



Aboriginal Site Recording Form



AHIMS Registrar
PO Box 1967, Hurstville NSW 2220

Office Use Only

Site Number

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

Gender/male Gender/female Location restriction General restriction No access

For Further Information Contact:

Nominated Trustee

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Knowledge Holder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

Office Use Only

Client on system

Client on system

Geographic Location

Site Name

Easting Northing AGD/GDA

Mapsheet

Zone Location Method

Other Registration

Primary Recorder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Date recorded

Client on system

General Site Information

Closed Site

Shelter/Cave Formation

- Boulder
- Wind erosion
- Water erosion
- Rock collapse

Rock Surface Condition

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Condition of Ceiling

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Shelter Aspect

- North
- North East
- East
- South East
- South
- South West
- West
- North West

Open Site

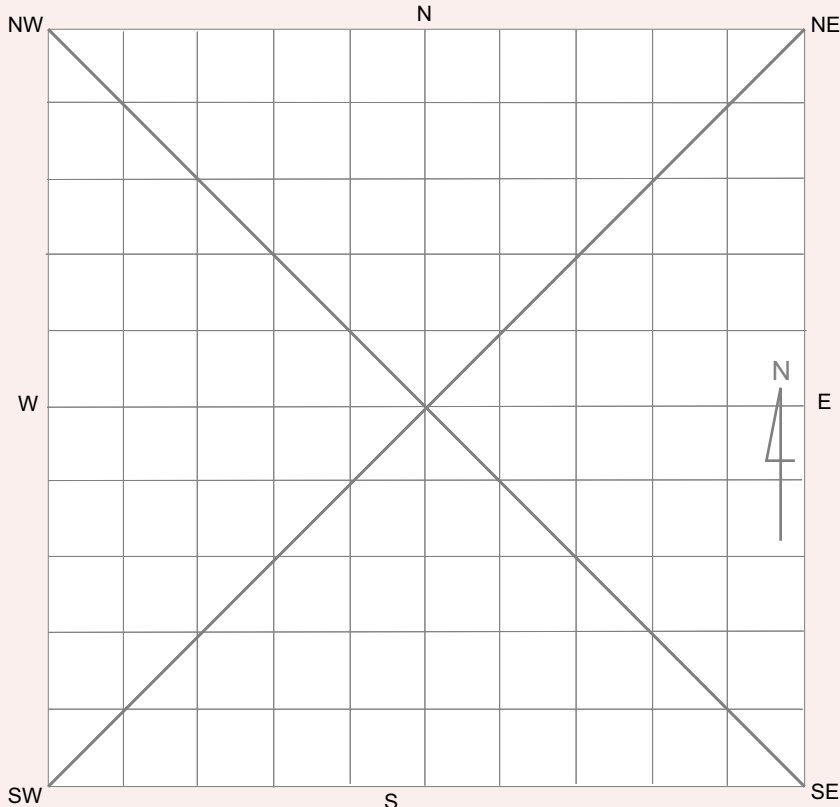
Site Orientation

- N-S
- NE-SW
- E-W
- SE-NW
- N/A

Features

- 1. Aboriginal Ceremony & Dreaming
- 2. Aboriginal Resource & Gathering
- 3. Art
- 4. Artefact
- 5. Burial
- 6. Ceremonial Ring
- 7. Conflict
- 8. Earth Mound
- 9. Fish Trap
- 10. Grinding Groove
- 11. Habitation Structure
- 12. Hearth
- 13. Non Human Bone & Organic Material
- 14. Ochre quarry
- 15. Potential Archaeological Deposit
- 16. Stone Quarry
- 17. Shell
- 18. Stone Arrangement
- 19. Modified Tree
- 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

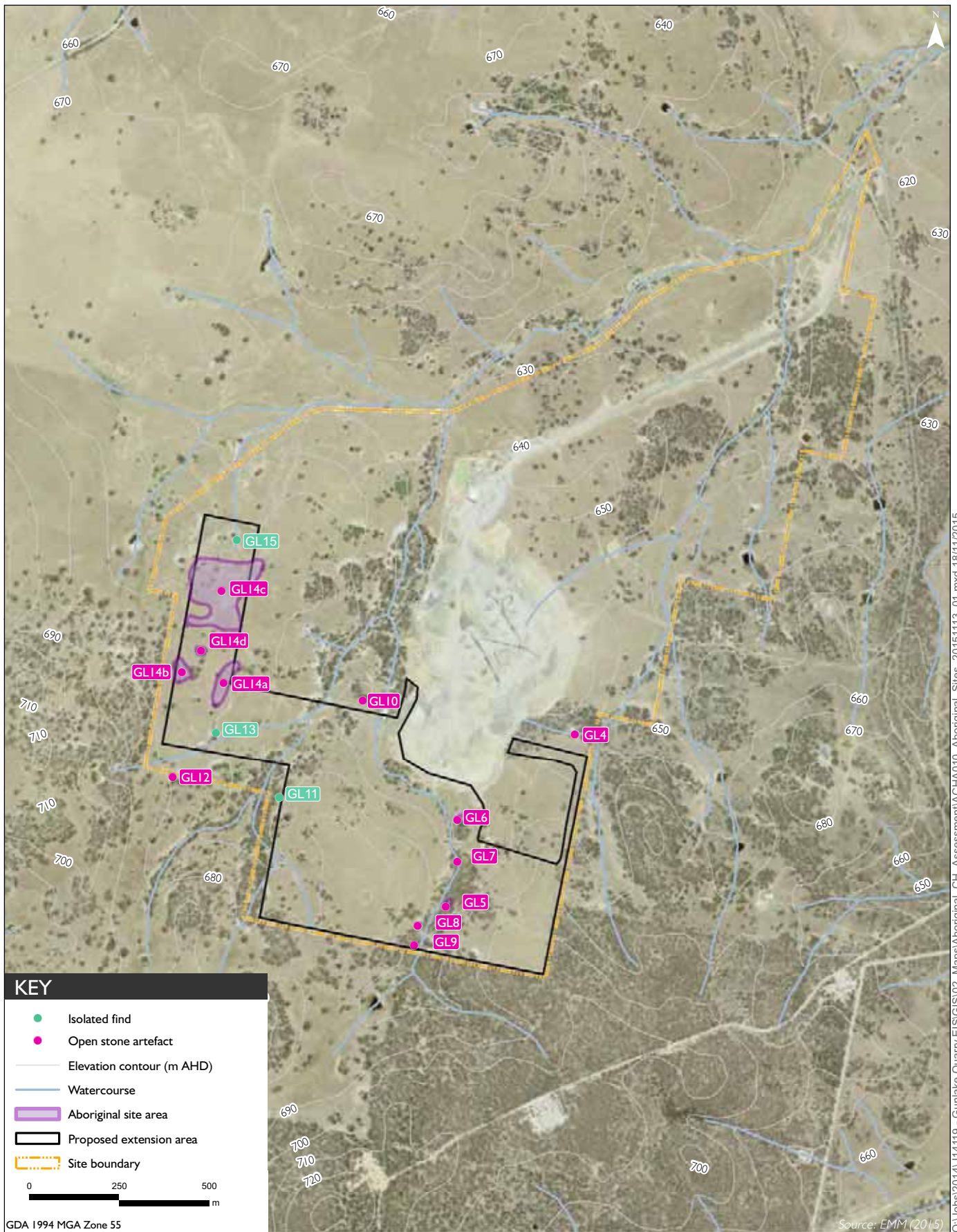
- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (m)

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

Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
GL11 (isolated find)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a disturbed context near a drainage bund.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL11 is a common low density open stone artefact scatter.
GL12 (open stone artefact scatter)	Low: The site is a common type of moderate density artefacts.	Low: The site comprises common materials and artefact types.	Low: The site is on an erosion scald on skeletal soils.	Low: The site does not contribute to issues of chronology or tool manufacture.	Moderate: The site contains easily identifiable artefact types including a retouched flake.	Low: GL12 is a common open stone artefact scatter on a typical landform, albeit with an above average artefact frequency
GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
GL14a,b,c and d (open stone artefact scatter with deposit)	Moderate: The site is of a common type with a high frequency of artefacts but lacking intact contextual value.	Moderate: High artefact frequency is rare for the local area but common for similar landforms in the region.	Low: Highly eroded landform on skeletal soils. Minimal subsurface potential.	Moderate: Detailed recording may address issues of tool manufacture owing to extensive assemblage.	High: The site is the best local example of diverse artefact scatter. Assemblage has diverse artefact types and raw materials. Easy to locate and observe material.	Moderate: GL14, a, b, c and d combined is an extensive artefact scatter on a common site landform with good examples of artefact types and raw materials. However, it lacks archaeological integrity because of the highly eroded skeletal soils.
GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.



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Aboriginal site results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 6.2



















Aboriginal Site Impact Recording Form

AHIMS Registrar

PO Box 1967, Hurstville 2220 NSW

April 2012 OEH 2012/0558

- 1 This form must be completed following impacts to AHIMS sites that are:
 - a) a result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW*
 - b) authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by the Office of Environment and Heritage (OEH)
 - c) undertaken for the purpose of complying with Director General's Requirements issued by the Department of Planning and Infrastructure (DP&I) for:
 - State Significant Development (SSD - Part 4),
 - State Significant Infrastructure (SSI - Part 5.1), or
 - A Major Project (Part 3A - now repealed) under the *Environmental Planning and Assessment Act 1979 (EP&A Act)*, or
 - d) authorised by a SSD/SSI/Part 3A consent/approval under the EP&A Act.
- 2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
- 3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
- 4 This form does not replace the need to submit reports to OEH (as a condition of an AHIP or SSD/SSI/Part 3A consent/approval)
This form must be submitted in addition to any reports.

AHIMS site ID:

Site impact authorisation (select one)	Reference numbers, dates
<input type="checkbox"/> Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with the <i>Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW</i> .)	Date OEH was notified (under requirement 15c of the Code): <input type="text"/> OEH Regional office notified: <input type="text"/>
<input type="checkbox"/> AHIP (The impacts to this site were authorised by an AHIP.)	AHIP number: <input type="text"/> Date issued/signed: <input type="text"/> AHIMS permit ID/number: <input type="text"/>
<input checked="" type="checkbox"/> SSD/SSI/Part 3A application (The impacts to this site were undertaken for the purposes of complying with Director General's Requirements issued by the DP&I)	Project number: <input type="text" value="SSD 15_7090"/> Date Director General's Requirements issued: <input type="text"/> or Date of project approval: <input type="text"/>
<input type="checkbox"/> SSD/SSI/Part 3A approved project (The impacts to this site were authorised by a consent/approval under Parts 4/5.1/3A of the EP&A Act.)	

Site status following impacts:

- Not a site (The investigations concluded that this is not a site.)
 Valid site (The investigations confirmed that this is an Aboriginal site.)
 Partially destroyed (The site was partially destroyed following authorised impacts; a portion of the site remains in situ.)
 Destroyed (The site was completely destroyed following authorised impacts.)

Geographic location

Site name:
 Easting: Northing: Coordinates must be in GDA (MGA)
 Map sheet:
 Zone: Location method:

Primary recorder

(The person responsible for the completion and submission of this form)

Title	Surname	First name	
MR	Desic	Ryan	
Organisation:	EMM Consulting		
Address:	PO BOX 21 St Leonards NSW		
Phone:	94939500	E-mail:	
Date recorded:	27/07/2015	Fax:	

Site information

Open/closed site:

Features:

- | | | | |
|-------------------------------------|--------------------------------------|--------------------------|---|
| <input type="checkbox"/> | 1. Aboriginal ceremony and dreaming | <input type="checkbox"/> | 11. Habitation structure |
| <input type="checkbox"/> | 2. Aboriginal resource and gathering | <input type="checkbox"/> | 12. Hearth |
| <input type="checkbox"/> | 3. Art | <input type="checkbox"/> | 13. Non-human bone and organic material |
| <input checked="" type="checkbox"/> | 4. Artefact | <input type="checkbox"/> | 14. Ochre quarry |
| <input type="checkbox"/> | 5. Burial | <input type="checkbox"/> | 15. Potential archaeological deposit |
| <input type="checkbox"/> | 6. Ceremonial ring | <input type="checkbox"/> | 16. Stone quarry |
| <input type="checkbox"/> | 7. Conflict | <input type="checkbox"/> | 17. Shell |
| <input type="checkbox"/> | 8. Earth mound | <input type="checkbox"/> | 18. Stone arrangement |
| <input type="checkbox"/> | 9. Fish trap | <input type="checkbox"/> | 19. Modified tree |
| <input type="checkbox"/> | 10. Grinding groove | <input type="checkbox"/> | 20. Water hole |

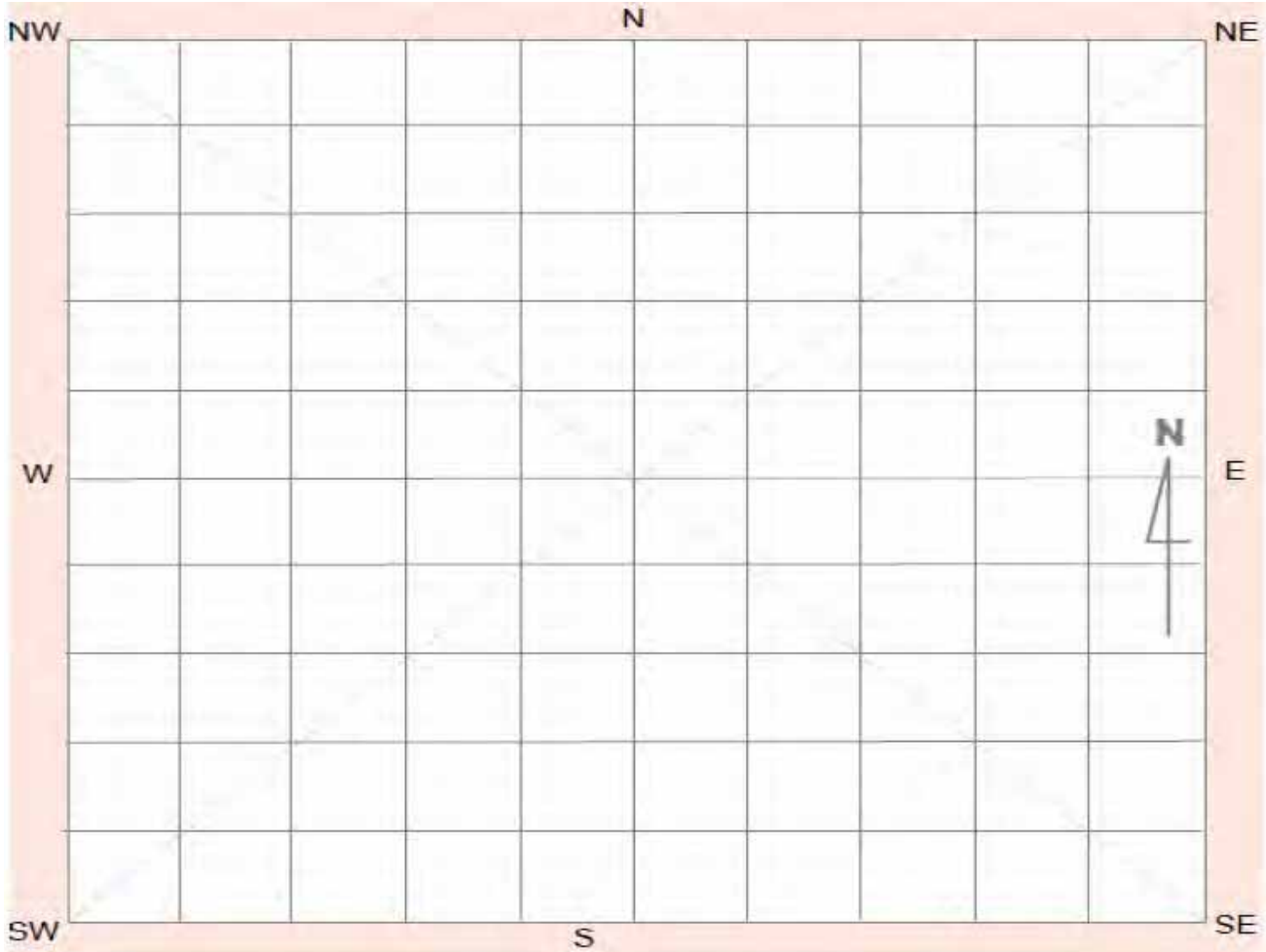
Site condition

Written description of the condition of the AHIMS site (including relevant features) following the authorised impact of the site

The site has been partially destroyed through the placement of three 1 m x 1 m test pits within the surface site boundary but no artefacts were recovered. Test pits were also excavated adjacent to this boundary as part of Transect 6 where artefacts were recovered. The attached figure shows the placement of the test pits and the nearby artefact frequencies. The test pits have been back-filled.

Site map

Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ. Display map coordinates.



Methodology and results

Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

The excavation method and a summary of the results are attached.
The artefacts recovered are also attached.

Management recommendations

Summary of any management recommendations for the AHIMS site

It is recommended that this site is subject to surface artefact collection only in accordance with the report: 'EMM 2016, Gunlake Quarry Extension Project, Aboriginal cultural heritage assessment, including the results of a test excavation, prepared for Gunlake Quarries Pty Ltd'

Post-investigation significance

Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

The site is assessed to be of moderate archaeological significance (see attached)

Additional comments

7 Archaeological test excavation

7.1 Overview

EMM archaeologists, accompanied by Aboriginal site officers, conducted an archaeological test excavation in the extension area over five days from 6 to 10 October 2015. The excavation team comprised 10 people made up of five archaeologists and up to five Aboriginal site officers on each day. All RAPs were invited to provide a representative according to a roster.

The purpose of the archaeological test excavation was to characterise the integrity, extent, distribution, nature and overall significance of the archaeological record. A greater understanding of the archaeological resource in the extension area has contributed to appropriate management recommendations.

The results of background research for the region and the archaeological survey of the extension area justified the requirement for an archaeological test excavation, primarily because:

- The survey results identified an extensive open stone artefact concentration made up of sites GL14a, b, c and d (Figure 6.2). These sites have a combined artefact frequency of potentially 300–400 artefacts including flakes, cores and tools which indicates an expansive tool manufacture site. This is almost twice the frequency of the largest open stone artefact site identified at the nearby Lynwood Quarry (170 artefacts) (Umwelt 2010, Appendix p.7). Test excavation could resolve whether the surface material is indicative of a more extensive subsurface deposit, which would have implications for the significance and management requirements of the sites.
- There are landforms in the extension area, notably those in the proposed pit extension area, that are heavily grassed and did not reveal Aboriginal objects. Test excavation could identify whether Aboriginal sites occur in these contexts in addition to those identified on similar landforms where adequate ground exposures exist.
- The results of previous assessments for Gunlake have indicated that the surrounding areas surveyed were of low archaeological potential. Test excavation could identify if certain areas of the local landscape were favoured by Aboriginal people in the past, which may be attributed to micro-topographic variations such as rock outcrop and water availability.

7.2 Strategy

The aims of the test excavation were to:

- characterise the subsurface archaeological deposit in areas of known surface sites;
- verify the presence of subsurface Aboriginal objects in landforms where surface sites have not been identified (possibly because of low ground surface exposure and visibility conditions); and
- identify areas of low archaeological potential, indicated by the low frequency or absence of artefacts and/or drop-off in artefact frequency along transects.

Table 7.1 presents the landforms targeted for excavation and the hypothesis to be tested for each landform type.

7.7 Artefact frequency and distribution

Artefact frequencies for each test pit are presented in Table 7.3 and are shown in Figure 7.10. During the test excavation, 89 artefacts were recovered from the 42 test pits. This equates to an average density of 2.12 artefacts/m². One third (15) of the test pits contained artefacts. Artefact frequencies within the 42 individual 1 metre squares ranged from zero to 20 artefacts/m². All but four of the artefacts (95%) were recovered from the upper 20 cm of soil, and after the excavation method was revised to excavate according to soil horizon, it was established that artefacts were invariably confined to the A1 soil horizon (approximately the upper 10 cm).

The majority of stone artefacts were identified in Transects 5 (39%) and 8 (24%).

Transects 1 and 2 did not yield artefacts.

Table 7.3 Artefact frequencies for each test pit

Transect	Test pit	Number of artefacts	Total artefacts per transect	Landform type
1	703E 860N	0	0	Foot slope
	723E 860N	0		
	743E 860N	0		
	763E 860N	0		
	783E 860N	0		
2	936E 454N	0	0	Hill spur crest
	936E 474N	0		
	936E 494N	0		
	936E 514N	0		
	936E 534N	0		
3	794E 612N	3	5	Foot slope
	794E 632N	0		
	794E 652N	0		
	814E 612N	2		
4	125E 484N	0	14	Hill spur crest
	145E 484N	0		
	165E 484N	0		
	185E 484N	1		
	205E 484N	0		
	225E 484N	13		
5	136 E 404N	6	35	Hill spur crest
	136E 424N	20		
	136E 444N	1		
	136E 464N	8		
	136E 384N	0		
6	062E 241N	0	2	Hill spur crest
	082E 241N	2		
	102E 241N	0	10	Hill slope
	122E 241N	6		
	142E 241N	4		

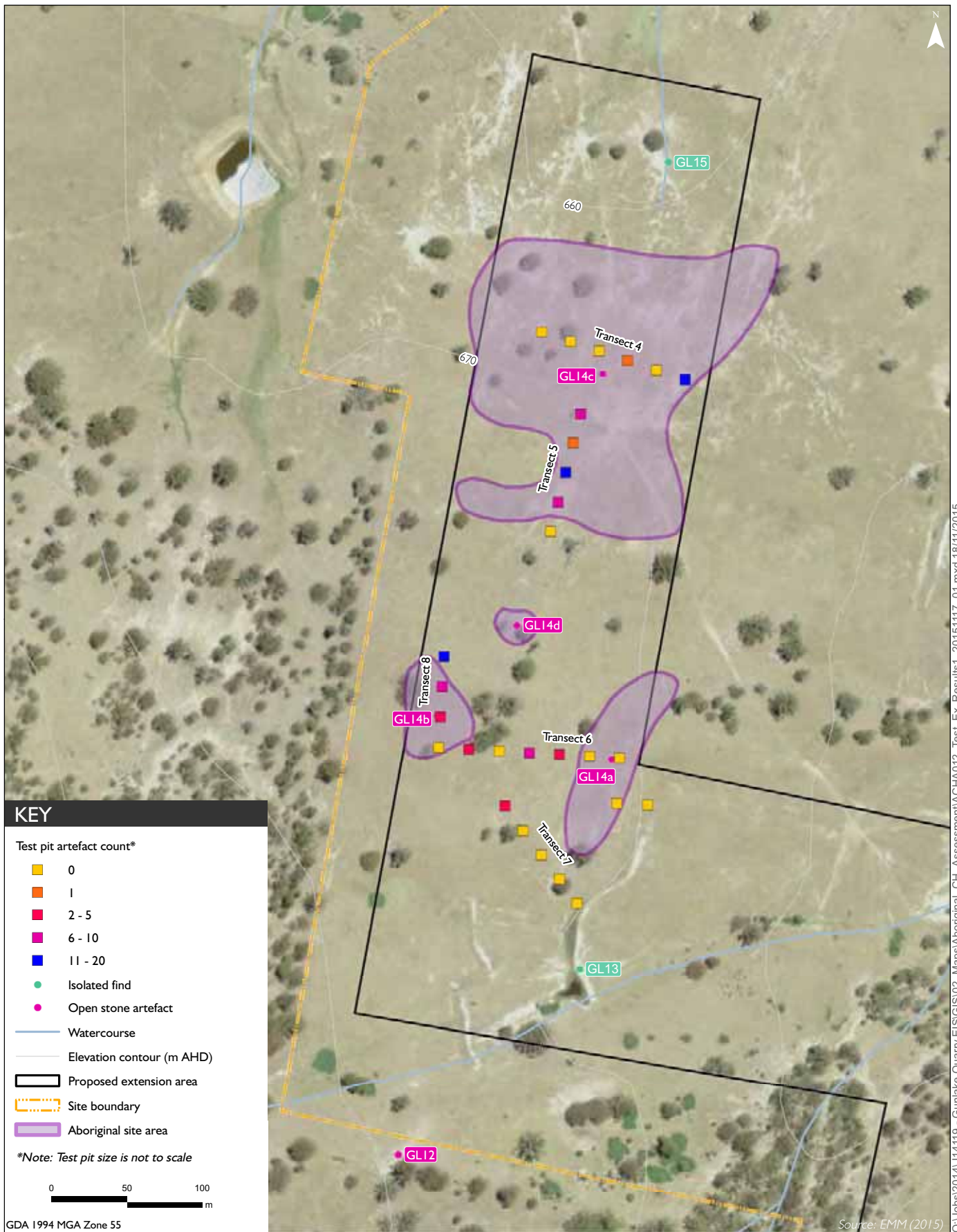
Table 7.3 Artefact frequencies for each test pit

Transect	Test pit	Number of artefacts	Total artefacts per transect	Landform type
	162E 241N	0		
	182E 241N	0		
	202E 221N	0		
	222E 221N	0		
7	106E 202N	2	2	Hill slope
	126E 202N	0		
	146E 202N	0		
	166E 202N	0		
	186E 202N	0		
8	062E 261N	2	21	Hill spur crest
	062E 281N	6		
	062E 301N	13		
Total			89	

Approximately 80% of artefacts (n=72) were recovered from the hill spur crest in the proposed embankment area. Artefact distribution across the landform was not consistent and 6 out of the 16 pits (37%) did not contain artefacts and only three pits contained over 10 artefacts. Conversely, no artefacts were recovered from the hill spur crest in the proposed pit extension area (Transect 2) and only 5 artefacts (6%) were identified in the proposed pit extension area as a whole. Considerably fewer artefact frequencies were recovered from hill slope (13%) and foot slope landforms (7%). Overall, low average frequencies were recovered per landform type, ranging from 1 to 3.4 artefacts per m² (Table 7.4). An example of artefacts from a test pit with the highest frequency is shown in Photograph 7.2.

Table 7.4 Artefact frequency and average frequency per landform

Landform type	Number of pits	Artefact total	Average frequency per m ²
Foot slope	9	5	1.8
Hill spur crest	21	72	3.4
Hill slope	12	12	1.0
Total	42	89	2.12



Test excavation results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 7.10

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1422	5	136E 444N	2	Retouched flake		Silcrete	32	2.41	Long flake, numerous scars on dorsal surface (prior to removal)	Brown
1408	5	136E 464N	1	Proximal flake		Silcrete	17	1.22	Flat flake,	Red
1409	5	136E 464N	1	Distal Flake		Silcrete	26	0.5	Long narrow flake, One dorsal ridge. Step termination	Red
1410	5	136E 464N	1	Flake		Silcrete	9	1.17	Wide flake, feather termination. Cortex on platform	Red
1411	5	136E 464N	1	Core		Silcrete	20	2.27	50% cortex. Bipolar split	Red
1412	5	136E 464N	1	Core		Silcrete	16	1.76	Coarse stone. Fakes taken from single face.	Dark grey
1413	5	136E 464N	1	Retouched flake		Silcrete	15	0.45	Flat flake, feather termination, reworked at platform	Light Grey
1414	5	136E 464N	1	Flake		Silcrete	16	1.14	15% cortex	Brown
1415	5	136E 464N	1	xFlaked piece		Silcrete	20	1.36		Brown
1435	6	082E 241N	1	Core		Quartz	20	2.75		Crystal
1436	6	082E 241N	1	Flake		Silcrete	18	3.07	Dorsal surface 40% core	Red
1425	6	122E 241N	1	xFlaked piece		Quartz	10	0.39		Milky
1426	6	122E 241N	1	Flake		Silcrete	14	0.18	Thin flake, feather termination.	Black
1427	6	122E 241N	1	Flake		Silcrete	18	0.96	Thin flake, feather termination.	Black
1428	6	122E 241N	1	Proximal flake		Silcrete	11	63	Thin flake. Fits with #1429. lateral retouch?	Black
1429	6	122E 241N	1	Distal Flake		Silcrete	11	63	Wide thin flake, Fits with #1428. lateral retouch?	Black
1430	6	122E 241N	1	Flake		Silcrete	16	0.79		Light Grey
1431	6	142E 241N	1	Core		Quartz	32	19.11	Grey and pink seams. 25% cortex.	Milky
1432	6	142E 241N	1	Proximal flake		Silcrete	10	0.22	Fine grained, shiny	Red
1433	6	142E 241N	1	Retouched flake		Silcrete	22	1.7	Small retouch on lateral and distal margin	Brown

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1434	6	142E 241N	1	Retouched flake		Silcrete	20	1.11	Retouch along one distal margin (similar to a backed artefact) Retouch in middle of other lateral margin onto ventral face. Missing tip.	Light Grey
1437	7	106E 202N	1	Flake		Quartz	11	0.49	Flat flake	Milky
1438	7	106E 202N	2	Flake		Silcrete	15	0.3		Light Grey
1458	8	062E 261N	2	Flake		Quartz	15	0.41	Feather termination	Milky
1460	8	062E 261N	2	Flake		Quartz	13	1.12	Feather termination	Crystal
1452	8	062E 281N	1	Flake		Quartz	18	0.6	Translucent with pink seams. Thin, flat flake	Crystal
1453	8	062E 281N	1	Distal Flake		Quartz	16	0.33	Translucent with yellow seams. Thin, flat flake	Crystal
1454	8	062E 281N	1	xFlaked piece		Quartz	10	0.33	Translucent with pink seams. Thin, flat flake	Crystal
1455	8	062E 281N	1	Flake		Silcrete	15	0.41	Thin, flat flake. Step termination	Light Grey
1456	8	062E 281N	1	Flake		Silcrete	10	0.65	Wide, flat flake. Feather termination	Light Grey
1457	8	062E 281N	1	Core		Quartz	18	7.33	Worked on 2 faces	Milky
1439	8	062E 301N	1	Retouched flake		Quartz	18	0.74	Retouch at proximal/lateral margin onto dorsal and ventral surfaces.	Milky
1440	8	062E 301N	1	Medial Flake		Quartz	8	1.36		Milky
1441	8	062E 301N	1	Distal Flake		Quartz	10	0.31		Milky
1442	8	062E 301N	1	Flake		Silcrete	25	3.43		Brown
1443	8	062E 301N	1	Flake		Silcrete	22	1.56	Missing tip. 2 dorsal ridges	Brown
1444	8	062E 301N	1	Flake		Silcrete	12	0.49	Flat flake	Light Grey
1445	8	062E 301N	1	Flake		Silcrete	15	1.25		Light Grey
1446	8	062E 301N	1	xFlaked piece		Silcrete	20	2.09	5% cortex.	Light Grey
1447	8	062E 301N	1	Retouched flake		Silcrete	33	2.26	Retouch onto dorsal and ventral surfaces along lateral margins	Dark grey
1448	8	062E 301N	1	Core		Silcrete	20	2.27	worked from 2 faces	Light Grey
1449	8	062E 301N	1	Flake		Silcrete	8	0.2	step termination	Light Grey
1450	8	062E 301N	1	Distal Flake		Silcrete	9	0.41	feather termination	Light Grey
1451	8	062E 301N	1	Distal Flake		Silcrete	11	0.76		Light Grey

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GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
GL14a,b,c and d (open stone artefact scatter with deposit)	Moderate: The site is of a common type with a high frequency of artefacts but lacking intact contextual value.	Moderate: High artefact frequency is rare for the local area but common for similar landforms in the region.	Low: Highly eroded landform on skeletal soils. Minimal subsurface potential.	Moderate: Detailed recording may address issues of tool manufacture owing to extensive assemblage.	High: The site is the best local example of diverse artefact scatter. Assemblage has diverse artefact types and raw materials. Easy to locate and observe material.	Moderate: GL14, a, b, c and d combined is an extensive artefact scatter on a common site landform with good examples of artefact types and raw materials. However, it lacks archaeological integrity because of the highly eroded skeletal soils.
GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.



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PO Box 1967, Hurstville NSW 2220

Office Use Only

Site Number

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

Gender/male Gender/female Location restriction General restriction No access

For Further Information Contact:

Nominated Trustee

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Knowledge Holder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

Office Use Only

Client on system

Client on system

Geographic Location

Site Name

Easting Northing AGD/GDA

Mapsheet

Zone Location Method

Other Registration

Primary Recorder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Date recorded

Client on system

General Site Information

Closed Site

Shelter/Cave Formation

- Boulder
- Wind erosion
- Water erosion
- Rock collapse

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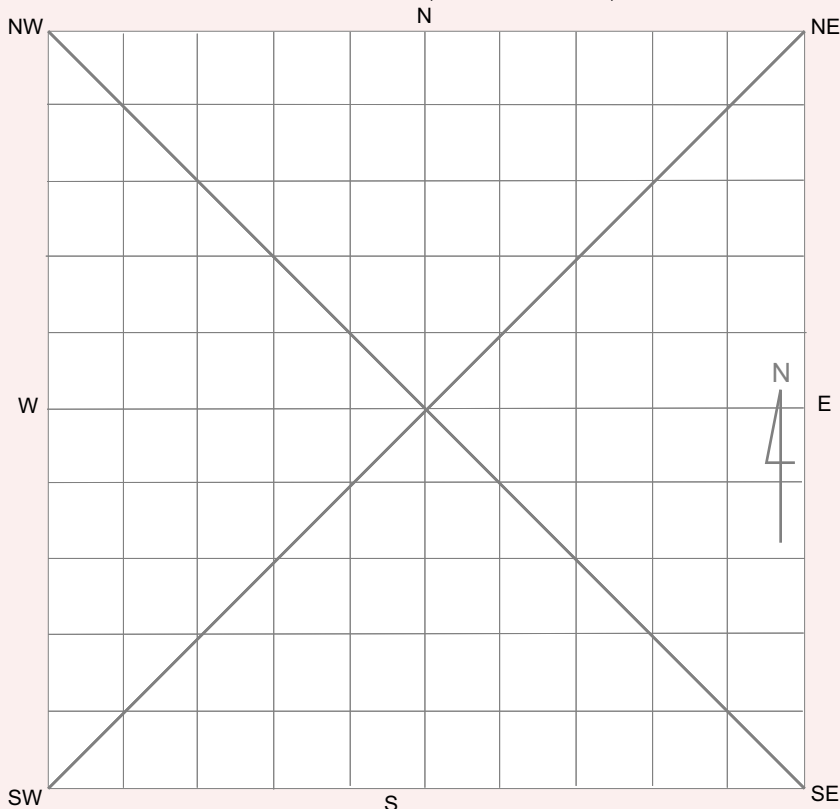
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Features

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- 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (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

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

The significance of this site is attached. For further information refer to the report: 'EMM 2016, Gunlake Quarry Extension Project, Aboriginal cultural heritage assessment, including the results of a test excavation, prepared for Gunlake Quarries Pty Ltd'

This section should only be filled in by the Endorsees

Endorsed by: Knowledge Holder Nominated Trustee Native Title Holder Community Consensus

Title	Surname	First Name	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation	<input type="text"/>		
Address	<input type="text"/>		
Phone number	<input type="text"/>	Fax	<input type="text"/>

Attachments (No.)

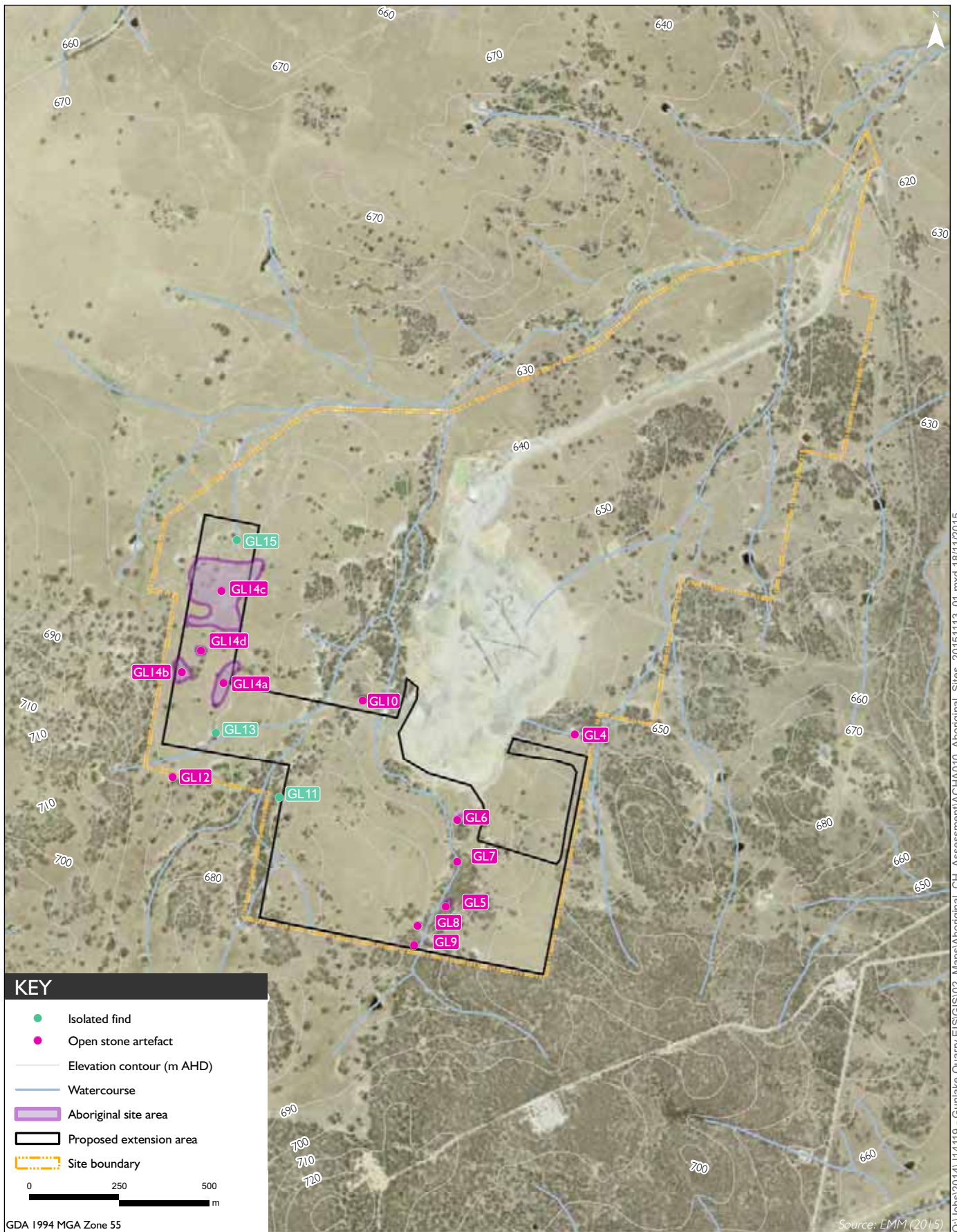
- A4 location map
- B/W photographs
- Colour photographs
- Slides
- Aerial photographs
- Site plans, drawings
- Recording tables
- Other
- Feature inserts-No.

Comments

Open stone artefact site identified on a broad hill spur crest adjacent to a tributary of Chapman's Creek. Site identified on a large sheetwash, salt scald.

Artefacts comprise:

- 1 grey silcrete flake
- 1 quartzite longitudinal split flake
- 1 dark red unidirectional silcrete core with a cortex platform



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Aboriginal site results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 6.2



Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
GL11 (isolated find)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a disturbed context near a drainage bund.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL11 is a common low density open stone artefact scatter.
GL12 (open stone artefact scatter)	Low: The site is a common type of moderate density artefacts.	Low: The site comprises common materials and artefact types.	Low: The site is on an erosion scald on skeletal soils.	Low: The site does not contribute to issues of chronology or tool manufacture.	Moderate: The site contains easily identifiable artefact types including a retouched flake.	Low: GL12 is a common open stone artefact scatter on a typical landform, albeit with an above average artefact frequency
GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
GL14a,b,c and d (open stone artefact scatter with deposit)	Moderate: The site is of a common type with a high frequency of artefacts but lacking intact contextual value.	Moderate: High artefact frequency is rare for the local area but common for similar landforms in the region.	Low: Highly eroded landform on skeletal soils. Minimal subsurface potential.	Moderate: Detailed recording may address issues of tool manufacture owing to extensive assemblage.	High: The site is the best local example of diverse artefact scatter. Assemblage has diverse artefact types and raw materials. Easy to locate and observe material.	Moderate: GL14, a, b, c and d combined is an extensive artefact scatter on a common site landform with good examples of artefact types and raw materials. However, it lacks archaeological integrity because of the highly eroded skeletal soils.
GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.





8 cm

rectification targets 50mm x 20mm

red yellow green blue





Aboriginal Site Impact Recording Form

AHIMS Registrar

PO Box 1967, Hurstville 2220 NSW

April 2012 OEH 2012/0558

- 1 This form must be completed following impacts to AHIMS sites that are:
 - a) a result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW*
 - b) authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by the Office of Environment and Heritage (OEH)
 - c) undertaken for the purpose of complying with Director General's Requirements issued by the Department of Planning and Infrastructure (DP&I) for:
 - State Significant Development (SSD - Part 4),
 - State Significant Infrastructure (SSI - Part 5.1), or
 - A Major Project (Part 3A - now repealed) under the *Environmental Planning and Assessment Act 1979 (EP&A Act)*, or
 - d) authorised by a SSD/SSI/Part 3A consent/approval under the EP&A Act.
- 2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
- 3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
- 4 This form does not replace the need to submit reports to OEH (as a condition of an AHIP or SSD/SSI/Part 3A consent/approval) This form must be submitted in addition to any reports.

AHIMS site ID:

Site impact authorisation (select one)	Reference numbers, dates
<input type="checkbox"/> Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with the <i>Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW</i> .)	Date OEH was notified (under requirement 15c of the Code): <input type="text"/> OEH Regional office notified: <input type="text"/>
<input type="checkbox"/> AHIP (The impacts to this site were authorised by an AHIP.)	AHIP number: <input type="text"/> Date issued/signed: <input type="text"/> AHIMS permit ID/number: <input type="text"/>
<input checked="" type="checkbox"/> SSD/SSI/Part 3A application (The impacts to this site were undertaken for the purposes of complying with Director General's Requirements issued by the DP&I)	Project number: <input type="text" value="SSD 15_7090"/> Date Director General's Requirements issued: <input type="text"/> or Date of project approval: <input type="text"/>
<input type="checkbox"/> SSD/SSI/Part 3A approved project (The impacts to this site were authorised by a consent/approval under Parts 4/5.1/3A of the EP&A Act.)	

Site status following impacts:

- Not a site (The investigations concluded that this is not a site.)
 Valid site (The investigations confirmed that this is an Aboriginal site.)
 Partially destroyed (The site was partially destroyed following authorised impacts; a portion of the site remains in situ.)
 Destroyed (The site was completely destroyed following authorised impacts.)

Geographic location

Site name:
 Easting: Northing: Coordinates must be in GDA (MGA)
 Map sheet:
 Zone: Location method:

Primary recorder

(The person responsible for the completion and submission of this form)

Title	Surname	First name	
MR	Desic	Ryan	
Organisation:	EMM Consulting		
Address:	PO BOX 21 St Leonards NSW		
Phone:	94939500	E-mail:	
Date recorded:	27/07/2015	Fax:	

Site information

Open/closed site:

Features:

- | | | | |
|-------------------------------------|--------------------------------------|--------------------------|---|
| <input type="checkbox"/> | 1. Aboriginal ceremony and dreaming | <input type="checkbox"/> | 11. Habitation structure |
| <input type="checkbox"/> | 2. Aboriginal resource and gathering | <input type="checkbox"/> | 12. Hearth |
| <input type="checkbox"/> | 3. Art | <input type="checkbox"/> | 13. Non-human bone and organic material |
| <input checked="" type="checkbox"/> | 4. Artefact | <input type="checkbox"/> | 14. Ochre quarry |
| <input type="checkbox"/> | 5. Burial | <input type="checkbox"/> | 15. Potential archaeological deposit |
| <input type="checkbox"/> | 6. Ceremonial ring | <input type="checkbox"/> | 16. Stone quarry |
| <input type="checkbox"/> | 7. Conflict | <input type="checkbox"/> | 17. Shell |
| <input type="checkbox"/> | 8. Earth mound | <input type="checkbox"/> | 18. Stone arrangement |
| <input type="checkbox"/> | 9. Fish trap | <input type="checkbox"/> | 19. Modified tree |
| <input type="checkbox"/> | 10. Grinding groove | <input type="checkbox"/> | 20. Water hole |

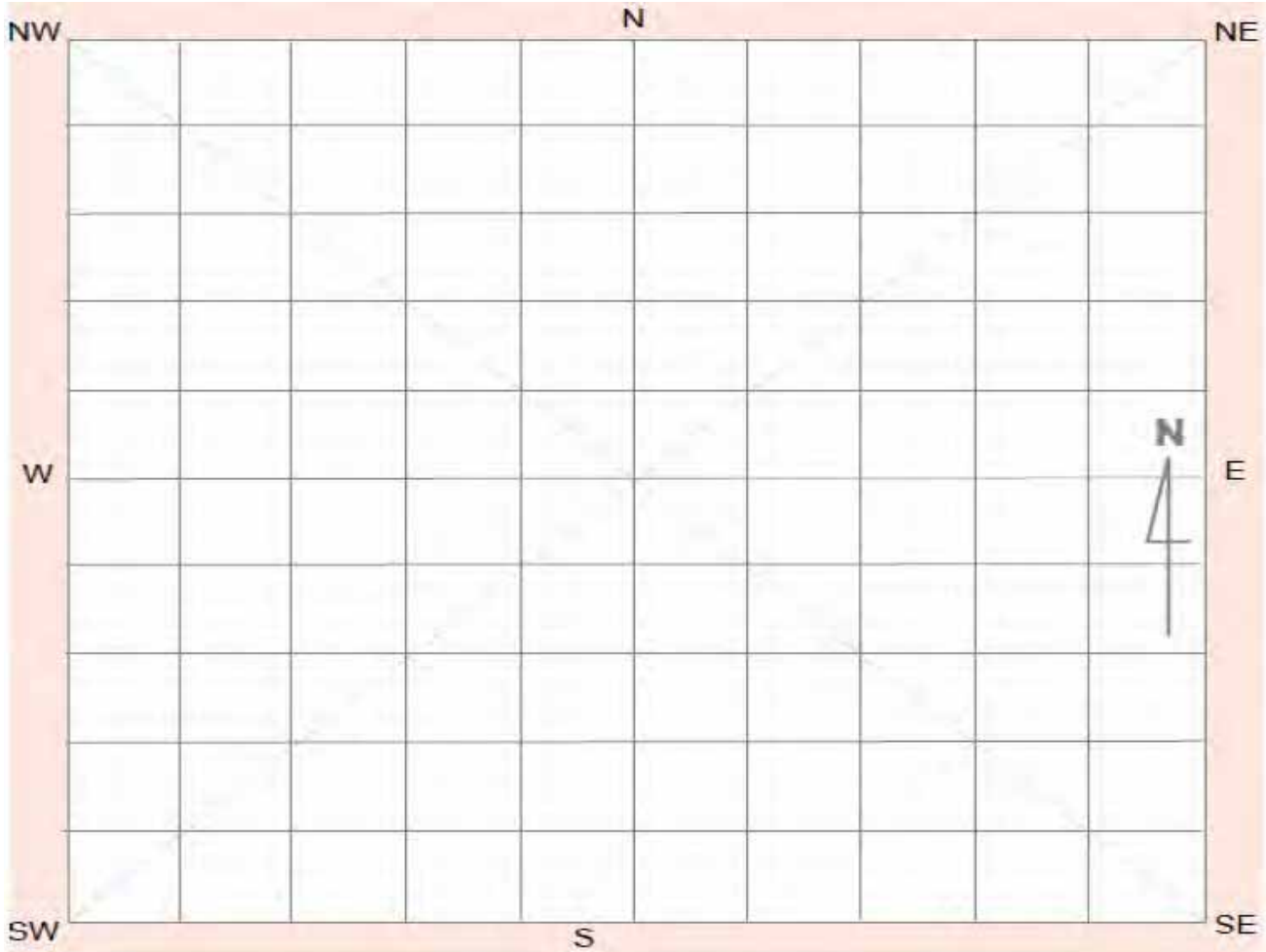
Site condition

Written description of the condition of the AHIMS site (including relevant features) following the authorised impact of the site

The site has been partially destroyed through the placement of three 1 m x 1 m test pits within the surface site boundary where artefacts were recovered. Test pits were also excavated adjacent to this boundary as part of Transect 8 and 6 where artefacts were also recovered. The attached figure shows the placement of the test pits and the nearby artefact frequencies. The test pits have been back-filled.

Site map

Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ. Display map coordinates.



Methodology and results

Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

The excavation method and a summary of the results are attached.
The artefacts recovered are also attached.

Management recommendations

Summary of any management recommendations for the AHIMS site

It is recommended that this site is subject to surface artefact collection only in accordance with the report: 'EMM 2016, Gunlake Quarry Extension Project, Aboriginal cultural heritage assessment, including the results of a test excavation, prepared for Gunlake Quarries Pty Ltd'

Post-investigation significance

Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

The site is assessed to be of moderate archaeological significance (see attached)

Additional comments

7 Archaeological test excavation

7.1 Overview

EMM archaeologists, accompanied by Aboriginal site officers, conducted an archaeological test excavation in the extension area over five days from 6 to 10 October 2015. The excavation team comprised 10 people made up of five archaeologists and up to five Aboriginal site officers on each day. All RAPs were invited to provide a representative according to a roster.

The purpose of the archaeological test excavation was to characterise the integrity, extent, distribution, nature and overall significance of the archaeological record. A greater understanding of the archaeological resource in the extension area has contributed to appropriate management recommendations.

The results of background research for the region and the archaeological survey of the extension area justified the requirement for an archaeological test excavation, primarily because:

- The survey results identified an extensive open stone artefact concentration made up of sites GL14a, b, c and d (Figure 6.2). These sites have a combined artefact frequency of potentially 300–400 artefacts including flakes, cores and tools which indicates an expansive tool manufacture site. This is almost twice the frequency of the largest open stone artefact site identified at the nearby Lynwood Quarry (170 artefacts) (Umwelt 2010, Appendix p.7). Test excavation could resolve whether the surface material is indicative of a more extensive subsurface deposit, which would have implications for the significance and management requirements of the sites.
- There are landforms in the extension area, notably those in the proposed pit extension area, that are heavily grassed and did not reveal Aboriginal objects. Test excavation could identify whether Aboriginal sites occur in these contexts in addition to those identified on similar landforms where adequate ground exposures exist.
- The results of previous assessments for Gunlake have indicated that the surrounding areas surveyed were of low archaeological potential. Test excavation could identify if certain areas of the local landscape were favoured by Aboriginal people in the past, which may be attributed to micro-topographic variations such as rock outcrop and water availability.

7.2 Strategy

The aims of the test excavation were to:

- characterise the subsurface archaeological deposit in areas of known surface sites;
- verify the presence of subsurface Aboriginal objects in landforms where surface sites have not been identified (possibly because of low ground surface exposure and visibility conditions); and
- identify areas of low archaeological potential, indicated by the low frequency or absence of artefacts and/or drop-off in artefact frequency along transects.

Table 7.1 presents the landforms targeted for excavation and the hypothesis to be tested for each landform type.

7.7 Artefact frequency and distribution

Artefact frequencies for each test pit are presented in Table 7.3 and are shown in Figure 7.10. During the test excavation, 89 artefacts were recovered from the 42 test pits. This equates to an average density of 2.12 artefacts/m². One third (15) of the test pits contained artefacts. Artefact frequencies within the 42 individual 1 metre squares ranged from zero to 20 artefacts/m². All but four of the artefacts (95%) were recovered from the upper 20 cm of soil, and after the excavation method was revised to excavate according to soil horizon, it was established that artefacts were invariably confined to the A1 soil horizon (approximately the upper 10 cm).

The majority of stone artefacts were identified in Transects 5 (39%) and 8 (24%).

Transects 1 and 2 did not yield artefacts.

Table 7.3 Artefact frequencies for each test pit

Transect	Test pit	Number of artefacts	Total artefacts per transect	Landform type
1	703E 860N	0	0	Foot slope
	723E 860N	0		
	743E 860N	0		
	763E 860N	0		
	783E 860N	0		
2	936E 454N	0	0	Hill spur crest
	936E 474N	0		
	936E 494N	0		
	936E 514N	0		
	936E 534N	0		
3	794E 612N	3	5	Foot slope
	794E 632N	0		
	794E 652N	0		
	814E 612N	2		
4	125E 484N	0	14	Hill spur crest
	145E 484N	0		
	165E 484N	0		
	185E 484N	1		
	205E 484N	0		
	225E 484N	13		
5	136 E 404N	6	35	Hill spur crest
	136E 424N	20		
	136E 444N	1		
	136E 464N	8		
	136E 384N	0		
6	062E 241N	0	2	Hill spur crest
	082E 241N	2		
	102E 241N	0	10	Hill slope
	122E 241N	6		
	142E 241N	4		

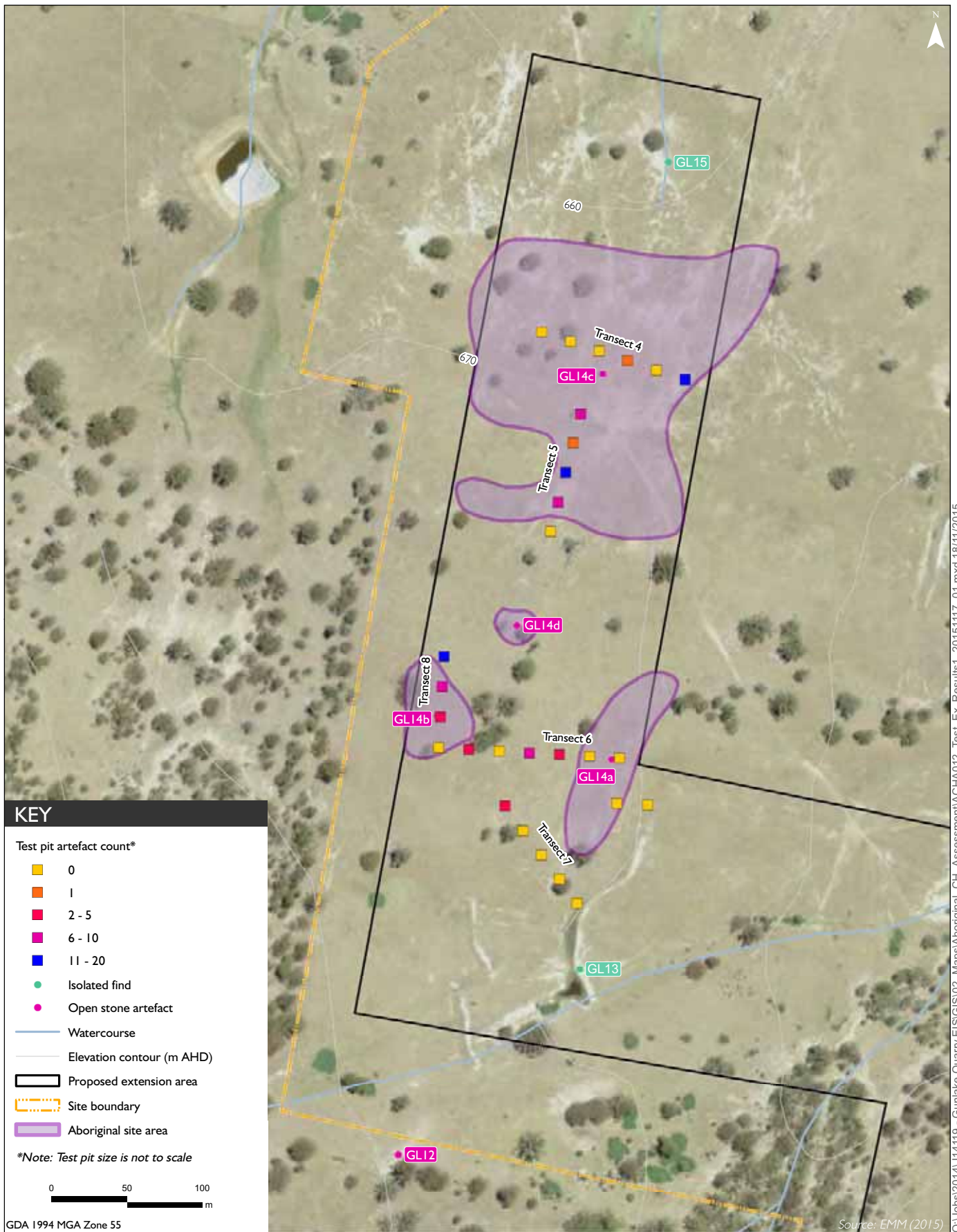
Table 7.3 Artefact frequencies for each test pit

Transect	Test pit	Number of artefacts	Total artefacts per transect	Landform type
	162E 241N	0		
	182E 241N	0		
	202E 221N	0		
	222E 221N	0		
7	106E 202N	2	2	Hill slope
	126E 202N	0		
	146E 202N	0		
	166E 202N	0		
	186E 202N	0		
8	062E 261N	2	21	Hill spur crest
	062E 281N	6		
	062E 301N	13		
Total			89	

Approximately 80% of artefacts (n=72) were recovered from the hill spur crest in the proposed embankment area. Artefact distribution across the landform was not consistent and 6 out of the 16 pits (37%) did not contain artefacts and only three pits contained over 10 artefacts. Conversely, no artefacts were recovered from the hill spur crest in the proposed pit extension area (Transect 2) and only 5 artefacts (6%) were identified in the proposed pit extension area as a whole. Considerably fewer artefact frequencies were recovered from hill slope (13%) and foot slope landforms (7%). Overall, low average frequencies were recovered per landform type, ranging from 1 to 3.4 artefacts per m² (Table 7.4). An example of artefacts from a test pit with the highest frequency is shown in Photograph 7.2.

Table 7.4 Artefact frequency and average frequency per landform

Landform type	Number of pits	Artefact total	Average frequency per m ²
Foot slope	9	5	1.8
Hill spur crest	21	72	3.4
Hill slope	12	12	1.0
Total	42	89	2.12



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Test excavation results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 7.10



ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1422	5	136E 444N	2	Retouched flake		Silcrete	32	2.41	Long flake, numerous scars on dorsal surface (prior to removal)	Brown
1408	5	136E 464N	1	Proximal flake		Silcrete	17	1.22	Flat flake,	Red
1409	5	136E 464N	1	Distal Flake		Silcrete	26	0.5	Long narrow flake, One dorsal ridge. Step termination	Red
1410	5	136E 464N	1	Flake		Silcrete	9	1.17	Wide flake, feather termination. Cortex on platform	Red
1411	5	136E 464N	1	Core		Silcrete	20	2.27	50% cortex. Bipolar split	Red
1412	5	136E 464N	1	Core		Silcrete	16	1.76	Coarse stone. Fakes taken from single face.	Dark grey
1413	5	136E 464N	1	Retouched flake		Silcrete	15	0.45	Flat flake, feather termination, reworked at platform	Light Grey
1414	5	136E 464N	1	Flake		Silcrete	16	1.14	15% cortex	Brown
1415	5	136E 464N	1	xFlaked piece		Silcrete	20	1.36		Brown
1435	6	082E 241N	1	Core		Quartz	20	2.75		Crystal
1436	6	082E 241N	1	Flake		Silcrete	18	3.07	Dorsal surface 40% core	Red
1425	6	122E 241N	1	xFlaked piece		Quartz	10	0.39		Milky
1426	6	122E 241N	1	Flake		Silcrete	14	0.18	Thin flake, feather termination.	Black
1427	6	122E 241N	1	Flake		Silcrete	18	0.96	Thin flake, feather termination.	Black
1428	6	122E 241N	1	Proximal flake		Silcrete	11	63	Thin flake. Fits with #1429. lateral retouch?	Black
1429	6	122E 241N	1	Distal Flake		Silcrete	11	63	Wide thin flake, Fits with #1428. lateral retouch?	Black
1430	6	122E 241N	1	Flake		Silcrete	16	0.79		Light Grey
1431	6	142E 241N	1	Core		Quartz	32	19.11	Grey and pink seams. 25% cortex.	Milky
1432	6	142E 241N	1	Proximal flake		Silcrete	10	0.22	Fine grained, shiny	Red
1433	6	142E 241N	1	Retouched flake		Silcrete	22	1.7	Small retouch on lateral and distal margin	Brown

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1434	6	142E 241N	1	Retouched flake		Silcrete	20	1.11	Retouch along one distal margin (similar to a backed artefact) Retouch in middle of other lateral margin onto ventral face. Missing tip.	Light Grey
1437	7	106E 202N	1	Flake		Quartz	11	0.49	Flat flake	Milky
1438	7	106E 202N	2	Flake		Silcrete	15	0.3		Light Grey
1458	8	062E 261N	2	Flake		Quartz	15	0.41	Feather termination	Milky
1460	8	062E 261N	2	Flake		Quartz	13	1.12	Feather termination	Crystal
1452	8	062E 281N	1	Flake		Quartz	18	0.6	Translucent with pink seams. Thin, flat flake	Crystal
1453	8	062E 281N	1	Distal Flake		Quartz	16	0.33	Translucent with yellow seams. Thin, flat flake	Crystal
1454	8	062E 281N	1	xFlaked piece		Quartz	10	0.33	Translucent with pink seams. Thin, flat flake	Crystal
1455	8	062E 281N	1	Flake		Silcrete	15	0.41	Thin, flat flake. Step termination	Light Grey
1456	8	062E 281N	1	Flake		Silcrete	10	0.65	Wide, flat flake. Feather termination	Light Grey
1457	8	062E 281N	1	Core		Quartz	18	7.33	Worked on 2 faces	Milky
1439	8	062E 301N	1	Retouched flake		Quartz	18	0.74	Retouch at proximal/lateral margin onto dorsal and ventral surfaces.	Milky
1440	8	062E 301N	1	Medial Flake		Quartz	8	1.36		Milky
1441	8	062E 301N	1	Distal Flake		Quartz	10	0.31		Milky
1442	8	062E 301N	1	Flake		Silcrete	25	3.43		Brown
1443	8	062E 301N	1	Flake		Silcrete	22	1.56	Missing tip. 2 dorsal ridges	Brown
1444	8	062E 301N	1	Flake		Silcrete	12	0.49	Flat flake	Light Grey
1445	8	062E 301N	1	Flake		Silcrete	15	1.25		Light Grey
1446	8	062E 301N	1	xFlaked piece		Silcrete	20	2.09	5% cortex.	Light Grey
1447	8	062E 301N	1	Retouched flake		Silcrete	33	2.26	Retouch onto dorsal and ventral surfaces along lateral margins	Dark grey
1448	8	062E 301N	1	Core		Silcrete	20	2.27	worked from 2 faces	Light Grey
1449	8	062E 301N	1	Flake		Silcrete	8	0.2	step termination	Light Grey
1450	8	062E 301N	1	Distal Flake		Silcrete	9	0.41	feather termination	Light Grey
1451	8	062E 301N	1	Distal Flake		Silcrete	11	0.76		Light Grey

Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
GL11 (isolated find)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a disturbed context near a drainage bund.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL11 is a common low density open stone artefact scatter.
GL12 (open stone artefact scatter)	Low: The site is a common type of moderate density artefacts.	Low: The site comprises common materials and artefact types.	Low: The site is on an erosion scald on skeletal soils.	Low: The site does not contribute to issues of chronology or tool manufacture.	Moderate: The site contains easily identifiable artefact types including a retouched flake.	Low: GL12 is a common open stone artefact scatter on a typical landform, albeit with an above average artefact frequency
GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
GL14a,b,c and d (open stone artefact scatter with deposit)	Moderate: The site is of a common type with a high frequency of artefacts but lacking intact contextual value.	Moderate: High artefact frequency is rare for the local area but common for similar landforms in the region.	Low: Highly eroded landform on skeletal soils. Minimal subsurface potential.	Moderate: Detailed recording may address issues of tool manufacture owing to extensive assemblage.	High: The site is the best local example of diverse artefact scatter. Assemblage has diverse artefact types and raw materials. Easy to locate and observe material.	Moderate: GL14, a, b, c and d combined is an extensive artefact scatter on a common site landform with good examples of artefact types and raw materials. However, it lacks archaeological integrity because of the highly eroded skeletal soils.
GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.



Aboriginal Site Recording Form



AHIMS Registrar
PO Box 1967, Hurstville NSW 2220

Office Use Only

Site Number

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

Gender/male Gender/female Location restriction General restriction No access

For Further Information Contact:

Nominated Trustee

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Knowledge Holder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

Office Use Only

Client on system

Client on system

Geographic Location

Site Name

Easting Northing AGD/GDA

Mapsheet

Zone Location Method

Other Registration

Primary Recorder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Date recorded

Client on system

General Site Information

Closed Site

Shelter/Cave Formation

- Boulder
- Wind erosion
- Water erosion
- Rock collapse

Rock Surface Condition

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Condition of Ceiling

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Shelter Aspect

- North
- North East
- East
- South East
- South
- South West
- West
- North West

Open Site

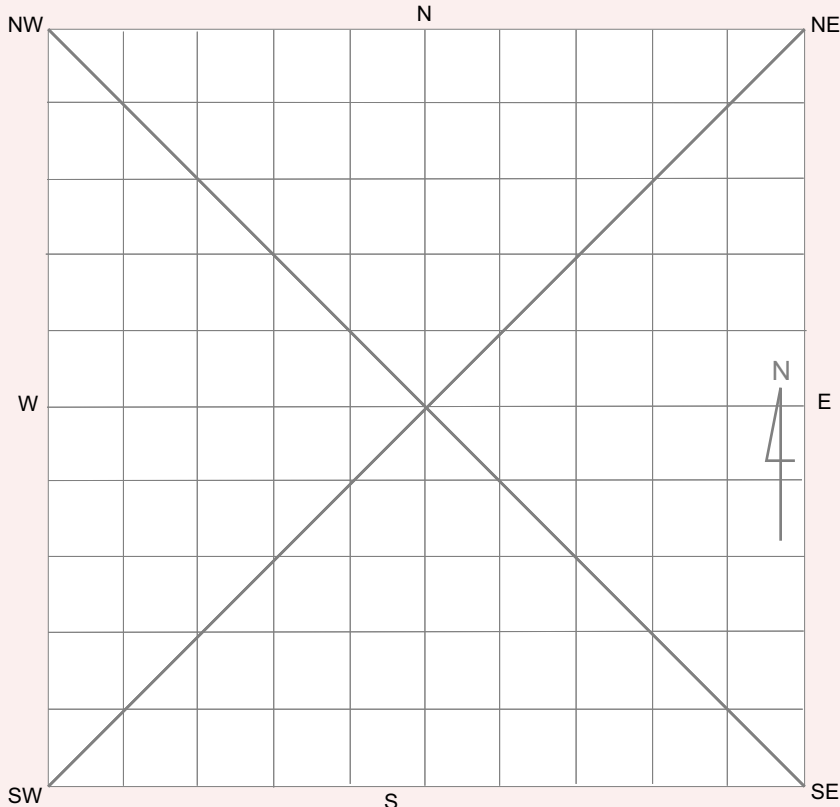
Site Orientation

- N-S
- NE-SW
- E-W
- SE-NW
- N/A

Features

- 1. Aboriginal Ceremony & Dreaming
- 2. Aboriginal Resource & Gathering
- 3. Art
- 4. Artefact
- 5. Burial
- 6. Ceremonial Ring
- 7. Conflict
- 8. Earth Mound
- 9. Fish Trap
- 10. Grinding Groove
- 11. Habitation Structure
- 12. Hearth
- 13. Non Human Bone & Organic Material
- 14. Ochre quarry
- 15. Potential Archaeological Deposit
- 16. Stone Quarry
- 17. Shell
- 18. Stone Arrangement
- 19. Modified Tree
- 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (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

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

The significance of this site is attached. For further information refer to the report: 'EMM 2016, Gunlake Quarry Extension Project, Aboriginal cultural heritage assessment, including the results of a test excavation, prepared for Gunlake Quarries Pty Ltd'

This section should only be filled in by the Endorsees

Endorsed by: Knowledge Holder Nominated Trustee Native Title Holder Community Consensus

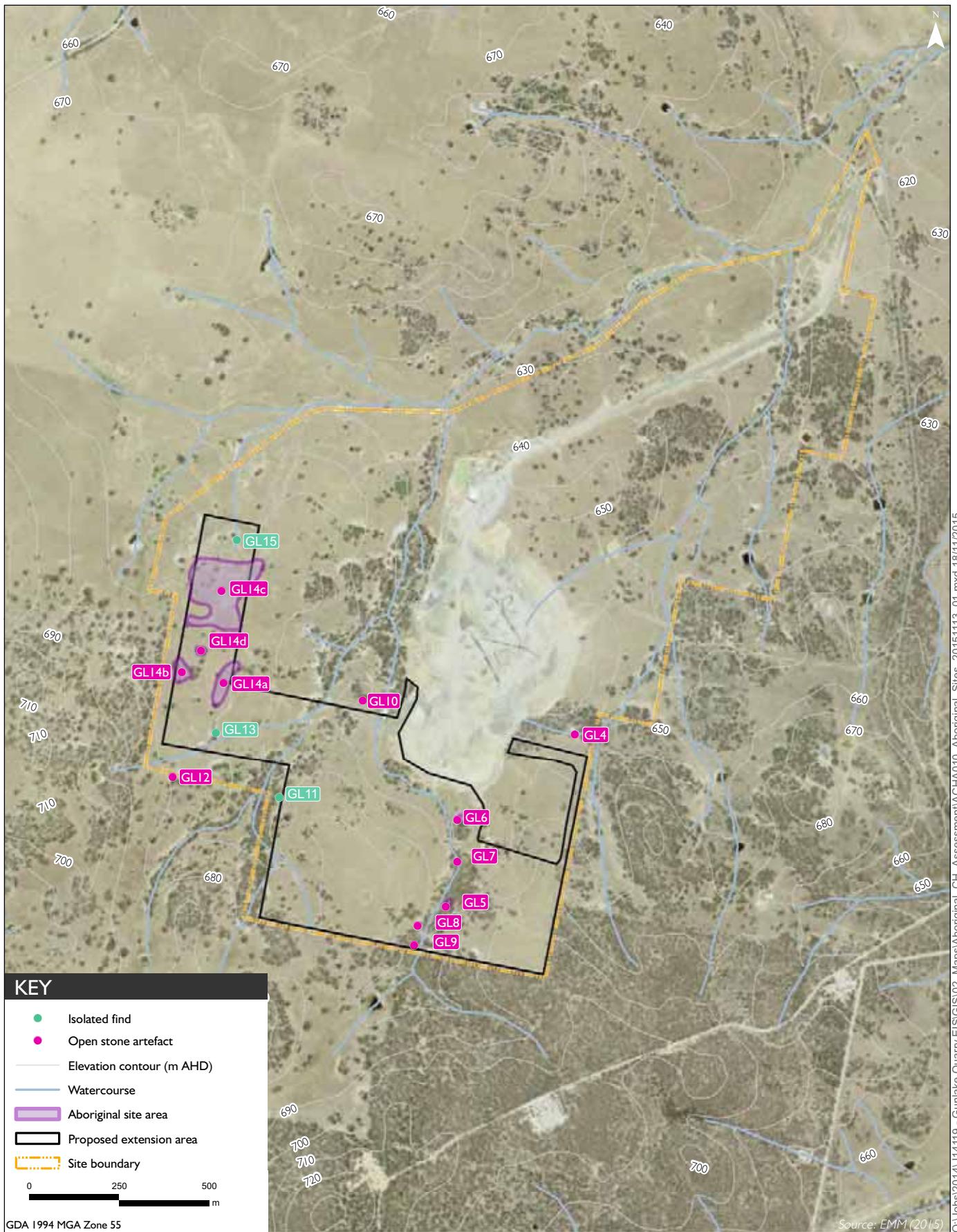
Title	Surname	First Name	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation	<input type="text"/>		
Address	<input type="text"/>		
Phone number	<input type="text"/>	Fax	<input type="text"/>

Attachments (No.)

- A4 location map
- B/W photographs
- Colour photographs
- Slides
- Aerial photographs
- Site plans, drawings
- Recording tables
- Other
- Feature inserts-No.

Comments

Open stone artefact site covering a very large broad hill spur crest exposure adjacent to a number of tributaries to Chapman's Creek. These tributaries occur to the west, north & east of the site. The boundary of the site was established and only a preliminary count of artefacts due to the v high number of artefacts encountered on this landform. The following breakdown of artefact types & frequencies is preliminary and does not represent a detailed record of the archaeology of this site. It is estimated that well over 300 artefacts are likely to exist in this location. Preliminary count: 160 silcrete & 30 quartz flakes (may include broken flake components that were not defined further), 3 silcrete retouched flakes; 5 silcrete distal flakes; 5 quartzite & 8 chert flakes; 1 IMT, 1 chert, 9 silcrete & 4 quartz cores; 1 IMT longitudinally split flake; 1 silcrete & 2 quartzite flaked pieces



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Aboriginal site results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 6.2



Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
GL11 (isolated find)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a disturbed context near a drainage bund.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL11 is a common low density open stone artefact scatter.
GL12 (open stone artefact scatter)	Low: The site is a common type of moderate density artefacts.	Low: The site comprises common materials and artefact types.	Low: The site is on an erosion scald on skeletal soils.	Low: The site does not contribute to issues of chronology or tool manufacture.	Moderate: The site contains easily identifiable artefact types including a retouched flake.	Low: GL12 is a common open stone artefact scatter on a typical landform, albeit with an above average artefact frequency
GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
GL14a,b,c and d (open stone artefact scatter with deposit)	Moderate: The site is of a common type with a high frequency of artefacts but lacking intact contextual value.	Moderate: High artefact frequency is rare for the local area but common for similar landforms in the region.	Low: Highly eroded landform on skeletal soils. Minimal subsurface potential.	Moderate: Detailed recording may address issues of tool manufacture owing to extensive assemblage.	High: The site is the best local example of diverse artefact scatter. Assemblage has diverse artefact types and raw materials. Easy to locate and observe material.	Moderate: GL14, a, b, c and d combined is an extensive artefact scatter on a common site landform with good examples of artefact types and raw materials. However, it lacks archaeological integrity because of the highly eroded skeletal soils.
GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.









8 cm

rectification targets 50mm x 20mm

red yellow green blue



Aboriginal Site Impact Recording Form

AHIMS Registrar

PO Box 1967, Hurstville 2220 NSW

April 2012 OEHS 2012/0558

- 1 This form must be completed following impacts to AHIMS sites that are:
 - a) a result of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW*
 - b) authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by the Office of Environment and Heritage (OEHS)
 - c) undertaken for the purpose of complying with Director General's Requirements issued by the Department of Planning and Infrastructure (DP&I) for:
 - State Significant Development (SSD - Part 4),
 - State Significant Infrastructure (SSI - Part 5.1), or
 - A Major Project (Part 3A - now repealed) under the *Environmental Planning and Assessment Act 1979 (EP&A Act)*, or
 - d) authorised by a SSD/SSI/Part 3A consent/approval under the EP&A Act.
- 2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
- 3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
- 4 This form does not replace the need to submit reports to OEHS (as a condition of an AHIP or SSD/SSI/Part 3A consent/approval). This form must be submitted in addition to any reports.

AHIMS site ID:

Site impact authorisation (select one)	Reference numbers, dates
<input type="checkbox"/> Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with the <i>Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW</i> .)	Date OEHS was notified (under requirement 15c of the Code): <input type="text"/> OEHS Regional office notified: <input type="text"/>
<input type="checkbox"/> AHIP (The impacts to this site were authorised by an AHIP.)	AHIP number: <input type="text"/> Date issued/signed: <input type="text"/> AHIMS permit ID/number: <input type="text"/>
<input checked="" type="checkbox"/> SSD/SSI/Part 3A application (The impacts to this site were undertaken for the purposes of complying with Director General's Requirements issued by the DP&I)	Project number: <input type="text" value="SSD 15_7090"/> Date Director General's Requirements issued: <input type="text"/> or Date of project approval: <input type="text"/>
<input type="checkbox"/> SSD/SSI/Part 3A approved project (The impacts to this site were authorised by a consent/approval under Parts 4/5.1/3A of the EP&A Act.)	

Site status following impacts:

- Not a site (The investigations concluded that this is not a site.)
 Valid site (The investigations confirmed that this is an Aboriginal site.)
 Partially destroyed (The site was partially destroyed following authorised impacts; a portion of the site remains in situ.)
 Destroyed (The site was completely destroyed following authorised impacts.)

Geographic location

Site name:
 Easting: Northing: Coordinates must be in GDA (MGA)
 Map sheet:
 Zone: Location method:

Primary recorder

(The person responsible for the completion and submission of this form)

Title	Surname	First name
<input type="text" value="MR"/>	<input type="text" value="Desic"/>	<input type="text" value="Ryan"/>
Organisation:	<input type="text" value="EMM Consulting"/>	
Address:	<input type="text" value="PO BOX 21 St Leonards NSW"/>	
Phone:	<input type="text" value="94939500"/>	E-mail: <input type="text"/>
Date recorded:	<input type="text" value="27/07/2015"/>	Fax: <input type="text"/>

Site information

Open/closed site:

Features:

- | | | | |
|-------------------------------------|--------------------------------------|--------------------------|---|
| <input type="checkbox"/> | 1. Aboriginal ceremony and dreaming | <input type="checkbox"/> | 11. Habitation structure |
| <input type="checkbox"/> | 2. Aboriginal resource and gathering | <input type="checkbox"/> | 12. Hearth |
| <input type="checkbox"/> | 3. Art | <input type="checkbox"/> | 13. Non-human bone and organic material |
| <input checked="" type="checkbox"/> | 4. Artefact | <input type="checkbox"/> | 14. Ochre quarry |
| <input type="checkbox"/> | 5. Burial | <input type="checkbox"/> | 15. Potential archaeological deposit |
| <input type="checkbox"/> | 6. Ceremonial ring | <input type="checkbox"/> | 16. Stone quarry |
| <input type="checkbox"/> | 7. Conflict | <input type="checkbox"/> | 17. Shell |
| <input type="checkbox"/> | 8. Earth mound | <input type="checkbox"/> | 18. Stone arrangement |
| <input type="checkbox"/> | 9. Fish trap | <input type="checkbox"/> | 19. Modified tree |
| <input type="checkbox"/> | 10. Grinding groove | <input type="checkbox"/> | 20. Water hole |

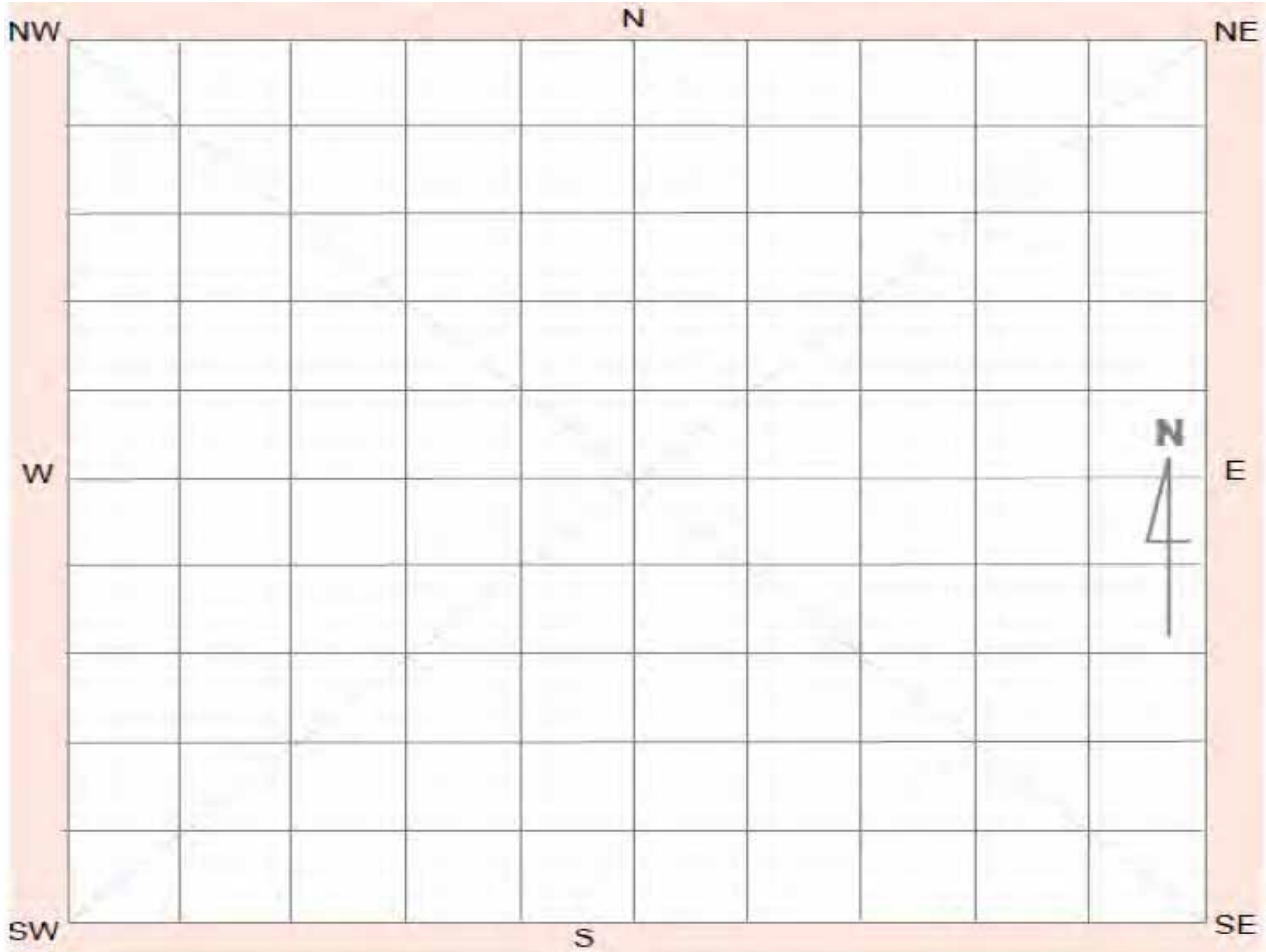
Site condition

Written description of the condition of the AHIMS site (including relevant features) following the authorised impact of the site

The site has been partially destroyed through the placement of ten 1 m x 1 m test pits along Transect 4 and Transect 5 within the surface site boundary where artefacts were recovered in six of the pits. The attached figure shows the placement of the test pits and the nearby artefact frequencies. The test pits have been back-filled.

Site map

Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ. Display map coordinates.



Methodology and results

Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

The excavation method and a summary of the results are attached.
The artefacts recovered are also attached.

Management recommendations

Summary of any management recommendations for the AHIMS site

It is recommended that this site is subject to surface artefact collection only in accordance with the report: 'EMM 2016, Gunlake Quarry Extension Project, Aboriginal cultural heritage assessment, including the results of a test excavation, prepared for Gunlake Quarries Pty Ltd'

Post-investigation significance

Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

The site is assessed to be of moderate archaeological significance (see attached)

Additional comments

7 Archaeological test excavation

7.1 Overview

EMM archaeologists, accompanied by Aboriginal site officers, conducted an archaeological test excavation in the extension area over five days from 6 to 10 October 2015. The excavation team comprised 10 people made up of five archaeologists and up to five Aboriginal site officers on each day. All RAPs were invited to provide a representative according to a roster.

The purpose of the archaeological test excavation was to characterise the integrity, extent, distribution, nature and overall significance of the archaeological record. A greater understanding of the archaeological resource in the extension area has contributed to appropriate management recommendations.

The results of background research for the region and the archaeological survey of the extension area justified the requirement for an archaeological test excavation, primarily because:

- The survey results identified an extensive open stone artefact concentration made up of sites GL14a, b, c and d (Figure 6.2). These sites have a combined artefact frequency of potentially 300–400 artefacts including flakes, cores and tools which indicates an expansive tool manufacture site. This is almost twice the frequency of the largest open stone artefact site identified at the nearby Lynwood Quarry (170 artefacts) (Umwelt 2010, Appendix p.7). Test excavation could resolve whether the surface material is indicative of a more extensive subsurface deposit, which would have implications for the significance and management requirements of the sites.
- There are landforms in the extension area, notably those in the proposed pit extension area, that are heavily grassed and did not reveal Aboriginal objects. Test excavation could identify whether Aboriginal sites occur in these contexts in addition to those identified on similar landforms where adequate ground exposures exist.
- The results of previous assessments for Gunlake have indicated that the surrounding areas surveyed were of low archaeological potential. Test excavation could identify if certain areas of the local landscape were favoured by Aboriginal people in the past, which may be attributed to micro-topographic variations such as rock outcrop and water availability.

7.2 Strategy

The aims of the test excavation were to:

- characterise the subsurface archaeological deposit in areas of known surface sites;
- verify the presence of subsurface Aboriginal objects in landforms where surface sites have not been identified (possibly because of low ground surface exposure and visibility conditions); and
- identify areas of low archaeological potential, indicated by the low frequency or absence of artefacts and/or drop-off in artefact frequency along transects.

Table 7.1 presents the landforms targeted for excavation and the hypothesis to be tested for each landform type.

7.7 Artefact frequency and distribution

Artefact frequencies for each test pit are presented in Table 7.3 and are shown in Figure 7.10. During the test excavation, 89 artefacts were recovered from the 42 test pits. This equates to an average density of 2.12 artefacts/m². One third (15) of the test pits contained artefacts. Artefact frequencies within the 42 individual 1 metre squares ranged from zero to 20 artefacts/m². All but four of the artefacts (95%) were recovered from the upper 20 cm of soil, and after the excavation method was revised to excavate according to soil horizon, it was established that artefacts were invariably confined to the A1 soil horizon (approximately the upper 10 cm).

The majority of stone artefacts were identified in Transects 5 (39%) and 8 (24%).

Transects 1 and 2 did not yield artefacts.

Table 7.3 Artefact frequencies for each test pit

Transect	Test pit	Number of artefacts	Total artefacts per transect	Landform type
1	703E 860N	0	0	Foot slope
	723E 860N	0		
	743E 860N	0		
	763E 860N	0		
	783E 860N	0		
2	936E 454N	0	0	Hill spur crest
	936E 474N	0		
	936E 494N	0		
	936E 514N	0		
	936E 534N	0		
3	794E 612N	3	5	Foot slope
	794E 632N	0		
	794E 652N	0		
	814E 612N	2		
4	125E 484N	0	14	Hill spur crest
	145E 484N	0		
	165E 484N	0		
	185E 484N	1		
	205E 484N	0		
	225E 484N	13		
5	136 E 404N	6	35	Hill spur crest
	136E 424N	20		
	136E 444N	1		
	136E 464N	8		
	136E 384N	0		
6	062E 241N	0	2	Hill spur crest
	082E 241N	2		
	102E 241N	0	10	Hill slope
	122E 241N	6		
	142E 241N	4		

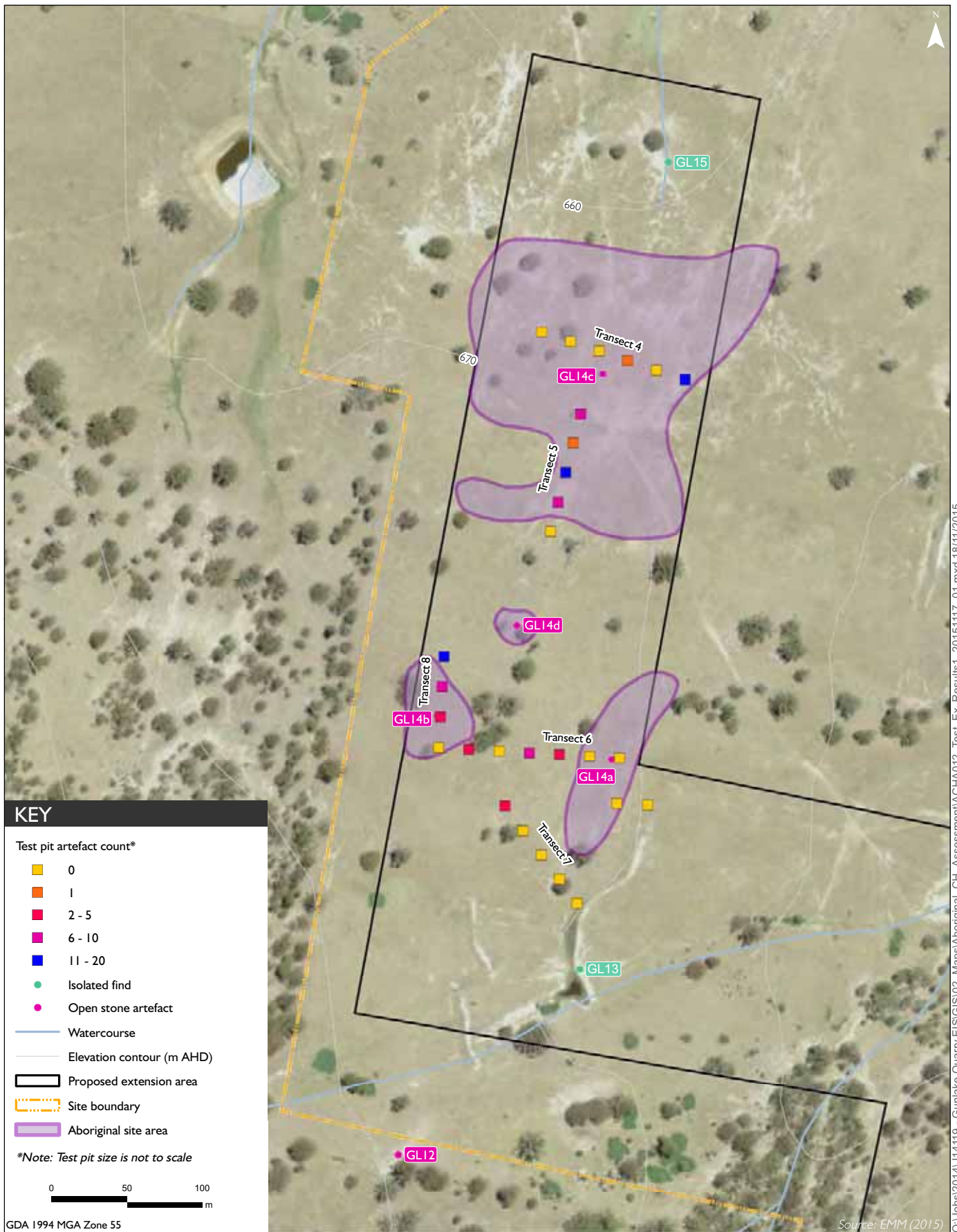
Table 7.3 Artefact frequencies for each test pit

Transect	Test pit	Number of artefacts	Total artefacts per transect	Landform type
	162E 241N	0		
	182E 241N	0		
	202E 221N	0		
	222E 221N	0		
7	106E 202N	2	2	Hill slope
	126E 202N	0		
	146E 202N	0		
	166E 202N	0		
	186E 202N	0		
8	062E 261N	2	21	Hill spur crest
	062E 281N	6		
	062E 301N	13		
Total			89	

Approximately 80% of artefacts (n=72) were recovered from the hill spur crest in the proposed embankment area. Artefact distribution across the landform was not consistent and 6 out of the 16 pits (37%) did not contain artefacts and only three pits contained over 10 artefacts. Conversely, no artefacts were recovered from the hill spur crest in the proposed pit extension area (Transect 2) and only 5 artefacts (6%) were identified in the proposed pit extension area as a whole. Considerably fewer artefact frequencies were recovered from hill slope (13%) and foot slope landforms (7%). Overall, low average frequencies were recovered per landform type, ranging from 1 to 3.4 artefacts per m² (Table 7.4). An example of artefacts from a test pit with the highest frequency is shown in Photograph 7.2.

Table 7.4 Artefact frequency and average frequency per landform

Landform type	Number of pits	Artefact total	Average frequency per m ²
Foot slope	9	5	1.8
Hill spur crest	21	72	3.4
Hill slope	12	12	1.0
Total	42	89	2.12



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Test excavation results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 7.10



ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1395	3	794E 612N	1	Flake		Quartz	15	1.64	Feather termination	Milky
1396	3	794E 612N	1	Flake		Quartz	13	0.46	step termination. One dorsal ridge.	Milky
1397	3	794E 612N	1	Flake		Quartz	18	2.05	Smoky	Milky
1373	3	814E 612N	1	Flake		Quartz	26	3.65	Yellowish . Feather termination	Crystal
1374	3	814E 612N	1	xFlaked piece		Quartz	11	0.38		Milky
1394	4	185E 484N	1	Flake		Quartz	8	0.24		Milky
1393	4	225E 484N	2	Core		Silcrete	35	19.36	15% cortex. Flake that has become a core. Numerous step terminations	Light Grey
1398	4	225E 484N	1	Flake		Silcrete	14	0.97	Possibly heat treated. Potlid like indentation on dorsal surface. Flat flake.	Red
1399	4	225E 484N	1	Flake		Silcrete	25	1.77	Flat flake. Step termination	Light Grey
1400	4	225E 484N	1	Flake		IMT	19	0.87	One dorsal ridge.	Light Brown
1401	4	225E 484N	1	Distal Flake		IMT	15	1.66	One dorsal ridge.	Light Brown
1402	4	225E 484N	1	Distal Flake		Silcrete	15	0.45	Flat flake, step termination	Light Grey
1403	4	225E 484N	1	Distal Flake		IMT	18	0.66		Light Brown
1404	4	225E 484N	1	Distal Flake		Silcrete	12	1.55	Feather termination	Dark grey
1405	4	225E 484N	1	Distal Flake		Silcrete	10	0.59	Feather termination	Light Grey
1406	4	225E 484N	1	Flake		Silcrete	10	0.37	Step termination	Light Grey
1407	4	225E 484N	1	core		IMT	19	2.55	Rotated core	Light Grey
1461	4	225E 484N	surface	Distal Flake		Silcrete	21	2.79	hinge termination	Light Grey
1462	4	225E 484N	surface	Distal Flake		Silcrete	21	2.79	Feather termination	Light Grey
1416	5	136E 404N	1	Flake		Silcrete	10	0.68	Wide, flat flake. Step termination	Brown
1417	5	136E 404N	1	Flake		Silcrete	17	1.33	Wide, flat flake. Step termination, pinkish grey.	Light Grey
1418	5	136E 404N	1	Flake		Silcrete	11	0.53	Flat flake. Feather termination.	Light Grey
1419	5	136E 404N	1	Distal Flake		Silcrete	29	3.33	Step termination, waves of compression	Brown
1420	5	136E 404N	1	Flake		Silcrete	15	0.43	waves of compression	Brown
1421	5	136E 404N	1	Distal Flake		Silcrete	16	0.33	waves of compression	Brown

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1375	5	136E 424N	1	Retouched flake		Silcrete	24	2.08	Platform preparation. 2 dorsal ridges, step termination. Retouch on lateral margins onto dorsal surface, pressure flaked.	Light Grey
1376	5	136E 424N	1	Retouched flake		Silcrete	22	0.98	Flat flake, feather termination. Retouch on distal margin, pressure flaked	Light Grey
1377	5	136E 424N	1	Flake		Silcrete	11	1.24	Feather termination	Dark grey
1378	5	136E 424N	1	Flake		Silcrete	10	0.71	Wide flake. One dorsal ridge, step termination	Red
1379	5	136E 424N	1	Flake		Quartz	22	1.4	Cream -white. One dorsal ridge, feather termination	Crystal
1380	5	136E 424N	1	Flake		Quartz	11	0.13	Flat flake, feather termination. Pinkish seam.	Milky
1381	5	136E 424N	1	Core		Quartz	14	0.13	Greyish.	Crystal
1382	5	136E 424N	1	Longitudinal split		Silcrete	12	0.46	cortex covers dorsal side	Light Grey
1383	5	136E 424N	1	Distal Flake		Silcrete	9	0.59		Dark grey
1384	5	136E 424N	1	Distal Flake		Silcrete	19	1.97	Compression waves. Cortex covers dorsal surface	Dark grey
1385	5	136E 424N	1	Distal Flake		Silcrete	9	0.39	Feather termination	Light Grey
1386	5	136E 424N	1	Distal Flake		Silcrete	9	0.59		Red
1387	5	136E 424N	1	Core		Silcrete	18	1.78	Small, rotated core.	Light Grey
1388	5	136E 424N	1	Core		Quartz	22	6.59	Pinkish, 25% cortex	Crystal
1389	5	136E 424N	1	flake		IMT	19	1.44		Light Grey
1390	5	136E 424N	1	xFlaked piece		Silcrete	15	0.49		Dark grey
1391	5	136E 424N	1	Longitudinal split		Silcrete	14	1		Red
1392	5	136E 424N	1	Core		Silcrete	19	1.42		Light Grey
1423	5	136E 424N	2	Core		Silcrete	14	1.92	Thin, flake-like. Step terminations	Light Grey
1424	5	136E 424N	2	Retouched flake		Quartz	28	3.5	Retouched on both lateral margins onto dorsal and ventral surfaces.	Milky

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1422	5	136E 444N	2	Retouched flake		Silcrete	32	2.41	Long flake, numerous scars on dorsal surface (prior to removal)	Brown
1408	5	136E 464N	1	Proximal flake		Silcrete	17	1.22	Flat flake,	Red
1409	5	136E 464N	1	Distal Flake		Silcrete	26	0.5	Long narrow flake, One dorsal ridge. Step termination	Red
1410	5	136E 464N	1	Flake		Silcrete	9	1.17	Wide flake, feather termination. Cortex on platform	Red
1411	5	136E 464N	1	Core		Silcrete	20	2.27	50% cortex. Bipolar split	Red
1412	5	136E 464N	1	Core		Silcrete	16	1.76	Coarse stone. Fakes taken from single face.	Dark grey
1413	5	136E 464N	1	Retouched flake		Silcrete	15	0.45	Flat flake, feather termination, reworked at platform	Light Grey
1414	5	136E 464N	1	Flake		Silcrete	16	1.14	15% cortex	Brown
1415	5	136E 464N	1	xFlaked piece		Silcrete	20	1.36		Brown
1435	6	082E 241N	1	Core		Quartz	20	2.75		Crystal
1436	6	082E 241N	1	Flake		Silcrete	18	3.07	Dorsal surface 40% core	Red
1425	6	122E 241N	1	xFlaked piece		Quartz	10	0.39		Milky
1426	6	122E 241N	1	Flake		Silcrete	14	0.18	Thin flake, feather termination.	Black
1427	6	122E 241N	1	Flake		Silcrete	18	0.96	Thin flake, feather termination.	Black
1428	6	122E 241N	1	Proximal flake		Silcrete	11	63	Thin flake. Fits with #1429. lateral retouch?	Black
1429	6	122E 241N	1	Distal Flake		Silcrete	11	63	Wide thin flake, Fits with #1428. lateral retouch?	Black
1430	6	122E 241N	1	Flake		Silcrete	16	0.79		Light Grey
1431	6	142E 241N	1	Core		Quartz	32	19.11	Grey and pink seams. 25% cortex.	Milky
1432	6	142E 241N	1	Proximal flake		Silcrete	10	0.22	Fine grained, shiny	Red
1433	6	142E 241N	1	Retouched flake		Silcrete	22	1.7	Small retouch on lateral and distal margin	Brown

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1434	6	142E 241N	1	Retouched flake		Silcrete	20	1.11	Retouch along one distal margin (similar to a backed artefact) Retouch in middle of other lateral margin onto ventral face. Missing tip.	Light Grey
1437	7	106E 202N	1	Flake		Quartz	11	0.49	Flat flake	Milky
1438	7	106E 202N	2	Flake		Silcrete	15	0.3		Light Grey
1458	8	062E 261N	2	Flake		Quartz	15	0.41	Feather termination	Milky
1460	8	062E 261N	2	Flake		Quartz	13	1.12	Feather termination	Crystal
1452	8	062E 281N	1	Flake		Quartz	18	0.6	Translucent with pink seams. Thin, flat flake	Crystal
1453	8	062E 281N	1	Distal Flake		Quartz	16	0.33	Translucent with yellow seams. Thin, flat flake	Crystal
1454	8	062E 281N	1	xFlaked piece		Quartz	10	0.33	Translucent with pink seams. Thin, flat flake	Crystal
1455	8	062E 281N	1	Flake		Silcrete	15	0.41	Thin, flat flake. Step termination	Light Grey
1456	8	062E 281N	1	Flake		Silcrete	10	0.65	Wide, flat flake. Feather termination	Light Grey
1457	8	062E 281N	1	Core		Quartz	18	7.33	Worked on 2 faces	Milky
1439	8	062E 301N	1	Retouched flake		Quartz	18	0.74	Retouch at proximal/lateral margin onto dorsal and ventral surfaces.	Milky
1440	8	062E 301N	1	Medial Flake		Quartz	8	1.36		Milky
1441	8	062E 301N	1	Distal Flake		Quartz	10	0.31		Milky
1442	8	062E 301N	1	Flake		Silcrete	25	3.43		Brown
1443	8	062E 301N	1	Flake		Silcrete	22	1.56	Missing tip. 2 dorsal ridges	Brown
1444	8	062E 301N	1	Flake		Silcrete	12	0.49	Flat flake	Light Grey
1445	8	062E 301N	1	Flake		Silcrete	15	1.25		Light Grey
1446	8	062E 301N	1	xFlaked piece		Silcrete	20	2.09	5% cortex.	Light Grey
1447	8	062E 301N	1	Retouched flake		Silcrete	33	2.26	Retouch onto dorsal and ventral surfaces along lateral margins	Dark grey
1448	8	062E 301N	1	Core		Silcrete	20	2.27	worked from 2 faces	Light Grey
1449	8	062E 301N	1	Flake		Silcrete	8	0.2	step termination	Light Grey
1450	8	062E 301N	1	Distal Flake		Silcrete	9	0.41	feather termination	Light Grey
1451	8	062E 301N	1	Distal Flake		Silcrete	11	0.76		Light Grey

Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
GL11 (isolated find)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a disturbed context near a drainage bund.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL11 is a common low density open stone artefact scatter.
GL12 (open stone artefact scatter)	Low: The site is a common type of moderate density artefacts.	Low: The site comprises common materials and artefact types.	Low: The site is on an erosion scald on skeletal soils.	Low: The site does not contribute to issues of chronology or tool manufacture.	Moderate: The site contains easily identifiable artefact types including a retouched flake.	Low: GL12 is a common open stone artefact scatter on a typical landform, albeit with an above average artefact frequency
GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
GL14a,b,c and d (open stone artefact scatter with deposit)	Moderate: The site is of a common type with a high frequency of artefacts but lacking intact contextual value.	Moderate: High artefact frequency is rare for the local area but common for similar landforms in the region.	Low: Highly eroded landform on skeletal soils. Minimal subsurface potential.	Moderate: Detailed recording may address issues of tool manufacture owing to extensive assemblage.	High: The site is the best local example of diverse artefact scatter. Assemblage has diverse artefact types and raw materials. Easy to locate and observe material.	Moderate: GL14, a, b, c and d combined is an extensive artefact scatter on a common site landform with good examples of artefact types and raw materials. However, it lacks archaeological integrity because of the highly eroded skeletal soils.
GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.



Aboriginal Site Recording Form



AHIMS Registrar
PO Box 1967, Hurstville NSW 2220

Office Use Only

Site Number

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

Gender/male Gender/female Location restriction General restriction No access

For Further Information Contact:

Nominated Trustee

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Knowledge Holder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

Office Use Only

Client on system

Client on system

Geographic Location

Site Name

Easting Northing AGD/GDA

Mapsheet

Zone Location Method

Other Registration

Primary Recorder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Date recorded

Client on system

OPEN/CLOSE SITE Open Site

Site Context

Landform

- Mountainous
- Plain
- Rolling hills
- Steep hills
- Undulating plain

Landform Unit

- Beach
- Coastal rock platform
- Dune
- Intertidal flat
- Lagoon
- Tidal Creek

- Tidal Flat
- Cliff
- Crest
- Flat
- Lower slope
- Mid slope

- Upper slope
- Plain
- Ridge
- Tor
- Valley flat
- Levy

- Stream bank
- Stream channel
- Swamp
- Terrace
- Terrace flat

Slope

degrees

Vegetation

- Closed forest
- Grasslands
- Isolated clumps of trees
- Open forest
- Open woodland
- Scrub
- Woodland
- Cleared
- Revegetated
- N/A

Land use

- Conservation
- Established urban
- Farming-intensive
- Farming-low intensity
- Forestry
- Industrial
- Mining
- Pastoral/grazing
- Recreation
- Semi-rural
- Service corridor
- Transport corridor
- Urban expansion
- Residential

Water

Distance to permanent water source metres
 Distance to temporary water source metres
 Name of nearest permanent water source
 Name of nearest temporary water

Directions for Relocation

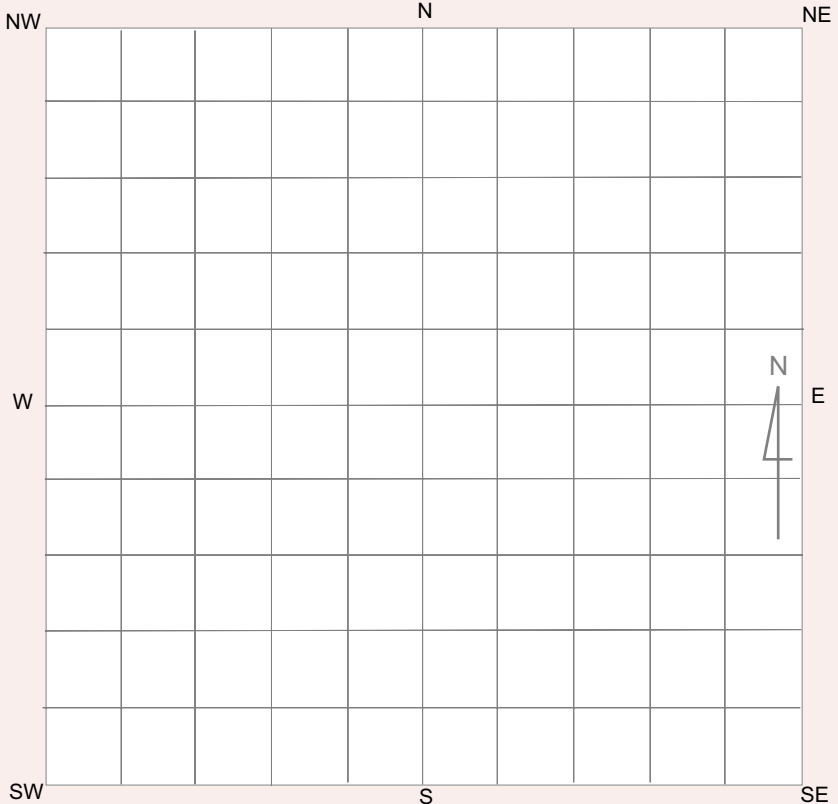
Current Land Tenure

- Public National Park / other Government Dept.
- Private

Primary report

I.D. (I.D. Office Use only)

Site Location Map



General Site Information

Closed Site

Shelter/Cave Formation

- Boulder
- Wind erosion
- Water erosion
- Rock collapse

Rock Surface Condition

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Condition of Ceiling

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Shelter Aspect

- North
- North East
- East
- South East
- South
- South West
- West
- North West

Open Site

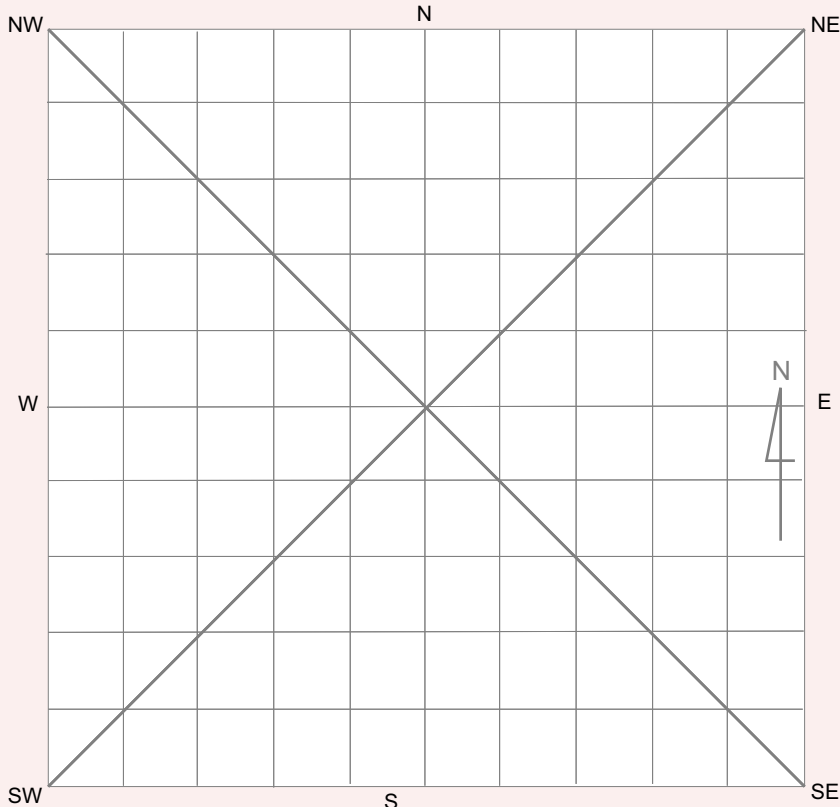
Site Orientation

- N-S
- NE-SW
- E-W
- SE-NW
- N/A

Features

- 1. Aboriginal Ceremony & Dreaming
- 2. Aboriginal Resource & Gathering
- 3. Art
- 4. Artefact
- 5. Burial
- 6. Ceremonial Ring
- 7. Conflict
- 8. Earth Mound
- 9. Fish Trap
- 10. Grinding Groove
- 11. Habitation Structure
- 12. Hearth
- 13. Non Human Bone & Organic Material
- 14. Ochre quarry
- 15. Potential Archaeological Deposit
- 16. Stone Quarry
- 17. Shell
- 18. Stone Arrangement
- 19. Modified Tree
- 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

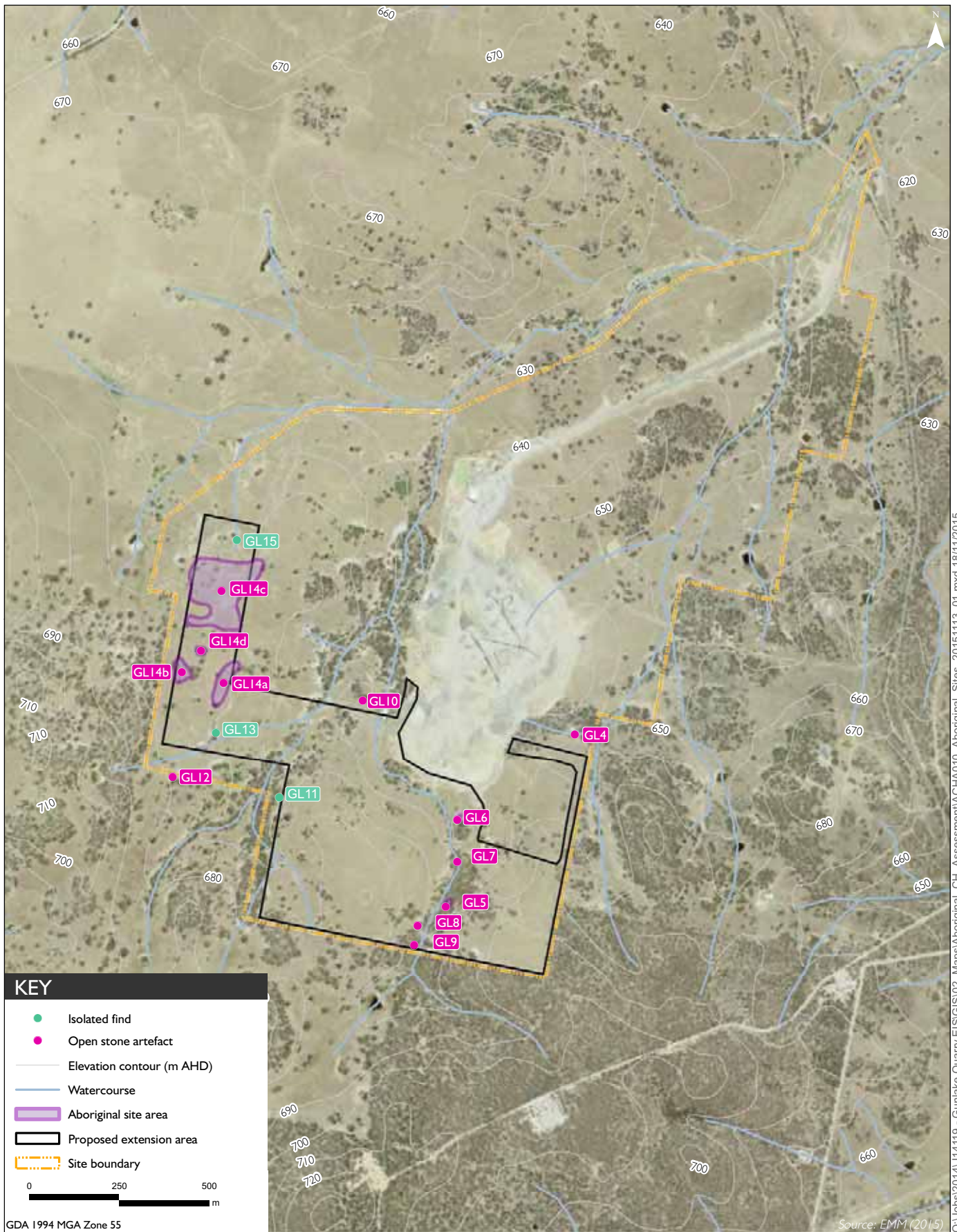
- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (m)

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







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Aboriginal site results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 6.2



Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
GL11 (isolated find)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a disturbed context near a drainage bund.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL11 is a common low density open stone artefact scatter.
GL12 (open stone artefact scatter)	Low: The site is a common type of moderate density artefacts.	Low: The site comprises common materials and artefact types.	Low: The site is on an erosion scald on skeletal soils.	Low: The site does not contribute to issues of chronology or tool manufacture.	Moderate: The site contains easily identifiable artefact types including a retouched flake.	Low: GL12 is a common open stone artefact scatter on a typical landform, albeit with an above average artefact frequency
GL13 (open stone artefact scatter)	Low: The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL13 is a common low density open stone artefact scatter.
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Aboriginal Site Recording Form



AHIMS Registrar
PO Box 1967, Hurstville NSW 2220

Office Use Only

Site Number

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

Gender/male Gender/female Location restriction General restriction No access

For Further Information Contact:

Nominated Trustee

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Knowledge Holder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

Office Use Only

Client on system

Client on system

Geographic Location

Site Name

Easting Northing AGD/GDA

Mapsheet

Zone Location Method

Other Registration

Primary Recorder

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Date recorded

Client on system

General Site Information

Closed Site

Shelter/Cave Formation

- Boulder
- Wind erosion
- Water erosion
- Rock collapse

Rock Surface Condition

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Condition of Ceiling

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Shelter Aspect

- North
- North East
- East
- South East
- South
- South West
- West
- North West

Open Site

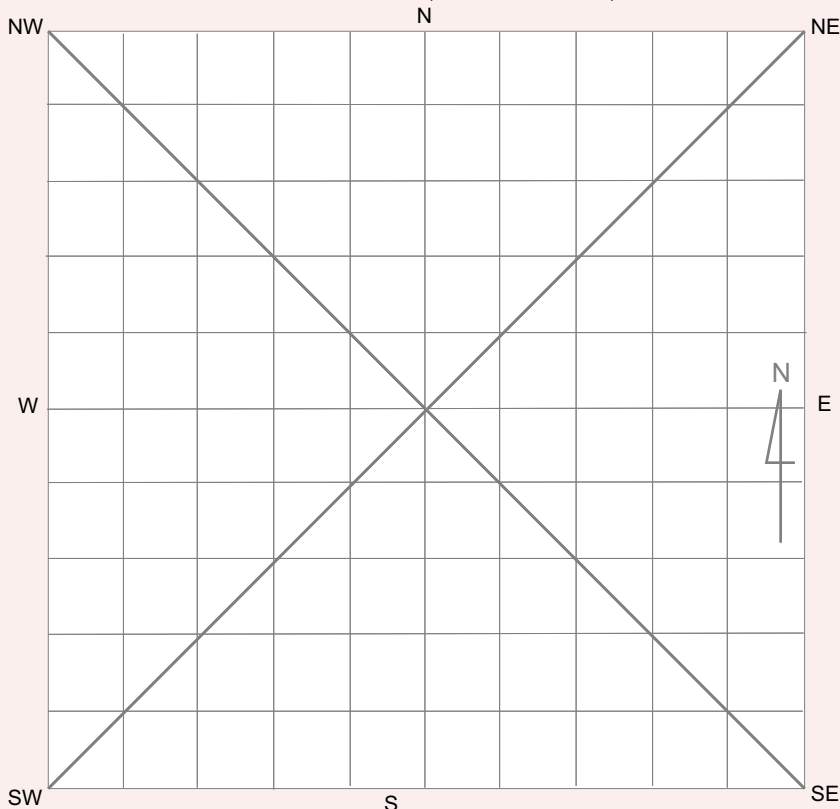
Site Orientation

- N-S
- NE-SW
- E-W
- SE-NW
- N/A

Features

- 1. Aboriginal Ceremony & Dreaming
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- 3. Art
- 4. Artefact
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- 15. Potential Archaeological Deposit
- 16. Stone Quarry
- 17. Shell
- 18. Stone Arrangement
- 19. Modified Tree
- 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (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

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

The significance of this site is attached. For further information refer to the report: 'EMM 2016, Gunlake Quarry Extension Project, Aboriginal cultural heritage assessment, including the results of a test excavation, prepared for Gunlake Quarries Pty Ltd'

This section should only be filled in by the Endorsees

Endorsed by: Knowledge Holder Nominated Trustee Native Title Holder Community Consensus

Title	Surname	First Name	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation	<input type="text"/>		
Address	<input type="text"/>		
Phone number	<input type="text"/>	Fax	<input type="text"/>

Attachments (No.)

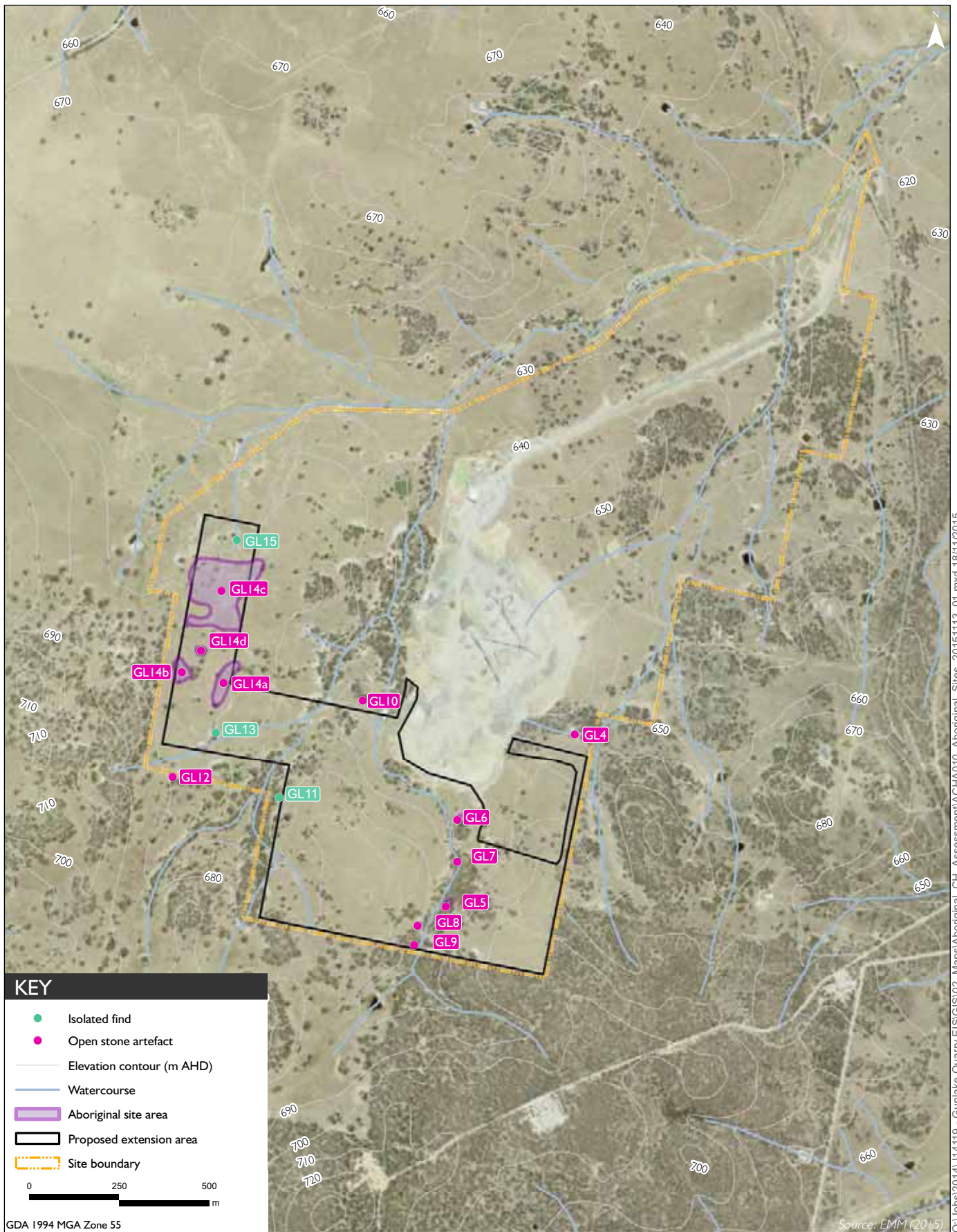
- A4 location map
- B/W photographs
- Colour photographs
- Slides
- Aerial photographs
- Site plans, drawings
- Recording tables
- Other
- Feature inserts-No.

Comments

Isolated crystalline quartz flake identified in drainage depression. Artefact is likely to have been transported downslope from hill spur crest.

Table 9.1 Statement of scientific significance for surface and subsurface Aboriginal sites

Site name	Research potential	Rarity and representativeness	Integrity	Research themes	Educational value	Overall archaeological significance rating
artefact scatter)	type of low density in a highly disturbed context.	materials and artefact types.	disturbed context on a vehicle turning circle.	contribute to issues of chronology or tool manufacture.	sparse and are not easily identifiable examples of stone artefacts.	open stone artefact scatter.
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GL15 (isolated find)	The site is an isolated artefact in disturbed context.	Low: The site comprises common materials and artefact types.	Low: The site is in a highly disturbed context on a dam wall.	Low: The site does not contribute to issues of chronology or tool manufacture.	Low: The site comprises only one small artefact.	Low: GL15 is a common low density open stone artefact scatter.



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Aboriginal site results

Gunlake Quarry
Aboriginal Cultural Heritage Assessment

Figure 6.2



Appendix C

Survey data

	B	F	I	J	K	N	O	Q	R	X	Y	Z	AC
1	Transect	Landform element	Length (m)	Width (m)	Area (m ²)	Exposure	Visibility	Effective coverage (area	Effective coverage %	Extent of rock outcrop	Ground cover types	Exposure types	Disturbance
2	T1	Hill spur crest	1818	50	90881	5%	50%	2272	3	20	Grass; regrowth;	Animal tracks; scalds;	Extensive clearing; erosion
3	T2	Hill slope	582	50	29115	5%	50%	728	3	5	Grass; regrowth;	Scalds, vehicle track	Extensive clearing; erosion
4	T3	Hill spur crest	317	50	15866	5%	50%	397	3	5	Grass; regrowth;	Scalds, vehicle track	Extensive clearing; erosion
5	T4	Hill slope	734	50	36707	30%	60%	6607	18	50	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion
6	T5	Foot slope	731	50	36525	10%	50%	1826	5	2	Grass; regrowth; foliage		Extensive clearing; erosion
7	T6	Stream channel	847	50	42346	80%	70%	23714	56	2	Grass; regrowth; fo	Scalds, gullying, stream bank erosion	Extensive clearing; erosion
8	T7	Hill slope	1324	50	66193	5%	10%	331	1	30	Grass; regrowth; fo	Scalds, animal tracks	Extensive clearing; erosion
9	T8	Hill spur crest	1678	50	83922	5%	70%	2937	4	20	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion
10	T9	Hill slope	630	50	31492	5%	70%	1102	4	20	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion
11	T10	Foot slope	566	50	28324	30%	80%	6798	24	N/A	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion
12	T11	Hill spur crest	489	50	24457	40%	90%	8804	36	N/A	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion; drainage bunds
13	T12	Stream channel	313	50	15640	20%	80%	2502	16	N/A	Grass; regrowth;	Scalds, animal tracks, dam wall, stream channel	Extensive clearing; erosion; portions of highly disturbed dams and drainage bunds
14	T13	Hill slope	136	50	6825	30%	60%	1228	18	N/A	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion; drainage bunds
15	T14	Hill slope	1202	50	60104	30%	60%	10819	18	N/A	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion; drainage bunds
16	T15	Hill spur crest	2787	50	139359	80%	80%	89190	64	2	Grass; regrowth;	Scalds, animal tracks	Extensive clearing; erosion

Appendix D

Aboriginal survey site results

Site Name (AHIMS)	Easting	Northing	Zone	Date recorded	Slope %	Site Type	Artefact count	Landform pattern	Landform element	Exposure type	Exposure size	Exposure visibility %	Assemblage elements	Disturbance to deposit	Site length (m)	Site width (m)	Site area (m ²)	Uikley area of PAD (m ²)	Distance range to water	Description	Aspect
GL4	222390	6158927	55H	27-Jul-15	1	Open stone artefact	3	Undulating hills	Modified: dam wall at stream channel	Dam wall	20 x 20 m	70	Quartz	High: dam wall	10	4	40	N/A	<50 m	Open stone artefact site identified on a dam wall on a first-order tributary to Chapman's Creek. Artefacts comprise: - 1 quartz core with two visible flake scars - 1 quartz distal flake - 1 quartz core with one visible flake scar	North
GL5	222061	6158428	55H	27-Jul-15	1	Open stone artefact	2	Undulating hills	Foot slope	Erosion: sheet wash	Continuous patches over 25 m	50	Chalcedony	Low	25	1	25	Undetermined	<50 m	Open stone artefact site identified adjacent to second-order tributary to Chapman's Creek. Artefacts comprise: - 1 chalcedony distal flake - 1 quartz distal flake	West
GL6	222079	6158671	55H	27-Jul-15	3	Open stone artefact	2	Undulating hills	Foot slope	Erosion: sheet wash	20 x 20 m	80	Silcrete, quartz	Low	20	1	20	Undetermined	<50 m	Open stone artefact site identified adjacent to second-order tributary to Chapman's Creek. Artefacts comprise: - 1 silcrete blade flake - quartz flake	West
GL7	222086	6158555	55H	27-Jul-15	1	Open stone artefact	2	Undulating hills	Stream bank	Eroding stream bank	5 x 10	80	Silcrete, quartz	High: eroding stream bank	2	1	2	N/A	<50 m	Open stone artefact site identified on the eastern stream bank of a second-order tributary to Chapman's Creek. Stream bank is approx. 2 m high above stream bed. There is an approximate 2 m area of exposure running parallel to the stream. Artefacts comprise: - 1 silcrete medial flake	East
GL8	221986	6158372	55H	27-Jul-15	8	Open stone artefact	4	Undulating hills	Foot slope	Erosion: sheet wash, eroding stream bank	10 x 10	80	Silcrete, chert, quartz	Moderate: eroding stream bank, sheetwash	10	10	100	N/A	<50 m	Open stone artefact site identified on a footslope and stream bank adjacent to second-order tributary to Chapman's Creek. Artefacts comprise: - 1 quartz distal flake - 1 chert blade flake with potential usewear - 1 brown silcrete flake with reouch along left lateral margin with stepped termination	West
GL9	221979	6158318	55H	27-Jul-15	9	Open stone artefact	2	Undulating hills	Stream bank	Eroding stream bank		50	Quartz	Moderate: eroding stream bank, sheetwash	10	1	10	N/A	<50 m	Open stone artefact site identified on a footslope and stream bank adjacent to second-order tributary to Chapman's Creek. Artefacts comprise: - 1 quartz flake - 1 quartz distal flake	West
GL10	221797	6158986	55H	27-Jul-15	1	Open stone artefact	4	Undulating hills	Hill spur crest	Modified: machine graded	20 x 10 m	80	Silcrete,	High: machine graded soil	20	10	200	N/A	<50 m	Open stone artefact site identified on a level area of a spur crest. Area has been disturbed and there is remnants of the area being used as a vehicle turning circle. Artefacts comprise: - 1 red silcrete core - 1 grey silcrete flake - 1 red silcrete flake - 1 white silcrete flake	North-east
GL11	221582	6158704	55H	27-Jul-15	8	Isolated find	1	Undulating hills	Foot slope	Animal track	Continuous	70	Silcrete	Moderate: adjacent to constructed bund	1	1	1	N/A	<50 m	Open stone artefact site identified on a footslope east of Chapman's Creek. Area is gently inclined but very close to a constructed drainage bund which suggests that the soils here are disturbed. Site is one grey complete flake	West
GL12	221283	6158742	55H	27-Jul-15	4	Open stone artefact	16	Undulating hills	Hill spur crest	Erosion: sheet wash/ salt	10 x 10 m	80	Chert, silcrete, quartz	Moderate: sheetwash erosion	20	20	400	20 x 20 m	<50 m	Open stone artefact site identified on a broad hill spur crest adjacent to a tributary of Chapman's Creek. Site identified on a large sheetwash, salt scald. Artefacts comprise: - 1 grey silcrete flake with retouch along right lateral margin - 2 grey silcrete complete flakes - 5 quartz flakes - 1 quartz distal flake - 1 chert core - 2 quartz cores - 3 quartz flaked pieces	North-east
GL13	221395	6158872	55H	28-Jul-15	1	Isolated find	1	Undulating hills	Modified: dam wall at stream channel	Modified: dam wall	3 m x 30 m	80	IMT	High: modified dam wall	1	1	1	N/A	<50 m	Open stone artefact site identified on a dam wall Chapman's Creek. Area is gently inclined but very close to a constructed drainage bund which suggests that the soils here are disturbed. Site is one brown IMT core identified on a dam wall on a	

Site Name (AHIMS)	Easting	Northing	Zone	Date recorded	Slope %	Site Type	Artefact count	Landform pattern	Landform element	Exposure type	Exposure size	Exposure visibility %	Assemblage elements	Disturbance to deposit	Site length (m)	Site width (m)	Site area (m ²)	Likely area of PAD (m ²)	Distance range to water	Description	Aspect
GL14a	221408	6159012	55H	28-Jul-15	2	Open stone artefact	32	Undulating hills	Hill slope	Erosion: sheet wash/ salt	Continuous	60	Chert, IMT, quartz, quartzite, silcrete	Moderate to high: highly deflated landform with high erosion from sheetwash and scalds	130	40	5200	Undetermined	50-100 m	Open stone artefact site identified over a large continuous exposure on a hill spur crest. Artefacts comprise: - 7 quartz flakes - 5 quartz distal fragments - 2 quartz flaked pieces - 1 quartz bipolar core - 1 quartz core - 3 silcrete flakes - 6 silcrete distal flakes - 1 silcrete core - 2 silcrete longitudinal splits - 2 quartzite flaked pieces - 1 quartzite flake - 1 IMT flake	East
GL14b	221291	6159034	55H	28-Jul-15	2	Open stone artefact	3	Undulating hills	Hill spur crest	Erosion: sheet wash/ salt	Continuous	70	Quartzite, silcrete,	Moderate to high: highly deflated landform with high erosion from sheetwash and scalds	70	40	2800		100-200 m	Open stone artefact site identified on a broad hill spur crest adjacent to a tributary of Chapman's Creek. Site identified on a large sheetwash, salt scald. Artefacts comprise: - 1 grey silcrete flake - 1 quartzite longitudinal split flake - 1 dark red unidirectional silcrete core with a cortex platform	East
GL14c	221387	6159266	55H	28-Jul-15	1	Open stone artefact	235	Undulating hills	Hill spur crest	Erosion: sheet wash/ salt	Continuous	90	IMT, silcrete, quartz, quartzite, chert	Moderate to high: highly deflated landform with high erosion from sheetwash and scalds	200	200	40000		50-100 m	Open stone artefact site covering a very large broad hill spur crest exposure adjacent to a number of tributaries to Chapman's Creek. These tributaries occur to the west, north and east of the extensive site. The boundary of the site was established and only a preliminary count of artefacts was made because of the very high number of artefacts encountered on this landform. The following breakdown of artefact types and frequencies is preliminary in nature and does not represent a detailed record of the archaeology of this site. It is estimated that well over 300 artefacts are likely to exist in this location. Preliminary count comprises: - 160 silcrete flakes (this may include broken flake components that were not defined further) - 30 quartz flakes this may include broken flake components that were not defined further) - 5 quartzite flakes - 8 chert flakes - 1 silcrete flaked piece - 2 quartzite flaked pieces - 1 IMT core - 9 silcrete cores - 4 quartz cores - 1 chert core - 3 silcrete retouched flakes - 5 silcrete distal flakes	East
GL14d	221340	6159097	55H	28-Jul-15	2	Open stone artefact	11	Undulating hills	Hill spur crest	Erosion: sheet wash/ salt	Continuous	90	Silcrete, quartz, quartzite	Moderate to high: highly deflated landform with high erosion from sheetwash and scalds	20	20	400		>200 m	Open stone artefact site identified on a broad hill spur crest adjacent to a tributary of Chapman's Creek. Site identified on a large sheetwash, salt scald. Artefacts comprise: - 1 silcrete retouched flake along right lateral margin - 3 silcrete flakes - 1 light grey silcrete distal flake - 1 bidirectional silcrete core - 1 medial silcrete flake - 1 quartz flake - 1 silcrete flaked piece - 1 quartz distal flake - 2 yellow quartzite flakes	East
GL15	221422	6159408	55H	28-Jul-15	1	Isolated find	1	Undulating hills	Drainage depression	Erosion: sheet wash/ salt	Continuous	90	Quartz	High: gullied drainage depression	1	1	1		<50 m	Isolated crystalline quartz flake identified in drainage depression. Artefact is likely to have been transported downslope from hill spur crest.	N/A

Appendix E

Aboriginal artefact data

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1395	3	794E 612N	1	Flake		Quartz	15	1.64	Feather termination	Milky
1396	3	794E 612N	1	Flake		Quartz	13	0.46	step termination. One dorsal ridge.	Milky
1397	3	794E 612N	1	Flake		Quartz	18	2.05	Smoky	Milky
1373	3	814E 612N	1	Flake		Quartz	26	3.65	Yellowish . Feather termination	Crystal
1374	3	814E 612N	1	xFlaked piece		Quartz	11	0.38		Milky
1394	4	185E 484N	1	Flake		Quartz	8	0.24		Milky
1393	4	225E 484N	2	Core		Silcrete	35	19.36	15% cortex. Flake that has become a core. Numerous step terminations	Light Grey
1398	4	225E 484N	1	Flake		Silcrete	14	0.97	Possibly heat treated. Potlid like indentation on dorsal surface. Flat flake.	Red
1399	4	225E 484N	1	Flake		Silcrete	25	1.77	Flat flake. Step termination	Light Grey
1400	4	225E 484N	1	Flake		IMT	19	0.87	One dorsal ridge.	Light Brown
1401	4	225E 484N	1	Distal Flake		IMT	15	1.66	One dorsal ridge.	Light Brown
1402	4	225E 484N	1	Distal Flake		Silcrete	15	0.45	Flat flake, step termination	Light Grey
1403	4	225E 484N	1	Distal Flake		IMT	18	0.66		Light Brown
1404	4	225E 484N	1	Distal Flake		Silcrete	12	1.55	Feather termination	Dark grey
1405	4	225E 484N	1	Distal Flake		Silcrete	10	0.59	Feather termination	Light Grey
1406	4	225E 484N	1	Flake		Silcrete	10	0.37	Step termination	Light Grey
1407	4	225E 484N	1	core		IMT	19	2.55	Rotated core	Light Grey
1461	4	225E 484N	surface	Distal Flake		Silcrete	21	2.79	hinge termination	Light Grey
1462	4	225E 484N	surface	Distal Flake		Silcrete	21	2.79	Feather termination	Light Grey
1416	5	136E 404N	1	Flake		Silcrete	10	0.68	Wide, flat flake. Step termination	Brown
1417	5	136E 404N	1	Flake		Silcrete	17	1.33	Wide, flat flake. Step termination, pinkish grey.	Light Grey
1418	5	136E 404N	1	Flake		Silcrete	11	0.53	Flat flake. Feather termination.	Light Grey
1419	5	136E 404N	1	Distal Flake		Silcrete	29	3.33	Step termination, waves of compression	Brown
1420	5	136E 404N	1	Flake		Silcrete	15	0.43	waves of compression	Brown
1421	5	136E 404N	1	Distal Flake		Silcrete	16	0.33	waves of compression	Brown

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1375	5	136E 424N	1	Retouched flake		Silcrete	24	2.08	Platform preparation. 2 dorsal ridges, step termination. Retouch on lateral margins onto dorsal surface, pressure flaked.	Light Grey
1376	5	136E 424N	1	Retouched flake		Silcrete	22	0.98	Flat flake, feather termination. Retouch on distal margin, pressure flaked	Light Grey
1377	5	136E 424N	1	Flake		Silcrete	11	1.24	Feather termination	Dark grey
1378	5	136E 424N	1	Flake		Silcrete	10	0.71	Wide flake. One dorsal ridge, step termination	Red
1379	5	136E 424N	1	Flake		Quartz	22	1.4	Cream -white. One dorsal ridge, feather termination	Crystal
1380	5	136E 424N	1	Flake		Quartz	11	0.13	Flat flake, feather termination. Pinkish seam.	Milky
1381	5	136E 424N	1	Core		Quartz	14	0.13	Greyish.	Crystal
1382	5	136E 424N	1	Longitudinal split		Silcrete	12	0.46	cortex covers dorsal side	Light Grey
1383	5	136E 424N	1	Distal Flake		Silcrete	9	0.59		Dark grey
1384	5	136E 424N	1	Distal Flake		Silcrete	19	1.97	Compression waves. Cortex covers dorsal surface	Dark grey
1385	5	136E 424N	1	Distal Flake		Silcrete	9	0.39	Feather termination	Light Grey
1386	5	136E 424N	1	Distal Flake		Silcrete	9	0.59		Red
1387	5	136E 424N	1	Core		Silcrete	18	1.78	Small, rotated core.	Light Grey
1388	5	136E 424N	1	Core		Quartz	22	6.59	Pinkish, 25% cortex	Crystal
1389	5	136E 424N	1	flake		IMT	19	1.44		Light Grey
1390	5	136E 424N	1	xFlaked piece		Silcrete	15	0.49		Dark grey
1391	5	136E 424N	1	Longitudinal split		Silcrete	14	1		Red
1392	5	136E 424N	1	Core		Silcrete	19	1.42		Light Grey
1423	5	136E 424N	2	Core		Silcrete	14	1.92	Thin, flake-like. Step terminations	Light Grey
1424	5	136E 424N	2	Retouched flake		Quartz	28	3.5	Retouched on both lateral margins onto dorsal and ventral surfaces.	Milky

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1422	5	136E 444N	2	Retouched flake		Silcrete	32	2.41	Long flake, numerous scars on dorsal surface (prior to removal)	Brown
1408	5	136E 464N	1	Proximal flake		Silcrete	17	1.22	Flat flake,	Red
1409	5	136E 464N	1	Distal Flake		Silcrete	26	0.5	Long narrow flake, One dorsal ridge. Step termination	Red
1410	5	136E 464N	1	Flake		Silcrete	9	1.17	Wide flake, feather termination. Cortex on platform	Red
1411	5	136E 464N	1	Core		Silcrete	20	2.27	50% cortex. Bipolar split	Red
1412	5	136E 464N	1	Core		Silcrete	16	1.76	Coarse stone. Fakes taken from single face.	Dark grey
1413	5	136E 464N	1	Retouched flake		Silcrete	15	0.45	Flat flake, feather termination, reworked at platform	Light Grey
1414	5	136E 464N	1	Flake		Silcrete	16	1.14	15% cortex	Brown
1415	5	136E 464N	1	xFlaked piece		Silcrete	20	1.36		Brown
1435	6	082E 241N	1	Core		Quartz	20	2.75		Crystal
1436	6	082E 241N	1	Flake		Silcrete	18	3.07	Dorsal surface 40% core	Red
1425	6	122E 241N	1	xFlaked piece		Quartz	10	0.39		Milky
1426	6	122E 241N	1	Flake		Silcrete	14	0.18	Thin flake, feather termination.	Black
1427	6	122E 241N	1	Flake		Silcrete	18	0.96	Thin flake, feather termination.	Black
1428	6	122E 241N	1	Proximal flake		Silcrete	11	63	Thin flake. Fits with #1429. lateral retouch?	Black
1429	6	122E 241N	1	Distal Flake		Silcrete	11	63	Wide thin flake, Fits with #1428. lateral retouch?	Black
1430	6	122E 241N	1	Flake		Silcrete	16	0.79		Light Grey
1431	6	142E 241N	1	Core		Quartz	32	19.11	Grey and pink seams. 25% cortex.	Milky
1432	6	142E 241N	1	Proximal flake		Silcrete	10	0.22	Fine grained, shiny	Red
1433	6	142E 241N	1	Retouched flake		Silcrete	22	1.7	Small retouch on lateral and distal margin	Brown

ARTEFACT ID	transect	pit	spit	Type	Implement	Raw material	Length	Weight	Comment	Colour
1434	6	142E 241N	1	Retouched flake		Silcrete	20	1.11	Retouch along one distal margin (similar to a backed artefact) Retouch in middle of other lateral margin onto ventral face. Missing tip.	Light Grey
1437	7	106E 202N	1	Flake		Quartz	11	0.49	Flat flake	Milky
1438	7	106E 202N	2	Flake		Silcrete	15	0.3		Light Grey
1458	8	062E 261N	2	Flake		Quartz	15	0.41	Feather termination	Milky
1460	8	062E 261N	2	Flake		Quartz	13	1.12	Feather termination	Crystal
1452	8	062E 281N	1	Flake		Quartz	18	0.6	Translucent with pink seams. Thin, flat flake	Crystal
1453	8	062E 281N	1	Distal Flake		Quartz	16	0.33	Translucent with yellow seams. Thin, flat flake	Crystal
1454	8	062E 281N	1	xFlaked piece		Quartz	10	0.33	Translucent with pink seams. Thin, flat flake	Crystal
1455	8	062E 281N	1	Flake		Silcrete	15	0.41	Thin, flat flake. Step termination	Light Grey
1456	8	062E 281N	1	Flake		Silcrete	10	0.65	Wide, flat flake. Feather termination	Light Grey
1457	8	062E 281N	1	Core		Quartz	18	7.33	Worked on 2 faces	Milky
1439	8	062E 301N	1	Retouched flake		Quartz	18	0.74	Retouch at proximal/lateral margin onto dorsal and ventral surfaces.	Milky
1440	8	062E 301N	1	Medial Flake		Quartz	8	1.36		Milky
1441	8	062E 301N	1	Distal Flake		Quartz	10	0.31		Milky
1442	8	062E 301N	1	Flake		Silcrete	25	3.43		Brown
1443	8	062E 301N	1	Flake		Silcrete	22	1.56	Missing tip. 2 dorsal ridges	Brown
1444	8	062E 301N	1	Flake		Silcrete	12	0.49	Flat flake	Light Grey
1445	8	062E 301N	1	Flake		Silcrete	15	1.25		Light Grey
1446	8	062E 301N	1	xFlaked piece		Silcrete	20	2.09	5% cortex.	Light Grey
1447	8	062E 301N	1	Retouched flake		Silcrete	33	2.26	Retouch onto dorsal and ventral surfaces along lateral margins	Dark grey
1448	8	062E 301N	1	Core		Silcrete	20	2.27	worked from 2 faces	Light Grey
1449	8	062E 301N	1	Flake		Silcrete	8	0.2	step termination	Light Grey
1450	8	062E 301N	1	Distal Flake		Silcrete	9	0.41	feather termination	Light Grey
1451	8	062E 301N	1	Distal Flake		Silcrete	11	0.76		Light Grey

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