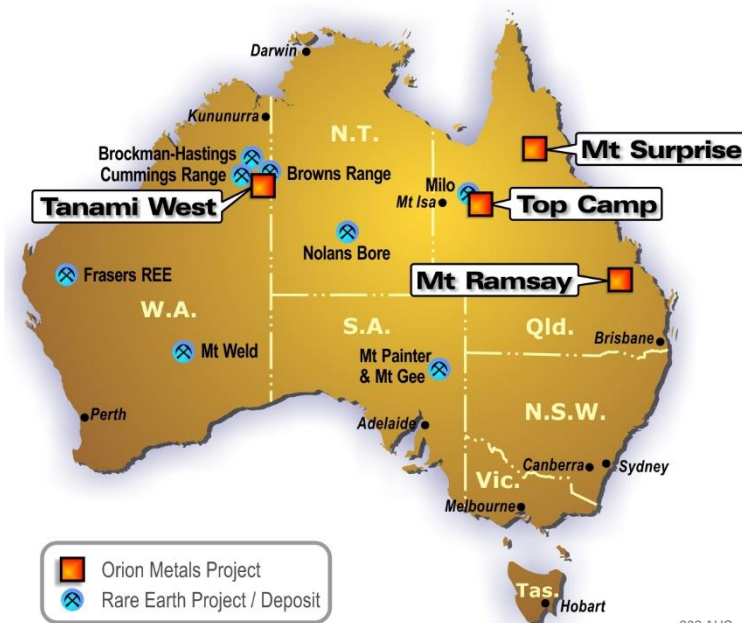


ASX ANNOUNCEMENT

20th October 2014

EXPLORATION UPDATE Mt Surprise Surface Sample Results.

Orion Metals Limited (ASX:ORM), strategic metals, rare earth element (REE) and gold explorer, is pleased to provide this exploration update.



002.AUS

HIGHLIGHTS

- Several new zones of anomalism identified.
- Rock chip sample results with up to **0.35% tungsten**, **0.95% tin**, and **0.21% TREO** in a new, greenfields exploration area.
- Encouraging rare earth anomalism in stream samples, best results to **0.24% TREO**.
- Stream sediment sample best tin results include **6.6% Sn**, **1.8% Sn**, and **1.5% Sn**.

Results from Orion Metals Limited's first phase reconnaissance sampling across Mt Surprise Project have returned a number of significant tin (Sn), tungsten (W), and rare earth element (REE) results.

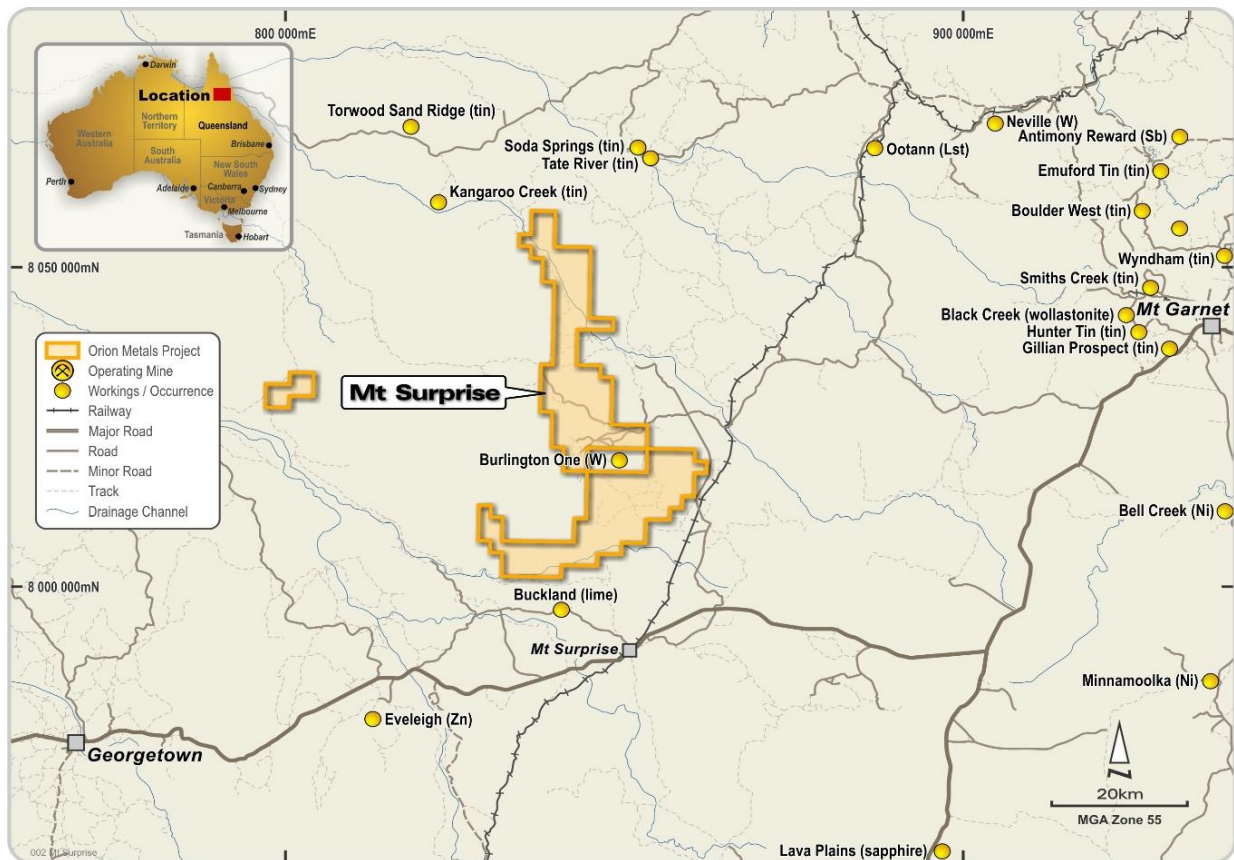
The Mt Surprise Project area (Figure 1) is being targetted for granite hosted greisen, vein, and stockwork type tin - tungsten mineralisation, as well as the potential for hydrothermal REE mineral occurrences. The Late Carboniferous, I-type granitoids (Figure 2), outcropping throughout the region, provides a suitable host for these varied styles of mineralisation and commodity types.

Sample results received to date are indicating significant REE anomalism within the Project area. Sampling and mapping have identified several new zones of coincident geochemical anomalism and alteration.

Orion Metals CEO, Mr C.Yue said "the results of the geochemical analysis provided further strong evidence that the Mt Surprise area represents an outstanding exploration target for tin, tungsten, and rare earth mineralisation."

“These are very encouraging results and I have confidence that we are on the right track at Mt Surprise and very well placed to make a potential significant discovery,” he said.

Figure 1: Mt Surprise Project location plan



Note: Orion Metals Project tenure outlined in bold orange.

Orion Metals recent exploration at Mt Surprise Project has focussed on surface sampling and mapping for Sn, W, REE, and Au. The program design was an outcome of thorough examination of historical exploration data, along with fresh technical input.

A surface geochemical program of 230 samples comprised of 159 stream sediments, 46 rock chip, and 25 soil samples has been completed. Prospect scaled geological mapping was undertaken in conjunction with sampling, and is ongoing.

The program successfully identified several zones that warrant additional exploration; the objective now is to expand exploration operations towards the discovery of a “hard rock” source.

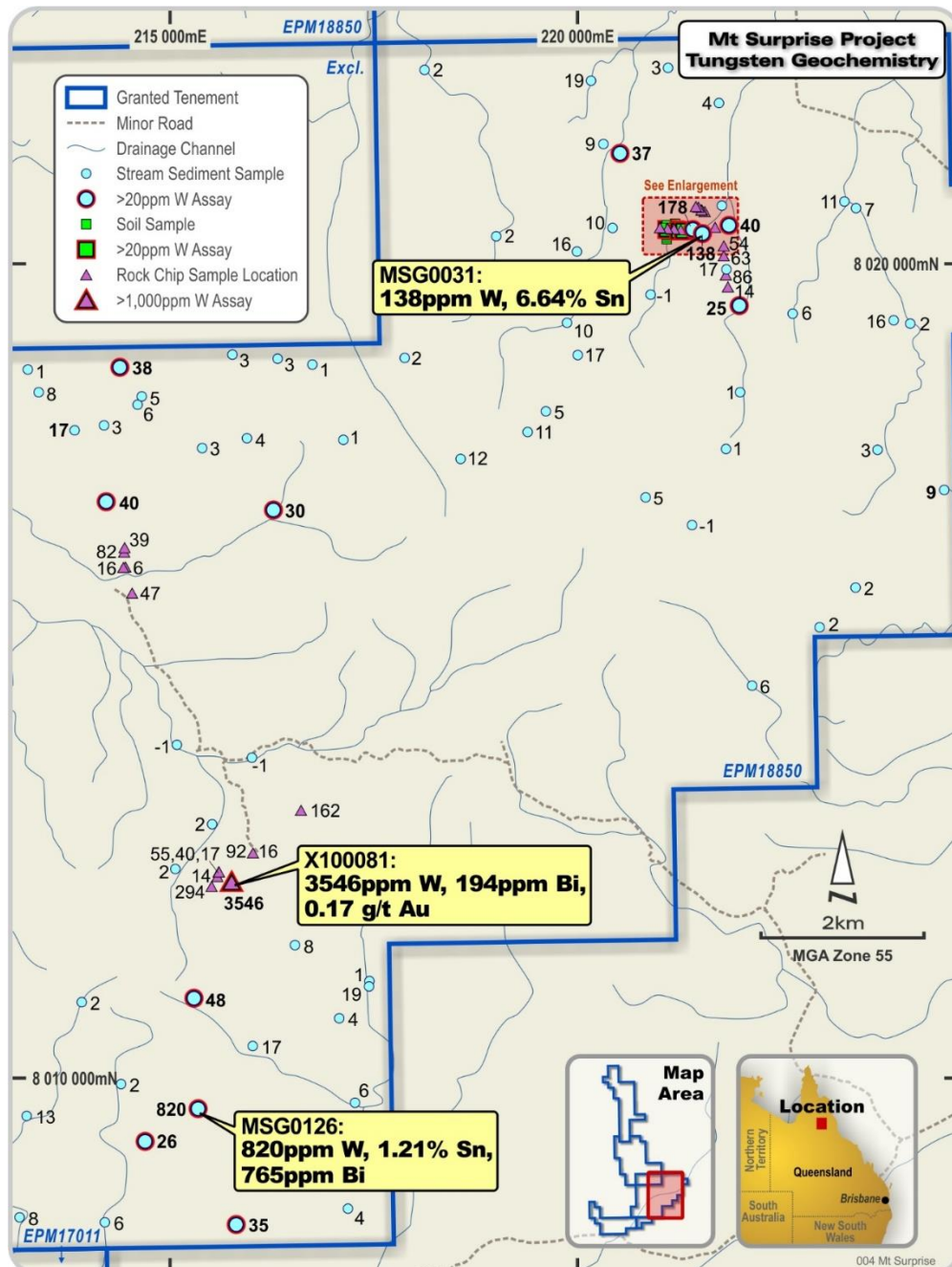
Stream Sediment Sampling

A total of 159 stream sediment samples were collected from the southern tenements (Figure 2) in the Project area. Sampling the northern tenements was restricted due to pastoralists mustering activities and will be completed later this year.

One such alteration zone was geologically mapped, rock chipped, and soil sampled producing some very encouraging results (Figures 5 & 6). Anomalous TREO and Sn anomalism was identified in a number of rock chip samples. **Best rock chip results include 0.20% TREO and 0.21% Sn in X100052 and 0.21% TREO and 0.30% Sn in X100053.** Further work is planned.

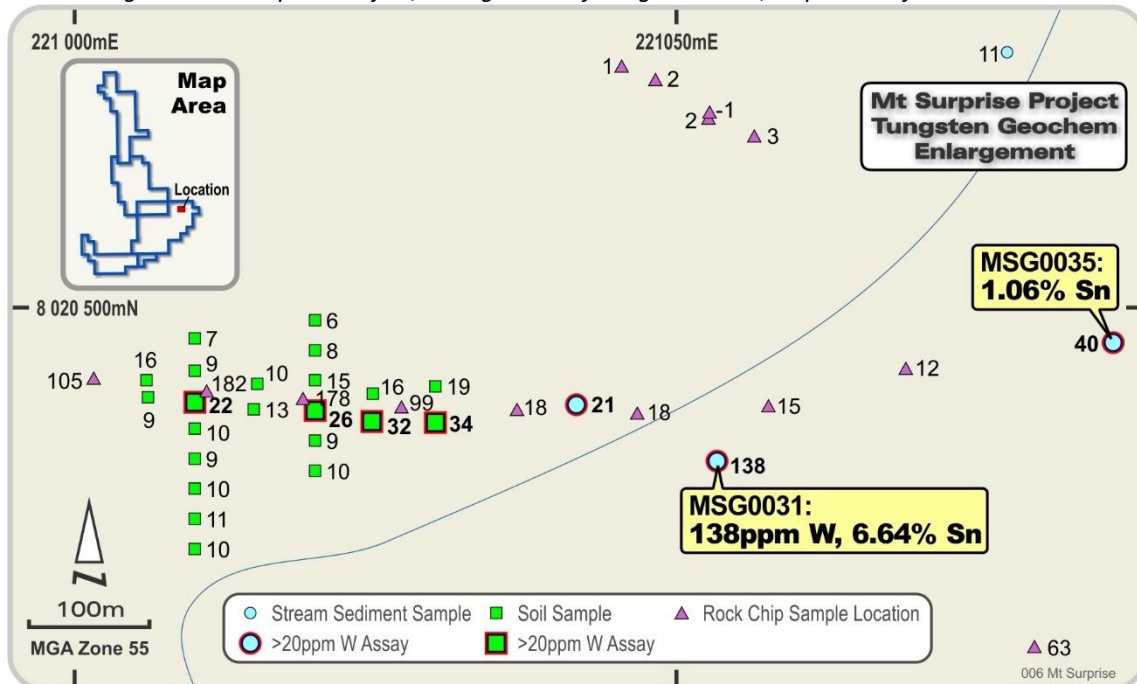
A total of 47 rock chip samples were taken from locations around the Project area, while 23 soil samples were taken adjacent to the mapped alteration zone. A complete list of rock chip and soil sample locations are detailed in Tables 2 and 3, along with select element analyses

Figure 3: Mt Surprise Project, South East portion of EPM 18850 Tungsten (W) Results.



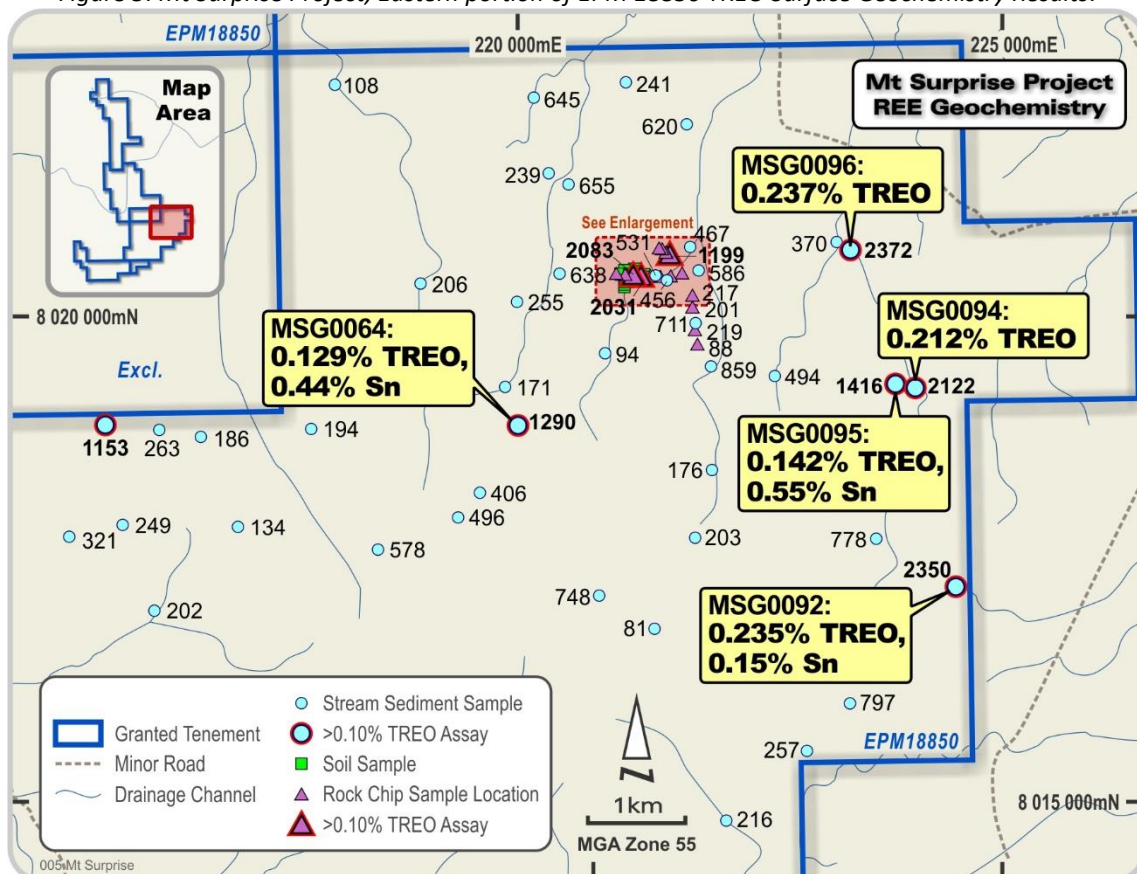
Note: The plan presents the areas drainage pattern, with access tracks and all surface geochem tungsten results. All results are presented in ppm's.

Figure 4: Mt Surprise Project, Enlargement of Tungsten trend, SE portion of EPM 18850.



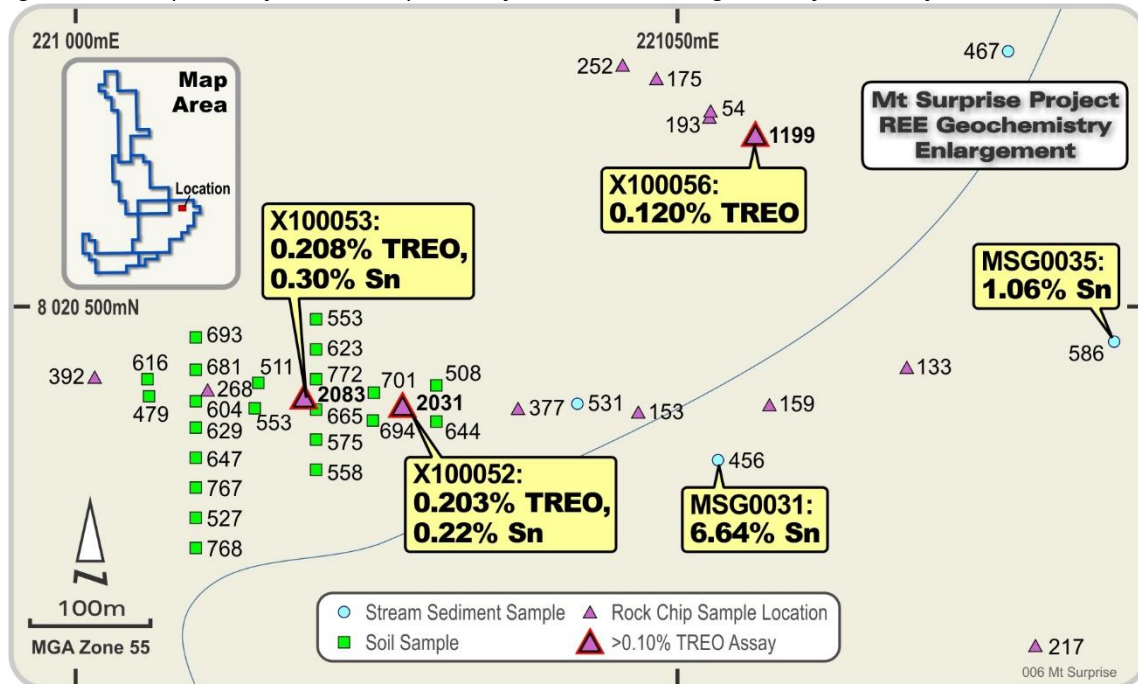
Note: The enlargement plan presents the areas drainage line, with all surface geochem tungsten results in ppm's.

Figure 5: Mt Surprise Project, Eastern portion of EPM 18850 TREO Surface Geochemistry Results.



Note: The plan presents the areas drainage pattern, with access tracks and all surface geochem TREO results. All results are presented in ppm's. The 5 highlighted stream sediment samples are bolded, and presented as percentages.

Figure 6: Mt Surprise Project, Eastern portion of EPM 18850, Enlargement of TREO Surface Geochem Trend.



Note: The plan presents the areas drainage line, with all surface geochem TREO results. All results are presented in ppm's. The 3 highlighted rock chip sample triangles are bolded, and presented as percentages.

About Orion Metals

Orion Metals Limited (ASX:ORM) is a Rare Earth Element(REE), strategic metals, and Gold explorer with exploration projects in the highly prospective metal provinces of the Tanami Desert of Western Australia, the Cloncurry Mining District of W Queensland, Mt Surprise in NE Queensland, and Baralaba in E Queensland.

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Competent Person Declaration.

The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Mr Peter Brookes, a full-time employee of Orion Metals Limited, who is a member of the Australian Institute of Geoscientists. Mr Brookes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Brookes consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Disclaimer.

This release may include forward looking statements. These forward looking statements are based on management's expectations and beliefs concerning future events. Forward looking statements inherently involve subjective judgement and analysis and are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Orion Metals Limited. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance. Actual results and developments may vary materially from those expressed in this release. Given these uncertainties, readers are cautioned not to place undue reliance on such forward looking statements. Orion Metals Limited makes no undertaking to subsequently update or revise the forward looking statements made in this release to reflect events or circumstances after the date of this release.

Table 1: Mt Surprise Project, Significant Stream Sediment Sample Results.

Site ID	Easting GDA94	Northing GDA94	Elevation (m)	Bi (ppm)	Sn (ppm)	W (ppm)	Y2O3 (ppm)	LREO (%)	HREO (%)	TREO (%)
MSG0031	221534	8020373	563	3	66371	138	157	0.021	0.008	0.046
MSG0033	221988	8019489	569	1	14079	25	259	0.046	0.014	0.086
MSG0035	221863	8020471	553	2	10646	40	189	0.029	0.010	0.059
MSG0057	220525	8021355	534	1	13316	37	239	0.028	0.013	0.066
MSG0064	220009	8018877	586	2	4386	17	460	0.061	0.022	0.129
MSG0066	219877	8019276	580	0	10491	10	65	0.007	0.004	0.017
MSG0070	213835	8017953	545	0	5763	17	251	0.010	0.013	0.048
MSG0072	214222	8017078	547	3	6311	40	291	0.014	0.015	0.057
MSG0075	214387	8018731	563	1	14858	38	231	0.008	0.012	0.043
MSG0076	215768	8018881	580	2	333	3	173	0.088	0.010	0.115
MSG0081	216274	8016977	576	20	18728	30	76	0.009	0.004	0.020
MSG0092	224503	8017220	544	0	1498	9	154	0.209	0.011	0.235
MSG0094	224087	8019262	492	1	110	2	493	0.135	0.028	0.212
MSG0095	223885	8019306	491	7	5542	16	224	0.106	0.014	0.142
MSG0096	223419	8020682	472	1	232	7	404	0.174	0.023	0.237
MSG0105	207657	8009554	541	3	5156	11	286	0.025	0.014	0.067
MSG0124	215299	8010983	608	8	6410	48	119	0.007	0.007	0.027
MSG0126	215347	8009624	560	765	12126	820	175	0.029	0.010	0.057
MSG0127	215816	8008203	500	6	10349	35	123	0.018	0.007	0.037
MSG0160	193524	8010248	480	0	13046	18	169	0.060	0.009	0.086
MSG0178	202823	8034725	380	1	4768	12	151	0.122	0.010	0.147

Note: Coordinate system GDA94 Zone 55. Bi, W, Sn, and Y₂O₃ were selected as significant results from a comprehensive suite of multielements analysed. REO light (LREO), heavy (HREO), and total (TREO) calculations are tabulated. Y₂O₃ is excluded from HREO calculations, but inclusive in TREO figures. LREO = lanthanum oxide (La₂O₃) + cerium oxide (CeO₂) + praseodymium oxide (Pr₆O₁₁) + neodymium oxide (Nd₂O₃) + samarium oxide (Sm₂O₃). HREO = europium oxide (Eu₂O₃) + gadolinium oxide (Gd₂O₃) + terbium oxide (Tb₄O₇) + dysprosium oxide (Dy₂O₃) + holmium oxide (Ho₂O₃) + erbium oxide (Er₂O₃) + thulium oxide (Tm₂O₃) + ytterbium oxide (Yb₂O₃) + lutetium oxide (Lu₂O₃).

Table 2: Mt Surprise Project, Soil Sample Results.

Site ID	Easting GDA94	Northing GDA94	Elevation (m)	Bi (ppm)	Sn (ppm)	W (ppm)	Y ₂ O ₃ (ppm)	LREO (%)	HREO (%)	TREO (%)
S100283	221200	8020490	579	1	280	6	181	0.027	0.010	0.055
S100284	221200	8020465	580	1	316	8	210	0.030	0.011	0.062
S100285	221200	8020440	580	2	396	15	255	0.038	0.014	0.077
S100286	221200	8020415	580	3	1003	26	229	0.031	0.012	0.067
S100287	221200	8020390	579	1	516	9	191	0.028	0.010	0.058
S100288	221200	8020365	576	1	377	10	187	0.027	0.010	0.056
S100289	221100	8020300	574	0	51	10	256	0.038	0.013	0.077
S100290	221100	8020325	576	1	129	11	159	0.028	0.009	0.053
S100291	221100	8020350	576	0	79	10	249	0.039	0.013	0.077
S100292	221100	8020375	577	1	161	9	227	0.030	0.012	0.065
S100293	221100	8020400	581	1	206	10	208	0.031	0.011	0.063
S100294	221100	8020422	583	2	386	22	252	0.023	0.012	0.060
S100295	221100	8020448	582	1	151	9	226	0.034	0.012	0.068
S100296	221100	8020475	576	0	59	7	216	0.036	0.011	0.069
S100297	221061	8020426	582	1	254	9	185	0.020	0.010	0.048
S100298	221060	8020440	583	1	262	16	215	0.029	0.011	0.062
S100299	221152	8020437	579	2	385	10	135	0.030	0.008	0.051
S100300	221149	8020416	579	2	376	13	189	0.026	0.011	0.055
S100301	221149	8020416	579	2	390	13	195	0.026	0.011	0.056
S100302	221247	8020406	575	5	1327	32	229	0.034	0.012	0.069
S100303	221248	8020429	580	3	582	16	234	0.035	0.012	0.070
S100304	221300	8020435	577	2	206	19	167	0.025	0.009	0.051
S100305	221300	8020405	573	3	485	34	203	0.033	0.011	0.064
S100306	211157	8007076	484	1	20	2	40	0.018	0.002	0.025
S100307	211351	8006598	439	1	28	2	35	0.012	0.002	0.017

Note: Coordinate system GDA94 Zone 55. Bi, W, Sn, and Y₂O₃ were selected as significant results from a comprehensive suite of multielements analysed. REO light (LREO), heavy (HREO), and total (TREO) calculations are tabulated. Y₂O₃ is excluded from HREO calculations, but inclusive in TREO figures. Sample number S100301 is a field duplicate of S100300.

Table 3: Mt Surprise Project, Rock Chip Sample Results.

Site ID	Easting GDA94	Northing GDA94	Elevation (m)	Bi (ppm)	Sn (ppm)	W (ppm)	Y ₂ O ₃ (ppm)	LREO (%)	HREO (%)	TREO (%)
X100044	221798	8020219	579	69	69	63	73	0.010	0.004	0.022
X100045	221800	8020097	579	25	115	54	55	0.011	0.003	0.020
X100046	221823	8019861	579	76	115	86	77	0.010	0.004	0.022
X100047	221853	8019716	576	51	117	14	47	0.001	0.003	0.009
X100048	221691	8020450	561	25	173	12	20	0.010	0.001	0.013
X100049	221577	8020419	568	19	270	15	29	0.011	0.002	0.016
X100050	221468	8020413	568	14	552	18	38	0.009	0.002	0.015
X100051	221368	8020416	569	11	1382	18	120	0.019	0.007	0.038
X100052	221272	8020418	575	24	2178	99	1019	0.055	0.046	0.203
X100053	221190	8020425	579	23	2955	178	1101	0.048	0.051	0.208
X100054	221110	8020431	587	10	2263	182	49	0.019	0.003	0.027
X100055	221016	8020442	587	5	1095	105	123	0.021	0.006	0.039
X100056	221565	8020643	561	26	14	3	686	0.016	0.035	0.120
X100057	221527	8020658	566	7	11	2	86	0.007	0.004	0.019
X100058	221528	8020663	564	2	3	-1	27	0.002	0.001	0.005
X100059	221483	8020690	570	0	3	2	67	0.008	0.003	0.018
X100060	221455	8020701	572	2	5	1	84	0.012	0.004	0.025
X100073	215955	8023607	524	19	505	15	171	0.020	0.012	0.048
X100074	216020	8023940	557	45	8155	45	149	0.010	0.008	0.033
X100075	216110	8024047	564	9	448	150	38	0.028	0.003	0.035
X100076	215994	8024123	549	55	197	14	58	0.016	0.004	0.026
X100077	215953	8024166	551	398	28	2612	53	0.017	0.004	0.026
X100078	215849	8024464	500	25	59	38	47	0.006	0.003	0.013
X100079	797994	8030690	305	0	6	2	1	0.000	0.000	0.001
X100080	216612	8013287	575	32	15	162	14	0.001	0.001	0.003
X100081	215757	8012424	590	1949	37	3546	38	0.003	0.003	0.010
X100082	215516	8012352	592	20	195	40	49	0.002	0.003	0.010
X100083	215585	8012476	600	2215	179	55	138	0.013	0.009	0.036
X100084	215603	8012529	604	14	89	14	117	0.009	0.006	0.027
X100085	215601	8012533	604	93	154	294	154	0.013	0.008	0.037
X100086	215605	8012533	604	584	329	17	103	0.008	0.006	0.024
X100087	214541	8015957	563	12	9537	47	192	0.010	0.010	0.039
X100088	214446	8016460	577	45	278	82	68	0.016	0.005	0.027
X100089	214451	8016514	582	54	221	39	118	0.021	0.007	0.040
X100090	214457	8016279	544	315	149	6	92	0.009	0.004	0.022
X100091	214434	8016272	542	3360	387	16	91	0.010	0.005	0.024
X100092	216024	8012767	577	19	300	92	13	0.000	0.000	0.001
X100093	216024	8012767	577	2	300	16	32	0.000	0.000	0.003
X100094	201579	8033692	429	11	6	-1	-1	0.000	0.000	0.000
X100095	201611	8033687	422	10	4	-1	1	0.000	0.000	0.000
X100096	202103	8034526	417	7	4	4	3	0.001	0.000	0.002
X100097	203841	8042781	368	33	3	55	6	0.005	0.000	0.007
X100098	203259	8034495	378	0	3	-1	58	0.036	0.004	0.046
X100099	203281	8034495	378	1	3	4	28	0.007	0.002	0.011
X100100	202325	8034983	415	0	3	-1	6	0.003	0.000	0.004
X100101	202635	8034434	410	0	8	-1	7	0.006	0.001	0.007

Note: Coordinate system GDA94 Zone 55. Bi, W, Sn, and Y₂O₃ were selected as significant results from a comprehensive suite of multielements analysed. REO light (LREE), heavy (HREE), and total (TREO) calculations are tabulated. Y₂O₃ is excluded from HREO calculations, but inclusive in TREO figures.

APPENDIX 2

BROUGHTON CREEK J.V. (JORC Code, 2012 Edition – Table 1)

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> 	<ul style="list-style-type: none"> 159 stream sediment, 46 rock chip, and 25 soil samples were collected for this reconnaissance program exploring for tungsten (W), tin (Sn), rare earth (REE), base metals and gold mineralisation. Stream, soil, and rock chip sampling is conducted in accordance with Orion Metals Limited (ORM) Standard Work Procedure 0000-GEO-PR-015 Surface Sampling. Rock chip sampling is conducted under geological supervision. Sample locations are measured with a hand held GPS instrument, calibrated to the correct local datum. This sampling program was purely reconnaissance in nature. Rock chip samples were taken at the discretion of a geologist, but according to visual identification of suitably mineralized rock units. Stream sediment samples were pre-planned from desktop, with local minor variations to the sample positioning upon assessment at the proposed sample site.
Drilling techniques	<ul style="list-style-type: none"> <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i> 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable.
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable. No drilling was conducted. Not applicable.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable. No drilling was conducted. Not applicable. No drilling was conducted. Not applicable.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable. No drilling was conducted. Not applicable. Industry best practice sample preparation for analysis was employed. Samples are dried overnight in ovens at 100°C. Crushed with jaw crusher to <5mm, then pulverized with an LM5 mill to better than 85% passing 75 microns. An ISO accredited laboratory was employed. Lab supplied CRM's, blanks and replicates are analysed with each batch of samples, along with 10% duplicate samples. There were no field duplicates employed and are considered unnecessary with this style of reconnaissance sampling. Not considered necessary for this reconnaissance sample effort. Stream sediment samples are not representative of insitu material. Does not apply to this sampling method.

Criteria	JORC Code explanation	Commentary
	<i>being sampled.</i>	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> Multiple analytical techniques were applied to the samples, where the mineralization environment contains a potentially diverse array of elements. A suite of 26 mostly REE elements were analysed by method FP6/MS33 (Genalysis Laboratories) which is a sodium peroxide fusion in nickel crucible analysed by ICP-MS. The elements analysed include La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, Y, Th, U, Nb, Ta, Hf, Zr, Sn, W, Li, Be, Ga. A further 7 elements including Ag, As, Bi, Cu, Mo, Pb, Zn were analysed by method 4A/OM (Genalysis Laboratories) which is a four acid, near total, digest followed by either ICP-MS or ICP-OES analysis. Gold was analysed by method FA25/OEO2, 25 gram fire assay. In total, 34 elements. These techniques are considered industry best practise. No specific hand held analytical tools were used in the field. Genalysis Laboratories in-house QAQC processes are rigorous and comprehensive, in line with NATA accreditation ISO/IEC 17025. The use of CRM's, blanks, and replicate analyses were applied to each batch of samples. Established benchmarks met acceptable levels of accuracy.
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable. No drilling was conducted. Not applicable. Sample logs were recorded on paper, and then manually transferred by geologist to excel spreadsheets. Data was later transferred to the Company DMS, an Azeva.XDB SQL database. Rare earth element (REE) results were required to be adjusted in

Criteria	JORC Code explanation	Commentary
		<p>order to report industry standard equivalent rare earth oxide compounds. Element results are reported in ppm values by the laboratory. These have an oxide conversion factor applied by Orion Metals, unique to each element reported. Rare earth oxides (REO) are reported in an industry standard format of reporting light, heavy, and total REO's. The complete calculation, including each respective oxide conversion value is included here.</p> <p>The following formula has been applied.</p> $((\text{La} * 1.173) + (\text{Ce} * 1.228) + (\text{Pr} * 1.208) + (\text{Nd} * 1.166) + (\text{Sm} * 1.160)) / 10000 = \text{LREO}\%$ $((\text{Eu} * 1.158) + (\text{Gd} * 1.153) + (\text{Tb} * 1.176) + (\text{Dy} * 1.148) + (\text{Ho} * 1.146) + (\text{Er} * 1.143) + (\text{Tm} * 1.142) + (\text{Yb} * 1.139) + (\text{Lu} * 1.137)) / 10000 = \text{HREO}\%$ $\text{Y} * 1.270 = \text{Y2O3}.$ $((\text{La} * 1.173) + (\text{Ce} * 1.228) + (\text{Pr} * 1.208) + (\text{Nd} * 1.166) + (\text{Sm} * 1.160) + (\text{Eu} * 1.158) + (\text{Gd} * 1.153) + (\text{Tb} * 1.176) + (\text{Dy} * 1.148) + (\text{Ho} * 1.146) + (\text{Er} * 1.143) + (\text{Tm} * 1.142) + (\text{Yb} * 1.139) + (\text{Lu} * 1.137) + (\text{Y} * 1.270)) / 10000 = \text{TREO}\%.$
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> Sample locations were surveyed using a hand held GPS unit with accuracy of +/- 5m which is sufficient accuracy for a reconnaissance stream sediment and rock chip sampling program. The grid system used is GDA94 Zone 55. All reported coordinates use this system. Not required for this program.
Data spacing	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 	<ul style="list-style-type: none"> Rock chip samples were taken randomly at the discretion of the geologist, with the coordinates recorded and reported in Table 1 of the text. Stream sediment samples were predetermined locations at irregular spacing's.

Criteria	JORC Code explanation	Commentary
and distribution	<ul style="list-style-type: none"> Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Not applicable No compositing was applied.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Not applicable to this style of reconnaissance sampling program. No drilling was conducted. Not applicable.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples were collected and stored at site at the exploration camp under the supervision of Orion Metals staff. Samples were couriered by Orion Metals staff directly to the lab. Sample receipts were received for the delivery.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No formal audits or reviews were conducted for this reconnaissance program.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Surface sampling was conducted on a Qld state EPM (exploration permit for minerals) licence, ref no's: EPM 18331, EPM 18850, EPM18449. Located in the Mareeba District, 60 km's W of Cairns, N Qld. Tenement holder is Orion Metals Ltd. Tenement EPM 17011 located in Mareeba District also, is held by JW Withers. An options royalty agreement exists between JW Withers and Orion Metals. A Deed of Agreement exists with the Ewamiam People #3 (Native Title Party). Tenure is secure with no known impediments.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The tenure has had numerous tenants over a long time, as well as prospectors and small time alluvial operators, certainly since the 1950's. <p><i>Late 1950's - 1960; Rio Tinto Australian Exploration Pty Limited:</i> Alluvial tin exploration in a large area between Chillagoe and Mount Surprise. Conducted surface exploration and alluvial sampling.</p> <p><i>1975 - 1977; Agip Nucleare Australia Pty Ltd:</i> Looking for uranium. Conducted geological and structural mapping, heliborne spectrometer survey. No significant mineralisation identified.</p> <p><i>Late 1970's; CRA Exploration Pty Limited:</i> Diamond exploration - took bulk samples weighing 20-30kg each, looking for kimberlitic indicator minerals. No significant results and no kimberlite indicator minerals were discovered.</p> <p><i>1980 - 1981; CSR Limited - Minerals Division:</i> Drilled auger exploration holes. Only sketchy detail available No significant mineralisation was intersected.</p> <p><i>1984 - 1987; CRA Exploration Pty Limited:</i> Undertook exploration for gold, base metals and diamonds over a vast area between Chillagoe and Mount Surprise.</p> <p><i>1988; Carpentaria Exploration Company Pty Ltd:</i> Undertook gold exploration in the Warby Creek 2 Prospect area looking for gold and base metals. Conducted surface exploration with no significant results.</p> <p><i>1992 - 1996; CRA Exploration Company Pty Limited:</i> Conducted exploration for gold, silver, base metals, tin, tungsten, uranium and diamonds on their "Bonnor Knob" tenement. Work included assessment of previous exploration, stream sediment sampling, geological mapping and rock chip sampling. Weak gold anomalism was located initially, but follow up rock chip sampling returned no significant results.</p> <p><i>1996 - 1997; Various Prospectors:</i> A small private consortium held ground north in and around the Project area. They conducted prospecting and analysed some rock chips.</p> <p><i>2005 - 2007; Conquest Mining Limited:</i> Held ground covering part of the Projects area. They conducted reviews and assessments of</p>

Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<p>previous exploration work in the area. No on-ground exploration carried out.</p> <ul style="list-style-type: none"> Project tenure is located centrally within the Etheridge Province of the Georgetown Region of Northern Queensland. The Georgetown Region consists of variably metamorphosed and deformed sedimentary and volcanic rocks of Palaeo- to Mesoproterozoic age (Einasleigh Metamorphics). The Palaeoproterozoic rocks (Etheridge Province) of the Georgetown Region have been subjected to several phases of granitoid emplacement. The first phase ranges from Silurian to Early Devonian and includes mainly I-type granites. The second phase intruded from Carboniferous to Permian and consists mainly of I-type and A-type volcanic and plutonic rocks. It is these I type alkali granites which are of interest to Sn, W, and REE explorers. Late Carboniferous granitoids have extensively intruded the older strata all throughout the Georgetown Region. The O'Briens Creek Supersuite granites (including the I-Type Burlington Granite, common throughout the Project) outcrop over much of the region and comprise pale pink-white alkali feldspar-rich biotite granites, leucogranites, and microgranites. Alteration of these granites is extensive, particularly greisenisation, and most host some Sn, W, Bi, Mo, and F mineralisation. These granites are also characterized by their generally high fractionation with SiO₂ content ranging from 74-78%, high Zr, Y, Nb, Th, and anomalous REE's. The high K₂O, Th, and U give these granites a distinct white-pale pink X-ray spectrometric signature. Other granites in the region form part of the Ootann Supersuite of granitoids and include the Charlies Knob Granite, the Pat and Peter Creek Granite and the Bonner Creek Granite, along with several smaller, unnamed granitoids. The Ootann granitoids are less felsic and more varied than their O'Brien Supersuite counterparts, and range from hornblende-biotite granodiorite to biotite leucogranite. Hydrothermal alteration systems (greisen) within the granites have been identified in the region, and area primary target for Sn, W, REE, and base metals exploration. Additionally, veining, breccia, and porphyry deposit types are all likely exploration targets. The I-type alkali granites of the region, structurally deformed, and hydrothermally altered may provide suitable hosts for REE mineralisation.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable. No drilling was conducted. Not applicable.
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> There are no weighted averages, top cuts, any grade truncations applied. Not applicable to these results No metal equivalents have been used.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> No drilling was conducted. Not applicable. No drilling was conducted. Not applicable. No drilling was conducted. Not applicable.

Criteria	JORC Code explanation	Commentary
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Refer to text of this document for diagrams of stream sediment and rock chip sample locations.
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> A total of 34 individual elements have been analysed from each of the 230 submitted rock chip, soil, and stream sediment samples. Of those 34 elements, the REE assays have been presented in diagrams and tables as percentage results. Significant stream sediment results (>0.10% TREO, >0.5% Sn, and >0.10% W) are listed in Table 1. All the rock chip and soil sample REE results are detailed in Tables 2 & 3, and presented in percentages, while Sn, W, Y₂O₃, and pathfinder Bi results are listed in ppm values.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> There is no other additional substantive material to be reported.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Additional ground based geochemical survey work will be initiated, especially further work towards Sn, W, and REE target refinement. Refer to figures presented in the text with particular reference to the enlargement plans of TREO and tungsten results.