# PARTIAL RELINQUISHMENT REPORT April 2023

**Exploration Licence EL 32241** 

**Project Name:** Silver Valley Project

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**Commodities:** Gold (Au), Silver (Ag), Base metals.

**NT: 1:100,000 Sheets:** Murray Downs (5855) Davenport Range (5856)

**Licensee:** Kalk Exploration Pty Ltd

Date: June 2023

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#### 1. SUMMARY

The Silver Valley Project consists of one granted Exploration Licence EL32241. The tenement is located 168 kilometres south south-east of Tennant Creek within the Northern Territory. Access is via the Davenport Loop Road which leaves the Stuart Highway about 40 kms south of the Wauchope Roadhouse.

Kalk Exploration Pty Ltd was unable to complete all its intended exploration programmes on EL32241 due to the backlog created by Covid-19 restrictions in WA the NT and other parts of the country. However, the company was able to review geological data and previous work done on EL32241. Many historical reports were downloaded and review is ongoing.

At the end of year 2, 52 blocks were retained. This report covers activities conducted on the relinquished ground.

No on ground exploration was undertaken on the relinquished ground during the period it was held.

#### 2. LOCATION AND ACCESS

The tenement is located 168 kilometres south south-east of Tennant Creek within the Northern Territory. Access is via the Davenport Loop Road which leaves the Stuart Highway about 40 kms south of Wauchope Roadhouse.

# 3. TENURE

The project is comprised of one granted exploration licence (EL32241) with the tenement details summarised in Table 1 and the location is shown in Figure 1.

**Table 1: Tenement Summary** 

Tenement	Status	<b>Grant Date</b>	Expiry Date	Area (blocks)	Holder
EL32241	Granted	28/04/2021	27/04/2027	52	Kalk Exploration Pty Ltd

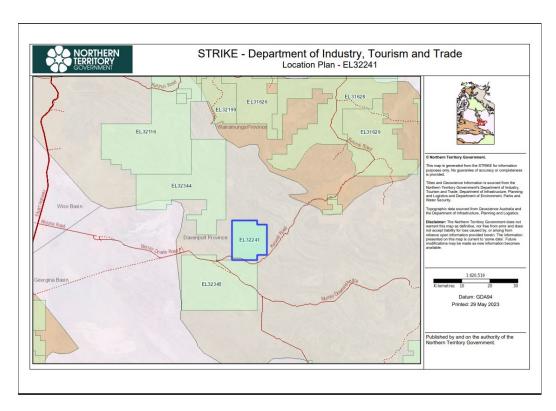
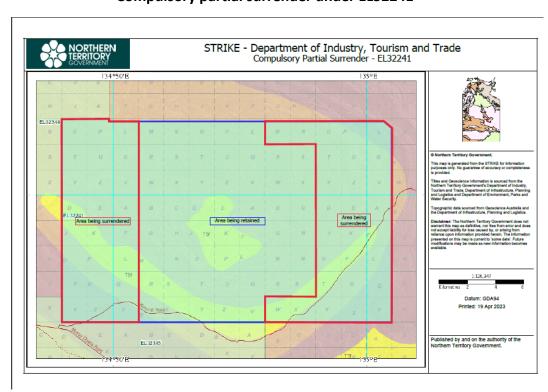


Figure 1 - Location Map EL32241

On 20 April 2023 partial surrender for the reduction of 52 blocks from EL32241 was applied for. Map below shows the surrender areas outlined in red.

# Compulsory partial surrender under EL32241



List of blocks being relinquished.

Grid ID	BIM	Block	Sub Block
SF538260	SF53	826	0
SF53826P	SF53	826	Р
SF53826T	SF53	826	Т
SF53826U	SF53	826	U
SF53826Y	SF53	826	Υ
SF53826Z	SF53	826	Z
SF53827L	SF53	827	L
SF53827Q	SF53	827	Q
SF53827V	SF53	827	V
SF53828M	SF53	828	М
SF53828N	SF53	828	N
SF538280	SF53	828	0
SF53828P	SF53	828	Р
SF53828T	SF53	828	Т
SF53828U	SF53	828	U
SF53828Y	SF53	828	Y
SF53828Z	SF53	828	Z
SF53829L	SF53	829	L
SF53829Q	SF53	829	Q
SF53829V	SF53	829	V
SF53898D	SF53	898	D
SF53898E	SF53	898	E
SF53898J	SF53	898	J
SF53898K	SF53	898	K
SF538980	SF53	898	0
SF53898P	SF53	898	Р
SF53898T	SF53	898	Т
SF53898U	SF53	898	U
SF53898Y	SF53	898	Υ
SF53898Z	SF53	898	Z
SF53899A	SF53	899	Α
SF53899F	SF53	899	F
SF53899L	SF53	899	L
SF53899Q	SF53	899	Q
SF53899V	SF53	899	V

Grid ID	BIM	Block	Sub Block
SF53900D	SF53	900	D
SF53900E	SF53	900	Е
SF53900J	SF53	900	J
SF53900K	SF53	900	K
SF539000	SF53	900	0
SF53900P	SF53	900	Р
SF53900T	SF53	900	Т
SF53900U	SF53	900	U
SF53900W	SF53	900	W
SF53900X	SF53	900	X
SF53900Y	SF53	900	Y
SF53900Z	SF53	900	Z
SF53901A	SF53	901	Α
SF53901F	SF53	901	F
SF53901L	SF53	901	L
SF53901Q	SF53	901	Q
SF53901V	SF53	901	V

#### 4. GEOLOGY

## 4.1 Regional Geology and Mineralisation

The Silver Valley Project Area is underlain in part by the Palaeoproterozoic Oorididgee Group within the Davenport Province of the Tennant Creek Region in central Northern Territory. The geology of the Davenport Province was first described in detail by Blake et. al. (1987), but their description and maps have been modified since that time, most recently by Donnellan (2004) and Donnellan and Johnstone (2002, 2004) after close-spaced low level airborne geophysical surveys were completed over the region.

In the central Tennant Creek Region, volcaniclastic/volcanic rocks, and flysch sediments of the Warramunga Province were intruded by granites and deformed by the Tennant Orogeny at ~1850 Ma. These units and intrusives are unconformably overlain by relatively undeformed and predominantly sedimentary successions of the Ashburton Province to the north and mildly deformed and metamorphosed sedimentary and volcanic successions of the Davenport Province to the south. The basal unit in the Davenport Province, the Oorididgee Group, outcrops predominantly in a discrete inlier known as the Kurinelli Block. The Kurinelli Block is approximately 85 x 50 kilometres in extent, centered in the Kurinelli area. The Kurinelli Block, which is evident as a discrete magnetic/gravity domain in geophysical images, is bounded to the south by the overlying sequences of the Hatches Creek Group and to the north and east by Cambrian, Cainozoic and Recent sediments. An intrusive plug of Hanlon Creek Granite, approximately 12 x 25 kilometres in extent, largely defines the eastern limit of the lower Oorididgee Group units in the Kurinelli Block but upper Oorididgee Group rocks have been mapped to the east of the granite.

The presence of the Hanlon Creek Granite is clearly demonstrated on aeromagnetic images of the region by a domain of uniformly even magnetic character with coincident low Bouguer gravity response. Lesser exposures of the Oorididgee Group occur in major anticlinal domes near Kurundi and Wauchope in the Murchison and Davenport Ranges, 50 - 80 kilometres west of Kurinelli; at Hatches Creek, Skinner Pound, and Murray Downs in the Davenport Range, 30-50 kilometres south of Kurinelli; and at Newlands Creek, 100 kilometres to the southeast of Kurinelli. However, it is only in the Kurinelli Block and at Newlands Creek that the oldest sediments of the Oorididgee Group, the Rooneys Formation, are exposed. In the Kurinelli area, it is this unit, and the dolerites which intrude this unit, that hosts the known gold mineralisation.

The units of the Oorididgee Group are intruded by dolerite (-Pdl) and dioritic to rhyolitic granophyres (-Pgy). The mafic intrusions consist of fine-grained dolerite, ranging to coarse gabbro. They are generally altered, and not present any higher in the sequence than the lower part of the Wauchope Sub-Group (lower Hatches Creek Group) which unconformably overlies the Oorididgee Group. Outcrop and magnetic patterns suggest that some of the dolerites consist of folded stratiform sheets, this is especially the case where the dolerite intrude the Rooneys Formation in the middle of the Kurinelli Block. It would seem from this that the intrusion of dolerite sills in the Kurinelli Block preceded regional deformation and metamorphism of the Oorididgee Group.

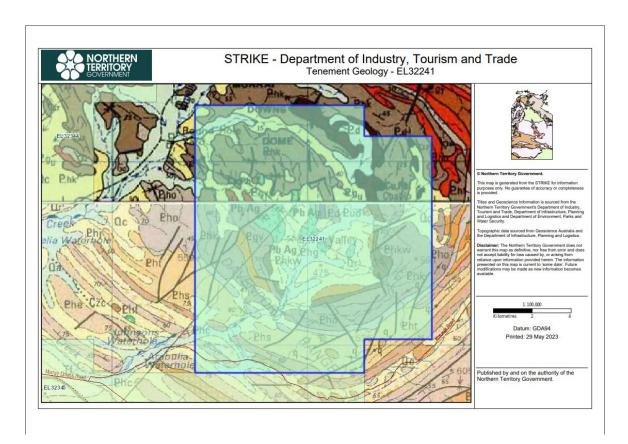


Figure 2 - Tenement Geology EL32241

## 4.2 Local Geology

The tenement flanks the south side of the Davenport Ranges and includes parts of a large anticlinal structure that links the Murray Downs Dome and the Ridgewall Anticline.

The Palaeoproterozoic basement rocks in this area are dominated by Oorididgee Group, and lesser amounts of Wauchope Sub-Group, sedimentary and volcanic rocks.

Basalts of the Edmirringee Volcanics are the oldest units in the project area and occur in the centre of the Murray Downs Dome. This unit hosts the Silver Valley Pb-Ag prospect. In addition, subordinate sills of dolerite and granophyre intrude the younger Kurinelli and Taragan Sandstones. Minor felsic volcanics are also present in this area.

Arenites and siltstones of the Kurinelli Sandstone (and Warnes Sandstone Member) dominate the core of the anticline in the project area. These units host Au deposits about 20 kilometres north of the Murray Downs Dome, for example at the Great Davenport and Aztec Au workings. Sandstone and conglomerate of the Taragan Sandstone are also locally dominant in the Murray Downs Dome.

The Palaeoproterozoic rocks are locally obscured by superficial deposits of Cambrian, Cainozoic, and Holocene ages. Approximately 40-50% of the area is obscured by Quaternary deposits.

#### 5. PREVIOUS EXPLORATION

Tenement EL32241 is operated by Kalk Exploration Pty Limited (Kalk) with exploration focusing on gold, silver, base metals, and cobalt. Work done in the period was confined to geological data review.

#### 6. WORK DONE DURING YEAR 1 to 2

Desktop studies of previous work including geology, geochemistry and geophysics were completed during the period.

Rock chip sampling, collected prior to Kalk were described as chloritised/epidotised rock. Anomalous results were obtained: sample 8441598 was anomalous for zinc; sample 8441599 was anomalous for copper; sample 8441600 was anomalous for zinc and zirconium; sample 8441601 was anomalous for zinc; sample 8441604 was anomalous for copper. (See Figure 3 and Table 2).

Silver was moderate and gold results were low.

The suite of samples was extensive and designed to obtain petrological understanding of the sample areas. See Table 2.

No on ground exploration was undertaken on the relinquished ground during the period it was held.

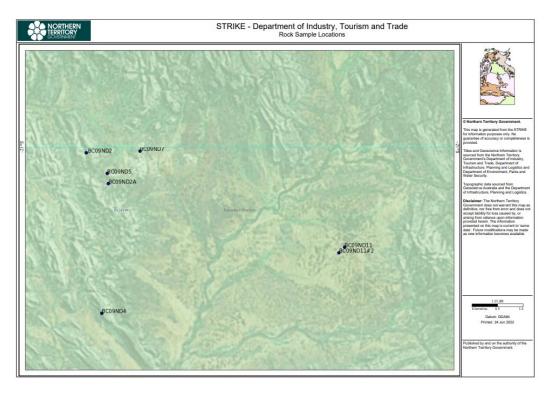


Figure 3 - Rock Sample Locations EL32241

Table 2 – Results - Rock Samples

SampleID	Sample_Ref	Longitude	Latitude	Ag_ PPM	As_ PPM	Ba_ PPM	Be_ PPM	Bi_ PPM	Cd_ PPM	Ce_ PPM
8441598	BC09ND2	134.88369	-21.00629	0.64	2.93	1050.85	0.6	0.2	0.21	17.45
8441601	BC09ND5	134.88241	-21.00245	0.72	2.94	211.42	0.89	0.1	0.11	15.07
8441602	BC09ND7	134.8906	-21.00056	0.74	4.74	605.6	0.76	0.13	0.22	25.44
8441603	BC09ND11	134.92772	-21.01943	0.62	5.56	165.04	0.38	0.08	0.29	11.43
8441599	BC09ND2A	134.88385	-21.00602	0.92	2.33	1380.51	0.77	0.12	0.11	15.55
8441600	BC09ND4	134.8822	-21.00312	1.12	2.12	641.69	2.9	0.38	0.53	33.89
8441604	BC09ND11#2	134.92772	-21.01943	0.88	6.04	160.46	0.32	0.37	0.07	9.6

SampleID	Sample_Ref	Longitude	Latitude	Co_ PPM	Cr_ PPM	Cs_ PPM	Cu_ PPM	Dy_ PPM	Er_ PPM	Eu_ PPM
8441598	BC09ND2	134.88369	-21.00629	62.44	108.22	0.62	56.28	5.18	3	1.21
8441601	BC09ND5	134.88241	-21.00245	58.26	108.5	0.17	11.95	4.61	2.91	1.03
8441602	BC09ND7	134.8906	-21.00056	55.51	21.55	0.53	79.22	5.16	3.44	1.18
8441603	BC09ND11	134.92772	-21.01943	74.73	143.1	1.12	44.1	3.74	2.36	0.85
8441599	BC09ND2A	134.88385	-21.00602	58.93	104.1	0.4	131.76	4.56	2.85	1.05
8441600	BC09ND4	134.8822	-21.00312	58.82	21.28	0.2	65.18	6.46	3.97	1.32
8441604	BC09ND11#2	134.92772	-21.01943	66.58	133.88	1.28	133	3.48	2.32	0.87

SampleID	Sample_Ref	Longitude	Latitude	F_ PPM	Ga_ PPM	Gd_ PPM	Ge_ PPM	Hf_ PPM	Ho_ PPM	La_ PPM
8441598	BC09ND2	134.88369	-21.00629	753	17.71	4.2	2.04	2.47	0.98	8.19
8441601	BC09ND5	134.88241	-21.00245	715	17.01	3.69	2.02	2	0.95	6.5
8441602	BC09ND7	134.8906	-21.00056	563	18.14	4.57	2.05	2.95	1.11	12
8441603	BC09ND11	134.92772	-21.01943	488	14.58	3.04	1.75	1.63	0.82	4.66
8441599	BC09ND2A	134.88385	-21.00602	688	17.96	3.77	1.99	2.03	0.95	6.82
8441600	BC09ND4	134.8822	-21.00312	800	18.61	5.58	2.24	3.71	1.35	15.78
8441604	BC09ND11#2	134.92772	-21.01943	458	16.31	3.03	1.87	1.4	0.78	3.96

SampleID	Sample_Ref	Longitude	Latitude	Lu_ PPM	Mo_ PPM	Nb_ PPM	Nd_ PPM	Ni_ PPM	Pb_ PPM	Pr_ PPM
8441598	BC09ND2	134.88369	-21.00629	0.44	0.1	2.78	11.04	57.49	14.11	2.44
8441601	BC09ND5	134.88241	-21.00245	0.43	0.07	2.29	10.11	58.72	14.8	2.04
8441602	BC09ND7	134.8906	-21.00056	0.5	0.25	3.8	14.56	38.82	10.26	3.26
8441603	BC09ND11	134.92772	-21.01943	0.35	0.14	1.73	7.57	70.43	10.38	1.64
8441599	BC09ND2A	134.88385	-21.00602	0.44	0.28	2.41	9.8	56.27	11.28	2.11
8441600	BC09ND4	134.8822	-21.00312	0.61	0.21	5.01	18.22	31.16	32.79	4.3
8441604	BC09ND11#2	134.92772	-21.01943	0.36	0.08	1.49	6.93	64.74	8.27	1.42

SampleID	Sample_Ref	Longitude	Latitude	Rb_ PPM	Sb_ PPM	Sc_ PPM	Sm_ PPM	Sn_ PPM	Sr_ PPM	Ta_ PPM
8441598	BC09ND2	134.88369	-21.00629	16.88	11.74	52.58	3.13	0.8	113.38	0.21
8441601	BC09ND5	134.88241	-21.00245	6.21	9.68	58.7	3	0.38	204.36	0.18
8441602	BC09ND7	134.8906	-21.00056	18.99	6.96	48.12	4.19	1.18	123.8	0.3
8441603	BC09ND11	134.92772	-21.01943	27.47	0.99	50.49	2.32	0.63	175.01	0.13
8441599	BC09ND2A	134.88385	-21.00602	10.42	6.55	50.7	2.99	0.62	141.86	0.17
8441600	BC09ND4	134.8822	-21.00312	16.86	3.55	45.61	4.26	1.64	169.34	0.41
8441604	BC09ND11#2	134.92772	-21.01943	24.77	1.36	56.64	1.94	0.16	210.6	0.11

SampleID	Sample_Ref	Longitude	Latitude	Tb_ PPM	Th_ PPM	U_ PPM	V_ PPM	W_ PPM	Y_ PPM
8441598	BC09ND2	134.88369	-21.00629	0.78	2.44	0.58	293.83	42.76	27.66
8441601	BC09ND5	134.88241	-21.00245	0.75	1.68	0.4	281	48.98	25.58
8441602	BC09ND7	134.8906	-21.00056	0.86	3.92	0.93	284.35	46.11	31.25
8441603	BC09ND11	134.92772	-21.01943	0.57	1.1	0.22	283.28	54.11	21.67
8441599	BC09ND2A	134.88385	-21.00602	0.7	2	0.46	271.75	38.76	25.75
8441600	BC09ND4	134.8822	-21.00312	1.02	6.26	1.6	289.2	48.34	35.6
8441604	BC09ND11#2	134.92772	-21.01943	0.6	0.89	0.2	295.57	51.66	20.35

SampleID	Sample_Ref	Longitude	Latitude	Yb_ PPM	Zn_ PPM	Zr_ PPM
8441598	BC09ND2	134.88369	-21.00629	2.98	164.68	82.23
8441601	BC09ND5	134.88241	-21.00245	2.86	272.34	72.39
8441602	BC09ND7	134.8906	-21.00056	3.29	57.22	103.67
8441603	BC09ND11	134.92772	-21.01943	2.35	101.66	51.1
8441599	BC09ND2A	134.88385	-21.00602	3.01	107.24	74.02
8441600	BC09ND4	134.8822	-21.00312	4.01	314.41	132.86
8441604	BC09ND11#2	134.92772	-21.01943	2.31	100.46	46.21

#### 7. CONCLUSION AND RECOMMENDATIONS

No site exploration was done on the relinquished ground during the period it was held.

Previous reconnaissance work, mapping and sampling has been useful in finding anomalous base metals and silver which could also be related to gold.

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