Partial Relinquishment Report

Exploration Licence 10189

23rd July 2002 to 22nd July 2015
Northern Territory, Australia

Holder: **Merlin Operations Pty Ltd**

Operator: **Merlin Diamonds Limited**

Reporting Period: **23 July 2002 to 22 July 2015**

Sheet Reference: **Bauhinia Downs 1:250,000 (SE53-03), Walhallow 1:250,000 (SE53-07)**

Due Date: **26 August 2015**

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SUMMARY

This annual report outlines exploration activities undertaken by Merlin Operations Pty Ltd (100% subsidiary of Merlin Diamonds Limited) on the relinquished part of the Exploration Licence 10189 between the 23rd July 2002 and the 22nd July 2015.

Exploration Licence 10189 is situated on the Bauhinia Downs (SE53-03 and Wallhallow (SE53-07) 1:250,000 mapsheets, and the Glyde, Lancewood and Surprise 1:100,000 topographic mapsheets in the Batten Region of the Northern Territory. It is located around 100 kilometres south of Borroloola and is accessed via existing unsealed tracks leading east from the Merlin Mine or north from Kiana Station.

Relinquished area of the EL10189 was extensively explored by Merlin and its predecessor companies. Main Exploration target was diamond bearing kimberlite pipe. However, base metal and uranium prospectivity of the tenement was also assessed but no related on-ground work was conducted on the relinquished area. During the tenure Merlin conducted RC and diamond drilling, collection and processing of the HMA loam and stream samples for recovery of diamond and diamond indicator minerals, microprobe analysis of the recovered chromites and other indicator minerals and (U-Th)/He dating of zircons.

1.0 INTRODUCTION

This partial relinquishment report outlines exploration activities undertaken by Merlin Operations Pty Ltd (100% subsidiary of Merlin Diamonds Ltd) on the relinquished portion of the Exploration Licence 10189 between the 23rd July 2002 and the 22nd July 2015.

2.0 LOCATION AND ACCESS

Exploration Licence 10189 is situated on the Bauhinia Downs (SE53-03) and Walhallow (SE53-07) 1:250,000 mapsheets, and the Glyde, Lancewood and Surprise 1:100,000 topographic mapsheets in the Batten Region of the Northern Territory. It is located ~100 km south of Borroloola and is accessed via existing unsealed tracks leading east from the Merlin Mine or north from Kiana Station. A tenement location map is provided as Figure 1.

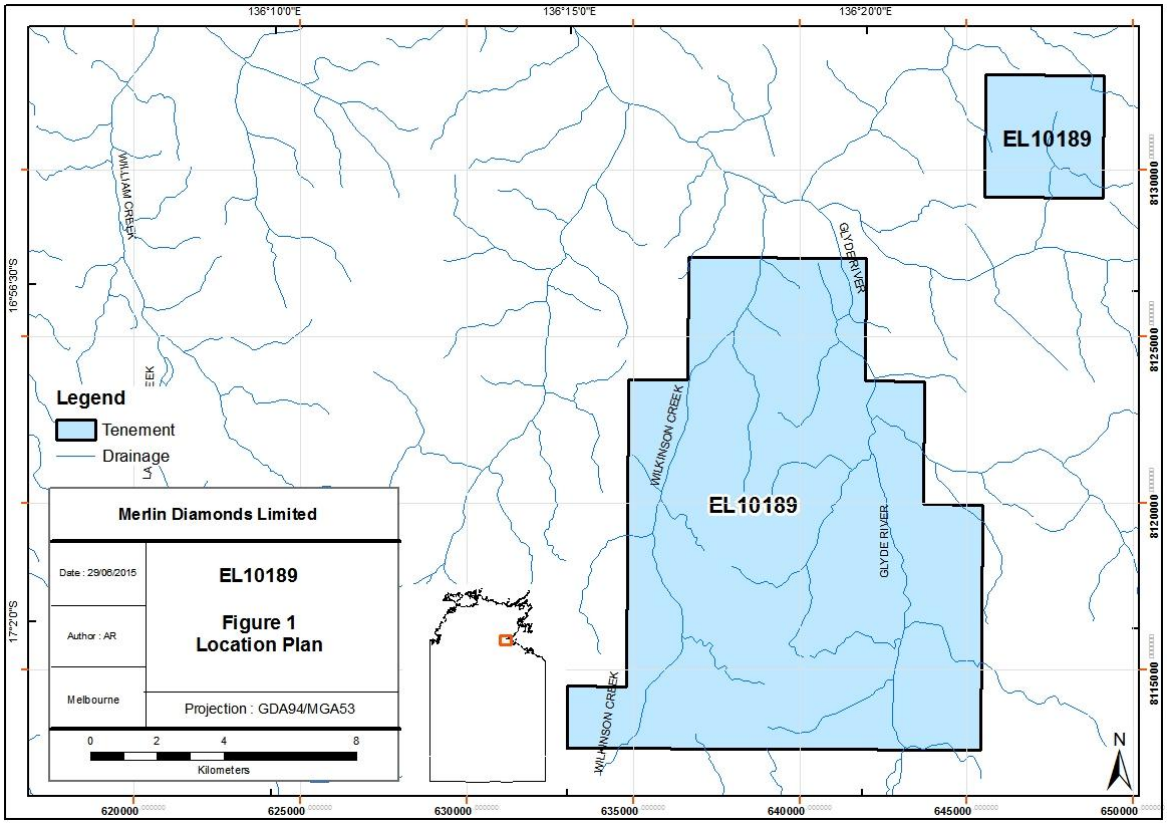

Figure 1: EL10189 Location Plan

3.0 LICENCE DETAILS

EL10189 consisted of 231 blocks, and was granted to Ashton Mining Limited (a wholly owned subsidiary of Rio Tinto Limited) on 23rd July 2002 for six years. Striker Resources NL (Striker) acquired a 100% interest in EL 10189 during 2003 and transferred the tenure

to wholly owned subsidiary 'Bulgurri Diamonds'. In 2005 Striker changed its name to North Australian Diamonds Limited (NAD). NAD applied for renewal of the Licence for 2 years in June 2012 and reduced the Licence from 231 blocks to 64 blocks. In late 2012, NAD was renamed as Merlin Diamonds Limited (MDL). MDL lodged second renewal application accompanied with a request for further reduction in Licence area to 45 blocks in June 2014. Recently, MDL has requested another extension in term for 2 years and submitted 17 blocks for relinquishment, reducing the area held to 28 blocks (Figure 2). Details for EL10189 are outlined in Table 1 below.

Name	Status	Effective Date	Grant Date	Expiry Date	Blocks	Holder	Percentage
EL10189	Grant	23/07/02	23/07/02	22/07/2017	28	Merlin Operations Pty Ltd	100

Table 1: Licence details for EL10189

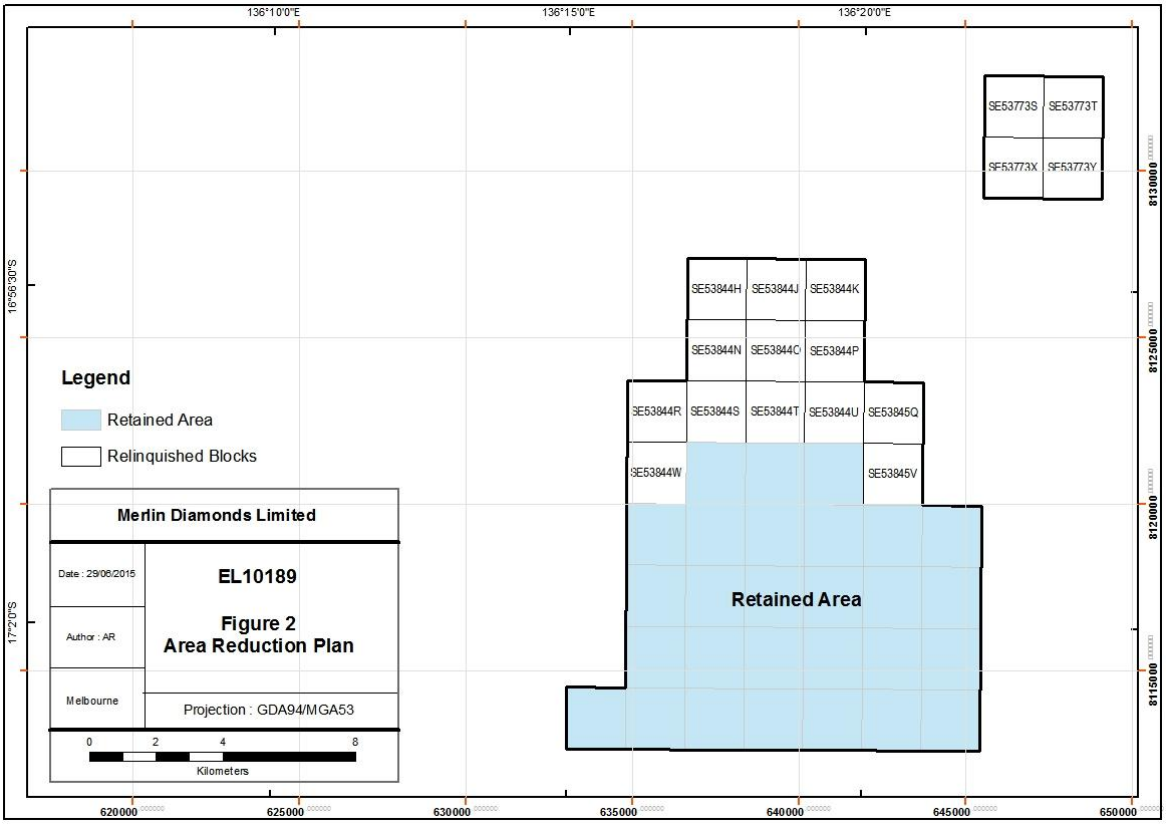

Figure 2: EL10189 Area Reduction Plan

4.0 GEOLOGY

EL10189 is located over the northeast margin of the Neoproterozoic Georgina Basin overlying the south east of the Mesoproterozoic McArthur Basin. It lies not far to the north east of the Cretaceous Dunmarra Basin. Neoproterozoic Bukalara Sandstone of the Georgina Basin outcrops over most of the EL. A narrow horst block of Mesoproterozoic

Tawallah Group and Roper Group traverses the northeast margin of the EL. Cenozoic sands overlie Neoproterozoic sediments in the south. The Merlin kimberlite field is located immediately to the north of the EL.

The NNW-SSE trending Emu Fault Zone is a broad, major fault zone that passes though the EL 10189. Georgina Basin sediments preserved from erosion extends northwards as a broad belt around the fault zone. Numerous faults that parallel to sub parallel the Emu Fault Zone traverse the central and eastern portions of the EL. These faults define the margins of the horst block along the northeast margin of the EL. The NW-SE trending Calvert Fault, which intersects the Emu Fault Zone proximal to the Merlin kimberlite field, passes just to the north of the EL 10189. A number of major and minor faults paralleling to the Calvert Fault pass through EL. One can be interpreted to extend out towards the Abner Range kimberlitic sandstone breccia pipes.

At the regional scale, the geology of EL 10189 is essentially the same as the area to the north that hosts the Merlin kimberlite field. Structures that traverse the Merlin kimberlite field traverse the EL. Within EL 10189, there is excellent potential for repetitions of the regional and local structural configurations that control the location of the Merlin kimberlites.

Regional gravity data shows that the Merlin kimberlite field and the Abner Range kimberlitic breccia pipes are located along either margin (gradient) of a regional north-south trending gravity ridge. The Merlin field is also located over a major NE-SW trending gravity lineament (gradient) that intersects the north-south trending gravity ridge. The regional gravity patterns associated with the Merlin kimberlite field are applicable to EL 10189 as well given the scale of the data. The gravity data is mainly mapping deep-seated Proterozoic basement domains and structure, however, the geological processes that influenced the gravity patterns also influenced the surface geology and geomorphology. It is noticeable that prominent NW-SE trending gravity lineaments broadly parallel the major fault-controlled drainage patterns in the region.

Regional magnetics data shows the Merlin kimberlite field to be located along the eastern margin of the vast deep-seated magnetic high. The eastern margin of the magnetic high is terminated along the NNW-SSE trending Emu Fault Zone. A magnetic lineament associated with the Calvert Fault that intersects the Emu Fault Zone near the Merlin kimberlite field is also evident in the regional data. Traversing the EL 10189 is a number

of NNW-SSE trending magnetic lineaments that parallel the Emu Fault Zone. The patterns suggest potential for repetitions of the regional structural configuration evident for the Merlin kimberlite field.

Kimberlitic intrusions and diatremes in the McArthur Basin region are commonly located proximal to major geophysical domain contacts probably mapping major, deep-seated structures. EL10189 contains much the same regional gravity and magnetic patterns and lineament trends that potentially represent favourable tectono-structural settings that control the locations of kimberlitic intrusions and diatreme breccia pipes in the McArthur Basin.

5.0 EXPLORATION UNDERTAKEN OVER THE RELINQUISHED AREA

Year One – 2002 to 2003

- Licence granted to Ashton Mining on 23rd July 2002.
- Rio Tinto decide to close Merlin Diamond Mine and commencement negotiations to divest surrounding exploration Licences.
- No field work completed by RTE due to divestment of Licence.

Year Two – 2003 to 2004

- Signing of 'Letter of Intent' with Rio Tinto Limited subsidiary Ashton Mining.
- Licence transferred to Merlin Diamonds Limited subsidiary Bulgurri Diamonds.
- Heritage clearance undertaken and Mine Management Plan approved.

Year Three – 2004 to 2005

- Four RC drill holes (TND-001 to TND-004) and two diamond drill holes (TND-005 and TND-006) were completed for a total of 628 meters to test geophysical anomaly HUM07. No kimberlite was intersected and based on the intersected geology the anomaly was interpreted to be a sinkhole infilled with Cretaceous sediments. Drill logs are given in Appendix A. Drill holes locations are given in Table 2 and depicted in Figure 3. Unfortunately where about of drill core from this drilling program is unknown as the people who carried out this work are no more with the Company and the only information available about the drilling has already been provided in 'Striker Resources NL, EL10189-Annual Exploration Report for year 2004-2005'.

Hole ID	Hole Type	Anomaly	Easting AGD66 53	Northing AGD66 53	RL	Dip	Depth (m)
TND-001	RC	HUM07	647027	8130371	185	-90	37
TND-002	RC	HUM07	647019	8130434	185	-90	85
TND-003	RC	HUM07	646950	8130379	185	-90	73
TND-004	RC	HUM07	647027	8130313	185	-90	85
TND-005	DD	HUM07	647015	8130369	185	-90	179.2
TND-006	DD	HUM07	647005	8130382	185	-60	168.8

Table 2: Detail of drill holes drilled during 2004-2005

- Seven drill spoil samples (04-038-001 to 04-038-007) were collected for recovery of microdiamonds and indicator minerals but were not processed as analytical data from other seven samples (04-038-008 to 04-038-014) collected for geochemical analysis (probed for major and trace elements) was negative for kimberlite geochemistry. Geochemical data is attached as Appendix B. Details of geochemical samples are given below (Table 3).

Sample ID	Drill Hole	Anomaly	Easting AGD66/53	Northing AGD66/53	Depth From	Depth To
04-038-008	TND-005	HUM07	647015	8130369	45	45
04-038-009	TND-005	HUM07	647015	8130369	47	47
04-038-010	TND-005	HUM07	647015	8130369	71	71
04-037-011	TND-005	HUM07	647015	8130369	89	89
04-038-012	TND-005	HUM07	647015	8130369	121	121
04-037-013	TND-005	HUM07	647015	8130369	143	143
04-037-014	TND-005	HUM07	647015	8130369	153	153

Table 3: Details of geochemical samples

- A morphological assessment of the alluvial diamonds recovered by Ashton Mining from bulk sampling in 2000 was undertaken to determine whether the diamonds may be shedding from a primary or secondary source. The report concluded that 62% of the alluvial diamonds are considered to be from a primary source of which 43% have not undergone significant travel.
- Of the 13 loam and 6 stream sediments samples collected for heavy mineral analysis (HMA) during 2004-2005, only 2 steam samples (05-018-010 and 05-018-011) were from the relinquished area. Samples details and analytical results are given in Table 4 and samples locations are shown in Figure 3. HMA samples were found to be negative for diagnostic kimberlitic minerals.

Sample ID	Sample Type	Easting AGD66/53	Northing AGD66/53	Sample Result	Diamond	Chromite
05-018-010	Stream gravel	637593	8126366	Negative	0	0
05-018-011	Stream gravel	637070	8125610	Negative	0	0

Table 4: HMA samples details and results collected during 2004-2005.

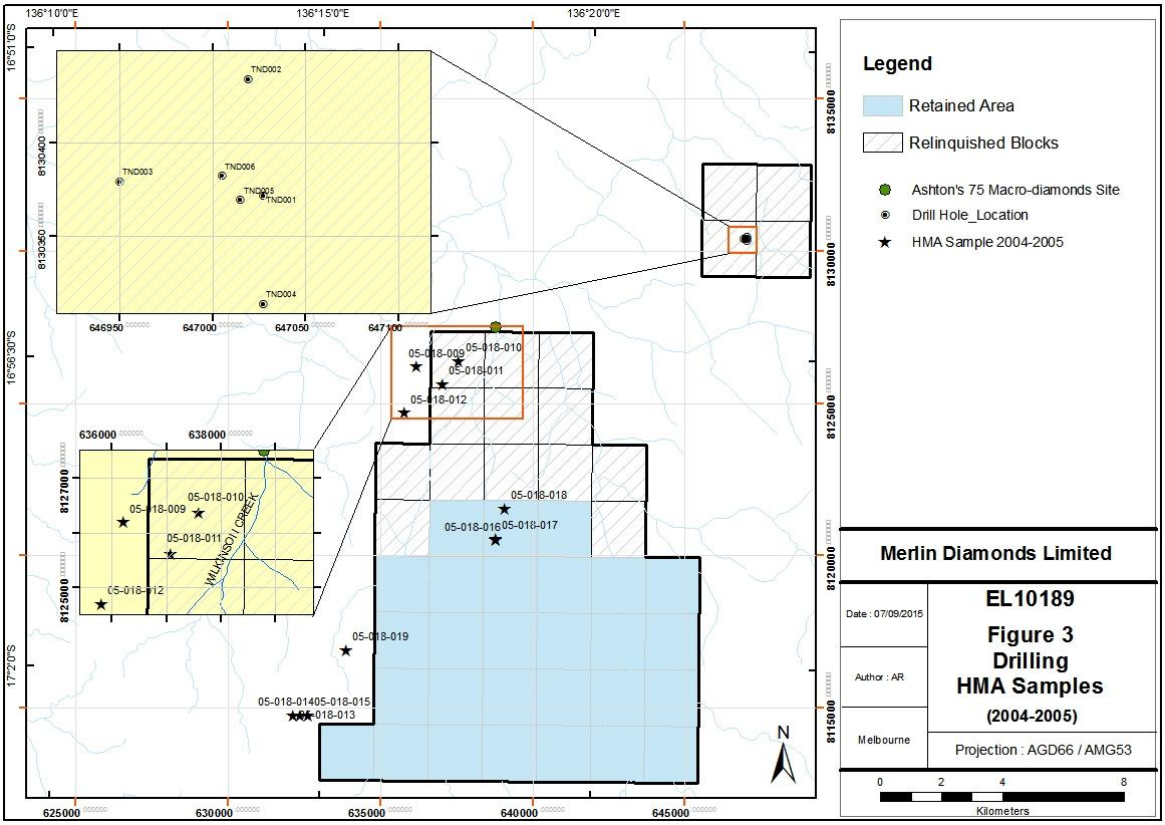

Figure 3: Location of drill holes and HMA samples collected during 2004-2005

Year Four – 2005 to 2006

During 2005-2006 reporting period five stream samples were collected from the relinquished area.

- Four stream samples (05-040-001 to 05-040-004) were collected targeting an area upstream from the Ashton's 75 macro-diamond site for routine HMA analysis. A sample 05-040-001 collected immediately upstream of the 75 diamonds site reported a nb-rutile and another sample (05-040-003) collected over previously identified geophysical anomaly (TIN10) returned one chromite.
- An additional stream sample 05-050-001 collected from another secondary

tributary upstream but close to the Ashton's 75 diamond site also returned one chromites. Samples details and analytical results are given in Table 5 and samples locations are shown in Figure 4.

Sample ID	Sample Type	Easting AGD66/53	Northing AGD66/53	Sample Result	Diamond	Chromite	Other Indicator Minerals
05-040-001	Stream gravel	638975	8125090	Positive	0	0	nb-rutile
05-040-002	Stream gravel	639050	8125520	Negative	0	0	0
05-040-003	Stream gravel	640645	8126000	Positive	0	1	0
05-040-004	Stream gravel	638300	8122950	Negative	0	0	0
05-050-001	Stream gravel	636759	8123876	Positive	0	1	0

Table 5: HMA samples details and results collected during 2005-2006.

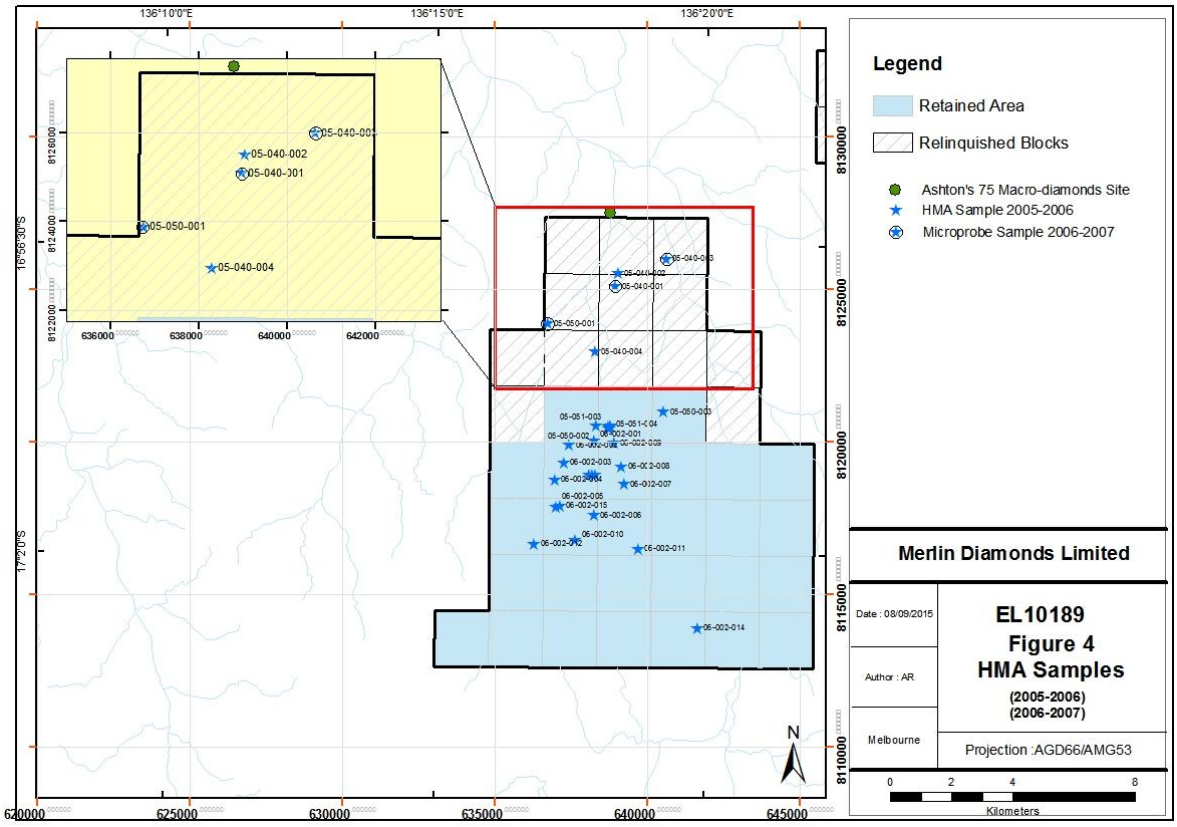

Figure 4: Location of HMA samples and samples subjected to microprobe analysis.

Year Five – 2006 to 2007

A large number of recovered diamond indicator mineral grains from current and historical

samples were analysed by scanning electron microprobe to obtain mineral chemistry. A total of fifty-eight mineral grains were probed which included six recovered indicator mineral grains from samples collected from the relinquished area. The aim was to determine whether these indicator minerals are sourced from a primary kimberlite. The location of probed samples from the relinquished area is shown on Figure 4 and mineral chemistry data is included in Appendix C.

Year Six – 2007 to 2008

- No exploration work was conducted on the relinquished area during 2007-2008.

Year Seven – 2008 to 2009

- No exploration work was conducted on the relinquished area during 2008-2009.

Year Eight – 2009 to 2010

Exploration work completed on the relinquished area during year eight included the collection of various stream zircons, loam, stream and a mini bulk samples. Results from the each program are described below.

- Six stream samples (09-012-001 – 09-012-006) were collected in July 2009 (Table 6, Figure 5) and were sent to CSIRO for (U-Th)/He dating on zircons. Ten zircon grains from each sample were analysed. In all samples, majority of the measured individual grain ages are between 350 Ma to 1250 Ma however 3 zircon grains from two samples yielded <50 Ma age. Results indicate the presence of two young zircon grains (ages 42 ± 2 Ma and 46 ± 2 Ma) in 09-012-001 and one young zircon (29 ± 1 Ma) in another sample 09-012-006. Zircons with older ages (350- 1250 Ma) are interpreted to be derived from the outcropping rocks of Cretaceous to Mesoproterzoic age. However, the younger component of zircons with (U-Th)/He ages of <50 Ma has no known source rock of similar age occurring in the area. Preliminary interpretation is that the young (U-Th)/He ages of these zircons have been reset by a recent transient heating event such as wildfire.

Sample No	Sample Type	Easting	Northing	No of zircons analysed	U-Th (He) Age Components
09-012-001	Stream	638700	8126650	10	1: >50 Ma 2: ~350-1250 Ma
09-012-002	Stream	637950	8125150	10	1: ~350-1250 Ma
09-012-003	Stream	638050	8124950	10	1: ~350-1250 Ma
09-012-004	Stream	640598	8124130	10	1: ~350-1250 Ma
09-012-005	Stream	642052	8121169	10	1: ~350-1250 Ma
09-012-006	Stream	636287	8121147	10	1: >50 Ma 2: ~350-1250 Ma

Table 6: Samples details analysed by (U-Th)/He dating during 2009-2010

- In June 2010, a small indicator mineral sampling program on the relinquished area was conducted to identify further targets for a diamond exploration program. Targets were based on positive Ashton stream sediment samples on the NAD tenement and plus recent positive results from sampling on the adjoining Legend tenement to the west. Seven loam and four stream samples were collected from the relinquished area of the tenement and all samples were processed at company's wholly owned lab in Wangara. Samples details and analytical results are given in Table 7 and samples locations are shown in Figure 5.

Sample ID	Type	Size	Sieved	Easting AGD66/53	Northing AGD66/53	Result	Diamond	Chromite
10-019-001	Stream	40kg	-1mm	647016	8131475	Negative	0	0
10-019-002	Loam	80kg	-1mm	646999	8130995	Negative	0	0
10-019-003	Loam	80kg	-1mm	646506	8131001	Negative	0	0
10-019-004	Stream	40kg	-1mm	646083	8131474	Negative	0	0
10-019-005	Loam	80kg	-1mm	646517	8130455	Negative	0	0
10-019-006	Loam	80kg	-1mm	646396	8130044	Negative	0	0
10-019-007	Stream	40kg	-1mm	646277	8129531	Negative	0	0
10-019-008	Loam	80kg	-1mm	645499	8129504	Positive	0	2
10-019-011	Loam	80kg	-1mm	645477	8129985	Negative	0	0
10-019-012	Loam	80kg	-1mm	645975	8129992	Negative	0	0
10-019-013	Stream	40kg	-1mm	645668	8130515	Positive	0	1

Table 7: HMA samples details and results collected during 2009-2010.

- One mini bulk sample (10-024-001) consisting of 1000kg stream gravels from Wilkinson Creek was collected from the relinquished area. It was located upstream just south of the Ashton's 75 diamond site and reported 19 chromites. The result from this sample is given in Table 8.

Sample ID	Type	Size	Sieved	Easting AGD66/53	Northing AGD66/53	Result	Diamond	Chromite
10-024-001	Mini bulk stream	1000kg	-2mm	638808	8126592	Positive	0	19
11-012-001	Mini bulk stream	1000kg	-2mm	638257	8125443	Positive	0	10

Table 8: Details of mini bulk samples collected during 2009-2010 and 2010-2011.

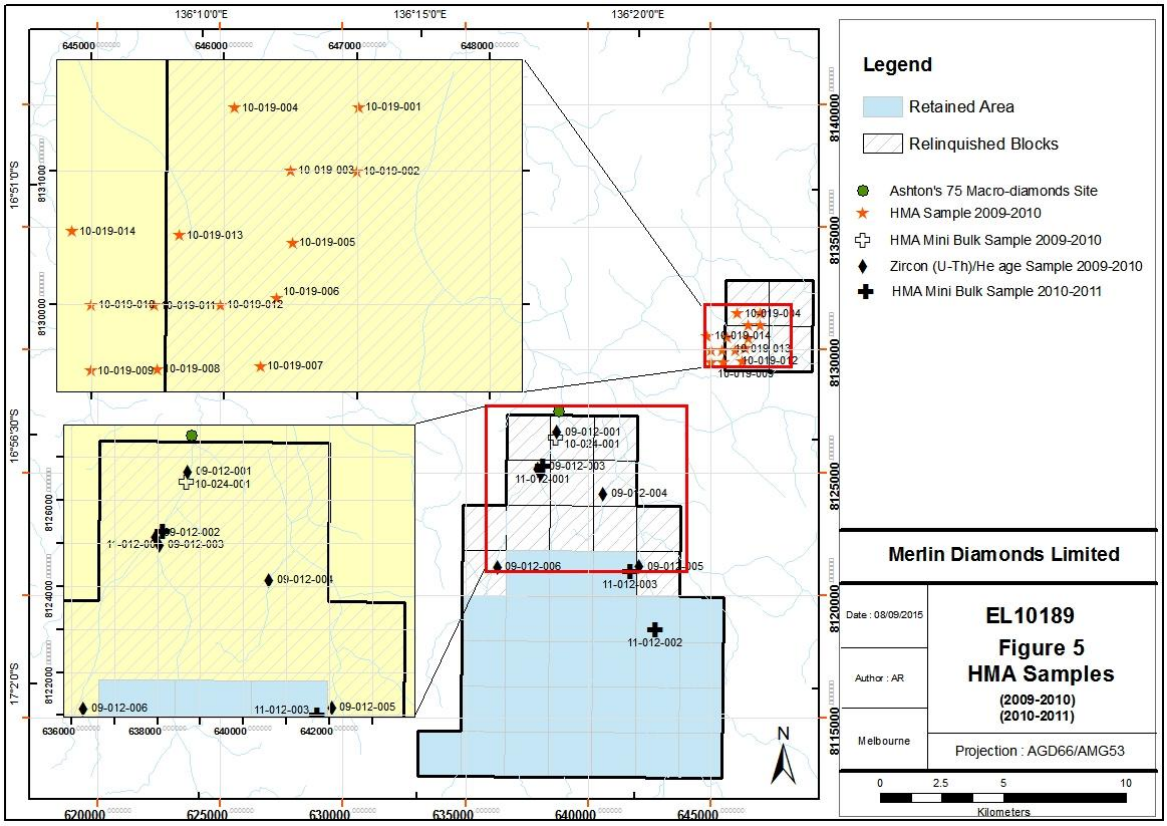

Figure 5: Location of HMA standard and mini bulk samples and (U-Th)/He dating samples.

Year Nine – 2010 to 2011

- During year nine another mini bulk sample (11-012-001) collected from the relinquished area. This sample was located further upstream in Wilkinson Creek to the last year mini bulk sample (10-024-001). The aim was to follow up the positive

results from 10-024-001. Bulk sample was processed at the company laboratory in Perth for heavy mineral analysis. The result was positive yielding 10 chromites (Table 8).

Year Ten – 2011 to 2012

- During the 2011-2012, 8 stream gravel samples collected from the relinquished area (Table 9, Figure 6). After processing at the company laboratory in Perth all 8 samples returned positive results, with a total of 73 chromite grains recovered. These samples were collected further upstream along the Wilkinson Creek to follow-up Ashton's 75 macro-diamonds recovered in historic samples. Each sample comprised 25 bags of -2mm material, which equates to approximately 500kg per sample.

Sample ID	Sample Type	Easting GDA94/53	Northing GDA94/53	Sample Result	Diamond	Chromite
11-012-001	Stream gravel	638242	8125463	Positive	0	10
11-012-003	Stream gravel	641828	8127183	Positive	0	10
11-025-001	Stream gravel	638558	8126413	Positive	0	10
11-025-002	Stream gravel	638712	8126198	Positive	0	22
11-025-003	Stream gravel	638117	8126398	Positive	0	1
11-025-007	Stream gravel	638251	8125742	Positive	0	7
11-025-008	Stream gravel	638507	8125753	Positive	0	10
11-025-009	Stream gravel	638305	8125558	Positive	0	3

Table 9: HMA samples details and results collected during 2011-2012.

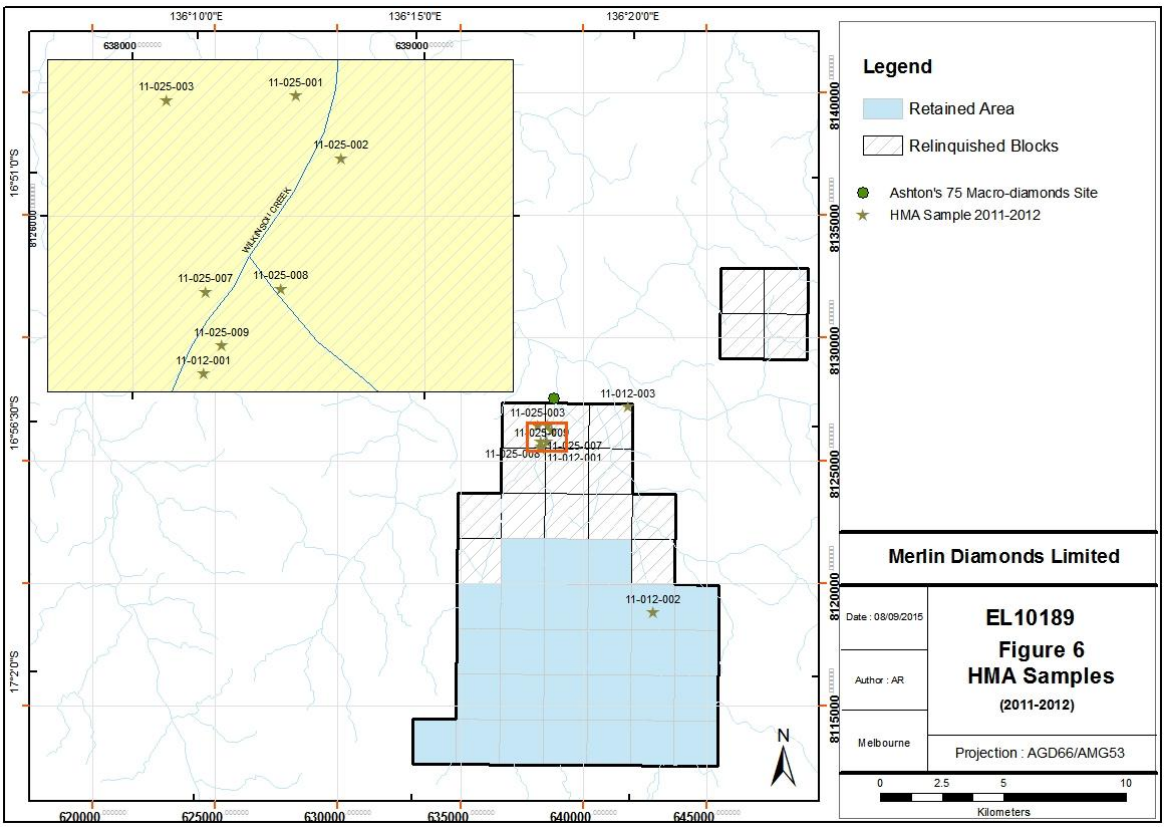

Figure 6: Location of HMA samples collected during 2011-2012.

Year Eleven – 2012 to 2013

- No exploration work was conducted on the relinquished area during 2012-2013.

Year Twelve – 2013 to 2014

- No exploration work was conducted on the relinquished area during 2013-2014.

Year Eleven – 2014 to 2015

- No exploration work was conducted on the relinquished area during 2014-2015.

6.0 CONCLUSION

Numerous HMA samples from the relinquished area have yielded indicator minerals mainly chromite grains suggesting licence is prospective for hosting kimberlite. However, there is a distinct absence of co-existing macro/micro diamonds within the recovered heavy mineral fractions. Therefore, the source of Ashton's 75 macro-diamonds and associated chromites remained unknown. Merlin Diamonds considers that the likelihood of finding a kimberlitic source on the relinquished area is low.

9.0 REFERENCES

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Appendix A

Drill Logs 2004-2005

(See Attachment)

Appendix B

Geochemical Data 2004-2005

(See Attachment)

APPENDIX C: TINTAGEL PROJECT MINERAL CHEMISTRY (Microporbe data)

Sample	Grain_No	Analysis_No	Mineral	Code	SiO_2	TiO_2	Al_2O_3	Cr2O3	V_2O_3	FeO	MnO	MgO	CaO	NiO	ZnO	Nb_2O_5	Total
05-040-001	31	NAD131	Niobian Rutile	RU	1.37	93.37	0.00	0.00	0.00	2.03	0.00	0.00	0.00	0.00	0.00	1.85	98.62
05-040-001	32	NAD132	Ilmenite	IL	0.00	58.41	0.00	0.00	0.00	39.51	1.17	0.00	0.00	0.00	0.00	0.00	99.09
05-040-001	33	NAD133	Pseudobrookite	PB	0.88	70.16	2.23	0.86	0.00	26.27	0.00	0.00	0.00	0.00	0.00	0.00	100.40
05-040-003	34	NAD134	Cr-Spinel	SP	0.00	1.33	28.51	36.55	0.00	23.77	0.00	8.59	0.00	0.00	0.00	0.00	98.75
05-040-003	35	NAD135	Ti-mag?	SP	0.00	2.82	0.00	0.00	0.00	98.43	0.00	0.00	0.00	0.00	0.00	0.00	101.25
05-050-001	19	NAD119	Cr-Spinel	SP	1.54	0.53	13.24	59.84	0.00	16.47	0.00	7.59	0.00	0.00	0.00	0.00	99.21