

**ARCHAEOLOGICAL INVENTORY SURVEY  
AND BOTANICAL SURVEY REPORT  
KAONOULU LIGHT INDUSTRIAL PROJECT  
KAONOULU AHUPUA`A, WAILUKU AND  
MAKAWAO DISTRICTS, MAUI ISLAND  
(TMK: 3-9-01: 16 AND 2-2-02: por. 15)**

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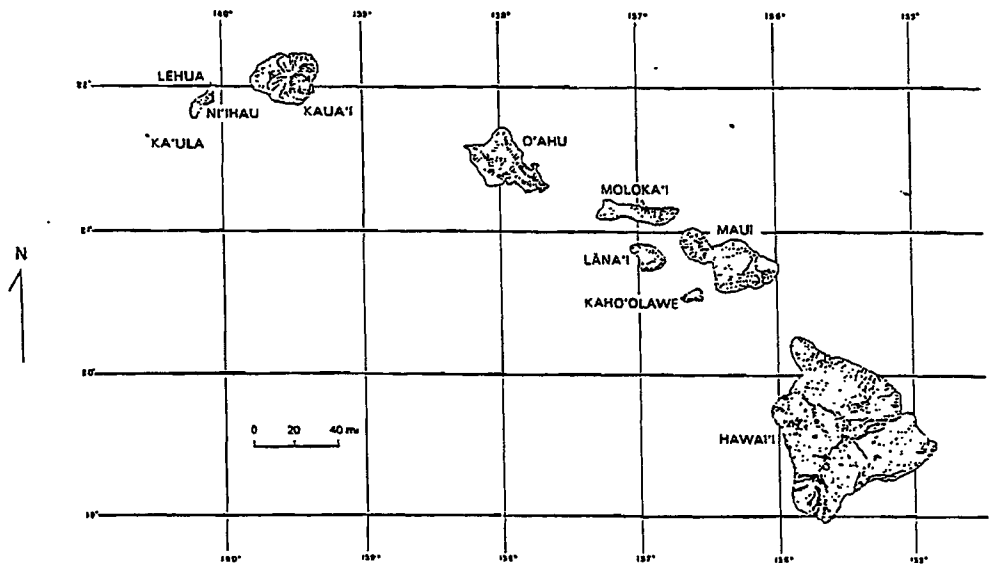
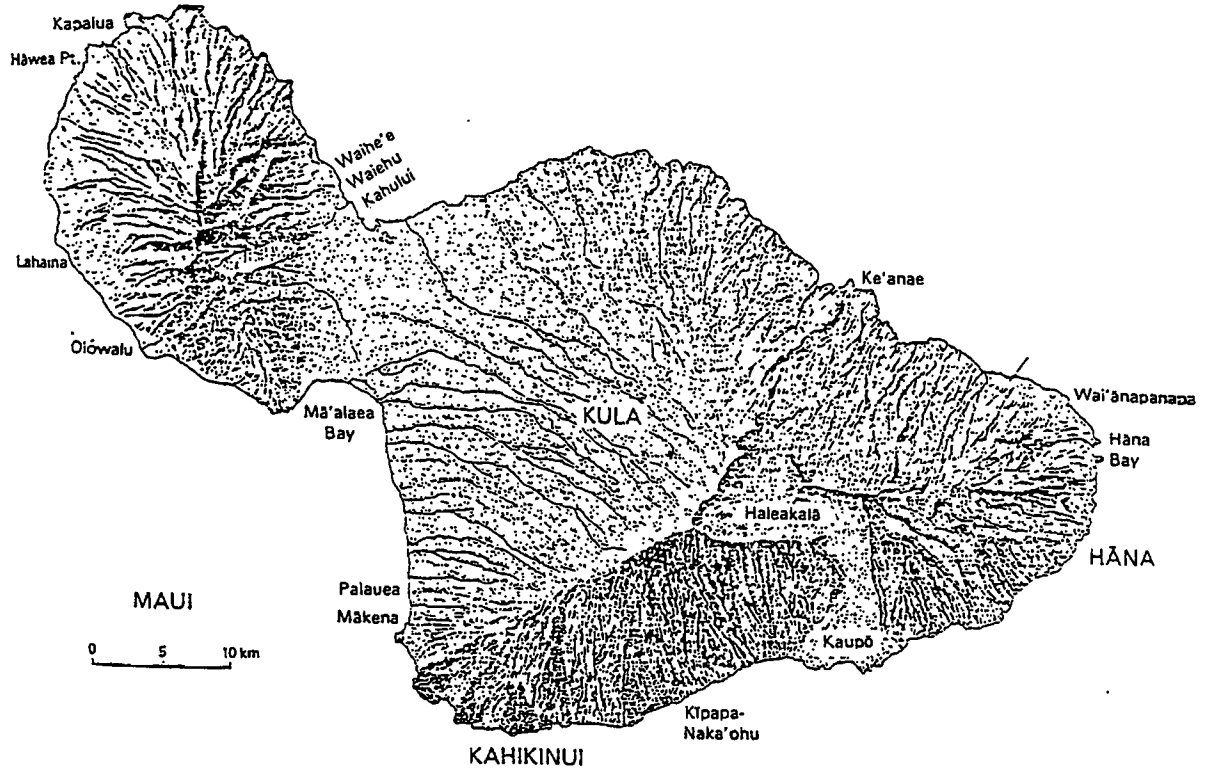
**BOTANICAL SURVEY  
David Paul**

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## ABSTRACT

An archaeological inventory survey and data recovery were performed on an 88 acre parcel of Kaonoulu Ranch land in Kihei, Maui, Hawaii (TMK 3-9-01: 16 and 2-2-02: por. 15), slated for development as the Ka Ono Ulu Light Industrial Project. The necessary fieldwork work was accomplished between late October, 1993 and January, 1994.

During the survey 21 sites were discovered, tested and described. Of the 21 sites, 20 of them received State Inventory of Historic Places (SIHP) numbers, from 50-10-3727 to 50-10-3746. All of these sites were evaluated and Site 3746, a petroglyph, was recommended for removal and preservation. No further archaeological work is recommended for the Ka Ono Ulu Light Industrial Project.

## TABLE OF CONTENTS

LIST OF MAPS, FIGURES AND PHOTOS.....	i
INTRODUCTION .....	1
THE SURVEY AREA AND NATURAL HISTORY.....	1
BACKGROUND HISTORICAL RESEARCH.....	3
Land Use and Settlement Patterns.....	3
ARCHAEOLOGICAL BACKGROUND RESEARCH .....	6
ARCHAEOLOGICAL FIELD METHODS.....	7
FIELD RESULTS.....	7
SURFACE FINDINGS .....	8
Sites 3727 - 3734.....	8
Stone Enclosures (Sites 3735 - 3736).....	9
Stone Alignments (Sites 3737, 3738 and 3739).....	9
Erosion Containment Wall System (Site 3740).....	9
Midden and Lithic Surface Scatter Sites (Sites 3741 - 3745)	10
Petroglyph (Site 3746).....	10
SUBSURFACE FINDINGS.....	10
DISCUSSION.....	12
RECOMMENDATIONS .....	13
REFERENCES .....	14
TABLES.....	17
MAPS.....	22
FIGURES .....	25
PHOTOGRAPHS .....	50
APPENDIX A.....	61
Site Descriptions .....	61
APPENDIX B.....	72
Botanical Survey, by David Paul.....	72

## LIST OF MAPS, FIGURES AND PHOTOGRAPHS

<b>MAP 1</b> - Topographic Map, U.S.G.S., Puu O Kali Quadrangle, Scale 1:24000,1983...	22
<b>MAP 2</b> - Tax Map, Zone 2, Section 2, Plat 02, State of Hawaii Tax Map Service.....	23
<b>MAP 3</b> - Site Map showing locations of Sites 3727--3746 (Map prepared by Warren S. Unemori Engineering, Inc., Wailuku).....	24
<b>FIGURE 1</b> - Site 3727 -- Plan view - Stone cairns #1a,#1b and #1c. ....	25
<b>FIGURE 2</b> - Site 3728 -- Plan view - Stone pile.....	26
<b>FIGURE 3</b> - Site 3728 -- Profile - East face of test unit #1, including stone feature.....	27
<b>FIGURE 4</b> - Site 3729 -- Plan view - Stone cairn .....	28
<b>FIGURE 5</b> - Site 3729 -- Profile - West face of test unit #1, including a portion of the stone cairn.....	29
<b>FIGURE 6</b> - Site 3730 -- Plan view - Stone cairn.....	30
<b>FIGURE 7</b> - Site 3731 -- Plan view - Stone cairn .....	31
<b>FIGURE 8</b> - Site 3732 -- Plan view - Stone cairn.....	32
<b>FIGURE 9</b> - Site 3733 -- Plan view - Stone cairn .....	33
<b>FIGURE 10</b> - Site 3734 -- Plan view - Stone pile.. .....	34
<b>FIGURE 11</b> - (no assigned number) -- Plan view of bulldozed terrace.....	35
<b>FIGURE 12</b> - Site 3735 -- Plan view - Enclosure #1.....	36
<b>FIGURE 13</b> - Site 3736 -- Plan view - Enclosure #2.....	37
<b>FIGURE 14</b> - Site 3737 -- Plan view - Alignment #1.....	38
<b>FIGURE 15</b> - Site 3738 -- Plan view - Alignment #2.....	39
<b>FIGURE 16</b> - Site 3739 -- Plan view - Alignment #3.....	40
<b>FIGURE 17</b> - Site 3740 -- Plan view - Erosion containment wall system.....	41
<b>FIGURE 18</b> - Site 3741 -- Plan view - Surface scatter #1.....	42
<b>FIGURE 19</b> - Site 3741 -- Plan view - Test unit #1 in surface scatter concentration....	43
<b>FIGURE 20</b> - Site 3742 -- Plan view - Surface scatter #2.....	44
<b>FIGURE 21</b> - Site 3743 -- Plan view - Surface scatter #3.....	45
<b>FIGURE 22</b> - Site 3744 -- Plan view - Surface scatter #4.....	46
<b>FIGURE 23</b> - Site 3744 -- Profile - West face of test unit #1.....	47
<b>FIGURE 24</b> - Site 3745 -- Plan view - Surface scatter #5.....	48
<b>FIGURE 25</b> - Site 3746 -- Petroglyph pecked into stone.....	49
<b>PHOTO 1</b> - View to the east or <i>mauka</i> across the southern boundary of the project area. Portion of site 3738 in foreground.....	50.
<b>PHOTO 2</b> - Large rock with drilled blasting hole to the north of site 3737.....	51
<b>PHOTO 3</b> - Site 3727 (Feature 1a) - vegetation removed prior to excavation. View to the northeast.....	52
<b>PHOTO 4</b> - Site 3728 - Vegetation removed, excavation completed. View to the northeast.....	53

**PHOTO 5** - Site 3729 - Vegetation removed prior to excavation.  
View to the northwest.....54

**PHOTO 6** - Site 3729 - Vegetation removed, excavation completed.  
View to the east or *mauka*.....55

**PHOTO 7** - Site 3735 - Vegetation removed, excavation completed.  
View to the south. Note cattle trail in foreground.....56

**PHOTO 8** - Site 3736 -Vegetation removed, prior to excavation. View to the north....57

**PHOTO 9** - Site 3740 - Portion of feature B. View to the east.....58

**PHOTO 10** - Site 3744 - Excavation in process. View to the east or *mauka* .....59

**PHOTO 11** - Site 3746 - General view of northern face of petroglyph.....60

## INTRODUCTION

In early August 1993, we were contacted by Michael T. Munekiyo, of Michael T. Munekiyo Consulting, Inc., Wailuku, Maui, Hawaii, regarding the undertaking of a botanical survey and an archaeological inventory survey for an 88 acre parcel of Kaonoulu Ranch land in Kihei, Maui, Hawaii. Both studies are required for the State Land Use Commission boundary amendment for the subject parcel, with the archaeological inventory survey also being required by the State Historical Preservation Division for permit purposes.

We received maps and other relevant data on August 16, 1993, and submitted our proposal for the work on August 17, 1993. That proposal was accepted and an initial strategy survey was performed in late October. Fieldwork for the botanical survey began November 6, with archaeological fieldwork being initiated shortly thereafter. Fieldwork for the inventory survey and data recovery continued into mid-January, 1994.

The parcel has been used for cattle grazing since the late 19th century, leaving the land relatively open to visual observation of any existing surface cultural features. Our survey included a pedestrian surface survey, noting potential sites and other interesting features. Subsurface testing was performed at features where enough accumulated soil remained for testing. Eroded lava bedrock is visible over much of the project surface area. Thin, eroded soils predominate.

Features were mapped and described in field notes. Photo-documentation of features and artifacts was undertaken where appropriate. Artifacts were collected for analysis and description in the report.

## THE SURVEY AREA AND NATURAL HISTORY

The survey parcel is located in the *ahupua'a* of Kaonoulu, with the boundary between Makawao and Wailuku Districts dividing the parcel into two triangular portions (Map 1). It is further identified on TMK 3-9-01: 16 and TMK 2-2-02: por. 15 (Map 2). It is c. 88 acres in land area. The parcel is part of the c. 5966 acre Kaonoulu Ranch, owned by the Rice family.

The parcel is bounded on the north by a cattle fence, an existing light-industrial development, and the Waiakoa Homesteads. The western border is formed by an

additional cattle fence and Pi'ilani Highway. Kulanihakoi Gulch borders Ranch land to the south, while undeveloped land borders the eastern boundary of the study area.

Geologically, most of the Kihei region of Maui is located on eroded, *late stage lavas*, and a narrow beach, coastal strip, which is composed of alluvium, dune sand and lagoonal deposits (University of Hawaii, 1983, pp. 38-42). Major former volcanic activity in the region largely accounts for the rugged, exposed outcropping of lava rock typical of the landscape.

Elevations on the parcel range from c. 30 feet AMSL along the low, western border to more than 125 feet AMSL upslope toward Haleakala (Map 3). The terrain is fairly rugged, exhibiting bedrock outcroppings, loose eroded bedrock boulders and thin soil overlaying bedrock. Some of the eroded bedrock boulders are quite large, a meter or more in diameter, and weigh hundreds of pounds. Soils tend to be thin and eroded. Observed soils represent two main series: *Alae sandy loam* and *Waiakoa stony silty clay loam* (Foote et al. 1972, pp. 26, 108 and 125-27).

Although the Kaonoulu Ranch lands extend into at least two physiographic zones, the study parcel portion falls within the *kiawe, lowland-shrubs zone*, an area of low annual rainfall, usually less than 20 inches (University of Hawaii, 1983, pp. 55-58). It lies between the coastal beach zone and the inland zone. The *kiawe, lowland-shrubs zone* is notably dry and somewhat inhospitable (Photo #1).

The study area is primarily vegetated by drought resistant alien grass and tree species. According to Henry Rice, current manager of Kaonoulu Ranch, the predominant alien grass is identified as "Buffel T44". The property exhibits signs of erosion where the vegetation cover is sparse. A small gulch (c. 3-6 m. deep) traverses the northern half of the Ranch land, trending toward the southwest. A rough gravel road runs along the western boundary of the study area. A modern corral associated with ranching operations is located in the southwestern part of the study area. A wire fence crosses the study area near the eastern boundary. This fence follows a bearing of 164 degrees. The Central Maui Transmission Waterline Easement #1, placed during the late 1960's, cuts across the subject property from the northeast to the southwest (personal communication, Henry Rice, 1994).

The exposed and dry nature of the parcel is reflected in the relative paucity of floral species present. David Paul's "Botanical Survey" of this parcel, (see Appendix B), categorizes it as "*lowland dry grassland*", with the dominant understory species being buffelgrass (*Cenchrus ciliaris*). The overstory is varied, but strongly exhibits *kiawe* (*Prosopis pallida*) and klu (*Acacia farnesiana*). In accounting for the simple floral composition on the parcel, Paul says (Appendix B, p. 2):

*"The simple composition of the vegetation on the site is presently due to the lack of moisture, grazing by cattle and feral animals, and an occasional fire. The*



*greatest concentration of species is located along the road on the makai side of the land where there has been recent disturbance."*

The relatively sparse ground cover on parts of the study area and extensive areas of exposed bedrock allowed easier access for the pedestrian survey.

## **BACKGROUND HISTORICAL RESEARCH**

### **Historic land use and settlement patterns**

The subject parcel is located near the western border of the 5966.72 acre Kaonoulu Ranch (TMK 3-9-01: 16 and TMK 2-2-02: 15). The Ranch is made up of portions of three *ahupua'a*: Kaonoulu, Alea, and Koheo. According to Henry Rice (personal communication, 1994) the Kaonoulu Ranch is nearly 9000 acres in its entirety.

Nearly the entire *ahupua'a* of Kaonoulu was included in Land Commission Award 3237, to H. Hewahewa, and consisted of 5715 acres. Land Commission Award 8452: 20 consisted of a portion of the *ahupua'a* of Alea to A. Keohokaole, identified as Alea 3 of an unknown size. Land Commission Award 8452: 19 gave title to a portion of the *ahupua'a* of Koheo, again to A. Keohokaole (Granted June 8, 1858, from Kamehameha IV). The acreage was not specified in the Land Commission Award listings. However, the three awards make up 5966.72 acres of the Ranch shown on TMK 2-2-02: 15. In the period between 1860 and 1870, the Ranch lands were obtained from A. Keohokaole, by a Chinese immigrant, Young Hee. In the 1890's Young Hee had to return to China because of personal family problems, and decided to sell his Maui land interests. The Ranch lands were then acquired by William H. Cornwall.

Harold W. Rice purchased the property from the Cornwall family in 1916. An article in **THE MAUI NEWS**, dated August 25, 1916, states that Mr. Rice became the largest individual landowner on Maui with the purchase of the Hee property. It also goes on to say that Mr. Rice resigned as the assistant manager of Maui Agricultural Company, where he had worked for five years, to devote himself full-time to his ranching activities. In 1918 he was elected senator from Maui to the territorial legislature, and served in that capacity for many terms.

Another **THE MAUI NEWS** article, December 4, 1926, mentions the success of Kaonoulu Ranch:

*"Kaonoulu Ranch, the property of Senator Harold Rice, is a combination of five different ranch properties which were known as the Robinson Ranch, the Enos Ranch, the Frank Correa Ranch, part of the Freitas Ranch and the old Cornwall Ranch. It is one of the largest properties of its kind in the whole territory and from the outset has*

*met with the greatest success. Cattle from its pastures, horses from its breed farm and hogs from its fattening lot are eagerly sought on the markets of the territory.*

*Kaonoulu Ranch is a business concern pure and simple and Senator Rice gives it his personal supervision throughout the entire year. The ranch property extends over a wide area and there is not a month in the year in which the genial owner does not visit every portion of the property to keep in touch with the various phases of the industry of cattle raising."*

The article continues with a discussion of the Senator's love for polo, and for selecting and training colts for playing the game. It says:

*"Senator Rice is of the firm belief that this will result in Maui having a string of ponies in the not distant future that will equal anything anywhere in the world and go a long way towards perpetuating the name of the Valley Isle in polo circles the world over."*

Always on the lookout for ways to improve the products of the Ranch, Senator Rice began shipping beef, which had been fattened on pigeon peas, to market in Honolulu. **THE MAUI NEWS** reports (August 3, 1927):

*"A unique feature of Senator Rice's new enterprise is the fact that he will do all his slaughtering at his Maui plant, shipping the dressed beef to Honolulu in cold storage.*

*'It has been my experience that livestock is frequently badly bruised when shipped from the other islands', said Rice, 'and this results in an inferior grade of beef.*

*'I believe we will obtain much better results by slaughtering on Maui and shipping the dressed beef.'*

*Senator Rice's cattle ranch on Maui is one of the showplaces of that island. All his stock is finished off on pigeon peas before being sent to market."*

Kaonoulu Ranch was purchased from Senator Rice by the Kaonoulu Ranch Co., Ltd. in 1956. In 1982, this company entered into a Limited Partnership.

In her discussion of land use in the upper and lower Kula areas, Wong-Smith (in, Donham, April, 1990, Appendix B, p. B-6) points out that by the 1880's, lower Kula sections had largely become pasture land for the booming cattle industry. Large sections of Crown land were leased for grazing acreage. By 1918, Harold Rice was purchasing large tracts of land from Kula farmers for the purpose of establishing a ranch (See above).

During the latter half of the 19th century, cattle ranching became well-established in the Kihei region. During World War II, Kihei was utilized in various military training programs. Many of the military activities imposed physical changes on the land. Firing ranges for small and large-bore weapons were developed; areas for "mock" combat training exercises were constructed; and mechanized combat equipment was used to practice beach assault landings (Oral history from Jack Crouse, 1993).

The present study parcel was used by the military during World War II. The Army, Navy and Marines engaged in practice maneuvers on the property and military machinery was used in modifying the property. Dummy pill-boxes also were built on the study parcel, as well as in the Wailea area, which was a practice location for the Iwo Jima landing.

Since World War II, the general Kihei region has undergone rapid commercial and residential development. The Maui Lu Resort had been part of the Ranch and was purchased by a Canadian named Gibson. Prior to its development, the property on which it is located, had been the base for a large piggery which extended *mauka* to what is now Pi'ilani Highway.

## ARCHAEOLOGICAL BACKGROUND RESEARCH

### Precontact Settlement Patterns

Previous researchers have categorized this region of Maui as the "*intermediate, or barren zone*" (Cox, 1976, Cordy 1977). It is the area which stretches from the *coastal zone*, where the exploitation of marine resources was the prime economic activity, to the *inland zone*, where habitation and agricultural activity dominated. For this reason it seems probable that the region was used intermittently by humans for subsistence and perhaps some agricultural activities. Even this intermittent usage does not appear to have taken place until late-prehistoric times. Donham suggests reexamining this model, in light of her findings of a dry land agricultural terrace in Phase I of the Pi'ilani Residential Subdivision survey, and adding a *coastal perimeter zone* in some areas (July 1989, p. 10). Other research tends to support this idea (Corey and Athens, 1988; Dobyns, 1988), and implies even greater usage inland of the *coastal zone* than initially suspected. However, it is still likely that the *intermediate or barren zone* was an area to be transited between the *coastal zone*, with its marine resources, and the inhabited *inland zone*, and was only used in late precontact times when population pressures demanded.

No specific archaeological work has been conducted on the *ahupua'a* of Kaonoulu, but the neighboring Waiohuli and Keokea *ahupua'a* have undergone some research (Donham July 1989, April 1990). However, the gulch to the south of the subject parcel (Kulanihakoi Gulch) is a significant geological feature which could well have served as a corridor leading inland in precontact times. Mr. Rice indicated that there were petroglyphs in the gulch at higher elevations which would tend to corroborate this notion. We did not confirm this information however, as our activities were confined to the 88 acre study parcel.

Consultation with the State Historic Preservation Division and archaeological literature indicated the probability of historic and prehistoric sites for this parcel. Historic sites would likely include ranching activity and World War II military use. As postulated by earlier researchers, prehistoric sites indicating transient and intermittent use are found in this region of Kihei and usually reflect subsistence activities involved with exploitation of coastal marine resources ( Kirch, 1971; Cordy, 1977, 1988 ).

### **Summary of previous archaeological research**

Early work in Kihei was done by Winslow Walker, in his 1931 archaeological survey of Maui. In recent years, numbers of archaeological surveys have been conducted in the same general area of Kihei, where the present study parcel is located. Examples (with no effort at a complete listing of such works) include: Cox (1976), Cordy (1977, 1988), Cordy and Athens (1988), Dobyms (1988), Donham (July 1989, April 1990), Fredericksen et al. (1990, 1992, 1993), Kennedy (1986), Kirch (1971) and Walton (1972). All of these works are in general agreement regarding land use and settlement patterns in the Kihei region.

Kennedy's reconnaissance survey for the Silversword Golf Course concluded in a brief letter report that no archaeological features were found (1986). This property is located about 1.5 kilometers south of the present study parcel.

Donham (July 1989, April 1990) incrementally completed two surveys on a 188 acre parcel nearby the subject parcel at TMK 2-2-02: por. 42. Phase I (114 acres) extends northward from Lipoa Street to the southern border of the subject parcel, on the *makai* side of Pi'ilani Highway. Phase II (74 acres) extends southward from Lipoa Street. During the surveys, 21 archaeological sites were discovered, relocated from earlier surveys and verified as to type of site, e.g., alignment, temporary shelter, assemblage, enclosure, etc. (Ibid., July 1989, ii; April 1990, p. 11).

A rock shelter on the *makai* side of Pi'ilani Highway, directly across from the Silversword Golf Course, located on the grounds of Lokelani Intermediate School, was excavated by Xamanek Researches in July, 1993. A considerable amount of shell midden and over 100 pieces of volcanic glass were recovered during the archaeological inventory survey and data recovery project. A wood-charcoal sample from one of three hearths yielded a date of 279+/- 120 RCYBP--AD 1560-1800 (Fredericksen et. al., 1993, p. 9).

Radiometric dates obtained by Schilt and Dobyms (1980, p. 46) from the Wailea area to the south of the study parcel also fall within relatively late prehistoric times, between AD 1550 and 1750. These dates are consistent with the hypothesis that there was limited land usage in Kihei until overall population density in the late-prehistoric, early-contact period prompted intermittent utilization of the scarce resources present there.

## **ARCHAEOLOGICAL FIELD METHODS**

Field work for the archaeological inventory survey was conducted by four to five research personnel on various days between November 5 and December 12, 1993. Archaeological data recovery was carried out by two to four crew members between January 2 and January 10, 1994. The project directors were Walter M. Fredericksen (Ph.D.abd) and Demaris L. Fredericksen (Ph.D.abd), and the Field Director was Erik M. Fredericksen (M.A.).

The archaeological inventory survey consisted of two parts. A pedestrian survey covering 100 percent of the property was first conducted, beginning at the northern portion of the eighty-eight acre study area. Field members were spaced at 5.0 meter intervals and pedestrian sweeps were oriented in a north-south direction. The southernmost point of each sweep was marked with flagging tape in order to maintain uniform spacing. As archaeological features were encountered, they were flagged by crew members. These features were then given temporary site numbers and plotted on a topographic map.

Field inspection of located sites formed the second portion of the archaeological inventory survey. When feasible, sites were cleared of vegetation. All sites were visually inspected, measured, mapped, and photographed. Written, descriptive notes were recorded for each of the 21 sites found in the project area. All sites were mapped with a hand-held digital compass and either metric tape or hand-held metric distance meters. Evaluations of located archaeological sites were conducted during the field inspection phase of the inventory survey. Of the 21 sites identified, 20 were given permanent State Inventory of Historic Places site numbers (Map 3).

Subsurface testing was undertaken on eight of the 20 numbered sites. Selection of sites for data recovery work was based on three criteria: 1) size and appearance; 2) presence or absence of soil; 3) presence or absence of surface cultural remains. A total of ten test units were manually excavated. Of these test units, eight were 0.5 x 1.0 meter and two were 1.0 x 1.0 meter square. In all cases, test units were excavated to bedrock or decayed bedrock. One hundred percent of the excavated soil was screened through 1/8" mesh hardware cloth. All material culture remains found in the screening process were recovered for laboratory analysis.

## **FIELD RESULTS**

During the course of the archaeological inventory survey, twenty-one sites were located. Of these, twenty were assigned permanent State Inventory of Historic Places (SIHP) numbers--50-10-3727 to 50-10-3746. A recent bulldozed rock terrace associated

with construction activity for Central Maui Transmission Waterline Easement #1 was not given a SIHP number.

In general, most archaeological sites on this property are located on the southern half of the project. Portions of the northern Ranch property appear to have been bulldozed many years ago. Blasting has also taken place on various portions of the project area (Photo #2). Other surface disturbance occurred when the Central Maui Transmission Waterline #1 was placed across the property in the late 1960's (Henry Rice, personal communication 1994). However, despite a fair amount of surface disturbance, it is apparent that the subject property has been utilized by humans in both pre-contact and historic times.

The twenty numbered sites consisted of one multiple stone feature complex, two individual stone piles, and five individual cairns, two enclosures, three separate, parallel alignments, an erosion containment wall system, five midden and lithic surface scatters, and a petroglyph. A brief discussion of the twenty numbered sites follows. Portable remains (except shell) were collected on the surface around sites where present. Table 1 summarizes these surface collections made in the project area. See Appendix A for detailed site descriptions.

## **SURFACE FINDINGS**

### **Sites 3727 to 3734 (Figures 1-10; Photos 3-6)**

A total of eight stone pile and cairn sites were found. They are located between 51 to 113 feet AMSL to the south of the gulch that traverses the study area (Map 3). Only Site 3727 contains multiple components. This site consists of a low, elongated stone pile resting on soil and two smaller, low stone piles resting partially on bedrock. Sites 3728 to 3734 consist of single components.

Of the above mentioned sites, only Sites 3727 (Feature A), 3728, and 3729 rested on soil. These sites consist of larger (i.e. over 80 cm. thickness) stone piles. The remaining components of Sites 3730 to 3734 are smaller and/or placed directly on bedrock, or very thin soil overlying bedrock.

No portable cultural remains were found directly associated with any of the components of these sites. However, portable remains were located on the surface in the vicinity (c. 20 m.) of Sites 3727, 3728, 3729, and 3732 (see Table 1). Sites 3727 (Feature A), 3728, and 3729 were initially thought to be possible burials. They were chosen for data recovery work due to their components' size, location on soil, and the presence of material culture remains in the general vicinity.

### **Stone Enclosure Sites 3735 and 3736 (Figures 12, 13; Photos 7, 8)**

The two stone enclosures are situated in the southern portion of the study area (Map 3). Both sites are located on promontories at approximately 60 feet AMSL, c. 100 meters apart. Site 3735 is a roughly constructed mushroom-shaped feature c. 35-51 cm. in height, with an inside diameter of c. 1.5 meters. Site 3736 is less well preserved than 3735. It is an oval-shaped enclosure c. 20 to 45 cm. in height, with an inside diameter of 1.5 to 1.9 meters. Both structures are built with angular basalt cobbles which exhibit only minor weathering. Site 3735 contains a few cobbles that appear to have been broken and scarred in the past by heavy equipment.

No portable remains were found directly associated with these structures. However, two waterworn stones and a can opener key were found in the vicinity of site 3735 (Table 1). Both sites were selected for subsurface testing.

### **Stone Alignment Sites 3737, 3738, and 3739 (Figures 14-16; Photo 1)**

Three separate sets of parallel alignments were located near the southern boundary of the study area (Map 3). Each of the sites is roughly oriented in an east-west direction. These sites rest primarily on bedrock. Both Sites 3737 and 3738 are constructed with large basalt stones c. 40-90 cm. in diameter and placed in two parallel alignments c. 6 meters apart. Site 3738 is on the edge of Kulanihako'i Gulch and Site 3737 is some 45 meters to the north. Site 3739 is on a gently sloping bank of the gulch, 75 meters west of site 3738. Site 3739 is much smaller than the other two sites.

These three sets of parallel alignments appear to be associated with military maneuvers that were conducted in the Kihei area. Several large boulders in these parallel alignments exhibit weathered heavy equipment scars.

### **Erosion Containment Wall System Site 3740 (Figure 17; Photo 9)**

This site is located along the edges of the central portion of the small gulch that crosses the project area (Map 3). Site 3740 consists of two comparatively short wall segments (c. 11 m. long) on the west bank of the gulch, and a longer series of wall segments (total c. 44 m.) on the east bank. Some sections of the eastern walls have collapsed. Site 3740 walls are constructed from the dense "blue rock" which is found nearby on the property. Some machinery generated scars are visible on a few of the stones used in the construction of these walls. In addition, some metal wire was found in a wall segment on the eastern side of the gulch. These walls are situated in areas that have been impacted by erosion in the past.

### **Midden and Lithic Surface Scatter Sites 3741 to 3745 (Figures 18-24; Photo 10)**

As noted earlier in this report, much of the study area has experienced significant amounts of erosion. The five midden and lithic surface scatter sites are all in areas that

have been impacted by both water and to a lesser extent, wind erosion. In general, the soil is quite thin and bedrock is exposed in many areas. These sites are more common on the lower western portion of the project area (Map 3). One site, Site 3745 lies on the *mauka*, or eastern portion of the study area at c. 105 feet AMSL. With the exception of Site 3742, all of the surface scatter sites contained both shell midden and worked and/or utilized lithic materials. Site 3742 contained a low concentration of shell midden and three waterworn stones.

Of the five sites, Sites 3741, 3744 and 3745 were chosen for data recovery work. These three sites are in areas that possess soil deposits sufficient for subsurface testing. In addition, these sites contained surface concentrations of midden and lithic materials. The surface of Site 3744 also contained a waste flake of volcanic glass, and a volcanic glass core.

#### **Petroglyph Site 3746 (Figure 25; Photo 11)**

Site 3746 is located at c. 99 feet AMSL, c. 36 meters west of the fence line that is placed near the eastern border of the study area (Map 3). The petroglyph is a figure of a man, and is pecked into a large, weathered basalt boulder, c. 1.10 m. in height by 91 cm. in width, by 85 cm. in thickness.

This site is located in an area of shallow soil and weathered bedrock. It is near a promontory. Inspection of the general vicinity revealed no other material culture remains. This petroglyph does not appear to be associated with any other site in the study area. The boulder on which it is carved does not appear to have been moved in historic times by heavy machinery, as there are no machinery scars on it. While it could be a trail marker, there do not appear to be any intact remnants of trails in the area of the petroglyph.

#### **SUBSURFACE FINDINGS**

In all, ten test unit excavations were placed in eight sites. Eight of the test units were 0.5 x 1.0 meter and two were 1.0 x 1.0 meter square. One meter square units were placed in Sites 3728 and 3741. All units were excavated using 10 cm. levels. One hundred percent of excavated soil was sifted through 1/8" screen. Subsurface investigation was utilized in order to try to assess the age and function of the tested sites.

These sites include two stone piles and a cairn (Sites 3727 - Feature A, 3728, and 3729), both enclosures (Sites 3735 and 3736), and three of the midden and lithic surface scatters (Sites 3741, 3744, and 3745). All test units were excavated to bedrock or decayed bedrock. Subsurface test results are summarized in Table 2.



In general, soil deposits excavated in the test units were thin, with bedrock or decayed bedrock encountered at c. 14 to 32 cm. below surface. Stratigraphy consisted of two main soil layers.

Layer I was typically the thickest stratum, ranging from 12 to 21 cm. This soil is reddish brown in color (5 YR 4-5/4), with a compact, fine-grained texture and a high clay content. When present, cultural material was located in the top 10 cm. of Layer I.

Layer II consists of a course-grained yellowish-red soil (5 YR 4/6), with small pieces of weathered bedrock. In all cases, this stratum yielded no cultural material remains.

Sites 3727 (Feature A), 3728, and 3729 yielded no cultural material remains. Portions of the stone piles and cairns were dismantled and test units were placed into the soil under cleared sections of these components. Sites 3727 (Feature A), 3728, and 3729 contained both Layers I and II. Soil under the stone components was compact and undisturbed at these sites.

Test units placed in both enclosures (Sites 3735 and 3736) were shallow and yielded no cultural material. The soil layers appeared undisturbed and intact. Layer I was present in both excavations and c. 6 to 9 cm. thick. Layer II was c. 3 to 5 cm. thick. No profiles were drawn.

A total of five test units were placed in the surface scatters. Layer I in both Sites 3741 and 3744 contained portable remains. In Test Unit #1 at Site 3745, Layer I was sterile.

At Site 3741, eight species of marine shellfish were recovered from Test Unit #1 (1.0 x 1.0 meter) and two species from Test Unit #2 (0.5 x 1.0 meter). Test Unit #1 also contained a utilized basalt flake, while Test Unit #2 contained a waterworn stone and a piece of coral. No materials suitable for radiocarbon analysis were discovered. In both test units, portable remains were not present below the upper 10 cm. of Layer I. It is important to note that the upper 10 cm. of Layer I was less compact and appears to have been churned by cattle activity. While cattle had not been on the property for about a month prior to our survey, abundant hoof prints and dried scat were visible at these sites.

Layer II was encountered at about 13 to 15 cm. below surface in both test units. This stratum was sterile.

At Site 3744, stratigraphy was similar to that of 3741. However, soil deposits were deeper. Two test units, each 0.5 x 1.0 meter, were excavated. Portable remains were recovered from both subsurface tests. Layer I was 14 to 22 cm. thick. Only two species of marine shellfish were recovered from Test Unit #1, while Test Unit #2 yielded none. However, Test Unit #1 yielded an unworked basalt flake, a broken waterworn stone, and two pieces of coral. Test Unit #2 contained three unworked basalt flakes, a

waterworn stone, and five pieces of coral. No materials suitable for radiocarbon dating were located. Only the upper 10 cm. of Layer I contained material cultural remains. Once again, this portion of Layer I appears to have been churned by cattle activity.

Both Sites 3741 and 3744 have subsurface deposits containing portable remains. However, at both sites, only the upper 10 cm. of Layer I contains any cultural material. It appears likely that this portion of Layer I has been churned by cattle crossing both site areas repeatedly over the years.

## DISCUSSION

Archaeological investigation indicates that portions of the study area have been utilized and/or modified by humans in the past. Former human activities seem to fall into three general categories including indigenous use, military use, and ranching use. Table 3 summarizes site function and probable age assessment.

Indigenous land use appears to have been of an intermittent nature. As noted earlier, the study area is in a marginal environmental location in Kihei. While no suitable samples for radiocarbon analysis were discovered at any of the archaeological sites, it is quite probable that indigenous land use occurred during the late precontact to early post-contact period. This was most likely temporary use, stimulated by overall increases in population density during this time period.

While no direct evidence of past indigenous agricultural activity was encountered on this dry parcel of Ranch land, it is possible that some of the stone features at Sites 3727, 3728, and 3734 are remnants of dry land agriculture. However, as noted earlier, portions of the project area have been disturbed and modified in historic times by military, and ranch activities. In addition, construction work in modern times associated with the Central Maui Transmission Waterline Easement #1 may have impacted archaeological features from the study area. As noted earlier, this water transmission line crosses the property from northeast to southwest. This construction corridor may have effected portions of the project area near Sites 3727, 3728, 3734, 3735 and 3736.

Although the project area has been disturbed by bulldozing, grubbing, and blasting activities, it is apparent that Hawaiians utilized portions of the property in the past. This land use was most likely temporary, based upon the exploitation of coastal marine resources. Two surface scatters, Sites 3741 and 3744, provide the strongest evidence for this land use. The three other midden and lithic surface scatters also indicate marine resource exploitation. In addition, the lack of any clearly defined cultural layer in tested areas also suggests intermittent, rather than permanent use for the project area.

While the five surface scatter sites (3741 to 3745) indicate temporary indigenous use, only one possible habitation shelter (Site 3736) was located. The enclosure at Site

C

C

- B. Association with the lives of persons important to the history of a given area.
- C. Site embodies distinctive architectural achievements; represents the work of a master; or possesses high artistic value.
- D. Site has or is likely to yield important information about the history or prehistory of an area.
- E. Site is perceived by a given ethnic community as having traditional cultural value.

Based on archaeological inventory survey and subsurface testing results, no further archaeological work is recommended for sites 3727 to 3745. While these sites fall under Criterion "D" of the NRHP, they are no longer considered significant for their information content.

However, the petroglyph (Site 3746), while falling under Criterion "D" still requires additional attention. It can also be classified under Criterion "E", as possessing a traditional art form. As such, it has a cultural value that exceeds the basic information inherent in the form and style of the rendering. It is recommended that the petroglyph, which is on a boulder c. 1 meter in diameter, be moved to a more secure location. It does not appear that the boulder would fracture upon being moved, but caution should be taken not to mar the petroglyph or boulder with machinery. Some initial discussions have been undertaken with the Maui Historical Society about accepting it for display on their grounds. However, it might be more appropriate for Site 3746 to remain on display in a secure location within the *ahupua'a* of Kaonoulu, perhaps within the landscaping of Kaonoulu Light Industrial project. This possibility has not been pursued to date.

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**TABLE 1**

**SUMMARY OF SURFACE COLLECTIONS**

**Site #3727 (in vicinity)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
possible basalt core	575.0	107.6 x 89.2 x 52.5
worked basalt flake	31.1	57.6 x 37.7 x 13.6
waterworn rock	95.3	65.3 x 43.1 x 23.6

**Site #3728 (in vicinity)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
waterworn rock	275.0	82.3 x 70.0 x 35.0

**Site #3729 (in vicinity)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
utilized basalt flake	132.6	88.7 x 29.5 x 48.7
possible basalt core	1150.0	131.5 x 93.3 x 95.0
waterworn rock	317.1	83.9 x 42.7 x 66.3

**Site #3732 (in vicinity)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
coral chunk	235.2	150.2 x 133.4 x 141.7

**Site #3735 (in vicinity)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
waterworn rock	209.0	63.8 x 58.5 x 44.8
waterworn rock	334.4	86.2 x 52.4 x 50.5
metal key (ie. opening corned beef can)	14.0	75.9 x 30.9 x 6.0

**Site #3737**

Portable Remains	Weight (gm.)	L x W x T (mm.)
basalt core	1160.8	120.6 x 101.3 x 68.0
waterworn hammerstone	1837.1	143.0 x 112.8 x 76.5
waterworn rock	195.2	70.5 x 48.7 x 45.8
coral chunk	93.6	77.5 x 41.6 x 50.7
lead slug	11.6	21.5 x 11.3 x 11.0

**Site #3738**

Portable Remains	Weight (gm.)	L x W x T (mm.)
utilized cobble	415.1	152.0 x 121.4 x 63.2

**Site #3741**

Portable Remains	Weight (gm.)	L x W x T (mm.)
unworked basalt flake	59.6	65.7 x 61.5 x 18.2
unworked basalt flake	210.2	97.1 x 60.4 x 31.5

**Site #3741 (cont.)**

unworked basalt flake	17.1	33.4 x 33.0 x 9.8
waterworn rock	225.2	107.0 x 63.3 x 32.7
waterworn rock	260.3	77.5 x 60.0 x 44.5
waterworn rock	130.6	63.0 x 57.5 x 28.5
waterworn rock	325.1	10.9 x 6.5 x 3.7
coral piece	6.2	36.1 x 18.5 x 16.1
coral piece	2.1	32.3 x 23.0 x 15.7

**Site #3742**

Portable Remains	Weight (gm.)	L x W x T (mm.)
unworked basalt flake	35.1	49.3 x 30.2 x 17.6
waterworn rock	38.9	52.6 x 27.2 x 20.8
waterworn rock	76.4	51.5 x 40.1 x 24.8
waterworn rock	98.1	62.6 x 50.6 x 21.2
coral chunk	300.5	91.2 x 87.2 x 75.2
coral piece	7.9	40.2 x 28.4 x 13.4
coral piece	6.4	35.2 x 21.8 x 16.0
coral piece	8.8	43.0 x 31.5 x 14.2
coral piece	10.1	42.0 x 28.2 x 20.3

#### Site #3743

Portable Remains	Weight (gm.)	L x W x T (mm.)
basalt core #1	250.0	74.3 x 58.3 x 49.7
basalt core #2	225.2	81.0 x 76.1 x 31.4
unworked basalt flake	700.8	135.3 x 103.1 x 40.9
unworked basalt flake	55.3	35.0 x 16.2 x 6.8
waterworn rock	525.0	102.5 x 64.5 x 57.5
waterworn rock	121.7	68.8 x 46.0 x 26.0
waterworn rock	63.5	39.2 x 17.3 x 14.2
waterworn rock	135.2	70.5 x 42.2 x 30.4
coral chunk	108.8	68.5 x 39.9 x 63.5
coral piece	2.8	23.0 x 16.8 x 12.2
coral piece	3.9	21.0 x 18.5 x 13.4
coral piece	3.8	24.3 x 19.1 x 12.1

#### Site #3744

Portable Remains	Weight (gm.)	L x W x T (mm.)
utilized basalt flake #1	4.9	27.3 x 22.9 x 5.1
unworked basalt flake	9.2	45.5 x 25.9 x 10.8
unworked basalt flake	12.2	44.2 x 28.1 x 8.4
basalt core	300.9	89.6 x 67.1 x 54.0
possible grinding stone	350.2	96.0 x 47.6 x 55.2
waterworn rock	82.1	61.3 x 40.1 x 28.6
coral chunk	28.8	59.4 x 44.5 x 24.8
coral piece	1.4	22.0 x 16.9 x 9.5
volcanic glass flake	.2	11.9 x 9.6 x 3.2
volcanic glass core	1.4	13.0 x 11.3 x 10.0

#### Site #3745

Portable Remains	Weight (gm.)	L x W x T (mm.)
unworked basalt flake	24.2	31.2 x 26.0 x 9.6
unworked basalt flake	28.6	35.6 x 23.2 x 13.4
unworked basalt flake	32.1	33.1 x 19.8 x 15.2
possible basalt core	800.9	107.9 x 76.5 x 78.1
waterworn rock	132.6	66.2 x 53.8 x 32.6
utilized basalt chunk	70.7	66.6 x 40.0 x 21.7
coral piece	3.2	18.4 x 13.8 x 10.5

#### General Surface

Portable Remains	Weight (gm.)	L x W x T (mm.)
waterworn rock	125.6	60.6 x 46.2 x 38.6
possible pecking stone	600.8	110.7 x 67.8 x 53.4
possible hammerstone	2990.6	158.0 x 155.0 x 86.3



**TABLE 2**

**SUMMARY OF SUBSURFACE TESTING**

**Site #3741 Test Unit #1 (Level 1: 0-10 cm.)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
utilized basalt flake	24.4	46.0 x 35.0 x 17.0
<b>Midden: Shell</b>		
Buccinidae (Engina alveolata)	0.3 (1 pc.)	-
Conidae (conus)	1.0 (1 pc.)	-
Cymatiidae (Cymatium gemmatum)	2.6 (1 pc.)	-
Cypraeidae (Cypraea)	28.7 (21 pc.)	-
Mytilidae (Brachidontes)	2.7 (32 pc.)	-
Neritidae (Nerita)	1.1 (6 pc.)	-
Patellidae (Cellana)	0.1 (1 pc.)	-
Turbinidae (Turbo sandwicensis)	2.3 (8 pc.)	-

**Site #3741 Test Unit #2 (Level 1: 0-10 cm.)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
waterworn rock (dense basalt)	28.0	34.3 x 32.0 x 16.0
coral piece	2.5	20.0 x 15.0 x 11.0
<b>Midden: Shell</b>		
Conidae (conus)	5.1 (2 pc.)	-
Cypraeidae (Cypraea)	1.7 (2 pc.)	-

**Site #3744 Test Unit #1 (Level 1: 0-10 cm.)**

Portable Remains	Weight (gm.)	L x W x T (mm.)
unworked basalt flake	1.3	1.5 x 1.1 x 0.6
waterworn rock (broken)	30.6	40.0 x 27.7 x 21.1
coral piece	7.8	3.9 x 2.6 x 1.8
coral piece	1.4	1.6 x 1.2 x 1.1
<b>Midden: Shell</b>		
Cirripedia (barnacle)	0.1 (1 pc.)	-
Neritidae (Nerita)	0.3 (6 pc.)	-

**Site #3744 Test Unit #2 (Level 1: 0-10 cm.)**

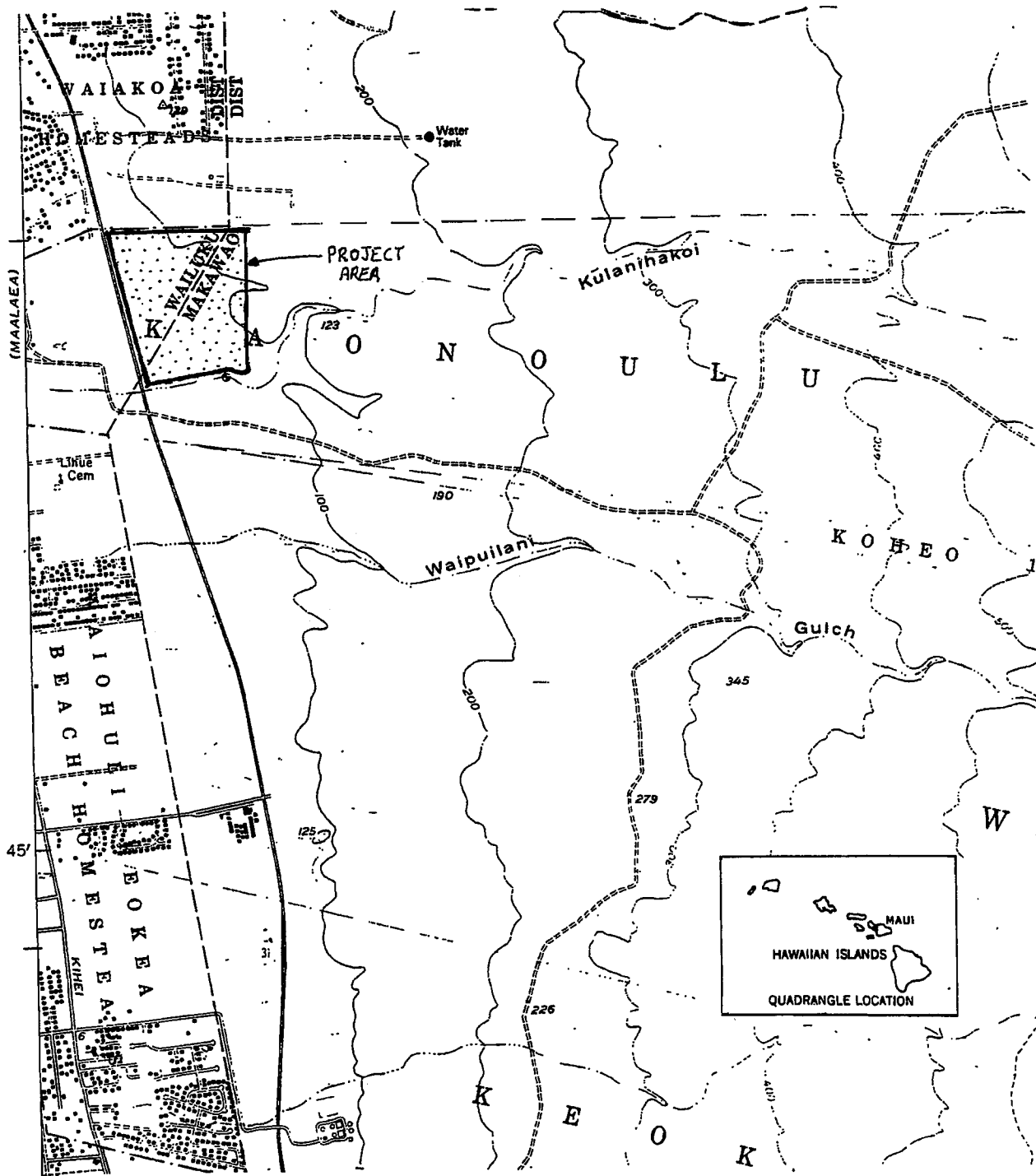
Portable Remains	Weight (gm.)	L x W x T (mm.)
unworked basalt flake	50.5	67.6 x 49.8 x 15.3
unworked basalt flake	14.8	26.1 x 15.8 x 4.7
unworked basalt flake	16.3	24.6 x 19.3 x 7.2
waterworn rock	113.2	52.6 x 51.2 x 27.5
coral piece	4.4	27.0 x 16.1 x 16.1
coral piece	1.3	17.8 x 16.1 x 6.0
coral piece	1.2	14.1 x 14.1 x 9.9
coral piece	1.1	13.1 x 6.7 x 5.3
coral piece	0.9	16.5 x 6.6 x 3.1

**TABLE 3****SITE FUNCTION AND AGE ASSESSMENT**

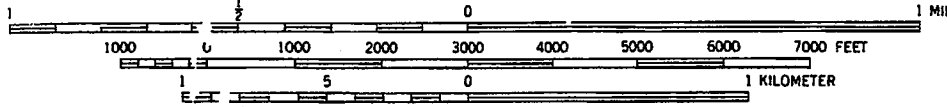
STATE SITE #	DESCRIPTION	FUNCTION	AGE
50-10-3727	Stone Piles	Agriculture (?)	Indeterminate
50-10-3728	Stone Pile	Agriculture (?)	Indeterminate
50-10-3729	Stone Cairn	Marker	Indeterminate
50-10-3730	Stone Cairn	Marker	Indeterminate
50-10-3731	Stone Cairn	Marker	Post-contact
50-10-3732	Stone Cairn	Marker	Indeterminate
50-10-3733	Stone Cairn	Marker	Post-contact
50-10-3734	Stone Pile	Agriculture (?)	Indeterminate
50-10-3735	Enclosure	Military	World War II
50-10-3736	Enclosure	Possible Shelter	Precontact (?)
50-10-3737	Parallel Alignment	Military	World War II
50-10-3738	Parallel Alignment	Military	World War II
50-10-3739	Parallel Alignment	Military (?)	World War II (?)
50-10-3740	Erosion Containment Walls	Ranching	Post-contact
50-10-3741	Surface Scatter	Temporary Habitation	Pre-contact
50-10-3742	Surface Scatter	Temporary Habitation (?)	Indeterminate
50-10-3743	Surface Scatter	Temporary Habitation (?)	Precontact
50-10-3744	Surface Scatter	Temporary Habitation	Precontact
50-10-3745	Surface Scatter	Temporary Habitation (?)	Precontact
50-10-3746	Petroglyph	Marker (?)	Precontact (?)

**TABLE 4****SITE LIST AND SIGNIFICANCE ASSESSMENT**

STATE SITE #	DESCRIPTION	SIGNIFICANCE	ADDITIONAL WORK
50-10-3727	Stone Piles	D	No
50-10-3728	Stone Pile	D	No
50-10-3729	Stone Cairn	D	No
50-10-3730	Stone Cairn	D	No
50-10-3731	Stone Cairn	D	No
50-10-3732	Stone Cairn	D	No
50-10-3733	Stone Cairn	D	No
50-10-3734	Stone Pile	D	No
50-10-3735	Enclosure	D	No
50-10-3736	Enclosure	D	No
50-10-3737	Parallel Alignment	D	No
50-10-3738	Parallel Alignment	D	No
50-10-3739	Parallel Alignment	D	No
50-10-3740	Erosion Containment Walls	D	No
50-10-3741	Surface Scatter	D	No
50-10-3742	Surface Scatter	D	No
50-10-3743	Surface Scatter	D	No
50-10-3744	Surface Scatter	D	No
50-10-3745	Surface Scatter	D	No
50-10-3746	Petroglyph	D, E	Yes, move to a secure location



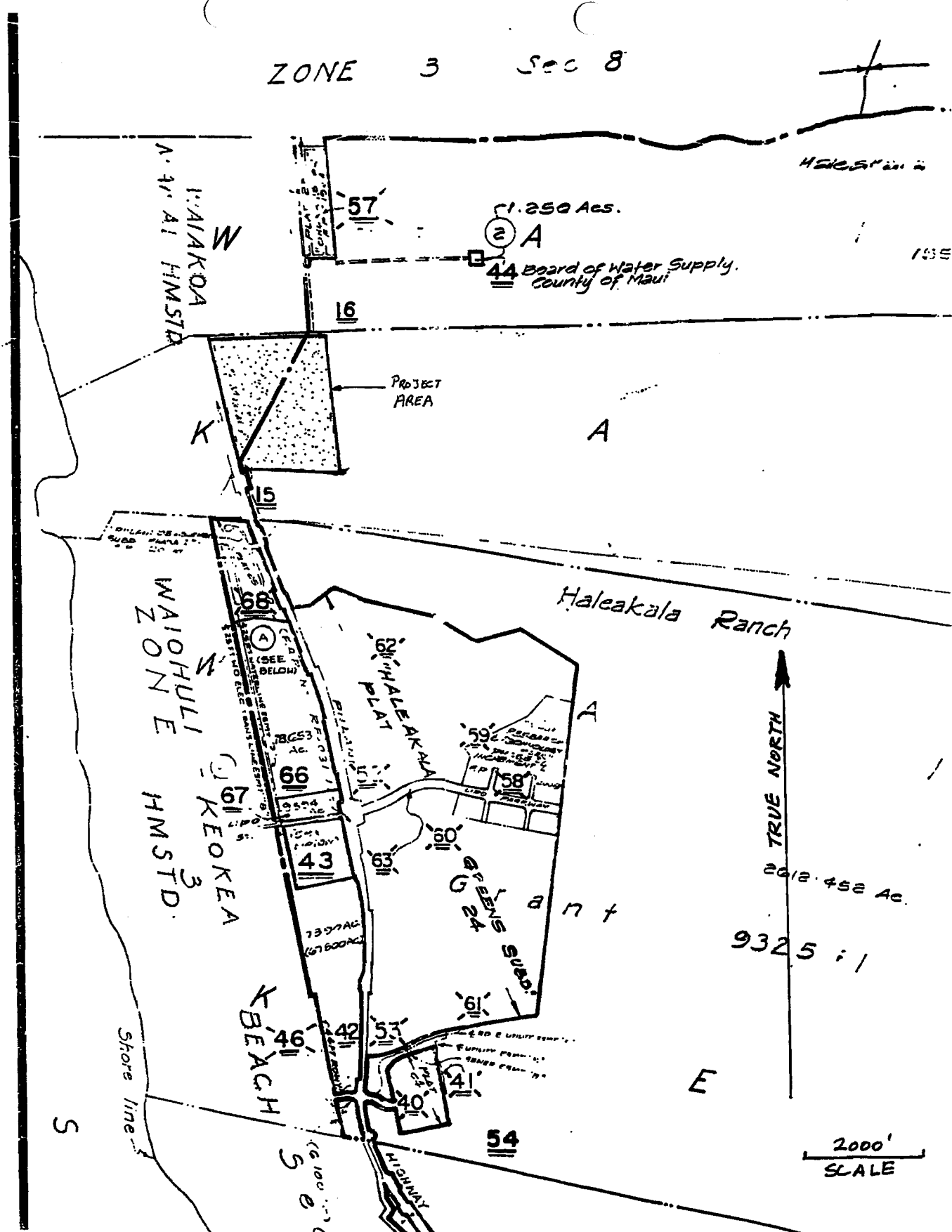
SCALE 1:24 000



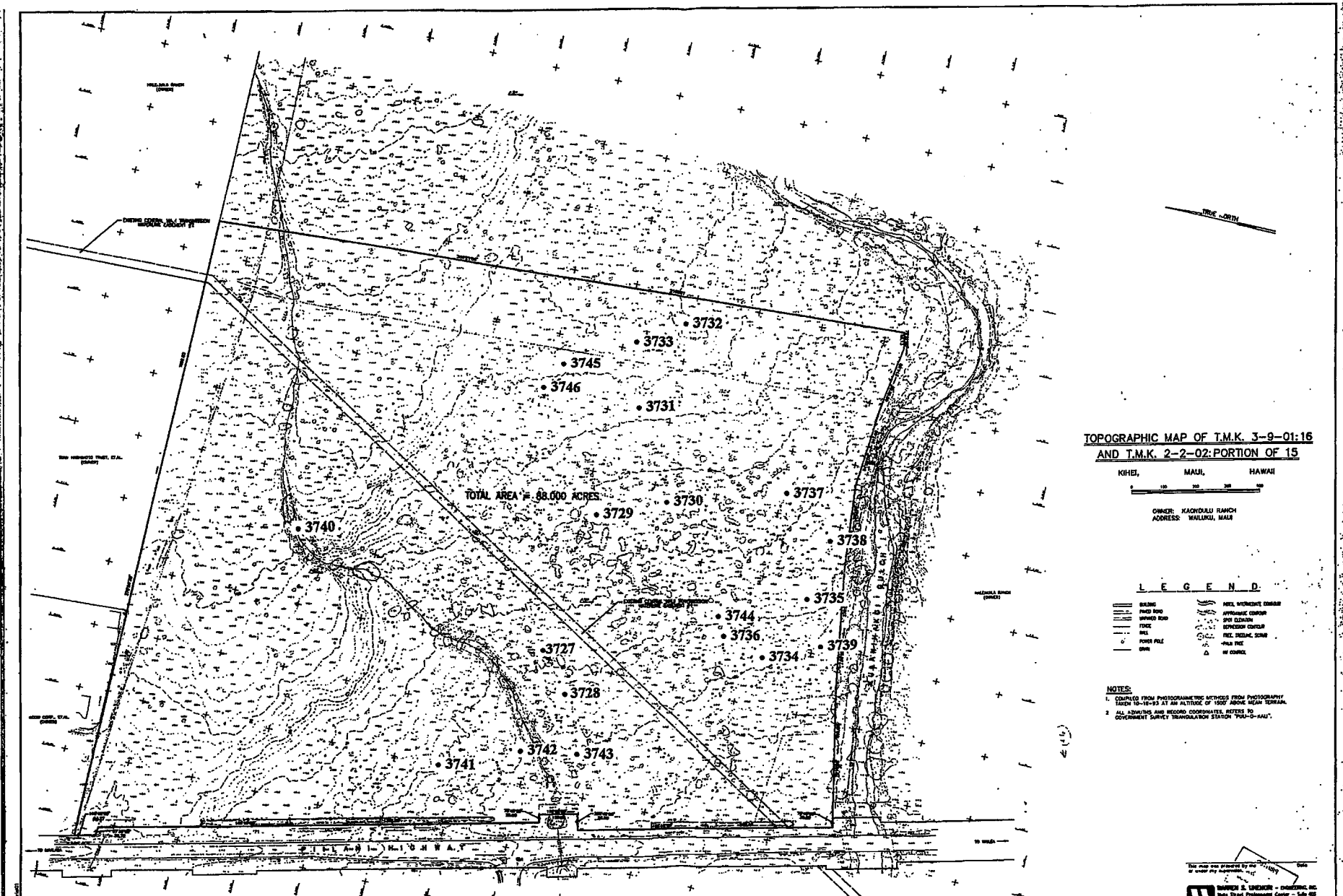
114°  
TRUE NORTH  
MAGNETIC NORTH  
APPROXIMATE MEAN  
DECLINATION 1983

CONTOUR INTERVAL 20 FEET  
DATUM IS MEAN SEA LEVEL  
DEPTH CURVES IN FEET—DATUM IS MEAN LOWER LOW WATER  
DASHED LINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE  
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 2 FEET

**MAP 1 - Topographic Map, U.S.G.S., Puu O Kali Quadrangle, Scale 1:2400, 1983.**



MAP 2 - Tax Map, Zone 2, Section 2, Plat 02, State of Hawaii Tax Map Service.



**TOPOGRAPHIC MAP OF T.M.K. 3-9-01:16  
AND T.M.K. 2-2-02: PORTION OF 15**

KIHEI, MAUI, HAWAII



OWNER: KAONDALU RANCH  
ADDRESS: WAILUKU, MAUI

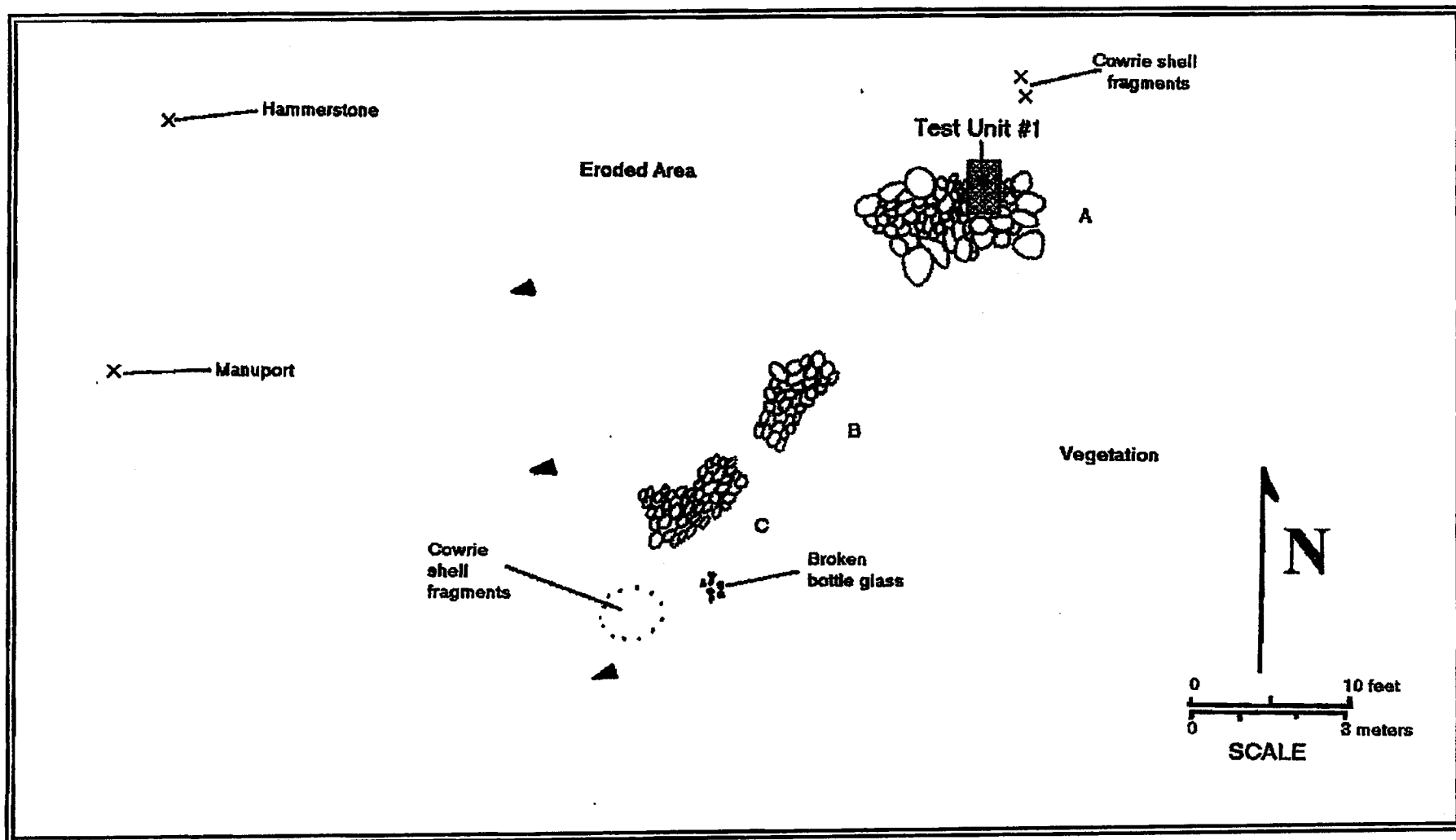
**LEGEND**

	BUILDING		WELL, WATERCOURSE, DRAINAGE
	PAVED ROAD		APPROXIMATE CONTOUR
	UNPAVED ROAD		FIRE CONTOUR
	FENCE		DEPRESSION CONTOUR
	WELL		WELL, SPRING, SPRING
	POWER POLE		WELL, MINE, SHAFT
	DAM		WELL, MINE, SHAFT
			WELL, MINE, SHAFT

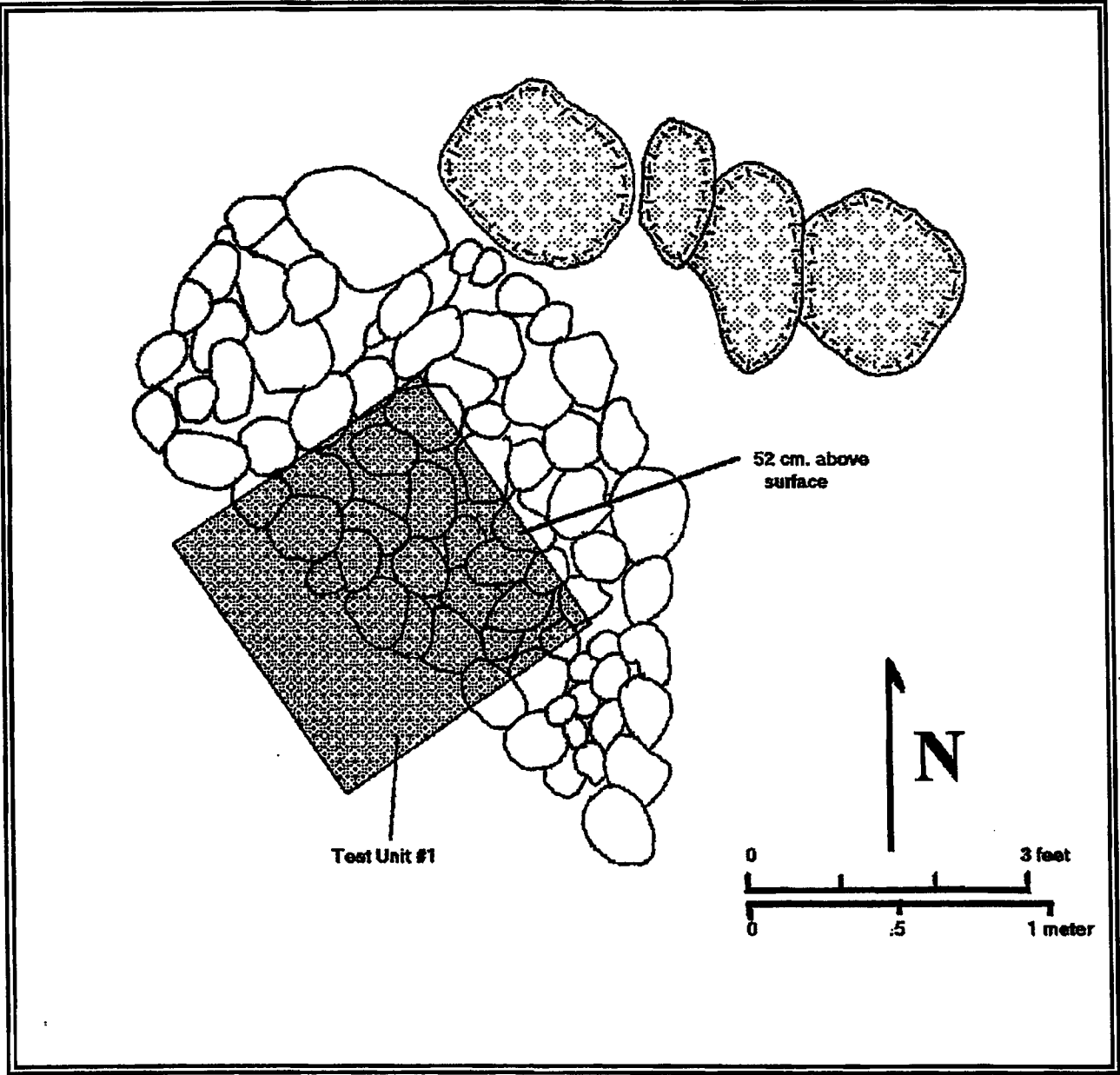
- NOTES:**
1. COMPUTED FROM PHOTOGRAMMETRIC METHODS FROM PHOTOGRAPHY TAKEN 10-10-53 AT AN ALTITUDE OF 1000' ABOVE MEAN TERRAIN.
  2. ALL ADJUSTING AND RECORD COORDINATES REFER TO GOVERNMENT SURVEY TRIANGULATION STATION "TWA-0-A-141".

**MAP 3 - Site Map showing locations of Sites 3727-3746 (Based on map prepared by Warren S. Unemori Engineering Inc., Wailuku).**

WARREN S. UNEMORI ENGINEERING, INC.  
3100 Kalia Road, Suite 200  
Honolulu, Hawaii 96811-1444  
December 2, 1993

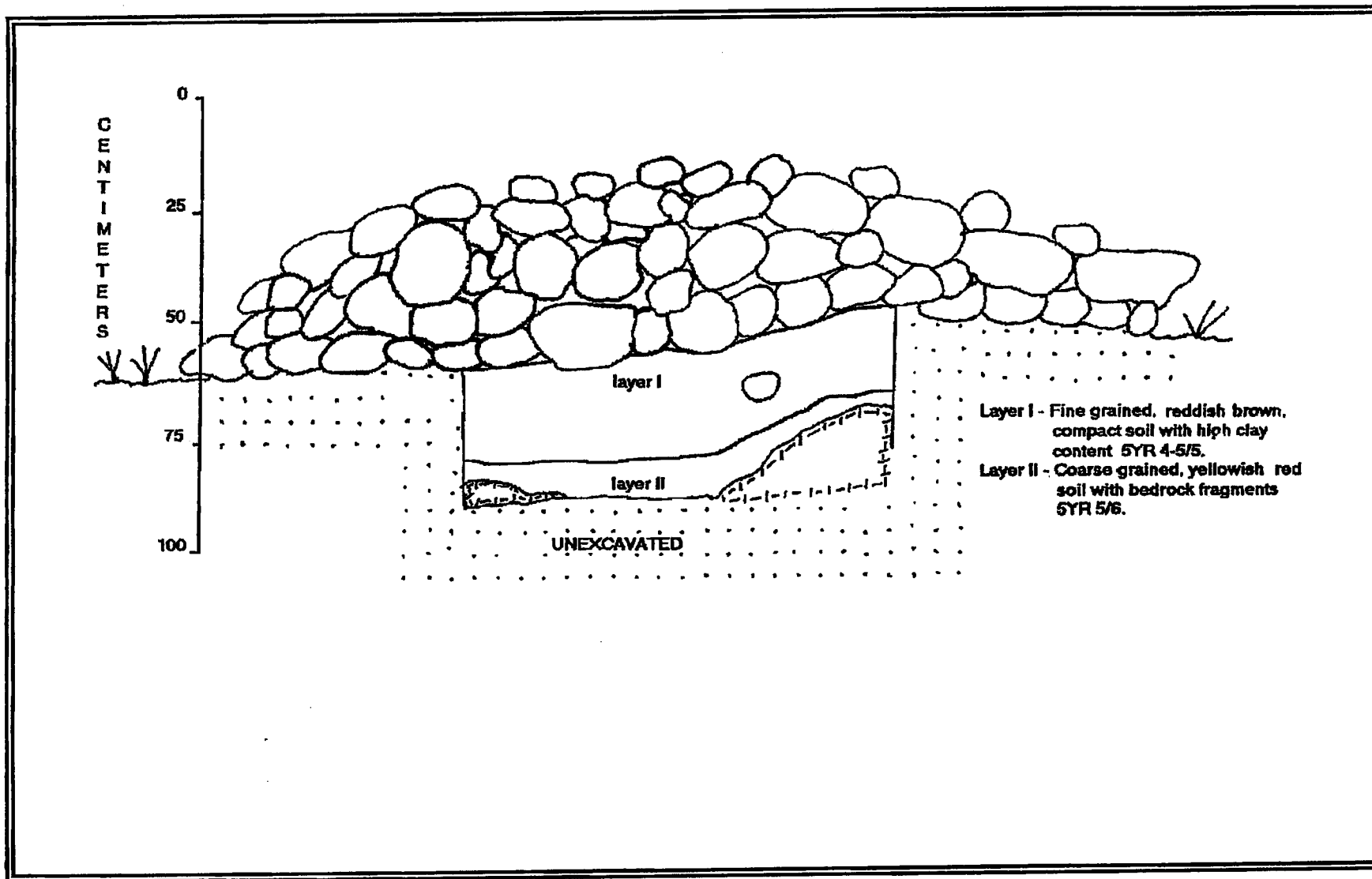


**FIGURE 1 - Site 3727 -- Plan view: Stone Features A, B, and C.**

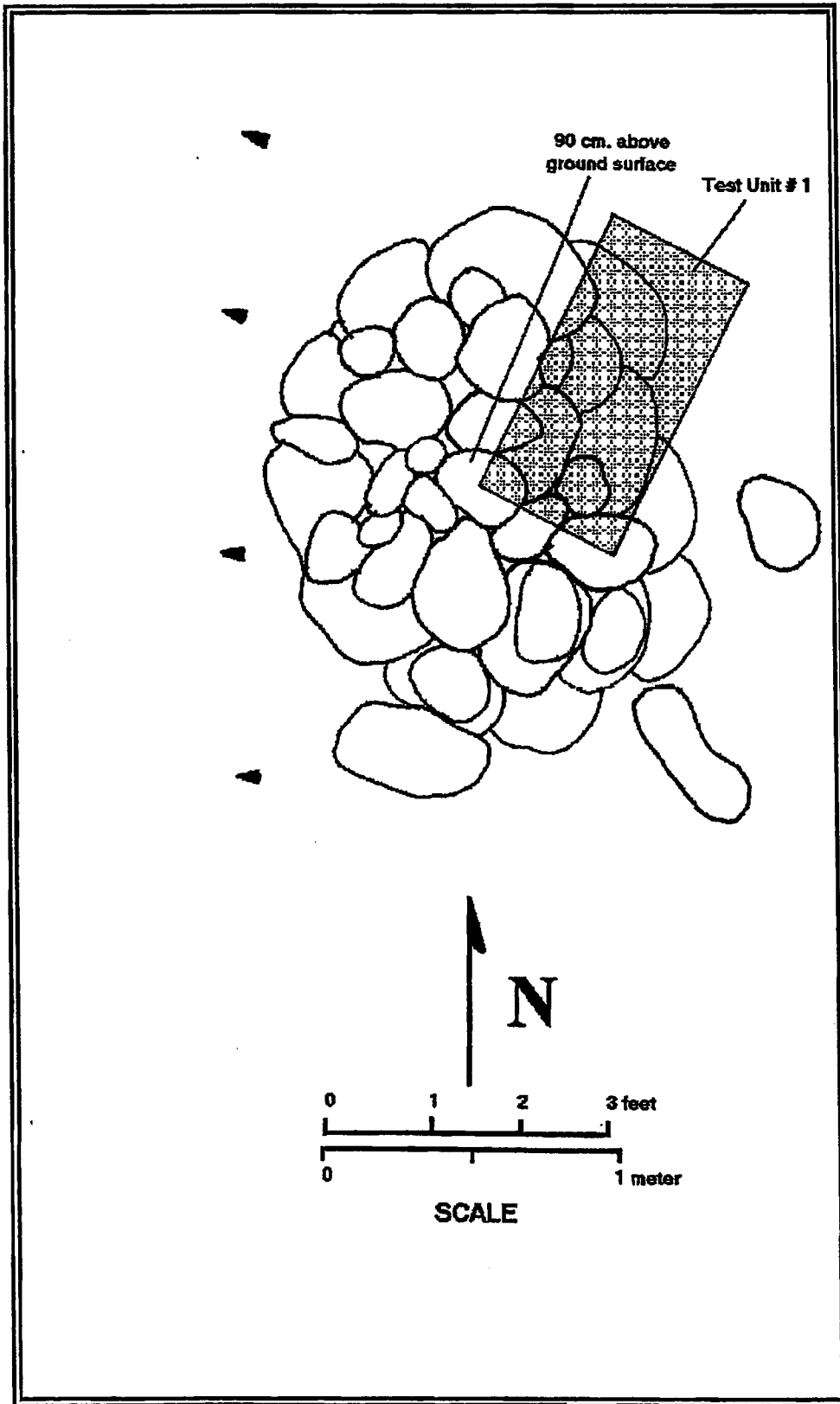


**FIGURE 2 - Site 3728 -- Plan view: Stone Pile.**

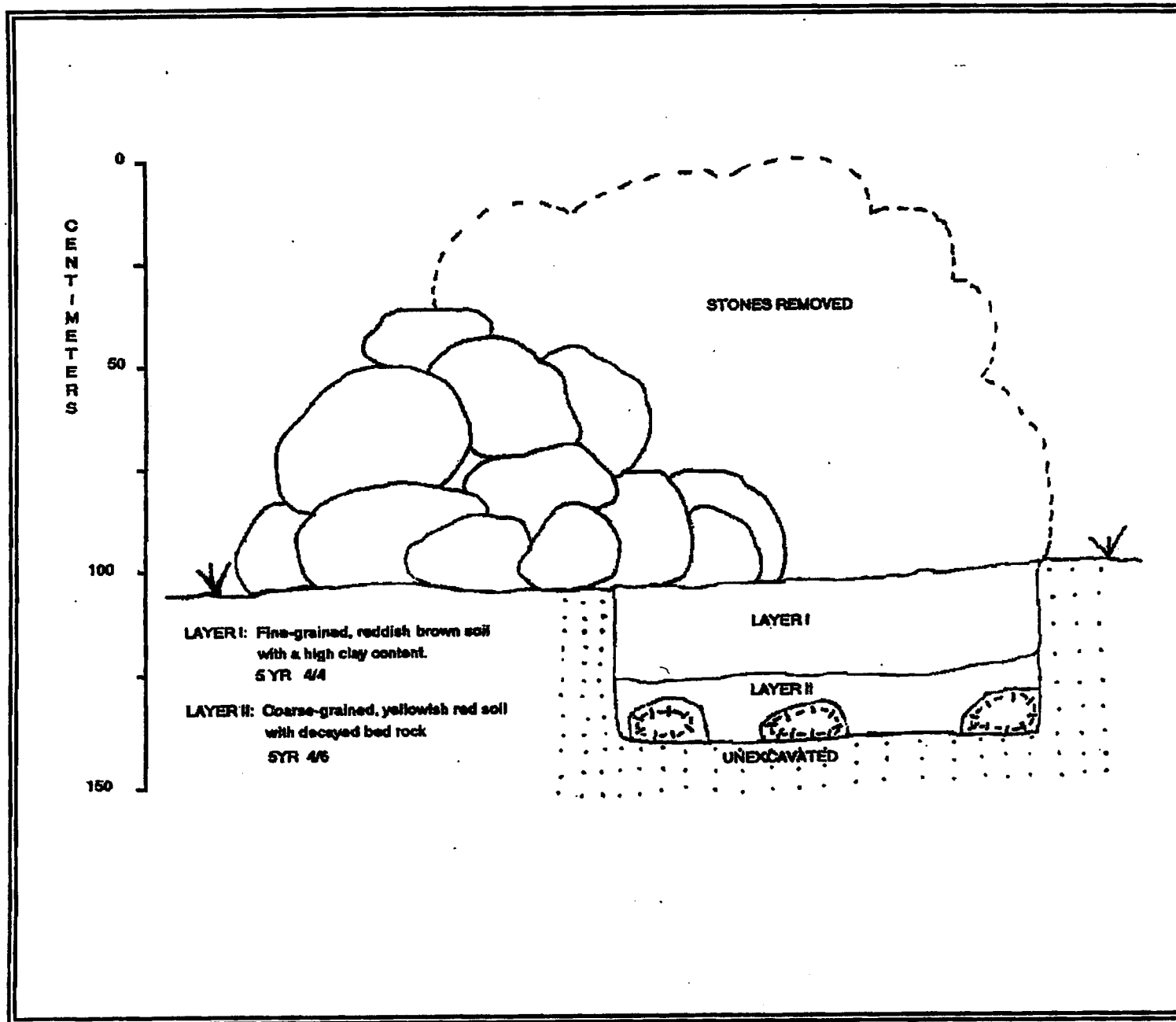




**FIGURE 3 - Site 3728 -- Profile: East face of Test Unit #1, including stone feature.**

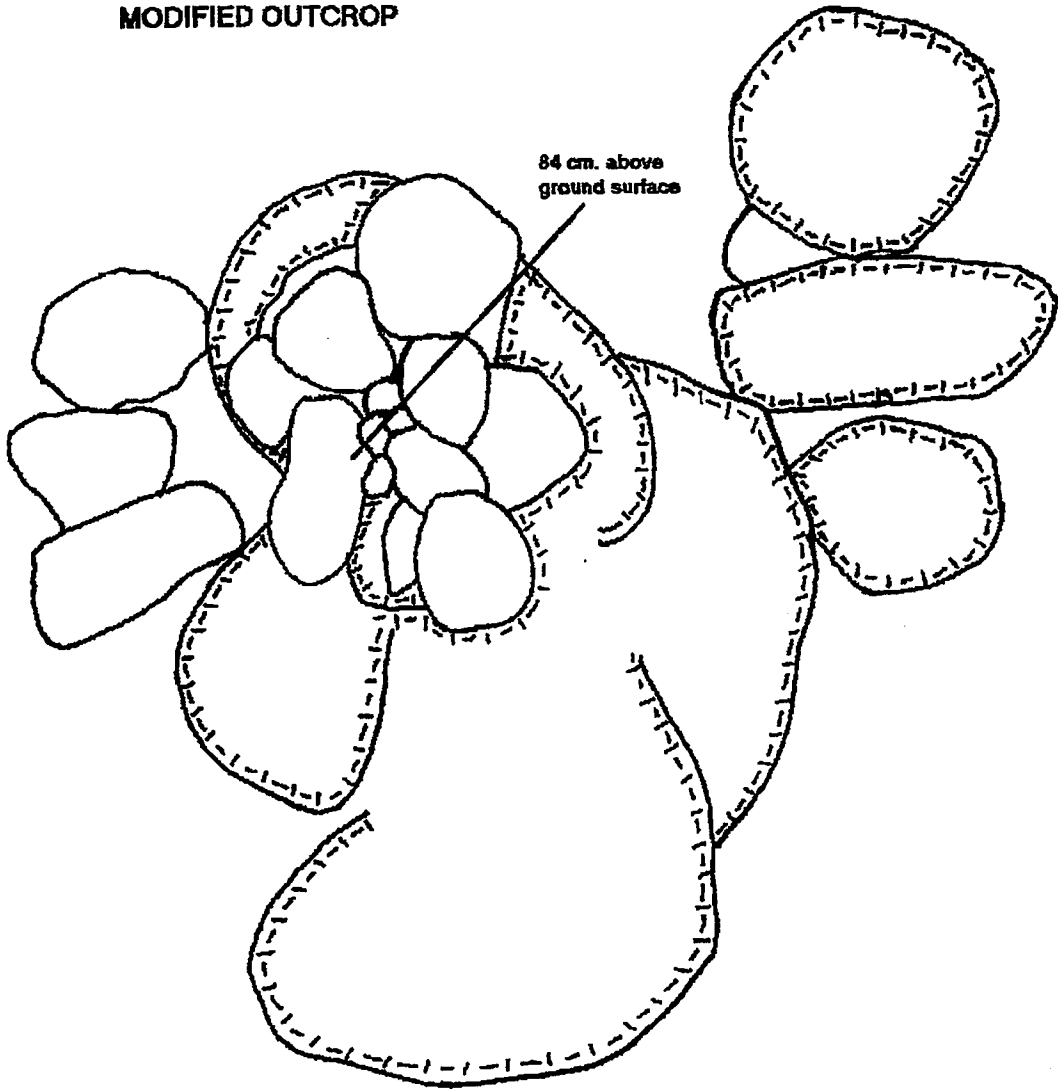


**FIGURE 4 - Site 3729 -- Plan view: Stone Cairn.**

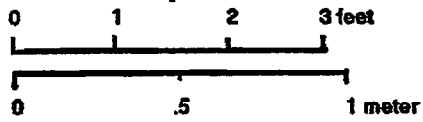


**FIGURE 5 - Site 3729 -- Profile: West face of Test Unit #1, including a portion of the stone cairn.**

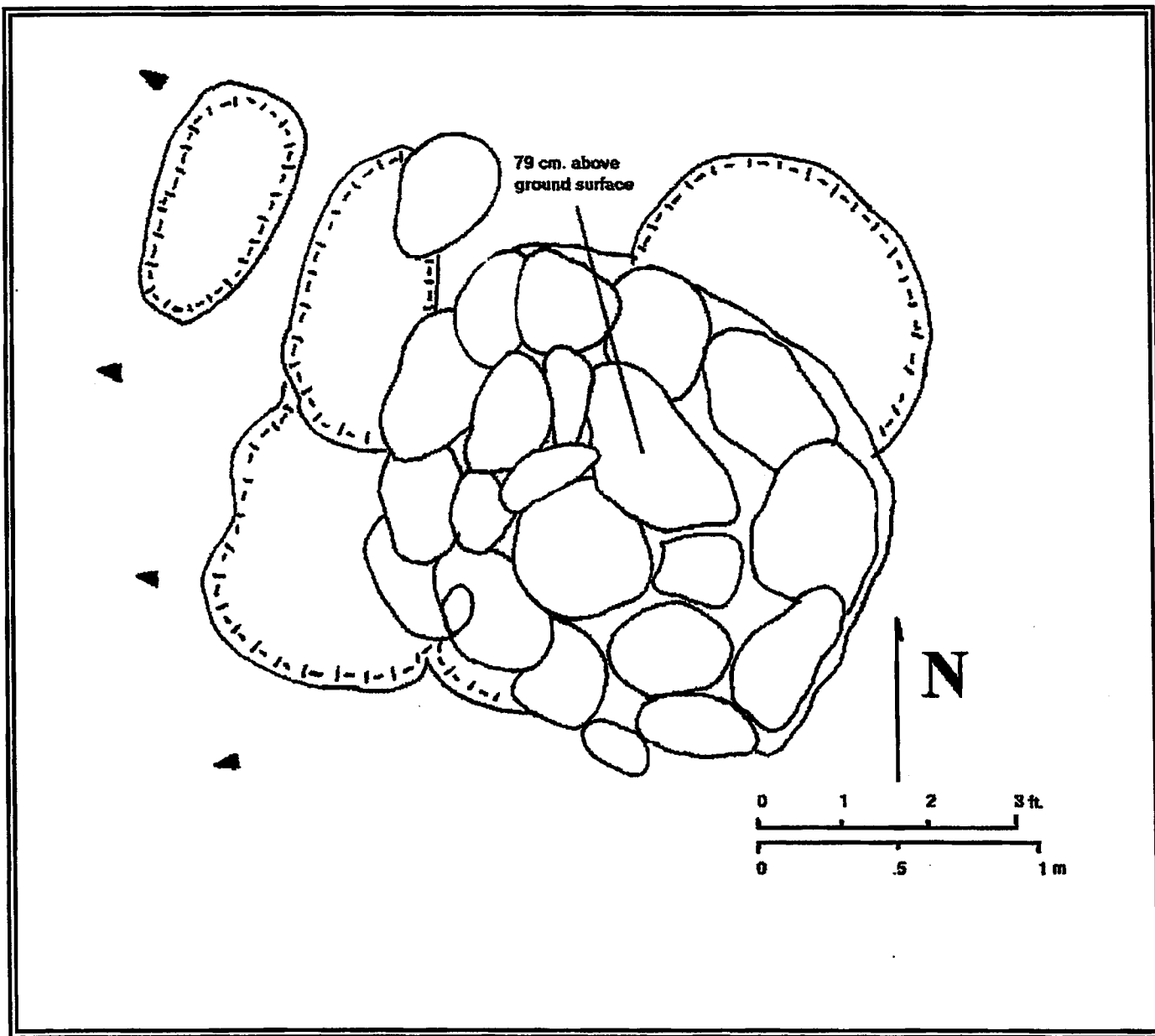
**MODIFIED OUTCROP**



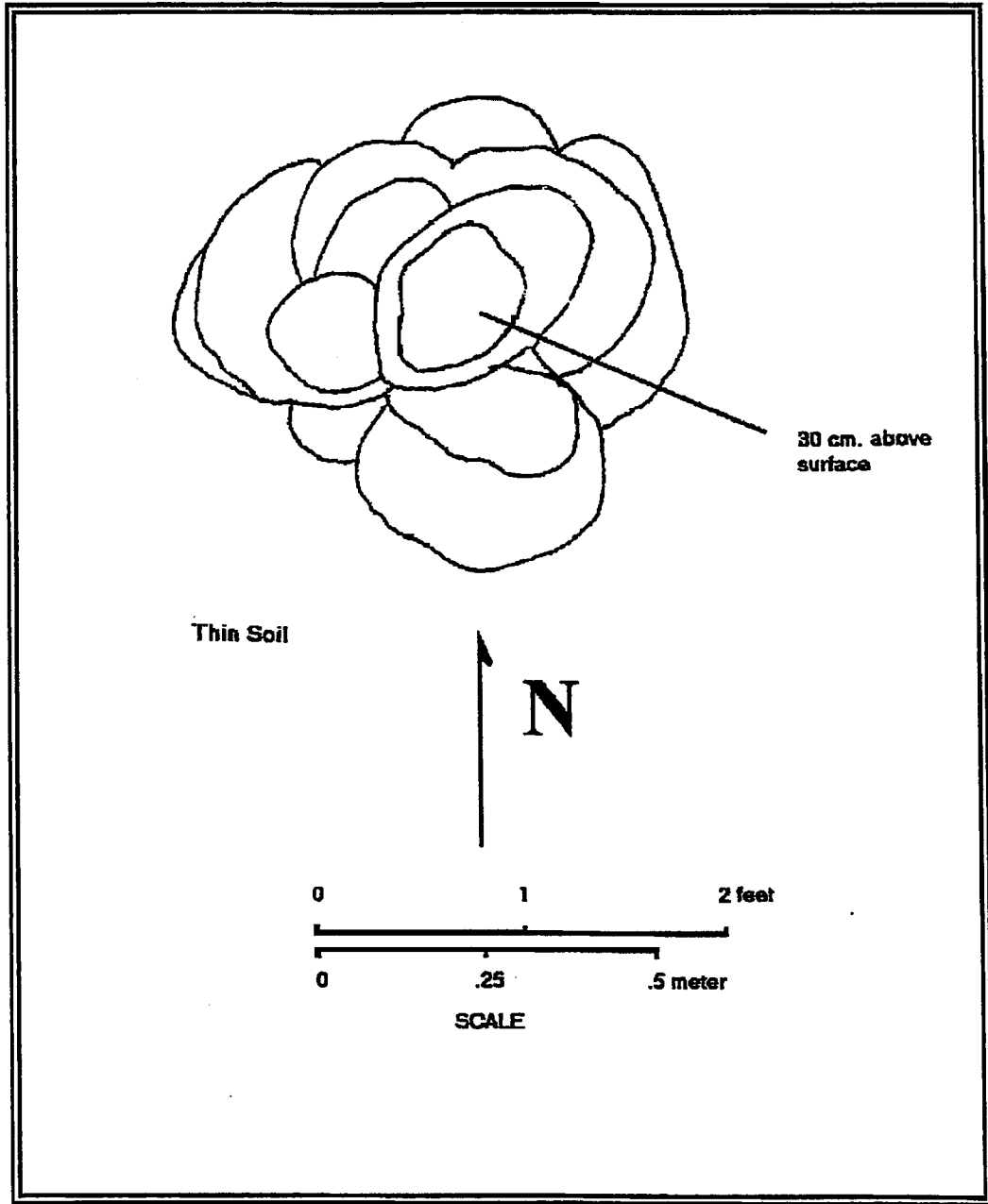
84 cm. above  
ground surface



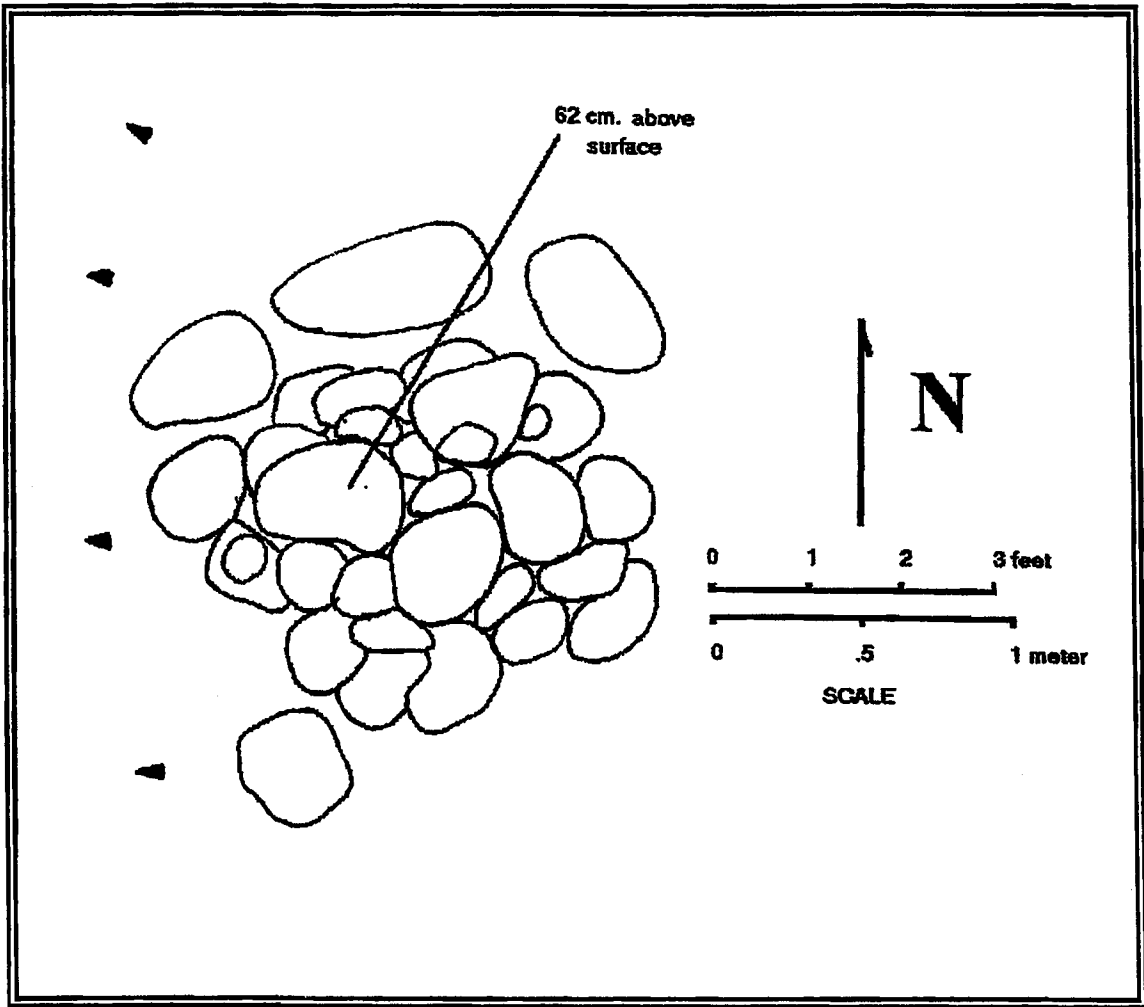
**FIGURE 6 - Site 3730 - Plan view: Stone Cairn.**



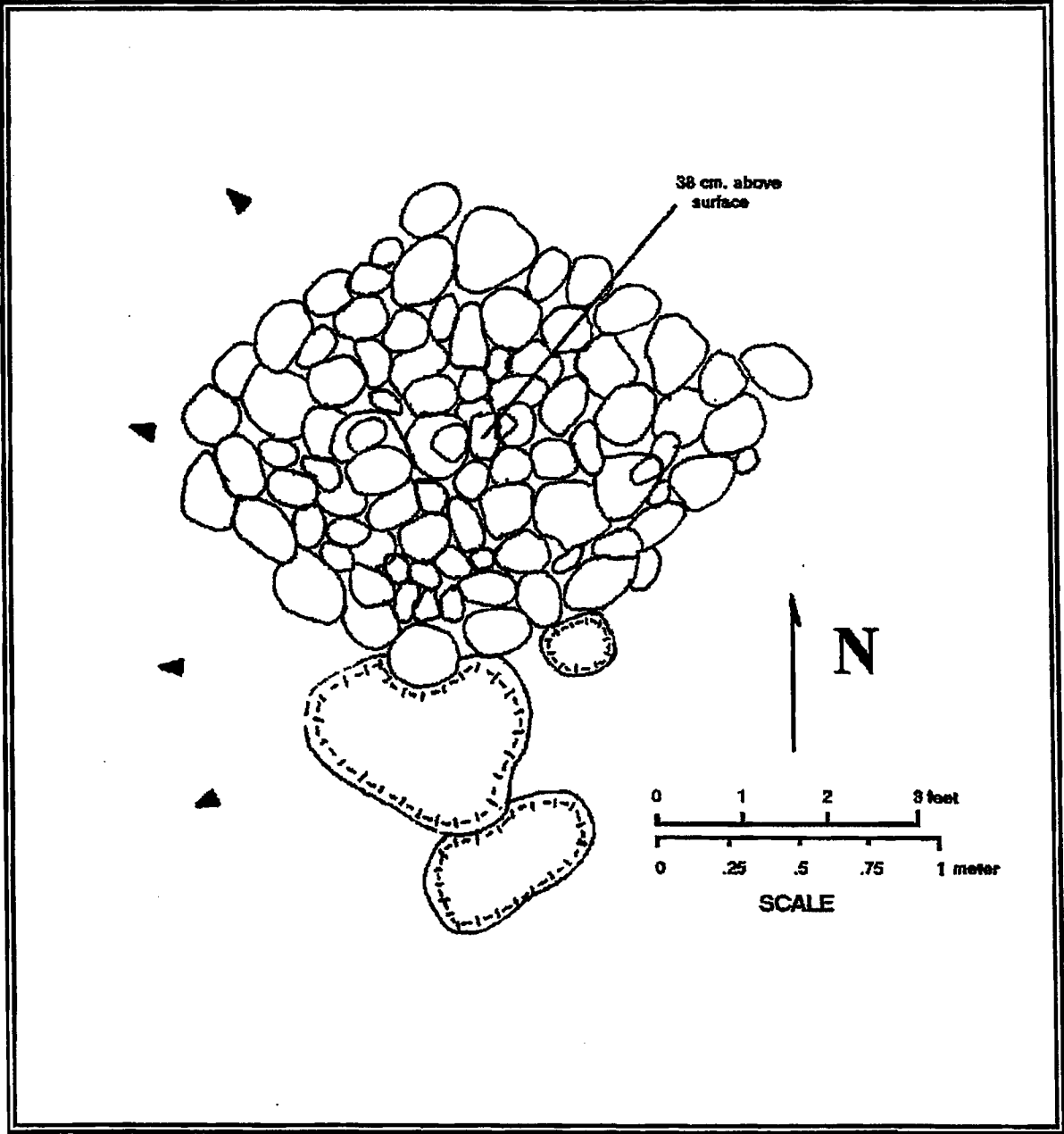
**FIGURE 7 - Site 3731 - Plan view: Stone Cairn.**



**FIGURE 8 - Site 3732 -- Plan view: Stone Cairn.**

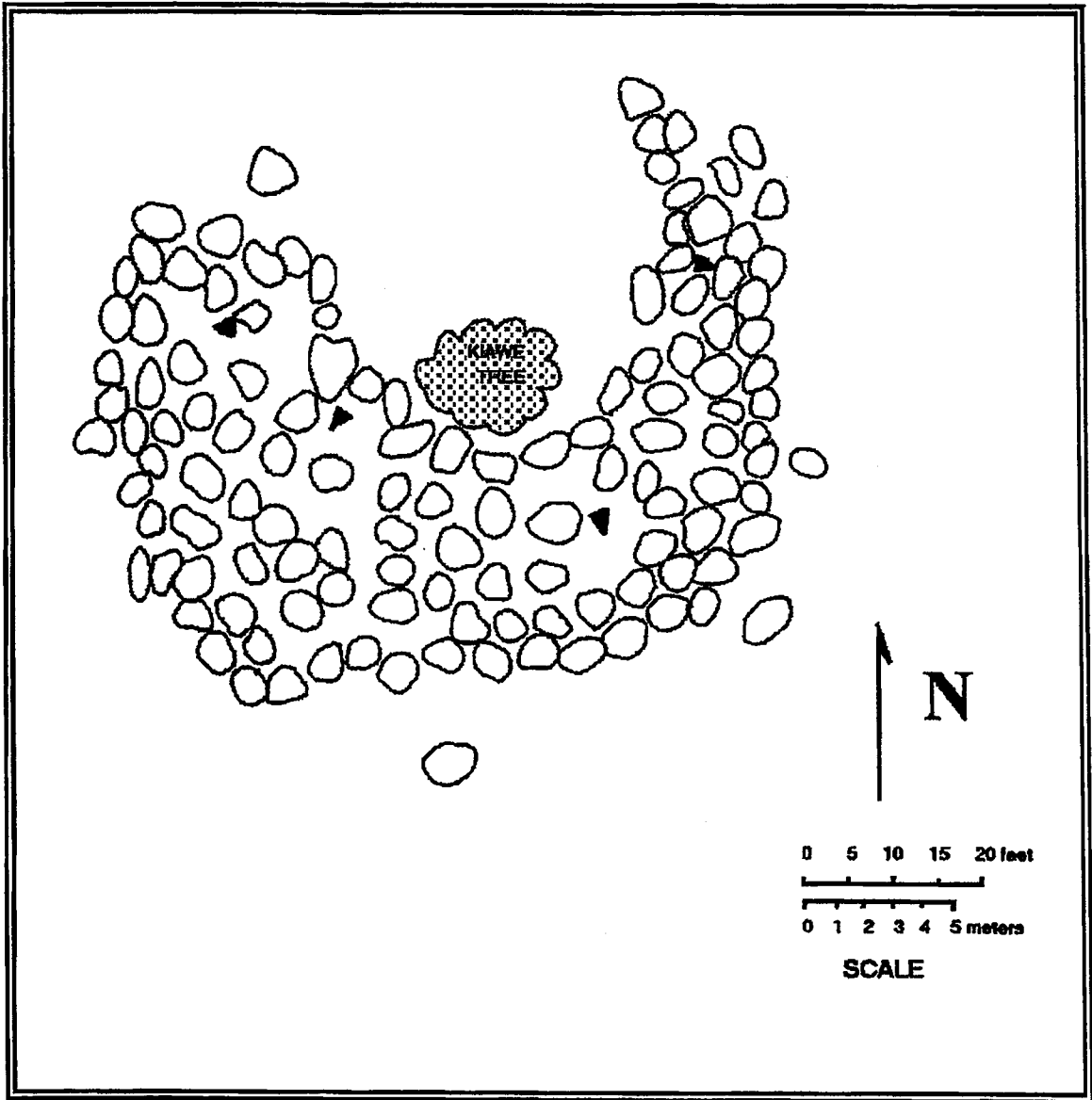


**FIGURE 9 - Site 3733 -- Plan view: Stone cairn.**

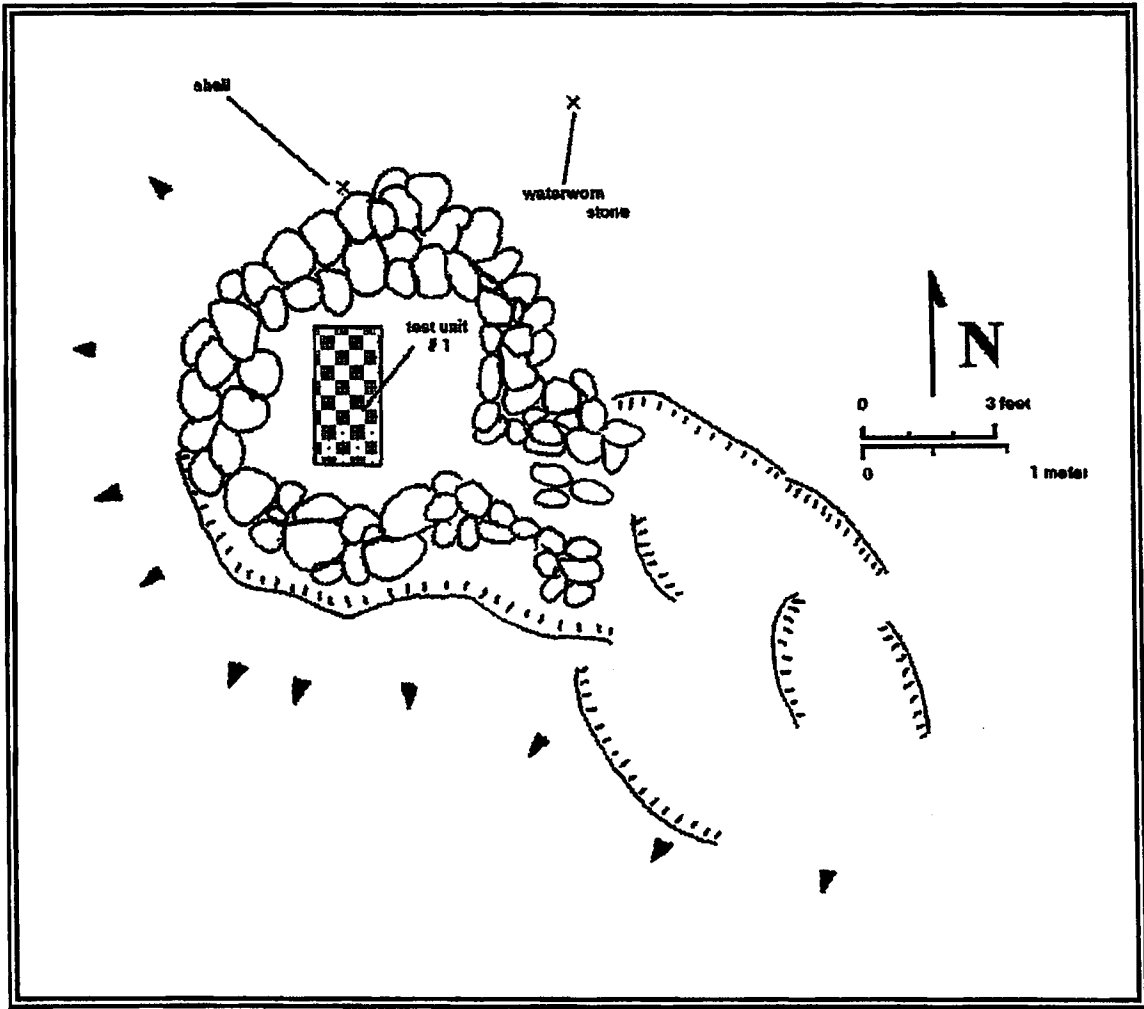


**FIGURE 10 - Site 3734 -- Plan view: Stone Pile.**

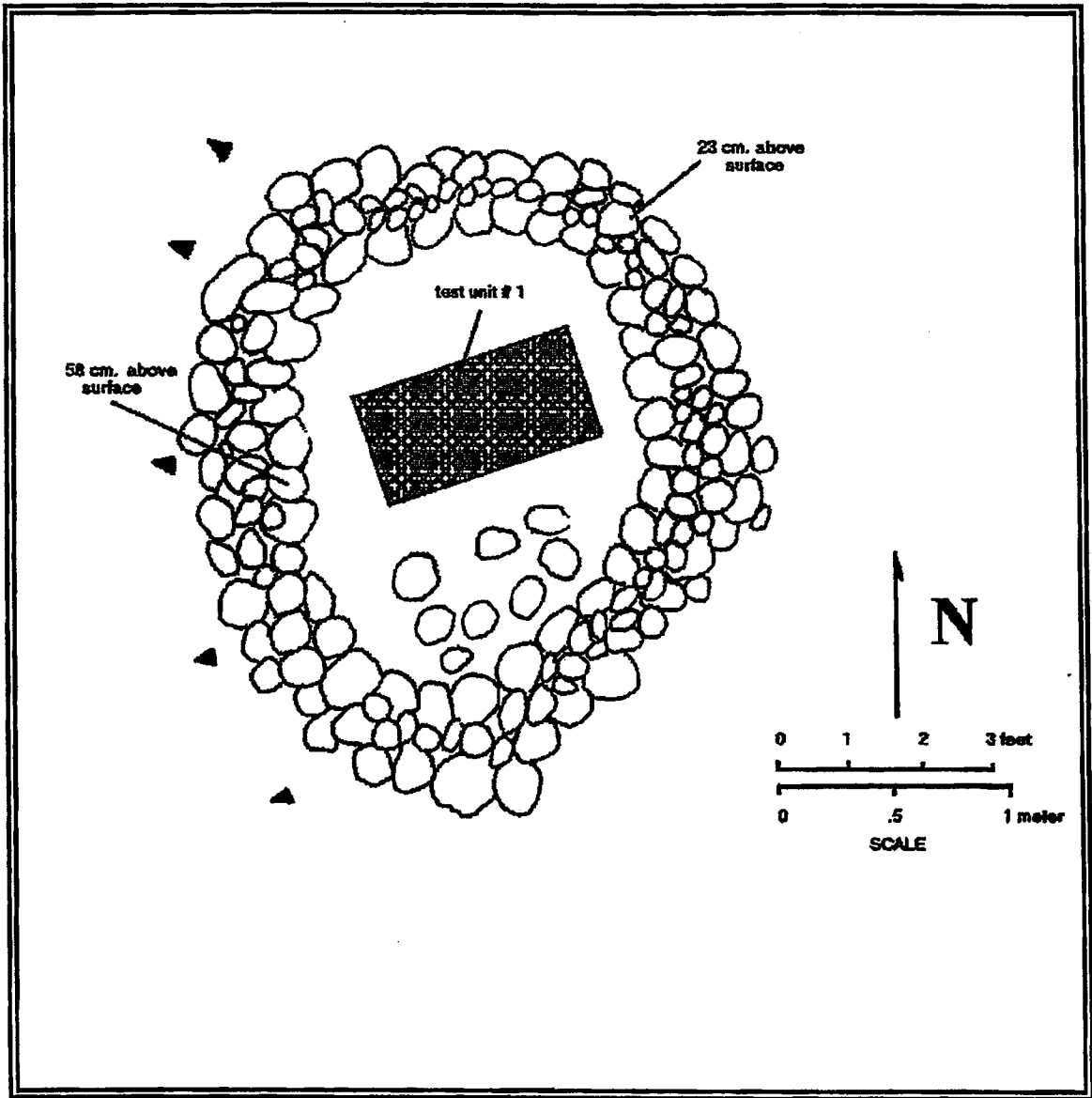




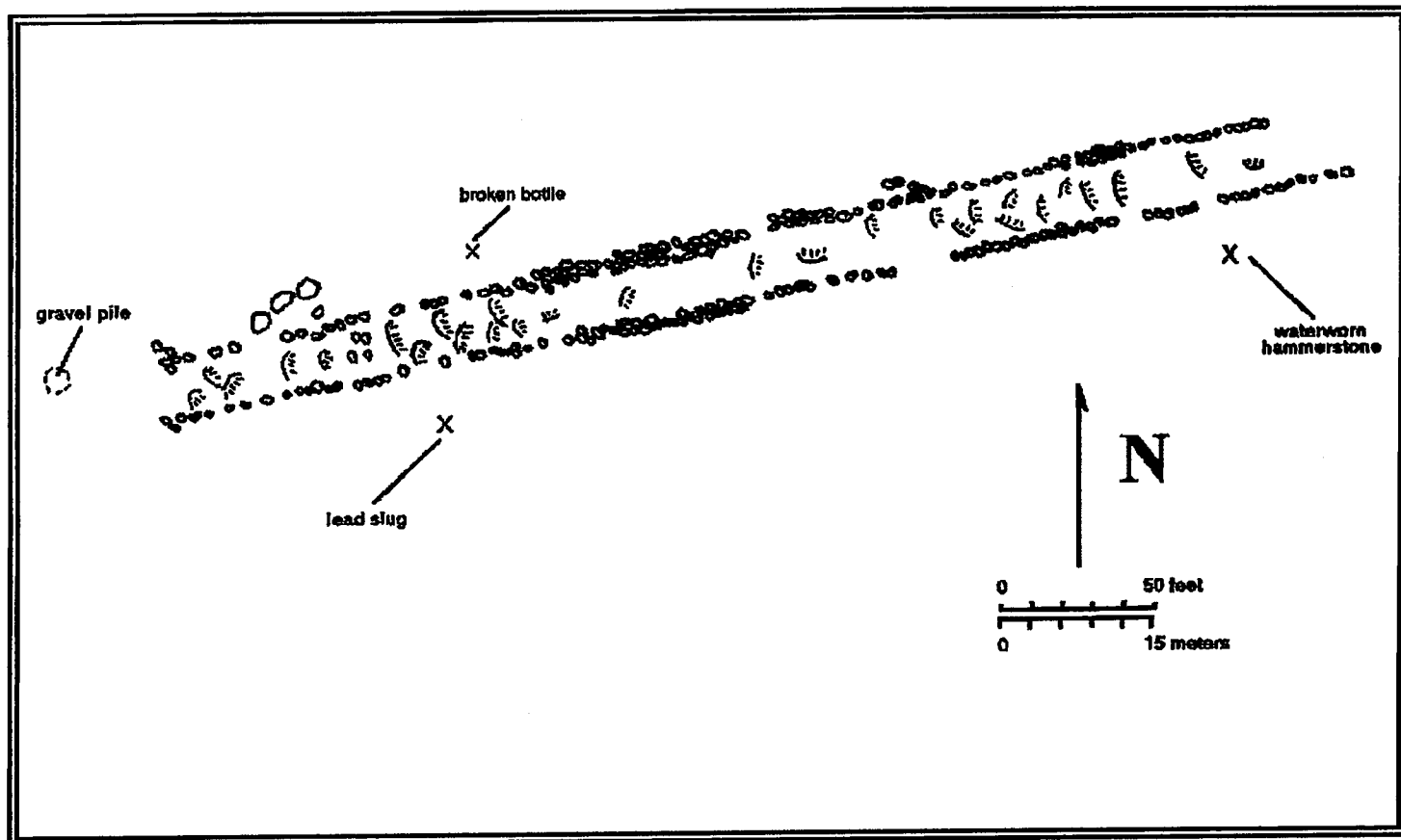
**FIGURE 11 - (no assigned number) -- Plan view of bulldozed terrace.**



**FIGURE 12 - Site 3735 -- Plan view: Stone Enclosure #1.**



**FIGURE 13 - Site 3736 -- Plan view: Stone Enclosure #2.**



**FIGURE 14 - Site 3737 -- Plan view: Stone Alignment #1.**

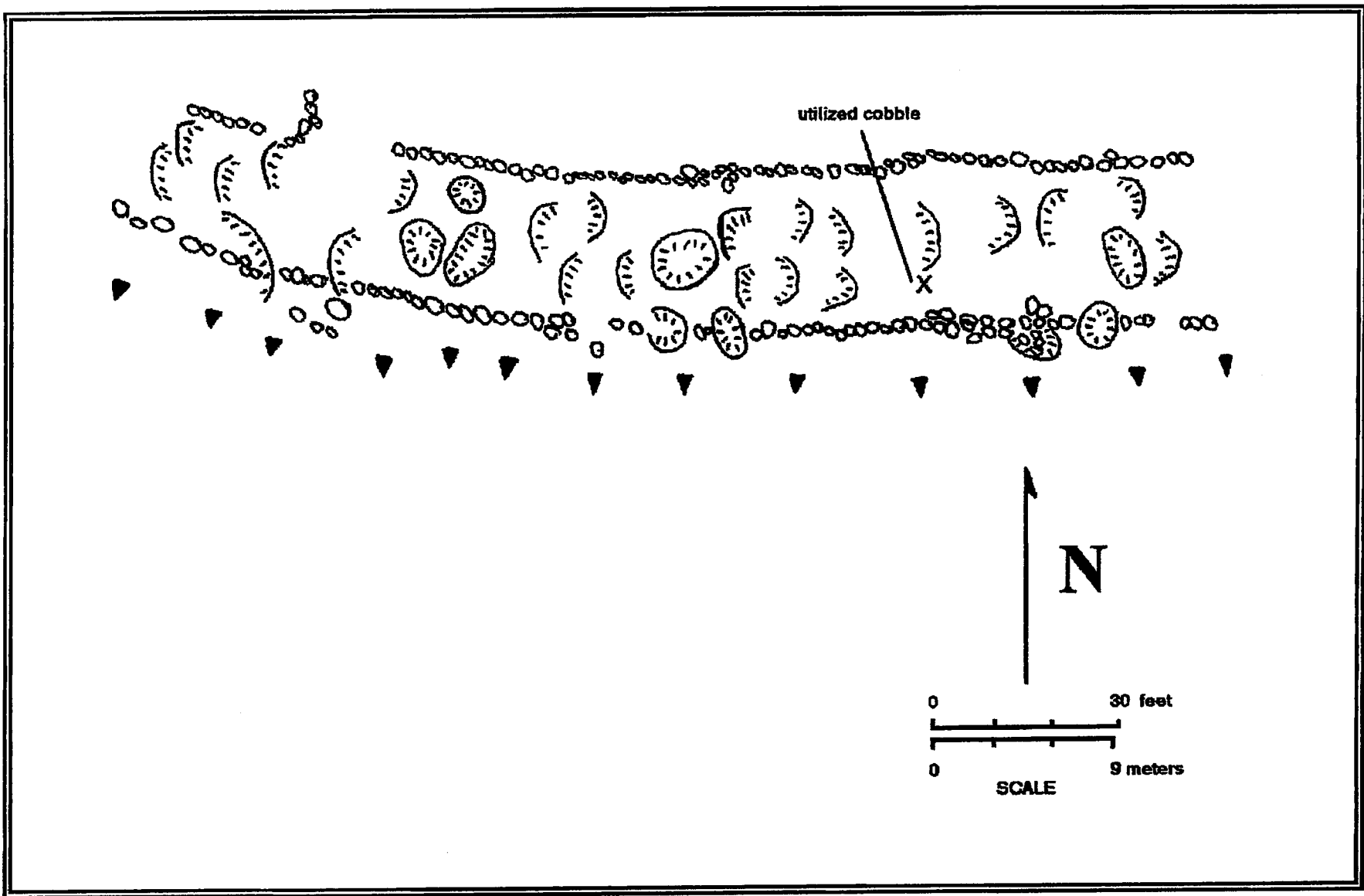
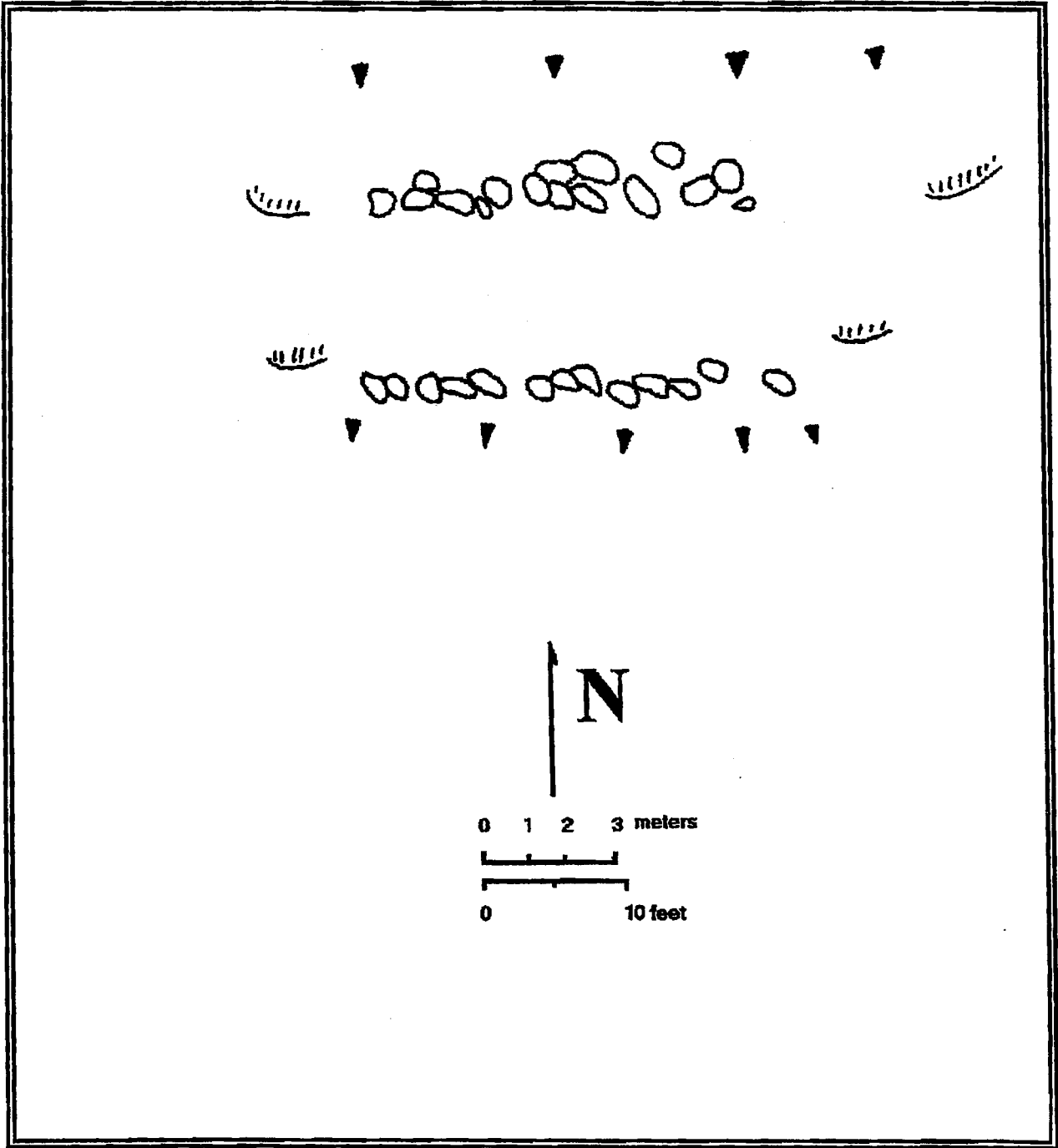
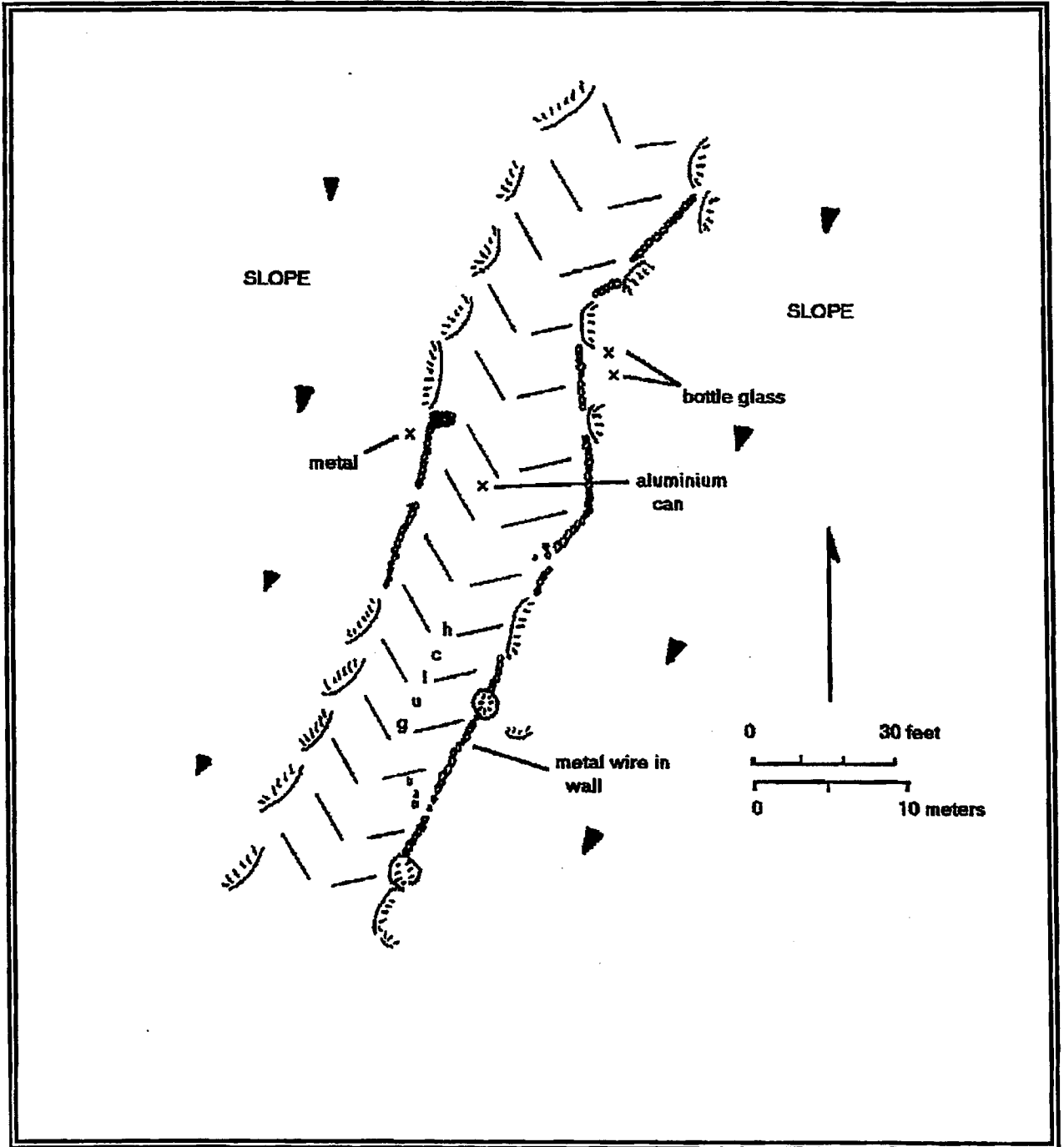


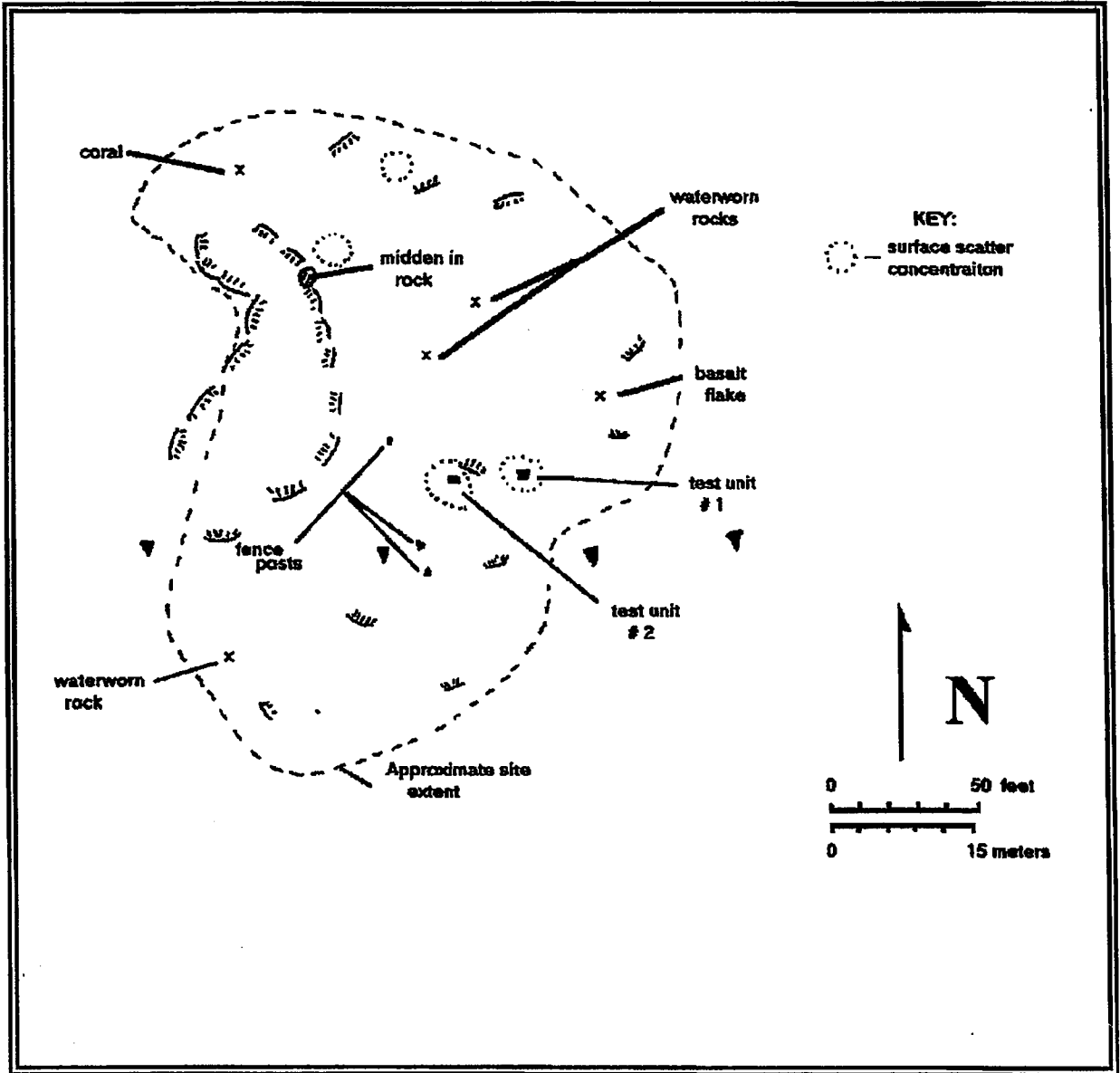
FIGURE 15 - Site 3738 - Plan view: Stone Alignment #2.



**FIGURE 16 - Site 3739 -- Plan view: Stone Alignment #3.**

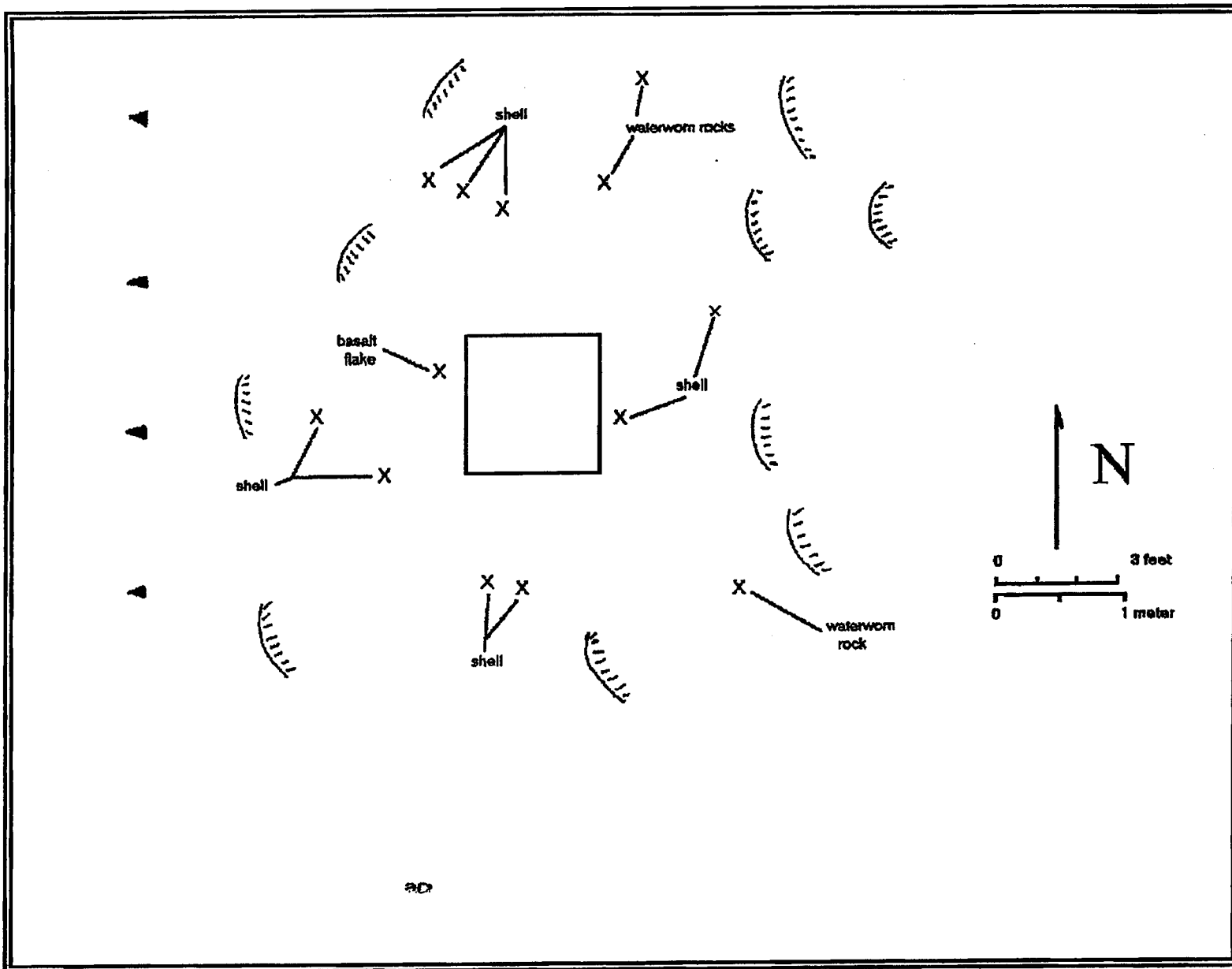


**FIGURE 17 - Site 3740 -- Plan view: Erosion containment wall system.**



**FIGURE 18 - Site 3741 -- Plan view: Surface scatter #1.**





**FIGURE 19 - Site 3741 - Plan view: Test Unit #1 in surface scatter concentration.**

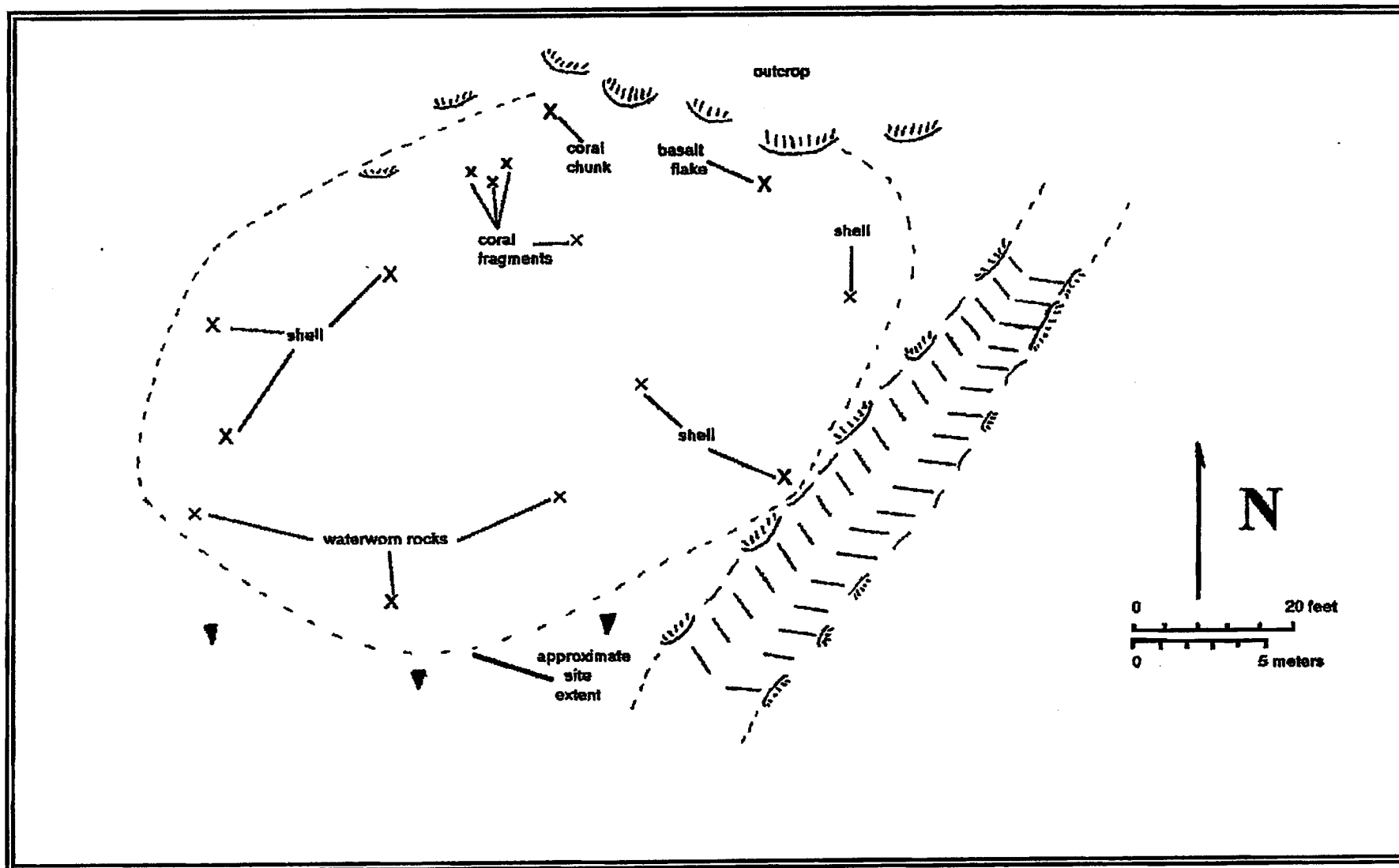


FIGURE 20 - Site 3742 -- Plan view: Surface scatter #2.

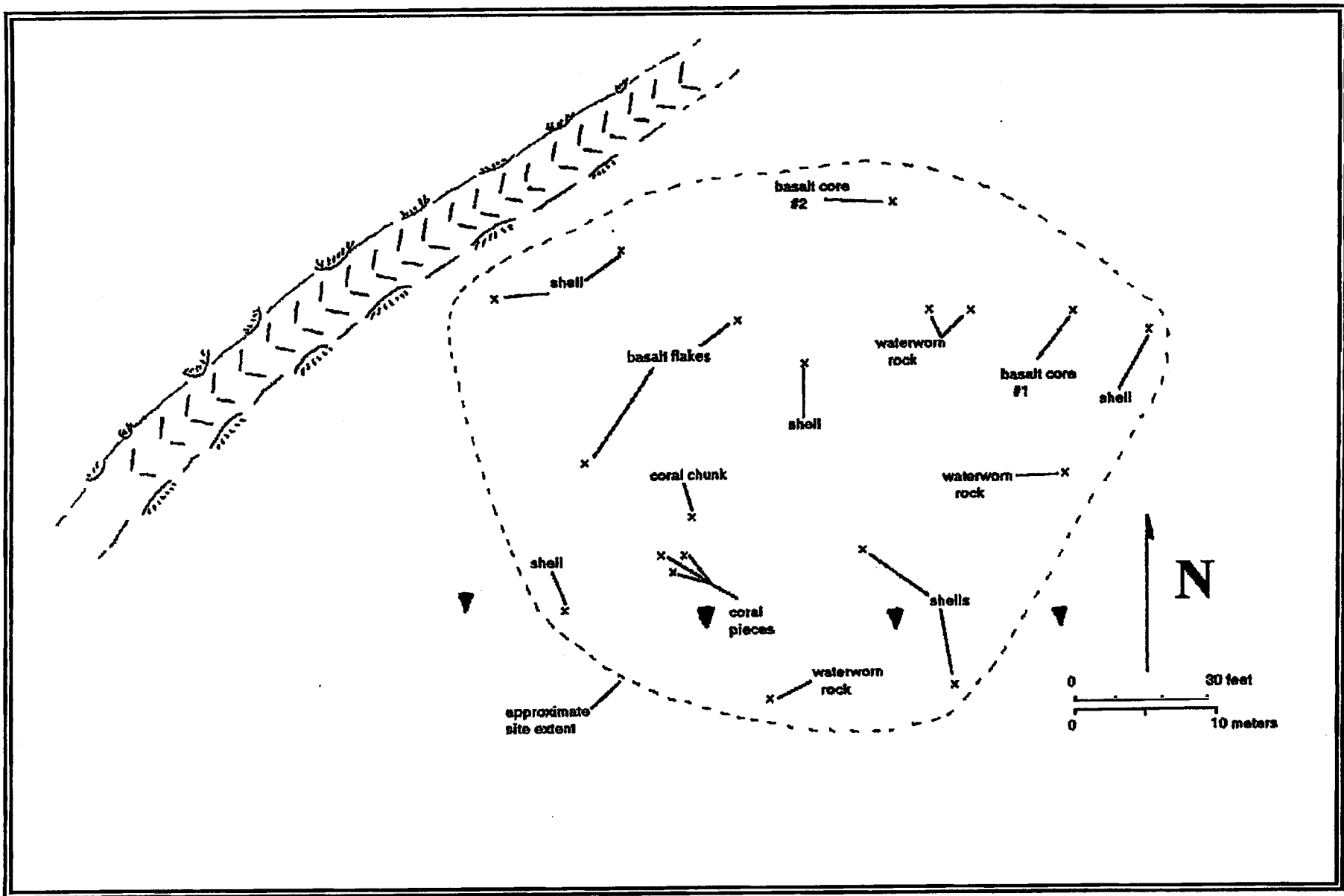


FIGURE 21 - Site 3743 -- Plan view: Surface scatter #3.

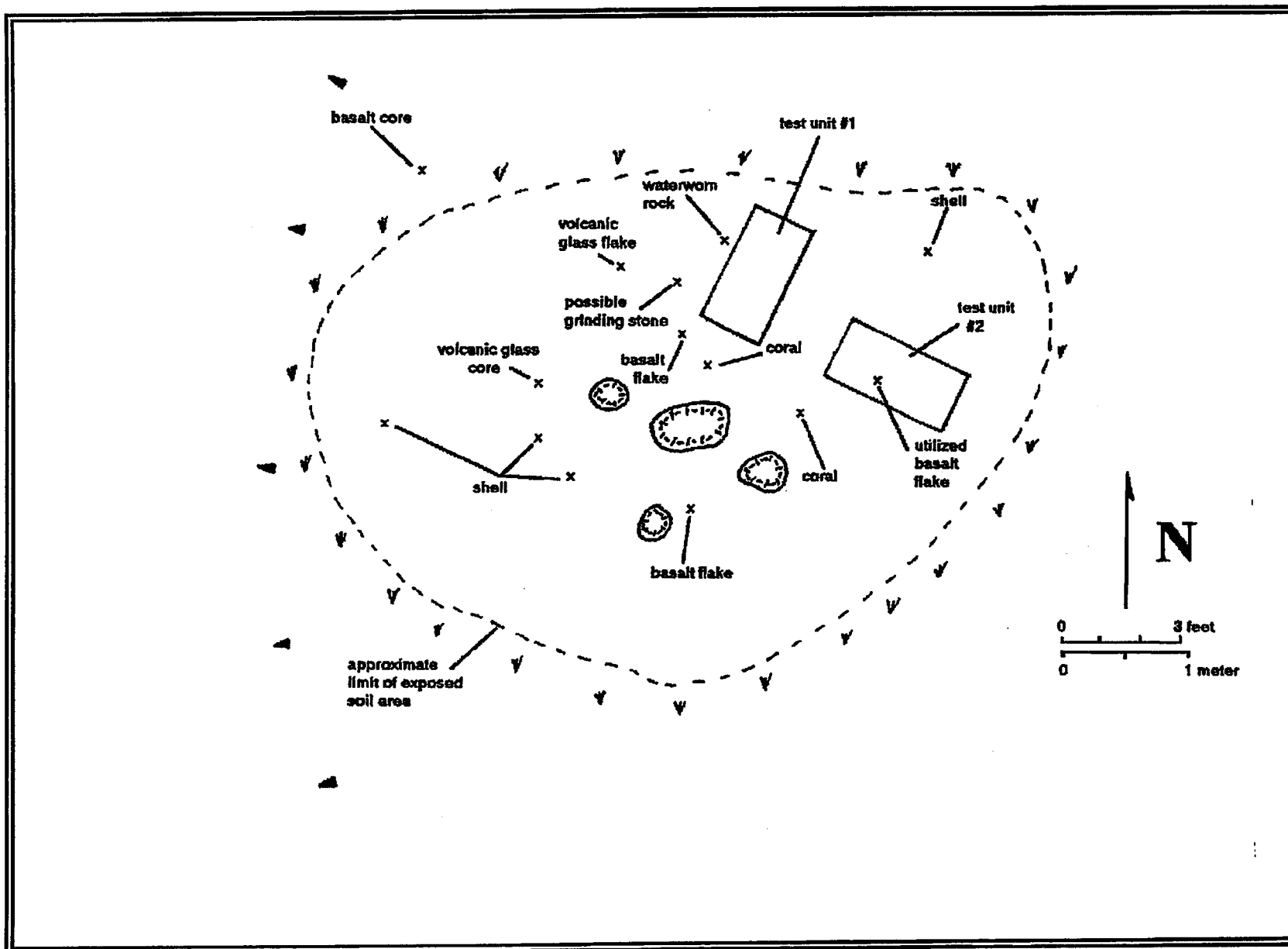
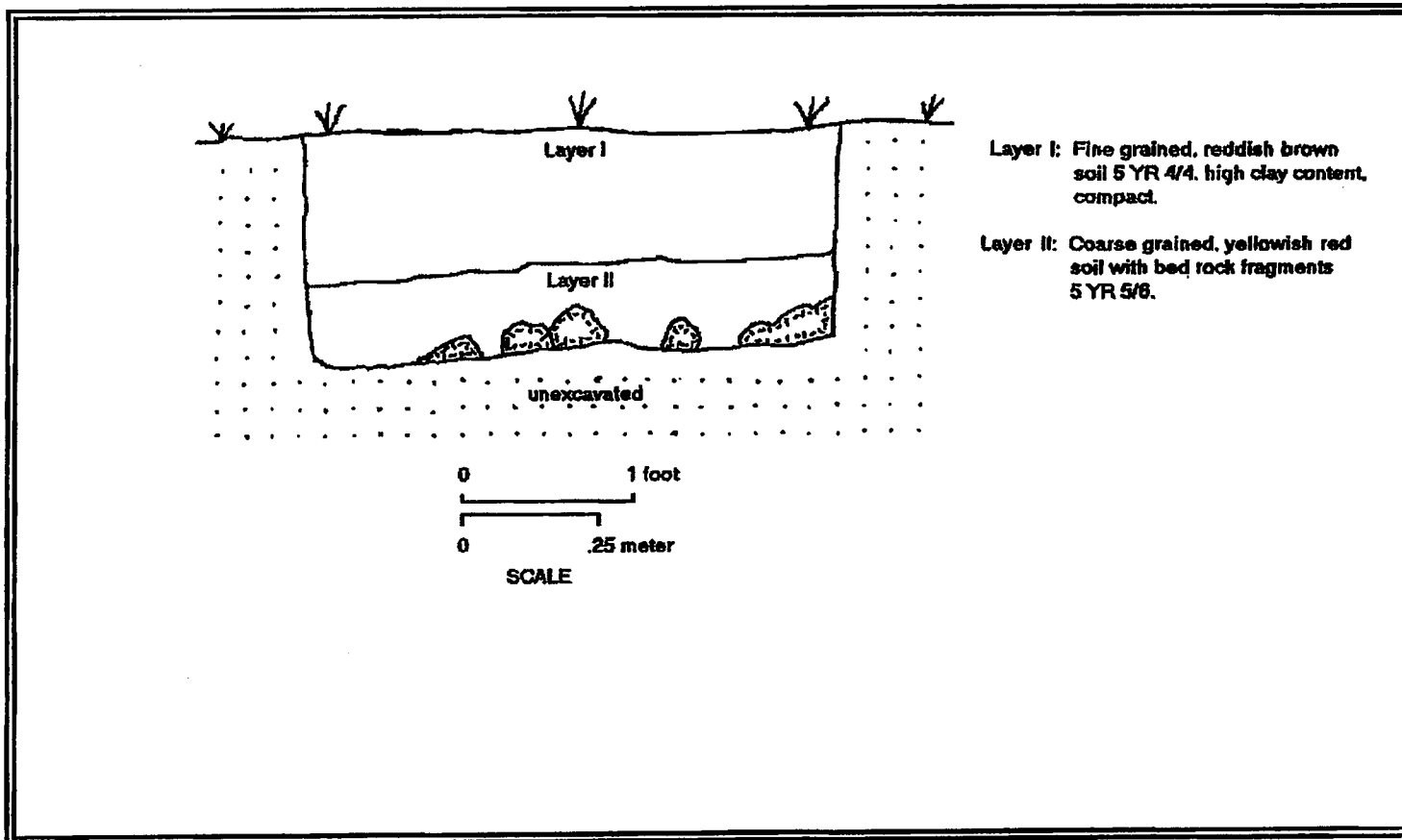
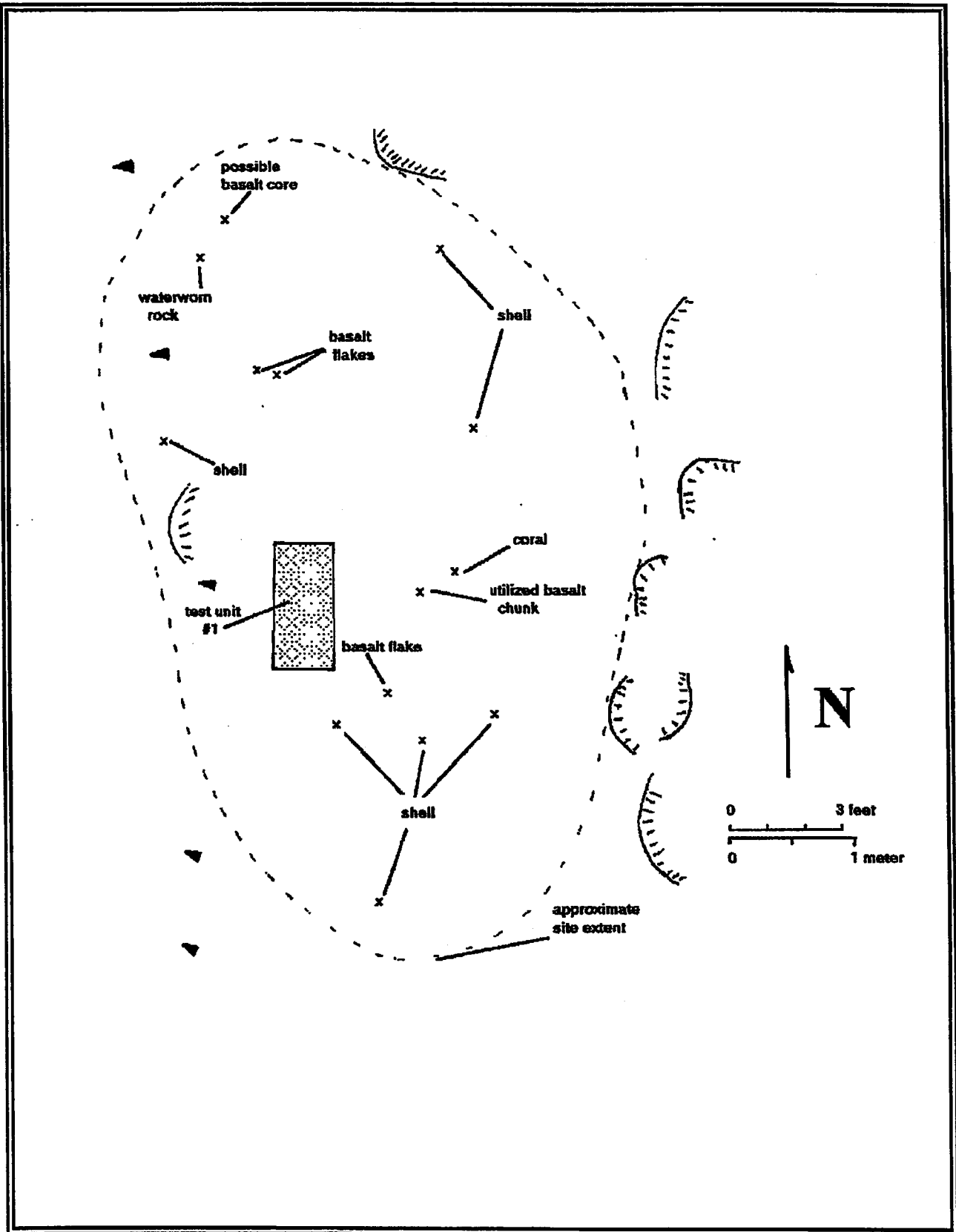


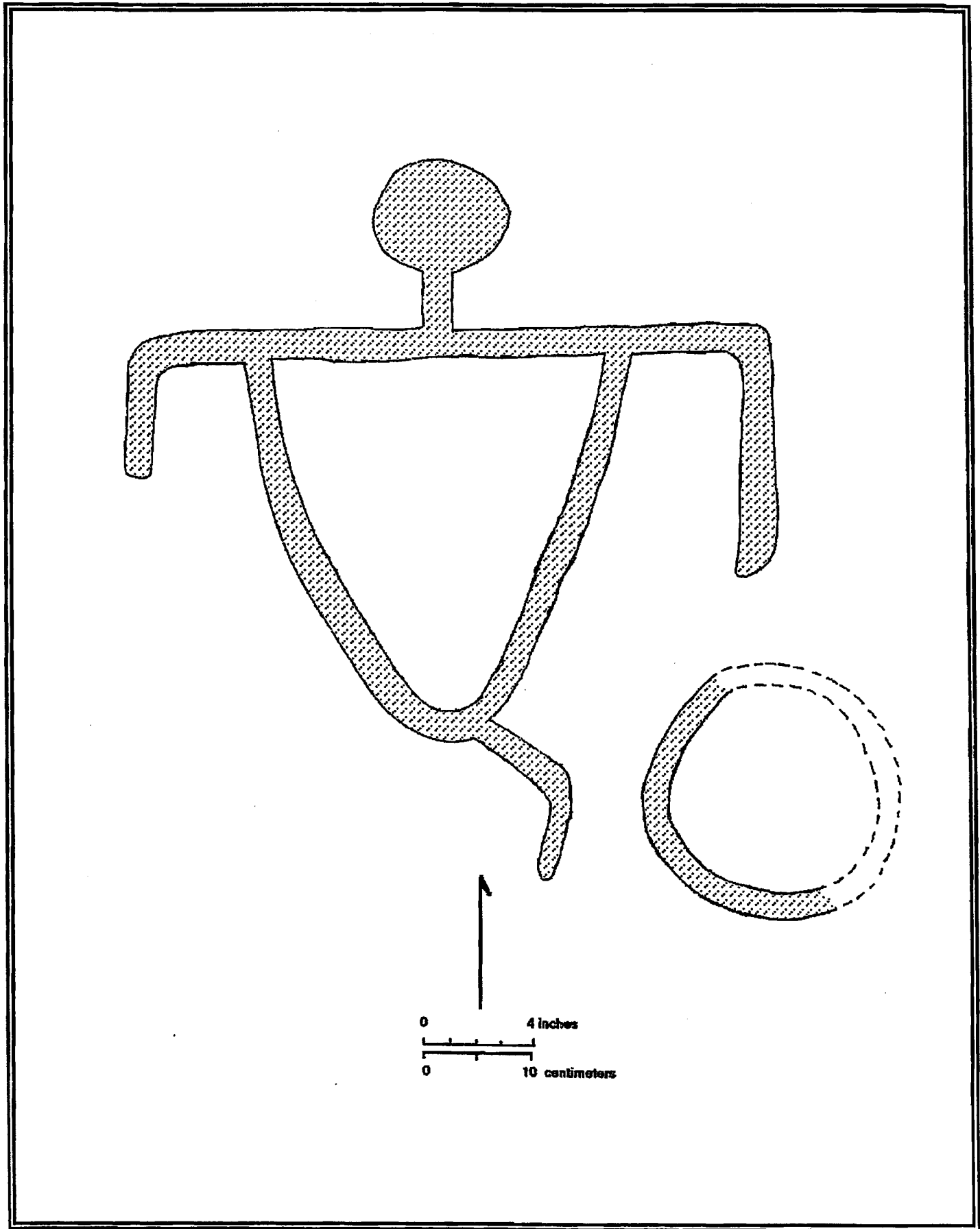
FIGURE 22 - Site 3744 - Plan view: Surface scatter #4.



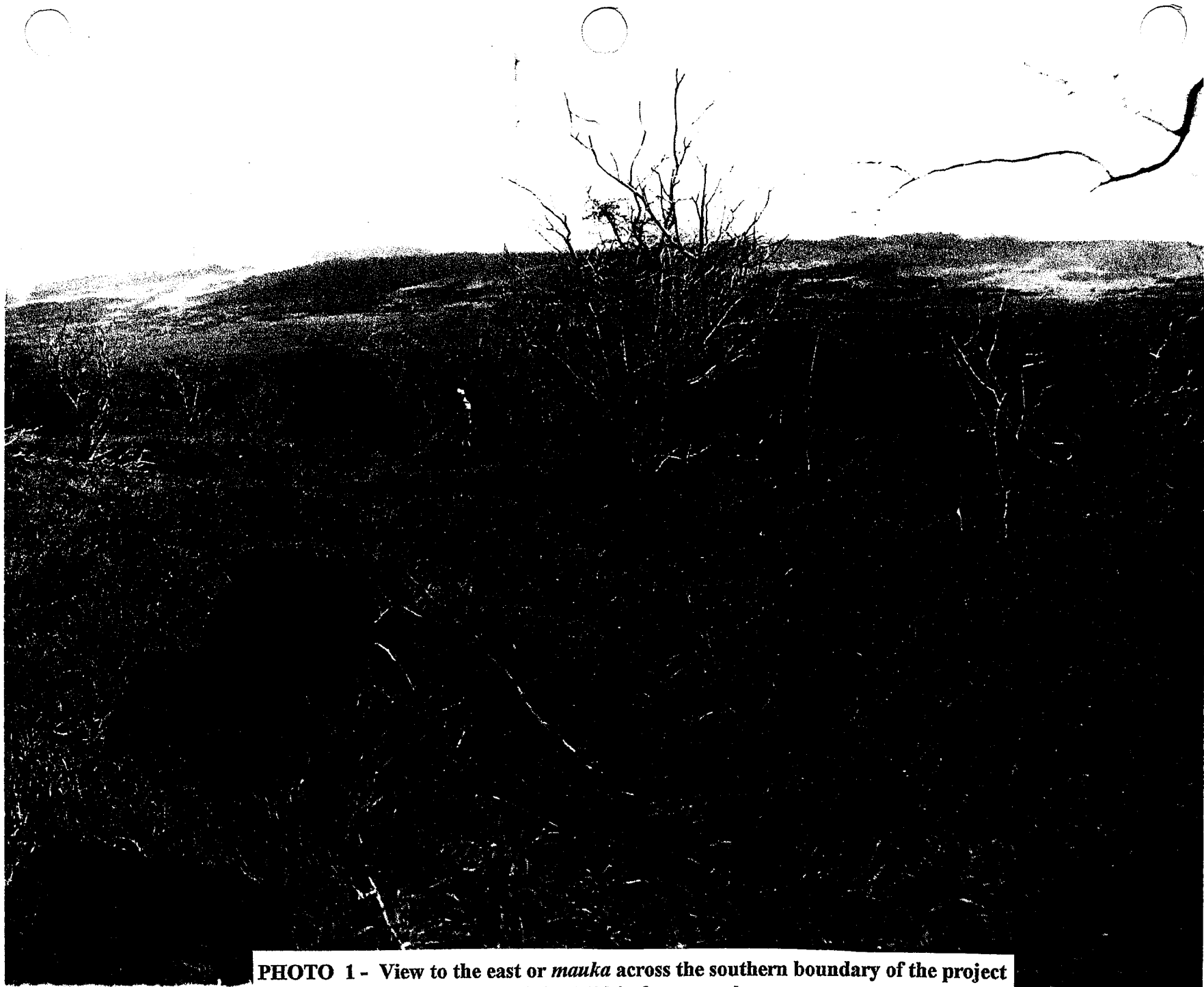
**FIGURE 23 - Site 3744 -- Profile: West face of Test Unit #1.**



**FIGURE 24 - Site 3745 - Plan view: Surface scatter #5.**

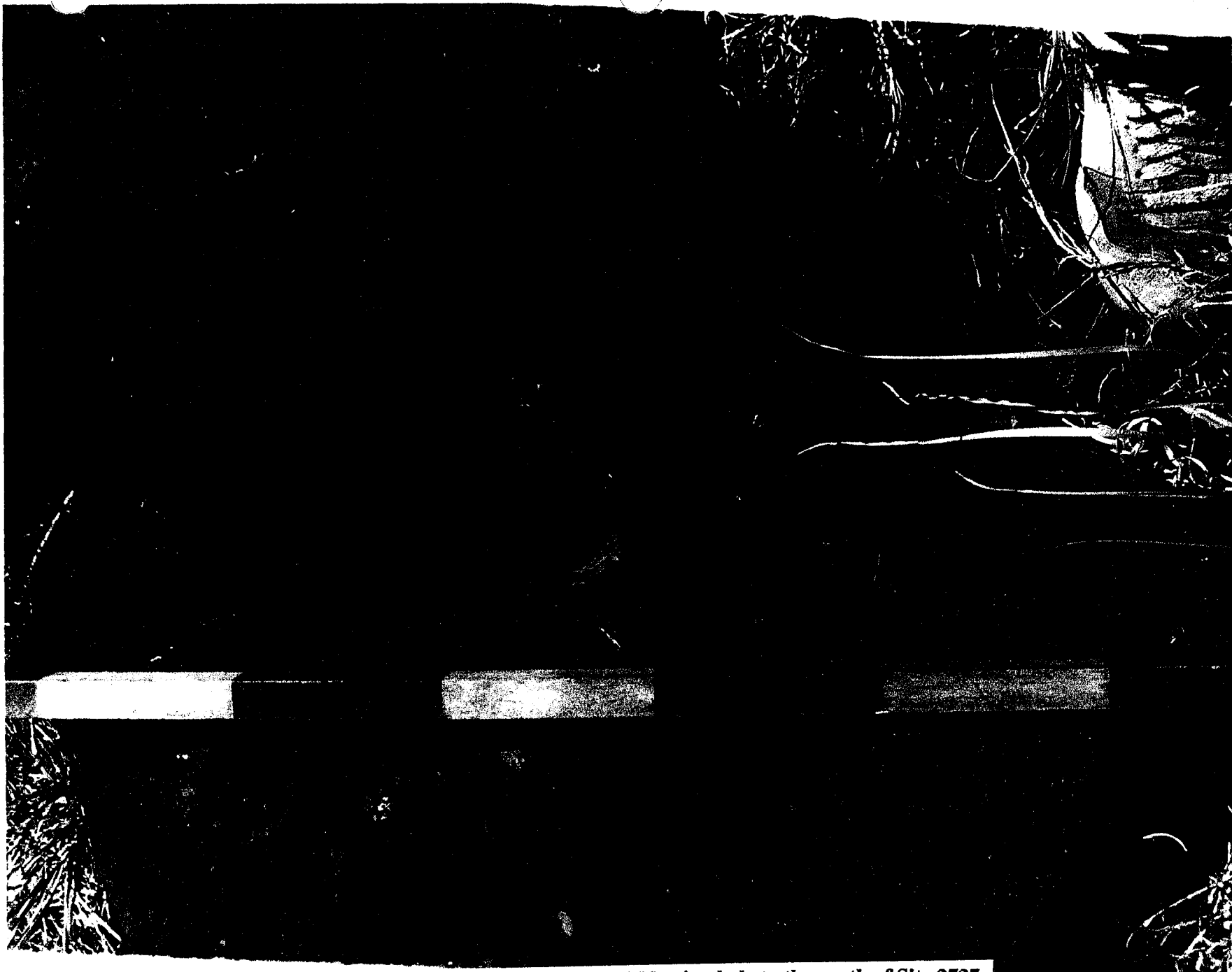


**FIGURE 25 - Site 3746 – Petroglyph pecked into large boulder.**



**PHOTO 1 - View to the east or *mauka* across the southern boundary of the project area. Portion of site 3738 in foreground.**





**PHOTO 2 - Large rock with drilled blasting hole to the north of Site 3737.**



**PHOTO 3 - Site 3727 (Feature A)--vegetation removed prior to excavation.  
View to the northeast.**



**PHOTO 4 - Site 3728--vegetation removed, excavation completed.  
View to the northeast.**



**PHOTO 5 - Site 3729--vegetation removed prior to excavation.  
View to the northwest.**



**PHOTO 6 - Site 3729--vegetation removed, excavation completed.**  
View to the ea *mauka*.



**PHOTO 7 - Site 3735--vegetation removed, excavation completed.  
View to the south. Note cattle trail in foreground.**



**PHOTO 8 - Site 3736--Vegetation removed, prior to excavation.  
View to the north.**

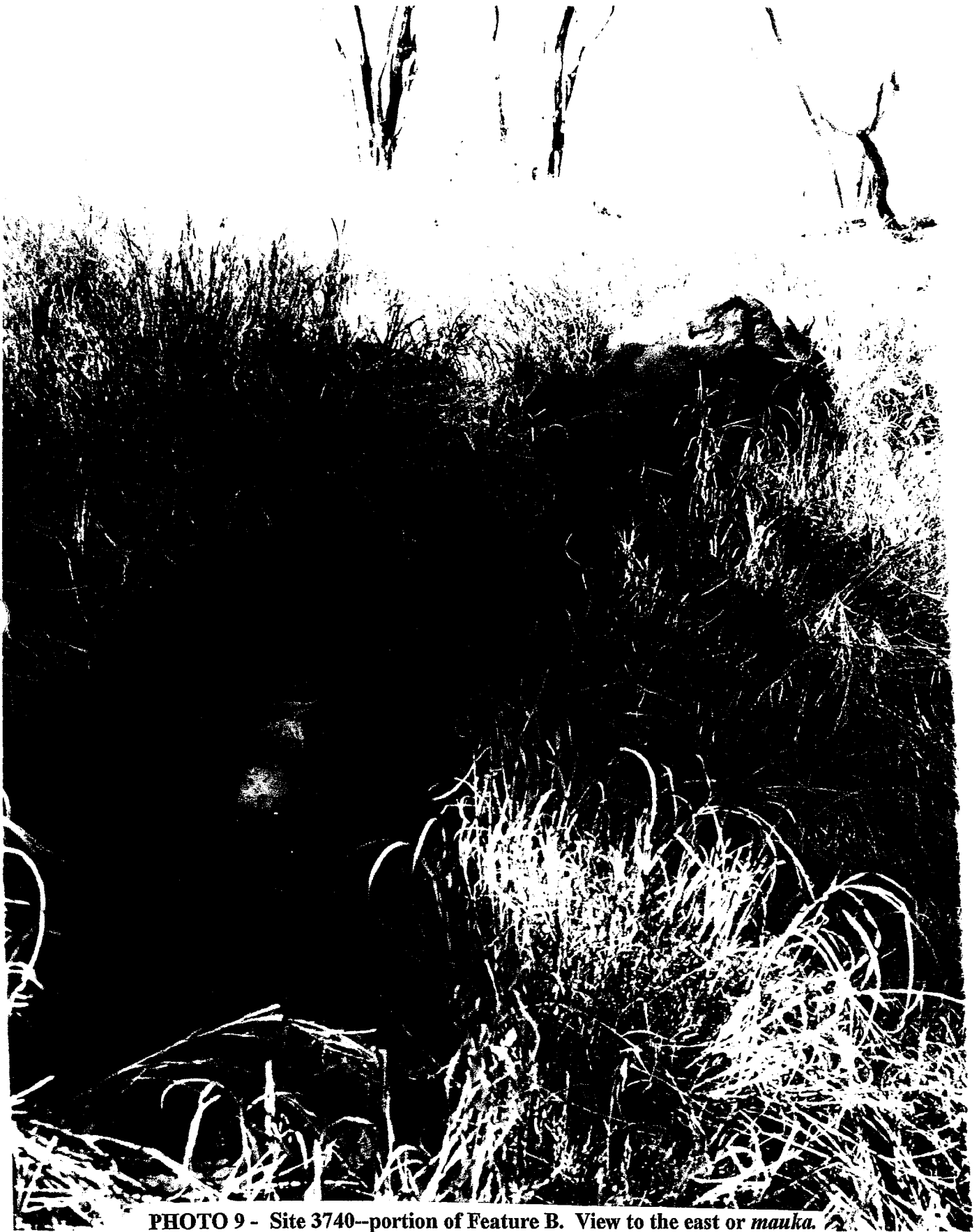
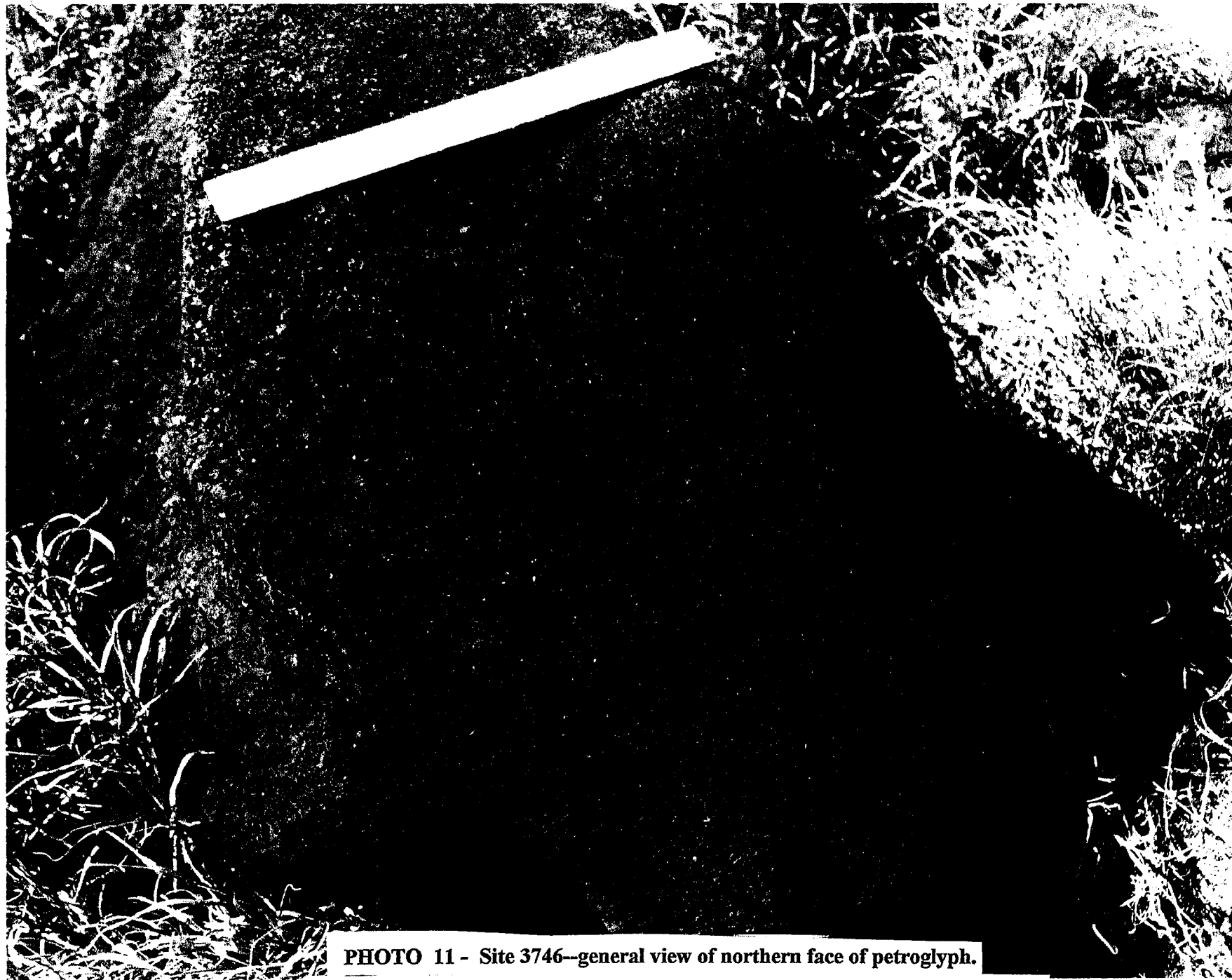


PHOTO 9 - Site 3740--portion of Feature B. View to the east or *mauka*.





PHOTO 10 - Site 3744—excavation in process. View to the east or *mauka*.



**PHOTO 11 - Site 3746--general view of northern face of petroglyph.**

## APPENDIX A

### SITE DESCRIPTIONS

#### Site 50-10-3727 (Figure 1)

**Type:** Complex (3 Features)

**Environmental Setting:** Located on a gently sloping portion of the study area, south of a small gulch. Area of erosion and exposed bedrock. Area dominated by buffelgrass, few *kiawe*. Elevation c. 60 to 62 ft. AMSL.

**Condition:** Fair

**Probable Age:** Indeterminate

**Function:** Possible agriculture

**Dimensions:** 10.0 m. N-S by 10.0 m. E-W

**Description:** The site is comprised of three low, stone features (A-C). This site is c. 30 m. north of the Central Maui Transmission Waterline Easement #1. Past bulldozing from construction activity has occurred relatively near the site and may have destroyed possible associated features.

**Feature A:** Stone pile

**Function:** Possible clear pile

**Dimensions:** 2.23 m. N-S by 3.58 m. E-W by 0.42 m. height

**Description:** Feature A is elongated and rests on soil. Exposed bedrock is to the east of the site. Generally, rounded basalt cobbles comprising Feature A range from c. 20 to 50 cm. in diameter.

A 0.5 x 1.0 m. test excavation (Test Unit #1) was placed into Feature A. Soil deposits under the feature were thin (c. 8 to 11 cm.). Layer I (5 YR 4-5/4) soil was relatively fine textured, reddish red in color, and had a high clay content. It was c. 3 to 8 cm. thick. Layer II (5 YR 5/6) was more yellowish brown in color, with a grainy texture and included pieces of decayed bedrock. Both soil layers in Test Unit #1 were sterile. Soil appeared to be undisturbed.

**Feature B:** Stone pile

**Function:** Possible clear pile

**Dimensions:** 2.20 m. long by 1.22 m. wide by 0.38 m. height

**Description:** Feature B is elongated, and partially rests on bedrock. It is c. 2.25 m. southwest of Feature A. Basalt cobbles used in its construction are c. 20 to 45 cm. in diameter, and generally rounded.

**Feature C:** Stone pile

**Function:** Possible clear pile

**Dimensions:** 2.34 m. long by 1.33 m. wide by 0.41 m. height

**Description:** Feature B is elongated, and rests on partly exposed bedrock. It is c. 0.67 m. southwest of Feature B. Basalt cobbles used in its construction are c. 20 to 45 cm. in diameter.

**Site 50-10-3728 (Figures 2 and 3)**

**Type:** Stone pile

**Environmental Setting:** Located c. 36 m. southwest of Site 3727 and c. 30 m. south of small gulch. The land slopes gently to the west. Area of erosion and exposed bedrock. Vegetation consists of moderate buffelgrass and sparse *kiawe* trees. Elevation c. 56 ft. AMSL.

**Condition:** Good

**Probable Age:** Indeterminate

**Function:** Possible clear pile

**Dimensions:** 2.54 m. length by 1.32 m. width by 0.52 m. height

**Description:** The site consists of one isolated feature. This component is a low tear-shaped rock pile resting on soil. Angular basalt cobble stones used in construction range from 15 to 35 cm. in diameter. It is c. 42 m. northwest of the Central Maui Transmission Waterline Easement #1. Past bulldozing from construction activity associated with the waterline may have destroyed possible associated features.

One test unit (1.0 x 1.0 m.) was placed into this stone pile. Stratigraphy similar to Site 3727 was encountered. However, soil deposits were deeper. Layer I (5 YR 4-5/4) soil was fine textured, reddish brown in color, and had a high clay content. It was c. 14 to 21 cm. thick. Layer II (5 YR 5/6) was more yellowish red in color, with a grainy texture and included pieces of decayed bedrock. Excavation was halted at c. 25 to 36 cm. below datum. Both soil layers in Test Unit #1 were sterile. Soil appeared to be undisturbed.

**Site 50-10-3729 (Figures 4 and 5)**

**Type:** Stone cairn

**Environmental Setting:** Located on a slight promontory on a relatively gently sloping area of Ranch land. Area of slight erosion and some exposed bedrock. Vegetation dominated by buffelgrass, several *kiawe* trees in vicinity. Elevation c. 78 ft. AMSL.

**Condition:** Good

**Probable Age:** Indeterminate

**Function:** Marker

**Dimensions:** 1.91 m. N-S by 1.45 m. E-W by 0.90 m. height

**Description:** The site consists of one isolated cairn. This component is well constructed and rests on soil. It is constructed with relatively round basalt cobbles ranging from 20 to 50 cm. in diameter. Larger basalt rocks were generally located at the base of this feature. This site is c. 76 m. southeast of the waterline easement, and c. 130 m. southwest of Site 3727.

One test unit (0.5 x 1.0 m.) was placed into this cairn. Much of the feature was dismantled for safety reasons, prior to excavation. Stratigraphy was similar to both Sites 3727 and 3728. Layer I (5 YR 4/4) soil was fine textured, reddish brown in color, with a high clay content. It was slightly more granular than Layer I at Sites 3727 and 3728. It was c. 18 to 23 cm. thick. Layer II (5 YR 4/6) was yellowish red in color, with a grainy texture and included pieces of decayed bedrock. Excavation was halted c. 30 to 36 cm. below surface. Soil appeared to be undisturbed. This excavation unit was sterile.

#### Site 50-10-3730 (Figure 6)

**Type:** Stone cairn

**Environmental Setting:** Located in an area somewhat impacted by erosion. Land slopes moderately to the west or *makai*. Exposed bedrock in several areas. Vegetation dominated by buffelgrass, scattered *kiawe* trees and *klu* in vicinity. Elevation c. 75 ft. AMSL.

**Condition:** Good

**Probable Age:** Indeterminate

**Function:** Marker

**Dimensions:** 1.35 m. N-S by 1.09 m. E-W by 0.84 m. height

**Description:** The site consists of a stack of c. 16 basalt stones and cobbles c. 15 to 25 cm. in diameter, placed on outcrop bedrock. While its overall height is 0.84 m. above ground surface, the cairn itself is c. 0.43 m. high. This site is c. 70 m. south of Site 3729.

#### Site 50-10-3731 (Figure 7)

**Type:** Stone cairn

**Environmental Setting:** Located on a moderate slope, near relatively large area of exposed bedrock. Vegetation dominated by thick buffelgrass and several *kiawe* trees. Elevation 95 ft. AMSL.

**Condition:** Good

**Probable Age:** Post-Contact

**Function:** Marker

**Dimensions:** 1.71 m. N-S by 1.84 m. E-W by 0.79 m. height

**Description:** The site consists of a stack of c. 25 basalt cobbles c. 20 to 35 cm. in diameter, placed on exposed bedrock. While its overall height is 0.79 m. above ground surface, the cairn itself is c. 0.48 m. high. It is c. 100 m. east of Site 3730 and c. 112 m. southeast of Site 3729. One cobble used in construction exhibits a heavy equipment scar.

#### Site 50-10-3732 (Figure 8)

**Type:** Stone cairn

**Environmental Setting:** Located on a promontory near the eastern border of the study area. Much of the promontory consists of exposed bedrock. Vegetation consists of moderate to sparse buffelgrass cover, scattered *kiawe* trees, and isolated *pili* grass. Elevation 115 ft. AMSL.

**Condition:** Good

**Probable Age:** Indeterminate

**Function:** Marker

**Dimensions:** 0.67 m. N-S by 0.78 m. E-W x 0.30 m. height

**Description:** The site consists of a small stack of c. 14 basalt cobbles resting on thin, eroded soil. The cobbles range in size from 20 to 30 cm. in diameter. It is c. 98 m. southeast of Site 3731, and is near the property's eastern boundary. This cairn is on the highest portion of the southern half of the study area. A large coral chunk (see Table 1) was located c. 24 m. south of the cairn (see Table 1).

#### Site 50-10-3733 (Figure 9)

**Type:** Stone cairn

**Environmental Setting:** Located on gentle sloping terrain near the eastern boundary of the project area. Erosion has exposed areas of bedrock. Vegetation consists of buffelgrass, and scattered *kiawe* trees. Elevation 108 ft. AMSL.

**Condition:** Good to fair

**Probable Age:** Post-Contact

**Function:** Marker

**Dimensions:** 1.24 m. N-S by 1.43 m. E-W by 0.62 m. high

**Description:** The site consists of a relatively low cairn resting on thin soil. An old survey stake appears to have been incorporated into the cairns construction. Basalt cobbles range in size from 20 to 45 cm. in diameter. It is c. 46 m. northeast of Site 3732.

#### Site 50-10-3734 (Figure 10)

**Type:** Stone pile

**Environmental Setting:** Located on a somewhat eroded slope near the southern boundary of the study area. Grubbing and, possibly, blasting has disturbed the land c. 10 m. to the west. Vegetation consists of relatively thick buffelgrass and isolated klu and *kiawe*. Elevation 51 ft. AMSL.

**Condition:** Poor to fair

**Probable Age:** Indeterminate

**Function:** Possible clear pile

**Dimensions:** 1.68 m. by 2.18 m. E-W by 0.38 m. high

**Description:** The site consists of a low rock pile resting on very thin soil and bedrock. Angular basalt stones and cobbles c. 10 to 35 cm. in diameter from the feature. Some stones and cobbles incorporated in the feature appear to have been broken in the past and exhibit only slight weathering. This feature is c. 38 m. from the nearest archaeological site (3736).

#### No Site Number Assigned (Figure 11)

**Type:** Bulldozed terrace

**Environmental Setting:** Located on the eastern side of the waterline easement on the southwestern quadrant of the study area. Terrain slopes moderately to the west. Area bulldozed. Vegetation comprised of moderate buffelgrass cover and scattered *kiawe* trees. Elevation 54 ft. AMSL.

**Condition:** N/A

**Probable Age:** Modern

**Function:** N/A

**Dimensions:** 20 m. N-S by 25 m. E-W

**Description:** This non-numbered site is the result of activities associated with the construction of the Central Maui Transmission Waterline Easement #1 in the 1960s. Large boulders c. 0.8 to 1.1 m. in diameter make up this modern feature.

#### Site 50-10-3735 (Figure 12)

**Type:** Enclosure

**Environmental Setting:** Located on a promontory. Terrain slopes moderately to the west. Kulanihakoi Gulch is directly to the south. Area of erosion and exposed bedrock. Some possible grubbing to the west and northeast. Cattle trail runs in a E-W direction, immediately north of enclosure. Vegetation comprised of thin buffelgrass cover and scattered *kiawe*.

**Condition:** Fair to good

**Probable Age:** World War II

**Function:** Military

**Dimensions:** 2.76 m. N-S by 3.14 M. E-W x 0.51 m. maximum height

**Description:** The site consists of a low stone enclosure resting on thin soil and bedrock. This mushroom-shaped feature is on a promontory and faces westward or *makai*. It is somewhat roughly constructed with basalt stones and cobbles ranging from 10 to 40 cm. in diameter. In addition, five larger cobbles (c. 50 to 70 cm. in diameter) are incorporated into portions of the feature. Many of the cobbles used in this enclosure exhibit few signs of weathering. There are also several rocks that appear to have been broken and/or scraped by heavy equipment prior to being incorporated into the structure.

The inside diameter of this enclosure is c. 1.5 m. in diameter. Its walls are c. 50 to 65 cm. thick and tend to be two courses high. The feature ranges in height from 35 to 51 cm. above ground surface. An entrance c. 40 to 55 cm. wide is located on the southeastern site of the enclosure.

A 0.5 x 1.0 m. test unit, oriented to the north, was placed inside the feature. Soil encountered in the interior tended to be relatively shallow. Stratigraphy was similar to other areas of the project. Layer I soil was reddish brown in color (5 YR 4-5/4), with a compact, fine-grained texture and a relatively high clay content. Layer I also contained some small angular gravel in it. Layer II soil was a course grained, yellowish red soil (5 YR 4/6), with small pieces of decayed bedrock. Layer I was c. 6 to 9 cm. thick, while Layer II was c. 3 to 5 cm. thick. No material culture remains were discovered.

### Site 50-10-3736 (Figure 13)

**Type:** Enclosure

**Environmental Setting:** Located on a slight promontory. Terrain slopes moderately to the west. Some erosion in general area. Grubbing and, possibly blasting has occurred west of the site. Vegetation comprised of moderate buffelgrass cover and scattered *kiawe* trees and some klu. Elevation 59 ft. AMSL.

**Condition:** Fair

**Probable Age:** Pre-Contact (?)

**Function:** Possible shelter

**Dimensions:** 2.85 m. N-S by 2.56 m. E-W by 0.58 m. maximum height

**Description:** The site consists of a low stone enclosure resting on thin soil. It is c. 105 m. northwest from Site 3735. This oval-shaped enclosure is constructed with angular basalt cobbles ranging from 10 to 40 cm. in diameter. Some of the rocks used in this enclosure exhibit little weathering. Several of the cobbles appear to have been broken, possibly by blasting.

The inside diameter of this enclosure is c. 1.9 m. N-S by 1.5 m. E-W. Portions of the structure have been partly collapsed - possibly by cattle. The feature's wall is c. 40 to 55 cm. thick and ranges from a low of 23 cm. to a high of 58 cm. above ground surface.

A 0.5 x 1.0 m. test unit was placed inside the feature. Soil encountered in the interior was shallow. Stratigraphy was similar to other portions of the study area. Layer I was c. 8 to 10 cm. thick, while Layer II was 3 to 5 cm. thick. Bedrock was intrusive in portions of Test Unit #1. In addition, soil was generally rocky. No material culture remains were discovered. Layer I soil was reddish brown in color (5 YR 5/4), somewhat compact, fine grained in texture, with a high clay content. Layer II soil was course grained, yellowish red in color (5 YR 4/6), with small pieces of decayed bedrock.

### Site 50-10-3737 (Figure 14)

**Type:** Parallel alignment

**Environmental Setting:** Located in an eroded area near southern boundary of Ranch property. Exposed bedrock present. Blasting has occurred north of feature and possible grubbing in general are. Vegetation comprised of sparse to moderate buffelgrass cover, *kiawe* trees, and scattered klu. Elevation 69 to 79 ft. AMSL.

**Condition:** Fair

**Probable Age:** c. World War II

**Function:** Military road

**Dimensions:** 8 m. N-S by 119 m. E-W

**Description:** The site consists of two parallel stone alignments c. 6 m. apart. The southern alignment is c. 122 m. long and the northern alignment is c. 114 m. long. Both alignments are primarily constructed with large basalt cobbles and boulders c. 0.6 to 1.0 m. in diameter. Several of the basalt boulders used in the feature exhibit weathered heavy equipment scars. In general, both alignments consist of single, large cobbles and boulders placed linearly along a bearing of 81 degrees. Much of the area between the two parallel



alignments consists of exposed bedrock. A c. 1.0 m. diameter gravel pile is located at the western end of this site. A few portable remains were found near the site (see Table 1).

#### Site 50-10-3738 (Figure 15)

**Type:** Parallel alignment

**Environmental Setting:** Located near the southern boundary of the study area at the edge of Kulanihakoi Gulch. Some exposed bedrock present. Area of erosion.

Vegetation composed of moderate to thick buffelgrass cover and *kiawe* trees.

Elevation 67 ft. AMSL.

**Condition:** Fair

**Probable Age:** World War II

**Function:** Military road

**Dimensions:** 8 m. N-S by 58 m. E-W

**Description:** This site is c. 46 m. south of Site 3737. It also consists of two parallel stone alignments c. 6 m. apart. Both alignments consist primarily of a series of large (c. 0.6 to 1.0 m. diameter), single cobbles and boulders placed linearly and parallel to the curving edge of the Kulanihakoi Gulch. The southern alignment is c. 61 m. long, while the northern alignment is c. 46 m. in length. An additional alignment segment c. 8.8 m. long is some seven meters to the west of the northern alignment. This appears to have been severed from the longer alignment with a bulldozer. Some boulders utilized in the construction of Site 3738 exhibit heavy equipment scars. Much of the area between the parallel alignments is exposed bedrock. A utilized cobble was found near the eastern end of this site (see Table 1).

#### Site 50-10-3739 (Figure 16)

**Type:** Parallel alignment

**Environmental Setting:** Located near the base of a promontory on a moderate to gentle sloping bank of Kulanihakoi Gulch. Some exposed bedrock present. Area of bulldozing to the west. Vegetation comprised of moderate buffelgrass cover and scattered *kiawe* trees. Elevation c. 49 ft. AMSL.

**Condition:** Poor

**Probable Age:** World War II (?)

**Function:** Military road remnant (?)

**Dimensions:** 5.7 m. N-S by 9.8 m. E-W

**Description:** This site is c. 76 m. west of Site 3738 and c. 30 m. southwest of Site 3735. Site 3739 consists of two relatively short, parallel alignments c. 3 m. apart. Both alignments consist of relatively large basalt cobbles (c. 30 to 60 cm. diameter) placed in a linear manner. The northern alignment is c. 9 m. long, while the southern one is 9.8 m. long. Two of the feature's rocks have what appear to be heavy equipment scars. No portable remains were located in the vicinity.

**Site 50-10-3740 (Figure 17)**

**Type:** Erosion containment walls

**Environmental Setting:** Located near the northern boundary of the study area on either side of a relatively small gulch. Gulch is c. 4 m. deep by 20 m. wide. Exposed bedrock and "blue rock" in area. Extensive bulldozing to northwest of the gulch, grubbing and apparent blasting to the east of the site. Vegetation comprised of thick buffelgrass, relatively abundant *kiawe* trees and some klu. Elevation c. 96 to 105 ft. AMSL.

**Condition:** Fair to good

**Probable Age:** Post-Contact

**Function:** Ranching

**Dimensions:** West wall - 11.0 m. N-S by 0.5 to 1.1 m. E-W. East wall 44.0 m. N-S by 0.5 to 0.8 m. E-W

**Description:** This site is located along either side of the small gulch that crosses the study area. It is c. 130 m. south of the northern project boundary. The west retaining wall is generally well built, and ranges in height on the gulch side from 0.5 to 0.7 m. above ground surface. The wall on the eastern back of the gulch is tumbled down in places due to erosion and, possibly cattle activity. This wall generally does not extend onto exposed bedrock. It is c. 0.6 to 0.9 m. in height on the gulch side. Both walls are constructed with relatively dense "blue rock", some of which exhibits heavy equipment scars. Cobbles range in size from 20 to 45 cm. in diameter. Some wire was observed in one portion of the eastern wall. Historic material noted in the area included metal, bottle glass fragments, an aluminum can, and metal wire.

**Site 50-10-3741 (Figures 18 and 19)**

**Type:** Midden and Lithic Surface Scatter

**Environmental Setting:** Located near the middle of western boundary of property. At the base of a moderate slope, portions of which appear to have been bulldozed. Exposed bedrock and outcrop are in vicinity. Area of erosion and deposition from upslope. Vegetation comprised of sparse to moderate buffelgrass cover, scattered *kiawe* trees, and isolated clumps of *pili* grass. Elevation c. 59 to 63 ft. AMSL.

**Condition:** Fair, eroded

**Probable Age:** Pre-Contact

**Function:** Temporary habitation

**Dimensions:** c. 68 m. N-S by c. 48 m. E-W

**Description:** This large midden and lithic surface scatter is located c. 53 meters from the western boundary of the subject parcel. Three fence posts cross a portion of Site 3741 on a bearing of 164 degrees. Surface finds included three unworked basalt flakes, four waterworn rocks, and two pieces of coral (see Table 1). In general, marine shellfish remnants are sparsely scattered over the site. Species represented on the surface are the same as those found in Test Units #1 and #2 (see Table 2).

Test Unit #1 was 1.0 x 1.0 m. square. Excavation was halted at c. 18 to 23 cm. b.s. when decayed bedrock was encountered. Stratigraphy was similar to other subsurface tests. However, the top c. 10 cm. of Layer I had been churned by cattle crossing the site over time. Layer I (5 YR 4-5/4) soil was fine textured reddish brown in color, with a relatively high clay content. It was c. 13 to 16 cm. thick. In all, eight different marine shellfish species were found in the top 10 cm. of Layer I (see Table 2). In addition, a utilized basalt flake was recovered from this layer. Layer II was c. 5 to 7 cm. thick. It was yellowish red in color (5 YR 4/6), with a grainy texture, and included pieces of decayed bedrock. Layer II soil was sterile.

Test Unit #2 was 0.5 x 1.0 m. in size. Excavation was halted at c. 11 to 14 cm. b.s. Stratigraphy was similar to Test Unit #1. However, Layer I was only c. 7 to 9 cm. thick. Most of Layer I was disturbed by cattle activity. Layer II was relatively intact. Two species of shellfish, one dense waterworn rock, and one piece of coral were located in Level 1 (0 to 10 cm. b.s.) of Layer I (see Table 2).

#### **Site 50-10-3742 (Figure 20)**

**Type:** Midden and lithic surface scatter

**Environmental Setting:** Located directly north of small gulch, near western property boundary. Area of exposed outcrop, very thin soil. Gentle sloping terrain. Vegetation comprised of sparse buffelgrass, *kiawe* trees common next to gulch. Elevation c. 48 to 52 ft. AMSL.

**Condition:** Poor, eroded

**Probable Age:** Indeterminate

**Function:** Possible temporary habitation

**Dimensions:** 21 m. N-S by 26 m. E-W

**Description:** This midden and lithic surface scatter is located c. 54 m. south of Site 3741 and c. 52 m. from the western boundary of the survey area. This is a very sparse surface scatter with very shallow soil deposits. Only two types of shell were observed in the site area: Conidae and Cypraeidae. Approximately eight pieces of shell were observed. Other surface portable remains included and unworked basalt flake, three waterworn rocks, a coral chunk, and four pieces of coral (see Table 1).

#### **Site 50-10-3743 (Figure 21)**

**Type:** Midden and lithic surface scatter

**Environmental Setting:** Located to the south of small gulch, near western property boundary. Area eroded, exposed bedrock, thin soil. Gentle sloping terrain. Vegetation comprised of moderate buffelgrass cover, and isolated *kiawe* trees and *klu*.

**Condition:** Poor, eroded

**Probable Age:** Pre-Contact

**Function:** Possible temporary habitation

**Dimensions:** 42 m. N-S by 52 m. E-W

**Description:** Midden and lithic surface scatter which included c. 25 pieces of the shellfish Conidae, Cypraeidae and Neritidae, and lithic materials consisting of two basalt cores, two unworked basalt flakes, four waterworn rocks, one coral chunk and three pieces of coral (see Table 1).

**Site 50-10-3744 (Figures 22 and 23)**

**Type:** Midden and lithic surface scatter

**Environmental Setting:** Located on a promontory at the base of a partly eroded slope. Some exposed bedrock in vicinity. Drainage area c. 20 m. to the north. Some possible bulldozing to north and west. Vegetation comprised of moderate buffelgrass cover and scattered *kiawe* trees. Elevation 60 ft. AMSL.

**Condition:** Fair, eroded

**Probable Age:** Pre-Contact

**Function:** Temporary habitation

**Dimensions:** 4.20 m. N-S by 6.10 m. E-W

**Description:** This small midden and lithic surface scatter is located c. 168 m. southeast of Site 3743. It is c. 105 m. north of the southern boundary of Ranch land. This site is relatively free of vegetation. Shellfish including Conidae, Cypraeidae and Neritidae were present on the surface. There were c. 10 pieces of shell observed. Collected portable surface remains included one utilized basalt flake, two unworked basalt flakes, one basalt core, one possible grinding stone fragment, one waterworn rock, one waste flake of volcanic glass, one volcanic glass core, one coral chunk, and one coral piece (see Table 1). Two test units, each 0.5 by 1.0 m. were excavated at this site.

Test Unit #1 was excavated to c. 30 to 35 cm. b.s. and was halted when bedrock was encountered. Stratigraphy was similar to Site 3741. The top c. 10 cm. of Layer I had also been churned by cattle crossing the site over time. Layer I (5 YR 4/4) soil was relatively fine textured, reddish brown in color, with a high clay content. It was c. 18 to 22 cm. deep. Two different species of marine shellfish were located in Level I (0 to 10 cm. b.s.) of this test unit (see Table 2). In addition, a utilized basalt flake was also recovered from Level 1. Layer II was c. 8 to 12 cm. thick. It was yellowish red in color (5 YR 4/6), with a grainy texture, and included pieces of decayed bedrock. Layer II was sterile.

Test Unit #2 was excavated to c. 22 to 25 cm. b.s. Stratigraphy was similar to Test Unit #1. However, Layer I was slightly thinner (14 to 18 cm.). Level 1 (0 to 10 cm. b.s.) of Layer I had also been somewhat churned by cattle movement. Cultural material was only located in Level 1. Portable remains included three unworked basalt flakes, one waterworn rock, and five pieces of coral (see Table 2). Layer II (5 YR 4/6) was c. 4 to 7 cm. thick, and no cultural material was recovered from the Layer II soil.

**Site 50-10-3745 (Figure 24)**

**Type:** Midden and lithic surface scatter

**Environmental Setting:** Located at the base of a low, eroded promontory on gently sloping terrain. Area of erosion and exposed bedrock. Vegetation comprised of

moderate to dense buffelgrass cover, *kiawe* trees common. Elevation 102 ft. AMSL.

**Condition:** Poor, eroded

**Probable Age:** Pre-Contact

**Function:** Possible temporary habitation

**Dimensions:** 7.0 m. N-S by 3.5 m. E-W

**Description:** This midden and lithic surface scatter is located c. 68 m. west of the eastern boundary of the project area. It is the most eastward or *mauka* of the surface scatter sites. This surface scatter is sparse, with shallow, eroded soil deposits. Shellfish observed include Conidae and Cypraeidae. Other surface portable remains included three unworked basalt flakes, one possible basalt core, one waterworn rock, one utilized basalt chunk, and one coral piece (see Table 1). One test unit 0.5 by 1.0 meter was excavated c. 12 to 15 cm. to decayed bedrock.

Test Unit #1 was sterile. Stratigraphy was similar to the other test units. Layer I (5 YR 4-5/4) was 7 to 9 cm. thick. While Layer II (5 YR 4/6) was 5 to 6 cm. thick. Layer I appeared to have been churned by cattle.

#### Site 50-10-3746 (Figure 25)

**Type:** Petroglyph

**Environmental Setting:** Located on gently sloping terrain. Area of erosion, with thin soil and some exposed bedrock. Drainage area c. 30 m. north.

Vegetation comprised of moderate buffelgrass cover, *kiawe* trees common. Elevation 99 ft. AMSL.

**Condition:** Fair, weathered rock surface

**Probable Age:** Pre-Contact

**Function:** Marker (?)/ Art (?)

**Dimensions:** On basalt boulder c. 1.10 m. high by 0.91 m. wide by 0.85 m. thick

**Description:** This petroglyph is pecked into a large weathered, somewhat porous rounded basalt boulder. The figure of a man is displayed on this boulder. Part of the figure's right leg appears to be missing or has weathered. In addition, a portion of a rounded object is depicted below the figure's left arm.