Heritage (Decision about Registration for Gubur Dhaura – Aboriginal Ochre Quarry and Historic Mining Area). Notice 2011

Notifiable Instrument NI 2011 - 744

made under the

Heritage Act 2004 section 42 Notice of Decision about Registration

1. Revocation
   This instrument replaces NI 2011 – 483

2. Name of instrument
   This instrument is the Heritage (Decision about Registration for Gubur Dhaura – Aboriginal Ochre Quarry and Historic Mining Area) Notice 2011 -

3. Registration details of the place
   Registration details of the place are at Attachment A: Register entry for Gubur Dhaura – Aboriginal Ochre Quarry and Historic Mining Area.

4. Reason for decision
   The ACT Heritage Council has decided Gubur Dhaura – Aboriginal Ochre Quarry and Historic Mining Area meets one or more of the heritage significance criteria at s 10 of the Heritage Act 2004. The register entry is at Attachment A.

5. Date of Registration
   1 December 2011

Gerhard Zatschler
Secretary
ACT Heritage Council
1 December 2011
The following is mandatory:

For the purposes of s. 33 of the Heritage Act 2004, an entry to the heritage register has been prepared by the ACT Heritage Council for the following place:

Gubur Dhaura (Aboriginal Ochre Quarry and Historic Mining Area)
Block 1, Section 106, Franklin, District of Gungahlin

DATE OF REGISTRATION
Notified: 1 December 2011 Notifiable Instrument: 2011-

Copies of the Register Entry are available for inspection at the ACT Heritage Unit. For further information please contact:

The Secretary
ACT Heritage Council
GPO Box 158, Canberra, ACT 2601
Telephone: 13 22 81 Facsimile: (02) 6207 2229
IDENTIFICATION OF THE PLACE

Gubur Dhaura (Aboriginal Ochre Quarry and Historic Mining Area) Block 1, Section 106 Franklin, District of Gungahlin, ACT. The site is located upon the Red Hill ridgeline, and is bordered by Diane Barwick St, Elizabeth Jolly Cres, Alice Crist St, and Barbara Jeffries St.

STATEMENT OF HERITAGE SIGNIFICANCE

This statement refers to the Heritage Significance of the place as required in s12(d) of the Heritage Act 2004.

The heritage significance of Gubur Dhaura draws on its importance to both the Aboriginal people of the ACT and surrounding region and early European settlers. It appears that both groups were drawn to this place due to its geological features, including outcrops of ochre and kaolin (pipeclay), which provided opportunity for resource procurement.

There is evidence that ochre extraction was associated with the Aboriginal usage of the place. This enables the ACT Aboriginal community to maintain strong affiliations with this important element of traditional culture. These cultural links are enhanced by the size and quantity of the ochre source, as others of this scale are rare in the ACT.

A key aesthetic quality of the place is the panoramic vista of all significant landforms within the Gungahlin basin that are visible from the Red Hill ridgeline. This vista is intrinsic to the place’s heritage significance, as it is essential to the cultural experience of Gubur Dhaura, enhancing its meaning as understood by the Aboriginal community. It is ideally situated to interpret and understand traditional stories and mythologies connected to the Canberra region, and as such is highly valued as a location around which to base the teaching of traditional Aboriginal culture. The place can also be located within the context of other important Aboriginal heritage sites in the region, including those in Forde, West Macgregor, Crace, and Casey, forming a regional portrait of past Aboriginal experience of the landscape and environment.

The place is highly valued by the Aboriginal community as it is associated with numerous patterns of past lifeways. Its cultural significance to the community is enhanced by evidence for the lifeways that are present at the place, including ochre processing, lithic technologies, and ‘camp site’ occupation. The physical features that attest to these activities are demonstrative of past Aboriginal occupation patterns in the ACT and Gungahlin region.

The Red Hill ridgeline has special associations with the resource requirements of colonial settlement in Gungahlin and what later became the ACT. These associations are indicated by evidence of past excavation in search of iron ore, gold, and subsequently local extraction of pipe clay for chimney whitewash, and as a source material for the Canberra Brickworks.

The artefact assemblages both salvaged and remaining at the place may prove valuable as research materials in assessing how lithic tools were once used in Aboriginal ochre exploitation and quarrying.

A remnant portion of Well Station Road traversing the place is instructive in understanding local settlement and land division patterns, and also provides an important link between two historical locations: Gungaderra Homestead and Well Station Precinct.
FEATURES INTRINSIC TO THE HERITAGE SIGNIFICANCE OF THE PLACE

The geological features at Gubur Dhaura are intrinsic to both the Aboriginal and European significance of the place. They include visible exposures of ironstone, ochre deposits, and kaolin. These features undoubtedly drew Aboriginal people and Europeans in search of specific material resources to the Red Hill ridgeline.

Evidence for Aboriginal presence at this site consists of lithic artefacts that have been recorded, and continue to be exposed at Gubur Dhaura. The Canberra Archaeological Society salvaged an artefact assemblage of some 150 stone implements in 1983, and a surface scatter of 50 artefacts was observed by Officer in 1995. The artefacts form an intrinsic feature as they are material evidence for past Aboriginal occupation of the Red Hill ridgeline. The scenic vista, which allows a visual panorama of all major mountains and mountain ranges in the Gungahlin basin, also forms an integral part of the cultural significance of Gubur Dhaura to the Ngunnawal people.

Evidence for changes in ground surface relief and earthworks are important in demonstrating historic mining and European land use remains at the place. The remains of Well Station Road also attest to early settler activity and land use at the place.

APPLICABLE HERITAGE GUIDELINES

The ‘Heritage Guidelines: General Conservation Guidelines for Historic Heritage places 2011’ adopted under s27 of the Heritage Act 2004 are applicable to the conservation of Gubur Dhaura (Aboriginal Ochre Quarry and Historic Mining Area).

The guiding conservation objective is that Gubur Dhaura (Aboriginal Ochre Quarry and Historic Mining Area) shall be conserved and appropriately managed in a manner respecting its heritage significance and the features intrinsic to that heritage significance, and consistent with a sympathetic and viable use or uses. Any works that have a potential impact on significant fabric (and / or other heritage values) shall be guided by the document entitled Red Hill, Gungahlin, Aboriginal Camp site and Ochre Source, European Mine and Quarry Site: Conservation and Management Plan, Interpretation and Implementation Plan (2003) by Navin Officer Heritage Consultants or a subsequent revised Conservation Management Plan endorsed by the Heritage Council.

REASON FOR REGISTRATION

Gubur Dhaura – Aboriginal Ochre Quarry and Historic Mining Area, Franklin has been assessed against the heritage significance criteria and been found to have heritage significance when assessed against nine criteria under the ACT Heritage Act (b,c,d,e,f,g,h,i, and j).

ASSESSMENT AGAINST THE HERITAGE SIGNIFICANCE CRITERIA

Pursuant to s.10 of the Heritage Act 2004, a place or object has heritage significance if it satisfies one or more of the following criteria. Significance has been determined by research as accessed in the references below. Future research may alter the findings of this assessment.
(a) It demonstrates a high degree of technical or creative achievement (or both), by showing qualities of innovation, discovery, invention or an exceptionally fine level of application of existing techniques or approaches;

Gubur Dhaura was not found to meet this criterion to a significant degree.

(b) It exhibits outstanding design or aesthetic qualities valued by the community or a cultural group;

Gubur Dhaura exhibits outstanding aesthetic qualities highly valued by the Aboriginal community. It is located upon the Red Hill ridgeline crest and affords panoramic views of the Gungahlin basin, and all major landforms in the area. Included in these are Mount Majura, Mount Ainslie, Black Mountain, and the Namadgi Ranges. These vistas form an important aspect of the cultural value inherent in the place, and can be related to traditional Aboriginal stories and histories, and are integral to their experience of Gubur Dhaura.

Gubur Dhaura meets this criterion.

(c) It is important as evidence of a distinctive way of life, taste, tradition, religion, land use, custom, process, design or function that is no longer practised, is in danger of being lost or is of exceptional interest;

The place is important as evidence of a distinctive way of life that is of exceptional interest as it relates to past Aboriginal lifeways. Aboriginal people visited the place to camp in the past and visits may have occurred in order to collect the red and yellow ochre, and the white kaolin (pipeclay) that are present. Ochre was a highly valued material in Aboriginal culture, and fulfilled many important roles in secular and spiritual life, it was also once widely moved and traded in Aboriginal society.

The place is also important as evidence for European land use history and small scale resource extraction in the Gungahlin area. It demonstrates the variety of land uses evident, the time-depth of occupation and the potential for linking themes about land use history. The remnant portion of Well Station Road is demonstrative of land division characterised by European selectors in the early days of settlement of what would become the ACT. The place contains the remnants of historic mining activities that involved testing for iron ore and pipeclay deposits, extraction of materials for domestic and road building from the late nineteenth to mid twentieth centuries covering the pastoral era and the establishment of the Federal Capital Territory.

Gubur Dhaura meets this criterion.

(d) It is highly valued by the community or a cultural group for reasons of strong or special religious, spiritual, cultural, educational or social associations;

Gubur Dhaura is highly valued by the Aboriginal community of the ACT and surrounding region, for reasons of strong and special cultural and social associations, for it is demonstrative of specific traditional lifeways. Because of its long-term association with the Ngunnawal people the place retains social significance for the present day Ngunnawal community in the ACT and surrounding region. The place has an advantageous aspect and consists of a dry, warm ridge on which people were once likely to camp. The presence of Aboriginal people at this location is evidenced by lithic artefacts, some of which have been salvaged, with others remaining in situ. The presence of red and yellow ochre and white pipe-clay suggest it was also an ochre extraction site. Limited evidence for ochre processing is suggested by the

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1 ibid.
2 ibid, p.74.
discovery of a grindstone that may have been used to prepare pigment from the ochre. Due to evidence for numerous patterns of past site occupation, the present-day Aboriginal community draws strong cultural and social significance from the place.

Gubur Dhaura is recognised by the Aboriginal community as a valuable place for the dissemination of cultural knowledge. The place is preserved in open parkland in the suburb of Franklin, within a design plan that will enable ongoing public interpretation of the site’s history and existing intrinsic features. Moreover, the Aboriginal community values the site as a location at which they can teach their children specific elements of cultural history, Aboriginal people’s relationship to the land and their ancestral connection to the site and the surrounding hills.

Gubur Dhaura meets this criterion.

(e) it is significant to the ACT because of its importance as part of local Aboriginal tradition

Gubur Dhaura is significant to the ACT, as it is important as part of local Aboriginal tradition. Evidence for its role in Aboriginal tradition lies in the availability of a valued natural resource (ochre) that has played an integral role in secular and spiritual elements of past and contemporary lifestyle. The Aboriginal community of the ACT (and surrounds) continues to identify with the place, its resources, and the elements of traditional life represented here.

Gubur Dhaura meets this criterion.

(f) it is a rare or unique example of its kind, or is rare or unique in its comparative intactness

Gubur Dhaura is a unique example of its kind, as it is the only known ochre procurement source with combined evidence of lithic technologies in the ACT. As an ochre quarry in the ACT it is unequalled in its size and level of material complexity.

Gubur Dhaura meets this criterion.

(g) it is a notable example of a kind of place or object and demonstrates the main characteristics of that kind

Gubur Dhaura is a notable example of an Aboriginal ochre quarry in the context of the ACT. It contains a visible expanse of iron rich soils and ironstone outcrops that identify it as a large scale potential ochre source. The discovery of lithic artefacts at the place is also suggestive of Aboriginal ochre processing. The significant sized artefact assemblage and prominent large-scale ochre deposit are a combination of key features unseen elsewhere in the ACT.

Gubur Dhaura meets this criterion.

(h) it has strong or special associations with a person, group, event, development or cultural phase in local or national history

The place has strong associations with Aboriginal community in the ACT, who maintain strong cultural and social connections to the place, believing its distinct physical features to be a testament to its importance to their ancestors.

The place can be associated with numerous methods of small-scale resource extraction and testing linked to several historic phases of development of the ACT. These include the pastoral and agricultural era when selectors settled in Gungahlin, and the time after formation of the Federal Capital Territory. Limited iron ore prospecting took place in about 1895, with local residents extracting subsequently discovered pipe-clay for domestic use. In 1929 – after the land at the place had been acquired by the
Federal Capital Territory – the Canberra Brickworks considered the place as a source of clay for the manufacture of pipes. Furthermore, in 1942 the Australian Iron and Steel Company tested it for road base materials. Evidence for different phases of extraction are evident at the place, and includes narrow nineteenth century infilled shafts, a large open cut pit from around 1930, and extraction pits that have been excavated using later technology and machinery. The place therefore highlights the raw material requirements of the ACT and region over the course of the Territory’s development.

Gubur Dhaura meets this criterion.

(i) it is significant for understanding the evolution of natural landscapes, including significant geological features, landforms, biota or natural processes

Although the geological features and situation of the place are integral to its cultural and social significance, the cultural heritage significance of the place does not rely on this criterion.

(j) it has provided, or is likely to provide, information that will contribute significantly to a wider understanding of the natural or cultural history of the ACT because of its use or potential use as a research site or object, teaching site or object, type locality or benchmark site

Gubur Dhaura has yielded evidence that may prove useful in addressing research questions surrounding ochre exploitation in the context of the ACT. Consequently, it is likely to provide information that will contribute to a wider understanding of the cultural history of the ACT. The salvaged and remaining artefact assemblage at Gubur Dhaura remains the only ACT collection of artefacts from a potential Aboriginal ochre source. As such, the assemblage may prove valuable in providing information pertaining to lithic artefacts and how they relate to ochre extraction and processing at the place.

Gubur Dhaura meets this criterion.

(k) for a place—it exhibits unusual richness, diversity or significant transitions of flora, fauna or natural landscapes and their elements

Not applicable.

(l) for a place—it is a significant ecological community, habitat or locality for any of the following:
   (i) the life cycle of native species;
   (ii) rare, threatened or uncommon species;
   (iii) species at the limits of their natural range;
   (iv) distinct occurrences of species.

Not applicable.

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3 ibid. p. 43
4 ibid.
SUMMARY OF THE PLACE
HISTORY AND PHYSICAL DESCRIPTION

Physical Description

The boundary of Gubur Dhaura can be seen in Figure 4.

The following description of key landscape elements at Gubur Dhaura has been based upon a report prepared by Coffey and Environments.5

The place covers approximately 6 hectares, and is elevated about 610 m above sea level. It is located upon a small low ridgeline of Red Hill running in a north-south direction, extending for about 1.4km, rising 30m above the surrounding plains where there are naturally occurring surface rock outcrops on the upper crest and upper slopes and exposed soils. The soils are red and yellow in colour and patches of white clay are visible. The place is also characterised by excavations and associated land disturbances that have been backfilled by previous mining activities. The place consists primarily of open grassland, with some remnant trees. A portion of the historically utilised Well Station Track traverses the place.

The small ridgeline supporting Gubur Dhaura is produced by a geological feature defined as an intrusive rich iron vein of rock known as gossan. The site is underlain by sedimentary rocks of the Canberra Formation, siltstones, sandstones, shales and mudstones. Some veins of quartz are also visible through the site.

Aboriginal History and Features

The Ngunnawal people are traditionally affiliated with the lands within the Canberra region. The Ngunnawal people draw cultural significance from Gubur Dhaura and strongly associate with places such as these that are of cultural significance. However, it is also acknowledged that other local and regional Aboriginal groups with traditional affiliations to the Canberra region draw significance from Gubur Dhaura. In this citation, ‘Aboriginal community’ refers to the Ngunnawal people and other Aboriginal groups within the ACT who draw significance from the place. Whilst the term ‘Aboriginal community’ acknowledges these said groups in the ACT, it is recognised that their traditional territories extend outside contemporary borders.

Gubur Dhaura is the Ngunnawal name for the place, meaning ‘ochre ground’, in the past the Ngunnawal invited other tribal groups to the place to acquire the material for ceremonies, trade, and other purposes.6

Gubur Dhaura can be considered in the context of other significant Aboriginal sites in the Gungahlin and Belconnen regions. It can be associated with the high density and diverse artefact scatters at West Belconnen, and in the suburb of Forde. The collection of Aboriginal scarred trees at Crace, and culturally significant areas in Casey can also be considered in conjunction with these and Gubur Dhaura, in order to record and recognise a wider landscape of Aboriginal experience and cultural significance. These places attest to a rich history of Aboriginal occupation of the Gungahlin basin.

Ethnographic and historical information locates Aboriginal people within the greater Gungahlin region from the time of early European occupation through to the 1870s and 1880s. Traditional Aboriginal society in Canberra during the nineteenth century suffered from dramatic depopulation and alienation from traditional land based resources, although some important social institutions like intertribal gatherings and corroborees were retained to a degree at least until the 1860s.7

5 2010. ‘Phase 2 Environmental Site Assessment for Gubur Dhaura (Red Hill) area Franklin Estate Development Gungahlin, ACT. pp. 5, 17.
6 Brown, A 2011 pers. comm.
One such important social and cultural ‘institution’ was the collection of ochre, a material used in aesthetic, spiritual, and ceremonial lifeways, and also traded within Aboriginal society. Ochre sources were often focal places within the cultural and cosmological landscape. Ochre was involved in most important transitional and momentous life passages and experiences, including birth, death, marriage, dance, law, and story tellings, and was a material strongly associated with pathways and journeying through the landscape. A grindstone located at Gubur Dhaura provides archaeological evidence for the processing of ochre at the site. The slight ridges found on one of the stone’s faces suggests use wear, and may be consistent with the grinding of ochre nodules or iron weatherstone pieces to produce pigment.

A mineralogical analysis of the red, yellow, and white pigment at Gubur Dhaura was performed by Sale. The study compared samples from Aboriginal rock art at Nursery Swamp II, and it demonstrated that the red pigment at Nursery Swamp was elementally and mineralogically similar to the red pigment found at Gubur Dhaura. Although the study did not demonstrate that Gubur Dhaura provided the source material for the rock paintings, it implied its possible past use as a general source of art pigment. Future analyses of these materials using different or updated technologies might be instructive in understanding the source of local Aboriginal painting materials.

Over 200 Aboriginal lithic artefacts have been recorded at the place. One hundred and fifty of these were salvaged and analysed by the Canberra Archaeological Society in 1983, and at least an additional 50 were noted by Officer in 1995 during a survey for the “Red Hill Ochre Quarry Conservation and Management Plan.” Officer notes:

*Backed blades and micro-blade cores, a discard product from the manufacture of backed blades, are amongst the diagnostic elements of the Small Tool Tradition. The artefacts present, or previously recorded at the site, bracket the age of the site to within the last 5,000 years. The presence of bipolar flaking of quartz, a probable diagnostic trait of local lithic technology, suggests that occupation of the site also occurred within the last 5,000 to 2,000 years.*

Officer observes that the number of artefacts recovered, in addition to the range of stone material types present, are indicative of Aboriginal occupation. That the artefact scatter is located on a “well drained and locally elevated ridgeline, which is situated above valley floor cold air ponding while remaining low and accessible,” further lends the site to Aboriginal occupation, as these landscape criteria compare to predictive camp site modelling within the ACT.

The Aboriginal community draws strong cultural association with the visual panorama beheld from the Red Hill Ridgeline. Important landscape elements incorporated in the vista are demonstrated in Figure 2. Officer observes:

*All of the major ranges and hilltops in the northern ACT can be seen from Red Hill, whilst remaining in a lowland context. Some of the hilltops have Aboriginal significance and stories attached to them and these can be effectively related at this site.*

The ridgeline therefore offers vistas from which regional elements of Aboriginal heritage can be disseminated and interpreted by the Aboriginal community.

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8 Officer, op. cit., p. 49.
9 Brown, A. 2011 pers. comm.
10 ibid, p. 35.
12 ibid, p. 31.
13 ibid, p. 35.
14 ibid.
15 ibid, p. 48.
The place forms part of a greater cultural landscape extant within the Gungahlin region. Significant areas within Gungahlin and Belconnen include large artefact assemblages in Forde and West Macgregor, and vegetation pockets in Casey and Crace containing Aboriginal scarred trees, important vistas, and other culturally significant components of local landscapes. When considered collectively, these sites can be viewed in a broader environmental context that considers Aboriginal heritage from a regional perspective, preventing smaller sites from being considered solely in isolation, potentially disconnected from their greater meanings and roles within the surrounding landscape.

**European History and Features**

Numerous features exist within the landscape of the ridgeline that attest to various phases of European land use and resource extraction. These have included the construction of the Wells Station Road; and evidence of land form changes due to mineral extraction and prospecting.

**Well Station Road**

A section of The Well Station Road remains at Gubur Dhaura, tending in an east-west direction across the southern end of the Red Hill Ridgeline. That portion of the road still surviving is described as a “variously gravelled single carriageway around 4 m wide, within a guttered, cut and filled corridor up to 13 m wide. The road reserve is ... 30.5 m wide.” The road is a remnant of nineteenth and early twentieth century land division within the Gungahlin district, and provides a physical and visual connection with other local heritage features such as Gungaderra homestead and Well Station Precinct. Gungaderra Homestead and Well Station Precinct are pertinent examples of patterns and evolution of European land settlement in what is now the ACT, after the Robertson Land Act of 1861 and the later the resumption of land for the Federal Capital Territory. It is reported as a “rare rural element in an increasingly urbanised environment.”

Officer reports that the Well Station Road is visible in the 1915 Federal Territory Map as an east-west tending road situated along a road reserve at the southern end of Red Hill’s ironstone outcrop, and its road cutting is thought to have been made by George ‘Navy’ more, a road ganger arriving in the district in 1898.

**Prospecting and Mining at Gubur Dhaura**

*Early Prospecting – Late nineteenth century*

Henry Gozzard took up portion 120, Parish of Goorooyarroo, County of Murray, in 1871, over which the Red Hill ridgeline partially lay. In around 1896 the ironstone on Gozzard’s property was mined for iron ore and although this venture was abandoned, this enabled the discovery of substantial pipeclay deposits apparently used by local residents for whitewashing houses. Small, shallow, open cut pits have been observed north of the main ironstone outcrop at the site, and these may attest to pipeclay extraction for local whitewashing.

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16 ibid, p. 11.
17 ibid.
18 ACT heritage Council 2002. ‘Australian Capital Territory, Proposed entry into an interim heritage places register for: Gungaderra Homestead Precinct.’ p. 3.
19 Officer, op. cit., p. 21.
20 ibid, p. 15.
21 ibid, p. 24.
Smith observed that a small gold strike in the Parish of Goorooyarroo was noted in 1917, but that gold was earlier reported in the Ginninderra district in 1898 within “a large ironstone formation, of a gossany character … As this carried gold in many places, the miners look upon it as an indication of a good lode beneath.”

Evidence for this phase of prospecting exists in the form of the ‘Clay Shaft,’ a rectangular pit once containing red clays, ironstone gravels, and white clays at greater depth (see Figure 3). It was later re-excavated in 1929 in an effort to test for the extent of white pipeclay in association with the needs of the Canberra Brickworks, and subsequently backfilled. This shaft is adjacent to the northern portion of Well Station Road, nearby the remnants of the ‘Open Cut Pit’ (see below). Another possible prospecting shaft exists on the main northern ironstone formation upon the ridgeline, in the form of a small square shaped depression.

Later Testing of the Pipeclay Deposit 1929

Dr W. G Woolnough, geologist, was commissioned to inspect the Red Hill ridgeline in 1929, for there was interest in the area from the Canberra Brickworks, looking for new sources of clay in order to produce pipes. In addition to documenting existing pits and excavations on Red Hill ridgeline, Woolnough recommended testing additional pipeclay deposits to ascertain the quality and extent of the material. He recorded:

One shaft has been sunk to test the deposit (called the “Ochre Shaft”), an old shaft (the “Clay Shaft” described above) has been cleaned out and made accessible, and a small open cut (the Open Cut) has been opened out, and some 50 tons of clay removed. In addition, a small pit (the “Clay Pit”) has been dug on the southern side of the road, to ascertain whether the clay deposit is continuous in that direction.

Evidence for this phase of prospecting includes the Clay Pit and the Open Cut which occur to the south of the Well Station Road (see Figure 3). The Clay Pit is a small, rectangular, shallow depression and once contained white clay and ironstone gravel. The open cut consists of a partly infilled excavation pit and associated working platforms and spoil heap. In addition to the clay pit, the Ochre shaft is located on the Red Hill ridge crest (see Figure 3), exemplified in the form of a shallow circular depression surrounded by extensive brownish yellow ochreous clay and ironstone gravels, and the remnant depression is most likely representative of the shaft entrance.

Later Test Pitting c. 1942

The Australian Iron and Steel Company lodged a mining lease over Red Hill in 1942. Evidence for this phase of prospecting are thought to be evidenced by six broad area excavation pits, located adjacent to the major ridge crest ironstone outcrops. The pattern of extraction and subsequent deposition is indicative of machine excavation such as that by a front mounted dozer blade, and as such these pits are different in form and technique from the shafts and shallow diggings documented for the late nineteenth century – not mentioned by Woolnough – post-date 1929. The pits are concentrated away from major

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22 1963: 5 cited in Officer, op. cit., p. 21.
23 ibid, p. 38.
24 ibid.
25 ibid, p. 39.
26 ibid, p. 21.
27 Australian Archives A6273/1;L292649 cited in Officer, op. cit., p. 40.
28 ibid, p. 40.
29 ibid.
30 ibid, p. 41-42.
31 ibid.
pipeclay deposits, and their proximity to major ironstone outcrops suggests that testing rather than extracting (for possible road gravels) was undertaken, although extraction for road base may have taken place to the south of Well Station Road within an identified additional possible gravel pit.32

REFERENCES


32 ibid, p. 43.
Figure 1
After Red Box Design 2010
Figure 2
After Navin Officer 2003
Figure 3
After Navin Officer 2003
Figure 4. Gubur Dhaura shown in ACTMapi