22 April 2024

Tivan Upgrades Mineral Resource Estimate for the Speewah Fluorite Project

- **Mineral Resource estimate completed by SRK Consulting (Australasia) Pty Ltd for the Speewah Fluorite Project confirms Speewah as one of the largest high-grade fluorite resources globally.**
- **Speewah hosts a JORC compliant Indicated and Inferred Resource of 37.3 million tonnes at 9.1% CaF_2 (2% CaF_2 cut-off grade) containing 3.39 million tonnes CaF_2; ~62% of the resource tonnage is in the Indicated category.**
- **The Mineral Resource estimate includes a high-grade component of 8.6 million tonnes at 22.8% CaF_2 (10% CaF_2 cut-off grade) containing 1.95 million tonnes CaF_2.**
- **Resource update represents a 37% increase in tonnage at a 2% CaF_2 cut-off grade, and a 28% increase in tonnage at a 10% CaF_2 cut-off grade, compared to the prior resource estimate in 2018.**
- **Drill program being planned with the primary aim of expanding the resource, targeting fluorite mineralisation along strike of and below the existing Mineral Resource, and at proximal veins outside of the Mineral Resource.**
- **Tivan and SRK are also evaluating development of an Exploration Target in support of resource expansion opportunities, to be determined in May.**
- **Surface mineralisation provides scope for shallow, open-cut mine plan, in support of an onsite processing operation with low technical risk and proximate location to the Port of Wyndham in the East Kimberley region.**
- **Pre-Feasibility Study with Lycopodium is progressing to assess the technical and economic feasibility of a mining and processing operation at the Speewah site to produce acid grade fluorspar.**
- **Fluorite is processed to produce fluorspar products, used in existing industrial processes and emerging sectors including lithium-ion batteries, solar cells and semiconductor manufacturing.**

The Board of Tivan Limited (ASX: TVN) ("Tivan" or the "Company") is pleased to report an updated JORC compliant Mineral Resource estimate prepared by SRK Consulting (Australasia) Pty Ltd ("SRK") for the Speewah Fluorite Project in the Kimberley region of north-east Western Australia, confirming Speewah as one of the largest high-grade fluorite resources globally.

The completion of the updated resource is an important milestone for Tivan in support of project development planning, including for the Pre-Feasibility Study ("PFS") with Lycopodium and mine development studies focused on mining and processing operations to produce acid grade fluorspar (see ASX announcements of 30 January 2024 and 19 February 2024).

The Speewah Fluorite Project hosts a JORC compliant Indicated and Inferred Resource of 37.3 million tonnes at 9.1% CaF_2 (at a 2% CaF_2 cut-off grade) for 3.39 million tonnes CaF_2. The resource includes a high-grade component of 8.6 million tonnes at 22.8% CaF_2 (at a 10% CaF_2 cut-off grade) for 1.95 million tonnes CaF_2. The high-grade component is the initial focus for mine development planning and the PFS.

The Speewah Fluorite Project forms part of the Company's broader Speewah Project, located 100km south of the port of Wyndham and 110km south-west of Kununurra in the Kimberley region of north-east Western Australia. The Project covers an area of 226km^2 comprising seven granted tenements: E80/2863, E80/3657, M80/267, M80/268, M80/269, L80/43, and L80/47.

The Speewah Fluorite Resource is hosted on M80/268 and M80/269, located to the southeast of the Central, Redhill and Buckman vanadium titanomagnetite deposits (refer to *Figure 1* below).

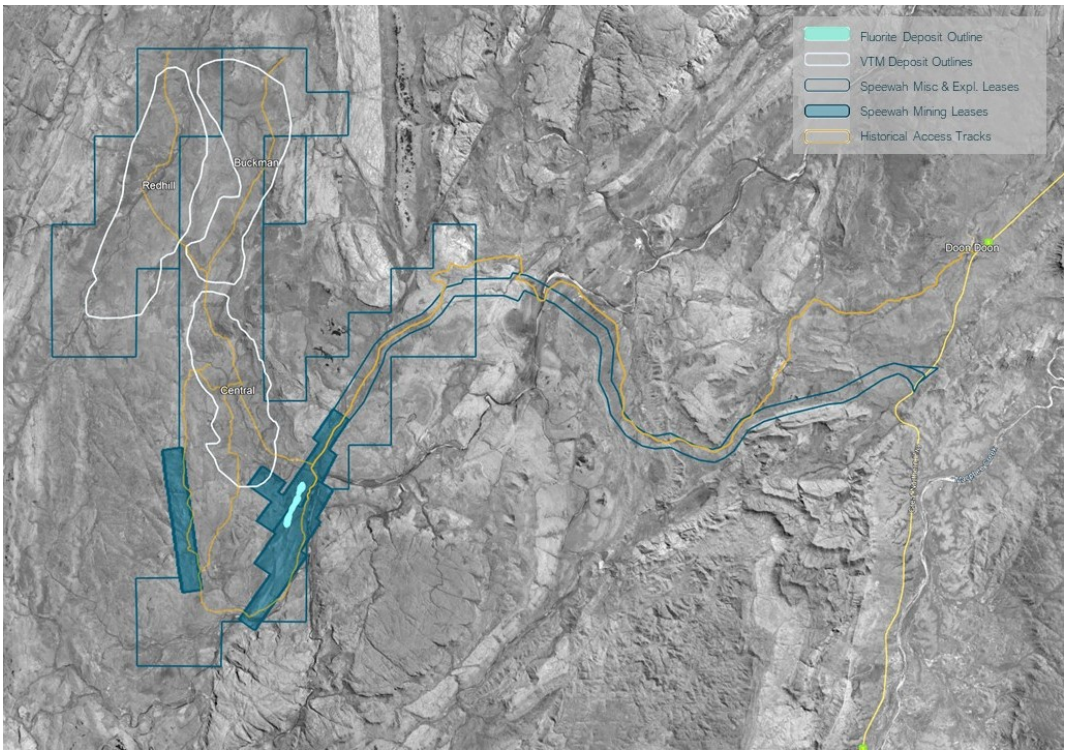

Figure 1: Speewah map showing location of tenements, access tracks, and fluorite and vanadium deposits

Fluorite as a Critical Mineral

Fluorite is the mineral form of calcium fluoride (CaF_2) and is predominantly extracted from hydrothermal vein deposits. Fluorite is mined and processed to produce commercial grade fluorspar, which can be further processed to produce fluorine.

Fluorite is an important industrial mineral used to produce commercial grade fluorspar products. Industrial and metallurgical uses include steel and iron production, refrigeration and air conditioning systems, aluminium manufacturing, fluoropolymer and fluorochemical production, and uranium fuel production; and in energy transition sectors including next-generation lithium ion batteries, solar cells and semiconductor manufacturing.

Fluorspar is produced at a number of commercial specifications dependent on the end use, with acid grade fluorspar being of the highest purity (+97% CaF_2). China, Mexico, South Africa and Mongolia are the largest producers of fluorspar, with global production totalling 8.3 million tonnes in 2022[1]. There is currently no domestic fluorspar or fluorine production in Australia.

The Federal Government recently added fluorine to Australia's Critical Minerals List, providing eligibility for in-country projects for strategic and targeted Government policy, facilitation and financing support for development.

Global Fluorspar Production by Country, Mt (Actual, Forecast)										
Country	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
China	5.00	5.55	5.60	5.60	5.60	5.50	5.40	5.30	5.20	5.10
Mexico	1.00	0.97	1.00	1.03	1.06	1.09	1.11	1.14	1.17	1.20
Mongolia	0.65	0.35	0.44	0.54	0.63	0.73	0.82	0.91	1.01	1.10
South Africa	0.40	0.42	0.43	0.44	0.45	0.46	0.47	0.48	0.49	0.50
Vietnam	0.22	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.29	0.30
Morocco	0.08	0.08	0.08	0.09	0.10	0.11	0.12	0.12	0.13	0.14
Canada	0.14	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.05	0.05
Other Countries	0.63	0.64	0.67	0.67	0.68	0.68	0.69	0.69	0.69	0.70
Total	**8.12**	**8.25**	**8.48**	**8.64**	**8.80**	**8.85**	**8.91**	**8.97**	**9.03**	**9.09**

Table 1: Global fluorspar production by country (source: Benchmark Mineral Intelligence, Tivan)

Australia							
Commodity	Unit	Demonstrated Resources			Inferred Resources$_2$	Accessible EDR$_3$	Mine Production$_4$
		Economic (EDR)$_1$	Subeconomic				
			Paramarginal	Submarginal			
Fluorine	kt F	343	721	6	2,543	343	0

Table 2: Fluorine - Australia's Identified Mineral Resources as at Dec-22 (source: Geoscience Australia)

1. *Economic Demonstrated Resources (EDR) predominantly comprise Ore Reserves and most Measured and Indicated Mineral Resources that have been reported in accordance with the Joint Ore Reserves Committee (JORC) Code to the Australian Securities Exchange (ASX)*
2. *Total Inferred Resources in economic, subeconomic and undifferentiated categories*
3. *Accessible Economic Demonstrated Resources (AEDR) is the portion of total EDR that is accessible for mining. AEDR does not include resources that are inaccessible for mining because of environmental restrictions, government policies or military lands*
4. *Mining production from Office of the Chief Economist, Department of Industry, Science and Resources*

[1] Source: https://www.statista.com/statistics/1051717/global-fluorspar-production-by-country/

Updated Mineral Resource Estimate

The current JORC 2012 compliant Mineral Resource estimate was prepared by SRK, updating a prior Mineral Resource estimate for the Speewah fluorite deposit completed by CSA Global Pty Ltd in 2018. The Mineral Resource update completed by SRK (see below) represents a 37% increase in tonnage at a 2% CaF_2 cut-off grade, and a 28% increase in tonnage at a 10% CaF_2 cut-off grade, compared to the prior resource estimate for the deposit.

The deposit was last estimated in 2009 and re-reported unchanged in 2018. Since 2009 additional drilling and exploration on the deposit and immediate surrounds has been completed by prior project owners, and this new data has been incorporated in the 2024 estimate. In addition, SRK have reviewed, validated and incorporated additional historic data, that was excluded from the 2009 estimate, where appropriate. The additional historic and post 2009 data, together with a new structure, lithology and grade interpretation, underpin the changes in the estimate since 2009.

A high-grade 10% cut-off Mineral Resource is included in *Table 3* for comparison with previous estimates and to highlight the extent of the deposit at average grades comparable with head grades of metallurgical testwork completed work to date. These show a final concentrate product compatible with typical “Acidspar” product specifications.

Mineral Resource 2% cut-off		Mt	%CaF_2	kt CaF_2
Vein	Indicated	3.1	31.4	987
	Inferred	1.9	25.3	488
	Vein Sub Total	**5.1**	**29.1**	**1,475**
Stockwork	Indicated	20.0	6.3	1,264
	Inferred	12.2	5.3	652
	Stockwork Sub Total	**32.2**	**5.9**	**1,916**
Total	Indicated	23.2	9.7	2,251
	Inferred	14.1	8.1	1,139
	Total	**37.3**	**9.1**	**3,390**
Inclusive of				
High Grade Mineral Resource 10% cut-off		**Mt**	**%CaF_2**	**kt CaF_2**
Vein	Indicated	3.1	31.8	982
	Inferred	1.8	26.2	481
	Vein Sub Total	**4.9**	**29.7**	**1,464**
Stockwork	Indicated	2.7	13.4	363
	Inferred	0.9	13.3	124
	Stockwork Sub Total	**3.6**	**13.4**	**487**
Total	Indicated	5.8	23.2	1,345
	Inferred	2.8	21.9	605
	Total	**8.6**	**22.8**	**1,950**

Table 3: Speewah Fluorite Mineral Resource 2024 (source: SRK)

1. *Differences in totals may occur due to rounding*
2. *The 2% cut off is based on a USD600 Fluorite (CaF_2) average price from Q1 2024 and Revenue Factor of 1.5*
3. *The 2% cut off Mineral Resource is inclusive of the 10% High Grade resource*
4. *The Mineral Resource is reported within a constraining Revenue Factor 1.5 pit shell based on a USD600 Fluorite price*

Compared to the 2009/2018 Mineral Resource, the 2024 update increases both the overall tonnage and the Indicated proportion of the Mineral Resource. These increases are driven by several factors:

- Ability to link along strike veins that were previously disconnected.
- Addition of material on the eastern structures.
- Increased confidence in continuity along strike and down dip from both new drilling, mapping and validated historic data.
- Additional material within previously unmodelled low grade sandstone/siltstone lithology to the east of the main veins.

The resulting Mineral Resource estimate is displayed as a Grade Tonnage curve in *Figure 2*.

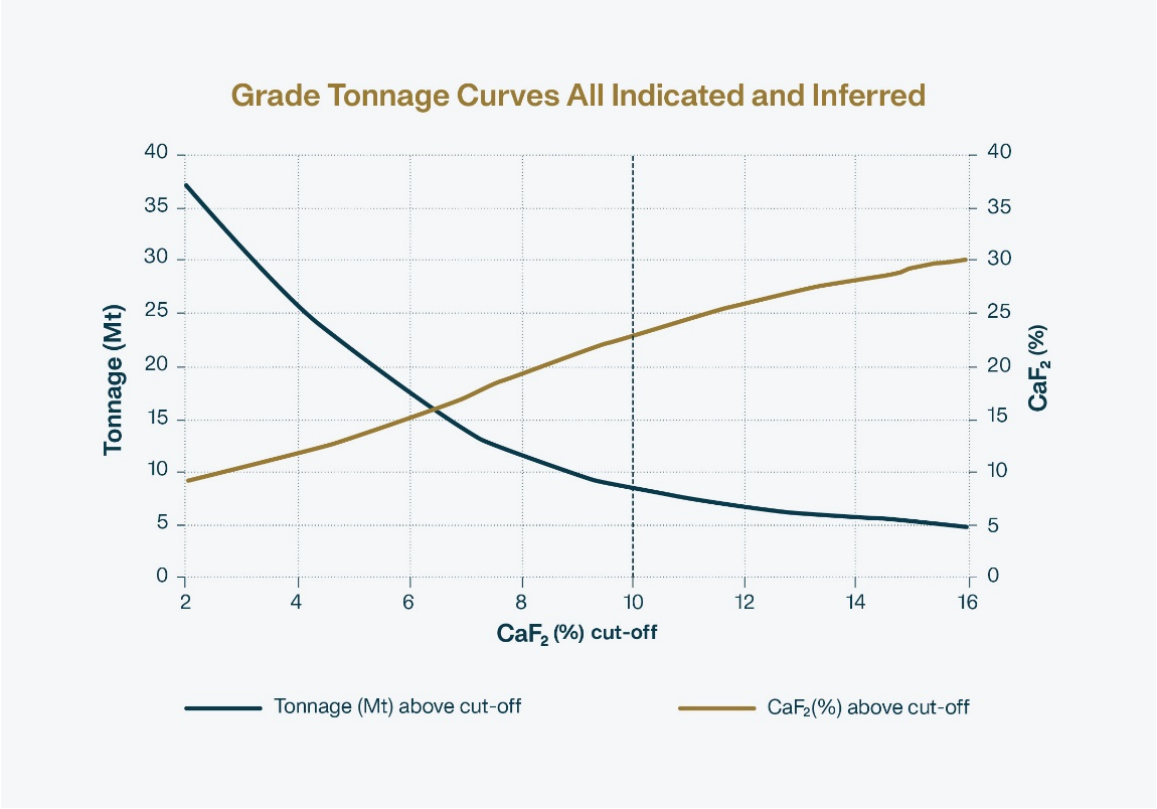

Figure 2: Speewah Fluorite Mineral Resource 2024 - Grade Tonnage Curve (source: SRK)

A detailed summary of the technical parameters for the updated Mineral Resource Estimate is set out in *Appendix A* attached to this announcement. See below a topographical image (*Figure 3*) of resource drilling and the block model used for definition of the Mineral Resource estimate.

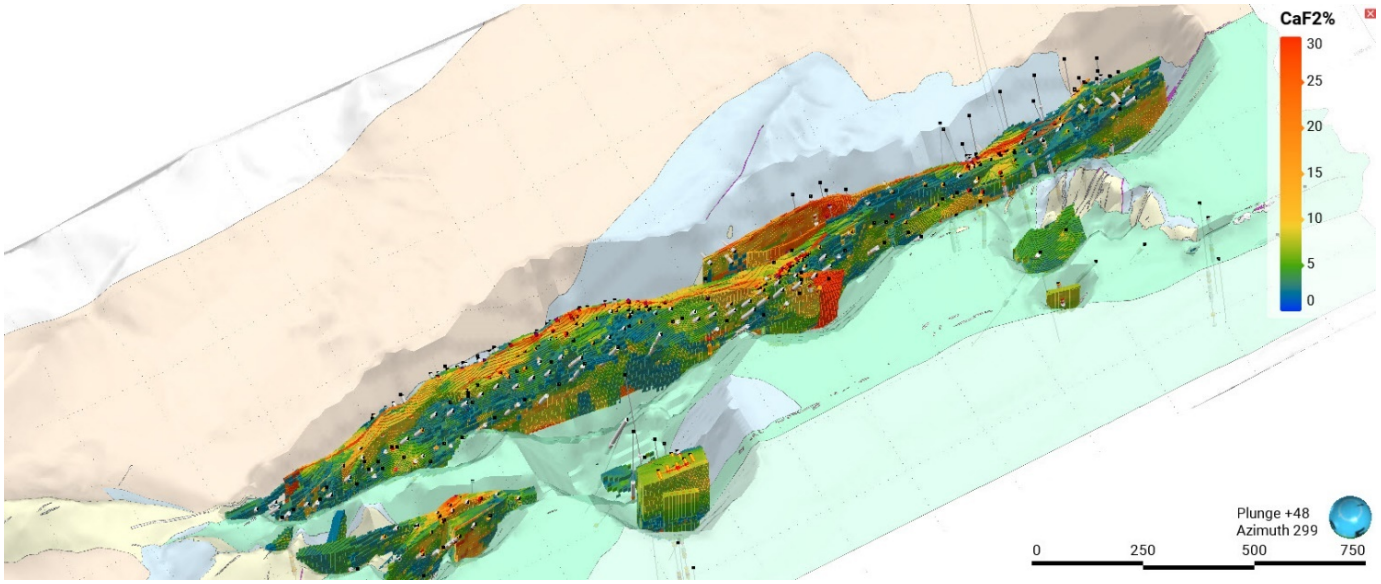

Figure 3: Topography cut away coloured by lithology - drill collars - all block model (veins + stockwork) coloured by CaF_2% (source: SRK)

Drill Program Planning for Resource Expansion

The updated Mineral Resource estimate prepared by SRK represents the first phase of resource definition for the Speewah Fluorite Project under Tivan's ownership.

A drill program is being planned with the aim of expanding the Speewah Fluorite Mineral Resource, targeting fluorite mineralisation along strike of and below the existing resource, and at proximal veins outside of the existing resource, and also for facilitating metallurgical testwork (see ASX announcement of 7 March 2024).

Tivan and SRK are also evaluating the development of an Exploration Target for the project in support of planning for the resource extension drilling. The detailed evaluation will primarily identify target areas with existing geological data relating to the fluorite mineralisation that were deemed insufficient to include in the mineral resource estimate. This will enable an Exploration Target to be presented as an estimated range of tonnes and range of grade in terms of attainable exploration potential. Tivan expects this process to be completed in May.

The drilling program is being planned within the framework of the Heritage Protection Agreements that Tivan recently concluded with the Kimberley Land Council. Tivan will submit a Program of Works application to the Department of Energy, Mines, Industry Regulation and Safety ("DEMIRS") at the appropriate time.

Following completion of the resource extension drill program, the results will be incorporated into the resource model. A subsequent Mineral Resource update will then be undertaken with SRK, which will provide the basis for a PFS update.

Planned Work Program

Tivan is progressing various work streams in support of its strategy to develop a mining and processing operation at the Speewah site to produce acid grade fluorspar (+97% CaF_2). Current work streams include:

- Pre-Feasibility Study with Lycopodium.
- Mining, hydrology and tailings studies with SRK.
- Testwork program development in support of the process flowsheet and confirmation of fluorspar product specifications.
- Planning for a resource expansion drilling program (including sourcing samples for metallurgical testwork).
- Environmental desktop studies and field surveys.

Tivan is well advanced in securing A-list partners for the Speewah Fluorite Project.

Comment from Tivan Executive Chairman

Mr Grant Wilson commented:

"The upgraded Mineral Resource estimate for the Speewah Fluorite Project is an important milestone for Tivan. The size, grade, location and mineralogy confirm this as a world-class resource. As the sole JORC compliant Fluorite resource in Australia, it is also a unique opportunity for Tivan to produce and export Acid Grade Fluorspar, a critical and structurally scarce feedstock for EV batteries and semi-conductor manufacturing.

Tivan continues to make rapid progress on all aspects of project facilitation. The enhanced disclosure provided today is reflective of the approach we will take with our mid-year Pre-Feasibility Study, in support of further institutional engagement. By integrating our studies with ongoing resource expansion, the fundamentals of the Speewah Fluorite Project will be optimised. This will maximise the opportunity for Tivan's shareholders, along with stakeholders throughout the East Kimberley region."

This announcement has been approved by the Board of the Company.

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Ends

Forward looking statement

This announcement contains certain “forward-looking statements” and comments about future matters. Forward-looking statements can generally be identified by the use of forward-looking words such as, “expect”, “anticipate”, “likely”, “intend”, “should”, “estimate”, “target”, “outlook”, and other similar expressions and include, but are not limited to, the timing, outcome and effects of the future studies, project development and other work. Indications of, and guidance or outlook on, future earnings, financial position, performance of the Company or global markets for relevant commodities are also forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements. Any such statements, opinions and estimates in this announcement speak only as of the date hereof, are preliminary views and are based on assumptions and contingencies subject to change without notice. Forward-looking statements are provided as a general guide only. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. Any such forward looking statement also inherently involves known and unknown risks, uncertainties and other factors and may involve significant elements of subjective judgement and assumptions that may cause actual results, performance and achievements to differ. Except as required by law the Company undertakes no obligation to finalise, check, supplement, revise or update forward-looking statements in the future, regardless of whether new information, future events or results or other factors affect the information contained in this announcement.

Competent Person's Statement

The information in this announcement that relates to Estimation and Reporting of Mineral Resources for the Speewah Fluorite Project is based on, and fairly represents, information compiled by Mr Danny Kentwell, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Kentwell is a Consultant and full time employee of SRK Consulting (Australasia).

Mr Kentwell has had sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Minerals Resources and Ore Reserves (2012 JORC Code).

Mr Kentwell consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Further Information - Exploration Results

No new Exploration Results are used as part of this Mineral Resource update.

A comprehensive record of the exploration from 1970 onwards, including collar, survey and assay data, is contained in the Western Australian department of Energy, Mimes, Industrial regulation and Safety – online systems Mineral exploration reports (WAMEX) at https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx.

Further information regarding exploration results can be found in previous announcements:

Exploration Results ASX releases relating to Speewah from 2007 to 2020

Company Name	Release Date	Release Headline	Main Commodity
NiPlats Australia Limited	26/09/2007	New Platinum Reef confirmed in the Hart Dolerite on Speewah Project, northern Western Australia	PGE
NiPlats Australia Limited	23/10/2007	New Vanadium Zone confirmed in the Hart Dolerite northern Western Australia	Vanadium
NiPlats Australia Limited	30/10/2007	Further Reconnaissance Drill Results Confirm Additional New Vanadium Zones within Speewah Dome	Vanadium
NiPlats Australia Limited	23/01/2008	Excellent Fluorite Results from 2007 Drilling at Speewah	Fluorite
NiPlats Australia Limited	18/03/2008	Copper-Gold zone identified in the Speewah Dome, northern Western Australia	Copper
NiPlats Australia Limited	28/03/2008	Two PGE+Au zones identified in the Speewah Dome, northern Western Australia	PGE
NiPlats Australia Limited	14/10/2008	Fluorspar Resource Upgrade	Fluorite
NiPlats Australia Limited	25/11/2008	Vanadium Assay Results Confirm Major Deposit within Central Prospect at Speewah Dome	Vanadium
NiPlats Australia Limited	19/06/2009	Platinum results help target feeder conduits at Speewah	PGE

Company Name	Release Date	Release Headline	Main Commodity
NiPlats Australia Limited	26/06/2009	Excellent Fluorite Results from 2008 Drilling at Speewah - Further Resource Upgrade Pending	Fluorite
NiPlats Australia Limited	25/08/2009	Fluorspar Resource Upgrade	Fluorite
NiPlats Australia Limited	5/11/2009	New Vanadium Assay Results at Central Deposit To Support Vanadium Scoping Studies	Vanadium
NiPlats Australia Limited	13/11/2009	Phase 2 Diamond Core Drilling at Speewah Completed	Copper
NiPlats Australia Limited	1/12/2009	Drilling Extends Vanadium at Red Hill and Buckman	Vanadium
NiPlats Australia Limited	11/12/2009	Visible copper sulphides at Speewah	Copper
NiPlats Australia Limited	10/02/2010	New Platinum Results at Speewah	PGE
NiPlats Australia Limited	5/03/2010	NiPlats Quadruples Resource at Australia's largest vanadium deposit	Vanadium
NiPlats Australia Limited	23/06/2010	Excellent Copper (16.5%) Gold (4.2 g/t) and Silver (26oz/t) surface assays	Copper
NiPlats Australia Limited	2/07/2010	Initial 2010 Exploration Delivers 6.4% Cu at Speewah	Copper
NiPlats Australia Limited	28/07/2010	New Speewah Location Delivers Gold (4.9 g/t) Copper (3.4%)	Gold
NiPlats Australia Limited	25/08/2010	New Drill Target Identifies Copper (8.1%), Gold (5.0 g/t) and Silver (24oz/t)	Copper
NiPlats Australia Limited	1/09/2010	Lead Sample Assaying 11.1% Pb Found	Lead
NiPlats Australia Limited	1/10/2010	Drilling Update	Copper
Speewah Metals Ltd	12/11/2010	Speewah Exploration Update	Copper
Speewah Metals Ltd	17/01/2011	Surface Copper assays 27.2% at new Speewah Gap location	Copper
Speewah Metals Ltd	31/03/2011	Speewah Dome 2010 exploration results	Gold
Speewah Metals Ltd	12/03/2012	SIGNIFICANT RESOURCE UPGRADE 32% INCREASE TO RESOURCE, 34% INCREASE TO MEASURED & INDICATED	Vanadium
Speewah Metals Ltd	5/10/2012	SPEEWAH COPPER/GOLD UPDATE AND SHARE PURCHASE PLAN	Copper
Speewah Metals Ltd	15/01/2013	COPPER / GOLD RESULTS IN SURFACE SAMPLES	Copper
King River Copper Limited	19/08/2013	NEW VISIBLE COPPER OUTCROPS IDENTIFIED	Copper
King River Copper Limited	4/10/2013	HIGHLY ENCOURAGING INITIAL ASSAYS FROM CHAPMAN DISCOVERY	Copper
King River Copper Limited	4/11/2013	NEW MINERALISATION INTERSECTED AT CATTO	Copper
King River Copper Limited	6/11/2013	HIGH SILVER VALUES AT CATTO	Silver
King River Copper Limited	4/12/2013	RC DRILL ASSAY RESULTS FROM CHAPMAN FLATS	Gold
King River Copper Limited	2/01/2014	RC DRILL ASSAY RESULTS FROM CATTO	Gold

Company Name	Release Date	Release Headline	Main Commodity
King River Copper Limited	18/04/2014	DIAMOND DRILLING INTERSECTS TARGET STRUCTURES AT TODHUNTER	Gold
King River Copper Limited	4/06/2014	COPPER OXIDE MINERALISATION IDENTIFIED DURING DRILL ACCESS	Copper
King River Copper Limited	19/06/2014	DIAMOND DRILLING INTERSECTS TARGET STRUCTURES	Copper
King River Copper Limited	4/09/2014	EXPLORATION UPDATE	Copper
King River Copper Limited	5/11/2014	NEW PENTECOST MINERALISATION	Copper
King River Copper Limited	5/06/2015	EXPLORATION UPDATE	Copper
King River Copper Limited	8/09/2015	DRILLING UPDATE	Gold
King River Copper Limited	6/10/2015	NEW EPITHERMAL GOLD	Gold
King River Copper Limited	2/11/2015	66 OZ/TONNE SILVER ROCK ASSAY	Silver
King River Copper Limited	10/11/2015	DRILLING UPDATE	Gold
King River Copper Limited	7/06/2016	EXPLORATION UPDATE	Gold
King River Copper Limited	4/08/2016	29G/T GOLD ASSAY AT CHAPMAN WEST VEIN	Gold
King River Copper Limited	4/10/2016	EXPLORATION AND DRILLING UPDATE	Gold
King River Copper Limited	26/05/2017	SPEEWAH V-TI-FE RESOURCE CONVERSION TO JORC 2012	Vanadium
King River Copper Limited	6/07/2017	SPEEWAH DRILL TARGETS	Copper
King River Copper Limited	23/02/2018	FLUORITE RESOURCE CONVERSION TO JORC 2012	Fluorite
King River Copper Limited	19/10/2018	DEEP GOLD TARGET	Gold
King River Resources Limited	27/06/2019	SPEEWAH PROJECT UPDATE	Vanadium
King River Resources Limited	21/01/2020	SPEEWAH PFS UPDATE AND PROJECT PLAN	Vanadium

APPENDIX A: Updated Mineral Resource Estimate - Technical Parameters

Deposit geology

Fluorite is associated with quartz-feldspar veining but is younger. It occurs in the various settings:

- Large, persistent veins occupying the main northerly and northeasterly trending structures.
- Fault breccias and brecciated veins occupying the main structures.
- Stockworks and breccias hosted preferentially by the sandstone and to a lesser extent by the dolerites adjacent to the main structures.
- En-echelon vein sets trending northwesterly between structures.
- En-echelon vein set trending northeast (rare).
- Thin persistent veinlets following jointing mainly in the siltstones (rare).
- Thin persistent veinlets following bedding planes in the siltstones (rare).

The larger veins range in thickness up to 15 metres and are up to 800m long. They have similar persistence down-dip within the faults and have been intersected in several holes as deep as 400m below surface, albeit only in the order of 0.5m wide at that depth.

The stockworks tend to occur adjacent to the main faults and are dominantly hosted by the brittle sandstone unit, although reasonable stockwork veining sometimes occurs in the dolerites. Best fluorite intersections occur where the main northerly trending faults contain fluorite in the form of veins and breccias, and the adjoining wall rocks (usually hanging wall) contain sandstone hosted stockwork veining. The en-echelon vein systems usually have a lower density of veining than the stockwork and hence a lower fluorite grade globally.

The fluorite veins are younger and crosscut the earlier quartz-feldspar veins. They also often form co-axially in the centre of the quartz-feldspar veins, and as vugh fill within them and in the matrix of quartz-feldspar vein breccia. Later carbonate veins crosscut all earlier features. Carbonate and quartz also infills voids in the fluorite veins, and occasionally quartz veinlets cut across fluorite veins. The fluorite is dominantly green to whitish in colour with less common purplish fluorite. In outcrop it weathers to grayish-white. It is generally coarsely crystalline often with euhedral crystals infilling open-spaces. The greenish fluorite appears to be younger than the purple variety.

Geological interpretation

SRK undertook an entirely new geological interpretation and did not rely on any previous geological interpretations.

The exact definition of vein thickness as opposed to surrounding stockwork interpretation is subject to some uncertainty due to the nature of the 1m interval RC drilling being unable to define exact down hole boundaries of veins between 1cm and 15m (typically around 3m).

Both geology, in the form on lithology and vein logging, and assay information together with surface mapping and also deposit scale structural interpretation were used for controlling the interpretation.

Previous estimates and interpretations have used a simplistic 10% CaF_2 cut off for definition of high grade Vein material. This interpretation used geological vein logging, statistical log probability plot inflections at ~ 35% CaF_2 and structural observations to define high grade vein material. As such the vein models are not defined by a fixed cut off grade but are centered on the > 35% material and bounded by a combination of geological logging, step changes in grade, surface mapping and interpreted structural orientation. This interpretation results in a "tighter" more geological vein model component containing lower tonnage and higher grades when compared to previous Resource high grade vein modelling. During estimation this is counterbalanced by the resulting stockwork estimation containing higher grades compared to previous models.

The current interpretation also includes significantly more lower grade sandstone/siltstone stockwork mineralisation volume compared to previous models.

17 continuous individual vein wireframes, 13 separate encompassing stockwork halo wireframes and one sandstone/siltstone wireframe were used to form six estimation domains. The six estimation domains were combined on the basis of similar CaF_2 grades and were:

- A Veins
- B Veins
- E Veins
- Low Grade veins
- All Encompassing stockwork halos
- Sandstone/siltstone package

Drilling and sampling techniques

Numerous phases of drilling and sampling have occurred over the history of definition of the deposit. The various drilling and sampling techniques used are shown below:

- 1970's – airtrack percussion chips
- 1970's – diamond core
- 1970's - costean samples
- 1980's - RC chips
- 2002 - RC chips
- 2003-2005 - RC chips
- 2003-2005 - Diamond core full core used for metallurgical samples, downhole Caf2 percentages visually assessed every metre in 5% increments.
- 2006-2011 - RC chips - field duplicates taken and validate well for CaF2
- 2006-2011 - Diamond core
- 20012-2018 - RC chips

In all cases the nature of the Fluorite material being sampled is massive crystal / vein / type material compromising between 1% and 95% Fluorite.

Classification criteria

The classification is the result of the competent persons subjective judgement.

Classification is loosely based on drill spacing together with examination with estimation quality statistics such as Kriging slope of regression and with conscience of the high continuity of the veins themselves. Nominal strike spacing for Inferred is 80m. Nominal strike spacing for Indicted is 40m. The main veins are also supported by surface vein outcrop mapping and surface costeans.

The deposit scale structural architecture was also considered during the classification process.

Classification is implemented via broad “cookie cutter” volumes defined in long section interacting with the various estimation domain volumes.

Smaller veins or lower grade veins were in some cases downgraded to Inferred where their strike or dip continuity was based on grade intercepts only.

Consideration of the relative confidence in the different phases of data collection over the history of the project has been made with some surface and shallow assay results being excluded from the estimation.
Based on the occurrence of Fluorite vein intervals seen in the deep drilling in several holes. Inferred material has been interpolated down dip between 30m and 80m from the nearest upper hole in some areas with the deep intercepts a further 250m below the termination of the inferred material.

Indicated vein material has been extrapolated approximately 40m past the last lines of drilling where surface mapping indicates continuation.

Inferred stockwork material has been extrapolated up to approximately 100m past the last lines of drilling where surface mapping indicates continuation.

Sample analysis method

Assaying methods from the work prior to 2000 before the regular use of XRF are not well documented. It is possible that some of these assay results may have back calculated CaF_2 from Ca, as F was difficult to assay with methods such as ICP due to its tendency to flux. The proportion of drilling used in the estimate by meterage prior to 2000 is approximately 10%. Some of these early campaigns show significantly higher average CaF_2 grades. These abnormally high CaF_2 were subsequently excluded from the estimation process.

From 2000 onwards assays for F, Ca, Ba and Bi were done using XRF.

For most campaigns F, Ca, Ba and Bi were consistently assayed, however for some campaigns only Ca was assayed. Ca and F were typically assayed by XRF In most cases CaF_2 was back calculated from F on the assumption that Fluorite mineralisation (CaF2) is the only source of F and using the fixed relative abundances of Ca and F within pure CaF_2. In later deep drilling and peripheral campaigns where Fluorite was no longer the target mineral, F and Ba were not assayed but Ca and Bi were assayed. For these cases SRK has back calculated CaF_2 from Ca. Statistics on

mineralised material from campaigns that assay F Ca Ba and S show that Fluorite is the only source if F however the fluorite is not the only source of Ca, which can be contained in other minerals present such as calcite ($CaCO_3$). Further statistical analysis shows that when Bi > 1ppm, all Ca is highly correlated with F and is associated with Fluorite. Hence, CaF_2 is only back calculated from Ca when Bi > 1ppm. When Bi < 1ppm it is an indication that other Ca bearing minerals such as Calcite are present and CaF2 cannot be back calculated.

Estimation methodology

The estimated was carried out using ordinary kriging within the Seequent leapfrog Geo software package.

Previous estimates and interpretations have used a simplistic 10% CaF_2 cut off for definition of high grade vein material. This interpretation used geological vein logging, statistical log probability plot inflections at ~ 35% CaF_2 and structural observations to define high grade vein material. As such the vein models are not defined by a fixed cut-off grade but are centred on the > 35% material and bounded by a combination of geological logging, step changes in grade, surface mapping and interpreted structural orientation. This interpretation results in a “tighter” more geological vein model component containing lower tonnage and higher grades when compared to previous Resource vein modelling. During estimation this is counterbalanced by the resulting stockwork estimation containing higher grades.

Composites used for vein estimation were 1m downhole, composites used for stockwork estimation were 2m downhole.

In cases where historic drilling did not sample the entire hole and geological logging indicated that there is mineralisation potential, intervals have been left blank so that the estimated blocks will utilise data from adjacent holes. Where more recent drilling has not assayed the entire hole and it is apparent from a geological logging and continuity perspective that material is most likely barren, these intervals have been assigned waste grades for estimation purposes.

Parent block size for all estimation was 2m across strike, 10m along strike and 10m vertical. Sub blocks for volumetric calculations were 0.5m x 2.5m x 2.5m. Strike sample spacing ranges between 10m and 80m.

No grade capping was used. For some domains, grade thresholding was used restricting the distance of influence or high grades to 10% of the search distance (typically around 20m). High grade threshold grade values were selected by examination of histograms, log histograms, log probability plots and downhole grade step changes.

The estimates were validated by statistical examination of de-clustered composite grades against estimated block grades at zero cut off per domain, by swath plots per domain and by visual examination in cross section and plan against drill holes.

No mining has taken place, so no reconciliation data is available.

Global results were also compared to previous model estimates.

Additional grades estimated were $BaS0_4$, $CaCo_3$ and Bi. There were insufficient assays to estimate any other elements/oxides/compounds.

Cut-off grades including basis for selection

The reporting cut off of 2% CaF_2 is based on a USD900 / tonne of Acidspar quality Fluorite price (being a revenue factor of 1.5 above the assumed current USD600 Acidspar fluorite price) and utilises a marginal cut-off derivation of:

Cut-off = processing cost / (revenue * recovery)

where processing cost is AUD25 at an AUD USD exchange rate of 0.65 and with a recovery of 90%.

Minng and metallurgical methods and parameters

Open pit mining is assumed. No mining dilution is included in the estimates.

The final Mineral Resource reporting volume is restricted by a Whittle derived pit shell based on the following parameters:

- USD900 / t fluorite (CaF_2) being a 1.5 revenue factor on an assumed current USD600 / t fluorite price.
- AUD25 / t processing cost at a 0.65 AUD USD exchange rate
- 50 degree overall slope angle

Various metallurgical testwork over the history of the deposit indicate that both vein and stockwork material can produce concentrates suitable for sale at fluorite recoveries in the order of 90%. The assumed target product is Acidspar (>97% CaF_2 in concentrate) and the metallurgical tests show the lower quality Metspar product (>60% < 97% CaF_2 in concentrate) is also easily achievable.

APPENDIX B: JORC Code, 2012 Edition - Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	▪ Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. ▪ Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. ▪ Aspects of the determination of mineralisation that are Material to the Public Report. ▪ In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	▪ Numerous phases of drilling and sampling have occurred over the history of definition of the deposit. ▪ 1970's – airtrack percussion chips samples at geological intervals between approximately 1m and 15m based on footwall stockwork, high grade vein and hangingwall stockwork mineralisation across the near surface veins. ▪ 1970's – diamond core samples at geological intervals typically on vein material only, between 0.1m and approximately 6m. ▪ 1970's - costean samples at geological intervals between approximately 1m and 4m based on footwall, vein and hangingwall mineralisation across surface veins. ▪ 1980's - RC chips – 1m sampling downhole in all mineralisation only ▪ 2002 – RC chips – 1m sampling full hole ▪ 2003-2005 – RC chips - 1m sampling full hole - RC drilling in the 2003 (Doral) programme was conducted by Mt Magnet Drilling utilising a Hydco RC 300 drill rig and Colby Drilling utilizing an Aardvark 125S track mounted drill rig. Samples were collected every metre at the drill site and were split using a dual pass 75:25 riffle splitter. Assay samples were collected in calico bags and comprised approximately 2kg of material. The remainder of the sampled metre was collected in UV resistant plastic bags which were removed from the drill site and stored in a centralised bag farm. ▪ 2003-2005 – Diamond core – The 2003 diamond drilling programme was based on conventional reverse circulation precollars in conjunction with HQ triple tube diamond tails. Drilling was conducted by Mt Magnet Drilling of Perth utilising a Hydco SD 1000 drill rig. Triple tube coring was used in order to minimise core rotation in the barrel and maximise core recovery. All holes were designed to intersect the orebody at depth on systematic 200 metre spacings. This would provide both geological and grade information over the 2km strike length. On completion of core orientation, logging and photography, drill core was systematically sampled every metre. Core was cut using a brick saw with half core being bagged in calico bags. The remaining half core trays were then stored in racks at the Speewah core yard. – Results

Criteria	JORC Code explanation	Commentary
		only exist as graphical logs but appear to be selective geological intervals only, possibly visual estimates as some of this core was used for metallurgical testing. ▪ 2006-2007 – RC chips – 1m sampling full hole - Similar sampling procedures to the 2005 – 2005 RC drilling were used by Niplats for their RC and core drilling, however McKay Drilling is used as the principal drilling contractor. The rigs involved in the most recent drilling program were a Schramm T6850 (Rig 2) using 5 ¾" bits for the RC drilling and a UDR1200 for the core drilling. ▪ 2008-2011 – Diamond core samples at selective geological intervals ▪ 20012-2018 – RC chips – 1m sampling selective intervals
Drilling techniques	▪ Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	▪ Numerous drilling methods have been utilised by different companies over the history of definition of the deposit. During the 1970's Air track percussion and diamond drilling were used By Great Boulder / New Kalgurli. Between 1988 and 1990 both RC (28 holes) and NQ2 diamond (4 holes) drilling was used by Elmina Resources. During 2002 Speewah Resources drilled 16 holes. From 2003 to 2005 RC and (HQ) diamond drilling was used by Doral. From 2006 to 2011 RC and (NQ) diamond drilling were used by Speewah Resources. From 2012 to 2018 King River Copper drilled 10 RC holes on the peripheries of the resource looking for copper.
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.	▪ Numerous phases of drilling and sampling have occurred over the history of definition of the deposit. ▪ 1970's – airtrack percussion chips, recoveries unknown ▪ 1970's – diamond core, recoveries unknown ▪ 1970's - costean samples, recoveries unknown ▪ 1980's - RC chips, recoveries unknown ▪ 2002 – RC chips, recoveries unknown ▪ 2003-2005 – RC chips, recoveries unknown ▪ 2003-2005 – Diamond core, noted in geological logs, infrequent losses noted. ▪ 2006-2011 – RC chips, recoveries unknown ▪ 2006-2011 – Diamond core, unknown ▪ 20012-2018 – RC chips, unknown
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.	▪ All core and chips within or close to mineralisation have been geologically logged. Quality of logging is variable over the various phases of drilling, however detailed logging of specific holes and phases allows appropriate correlation to other phases in most areas. ▪ Drill core photography is available for:

Criteria	JORC Code explanation	Commentary
	▪ Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. ▪ The total length and percentage of the relevant intersections logged.	▪ 2003 Diamond Drilling ▪ 2008 Diamond Drilling ▪ 2009 Diamond Drilling ▪ 2010 Diamond Drilling ▪ 2011 Diamond Drilling
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.	▪ Numerous phases of drilling and sampling have occurred over the history of definition of the deposit. ▪ 1970's – airtrack percussion chips ▪ 1970's – diamond core ▪ 1970's - costean samples ▪ 1980's - RC chips ▪ 2002 – RC chips ▪ 2003-2005 – RC chips ▪ 2003-2005 – Diamond core full core used for metallurgical samples, downhole Caf2 percentages visually assessed every metre in 5% increments. ▪ 2006-2011 – RC chips – field duplicates taken and validate well for CaF2 ▪ 2006-2011 – Diamond core ▪ 20012-2018 – RC chips ▪ In all cases the nature of the Fluorite material being sampled is massive crystal / vein / type material compromising between 1% and 95% Fluorite. ▪ See next section for additional details.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	▪ Numerous phases of drilling and sampling have occurred over the history of definition of the deposit. ▪ 1970's – airtrack percussion chips ▪ 1970's – diamond core ▪ 1970's - costean samples ▪ 1980's - RC chips ▪ Assaying methods from the work prior to 2000 before the regular use of XRF are not well documented. It is possible that some of these assay results may have back calculated CaF2 from Ca, as F was difficult to assay with methods such as ICP due to its tendency to flux. The proportion of drilling used in the estimate by meterage prior to 2000 is approximately 10%. ▪ ▪ Some of these early campaigns show significantly higher average CaF2 grades. These abnormally high CaF2 were subsequently excluded from the estimation process. ▪ 2002 – RC chips ▪ 2003-2005 – RC chips - UltraTrace Analytical Laboratories (Ultra Trace) was used by Doral from 2003 to analyse Speewah samples. Upon receipt of samples, each sample was sorted and dried. The whole sample was then

Criteria	JORC Code explanation	Commentary
		pulverized in a ring pulveriser so that 90% passed 106 micron. The same procedure has been used by Niplats using Ultra Trace at its Canning Vale facility in Perth, WA. - Duplicate samples were collected routinely every 40 samples and involved re-splitting of the original retention sample through the riffle splitter at the drill site. Duplicates amounted to approximately 1% of total samples. F and Ca were assayed using XRF. ■ 2006-2007 – RC chips - A program of duplicate sampling was undertaken by Niplats to compare the original sample with a riffle split resample. A total of 320 duplicate samples were used. A total of 128 samples were re-assayed for 'F%' and 173 samples for 'Ca_total%'. ■ The results show an almost perfect one-to-one correlation between the original and duplicate values. The five outliers (3 for 'F%' and 2 for 'Ca_total%') all report the duplicate value higher than the original sample. No independent laboratory checks have been conducted due to the lack of laboratories in Australia at the time prepared to undertake assaying for fluorine and total calcium. ■ No standards were used at any stage of the exploration programs due to unavailability of off the shelf Flourite standards. ■ 2006-2011 – Diamond core ■ 20012-2018 – RC chips ■ For most campaigns F, Ca, Ba and Bi were consistently assayed, however for some campaigns only Ca was assayed. Ca and F were typically assayed by XRF In most cases CaF2 was back calculated from F on the assumption that Fluorite mineralisation (CaF2) is the only source of F and using the fixed relative abundances of Ca and F within pure CaF2. In later deep drilling and peripheral campaigns where Fluorite was no longer the target mineral, F and Ba were not assayed but Ca and Bi were assayed. For these cases SRK has back calculated CaF2 from Ca. Statistics on mineralised material from campaigns that assay F Ca Ba and Bi show that Fluorite is the only source if F however the fluorite is not the only source of Ca, which can be contained in other minerals present such as calcite (CaCO3). Further statistical analysis shows that when Bi > 1ppm, all Ca is highly correlated with F and is associated with Fluorite. Hence, CaF2 is only back calculated from Ca when Bi > 1ppm. When Bi < 1ppm it is an indication that other Ca bearing minerals

Criteria	JORC Code explanation	Commentary
		such as Calcite are present and CaF2 cannot be back calculated.
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.	▪ Multiple phases and types of drilling and sampling across the same veins confirm the tenor of both the vein and stockwork CaF2 mineralisation. ▪ There are no dedicated twin holes. ▪ SRK has examined statistics for CaF2 split into 10 phases/drilling methods and compared by estimation domain and has excluded some of the early “SB” and “SVD” phase holes from estimation due to abnormally high café values compared to all other phases/drilling types. These excluded holes are however retained for geological, continuity and thickness modelling.
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 and downhole survey methods vary greatly with the phases of exploration, from compass and tape, theodolite and chain, theodolite and EDM to handheld GPS and DGPS. Compilation and modelling surest that the older collars fit reasonably well with later surface mapping and with DGPS surveyed collars. Uncertainty of +/- 5 m at surface appears likely for the Pre 2000 data but is not considered material to the final Resource estimate. No collars were eliminated due to horizontal discrepancies. ▪ The grid system used for the estimate is a Local Grid aligned to the strike of the deposit. Transforms are used where original data requires conversion from local to AMG or from AMG to local. Early collars were mostly originally located in local grid whereas later exploration utilised AMG co-ordinates as original with subsequent transforms. SRK has utilised the reported transformation parameters and found excellent horizontal correspondence between local grid original data and transformed AMG original data. ▪ Downhole surveys were not available for holes drilled prior to 2003 with only a nominal dip and azimuth supplied. Doral used an Eastman single shot camera to give a collar and end of-hole survey. Drilling by NiPlats used a GlobalTec Pathfinder Digital Survey tool with 3 surveys per RC hole and every 50m for core holes. ▪ Elevation data is AHD71 and is the same in both Local and AMG. Lidar data has been used for topographic control. Some older holes did not have elevation surveys. Recently surveyed collars were found to have good correspondence (+/- 1m or better) with the available topography data. For the final

Criteria	JORC Code explanation	Commentary
		estimate all collars were snapped to topography to avoid outcrop in air discrepancies when modelling.
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.	▪ Data spacing is between 10m and 80m along strike at surface and between 20m and 80m at 100m depth. Veins have also been intersected an at a depth of 400m in approximately 1 km spaced drilling. 80m strike spacing is sufficient to establish Inferred continuity. 40m is typical of Indicated material. No Measured has been allocated. ▪ With the exception of results from a few metallurgical sample compositing is not used for the raw data.
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.	▪ Holes are typically drilled oriented across the strike of the sub vertical mineralisation intersecting an dip angles between 10 and 70 degrees. ▪ Sample interval orientation is considered not to create any biases.
Sample security	▪ The measures taken to ensure sample security.	▪ The historical measures taken to ensure sample security are unknown.
Audits or reviews	▪ The results of any audits or reviews of sampling techniques and data.	▪ The results of any historic audits or reviews of sampling techniques and data are unknown.

Section 2 Reporting of Exploration Results

(Criteria listed in section 1 also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	▪ Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. ▪ The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	▪ The Speewah Fluorite Resource is encompassed by tenement M 80 / 269 with an expiry date of 21/05/2031 owned by "Speewah Mining Pty Ltd" which is a 100% owned subsidiary of Tivan.
Exploration done by other parties	▪ Acknowledgment and appraisal of exploration by other parties.	▪ The deposit has been explored by numerous parties from 1970 to the present. A comprehensive record of this exploration is contained in the Western Australian department of Energy, Mimes, Industrial regulation and Safety – online systems Mineral exploration reports (WAMEX) at https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx ▪ The most significant of these companies are: ▪ Great Bounder Mines / North Kalgurlie Mines

Criteria	JORC Code explanation	Commentary
		▪ Elmina N.L. ▪ Speewah Resources ▪ Doral Resources ▪ NiPlats ▪ King River Copper
Geology	▪ Deposit type, geological setting and style of mineralisation.	▪ The Greenvale Fault forms the eastern margin of the Kimberley Block and consists of a series of intersecting faults. Fluorite mineralisation is mainly hosted by north northeast and north trending faults within the Greenvale Fault, with minor occurrences along north trending normal faults within the Speewah Dome. The Early Proterozoic, Valentine Siltstone and Lansdowne Arkose of the Speewah Group host most of the mineralisation and outcrop as linear north northeast trending ridges. These sediments dip 10° to 20° to the SE. The other major unit exposed in the core of the dome is the Hart Dolerite (1703Ma), which was emplaced as a sill predominantly within the Valentine Siltstone. ▪ ▪ The predominantly white fluorite mineralisation occurs mainly within tabular steeply dipping veins showing very good strike continuity often over several hundred metres in length. The veins range in thickness from less than 1m to 15m, often flanked by lower grade stockwork and stringer veins, forming an overall envelope up to 50m wide. ▪ ▪ The fluorite veins have been mapped in three prospect areas known as Main Zone, West Zone and Central Zone over an area of approximately 160km2. Potential also exists under soil covered areas and in steep topographical areas within the district. In the Main Zone, at least nine fluorite vein sets have been mapped over a strike length of 8 kilometres. ▪ ▪ The following description is after Crossing 2004 and SRK's observations concur with the various mineralisation settings described. ▪ Fluorite is associated with quartz-feldspar veining but is younger. It occurs in the various settings previously discussed: ▪ ▪ Large, persistent veins occupying the main northerly and northeasterly trending structures. ▪ Fault breccias and brecciated veins occupying the main structures.

Criteria	JORC Code explanation	Commentary
		▪ Stockworks and breccias hosted preferentially by the sandstone and to a lesser extent by the dolerites adjacent to the main structures. ▪ En-echelon vein sets trending northwesterly between structures. ▪ En-echelon vein set trending northeast (rare). ▪ Thin persistent veinlets following jointing mainly in the siltstones (rare). ▪ Thin persistent veinlets following bedding planes in the siltstones (rare). ▪ ▪ The larger veins range in thickness up to 15 metres and are up to 800m long. They have similar persistence down-dip within the faults and have been intersected in several holes as deep as 400m below surface, albeit it only in the order of 0.5m wide at that depth. ▪ The stockworks tend to occur adjacent to the main faults and are dominantly hosted by the brittle sandstone unit, although reasonable stockwork veining sometimes occurs in the dolerites. Best fluorite intersections occur where the main northerly trending faults contain fluorite in the form of veins and breccias, and the adjoining wall rocks (usually hanging wall) contain sandstone hosted stockwork veining. The en-echelon vein systems usually have a lower density of veining than the stockwork and hence a lower fluorite grade globally. ▪ The fluorite veins are younger and crosscut the earlier quartz-feldspar veins, as seen in the photo above. They also often form co-axially in the center of the quartz-feldspar veins, and as vugh fill within them and in the matrix of quartz-feldspar vein breccia. Later carbonate veins crosscut all earlier features. Carbonate and quartz also infills voids in the fluorite veins, and occasionally quartz veinlets cut across fluorite veins. The fluorite is dominantly green to whitish in colour with less common purplish fluorite. In outcrop it weathers to grayish-white. It is generally coarsely crystalline often with euhedral crystals infilling open-spaces. The greenish flourite appears to be younger than the purple variety. ▪
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 drillholes: – easting and northing of the drillhole collar – elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar	▪ No new exploration results are being reported refer to attached list of previous announcements from 2007 to 2020. Prior to 2007 ASX and / or media release announcements the companies involved with the project are not available publicly and hence cannot be referenced. A comprehensive record of the exploration from

Criteria	JORC Code explanation	Commentary
	– dip and azimuth of the hole – downhole length and interception depth – hole length. ▪ If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	1970 onwards, including collar, survey and assay data, is contained in the Western Australian department of Energy, Mimes, Industrial regulation and Safety – online systems Mineral exploration reports (WAMEX) at https://www.dmp.wa.gov.au/WAMEX-Minerals-Exploration-1476.aspx
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.	▪ See previous releases
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 drillhole angle is known, its nature should be reported. ▪ If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).	▪ See previous releases
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.	▪ See previous releases
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.	▪ See previous releases
Other substantive exploration data	▪ Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	▪ See previous releases

Criteria	JORC Code explanation	Commentary
Further work	▪ The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). ▪ Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	▪ A drill program is being planned with the aim of expanding the Speewah Fluorite Mineral Resource, targeting fluorite mineralisation along strike of and below the existing resource, and at proximal veins outside of the existing resource, and also for facilitating metallurgical testwork and (see ASX announcement of 7 March 2024). ▪ Tivan and SRK are also evaluating the development of an Exploration Target for the project in support of planning for the resource extension drilling. The detailed evaluation will primarily identify target areas with existing geological data relating to the fluorite mineralisation that were deemed insufficient to include in the mineral resource estimate. This will enable an Exploration Target to be presented as an estimated range of tonnes and range of grade in terms of attainable exploration potential. Tivan expects to this process to be completed in May. ▪ The drilling program is being planned within the framework of the Heritage Protection Agreements that Tivan recently concluded with the Kimberley Land Council. Tivan will submit a Program of Works application to the Department of Energy, Mines, Industry Regulation and Safety (“DEMIRS”) at the appropriate time. ▪ Following completion of the resource extension drill program, the results will be incorporated into the resource model. A subsequent Mineral Resource update will then be undertaken with SRK, which will provide the basis for a PFS update.

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.	▪ SRK re-compiled the collar, survey, assay, geology, and density data by re-examining all available historic databases and reports from 1970 to the present. Where electronic data existed, the original paper/text reports were in most cases able to be cross referenced with the WAMEX database archives. Several generations of electronic database from various companies and points in history were able to be cross referenced. The compiled database was then validated for structural integrity (missing intervals, overlapping intervals, conflicting holes, invalid down hole surveys, duplicate, collars, duplicate intervals and various other validations were completed.

Criteria	JORC Code explanation	Commentary
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.	▪ The competent person has not yet visited site due to access and timing restrictions but is scheduled to visit site within the next six months. An SRK geologist, other than the competent person, have visited site within the previous six months and has confirmed fluorite mineralisation.
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 very high confidence in the high level interpretation of the nature of the vein and stockwork Fluorite mineralisation due to significant outcrop and highly continuous strike continuity. ▪ The exact definition of vein thickness as opposed to surrounding stockwork interpretation is subject to some uncertainty due to the nature of the 1m interval RC drilling being unable to define exact down hole boundaries of veins between 1cm and 15m (typically around 3m). ▪ Both geology, in the form on lithology and vein logging, and assay information together with surface mapping and also deposit scale structural interpretation is used for controlling the interpretation. ▪ Previous estimates and interpretations have used a simplistic 10% CaF2 cut off for definition of high grade Vein material. This interpretation used geological vein logging, statistical log probability plot inflections at ~ 35% CaF2 and structural observations to define high grade vein material. This interpretation results in a “tighter” more geological vein model component containing lower tonnage and higher grades when compared to previous Resource vein modelling. During estimation this is counterbalanced by the resulting stockwork estimation containing higher grades. ▪ The current interpretation also includes significantly more lower grade Sandstone/siltstone stockwork mineralisation volume compared to previous models.
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 deposit as modelled consists of a fully continuous unbroken main strike zone approximately 2.4km long. The fluorite veins ate thicker at surface but have been traced in drilling to approximately 400m depth albeit at sub meter thickness at this depth. Modelled Mineral resource mineralisation extends to 200m depth. Modelled High grade vein widths vary between 1m and 15m horizontal width, with the full mineralised stockwork plus vein package being up to 60m wide.

Criteria	JORC Code explanation	Commentary
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 (e.g. 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. ▪ 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 drillhole data, and use of reconciliation data if available.	▪ The estimated was carried out using ordinary kriging within the Seequent leapfrog Geo software package. ▪ Previous estimates and interpretations have used a simplistic 10% CaF2 cut off for definition of high grade Vein material. This interpretation used geological vein logging, statistical log probability plot inflections at ~ 35% CaF2 and structural observations to define high grade vein material. As such the vein models are not defined by a fixed cut off grade but are centered on the > 35% material and bounded by a combination of geological logging, step changes in grade, surface mapping and interpreted structural orientation. This interpretation results in a “tighter” more geological vein model component containing lower tonnage and higher grades when compared to previous Resource vein modelling. During estimation this is counterbalanced by the resulting stockwork estimation containing higher grades. ▪ 17 continuous individual vein wireframes, 13 separate encompassing stockwork halo wireframes and one sandstone/siltstone wireframe were used to form 6 estimation domains. The six estimation domains were combined on the basis of similar Caf2 grades and were: ▪ 1. A Veins ▪ 2. B Veins ▪ 3. E Veins ▪ 4. Low Grade veins ▪ 5. All Encompassing stockwork halos ▪ 6. Sandstone/siltstone package ▪ Composites used for vein estimation were 1m downhole, composites used for stockwork estimation were 2m downhole. ▪ In cases where historic drilling did not sample the entire hole and geological logging indicated that there is mineralisation potential, intervals have been left blank so that the estimated blocks will utilise data from adjacent holes. Where more recent drilling has not assayed the entire hole and it is apparent from a geological logging and continuity perspective that material is most likely barren, these intervals have been assigned waste grades for estimation purposes. ▪ Parent block size for all estimation was 2m across strike, 10m along strike and 10m vertical. Sub blocks for volumetric calculations were 0.5m x 2.5m x 2.5m. Strike sample spacing ranges between 10m and 80m. ▪ No grade capping was used. For some domains, grade thresholding was used

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		restricting the distance of influence or high grades to 10% of the search distance (typically around 20m). High grade threshold grade values were selected by examination of histograms, log histograms, log probability plots and downhole grade step changes. ▪ The estimates were validated by statistical examination of de-clustered composite grades against estimated block grades at zero cut off per domain, by swath plots per domain and by visual examination in cross section and plan against drill holes. ▪ No mining has taken place, so no reconciliation data is available. ▪ Global results were also compared to previous model estimates. ▪ Additional grades estimated were BaS04, CaCo3 and Bi. There were insufficient assays to estimate any other elements/oxides/compounds.
Moisture	▪ Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	▪ Dry tonnage
Cut-off parameters	▪ The basis of the adopted cut-off grade(s) or quality parameters applied.	▪ The reporting cut off of 2% CaF2 is based on a USD900 / tonne of Acidspar quality Fluorite price (being a revenue factor of 1.5 above the assumed current USD600 Acidspar fluorite price) and utilises a marginal cuttof derivation of: ▪ ▪ Cutoff = processing cost / (revenue * recovery) ▪ ▪ where processing cost is AUD25 at an AUD USD exchange rate of 0.65 and with a recovery of 90%.
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.	▪ Open pit mining is assumed. ▪ No mining dilution is included in the estimates. ▪ The final reporting volume is restricted by a Whittle derived pit shell based on the following parameters: ▪ USD900 /t fluorite (Caf2) being a 1.5 revenue factor on an assumed current USD600 /t fluorite price. ▪ AUD25 / t processing cost at a 0.65 AUD USD exchange rate ▪ 50 degree overall slope angle ▪ Note that these represent an optimistic set of pit optimisation parameters suitable for confirming reasonable prospects of eventual economic extraction for Mineral Resource reporting purposed and do not represent parameters that would be used for mine planning or Ore reserves.

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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.	▪ Various metallurgical testwork over the history of the deposit indicate that both vein and stockwork material can produce concentrates suitable for sale at fluorite recoveries in the order of 90%. The assumed target product is Acidspar (>97% Caf2 in concentrate) and the metallurgical tests show the lower quality Metspar product (>60% < 97% CaF2 in concentrate) is also easily achievable.
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.	▪ Waste rock: SRK is currently engaged to complete a mining study to determine the classes and waste that will be mined and devise a mining plan for waste. Tailings: Tailings will be disposed of as sediment beaches in engineered tailing ponds. The tailings management plan is part of the environmental permit conditions. SRK are currently engaged in designing a tailings storage facility (TSF) for the project.
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.	▪ Bulk density was reportedly determined using the water displacement method. ▪ Approximately 260 density measurements from drill core typically between 5cm and 15cm lengths are available from holes drilled in 2004 well distributed over the deposit. From these SRK has calculated an average Vein material a density of 2.8 and stockwork material a density of 2.65. ▪ Stoicametrically pure 100% CaF2 has a density of 3.18. Given the average Vein material in the estimate is around 30% CaF2 and assuming quartzite waste at a density of 2.65, this equates to a calculated vein material density of 2.81 which matched well with the measured densities. ▪ Elmina reports from 1990 show densities between 2.56 and 2.93 averaging around 2.64 which concurs with other available evidence. ▪ Density is assigned as a single average per estimation domain. ▪ No apparent density differences are seen between oxide and fresh material.
Classification	▪ The basis for the classification of the Mineral Resources into varying confidence categories. ▪ Whether appropriate account has been taken of all relevant factors (i.e. relative confidence	▪ Classification is loosely based on drill spacing together with examination with estimation quality statistics such as Kriging slope of regression and with conscience of the high

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	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.	continuity of the veins themselves. Nominal strike spacing for Inferred is 80m. Nominal strike spacing for Indicted is 40m. The main veins are also supported by surface vein outcrop mapping and surface costeans. ▪ The deposit scale structural architecture was also considered during the classification process. ▪ Classification is implemented via broad "cookie cutter" volumes defined in long section interacting with the various estimation domain volumes. ▪ Smaller veins or lower grade veins were in some cases downgraded to Inferred where their strike or dip continuity was based on grade intercepts only. ▪ Consideration of the relative confidence in the different phases of data collection over the history of the project has been made with some surface and shallow assay results being excluded from the estimation. ▪ The classification is the result of the competent persons subjective judgement. ▪ Based on the occurrence of Fluorite vein intervals seen in the deep drilling in several holes. Inferred material has been interpolated down dip between 30m and 80m from the nearest upper hole in some areas with the deep intercepts a further 250m below the termination of the inferred material. ▪ Indicated Vein material has been extrapolated approximately 40m past the last lines of drilling where surface mapping indicates continuation. ▪ Inferred Stockwork material has been extrapolated up to approximately 100m past the last lines of drilling where surface mapping indicates continuation.
Audits or reviews	▪ The results of any audits or reviews of Mineral Resource estimates.	▪ SRK implements internal peer review process. ▪ No external audits have been completed on the estimate.
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	▪ No qualitative geostatistical procedures have been used to attempt to quantify relative or global accuracy or confidence limits. Qualitative assessment of relative accuracy is essentially related to the levels of confidence in the historic data collection. Given the various phases of data collection are spatially well distributed over the deposit, confidence in the older data is relatively high such that, in most cases, it ranks equally with more recent drilling. ▪ No accuracy statements are used and therefore the local / global distinction is not relevant.

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	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.	▪ No mining has taken place and therefore no reconciliation data is available.