

## 6.5 Site SDI-11,391B

### 6.5.1 Site Description

This site consists of a lithic scatter located on a lower south-trending slope of a ridge system on the north side of Jamul Valley, immediately north of Otay Lakes Road, in the southeast corner of the project. Site SDI-11,391 was originally recorded by Ritz *et al.* (1989) as a flake scatter consisting of three separate loci. The site was resurveyed by Ogden Environmental in 1991, who combined Loci B and C into one site. A field inspection conducted by BFSA determined that the three loci would be treated as separate sites based on the fact that each occupies separate fingers of the same ridge system. From west to east, the sites are identified as Locus A, Locus B, and Locus C (Figure 6.0–1). The general configuration of the Site SDI-11,391B is shown in Figure 6.5–1. Elevations at the site range from 500 to 650 feet AMSL. Native vegetation of sparsely scattered chamise chaparral covers most of the site area. Portions of the site have been brushed in the past to enhance cattle grazing. The setting of the site is shown in a photograph in Plate 6.5–1.

Testing of the site consisted of the mapping and recordation of all surface artifacts, and the excavation of 18 shovel test pits. The field investigations were conducted October 1 through 9, 2002.

### 6.5.2 Previous Investigations

The site was registered by RECON during a survey conducted in 1989 as a flake scatter that measured approximately 360 by 175 meters. The site was resurveyed by Ogden Environmental in 1991, and Locus B and C were combined to cover an area of 750 by 750 meters. At least five flaking stations and lithic procurement areas, two ceramic scatters, two bedrock milling features, and two possible hearth features were observed at these loci. Artifacts observed on the surface of the site included two hammerstones, three core tools, two manos, and over 300 pieces of metavolcanic lithic production waste, including cores, flakes and debitage. No indication of a subsurface deposit was identified by either RECON or Ogden. The site was not tested as part of either study.

### 6.5.3 Description of Field Investigations

Field investigations conducted by BFSA at Site SDI-11,391B were executed using the standard methodologies described in Section 5.0. Lithic artifacts were recovered predominantly from the surface of the site, although four artifacts were recovered from between 0 to 20 centimeters in shovel tests. No evidence of significant subsurface deposits was identified.

### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a number of surface artifacts. A total of 180 artifacts were recovered from

74 different surface locations. The recovery is summarized in Table 6.5–1, while detailed provenience information for the surface artifacts is presented in Table 6.5–2. Lithic production waste accounts for 93.89% (N=169) of the collection, while the remaining artifacts consisted of precision (3.90%; N=7), percussion (1.11%; N=2), core (0.56%; N=1), and multi-use (0.56%; N=1) tools. The surface artifacts were distributed over a wide area from north to south across the landform (Figure 6.5–1). The area of the site, delineated by the artifact scatter, measures approximately 312 meters (1,024 feet) from north to south by 216 meters (710 feet) from west to east, and covers 39,849 square meters (428,773 square feet) (Figure 6.5–1).

### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,391B was investigated by excavating a series of 18 STPs. The placement of the STPs, shown in Figure 6.5–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. Three (STPs 6, 16, and 18) of the 18 STPs were positive for cultural material, all located in the center of the site near Datum A. Four artifacts were recovered from the STPs excavated at Site SDI-11,391B, including two flakes in STP 6, and one flake each in STPs 16 and 18. Depth of recovery ranged from 0 to 10 centimeters in STPs 16 and 18, to 10 to 20 centimeters in STP 6. The excavation of the STPs determined that a sparse, shallow deposit of lithic debris is present at SDI-11,391B. Location, depth, and recovery information for the shovel tests is presented in Table 6.5–3.

Due to the sparse recovery in the STPs, no test unit was excavated at SDI-11,391B. Based on the shovel test excavations, the subsurface deposit is estimated to measure approximately 126 meters (413 feet) from northwest to southeast by 55 meters (179 feet) from southwest to northeast, and cover approximately 5,603 square meters (60,289 square feet).

#### *6.5.4 Laboratory Analysis*

The laboratory analysis for Site SDI-11,391B included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BFA to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.5–4. The recovery from Site SDI-11,391B included 184 artifacts.

### Lithic Artifact Analysis

Lithic production waste accounted for the largest category of lithic artifacts, representing 94.02% (N=173) of the lithic artifact collection and included five cores, 38 pieces of debitage or shatter, and 130 flakes. The remaining lithic collection from SDI-11,391B consisted of precision (3.80%; N=7), percussion (1.09%; N=2), core (0.54%; N=1), and multi-use (0.54%; N=1) tools.

The precision tool category included one core scraper, one piece of utilized debitage, and five utilized flakes. The percussion tools from SDI-11,391B were both identified as hammerstones, one exhibiting a spherical use-wear pattern and the other with single-edge use-wear. One core tool was recovered from SDI-11,414. These artifacts are generally cores with some evidence of retouch or utilization on at least one edge of the artifact, but not enough so that the artifact can be classified as a specific precision or multi-use tool. One multi-use tool was recovered from the site, a hammer/core. The category of multi-use tools was developed in order to accurately describe those specimens that exhibited several different use-wear patterns, which prevented the classification of the artifact into one of the existing tool categories. Activities indicated by the artifacts recovered from the site include lithic tool production and maintenance, as well as possible processing of plant and/or animal resources. All tools from the site were recovered from the surface of the site.

The material distribution of the lithic assemblage is summarized in Table 6.5–6. The collection consists almost entirely of locally available lithic material, particularly that of fine- and medium-grained metavolcanic, which together account for 97.83% (N=180) of the collection (Tables 6.5–2 and 6.5–4). The other lithic material represented at Site 11,391B include two pieces of coarse-grained metavolcanic lithic production waste (1.09%), a single piece of quartz debitage (0.54%), and a chert flake (0.54%), all locally available material types. Although chert is generally believed to have been imported to this area from the desert, local sources of cryptocrystalline material were identified during the monitoring of grading on nearby development properties (Smith and Stropes 2014).

#### 6.5.5 Discussion

The testing demonstrated that Site SDI-11,391B consists of a scatter of surface artifacts and a sparse, shallow – almost superficial – subsurface deposit. The overall site dimensions, identified by the surface scatter and positive subsurface excavation, measure 312 meters (1,024 feet) by 216 meters (710 feet), and cover 39,849 square meters (428,773 square feet). Shovel test excavations indicate the sparse deposit at the site measures 126 meters (413 feet) by 55 meters (179 feet), and cover approximately 5,603 square meters (60,289 square feet). Based on the recovery of artifacts, the site appears to represent a limited-use area where lithic tool production and/or maintenance, and possible resource processing, occurred.

Since none of the artifacts recovered from the site were culturally diagnostic, no cultural affiliation could be assigned to the resource. Given the sparse, shallow nature of the subsurface deposit, it is unlikely that further excavation would produce additional data that would allow such a determination. The site exhibits no ecofacts, features, or unique elements. Although several tool types were represented at the site, most of the collection is composed of lithic production waste. In addition, 97.83% (N=180) of the artifacts recovered from the site were on the surface of the site. The testing of Site SDI-11,391B, including the collection of all surface

artifacts, has exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based upon the recovery of information that can contribute to the knowledge of the prehistory of the region. However, the current program has exhausted the potential of the site to yield unique data, and further study will not produce additional significant information.

#### *6.5.6 Summary*

The investigation of Site SDI-11,391B did not produce any unique scientific data regarding site function or content. The identified artifacts indicate that site activities were focused primarily on lithic tool production and/or maintenance, as well as a small amount of resource processing. The site represents one of several limited-use manufacturing and resource processing sites in the area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines. The site exhibits a surface scatter of artifacts, which has been completely collected, a sparse, shallow deposit, and did not possess any intact features. The site is one of several limited-use campsites in the area. The level of information already obtained from this site has exhausted research potential of the resource and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,391B.

**Figure 6.5-1**  
**Excavation Location Map — Site SDI-11,391B**  
*(Deleted for Public Review; Bound Separately)*



**View of Site SDI-11,391B looking northeast.**

**TABLE 6.5-1**

Summary of Surface Recovery  
Site SDI-11,391B

Recovery Category	Quantity	Percent
Core Tools:		
Core Tool	1	0.56
Lithic Production Waste:		
Cores	5	2.78
Debitage	38	21.11
Flakes	126	70.00
Percussion Tools:		
Hammerstones	2	1.11
Precision Tools:		
Scraper	1	0.56
Utilized Debitage	1	0.56
Utilized Flakes	5	2.78
Multi-Use Tools:		
Hammer/Core	1	0.56
Total	180	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.5-2**

Surface Recovery Data  
Site SDI-11,391B

Recovery Location	Datum	Location from Datum Azimuth/Range	Quantity	Recovery	Material	Cat. No.
1	A	315°/27 Feet	1	Flake	MGM	55
			1	Debitage	Quartz	56
2	A	18°/52 Feet	1	Flake	FGM	57
			1	Flake	MGM	58
3	A	357°/98 Feet	1	Flake	MGM	59
4	A	8°/146 Feet	1	Flake	MGM	60
5	A	19°/153 Feet	1	Core Scraper	MGM	61
6	A	355°/179 Feet	1	Debitage	FGM	62
			2	Flakes	MGM	63
7	A	349°/214 Feet	2	Flakes	FGM	64
8	A	343°/260 Feet	1	Flake	FGM	65
9	A	323°/237 Feet	2	Flakes	MGM	66
10	A	315°/294 Feet	1	Debitage	MGM	67
			1	Flake	FGM	68
11	A	332°/206 Feet	3	Flakes	FGM	69
			1	Flake	MGM	70
12	A	329°/182 Feet	1	Core Tool	FGM	71
			1	Debitage	FGM	72
			1	Flake	MGM	73
13	A	314°/153 Feet	1	Flake	FGM	74
14	A	294°/183 Feet	2	Flakes	MGM	75

Recovery Location	Datum	Location from Datum Azimuth/Range	Quantity	Recovery	Material	Cat. No.
15	A	283°/165 Feet	1	Hammer/Core	MGM	76
			2	Flakes	FGM	77
			1	Flake	MGM	78
16	A	291°/237 Feet	2	Debitage	MGM	79
			1	Flake	FGM	80
17	A	269°/154 Feet	2	Flakes	FGM	81
			1	Flake	MGM	82
18	A	269°/194 Feet	1	Flake	MGM	83
19	A	233°/190 Feet	1	Debitage	FGM	84
			2	Debitage	MGM	85
			1	Flake	FGM	86
			1	Flake	MGM	87
20	A	286°/265 Feet	1	Debitage	CGM	88
			2	Debitage	FGM	89
			1	Flake	CGM	90
			1	Flake	FGM	91
21	A	287°/302 Feet	1	Flake	MGM	92
22	A	276°/265 Feet	2	Flakes	FGM	93
			1	Flake	MGM	94
23	A	279°/240 Feet	1	Hammerstone, Single-Edged	FGM	95
			1	Core	MGM	96
24	A	249°/235 Feet	1	Debitage	FGM	97
			1	Debitage	MGM	98
25	A	245°/294 Feet	1	Debitage	FGM	99
			1	Flake	FGM	100
			1	Flake	MGM	101
26	A	222°/309 Feet	1	Debitage	FGM	102

Recovery Location	Datum	Location from Datum Azimuth/Range	Quantity	Recovery	Material	Cat. No.
			1	Flake	FGM	103
27	A	215°/251 Feet	1	Flake	FGM	104
28	A	223°/251 Feet	2	Debitage	FGM	105
29	A	212°/239 Feet	2	Flakes	FGM	106
			1	Flake	MGM	107
30	A	193°/167 Feet	2	Debitage	FGM	108
			2	Flakes	FGM	109
			1	Flake	MGM	110
31	A	237°/130 Feet	1	Hammerstone, Spherical	FGM	111
			4	Flakes	FGM	112
			1	Flake	MGM	113
32	A	250°/94 Feet	1	Utilized Flake	FGM	114
			1	Debitage	FGM	115
			1	Flake	FGM	116
33	A	267°/62 Feet	1	Flake	FGM	117
34	A	189°/53 Feet	1	Flake	FGM	118
35	A	160°/77 Feet	1	Core	FGM	119
			1	Debitage	FGM	120
			3	Flakes	FGM	121
36	A	149°/84 Feet	2	Debitage	FGM	122
			1	Flake	FGM	123
37	A	145°/52 Feet	2	Flakes	MGM	124
38	A	54°/74 Feet	2	Flakes	FGM	125
39	A	50°/452 Feet	1	Flake	FGM	126
			1	Flake	MGM	127

Recovery Location	Datum	Location from Datum Azimuth/Range	Quantity	Recovery	Material	Cat. No.
40	A	69°/447 Feet	1	Flake	FGM	128
41	A	62°/398 Feet	3	Flakes	FGM	129
42	A	65°/405 Feet	1	Flake	FGM	130
43	A	76°/356 Feet	2	Flakes	FGM	131
44	A	101°/172 Feet	1	Flake	FGM	132
45	A	108°/177 Feet	1	Flake	FGM	133
46	A	128°/190 Feet	1	Debitage	FGM	134
			2	Flakes	FGM	135
47	A	122°/155 Feet	1	Utilized Flake	FGM	136
48	A	126°/127 Feet	1	Debitage	FGM	137
49	A	109°/66 Feet	1	Flake	FGM	138
50	A	178°/132 Feet	2	Flakes	FGM	139
51	A	199°/200 Feet	1	Debitage	FGM	140
			1	Flake	FGM	141
52	A	191°/253 Feet	6	Flakes	FGM	142
			10	Flakes	FGM	143
53	A	196°/254 Feet	1	Debitage	FGM	144
			1	Flake	FGM	145
54	A	178°/268 Feet	2	Debitage	FGM	146
			1	Flake	FGM	147
			1	Flake	MGM	148
55	A	186°/249 Feet	1	Flake	FGM	149
56	A	176°/255 Feet	1	Flake	MGM	150

Recovery Location	Datum	Location from Datum Azimuth/Range	Quantity	Recovery	Material	Cat. No.
57	A	172°/232 Feet	1	Flake	MGM	151
58	A	177°/186 Feet	1	Utilized Flake	FGM	152
			3	Cores	FGM	153
			1	Debitage	MGM	154
			9	Flakes	FGM	155
			3	Flakes	MGM	156
59	A	166°/160 Feet	2	Flakes	FGM	157
60	A	119°/283 Feet	1	Debitage	FGM	158
61	A	136°/264 Feet	1	Utilized Debitage	FGM	159
62	C	251°/210 Feet	1	Debitage	FGM	160
63	C	241°/255 Feet	1	Utilized Flake	FGM	161
64	C	220°/402 Feet	1	Flake	FGM	162
65	C	200°/475 Feet	1	Debitage	FGM	163
66	C	219°/318 Feet	1	Flake	FGM	164
67	C	234°/159 Feet	1	Flake	FGM	165
			1	Flake	Chert	166
			1	Debitage	FGM	167
68	C	224°/154 Feet	1	Flake	FGM	168
			1	Debitage	FGM	169
69	C	207°/185 Feet	1	Utilized Flake	FGM	170
			1	Flake	FGM	171
70	C	217°/106 Feet	1	Debitage	FGM	172
			1	Debitage	MGM	173
71	C	169°/130 Feet	1	Flake	FGM	174
			1	Flake	MGM	175

Recovery Location	Datum	Location from Datum Azimuth/Range	Quantity	Recovery	Material	Cat. No.
72	C	146°/203 Feet	1	Debitage	FGM	175
73	C	126°/176 Feet	1	Flake	FGM	176
74	C	81°/278 Feet	1	Flake	FGM	177

**TABLE 6.5-3**

Shovel Test Excavation Data  
Site SDI-11,391B

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	A	65°/393 Feet	0-10 cm.		No Recovery		1
			10-20 cm.		No Recovery		2
			20-30 cm.		No Recovery		3
2	A	103°/175 Feet	0-10 cm.		No Recovery		4
			10-20 cm.		No Recovery		5
			20-30 cm.		No Recovery		6
3	A	54°/446 Feet	0-10 cm.		No Recovery		7
			10-20 cm.		No Recovery		8
			20-30 cm.		No Recovery		9
4	A	66°/371 Feet	0-10 cm.		No Recovery		10
			10-20 cm.		No Recovery		11
			20-30 cm.		No Recovery		12
5	A	3°/155 Feet	0-10 cm.		No Recovery		13
			10-20 cm.		No Recovery		14
			20-30 cm.		No Recovery		15
6	A	332°/203 Feet	0-10 cm.		No Recovery		16
			10-20 cm.	1	Flake	FGM	17
				1	Flake	MGM	18
			20-30 cm.		No Recovery		19
7	A	318°/260 Feet	0-10 cm.		No Recovery		20
			10-20 cm.		No Recovery		21
			20-30 cm.		No Recovery		22
8	A	338°/296 Feet	0-10 cm.		No Recovery		23
			10-20 cm.		No Recovery		24
			20-30 cm.		No Recovery		25

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
9	A	290°/233 Feet	0-10 cm.		No Recovery		26
			10-20 cm.		No Recovery		27
			20-30 cm.		No Recovery		28
10	A	263°/233 Feet	0-10 cm.		No Recovery		29
			10-20 cm.		No Recovery		30
			20-30 cm.		No Recovery		31
11	A	239°/236 Feet	0-10 cm.		No Recovery		32
			10-20 cm.		No Recovery		33
			20-30 cm.		No Recovery		34
12	A	201°/186 Feet	0-10 cm.		No Recovery		35
			10-20 cm.		No Recovery		36
			20-30 cm.		No Recovery		37
13	C	233°/145 Feet	0-10 cm.		No Recovery		38
			10-20 cm.		No Recovery		39
			20-30 cm.		No Recovery		40
14	C	188°/99 Feet	0-10 cm.		No Recovery		41
			10-20 cm.		No Recovery		42
			20-30 cm.		No Recovery		43
15	A	177°/235 Feet	0-10 cm.		No Recovery		44
			10-20 cm.		No Recovery		45
			20-30 cm.		No Recovery		46
16	A	192°/177 Feet	0-10 cm.	1	Flake	MGM	47
			10-20 cm.		No Recovery		48
			20-30 cm.		No Recovery		49
17	A	246°/124 Feet	0-10 cm.		No Recovery		50
			10-20 cm.		No Recovery		51
			20-30 cm.		No Recovery		52
18	A	286°/130 Feet	0-10 cm.	1	Flake	MGM	53
			10-20 cm.		No Recovery		54

**TABLE 6.5-4**

Summary of Artifact Recovery  
Site SDI-11,391B

Recovery Category	Surface	Shovel Tests	Total	Percent
Core Tools:				
Core Tool	1	-	1	0.54
Lithic Production Waste:				
Cores	5	-	5	2.72
Debitage	38	-	38	20.65
Flakes	126	4	130	70.65
Percussion Tools:				
Hammerstones	2	-	2	1.09
Precision Tools:				
Scraper	1	-	1	0.54
Utilized Debitage	1	-	1	0.54
Utilized Flakes	5	-	5	2.72
Multi-Use Tools:				
Hammer/Core	1	-	1	0.54
Total	180	4	184	100.00
Percent	97.83	2.17	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.5-5**

Lithic Tool Measurement Data  
Site SDI-11,391B

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
Core Tools:						
71	Core Tool	11.8	6.8	4.3	694.5	FGM
<u>Percussion Tools:</u>						
Hammerstones:						
95	Hammerstone, Single-Edged	10.5	8.9	6.3	661.4	FGM
111	Hammerstone, Spherical	18.2	12.9	8.2	2200.3	FGM
<u>Precision Tools:</u>						
Scrapers:						
61	Core Scraper	7.9	6.3	4.0	305.4	MGM
Utilized Debitage:						
159	Utilized Debitage	11.1	8.0	6.1	572.3	FGM
Utilized Flakes:						
114	Utilized Flake	4.9	3.3	0.9	17.6	FGM
136	Utilized Flake	14.3	6.5	2.7	271.4	FGM
152	Utilized Flake	8.5	6.5	3.6	197.8	FGM
161	Utilized Flake	6.6	3.0	0.5	13.3	FGM
169	Utilized Flake	8.0	4.1	2.3	73.7	FGM
<u>Multi-Use Tools:</u>						
Hammer/Cores:						
76	Hammer/Core	12.5	7.5	7.2	959.1	MGM

**TABLE 6.5-6**

Lithic Material Distribution  
Site SDI-11,391B

Artifact Category	CGM	Chert	Material			Total	Percent
			FGM	MGM	Quartz		
Core Tools:							
Core Tool	-	-	1	-	-	1	0.54
Lithic Production Waste:							
Cores	-	-	4	1	-	5	2.72
Debitage	1	-	28	8	1	38	20.65
Flakes	1	1	93	35	-	130	70.65
Percussion Tools:							
Hammerstones	-	-	2	-	-	2	1.09
Precision Tools:							
Scraper	-	-	-	1	-	1	0.54
Utilized Debitage	-	-	1	-	-	1	0.54
Utilized Flakes	-	-	5	-	-	5	2.72
Multi-Use Tools:							
Hammer/Core	-	-	-	1	-	1	0.54
Total	2	1	134	46	1	184	100.00
Percent	1.09	0.54	72.83	25.00	0.54	100.00	

*Rounded numbers may not add to 100%.*

## 6.6 Site SDI-11,391C

### 6.6.1 Site Description

This site consists of a lithic scatter located on a knoll and lower west-trending bench of a ridge system in the southwest area of the project. The site was originally recorded by RECON in 1989 as a flake scatter and was relocated. The general configuration of the resource is shown in Figure 6.6–1. Elevations at the site range from 500 to 670 feet AMSL. Most of the native vegetation was previously cleared from the site for cattle grazing and/or cultivation, but substantial regrowth of chamise chaparral is evident. The clearing and subsequent erosion has impacted the site and resulted in the growth of moderately dense grasses. Native vegetation of chamise chaparral remains in the northern and northwestern portions of the site. A graded dirt road extends north of the site from west to east, but does not appear to have impacted the site itself. The setting of the site is shown in a photograph provided in Plate 6.6–1.

Site SDI-11,391C is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of all surface artifacts, and the excavation of 32 shovel test pits and two test units. The field investigations were conducted on May 14 and 15, and October 7 and 8, 2002.

### 6.6.2 Previous Investigations

The site was registered by RECON during a survey conducted in 1989 as a flake scatter that measured approximately 150 by 10 meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included five metavolcanic flakes. The site was relocated by Ogden during a resurvey of the Otay Ranch in 1991 and described as a light lithic scatter that measured approximately 250 by 500 meters (Carrico *et al.* 1992). Two flaking stations were identified within this area. No indication of a subsurface deposit was identified by Ogden. Artifacts on the surface of the site included more than 75 metavolcanic flakes and debitage and 10 cores. The site was not tested as part of either of these studies.

### 6.6.3 Description of Field Investigations

Field investigations conducted by BFSa at Site SDI-11,414 were executed using the standard methodologies described in Section 5.0. Lithic artifacts were recovered from both surface and subsurface contexts.

#### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a number of surface artifacts. A total of 491 artifacts were recovered from the 195 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in

Table 6.6–1, while detailed provenience information for the surface artifacts is presented in Table 6.6–2. Lithic production waste accounts for 79.23% (N=389) of the collection, while the remaining artifacts consisted of 62 precision tools (12.63%), 14 pottery sherds (2.85%), 11 hammerstones (2.24%), ten multi-use tools (2.4 three core tools (0.61%), and two ground stone tools (0.41%). The surface collection is widely distributed across the site with two concentrations—one at the north end of the site near Datum A and another on the east side of the site in the drainage, near Datum D. However, given the disturbance at the site, the distribution of the surface scatter, illustrated in Figure 6.6–1, is probably more representative of the historic land use activities in the area than prehistoric activity areas. The exception to this appears to be the concentration of artifacts on the eastern side of the site in the drainage near Datum D, where all pottery sherds were recovered (Figure 6.6–1). The area of the site, delineated by the artifact scatter, measures approximately 583 meters (1,914 feet) from northwest to southeast by 707 meters (2,320 feet) from north to south, and covers 200,262 square meters (2,154,822 square feet) (Figure 6.6–1).

#### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,391C was investigated by excavating a series of 32 STPs. The placement of the STPs, shown in Figure 6.6–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. A total of six artifacts were recovered from three positive STPs at the site, including three flakes and three pottery sherds. Recovery ranged from one flake in STP 2, to two flakes in STP 26, to three sherds in STP 16. Depth of recovery ranged from 10 centimeters in STP 2 to 20 centimeters in STPs 16 and 26. Recovery from the STPs is summarized in Table 6.6–3 and detailed in Table 6.6–4. The three positive STPs are located in three separate areas of the site; nearby STPs were negative at each of these three locations indicating these minimal subsurface deposits are highly localized (figure 6.6–1).

The testing program included the excavation of two test units at Site SDI-11,391C. The test units were placed according to the surface artifact distribution and the location of positive shovel tests (Figure 6.6–1). Test Unit 1 was placed to test the subsurface deposit identified by STP 2, while Test Unit 2 was placed to test the deposit identified by STP 16. The test units were excavated in standard decimeter levels to at least 30 centimeters, or until bedrock was encountered, and all removed soils were sifted through 1/8-inch mesh hardware cloth. Excavations resulted in the recovery of 132 artifacts, including 105 pottery sherds, 25 lithic production waste, one precision tool, and one ground stone tool (Tables 6.6–5 and 6.6–6). The recovery from Test Unit 2 was considerably greater than that from Test Unit 1. Test Unit 1 yielded three artifacts, all lithic production waste, while Test Unit 2 produced 105 pottery sherds, 22 lithic production waste, one mano, and one retouched flake. The maximum depth of recovery

was 20 centimeters in both units, although 94.57% of the recovery from Test Unit 2 was restricted to the top ten centimeters of the unit. Like the surface recovery, ceramic fragments were recovered only from excavations conducted on the east side of the site near Datum D (Figure 6.6–1).

The soil profile from Test Unit 1 was characterized as compact yellowish brown to light yellowish brown (10YR 5/4 to 6/4) sandy loam with cobbles. The soil profile from Test Unit 2 was characterized as a brown (7.5YR 4/4) fine sandy loam to a depth of approximately 5 centimeters, followed by a brown (7.5YR 5/4) fine sandy loam with rock inclusions to a depth of approximately 25 centimeters, over a yellowish red (5YR 4/6) subsoil formed from the underlying metavolcanic bedrock. A drawing of the more productive Test Unit 2 north wall profile is presented in Figure 6.6–2.

The excavation of the STPs and test units determined that the three subsurface deposits identified at Site SDI-11,391C are localized, shallow, and separated by at least 228 meters (749 feet). These deposits extend to maximum depths of 10 centimeters at Datum A (lithics only) and 20 centimeters at Datum D (ceramics and lithics) and in the southeast-most deposit (lithics only). Individually, the deposits are small, measuring less than 30 meters (100 feet) by 30 meters (100 feet) each. Together, the three subsurface deposits cover a total of 1,894 square meters (20,379 square feet).

#### *6.6.4 Laboratory Analysis*

The laboratory analysis for Site SDI-11,391C included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BfSA to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.6–7. The recovery from Site SDI-11,391C included 507 lithic artifacts and 122 pottery sherds.

#### *Lithic Artifact Analysis*

Lithic production waste accounted for the largest category of lithic artifacts, representing 66.30% (N=417) of the artifact collection and included ten cores, 80 pieces of debitage or shatter, and 327 flakes. Precision tools were the next most common lithic artifact type, followed by (N=63; 10.02%), percussion tools (N=11; 1.75%), multi-use tools (N=10; 1.59%), core tools (N=3; 0.48%), and ground stone tools (N=3; 0.48%). Measurements of lithic tools are presented in Table 6.6–8.

The precision tool category included four pieces of retouched debitage, eight retouched flakes, six scrapers, 18 pieces of utilized debitage, and 27 utilized flakes. The scrapers were identified as three core scrapers, two flake scrapers, and one domed scraper. The percussion tools included 11 hammerstones, which were identified as exhibiting spherical (N=2), single-edged (N=2), and circular (N=2) use wear patterns; the use wear of five hammerstone fragments

could not be determined. The category of multi-use tools was developed in order to accurately describe those specimens that exhibited several different use-wear patterns, which prevented the classification of the artifact into one of the existing tool categories. The multi-use specimens from SDI-11,391C included eight hammer/cores, a scraper/hammerstone, and a perforator/scraper. The ground stone tools included three manos. All three manos were fragments, but two were complete enough to identify them as bifacial specimens with evidence of polish, pecking, and burning. Finally, three core tools were recovered at the site. Core tools are cores with some evidence of retouch or utilization on at least one edge of the artifact, but not enough so that the artifact can be classified as a specific precision or multi-use tool.

The material distribution of the lithic assemblage is presented in Table 6.6–9. The collection consists almost entirely of locally available lithic material, particularly fine- and medium-grained metavolcanic, which together account for 97.24% (N=493) of the collection. Other locally available lithic materials recovered from SDI-11,391C included quartz (N=8; 1.58%), coarse-grained metavolcanic material (N=2; 0.39%), granite (N=2; 0.39%), quartzite (N=1; 0.20%), and chalcedony (N=1; 0.20%). Chalcedony may have been imported into this area of San Diego County from the desert areas, although local sources of cryptocrystalline material were identified during the monitoring of grading on nearby development properties (Smith and Stropes 2014).

#### Pottery Sherd Analysis

A total of 122 pottery sherds were recovered from SDI-11,391C, accounting for 19.40% of the total artifact assemblage from the site. All of the sherds were identified as Tizon Brown Ware, a common, well-documented ceramic type in San Diego County. Vessel type could not be determined from any of the sherds. Tizon Brown Ware pottery is a diagnostic marker of the Late Prehistoric Period (Christiansen 1992). Very likely, the total collection of pottery sherds represents a single event “pot drop” when a vessel was broken and abandoned. Activities indicated by the lithic and ceramic artifacts recovered from the site include lithic tool production and maintenance, as well as processing of plant and/or animal resources.

#### *6.6.5 Discussion*

The testing demonstrated that Site SDI-11,391C consists of three separate subsurface deposits. The overall site dimensions, identified by the surface scatter, shovel tests, and test unit excavations, measure 583 meters (1,914feet) from northwest to southeast by 707 meters (2,320 feet) from north to south, and covers 200,262 square meters (2,154,822 square feet). The excavation of STPs and test units determined that the three subsurface deposits are small, localized areas measuring less than 30 meters (100 feet) by 30 meters (100 feet) each. Together, the three subsurface deposits cover a total of 1,894 square meters (20,379 square feet). Based on

the artifacts recovered, the site appears to represent a temporary campsite where lithic tool production and/or maintenance, and plant and/or animal resource processing, occurred.

Culturally diagnostic artifacts recovered from the site included Tizon Brown Ware pottery, a ware affiliated with the Late Prehistoric Period. Also unique about SDI-11,391C is the variety of tools and lithic material types recovered from the surface of the site. The subsurface excavations did not, however, reveal the same variety in artifact categories or lithic material. Given the localized nature of the subsurface deposit, and the fact that artifacts were recovered only to 20 centimeters, it is unlikely that further excavation would produce additional data that would allow such a determination. The site exhibits no ecofacts, features, or unique elements. Although several tool types were represented at the site, most of the collection is comprised of lithic production waste. In addition, 78.06% (N=491) of the artifacts recovered from the site were on the surface of the site and all have been collected. The testing of Site SDI-11,391C, including the collection of all surface artifacts, has exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based upon the recovery of information that can contribute to the knowledge of prehistory in the region. However, the current program has exhausted the potential of the site to yield unique data, and further study will not produce additional significant information.

#### *6.6.6 Summary*

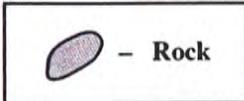
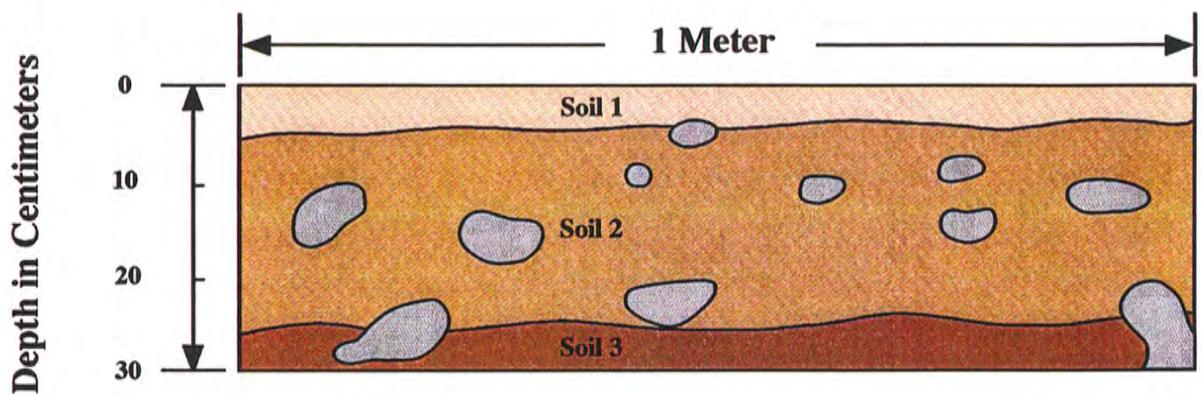
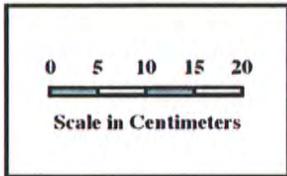
The investigation of Site SDI-11,391C identified a moderately dense scatter of surface artifacts and a shallow, localized subsurface deposit. The unique aspects of this site include the ceramic sherd scatter in the eastern portion of the site and the variety of lithic tools and material. However, most of these artifacts were collected from the surface of the site, which has been completely collected. The identified artifacts indicate that the site was a temporary camp where activities focused primarily on lithic tool production and/or maintenance and plant and/or animal resource processing may also have occurred. The site represents one of several temporary campsites in the area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines. The site exhibits a large surface scatter of artifacts, all of which have been collected, a shallow localized subsurface deposit, and did not possess any intact features. The level of information already obtained from this site has exhausted the research potential of the resource and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,391C.

**Figure 6.6-1**  
**Excavation Location Map — Site SDI-11,391C**  
*(Deleted for Public Review; Bound Separately)*



**View of Site SDI-11,391C looking east (arrow indicates area of Datum A).**



**Soil Types**

- 1** Brown (7.5YR 4/4) fine sandy loam
- 2** Brown (7.5YR 4/4) fine sandy loam with rock inclusions
- 3** Yellowish red (5YR 4/6) subsoil formed from the underlying metavolcanic bedrock

**Figure 6.6-2**  
**North Wall Profile of Test Unit 2**  
Site SDI-11,391C  
The Village 13 Project

**TABLE 6.6-1**

Summary of Surface Recovery  
Site SDI-11,391C

Recovery Category	Quantity	Percent
Core Tools:		
Core Tools	3	0.61
Ground Stone Tools:		
Manos	2	0.41
Lithic Production Waste:		
Cores	10	2.04
Debitage	75	15.27
Flakes	304	61.91
Percussion Tools:		
Hammerstones	11	2.24
Precision Tools:		
Retouched Debitage	4	0.81
Retouched Flakes	7	1.43
Scrapers	6	1.22
Utilized Debitage	18	3.67
Utilized Flakes	27	5.50
Multi-Use Tools:		
Hammer/Cores	8	1.63
Perforator/Scraper	1	0.20
Scraper/Hammerstone	1	0.20
Pottery:		
Potsherds, TBW	14	2.85
Total	491	100.00
Percent	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.6-2**

Surface Recovery Data  
Site SDI-11,391C

*(Placed in Appendix III)*

**TABLE 6.6-3**

Summary of Shovel Test Recovery  
Site SDI-11,391C

Recovery Category	Quantity	Percent
Lithic Production Waste:		
Flakes	3	50.00
Pottery:		
Potsherds, TBW	3	50.00
Total	6	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.6-4**

Shovel Test Excavation Data  
Site SDI-11,391C

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	A	0°/0 Feet	0-10 cm.		No Recovery		46
			10-20 cm.		No Recovery		47
			20-30 cm.		No Recovery		48
2	A	0°/86 Feet	0-10 cm.	1	Flake	MGM	49
			10-20 cm.		No Recovery		50
			20-30 cm.		No Recovery		51
			30-40 cm.		No Recovery		52
3	A	0°/179 Feet	0-10 cm.		No Recovery		53
			10-20 cm.		No Recovery		54
			20-30 cm.		No Recovery		55
4	A	0°/293 Feet	0-10 cm.		No Recovery		56
			10-20 cm.		No Recovery		57
			20-30 cm.		No Recovery		58
5	A	0°/419 Feet	0-10 cm.		No Recovery		59
			10-20 cm.		No Recovery		60
			20-30 cm.		No Recovery		61
6	A	210°/71 Feet	0-10 cm.		No Recovery		62
			10-20 cm.		No Recovery		63
			20-30 cm.		No Recovery		64
7	A	210°/179 Feet	0-10 cm.		No Recovery		65
			10-20 cm.		No Recovery		66
			20-30 cm.		No Recovery		67
8	A	210°/292 Feet	0-10 cm.		No Recovery		68
			10-20 cm.		No Recovery		69
			20-30 cm.		No Recovery		70

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
9	A	90°/75 Feet	0-10 cm.		No Recovery		71
			10-20 cm.		No Recovery		72
			20-30 cm.		No Recovery		73
10	A	90°/155 Feet	0-10 cm.		No Recovery		74
			10-20 cm.		No Recovery		75
			20-30 cm.		No Recovery		76
11	A	45°/149 Feet	0-10 cm.		No Recovery		77
			10-20 cm.		No Recovery		78
			20-30 cm.		No Recovery		79
12	A	315°/152 Feet	0-10 cm.		No Recovery		80
			10-20 cm.		No Recovery		81
			20-30 cm.		No Recovery		82
13	A	270°/86 Feet	0-10 cm.		No Recovery		83
			10-20 cm.		No Recovery		84
			20-30 cm.		No Recovery		85
14	A	135°/122 Feet	0-10 cm.		No Recovery		86
			10-20 cm.		No Recovery		87
			20-30 cm.		No Recovery		88
15	A	45°/66 Feet	0-10 cm.		No Recovery		89
			10-20 cm.		No Recovery		90
			20-30 cm.		No Recovery		91
16	A	131°/1005 Feet	0-10 cm.	2	Potsherds	TBW	107
			10-20 cm.	1	Potsherd	TBW	108
			20-30 cm.		No Recovery		109
17	A	133°/1005 Feet	0-10 cm.		No Recovery		110
			10-20 cm.		No Recovery		111
			20-30 cm.		No Recovery		112

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
18	A	129°/961 Feet	0-10 cm.		No Recovery		113
			10-20 cm.		No Recovery		114
			20-30 cm.		No Recovery		115
19	A	130°/1059 Feet	0-10 cm.		No Recovery		116
			10-20 cm.		No Recovery		117
			20-30 cm.		No Recovery		118
20	A	206°/703 Feet	0-10 cm.		No Recovery		119
			10-20 cm.		No Recovery		120
			20-30 cm.		No Recovery		121
21	A	200°/1100 Feet	0-10 cm.		No Recovery		122
			10-20 cm.		No Recovery		123
			20-30 cm.		No Recovery		124
22	B	86°/824 Feet	0-10 cm.		No Recovery		125
			10-20 cm.		No Recovery		126
			20-30 cm.		No Recovery		127
23	B	114°/453 Feet	0-10 cm.		No Recovery		128
			10-20 cm.		No Recovery		129
			20-30 cm.		No Recovery		130
24	B	127°/721 Feet	0-10 cm.		No Recovery		131
			10-20 cm.		No Recovery		132
			20-30 cm.		No Recovery		133
25	B	110°/979 Feet	0-10 cm.		No Recovery		134
			10-20 cm.		No Recovery		135
			20-30 cm.		No Recovery		136
26	B	108°/1127 Feet	0-10 cm.	1	Flake	MGM	137
			10-20 cm.	1	Flake	MGM	138
			20-30 cm.		No Recovery		139

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
27	B	98°/1275 Feet	0-10 cm.		No Recovery		140
			10-20 cm.		No Recovery		141
			20-30 cm.		No Recovery		142
28	B	85°/1141 Feet	0-10 cm.		No Recovery		143
			10-20 cm.		No Recovery		144
			20-30 cm.		No Recovery		145
29	D	124°/780 Feet	0-10 cm.		No Recovery		146
			10-20 cm.		No Recovery		147
			20-30 cm.		No Recovery		148
30	B	208°/111 Feet	0-10 cm.		No Recovery		149
			10-20 cm.		No Recovery		150
			20-30 cm.		No Recovery		151
31	B	108°/1181 Feet	0-10 cm.		No Recovery		152
			10-20 cm.		No Recovery		153
			20-30 cm.		No Recovery		154
32	B	105°/1119 Feet	0-10 cm.		No Recovery		155
			10-20 cm.		No Recovery		156
			20-30 cm.		No Recovery		157

**TABLE 6.6-5**

Summary of Test Unit Recovery  
Site SDI-11,391C

Artifact Category	Depth (in centimeters)			Total	Percent
	0-10	10-20	20-30		
Ground Stone Tools:					
Mano	1	-	-	1	0.76
Lithic Production Waste:					
Debitage	5	-	-	5	3.79
Flakes	18	2	-	20	15.15
Precision Tools:					
Retouched Flake	1	-	-	1	0.76
Pottery:					
Potsherds, TBW	99	6	-	105	79.55
Total	124	8	0	132	100.00
Percent	93.94	6.06	0.00	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.6-6**

Test Unit Excavation Data  
Site SDI-11,391C

Test Unit	Location from Datum A Azimuth/Range	Depth	Quantity/Weight	Recovery	Material	Cat. No.
1	359°/84 Feet	0-10 cm.	1	Debitage	FGM	92
			1	Flake	MGM	93
		10-20 cm.	1	Flake	FGM	94
		20-30 cm.		No Recovery		96
2	130°/995 Feet	0-10 cm.	99	Potsherds	TBW	97
			1	Mano Fragment, Undetermined, Burned	Granite	98
			1	Retouched Flake Fragment	FGM	99
			2	Debitage	FGM	100
			10	Flakes	FGM	101
			2	Debitage	MGM	102
			7	Flakes	MGM	103
		10-20 cm.	6	Potsherds	TBW	104
			1	Flake	FGM	105
		20-30 cm.		No Recovery		106

**TABLE 6.6-7**

Summary of Artifact Recovery  
Site SDI-11,391C

Recovery Category	Surface	Shovel Tests	Test Units	Total	Percent
Core Tools:					
Core Tools	3	-	-	3	0.48
Ground Stone Tools:					
Manos	2	-	1	3	0.48
Lithic Production Waste:					
Cores	10	-	-	10	1.59
Debitage	75	-	5	80	12.72
Flakes	304	3	20	327	51.99
Percussion Tools:					
Hammerstones	11	-	-	11	1.75
Precision Tools:					
Retouched Debitage	4	-	-	4	0.64
Retouched Flakes	7	-	1	8	1.27
Scrapers	6	-	-	6	0.95
Utilized Debitage	18	-	-	18	2.86
Utilized Flakes	27	-	-	27	4.29
Multi-Use Tools:					
Hammer/Cores	8	-	-	8	1.27
Perforator/Scraper	1	-	-	1	0.16
Scraper/Hammerstone	1	-	-	1	0.16
Pottery:					
Potsherds, TBW	14	3	105	122	19.40
Total	491	6	132	629	100.00
Percent	78.06	0.95	20.99	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.6-8**

Lithic Tool Measurement Data  
Site SDI-11,391C

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
331	Core Tool	14.4	9.8	9.0	1357.2	MGM
466	Core Tool	9.4	9.0	4.8	452.4	MGM
488	Core Tool	9.6	9.4	6.7	675.9	MGM
<u>Ground Stone Tools:</u>						
Manos:						
98	Mano Fragment, Undetermined, Burned	5.7	5.1	2.4	64.1	Granite
313	Mano Fragment, Biface, Polished, Burned, Pecked	8.6	5.1	4.7	270.5	Granite
340	Mano Fragment, Biface, Polished, Burned, Pecked	8.7	7.3	4.2	429.6	Quartzite
<u>Percussion Tools:</u>						
Hammerstones:						
4	Hammerstone, Spherical	10.7	8.1	5.5	705.4	FGM
177	Hammerstone, Single-Edged	9.2	7.1	4.9	344.6	MGM
181	Hammerstone Fragment, Undetermined	5.2	3.9	2.0	49.2	MGM
196	Hammerstone Fragment, Undetermined	7.9	6.3	4.4	187.4	MGM
297	Hammerstone, Spherical	13.2	8.8	6.5	1268.2	MGM
298	Hammerstone Fragment, Undetermined	9.1	6.9	5.3	303.5	FGM
363	Hammerstone, Circular	13.8	10.4	6.1	885.3	FGM
418	Hammerstone, Single-Edged	8.1	7.8	4.2	359.0	MGM
439	Hammerstone Fragment, Undetermined	7.1	5.8	2.8	103.5	FGM
444	Hammerstone, Circular	10.0	7.9	4.7	499.5	FGM
463	Hammerstone Fragment, Undetermined	10.5	5.6	3.8	274.4	FGM
<u>Precision Tools:</u>						
Retouched Debitage:						
238	Retouched Debitage	14.0	6.7	2.9	235.7	FGM
284	Retouched Debitage Fragment	3.6	2.6	1.1	12.4	MGM
316	Retouched Debitage Fragment	8.2	6.2	3.4	137.4	FGM
360	Retouched Debitage	6.7	5.7	3.4	140.2	FGM
Retouched Flakes:						
99	Retouched Flake Fragment	3.8	3.3	1.0	16.0	FGM
205	Retouched Flake	10.2	6.7	3.7	178.4	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools:

Retouched Flakes:

231	Retouched Flake	5.4	3.4	1.5	25.9	FGM
245	Retouched Flake	10.6	6.9	3.5	240.0	MGM
264	Retouched Flake Fragment	4.7	2.9	0.7	10.5	MGM
325	Retouched Flake	6.1	6.0	2.1	98.3	MGM
346	Retouched Flake Fragment	4.8	3.2	0.7	8.8	FGM
486	Retouched Flake Fragment	4.6	4.2	1.4	18.9	MGM

Scrapers:

36	Core Scraper Fragment, Burned	7.8	6.6	3.2	171.4	MGM
213	Core Scraper	10.2	9.1	5.8	682.6	MGM
388	Core Scraper	5.5	5.4	2.8	68.8	FGM
280	Domed Scraper Fragment	7.3	6.2	4.8	167.0	MGM
218	Flake Scraper	4.4	3.7	1.3	22.5	FGM
435	Flake Scraper	8.1	6.9	2.6	134.2	FGM

Utilized Debitage:

182	Utilized Debitage Fragment	2.9	1.6	0.7	3.0	MGM
191	Utilized Debitage	9.7	8.3	7.7	708.5	MGM
215	Utilized Debitage	10.9	6.7	6.1	516.9	FGM
222	Utilized Debitage	6.4	6.2	3.0	77.1	MGM
239	Utilized Debitage	9.1	4.1	2.8	95.6	MGM
262	Utilized Debitage Fragment	8.2	6.4	2.7	132.4	MGM
263	Utilized Debitage Fragment	7.4	5.0	2.4	101.8	MGM
320	Utilized Debitage	3.5	2.4	1.2	8.2	MGM
351	Utilized Debitage	4.5	2.3	1.9	20.0	FGM
358	Utilized Debitage	11.3	6.6	3.0	208.8	FGM
369	Utilized Debitage	7.2	6.1	1.7	67.1	FGM
378	Utilized Debitage Fragment	5.9	4.9	2.2	58.3	FGM
381	Utilized Debitage Fragment	8.4	5.2	4.0	95.6	FGM
419	Utilized Debitage	10.6	5.9	2.5	179.8	MGM
422	Utilized Debitage	6.9	4.4	3.9	137.2	Chalcedony
445	Utilized Debitage	6.4	3.4	2.9	43.7	FGM
457	Utilized Debitage	8.0	6.5	3.8	145.1	MGM
472	Utilized Debitage Fragment	5.7	2.6	1.8	26.7	MGM

Utilized Flakes:

176	Utilized Flake	4.7	3.1	1.9	11.7	FGM
184	Utilized Flake	5.9	3.5	1.7	33.6	FGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools:

Utilized Flakes (cont.):

185	Utilized Flake	3.5	3.0	0.9	12.9	FGM
244	Utilized Flake	3.6	3.6	0.8	10.6	FGM
246	Utilized Flake	9.9	6.6	3.2	182.4	MGM
250	Utilized Flake	6.1	5.6	0.9	32.5	MGM
251	Utilized Flake Fragment	5.6	4.3	1.5	30.7	FGM
285	Utilized Flake	6.9	5.4	1.9	68.5	FGM
289	Utilized Flake	4.5	3.0	0.7	9.5	MGM
306	Utilized Flake	3.1	2.7	1.5	11.6	FGM
314	Utilized Flake Fragment	3.5	3.3	2.1	28.3	FGM
342	Utilized Flake	18.8	10.6	5.6	903.6	MGM
345	Utilized Flake	3.7	3.4	1.8	19.2	FGM
347	Utilized Flake	4.9	3.3	1.5	26.9	FGM
359	Utilized Flake	3.4	3.2	1.1	11.5	FGM
371	Utilized Flake	4.2	3.2	1.3	10.9	FGM
372	Utilized Flake	8.9	6.7	3.1	181.8	FGM
382	Utilized Flake	5.2	3.1	1.8	23.0	FGM
384	Utilized Flake	5.5	4.0	1.5	28.5	FGM
414	Utilized Flake Fragment	4.3	3.3	1.2	17.0	FGM
425	Utilized Flake	4.3	3.5	0.7	8.9	FGM
441	Utilized Flake Fragment	4.5	3.5	1.4	28.8	MGM
442	Utilized Flake	7.1	5.0	1.5	33.1	MGM
452	Utilized Flake	6.6	4.2	1.7	41.3	FGM
462	Utilized Flake	10.4	5.9	3.0	180.3	MGM
475	Utilized Flake Fragment	4.4	3.1	1.2	15.7	MGM
480	Utilized Flake	3.7	2.9	0.9	11.5	FGM

Multi-Use Tools:

Hammer/Cores:

38	Hammer/Core	9.2	7.5	4.4	314.5	MGM
201	Hammer/Core	10.2	10.0	6.7	930.9	FGM
225	Hammer/Core Fragment	13.7	11.8	5.6	1003.4	FGM
229	Hammer/Core Fragment	17.1	9.0	6.9	875.7	MGM
294	Hammer/Core	13.5	10.9	7.0	1189.3	MGM
322	Hammer/Core	10.0	6.9	4.3	381.6	FGM
406	Hammer/Core Fragment	10.1	7.5	4.7	316.1	MGM
479	Hammer/Core	8.0	5.8	4.3	207.7	FGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Multi-Use Tools:

Perforator/Scrapers:

287	Perforator/Scraper	4.5	3.1	1.3	13.5	FGM
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Scraper/Hammerstones:

220	Scraper/Hammerstone	9.2	6.4	3.3	177.4	FGM
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**TABLE 6.6-9**

Lithic Material Distribution  
Site SDI-11,391C

Artifact Category	CGM	Chalcedony	Material				Quartz	Quartzite	Total	Percent
			FGM	Granite	MGM	Quartz				
<b>Core Tools:</b>										
Core Tools	-	-	-	-	3	-	-	3	0.59	
<b>Ground Stone Tools:</b>										
Manos	-	-	-	2	-	-	1	3	0.59	
<b>Lithic Production Waste:</b>										
Cores	-	-	3	-	7	-	-	10	1.97	
Debitage	-	-	30	-	47	3	-	80	15.78	
Flakes	2	-	139	-	181	5	-	327	64.50	
<b>Percussion Tools:</b>										
Hammerstones	-	-	6	-	5	-	-	11	2.17	
<b>Precision Tools:</b>										
Retouched Debitage	-	-	3	-	1	-	-	4	0.79	
Retouched Flakes	-	-	3	-	5	-	-	8	1.58	
Scrapers	-	-	3	-	3	-	-	6	1.18	
Utilized Debitage	-	1	7	-	10	-	-	18	3.55	
Utilized Flakes	-	-	19	-	8	-	-	27	5.33	
<b>Multi-Use Tools:</b>										
Hammer/Cores	-	-	4	-	4	-	-	8	1.58	
Perforator/Scraper	-	-	1	-	-	-	-	1	0.20	
Scraper/Hammerstone	-	-	1	-	-	-	-	1	0.20	
<b>Total</b>	<b>2</b>	<b>1</b>	<b>219</b>	<b>2</b>	<b>274</b>	<b>8</b>	<b>1</b>	<b>507</b>	<b>100.00</b>	
<b>Percent</b>	<b>0.39</b>	<b>0.20</b>	<b>43.20</b>	<b>0.39</b>	<b>54.04</b>	<b>1.58</b>	<b>0.20</b>	<b>100.00</b>		

Rounded numbers may not add to 100%.

## 6.7 Site SDI-11,404

### 6.7.1 Site Description

This site consists of a small lithic scatter located on the lower south-facing slope of a knoll immediately east of Otay Lakes Road near the southwest corner of the project. The site was originally recorded by RECON in 1989 as a flake scatter. The general configuration of the resource is shown in Figure 6.7-1. Elevations at the site range from 515 to 570 feet AMSL. Native vegetation was previously cleared from the site. The clearing and subsequent erosion has moderately impacted the site and resulted in the growth of moderately dense grasses. A graded dirt road extends along the southeastern edge of the site but does not appear to have impacted the site itself. The setting of the site is shown in a photograph provided in Plate 6.7-1.

Site SDI-11,404 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of all surface artifacts and the excavation of seven shovel test pits. The field investigations were conducted on May 29, 2002.

### 6.7.2 Previous Investigations

The site was registered by RECON during a survey conducted in 1989 as a small flake scatter that measured approximately 20 by 10 meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included approximately three fragments of fine-grained metavolcanic lithic production waste. The site was relocated by Ogden during a resurvey of the Otay Ranch in 1991 and described as a light lithic scatter over a relatively large area measuring approximately 150 by 150 meters (Carrico *et al.* 1992). Artifacts on the surface of the site included more than five metavolcanic flakes and debitage and a single core. Ogden identified no indication of features or a subsurface deposit, the site was not tested as part of either of these studies.

### 6.7.3 Description of Field Investigations

Field investigations conducted by BFSa at Site SDI-11,404 were executed using the standard methodologies described in Section 5.0. Lithic artifacts were recovered from the surface of the site; however, no subsurface deposits were identified.

#### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a limited number of surface artifacts. A total of 16 artifacts were recovered from the surface of the site from the 14 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in Table 6.7-1, while detailed provenience information for the surface artifacts is presented in Table 6.7-2. Lithic production waste

accounts for 87.50% (N=14) of the collection, while the remaining artifacts (N=2) consisted of a retouched piece of debitage and a core-based scraper. The area of the site, delineated by the artifact scatter, measures approximately 73 meters (240 feet) from north to south by 43 meters (140 feet) from west to east, and covers 1,705 square meters (18,347 square feet) (Figure 6.7-1).

#### *Subsurface Excavation*

The potential for subsurface archaeological deposits at Site SDI-11,404 was investigated by excavating a series of seven STPs. The placement of the STPs, shown in Figure 6.7-1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. No artifacts were recovered from the STPs excavated at Site SDI-11,404. Locational and depth information for the shovel tests is presented in Table 6.7-3.

Due to the lack of evidence for a subsurface deposit, a test unit was not excavated at Site SDI-11,404 as part of the testing program. The excavation of the STPs determined that no subsurface deposits are present at Site SDI-11,404.

#### *6.7.4 Discussion*

The testing demonstrated that Site SDI-11,404 consists of a sparse scatter of lithic artifacts on the surface of the site; no subsurface cultural deposit was identified. The overall site dimensions, identified by the surface scatter, measure 73 meters (240 feet) by 43 meters (140 feet), and cover 1,705 square meters (18,347 square feet). The artifacts recovered from Site SDI-11,404 consisted of 14 lithic production waste, a retouched piece of debitage, and a core-based scraper. Measurements for the two lithic tools are presented in Table 6.7-4. All artifacts collected from Site SDI-11,404 were derived from locally available fine- or medium-grained metavolcanics (Table 6.7-2). Select artifacts recovered from Site SDI-11,404 are shown in Plate 6.7-1b. The site appears to represent a limited-use site where a small amount of lithic tool production, and possible resource processing, occurred.

Since none of the artifacts recovered from the site were culturally diagnostic, no cultural affiliation could be assigned to the resource. Given the sparse nature of the surface scatter and the lack of a subsurface deposit, it is unlikely that further excavation would produce additional data that would allow such a determination. The site exhibits no ecofacts, features, or unique elements. The mapping and collection of all surface artifacts have exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based on the recovery of information that can contribute to the knowledge of prehistory in the region. However, the current program has exhausted the potential of the site to yield unique data, and further study will not produce additional significant information.

#### 6.7.5 Summary

The investigation of Site SDI-11,404 did not produce any unique scientific data regarding site function or content. The identified artifacts indicate that site activities were focused primarily on a limited amount of lithic tool production and possibly resource processing. The site represents one of several limited-use lithic manufacturing or maintenance sites in the area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines. The site exhibits a sparse artifact scatter that has been collected, and did not possess any segregated special use areas, features, or unique elements. The level of information already obtained from this site has exhausted the research potential of the resource and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,404.

**Figure 6.7-1**  
**Excavation Location Map — Site SDI-11,404**  
*(Deleted for Public Review; Bound Separately)*



**View of Site SDI-11,404 (foreground) looking northeast.**

**Plate 6.7-1**

**TABLE 6.7-1**

Summary of Surface Recovery  
Site SDI-11,404

Recovery Category	Quantity	Percent
Lithic Production Waste:		
Debitage	3	18.75
Flakes	11	68.75
Precision Tools:		
Retouched Debitage	1	6.25
Core-Based Scraper	1	6.25
Total	16	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.7-2**

Surface Recovery Data  
Site SDI-11,404

Recovery Location	Location from Datum A Azimuth/Range	Quantity/Weight	Recovery	Description	Cat. No.
1	8°/18 Feet	1	Flake	FGM	1
2	33°/46 Feet	1	Debitage	FGM	2
3	334°/66 Feet	1	Flake	MGM	3
4	244°/45 Feet		Not an Artifact		4
5	164°/56 Feet	1	Core-Based Scraper	FGM	5
6	195°/65 Feet	1	Debitage	MGM	6
7	201°/89 Feet	1	Retouched Debitage	FGM	7
			Not an Artifact		8
8	184°/104 Feet	1	Flake	FGM	9
9	161°/164 Feet	2	Flakes	FGM	10
			Not an Artifact		11
10	176°/172 Feet	1	Flake	FGM	12
11	177°/163 Feet	1	Flake	MGM	13
12	184°/169 Feet	1	Debitage	FGM	14
13	185°/149 Feet	1	Flake	FGM	15
14	195°/128 Feet	1	Flake	FGM	16
15	191°/181 Feet		Not an Artifact		17
16	204°/155 Feet		Not an Artifact		18

Recovery Location	Location from Datum A Azimuth/Range	Quantity/Weight	Recovery	Description	Cat. No.
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17	207°/158 Feet		Not an Artifact		19
			Not an Artifact		20
18	211°/152 Feet	2	Flakes	FGM	21
			Not an Artifact		22
19	201°/154 Feet		Not an Artifact		23
			Not an Artifact		24

**TABLE 6.7-3**

Shovel Test Excavation Data  
Site SDI-11,404

Shovel Test	Location from Datum A Azimuth/Range	Depth	Recovery	Cat. No.
1	0°/0 Feet	0-10 cm.	No Recovery	25
		10-20 cm.	No Recovery	26
		20-30 cm.	No Recovery	27
2	23°/23 Feet	0-10 cm.	No Recovery	28
		10-20 cm.	No Recovery	29
		20-30 cm.	No Recovery	30
3	284°/49 Feet	0-10 cm.	No Recovery	31
		10-20 cm.	No Recovery	32
		20-30 cm.	No Recovery	33
4	105°/62 Feet	0-10 cm.	No Recovery	34
		10-20 cm.	No Recovery	35
		20-30 cm.	No Recovery	36
5	201°/91 Feet	0-10 cm.	No Recovery	37
		10-20 cm.	No Recovery	38
		20-30 cm.	No Recovery	39
6	180°/140 Feet	0-10 cm.	No Recovery	40
		10-20 cm.	No Recovery	41
		20-30 cm.	No Recovery	42
7	200°/120 Feet	0-10 cm.	No Recovery	43
		10-20 cm.	No Recovery	44
		20-30 cm.	No Recovery	45

**TABLE 6.7-4**

Lithic Tool Measurement Data  
Site SDI-11,404

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools:

Retouched Debitage:

7	Retouched Debitage	6.5	6.3	3.5	156.9	FGM
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Scrapers:

5	Core-Based Scraper	4.6	4.4	4.2	134.0	FGM
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## 6.8 Site SDI-11,405

### 6.8.1 Site Description

This site consists of a small lithic scatter located on the lower south-facing slope of a knoll immediately east of Otay Lakes Road near the southwest corner of the project. The site was originally recorded by RECON in 1989 as a flake scatter. The general configuration of Site SDI-11,405 is shown in Figure 6.8–1. Elevations at the site range from 520 to 570 feet AMSL. Native vegetation was previously cleared from the site for cattle grazing. The clearing and subsequent erosion has moderately impacted the site and resulted in the growth of moderately dense grasses. A graded dirt road extends along the northeastern edge of the site but does not appear to have impacted the site itself. The setting of the site is shown in photographs provided in Plate 6.8–1.

Site SDI-11,405 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of all surface artifacts and the excavation of nine shovel test pits. The field investigations were conducted on September 4 and 5, 2002.

### 6.8.2 Previous Investigations

The site was registered at SCIC by RECON during a survey conducted in 1989 as a small flake scatter that measured approximately 20 by 10 meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included approximately three fragments of fine-grained metavolcanic lithic production waste. The site was relocated by Ogden during a resurvey of the Otay Ranch in 1991 and described as a small lithic scatter over an area measuring approximately 75 by 50 meters (Carrico *et al.* 1992). Artifacts on the surface of the site included more than 10 metavolcanic flakes, angular waste, and two cores. Ogden identified no indication of features or a subsurface deposit, although the site was not tested as part of either of these studies.

### 6.8.3 Description of Field Investigations

Field investigations conducted by BFSa at Site SDI-11,405 were executed using the standard methodologies described in Section 5.0. Vegetation cover at the site consisted of moderately dense grasses over the entire site. Lithic artifacts were recovered from the surface of the site and a sparse subsurface deposit was identified.

### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a number of surface artifacts. A total of 85 artifacts were recovered from the 35 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in

Table 6.8–1, while detailed provenience information for the surface artifacts is presented in Table 6.8–2. Lithic production waste accounts for 94.12% (N=80) of the collection, while the remaining artifacts (N=5) consisted of a core tool, two retouched flakes, and two utilized flakes. The area of the site, delineated by the artifact scatter, measures approximately 87 meters (285 feet) from southwest to northeast by 37 meters (120 feet) from northwest to southeast, and covers 2,537 square meters (27,302 square feet) (Figure 6.8–1).

### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,405 was investigated by excavating a series of nine STPs. The placement of the STPs, shown in Figure 6.8–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. A total of five artifacts were recovered from the STPs excavated at Site SDI-11,405—three artifacts from STP 3 and two from STP 6. The maximum depth of recovery in the STPs was 10 centimeters. Locational and depth information for the shovel tests is presented in Table 6.8–3.

Due to the sparse, shallow nature of the deposit, a test unit was not excavated at Site SDI-11,405 as part of the testing program. The excavation of the STPs determined that the subsurface deposit that is present at Site SDI-11,405 is shallow, sparse and minimal. The estimated subsurface area measures approximately 37 meters (120 feet) by nine meters (30 feet) and covers approximately 336 square meters (3,613 square feet).

### *6.8.4 Discussion*

The testing demonstrated that Site SDI-11,405 consists of a sparse scatter of lithic artifacts with a sparse, shallow subsurface cultural deposit. The overall site dimensions, identified by the surface scatter and positive excavations, measure 87 meters (285 feet) by 37 meters (120 feet). The area of subsurface deposit measures approximately 37 meters (120 feet) by nine meters (30 feet). The 90 artifacts recovered from Site SDI-11,405 consisted of 85 fragments of lithic production waste, a core tool, two retouched flakes, and two utilized flakes (Table 6.8–4). Measurements for the lithic tools recovered from Site SDI-11,405 are presented in Table 6.8–5. All artifacts collected from Site SDI-11,405 were derived from locally available fine- or medium-grained metavolcanics (Tables 6.8–2 and 6.8–3). The site appears to represent a limited-use site where a limited amount of lithic tool production, and possible resource processing, occurred.

Since none of the artifacts recovered from the site were culturally diagnostic, no cultural affiliation could be assigned to the resource. Given the sparse nature of the subsurface deposit, the low artifact type variability, and the fact that all surface artifacts were recovered, it is unlikely that further excavation would produce additional data that would allow such a determination. The site exhibits no ecofacts, features, or unique elements. The mapping and

collection of all surface artifacts have exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based upon the recovery of information that can contribute to the knowledge of prehistory in the region. However, the current program has exhausted the potential of the site to yield unique data, and further study will not produce additional significant information.

#### *6.8.5 Summary*

The investigation of Site SDI-11,405 did not produce any unique scientific data regarding site function or content. The identified artifacts indicate that site activities were focused primarily on a limited amount of lithic tool production and/or maintenance, and possibly resource processing. The site represents one of several limited-use lithic manufacturing or maintenance sites in the area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines. The site exhibits a sparse artifact scatter that has been collected, had no significant subsurface deposits, and did not possess any segregated special use areas, features, or unique elements. The level of information already obtained from this site has exhausted the research potential of the resource and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,405.

**Figure 6.8-1**  
**Excavation Location Map — Site SDI-11,405**  
*(Deleted for Public Review; Bound Separately)*



**View of Site SDI-11,405 looking west (arrow identifies Datum A).**

**TABLE 6.8-1**

Summary of Surface Recovery  
Site SDI-11,405

Recovery Category	Quantity	Percent
Core Tools:		
Core Tools	1	1.18
Lithic Production Waste:		
Debitage	17	20.00
Flakes	63	74.12
Precision Tools:		
Retouched Flakes	2	2.35
Utilized Flakes	2	2.35
Total	85	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.8-2**

Surface Recovery Data  
Site SDI-11,405

Recovery Location	Location from Datum A Azimuth/Range	Quantity/Weight	Recovery	Description	Cat. No.
1	207°/133 Feet	2	Flakes	FGM	1
		1	Debitage	MGM	2
		1	Flake	MGM	3
2	210°/130 Feet	5	Flakes	FGM	4
		3	Flakes	MGM	5
3	210°/118 Feet	1	Flake	FGM	6
4	208°/120 Feet	4	Flakes	FGM	7
5	208°/141 Feet	3	Flakes	FGM	8
6	208°/145 Feet	1	Flake	FGM	9
7	202°/139 Feet	1	Flake	FGM	10
8	208°/155 Feet	2	Debitage	FGM	11
		2	Flakes	FGM	12
9	210°/160 Feet	1	Flake	FGM	13
10	215°/155 Feet	2	Flakes	FGM	14
11	212°/167 Feet	4	Debitage	FGM	15
		2	Flakes	FGM	16
12	209°/170 Feet	2	Flakes	MGM	17
13	209°/181 Feet	2	Flakes	FGM	18
14	207°/180 Feet	6	Flakes	FGM	19
15	205°/191 Feet	4	Flakes	FGM	20

Recovery Location	Location from Datum A Azimuth/Range	Quantity/Weight	Recovery	Description	Cat. No.
16	212°/192 Feet	1	Debitage	FGM	21
17	209°/209 Feet	1	Flake	FGM	22
18	216°/197 Feet	1	Debitage	FGM	23
19	218°/181 Feet	1	Flake	FGM	24
		2	Flakes	MGM	25
20	220°/166 Feet	1	Flake	FGM	26
21	222°/156 Feet	1	Debitage	FGM	27
		5	Flakes	FGM	28
		1	Core Tool Fragment	MGM	29
22	226°/176 Feet	1	Retouched Flake	FGM	30
		1	Debitage	FGM	31
23	235°/203 Feet	1	Debitage	FGM	32
		1	Flake	FGM	33
24	225°/255 Feet	1	Debitage	FGM	34
25	215°/218 Feet	1	Flake	FGM	35
26	222°/191 Feet	1	Flake	FGM	36
27	210°/229 Feet		Not an Artifact		37
28	208°/232 Feet	1	Debitage	FGM	38
		1	Flake	FGM	39
29	210°/261 Feet	1	Utilized Flake	FGM	40
30	205°/255 Feet	2	Flakes	FGM	41
31	201°/235 Feet	1	Utilized Flake	FGM	42
32	192°/129 Feet	1	Retouched Flake	FGM	43
		1	Debitage	FGM	44

Recovery Location	Location from Datum A Azimuth/Range	Quantity/Weight	Recovery	Description	Cat. No.
		1	Debitage	MGM	45
33	223°/78 Feet	1	Debitage	FGM	46
		1	Flake	FGM	47
34	231°/59 Feet	1	Flake	FGM	48
35	235°/45 Feet	1	Flake	FGM	49
		1	Flake	MGM	50
36	308°/41 Feet		Not an Artifact		51
37	328°/18 Feet	1	Flake	MGM	52
38	256°/5 Feet		Not an Artifact		53

**TABLE 6.8-3**

Shovel Test Excavation Data  
Site SDI-11,405

Shovel Test	Location from Datum A Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	0°/0 Feet	0-10 cm.		No Recovery		54
		10-20 cm.		No Recovery		55
		20-30 cm.		No Recovery		56
2	242°/63 Feet	0-10 cm.		No Recovery		57
		10-20 cm.		No Recovery		58
		20-30 cm.		No Recovery		59
3	174°/124 Feet	0-10 cm.	2	Flakes	FGM	60
			1	Flake	MGM	61
		10-20 cm.		No Recovery		62
		20-30 cm.		No Recovery		63
4	210°/200 Feet	0-10 cm.		No Recovery		64
		10-20 cm.		No Recovery		65
		20-30 cm.		No Recovery		66
5	209°/120 Feet	0-10 cm.		No Recovery		67
		10-20 cm.		No Recovery		68
		20-30 cm.		No Recovery		69
6	206°/156 Feet	0-10 cm.	2	Flakes	FGM	70
		10-20 cm.		No Recovery		71
7	218°/142 Feet	0-10 cm.		No Recovery		72
		10-20 cm.		No Recovery		73
		20-30 cm.		No Recovery		74
8	229°/173 Feet	0-10 cm.		No Recovery		75
		10-20 cm.		No Recovery		76
		20-30 cm.		No Recovery		77
9	166°/166 Feet	0-10 cm.		No Recovery		78
		10-20 cm.		No Recovery		79
		20-30 cm.		No Recovery		80

**TABLE 6.8-4**

Summary of Artifact Recovery  
Site SDI-11,405

Recovery Category	Surface	Shovel Tests	Total	Percent
Core Tools:				
Core Tool	1	-	1	1.11
Lithic Production Waste:				
Debitage	17	-	17	18.89
Flakes	63	5	68	75.56
Precision Tools:				
Retouched Flakes	2	-	2	2.22
Utilized Flakes	2	-	2	2.22
Total	85	5	90	100.00
Percent	94.44	5.56	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.8-5**

Lithic Tool Measurement Data  
Site SDI-11,405

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
29	Core Tool Fragment	5.6	5.3	1.5	40.4	MGM
<u>Precision Tools:</u>						
<u>Retouched Flakes:</u>						
30	Retouched Flake	5.5	3.5	0.5	8.9	FGM
43	Retouched Flake	9.3	7.9	3.0	196.1	FGM
<u>Utilized Flakes:</u>						
40	Utilized Flake	5.4	2.2	0.6	7.5	FGM
42	Utilized Flake	6.3	4.0	1.3	29.7	FGM

## 6.9 Site SDI-11,406

### 6.9.1 Site Description

This site consists of a quarry and lithic scatter located on a southwest-trending ridge system on the north side of Jamul Valley, east of Upper Otay Reservoir and north of a seasonal drainage, on the west side of the project. The site was originally recorded by RECON in 1989 as a prehistoric quarry and light flake scatter. The general configuration of the resource is shown in Figure 6.9–1. Elevations at the site range from 745 to 795 feet AMSL. Native vegetation consists of chamise chaparral in the western portion of the site area, while the eastern portion of the site has been cleared. The setting of the site is shown in a photograph provided in Plate 6.9–1a.

Site SDI-11,406 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of all surface artifacts, and the excavation of nine shovel test pits and one test unit. The field investigations were conducted on September 12, 2002.

### 6.9.2 Previous Investigations

The site was registered by RECON during a survey conducted in 1989 as a quarry area that measured approximately ten by five meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included over six metavolcanic flakes. The site was relocated by Ogden in 1991 (Carrico *et al.* 1992), who described a scatter of lithic material along the ridge with at least two flaking stations. They estimated the site to be 100 meters by 50 meters and observed more than 80 metavolcanic flakes and angular waste, and three cores. The site was not tested as part of either of these studies.

### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a number of surface artifacts. A total of 292 artifacts were recovered from the 58 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in Table 6.9–1, while detailed provenience information for the surface artifacts is presented in Table 6.9–2.

A wide range of artifacts was recovered from the surface of the site. Lithic production waste accounts for 96.58% (N=282) of the collection, while the remaining artifacts consisted of smaller quantities of core (1.71%; N=5), precision (1.40%; N=4), and multi-use (0.34%; N=1) tools. As is evident in Figure 6.9–1, the surface artifacts were concentrated on the east side of the site. The area of the site, delineated by the artifact scatter, measures approximately 91 meters (300 feet) from northwest to southeast by 67 meters (220 feet) from southwest to northeast, and covers 4,140 square meters (44,548 square feet) (Figure 6.9–1).

### *Subsurface Excavation*

The potential for subsurface archaeological deposits at Site SDI-11,406 was investigated by excavating a series of nine STPs. The placement of the STPs, shown in Figure 6.9–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. A total of 22 artifacts were recovered from STPs at Site SDI-11,406. The recovery is summarized in Table 6.9–3 and detailed information is provided in Table 6.9–4. The STP assemblage was dominated by lithic production waste, although a single scraper was also recovered. Of the nine STPs excavated, three were positive for cultural material, with recovery ranging from one or two artifacts (STPs 2, and 5) to 19 (STP 1). The maximum depth of recovery in each of the STPs was 20 centimeters.

The testing program included the excavation of one test unit at Site SDI-11,406. The unit was placed in the area most likely to contain a subsurface cultural deposit, based on the positive shovel tests and surface artifact distribution (Figure 6.9–1). The unit was excavated in standard decimeter levels to 30 centimeters and all removed soils were sifted through 1/8-inch mesh hardware cloth. Excavation of the test unit resulted in the recovery of 2,418 artifacts, and included 2,369 pieces of lithic production waste, and 23 precision tools, 16 percussion tools, seven core tools, and three multi-use tools. The test unit recovery is summarized in Table 6.9–5 and detailed recovery information for the test unit is provided in Table 6.9–6.

The soil profile from Test Unit 1 was characterized as a dark brown to brown (10YR 4/3) silty loam underlain by metavolcanic bedrock. A large amount of non-cultural metavolcanic rock derived from bedrock was observed throughout the depth of the unit. A drawing of the north wall of the test unit is presented in Figure 6.9–2. A color photograph of the north wall of the test unit is provided in Plate 6.9–1b.

The excavation of the STPs and test unit determined that the site exhibits subsurface deposits near quarrying areas that extend to depths of up to 30 centimeters. The deposit is localized but extensive, as TU 1 at Site SDI-11,406 was one of the more productive units excavated at the Village 13 project. The subsurface deposit measures approximately 49 meters (160 feet) from northwest to southeast by 23 meters (75 feet) from southwest to northeast, and covers 858 square meters (9,227 square feet).

#### *6.9.3 Laboratory Analysis*

The laboratory analysis for Site SDI-11,406 included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BFA to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.9–7. The recovery from Site SDI-11,406 included 2,732 lithic artifacts.

### *Lithic Artifact Analysis*

Lithic production waste accounted for the largest category of lithic artifacts, representing 97.80% (N=2,672) of the lithic artifact collection and included seven cores, 657 pieces of debitage or shatter, and 2,008 flakes. The remaining lithic collection from Site SDI-11,406 consisted of precision (1.02%; N=28), percussion (0.59%; N=16), core (0.44%; N=12) and multi-use (0.15%; N=4) tools. Measurements of all lithic tools are presented in Table 6.9–8.

The precision tool category included 12 utilized flakes, ten utilized debitage, two scrapers, two retouched flakes, one retouched debitage, and one projectile point. The projectile point was complete and was identified as a small dart point, exhibiting a flat base and side notches (Plate 6.9–2). This is an Archaic-style point manufactured from fine-grained metavolcanic material and is similar to the point style identified at the Scripps Poway Parkway Site (SDI-4608) as a large (weighing more than 1.5 grams) side-notched point (Raven-Jennings and Smith 1999). The specimen from SDI-11,406 weighs 2.3 grams and does not exhibit the fine flaking typical of Late Prehistoric arrow points. Other than predating the desert side-notched points, the temporal range of this point style in San Diego County is unknown.

The artifacts identified as core tools are generally cores with some evidence of retouch or utilization on at least one edge of the artifact, but not enough so that the artifact can be classified as a specific precision or multi-use tool. Twelve core tools were recovered from Site SDI-11,406.

Percussion tools consisted of 16 hammerstones. Of the hammerstones recovered from the site, three were complete while 13 were fragmented. The use-wear on all three of the complete specimens was identified as single-edged.

The category of multi-use tools was developed in order to accurately describe those specimens that exhibited several different use-wear patterns, which prevented the classification of the artifact into one of the existing tool categories. This category includes all tools that possess more than one function evidenced by the use-wear on the artifact. At Site SDI-11,406, the multi-use category included three hammer/cores and a scraper/hammerstone.

The entire lithic assemblage was composed of coarse-, medium-, and fine-grained metavolcanic materials, which are immediately available on the site itself (Tables 6.9–2, 6.9–4, and 6.9–6).

Activities indicated by the artifacts recovered from the site include procurement of lithic materials, lithic tool production and maintenance, as well as procurement and processing of plant and/or animal resources. Lithic tools were recovered from both surface and subsurface contexts. Select tools recovered from the site are shown in Plate 6.9–2.

#### *6.9.4 Discussion*

The testing demonstrated that Site SDI-11,406 consists of a quarry and moderate scatter of surface artifacts, as well as a relatively dense but localized subsurface deposit that extends to a

maximum depth of 30 centimeters. The overall site dimensions, identified by the surface scatter and positive subsurface excavation, measure 91 meters (300 feet) by 67 meters (220 feet), and covers 4,140 square meters (44,548 square feet). The subsurface deposit measures 49 meters (160 feet) from northwest to southeast by 23 meters (75 feet) from southwest to northeast, and covers 858 square meters (9,227 square feet). Based on the artifacts recovered, the site appears to represent a quarry and temporary camp where lithic resource procurement, lithic tool production and/or maintenance, and animal and/or plant resource procurement and processing, occurred.

As previously stated, the unit excavated at Site SDI-11,406 is one of the most productive excavations on the Village 13 project. Furthermore, the site produced a relatively wide variety of lithic tools, as well as one of the few potentially culturally diagnostic artifacts within the project—a possible Archaic dart point. A significant amount of the lithic tools from Site SDI-11,406 were collected from subsurface contexts at the site, indicating that the site retains additional research potential, including the potential for additional culturally diagnostic tools.

#### *6.9.5 Summary*

The analysis of the cultural materials recovered from Site SDI-11,406 revealed a moderate surface scatter and a relatively dense, although localized, cultural deposit of lithic artifacts. The recovered materials indicate that site activities were focused primarily on lithic procurement and manufacture, with additional floral and/or faunal resource procurement and processing represented by a variety of precision tools.

Based on the presence of a variety of tool types, a potentially diagnostic tool, and a concentrated subsurface deposit that extends to 30 centimeters, Site SDI-11,406 exhibits significant cultural deposits and retains research potential. Based on the recovery from testing of the site, the resource exhibits the potential to contain materials that might contribute to the understanding of prehistoric cultures in the region. Site SDI-11,406 is, therefore, considered significant according to CEQA criteria and County of San Diego cultural resource guidelines.

**Figure 6.9-1**  
**Excavation Location Map — Site SDI-11,406**  
*(Deleted for Public Review; Bound Separately)*

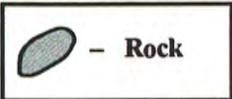
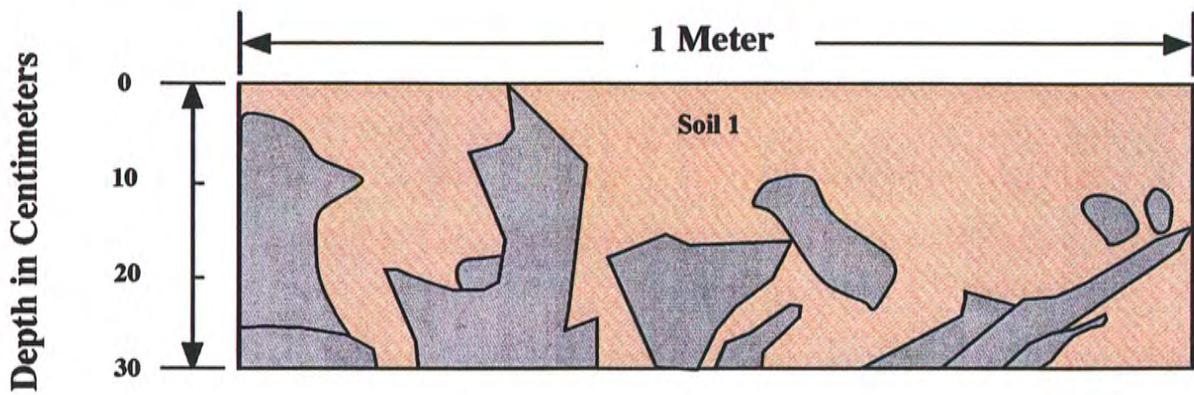
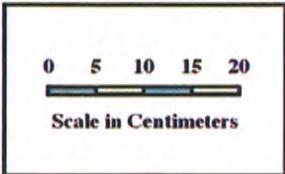


View of Site SDI-11,406 looking north (arrow).

View of the north profile of Test Unit 1, 0 to 30 centimeters, at Site SDI-11,406.



Plate 6.9-1



**Soil Types**

- 1** Dark brown to brown (10YR 4/3) silty loam underlain by metavolcanic bedrock

**Figure 6.9-2**  
**North Wall Profile of Test Unit 1**  
Site SDI-11,406  
The Village 13 Project



**Catalog #99**  
**MGM Hammer/Scraper, showing scraper edge**



**Catalog #88**  
**FGM Flake Scraper**



**Catalog # 176**  
**FGM Core Tool**



**Catalog # 23**  
**FGM Side-notched Flat-base Archaic Period  
Dart Point**

**View of select artifacts from Site SDI-11,406**

**Plate 6.9-2**

**TABLE 6.9-1**

Summary of Surface Recovery  
Site SDI-11,406

Recovery Category	Quantity	Percent
Core Tools:		
Core Tools	5	1.71
Lithic Production Waste:		
Debitage	76	26.03
Flakes	206	70.55
Precision Tools:		
Projectile Point	1	0.34
Retouched Debitage	1	0.34
Scraper	1	0.34
Utilized Debitage	1	0.34
Multi-Use Tools:		
Scraper/Hammerstone	1	0.34
Total	292	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.9-2**

Surface Recovery Data  
Site SDI-11,406

Recovery Location	Location from Datum B Azimuth/Range	Quantity	Recovery	Material	Cat. No.
1	168°/171 Feet	1	Debitage	MGM	1
2	164°/186 Feet	1	Flake	MGM	2
3	156°/228 Feet	2	Flakes	FGM	3
		1	Core Tool Fragment	MGM	4
4	154°/260 Feet	1	Flake	FGM	5
5	158°/263 Feet	1	Debitage	FGM	6
		3	Flakes	FGM	7
		2	Flakes	MGM	8
6	159°/283 Feet	4	Debitage	FGM	9
		12	Flakes	FGM	10
7	161°/258 Feet	4	Debitage	FGM	11
		9	Flakes	FGM	12
		1	Flake	MGM	13
8	162°/269 Feet	4	Debitage	FGM	14
		13	Flakes	FGM	15
9	164°/264 Feet	2	Debitage	FGM	16
		7	Flakes	FGM	17
		1	Debitage	MGM	18
10	166°/256 Feet	3	Debitage	FGM	19
		5	Flakes	FGM	20
		1	Debitage	MGM	21
		2	Flakes	MGM	22
11	163°/253 Feet	1	Projectile Point, Arrow, Side Notched, Flat Base	FGM	23

Recovery Location	Location from Datum B Azimuth/Range	Quantity	Recovery	Material	Cat. No.
		5	Debitage	FGM	24
		16	Flakes	FGM	25
		3	Flakes	MGM	26
12	163°/236 Feet	1	Core Tool	FGM	27
		1	Debitage	FGM	28
		2	Flakes	FGM	29
13	166°/238 Feet	3	Flakes	FGM	30
14	174°/229 Feet	1	Flake	FGM	31
		1	Flake	MGM	32
15	178°/220 Feet	1	Flake	MGM	33
16	180°/194 Feet	1	Flake	MGM	34
17	171°/263 Feet	1	Flake	FGM	35
18	166°/283 Feet	3	Flakes	FGM	36
19	157°/306 Feet	2	Flakes	FGM	37
20	159°/311 Feet	3	Flakes	FGM	38
		1	Flake	MGM	39
21	160°/331 Feet	2	Flakes	FGM	40
22	167°/308 Feet	1	Flake	FGM	41
23	168°/314 Feet	1	Debitage	FGM	42
		1	Flake	MGM	43
24	171°/310 Feet	1	Flake	FGM	44
25	166°/386 Feet		Not an Artifact		45
26	171°/360 Feet	1	Debitage	FGM	46
27	175°/355 Feet	1	Flake	MGM	47

Recovery Location	Location from Datum B Azimuth/Range	Quantity	Recovery	Material	Cat. No.
28	177°/381 Feet	1	Core Tool	MGM	48
29	179°/328 Feet		Not an Artifact		49
30	183°/329 Feet	2	Debitage	MGM	50
		1	Flake	MGM	51
31	194°/326 Feet	1	Flake	MGM	52
32	199°/292 Feet	1	Flake	FGM	53
33	203°/243 Feet	1	Flake	FGM	54
34	207°/230 Feet	1	Flake	FGM	55
		1	Flake	MGM	56
35	214°/201 Feet	2	Flakes	MGM	57
36	200°/206 Feet	1	Debitage	FGM	58
37	178°/237 Feet	1	Debitage	FGM	59
38	172°/255 Feet		Not an Artifact		60
39	168°/283 Feet	1	Flake	FGM	61
40	164°/288 Feet	1	Debitage	FGM	62
		1	Flake	FGM	63
		1	Flake	MGM	64
41	163°/292 Feet	2	Debitage	FGM	65
		1	Flake	FGM	66
42	163°/254 Feet	2	Flakes	FGM	67
		1	Debitage	MGM	68
		1	Flake	MGM	69
43	163°/258 Feet	5	Debitage	FGM	70
		10	Flakes	FGM	71

Recovery Location	Location from Datum B Azimuth/Range	Quantity	Recovery	Material	Cat. No.
44	161°/259 Feet	4	Debitage	FGM	72
		6	Flakes	FGM	73
45	159°/257 Feet	1	Core Tool	FGM	74
		2	Debitage	FGM	75
		2	Flakes	FGM	76
46	163°/277 Feet	2	Debitage	FGM	77
		3	Flakes	FGM	78
		1	Flake	MGM	79
47	164°/265 Feet	2	Debitage	FGM	80
		9	Flakes	FGM	81
48	161°/271 Feet	8	Debitage	FGM	82
		20	Flakes	FGM	83
49	161°/277 Feet	1	Debitage	FGM	84
		1	Debitage	MGM	85
		1	Flake	MGM	86
50	158°/279 Feet	1	Debitage	FGM	87
51	158°/266 Feet	1	Flake Scraper	FGM	88
		3	Debitage	FGM	89
		10	Flakes	FGM	90
52	156°/274 Feet	1	Utilized Debitage	FGM	91
		1	Debitage	FGM	92
		4	Flakes	FGM	93
53	156°/282 Feet	2	Flakes	FGM	94
54	157°/293 Feet	1	Flake	FGM	95
		1	Debitage	MGM	96
		1	Flake	MGM	97
55	160°/304 Feet	1	Flake	FGM	98

Recovery Location	Location from Datum B Azimuth/Range	Quantity	Recovery	Material	Cat. No.
56	155°/339 Feet	1	Scraper/Hammerstone	MGM	99
57	154°/273 Feet	1	Debitage	FGM	100
		10	Flakes	FGM	101
58	150°/253 Feet		Not an Artifact		102
59	149°/267 Feet		Not an Artifact		103
60	173°/329 Feet	1	Flake	MGM	104
61	178°/305 Feet	1	Retouched Debitage	MGM	105
62	159°/264 Feet	1	Core Tool	FGM	106
		6	Debitage	FGM	107
		6	Flakes	FGM	108
63	159°/243 Feet	1	Debitage	FGM	109
		1	Flake	FGM	110

**TABLE 6.9-3**

Summary of Shovel Test Recovery  
Site SDI-11,406

Recovery Category	Quantity	Percent
Lithic Production Waste:		
Debitage	4	18.18
Flakes	17	77.27
Precision Tools:		
Scraper	1	4.55
Total	22	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.9-4**

Shovel Test Excavation Data  
Site SDI-11,406

Shovel Test	Location from Datum B Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	159°/275 Feet	0-10 cm.	1	Scraper	FGM	111
			3	Debitage	FGM	112
			8	Flakes	FGM	113
		10-20 cm.	1	Debitage	FGM	114
			5	Flakes	FGM	115
			1	Flake	MGM	116
		20-30 cm.		No Recovery		117
2	156°/308 Feet	0-10 cm.		No Recovery		118
		10-20 cm.	1	Flake	FGM	119
3	171°/299 Feet	0-10 cm.		No Recovery		120
		10-20 cm.		No Recovery		121
		20-30 cm.		No Recovery		122
		30-40 cm.		No Recovery		123
4	173°/266 Feet	0-10 cm.		No Recovery		124
		10-20 cm.		No Recovery		125
		20-30 cm.		No Recovery		126
5	161°/195 Feet	0-10 cm.		No Recovery		127
		10-20 cm.	2	Flakes	MGM	128
		20-30 cm.		No Recovery		129
6	151°/374 Feet	0-10 cm.		No Recovery		130
		10-20 cm.		No Recovery		131
		20-30 cm.		No Recovery		132
7	180°/335 Feet	0-10 cm.		No Recovery		133
		10-20 cm.		No Recovery		134
		20-30 cm.		No Recovery		135

Shovel Test	Location from Datum B Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
8	160°/156 Feet	0-10 cm.		No Recovery		136
		10-20 cm.		No Recovery		137
		20-30 cm.		No Recovery		138
9	148°/263 Feet	0-10 cm.		No Recovery		139
		10-20 cm.		No Recovery		140
		20-30 cm.		No Recovery		141

**TABLE 6.9-5**

Summary of Test Unit Recovery  
Site SDI-11,406

Artifact Category	Depth (in centimeters)			Total	Percent
	0-10	10-20	20-30		
Core Tools:					
Core Tools	5	1	1	7	0.29
Lithic Production Waste:					
Cores	6	1	-	7	0.29
Debitage	312	118	147	577	23.86
Flakes	910	361	514	1785	73.82
Percussion Tools:					
Hammerstones	8	1	7	16	0.66
Precision Tools:					
Retouched Flakes	1	-	1	2	0.08
Utilized Debitage	7	-	2	9	0.37
Utilized Flakes	3	4	5	12	0.50
Multi-Use Tools:					
Hammer/Cores	3	-	-	3	0.12
Total	1255	486	677	2418	100.00
Percent	51.90	20.10	28.00	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.9-6**

Test Unit Excavation Data  
Site SDI-11,406

Test Unit	Location from Datum B Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	159°/270 Feet	0-10 cm.	1	Hammer/Core	FGM	142
			1	Hammerstone, Single-Edged	FGM	143
			1	Utilized Debitage	FGM	144
			1	Hammerstone Fragment	FGM	145
			1	Core Tool Fragment	FGM	146
			1	Hammerstone, Single-Edged	FGM	147
			1	Utilized Debitage Fragment	FGM	148
			1	Hammer/Core	FGM	149
			1	Utilized Debitage	FGM	150
			1	Utilized Debitage	FGM	151
			1	Retouched Flake	FGM	152
			1	Utilized Flake	FGM	153
			1	Hammer/Core	FGM	154
			1	Core Tool Fragment	FGM	155
			1	Hammerstone Fragment	FGM	156
			1	Utilized Flake	FGM	157
			1	Hammerstone Fragment	FGM	158
			1	Hammerstone Fragment	FGM	159
			1	Utilized Debitage Fragment	FGM	160
			1	Hammerstone, Single-Edged	FGM	161
			1	Utilized Debitage	FGM	162
			1	Utilized Flake	FGM	163
			1	Core Tool Fragment	FGM	164
			1	Utilized Debitage	FGM	165
			1	Hammerstone Fragment	FGM	166
			1	Core Tool Fragment	FGM	167
			1	Core Tool Fragment	FGM	168
			6	Cores	FGM	169
282	Debitage	FGM	170			
790	Flakes	FGM	171			
30	Debitage	MGM	172			
119	Flakes	MGM	173			
1	Flake	CGM	174			

Test Unit	Location from Datum B Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
		10-20 cm.	1	Hammerstone Fragment	FGM	175
			1	Core Tool	FGM	176
			1	Utilized Flake	FGM	177
			1	Utilized Flake	FGM	178
			1	Utilized Flake	FGM	179
			1	Utilized Flake	FGM	180
1	159°/270 Feet	10-20 cm.	108	Debitage	FGM	181
			338	Flakes	FGM	182
			10	Debitage	MGM	183
			22	Flakes	MGM	184
			1	Core Fragment	MGM	185
			1	Flake	CGM	186
		20-30 cm.	1	Hammerstone Fragment	FGM	187
			1	Hammerstone Fragment	FGM	188
			1	Hammerstone Fragment	FGM	189
			1	Hammerstone Fragment	FGM	190
			1	Hammerstone Fragment	FGM	191
			1	Hammerstone Fragment	FGM	192
			1	Core Tool	FGM	193
			1	Utilized Debitage	FGM	194
			1	Utilized Debitage	FGM	195
			1	Utilized Flake	FGM	196
			1	Utilized Flake	FGM	197
			1	Utilized Flake	FGM	198
			1	Utilized Flake	FGM	199
			1	Utilized Flake	FGM	200
			1	Retouched Flake	FGM	201
			136	Debitage	FGM	202
			457	Flakes	FGM	203
			1	Hammerstone Fragment	MGM	204
			11	Debitage	MGM	205
			56	Flakes	MGM	206
			1	Flake	CGM	207

**TABLE 6.9-7**

Summary of Artifact Recovery  
Site SDI-11,406

Recovery Category	Surface	Shovel Tests	Test Units	Total	Percent
Core Tools:					
Core Tools	5	-	7	12	0.44
Lithic Production Waste:					
Cores	-	-	7	7	0.26
Debitage	76	4	577	657	24.05
Flakes	206	17	1785	2008	73.50
Percussion Tools:					
Hammerstones	-	-	16	16	0.59
Precision Tools:					
Projectile Point	1	-	-	1	0.04
Retouched Debitage	1	-	-	1	0.04
Retouched Flakes	-	-	2	2	0.07
Scrapers	1	1	-	2	0.07
Utilized Debitage	1	-	9	10	0.37
Utilized Flakes	-	-	12	12	0.44
Multi-Use Tools:					
Hammer/Cores	-	-	3	3	0.11
Scraper/Hammerstone	1	-	-	1	0.04
<hr/>					
Total	292	22	2418	2732	100.00
Percent	10.69	0.81	88.51	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.9-8**

Lithic Tool Measurement Data  
Site SDI-11,406

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
4	Core Tool Fragment	9.7	5.4	5.3	287.0	MGM
27	Core Tool	10.7	6.4	4.7	265.5	FGM
48	Core Tool	13.3	11.1	6.2	699.6	MGM
74	Core Tool	11.4	9.5	4.0	427.1	FGM
106	Core Tool	10.7	9.7	5.9	483.3	FGM
146	Core Tool Fragment	9.2	7.5	5.4	373.5	FGM
155	Core Tool Fragment	12.8	7.5	4.7	400.9	FGM
164	Core Tool Fragment	13.2	9.3	6.2	477.6	FGM
167	Core Tool Fragment	8.0	5.6	3.6	139.7	FGM
168	Core Tool Fragment	8.2	4.0	3.1	126.7	FGM
176	Core Tool	11.7	7.8	5.0	541.0	FGM
193	Core Tool	11.7	8.7	6.2	469.2	FGM
<u>Percussion Tools:</u>						
Hammerstones:						
143	Hammerstone, Single-Edged	7.9	6.4	4.0	185.5	FGM
145	Hammerstone Fragment, Undetermined	10.4	8.6	3.6	282.9	FGM
147	Hammerstone, Single-Edged	10.6	9.0	6.9	562.7	FGM
156	Hammerstone Fragment, Undetermined	5.7	3.2	1.8	30.7	FGM
158	Hammerstone Fragment, Undetermined	5.8	4.4	2.7	78.4	FGM
159	Hammerstone Fragment, Undetermined	5.3	4.3	1.9	43.7	FGM
161	Hammerstone, Single-Edged	8.9	7.0	2.8	172.4	FGM
166	Hammerstone Fragment, Undetermined	9.0	5.9	3.5	147.4	FGM
175	Hammerstone Fragment, Undetermined	5.2	4.1	2.2	38.7	FGM
187	Hammerstone Fragment, Undetermined	3.6	2.9	2.1	20.7	FGM
188	Hammerstone Fragment, Undetermined	8.6	4.1	2.8	109.3	FGM
189	Hammerstone Fragment, Undetermined	5.6	4.8	1.6	42.6	FGM
190	Hammerstone Fragment, Undetermined	4.4	2.7	1.3	14.6	FGM
191	Hammerstone Fragment, Undetermined	7.3	3.8	2.2	49.6	FGM
192	Hammerstone Fragment, Undetermined	6.5	3.6	1.7	40.1	FGM
204	Hammerstone Fragment, Undetermined	9.9	8.4	2.7	199.5	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools:

Projectile Points:

23	Projectile Point, Arrow, Side Notched, Flat Base	2.1	1.8	0.5	2.3	FGM
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Retouched Debitage:

105	Retouched Debitage	7.0	4.6	1.9	58.3	MGM
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Retouched Flakes:

152	Retouched Flake	13.9	7.7	3.3	317.9	FGM
-----	-----------------	------	-----	-----	-------	-----

201	Retouched Flake	4.6	2.5	1.2	11.2	FGM
-----	-----------------	-----	-----	-----	------	-----

Scrapers:

88	Flake Scraper	9.8	9.3	3.0	297.2	FGM
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111	Scraper	11.3	7.0	4.3	418.9	FGM
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Utilized Debitage:

91	Utilized Debitage	13.5	10.0	6.1	792.9	FGM
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144	Utilized Debitage	12.3	6.9	3.7	295.5	FGM
-----	-------------------	------	-----	-----	-------	-----

148	Utilized Debitage Fragment	8.4	8.4	8.3	457.4	FGM
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150	Utilized Debitage	11.8	9.3	4.0	381.9	FGM
-----	-------------------	------	-----	-----	-------	-----

151	Utilized Debitage	9.4	7.9	4.2	241.6	FGM
-----	-------------------	-----	-----	-----	-------	-----

160	Utilized Debitage Fragment	8.1	3.2	2.7	81.8	FGM
-----	----------------------------	-----	-----	-----	------	-----

162	Utilized Debitage	7.8	6.5	4.1	178.1	FGM
-----	-------------------	-----	-----	-----	-------	-----

165	Utilized Debitage	15.2	11.7	8.8	1631.6	FGM
-----	-------------------	------	------	-----	--------	-----

194	Utilized Debitage	10.8	8.8	3.3	234.1	FGM
-----	-------------------	------	-----	-----	-------	-----

195	Utilized Debitage	7.4	5.1	3.6	134.9	FGM
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Utilized Flakes:

153	Utilized Flake	7.6	5.6	2.7	80.8	FGM
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157	Utilized Flake	8.2	7.5	2.0	117.1	FGM
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163	Utilized Flake	7.4	2.9	1.5	22.4	FGM
-----	----------------	-----	-----	-----	------	-----

177	Utilized Flake	10.4	5.6	1.6	78.4	FGM
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178	Utilized Flake	9.5	8.1	2.1	160.5	FGM
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179	Utilized Flake	5.8	4.6	1.7	47.7	FGM
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180	Utilized Flake	9.2	6.8	1.6	73.4	FGM
-----	----------------	-----	-----	-----	------	-----

196	Utilized Flake	7.9	7.5	2.6	144.9	FGM
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197	Utilized Flake	7.4	5.8	1.9	64.4	FGM
-----	----------------	-----	-----	-----	------	-----

198	Utilized Flake	10.8	6.5	4.1	187.8	FGM
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199	Utilized Flake	4.8	4.1	2.4	43.6	FGM
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200	Utilized Flake	6.0	3.6	2.3	35.0	FGM
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Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Multi-Use Tools:

Hammer/Cores:

142	Hammer/Core	11.1	8.3	6.4	604.8	FGM
149	Hammer/Core	11.1	9.3	6.2	632.9	FGM
154	Hammer/Core	13.0	10.9	7.8	937.3	FGM

Scraper/Hammerstones:

99	Scraper/Hammerstone	9.5	8.5	7.5	801.6	MGM
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## **6.10 Site SDI-11,407**

### *6.10.1 Site Description*

This site consists of a lithic scatter located on a knoll and lower west-trending bench of a ridge system in the southwest area of the project. The site was originally recorded by RECON in 1989 as a flake scatter and was relocated. The general configuration of the resource is shown in Figure 6.10–1. Elevations at the site range from 550 to 670 feet AMSL. Most of the native vegetation was previously cleared from the site, but substantial regrowth of chamise chaparral is evident. The clearing and subsequent erosion has impacted the site and resulted in the growth of moderately dense grasses. Native vegetation of chamise chaparral remains in the northern and northwestern portions of the site. A graded dirt road extends north of the site from west to east, but does not appear to have impacted the site itself. The setting of the site is shown in a photograph provided in Plate 6.10–1a.

Site SDI-11,407 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of all surface artifacts, and the excavation of 25 shovel test pits and one test unit. The field investigations were conducted on May 14 and 15, 2002.

### *6.10.2 Previous Investigations*

The site was registered by RECON during a survey conducted in 1989 as a flake scatter that measured approximately 150 by 10 meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included five metavolcanic flakes. The site was relocated by Ogden during a resurvey of the Otay Ranch in 1991 and described as a light lithic scatter that measured approximately 250 by 500 meters (Carrico *et al.* 1992). Two flaking stations were identified within this area. No indication of a subsurface deposit was identified by Ogden. Artifacts on the surface of the site included more than 75 metavolcanic flakes and debitage and 10 cores. The site was not tested as part of either of these studies.

### *6.10.3 Description of Field Investigations*

Field investigations conducted by BFSa at Site SDI-11,407 were executed using the standard methodologies described in Section 5.0. Lithic artifacts were recovered from the surface of the site and a sparse subsurface deposit was identified.

### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a limited number of surface artifacts. A total of 238 artifacts were recovered from the 121 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in Table 6.10–1, while detailed provenience information for the surface artifacts is

presented in Table 6.10–2. Lithic production waste accounts for 88.24% (N=210) of the collection, while the remaining artifacts consisted of a hammerstone (0.42%), 19 precision tools (7.98%), five core tools (2.10%), and three multi-use tools (1.26%). The surface collection is widely distributed across the site and is more concentrated on the east side of the site. However, given the disturbance at the site, the distribution of the surface scatter, illustrated in Figure 6.10–1, is probably more representative of the clearing, brushing, and grazing activities in the area than prehistoric use areas. The area of the site, delineated by the artifact scatter, measures approximately 515 meters (1,690 feet) from west to east by 187 meters (612 feet) from north to south, and covers 44,535 square meters (479,198 square feet) (Figure 6.10–1).

### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,407 was investigated by excavating a series of 25 STPs. The placement of the STPs, shown in Figure 6.10–1, was based on the distribution of the surface artifacts. No artifacts were recovered from the STPs excavated at Site SDI-11,407. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. Locational and depth information for the shovel tests is presented in Table 6.10–3.

As originally proposed, the testing program included the excavation of a single test unit at Site SDI-11,407. Because all shovel tests were negative, the test unit was placed according to the surface artifact distribution (Figure 6.10–1). The test unit was excavated in standard decimeter levels to 40 centimeters and all removed soils were sifted through 1/8-inch mesh hardware cloth. Excavations resulted in the recovery of 10 artifacts, all identified as lithic production waste (Table 6.10–4). The maximum depth of recovery was 40 centimeters. The soil profile from Test Unit 1 was characterized as compact dark brown to brown (7.5YR 4/4) cobbly loam. A drawing of the north wall of Test Unit 1 is presented in Figure 6.10–2. A color photograph of the north wall of Test Unit 1 is provided in Plate 6.10–1b.

The excavation of the STPs and test unit determined that a sparse deposit of lithic debris is present at SDI-11,407. The lack of artifacts from the shovel tests indicates the deposit is localized in the area of the test unit. Based on the excavations conducted at SDI-11,407, the estimated area of the subsurface deposit measures 22 meters (73 feet) by 22 meters (73 feet), and covers 387 square meters (4,163 square feet).

### *6.10.4 Laboratory Analysis*

The laboratory analysis for Site SDI-11,407 included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BFA to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.10–6. The recovery from Site SDI-11,407 included 148 lithic artifacts. Select artifacts are shown in Plate 6.10–2.

### Lithic Artifact Analysis

Lithic production waste accounted for the largest category of lithic artifacts, representing 88.71% (N=220) of the lithic artifact collection and included nine cores, 42 pieces of debitage or shatter, and 169 flakes. The remaining lithic collection from SDI-11,407 consisted of a percussion tool (0.40%), precision tools (N=19; 7.66%), core tools (N=5; 2.02%), and multi-use tools (N=3; 1.21%). Measurements of all lithic tools are presented in Table 6.10–7.

The hammerstone from the site was derived from quartz and was a heavily utilized tool. The precision tool category included four pieces of retouched lithic production waste, five scrapers, and ten pieces of utilized lithic production waste. Three scrapers were fragmented, but two were complete enough to identify them as domed scraper fragments. Multi-use tools spanned a wide variety of categories and represent those specimens that appeared to have been used for multiple purposes. The specimens from SDI-11,407 included a chopper/hammerstone, a hammer/core, and a scraper/hammerstone. Activities indicated by the artifacts recovered from the site include lithic tool production and maintenance, as well as procurement and processing of plant and/or animal resources. All tools from the site were recovered from the surface of the site.

The material distribution of the lithic assemblage is presented in Table 6.10–8. The collection consists almost entirely of locally available lithic material, particularly that of fine- and medium-grained metavolcanic, which together account for 97.18% (N=241) of the collection. The other locally available lithic material recovered from SDI-11,407 was that of coarse-grained metavolcanic (0.40%; N=1) and quartz (2.02%; N=5). The last lithic material category recovered included a single piece of chert (0.40%). Although chert is believed to have been imported to this area from the desert, local sources of cryptocrystalline material were identified during the monitoring of grading on nearby development properties (Smith and Stropes 2014).

#### *6.10.5 Discussion*

The testing demonstrated that Site SDI-11,407 consists of a moderate scatter of surface artifacts and a sparse, localized subsurface deposit. The overall site dimensions, identified by the surface scatter and test unit excavation, measure 515 meters (1,690 feet) by 187 meters (612 feet), and cover 44,535 square meters (479,198 square feet). The subsurface deposit is estimated to measure 387 square meters. Based on the artifacts recovered, the site appears to represent a limited-use site where lithic tool production and/or maintenance, and possible resource processing, occurred.

Since none of the artifacts recovered from the site were culturally diagnostic, no cultural affiliation could be assigned to the resource. Given the sparse nature of the subsurface deposit, and the fact that only lithic production waste was recovered from the subsurface deposit, it is unlikely that further excavation would produce additional data that would allow such a determination. The site exhibits no ecofacts, features, or unique elements. Although several tool

types were represented at the site, most of the collection is composed of lithic production waste. In addition, 95.97% (N=238) of the artifacts recovered from the site were on the surface of the site and all have been collected. The testing of Site SDI-11,407, including the collection of all surface artifacts, has exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based upon the information that can contribute to the knowledge of the prehistory of the region. However, the current program has exhausted the potential of the site to yield unique data, and further study will not produce additional significant information.

#### *6.10.6 Summary*

The investigation of Site SDI-11,407 did not produce any unique scientific data regarding site function or content. The identified artifacts indicate that site activities were focused primarily on lithic tool production and/or maintenance, as well as resource processing. The site represents one of several limited-use lithic manufacturing and resource processing sites in the area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines. The site exhibits a moderate surface scatter of artifacts that has been collected, a sparse, localized deposit composed entirely of lithic production waste, and did not possess any intact features. The site is one of multiple limited-use lithic manufacturing and resource processing sites in the area. The level of information already obtained from this site has exhausted the research potential of the resource and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,407.

**Figure 6.10-1**  
**Excavation Location Map — Site SDI-11,407**  
*(Deleted for Public Review; Bound Separately)*

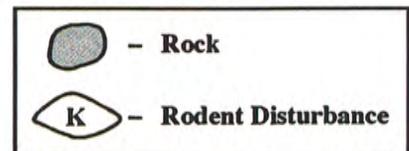
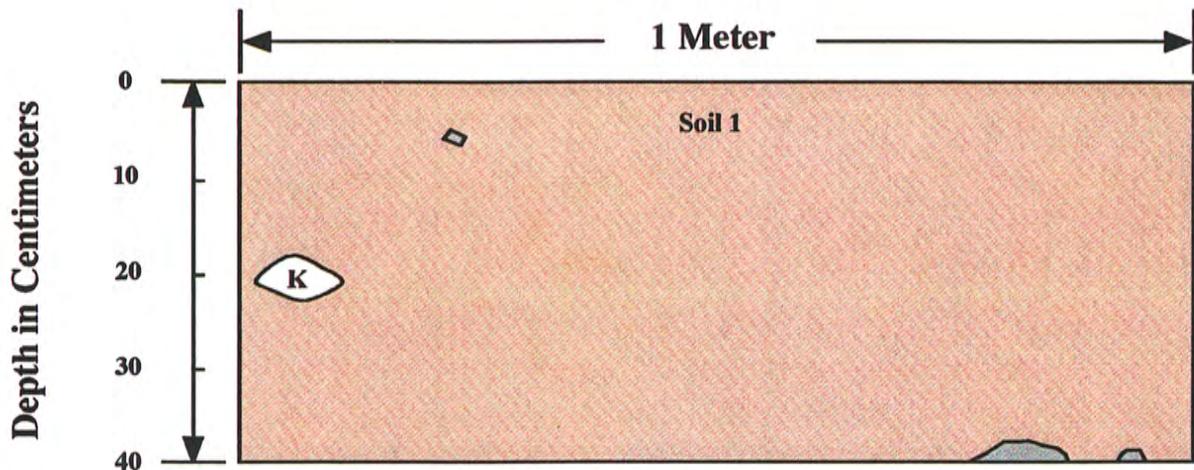
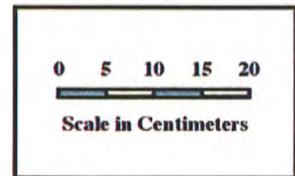


**View of Site SDI-11,407 looking west.**

**View of the north profile of Test Unit 1, 0 to 40 centimeters, at Site SDI-11,407.**



**Plate 6.10-1**



**Soil Types**

- 1** Compact dark brown to brown (7.5YR 4/4) cobbly loam

**Figure 6.10-2**  
**North Wall Profile of Test Unit 1**  
 Site SDI-11,407  
 The Village 13 Project

**TABLE 6.10-1**

Summary of Surface Recovery  
Site SDI-11,407

Recovery Category	Quantity	Percent
Core Tools:		
Core Tools	5	2.10
Lithic Production Waste:		
Cores	9	3.78
Debitage	39	16.39
Flakes	162	68.07
Percussion Tools:		
Hammerstone	1	0.42
Precision Tools:		
Retouched Debitage	1	0.42
Retouched Flakes	3	1.26
Scrapers	5	2.10
Utilized Debitage	3	1.26
Utilized Flakes	7	2.94
Multi-Use Tools:		
Chopper/Hammerstone	1	0.42
Hammer/Core	1	0.42
Scraper/Hammerstone	1	0.42
Total	238	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.10-2**

Surface Recovery Data  
Site SDI-11,407

*(Placed in Appendix III)*

**TABLE 6.10-3**

Shovel Test Excavation Data  
Site SDI-11,407

Shovel Test	Location from Datum A Azimuth/Range	Depth	Recovery	Cat. No.
1	0°/0 Feet	0-10 cm.	No Recovery	104
		10-20 cm.	No Recovery	105
		20-30 cm.	No Recovery	106
2	162°/167 Feet	0-10 cm.	No Recovery	107
		10-20 cm.	No Recovery	108
		20-30 cm.	No Recovery	109
3	22°/109 Feet	0-10 cm.	No Recovery	110
		10-20 cm.	No Recovery	111
		20-30 cm.	No Recovery	112
4	92°/155 Feet	0-10 cm.	No Recovery	113
		10-20 cm.	No Recovery	114
		20-30 cm.	No Recovery	115
5	327°/167 Feet	0-10 cm.	No Recovery	116
		10-20 cm.	No Recovery	117
		20-30 cm.	No Recovery	118
6	315°/306 Feet	0-10 cm.	No Recovery	119
		10-20 cm.	No Recovery	120
		20-30 cm.	No Recovery	121
7	302°/405 Feet	0-10 cm.	No Recovery	122
		10-20 cm.	No Recovery	123
		20-30 cm.	No Recovery	124
8	288°/547 Feet	0-10 cm.	No Recovery	125
		10-20 cm.	No Recovery	126
		20-30 cm.	No Recovery	127

Shovel Test	Location from Datum A Azimuth/Range	Depth	Recovery	Cat. No.
9	276°/675 Feet	0-10 cm.	No Recovery	128
		10-20 cm.	No Recovery	129
		20-30 cm.	No Recovery	130
10	269°/745 Feet	0-10 cm.	No Recovery	131
		10-20 cm.	No Recovery	132
		20-30 cm.	No Recovery	133
11	329°/460 Feet	0-10 cm.	No Recovery	134
		10-20 cm.	No Recovery	135
		20-30 cm.	No Recovery	136
12	275°/450 Feet	0-10 cm.	No Recovery	137
		10-20 cm.	No Recovery	138
		20-30 cm.	No Recovery	139
13	270°/907 Feet	0-10 cm.	No Recovery	140
		10-20 cm.	No Recovery	141
		20-30 cm.	No Recovery	142
14	253°/745 Feet	0-10 cm.	No Recovery	143
		10-20 cm.	No Recovery	144
		20-30 cm.	No Recovery	145
15	270°/482 Feet	0-10 cm.	No Recovery	146
		10-20 cm.	No Recovery	147
		20-30 cm.	No Recovery	148
16	74°/164 Feet	0-10 cm.	No Recovery	149
		10-20 cm.	No Recovery	150
		20-30 cm.	No Recovery	151

Shovel Test	Location from Datum A Azimuth/Range	Depth	Recovery	Cat. No.
17	59°/371 Feet	0-10 cm.	No Recovery	152
		10-20 cm.	No Recovery	153
		20-30 cm.	No Recovery	154
18	48°/336 Feet	0-10 cm.	No Recovery	155
		10-20 cm.	No Recovery	156
		20-30 cm.	No Recovery	157
19	30°/275 Feet	0-10 cm.	No Recovery	158
		10-20 cm.	No Recovery	159
		20-30 cm.	No Recovery	160
20	14°/228 Feet	0-10 cm.	No Recovery	161
		10-20 cm.	No Recovery	162
		20-30 cm.	No Recovery	163
21	76°/524 Feet	0-10 cm.	No Recovery	173
		10-20 cm.	No Recovery	174
		20-30 cm.	No Recovery	175
22	98°/748 Feet	0-10 cm.	No Recovery	176
		10-20 cm.	No Recovery	177
		20-30 cm.	No Recovery	178
23	81°/897 Feet	0-10 cm.	No Recovery	179
		10-20 cm.	No Recovery	180
		20-30 cm.	No Recovery	181
24	82°/686 Feet	0-10 cm.	No Recovery	182
		10-20 cm.	No Recovery	183
		20-30 cm.	No Recovery	184
25	94°/914 Feet	0-10 cm.	No Recovery	185
		10-20 cm.	No Recovery	186

**TABLE 6.10-4**

Summary of Test Unit Recovery  
Site SDI-11,407

Artifact Category	Depth (in centimeters)				Total	Percent
	0-10	10-20	20-30	30-40		
Lithic Production Waste:						
Debitage	1	1	-	1	3	30.00
Flakes	1	2	1	3	7	70.00
<hr/>						
Total	2	3	1	4	10	100.00
Percent	20.00	30.00	10.00	40.00	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.10-5**

Test Unit Excavation Data  
Site SDI-11,407

Test Unit	Location from Datum A Azimuth/Range	Depth	Quantity/Weight	Recovery	Material	Cat. No.
1	20°/79 Feet	0-10 cm.	1	Flake	FGM	164
			1	Debitage	MGM	165
		10-20 cm.	1	Debitage	MGM	166
			2	Flakes	MGM	167
				Not an Artifact		168
		20-30 cm.	1	Flake	MGM	169
		30-40 cm.	1	Flake	FGM	170
			1	Debitage	MGM	171
			2	Flakes	MGM	172

**TABLE 6.10-6**

Summary of Artifact Recovery  
Site SDI-11,407

Recovery Category	Surface	Shovel Tests	Test Units	Total	Percent
Core Tools:					
Core Tools	5	-	-	5	2.02
Lithic Production Waste:					
Cores	9	-	-	9	3.63
Debitage	39	-	3	42	16.94
Flakes	162	-	7	169	68.15
Percussion Tools:					
Hammerstone	1	-	-	1	0.40
Precision Tools:					
Retouched Debitage	1	-	-	1	0.40
Retouched Flakes	3	-	-	3	1.21
Scrapers	5	-	-	5	2.02
Utilized Debitage	3	-	-	3	1.21
Utilized Flakes	7	-	-	7	2.82
Multi-Use Tools:					
Chopper/Hammerstone	1	-	-	1	0.40
Hammer/Core	1	-	-	1	0.40
Scraper/Hammerstone	1	-	-	1	0.40
<hr/>					
Total	238	-	10	248	100.00
Percent	95.97	0.00	4.03	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.10-7**

Lithic Tool Measurement Data  
Site SDI-11,407

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
197	Core Tool	9.9	6.7	4.0	270.0	MGM
213	Core Tool	19.5	14.5	7.5	2087.0	MGM
248	Core Tool	8.3	5.5	3.3	236.5	FGM
270	Core Tool	8.5	8.1	5.0	269.8	FGM
284	Core Tool	8.7	8.0	3.6	346.6	FGM
<u>Percussion Tools:</u>						
Hammerstones:						
34	Hammerstone Fragment, Undetermined	4.9	3.5	1.2	24.1	Quartz
<u>Precision Tools:</u>						
Retouched Debitage:						
287	Retouched Debitage	6.9	4.9	2.1	61.5	FGM
Retouched Flakes:						
31	Retouched Flake Fragment	8.0	5.7	1.4	60.2	FGM
220	Retouched Flake	9.0	5.7	2.3	166.1	FGM
252	Retouched Flake	7.7	5.2	3.6	133.6	FGM
Scrapers:						
29	Domed Scraper Fragment	5.3	5.1	4.1	146.5	MGM
38	Domed Scraper Fragment	6.5	5.1	4.5	100.7	FGM
232	Flake Scraper	8.8	5.7	2.6	123.0	FGM
237	Flake Scraper	5.1	4.4	1.2	31.9	FGM
47	Scraper Fragment	7.5	6.3	2.1	131.5	MGM
Utilized Debitage:						
61	Utilized Debitage	9.6	6.5	5.1	256.2	MGM
71	Utilized Debitage Fragment	7.6	7.1	3.7	213.3	MGM
265	Utilized Debitage	7.3	6.9	1.6	127.5	MGM
Utilized Flakes:						
56	Utilized Flake	2.7	2.7	1.2	9.9	FGM
63	Utilized Flake	3.6	3.1	0.7	10.2	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
Utilized Flakes (cont.):						
94	Utilized Flake Fragment	5.1	3.9	1.4	32.4	MGM
98	Utilized Flake	5.7	3.8	1.7	45.6	MGM
205	Utilized Flake	6.2	4.6	1.6	49.1	FGM
242	Utilized Flake	4.3	2.5	0.7	9.5	FGM
253	Utilized Flake	6.5	4.0	0.3	25.5	FGM
<u>Multi-Use Tools:</u>						
Chopper/Hammerstones:						
41	Chopper/Hammerstone	11.1	8.8	6.1	728.0	FGM
Hammer/Cores:						
264	Hammer/Core	11.2	9.2	6.5	780.7	FGM
Scraper/Hammerstones:						
70	Scraper/Hammerstone Fragment	8.5	7.5	4.8	258.1	MGM

**TABLE 6.10-8**

Lithic Material Distribution  
Site SDI-11,407

Artifact Category	CGM	Chert	Material			Total	Percent
			FGM	MGM	Quartz		
Core Tools:							
Core Tools	-	-	3	2	-	5	2.02
Lithic Production Waste:							
Cores	-	-	4	5	-	9	3.63
Debitage	-	-	24	18	-	42	16.94
Flakes	1	1	85	78	4	169	68.15
Percussion Tools:							
Hammerstone	-	-	-	-	1	1	0.40
Precision Tools:							
Retouched Debitage	-	-	1	-	-	1	0.40
Retouched Flakes	-	-	3	-	-	3	1.21
Scrapers	-	-	3	2	-	5	2.02
Utilized Debitage	-	-	-	3	-	3	1.21
Utilized Flakes	-	-	4	3	-	7	2.82
Multi-Use Tools:							
Chopper/Hammerstone	-	-	1	-	-	1	0.40
Hammer/Core	-	-	1	-	-	1	0.40
Scraper/Hammerstone	-	-	-	1	-	1	0.40
Total	1	1	129	112	5	248	100.00
Percent	0.40	0.40	52.02	45.16	2.02	100.00	

*Rounded numbers may not add to 100%.*

## 6.11 Site SDI-11,408

### 6.11.1 Site Description

This site is a large lithic scatter located on a southwest-trending ridge and adjacent drainage on the southwest slopes of the Jamul Mountains, east of Upper Otay Lakes Reservoir in the west central portion of the project. The site was originally recorded by RECON in 1989 as a prehistoric quarry and flake scatter. The overall configuration of the resource is shown in Figure 6.11–1. Elevations at the site range from 585 to 745 feet AMSL. Graded dirt roads are present along the northern and eastern edges of the site. Native vegetation of chamise chaparral covers most of the site area. The setting of the site is shown in a photograph provided in Plate 6.11–1a.

Site SDI-11,408 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of all surface artifacts, and the excavation of 24 shovel test pits and two test units. The field investigations were conducted between August 15 and September 3, 2002.

### 6.11.2 Previous Investigations

Site SDI-11,408 was registered by RECON during a survey conducted in 1989 as a lithic scatter that measured approximately 50 by 20 meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included more than 20 fragments of metavolcanic lithic production waste. The site was recorded again in 1991 by Ogden, who described a moderately dense lithic scatter with several small flaking stations that measured approximately 150 by 150 meters (Carrico *et al.* 1992). More than two small flaking station features were present as well as more than 160 pieces of metavolcanic lithic production waste, including cores, flakes and debitage. In addition, a small scatter of 15 fragments of purple glass was observed. The site was not subjected to a testing phase during either of the previous investigations at the site.

### 6.11.3 Description of Field Investigations

Field investigations conducted by BFSa at Site SDI-11,408 were executed using the standard methodologies described in Section 5.0. Lithic artifacts were recovered from surface and subsurface contexts of the site.

#### Surface Recordation

The entire surface of the site was inspected for evidence of historic and prehistoric activity, resulting in the identification of a large number of surface artifacts. A total of 779 artifacts were recovered from the 201 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in Table 6.11–1, while detailed provenience information for the surface artifacts is presented in Table 6.11–2. Lithic production waste accounts for

91.78% (N=715) of the collection, while the remaining artifacts consisted of precision (5.27%; N=41), core (1.28%; N=10), percussion (1.03%; N=8), and multi-use (0.64%; N=5) tools. No evidence of the recorded glass fragments was observed. Generally, the distribution of the surface artifacts follows the leading edge of the ridge on which the site is located (Figure 6.11–1). The area of the site, delineated by the artifact scatter, measures approximately 352 meters (1,156 feet) from southwest to northeast by 137 meters (450 feet) from northwest to southeast, and covers 35,697 square meters (384,104 square feet) (Figure 6.11–1).

### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,408 was investigated by excavating a series of 24 STPs. The placement of the STPs, shown in Figure 6.11–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. Eight of the STPs produced cultural material, including a total of 16 artifacts. Recovery ranged from one or two artifact in each of STPs 1, 5, 8, 12, 13, 21, and 22 to six artifacts in STP 4. Recovery from the STPs is summarized in Table 6.11–3 and detailed in Table 6.11–4.

The shovel tests identified three separate subsurface deposits along the ridge on which the site is located (Figure 6.11–1). STP 4, the only shovel test to produce more than two artifacts, is located in the middle of the three subsurface areas. The subsurface areas are each similar in size, with the middle deposit being slightly larger than the other two. The upper area measures approximately 64 meters (210 feet) by 15 meters (50 feet); the middle area measures approximately 95 meters (312 feet) by 37 meters (120 feet); and the lower area measures approximately 91 meters (300 feet) by 21 meters (70 feet). Together, the three areas cover 5,427 square meters (58,395 square feet).

The testing program included the excavation of two test units at Site SDI-11,408. The test units were placed in the middle subsurface deposit, where the most productive STP (STP 4) was excavated (Figure 6.11–1). The units were excavated in standard decimeter levels to at least 30 centimeters, or to bedrock, and all removed soils were sifted through 1/8-inch mesh hardware cloth. A sparse amount of cultural material was recovered from the test units; eight artifacts were recovered from Test Unit 1, whereas just two artifacts were recovered from Test Unit 2.

Overall recovery from the two units included eight flakes, one hammerstone, and one scraper (Tables 6.11–5 and 6.11–6). The maximum depth of recovery was 10 centimeters in Test Unit 1 and 20 centimeters in Test Unit 2; furthermore, 90.00% of the collection was recovered from the top 10 centimeters in the test units. The soil profile from Test Unit 1 was characterized as brown to pale brown (10YR 5/3 to 6/3) fine sandy loam with metavolcanic rock inclusions to a depth of 30 centimeters, with increasing amounts of decomposing bedrock toward the bottom of the unit. The soil profile from Test Unit 2 was characterized as dark brown to brown (10YR 4/3) fine sandy loam with occasional metavolcanic rock inclusions to a depth of approximately

seven centimeters, followed by a brown (7.5YR 5/4) sandy loam with occasional metavolcanic rock inclusions and increasing amounts of decomposing bedrock, which in turn was underlain by metavolcanic bedrock. Drawings of the north walls of the units are presented in Figures 6.11–2 and 6.11–3. A color photograph of the north wall of Test Unit 1 is provided in Plate 6.11–1b.

The excavation of the STPs and test unit determined that the site exhibits three sparse, shallow subsurface deposits. The subsurface deposits extend to a maximum depth of 20 centimeters. Recovery from subsurface investigations was dominated by lithic production waste; only three lithic tools were recovered from the STP and test unit excavations.

#### *6.11.4 Laboratory Analysis*

The laboratory analysis for Site SDI-11,408 included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BFSa to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.11–7. The recovery from Site SDI-11,408 included 805 lithic artifacts.

#### *Lithic Artifact Analysis*

Lithic production waste accounted for the largest category of lithic artifacts, representing 91.68% (N=738) of the lithic artifact collection and included six cores, 156 pieces of debitage or shatter, and 576 flakes. The remaining lithic collection from SDI-11,408 consisted of 43 precision (5.34%), ten core (1.24%), nine percussion (1.12%) and five multi-use (0.62%) tools. Measurements of all lithic tools are presented in Table 6.11–8.

The precision tool category included one projectile point, two pieces of retouched debitage, three retouched flakes, five scrapers, 13 pieces of utilized debitage, and 19 utilized flakes. The projectile point was identified as a Late Prehistoric Cottonwood point with serrated edges and a concave base. The scrapers were identified as a domed scraper, two flake scrapers, and two scrapers of undetermined type. The nine percussion tools from SDI-11,408 were all identified as hammerstones, five of which were complete enough to identify use-wear patterns. Four of the hammerstones exhibited single-edge use-wear and another showed spherical use-wear patterns. The category of multi-use tools was developed in order to accurately describe those specimens that exhibited several different use-wear patterns, which prevented the classification of the artifact into one of the existing tool categories. Multi-use tools identified in the SDI-11,408 assemblage included four hammer/cores and one scraper/hammerstone.

The lithic material distribution for the site is summarized in Table 6.11–9. The majority (N=804; 99.88%) of the lithic artifacts consist of locally available fine-, medium-, and coarse-grained metavolcanic material. The projectile point recovered from the site was manufactured from quartz and represents the only non-metavolcanic material recovered from SDI-11,408.

Activities indicated by the artifacts recovered from the site include procurement of lithic materials, lithic tool production and maintenance, as well as possible processing of plant and/or animal resources. Most of the tools from the site (N=64; 95.52%) were recovered from surface contexts.

#### *6.11.5 Discussion*

The testing demonstrated that Site SDI-11,408 consists of a large scatter of surface artifacts and shallow subsurface deposits. The overall site dimensions, identified by the surface scatter and positive subsurface excavations, measure approximately 352 meters (1,156 feet) by 137 meters (450 feet), and cover 35,697 square meters (384,104 square feet). Together, the three separate subsurface deposits cover 5,427 square meters (58,395 square feet). Based on the artifacts recovered, the site appears to represent a temporary camp and quarry area where lithic resource procurement, lithic tool production and/or maintenance, and animal and/or plant resource procurement and processing occurred.

Since one of the artifacts recovered from the site was culturally diagnostic, the site can tentatively be placed in the Late Prehistoric Period, although additional analysis of the recovered materials, particularly patination studies, may aid in identifying evidence of use of the site by older cultures as well. Given the sparse nature of the subsurface deposits, and the fact that lithic production waste dominated the recovery from subsurface contexts, it is unlikely that further excavation would produce additional data that would allow such a determination. The site exhibits no ecofacts, features, or unique elements. Although several tool types were represented at the site, most of the collection is composed of lithic production waste. In addition, 96.77% (N=779) of the artifacts recovered from the site were on the surface of the site, and all surface artifacts have been collected. The testing of Site SDI-11,408 has exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based upon the recovery of information that can contribute to the knowledge of the prehistory of the region. However, the current program has exhausted the potential of the site to yield unique data, and further study will not produce additional significant information.

#### *6.11.6 Summary*

The investigation of Site SDI-11,408 did not produce any unique scientific data regarding site function or content. The identified artifacts indicate that site activities were focused primarily on procurement of lithic resources and lithic tool production and/or maintenance; a small amount of animal and/or plant resource procurement and processing may also have occurred. The site represents one of multiple quarry and temporary camp sites within the project area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines. The site exhibits a large surface scatter of artifacts, all of which have been collected, shallow, sparse subsurface deposits, and did not possess any intact features. The level of information already obtained from this site has exhausted the research potential of the resource, and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,408.

**Figure 6.11-1**  
**Excavation Location Map — Site SDI-11,408**  
*(Deleted for Public Review; Bound Separately)*

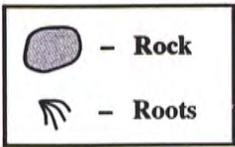
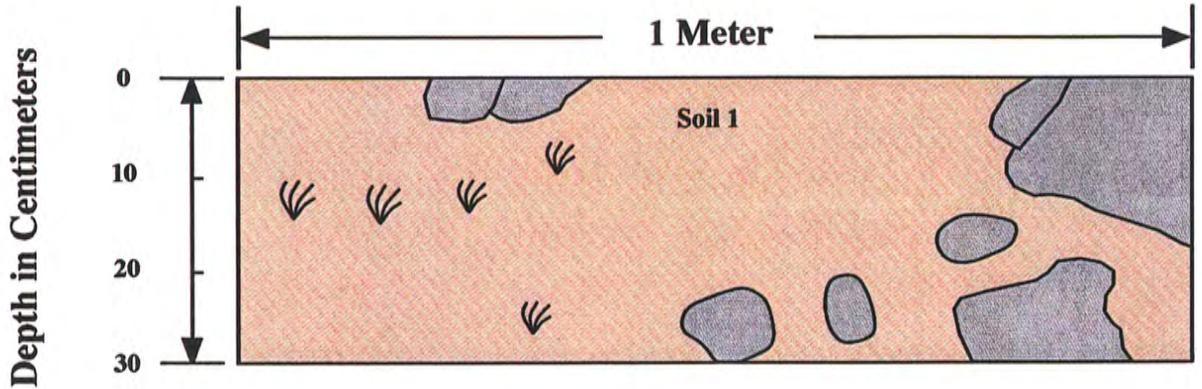
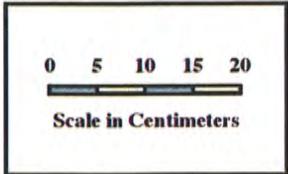


View of Site SDI-11,408 looking southeast along ridge.

View of the north profile of Test Unit 1, 0 to 30 centimeters, at Site SDI-11,408.



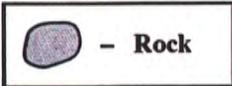
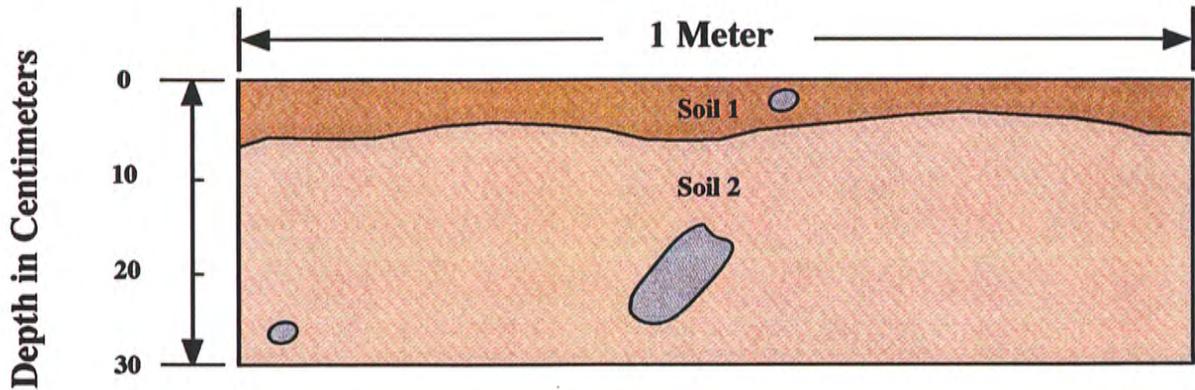
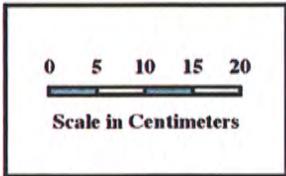
Plate 6.11-1



**Soil Types**

- 1** Brown to pale brown (10YR 5/3 to 6/3) fine sandy loam with metavolcanic rock inclusions [mapped as Friant soil]

**Figure 6.11-2**  
**North Wall Profile of Test Unit 1**  
 Site SDI-11,408  
 The Village 13 Project



**Soil Types**

- 1** Dark brown to brown (10YR 4/3) fine sandy loam with occasional metavolcanic rock inclusions
- 2** Brown (7.5YR 5/4) sandy loam with occasional metavolcanic rock inclusions and increasing amounts of decomposing bedrock [mapped as Friant soil]

**Figure 6.11-3**  
**North Wall Profile of Test Unit 2**  
Site SDI-11,408  
The Village 13 Project

**TABLE 6.11-1**

Summary of Surface Recovery  
Site SDI-11,408

Recovery Category	Quantity	Percent
Core Tools:		
Core Tools	10	1.28
Lithic Production Waste:		
Cores	6	0.77
Debitage	152	19.51
Flakes	557	71.50
Percussion Tools:		
Hammerstones	8	1.03
Precision Tools:		
Projectile Point	1	0.13
Retouched Debitage	2	0.26
Retouched Flakes	3	0.39
Scrapers	4	0.51
Utilized Debitage	13	1.67
Utilized Flakes	18	2.31
Multi-Use Tools:		
Hammer/Cores	4	0.51
Scraper/Hammerstone	1	0.13
Total	779	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.11-2**

Surface Recovery Data  
Site SDI-11,408

*(Placed in Appendix III)*

**TABLE 6.11-3**

Summary of Shovel Test Recovery  
Site SDI-11,408

Recovery Category	Quantity	Percent
Lithic Production Waste:		
Debitage	4	25.00
Flakes	11	68.75
Precision Tools:		
Utilized Flake	1	6.25
Total	16	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.11-4**

Shovel Test Excavation Data  
Site SDI-11,408

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	A	0°/0 Feet	0-10 cm.	1	Debitage	FGM	393
			10-20 cm.		No Recovery		394
2	A	195°/73 Feet	0-10 cm.		No Recovery		395
			10-20 cm.		No Recovery		396
			20-30 cm.		No Recovery		397
3	A	197°/52 Feet	0-10 cm.		No Recovery		398
			10-20 cm.		No Recovery		399
			20-30 cm.		No Recovery		400
			30-35 cm.		No Recovery		401
4	A	198°/235 Feet	0-10 cm.	5	Flakes	FGM	402
				1	Debitage	MGM	403
			10-20 cm.		No Recovery		404
			20-30 cm.		No Recovery		405
5	C	352°/209 Feet	0-10 cm.	1	Flake	MGM	406
			10-20 cm.		No Recovery		407
			20-30 cm.		No Recovery		408
6	C	331°/119 Feet	0-10 cm.		No Recovery		409
			10-20 cm.		No Recovery		410
			20-30 cm.		No Recovery		411
7	C	248°/108 Feet	0-10 cm.		No Recovery		412
			10-20 cm.		No Recovery		413
			20-30 cm.		No Recovery		414

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
8	D	131°/66 Feet	0-10 cm.	1	Utilized Flake	MGM	415
				1	Flake	MGM	416
			10-20 cm.		No Recovery		417
			20-30 cm.		No Recovery		418
9	D	159°/131 Feet	0-10 cm.		No Recovery		419
			10-20 cm.		No Recovery		420
			20-30 cm.		No Recovery		421
10	D	170°/354 Feet	0-10 cm.		No Recovery		422
			10-20 cm.		No Recovery		423
			20-30 cm.		No Recovery		424
11	D	158°/374 Feet	0-10 cm.		No Recovery		425
			10-20 cm.		No Recovery		426
			20-30 cm.		No Recovery		427
12	A	160°/72 Feet	0-10 cm.		No Recovery		428
			10-20 cm.	1	Flake	FGM	429
				1	Flake	MGM	430
			20-30 cm.		No Recovery		431
13	A	159°/156 Feet	0-10 cm.	1	Debitage	FGM	432
				1	Flake	MGM	433
			10-20 cm.		No Recovery		434
			20-30 cm.		No Recovery		435
14	B	180°/209 Feet	0-10 cm.		No Recovery		436
			10-20 cm.		No Recovery		437
			20-30 cm.		No Recovery		438
15	B	175°/282 Feet	0-10 cm.		No Recovery		439
			10-20 cm.		No Recovery		440
			20-30 cm.		No Recovery		441

Shovel Test	Location Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
16	B	121°/99 Feet	0-10 cm.		No Recovery		442
			10-20 cm.		No Recovery		443
			20-30 cm.		No Recovery		444
17	B	196°/265 Feet	0-10 cm.		No Recovery		445
			10-20 cm.		No Recovery		446
			20-30 cm.		No Recovery		447
18	C	294°/141 Feet	0-10 cm.		No Recovery		448
			10-20 cm.		No Recovery		449
			20-30 cm.		No Recovery		450
19	D	0°/69 Feet	0-10 cm.		No Recovery		451
			10-20 cm.		No Recovery		452
			20-30 cm.		No Recovery		453
20	D	5°/288 Feet	0-10 cm.		No Recovery		454
			10-20 cm.		No Recovery		455
			20-30 cm.		No Recovery		456
21	D	225°/111 Feet	0-10 cm.	1	Debitage	MGM	457
			10-20 cm.		No Recovery		458
22	C	187°/110 Feet	0-10 cm.	1	Flake	MGM	459
			10-20 cm.		No Recovery		460
			20-30 cm.		No Recovery		461
23	B	200°/432 Feet	0-10 cm.		No Recovery		462
			10-20 cm.		No Recovery		463
			20-30 cm.		No Recovery		464
24	C	320°/27 Feet	0-10 cm.		No Recovery		465
			10-20 cm.		No Recovery		466
			20-30 cm.		No Recovery		467

**TABLE 6.11-5**

Summary of Test Unit Recovery  
Site SDI-11,408

Artifact Category	Depth (in centimeters)			Total	Percent
	0-10	10-20	20-30		
Lithic Production Waste:					
Flakes	8	-	-	8	80.00
Percussion Tools:					
Hammerstone	1	-	-	1	10.00
Precision Tools:					
Scraper	-	1	-	1	10.00
Total	9	1	0	10	100.00
Percent	90.00	10.00	0.00	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.11-6**

Test Unit Excavation Data  
Site SDI-11,408

Test Unit	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	A	217°/231 Feet	0-10 cm.	1	Flake	FGM	468
				1	Hammerstone Fragment	MGM	469
				6	Flakes	MGM	470
				10-20 cm.		No Recovery	
		20-30 cm.		No Recovery		472	
2	C	338°/169 Feet	0-10 cm.	1	Flake	MGM	473
			10-20 cm.	1	Flake Scraper	FGM	474
			20-30 cm.		No Recovery		475

**TABLE 6.11-7**

Summary of Artifact Recovery  
Site SDI-11,408

Recovery Category	Surface	Shovel Tests	Test Units	Total	Percent
Core Tools:					
Core Tools	10	-	-	10	1.24
Lithic Production Waste:					
Cores	6	-	-	6	0.75
Debitage	152	4	-	156	19.38
Flakes	557	11	8	576	71.55
Percussion Tools:					
Hammerstones	8	-	1	9	1.12
Precision Tools:					
Projectile Point	1	-	-	1	0.12
Retouched Debitage	2	-	-	2	0.25
Retouched Flakes	3	-	-	3	0.37
Scrapers	4	-	1	5	0.62
Utilized Debitage	13	-	-	13	1.61
Utilized Flakes	18	1	-	19	2.36
Multi-Use Tools:					
Hammer/Cores	4	-	-	4	0.50
Scraper/Hammerstone	1	-	-	1	0.12
<hr/>					
Total	779	16	10	805	100.00
Percent	96.77	1.99	1.24	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.11-8**

Lithic Tool Measurement Data  
Site SDI-11,408

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
2	Core Tool	7.6	5.3	3.1	113.9	FGM
8	Core Tool	7.5	7.1	6.5	376.6	FGM
116	Core Tool	9.5	8.8	4.3	331.5	MGM
118	Core Tool	13.0	9.1	5.5	756.5	MGM
126	Core Tool	13.4	10.9	10.1	1293.0	MGM
216	Core Tool	7.2	6.5	4.2	316.4	FGM
225	Core Tool Fragment	10.4	6.5	5.7	367.2	MGM
278	Core Tool Fragment	8.6	7.8	7.1	507.8	MGM
309	Core Tool	9.6	9.6	5.6	604.6	MGM
365	Core Tool Fragment	8.6	7.9	3.5	264.3	MGM
<u>Percussion Tools:</u>						
Hammerstones:						
7	Hammerstone, Single-Edged	10.2	7.5	4.3	315.4	MGM
35	Hammerstone, Spherical	11.5	9.5	7.8	969.2	MGM
41	Hammerstone Fragment, Undetermined	10.2	7.6	5.3	479.1	MGM
178	Hammerstone, Single-Edged	7.1	6.4	4.4	245.4	MGM
194	Hammerstone Fragment, Undetermined	5.8	5.4	2.5	87.2	MGM
197	Hammerstone, Single-Edged	8.6	8.2	5.2	384.2	MGM
209	Hammerstone Fragment, Undetermined	5.2	2.3	1.9	20.6	FGM
287	Hammerstone, Single-Edged	9.8	6.3	6.2	446.8	MGM
469	Hammerstone Fragment, Undetermined	8.4	7.2	3.9	201.7	MGM
<u>Precision Tools:</u>						
Projectile Points:						
318	Projectile Point Fragment, Cottonwood, Serrated Edges, Concave Base	2.1	1.5	0.4	0.9	Quartz
Retouched Debitage:						
72	Retouched Debitage	10.0	5.3	4.1	152.5	MGM
284	Retouched Debitage Fragment	3.8	3.8	1.6	30.8	FGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
Retouched Flakes:						
311	Retouched Flake Fragment	3.1	2.4	0.7	4.6	MGM
331	Retouched Flake	10.8	8.0	4.0	425.6	MGM
357	Retouched Flake	9.1	6.3	2.8	176.4	MGM
Scrapers:						
93	Domed Scraper	8.9	7.8	5.9	421.7	FGM
244	Flake Scraper	4.4	3.1	1.5	22.6	MGM
474	Flake Scraper	5.7	3.1	0.8	13.5	FGM
1	Scraper	8.3	6.7	2.5	114.2	FGM
224	Scraper Fragment	5.6	3.7	1.5	34.8	MGM
Utilized Debitage:						
29	Utilized Debitage	8.0	6.8	5.1	358.2	MGM
71	Utilized Debitage	3.8	2.8	1.9	10.2	MGM
119	Utilized Debitage	13.8	10.0	7.7	1012.7	MGM
195	Utilized Debitage	7.5	6.0	5.8	212.5	MGM
231	Utilized Debitage	6.8	4.6	2.7	91.5	MGM
258	Utilized Debitage Fragment	4.2	2.3	1.7	26.5	MGM
275	Utilized Debitage	7.5	6.9	5.2	326.5	FGM
294	Utilized Debitage	5.2	2.2	1.4	18.0	MGM
310	Utilized Debitage	9.6	5.7	4.2	225.1	MGM
323	Utilized Debitage	9.8	7.3	3.6	275.7	MGM
337	Utilized Debitage Fragment	2.3	1.6	0.8	3.2	MGM
350	Utilized Debitage	15.5	8.8	6.9	1176.6	FGM
375	Utilized Debitage Fragment	6.5	4.1	2.4	41.3	FGM
Utilized Flakes:						
4	Utilized Flake	7.7	6.8	1.9	85.0	MGM
25	Utilized Flake	8.8	7.5	3.3	218.7	MGM
48	Utilized Flake	5.4	3.7	1.7	26.6	MGM
88	Utilized Flake Fragment	3.5	2.9	1.2	13.6	MGM
95	Utilized Flake	4.1	3.8	0.9	14.0	MGM
153	Utilized Flake	5.4	4.8	1.1	33.6	MGM
168	Utilized Flake	5.0	3.3	1.2	16.5	MGM
186	Utilized Flake	5.7	4.4	1.9	52.3	MGM
220	Utilized Flake	11.4	6.3	4.1	214.3	MGM
240	Utilized Flake Fragment	13.5	8.4	4.5	369.9	MGM
241	Utilized Flake	7.1	6.2	2.6	87.2	MGM
249	Utilized Flake	6.5	3.4	1.2	25.4	FGM
261	Utilized Flake	4.2	3.8	1.3	18.5	FGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
Utilized Flakes (cont.):						
281	Utilized Flake Fragment	4.7	4.2	1.5	29.2	FGM
347	Utilized Flake	4.1	3.9	1.2	20.5	FGM
360	Utilized Flake	7.3	6.2	1.5	48.1	FGM
377	Utilized Flake	8.0	6.0	2.0	93.6	MGM
387	Utilized Flake	5.6	3.8	1.4	19.7	MGM
415	Utilized Flake	3.8	3.5	1.1	14.1	MGM
Multi-Use Tools:						
Hammer/Cores:						
24	Hammer/Core	15.7	11.6	6.2	1074.0	MGM
38	Hammer/Core	11.5	9.2	7.5	750.5	MGM
362	Hammer/Core	11.6	9.5	7.9	937.8	MGM
391	Hammer/Core	12.8	8.9	4.9	729.2	FGM
Scraper/Hammerstones:						
344	Scraper/Hammerstone	12.8	9.1	4.2	509.3	MGM

**TABLE 6.11-9**

Lithic Material Distribution  
Site SDI-11,408

Artifact Category	CGM	Material		Quartz	Total	Percent
		FGM	MGM			
Core Tools:						
Core Tools	-	3	7	-	10	1.24
Lithic Production Waste:						
Cores	-	1	5	-	6	0.75
Debitage	-	47	109	-	156	19.38
Flakes	2	99	475	-	576	71.55
Percussion Tools:						
Hammerstones	-	1	8	-	9	1.12
Precision Tools:						
Projectile Point	-	-	-	1	1	0.12
Retouched Debitage	-	1	1	-	2	0.25
Retouched Flakes	-	-	3	-	3	0.37
Scrapers	-	3	2	-	5	0.62
Utilized Debitage	-	3	10	-	13	1.61
Utilized Flakes	-	5	14	-	19	2.36
Multi-Use Tools:						
Hammer/Cores	-	1	3	-	4	0.50
Scraper/Hammerstone	-	-	1	-	1	0.12
Total	2	164	638	1	805	100.00
Percent	0.25	20.37	79.25	0.12	100.00	

Rounded numbers may not add to 100%.

## 6.12 Site SDI-11,409

### 6.12.1 Site Description

This site consists of a quarry and lithic scatter located on a southwest-trending ridge system on the north side of Jamul Valley, east of Upper Otay Reservoir and between two seasonal drainages, on the west side of the project. The site was originally recorded by RECON in 1989 as a large prehistoric quarry. The overall configuration of the resource is shown in Figure 6.12–1. Elevations at the site range from 600 to 725 feet AMSL. Native vegetation of chamise chaparral covers most of the site area, although multiple dirt roads have been graded across the site. The setting of the site is shown in a photograph provided in Plate 6.12–1a.

Site SDI-11,409 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of surface artifacts, the use of surface scrapes to sample surface artifacts clustered around quarry areas, and the excavation of 45 shovel test pits and three test units. The field investigations were conducted between July 28 and August 28, 2002.

### 6.12.2 Previous Investigations

The site was registered by RECON during a survey conducted in 1989 as a quarry area that measured approximately 50 by 30 meters (site form and Ritz *et al.* 1989). Artifacts observed on the surface of the site included over 20 pieces of metavolcanic flakes. In addition to the prehistoric component, RECON identified a two-course historic rock enclosure. The site was relocated by Ogden in 1991, although no indication of the historic rock enclosure was identified (Carrico *et al.* 1992). Ogden described a dense scatter of lithic material along the ridge with at least four flaking stations. They expanded the site to a size of 425 meters by 300 meters and observed more than 150 metavolcanic flakes and angular waste. The site was not tested as part of either of these studies.

### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a number of surface artifacts. No evidence of the historic rock feature described by RECON was observed. A total of 457 artifacts were recovered from 93 surface locations that produced artifacts (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in Table 6.12-1, while detailed provenience information for the surface artifacts is presented in Table 6.12–2. In addition to the collection of individual surface artifacts, surface scrapes were utilized to sample the areas of increased quarrying activity across the site (Figure 6.12–1). All artifacts within the one square meter area of each of the 12 surface scrapers were collected in order to sample these areas. The surface scrapes resulted in the recovery of 366 lithic artifacts, making a total of 823 artifacts from the surface collection (Table 6.12–1).

A wide range of artifacts was recovered from the surface of the site. Lithic production waste accounts for 95.14% (N=783) of the collection, while the remaining artifacts consisted of smaller quantities of precision (3.52%; N=29), core (0.73%; N=6), percussion (0.49%; N=4), and multi-use (0.12%; N=1) tools. The surface artifacts and quarry areas are located primarily along the leading edge of the ridge from northeast to southwest. The area of the site, delineated by the artifact scatter, measures approximately 299 meters (980 feet) from northeast to southwest by 198 meters (650 feet) from northwest to southeast, and covers 40,687 square meters (437,787 square feet) (Figure 6.12–1).

### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,409 was investigated by excavating a series of 45 STPs. The placement of the STPs, shown in Figure 6.12–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. A total of 59 artifacts were recovered from Site SDI-11,409. The recovery is summarized in Table 6.12–3 and detailed information is provided in Table 6.12–4. The STP assemblage consisted entirely of lithic production waste. Of the 45 STPs excavated, six were positive for cultural material, with recovery ranging from five or fewer artifacts (STPs 37, 38, 39, and 44) to 18 (STP 41) and 28 artifacts (STP 42). The maximum depth of recovery in the STPs was 30 centimeters in STP 42.

The testing program included the excavation of three test units at Site SDI-11,409. The units were placed along the ridge system, in the areas most likely to contain a subsurface cultural deposit based on the positive shovel tests and surface artifact distribution (Figure 6.12–1). The units were excavated in standard decimeter levels to 30 (TUs 1 and 2) or 40 (TU 3) centimeters and all removed soils were sifted through 1/8-inch mesh hardware cloth. Two of the three units (TU 2 and TU 3) were positive for cultural material. Excavations resulted in the recovery of 272 artifacts, and included 46 pieces of debitage, 221 flakes, one piece of retouched debitage, and four utilized flakes. The test unit recovery is summarized in Table 6.12–5 and detailed recovery information for each of the three units is provided in Table 6.12–6. The maximum depth of recovery was 40 centimeters in TU 3. The most productive levels were the upper 20 centimeters, which accounted for 86.76% (N=236) of the recovery from the two positive test units.

The soil profile from Test Unit 3, the most productive of the three units, was characterized as fine brown (7.5YR 4/4 to 10YR 5/4) organic, silty loam, underlain by compact, brown to strong brown (7.5YR 5/4 to 5/6) silty loam, followed by compact, brown to strong brown (7.5YR 5/4 to 5/6) clay loam with underlying metavolcanic rock. A drawing of the north wall of Test Unit 3 is presented in Figure 6.12–2. A color photograph of the north wall of Test Unit 3 is provided in Plate 6.12–1b.

The excavation of the STPs and test unit determined that the site exhibits a subsurface deposit, primarily located in the area of the site that exhibits the most quarrying activity, and that

extend to depths of up to 40 centimeters. This is one of the deeper deposits identified at the primarily shallow Village 13 sites. Furthermore, the recovery from Site SDI-11,409 varies from many other sites on the project in the variety of artifacts recovered. The subsurface deposit measures approximately 137 meters (450 feet) from northeast to southwest by 113 meters (370 feet) from northwest to southeast, and covers 10,637 square meters (114,458 square feet) (Figure 6.12-1).

### *6.12.3 Laboratory Analysis*

The laboratory analysis for Site SDI-11,409 included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BFGA to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.12-7. The recovery from Site SDI-11,409 included 1,154 lithic artifacts.

#### *Lithic Artifact Analysis*

Lithic production waste accounted for the largest category of lithic artifacts, representing 96.10% (N=1,109) of the lithic artifact collection and included 11 cores, 197 pieces of debitage or shatter, and 901 flakes. The remaining lithic collection from Site SDI-11,409 consisted of precision (2.95%; N=34), core (0.52%; N=6) percussion (0.35%; N=4), and multi-use (0.09%; N=1) tools. Measurements of all lithic tools are presented in Table 6.12-8.

The precision tool category included a perforator, a point preform, 10 pieces of retouched lithic production waste, one scraper, and 21 pieces of utilized lithic production waste. Precision tools identified as perforators, modified flakes with a worn, pointed end, were relatively rare at the Village 13 sites. Unfortunately the point preform, by definition an unfinished tool, could not be typed and thus does not provide a clue as to the cultural affiliation of the site. The scraper was fragmented and, therefore, could not be typed.

The artifacts identified as core tools are generally cores with some evidence of retouch or utilization on at least one edge of the artifact, but not enough so that the artifact can be classified as a specific precision or multi-use tool. Six core tools were recovered from Site SDI-11,409.

Percussion tools consisted of four hammerstones. Of the four hammerstones recovered from the site, two were complete while two were fragmented. The use-wear on both of the complete specimens was identified as single-edged.

The category of multi-use tools was developed in order to accurately describe those specimens that exhibited several different use-wear patterns, which prevented the classification of the artifact into one of the existing tool categories. At Site SDI-11,409, the multi-use category included a hammer/core.

The material distribution of the lithic assemblage is summarized in Table 6.12-9. Of the 1,154 artifacts collected from Site SDI-11,409, all but two specimens were derived from

medium- or fine-grained metavolcanic, which is immediately available on the site itself. Other material recovered included a chalcedony flake and a quartz flake. Local sources of both chalcedony and quartz are known to be available in the region, although not within the project area itself.

Activities indicated by the artifacts recovered from the site include procurement of lithic materials, lithic tool production and maintenance, as well as processing of plant and/or animal resources. Lithic tools were recovered from both surface and subsurface contexts. Select tools recovered from the site are shown in Plate 6.12–2.

#### *6.12.4 Discussion*

The testing demonstrated that Site SDI-11,409 consists of a quarry and large scatter of surface artifacts, as well as a subsurface deposit that extends to a maximum depth of 40 centimeters. The overall site dimensions, identified by the surface scatter and positive subsurface excavation, measure 299 meters (980 feet) by 198 meters (650 feet), and cover 40,687 square meters (437,787 square feet). The subsurface deposit identified at the site measures approximately 137 meters (450 feet) by 113 meters (370 feet), and covers 10,637 square meters (114,458 square feet). Based on the artifacts recovered, the site appears to represent a quarry area where lithic resource procurement, lithic tool production and/or maintenance, and animal and/or plant resource processing, occurred.

This is one of the few Village 13 sites to produce a wide variety of lithic tools. While it is true that most of the lithic tools from Site SDI-11,409 were collected from the surface of the site, the presence of a subsurface deposit and the fact that the surface scatter was only sampled during the testing of the site, indicates the site retains additional research potential, including the potential for culturally diagnostic tools.

#### *6.12.5 Summary*

The analysis of the cultural materials recovered from Site SDI-11,409 revealed a moderately dense surface scatter and a cultural deposit. The recovered materials indicate that site activities were focused primarily on lithic procurement and manufacture, with additional floral and/or faunal resource processing represented by a variety of precision tools.

Based on the variety of tool types recovered and the presence of a subsurface deposit that extends to 40 centimeters, Site SDI-11,409 exhibits significant cultural deposits and retains research potential. Based on the recovery from testing of the site, the resource exhibits the potential to contain materials that might contribute to the understanding of prehistoric cultures in the region. Site SDI-11,409 is, therefore, considered significant according to CEQA criteria and County of San Diego cultural resource guidelines.

**Figure 6.12-1**  
**Excavation Location Map — Site SDI-11,409**  
*(Deleted for Public Review; Bound Separately)*

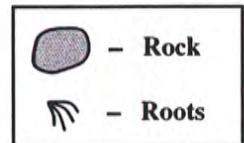
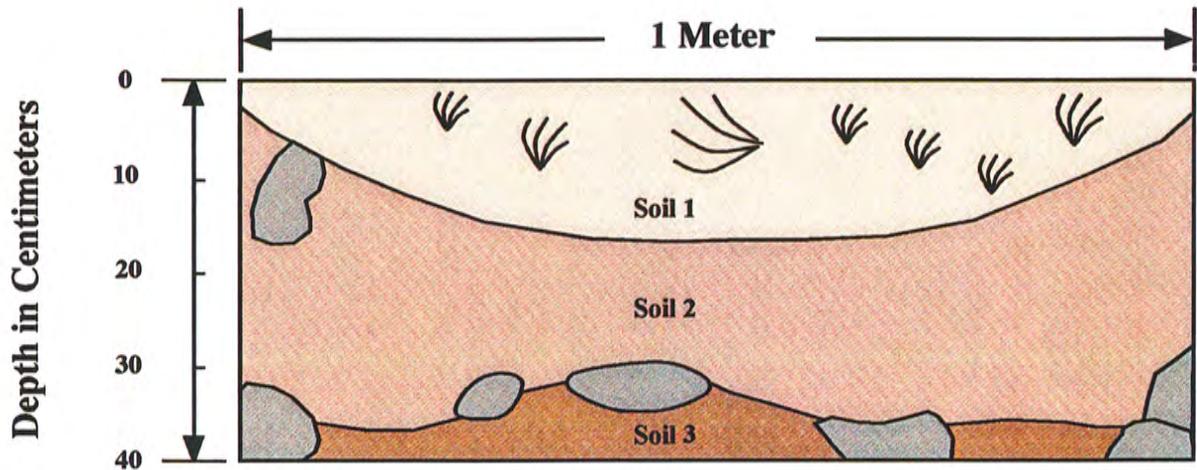
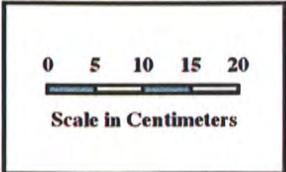


**View of Site SDI-11,409 looking southwest (arrow identifies Datum A).**

**View of the north profile of Test Unit 3, 0 to 40 centimeters, at Site SDI-11,409.**



**Plate 6.12-1**



**Soil Types**

- 1** Fine brown (7.5YR 4/4 to 10YR 5/4) organic, silty loam
- 2** Compact, brown to strong brown (7.5YR 5/4 to 5/6) silty loam
- 3** Compact, brown to strong brown (7.5YR 5/4 to 5/6) clay loam with underlying metavolcanic rock

**Figure 6.12-2**  
**North Wall Profile of Test Unit 3**  
 Site SDI-11,409  
 The Village 13 Project



**Catalog #243**  
**FGM Projectile Point Preform**



**Catalog #139**  
**FGM Core Tool**



**Catalog #157**  
**MGM Retouched Debitage**



**Catalog #119**  
**Chalcedony Flake**



**Catalog #165**  
**FGM Core Tool**

**View of select artifacts from Site SDI-11,409**

**TABLE 6.12-1**

Summary of Surface Recovery  
Site SDI-11,409

Recovery Category	Surface	Surface Scrape	Total	Percent
Core Tools:				
Core Tools	4	2	6	0.73
Lithic Production Waste:				
Cores	6	5	11	1.34
Debitage	73	69	142	17.25
Flakes	353	277	630	76.55
Percussion Tools:				
Hammerstones	3	1	4	0.49
Precision Tools:				
Perforator	1	-	1	0.12
Preform	1	-	1	0.12
Retouched Debitage	1	2	3	0.36
Retouched Flakes	5	1	6	0.73
Scraper	1	-	1	0.12
Utilized Debitage	4	2	6	0.73
Utilized Flakes	5	6	11	1.34
Multi-Use Tools:				
Hammer/Core	-	1	1	0.12
Total	457	366	823	100.00
Percent	55.53	44.47	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.12-2**

Surface Recovery Data  
Site SDI-11,409

*(Placed in Appendix III)*

**TABLE 6.12-3**

Summary of Shovel Test Recovery  
Site SDI-11,409

Recovery Category	Quantity	Percent
Lithic Production Waste:		
Debitage	9	15.25
Flakes	50	84.75
		<hr/>
Total	59	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.12-4**

Shovel Test Excavation Data  
Site SDI-11,409

*(Placed in Appendix III)*

**TABLE 6.12-5**

Summary of Test Unit Recovery  
Site SDI-11,409

Artifact Category	Depth (in centimeters)				Total	Percent
	0-10	10-20	20-30	30-40		
Lithic Production Waste:						
Debitage	17	22	6	1	46	16.91
Flakes	88	106	24	3	221	81.25
Precision Tools:						
Retouched Debitage	-	-	1	-	1	0.37
Utilized Flakes	-	3	1	-	4	1.47
Total	105	131	32	4	272	100.00
Percent	38.60	48.16	11.76	1.47	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.12-6**

Test Unit Excavation Data  
Site SDI-11,409

Test Unit	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	A	78°/124 Feet	0-10 cm.		No Recovery		8
			10-20 cm.		No Recovery		9
			20-30 cm.		No Recovery		10
2	A	18°/625 Feet	0-10 cm.	5	Flakes	FGM	1
				6	Flakes	MGM	2
			10-20 cm.	1	Utilized Flake	FGM	3
				3	Flakes	FGM	4
				1	Debitage	MGM	5
				1	Flake	MGM	6
			20-30 cm.		No Recovery		7
3	B	124°/342 Feet	0-10 cm.	15	Debitage	FGM	416
				73	Flakes	FGM	417
				2	Debitage	MGM	418
				4	Flakes	MGM	419
			10-20 cm.	1	Utilized Flake	FGM	420
				1	Utilized Flake	FGM	421
				18	Debitage	FGM	422
				99	Flakes	FGM	423
				3	Debitage	MGM	424
				3	Flakes	MGM	425
				20-30 cm.	1	Utilized Flake Fragment	FGM
			6		Debitage	FGM	427
			24		Flakes	FGM	428
			1		Retouched Debitage Fragment	MGM	429
			30-40 cm.	3	Flakes	FGM	430
1	Debitage	MGM		431			

**TABLE 6.12-7**

Summary of Artifact Recovery  
Site SDI-11,409

Recovery Category	Surface	Shovel Tests	Test Units	Total	Percent
Core Tools:					
Core Tools	6	-	-	6	0.52
Lithic Production Waste:					
Cores	11	-	-	11	0.95
Debitage	142	9	46	197	17.07
Flakes	630	50	221	901	78.08
Percussion Tools:					
Hammerstones	4	-	-	4	0.35
Precision Tools:					
Perforator	1	-	-	1	0.09
Preform	1	-	-	1	0.09
Retouched Debitage	3	-	1	4	0.35
Retouched Flakes	6	-	-	6	0.52
Scraper	1	-	-	1	0.09
Utilized Debitage	6	-	-	6	0.52
Utilized Flakes	11	-	4	15	1.30
Multi-Use Tools:					
Hammer/Core	1	-	-	1	0.09
Total	823	59	272	1154	100.00
Percent	71.32	5.11	23.57	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.12-8**

Lithic Tool Measurement Data  
Site SDI-11,409

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
139	Core Tool	8.0	6.1	5.6	294.1	FGM
165	Core Tool	6.9	6.2	3.5	151.6	FGM
258	Core Tool	6.2	5.1	5.1	188.5	MGM
264	Core Tool	8.2	6.6	3.0	190.1	FGM
332	Core Tool	8.3	6.2	6.2	378.7	MGM
373	Core Tool	9.4	7.2	7.1	455.2	FGM
<u>Percussion Tools:</u>						
Hammerstones:						
172	Hammerstone, Single-Edged	9.8	7.6	5.2	415.9	MGM
235	Hammerstone Fragment, Undetermined	5.3	3.1	1.5	23.3	FGM
277	Hammerstone, Single-Edged	8.3	5.3	2.1	149.9	MGM
381	Hammerstone Fragment, Undetermined	8.8	4.3	2.8	110.3	MGM
<u>Precision Tools:</u>						
Perforators:						
295	Perforator	5.7	5.4	1.4	42.6	MGM
Preforms:						
243	Projectile Point Preform, Flaked Base	4.2	2.7	0.8	10.8	FGM
Retouched Debitage:						
157	Retouched Debitage	6.3	5.5	2.1	50.8	MGM
351	Retouched Debitage Fragment	5.2	4.7	1.1	42.3	MGM
377	Retouched Debitage Fragment	6.7	4.1	2.9	47.2	MGM
429	Retouched Debitage Fragment	5.9	5.8	3.3	110.8	MGM
Retouched Flakes:						
144	Retouched Flake	9.2	7.7	3.9	315.9	FGM
145	Retouched Flake	9.9	7.0	1.7	104.3	FGM
154	Retouched Flake	5.6	3.6	1.2	25.3	FGM
166	Retouched Flake Fragment	9.6	7.3	3.7	201.1	FGM
316	Retouched Flake	8.6	7.5	2.4	142.1	FGM
344	Retouched Flake	11.3	10.7	3.0	409.2	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
Scrapers:						
225	Scraper Fragment	7.0	3.7	2.2	60.5	MGM
Utilized Debitage:						
273	Utilized Debitage	4.9	3.1	1.3	17.6	FGM
276	Utilized Debitage	4.7	4.3	2.6	64.2	MGM
293	Utilized Debitage Fragment	4.5	4.0	1.6	25.0	MGM
296	Utilized Debitage	9.3	7.8	5.9	455.3	FGM
340	Utilized Debitage Fragment	8.7	4.3	4.1	112.9	FGM
376	Utilized Debitage	10.6	6.8	6.3	556.2	MGM
Utilized Flakes:						
3	Utilized Flake	5.6	2.5	1.0	11.4	FGM
136	Utilized Flake Fragment	3.5	3.3	0.6	5.7	FGM
146	Utilized Flake Fragment	6.1	4.5	0.8	18.6	FGM
230	Utilized Flake	11.5	6.0	3.3	253.1	FGM
288	Utilized Flake	5.8	4.4	1.5	36.9	FGM
297	Utilized Flake	7.3	4.7	2.9	70.8	MGM
337	Utilized Flake	5.8	4.8	1.1	32.1	MGM
341	Utilized Flake	11.0	8.3	2.9	229.0	FGM
345	Utilized Flake	13.2	7.9	2.9	227.4	MGM
348	Utilized Flake	4.6	4.1	1.5	25.0	FGM
364	Utilized Flake	5.0	1.8	1.2	9.9	FGM
374	Utilized Flake	9.4	6.6	2.3	121.8	FGM
420	Utilized Flake	13.2	8.3	3.8	481.2	FGM
421	Utilized Flake	11.5	9.0	4.7	451.6	FGM
426	Utilized Flake Fragment	4.2	2.3	1.4	11.5	FGM
<u>Multi-Use Tools:</u>						
Hammer/Cores:						
331	Hammer/Core	9.7	6.7	4.8	357.7	MGM

**TABLE 6.12-9**

Lithic Material Distribution  
Site SDI-11,409

Artifact Category	Material				Total	Percent
	Chalcedony	FGM	MGM	Quartz		
Core Tools:						
Core Tools	-	4	2	-	6	0.52
Lithic Production Waste:						
Cores	-	5	6	-	11	0.95
Debitage	-	127	70	-	197	17.07
Flakes	1	660	239	1	901	78.08
Percussion Tools:						
Hammerstones	-	1	3	-	4	0.35
Precision Tools:						
Perforator	-	-	1	-	1	0.09
Preform	-	1	-	-	1	0.09
Retouched Debitage	-	-	4	-	4	0.35
Retouched Flakes	-	5	1	-	6	0.52
Scraper	-	-	1	-	1	0.09
Utilized Debitage	-	3	3	-	6	0.52
Utilized Flakes	-	12	3	-	15	1.30
Multi-Use Tools:						
Hammer/Core	-	-	1	-	1	0.09
Total	1	818	334	1	1154	100.00
Percent	0.09	70.88	28.94	0.09	100.00	

*Rounded numbers may not add to 100%.*

## 6.13 Site SDI-11,414

### 6.13.1 Site Description

This site consists of a quarry and dispersed lithic scatter located on a southwest-trending ridge east of Upper Otay Lakes Reservoir in the central portion of the project. The site was originally recorded in 1989 by Russell Collett of RECON as a scatter of more than 20 flakes and two cores (site form 1989). The site was visited and updated by Ogden in 1991 as a light lithic surface scatter over a large area with more than four flaking stations and two artifact concentrations (Carrico *et al.* 1992). The site was relocated by BFSa during a survey conducted in November 2000. The general configuration of the resource is shown in Figure 6.13-1. Elevations at the site range from 680 to 1,010 feet AMSL. Native vegetation of chamise chaparral covers the central portion of the site, although the extreme northeast corner and the southwest half of the site have been cleared of vegetation. Furthermore, two dirt roads extend across the center of the site, from west to east and west to northeast. Soils are deflated across the site due to the clearing of vegetation, grading of dirt roads, and natural erosion; as a result, metavolcanic rock, both cobbles and bedrock, is exposed throughout the site. The setting of the site is shown in a photograph provided in Plate 6.13-1a.

Site SDI-11,414 is located within the currently proposed construction zone and was therefore subjected to a testing and evaluation program by BFSa. Testing of the site consisted of the mapping and recordation of surface artifacts, and the excavation of 28 shovel test pits and one test unit. The field investigations were conducted between September 23 and October 8, 2002.

### 6.13.2 Description of Field Investigations

Field investigations conducted by BFSa at Site SDI-11,414 were executed using the standard methodologies described in Section 5.0. Lithic artifacts were recovered from both surface and subsurface contexts.

#### Surface Recordation

The entire surface of the site was inspected for evidence of prehistoric activity, resulting in the identification of a number of surface artifacts and quarry areas. A total of 1,471 artifacts were recovered from the surface of the site from 294 surface locations (laboratory analysis revealed that several of the specimens collected from surface locations were not cultural). The recovery is summarized in Table 6.13-1, while detailed provenience information for the surface artifacts is presented in Table 6.13-2. All artifacts were collected from the surface of the site. The pattern of artifact recovery illustrated on the site map (Figure 6.13-1) did not highlight any particular area as the core or focus of the site. The distribution of surface artifacts reflects a pattern of resource collection throughout the chamise chaparral vegetation that dominates the area.

A wide range of artifacts was recovered from the surface of the site. Lithic production waste accounts for 89.26% (N=1,313) of the collection, while the remaining artifacts consisted of smaller quantities of precision (7.27%; N=107), percussion (1.50%; N=22), core (1.02%; N=15), and multi-use (0.95%; N=14) tools. The artifacts are distributed over a wide area of the ridge. The area of the site, delineated by the artifact scatter, measures approximately 567 meters (1,860 feet) from southwest to northeast by 234 meters (768 feet) from northwest to southeast, and covers 55,219 square meters (594,156 square feet) (Figure 6.13–1).

### Subsurface Excavation

The potential for subsurface archaeological deposits at Site SDI-11,414 was investigated by excavating a series of 28 STPs. The placement of the STPs, shown in Figure 6.13–1, was based on the distribution of the surface artifacts. The STPs were excavated to a minimum of 30 centimeters, or until bedrock was encountered. Nine of the STPs were positive for cultural material yielding a total of 32 artifacts. Recovery ranged from one artifact in STP 13 to six artifacts in STP 2. The maximum depth of recovery was 20 centimeters in STP 13, whereas the recovery in other shovel tests was restricted to the top ten centimeters. The collection from the STPs was dominated by lithic production waste, which accounted for 87.50% (N=28) of the assemblage; the remaining artifacts were four utilized flakes recovered from STPs 2, 4, and 18. Recovery from the STPs is summarized in Table 6.13–3 and is detailed in Table 6.13–4.

The testing program included the excavation of a single test unit at Site SDI-11,414. The test unit was placed, based on the recovery from the STPs, in the area most likely to contain a subsurface deposit. The unit was excavated in standard decimeter levels to 30 centimeters and all removed soils were sifted through 1/8-inch mesh hardware cloth. Excavations resulted in the recovery of four artifacts, including two flakes and two utilized flakes (Tables 6.13–5 and 6.13–6). The maximum depth of recovery was 20 centimeters. The soil profile from Test Unit 1 was characterized as brown (7.5YR 4/3 to 7.5YR 4/4) fine sandy loam with organic matter to a depth of approximately ten centimeters, followed by a brown (7.5YR 5/3 to 7.5YR 5/4) fine sandy loam with metavolcanic rock inclusions to a depth of 20 centimeters, followed by a brown (7.5YR 4/3 to 7.5YR 4/4) fine sandy loam with metavolcanic rock inclusions to a depth of 30 centimeters. A drawing of the north wall of Test Unit 1 is presented in Figure 6.13–2. A color photograph of the north wall of Test Unit 1 is provided in Plate 6.13–1b.

The excavation of the STPs and test unit determined that the site exhibits a sparse, shallow subsurface deposit that extends over a wide portion of the site. Based on the locations of the positive STPs, the deposit measures approximately 348 meters (1,140 feet) from southwest to northeast by 110 meters (360 feet) from northwest to southeast, and covers 19,760 square meters (212,616 square feet). The subsurface deposit extended to a maximum depth of 20 centimeters, but most of the recovery was restricted to the top ten centimeters. Although the deposit covers a

wide area, a paucity of artifacts was recovered from the subsurface excavations indicating the lack of a substantial subsurface deposit.

### *6.13.3 Laboratory Analysis*

The laboratory analysis for Site SDI-11,414 included the standard procedures described in Section 5.0 of this report. All artifacts recovered from the field investigations conducted at the site were returned to the laboratory facility of BFSa to be cataloged and analyzed. A summary of artifacts recovered from the site is presented in Table 6.13–7. The recovery from Site SDI-11,414 included 1,507 lithic artifacts.

#### *Lithic Artifact Analysis*

Lithic production waste accounted for the largest category of lithic artifacts, representing 89.12% (N=1,343) of the lithic artifact collection and included 15 cores, 259 pieces of debitage or shatter, and 1,069 flakes. The remaining lithic collection from SDI-11,414 consisted of precision (7.50%; N=113), percussion (1.46%; N=22), core (1.00%; N=15), and multi-use (0.93%; N=14) tools. Measurements of all lithic tools are presented in Table 6.13–8.

The precision tool category included one projectile point, two pieces of retouched debitage, 15 retouched flakes, 11 scrapers, 32 pieces of utilized debitage, and 52 utilized flakes. The projectile point was identified as a Late Prehistoric Cottonwood arrow point. Among scrapers, four core scrapers, three domed scrapers, two flake scrapers, and two scrapers of undetermined type were identified. The percussion tool category was represented by one chopper and 21 hammerstones. The hammerstones included various use-wear patterns, including, one spherical hammerstone, two circular (discoïdal) hammerstones, seven single-edge hammerstones; 11 hammerstones were fragmented and thus the use-wear was not identifiable. Fifteen core tools were recovered from SDI-11,414. The category of multi-use tools was developed in order to accurately describe those specimens that exhibited several different use-wear patterns, which prevented the classification of the artifact into one of the existing tool categories. Fourteen multi-use tools were recovered from the site, including ten hammer/cores, three scraper/hammerstones, and one chopper/hammerstone. Select lithic tools from the site are shown in Plate 6.13–2.

The lithic material of the recovered artifacts consisted almost entirely of medium- or fine-grained metavolcanic rock, which is immediately available on the site itself (Table 6.13–9). Other lithic materials represented at the site include coarse-grained metavolcanic (N=1; 0.07%) and chalcedony (N=1; 0.07%). Although chalcedony is often believed to have been imported to this area from the desert, local sources of cryptocrystalline material were identified during the monitoring of grading on nearby development properties (Smith and Stropes 2014).

Activities indicated by the artifacts recovered from the site include procurement of lithic materials, lithic tool production and maintenance, as well as processing of plant and/or animal resources.

#### *6.13.4 Discussion*

The testing demonstrated that Site SDI-11,414 consists of a large scatter of surface artifacts and a relatively shallow, sparse subsurface deposit. The overall site dimensions, identified by the surface scatter and positive subsurface excavation, measure 567 meters (1,860 feet) by 234 meters (768 feet), and cover 55,219 square meters (594,156 square feet). The identified subsurface deposit measures approximately 348 meters (1,140 feet) by 110 meters (360 feet), and covers 19,760 square meters (212,616 square feet). Based on the artifacts recovered, the site appears to represent a quarry area and temporary camp where lithic resource procurement, lithic tool production and/or maintenance, and plant and/or animal resource processing occurred.

One artifact, an arrow point, was culturally diagnostic, indicating use of the site by Late Prehistoric groups. Given the sparse nature of the subsurface deposits, and the fact that lithic production waste dominated the recovery from subsurface contexts, it is unlikely that further excavation would produce new data. The site exhibits no ecofacts, features, or unique elements. Although several tool types were represented at the site, including a high proportion of utilized flakes, most of the collection (89.12%; N=1,343) is composed of lithic production waste. In addition, 97.61% (N=1,471) of the artifacts recovered from the site were on the surface of the site, and all surface artifacts have been collected. As mentioned above, the soil at SDI-11,414 is heavily deflated across the site, reducing the research potential of additional subsurface excavations. The testing of Site SDI-11,414 has exhausted the research potential of this site. According to the criteria listed in CEQA, Section 15064.5, and the guidelines set forth by the County of San Diego, the site is evaluated as having limited significance based upon the recovery of information that can contribute to the knowledge of prehistory in the region. However, the current program has exhausted the potential for the site to yield unique data, and further study will not produce additional significant information.

#### *6.13.5 Summary*

The investigation of Site SDI-11,414 did not produce any unique scientific data regarding site function or content. The identified artifacts indicate that site activities were focused primarily on procurement of lithic resources and lithic tool production and/or maintenance, as well as animal and/or plant resource procurement and processing. The site represents one of multiple quarry and temporary camp sites within the project area.

Based on the information derived from the testing program, the site is characterized as possessing limited significance according to County of San Diego cultural resource guidelines.

The site exhibits a large surface scatter of artifacts, all of which have been collected, a shallow, sparse subsurface deposit, and did not possess intact features. The level of information already obtained from this site has exhausted the research potential of the resource, and it is unlikely that any significantly different information would be gathered from further investigation. No further archaeological investigations are recommended for Site SDI-11,414.

**Figure 6.13-1**  
**Excavation Location Map — Site SDI-11,414**  
*(Deleted for Public Review; Bound Separately)*

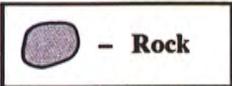
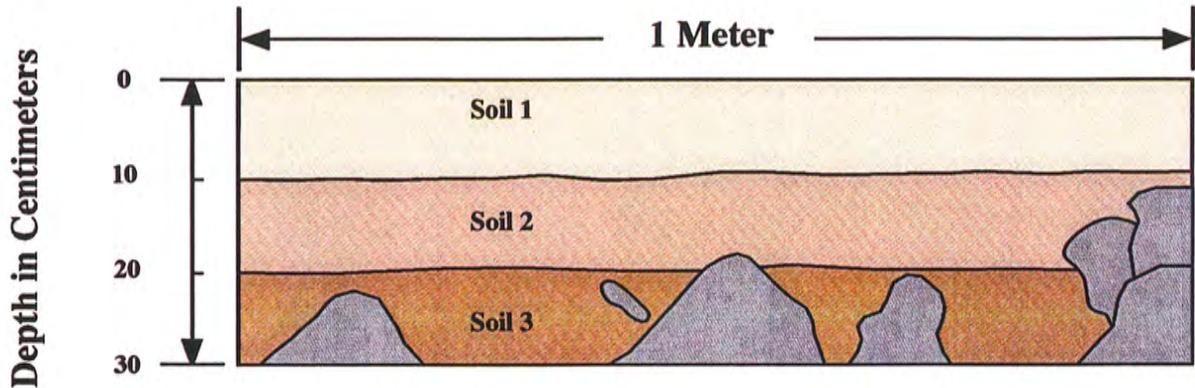
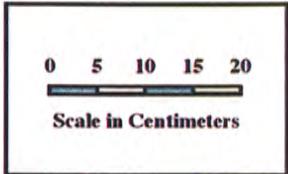


View of Site SDI-11,414 looking southwest (arrow indicates area of Datum A).

View of the north profile of Test Unit 1, 0 to 30 centimeters, at Site SDI-11,414.



Plate 6.13-1



### Soil Types

- 1** Brown (7.5YR 4/3 to 7.5YR 4/4) fine sandy loam with organic matter
- 2** Brown (7.5YR 5/3 to 7.5YR 5/4) fine sandy loam with metavolcanic rock inclusions
- 3** Brown (7.5YR 4/3 to 7.5YR 4/4) fine sandy loam with metavolcanic rock inclusions

**Figure 6.13-2**  
**North Wall Profile of Test Unit 1**  
Site SDI-11,414  
The Village 13 Project

**TABLE 6.13-1**

Summary of Surface Recovery  
Site SDI-11,414

Recovery Category	Quantity	Percent
Core Tools:		
Core Tools	15	1.02
Lithic Production Waste:		
Cores	15	1.02
Debitage	253	17.20
Flakes	1,045	71.04
Percussion Tools:		
Chopper	1	0.07
Hammerstones	21	1.43
Precision Tools:		
Projectile Point	1	0.07
Retouched Debitage	2	0.14
Retouched Flakes	15	1.02
Scrapers	11	0.75
Utilized Debitage	32	2.18
Utilized Flakes	46	3.13
Multi-Use Tools:		
Chopper/Hammerstone	1	0.07
Hammer/Cores	10	0.68
Scraper/Hammerstones	3	0.20
Total	1,471	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.13-2**

Surface Recovery Data  
Site SDI-11,414

*(Placed in Appendix III)*

**TABLE 6.13-3**

Summary of Shovel Test Recovery  
Site SDI-11,414

Recovery Category	Quantity	Percent
Lithic Production Waste:		
Debitage	6	18.75
Flakes	22	68.75
Precision Tools:		
Utilized Flakes	4	12.50
Total	32	100.00

*Rounded numbers may not add to 100%.*

**TABLE 6.13-4**

Shovel Test Excavation Data  
Site SDI-11,414

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	A	224°/71 Feet	0-10 cm.	4	Debitage	MGM	5
				1	Flake	MGM	6
			10-20 cm.		No Recovery		7
			20-30 cm.		No Recovery		8
2	A	231°/235 Feet	0-10 cm.	1	Utilized Flake	MGM	9
				1	Utilized Flake	MGM	10
				1	Debitage	MGM	11
				3	Flakes	MGM	12
			10-20 cm.		No Recovery		13
		20-30 cm.		No Recovery		14	
3	A	245°/350 Feet	0-10 cm.	2	Flakes	MGM	15
			10-20 cm.		No Recovery		16
			20-30 cm.		No Recovery		17
4	A	236°/523 Feet	0-10 cm.	1	Utilized Flake	FGM	18
				1	Flake	FGM	19
				2	Flakes	MGM	20
			10-20 cm.		No Recovery		21
5	A	226°/628 Feet	0-10 cm.	2	Flakes	FGM	22
			10-20 cm.		No Recovery		23
			20-30 cm.		No Recovery		24
6	A	141°/225 Feet	0-10 cm.		No Recovery		25
			10-20 cm.		No Recovery		26
			20-30 cm.		No Recovery		27
7	B	74°/486 Feet	0-10 cm.		No Recovery		28
			10-20 cm.		No Recovery		29
			20-30 cm.		No Recovery		30

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
8	B	87°/343 Feet	0-10 cm.		No Recovery		31
			10-20 cm.		No Recovery		32
			20-30 cm.		No Recovery		33
9	A	218°/770 Feet	0-10 cm.		No Recovery		34
			10-20 cm.		No Recovery		35
			20-30 cm.		No Recovery		36
10	A	207°/1011 Feet	0-10 cm.		No Recovery		37
			10-20 cm.		No Recovery		38
			20-30 cm.		No Recovery		39
11	A	281°/113 Feet	0-10 cm.		No Recovery		40
			10-20 cm.		No Recovery		41
			20-30 cm.		No Recovery		42
12	A	261°/214 Feet	0-10 cm.		No Recovery		43
			10-20 cm.		No Recovery		44
			20-30 cm.		No Recovery		45
13	A	247°/539 Feet	0-10 cm.		No Recovery		46
			10-20 cm.	1	Debitage	MGM	47
			20-30 cm.		No Recovery		48
			30-40 cm.		No Recovery		49
14	A	261°/364 Feet	0-10 cm.		No Recovery		50
			10-20 cm.		No Recovery		51
			20-30 cm.		No Recovery		52
15	A	256°/563 Feet	0-10 cm.		No Recovery		53
			10-20 cm.		No Recovery		54
			20-30 cm.		No Recovery		55
16	A	243°/612 Feet	0-10 cm.		No Recovery		56
			10-20 cm.		No Recovery		57
			20-30 cm.		No Recovery		58

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
17	A	356°/104 Feet	0-10 cm.	1	Flake	FGM	59
				5	Flakes	MGM	60
			10-20 cm.		No Recovery		61
			20-30 cm.		No Recovery		62
18	A	7°/211 Feet	0-10 cm.	1	Utilized Flake Fragment	MGM	63
				2	Flakes	MGM	64
			10-20 cm.		No Recovery		65
			20-30 cm.		No Recovery		66
19	A	1°/324 Feet	0-10 cm.		No Recovery		67
			10-20 cm.		No Recovery		68
			20-30 cm.		No Recovery		69
20	A	16°/452 Feet	0-10 cm.	1	Flake	FGM	70
				2	Flakes	MGM	71
			10-20 cm.		No Recovery		72
			20-30 cm.		No Recovery		73
21	A	330°/137 Feet	0-10 cm.		No Recovery		74
			10-20 cm.		No Recovery		75
			20-30 cm.		No Recovery		76
22	A	350°/250 Feet	0-10 cm.		No Recovery		77
			10-20 cm.		No Recovery		78
			20-30 cm.		No Recovery		79
23	A	17°/629 Feet	0-10 cm.		No Recovery		80
			10-20 cm.		No Recovery		81
			20-30 cm.		No Recovery		82
24	A	51°/141 Feet	0-10 cm.		No Recovery		83
			10-20 cm.		No Recovery		84
			20-30 cm.		No Recovery		85
25	A	6°/476 Feet	0-10 cm.		No Recovery		86
			10-20 cm.		No Recovery		87

Shovel Test	Datum	Location from Datum Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
25	A	6°/476 Feet	20-30 cm.		No Recovery		88
26	A	0°/347 Feet	0-10 cm.		No Recovery		89
			10-20 cm.		No Recovery		90
			20-30 cm.		No Recovery		91
27	A	24°/467 Feet	0-10 cm.		No Recovery		92
			10-20 cm.		No Recovery		93
			20-30 cm.		No Recovery		94
28	A	38°/217 Feet	0-10 cm.		No Recovery		95
			10-20 cm.		No Recovery		96
			20-30 cm.		No Recovery		97

**TABLE 6.13-5**

Summary of Test Unit Recovery  
Site SDI-11,414

Artifact Category	Depth (in centimeters)			Total	Percent
	0-10	10-20	20-30		
Lithic Production Waste:					
Flakes	2	-	-	2	50.00
Precision Tools:					
Utilized Flakes	-	2	-	2	50.00
Total	2	2	0	4	100.00
Percent	50.00	50.00	0.00	100.00	

*Rounded numbers may not add to 100%.*

**TABLE 6.13-6**

Test Unit Excavation Data  
Site SDI-11,414

Test Unit	Location from Datum A Azimuth/Range	Depth	Quantity	Recovery	Material	Cat. No.
1	246°/534 Feet	0-10 cm.	2	Flakes	MGM	1
		10-20 cm.	1	Utilized Flake	FGM	2
			1	Utilized Flake Fragment	MGM	3
		20-30 cm.		No Recovery		4

**TABLE 6.13-7**

Summary of Artifact Recovery  
Site SDI-11,414

Recovery Category	Surface	Shovel Tests	Test Units	Total	Percent
Core Tools:					
Core Tools	15	-	-	15	1.00
Lithic Production Waste:					
Cores	15	-	-	15	1.00
Debitage	253	6	-	259	17.19
Flakes	1,045	22	2	1,069	70.94
Percussion Tools:					
Chopper	1	-	-	1	0.07
Hammerstones	21	-	-	21	1.39
Precision Tools:					
Projectile Point	1	-	-	1	0.07
Retouched Debitage	2	-	-	2	0.13
Retouched Flakes	15	-	-	15	1.00
Scrapers	11	-	-	11	0.73
Utilized Debitage	32	-	-	32	2.12
Utilized Flakes	46	4	2	52	3.45
Multi-Use Tools:					
Chopper/Hammerstone	1	-	-	1	0.07
Hammer/Cores	10	-	-	10	0.66
Scraper/Hammerstones	3	-	-	3	0.20
Total	1,471	32	4	1,507	100.00
Percent	97.61	2.12	0.27	100.00	

Rounded numbers may not add to 100%.

**TABLE 6.13-8**

Lithic Tool Measurement Data  
Site SDI-11,414

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Core Tools:</u>						
133	Core Tool Fragment	15.3	8.4	5.7	790.1	MGM
183	Core Tool Fragment	12.8	6.8	3.7	344.6	MGM
205	Core Tool	12.8	6.9	6.5	710.2	MGM
267	Core Tool	15.5	9.6	7.4	1,173.2	MGM
286	Core Tool Fragment	4.0	3.8	3.5	81.6	MGM
368	Core Tool	9.2	6.4	6.0	543.0	MGM
428	Core Tool	9.2	8.3	6.8	592.7	MGM
447	Core Tool	10.0	9.1	5.0	493.2	MGM
499	Core Tool	14.7	8.1	7.7	1,311.9	MGM
500	Core Tool	12.5	9.0	7.2	949.5	MGM
553	Core Tool	7.3	6.2	4.2	242.9	FGM
600	Core Tool	7.4	7.3	5.0	281.1	FGM
603	Core Tool	9.6	8.9	6.7	678.7	MGM
674	Core Tool	15.7	8.0	7.6	914.5	MGM
743	Core Tool	8.0	6.3	5.8	359.0	MGM
<u>Percussion Tools:</u>						
Choppers:						
472	Chopper	15.4	10.1	4.6	848.7	MGM
Hammerstones:						
109	Hammerstone Fragment, Undetermined	4.1	3.9	2.2	34.7	MGM
132	Hammerstone, Single-Edged	10.3	8.9	4.9	496.8	MGM
138	Hammerstone Fragment, Undetermined	9.2	5.8	4.9	283.3	FGM
143	Hammerstone, Single-Edged	11.2	6.0	3.9	295.1	MGM
182	Hammerstone, Single-Edged	8.7	7.1	5.6	377.5	MGM
272	Hammerstone Fragment, Undetermined	5.9	5.7	2.0	61.0	MGM
371	Hammerstone Fragment, Undetermined	5.6	4.8	2.3	68.2	MGM
396	Hammerstone Fragment, Undetermined	6.9	5.5	2.0	78.8	MGM
403	Hammerstone, Circular	9.2	7.6	3.4	239.8	MGM
406	Hammerstone Fragment, Undetermined	5.9	4.6	2.1	55.2	MGM
407	Hammerstone Fragment, Undetermined	10.4	8.3	6.2	451.2	MGM
408	Hammerstone, Single-Edged	8.7	8.2	5.2	335.9	MGM
416	Hammerstone Fragment, Undetermined	10.1	9.6	3.9	401.5	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		
<u>Percussion Tools (cont.):</u>						
424	Hammerstone, Single-Edged	11.5	8.4	6.8	810.1	MGM
425	Hammerstone, Circular	9.7	7.8	5.7	437.5	MGM
440	Hammerstone Fragment, Undetermined	6.5	3.1	1.5	28.8	MGM
446	Hammerstone, Spherical	9.0	8.7	5.0	376.4	MGM
471	Hammerstone, Single-Edged	9.3	8.4	6.4	575.9	MGM
506	Hammerstone, Single-Edged	11.5	8.9	7.1	1,012.6	FGM
606	Hammerstone Fragment, Undetermined	5.1	3.1	2.2	30.7	MGM
607	Hammerstone Fragment, Undetermined	8.7	7.2	4.8	299.5	MGM
<u>Precision Tools:</u>						
Projectile Points:						
730	Projectile Point, Cottonwood	2.6	1.8	0.3	1.1	FGM
Retouched Debitage:						
309	Retouched Debitage	8.2	6.8	2.2	139.7	MGM
417	Retouched Debitage	14.0	6.2	4.1	512.6	MGM
Retouched Flakes:						
141	Retouched Flake	6.4	4.6	1.6	49.9	MGM
148	Retouched Flake Fragment	5.5	4.4	1.3	45.7	MGM
171	Retouched Flake	6.2	5.8	1.4	41.6	FGM
184	Retouched Flake	5.3	4.4	1.4	23.3	MGM
193	Retouched Flake	5.5	3.8	1.1	25.1	MGM
237	Retouched Flake	9.0	5.6	2.4	101.2	MGM
273	Retouched Flake Fragment	6.5	4.2	1.6	53.2	MGM
277	Retouched Flake Fragment	6.4	4.7	1.8	51.5	FGM
288	Retouched Flake Fragment	4.8	2.9	1.8	20.0	FGM
314	Retouched Flake Fragment	4.7	3.2	0.7	10.5	FGM
419	Retouched Flake Fragment	6.8	3.4	1.5	32.5	FGM
462	Retouched Flake	4.9	4.3	1.9	37.9	MGM
601	Retouched Flake	9.7	8.1	3.2	265.0	FGM
694	Retouched Flake	6.9	5.5	1.9	60.5	FGM
738	Retouched Flake	6.0	5.3	2.1	65.5	MGM
Scrapers:						
131	Core Scraper	12.3	8.0	6.0	790.1	MGM
162	Core Scraper	6.7	3.7	2.6	60.4	FGM
466	Core Scraper	10.8	6.8	5.0	310.2	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools (cont.):

559	Core Scraper Fragment	10.8	6.6	5.8	414.5	FGM
249	Domed Scraper	8.0	6.2	6.2	412.3	MGM
452	Domed Scraper	7.1	6.1	4.4	244.4	MGM
509	Domed Scraper Fragment	9.9	8.9	5.5	601.6	MGM
460	Flake Scraper	9.7	8.3	2.2	175.4	MGM
609	Flake Scraper	9.0	8.0	2.6	183.4	MGM
356	Scraper Fragment	6.5	3.6	1.8	43.9	MGM
555	Scraper	8.2	7.6	3.6	149.5	MGM

Utilized Debitage:

101	Utilized Debitage	8.2	5.7	2.9	138.1	MGM
147	Utilized Debitage	9.0	8.6	6.5	584.7	MGM
178	Utilized Debitage	13.7	7.7	3.3	349.0	MGM
279	Utilized Debitage	8.3	3.2	1.4	27.4	MGM
280	Utilized Debitage	5.9	3.0	1.6	24.6	MGM
294	Utilized Debitage	8.5	4.6	3.5	150.7	MGM
297	Utilized Debitage Fragment	6.1	3.1	1.6	24.9	MGM
310	Utilized Debitage	4.4	3.9	1.7	28.8	MGM
315	Utilized Debitage	10.3	8.2	3.3	270.0	MGM
320	Utilized Debitage	10.9	8.1	4.6	385.6	MGM
346	Utilized Debitage	5.1	5.0	2.5	66.1	MGM
352	Utilized Debitage	3.3	3.0	1.6	14.2	MGM
354	Utilized Debitage	5.0	3.5	1.6	25.0	MGM
358	Utilized Debitage	10.4	8.8	6.2	437.1	MGM
365	Utilized Debitage	8.8	6.8	3.5	265.6	MGM
391	Utilized Debitage	11.2	4.9	4.0	179.5	MGM
411	Utilized Debitage	5.0	3.1	1.7	45.1	MGM
412	Utilized Debitage	6.4	5.3	4.8	206.8	MGM
426	Utilized Debitage	9.2	6.0	4.7	336.2	MGM
476	Utilized Debitage	9.9	5.5	3.1	152.2	MGM
486	Utilized Debitage	6.1	4.3	3.5	93.0	FGM
494	Utilized Debitage Fragment	5.0	3.3	2.1	25.2	MGM
510	Utilized Debitage	9.0	6.0	3.0	226.3	MGM
511	Utilized Debitage	9.4	8.0	4.5	296.5	MGM
534	Utilized Debitage Fragment	6.0	3.9	1.2	28.0	MGM
538	Utilized Debitage	5.5	4.6	1.9	50.6	MGM
556	Utilized Debitage	9.1	6.5	6.1	279.7	MGM
598	Utilized Debitage	8.6	7.2	3.2	138.0	MGM
615	Utilized Debitage Fragment	11.6	7.7	4.7	385.5	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools (cont.):

689	Utilized Debitage Fragment	5.8	2.3	2.1	22.0	FGM
696	Utilized Debitage	3.9	3.6	2.5	30.9	MGM
744	Utilized Debitage	9.3	8.9	4.1	2940	MGM

Utilized Flakes:

2	Utilized Flake	8.8	4.6	1.6	48.1	FGM
3	Utilized Flake Fragment	1.4	1.1	0.4	0.6	MGM
9	Utilized Flake	6.9	3.5	1.3	33.2	MGM
10	Utilized Flake	9.9	5.7	1.9	105.7	MGM
18	Utilized Flake	4.8	3.5	1.1	16.5	FGM
63	Utilized Flake Fragment	14.6	9.1	3.3	423.2	MGM
106	Utilized Flake	5.9	3.9	2.1	39.0	MGM
149	Utilized Flake	5.1	2.7	1.2	14.8	MGM
219	Utilized Flake	6.0	3.9	1.8	43.7	FGM
220	Utilized Flake	10.6	7.1	2.0	112.8	FGM
230	Utilized Flake	7.5	6.2	2.7	115.7	MGM
245	Utilized Flake	12.2	7.6	3.8	343.3	FGM
251	Utilized Flake	16.9	10	3.7	688.7	FGM
258	Utilized Flake	7.6	4.5	2.1	53.4	FGM
261	Utilized Flake	14.1	8.4	5.0	358.0	MGM
264	Utilized Flake Fragment	4.8	2.4	1.5	16.4	FGM
302	Utilized Flake	5.7	3.8	1.0	18.7	MGM
321	Utilized Flake	4.7	3.6	1.1	18.5	MGM
323	Utilized Flake Fragment	4.7	4.2	1.6	36.5	MGM
342	Utilized Flake	4.1	2.6	1.9	13.9	MGM
355	Utilized Flake	4.5	3.4	1.7	25.6	MGM
379	Utilized Flake	6.5	5.4	2.3	74.8	MGM
381	Utilized Flake	3.5	3.0	1.0	11.0	FGM
382	Utilized Flake Fragment	3.7	2.2	0.7	7.7	MGM
397	Utilized Flake	2.8	1.2	0.8	2.3	MGM
444	Utilized Flake	7.5	4.4	1.7	35.0	FGM
450	Utilized Flake	5.5	4.6	1.4	31.4	FGM
454	Utilized Flake Fragment	5.3	3.4	2.1	38.6	MGM
461	Utilized Flake	8.9	7.3	1.6	82.7	MGM
467	Utilized Flake	8.8	5.7	2.3	123.8	MGM
473	Utilized Flake	5.0	4.8	1.0	21.1	MGM
482	Utilized Flake	9.2	6.4	2.1	99.9	MGM
483	Utilized Flake	8.4	5.7	2.4	97.8	MGM
488	Utilized Flake	7.1	4.0	2.0	58.2	MGM

Cat. No.	Tool Description	Dimensions (in centimeters)			Weight (in grams)	Material
		Length	Width	Thickness		

Precision Tools (cont.):

514	Utilized Flake	5.4	4.5	0.9	21.9	FGM
517	Utilized Flake Fragment	5.3	4.3	1.0	26.2	MGM
524	Utilized Flake	7.0	5.1	2.3	48.3	FGM
525	Utilized Flake Fragment	4.5	3.9	2.1	34.3	MGM
542	Utilized Flake	5.8	3.6	1.3	23.6	MGM
546	Utilized Flake Fragment	3.6	3.1	1.2	16.4	MGM
568	Utilized Flake	5.6	4.1	1.1	28.6	FGM
576	Utilized Flake Fragment	10.7	5.2	2.2	122.0	MGM
579	Utilized Flake Fragment	6.7	3.7	2.2	56.8	FGM
586	Utilized Flake Fragment	9.0	6.5	2.6	143.9	FGM
591	Utilized Flake	8.9	6.5	1.9	98.4	FGM
596	Utilized Flake	10.0	6.5	2.5	102.8	FGM
621	Utilized Flake	3.9	3.6	0.8	17.8	FGM
637	Utilized Flake	3.8	3.0	1.0	14.3	FGM
640	Utilized Flake	11.6	5.6	3.0	249.2	MGM
678	Utilized Flake	4.8	3.0	1.0	13.8	MGM
699	Utilized Flake Fragment	7.9	4.8	1.0	39.9	MGM
734	Utilized Flake	3.9	3.6	1.5	21.5	FGM

Multi-Use Tools:

Chopper/Hammerstones:

508	Chopper/Hammerstone	13.1	12.2	9.8	1654.8	MGM
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Hammer/Cores:

222	Hammer/Core	9.7	7.1	5.2	342.5	MGM
266	Hammer/Core	12.0	8.0	5.0	623.4	MGM
377	Hammer/Core	8.3	7.6	6.3	488.6	MGM
458	Hammer/Core	7.5	6.0	5.0	204.1	MGM
478	Hammer/Core	7.7	6.6	5.1	356.1	MGM
507	Hammer/Core	10.6	8.7	6.7	684.0	MGM
516	Hammer/Core	11.0	10.1	6.3	698.7	MGM
532	Hammer/Core	12.0	7.5	6.0	611.5	FGM
554	Hammer/Core Fragment	11.6	9.1	4.7	341.0	FGM
654	Hammer/Core	13.6	9.6	8.3	1185.0	MGM

Scraper/Hammerstones:

250	Scraper/Hammerstone	8.9	8.1	5.1	350.2	MGM
372	Scraper/Hammerstone	8.1	6.0	3.1	191.1	FGM
459	Scraper/Hammerstone	6.5	5.4	4.4	154.1	MGM

**TABLE 6.13-9**

Lithic Material Distribution  
Site SDI-11,414

Artifact Category	CGM	Material			Total	Percent
		Chalcedony	FGM	MGM		
<b>Core Tools:</b>						
Core Tools	-	-	2	13	15	1.00
<b>Lithic Production Waste:</b>						
Cores	-	-	-	15	15	1.00
Debitage	-	1	43	215	259	17.19
Flakes	1	-	171	897	1069	70.94
<b>Percussion Tools:</b>						
Chopper	-	-	-	1	1	0.07
Hammerstones	-	-	2	19	21	1.39
<b>Precision Tools:</b>						
Projectile Point	-	-	1	-	1	0.07
Retouched Debitage	-	-	-	2	2	0.13
Retouched Flakes	-	-	7	8	15	1.00
Scrapers	-	-	2	9	11	0.73
Utilized Debitage	-	-	2	30	32	2.12
Utilized Flakes	-	-	21	31	52	3.45
<b>Multi-Use Tools:</b>						
Chopper/Hammerstone	-	-	-	1	1	0.07
Hammer/Cores	-	-	2	8	10	0.66
Scraper/Hammerstones	-	-	1	2	3	0.20
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Total	1	1	254	1251	1507	100.00
Percent	0.07	0.07	16.85	83.01	100.00	

Rounded numbers may not add to 100%.