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ASX ANNOUNCEMENT **29/08/2022**

High-Grade Rare Earths Uncovered at Meteor

HIGHLIGHTS

- Batch drill results over the Area 2 Anomalous Zone has uncovered a major high-grade rare earth Prospect (Meteor Prospect) at shallow depth containing substantial thicknesses of mineralisation.
- High-grade mineralisation (> 1000 ppm TREO) typically starts from 3 to 6 metres depth and averages 9 metres of thickness.
- High-value magnet rare earths up to 546 ppm MREO recorded and average 25% of the total REE's.
- Meteor Prospect rare earth intersections include high-value Scandium Oxide (Sc_2O_3) credits averaging 45 ppm with a peak intersection of 111 ppm.
- Notable intercepts include:
    - 22ACCR169 - **12m @ 1,196 ppm TREO & 45 ppm Sc_2O_3 from 9m**
      inc. **3m @ 1,910 ppm TREO & 54 ppm Sc_2O_3 from 9m**
    - 22ACCR187 - **18m @ 1,106 ppm TREO & 51 ppm Sc_2O_3 from 9m**
      inc. **3m @ 2,007 ppm TREO & 80 ppm Sc_2O_3 from 12m**
    - 22ACCR200 - **18m @ 1,011 ppm TREO & 48 ppm Sc_2O_3 from 6m**
      inc. **3m @ 1,908 ppm TREO & 58 ppm Sc_2O_3 from 9m**
    - 22ACCR203 - **12 m @ 1,088 ppm TREO & 39 ppm Sc_2O_3 from 9m**
      inc. **3m @ 1,655 ppm TREO & 44 ppm Sc_2O_3 from 15m**
    - 22ACCR209 - **15m @ 1,220 ppm TREO & 41 Sc_2O_3 from 3m**
      inc. **3m @ 2,325 ppm TREO & 60 ppm Sc_2O_3 from 9m**
    - 22ACCR211 - **15m @ 1,172 ppm TREO & & 53 ppm Sc_2O_3 from 6m**
      inc. **9m @ 1,491 ppm TREO & 61 ppm Sc_2O_3 from 9m**
    - 22ACCR228 - **6m @ 1,399 ppm TREO & 98 ppm Sc_2O_3 from 12m**
      inc. **3m @ 1,771 ppm TREO & 111 ppm Sc_2O_3 from 12m**
    - 22ACCR229 - **6m @ 1,194 ppm TREO & 53 ppm Sc_2O_3 from 6m**
      inc. **3m @ 1,747 ppm TREO & 63 ppm Sc_2O_3 from 9m**
    - 22ACCR230 - **6m @ 1,089 ppm TREO & 35 ppm Sc_2O_3 from 3m**
      inc. **3m @ 1,306 ppm TREO & 35 ppm Sc_2O_3 from 6m**
- Mineralisation overlies a prominent magnetic body which is a possible source of the rare earths. Other similar magnetic anomalies remain un-tested on PTR's tenements.

INTRODUCTION

Petratherm Limited (ASX: **PTR**) is pleased to report Batch 2 rare earth (REE) drill results from the Comet Project located in the Northern Gawler Craton of South Australia (Figure 1). Drilling has defined a major REE occurrence named here the Meteor Prospect.

The Meteor Prospect is characterised by a high-grade blanket of mineralisation over 1,000 ppm Total Rare Earth Oxide (TREO) and includes 3m composite samples up to 2,325 ppm TREO. The high-grade zone (>1,000 ppm TREO) starts at shallow depths between 3 to 9 metres over the prospect area and ranges in thickness from 3 metres to 18 metres, with an average intercept thickness of 9 metres. The high-grade mineralisation extends over an approximate 1,200 metre by 700 metre area, with other satellite mineralised zones also present requiring additional drilling to characterise (Figure 1). High-value magnet rare earth (MREO) intercepts up to 546 ppm are recorded and average 25% of the total REE's. Meteor Prospect rare earth intersections include high-value Scandium Oxide (Sc_2O_3) credits averaging 45 ppm with a peak intersection of 111 ppm recorded, offering additional revenue potential.

Meteor Prospect - Significant REE Intercepts

Drill Hole	From	To	Interval	TREO	Scandium Sc_2O_3	High Value Magnet Rare Earth Oxides Pr_6O_{11}+ Nd_2O_3+Tb_4O_7+Dy_2O_3	
	metres	*metres*	*metres*	*ppm*	*ppm*	*ppm*	*%TREO*
22ACCR111	9	24	15	973	23	303	**31**
inc	12	21	9	**1156**	22	392	**34**
22ACCR169	9	21	12	**1196**	45	329	28
inc	9	12	3	**1910**	**54**	467	24
22ACCR170	6	12	6	**1029**	31	296	**29**
inc	9	12	3	**1504**	39	416	**28**
22ACCR176	12	18	6	**1006**	33	261	**26**
22ACCR186	6	30	24	818	**60**	219	**27**
inc	9	15	6	**1145**	**72**	312	**27**
22ACCR187	9	27	18	**1106**	**51**	284	**26**
inc	9	18	9	**1504**	**59**	381	**25**
and	12	15	3	**2007**	**80**	490	24
22ACCR188	12	27	15	962	55	249	**26**
inc	12	15	3	**1994**	**96**	546	**27**
22ACCR200	6	24	18	**1011**	48	257	**25**
inc	9	12	3	**1908**	**58**	487	**26**
22ACCR201	6	15	9	789	**52**	258	**33**
inc	9	12	3	**1006**	**51**	334	**33**
22ACCR203	9	21	12	**1088**	39	251	23
inc	15	18	3	**1655**	44	384	23
22ACCR208	6	12	6	837	26	187	22
inc	6	9	3	**1129**	29	260	23
22ACCR209	3	18	15	**1220**	41	287	24
inc	9	12	3	**2325**	**60**	578	**25**
22ACCR210	6	12	6	852	**50**	223	**26**
	6	9	3	**1065**	**51**	282	**26**
22ACCR211	6	21	15	**1172**	**53**	312	**27**
inc	6	15	9	**1491**	**61**	406	**27**
22ACCR212	6	9	3	**1703**	28	418	**25**
and	12	15	3	743	**67**	247	**33**
22ACCR220	6	9	3	**1003**	23	240	24
22ACCR223	12	27	15	722	28	169	23
inc	24	27	3	**1431**	39	348	24
22ACCR228	12	18	6	**1399**	**98**	311	22
inc	12	15	3	**1771**	**111**	369	21
22ACCR229	6	12	6	**1194**	**53**	309	**26**
inc	9	12	3	**1747**	**63**	422	24
22ACCR230	3	9	6	**1089**	35	270	**25**
inc	6	9	3	**1306**	35	302	23

Table 1 *Comet REE Drilling – Batch 2 Significant Results from the Meteor Prospect*

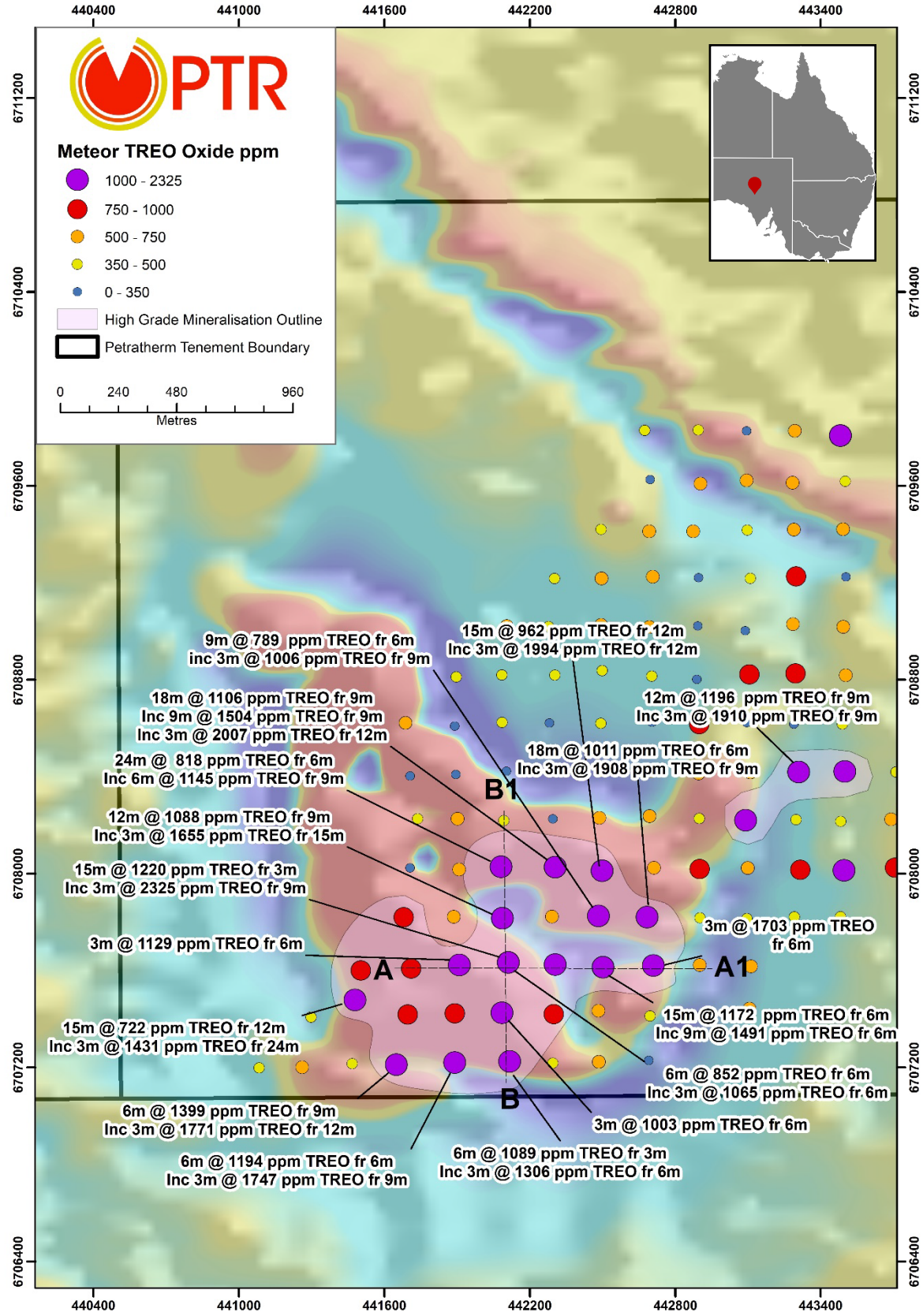

***Figure** 1 Meteor Prospect Area Summary Results overlain on a Magnetic Image. Mineralisation is overlying the magnetic body which may be the source of the rare earths.*

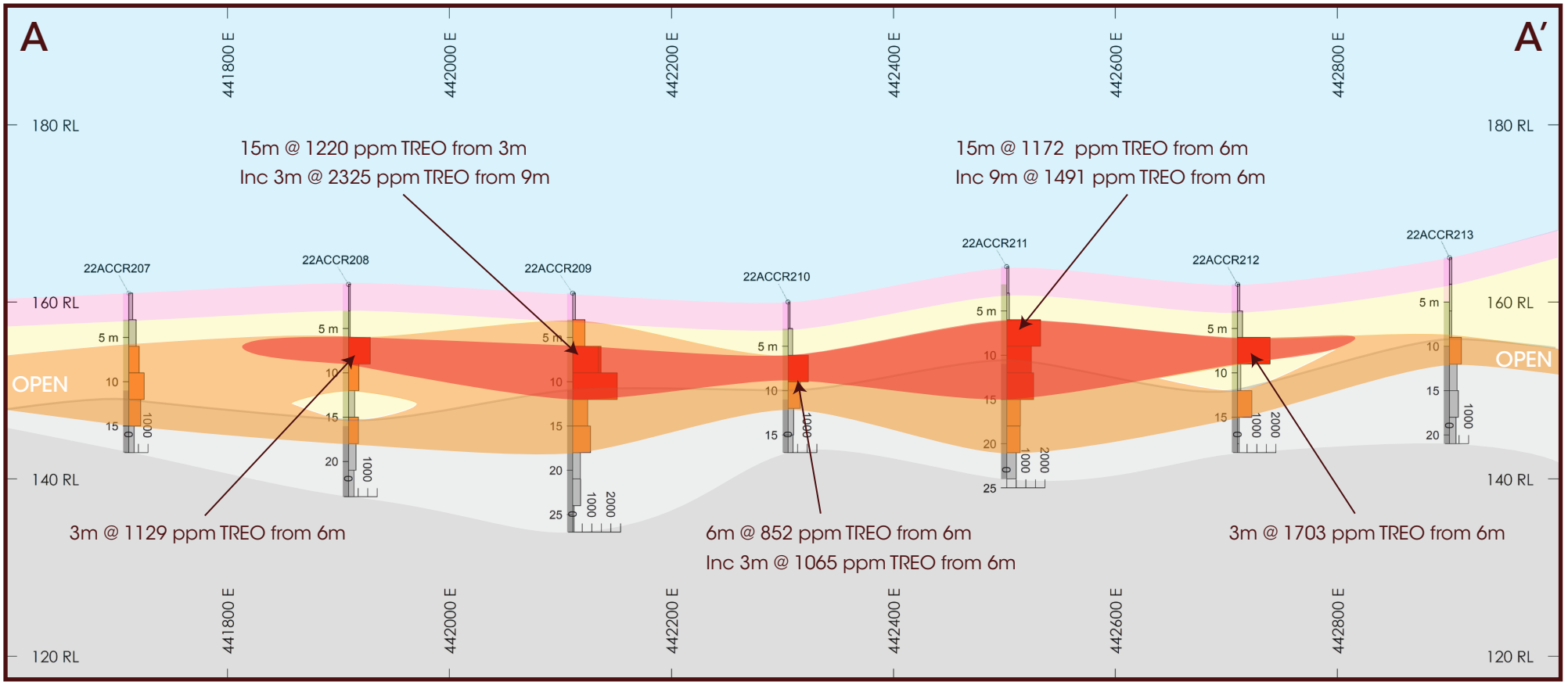

Figure 2: **Meteor - Cross Section A - A'**

0 200 400
METRES

500-1000 ppm TREO

1000-2300 ppm TREO

Sky | Cover sequence | Saprolitic Clays | Saprock | Basement

PTR

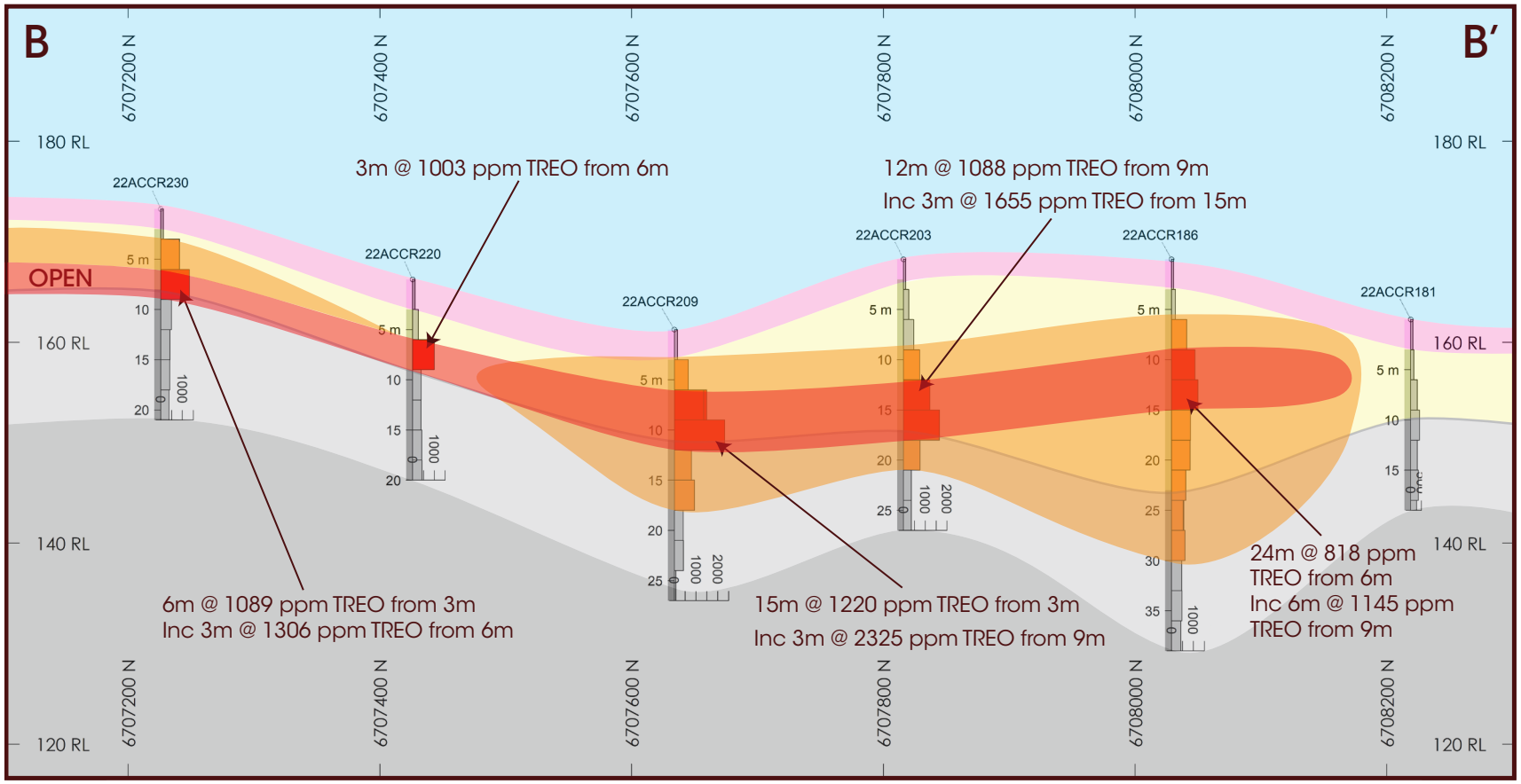

Figure 3: **Meteor - Cross Section B - B'**

0 200 400
METRES

500-1000 ppm TREO

1000-2300 ppm TREO

Sky | Cover sequence | Saprolitic Clays | Saprock | Basement

PTR

Meteor Prospect Cross-Sections

The drill results presented are 3 metre composite samples from a 200 metre spaced air core drilling program. West-East and North-South cross-sections over the Meteor Prospect show an upper high-grade (1,000 to 2,325 ppm TREO) zone of enrichment within the saprolite clay (Figures 2 & 3). This is surrounded by a broader mineralised envelope ranging between 500 to 1000 ppm TREO and extends below the high-grade pod into the saprock zone below.

Rare Earths Linked to Potential Source Rocks

The mineralisation spatially overlies a prominent magnetic body (Figure 1) which is a possible primary source of the rare earths. Basement samples in this area have a distinctive mafic mineral chemistry and may represent some form of intrusive complex. Petrological studies are planned to better understand the basement geology and determine if these are primary source rocks for the overlying mineralisation.

PTR postulate that the magnetic body may be a coeval intrusion with the Muckanippie Complex which forms a series of small to large intrusions in the region. PTR recently acquired a significant land holding over the central portion of the Muckanippie Complex through a competitive bid (refer to PTR ASX release 19/08/2022). Several other similar discrete magnetic anomalies remain untested on PTR's Comet tenements and will be an additional focus for future drilling exploration.

Commenting on these results, Petratherm's Exploration Manager Mr Peter Reid said:

"These are encouraging results with a significant rare earth zone found with high grades, starting at shallow depths, and over substantial thickness's. We see compelling evidence that the Northern Gawler Craton of South Australia is shaping up as a major new province for rare earths. We look forward to the up-coming infill drilling at Meteor and the testing of other new areas based on our knowledge gained in this exciting frontier exploration terrain"

Next Steps

It is anticipated infill and step out drilling at Meteor REE Prospect will get underway from the start of October with the aim of defining JORC resources. Test work of the REE clay samples at ANSTO is planned as part of a comprehensive program of metallurgical optimisation on REE recoveries.

In addition to this work, the drill rig will undertake drilling of other REE mineralised areas previously identified (refer to PTR ASX release 08/08/2022) and testing of new target areas. PTR's final Batch 3 results representing a further 91 drill holes from other anomalous REE areas are at ALS laboratories undergoing analysis. These results are due in the coming weeks and PTR will report on these once they arrive and have undergone compilation and interpretation by the reporting geologist.

This ASX announcement has been approved by Petratherm's Board of Directors and authorised for release by Petratherm's Chairman Derek Carter.

For further information contact :

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Competent Persons Statement: The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Peter Reid, who is a Competent Person, and a Member of the Australian Institute of Geoscientists. Mr Reid is not aware of any new information or data that materially affects the historical exploration results included in this report. Mr Reid is an employee of Petratherm Ltd. Mr Reid has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Reid consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Comet REE Project - Batch 2 Table of all Significant REE Intercepts (>500 ppm TREO)															
Drill Hole	From	To	Interval	TREO	Scandium	High Value - Magnet Rare Earth Oxides (MREO)								Total MREO	
						Praseodymium		Neodymium		Terbium		Dysprosium			
					Sc_2O_3	Pr_6O_{11}		Nd_2O_3		Tb_4O_7		Dy_2O_3			
	metres	metres	metres	ppm	ppm	ppm	% TREO	ppm	% TREO	ppm	% TREO	ppm	% TREO	ppm	%TREO
22ACCR111	9	24	15	973	23	65	7	219	23	3.09	0.3	15.8	1.6	303	31
inc	12	21	9	1156	22	85	7	284	25	3.67	0.3	18.7	1.6	392	34
22ACCR112	6	9	3	544	24	40	7	137	25	2.36	0.4	13.5	2.5	193	35
and	12	15	3	534	24	24	5	87	16	1.74	0.3	11.1	2.1	124	23
22ACCR115	12	15	3	512	26	23	4	75	15	1.34	0.3	7.5	1.5	106	21
22ACCR116	21	24	3	541	21	25	5	87	16	1.50	0.3	8.6	1.6	122	23
22ACCR117	21	24	3	651	28	32	5	116	18	2.58	0.4	16.0	2.5	167	26
22ACCR119	6	15	9	565	32	36	6	134	24	2.01	0.4	11.7	2.1	183	32
22ACCR120	21	27	6	523	35	27	5	94	18	2.08	0.4	12.4	2.4	135	26
22ACCR123	12	15	3	751	35	42	6	142	19	3.03	0.4	16.2	2.2	203	27
22ACCR125	12	18	6	519	27	24	5	81	16	0.93	0.2	5.0	1.0	112	22
22ACCR126	9	12	3	573	14	20	4	58	10	0.64	0.1	3.5	0.6	83	14
22ACCR129	12	15	3	588	40	32	6	96	16	1.66	0.3	9.2	1.6	139	24
22ACCR130	15	18	3	586	61	30	5	84	14	1.15	0.2	6.5	1.1	121	21
22ACCR133	15	24	9	541	32	28	5	86	16	1.48	0.3	7.6	1.4	124	23
22ACCR134	15	18	3	523	37	26	5	93	18	1.73	0.3	9.5	1.8	131	25
22ACCR138	9	15	6	501	14	23	5	80	16	1.06	0.2	6.0	1.2	110	22
and	36	39	3	565	31	28	5	100	18	1.54	0.3	9.8	1.7	139	25
22ACCR139	18	24	6	586	29	32	5	105	18	1.42	0.2	7.5	1.3	146	25
22ACCR141	12	15	3	543	47	29	5	117	21	1.88	0.3	8.9	1.6	157	29
22ACCR148	3	9	6	756	32	47	6	166	22	2.36	0.3	11.9	1.6	226	30
22ACCR149	18	24	6	792	39	39	5	129	16	2.56	0.3	14.2	1.8	185	23
22ACCR150	12	15	3	569	42	29	5	107	19	2.01	0.4	11.0	1.9	149	26
22ACCR154	9	15	6	699	34	49	7	179	26	2.33	0.3	11.1	1.6	241	35
22ACCR160	6	21	15	614	33	29	5	112	18	1.34	0.2	6.9	1.1	149	24
22ACCR166	24	33	9	657	16	35	5	132	20	1.59	0.2	6.6	1.0	175	27
22ACCR167	6	9	3	608	13	28	5	82	13	0.73	0.1	3.8	0.6	115	19
and	24	27	3	502	34	22	4	88	17	1.72	0.3	8.5	1.7	120	24
22ACCR168	9	15	6	591	64	24	4	105	18	2.60	0.4	14.8	2.5	147	25
22ACCR169	9	21	12	1196	45	63	5	237	20	4.62	0.4	24.8	2.1	329	28
inc	9	12	3	1910	54	87	5	343	18	6.04	0.3	31.1	1.6	467	24
22ACCR170	6	12	6	1029	31	58	6	213	21	3.92	0.4	20.6	2.0	296	29
inc	9	12	3	1504	39	79	5	299	20	6.06	0.4	32.5	2.2	416	28
and	21	22	1	723	27	29	4	117	16	2.76	0.4	15.4	2.1	164	23
22ACCR172	12	15	3	522	23	25	5	96	18	1.88	0.4	10.4	2.0	134	26
and	18	21	3	560	22	16	3	68	12	3.13	0.6	22.3	4.0	109	20
22ACCR173	15	18	3	607	27	32	5	111	18	1.95	0.3	9.8	1.6	155	26
22ACCR176	12	18	6	1006	33	48	5	191	19	3.01	0.3	18.3	1.8	261	26
22ACCR178	9	15	6	523	19	26	5	85	16	0.94	0.2	4.3	0.8	116	22
22ACCR179	9	12	3	549	27	23	4	66	12	1.46	0.3	7.8	1.4	98	18
22ACCR182	9	12	3	686	28	38	5	143	21	1.63	0.2	6.9	1.0	190	28
22ACCR185	9	12	3	531	39	29	5	108	20	1.51	0.3	7.6	1.4	146	28
22ACCR186	6	30	24	818	60	41	5	162	20	2.68	0.3	13.3	1.6	219	27
inc	9	15	6	1145	72	60	5	232	20	3.53	0.3	16.3	1.4	312	27
22ACCR187	9	27	18	1106	51	56	5	212	19	2.76	0.2	13.2	1.2	284	26
inc	9	18	9	1504	59	77	5	285	19	3.28	0.2	15.2	1.0	381	25
inc.	12	15	3	2007	80	100	5	363	18	4.78	0.2	22.8	1.1	490	24
22ACCR188	12	27	15	962	55	45	5	182	19	3.50	0.4	18.9	2.0	249	26
inc	12	15	3	1994	96	104	5	405	20	6.23	0.3	31.9	1.6	546	27
22ACCR189	9	12	3	520	37	21	4	96	18	2.62	0.5	15.0	2.9	135	26
22ACCR190	9	12	3	940	42	51	5	196	21	2.22	0.2	10.5	1.1	260	28
22ACCR191	9	12	3	500	18	35	7	115	23	1.12	0.2	5.3	1.1	156	31
and	27	36	9	535	24	27	5	89	17	1.34	0.3	7.0	1.3	124	23
22ACCR192	9	18	9	631	30	33	5	116	18	2.22	0.4	12.1	1.9	163	26
22ACCR193	9	12	3	1079	37	64	6	217	20	4.75	0.4	23.8	2.2	309	29
and	21	24	3	531	40	22	4	69	13	2.00	0.4	11.3	2.1	104	20
22ACCR194	15	24	9	700	34	31	4	101	14	2.11	0.3	11.7	1.7	146	21
22ACCR195	24	27	3	500	32	23	5	84	17	1.60	0.3	8.8	1.8	118	23
22ACCR200	6	24	18	1011	48	50	5	192	19	2.57	0.3	12.8	1.3	257	25
inc	9	12	3	1908	58	94	5	366	19	4.60	0.2	21.7	1.1	487	26
and	27	36	9	740	41	39	5	146	20	1.92	0.3	8.9	1.2	196	26

Table 2 *Comet REE Drilling – Batch 2 Table of all Significant Results*

Comet REE Project - Batch 2 Table of all Significant REE Intercepts (>500 ppm TREO)																
Drill Hole	From	To	Interval	TREO	Scandium	High Value - Magnet Rare Earth Oxides (MREO)								Total MREO	
						Praseodymium		Neodymium		Terbium		Dysprosium			
					Sc_2O_3	Pr_6O_{11}		Nd_2O_3		Tb_4O_7		Dy_2O_3			
	metres	*metres*	*metres*	*ppm*	*ppm*	*ppm*	*% TREO*	*ppm*	*% TREO*	*ppm*	*% TREO*	*ppm*	*% TREO*	*ppm*	*%TREO*
22ACCR201	6	15	9	789	**52**	49	6	194	25	2.73	0.3	12.0	1.5	258	**33**
inc	9	12	3	**1006**	**51**	63	6	252	25	3.62	0.4	15.7	1.6	334	**33**
22ACCR202	12	15	3	614	34	31	5	113	18	1.50	0.2	7.5	1.2	153	**25**
22ACCR203	9	21	12	**1088**	39	51	5	184	17	2.80	0.3	13.3	1.2	251	23
inc	15	18	3	**1655**	44	77	5	282	17	4.20	0.3	20.5	1.2	384	23
22ACCR204	3	6	3	566	11	29	5	97	17	1.07	0.2	4.2	0.7	131	23
and	21	24	3	542	40	27	5	94	17	1.01	0.2	5.7	1.1	128	24
22ACCR205	6	21	15	625	**59**	30	5	119	19	2.10	0.3	10.6	1.7	162	**26**
22ACCR206	6	12	6	655	37	32	5	132	20	2.36	0.4	11.1	1.7	177	**27**
22ACCR207	6	15	9	654	19	32	5	115	18	1.62	0.2	7.6	1.2	156	24
22ACCR208	6	12	6	837	26	40	5	138	17	1.56	0.2	7.3	0.9	187	22
inc	6	9	3	**1129**	29	56	5	192	17	2.11	0.2	9.9	0.9	260	23
and	15	18	3	521	28	25	5	101	19	1.50	0.3	7.6	1.4	135	**26**
22ACCR209	3	18	15	**1220**	41	59	5	211	17	2.95	0.2	14.0	1.1	287	24
inc	9	12	3	**2325**	**60**	115	5	427	18	6.39	0.3	29.8	1.3	578	**25**
22ACCR210	6	12	6	852	**50**	42	5	161	19	3.48	0.4	16.6	2.0	223	**26**
inc.	6	9	3	**1065**	**51**	55	5	204	19	4.25	0.4	18.8	1.8	282	**26**
22ACCR211	6	21	15	**1172**	**53**	58	5	229	20	4.08	0.3	20.3	1.7	312	**27**
inc	6	15	9	**1491**	**61**	77	5	301	20	4.86	0.3	23.3	1.6	406	**27**
22ACCR212	6	9	3	**1703**	28	82	5	307	18	5.10	0.3	23.8	1.4	418	**25**
and	12	15	3	743	**67**	109	15	109	15	3.90	0.5	24.1	3.2	247	**33**
22ACCR213	9	12	3	622	39	28	4	85	14	1.05	0.2	5.5	0.9	119	19
22ACCR214	15	18	3	507	23	24	5	71	14	1.02	0.2	5.7	1.1	102	20
22ACCR215	9	12	3	572	23	24	4	71	12	1.02	0.2	5.7	1.0	102	18
22ACCR218	6	9	3	604	27	27	4	109	18	2.32	0.4	12.6	2.1	151	**25**
22ACCR219	6	15	9	762	**111**	34	4	134	18	3.98	0.5	21.7	2.9	194	**25**
22ACCR220	6	9	3	**1003**	23	49	5	177	18	2.47	0.2	11.9	1.2	240	24
22ACCR221	6	12	6	821	43	40	5	145	18	1.96	0.2	10.1	1.2	197	24
22ACCR222	6	27	21	638	30	30	5	112	17	1.52	0.2	7.7	1.2	151	24
22ACCR223	12	27	15	722	28	35	5	125	17	1.52	0.2	7.8	1.1	169	23
inc	24	27	3	**1431**	39	69	5	261	18	2.88	0.2	14.1	1.0	348	24
22ACCR226	15	18	3	628	17	33	5	103	16	1.88	0.3	9.9	1.6	148	24
22ACCR228	12	18	6	**1399**	**98**	70	5	228	16	2.39	0.2	10.3	0.7	311	22
inc	12	15	3	**1771**	**111**	86	5	271	15	2.36	0.1	9.9	0.6	369	21
22ACCR229	6	12	6	**1194**	**53**	59	5	220	18	4.78	0.4	24.2	2.0	309	**26**
inc	9	12	3	**1747**	**63**	76	4	300	17	7.55	0.4	38.8	2.2	422	24
22ACCR230	3	9	6	**1089**	35	51	5	196	18	3.69	0.3	19.6	1.8	270	**25**
inc	6	9	3	**1306**	35	55	4	216	17	4.72	0.4	26.6	2.0	302	23
22ACCR232	3	12	9	546	39	27	5	102	19	1.69	0.3	9.2	1.7	139	**25**

Table 2 Continued *Comet REE Drilling – Batch 2 Table of all Significant Results*

Hole ID	Easting MGA94 Z53	Northing MGA94 Z53	RL metres	Dip Deg.	Azimuth Deg.	EOH Depth metres
22ACCR111	443,481	6,709,808	167	-90	0	36
22ACCR112	443,293	6,709,827	172	-90	0	34
22ACCR113	443,094	6,709,827	170	-90	0	29
22ACCR114	442,895	6,709,831	170	-90	0	33
22ACCR115	442,904	6,709,609	168	-90	0	26
22ACCR116	443,094	6,709,622	169	-90	0	31
22ACCR117	443,284	6,709,613	168	-90	0	30
22ACCR118	443,502	6,709,619	166	-90	0	21
22ACCR119	443,492	6,709,421	163	-90	0	29
22ACCR120	443,289	6,709,419	164	-90	0	42
22ACCR121	443,097	6,709,418	164	-90	0	21
22ACCR122	443,110	6,709,219	164	-90	0	18
22ACCR123	443,299	6,709,227	166	-90	0	38
22ACCR124	443,504	6,709,224	173	-90	0	26
22ACCR125	443,493	6,709,018	172	-90	0	24
22ACCR126	443,285	6,709,029	171	-90	0	51
22ACCR127	442,674	6,709,829	166	-90	0	22
22ACCR128	442,696	6,709,626	165	-90	0	9
22ACCR129	442,874	6,709,412	162	-90	0	27
22ACCR130	442,692	6,709,412	164	-90	0	22
22ACCR131	442,494	6,709,421	165	-90	0	16
22ACCR132	442,302	6,709,218	162	-90	0	16
22ACCR133	442,496	6,709,218	167	-90	0	26
22ACCR134	442,707	6,709,225	171	-90	0	27
22ACCR135	442,896	6,709,221	161	-90	0	28
22ACCR136	443,089	6,709,002	163	-90	0	27
22ACCR137	442,893	6,709,022	166	-90	0	24
22ACCR138	442,693	6,709,017	169	-90	0	47
22ACCR139	442,494	6,709,026	167	-90	0	28
22ACCR140	442,278	6,709,020	162	-90	0	20
22ACCR141	442,105	6,709,021	165	-90	0	24
22ACCR142	441,897	6,708,812	165	-90	0	18
22ACCR143	442,085	6,708,820	165	-90	0	28
22ACCR144	442,304	6,708,819	122	-90	0	15
22ACCR145	442,499	6,708,838	164	-90	0	28
22ACCR146	442,703	6,708,815	162	-90	0	56
22ACCR147	442,889	6,708,802	166	-90	0	48
22ACCR148	443,106	6,708,822	165	-90	0	21
22ACCR149	443,296	6,708,826	165	-90	0	39
22ACCR150	443,503	6,708,818	168	-90	0	24
22ACCR151	443,490	6,708,617	170	-90	0	19
22ACCR152	443,289	6,708,617	170	-90	0	32
22ACCR153	443,095	6,708,623	171	-90	0	13
22ACCR154	442,899	6,708,617	171	-90	0	36
22ACCR155	442,704	6,708,625	173	-90	0	33
22ACCR156	442,493	6,708,620	168	-90	0	43
22ACCR157	442,281	6,708,622	169	-90	0	26
22ACCR158	442,086	6,708,624	168	-90	0	19
22ACCR159	441,890	6,708,609	163	-90	0	25
22ACCR160	441,687	6,708,622	163	-90	0	23
22ACCR161	441,706	6,708,403	163	-90	0	12
22ACCR162	441,895	6,708,409	164	-90	0	13
22ACCR163	442,103	6,708,423	166	-90	0	19
22ACCR164	442,303	6,708,420	167	-90	0	27
22ACCR165	442,496	6,708,421	163	-90	0	45
22ACCR166	442,702	6,708,423	160	-90	0	47
22ACCR167	442,896	6,708,413	165	-90	0	33
22ACCR168	443,110	6,708,417	166	-90	0	20
22ACCR169	443,309	6,708,420	168	-90	0	30
22ACCR170	443,499	6,708,422	170	-90	0	22
22ACCR171	443,711	6,708,420	176	-90	0	23
22ACCR172	443,903	6,708,216	176	-90	0	33

Table 3 *– Comet REE Project Batch 3 Drill Hole Collars*

Hole ID	Easting MGA94 Z53	Northing MGA94 Z53	RL metres	Dip Deg.	Azimuth Deg.	EOH Depth metres
22ACCR173	443,690	6,708,224	177	-90	0	24
22ACCR174	443,483	6,708,216	170	-90	0	22
22ACCR175	443,299	6,708,223	171	-90	0	20
22ACCR176	443,090	6,708,221	170	-90	0	24
22ACCR177	442,899	6,708,228	162	-90	0	42
22ACCR178	442,694	6,708,237	165	-90	0	28
22ACCR179	442,487	6,708,230	162	-90	0	36
22ACCR180	442,295	6,708,226	163	-90	0	31
22ACCR181	442,093	6,708,219	162	-90	0	19
22ACCR182	441,902	6,708,226	164	-90	0	24
22ACCR183	441,738	6,708,227	160	-90	0	18
22ACCR184	441,706	6,708,024	165	-90	0	17
22ACCR185	441,908	6,708,017	167	-90	0	23
22ACCR186	442,081	6,708,029	168	-90	0	39
22ACCR187	442,305	6,708,027	169	-90	0	27
22ACCR188	442,498	6,708,012	169	-90	0	32
22ACCR189	442,712	6,708,024	172	-90	0	20
22ACCR190	442,901	6,708,019	169	-90	0	15
22ACCR191	443,099	6,708,023	166	-90	0	37
22ACCR192	443,316	6,708,016	170	-90	0	41
22ACCR193	443,496	6,708,014	162	-90	0	33
22ACCR194	443,707	6,708,025	164	-90	0	24
22ACCR195	443,908	6,708,023	166	-90	0	44
22ACCR196	443,482	6,707,823	168	-90	0	21
22ACCR197	443,292	6,707,822	170	-90	0	38
22ACCR198	443,096	6,707,815	171	-90	0	21
22ACCR199	442,902	6,707,818	175	-90	0	19
22ACCR200	442,684	6,707,821	173	-90	0	36
22ACCR201	442,483	6,707,826	172	-90	0	16
22ACCR202	442,291	6,707,823	170	-90	0	20
22ACCR203	442,087	6,707,816	168	-90	0	27
22ACCR204	441,886	6,707,822	167	-90	0	24
22ACCR205	441,680	6,707,820	156	-90	0	24
22ACCR206	441,503	6,707,601	161	-90	0	16
22ACCR207	441,711	6,707,609	161	-90	0	18
22ACCR208	441,909	6,707,624	162	-90	0	24
22ACCR209	442,111	6,707,634	161	-90	0	27
22ACCR210	442,305	6,707,625	160	-90	0	17
22ACCR211	442,502	6,707,614	164	-90	0	25
22ACCR212	442,710	6,707,621	162	-90	0	19
22ACCR213	442,901	6,707,623	165	-90	0	21
22ACCR214	443,112	6,707,617	170	-90	0	22
22ACCR215	443,106	6,707,443	170	-90	0	22
22ACCR216	442,904	6,707,417	172	-90	0	20
22ACCR217	442,696	6,707,413	173	-90	0	11
22ACCR218	442,483	6,707,434	170	-90	0	9
22ACCR219	442,299	6,707,421	167	-90	0	29
22ACCR220	442,085	6,707,426	166	-90	0	20
22ACCR221	441,891	6,707,424	166	-90	0	21
22ACCR222	441,697	6,707,419	168	-90	0	30
22ACCR223	441,479	6,707,479	164	-90	0	33
22ACCR224	441,298	6,707,408	162	-90	0	24
22ACCR225	441,084	6,707,199	163	-90	0	30
22ACCR226	441,261	6,707,201	165	-90	0	29
22ACCR227	441,468	6,707,216	166	-90	0	14
22ACCR228	441,649	6,707,212	167	-90	0	17
22ACCR229	441,890	6,707,221	170	-90	0	24
22ACCR230	442,117	6,707,226	173	-90	0	21
22ACCR231	442,295	6,707,219	173	-90	0	6
22ACCR232	442,485	6,707,223	170	-90	0	24
22ACCR233	442,691	6,707,230	171	-90	0	17

Table 3 Continued *– Comet REE Project Batch 3 Drill Hole Collars*

EL 6443 & EL 6633 (Comet Project) JORC Table 1

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 (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.* • *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 (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 Au that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• A total of 123 drill holes have been drilled to blade refusal on 200 metres spacing at the Meteor Prospect (Formerly referred to by PTR as Area 2). • During the program samples were collected as composite intervals from one metre drill samples stored individually in buckets and separate 1m samples were collected by a splitter attached to the cyclone on the drill rig. • Composite samples were collected using a "spear" tool to collect representative samples from buckets and RC bags. Composite samples were an average weight of 2 kg. • A handheld Garmin 64s was used to record the location of each drill hole. The accuracy of this GPS is +/- 3m
Drilling techniques	• *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.).*	• Drill Method consisted of Aircore. Hole diameters are 78 mm.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *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.*	• Aircore drilling methods were utilised throughout the duration of the program. • Hole diameters are 78mm. • A Geologist was on site for every drill hole to ensure that sample recoveries were appropriate.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to*	• All samples were geologically logged by the on-site geologist.

Criteria	JORC Code explanation	Commentary
	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.*	• Geological logging is qualitative. • Representative chip trays containing 1 m geological sub-samples were collected. • All drillholes were geologically logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Samples averaging 2 kg were collected for laboratory assay. • It is considered representative samples were collected. • Laboratory sample preparation includes drying and pulverizing of submitted sample to target of p80 at 75 um. • Duplicate samples have been introduced into the sample stream by the Company. • Standard samples were introduced into the sample stream by the Company, and the laboratory also completed standard assays. • Laboratory analytical charge sizes are standard sizes and considered adequate for the material being assayed.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• ALS in Perth was used for analytical work. Samples were analysed in the following manner: • Lithium Borate Fusion is analysed by Inductively Coupled Plasma Mass Spectrometry for 32 elements. • A mixed Acid digest is also done and assayed by inductively Coupled Plasma and Atomic Emission Spectroscopy for 40 elements. • For laboratory samples, the Company has introduced QA/QC samples at a ratio of one QA/QC sample for every 40 drill samples. The laboratory will introduce additional QA/QC samples (blanks, standards, checks)

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Verification of sampling and assaying</td><td>

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.

</td><td>

The Company has queried the results with ALS to verify the accuracy of the results.
No twinned holes were drilled in the program.
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
MREO = Pr_6O_{11} + Nd_2O_3 + Dy_2O_3 + Tb_4O_7

<table>
<tr><th>Element Name</th><th>Element Oxide</th><th>Oxide Factor</th></tr>
<tr><td>Ce</td><td>CeO2</td><td>1.2284</td></tr>
<tr><td>Dy</td><td>Dy2O3</td><td>1.1477</td></tr>
<tr><td>Er</td><td>Er2O3</td><td>1.1435</td></tr>
<tr><td>Eu</td><td>Eu2O3</td><td>1.1579</td></tr>
<tr><td>Gd</td><td>Gd2O3</td><td>1.1526</td></tr>
<tr><td>Ho</td><td>Ho2O3</td><td>1.1455</td></tr>
<tr><td>La</td><td>La2O3</td><td>1.1728</td></tr>
<tr><td>Lu</td><td>Lu2O3</td><td>1.1371</td></tr>
<tr><td>Nd</td><td>Nd2O3</td><td>1.1664</td></tr>
<tr><td>Pr</td><td>Pr6O11</td><td>1.2082</td></tr>
<tr><td>Sc</td><td>Sc2O3</td><td>1.5338</td></tr>
<tr><td>Sm</td><td>Sm2O3</td><td>1.1596</td></tr>
<tr><td>Tb</td><td>Tb4O7</td><td>1.1762</td></tr>
<tr><td>Th</td><td>ThO2</td><td>1.1379</td></tr>
<tr><td>Tm</td><td>Tm2O3</td><td>1.1421</td></tr>
<tr><td>U</td><td>U3O8</td><td>1.1793</td></tr>
<tr><td>Y</td><td>Y2O3</td><td>1.2699</td></tr>
<tr><td>Yb</td><td>Yb2O3</td><td>1.1387</td></tr>
</table>
</td></tr>
<tr><td>Location of data points</td><td>

Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.
Specification of the grid system used.
Quality and adequacy of topographic control.

</td><td>

All maps and locations are in UTM grid (GDA94 Z53) and have been measured by hand-held GPS with a lateral accuracy of ±3 metres and a vertical accuracy ±5m.

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<tr><td>Data spacing and distribution</td><td>

Data spacing for reporting of Exploration Results.
Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.
Whether sample compositing has been applied.

</td><td>

Drill holes were completed on a 200 and 100-metre spaced grids.
The data spacing and distribution is insufficient to establish the degree of geological and grade continuity appropriate for a

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</table>

Criteria	JORC Code explanation	Commentary
		JORC mineral resource.
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.*	• As demonstrated by the cross sections provided the mineralisation is seemingly horizontal. As such no sampling bias is introduced by the drill hole orientation.
Sample security	• *The measures taken to ensure sample security.*	• Company staff and contractors collected laboratory samples. • Samples submitted to the laboratory were transported and delivered by Company staff or contractors to ALS Laboratories Adelaide.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No independent audit of data has been completed to date.

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.*	• EL 6443 Comet and EL 6633 Gina are located approximately 80km south south-west of Coober Pedy overlapping Ingomar and Commonwealth Hill Pastoral Stations. • The tenements are located within the Woomera Prohibited Area (Amber Zone) and the Far North Prescribed Wells Area. • Native Title Holder: SCD2011/001 Antakirinja Matu-Yankunytjatjara. • The tenement is in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration work includes; • **Surface Geochemical Sampling:** Calcrete

Criteria	JORC Code explanation	Commentary
		Airborne Geophysics: Magnetics & Radiometrics. **Ground Geophysics:** Magnetics and Gravity. **Exploration Drilling:** 202 Mechanised Auger, 103 Aircore, 9 Rotary Air, 27 Reverse Circulation & 3 Diamond.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The tenements are within the Northern Gawler Craton, South Australia • Petratherm are exploring for gold, REE and other critical minerals. • This release refers to ion adsorption REE mineralisation bound to clays within the weathered saprolite profile. • Anomalous primary REE minerals are recorded from fresher rock samples below the clays at Target 14 Prospect. Petrologically described as a S type calc alkaline granitoid with accessory monazite in numerous samples and is considered sufficient to account for anomalous REE.
Drill hole 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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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.*	• The type of drilling performed, comprised vertical shallow holes to an approximate average depth of 30 metres on a 200-metre grid. The drilling is first pass exploration program designed to test the extend of previously discovered rare earth mineralisation. • All drillhole information pertaining to results in this release are tabulated in Table's 2 & 3 at the end of the release.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *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.* • *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.*	• All reported drill results are true results as reported by ALS. • No assumptions of metal equivalent values were made or used.
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 down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Drill holes were drilled vertically at -90 degrees. Any relationship between mineralisation widths and intercepts lengths is not known. • TREO values reported are down hole length.
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 Figures in main body of release attached.
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.*	• Assay results from 123 drill holes were assayed. Samples we digested using Lithium Borate Fusion and Mixed Acid Digest and assayed by ICP-MS and ICP-AES. All results above 500 ppm TREO are reported in the Table 2 of Significant Intercepts. A cut off value of 500 ppm was implemented which is above the 350 ppm TREO cut off reported by other companies with similar ionic clay bound rare earth deposits. • All sample locations where REE grades were found to be below 500 ppm TREO are also shown on the Figures in the main body of the

Criteria	JORC Code explanation	Commentary
		release.
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.*	• See attached ASX Release. Geological observations are included in that report.
Further work	• *The nature and scale of planned further work (eg 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.*	• See attached release.