



**GEOCHEMICAL DATA FROM THE JULIENNE LAKE
(NTS MAP AREA 23G/02) IRON ORE DEPOSIT,
WESTERN LABRADOR**

J. Conliffe

Open File 023G/02/0298

**St. John's
Newfoundland and Labrador
July, 2014**

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Recommended citation:

Conliffe, J.

2014: Geochemical data from the Julienne Lake (NTS map area 23G/02) iron ore deposit, western Labrador. Government of Newfoundland and Labrador, Department of Natural Resources, Geological Survey, Open File 023G/02/0298, 96 pages.





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ABSTRACT

This report provides whole-rock geochemical data from the Julienne Lake iron ore deposit, western Labrador ((NTS map area 23G/02), and forms part of a multiyear study investigating the geology, alteration and structural evolution of the deposit (Conliffe, 2013). In total, 338 drillcore samples and 26 outcrop samples were analyzed, and full geochemical data are provided for major elements, trace elements and rare-earth elements. In addition, sample locations, sample descriptions and a brief description of the major results and trends are included.

PROJECT OVERVIEW

The Julienne Lake iron ore deposit is located *ca.* 32 km by road, north of the town of Wabush, on a peninsula between Wabush Lake to the west and Julienne Lake to the east (NTS map area 23G/02; Figure 1). The deposit was first identified by the Newfoundland and Labrador Company (Nalco) in 1953, and is one of the largest undeveloped iron ore deposits in the region. In 1975, the rights to the deposit reverted to the crown under the Julienne Lake Deposit (Reversion Act) 1975 and the property was made an Exempt Mineral Land (EML). The provincial government conducted a drilling and trenching program and preliminary metallurgical study in 2010, to define the deposit to the level of NI 43-101 compliant indicated and measured resources, establish a reliable 3-D geological model and generate preliminary pit designs. The results of this study was released in October 2012, with a non NI-43-101 compliant geological resource estimate of 1166 Mt grading approximately 33% Fe, including a measured and indicated resource of 867 Mt at 33.7% Fe (Coates *et al.* 2012).

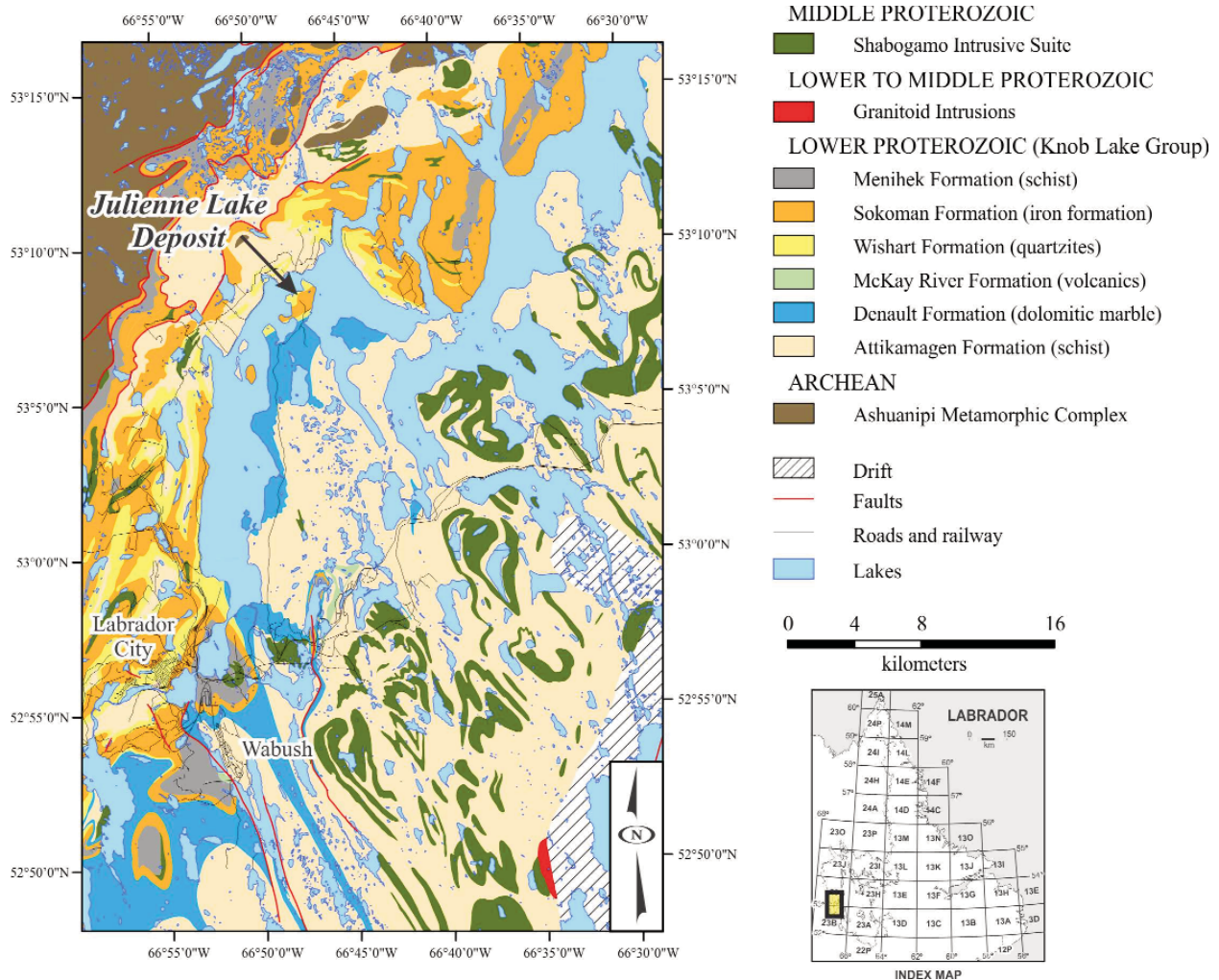


Figure 1: Regional geological map of the area around the Julienne Lake iron ore deposit (after Rivers and Massey, 1985).

In 2012, the Geological Survey of Newfoundland and Labrador (GSNL) initiated a study aimed at understanding the geology, alteration and structural evolution of the Julienne Lake iron ore deposit, and to compare it with other iron ore deposits in the Labrador City/Wabush area. Fieldwork in 2012 included mapping and sampling of outcrops and exposed trenches at Julienne Lake. In addition, 12 diamond-drill holes from the 2010 drilling program were logged and samples were collected for petrographic and geochemical analysis. The preliminary results of this work were presented in Conliffe (2013), and five main rock types were identified at the Julienne Lake iron ore deposit. These are:

- *Quartz-specularite Schist (QS)*: This unit makes up > 95% of the total thickness of iron formation in the logged drillholes. It consists of semi-massive to banded iron formation (quartz + specular hematite ± martite) and is commonly leached and friable (altered to earthy red hematite and goethite).
- *Mn-rich Iron Formation (MnIF)*: Pyrolusite-bearing iron formation accounts for < 2.5% of the total thickness of iron formation in the logged drillholes.
- *Lean White Quartzite (LWQ)*: This ferruginous white quartzite (quartz >> specular hematite) makes < 3% of the total thickness of iron formation in the logged drillholes.
- *Lower Iron Formation (LIF)*: This distinctive unit has been recorded at the base of the iron formation in all drillholes which penetrate the iron formation. It is strongly altered and brecciated and consists of red hematite, quartz, goethite and iron silicates, with rare specularite bands and euhedral garnets pseudomorphs.
- *Wishart Formation Quartzite (WQ)*: The Wishart Formation quartzite defines the footwall contact of deposit, and varies in composition from pure white quartzite to micaceous and weakly ferruginous quartzite.

This open file data release consists of whole-rock geochemical data from samples collected during the 2012 field season. In total, 338 drillcore samples and 26 outcrop samples were analyzed. The appendices to this release include sample locations, sample descriptions and major-element, trace-element and rare-earth-element (REE) data. A brief description of the major results and trends is included below; there is no additional discussion on the economic or geological significance of these trends. Further details on the geology of the Julienne Lake iron ore deposit are described in Conliffe (2013).

METHODS

Drillcore samples were collected from 11 diamond-drill holes. The location of the diamond-drill holes is documented in Appendix A, and the location and brief description of each sample is included in Appendix B. Sample intervals range in length from 5 cm to 1.25 m, with most of sample intervals ranging from 10–30 cm. Samples were selected on a semi-random basis, with care taken to collect representative samples from the main rock types in each diamond-drill hole. In addition, a series of samples were collected from outcrops and exposed trenches at the Julienne Lake iron ore deposit (sample locations and descriptions in Appendix C).

All analyses were carried out at the GSNL laboratory in St. John's and analytical methods are described in Table 1. Analytical duplicates were inserted at a frequency of one in 20, with the

Table 1: Analytical methods for geochemical analysis.

Analysis	Method	Preparation/Digestion
SiO ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , MgO, CaO, Na ₂ O, K ₂ O, TiO ₂ , MnO, P ₂ O ₅ , Cr, Zr, Ba	Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES-FUS)	Lithium Tetraborate Fusion
Be, Cu, Li, Mn, Ni, Pb, Rb, Sc, Ti, Zn	Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES)	HF-HCl-HNO ₃ -HClO ₄ (total digestion)
V, Co, Ga, Ge, As, Sr, Y, Nb, Mo, In, Sn, Cs, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Hf, Ta, W, Tl, Bi, Th, U	Inductively Coupled Plasma Mass Spectrometry (ICP-MS-FUS)	Lithium Tetraborate Fusion
LOI	Gravimetric (Grav)	None

duplicate selected at random. In addition, a selection of reference standards was analyzed, also at a frequency of one in 20. For ICP-OES-FUS (major element) and ICP-MS-FUS (trace element) standards were supplied by the Canadian Certified Reference Materials Project (SCH-1), the United States Geological Survey (AGV-1, BHVO-1, BIR-1, G-2, MAG-1, QLO-1, RGM-1, SDC-1, STM-1, W-2) and the Association Nationale de la Recherche Technique, Paris (DR-N). Two standards were used for ICP-OES-FUS (trace elements) analysis, supplied by the Canadian Certified Reference Materials Project (SY-4, WGB-1). The raw, unprocessed data from duplicates and standards is included in Appendices F, G and H, and can be used by the reader to assess accuracy and precision.

RESULTS

The major-element, trace-element and REE compositions of the main rock types at Julienne Lake are included in Appendices C and D. The average and standard deviation for each rock type is shown in Table 2 (half the detection limit is used for values below detection limit), and a brief description of these results is given below.

Quartz Specularite Schist (QS)

The SiO₂ and Fe₂O₃ are the dominant major elements in all QS samples, with SiO₂ + Fe₂O₃ contents of > 90 wt. % (Figure 2). The Fe₂O₃ contents range from < 10% to > 95 wt. %, with the majority of samples ranging from 36 to 67 wt. % Fe₂O₃ (25.5 to 46.9 wt. % Fe). This variation likely reflects sample bias, with some quartz-rich and hematite-rich QS samples collected for analysis. All other major element contents are low, generally less than 0.5 wt. % (Figure 3; Table 2). When compared to geochemistry from average unmetamorphosed iron formation in the Schefferville area (Conliffe, 2013, unpublished data), QS samples from Julienne Lake are moderately to strongly depleted in mobile elements (MnO, MgO and CaO) and weakly enriched in Al₂O₃,

Table 2: Summary statistics for major element, trace element and REE content of main rock types. For element values below detection limit, averages were calculated for half of the detection limit. ¹ Average composition of 16 iron formation samples from the Schefferville area (Conliffe, 2013, unpublished data). ² Average composition of three Ruth Formation shale samples from the Schefferville area (Conliffe, 2013, unpublished data).

	QS (n = 289)				LWQ (n = 26)				MnIF (n = 24)			
	<i>Aver.</i>	<i>StDev</i>	<i>Max.</i>	<i>Min.</i>	<i>Aver.</i>	<i>StDev</i>	<i>Max.</i>	<i>Min.</i>	<i>Aver.</i>	<i>StDev</i>	<i>Max.</i>	<i>Min.</i>
SiO ₂ (wt %)	46.50	15.60	88.63	0.40	85.69	7.29	97.10	71.49	29.64	18.19	62.79	0.24
Al ₂ O ₃	0.18	0.10	0.88	0.05	0.15	0.05	0.26	0.08	0.14	0.08	0.32	0.04
Fe ₂ O ₃	51.75	15.24	95.17	9.89	13.16	7.10	26.47	2.03	48.76	12.83	82.40	25.00
MnO	0.15	0.25	1.71	0.02	0.04	0.03	0.15	0.01	16.33	7.53	29.65	2.39
MgO	0.019	0.030	0.337	0.005	0.010	0.007	0.035	0.005	0.036	0.098	0.491	0.005
CaO	0.014	0.012	0.121	0.005	0.012	0.007	0.025	0.005	0.068	0.162	0.822	0.011
Na ₂ O	0.024	0.014	0.083	0.005	0.027	0.016	0.063	0.005	0.158	0.599	2.970	0.010
K ₂ O	0.033	0.020	0.109	0.005	0.050	0.033	0.147	0.015	0.201	0.175	0.593	0.025
TiO ₂	0.009	0.012	0.105	0.001	0.003	0.003	0.017	0.001	0.007	0.004	0.018	0.002
P ₂ O ₅	0.026	0.054	0.694	0.001	0.013	0.014	0.056	0.001	0.038	0.047	0.163	0.001
LOI	0.72	0.84	5.09	0.07	0.49	0.39	1.61	0.16	3.27	1.50	5.97	0.73
Total	99.42	0.82	101.00	97.13	99.66	0.86	100.95	98.04	98.65	1.09	100.11	95.62
Ti (ppm)	30.97	55.32	716.46	0.50	26.17	19.65	55.33	4.46	14.49	14.41	48.05	0.50
Sc	0.38	0.55	3.95	0.05	0.27	0.30	1.23	0.05	0.24	0.25	1.26	0.05
V	18.01	19.20	216.00	2.50	6.90	5.17	22.00	2.50	21.17	11.85	60.00	8.00
Co	5.66	6.11	40.00	0.50	3.12	3.22	12.00	0.50	31.21	18.15	75.00	3.00
Ni	16.36	10.52	114.07	3.09	6.79	4.89	17.28	0.50	20.88	10.34	51.86	5.02
Cu	3.06	2.31	15.01	0.50	1.82	1.52	7.00	0.50	5.32	5.73	24.61	1.29
Zn	13.78	10.59	109.82	3.64	6.81	4.06	17.96	2.14	41.82	59.91	310.25	8.14
Rb	1.10	1.06	6.14	0.50	0.74	0.66	3.28	0.50	3.82	3.10	10.37	0.50
Sr	3.13	4.31	52.00	1.00	1.58	0.70	3.00	1.00	100.96	100.43	332.00	8.00
Y	5.44	8.90	117.00	0.50	2.98	2.70	10.00	0.50	20.92	16.25	71.00	3.00
Zr	15.39	9.43	64.35	0.50	4.99	3.44	18.89	0.50	23.92	11.34	48.75	0.50
Nb	2.94	2.31	16.00	0.50	1.90	2.08	11.00	0.50	6.00	3.88	18.00	1.00
Ba	12.9	22.4	184.5	0.5	9.3	8.7	37.5	1.6	1535.2	1777.6	6200.2	33.4
Pb	1.25	4.28	71.49	0.50	0.61	0.40	2.08	0.50	30.11	46.41	236.30	6.72
Th	0.10	0.10	0.90	0.05	0.06	0.03	0.20	0.05	0.11	0.11	0.50	0.05
U	0.29	0.40	3.60	0.05	0.12	0.10	0.50	0.05	0.41	0.29	1.10	0.10
La	5.02	6.70	39.40	0.25	2.90	2.58	12.20	0.25	36.58	25.12	123.00	4.20
Ce	9.71	13.00	126.30	0.05	5.53	5.01	19.30	0.05	54.43	35.36	155.20	14.30
Pr	0.91	1.10	7.36	0.03	0.52	0.38	1.33	0.03	5.48	3.21	15.74	0.90
Nd	3.55	4.20	27.00	0.05	2.05	1.50	5.20	0.05	21.99	13.76	67.70	3.50
Sm	0.66	0.73	6.60	0.05	0.39	0.29	1.00	0.05	3.81	2.41	11.70	0.70
Eu	0.21	0.24	2.59	0.03	0.11	0.09	0.34	0.03	1.35	0.84	3.99	0.18
Gd	0.79	0.99	11.50	0.05	0.43	0.35	1.30	0.05	4.45	3.08	15.10	0.60
Tb	0.12	0.16	2.00	0.05	0.07	0.04	0.20	0.05	0.60	0.44	2.10	0.05
Dy	0.79	1.13	13.80	0.05	0.41	0.36	1.30	0.05	3.68	2.70	13.10	0.50
Ho	0.16	0.25	3.10	0.05	0.09	0.08	0.30	0.05	0.77	0.57	2.80	0.05
Er	0.53	0.81	10.00	0.05	0.28	0.25	0.80	0.05	2.35	1.77	8.80	0.30
Tm	0.07	0.11	1.31	0.03	0.04	0.03	0.12	0.03	0.31	0.22	1.12	0.03
Yb	0.45	0.68	8.40	0.05	0.23	0.20	0.70	0.05	1.85	1.30	6.60	0.20
Lu	0.06	0.08	0.99	0.03	0.04	0.02	0.08	0.03	0.24	0.17	0.85	0.03
Σ REE	23.03	27.48	191.11	0.80	13.08	10.07	39.30	0.80	137.88	81.56	398.60	25.53

Table 2 (cont.)

	LIF (n = 11)				WQ (n = 10)				Average IF ¹		Average Ruth ²	
	<i>Aver.</i>	<i>StDev</i>	<i>Max.</i>	<i>Min.</i>	<i>Aver.</i>	<i>StDev</i>	<i>Max.</i>	<i>Min.</i>	<i>Aver.</i>	<i>StDev</i>	<i>Aver.</i>	<i>StDev</i>
SiO ₂ (wt %)	53.63	8.93	63.26	35.46	86.61	8.63	98.55	74.31	46.90	14.28	42.47	2.52
Al ₂ O ₃	2.92	2.36	7.94	0.72	6.99	4.95	13.61	0.25	0.51	0.71	9.01	3.51
Fe ₂ O ₃	38.50	9.53	57.08	27.46	1.52	1.46	4.51	0.09	0.10	0.06	25.24	0.47
MnO	0.12	0.04	0.19	0.05	0.01	0.01	0.04	0.00	46.63	14.83	4.30	2.31
MgO	0.068	0.055	0.216	0.022	0.107	0.129	0.436	0.021	1.91	1.40	1.76	0.67
CaO	0.025	0.009	0.046	0.015	0.031	0.020	0.072	0.015	0.88	1.38	0.34	0.26
Na ₂ O	0.025	0.027	0.095	0.005	0.067	0.069	0.197	0.005	0.03	0.01	0.12	0.11
K ₂ O	0.105	0.174	0.608	0.011	1.770	2.347	6.008	0.057	0.06	0.04	2.82	2.18
TiO ₂	0.436	0.446	1.547	0.111	0.144	0.095	0.256	0.004	0.00	0.01	0.79	0.36
P ₂ O ₅	0.112	0.079	0.323	0.028	0.031	0.018	0.066	0.004	0.02	0.01	0.13	0.02
LOI	3.60	1.98	5.73	0.27	2.05	1.88	4.90	0.08	1.91	2.83	11.57	2.72
Total	99.54	0.74	100.60	98.37	99.32	0.82	100.80	98.02	99.16	1.05	98.57	0.54
Ti (ppm)	2513.7	2377.8	7725.1	650.8	275.2	205.7	704.0	58.6	38.64	42.08	n.a.	n.a.
Sc	4.72	4.69	14.36	0.88	1.80	0.99	2.69	0.20	n.a.	n.a.	n.a.	n.a.
V	119.18	109.27	375.00	32.00	12.50	4.79	20.00	6.00	11.43	6.61	169.00	58.67
Co	3.73	1.35	5.00	1.00	2.10	2.32	8.00	0.50	36.05	40.19	38.28	24.37
Ni	31.62	6.40	40.84	23.46	3.06	3.29	10.52	0.50	27.98	2.08	n.a.	n.a.
Cu	5.62	2.71	11.98	3.42	5.34	5.93	15.73	0.50	4.57	2.10	n.a.	n.a.
Zn	29.46	11.23	47.62	16.49	4.21	2.96	10.48	0.50	29.05	12.06	n.a.	n.a.
Rb	5.60	3.51	14.47	1.66	29.96	36.74	96.32	1.01	2.19	1.60	n.a.	n.a.
Sr	18.73	23.73	85.00	3.00	24.40	30.62	84.00	2.00	6.67	9.30	19.15	14.36
Y	15.91	14.86	56.00	3.00	11.20	12.09	43.00	1.00	7.33	10.05	51.18	21.28
Zr	93.07	79.41	230.85	23.11	327.34	236.78	607.50	11.71	12.52	6.77	430.75	248.05
Nb	21.27	20.40	70.00	3.00	3.95	1.98	8.00	0.50	3.39	1.49	106.87	65.45
Ba	87.5	111.7	326.3	8.9	375.4	481.4	1259.8	8.9	13.77	13.81	352.89	258.14
Pb	0.84	0.81	2.99	0.50	2.43	2.51	6.93	0.50	1.56	1.97	n.a.	n.a.
Th	2.88	3.46	12.30	0.60	16.93	13.11	35.30	0.80	0.09	0.07	10.72	6.03
U	2.67	1.91	6.10	0.60	0.95	0.59	1.90	0.20	0.07	0.06	4.20	1.66
La	32.75	42.56	157.10	6.30	32.81	25.24	76.00	3.20	3.41	3.29	79.24	47.53
Ce	66.07	81.95	304.30	13.10	66.33	52.15	156.90	3.80	4.94	3.42	159.40	97.55
Pr	7.92	10.85	39.73	1.43	7.21	5.60	16.83	0.47	0.68	0.75	18.59	11.14
Nd	31.79	44.99	164.50	5.50	26.12	20.28	62.30	1.80	3.08	3.82	69.70	40.72
Sm	5.76	8.53	31.00	1.20	4.02	3.05	9.70	0.30	0.66	0.82	11.96	6.85
Eu	1.61	2.33	8.51	0.35	0.60	0.41	1.41	0.06	0.22	0.26	2.11	0.89
Gd	4.94	6.80	25.00	0.90	3.28	2.52	8.30	0.40	0.90	1.18	10.41	5.74
Tb	0.57	0.73	2.70	0.10	0.36	0.29	1.00	0.05	0.14	0.17	1.58	0.85
Dy	2.97	3.23	12.20	0.60	1.77	1.54	5.40	0.20	0.90	1.13	9.29	4.57
Ho	0.52	0.53	2.00	0.10	0.34	0.31	1.10	0.05	0.21	0.26	1.82	0.78
Er	1.55	1.49	5.60	0.30	0.95	0.91	3.20	0.10	0.63	0.75	5.52	2.23
Tm	0.21	0.20	0.71	0.03	0.13	0.12	0.43	0.03	0.09	0.09	0.80	0.30
Yb	1.36	1.19	4.40	0.20	0.90	0.80	2.80	0.05	0.46	0.49	5.41	2.11
Lu	0.19	0.18	0.62	0.03	0.13	0.11	0.40	0.03	0.07	0.08	0.78	0.28
Σ REE	158.23	205.07	758.37	30.13	144.95	112.93	345.77	10.64	16.38	14.99	376.60	221.22

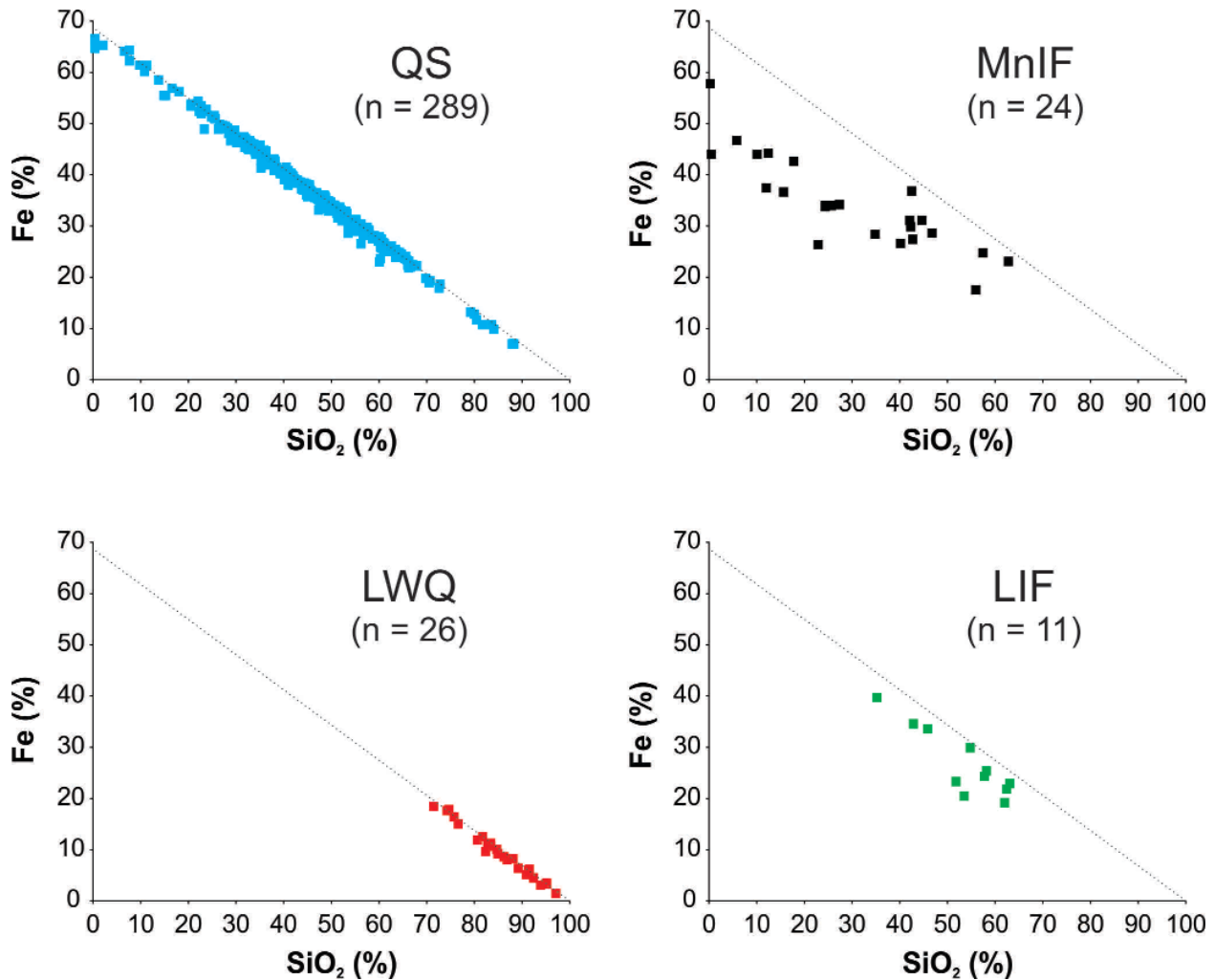


Figure 2: Bivariate plots of SiO_2 vs. total Fe. Dashed line illustrates a composition of pure SiO_2 and Fe_2O_3 .

and TiO_2 (Figure 4). The LOI ranges from 0.07 to 5.09 wt. %, with higher values corresponding to samples with higher goethite or carbonate contents.

The trace-element contents are generally low (<50 ppm), but some samples are enriched (>100 ppm) in selected trace elements *e.g.*, Ba, V, Ni, Zn, and Y. These anomalous values are attributed to residual enrichment and/or chemical weathering and no systematic variation in trace element compositions was recorded. The distribution of selected trace elements is shown in Figure 4, normalized against average iron formation composition in the Schefferville area (Conliffe, 2013, unpublished data). These data all trace elements have similar or slightly depleted concentrations in QS compared to the unmetamorphosed iron formation. However, due to the low trace-element content of analyzed samples and the parent iron formation, further interpretation is difficult.

The total REE contents (ΣREE) of QS samples are variable (ranging from 0.80 to 191.11 ppm), with most samples having low ΣREE of < 50 ppm. The REE data are normalized to the average value of post-Archean Australian shale (PAAS). The distribution of REE is also highly variable (Figure 5), with some samples strongly depleted in LREE ($\text{La}/\text{Yb}_{\text{PAASN}} < 0.2$) and others enriched

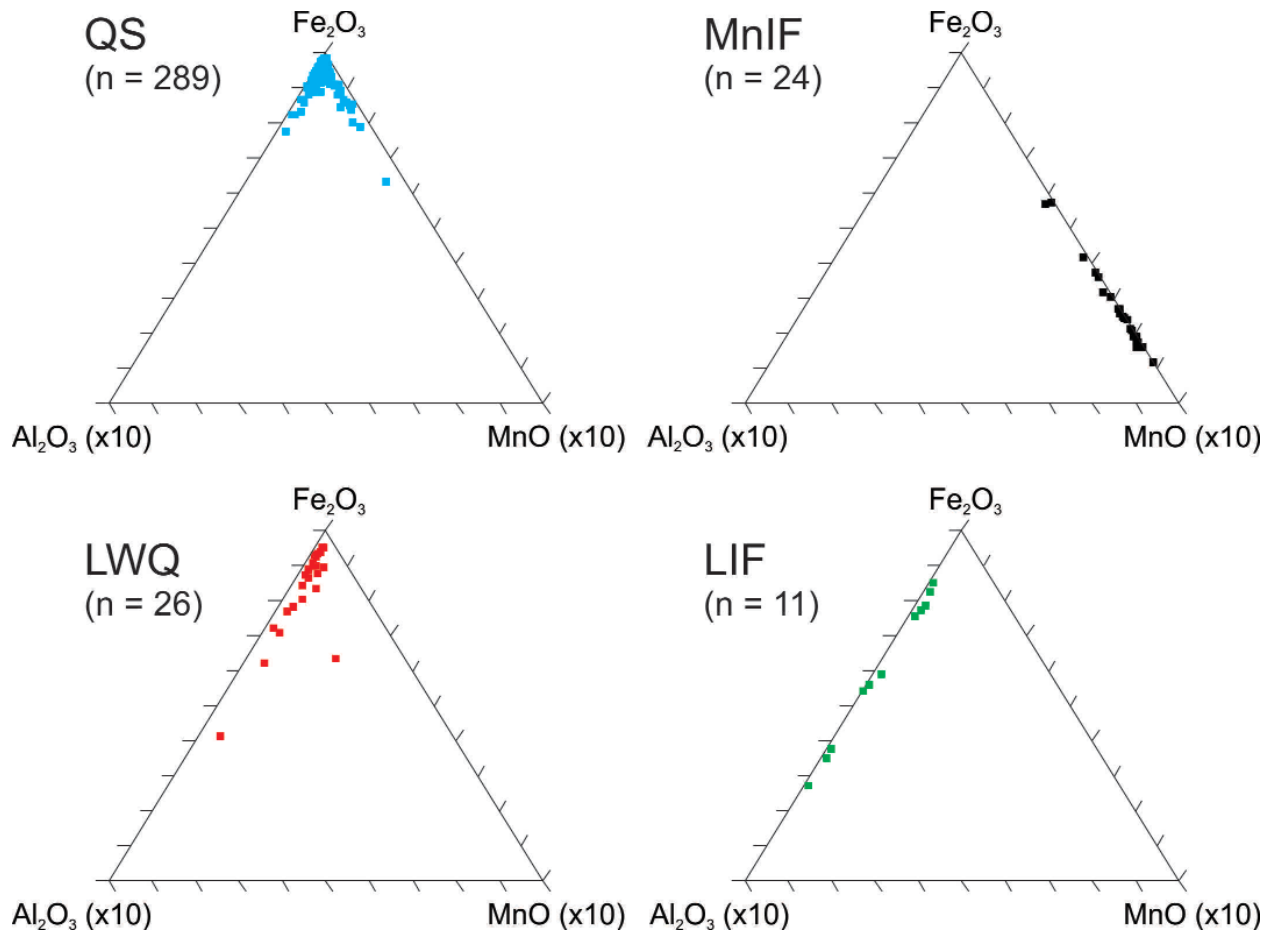


Figure 3: $Fe_2O_3 - Al_2O_3 (x 10) - MnO (x 10)$ triangular plot showing variations in major element composition between the main rock types.

in LREE ($La/Yb_{PAASN} > 2$). Such a wide range in La/Yb ratios is unlikely to be related to primary lithological values, and is instead attributed to mobilization of LREE during later chemical weathering. Also, the QS samples have a consistent positive Eu_{PAASN} anomaly ($Eu/Eu^* = 1.36 \pm 0.26$).

Mn-rich Iron Formation (MnIF)

The Mn-rich Iron Formation is characterized by MnO contents of > 2 wt. %, with values ranging from 2.39 to 29.65 wt. %. Other major element contents are similar to QS, with the dominant elements SiO_2 and Fe_2O_3 ($SiO_2 + Fe_2O_3 = 60.4$ to 95.6 wt. %; Figure 2) and normalized plots showing strong depletion in MgO and CaO and weak enrichment in Al_2O_3 (Figure 4). These plots also show weak enrichment in Na_2O and K_2O but this is attributable to the low Na_2O and K_2O content of the parent iron formation (< 0.03 wt. %).

Trace-element data show that the MnIF samples are moderately to strongly enriched in large ion-lithophile elements (LILE), particularly Ba, Sr and Pb (Figure 4). These elements are usually mobile during fluid-rock interactions. Other trace-element contents are similar to QS samples. The REE data show that all MnIF samples are enriched in LREE ($La/Yb_{PAASN} > 1$) and have positive Eu anomalies (Figure 5).

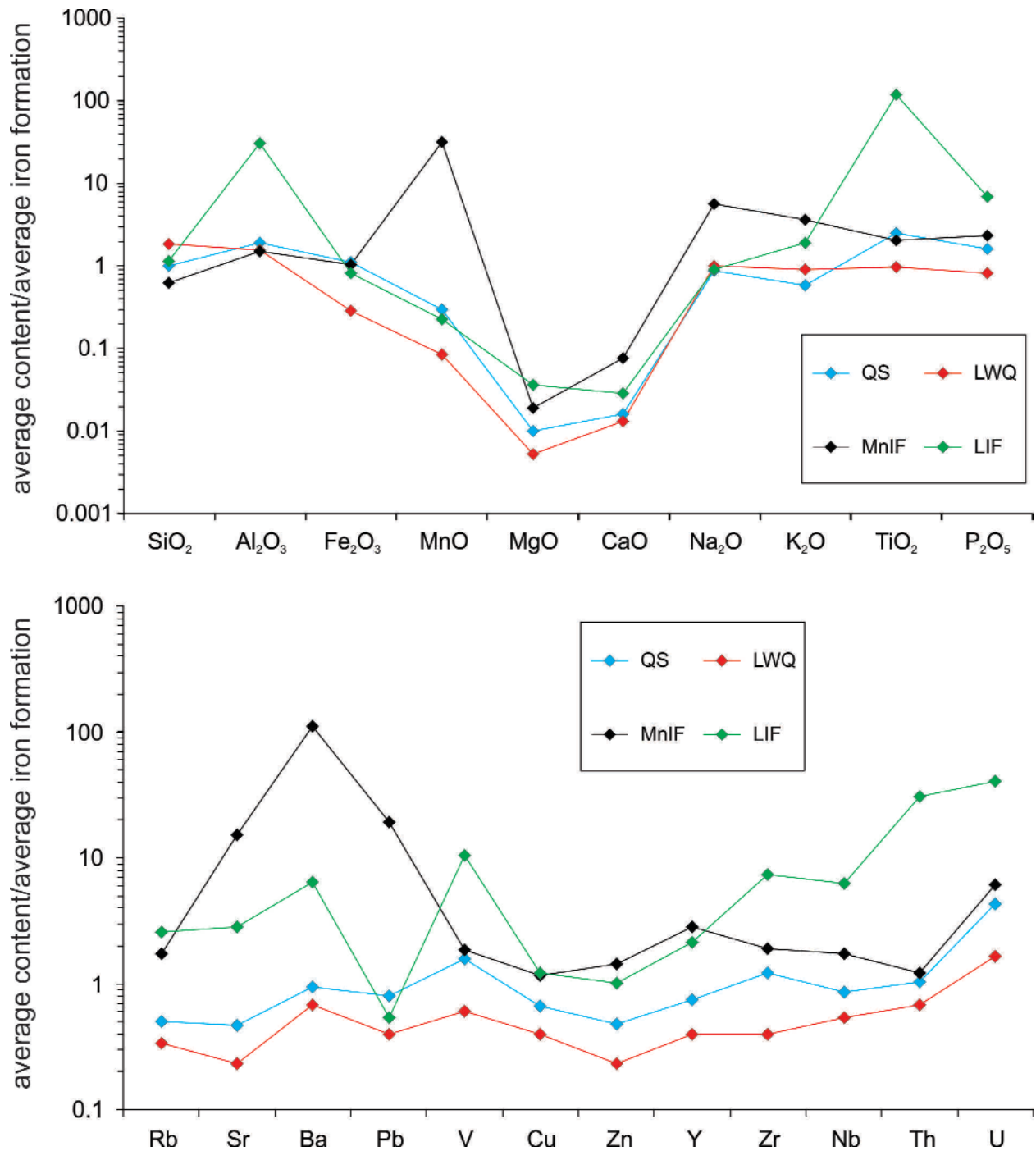


Figure 4: Major and minor element composition of main rock types, normalized against average iron formation composition from Schefferville area (Conliffe, 2013, unpublished data).

Lean White Quartzite (LWQ)

The LWQ is distinguished from QS by its high SiO₂ (71.5 to 97.1 wt. %) and low Fe₂O₃ (2.03 to 26.47 wt. %) contents (Figure 2). Other major element contents are similar to QS, with normalized values showing moderate to strong depletion in MnO, MgO and CaO and weak enrichment in Al₂O₃ (Figure 4). Trace-element contents are low (< 50 ppm) and generally weakly to moder-

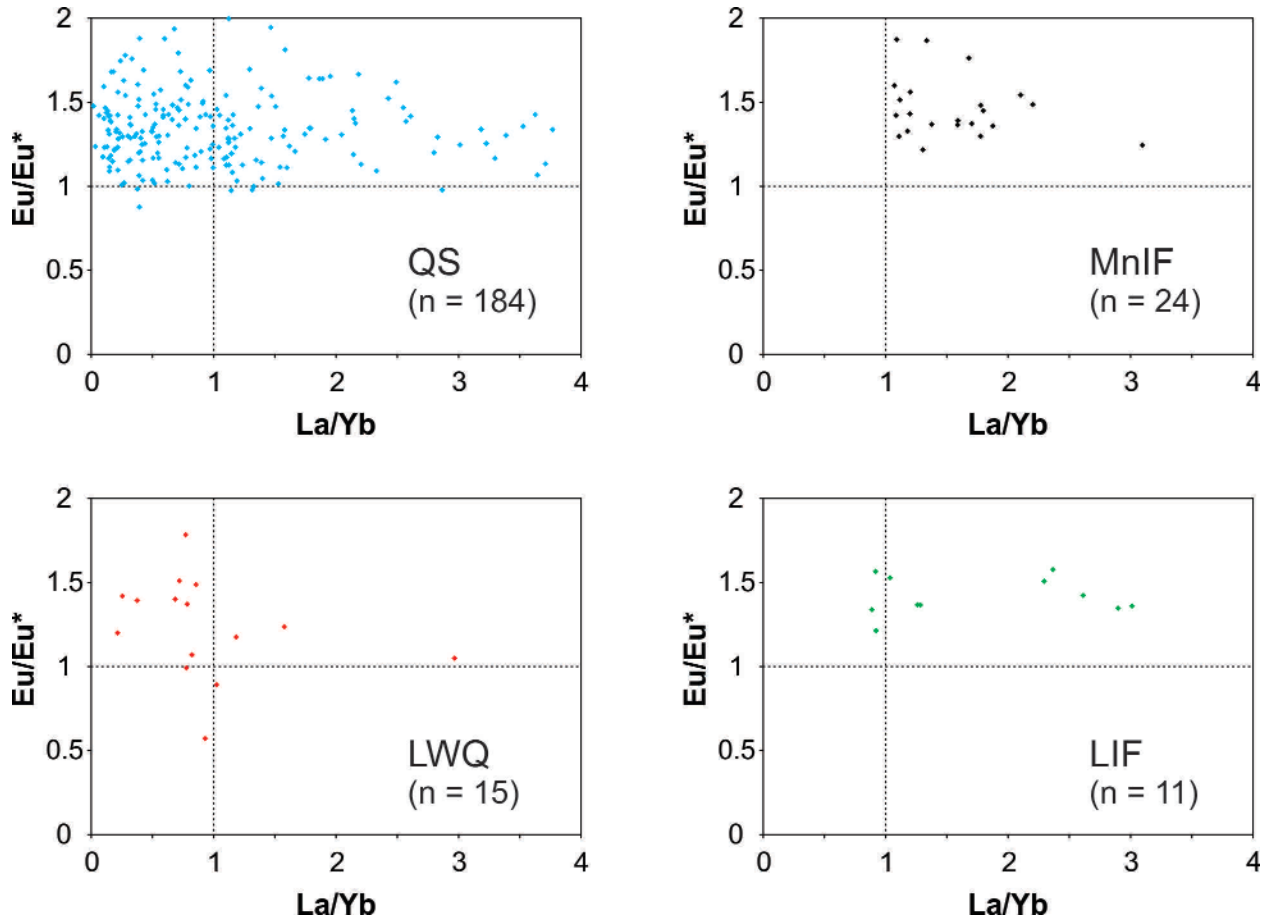


Figure 5: Bivariate plots of La/Yb_{PAASN} vs. Eu/Eu^*_{PAASN} . All data normalized to post-Archean Australian shale (McLennan, 1989). $Eu/Eu^* = Eu_{PAASN} / ((Sm_{PAASN} + Gd_{PAASN}) / 2)$.

ately depleted compared to the parent BIF (Figure 4). The ΣREE content is very low (< 39 ppm) and samples are generally depleted in LREE ($La/Yb_{PAASN} < 1$) with positive Eu anomalies (Figure 5).

Lower Iron Formation (LIF)

The LIF samples have high Al_2O_3 (0.72 to 7.94 wt. %) and TiO_2 (0.11 to 1.55 wt. %) contents when compared to all other iron formation rock types (Figures 3, 4; Table 2). These elements are considered to be highly immobile during all fluid-rock interactions, and such high values indicate either significant volume loss or variations in the original composition of the original sedimentary rock. Similar high Al_2O_3 and TiO_2 contents have been recorded from the Ruth Formation shale in the Schefferville area (Table 2) and due to their similar stratigraphic position (at the base of the iron formation) the LIF is interpreted as a metamorphic equivalent of the Ruth Formation. The balance of the major elements in the LIF predominantly consists of SiO_2 and Fe_2O_3 ($SiO_2 + Fe_2O_3 = 83.1$ to 98 wt. %; Figure 2) with all other major elements < 0.6 wt. %.

Trace-element contents are generally higher in the LIF than all other iron formation rock types. With the exception of Pb all trace elements are weakly to strongly enriched compared to

average iron formation (Figure. 4). In particular, the high-field-strength elements (HFSE) such as Y, Zr, Nb, Th and U are enriched by factors of 2.16 to 40.29. Like Al₂O₃ and TiO₂ these elements are considered immobile, and the high values recorded in the LIF are similar to HFSE contents of Ruth Formation shales in the Schefferville area (Table 2). The REE data indicate that LIF samples can be subdivided into two populations based on their La/Yb_{PASN} ratios (Figure 5). This is not related to sample location or any systematic variation in major or trace elements, and may be related to varying degrees of chemical weathering.

Wishart Formation Quartzite (WQ)

The Wishart Formation quartzite has high SiO₂ content (74.3 to 98.6 wt. %) and relatively low Fe₂O₃ content (0.1 to 4.5 wt. %). In addition, WQ samples have variable Al₂O₃ (0.3 to 13.6 wt. %) and K₂O (0.1 to 6 wt. %), reflecting the high muscovite composition of some samples. Trace-elements contents are generally low (< 100 ppm) with the exception of Ba (up to 1260 ppm) and Zr (up to 608 ppm). The REE data show that WQ samples are enriched in LREE (La/Yb_{PASN} > 1.5). In contrast to the iron formation samples, most WQ samples have negative Eu anomalies (Eu/Eu* < 1), consistent with the non-hydrothermal origin of the Wishart Formation quartzite.

ACKNOWLEDGEMENTS

Sample preparation and geochemical analyses were carried out under the supervision of Chris Finch of the GSNL Geochemistry Laboratory. Garrett Martin provided able assistance during the 2012 field season and Wayne Tuttle is thanked for his excellent logistical support in Goose Bay. The staff of the Mineral Development Division are thanked for providing information on the 2010 exploration program and for assistance during an initial field visit. In particular, John Clarke is thanked for numerous insightful discussions on the geology of the Julienne Lake iron ore deposit. Andrew Kerr provided a thoughtful review of an early version of this document.

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DIGITAL FILES

The data for this open file are provided as *.csv files

APPENDIX A – Drillhole locational information

APPENDIX B – Drillhole sample descriptions

APPENDIX C – Outcrop sample descriptions

APPENDIX D – Drillhole samples geochemical data

APPENDIX E – Outcrop samples geochemical data

APPENDIX F – Major element ICP-OES-FUS standards and duplicate data

APPENDIX G – Trace element ICP-ES standards and duplicate data

APPENDIX H – Trace element ICP-MS-FUS standards and duplicate data

APPENDIX A: Drillhole locational information

DDH_ID	Section	Length_m	UTMEast	UTMNorth	UTMZone	Datum	Dip	Azimuth
JL10-01	L1800E	300	648457	5889290.13	19	NAD27	-90	0
JL10-01A	L1800E	293	648496	5889516.65	19	NAD27	-50	150
JL10-05+EXT	L1800E	575	648414	5889363.83	19	NAD27	-90	0
JL10-08	L1800E	302	648342	5889493.93	19	NAD27	-90	0
JL10-11A+EXT	L1800E	355	648266	5889624.64	19	NAD27	-90	0
JL10-14	L1350E	185	648018	5889136.75	19	NAD27	-90	0
JL10-15	L1800E	273	648195	5889753.69	19	NAD27	-90	0
JL10-16	L1350E	182	648064	5889052.84	19	NAD27	-90	0
JL10-16A	L1350E	178	648103	5889279.4	19	NAD27	-50	150
JL10-17B	L1800E	181	648095	5889923.93	19	NAD27	-90	0
JL10-20	L1800E	133	648055	5889998.79	19	NAD27	-90	0
JL10-26	L2100E	326	648536	5889777	19	NAD27	-90	0

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-001	10440235	JL10-20	2.48	2.75	QS	3.95	Massive quartz-specularite schist
JC12JL-002	10440236	JL10-20	8.6	8.88	QS	2.17	Massive quartz-specularite schist
JC12JL-003	10440237	JL10-20	13.53	13.67	QS	10.2	Massive quartz-specularite schist with martite
JC12JL-004	10440238	JL10-20	14.28	14.53	QS	1.78	Hard blue hematite band
JC12JL-006	10440239	JL10-20	16.2	16.36	QS	1.55	Banded quartz-specularite schist with coarse grained specularite
JC12JL-007	10440241	JL10-20	23.54	23.67	QS	9.87	Banded quartz-specularite schist with small scale Z-folc
JC12JL-008	10440242	JL10-20	25.7	25.9	QS	1.37	Banded quartz-specularite schist
JC12JL-009	10440243	JL10-20	35.7	35.86	QS	1.42	Banded quartz-specularite schist with hematite and limonite alterior
JC12JL-010	10440244	JL10-20	37.25	37.4	QS	12	Banded quartz-specularite schist
JC12JL-011	10440245	JL10-20	39.8	39.98	QS	14.9	Banded quartz-specularite schist with martite
JC12JL-012	10440246	JL10-20	55.42	55.62	QS	4.95	Brecciated quartz-specularite schist
JC12JL-013	10440247	JL10-20	66.15	66.34	QS	3.27	Banded quartz-specularite schist with hematite and limonite alterior
JC12JL-014	10440248	JL10-20	78.63	78.75	QS	0.199	Banded quartz-specularite schist with vuggy brown hematite veir
JC12JL-015	10440249	JL10-20	80.15	80.5	QS	1.16	Friable leached quartz-specularite schist
JC12JL-016	10440251	JL10-20	84.82	85	QS	1.46	Brecciated quartz-specularite schist
JC12JL-017	10440252	JL10-20	88.72	88.9	QS	5.86	Banded quartz-specularite schist
JC12JL-018	10440253	JL10-20	102.83	102.98	QS	0.796	Brecciated iron formation
JC12JL-019	10440254	JL10-20	112.48	112.78	LIF	1.48	Lower iron formation with banding
JC12JL-020	10440255	JL10-20	117.33	117.46	WQ	0.03	Wishart Formation quartzite with banding
JC12JL-021	10440256	JL10-15	7.75	8	QS	3.79	Brecciated quartz-specularite schist
JC12JL-022	10440257	JL10-15	11.08	11.32	QS	74.5	Massive quartz-specularite schist with coarse grained martite
JC12JL-023	10440258	JL10-15	15.35	15.65	QS	3.09	Quartz-specularite schist with abundant quartz stringers
JC12JL-024	10440259	JL10-15	22.8	23	QS	1.36	Brecciated, quartz rich quartz-specularite schist
JC12JL-025	10440261	JL10-15	28.12	28.3	QS	11.6	Hard blue hematite with vuggy brown hematite veir
JC12JL-026	10440262	JL10-15	31.34	31.73	QS	4.62	Quartz-specularite schist with quartz-specularite veir
JC12JL-027	10440263	JL10-15	42.58	42.71	LWQ	6.35	Banded lean white quartzite
JC12JL-028	10440264	JL10-15	43.8	43.93	QS	42.2	Massive quartz-specularite schist with martite crystals
JC12JL-029	10440265	JL10-15	53.74	54	QS	7.2	Specularite rich quartz-specularite schist with quartz clots
JC12JL-030	10440266	JL10-15	57.64	57.82	QS	3.41	Quartz rich brecciated quartz-specularite schisi
JC12JL-031	10440267	JL10-15	66	66.31	QS	5.83	Brecciated quartz-specularite schist
JC12JL-032	10440268	JL10-15	81.97	82.31	QS	8.79	Specularite rich quartz-specularite schist
JC12JL-033	10440269	JL10-15	92	92.22	LWQ	0.768	Lean white quartzite with hematite alterior
JC12JL-034	10440271	JL10-15	107	107.38	MnIF	7.18	Black, friable Mn-rich iron formation
JC12JL-035	10440272	JL10-15	118.18	118.5	QS	7.33	Quartz-specularite schist with quartz veir
JC12JL-036	10440273	JL10-15	121.3	121.56	QS	21.3	Massive quartz-specularite schist with coarse grained martite crystals
JC12JL-037	10440274	JL10-15	138.7	139	QS	2.43	Brecciated quartz-specularite schist
JC12JL-038	10440275	JL10-15	149.56	149.76	QS	3.85	Banded quartz-specularite schist
JC12JL-039	10440276	JL10-15	158.9	159.24	QS	4.89	Banded quartz-specularite schist with limonite layers
JC12JL-041	10440277	JL10-15	171.44	171.58	QS	4.58	Banded, pitted quartz-specularite schist with strong limonite alterior
JC12JL-042	10440278	JL10-15	174.9	175.05	MnIF	6.39	Black, friable Mn-rich iron formation
JC12JL-043	10440279	JL10-15	180	180.15	QS	2.28	Banded quartz-specularite schist
JC12JL-044	10440281	JL10-15	194.93	195.2	MnIF	2.74	Mn-rich iron formation with pyrolusite veinlets
JC12JL-045	10440282	JL10-15	205.4	205.69	QS	2.11	Massive quartz-specularite schist
JC12JL-046	10440283	JL10-15	228.52	228.8	QS	4.19	Banded quartz-specularite schist
JC12JL-048	10440284	JL10-15	238.9	239.3	MnIF	3.64	Black, friable Mn-rich iron formation
JC12JL-049	10440285	JL10-15	245.02	245.29	QS	7.36	Massive quartz-specularite schist
JC12JL-050	10440286	JL10-15	264	264.21	LIF	0.477	Lower iron formation with weak hematite alterior
JC12JL-051	10440287	JL10-15	268	269	WQ	0.021	Broken up pieces of Wishart Formation quartzite, sample depth approximate (± 50cm)
JC12JL-052	10440288	JL10-05+EXT	1.42	1.67	MnIF	7.4	Massive quartz-specularite schist with pyrolusite veinlets
JC12JL-053	10440289	JL10-05+EXT	10.59	10.84	QS	7.03	Massive quartz-specularite schist

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-054	10440291	JL10-05+EXT	13.77	14	MnIF	8.96	Iron formation with disseminated pyrolusite
JC12JL-055	10440292	JL10-05+EXT	23.47	23.75	QS	13.2	Massive quartz-specularite schist
JC12JL-056	10440293	JL10-05+EXT	32.19	32.45	QS	9.28	Massive quartz-specularite schist with quartz vein
JC12JL-059	10440294	JL10-05+EXT	42.59	42.8	QS	3.24	Massive quartz-specularite schist with vuggy brown hematite veir
JC12JL-061	10440295	JL10-05+EXT	56.28	56.59	QS	7.25	Banded quartz-specularite schist with small scale folds
JC12JL-062	10440296	JL10-05+EXT	61.72	62	MnIF	4.25	Black, friable Mn-rich iron formation
JC12JL-063	10440297	JL10-05+EXT	71.08	71.25	QS	1.19	Massive quartz-specularite schist
JC12JL-064	10440298	JL10-05+EXT	79.79	79.95	QS	3.17	Pitted quartz-specularite schist with weak hematite alteratior
JC12JL-065	10440299	JL10-05+EXT	83.5	83.74	LWQ	3.12	Lean white quartzite
JC12JL-066	10440301	JL10-05+EXT	88.21	88.38	QS	18.1	Specularite rich quartz-specularite schist
JC12JL-067	10440302	JL10-05+EXT	92.23	92.5	QS	5.92	Folded breccia zone
JC12JL-068	10440303	JL10-05+EXT	96.45	96.63	QS	6.09	Relatively fresh quartz-specularite schist
JC12JL-069	10440304	JL10-05+EXT	101.86	102.05	QS	8.19	Strongly altered quartz-specularite schist
JC12JL-070	10440305	JL10-05+EXT	122.57	122.76	QS	39	Magnetite rich quartz-specularite schist
JC12JL-071	10440306	JL10-05+EXT	131.72	131.95	QS	18.4	Relatively fresh quartz-specularite schist
JC12JL-072	10440307	JL10-05+EXT	143	143.28	QS	7.73	Porous quartz-specularite schist
JC12JL-074	10440308	JL10-05+EXT	152.94	153.16	QS	6.65	Breccia zone
JC12JL-075	10440309	JL10-05+EXT	172.5	172.75	QS	10.1	Banded quartz-specularite schist
JC12JL-076	10440311	JL10-05+EXT	176.13	176.38	LWQ	4.33	Lean white quartzite with disseminated specularite
JC12JL-077	10440312	JL10-05+EXT	176.99	177.12	QS	10.3	Banded quartz-specularite schist
JC12JL-079	10440313	JL10-05+EXT	188.23	188.43	QS	1.17	Quartz-specularite schist with leopard texture
JC12JL-080	10440314	JL10-05+EXT	193.3	193.53	MnIF	4.67	Manganese rich layer
JC12JL-081	10440315	JL10-05+EXT	204.4	204.7	QS	12.3	Massive quartz-specularite schist
JC12JL-082	10440316	JL10-05+EXT	213.37	213.53	QS	5.72	Massive quartz-specularite schist with quartz filled vugs
JC12JL-083	10440317	JL10-05+EXT	217.05	217.25	QS	2.62	Pitted, massive quartz-specularite schist
JC12JL-084	10440318	JL10-05+EXT	229.3	229.45	QS	1.88	Brecciated quartz-specularite schist
JC12JL-085	10440319	JL10-05+EXT	237.2	237.41	QS	7.86	Banded, partially brecciated quartz-specularite schist
JC12JL-086	10440321	JL10-05+EXT	248.55	248.73	QS	3.18	Brecciated and pitted quartz-specularite schist
JC12JL-087	10440322	JL10-05+EXT	256.04	256.23	QS	4.05	Brecciated quartz-specularite schist
JC12JL-089	10440323	JL10-05+EXT	275.23	275.48	QS	4.38	Massive quartz-specularite schist
JC12JL-090	10440324	JL10-05+EXT	286.5	286.65	QS	1.5	Banded quartz-specularite schist with bands of coarse grained specularite
JC12JL-091	10440325	JL10-05+EXT	292.61	292.86	QS	0.471	Friable quartz-specularite schist with strong limonite alteratior
JC12JL-092	10440326	JL10-05+EXT	300.1	300.29	QS	1.04	Massive quartz-specularite schist
JC12JL-093	10440327	JL10-05+EXT	307.46	307.68	QS	0.804	Quartz rich iron formation
JC12JL-094	10440328	JL10-05+EXT	315.21	315.42	QS	8.65	Massive quartz-specularite schist
JC12JL-095	10440329	JL10-05+EXT	319.59	319.82	QS	2.3	Hard hematite/quartz-specularite schist in fault zone
JC12JL-096	10440331	JL10-05+EXT	330.46	330.67	QS	5.05	Massive quartz-specularite schist
JC12JL-097	10440332	JL10-05+EXT	342.27	342.5	QS	3.48	Pitted, massive quartz-specularite schist with weak hematite alteratior
JC12JL-098	10440333	JL10-05+EXT	345.36	345.6	QS	9.43	Massive quartz-specularite schist with quartz filled vugs
JC12JL-099	10440334	JL10-05+EXT	349.87	350	QS	3.16	Brecciated quartz-specularite schist
JC12JL-100	10440335	JL10-05+EXT	363	363.18	QS	2.81	Partially brecciated quartz-specularite schist
JC12JL-101	10440336	JL10-05+EXT	375.4	375.55	QS	1.42	Strongly altered and leached quartz-specularite schist
JC12JL-102	10440337	JL10-05+EXT	383.5	383.7	QS	3.64	Strongly altered and leached quartz-specularite schist
JC12JL-104	10440338	JL10-05+EXT	402.14	402.34	QS	1.11	Massive quartz-specularite schist
JC12JL-105	10440339	JL10-05+EXT	414.5	414.7	QS	5.26	Altered and leached quartz-specularite schist
JC12JL-106	10440341	JL10-05+EXT	425	425.2	QS	3.33	Altered and leached quartz-specularite schist
JC12JL-107	10440342	JL10-05+EXT	437.1	437.22	QS	13	Banded quartz-specularite schist
JC12JL-109	10440343	JL10-05+EXT	447	447.2	QS	6.34	Banded quartz-specularite schist
JC12JL-110	10440344	JL10-05+EXT	451.22	451.35	QS	5.99	Folded quartz-specularite schist
JC12JL-111	10440345	JL10-05+EXT	461.93	462.1	QS	7.85	Banded quartz-specularite schist

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-112	10440346	JL10-05+EXT	475.83	476	QS	3.07	Banded quartz-specularite schist
JC12JL-113	10440347	JL10-05+EXT	485.67	485.86	QS	4.28	Pitted, massive quartz-specularite schist with weak hematite alterati
JC12JL-114	10440348	JL10-05+EXT	494	494.3	QS	2.84	Banded quartz-specularite schist
JC12JL-115	10440349	JL10-05+EXT	503.15	503.4	QS	3.53	Banded quartz-specularite schist
JC12JL-116	10440351	JL10-05+EXT	514.79	514.95	QS	8.19	Banded, friable quartz-specularite schist
JC12JL-117	10440352	JL10-05+EXT	521	521.28	QS	11.5	Massive quartz-specularite schist
JC12JL-118	10440353	JL10-05+EXT	535.38	535.62	QS	4.04	Pitted, massive quartz-specularite schist with quartz filled vuç
JC12JL-119	10440354	JL10-05+EXT	544.22	544.5	QS	7.85	Banded quartz-specularite schist
JC12JL-120	10440355	JL10-05+EXT	554.79	555.1	QS	6.25	Banded quartz-specularite schist with small scale folc
JC12JL-121	10440356	JL10-05+EXT	563.8	564.09	QS	3.56	Banded quartz-specularite schist
JC12JL-122	10440357	JL10-05+EXT	572.17	572.38	WQ	0.033	Wishart Formation quartzite
JC12JL-123	10440358	JL10-08	5.25	5.42	QS	3.14	Folded quartz-specularite schist with moderate hematite alterati
JC12JL-124	10440359	JL10-08	18.78	19.05	QS	8.4	Friable, massive quartz-specularite schist with limonite layers
JC12JL-125	10440361	JL10-08	32.3	32.51	QS	5.68	Brecciated massive quartz-specularite schist with limonite layers
JC12JL-126	10440362	JL10-08	42	42.17	QS	14.4	Massive quartz-specularite schist with limonite-rich layers
JC12JL-127	10440363	JL10-08	49.5	49.75	QS	0.87	Folded quartz-specularite schist with weak limonite alterati
JC12JL-128	10440364	JL10-08	56.71	56.78	QS	6.36	Massive quartz-specularite schist
JC12JL-130	10440365	JL10-08	78.2	78.35	QS	2.81	Pitted massive quartz-specularite schist (pits after carbonates), with crenulated bedding
JC12JL-131	10440366	JL10-08	84.41	84.55	QS	3.87	Banded quartz-specularite schist
JC12JL-132	10440367	JL10-08	89.04	89.23	LWQ	2.19	Brecciated lean white quartzite with specularite veinlets
JC12JL-133	10440368	JL10-08	92.9	93	LWQ	0.188	Brecciated lean white quartzite with minor specularite veinlets
JC12JL-134	10440369	JL10-08	100.44	100.63	QS	11.4	Massive quartz-specularite schist with quartz/specularite veir
JC12JL-135	10440371	JL10-08	106.27	106.5	FLT	2.01	Fault zone in quartz-specularite schist, with abundant goethite
JC12JL-136	10440372	JL10-08	112.1	112.2	LWQ	0.021	Lean white quartzite with minor specularite veins
JC12JL-137	10440373	JL10-08	119.53	119.72	QS	9.94	Massive quartz-specularite schist
JC12JL-138	10440374	JL10-08	129.65	129.81	QS	5.05	Massive quartz-specularite schist
JC12JL-139	10440375	JL10-08	132.25	132.45	LWQ	0.899	Lean white quartzite, with some disseminated specularite
JC12JL-140	10440376	JL10-08	139.8	140	QS	1.24	Porous, massive quartz-specularite schist
JC12JL-141	10440377	JL10-08	148.78	148.98	QS	4.16	Massive quartz-specularite schist (specularite-rich)
JC12JL-142	10440378	JL10-08	160.05	160.18	QS	22.8	Massive quartz-specularite schist
JC12JL-144	10440379	JL10-08	172.81	173	QS	8.63	Massive quartz-specularite schist with limonite alterati
JC12JL-145	10440381	JL10-08	182.05	182.24	QS	5.89	Massive quartz-specularite schist
JC12JL-146	10440382	JL10-08	191.88	192.1	MnIF	3.87	Banded Mn-rich iron formation
JC12JL-147	10440383	JL10-08	204	204.2	QS	2.06	Quartz rich quartz-specularite schist
JC12JL-148	10440384	JL10-08	210.75	210.95	QS	2.03	Massive quartz-specularite schist
JC12JL-149	10440385	JL10-08	221.78	221.97	QS	3.4	Massive, specularite rich quartz-specularite schist
JC12JL-150	10440386	JL10-08	230.75	230.95	QS	1.43	Altered, friable quartz-specularite schist with abundant goethite
JC12JL-151	10440387	JL10-08	244.3	244.37	QS	12.7	Quartz rich quartz-specularite schist
JC12JL-152	10440388	JL10-08	249.5	249.58	LWQ	1.08	Lean white quartzite with specularite veinlets and weak limonite and hematite alterati
JC12JL-153	10440389	JL10-08	255.35	255.4	QS	11.8	Massive quartz-specularite schist
JC12JL-154	10440391	JL10-08	264.1	264.18	QS	11.8	Massive quartz-specularite schist
JC12JL-155	10440392	JL10-08	266.64	266.7	VN	0.016	Quartz vein
JC12JL-156	10440393	JL10-08	270.55	270.85	MnIF	6.08	Mn-rich iron formation, with massive vuggy specularite and goethite alterati
JC12JL-157	10440394	JL10-08	280.69	280.92	QS	7.22	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-158	10440395	JL10-08	291.62	291.81	QS	10.5	Massive quartz-specularite schist with specularite rich banc
JC12JL-159	10440396	JL10-08	301	301.2	QS	4.24	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-161	10440397	JL10-11A+EXT	15.5	15.8	QS	2.7	Pitted quartz-specularite schist with moderate limonite alterati
JC12JL-162	10440398	JL10-11A+EXT	24.7	25	QS	12.1	Massive quartz-specularite schist with goethite alterati
JC12JL-163	10440399	JL10-11A+EXT	35.05	35.25	QS	19.4	Massive quartz-specularite schist, folded with limonite alterati
JC12JL-164	10440401	JL10-11A+EXT	42.25	42.4	QS	4.46	Massive quartz-specularite schist, folded with limonite alterati

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-165	10440402	JL10-11A+EXT	50.21	50.4	QS	5.81	Quartz-specularite schist with coarse grained specularite, weakly alterec
JC12JL-166	10440403	JL10-11A+EXT	55.2	55.42	QS	2.99	Quartz-rich band in quartz-specularite schist
JC12JL-167	10440404	JL10-11A+EXT	59.12	59.37	QS	4.23	Porous quartz-specularite schist
JC12JL-168	10440405	JL10-11A+EXT	67.35	67.5	LWQ	0.077	Lean white quartzite with minor disseminated specularite
JC12JL-169	10440406	JL10-11A+EXT	76.74	76.91	QS	9.54	Pitted, massive quartz-specularite schist with weak goethite alteratior
JC12JL-170	10440407	JL10-11A+EXT	85.03	85.19	QS	13.4	Brecciated, vuggy quartz-specularite schist
JC12JL-171	10440408	JL10-11A+EXT	93.51	93.71	QS	11.8	Massive quartz-specularite schist with coarse grained specularite
JC12JL-172	10440409	JL10-11A+EXT	97.61	97.77	QS	15.2	Massive quartz-specularite schist
JC12JL-173	10440411	JL10-11A+EXT	107.17	107.33	QS	3.72	Massive quartz-specularite schist with coarse grained specularite
JC12JL-174	10440412	JL10-11A+EXT	116.46	116.66	QS	6.67	Cataclastic breccia with quartz clots
JC12JL-175	10440413	JL10-11A+EXT	125.74	125.91	QS	20.8	Massive quartz-specularite schist
JC12JL-176	10440414	JL10-11A+EXT	132.78	133.1	QS	12.1	Quartz-specularite schist with quartz veins
JC12JL-177	10440415	JL10-11A+EXT	142.07	142.31	QS	10.1	Banded quartz-specularite schist
JC12JL-178	10440416	JL10-11A+EXT	152	152.25	QS	4.44	Banded, friable quartz-specularite schist
JC12JL-179	10440417	JL10-11A+EXT	161	161.3	QS	15.3	Banded, schistose quartz-specularite schist
JC12JL-180	10440418	JL10-11A+EXT	168.75	170	QS	6.72	Banded, schistose quartz-specularite schist
JC12JL-181	10440419	JL10-11A+EXT	179	179.16	QS	6.92	Banded quartz-specularite schist
JC12JL-182	10440421	JL10-11A+EXT	186.95	187.15	LWQ	5.74	Banded lean white quartzite with specularite rich layer:
JC12JL-183	10440422	JL10-11A+EXT	192.3	192.55	QS	9.4	Banded, pitted quartz-specularite schist with coarse grained specularite
JC12JL-184	10440423	JL10-11A+EXT	203.4	203.6	QS	3.66	Brecciated quartz-specularite schist with weak alteratior
JC12JL-185	10440424	JL10-11A+EXT	206.02	206.22	QS	3.54	Banded quartz-specularite schist
JC12JL-186	10440425	JL10-11A+EXT	208.16	208.38	LWQ	0.333	Lean white quartzite
JC12JL-187	10440426	JL10-11A+EXT	216.5	216.73	QS	4.59	Banded quartz-specularite schist
JC12JL-188	10440427	JL10-11A+EXT	224.69	224.9	QS	1.36	Banded, quartz rich quartz-specularite schist with coarse grained specularite
JC12JL-190	10440428	JL10-11A+EXT	234.3	234.55	QS	2.08	Banded quartz-specularite schist with weak hematite alteratior
JC12JL-191	10440429	JL10-11A+EXT	243.45	243.74	QS	6.62	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-192	10440431	JL10-11A+EXT	248.43	248.7	QS	2.63	Friable, schistose quartz-specularite schist
JC12JL-193	10440432	JL10-11A+EXT	256.38	256.66	QS	6.72	Banded quartz-specularite schist with weak hematite alteratior
JC12JL-194	10440433	JL10-11A+EXT	263.3	263.55	QS	9.52	Specularite rich quartz-specularite schist
JC12JL-195	10440434	JL10-11A+EXT	264.13	264.33	QS	0.673	Leached, quartz rich quartz-specularite schist
JC12JL-196	10440435	JL10-11A+EXT	272.4	272.7	QS	10.9	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-197	10440436	JL10-11A+EXT	282.25	282.45	QS	3.75	Pitted banded quartz-specularite schist (pits after carbonates)
JC12JL-198	10440437	JL10-11A+EXT	293.5	293.78	QS	5.65	Banded quartz-specularite schist with weak hematite alteratior
JC12JL-199	10440438	JL10-11A+EXT	300.38	300.6	QS	5.52	Massive quartz-specularite schist
JC12JL-200	10440439	JL10-11A+EXT	309.6	309.85	QS	3.7	Partially brecciated, specularite rich quartz-specularite schist
JC12JL-201	10440441	JL10-11A+EXT	318.3	318.56	QS	4.53	Banded quartz-specularite schist
JC12JL-202	10440442	JL10-11A+EXT	327.22	327.42	QS	3.28	Banded quartz-specularite schist
JC12JL-203	10440443	JL10-11A+EXT	334.72	334.92	QS	1.81	Massive specularite horizon
JC12JL-204	10440444	JL10-11A+EXT	335.5	335.8	QS	1.61	Massive specularite horizon
JC12JL-205	10440445	JL10-11A+EXT	339.9	340.13	QS	7.25	Banded quartz-specularite schist
JC12JL-206	10440446	JL10-11A+EXT	348.72	348.94	QS	22.2	Banded quartz-specularite schist
JC12JL-207	10440447	JL10-11A+EXT	351.5	351.75	LIF	0.076	Strongly altered lower iron formation
JC12JL-208	10440448	JL10-11A+EXT	353.75	354	WQ	0.024	Leached and friable Wishart Formation quartzite
JC12JL-209	10440449	JL10-01	4.27	4.5	QS	5.41	Massive quartz-specularite schist, moderately leached and alterec
JC12JL-210	10440451	JL10-01	14.26	14.47	QS	9.67	Banded quartz-specularite schist
JC12JL-211	10440452	JL10-01	23.38	23.54	QS	8.33	Banded quartz-specularite schist
JC12JL-212	10440453	JL10-01	31.75	32.05	QS	3.17	Massive quartz-specularite schist
JC12JL-213	10440454	JL10-01	35.74	36	MnIF	18.3	Black, friable Mn-rich iron formation
JC12JL-215	10440455	JL10-01	39.4	39.55	QS	11.4	Massive quartz-specularite schist
JC12JL-216	10440456	JL10-01	44	44.2	QS	6.37	Leached quartz-specularite schist with limonite alteratior

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-217	10440457	JL10-01	47.55	47.8	MnIF	18.2	Black, friable Mn-rich iron formation
JC12JL-218	10440458	JL10-01	55.7	56	QS	12.7	Massive quartz-specularite schist
JC12JL-219	10440459	JL10-01	65.65	65.82	QS	25	Massive quartz-specularite schist
JC12JL-220	10440461	JL10-01	74.18	74.39	QS	8.69	Massive quartz-specularite schist with hematite lined microfractures
JC12JL-221	10440462	JL10-01	79.32	79.54	QS	7.67	Strongly altered friable quartz-specularite schist, with abundant limonite
JC12JL-222	10440463	JL10-01	89	89.21	QS	4.85	Massive quartz-specularite schist
JC12JL-223	10440464	JL10-01	98	98.22	QS	3.57	Massive quartz-specularite schist
JC12JL-224	10440465	JL10-01	104.23	104.55	QS	8.78	Massive quartz-specularite schist
JC12JL-225	10440466	JL10-01	113.58	113.76	QS	3.23	Brecciated quartz-specularite schist, with limonite lined fractures
JC12JL-226	10440467	JL10-01	123.87	124.07	QS	3.61	Massive quartz-specularite schist
JC12JL-227	10440468	JL10-01	134.08	134.26	MnIF	3.85	Black, friable Mn-rich iron formation
JC12JL-228	10440469	JL10-01	138.69	138.88	QS	2.63	Massive quartz-specularite schist between Mn-rich iron formation
JC12JL-229	10440471	JL10-01	140.27	140.5	MnIF	2.09	Black, friable Mn-rich iron formation
JC12JL-230	10440472	JL10-01	144.69	145	MnIF	3.16	Massive quartz-specularite schist band in Mn-rich iron formation, with late-stage quartz vein
JC12JL-231	10440473	JL10-01	150.4	150.6	MnIF	2.16	Black, friable Mn-rich iron formation
JC12JL-232	10440474	JL10-01	156.65	156.84	QS	6.32	Massive quartz-specularite schist, with weak hematite alteration
JC12JL-233	10440475	JL10-01	166.5	166.72	LWQ	0.632 to 3.05	Banded lean white quartzite
JC12JL-234	10440476	JL10-01	172.1	172.32	LWQ	3.74	Lean white quartzite with stockwork hematite veinlets
JC12JL-235	10440477	JL10-01	179.48	179.6	QS	12.9	Massive quartz-specularite schist
JC12JL-236	10440478	JL10-01	181.63	181.8	QS	2.88	Massive quartz-specularite schist, with weak hematite alteration
JC12JL-237	10440479	JL10-01	187.1	187.3	LWQ	2.03	Brecciated lean white quartzite with weak limonite alteration
JC12JL-238	10440481	JL10-01	188	188.2	LWQ	10.03	Banded lean white quartzite
JC12JL-239	10440482	JL10-01	191.77	191.97	QS	8.59	Massive quartz-specularite schist
JC12JL-240	10440483	JL10-01	198.8	199	LWQ	3.63	Lean white quartzite with numerous hematite lined fractures
JC12JL-241	10440484	JL10-01	203.49	203.76	QS	25.9	Massive quartz-specularite schist
JC12JL-242	10440485	JL10-01	210.1	210.31	QS	3.54	Brecciated quartz-specularite schist
JC12JL-243	10440486	JL10-01	217.57	217.78	QS	4.34	Porous massive quartz-specularite schist
JC12JL-244	10440487	JL10-01	225.8	226.02	QS	6.27	Banded quartz-specularite schist with hematite and limonite alteration
JC12JL-245	10440488	JL10-01	231.75	231.95	QS	1.5	Brecciated quartz-specularite schist
JC12JL-246	10440489	JL10-01	240.85	241	QS	5.02	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-247	10440491	JL10-01	251.16	251.38	QS	4.36	Pitted massive quartz-specularite schist (pits after carbonates) with well developed foliation
JC12JL-248	10440492	JL10-01	261.05	261.23	QS	4.4	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-249	10440493	JL10-01	270.87	271.1	QS	3.83	Pitted massive quartz-specularite schist with bedding at 5 TCA
JC12JL-250	10440494	JL10-01	278.7	278.9	QS	5.01	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-251	10440495	JL10-01	286.5	286.76	QS	6.58	Banded quartz-specularite schist above fault zone
JC12JL-252	10440496	JL10-01A	237.5	237.75	QS	14	Pitted and banded quartz-specularite schist
JC12JL-253	10440497	JL10-01A	244.17	244.4	QS	3.99	Pitted and banded quartz-specularite schist, with preserved folds
JC12JL-254	10440498	JL10-01A	248.7	248.91	QS	5.93	Pitted and banded quartz-specularite schist, with preserved folds
JC12JL-255	10440499	JL10-01A	255.42	255.7	QS	4.46	Porous massive quartz-specularite schist
JC12JL-256	10440501	JL10-01A	262.45	262.62	QS	3.97	Porous quartz-specularite schist with crenulated bedding
JC12JL-257	10440502	JL10-01A	267	267.23	QS	6.54	Banded quartz-specularite schist
JC12JL-258	10440503	JL10-01A	272	272.2	QS	31.3	Massive quartz-specularite schist
JC12JL-259	10440504	JL10-01A	280.78	281	QS	0.279	Brecciated quartz-specularite schist with limonite alteration
JC12JL-260	10440505	JL10-01A	283.8	284	LIF	0.375	Lower iron formation, with hematite and limonite alteration
JC12JL-261	10440506	JL10-01A	287.41	287.64	LIF	0.461	Strongly altered lower iron formation with sheared quartz grains
JC12JL-262	10440507	JL10-01A	291	291.28	WQ	0.016	Massive, crystalline Wishart Formation quartzite
JC12JL-263	10440508	JL10-17B	2.47	2.72	QS	3.66	Quartz-specularite schist with large specularite crystals (leopard texture)
JC12JL-264	10440509	JL10-17B	11.92	12.17	QS	3.9	Coarse grained specularite rich quartz-specularite schist
JC12JL-265	10440511	JL10-17B	23.93	24.2	QS	20.1	Banded quartz-specularite schist with layers of coarse grained martite
JC12JL-266	10440512	JL10-17B	35	35.32	QS	3.59	Massive quartz-specularite schist

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-267	10440513	JL10-17B	43.55	43.8	QS	12.2	Massive quartz-specularite schist
JC12JL-268	10440514	JL10-17B	50.8	51	MnIF	6.57	Black, friable Mn-rich iron formation
JC12JL-269	10440515	JL10-17B	52.51	52.7	QS	6.04	Pitted, banded quartz-specularite schist with strong limonite alterator
JC12JL-270	10440516	JL10-17B	57.26	57.46	MnIF	2.27	Black, friable Mn-rich iron formation with pyrolusite veinlets
JC12JL-271	10440517	JL10-17B	59.72	59.95	QS	3.91	Banded quartz-specularite schist
JC12JL-272	10440518	JL10-17B	65.66	65.87	MnIF	3.98	Black, friable Mn-rich iron formation
JC12JL-273	10440519	JL10-17B	72.85	73.1	QS	4.88	Banded quartz-specularite schist
JC12JL-274	10440521	JL10-17B	81.3	81.5	QS	1.83	Highly fractured quartz-specularite schist with limonite lined fractures
JC12JL-275	10440522	JL10-17B	90.3	90.52	QS	1.69	Massive quartz-specularite schist
JC12JL-276	10440523	JL10-17B	100.68	101	QS	4.49	Banded, fractured quartz-specularite schist
JC12JL-277	10440524	JL10-14	8.16	8.38	QS	5.52	Banded quartz-specularite schist
JC12JL-278	10440525	JL10-14	15.5	15.74	QS	12	Banded, folded quartz-specularite schist
JC12JL-279	10440526	JL10-14	20.21	20.41	QS	11.5	Banded quartz-specularite schist with abundant pits (after carbonates)
JC12JL-280	10440527	JL10-14	25.44	25.74	LWQ	0.92	Lean white quartzite
JC12JL-281	10440528	JL10-14	26.85	27.18	LWQ	4.29	Lean white quartzite with specularite bands
JC12JL-282	10440529	JL10-14	31.85	32.12	QS	11.4	Friable quartz-specularite schist
JC12JL-283	10440531	JL10-14	43.53	43.81	QS	16.5	Friable quartz-specularite schist
JC12JL-284	10440532	JL10-14	49.59	49.9	LWQ	1.89	Lean white quartzite
JC12JL-285	10440533	JL10-14	53.44	53.68	QS	7.55	Banded quartz-specularite schist
JC12JL-286	10440534	JL10-14	59.92	60.25	QS	4.2	Banded quartz-specularite schist
JC12JL-288	10440535	JL10-14	65.75	66	QS	4.67	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-289	10440536	JL10-14	80.87	81.09	QS	2.29	Banded quartz-specularite schist
JC12JL-290	10440537	JL10-14	87.35	87.45	QS	6.46	Brecciated quartz-specularite schist with hematite filled fractures
JC12JL-291	10440538	JL10-14	90.63	90.81	QS	1.91	Banded quartz-specularite schist
JC12JL-292	10440539	JL10-14	99.35	99.53	QS	7.78	Massive quartz-specularite schist
JC12JL-293	10440541	JL10-14	105.59	105.73	QS	8.53	Banded quartz-specularite schist
JC12JL-294	10440542	JL10-14	114.73	114.96	QS	7.46	Banded, friable quartz-specularite schist
JC12JL-295	10440543	JL10-14	121.6	121.88	QS	3.89	Banded quartz-specularite schist
JC12JL-296	10440544	JL10-14	131.44	131.63	QS	1.73	Banded quartz-specularite schist with limonite layers
JC12JL-297	10440545	JL10-14	140.42	140.64	QS	4.13	Pitted massive quartz-specularite schist (pits after carbonates)
JC12JL-298	10440546	JL10-14	150.54	150.75	QS	3.63	Massive quartz-specularite schist
JC12JL-300	10440547	JL10-14	158.73	159.03	QS	15.5	Banded quartz-specularite schist
JC12JL-301	10440548	JL10-14	162.35	162.77	LIF	0.393	Brecciated lower iron formation with garnet pseudomorphs
JC12JL-303	10440549	JL10-14	170.64	170.83	LIF	0.835	Lower iron formation
JC12JL-304	10440551	JL10-14	173.23	173.5	LIF	0.29	Mylonitized, goethite rich lower iron formation
JC12JL-305	10440552	JL10-14	179.22	179.51	WQ	0.028	Granular Wishart Formation quartzite with hematite alteration
JC12JL-306	10440553	JL10-14	184	184.25	WQ	0.027	Granular Wishart Formation quartzite with hematite alteration
JC12JL-307	10440554	JL10-16	6.1	6.29	QS	6.9	Banded quartz-specularite schist
JC12JL-308	10440555	JL10-16	13.31	13.6	QS	16.4	Banded quartz-specularite schist
JC12JL-309	10440556	JL10-16	21.25	21.48	QS	9.65	Massive quartz-specularite schist
JC12JL-310	10440557	JL10-16	26.73	26.91	QS	6.36	Banded quartz-specularite schist
JC12JL-311	10440558	JL10-16	37.73	38	QS	1.27	Friable quartz-specularite schist with strong goethite alterator
JC12JL-312	10440559	JL10-16	43.83	44.16	LWQ	0.013	Lean white quartzite with minor disseminated specularite
JC12JL-313	10440561	JL10-16	52.23	52.52	QS	2.79	Banded quartz-specularite schist
JC12JL-314	10440562	JL10-16	60.77	61	QS	5.89	Banded quartz-specularite schist
JC12JL-315	10440563	JL10-16	68.82	69.1	QS	2.62	Brecciated quartz-specularite schist
JC12JL-316	10440564	JL10-16	77.24	77.53	LWQ	0.145	Lean white quartzite with specularite banc
JC12JL-317	10440565	JL10-16	80.35	80.7	LWQ	0.051	Lean white quartzite with minor disseminated specularite
JC12JL-318	10440566	JL10-16	88.32	88.66	QS	2.07	Massive quartz-specularite schist with strong goethite alterator
JC12JL-319	10440567	JL10-16	98.25	98.46	QS	2.94	Banded quartz-specularite schist with goethite and hematite rich bands

APPENDIX B: Drillhole sample descriptions

Sample_Num	Lab_Num	DDH_ID	From_m	To_m	Litho_code	Mag_suscep	Description
JC12JL-320	10440568	JL10-16	106.56	106.8	QS	10.9	Banded quartz-specularite schist
JC12JL-321	10440569	JL10-16	117.58	117.9	QS	6.09	Banded quartz-specularite schist
JC12JL-322	10440571	JL10-16	127.55	127.75	QS	10.8	Banded to massive quartz-specularite schist
JC12JL-323	10440572	JL10-16	134	134.3	MnIF	0.799	Manganese rich layer
JC12JL-324	10440573	JL10-16	136	136.1	QS	2.17	Hard blue hematite
JC12JL-325	10440574	JL10-16	141.17	141.47	QS	4.43	Banded quartz-specularite schist
JC12JL-326	10440575	JL10-16	149.68	149.88	QS	7.01	Banded quartz-specularite schist with weak hematite alterior
JC12JL-327	10440576	JL10-16	159.37	159.52	QS	1.25	Banded quartz-specularite schist with weak hematite alterior
JC12JL-328	10440577	JL10-16	168.64	168.85	QS	4.44	Banded quartz-specularite schist with limonite layers
JC12JL-329	10440578	JL10-16	177.3	177.7	LIF	5.48	Goethite rich lower iron formation
JC12JL-330	10440579	JL10-16	180	180.5	LIF	1.23	Lower iron formation with garnet pseudomorphs
JC12JL-331	10440581	JL10-16A	7.09	7.37	QS	4.81	Banded quartz-specularite schist
JC12JL-332	10440582	JL10-16A	20.52	20.8	QS	9.85	Banded quartz-specularite schist (specularite rich)
JC12JL-333	10440583	JL10-16A	35.42	35.72	QS	6.35	Banded quartz-specularite schist (specularite rich)
JC12JL-334	10440584	JL10-16A	49.16	49.4	QS	12.8	Banded quartz-specularite schist (specularite rich)
JC12JL-335	10440585	JL10-16A	63.13	63.38	QS	6.18	Banded quartz-specularite schist
JC12JL-336	10440586	JL10-16A	77	77.25	QS	4.54	Banded quartz-specularite schist
JC12JL-337	10440587	JL10-16A	90.45	90.7	QS	4.25	Banded quartz-specularite schist
JC12JL-338	10440588	JL10-16A	104.72	104.92	QS	2.26	Banded quartz-specularite schist
JC12JL-339	10440589	JL10-16A	119.12	119.36	QS	4.57	Banded quartz-specularite schist
JC12JL-340	10440591	JL10-16A	126.35	126.63	QS	1.61	Massive quartz-specularite schist with limonite alterior
JC12JL-341	10440592	JL10-16A	128	128.3	MnIF	3.37	Black, friable Mn-rich iron formation
JC12JL-342	10440593	JL10-16A	132.79	133.09	QS	2.07	Specularite rich, partially brecciated quartz-specularite schisi
JC12JL-343	10440594	JL10-16A	137.4	137.6	FLT	0.419	Fault zone
JC12JL-344	10440595	JL10-16A	140.7	141.05	QS	3.58	Specularite rich, partially brecciated quartz-specularite schisi
JC12JL-345	10440596	JL10-16A	145.95	146.15	QS	2.35	Banded quartz-specularite schist
JC12JL-346	10440597	JL10-16A	159.07	159.28	QS	10.9	Banded quartz-specularite schist
JC12JL-347	10440598	JL10-16A	169.6	169.79	QS	7.16	Banded quartz-specularite schist
JC12JL-348	10440599	JL10-26	264.1	264.5	QS	0.027	Graphite rich horizon
JC12JL-349	10440601	JL10-17B	109.6	109.85	QS	6.62	Massive quartz-specularite schist
JC12JL-350	10440602	JL10-17B	118.39	118.59	QS	7.11	Banded quartz-specularite schist
JC12JL-351	10440603	JL10-17B	129.1	129.3	QS	4.8	Banded quartz-specularite schist
JC12JL-352	10440604	JL10-17B	139.28	139.51	QS	6.05	Banded quartz-specularite schist
JC12JL-353	10440605	JL10-17B	149.65	149.85	QS	4.91	Banded quartz-specularite schist
JC12JL-354	10440606	JL10-17B	159.83	160	QS	13.4	Banded quartz-specularite schist
JC12JL-355	10440607	JL10-17B	165.2	165.39	LIF	0.329	Lower iron formation
JC12JL-356	10440608	JL10-17B	174.3	174.5	WQ	0.036	Hematized Wishart Formation quartzite
JC12JL-357	10440609	JL10-17B	179.8	180.05	WQ	0.04	Wishart Formation quartzite

APPENDIX C: Outcrop sample descriptions

Sample_Num	Lab_Num	UTMEast	UTMNorth	UTMZone	Datum	Litho_code	Mag_suscep	Description
JC12-029	10440215	648041	5890037	19	NAD27	QS	1.36	Banded quartz-specularite schist
JC12-030	10440216	648122	5890043	19	NAD27	QS	1.57	Quartz rich banded quartz-specularite schist
JC12-031	10440217	648209	5890023	19	NAD27	QS	9.33	Coarse grained specularite with sandy quartz bands
JC12-032	10440218	648323	5889841	19	NAD27	LWQ	3.49	White lean quartzite
JC12-033	10440219	648323	5889841	19	NAD27	QS	1.38	Banded quartz-specularite schist
JC12-034	10440221	648356	5889776	19	NAD27	QS	5.56	Quartz rich quartz-specularite schist
JC12-038	10440222	648391	5889731	19	NAD27	QS	13.0	Massive quartz-specularite schist with quartz filled vug
JC12-040	10440223	648404	5889705	19	NAD27	QS	5.43	Quartz-specularite schist between upper and lower lean white quartzite beds
JC12-042	10440224	648403	5889640	19	NAD27	QS	4.25	Friable, specularite rich quartz-specularite schist
JC12-043	10440225	648407	5889679	19	NAD27	QS	15.3	Grey, banded, friable quartz-specularite schist
JC12-044	10440226	648488	5889427	19	NAD27	MnIF	2.41	Mn-rich iron formation, associated with specularite rich quartz-specularite schist
JC12-045	10440227	648492	5889376	19	NAD27	QS	6.78	Quartz-specularite schist with quartz-specularite pod samples
JC12-046	10440228	648492	5889376	19	NAD27	QS	4.73	Leached, hematized quartz-specularite schist bed between iron rich quartz-specularite schist
JC12-050	10440229	647933	5889307	19	NAD27	QS	3.51	Friable quartz-specularite schist
JC12-051	10440231	647969	5889240	19	NAD27	QS	2.10	Quartz-specularite schist with specularite rich bands
JC12-052	10440232	648049	5889071	19	NAD27	QS	4.19	Quartz-specularite schist with vuggy specularite layer
JC12-053	10440233	648090	5889028	19	NAD27	QS	2.09	Hematized quartz-specularite schist
JC12-054	10440234	648141	5888878	19	NAD27	WQ	0.006	Wishart Formation quartzite from roadside quarry
JC12-055	10440611	648079	5889963	19	NAD27	MnIF	1.37	Mn-rich iron formation from shallow dipping bed
JC12-056	10440612	648079	5889963	19	NAD27	QS	2.42	Quartz-specularite schist overlying Mn-rich iron formation, with coarse grained specularite
JC12-057	10440613	648079	5889963	19	NAD27	LWQ	0.263	White lean quartzite, ~1m above Mn-rich iron formation
JC12-058	10440614	648130	5889873	19	NAD27	QS	1.31	Quartz-specularite schist from breccia zone
JC12-059	10440615	648194	5889409	19	NAD27	LWQ	0.507	Lean white quartzite associated with folding in main trench
JC12-061	10440616	648331	5889528	19	NAD27	QS	12.8	Hematized quartz-specularite schist with contorted bedding
JC12-062	10440617	648393	5889424	19	NAD27	MnIF	1.36	Mn-rich iron formation
JC12-064	10440618	648426	5889373	19	NAD27	QS	3.50	Massive quartz-specularite schist

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-001	QS	61.83	0.20	36.74	0.01	0.02	0.03	0.04	0.004	0.041
JC12JL-002	QS	53.45	0.15	46.10	0.02	0.01	0.03	0.03	0.009	0.091
JC12JL-003	QS	41.08	0.16	58.42	0.02	-0.01	0.03	0.01	0.010	0.145
JC12JL-004	QS	7.64	0.32	88.90	0.05	0.01	0.02	-0.01	0.004	0.918
JC12JL-006	QS	41.54	0.22	55.18	0.16	0.05	0.02	-0.01	0.004	0.274
JC12JL-007	QS	52.46	0.17	46.73	0.03	0.01	0.02	0.02	0.011	0.063
JC12JL-008	QS	55.61	0.86	42.70	0.04	0.01	0.03	0.03	0.044	0.089
JC12JL-009	QS	55.54	0.19	43.61	-0.01	0.01	0.02	0.02	0.019	0.107
JC12JL-010	QS	65.87	0.18	34.30	-0.01	-0.01	0.02	0.03	0.002	0.052
JC12JL-011	QS	48.97	0.15	50.65	0.02	0.02	0.02	0.04	0.017	0.560
JC12JL-012	QS	31.96	0.28	64.73	0.02	0.02	0.02	0.03	0.033	0.085
JC12JL-013	QS	60.29	0.12	39.91	-0.01	-0.01	0.02	0.02	0.005	0.058
JC12JL-014	QS	35.37	0.35	59.04	0.01	0.02	0.01	0.02	0.005	0.116
JC12JL-015	QS	0.46	0.28	92.44	0.03	0.02	0.01	-0.01	0.023	1.208
JC12JL-016	QS	48.56	0.16	51.46	0.01	0.01	-0.01	-0.01	-0.001	0.059
JC12JL-017	QS	44.47	0.30	54.30	0.02	0.01	-0.01	-0.01	0.017	0.157
JC12JL-018	QS	47.49	0.80	47.34	0.07	0.03	0.01	0.10	0.093	0.182
JC12JL-019	LIF	63.26	2.19	32.89	0.02	0.03	-0.01	0.02	0.298	0.138
JC12JL-020	WQ	82.78	8.17	4.51	0.03	0.02	0.03	0.08	0.256	0.017
JC12JL-021	QS	61.24	0.15	36.37	0.01	0.01	-0.01	0.01	0.003	0.037
JC12JL-022	QS	34.38	0.21	64.80	0.01	0.01	0.01	0.02	0.007	0.227
JC12JL-023	QS	64.59	0.12	35.40	-0.01	0.02	0.02	0.02	0.003	0.034
JC12JL-024	QS	88.63	0.19	9.92	0.01	0.02	0.02	0.04	0.004	0.029
JC12JL-025	QS	27.90	0.19	70.67	-0.01	-0.01	0.03	0.02	0.004	0.190
JC12JL-026	QS	33.97	0.24	65.75	0.01	-0.01	0.02	0.03	0.012	0.060
JC12JL-027	LWQ	91.43	0.11	8.82	-0.01	-0.01	-0.01	0.01	0.002	0.017
JC12JL-028	QS	25.86	0.14	72.74	0.01	0.01	0.02	0.03	0.008	0.190
JC12JL-029	QS	30.47	0.16	67.49	-0.01	0.01	0.01	0.02	0.011	0.249
JC12JL-030	QS	80.43	0.19	18.26	0.01	0.01	0.02	0.03	0.003	0.047
JC12JL-031	QS	43.58	0.14	55.30	0.03	0.02	0.03	0.04	0.005	0.099
JC12JL-032	QS	48.51	0.16	51.29	0.01	-0.01	0.02	0.03	0.006	0.092
JC12JL-033	LWQ	82.25	0.22	13.80	-0.01	0.01	0.02	0.03	0.007	0.040
JC12JL-034	MnIF	17.70	0.08	60.65	0.02	0.06	0.04	0.59	0.012	16.738
JC12JL-035	QS	41.99	0.13	57.00	-0.01	0.01	0.03	0.05	0.007	0.083
JC12JL-036	QS	45.19	0.10	54.20	-0.01	0.01	0.04	0.05	0.002	0.263
JC12JL-037	QS	63.83	0.49	34.52	-0.01	0.02	0.03	0.04	0.004	0.061
JC12JL-038	QS	51.06	0.15	47.91	0.02	0.01	0.03	0.04	0.012	0.046
JC12JL-039	QS	40.33	0.13	58.67	-0.01	-0.01	0.02	0.03	0.001	0.071
JC12JL-041	QS	63.90	0.13	33.97	-0.01	-0.01	0.03	0.04	-0.001	0.034
JC12JL-042	MnIF	5.79	0.04	66.64	-0.01	0.03	0.02	0.03	0.013	21.978
JC12JL-043	QS	40.02	0.16	57.58	0.02	0.04	0.04	0.05	0.010	0.456
JC12JL-044	MnIF	25.59	0.09	48.52	0.03	0.03	0.03	0.11	0.007	18.970
JC12JL-045	QS	61.05	0.10	38.23	0.02	0.01	0.02	0.02	0.004	0.044
JC12JL-046	QS	52.75	0.17	46.51	0.02	-0.01	0.03	0.04	0.013	0.055
JC12JL-048	MnIF	10.12	0.08	62.83	0.06	0.04	0.05	0.32	0.011	19.980
JC12JL-049	QS	53.01	0.20	46.17	0.02	0.01	0.04	0.05	0.009	0.106
JC12JL-050	LIF	55.10	0.72	42.90	0.02	0.02	0.03	0.14	0.118	0.060

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-051	WQ	83.96	9.01	0.41	0.14	0.01	0.18	5.35	0.189	0.002
JC12JL-052	MnIF	62.79	0.14	32.76	0.02	0.01	0.02	0.06	0.002	2.394
JC12JL-053	QS	38.21	0.09	61.49	-0.01	0.02	0.02	0.03	0.002	0.096
JC12JL-054	MnIF	42.60	0.07	52.44	-0.01	0.02	0.02	0.07	0.002	3.902
JC12JL-055	QS	35.09	0.05	65.47	0.02	0.01	-0.01	-0.01	0.003	0.096
JC12JL-056	QS	45.09	0.10	54.53	-0.01	0.02	-0.01	-0.01	0.002	0.085
JC12JL-059	QS	39.55	0.51	57.45	0.03	0.02	-0.01	-0.01	0.013	0.148
JC12JL-061	QS	56.35	0.29	43.17	0.05	0.03	0.02	0.01	0.028	0.053
JC12JL-062	MnIF	24.46	0.19	48.13	-0.01	0.02	0.01	0.07	0.008	20.940
JC12JL-063	QS	61.27	0.16	36.74	0.05	0.02	0.03	0.04	0.007	0.102
JC12JL-064	QS	54.61	0.17	43.29	0.01	0.01	-0.01	-0.01	0.002	0.064
JC12JL-065	LWQ	86.76	0.10	11.36	-0.01	-0.01	0.01	0.03	0.001	0.020
JC12JL-066	QS	48.89	0.22	50.17	-0.01	0.01	-0.01	-0.01	0.009	0.133
JC12JL-067	QS	43.03	0.23	54.77	0.01	-0.01	-0.01	-0.01	0.007	0.192
JC12JL-068	QS	26.55	0.13	71.23	0.01	-0.01	-0.01	-0.01	0.006	0.145
JC12JL-069	QS	55.63	0.35	42.24	-0.01	-0.01	-0.01	-0.01	0.003	0.078
JC12JL-070	QS	33.28	0.17	65.90	-0.01	-0.01	0.02	0.01	0.003	0.073
JC12JL-071	QS	36.43	0.15	62.02	0.02	-0.01	0.01	0.01	0.006	0.176
JC12JL-072	QS	30.24	0.34	66.13	0.01	0.01	-0.01	-0.01	0.002	0.075
JC12JL-074	QS	47.12	0.18	52.21	-0.01	-0.01	0.01	0.01	0.008	0.057
JC12JL-075	QS	36.00	0.14	63.83	0.01	-0.01	0.02	0.02	0.005	0.099
JC12JL-076	LWQ	84.65	0.16	14.39	0.01	-0.01	-0.01	0.02	0.003	0.024
JC12JL-077	QS	47.78	0.12	49.97	-0.01	-0.01	0.02	0.02	0.004	0.189
JC12JL-079	QS	82.19	0.13	15.40	0.01	-0.01	0.03	0.04	0.002	0.027
JC12JL-080	MnIF	57.43	0.07	35.20	0.01	0.02	0.01	0.03	0.004	5.943
JC12JL-081	QS	50.48	0.16	47.84	-0.01	0.01	0.02	0.03	0.007	0.183
JC12JL-082	QS	43.11	0.13	55.80	0.01	0.02	0.01	0.01	0.022	0.169
JC12JL-083	QS	47.62	0.11	50.22	-0.01	-0.01	0.01	0.01	0.003	0.057
JC12JL-084	QS	65.75	0.18	33.69	-0.01	0.01	0.04	0.10	0.007	0.077
JC12JL-085	QS	55.43	0.14	44.65	0.01	0.02	0.02	0.03	0.003	0.075
JC12JL-086	QS	28.91	0.24	66.75	-0.01	0.02	0.02	0.03	0.013	0.117
JC12JL-087	QS	49.83	0.19	48.69	0.01	0.01	0.02	0.02	0.007	0.111
JC12JL-089	QS	49.73	0.09	49.97	0.02	0.02	0.01	0.02	-0.001	0.145
JC12JL-090	QS	45.03	0.19	53.33	0.04	0.03	0.02	0.02	0.003	0.351
JC12JL-091	QS	53.76	0.22	40.78	0.02	0.01	0.02	0.03	0.004	0.559
JC12JL-092	QS	58.76	0.13	39.30	0.04	0.05	0.02	0.02	0.004	0.110
JC12JL-093	QS	66.00	0.19	33.35	-0.01	0.01	0.01	0.02	0.005	0.060
JC12JL-094	QS	30.09	0.08	67.74	-0.01	-0.01	-0.01	0.01	0.016	0.068
JC12JL-095	QS	16.63	0.16	81.28	0.17	0.03	0.02	0.02	0.009	0.183
JC12JL-096	QS	53.56	0.10	46.40	-0.01	0.01	0.02	0.04	-0.001	0.096
JC12JL-097	QS	43.08	0.11	55.77	0.02	0.01	0.02	0.02	0.017	0.582
JC12JL-098	QS	55.45	0.08	43.21	0.02	0.02	0.01	0.02	0.001	0.048
JC12JL-099	QS	43.33	0.12	55.24	0.01	-0.01	0.01	0.02	0.002	0.223
JC12JL-100	QS	45.63	0.15	53.68	0.01	0.02	-0.01	-0.01	0.024	0.079
JC12JL-101	QS	66.45	0.07	33.16	0.01	-0.01	-0.01	-0.01	0.004	0.045
JC12JL-102	QS	38.22	0.28	58.51	0.05	0.02	0.01	-0.01	0.003	0.076
JC12JL-104	QS	27.52	0.18	70.12	0.03	0.02	0.02	-0.01	0.009	1.022

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-105	QS	32.65	0.11	65.04	0.01	0.01	-0.01	-0.01	-0.001	0.099
JC12JL-106	QS	23.81	0.13	75.28	-0.01	0.01	-0.01	-0.01	0.002	0.079
JC12JL-107	QS	66.56	0.19	32.80	0.02	-0.01	-0.01	-0.01	0.001	0.104
JC12JL-109	QS	29.86	0.45	69.43	0.02	-0.01	0.01	-0.01	0.009	0.111
JC12JL-110	QS	32.29	0.29	67.17	0.02	-0.01	-0.01	-0.01	0.007	0.081
JC12JL-111	QS	40.73	0.34	59.20	0.02	0.01	0.01	0.02	0.045	0.104
JC12JL-112	QS	57.77	0.16	42.49	0.01	-0.01	-0.01	-0.01	-0.001	0.053
JC12JL-113	QS	50.90	0.11	48.62	-0.01	0.01	-0.01	0.01	0.002	0.046
JC12JL-114	QS	22.87	0.12	74.36	0.08	0.05	0.02	0.02	0.015	0.652
JC12JL-115	QS	64.04	0.20	35.47	0.02	0.02	0.01	0.02	0.028	0.053
JC12JL-116	QS	53.29	0.12	46.96	-0.01	-0.01	-0.01	0.02	0.033	0.043
JC12JL-117	QS	52.23	0.15	47.30	0.01	0.01	-0.01	0.01	0.008	0.048
JC12JL-118	QS	42.49	0.11	55.95	-0.01	-0.01	0.02	0.03	0.001	0.089
JC12JL-119	QS	50.00	0.18	48.51	0.01	-0.01	0.01	0.02	0.012	0.082
JC12JL-120	QS	36.64	0.21	61.20	0.03	-0.01	0.02	0.02	0.029	0.111
JC12JL-121	QS	56.45	0.10	41.60	0.02	-0.01	-0.01	0.02	-0.001	0.037
JC12JL-122	WQ	97.51	0.57	0.61	0.02	0.02	-0.01	0.08	0.012	0.001
JC12JL-123	QS	68.13	0.18	31.62	0.02	0.02	0.03	0.06	0.002	0.041
JC12JL-124	QS	57.00	0.17	42.27	-0.01	-0.01	0.02	0.03	0.011	0.041
JC12JL-125	QS	54.66	0.16	44.22	0.01	-0.01	0.01	0.02	0.002	0.087
JC12JL-126	QS	41.87	0.16	57.48	-0.01	0.01	0.01	0.02	0.013	0.056
JC12JL-127	QS	45.18	0.20	51.99	-0.01	0.01	0.02	0.03	0.003	0.052
JC12JL-128	QS	54.25	0.17	44.32	0.01	-0.01	0.02	0.03	0.010	0.058
JC12JL-130	QS	50.13	0.21	49.54	-0.01	-0.01	0.02	0.04	0.002	0.041
JC12JL-131	QS	31.18	0.18	67.53	0.01	-0.01	0.02	0.03	0.004	0.106
JC12JL-132	LWQ	81.69	0.19	17.76	-0.01	-0.01	0.02	0.03	0.007	0.033
JC12JL-133	LWQ	95.15	0.13	5.03	-0.01	0.02	0.04	0.05	0.001	0.018
JC12JL-134	QS	45.57	0.20	54.29	-0.01	0.01	0.02	0.02	0.003	0.182
JC12JL-135	FLT	51.78	0.24	47.44	-0.01	0.01	0.01	0.02	0.048	0.079
JC12JL-136	LWQ	94.96	0.25	4.64	0.01	0.01	-0.01	0.03	0.003	0.038
JC12JL-137	QS	32.42	0.16	65.45	-0.01	0.02	-0.01	-0.01	0.005	0.166
JC12JL-138	QS	29.39	0.19	67.96	-0.01	-0.01	-0.01	-0.01	0.020	0.167
JC12JL-139	LWQ	91.27	0.16	8.52	0.01	0.02	-0.01	0.02	0.004	0.046
JC12JL-140	QS	28.68	0.24	68.59	0.02	0.02	-0.01	-0.01	0.047	0.248
JC12JL-141	QS	6.62	0.19	91.44	0.01	0.03	0.02	0.03	0.007	0.404
JC12JL-142	QS	60.84	0.13	37.34	-0.01	-0.01	0.01	0.02	0.001	0.066
JC12JL-144	QS	57.38	0.19	40.98	-0.01	-0.01	0.03	0.04	0.001	0.051
JC12JL-145	QS	50.12	0.17	49.26	-0.01	-0.01	0.02	0.02	0.002	0.068
JC12JL-146	MnIF	24.43	0.12	48.33	-0.01	0.03	0.03	0.11	0.010	21.790
JC12JL-147	QS	84.10	0.09	15.32	-0.01	-0.01	0.02	0.03	0.002	0.057
JC12JL-148	QS	56.07	0.12	42.45	-0.01	-0.01	0.02	0.03	0.030	0.064
JC12JL-149	QS	34.39	0.12	62.89	-0.01	0.01	0.02	0.02	0.004	0.194
JC12JL-150	QS	18.13	0.27	80.42	-0.01	0.02	0.03	-0.01	0.017	0.140
JC12JL-151	QS	84.43	0.19	14.05	0.03	0.01	0.03	0.05	0.008	0.044
JC12JL-152	LWQ	83.30	0.08	15.35	-0.01	0.01	0.03	0.05	0.002	0.025
JC12JL-153	QS	44.89	0.09	54.18	-0.01	-0.01	0.02	0.02	0.005	0.062
JC12JL-154	QS	35.88	0.08	62.65	0.01	0.02	0.01	0.02	0.003	0.102

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-155	VN	97.80	0.10	0.77	-0.01	0.02	-0.01	0.02	0.002	0.003
JC12JL-156	MnIF	0.24	0.26	82.40	0.01	0.03	0.02	0.07	0.007	11.449
JC12JL-157	QS	49.32	0.07	49.68	-0.01	0.02	0.02	0.04	-0.001	0.054
JC12JL-158	QS	41.17	0.12	57.12	-0.01	-0.01	0.02	0.04	0.006	0.171
JC12JL-159	QS	55.58	0.11	42.68	0.01	0.02	0.02	0.03	0.002	0.168
JC12JL-161	QS	56.45	0.36	37.83	0.05	0.01	0.03	0.04	0.017	0.139
JC12JL-162	QS	38.56	0.24	59.23	0.02	0.01	0.04	0.06	0.011	0.209
JC12JL-163	QS	26.40	0.24	69.82	-0.01	0.01	0.04	0.06	0.004	0.077
JC12JL-164	QS	49.60	0.23	46.98	-0.01	-0.01	0.03	0.06	0.002	0.045
JC12JL-165	QS	47.42	0.22	51.17	0.02	-0.01	0.03	0.05	0.005	0.184
JC12JL-166	QS	79.54	0.15	18.65	-0.01	-0.01	0.04	0.07	0.002	0.020
JC12JL-167	QS	37.55	0.26	60.91	-0.01	0.01	0.03	0.04	0.006	0.057
JC12JL-168	LWQ	97.10	0.26	2.03	0.01	-0.01	0.02	0.04	0.002	0.026
JC12JL-169	QS	35.96	0.17	62.88	-0.01	0.01	0.03	0.05	0.008	0.059
JC12JL-170	QS	35.38	0.20	61.13	-0.01	-0.01	0.03	0.04	0.006	0.060
JC12JL-171	QS	41.15	0.17	57.52	-0.01	-0.01	0.02	0.04	0.004	0.057
JC12JL-172	QS	31.64	0.16	66.64	-0.01	-0.01	0.03	0.05	0.007	0.106
JC12JL-173	QS	41.38	0.15	57.31	0.01	0.02	0.03	0.04	0.009	0.255
JC12JL-174	QS	46.12	0.21	52.43	0.01	0.02	0.04	0.06	0.004	0.165
JC12JL-175	QS	41.42	0.16	57.13	-0.01	0.01	0.02	0.03	0.005	0.070
JC12JL-176	QS	88.29	0.13	9.89	-0.01	-0.01	0.02	0.03	0.005	0.020
JC12JL-177	QS	13.77	0.24	83.65	0.03	-0.01	0.03	0.02	0.014	0.131
JC12JL-178	QS	48.02	0.20	50.98	0.01	0.01	0.02	0.03	0.006	0.161
JC12JL-179	QS	24.94	0.16	73.35	0.01	-0.01	-0.01	0.01	0.005	0.134
JC12JL-180	QS	22.18	0.22	77.82	-0.01	-0.01	0.02	0.02	0.011	0.105
JC12JL-181	QS	32.93	0.31	64.41	-0.01	0.01	0.02	0.03	0.019	0.129
JC12JL-182	LWQ	80.52	0.14	17.16	-0.01	-0.01	0.02	0.03	0.006	0.056
JC12JL-183	QS	41.73	0.16	56.17	-0.01	0.02	0.02	0.03	0.006	0.099
JC12JL-184	QS	36.95	0.22	59.99	-0.01	0.01	0.03	0.03	0.017	0.129
JC12JL-185	QS	50.89	0.37	47.05	0.11	0.02	0.07	0.06	0.062	0.059
JC12JL-186	LWQ	86.15	0.16	12.27	-0.01	0.01	0.03	0.05	0.003	0.039
JC12JL-187	QS	54.90	0.14	44.17	0.01	-0.01	-0.01	-0.01	0.002	0.064
JC12JL-188	QS	73.17	0.13	26.71	-0.01	-0.01	-0.01	0.01	0.005	0.033
JC12JL-190	QS	61.17	0.17	38.14	0.01	0.01	0.03	0.03	0.009	0.071
JC12JL-191	QS	47.08	0.13	51.57	-0.01	0.01	0.05	0.07	0.005	0.066
JC12JL-192	QS	55.42	0.11	42.95	0.02	-0.01	0.03	0.04	0.005	0.072
JC12JL-193	QS	48.79	0.11	50.22	0.02	0.02	0.03	0.04	0.001	0.071
JC12JL-194	QS	25.66	0.14	73.55	-0.01	0.02	0.04	0.04	0.014	0.143
JC12JL-195	QS	60.24	0.23	32.79	0.04	0.01	0.07	0.08	0.001	1.713
JC12JL-196	QS	56.48	0.16	43.39	-0.01	-0.01	0.05	0.06	-0.001	0.053
JC12JL-197	QS	72.83	0.06	25.43	-0.01	-0.01	0.03	0.05	-0.001	0.032
JC12JL-198	QS	48.86	0.11	50.38	0.11	0.10	0.04	0.05	0.003	0.122
JC12JL-199	QS	32.68	0.25	64.55	0.03	0.02	0.04	0.05	0.023	0.065
JC12JL-200	QS	42.27	0.17	56.78	0.02	0.01	0.06	0.08	0.003	0.106
JC12JL-201	QS	51.93	0.13	48.04	0.01	0.01	0.01	0.02	0.013	0.050
JC12JL-202	QS	34.55	0.19	63.22	0.02	0.01	-0.01	0.01	0.018	0.077
JC12JL-203	QS	2.19	0.23	93.44	0.06	0.03	0.02	-0.01	0.013	1.623

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-204	QS	0.40	0.24	95.17	0.03	0.02	0.03	0.03	0.007	0.720
JC12JL-205	QS	45.45	0.16	52.07	0.01	0.01	0.02	0.02	0.008	0.065
JC12JL-206	QS	51.51	0.16	47.30	0.02	0.01	0.02	0.02	-0.001	0.057
JC12JL-207	LIF	57.97	2.74	35.00	0.10	0.03	0.04	0.61	0.292	0.084
JC12JL-208	WQ	85.76	9.21	1.57	0.06	0.02	0.01	0.21	0.219	-0.001
JC12JL-209	QS	62.95	0.19	37.36	0.02	0.01	0.03	0.04	0.020	0.063
JC12JL-210	QS	44.46	0.09	54.80	0.03	0.02	0.02	0.03	0.007	0.098
JC12JL-211	QS	60.26	0.09	39.38	0.02	-0.01	0.01	0.03	0.002	0.057
JC12JL-212	QS	35.58	0.06	61.78	0.17	0.12	0.02	0.03	0.002	0.183
JC12JL-213	MnIF	44.59	0.07	44.20	-0.01	0.01	0.04	0.07	0.005	7.976
JC12JL-215	QS	59.86	0.18	39.30	-0.01	-0.01	0.03	0.04	-0.001	0.057
JC12JL-216	QS	45.01	0.10	51.69	-0.01	-0.01	0.02	0.03	0.004	0.182
JC12JL-217	MnIF	46.82	0.08	40.92	-0.01	0.01	0.02	0.06	0.002	9.582
JC12JL-218	QS	28.34	0.10	70.18	-0.01	-0.01	0.02	0.03	-0.001	0.112
JC12JL-219	QS	32.32	0.07	66.34	0.03	-0.01	0.04	0.05	0.007	0.092
JC12JL-220	QS	55.49	0.08	43.32	0.01	-0.01	0.02	0.04	-0.001	0.062
JC12JL-221	QS	52.81	0.16	46.68	-0.01	0.01	0.02	0.04	0.007	0.075
JC12JL-222	QS	44.44	0.11	53.97	0.09	0.03	0.02	0.01	0.002	0.091
JC12JL-223	QS	62.54	0.10	35.72	-0.01	-0.01	0.05	0.06	0.002	0.046
JC12JL-224	QS	57.28	0.10	40.82	-0.01	-0.01	0.03	0.04	0.003	0.029
JC12JL-225	QS	55.21	0.15	43.08	0.02	-0.01	0.01	0.01	0.013	0.057
JC12JL-226	QS	49.79	0.16	47.71	-0.01	-0.01	0.02	0.03	0.014	0.045
JC12JL-227	MnIF	40.20	0.08	37.74	0.01	0.06	0.05	0.22	0.003	16.419
JC12JL-228	QS	53.63	0.34	43.38	-0.01	0.02	0.06	0.07	0.024	0.080
JC12JL-229	MnIF	22.76	0.06	37.66	0.02	0.07	0.04	0.30	0.003	29.654
JC12JL-230	MnIF	34.76	0.10	40.39	0.01	0.06	0.05	0.02	0.006	21.771
JC12JL-231	MnIF	42.34	0.08	42.46	0.03	0.03	0.03	0.24	0.005	11.870
JC12JL-232	QS	45.84	0.20	52.78	0.01	0.01	0.02	0.03	0.020	0.145
JC12JL-233	LWQ	89.09	0.12	9.21	-0.01	-0.01	0.03	0.05	0.002	0.017
JC12JL-234	LWQ	82.64	0.11	15.46	0.01	-0.01	0.03	0.04	0.017	0.024
JC12JL-235	QS	52.08	0.17	46.71	-0.01	-0.01	0.03	0.04	0.003	0.157
JC12JL-236	QS	46.20	0.13	51.99	-0.01	0.01	0.04	0.06	0.003	0.165
JC12JL-237	LWQ	71.49	0.09	26.47	-0.01	-0.01	0.06	0.07	0.003	0.042
JC12JL-238	LWQ	83.41	0.11	16.24	0.01	-0.01	0.02	0.04	0.002	0.016
JC12JL-239	QS	34.14	0.16	63.67	0.01	0.01	0.04	0.05	0.008	0.171
JC12JL-240	LWQ	90.90	0.18	7.42	-0.01	-0.01	0.06	0.07	0.002	0.034
JC12JL-241	QS	42.05	0.16	55.90	-0.01	0.02	0.05	0.06	0.005	0.093
JC12JL-242	QS	45.21	0.15	51.08	0.07	0.02	0.05	0.06	0.004	0.097
JC12JL-243	QS	51.41	0.28	46.45	0.04	0.02	0.06	0.07	0.022	0.058
JC12JL-244	QS	49.45	0.50	47.95	0.11	0.02	0.08	0.05	0.041	0.129
JC12JL-245	QS	40.23	0.20	55.78	0.05	0.03	0.03	0.03	0.006	0.161
JC12JL-246	QS	58.19	0.07	41.77	-0.01	-0.01	0.04	0.07	-0.001	0.038
JC12JL-247	QS	53.36	0.13	45.08	-0.01	-0.01	0.04	0.05	0.002	0.070
JC12JL-248	QS	46.47	0.15	51.44	-0.01	0.01	0.04	0.05	0.001	0.076
JC12JL-249	QS	49.45	0.12	47.80	-0.01	-0.01	0.02	0.02	0.002	0.080
JC12JL-250	QS	49.60	0.16	48.31	-0.01	0.02	0.05	0.04	0.011	0.071
JC12JL-251	QS	50.97	0.17	47.39	-0.01	0.01	0.04	0.05	0.007	0.087

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-252	QS	44.37	0.08	52.86	-0.01	-0.01	0.03	0.04	0.002	0.089
JC12JL-253	QS	38.43	0.19	58.50	-0.01	0.01	0.04	0.04	0.005	0.103
JC12JL-254	QS	55.61	0.20	41.88	-0.01	-0.01	0.04	0.05	0.008	0.066
JC12JL-255	QS	36.87	0.26	61.22	0.02	0.01	0.03	0.03	0.008	0.093
JC12JL-256	QS	55.53	0.19	41.23	0.02	0.01	0.02	0.02	0.006	0.081
JC12JL-257	QS	66.42	0.10	31.88	0.01	-0.01	0.02	0.02	0.002	0.043
JC12JL-258	QS	57.29	0.23	40.28	0.01	0.02	0.02	0.02	0.009	0.041
JC12JL-259	QS	60.59	0.88	33.82	0.06	0.02	-0.01	0.04	0.105	0.103
JC12JL-260	LIF	62.29	4.53	27.46	0.05	0.03	0.03	0.05	0.723	0.096
JC12JL-261	LIF	52.03	6.08	33.38	0.04	0.03	-0.01	0.16	0.892	0.173
JC12JL-262	WQ	98.55	0.45	0.59	0.02	0.03	0.02	0.08	0.022	0.003
JC12JL-263	QS	23.50	0.14	69.83	0.01	0.03	0.01	-0.01	0.007	0.385
JC12JL-264	QS	20.75	0.18	76.25	0.05	0.02	0.04	0.03	0.008	0.153
JC12JL-265	QS	54.62	0.15	42.42	-0.01	-0.01	-0.01	-0.01	0.004	0.208
JC12JL-266	QS	62.07	0.13	35.77	-0.01	-0.01	0.02	0.02	0.001	0.036
JC12JL-267	QS	52.39	0.14	44.23	0.02	0.02	0.03	0.04	0.005	0.183
JC12JL-268	MnIF	12.04	0.27	53.54	0.02	0.03	0.05	0.53	0.009	25.635
JC12JL-269	QS	15.36	0.24	79.35	0.01	0.01	0.03	0.05	0.012	0.834
JC12JL-270	MnIF	55.98	0.32	25.00	0.02	0.03	0.04	0.41	0.004	13.385
JC12JL-271	QS	41.13	0.31	54.31	0.01	0.02	0.02	0.02	0.026	0.102
JC12JL-272	MnIF	27.42	0.17	48.80	0.03	0.06	0.06	0.33	0.011	18.368
JC12JL-273	QS	59.33	0.18	39.88	0.34	-0.01	0.03	0.04	0.009	0.043
JC12JL-274	QS	65.14	0.09	34.82	0.01	0.02	0.02	0.03	0.006	0.067
JC12JL-275	QS	50.66	0.09	48.05	0.02	0.02	0.03	0.03	0.002	0.105
JC12JL-276	QS	27.27	0.19	71.09	0.01	0.02	0.04	0.05	0.011	0.194
JC12JL-277	QS	55.91	0.44	43.35	0.09	0.02	0.04	0.03	0.039	0.051
JC12JL-278	QS	22.40	0.20	74.90	0.01	0.02	0.03	0.03	0.010	0.280
JC12JL-279	QS	7.70	0.18	91.80	0.01	0.01	0.02	0.02	0.014	0.081
JC12JL-280	LWQ	84.77	0.09	13.33	0.03	0.02	0.03	0.05	0.002	0.074
JC12JL-281	LWQ	74.65	0.08	25.60	0.02	0.02	0.03	0.03	0.002	0.052
JC12JL-282	QS	33.10	0.10	66.75	0.01	0.01	0.02	0.03	0.010	0.076
JC12JL-283	QS	38.48	0.24	60.98	0.02	-0.01	0.02	0.03	0.014	0.084
JC12JL-284	LWQ	74.26	0.12	25.30	0.01	0.01	0.03	0.04	0.006	0.054
JC12JL-285	QS	38.31	0.09	60.01	0.01	0.01	0.02	0.03	0.005	0.061
JC12JL-286	QS	48.91	0.09	50.02	-0.01	-0.01	0.03	0.03	0.002	0.074
JC12JL-288	QS	40.62	0.20	58.03	0.01	0.01	0.03	0.04	0.017	0.148
JC12JL-289	QS	55.13	0.17	43.27	-0.01	0.01	0.03	0.03	0.008	0.082
JC12JL-290	QS	60.62	0.25	36.85	0.01	0.03	0.05	0.06	0.008	0.035
JC12JL-291	QS	45.78	0.15	52.13	0.01	0.01	0.03	0.04	0.005	0.115
JC12JL-292	QS	52.40	0.09	46.06	-0.01	-0.01	0.03	0.04	0.001	0.058
JC12JL-293	QS	50.63	0.09	48.58	-0.01	0.02	0.02	0.04	-0.001	0.126
JC12JL-294	QS	60.15	0.13	38.76	0.01	0.01	0.01	0.02	0.003	0.046
JC12JL-295	QS	43.92	0.42	53.01	0.04	0.02	0.02	0.02	0.017	0.202
JC12JL-296	QS	52.20	0.28	45.09	0.03	-0.01	0.02	0.02	0.006	0.043
JC12JL-297	QS	60.76	0.14	39.39	-0.01	0.01	0.02	0.04	-0.001	0.037
JC12JL-298	QS	60.75	0.25	37.83	0.02	-0.01	0.02	0.03	0.004	0.048
JC12JL-300	QS	54.41	0.27	43.01	0.03	0.01	0.01	0.03	0.029	0.053

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-301	LIF	45.97	0.95	48.07	0.05	0.02	-0.01	0.03	0.169	0.116
JC12JL-303	LIF	35.46	1.55	57.08	0.06	0.02	-0.01	0.01	0.180	0.192
JC12JL-304	LIF	53.75	7.94	29.36	0.22	0.05	0.10	0.04	1.547	0.151
JC12JL-305	WQ	85.88	6.25	0.98	0.03	0.02	0.09	3.41	0.194	0.004
JC12JL-306	WQ	78.58	11.90	0.63	0.11	0.02	0.20	6.01	0.151	0.035
JC12JL-307	QS	53.05	0.15	44.96	0.01	0.01	0.01	0.03	0.005	0.055
JC12JL-308	QS	41.78	0.12	56.50	-0.01	-0.01	0.02	0.04	0.003	0.052
JC12JL-309	QS	55.55	0.06	42.77	0.01	0.01	0.02	0.04	-0.001	0.054
JC12JL-310	QS	43.78	0.11	55.14	0.02	0.02	0.02	0.05	0.016	0.133
JC12JL-311	QS	23.59	0.13	74.94	0.02	0.02	0.05	0.09	0.008	0.323
JC12JL-312	LWQ	92.40	0.23	6.48	-0.01	0.01	0.02	0.05	-0.001	0.036
JC12JL-313	QS	56.40	0.17	43.15	-0.01	0.02	0.03	0.05	0.005	0.061
JC12JL-314	QS	39.65	0.36	57.68	0.01	-0.01	0.03	0.06	0.017	0.055
JC12JL-315	QS	63.72	0.21	34.07	0.01	0.02	0.02	0.06	0.007	0.048
JC12JL-316	LWQ	75.67	0.22	23.35	0.02	0.02	0.03	0.06	-0.001	0.054
JC12JL-317	LWQ	95.19	0.12	4.69	-0.01	0.01	0.06	0.15	-0.001	0.151
JC12JL-318	QS	59.73	0.10	39.67	0.02	0.02	0.04	0.05	0.005	0.138
JC12JL-319	QS	34.37	0.11	65.28	0.01	0.02	0.03	0.04	0.003	0.196
JC12JL-320	QS	48.72	0.08	51.41	0.01	0.02	0.03	0.05	0.002	0.085
JC12JL-321	QS	56.64	0.09	41.85	0.01	0.02	0.03	0.06	0.003	0.038
JC12JL-322	QS	46.74	0.14	50.77	0.01	0.02	0.05	0.06	0.007	0.057
JC12JL-323	MnIF	0.49	0.32	62.66	0.02	0.08	0.08	0.37	0.018	27.324
JC12JL-324	QS	0.48	0.13	94.80	0.03	0.07	0.06	0.05	0.021	1.569
JC12JL-325	QS	56.99	0.11	41.44	0.01	0.02	0.04	0.07	-0.001	0.069
JC12JL-326	QS	11.26	0.15	87.68	-0.01	0.02	0.01	-0.01	0.002	0.090
JC12JL-327	QS	47.24	0.37	50.50	0.03	0.01	0.05	0.07	0.016	0.278
JC12JL-328	QS	62.31	0.15	36.24	-0.01	-0.01	0.05	0.07	-0.001	0.034
JC12JL-329	LIF	58.36	3.09	36.30	0.06	0.02	0.02	0.02	0.198	0.053
JC12JL-330	LIF	43.05	1.53	49.58	0.10	0.02	0.01	0.02	0.270	0.119
JC12JL-331	QS	60.45	0.20	37.97	0.02	-0.01	0.01	0.02	0.014	0.038
JC12JL-332	QS	37.72	0.12	60.29	-0.01	-0.01	0.04	0.07	0.008	0.051
JC12JL-333	QS	36.40	0.13	63.59	-0.01	-0.01	0.01	-0.01	0.012	0.045
JC12JL-334	QS	25.67	0.13	72.71	-0.01	0.01	0.05	0.08	0.023	0.057
JC12JL-335	QS	58.27	0.23	40.55	0.03	0.02	0.04	0.07	0.021	0.039
JC12JL-336	QS	51.56	0.22	45.10	-0.01	0.01	0.05	0.07	0.002	0.044
JC12JL-337	QS	50.15	0.14	47.49	-0.01	-0.01	0.06	0.09	0.012	0.046
JC12JL-338	QS	61.39	0.15	37.90	-0.01	-0.01	0.06	0.11	0.022	0.049
JC12JL-339	QS	45.27	0.23	52.73	0.03	0.01	0.01	0.01	0.022	0.050
JC12JL-340	QS	14.93	0.35	79.26	0.04	0.02	0.05	0.04	0.019	1.655
JC12JL-341	MnIF	12.31	0.20	63.03	0.01	0.01	0.02	0.14	0.007	19.443
JC12JL-342	QS	35.81	0.15	60.73	0.01	0.02	0.03	0.04	0.008	0.971
JC12JL-343	FLT	31.12	23.52	30.59	0.29	0.05	0.07	0.36	2.869	0.244
JC12JL-344	QS	30.40	0.23	66.00	0.02	0.02	0.02	-0.01	0.005	0.378
JC12JL-345	QS	66.91	0.10	31.26	-0.01	-0.01	0.02	0.02	-0.001	0.112
JC12JL-346	QS	60.67	0.10	37.02	-0.01	0.01	0.02	0.03	-0.001	0.033
JC12JL-347	QS	54.21	0.10	43.54	0.01	0.02	0.02	0.04	-0.001	0.058
JC12JL-348	QS	65.35	3.04	1.48	0.02	0.03	0.02	0.04	0.271	0.005

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%
JC12JL-349	QS	51.22	0.08	47.76	-0.01	-0.01	0.03	0.04	0.009	0.104
JC12JL-350	QS	47.95	0.13	49.92	0.01	0.01	0.03	0.04	0.005	0.115
JC12JL-351	QS	61.38	0.14	37.52	0.02	0.02	0.03	0.05	0.017	0.080
JC12JL-352	QS	44.01	0.16	54.42	-0.01	0.01	0.03	0.06	0.009	0.129
JC12JL-353	QS	49.68	0.15	48.25	0.02	0.02	0.05	0.06	0.004	0.144
JC12JL-354	QS	60.70	0.22	36.74	0.01	0.01	0.03	0.05	0.004	0.032
JC12JL-355	LIF	62.74	0.78	31.50	0.04	0.02	0.03	0.05	0.111	0.102
JC12JL-356	WQ	80.55	10.52	3.39	0.18	0.04	0.04	0.32	0.211	0.008
JC12JL-357	WQ	74.31	13.61	2.38	0.44	0.05	0.07	2.12	0.179	0.011

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %	Be ICP-OES 0.1 ppm	Cu ICP-OES 1 ppm	Li ICP-OES 0.1 ppm	Mn ICP-OES 1 ppm	Ni ICP-OES 1 ppm
JC12JL-001	QS	0.018	-1	12	6	0.68	99.61	25.70	1.0	9	-0.1	206	18
JC12JL-002	QS	0.005	-1	15	7	0.37	100.27	32.25	0.3	10	0.7	371	16
JC12JL-003	QS	0.011	7	17	9	0.51	100.41	40.86	0.3	3	0.6	668	22
JC12JL-004	QS	0.007	5	26	7	0.93	98.81	62.19	0.4	4	0.1	2692	28
JC12JL-006	QS	0.028	6	20	13	1.41	98.89	38.60	1.7	3	10.0	1421	25
JC12JL-007	QS	0.003	6	15	10	0.29	99.81	32.69	0.2	2	2.2	211	13
JC12JL-008	QS	0.023	52	15	10	0.94	100.38	29.87	0.7	3	1.7	450	41
JC12JL-009	QS	0.037	7	20	11	0.85	100.41	30.51	1.0	6	1.3	594	30
JC12JL-010	QS	0.004	-1	9	2	0.24	100.71	23.99	0.2	3	-0.1	206	16
JC12JL-011	QS	0.009	1	19	11	0.29	100.75	35.43	0.6	11	0.8	3071	27
JC12JL-012	QS	0.121	-1	19	2	2.76	100.06	45.28	1.9	7	0.6	382	32
JC12JL-013	QS	0.009	6	11	3	0.17	100.61	27.92	0.3	2	0.4	263	17
JC12JL-014	QS	0.694	-1	15	22	5.09	100.73	41.30	6.5	6	0.2	648	63
JC12JL-015	QS	0.230	3	63	43	4.51	99.21	64.66	5.9	8	1.8	7693	114
JC12JL-016	QS	0.025	2	16	3	0.47	100.77	35.99	0.3	2	1.4	206	13
JC12JL-017	QS	0.037	-1	20	8	0.31	99.64	37.98	1.0	2	1.3	794	19
JC12JL-018	QS	0.165	-1	30	44	4.61	100.90	33.11	3.0	6	1.0	1176	52
JC12JL-019	LIF	0.076	7	76	28	1.67	100.60	23.01	0.9	3	1.2	903	23
JC12JL-020	WQ	0.038	16	608	18	3.58	99.51	3.15	0.4	2	4.4	50	2
JC12JL-021	QS	0.013	-1	13	6	0.25	98.11	25.44	0.6	3	-0.1	181	18
JC12JL-022	QS	0.027	6	18	4	0.68	100.39	45.33	0.4	3	-0.1	539	19
JC12JL-023	QS	0.014	-1	9	6	0.22	100.44	24.77	0.6	3	-0.1	159	16
JC12JL-024	QS	0.005	4	3	7	0.55	99.41	6.94	0.1	2	0.4	212	6
JC12JL-025	QS	0.032	13	19	6	1.02	100.07	49.43	0.8	3	-0.1	571	23
JC12JL-026	QS	0.003	-1	29	11	0.34	100.44	45.99	0.3	3	0.6	193	20
JC12JL-027	LWQ	0.006	2	5	5	0.37	100.79	6.17	0.1	1	-0.1	93	4
JC12JL-028	QS	0.017	-1	23	12	0.59	99.60	50.88	0.3	2	-0.1	415	19
JC12JL-029	QS	0.012	-1	27	10	0.50	98.94	47.21	0.6	2	0.4	733	18
JC12JL-030	QS	0.006	5	8	6	0.24	99.25	12.77	0.7	2	2.9	308	9
JC12JL-031	QS	0.023	2	28	16	0.55	99.82	38.68	1.0	3	1.5	436	24
JC12JL-032	QS	0.002	-1	19	8	0.16	100.30	35.88	0.4	2	0.3	431	13
JC12JL-033	LWQ	0.049	6	7	4	1.61	98.04	9.66	0.6	3	0.4	694	17
JC12JL-034	MnIF	0.033	10	31	98	3.24	99.16	42.42	2.2	3	0.4	71440	17
JC12JL-035	QS	0.005	1	20	2	0.23	99.54	39.87	-0.1	1	0.2	344	11
JC12JL-036	QS	0.007	-1	19	4	0.58	100.45	37.91	0.3	3	0.1	1114	24
JC12JL-037	QS	0.003	2	12	6	0.61	99.60	24.15	0.4	3	0.2	358	19
JC12JL-038	QS	-0.001	2	17	3	0.27	99.55	33.51	0.3	2	0.4	142	10
JC12JL-039	QS	0.073	-1	15	13	1.55	100.90	41.04	1.2	3	0.9	329	20
JC12JL-041	QS	0.037	5	8	2	0.97	99.11	23.76	0.4	2	0.6	117	12
JC12JL-042	MnIF	0.031	5	34	570	4.12	98.71	46.62	1.3	2	0.4	75001	19
JC12JL-043	QS	0.097	1	26	147	1.62	100.09	40.27	1.2	2	3.9	2387	23
JC12JL-044	MnIF	0.148	3	-1	5586	4.11	97.64	33.94	3.5	3	1.9	75001	34
JC12JL-045	QS	0.002	-1	8	5		99.51	26.74	0.2	2	1.2	244	9
JC12JL-046	QS	0.004	-1	14	6		99.59	32.53	0.3	2	1.1	202	12
JC12JL-048	MnIF	0.085	10	29	1861	4.80	98.37	43.95	3.2	19	2.7	75001	52
JC12JL-049	QS	0.007	-1	14	6		99.62	32.29	0.5	1	1.4	550	9
JC12JL-050	LIF	0.028	-1	32	96	0.27	99.41	30.01	0.9	3	1.0	389	29

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %	Be ICP-OES 0.1 ppm	Cu ICP-OES 1 ppm	Li ICP-OES 0.1 ppm	Mn ICP-OES 1 ppm	Ni ICP-OES 1 ppm
JC12JL-051	WQ	0.022	16	516	1260	0.50	99.77	0.29	0.8	3	1.8	34	-1
JC12JL-052	MnIF	0.001	-1	10	217	0.73	98.92	22.92	0.6	3	0.1	24985	5
JC12JL-053	QS	0.007	-1	17	7	0.61	100.59	43.02	-0.1	1	0.7	195	6
JC12JL-054	MnIF	0.007	-1	16	416	0.81	99.93	36.68	0.5	3	0.5	22722	6
JC12JL-055	QS	0.002	-1	17	2	0.25	101.00	45.80	0.1	1	0.7	162	6
JC12JL-056	QS	0.007	3	20	6	0.43	100.28	38.15	0.1	1	0.8	237	7
JC12JL-059	QS	0.173	5	12	24	2.94	100.84	40.18	1.5	5	0.2	706	51
JC12JL-061	QS	0.016	6	14	12	0.39	100.40	30.20	0.2	2	0.3	206	10
JC12JL-062	MnIF	0.011	-1	29	523	4.20	98.05	33.67	1.1	3	2.0	75001	19
JC12JL-063	QS	0.063	8	11	9	0.91	99.39	25.70	0.8	2	5.2	639	19
JC12JL-064	QS	0.014	-1	7	10	0.71	98.90	30.28	0.5	3	0.2	280	17
JC12JL-065	LWQ	0.009	1	3	5	0.38	98.69	7.95	0.2	2	-0.1	94	4
JC12JL-066	QS	0.047	-1	26	128	0.37	99.88	35.09	1.3	2	0.4	379	16
JC12JL-067	QS	0.028	-1	15	25	1.05	99.34	38.31	0.5	3	0.3	883	20
JC12JL-068	QS	0.027	-1	32	3	0.93	99.05	49.82	0.4	2	-0.1	492	14
JC12JL-069	QS	0.043	-1	8	9	1.35	99.73	29.55	0.5	14	0.2	434	18
JC12JL-070	QS	0.003	-1	14	4	0.41	99.88	46.09	0.4	2	0.4	213	18
JC12JL-071	QS	0.007	-1	14	5	0.46	99.29	43.39	0.5	3	0.3	445	18
JC12JL-072	QS	0.060	-1	13	7	2.10	98.99	46.26	0.5	8	-0.1	312	22
JC12JL-074	QS	0.013	-1	14	8	0.67	100.30	36.52	0.4	8	1.0	225	17
JC12JL-075	QS	0.010	-1	33	5	0.29	100.44	44.65	0.2	2	0.2	397	7
JC12JL-076	LWQ	0.006	-1	4	2	0.29	99.56	10.06	0.2	5	-0.1	148	5
JC12JL-077	QS	0.015	8	20	7	0.33	98.46	34.95	0.7	3	0.2	598	15
JC12JL-079	QS	0.007	3	4	4	0.46	98.32	10.77	0.2	5	0.2	162	7
JC12JL-080	MnIF	0.008	-1	18	50	1.07	99.79	24.62	0.5	2	1.7	28490	7
JC12JL-081	QS	0.011	-1	17	7	0.51	99.26	33.47	0.4	2	0.3	701	19
JC12JL-082	QS	0.016	-1	18	7	0.70	100.01	39.03	0.3	4	0.2	659	20
JC12JL-083	QS	0.002	-1	9	4	0.24	98.29	35.13	0.1	2	0.3	193	10
JC12JL-084	QS	0.012	6	10	10	0.29	100.16	23.57	0.6	3	0.6	486	16
JC12JL-085	QS	0.009	-1	6	11	0.39	100.78	31.24	0.5	4	1.0	393	22
JC12JL-086	QS	0.028	3	22	10	2.45	98.59	46.69	0.3	3	0.1	506	25
JC12JL-087	QS	0.013	-1	9	12	0.57	99.47	34.06	0.9	7	0.5	521	26
JC12JL-089	QS	0.006	-1	10	2	0.27	100.27	34.95	0.2	2	0.6	593	11
JC12JL-090	QS	0.008	-1	14	8	0.25	99.27	37.30	0.6	3	4.1	1604	21
JC12JL-091	QS	0.178	7	13	42	3.97	99.56	28.53	1.9	5	0.8	3963	35
JC12JL-092	QS	0.018	-1	16	5	0.30	98.76	27.49	0.9	2	3.6	620	15
JC12JL-093	QS	0.009	-1	20	5	0.22	99.90	23.33	0.5	3	1.4	223	17
JC12JL-094	QS	0.005	-1	29	4	0.16	98.18	47.38	-0.1	2	-0.1	87	6
JC12JL-095	QS	0.017	-1	22	16	0.46	98.97	56.85	3.8	4	5.5	744	30
JC12JL-096	QS	0.009	-1	13	4	0.29	100.54	32.46	0.5	2	-0.1	472	15
JC12JL-097	QS	0.007	-1	16	10	0.39	100.01	39.01	0.6	8	0.6	2260	21
JC12JL-098	QS	0.002	-1	8	3	0.36	99.22	30.23	-0.1	1	0.3	114	4
JC12JL-099	QS	0.007	-1	8	9	0.34	99.31	38.64	0.9	3	0.7	678	25
JC12JL-100	QS	0.005	-1	10	9	0.33	99.94	37.55	0.4	9	0.4	310	18
JC12JL-101	QS	0.003	-1	6	6	0.41	100.17	23.19	0.4	2	0.2	241	16
JC12JL-102	QS	0.034	-1	8	4	1.62	98.82	40.93	0.6	6	0.2	358	22
JC12JL-104	QS	0.004	-1	10	95	0.35	99.28	49.05	1.1	3	9.6	1713	26

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %	Be ICP-OES 0.1 ppm	Cu ICP-OES 1 ppm	Li ICP-OES 0.1 ppm	Mn ICP-OES 1 ppm	Ni ICP-OES 1 ppm
JC12JL-105	QS	0.009	-1	9	7	0.40	98.35	45.50	0.5	3	0.1	360	20
JC12JL-106	QS	0.003	-1	19	5	0.31	99.64	52.66	0.1	2	-0.1	194	9
JC12JL-107	QS	0.003	-1	8	5	0.13	99.82	22.94	0.2	1	1.3	363	9
JC12JL-109	QS	0.002	-1	23	5	0.43	100.33	48.56	0.4	6	1.2	306	13
JC12JL-110	QS	0.002	-1	21	4	0.23	100.10	46.99	0.3	2	0.5	222	12
JC12JL-111	QS	0.004	7	24	6	0.33	100.81	41.41	0.3	4	1.1	320	12
JC12JL-112	QS	0.002	-1	7	2	0.15	100.65	29.72	0.1	2	0.9	191	6
JC12JL-113	QS	0.072	2	16	6	0.81	100.60	34.01	0.5	2	0.4	133	11
JC12JL-114	QS	0.017	-1	40	71	0.34	98.56	52.02	0.8	2	3.9	1040	22
JC12JL-115	QS	0.003	5	18	6	0.17	100.03	24.81	0.2	2	1.2	267	11
JC12JL-116	QS	-0.001	3	21	2	0.07	100.55	32.85	-0.1	1	1.8	92	5
JC12JL-117	QS	0.121	-1	10	8	1.09	100.98	33.09	0.2	1	1.6	260	9
JC12JL-118	QS	0.005	-1	12	5	0.18	98.89	39.14	0.3	2	1.6	176	14
JC12JL-119	QS	0.004	-1	10	4	0.14	98.98	33.93	0.1	1	1.3	358	7
JC12JL-120	QS	0.050	8	25	14	0.73	99.04	42.81	1.0	2	0.6	512	21
JC12JL-121	QS	0.005	-1	7	3	0.16	98.40	29.10	0.2	-1	1.3	80	6
JC12JL-122	WQ	0.013	2	29	25	0.22	99.07	0.43	0.3	1	0.6	11	-1
JC12JL-123	QS	0.017	2	12	7	0.38	100.51	22.12	0.5	4	0.8	266	18
JC12JL-124	QS	0.017	-1	11	7	0.31	99.88	29.57	0.5	1	-0.1	154	15
JC12JL-125	QS	0.009	-1	9	14	0.68	99.87	30.93	0.4	2	0.2	211	19
JC12JL-126	QS	0.011	-1	14	9	0.85	100.50	40.21	0.6	2	0.3	219	21
JC12JL-127	QS	0.011	7	11	9	0.98	98.48	36.37	0.7	3	2.0	264	26
JC12JL-128	QS	0.017	-1	9	4	0.38	99.27	31.00	0.7	2	-0.1	215	15
JC12JL-130	QS	0.025	-1	9	6	0.70	100.72	34.65	0.2	5	-0.1	103	12
JC12JL-131	QS	0.003	8	29	4	0.22	99.30	47.24	0.3	2	-0.1	467	18
JC12JL-132	LWQ	0.041	-1	5	4	1.17	100.95	12.42	0.4	3	0.7	217	14
JC12JL-133	LWQ	0.005	-1	2	9	0.21	100.66	3.52	0.2	-1	0.4	157	3
JC12JL-134	QS	0.004	-1	8	33	0.17	100.47	37.97	0.5	3	0.4	689	14
JC12JL-135	FLT	0.023	-1	13	12	0.36	100.02	33.18	0.6	2	0.2	371	18
JC12JL-136	LWQ	0.005	1	19	13	0.30	100.25	3.25	0.1	-1	0.1	279	2
JC12JL-137	QS	0.005	-1	11	20	0.31	98.56	45.78	0.7	3	0.3	832	17
JC12JL-138	QS	0.005	-1	10	8	0.31	98.06	47.54	0.2	2	0.2	781	19
JC12JL-139	LWQ	0.010	4	5	12	0.36	100.43	5.96	0.3	-1	0.7	374	5
JC12JL-140	QS	0.029	-1	37	14	0.59	98.47	47.98	0.8	5	2.0	902	21
JC12JL-141	QS	0.024	2	39	8	0.68	99.45	63.96	1.4	4	1.3	1576	27
JC12JL-142	QS	0.004	-1	8	4	0.29	98.73	26.12	0.2	3	-0.1	278	14
JC12JL-144	QS	0.045	-1	10	2	2.15	100.88	28.67	0.5	5	-0.1	268	22
JC12JL-145	QS	0.016	2	14	5	0.79	100.48	34.46	0.7	6	0.2	266	20
JC12JL-146	MnIF	0.002	2	26	65	3.41	98.27	33.80	2.2	11	-0.1	75001	17
JC12JL-147	QS	0.004	-1	3	22	0.17	99.82	10.72	0.3	-1	-0.1	359	5
JC12JL-148	QS	0.003	-1	8	44	0.27	99.07	29.69	0.3	3	0.4	323	9
JC12JL-149	QS	0.014	-1	9	27	0.65	98.33	43.99	1.0	2	-0.1	813	24
JC12JL-150	QS	0.023	5	19	20	1.03	100.10	56.26	1.1	3	0.9	737	31
JC12JL-151	QS	0.007	-1	3	28	0.25	99.10	9.83	0.3	-1	0.4	231	5
JC12JL-152	LWQ	0.005	-1	3	19	0.16	99.03	10.74	0.2	2	-0.1	115	4
JC12JL-153	QS	0.002	-1	26	9	0.24	99.52	37.90	-0.1	-1	-0.1	99	3
JC12JL-154	QS	0.002	-1	25	19	1.96	100.75	43.82	-0.1	-1	2.4	199	4

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %	Be ICP-OES 0.1 ppm	Cu ICP-OES 1 ppm	Li ICP-OES 0.1 ppm	Mn ICP-OES 1 ppm	Ni ICP-OES 1 ppm
JC12JL-155	VN	0.006	-1	1	18	0.16	98.87	0.54	-0.1	-1	-0.1	31	-1
JC12JL-156	MnIF	0.163	2	39	33	3.69	98.34	57.64	3.9	4	-0.1	55084	32
JC12JL-157	QS	0.004	-1	9	6	0.12	99.33	34.75	0.1	8	0.3	400	4
JC12JL-158	QS	0.011	-1	12	7	0.38	99.05	39.95	0.4	2	0.3	784	17
JC12JL-159	QS	0.005	-1	7	8	0.34	98.95	29.85	0.6	3	0.3	738	15
JC12JL-161	QS	0.109	-1	13	5	3.52	98.55	26.46	1.0	11	0.2	958	28
JC12JL-162	QS	0.032	-1	14	10	0.67	99.09	41.43	0.3	8	0.2	428	16
JC12JL-163	QS	0.047	3	27	2	2.27	98.98	48.84	0.4	5	-0.1	355	27
JC12JL-164	QS	0.024	-1	9	3	1.09	98.07	32.86	0.3	3	-0.1	173	14
JC12JL-165	QS	0.015	-1	15	7	0.68	99.81	35.80	0.5	2	0.2	664	18
JC12JL-166	QS	0.009	-1	5	2	0.35	98.84	13.04	0.3	1	-0.1	102	9
JC12JL-167	QS	0.039	-1	10	7	0.63	99.55	42.61	0.6	4	0.3	252	27
JC12JL-168	LWQ	0.001	1	2	2	0.21	99.72	1.42	-0.1	-1	-0.1	110	-1
JC12JL-169	QS	0.006	-1	11	8	0.36	99.54	43.99	0.6	6	-0.1	236	24
JC12JL-170	QS	0.025	-1	10	16	1.81	98.68	42.76	0.5	4	0.2	245	25
JC12JL-171	QS	0.012	-1	8	3	0.62	99.61	40.24	0.6	2	-0.1	203	19
JC12JL-172	QS	0.017	4	12	13	0.20	98.86	46.61	0.4	1	-0.1	264	16
JC12JL-173	QS	0.005	2	8	12	0.27	99.49	40.09	0.5	1	0.5	612	11
JC12JL-174	QS	0.010	2	8	17	0.57	99.64	36.67	0.7	3	0.9	835	22
JC12JL-175	QS	0.008	7	8	11	0.28	99.14	39.96	0.3	3	-0.1	218	18
JC12JL-176	QS	0.002	1	3	2	0.13	98.53	6.92	0.2	3	-0.1	151	6
JC12JL-177	QS	0.014	1	30	4	0.34	98.24	58.51	0.4	2	-0.1	304	15
JC12JL-178	QS	0.009	2	14	4	0.37	99.81	35.66	0.5	2	0.3	512	10
JC12JL-179	QS	0.004	-1	32	3	0.20	98.83	51.31	0.2	2	-0.1	426	18
JC12JL-180	QS	0.004	1	40	2	0.23	100.63	54.44	0.5	4	-0.1	333	17
JC12JL-181	QS	0.024	2	20	10	0.31	98.21	45.06	1.3	2	-0.1	492	17
JC12JL-182	LWQ	0.056	1	6	2	1.26	99.26	12.00	1.1	2	0.2	302	11
JC12JL-183	QS	0.006	2	9	14	0.27	98.52	39.29	0.5	2	0.4	473	18
JC12JL-184	QS	0.044	5	8	21	1.20	98.64	41.96	0.9	6	0.5	748	32
JC12JL-185	QS	0.001	7	12	5	0.19	98.87	32.91	-0.1	1	-0.1	187	8
JC12JL-186	LWQ	0.009	3	3	19	0.20	98.93	8.58	0.4	1	-0.1	283	9
JC12JL-187	QS	0.003	-1	13	6	0.17	99.49	30.90	-0.1	4	0.2	163	8
JC12JL-188	QS	0.015	2	12	5	0.34	100.44	18.68	0.7	2	0.2	140	12
JC12JL-190	QS	0.015	3	14	11	0.41	100.07	26.68	0.9	2	0.8	465	23
JC12JL-191	QS	0.010	3	9	5	0.39	99.39	36.08	0.2	9	-0.1	249	13
JC12JL-192	QS	0.001	3	8	3	0.20	98.86	30.04	0.2	2	0.9	242	9
JC12JL-193	QS	0.008	3	8	4	0.36	99.67	35.13	0.2	1	0.7	281	10
JC12JL-194	QS	0.014	8	53	22	0.56	100.19	51.45	0.3	2	0.9	583	17
JC12JL-195	QS	0.139	2	8	34	3.60	98.91	22.94	2.0	6	18.2	12248	26
JC12JL-196	QS	0.004	5	5	8	0.28	100.50	30.35	-0.1	2	0.6	180	9
JC12JL-197	QS	-0.001	-1	4	5	0.13	98.58	17.79	-0.1	2	0.2	119	4
JC12JL-198	QS	0.016	3	19	17	0.35	100.12	35.24	1.3	2	1.6	698	21
JC12JL-199	QS	0.098	4	12	11	1.09	98.89	45.15	1.3	3	0.6	240	25
JC12JL-200	QS	0.027	5	8	15	0.84	100.36	39.72	0.7	4	0.3	476	21
JC12JL-201	QS	0.003	10	10	6	0.18	100.40	33.60	0.2	1	0.8	150	11
JC12JL-202	QS	0.010	5	13	10	0.24	98.35	44.22	0.4	2	0.2	275	19
JC12JL-203	QS	0.020	-1	51	47	0.40	98.02	65.36	2.7	4	0.9	3525	28

APPENDIX D: Drillhole samples geochemical data

Sample_Num Method Detection Limit Unit	Litho_code	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %	Be ICP-OES 0.1 ppm	Cu ICP-OES 1 ppm	Li ICP-OES 0.1 ppm	Mn ICP-OES 1 ppm	Ni ICP-OES 1 ppm
JC12JL-204	QS	0.017	2	33	16	0.47	97.13	66.57	0.4	3	0.4	1636	19
JC12JL-205	QS	0.011	4	12	5	0.40	98.23	36.42	0.2	1	0.4	240	13
JC12JL-206	QS	0.009	5	6	7	0.25	99.36	33.09	0.6	2	0.4	255	20
JC12JL-207	LIF	0.088	13	81	286	1.42	98.37	24.49	2.7	3	2.2	586	26
JC12JL-208	WQ	0.036	19	604	66	3.70	100.80	1.10	1.1	10	2.5	29	5
JC12JL-209	QS	0.003	4	16	7	0.26	100.95	26.14	0.2	2	0.4	265	8
JC12JL-210	QS	0.002	2	12	2	0.36	99.92	38.33	0.2	1	0.6	397	8
JC12JL-211	QS	0.001	1	7	1	0.18	100.03	27.55	-0.1	-1	0.4	208	5
JC12JL-212	QS	0.040	1	14	33	0.96	98.94	43.21	1.8	2	6.4	1078	22
JC12JL-213	MnIF	0.002	1	10	176	2.01	98.99	30.92	1.0	2	-0.1	55773	9
JC12JL-215	QS	0.004	2	5	3	0.19	99.68	27.49	0.2	-1	0.3	211	6
JC12JL-216	QS	0.019	1	9	4	1.79	98.86	36.16	0.3	1	0.3	1102	14
JC12JL-217	MnIF	-0.001	1	13	517	1.60	99.10	28.62	1.2	3	-0.1	53587	13
JC12JL-218	QS	0.011	1	21	5	2.14	100.96	49.09	0.2	2	0.4	415	18
JC12JL-219	QS	0.002	3	12	3	0.19	99.15	46.40	0.2	1	1.5	195	8
JC12JL-220	QS	0.004	2	5	1	0.25	99.29	30.30	0.1	1	0.2	183	6
JC12JL-221	QS	0.012	1	9	2	0.75	100.56	32.65	0.2	2	-0.1	298	11
JC12JL-222	QS	0.006	-1	17	3	0.38	99.14	37.75	0.8	-1	4.3	403	12
JC12JL-223	QS	-0.001	1	7	5	0.24	98.77	24.99	-0.1	-1	0.2	221	9
JC12JL-224	QS	-0.001	4	8	4	0.14	98.45	28.55	-0.1	-1	-0.1	76	5
JC12JL-225	QS	0.016	1	12	5	0.40	98.97	30.14	0.2	-1	0.4	242	10
JC12JL-226	QS	0.004	2	11	3	0.28	98.06	33.37	0.2	-1	0.4	194	11
JC12JL-227	MnIF	0.021	2	19	2932	3.48	98.28	26.40	2.6	3	1.6	75001	24
JC12JL-228	QS	0.045	8	9	20	0.46	98.10	30.34	0.3	2	0.7	425	11
JC12JL-229	MnIF	-0.001	2	21	2511	5.79	96.35	26.34	3.1	5	2.2	75001	23
JC12JL-230	MnIF	-0.001	1	22	675	2.95	100.11	28.25	3.0	3	7.2	75001	25
JC12JL-231	MnIF	0.030	2	24	6200	2.77	99.89	29.70	2.7	5	1.3	65976	19
JC12JL-232	QS	0.006	4	12	185	0.30	99.38	36.92	1.4	4	0.6	894	22
JC12JL-233	LWQ	0.009	-1	3	6	0.26	98.80	6.44	0.3	-1	-0.1	132	6
JC12JL-234	LWQ	0.005	1	7	6	0.16	98.50	10.81	0.4	1	0.3	160	9
JC12JL-235	QS	0.010	2	8	10	0.23	99.44	32.68	0.6	2	-0.1	581	19
JC12JL-236	QS	0.008	3	8	8	0.44	99.05	36.37	1.0	10	0.3	843	23
JC12JL-237	LWQ	0.021	1	4	5	1.33	99.59	18.51	0.4	3	-0.1	319	16
JC12JL-238	LWQ	0.010	-1	5	6	0.26	100.13	11.36	0.4	2	-0.1	98	8
JC12JL-239	QS	0.033	2	22	12	0.26	98.55	44.54	0.9	2	-0.1	446	13
JC12JL-240	LWQ	0.005	1	3	5	0.37	99.04	5.19	0.2	1	-0.1	288	5
JC12JL-241	QS	0.017	2	9	8	0.80	99.16	39.10	0.4	6	0.3	538	25
JC12JL-242	QS	0.196	1	17	12	1.92	98.86	35.73	1.8	3	4.1	566	29
JC12JL-243	QS	0.008	3	10	8	0.25	98.67	32.49	0.1	3	0.1	259	9
JC12JL-244	QS	0.009	5	13	32	0.25	98.60	33.54	0.5	11	0.2	665	18
JC12JL-245	QS	0.056	1	20	12	1.79	98.36	39.02	2.0	4	4.3	827	25
JC12JL-246	QS	-0.001	-1	7	2	0.12	100.31	29.22	-0.1	2	0.2	95	5
JC12JL-247	QS	0.006	-1	8	4	0.32	99.07	31.53	0.1	2	0.4	304	12
JC12JL-248	QS	0.009	-1	13	2	0.35	98.60	35.98	0.2	5	0.4	354	11
JC12JL-249	QS	0.035	-1	9	6	1.13	98.69	33.44	0.4	5	0.2	367	15
JC12JL-250	QS	0.003	1	10	5	0.19	98.46	33.79	-0.1	2	0.1	309	9
JC12JL-251	QS	0.011	3	10	6	0.36	99.11	33.15	0.2	2	-0.1	394	12

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5	Cr	Zr	Ba	LOI	Total	Fe	Be	Cu	Li	Mn	Ni
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	Grav		Mol Calc	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
Detection Limit		0.001	1	1	1	0.01			0.1	1	0.1	1	1
Unit		%	ppm	ppm	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm
JC12JL-252	QS	0.010	2	14	5	0.50	98.01	36.97	0.2	2	-0.1	285	11
JC12JL-253	QS	0.020	2	21	4	1.08	98.43	40.92	0.2	3	1.0	465	14
JC12JL-254	QS	0.011	3	9	6	0.35	98.23	29.29	0.3	2	0.2	333	9
JC12JL-255	QS	0.035	2	21	8	0.00	0.00	42.83	0.4	3	0.3	283	16
JC12JL-256	QS	0.063	5	7	5	1.94	99.11	28.84	0.5	4	1.3	378	25
JC12JL-257	QS	0.007	3	6	5	0.40	98.91	22.30	0.2	2	0.5	169	13
JC12JL-258	QS	0.011	2	13	6	0.33	98.26	28.17	0.3	3	0.8	158	18
JC12JL-259	QS	0.059	26	29	13	3.00	98.68	23.66	2.3	6	2.5	725	37
JC12JL-260	LIF	0.124	137	171	13	4.18	99.56	19.21	4.2	9	1.5	720	38
JC12JL-261	LIF	0.323	17	231	326	5.71	98.84	23.35	3.3	12	1.7	1188	36
JC12JL-262	WQ	0.004	4	24	36	0.08	99.84	0.41	0.2	3	0.2	29	-1
JC12JL-263	QS	0.123	3	18	16	4.02	98.06	48.85	1.3	3	0.3	1376	26
JC12JL-264	QS	0.071	5	-1	8	3.03	100.57	53.34	1.6	7	6.7	684	29
JC12JL-265	QS	0.042	1	13	4	0.88	98.36	29.68	0.8	3	0.1	848	22
JC12JL-266	QS	0.005	2	10	4	0.13	98.19	25.02	0.6	2	-0.1	148	17
JC12JL-267	QS	0.123	10	12	11	1.58	98.76	30.94	1.4	4	0.3	622	22
JC12JL-268	MnIF	0.101	1	28	3043	5.97	98.19	37.45	2.6	11	1.6	75001	23
JC12JL-269	QS	0.130	2	36	159	4.01	100.04	55.50	0.9	6	-0.1	5399	27
JC12JL-270	MnIF	0.072	-1	10	4627	2.86	98.11	17.49	2.2	5	3.3	67860	17
JC12JL-271	QS	0.196	8	10	16	1.94	98.09	37.99	1.9	3	1.4	558	24
JC12JL-272	MnIF	0.046	1	35	1552	3.80	99.09	34.13	2.9	2	4.2	75001	23
JC12JL-273	QS	0.009	2	13	6	0.33	100.19	27.90	0.3	4	1.4	180	9
JC12JL-274	QS	0.003	4	7	7	0.25	100.45	24.36	0.4	2	0.5	236	14
JC12JL-275	QS	0.003	5	9	9	0.22	99.24	33.61	1.2	2	1.1	502	25
JC12JL-276	QS	0.027	5	28	8	0.78	99.67	49.73	0.8	3	0.1	626	26
JC12JL-277	QS	0.002	6	12	6	0.21	100.17	30.32	0.1	5	0.2	138	9
JC12JL-278	QS	0.013	4	14	13	0.90	98.79	52.39	1.1	4	0.5	1286	21
JC12JL-279	QS	0.063	2	40	2	1.05	100.96	64.21	0.2	3	0.4	174	18
JC12JL-280	LWQ	0.003	-1	4	3	0.35	98.75	9.33	0.4	-1	1.3	439	3
JC12JL-281	LWQ	0.005	-1	10	4	0.36	100.85	17.91	0.3	2	1.4	266	5
JC12JL-282	QS	0.009	2	25	-1	0.45	100.56	46.69	-0.1	2	-0.1	164	6
JC12JL-283	QS	0.005	2	20	6	0.20	100.07	42.65	0.1	3	-0.1	65	5
JC12JL-284	LWQ	0.008	3	5	2	0.32	100.17	17.70	0.1	2	-0.1	216	3
JC12JL-285	QS	0.006	2	14	2	0.29	98.85	41.98	0.1	-1	0.8	111	6
JC12JL-286	QS	0.005	2	8	9	0.40	99.58	34.99	0.3	3	0.2	290	9
JC12JL-288	QS	0.018	7	11	51	0.43	99.57	40.59	0.4	7	0.2	707	13
JC12JL-289	QS	0.022	-1	13	3	0.49	99.25	30.27	-0.1	1	-0.1	259	6
JC12JL-290	QS	0.067	3	7	37	0.83	98.82	25.77	0.2	1	-0.1	86	12
JC12JL-291	QS	0.013	-1	13	8	0.69	98.98	36.46	0.3	3	0.3	470	15
JC12JL-292	QS	0.084	3	8	6	0.92	99.70	32.22	-0.1	1	-0.1	74	7
JC12JL-293	QS	-0.001	3	9	74	0.16	99.68	33.98	-0.1	-1	-0.1	612	6
JC12JL-294	QS	0.002	2	9	1	0.12	99.26	27.11	-0.1	3	0.6	95	5
JC12JL-295	QS	0.015	6	17	17	0.49	98.17	37.08	0.6	2	0.6	935	15
JC12JL-296	QS	0.018	7	11	6	1.00	98.71	31.54	0.4	3	1.9	157	19
JC12JL-297	QS	0.003	-1	10	6	0.26	100.68	27.56	0.1	3	0.3	71	4
JC12JL-298	QS	0.002	3	6	4	0.20	99.15	26.46	0.2	2	0.5	154	15
JC12JL-300	QS	0.051	6	12	3	2.19	100.10	30.09	1.3	2	0.9	205	26

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %	Be ICP-OES 0.1 ppm	Cu ICP-OES 1 ppm	Li ICP-OES 0.1 ppm	Mn ICP-OES 1 ppm	Ni ICP-OES 1 ppm
JC12JL-301	LIF	0.086	7	42	77	4.60	100.07	33.63	0.8	4	0.9	667	33
JC12JL-303	LIF	0.123	10	48	44	5.23	99.91	39.93	1.7	6	1.2	1153	40
JC12JL-304	LIF	0.132	55	230	33	5.47	98.75	20.53	2.8	7	1.4	977	28
JC12JL-305	WQ	0.029	11	404	508	1.14	98.02	0.68	0.2	15	0.5	18	4
JC12JL-306	WQ	0.017	19	267	1117	1.70	99.35	0.44	0.7	-1	1.9	260	1
JC12JL-307	QS	0.048	5	9	5	0.73	99.07	31.45	0.2	2	-0.1	137	9
JC12JL-308	QS	0.016	4	12	1	0.79	99.33	39.52	-0.1	6	-0.1	66	7
JC12JL-309	QS	0.003	2	8	1	0.31	98.83	29.92	-0.1	4	-0.1	96	6
JC12JL-310	QS	0.004	4	15	11	0.38	99.67	38.57	0.1	1	0.9	317	10
JC12JL-311	QS	0.010	2	33	20	0.49	99.67	52.42	0.7	6	3.7	776	17
JC12JL-312	LWQ	0.014	5	-1	23	0.61	99.86	4.53	0.3	1	0.6	248	5
JC12JL-313	QS	0.012	4	7	7	0.43	100.33	30.18	0.2	2	0.2	164	10
JC12JL-314	QS	0.100	5	12	67	2.14	100.10	40.34	0.2	2	0.7	110	15
JC12JL-315	QS	0.096	4	5	4	1.21	99.47	23.83	0.1	1	0.7	203	13
JC12JL-316	LWQ	0.012	4	3	37	0.34	99.78	16.33	1.0	7	0.8	340	17
JC12JL-317	LWQ	0.012	-1	4	24	0.47	100.86	3.28	0.2	2	0.7	287	3
JC12JL-318	QS	0.079	3	17	7	0.81	100.65	27.75	0.2	2	1.7	334	12
JC12JL-319	QS	0.012	3	25	22	0.33	100.41	45.66	0.3	2	2.4	404	9
JC12JL-320	QS	0.006	3	13	2	0.23	100.64	35.96	-0.1	1	0.3	150	4
JC12JL-321	QS	0.005	6	11	-1	0.16	98.91	29.28	-0.1	-1	-0.1	50	6
JC12JL-322	QS	0.010	4	12	7	0.29	98.16	35.51	0.1	-1	-0.1	91	6
JC12JL-323	MnIF	0.025	3	49	1258	4.25	95.62	43.83	2.9	2	0.2	75001	24
JC12JL-324	QS	0.098	3	50	46	2.42	99.73	66.31	1.6	3	-0.1	2692	41
JC12JL-325	QS	0.014	3	7	32	0.46	99.23	28.99	0.1	1	0.1	312	9
JC12JL-326	QS	0.045	2	29	6	0.52	99.78	61.33	0.3	3	-0.1	238	14
JC12JL-327	QS	0.006	7	21	11	0.39	98.96	35.32	0.6	8	0.6	912	15
JC12JL-328	QS	0.002	1	10	2	0.17	99.04	25.35	0.1	2	0.2	79	8
JC12JL-329	LIF	0.032	18	26	24	1.79	99.94	25.39	1.0	5	0.9	279	24
JC12JL-330	LIF	0.084	28	63	24	5.73	100.51	34.68	2.2	4	3.5	773	41
JC12JL-331	QS	0.009	2	13	4	0.56	99.31	26.56	-0.1	7	0.3	87	9
JC12JL-332	QS	0.007	2	20	2	0.57	98.89	42.18	0.1	1	0.1	59	8
JC12JL-333	QS	0.006	2	21	1	0.19	100.40	44.48	-0.1	1	-0.1	37	6
JC12JL-334	QS	0.004	4	27	2	0.72	99.47	50.86	-0.1	1	2.2	51	8
JC12JL-335	QS	0.006	14	18	2	0.29	99.57	28.37	-0.1	1	1.0	88	7
JC12JL-336	QS	0.064	2	14	3	1.38	98.51	31.55	0.2	2	-0.1	131	15
JC12JL-337	QS	0.007	3	16	3	0.39	98.40	33.22	0.1	2	0.3	119	11
JC12JL-338	QS	0.004	8	17	1	0.55	100.24	26.51	0.1	1	0.5	135	7
JC12JL-339	QS	0.036	2	26	6	0.40	98.81	36.88	0.1	1	0.7	108	11
JC12JL-340	QS	0.207	1	64	62	4.36	100.92	55.44	3.3	15	8.5	6856	50
JC12JL-341	MnIF	0.082	2	42	420	3.25	98.51	44.09	2.1	25	1.6	75001	26
JC12JL-342	QS	0.041	5	31	114	0.92	98.73	42.48	0.9	2	4.0	2791	22
JC12JL-343	FLT	0.151	56	225	976	8.99	98.24	21.40	5.7	6	18.8	1505	28
JC12JL-344	QS	0.092	4	20	9	1.17	98.33	46.17	0.7	3	1.1	692	52
JC12JL-345	QS	0.005	3	7	10	0.36	98.81	21.87	0.2	8	-0.1	291	16
JC12JL-346	QS	0.003	1	11	4	0.47	98.36	25.90	0.1	2	0.2	78	11
JC12JL-347	QS	0.005	2	13	2	0.50	98.51	30.46	0.1	2	0.7	194	5
JC12JL-348	QS	0.161	58	101	410	26.69	97.09	1.03	0.3	6	4.6	-1	-1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	P2O5	Cr	Zr	Ba	LOI	Total	Fe	Be	Cu	Li	Mn	Ni
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	Grav		Mol Calc	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
Detection Limit		0.001	1	1	1	0.01			0.1	1	0.1	1	1
Unit		%	ppm	ppm	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm
JC12JL-349	QS	0.008	2	15	6	0.27	99.52	33.40	0.3	2	0.1	358	16
JC12JL-350	QS	0.008	3	14	4	0.19	98.41	34.92	0.5	3	0.8	428	18
JC12JL-351	QS	0.007	9	11	6	0.23	99.50	26.25	0.4	2	0.9	350	13
JC12JL-352	QS	0.004	4	19	5	0.20	99.04	38.07	0.3	4	0.4	606	12
JC12JL-353	QS	0.005	3	11	5	0.21	98.59	33.75	0.3	2	0.5	572	10
JC12JL-354	QS	0.009	2	11	6	0.23	98.04	25.70	0.8	2	2.4	140	20
JC12JL-355	LIF	0.140	9	23	9	3.49	99.00	22.04	1.7	6	0.9	720	29
JC12JL-356	WQ	0.049	34	482	94	4.35	99.68	2.37	0.9	3	6.5	66	5
JC12JL-357	WQ	0.066	27	329	622	4.90	98.13	1.66	1.9	16	13.1	90	11

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
		ICP-OES 1 ppm	ICP-OES 1 ppm	ICP-OES 0.1 ppm	ICP-OES 1 ppm	ICP-OES 1 ppm	ICP-MS-FUS 5 ppm	ICP-MS-FUS 1 ppm	ICP-MS-FUS 1 ppm	ICP-MS-FUS 1 ppm	ICP-MS-FUS 5 ppm	ICP-MS-FUS 2 ppm	ICP-MS-FUS 1 ppm
JC12JL-001	QS	2	-1	0.4	15	12	6	1	1	13	8	2	7
JC12JL-002	QS	2	-1	-0.1	28	11	14	5	1	17	-5	-2	1
JC12JL-003	QS	2	3	-0.1	25	18	7	4	1	23	-5	2	1
JC12JL-004	QS	3	5	0.4	14	28	34	20	2	21	-5	4	1
JC12JL-006	QS	3	-1	0.4	11	18	37	9	3	24	8	8	9
JC12JL-007	QS	2	1	-0.1	25	9	10	4	-1	25	-5	-2	1
JC12JL-008	QS	2	-1	3.5	114	15	31	8	2	14	-5	3	1
JC12JL-009	QS	3	6	0.8	88	16	43	4	2	19	-5	5	15
JC12JL-010	QS	-1	5	-0.1	12	9	-5	3	-1	13	18	-2	1
JC12JL-011	QS	5	-1	0.2	44	18	12	8	1	15	5	4	3
JC12JL-012	QS	2	1	4.0	41	24	16	8	2	14	-5	-2	4
JC12JL-013	QS	1	4	-0.1	11	9	7	5	1	20	-5	-2	4
JC12JL-014	QS	5	-1	3.3	12	58	28	25	1	14	22	-2	6
JC12JL-015	QS	71	3	0.2	29	110	89	40	5	28	63	13	117
JC12JL-016	QS	1	-1	-0.1	5	9	9	1	1	15	-5	2	13
JC12JL-017	QS	2	-1	-0.1	29	12	26	11	1	14	-5	3	12
JC12JL-018	QS	3	2	0.8	533	43	55	10	3	12	-5	4	10
JC12JL-019	LIF	2	5	2.0	1692	20	116	3	5	9	-5	8	11
JC12JL-020	WQ	-1	6	1.9	190	5	9	1	11	5	6	8	14
JC12JL-021	QS	2	4	-0.1	12	12	16	4	1	7	-5	2	7
JC12JL-022	QS	1	-1	0.7	21	17	24	-1	22	14	-5	2	15
JC12JL-023	QS	1	2	-0.1	11	10	13	2	1	8	-5	2	3
JC12JL-024	QS	-1	-1	0.8	16	7	7	4	1	4	-5	-2	2
JC12JL-025	QS	2	-1	1.2	19	16	21	12	1	21	6	4	16
JC12JL-026	QS	1	-1	0.4	33	12	40	-1	3	11	-5	-2	1
JC12JL-027	LWQ	-1	-1	0.2	11	4	13	5	1	4	-5	-2	6
JC12JL-028	QS	2	6	0.5	21	15	33	18	1	14	-5	3	15
JC12JL-029	QS	2	-1	0.1	22	14	40	15	1	14	-5	3	5
JC12JL-030	QS	2	4	0.2	10	7	5	5	1	7	-5	2	10
JC12JL-031	QS	2	2	0.1	20	18	10	5	1	4	-5	-2	9
JC12JL-032	QS	2	-1	-0.1	13	8	13	6	2	12	-5	2	3
JC12JL-033	LWQ	2	-1	0.1	21	13	6	7	1	5	-5	-2	6
JC12JL-034	MnIF	25	10	0.2	11	38	25	30	5	20	33	222	20
JC12JL-035	QS	1	3	-0.1	13	8	11	2	1	13	-5	-2	14
JC12JL-036	QS	3	-1	-0.1	10	15	8	11	2	13	-5	2	10
JC12JL-037	QS	2	2	-0.1	23	11	12	2	-1	16	-5	2	-1
JC12JL-038	QS	-1	3	-0.1	16	7	9	3	-1	20	-5	-2	1
JC12JL-039	QS	2	-1	-0.1	6	18	11	3	-1	18	-5	-2	3
JC12JL-041	QS	2	1	0.2	4	11	8	2	-1	14	-5	-2	1
JC12JL-042	MnIF	23	-1	-0.1	14	12	19	36	5	22	34	54	49
JC12JL-043	QS	5	4	-0.1	13	15	18	6	1	13	12	6	4
JC12JL-044	MnIF	24	6	-0.1	16	43	47	61	4	18	52	65	29
JC12JL-045	QS	1	-1	-0.1	9	7	7	2	-1	17	-5	-2	-1
JC12JL-046	QS	-1	1	-0.1	24	7	9	2	-1	15	-5	-2	1
JC12JL-048	MnIF	236	3	-0.1	16	73	20	75	4	18	43	59	41
JC12JL-049	QS	1	-1	-0.1	13	6	13	3	1	12	-5	2	5
JC12JL-050	LIF	3	8	0.9	705	17	39	1	3	9	-5	9	5

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	1	0.1	1	1	5	1	1	1	5	2	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-051	WQ	7	86	2.2	540	4	9	2	12	3	-5	84	11
JC12JL-052	MnIF	8	2	0.1	11	13	8	3	1	9	-5	12	3
JC12JL-053	QS	-1	-1	-0.1	3	5	15	1	1	17	7	2	11
JC12JL-054	MnIF	7	-1	-0.1	3	11	15	7	2	17	11	13	4
JC12JL-055	QS	-1	-1	-0.1	4	4	14	1	1	15	5	-2	3
JC12JL-056	QS	-1	3	-0.1	5	5	13	1	1	13	6	2	9
JC12JL-059	QS	2	2	1.5	14	61	11	32	2	12	25	7	12
JC12JL-061	QS	-1	3	0.2	40	7	17	5	-1	10	-5	3	2
JC12JL-062	MnIF	24	5	0.2	9	24	25	20	5	14	40	106	19
JC12JL-063	QS	2	1	-0.1	10	12	6	2	1	10	19	4	5
JC12JL-064	QS	2	2	0.3	13	10	16	5	1	13	-5	3	10
JC12JL-065	LWQ	-1	3	-0.1	8	4	-5	-1	-1	-1	-5	-2	-1
JC12JL-066	QS	2	3	0.2	21	10	34	4	3	8	14	52	5
JC12JL-067	QS	2	4	0.4	13	14	19	9	3	12	7	11	2
JC12JL-068	QS	-1	2	-0.1	8	10	21	10	4	16	7	2	9
JC12JL-069	QS	2	2	1.6	9	12	8	5	1	11	-5	3	1
JC12JL-070	QS	2	1	-0.1	13	12	16	10	1	21	-5	-2	2
JC12JL-071	QS	2	3	-0.1	23	11	14	17	2	16	-5	-2	5
JC12JL-072	QS	2	2	1.7	5	17	16	8	2	19	8	2	7
JC12JL-074	QS	2	-1	0.1	13	11	26	12	1	12	7	3	9
JC12JL-075	QS	1	-1	0.2	7	7	19	4	3	15	9	-2	4
JC12JL-076	LWQ	-1	1	-0.1	9	4	15	1	-1	4	11	-2	1
JC12JL-077	QS	2	1	0.2	17	10	21	7	1	17	11	2	37
JC12JL-079	QS	-1	3	0.1	7	5	-5	5	-1	5	-5	-2	2
JC12JL-080	MnIF	7	-1	0.1	8	8	15	12	2	9	13	8	6
JC12JL-081	QS	2	-1	-0.1	17	13	17	11	3	9	7	4	16
JC12JL-082	QS	2	3	0.4	12	18	15	9	1	11	-5	5	4
JC12JL-083	QS	1	-1	0.2	8	6	11	2	1	24	-5	-2	3
JC12JL-084	QS	2	-1	0.4	13	10	8	-1	3	15	6	3	1
JC12JL-085	QS	2	-1	0.2	14	14	12	2	1	12	-5	4	1
JC12JL-086	QS	2	1	1.3	15	18	20	5	1	18	8	3	10
JC12JL-087	QS	4	-1	0.4	24	17	14	4	1	18	9	6	2
JC12JL-089	QS	-1	2	-0.1	4	8	7	9	1	15	-5	2	5
JC12JL-090	QS	2	1	-0.1	9	11	17	11	2	12	5	5	5
JC12JL-091	QS	10	4	0.2	11	42	13	27	2	12	58	3	8
JC12JL-092	QS	2	3	-0.1	10	9	18	3	2	8	5	3	4
JC12JL-093	QS	2	-1	-0.1	21	10	21	-1	2	6	13	4	23
JC12JL-094	QS	-1	-1	-0.1	17	6	30	1	2	12	-5	-2	3
JC12JL-095	QS	6	-1	0.2	13	18	64	2	2	17	21	10	14
JC12JL-096	QS	2	2	-0.1	5	9	15	1	1	22	13	3	6
JC12JL-097	QS	4	-1	-0.1	29	15	12	-1	10	13	-5	3	3
JC12JL-098	QS	-1	3	-0.1	3	4	10	1	1	15	-5	2	1
JC12JL-099	QS	3	6	-0.1	10	15	8	5	1	17	6	3	2
JC12JL-100	QS	2	-1	-0.1	36	10	9	2	1	13	-5	3	6
JC12JL-101	QS	2	-1	-0.1	16	9	12	-1	4	16	-5	2	1
JC12JL-102	QS	2	2	0.3	7	15	7	3	1	14	5	5	5
JC12JL-104	QS	5	-1	-0.1	14	14	12	3	2	10	-5	6	1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	1	0.1	1	1	5	1	1	1	5	2	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-105	QS	2	-1	-0.1	6	11	11	6	1	18	6	2	2
JC12JL-106	QS	1	3	-0.1	12	6	20	3	2	30	-5	-2	6
JC12JL-107	QS	1	-1	-0.1	4	6	12	5	1	14	-5	2	1
JC12JL-109	QS	-1	-1	0.5	9	9	31	8	1	38	-5	-2	2
JC12JL-110	QS	-1	-1	0.3	6	9	27	5	1	42	-5	-2	2
JC12JL-111	QS	-1	-1	0.4	39	9	24	9	2	18	-5	3	3
JC12JL-112	QS	-1	2	0.2	-1	6	-5	1	1	16	-5	-2	3
JC12JL-113	QS	-1	-1	1.0	2	10	6	1	1	17	-5	-2	6
JC12JL-114	QS	-1	-1	0.9	11	16	8	2	1	12	7	4	7
JC12JL-115	QS	-1	-1	0.3	44	9	20	3	1	14	-5	-2	2
JC12JL-116	QS	-1	-1	0.2	25	7	23	-1	1	19	-5	2	2
JC12JL-117	QS	-1	-1	0.2	17	8	151	1	1	15	-5	-2	2
JC12JL-118	QS	-1	-1	0.3	8	11	-5	-1	1	18	-5	-2	2
JC12JL-119	QS	-1	-1	0.1	2	6	17	5	1	14	-5	2	3
JC12JL-120	QS	-1	-1	0.6	83	16	22	7	2	14	-5	4	3
JC12JL-121	QS	-1	-1	0.1	2	7	-5	2	-1	22	-5	-2	-1
JC12JL-122	WQ	-1	1	0.4	59	2	8	8	1	2	-5	4	2
JC12JL-123	QS	-1	-1	0.5	9	13	7	1	1	9	5	-2	1
JC12JL-124	QS	-1	-1	0.4	27	12	16	5	2	12	-5	7	3
JC12JL-125	QS	-1	-1	0.7	6	15	27	4	1	11	-5	2	1
JC12JL-126	QS	-1	1	0.5	75	16	17	5	1	18	-5	2	1
JC12JL-127	QS	-1	3	0.5	9	20	12	2	2	11	9	4	4
JC12JL-128	QS	-1	-1	0.4	26	11	11	8	2	11	-5	2	4
JC12JL-130	QS	-1	-1	0.5	3	10	8	2	1	13	-5	2	1
JC12JL-131	QS	-1	-1	0.4	8	15	21	7	2	16	10	2	3
JC12JL-132	LWQ	-1	-1	1.0	26	11	11	3	-1	5	-5	2	6
JC12JL-133	LWQ	-1	-1	0.2	48	3	-5	-1	-1	1	-5	2	1
JC12JL-134	QS	-1	-1	0.4	4	12	12	14	1	13	-5	3	3
JC12JL-135	FLT	-1	-1	0.7	66	21	20	9	1	17	-5	4	15
JC12JL-136	LWQ	-1	-1	0.8	5	5	14	3	-1	4	-5	-2	1
JC12JL-137	QS	-1	-1	0.5	5	14	-5	-1	-1	-1	-5	-2	-1
JC12JL-138	QS	-1	-1	0.7	24	13	-5	-1	-1	-1	-5	-2	-1
JC12JL-139	LWQ	-1	-1	1.2	9	8	-5	3	1	3	-5	-2	2
JC12JL-140	QS	-1	-1	1.6	33	24	21	13	3	20	8	9	9
JC12JL-141	QS	-1	2	1.5	3	35	35	23	3	20	10	8	10
JC12JL-142	QS	-1	-1	0.4	4	12	11	4	1	11	-5	2	5
JC12JL-144	QS	-1	-1	2.7	3	21	7	5	1	7	5	2	8
JC12JL-145	QS	-1	-1	0.9	7	16	-5	4	1	14	10	4	4
JC12JL-146	MnIF	22	2	0.3	8	26	25	29	4	17	15	37	26
JC12JL-147	QS	-1	-1	0.1	9	8	-5	3	-1	10	-5	2	-1
JC12JL-148	QS	-1	-1	0.4	31	7	19	3	1	15	-5	3	-1
JC12JL-149	QS	-1	-1	0.6	7	20	12	7	1	12	-5	8	3
JC12JL-150	QS	-1	3	1.0	13	28	21	7	1	19	7	7	9
JC12JL-151	QS	-1	-1	0.2	14	6	-5	5	-1	8	-5	9	3
JC12JL-152	LWQ	-1	-1	0.1	6	5	-5	12	-1	8	-5	2	3
JC12JL-153	QS	-1	1	0.1	3	12	25	1	2	8	-5	-2	1
JC12JL-154	QS	-1	-1	0.1	3	4	24	1	1	8	-5	2	1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb ICP-OES 1 ppm	Rb ICP-OES 1 ppm	Sc ICP-OES 0.1 ppm	Ti ICP-OES 1 ppm	Zn ICP-OES 1 ppm	V ICP-MS-FUS 5 ppm	Co ICP-MS-FUS 1 ppm	Ga ICP-MS-FUS 1 ppm	Ge ICP-MS-FUS 1 ppm	As ICP-MS-FUS 5 ppm	Sr ICP-MS-FUS 2 ppm	Y ICP-MS-FUS 1 ppm
JC12JL-155	VN	-1	-1	-0.1	8	-1	8	3	-1	1	-5	7	2
JC12JL-156	MnIF	11	2	1.3	5	72	60	43	5	20	50	11	71
JC12JL-157	QS	-1	-1	0.1	1	5	12	-1	1	13	-5	-2	1
JC12JL-158	QS	-1	-1	0.3	7	14	10	5	1	21	10	4	2
JC12JL-159	QS	-1	-1	0.3	3	12	14	9	1	11	-5	2	7
JC12JL-161	QS	-1	-1	1.0	76	25	12	13	1	9	14	-2	6
JC12JL-162	QS	-1	-1	0.6	34	13	16	19	3	15	-5	-2	1
JC12JL-163	QS	-1	-1	0.9	11	21	17	12	2	15	-5	2	1
JC12JL-164	QS	-1	-1	0.6	2	11	6	5	2	15	-5	-2	1
JC12JL-165	QS	-1	-1	0.7	9	18	24	6	1	10	-5	2	4
JC12JL-166	QS	-1	-1	0.3	3	7	-5	1	1	7	6	-2	3
JC12JL-167	QS	-1	-1	1.4	17	22	25	10	1	12	-5	4	8
JC12JL-168	LWQ	-1	-1	0.2	9	2	-5	-1	-1	2	-5	-2	2
JC12JL-169	QS	-1	-1	0.7	25	20	23	9	1	14	-5	4	6
JC12JL-170	QS	-1	1	1.2	20	23	12	11	1	11	-5	2	12
JC12JL-171	QS	-1	-1	0.7	6	17	13	7	1	9	-5	2	2
JC12JL-172	QS	-1	-1	0.4	12	14	27	13	1	19	6	29	5
JC12JL-173	QS	-1	-1	0.4	14	11	15	14	1	15	-5	3	14
JC12JL-174	QS	-1	-1	0.8	15	24	16	14	1	10	-5	5	8
JC12JL-175	QS	-1	-1	0.6	14	18	36	2	1	13	-5	3	1
JC12JL-176	QS	-1	-1	0.2	21	7	-5	2	1	4	-5	-2	2
JC12JL-177	QS	-1	-1	0.6	18	13	50	13	3	18	-5	10	4
JC12JL-178	QS	-1	-1	0.3	5	11	32	13	3	11	-5	3	2
JC12JL-179	QS	-1	1	0.5	9	17	34	7	3	18	-5	2	2
JC12JL-180	QS	-1	-1	0.4	19	14	43	-1	2	18	-5	3	2
JC12JL-181	QS	-1	-1	0.5	36	16	36	8	2	10	-5	16	6
JC12JL-182	LWQ	-1	-1	0.7	11	13	6	7	-1	3	-5	3	6
JC12JL-183	QS	-1	-1	0.5	11	17	19	7	1	12	-5	3	8
JC12JL-184	QS	-1	-1	1.8	26	27	16	16	2	12	8	4	6
JC12JL-185	QS	-1	-1	0.4	88	7	15	6	1	11	-5	7	2
JC12JL-186	LWQ	-1	-1	0.2	7	7	-5	2	-1	3	-5	-2	1
JC12JL-187	QS	-1	-1	0.2	3	7	-5	1	1	18	-5	-2	3
JC12JL-188	QS	-1	-1	0.4	21	10	8	9	-1	11	-5	3	3
JC12JL-190	QS	-1	2	0.6	43	21	30	3	1	16	-5	3	6
JC12JL-191	QS	-1	-1	0.2	5	11	10	3	1	24	-5	2	4
JC12JL-192	QS	-1	-1	0.2	9	8	13	3	-1	19	-5	-2	-1
JC12JL-193	QS	-1	-1	0.2	2	8	11	1	1	16	-5	2	9
JC12JL-194	QS	-1	-1	0.3	17	12	16	1	3	25	17	5	7
JC12JL-195	QS	7	-1	0.5	3	32	10	34	1	13	10	2	11
JC12JL-196	QS	-1	-1	0.3	-1	8	5	2	1	14	-5	-2	-1
JC12JL-197	QS	-1	-1	-0.1	-1	6	-5	-1	-1	8	-5	-2	1
JC12JL-198	QS	-1	2	0.4	1	22	25	1	2	18	-5	6	4
JC12JL-199	QS	-1	-1	0.7	42	18	15	4	2	21	-5	7	3
JC12JL-200	QS	-1	-1	0.6	4	16	9	12	1	15	-5	3	9
JC12JL-201	QS	-1	-1	0.2	22	10	12	3	-1	22	-5	-2	1
JC12JL-202	QS	-1	-1	0.3	25	15	19	3	2	18	-5	5	1
JC12JL-203	QS	-1	2	0.5	11	22	21	40	5	20	55	9	24

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	1	0.1	1	1	5	1	1	1	5	2	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-204	QS	-1	-1	0.3	7	15	52	4	1	21	9	4	11
JC12JL-205	QS	-1	-1	0.3	14	11	21	4	1	14	-5	2	1
JC12JL-206	QS	-1	-1	0.3	1	16	-5	3	1	12	-5	2	2
JC12JL-207	LIF	-1	14	3.1	1716	24	91	3	8	14	6	19	25
JC12JL-208	WQ	6	6	2.4	304	5	15	1	15	6	-5	7	43
JC12JL-209	QS	-1	-1	0.2	21	6	14	3	-1	13	-5	2	1
JC12JL-210	QS	-1	-1	0.2	11	8	10	4	1	12	-5	-2	6
JC12JL-211	QS	-1	-1	-0.1	3	4	9	-1	1	11	-5	-2	3
JC12JL-212	QS	-1	-1	0.4	3	17	21	2	2	20	11	5	5
JC12JL-213	MnIF	13	-1	0.1	3	9	12	8	2	13	-5	30	10
JC12JL-215	QS	-1	-1	0.1	2	6	11	2	1	10	-5	-2	1
JC12JL-216	QS	-1	-1	0.3	3	19	11	4	1	14	6	-2	1
JC12JL-217	MnIF	9	1	0.3	2	13	13	11	2	15	11	14	5
JC12JL-218	QS	-1	-1	0.5	-1	15	14	2	1	20	17	2	8
JC12JL-219	QS	-1	1	0.2	7	9	11	1	1	15	-5	-2	10
JC12JL-220	QS	-1	-1	0.2	4	7	7	1	1	12	-5	-2	1
JC12JL-221	QS	-1	-1	0.4	15	11	11	-1	1	13	-5	-2	1
JC12JL-222	QS	-1	-1	0.2	3	10	8	2	2	18	6	2	9
JC12JL-223	QS	-1	-1	0.2	4	8	6	2	-1	13	-5	-2	4
JC12JL-224	QS	-1	-1	0.1	4	5	7	1	-1	19	-5	3	1
JC12JL-225	QS	-1	-1	0.2	19	38	10	-10	1	16	-5	-2	2
JC12JL-226	QS	-1	1	0.3	21	10	13	3	1	19	-5	-2	2
JC12JL-227	MnIF	40	4	0.3	2	33	21	25	3	13	25	162	18
JC12JL-228	QS	-1	-1	0.5	27	9	8	1	1	10	-5	2	14
JC12JL-229	MnIF	76	5	0.3	-1	43	18	41	5	16	18	332	37
JC12JL-230	MnIF	13	2	0.4	4	29	11	42	4	16	10	12	23
JC12JL-231	MnIF	12	2	0.4	5	34	17	30	3	11	17	209	18
JC12JL-232	QS	-1	2	0.7	96	18	14	8	1	15	-5	3	3
JC12JL-233	LWQ	-1	-1	0.1	11	5	-5	1	-1	5	11	2	3
JC12JL-234	LWQ	-1	-1	0.2	38	8	6	2	-1	6	-5	-2	2
JC12JL-235	QS	-1	-1	0.5	9	16	13	9	1	12	-5	-2	3
JC12JL-236	QS	-1	-1	0.5	9	19	16	11	1	13	7	2	3
JC12JL-237	LWQ	-1	-1	0.4	4	18	6	9	1	7	18	-2	10
JC12JL-238	LWQ	-1	-1	0.2	55	8	-5	2	1	7	8	3	6
JC12JL-239	QS	-1	-1	0.3	51	11	31	7	2	11	11	14	8
JC12JL-240	LWQ	-1	-1	0.1	52	7	-5	1	-1	3	-5	-2	2
JC12JL-241	QS	-1	-1	0.6	57	21	12	6	1	14	8	3	3
JC12JL-242	QS	-1	-1	1.1	43	24	13	6	2	10	9	2	7
JC12JL-243	QS	-1	-1	0.6	75	8	12	1	1	12	-5	5	3
JC12JL-244	QS	-1	-1	0.8	91	16	16	7	1	14	-5	15	1
JC12JL-245	QS	-1	-1	1.1	31	34	17	6	2	13	18	4	14
JC12JL-246	QS	-1	-1	-0.1	46	6	9	-1	1	17	-5	-2	1
JC12JL-247	QS	-1	-1	0.4	44	11	9	4	1	14	-5	2	1
JC12JL-248	QS	-1	-1	0.6	44	9	8	1	1	17	-5	-2	5
JC12JL-249	QS	-1	-1	1.1	42	16	7	4	1	18	6	-2	5
JC12JL-250	QS	-1	-1	0.2	68	8	7	-1	1	12	-5	2	6
JC12JL-251	QS	-1	-1	0.5	53	14	8	2	1	10	-5	3	6

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	1	0.1	1	1	5	1	1	1	5	2	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-252	QS	-1	-1	0.2	42	11	13	6	1	19	-5	-2	5
JC12JL-253	QS	-1	-1	0.4	44	14	15	4	1	14	-5	2	2
JC12JL-254	QS	-1	-1	0.9	49	8	13	4	1	16	-5	-2	1
JC12JL-255	QS	-1	1	0.5	45	14	21	9	2	23	7	2	8
JC12JL-256	QS	-1	-1	1.9	45	23	10	6	1	11	-5	-2	4
JC12JL-257	QS	-1	-1	0.3	46	13	-5	1	1	17	-5	2	2
JC12JL-258	QS	-1	-1	0.6	67	14	8	2	1	20	-5	3	2
JC12JL-259	QS	-1	3	2.9	716	34	47	6	3	10	7	2	5
JC12JL-260	LIF	-1	6	10.3	5327	34	166	5	13	8	8	3	17
JC12JL-261	LIF	-1	6	14.4	5016	26	262	3	27	22	20	85	56
JC12JL-262	WQ	-1	3	0.6	113	1	13	-1	1	4	-5	2	2
JC12JL-263	QS	-1	-1	1.6	52	26	38	14	4	18	10	10	8
JC12JL-264	QS	-1	3	0.6	38	28	31	8	3	18	11	4	22
JC12JL-265	QS	-1	1	0.8	46	15	14	8	2	14	6	-2	12
JC12JL-266	QS	-1	-1	0.3	41	13	5	1	1	14	-5	-2	2
JC12JL-267	QS	-1	-1	1.3	55	17	12	6	1	12	-5	2	2
JC12JL-268	MnF	25	9	-0.1	20	35	26	57	5	14	31	149	17
JC12JL-269	QS	3	3	-0.1	42	30	25	14	1	16	18	3	5
JC12JL-270	MnF	17	7	-0.1	38	26	11	29	3	8	19	104	8
JC12JL-271	QS	-1	1	2.6	61	24	38	7	2	15	13	-2	7
JC12JL-272	MnF	23	8	0.1	42	17	26	50	3	16	17	211	18
JC12JL-273	QS	-1	-1	0.2	57	7	7	1	1	19	-5	-2	-1
JC12JL-274	QS	-1	1	-0.1	57	11	9	5	-1	13	-5	-2	1
JC12JL-275	QS	-1	2	-0.1	42	18	51	2	1	14	-5	4	2
JC12JL-276	QS	-1	1	0.2	64	20	31	4	1	20	6	4	5
JC12JL-277	QS	-1	-1	0.1	122	7	13	2	1	13	-5	3	3
JC12JL-278	QS	1	-1	0.2	44	16	15	17	1	17	7	5	6
JC12JL-279	QS	-1	1	-0.1	52	13	43	1	2	19	5	-2	9
JC12JL-280	LWQ	-1	2	-0.1	49	3	6	1	1	4	-5	-2	1
JC12JL-281	LWQ	-1	-1	-0.1	48	3	10	-1	1	6	-5	-2	1
JC12JL-282	QS	-1	2	-0.1	50	5	31	1	2	15	-5	-2	1
JC12JL-283	QS	-1	-1	-0.1	66	6	34	1	2	12	-5	2	1
JC12JL-284	LWQ	-1	-1	-0.1	54	5	11	1	1	7	-5	-2	1
JC12JL-285	QS	-1	-1	-0.1	48	6	16	4	1	13	-5	-2	5
JC12JL-286	QS	-1	-1	-0.1	44	8	10	4	1	13	-5	-2	3
JC12JL-288	QS	-1	1	-0.1	56	10	13	11	1	16	-5	3	2
JC12JL-289	QS	-1	-1	-0.1	51	7	12	-1	1	15	-5	-2	2
JC12JL-290	QS	-1	-1	-0.1	84	10	8	1	1	17	-5	4	2
JC12JL-291	QS	-1	-1	-0.1	45	12	13	2	1	15	-5	4	15
JC12JL-292	QS	-1	-1	-0.1	43	7	16	1	-1	15	8	-2	1
JC12JL-293	QS	2	2	-0.1	46	5	26	1	1	14	-5	4	5
JC12JL-294	QS	-1	-1	-0.1	48	4	15	-1	1	12	-5	-2	2
JC12JL-295	QS	-1	-1	-0.1	60	12	19	6	2	18	-5	6	2
JC12JL-296	QS	-1	1	0.5	50	15	8	2	1	17	-5	-2	2
JC12JL-297	QS	-1	-1	-0.1	45	4	-5	1	-1	12	-5	-2	1
JC12JL-298	QS	-1	-1	-0.1	50	10	7	1	1	16	-5	-2	3
JC12JL-300	QS	-1	1	-0.1	108	19	20	4	1	18	-5	-2	4

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	1	0.1	1	1	5	1	1	1	5	2	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-301	LIF	-1	3	1.1	980	35	39	5	4	12	-5	13	9
JC12JL-303	LIF	-1	5	1.9	1140	48	83	3	5	13	-5	8	11
JC12JL-304	LIF	-1	5	10.5	7725	21	375	5	24	13	6	35	21
JC12JL-305	WQ	2	51	2.4	288	3	10	-1	10	3	6	34	13
JC12JL-306	WQ	4	96	2.7	704	5	17	1	14	2	-5	74	8
JC12JL-307	QS	-1	-1	0.2	52	8	8	5	1	16	-5	2	2
JC12JL-308	QS	-1	1	0.2	46	5	11	1	1	19	-5	-2	3
JC12JL-309	QS	-1	-1	-0.1	46	5	14	2	1	13	-5	-2	1
JC12JL-310	QS	-1	1	-0.1	63	8	11	2	1	9	-5	-2	1
JC12JL-311	QS	-1	2	-0.1	39	14	27	1	3	13	7	6	5
JC12JL-312	LWQ	-1	2	0.1	49	5	-5	3	-1	2	-5	2	1
JC12JL-313	QS	-1	-1	-0.1	52	8	41	1	2	9	-5	4	54
JC12JL-314	QS	-1	-1	-0.1	51	12	20	2	2	16	6	-2	2
JC12JL-315	QS	-1	-1	-0.1	53	10	9	4	1	10	-5	-2	3
JC12JL-316	LWQ	-1	-1	-0.1	40	12	7	1	1	4	7	2	2
JC12JL-317	LWQ	-1	-1	0.2	52	5	-5	2	-1	1	-5	2	1
JC12JL-318	QS	-1	-1	-0.1	49	9	22	2	1	8	-5	2	2
JC12JL-319	QS	-1	3	-0.1	44	8	25	1	3	13	9	5	32
JC12JL-320	QS	-1	1	-0.1	47	4	13	1	1	12	-5	-2	4
JC12JL-321	QS	-1	-1	-0.1	47	6	17	1	1	14	-5	-2	5
JC12JL-322	QS	2	2	-0.1	49	6	9	3	1	18	-5	-2	2
JC12JL-323	MnIF	41	9	0.4	46	310	15	17	6	13	13	240	16
JC12JL-324	QS	-1	1	-0.1	44	67	17	27	2	16	23	4	13
JC12JL-325	QS	-1	-1	-0.1	43	8	7	2	-1	16	-5	2	-1
JC12JL-326	QS	-1	-1	-0.1	39	10	47	3	1	29	6	2	26
JC12JL-327	QS	-1	-1	0.1	55	12	22	10	1	16	-5	4	2
JC12JL-328	QS	-1	1	-0.1	43	6	-5	1	-1	17	-5	-2	-1
JC12JL-329	LIF	-1	2	3.6	1031	16	42	3	4	18	-5	7	3
JC12JL-330	LIF	-1	6	2.4	1668	36	66	5	8	10	-5	15	8
JC12JL-331	QS	-1	2	-0.1	82	8	19	1	1	16	6	-2	1
JC12JL-332	QS	-1	2	-0.1	48	8	10	1	1	24	-5	-2	1
JC12JL-333	QS	-1	1	-0.1	53	6	114	1	1	22	-5	-2	-1
JC12JL-334	QS	-1	-1	-0.1	60	6	11	-1	1	20	-5	-2	3
JC12JL-335	QS	-1	2	-0.1	73	6	12	1	1	17	-5	2	1
JC12JL-336	QS	-1	-1	-0.1	42	11	-5	3	1	12	5	-2	2
JC12JL-337	QS	-1	-1	-0.1	59	9	6	3	1	17	-5	-2	1
JC12JL-338	QS	-1	1	-0.1	65	7	20	3	1	10	-5	-2	1
JC12JL-339	QS	-1	-1	-0.1	71	9	33	1	1	16	-5	2	19
JC12JL-340	QS	1	3	0.1	41	54	35	14	3	15	57	2	15
JC12JL-341	MnIF	25	4	-0.1	48	24	14	26	6	14	15	21	16
JC12JL-342	QS	-1	2	-0.1	42	20	12	4	2	10	17	5	8
JC12JL-343	FLT	-1	17	43.9	8156	34	121	11	25	6	23	22	6
JC12JL-344	QS	-1	1	1.2	50	52	216	16	2	12	14	2	9
JC12JL-345	QS	-1	-1	-0.1	43	10	8	3	1	15	6	2	3
JC12JL-346	QS	-1	-1	-0.1	44	7	-5	1	-1	12	-5	-2	-1
JC12JL-347	QS	-1	-1	-0.1	46	5	7	-1	-1	12	-5	2	6
JC12JL-348	QS	14	2	4.4	1130	2	74	-1	10	4	5	698	92

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Pb	Rb	Sc	Ti	Zn	V	Co	Ga	Ge	As	Sr	Y
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	1	0.1	1	1	5	1	1	1	5	2	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-349	QS	-1	-1	0.1	10	13	7	6	1	16	-5	-2	7
JC12JL-350	QS	-1	-1	-0.1	3	14	9	5	1	16	-5	2	9
JC12JL-351	QS	-1	-1	-0.1	38	11	27	2	1	10	-5	2	1
JC12JL-352	QS	-1	-1	-0.1	12	9	18	5	1	15	-5	2	2
JC12JL-353	QS	-1	2	-0.1	3	8	18	5	1	25	-5	2	1
JC12JL-354	QS	-1	-1	-0.1	9	15	13	2	-1	18	-5	3	2
JC12JL-355	LIF	-1	2	1.7	651	47	32	5	3	12	-5	4	9
JC12JL-356	WQ	-1	7	2.5	201	7	18	2	10	4	-5	6	9
JC12JL-357	WQ	2	42	2.7	277	10	20	4	16	4	-5	23	9

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Method		1	2	0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Detection Limit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit												
JC12JL-001	QS	2	2	-0.2	1	-0.5	2.4	4.8	0.39	1.7	0.4	0.19
JC12JL-002	QS	3	2	-0.2	2	-0.5	1.1	1.7	0.23	0.6	0.1	-0.05
JC12JL-003	QS	1	-2	-0.2	-1	-0.5	1.5	2.5	0.25	1.0	0.2	0.06
JC12JL-004	QS	-1	-2	-0.2	-1	-0.5	1.9	1.8	0.30	1.1	0.2	-0.05
JC12JL-006	QS	3	2	-0.2	-1	-0.5	38.1	37.4	5.46	21.1	3.0	0.85
JC12JL-007	QS	3	-2	-0.2	-1	-0.5	1.7	2.8	0.28	1.0	-0.1	-0.05
JC12JL-008	QS	1	-2	-0.2	-1	-0.5	1.8	4.0	0.39	1.6	0.3	0.07
JC12JL-009	QS	2	-2	-0.2	-1	-0.5	12.2	17.6	2.19	8.3	1.9	0.48
JC12JL-010	QS	2	2	-0.2	-1	-0.5	1.2	2.6	0.25	0.9	0.1	0.06
JC12JL-011	QS	1	-2	-0.2	-1	-0.5	4.4	7.1	0.69	2.6	0.4	0.15
JC12JL-012	QS	3	-2	-0.2	-1	-0.5	3.5	13.1	0.71	3.1	0.6	0.24
JC12JL-013	QS	1	-2	-0.2	-1	-0.5	1.5	2.7	0.24	0.9	0.3	0.09
JC12JL-014	QS	1	3	-0.2	-1	-0.5	1.5	5.1	0.59	2.5	0.8	0.26
JC12JL-015	QS	13	2	-0.2	-1	-0.5	29.1	61.3	5.66	25.7	6.6	2.59
JC12JL-016	QS	2	2	-0.2	-1	-0.5	1.8	4.4	0.29	1.4	0.5	0.26
JC12JL-017	QS	5	2	-0.2	-1	-0.5	10.7	15.2	1.66	6.3	1.1	0.34
JC12JL-018	QS	8	-2	-0.2	-1	-0.5	12.2	24.8	2.42	9.3	1.6	0.50
JC12JL-019	LIF	17	2	-0.2	1	-0.5	14.8	23.7	2.84	11.4	1.9	0.64
JC12JL-020	WQ	4	-2	-0.2	-1	-0.5	61.8	122.8	13.21	46.8	6.5	0.64
JC12JL-021	QS	3	-2	-0.2	-1	-0.5	3.5	6.1	0.48	1.7	0.5	0.19
JC12JL-022	QS	1	-2	-0.2	-1	-0.5	2.7	5.1	0.51	2.2	0.8	0.42
JC12JL-023	QS	1	2	-0.2	-1	-0.5	1.3	3.0	0.28	1.1	0.2	0.11
JC12JL-024	QS	2	-2	-0.2	-1	-0.5	3.3	7.2	0.60	2.9	0.6	0.19
JC12JL-025	QS	2	4	-0.2	-1	-0.5	6.1	12.4	1.10	4.6	1.0	0.31
JC12JL-026	QS	3	2	-0.2	-1	-0.5	1.7	3.0	0.18	0.8	0.2	-0.05
JC12JL-027	LWQ	3	-2	-0.2	-1	-0.5	5.7	8.8	1.28	5.2	1.0	0.12
JC12JL-028	QS	2	-2	-0.2	-1	-0.5	4.0	7.4	0.60	2.4	0.5	0.25
JC12JL-029	QS	4	-2	-0.2	-1	-0.5	3.9	6.2	0.78	3.1	0.8	0.12
JC12JL-030	QS	-1	-2	-0.2	-1	-0.5	1.4	3.6	0.24	1.1	0.4	0.14
JC12JL-031	QS	-1	-2	-0.2	-1	-0.5	1.5	3.7	0.22	1.0	0.3	0.14
JC12JL-032	QS	3	2	-0.2	-1	-0.5	1.4	4.9	0.27	1.1	0.2	0.07
JC12JL-033	LWQ	-1	3	-0.2	-1	-0.5	5.9	10.4	1.13	4.5	0.9	0.34
JC12JL-034	MnIF	5	2	-0.2	-1	-0.5	39.1	58.9	5.26	20.3	3.3	1.17
JC12JL-035	QS	3	2	-0.2	-1	-0.5	5.8	10.6	1.04	4.3	1.0	0.46
JC12JL-036	QS	3	-2	-0.2	-1	-0.5	12.0	20.2	1.93	7.8	1.4	0.43
JC12JL-037	QS	2	-2	-0.2	-1	-0.5	0.7	1.4	0.15	0.5	-0.1	-0.05
JC12JL-038	QS	2	2	-0.2	-1	-0.5	0.7	1.8	0.19	0.6	0.1	-0.05
JC12JL-039	QS	2	-2	-0.2	-1	-0.5	1.0	2.1	0.23	1.2	0.3	0.10
JC12JL-041	QS	1	-2	-0.2	-1	-0.5	0.6	1.0	0.14	0.6	0.2	0.06
JC12JL-042	MnIF	7	-2	-0.2	-1	-0.5	51.9	49.9	6.03	23.4	3.6	1.24
JC12JL-043	QS	6	-2	-0.2	-1	-0.5	7.4	11.2	1.02	3.8	0.8	0.22
JC12JL-044	MnIF	10	2	-0.2	-1	-0.5	46.6	52.4	5.74	23.6	3.7	2.15
JC12JL-045	QS	1	-2	-0.2	-1	-0.5	1.0	1.6	0.19	0.7	-0.1	-0.05
JC12JL-046	QS	2	-2	-0.2	-1	-0.5	1.4	3.2	0.27	1.1	0.2	-0.05
JC12JL-048	MnIF	9	2	-0.2	1	-0.5	38.4	38.7	4.72	16.6	3.1	1.27
JC12JL-049	QS	2	-2	-0.2	-1	-0.5	4.1	7.3	0.82	3.0	0.6	0.21
JC12JL-050	LIF	7	6	-0.2	-1	-0.5	15.0	36.7	4.13	17.2	2.8	0.77

APPENDIX D: Drillhole samples geochemical data

Sample_Num Method Detection Limit Unit	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS 1 ppm	ICP-MS-FUS 2 ppm	ICP-MS-FUS 0.2 ppm	ICP-MS-FUS 1 ppm	ICP-MS-FUS 0.5 ppm	ICP-MS-FUS 0.5 ppm	ICP-MS-FUS 0.1 ppm	ICP-MS-FUS 0.05 ppm	ICP-MS-FUS 0.1 ppm	ICP-MS-FUS 0.1 ppm	ICP-MS-FUS 0.05 ppm
JC12JL-051	WQ	3	-2	-0.2	-1	-0.5	41.2	83.4	8.91	32.4	4.7	0.87
JC12JL-052	MnIF	1	-2	-0.2	1	-0.5	4.2	14.3	0.90	3.5	0.7	0.18
JC12JL-053	QS	4	2	-0.2	-1	-0.5	9.6	18.1	1.39	5.7	0.8	0.25
JC12JL-054	MnIF	4	-2	-0.2	-1	-0.5	10.9	29.3	2.58	10.0	1.8	0.47
JC12JL-055	QS	2	-2	-0.2	-1	-0.5	4.0	6.6	0.56	2.2	0.3	0.09
JC12JL-056	QS	2	2	-0.2	-1	-0.5	9.7	13.8	1.69	6.7	1.3	0.33
JC12JL-059	QS	1	5	-0.2	-1	-0.5	13.7	22.4	3.17	11.9	2.4	0.78
JC12JL-061	QS	1	5	-0.2	-1	-0.5	2.2	2.3	0.43	1.4	0.2	0.07
JC12JL-062	MnIF	5	-2	-0.2	-1	-0.5	57.7	71.7	9.20	36.7	6.5	2.19
JC12JL-063	QS	1	-2	-0.2	-1	-0.5	9.7	14.6	1.47	5.6	1.0	0.27
JC12JL-064	QS	3	-2	-0.2	-1	-0.5	1.0	4.1	0.24	1.3	0.4	0.20
JC12JL-065	LWQ	1	-2	-0.2	-1	-0.5	-0.5	-0.1	-0.05	-0.1	-0.1	-0.05
JC12JL-066	QS	3	-2	-0.2	-1	-0.5	25.3	3.00	3.00	9.6	1.0	0.28
JC12JL-067	QS	3	3	-0.2	-1	-0.5	29.9	35.0	7.36	27.0	3.6	0.84
JC12JL-068	QS	8	2	-0.2	-1	-0.5	11.0	32.1	1.87	7.3	1.4	0.30
JC12JL-069	QS	1	-2	-0.2	3	-0.5	5.4	8.3	1.24	4.3	0.6	0.16
JC12JL-070	QS	3	-2	-0.2	-1	-0.5	1.1	2.3	0.22	0.7	0.2	0.05
JC12JL-071	QS	2	-2	-0.2	-1	-0.5	1.2	2.8	0.22	1.1	0.2	0.13
JC12JL-072	QS	4	6	-0.2	1	-0.5	3.4	17.3	0.80	3.1	0.9	0.26
JC12JL-074	QS	3	2	-0.2	3	-0.5	1.0	3.7	0.19	0.8	0.4	0.18
JC12JL-075	QS	5	-2	-0.2	-1	-0.5	2.2	5.9	0.33	1.2	0.2	0.10
JC12JL-076	LWQ	1	3	-0.2	-1	-0.5	1.5	2.6	0.25	1.0	0.2	-0.05
JC12JL-077	QS	3	-2	-0.2	-1	-0.5	1.1	3.3	0.22	1.5	1.3	0.58
JC12JL-079	QS	-1	2	-0.2	-1	-0.5	2.3	4.0	0.37	1.4	0.3	-0.05
JC12JL-080	MnIF	3	-2	-0.2	-1	-0.5	15.9	31.4	2.38	8.7	1.5	0.41
JC12JL-081	QS	4	2	-0.2	-1	-0.5	26.9	40.7	4.14	16.1	2.6	0.86
JC12JL-082	QS	3	-2	-0.2	-1	-0.5	19.2	28.1	2.30	9.6	1.6	0.42
JC12JL-083	QS	2	2	-0.2	-1	-0.5	1.7	3.2	0.34	1.3	0.3	0.08
JC12JL-084	QS	1	-2	-0.2	-1	-0.5	1.3	5.4	0.24	0.9	0.2	-0.05
JC12JL-085	QS	2	4	-0.2	-1	-0.5	1.1	3.1	0.30	1.4	0.3	0.07
JC12JL-086	QS	4	2	-0.2	-1	-0.5	2.2	8.6	0.58	2.7	0.8	0.27
JC12JL-087	QS	3	3	-0.2	1	-0.5	4.7	12.3	1.54	5.5	1.1	0.27
JC12JL-089	QS	2	4	-0.2	-1	-0.5	8.0	15.2	1.24	5.7	0.8	0.35
JC12JL-090	QS	3	2	-0.2	-1	-0.5	6.8	10.2	1.12	4.4	0.8	0.25
JC12JL-091	QS	2	2	-0.2	1	-0.5	5.9	28.4	1.34	6.6	1.6	0.46
JC12JL-092	QS	4	4	-0.2	-1	-0.5	9.2	12.7	1.39	5.3	1.0	0.26
JC12JL-093	QS	2	3	-0.2	-1	-0.5	15.4	24.2	2.84	11.6	1.9	0.69
JC12JL-094	QS	5	-2	-0.2	-1	-0.5	9.7	17.5	1.68	7.3	1.1	0.34
JC12JL-095	QS	5	5	-0.2	-1	-0.5	24.6	32.8	4.20	16.4	2.9	0.87
JC12JL-096	QS	-1	10	-0.2	1	-0.5	3.7	11.6	0.58	2.6	0.5	0.22
JC12JL-097	QS	3	-2	-0.2	1	-0.5	2.2	7.0	0.45	1.5	0.4	0.12
JC12JL-098	QS	2	2	-0.2	-1	-0.5	2.4	3.5	0.42	1.6	0.2	0.08
JC12JL-099	QS	1	2	-0.2	-1	-0.5	1.4	4.2	0.27	1.1	0.3	0.08
JC12JL-100	QS	4	4	-0.2	3	-0.5	1.1	4.0	0.28	1.0	0.3	0.11
JC12JL-101	QS	1	2	-0.2	-1	-0.5	-0.5	1.5	0.10	0.5	-0.1	-0.05
JC12JL-102	QS	1	4	-0.2	1	-0.5	1.3	5.7	0.54	3.0	1.0	0.29
JC12JL-104	QS	5	2	-0.2	-1	-0.5	1.4	3.4	0.29	1.1	0.2	0.06

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Method		1	2	0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Detection Limit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit												
JC12JL-105	QS	2	6	-0.2	-1	-0.5	3.4	8.0	0.62	2.3	0.4	0.09
JC12JL-106	QS	6	3	-0.2	-1	-0.5	7.0	12.5	1.27	4.7	0.9	0.26
JC12JL-107	QS	1	-2	-0.2	-1	-0.5	1.8	2.0	0.42	1.7	0.3	0.06
JC12JL-109	QS	7	-2	-0.2	2	-0.5	0.9	2.4	0.19	0.8	0.2	-0.05
JC12JL-110	QS	6	-2	-0.2	-1	-0.5	5.0	10.8	1.01	4.1	0.6	0.13
JC12JL-111	QS	3	-2	-0.2	1	-0.5	11.8	17.8	2.44	9.7	1.2	0.30
JC12JL-112	QS	2	-2	-0.2	-1	-0.5	3.0	5.2	0.61	2.6	0.4	0.12
JC12JL-113	QS	1	2	-0.2	-1	-0.5	0.8	2.2	0.26	1.1	0.3	0.14
JC12JL-114	QS	9	2	-0.2	-1	-0.5	14.6	17.4	2.25	8.7	1.3	0.30
JC12JL-115	QS	4	2	-0.2	-1	-0.5	5.1	11.2	1.05	3.8	0.5	0.15
JC12JL-116	QS	4	3	-0.2	-1	-0.5	3.6	6.4	0.68	2.7	0.5	0.08
JC12JL-117	QS	4	-2	-0.2	-1	-0.5	3.0	7.8	0.75	2.9	0.6	0.13
JC12JL-118	QS	3	4	-0.2	-1	-0.5	0.7	1.4	0.13	0.5	0.1	-0.05
JC12JL-119	QS	2	-2	-0.2	-1	-0.5	4.8	8.0	0.90	4.3	0.5	0.19
JC12JL-120	QS	3	-2	-0.2	-1	-0.5	7.4	13.7	1.92	8.0	1.3	0.33
JC12JL-121	QS	1	-2	-0.2	-1	-0.5	1.3	2.6	0.42	2.1	0.5	0.10
JC12JL-122	WQ	-1	-2	-0.2	-1	-0.5	4.0	7.0	0.84	3.8	0.7	0.17
JC12JL-123	QS	8	2	-0.2	1	-0.5	1.9	2.2	0.18	0.8	0.2	-0.05
JC12JL-124	QS	3	-2	-0.2	1	-0.5	10.9	12.2	0.86	2.8	0.4	0.13
JC12JL-125	QS	2	-2	-0.2	-1	-0.5	0.9	1.6	0.16	0.8	0.2	0.06
JC12JL-126	QS	4	-2	-0.2	-1	-0.5	1.7	4.1	0.32	1.2	0.2	0.08
JC12JL-127	QS	1	2	-0.2	-1	-0.5	4.8	8.1	0.83	2.8	0.5	0.17
JC12JL-128	QS	2	-2	-0.2	1	-0.5	2.7	6.1	0.53	2.3	0.6	0.15
JC12JL-130	QS	1	2	-0.2	1	-0.5	2.1	3.3	0.45	1.5	0.3	0.07
JC12JL-131	QS	6	2	-0.2	1	-0.5	3.3	7.9	0.62	2.4	0.5	0.12
JC12JL-132	LWQ	4	2	-0.2	1	-0.5	2.9	8.3	0.69	3.1	0.8	0.24
JC12JL-133	LWQ	-1	-2	-0.2	-1	-0.5	1.3	1.5	0.12	0.7	-0.1	-0.05
JC12JL-134	QS	3	2	-0.2	1	-0.5	3.4	5.7	0.53	2.0	0.5	0.21
JC12JL-135	FLT	2	4	-0.2	1	-0.5	2.0	5.7	0.30	1.3	0.5	0.28
JC12JL-136	LWQ	11	-2	-0.2	1	-0.5	3.2	2.6	0.30	1.0	0.2	-0.05
JC12JL-137	QS	-1	-2	-0.2	1	-0.5	-0.5	-0.1	-0.05	-0.1	-0.1	-0.05
JC12JL-138	QS	-1	-2	-0.2	-1	-0.5	-0.5	-0.1	-0.05	-0.1	-0.1	-0.05
JC12JL-139	LWQ	-1	-2	-0.2	-1	-0.5	1.8	5.7	0.26	1.1	0.2	0.06
JC12JL-140	QS	7	2	-0.2	1	-0.5	35.0	47.9	6.65	22.3	3.1	0.77
JC12JL-141	QS	5	4	-0.2	-1	-0.5	9.8	23.1	1.57	5.8	1.3	0.48
JC12JL-142	QS	1	2	-0.2	-1	-0.5	2.3	4.4	0.38	1.6	0.4	0.12
JC12JL-144	QS	1	3	-0.2	-1	-0.5	8.0	15.7	1.45	5.8	1.3	0.38
JC12JL-145	QS	1	-2	-0.2	-1	-0.5	3.1	6.9	0.51	2.2	0.3	0.16
JC12JL-146	MnIF	5	2	-0.2	1	-0.5	39.2	56.8	5.40	21.0	3.4	1.09
JC12JL-147	QS	3	-2	-0.2	-1	-0.5	1.4	2.2	0.24	1.0	0.1	-0.05
JC12JL-148	QS	3	3	-0.2	-1	-0.5	2.8	4.9	0.95	4.0	0.6	0.13
JC12JL-149	QS	2	-2	-0.2	-1	-0.5	1.8	3.6	0.35	1.1	0.4	0.12
JC12JL-150	QS	1	-2	-0.2	-1	-0.5	2.1	6.5	0.44	2.2	0.7	0.25
JC12JL-151	QS	1	-2	-0.2	-1	-0.5	5.6	7.6	0.90	3.2	0.4	0.14
JC12JL-152	LWQ	-1	3	-0.2	-1	-0.5	3.2	3.7	0.59	2.5	0.4	0.08
JC12JL-153	QS	5	-2	-0.2	-1	-0.5	2.2	6.5	0.61	2.5	0.3	0.08
JC12JL-154	QS	4	-2	-0.2	-1	-0.5	1.0	2.6	0.21	0.6	-0.1	-0.05

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Method		1	2	0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Detection Limit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit												
JC12JL-155	VN	-1	-2	-0.2	-1	-0.5	6.8	7.7	1.01	4.3	0.6	0.18
JC12JL-156	MnIF	7	2	-0.2	-1	-0.5	123.0	126.0	15.74	67.7	11.7	3.99
JC12JL-157	QS	2	2	-0.2	2	-0.5	-0.5	1.2	0.09	0.4	-0.1	-0.05
JC12JL-158	QS	4	8	-0.2	-1	-0.5	4.9	9.7	0.78	2.9	0.5	0.16
JC12JL-159	QS	1	-2	-0.2	-1	-0.5	1.2	2.4	0.27	1.0	0.3	0.11
JC12JL-161	QS	3	2	-0.2	1	-0.5	1.3	7.6	0.67	3.4	1.0	0.29
JC12JL-162	QS	4	-2	-0.2	1	-0.5	1.3	2.8	0.26	1.1	0.1	-0.05
JC12JL-163	QS	5	-2	-0.2	1	-0.5	0.7	5.8	0.25	1.2	0.3	0.06
JC12JL-164	QS	4	3	-0.2	1	-0.5	-0.5	1.2	0.09	0.4	-0.1	-0.05
JC12JL-165	QS	4	2	-0.2	-1	-0.5	3.8	8.2	0.79	3.1	0.6	0.20
JC12JL-166	QS	1	-2	-0.2	-1	-0.5	1.5	3.5	0.32	1.4	0.3	0.07
JC12JL-167	QS	2	2	-0.2	1	-0.5	0.9	2.8	0.30	1.1	0.3	0.17
JC12JL-168	LWQ	-1	-2	-0.2	-1	-0.5	3.4	3.1	0.40	1.6	0.3	0.08
JC12JL-169	QS	2	2	-0.2	1	-0.5	1.3	4.2	0.32	1.3	0.5	0.19
JC12JL-170	QS	2	-2	-0.2	-1	-0.5	2.7	9.0	0.67	2.8	0.9	0.37
JC12JL-171	QS	1	-2	-0.2	-1	-0.5	0.8	3.7	0.27	1.1	0.2	0.11
JC12JL-172	QS	6	4	-0.2	-1	-0.5	17.2	20.6	2.22	7.4	0.9	0.28
JC12JL-173	QS	2	3	-0.2	-1	-0.5	2.5	7.4	0.72	2.5	0.6	0.30
JC12JL-174	QS	2	-2	-0.2	-1	-0.5	1.1	6.7	0.42	1.8	0.6	0.24
JC12JL-175	QS	3	3	-0.2	-1	-0.5	-0.5	1.1	0.09	0.5	0.1	-0.05
JC12JL-176	QS	2	-2	-0.2	-1	-0.5	3.3	7.5	0.60	2.3	0.5	0.17
JC12JL-177	QS	8	4	-0.2	-1	-0.5	9.1	20.0	1.66	6.0	0.8	0.22
JC12JL-178	QS	5	2	-0.2	-1	-0.5	5.4	11.6	1.09	3.6	0.6	0.19
JC12JL-179	QS	11	3	-0.2	-1	-0.5	5.8	21.6	1.20	4.2	0.7	0.17
JC12JL-180	QS	8	3	-0.2	2	-0.5	4.2	8.7	0.67	2.3	0.4	0.08
JC12JL-181	QS	5	2	-0.2	-1	-0.5	19.5	29.3	4.05	16.5	2.5	0.62
JC12JL-182	LWQ	1	-2	-0.2	-1	-0.5	4.6	6.7	0.68	2.6	0.5	0.17
JC12JL-183	QS	2	3	-0.2	-1	-0.5	1.3	3.2	0.30	1.4	0.3	0.20
JC12JL-184	QS	2	3	-0.2	1	-0.5	3.3	8.8	0.85	3.0	0.9	0.23
JC12JL-185	QS	1	-2	-0.2	-1	-0.5	1.5	2.2	0.22	0.9	0.1	0.08
JC12JL-186	LWQ	3	-2	-0.2	-1	-0.5	1.4	3.0	0.40	1.5	0.3	0.07
JC12JL-187	QS	2	2	-0.2	-1	-0.5	2.7	7.0	0.52	2.2	0.5	0.13
JC12JL-188	QS	-1	-2	-0.2	-1	-0.5	3.0	5.1	0.56	2.3	0.5	0.10
JC12JL-190	QS	3	2	-0.2	1	-0.5	2.0	5.8	0.71	3.2	0.7	0.22
JC12JL-191	QS	3	3	-0.2	1	-0.5	2.8	5.0	0.60	2.3	0.2	0.15
JC12JL-192	QS	3	2	-0.2	1	-0.5	-0.5	1.4	0.12	0.3	-0.1	-0.05
JC12JL-193	QS	2	2	-0.2	1	-0.5	3.1	5.4	0.49	2.1	0.4	0.16
JC12JL-194	QS	12	-2	-0.2	-1	-0.5	39.4	89.0	5.92	22.1	2.9	0.67
JC12JL-195	QS	1	-2	-0.2	-1	-0.5	11.1	13.0	1.77	6.9	1.4	0.46
JC12JL-196	QS	1	3	-0.2	1	-0.5	-0.5	0.9	0.06	0.2	-0.1	-0.05
JC12JL-197	QS	1	-2	-0.2	-1	-0.5	-0.5	0.8	0.08	0.4	-0.1	-0.05
JC12JL-198	QS	4	3	-0.2	1	-0.5	13.4	16.6	1.98	6.8	0.6	0.22
JC12JL-199	QS	5	5	-0.2	1	-0.5	6.1	8.4	1.85	7.3	1.3	0.33
JC12JL-200	QS	3	5	-0.2	1	-0.5	1.2	5.5	0.44	1.9	0.5	0.21
JC12JL-201	QS	3	2	-0.2	-1	-0.5	1.1	2.6	0.30	1.2	0.2	0.07
JC12JL-202	QS	2	6	-0.2	-1	-0.5	7.8	15.0	1.79	7.3	1.2	0.29
JC12JL-203	QS	12	-2	-0.2	-1	-0.5	24.4	126.3	4.49	16.9	3.6	1.13

APPENDIX D: Drillhole samples geochemical data

Sample_Num Method Detection Limit Unit	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS 1 ppm	ICP-MS-FUS 2 ppm	ICP-MS-FUS 0.2 ppm	ICP-MS-FUS 1 ppm	ICP-MS-FUS 0.5 ppm	ICP-MS-FUS 0.5 ppm	ICP-MS-FUS 0.1 ppm	ICP-MS-FUS 0.05 ppm	ICP-MS-FUS 0.1 ppm	ICP-MS-FUS 0.1 ppm	ICP-MS-FUS 0.05 ppm
JC12JL-204	QS	9	-2	-0.2	-1	-0.5	3.8	7.7	0.65	2.7	0.7	0.23
JC12JL-205	QS	3	2	-0.2	-1	-0.5	2.2	4.6	0.52	1.7	0.2	0.08
JC12JL-206	QS	-1	3	-0.2	-1	-0.5	0.6	1.8	0.25	0.9	0.3	0.07
JC12JL-207	LIF	16	2	-0.2	1	-0.5	31.9	75.5	8.03	29.3	5.5	1.53
JC12JL-208	WQ	4	-2	-0.2	3	-0.5	76.0	156.9	16.83	62.3	9.7	1.41
JC12JL-209	QS	2	-2	-0.2	1	-0.5	-0.5	3.0	0.13	0.4	-0.1	-0.05
JC12JL-210	QS	2	2	-0.2	-1	-0.5	2.9	5.8	0.48	2.0	0.3	0.14
JC12JL-211	QS	1	3	-0.2	-1	-0.5	-0.5	0.8	0.08	0.4	-0.1	-0.05
JC12JL-212	QS	2	2	-0.2	-1	-0.5	19.5	33.6	3.03	11.4	1.3	0.34
JC12JL-213	MnIF	2	2	-0.2	-1	-0.5	14.2	17.2	2.57	10.1	1.8	0.64
JC12JL-215	QS	2	2	-0.2	-1	-0.5	2.2	3.6	0.39	1.5	0.1	-0.05
JC12JL-216	QS	3	-2	-0.2	-1	-0.5	1.2	7.8	0.43	1.6	0.4	0.09
JC12JL-217	MnIF	3	-2	-0.2	-1	-0.5	18.3	33.2	3.63	14.3	2.4	0.71
JC12JL-218	QS	5	-2	-0.2	-1	-0.5	1.3	14.6	0.33	1.5	0.5	0.20
JC12JL-219	QS	2	-2	-0.2	-1	-0.5	5.0	9.9	0.84	2.8	0.4	0.20
JC12JL-220	QS	1	-2	-0.2	-1	-0.5	1.8	2.1	0.35	1.1	0.2	-0.05
JC12JL-221	QS	2	-2	-0.2	-1	-0.5	1.6	4.6	0.41	1.5	0.3	0.08
JC12JL-222	QS	2	-2	-0.2	-1	-0.5	11.8	19.3	1.86	6.7	1.1	0.37
JC12JL-223	QS	2	2	-0.2	-1	-0.5	0.7	1.5	0.21	0.8	0.2	0.08
JC12JL-224	QS	2	-2	-0.2	-1	-0.5	1.6	1.6	0.44	1.7	0.3	0.08
JC12JL-225	QS	2	-2	-0.2	-1	-0.5	2.3	6.0	0.51	1.8	0.3	0.09
JC12JL-226	QS	2	3	-0.2	-1	-0.5	3.5	4.8	0.76	2.5	0.4	0.10
JC12JL-227	MnIF	6	-2	-0.2	-1	-0.5	20.8	30.5	3.45	14.1	2.6	1.18
JC12JL-228	QS	1	-2	-0.2	-1	-0.5	-0.5	5.2	0.30	1.5	0.7	0.33
JC12JL-229	MnIF	8	2	-0.2	-1	-0.5	39.8	56.7	5.70	23.0	3.7	1.56
JC12JL-230	MnIF	4	-2	-0.2	-1	-0.5	35.3	39.4	4.09	16.4	2.6	1.03
JC12JL-231	MnIF	5	2	-0.2	-1	-0.5	23.9	32.6	3.59	15.1	2.7	1.39
JC12JL-232	QS	1	-2	-0.2	-1	-0.5	4.1	5.4	0.65	2.1	0.3	0.12
JC12JL-233	LWQ	1	-2	-0.2	-1	-0.5	2.6	4.9	0.52	1.8	0.3	0.15
JC12JL-234	LWQ	2	-2	-0.2	-1	-0.5	1.9	3.6	0.42	1.7	0.2	0.10
JC12JL-235	QS	1	-2	-0.2	-1	-0.5	1.5	3.7	0.44	1.7	0.4	0.17
JC12JL-236	QS	1	-2	-0.2	2	-0.5	2.2	10.0	0.60	2.2	0.4	0.14
JC12JL-237	LWQ	1	-2	-0.2	-1	-0.5	5.0	12.4	1.10	5.2	0.9	0.34
JC12JL-238	LWQ	1	-2	-0.2	1	-0.5	4.8	6.7	0.76	2.2	0.4	0.13
JC12JL-239	QS	4	3	-0.2	-1	-0.5	11.8	16.4	1.27	4.3	0.6	0.23
JC12JL-240	LWQ	2	-2	-0.2	-1	-0.5	2.4	4.7	0.55	2.2	0.5	0.12
JC12JL-241	QS	2	2	-0.2	-1	-0.5	1.1	6.4	0.41	1.8	0.4	0.16
JC12JL-242	QS	4	2	-0.2	-1	-0.5	13.1	21.9	2.01	8.1	1.0	0.26
JC12JL-243	QS	1	2	-0.2	-1	-0.5	3.0	3.4	0.98	3.9	0.6	0.14
JC12JL-244	QS	3	-2	-0.2	-1	-0.5	7.7	6.8	1.74	5.5	0.6	0.14
JC12JL-245	QS	3	2	-0.2	-1	-0.5	22.0	34.5	3.09	10.9	1.6	0.49
JC12JL-246	QS	1	-2	-0.2	-1	-0.5	-0.5	1.3	0.10	0.4	-0.1	-0.05
JC12JL-247	QS	1	3	-0.2	-1	-0.5	4.4	7.1	0.94	3.4	0.5	0.15
JC12JL-248	QS	2	2	-0.2	1	-0.5	8.2	15.1	1.09	4.3	0.5	0.13
JC12JL-249	QS	1	3	-0.2	1	-0.5	1.2	4.5	0.39	2.2	0.7	0.23
JC12JL-250	QS	2	2	-0.2	-1	-0.5	5.3	9.2	0.99	3.6	0.7	0.22
JC12JL-251	QS	2	3	-0.2	-1	-0.5	5.4	9.9	0.99	4.4	0.8	0.26

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Method		1	2	0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Detection Limit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit												
JC12JL-252	QS	4	2	-0.2	-1	-0.5	7.5	12.0	1.26	4.3	0.7	0.19
JC12JL-253	QS	3	2	-0.2	-1	-0.5	6.8	9.4	1.34	5.1	0.7	0.19
JC12JL-254	QS	2	-2	-0.2	-1	-0.5	1.8	2.9	0.42	1.4	0.2	0.06
JC12JL-255	QS	3	-2	-0.2	-1	-0.5	8.1	18.4	1.87	8.8	1.8	0.66
JC12JL-256	QS	1	-2	-0.2	-1	-0.5	1.1	3.9	0.52	2.9	0.7	0.26
JC12JL-257	QS	1	-2	-0.2	-1	-0.5	2.5	3.0	0.64	2.2	0.3	0.11
JC12JL-258	QS	1	2	-0.2	-1	-0.5	2.4	4.1	0.69	2.9	0.5	0.12
JC12JL-259	QS	6	-2	-0.2	1	-0.5	2.8	6.8	0.84	3.2	0.8	0.22
JC12JL-260	LIF	32	-2	-0.2	2	-0.5	24.2	46.4	5.75	22.6	3.9	0.98
JC12JL-261	LIF	45	-2	-0.2	2	-0.5	157.1	304.3	39.73	164.5	31.0	8.51
JC12JL-262	WQ	6	-2	-0.2	-1	-0.5	3.2	3.8	0.47	1.8	0.3	0.12
JC12JL-263	QS	2	-2	-0.2	-1	-0.5	35.9	54.4	4.62	16.8	2.0	0.56
JC12JL-264	QS	8	4	-0.2	1	-0.5	29.9	66.1	4.62	18.3	3.2	0.93
JC12JL-265	QS	5	-2	-0.2	-1	-0.5	11.1	19.3	2.00	7.9	1.5	0.41
JC12JL-266	QS	2	-2	-0.2	-1	-0.5	0.7	2.4	0.23	1.0	0.2	-0.05
JC12JL-267	QS	1	-2	-0.2	-1	-0.5	2.2	5.8	0.50	2.1	0.4	0.12
JC12JL-268	MnIF	5	-2	-0.2	2	-0.5	64.8	62.5	11.30	48.6	8.8	2.99
JC12JL-269	QS	9	-2	-0.2	1	-0.5	9.7	18.4	1.67	7.4	1.6	0.49
JC12JL-270	MnIF	2	-2	-0.2	2	-0.5	15.1	38.0	3.81	15.5	3.3	1.18
JC12JL-271	QS	2	-2	-0.2	-1	-0.5	2.1	12.8	1.21	6.5	1.8	0.48
JC12JL-272	MnIF	10	-2	-0.2	-1	-0.5	42.3	47.0	6.59	26.6	5.4	1.66
JC12JL-273	QS	3	3	-0.2	1	-0.5	1.0	1.4	0.23	0.8	0.2	-0.05
JC12JL-274	QS	2	-2	-0.2	-1	-0.5	-0.5	1.0	0.12	0.5	0.1	-0.05
JC12JL-275	QS	2	-2	-0.2	-1	-0.5	1.3	3.3	0.31	1.2	0.3	0.08
JC12JL-276	QS	9	-2	-0.2	1	-0.5	6.3	11.3	0.98	3.4	0.7	0.20
JC12JL-277	QS	3	3	-0.2	1	-0.5	-0.5	1.1	0.14	0.6	0.1	0.06
JC12JL-278	QS	1	2	-0.2	1	-0.5	4.8	8.3	1.15	3.7	0.8	0.27
JC12JL-279	QS	6	-2	-0.2	-1	-0.5	2.9	7.6	0.56	2.4	0.6	0.19
JC12JL-280	LWQ	1	-2	-0.2	-1	-0.5	0.5	1.2	0.21	0.8	0.2	-0.05
JC12JL-281	LWQ	2	-2	-0.2	1	-0.5	-0.5	0.8	0.09	0.4	-0.1	-0.05
JC12JL-282	QS	6	-2	-0.2	-1	-0.5	-0.5	2.0	0.19	0.9	0.1	-0.05
JC12JL-283	QS	4	-2	-0.2	1	-0.5	4.0	8.5	1.15	4.6	0.6	0.17
JC12JL-284	LWQ	2	-2	-0.2	-1	-0.5	3.1	4.8	0.71	2.6	0.3	0.07
JC12JL-285	QS	2	3	-0.2	-1	-0.5	6.7	15.4	1.53	6.2	1.0	0.44
JC12JL-286	QS	1	-2	-0.2	-1	-0.5	-0.5	1.9	0.11	0.5	0.2	0.08
JC12JL-288	QS	2	3	-0.2	1	-0.5	1.9	3.6	0.57	2.3	0.4	0.11
JC12JL-289	QS	2	-2	-0.2	-1	-0.5	3.1	5.7	0.61	2.3	0.4	0.14
JC12JL-290	QS	3	2	-0.2	-1	-0.5	1.0	3.3	0.32	1.0	0.2	0.09
JC12JL-291	QS	1	4	-0.2	1	-0.5	1.2	2.6	0.27	1.2	0.6	0.25
JC12JL-292	QS	3	-2	-0.2	-1	-0.5	-0.5	1.5	0.11	0.4	-0.1	-0.05
JC12JL-293	QS	1	-2	-0.2	-1	-0.5	0.6	2.2	0.23	0.8	0.2	0.11
JC12JL-294	QS	3	-2	-0.2	1	-0.5	1.2	2.8	0.33	1.6	0.3	0.09
JC12JL-295	QS	3	-2	-0.2	-1	-0.5	8.4	15.7	1.72	7.3	1.4	0.38
JC12JL-296	QS	1	-2	-0.2	-1	-0.5	1.4	3.1	0.32	1.1	0.3	0.07
JC12JL-297	QS	-1	-2	-0.2	-1	-0.5	-0.5	0.7	0.09	0.3	-0.1	-0.05
JC12JL-298	QS	1	-2	-0.2	-1	-0.5	-0.5	0.6	0.05	0.4	-0.1	0.07
JC12JL-300	QS	3	-2	-0.2	-1	-0.5	2.6	5.4	0.76	2.5	0.6	0.13

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Method		1	2	0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Detection Limit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Unit												
JC12JL-301	LIF	11	2	-0.2	-1	-0.5	24.6	59.9	5.98	26.1	4.9	1.34
JC12JL-303	LIF	9	2	-0.2	1	-0.5	9.5	25.1	2.23	9.1	1.5	0.57
JC12JL-304	LIF	70	2	-0.2	3	-0.5	37.6	69.2	8.73	32.9	5.4	1.50
JC12JL-305	WQ	4	-2	-0.2	4	-0.5	50.0	102.7	11.26	39.9	6.4	0.89
JC12JL-306	WQ	3	-2	-0.2	1	-0.5	20.1	40.6	4.58	16.2	2.7	0.67
JC12JL-307	QS	2	2	-0.2	1	-0.5	2.9	2.8	0.55	1.8	0.3	0.09
JC12JL-308	QS	1	10	-0.2	1	-0.5	2.1	2.8	0.33	1.0	0.2	-0.05
JC12JL-309	QS	1	-2	-0.2	1	-0.5	1.0	0.9	0.14	0.7	0.1	-0.05
JC12JL-310	QS	1	-2	-0.2	-1	-0.5	3.1	4.9	0.51	1.6	0.2	-0.05
JC12JL-311	QS	7	-2	-0.2	1	-0.5	9.5	24.4	1.57	6.5	1.0	0.26
JC12JL-312	LWQ	2	-2	-0.2	-1	-0.5	-0.5	1.0	0.09	0.5	-0.1	-0.05
JC12JL-313	QS	1	4	-0.2	1	-0.5	1.0	4.1	0.36	2.5	2.1	1.20
JC12JL-314	QS	2	-2	-0.2	1	-0.5	1.5	2.9	0.34	1.4	0.3	0.09
JC12JL-315	QS	1	2	-0.2	1	-0.5	0.5	1.6	0.15	0.9	0.2	0.08
JC12JL-316	LWQ	1	3	-0.2	1	-0.5	0.7	2.2	0.21	0.9	0.3	0.09
JC12JL-317	LWQ	3	-2	-0.2	2	-0.5	-0.5	1.2	0.06	0.4	0.1	-0.05
JC12JL-318	QS	4	-2	-0.2	1	-0.5	1.6	3.5	0.26	1.1	0.2	0.06
JC12JL-319	QS	4	3	-0.2	1	-0.5	7.1	31.6	1.27	6.1	1.6	0.60
JC12JL-320	QS	2	-2	-0.2	1	-0.5	2.3	3.1	0.36	1.5	0.3	0.10
JC12JL-321	QS	4	6	-0.2	1	-0.5	8.7	13.2	1.57	6.0	1.1	0.31
JC12JL-322	QS	3	-2	-0.2	3	-0.5	1.6	1.0	0.19	1.0	0.2	0.05
JC12JL-323	MnIF	18	2	-0.2	1	-0.5	28.4	155.2	5.03	19.7	3.5	1.07
JC12JL-324	QS	8	2	-0.2	1	-0.5	9.4	30.4	1.95	8.1	1.9	0.63
JC12JL-325	QS	1	4	-0.2	1	-0.5	-0.5	1.2	0.06	0.2	-0.1	-0.05
JC12JL-326	QS	6	-2	-0.2	1	-0.5	11.3	19.6	1.77	7.1	1.7	0.57
JC12JL-327	QS	2	-2	-0.2	3	-0.5	3.7	7.5	0.65	3.1	0.5	0.23
JC12JL-328	QS	3	2	-0.2	2	-0.5	-0.5	0.4	0.06	0.2	-0.1	-0.05
JC12JL-329	LIF	3	-2	-0.2	1	-0.5	6.3	13.1	1.43	5.5	1.2	0.35
JC12JL-330	LIF	19	-2	-0.2	1	-0.5	31.2	58.7	6.64	24.1	4.0	1.06
JC12JL-331	QS	2	2	-0.2	1	-0.5	2.2	2.1	0.39	1.3	0.2	0.06
JC12JL-332	QS	2	2	-0.2	1	-0.5	4.1	4.0	0.84	2.8	0.3	0.07
JC12JL-333	QS	4	-2	-0.2	-1	-0.5	1.2	1.0	0.16	0.5	-0.1	-0.05
JC12JL-334	QS	3	7	-0.2	-1	-0.5	2.7	3.8	0.45	1.3	0.3	0.09
JC12JL-335	QS	2	2	-0.2	-1	-0.5	2.1	2.6	0.35	1.4	0.2	0.07
JC12JL-336	QS	1	-2	-0.2	-1	-0.5	-0.5	2.8	0.17	0.8	0.2	0.06
JC12JL-337	QS	4	2	-0.2	1	-0.5	0.8	1.4	0.15	0.6	-0.1	-0.05
JC12JL-338	QS	4	-2	-0.2	-1	-0.5	1.2	2.6	0.29	1.2	0.3	0.09
JC12JL-339	QS	8	2	-0.2	-1	-0.5	5.8	6.1	1.10	3.9	1.0	0.29
JC12JL-340	QS	16	-2	-0.2	2	-0.5	11.2	33.2	1.82	7.9	1.5	0.55
JC12JL-341	MnIF	13	-2	-0.2	1	-0.5	67.4	129.8	8.45	29.9	4.5	1.22
JC12JL-342	QS	4	-2	-0.2	-1	-0.5	6.8	24.3	1.39	5.2	1.2	0.30
JC12JL-343	FLT	9	-2	-0.2	2	0.6	14.7	20.6	2.56	10.2	1.9	0.51
JC12JL-344	QS	5	-2	-0.2	-1	-0.5	9.9	17.9	1.59	6.0	1.2	0.33
JC12JL-345	QS	2	2	-0.2	1	-0.5	0.6	0.9	0.09	0.3	0.2	0.09
JC12JL-346	QS	1	3	-0.2	-1	-0.5	-0.5	1.2	0.16	0.8	0.2	-0.05
JC12JL-347	QS	2	-2	-0.2	1	-0.5	-0.5	0.8	0.09	0.4	0.2	0.08
JC12JL-348	QS	13	16	-0.2	2	-0.5	158.0	217.8	22.07	84.9	11.6	2.62

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Nb	Mo	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		1	2	0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-349	QS	1	-2	-0.2	-1	-0.5	3.0	6.0	0.50	2.0	0.5	0.13
JC12JL-350	QS	3	-2	-0.2	-1	-0.5	1.8	3.7	0.40	1.6	0.4	0.15
JC12JL-351	QS	3	-2	-0.2	-1	-0.5	3.4	12.0	0.82	3.0	0.4	0.11
JC12JL-352	QS	2	-2	-0.2	1	-0.5	7.2	14.1	1.46	5.6	0.9	0.18
JC12JL-353	QS	4	2	-0.2	-1	-0.5	5.9	9.2	1.00	3.8	0.5	0.12
JC12JL-354	QS	2	3	-0.2	-1	-0.5	0.6	2.1	0.20	1.1	0.2	0.09
JC12JL-355	LIF	5	5	-0.2	-1	-0.5	8.1	14.2	1.64	7.0	1.3	0.41
JC12JL-356	WQ	4	-2	-0.2	-1	0.5	34.2	70.6	7.77	28.1	4.4	0.53
JC12JL-357	WQ	3	-2	-0.2	4	0.9	32.9	67.1	7.45	27.1	4.3	0.67

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-001	QS	0.8	0.1	1.0	0.2	0.7	0.10	0.6	0.07	-0.2	-0.5	2
JC12JL-002	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-003	QS	0.1	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-004	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-006	QS	2.8	0.4	1.7	0.3	1.0	0.13	0.8	0.08	-0.2	-0.5	3
JC12JL-007	QS	0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-008	QS	0.3	-0.1	0.2	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	1
JC12JL-009	QS	2.3	0.3	1.9	0.4	1.0	0.12	0.8	0.08	-0.2	-0.5	1
JC12JL-010	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-011	QS	0.5	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-012	QS	0.7	0.1	0.7	0.2	0.5	0.08	0.6	0.07	-0.2	-0.5	3
JC12JL-013	QS	0.3	-0.1	0.5	0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-014	QS	1.0	0.2	1.2	0.2	0.8	0.11	0.8	0.09	-0.2	-0.5	3
JC12JL-015	QS	11.5	2.0	13.8	3.1	10.0	1.31	8.4	0.99	0.3	-0.5	4
JC12JL-016	QS	1.2	0.2	1.4	0.3	1.1	0.16	0.8	0.10	-0.2	-0.5	2
JC12JL-017	QS	1.4	0.2	1.5	0.3	1.1	0.14	0.8	0.10	0.2	-0.5	2
JC12JL-018	QS	1.8	0.2	1.5	0.3	0.9	0.11	0.8	0.11	0.5	-0.5	2
JC12JL-019	LIF	2.0	0.3	1.8	0.3	1.1	0.15	1.1	0.14	1.8	1.4	2
JC12JL-020	WQ	5.2	0.5	2.4	0.4	1.2	0.15	1.2	0.17	16.1	-0.5	-1
JC12JL-021	QS	0.7	0.1	0.9	0.2	0.6	0.09	0.5	0.06	0.3	-0.5	-1
JC12JL-022	QS	1.4	0.3	1.8	0.4	1.3	0.17	1.1	0.13	-0.2	-0.5	3
JC12JL-023	QS	0.4	-0.1	0.4	-0.1	0.2	-0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-024	QS	0.6	-0.1	0.5	-0.1	0.2	-0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-025	QS	1.2	0.2	1.7	0.4	1.3	0.18	1.1	0.14	-0.2	-0.5	5
JC12JL-026	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	0.2	-0.5	5
JC12JL-027	LWQ	0.9	0.1	0.9	0.2	0.5	0.06	0.5	-0.05	-0.2	0.9	-1
JC12JL-028	QS	0.9	0.2	1.6	0.4	1.5	0.17	1.1	0.13	-0.2	-0.5	-1
JC12JL-029	QS	0.8	0.1	0.7	0.2	0.5	0.06	0.4	-0.05	-0.2	-0.5	6
JC12JL-030	QS	0.8	0.1	1.0	0.2	0.7	0.09	0.7	0.06	-0.2	-0.5	-1
JC12JL-031	QS	0.7	0.1	1.0	0.2	0.7	0.10	0.7	0.08	-0.2	-0.5	-1
JC12JL-032	QS	0.3	-0.1	0.4	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	5
JC12JL-033	LWQ	1.1	0.1	1.0	0.2	0.6	0.09	0.6	0.06	-0.2	-0.5	-1
JC12JL-034	MnIF	4.5	0.6	3.6	0.7	2.1	0.29	1.7	0.20	-0.2	-0.5	5
JC12JL-035	QS	1.7	0.3	1.9	0.3	1.1	0.14	0.8	0.10	-0.2	-0.5	6
JC12JL-036	QS	1.4	0.2	1.3	0.3	0.9	0.12	0.8	0.11	-0.2	-0.5	1
JC12JL-037	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-038	QS	0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-039	QS	0.5	-0.1	0.6	0.1	0.4	-0.05	0.4	-0.05	-0.2	-0.5	5
JC12JL-041	QS	0.3	-0.1	0.2	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-042	MnIF	5.7	0.8	5.5	1.3	4.1	0.52	2.9	0.38	-0.2	-0.5	1
JC12JL-043	QS	0.8	0.1	0.6	0.1	0.5	0.07	0.5	0.06	-0.2	-0.5	4
JC12JL-044	MnIF	4.4	0.6	3.7	0.9	2.7	0.36	2.2	0.31	0.3	-0.5	3
JC12JL-045	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-046	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	1
JC12JL-048	MnIF	5.0	0.7	4.6	1.1	3.3	0.40	2.6	0.31	-0.2	-0.5	-1
JC12JL-049	QS	0.7	-0.1	0.8	0.2	0.5	0.08	0.5	0.07	-0.2	-0.5	2
JC12JL-050	LIF	2.0	0.2	1.0	0.2	0.5	0.06	0.5	-0.05	0.5	-0.5	-1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-051	WQ	4.1	0.4	1.9	0.4	1.0	0.14	0.9	0.13	12.7	-0.5	-1
JC12JL-052	MnIF	0.6	-0.1	0.5	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-053	QS	1.1	0.2	1.2	0.3	0.9	0.13	0.8	0.10	-0.2	-0.5	5
JC12JL-054	MnIF	1.4	0.2	0.9	0.2	0.4	0.07	0.4	0.05	-0.2	-0.5	3
JC12JL-055	QS	0.4	-0.1	0.4	0.1	0.4	-0.05	0.3	-0.05	-0.2	0.7	3
JC12JL-056	QS	1.4	0.2	1.2	0.3	0.8	0.12	0.6	0.14	-0.2	-0.5	3
JC12JL-059	QS	2.7	0.4	2.5	0.5	1.7	0.24	1.7	0.25	-0.2	-0.5	3
JC12JL-061	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-062	MnIF	6.7	0.9	5.5	1.0	2.9	0.38	2.0	0.25	-0.2	-0.5	3
JC12JL-063	QS	1.0	0.2	1.0	0.2	0.6	0.09	0.6	-0.05	-0.2	-0.5	1
JC12JL-064	QS	0.9	0.2	1.4	0.3	0.9	0.10	0.7	0.10	-0.2	-0.5	2
JC12JL-065	LWQ	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1
JC12JL-066	QS	1.0	0.1	0.7	0.2	0.5	0.07	0.4	0.07	0.2	-0.5	1
JC12JL-067	QS	2.2	0.2	0.8	0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	6
JC12JL-068	QS	1.4	0.2	1.0	0.2	0.8	0.09	0.6	0.09	-0.2	-0.5	7
JC12JL-069	QS	0.6	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-070	QS	0.2	-0.1	0.2	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-071	QS	0.6	0.1	0.8	0.2	0.6	0.08	0.4	-0.05	-0.2	-0.5	-1
JC12JL-072	QS	1.0	0.2	1.1	0.2	0.7	0.09	0.6	0.08	-0.2	-0.5	14
JC12JL-074	QS	0.9	0.2	1.2	0.3	0.8	0.11	0.6	0.09	0.2	-0.5	8
JC12JL-075	QS	0.5	-0.1	0.5	0.1	0.3	0.06	0.3	-0.05	-0.2	-0.5	7
JC12JL-076	LWQ	0.2	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-077	QS	2.9	0.6	4.2	0.9	3.1	0.38	2.4	0.33	-0.2	-0.5	1
JC12JL-079	QS	0.3	-0.1	0.2	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-080	MnIF	1.5	0.2	1.3	0.3	0.8	0.11	0.7	0.09	-0.2	-0.5	3
JC12JL-081	QS	3.3	0.4	2.5	0.6	1.5	0.18	1.1	0.14	-0.2	-0.5	1
JC12JL-082	QS	1.5	0.2	0.8	0.2	0.5	0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-083	QS	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.2	0.06	-0.2	-0.5	4
JC12JL-084	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-085	QS	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-086	QS	1.2	0.2	1.4	0.3	1.0	0.12	0.7	0.11	0.3	-0.5	-1
JC12JL-087	QS	0.7	-0.1	0.5	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-089	QS	1.1	0.1	0.8	0.2	0.5	0.07	0.5	0.06	-0.2	-0.5	3
JC12JL-090	QS	0.9	0.1	0.9	0.2	0.6	0.08	0.6	0.07	-0.2	-0.5	4
JC12JL-091	QS	1.7	0.2	1.5	0.3	1.1	0.16	1.2	0.13	-0.2	-0.5	2
JC12JL-092	QS	0.8	0.1	0.7	0.1	0.4	0.07	0.4	0.05	-0.2	-0.5	6
JC12JL-093	QS	2.5	0.5	3.3	0.7	2.4	0.31	1.9	0.24	-0.2	-0.5	17
JC12JL-094	QS	1.2	0.1	0.7	0.1	0.4	-0.05	0.3	-0.05	-0.2	-0.5	9
JC12JL-095	QS	3.1	0.5	3.4	0.7	2.1	0.31	1.8	0.24	-0.2	-0.5	6
JC12JL-096	QS	0.6	0.1	0.8	0.2	0.5	-0.05	0.3	-0.05	-0.2	-0.5	21
JC12JL-097	QS	0.3	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-098	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-099	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-100	QS	0.5	-0.1	0.8	0.2	0.6	0.08	0.5	0.07	-0.2	-0.5	3
JC12JL-101	QS	0.1	-0.1	0.1	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-102	QS	1.0	0.2	1.1	0.2	0.7	0.09	0.6	0.08	-0.2	-0.5	1
JC12JL-104	QS	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd ICP-MS-FUS 0.1 ppm	Tb ICP-MS-FUS 0.1 ppm	Dy ICP-MS-FUS 0.1 ppm	Ho ICP-MS-FUS 0.1 ppm	Er ICP-MS-FUS 0.1 ppm	Tm ICP-MS-FUS 0.05 ppm	Yb ICP-MS-FUS 0.1 ppm	Lu ICP-MS-FUS 0.05 ppm	Hf ICP-MS-FUS 0.2 ppm	Ta ICP-MS-FUS 0.5 ppm	W ICP-MS-FUS 1 ppm
JC12JL-105	QS	0.3	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	5
JC12JL-106	QS	1.0	0.1	0.8	0.2	0.5	0.06	0.3	0.05	-0.2	-0.5	5
JC12JL-107	QS	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1
JC12JL-109	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	0.2	-0.5	2
JC12JL-110	QS	0.5	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-111	QS	0.9	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	0.2	-0.5	-1
JC12JL-112	QS	0.6	-0.1	0.5	0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	2
JC12JL-113	QS	0.6	0.1	0.9	0.2	0.7	0.12	0.9	0.12	-0.2	-0.5	2
JC12JL-114	QS	1.1	0.2	1.2	0.3	0.8	0.11	0.9	0.11	0.3	-0.5	-1
JC12JL-115	QS	0.5	-0.1	0.3	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-116	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	6
JC12JL-117	QS	0.5	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-118	QS	0.1	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-119	QS	0.5	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-120	QS	0.9	0.1	0.6	0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-121	QS	0.3	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-122	WQ	0.7	-0.1	0.3	-0.1	0.1	-0.05	0.1	-0.05	1.0	-0.5	-1
JC12JL-123	QS	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	1.0	-0.5	2
JC12JL-124	QS	0.6	-0.1	0.5	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-125	QS	-0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	4
JC12JL-126	QS	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-127	QS	0.7	-0.1	0.6	0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	3
JC12JL-128	QS	0.6	-0.1	0.7	0.2	0.4	-0.05	0.3	-0.05	-0.2	-0.5	2
JC12JL-130	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	3
JC12JL-131	QS	0.5	-0.1	0.5	0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	7
JC12JL-132	LWQ	0.8	0.1	0.8	0.2	0.6	0.08	0.6	0.07	-0.2	-0.5	4
JC12JL-133	LWQ	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-134	QS	0.4	-0.1	0.4	-0.1	0.3	-0.05	0.1	-0.05	-0.2	-0.5	5
JC12JL-135	FLT	1.1	0.2	1.8	0.4	1.4	0.19	1.2	0.17	-0.2	-0.5	7
JC12JL-136	LWQ	0.2	-0.1	0.2	-0.1	0.2	-0.05	0.2	-0.05	2.5	0.6	2
JC12JL-137	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-138	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-139	LWQ	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-140	QS	2.5	0.3	2.0	0.4	1.0	0.15	0.9	0.10	0.3	-0.5	4
JC12JL-141	QS	1.8	0.3	1.9	0.4	1.3	0.17	1.1	0.15	-0.2	-0.5	4
JC12JL-142	QS	0.5	-0.1	0.7	0.1	0.5	0.06	0.4	0.05	-0.2	-0.5	-1
JC12JL-144	QS	1.2	0.2	1.1	0.2	0.7	0.09	0.5	0.07	-0.2	-0.5	-1
JC12JL-145	QS	0.5	-0.1	0.6	0.1	0.4	-0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-146	MnIF	4.2	0.6	4.0	1.0	3.3	0.45	2.5	0.32	-0.2	-0.5	8
JC12JL-147	QS	0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-148	QS	0.3	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-149	QS	0.4	-0.1	0.5	0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-150	QS	1.0	0.2	1.4	0.3	0.9	0.13	0.8	0.09	-0.2	-0.5	-1
JC12JL-151	QS	0.5	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-152	LWQ	0.5	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-153	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	6
JC12JL-154	QS	0.1	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	8

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-155	VN	0.7	-0.1	0.3	-0.1	0.1	-0.05	-0.1	5.57	-0.2	-0.5	-1
JC12JL-156	MnIF	15.1	2.1	13.1	2.8	8.8	1.12	6.6	0.85	0.2	-0.5	7
JC12JL-157	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	4
JC12JL-158	QS	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	4
JC12JL-159	QS	0.6	0.1	0.9	0.2	0.7	0.10	0.6	0.07	-0.2	-0.5	-1
JC12JL-161	QS	1.2	0.2	1.3	0.2	0.9	0.13	0.9	0.11	-0.2	-0.5	-1
JC12JL-162	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	3
JC12JL-163	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-164	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	0.1	-0.05	-0.2	-0.5	5
JC12JL-165	QS	0.6	-0.1	0.6	0.1	0.4	0.05	0.4	-0.05	-0.2	-0.5	8
JC12JL-166	QS	0.4	-0.1	0.5	-0.1	0.4	-0.05	0.3	-0.05	-0.2	-0.5	3
JC12JL-167	QS	0.6	0.1	0.9	0.2	0.7	0.09	0.6	0.07	-0.2	-0.5	5
JC12JL-168	LWQ	0.3	-0.1	0.2	-0.1	0.1	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-169	QS	0.7	0.1	0.9	0.2	0.6	0.07	0.4	-0.05	-0.2	-0.5	2
JC12JL-170	QS	1.1	0.2	1.6	0.3	1.1	0.14	0.8	0.10	-0.2	-0.5	5
JC12JL-171	QS	0.3	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	7
JC12JL-172	QS	0.8	0.1	0.8	0.2	0.6	0.08	0.5	0.06	-0.2	0.7	8
JC12JL-173	QS	1.3	0.2	1.8	0.4	1.5	0.20	1.2	0.17	-0.2	-0.5	6
JC12JL-174	QS	0.9	0.2	1.2	0.2	0.8	0.10	0.6	0.08	-0.2	-0.5	4
JC12JL-175	QS	0.2	-0.1	0.2	-0.1	0.2	-0.05	-0.1	-0.05	-0.2	0.7	3
JC12JL-176	QS	0.5	-0.1	0.4	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-177	QS	0.8	-0.1	0.8	0.1	0.5	-0.05	0.3	-0.05	0.2	-0.5	12
JC12JL-178	QS	0.5	-0.1	0.5	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	6
JC12JL-179	QS	0.7	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	9
JC12JL-180	QS	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	1.1	-0.5	9
JC12JL-181	QS	2.1	0.2	1.2	0.2	0.5	0.07	0.5	-0.05	-0.2	-0.5	5
JC12JL-182	LWQ	0.6	0.1	0.8	0.1	0.6	0.08	0.4	0.06	-0.2	-0.5	-1
JC12JL-183	QS	0.6	0.1	0.8	0.2	0.7	0.09	0.6	0.07	-0.2	-0.5	5
JC12JL-184	QS	0.9	0.1	0.9	0.1	0.6	0.09	0.5	0.06	-0.2	-0.5	2
JC12JL-185	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-186	LWQ	-0.1	-0.1	0.1	-0.1	-0.1	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-187	QS	0.4	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-188	QS	0.5	-0.1	0.5	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-190	QS	0.9	0.2	1.0	0.2	0.6	0.07	0.4	0.06	-0.2	-0.5	3
JC12JL-191	QS	0.6	0.1	0.5	-0.1	0.4	-0.05	0.3	-0.05	-0.2	-0.5	2
JC12JL-192	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-193	QS	0.7	0.1	0.9	0.2	0.8	0.11	0.7	0.09	-0.2	-0.5	3
JC12JL-194	QS	2.8	0.2	1.1	0.2	0.7	0.11	0.7	0.10	1.3	-0.5	1
JC12JL-195	QS	1.4	0.3	1.7	0.3	1.1	0.15	0.9	0.11	-0.2	-0.5	-1
JC12JL-196	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-197	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-198	QS	0.7	0.1	0.8	0.1	0.5	0.08	0.4	-0.05	-0.2	-0.5	7
JC12JL-199	QS	0.9	-0.1	0.6	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	9
JC12JL-200	QS	0.9	0.2	1.2	0.2	0.9	0.12	0.6	0.09	-0.2	-0.5	2
JC12JL-201	QS	0.3	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-202	QS	0.7	-0.1	0.4	-0.1	0.1	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-203	QS	4.7	0.6	3.7	0.8	2.4	0.28	1.6	0.21	0.3	-0.5	-1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-204	QS	1.1	0.2	1.4	0.4	1.0	0.17	0.9	0.13	0.3	-0.5	2
JC12JL-205	QS	0.3	-0.1	0.2	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	3
JC12JL-206	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-207	LIF	4.9	0.7	3.9	0.7	2.2	0.29	1.8	0.23	1.9	1.0	4
JC12JL-208	WQ	8.3	1.0	5.4	1.1	3.2	0.43	2.8	0.40	12.7	-0.5	-1
JC12JL-209	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	0.06	-0.2	-0.5	-1
JC12JL-210	QS	0.7	-0.1	0.8	0.2	0.5	0.08	0.5	0.07	-0.2	-0.5	2
JC12JL-211	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-212	QS	1.4	0.2	1.0	0.2	0.7	0.12	0.7	0.10	-0.2	-0.5	3
JC12JL-213	MnIF	2.0	0.3	1.7	0.3	1.0	0.15	0.9	0.11	-0.2	-0.5	2
JC12JL-215	QS	0.2	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-216	QS	0.3	-0.1	0.2	-0.1	0.1	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-217	MnIF	2.1	0.3	1.5	0.3	0.8	0.12	0.8	0.10	-0.2	-0.5	4
JC12JL-218	QS	0.9	0.1	1.1	0.3	0.8	0.10	0.6	0.08	0.6	-0.5	3
JC12JL-219	QS	0.9	0.2	1.1	0.3	0.9	0.13	0.7	0.08	-0.2	-0.5	2
JC12JL-220	QS	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-221	QS	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1
JC12JL-222	QS	1.3	0.2	1.2	0.3	0.8	0.12	0.7	0.10	-0.2	-0.5	1
JC12JL-223	QS	0.3	-0.1	0.4	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	1
JC12JL-224	QS	0.3	-0.1	0.2	-0.1	0.1	-0.05	0.1	0.07	-0.2	-0.5	-1
JC12JL-225	QS	0.3	-0.1	0.3	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-226	QS	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-227	MnIF	3.2	0.4	2.7	0.6	1.8	0.24	1.4	0.20	0.9	-0.5	3
JC12JL-228	QS	1.3	0.2	1.7	0.3	1.2	0.15	0.9	0.12	-0.2	-0.5	1
JC12JL-229	MnIF	5.3	0.6	4.3	1.0	3.4	0.48	2.7	0.39	0.5	-0.5	2
JC12JL-230	MnIF	3.6	0.5	3.5	0.8	2.8	0.37	2.3	0.30	-0.2	-0.5	2
JC12JL-231	MnIF	3.3	0.5	2.8	0.6	1.9	0.26	1.3	0.17	-0.2	-0.5	5
JC12JL-232	QS	0.4	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-233	LWQ	0.4	-0.1	0.5	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-234	LWQ	0.3	-0.1	0.3	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-235	QS	0.5	-0.1	0.6	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	1
JC12JL-236	QS	0.5	-0.1	0.5	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	3
JC12JL-237	LWQ	1.3	0.2	1.3	0.3	0.8	0.10	0.5	0.08	-0.2	-0.5	1
JC12JL-238	LWQ	0.7	0.1	0.7	0.2	0.6	0.09	0.4	0.07	-0.2	0.5	-1
JC12JL-239	QS	0.9	0.2	1.1	0.2	0.6	0.09	0.5	0.07	-0.2	-0.5	6
JC12JL-240	LWQ	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	1
JC12JL-241	QS	0.5	-0.1	0.5	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-242	QS	1.1	0.1	1.1	0.2	0.9	0.13	0.7	0.10	-0.2	-0.5	4
JC12JL-243	QS	0.4	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-244	QS	0.4	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	0.2	-0.5	1
JC12JL-245	QS	1.9	0.3	1.8	0.4	1.3	0.17	1.1	0.14	-0.2	-0.5	4
JC12JL-246	QS	-0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1
JC12JL-247	QS	0.4	-0.1	0.2	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-248	QS	0.6	-0.1	0.5	0.1	0.5	0.06	0.4	0.05	-0.2	-0.5	2
JC12JL-249	QS	0.8	0.1	0.7	0.2	0.4	0.07	0.4	0.06	-0.2	-0.5	2
JC12JL-250	QS	0.8	0.1	0.8	0.1	0.5	0.07	0.4	0.05	-0.2	-0.5	3
JC12JL-251	QS	0.9	0.1	0.8	0.1	0.5	0.07	0.4	0.05	-0.2	-0.5	3

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-252	QS	0.8	-0.1	0.6	0.1	0.4	0.06	0.4	-0.05	-0.2	-0.5	2
JC12JL-253	QS	0.8	-0.1	0.5	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-254	QS	0.2	-0.1	0.1	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-255	QS	2.1	0.3	2.0	0.4	1.2	0.17	1.2	0.15	-0.2	-0.5	2
JC12JL-256	QS	0.9	0.1	0.9	0.2	0.7	0.10	0.6	0.08	-0.2	-0.5	-1
JC12JL-257	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-258	QS	0.5	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-259	QS	0.7	0.1	0.9	0.2	0.6	0.11	0.6	0.08	0.6	0.5	-1
JC12JL-260	LIF	3.7	0.5	3.0	0.6	1.9	0.30	1.9	0.29	3.8	2.5	2
JC12JL-261	LIF	25.0	2.7	12.2	2.0	5.6	0.71	4.4	0.62	5.0	3.1	2
JC12JL-262	WQ	0.4	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	0.7	-0.5	2
JC12JL-263	QS	1.9	0.3	1.5	0.3	0.9	0.12	0.7	0.08	-0.2	-0.5	-1
JC12JL-264	QS	4.0	0.5	3.5	0.9	2.7	0.38	2.6	0.34	0.6	0.7	7
JC12JL-265	QS	1.7	0.3	1.8	0.4	1.2	0.15	0.8	0.09	-0.2	-0.5	2
JC12JL-266	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	7
JC12JL-267	QS	0.4	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-268	MnIF	10.2	1.5	8.5	1.4	3.6	0.46	2.7	0.31	-0.2	-0.5	7
JC12JL-269	QS	1.5	0.2	1.4	0.3	0.8	0.11	0.9	0.12	0.6	0.8	5
JC12JL-270	MnIF	2.6	0.4	2.0	0.3	0.9	0.13	0.8	0.10	-0.2	-0.5	1
JC12JL-271	QS	1.7	0.2	1.4	0.2	0.8	0.12	0.7	0.10	-0.2	-0.5	3
JC12JL-272	MnIF	5.7	0.8	4.5	0.8	2.4	0.34	2.0	0.23	0.2	-0.5	4
JC12JL-273	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	5
JC12JL-274	QS	-0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-275	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-276	QS	0.8	0.1	0.8	0.2	0.5	0.08	0.5	0.08	0.7	-0.5	-1
JC12JL-277	QS	0.3	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	4
JC12JL-278	QS	1.0	0.2	0.9	0.1	0.6	0.06	0.5	-0.05	-0.2	-0.5	-1
JC12JL-279	QS	1.1	0.2	1.3	0.3	0.9	0.13	0.8	0.10	-0.2	-0.5	6
JC12JL-280	LWQ	0.2	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-281	LWQ	-0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-282	QS	0.2	-0.1	0.1	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	5
JC12JL-283	QS	0.5	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	6
JC12JL-284	LWQ	0.3	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-285	QS	1.2	0.1	0.7	0.1	0.5	-0.05	0.3	-0.05	-0.2	-0.5	4
JC12JL-286	QS	0.3	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-288	QS	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	1
JC12JL-289	QS	0.4	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-290	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-291	QS	1.3	0.2	1.6	0.4	1.2	0.16	0.9	0.14	-0.2	-0.5	1
JC12JL-292	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-293	QS	0.4	-0.1	0.6	-0.1	0.4	0.06	0.4	-0.05	-0.2	-0.5	-1
JC12JL-294	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-295	QS	1.4	0.2	0.6	-0.1	0.2	-0.05	0.2	-0.05	0.2	-0.5	-1
JC12JL-296	QS	0.3	-0.1	0.3	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-297	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-298	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	-1
JC12JL-300	QS	0.6	-0.1	0.5	-0.1	0.4	0.05	0.4	-0.05	-0.2	-0.5	-1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd ICP-MS-FUS 0.1 ppm	Tb ICP-MS-FUS 0.1 ppm	Dy ICP-MS-FUS 0.1 ppm	Ho ICP-MS-FUS 0.1 ppm	Er ICP-MS-FUS 0.1 ppm	Tm ICP-MS-FUS 0.05 ppm	Yb ICP-MS-FUS 0.1 ppm	Lu ICP-MS-FUS 0.05 ppm	Hf ICP-MS-FUS 0.2 ppm	Ta ICP-MS-FUS 0.5 ppm	W ICP-MS-FUS 1 ppm
JC12JL-301	LIF	4.3	0.4	2.0	0.2	0.8	0.10	0.6	0.07	0.8	0.7	-1
JC12JL-303	LIF	1.8	0.2	1.6	0.3	0.9	0.14	0.8	0.10	0.9	0.6	-1
JC12JL-304	LIF	4.8	0.6	3.6	0.7	2.2	0.35	2.2	0.34	5.7	4.4	4
JC12JL-305	WQ	5.0	0.5	2.5	0.5	1.2	0.17	1.1	0.17	10.9	-0.5	1
JC12JL-306	WQ	2.2	0.3	1.4	0.2	0.8	0.10	0.8	0.11	7.1	-0.5	-1
JC12JL-307	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-308	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-309	QS	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-310	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	2
JC12JL-311	QS	1.0	0.1	0.7	0.2	0.5	0.07	0.4	0.06	-0.2	-0.5	4
JC12JL-312	LWQ	0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-313	QS	5.2	1.1	7.6	1.6	5.2	0.70	4.0	0.53	-0.2	-0.5	4
JC12JL-314	QS	0.3	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-315	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-316	LWQ	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-317	LWQ	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	0.6	3
JC12JL-318	QS	0.3	-0.1	0.3	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	2
JC12JL-319	QS	2.8	0.5	4.1	0.8	3.0	0.42	2.7	0.35	-0.2	-0.5	4
JC12JL-320	QS	0.4	-0.1	0.4	0.1	0.4	-0.05	0.3	-0.05	-0.2	-0.5	2
JC12JL-321	QS	1.1	0.1	0.8	0.1	0.4	0.06	0.3	-0.05	-0.2	-0.5	5
JC12JL-322	QS	0.2	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-323	MnIF	4.1	0.4	2.8	0.6	1.9	0.26	1.9	0.25	2.1	-0.5	-1
JC12JL-324	QS	2.5	0.3	2.3	0.5	1.7	0.26	1.7	0.23	0.3	-0.5	-1
JC12JL-325	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	11
JC12JL-326	QS	2.6	0.4	3.3	0.8	2.5	0.34	2.1	0.28	-0.2	-0.5	58
JC12JL-327	QS	0.6	-0.1	0.5	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	-1
JC12JL-328	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-329	LIF	0.9	0.1	0.6	0.1	0.3	-0.05	0.2	-0.05	0.5	-0.5	2
JC12JL-330	LIF	3.4	0.4	1.8	0.3	0.8	0.12	0.8	0.10	1.3	1.0	2
JC12JL-331	QS	0.1	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1
JC12JL-332	QS	0.3	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1
JC12JL-333	QS	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-334	QS	0.3	-0.1	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	3
JC12JL-335	QS	0.2	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	1
JC12JL-336	QS	0.2	-0.1	0.3	-0.1	0.3	0.05	0.4	-0.05	-0.2	-0.5	1
JC12JL-337	QS	0.1	-0.1	0.1	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	3
JC12JL-338	QS	0.3	-0.1	0.2	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-339	QS	1.3	0.3	2.2	0.5	1.7	0.22	1.4	0.17	0.3	-0.5	4
JC12JL-340	QS	2.2	0.3	2.4	0.5	1.8	0.26	1.7	0.23	1.1	-0.5	-1
JC12JL-341	MnIF	4.6	0.6	3.2	0.7	2.1	0.28	1.6	0.20	0.2	-0.5	1
JC12JL-342	QS	1.2	0.2	1.2	0.3	1.0	0.13	0.9	0.11	-0.2	-0.5	-1
JC12JL-343	FLT	1.7	0.2	1.3	0.2	0.7	0.10	0.7	0.11	5.2	0.5	9
JC12JL-344	QS	1.5	0.2	1.6	0.3	1.1	0.15	1.0	0.13	-0.2	-0.5	5
JC12JL-345	QS	0.3	-0.1	0.5	-0.1	0.2	-0.05	0.3	-0.05	-0.2	-0.5	-1
JC12JL-346	QS	0.2	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1
JC12JL-347	QS	0.5	-0.1	0.8	0.2	0.5	0.09	0.5	0.06	-0.2	-0.5	1
JC12JL-348	QS	12.0	1.7	11.5	2.5	8.3	1.19	8.5	1.35	2.6	1.2	9

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-349	QS	0.8	0.1	1.0	0.2	0.7	0.08	0.6	0.07	-0.2	-0.5	2
JC12JL-350	QS	0.9	0.2	1.1	0.3	0.8	0.10	0.6	0.08	-0.2	-0.5	-1
JC12JL-351	QS	0.4	-0.1	0.3	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	0.5	-1
JC12JL-352	QS	0.7	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	2
JC12JL-353	QS	0.5	-0.1	0.2	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	3
JC12JL-354	QS	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	1
JC12JL-355	LIF	1.5	0.2	1.2	0.3	0.8	0.10	0.7	0.10	0.5	-0.5	1
JC12JL-356	WQ	3.3	0.4	1.7	0.3	0.9	0.14	1.0	0.15	12.6	-0.5	3
JC12JL-357	WQ	3.2	0.3	1.7	0.3	0.9	0.13	0.9	0.13	9.4	-0.5	1

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-001	QS	-0.1	-0.4	0.1	0.2	
JC12JL-002	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-003	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-004	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-006	QS	-0.1	-0.4	0.1	0.7	
JC12JL-007	QS	0.3	-0.4	-0.1	0.1	
JC12JL-008	QS	0.2	-0.4	0.2	0.4	
JC12JL-009	QS	0.1	-0.4	-0.1	0.3	
JC12JL-010	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-011	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-012	QS	-0.1	0.4	-0.1	1.3	
JC12JL-013	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-014	QS	-0.1	-0.4	-0.1	2.0	
JC12JL-015	QS	-0.1	-0.4	0.4	2.4	
JC12JL-016	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-017	QS	-0.1	-0.4	0.3	0.3	
JC12JL-018	QS	-0.1	-0.4	0.9	2.2	
JC12JL-019	LIF	-0.1	-0.4	1.8	1.6	
JC12JL-020	WQ	-0.1	-0.4	35.3	1.3	
JC12JL-021	QS	-0.1	-0.4	0.1	0.2	
JC12JL-022	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-023	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-024	QS	0.1	-0.4	-0.1	0.1	
JC12JL-025	QS	0.3	-0.4	-0.1	0.3	
JC12JL-026	QS	-0.1	-0.4	0.1	0.1	
JC12JL-027	LWQ	-0.1	-0.4	0.2	0.1	
JC12JL-028	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-029	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-030	QS	0.1	-0.4	-0.1	0.1	
JC12JL-031	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-032	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-033	LWQ	-0.1	-0.4	-0.1	0.4	
JC12JL-034	MnIF	-0.1	-0.4	-0.1	0.3	
JC12JL-035	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-036	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-037	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-038	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-039	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-041	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-042	MnIF	-0.1	-0.4	0.1	0.2	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-043	QS	-0.1	0.4	0.1	0.4	
JC12JL-044	MnIF	-0.1	0.5	0.2	0.3	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-045	QS	-0.1	-0.4	-0.1	0.1	Gain On Ignition
JC12JL-046	QS	-0.1	-0.4	0.1	0.1	Gain On Ignition
JC12JL-048	MnIF	1.0	0.6	0.1	1.1	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-049	QS	-0.1	-0.4	0.1	0.1	Gain On Ignition
JC12JL-050	LIF	-0.1	-0.4	0.7	2.0	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-051	WQ	0.5	-0.4	20.3	1.1	
JC12JL-052	MnIF	-0.1	0.7	-0.1	0.1	
JC12JL-053	QS	-0.1	0.7	-0.1	0.1	
JC12JL-054	MnIF	-0.1	0.5	-0.1	0.2	
JC12JL-055	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-056	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-059	QS	-0.1	-0.4	-0.1	1.3	
JC12JL-061	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-062	MnIF	-0.1	-0.4	0.1	0.3	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-063	QS	0.3	-0.4	-0.1	0.5	
JC12JL-064	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-065	LWQ	-0.1	-0.4	-0.1	-0.1	
JC12JL-066	QS	-0.1	-0.4	0.1	0.1	
JC12JL-067	QS	-0.1	-0.4	0.1	0.1	
JC12JL-068	QS	-0.1	-0.4	0.1	0.2	
JC12JL-069	QS	-0.1	-0.4	0.3	0.4	
JC12JL-070	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-071	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-072	QS	-0.1	-0.4	0.4	0.5	
JC12JL-074	QS	-0.1	-0.4	0.2	0.3	
JC12JL-075	QS	0.2	-0.4	-0.1	0.1	
JC12JL-076	LWQ	-0.1	-0.4	-0.1	-0.1	
JC12JL-077	QS	0.1	-0.4	-0.1	0.1	
JC12JL-079	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-080	MnIF	-0.1	-0.4	-0.1	0.3	
JC12JL-081	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-082	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-083	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-084	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-085	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-086	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-087	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-089	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-090	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-091	QS	-0.1	-0.4	-0.1	0.8	
JC12JL-092	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-093	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-094	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-095	QS	-0.1	-0.4	-0.1	3.6	
JC12JL-096	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-097	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-098	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-099	QS	-0.1	0.6	-0.1	0.7	
JC12JL-100	QS	-0.1	-0.4	0.2	0.5	
JC12JL-101	QS	-0.1	-0.4	0.3	1.7	
JC12JL-102	QS	-0.1	-0.4	-0.1	1.0	
JC12JL-104	QS	-0.1	0.5	-0.1	0.5	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-105	QS	-0.1	0.5	-0.1	0.6	
JC12JL-106	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-107	QS	-0.1	-0.4	-0.1	0.4	
JC12JL-109	QS	-0.1	-0.4	-0.1	0.5	
JC12JL-110	QS	-0.1	-0.4	0.4	0.4	
JC12JL-111	QS	-0.1	-0.4	0.5	0.4	
JC12JL-112	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-113	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-114	QS	-0.1	0.6	0.2	1.2	
JC12JL-115	QS	-0.1	-0.4	0.3	0.4	
JC12JL-116	QS	-0.1	-0.4	0.1	0.2	
JC12JL-117	QS	-0.1	-0.4	-0.1	0.7	
JC12JL-118	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-119	QS	-0.1	-0.4	0.1	0.2	
JC12JL-120	QS	-0.1	-0.4	0.4	0.9	
JC12JL-121	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-122	WQ	-0.1	-0.4	1.2	0.3	
JC12JL-123	QS	-0.1	-0.4	0.1	0.3	
JC12JL-124	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-125	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-126	QS	-0.1	0.4	0.3	0.2	
JC12JL-127	QS	-0.1	0.4	0.2	0.3	
JC12JL-128	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-130	QS	-0.1	0.4	-0.1	0.4	
JC12JL-131	QS	0.4	-0.4	-0.1	0.2	
JC12JL-132	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-133	LWQ	0.4	-0.4	-0.1	-0.1	
JC12JL-134	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-135	FLT	-0.1	-0.4	-0.1	0.2	
JC12JL-136	LWQ	-0.1	-0.4	0.1	0.1	
JC12JL-137	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-138	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-139	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-140	QS	-0.1	-0.4	0.3	0.2	
JC12JL-141	QS	-0.1	-0.4	0.1	1.0	
JC12JL-142	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-144	QS	-0.1	0.4	-0.1	0.4	
JC12JL-145	QS	-0.1	1.2	-0.1	0.1	
JC12JL-146	MnIF	-0.1	0.6	-0.1	0.6	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-147	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-148	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-149	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-150	QS	0.1	-0.4	0.1	0.5	
JC12JL-151	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-152	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-153	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-154	QS	-0.1	0.5	-0.1	0.2	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-155	VN	-0.1	-0.4	-0.1	-0.1	
JC12JL-156	MnIF	-0.1	0.6	0.2	1.1	
JC12JL-157	QS	-0.1	-0.4	0.3	2.7	
JC12JL-158	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-159	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-161	QS	-0.1	0.5	0.2	0.6	
JC12JL-162	QS	-0.1	0.5	0.1	0.2	
JC12JL-163	QS	-0.1	0.5	0.2	0.5	
JC12JL-164	QS	-0.1	0.4	-0.1	0.3	
JC12JL-165	QS	-0.1	1.6	0.1	0.5	
JC12JL-166	QS	-0.1	1.0	-0.1	0.1	
JC12JL-167	QS	-0.1	0.7	-0.1	0.6	
JC12JL-168	LWQ	0.4	-0.4	-0.1	0.1	
JC12JL-169	QS	-0.1	1.0	-0.1	0.4	
JC12JL-170	QS	-0.1	0.9	-0.1	0.2	
JC12JL-171	QS	-0.1	1.2	-0.1	0.2	
JC12JL-172	QS	-0.1	1.1	-0.1	0.1	
JC12JL-173	QS	-0.1	1.1	-0.1	0.1	
JC12JL-174	QS	-0.1	1.1	-0.1	0.1	
JC12JL-175	QS	-0.1	1.2	-0.1	0.1	
JC12JL-176	QS	-0.1	1.3	-0.1	0.1	
JC12JL-177	QS	-0.1	1.0	0.1	0.2	
JC12JL-178	QS	-0.1	1.4	0.1	0.1	
JC12JL-179	QS	-0.1	0.8	0.1	0.1	
JC12JL-180	QS	-0.1	-0.4	0.2	0.1	
JC12JL-181	QS	-0.1	-0.4	0.1	0.1	
JC12JL-182	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-183	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-184	QS	-0.1	-0.4	-0.1	0.6	
JC12JL-185	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-186	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-187	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-188	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-190	QS	-0.1	-0.4	0.1	0.4	
JC12JL-191	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-192	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-193	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-194	QS	-0.1	-0.4	0.4	0.2	
JC12JL-195	QS	-0.1	0.5	-0.1	0.3	
JC12JL-196	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-197	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-198	QS	-0.1	0.4	-0.1	0.9	
JC12JL-199	QS	-0.1	-0.4	0.1	0.3	
JC12JL-200	QS	-0.1	0.6	-0.1	0.9	
JC12JL-201	QS	-0.1	-0.4	0.1	0.2	
JC12JL-202	QS	-0.1	-0.4	0.1	0.4	
JC12JL-203	QS	-0.1	-0.4	-0.1	1.1	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	TI	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-204	QS	-0.1	-0.4	0.2	0.6	
JC12JL-205	QS	-0.1	-0.4	0.2	0.2	
JC12JL-206	QS	-0.1	-0.4	-0.1	0.5	
JC12JL-207	LIF	-0.1	-0.4	2.6	6.1	
JC12JL-208	WQ	-0.1	-0.4	33.3	1.5	
JC12JL-209	QS	-0.1	-0.4	0.1	0.1	
JC12JL-210	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-211	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-212	QS	-0.1	-0.4	-0.1	0.6	
JC12JL-213	MnIF	-0.1	-0.4	-0.1	0.2	
JC12JL-215	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-216	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-217	MnIF	-0.1	-0.4	-0.1	0.1	
JC12JL-218	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-219	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-220	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-221	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-222	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-223	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-224	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-225	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-226	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-227	MnIF	-0.1	-0.4	-0.1	0.5	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-228	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-229	MnIF	-0.1	0.9	0.1	0.5	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-230	MnIF	-0.1	-0.4	-0.1	0.1	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-231	MnIF	-0.1	-0.4	-0.1	0.3	
JC12JL-232	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-233	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-234	LWQ	-0.1	-0.4	-0.1	-0.1	
JC12JL-235	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-236	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-237	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-238	LWQ	-0.1	0.8	-0.1	-0.1	
JC12JL-239	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-240	LWQ	-0.1	-0.4	-0.1	-0.1	
JC12JL-241	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-242	QS	-0.1	-0.4	-0.1	0.4	
JC12JL-243	QS	-0.1	0.6	-0.1	-0.1	
JC12JL-244	QS	-0.1	0.5	0.1	0.1	
JC12JL-245	QS	-0.1	-0.4	0.1	0.6	
JC12JL-246	QS	-0.1	0.5	-0.1	-0.1	
JC12JL-247	QS	-0.1	0.6	-0.1	0.1	
JC12JL-248	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-249	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-250	QS	-0.1	0.6	-0.1	-0.1	
JC12JL-251	QS	-0.1	1.0	-0.1	0.1	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-252	QS	-0.1	0.9	-0.1	0.1	
JC12JL-253	QS	-0.1	1.0	0.1	0.2	
JC12JL-254	QS	-0.1	1.0	0.1	0.1	
JC12JL-255	QS	-0.1	-0.4	0.3	0.4	
JC12JL-256	QS	-0.1	1.4	0.1	0.3	
JC12JL-257	QS	-0.1	1.7	-0.1	0.1	
JC12JL-258	QS	-0.1	0.9	-0.1	0.4	
JC12JL-259	QS	-0.1	0.4	0.4	0.9	
JC12JL-260	LIF	-0.1	-0.4	4.9	3.8	
JC12JL-261	LIF	-0.1	-0.4	4.3	5.1	
JC12JL-262	WQ	-0.1	-0.4	0.9	0.2	
JC12JL-263	QS	-0.1	-0.4	0.3	0.5	
JC12JL-264	QS	-0.1	0.4	0.1	1.0	
JC12JL-265	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-266	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-267	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-268	MnIF	-0.1	0.7	0.1	0.7	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-269	QS	-0.1	-0.4	0.2	1.1	
JC12JL-270	MnIF	-0.1	0.5	-0.1	0.3	
JC12JL-271	QS	-0.1	-0.4	-0.1	0.5	
JC12JL-272	MnIF	-0.1	-0.4	0.2	0.3	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-273	QS	-0.1	-0.4	0.3	0.2	
JC12JL-274	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-275	QS	-0.1	0.5	-0.1	0.7	
JC12JL-276	QS	-0.1	-0.4	0.2	0.5	
JC12JL-277	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-278	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-279	QS	-0.1	-0.4	0.1	0.1	
JC12JL-280	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-281	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-282	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-283	QS	-0.1	-0.4	0.2	0.1	
JC12JL-284	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-285	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-286	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-288	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-289	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-290	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-291	QS	-0.1	0.5	-0.1	0.4	
JC12JL-292	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-293	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-294	QS	-0.1	-0.4	0.1	0.1	
JC12JL-295	QS	-0.1	-0.4	0.4	0.2	
JC12JL-296	QS	-0.1	0.7	0.2	0.2	
JC12JL-297	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-298	QS	-0.1	0.5	-0.1	0.1	
JC12JL-300	QS	-0.1	-0.4	0.3	0.3	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-301	LIF	-0.1	-0.4	0.9	0.7	
JC12JL-303	LIF	-0.1	-0.4	0.9	1.3	
JC12JL-304	LIF	-0.1	-0.4	12.3	4.3	
JC12JL-305	WQ	-0.1	-0.4	27.8	1.0	
JC12JL-306	WQ	-0.1	-0.4	11.9	0.7	
JC12JL-307	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-308	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-309	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-310	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-311	QS	-0.1	-0.4	-0.1	0.3	
JC12JL-312	LWQ	-0.1	-0.4	-0.1	0.2	
JC12JL-313	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-314	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-315	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-316	LWQ	-0.1	-0.4	-0.1	0.5	
JC12JL-317	LWQ	-0.1	-0.4	-0.1	0.1	
JC12JL-318	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-319	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-320	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-321	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-322	QS	-0.1	-0.4	0.1	0.1	
JC12JL-323	MnIF	-0.1	-0.4	0.5	0.8	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-324	QS	-0.1	-0.4	0.2	0.9	
JC12JL-325	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-326	QS	-0.1	-0.4	0.2	0.3	
JC12JL-327	QS	-0.1	-0.4	0.3	0.2	
JC12JL-328	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-329	LIF	-0.1	-0.4	0.6	0.6	
JC12JL-330	LIF	-0.1	-0.4	2.1	0.9	
JC12JL-331	QS	-0.1	-0.4	0.2	0.1	
JC12JL-332	QS	-0.1	-0.4	0.1	0.1	
JC12JL-333	QS	-0.1	-0.4	0.1	0.1	
JC12JL-334	QS	-0.1	-0.4	0.1	0.1	
JC12JL-335	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-336	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-337	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-338	QS	-0.1	0.4	-0.1	0.1	
JC12JL-339	QS	-0.1	-0.4	0.3	0.2	
JC12JL-340	QS	-0.1	-0.4	0.3	0.8	
JC12JL-341	MnIF	-0.1	-0.4	0.3	0.5	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12JL-342	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-343	FLT	-0.1	-0.4	2.5	0.8	
JC12JL-344	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-345	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-346	QS	-0.1	-0.4	-0.1	-0.1	
JC12JL-347	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-348	QS	-0.1	-0.4	5.2	2.7	

APPENDIX D: Drillhole samples geochemical data

Sample_Num	Litho_code	Tl	Bi	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.4	0.1	0.1	
Unit		ppm	ppm	ppm	ppm	
JC12JL-349	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-350	QS	-0.1	-0.4	-0.1	0.2	
JC12JL-351	QS	-0.1	-0.4	-0.1	0.1	
JC12JL-352	QS	-0.1	-0.4	0.2	0.1	
JC12JL-353	QS	-0.1	-0.4	0.2	0.1	
JC12JL-354	QS	-0.1	-0.4	0.1	0.7	
JC12JL-355	LIF	-0.1	-0.4	0.6	3.0	
JC12JL-356	WQ	-0.1	-0.4	21.6	1.9	
JC12JL-357	WQ	-0.1	-0.4	16.2	1.3	

APPENDIX E: Outcrop samples geochemical data

Sample_Num	Litho_code	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2	MnO	P2O5
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.001	0.001
Unit		%	%	%	%	%	%	%	%	%	%
JC12-029	QS	60.67	0.26	38.21	0.04	0.02	0.02	0.01	0.014	0.060	0.009
JC12-030	QS	80.78	0.19	16.84	0.01	0.02	0.01	0.02	0.003	0.044	0.004
JC12-031	QS	20.61	0.11	76.77	-0.01	0.02	0.02	0.02	0.015	0.144	0.010
JC12-032	LWQ	76.53	0.20	21.43	0.02	0.02	0.02	0.03	0.003	0.102	0.022
JC12-033	QS	71.05	0.11	27.70	0.02	0.01	0.03	0.04	0.004	0.041	0.002
JC12-034	QS	70.14	0.27	28.05	0.02	0.02	0.02	0.01	0.002	0.030	0.017
JC12-038	QS	70.69	0.14	27.02	0.01	0.01	0.01	-0.01	0.007	0.088	0.018
JC12-040	QS	56.91	0.13	40.51	-0.01	0.01	-0.01	-0.01	0.002	0.125	0.030
JC12-042	QS	31.69	0.09	67.81	-0.01	0.02	0.03	0.04	0.006	0.070	0.005
JC12-043	QS	63.77	0.13	36.34	-0.01	0.01	0.02	0.03	0.007	0.042	0.004
JC12-044	MnIF	42.72	0.13	39.15	0.49	0.82	2.97	0.05	0.004	11.675	-0.001
JC12-045	QS	10.84	0.17	85.90	0.02	0.02	0.02	0.03	0.009	0.158	0.013
JC12-046	QS	66.50	0.25	31.23	0.03	0.01	0.02	0.06	0.007	0.053	0.016
JC12-050	QS	45.67	0.15	51.39	0.02	-0.01	0.01	0.01	0.002	0.069	0.028
JC12-051	QS	59.30	0.18	40.15	0.01	0.02	0.03	0.04	0.004	0.043	0.028
JC12-052	QS	9.76	0.15	87.75	-0.01	0.02	0.02	0.03	0.013	0.135	0.013
JC12-053	QS	67.42	0.13	31.87	-0.01	0.01	0.01	0.02	0.002	0.057	0.007
JC12-054	WQ	98.17	0.25	0.09	0.03	0.07	0.02	0.06	0.004	0.001	0.032
JC12-055	MnIF	15.67	0.18	52.26	0.02	0.06	0.03	0.49	0.012	25.290	0.042
JC12-056	QS	30.00	0.21	67.09	0.06	0.04	0.02	0.02	0.018	0.731	0.026
JC12-057	LWQ	88.02	0.15	11.81	0.01	0.02	0.02	0.14	0.003	0.087	0.011
JC12-058	QS	46.24	0.25	52.23	0.05	0.02	0.04	0.08	0.010	0.110	0.009
JC12-059	LWQ	93.74	0.16	4.35	-0.01	0.01	0.04	0.08	0.007	0.011	0.010
JC12-061	QS	22.87	0.19	76.39	0.01	0.03	0.05	0.07	0.002	0.077	0.016
JC12-062	MnIF	42.11	0.21	44.44	0.01	0.02	0.04	0.13	0.010	9.525	0.011
JC12-064	QS	41.59	0.16	55.76	0.02	0.02	0.06	0.09	0.008	1.345	0.002

APPENDIX E: Outcrop samples geochemical data

Sample_Num	Litho_code	Cr	Zr	Ba	LOI	Total	Fe	Be	Cu	Li	Mn	Ni	Pb	Rb	Sc
Method		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	Grav		Mol Calc	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
Detection Limit		1	1	1	0.01			0.1	1	0.1	1	1	1	1	0.1
Unit		ppm	ppm	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12-029	QS	-1	13	7	0.46	99.78	26.73	0.3	2	1.1	256	16	2	1	-0.1
JC12-030	QS	-1	7	7	0.31	98.22	11.78	0.3	6	1.2	316	11	2	-1	-0.1
JC12-031	QS	3	36	8	0.51	98.23	53.70	0.2	3	-0.1	653	11	2	-1	0.1
JC12-032	LWQ	3	7	9	0.70	99.07	14.99	1.2	2	4.4	588	13	2	-1	0.3
JC12-033	QS	2	11	3	0.20	99.21	19.38	0.3	1	2.8	196	7	-1	3	-0.1
JC12-034	QS	-1	8	5	0.44	99.03	19.62	0.3	2	0.4	120	10	1	-1	-0.1
JC12-038	QS	-1	16	11	0.29	98.29	18.90	0.7	1	0.7	290	9	1	1	0.2
JC12-040	QS	-1	10	9	0.32	98.07	28.34	0.5	2	-0.1	392	13	1	2	-0.1
JC12-042	QS	3	19	7	0.33	100.10	47.43	0.1	1	0.3	263	11	2	-1	-0.1
JC12-043	QS	4	11	5	0.29	100.66	25.42	0.2	2	-0.1	153	14	1	-1	-0.1
JC12-044	MnIF	7	18	1839	1.96	99.96	27.39	4.7	2	27.8	58848	26	11	-1	0.2
JC12-045	QS	-1	26	6	1.22	98.39	60.09	0.2	2	0.1	561	16	1	-1	-0.1
JC12-046	QS	2	11	9	1.25	99.43	21.85	0.2	4	0.5	296	11	2	-1	0.4
JC12-050	QS	8	15	13	1.13	98.49	35.95	0.3	3	-0.1	270	13	2	-1	0.1
JC12-051	QS	-1	11	8	1.04	100.84	28.08	0.3	2	-0.1	186	16	2	-1	-0.1
JC12-052	QS	-1	27	5	0.78	98.68	61.38	0.2	2	-0.1	481	18	2	-1	-0.1
JC12-053	QS	3	11	4	0.64	100.18	22.29	0.2	2	0.3	315	10	1	1	-0.1
JC12-054	WQ	-1	12	9	0.36	99.08	0.06	-0.1	-1	0.6	-1	-1	-1	1	0.2
JC12-055	MnIF	5	22	761	5.74	99.78	36.55	2.6	4	2.1	75001	30	22	7	0.3
JC12-056	QS	1	29	21	0.73	98.94	46.93	1.1	3	6.5	3497	28	-1	1	0.1
JC12-057	LWQ	-1	4	6	0.39	100.67	8.26	0.2	-1	0.1	698	6	-1	-1	0.1
JC12-058	QS	5	19	97	0.43	99.47	36.54	1.3	2	2.0	548	23	-1	3	1.4
JC12-059	LWQ	-1	5	9	0.38	98.81	3.04	0.2	-1	-0.1	75	-1	-1	-1	-0.1
JC12-061	QS	3	30	14	0.48	100.19	53.43	0.4	2	0.5	253	23	-1	2	-0.1
JC12-062	MnIF	2	28	913	1.78	98.31	31.09	0.9	1	0.5	48795	11	9	2	0.2
JC12-064	QS	3	18	49	0.47	99.53	39.01	0.2	13	-0.1	9661	6	1	-1	-0.1

APPENDIX E: Outcrop samples geochemical data

Sample_Num	Litho_code	Ti		Zn		V		Co		Ga		Ge		As		Sr		Y		Nb		Mo	
		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Method		1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Detection Limit																							
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
JC12-029	QS	32	18	14	4	1	14	-5	3	3	8	-2											
JC12-030	QS	16	8	14	1	1	7	-5	3	1	1	-2											
JC12-031	QS	18	10	50	9	3	18	-5	5	4	7	2											
JC12-032	LWQ	9	12	12	10	1	5	-5	2	9	1	-2											
JC12-033	QS	9	6	14	7	1	7	-5	-2	3	2	-2											
JC12-034	QS	14	7	-5	3	1	12	-5	2	-1	3	-2											
JC12-038	QS	25	7	19	5	2	8	-5	26	3	3	-2											
JC12-040	QS	6	10	9	11	1	8	-5	13	1	-1	-2											
JC12-042	QS	10	7	29	1	1	17	-5	2	5	3	2											
JC12-043	QS	14	10	6	2	-1	15	-5	-2	-1	2	-2											
JC12-044	MnIF	5	47	14	34	4	17	13	37	7	3	-2											
JC12-045	QS	29	10	19	8	2	34	5	3	3	4	4											
JC12-046	QS	36	10	11	2	1	15	-5	-2	-1	1	-2											
JC12-050	QS	16	9	-5	6	1	19	7	2	2	1	-2											
JC12-051	QS	24	11	6	3	1	14	-5	2	2	1	-2											
JC12-052	QS	22	11	14	1	2	21	-5	2	15	2	8											
JC12-053	QS	5	6	-5	2	1	19	5	-2	1	1	-2											
JC12-054	WQ	76	-1	6	1	-1	1	-5	2	1	8	-2											
JC12-055	MnIF	19	49	34	43	6	14	9	291	34	3	-2											
JC12-056	QS	36	24	33	19	3	15	7	8	15	5	-2											
JC12-057	LWQ	8	5	7	2	1	3	-5	2	1	2	-2											
JC12-058	QS	19	18	28	5	1	14	-5	6	2	2	-2											
JC12-059	LWQ	41	2	22	1	1	3	-5	3	2	2	-2											
JC12-061	QS	-1	25	14	12	1	27	-5	4	24	7	2											
JC12-062	MnIF	13	15	17	20	3	12	23	24	7	6	2											
JC12-064	QS	18	5	14	2	1	20	-5	4	2	2	-2											

APPENDIX E: Outcrop samples geochemical data

Sample_Num	Litho_code	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05	0.1	0.1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12-029	QS	-0.2	-1	-0.5	1.1	2.7	0.26	1.1	0.2	0.09	0.3	-0.1
JC12-030	QS	-0.2	1	-0.5	4.9	8.5	0.81	2.7	0.4	0.10	0.4	-0.1
JC12-031	QS	-0.2	1	-0.5	10.2	28.8	2.34	9.9	1.6	0.45	1.5	0.2
JC12-032	LWQ	-0.2	-1	-0.5	2.0	5.9	0.44	1.8	0.5	0.18	0.9	0.2
JC12-033	QS	-0.2	-1	-0.5	0.9	2.2	0.17	0.5	0.1	0.05	0.3	-0.1
JC12-034	QS	-0.2	-1	-0.5	0.7	1.5	0.17	0.7	-0.1	-0.05	0.2	-0.1
JC12-038	QS	-0.2	-1	-0.5	9.9	13.2	1.14	3.7	0.6	0.13	0.5	-0.1
JC12-040	QS	-0.2	-1	-0.5	17.0	15.4	1.66	5.6	0.5	0.09	0.5	-0.1
JC12-042	QS	-0.2	-1	-0.5	2.2	2.5	0.30	1.4	0.3	0.17	0.6	0.1
JC12-043	QS	-0.2	-1	-0.5	0.6	0.8	0.09	0.3	-0.1	-0.05	-0.1	-0.1
JC12-044	MnIF	-0.2	-1	-0.5	22.6	32.2	3.60	14.9	2.1	0.77	2.0	0.2
JC12-045	QS	-0.2	-1	-0.5	11.6	23.5	1.50	5.2	0.7	0.15	0.8	-0.1
JC12-046	QS	-0.2	1	-0.5	0.8	7.1	0.20	0.7	0.2	-0.05	-0.1	-0.1
JC12-050	QS	-0.2	-1	-0.5	1.7	2.7	0.34	1.1	0.3	0.08	0.4	-0.1
JC12-051	QS	-0.2	-1	-0.5	0.7	2.3	0.18	0.9	0.2	0.06	0.2	-0.1
JC12-052	QS	-0.2	-1	-0.5	8.3	13.6	1.23	4.5	1.0	0.39	1.6	0.3
JC12-053	QS	-0.2	-1	-0.5	1.6	2.2	0.26	1.0	0.2	-0.05	0.1	-0.1
JC12-054	WQ	-0.2	1	-0.5	4.7	8.4	0.82	2.8	0.5	0.06	0.4	-0.1
JC12-055	MnIF	-0.2	-1	-0.5	40.0	65.6	7.54	31.4	5.5	1.77	6.0	0.8
JC12-056	QS	-0.2	-1	-0.5	23.5	35.9	3.56	14.4	2.5	0.84	2.8	0.4
JC12-057	LWQ	-0.2	2	-0.5	4.4	19.3	0.79	3.3	0.6	0.11	0.4	-0.1
JC12-058	QS	-0.2	-1	-0.5	1.6	4.1	0.40	1.5	0.3	0.10	0.3	-0.1
JC12-059	LWQ	-0.2	3	-0.5	12.2	18.6	1.33	4.6	0.8	0.12	0.6	-0.1
JC12-061	QS	-0.2	1	-0.5	10.1	7.4	1.30	4.2	0.8	0.26	1.4	0.3
JC12-062	MnIF	-0.2	-1	-0.5	18.2	37.0	4.15	16.6	3.2	1.00	3.0	0.4
JC12-064	QS	-0.2	5	-0.5	3.4	12.6	0.68	3.1	0.5	0.15	0.4	-0.1

APPENDIX E: Outcrop samples geochemical data

Sample_Num	Litho_code	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Tl	Bi
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.05	0.1	0.05	0.2	0.5	1	0.1	0.4
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12-029	QS	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	1	-0.1	-0.4
JC12-030	QS	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1	-0.1	-0.4
JC12-031	QS	0.8	0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	10	-0.1	-0.4
JC12-032	LWQ	1.1	0.3	0.8	0.12	0.7	0.08	-0.2	-0.5	2	-0.1	-0.4
JC12-033	QS	0.4	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	5	-0.1	-0.4
JC12-034	QS	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1	-0.1	-0.4
JC12-038	QS	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	-1	-0.1	-0.4
JC12-040	QS	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1	-0.1	-0.4
JC12-042	QS	0.8	0.2	0.5	0.07	0.4	-0.05	-0.2	-0.5	7	-0.1	-0.4
JC12-043	QS	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1	-0.1	-0.4
JC12-044	MnIF	1.3	0.3	0.9	0.14	1.0	0.13	-0.2	-0.5	4	-0.1	-0.4
JC12-045	QS	0.5	-0.1	0.3	-0.05	0.3	-0.05	-0.2	-0.5	4	-0.1	1.3
JC12-046	QS	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	-1	-0.1	-0.4
JC12-050	QS	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	2	-0.1	-0.4
JC12-051	QS	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2	-0.5	3	-0.1	-0.4
JC12-052	QS	1.8	0.4	1.4	0.18	1.2	0.15	-0.2	-0.5	3	-0.1	-0.4
JC12-053	QS	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2	-0.5	1	-0.1	-0.4
JC12-054	WQ	0.2	-0.1	0.1	-0.05	-0.1	-0.05	2.3	-0.5	-1	-0.1	-0.4
JC12-055	MnIF	4.8	1.1	3.1	0.41	2.5	0.31	-0.2	0.7	-1	-0.1	-0.4
JC12-056	QS	2.4	0.5	1.5	0.19	1.2	0.14	-0.2	-0.5	-1	-0.1	-0.4
JC12-057	LWQ	0.3	-0.1	0.1	-0.05	0.1	-0.05	-0.2	-0.5	2	-0.1	-0.4
JC12-058	QS	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	9	-0.1	-0.4
JC12-059	LWQ	0.4	-0.1	0.3	-0.05	0.2	-0.05	-0.2	-0.5	15	-0.1	-0.4
JC12-061	QS	2.7	0.7	2.2	0.32	1.8	0.22	0.5	-0.5	2	-0.1	-0.4
JC12-062	MnIF	2.1	0.4	1.0	0.12	0.6	0.07	-0.2	-0.5	4	-0.1	-0.4
JC12-064	QS	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2	-0.5	3	-0.1	-0.4

APPENDIX E: Outcrop samples geochemical data

Sample_Num	Litho_code	Th	U	Comments
Method		ICP-MS-FUS	ICP-MS-FUS	
Detection Limit		0.1	0.1	
Unit		ppm	ppm	
JC12-029	QS	-0.1	0.2	
JC12-030	QS	0.1	0.1	
JC12-031	QS	0.2	0.1	
JC12-032	LWQ	-0.1	0.2	
JC12-033	QS	-0.1	0.1	
JC12-034	QS	-0.1	0.1	
JC12-038	QS	-0.1	0.1	
JC12-040	QS	-0.1	0.1	
JC12-042	QS	0.1	0.2	
JC12-043	QS	-0.1	-0.1	
JC12-044	MnIF	-0.1	0.1	
JC12-045	QS	0.2	0.2	
JC12-046	QS	0.2	0.2	
JC12-050	QS	0.1	0.2	
JC12-051	QS	0.1	0.2	
JC12-052	QS	0.1	0.5	
JC12-053	QS	-0.1	0.1	
JC12-054	WQ	0.8	0.2	
JC12-055	MnIF	-0.1	0.6	Mn trace element value (ICP-OES) greater than upper detection limit (75000 ppm)
JC12-056	QS	-0.1	0.3	
JC12-057	LWQ	-0.1	0.1	
JC12-058	QS	0.1	0.4	
JC12-059	LWQ	0.1	0.1	
JC12-061	QS	0.3	0.5	
JC12-062	MnIF	0.1	0.3	
JC12-064	QS	0.2	0.1	

APPENDIX F: Major element ICP-OES-FUS standards and duplicate data

Sample_Num	Lab_Num Method Detection Limit Unit	SiO2 ICP-OES-FUS 0.01 %	Al2O3 ICP-OES-FUS 0.01 %	Fe2O3 Total % ICP-OES-FUS 0.01 %	MgO ICP-OES-FUS 0.01 %	CaO ICP-OES-FUS 0.01 %	Na2O ICP-OES-FUS 0.01 %	K2O ICP-OES-FUS 0.01 %	TiO2 ICP-OES-FUS 0.001 %
SCH-1	10440220	8.18	0.98	87.60	0.04	0.04	0.04	0.04	0.045
AGV-1	10440240	59.25	17.21	6.66	1.53	4.91	4.30	2.84	1.078
SCH-1	10440260	8.09	0.96	86.85	0.04	0.04	0.04	0.05	0.044
SDC-1	10440280	65.74	15.72	6.92	1.69	1.43	2.07	3.10	0.990
SCH-1	10440300	7.95	0.96	86.93	0.04	0.04	0.04	0.05	0.043
STM-1	10440320	59.00	18.22	5.24	0.10	1.15	8.87	4.17	0.131
SCH-1	10440340	8.01	0.97	86.96	0.04	0.04	0.05	0.06	0.049
DR-N	10440360	53.56	18.09	9.55	4.41	7.18	3.11	1.74	1.081
SCH-1	10440380	7.98	0.95	84.53	0.04	0.04	0.03	0.02	0.044
MAG-1	10440400	50.97	16.34	6.87	3.06	1.41	3.98	3.43	0.715
SCH-1	10440420	8.01	0.95	86.34	0.04	0.04	0.03	0.03	0.050
BIR-1	10440440	47.49	15.50	11.08	9.47	12.89	1.80	0.05	0.944
SCH-1	10440460	8.10	0.98	87.15	0.04	0.04	0.04	0.04	0.046
SCH-1	10440480	8.04	0.97	87.40	0.04	0.05	0.04	0.04	0.045
W-2	10440500	51.98	15.35	11.11	6.43	10.82	2.27	0.63	1.074
SCH-1	10440520	8.12	0.99	87.88	0.04	0.05	0.06	0.06	0.046
RGM-1	10440540	72.01	13.38	1.87	0.27	1.19	4.04	4.10	0.250
SCH-1	10440560	8.15	1.00	88.43	0.04	0.05	0.05	0.05	0.047
G-2	10440580	67.75	15.16	2.80	0.74	1.90	4.03	3.92	0.481
SCH-1	10440600	8.20	0.99	88.93	0.03	0.05	0.05	0.06	0.044
BHVO-1	10440620	49.20	13.56	11.86	7.08	11.14	2.22	0.50	2.723
SCH-1	10440640	8.32	0.99	88.47	0.04	0.04	0.03	0.03	0.045
QLO-1	10440660	65.15	16.22	4.93	1.02	3.23	4.22	3.32	0.614
SCH-1	10440680	8.11	0.98	87.38	0.03	0.05	0.05	0.04	0.046
AGV-1	10440700	58.20	17.06	7.10	1.51	4.90	4.36	2.93	1.065
JC12-043	10440225	63.77	0.13	36.34	-0.01	0.01	0.02	0.03	0.007
JC12-043 (dup)	10440230	63.25	0.13	36.52	-0.01	-0.01	0.02	0.04	0.004
JC12JL-014	10440248	35.37	0.35	59.04	0.01	0.02	0.01	0.02	0.005
JC12JL-014 (dup)	10440250	35.23	0.33	59.21	0.01	0.02	0.02	0.01	0.005
JC12JL-029	10440265	30.47	0.16	67.49	-0.01	0.01	0.01	0.02	0.011
JC12JL-029 (dup)	10440270	32.81	0.19	66.33	-0.01	0.01	0.02	0.03	0.011
JC12JL-052	10440288	62.79	0.14	32.76	0.02	0.01	0.02	0.06	0.002
JC12JL-052 (dup)	10440290	63.01	0.12	33.71	0.01	0.02	0.03	0.05	0.003
JC12JL-071	10440306	36.43	0.15	62.02	0.02	-0.01	0.01	0.01	0.006
JC12JL-071 (dup)	10440310	37.03	0.15	62.58	0.02	-0.01	0.02	0.02	0.006
JC12JL-089	10440323	49.73	0.09	49.97	0.02	0.02	0.01	0.02	-0.001
JC12JL-089 (dup)	10440330	48.16	0.10	50.21	0.02	0.02	0.01	0.01	-0.001
JC12JL-110	10440344	32.29	0.29	67.17	0.02	-0.01	-0.01	-0.01	0.007
JC12JL-110 (dup)	10440350	29.81	0.30	69.64	0.02	-0.01	-0.01	-0.01	0.007
JC12JL-123	10440358	68.13	0.18	31.62	0.02	0.02	0.03	0.06	0.002
JC12JL-123 (dup)	10440370	69.21	0.17	30.59	0.01	-0.01	0.01	0.02	0.001
JC12JL-147	10440383	84.10	0.09	15.32	-0.01	-0.01	0.02	0.03	0.002
JC12JL-147 (dup)	10440390	82.83	0.11	14.83	-0.01	-0.01	0.02	0.04	0.002

APPENDIX F: Major element ICP-OES-FUS standards and duplicate data

Sample_Num	Lab_Num Method	SiO2	Al2O3	Fe2O3 Total %	MgO	CaO	Na2O	K2O	TiO2
		ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS
	Detection Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001
	Unit	%	%	%	%	%	%	%	%
JC12JL-169	10440406	35.96	0.17	62.88	-0.01	0.01	0.03	0.05	0.008
JC12JL-169 (dup)	10440410	34.60	0.17	63.54	-0.01	0.02	0.03	0.05	0.007
JC12JL-179	10440417	24.94	0.16	73.35	0.01	-0.01	-0.01	0.01	0.005
JC12JL-179 (dup)	10440430	25.26	0.17	72.82	0.01	-0.01	0.06	0.07	0.006
JC12JL-209	10440449	62.95	0.19	37.36	0.02	0.01	0.03	0.04	0.020
JC12JL-209 (dup)	10440450	61.08	0.17	37.89	0.02	0.01	0.04	0.05	0.016
JC12JL-224	10440465	57.28	0.10	40.82	-0.01	-0.01	0.03	0.04	0.003
JC12JL-224 (dup)	10440470	58.24	0.10	40.28	-0.01	-0.01	0.03	0.04	0.003
JC12JL-240	10440483	90.90	0.18	7.42	-0.01	-0.01	0.06	0.07	0.002
JC12JL-240 (dup)	10440490	92.09	0.09	7.37	-0.01	-0.01	0.04	0.06	0.002
JC12JL-264	10440509	20.75	0.18	76.25	0.05	0.02	0.04	0.03	0.008
JC12JL-264 (dup)	10440510	21.11	0.18	75.45	0.05	0.02	0.04	0.03	0.008
JC12JL-278	10440525	22.40	0.20	74.90	0.01	0.02	0.03	0.03	0.010
JC12JL-278 (dup)	10440530	24.12	0.24	73.07	0.02	0.02	0.03	0.03	0.010
JC12JL-297	10440545	60.76	0.14	39.39	-0.01	0.01	0.02	0.04	-0.001
JC12JL-297 (dup)	10440550	60.75	0.14	39.37	-0.01	0.01	0.02	0.04	-0.001
JC12JL-319	10440567	34.37	0.11	65.28	0.01	0.02	0.03	0.04	0.003
JC12JL-319 (dup)	10440570	35.10	0.13	62.18	0.01	0.02	0.06	0.06	0.003
JC12JL-336	10440586	51.56	0.22	45.10	-0.01	0.01	0.05	0.07	0.002
JC12JL-336 (dup)	10440590	51.29	0.19	46.14	-0.01	0.01	0.01	0.01	0.002
JC12JL-357	10440609	74.31	13.61	2.38	0.44	0.05	0.07	2.12	0.179
JC12JL-357 (dup)	10440610	74.20	14.01	2.49	0.47	0.06	0.08	2.11	0.177

APPENDIX F: Major element ICP-OES-FUS standards and duplicate data

Sample_Num	Lab_Num Method Detection Limit Unit	MnO ICP-OES-FUS 0.001 %	P2O5 ICP-OES-FUS 0.001 %	Cr ICP-OES-FUS 1 ppm	Zr ICP-OES-FUS 1 ppm	Ba ICP-OES-FUS 1 ppm	LOI Grav 0.01 %	Total %	Fe Mol Calc %
SCH-1	10440220	1.027	0.121	17	39	106		98.11	61.27
AGV-1	10440240	0.101	0.500	7	216	1232		98.38	4.66
SCH-1	10440260	0.986	0.121	11	39	102		97.22	60.75
SDC-1	10440280	0.120	0.148	57	312	648		97.93	4.84
SCH-1	10440300	1.041	0.121	12	41	101		97.22	60.81
STM-1	10440320	0.223	0.155	2	1223	583		97.26	3.66
SCH-1	10440340	0.979	0.121	13	41	103		97.28	60.83
DR-N	10440360	0.229	0.233	30	137	399		99.18	6.68
SCH-1	10440380	1.012	0.116	10	41	107		94.76	59.13
MAG-1	10440400	0.104	0.163	94	123	502		87.04	4.81
SCH-1	10440420	1.057	0.121	9	47	107		96.67	60.39
BIR-1	10440440	0.176	0.017	362	14	6		99.42	7.75
SCH-1	10440460	1.041	0.121	10	44	107		97.60	60.96
SCH-1	10440480	1.046	0.122	9	60	103		97.79	61.13
W-2	10440500	0.172	0.119	84	90	174	GOI	99.96	7.77
SCH-1	10440520	1.064	0.123	9	43	109		98.43	61.47
RGM-1	10440540	0.036	0.040	4	206	818		97.19	1.31
SCH-1	10440560	1.047	0.123	9	42	109		98.99	61.85
G-2	10440580	0.034	0.129	6	309	1913		96.94	1.96
SCH-1	10440600	1.044	0.123	10	40	107		99.52	62.21
BHVO-1	10440620	0.174	0.268	257	157	130		98.73	8.30
SCH-1	10440640	1.053	0.125	9	40	108		99.14	61.88
QLO-1	10440660	0.098	0.257	4	174	1451		99.06	3.45
SCH-1	10440680	1.044	0.122	9	41	106		97.85	61.13
AGV-1	10440700	0.102	0.496	9	213	1253		97.72	4.97
JC12-043	10440225	0.042	0.004	4	11	5	0.29	100.66	25.42
JC12-043 (dup)	10440230	0.043	0.004	-1	11	6	0.46	100.48	25.55
JC12JL-014	10440248	0.116	0.694	-1	15	22	5.09	100.73	41.30
JC12JL-014 (dup)	10440250	0.115	0.649	18	14	21	5.14	100.74	41.42
JC12JL-029	10440265	0.249	0.012	-1	27	10	0.50	98.94	47.21
JC12JL-029 (dup)	10440270	0.235	0.013	-1	29	10	0.32	99.97	46.40
JC12JL-052	10440288	2.394	0.001	-1	10	217	0.73	98.92	22.92
JC12JL-052 (dup)	10440290	1.994	0.001	-1	11	224	0.75	99.70	23.58
JC12JL-071	10440306	0.176	0.007	-1	14	5	0.46	99.29	43.39
JC12JL-071 (dup)	10440310	0.178	0.006	-1	16	9	0.36	100.37	43.78
JC12JL-089	10440323	0.145	0.006	-1	10	2	0.27	100.27	34.95
JC12JL-089 (dup)	10440330	0.152	0.005	-1	9	2	0.28	98.97	35.12
JC12JL-110	10440344	0.081	0.002	-1	21	4	0.23	100.10	46.99
JC12JL-110 (dup)	10440350	0.084	0.002	-1	21	4	0.20	100.08	48.72
JC12JL-123	10440358	0.041	0.017	2	12	7	0.38	100.51	22.12
JC12JL-123 (dup)	10440370	0.043	0.015	-1	5	6	0.40	100.49	21.40
JC12JL-147	10440383	0.057	0.004	-1	3	22	0.17	99.82	10.72
JC12JL-147 (dup)	10440390	0.052	0.004	-1	3	24	0.13	98.03	10.37

APPENDIX F: Major element ICP-OES-FUS standards and duplicate data

Sample_Num	Lab_Num	MnO	P2O5	Cr	Zr	Ba	LOI	Total	Fe
	Method	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	ICP-OES-FUS	Grav		Mol Calc
	Detection Limit	0.001	0.001	1	1	1	0.01		
	Unit	%	%	ppm	ppm	ppm	%	%	%
JC12JL-169	10440406	0.059	0.006	-1	11	8	0.36	99.54	43.99
JC12JL-169 (dup)	10440410	0.061	0.006	2	11	9	0.38	98.86	44.45
JC12JL-179	10440417	0.134	0.004	-1	32	3	0.20	98.83	51.31
JC12JL-179 (dup)	10440430	0.134	0.003	-1	29	3	0.21	98.75	50.94
JC12JL-209	10440449	0.063	0.003	4	16	7	0.26	100.95	26.14
JC12JL-209 (dup)	10440450	0.072	0.003	3	13	6	0.28	99.62	26.50
JC12JL-224	10440465	0.029	-0.001	4	8	4	0.14	98.45	28.55
JC12JL-224 (dup)	10440470	0.031	0.002	1	8	4	0.11	98.84	28.17
JC12JL-240	10440483	0.034	0.005	1	3	5	0.37	99.04	5.19
JC12JL-240 (dup)	10440490	0.028	0.005	-1	3	4	0.36	100.05	5.15
JC12JL-264	10440509	0.153	0.071	5	-1	8	3.03	100.57	53.34
JC12JL-264 (dup)	10440510	0.161	0.077	4	-1	8	3.03	100.15	52.78
JC12JL-278	10440525	0.280	0.013	4	14	13	0.90	98.79	52.39
JC12JL-278 (dup)	10440530	0.281	0.015	4	13	14	0.87	98.70	51.12
JC12JL-297	10440545	0.037	0.003	-1	10	6	0.26	100.68	27.56
JC12JL-297 (dup)	10440550	0.040	0.004	2	8	6	0.26	100.65	27.54
JC12JL-319	10440567	0.196	0.012	3	25	22	0.33	100.41	45.66
JC12JL-319 (dup)	10440570	0.179	0.012	3	23	21	0.34	98.11	43.50
JC12JL-336	10440586	0.044	0.064	2	14	3	1.38	98.51	31.55
JC12JL-336 (dup)	10440590	0.049	0.073	2	13	3	1.44	99.22	32.27
JC12JL-357	10440609	0.011	0.066	27	329	622	4.90	98.13	1.66
JC12JL-357 (dup)	10440610	0.013	0.068	27	332	621	5.20	98.88	1.74

APPENDIX G: Trace element ICP-ES standards and duplicate data

Sample_Num	Lab_Num	Be	Cu	Li	Mn	Ni	Pb	Rb	Sc	Ti	Zn
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
Detection Limit		0.1	1	0.1	1	1	1	1	0.1	1	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SY-4	10440400	2.6	6	36.5	765	10	2	46	1.0	1630	90
SY-4	10440660	2.7	5	36.3	763	9	5	49	1.0	1728	92
SY-4	10440540	2.7	6	38.1	743	10	3	50	0.9	1708	94
WGB-1	10440220	0.3	83	41.1	927	59	2	20	43.2	5185	35
WGB-1	10440260	0.4	83	43.2	916	60	3	24	42.9	5119	34
WGB-1	10440300	0.4	83	42.8	946	62	2	23	42.5	5212	36
WGB-1	10440340	0.4	87	46.9	979	64	2	24	45.7	5511	36
WGB-1	10440380	0.4	87	41.5	909	59	-1	18	41.6	4740	34
WGB-1	10440420	0.4	86	42.0	932	61	-1	19	41.0	5055	35
WGB-1	10440460	0.4	87	44.2	948	62	-1	20	41.9	5223	37
SY-4	10440480	2.6	6	36.5	777	10	3	46	1.0	1700	93
WGB-1	10440520	0.4	93	46.9	938	62	7	24	45.2	5376	37
WGB-1	10440560	0.4	88	45.7	902	61	3	19	43.9	5015	36
WGB-1	10440600	0.4	89	46.3	921	61	3	21	44.9	4998	36
WGB-1	10440640	0.4	92	44.5	944	61	6	18	43.9	5151	36
WGB-1	10440680	0.5	92	43.3	923	60	7	21	43.3	5119	35
SY-4	10440280	2.6	5	36.8	757	9	4	49	1.0	1695	92
SY-4	10440320	2.7	5	37.6	787	10	4	52	1.0	1793	96
SY-4	10440500	2.6	6	38.1	752	10	4	50	1.0	1752	95
SY-4	10440240	2.6	5	35.9	746	9	4	49	0.9	1702	90
SY-4	10440700	2.8	6	38.0	768	9	4	47	1.0	1763	86
SY-4	10440620	2.7	5	36.6	768	9	3	45	1.0	1720	92
SY-4	10440440	2.6	7	35.8	769	10	2	45	1.0	1681	92
SY-4	10440360	2.5	6	35.3	759	9	2	46	1.0	1630	90
SY-4	10440580	3.0	6	42.1	805	11	3	54	1.0	1857	100
JC12-043	10440225	0.2	2	-0.1	153	14	1	-1	-0.1	14	10
JC12-043 (dup)	10440230	0.2	2	-0.1	152	14	1	3	-0.1	14	10
JC12JL-014	10440248	6.5	6	0.2	648	63	5	-1	3.3	12	58
JC12JL-014 (dup)	10440250	6.5	6	0.2	655	63	6	4	3.4	12	59
JC12JL-029	10440265	0.6	2	0.4	733	18	2	-1	0.1	22	14
JC12JL-029 (dup)	10440270	0.8	4	0.3	322	13	2	-1	0.7	18	21
JC12JL-052	10440288	0.6	3	0.1	24985	5	8	2	0.1	11	13
JC12JL-052 (dup)	10440290	0.5	3	-0.1	19573	4	5	-1	0.1	11	5
JC12JL-071	10440306	0.5	3	0.3	445	18	2	3	-0.1	23	11
JC12JL-071 (dup)	10440310	0.5	2	0.4	479	19	2	1	-0.1	23	12
JC12JL-089	10440323	0.2	2	0.6	593	11	-1	2	-0.1	4	8
JC12JL-089 (dup)	10440330	0.3	2	0.6	600	12	1	2	-0.1	4	9
JC12JL-110	10440344	0.3	2	0.5	222	12	-1	-1	0.3	6	9
JC12JL-110 (dup)	10440350	0.3	3	0.5	235	13	-1	2	0.3	6	10
JC12JL-123	10440358	0.5	4	0.8	266	18	-1	-1	0.5	9	13
JC12JL-123 (dup)	10440370	0.5	4	0.7	262	17	-1	-1	0.5	7	13
JC12JL-147	10440383	0.3	-1	-0.1	359	5	-1	-1	0.1	9	8
JC12JL-147 (dup)	10440390	0.3	-1	-0.1	287	5	-1	-1	0.1	8	6

APPENDIX G: Trace element ICP-ES standards and duplicate data

Sample_Num	Lab_Num	Be	Cu	Li	Mn	Ni	Pb	Rb	Sc	Ti	Zn
Method		ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES	ICP-OES
Detection Limit		0.1	1	0.1	1	1	1	1	0.1	1	1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-169	10440406	0.6	6	-0.1	236	24	-1	-1	0.7	25	20
JC12JL-169 (dup)	10440410	0.6	6	-0.1	247	25	-1	-1	0.7	27	21
JC12JL-179	10440417	0.2	2	-0.1	426	18	-1	1	0.5	9	17
JC12JL-179 (dup)	10440430	0.2	2	0.1	414	18	-1	-1	0.4	9	15
JC12JL-209	10440449	0.2	2	0.4	265	8	-1	-1	0.2	21	6
JC12JL-209 (dup)	10440450	0.2	4	0.6	316	8	-1	-1	0.3	28	7
JC12JL-224	10440465	-0.1	-1	-0.1	76	5	-1	-1	0.1	4	5
JC12JL-224 (dup)	10440470	-0.1	-1	-0.1	84	5	-1	-1	-0.1	4	4
JC12JL-240	10440483	0.2	1	-0.1	288	5	-1	-1	0.1	52	7
JC12JL-240 (dup)	10440490	0.2	1	-0.1	233	5	-1	-1	0.1	49	6
JC12JL-264	10440509	1.6	7	6.7	684	29	-1	3	0.6	38	28
JC12JL-264 (dup)	10440510	1.5	5	6.4	687	29	-1	-1	0.6	37	27
JC12JL-278	10440525	1.1	4	0.5	1286	21	1	-1	0.2	44	16
JC12JL-278 (dup)	10440530	1.3	6	0.7	1734	26	-1	2	0.3	44	21
JC12JL-297	10440545	0.1	3	0.3	71	4	-1	-1	-0.1	45	4
JC12JL-297 (dup)	10440550	0.2	4	0.3	113	10	-1	2	-0.1	41	8
JC12JL-319	10440567	0.3	2	2.4	404	9	-1	3	-0.1	44	8
JC12JL-319 (dup)	10440570	0.3	2	2.7	442	12	-1	1	-0.1	42	9
JC12JL-336	10440586	0.2	2	-0.1	131	15	-1	-1	-0.1	42	11
JC12JL-336 (dup)	10440590	0.2	2	-0.1	139	16	-1	-1	-0.1	41	12
JC12JL-357	10440609	1.9	16	13.1	90	11	2	42	2.7	277	10
JC12JL-357 (dup)	10440610	1.9	16	13.4	95	18	2	42	2.7	281	13

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	V	Co	Ga	Ge	As	Sr	Y	Nb	Mo
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		5	1	1	1	5	2	1	1	2
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MAG-1	10440400	152	24	26	5	6	151	28	16	-2
QLO-1	10440660	54	7	18	3	-5	334	22	11	4
RGM-1	10440540	11	2	18	2	-5	102	21	9	3
SCH-1	10440220	44	20	4	24	52	28	15	6	4
SCH-1	10440260	40	18	3	27	56	27	14	6	4
SCH-1	10440280	43	20	3	30	56	28	13	5	3
SCH-1	10440300	42	17	3	22	50	26	13	6	4
SCH-1	10440340	43	17	3	19	51	25	13	6	3
SCH-1	10440380	40	19	3	26	62	27	13	5	3
SCH-1	10440420	38	24	4	30	68	27	14	6	3
SCH-1	10440460	40	17	3	23	44	25	13	5	3
SCH-1	10440480	39	17	3	24	43	25	13	6	3
SCH-1	10440520	38	17	3	22	38	25	12	6	4
SCH-1	10440560	40	17	3	24	42	25	13	5	3
SCH-1	10440600	43	19	3	24	36	25	13	6	4
SCH-1	10440640	37	19	3	23	37	27	13	7	3
SCH-1	10440680	42	18	3	21	39	24	13	6	3
STM-1	10440320	-5	1	43	6	5	735	44	268	6
W-2	10440500	269	43	17	4	-5	195	20	9	-2
AGV-1	10440240	117	15	21	3	-5	637	17	13	2
AGV-1	10440700	129	16	22	4	5	665	17	16	4
BHVO-1	10440620	326	46	22	5	-5	402	24	18	-2
BIR-1	10440440	405	66	19	2	-5	136	18	2	-2
DR-N	10440360	232	41	23	3	-5	415	25	8	2
G-2	10440580	36	5	27	4	-5	480	9	13	-2
JC12-043	10440225	6	2	-1	15	-5	-2	-1	2	-2
JC12-043 (dup)	10440230	6	2	-1	13	-5	-2	-1	2	-2
JC12JL-014	10440248	28	25	1	14	22	-2	6	1	3
JC12JL-014 (dup)	10440250	29	30	1	11	28	-2	7	1	3
JC12JL-029	10440265	40	15	1	14	-5	3	5	4	-2
JC12JL-029 (dup)	10440270	38	13	2	16	-5	4	6	7	3
JC12JL-052	10440288	8	3	1	9	-5	12	3	1	-2
JC12JL-052 (dup)	10440290	9	6	1	10	-5	19	4	3	-2
JC12JL-071	10440306	14	17	2	16	-5	-2	5	2	-2
JC12JL-071 (dup)	10440310	13	15	2	13	-5	-2	6	3	-2
JC12JL-089	10440323	7	9	1	15	-5	2	5	2	4
JC12JL-089 (dup)	10440330	7	9	1	14	-5	2	5	2	4
JC12JL-110	10440344	27	5	1	42	-5	-2	2	6	-2
JC12JL-110 (dup)	10440350	26	6	1	41	-5	-2	2	7	-2
JC12JL-123	10440358	7	1	1	9	5	-2	1	8	2
JC12JL-123 (dup)	10440370	-5	1	1	9	-5	2	1	2	2
JC12JL-147	10440383	-5	3	-1	10	-5	2	-1	3	-2
JC12JL-147 (dup)	10440390	-5	3	-1	8	-5	2	1	-1	-2

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	V	Co	Ga	Ge	As	Sr	Y	Nb	Mo
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		5	1	1	1	5	2	1	1	2
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-169	10440406	23	9	1	14	-5	4	6	2	2
JC12JL-169 (dup)	10440410	26	10	1	15	-5	5	8	4	3
JC12JL-179	10440417	34	7	3	18	-5	2	2	11	3
JC12JL-179 (dup)	10440430	30	6	3	20	-5	-2	2	10	2
JC12JL-209	10440449	14	3	-1	13	-5	2	1	2	-2
JC12JL-209 (dup)	10440450	15	1	1	14	-5	-2	1	3	-2
JC12JL-224	10440465	7	1	-1	19	-5	3	1	2	-2
JC12JL-224 (dup)	10440470	5	1	-1	17	-5	-2	1	1	-2
JC12JL-240	10440483	-5	1	-1	3	-5	-2	2	2	-2
JC12JL-240 (dup)	10440490	-5	1	-1	3	-5	-2	2	1	-2
JC12JL-264	10440509	31	8	3	18	11	4	22	8	4
JC12JL-264 (dup)	10440510	31	8	3	17	9	4	21	7	4
JC12JL-278	10440525	15	17	1	17	7	5	6	1	2
JC12JL-278 (dup)	10440530	15	17	1	16	7	5	8	1	-2
JC12JL-297	10440545	-5	1	-1	12	-5	-2	1	-1	-2
JC12JL-297 (dup)	10440550	6	2	-1	12	-5	-2	1	-1	-2
JC12JL-319	10440567	25	1	3	13	9	5	32	4	3
JC12JL-319 (dup)	10440570	27	1	3	13	6	6	39	5	4
JC12JL-336	10440586	-5	3	1	12	5	-2	2	1	-2
JC12JL-336 (dup)	10440590	6	3	1	14	10	-2	2	2	2
JC12JL-357	10440609	20	4	16	4	-5	23	9	3	-2
JC12JL-357 (dup)	10440610	19	4	15	4	-5	22	9	3	-2

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MAG-1	10440400	-0.2	4	4.7	44.2	90.5	10.57	40.5	7.8	1.60
QLO-1	10440660	-0.2	3	1.1	26.8	49.9	5.88	22.8	4.9	1.30
RGM-1	10440540	-0.2	4	7.0	22.0	45.4	5.03	19.0	3.9	0.60
SCH-1	10440220	-0.2	-1	-0.5	14.4	39.5	2.99	11.5	2.0	0.56
SCH-1	10440260	-0.2	-1	-0.5	14.9	38.3	2.96	10.9	2.1	0.51
SCH-1	10440280	-0.2	-1	-0.5	16.3	40.3	3.13	11.7	2.1	0.58
SCH-1	10440300	-0.2	-1	-0.5	13.9	37.1	2.73	10.9	2.0	0.51
SCH-1	10440340	-0.2	-1	-0.5	13.8	36.2	2.84	11.0	2.3	0.52
SCH-1	10440380	-0.2	29	-0.5	15.3	40.4	3.07	11.5	2.2	0.55
SCH-1	10440420	-0.2	-1	-0.5	14.8	39.8	3.01	11.7	2.2	0.61
SCH-1	10440460	-0.2	-1	-0.5	13.6	37.6	2.84	11.3	2.1	0.51
SCH-1	10440480	-0.2	-1	-0.5	13.5	35.8	2.75	10.5	2.1	0.49
SCH-1	10440520	-0.2	-1	-0.5	13.5	35.6	2.67	10.5	1.8	0.51
SCH-1	10440560	-0.2	-1	-0.5	13.1	35.6	2.74	10.6	2.0	0.48
SCH-1	10440600	-0.2	-1	-0.5	14.8	37.6	2.85	10.8	1.8	0.48
SCH-1	10440640	-0.2	-1	-0.5	14.4	38.2	2.88	11.1	2.1	0.55
SCH-1	10440680	-0.2	2	-0.5	13.4	36.4	2.78	10.3	2.0	0.53
STM-1	10440320	-0.2	8	1.4	155.0	271.3	25.92	83.3	12.6	3.59
W-2	10440500	-0.2	2	0.5	10.2	22.5	2.92	13.1	3.5	1.05
AGV-1	10440240	-0.2	4	0.8	36.3	65.0	7.80	30.4	5.4	1.63
AGV-1	10440700	-0.2	4	0.8	40.1	69.7	8.35	33.0	5.6	1.61
BHVO-1	10440620	-0.2	2	-0.5	15.1	37.0	5.28	23.8	5.9	2.06
BIR-1	10440440	-0.2	1	-0.5	-0.5	2.3	0.39	2.8	1.3	0.61
DR-N	10440360	-0.2	2	4.7	21.7	46.4	5.79	24.4	5.7	1.51
G-2	10440580	-0.2	2	-0.5	88.5	160.7	16.20	52.9	7.5	1.48
JC12-043	10440225	-0.2	-1	-0.5	0.6	0.8	0.09	0.3	-0.1	-0.05
JC12-043 (dup)	10440230	-0.2	-1	-0.5	0.5	0.7	0.09	0.4	-0.1	-0.05
JC12JL-014	10440248	-0.2	-1	-0.5	1.5	5.1	0.59	2.5	0.8	0.26
JC12JL-014 (dup)	10440250	-0.2	-1	-0.5	1.8	5.9	0.67	3.3	0.8	0.27
JC12JL-029	10440265	-0.2	-1	-0.5	3.9	6.2	0.78	3.1	0.8	0.19
JC12JL-029 (dup)	10440270	-0.2	-1	-0.5	3.7	6.9	0.98	3.8	0.9	0.25
JC12JL-052	10440288	-0.2	1	-0.5	4.2	14.3	0.90	3.5	0.7	0.18
JC12JL-052 (dup)	10440290	-0.2	-1	-0.5	5.1	17.3	1.16	4.4	0.8	0.28
JC12JL-071	10440306	-0.2	-1	-0.5	1.2	2.8	0.22	1.1	0.2	0.13
JC12JL-071 (dup)	10440310	-0.2	-1	-0.5	1.0	2.5	0.24	1.0	0.3	0.11
JC12JL-089	10440323	-0.2	-1	-0.5	8.0	15.2	1.24	5.7	0.8	0.35
JC12JL-089 (dup)	10440330	-0.2	-1	-0.5	6.8	12.7	1.08	4.6	0.8	0.29
JC12JL-110	10440344	-0.2	-1	-0.5	5.0	10.8	1.01	4.1	0.6	0.13
JC12JL-110 (dup)	10440350	-0.2	-1	-0.5	3.6	7.8	0.73	2.8	0.5	0.13
JC12JL-123	10440358	-0.2	1	-0.5	1.9	2.2	0.18	0.8	0.2	-0.05
JC12JL-123 (dup)	10440370	-0.2	-1	-0.5	0.9	1.8	0.16	0.7	0.2	0.07
JC12JL-147	10440383	-0.2	-1	-0.5	1.4	2.2	0.24	1.0	0.1	-0.05
JC12JL-147 (dup)	10440390	-0.2	-1	-0.5	1.3	2.1	0.24	0.9	0.1	0.05

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	In	Sn	Cs	La	Ce	Pr	Nd	Sm	Eu
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.2	1	0.5	0.5	0.1	0.05	0.1	0.1	0.05
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-169	10440406	-0.2	1	-0.5	1.3	4.2	0.32	1.3	0.5	0.19
JC12JL-169 (dup)	10440410	-0.2	2	-0.5	1.5	5.3	0.43	1.8	0.4	0.34
JC12JL-179	10440417	-0.2	-1	-0.5	5.8	21.6	1.20	4.2	0.7	0.17
JC12JL-179 (dup)	10440430	-0.2	-1	-0.5	6.1	20.5	1.10	3.3	0.7	0.14
JC12JL-209	10440449	-0.2	1	-0.5	-0.5	3.0	0.13	0.4	-0.1	-0.05
JC12JL-209 (dup)	10440450	-0.2	1	-0.5	-0.5	3.0	0.14	0.5	0.1	-0.05
JC12JL-224	10440465	-0.2	-1	-0.5	1.6	1.6	0.44	1.7	0.3	0.08
JC12JL-224 (dup)	10440470	-0.2	-1	-0.5	1.7	1.7	0.49	1.8	0.3	0.08
JC12JL-240	10440483	-0.2	-1	-0.5	2.4	4.7	0.55	2.2	0.5	0.12
JC12JL-240 (dup)	10440490	-0.2	-1	-0.5	2.1	4.5	0.52	2.1	0.4	0.10
JC12JL-264	10440509	-0.2	1	-0.5	29.9	66.1	4.62	18.3	3.2	0.93
JC12JL-264 (dup)	10440510	-0.2	-1	-0.5	42.1	86.7	6.23	24.1	3.8	1.10
JC12JL-278	10440525	-0.2	1	-0.5	4.8	8.3	1.15	3.7	0.8	0.27
JC12JL-278 (dup)	10440530	-0.2	-1	-0.5	6.2	9.9	1.38	4.8	1.0	0.35
JC12JL-297	10440545	-0.2	-1	-0.5	-0.5	0.7	0.09	0.3	-0.1	-0.05
JC12JL-297 (dup)	10440550	-0.2	1	-0.5	-0.5	0.8	0.09	0.2	-0.1	-0.05
JC12JL-319	10440567	-0.2	1	-0.5	7.1	31.6	1.27	6.1	1.6	0.60
JC12JL-319 (dup)	10440570	-0.2	1	-0.5	8.5	34.7	1.63	6.7	1.9	0.64
JC12JL-336	10440586	-0.2	-1	-0.5	-0.5	2.8	0.17	0.8	0.2	0.06
JC12JL-336 (dup)	10440590	-0.2	-1	-0.5	0.7	3.0	0.15	0.6	0.1	0.07
JC12JL-357	10440609	-0.2	4	0.9	32.9	67.1	7.45	27.1	4.3	0.67
JC12JL-357 (dup)	10440610	-0.2	4	1.0	32.2	65.1	7.08	25.5	3.9	0.68

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MAG-1	10440400	7.2	0.9	5.5	1.0	3.0	0.41	2.7	0.40	3.7
QLO-1	10440660	4.3	0.7	3.9	0.7	2.3	0.36	2.4	0.35	4.6
RGM-1	10440540	3.7	0.6	3.6	0.7	2.3	0.35	2.5	0.36	5.6
SCH-1	10440220	2.4	0.3	2.1	0.4	1.3	0.20	1.1	0.13	0.4
SCH-1	10440260	2.0	0.3	2.1	0.4	1.3	0.16	1.0	0.12	0.4
SCH-1	10440280	2.3	0.3	1.9	0.4	1.2	0.17	1.1	0.12	0.5
SCH-1	10440300	1.8	0.3	1.9	0.4	1.3	0.16	1.1	0.14	0.5
SCH-1	10440340	2.0	0.3	2.0	0.4	1.3	0.18	1.0	0.14	0.6
SCH-1	10440380	2.3	0.3	2.1	0.4	1.3	0.16	1.1	0.11	0.5
SCH-1	10440420	2.3	0.3	2.1	0.4	1.3	0.17	1.1	0.12	0.6
SCH-1	10440460	2.2	0.3	1.9	0.4	1.3	0.17	1.0	0.13	0.5
SCH-1	10440480	2.1	0.3	2.0	0.4	1.2	0.19	1.0	0.13	0.8
SCH-1	10440520	2.3	0.3	1.9	0.4	1.2	0.18	1.0	0.13	0.6
SCH-1	10440560	1.9	0.3	1.9	0.4	1.2	0.16	1.0	0.13	0.4
SCH-1	10440600	2.2	0.3	1.8	0.4	1.3	0.17	0.9	0.13	0.5
SCH-1	10440640	2.2	0.3	2.0	0.4	1.4	0.18	1.0	0.13	0.5
SCH-1	10440680	2.1	0.3	1.8	0.4	1.2	0.16	1.0	0.14	0.4
STM-1	10440320	10.8	1.5	8.3	1.5	4.6	0.66	4.4	0.63	28.1
W-2	10440500	3.8	0.6	3.7	0.8	2.3	0.30	2.1	0.30	2.4
AGV-1	10440240	4.9	0.6	3.6	0.6	1.7	0.24	1.7	0.22	4.8
AGV-1	10440700	5.2	0.6	3.5	0.7	1.9	0.24	1.7	0.25	5.0
BHVO-1	10440620	6.4	0.9	5.5	1.0	2.5	0.33	2.2	0.26	4.1
BIR-1	10440440	2.2	0.5	3.2	0.6	2.1	0.29	2.0	0.30	0.8
DR-N	10440360	5.5	0.8	4.9	1.0	2.9	0.38	2.6	0.39	3.6
G-2	10440580	4.5	0.5	2.2	0.3	1.0	0.10	0.8	0.09	8.0
JC12-043	10440225	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2
JC12-043 (dup)	10440230	-0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2
JC12JL-014	10440248	1.0	0.2	1.2	0.2	0.8	0.11	0.8	0.09	-0.2
JC12JL-014 (dup)	10440250	1.0	0.2	1.5	0.3	0.8	0.13	1.0	0.09	-0.2
JC12JL-029	10440265	0.8	0.1	0.7	0.2	0.5	0.06	0.4	-0.05	-0.2
JC12JL-029 (dup)	10440270	0.9	0.1	0.9	0.2	0.6	0.07	0.5	0.06	-0.2
JC12JL-052	10440288	0.6	-0.1	0.5	-0.1	0.3	-0.05	0.2	-0.05	-0.2
JC12JL-052 (dup)	10440290	0.8	0.1	0.7	0.1	0.4	0.05	0.3	-0.05	-0.2
JC12JL-071	10440306	0.6	0.1	0.8	0.2	0.6	0.08	0.4	-0.05	-0.2
JC12JL-071 (dup)	10440310	0.6	0.1	0.9	0.2	0.6	0.07	0.4	0.06	-0.2
JC12JL-089	10440323	1.1	0.1	0.8	0.2	0.5	0.07	0.5	0.06	-0.2
JC12JL-089 (dup)	10440330	0.9	0.1	0.7	0.1	0.5	0.07	0.4	0.06	-0.2
JC12JL-110	10440344	0.5	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2
JC12JL-110 (dup)	10440350	0.3	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2
JC12JL-123	10440358	0.2	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	1.0
JC12JL-123 (dup)	10440370	0.1	-0.1	0.2	-0.1	0.1	-0.05	-0.1	-0.05	-0.2
JC12JL-147	10440383	0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2
JC12JL-147 (dup)	10440390	0.1	-0.1	-0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.05	0.2
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-169	10440406	0.7	0.1	0.9	0.2	0.6	0.07	0.4	-0.05	-0.2
JC12JL-169 (dup)	10440410	0.7	0.1	1.0	0.2	0.8	0.09	0.6	0.06	-0.2
JC12JL-179	10440417	0.7	-0.1	0.4	-0.1	0.2	-0.05	0.2	-0.05	-0.2
JC12JL-179 (dup)	10440430	0.5	-0.1	0.4	-0.1	0.2	-0.05	0.1	-0.05	-0.2
JC12JL-209	10440449	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	0.06	-0.2
JC12JL-209 (dup)	10440450	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	0.2
JC12JL-224	10440465	0.3	-0.1	0.2	-0.1	0.1	-0.05	0.1	0.07	-0.2
JC12JL-224 (dup)	10440470	0.3	-0.1	0.1	-0.1	0.1	-0.05	-0.1	-0.05	-0.2
JC12JL-240	10440483	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.1	-0.05	-0.2
JC12JL-240 (dup)	10440490	0.4	-0.1	0.3	-0.1	0.2	-0.05	0.2	-0.05	-0.2
JC12JL-264	10440509	4.0	0.5	3.5	0.9	2.7	0.38	2.6	0.34	0.6
JC12JL-264 (dup)	10440510	4.6	0.6	3.4	0.8	2.6	0.40	2.5	0.35	0.3
JC12JL-278	10440525	1.0	0.2	0.9	0.1	0.6	0.06	0.5	-0.05	-0.2
JC12JL-278 (dup)	10440530	1.3	0.2	1.2	0.2	0.7	0.10	0.5	0.06	-0.2
JC12JL-297	10440545	0.1	-0.1	0.1	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2
JC12JL-297 (dup)	10440550	0.1	-0.1	0.2	-0.1	-0.1	-0.05	-0.1	-0.05	-0.2
JC12JL-319	10440567	2.8	0.5	4.1	0.8	3.0	0.42	2.7	0.35	-0.2
JC12JL-319 (dup)	10440570	3.4	0.6	4.3	1.0	3.4	0.44	3.0	0.39	-0.2
JC12JL-336	10440586	0.2	-0.1	0.3	-0.1	0.3	0.05	0.4	-0.05	-0.2
JC12JL-336 (dup)	10440590	0.3	-0.1	0.3	-0.1	0.3	-0.05	0.4	0.07	-0.2
JC12JL-357	10440609	3.2	0.3	1.7	0.3	0.9	0.13	0.9	0.13	9.4
JC12JL-357 (dup)	10440610	3.2	0.4	1.6	0.3	0.9	0.14	0.9	0.14	9.0

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num	Lab_Num	Ta	W	Tl	Bi	Th	U
Method		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.50	1	0.1	0.4	0.1	0.1
Unit		ppm	ppm	ppm	ppm	ppm	ppm
MAG-1	10440400	1.2	2	-0.1	-0.4	12.3	2.8
QLO-1	10440660	1.2	3	-0.1	-0.4	4.7	1.8
RGM-1	10440540	1.2	2	-0.1	-0.4	13.5	5.4
SCH-1	10440220	-0.5	10	-0.1	0.5	0.7	1.2
SCH-1	10440260	-0.5	3	0.6	-0.4	0.8	1.1
SCH-1	10440280	-0.5	2	-0.1	-0.4	0.7	1.2
SCH-1	10440300	-0.5	3	-0.1	-0.4	0.7	1.2
SCH-1	10440340	-0.5	2	-0.1	0.5	0.8	1.4
SCH-1	10440380	-0.5	2	-0.1	-0.4	0.7	1.1
SCH-1	10440420	-0.5	2	-0.1	-0.4	0.7	1.1
SCH-1	10440460	-0.5	2	-0.1	-0.4	0.7	1.1
SCH-1	10440480	-0.5	2	-0.1	-0.4	0.6	1.1
SCH-1	10440520	0.5	3	-0.1	-0.4	0.7	1.1
SCH-1	10440560	-0.5	2	-0.1	0.5	1.3	1.4
SCH-1	10440600	-0.5	2	-0.1	-0.4	0.6	1.1
SCH-1	10440640	-0.5	2	-0.1	-0.4	0.6	1.1
SCH-1	10440680	-0.5	2	-0.1	1.0	0.6	1.1
STM-1	10440320	19.6	4	-0.1	-0.4	31.3	9.1
W-2	10440500	0.8	2	-0.1	-0.4	2.1	0.5
AGV-1	10440240	0.8	-1	-0.1	-0.4	6.0	1.8
AGV-1	10440700	1.2	2	-0.1	-0.4	6.0	1.9
BHVO-1	10440620	1.3	-1	-0.1	-0.4	1.3	0.5
BIR-1	10440440	-0.5	1	-0.1	-0.4	-0.1	-0.1
DR-N	10440360	0.9	149	-0.1	-0.4	4.7	1.5
G-2	10440580	1.1	-1	-0.1	-0.4	24.5	1.9
JC12-043	10440225	-0.5	1	-0.1	-0.4	-0.1	-0.1
JC12-043 (dup)	10440230	-0.5	-1	-0.1	-0.4	-0.1	-0.1
JC12JL-014	10440248	-0.5	3	-0.1	-0.4	-0.1	2.0
JC12JL-014 (dup)	10440250	-0.5	3	-0.1	-0.4	-0.1	2.0
JC12JL-029	10440265	-0.5	6	-0.1	-0.4	-0.1	0.1
JC12JL-029 (dup)	10440270	-0.5	10	-0.1	-0.4	-0.1	0.1
JC12JL-052	10440288	-0.5	2	-0.1	0.7	-0.1	0.1
JC12JL-052 (dup)	10440290	-0.5	3	-0.1	0.4	-0.1	0.1
JC12JL-071	10440306	-0.5	-1	-0.1	-0.4	-0.1	0.1
JC12JL-071 (dup)	10440310	-0.5	1	-0.1	-0.4	-0.1	0.1
JC12JL-089	10440323	-0.5	3	-0.1	-0.4	-0.1	0.1
JC12JL-089 (dup)	10440330	-0.5	4	-0.1	-0.4	-0.1	0.1
JC12JL-110	10440344	-0.5	3	-0.1	-0.4	0.4	0.4
JC12JL-110 (dup)	10440350	-0.5	4	-0.1	-0.4	0.3	0.4
JC12JL-123	10440358	-0.5	2	-0.1	-0.4	0.1	0.3
JC12JL-123 (dup)	10440370	-0.5	2	-0.1	-0.4	-0.1	0.3
JC12JL-147	10440383	-0.5	2	-0.1	-0.4	-0.1	-0.1
JC12JL-147 (dup)	10440390	-0.5	-1	-0.1	-0.4	-0.1	0.1

APPENDIX H: Trace element ICP-MS-FUS standards and duplicate data

Sample_Num Method	Lab_Num	Ta		W		Tl		Bi		Th		U	
		ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS	ICP-MS-FUS
Detection Limit		0.50	1	0.1	0.4	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
JC12JL-169	10440406	-0.5	2	-0.1	1.0	-0.1	-0.1	0.4					
JC12JL-169 (dup)	10440410	-0.5	4	-0.1	1.1	-0.1	-0.1	0.5					
JC12JL-179	10440417	-0.5	9	-0.1	0.8	0.1	0.1	0.1					
JC12JL-179 (dup)	10440430	-0.5	8	-0.1	-0.4	0.1	0.1	0.1					
JC12JL-209	10440449	-0.5	-1	-0.1	-0.4	0.1	0.1	0.1					
JC12JL-209 (dup)	10440450	-0.5	-1	-0.1	-0.4	0.1	0.1	0.1					
JC12JL-224	10440465	-0.5	-1	-0.1	-0.4	-0.1	-0.1	-0.1					
JC12JL-224 (dup)	10440470	-0.5	-1	-0.1	-0.4	-0.1	-0.1	-0.1					
JC12JL-240	10440483	-0.5	1	-0.1	-0.4	-0.1	-0.1	-0.1					
JC12JL-240 (dup)	10440490	-0.5	-1	-0.1	1.0	-0.1	-0.1	-0.1					
JC12JL-264	10440509	0.7	7	-0.1	0.4	0.1	0.1	1.0					
JC12JL-264 (dup)	10440510	-0.5	7	-0.1	-0.4	0.1	0.1	1.0					
JC12JL-278	10440525	-0.5	-1	-0.1	-0.4	-0.1	-0.1	0.2					
JC12JL-278 (dup)	10440530	-0.5	1	-0.1	-0.4	-0.1	-0.1	0.3					
JC12JL-297	10440545	-0.5	-1	-0.1	-0.4	-0.1	-0.1	0.1					
JC12JL-297 (dup)	10440550	-0.5	-1	-0.1	-0.4	-0.1	-0.1	0.1					
JC12JL-319	10440567	-0.5	4	-0.1	-0.4	-0.1	-0.1	0.2					
JC12JL-319 (dup)	10440570	-0.5	6	-0.1	-0.4	-0.1	-0.1	0.2					
JC12JL-336	10440586	-0.5	1	-0.1	-0.4	-0.1	-0.1	0.2					
JC12JL-336 (dup)	10440590	-0.5	2	-0.1	-0.4	-0.1	-0.1	0.2					
JC12JL-357	10440609	-0.5	1	-0.1	-0.4	16.2	16.2	1.3					
JC12JL-357 (dup)	10440610	-0.5	1	-0.1	-0.4	16.3	16.3	1.4					