



12th April 2018

Split Rocks Drilling Intersects Cobalt – Nickel - Scandium, Lithium and Gold

Zenith's maiden drill program (104 aircore holes) at the Dulcie Prospect confirms high-grade near surface cobalt-nickel mineralisation, widespread scandium as well as intersecting pegmatites with anomalous lithium and returning strong gold results within Zenith's recently granted 100% owned Split Rocks project in Western Australia.

Drilling confirms and extends the cobalt - nickel zone identified in a review of previous exploration and in addition has defined widespread near surface scandium mineralisation in a relatively continuous flat-lying blanket above or beside the cobalt-nickel mineralisation.

Significant new cobalt – nickel and scandium drill results from initial composite samples from the Dulcie Prospect include:

- ♦ 12m @ 0.27% cobalt and 1.45% nickel from 20m downhole;
- ♦ 30m @ 0.06% cobalt and 0.75% nickel from 20m downhole; and
- ♦ 16m @ 0.07% cobalt and 0.72% nickel from 16m downhole.
- ♦ 4m @ 190ppm scandium from surface;
- ♦ 8m @ 105ppm scandium from surface; and
- ♦ 16m @ 98ppm scandium from 8m downhole.

Anomalous lithium bearing pegmatites were intersected in the northern portion of the prospect area over 950m of strike. The best lithium result in each hole in this northern area was at drill refusal in saprock at the end of the hole, being the depth beyond which the aircore rig could not penetrate. These anomalous lithium, caesium and rubidium results confirm the presence of prospective pegmatites only 40 km north of Kidman Resources Limited's (ASX:KDR) Earl Grey lithium pegmatite deposit and represent a drill target for follow-up testing. Results from initial composite samples include:

- ♦ 3m @ 921 ppm Li₂O from 28m downhole, end of hole;
- ♦ 1m @ 603 ppm Li₂O from 37m downhole, end of hole; and
- ♦ 2m @ 463 ppm Li₂O from 8m downhole, end of hole.

Significant gold mineralisation was also intersected in several drill holes in the south of the prospect area. Results from initial composite samples include:

- ♦ 30m @ 0.6g/t gold from 20m downhole, including 4m @ 3.28g/t gold;
- ♦ 7m @ 1.93g/t gold from 28m downhole, including 3m @ 4.32g/t gold; and
- ♦ 4m @ 0.66g/t gold from surface.

Most drill results reported in this release relate to initial 4m composite samples. Resampling at 1 m intervals is in progress. Resampling is likely to refine the mineralised intervals to narrower higher grade zones.

The cobalt - nickel results are in addition to those previously announced (ASX release 9th January 2018) highlighting historic drill results at the Dulcie Prospect, including:

- ♦ 22m @ 0.06% cobalt and 0.70% nickel from 18m downhole, including: 8m @ 0.12% cobalt and 0.96% nickel.

Zenith Minerals Limited ("Zenith" or "the Company") is very pleased to advise that assay results have now been received from cobalt-nickel focused drilling on one of the recently granted exploration licences that makes up the Company's 100% owned Split Rocks project in

Corporate Details

ASX: ZNC

Issued Shares (ZNC)	212.8M
Unlisted options	2.5M
Mkt. Cap. (\$0.19)	A\$43M
Cash (31 Dec 2017)	A\$3.1 M
Debt	Nil

Directors

Michael Clifford:
Managing Director

Mike Joyce:
Non Exec Chairman

Stan Macdonald:
Non Exec Director

Julian Goldsworthy:
Non Exec Director

Major Shareholders

HSBC Custody. Nom.	12.8%
Nada Granich	5.4%
Miquilini	4.3%
J P Morgan	4.1%
Abingdon	4.1%

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Western Australia. Zenith commenced exploration of the Split Rocks project in 2017 with active, ongoing programs focusing on the lithium, nickel-cobalt as well as the gold potential. Drilling in this first phase program tested approximately 4.5km of the 9km long target area in one small area of Zenith's Split Rocks tenements totalling 500sqkm.

As foreshadowed in ASX Releases 9th January and 26th January 2018 the key aim of this initial drill program was to assess the grade and continuity of cobalt-nickel mineralisation over a 4.5km zone north of the previously intersected near surface, high-grade results at the Dulcie Prospect, which included 22m @ 0.06% cobalt and 0.70% nickel (details of the cobalt-nickel target overleaf). Cobalt – nickel mineralisation has been confirmed and extended whilst significant levels of scandium have also been identified with the best results occurring at surface on the southernmost drill line.

Fortuitously the drilling has also intersected anomalous lithium bearing pegmatites. The strongly weathered pegmatites intersected over 950m of strike in this maiden aircore drilling program are considered significant being located north along strike of Kidman Resources Limited (ASX:KDR/SQM) Earl Grey lithium pegmatite deposit containing 128Mt @ 1.44% Li₂O (KDR ASX Release 5th December 2016) Figure 1. Zenith's Split Rocks project tenure is located within ~10km of the Earl Grey lithium pegmatite deposit (ASX:KDR/SQM).

A secondary target of the drill program was the gold potential within the cobalt-nickel ultramafic host unit. Previous drilling intersected significant gold mineralisation with results including: 34m @ 0.48g/t gold (Au), including 7m @ 1.57 g/t Au from 37m depth, open to the south west (as previously reported in ZNC - ASX Release 16th August 2016). New drill results confirm the previous zone of gold mineralisation and outline additional gold mineralisation on Zenith's southernmost drill lines.

Note that most drill results reported in this release relate to initial 4m composite samples. Resampling at 1 m intervals is in progress. Resampling is likely to refine the mineralised intervals to narrower higher grade zones.

Dulcie Cobalt – Nickel and Scandium Results

Zenith's maiden drill program (104 aircore holes) at Dulcie (Figure 1) has extended the cobalt - nickel zone identified in a review of previous exploration and in addition has defined widespread near surface scandium mineralisation.

Drilling in 1998 at the Dulcie Prospect by Forrestania Gold NL (reported to the WA Mines Department in open file report A56331) returned strong cobalt and nickel in a near surface, flat lying, saprolite clay blanket-type body (refer to ASX Release 9th January 2018). In total 13 drill holes, of which only 8 have been analysed for cobalt and nickel were completed over 4 drill lines, covering only 400m of strike. Previous nickel exploration by Kennecott reported in 1974 (report A5446) indicates 9km of strike potential of interpreted host ultramafic unit within Zenith's tenure of which only 4.5km has been tested by the program of Zenith drilling. Historic cobalt rich drill results include:

- ◆ FDUP002 18 - 40 metres, 22 metres @ 0.06% cobalt and 0.70% nickel;
 - including: 8m @ 0.12% cobalt and 0.96% nickel, and
- ◆ FDUP003 25 – 46 metres: 21 metres @ 0.06% cobalt and 0.49% nickel;
 - including: 5 metres @ 0.13% cobalt and 1.78% nickel;

Significant new cobalt - nickel drill results from initial composite samples from Zenith's drilling are shown in Figures 2 & 3 and include:

- ◆ **12m @ 0.27% cobalt and 1.45% nickel from 20m downhole;**
- ◆ **30m @ 0.06% cobalt and 0.75% nickel from 20m downhole; and**
- ◆ **16m @ 0.07% cobalt and 0.72% nickel from 16m downhole.**

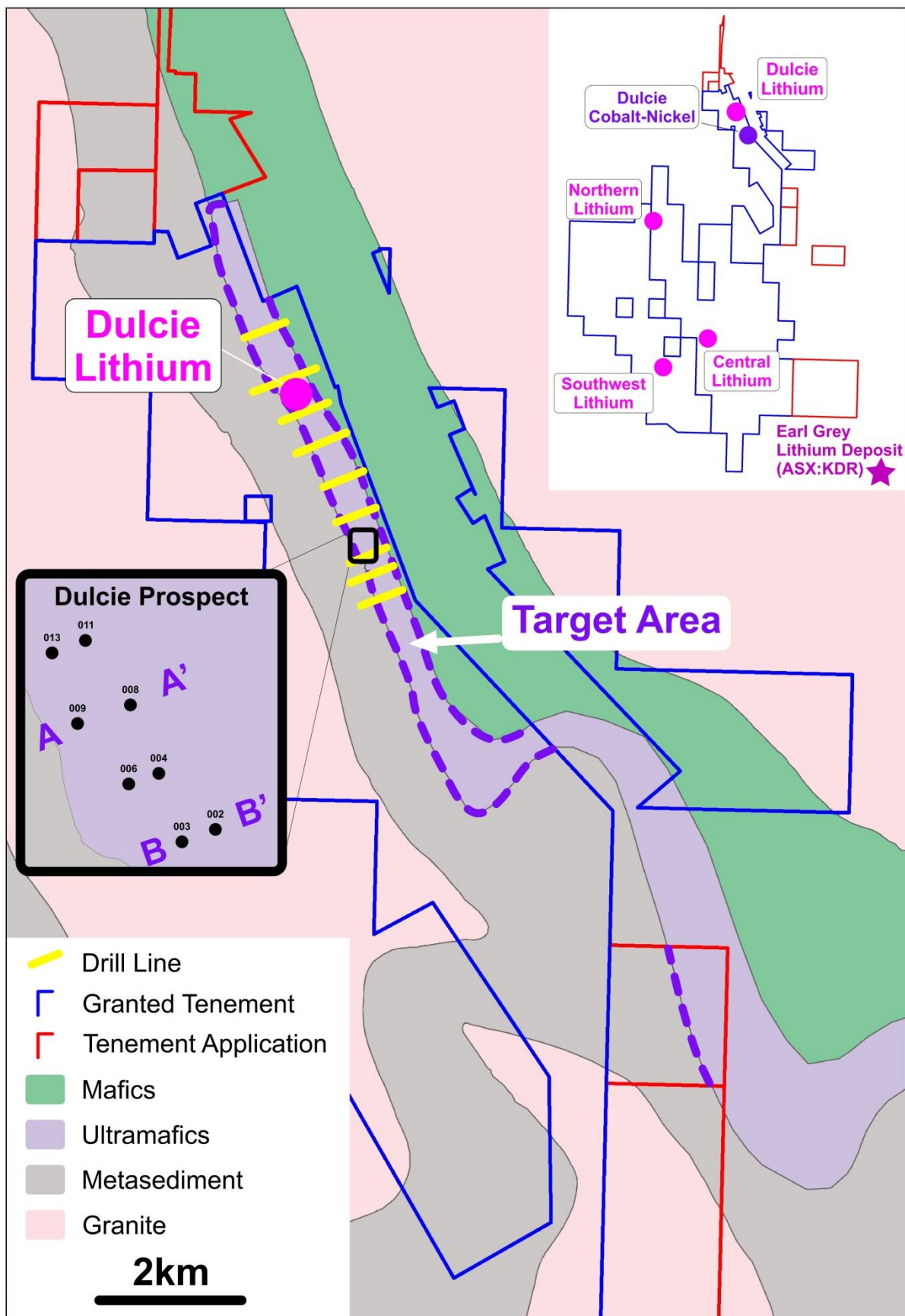


Figure 1: Split Rocks Project Dulcie Prospect Location Plan



Significant scandium mineralisation was also intersected in a relatively continuous flat-lying blanket above or beside the cobalt-nickel mineralisation (Figures 4 & 5). Results from initial composite samples* include:

- ◆ 4m @ 190ppm scandium from surface;
- ◆ 8m @ 105ppm scandium from surface; and
- ◆ 16m @ 98ppm scandium from 8m downhole.

**Scandium was assayed using the XRF technique. The concentrations present at Split Rocks are in some instances toward the lower 10ppm limit of the technique for scandium analysis. Resampling of the mineralised zones at 1m intervals and analysis with a higher precision analytical technique is in progress.*

Scandium mineralisation is strongest in the near surface zone on the southernmost drill line. Further drilling is required to close off the scandium mineralisation.

Drill collars are provided in Table 1, whilst significant cobalt and nickel results are included in Table 2, scandium in Table 3, lithium in Table 4 and gold results in Table 5. JORC reporting tables are appended to the end of this release.

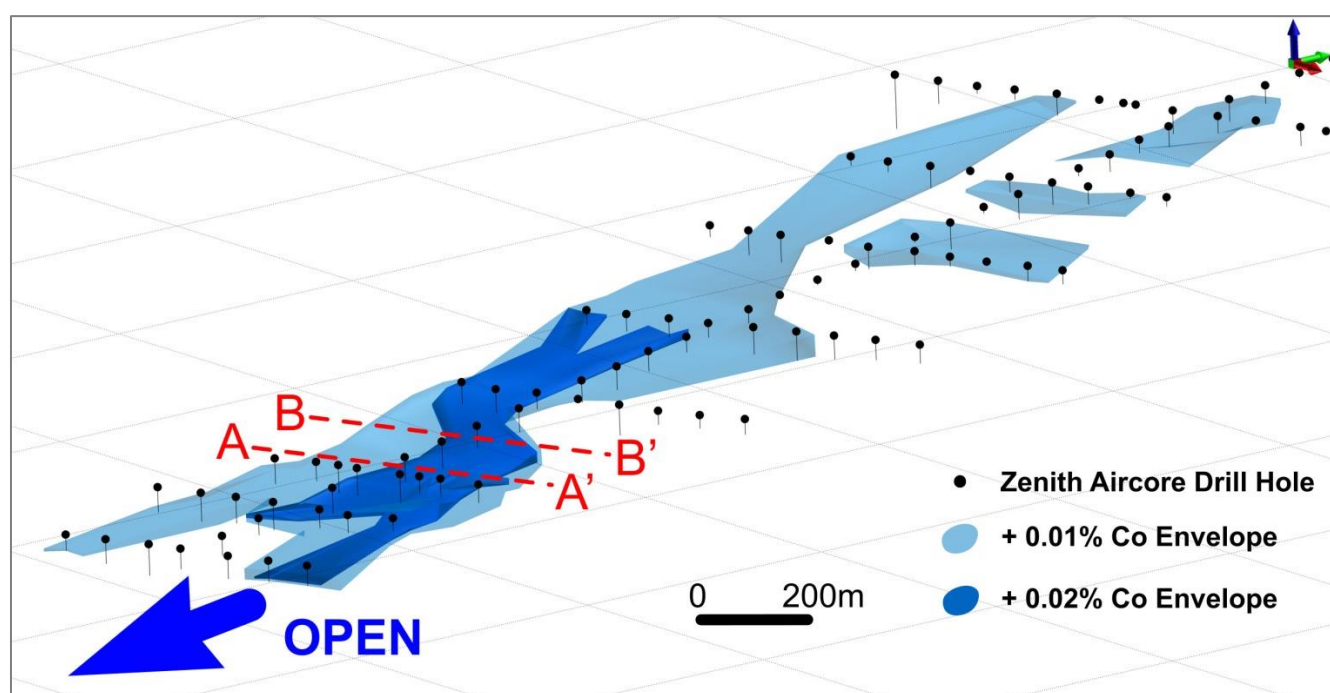


Figure 2: Split Rocks Dulcie Cobalt 3D Model

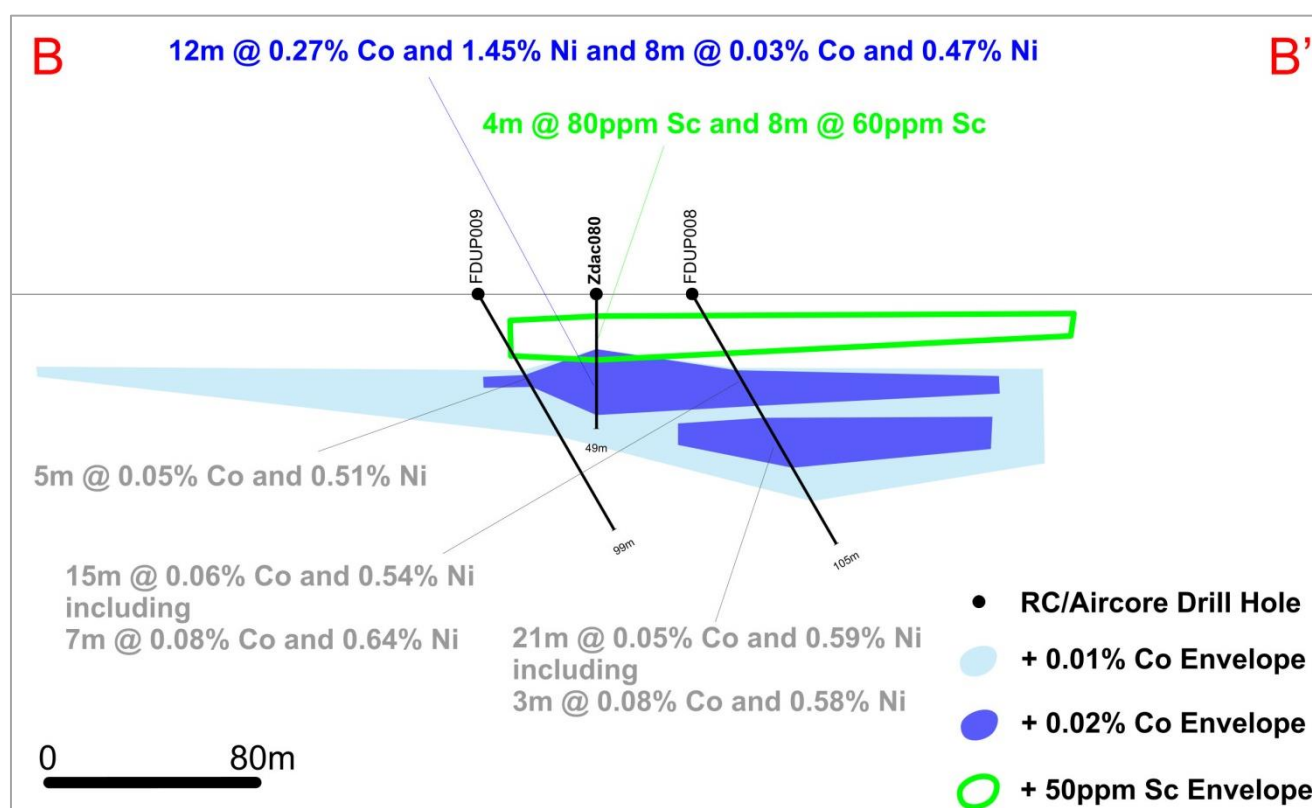
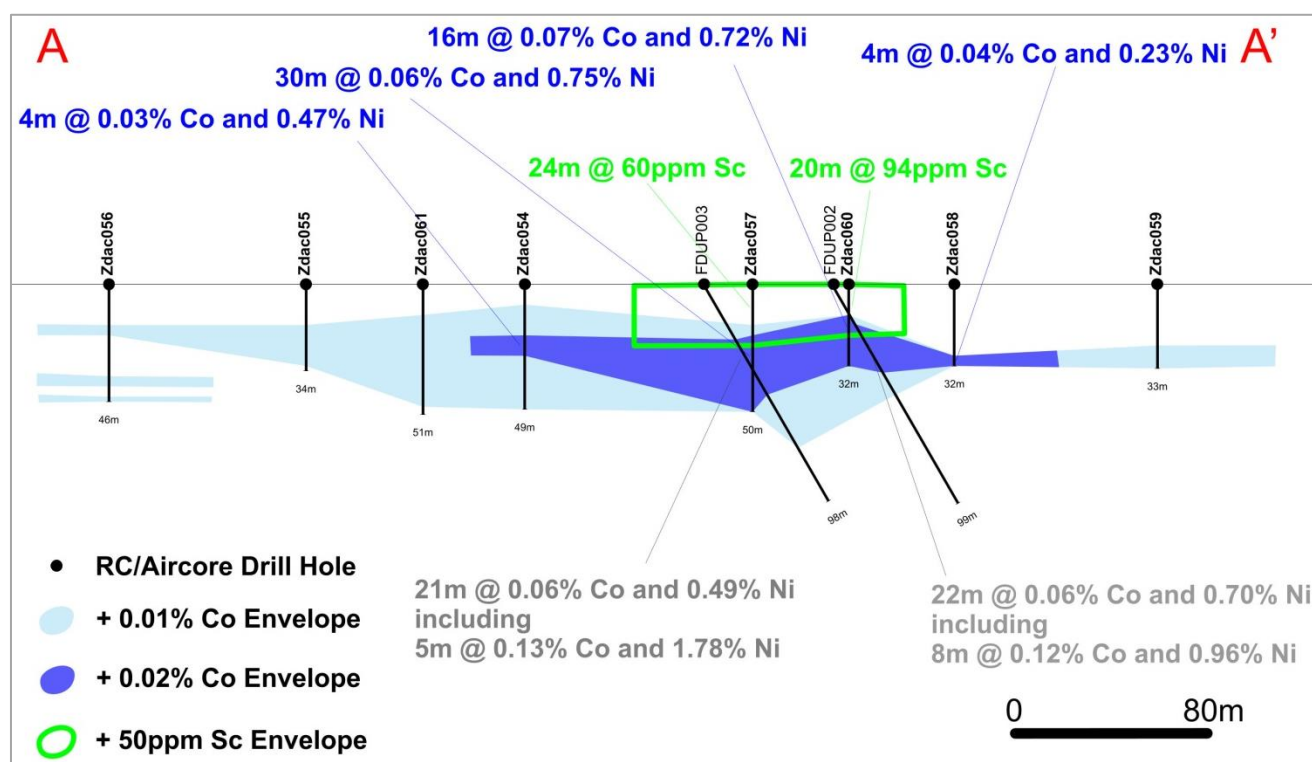


Figure 3: Split Rocks Dulcie Cobalt-Nickel Cross Sections (refer to Figure 2 for cross section locations)

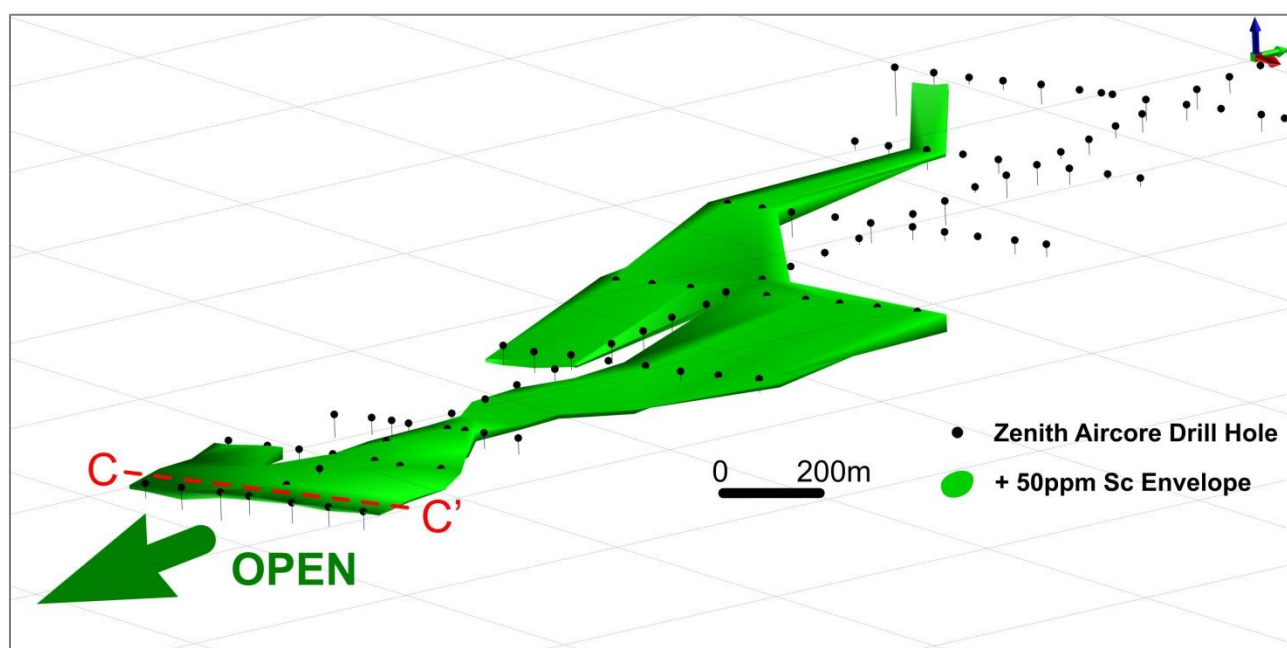


Figure 4: Split Rocks Dulcie Scandium 3D Model

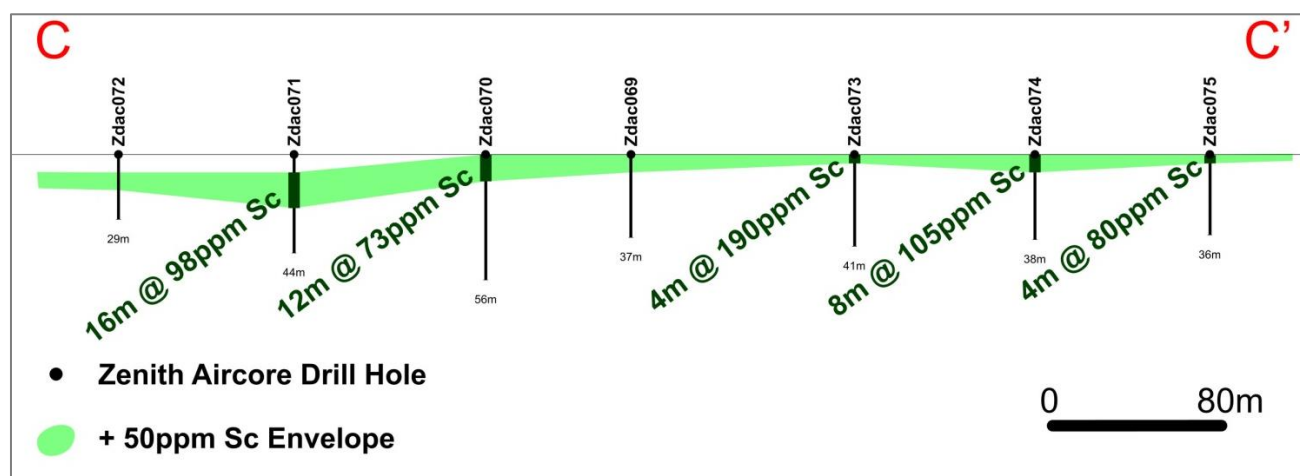


Figure 5: Split Rocks Dulcie Scandium Cross Section (refer to 3D model for section location)

Lithium Results

Anomalous lithium bearing pegmatites were intersected by Zenith in the current aircore drill program in the northern portion of the Dulcie prospect area over 950m of strike. The best lithium result in each hole in this northern area was at drill refusal in saprock at the end of the hole, being the depth beyond which the aircore rig could not penetrate (maximum drill hole depth 37m). The increasing lithium grade with depth in each drill hole indicates probable depletion of lithium in the near surface environment by weathering of the host rock. As pegmatite was intersected in 8 drill holes along the drill base line the true orientation of the pegmatites is as yet not known, but they appear dip shallowly to the north (Figures 6 & 7). These anomalous lithium results represent a drill target for follow-up deeper drill testing. Results from initial composite samples include:

- 🔦 ZDAC096 - 3m @ 921 ppm Li_2O from 28m downhole, end of hole;
- 🔦 ZDAC098 - 1m @ 603 ppm Li_2O from 37m downhole, end of hole; and
- 🔦 ZDAC101 - 2m @ 463 ppm Li_2O from 8m downhole, end of hole.



The lithium in these highly weathered pegmatites is associated with anomalous levels of caesium (42ppm Cs) and rubidium (724ppm Rb). Resampling at 1 m intervals is in progress.

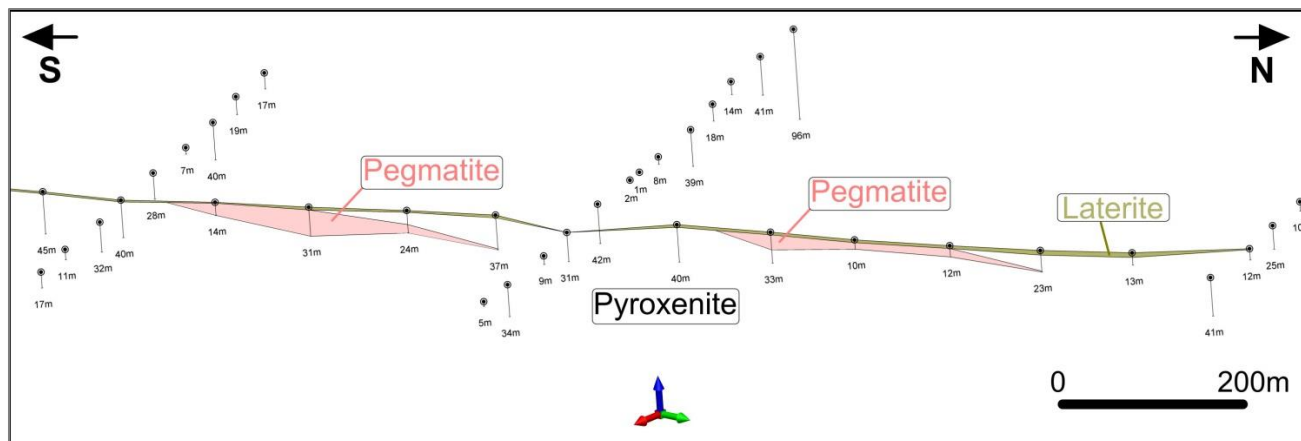


Figure 6: Split Rocks Dulcie Lithium 3D View Looking West (no vertical exaggeration)

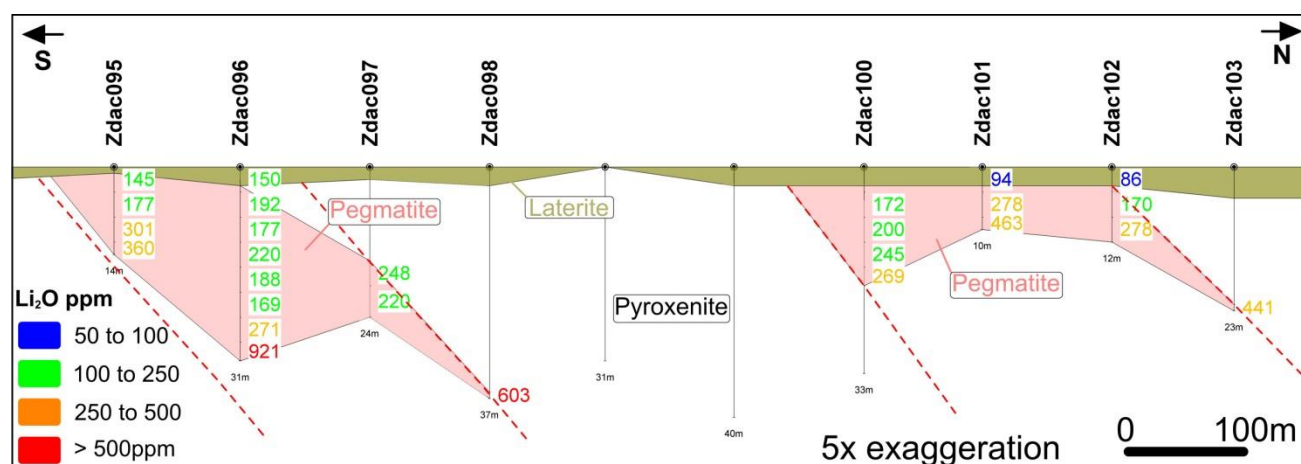


Figure 7: Split Rocks Dulcie Lithium Long Section Looking west (5 x vertical exaggeration)

Lithium Potential

As detailed in Zenith's ASX releases on (14th September 2017 and 4th December 2017) first pass surface samples taken at Split Rocks, to date covering less than 10% of the Company's tenements, have defined three large, coherent zones of anomalous lithium, caesium and rubidium surrounding granite bodies in the western exploration licences that may be potential source rocks for lithium bearing pegmatites (Figure 8).

The tenor of these large scale lithium anomalies is comparable with competitor surface results that upon drilling have returned significant bedrock lithium mineralisation in several instances. Field follow-up indicated very little to no outcrop in the areas of the lithium soil anomalies and that drill testing will be required. As these large lithium soil anomalies remained open ended in the north and central target areas, additional extension and infill sampling was required to better define them prior to drill testing. This additional extension and infill sampling has now been completed and samples have been submitted to the laboratory for analysis with results to be reported shortly.

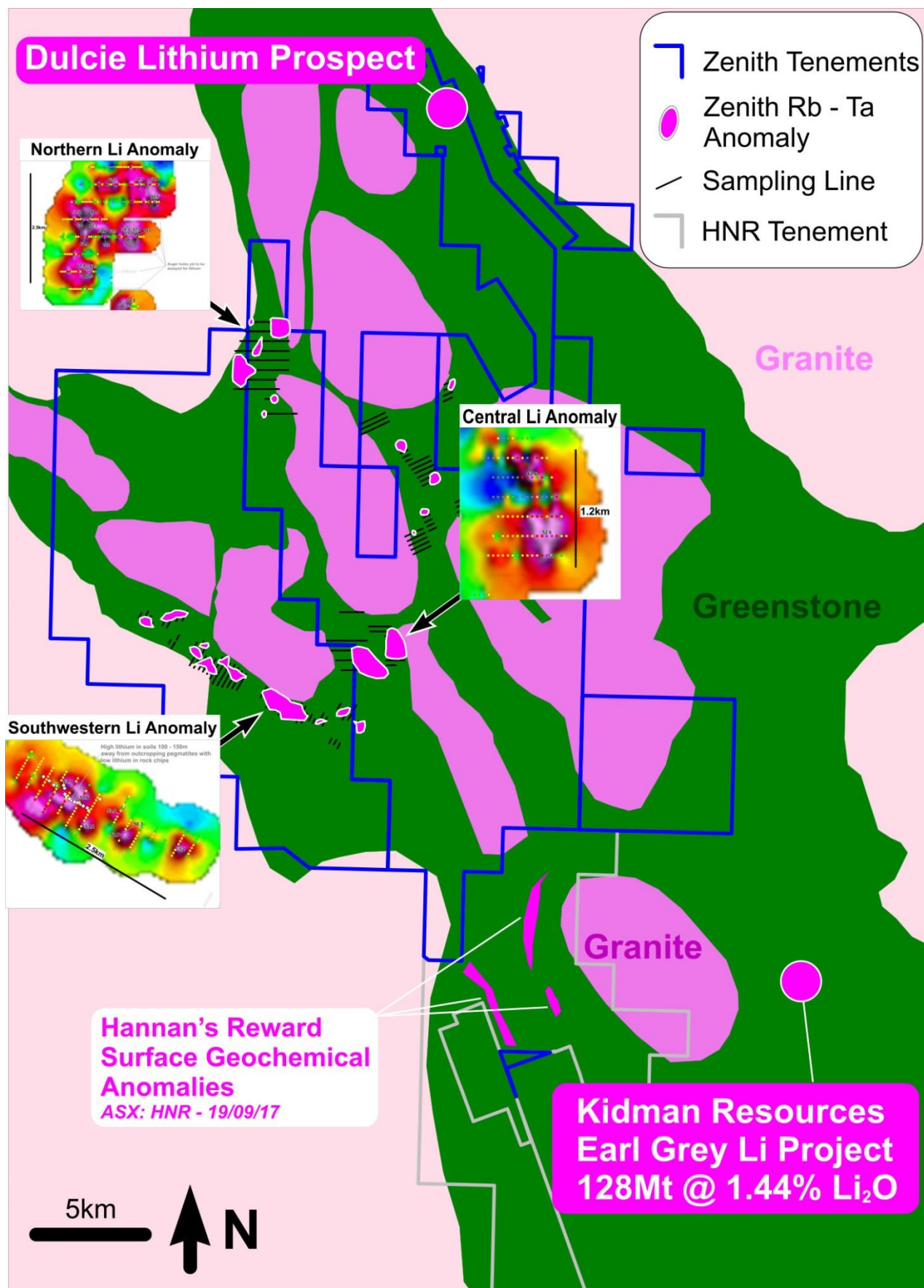


Figure 8: Split Rocks Project – Lithium Anomalies Overlying Generalised Geology



Gold Results

Significant gold mineralisation was intersected in several drill holes in the south of the Dulcie prospect area. Results from initial composite samples include:

- ◆ 30m @ 0.6g/t gold from 20m downhole, including 4m @ 3.28g/t gold;
- ◆ 7m @ 1.93g/t gold from 28m downhole, including 3m @ 4.32g/t gold; and
- ◆ 4m @ 0.66g/t gold from surface.

Previous historic drilling intersected significant gold mineralisation with results including: 34m @ 0.48g/t gold (Au), including 7m @ 1.57 g/t Au from 37m depth, open to the south west (as previously reported in ZNC - ASX Release 16th August 2016). Nine of the thirteen drill holes returned 1m intercepts greater than 0.5 g/t Au ranging up to 1m @ 8.6 g/t Au. Mineralisation is hosted within saprolite clays and weathered ultramafic rocks with associated quartz veining and minor pyrite.

The new drill results confirm the previous zone of gold mineralisation and outline new gold mineralisation on Zenith's southernmost drill lines. Strongly anomalous gold was intersected in historic drilling in surface laterite a further 750m south (Figure 9). The zone requires follow-up drill testing.

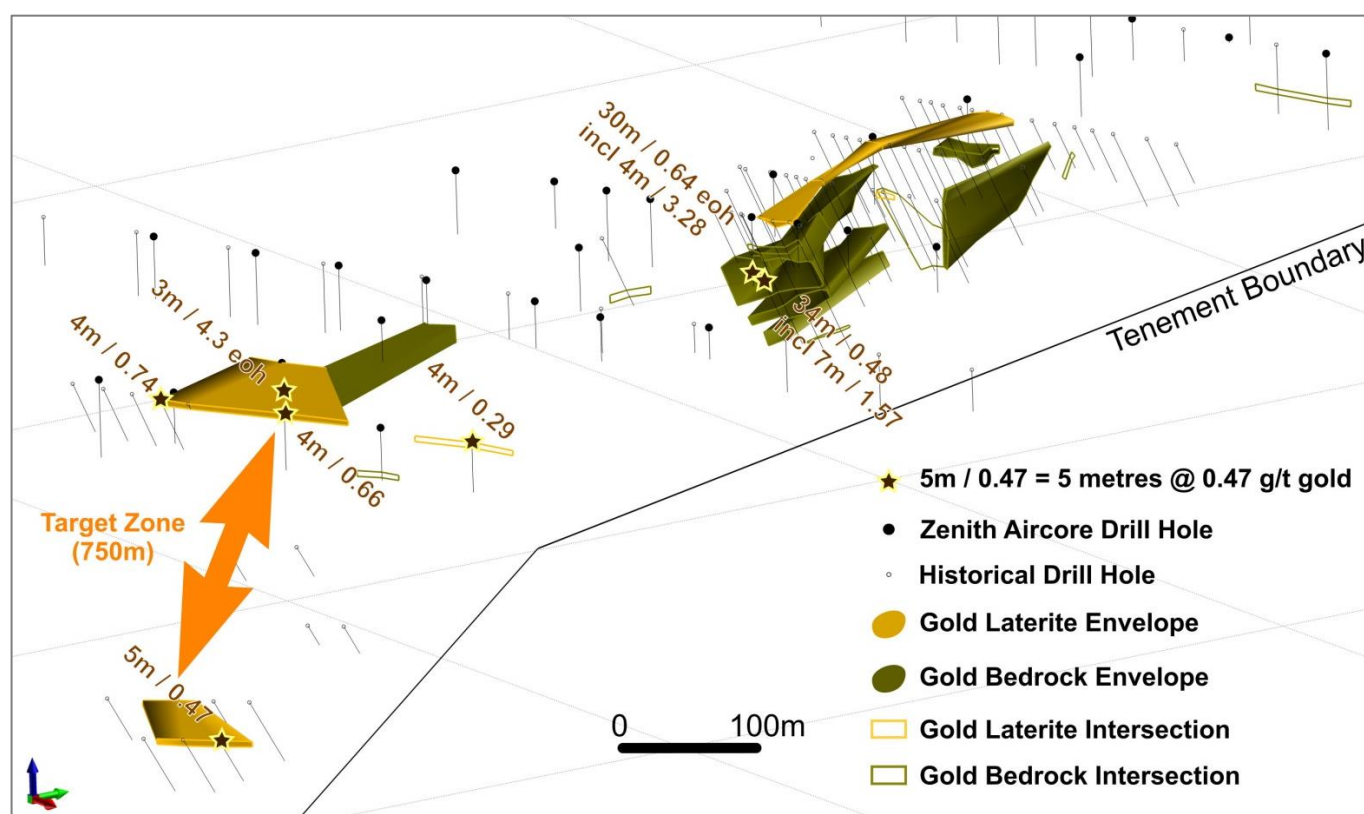


Figure 9: Split Rocks Dulcie 3D Gold Model (>0.1 g/t Au) and Target Zone

Gold Potential

The Southern Cross-Forrestania region is also host to several gold deposits with gold endowment (resources plus past production) exceeding 1 million ounces, including: Bounty Gold Mine, Marvel Loch Gold Mine, Yilgarn Star Gold Mine and the Westonia-Edna May Gold Mine (Figure 10).

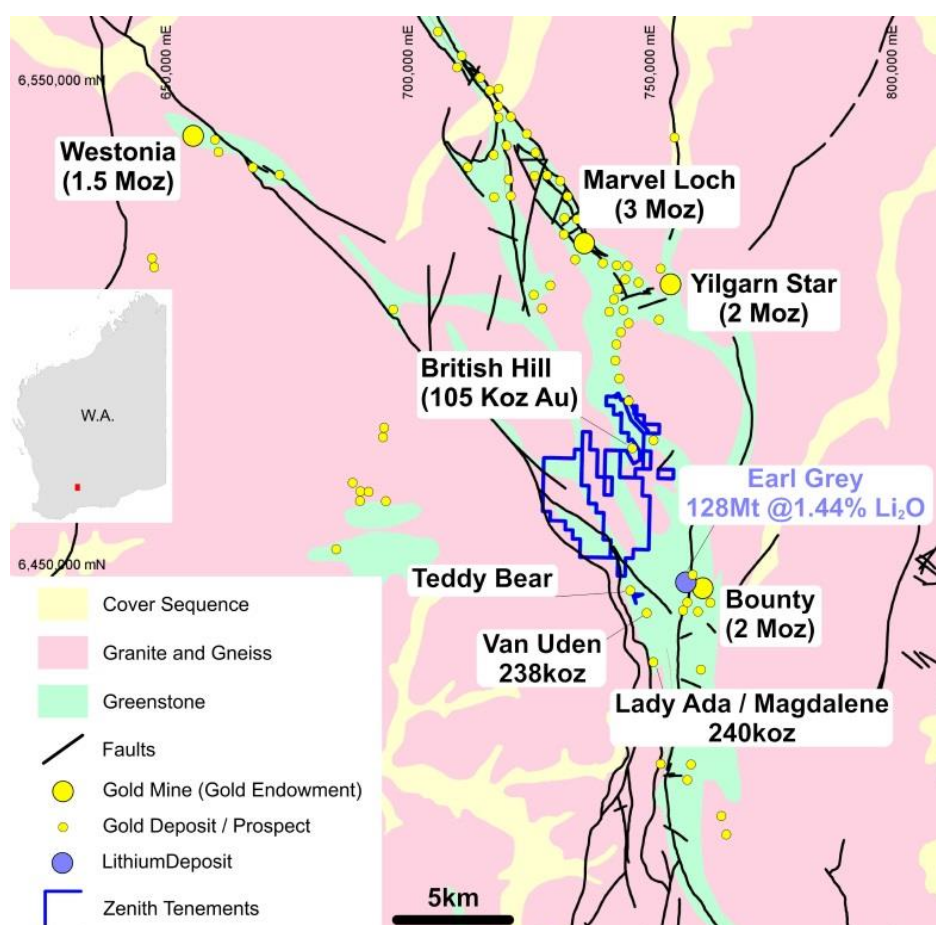


Figure 10: Split Rocks Project Tenure showing major gold deposits in the region

There are two main gold trends in the Forrestania Greenstone Belt an eastern gold trend that includes the Bounty gold mine and associated smaller scale gold deposits extending north to Southern Cross where the large gold mines at Marvel Loch have been exploited. A second gold trend lies on the western side of the greenstone belt and includes deposits that have been mined at Van Uden and Teddy Bear as well as those under assessment by ASX:CLZ at Lady Ada and Lady Magdalene (240k oz gold).

Table 1 – Dulcie Prospect Aircore Drill Collars

Hole ID	Hole Type	East_GDA	North_GDA	RL	Dip	Azimuth	Total Depth
ZDAC001	Aircore	744995	6482626	393	-90	0	42
ZDAC002	Aircore	744920	6482603	387	-90	0	2
ZDAC003	Aircore	744896	6482595	387	-90	0	1
ZDAC004	Aircore	744849	6482579	384	-90	0	8
ZDAC005	Aircore	744767	6482549	386	-90	0	39
ZDAC006	Aircore	744694	6482514	391	-90	0	18
ZDAC007	Aircore	744630	6482482	386	-90	0	14
ZDAC008	Aircore	744555	6482455	394	-90	0	41
ZDAC009	Aircore	744471	6482425	388	-90	0	96
ZDAC010	Aircore	745079	6482659	389	-90	0	31
ZDAC011	Aircore	745148	6482689	393	-90	0	9
ZDAC012	Aircore	745236	6482718	394	-90	0	34
ZDAC013	Aircore	745289	6482734	396	-90	0	5
ZDAC014	Aircore	744766	6483305	384	-90	0	12
ZDAC015	Aircore	744698	6483276	387	-90	0	25



ZDAC016	Aircore	744626	6483249	388	-90	0	10
ZDAC017	Aircore	744856	6483332	389	-90	0	41
ZDAC018	Aircore	745149	6482161	396	-90	0	28
ZDAC019	Aircore	745071	6482136	395	-90	0	7
ZDAC020	Aircore	744996	6482106	390	-90	0	40
ZDAC021	Aircore	744922	6482072	394	-90	0	19
ZDAC022	Aircore	744850	6482046	396	-90	0	17
ZDAC023	Aircore	745231	6482191	400	-90	0	40
ZDAC024	Aircore	745295	6482219	393	-90	0	32
ZDAC025	Aircore	745379	6482247	401	-90	0	11
ZDAC026	Aircore	745446	6482274	406	-90	0	17
ZDAC027	Aircore	745349	6481708	403	-90	0	40
ZDAC028	Aircore	745268	6481685	404	-90	0	7
ZDAC029	Aircore	745181	6481647	401	-90	0	49
ZDAC030	Aircore	745119	6481625	408	-90	0	44
ZDAC031	Aircore	745045	6481598	400	-90	0	21
ZDAC032	Aircore	745428	6481748	402	-90	0	26
ZDAC033	Aircore	745500	6481770	406	-90	0	18
ZDAC034	Aircore	745570	6481796	399	-90	0	5
ZDAC035	Aircore	745642	6481830	405	-90	0	28
ZDAC036	Aircore	745708	6481855	403	-90	0	25
ZDAC037	Aircore	745560	6481208	419	-90	0	26
ZDAC038	Aircore	745488	6481177	422	-90	0	34
ZDAC039	Aircore	745414	6481142	417	-90	0	31
ZDAC040	Aircore	745345	6481108	418	-90	0	26
ZDAC041	Aircore	745636	6481247	420	-90	0	49
ZDAC042	Aircore	745710	6481283	419	-90	0	52
ZDAC043	Aircore	745778	6481313	418	-90	0	43
ZDAC044	Aircore	745851	6481347	417	-90	0	36
ZDAC045	Aircore	745929	6481383	413	-90	0	34
ZDAC046	Aircore	745721	6480719	414	-90	0	30
ZDAC047	Aircore	745654	6480682	413	-90	0	42
ZDAC048	Aircore	745576	6480668	405	-90	0	39
ZDAC049	Aircore	745806	6480744	407	-90	0	4
ZDAC050	Aircore	745885	6480773	412	-90	0	55
ZDAC051	Aircore	745964	6480797	402	-90	0	25
ZDAC052	Aircore	746036	6480831	405	-90	0	24
ZDAC053	Aircore	746112	6480871	424	-90	0	28
ZDAC054	Aircore	745904	6480197	405	-90	0	49
ZDAC055	Aircore	745822	6480171	415	-90	0	34
ZDAC056	Aircore	745754	6480134	405	-90	0	46
ZDAC057	Aircore	745989	6480226	409	-90	0	50
ZDAC058	Aircore	746061	6480258	407	-90	0	32
ZDAC059	Aircore	746137	6480282	404	-90	0	33
ZDAC060	Aircore	746023	6480241	413	-90	0	32
ZDAC061	Aircore	745866	6480186	406	-90	0	51
ZDAC062	Aircore	745983	6479958	412	-90	0	50
ZDAC063	Aircore	745911	6479933	410	-90	0	47
ZDAC064	Aircore	745847	6479906	415	-90	0	52
ZDAC065	Aircore	745765	6479875	417	-90	0	45
ZDAC066	Aircore	746078	6479986	408	-90	0	34
ZDAC067	Aircore	746142	6479998	406	-90	0	32
ZDAC068	Aircore	746213	6480042	402	-90	0	23
ZDAC069	Aircore	746118	6479659	417	-90	0	37
ZDAC070	Aircore	746057	6479637	413	-90	0	56
ZDAC071	Aircore	745978	6479604	414	-90	0	44
ZDAC072	Aircore	745906	6479573	412	-90	0	29
ZDAC073	Aircore	746214	6479688	415	-90	0	41
ZDAC074	Aircore	746288	6479719	405	-90	0	38



ZDAC075	Aircore	746361	6479747	410	-90	0	36
ZDAC076	Aircore	746101	6479760	409	-90	0	35
ZDAC077	Aircore	746051	6479876	409	-90	0	30
ZDAC078	Aircore	745979	6480088	409	-90	0	46
ZDAC079	Aircore	745905	6480299	401	-90	0	45
ZDAC080	Aircore	745866	6480408	407	-90	0	49
ZDAC081	Aircore	745825	6480513	404	-90	0	41
ZDAC082	Aircore	745783	6480635	408	-90	0	43
ZDAC083	Aircore	745711	6480823	415	-90	0	39
ZDAC084	Aircore	745679	6480922	399	-90	0	42
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ZDAC089	Aircore	745462	6481515	414	-90	0	10
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ZDAC092	Aircore	745320	6481906	392	-90	0	48
ZDAC093	Aircore	745278	6482009	395	-90	0	12
ZDAC094	Aircore	745252	6482103	394	-90	0	45
ZDAC095	Aircore	745188	6482280	398	-90	0	14
ZDAC096	Aircore	745151	6482374	397	-90	0	31
ZDAC097	Aircore	745109	6482469	392	-90	0	24
ZDAC098	Aircore	745074	6482558	396	-90	0	37
ZDAC099	Aircore	745003	6482741	389	-90	0	40
ZDAC100	Aircore	744973	6482841	381	-90	0	33
ZDAC101	Aircore	744948	6482932	388	-90	0	10
ZDAC102	Aircore	744913	6483030	386	-90	0	12
ZDAC103	Aircore	744878	6483121	381	-90	0	23
ZDAC104	Aircore	744836	6483209	375	-90	0	13

Table 2 – Dulcie Prospect Significant Cobalt – Nickel Results

Cobalt and Nickel Intercepts at 200ppm Co cut-off, 4m composite samples

	Hole_ID	From (m)	To (m)	Interval (m)	Cobalt (%)	Nickel (%)
	ZDAC010	16	20	4	0.02	0.24
	ZDAC020	20	36	16	0.05	0.34
	ZDAC024	16	20	4	0.03	0.23
	ZDAC038	28	32	4	0.02	0.23
	ZDAC040	4	8	4	0.02	0.11
	ZDAC044	28	32	4	0.03	0.03
	ZDAC047	28	32	4	0.02	0.21
	ZDAC048	12	16	4	0.03	0.18
	ZDAC050	44	48	4	0.04	0.07
	ZDAC054	20	24	4	0.03	0.47
	ZDAC057	20	50	30	0.06	0.75
	ZDAC058	28	32	4	0.04	0.23
	ZDAC060	16	32	16	0.07	0.72
	ZDAC062	24	32	8	0.02	0.09
	ZDAC064	28	32	4	0.03	0.28
	ZDAC068	12	16	4	0.02	0.47
	ZDAC074	28	32	4	0.02	0.08
	ZDAC075	24	32	8	0.02	0.08
	ZDAC078	32	36	4	0.04	0.28
	ZDAC079	20	36	16	0.02	0.41
and	ZDAC079	40	45	5	0.02	0.22
	ZDAC080	20	32	12	0.27	1.45



and	ZDAC080	36	44	8	0.03	0.47
	ZDAC081	20	28	8	0.04	0.44
	ZDAC083	12	16	4	0.02	0.24
	ZDAC085	24	32	8	0.02	0.30
	ZDAC086	20	24	4	0.03	0.18

Table 3 – Dulcie Prospect Significant Scandium Results

Scandium Intercepts at 50ppm Sc cut-off, 4m composite samples

	Hole_ID	From (m)	To (m)	Interval (m)	Sc (ppm)
	ZDAC005	28	32	4	50
	ZDAC008	24	32	8	55
and	ZDAC008	36	41	5	50
	ZDAC020	4	16	12	57
and	ZDAC020	20	24	4	70
	ZDAC024	8	16	8	60
	ZDAC026	4	8	4	50
	ZDAC030	0	32	32	58
	ZDAC031	0	4	4	50
	ZDAC036	16	20	4	50
	ZDAC037	12	26	14	61
	ZDAC038	0	34	34	75
	ZDAC039	0	20	20	52
	ZDAC040	0	4	4	70
and	ZDAC040	16	20	4	50
	ZDAC041	0	8	8	55
	ZDAC042	0	4	4	60
and	ZDAC042	8	12	4	50
and	ZDAC042	32	36	4	50
	ZDAC043	0	43	43	54
	ZDAC044	0	36	36	68
	ZDAC045	0	34	34	61
	ZDAC046	20	24	4	50
	ZDAC047	0	4	4	50
and	ZDAC047	16	32	16	50
	ZDAC048	8	16	8	50
and	ZDAC048	28	32	4	50
and	ZDAC048	36	39	3	50
	ZDAC050	4	12	8	65
and	ZDAC050	20	52	32	59
	ZDAC051	20	25	5	50
	ZDAC052	4	12	8	50
	ZDAC053	4	12	8	50
	ZDAC057	0	24	24	60
	ZDAC058	28	32	4	50
	ZDAC059	12	16	4	60
	ZDAC060	0	20	20	94
	ZDAC062	0	4	4	60
and	ZDAC062	12	28	16	70
and	ZDAC062	32	44	12	60
	ZDAC064	0	12	12	70
	ZDAC064	16	28	12	67
	ZDAC065	12	28	16	78
	ZDAC066	0	20	20	74
	ZDAC067	0	4	4	100



	ZDAC068	0	4	4	80
	ZDAC069	0	8	8	65
	ZDAC070	0	12	12	73
	ZDAC071	8	24	16	98
	ZDAC072	8	16	8	55
	ZDAC073	0	4	4	190
	ZDAC074	0	8	8	105
and	ZDAC074	12	16	4	50
	ZDAC075	0	4	4	80
and	ZDAC075	12	20	8	70
	ZDAC076	0	8	8	70
	ZDAC077	0	4	4	80
and	ZDAC077	12	24	12	77
	ZDAC078	0	4	4	80
	ZDAC080	8	12	4	80
and	ZDAC080	16	24	8	60
	ZDAC087	0	4	4	90

Table 4 – Dulcie Prospect Significant Lithium Results

Lithium Intercepts at 200ppm Li ₂ O cut-off, 4m composite samples			
Hole ID	From	To	Li ₂ O (ppm)
ZDAC101	4	8	278
ZDAC101	8	10	463
ZDAC095	8	12	301
ZDAC102	8	12	278
ZDAC100	8	12	200
ZDAC095	12	14	360
ZDAC100	12	16	245
ZDAC096	12	16	220
ZDAC097	15	19	248
ZDAC100	16	19	269
ZDAC097	19	24	220
ZDAC103	22	23	441
ZDAC096	24	28	271
ZDAC096	28	31	921
ZDAC098	36	37	603

Table 5 – Dulcie Prospect Significant Gold Results

Gold Intercepts at 0.1ppm Au cut-off, 4m composite samples

	Hole_ID	From (m)	To (m)	Interval (m)	Grade (g/t Au)
	ZDAC042	0	4	4	0.35
	ZDAC044	4	8	4	0.30
	ZDAC050	32	36	4	0.12
	ZDAC057	20	50	30	0.64
including	ZDAC057	20	24	4	3.28
and	ZDAC057	28	32	4	0.68
	ZDAC060	12	16	4	0.41
	ZDAC060	28	32	4	0.43
	ZDAC062	32	36	4	0.12
	ZDAC062	40	44	4	0.34
	ZDAC073	0	4	4	0.66
	ZDAC074	32	36	4	0.15



	ZDAC075	0	4	4	0.29
	ZDAC076	0	4	4	0.10
	ZDAC076	28	35	7	1.93
including	ZDAC076	28	32	4	0.14
and	ZDAC076	32	35	3	4.32
	ZDAC079	32	36	4	0.18
	ZDAC080	20	24	4	0.11
	ZDAC080	44	49	5	0.12
	ZDAC081	32	36	4	0.14

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Michael Clifford, who is a Member of the Australian Institute of Geoscientists and an employee of Zenith Minerals Limited. Mr Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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 Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

12th April 2018

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Zenith is advancing its project portfolio of high-quality, gold, lithium and base metal projects:

Kavaklitepe Gold Project, Turkey (ZNC 30%, Teck 70%)

- Recent (2013) grass roots gold discovery in Tethyan Belt
- Continuous rock chip sampling to: 54m @ 3.33g/t gold, including 21.5m @ 7.2 g/t gold
- Initial 2016 drill results include: 9 m @ 5.2 g/t Au from surface, 7.8 m @ 7.3 g/t Au from 3.3 m and 16.4m @ 4.7 g/t Au from 82.1m depth. Follow-up drilling planned 2018.

American Lithium Projects (Bradda Head earning initial 55%)

Zacatecas Lithium Brine Project, Mexico

- New tenure (26,000 acres) over extensive system of salt lakes within an emerging lithium brine district
- Lithium brines to 2.1% lithium reported in sampling conducted by the Mexican Government from solar evaporation ponds for salt production (10km west of Zenith's new tenure).
- Electrical geophysical surveys planned

San Domingo Lithium, Arizona USA

- 9km x 1.5km lithium pegmatite field, initial surface sampling returned: 5m @ 1.97%Li₂O including 2.4m @ 2.49% Li₂O - Drill permits received.

Spencer & Wilson Salt Flat Lithium Brine Projects, Nevada USA

- Two lithium brine targets in producing lithium region - Geophysical surveys & infill sampling prior to drilling

Burro Creek Lithium, Arizona USA (ZNC option to acquire)

- Large scale lithium (Li) clay target under exclusive option - Positive initial metallurgical testwork to assess ease of extracting lithium. Trenching and drilling anticipated to commence April 2018.

Australian Projects

Develin Creek Copper-Zinc-Silver-Gold, QLD (ZNC 100%)

- 3 known VHMS massive sulphide deposits - JORC resources, 50km of strike of host rocks.
- 2011 drilling: 13.2m @ 3.3% copper, 4.0% zinc, 30g/t silver & 0.4g/t gold - Drilling planned to extend known deposits, geophysics, geochemistry to detect new targets

Split Rocks Lithium, Nickel-Cobalt & Gold, WA (ZNC 100%)

- 100% owned exploration licences covering 500km² in emerging Forresteria lithium district.

Tate River Gold QLD (ZNC earning up to 70%)

- Trenching returned 5m @ 3.9g/t Au as well as widespread strongly anomalous gold zones such as 166m @ 0.14g/t Au.

Red Mountain Gold-Silver Project QLD (ZNC 100%)

- Initial reconnaissance rock chip sampling results up to 114 g/t silver and 0.69 g/t gold, associated with strong, open ended silver soil anomaly. Follow-up sampling planned

Waratah Well Lithium -Tantalum Project WA (ZNC 100%)

- Extensive outcropping pegmatites (3km x 2km) in north east of tenure, encouraging lithium rock chip sample results up to 0.34% Li₂O as well as widespread, high-grade tantalum up to 1166ppm Ta₂O₅.

Earaheedy Manganese Project, WA (ZNC 100%) - Manganese province discovered by ZNC, potential DSO drill intersections (+40%Mn)

Mt Alexander Iron Ore, WA (ZNC 100%) - JORC magnetite Resource 566 Mt @ 30.0% Fe close to West Pilbara coast, 50% of target untested - Seeking development partner/ buyer for iron project



Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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 down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i>	4m composite aircore drill samples were collected at depths ranging from 0 to 90m depth. Samples were collected via a cyclone.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	Samples are considered to be representative of the intervals sampled.
	<i>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.</i>	Aircore drilling was used to obtain 4 m composite samples from which 2 kg was pulverised with analysis by XRF for nickel, cobalt and scandium and fire assay for gold, with lithium by sodium peroxide fusion with ICPMS.
Drilling techniques	<i>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.).</i>	Aircore drilling, reverse circulation face sample bit
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	Selected samples were weighed in the field and using an estimated bulk density calculated weights were compared against weighed samples to check against visual estimates of recovery. Recovery data was recorded for each drilled metre.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Aircore drilling, reverse circulation face sample bit ensured good recoveries through-out the drill program, all samples were dry.
	<i>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.</i>	Excellent sample recoveries through-out drill program no bias likely.



Logging	<i>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.</i>	All drill samples were logged by a qualified geologist and descriptions recorded in a digital data base.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i>	Qualitative logging, representative sample retained for each drill metre.
	<i>The total length and percentage of the relevant intersections logged.</i>	100%
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No core
	<i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i>	4m composite samples, by tube sample
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Samples were analysed at SGS Laboratories in Perth, 2 kg was pulverised and a representative subsample was analysed by XRF for nickel, cobalt and scandium and by fire assay for gold, with lithium by sodium peroxide fusion with ICPMS.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	~200g of sample was pulverised and a sub-sample was taken in the laboratory and analysed.
Sub-sampling techniques and sample preparation - continued	<i>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.</i>	Duplicate samples were taken in the field and analysed as part of the QA/QC process
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Each sample was approximately 2kg in weight which is appropriate to test for the grain size of material sampled.
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Samples were analysed at SGS Laboratories in Perth, 2 kg was pulverised and a representative subsample was analysed by XRF for nickel, cobalt and scandium. Scandium was assayed using the XRF technique. The concentrations present at Split Rocks are in some instances toward the lower 10ppm limit of the technique for scandium analysis. Resampling of the mineralised zones at 1m intervals and analysis with a higher precision analytical technique is in progress. Note fire assay was used for gold, with lithium by sodium peroxide fusion with ICPMS.
	<i>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.</i>	Nil



	<i>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.</i>	Blanks, certified reference material for nickel, cobalt, gold and lithium, and duplicate samples were included in the analytical batches and indicate acceptable levels of accuracy and precision. No certified reference material was included for scandium. Resampling of the mineralised zones at 1m intervals and analysis with a higher precision analytical technique is in progress and appropriate certified reference material will be included with the new assays for resamples.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	At least 2 Zenith company personnel have been to the prospect area and observed samples and representative drill chip samples
	<i>The use of twinned holes.</i>	Nil
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Field data were all recorded on paper logs and sample record books and then entered into a database
	<i>Discuss any adjustment to assay data.</i>	No adjustments were made.
Location of data points	<i>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.</i>	Sample location is based on GPS coordinates +/-5m accuracy
	<i>Specification of the grid system used.</i>	The grid system used to compile data was MGA94 Zone 50
Location of data points – continued	<i>Quality and adequacy of topographic control.</i>	Topography control is +/- 10m.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	Drilling is on 80m spaced holes with lines 500m apart, with 100m spaced holes along the base line
	<i>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.</i>	Resampling of composite samples is required before any resource estimation can be made contemplated
	<i>Whether sample compositing has been applied.</i>	Simple weight average mathematical compositing applied
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	All Zenith drilling is vertical and is close to representing true width thickness of the sub-horizontal cobalt – nickel, scandium saprolite mineralisation. Orientations of gold and lithium mineralisation are less certain and further drilling is required to confirm the true orientations of gold and lithium mineralisation
	<i>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.</i>	No bias considered based on current interpretation of sub-horizontal cobalt, nickel & scandium saprolite mineralisation
Sample security	<i>The measures taken to ensure sample security.</i>	All samples were taken by Zenith personnel on site and retained in a secure location until delivered directly to the laboratory by Zenith personnel.



<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	The sampling techniques and data have been reviewed by two company personnel who are qualified as Competent Persons
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Section 2 Reporting of Exploration

Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>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.</i>	The Split Rocks Project is located within 100% Zenith owned exploration licences E77/2388. The project is located predominantly in vacant crown land.
	<i>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.</i>	All tenements are 100% held by Zenith and are in good standing with no known impediment to future granting of a mining lease.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Drilling was completed and reported in previous exploration report, A56331 – Forrestania Gold NL – 1998.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The Forrestania greenstone belt is host to Archaean lode gold mesothermal systems, the area of Zenith's projects has been metamorphosed to amphibolite facies. Forrestania greenstone belt - this emerging lithium district is host to the new Earl Grey lithium deposit containing 128Mt @ 1.44% Li ₂ O (KDR ASX Release 5 th Dec 2016). Zenith is exploring for this style of lithium rich (spodumene) pegmatite. Cobalt, nickel & scandium mineralisation reported herewith is hosted in strongly weathered saprolitic clays overlying ultramafic rocks. Gold mineralisation is hosted within saprolite clays and weathered ultramafic rocks with associated quartz veining and minor pyrite.
<i>Drill hole Information</i>	<i>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:</i>	Drill collars are provided in Table 1, whilst significant cobalt and nickel results are included in Table 2, scandium in Table 3, lithium in Table 4 and gold results in Table 5. Additional regional aircore and RAB drill holes for which there are no cobalt, no nickel, no lithium and no scandium assays have not been reported.
	<i>o easting and northing of the drill hole collar</i>	
	<i>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	
	<i>o dip and azimuth of the hole</i>	
	<i>o down hole length and interception depth</i>	
	<i>o hole length.</i>	
	<i>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.</i>	
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades)</i>	Simple arithmetic weight averaging with minimum cut-off grade of 0.02% cobalt and including up to 4m of internal dilution. Simple arithmetic weight averaging with minimum cut-



	<i>and cut-off grades are usually Material and should be stated.</i>	off grade of 50ppm for scandium and including up to 4m of internal dilution. Simple arithmetic weight averaging with minimum cut-off grade of 200ppm Li₂O and including up to 4m of internal dilution. Simple arithmetic weight averaging with minimum cut-off grade of 0.1 g/t gold and including up to 4m of internal dilution.
	<i>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.</i>	As above and included in Tables
Data aggregation methods - continued	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalents used.
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	All Zenith drilling is vertical and is close to representing true width thickness of the sub-horizontal cobalt – nickel, scandium saprolite mineralisation. Orientations of gold and lithium mineralisation are less certain and further drilling is required to confirm the true orientations of gold and lithium mineralisation
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	As above
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	Length reported are down-hole lengths but are believed to be close to true thickness
Diagrams	<i>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.</i>	Refer to descriptions and diagrams in body of text (Figures 1 & 10)
Balanced reporting	<i>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.</i>	Refer to Figures 1 – 10 and Tables 1- 5 and descriptions in body of text
Other substantive exploration data	<i>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.</i>	No other meaningful or material exploration data to be reported at this stage
Further work	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out</i>	1m resampling of composite samples is required before any resource estimation can be made contemplated Follow-up drill testing is planned to test strike and width



drilling).	potential of the cobalt, nickel & scandium mineralisation, lithium mineralisation and gold mineralisation
<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Follow-up drilling to be planned after receipt of 1m resamples of initial composite samples