Attn:

Andrew Donald Barr Property & Planning 92 Young St, Carrington NSW 2294 ADonald@barrpandp.com.au



PO Box 114, Belmont NSW 2280 E: tessa@heritagenow.com.au T: 0425 250 310 W: <u>www.heritagenow.com.au</u> Project Number: HN000126-A

2/10/2020

Dear Andrew,

#### RE: 107 Haussman Drive, Thornton

### Introduction

Heritage Now have been engaged by Barr Property and Planning on behalf of the McCloy Group to provide a desktop assessment as an update to a previous site inspection and Aboriginal due diligence assessment<sup>1</sup>. This assessment has undertaken an updated AHIMS search and analysis of previous findings.

## **Project Area**

The Project area is located at Lot 2 DP1145348 Haussman Drive, Thornton North. The proposal is to rezone the land, which was previously used as a quarry, for residential use. The less disturbed areas are proposed to be rezoned into an E2 Zone. The impact area is almost identical to the previous impact area with the detention basin, a 200m x 60m portion along the north and the north access way.

## AHIMS Search

An updated Aboriginal Heritage Information System (AHIMS) was undertaken on 4 September 2020 from latitude -32.7867 to -32.7501 and longitude 151.6074 to 151.6551. The search produced a result of 116 sites. These sites were plotted based on the coordinates provided in the AHIMS search (Figure 1, Attachment A).

There is one Aboriginal site that was registered in the Project Area, registered as AHIMS #38-4-0399 (there is also a duplicate recording of this site listed as AHIMS #38-4-0355). The site has been salvaged/destroyed and is no longer present (Figure 1).

There is one site registered on AHIMS 15 metres east of the boundary of the Project Area, AHIMS #38-4-2001 and comprised an artefact scatter of 14 silcrete stone artefacts (Attachment B). According to the site card (Attachment B) this site extends 12 metres and has low scientific significance with the artefact types and materials being represented elsewhere in the locality; however, it has also been nominated for test excavation under the Code of Practice<sup>2</sup>. However, the AHIMS coordinates for this site differ from the map included in the site card and it is likely that this site is located 450 metres to the east. Numerous attempts were made to contact the archaeologist who recorded the site to clarify its location, but as yet, no further information has been received.

<sup>&</sup>lt;sup>1</sup> Mary Dallas Consulting Archaeologists, "Due Diligence Aboriginal Heritage Assessment for a Senior Living Development at 107 Haussman Drive, Thornton," 2018.

<sup>&</sup>lt;sup>2</sup> DECCW, *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (Department of Environment, Climate Change and Water, 2010).

There is a narrow strip of vegetation that appears not to have been previously disturbed by the quarry activity (Figure 2) and while AHIMS #38-4-2001 the first order drainage lines in this area are associated with numerous Aboriginal sites.

The most common site type in the area are surface artefact sites accounting for 89% of all sites. This includes isolated finds and artefact scatters. Where the number of artefacts was not specified in the AHIMS search, the label artefact/s has been given.

Other site types in the area include Potential Archaeological Deposits (PAD). PADs have also been found in association with artefacts, however this is a rarer site type, accounting for only 4% of sites in the area. The site types identified in the AHIMS search are summarised in Table 1.

#### Table 1 Site Types

Site types	Number	Per cent
Artefact/s	64	55.17%
Isolated Find	22	18.97%
Artefact Scatter	17	14.66%
PAD	8	6.90%
Artefact/s + PAD	5	4.31%
Total	116	100.00%

Of the sites identified 18.10% of sites have been salvaged/destroyed and 1.72% have been partially salvaged/destroyed, meaning that they have been subject to an Aboriginal Heritage Impact Permit. Majority of the sites affected have been surface artefact sites with only one Artefact + PAD site being salvaged/destroyed and one other being partially destroyed. Further details are provided in Table 2. Additional information on the environmental and heritage context is provided in Attachment C.

#### Table 2 Site Status

Site types	Salvaged/Destroyed	Partially Salvaged /Destroyed	Valid	
Artefact/s	13		1	50
Isolated Find	5			17
Artefact Scatter	2			15
PAD				8
Artefact/s + PAD	1		1	3
Total	21		2	93
Per cent	18.10%	1.	72%	80.17%





Figure 1 Updated AHIMS Search Results





Figure 2 Close-up of AHIMS site #38-4-2001

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## Analysis and Review

The Project Area has previously been subject to an Aboriginal Due Diligence Assessment by Mary Dallas Consulting Archaeologists<sup>3</sup> which included a site inspection and Aboriginal consultation. The current impact area is almost identical to the previous, except for the detention basin, a 200m x 60m portion along the north and the north access way. It is noted that this previous assessment addressed the same block of land (Lot 2, DP11453348). The previous assessment included the environmental and heritage context, undertook predictive modelling and Aboriginal consultation, as well as impact assessment and recommendations, thus the report meets the requirements under the Due Diligence Code<sup>4</sup>.

The visual inspection was undertaken with a member of the Mindaribba Local Aboriginal Land Council (Jason Brown). No previously unidentified Aboriginal sites were observed, and the area was found to be highly disturbed and modified.

The previous report recommended that no further heritage works were required, but that works were to cease and protocols followed if Aboriginal objects or bones suspected of being human were uncovered.

Since the previous report, artefacts have been identified along the first order creekline which meets the Project Area in the east in an area that does not appear to have been previously impacted by the quarry, as such it is possible that there are additional artefacts associated with this site in the current impact area related to the detention basis. As such, a visual inspection in the vicinity in this area is warranted on the basis of the sensitivity of the landform and apparent lack of disturbance in this portion of the Project Area.

## Conclusions

This desktop assessment has updated the AHIMS search and reviewed the previous Aboriginal Due Diligence Assessment. The previous assessment meets the requirements of the Due Diligence Code<sup>5</sup>. However, subsequent to this assessment Aboriginal artefacts have been identified along the first order creeklines in the area and there is a narrow strip of vegetation within the Project Area which appears to have not been disturbed and thus may have Aboriginal artefacts present.

A visual inspection in the vicinity of the AHIMS recorded location of AHIMS #38-4-2001 is needed if this vegetated area is to be impacted and this should be undertaken as part of the detailed design for the Development Application.

The protocols for outlined in the previous report are also to be followed if Aboriginal objects or bones suspected of being human were uncovered.

<sup>4</sup> DECCW, "Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales" (Sydney, NSW: Department of Environment, Climate Change and Water, 2010).
<sup>5</sup> DECCW.

<sup>&</sup>lt;sup>3</sup> Mary Dallas Consulting Archaeologists, "Due Diligence Aboriginal Heritage Assessment for a Senior Living Development at 107 Haussman Drive, Thornton."



# Attachment A AHIMS Search



**Extensive search - Site list report** 

Client Service ID : 533190

<u>SiteID</u>	SiteName	<b>Datum</b>	<u>Zone</u>	<b>Easting</b>	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatu</u>	<u>es</u>	<u>SiteTypes</u>	<u>Reports</u>
88-4-0342	Four Mile Creek 1;	AGD	56	370510	6372100	Open site	Valid	Artefact : -		Open Camp Site	2742,100988
	Contact	<b>Recorders</b>	Noel	een Curran					Permits	2592,2809,2810,3011	
8-4-0345	Thornton 1;	AGD	56	373900	6371700	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	<u>Recorders</u>	Mr.P	eter Kuskie					Permits	718,887	
8-4-0346	Thornton 2;	AGD	56	373750	6371900	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	<u>Recorders</u>	Mr.P	eter Kuskie					Permits	718,887	
3-4-0347	Thornton 3;	AGD	56	373450	6371700	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	<u>Recorders</u>	Mr.P	eter Kuskie					<u>Permits</u>	718,887	
8-4-0348	Thornton 4;	AGD	56	373200	6371670	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	<b>Recorders</b>	Mr.P	eter Kuskie					Permits	718	
3-4-0349	Thornton 5;	AGD	56	373370	6372350	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	<u>Recorders</u>	Mr.P	eter Kuskie					Permits	718,887	
8-4-0352	Thornton 8;	AGD	56	373850	6372960	Open site	Valid	Artefact : -		Isolated Find	100924
	Contact	<b>Recorders</b>	Mr.P	eter Kuskie					Permits	718,887	
-4-0353	Thornton 9;	AGD	56	373650	6372980	Open site	Valid	Artefact : -		Open Camp Site	100924
	Contact	<b>Recorders</b>	Mr.P	eter Kuskie					<u>Permits</u>	718	
3-4-0354	Thornton 10;	AGD	56	373470	6372400	Open site	Valid	Artefact : -		Open Camp Site	100924,10256 8
	<u>Contact</u>	Recorders	Mr.P	eter Kuskie					<u>Permits</u>	718,887	0
-4-0355	T 1; (Duplicate of 38-4-0399)	AGD	56	372100	6373200	Open site	Destroyed	Artefact : -		Isolated Find	103954
	Contact	Recorders	Mary	Dallas Cons	ulting Archaed	ologists (MDCA),No	eleen Curran,Ms.Lu	ıcinda O'Conn	Permits		
3-4-0356	T 2 Beresfield	AGD	56	372500	6373200	Open site	Destroyed	Artefact : -		Open Camp Site	
	<u>Contact</u>	Recorders	Noel	een Curran,N	As.Penny Mcca	rdle			<u>Permits</u>		
3-4-0360	Thornton 12;	AGD	56	373750	6371400	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	Recorders	Mr.P	eter Kuskie					<u>Permits</u>		
-4-0361	Thornton 11;	AGD	56	373700	6372300	Open site	Valid	Artefact : -		Open Camp Site	102568
	<u>Contact</u>	Recorders	Mr.P	eter Kuskie					<u>Permits</u>		
3-4-0363	Tenambit_2;	AGD	56	369780	6375250	Open site	Valid	Artefact : -		Isolated Find	
	Contact	Recorders	Ms.Ji	ll Ruig					Permits		
3-4-0364	Tenambit 3;	AGD	56	369880	6375220	Open site	Valid	Artefact : -		Isolated Find	
	<u>Contact</u>	Recorders	Ms.Ii	ll Ruig					<u>Permits</u>		
8-4-0365	Thornton 11;	AGD	· · ·	373700	6372300	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	Recorders	Mr.P	eter Kuskie					<u>Permits</u>	718,887	
	Thornton 11;	AGD		373750	6371400	Open site	Valid	Artefact : -		Open Camp Site	102568
3-4-0366											

Report generated by AHIMS Web Service on 04/09/2020 for Tessa Boer-Mah for the following area at Lat, Long From : -32.7867, 151.6074 - Lat, Long To : -32.7501, 151.6551 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 116



**Extensive search - Site list report** 

Client Service ID : 533190

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatu</u>	res	<u>SiteTypes</u>	<u>Reports</u>
38-4-0426	FMC3;	AGD	56	370500	6372450	Open site	Valid	Artefact : -		Open Camp Site	100512,10098
	Contact	Decondere	Liam	Dess					Donmite	2502 2000 2010 2011	8
38-4-0429	Contact ASH-1;	Recorders AGD		Dagg 369900	6372500	Open site	Valid	Artefact : -	<u>Permits</u>	2592,2809,2810,3011 Isolated Find	
50 1012)	Contact	Recorders		laire Everett	0072000	opensite	Vullu	in teluce .	<u>Permits</u>	isolated i ma	
38-4-0431	FMC 2;	AGD		370640	6372720	Open site	Valid	Artefact : -		Open Camp Site	100512,10098
50 1 0 151	1.002,	nab	50	570010	0072720	opensite	Vullu	in tendet .		open damp bite	8
	<u>Contact</u>	<b>Recorders</b>	Liam	Dagg					Permits	2592,2809,2810,3011	
38-4-0432	FMC 4;	AGD	56	370700	6372780	Open site	Valid	Artefact : -		Open Camp Site	100512,10098
	Cambrat	Deservations	Linu	Deee					Dermite	000 2502 2000 2010 20	8
38-4-0433	Contact FMC 5;	Recorders AGD		Dagg 371160	6372880	Open site	Valid	Artefact : -	<u>Permits</u>	889,2592,2809,2810,30 Open Camp Site	100512
50 1 0 1 55	Contact	Recorders			0372000	opensite	Vanu	m telact.	Permits		100312
38-4-0434	FMC 6;	AGD		Dagg 371140	6372800	Open site	Valid	Artefact : -		889 Open Camp Site	100512
50 1 0 15 1		Recorders			0372000	opensite	Valia	m telact .	<u>Permits</u>	889	100312
38-4-0435	Contact FMC 7;	AGD		Dagg 371040	6372760	Open site	Valid	Artefact : -		Isolated Find	100512
00 1 0 100	Contact	Recorders		Dagg	0072700	openene	, und	in condet i	<u>Permits</u>	889	100012
38-4-0436	FMC 8;	AGD		371060	6372140	Open site	Valid	Artefact : -		Open Camp Site	100512
	Contact	Recorders		Dagg					<u>Permits</u>	889	
38-4-0437	FMC 9;	AGD		370580	6372180	Open site	Valid	Artefact : -		Isolated Find	100512
	Contact	Recorders	Liam	Dagg		•			Permits		
38-4-0395	T2; Beresfield	AGD		372500	6373200	Open site	Destroyed	Artefact : -		Open Camp Site	2880
	<u>Contact</u>	<u>Recorders</u>	Noel	een Curran,M	Is.Penny Mcca	rdle			Permits		
38-4-0399	T1;.	AGD		372100	6373200	Open site	Destroyed	Artefact : -		Isolated Find	2880,103954
	Contact	<u>Recorders</u>	Mary	v Dallas Consi	ulting Archaeo	logists (MDCA),Noe	leen Curran,Ms.Luo	cinda O'Conn	Permits		
38-4-0401	Thorn-1;	AGD	56	372200	6371600	Open site	Valid	Artefact : -		Open Camp Site	3060,99973,10
		_									2568,102615
20 4 0 4 1 6	Contact	Recorders		Stuart	(272760	Over en eite	17-1: -1	A set a far at	<u>Permits</u>	Include of Final	100512
38-4-0416	FMC 2;	AGD		370380	6372750	Open site	Valid	Artefact : -		Isolated Find	100512
20 4 0121	Contact	Recorders		Dagg	6272000	Onen eite	Valid	Antofost	<u>Permits</u>	859 Onon Comp Site	
38-4-0121	None Specified	AGD		373000	6373000	Open site	Valid	Artefact : -		Open Camp Site	
38-4-0123	Contact	Recorders AGD	P Jon	ares 373100	6374900	Open site	Valid	Artefact : -	<u>Permits</u>	Open Comp Site	
30-4-0123	None Specified				03/4900	Open site	Valid	Aitelact : -		Open Camp Site	
38-4-0125	Contact None Specified	Recorders AGD		ares 372900	6374200	Open site	Valid	Artefact : -	<u>Permits</u>	Open Camp Site	
50-4-0125					0374200	opensite	vallu			open camp site	
	Contact	<u>Recorders</u>	P Jon	ies					<u>Permits</u>		

Report generated by AHIMS Web Service on 04/09/2020 for Tessa Boer-Mah for the following area at Lat, Long From : -32.7867, 151.6074 - Lat, Long To : -32.7501, 151.6551 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 116



Extensive search - Site list report

Client Service ID : 533190

38-4-0625Inornon 3 (T3)AGDAGDAGDS3716886373737Open siteValidArtefact : 140106acordersMCH - McCardle:Littural Heritage Pty LtdValidArtefact : 1214138-4-0626Thornton Substation PAD1AGDS371688SS73737Open siteValidPotentialArchaeological	<u>Reports</u>
38-4-0626         Thornton Substation PAD1         AGD         56         371688         6373373         Open site         Valid         Potential Archaeological Deposit (PAD) : 0           Contact         Recorders         MCH - McCarlle Cultural Heritage Pty Ltd         Potential         Archaeological Deposit (PAD) : 0           S8-4-0688         Metford Road PAD         AGD         56         369498         6374333         Open site         Valid         Potential Archaeological Deposit (PAD) : 0           S8-4-0688         Metford Road PAD         Recorders         MCH - McCarlle         Cultural Heritage Pty Ltd         Valid         Potential Archaeological Deposit (PAD) : 1           S8-4-0688         Metford Road PAD         Recorders         MCH - McCarlle         Cultural Heritage Pty Ltd         Valid         Potential Archaeological Deposit (PAD) : 1           S8-4-0780         PAD1 Four Mile Creek South         Recorders         MS	
Archaeological Deposit (PAD): 0       Archaeological Deposit (PAD): 0         Totat       Recorder       Kecorder       Seventer       Permits       1389         Starter       Reformer       Recorder       Seventer       Seventer       Permits       1389         Starter       Reformer       Recorder       Seventer       Seventer       Permits       1389         Starter       Reformer       Recorder       Seventer	
38-4-0688       Metford Road PAD       AGD       56       369498       6374833       Open site       Valid       Potential       Archaeological       Deposit (PAD) : 1         Contact       Recorders       AGD       56       369498       6374833       Open site       Valid       Potential       Archaeological       Deposit (PAD) : 1         38-4-0779       PAD1 Four Mile Creek South       AGD       56       369900       6372125       Open site       Valid       Potential       Archaeological       Deposit (PAD) : 1         38-4-0780       PAD1 Four Mile Creek South       AGD       56       369900       6372125       Open site       Valid       Potential       Archaeological       Deposit (PAD) : -       Open site       Valid       Potential       Archaeological       Deposit (PAD) : -       Open site       Valid       Potential       Archaeological       Deposit (PAD) : -       Open site       Valid       Potential       Archaeological       Deposit (PAD) : -	
Archaeological Deposit (PAD) : 1 Tortat PAD Four Mile Creek South Accounded to the Accound	
AGD       56       36900       6372125       Open site       Valid       Potential         AGD       56       369900       6372125       Open site       Valid       Potential         Archaeological       Deposit (PAD) :-       Deposit (PAD) :-       Deposit (PAD) :-       Deposit (PAD) :-         38-4-0780       PAD2 Four Mile Creek Tributary       AGD       56       370350       6371935       Open site       Valid       Potential         38-4-0780       PAD2 Four Mile Creek Tributary       AGD       56       370350       6371935       Open site       Valid       Potential       Archaeological         Totact       Recorders       Imwelt (Australia) Pty Limited - Individual users       Valid       Potential       Archaeological       Deposit (PAD) :-	
Image: Contact       Recorders       Umwelt (Australia) Pty Limited - Individual users       Archaeological Deposit (PAD) : -       2022         38-4-0780       PAD2 Four Mile Creek Tributary       AGD       56       370350       6371935       Open site       Valid       Potential       Archaeological         38-4-0780       PAD2 Four Mile Creek Tributary       AGD       56       370350       6371935       Open site       Valid       Potential       Archaeological       Deposit (PAD) : -       Totaeological	
38-4-0780       PAD2 Four Mile Creek Tributary       AGD       56       370350       6371935       Open site       Valid       Potential         Archaeological       Deposit (PAD) :-         Star-0780       Four Mile Creek South       AGD       56       369863       6371935       Open site       Valid       Potential       Deposit (PAD) :-         Star-0780       Four Mile Creek South       AGD       56       369863       6372082       Open site       Valid       Arefact : 2	99960
Contact     Recorders     Umwelt (Australia) Pty Limited - Individual users     Archaeological Deposit (PAD) : -       38-4-0781     Four Mile Creek South     AGD     56     369863     6372082     Open site     Valid     Artefact : 2	
38-4-0781         Four Mile Creek South         AGD         56         369863         6372082         Open site         Valid         Artefact : 2	99960
•	
ContactRecordersUmwelt (Australia) Pty Limited - Individual usersPermits2809,3011	
38-4-0803         Thornton North 8 - TN 8         AGD         56         372030         6375350         Open site         Valid         Artefact : -	100914
Contact T Russell Recorders Mr.Peter Kuskie Permits 2113,2509,2880,	2881,3341
38-4-0804         Thornton North 9 - TN9         AGD         56         371580         6375000         Open site         Valid         Artefact : -	100914
Contact T Russell <u>Recorders</u> Mr.Peter Kuskie <u>Permits</u> 2113,2509,2880,	2881,3341
38-4-0833       Four Mile Creek PAD       AGD       56       371333       6373772       Open site       Valid       Potential         Archaeological       Deposit (PAD) : -       Deposit (PAD) : -	
ContactT RussellRecordersAECOM Australia Pty Ltd - SydneyPermits2140	
38-4-0886         Thornton Beechwood 15         AGD         56         372390         6375260         Open site         Valid         Artefact : 1	103380
ContactT RussellRecordersMr.Peter KuskiePermits3875	
38-4-0887         Thornton Beechwood 11         AGD         56         372340         6375110         Open site         Valid         Artefact : 1	103380
ContactT RussellRecordersMr.Peter KuskiePermits3875	
38-4-0888         Thornton Beechwood 6         AGD         56         372275         6374489         Open site         Valid         Artefact : 2	103380
ContactT RussellRecordersMr.Peter Kuskie, Mr.Peter KuskiePermits2816,2817,3875	
38-4-0889         Thornton North 27 (TN27)         AGD         56         371130         6373600         Open site         Valid         Artefact : 1	100988
ContactT RussellRecordersMr.Peter KuskiePermits2809,3011,3642	
38-4-0890         Thornton North 1         AGD         56         373125         6373986         Open site         Valid         Artefact : -	

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**Extensive search - Site list report** 

Client Service ID : 533190

<u>SiteID</u>	<u>SiteName</u>			Zone	Easting	<u>Northing</u>		<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
38-4-0891	<u>Contact</u> Thornton Nort	T Russell	Recorders AGD		es (dup ID# 373185	12832) Hamm 6373705	open site	Destroyed	Artefact : -	2592,2819	
30-4-0091							•	Destroyeu		2502 2010 2100 2745	
38-4-0892	<u>Contact</u> Thornton Nort	T Russell	<u>Recorders</u> AGD		373444	itage Consulta 6373951	Open site	Valid	<u>Permits</u> Artefact : 1	2592,2819,3189,3745	
30-4-0092								vanu		2502 2010	
38-4-0893	<u>Contact</u> Thornton Nort	T Russell	<u>Recorders</u> AGD		es (dup ID# 373105	12832) Hamm 6373500	Open site	Destroyed	Artefact : -	2592,2819	
30-4-0093							•	Destroyeu		2502 2010 2100	
38-4-0849	Contact PAD1 Four mil	T Russell e creek south-2	<u>Recorders</u> AGD		es (dup 1D# 369900	12832) Hamm 6372125	Open site	Valid	Permits Artefact : 2	2592,2819,3189	
30-4-0049						0372123	Open site	vanu		2502 2000 2010 2011	
38-4-0850	Contact PAD2 Four Mil	Searle e Creek Tributary -2	<u>Recorders</u> AGD		Wilson 370350	6371935	Open site	Valid	Permits Potential	2592,2809,2810,3011	100988
30-4-0030	TADZ TOUT MIT	coreck montaly -2	Aub	50 .	570550	0371733	opensite	vanu	Archaeological		100,00
									Deposit (PAD) : 1		
	<u>Contact</u>	Searle	<u>Recorders</u>	Janice	Wilson				Permits 1 1	2592,2809,2810	
38-4-0927	Thornton Nort	h Site 1 - Lot 20	AGD	56	372943	6374863	Open site	Valid	Artefact : 6		
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamn	1		<u>Permits</u>		
38-4-0928	Thornton Nort	h Site 2 - Lot 20	AGD	56	373068	6373723	Open site	Destroyed	Artefact : 1		
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	3745,4359	
38-4-0929	Thornton Nort	h Site 3 - Lot 20	AGD	56	373007	6373565	Open site	Destroyed	Artefact : 2		104167
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	3745,4359	
38-4-0930	Thornton Nort	h Site 4- Lot 1	AGD	56	372623	6373439	Open site	Valid	Artefact : 1		
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	4531	
38-4-0931	Thornton Nort	h Site 1 Lot 1	AGD	56	372597	6373409	Open site	Valid	Artefact : 3		
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	4531	
38-4-0932	Thornton Nort	h Site 2 Lot 1	AGD	56	372474	6373634	Open site	Valid	Artefact : 2		
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	4531	
38-4-0933	Thornton Nort	h Site 3 Lot 1	AGD	56	372620	6373595	Open site	Valid	Artefact : 2		
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	4531	
38-4-0934	Thornton Nort	h Site 4 - Lot 20	AGD	56	372620	6373595	Open site	Valid	Artefact : 3		104167
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamn	1		Permits	4359	
38-4-0935	Thornton Nort	h Site 5 - Lot 20	AGD	56	372960	6373457	Open site	Destroyed	Artefact : 2		104167
	<b>Contact</b>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits	4359	
38-4-0936	Thornton Nort	h Site 6 - Lot 20	AGD	56	372958	6373278	Open site	Valid	Artefact : 40		104167
	<u>Contact</u>	T Russell	<u>Recorders</u>	Mr.Gil	es (dup ID#	12832) Hamm	1		Permits		
38-4-0937	Thornton Nort	h Site 7 - Lot 20	AGD	56	372818	6373445	Open site	Valid	Artefact : 1		104167
	<b>Contact</b>	T Russell	<b>Recorders</b>	Mr.Gil	es (dup ID#	12832) Hamn	1		<b>Permits</b>		

Report generated by AHIMS Web Service on 04/09/2020 for Tessa Boer-Mah for the following area at Lat, Long From : -32.7867, 151.6074 - Lat, Long To : -32.7501, 151.6551 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 116



**Extensive search - Site list report** 

Client Service ID : 533190

<u>SiteID</u>	SiteName	Datum	Zone	Easting	Northing	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
38-4-0938	Thornton North Site 8 - Lot 20	AGD	56	372843	6373494	Open site	Valid	Artefact : 2		104167
	Contact T Russell	<b>Recorders</b>	Mr.G	iles (dup ID#	12832) Hamm	ı		Permits		
38-4-0939	Thornton North Site 9 - Lot 20	AGD	56	372800	6373535	Open site	Valid	Artefact : 1		104167
	Contact T Russell	<u>Recorders</u>	Mr.G	iles (dup ID#	12832) Hamm	l		<u>Permits</u>		
38-4-0942	Thornton North 7 (TN7)	AGD	56	371410	6375280	Open site	Valid	Artefact : 20		100914
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie				Permits	2509,2880,2881,3341	
38-4-0943	Thornton North 3 (TN3)	AGD	56	371950	6375050	Open site	Valid	Artefact : 3		100914
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie				Permits	2880,2881,3341	
38-4-0944	Thornton North 13 (TN13)	AGD	56	371090	6374740	Open site	Valid	Artefact : 18		100914
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie				<u>Permits</u>	2468,2592,2880,2881,3	341,3642
38-4-0945	Thornton North 12 (TN12)	AGD	56	371260	6374960	Open site	Valid	Artefact : -		100914
	Contact T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2880,2881,3341	
38-4-0881	Thornton North 26 (TN26)	AGD	56	371000	6373790	Open site	Valid	Artefact : 5		
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie				<u>Permits</u>	2468,2592,3642	
38-4-0882	Thornton North 21 (TN21)	AGD	56	371040	6374100	Open site	Valid	Artefact : 6		
	Contact T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				<u>Permits</u>	2468,2592,3642	
38-4-0883	Thornton North 20 (TN20)	AGD	56	371040	6374400	Open site	Valid	Artefact : 1		100914
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie				<u>Permits</u>	2880,2881,3341,3642	
38-4-0884	Thornton North 2 (TN2)	AGD	56	371950	6375000	Open site	Valid	Artefact : 1		100914
	Contact T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				<u>Permits</u>	2880,2881,3341	
38-4-0978	Thornton North PAD 1	AGD	56	371564	6374950	Open site	Valid	Potential		
								Archaeological		
	<u>Contact</u> Searle	Recorders	Ms P	enny Mccard	م			Deposit (PAD) : - <u>Permits</u>	2509	
38-4-1028	Segment B PAD	AGD		370755	6372758	Open site	Valid	Potential	2307	
						· · · · · ·		Archaeological		
								Deposit (PAD) : -		
	<u>Contact</u> Searle	Recorders			Pty Ltd - Sydn			<u>Permits</u>	2592,2809,2810,3011	
38-4-0124	Parkwood;	AGD		372850	6373300	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	<u>Recorders</u>						<u>Permits</u>		
38-4-1292	Thornton Bridge 1	GDA	56	372595	6371690	Open site	Partially	Artefact : -		102615,10339
	Contact	Recorders	Шты	velt (Australia	) Ptv Limited	- Individual users Ni	Destroyed che Environment a	and Heritage Permits	3398,3944	1
38-4-1643	Lot 2 Govt Road Thornton	GDA		373775	6374010	Open site	Partially	Artefact : -, Potential		
							Destroyed	Archaeological		
								Deposit (PAD) : -		
	<u>Contact</u>	Recorders	Mr.G	iles (dup ID#	12832) Hamm	L		<u>Permits</u>	3725	

Report generated by AHIMS Web Service on 04/09/2020 for Tessa Boer-Mah for the following area at Lat, Long From : -32.7867, 151.6074 - Lat, Long To : -32.7501, 151.6551 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 116



Extensive search - Site list report

Client Service ID : 533190

<u>SiteID</u> 38-4-1754	<mark>SiteName</mark> VALAIRE LAND 1/A	<u>Datum</u> GDA	<u>Zone</u> 56	<b>Easting</b> 373723	Northing 6373735	<u>Context</u> Open site	<u>Site Status</u> Valid	SiteFeature Artefact : -	25	<u>SiteTypes</u>	<u>Reports</u>
50 1 1/51	Contact	Recorders		eter Kuskie	0373733	opensite	Valla		Dormita	3899	
38-4-1755	VALAIRE LAND 2/A	GDA		373522	6373438	Open site	Valid	Artefact : -	<u>Permits</u>	3099	
50 1 1755	,				0070100	opensite	Vunu		Dormite	3899	
38-4-1756	Contact VALAIRE LAND 2/B	Recorders GDA		eter Kuskie 373722	6373618	Open site	Valid	Artefact : -,	Permits Potential	2099	
50-4-1750		UDA	50	575722	0373010	open site	valiu	Archaeolog Deposit (PA	ical		
	<u>Contact</u>	<u>Recorders</u>	Sout	n East Archa	eology				<u>Permits</u>	3899	
38-4-1757	VALAIRE LAND 4/A	GDA	56	373727	6373345	Open site	Valid	Artefact : -			
	Contact	<b>Recorders</b>	Mr.P	eter Kuskie					<u>Permits</u>	3899	
38-4-1758	VALAIRE LAND 5/A	GDA	56	373571	6373318	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie					<u>Permits</u>	3899	
38-4-1759	RPS Thornton AS1	GDA	56	373569	6373835	Open site	Destroyed	Artefact : 1			
	<u>Contact</u>	<u>Recorders</u>	RPS /	Australia Eas	t Pty Ltd - Har	nilton			<u>Permits</u>		
38-4-1760	RPS Thornton AS2	GDA	56	373823	6373858	Open site	Destroyed	Artefact : 1			
	<u>Contact</u>	Recorders	RPS /	Australia Eas	t Pty Ltd - Har	nilton			Permits		
38-4-1733	TB16	GDA	56	372495	6375495	Open site	Valid	Artefact : -,	Potential		
								Archaeolog	ical		
								Deposit (PA	-		
20.44504	Contact	Recorders		son Barr		o	** 1. 1		<u>Permits</u>	3875	
38-4-1734	TB14	GDA	56	372353	6375445	Open site	Valid	Artefact : -, Archaeolog			
								Deposit (PA			
	<u>Contact</u>	Recorders	Mr.P	eter Kuskie.S	outh East Arc	haeology			Permits	3875	
38-4-1789	RPS JN 2	GDA	56	373940	6374242	Open site	Destroyed	Artefact : -			
	Contact	Recorders	RPS	Australia Eas	t Ptv Ltd - Har	nilton,RPS Australia	East Ptv Ltd - Hami	ilton.Ms.Io N	Permits	4157	
38-4-1788	RPS JN 1	GDA		373954	6374267	Open site	Destroyed	Artefact : -		-	
	Contact	Recorders	RPS	Australia Eas	t Ptv Ltd - Har	nilton,RPS Australia	East Ptv Ltd - Hami	ilton.Ms.Io N	Permits	4157	
38-4-1844	MET/1	GDA		370960	6375567	Open site	Valid	Artefact : -			
	Contact	Recorders			'ultural Herita	ge Pty Ltd,Ms.Penny	Mccardle		Permits	4389	
38-4-1995	Lot 131 Site 1 Thornton	GDA		372551	6373614	Open site	Valid	Artefact : -	<u>r crimes</u>	1507	
	Contact	Recorders		iles Hamm		- F			Permits	4531	
38-4-1996	Lot 131 Site 3 Thornton	GDA		372570	6373596	Open site	Valid	Artefact : -	<u>. ermits</u>	1001	
	Contact	Recorders		iles Hamm					<u>Permits</u>	4531	
38-4-2009	Lot 131 Site 9 Thornton	GDA		372692	6373590	Open site	Valid	Artefact : -	<u>r er mits</u>	7JJ1	
0012007				iles Hamm	0070070	opensite	, and		Dormite	4521	
	Contact	<u>Recorders</u>	MI.G	nes namm					<u>Permits</u>	4531	

Report generated by AHIMS Web Service on 04/09/2020 for Tessa Boer-Mah for the following area at Lat, Long From : -32.7867, 151.6074 - Lat, Long To : -32.7501, 151.6551 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 116



**Extensive search - Site list report** 

Client Service ID : 533190

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	Northing	Context	<u>Site Status</u>	<u>SiteFeatur</u>	es	<u>SiteTypes</u>	<u>Reports</u>
38-4-1976	RTRD03	GDA	56	372860	6373415	Open site	Valid	Artefact : -			
	Contact	<b>Recorders</b>	Biosis	s Pty Ltd - V	Vollongong,Mr:	s.Samantha Keats			Permits		
38-4-1977	RTRD14	GDA	56	372807	6373263	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Biosis	s Pty Ltd - V	0 0.	S.Samantha Keats			<u>Permits</u>		
38-4-1978	RTRD01	GDA	56	372949	6373504	Open site	Destroyed	Artefact : -			104167
	<u>Contact</u>	<u>Recorders</u>			0 0	S.Samantha Keats			Permits	4359	
38-4-1979	RTRD04	GDA		372988	6373530	Open site	Destroyed	Artefact : -			104167
	<u>Contact</u>	<u>Recorders</u>				s.Samantha Keats			Permits	4359	
38-4-1980	RTRD05	GDA	56	372993	6373548	Open site	Destroyed	Artefact : -			104167
	<u>Contact</u>	<u>Recorders</u>			0 0	s.Samantha Keats			Permits	4359	
38-4-1981	RTRD13	GDA	56	372869	6373260	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>		-		S.Samantha Keats			Permits		
38-4-1982	RTRD12	GDA		372827	6373268	Open site	Valid	Artefact : -			104167
	Contact	<u>Recorders</u>				S.Samantha Keats			<u>Permits</u>		
38-4-1983	RTRD11	GDA		372874	6373209	Open site	Valid	Artefact : -			104167
	Contact	Recorders				S.Samantha Keats		• • • • •	<u>Permits</u>		
38-4-1984	RTRD10	GDA		373023	6373444	Open site	Destroyed	Artefact : -			
	Contact	Recorders			0.0	S.Samantha Keats			<u>Permits</u>	4359	101115
38-4-1985	RTRD09	GDA		373026	6373381	Open site	Valid	Artefact : -			104167
00 4 4000	Contact	Recorders				S.Samantha Keats		A . C .	<u>Permits</u>		404465
38-4-1986	RTRD08	GDA		372982	6373537	Open site	Destroyed	Artefact : -			104167
00 4 4005	Contact	Recorders			0.0	S.Samantha Keats		A + C +	<u>Permits</u>	4359	404465
38-4-1987	RTRD07	GDA		373011	6373630	Open site	Destroyed	Artefact : -			104167
20 4 1000	Contact	Recorders		-	~ ~	S.Samantha Keats	Destaurad	A	Permits	4359	1041(7
38-4-1988	RTRD06	GDA		373018	6373607	Open site	Destroyed	Artefact : -	<b>n</b>	1050	104167
38-4-1989	Contact	Recorders			0.0	S.Samantha Keats	Valid	Artofact	<u>Permits</u>	4359	104167
30-4-1909	RTRD02	GDA		372909	6373342	Open site	vallu	Artefact : -	D	4350	104107
38-4-1966	Contact Valaire Land 6/A	Recorders GDA		s Pty Ltd - V 373812	ollongong,Mr: 6373466	Samantha Keats Open site	Destroyed	Artefact : 1	Permits Potential	4359	
30-4-1900	Valane Lanu 0/A	GDA	50	575012	0373400	Opensite	Destroyeu	Archaeolog	ical		
	Cambrat	Deserved	M., D	the second second	Cauth East A			Deposit (PA	-		
38-4-1999	Contact Lot 131 Site 4 Thornton	Recorders GDA		eter Kuskie, 372724	South East Arc 6373519	Open site	Valid	Artefact : -	<u>Permits</u>		
30-4-1777					03/331/	opensite	vanu	mulati	Dowmite	4521	
38-4-2000	Contact Lot 131 Site 5	Recorders GDA		les Hamm 372748	6373532	Open site	Valid	Artefact : -	<u>Permits</u>	4531	
30-4-2000		UDA	50	572740	0373332	opensite	vallu	Aitelact : -			

Report generated by AHIMS Web Service on 04/09/2020 for Tessa Boer-Mah for the following area at Lat, Long From : -32.7867, 151.6074 - Lat, Long To : -32.7501, 151.6551 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 116



**Extensive search - Site list report** 

Client Service ID : 533190

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatu</u>	res	<u>SiteTypes</u>	<u>Reports</u>
	Contact	<b>Recorders</b>	Mr.G	iles Hamm					Permits	4531	
38-4-2001	Lot 131 Site 6 Thornton	GDA	56	372274	6373493	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Mr.G	iles Hamm					Permits	4531	
38-4-2002	Lot 131 Site 7 Thornton	GDA	56	372714	6373500	Open site	Valid	Artefact : -			
	Contact	<b>Recorders</b>	Mr.G	iles Hamm					Permits	4531	
38-4-2003	Lot 131 Site 8 Thornton	GDA	56	372523	6373465	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Mr.G	iles Hamm					Permits	4531	
38-4-2033	Raymond Terrace Road IF	GDA	56	373643	6374110	Open site	Valid	Artefact : -			
	Contact	<b>Recorders</b>	RPS.	Australia Eas	t Pty Ltd - Yor	k Street Sydney ,Mrs.	Amanda Crick.		Permits		
38-4-2031	Raymond Terrace Road IF2	GDA	56	373825	6374148	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	RPS .	Australia Eas	t Pty Ltd - Yor	k Street Sydney ,Mrs.	Amanda Crick.		<b>Permits</b>		
38-4-2032	Raymond Terrace Road IF1	GDA	56	373702	6374134	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	RPS .	Australia Eas	t Pty Ltd - Yor	k Street Sydney ,Mrs.	Amanda Crick.		<u>Permits</u>		

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# **Aboriginal Site Recording Form**

	سوووشوم شوهجهم شاوشتين شووشتاه شوشت هاششووه شتشفوه									
Office Use Only Cite number $3, 8, -4, -2, 0, 0, 1$										
Site number 3 8 - 4 - 2 0 0 1										
Date received // Date entered into system // Date catalogued //										
Entered by (I.D.)										
Information a	access									
Gender/male		Office Use Only								
For further in	nformation contact:									
✓ Nominated	d Trustee									
Title	Surname First name Initials									
MR		Client on								
Organisation	S     T     A     N     I     C     S     E     C     U     R     I     T     I     E     S     P     T     Y     L     T     D     S	system								
Address	P O B O X 2 4 0 G O R D O N N S W 2 0 7 2									
Phone number	0 2 9 4 1 1 5 1 5 5 Fax									
✓ Knowledge	e holder									
Title	Surname First name Initials									
		Client on system								
Organisation										
Address										
Phone number	0 4 0 2 6 3 6 5 2 1 Fax									
Aboriginal F	Heritage Unit or Cultural Heritage Division Contacts									
Geographic	location									
Site Name										
Easting										
Mapsheet										
Zone										
	Other registration									
Primary rec	corder									
Title	Surname First name Initials									
DR										
Organisation		Client on								
Address	PO         BOX         67         KATOOMBANSW         2780         80	system								
Phone number	0 4 3 8 7 5 7 6 0 6 Fax									
Date recorded	15/09/2018									

Aboriginal site recor	ding form - site in	formation		page 2
	Open/close site	Open Site		
Site context				
Landform L	andform unit			
Mountainous	Beach	Tidal Iat	Upper slope	Stream bank
Plain	Coastal rock platform	Cliff	Plain	Stream channel
Rolling hills	Dune	✓ Crest	Ridge	Swamp
Steep hills	Intertidal flat	Flat	Tor	Terrace
✓ Undulating plain	Lagoon	Lower slope	Valley flat	Terrace flat
Slope	Tidal ⊡reek	Mid slope	Levy	
degrees				
degrees				
Vegetation L	and use	Water		
Closed forest	Conservation	Distance to perma	nent water source	1000 metres
Grasslands	Established urban	Distance to tempor		metres
Isolated clumps of trees	Farming-intensive		·	Four Mile Creek
Open forest	Farming-low intensity	Name of nearest te		
✓ Open woodland	Forestry			
Scrub	Industrial		Directions for elocatio	n
Woodland	Mining		d at 508 Raymond Terrac	
✓ Cleared	✓ Pastoral/grazing	-	Raymond Terrace Road	
Revegetated	Recreation	-boundary of I		
N/A	Semi-rural			
	Service corridor			
	Transport corridor			
	Urban expansion		Site location ma	
	Residential	NW	N	NE
Current land tenure				
	government department			
✓ Private				
Primary report I.D.	(I.D. Office Use only)			
				N E
		W		
		SW	S	SE





#### Site dimensions

#### Closed site dimensions (m)



Internal length Internal width

Shelter height

Shelter floor area

#### Open site dimensions (m)

m	
m	

Total length of visible site Average width of visible site Estimated area of visible site Length of assessed site area

#### Aboriginal community interpretation and management recommendations

Site was recorded as part of a due dligence assessment for Lot 131 DP 1223790 for a proposed sewer-line installation assessment. The site will be subject to a Code of Practice Test Excavation process and as a result of the proposed sewer-line development will be managed through an Aboriginal Heritage Impact Permit approval under section 90 of the NPW Act 1974. Two Wonnarua traditional owners Gordon Griffiths and George Sampson were part of the survey assessment.

#### Preliminary site assessment

#### Site cultural and scientific analysis and preliminary management recommendations

The site has been assessed to be of low scientific and archaeological significance. Sixteen Aboriginal objects have been identified as part of the site's overall surface survey assessment. The stone artefacts recorded are considered to be commonly represented in the local area and are not considered rare or unique.

This section should only be filled in by the endorsees

Endorsed by: Know	ledge holder Nominated trustee Native Title holder Community consensus
Title	Surname First name Initials
MR	S a m p s o n G e o r g e
Organisation	C a c u t u a C u I t u r e
Address	2 2 I b i s P d W o o d b e r r y 2 3 2 2
Phone number	0 4 3 4 8 7 7 0 1 6 Fax
Attachments (No.)	Comments
A4 location map	_see survey map attachment
B/W photographs	
Colour photographs	
Slides	
Aerial photographs	
Site plans, drawings	
Recording tables	
Other	
Feature inserts-No.	

Feature recording f	form - artefact		page 1
Site I.D.	Site name	Lot 131 ( DP 1223790) Site 6 Thornton	
First recorded date 15/	/09/2018 Importance	Contributes to secondary site imp	
No. of instances 1			
Recorded by AR	AS PTY		
	s No		
Stone artefacts only No	Percentage c	of non-stone artefacts to percentage of stone artefacts	
Artefacts collected A permit is required to collect artefacts	0-9% 10-19% 20	0-29% 30-39% 40-49% 50-59% 60-69% 70-79% 80-89% 90-100%	
	0-9%		
Feature context and			
condition	Scatter No. 1	Easting         3         7         2         7         4         4         Northing         6         3         7         3	4 9 3
D	ensity Dimensions		Yes No
(Artefact count per square metre)	12 Leng	th (m) 12 Width (m) Depth (m)	<sup>J</sup> No
		Stratified	No
Feature condition Gene	eral condition	Recommended action	
Very good	Weathered	Boardwalk Revegetation	
	Vehicle damage	Fencing Signage	
	Surface water wash	Closure to public Soil erosion co	ntrol
F F	Fire damage	Continued inspection Track closure/r	-
✓ E	Erosion	Fire hazard reduction Additional reco	rding
	Stock damage	Expert assessment	
E	Exposed archaeological m	naterial Meeting with land manager	

## Feature plan (Indicate scale, location of instances)

N				Ν	1		 	NE	
W									Feature environment (Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)
		$\searrow$							Crest Land form
									Land form unit
									Gentle Slope
								.,	Cleared Vegetation
W							N	Е	Conservation Land use
vv							4		Water
									Distance to permanent water source 1000 metres
									Distance to temporary water source
						$\overline{\ }$			Name of nearest permanent water source
									East of Four Mile Creek
-									Name of nearest temporary water
							$\left  \right\rangle$		
SW	vr		 1	S				SE	

Featu	re record	ing	g table -	- arte	efact							ра	ge 2
	Stone artefact %												
Instance ©.	Recording □ate		rtefact aterial	Artef	act lype		tform face	Platform type	Termination	Cross section	Length (mm)	Width (mm)	Thickness (mm)
1	2018	Silo	crete	Dista	l Fragmer	Cortex		N/A	Step	N/A	12	9	3
2	2018	Silo	crete	Flake	•	Cortex		Wide	Feather	High/Weak	23	17	7
3	2018	Silo	crete	Dista	l Fragmer	Cortex		N/A	Feather	N/A	21	18	9
4	2018	Silo	crete	Flake	-	Flake s		Focal	Feather	N/A	32	22	9
5	2018	Silo	crete	Flake	d Piece	N/A		N/A	N/A	N/A	17	14	6
6	2018	Silo	crete	Dista	l Fragmer	N/A		N/A	Feather	N/A	22	16	8
7	2018	Silo	crete	Medi	-	N/A		N/A	N/A	N/A	16	8	4
					Ot	her ar	tefact	type					SS
Instance no.	Recording date	9	Artefa mater		Artefact				scription		Length (mm)	Width (mm)	Thickness (mm)
8	2018		Silcrete		Medial B	-	Focal p	latform no corte	ex		35	15	8
9	2018		Silcrete		Medial B	-	No cort	ex			30	15	9
10	2018		Silcrete		Flaked Pi	ece	No cort	ex				16	10
11	2018		Silcrete		Medial B	-	No cort	ex				12	6
12	2018		Silcrete		Medial B	-	No cort	ex			16	10	4
13	2018		Silcrete		Medial B	-	No cort	ex			28	17	11
14	2018		Silcrete		Complete	e Flake	Wide P	atform, Feathei	r termination		30	28	10
MaterialArtefact desBasaltClear glassAdzeChertCeramicAnvilFine grained siliceousPorcelainAxeGraniteTin canBacked bladeQuartzWireBladeQuartziteNailCoreSandstoneButtonCore toolSilcreteShellCyclonGreen glassBoneDistal fragmentAmber glassWoodElouraAmethyst glassResinFlake		Flake toolCcoFlaked pieceFlaHammerstoneModManuportFaMilling slabGrMortarIncoMullerBipNuclear toolPirriProximal fragmentPlTulaInco		Cortex F Flake scar H More than one flake scar S Faceted C Ground B Indeterminate Bipolar H Platform type (		Termination Feather Hinge Step Dutrepasse Bipolar Cross section High/strong High/weak							
Comm	nents:					Modifi Unwo				Lov	w/weak egular		

Feature recording	form - modifie	d tree		page 3
Site I.D. First recorded date No. of instances Recorded by		Site □ame		Aboriginal information recorded?
Feature description         No. of scars         No. of carved panels         Feature condition         Very good         Good         Poor	<b>n</b>	Easting Condition Weathered Ringbarked Fire damage Vehicle damage Insects/termites Rot	Recommended action         Fencing         Closure to public         Continued inspection         Expert assessment         Fire hazard reduction         Insect removal	thing Tree health assessment Track closure/re-routing Additional recording
		Limb fall Stock damage	Meeting with land man Rubbish removal Signage	ager
	Land form Land form unit Slope Vegetation Land use	Water Distance to Distance to Name of ne Name of ne	ent, use attributes from cover card, page 2) permanent water source temporary water source arest permanent water sourc arest temporary water	
w	ture location p			d panel drawing
N				
W Indicate scale	S	;	Attach additional drawings	

page 2	on Axe Marks	Re marks     Orientation       Metal     North East       Stone     East       Indeterminate     South East       South     South West       North Indeterminate     North Nest       North     North West	
	Orientation	e e terminate	
	Carving Type	Ace mar Metal Stone Indetei	
	No. of Carved Panels	<b>Carving type</b> Axe marks Linear Metal Geometric Stone Pictorial Indetermi	
	Shape	Scar shape Oval Rectangular Square Round Other	
	No. of Scars		
	Height Above Ground		
	Depth		
	f Width of Scar		
	Regrowth Length of Scar	Yes No	
	Regrowth		
	Tree Status	Tree Status Standing Lying down Partially felled Subject to salinity Not <i>in situ</i>	
tree	Living Status	Living status Dead Alive Dyin	
- modified	Species	<b>Tree species</b> Eucalypt Red Gum Angoth	
Feature recording table - modified tree	g	Type of tree Carved tree Scarred tree Carved/scarred tree	
Feature ree	Instance Recording No. Date	Comments:	

Feature recording form	ı - groove		page 1
Site I.D First recorded date/_/ No. of instances Recorded by	Site name Importance		Aboriginal information recorded?
Feature description			
Type of grinding feature	Seed species present		Recording date
Broad			
Narrow/point	Groove function		
Hollow	<b>D</b> '		
Flat Profile shape	Dimensions Smallest	Largest	
U' shaped	Length (mm)	Length (mm)	Groove count
V' shaped	Width (mm)	Width (mm)	Cluster count
Flat	Depth (mm)	Depth (mm)	
Feature context and condition	Easting	Northing	
	Dimensions of whole fe		Width (m)
	л г	Recommended action	
Very good	Fire damage	Boardwalk	
Good	Surface water wash Graffiti	Cage/barrier/fencing	Rubbish removal
General condition	Vehicle damage	Closure to public	
Weathered	Erosion	Continued inspection	Erosion control
Vandalised	Stock damage	Expert assessment	Additional recording
		Meeting with land manage	-
Feature plan	(Indicate scale, location of ir	nstances)	
		NE Feature env	(Complete when <i>feature</i> environment differs to <i>site</i> environment, use attributes from cover card, p. 2)
			Land form
			Land form unit
			Vegetation
		N	Land use
W		E Water	
			manent water source
		Distance to tem	porary water source metres
		Name of neares	st permanent water source
		Name of neares	st temporary water
SW	S	SE	

Feature recording	iorm - art	page 1						
Site I.D.	Site name Aboriginal informa recorded?	ation						
Recorded by								
Feature context ar condition	Feature context and condition       Easting       Northing         Pigment       Engraved       Super-impositioning							
Artwork condition	General condition Recommended action							
Very good	Weathered Boardwalk Rubbish removal							
Good	Vandalised Cage/barrier/fencing Signage							
Poor	Surface water wash       Closure to public       Erosion control         Mineralisation       Continued inspection       Track closure/re-routin	na						
	Graffiti Dripline Additional recording	.9						
	Fire damage Expert assessment							
	Insects/termites Fire hazard removal							
	Erosion Graffiti removal							
	Stock Insect/bird nest removal							
	Unstable structure Meeting with land manager							
Feature environm								
	Land form Water							
	Land form unit     Distance to permanent water source     metres       Slope     Distance to temporary water source     metres							
	Slope       Distance to temporary water source							
	Land use Name of nearest temporary water							
Art sketch plan	Sketch and number motif groups							
		+						

#### Feature recording table - art motif

Instance	Recording ⊑ate	Motif	Application @chnique	Form	Main colour	Location	Condition

NЛ	otif	
IVI	oui	

MOUI		
Anthropomorphic	Female	Marine-Othe
Bird	Fish	Other
Bird Track	Foot	Pattern
Canoe	Hand	Quadruped
Circle	Jellyfish	Reptile
Contact material culture		Rifle
Duck	Line	Shield
Eel	Lizard	Ship
Emu	Macropod	Snake
Emu track	Macropod Track	Spear
European figure	Male	Wallaby

#### Application ne-Other technique Abraded

Drawn Other Painted Pecked Pigment & Engraved Stencilled Form Fill Line Line+ Fill Other Pattern

#### Main colour

Black Mauve \* N/A Orange \* Other Red \* White \* Wall Yellow \*

#### **Art location**

All over shelter surfaces ceiling Floor Mostly near largest sheltered space V brant Colours Mostly on out of the way surfaces Unweathered Other

#### Condition

Faded Stained Mineralisation Evident Weathered

# Comments:

page 2

Feature recording	orm - shell	page 1
Site I.D.	Site name Aboriginal inform Importance recorded?	ation
Feature context         and condition         Dimensions of whole f         shell distribution         Surface scatter         Stratified deposit         Mounded	Easting   Easting Length (m) Distance to high water mark (m)	
Feature condition	General condition ctd Recommended action	
Very good Good Poor General condition Weathered Vandalised Surface water wash Mineralisation Graffiti	Fire damage       Boardwalk       Revegetation         Vehicle damage       Cage/barrier/fencing       Rubbish removal         Insects/termites       Closure to public       Signage         Erosion       Continued inspection       Erosion control         Stock damage       Expert assessment       Track closure/re-rour         Unstable structure       Fire hazard removal       Additional recording	ting
Feature plan	N (Indicate scale, location of instances) NE Feature environment (Complete when feature differs to site environment from cover card, p. 2)	environment it, use attributes
W	N     E     Land form     Land form unit     Slope        Vegetation     Land use	
	Water       Distance to permanent water source       Distance to temporary water source	metres metres

Name of nearest permanent water source

Name of nearest temporary water

SE

SW

S

Feature I	recording ta	ble - she	÷II		page 2
Instance no.	Recording date	S	hell species	% of this species shell to % total of other shell	
		Species		Percentage of	this species shell
		Anadara	Nerita	to percentage t	total of other shell
		Bimbala Chiton Cowrie Dog Cockle Duck Bill Limpit Mud oyster	Nerita Ocean Snail Periwinkle P Ribbed Cockle Rock Oyster Phiad Triton Turban (large)	$\begin{array}{l} 0 - 9\% \\ 10 - 19\% \\ 20 - 29\% \\ 30 - 39\% \\ 40 - 49\% \\ 50 - 59\% \\ 60 - 69\% \\ 70 - 79\% \\ 80 - 89\% \\ 90 - 100\% \end{array}$	
Commente					
Comments					

Office of Environment and Heritage, 59 Goulburn Street, Sydney South NSW 2000. Phone: 1300 361 967 (OEH and national parks enquiries); email: info@environment.nsw.gov.au; Website: www.environment.nsw.gov.au. OEH 2018/0307; June 2018.



Thornton - Lot 131 with Aboriginal Sites from 2018 survey Legend

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Lot Boundary - Lot 131, DP 1223790

2018 Recorded Site





archaelogical risk assessment services

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# Attachment B Previous Due Diligence Report

THORNTON ABORIGINAL DUE DILIGENCE | HN126-A

В



HERITAGE ARCHAEOLOGY HISTORY . ASSESSMENT MANAGEMENT INTERPRETATION

6<sup>th</sup> July 2018

Shane Boslem Senior Project Director McCloy Group Suite 2, Ground Floor 317 Hunter Street Newcastle NSW 2300

Dear Mr Boslem,

## RE: DUE DILIGENCE ABORIGINAL HERITAGE ASSESSMENT FOR A SENIOR LIVING DEVELOPMENT AT 107 HAUSSMAN DRIVE, THORNTON NSW

This report has been prepared by MDCA [Mary Dallas Consulting Archaeologists] at your request in relation to a proposed senior living development at 107 Haussman Drive (Lot 2 in DP 11453348) at Thornton, between Raymond Terrace Road and Woodberry Swamp in the south-eastern suburbs of Maitland (**Figure 1**). This report presents the results of a Due Diligence Aboriginal Heritage Assessment to meet the requirements of Due Diligence as per the OEH 2010 *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*, including a determination of whether further archaeological investigation may be required in relation to the current proposal. It has been prepared by MDCA archaeologists, Tamika Goward and Lucinda O'Connor.

#### **Contextual Information**

#### The subject land

The subject land is situated within the Hunter Region, approximately 8km south-east of Maitland and 22km north-west of Newcastle (**Figure 1**). It comprises a total approximate area of 18.96ha. The subject land is located within the Maitland Local Government Area, Parish of Alnwick and lies within the Office of Environment and Heritage North East Region. The subject land is bound to the north by Raymond Terrace Road, to the south by residential lots, to the west by a substation and rural lands, and to the east by vacant rural bushland. The subject land is currently extant as a large open disused quarry (**Figure 2**).





Figure 1. The subject land (orange outline) in its topographic context.



Figure 2. The subject land (orange outline). [source: Google Earth 2007]





Figure 3. Layout of the proposed senior living development.

[Note the blue dashed line indicates the Inner and Outer Protection Areas]



The subject land is proposed for development as senior living inclusive of road construction, a detention basin, carpark, recreation areas and green spaces as indicated in **Figure 3**. Note that the maximum development envelope is restricted to the Outer Protection Area (OPA) and that no impacts will occur outside of this area. The land outside of the OPA will be an Environmental Asset Zone and vegetation here will be retained. Impacts from this development would include remediation of the current quarry and land modification (cut and fill) to facilitate house construction and the installation of relevant infrastructure inclusive of roads, sewer and electricity. In areas proposed for development this could be expected to impact any physical remains of past Aboriginal use on or immediately below the current ground surface.

The subject land lies on the south facing mid to lower slopes of a ridgeline that forms the watershed between Woodberry Swamp approximately 2.5km to the south-east and Four Mile Creek approximately 1.2km to the west. It is situated 50m west of a first order tributary of Francis Greenway Creek which flows east into the Hunter River some 6km south-east of the subject land.

The subject land is underlain by the Permian sediments of the East Maitland Hills region (Matthei 1995). These sediments comprise the residual soils of the Beresfield Soil Landscape. The Beresfield soil landscape is characterised by undulating low hills and rises with local relief at 10-50m (Matthei 1995). In contexts like the current subject land, intact soil profiles on side slopes can consist of up to 5-10cm of friable brownish black loam A1 (topsoil) horizon overlying 10-30cm of hard-setting dull yellowish brown sandy loam A2 horizon, on Pedal brown plastic mottled clay subsoil. Archaeological deposits in these soils are however likely to be restricted to the A horizon and are vulnerable to natural erosion and historical disturbance. Where disturbance occurs the A1 horizon is commonly absent, exposing the A2 horizon or subsoils at the surface. There is no outcropping bedrock present within the subject land.

Historically, the subject land has been cleared of its original vegetation. Prior to clearing, the subject land is likely to have supported tall open forest characterised by spotted gum (E. maculata), broad-leaved ironbark (E. fibrosa), grey gum (E. punctata), narrow-leaved stringybark (E. oblonga), thin-leaved stringybark (E. eugenioides) and grey ironbark (E. paniculata). The understory comprised paperbark, wattle and blackthorn (Matthei 1995). The creeks and intervening forest environments would have supplied Aboriginal people with a range of foods and raw materials.

Historic impacts to the subject land have included vegetation clearance and agricultural use. The subject land began being used as a brickworks in 1882. It was then purchased by CSR in 1969 after which large-scale land modifications associated with the PGH Clay Bricks and Pavers quarry took place and shaped the highly disturbed landscape, which is present today. Activities related to the use of this quarry, including a mineshaft in the northern portion, has resulted in the removal of the majority of the original soil profile. The quarry ceased activities in 2006 and has lay dormant ever since. Various portions of the quarry have since been remediated. The mineshaft has been removed and



much vegetation rehabilitation implemented. These historical and more recent impacts could be expected to have significantly disturbed the natural soil horizons across much of the subject land.

#### Background research

For the current assessment, the Office of Environment and Heritage ('OEH') Aboriginal Heritage Information Management System ('the AHIMS Register') and Catalogue of Archaeological Reports was consulted. An online search of the AHIMS Register of a 4km x 4km area centred on the subject land revealed that 84 Aboriginal sites had been previously recorded in the search area<sup>1</sup> (see Attachment 1, see also Figure 4). One of these previously recorded sites is erroneously stated to be located within the subject land.

This site is an isolated find in a disturbed context known as *T1;* (AHIMS #38-4-0399/ 38-4-0355). It is a broken tuff flake found on a vehicle track that was recorded during survey for a then proposed extension of the clay extraction pit (Resource Planning1993). This site has two AHIMS numbers due to a duplicate recording. It should be noted that while this site is registered within the current subject, the details on the original site card and report specify that the site is located within the adjacent property to the east (Lot 182 DP792071). During the 1993 assessment, the isolated find has been collected and deposited at Mindarriba LALC (Resource Planning 1993). The site has therefore been destroyed.

Another two sites have been registered on the adjacent property to the west. These sites are *Thornton 3 (T3)* (AHIMS #38-4-0625), an artefact scatter, and *Thornton Substation PAD 1* (AHIMS #38-4-0626), a Potential Archaeological Deposit. *Thornton 3 (T3)* comprises four silcrete and one mudstone artefact within 15m of one anther. Both sites were recorded in the road reserve to the west of the substation along Haussman Drive by McCardle Cultural Heritage in 2002 during an archaeological survey for the substation. Both these sites have been managed under AHIPs prior to the construction of the substation.

Overall, the majority of sites in the search area comprise open artefact scatters, isolated finds and potential archaeological deposits, and are located along watercourses. Site locations are also strongly associated with the focus of archaeological investigation in the area, particularly in connection with areas where residential subdivision has occurred over the last few decades. The mapping of the AHIMS register data in **Figure 4** consequently demonstrates this pattern of recent investigation rather than a pattern of past Aboriginal land use. The sites within the search area are summarised in **Table 1**.

<sup>&</sup>lt;sup>1</sup> Report generated by AHIMS Web Service on 4/6/2018.



Site Type	Number of Sites	Percentage of Sites
Artefact Scatter	53	63%
PAD	11	13%
Isolated Find	7	8%
No site type listed	13	16%
Total	84	100%

Table 1: Summary of sites registered within the search area.



## Figure 4. Aboriginal sites registered on AHIMS within the vicinity of the subject land (orange outline).

[Note that #38-4-0355/38-4-0399 is located further east, outside of the current subject land]

In addition to the AHIMS Register search, updated online searches of several other repositories were undertaken on 18/6/2018 to determine whether any Aboriginal sites or areas of potential have been identified within or adjacent to the subject lands. The results of these searches can be summarised as follows:

- A search of the Australian Heritage Database (incorporating the Register of the National Estate) was undertaken for Aboriginal heritage items within the Maitland Local Government Area. No items are listed for their Aboriginal heritage values within or adjacent to the subject land.
- The NSW State Heritage Inventory (incorporating the NSW State Heritage Register) was searched for Aboriginal heritage items within the Maitland Local Government Area. No items on



either register within close proximity to the subject lands appear to be listed for their Aboriginal heritage values.

#### Local Archaeological Context

The current subject land has been partially investigated in the past through field survey (see Resource Planning Pty Ltd 1994). Several Aboriginal archaeological studies have also considered surrounding areas. These past studies provide a perspective of the local archaeological context of the Thornton area.

- Of most relevance to the current assessment are investigations conducted by Resource Planning Pty Ltd (1994a) for the proposed clay extraction pit immediately adjacent to the current subject land. Their study area comprised Lot 1742, which was then the eastern half of the current subject land and part of lot 182, with approximately a 100m buffer. Part of the survey was conducted in the eastern and south-eastern portions of the current subject land. Ms. Ricki-Jo Griffiths from Mindaribba LALC participated in this survey. During the 1993 survey two Aboriginal sites were recorded, an open artefact scatter and an isolated find. The isolated find, *T1;* (AHIMS #38-4-0399/38-4-0355) is located in the property to the east of the current subject land (see Figure 4). It is a snapped flake of Nobby's tuff, located in Lot 182, in a disturbed context, on a vehicle track. The artefact was not insitu and was collected and placed at Mindaribba LALC office. The open artefact scatter, *T2;* (AHIMS #38-4-0395) was found insitu approximately 1-2m from a creek line. This artefact scatter comprised 25-30 silcrete and chert artefacts. Due to the absence of archaeological sites and potential within their study area, it was recommended that development proceed as planned.
- In 1994 Resource Planning conducted a survey for a residential subdivision, immediately northeast of the current subject land. The study area was noted to have low surface visibility and no Aboriginal sites or areas of potential were identified (Resource Planning 1994b).
- Immediately northwest of current subject land, Brayshaw (1984a) surveyed an area for rural residential subdivision. Brayshaw noted low visibility due to dense grass cover across the 50ha property. The study area was not in close proximity to any major watercourses and no Aboriginal sites or areas of potential were identified.
- In 2009 a preliminary assessment was prepared by Kuskie for the Thornton North Stage 2 study area, located North of Raymond Terrace Rd, and west of McFarlanes Rd. The 349ha study area was located immediately northeast of the current subject land. Within the Stage 2 study area, 15 Aboriginal sites had been previously recorded, all of which are stone artefacts (Kuskie 2009). It was found that high potential for stone artefacts occurred in varying density across the study area, in particular within 300 metres of the former Hunter River wetlands (Kuskie 2009). Higher density of evidence was also found to occur along low gradient crests of major ridges and spurs.


- In 1999 test excavations were carried out by Umwelt prior to works for a proposed light industrial estate on the eastern side of Thornton Rd, approximately 2km southeast of the current subject land. Testing recovered 268 artefacts across the subject area, which borders Woodberry Swamp. Artefacts were largely classified as 'flaked pieces' on raw materials including silcrete, tuff, chert and acid volcanic stone. Further excavation resulted in the recovery of 959 artefacts. It was recommended a small conservation zone be established for the area around archaeological excavation unit A360, with Section 90 consent going forward. A two-week salvage excavation followed that was undertaken by Umwelt in an unspecified area of their subject area which yielded 1246 artefacts (Umwelt 1999b).
- In 1994 Kuskie conducted a survey and excavation at Somerset Park subdivision adjacent to Woodberry Swamp, approximately 2km southeast of the current subject land. The initial survey area was across two broad low ridge spurs that descended onto the Woodberry Swamp wetlands. A total of 12 artefact scatters were recorded, consisting of 1234 artefacts, with a range of 2 to 32 artefacts per site. Artefact density occurred notably on simple slopes and basal slopes, and occurred closer to the wetlands. The dominant raw material was silcrete, with flaked pieces and flakes being the main artefact types (Kuskie 1994). In consultation with Mindaribba LALC, it was recommended that an application for a Section 90 be made for the remaining evidence (Kuskie 1994).
- Kuskie (2004a) conducted a survey for the Somerset Park subdivision extension on Raymond Terrace Rd, 1.4km southeast of current subject land. Nine Aboriginal sites were recorded and a total of 33 lithic items identified. Also identified was a Pleistocene age terrace adjacent to Woodberry Swamp, where a silcrete core fragment and a large brown tuff flake was present. Subsequent test excavations were undertaken on the terrace in 2005 by Kuskie and Clarke (2006a). A total of 263 artefacts were recovered from these excavations, with a low-density distribution of artefacts across the terrace (Kuskie and Clarke 2006a). A Section 90 Consent with salvage for the development impact area was recommended.
- Kuskie (2004b) surveyed an area for a proposed rezoning and residential development on Raymond Terrace Road, Thornton, northwest of current subject land. Seven Archaeological sites were identified, including two microlith implements, a silcrete bondi point and a tuff geometric point. Subsequent test excavations here (Kuskie & Clarke 2006b) recovered a total of 262 artefacts. It was assessed that although some depositional mixing may have occurred, some evidence is relatively insitu. Of the raw materials, silcrete was the most common, other materials included tuff, rhyolite, quartz and other volcanics. Microlith and microblades manufacture was noted to be of higher intensity in proximity to wetlands (within 300m), on simple slopes and drainage depressions. Recommendations suggested a Section 90 Consent be sought, which allowed for salvage excavations and surface collection (Kuskie & Clarke 2006b).
- In 2005 an archaeological assessment was conducted by Indigenous Outcomes for the



rezoning of 14.2ha of land on the corner of Government Road and Raymond Terrace Road. The study area is approximately 1.5km east of the current subject land. Two isolated finds were identified within the floodplain outside of the area proposed for rezoning (Indigenous Outcomes 2005).

 More recently several archaeological test and salvage excavations have occurred across the Thornton region. These include salvage excavations at both Waterford County residential subdivision at Thornton North as well as RTA's Thornton Road Bridge Upgrade. The results of these investigations have not been included here but are forthcoming.

In summary, many previous studies have been undertaken within and in the vicinity of the subject land. Sites appear to be generally associated with major creek lines or wetland areas, elevated crests and major ridges, as well as lower slopes and drainage depressions near waterways. Previous studies within the subject land have not identified any Aboriginal sites or areas of archaeological potential. Generally, few Aboriginal objects have been recorded on landforms similar to that of the current subject land (mid slopes). The survival and degree of intactness of archaeological evidence in the area is also related strongly to levels of historical disturbance. Although other Aboriginal sites have been recorded nearby, they are generally in eroded, disturbed contexts with no associated subsurface archaeological potential. On review of the above information, the subject land has a low likelihood of retaining archaeological sensitivity.

### **Predictive Modeling**

The distribution of Aboriginal sites in the East Maitland Hills region is strongly related to bedrock geology and local topographic features, including elevation and the presence of water resources, including swamps. In general, the Thornton area appears to most commonly manifest archaeological evidence as stone artefacts in open surface and subsurface contexts. The absence of sandstone in the subject land precludes the presence of axe grinding groove or shelter sites.

Significant resource zones occur several kilometres to the north and south of the subject land, these being Woodberry and Hexham Swamp as well as the Hunter River. It is likely that these resource areas were focal points for habitation and activity and that the intermediate environments, which include the subject land, were used to supplement resources between these preferred zones but are unlikely to have been as intensively used.

The survival and degree of intactness of archaeological evidence is also related strongly to levels of recent non-Aboriginal activity in any given area. The subject land has been heavily impacted by activities associated with the clay quarry. Large-scale land modification has occurred across the majority of the subject land and in these areas, it can be expected that no archaeological potential survives here. Surviving archaeological evidence in the vicinity of the subject land varies according to levels of historical disturbance, and is often of a low-density and partially disturbed nature, and this



could also be expected to be the case within the portions of the subject land which have been less disturbed by the quarry. Specifically, the following types of archaeological evidence may be anticipated.

- <u>Open campsites</u> are stone artefact scatters and may occur almost anywhere that Aboriginal people lived and travelled in the past. The cultural activity represented by these sites may be associated with hunting or gathering activities, domestic camps, or the manufacture and maintenance of stone tools.
- <u>Isolated artefacts</u> can occur without any associated evidence for Aboriginal activity or occupation.
   Isolated finds can occur anywhere in the landscape and may represent the random loss, deliberate discard or abandonment of artefacts, or the remains of dispersed artefact scatters. This may also include manuports which are items consisting of raw materials of stone that do not naturally occur within the soil profiles of a given region. Transported onto a site by Aboriginal people from sources elsewhere, these items will have subsequently been discarded before use as flaked or ground stone tools.

### Aboriginal Community Consultation

For the purposes of the current Aboriginal Heritage Die Diligence Assessment, consultation was undertaken with the Mindarribba Local Aboriginal Land Council (MLALC) to provide an Aboriginal community perspective on the assessment, particularly in relation to any cultural/historical associations with the subject land. The MLALC has a statutory responsibility "to promote the protection of Aboriginal culture and the heritage of Aboriginal persons"<sup>2</sup> within its boundaries, which includes the current subject land.

A representative of MLALC (Jason Brown) participated in a site inspection on 7<sup>th</sup> June 2018. MLALC was asked to comment on both the site inspection as well as any cultural/historical associations with the area considered pertinent to the assessment. The MLALC was in support of the recommendations presented in the current document. The MLALC comment is included as **Attachment 2**.

### Site Inspection

An archaeological inspection of the subject land was undertaken in fine weather on Thursday 7<sup>th</sup> June 2018 by MDCA principal archaeologist Mary Dallas, and MDCA archaeologists Lucinda O'Connor and Tamika Goward in conjunction with MLALC representative, Jason Brown. The entirety of the subject

<sup>&</sup>lt;sup>2</sup> Aboriginal Land Rights Act 1983, s52(1)(m).



land was inspected and in combination with the background information reviewed above, provided sufficient information to adequately characterise its archaeological sensitivity and potential.

In general terms, the subject land is situated on a south-east moderate slope near the upper reaches of Francis Greenway Creek. It has been entirely cleared and used intensively as a clay quarry. Regrowth vegetation is extant along the perimeter but there are no mature trees within the subject land. Visibility in the highly vegetated areas is low due to thick low scrub and leaf litter.

The north-western side of the subject land is elevated, while the south-eastern portion is low lying and comprises a drainage depression which feeds into the first order tributary of Francis Greenway Creek on the adjacent property. The low-lying area contains two dams and the vehicle tracks here are raised up by at least 2m (**Figure 5**). The southern perimeter is densely vegetated with regrowth and lantana. This area is also extremely low-lying and flood prone (**Figure 6**). Water pooling could be seen here in cut drainage lines as well as in pitting of the surface.

The quarry comprises a large excavated pit with steep side slopes (**Figure 7**). Various internal haul roads and vehicle tracks are extant around and into the pit. Exposed within the pit and on all vehicle tracks, are clay and shale subsoils (**Figure 8**). Blue metal gravels and introduced sands have been placed along tracks to stabilise them. The current access road is immediately south of the substation along Haussman Drive (**Figure 9**). Evidence of a previous access road, which was relocated due to resident complaints, is present in the highly vegetated south-west corner of the property in the form of bulldozed, uneven, and banked up earth.

A large bund wall surrounds the quarry pit. The bund wall appears to comprise coarse, gravelly subsoils with large introduced sandstone pieces. It is very high where it parallels Raymond Terrace Road to the north and residential land to the south (**Figures 10 & 11**). Regrowth vegetation is established atop the bund walls. In various areas, a drainage ditch runs along the outer portion of the bund wall.





Figure 5. The low-lying drainage area containing two dams in the south-eastern portion of the subject land.

Figure 6. Water pooling in low-lying area along the southern perimeter.

Figure 7. The quarry pit and internal haul roads. View north.





Figure 8. Examples of exposed subsoils and introduced stabilising materials on the internal roads.



Figure 9. Access road from the substation along Haussman Drive. View east toward the quarry pit.

Figure 10. Bund wall which parallels Raymond Terrace Road in the northern portion of the subject land.





Figure 11. Bund wall along the southern side of the quarry. Figure 12. The furrows in the surface of the south-western portion of the subject land. View north-west.

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### Conclusions

The current assessment has involved a consideration of the environmental, historical and archaeological context of the subject land, and the results of field inspection, to determine whether any further Aboriginal heritage investigations are warranted in relation to the current proposed development. The subject land has been historically impacted, most notably by the clay quarry, and does not retain subsurface archaeological potential within the area proposed for development. No further Aboriginal archaeological sites or areas of Aboriginal archaeological sensitivity or potential were located within the subject land.

In conclusion, Lot 2 in DP 11453348, has been found to contain no evidence of past Aboriginal use, and very low likelihood for surviving deposits of Aboriginal stone artefacts. With the exception of the recommended actions below, no further archaeological investigations are considered warranted within the subject land in relation to the current proposal.

### Recommendations

The following recommendations are based upon:

- the legal requirements and automatic statutory protection provided to items of Aboriginal heritage under the terms of the National Parks and Wildlife Act 1974 (as amended), where it is an offence to knowingly or unknowingly harm an Aboriginal object;
- the results of the current study which are documented in this report and;
- the views and concerns expressed by the Mindaribba Local Aboriginal Land Council as outlined in this report and in the appended correspondence.



It is recommended that:

- 1. This report is considered sufficient for the purpose of determining development approval for the proposed development of Lot 2 in DP 11453348.
- 2. There are no further Aboriginal archaeological management requirements in relation to the current proposed development of the subject land.
- 3. If any Aboriginal objects or bones suspected of being human are identified during construction, site workers must:
  - a. Not further disturb or move these remains.
  - b. Immediately cease all work at the particular location.
  - c. In the case of suspected human remains only, notify NSW Police. In the case of Aboriginal objects, notify The Office of Environment & Heritage Environment Line on 131 555 as soon as practicable and provide available details of the objects or remains and their location. The Mindaribba Local Aboriginal Land Council should also be notified to assist in the determination of appropriate management for the objects or remains.
  - d. Not recommence any work at the particular location unless authorised in writing by the Office of Environment & Heritage.
- 4. One copy of this report should be forwarded to the Mindaribba Local Aboriginal Land Council.
- 5. One copy of this report should be forwarded to:

The Manager Aboriginal Heritage Information Management System NSW Office of Environment and Heritage P.O. Box 1967 Hurstville NSW 2770

If you require any further information, please do not hesitate to contact us.

Yours sincerely,

Tamika Goward Archaeologist <u>Mary Dallas Consulting Archaeologists</u>



#### REFERENCES

- Brayshaw, H. (1984) Archaeological Investigation at Thornton NSW. Unpublished report to resource Planning Pty Ltd.
- Hamer, G. (2006) Proposed Amendment to Local Environmental Plan 1993
- Rezoning at Lot 1 & 2 DP 788219 Cnr Government Road and Raymond Terrace Road, Thornton North. Officers Reports.
- Kuskie, P (1994a), An Archaeological Assessment of a Land Rezoning Proposal at Lot 1 DP 559519, Thornton, NSW. Unpublished Report to Gutteridge, Haskins & Davey Pty Ltd.
- Kuskie, P (1994b), Further Archaeological Investigations of Lot 1 DP 559519, Thornton, NSW. Unpublished Report to Gutteridge, Haskins & Davey Pty Ltd.
- Kuskie, P (2004a), An Aboriginal Heritage Assessment of 'Investigation Area C' at Thornton North, Lower hunter Valley, New South Wales. Unpublished Report to TRD (Thornton North) Pty Ltd.
- Kuskie, P (2004b), An Aboriginal Heritage Assessment of 'a Proposed Residential Display Village at Lot 1 DP 1020387, Thornton North, Lower Hunter Valley, New South Wales. Unpublished Report to New Hunter Homeland Pty Ltd.
- Kuskie, P (2008) Bloomfield Colliery, Hunter Valley, New South Wales: Completion of Mining and Rehabilitation Project – Aboriginal Heritage Impact Assessment, East Maitland, NSW
- Kuskie, P.J. and Clarke, E. (2006a) Surface Archaeological Investigation of the Proposed Somerset Park Extension at Thornton, Hunter Valley, NSW. Unpublished Report to Investa Housing Pty Ltd.
- Kuskie, P.J. and Clarke, E. (2006b) Sub-Surface Archaeological Investigation of Part Lot 12 DP 603613, Raymond Terrace Road, Thornton North, Lower Hunter Valley, NSW, in Relation to a Proposal Residential Development. Unpublished Report to TRD (Thornton North) Pty Ltd.
- Matthei, L. E. 1995. *Newcastle 1:100,000 Geological Sheet 9030* (New South Wales Geological Survey, Sydney)
- Resource Planning Pty Ltd (1993) Archaeological Investigations for Proposed Western Portion of Glenwood Industrial and Residential Development at Thornton, NSW. Unpublished Report to Asquith & de Witt Pty Ltd.
- Resource Planning Pty Ltd (1994a) Archaeological Survey Lot 1 DP 797295, parish of Alnwick, Thornton, NSW. Unpublished Report to PGH Clay Bricks and Pavers Pty Ltd.
- Resource Planning Pty Ltd (1994b) Archaeological Survey Lot 1742 DP 634868, parish of Alnwick, Thornton, NSW. Unpublished Report to PGH Clay Bricks and Pavers Pty Ltd.
- Umwelt (Australia) Pty Ltd (1999) Archaeological Assessment, Sub-Surface Investigation of Land East of Thornton Road, Thornton, NSW. Unpublished Report to Hill Top Planners Pty Ltd.



## **Attachment 1**

## **AHIMS Online Search Records**



Extensive search - Site list report

Client Service ID : 349065

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<b>SiteFeatures</b>	<u>SiteTypes</u>	<u>Reports</u>
38-4-0625	Thornton 3 (T3)	AGD	56	371688	6373373	Open site	Valid	Artefact : 1		
	Contact	<b>Recorders</b>	МСН	- McCardle (	Cultural Herita	ge Pty Ltd		Permits	2141	
38-4-0626	Thornton Substation PAD1	AGD		371688	6373373	Open site	Valid	Potential Archaeological Deposit (PAD) : 0	1200	
38-4-0779	<u>Contact</u> PAD1 Four Mile Creek South	Recorders AGD		- McCardie ( 369900	Cultural Herita 6372125	0 1	Valid	Permits Potential	1389	99960
30-4-0779	radi roui Mile Creek South	AGD				Open site	valiu	Archaeological Deposit (PAD) : -		99900
	Contact	<u>Recorders</u>	Umw	elt (Australi	a) Pty Limited			<u>Permits</u>	2022	
38-4-0780	PAD2 Four Mile Creek Tributary	AGD	56	370350	6371935	Open site	Valid	Potential Archaeological Deposit (PAD) : -		99960
	Contact	<u>Recorders</u>	Umw	elt (Australi	a) Pty Limited			Permits	2022	
38-4-1028	Segment B PAD	AGD		370755	6372758	Open site	Valid	Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u> Searle	<u>Recorders</u>	AECO	M Australia	Pty Ltd (previ	ously HLA-Enviros		<u>Permits</u>	2592,2809,2810,3011	
38-4-1292	Thornton Bridge 1	GDA		372595	6371690	Open site	Partially Destroyed	Artefact : -		102615,10339 1
	Contact	<u>Recorders</u>			, <u>,</u>	Niche Environmen	nt and Heritage,Mr.Ja	amie Reeves,] <u>Permits</u>	3398,3944	
38-4-1754	VALAIRE LAND 1/A	GDA	56	373723	6373735	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie				<u>Permits</u>	3899	
38-4-1755	VALAIRE LAND 2/A	GDA	56	373522	6373438	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie				Permits	3899	
38-4-1756	VALAIRE LAND 2/B	GDA	56	373722	6373618	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<b>Recorders</b>		n East Archa	0,			<u>Permits</u>	3899	
38-4-1757	VALAIRE LAND 4/A Contact	GDA <u>Recorders</u>		373727 eter Kuskie	6373345	Open site	Valid	Artefact : - <u>Permits</u>	3899	
38-4-1758	VALAIRE LAND 5/A	GDA		373571	6373318	Open site	Valid	Artefact : -	3033	
50 1 1/50					0070010	opensite	vana		3899	
38-4-1759	Contact RPS Thornton AS1	Recorders GDA		eter Kuskie 373569	6373835	Open site	Destroyed	Permits Artefact : 1	3077	
30-1-1739						•	Destroyeu			
38-4-1760	Contact RPS Thornton AS2	Recorders GDA		373823	t Pty Ltd -Ham 6373858	Open site	Destroyed	Permits Artefact : 1		
50-4-1700						-	Destroyeu			
	<u>Contact</u>	<u>Recorders</u>	KPS /	Australia Eas	t Pty Ltd -Ham	liiton		<u>Permits</u>		

Report generated by AHIMS Web Service on 04/06/2018 for Tamika Goward for the following area at Datum :GDA, Zone : 56, Eastings : 370000 - 374000, Northings : 6371500 - 6375500 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 84



Extensive search - Site list report

Client Service ID : 349065

<u>SiteID</u>	SiteName	<u>Datum</u>	Zone	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<b>SiteFeature</b>	<u>s</u>	<u>SiteTypes</u>	<u>Reports</u>
38-4-1733	TB16	GDA	56	372495	6375495	Open site	Valid	Artefact : -, P Archaeologic	al		
	Contact	Recorders	Mr.I:	ason Barr				Deposit (PAI	)):- Permits	3875	
38-4-1734	TB14	GDA	,	372353	6375445	Open site	Valid	Artefact : -, P		0010	
								Archaeologic Deposit (PAI			
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie,S	South East Arc	haeology			<u>Permits</u>	3875	
38-4-1789	RPS JN 2	GDA	56	373940	6374242	Open site	Destroyed	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	RPS	Australia Eas	st Pty Ltd -Han	nilton,RPS Australia	East Pty Ltd -Hami	lton,Ms.Jo Ne <u>I</u>	<u>Permits</u>	4157	
38-4-1788	RPS JN 1	GDA	56	373954	6374267	Open site	Destroyed	Artefact : -			
	<u>Contact</u>	<b>Recorders</b>	RPS	Australia Eas	st Pty Ltd -Han	nilton,RPS Australia	East Pty Ltd -Hami	lton,Ms.Jo Ne <u>I</u>	<u>Permits</u>	4157	
38-4-0804	Thornton North 9 - TN9	AGD	56	371580	6375000	Open site	Valid	Artefact : -			100914
	Contact T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				I	<u>Permits</u>	2113,2509,2880,2881,3	341
38-4-0833	Four Mile Creek PAD	AGD	56	371333	6373772	Open site	Valid	Potential			
								Archaeologic			
								Deposit (PAI	,		
	Contact T Russell	Recorders			, u	ously HLA-Envirosci			<u>Permits</u>	2140	
38-4-0124	Parkwood;	AGD		372850	6373300	Open site	Valid	Artefact : -		Open Camp Site	
	Contact	<u>Recorders</u>							<u>Permits</u>		
38-4-1954	RMS Thornton Bridge Excavation Reburial	GDA	56	372505	6371535	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Umv	velt (Australi	a) Pty Limited	Ms.Alison Lamond,			<u>Permits</u>		
38-4-0342	Four Mile Creek 1;	AGD	56	370510	6372100	Open site	Valid	Artefact : -		Open Camp Site	2742,100988
	<u>Contact</u>	<u>Recorders</u>	Noel	een Curran				I	<u>Permits</u>	2592,2809,2810,3011	
38-4-0346	Thornton 2;	AGD	56	373750	6371900	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	<b>Recorders</b>	Mr.P	eter Kuskie				I	<u>Permits</u>	718,887	
38-4-0347	Thornton 3;	AGD	56	373450	6371700	Open site	Valid	Artefact : -		Open Camp Site	102568
	<u>Contact</u>	<b>Recorders</b>	Mr.P	eter Kuskie				I	Permits	718,887	
38-4-0348	Thornton 4;	AGD		373200	6371670	Open site	Valid	- Artefact : -		Open Camp Site	102568
	<u>Contact</u>	<b>Recorders</b>	Mr.P	eter Kuskie				I	Permits	718	
38-4-0349	Thornton 5;	AGD		373370	6372350	Open site	Valid	Artefact : -		Open Camp Site	102568
	Contact	Recorders	Mr.P	eter Kuskie		•		I	Permits	718,887	
38-4-0352	Thornton 8;	AGD		373850	6372960	Open site	Valid	Artefact : -	<u>crimes</u>	Isolated Find	100924
	Contact	Recorders		eter Kuskie		- F 2 0			Permits	718,887	
38-4-0353	Thornton 9;	AGD		373650	6372980	Open site	Valid	Artefact : -	<u>ermits</u>	Open Camp Site	100924
55 1 0555	,				0072700	opensite	, and		Donmite		100721
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie				<u> </u>	<u>Permits</u>	718	

Report generated by AHIMS Web Service on 04/06/2018 for Tamika Goward for the following area at Datum :GDA, Zone : 56, Eastings : 370000 - 374000, Northings : 6371500 - 6375500 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 84



**Extensive search - Site list report** 

Client Service ID : 349065

<u>SiteID</u>	SiteName	Datum	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatur</u>	<u>es</u>	<u>SiteTypes</u>	<u>Reports</u>
38-4-0354	Thornton 10;	AGD	56	373470	6372400	Open site	Valid	Artefact : -		Open Camp Site	100924,10256 8
	<u>Contact</u>	<b>Recorders</b>	Mr.P	eter Kuskie					<b>Permits</b>	718,887	0
38-4-0355	T 1; (Duplicate of 38-4-0399)	AGD	56	372100	6373200	Open site	Valid	Artefact : -		Isolated Find	
	<u>Contact</u>	<u>Recorders</u>	Noel	een Curran					Permits		
38-4-0356	T 2 Beresfield	AGD	56	372500	6373200	Open site	Destroyed	Artefact : -		Open Camp Site	
	<u>Contact</u>	<u>Recorders</u>	Noel	een Curran,M	ls.Penny McCa	rdle			Permits		
38-4-0360	Thornton 12;	AGD	56	373750	6371400	Open site	Valid	Artefact : -		Open Camp Site	102568
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie					Permits		
38-4-0361	Thornton 11;	AGD	56	373700	6372300	Open site	Valid	Artefact : -		Open Camp Site	102568
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie					Permits		
38-4-0365	Thornton 11;	AGD	56	373700	6372300	Open site	Valid	Artefact : -		Open Camp Site	102568
	<u>Contact</u>	<b>Recorders</b>	Mr.P	eter Kuskie					Permits	718,887	
38-4-0366	Thornton 11;	AGD	56	373750	6371400	Open site	Valid	Artefact : -		Open Camp Site	102568
	<u>Contact</u>	<u>Recorders</u>	Mr.P	eter Kuskie					<u>Permits</u>	718,887	
38-4-0426	FMC3;	AGD	56	370500	6372450	Open site	Valid	Artefact : -		Open Camp Site	100512,10098 8
	Contact	<u>Recorders</u>	Liam	Dagg					<u>Permits</u>	2592,2809,2810,3011	
38-4-0429	ASH-1;	AGD	56	369900	6372500	Open site	Valid	Artefact : -		Isolated Find	
	<u>Contact</u>	<u>Recorders</u>	Ms.C	laire Everett					<u>Permits</u>		
38-4-0431	FMC 2;	AGD	56	370640	6372720	Open site	Valid	Artefact : -		Open Camp Site	100512,10098 8
	<u>Contact</u>	<u>Recorders</u>		Dagg					Permits	2592,2809,2810,3011	
38-4-0432	FMC 4;	AGD	56	370700	6372780	Open site	Valid	Artefact : -		Open Camp Site	100512,10098 8
	Contact	<u>Recorders</u>		Dagg					Permits	889,2592,2809,2810,30	
38-4-0433	FMC 5;	AGD	56	371160	6372880	Open site	Valid	Artefact : -		Open Camp Site	100512
	Contact	<u>Recorders</u>		Dagg					<u>Permits</u>	889	
38-4-0434	FMC 6;	AGD	56	371140	6372800	Open site	Valid	Artefact : -		Open Camp Site	100512
	Contact	<u>Recorders</u>		Dagg					Permits	889	
38-4-0435	FMC 7;	AGD	56	371040	6372760	Open site	Valid	Artefact : -		Isolated Find	100512
	Contact	Recorders		Dagg					<u>Permits</u>	889	
38-4-0436	FMC 8;	AGD		371060	6372140	Open site	Valid	Artefact : -		Open Camp Site	100512
	Contact	<u>Recorders</u>	Liam						Permits	889	
38-4-0437	FMC 9;	AGD	56	370580	6372180	Open site	Valid	Artefact : -		Isolated Find	100512
	Contact	<u>Recorders</u>	Liam	Dagg					<u>Permits</u>		

Report generated by AHIMS Web Service on 04/06/2018 for Tamika Goward for the following area at Datum :GDA, Zone : 56, Eastings : 370000 - 374000, Northings : 6371500 - 6375500 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 84



Extensive search - Site list report

38-4-0395	SiteName T2; Beresfield Contact T1;	<b>Datum</b> AGD	<u>Zone</u> 56	Easting	0	<u>Context</u>	<u>Site Status</u>	<u>SiteFeature</u>	_	<u>SiteTypes</u>	<u>Reports</u>
38-4-0399			00	372500	6373200	Open site	Destroyed	Artefact : -		Open Camp Site	2880
38-4-0399	<u></u>	Recorders	Noel	een Curran,M	Is.Penny McCa	rdle			<u>Permits</u>		
	11;	AGD	56	372100	6373200	Open site	Valid	Artefact : -		Isolated Find	2880
	<u>Contact</u>	<u>Recorders</u>	Noel	een Curran					Permits		
38-4-0401	Thorn-1;	AGD	56	372200	6371600	Open site	Valid	Artefact : -		Open Camp Site	3060,99973,10 2568,102615
	Contact	<u>Recorders</u>		Stuart					<u>Permits</u>		
38-4-0416	FMC 2;	AGD	56	370380	6372750	Open site	Valid	Artefact : -		Isolated Find	100512
	<u>Contact</u>	<u>Recorders</u>	Liam	n Dagg					<u>Permits</u>	859	
38-4-0121	None Specified	AGD	56	373000	6373000	Open site	Valid	Artefact : -		Open Camp Site	
	<u>Contact</u>	<b>Recorders</b>	P Jon	ies					<u>Permits</u>		
38-4-0123	None Specified	AGD	56	373100	6374900	Open site	Valid	Artefact : -		Open Camp Site	
	Contact	<b>Recorders</b>	P Jon	nes					<u>Permits</u>		
38-4-0125	None Specified	AGD	56	372900	6374200	Open site	Valid	Artefact : -		Open Camp Site	
	<u>Contact</u>	<u>Recorders</u>	P Jon	ies					<u>Permits</u>		
38-4-0886	Thornton Beechwood 15	AGD	56	372390	6375260	Open site	Valid	Artefact : 1			103380
	Contact T Russell	<b>Recorders</b>	Mr.P	eter Kuskie					<u>Permits</u>	3875	
38-4-0887	Thornton Beechwood 11	AGD	56	372340	6375110	Open site	Valid	Artefact : 1			103380
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie					<u>Permits</u>	3875	
38-4-0888	Thornton Beechwood 6	AGD	56	372275	6374489	Open site	Valid	Artefact : 2			103380
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie,N	/Ir.Peter Kuski	e			<u>Permits</u>	2816,2817,3875	
38-4-0889	Thornton North 27 (TN27)	AGD	56	371130	6373600	Open site	Valid	Artefact : 1			100988
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie					<u>Permits</u>	2809,3011,3642	
38-4-0890	Thornton North 1	AGD	56	373125	6373986	Open site	Valid	Artefact : -			
	Contact T Russell	<u>Recorders</u>	Mr.G	iles Hamm					<u>Permits</u>	2592,2819	
38-4-0891	Thornton North 3	AGD	56	373185	6373705	Open site	Destroyed	Artefact : -			
	Contact T Russell	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd			<u>Permits</u>	2592,2819,3189,3745	
38-4-0892	Thornton North Site 2	AGD	56	373444	6373951	Open site	Valid	Artefact : 1			
	Contact T Russell	<u>Recorders</u>	Mr.G	iles Hamm					<u>Permits</u>	2592,2819	
38-4-0893	Thornton North 4	AGD	56	373105	6373500	Open site	Destroyed	Artefact : -			
	Contact T Russell	<u>Recorders</u>	Mr.G	iles Hamm					<u>Permits</u>	2592,2819,3189	
38-4-0849	PAD1 Four mile creek south-2	AGD	56	369900	6372125	Open site	Valid	Artefact : 2			
	<u>Contact</u> Searle	<u>Recorders</u>	Janic	e Wilson					Permits	2592,2809,2810,3011	

Report generated by AHIMS Web Service on 04/06/2018 for Tamika Goward for the following area at Datum :GDA, Zone : 56, Eastings : 370000 - 374000, Northings : 6371500 - 6375500 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 84



**Extensive search - Site list report** 

Client Service ID : 349065

<u>SiteID</u> 38-4-0850	<u>SiteName</u> PAD2 Four Mile Creek Tributary -2	<b>Datum</b> AGD	<b>Zone</b> 56	<b>Easting</b> 370350	<b>Northing</b> 6371935	<b>Context</b> Open site	<u>Site Status</u> Valid	<mark>SiteFeatures</mark> Potential Archaeological Deposit (PAD) : 1	<u>SiteTypes</u>	<b>Reports</b> 100988
	<u>Contact</u> Searle	<b>Recorders</b>	Janic	e Wilson				<u>Permits</u>	2592,2809,2810	
38-4-0927	Thornton North Site 1 - Lot 20	AGD	56	372943	6374863	Open site	Valid	Artefact : 6		
	Contact T Russell	<b><u>Recorders</u></b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0928	Thornton North Site 2 - Lot 20	AGD	56	373068	6373723	Open site	Destroyed	Artefact : 1		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>	3745	
38-4-0929	Thornton North Site 3 - Lot 20	AGD	56	373007	6373565	Open site	Destroyed	Artefact : 2		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>	3745	
38-4-0930	Thornton North Site 4- Lot 1	AGD	56	372623	6373439	Open site	Valid	Artefact : 1		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0931	Thornton North Site 1 Lot 1	AGD	56	372597	6373409	Open site	Valid	Artefact : 3		
	Contact T Russell	<u>Recorders</u>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0932	Thornton North Site 2 Lot 1	AGD	56	372474	6373634	Open site	Valid	Artefact : 2		
	Contact T Russell	<u>Recorders</u>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0933	Thornton North Site 3 Lot 1	AGD	56	372620	6373595	Open site	Valid	Artefact : 2		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0934	Thornton North Site 4 - Lot 20	AGD	56	372620	6373595	Open site	Valid	Artefact : 3		
	Contact T Russell	<u>Recorders</u>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0935	Thornton North Site 5 - Lot 20	AGD	56	372960	6373457	Open site	Valid	Artefact : 2		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0936	Thornton North Site 6 - Lot 20	AGD	56	372958	6373278	Open site	Valid	Artefact : 40		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0937	Thornton North Site 7 - Lot 20	AGD	56	372818	6373445	Open site	Valid	Artefact : 1		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0938	Thornton North Site 8 - Lot 20	AGD	56	372843	6373494	Open site	Valid	Artefact : 2		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0939	Thornton North Site 9 - Lot 20	AGD	56	372800	6373535	Open site	Valid	Artefact : 1		
	Contact T Russell	<b>Recorders</b>	Mr.G	iles Hamm				<u>Permits</u>		
38-4-0942	Thornton North 7 (TN7)	AGD	56	371410	6375280	Open site	Valid	Artefact : 20		100914
	Contact T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2509,2880,2881,3341	
38-4-0943	Thornton North 3 (TN3)	AGD	56	371950	6375050	Open site	Valid	Artefact : 3		100914
	Contact T Russell	<u>Recorders</u>	Mr.P	eter Kuskie				Permits	2880,2881,3341	
38-4-0944	Thornton North 13 (TN13)	AGD	56	371090	6374740	Open site	Valid	Artefact : 18		100914

Report generated by AHIMS Web Service on 04/06/2018 for Tamika Goward for the following area at Datum :GDA, Zone : 56, Eastings : 370000 - 374000, Northings : 6371500 - 6375500 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 84



**Extensive search - Site list report** 

Client Service ID : 349065

<u>SiteID</u>	<u>SiteName</u>		Datum	<u>Zone</u>	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
	<b>Contact</b>	T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2468,2592,2880,2881,3	341,3642
38-4-0945	Thornton Nor	rth 12 (TN12)	AGD	56	371260	6374960	Open site	Valid	Artefact : -		100914
	<u>Contact</u>	T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2880,2881,3341	
38-4-0881	Thornton Nor	rth 26 (TN26)	AGD	56	371000	6373790	Open site	Valid	Artefact : 5		
	<u>Contact</u>	T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2468,2592,3642	
38-4-0882	Thornton Nor	rth 21 (TN21)	AGD	56	371040	6374100	Open site	Valid	Artefact : 6		
	<u>Contact</u>	T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2468,2592,3642	
38-4-0883	Thornton Nor	rth 20 (TN20)	AGD	56	371040	6374400	Open site	Valid	Artefact : 1		100914
	<u>Contact</u>	T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				<b>Permits</b>	2880,2881,3341,3642	
38-4-0884	Thornton Nor	rth 2 (TN2)	AGD	56	371950	6375000	Open site	Valid	Artefact : 1		100914
	<u>Contact</u>	T Russell	<b>Recorders</b>	Mr.P	eter Kuskie				Permits	2880,2881,3341	
38-4-0978	Thornton Nor	rth PAD 1	AGD	56	371564	6374950	Open site	Valid	Potential		
									Archaeological		
	<u>Contact</u>	Searle	Recorders	Ms.P	enny McCard	lle			Deposit (PAD) : - <u>Permits</u>	2509	
38-4-1643	Lot 2 Govt Ro		GDA		373775	6374010	Open site	Partially	Artefact : -, Potential		
							1	Destroyed	Archaeological		
									Deposit (PAD) : -		
	<u>Contact</u>		Recorders	Mr.G	iles Hamm				<u>Permits</u>	3725	

Report generated by AHIMS Web Service on 04/06/2018 for Tamika Goward for the following area at Datum :GDA, Zone : 56, Eastings : 370000 - 374000, Northings : 6371500 - 6375500 with a Buffer of 0 meters. Additional Info : Assessment. Number of Aboriginal sites and Aboriginal objects found is 84 This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such

. [ ] Additional Info
National Parks and Wildlife Service Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444 Standard Site Recording Form Revised 5/88 38-4-0399
NPWS Code         1:250,000 map sheet:       NEWCASTLE       [5, 5]         250K       250K         AMG Grid reference       3 7 2 1 00 mE       6 3 7 3 2 00 mN         Full reference - please       25K       25K         include leading digits       25K       5%         Scale of map used for grid reference       1/ 25K, 50K       [ ] 100K       [ ] 250K         Please use largest scale available       1/ 25K, 50K       [ ] 100K       [ ] 250K         1:25K, 50K, 100K map name:       BERESTIEUD       Date:       Date:         Site name:       T       Locality/property name:       LOT 182         DP 792071       Region:       CENTRAL         Peason for investigation       ARCHAEOLOGETCAL SURVEY POR E.I.S.
Portion no: Parish: Photos taken? No. How many attached? How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. Draw diagram on separate sheet.) FROM THE HOUSE, FOLLOW THE VEHICLE TEACK INTO THE SCRUB. CONTINUE, CROSS THE CREEK, FOLLOW THE RISE IN TEREPARK. THE TRACK BENDS TO THE LEFT AND IS LARACLY DISTURBED AS A RESULT OF WATER LOGICINE, THE SITE IS ON THE EDGE OF THIS BEND,
BEFORE YOU FOLLOW THE BEND.           Other sites in locality?         N(L.)           Site Types include:           Are sites in NPWS Register?
Have artefacts been removed from site? YES When? LJULY 1943 By whom? RICKI-JD GRIFFITHS Deposited where? MINDARIBBA LALC.
Is site important to local Aborigines? NO . Give contact(s) name(s) + address(es) RKK1-JD GRIFFITHS, MINDARIBBA LALL . 420 HIGH ST, MAITLAND, 2320 . Contacted for this recording? YES . (Attach additional information separately) If not, why not? Verbal/written reference sources (including full tille of accompanying report). ARCHAEOLOGICAL SURVEY OF LOT 1, DP 634 858 AND PART OF LOT 182
Checklist: surface visibility, damage/disturbance/ threat to site
Recommendations for management & protection (attach separate sheet it necessary) ARTEFACT WAS REMOVED AND DEPOSITED ATTHE LAND COUNCIL OFFICE. NO FUETHER ACTION RED D. NO THEAT TO SITE.
Site recorded by: N.CLIRRAN. Date: 12 JULY 1993. Address/institution: RESOLURCE PLANNING PLL PO BOX 388 EAST MAITLAND 2323

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SITE POSITION & I		OFFICE USE ONLY: NPWS site no: 38- 7-399
	ich/hill slope/ridge top, etc: TERRACE provided or on your own sketch the position of the	b. site aspect: c. slope: 0-10° e site: e. Describe briefly: DNAPPED FLAKED PIECE LOCATED ON A VEHICLE TRACK.
<ul> <li>f. Local rock type:</li> <li>2. Distance from drin</li> <li>3. Besquirce Zone as</li> </ul>		
4 Vegetation:	ED GUH - IRONBARK HOODLAND.	the moodland.
5. Edible plants note	d NIL	
6 Faunal resources (	esources (river pebbles, ochre, etc).	
Site type:	DESCRIPTION OF SITE & CONTENTS.	
ISOLATED FIND.	Note state of preservation of site & contents	Cin x 1. Scin x 0. 6cin (LWH)
CHECKLIST TO HELP. length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these.	WORKER .	ehicular), not in situ DUSÉ+ RAYMOND TERRALE ED.
stone types, artefact types. ART area of surface decorated, motils, colours, wet, dry pigment, technique of engraving, no. of tigures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts.	8 	売ら
TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. OUARRIES rock type, debris, recognisable artefacts, percentage	RESIDENTIAL	ISTURGANCE MILLANOS LOT 182 LOT 19 DP 792071
quarried. OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate	ISOLATED FIND . X OPEN ARTEFACT SITE LOC Attach sketches etc. eg. plan & section of she indicate north, show scale. Attach annotated photos (stereo where useful)	





## Attachment 2

## **Community Consultation Record**



Tamika Goward <tamika.goward@gmail.com>

### draft due diligence report 107 haussman drive thorton

1 message

Jason Brown <cultureandheritage@mindaribbalalc.org> To: "tamika.goward@gmail.com" <tamika.goward@gmail.com> Cc: "tamika@mdca.com.au" <tamika@mdca.com.au> Thu, Jul 5, 2018 at 2:50 PM

To Tamika

Mindaribba LALC agree with the draft due diligence assessment report.

Kind Regards,

Jason Brown

Culture and Heritage | Mindaribba Local Aboriginal Land Council

1A Chelmsford Drive, Metford NSW 2323

PO Box 401, East Maitland NSW 2323

p: 02 4015 7000 | f: 02 4934 8544 | e: cultureandheritage@mindaribbalalc.org

A social, health and learning hub for our Aboriginal community.



I acknowledge and respect the traditional lands of all Aboriginal people, and I respect Elders past & present.

*I ask all those that walk, work & live on traditional Aboriginal lands to be respectful of culture & traditions.* 

# HERITAGE NOW

## Attachment C: Additional Information

## **Environmental Background**

The Project Area is located on sloping land. The north east corner and south west corners are at a higher elevation, forming a ridge around the north and western boundaries. The land then slopes gradually down towards the middle of the lot, possibly forming an ephemeral drainage line as this downward slope leads to a first order stream in the eastern side of the Project Area. This stream flows into the Woodberry Swamps, which is a resource rich and culturally sensitive area.

The Project Area has been previously used as a quarry. Historical images from the 1960s indicate that the landscape is relatively undisturbed, but with more recent images from the 1980s and 1990s, the area was increasingly cleared and excavated for quarrying activity. However, the southern edge and north east corner appear to have been undisturbed and are therefore more likely to retain archaeological evidence of Aboriginal occupation.

## Heritage Background

Aboriginal people have been in Australia for at least 50,000 years, with potential evidence for earlier occupation. Aboriginal occupation in the region has been dated to 11,050 years before present which precedes the rise of sea levels around 6000 years before present <sup>5</sup>.

Evidence of Aboriginal occupation in the area may take the form of artefacts, scarred trees, grinding grooves, art sites, shelters, potential archaeological deposits (PADs) and middens.

## Other Related Heritage Reports

Other related heritage reports are summarised below.

### Curran (1993) Archaeological Survey, Lot 1742 DP634868 and Lot182 DP 792071, Thornton, NSW

An archaeological survey was completed in the lot immediately east of the Project Area on behalf of PGH Clay Bricks and Pavers to assess the impact of a new clay extraction pit. The survey area identified two surface artefact sites; an artefact scatter (AHIMS #38-4-0395) and isolated find (AHIMS #38-4-0399). The scatter consisted of 25-30 artefacts of silcrete and chert and was located on a creek bank <sup>6</sup>. It was suggested that there was a possibility of further subsurface material <sup>7</sup>. The isolated find was not found in situ, but on an exposed piece if track. It consisted of a snapped flake made of Nobby's Tuff. There was no evidence of an intact archaeological deposit <sup>8</sup>. The isolated find, which plots as being within the current Project Area, was salvaged by Mindaribba Local Aboriginal Land Council <sup>9</sup>. The AHIMS database also indicates that the scatter, located approximately 425 east of the Project Area, has also been destroyed.

<sup>&</sup>lt;sup>5</sup> Val Attenbrow, *What's Changing: Population Size or Land-Use Patterns? The Archaeology of Upper Mangrove Creek, Sydney Basin* (Canberra: Australian National University Press, 2006).

<sup>&</sup>lt;sup>6</sup> Noeleen Curran, "Archaeological Survey, Lot 1742 DP634868 and Lot182 DP 792071, Thornton, NSW," Archaeological Survey Report (Metford, NSW: Resourcing Planning Pty Ltd, 1993), 11.

<sup>&</sup>lt;sup>7</sup> Curran, 11.

<sup>&</sup>lt;sup>8</sup> Curran, 10.

<sup>&</sup>lt;sup>9</sup> Curran, 10.

### Kuskie (2015) Waterford County Eastern Sector, Chisholm, Aboriginal Cultural Heritage Assessment

Archaeological test excavations were undertaken for the development of the Waterford County Estate, located opposite the Project Area on the northern side of Raymond Terrace Road. In total 220 0.5 x 0.5 m test pits were excavated. The investigation identified 12 Aboriginal sites, along with 8 surface artefacts and 242 sub-surface artefacts retrieved during excavations. The assemblage was dominated by silcrete (80.6%), but also included tuff, quartz, chert and acidic volcanic. Artefact types included flakes, flake portions, cores, backed artefacts, and retouched artefacts. The highest concentrations of artefacts were found within 300 m of the wetlands, suggesting that the proximity to wetlands was a primary factor in the nature and extent of human occupation in the area <sup>10</sup>. Three sites were considered of low to moderate significance (AHIMS 38-4-1727, #38-4-1728, #38-4-1729) and nine of low significance <sup>11</sup>.

### Biosis (2018) 530 Raymond Terrace Road, Thornton: Archaeological Report

Biosis conducted a field survey and test excavation for a proposed subdivision on Lot 20 DP10419, 530 Raymond Terrace Road, Thornton, approximately 650 m east of the Project Area. The survey identified 11 previously unrecorded sites including 1 PAD, 5 isolated finds and 5 artefact scatters. 10 AHIMS sites were recorded in the project area, however not all could be located in the survey. AHIMS site #38-4-0124 was found to not be in the survey area based on the site card and required an updated site location <sup>12</sup>. The investigation included the excavation of 37 test pits over 19 transects. Only four test pits contained artefacts, however these were able to identify the extent of three low density artefact sites. Artefact materials included silcrete, mudstone, and chert, with evidence that some pieces of mudstone and silcrete had been heat treated. The most common artefact types were flakes (44%) and cores (33%) <sup>13</sup>. In contrast, surface artefacts were much more likely to be angular fragments. Overall the results indicated that the potential for subsurface deposits in the area was low due to high levels of disturbance from previous land use including; quarrying recreation and erosion <sup>14</sup>. It was recommended that surface artefacts be salvaged and that further archaeological work is required for where sites cannot be avoided.

<sup>&</sup>lt;sup>10</sup> Peter J. Kuskie, "Waterford County Eastern Sector (Part Lot 812 DP 1171131, Part Lot 7270 DP 1187087, Lot 1 DP1020710 and Lot 43 DP 1009594, Chisholm, Lower Hunter Valley, New South Wales: Aboriginal Cultural Heritage Assessment," Test Excavation (Hughes, ACT: South East Archaeology, 2015), 173.

<sup>&</sup>lt;sup>11</sup> Kuskie, 184–85.

<sup>&</sup>lt;sup>12</sup> Ashleigh Keevers-Eastman, Anthea Vella, and Taryn Gooley, "530 Raymond Terrace Road, Thornton: Archaeological Report," Archaeological Report (Newcastle, NSW: Biosis Pty Ltd, Report Prepared for Thornton Brentwood, 2018), 45.

<sup>&</sup>lt;sup>13</sup> Keevers-Eastman, Vella, and Gooley, 89.

<sup>&</sup>lt;sup>14</sup> Keevers-Eastman, Vella, and Gooley, 62.

# HERITAGE NOW

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