Australian Securities Exchange & Media Announcement
Clean TeQ Holdings Limited (CLQ:ASX; CTEQF:OTCQX)

CLEAN TEQ
Powering innovation

9 October 2017

Updated Mineral Resource confirms significant increases in cobalt grade and contained metal at Clean TeQ's Syerston Project

- **Updated Mineral Resource estimate confirms a 30% increase in cobalt grade compared to 2016 Pre-Feasibility Study estimates[1]:**
    - **16% increase in contained cobalt metal to 132,000 tonnes**
    - **63% increase in contained scandium metal to 19,222 tonnes**
- **The increase in cobalt grade is expected to result in a ~30% uplift in average cobalt production over the first 10 years of mine life to circa 5,000tpa**
- **Platinum Mineral Resource Estimate of 1.1 million ounces[1] – Definitive Feasibility Study to assess potential for platinum by-product production.**

Mr Sam Riggall, Managing Director of Clean TeQ Holdings Limited (**Clean TeQ** or **Company**) (CLQ:ASX; CTEQF:OTCQX), today announced an update to the Syerston mineral resource. This update reflects a significant increase in cobalt ore grades and contained cobalt metal compared to the 2016 resource estimate (20 September 2016), which was the basis of the Pre-Feasibility Study (**PFS**). A substantial uplift in the scandium resource has also been achieved.

The Platinum Mineral Resource includes significant high-grade zones of 12Mt @ 0.82 g/t Pt for 320,278 ounces, using a 0.5 g/t cut-off.

Mr Riggall commented, *"The purpose of updating the Mineral Resource Estimate was to demonstrate and confirm the significant upside that exists in the cobalt production potential at Syerston. Previous studies have focused almost exclusively on nickel, with little appreciation of the value represented by the inherent variability of cobalt grades. By focusing on a cobalt cut-off grade, this update has led to the inclusion of higher-*

[1] 2016 PFS resource based on a 0.6% Ni equivalent cut-off grade and the current 2017 resource update is based on a 0.06% Co cut-off grade, 300 ppm Sc cut-off grade and 0.15 g/t Pt cut-off grade.

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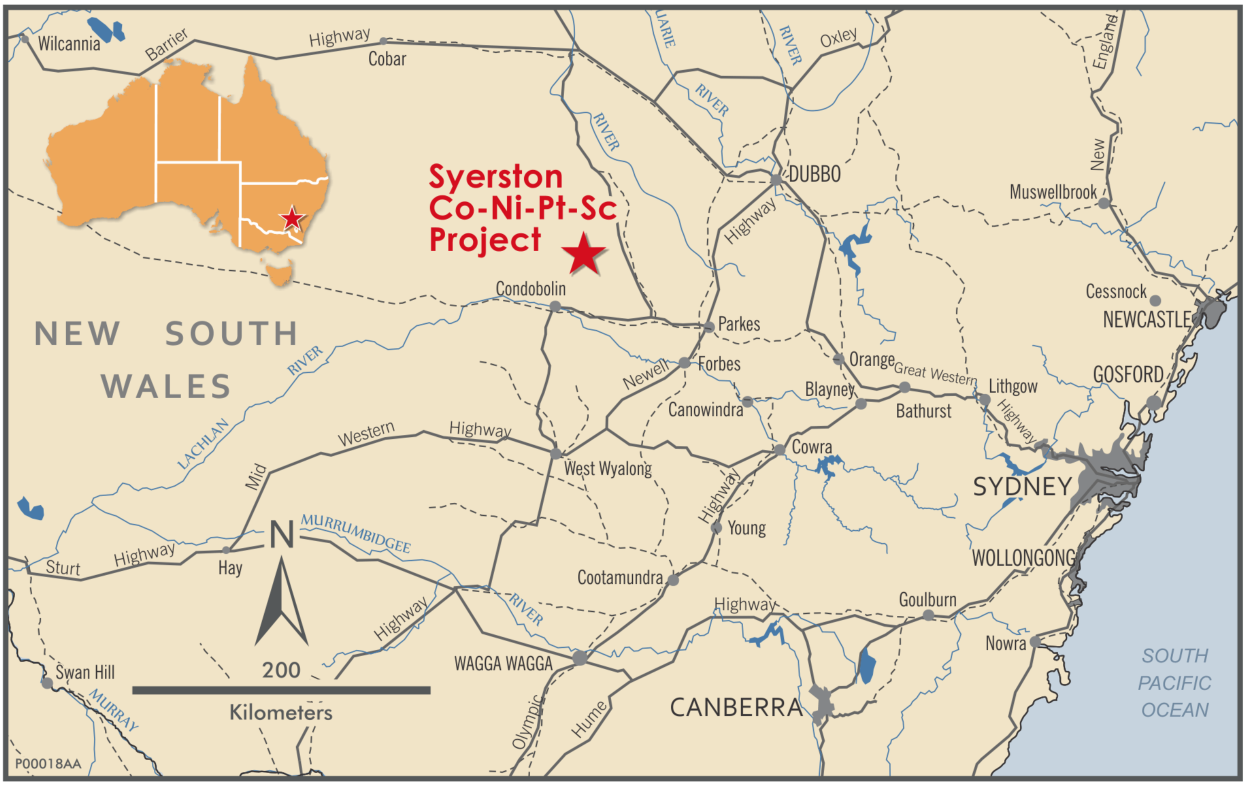
grade blocks that had previously been excluded from the geological model. It has also allowed for more selective rejection of low grade and waste material.

"The resource now gives us significant flexibility to respond to market conditions and manage production volumes across the range of metals – cobalt, nickel and scandium. We also believe that focusing on grade control and adopting a selective mining approach will deliver significant upside. These options will continue to be reviewed as part of the DFS and our operating plan.

"The combination of Syerston's unique mineral resource and Clean TeQ's proprietary technology uniquely positions us to benefit from strong forecast growth in demand for lithium batteries.

Our objective remains to build one of the largest global suppliers of cobalt and nickel sulphate to the lithium-ion battery industry. There is strong and growing interest in the cathode, battery and EV markets for assets of this quality."

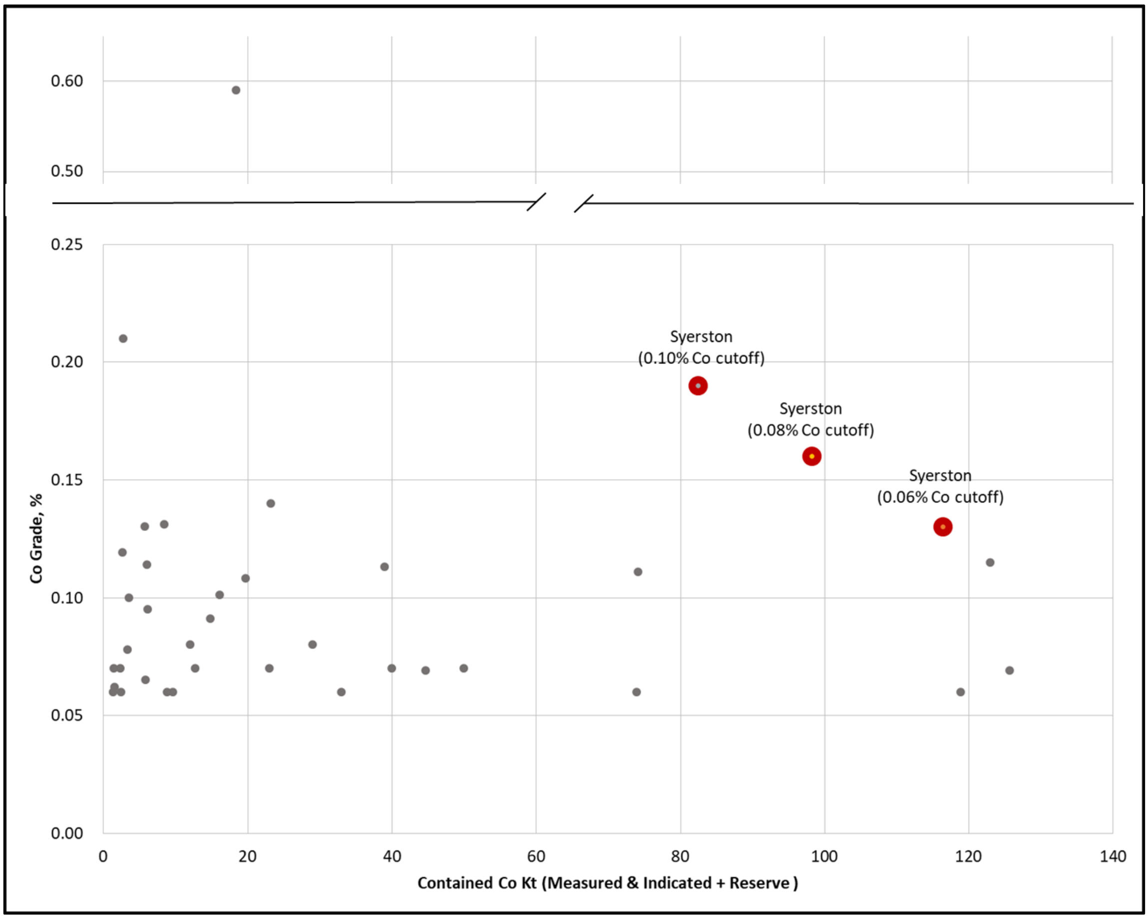
Figure 1: Syerston Project Location



The cobalt and nickel Mineral Resource update was completed in preparation for the upcoming review of the Ore Reserve estimate which is being conducted in conjunction with the Definitive Feasibility Study (**DFS**) currently underway.

As shown in Figure 2 below, the updated Mineral Resource confirms Syerston's ranking as one of the largest, and highest-grade cobalt deposits outside of Africa.

Figure 2: Undeveloped Cobalt-Containing Projects Outside Africa



Source: SNL global database. Comparator group comprises undeveloped projects with declared cobalt reserves and/or resources, excluding African and seabed mining projects and projects with cobalt grades less than 0.05%. Figures represent latest reported measured and indicated resources (inclusive of reserves) of cobalt. Syerston figures based on 2017 updated Mineral Resource Estimate.

Cobalt and Nickel Mineral Resource Estimate

The cobalt grade of the Mineral Resource has increased by 30%. The Mineral Resource is now 101 million tonnes at 0.13% Co for contained cobalt metal of 132,000 tonnes. The nickel grade of the resource is 0.59% Ni for 593,000t of contained nickel. Of this total resource, 86% is in the Measured and Indicated categories.

This compares to the previously reported Mineral Resource (20 September 2016) of 109 Mt @ 0.10% Co and 0.65% Ni for 114,000t of contained cobalt and 700,000t of contained nickel.

The updated cobalt and nickel Mineral Resource is summarised in Table 1 at a 0.06% Co cut-off grade. Table 3 shows the Mineral Resource at a range of Co cut-off grades.

The revised Measured and Indicated Resources will underpin the forthcoming Ore Reserve update for the Project in the DFS.

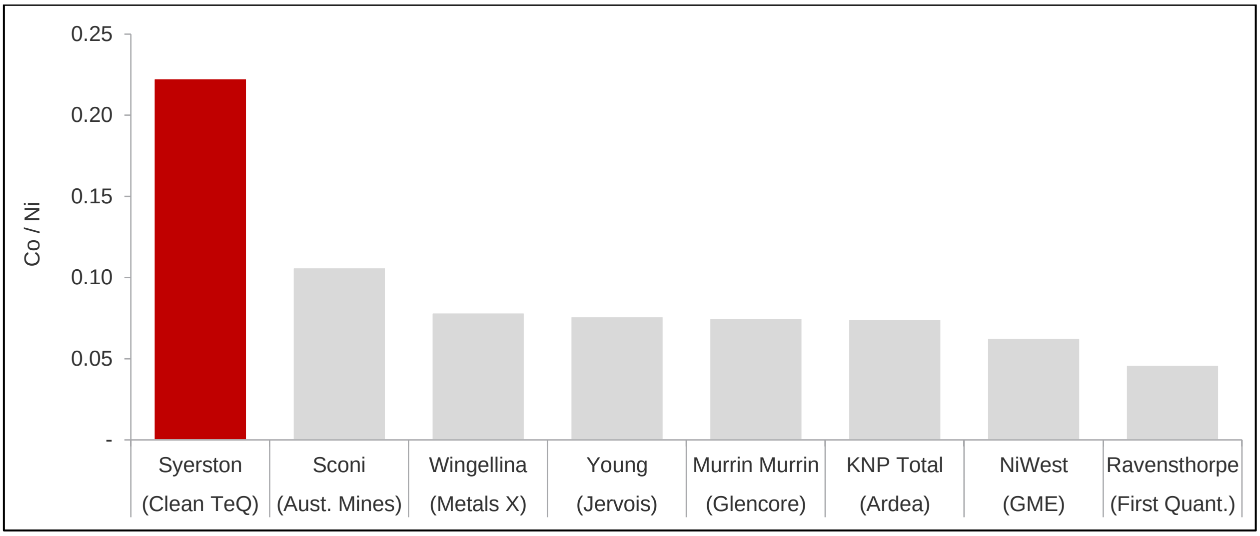
Table 1: Syerston Cobalt/Nickel Mineral Resource Estimate (0.06% Co cut-off)

Classification Category	Tonnage (Mt)	Ni Grade %	Co Grade %	Ni Metal Tonnes	Co Metal Tonnes
Measured	40	0.75	0.15	299,000	59,000
Indicated	47	0.55	0.12	259,000	58,000
Measured + Indicated	87	0.64	0.13	558,000	116,000
Inferred	14	0.24	0.11	35,000	16,000
Total	**101**	**0.59**	**0.13**	**593,000**	**132,000**

Notes: 1) 0.06% Co cut-off grade
2) Any apparent arithmetic discrepancies are due to rounding
3) The Co-Ni Resource partially includes material contained within the reported Scandium and Platinum Resources

The Syerston Project is unique in its high cobalt content (relative to nickel content). The cobalt/nickel ratio of the updated Resource[2] is approximately 0.22 tonnes to 1.0 tonnes of nickel, more than double that of its closest peer. The cobalt/nickel ratios of several comparable nickel projects are tabled below in Figure 3.

Figure 3: Cobalt / Nickel ratio of Australian laterite resources



Source: Public announcements and company reports

Impact on Forecast Production Rates

Of note in the updated Mineral Resource is the strong uplift in cobalt grade (30%) and contained cobalt metal content (16%). Preliminary mine scheduling currently being

[2] At a cut-off grade of 0.06% Co

undertaken as part of the DFS based on the updated Mineral Resource indicates that cobalt production in the first 10 years of the mine life has the potential to increase significantly from the PFS production forecasts, to an annual average of circa 5,000 tonnes per annum (cobalt contained metal) with the same ore feed throughput of 2.5 million tonnes per annum, offsetting a marginal reduction in nickel production over this period.

In addition, further work is being undertaken as part of the DFS to assess more selective mining approaches that would support increased rejection of low-grade and waste material in the mine plan. This will include further drilling to support effective grade control and smaller block sizes in the mine plan design. This is likely to have a further materially positive impact on cobalt production rates.

At these forecast production rates Clean TeQ will be positioned as one of the world's largest suppliers of cobalt from the developed world (see Table 2).

Table 2: Cobalt Production – Global Rankings

Miner/operator	**Country**	**Cobalt Production 2016 est. tonnes**
Mutanda	DRC	24,500
Tenke Fungurume	DRC	17,200
Norilsk	Russia	5,600
Coral Bay/Taganito	Philippines	4,700
CDM	DRC	4,500
BOSS Mining	DRC	4,200
Big Hill	DRC	3,600
Ruashi	DRC	3,500
Moa Bay	Cuba	3,500
Vale New Caledonia	New Caledonia	3,200
Minara	Australia	2,800

Source – Darton Cobalt Market Review 2016-17

Due to the significant increase in anticipated cobalt production compared to the PFS estimates, the DFS will need to re-assess the impact on the design and costing of the resin-in-pulp adsorption/desorption and refinery circuits of the process flow sheet. As indicated above, it will also evaluate more selective mining approaches to the mine plan. This work has now commenced, but will result in a delay to the anticipated timing of completion of the DFS to Q1 2018. The scope of the DFS will also be expanded to assess the potential for platinum recovery via a separate beneficiation circuit.

The acquisition of two autoclaves in July 2017 (the critical path long lead item for the Project), has provided the Company with the potential to significantly accelerate the construction schedule for the Project. The updated Project delivery schedule is still being developed as part of the DFS, however, although the timeframe for the completion of the DFS has been delayed, the Company considers that this will not result in any delay in the estimated timeframes for Project construction and commissioning.

Table 3 provides a summary of the current Mineral Resource at a range of different Co cut-off grades and highlights the potential of the orebody to support prolonged production at high Co grades (e.g. 71MT @ 0.16% Co with a 0.08% Co cut-off grade).

Table 3: Mineral Resource Estimate at a range of Co cut-off grades

Cut-off Co %	Classification Category	Tonnage (Mt)	Ni Grade %	Co Grade %	Ni Metal Tonnes	Co Metal Tonnes
0.06	Measured	40	0.75	0.15	299,000	59,000
0.06	Indicated	47	0.55	0.12	259,000	58,000
0.06	**Measured + Indicated**	87	0.64	0.13	558,000	116,000
0.06	Inferred	14	0.24	0.11	35,000	16,000
0.06	**Total**	**101**	**0.59**	**0.13**	**593,000**	**132,000**
0	Measured	69	0.63	0.10	436,000	69,000
0	Indicated	94	0.47	0.08	437,000	75,000
0	**Measured + Indicated**	**163**	**0.54**	**0.9**	**874,000**	**144,000**
0	Inferred	21	0.23	0.09	48,000	18,000
0	**Total**	**183**	**0.50**	**0.09**	**922,000**	**162,000**
0.08	Measured	29	0.78	0.18	227,000	51,000
0.08	Indicated	32	0.57	0.15	183,000	47,000
0.08	**Measured + Indicated**	61	0.67	0.16	410,000	98,000
0.08	Inferred	10	0.25	0.13	25,000	13,000
0.08	**Total**	71	0.61	0.16	435,000	111,000
0.10	Measured	22	0.80	0.20	175,000	44,000
0.10	Indicated	21	0.59	0.18	126,000	38,000
0.10	**Measured + Indicated**	43	0.70	0.19	302,000	82,000
0.10	Inferred	7	0.25	0.15	17,000	10,000
0.10	**Total**	50	0.64	0.19	318,000	93,000

Notes: 1) Any apparent arithmetic discrepancies are due to rounding
2) The Ni-Co Resource partially includes material contained within the reported Scandium and Platinum Resources

Syerston's existing approved development consent and EIS confirms the approval for production and transport of up to 180 tonnes of scandium oxide and up to 40,000 tonnes of nickel and cobalt metal equivalents (as either sulphide or sulphate precipitate products) from the mine – more than sufficient for the anticipated increase in cobalt production.

The binding offtake contract recently executed with Beijing Easpring is for fixed tonnages from year 2 following ramp-up, of 18,000 tonnes per annum nickel sulphate (approximately 4,000tpa nickel metal equivalent) and 5,000 tonnes per annum cobalt sulphate (approximately 1,000tpa cobalt metal equivalent) representing approximately 20 per cent of forecast Syerston production based on the updated Nickel and Cobalt Mineral Resource.

The variability in cobalt grade across the resource (see Fig 4), when combined with the relatively simple lateritic profile of the deposit (see Fig 5), provides significant operating flexibility. Production rates for specific metals can potentially be configured to respond quickly to changes in market conditions for those metals. This provides significant option value.

Figure 4: Syerston Resource Plan

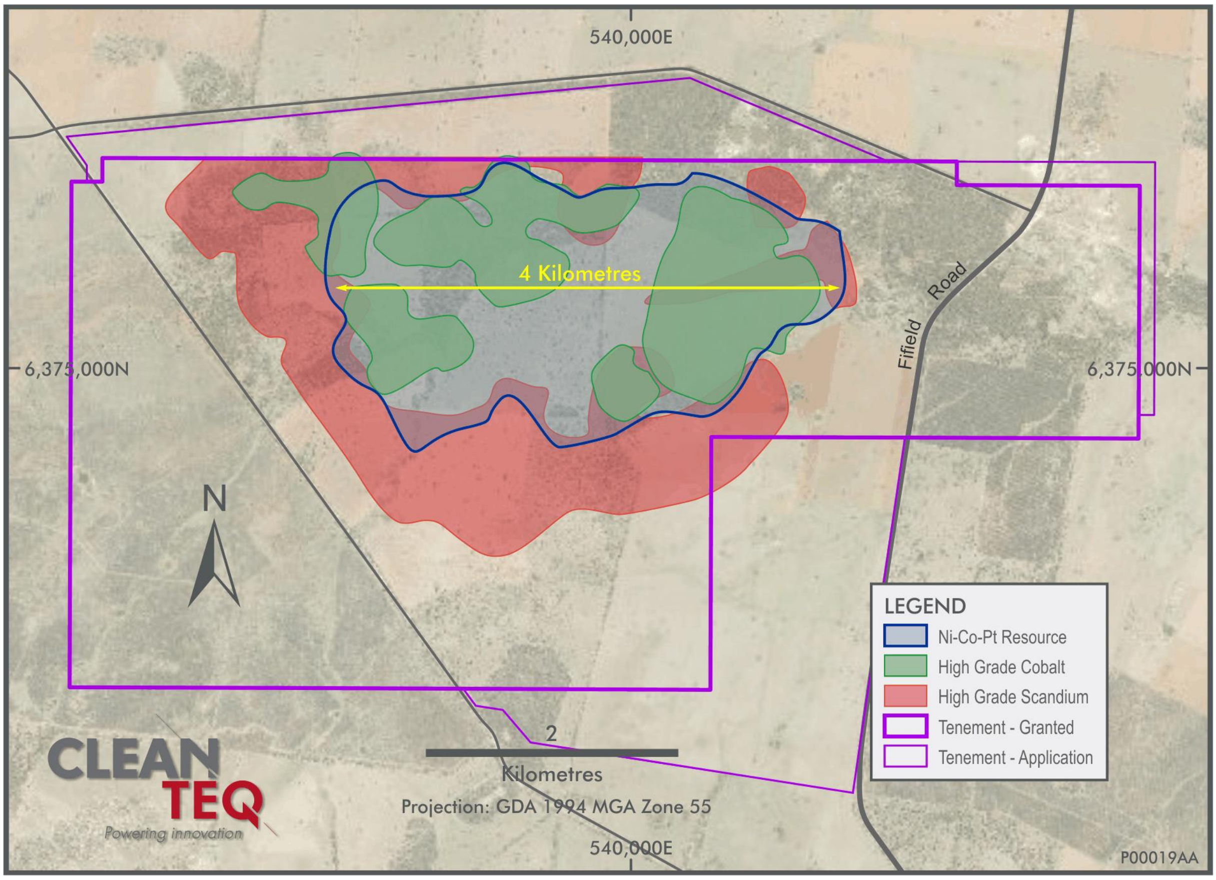
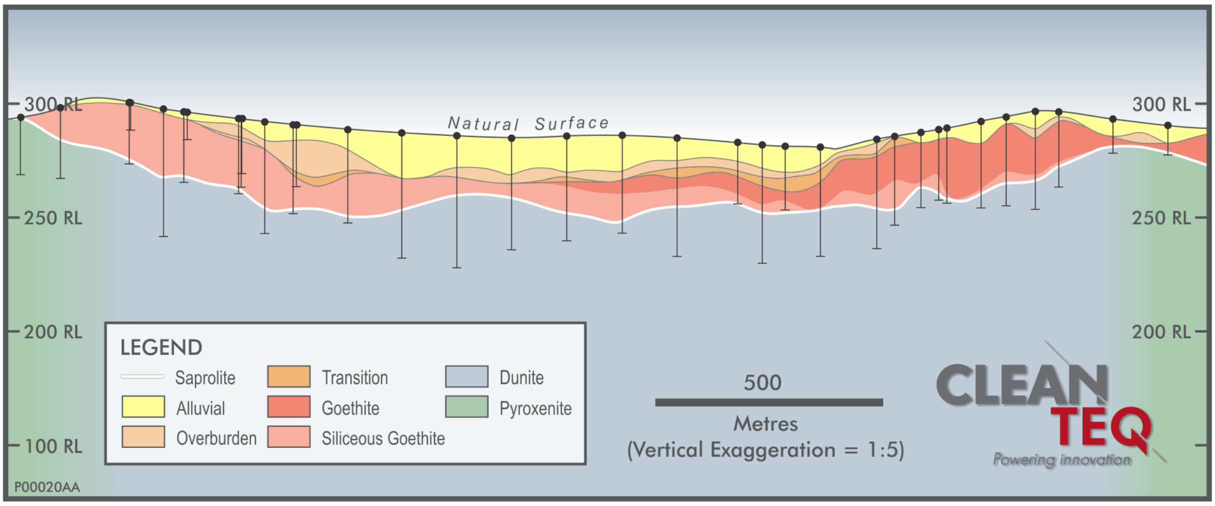


Figure 5: Syerston Resource – Typical Cross Section



Scandium Mineral Resource Estimate

The scandium Mineral Resource for the Project has increased significantly to 45.7 Mt @ 420 ppm Sc for 19,222 tonnes of contained metal using a 300ppm cut-off. Of this total resource, 27% is in the Measured and Indicated categories.

This compares to the previously reported scandium Mineral Resource (17 March 2015) of 28.2 Mt @ 419 ppm Sc for 11,819 contained metal tonnes, using a 300 ppm Sc cut-off (i.e. an increase in contained scandium metal of 63%).

Key to this increase in scandium Mineral Resource was the detailed review of the deposit which established geological continuity of the scandium mineralisation and the definition of two distinct populations, specifically:

- A lower grade scandium resource overlying the main dunite basement, and included within the main zones of cobalt and nickel mineralisation, and
- A higher-grade scandium resource laterally surrounding the main zones of cobalt and nickel mineralisation.

The updated scandium Mineral Resource is summarised in Tables 4 and 5.

Table 4: Syerston Scandium Mineral Resource Estimate (300ppm cut-off)

Classification Category	Tonnage (Mt)	Sc Grade PPM	Sc Metal Tonnes	Sc_2O_3 Equiv Tonnes
Measured	1.8	474	834	1,277
Indicated	10.6	411	4,341	6,641
Measured + Indicated	**12.3**	**420**	**5,175**	**7,917**
Inferred	33.3	421	14,047	21,492
Total	**45.7**	**421**	**19,222**	**29,409**

Notes: 1) 300ppm Sc cut-off grade
2) Any apparent arithmetic discrepancies are due to rounding,
3) Scandium tonnage multiplied by 1.53 to convert to Sc_2O_3.
4) The Scandium Resource partially includes material contained within the reported Co-Ni and Pt Resources

Table 5: Syerston Higher Grade Scandium Location

Domain	Tonnage (Mt)	Sc Grade PPM	Sc Metal Tonnes	Sc_2O_3 Equiv Tonnes
Within Dunite Complex – above 300ppm	0.3	343	100	153
Outside Dunite Complex – above 300 ppm	45.4	421	19,122	29,256
Total	**45.7**	**421**	**19,222**	**29,409**

Notes: 1) 300ppm Sc cut-off grade
2) Any apparent arithmetic discrepancies are due to rounding,
3) Scandium tonnage multiplied by 1.53 to convert to Sc_2O_3.
4) The Scandium Resource partially includes material contained within the reported Co-Ni and Pt Resources

The DFS will incorporate scandium oxide by-product recovery from the cobalt-nickel circuit with a nameplate capacity of 80 tonnes per annum Sc_2O_3. The option remains open to expand scandium oxide production up to approximately 170 tonnes per annum by installing a dedicated scandium recovery resin-in-pulp circuit as part of the flow sheet, for a relatively modest capital investment.

Platinum Mineral Resource Estimate

The platinum in the Mineral Resource for the Project has increased significantly to 103 Mt @ 0.33 g/t Pt for 1,076,170 ounces, using a 0.15 g/t cut-off. Of this total resource, 94% (metal content) is in the Measured and Indicated categories.

This compares to the previously reported Mineral Resource (20 September 2015) of 109 Mt @ 0.20 g/t for 700,888 ounces of contained platinum.

The updated platinum Resource is inclusive of a higher grade zone of 1.7 Mt @ 1.87 g/t Pt for 103,435 ounces at a 1 g/t Pt cut-off grade.

To assist in the interpretation of the platinum mineralisation, and in particular the higher grades zones, aeromagnetic survey data, 3D inversion results and structural interpretations were reviewed to supplement the existing drill data.

As indicated above, while the platinum grades are relatively low, there is significant contained metal value in the platinum mineralization. Hence, the DFS will assess the potential options for low-cost platinum recovery via a separate beneficiation circuit.

The updated platinum Mineral Resource is summarised in Table 6 below.

Table 6: Syerston Platinum Resource Estimate at a range of cut-off grades

Cut-off Pt g/t	Classification Category	Tonnage (Mt)	Pt Grade g/t	Pt Metal Oz
0.15	Measured	36.8	0.37	432,523
0.15	Indicated	58.1	0.31	576,079
0.15	**Measured + Indicated**	94.9	0.33	1,008,602
0.15	Inferred	8.1	0.26	67,568
0.15	**Total**	**103.1**	**0.33**	**1,076,170**
0.50	Measured	5.3	0.94	161,773
0.50	Indicated	6.3	0.73	147,261
0.50	**Measured + Indicated**	11.6	0.83	309,034
0.50	Inferred	0.5	0.64	11,244
0.50	**Total**	**12.1**	**0.82**	**320,278**
1.0	Measured	1.1	2.12	72,507
1.0	Indicated	0.7	1.46	30,928
1.0	**Measured + Indicated**	1.7	1.87	103,435
1.0	Inferred	0	0	0
1.0	**Total**	1.7	1.87	103,435

Notes: 1) Any apparent arithmetic discrepancies are due to rounding
2) The Platinum Resource partially includes material contained within the reported Ni-Co and Scandium Resources

Overall Mineral Resource Estimate

All Mineral Resource estimates for the Project are classified and reported in accordance with the JORC Code 2012 Edition.

Details of the Mineral Resources are provided in Appendix A, which is inclusive of cobalt, nickel, scandium and platinum. Within the deposit, various domains have been defined to reflect variations in geology, chemistry and physical properties with this displayed in Figure 5 above.

A detailed summary of the supporting assumptions and data is provided in Appendix B ("JORC Code 2012 Edition – Table 1, Sections 1-3").

The combined Mineral Resource for the project has increased significantly, which is primarily the result of several key factors:

- A geological review of the Syerston Project Area resulted in the decision to model the cobalt, nickel, scandium and platinum mineralisation together as a single polymetallic deposit;

- The polymetallic nature of the deposit allowed for the appropriate removal of individual cut-off grades, and allowed for inclusion of blocks that had previously been excluded from the Resource. Additionally, this approach provides the ability to apply 'block support' to blocks (i.e. the blending of higher and lower-value blocks) that may otherwise be classified as waste during Ore Reserve estimation;

- Refinements to the geological interpretation, including the use, in closely spaced areas of drilling, of smaller blocks, which has allowed for more selective rejection of low grade and waste material;

- The application of refinements to the geological and resource modelling, including the use of techniques such as 'unfolding', 'indicator kriging' and 'sub-domaining' of high-grade cobalt and scandium zones within the deposit; and

- Improved control of deleterious elements (such as aluminium, silicon, manganese and magnesium) within the main lateritic mineralisation zones (i.e., the goethite and siliceous goethite domains).

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About Clean TeQ Holdings Limited (ASX: CLQ) – Based in Melbourne, Clean TeQ, using its proprietary Clean-iX® continuous ion exchange technology, is a leader in metals recovery and industrial water treatment.

For more information about Clean TeQ please visit the Company's website www.cleanteq.com.

About the Syerston Project – Clean TeQ is the 100% owner of the Syerston Project, located in New South Wales. The Syerston Project is one of the largest cobalt and nickel deposits in the developed world, and one of the largest and highest-grade accumulations of scandium ever discovered.

About Clean TeQ Water – Through its wholly owned subsidiary Clean TeQ Water, Clean TeQ is also providing innovative wastewater treatment solutions for removing hardness, desalination, nutrient removal, zero liquid discharge. The sectors of focus include municipal wastewater, surface water, industrial waste water and mining waste water.

For more information about Clean TeQ Water please visit www.cleanteqwater.com

This release may contain forward-looking statements. The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain material factors or assumptions were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information

Competent Persons Statement

The information in this report that relates to Mineral Resources is based on information compiled by Mr Lynn Widenbar, a member of the Australasian Institute of Mining and Metallurgy. Mr Widenbar is a full-time employee of Widenbar and Associates. Mr Widenbar is a consultant to Clean TeQ and has sufficient experience which is relevant to the style of mineralisation and type of Deposit and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr Widenbar consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

Further details are provided in JORC Code 2012 Edition – Table 1 (Appendix B).

APPENDIX A – Detailed Mineral Resource Estimate

Table 8: Detailed Syerston Nickel and Cobalt Mineral Resource Estimate by Domain (0.06% Co cut-off)

Domain	Class	Tonnage (Mt)	Ni Grade %	Co Grade %	Fe Grade %	Al Grade %	Si Grade %	Mg Grade %	Mn Grade %	Ca Grade %	Cu Grade ppm	Zn Grade ppm	Cr Grade ppm
Transition	M & I	3.6	0.34	0.10	38.27	5.35	7.41	0.53	0.58	0.33	101	278	5,827
	Inf	2.0	0.24	0.09	37.50	5.51	8.40	0.33	0.56	0.18	86	274	4,563
Goethite	M & I	52.0	0.70	0.16	42.20	2.98	7.95	0.78	0.89	0.28	83	402	5,575
	Inf	7.0	0.25	0.13	33.72	6.36	10.48	0.76	0.82	0.36	214	309	3,558
Siliceous Goethite	M & I	31.4	0.59	0.10	27.30	1.62	22.14	0.94	0.58	0.25	42	289	5,770
	Inf	5.3	0.24	0.10	24.59	4.40	19.91	1.68	0.58	0.82	200	339	4,471
Total	M & I	86.9	0.64	0.13	36.66	2.59	13.05	0.83	0.76	0.27	69	356	5,656
	Inf	14.2	0.24	0.11	30.85	5.52	13.69	1.04	0.69	0.50	191	315	4,035
	Total	101.1	0.59	0.13	35.84	3.00	13.14	0.86	0.75	0.30	86	350	5,429

Note: 1) M & I – Measured and Indicated Resources
2) Inf – Inferred Resources

Table 9: Detailed Syerston Nickel and Cobalt Mineral Resource Estimate by Domain (No Co cut-off)

Domain	Class	Tonnage (Mt)	Ni Grade %	Co Grade %	Fe Grade %	Al Grade %	Si Grade %	Mg Grade %	Mn Grade %	Ca Grade %	Cu Grade ppm	Zn Grade ppm	Cr Grade ppm
Transition	M & I	27.6	0.32	0.04	38.38	5.26	7.64	0.83	1.47	0.58	83	242	7,231
	Inf	3.8	0.19	0.05	33.25	5.09	7.34	0.76	1.15	0.52	95	207	3,829
Goethite	M & I	68.8	0.65	0.13	42.06	3.07	7.98	0.78	1.50	0.31	79	380	5,792
	Inf	8.1	0.24	0.12	33.48	6.31	10.69	0.77	1.50	0.39	214	300	3,539
Siliceous Goethite	M & I	66.5	0.50	0.07	23.72	1.47	24.67	1.10	1.48	0.33	37	239	5,290
	Inf	8.7	0.23	0.08	24.31	4.19	20.32	1.86	1.34	0.87	168	320	3,873
Total	M & I	162.8	0.54	0.09	33.94	2.79	14.74	0.92	1.49	0.36	63	299	5,831
	Inf	20.6	0.23	0.08	29.80	5.18	13.70	1.20	1.36	0.61	167	286	3,740
	Total	183.3	0.50	0.09	33.45	3.07	14.61	0.96	1.47	0.39	75	298	5,581

Note: 1) M & I – Measured and Indicated Resources
2) Inf – Inferred Resources

Table 10: Detailed Syerston Scandium Mineral Resource Estimate by Domain & Resource Category (300ppm Sc cut-off)

Domain	Class	Tonnage (Mt)	Sc Grade PPM	Sc Metal Tonnes	Sc_2O_3 Equiv Tonnes
Alluvial	Measured				
	Indicated	1.12	368	411	629
	Inferred	7.29	366	2,671	4,086
Overburden	Measured	0.91	512	467	714
	Indicated	2.82	443	1,251	1,914
	Inferred	3.98	536	2,133	3,263
Transition	Measured	0.01	348	2	4
	Indicated	1.29	395	511	781
	Inferred	17.01	421	7,158	10,952
Goethite Zone	Measured	0.44	439	191	293
	Indicated	3.05	401	1,223	1,871
	Inferred	3.19	392	1,252	1,916
Siliceous Goethite Zone	Measured	0.4	434	174	266
	Indicated	2.28	414	945	1,446
	Inferred	1.87	446	833	1,274
Total	Measured and Indicated	12.32	420	5,175	7,917
	Inferred	33.34	421	14,047	21,492
	Total Resources	45.66	421	19,222	29,409

Table 11: Detailed Syerston Scandium Mineral Resource Estimate by Domain & Resource Category (No Sc cut-off)

Domain	Class	Tonnage (Mt)	Sc Grade PPM	Sc Metal Tonnes	Sc_2O_3 Equiv Tonnes
Alluvial	Measured	23.5	47	1,099	1,681
	Indicated	40.2	94	3,763	5,758
	Inferred	59.4	128	7,618	11,655
Overburden	Measured	4.8	71	342	524
	Indicated	14.1	135	1,905	2,914
	Inferred	37.4	257	9,622	14,721
Transition	Measured	10.5	96	1,005	1,538
	Indicated	17.0	131	2,231	3,414
	Inferred	3.8	281	1,070	1,637
Goethite Zone	Measured	32.2	70	2,254	3,449
	Indicated	36.5	92	3,343	5,114
	Inferred	8.1	336	2,716	4,156
Siliceous Goethite Zone	Measured	26.1	38	979	1,498
	Indicated	40.4	62	2,522	3,858
	Inferred	8.7	234	2,043	3,126
Total	Measured and Indicated	245.4	79	19,443	29,748
	Inferred	117.4	196	23,069	35,295
	Total Resources	362.9	117	42,512	65,043

APPENDIX B JORC 2012 - Table 1

Section 1 Sampling Techniques and Data

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

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 gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Available drill hole data was accumulated from multiple phases of drilling conducted by several operators over a period of more than 25 years, between 1988 and 2015. Due to the passage of time, some details of procedures followed during early phases of drilling are uncertain. • The overwhelming bulk of data accepted for use in resource estimation was obtained by reverse circulation (RC) drilling, predominantly using face sampling hammers, but with a small proportion of aircore drilling. Cuttings were normally collected over 1m intervals. A very small proportion of holes were sampled over 2m intervals. Approximately 2-4 kg field samples were obtained by riffling and submitted to independent commercial laboratories for sample preparation and assaying. As recorded, procedures were consistent with normal industry practices.
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).*	• Early programmes of rotary air blast (RAB) drilling were superseded by systematic patterns of vertical reverse circulation (RC) drilling, initially using aircore rigs, but predominantly using face sampling, down hole hammer bits with a nominal hole diameter of about 135mm. • The overwhelming bulk of the RC drilling on which the resource estimate is based was carried out in 6 phases between 1997 and 2015, most of it in 2 major phases between 1997 and 2000. A total of 1,308 RC holes and 45 aircore holes were used for resource grade estimation. • A total of 13 shallow, vertical diamond core holes were drilled between 1997 and 2000 to provide material for metallurgical test work and bulk density measurements. • In 1999, nine large diameter (approximately 770 mm) holes were drilled with a Calweld rig to provide large samples for metallurgical test work and bulk density determination. Five (5) of the holes were bulk sampled to obtain Ni and Co grades.
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.*	• RC sample recoveries were recorded. Samples were weighed in 1998-2000, but the equipment used proved to be unsuitable and results were found to be unreliable. Recoveries were subsequently estimated by visual assessment during drilling. Recoveries were not consistently quantified in the drill hole database, but were reported to have been satisfactory. In 2005 average estimated recoveries ranged from 87% to 94% in the main mineralised zones. • Much of the mineralised material is extremely fine grained. Potential for biases due to loss of sample during RC drilling was recognised and investigated at several stages. • In 2000, a statistical study of the relationship between subsample weights and Ni-Co grades concluded that any biases were unlikely to be large enough to have a material impact on resource grade estimates for Ni or Co. However, the study was clouded by unreliable weight data and a distinct negative correlation between bulk density

Criteria	JORC Code Explanation	Commentary
		and Ni-Co grades. It was noted that any apparent biases could have been artefacts of the data. • Subsequently, in 2005, as a practical test a total of 20 close-spaced RC twins were drilled around 5 bulk sampled, large diameter Calweld holes (4 RC holes in each case, which were averaged). They yielded average Ni and Co grades that were extremely similar to average bulk sample grades: Aggregated Calweld Bulk Samples 88.82 m 0.88% Ni 0.13% Co Averaged & Aggregated RC Twins 90.0 m 0.89% Ni 0.13% Co • At the same time, 7 RC holes dating from 1998-2000 were also twinned with good results: Aggregated Old RC Holes 156 m 0.74% Ni 0.12% Co Aggregated 2005 RC Twins 156 m 0.75% Ni 0.12% Co • The 2005 twinning programme indicated that RC samples were unlikely to have been affected by significant sampling biases. • In 2017, 10 twin RC holes and 10 diamond holes offset 5m diagonally from the original holes were drilled. The results have indicated only minor variation between the original and twin holes.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All holes were geologically logged. • Checking of stored RC cuttings in the field showed that some logging had been of dubious quality, but distinct geological changes were clearly reflected in multi-element sample assay results. Where contradictions occurred, analytical data were preferred as a guide to geological interpretations.
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.*	• No diamond core samples were used for resource grade estimation. • RC holes were usually dry and field samples of approximately 2-4 kg were collected by riffling, consistent with common industry practice. • Some damp or wet intervals were sampled by spear or grab sampling. These samples would not be reliable. The proportion of wet intervals was reported to have been very small, but they were not identified in the drill hole database, so they could not be quantified. • Sample preparation at all the laboratories used reportedly involved pulverising the total received sample to nominal minus 75µm. In 2014-2015, if necessary, the received sample was riffle split to a maximum of 3 kg. Procedures were apparently similar at all stages and consistent with normal industry practices. • Field duplicate samples were collected, normally at a rate of 1 per hole, approximating 1 in 25 to 1 in 35 samples. Results were located for 619 duplicates from the 1998-2000 period, 117 from 2005 and 105 from 2014-2015. On average, duplicate sample grades for Ni and Co compared closely with originals, indicating that sub-sampling procedures had been free of significant bias. • In 2014-2015 field duplicates were reportedly collected by spear sampling bagged reject, but details could not be verified in the time frame of this estimate. If correct this would not be a satisfactory procedure, however it relates to only a small proportion of the assay data. • In 2000, 204 duplicate samples from 5 RC holes were collected by independent consultants and submitted for independent assay. The results correlated well with those from the original samples. They also indicated that field sub-sampling procedures were free of significant bias. • In 2005 another programme of independent duplicate sampling and assaying was conducted involving 149 samples from 4 RC holes, with similar good results. • The mineralised material is predominantly fine to very fine grained. Sizing analysis of typical RC cuttings showed that on average approximately 60-75% by weight was minus 0.1mm. Sample sizes were appropriate.

Criteria	JORC Code Explanation	Commentary
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.*	• Prior to late 1998 samples were assayed at Australian Laboratory Services Pty Ltd (ALS), Orange, New South Wales, by AAS after perchloric acid digest of a 0.25 gm aliquot. Ni, Co & Cr were routinely determined. Mn was determined for most samples and some Cu assays were reported. Selected samples were assayed for Mg, Ca & Fe by ICPOES after aqua regia digest of a 0.25 gm aliquot. Pt was determined by 50gm fire assay with an AAS finish. • From late 1998 to 2005 samples were assayed at Ultratrace Analytical Laboratories (Ultratrace), Canning Vale, Western Australia. Samples were routinely assayed for Ni, Co, Cr, Mn, Mg, Ca, Al, Fe, Sc, Zn, As and Cu by digestion of 0.3gm of sample pulp in a mixture of hot Hydrochloric, Nitric, Perchloric and Hydrofluoric acids, with an ICP_OES finish. • In 2014-2015 samples were reportedly assayed at Australian Laboratory Services Pty Ltd (ALS), Brisbane, Queensland, after sample preparation at their Orange, New South Wales, facility. An aliquot of 0.25 gm was digested in a mixture of Perchloric, Nitric, Hydrofluoric and Hydrochloric acids, and analysed for Sc and 32 other elements, including Ni and Co, by Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP-AES). • All assaying methods were appropriate for Ni, Co and Pt, and were regarded as total determinations. • Between late 1998 and 2005 a small proportion of samples were assayed for Si by sodium peroxide fusion of a 0.3 gm sample with an ICPOES finish. The results were used to develop a regression equation to calculate Si values. The great majority of Si values in the drill hole database are calculated and can only be regarded as semi-quantitative. Si values had no direct influence on resource grade estimation. • No analyses were obtained using Geophysical tools. • Sampling and assaying quality controls routinely imposed during drilling programmes in 1998–2000 and in 2005 consisted of field duplicate samples, extensive check assaying at independent laboratories and submission of a range of certified standard samples. • In 2014–2015, field duplicate samples were routinely collected, apparently by spear sampling. This procedure was unsatisfactory. No check assaying was done. Only a single standard sample was used, which was intended primarily for monitoring Sc results. Ni and Co grades of the standard were far too low to provide useful data. • The 2014–2015 programmes only contributed some 8% of drill holes accepted for use in Ni-Co resource estimation. • Duplicate sampling results indicated that sub-sampling procedures were unbiased at all stages. • Duplicate sampling demonstrated that precision levels were satisfactory in 1998–2000 and in 2005. Data from 2014–2015 indicated poorer precision levels, but results were possibly distorted by an unsatisfactory duplicate sampling procedure. • Check assaying results prior to 1998, in 1998–2000 and in 2005 were consistently good and showed close agreement at all stages between the 3 reputable laboratories that were involved. Mean relative differences for Ni and Co were within +/- 2%. • On average, standard sample results for Ni and Co in 1998–2000 and 2005 were higher than the expected values. Two sets of certified standards were used. • One set consisted of 5 standards, prepared from Syerston material and inserted into sample batches at the laboratory in 1998–2000 and in 2005. On average results were about 3%–5% relative higher than the expected values for both Ni and Co, during both time periods. • Another set of 5 standards, prepared from material from other lateritic Ni-Co deposits, were inserted on site, blind to the laboratory, during 2005. They gave Ni and Co results averaging about 8% relative higher than the expected values. • The apparent biases shown by standard samples were of serious concern, but completely at odds with consistently good check assaying results. • An investigation into the standard samples in 2005 substantiated the laboratory results and failed to explain the differences from expected

Criteria	JORC Code Explanation	Commentary
		values. It was concluded that they were probably due to more effective digestion techniques at the 3 laboratories involved in check assaying programmes than at some of the other laboratories involved in establishing expected values for the standards. However, the possibility of some bias could not be entirely ruled out.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Independent custody sampling programmes were conducted by two different groups of independent consultants in 2000 and 2005. They involved a total of 253 metres from 9 RC drill holes. Results verified the original intercepts. • Twin drilling in 2005 was discussed above. • Due to the age of much of the data and changes in project ownership, details of primary data entry procedures were largely obscure. • In 2000, independent consultants conducted validation checks against original sources for 66 holes. Some collar coordinates could not be validated because original records were not located. No significant errors were found in the assay data. • In 2005 a drill hole database created by the previous owner was subjected it to extensive tests for internal errors and inconsistencies. Very few problems were detected. • In 2005 validation checks were carried out on 100 holes. • Collar coordinates were checked against surveyors' reports and/or drill logs. No survey records could be located for the 16 aircore holes involved and some early RC holes. A total of 17 early, predominantly aircore holes showed significant coordinate discrepancies against drill logs that could not be resolved. Where original survey reports were available, all database coordinates were found to be correct. The quality of the survey database was open to doubt for holes drilled before about 1997. The great majority of holes accepted for use in resource estimation were drilled later. • Database assay records were checked against original laboratory reports for 1,673 pre-2005 samples and 908 samples from 2005 drilling. Only a single incorrect Si value was detected. The assay database seemed to be of good quality. • No adjustments to laboratory assay data were required. • In 2017, a new Micromine Geobank (CLQGB) database was created with hole details from historic database and other sources; collars imported from original surveyor's report (60% identified in either AMG84 or MGA coordinates); and assay from original sif or csv lab assay report files with full metadata (67%) with balance from csv assay report files with metadata added. 35,135 records imported for SAC and SRC hole series.
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Collar survey procedures prior to 1998 were unclear. • For drilling programmes between 1998 and 2000, collars were picked up by contract licensed surveyors. • In 2005, collar positions were pegged out by contract licensed surveyors. Holes were collared within 0.1m of pegs or offsets were measured by steel tape to 0.1m. • In 2014-2015 drill hole collars were surveyed by licensed surveyors (Geolyse Pty Ltd). • Local project grid coordinates have been used throughout. A transformation between local grid and national coordinates (Datum: AGD84; Projection: AMG84 Zone 55) was established by licensed surveyors around late 1998. • A new national grid system has since been adopted (Datum: GDA94; Projection: MGA Zone 55). Care is required to ensure that any national coordinates used in connection with the project are all in the same system. • Local topographic survey control is adequate, based on a photogrammetric survey flown in 1999 by Geo-Spectrum. • In 2017, all available surveyor's reports were identified with majority of holes surveyed in AMG84 grid with 2014-2016 holes surveyed in MGA grid and imported in Geobank database. • AAM Group provided additional geodetic survey control in 2017 for proposed Lidar Survey. Provided independent check against former licensed surveyor (Geolyse Pty Ltd) survey control points.

Criteria	JORC Code Explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Most of the deposit area has been covered by vertical RC drilling on a 120m x 120m pattern. A substantial proportion of the more strongly mineralised areas have been covered by vertical RC drilling on a 60m x 60m pattern and some limited areas have been infilled to 30m x 30m. This is sufficient to establish geological and grade continuity appropriate for the resource estimation procedures used and resource classifications applied. • For resource estimation purposes drill hole samples were composited over 1m down hole intervals to reflect block model parameters and likely open pit working bench heights.
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.*	• Vertical drill holes were appropriate for delineation of the broadly sub-horizontal laterite hosted Ni-Co mineralisation. • There was no definitive evidence of the Co mineralisation being structurally controlled in the revised geological interpretation. • 30m infill drilling programmes conducted in early 2005 were intended to better understand the distribution of the Co values.
Sample security	• *The measures taken to ensure sample security.*	• As far as could be determined, no specific security measures were imposed prior to 2005. However, independent custody sampling by consultants in 2000 indicated that tampering was unlikely to have occurred. • In 2005, a system of security tags was used to prevent any tampering with bagged samples between the project site and the laboratory. • Independent custody sampling 2005 confirmed that tampering was unlikely to have occurred. • In 2014-2015 the drilling program was under the supervision of a site geologist and overseen by a principal geologist to ensure that sample protocols including sample custody were monitored.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Independent technical reviews by independent consultants SNC-Lavalin Australia Pty Ltd (SLA) in 2000 and by McDonald Speijers (MS) in 2005 concluded that data collection procedures since late 1998 had been generally satisfactory and consistent with normal industry practices.

Section 2 Reporting of Exploration Results

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.*	• The deposit is covered by Exploration Licence EL4573 held 100% by Scandium21 Pty Ltd, a wholly owned subsidiary of Clean TeQ Holdings Limited. It was granted on 17th August 1993 and has an expiry date of 16th August 2018, which may be extended by future applications for renewal. • Conditions that apply to the licence appear to be normal conditions that would apply to any similar tenement in New South Wales. • The project was granted Development Consent under the NSW Environmental Protection and Assessment Act in May 2001. Scandium21 state that the consent remains in place. • Five applications for Mining Leases have been lodged over the area of the deposit. These are also registered in the name of Scandium21 Pty Ltd. They remain pending. • Scandium21 also holds title to a number of freehold farming properties in and around the area of the deposit. • There appear to be no impediments to obtaining a licence to operate.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The deposit has been subjected to multiple drilling programmes by 5 different owners since 1988. • About 97% of the drill hole data accepted for use in resource grade estimation dates from mid-1997 or later.

Geology	• *Deposit type, geological setting and style of mineralisation.*	• Syerston is an iron rich 'oxide type' Ni laterite deposit with higher than normal levels of associated Co and local elevated Pt and Sc values. It has developed over an ultramafic, intrusive complex.
		• The laterite profile is best developed over a Dunite core and thins over peripheral Pyroxenites.
		• The laterite profile is partly overlain by transported alluvium.
		• The laterite profile is interpreted to consist of 5 sub-horizontal zones:
		  • Residual Overburden (OVB): Hematitic material below the base of any alluvium, but with Ni grade less than *ca*. 0.2%
		  • Transitional Zone (TZ): Hematitic to goethitic material with an upper boundary defined by approximately 0.2% Ni, where values greater than this extend above the top of the underlying Goethite Zone.
		  • Goethite Zone (GZ): Composed mainly of very fine grained goethite. Upper boundary defined by Al greater than 3-4% with Fe usually greater than 30%, preferably greater than 40%.
		  • Silicified Goethite Zone (SGZ): Similar goethitic material to the GZ, but with veins, bands and mesh works of secondary silica. Upper boundary defined by approximately 20% Si.
		  • Saprolite Zone (SAP): Clay rich, intensely weathered bedrock. Upper boundary defined by about 2-3% Mg.
		• Ni-Co mineralisation is best developed in the GZ and SGZ, overlying the dunite.

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:*
	  ○ *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.*
		• Exploration results are not being reported.

Criteria	JORC Code Explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration results are not being reported.
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').*	• Exploration results are not being 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 drill hole collar locations and appropriate sectional views.*	• Exploration results are not being reported.
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.*	• Exploration results are not being reported.
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.*	• Exploration results are not being reported.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code Explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Input data was a validated Micromine Database. • Extensive validation routines were run to confirm validity of all data. • Collar, down hole survey and assay data has been sourced from original survey and laboratory files where possible and extensively validated.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• A site visit was undertaken by the Competent Person on 21st September 2017; general site layout, open bulk sampling pits and diamond drilling operations were viewed, plus chip trays in the storage facility.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• There is good confidence in the geological interpretation of the deposit in most areas; there are some areas of uncertainty at the outer limits of the deposit where drill spacing is sparse. • The geological logging and the geochemical signatures of the various alluvial, overburden, lateritised and saprolite zones has been used to generate a reliable geological coding system for the drill hole data. • Alternative geological interpretation would have a minimal effect on the resource estimate. • Geological domain boundaries are used to flag data for use in estimation and as hard boundaries to interpolate block grades. • The underlying bedrock geology (Dunite Complex) is also used to constrain some of the block model generation. • Continuity of grade and geology is strongly tied to the horizontal weathering profile which has created the mineralised laterite zones; the boundary between underlying Dunite complex and the surrounding pyroxenite also has an effect on the geochemical distribution.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The extent and orientation of the resources at Syerston are illustrated in the diagrams in the body of this release. The mineralisation is essentially horizontal with local dips of a few degrees in various directions. The resource extends over an area approximately 4 km by 4 km; thickness of the lateritised zones from a few metres to a total of over 30m. The base of the mineralisation varies from a few metres to more than 60m below natural surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.*	• An Ordinary Kriging grade estimation methodology has been used for the main elements in the Mineral Resource Estimate (Ni, Co, Sc, Fe, Al, Si, Mn, Mg) Other elements have been estimated using an Inverse Distance Cubed methodology. • Micromine 2016.1 software was used for estimation; GeoAccess 2016 software was used for statistical and geostatistical data analysis. • Geological surfaces have been used to produce discrete domain-based block estimates. In addition, Indicator Models were used to define a high grade Cobalt domain in the Goethitic Laterite Zone and a high grade Scandium domain to the north and west of the main Dunite Complex footprint. • Variography was carried out to define the variogram models for the Ordinary Kriging interpolation. • Block size is generally one quarter the drill hole spacing. Three parent cell sizes are used dependent on the local drilling pattern. In very close spaced drilling a 5m x 5m x 2m block size is used. In 60m x 60m drilled areas, a 15m x 15m x 2m block size is used. In 120m x 120m and wider spaced areas a 30m x 30m block size is used. • All potentially deleterious elements have been modelled. • Recovery of byproducts will be determined following detailed metallurgical testwork. All potential value-adding by-products have been included in the estimation. • Search ellipsoids use multiple passes to ensure blocks are filled in areas with sparser drilling. The first pass used a search of 60m x 60 x 10m,. A second pass used a search of 125m x 125m x 10m and a third pass of 250m x 250m x 10m was used to ensure complete filling of

Criteria	JORC Code Explanation	Commentary

	• *Description of how the geological interpretation was used to control the resource estimates.*
	• *Discussion of basis for using or not using grade cutting or capping.*
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*
		blocks.
		• A "flattening" or "unfolding" methodology was applied to simplify the orientation of search ellipses in areas of variable dip.
		• Sample data was composited to 1m down-hole composites, while honouring breaks in mineralised zone interpretation.
		• Top cut analysis was carried out to identify extreme outliers, using a combination log probability plots, and log histograms and the effect of top cuts on cut mean and coefficient of variation. Variable top cuts have been applied by domain and variable.
		• Validation was carried out in a number of ways, including
		  o Visual inspection section, plan and 3D
		  o Swathe plot validation
		  o Model vs composite statistics
		  o ID2 vs OK model checks
		• No reconciliation data is available.

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• A cutoff of 0.06% Co has been used to report the Ni and Co Resource • A cutoff of 300 ppm Sc has been used to report the Sc Resource • A cutoff of 0.15 g/t Pt has been used to report the Pt Resource • Global Mineral Resource Estimates has also been reported with no cutoff for the Ni, Co and Sc Resource • A cutoff of 0.5 g/t Pt and 1.0 g/t Pt has been used to report a Higher Grade Pt Resource
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Due to the proximity of the mineralisation to surface, the deposit is amenable to conventional open pit mining. Two feasibility studies have developed practicable staged open pit mine plans based on conventional open pit mining by contractor, using large backhoes and trucks, operating on working benches 2m in height. The most recent study assumed about 2.5 Mtpa of feed to a processing plant. • No dilution or ore loss is specifically included in the resource model, other than that inherent in the smoothing introduced by the kriging interpolation methodology and the inherent dilution built into the geological modelling as precursor to the Resource Modelling and Estimation.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Metallurgical test work has been carried out on diamond, reverse circulation and sonic core samples from geographically dispersed drill holes, with coverage of all geological domains. • Metallurgical Test work on the Nickel, Cobalt and Platinum material for the Syerston project was completed by Black Range Minerals and Ivanplats, through ALS Metallurgy, SGS Metallurgy, Hazen Laboratories and other laboratories as part of the feasibility studies conducted in 2000 and 2005. • Additional test work, including Pilot Scale test work, was carried out on the Nickel, Cobalt and Scandium material by ALS Metallurgy, SGS Metallurgy and other laboratories during a Feasibility Study (FS) in 2016 and 2017 for mineral recovery determination. • A comprehensive suite of metallurgical test work, including further Pilot Scale test work and specific equipment vendor test work is planned as part of the Definitive Feasibility Study (DFS), currently being undertaken by Clean TeQ. The ongoing metallurgical test work shall include metallurgical samples and composites collected from bulk test pits and geographically dispersed drill holes. • Average overall metallurgical recoveries to final product were estimated to be 90.0% for Ni and 88.9% for Co. The metallurgical recoveries for Ni and Co were derived from metallurgical test work comprising over 150 ore variability batch tests and 3 pilot plant campaigns testing 6 ore composites as part of 3 feasibility studies completed in 2000, 2005 and 2017. Recent metallurgical test work undertaken by Clean TeQ

Criteria	JORC Code Explanation	Commentary
		confirm these recoveries. • Results of average feed grades support resource grades • Sufficient work has been undertaken to demonstrate that a potentially viable treatment process is available for the Syerston lateritic Ni, Co and Sc mineralisation. The proposed process for Nickel and Cobalt recovery involves high pressure acid leaching followed by continuous RIP process for the extraction of Nickel, Cobalt and Scandium from solution which is then purified via separation of Scandium via ion exchange followed by and solvent extraction separation and purification to prior to crystallisation to produce battery grade Nickel and Cobalt sulphates. The proposed process for the Scandium recovery involves precipitation and purification steps of the Scandium eluate to produce high purity Scandium oxide product.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• The area in which the deposit occurs does not seem to have any unusual environmental significance. • An Environmental Impact Statement (EIS) was prepared in parallel with the 2000 feasibility study and in May 2001 the proposed Ni-Co project received Development Consent under the NSW Environmental Planning and Assessment Act. • The previous granting of a Development Consent indicates that there are unlikely to be any insurmountable environmental obstacles. • Additional permits and licences would have to be obtained before operations could commence. • As part of the DFS, additional baseline studies are being undertaken to assess potential environmental impacts of the mining and processing operations. • There are no obvious environmental factors that would prevent the deposit being reported as an identified mineral resource.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Dry bulk density factors used for previous Mineral Resource estimates have been used for this update. • In-situ bulk densities have been determined by measurements carried out on core, measurements at external laboratories and down-hole geophysical logging (gamma-gamma). • The measurements carried on core were obtained by weighing total material recovered from over 100 m of drilling in mineralised zones by 6 large diameter Calweld holes, adjusted for moisture content determined by oven drying quickly sealed grab samples. As documented, the procedures used seemed appropriate. Due to the relatively large volumes involved these should have been the most reliable measurements available. • Measurements made after drying small core samples from 5 diamond drill holes were given some influence. • Factors applied to the more mineralised zones tended to be slightly rounded downwards. This was prudent in view of the general tendency for a negative correlation between bulk density and grade. • A higher average value was assumed for the SGZ than indicated by the Calweld holes. This was reasonable because they failed to fully penetrate the zone and we would expect average density to increase in its lowermost parts. • Density determination by down-hole geophysical logging were conducted in a total of seven diamond drill holes and about 137 RC holes by either Down Hole Surveys Pty Ltd or Surtron Technologies Pty Ltd. In 1999 • Bulk density was assigned by geological domain as tabulated below:

Domain	Code	Density
Alluvials	AV	1.80
Overburden	OVB	1.80
Transition Zone	TZ	1.70
Goethitic Zone	GZ	1.20
Silicifed Goethitic Zone	SGZ	1.25
Saprolite	SAP	2.00

Criteria	JORC Code Explanation	Commentary
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resources have been classified as Measured, Indicated and Inferred based on drill spacing and geological continuity. • The Resource model uses a classification scheme based upon drill hole spacing plus block estimation parameters, including kriging variance, number of composites in search ellipsoid informing the block cell and average distance of data to block centroid. • The results of the Mineral Resource Estimation reflect the views of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The currently reported Mineral Resource estimates have not been subject to third party review, but have been internally peer-reviewed. The currently reported Mineral Resource will be subject to third party review as part of the Ore Reserves process during the Definitive Feasibility Study (DFS) currently underway.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The relative accuracy of the Mineral Resource is reflected in the reporting of the Mineral Resource as being in line with the guidelines of the 2012 JORC. • The statement relates to local estimates of tonnes and grade, with reference made to resources above a certain cut-off that are intended to assist mining studies.