# **ASX ANNOUNCEMENT**





# Highly Anomalous TREO Uncovered at Hines Hill REE Project

#### **HIGHLIGHTS**

- Maiden reconnaissance soil sampling program at Hines Hill confirms presence of rare earths:
  - Maximum value of 550ppm TREO
  - o 11 samples over 300ppm TREO
- ❖ The results correlate with magnetic features tentatively interpreted as possible carbonatite intrusives
  - Interpretation of magnetic data over the tenement has identified two intrusive bodies, covering an area of ~5km² in the northeast and ~2km² in the southwest, respectively
  - Carbonatite intrusives are a major source of REE deposits around the world
- ❖ The results are highly encouraging for a reconnaissance program, with the Company planning for a follow-up geochemical sampling program and gaining all approvals for a maiden AC drill program

White Cliff Minerals Limited (**White Cliff** or the **Company**) is pleased to provide an update following the reconnaissance soil sampling program as part of a first pass field trip to Hines Hill (**Figure 1**). In total, the Company took 81 samples, of which 11 are considered highly anomalous for rare earth elements (**REE**), with a peak value of 550ppm total rare earth oxide (**TREO**).

The results returned from roadside soil sampling along selected roads which traversed magnetic features tentatively interpreted by the Company as carbonatite intrusives. The secondary source target is clay hosted REE from supergene enrichment within the lateritic profile over the granite.

Commenting on the field trip, White Cliff Technical Director Ed Mead said:

"Clearly, we have work to do, as it is still unclear the precise source of the exciting REE results. Australian Rare Earths (ASX:AR3) recently signed a JV at Woolgangie 200km to east of us, specifically targeting clay hosted REE sourced from the underlying rocks and supergene enriched by the lateritic process. The early indications from Hines Hill may indicate similar geological conditions and sources for the rare earths.



"This also bodes well for the potential of our Diemals project area of 2,427km², where we are targeting similar deposit styles. The team will fast-track a follow-up geochemical program for Hines Hill, which will include gaining all approvals for a maiden aircore drill program to test subsurface REE grades".



Figure 1: Li/REE Project location map in Western Australia



## **Hine Hill Project**

The Hines Hill REE project consists of a single tenement (**Figures 1 and 2**), within the wheatbelt region, located about 200km east of Perth on the Great Eastern Highway. The tenement area is 128Km<sup>2</sup> covering extensive grain growing properties.

The sampling targeted two magnetic features tentatively interpreted to be carbonatite intrusions, although they may represent differential non-carbonatite intrusives (**Figure 3**). The reconnaissance program indicates these do not outcrop and occupy lower areas of the topography.

Granitic and laterite outcrops form higher parts of the topography and uniformly reported lower analytical results.

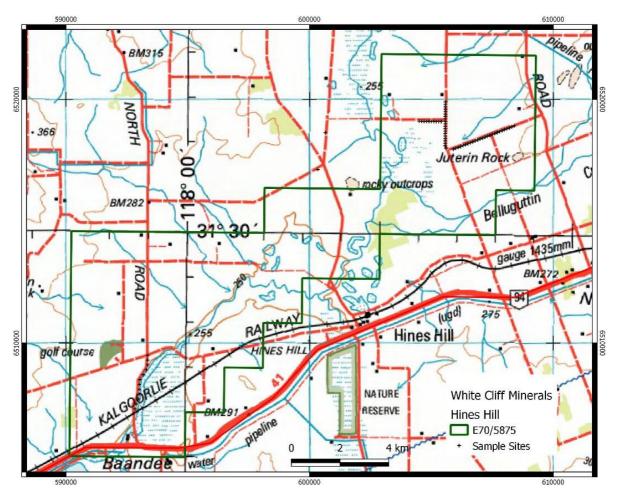


Figure 2: Hines Hill (WCN 100%) Li/REE project, tenement location and sampling sites

#### **Geochemical Results Discussion**

**Table 1** shows the results from samples collected from the roadside soil, rock chip and laterite sampling program, with results expressed as oxides in ppm. A simple Aqua Regia digest was used as the assay technique, which is not a full digest of



the sample, and may better indicate the more easily liberated REE component in the samples.

The elevated results also correspond precisely with the magnetic features identified in the northeast and in the southwest, strongly suggesting the two features are directly related, however additional sampling will be required to define whether this is solely co-incidental.

Analytical results (Table 1) with values >95<sup>th</sup> percent for each REO highlighted in bold, shows clear differences in component contents between the two areas The results of lithium analyses are consistent with a granitic source.

#### **Follow-up Program**

An expanded geochemical sampling program will be undertaken over the project area, along with gaining all approvals for a maiden drill program.

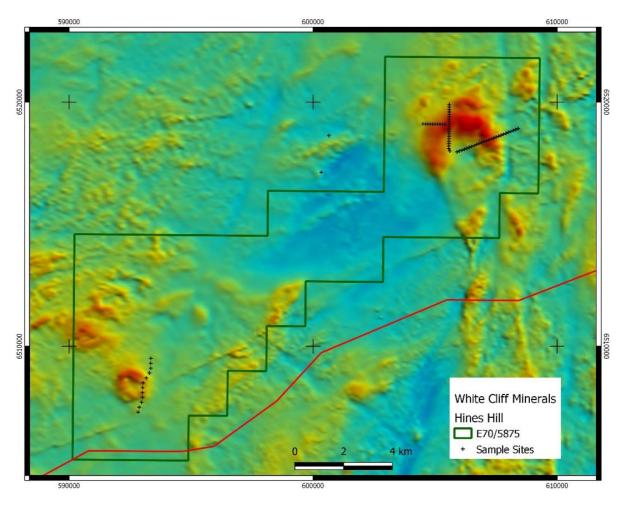


Figure 3: Hines Hill sampling locations overlaid on magnetic data.



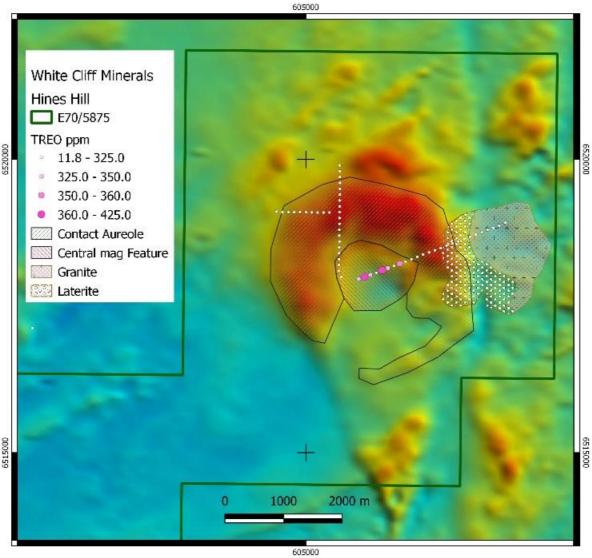


Figure 4: Hines Hill sampling results overlaid on magnetic data and geology, northeast area.



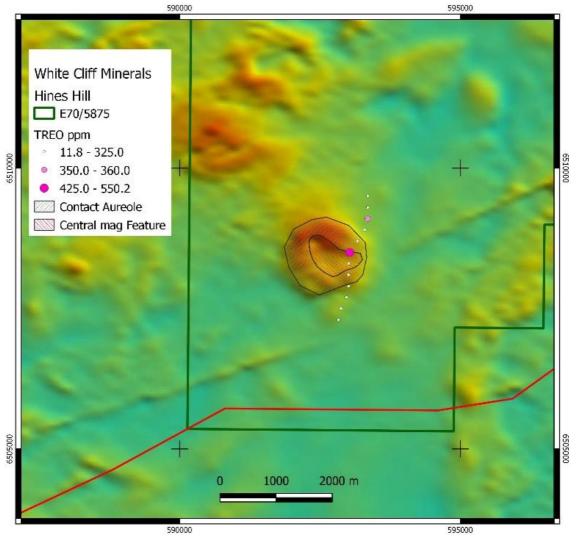


Figure 5: Hines Hill sampling results overlaid on magnetic data, southwest area.

This announcement has been approved by the Board of White Cliff Minerals Limited.

#### **Further Information:**

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#### **Competent Persons Statement**

The Information in this report that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Allan Younger, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Younger is an employee of the company. Mr Younger has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the `Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Mr Younger consents to the inclusion of this information in the form and context in which it appears in this report.



**Table 1:** Results of Rare Earth Element (REE) analyses expressed as REO ppm.

Field ID	Z50East	Z50North	Comments, Results all ppm unless		Li	CeO2	La2O3	Y2O3	Dv2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb407	Tm2O3	Yb2O3	TREO
			Grey cream Gte sandy soil, Highest																		
HH001	608400	6518920	point of traverse		6	98.89	45.27	13.27	2.77	1.18	0.92	3.80	0.46		34.29	9.83	5.72		0.14	0.81	218.02
HH002	608300	6518873	Grey cream Gte sandy soil		11	104.91	46.68	15.18	3.16	1.35	1.03	4.26	0.52	0.13	36.97	10.48	6.27	0.62	0.16	1.00	232.70
HH003	608200	6518832	Grey cream Gte sandy soil		14.6	118.79	50.20	17.91	3.58	1.65	1.22	4.82	0.62	0.16	41.52	11.86	7.00	0.70	0.20	1.15	261.37
HH004	608100	6518799	Grey tan Gte sandy soil		5.8	65.84	28.73	9.65	1.85	0.86	0.64	2.56	0.33	0.09	22.80	6.42	3.78	0.36	0.10	0.60	144.62
HH005	608000	6518760	Grey tan Gte sandy soil		5.6	44.47	18.71	6.48	1.34	0.61	0.47	1.86	0.23	0.06	15.40	4.42	2.68	0.26	0.07	0.46	97.51
HH006	607900	6518721	Grey tan Gte sandy soil		4.2	20.82	11.11	3.66	0.75	0.33	0.24	1.02	0.13	0.03	8.83	2.53	1.57	0.15	0.04	0.23	51.42
HH007	607800	6518682	Grey tan Gte sandy soil		3.7	24.38	11.39	3.68	0.75	0.33	0.26	1.06	0.13	0.03	9.23	2.61	1.53	0.15	0.04	0.26	55.83
HH008	607700	6518644	Tan lat sandy soil		5.5	34.76	13.55	5.66	1.18	0.58	0.38	1.49	0.21	0.07	12.60	3.43	2.25	0.22	0.07	0.49	76.93
HH009	607600	6518603	Tan lat sandy soil		9.6	56.26	16.54	5.63	1.21	0.63	0.42	1.64	0.22	0.08	14.58	3.95	2.59	0.24	0.08	0.56	104.62
HH010	607500	6518568	Tan lat sandy soil, break of slope		7.6	46.31	20.23	6.91	1.37	0.68	0.51	1.99	0.25	0.08	17.03	4.82	2.92	0.28	0.09	0.58	104.04
HH011	607400	6518529	Tan lat sandy soil	No	8.3	39.43	16.71	6.03	1.28	0.63	0.45	1.71	0.22	0.07	14.75	4.01	2.68	0.24	0.08	0.53	88.83
HH012	607300	6518487	Tan lat sandy soil	theas	7.3	45.57	18.30	6.83	1.41	0.67	0.50	1.88	0.25	0.08	16.04	4.36	2.85	0.28	0.09	0.57	99.68
HH013	607200	6518451	grey tan gte sandy soil	Northeast Area	10.2	49.26	22.17	6.29	1.25	0.56	0.46	1.64	0.21	0.06	15.40	4.52	2.56	0.23	0.07	0.43	105.10
HH014	607100	6518414	red tan sandy soil	ã	8.3	55.77	24.04	7.77	1.54	0.76	0.57	2.16	0.27	0.08	19.25	5.39	3.24	0.32	0.09	0.56	121.80
HH015	607000	6518379	red tan sandy soil		5.4	42.13	18.00	6.22	1.34	0.63	0.53	1.83	0.24	0.07	16.68	4.53	2.92	0.26	0.08	0.52	95.98
HH016	606900	6518340	red tan sandy soil, on to flats		5.8	44.47	17.83	5.97	1.24	0.57	0.48	1.76	0.22	0.06	15.63	4.35	2.74	0.24	0.07	0.45	96.09
HH017	606800	6518297	red tan sandy soil		6.9	88.32	34.95	12.52	2.65	1.22	1.02	3.75	0.47	0.12	32.89	8.93	5.82	0.52	0.14	0.93	194.26
HH018	606700	6518259	red tan sandy soil		11.8	132.67	57.00	18.79	3.83	1.76	1.32	5.22	0.66	0.17	47.36	13.35	7.92	0.75	0.22	1.32	292.34
HH019	606600	6518223	Tan sandy soil		17.1	161.53	66.26	23.49	4.67	2.16	1.66	6.40	0.81	0.24	54.94	15.65	9.46	0.90	0.27	1.72	350.16
HH020	606500	6518182	Tan sandy soil		13.5	156.01	59.23	19.24	3.88	1.81	1.33	5.42	0.68	0.19	47.36	13.65	7.94	0.78	0.24	1.40	319.14
HH023	606400	6518148	Tan sandy soil		21.3	159.08	65.32	21.97	4.36	2.02	1.47	5.77	0.77	0.22	51.44	14.68	8.62	0.83	0.26	1.62	338.43
HH024	606300	6518110	Tan sandy soil		19.6	165.83	67.91	25.91	4.75	2.28	1.68	6.42	0.84	0.25	56.92	15.89	9.53	0.90	0.30	1.81	361.22
HH025	606200	6518068	Tan sandy soil		20.1	142.49	60.05	21.65	4.22	2.00	1.40	5.49	0.73	0.23	48.52	13.77	8.20	0.79	0.25	1.57	311.36
HH026	606100	6518031	Tan sandy soil		18.8	154.16	65.09	24.38	4.56	2.25	1.55	6.22	0.82	0.23	52.72	15.04	8.91	0.91	0.28	1.72	338.84



	1		Comments, Results all ppm unless																	
Field ID	Z50East	Z50North		Li	CeO2	La2O3	Y2O3	Dy2O3	Er203	Eu2O3	Gd2O3	Ho2O3	Lu2O3	Nd2O3	Pr6011	Sm2O3	Tb407	Tm2O3	Yb2O3	TREO
HH027	606000	6517998	Tan sandy soil	19.6	163.99	68.26	25.40	5.11	2.50	1.60	7.08	0.93	0.26	58.20	16.73	10.12	0.98	0.33	1.95	363.45
HH028	605900	6517961	Tan silty soil, End of traverse	18.6	159.08	64.86	23.37	4.61	2.24	1.51	6.51	0.85	0.24	56.10	16.19	9.67	0.91	0.30	1.73	348.16
HH029	605603	6518000	Grey tan sandy soil, Neening Rd	18.4	138.20	52.54	19.37	3.94	1.88	1.22	5.43	0.70	0.20	44.56	12.93	7.95	0.76	0.24	1.44	291.36
HH030	605564	6518100	Cream tan clayey soil	16.6	101.10	40.93	14.22	2.93	1.43	0.91	4.10	0.52	0.15	33.01	9.75	5.82	0.58	0.18	1.12	216.76
HH031	605565	6518200	Cream tan clayey soil,	15.6	84.27	35.77	12.43	2.50	1.23	0.77	3.56	0.46	0.12	28.34	8.31	4.96	0.48	0.15	0.94	184.30
HH032	605566	6518300	Cream tan clayey soil	17.2	95.45	41.40	14.29	2.89	1.39	0.90	4.07	0.52	0.14	33.01	9.62	5.84	0.57	0.18	1.05	211.31
HH033	605568	6518400	Grey cream silty soil	16.2	81.44	36.24	12.57	2.48	1.21	0.79	3.50	0.45	0.12	28.58	8.29	5.08	0.48	0.15	0.87	182.26
HH034	605569	6518500	Grey cream silty soil	20.5	105.52	45.50	16.32	3.21	1.52	1.04	4.52	0.58	0.16	36.86	10.69	6.49	0.62	0.20	1.15	234.37
HH035	605572	6518600	Grey cream silty soil	18.8	91.64	41.63	14.48	2.88	1.40	0.92	4.11	0.53	0.13	33.13	9.57	5.87	0.56	0.18	1.03	208.05
HH036	605569	6518700	Grey cream silty soil	18.6	87.34	38.59	13.08	2.61	1.26	0.82	3.75	0.48	0.13	30.56	8.99	5.38	0.53	0.16	0.93	194.59
HH037	605570	6518800	Grey cream silty soil	16.2	94.96	41.52	14.03	2.81	1.34	0.92	4.03	0.52	0.13	33.01	9.68	5.76	0.57	0.17	1.02	210.47
HH038	605572	6518900	Grey cream silty soil	16.6	95.45	44.10	14.41	2.89	1.37	0.96	4.14	0.53	0.15	35.11	10.26	6.05	0.58	0.17	1.01	217.18
HH039	605573	6519000	Grey cream silty soil	15.2	104.91	42.92	14.73	3.06	1.48	0.96	4.35	0.56	0.15	34.99	10.16	6.18	0.61	0.19	1.11	226.37
HH040	605573	6519100	Grey cream silty soil	16	102.94	42.81	14.60	3.10	1.48	0.95	4.38	0.56	0.16	34.41	10.00	6.24	0.61	0.19	1.12	223.53
HH043	605576	6519200	Grey cream silty soil	15.2	98.89	39.88	13.46	2.78	1.32	0.89	3.92	0.50	0.14	31.96	9.35	5.65	0.56	0.18	1.01	210.46
HH044	605575	6519300	Grey cream silty soil	17.2	113.14	49.37	16.00	3.37	1.62	1.13	4.89	0.60	0.17	40.12	11.72	6.97	0.68	0.20	1.22	251.22
HH045	605579	6519400	Grey cream silty soil	18.4	110.31	42.46	14.92	3.10	1.50	0.97	4.32	0.55	0.16	34.88	10.19	6.27	0.61	0.19	1.14	231.57
HH046	605581	6519500	reddish cream silty soil, salmon gums	21.8	119.40	43.63	15.94	3.28	1.62	1.06	4.61	0.60	0.17	36.97	10.61	6.67	0.67	0.21	1.29	246.75
HH047	605582	6519600	reddish cream silty soil, salmon gums	18.6	113.63	41.17	15.24	3.24	1.55	0.98	4.38	0.58	0.16	33.94	9.94	6.27	0.63	0.20	1.21	233.12
HH048	605580	6519700	reddish cream silty soil, salmon gums	21.5	131.44	45.62	16.83	3.66	1.75	1.09	4.93	0.67	0.18	38.72	11.34	7.02	0.72	0.23	1.40	265.62
HH049	605580	6519800	reddish cream silty soil, salmon gums	21.4	129.60	48.20	18.29	3.86	1.85	1.20	5.33	0.69	0.20	41.17	11.77	7.46	0.77	0.24	1.44	272.05
HH050	605580	6519900	reddish cream silty soil, salmon gums,	17.6	123.45	48.67	19.18	3.90	1.90	1.19	5.35	0.71	0.19	41.76	12.08	7.44	0.76	0.24	1.42	268.25
HH051	605400	6519095	Grey tan silty soil, Bennetts rd	14.4	91.39	40.81	13.33	2.77	1.29	0.88	3.88	0.50	0.13	32.08	9.44	5.64	0.54	0.17	0.99	203.83
HH052	605300	6519095	Grey tan silty soil, salmon gums	14.1	93.48	43.86	15.05	3.10	1.50	0.98	4.46	0.55	0.15	35.34	10.16	6.29	0.61	0.19	1.08	216.81
HH053	605200	6519095	Grey tan silty soil, salmon gums	12.2	82.06	40.81	13.84	2.81	1.36	0.91	4.02	0.51	0.14	33.13	9.61	5.82	0.56	0.18	1.01	196.76
HH054	605100	6519097	Grey tan silty soil, salmon gums	12.9	80.58	35.18	12.31	2.56	1.21	0.78	3.56	0.46	0.12	28.34	8.18	5.03	0.49	0.15	0.88	179.85



Field ID	Z50East	Z50North	Comments, Results all ppm unless		Li	CeO2	La2O3	Y2O3	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb407	Tm2O3	Yb2O3	TREO
HH055	605000		Orange cream silty soil, salmon gums		18.5			18.16	3.74	1.77	1.11	5.00	0.67	0.19	39.07	11.37		0.73	0.23		260.64
HH056	604900	6519099	Grey tan silty soil, salmon gums		15.9	103.55	41.05	15.37	3.14	1.50	0.97	4.28	0.57	0.16	34.06	9.83	6.11	0.60	0.20	1.18	222.58
HH057	604800	6519099	Grey cream silty soil, salmon gums		13.9	101.22	45.04	16.95	3.24	1.64	1.06	4.60	0.60	0.16	36.74	10.55	6.52	0.63	0.20	1.21	230.36
HH058	604700	6519100	Reddish cream silty soil, salmon gums		11.7	71.49	28.73	10.69	2.11	1.08	0.64	2.96	0.39	0.11	23.09	6.75	4.13	0.42	0.13	0.79	153.54
HH059	604600	6519103	Grey tan silty soil		17.5	117.80	49.02	19.62	3.82	1.92	1.12	5.20	0.71	0.19	40.82	11.72	7.29	0.75	0.24	1.42	261.65
HH060	604500	6519110	Grey tan silty soil, end		16.8	111.17	48.55	18.99	3.68	1.80	1.12	4.97	0.68	0.19	40.47	11.68	7.26	0.69	0.22	1.33	252.80
HH063	593349	6509500	Grey tan sandy soil, Baandee Nth Rd		16.2	130.82	53.60	21.91	4.09	1.92	0.91	5.46	0.74	0.21	44.44	12.20	7.49	0.75	0.25	1.43	286.22
HH064	593348	6509300	Grey tan sandy clay soil		12.4	126.53	53.48	19.56	3.65	1.72	0.89	5.15	0.65	0.18	43.16	11.70	7.13	0.69	0.21	1.21	275.90
HH065	593348	6509100	Grey cream sandy clay soil		16.5	156.62	69.66	27.05	4.88	2.34	1.17	6.60	0.88	0.24	56.10	15.34	9.33	0.90	0.28	1.67	353.09
HH066	593292	6508900	Grey cream sandy clay soil		9	118.05	41.05	15.56	3.21	1.48	0.78	4.24	0.56	0.16	35.58	9.77	6.22	0.60	0.19	1.11	238.55
HH067	593164	6508700	Grey cream sandy clay soil	Soc	5.8	70.88	25.10	8.44	1.80	0.79	0.48	2.44	0.32	0.09	21.99	5.98	3.72	0.34	0.10	0.58	143.05
HH068	593031	6508500	Grey tan sandy clay soil	Southwes	48.4	380.80	53.60	28.06	5.11	2.49	1.10	6.15	0.93	0.27	47.24	12.69	8.62	0.98	0.32	1.86	550.21
HH069	593010	6508300	Grey tan sandy clay soil	st Area	15.2	118.91	48.44	18.92	3.49	1.62	0.94	4.82	0.62	0.18	40.94	10.90	7.06	0.65	0.20	1.17	258.86
HH070	593007	6508100	Red tan sandy clay soil	ea	10.6	116.94	39.99	15.24	3.18	1.46	0.85	4.31	0.56	0.17	37.21	10.00	6.54	0.61	0.19	1.08	238.33
HH071	593008	6507900	Red tan sandy clay soil		9.8	102.20	36.59	13.14	2.73	1.25	0.69	3.73	0.48	0.13	31.96	8.74	5.46	0.52	0.16	0.89	208.68
HH072	592968	6507700	Red tan sandy clay soil		12.4	127.75	47.15	16.89	3.50	1.62	0.98	4.92	0.62	0.18	42.34	11.49	7.20	0.66	0.21	1.19	266.71
HH073	592874	6507500	Red tan sandy clay soil		10.2	96.55	42.10	14.29	2.74	1.32	0.78	4.01	0.50	0.14	35.23	9.52	6.03	0.53	0.16	0.95	214.86
HH074	592827	6507300	Red tan sandy clay soil		13.6	146.79	57.12	18.99	3.84	1.75	1.07	5.44	0.67	0.20	48.64	13.23	8.14	0.73	0.22	1.28	308.12
MTX 14026	607800	6518682	Gte float chips		0.9	146.18	48.20	9.58	1.80	0.82	0.75	2.89	0.31	0.07	31.84	9.80	4.82	0.40	0.10	0.59	258.16
MTX 14027	607700	6518644	lat nods		5.9	34.27	6.93	5.00	1.19	0.67	0.35	1.34	0.22	0.11	8.98	2.38	1.83	0.22	0.10	0.77	64.37
MTX 14028	607600	6518603	lat nods		8.5	30.96	7.42	4.09	0.97	0.54	0.32	1.19	0.18	0.09	8.67	2.21	1.69	0.18	0.08	0.59	59.17
MTX 14029	607400	6518529	lat nods		11.1	41.03	6.11	3.54	0.93	0.49	0.30	1.11	0.17	0.09	7.52	1.95	1.49	0.17	0.08	0.57	65.54
MTX 14030	605565	6518200	Gte float		1.4	5.11	3.48	0.72	0.14	0.08	0.00	0.16	0.03	0.01	1.28	0.43	0.25	0.02	0.01	0.09	11.82
MTX 14031	600336	6517125	lat nods		2	72.23	2.90	0.86	0.27	0.13	0.09	0.31	0.04	0.02	2.68	0.77	0.46	0.07	0.02	0.13	80.99
MTX 14032	600649	6518635	lat nods		2.7	54.30	2.94	1.70	0.38	0.20	0.11	0.44	0.07	0.03	3.16	0.83	0.58	0.08	0.03	0.22	65.07



# **APPENDIX 1.**

The following Tables are provided to ensure compliance with the JORC Code (2012 Edition) requirements for the reporting of Exploration Results at Hines Hill

## **Section 1: Sampling Techniques and Data**

(Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commontony				
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.	75 soil, laterite and rock chip samples were collected from roadsides within Hines Hill tenement.				
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Reconnaissance soil sampling.				
	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 gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Soils sieved -2mm, nominal weight 300gm from 15-20cm depths.				
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 of standard tube, depth of diamond tails, face-sampling bit or other type, whether core is orientated and if so, by what method, etc).	No drilling is being reported.				
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling is being reported.				
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling is being reported.				
	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.	No drilling is being reported.				
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.	recorded No drilling reported				
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geochemical sample from regolith.				



Criteria	JORC Code explanation	Commentary					
Criteria							
	The total length and percentage of the relevant intersections logged.	Geochemical sample from regolith.					
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	No sub-sampling has been undertaken.					
	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.	No sub-sampling has been undertaken.					
	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.	No sub-sampling has been undertaken.					
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size of 0.3 kilograms is appropriate and representative of the grain size and mineralisation style of the deposit.					
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.	Rock chip samples have been submitted to ALS Laboratories for analysis by Aqua Regia digest using method ME-MS41L <sup>TM</sup> .					
	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.	Elements were: Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Nb, Ni, P, Pb, Pd, Pt, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr.					
		REE analysed using MS41L-REE™, elements were: Dy, Er, Eu, Gd, Ho, Lu, Nd, Pr, Sm, Tb, Tm & Yb.					
	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.	CRM & field duplicated samples were inserted every 20 samples for QA/QC control.					
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No assays being reported, with assay results once returned will be reviewed by 2 company personnel.					
assaying	The use of twinned holes.	No drilling being reported					
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All field data were collected manually and transferred to spreadsheets. Sample location coordinates were determined and recorded using a handheld GPS.					
	Discuss any adjustment to assay data.	The REE assay data were converted from reported elemental assays to the equivalent oxide compound as applicable to rare earth oxides. The oxides were calculated from the element according to the following factors:					
		• CeO <sub>2</sub> 1.1526					
		<ul> <li>La<sub>2</sub>O<sub>3</sub> 1.1728</li> <li>Nd<sub>2</sub>O<sub>3</sub> 1.1664</li> </ul>					
		• Pr <sub>6</sub> O <sub>11</sub> 1.2082					
		• Dy <sub>2</sub> O <sub>3</sub> 1.1477					
		• Er <sub>2</sub> O <sub>3</sub> 1.1435					
		• Eu <sub>2</sub> O <sub>3</sub> 1.1579					
		• Gd <sub>2</sub> O <sub>3</sub> 1.1526					
		<ul> <li>Ho<sub>2</sub>O<sub>3</sub> 1.1455</li> <li>Lu<sub>2</sub>O<sub>3</sub> 1.1371</li> </ul>					
		• Sm <sub>2</sub> O <sub>3</sub> 1.1596					
		• Tb <sub>2</sub> O <sub>3</sub> 1.1762					
		• Tm <sub>2</sub> O <sub>3</sub> 1.1421					



		<ul> <li>Y<sub>2</sub>O<sub>3</sub> 1.2699</li> <li>Yb<sub>2</sub>O<sub>3</sub> 1.1387</li> </ul>				
Location of data points	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.	All locations determined by handheld GPS using GDA94 datum in UTM Zone 50.				
	Specification of the grid system used.					
	Quality and adequacy of topographic control.					

Criteria	JORC Code explanation	Commentary				
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Sample spacing was 100m along roadside verges				
	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.	Sampling type and spacing not designed to be used in an MRE.				
	Whether sample compositing has been applied.	No compositing has been applied.				
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.	Sampling was of a reconnaissance nature only and was not designed to achieve unbiased sampling. No drilling reported.				
	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.	No drilling has been undertaken and orientation of structures is unknown.				
Sample security	The measures taken to ensure sample security.	All soil, laterite and rock chip samples were placed in plastic or calico bags, taken to Perth and delivered to ALS laboratory by White Cliff staff.				
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been undertaken by White Cliff staff, and unknown for CSIRO.				



## **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 Hines Hill exploration license E70/5875 is held 100% by Magnet Resource Company Pty Ltd, a 100% subsidiary of White Cliff Minerals Limited.  The tenement was granted on 21/10/21, has annual expenditure of \$44,000 and the tenement is in good standing.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in thearea.	A land access agreement is to be signed with the landowners.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous exploration.
Geology	Deposit type, geological setting and style of mineralisation.	Potential Carbonatite within Archean terrane.
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:	No drilling being reported.
	easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length.	
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
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.	No aggregation methods have been used.
	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.	No aggregation methods have been used.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are being used.



Criteria	JORC Code explanation	Commentary
		,
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').	No mineralisation widths have been reported.
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 drillhole collar locations and appropriate sectional views.	Location maps of projects within the release with relevant exploration information contained.
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.	The reporting of exploration results is considered balanced by the competent person.
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.	No other exploration to report.
Further work	The nature and scale of planned further work (eg. tests for lateral extensions or depth extensions or large-scale stepout 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 geochemical sampling, and gaining approvals for drilling of potential targets.