

## Thick Dy & Tb REE results in NW Block of Deep Leads

37-hole drilling campaign has expanded resource outline northwest of the Deep Leads high-grade rare earth element resource zone

Thicker mineralisation encountered and grades continue to be enriched in Dy+Tb

ABx Group (ASX: ABX) ("ABx" or "the Company") has received 316 assays from 37 holes that were the first drilled into the untested NW Block of its Deep Leads rare earth elements (REE) project, located 45 km west of Launceston, Tasmania. Several intercepts were considerably thicker than usual and extend ABx's REE mineralisation across the plateau.

**High Dy+Tb enrichment:** ABx's rare earth strategy is to produce a mixed rare earth carbonate (MREC) that is enriched in dysprosium (Dy) and terbium (Tb), the two heavy rare earths with the highest supply risk. The Dy+Tb exceeds 4.3% of Deep Leads' total rare earth oxides (TREO), which is the highest proportion of Dy and Tb of any clay-hosted rare earth resource in Australia and high by world standards. Thick zones of high-grade ionic adsorption clay rare earths with such a high proportion of Dy+Tb are extremely rare.

**Favourable ore geometry:** ABx's rare earths layer is typically 4 to 7 metres thick beneath 2 to 5 metres of clay and soil, which is ideal for restoring any mined areas to productive, fertile land (see Table 1 and Figure 2).

**ABx Group Managing Director and CEO, Mark Cooksey said:** "Drill results in the NW Block expand the resource outline for the Deep Leads high-grade rare earth zone and also enhance the areal extent from hole DL520. DL520 is one of the nearest existing drill holes and is also where rare earth extractions of over 50% were measured using low-acid (pH 4) conditions – confirmed in desorption tests by the Australian Nuclear Science and Technology Organisation (ANSTO) and in-house tests."

**Table 1: thick rare earth intercepts in NW Block enriched in Dy+Tb**

Locations in Figure 2. Results of all holes are in Table 3

Hole	From (m)	To (m)	Thickness (m)	Hole depth (m)	TREO ppm	TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Permanent Magnet REE "SuperMags"				Dy+Tb TREO %	Other REO ppm	Very low U & Th	
									Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm			ThO <sub>2</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm
RM438	1	8	7	14	458	458	371	106	69	18	2.5	16.7	4.2%	352	5.8	1.7
RM457	4	14	10	24	680	680	602	199	131	35	4.7	28.4	4.9%	481	4.3	1.0
DL614	1	6	5	9	517	463	342	115	78	20	2.6	14.8	3.8%	402	6.1	1.8
DL616	0	10	10	13	555	482	455	137	88	21	4.2	24.3	5.9%	418	8.0	2.0
DL618	2	8	6	9	453	453	345	124	85	19	2.7	17.0	4.4%	329	7.0	2.3
DL619	2	16	14	19	513	403	376	104	67	16	2.8	18.4	5.2%	408	4.6	1.6
DL620	2	7	5	10	527	458	357	133	90	21	2.8	18.2	4.6%	394	6.0	1.4
DL621	1	9	8	11	497	489	406	145	98	23	3.1	20.4	4.8%	352	6.7	1.8
DL622	4	11	7	11	378	378	305	75	44	10	2.7	17.6	5.4%	303	4.9	1.2
DL625	3	6	3	8	707	465	438	156	105	25	3.5	22.2	5.5%	551	4.9	1.3

TREO is total rare earth oxides & Y<sub>2</sub>O<sub>3</sub> (15 oxides in total). TREO-CeO<sub>2</sub> = TREO minus ppm CeO<sub>2</sub>.

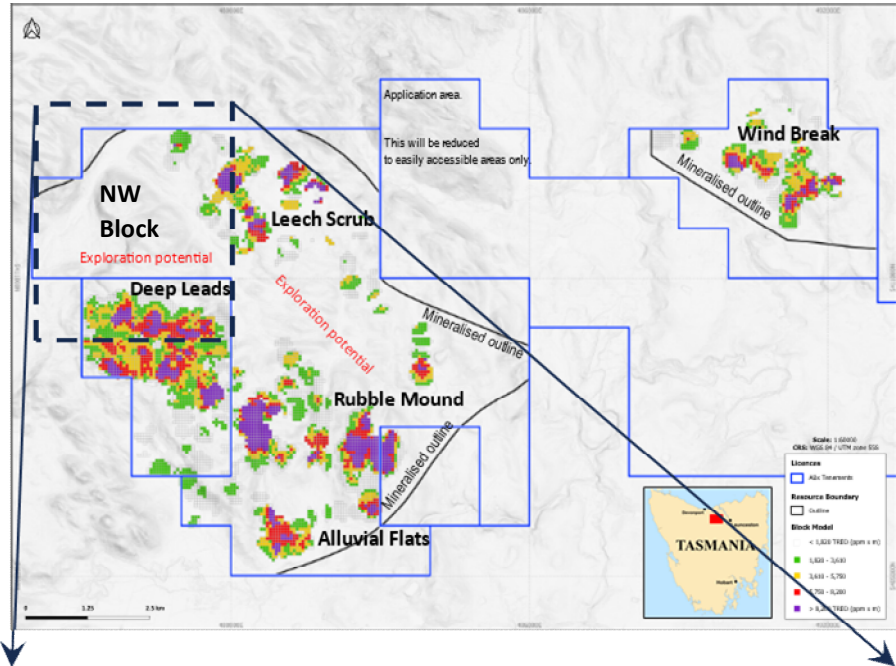
High Dy+Tb intercepts.

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**Figure 1**

Location of NW Block and ABx's 89 million tonne rare earth resources of Deep Leads, Rubble Mound, Alluvial Flats, Leech Scrub and Wind Break.

See ASX release: ABx Rare Earth Resources Increase 70% to 89Mt 02/05/2024



**Figure 2**

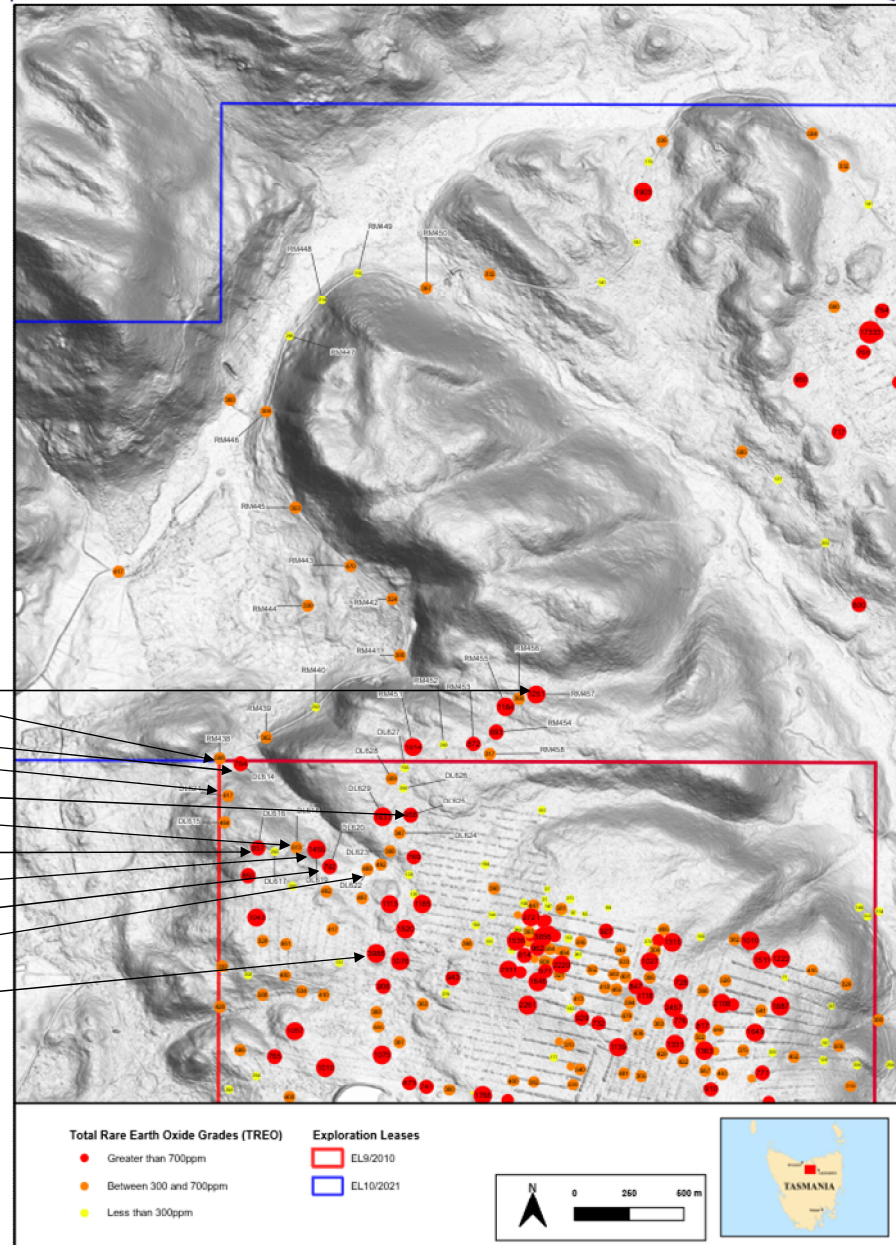
NW Block Drillholes  
Maximum TREO values

Location of major recent drillhole intercepts in the NW Block

Hole	From (m)	To (m)	Thickness (m)	TREO ppm	Dy+Tb TREO %
RM457	4	14	10	680	4.9%
RM438	1	8	7	458	4.2%
DL614	1	6	5	517	3.8%
DL621	1	9	8	497	4.8%
DL625	3	6	3	707	5.5%
DL618	2	8	6	453	4.4%
DL616	0	10	10	555	5.9%
DL619	2	16	14	513	5.2%
DL620	2	7	5	527	4.6%
DL622	4	11	7	378	5.4%

Location of Hole DL520 which has excellent extraction results

See below.



## Desorption Extraction Results from NW Block

Hole DL520 is the nearest hole in NW Block to these new holes that has been tested for extraction during desorption tests. In tests conducted by ANSTO and repeated at ABx's facilities in Tasmania, extractions at pH 4 of well above 50% were obtained.<sup>1</sup>

Clay-hosted rare earth deposits typically contain a mixture of ionic adsorption clay (IAC, the ionic component) and a non-ionic component. The rare earths in the ionic component can be leached using a low-cost desorption process. Industry processing experts indicate that it is very difficult to economically extract rare earths from the non-ionic component. Thus, it is critical to have a high ionic proportion.

The ABx strategy is to produce a mixed rare earth carbonate that can be sold to rare earth separation plants, for conversion into separated rare earth oxides. Numerous discussions with potential customers and investors have confirmed the particular strengths of the ABx rare earth deposits.

## Interpretations of Drilling Results

1. Deep Leads plateau is well mineralised with REE-rich zones that have high extraction
2. NW Block appears to be an extension of the Deep Leads plateau mineralisation
3. River flats in this area appear to be diluted by alluvium that may have a volcanoclastic origin
4. NW block holes include rare earth intercepts that are thicker and richer in Dy+Tb than average.

This announcement is approved for release by the board of directors.

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## About ABx Group Limited

ABx Group (ABX) is a uniquely positioned, high-tech Australian company delivering materials for a cleaner future. The two current areas of focus are:

- Creation of an ionic adsorption clay rare earth project in northern Tasmania
- Establishment of a plant to produce hydrogen fluoride and aluminium fluoride from recycled industrial waste, via its 83%-owned subsidiary, Alcore

<sup>1</sup> ASX Announcement, 2 February 2023



There is also a niche business of mining and enhancing bauxite resources for cement, aluminium and fertiliser production.

ABx endorses best practices on agricultural land and strives to leave land and environment better than we find it. We only operate where welcomed.

## Qualifying statements

### Disclaimer Regarding Forward Looking Statements

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements.

ABx does not give any assurance that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.

### General

Information in this report relating to Exploration Information and Mineral Resources is based on information compiled by Ian Levy who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Levy is a qualified geologist and director of ABx Group Limited.

Mr Levy 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 Levy has consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

**Table 2 - Summary of resource estimation information of 20 November 2023 referred to above, in accordance with LR 5.8.1**

<b>Geology and geological interpretation</b>	REE mineralisation occurs in clay layers that overlie a Jurassic age dolerite basement in a district with some residual weathered Tertiary age alkali basalt. Jurassic age tholeiitic dolerite and Tertiary age bauxite-laterite are the main bedrock geological units. Paleochannels host thicker clay zones which host the rare earth element mineralisation.
<b>Sampling and sub-sampling techniques</b>	Sampling was at 1 metre intervals. Subsampling for assaying is by quartering the clay samples twice and each time, mixing diagonally opposite quarters. Assay results from resampling correspond satisfactorily.
<b>Drilling techniques</b>	RC aircore and push-tube coring used. Auger drilling is being tested.
<b>Criteria used for classification, including drill and data spacing and distribution.</b>	Not applicable for this report.
<b>Sample analytical method</b>	Assay samples are analysed by standard NATA-approved induction coupled plasma analytical methods for rare earth elements at ALS labs in Brisbane (method ME-MS81) and LabWest in Perth (method MMA04). Interlab comparisons proved satisfactory.
<b>Estimation methodology</b>	Not applicable for this report.
<b>Cut-off grade</b>	Not applicable for this report.
<b>Mining and metallurgical methods and parameters, and other modifying factors</b>	None applicable at this resource-drilling stage. Production and rehabilitation strategies are being reviewed. Deposits of this type are mined in China but under very different jurisdictions. The land is freehold hardwood and pine plantations.

Table 3 shows the drill assay data and the JORC Appendix 1 information is attached.

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**Table 3**  
**Drill Results from the recent 37-hole drill program in NW Block**

Hole ID	From (m)	To (m)	Metre (m)	Max depth (m)	WGS84 55S			TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Dy:Tb TREO %	Permanent Magnet REE "Perm Mags"				Other rare earth elements and yttrium										Low U & Th		
					East	North	RL LIDAR (m)					Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	ThO <sub>2</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm
DL614	0	1	1	9	477098	5410988	292	193	153	50	4.9%	33	8	1.3	8.1	40	5	2	7	2	33	1	7	1	4	42	7.5	2.1
DL614	1	2	1	9	477098	5410988	292	539	308	94	2.8%	62	17	2.4	12.9	232	9	4	13	3	68	1	11	1	8	96	6.2	1.8
DL614	2	3	1	9	477098	5410988	292	764	373	128	2.3%	89	22	2.5	14.9	391	10	4	15	3	87	1	17	2	8	97	6.0	1.9
DL614	3	4	1	9	477098	5410988	292	423	327	110	4.1%	73	20	2.6	14.9	96	10	4	15	3	70	1	17	1	9	86	5.9	1.8
DL614	4	5	1	9	477098	5410988	292	506	415	148	4.3%	100	26	3.2	18.4	91	10	6	19	4	90	1	20	1	9	107	6.0	1.8
DL614	5	6	1	9	477098	5410988	292	352	288	95	4.3%	64	16	2.3	12.9	65	9	4	14	3	59	1	13	1	7	81	6.4	1.7
DL615	0	1	1	8	477026	5410719	315	149	103	33	3.9%	22	6	0.9	4.9	46	3	1	5	1	20	0	6	0	3	29	9.6	2.8
DL615	1	2	1	8	477026	5410719	315	215	33	10	0.9%	7	2	0.2	1.8	182	1	0	1	0	7	0	1	0	1	10	8.5	2.6
DL615	2	3	1	8	477026	5410719	315	464	89	28	0.9%	19	5	0.7	3.7	375	3	1	4	1	19	0	4	0	3	26	7.4	2.1
DL615	3	4	1	8	477026	5410719	315	421	205	65	2.5%	44	11	1.6	9.1	216	6	3	9	2	41	1	10	1	6	61	7.4	2.0
DL615	4	5	1	8	477026	5410719	315	333	244	77	4.2%	50	13	1.9	12.1	90	8	3	11	2	48	1	11	1	7	74	7.2	2.0
DL615	5	6	1	8	477026	5410719	315	321	218	70	4.2%	44	12	1.8	11.6	103	7	3	10	2	40	1	10	1	7	67	7.8	2.1
DL616	0	1	1	13	477178	5410604	273	476	353	113	4.0%	75	18	2.6	16.5	123	11	5	17	3	63	1	17	1	9	113	8.0	2.1
DL616	1	2	1	13	477178	5410604	273	840	694	229	4.7%	153	36	6.1	33.7	146	21	10	37	7	106	3	37	3	20	220	9.3	2.4
DL616	2	3	1	13	477178	5410604	273	857	744	232	5.3%	152	35	6.6	39.0	114	24	12	43	8	109	3	38	4	21	251	9.0	2.1
DL616	3	4	1	13	477178	5410604	273	775	643	192	5.1%	123	29	6.3	33.4	132	21	10	36	7	94	3	34	3	18	225	7.8	2.0
DL616	4	5	1	13	477178	5410604	273	735	627	173	6.0%	104	26	6.4	37.5	108	21	9	38	8	89	3	30	3	19	234	8.0	1.7
DL616	5	6	1	13	477178	5410604	273	513	424	120	5.7%	74	17	4.1	25.0	88	15	6	24	5	60	2	18	2	14	159	7.9	2.0
DL616	6	7	1	13	477178	5410604	273	365	292	84	5.4%	51	13	2.8	17.0	73	11	4	17	3	44	1	13	1	9	104	7.7	1.5
DL616	7	8	1	13	477178	5410604	273	329	258	75	5.2%	47	11	2.4	14.6	72	9	4	14	3	39	1	13	1	8	91	7.9	1.7
DL616	8	9	1	13	477178	5410604	273	325	257	76	4.7%	49	11	2.2	13.0	68	8	3	13	3	41	1	12	1	8	91	6.6	1.8
DL616	9	10	1	13	477178	5410604	273	334	260	76	4.7%	49	12	2.4	13.1	74	7	3	13	3	46	1	13	1	8	88	8.3	2.1
DL616	10	11	1	13	477178	5410604	273	228	164	48	4.6%	30	8	1.6	8.8	64	6	2	8	2	28	1	8	1	5	56	7.4	1.7
DL616	11	12	1	13	477178	5410604	273	193	138	42	4.3%	27	6	1.2	7.1	55	5	1	7	1	23	1	6	1	4	46	7.5	1.6
DL616	12	13	1	13	477178	5410604	273	227	157	46	4.2%	29	7	1.2	8.4	70	5	2	8	2	26	1	8	1	5	54	6.6	1.6
DL617	0	1	1	24	477254	5410588	311	123	77	23	3.8%	14	4	0.6	4.1	46	3	1	4	1	13	0	3	0	3	26	8.3	1.9
DL617	1	2	1	24	477254	5410588	311	213	122	41	3.2%	28	7	1.0	5.9	91	4	2	7	1	20	0	6	1	4	35	8.1	2.1
DL617	2	3	1	24	477254	5410588	311	188	123	42	4.0%	29	6	0.9	6.6	65	4	2	6	1	20	1	6	1	4	38	7.9	2.0
DL617	3	4	1	24	477254	5410588	311	194	109	38	3.2%	25	6	0.8	5.4	85	3	1	5	1	18	1	6	0	3	31	7.5	2.2
DL617	4	5	1	24	477254	5410588	311	208	123	44	3.6%	30	7	1.1	6.3	84	4	2	6	1	19	1	6	1	4	36	7.9	2.0
DL617	5	6	1	24	477254	5410588	311	211	125	40	3.6%	26	7	1.1	6.5	86	4	2	6	1	21	1	6	1	4	38	7.6	1.6
DL617	6	7	1	24	477254	5410588	311	233	158	48	3.9%	31	7	1.2	7.8	76	5	2	8	2	26	1	7	1	5	53	7.8	1.6
DL617	7	8	1	24	477254	5410588	311	243	171	55	4.3%	36	8	1.4	9.0	71	6	2	8	2	29	1	8	1	5	54	7.7	1.7
DL617	8	9	1	24	477254	5410588	311	285	213	64	4.5%	41	10	1.7	11.1	72	6	3	11	2	38	1	9	1	6	71	7.2	1.7
DL617	9	10	1	24	477254	5410588	311	252	188	56	4.4%	35	10	1.4	9.8	64	6	3	9	2	32	1	9	1	5	64	7.1	1.7
DL617	10	11	1	24	477254	5410588	311	243	187	57	4.5%	37	9	1.4	9.5	57	6	2	9	2	32	1	8	1	5	63	7.0	2.0
DL617	11	12	1	24	477254	5410588	311	246	183	56	4.5%	36	9	1.4	9.8	63	5	2	9	2	32	1	9	1	5	60	7.1	2.0
DL617	12	13	1	24	477254	5410588	311	166	125	38	4.8%	24	6	0.9	7.0	41	4	2	6	1	20	1	6	1	4	42	7.2	2.1
DL617	13	14	1	24	477254	5410588	311	176	132	39	4.8%	24	6	1.0	7.4	44	4	2	6	2	23	1	6	1	4	45	6.5	1.9
DL617	14	15	1	24	477254	5410588	311	182	138	39	4.8%	24	6	1.2	7.5	44	4	2	7	2	24	1	5	1	4	49	7.0	1.6
DL617	15	16	1	24	477254	5410588	311	163	129	37	5.1%	23	5	1.1	7.2	34	4	1	6	2	22	1	6	1	4	46	6.7	1.8
DL617	16	17	1	24	477254	5410588	311	196	159	45	4.6%	29	8	1.3	7.6	36	5	2	8	2	29	1	6	1	4	57	6.2	1.4
DL617	17	18	1	24	477254	5410588	311	226	176	49	4.3%	31	9	1.3	8.4	50	6	2	8	2	34	1	6	1	5	61	5.9	1.3
DL617	18	19	1	24	477254	5410588	311	230	178	52	4.4%	33	8	1.5	8.7	52	6	2	8	2	34	1	7	1	5	61	6.1	1.4
DL617	19	20	1	24	477254	5410588	311	194	144	42	4.3%	26	7	1.2	7.2	49	4	2	7	2	29	1	6	1	4	48	6.0	1.5
DL617	20	21	1	24	477254	5410588	311	198	154	46	4.3%	30	8	1.3	7.2	43	4	2	8	1	30	1	8	1	4	48	6.1	1.4
DL617	21	22	1	24	477254	5410588	311	223	173	54	4.4%	35	9	1.3	8.5	50	5	2	9	2	33	1	8	1	4	54	6.1	1.3
DL617	22	23	1	24	477254	5410588	311	182	131	40	4.4%	26	6	1.2	6.9	52	4	1	7	1	24	1	5	1	4	41	5.9	1.2
DL617	23	24	1	24	477254	5410588	311	178	129	38	4.4%	24	5	1.0	6.9	49	4	2	6	1	26	0	5	1	4	42	5.5	1.1
DL618	0	1	1	9	477355	5410607	312	159	79	23	2.7%	15	4	0.6	3.6	80	2	1	4	1	17	0	4	0	3	25	8.4	2.4
DL618	1	2	1	9	477355	5410607	312	504	212	72	2.1%	49	12	1.4	8.9	292	6	2	9	2	44	1	10	1	6	60	6.9	2.0
DL618	2	3	1	9	477355	5410607	312	485	293	109	3.2%	77	17	2.1	13.4	192	7	4	14	3	57	1	16	1	8	73	7.5	2.4
DL618	3	4	1	9	477355	5410607	312	531	387	146	3.9%	102	23	2.7	18.2	144	10	6	18	3	70	2	22	2	11	97	7.6	2.8
DL618	4	5	1																									

Hole ID	From (m)	To (m)	Metre (m)	Max depth (m)	East	North	RL LIDAR (m)	TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Dy+Tb TREO %	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	ThO <sub>2</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm
DL619	13	14	1	19	477446	5410599	306	597	560	125	6.2%	72	17	4.8	31.9	37	20	5	27	7	73	2	17	3	16	264	4.1	2.3
DL619	14	15	1	19	477446	5410599	306	545	461	106	5.8%	60	14	4.2	27.7	85	17	5	22	6	66	2	15	2	15	204	3.6	1.9
DL619	15	16	1	19	477446	5410599	306	376	334	75	6.3%	41	10	3.0	20.6	42	13	3	17	4	45	2	10	2	10	154	3.6	1.9
DL619	16	17	1	19	477446	5410599	306	219	175	48	4.4%	31	7	1.4	8.3	44	5	2	8	2	31	1	7	1	5	64	3.7	2.0
DL619	17	18	1	19	477446	5410599	306	133	110	31	4.6%	20	5	0.8	5.3	23	3	1	5	1	20	1	4	1	3	40	3.6	1.3
DL619	18	19	1	19	477446	5410599	306	130	100	27	4.2%	18	4	0.7	4.7	30	3	1	5	1	17	0	4	0	3	37	3.2	1.2
DL620	0	1	1	10	477506	5410517	310	89	71	21	4.7%	13	3	0.6	3.7	18	2	1	3	1	14	0	2	0	2	26	7.0	2.0
DL620	1	2	1	10	477506	5410517	310	115	75	22	3.3%	14	4	0.5	3.3	41	2	1	3	1	16	0	2	0	2	24	6.2	1.8
DL620	2	3	1	10	477506	5410517	310	792	261	96	1.8%	65	16	2.0	12.3	532	7	3	12	3	51	1	14	1	8	65	5.7	1.3
DL620	3	4	1	10	477506	5410517	310	437	323	118	4.7%	78	19	2.6	18.1	114	10	5	17	4	56	2	18	2	12	80	6.2	1.4
DL620	4	5	1	10	477506	5410517	310	384	316	110	5.5%	72	17	2.9	18.1	68	11	5	17	4	52	2	18	2	12	85	6.6	1.5
DL620	5	6	1	10	477506	5410517	310	550	497	189	5.1%	131	30	3.7	24.4	53	14	8	25	5	95	2	30	2	14	115	6.0	1.5
DL620	6	7	1	10	477506	5410517	310	472	387	151	4.4%	105	25	2.8	18.0	85	8	6	19	3	81	1	23	1	8	85	5.4	1.3
DL620	9	10	1	10	477506	5410517	310	206	166	60	4.4%	41	9	1.3	7.7	41	4	3	8	2	32	1	9	1	4	44	4.2	1.2
DL621	0	1	1	11	477041	5410843	287	239	182	55	4.4%	36	8	1.5	9.1	57	5	2	10	2	37	1	9	1	5	55	6.0	1.7
DL621	1	2	1	11	477041	5410843	287	557	398	159	3.5%	114	26	2.6	17.0	158	10	6	18	3	79	2	23	1	10	88	6.4	1.8
DL621	2	3	1	11	477041	5410843	287	617	491	188	4.3%	131	30	3.5	22.8	126	13	7	24	5	93	2	29	2	14	116	6.5	1.7
DL621	3	4	1	11	477041	5410843	287	577	485	177	4.6%	122	28	3.6	22.7	92	14	7	25	5	91	2	29	2	14	120	6.9	1.8
DL621	4	5	1	11	477041	5410843	287	488	412	137	5.2%	91	21	3.4	21.8	76	12	6	21	4	73	2	23	2	13	118	6.6	1.8
DL621	5	6	1	11	477041	5410843	287	545	471	171	4.8%	117	27	3.5	22.7	74	14	7	23	4	88	2	27	2	13	121	6.8	2.0
DL621	6	7	1	11	477041	5410843	287	460	394	139	5.0%	93	22	3.1	20.0	67	11	5	19	4	74	2	21	2	12	105	7.0	2.0
DL621	7	8	1	11	477041	5410843	287	408	343	112	5.7%	71	17	3.2	20.0	65	12	5	19	4	59	1	16	2	11	103	7.4	2.0
DL621	8	9	1	11	477041	5410843	287	324	257	77	5.5%	48	11	2.2	15.7	67	9	3	14	3	40	1	12	1	8	88	6.4	1.8
DL622	0	1	1	11	477679	5410506	311	329	273	103	4.3%	71	17	2.1	12.2	56	7	4	14	2	58	1	15	1	6	63	8.1	1.9
DL622	1	2	1	11	477679	5410506	311	124	96	32	3.9%	22	5	0.7	4.1	29	3	1	5	1	20	0	5	0	2	26	8.5	2.1
DL622	2	3	1	11	477679	5410506	311	126	96	26	4.1%	17	4	0.6	4.5	29	3	1	5	1	20	0	4	0	3	33	6.4	1.5
DL622	3	4	1	11	477679	5410506	311	210	171	47	5.1%	29	7	1.4	9.4	39	6	2	8	2	31	1	8	1	5	59	5.6	1.2
DL622	4	5	1	11	477679	5410506	311	488	354	86	4.4%	52	12	2.8	18.8	134	12	4	17	4	57	1	11	2	10	150	4.8	1.0
DL622	5	6	1	11	477679	5410506	311	434	349	85	5.2%	50	12	3.1	19.4	85	13	4	17	4	53	2	12	2	10	146	4.9	1.1
DL622	6	7	1	11	477679	5410506	311	422	359	88	5.4%	54	12	3.0	19.7	64	13	4	18	4	54	1	12	2	10	152	4.7	1.1
DL622	7	8	1	11	477679	5410506	311	395	332	83	5.6%	49	11	3.1	19.1	63	13	4	17	4	50	2	12	2	9	137	4.6	1.2
DL622	8	9	1	11	477679	5410506	311	346	284	68	5.9%	39	9	2.6	17.9	62	10	3	15	4	38	1	9	1	9	124	5.1	1.4
DL622	9	10	1	11	477679	5410506	311	293	240	59	5.9%	33	8	2.1	15.3	54	9	3	12	3	33	1	8	1	8	102	5.1	1.3
DL622	10	11	1	11	477679	5410506	311	267	219	54	5.7%	31	8	2.0	13.3	47	8	3	11	3	32	1	8	1	7	91	5.1	1.2
DL623	0	1	1	3	477783	5410592	312	388	305	81	5.5%	47	12	2.8	18.6	84	10	4	16	4	47	2	12	2	9	119	6.3	1.5
DL623	1	2	1	3	477783	5410592	312	156	119	33	5.5%	20	5	1.1	7.5	37	4	2	6	1	18	1	5	1	4	45	4.1	1.0
DL624	0	1	1	4	477826	5410675	310	143	105	29	4.4%	18	4	0.8	5.5	37	3	1	5	1	21	0	4	0	3	37	8.9	1.9
DL624	1	2	1	4	477826	5410675	310	149	107	28	4.0%	17	5	0.8	5.3	42	3	1	5	1	24	0	4	0	3	37	8.0	2.0
DL624	2	3	1	4	477826	5410675	310	347	168	49	2.8%	31	8	1.1	8.7	179	5	2	7	2	37	1	6	1	4	54	7.0	1.9
DL624	3	4	1	4	477826	5410675	310	179	117	34	4.1%	21	5	0.9	6.5	62	4	1	5	1	21	0	5	0	4	39	5.0	1.5
DL625	0	1	1	8	477876	5410754	310	119	79	24	3.3%	16	4	0.5	3.4	40	2	1	4	1	16	0	3	0	3	24	9.3	2.0
DL625	1	2	1	8	477876	5410754	310	111	84	25	4.5%	16	4	0.6	4.5	28	2	1	4	1	18	0	4	0	3	26	7.1	1.6
DL625	2	3	1	8	477876	5410754	310	438	195	68	2.6%	45	11	1.4	10.1	243	5	2	9	2	43	1	9	1	5	51	6.8	1.7
DL625	3	4	1	8	477876	5410754	310	770	421	151	3.1%	103	25	3.3	20.5	349	11	6	20	4	88	1	21	2	11	106	5.7	1.4
DL625	4	5	1	8	477876	5410754	310	968	601	222	3.6%	152	35	4.7	30.3	367	16	9	31	6	119	3	34	2	15	143	5.3	1.4
DL625	5	6	1	8	477876	5410754	310	384	291	93	4.8%	61	14	2.6	15.8	93	9	4	17	3	48	1	14	1	8	93	3.8	1.1
DL626	0	1	1	18	477842	5410880	305	58	36	11	4.0%	7	2	0.3	2.1	21	1	0	2	0	7	0	1	0	1	11	9.2	2.6
DL626	1	2	1	18	477842	5410880	305	35	18	5	3.2%	3	1	0.2	1.0	17	1	0	1	0	4	0	1	0	1	5	6.9	2.3
DL626	2	3	1	18	477842	5410880	305	69	25	8	1.8%	5	1	0.2	1.1	44	1	0	1	0	6	0	1	0	1	7	7.1	1.7
DL626	3	4	1	18	477842	5410880	305	141	49	17	1.8%	12	3	0.4	2.1	92	1	1	2	0	10	0	2	0	1	13	6.4	1.7
DL626	4	5	1	18	477842	5410880	305	153	69	23	2.6%	16	4	0.5	3.4	85	2	1	3	1	13	0	4	0	3	18	5.6	1.8
DL626	5	6	1	18	477842	5410880	305	207	63	23	2.0%	16	3	0.5	3.7	144	2	1	4	1	10	0	3	0	2	15	5.4	2.1
DL626	6	7	1	18	477842	5410880	305	149	63	22	2.9%	14	3	0.6	3.7	86	2	1	3	1	9	0	4	0	3	18	6.0	2.0
DL626	7	8	1	18	477842	5410880	305	154	66	21	2.9%	13	3	0.6	3.8	88	3	1	4	1	9	0	3	0				

Hole ID	From (m)	To (m)	Metre (m)	Max depth (m)	East	North	RL LIDAR (m)	TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Dy <sub>2</sub> O <sub>3</sub> TREO %	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	ThO <sub>2</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm
DL629	1	2	1	6	477748	5410747	309	637	136	47	1.0%	33	8	0.9	5.2	501	3	1	5	1	34	1	5	0	3	35	7.4	2.1
DL629	2	3	1	6	477748	5410747	309	1633	362	126	1.0%	86	23	2.4	14.6	1271	9	5	16	3	82	1	18	1	8	92	5.2	1.6
DL629	3	4	1	6	477748	5410747	309	345	177	60	2.6%	41	10	1.2	7.8	168	4	2	8	2	39	1	8	1	5	47	7.3	2.1
DL629	4	5	1	6	477748	5410747	309	394	257	89	3.4%	60	15	1.7	11.6	137	7	3	12	2	53	1	11	1	6	72	4.9	1.3
RM438	0	1	1	14	477002	5411012	266	147	102	31	3.6%	20	5	0.7	4.6	45	3	1	5	1	24	0	3	0	3	31	8.3	2.1
RM438	1	2	1	14	477002	5411012	266	531	352	97	3.1%	63	17	2.3	14.2	179	9	3	13	3	84	1	11	1	9	121	6.4	1.8
RM438	2	3	1	14	477002	5411012	266	596	478	134	3.8%	88	23	2.9	20.0	117	13	4	18	4	108	2	18	2	11	164	6.0	2.1
RM438	3	4	1	14	477002	5411012	266	507	433	123	4.4%	80	21	2.9	19.5	73	12	4	18	4	92	1	18	2	11	148	5.9	1.6
RM438	4	5	1	14	477002	5411012	266	500	431	127	4.5%	83	21	3.2	19.1	69	13	5	19	4	88	2	21	2	12	139	5.6	1.6
RM438	5	6	1	14	477002	5411012	266	431	374	108	4.8%	70	18	2.6	18.0	57	10	4	16	4	75	1	15	1	9	130	5.2	1.6
RM438	6	7	1	14	477002	5411012	266	310	260	75	5.0%	49	11	2.0	13.6	49	8	3	12	3	48	1	11	1	7	91	5.5	1.6
RM438	7	8	1	14	477002	5411012	266	330	266	75	4.5%	48	12	2.1	12.9	64	9	3	12	3	50	1	10	1	7	95	6.0	1.5
RM438	8	9	1	14	477002	5411012	266	290	226	67	4.5%	44	10	1.7	11.2	64	7	3	10	2	44	1	9	1	6	76	6.9	1.9
RM438	9	10	1	14	477002	5411012	266	215	170	46	4.4%	29	7	1.3	8.0	45	6	2	8	2	30	1	7	1	5	63	5.3	1.5
RM438	10	11	1	14	477002	5411012	266	200	159	43	4.4%	28	7	1.2	7.6	41	5	2	7	2	28	1	6	1	4	61	5.0	1.6
RM438	11	12	1	14	477002	5411012	266	210	167	48	4.5%	31	7	1.3	8.1	43	5	2	8	2	31	1	8	1	5	57	5.2	1.3
RM438	12	13	1	14	477002	5411012	266	266	195	57	4.3%	36	9	1.6	9.9	71	6	2	9	2	37	1	8	1	5	67	6.3	1.7
RM438	13	14	1	14	477002	5411012	266	232	170	47	4.3%	30	7	1.4	8.6	62	5	2	8	2	30	1	7	1	5	62	5.1	1.7
RM439	0	1	1	14	477214	5411111	264	177	125	35	3.9%	22	6	1.0	6.0	52	4	1	5	1	24	0	5	1	4	44	7.1	2.0
RM439	1	2	1	14	477214	5411111	264	168	125	39	4.4%	26	6	0.9	6.5	43	4	1	5	1	24	1	5	1	4	41	7.8	2.3
RM439	2	3	1	14	477214	5411111	264	194	134	40	3.9%	26	6	1.1	6.4	60	4	1	6	1	27	1	5	1	4	44	8.4	2.7
RM439	3	4	1	14	477214	5411111	264	353	221	78	3.2%	53	14	1.6	9.5	132	5	2	10	2	54	1	10	1	5	55	9.9	3.6
RM439	4	5	1	14	477214	5411111	264	340	253	87	3.9%	58	15	2.0	11.2	87	6	2	11	2	59	1	12	1	6	65	10.2	4.4
RM439	5	6	1	14	477214	5411111	264	210	141	46	3.1%	32	8	0.9	5.7	69	4	1	7	1	34	1	6	0	3	38	10.8	3.8
RM439	7	8	1	14	477214	5411111	264	362	228	83	2.9%	58	15	1.5	9.1	133	5	1	9	2	58	1	11	1	4	53	23.9	5.3
RM439	9	10	1	14	477214	5411111	264	235	159	53	3.4%	36	9	1.0	7.0	76	4	1	7	1	35	1	7	1	4	44	12.3	4.2
RM439	11	12	1	14	477214	5411111	264	167	111	34	3.5%	22	6	0.7	5.1	56	3	1	4	1	25	0	5	0	3	34	7.7	3.5
RM439	12	13	1	14	477214	5411111	264	205	142	47	3.8%	31	8	1.1	6.7	63	4	1	7	1	30	0	7	1	3	41	7.6	2.9
RM440	1	2	1	39	477440	5411245	266	175	120	41	3.7%	27	7	0.7	5.8	55	3	1	5	1	27	0	6	0	3	32	10.8	3.1
RM440	3	4	1	39	477440	5411245	266	267	172	59	3.1%	39	11	1.1	7.1	95	4	1	7	1	44	1	8	1	4	42	14.1	6.1
RM440	6	7	1	39	477440	5411245	266	195	129	45	3.3%	31	8	0.9	5.6	66	3	1	5	1	30	0	5	1	4	33	13.4	5.3
RM440	9	10	1	39	477440	5411245	266	292	192	70	3.1%	48	13	1.3	7.7	100	4	2	9	2	47	1	10	1	4	44	11.0	6.2
RM440	12	13	1	39	477440	5411245	266	132	93	27	4.1%	17	4	0.6	4.7	38	3	1	4	1	18	0	4	0	3	32	10.8	3.4
RM440	15	16	1	39	477440	5411245	266	191	118	38	3.0%	26	7	0.7	5.0	73	3	1	4	1	27	1	6	0	3	33	11.2	3.5
RM440	18	19	1	39	477440	5411245	266	161	102	35	2.9%	24	6	0.6	4.0	58	3	1	4	1	25	0	4	0	2	27	11.8	3.0
RM440	21	22	1	39	477440	5411245	266	198	131	45	3.5%	30	8	0.9	6.0	67	3	1	6	1	32	1	6	0	3	33	10.4	5.0
RM440	24	25	1	39	477440	5411245	266	225	148	49	3.2%	33	9	1.1	6.2	78	4	1	6	1	33	1	7	1	4	40	11.9	4.1
RM440	27	28	1	39	477440	5411245	266	257	168	56	3.2%	38	10	1.2	7.1	89	4	1	7	1	36	1	7	1	4	50	13.1	3.6
RM440	30	31	1	39	477440	5411245	266	225	151	51	3.3%	35	9	1.2	6.2	74	4	1	7	1	34	1	7	1	4	42	13.5	3.5
RM440	33	34	1	39	477440	5411245	266	212	142	46	3.4%	31	8	1.1	6.2	70	4	1	7	1	28	1	7	1	4	44	12.9	2.9
RM440	36	37	1	39	477440	5411245	266	223	146	47	3.3%	31	8	1.1	6.3	78	4	1	7	1	32	1	7	1	4	42	13.5	3.5
RM441	0	1	1	18	477825	5411483	285	181	118	39	3.3%	25	7	0.8	5.2	63	3	1	5	1	26	1	5	0	3	34	12.3	2.8
RM441	3	4	1	18	477825	5411483	285	380	244	84	2.6%	58	17	1.5	8.5	136	5	2	10	2	65	1	10	1	5	59	19.3	4.9
RM441	6	7	1	18	477825	5411483	285	344	211	71	2.4%	49	14	1.3	7.0	133	5	2	9	1	58	1	9	1	5	49	22.0	4.6
RM441	9	10	1	18	477825	5411483	285	244	144	51	2.0%	36	10	0.8	4.1	100	3	1	5	1	43	0	6	0	3	30	18.9	2.9
RM441	12	13	1	18	477825	5411483	285	222	132	49	2.2%	34	10	0.8	4.0	90	2	1	5	1	39	0	6	0	2	26	14.8	2.4
RM441	15	16	1	18	477825	5411483	285	80	48	16	2.2%	11	3	0.2	1.5	32	1	1	2	0	13	0	3	0	1	11	4.3	0.9
RM441	17	18	1	18	477825	5411483	285	122	69	25	2.2%	18	5	0.4	2.3	52	2	1	3	0	19	0	3	0	1	15	6.3	1.2
RM442	1	2	1	15	477789	5411742	271	116	61	20	3.2%	13	3	0.5	3.1	55	2	1	3	1	12	0	2	0	2	18	7.2	1.9
RM442	3	4	1	15	477789	5411742	271	214	151	49	3.9%	32	9	1.3	7.0	62	4	2	8	2	31	1	7	1	4	43	5.6	1.4
RM442	5	6	1	15	477789	5411742	271	149	109	31	4.1%	20	5	0.8	5.3	41	4	1	5	1	19	1	5	1	3	38	4.8	1.2
RM442	7	8	1	15	477789	5411742	271	305	190	67	2.7%	47	12	1.2	6.9	114	3	2	8	1	50	1	7	1	4	46	16.6	4.1
RM442	10	11	1	15	477789	5411742	271	324	203	70	2.5%	49	13	1.2	7.0	121	5	2	8	1	53	1	10	1	4	48	18.1	4.7
RM442	14	15	1	15	477789	5411742	271	192	115	39	2.1%	27	8	0.6	3.5	78	2	1	4	1	33	0	7	0	2			



Hole ID	From (m)	To (m)	Metre (m)	Max depth (m)	East	North	RL LIDAR (m)	TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Dy <sub>2</sub> Tb TREO %	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>2</sub> O <sub>3</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	ThO <sub>2</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm
RM446	4	5	1	22	477210	5412596	242	356	221	79	2.3%	56	16	1.2	6.8	135	4	2	8	1	63	1	11	1	4	47	18.7	4.7
RM446	5	6	1	22	477210	5412596	242	348	220	76	2.6%	52	15	1.3	7.8	128	5	2	8	2	60	1	9	1	5	52	18.5	4.8
RM446	6	7	1	22	477210	5412596	242	306	187	66	2.8%	44	13	1.2	7.4	120	4	2	7	1	51	1	8	1	4	43	16.4	4.0
RM446	7	8	1	22	477210	5412596	242	184	99	34	2.0%	24	6	0.5	3.2	85	3	1	3	1	28	0	3	0	2	23	11.7	2.6
RM446	8	9	1	22	477210	5412596	242	199	116	41	2.4%	28	8	0.8	4.1	83	3	1	4	1	31	0	5	0	3	26	12.6	3.2
RM446	12	13	1	22	477210	5412596	242	253	156	58	2.3%	41	11	0.9	5.1	97	3	1	6	1	43	0	6	0	3	33	15.2	3.7
RM446	16	17	1	22	477210	5412596	242	109	63	24	2.3%	17	5	0.4	2.1	46	1	1	2	0	18	0	3	0	1	12	4.5	1.0
RM446	20	21	1	22	477210	5412596	242	132	77	27	2.2%	19	6	0.4	2.4	56	2	1	3	0	23	0	4	0	2	15	7.5	1.3
RM447	1	2	1	22	477315	5412940	250	141	92	31	3.2%	21	5	0.7	3.9	50	2	1	4	1	23	0	4	0	3	22	12.3	2.9
RM447	2	3	1	22	477315	5412940	250	192	151	48	4.5%	30	9	1.2	7.4	41	4	2	7	2	31	1	6	1	4	46	8.3	2.7
RM447	3	4	1	22	477315	5412940	250	265	195	61	3.7%	41	10	1.5	8.3	70	6	2	8	2	40	1	7	1	5	63	6.9	2.1
RM447	7	8	1	22	477315	5412940	250	83	50	18	2.2%	13	3	0.3	1.5	33	1	1	2	0	13	0	2	0	1	12	4.3	0.9
RM447	11	12	1	22	477315	5412940	250	128	72	28	2.1%	20	5	0.4	2.4	56	1	1	3	0	21	0	3	0	1	13	6.4	1.3
RM447	15	16	1	22	477315	5412940	250	120	72	28	2.2%	20	5	0.4	2.2	48	1	1	3	0	21	0	4	0	1	13	7.9	1.4
RM447	19	20	1	22	477315	5412940	250	86	50	17	2.2%	12	3	0.3	1.5	36	1	1	2	0	14	0	2	0	1	11	4.9	1.1
RM448	0	1	1	8	477464	5413104	250	106	68	22	3.2%	14	4	0.6	2.8	38	2	1	3	1	17	0	3	0	2	18	9.6	2.5
RM448	1	2	1	8	477464	5413104	250	65	50	14	4.0%	9	3	0.3	2.2	15	1	0	2	0	12	0	2	0	1	15	8.0	3.5
RM448	2	3	1	8	477464	5413104	250	77	61	16	4.0%	10	3	0.4	2.7	16	2	0	2	1	15	0	2	0	2	21	7.9	4.0
RM448	3	4	1	8	477464	5413104	250	118	81	23	3.7%	15	4	0.6	3.8	37	3	1	3	1	18	0	2	0	3	27	7.2	3.7
RM448	4	5	1	8	477464	5413104	250	191	124	36	3.3%	23	6	1.0	5.3	68	4	1	5	1	25	1	4	1	4	41	6.7	4.5
RM448	5	6	1	8	477464	5413104	250	164	117	35	4.3%	22	6	0.8	6.2	47	4	2	5	1	22	0	5	1	4	39	5.7	2.5
RM448	6	7	1	8	477464	5413104	250	214	168	51	4.7%	33	8	1.4	8.6	45	6	2	8	2	30	1	8	1	6	54	5.6	3.6
RM448	7	8	1	8	477464	5413104	250	182	141	42	4.7%	26	7	1.3	7.3	41	5	2	6	1	26	1	6	1	5	48	4.9	2.6
RM449	1	2	1	8	477628	5413229	252	106	74	24	3.6%	17	4	0.5	3.2	32	2	1	3	1	16	0	3	0	2	21	12.0	3.6
RM449	2	3	1	8	477628	5413229	252	72	47	14	3.3%	9	3	0.3	2.1	25	1	0	2	0	13	0	2	0	1	12	10.8	2.6
RM449	3	4	1	8	477628	5413229	252	53	40	12	3.3%	8	2	0.3	1.5	14	1	0	2	0	11	0	2	0	1	10	7.9	2.3
RM449	4	5	1	8	477628	5413229	252	58	45	13	3.4%	9	2	0.3	1.7	13	1	0	2	0	10	0	2	0	1	14	7.9	2.1
RM449	5	6	1	8	477628	5413229	252	108	81	23	4.8%	14	4	0.6	4.5	27	2	1	4	1	14	0	3	0	3	29	6.3	1.8
RM449	6	7	1	8	477628	5413229	252	115	84	25	4.5%	16	4	0.8	4.4	31	3	1	4	1	14	0	4	0	2	29	3.8	1.1
RM450	1	2	1	11	477940	5413162	246	61	44	14	3.7%	9	3	0.3	2.0	17	1	0	2	0	11	0	1	0	1	12	7.9	2.1
RM450	2	3	1	11	477940	5413162	246	171	128	41	3.9%	27	7	1.0	5.7	43	4	1	5	1	28	1	6	1	4	37	7.2	1.9
RM450	3	4	1	11	477940	5413162	246	362	277	87	4.2%	57	15	2.3	13.0	85	9	4	13	3	54	1	14	1	8	85	6.3	1.7
RM450	4	5	1	11	477940	5413162	246	297	228	74	4.3%	49	12	1.9	10.8	70	7	3	11	2	45	1	10	1	7	67	6.9	2.1
RM450	5	6	1	11	477940	5413162	246	195	153	50	4.3%	34	8	1.2	7.1	43	5	2	7	2	30	1	6	1	5	43	6.9	2.2
RM450	6	7	1	11	477940	5413162	246	309	250	80	4.7%	53	13	2.1	12.5	59	8	4	12	3	49	1	13	1	7	73	6.6	1.9
RM450	7	8	1	11	477940	5413162	246	367	293	103	4.3%	70	17	2.4	13.4	74	8	4	13	3	65	1	14	1	7	73	6.7	1.8
RM450	8	9	1	11	477940	5413162	246	313	249	85	4.4%	58	14	2.0	11.8	64	7	3	12	2	52	1	11	1	7	67	6.5	1.8
RM450	9	10	1	11	477940	5413162	246	131	97	30	5.0%	19	5	0.9	5.6	33	3	1	5	1	17	0	4	0	3	32	4.1	1.1
RM451	0	1	1	7	477886	5411068	319	67	41	13	3.4%	8	2	0.4	1.9	26	1	0	2	0	8	0	2	0	1	13	10.2	2.7
RM451	1	2	1	7	477886	5411068	319	419	86	27	1.1%	18	5	0.6	4.0	333	2	1	4	1	16	0	5	0	3	26	6.1	2.0
RM451	2	3	1	7	477886	5411068	319	1014	124	50	0.6%	36	9	0.8	4.9	891	3	2	5	1	26	0	7	1	3	26	7.1	2.0
RM451	3	4	1	7	477886	5411068	319	674	131	51	0.9%	36	9	0.9	5.1	543	4	2	6	1	26	1	8	0	4	30	6.4	1.8
RM451	4	5	1	7	477886	5411068	319	234	124	43	2.8%	30	7	1.1	5.6	111	4	1	6	1	25	0	6	1	4	33	6.4	1.9
RM452	0	1	1	11	478025	5411080	324	63	26	9	2.2%	5	2	0.2	1.2	38	1	0	1	0	5	0	1	0	1	7	12.1	2.5
RM452	1	2	1	11	478025	5411080	324	50	26	9	3.0%	6	1	0.2	1.3	24	1	0	1	0	5	0	1	0	1	7	8.9	1.6
RM452	2	3	1	11	478025	5411080	324	222	27	11	0.8%	8	2	0.2	1.5	195	1	0	1	0	5	0	1	0	1	6	7.9	2.1
RM452	3	4	1	11	478025	5411080	324	143	47	17	2.0%	11	3	0.4	2.4	96	2	1	2	0	9	0	2	0	2	11	7.5	2.4
RM452	4	5	1	11	478025	5411080	324	199	85	32	2.5%	21	5	0.7	4.2	114	3	1	3	1	18	0	4	0	3	19	6.6	2.2
RM452	5	6	1	11	478025	5411080	324	148	103	35	3.5%	24	6	0.8	4.4	45	3	1	4	1	20	1	4	0	3	29	7.1	2.3
RM452	6	7	1	11	478025	5411080	324	292	200	73	3.1%	51	13	1.5	7.5	93	5	3	9	2	43	1	9	1	5	50	6.5	2.0
RM453	1	2	1	10	478162	5411083	314	58	31	11	2.3%	7	2	0.2	1.1	27	1	0	2	0	7	0	1	0	1	7	8.2	2.2
RM453	2	3	1	10	478162	5411083	314	230	31	11	0.7%	8	2	0.2	1.3	199	1	0	1	0	6	0	1	0	1	7	6.3	1.9
RM453	3	4	1	10	478162	5411083	314	872	58	21	0.4%	14	4	0.6	3.3	813	2	1	3	1	12	0	4	0	2	13	6.8	2.2
RM453	4	5	1	10	478162	5411083	314	261	77	28	1.8%	18	5	0.6	4.0	184	2	1	4	1	15	0	5	0	3	18	6.2	1.8
RM453	5	6	1	10	478162	5411083	314	279	108	39	2.5%	25	7	1.0	6.0	171	3	2	5	1								



Hole ID	From (m)	To (m)	Metre (m)	Max depth (m)	East	North	RL LIDAR (m)	TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Dy+Tb TREO %	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	ThO <sub>2</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm
RM457	11	12	1	24	478448	5411307	303	1251	1219	427	5.5%	282	77	10.0	58.3	32	30	17	62	11	251	4	63	4	26	323	3.9	1.1
RM457	13	14	1	24	478448	5411307	303	500	481	97	4.8%	58	15	3.2	20.7	19	15	4	18	5	81	2	12	2	14	231	2.5	0.7
RM457	15	16	1	24	478448	5411307	303	184	170	30	4.2%	18	4	1.0	6.8	14	5	1	6	2	31	1	3	1	4	88	1.7	0.4
RM458	1	2	1	11	478237	5411036	304	44	37	12	5.0%	8	2	0.3	1.9	7	1	1	2	0	7	0	2	0	1	10	8.1	1.8
RM458	2	3	1	11	478237	5411036	304	51	33	11	3.6%	7	2	0.3	1.6	18	1	0	2	1	6	0	1	0	1	10	7.2	2.1
RM458	3	4	1	11	478237	5411036	304	89	29	8	2.5%	5	1	0.3	2.0	60	1	0	1	0	4	0	1	0	2	11	7.0	1.6
RM458	4	5	1	11	478237	5411036	304	76	26	9	2.0%	6	2	0.2	1.3	50	1	1	1	0	5	0	1	0	1	7	6.5	2.0
RM458	5	6	1	11	478237	5411036	304	211	45	16	1.5%	10	3	0.4	2.7	166	1	1	2	0	9	0	2	0	2	10	6.7	1.8
RM458	6	7	1	11	478237	5411036	304	156	59	22	2.2%	15	4	0.5	2.9	97	2	1	3	1	12	0	3	0	2	13	6.6	1.8
RM458	7	8	1	11	478237	5411036	304	192	130	46	4.5%	30	8	1.2	7.5	62	4	2	6	1	25	1	8	1	5	31	6.0	1.5
RM458	8	9	1	11	478237	5411036	304	317	277	101	4.7%	66	20	2.0	12.9	40	7	4	14	2	63	1	15	1	8	61	4.8	1.0
RM458	9	10	1	11	478237	5411036	304	246	210	75	4.8%	50	13	1.5	10.3	36	6	3	10	2	45	1	11	1	7	48	5.0	1.4

Table 3 concluded

End of data

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## Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole samples from reverse circulation aircore and pushtube core drilling to 37.5 metres maximum depth but typically to 12 metres depth</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation aircore chip sampling and push-tube coring. Grades of core samples correspond well with aircore sample grades.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording &amp; assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery &amp; ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Weight tests indicated reliable sample recovery except for first metre in soils (not used in resource estimates)</li> <li>No relationship between sample recovery and grade has been observed but some evidence of washing out clay in wet zones which will undersample the REE in places.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geologically logged by senior geologists. Every sample photographed, with photos, logs and assays entered into ABx's proprietary ABacus database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Chips are subsampled using bauxite shovel and quartering method in accordance with ISO standards for fine damp clay material. Reassaying corresponds well</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external lab checks) &amp; whether acceptable levels of accuracy (ie lack of bias) &amp; precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>Assaying done at NATA-registered commercial labs of ALS Brisbane Australia and Labwest Minerals Analysis in Western Australia. Duplicate interlab assays corresponded well.</li> <li>Desorption extraction tests were conducted by ANSTO at Lucas Heights, Sydney NSW with ANSTO's assays done at ALS Brisbane.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>All assaying done at NATA-registered commercial laboratories of ALS Brisbane Australia and Labwest Minerals Analysis Pty Ltd in Western Australia.</li> <li>Duplicated and redrilled holes correlated closely</li> <li>Duplicate interlab assays corresponded well.</li> <li>No adjustment of assay data done.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>GPS hole locations have been tested for accuracy on many prospects, all satisfactorily – usually within 1m.</li> <li>Grid Coordinates are GDA94</li> <li>Topographic control by Lidar topography when needed</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling typically at 50 to 75 metre spacing on mineralised prospects</li> <li>Geological continuity is established by drill pattern</li> <li>Grade continuity is not yet established beyond 50m</li> <li>Sample compositing not applied</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Vertical holes through horizontal clay is appropriate</li> <li>Clay layer drapes over topography and accumulates in gullies. Vertical holes is the appropriate orientation.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples collected and bagged at every hole site and assembled onto pallets daily, shipped to lab weekly.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Several audits confirmed reliability</li> </ul>

## Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Satisfactory to excellent. All tenements are in force, unencumbered and securely held by ABx</li> <li>All drilling is on freehold land with access approvals by landholders</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>ABx is the first company to explore for Rare Earth Elements in northern Tasmania. No prior work has been done by other parties</li> </ul>
Geology	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Bauxite deposit formed on Lower Tertiary basalts overlying Jurassic dolerite</li> <li>REE of interest are all in clays</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>GPS location.</li> <li>Airborne Radar RL and LiDAR topography</li> <li>Lidar topography contoured at 1m height intervals</li> <li>All holes are short straight vertical holes</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>All data are presented as received from labs</li> <li>Intercept summaries, if and when presented, are length-weighted arithmetic averages</li> <li>Total Rare Earth Oxides (TREO) are an aggregate of all rare earth oxides. TREO-CeO<sub>2</sub> is TREO minus Cerium oxide values.</li> </ul>
<b>Relationship between mineralisation widths &amp; intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>Mineralisation typically 3 to 6 metres thick and Drillholes are sampled at 1 metre intervals</li> <li>Horizontal layers drilled by vertical holes means intercept thickness is true thickness</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>N.A. Diagrams presented give appropriate information</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All new results are reported in this report and reference made to previous tabulation of data</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>N.A. Information provided is appropriate.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Step-out drilling over a wider area has been planned, work plans submitted and new drill rig configurations have been developed.</li> </ul>