ASX RELEASE
12 November 2021

RARE EARTH POTENTIAL CONFIRMED AT EYRE PENINSULA KAOLIN PROJECT

- **Results from first batch of 10 historical drill hole samples received**
- **Over 1,100 ppm total rare earth element oxides in clay fraction**
- **Enriched in high value rare earths used in permanent magnets in wind turbines and electric vehicles**
- **Potential for dual high purity kaolin and rare earth product streams to de-risk the project**
- **Clay beneficiation significantly increases rare earth grades to ~180%**
- **Best drill hole expected in next batch of analysis**

iTech Minerals Ltd (ASX: **ITM**, **iTech** or **Company**) has received the first batch of analytical results from resampling of historical drilling at the Ethiopia Prospect on the Eyre Peninsula, South Australia. The results have confirmed iTech's view of the dual potential for high purity kaolin and coincident ion adsorption clay (IAC) rare earth element (REE) mineralisation. Significant Total Rare Earth Element Oxides (TREO) occur in all 10 holes sampled with an average beneficiation to 180% in the clay fraction (<45µm). The rare earths display significant enrichment of neodymium and praesidium (~23% Nd+Pr), which are critical in the production of permanent magnets for electric vehicles and renewable energy.

All 10 sampled drill holes returned significant REE results including:

- **ETH-01 – 6m @ 896 ppm TREO (-45µm) from 0m**
    - **including 2m @ 1104 ppm TREO (-45µm) from 4-6m**
- **ETH-03 – 6m @ 696 ppm TREO (-45µm) from 0m**
- **ETH-13 – 10m @ 784 ppm TREO (-45µm) from 0m**
- **ETH-16 – 6m @ 502 ppm TREO (-45µm) from 20m**
- **ETH-32 – 6m @ 552 ppm TREO (-45µm) from 2m**
- **ETH-33 – 18m @ 652 ppm TREO (-45µm) from 0m**
    - **including 6m @ 1062 ppm TREO (-45µm) from 14-20m**
- **ETH-34 – 24m @ 411 ppm TREO (-45µm) from 2m**
- **ETH-36 – 4m @ 504 ppm TREO (-45µm) from 18m**
- **ETH-37 – 6m @ 876 ppm TREO (-45µm) from 2m**
- **ETH-38 – 8m @ 812 ppm TREO (-45µm) from 2m**

"The nature of high purity kaolin and REE mineralisation at Ethiopia opens the path for the potential of an extremely low-cost source of these two critical minerals. Processing of the high purity kaolin increases the REE grades and extracting the REEs makes a higher quality kaolin product, potentially leading to more financially robust project economics"

- Managing Director Mike Schwarz –

REE bearing high purity kaolin samples from the Ethiopia Prospect – Eyre Peninsula Project, South Australia

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Location – Ethiopia Prospect, Eyre Peninsula, South Australia

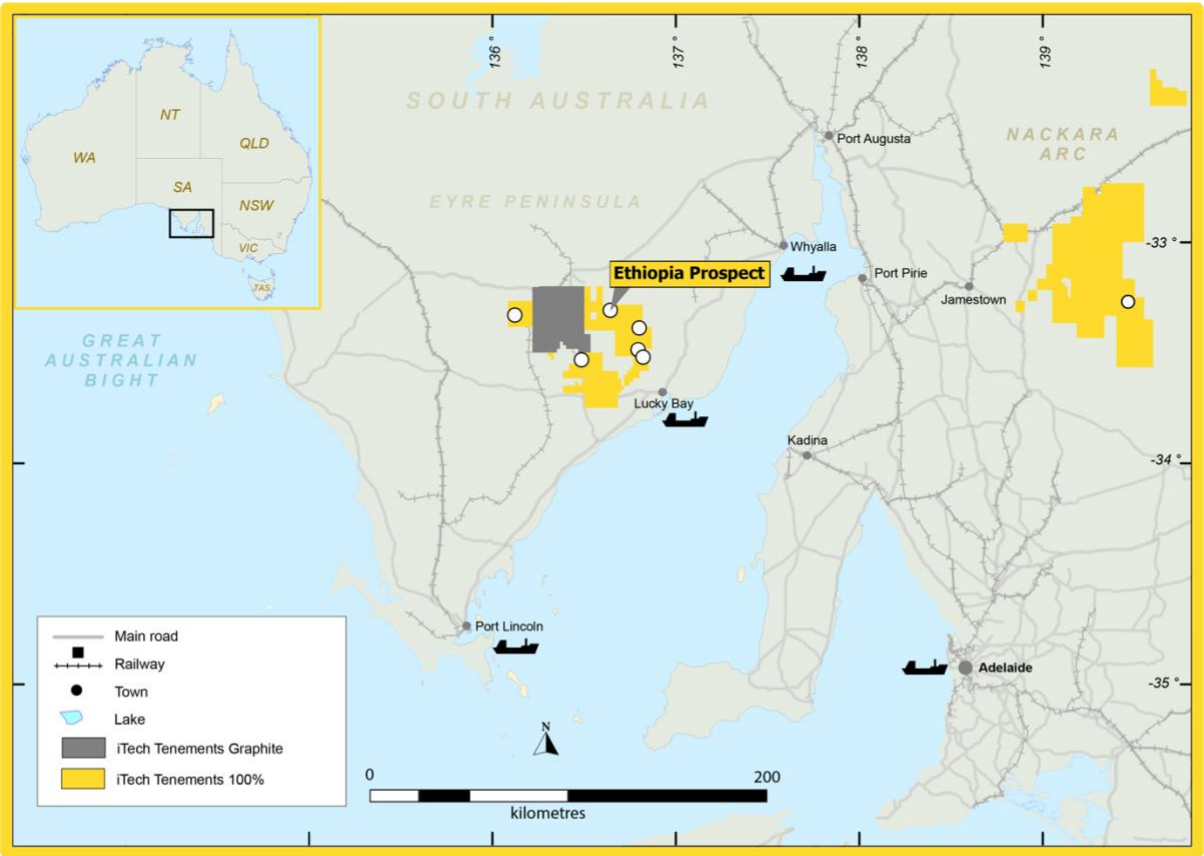

Figure 1. Location of the Ethiopia Prospect – Eyre Peninsula, South Australia

High Purity Kaolin and REE Potential

A detailed review of historical data, from aircore drilling undertaken by Adelaide Exploration Pty Ltd in 2007, identified thick intervals, up to 24m, of high purity kaolin clay, over an area of approximately 1 km x 1km (Fig. 2). Of the 41 aircore holes drilled, a preliminary 10 holes were sub-sampled to assess the potential for high purity kaolin and ion adsorption clay (IAC) REE mineralisation. Significant results from the sampling are presented in Table 1 (**All of the 10 samples had significant REE**). A full list of results can be found in Appendix 1. The results show thick intervals of high purity kaolin at or near surface with coincident total rare earth element oxides (TREO) and confirm the Company's view that the prospect has potential for a dual commodity stream with both REE potential and applications such as feedstock for high purity alumina and ceramics for the kaolin component. Mildly acidic leaching to extract the REE's is expected to remove much of the iron content, significantly increasing the ISO brightness values and purity of the kaolin. Further test work is planned to confirm this expectation.

Hole ID	From (m)	To (m)	Interval (m)	Recovery <45µm (%)	ISO Brightness (%)	Fe2O3 (%)	Al2O3 (%)	CaO (%)	TiO2 (%)	TREO <45µm (ppm)	TREO >45µm (ppm)	TREO bulk (ppm)	TREO <45µm/ bulk (%)	TREO-CeO2 <45µm (ppm)	LREO <45µm (ppm)	HREO <45µm (ppm)	CREO <45µm (ppm)	% NdPr <45µm
Sample type				Clay							Quartz	Bulk	Clay					
ETH-01	0	6	6	39	73	0.5	31.1	0.11	0.9	**896**	177	454	197%	511	758	138	239	**24%**
ETH-03	0	6	6	33	63	1.3	30.3	0.11	1.0	**696**	236	386	180%	389	605	91	173	**24%**
ETH-013	0	10	10	35	74	0.7	30.2	0.06	0.9	**784**	167	380	206%	440	682	102	200	**25%**
ETH-016	2	26	24	33	71	0.9	31.9	0.13	1.6	**367**	125	125	294%	204	322	45	80	**20%**
including	20	26	6	25	64	0.9	27.7	0.04	0.62	**556**	116	214	235%	279	441	61	113	**22%**
ETH-032	2	8	6	32	69	1.3	29.0	0.09	0.7	**552**	130	267	207%	324	456	95	151	**23%**
ETH-033	2	20	18	47	75	0.8	31.9	0.06	0.75	**652**	216	499	130%	379	544	107	185	**17%**
ETH-034	2	26	24	44	74	1.0	33.2	0.05	0.7	**411**	172	335	123%	313	464	86	145	**23%**
ETH-036	2	22	20	35	74	0.7	30.4	0.12	0.28	**209**	78	116	180%	119	176	33	52	**20%**
including	18	22	4	25	61	1.4	27.0	0.27	0.5	**504**	94	197	256%	285	431	73	131	**23%**
ETH-037	2	8	6	34	76	0.8	28.7	0.05	1.0	**876**	154	402	218%	218	775	101	218	**25%**
ETH-038	2	10	8	29	61	1.8	26.1	0.21	0.9	**812**	149	342	237%	456	711	101	206	**25%**

Table 1. Preliminary kaolin and REE test work of the Ethiopia Prospect – Eyre Peninsula, South Australia (results pertaining to kaolin test work were previously released in ASX Release, 21-Oct-21, Rare Earth Potential Identified at Kaolin Project)

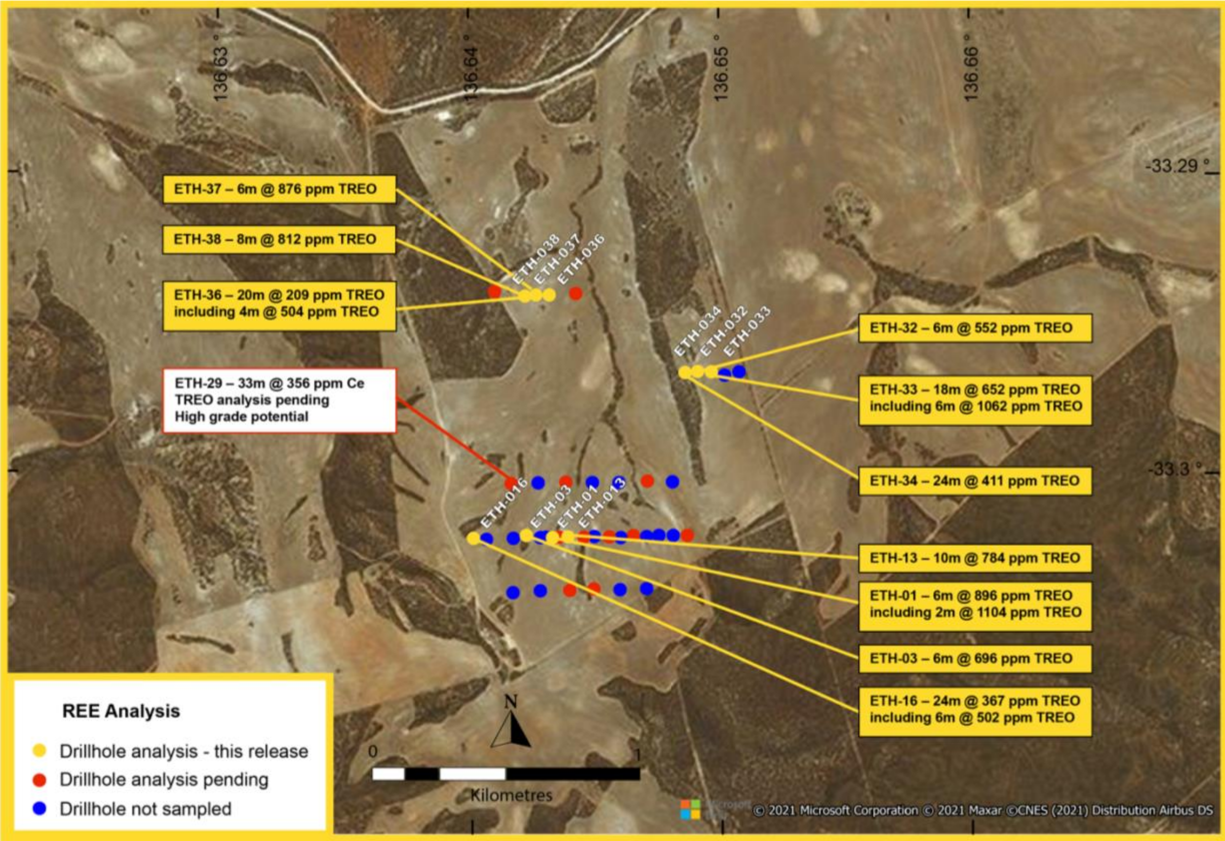

Figure 2. Location of kaolin analysis samples, Ethiopia Prospect – Eyre Peninsula, South Australia

Why is high purity kaolin and ion adsorption clay REE mineralisation at Ethiopia?
The rocks that occur at the Ethiopia prospect are naturally enriched in both rare earth element bearing minerals and a mineral called feldspar, relative to other rocks on the Eyre Peninsula. When these rocks become weathered by many thousands of years of rain and breakdown of organic matter to produce mildly acidic groundwater, the feldspar is converted to kaolin clay and the tightly bound REEs are released and loosely bound to the clay minerals. Elements which are normally not wanted, or considered to be contaminants (such as thorium, uranium, and iron), are removed by the weathering process leaving the rocks enriched in kaolin clays with loosely bound REEs and quartz grains.

Complimentary beneficiation characteristics

1. The kaolin clay with adsorbed REEs is the valuable component. Fortunately, with this style of mineralisation the clays can be easily upgraded (or beneficiated) by simply washing out the quartz grains with water and retaining the concentrated kaolin and REEs in suspension. As the REE's are bound to the clays they will be upgraded as well.
2. To extract the REE's an acidic solution containing an inorganic salt such as ammonium sulphate or sodium chloride is used to leach the REE's from the clay. This solution also has the potential to remove impurities in the kaolin such as iron, leaving a much purer, whiter, and more valuable kaolin product after REE extraction.

iTech has undertaken the kaolin beneficiation process (refer to 1 above) on the first 10 samples it submitted for kaolin test work. In each sample the REE's were significantly concentrated in the clay component, upgrading the REE grade on average 184%. This confirms that the REE's are bound to the clay particles, and this is most likely an ion adsorption clay style of REE mineralisation. Test work to understand the REE recoveries and kaolin purity is planned after the initial drill program is completed.

Characteristics of REE IAC Deposits
Although ion-adsorption clay deposits are substantially lower grade than other types of lanthanide sources (e.g., carbonatites, alkaline igneous complexes, magmatic magnetite-hematite bodies, and heavy mineral deposits), the lower grade is largely offset by easier mining and lower processing costs, and the very low content of radioactive elements. These deposits are generally mined by open-pit methods and little beneficiation is required. A simple leach process using monovalent sulphate or chloride salt solutions at ambient temperature can produce a high-grade REO product.

REE's are found in soils deposited after weathering of granitic and/or REE enriched source rocks

- Occur primarily in China, but now being recognised globally.
- Sometimes called laterite deposits
- REE's are adsorbed to kaolinite, halloysite and other clay minerals
- Ore is relatively low-grade, generally only 0.05% to 0.5% REO (rare earth element oxides)
- High heavy REE enriched, which are more valuable
- Easily extractable REE can be highly profitable due to low extraction costs
- REE's leachable from clays with simple ammonium sulphate at room temperature

Next Steps
Having confirmed the potential for coincident IAC REE mineralisation in samples selected for high purity kaolin, iTech has resampled an additional 12 drill holes with Ce values above 100ppm to analyse for the full suite of REEs. Included in this batch is drill hole ETH-029 which had 33m @ 356 ppm Ce from surface (Fig. 2). **This is over three times the Ce concentration in the best samples submitted to date and over a significantly thicker interval**. Analytical results of these samples are due in 5-6 weeks. Drilling approvals are progressing rapidly. The results of this round of test work will help to focus the drilling program on those areas with the best potential for coincident high purity kaolin and REE mineralisation. Once drilling is completed, iTech will have enough sample to commence beneficiation test work to optimise REE extraction while upgrading the quality of high purity kaolin through removal of impurities such as iron.

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ABOUT iTECH MINERALS LTD

iTech Minerals Ltd is a newly listed mineral exploration company exploring for and developing battery materials and critical minerals within its 100% owned Australian projects. The company is exploring for kaolinite-halloysite, ion adsorption clay rare earth element mineralisation and developing the Campoona Graphite Deposit in South Australia. The company also has extensive exploration tenure prospective for Cu-Au porphyry mineralisation, IOCG mineralisation and gold mineralisation in South Australia and tin, Tungsten, and polymetallic Cobar style mineralisation in New South Wales.

COMPETENT PERSON STATEMENT

The information which relates to exploration results is based on and fairly represents information and supporting documentation compiled by Michael Schwarz. Mr Schwarz 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' (the JORC Code). Mr Schwarz is a full-time employee of iTech Minerals Ltd and is a member of the Australian Institute of Geoscientists and the Australian Institute of Mining and Metallurgy. Mr Schwarz consents to the inclusion of the information in this report in the form and context in which it appears.

This announcement contains results that have previously released as "Replacement Prospectus" on 19 October 2021 and "Rare Earth Potential Identified at Kaolin Project" on 21 October 2021. iTech confirms that the Company is not aware of any new information or data that materially affects the information included in the announcement.

GLOSSARY

CREO = Critical Rare Earth Element Oxide
HREO = Heavy Rare Earth Element Oxide
IAC = Ion Adsorption Clay
LREO = Light Rare Earth Element Oxide
REE = Rare Earth Element
REO = Rare Earth Element Oxide
TREO = Total Rare Earth Element Oxides
%NdPr = Percentage amount of neodymium and praesidium as a proportion of the total amount of rare earth elements

APPENDIX 1 – DETAILED TECHNICAL INFORMATION AND JORC TABLE 1

<45 micron (Clay Fraction)																		
Sample ID	**Hole ID**	**From (m)**	**To (m)**	**Interval (m)**	**ISO Brightness (%)**	**recovery %**	**Fe2O3 %**	**SiO2 %**	**Al2O3 %**	**CaO %**	**K2O %**	**Mn %**	**Na2O %**	**MgO %**	**P %**	**S %**	**TiO2 %**	**LOI %**
Detection Limit							**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.001**	**0.001**	**0.01**	**0.01**
3275973	ETH-001	0	4	4	69.0	38.89	0.53	52.78	31.00	0.14	4.02	<0.01	0.26	0.15	0.06	0.01	0.87	10.10
3275974	ETH-001	4	6	2	79.5	38.11	0.56	52.78	31.40	0.05	3.80	<0.01	0.19	0.13	0.07	0.01	1.01	9.88
3275975	ETH-003	0	6	6	63.0	32.62	1.31	53.22	30.30	0.11	3.87	<0.01	0.11	0.40	0.03	0.01	0.96	9.43
3275976	ETH-003	6	10	4	58.5	36.41	2.48	58.69	25.50	0.17	3.83	<0.01	0.17	0.59	0.02	0.01	0.65	7.57
3275978	ETH-013	0	2	2	67.5	37.66	0.44	55.83	28.60	0.08	5.38	<0.01	0.28	0.14	0.06	0.01	0.83	8.42
3275979	ETH-013	2	6	4	78.0	40.25	0.53	52.90	31.60	0.06	4.06	<0.01	0.19	0.16	0.05	0.01	0.76	9.76
3275980	ETH-013	6	10	4	72.5	28.92	0.88	54.94	29.70	0.06	3.90	<0.01	0.19	0.20	0.05	0.01	0.96	9.08
3275982	ETH-016	2	8	6	74.0	39.39	0.84	50.80	34.00	0.03	1.59	<0.01	0.08	0.24	0.01	0.02	0.53	11.40
3275983	ETH-016	8	14	6	74.0	39.84	1.01	49.94	34.10	0.39	2.14	<0.01	0.07	0.29	0.02	0.01	1.10	11.00
3275984	ETH-016	14	20	6	72.0	27.57	0.73	54.78	31.80	0.04	1.62	<0.01	0.05	0.21	0.02	0.01	0.30	10.40
3275985	ETH-016	20	26	6	63.5	25.29	0.93	59.77	27.70	0.04	1.09	<0.01	0.04	0.18	0.04	0.01	0.43	9.35
3275987	ETH-032	2	8	6	68.5	32.37	1.28	55.49	29.00	0.09	4.35	<0.01	0.30	0.29	0.04	0.02	0.73	8.54
				0														
3275989	ETH-033	2	8	6	75.5	50.84	0.83	50.33	34.30	0.08	1.40	<0.01	0.08	0.22	0.03	0.01	0.69	11.80
3275990	ETH-033	8	14	6	76.5	49.30	0.77	53.61	30.90	0.04	4.65	<0.01	0.24	0.14	0.07	0.01	0.69	9.10
3275991	ETH-033	14	20	6	73.0	40.68	0.89	53.42	30.40	0.05	4.53	<0.01	0.18	0.15	0.07	0.01	0.87	9.06
3275993	ETH-034	2	8	6	73.5	44.11	1.18	51.98	32.40	0.06	1.28	<0.01	0.07	0.23	0.03	0.02	1.19	11.30
3275994	ETH-034	8	14	6	75.0	47.57	1.07	49.85	34.50	0.04	1.66	<0.01	0.05	0.24	0.02	0.01	0.55	11.60
3275995	ETH-034	14	20	6	76.5	47.73	0.93	49.87	35.00	0.06	1.73	<0.01	0.05	0.24	0.03	0.01	0.59	11.70
3275996	ETH-034	20	26	6	69.0	35.63	0.99	54.73	30.90	0.05	1.70	<0.01	0.06	0.23	0.03	0.01	0.62	10.40
3275997	ETH-036	2	8	6	76.0	39.19	0.57	53.53	31.80	0.05	3.65	<0.01	0.15	0.17	0.03	0.03	0.24	9.94
3275998	ETH-036	8	14	6	78.5	37.82	0.58	54.48	30.70	0.08	3.85	<0.01	0.37	0.16	0.04	0.03	0.17	9.15
3275999	ETH-036	14	18	4	77.0	32.35	0.65	54.18	31.00	0.14	3.37	<0.01	0.81	0.23	0.03	0.02	0.29	9.18
3276000	ETH-036	18	22	4	60.5	25.06	1.36	58.19	27.00	0.27	3.32	<0.01	1.45	0.32	0.04	0.02	0.47	7.22
3276001	ETH-037	2	8	6	75.5	34.38	0.75	55.82	28.70	0.05	4.88	<0.01	0.30	0.15	0.05	0.02	0.99	8.14
3276004	ETH-038	2	6	4	71.5	31.64	0.90	57.21	27.50	0.07	4.82	<0.01	0.26	0.15	0.05	0.01	0.87	7.89
3276005	ETH-038	6	10	4	50.0	27.33	2.73	57.94	24.70	0.34	4.44	<0.01	1.38	0.45	0.06	0.01	0.96	6.51

Table 2. Ethiopia Prospect 2007 RAB drillhole kaolin composite sample assay results (All except ISO brightness previously released in ASX Release, 21-Oct-21, Rare Earth Potential Identified at Kaolin Project)

<45 micron (Clay Fraction)

Sample ID	Hole ID	From (m)	To (m)	Interval (m)	CeO2 (ppm)	La2O3 (ppm)	Dy2O3 (ppm)	Er2O3 (ppm)	Eu2O3 (ppm)	Gd2O3 (ppm)	Ho2O3 (ppm)	Lu2O3 (ppm)	Nd2O3 (ppm)	Pr6O11 (ppm)	Sm2O3 (ppm)	Tb4O7 (ppm)	Tm2O3 (ppm)	Yb2O3 (ppm)	Y2O3 (ppm)	TREO (ppm)	TREO-CeO2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	NdPr (%)	%LREO	%HREO
Detection Limit					1	1	0.5	1	0.5	1	1	0.5	0.5	1	0.5	0.5	1	1	1								
3275973	ETH-001	0	4	4	340.3	141.9	10.3	4.6	1.2	18.4	1.1	0.6	144.6	42.3	27.3	2.4	1.1	2.3	53.3	792	451	669	123	212	24%	85%	15%
3275974	ETH-001	4	6	2	472.9	195.9	14.3	5.7	1.7	25.4	2.3	0.6	205.3	61.6	40.6	3.5	1.1	3.4	69.8	1104	631	936	169	295	24%	85%	15%
3275975	ETH-003	0	6	6	307.1	132.5	6.9	3.4	1.7	15.0	1.1	0.6	128.3	37.5	22.6	1.8	1.1	2.3	34.3	696	389	605	91	173	24%	87%	13%
3275976	ETH-003	6	10	4	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
3275978	ETH-013	0	2	2	299.7	119.6	7.5	2.3	1.2	16.1	1.1	0.6	134.1	38.7	26.1	1.8	1.1	1.1	31.7	683	383	592	91	176	25%	87%	13%
3275979	ETH-013	2	6	4	319.4	133.7	8.0	2.3	1.2	15.0	1.1	0.6	140.0	38.7	24.9	1.8	1.1	2.3	34.3	724	405	632	93	185	25%	87%	13%
3275980	ETH-013	6	10	4	390.6	164.2	10.3	3.4	1.2	20.7	1.1	0.6	171.5	50.7	33.0	2.4	1.1	2.3	40.6	894	503	777	117	226	25%	87%	13%
3275982	ETH-016	2	8	6	125.3	71.5	2.3	1.1	1.2	3.5	1.1	0.6	38.5	13.3	5.8	0.6	1.1	1.1	12.7	280	154	249	31	55	19%	89%	11%
3275983	ETH-016	8	14	6	138.8	73.9	4.0	2.3	1.2	4.6	1.1	0.6	44.9	14.5	7.0	0.6	1.1	2.3	22.9	320	181	272	48	74	19%	85%	15%
3275984	ETH-016	14	20	6	164.6	83.3	3.4	1.1	1.7	5.8	1.1	0.6	59.5	20.5	10.4	0.6	1.1	1.1	11.4	366	202	328	39	77	22%	89%	11%
3275985	ETH-016	20	26	6	223.6	106.7	5.2	2.3	2.3	9.2	1.1	0.6	84.0	26.6	15.7	1.2	1.1	2.3	20.3	502	279	441	61	113	22%	88%	12%
3275987	ETH-032	2	8	6	227.3	99.7	8.6	3.4	0.6	13.8	1.1	0.6	99.1	30.2	21.5	1.8	1.1	2.3	40.6	552	324	456	95	151	23%	83%	17%
				0																							
3275989	ETH-033	2	8	6	238.3	98.5	7.5	3.4	0.6	11.5	1.1	0.6	105.0	31.4	19.7	1.8	1.1	3.4	40.6	565	326	473	91	155	24%	84%	16%
3275990	ETH-033	8	14	6	384.5	158.3	10.3	3.4	1.2	19.6	1.1	0.6	171.5	52.0	33.0	2.4	1.1	2.3	52.1	893	509	766	127	237	25%	86%	14%
3275991	ETH-033	14	20	6	432.4	171.2	15.5	8.0	1.7	23.1	2.3	0.6	204.1	59.2	41.2	2.9	1.1	5.7	92.7	1062	629	867	195	317	25%	82%	18%
3275993	ETH-034	2	8	6	281.3	119.6	8.0	2.3	1.2	15.0	1.1	0.6	126.0	35.0	22.6	1.8	1.1	2.3	36.8	655	373	562	93	174	25%	86%	14%
3275994	ETH-034	8	14	6	190.4	82.1	6.9	3.4	0.6	9.2	1.1	0.6	80.5	24.2	15.1	1.2	1.1	2.3	34.3	453	263	377	76	123	23%	83%	17%
3275995	ETH-034	14	20	6	235.9	100.9	8.0	3.4	1.2	10.4	1.1	0.6	84.6	27.8	16.8	1.8	1.1	2.3	41.9	538	302	449	89	137	21%	84%	16%
3275996	ETH-034	20	26	6	240.8	102.0	8.0	3.4	1.2	11.5	1.1	0.6	96.8	29.0	18.0	1.8	1.1	2.3	38.1	556	315	469	87	146	23%	84%	16%
3275997	ETH-036	2	8	6	61.4	31.7	2.3	1.1	0.6	2.3	1.1	0.6	21.0	7.2	3.5	0.6	1.1	1.1	11.4	147	86	121	26	36	19%	82%	18%
3275998	ETH-036	8	14	6	45.5	22.3	1.1	1.1	0.6	1.2	1.1	0.6	15.7	4.8	2.9	0.6	1.1	1.1	8.9	109	63	88	20	27	19%	81%	19%
3275999	ETH-036	14	18	4	68.8	34.0	1.7	1.1	0.6	2.3	1.1	0.6	24.5	7.2	4.1	0.6	1.1	1.1	6.3	155	86	135	21	34	20%	87%	13%
3276000	ETH-036	18	22	4	218.7	93.8	5.7	2.3	1.2	9.2	1.1	0.6	91.6	26.6	16.8	1.2	1.1	2.3	31.7	504	285	431	73	131	23%	85%	15%
3276001	ETH-037	2	8	6	391.9	159.5	8.0	2.3	1.2	18.4	1.1	0.6	172.6	50.7	30.1	1.8	1.1	2.3	34.3	876	484	775	101	218	25%	88%	12%
3276004	ETH-038	2	6	4	313.2	138.4	5.7	2.3	1.2	15.0	1.1	0.6	136.5	38.7	23.8	1.8	1.1	1.1	27.9	708	395	627	82	173	25%	88%	12%
3276005	ETH-038	6	10	4	399.2	165.4	10.3	3.4	1.2	20.7	1.1	0.6	179.6	50.7	32.5	2.4	1.1	2.3	45.7	916	517	795	121	239	25%	87%	13%

Table 3. Ethiopia Prospect 2007 RAB drillhole <45µm (Clay Fraction) REE assay results

>45 micron (Quartz Fraction)																											
Sample ID	Hole ID	From (m)	To (m)	Interval (m)	CeO2 (ppm)	La2O3 (ppm)	Dy2O3 (ppm)	Er2O3 (ppm)	Eu2O3 (ppm)	Gd2O3 (ppm)	Ho2O3 (ppm)	Lu2O3 (ppm)	Nd2O3 (ppm)	Pr6O11 (ppm)	Sm2O3 (ppm)	Tb4O7 (ppm)	Tm2O3 (ppm)	Yb2O3 (ppm)	Y2O3 (ppm)	TREO (ppm)	TREO-CeO2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	NdPr (%)	%LREO	%HREO
Detection Limit					**1**	**1**	**0.5**	**1**	**0.5**	**1**	**1**	**0.5**	**0.5**	**1**	**0.5**	**0.5**	**1**	**1**	**1**								
3275973	ETH-001	0	4	4	84.8	28.1	2.3	0.6	0.6	4.6	1.1	0.6	29.2	8.5	5.8	0.6	1.1	2.3	25.4	195	111	151	45	58	19%	77%	23%
3275974	ETH-001	4	6	2	97.7	30.5	1.1	0.6	0.6	4.6	1.1	0.6	33.2	9.7	5.8	0.6	1.1	1.1	10.2	199	101	171	27	46	22%	86%	14%
3275975	ETH-003	0	6	6	77.4	46.9	1.1	1.1	1.2	4.6	1.1	0.6	43.7	12.1	7.0	0.6	1.1	1.1	8.9	209	131	180	28	56	27%	86%	14%
3275976	ETH-003	6	10	4	71.9	48.1	1.1	0.6	0.6	4.6	1.1	0.6	42.6	13.3	7.0	0.6	1.1	1.1	10.2	204	133	176	29	55	27%	86%	14%
3275978	ETH-013	0	2	2	82.9	34.0	1.1	0.6	0.6	4.6	1.1	0.6	39.7	10.9	7.0	0.6	1.1	1.1	8.9	195	112	167	27	51	26%	86%	14%
3275979	ETH-013	2	6	4	95.8	27.0	1.1	0.6	0.6	3.5	1.1	0.6	30.3	8.5	5.8	0.6	1.1	1.1	11.4	189	93	162	28	44	21%	85%	15%
3275980	ETH-013	6	10	4	89.1	29.3	1.1	0.6	0.6	3.5	1.1	0.6	29.2	8.5	6.4	0.6	1.1	1.1	8.9	182	93	156	26	40	21%	86%	14%
3275982	ETH-016	2	8	6	90.9	22.3	1.1	0.6	0.6	2.3	1.1	0.6	15.2	4.8	2.9	0.6	1.1	1.1	17.8	163	72	133	30	35	12%	82%	18%
3275983	ETH-016	8	14	6	90.9	24.6	3.4	0.6	0.6	3.5	1.1	0.6	18.7	4.8	4.1	0.6	1.1	3.4	30.5	188	98	139	49	54	12%	74%	26%
3275984	ETH-016	14	20	6	88.4	22.3	1.1	0.6	0.6	3.5	1.1	0.6	21.0	6.0	3.5	0.6	1.1	1.1	6.3	158	69	138	20	30	17%	87%	13%
3275985	ETH-016	20	26	6	78.0	21.1	1.1	0.6	0.6	2.3	1.1	0.6	19.8	6.0	3.5	0.6	1.1	1.1	8.9	147	69	125	22	31	18%	85%	15%
3275987	ETH-032	2	8	6	84.1	22.3	1.1	0.6	0.6	3.5	1.1	0.6	19.2	6.0	4.1	0.6	1.1	1.1	20.3	166	82	132	35	42	15%	79%	21%
				0																							
3275989	ETH-033	2	8	6	92.7	38.7	2.3	0.6	0.6	5.8	1.1	0.6	47.2	12.1	8.7	0.6	1.1	2.3	27.9	242	150	191	52	79	24%	79%	21%
3275990	ETH-033	8	14	6	94.0	38.7	1.1	0.6	0.6	4.6	1.1	0.6	43.7	12.1	8.1	0.6	1.1	1.1	21.6	230	136	188	41	68	24%	82%	18%
3275991	ETH-033	14	20	6	89.7	25.8	2.3	0.6	0.6	3.5	1.1	0.6	28.6	8.5	5.8	0.6	1.1	1.1	22.9	193	103	153	40	55	19%	79%	21%
3275993	ETH-034	2	8	6	90.3	36.4	1.1	0.6	0.6	4.6	1.1	0.6	42.6	12.1	7.5	0.6	1.1	1.1	14.0	214	124	181	33	59	26%	85%	15%
3275994	ETH-034	8	14	6	92.1	29.3	2.3	0.6	0.6	4.6	1.1	0.6	32.7	8.5	6.4	0.6	1.1	2.3	22.9	206	113	163	43	59	20%	79%	21%
3275995	ETH-034	14	20	6	94.0	30.5	1.1	0.6	0.6	4.6	1.1	0.6	32.7	9.7	6.4	0.6	1.1	1.1	19.0	204	110	167	37	54	21%	82%	18%
3275996	ETH-034	20	26	6	84.8	17.6	1.1	0.6	0.6	2.3	1.1	0.6	16.9	4.8	3.5	0.6	1.1	1.1	12.7	149	65	124	25	32	15%	83%	17%
3275997	ETH-036	2	8	6	93.4	15.2	1.1	0.6	0.6	2.3	1.1	0.6	11.7	3.6	2.3	0.6	1.1	1.1	14.0	149	56	124	25	28	10%	83%	17%
3275998	ETH-036	8	14	6	96.4	10.6	1.1	0.6	0.6	1.2	1.1	0.6	8.2	2.4	1.2	0.6	1.1	1.1	5.1	132	35	118	14	16	8%	89%	11%
3275999	ETH-036	14	18	4	94.6	16.4	1.1	0.6	0.6	1.2	1.1	0.6	12.2	3.6	1.7	0.6	1.1	1.1	3.8	140	46	127	14	18	11%	90%	10%
3276000	ETH-036	18	22	4	74.3	17.6	1.1	0.6	0.6	1.2	1.1	0.6	14.6	4.8	3.5	0.6	1.1	1.1	6.3	129	55	111	18	23	15%	86%	14%
3276001	ETH-037	2	8	6	92.7	27.0	1.1	0.6	0.6	3.5	1.1	0.6	27.4	8.5	5.2	0.6	1.1	1.1	10.2	181	89	156	26	40	20%	86%	14%
3276004	ETH-038	2	6	4	87.8	28.1	1.1	0.6	0.6	3.5	1.1	0.6	27.4	7.2	5.2	0.6	1.1	1.1	7.6	174	86	151	23	37	20%	87%	13%
3276005	ETH-038	6	10	4	61.4	24.6	1.1	0.6	0.6	2.3	1.1	0.6	28.6	7.2	4.6	0.6	1.1	1.1	14.0	150	88	122	28	45	24%	81%	19%

Table 4. Ethiopia Prospect 2007 RAB drillhole >45µm (Quartz Fraction) REE assay results

Bulk drill sample																										
Sample ID	Hole ID	From (m)	To (m)	Interval (m)	CeO2 (ppm)	La2O3 (ppm)	Dy2O3 (ppm)	Er2O3 (ppm)	Eu2O3 (ppm)	Gd2O3 (ppm)	Ho2O3 (ppm)	Lu2O3 (ppm)	Nd2O3 (ppm)	Pr6O11 (ppm)	Sm2O3 (ppm)	Tb4O7 (ppm)	Tm2O3 (ppm)	Yb2O3 (ppm)	Y2O3 (ppm)	TREO (ppm)	TREO-CeO2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	NdPr (%)	%LREO	%HREO
Detection Limit					1	1	0.5	1	0.5	1	1	0.5	0.5	1	0.5	0.5	1	1	1								
3275973	ETH-001	0	4	4	184.1	72.4	5.4	2.1	0.8	10.0	1.1	0.6	74.1	21.6	14.1	1.3	1.1	2.3	36.3	427	277	318	75	118	22%	74%	18%
3275974	ETH-001	4	6	2	240.7	93.5	6.2	2.5	1.0	12.5	1.6	0.6	98.8	29.5	19.1	1.7	1.1	2.0	32.9	544	303	462	81	141	24%	85%	15%
3275975	ETH-003	0	6	6	152.3	74.8	3.0	1.9	1.3	8.0	1.1	0.6	71.3	20.4	12.1	1.0	1.1	1.5	17.2	368	215	319	49	94	25%	87%	13%
3275976	ETH-003	6	10	4	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.	I.S.
3275978	ETH-013	0	2	2	164.6	66.3	3.5	1.2	0.8	9.0	1.1	0.6	75.2	21.3	14.2	1.0	1.1	1.1	17.5	379	214	327	51	98	26%	86%	14%
3275979	ETH-013	2	6	4	185.8	69.9	3.9	1.3	0.8	8.1	1.1	0.6	74.5	20.6	13.5	1.1	1.1	1.6	20.6	405	219	351	54	101	24%	87%	13%
3275980	ETH-013	6	10	4	176.3	68.3	3.8	1.4	0.7	8.5	1.1	0.6	70.3	20.7	14.1	1.1	1.1	1.5	18.1	388	211	336	52	94	23%	87%	13%
3275982	ETH-016	2	8	6	104.4	41.7	1.6	0.8	0.8	2.8	1.1	0.6	24.4	8.2	4.0	0.6	1.1	1.1	15.8	209	105	179	30	43	16%	85%	15%
3275983	ETH-016	8	14	6	110.0	44.3	3.7	1.3	0.8	3.9	1.1	0.6	29.1	8.7	5.2	0.6	1.1	3.0	27.4	241	131	192	49	62	16%	80%	20%
3275984	ETH-016	14	20	6	109.4	39.1	1.8	0.7	0.9	4.1	1.1	0.6	31.6	10.0	5.4	0.6	1.1	1.1	7.7	215	106	190	25	43	19%	88%	12%
3275985	ETH-016	20	26	6	114.8	42.8	2.2	1.0	1.0	4.1	1.1	0.6	36.1	11.2	6.6	0.7	1.1	1.4	11.8	236	122	205	32	52	20%	87%	13%
3275987	ETH-032	2	8	6	130.5	47.3	3.6	1.5	0.6	6.8	1.1	0.6	45.1	13.9	9.7	1.0	1.1	1.5	26.9	291	161	237	54	77	20%	81%	19%
				0																							
3275989	ETH-033	2	8	6	166.7	69.1	4.9	2.0	0.6	8.7	1.1	0.6	76.6	21.9	14.3	1.2	1.1	2.9	34.4	406	239	334	72	118	24%	82%	18%
3275990	ETH-033	8	14	6	237.2	97.7	5.7	2.0	0.9	12.0	1.1	0.6	106.7	31.7	20.4	1.5	1.1	1.7	36.6	557	320	473	84	151	25%	85%	15%
3275991	ETH-033	14	20	6	229.1	85.0	7.7	3.6	1.0	11.4	1.6	0.6	100.0	29.1	20.2	1.5	1.1	3.0	51.3	546	317	443	103	162	24%	81%	19%
3275993	ETH-034	2	8	6	174.5	73.1	4.2	1.3	0.8	9.2	1.1	0.6	79.4	22.2	14.2	1.1	1.1	1.6	24.1	409	234	349	59	110	25%	85%	15%
3275994	ETH-034	8	14	6	138.9	54.4	4.5	1.9	0.6	6.8	1.1	0.6	55.4	15.9	10.5	0.9	1.1	2.3	28.3	323	184	265	59	90	22%	82%	18%
3275995	ETH-034	14	20	6	161.7	64.1	4.4	1.9	0.9	7.4	1.1	0.6	57.4	18.3	11.4	1.1	1.1	1.7	30.0	363	201	302	62	94	21%	83%	17%
3275996	ETH-034	20	26	6	140.3	47.7	3.6	1.6	0.8	5.6	1.1	0.6	45.4	13.4	8.6	1.0	1.1	1.5	21.7	294	154	247	47	73	20%	84%	16%
3275997	ETH-036	2	8	6	80.8	21.7	1.6	0.8	0.6	2.3	1.1	0.6	15.3	5.0	2.8	0.6	1.1	1.1	13.0	148	68	123	26	31	14%	83%	17%
3275998	ETH-036	8	14	6	77.1	15.0	1.1	0.8	0.6	1.2	1.1	0.6	11.0	3.3	1.8	0.6	1.1	1.1	6.5	123	46	107	17	20	12%	87%	13%
3275999	ETH-036	14	18	4	86.2	22.1	1.3	0.8	0.6	1.5	1.1	0.6	16.2	4.8	2.5	0.6	1.1	1.1	4.6	145	59	129	16	23	14%	89%	11%
3276000	ETH-036	18	22	4	110.5	36.7	2.3	1.0	0.7	3.2	1.1	0.6	33.9	10.3	6.8	0.7	1.1	1.4	12.7	223	113	191	32	50	20%	86%	14%
3276001	ETH-037	2	8	6	195.6	72.5	3.5	1.2	0.8	8.6	1.1	0.6	77.3	23.0	13.8	1.0	1.1	1.5	18.5	420	225	368	52	101	24%	88%	12%
3276004	ETH-038	2	6	4	159.2	63.0	2.6	1.1	0.8	7.1	1.1	0.6	61.9	17.2	11.1	1.0	1.1	1.1	14.0	343	184	301	42	80	23%	88%	12%
3276005	ETH-038	6	10	4	153.7	63.1	3.7	1.4	0.7	7.3	1.1	0.6	69.9	19.1	12.2	1.1	1.1	1.4	22.6	359	205	306	53	98	25%	85%	15%

Note: I.S. = insufficient sample for analysis

Table 5. Ethiopia Prospect 2007 RAB drillhole bulk sample (Clay + Quartz Fractions) REE assay results

Prospect	Hole ID	From (m)	To (m)	Interval (m)	U ppm	Th ppm	Ce ppm
Ethiopia	ETH-001	0	6	6	14	79	120
Ethiopia	ETH-002	12	18	6	20	58	110
Ethiopia	ETH-003	0	12	12	5	42	110
Ethiopia	ETH-004	0	25	25	9	70	148
Ethiopia	ETH-005	6	36	30	10	57	118
Ethiopia	ETH-006	0	12	12	9	71	120
Ethiopia	ETH-007	18	34	16	11	71	113
Ethiopia	ETH-008	0	36	36	8	58	110
Ethiopia	ETH-009	0	36	36	8	70	123
Ethiopia	ETH-010	0	29	29	10	72	128
Ethiopia	ETH-011	0	30	30	11	66	120
Ethiopia	ETH-012	0	30	30	12	73	120
Ethiopia	ETH-013	0	36	36	11	73	120
Ethiopia	ETH-014	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-015	12	18	6	4	22	100
Ethiopia	ETH-016	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-017	0	12	12	8	57	100
Ethiopia	ETH-018	12	16	4	8	52	100
Ethiopia	ETH-019	0	28	28	9	63	122
Ethiopia	ETH-020	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-021	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-022	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-023	18	28	10	11	56	115
Ethiopia	ETH-024	18	36	18	11	60	110
Ethiopia	ETH-025	0	40	40	10	60	112
Ethiopia	ETH-026	0	47	47	11	62	110
Ethiopia	ETH-027	6	24	18	11	70	130
Ethiopia	ETH-028	30	36	6	30	54	130
Ethiopia	ETH-029	0	30	30	15	36	356
Ethiopia	ETH-030	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-031	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-032	NSI	NSI	NSI	NSI	NSI	NSI
Ethiopia	ETH-033	6	40	34	20	101	148
Ethiopia	ETH-034	0	18	18	8	73	105
Ethiopia	ETH-035	0	32	32	10	69	138
Ethiopia	ETH-036	24	30	6	12	74	100
Ethiopia	ETH-037	0	31	31	11	73	132
Ethiopia	ETH-038	6	28	22	8	73	115
Ethiopia	ETH-039	18	24	6	12	60	110
Ethiopia	ETH-040	0	6	6	12	52	100
Ethiopia	ETH-041	0	18	18	12	79	127

Table 6. Ethiopia Prospect 2007 RAB drillhole historical U, Th, Ce composite sample assay results (NSI = No significant Interval) (ASX Release, 21-Oct-21, Rare Earth Potential Identified at Kaolin Project)

Hole ID	Datum	Easting (m)	Northing (m)	RL (m AHD)	Dip	Az (AMG)	Final Depth (m)
ETH-001	GDA94	652996	6313998	354	-90	360	46
ETH-002	GDA94	652951	6313999	356	-90	360	40
ETH-003	GDA94	652899	6314007	357	-90	360	40
ETH-004	GDA94	653498	6313997	366	-90	360	25
ETH-005	GDA94	653445	6313999	367	-90	360	40
ETH-006	GDA94	653392	6314000	365	-90	360	40
ETH-007	GDA94	653347	6313997	359	-90	360	34
ETH-008	GDA94	653297	6314001	364	-90	360	36
ETH-009	GDA94	653250	6313994	354	-90	360	34
ETH-010	GDA94	653207	6313997	369	-90	360	29
ETH-011	GDA94	653151	6313999	364	-90	360	31
ETH-012	GDA94	653113	6313998	368	-90	360	31
ETH-013	GDA94	653054	6313999	355	-90	360	39
ETH-014	GDA94	652851	6313997	363	-90	360	37
ETH-015	GDA94	652750	6313995	357	-90	360	34
ETH-016	GDA94	652702	6314000	368	-90	360	70
ETH-017	GDA94	653344	6313803	372	-90	360	16
ETH-018	GDA94	653245	6313800	372	-90	360	16
ETH-019	GDA94	653147	6313806	374	-90	360	28
ETH-020	GDA94	653057	6313801	363	-90	360	28
ETH-021	GDA94	652948	6313801	372	-90	360	31
ETH-022	GDA94	652846	6313797	373	-90	360	19
ETH-023	GDA94	653446	6314197	345	-90	360	28
ETH-024	GDA94	653353	6314202	354	-90	360	37
ETH-025	GDA94	653247	6314197	352	-90	360	40
ETH-026	GDA94	653148	6314199	354	-90	360	47
ETH-027	GDA94	653049	6314201	353	-90	360	40
ETH-028	GDA94	652946	6314201	358	-90	360	37
ETH-029	GDA94	652845	6314199	359	-90	360	34
ETH-030	GDA94	653700	6314600	337	-90	360	40
ETH-031	GDA94	653645	6314588	336	-90	360	37
ETH-032	GDA94	653596	6314601	342	-90	360	31
ETH-033	GDA94	653546	6314604	353	-90	360	40
ETH-034	GDA94	653499	6314600	345	-90	360	37
ETH-035	GDA94	653097	6314900	341	-90	360	32
ETH-036	GDA94	652998	6314896	338	-90	360	31
ETH-037	GDA94	652949	6314897	336	-90	360	31
ETH-038	GDA94	652907	6314894	340	-90	360	28
ETH-039	GDA94	652795	6314912	324	-90	360	36
ETH-040	GDA94	652972	6314000	363	-90	360	43
ETH-041	GDA94	653020	6313999	359	-90	360	37

Table 7. Ethiopia Prospect 2007 RAB drillhole collars

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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	• 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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Adelaide Exploration Pty Ltd • Rotary Air Blast (RAB) drill cuttings were collected at 1 metre intervals and contained in large plastic bags. Samples for geochemical analysis were collected as 6 metre composites taken over the entire length of each hole. The composites were collected by taking equal volumes from the contributing 1 metre bulk samples with the resulting composites weighing approximately 3-4 kilograms. A total of 258 original composite samples were collected. Additionally, eleven of the original samples were duplicated and submitted to the laboratory to determine laboratory accuracy and maintain quality control. • The Competent Person has referenced publicly sourced information through the report and considers that sampling was commensurate with industry standards current at the time of drilling and is appropriate for the indication of the presence of mineralisation.
Drilling Techniques	• 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.).	• Ethiopia RAB holes ETH-01-41 – drilled by Johannsen Drilling using drill rig Edison 2000. Historical report no other details provided. • All holes were drilled using a small diameter percussion hammer run on RAB rods and in effect the drill method can be considered as open hole percussion. • The Competent Person has referenced publicly sourced information through the report and considers that drilling techniques was commensurate with industry standards current at the time of drilling and is appropriate for the indication of the presence of mineralisation.
Drill Sample Recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	• Ethiopia RAB holes ETH-01-41 - historical report no details reported.

Criteria	JORC Code Explanation	Commentary
	• Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	
Logging	• 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.	• Drill collar information, geological logs, total count gamma scintillometer and spectrometer readings and magnetic susceptibility readings were recorded in excel spreadsheets and made available in appendices 1-5 of PACE Report DPY4-33
Sub-Sampling Techniques and Sample Preparation	• If core, whether cut or sawn and whether quarter, half or all cores 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 being sampled.	Adelaide Exploration Pty Ltd • Samples for geochemical analysis were collected as 6 metre composites taken over the entire length of each hole. The composites were collected by taking equal volumes from the contributing 1 metre bulk samples with the resulting composites weighing approximately 3-4 kilograms. • Additionally, eleven of the original samples were duplicated and submitted to the laboratory to determine laboratory accuracy and maintain quality control. Archer Materials • Kaolin rich intervals of the original Adelaide Resources 2007 RAB drilling were subsampled and submitted for kaolin analysis at Bureau Veritas based on visual estimates of whiteness and kaolin content • The Competent Person has referenced publicly sourced information through the report and considers that sampling techniques was commensurate with industry standards current at the time of drilling and is appropriate for the indication of the presence of mineralisation.
Quality of Assay Data and	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the	Adelaide Exploration Pty Ltd • Ethiopia RAB holes ETH-01-41 - historical report, no geochemistry details reported. However, duplicate

Criteria	JORC Code Explanation	Commentary
Laboratory Tests	technique is considered partial or total. • 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. • 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.	samples were deemed to be within an acceptable range • Total count gamma scintillometer readings were made on each sample obtained from all the drill holes. Total counts were obtained using an Exploranium 110 instrument. • Where anomalous high counts were recorded estimates of uranium (U ppm), thorium (Th ppm) and potassium (K %) were obtained using an Exploranium GR-135G spectrometer. • Magnetic susceptibility readings were made on all composited (6m) drill samples using an Exploranium KT9 instrument Archer Materials • Kaolin rich intervals of the original Adelaide Resources 2007 RAB drilling were subsampled and submitted for kaolin analysis at Bureau Veritas using the following method ○ Screen with 45 micron screen using cold water ○ Retain both fractions ○ Dry each fraction in low temp over ○ Record masses. ○ Riffle split a 10gm (+45 and -45 fraction) for whole rock assay (14 element oxides) and LOI. iTech Minerals • Samples submitted by Archer materials were resubmitted for ISO (B) brightness and rare earth element analysis to Bureau Veritas. Industry standard blanks and repeat analysis were used • The samples for brightness analysis were prepared by another group within BV Minerals. They were sized, at -45 µm, and a split was forwarded to the Mineralogy team for brightness analysis • Discs were prepared from the powdered sample using clear plastic tube (25 mm ID x 22 mm long), stainless steel pin (25 mm OD), a ceramic tile, sample press and a digital scale for measuring weight applied to the sample. • Brightness measurements were generally conducted according to (i) ISO 2469 Paper, board and

Criteria	JORC Code Explanation	Commentary
		pulps - Measurement of diffuse radiance factor (diffuse reflectance factor) and (ii) ISO 2470-1 Paper, board and pulps - Measurement of diffuse blue reflectance factor Part 1: Indoor daylight conditions (ISO brightness). Modifications were made, where appropriate, to these ISO procedures due to the difference between the materials in this standard and the current test samples (i.e. paper, board and pulps versus kaolinite/halloysite containing powders). • The Spectra Magic NX software was activated and the CM-25d spectrophotometer connected to the computer. • Spectrophotometer standards provided with the unit (i.e. zero and white) were run at the start of each analysis session and every 2 hours thereafter. • A clean ceramic tile was placed on the weighing balance. This tile was used for the preparation of the three replicates for each sample - a new tile was used for each additional sample. • A plastic tube was placed on the ceramic tile and the sample placed in it, to just below the top of the tube. The steel pin was then carefully lowered onto the sample and the tube/sample/pin/ceramic tile carefully moved to the press. • The arm of the press was moved to achieve a weight of 20 kg on the digital scale, for approximately 5 seconds. The pressure was gradually released, then the pin carefully removed. This resulted in a disc approximately 10 mm thick. • The disc was then inverted and placed, along with 8 others, in a 800 Watt microwave and dried, at full power, for 10 seconds. The 'dried' discs were then placed in a custom-made plastic holder, with holes for 9 samples. These samples were then analysed for brightness using a Konica-

Criteria	JORC Code Explanation	Commentary
		Minolta CM-25d spectrophotometer. Each disc was analysed three times, and each sample had 3 discs prepared. • REE analysis was undertaken by Bureau Veritas using and ICP-MS technique (Scheme IC4M). • Sample preparation was the same as for the kaolin test work undertaken by Archer Materials as the same samples were used. • Both the +45 and -45 fraction were analysed for REEs and the bulk sample result was calculated from the relative proportions and REE values of each fraction.
Verification of Sampling and Assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	• Ethiopia RAB holes ETH-01-41 - historical report no details reported • Rare earth element analyses were originally reported in elemental form but have been converted to relevant oxide concentrations as in the industry standard ○ TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$ ○ CREO = $Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3$ ○ LREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3$ ○ HREO = $Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$ ○ NdPr = $Nd_2O_3 + Pr_6O_{11}$ ○ TREO-Ce = TREO - CeO_2 ○ % NdPr = NdPr/ TREO ○ %HREO = HREO/TREO ○ %LREO = LREO/TREO
Location of Data Points	• Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	Adelaide Exploration Pty Ltd • No information reported on drill hole location method or accuracy • Ethiopia RAB holes ETH-01-41 – Datum used was GDA94 MGA Zone 53 • No information reported on drill hole location method or accuracy
Data Spacing and Distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade	Adelaide Exploration Pty Ltd • Samples for geochemical analysis were collected as 6 metre composites taken over the entire length of each hole. The composites were collected by taking equal volumes from the

Criteria	JORC Code Explanation	Commentary
	continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	contributing 1 metre bulk samples with the resulting composites weighing approximately 3-4 kilograms. Archer Materials Ltd • Sample compositing was applied on the basis of the visual estimates of whiteness and kaolin content.
Orientation of Data in Relation to Geological Structure	• 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.	Adelaide Exploration Pty Ltd • Ethiopia RAB holes ETH-01-41 – Holes were drilled vertically which is appropriate to sufficiently assess the horizontally lying weathering profile
Sample Security	• The measures taken to ensure sample security.	• Ethiopia RAB holes ETH-01-41 - historical report no details reported
Audits or Reviews	• The results of any audits or reviews of sampling techniques and data.	• None undertaken.

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	• 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.	• Tenement status confirmed on SARIG. • The tenements are in good standing with no known impediments.
Exploration Done by Other Parties	• Acknowledgment and appraisal of exploration by other parties.	• Relevant previous exploration has been undertaken by Shell Company of Australia Pty Ltd, Adelaide Exploration Pty Ltd and Archer Materials Ltd • See body of report for details on previous exploration
Geology	• Deposit type, geological setting and style of mineralisation.	• The tenements are within the Gawler Craton, South Australia. • iTech is exploring for porphyry Cu-Au, epithermal Au, kaolin and halloysite and REE deposits. • This release refers to kaolin mineralisation and ion adsorption rare earth elements mineralisation related to lateritic weathering processes on basement rock of the Gawler Craton, in particular the Palaeoproterozoic Miltalie Gneiss and Warrow Quartzite. • See body of the report for description of the geology in more detail.
Drillhole Information	• 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: – Easting and northing of the drill hole collar – Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	• Refer to Appendix 1, Table 5 of this report for details

Criteria	JORC Code Explanation	Commentary
	– Dip and azimuth of the hole – Downhole 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.	
Data Aggregation Methods	• 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.	• Archer Materials kaolin analysis intervals were aggregated using no lower or upper cut-offs. • Adelaide Exploration U, Th and Ce intervals were aggregated using a 100 ppm Ce lower cut-off and with no high cut • iTech Minerals REE analysis intervals were aggregated using a lower cut-off of 100ppm TREO with no upper limit applied
Relationship Between Mineralisation Widths and Intercept Lengths	• 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 downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').	• Ethiopia RAB holes ETH-01-41 – holes were drilled vertically which is appropriate to sufficiently assess the horizontally lying weathering profile and kaolin and REE mineralisation.
Diagrams	• 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.	• See main body of report.
Balanced Reporting	• 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.	Adelaide Exploration Pty Ltd - 2006 • Rock chip samples EU016-EU018 were submitted to Amdel Ltd for multielement geochemistry using assay codes FA3, IC3E, IC3M, IC3R and XRF1and were the only samples assayed for REE and therefore the only samples reported in this

Criteria	JORC Code Explanation	Commentary
		announcement. Detection limits are considered appropriate for the style of mineralisation. • All other relevant data has been reported • The reporting is considered to be balanced.
Other Substantive Exploration Data	• 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.	• The Project area has been subject of significant exploration for base metals, graphite and gold. • See body of report for details
Further Work	• 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.	• Further exploration sampling geochemistry and drilling required at all prosects