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ASX ANNOUNCEMENT **15/02/2023**

Meteor Prospect - Exceptional Rare Earth Drill Intersections

HIGHLIGHTS

- Meteor Prospect drilling has defined a continuous substantial thick blanket of high-grade rare earth mineralisation (> 1000 ppm TREO), starting from a very shallow depth.

- Mineralisation typically starts from 3 metres depth with substantial intersections up to 38 metres of thickness, averaging 11.5 metres thickness over the Prospect Area. Potential for low-cost favourable free dig mining methods.

- Significant new drill intercepts include:
  - 22ACCR372 - **38m @ 967 ppm TREO & 39 ppm Sc_2O_3 from 3m**
    inc. **12m @ 1,690 ppm TREO & 38 ppm Sc_2O_3 from 18m**
  - 22ACCR373 - **27m @ 1,014 ppm TREO & 49 ppm Sc_2O_3 from 3m**
    inc. **3m @ 1,962 ppm TREO & 84 ppm Sc_2O_3 from 6m**
  - 22ACCR374 - **24m @ 1,594 ppm TREO & 34 ppm Sc_2O_3 from 6m**
    inc. **6m @ 2,495 ppm TREO & 42 ppm Sc_2O_3 from 6m**
  - 22ACCR379 - **24 m @ 1,030 ppm TREO & 46 ppm Sc_2O_3 from 6m**
    inc. **3m @ 2,144 ppm TREO & 54 ppm Sc_2O_3 from 9m**
  - 22ACCR381 - **20m @ 921 ppm TREO & 35 Sc_2O_3 from 3m**
    inc. **9m @ 1,050 ppm TREO & 38 ppm Sc_2O_3 from 9m**
  - 22ACCR386 - **21m @ 1,071 ppm TREO & 55 ppm Sc_2O_3 from 3m**
    inc. **3m @ 1,716 ppm TREO & 61 ppm Sc_2O_3 from 6m**
  - 22ACCR393 - **21m @ 1,018 ppm TREO & 46 ppm Sc_2O_3 from 3m**
    inc. **3m @ 2,086 ppm TREO & 54 ppm Sc_2O_3 from 3m**
  - 22ACCR395 - **18m @ 1,121 ppm TREO & 37 ppm Sc_2O_3 from 6m**
    inc. **3m @ 2,340 ppm TREO & 69 ppm Sc_2O_3 from 9m**
  - 22ACCR396 - **21m @ 1,266 ppm TREO & 43 ppm Sc_2O_3 from 3m**
    inc. **3m @ 1,947 ppm TREO & 61 ppm Sc_2O_3 from 12m**
  - 22ACCR404 - **21m @ 1,143 ppm TREO & 58 ppm Sc_2O_3 from 9m**
    inc. **3m @ 2,200 ppm TREO & 84 ppm Sc_2O_3 from 12m**

- Mineralisation is open laterally with significant potential for additional mineralisation discoveries.

- High-value magnet rare earths up to 746 ppm MREO and average 242 ppm MREO (26% of TREO's).

- PTR has begun metallurgical leach optimisation trials to test feasibility of using simple heap leach extraction process.

OVERVIEW

Petratherm Limited (ASX: **PTR**) is pleased to report rare earth (REE) drill results from the Meteor Prospect, located in the Comet Project Area of the Northern Gawler Craton of South Australia (Figure 1). Drilling was undertaken in December 2022 over the central portion of the prospect and comprised infill grid drilling to 100 metre spacing. 47 vertical air-core holes were drilled through the clay weathering profile with an average hole depth of 26 metres.

A continuous blanket of high-grade, >1000 ppm Total Rare Earth Oxide (TREO), mineralisation starting from shallow depths (3-6 metres), and over substantial vertical thicknesses downhole (up to 38 metres) has been defined.

Commenting on these results, Petratherm's Chief Executive Officer Mr Peter Reid said:

"The Meteor Prospect results are highly encouraging, demonstrating excellent clay hosted rare earth grades, intercept thicknesses and continuity between drill holes. The mineralisation starts at just a few metres below surface in the soft weathering profile allowing the potential for low-cost free dig mining.

The shallow clay hosted mineralisation has formed over a layered mafic complex and potential remains for additional rare earths in the basement rock below.

The Company intends to advance the high-quality emerging Meteor Prospect and in parallel extend exploration out into new areas with currently only 10% of the project area tested. Excellent upside potential remains to uncover additional REE mineralisation"

Results

In all, 43 drill holes from the current program at the Meteor Prospect (91% of holes drilled) returned significant mineralised REE intercepts. These results are presented in Table 1. As currently defined, the REE mineralisation spans an approximate 2,000 metre by 1,000 metre area and remains open in several directions (Figure 1).

Mineralisation has proven to be highly continuous and several zones contain adjacent drill holes assaying >1000 ppm TREO intervals over thicknesses greater than 20 metres. Three metre composite drill samples were assayed and grades up to 2,829 ppm TREO were reported. Meteor contains good concentrations of high-value magnet rare earths (MREO) averaging 26% of TREO (Table 1), with a highest MREO composite sample returning 746 ppm. Across the prospect the average MREO drill intercept grade is 242 ppm.

These latest results build on the initial drilling at Meteor (refer to PTR ASX releases 20/4/2022 & 28/10/2022) and demonstrate encouraging grades and continuity over the prospect. This new drill data will be used to aid future JORC Resource estimation.

Meteor Prospect Cross-Sections

The drill results presented are 3 metre composite samples from the 100-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 2,800 ppm TREO) zone of enrichment within the saprolite clay (Figure 2). This is surrounded by a broader mineralised envelope ranging between 500 to 1000 ppm TREO which often extends below the high-grade pod into the saprolite zone below.

A potentially important feature shown in the West-East cross-section (Figure 2, section A1-A2) is a possible sub-vertical zone of rare earth enrichment located on the eastern edge of the currently defined mineralised area. Drill hole 22ACCR374 intersected 24m @ 1594ppm TREO from 6m to end of hole. This may be an indication of a primary rare earth zone in the basement rock below or a mineralised structure (fault), providing a possible source for the rare earths. PTR will investigate this further as a potential primary source of rare earths.

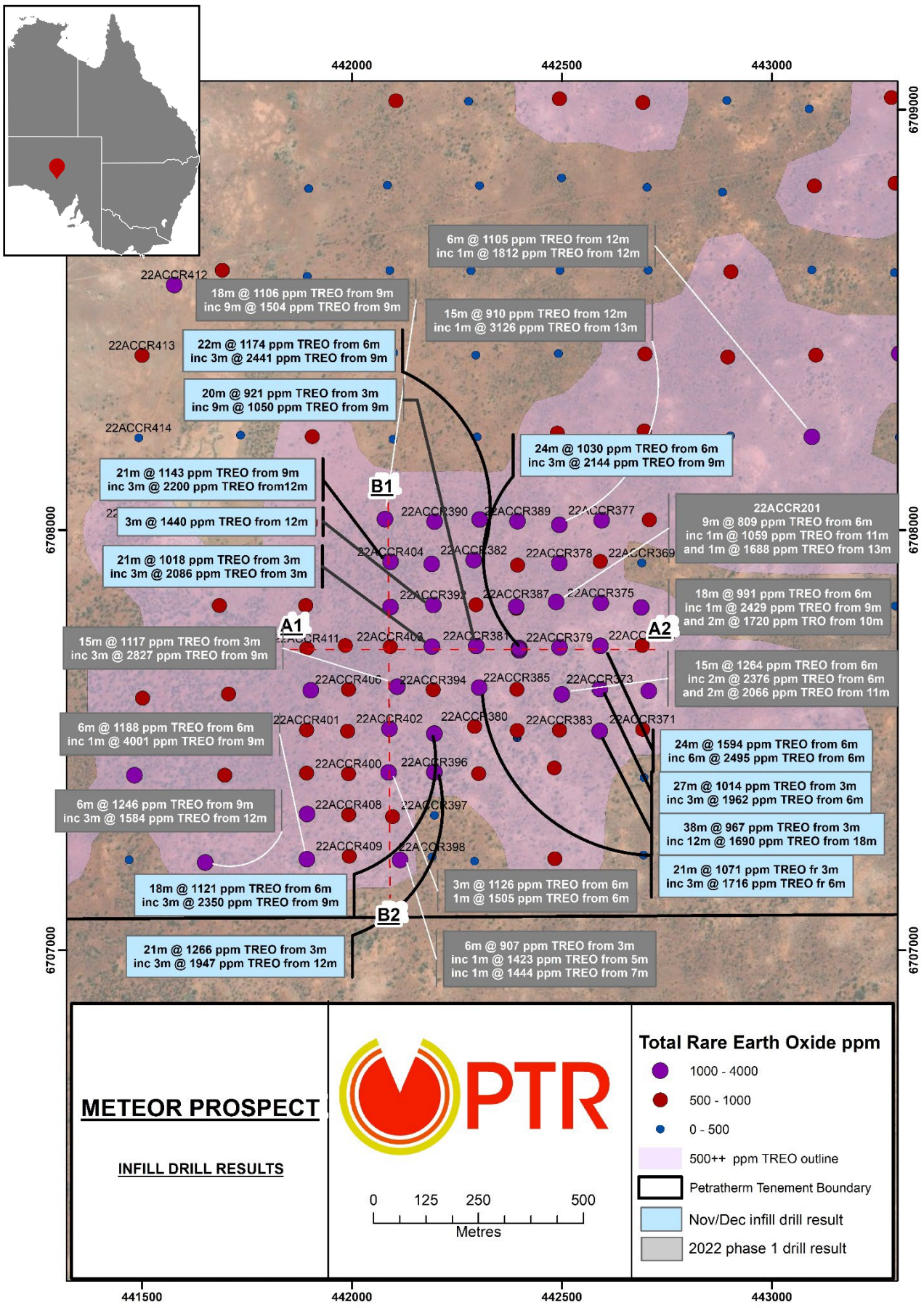
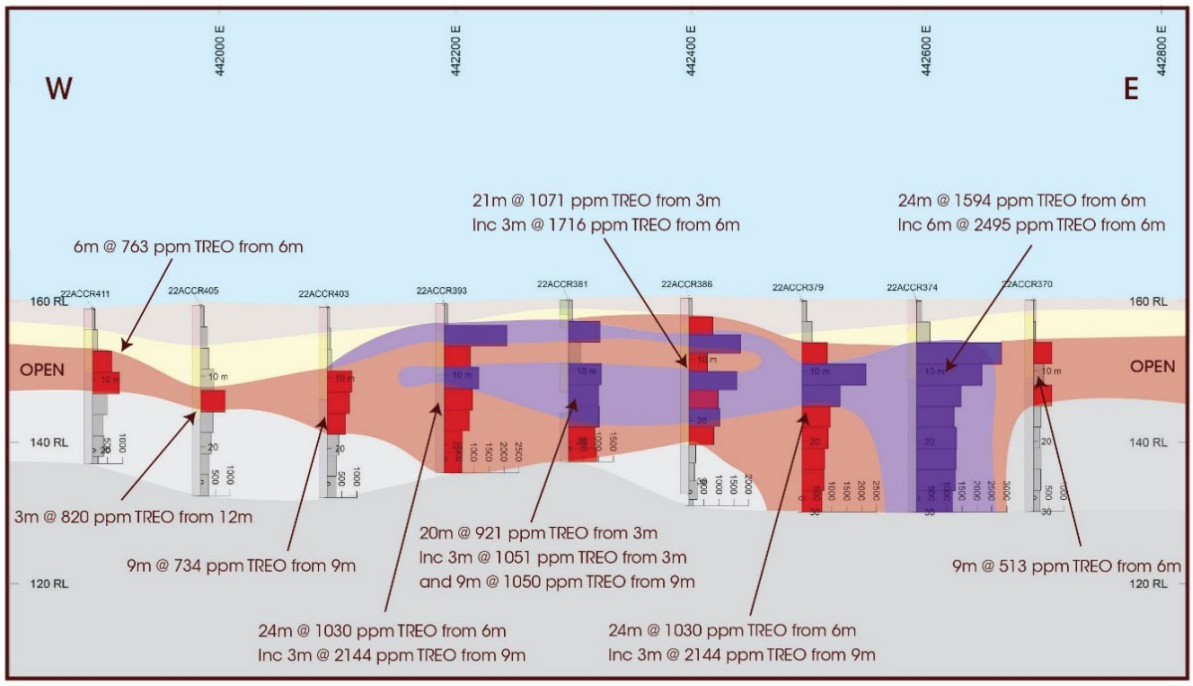


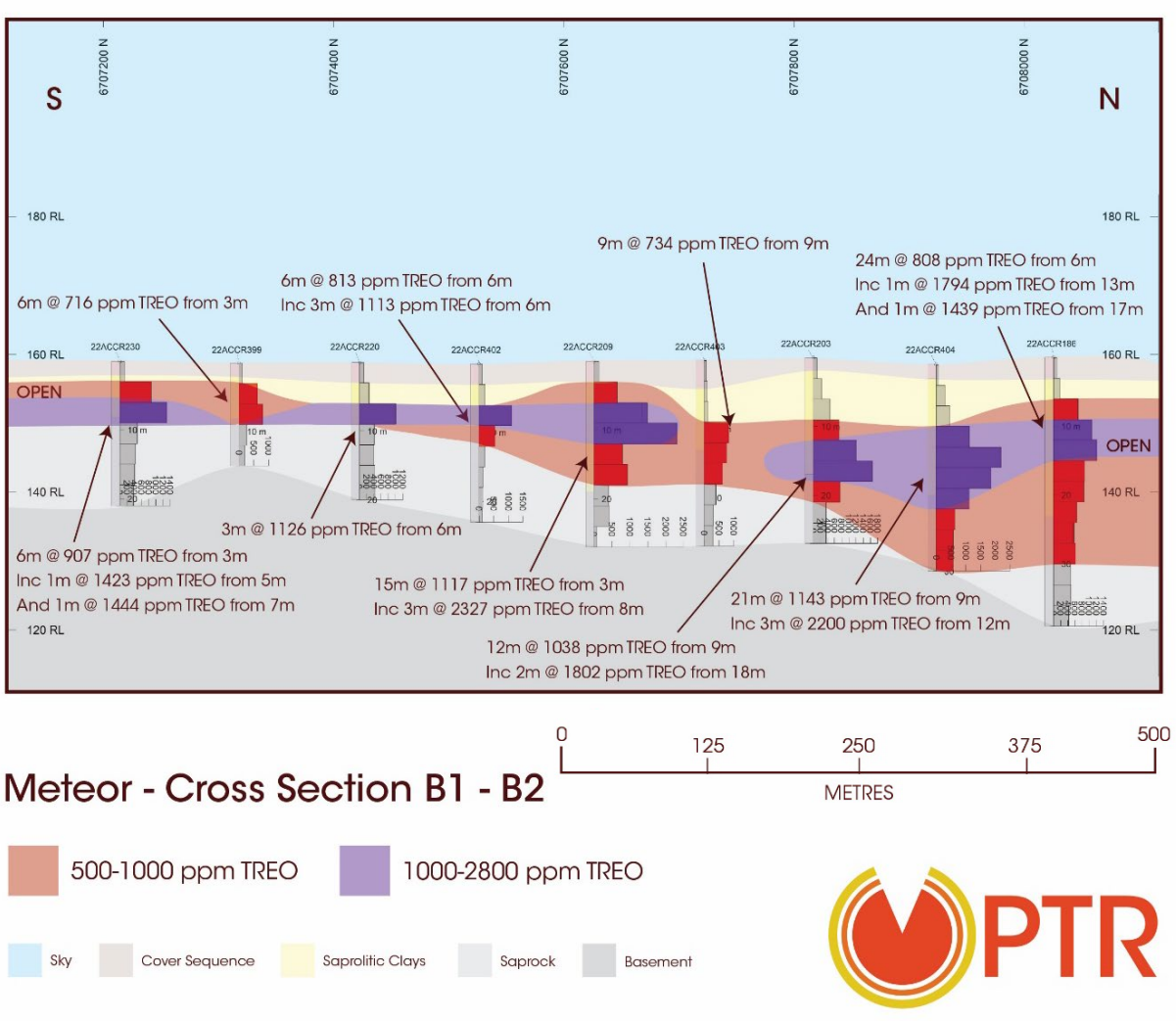
***Figure** 1 Meteor Prospect - Summary Drill Results.*

Meteor Prospect - 1 Metre Split Significant REE Intercepts Table (>500 ppm TREO)																
						High Value - Magnet Rare Earths (MREO)										
Drill Hole	From	To	Interval	TREO	Scandium Sc_2O_3	Praseodymiu Pr_6O_{11}		Neodymium Nd_2O_3		Terbium Tb_4O_7		Dysprosium DyO_3		Total MREO	
	metres	*metres*	*metres*	*ppm*	*ppm*	*ppm*	*% TREO*	*ppm*	*% TREO*	*ppm*	*% TREO*	*ppm*	*% TREO*	*ppm*	*%TREO*
22ACCR370	6	15	9	513	38	24	5	92	18	2.4	0.5	12.4	2.4	131	**25**
22ACCR371	9	12	3	600	**61**	30	5	135	23	2.4	0.4	12.6	2.1	180	**30**
22ACCR372	3	41	38	967	39	54	6	202	21	2.0	0.2	8.5	0.9	267	**28**
inc	18	30	12	**1690**	38	95	6	345	20	2.7	0.2	11.3	0.7	454	**27**
22ACCR373	3	30	27	**1014**	49	60	6	221	22	2.4	0.2	10.7	1.1	294	**29**
inc	6	9	3	**1962**	**84**	127	6	478	24	4.1	0.2	17.2	0.9	626	**32**
inc	18	24	6	**1125**	**50**	66	6	232	21	2.7	0.2	10.9	1.0	312	**28**
22ACCR374	6	30	24	**1594**	34	89	6	299	19	3.2	0.2	14.9	0.9	406	**25**
inc	6	12	6	**2495**	42	146	6	490	20	5.3	0.2	24.3	1.0	666	**27**
inc	6	9	3	**2829**	38	170	6	550	19	4.7	0.2	20.7	0.7	745	**26**
22ACCR375	9	18	9	922	36	49	5	173	19	2.7	0.3	13.4	1.5	238	**26**
inc	10	17	7	**1289**	**72**	74	6	260	20	3.5	0.3	16.1	1.2	354	**27**
22ACCR376	6	15	9	623	49	31	5	120	19	2.6	0.4	14.3	2.3	168	**27**
22ACCR377	6	15	9	833	28	45	5	161	19	2.8	0.3	13.8	1.7	223	**27**
inc	9	12	3	**1186**	31	63	5	227	19	4.1	0.3	20.7	1.7	315	**27**
22ACCR378	3	24	21	765	**54**	39	5	143	19	2.6	0.3	14.0	1.8	199	**26**
inc	9	15	6	**1057**	**73**	48	5	183	17	4.1	0.4	25.8	2.4	261	**25**
22ACCR379	6	30	24	**1030**	46	52	5	186	18	3.1	0.3	16.4	1.6	257	**25**
inc	9	12	3	**2144**	**54**	108	5	392	18	7.1	0.3	35.0	1.6	542	**25**
22ACCR380	6	9	3	516	31	30	6	103	20	1.7	0.3	8.0	1.6	143	**28**
22ACCR381	3	23	20	921	35	52	6	178	19	2.0	0.2	8.9	1.0	241	**26**
inc	3	*6*	3	**1051**	*31*	*62*	6	*210*	20	*2.4*	0.2	*10.3*	1.0	285	**27**
inc	9	*18*	9	**1050**	*38*	*58*	6	*202*	19	*2.4*	0.2	*10.9*	1.0	273	**26**
22ACCR382	6	28	22	**1174**	**51**	66	6	224	19	2.6	0.2	11.4	1.0	304	**26**
inc	9	12	3	**2441**	**92**	138	6	474	19	5.9	0.2	23.0	0.9	641	**26**
22ACCR383	3	15	12	681	40	33	5	128	19	1.9	0.3	9.5	1.4	172	**25**
22ACCR384	12	15	3	848	**61**	39	5	152	18	2.9	0.3	16.6	2.0	211	**25**
22ACCR385	9	12	3	555	38	30	5	110	20	1.8	0.3	8.0	1.4	150	**27**
22ACCR386	3	24	21	**1071**	**55**	52	5	159	15	3.3	0.3	16.2	1.5	231	22
inc	6	9	3	**1716**	**61**	92	5	384	22	5.3	0.3	24.1	1.4	505	**29**
22ACCR387	9	24	15	744	44	40	5	150	20	2.4	0.3	11.5	1.5	204	**27**
inc	12	15	3	**1423**	**54**	83	6	325	23	4.7	0.3	19.5	1.4	432	**30**
22ACCR388	12	15	3	820	**77**	36	4	159	19	3.5	0.4	20.1	2.5	219	**27**
22ACCR389	9	18	9	926	**56**	44	5	173	19	3.1	0.3	16.8	1.8	237	**26**
inc	9	12	3	**1731**	46	85	5	336	19	5.9	0.3	29.2	1.7	456	**26**
22ACCR390	9	18	9	880	**54**	43	5	159	18	2.0	0.2	8.6	1.0	212	24
inc	9	12	3	**1201**	**54**	54	4	190	16	2.4	0.2	9.2	0.8	256	21
22ACCR391	9	18	9	931	**66**	46	5	160	17	2.7	0.3	12.6	1.4	221	24
inc	12	15	3	**1328**	**92**	65	5	252	19	3.5	0.3	17.8	1.3	338	**25**
and	27	29	2	743	15	37	5	135	18	1.2	0.2	5.2	0.7	178	24
22ACCR392	12	15	3	**1440**	**61**	65	5	257	18	3.5	0.2	18.4	1.3	344	24
22ACCR393	3	24	21	**1018**	46	51	5	195	19	2.4	0.2	11.5	1.1	260	**26**
inc	3	6	3	**2086**	**54**	111	5	416	20	4.1	0.2	20.1	1.0	551	**26**
22ACCR394	12	15	3	874	38	45	5	170	19	2.4	0.3	12.6	1.4	230	**26**
and	21	24	3	870	31	42	5	152	17	1.8	0.2	8.0	0.9	204	23
22ACCR395	6	24	18	**1121**	37	57	5	211	19	2.5	0.2	10.0	0.9	280	**25**
inc	9	12	3	**2350**	**69**	120	5	458	19	4.7	0.2	18.9	0.8	601	**26**
22ACCR396	3	24	21	**1266**	43	64	5	250	20	2.9	0.2	13.9	1.1	331	**26**
inc	12	15	3	**1947**	**61**	92	5	390	20	6.5	0.3	36.8	1.9	525	**27**
22ACCR399	3	9	6	716	31	31	4	127	18	2.7	0.4	63.7	16.1	224	**31**
22ACCR400	6	9	3	519	**69**	16	3	70	13	3.5	0.7	23.5	4.5	113	22
22ACCR401	6	15	9	661	46	29	4	119	18	3.3	0.5	18.7	2.8	170	**26**
22ACCR402	6	12	6	813	**61**	36	4	148	18	3.8	0.5	20.4	2.5	208	**26**
inc	6	9	3	**1113**	**54**	53	5	210	19	4.7	0.4	23.0	2.1	291	**26**
22ACCR403	9	18	9	734	28	37	5	130	18	2.0	0.3	10.1	1.4	179	24
22ACCR404	9	30	21	**1143**	**58**	62	5	230	20	3.4	0.3	15.1	1.3	310	**27**
inc	12	15	3	**2200**	**84**	124	6	464	21	5.9	0.3	25.2	1.1	619	**28**
22ACCR405	12	15	3	820	23	42	5	157	19	2.9	0.4	12.6	1.5	215	**26**
22ACCR406	6	18	12	709	33	38	5	140	20	2.2	0.3	9.8	1.4	190	**27**
22ACCR407	6	27	21	688	28	34	5	122	18	1.9	0.3	8.9	1.3	167	24
22ACCR408	6	13	7	813	43	39	5	146	18	3.2	0.4	16.6	2.0	205	**25**
22ACCR409	9	15	6	762	**50**	37	5	148	19	3.8	0.5	20.7	2.7	210	**27**
22ACCR410	6	24	18	657	33	30	5	117	18	2.0	0.3	11.1	1.7	160	24
inc	9	12	3	**1242**	**54**	53	4	213	17	4.1	0.3	26.4	2.1	297	24
22ACCR411	6	12	6	763	15	42	6	148	19	2.7	0.3	8.6	1.1	201	**26**
22ACCR412	9	18	9	688	41	38	6	143	21	2.2	0.3	10.1	1.5	193	**28**
inc	12	15	3	**1000**	**54**	58	6	223	22	2.9	0.3	13.8	1.4	298	**30**
22ACCR413	6	9	3	801	8	41	5	145	18	1.8	0.2	6.3	0.8	194	24
22ACCR415	6	12	6	591	38	24	4	100	17	3.2	0.5	17.8	3.0	145	**25**

Table 1 *Meteor Prospect Infill Drilling (Dec 2022) - Table of Significant Results*



Meteor - Cross Section A1 - A2



Meteor - Cross Section B1 - B2

Figure 2 *Meteor Prospect – West-East and North-South Cross Sections*

Next Steps

The Company has begun early-stage metallurgical test work with a range of independent contractors and specialists to determine the nature of the REE mineralisation hosted within the clay dominated weathering profile. This work aims to develop an optimum extraction method using a heap-leach style process to produce a magnet rare earth salt. There is additionally potential to undertake beneficiation processes with simple mechanical separation of the finer clay fraction before leach extraction occurs, that may aid the overall project economics.

As part of the December drill campaign the Southern Zone REE anomaly (PTR ASX release 11/10/22) and other greenfield REE targets were tested (Figure 3). These results will become available for interpretation and reporting in the coming weeks. The Meteor Prospect results are highly encouraging and with less than 10% of its Comet Project holdings tested, there remains large up-side potential for the discovery of additional significant REE occurrences both in the clay weathering profile and the basement rock below.

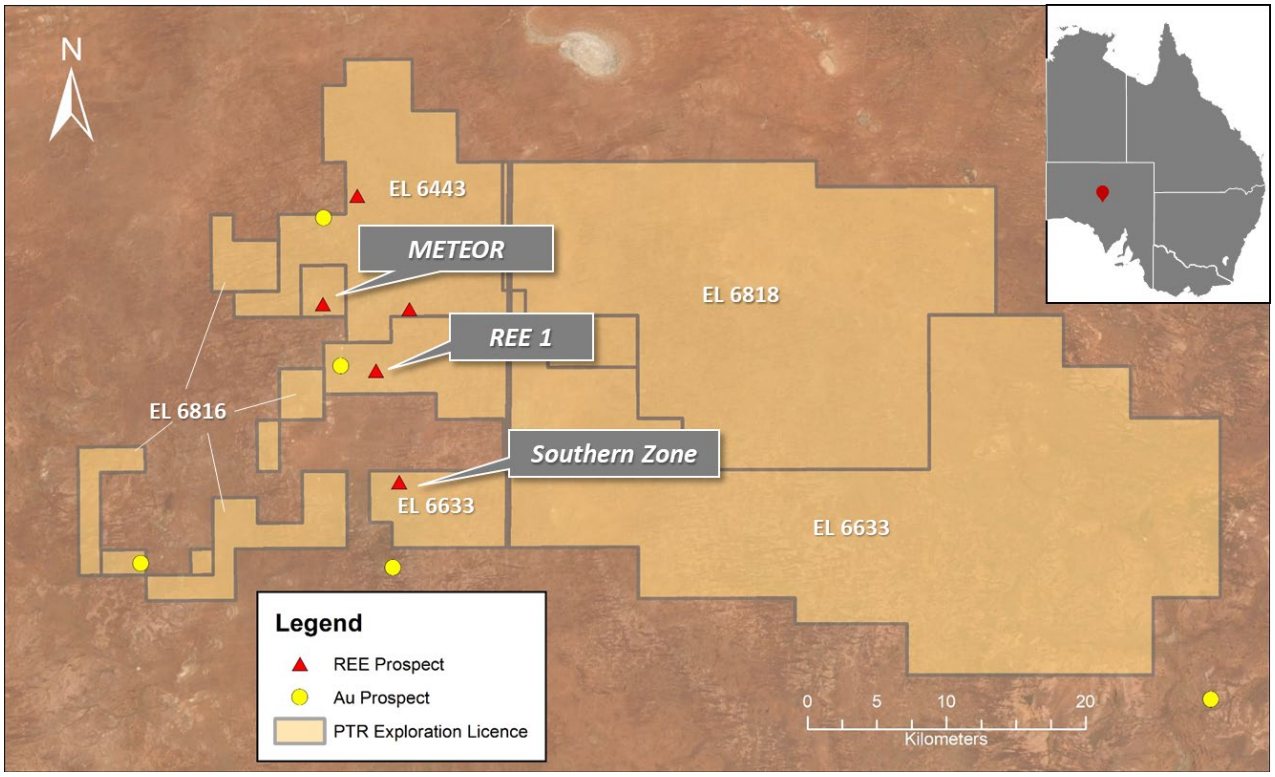


Figure 3 *– Petratherm's 100% owned Comet Project Tenement Holdings, rare earth and gold prospects.*

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.

Hole ID	Easting MGA94 Z53	Northing MGA94 Z53	RL metres	Dip Deg.	Azimuth Deg.	EOH Depth metres
22ACCR370	442691	6707725	160	-90	0	30
22ACCR371	442693	6707525	160	-90	0	22
22ACCR372	442590	6707521	160	-90	0	41
22ACCR373	442591	6707621	160	-90	0	30
22ACCR374	442592	6707724	160	-90	0	30
22ACCR375	442593	6707826	161	-90	0	25
22ACCR376	442592	6707925	161	-90	0	30
22ACCR377	442595	6708023	161	-90	0	27
22ACCR378	442494	6707921	161	-90	0	25
22ACCR379	442494	6707721	160	-90	0	30
22ACCR380	442292	6707532	159	-90	0	20
22ACCR381	442296	6707724	160	-90	0	23
22ACCR382	442290	6707928	161	-90	0	28
22ACCR383	442494	6707524	161	-90	0	18
22ACCR384	442393	6707529	159	-60	180	49
22ACCR385	442393	6707626	160	-60	180	23
22ACCR386	442399	6707723	160	-60	180	34
22ACCR387	442391	6707824	161	-60	180	30
22ACCR388	442394	6707923	161	-60	180	28
22ACCR389	442394	6708020	160	-90	0	30
22ACCR390	442197	6708020	160	-90	0	30
22ACCR391	442190	6707919	160	-90	0	29
22ACCR392	442194	6707821	160	-90	0	20
22ACCR393	442191	6707723	160	-90	0	24
22ACCR394	442194	6707619	160	-90	0	24
22ACCR395	442196	6707515	159	-90	0	30
22ACCR396	442196	6707424	159	-90	0	26
22ACCR399	442097	6707318	159	-90	0	15
22ACCR400	441991	6707420	158	-90	0	30
22ACCR401	441892	6707524	158	-90	0	15
22ACCR402	442090	6707527	159	-90	0	23
22ACCR403	442091	6707722	159	-90	0	27
22ACCR404	442092	6707924	159	-90	0	30
22ACCR405	441984	6707725	159	-90	0	27
22ACCR406	441991	6707621	158	-90	0	22
22ACCR407	441990	6707521	159	-90	0	30
22ACCR408	441992	6707323	158	-90	0	13
22ACCR409	441993	6707224	159	-90	0	30
22ACCR410	441893	6707324	158	-90	0	30
22ACCR411	441892	6707718	159	-90	0	22
22ACCR412	441577	6708583	158	-90	0	26
22ACCR413	441500	6708415	157	-90	0	18
22ACCR415	441494	6708016	156	-90	0	19

***Table 2**– Meteor Prospect Infill Drilling (Dec 2022) – 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 47 drill holes were drilled at the Meteor prospect and infilled previous high-grade intercepts down to 100 metres spacing. • During the program, samples were collected as three metre composite intervals from one metre drill samples stored individually in green bags. • Composite samples were collected using a "spear" tool to collect representative samples from green bags. Composite samples were an average weight of 1.6 kg. • A Differential GPS was used to record the location of each drill hole. The accuracy of this GPS is +/- 5cm.
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 1.6 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.*	• Bureau Veritas in Adelaide was used for analytical work. Samples were analysed in the following manner: • Lithium Borate Fusion assayed by Inductively Coupled Plasma Atomic emission spectroscopy (ICP-AES) and Mass Spectrometry (ICP-MS) for 23 elements. • For laboratory samples, the Company has introduced QA/QC samples at a ratio of one QA/QC sample for every 20 drill samples. The laboratory introduces additional QA/QC samples (blanks, standards, checks).
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*	• The Company has queried the results with Bureau Veritas to verify the accuracy of the results. • No twinned holes were drilled in the program.

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>and electronic) protocols.
• Discuss any adjustment to assay data.</td><td>• 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 a differential GPS with a lateral accuracy of ± 5 cm and a vertical accuracy ±5 cm.</td></tr>
<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 100 metre spaced grids infilled around previous 200 metre spaced lines drilled during the last phase of drilling.
• The data spacing and distribution is thought to be sufficient to establish the degree of geological and grade continuity appropriate for a JORC mineral resource.</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
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.*	• The mineralisation is horizontal in basic form. 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 were transported and delivered by Company staff or contractors to Bureau Veritas 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 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 **Airborne Geophysics:** Magnetics & Radiometrics. **Ground Geophysics:** Magnetics and Gravity. **Exploration Drilling:** 202

Criteria	JORC Code explanation	Commentary
		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 and REE's. • This release refers to REE mineralisation hosted in clays within the weathered saprolite profile.
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. The drilling reduced the drill hole spacing from 200m completed during the previous phase to 100m spacing over the "central" part of the prospect. The drilling is designed to provide enough confidence in geochemical and geological modelling to allow for the calculation of a JORC resource by an independent party. All drillhole information pertaining to results within this release are tabulated in Table's 1 & 2 at the end of the release.
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 Bureau Veritas. • All results above 500 ppm TREO are reported in Table 1 of Significant Intercepts. • A cut off value of 500 ppm TREO was used and values below 500pm are only included when said interval of no more than 3 metres is situated between a continuous run of samples with greater than 500 ppm + TREO.

Criteria	JORC Code explanation	Commentary
		• 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').*	• 47 Drill holes were drilled vertically at -90 degrees. Any relationship between mineralisation widths and intercepts lengths is not known. • Five holes were drilled at -60 degrees to 180 south. • 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.*	• Results from 47 drill holes were assayed. Samples were digested using Lithium Borate Fusion and were assayed by ICP-MS and ICP-AES. All results above a cut off 500 ppm TREO are reported in the Table 1 of Significant Intercepts. All sample locations where REE grades are below 500 ppm TREO are also shown in the Figure 1 in the 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.