with sample collection and processing was provided by Brett Nwokeforo and Devon Seymour. The heavy-liquid separations were carried out by Samantha Primmer. Martin Batterson and Pauline Honarvar reviewed early versions of the manuscript.

REFERENCE

Amor, S.D.
2011: Investigation of four till anomalies, Newfoundland. *In* Current Research. Newfoundland and Labrador Department of Natural Resources, Geological Survey, Report 11-1, pages 15-31.

Table 2: HMC sample compositing scheme

Field Number	Fraction	Target	Submitted for Analysis	GSNL Lab Number
SA3100001	Panner heavies Panner lights	Heart's Content	Panner heavies and panner lights	1003118
SA3100008	Panner heavies Panner lights	Heart's Content	Panner heavies and panner lights	1003119
SA3100010	Panner heavies Panner lights	Heart's Content	Panner heavies and panner lights	1003121
SA3100017	Panner heavies Panner lights	Heart's Content	Panner heavies and panner lights	1003122
SA3100018	Panner heavies Panner lights	Heart's Content	Panner heavies and panner lights	1003123
SA3100026	Panner heavies Panner lights	Bay de Verde Background	Panner heavies and panner lights	1003124
SA3100027	Panner heavies Panner lights	Bay de Verde Background	Panner heavies and panner lights	1003125
SA3100032	Panner heavies Panner lights	Henry Waters	Panner heavies and panner lights	1003126
SA3100042	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003127
SA3100044	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003128
SA3100045	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003129
SA3100046	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003131
SA3100051	Panner heavies Panner lights	Henry Waters	Panner heavies and panner lights	1003132
SA3100057	Panner heavies Panner lights	Red Indian Lake Background	Panner heavies and panner lights	1003133
SA3100058	Panner heavies Panner lights	Red Indian Lake Background	Panner heavies and panner lights	1003134
SA3100060	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003135
SA3100074	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003136
SA3100075	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003137

Table 2: HMC sample compositing scheme *(continued)*

Field Number	Fraction	Target	Submitted for Analysis	GSNL Lab Number
SA3100076	Panner heavies Panner lights	Michael's Pond	Panner heavies and panner lights	1003138
SA3100009	Panner heavies	Heart's Content	Panner heavies	1003139
SA3100011	Panner heavies	Heart's Content	Panner heavies	1003141
SA3100012	Panner heavies	Heart's Content	Panner heavies	1003142
SA3100013	Panner heavies	Heart's Content	Panner heavies	1003143
SA3100014	Panner heavies	Heart's Content	Panner heavies	1003144
SA3100015	Panner heavies	Heart's Content	Panner heavies	1003145
SA3100016	Panner heavies	Heart's Content	Panner heavies	1003146
SA3100028	Panner heavies	Bay de Verde Background	Panner heavies	1003147
SA3100029	Panner heavies	Henry Waters	Panner heavies	1003148
SA3100030	Panner heavies	Henry Waters	Panner heavies	1003149
SA3100031	Panner heavies	Henry Waters	Panner heavies	1003151
SA3100033	Panner heavies	Henry Waters	Panner heavies	1003152
SA3100034	Panner heavies	Henry Waters	Panner heavies	1003153
SA3100035	Panner heavies	Henry Waters	Panner heavies	1003154
SA3100036	Panner heavies	Henry Waters	Panner heavies	1003155
SA3100043	Panner heavies	Michael's Pond	Panner heavies	1003156
SA3100047	Panner heavies	Henry Waters	Panner heavies	1003157
SA3100048	Panner heavies	Henry Waters	Panner heavies	1003158
SA3100049	Panner heavies	Henry Waters	Panner heavies	1003159
SA3100050	Panner heavies	Henry Waters	Panner heavies	1003161
SA3100052	Panner heavies	Red Indian Lake Background	Panner heavies	1003162
SA3100053	Panner heavies	Red Indian Lake Background	Panner heavies	1003163
SA3100054	Panner heavies	Red Indian Lake Background	Panner heavies	1003164
SA3100055	Panner heavies	Red Indian Lake Background	Panner heavies	1003165
SA3100056	Panner heavies	Red Indian Lake Background	Panner heavies	1003166

Table 2: HMC sample compositing scheme *(continued)*

Field Number	Fraction	Target	Submitted for Analysis	GSNL Lab Number
SA3100059	Panner heavies	Red Indian Lake Background	Panner heavies	1003167
SA3100077	Panner heavies	Michael's Pond	Panner heavies	1003168
SA3100078	Panner heavies	Michael's Pond	Panner heavies	1003169
SA3100009	Panner lights	Heart's Content	Panner lights	1003171
SA3100011	Panner lights	Heart's Content	Panner lights	1003172
SA3100012	Panner lights	Heart's Content	Panner lights	1003173
SA3100013	Panner lights	Heart's Content	Panner lights	1003174
SA3100014	Panner lights	Heart's Content	Panner lights	1003175
SA3100015	Panner lights	Heart's Content	Panner lights	1003176
SA3100016	Panner lights	Heart's Content	Panner lights	1003177
SA3100028	Panner lights	Bay de Verde Background	Panner lights	1003178
SA3100029	Panner lights	Henry Waters	Panner lights	1003179
SA3100030	Panner lights	Henry Waters	Panner lights	1003181
SA3100031	Panner lights	Henry Waters	Panner lights	1003182
SA3100033	Panner lights	Henry Waters	Panner lights	1003183
SA3100034	Panner lights	Henry Waters	Panner lights	1003184
SA3100035	Panner lights	Henry Waters	Panner lights	1003185
SA3100036	Panner lights	Henry Waters	Panner lights	1003186
SA3100043	Panner lights	Michael's Pond	Panner lights	1003187
SA3100047	Panner lights	Henry Waters	Panner lights	1003188
SA3100048	Panner lights	Henry Waters	Panner lights	1003189
SA3100049	Panner lights	Henry Waters	Panner lights	1003191
SA3100050	Panner lights	Henry Waters	Panner lights	1003192
SA3100052	Panner lights	Red Indian Lake Background	Panner lights	1003193
SA3100053	Panner lights	Red Indian Lake Background	Panner lights	1003194
SA3100054	Panner lights	Red Indian Lake Background	Panner lights	1003195

Table 2: HMC sample compositing scheme *(continued)*

Field Number	Fraction	Target	Submitted for Analysis	GSNL Lab Number
SA3100055	Panner lights	Red Indian Lake Background	Panner lights	1003196
SA3100056	Panner lights	Red Indian Lake Background	Panner lights	1003197
SA3100059	Panner lights	Red Indian Lake Background	Panner lights	1003198
SA3100077	Panner lights	Michael's Pond	Panner lights	1003199
SA3100078	Panner lights	Michael's Pond	Panner lights	1003201
SA3100002	Panner heavies Panner lights	Carbonear	Multisite panner heavies and panner lights	1003202
SA3100003	Panner heavies Panner lights			
SA3100004	Panner heavies Panner lights			
SA3100005	Panner heavies Panner lights			
SA3100006	Panner heavies Panner lights			
SA3100007	Panner heavies Panner lights			
SA3100019	Panner heavies Panner lights			
SA3100020	Panner heavies Panner lights	Carbonear	Multisite panner heavies and panner lights	1003203
SA3100021	Panner heavies Panner lights			
SA3100022	Panner heavies Panner lights			
SA3100023	Panner heavies Panner lights			
SA3100024	Panner heavies Panner lights	Bay de Verde Background	Multisite panner heavies and panner lights	1003204
SA3100025	Panner heavies Panner lights			

Table 2: HMC sample compositing scheme *(continued)*

Field Number	Fraction	Target	Submitted for Analysis	GSNL Lab Number
SA3100037	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003205
SA3100038	Panner heavies Panner lights			
SA3100039	Panner heavies Panner lights			
SA3100040	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003206
SA3100041	Panner heavies Panner lights			
SA3100061	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003207
SA3100062	Panner heavies Panner lights			
SA3100063	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003208
SA3100064	Panner heavies Panner lights			
SA3100065	Panner heavies Panner lights			
SA3100066	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003209
SA3100067	Panner heavies Panner lights			
SA3100068	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003211
SA3100069	Panner heavies Panner lights			
SA3100071	Panner heavies Panner lights			
SA3100070	Panner heavies Panner lights	Michael's Pond	Multisite panner heavies and panner lights	1003212
SA3100072	Panner heavies Panner lights			
SA3100073	Panner heavies Panner lights			

Table 2: HMC sample compositing scheme *(concluded)*

Field Number	Fraction	Target	Submitted for Analysis	GSNL Lab Number
SA3100053	Panner heavies	Red Indian Lake Background	Not composited	1003213
SA3100053	Panner lights	Red Indian Lake Background	Not composited	1003214
SA3100054	Panner heavies	Red Indian Lake Background	Not composited	1003215
SA3100054	Panner lights	Red Indian Lake Background	Not composited	1003216
SA3100055	Panner heavies	Red Indian Lake Background	Not composited	1003217
SA3100055	Panner lights	Red Indian Lake Background	Not composited	1003218
SA3100056	Panner heavies	Red Indian Lake Background	Not composited	1003219
SA3100056	Panner lights	Red Indian Lake Background	Not composited	1003220
SA3100057	Panner heavies Panner lights	Red Indian Lake Background	Panner heavies and panner lights	1003222
SA3100058	Panner heavies Panner lights	Red Indian Lake Background	Panner heavies and panner lights	1003223
SA3100059	Panner heavies	Red Indian Lake Background	Not composited	1003224
SA3100059	Panner lights	Red Indian Lake Background	Not composited	1003225

APPENDIX 1

Data Listing

Field_Number	BQLabNum	GSNLLabNum	UTM_Zone	UTM_East	UTM_North	Latitude	Longitude	NTS_Map	Target	Composite Status	Sb_ppm	As_ppm	Ba_ppm
SA3100001H	1	1003118	22	319676	5299295	47.823683	-53.40915	01N/14	Heart's Content	Heavy&Light	4.2	31	160
SA3100001L	1	1003118	22	319676	5299295	47.823683	-53.40915	01N/14	Heart's Content	Heavy&Light			
SA3100008H	2	1003119	22	321500	5302756	47.8553	-53.38623	01N/14	Heart's Content	Heavy&Light	7.3	32	200
SA3100008L	2	1003119	22	321500	5302756	47.8553	-53.38623	01N/14	Heart's Content	Heavy&Light			
SA3100010H	4	1003121	22	324410	5302514	47.853933	-53.34727	01N/14	Heart's Content	Heavy&Light	5.8	26	180
SA3100010L	4	1003121	22	324410	5302514	47.853933	-53.34727	01N/14	Heart's Content	Heavy&Light			
SA3100017H	5	1003122	22	328248	5300121	47.83345	-53.29505	01N/14	Heart's Content	Heavy&Light	5.3	20	170
SA3100017L	5	1003122	22	328248	5300121	47.83345	-53.29505	01N/14	Heart's Content	Heavy&Light			
SA3100018H	6	1003123	22	318102	5300405	47.833217	-53.43063	01N/14	Heart's Content	Heavy&Light	5.9	34	270
SA3100018L	6	1003123	22	318102	5300405	47.833217	-53.43063	01N/14	Heart's Content	Heavy&Light			
SA3100026H	7	1003124	22	328910	5296627	47.802217	-53.28483	01N/14	Bay de Verde Background	Heavy&Light	4.9	46	-100
SA3100026L	7	1003124	22	328910	5296627	47.802217	-53.28483	01N/14	Bay de Verde Background	Heavy&Light			
SA3100027H	8	1003125	22	328408	5297761	47.812283	-53.29198	01N/14	Bay de Verde Background	Heavy&Light	5.5	41	140
SA3100027L	8	1003125	22	328408	5297761	47.812283	-53.29198	01N/14	Bay de Verde Background	Heavy&Light			
SA3100032H	9	1003126	21	473531	5361639	48.409317	-57.35767	12A/06	Henry Waters	Heavy&Light	6.7	589	360
SA3100032L	9	1003126	21	473531	5361639	48.409317	-57.35767	12A/06	Henry Waters	Heavy&Light			
SA3100042H	1	1003127	21	538583	5398628	48.74145	-56.47522	12A/09	Michael's Pond	Heavy&Light	7.4	76	-100
SA3100042L	1	1003127	21	538583	5398628	48.74145	-56.47522	12A/09	Michael's Pond	Heavy&Light			
SA3100044H	2	1003128	21	536963	5397452	48.730967	-56.49737	12A/09	Michael's Pond	Heavy&Light	5.5	60	-100
SA3100044L	2	1003128	21	536963	5397452	48.730967	-56.49737	12A/09	Michael's Pond	Heavy&Light			
SA3100045H	3	1003129	21	534262	5393776	48.69805	-56.5344	12A/10	Michael's Pond	Heavy&Light	4.2	-6	-100
SA3100045L	3	1003129	21	534262	5393776	48.69805	-56.5344	12A/10	Michael's Pond	Heavy&Light			
SA3100046H	4	1003131	21	533518	5394485	48.704467	-56.54445	12A/10	Michael's Pond	Heavy&Light	2.6	16	-100
SA3100046L	4	1003131	21	533518	5394485	48.704467	-56.54445	12A/10	Michael's Pond	Heavy&Light			
SA3100051H	11	1003132	21	472616	5363260	48.423867	-57.37013	12A/06	Henry Waters	Heavy&Light	2.6	23	180
SA3100051L	11	1003132	21	472616	5363260	48.423867	-57.37013	12A/06	Henry Waters	Heavy&Light			
SA3100057H	12	1003133	21	499860	5377759	48.5549	-57.0019	12A/11	Red Indian Lake Background	Heavy&Light	7.8	43	-100
SA3100057L	12	1003133	21	472616	5363260	48.5549	-57.0019	12A/06	Red Indian Lake Background	Heavy&Light			
SA3100058H	13	1003134	21	499667	5377177	48.549667	-57.00452	12A/11	Red Indian Lake Background	Heavy&Light	6.2	18	250
SA3100058L	13	1003134	21	472616	5363260	48.549667	-57.00452	12A/06	Red Indian Lake Background	Heavy&Light			
SA3100060H	5	1003135	21	540331	5398059	48.736217	-56.4515	12A/09	Michael's Pond	Heavy&Light	3.8	17	-100
SA3100060L	5	1003135	21	540331	5398059	48.736217	-56.4515	12A/09	Michael's Pond	Heavy&Light			
SA3100074H	6	1003136	21	536131	5397476	48.731233	-56.50867	12A/10	Michael's Pond	Heavy&Light	6.6	58	-100
SA3100074L	6	1003136	21	536131	5397476	48.731233	-56.50867	12A/10	Michael's Pond	Heavy&Light			
SA3100075H	7	1003137	21	536373	5396155	48.719333	-56.5055	12A/10	Michael's Pond	Heavy&Light	4.8	35	-100
SA3100075L	7	1003137	21	536373	5396155	48.719333	-56.5055	12A/10	Michael's Pond	Heavy&Light			
SA3100076H	8	1003138	21	536662	5395197	48.7107	-56.50165	12A/10	Michael's Pond	Heavy&Light	4.9	39	-100
SA3100076L	8	1003138	21	536662	5395197	48.7107	-56.50165	12A/10	Michael's Pond	Heavy&Light			
SA3100009H	14	1003139	22	322233	5303267	47.8601	-53.37665	01N/14	Heart's Content	Uncomposited panner heavy	4.2	29	280
SA3100011H	15	1003141	22	325252	5302075	47.850217	-53.33585	01N/14	Heart's Content	Uncomposited panner heavy	5.7	22	210
SA3100012H	16	1003142	22	326557	5301617	47.84645	-53.31823	01N/14	Heart's Content	Uncomposited panner heavy	5.3	24	200
SA3100013H	17	1003143	22	324528	5300877	47.83925	-53.34503	01N/14	Heart's Content	Uncomposited panner heavy	4.5	26	180
SA3100014H	18	1003144	22	325617	5300967	47.84035	-53.33052	01N/14	Heart's Content	Uncomposited panner heavy	4.6	23	350
SA3100015H	19	1003145	22	327633	5300866	47.839983	-53.30357	01N/14	Heart's Content	Uncomposited panner heavy	5.4	20	240
SA3100016H	20	1003146	22	329204	5300404	47.83625	-53.2824	01N/14	Heart's Content	Uncomposited panner heavy	5.4	19	-100
SA3100028H	21	1003147	22	328445	5298960	47.823067	-53.29197	01N/14	Bay de Verde Background	Uncomposited panner heavy	3.8	23	160
SA3100029H	22	1003148	21	471472	5359946	48.394	-57.38537	12A/06	Henry Waters	Uncomposited panner heavy	1	32	-220
SA3100030H	23	1003149	21	473080	5362037	48.412883	-57.36378	12A/06	Henry Waters	Uncomposited panner heavy	3.3	80	-100
SA3100031H	25	1003151	21	471530	5360470	48.398717	-57.38462	12A/06	Henry Waters	Uncomposited panner heavy	2.7	43	-100
SA3100033H	26	1003152	21	473966	5362389	48.416083	-57.35183	12A/06	Henry Waters	Uncomposited panner heavy	2.7	5	-100
SA3100034H	27	1003153	21	475024	5363056	48.422133	-57.33757	12A/06	Henry Waters	Uncomposited panner heavy	1.2	6	-100

Field_Number	BQLabNum	GSNLLabNum	UTM_Zone	UTM_East	UTM_North	Latitude	Longitude	NTS_Map	Target	Composite Status	Sb_ppm	As_ppm	Ba_ppm
SA3100035H	28	1003154	21	474956	5361499	48.408117	-57.3384	12A/06	Henry Waters	Uncomposited panner heavy	1.3	17	-100
SA3100036H	29	1003155	21	473128	5360860	48.4023	-57.36305	12A/06	Henry Waters	Uncomposited panner heavy	1.5	79	-100
SA3100043H	10	1003156	21	537855	5397949	48.735383	-56.48518	12A/09	Michael's Pond	Uncomposited panner heavy	7.7	-8	-100
SA3100047H	30	1003157	21	472539	5359550	48.390483	-57.37093	12A/06	Henry Waters	Uncomposited panner heavy	0.9	-2	-100
SA3100048H	31	1003158	21	473435	5360225	48.3966	-57.35887	12A/06	Henry Waters	Uncomposited panner heavy	2	14	240
SA3100049H	32	1003159	21	474456	5360630	48.400283	-57.3451	12A/06	Henry Waters	Uncomposited panner heavy	1.2	4	230
SA3100050H	34	1003161	21	472178	5362742	48.419183	-57.37602	12A/06	Henry Waters	Uncomposited panner heavy	2.3	21	-100
SA3100052H	35	1003162	21	502513	5382008	48.593117	-56.96592	12A/10	Red Indian Lake Background	Uncomposited panner heavy	8.9	49	-100
SA3100053H	36	1003163	21	502005	5381159	48.585483	-56.97282	12A/10	Red Indian Lake Background	Uncomposited panner heavy	9.2	52	-100
SA3100054H	37	1003164	21	501896	5379808	48.573333	-56.9743	12A/10	Red Indian Lake Background	Uncomposited panner heavy	7.4	22	-100
SA3100055H	38	1003165	21	501658	5379075	48.566733	-56.97753	12A/10	Red Indian Lake Background	Uncomposited panner heavy	11	140	-100
SA3100056H	39	1003166	21	500735	5378398	48.56065	-56.99003	12A/10	Red Indian Lake Background	Uncomposited panner heavy	8.5	43	-100
SA3100059H	40	1003167	21	499352	5376423	48.542883	-57.00878	12A/11	Red Indian Lake Background	Uncomposited panner heavy	7.2	37	-100
SA3100077H	11	1003168	21	536017	5394343	48.70305	-56.5105	12A/10	Michael's Pond	Uncomposited panner heavy	5.9	34	-100
SA3100078H	12	1003169	21	532589	5394855	48.70785	-56.55705	12A/10	Michael's Pond	Uncomposited panner heavy	5.1	33	-100
SA3100009L	42	1003171	21	532589	5394855	47.8601	-53.37665	12A/10	Heart's Content	Uncomposited panner light	4.4	32	-100
SA3100011L	43	1003172	21	532589	5394855	47.850217	-53.33585	12A/10	Heart's Content	Uncomposited panner light	5.6	23	-100
SA3100012L	44	1003173	21	532589	5394855	47.84645	-53.31823	12A/10	Heart's Content	Uncomposited panner light	5.8	26	170
SA3100013L	45	1003174	21	532589	5394855	47.83925	-53.34503	12A/10	Heart's Content	Uncomposited panner light	4.6	26	190
SA3100014L	46	1003175	21	532589	5394855	47.84035	-53.33052	12A/10	Heart's Content	Uncomposited panner light	4.6	22	220
SA3100015L	47	1003176	21	532589	5394855	47.839983	-53.30357	12A/10	Heart's Content	Uncomposited panner light	6	24	290
SA3100016L	48	1003177	21	532589	5394855	47.83625	-53.2824	12A/10	Heart's Content	Uncomposited panner light	5.6	18	220
SA3100028L	49	1003178	21	532589	5394855	47.823067	-53.29197	12A/10	Bay de Verde Background	Uncomposited panner light	3.9	29	200
SA3100029L	50	1003179	21	532589	5394855	48.394	-57.38537	12A/10	Henry Waters	Uncomposited panner light	3.6	48	-100
SA3100030L	51	1003181	21	532589	5394855	48.412883	-57.36378	12A/10	Henry Waters	Uncomposited panner light	4.6	84	-100
SA3100031L	52	1003182	21	532589	5394855	48.398717	-57.38462	12A/10	Henry Waters	Uncomposited panner light	3.8	88	180
SA3100033L	53	1003183	21	532589	5394855	48.416083	-57.35183	12A/10	Henry Waters	Uncomposited panner light	4.2	9	-100
SA3100034L	54	1003184	21	532589	5394855	48.422133	-57.33757	12A/10	Henry Waters	Uncomposited panner light	2.1	10	180
SA3100035L	55	1003185	21	532589	5394855	48.408117	-57.3384	12A/10	Henry Waters	Uncomposited panner light	1.9	13	-100
SA3100036L	56	1003186	21	532589	5394855	48.4023	-57.36305	12A/10	Henry Waters	Uncomposited panner light	2.4	60	240
SA3100043L	14	1003187	21	532589	5394855	48.735383	-56.48518	12A/10	Michael's Pond	Uncomposited panner light	10	116	-100
SA3100047L	57	1003188	21	532589	5394855	48.390483	-57.37093	12A/10	Henry Waters	Uncomposited panner light	1.2	-2	-100
SA3100048L	58	1003189	21	532589	5394855	48.3966	-57.35887	12A/10	Henry Waters	Uncomposited panner light	1.5	5	-100
SA3100049L	60	1003191	21	532589	5394855	48.400283	-57.3451	12A/10	Henry Waters	Uncomposited panner light	1.9	9	-100
SA3100050L	61	1003192	21	532589	5394855	48.419183	-57.37602	12A/10	Henry Waters	Uncomposited panner light	3.4	27	250
SA3100052L	62	1003193	21	532589	5394855	48.593117	-56.96592	12A/10	Red Indian Lake Background	Uncomposited panner light	7.7	43	-100
SA3100053L	63	1003194	21	532589	5394855	48.585483	-56.97282	12A/10	Red Indian Lake Background	Uncomposited panner light	8.9	50	160
SA3100054L	64	1003195	21	532589	5394855	48.573333	-56.9743	12A/10	Red Indian Lake Background	Uncomposited panner light	6.9	23	-100
SA3100055L	65	1003196	21	532589	5394855	48.566733	-56.97753	12A/10	Red Indian Lake Background	Uncomposited panner light	10	100	-100
SA3100056L	66	1003197	21	532589	5394855	48.56065	-56.99003	12A/10	Red Indian Lake Background	Uncomposited panner light	7.6	43	-100
SA3100059L	67	1003198	21	532589	5394855	48.542883	-57.00878	12A/10	Red Indian Lake Background	Uncomposited panner light	6.1	29	-100
SA3100077L	15	1003199	21	532589	5394855	48.70305	-56.5105	12A/10	Michael's Pond	Uncomposited panner light	4.4	30	-100
SA3100078L	17	1003201	21	532589	5394855	48.70785	-56.55705	12A/10	Michael's Pond	Uncomposited panner light	5.2	41	-100
SA3100002H	68	1003202	22	334627	5286636	47.713883	-53.20475	01N/11	Carbonear	Multisite	10	150	-100
SA3100002L	68	1003202	22	334627	5286636	47.713883	-53.20475	01N/11	Carbonear	Multisite			
SA3100003H	68	1003202	22	334458	5288168	47.727617	-53.20758	01N/11	Carbonear	Multisite			
SA3100003L	68	1003202	22	334458	5288168	47.727617	-53.20758	01N/11	Carbonear	Multisite			
SA3100004H	68	1003202	22	332750	5286921	47.715967	-53.22987	01N/11	Carbonear	Multisite			
SA3100004L	68	1003202	22	332750	5286921	47.715967	-53.22987	01N/11	Carbonear	Multisite			
SA3100005H	68	1003202	22	332818	5286827	47.715133	-53.22892	01N/11	Carbonear	Multisite			
SA3100005L	68	1003202	22	332818	5286827	47.715133	-53.22892	01N/11	Carbonear	Multisite			

Field_Number	BQLabNum	GSNLLabNum	UTM_Zone	UTM_East	UTM_North	Latitude	Longitude	NTS_Map	Target	Composite Status	Sb_ppm	As_ppm	Ba_ppm
SA3100006H	68	1003202	22	333539	5287105	47.717817	-53.21942	01N/11	Carbonear	Multisite			
SA3100006L	68	1003202	22	333539	5287105	47.717817	-53.21942	01N/11	Carbonear	Multisite			
SA3100007H	68	1003202	22	332060	5287692	47.722717	-53.23935	01N/11	Carbonear	Multisite			
SA3100007L	68	1003202	22	332060	5287692	47.722717	-53.23935	01N/11	Carbonear	Multisite			
SA3100019H	68	1003202	22	331808	5287592	47.72175	-53.24267	01N/11	Carbonear	Multisite			
SA3100019L	68	1003202	22	331808	5287592	47.72175	-53.24267	01N/11	Carbonear	Multisite			
SA3100020H	69	1003203	22	330344	5288754	47.731817	-53.26263	01N/11	Carbonear	Multisite	17	248	-100
SA3100020L	69	1003203	22	330344	5288754	47.731817	-53.26263	01N/11	Carbonear	Multisite			
SA3100021H	69	1003203	22	330825	5291563	47.7572	-53.25732	01N/14	Carbonear	Multisite			
SA3100021L	69	1003203	22	330825	5291563	47.7572	-53.25732	01N/14	Carbonear	Multisite			
SA3100022H	69	1003203	22	328421	5290344	47.7456	-53.28888	01N/11	Carbonear	Multisite			
SA3100022L	69	1003203	22	328421	5290344	47.7456	-53.28888	01N/11	Carbonear	Multisite			
SA3100023H	69	1003203	22	331165	5290460	47.747367	-53.25235	01N/11	Carbonear	Multisite			
SA3100023L	69	1003203	22	331165	5290460	47.747367	-53.25235	01N/11	Carbonear	Multisite			
SA3100024H	70	1003204	22	330363	5294788	47.786067	-53.26473	01N/14	Bay de Verde Background	Multisite	7.5	73	-100
SA3100024L	70	1003204	22	330363	5294788	47.786067	-53.26473	01N/14	Bay de Verde Background	Multisite			
SA3100025H	70	1003204	22	329684	5295536	47.792617	-53.27408	01N/14	Bay de Verde Background	Multisite			
SA3100025L	70	1003204	22	329684	5295536	47.792617	-53.27408	01N/14	Bay de Verde Background	Multisite			
SA3100037H	18	1003205	21	542708	5400250	48.755767	-56.41895	12A/16	Michael's Pond	Multisite	6.6	71	-100
SA3100037L	18	1003205	21	542708	5400250	48.755767	-56.41895	12A/16	Michael's Pond	Multisite			
SA3100038H	18	1003205	21	541755	5401049	48.763017	-56.43183	12A/16	Michael's Pond	Multisite			
SA3100038L	18	1003205	21	541755	5401049	48.763017	-56.43183	12A/16	Michael's Pond	Multisite			
SA3100039H	18	1003205	21	540821	5400677	48.759733	-56.44458	12A/16	Michael's Pond	Multisite			
SA3100039L	18	1003205	21	540821	5400677	48.759733	-56.44458	12A/16	Michael's Pond	Multisite			
SA3100040H	19	1003206	21	540054	5400043	48.754083	-56.45508	12A/16	Michael's Pond	Multisite	6.3	61	-100
SA3100040L	19	1003206	21	540054	5400043	48.754083	-56.45508	12A/16	Michael's Pond	Multisite			
SA3100041H	19	1003206	21	539337	5399351	48.7479	-56.4649	12A/09	Michael's Pond	Multisite			
SA3100041L	19	1003206	21	539337	5399351	48.7479	-56.4649	12A/09	Michael's Pond	Multisite			
SA3100061H	20	1003207	21	542127	5398321	48.73845	-56.42705	12A/09	Michael's Pond	Multisite	6.9	47	-100
SA3100061L	20	1003207	21	542127	5398321	48.73845	-56.42705	12A/09	Michael's Pond	Multisite			
SA3100062H	20	1003207	21	541290	5399009	48.7447	-56.43837	12A/09	Michael's Pond	Multisite			
SA3100062L	20	1003207	21	541290	5399009	48.7447	-56.43837	12A/09	Michael's Pond	Multisite			
SA3100063H	21	1003208	21	542787	5401264	48.764883	-56.41777	12A/16	Michael's Pond	Multisite	9	80	-100
SA3100063L	21	1003208	21	542787	5401264	48.764883	-56.41777	12A/16	Michael's Pond	Multisite			
SA3100064H	21	1003208	21	542014	5401821	48.76995	-56.42823	12A/16	Michael's Pond	Multisite			
SA3100064L	21	1003208	21	542014	5401821	48.76995	-56.42823	12A/16	Michael's Pond	Multisite			
SA3100065H	21	1003208	21	540138	5401985	48.77155	-56.45375	12A/16	Michael's Pond	Multisite			
SA3100065L	21	1003208	21	540138	5401985	48.77155	-56.45375	12A/16	Michael's Pond	Multisite			
SA3100066H	22	1003209	21	537442	5400305	48.7566	-56.49058	12A/16	Michael's Pond	Multisite	6.1	41	-100
SA3100066L	22	1003209	21	537442	5400305	48.7566	-56.49058	12A/16	Michael's Pond	Multisite			
SA3100067H	22	1003209	21	536977	5399564	48.749967	-56.49698	12A/09	Michael's Pond	Multisite			
SA3100067L	22	1003209	21	536977	5399564	48.749967	-56.49698	12A/09	Michael's Pond	Multisite			
SA3100068H	23	1003211	21	534877	5398180	48.737633	-56.52567	12A/10	Michael's Pond	Multisite	10	72	-100
SA3100068L	23	1003211	21	534877	5398180	48.737633	-56.52567	12A/10	Michael's Pond	Multisite			
SA3100069H	23	1003211	21	535697	5398589	48.741267	-56.51448	12A/10	Michael's Pond	Multisite			
SA3100069L	23	1003211	21	535697	5398589	48.741267	-56.51448	12A/10	Michael's Pond	Multisite			
SA3100071H	23	1003211	21	536208	5398872	48.743783	-56.5075	12A/10	Michael's Pond	Multisite			
SA3100071L	23	1003211	21	536208	5398872	48.743783	-56.5075	12A/10	Michael's Pond	Multisite			
SA3100070H	24	1003212	21	535094	5396966	48.7267	-56.52282	12A/10	Michael's Pond	Multisite	9.5	86	-100
SA3100070L	24	1003212	21	535094	5396966	48.7267	-56.52282	12A/10	Michael's Pond	Multisite			
SA3100072H	24	1003212	21	536235	5397935	48.73535	-56.50722	12A/10	Michael's Pond	Multisite			

Field_Number	BQLabNum	GSNLLabNum	UTM_Zone	UTM_East	UTM_North	Latitude	Longitude	NTS_Map	Target	Composite Status	Sb_ppm	As_ppm	Ba_ppm
SA3100072L	24	1003212	21	536235	5397935	48.73535	-56.50722	12A/10	Michael's Pond	Multisite			
SA3100073H	24	1003212	21	536231	5397959	48.735567	-56.50727	12A/10	Michael's Pond	Multisite			
SA3100073L	24	1003212	21	536231	5397959	48.735567	-56.50727	12A/10	Michael's Pond	Multisite			
SA3100053H	25	1003213	21	502005	5381159	48.585483	-56.97282	12A/10	Red Indian Lake Background	Uncomposited panner heavy	10	57	250
SA3100053L	26	1003214	21	536231	5397959	48.585483	-56.97282	12A/10	Red Indian Lake Background	Uncomposited panner light	8.5	47	-100
SA3100054H	27	1003215	21	501896	5379808	48.573333	-56.9743	12A/10	Red Indian Lake Background	Uncomposited panner heavy	7.7	19	-100
SA3100054L	28	1003216	21	536231	5397959	48.573333	-56.9743	12A/10	Red Indian Lake Background	Uncomposited panner light	7.2	22	170
SA3100055H	29	1003217	21	501658	5379075	48.566733	-56.97753	12A/10	Red Indian Lake Background	Uncomposited panner heavy	12	136	-200
SA3100055L	30	1003218	21	536231	5397959	48.566733	-56.97753	12A/10	Red Indian Lake Background	Uncomposited panner light	10	104	-100
SA3100056H	31	1003219	21	500735	5378398	48.56065	-56.99003	12A/10	Red Indian Lake Background	Uncomposited panner heavy	8.9	44	-100
SA3100056L	32	1003220	21	536231	5397959	48.56065	-56.99003	12A/10	Red Indian Lake Background	Uncomposited panner light	8	44	-100
SA3100057H	34	1003222	21	499860	5377759	48.5549	-57.0019	12A/11	Red Indian Lake Background	Heavy&Light	7.4	44	-100
SA3100057L	34	1003222	21	536231	5397959	48.5549	-57.0019	12A/10	Red Indian Lake Background	Heavy&Light			
SA3100058H	35	1003223	21	499667	5377177	48.549667	-57.00452	12A/11	Red Indian Lake Background	Heavy&Light	6.2	20	-100
SA3100058L	35	1003223	21	536231	5397959	48.549667	-57.00452	12A/10	Red Indian Lake Background	Heavy&Light			
SA3100059H	36	1003224	21	499352	5376423	48.542883	-57.00878	12A/11	Red Indian Lake Background	Uncomposited panner heavy	7.8	34	-100
SA3100059L	37	1003225	21	536231	5397959	48.542883	-57.00878	12A/10	Red Indian Lake Background	Uncomposited panner light	6.6	32	-100

Field_Number	Br_ppm	Ca_pct	Ce_ppm	Cs_ppm	Cr_ppm	Co_ppm	Eu_ppm	Au_ppb	Hf_ppm	Ir_ppm	Fe_pct	La_ppm	Lu_ppm	Hg_ppm	Mo_ppm	Nd_ppm	Ni_ppm	Rb_ppm	Sm_ppm	Sc_ppm	Se_ppm	Ag_ppm
SA3100001H	82	8	140	-3	220	13	3.5	2690	53	-20	8.4	67	1.5	-1	-5	57	-100	30	14	38	-5	-5
SA3100001L																						
SA3100008H	36	10	160	-3	190	-5	2.9	140	185	-20	7	75	3.4	-1	-5	68	-100	48	15	36	-5	-5
SA3100008L																						
SA3100010H	32	8	180	-3	70	5	3.3	-5	120	-20	6.6	88	2.8	-1	-5	71	-100	-30	16	28	-5	-5
SA3100010L																						
SA3100017H	68	8	308	-3	62	-5	5.3	100	94	-20	5.6	159	2.4	-1	-5	120	-100	36	27	31	-5	-5
SA3100017L																						
SA3100018H	65	6	150	-3	300	19	2.9	-5	122	-20	14.3	67	2.3	-1	-5	59	-100	46	12	31	-5	-5
SA3100018L																						
SA3100026H	70	9	190	-3	220	11	4.6	15	193	-20	7	98	3.2	-1	-5	72	-230	-30	17	43	-5	-5
SA3100026L																						
SA3100027H	43	10	100	-3	330	-5	2.4	9	178	-20	9.4	52	2.9	-1	-5	36	-100	-30	10	36	-5	-5
SA3100027L																						
SA3100032H	261	6	130	-3	73	130	4.7	77	72	-20	27.9	67	2.9	-1	-5	65	-100	-30	16	34	-5	-5
SA3100032L																						
SA3100042H	307		410	3	360	24	6	-12	26		16	200	2.4		-7			-24	29	50	-10	
SA3100042L																						
SA3100044H	47		500	-1	230	22	8	-10	18		12	250	2.7		-6			-21	34.3	52.5	-10	
SA3100044L																						
SA3100045H	4210		350	-1	200	25	6	-20	16		14	180	1.7		-8			-10	23.7	50.8	-10	
SA3100045L																						
SA3100046H	120		310	-1	160	22	7	-5	12		11	170	1.6		-4			21	23.8	48	-10	
SA3100046L																						
SA3100051H	40	9	130	-3	160	24	4.7	14	17	-20	15	68	1.6	-1	-5	54	-100	-30	14	68	-5	-5
SA3100051L																						
SA3100057H	18	8	130	-3	390	25	4.3	-5	17	-20	10.8	69	1.8	-1	-5	54	-100	-30	15	82	-5	-5
SA3100057L																						
SA3100058H	17	8	130	-3	230	24	4.5	-5	16	-20	10	67	2.2	-1	-5	64	-100	-30	17	82	-5	-5
SA3100058L																						
SA3100060H	49		140	-1	150	21	4	-5	15		11	71	1.4		-4			27	13	54.5	-10	
SA3100060L																						
SA3100074H	23		400	-1	470	27	7	-5	32		20	200	2.6		-5			22	28.2	45	-10	
SA3100074L																						
SA3100075H	30		330	-1	330	21	6	-5	30		15	160	2.3		-5			-10	24.4	50	-10	
SA3100075L																						
SA3100076H	14		350	-1	210	23	5	-5	21		13	170	1.8		-5			-10	24.1	49	-10	
SA3100076L																						
SA3100009H	30	7	230	-3	120	13	4	-5	66	-20	7.3	107	2	-1	-5	90	-100	53	21	35	-5	-5
SA3100011H	19	8	240	-3	55	-5	3.1	-5	69	-20	6.2	110	2	-1	-5	95	-100	34	19	25	-5	-5
SA3100012H	32	8	150	-3	55	-5	2.3	-5	106	-20	6	72	2.6	-1	-5	60	-100	31	14	21	-5	-5
SA3100013H	35	9	170	-3	270	5	4	-5	120	-20	6.4	81	2.4	-1	-5	67	-100	-30	16	36	-5	-5
SA3100014H	37	8	280	-3	120	6	5.1	-5	91	-20	5.7	134	2.5	-1	-5	100	-100	40	26	33	-5	-5
SA3100015H	86	8	220	3	35	-5	3.1	-5	42	-20	5.2	104	1.8	-1	-5	88	-100	49	20	19	-5	-5
SA3100016H	25	9	220	-3	72	-5	4	-5	92	-20	5.4	109	2.4	-1	-5	100	-100	-30	21	24	-5	-5
SA3100028H	35	8	180	-3	220	7	3.8	8	59	-20	6.7	89	1.5	-1	-5	71	-100	30	16	37	-5	-5
SA3100029H	1370	9	160	-3	160	63	5.1	-19	9	-20	24.5	82	1.5	-3	-5	70	-280	-30	17	56	-13	-12
SA3100030H	526	8	110	-3	160	110	3.8	1440	11	-20	26.3	50	1.3	-2	-5	58	-260	-30	12	44	-11	-12
SA3100031H	11	9	170	-3	150	37	6	-5	13	-20	21.9	88	1.6	-1	-5	67	-100	-30	18	53	-5	-5
SA3100033H	111	7	80	-3	370	22	3.3	-5	92	-20	37.7	45	3.2	-1	-5	41	-100	-30	11	34	-5	-5
SA3100034H	424	10	150	-3	230	35	4.5	-10	12	-20	22	82	1.6	-1	-5	71	-100	-30	15	53	-5	-5

Field_Number	Br_ppm	Ca_pct	Ce_ppm	Cs_ppm	Cr_ppm	Co_ppm	Eu_ppm	Au_ppb	Hf_ppm	Ir_ppm	Fe_pct	La_ppm	Lu_ppm	Hg_ppm	Mo_ppm	Nd_ppm	Ni_ppm	Rb_ppm	Sm_ppm	Sc_ppm	Se_ppm	Ag_ppm
SA3100035H	371	11	140	-3	230	57	5.6	-10	15	-20	31.6	71	1.6	-1	-5	68	-100	-30	18	47	-5	-5
SA3100036H	950	8	110	-3	190	140	4	-14	14	-20	34.3	58	1.4	-1	-5	61	-210	-30	13	40	-5	-5
SA3100043H	7550		320	2	220	31	6	-33	15		18	150	2.3		-13			16	24.3	43	-10	
SA3100047H	305	11	85	-3	100	18	4.6	-5	5	-20	9	40	0.9	-1	-5	47	-100	-30	12	78	-5	-5
SA3100048H	9	11	180	-3	160	33	6.2	-11	12	-20	19	86	1.7	-1	-5	89	-100	-30	21	58	-5	-5
SA3100049H	619	11	220	-3	250	31	6.3	-13	13	-20	17.3	113	1.8	-1	-5	91	-200	-30	22	71	-5	-5
SA3100050H	543	10	160	-3	320	24	5.1	-14	24	-20	20	84	2.4	-1	-5	77	-210	-30	18	62	-5	-5
SA3100052H	193	9	71	-3	230	33	2.8	-10	12	-20	15	39	1.2	-1	-5	42	-100	-30	9.3	84	-5	-5
SA3100053H	536	9	83	-3	330	36	3.4	-5	19	-20	18	45	1.3	-1	-5	52	-100	-30	10	75	-5	-5
SA3100054H	637	10	120	-3	400	22	5	-13	28	-20	13.5	68	2.7	-1	-5	65	-100	-30	17	85	-5	-5
SA3100055H	321	7	83	-3	330	54	2.9	-13	13	-20	23.5	43	1.5	-3	-5	44	-100	-30	10	65	-5	-5
SA3100056H	256	8	100	-3	390	28	3.6	-12	16	-20	14.6	53	1.7	-1	-5	44	-100	-30	12	79	-5	-5
SA3100059H	6	9	100	-3	590	22	3.8	-15	9	-20	14.8	48	1.7	-1	-5	56	-250	-30	13	71	-5	-12
SA3100077H	9		220	-1	460	30	4	-5	20		19	110	1.6		-6			48	17	51.6	-10	
SA3100078H	5		430	2	730	24	8	7040	32		20	200	3.5		-9			48	33.1	48	-10	
SA3100009L	39	8	240	-3	120	11	4.5	-11	89	-20	7.2	110	2.3	-1	-5	100	-270	-30	22	36	-5	-5
SA3100011L	43	9	260	-3	55	-5	3.7	-5	106	-20	6.4	118	2.9	-1	-5	96	-100	42	22	31	-5	-5
SA3100012L	55	9	150	-3	43	-5	2.3	-5	118	-20	6	69	3.1	-1	-5	65	-100	36	14	24	-5	-5
SA3100013L	53	10	150	-3	200	-5	3.3	110	148	-20	6.4	73	2.8	-1	-5	67	-100	-30	15	38	-5	-5
SA3100014L	61	9	290	-3	72	5	5.5	-5	105	-20	6	133	2.8	-1	-5	110	-100	40	28	38	-5	-5
SA3100015L	62	9	230	-3	75	-5	3	-5	146	-20	5.7	107	3.4	-1	-5	100	-100	46	21	22	-5	-5
SA3100016L	73	10	160	-3	78	-5	3.8	-5	111	-20	5.5	77	2.7	-1	-5	73	-100	-30	16	30	-5	-5
SA3100028L	69	11	150	-3	90	-5	3.9	-5	73	-20	6.7	76	1.8	-1	-5	70	-100	-30	15	41	-5	-5
SA3100029L	69	10	180	-3	150	46	5.7	-5	11	-20	17	91	1.5	-1	-5	76	-100	-30	20	66	-5	-5
SA3100030L	117	7	110	-3	120	98	3.9	18	11	-20	23.1	54	1.3	-1	-5	52	-100	-30	14	47	-5	-5
SA3100031L	88	8	180	-3	120	39	6.1	-5	14	-20	17.4	92	1.6	-1	-5	77	-100	-30	19	54	-5	-5
SA3100033L	22	10	120	-3	160	12	5.6	-5	73	-20	15.2	63	3.4	-1	-5	57	-100	-30	16	62	-5	-5
SA3100034L	41	10	190	-3	140	22	5.4	-5	17	-20	10.8	100	1.6	-1	-5	79	-100	-30	18	66	-5	-5
SA3100035L	50	12	190	-3	140	37	7.3	-5	14	-20	15.6	97	1.7	-1	-5	94	-100	-30	24	71	-5	-5
SA3100036L	150	10	160	-3	120	72	5.5	-5	15	-20	18.5	84	1.5	-1	-5	66	-100	-30	18	60	-5	-5
SA3100043L	86		290	-1	230	24	5	-5	21		17	130	2		-6			-10	21.5	41	-10	
SA3100047L	25	10	75	-3	110	21	4	-5	4	-20	8.4	35	0.8	-1	-5	43	-100	-30	11	79	-5	-5
SA3100048L	20	10	180	-3	130	27	6.1	-5	11	-20	12.2	89	1.5	-1	-5	79	-100	-30	21	73	-5	-5
SA3100049L	32	10	220	-3	180	25	6.2	-10	13	-20	11.5	113	1.6	-1	-5	90	-260	-30	23	78	-5	-5
SA3100050L	23	9	170	-3	130	11	6.8	-5	13	-20	7.8	89	2.6	-1	-5	79	-100	-30	21	76	-5	-5
SA3100052L	19	6	79	-3	180	27	2.6	14	17	-20	11.4	39	1.2	-1	-5	48	-280	-30	9.2	79	-5	-5
SA3100053L	29	7	90	-3	250	31	2.8	-5	30	-20	13.2	45	1.4	-1	-5	40	-100	-30	11	75	-5	-5
SA3100054L	32	7	130	-3	170	19	4.8	-5	23	-20	8.9	62	2.3	-1	-5	62	-270	30	17	81	-5	-5
SA3100055L	38	7	95	-3	220	37	3.7	-12	28	-20	15.8	48	1.8	-2	-5	46	-300	-30	12	76	-5	-5
SA3100056L	40	7	110	-3	250	27	3.8	-11	26	-20	11.4	58	1.8	-1	-5	52	-280	-30	13	82	-5	-5
SA3100059L	34	8	120	-3	290	23	4.5	-11	16	-20	10.8	59	2	-1	-5	55	-100	-30	15	82	-5	-5
SA3100077L	15		220	2	300	27	5	-5	28		13	110	1.7		-5			-10	17	53.6	-10	
SA3100078L	15		370	2	240	20	7	-5	26		14	180	2		-5			-10	25.7	52.2	-10	
SA3100002H	113	6	795	4	260	98	30.3	-21	139	-20	13.1	390	8.8	-2	-12	350	-420	60	115	33	-13	-11
SA3100002L																						
SA3100003H																						
SA3100003L																						
SA3100004H																						
SA3100004L																						
SA3100005H																						
SA3100005L																						

Field_Number	Br_ppm	Ca_pct	Ce_ppm	Cs_ppm	Cr_ppm	Co_ppm	Eu_ppm	Au_ppb	Hf_ppm	Ir_ppm	Fe_pct	La_ppm	Lu_ppm	Hg_ppm	Mo_ppm	Nd_ppm	Ni_ppm	Rb_ppm	Sm_ppm	Sc_ppm	Se_ppm	Ag_ppm
SA3100006H																						
SA3100006L																						
SA3100007H																						
SA3100007L																						
SA3100019H																						
SA3100019L																						
SA3100020H	157	6	424	-3	190	120	25.6	-18	122	-20	17.6	190	9	-2	-10	210	-380	34	87.1	29	-11	-5
SA3100020L																						
SA3100021H																						
SA3100021L																						
SA3100022H																						
SA3100022L																						
SA3100023H																						
SA3100023L																						
SA3100024H	43	9	280	-3	350	20	6.7	-12	441	-20	8.4	134	6.5	-1	-13	110	-100	-30	26	48	-5	-5
SA3100024L																						
SA3100025H																						
SA3100025L																						
SA3100037H	928		340	-1	270	25	6	-15	32		15	170	2.4		-7			-24	24.9	50.5	-10	
SA3100037L																						
SA3100038H																						
SA3100038L																						
SA3100039H																						
SA3100039L																						
SA3100040H	220		490	-1	380	22	8	-11	30		15	240	2.7		-6			-20	34.6	49	-10	
SA3100040L																						
SA3100041H																						
SA3100041L																						
SA3100061H	28		170	-1	210	27	4	-5	20		15	84	1.8		-4			28	15	52.6	-10	
SA3100061L																						
SA3100062H																						
SA3100062L																						
SA3100063H	25		300	-1	370	30	5	-5	17		15	150	1.9		-4			-10	22.2	49	-10	
SA3100063L																						
SA3100064H																						
SA3100064L																						
SA3100065H																						
SA3100065L																						
SA3100066H	16		340	-1	260	15	6	-5	18		10	180	2.3		-5			-10	26.6	81.4	-10	
SA3100066L																						
SA3100067H																						
SA3100067L																						
SA3100068H	32		480	-1	410	27	8	-5	31		16	250	3.1		-5			42	34.7	47	-10	
SA3100068L																						
SA3100069H																						
SA3100069L																						
SA3100071H																						
SA3100071L																						
SA3100070H	25		440	-1	370	26	7	-5	32		20	220	2.5		-5			17	31.4	44	-10	
SA3100070L																						
SA3100072H																						

Field_Number	Br_ppm	Ca_pct	Ce_ppm	Cs_ppm	Cr_ppm	Co_ppm	Eu_ppm	Au_ppb	Hf_ppm	Ir_ppm	Fe_pct	La_ppm	Lu_ppm	Hg_ppm	Mo_ppm	Nd_ppm	Ni_ppm	Rb_ppm	Sm_ppm	Sc_ppm	Se_ppm	Ag_ppm
SA3100072L																						
SA3100073H																						
SA3100073L																						
SA3100053H	535		88	-1	350	33	3	-12	21		18	46	1.4		-6		-10		10	73.6	-10	
SA3100053L	27		94	-1	270	31	3	-5	35		14	47	1.5		-4		-10		11	73.7	-10	
SA3100054H	623		130	-1	490	19	5	-5	38		15	64	2.9		-7		-23		17	84.2	-10	
SA3100054L	31		140	-1	170	18	5	-5	25		9.2	67	2.5		-5		-10		17	83.6	-10	
SA3100055H	328		77	-2	340	46	3	-10	15		24	40	1.9		-10		50		10	62.7	-10	
SA3100055L	37		98	-1	220	38	4	-5	32		16	50	1.9		-4		18		12	75.7	-10	
SA3100056H	241		99	2	450	26	3	-12	14		14	50	1.7		-6		-10		12	77.5	-10	
SA3100056L	41		120	-1	250	27	4	-10	25		11	57	1.9		-5		24		13	80.8	-10	
SA3100057H	15		130	-1	370	23	4	-10	15		11	63	1.8		-5		-10		14	80.3	-10	
SA3100057L																						
SA3100058H	17		130	-1	240	22	5	-5	16		10	61	2.3		-7		-10		16	82.9	-10	
SA3100058L																						
SA3100059H	6		110	-2	610	23	4	-16	10		16	53	1.9		-9		-27		13	72	-10	
SA3100059L	36		120	-1	320	23	4	-5	18		11	61	2		-5		21		16	82.4	-10	

Field_Number	Na_pct	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	W_ppm	U_ppm	Yb_ppm	Zn_ppm	Zr_ppm
SA3100001H	1.1	950	4	3	13	7	6.9	10	91	1800
SA3100001L										
SA3100008H	0.54	1500	2	3.6	16	8	12	18	58	6800
SA3100008L										
SA3100010H	0.65	1000	3	2.6	17	-4	8.5	15	68	4100
SA3100010L										
SA3100017H	0.62	1200	2	4.9	20	-4	7.5	14	70	3000
SA3100017L										
SA3100018H	0.82	740	2	2.7	18	10	8.9	12	83	4500
SA3100018L										
SA3100026H	0.8	1300	3	2.9	20	-4	10	17	69	6200
SA3100026L										
SA3100027H	0.34	1500	2	1.6	14	6	11	15	71	5900
SA3100027L										
SA3100032H	0.57	-500	3	4.9	9.4	15	3.5	17	140	2600
SA3100032L										
SA3100042H	0.58		8	5	16	10	7.7	16	220	-500
SA3100042L										
SA3100044H	0.58		8	7	22	13	6.9	19	87	-500
SA3100044L										
SA3100045H	0.78		6	4	13	-8	6.5	10	-220	510
SA3100045L										
SA3100046H	0.94		7	4	13	6	3.9	12	74	-500
SA3100046L										
SA3100051H	0.9	660	3	3.3	8.1	10	3.3	11	140	-500
SA3100051L										
SA3100057H	0.79	890	3	3.4	8.9	8	3.9	12	180	-500
SA3100057L										
SA3100058H	0.9	720	4	4.5	8.6	16	4.4	15	230	-500
SA3100058L										
SA3100060H	1		5	3	8.2	6	5.1	9	130	-500
SA3100060L										
SA3100074H	0.61		6	4	17	10	8.5	17	150	-500
SA3100074L										
SA3100075H	0.61		9	4	14	9	6.4	15	150	-500
SA3100075L										
SA3100076H	0.8		7	4	13	6	4.9	12	110	-500
SA3100076L										
SA3100009H	0.94	1000	3	3.7	19	7	7.5	12	100	2100
SA3100011H	0.84	1300	2	3.4	19	-4	7.9	12	-50	1900
SA3100012H	0.52	1200	3	2.5	19	-4	10	15	52	3500
SA3100013H	0.82	1100	2	2.4	15	4	8.2	14	64	4100
SA3100014H	0.84	840	3	4.7	24	7	8.1	15	-50	2900
SA3100015H	0.62	1400	2	3.8	17	-4	6.3	11	-50	1400
SA3100016H	0.41	1100	2	4.9	16	-4	8.3	15	-50	3300
SA3100028H	0.98	1200	2	2.8	15	-4	6.9	9.2	68	1800
SA3100029H	0.82	-500	6	4.4	7.5	8	-3	10	160	-500
SA3100030H	0.66	-500	-1	2.1	5.6	8	2.1	8	160	-500
SA3100031H	0.81	-500	4	3.1	7.7	8	3.4	11	160	-500
SA3100033H	0.19	-500	5	2.6	11	8	9	18	54	3500
SA3100034H	0.81	-500	4	3.1	8.3	8	2.4	11	75	-500

Field_Number	Na_pct	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	W_ppm	U_ppm	Yb_ppm	Zn_ppm	Zr_ppm
SA3100035H	0.6	-500	2	2.5	7.4	8	2.6	11	-50	-500
SA3100036H	0.49	-500	-1	3	8.2	7	2	10	83	-500
SA3100043H	0.63		7	5	13	-9	7.1	15	-150	710
SA3100047H	0.96	620	1	3.8	3.4	-4	-0.5	6.5	91	-500
SA3100048H	0.79	-500	5	3.8	8.1	6	2.1	12	110	-500
SA3100049H	0.92	-500	2	3.7	9.4	6	4	12	110	-500
SA3100050H	0.67	610	4	3.8	10	12	5.1	15	120	1300
SA3100052H	0.79	560	3	1.7	5.6	8	1.5	7.7	190	-500
SA3100053H	0.85	-500	3	2.4	6.2	4	1.8	9	170	-500
SA3100054H	0.68	610	5	4.8	12	19	4.9	19	210	-500
SA3100055H	0.54	-500	2	2.8	7	11	2.3	10	190	-500
SA3100056H	0.68	530	2	3.3	7.5	11	4	12	150	-500
SA3100059H	0.76	930	3	2	7	-4	-2.7	11	210	-500
SA3100077H	0.7		7	3	11	7	6.5	10	200	-500
SA3100078H	0.54		11	8	16	11	9.3	23	160	-500
SA3100009L	0.84	780	3	3.9	20	9	8.8	14	97	2900
SA3100011L	0.73	1300	4	4	24	-4	11	16	-50	3400
SA3100012L	0.44	1200	2	2.8	21	-4	12	17	-50	4300
SA3100013L	0.64	1100	2	2.6	16	5	10	15	-50	5500
SA3100014L	0.74	1000	3	5.4	28	-4	10	17	-50	3900
SA3100015L	0.5	1400	-1	3.1	22	-4	12	19	-50	5500
SA3100016L	0.3	1500	-1	2.7	17	-4	10	16	-50	3800
SA3100028L	0.59	1200	2	2.8	17	-4	8.6	11	-50	2600
SA3100029L	1.1	610	1	3.6	9.4	7	4.6	10	140	-500
SA3100030L	0.71	-500	3	3.1	6.3	6	2.8	8.4	120	-500
SA3100031L	1.1	-500	3	3.4	9.4	6	4.6	11	230	-500
SA3100033L	0.52	540	4	4.7	11	15	8.6	20	-50	2500
SA3100034L	1.2	-500	2	3	10	6	5.6	11	110	-500
SA3100035L	0.92	520	3	4.7	10	7	4.4	12	100	-500
SA3100036L	0.73	600	3	3.1	10	9	2.8	10	170	-500
SA3100043L	0.58		8	4	14	10	7.8	14	190	-500
SA3100047L	1.1	820	-1	2.2	3.2	7	2.1	5.5	120	-500
SA3100048L	1.2	-500	3	4.6	9.1	6	1.7	11	130	-500
SA3100049L	1.1	720	2	3.8	11	6	3.1	11	110	-500
SA3100050L	1	670	2	4	11	15	4.1	17	160	-500
SA3100052L	0.91	510	1	1.8	5.3	-4	1.9	7.5	200	-500
SA3100053L	1	730	2	2	6.2	10	4	8.5	140	600
SA3100054L	0.95	960	2	4	10	14	4.1	16	200	-500
SA3100055L	0.67	570	3	3	7.4	14	3.5	12	200	730
SA3100056L	0.83	-500	3	3	8.5	7	2.7	12	140	-500
SA3100059L	0.97	-500	3	4.3	8	8	3.3	13	180	-500
SA3100077L	0.85		5	3	11	5	6.6	11	130	860
SA3100078L	0.83		8	5	14	10	5.5	13	140	-500
SA3100002H	0.85	-500	20	33	40	15	8.3	70	260	3700
SA3100002L										
SA3100003H										
SA3100003L										
SA3100004H										
SA3100004L										
SA3100005H										
SA3100005L										

Field_Number	Na_pct	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	W_ppm	U_ppm	Yb_ppm	Zn_ppm	Zr_ppm
SA3100006H										
SA3100006L										
SA3100007H										
SA3100007L										
SA3100019H										
SA3100019L										
SA3100020H	0.84	-500	16	32	39	-4	11	70.4	280	3600
SA3100020L										
SA3100021H										
SA3100021L										
SA3100022H										
SA3100022L										
SA3100023H										
SA3100023L										
SA3100024H	0.7	1400	6	5	29	5	19	33	180	14800
SA3100024L										
SA3100025H										
SA3100025L										
SA3100037H	0.67		6	5	15	8	7.8	15	93	880
SA3100037L										
SA3100038H										
SA3100038L										
SA3100039H										
SA3100039L										
SA3100040H	0.66		7	7	18	11	7.4	18	160	-500
SA3100040L										
SA3100041H										
SA3100041L										
SA3100061H	0.6		5	3	10	7	7.2	11	180	-500
SA3100061L										
SA3100062H										
SA3100062L										
SA3100063H	0.57		4	4	13	8	6.6	13	190	-500
SA3100063L										
SA3100064H										
SA3100064L										
SA3100065H										
SA3100065L										
SA3100066H	0.61		6	5	14	8	6	14	140	-500
SA3100066L										
SA3100067H										
SA3100067L										
SA3100068H	0.48		7	6	20	8	9	20	140	-500
SA3100068L										
SA3100069H										
SA3100069L										
SA3100071H										
SA3100071L										
SA3100070H	0.5		9	5	18	9	7.7	16	130	-500
SA3100070L										
SA3100072H										

Field_Number	Na_pct	Sr_ppm	Ta_ppm	Tb_ppm	Th_ppm	W_ppm	U_ppm	Yb_ppm	Zn_ppm	Zr_ppm
SA3100072L										
SA3100073H										
SA3100073L										
SA3100053H	0.82	3	2	6.7	9	4.5	9	140	-500	
SA3100053L	1	3	2	6.5	5	2.8	9	180	1400	
SA3100054H	0.66	4	5	12	10	6	18	180	1100	
SA3100054L	0.92	4	4	10	18	5.5	16	160	1000	
SA3100055H	0.52	3	-2	7	7	3.8	11	200	-1100	
SA3100055L	0.65	2	4	8.5	11	5.1	11	170	1200	
SA3100056H	0.69	4	4	7.2	10	4.1	10	160	-500	
SA3100056L	0.81	4	4	8.2	8	4.3	12	140	980	
SA3100057H	0.78	1	3	9.1	8	4.9	11	170	750	
SA3100057L										
SA3100058H	0.86	4	4	10	13	6.5	15	190	-500	
SA3100058L										
SA3100059H	0.75	4	5	7.6	6	4.4	12	160	-500	
SA3100059L	0.92	3	4	9.3	9	3.9	13	150	-500	